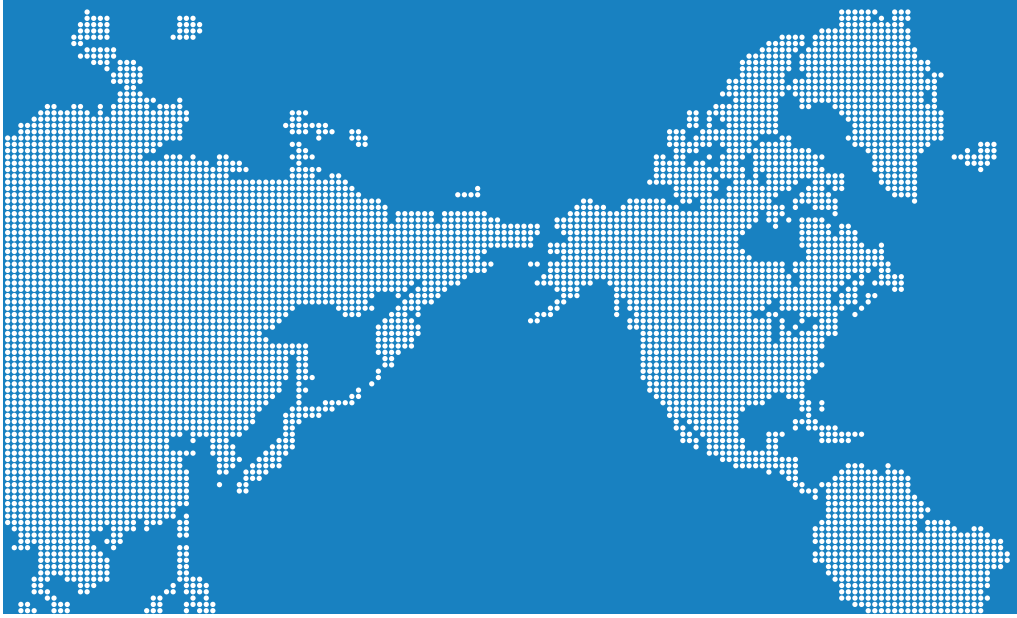


SUN KOREA
(SUN KOREA CO., LTD.)




For The Future with Passion & Creativity & Challenge,
SUN KOREA CO., LTD.

SUN'S OVERSEAS MARKET AREA

DENMARK / ROMANIA / SWITZERLAND / ENGLAND / ITALY / SPAIN / GREECE / EGYPT / UAE /
SAUDI ARABIA / IRAN / INDIA / CHINA / TURKEY / U.S.A / PAKISTAN / SRILANKA / JAPAN /
VIETNAM / THAILAND / PHILLIPPINE / MALAYSIA / SIGAPORE / INDONESIA / AUSTRALIA





SUN KOREA

WORLD, STAGE OF UNLIMITED POSSIBILITIES.

SUN KOREA CO., LTD.



COMPANY INTRODUCTION

We heartily welcome your attention to "SUN KOREA CO.,LTD." catalogue and very honored to have an opportunity of introducing our company.

We, "SUN KOREA CO.,LTD." have focused on items of shipbuilding parts, on/offshore oil & gas, chemical & petrochemical area accumulating wealth of experience & excellent reputation because of strong competitiveness such as high quality, reasonable price and on time delivery.

On the strength of our challenge and our willingness to achieve a satisfaction of our customer, will make our best efforts to place its highest priority on our customer's satisfaction and grow further to ensure prosperity for all our business partner.

We will continue to take on new challenge and find new ways to improve our products and services. As we can instruct technical advice and control the quality for our customer's demand with professional dealing experience in these items, we believe can find many ways to cooperate with you for our mutual benefit.

We also continue our best attention to satisfy customer's demand with full of service and strongly want to develop long term business relationship on the basis of credit.

We look forward to your continued encouragement and support.

Always very appreciated for your kindly attention & cooperation !

Thanks & best regards
A Managing director
S.S. LEE (James Lee)



SUN KOREA'S ORGANIZTION

SUN KOREA - OVERSEAS MARKETING OFFICE
(492-2, DEWOO EDEN PLAZA 217, HADAN 2 DONG, SAHA-GU, BUSAN, KOREA)

SUN KOREA - FACTORY
(4115, DAEJEO 1 DONG, KANGSEO-GU, BUSAN, KOREA)

SUN KOREA - WAREHOUSE 1
(3686-7, DAEJEO 1 DONG, KANGSEO-GU, BUSAN, KOREA)

SUN KOREA - WAREHOUSE 2
(6319, DAEJEO 2 DONG, KANGSEO-GU, BUSAN, KOREA)

CEO

- MANAGEMENT DIVISION
  - GENERAL AFFAIRS TEAM
  - ACCOUNTING & FINANCING TEAM
  - MATERIAL MANAGEMENT TEAM
- OVERSEAS SALES DIVISION
  - VALVE DIVISION
  - FITTING/PIPE DIVISION
  - ACCOMM. & MARINE EQUIPMENT DIVISION.
- DESIGN DIVISION
  - DESIGN 1 TEAM
  - DESIGN 2 TEAM
- PRODUCTION DIVISION
  - PRODUCTION TEAM
  - PRODUCTION PLANNING TEAM
- QUALITY DIVISION
  - QUALITY CONTROL TEAM
  - CUSTOMER SERVICE TEAM

SUN KOREA WITH DREAM & FUTURE

FOR THE FUTURE WITH PASSION & CREATIVITY & CHALLENGE, SUN KOREA CO., LTD.

We comply with basic principle for business management and maintain a clean organization culture.
Better working environment and welfare for employees can give more opportunities for self-development.
We always care for the bigger performance-based on good compensation.
Our employee has strong pride and good performance bring highest level of quality,
continuous operational innovation and global competitiveness.

We always believe,
"Promise and practice is our pride."
"Practical achievement is our life."
"Innovative people are the most important asset."
Don't forget
"Customer's satisfaction is our heart."

Company History

FEB. 08, 2002 THE COMPANY WAS ESTABLISHED UNDER THE NAME OF " SUN VALVE CO.,LTD "
127 , GUPO-2 DONG, BUK-KU, PUSAN, KOREA

MAR. 03, 2002 JOINED A MEMBERSHIP OF SHIP BUILDING EQUIPMENT BUSINESS.

MAR. 20, 2002 REGISTERED AT THE MINISTRY OF TRADE AND INDUSTRY AND ENERGY,
AS MANUFACTURER & TRADING COMPANY.

NOV. 11, 2002 GRANTED AS A MAKER BY KOREA SAFETY CORP.

APR. 15, 2003 FOUNDED QUALITY CONTROL DIVISION COMMITTEE.

JULY. 22, 2003 CERTIFIED AS A MEMBER OF KOREA INTERNATIONAL TRADE ASSOCIATION.

JAN. 18, 2004 JOINED A MEMBERSHIP OF MACHINERY INDUSTRY ASSOCIATION.

AUG. 08, 2004 MADE BUSINESS RELATIONSHIP TO SEMBAWANG SHIPYARD PTE LTD
(SSPL) (SINGAPORE)

JAN. 11, 2005 MADE BUSINESS RELATIONSHIP TO KARACHI SHIPYARD & ENGINEERING WORKS LTD. (PAKISTAN)

FEB. 20, 2005 APPROVED AS OF SUPPLIER FOR WATER & FIRE POWER PLANT EQUIPMENT FROM KHI. (R.O.KOREA)

MAR. 30, 2005 MADE BUSINESS RELATIONSHIP TO UNITHAI SHIPYARD & ENGINEERING LTD. (THAILAND)

APR. 10, 2005 RENAMED THE COMPANY NAME INTO " SUN INTERNATIONAL CO.,LTD "

MAY. 04, 2005 MADE BUSINESS RELATIONSHIP TO DUBAI DRYDOCKS LTD. (UAE)

MAY. 14, 2005 REGISTERED AS A BUSINESS PARTNER TO JURONG SHIPYARD PTE LTD. (SINGAPORE)

JUN. 15, 2005 REGISTERED AS A BUSINESS PARTNER TO POSCO (R.O.KOREA)

AUG. 01, 2005 CERTIFIED THE CLEAN COMPANY BY THE MINISTER OF LABOR.

AUG. 04, 2005 MADE BUSINESS RELATIONSHIP TO MUHIBBAH MARINE ENGINEERING SDN BHD.(MALAYSIA)

NOV. 04, 2005 REGISTERED AS A BUSINESS PARTNER TO ZAMIL OPERATION & MAINTENANCE CO.,LTD
(FOR SHIPBUILDING) (SAUDI ARABIA)

DEC. 10, 2005 CONFORMATION CERTIFICATE OF VENTURE COMPANY.

JAN. 10, 2006 REGISTERED AS A BUSINESS PARTNER TO PT PAL INDONESIA (SHIPBUILDING CO.)

FEB. 08, 2006 APPROVED AS OF SUPPLIER FOR TAEAN POWER PLANT (KPOC)
MADE BUSINESS RELATIONSHIP TO BOUSTEAD PENANG SHIPYARD SDN BHD. (MALAYSIA)

APR. 20, 2006 MOVED OUR OFFICE : 237-22, WHITE BUILDING, GEJEONG-3 DONG, SAHA-GU, PUSAN, KOREA

MAY. 04, 2006 MADE BUSINESS RELATIONSHIP TO COLOMBO DOCKYARD LTD. (SRI LANKA)

MAY. 25, 2006 MADE BUSINESS RELATIONSHIP TO KEPPEL SING MARINE PTE LTD. (SINGAPORE)

JULY. 10, 2006 SELECTED AS A LEADING EXPORTER BY OFFICE OF KOREA INDUSTRIAL PROMOTION.

SEP. 12, 2006 INTRODUCED ERP (ENTERPRISE RESOURCE PLANNING) SYSTEM.

APR. 02, 2007 MADE BUSINESS RELATIONSHIP TO BHARATI SHIPYARD LTD. (INDIA)

MAY. 02, 2007 MADE BUSINESS RELATIONSHIP TO SAIGON SHIPYARD IND. (VIETNAM)

JULY. 05, 2007 MADE BUSINESS RELATIONSHIP TO COCHIN SHIPYARD LTD. (INDIA)

AUG. 11, 2007 RESISTERED AS A BUSINESS PARTNER TO PT DOK & PERKAPALAN KODJA BAHARI (PERSERO)

OCT. 12, 2007 MADE BUSINESS RELATIONSHIP TO SPF (STAINLESS PIPE & FITTINGS). (AUSTRAILIA)

OCT. 20, 2007 MADE BUSINESS RELATIONSHIP TO TUONG AIK SHIPYARD SDN BHD. (MALAYSIA)

NOV. 18, 2007 MOVED AND EXPANDED OUR HEADQUARTER : 492-2, DAEWOO EDEN PLAZA 217,
SAHA-GU, PUSAN, KOREA

DEC. 02, 2007 MADE BUSINESS RELATIONSHIP TO ABG SHIPYARD LTD. (INDIA)

JAN. 03, 2008 OPENED WAREHOUSE IN 4115, DAEJEO 1 DONG, KANGSEOGU, PUSAN, KOREA

JAN. 10, 2008 MADE BUSINESS RELATIONSHIP TO ASIAN MARINE SERVICES PUBLIC
COMPANY LIMITED. (THAILAND)

MAR. 15, 2008 MADE BUSINESS RELATIONSHIP TO KLINGER DENMARK (DENMARK)

APR. 01, 2008 MADE BUSINESS RELATIONSHIP TO CHOWGULE AND COMPANY PVT.LTD. (INDIA)

APR. 30, 2008 MADE BUSINESS RELATIONSHIP TO PT. BATAMEC (INDONESIA)

MAY. 03, 2008 MADE BUSINESS RELATIONSHIP TO ITALTHAI MARINE LTD. (THAILAND)

JULY. 25, 2008 MADE BUSINESS RELATIONSHIP TO MARWAN SHIPPING CO. (U.A.E.)

AUG. 01, 2008 MADE BUSINESS RELATIONSHIP TO NGV TECH SDN BHD. (MALAYSIA)

AUG. 19, 2008 RENAMED THE COMPANY NAME INTO " SUN KOREA CO.,LTD "

SEP. 01, 2008 OPENED 2ND WAREHOUSE IN 2686-7, DAEJEO 1 DONG, KANGSEOGU, PUSAN, KOREA







World, Stage of Unlimited Possibilities. SUN KOREA

Based on respect for partnership with our relevant maker Sun Korea Co.,Ltd will establish a creative and cooperative organizational culture and enhance the company's competitiveness.





I ALWAYS WITH YOU

Our philosophy is to always provide sincere and honest service to our customers.
With our customer-oriented management, we hope to achieve greater customer satisfaction

CUSTOMER ORIENTED VALUE

DEVELOP PRODUCTS AND SERVICES FOR CUSTOMER ORIENTED SATISFACTION

- TOP QUALITY PRODUCT
- CUSTOMER ORIENTED PRICES
- HIGH QUALITY SERVICES

BUILD SPEEDY

BASED ON THE SPEEDY MANAGEMENT, ENHANCE OUR COMPANY'S COMPETITIVENESS

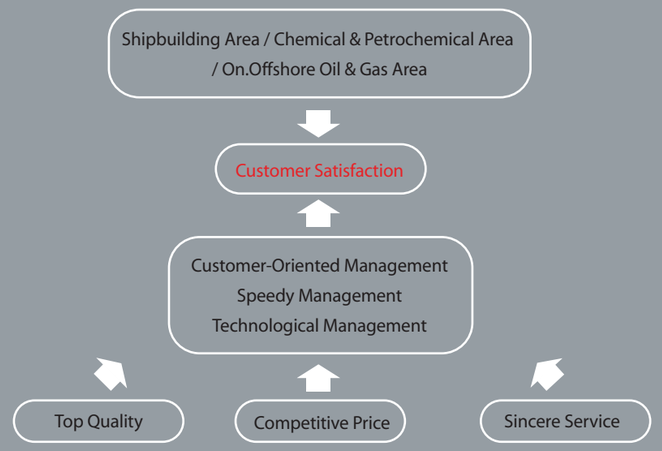
- TIMELY
- EFFICIENCY
- RESPONSIBILITY

HUMAN RESOURCE MANAGEMENT

PROVIDE A FLEXIBLE AND CREATIVE COOPERATION CULTURE WITH OUR MANY RELEVANT MAKERS.

- FLEXIBLE
- CREATIVE
- COOPERATIVE







ON/OFFSHORE OIL & GAS

SUN KOREA Co., Ltd takes a major role providing proper valves & fittings on satisfying the technical specification and quality standards of oil & gas production.



CHEMICAL & PETROCHEMICAL AREA

SUN KOREA Co., Ltd takes a major role providing proper valves & fittings on satisfying the technical specification and quality standards of chemical & petrochemical.



SHIPBUILDING AREA

SUN KOREA Co., Ltd takes a major role providing proper valves & fittings on satisfying the technical specification and quality standards of shipbuilding.

Taking first priority for customer's satisfaction based on pursuing top quality, reasonable price, on time delivery with full of service.
Our dedication to progress is driven our enthusiasm.

- Quality of our products and services is a direct reflection of our continuous efforts and hard work. We will continue to take on new challenges and find new ways to improve
- Our products and services

CONTENTS

A. HULL-OUTFITTING (15~72P)	A.
1.BOTTOM PLUG & THE SPANNER	A - 1
2.AIR VENT PIPE HEAD	A - 3
3.HATCH COVER	A - 9
4.MANHOLE COVER & ETC	A - 13
5.WATERTIGHT & WEATHERTIGHT DOOR	A - 24
6.HOPPER & ETC.	A - 28
7.SCUPPER	A - 37
8.ETC.	A - 44

B.PIPING (73~602P)	B.
1.SUPPORTING OF PIPES	B - 1
2.SOUNDING PIPE HEAD	B - 7
3.MARINE COCKS	B - 15
4.DRAIN PLUG	B - 17
5.COUPLINGS	B - 19
6.DEWATERING OF FORWARD SPACE	B - 24
7.CONTROL BOX & CONTROL UNIT	B - 28
8.ACTUATOR FOR HYDRAULIC	B - 37
9.SPRAY NOZZLE	B - 46
10.STRAINERS	B - 48
11.REACH ROD	B - 85
12.NAME PLATE	B - 98
13.FIRE FIGHTING	B - 101
14.MARINE VALVES	B - 110
15.ANSI VALVES	B - 274
16.FORGED STEEL VALVES	B - 420
17.CHECK VALVES	B - 505
18.SIGHT GLASS	B - 510
19.SPECIAL VALVES	B - 517

C.LEVEL GAUGING (603~674P)	C.
1.DIAL TYPE FLOAT LEVEL GAUGE	C - 1
2.DISPLACEMENT TYPE FLOAT LEVEL SWITCH	C - 6
3.MAGNETIC TYPE FLOAT LEVEL SWITCH	C - 16
4.REFLEX TYPE GLASS LEVEL GAUGE	C - 25
5.MARINE FLOAT LEVEL GAUGE	C - 45
6.MAGNETIC TYPE FLOAT LEVEL GAUGE	C - 50
7.OPERATED TYPE FLOAT LEVEL SWITCH	C - 60
8.CONTENT GAUGE	C - 61

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1.CABLE INSTALLATION	D - 1
2.CABLE TIES	D - 12
3.MARINE FAN	D - 19

E.TECHNICAL (701~702P)	E.
1.COMPARSION LIST FOR CASTING & FORGING	E - 1



PART-A

A. HULL-OUTFITTING

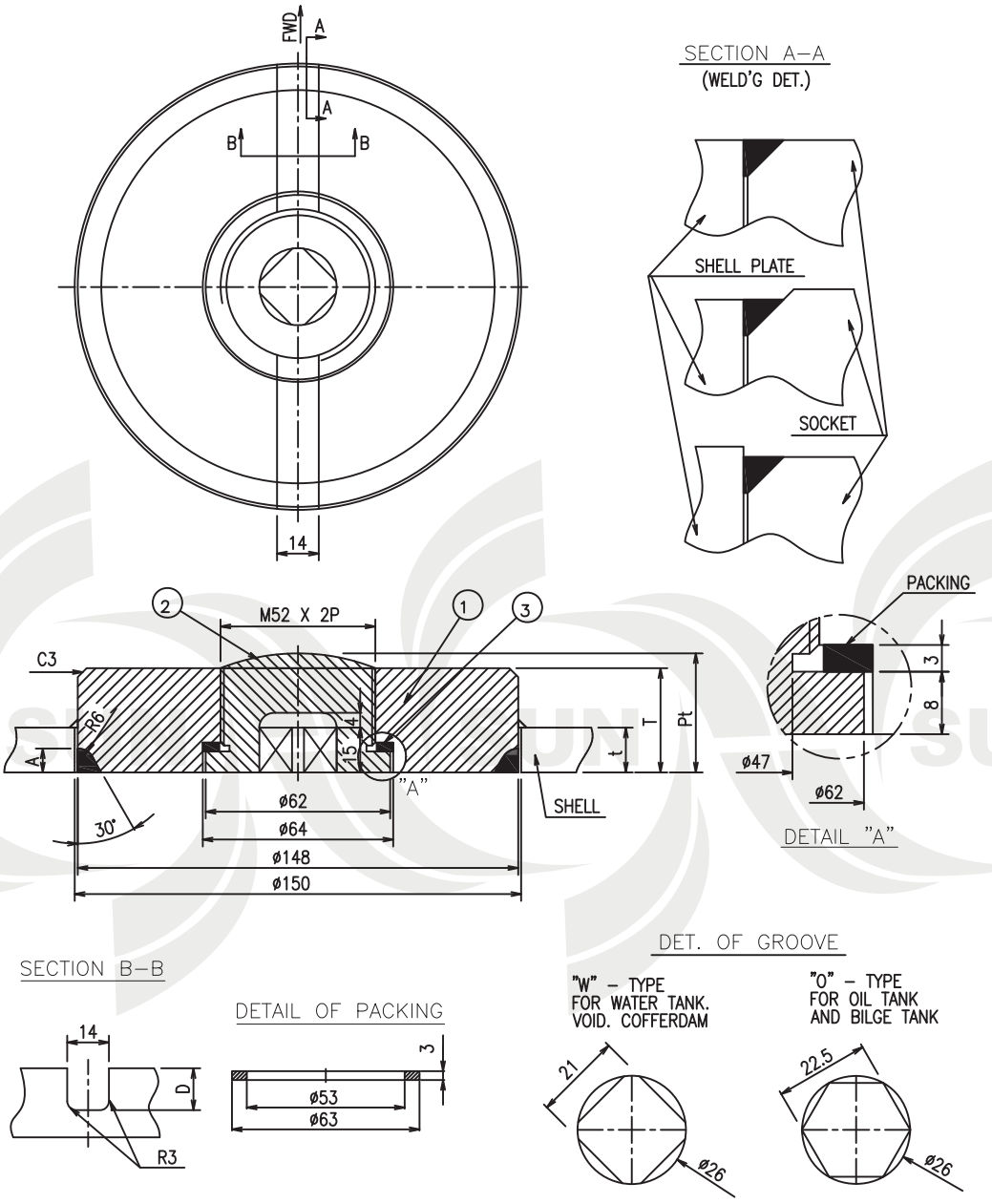
PART-A

A. HULL-OUTFITTING

CONTENTS

	NO	PAGE
1. BOTTOM PLUG & THE SPANNER	A-1	17
2. AIR VENT PIPE HEAD	A-3	19
3. HATCH COVER	A-9	25
4. MANHOLE COVER & ETC.	A-13	29
5. WATERTIGHT & WEATHERTIGHT DOOR	A-24	40
6. HOPPER & ETC.	A-28	44
7. SCUPPER	A-37	53
8. ETC.	A-44	60

Bottom Plug

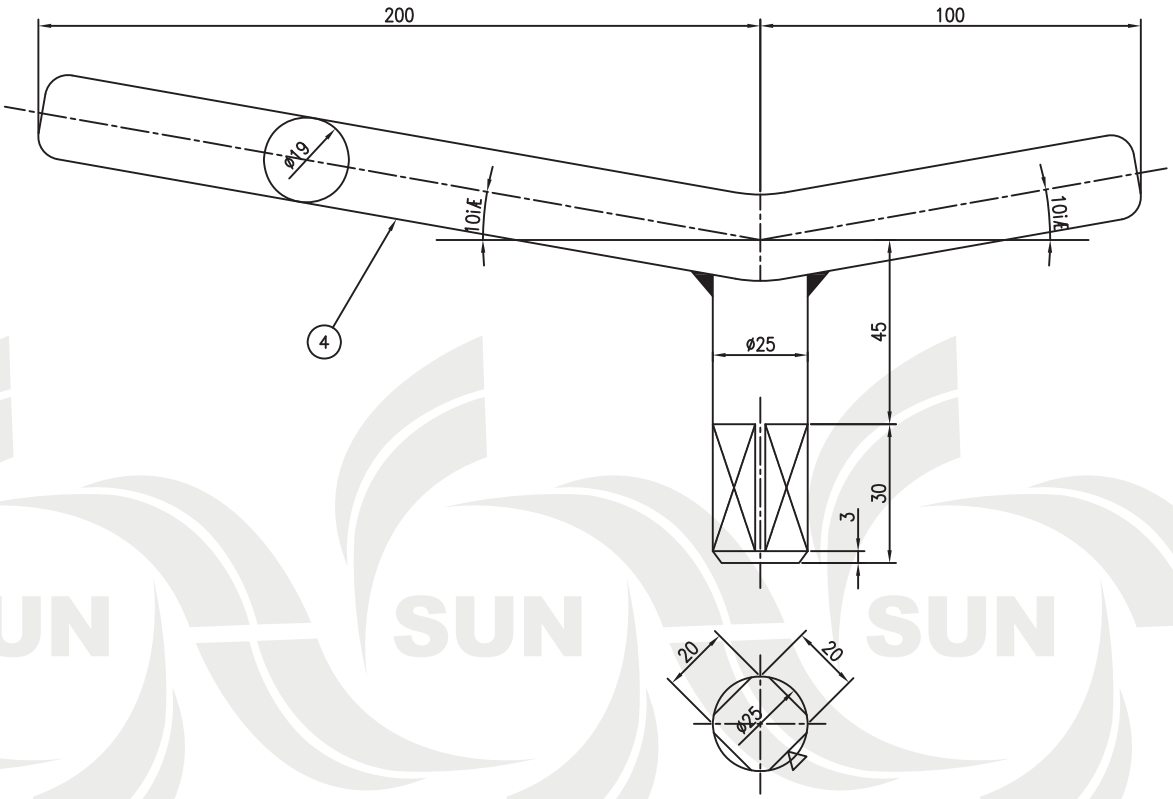


KIND		SHELL THICKNESS (t)	T	D	WELDING		WEIGHT (Kg/SET)
W–TYPE	O–TYPE				A	B	
BPW1	BP01	t ?7.0	35	22	8	6.5	3.6
BPW2	BP02	17.5 □ t □ 22.5	35	18	10	6.5	3.6
BPW3	BP03	22.5 □ t □ 27.0	40	18	13	8	4.2
BPW4	BP04	27.0 □ t □ 32.0	45	18	13	8	4.7
BPW5	BP05	32.0 □ t □ 37.0	50	18	18	9	5.2
BPW6	BP06	37.0 □ t □ 42.0	55	18	18	9	5.7
BPW7	BP07	42.5 □ t	60	18	20	9	6.9

NO.	PARTS	MATERIAL
1	SOCKET	STEEL
2	PLUG	BRONZE or STAINLESS STEEL
3	PACKING	LEAD

Remark : 1. The name plate shall be specified by purchaser as required.

Spanner

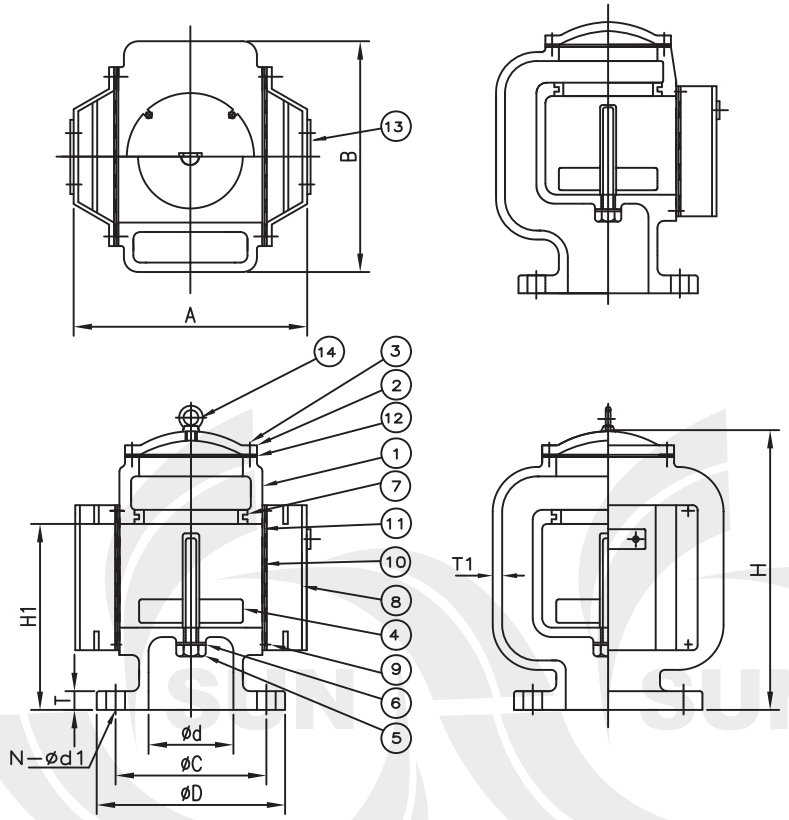


NOTE

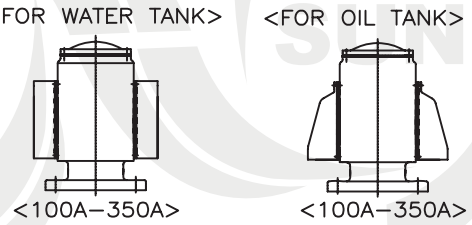
1. MATERIAL : SS400

	øA	øB	øC	D	WEIGHT
7	50A	16	8A	26	
8	50A	18	10A	28	
10	50A	20	10A	30	
10	65A	25	15A	35	
12	65A	26	15A	38	
14	65A	30	20A	42	
17	100A	32	20A	45	
19	100A	36	25A	50	
22	100A	38	25A	55	
22	100A	46	32A	60	
27	100A	48	32A	65	
30	125A	54	40A	70	
32	150A	60	40A	75	

Air Vent Pipe Head of Disc Float



NO.	PARTS	MATERIAL
1	BODY	CAST IRON / DUCTILE CAST IRON
2	COVER	CAST IRON / DUCTILE CAST IRON
3	HEXAGON BOLT	STAINLESS STEEL
4	DISC	STAINLESS STEEL
5	GUIDE BAR	STAINLESS STEEL
6	PACKING	NBR / VITON
7	SEAT PACKING	NBR / VITON
8	SCREEN COVER	STEEL
9	HEXAGON BOLT	STAINLESS STEEL
10	WIRE NET	STAINLESS STEEL
11	NET FRAME	STEEL
12	PACKING	NBR
13	NAME PLATE	STAINLESS STEEL
14	LIFTING EYE BOLT	FORGED STEEL

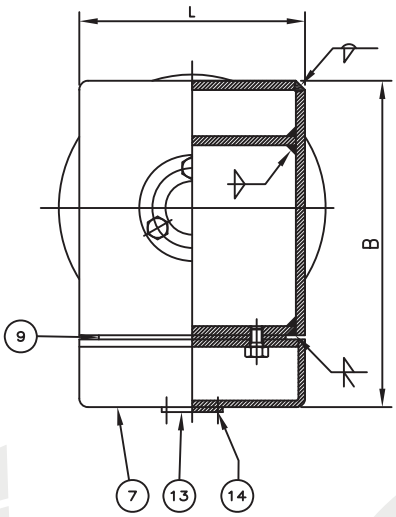


DIMENSION (UNIT : mm)

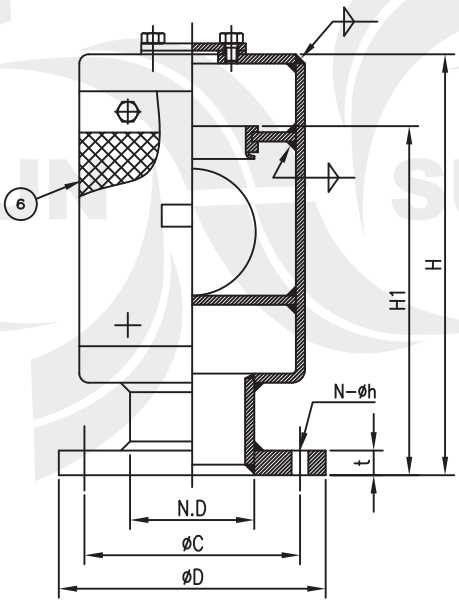
N.D	ød	øD	øC	T	N−ød1	A	B	H	H1	T1
50A	50	130	105	14	4-15	173	129	185	140	7
65A	65	155	130	14	4-15	200	146	215	159	7
80A	80	180	145	14	4-19	245	162	250	184	8
100A	100	200	165	16	8-19	237	258	220	160	8
125A	125	235	200	16	8-19	291	304	260	180	8
150A	150	265	230	18	8-19	345	346	300	208	9
200A	200	320	280	20	8-23	441	456	345	269	9
250A	250	385	345	22	12-23	552	574	425	314	9
300A	300	430	390	22	12-23	646	644	490	367	10
350A	350	480	435	24	12-25	733	738	560	415	12

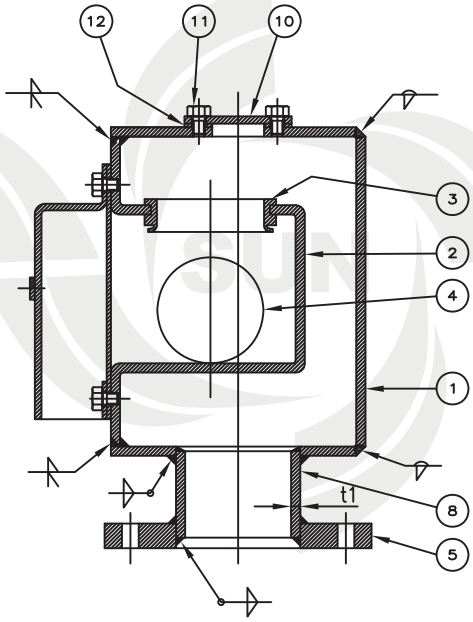
Remark : 1. The name plate shall be specified by purchaser as required.

Box Type Air Vent Head of Ball Float



NO.	PARTS	MATERIAL
1	BODY	STEEL
2	CHAMBER	STEEL
3	RUBBER SEAT	NBR
4	BALL FLOAT	STAINLESS STEEL
5	FLANGE	STEEL
6	FLAME SCREEN	STAINLESS STEEL
7	SCREEN COVER	STEEL
8	LOWER PIPE	STPG370
9	SCREEN PLATE	STEEL
10	COVER	STEEL
11	HEX BOLT	STEEL
12	PACKING	NBR
13	NAME PLATE	STAINLESS STEEL
14	SET'G SCREW	STAINLESS STEEL





NOTE

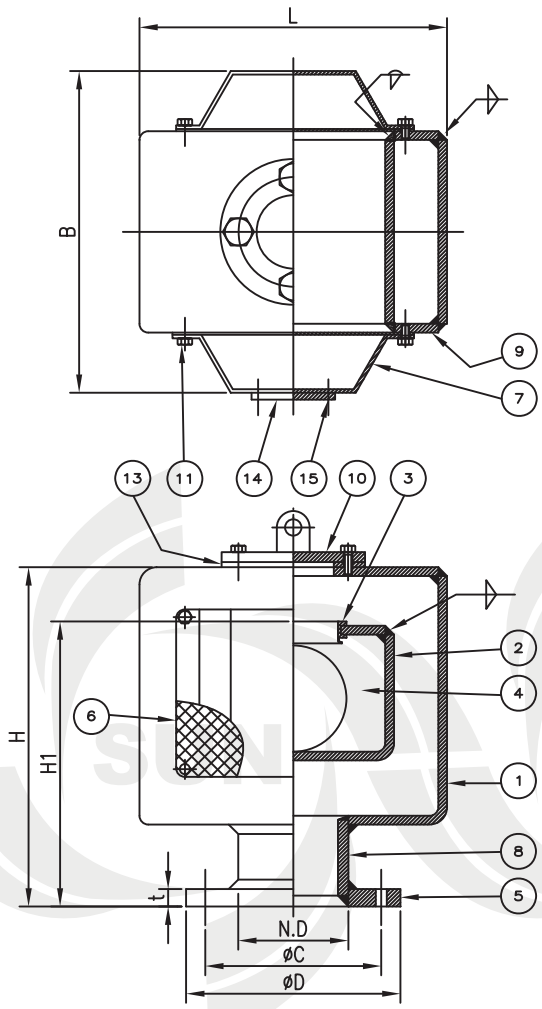
1. FLAME SCREEN WITH WIRE MESH #30 TO BE FITTED FOR OIL & F.W.TANK (SCREEN COVER CLOSE)
2. STEEL PART : HOT DIP GAL'V

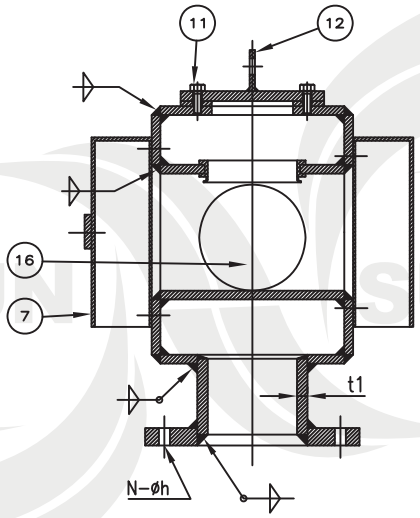
DIMENSION (UNIT : mm)

N.D	H	H1	B	L	øD	t	t1	øC	N-øh	WEIGHT(kg)	Q'TY
40A	251	205	163	105	140	16	7.1	95	4-19	8.5	
50A	251	205	163	105	155	16	8.7	105	4-19	9.0	
65A	255	207	186	120	175	18	7.0	130	4-19	11.1	
80A	277	228	221	135	185	18	7.6	145	8-19	14.1	

Remark : 1. The name plate shall be specified by purchaser as required.

Box Type Air Vent Head of Ball Float





NO.	PARTS	MATERIAL
1	BODY	STEEL
2	CHAMBER	STEEL
3	SEAT	NBR
4	BALL FLOAT	STAINLESS STEEL
5	FLANGE	STEEL
6	FLAME SCREEN	STAINLESS STEEL
7	SCREEN COVER	STEEL
8	LOWER PIPE	STPG370
9	SCREEN PLATE	STEEL
10	COVER	STEEL
11	HEX. BOLT	STEEL
12	LIFTING LUG	STEEL
13	PACKING	NBR
14	NAME PLATE	STAINLESS STEEL
15	SET'G SCREW	STAINLESS STEEL

NOTE

1. FLAME SCREEN WITH WIRE MESH #30 TO BE FITTED FOR TANK, F.W TANKS AND W.B.T OF OIL TANK CARRIER (SCREEN COVER CLOSE)
2. LIFTING LUG : 150A AND ABOVE SIZE
3. STEEL PART : HOT DIP GAL'V

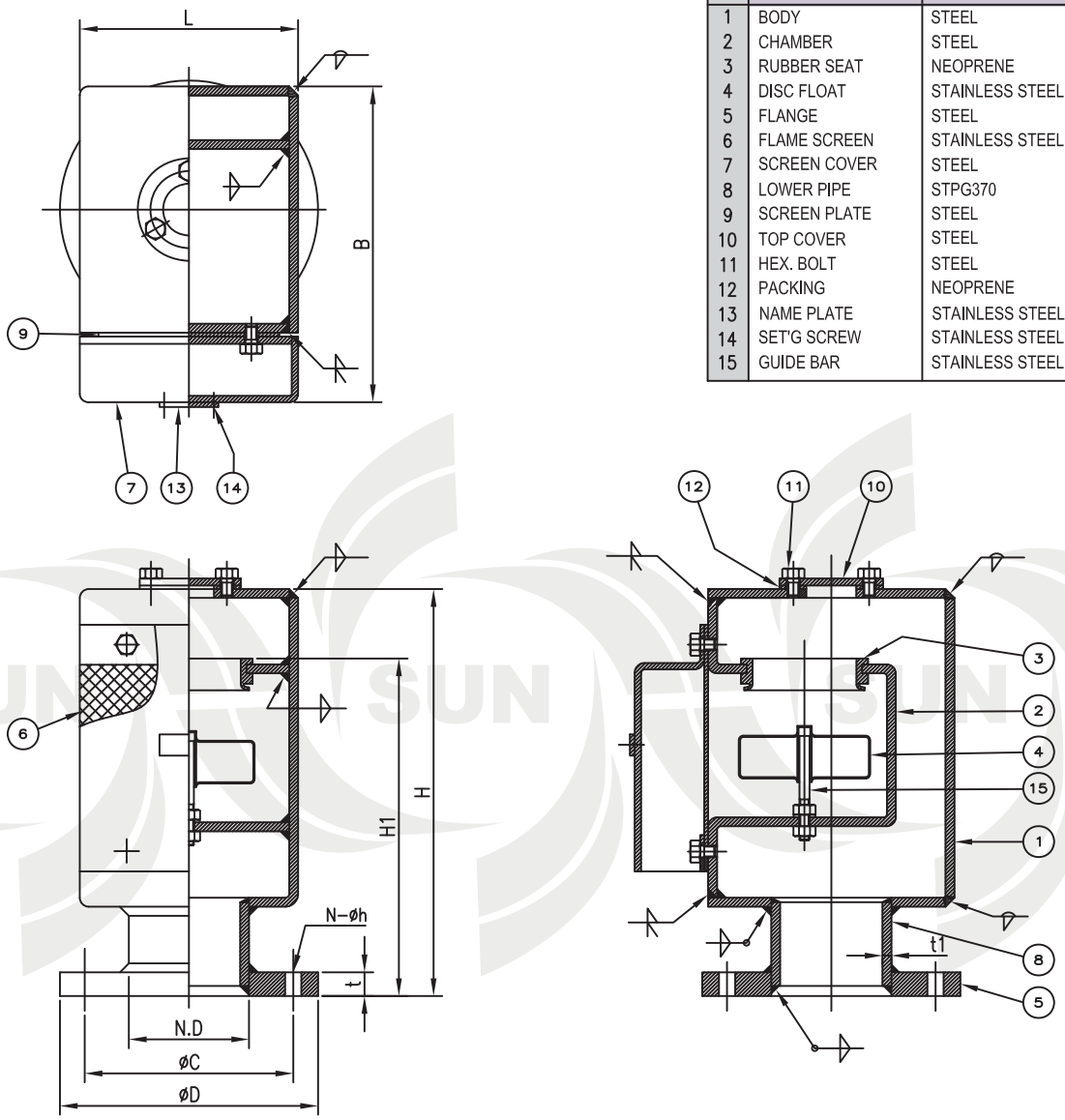
DIMENSION (UNIT : mm)

N.D	H	H1	B	øD	øC	L	t	t1	N–øh	WEIGHT(kg)	Q'TY
100A	405	360	254	210	175	232	18	8.6	8-19	21.4	
125A	414	360	286	250	210	276	20	9.5	8-23	31.6	
150A	412	360	330	280	240	318	22	11.0	8-23	41.3	
200A	499	428	409	330	290	425	22	12.7	12-23	67.5	
250A	604	510	514	400	355	520	24	9.3	12-25	101.4	
300A	707	598	598	445	400	588	26	9.5	16-25	135.0	
350A	780	660	674	490	445	678	26	9.5	16-25	180.4	
400A	884	755	767	560	510	758	28	9.5	16-27	234.9	
450A	1016	849	848	620	565	840	30	9.5	20-27	295.5	
500A	1104	922	940	675	620	917	30	9.5	20-27	353.0	

Remark : 1. The name plate shall be specified by purchaser as required.

Box Type Air Vent Head of Disc Float

NO.	PARTS	MATERIAL
1	BODY	STEEL
2	CHAMBER	STEEL
3	RUBBER SEAT	NEOPRENE
4	DISC FLOAT	STAINLESS STEEL
5	FLANGE	STEEL
6	FLAME SCREEN	STAINLESS STEEL
7	SCREEN COVER	STEEL
8	LOWER PIPE	STPG370
9	SCREEN PLATE	STEEL
10	TOP COVER	STEEL
11	HEX. BOLT	STEEL
12	PACKING	NEOPRENE
13	NAME PLATE	STAINLESS STEEL
14	SET'G SCREW	STAINLESS STEEL
15	GUIDE BAR	STAINLESS STEEL



NOTE

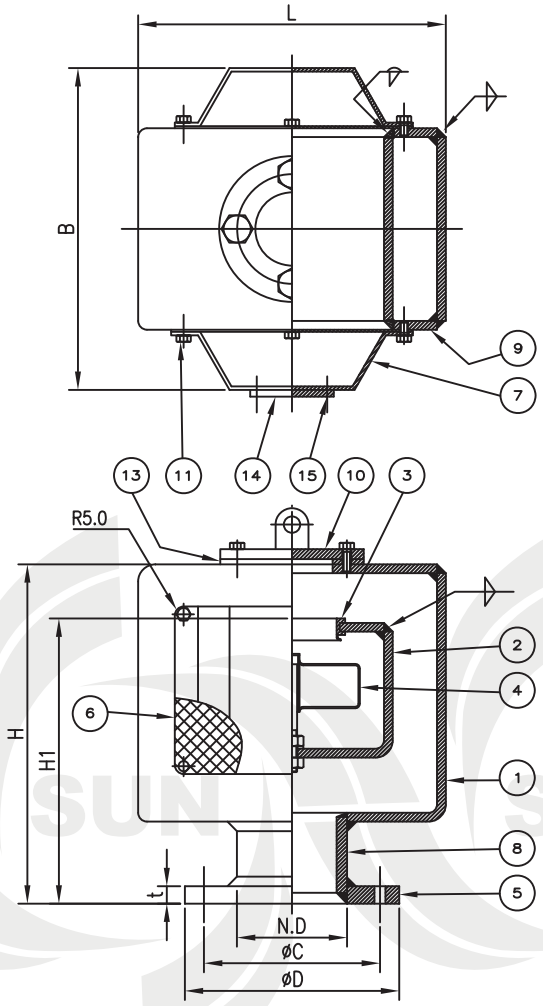
1. FLAME SCREEN WITH WIRE MESH #30 TO BE FITTED FOR OIL & F.W.TANK (SCREEN COVER CLOSE)
2. STEEL PART : HOT DIP GAL'V

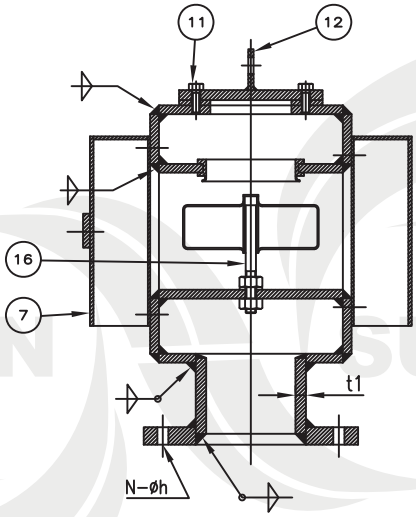
DIMENSION (UNIT : mm)

N.D	H	H1	B	L	øD	t	t1	øC	N-øh	WEIGHT(kg)	QUANTITY
40A	234	188	163	105	120	12	7.1	95	4-15	7.9	
50A	234	188	163	105	130	14	8.7	105	4-15	8.2	
65A	238	190	186	120	155	14	7.0	130	4-15	10.3	
80A	250	201	221	135	180	14	7.6	145	4-19	13.2	

Remark : 1. The name plate shall be specified by purchaser as required.

Box Type Air Vent Head of Disc Float





NO.	PARTS	MATERIAL
1	BODY	STEEL
2	CHAMBER	STEEL
3	RUBBER SEAT	NEOPRENE
4	DISC FLOAT	STAINLESS STEEL
5	FLANGE	STEEL
6	FLAME SCREEN	STAINLESS STEEL
7	SCREEN COVER	STEEL
8	LOWER PIPE	STPG370
9	SCREEN PLATE	STEEL
10	TOP COVER	STEEL
11	HEX. BOLT	STEEL
12	LIFTING LUG	STEEL
13	PACKING	NEOPRENE
14	NAME PLATE	STAINLESS STEEL
15	SET'G SCREW	STAINLESS STEEL
16	GUIDE BAR	STAINLESS STEEL

NOTE

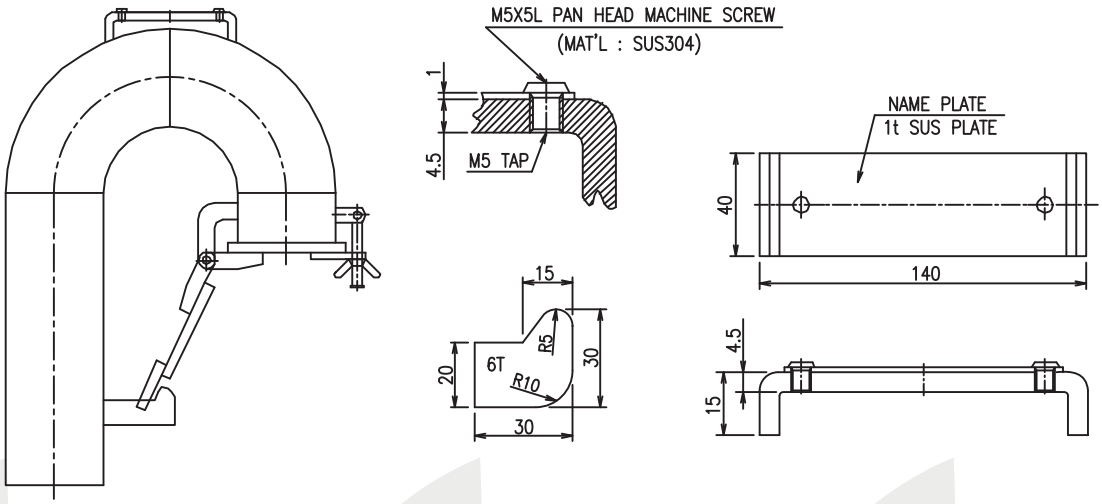
1. FLAME SCREEN WITH WIRE MESH #30 TO BE FITTED FOR TANK, F.W TANKS AND W.B.T OF OIL TANK CARRIER (SCREEN COVER CLOSE)
2. LIFTING LUG : 150A AND ABOVE SIZE
3. STEEL PART : HOT DIP GAL'V

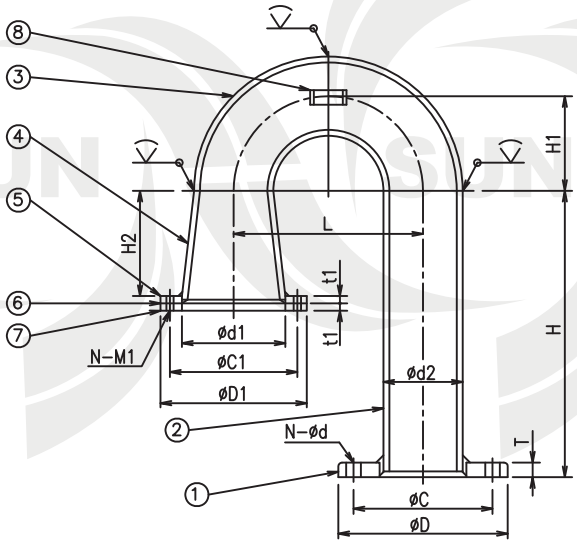
DIMENSION (UNIT : mm)

N.D	H	H1	B	øD	øC	L	t	t1	N–øh	WEIGHT(kg)	QUANTITY
100A	270	255	254	200	165	232	16	8.6	8-19	17.2	
125A	306	250	286	235	200	276	16	9.5	8-19	23.9	
150A	323	268	330	265	230	318	18	11.0	8-19	31.9	
200A	392	314	409	320	280	425	20	12.7	8-23	50.4	
250A	440	348	514	385	345	520	22	9.3	12-23	71.7	
300A	557	434	598	430	390	588	22	9.5	12-23	97.0	
350A	584	452	674	480	435	678	24	9.5	12-25	129.5	
400A	644	507	767	540	495	758	24	9.5	16-25	168.4	
450A	695	536	848	605	555	840	24	9.5	16-25	209.0	
500A	780	600	904	655	605	917	24	9.5	20-25	242.2	
550A	910	709	1026	720	665	1001	26	9.5	20-27	269.8	
600A	1010	785	1121	770	715	1091	26	9.5	20-27	322.6	
650A	1172	911	1248	825	770	1229	26	9.5	20-27	406.3	

Remark : 1. The name plate shall be specified by purchaser as required.

Goose Neck Ventilator / Goose Neck Type Air Vent Head





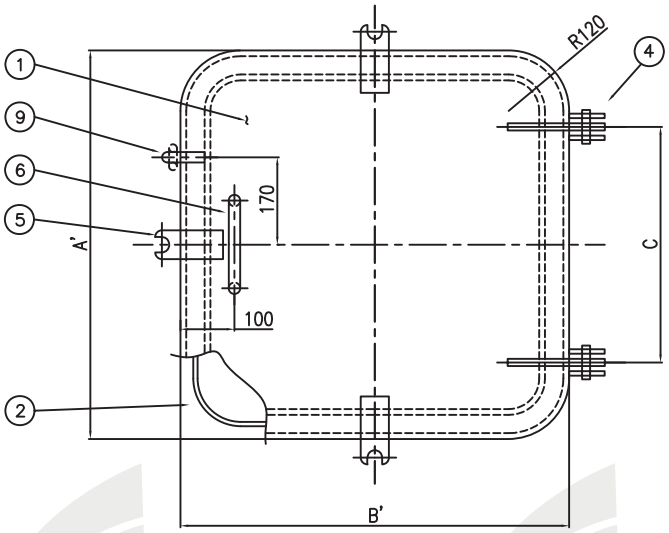
DIMENSION (UNIT : mm)

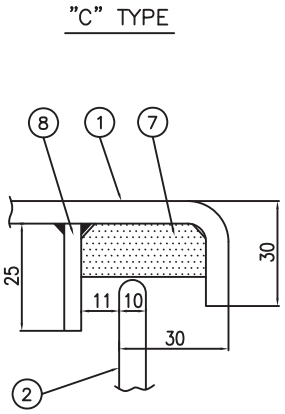
SIZE	øD	øC	I.D	T	øD1	øC1	ød1	t1	ød2	H	H1	H2	L	N-M1	N-ød
25A	95	75	34.5	10	83	73	43.2	6	34.0	300	38.1	46.8	76.2	4-M5	4-12
32A	115	90	43.2	12	89.1	79.1	49.1	6	42.7	300	47.6	59.5	95.2	4-M5	4-15
40A	120	95	49.1	12	100	90	60.3	6	48.6	300	57.2	71.2	114.4	4-M5	4-15
50A	130	105	61.1	14	110	95	76.3	6	60.5	300	76.2	83.9	152.4	4-M5	4-15
65A	155	130	77.1	14	120	110	89.1	6	76.3	300	95.3	83.9	190.6	4-M5	4-15
80A	180	145	90	14	150	134	114.3	6	89.1	300	76.2	96.6	152.4	4-M5	4-19
100A	200	165	115.1	16	177	162	139.8	8	114.3	400	101.6	122	203.2	6-M6	8-19
125A	235	200	141.2	16	203	188	165.2	8	139.8	400	127.0	134.7	254.0	6-M6	8-19
150A	265	230	166.6	18	260	238	216.3	9	165.2	400	152.4	147.4	305.7	6-M6	8-19
200A	320	280	218	20	320	295	267.4	10	216.3	500	203.2	172.8	406.4	8-M10	8-23
250A	385	345	269.5	22	375	350	318.5	12	267.4	500	254	198.2	508	12-M10	12-23
300A	430	390	321	22	413	387	355.6	12	318.5	700	304.8	325.2	609.6	12-M10	12-23
350A	480	435	358.1	24	463	438	406.4	12	355.6	700	355.6	354.6	711.2	12-M10	12-25
400A	540	495	409	24	520	490	457.2	12	406.4	700	406.4	376	812.8	12-M10	16-25

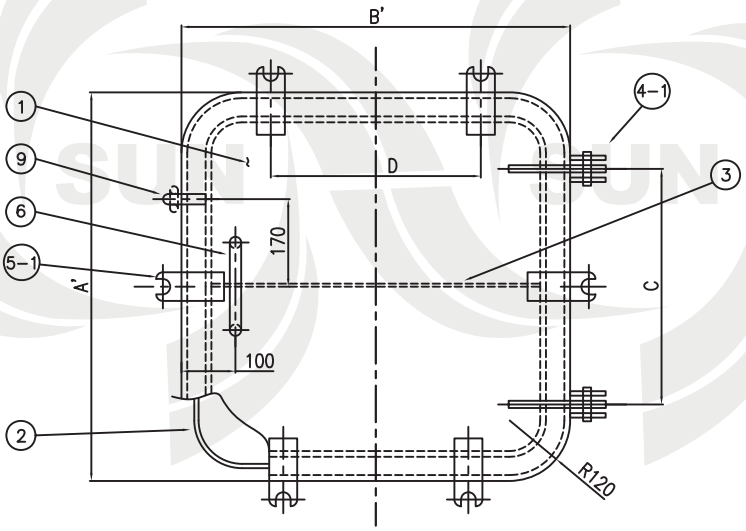
NO.	PARTS	MATERIAL
1	FLANGE	STEEL
2	PIPE	STPG
3	ELBOW	STPG
4	REDUCER	STPG
5	RINGR	STEEL
6	WIRE NET	STAINLESS STEEL
7	DISHED BOLT	STAINLESS STEEL
8	SEAT FOR NAME PLATE	STEEL

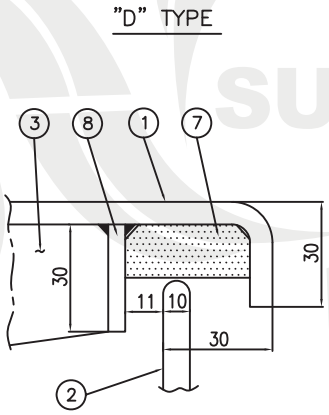
Remark : 1. The name plate shall be specified by purchaser as required.

Detail of Hatch Cover





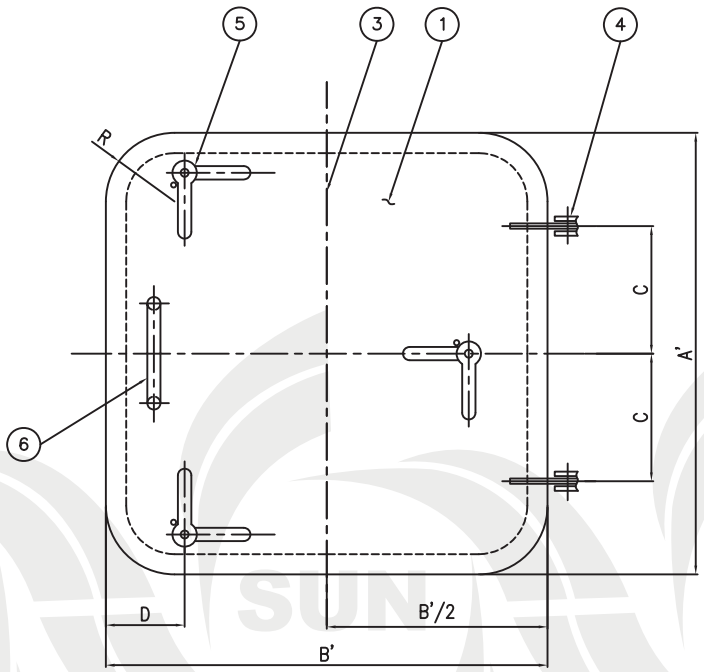




NO.	PARTS	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	STIFFNER	STEEL
4	HINGE	STEEL
4–1	HINGE	STEEL
5	DOG	STEEL
5–1	DOG	STEEL
6	HAND GRIP	STEEL
7	PACKING	NEOPRENE
8	PACKING HOLDER	STEEL
9	LOCKING EYE	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

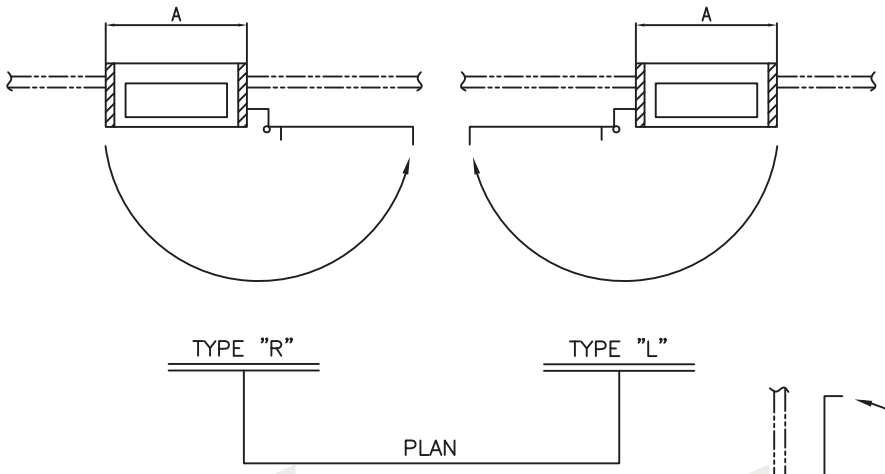
W/T Hatch (For emergency exit trunk)

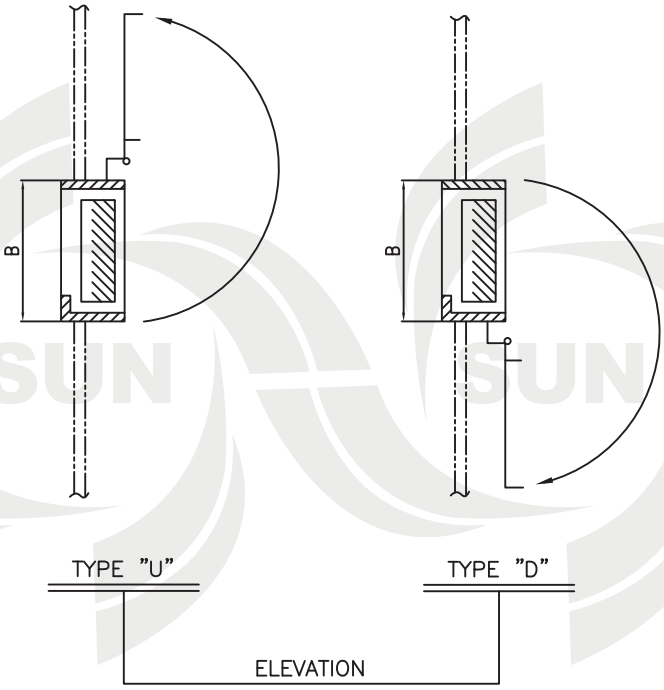


NO.	PARTS	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	STIFFNER	STEEL
4	HINGE	STEEL
5	CLIP & STOPPER	
6	HAND GRIP	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Detail of Louver Ventilator





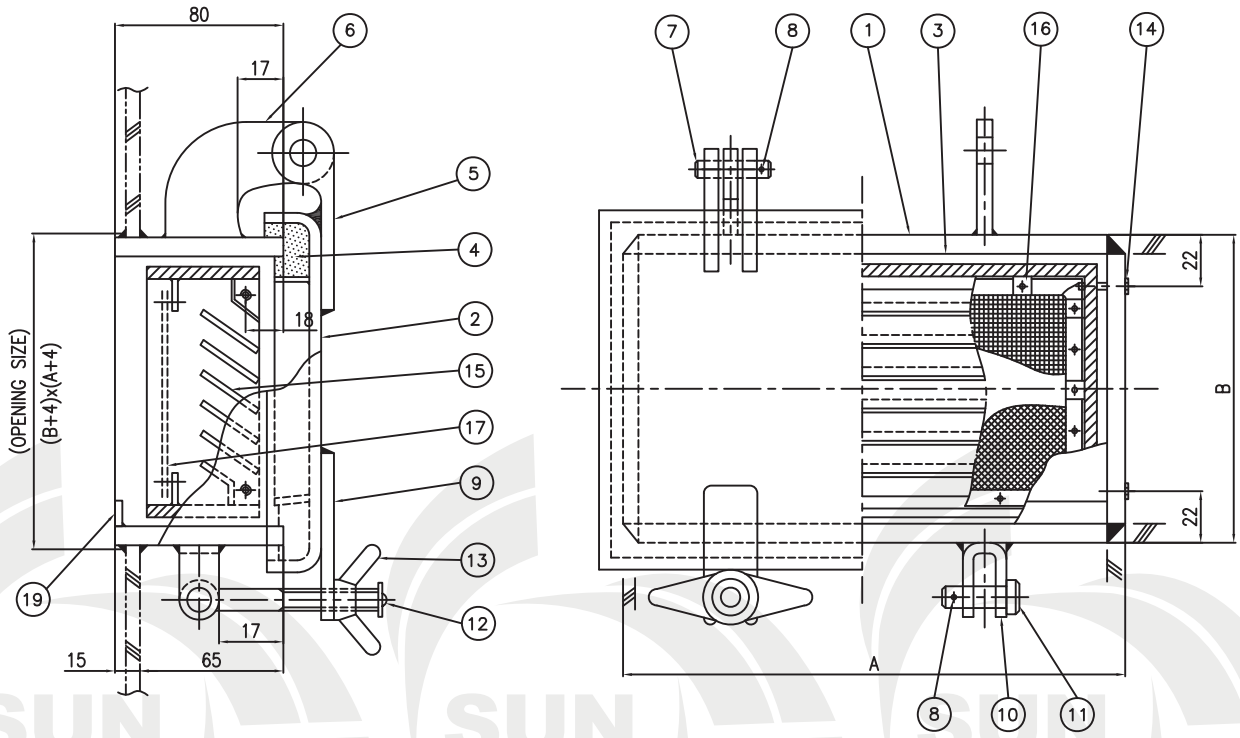
NOTE

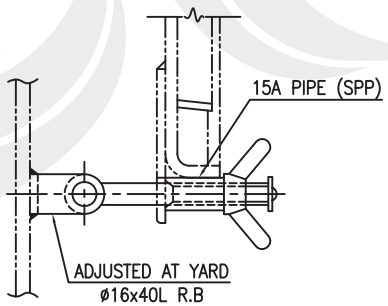
1. TYPE : THE VENTILATORS SHALL BE CLASSIFIED INTO 4 TYPE ACCORDING TO THE HINGE POSITION AS FOLLOWS

NOMINAL SIZE A x B	TYPE				COVER				FITTINGS Q'TY							REMARK
	R	U	L	D	TYPE	t	L1	L2	E	F	G	K	M	N	Q	
200 x 200	o	o	o	o	W	5	70		4	2	4	2	7	2	1	
200 x 300	o	o	o	o	W	5	70		4	2	4	2	11	2	1	
250 x 300	o	o	o	o	W	5	70		4	2	4	2	11	2	1	
300 x 200	o	o	o	o	W	5	70		4	2	4	2	7	2	1	
300 x 250	o	o	o	o	W	5	70		4	2	4	2	9	2	1	
300 x 300	o	o	o	o	W	5	70		4	2	4	2	11	2	1	
300 x 450	o	o			W	5	120		4	2	4	2	17	2	1	
300 x 600	o	o			W	5	150		4	2	4	2	23	4	1	
450 x 300	o	o	o	o	W	5	70	(120)	4	2	4	2	11	2	1	
450 x 450	o	o	o	o	W	5	120		4	2	4	2	17	2	1	
450 x 600	o	o			X	5	150		4	2	6	4	23	4	1	
600 x 300			o	o	W	5	150		4	2	4	2	11	4	1	
600 x 450			o	o	X	5	150		4	2	6	4	17	4	1	
600 x 600	o	o	o	o	X	5	150		4	2	6	4	23	4	1	
600 x 900	o	o			Y	6	150		6	3	8	5	35	4	2	
600 x 1200	o	o			Y	6	200		6	3	8	5	47	4	2	
900 x 600			o	o	Y	6	150		6	3	8	5	23	4	2	
900 x 900	o	o	o	o	Y	6	150		6	3	8	5	35	4	2	
900 x 1200	o	o			Y	6	200		6	3	8	5	47	4	2	
1200 x 1200	o	o	o	o	Z	6	200	300	6	3	10	7	47	4	2	

Remark : 1. The name plate shall be specified by purchaser as required.

Detail of Louver Ventilator





(18) OPEN SET SLEEVE

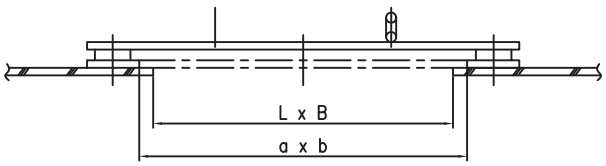
NO.	PARTS	MATERIAL
1	COAMING	STEEL
2	COVER	STEEL
3	LAMELLA FRAME	STEEL
4	PACKING	NEOPRENE
5	HINGE BLADE	STEEL
6	HINGE PAD	STEEL
7	HINGE PIN	BRASS
8	SPILIT PIN	STEEL
9	TENSION BRACKET	STEEL
10	FOR HANGER	STEEL
11	FORK HANGER PIN	BRASS
12	EYE BOLT	BRASS
13	BUTTERFLY NUT	BRASS
14	HEX' BOLT	STEEL
15	LAMELLA	STEEL
16	NET SUPPORT	STEEL
17	WIRE NET	STAINLESS STEEL
18	OPEN SET SLEEVE	
19	FLAT BAR	STEEL

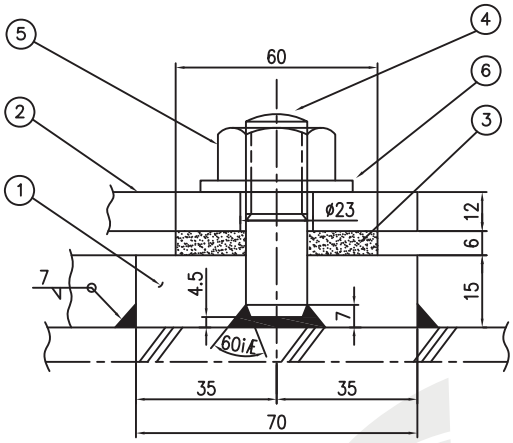
NOTE

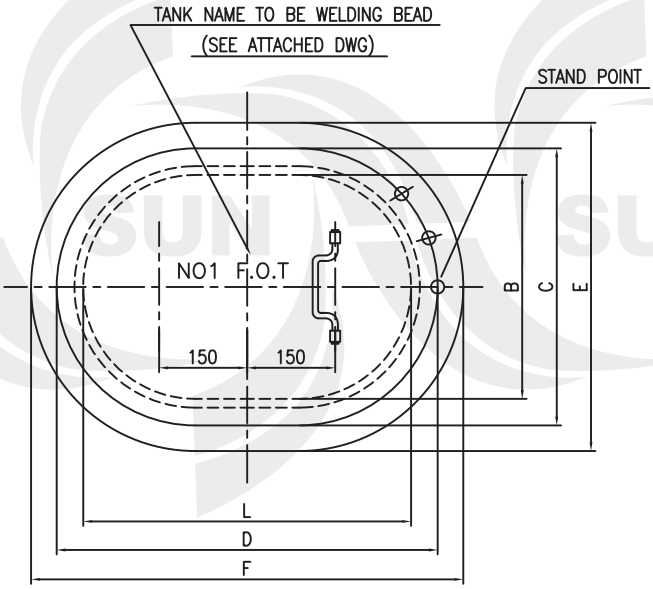
1. ALL STEEL PARTS TO BE HOT GALV'
2. TYPE R, L, U & D ACCORDING TO HINGE POSITION TO BE DECIDED BY P.O.S

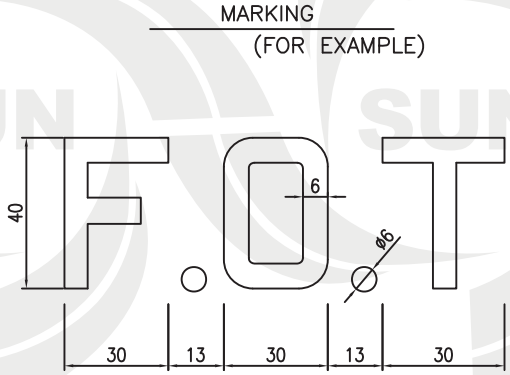
Remark : 1. The name plate shall be specified by purchaser as required.

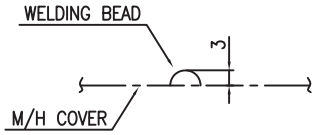
Normal Type









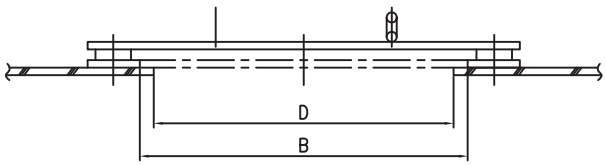


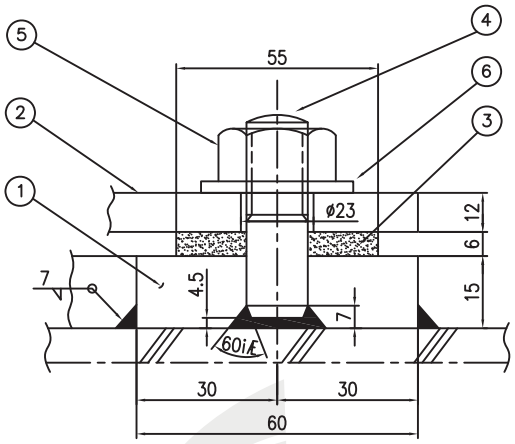
NO	L	B	a	b	C	D	E	F	NUMBER OF BOLT
4535	450	350	470	370	440	540	510	610	18
6040	600	400	620	420	490	690	560	760	24

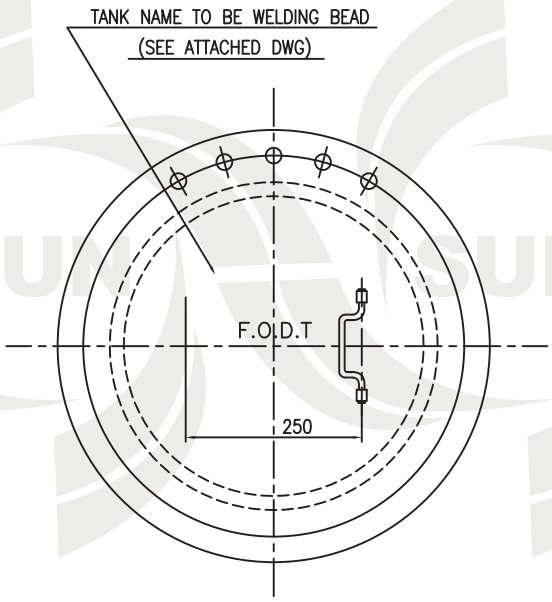
NO.	PARTS	MATERIAL
1	LINER	STEEL
2	COVER	STEEL
3	PACKING	NEOPRENE
4	STUD BOLT	STAINLESS STEEL
5	HEX NUT	STAINLESS STEEL
6	WASHER	STAINLESS STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Circular Type





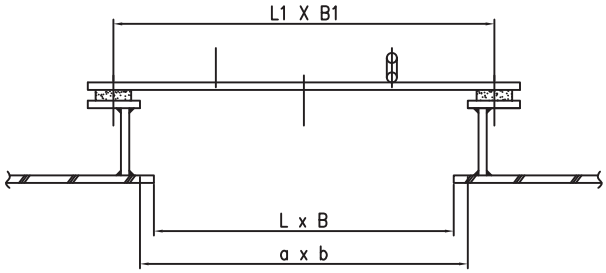


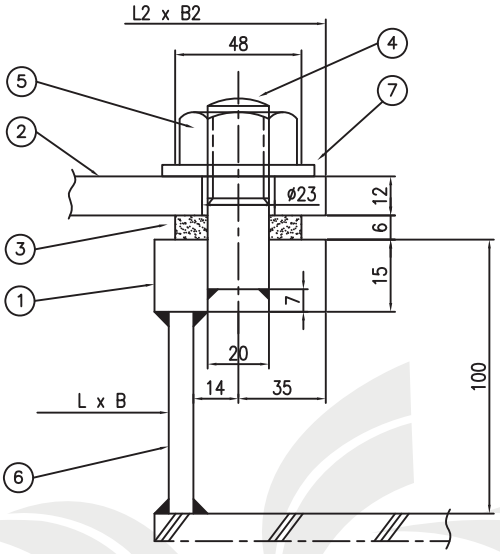
NO	D	B	E	F	NUMBER OF BOLT	REMARK
350	350	370	430	490	16	
400	400	420	480	540	20	

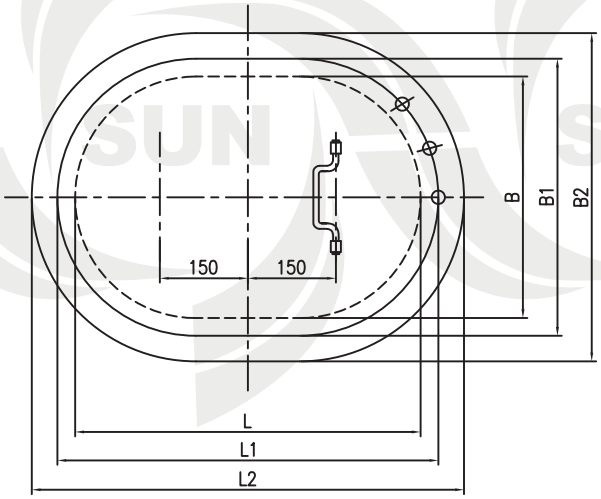
NO.	PARTS	MATERIAL
1	LINER	STEEL
2	COVER	STEEL
3	PACKING	NEOPRENE
4	STUD BOLT	STAINLESS STEEL
5	HEX NUT	STAINLESS STEEL
6	WASHER	STAINLESS STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Coaming Type





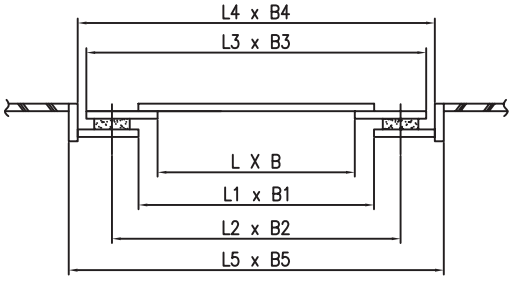


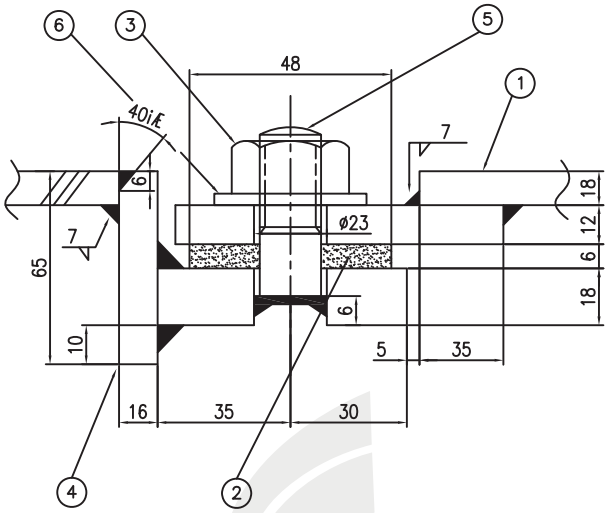
NO	L	B	a	b	L1	B1	L2	B2	NUMBER OF BOLT
4535	450	350	470	370	522	422	592	492	18
6040	600	400	620	420	672	472	742	542	24

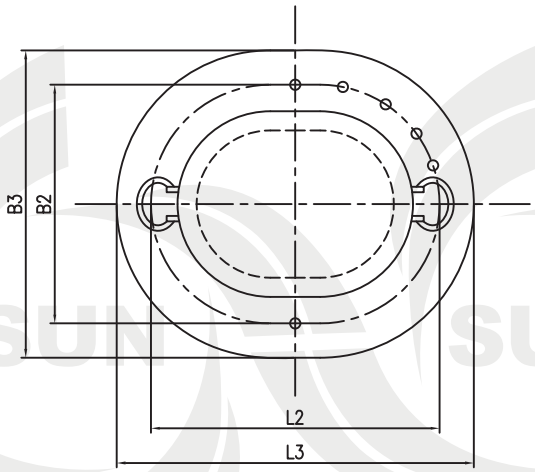
NO.	PARTS	MATERIAL
1	LINER	STEEL
2	COVER	STEEL
3	PACKING	NEOPRENE
4	STUD BOLT	STAINLESS STEEL
5	HEX NUT	STEEL
6	COAMING	STEEL
7	WASHER	STAINLESS STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

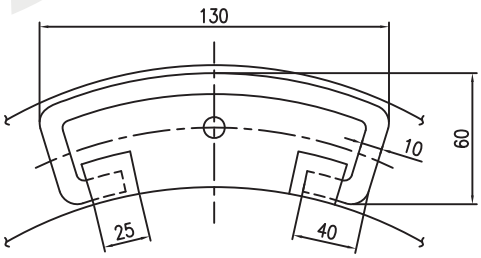
Flush Type

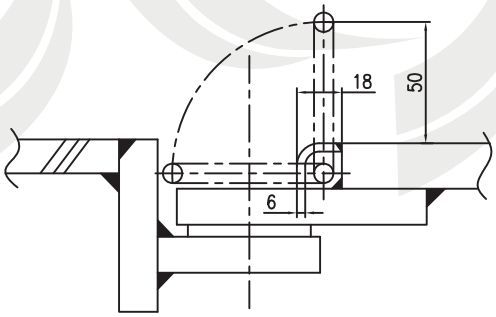






DET. OF HANDLE



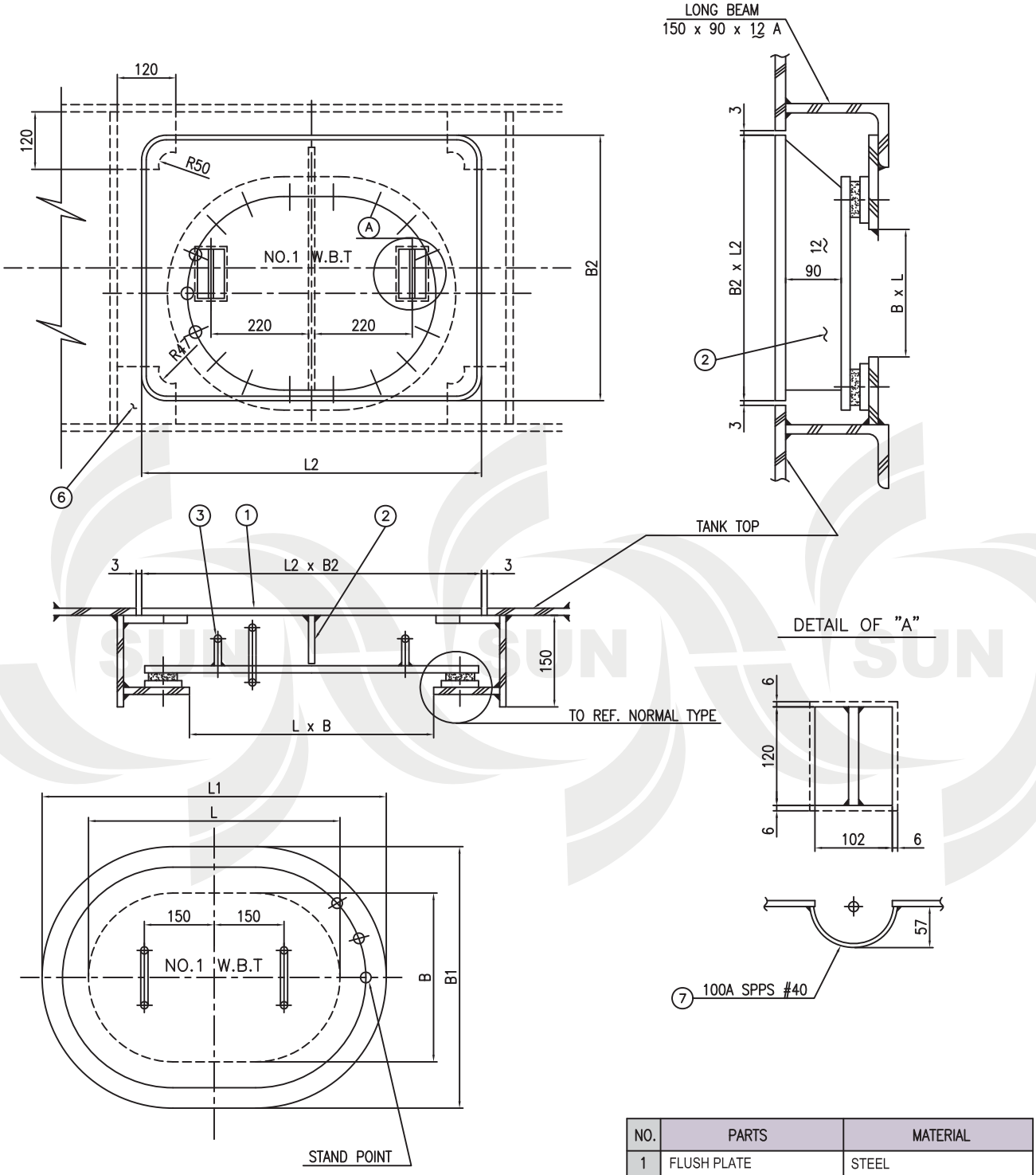


NO	L	B	L1	B1	L2	B2	L3	B3	L4	B4	L5	B5	NUMBER OF BOLT
4535	370	270	450	350	510	410	570	470	580	480	612	512	18
6040	520	320	600	400	660	460	720	520	730	530	762	562	20

NO.	PARTS	MATERIAL
1	COVER	STEEL
2	PACKING	NEOPRENE
3	HEX NUT	STEEL
4	COAMING	STEEL
5	STUD BOLT	STAINLESS STEEL
6	WASHER	STAINLESS STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Sunken Type

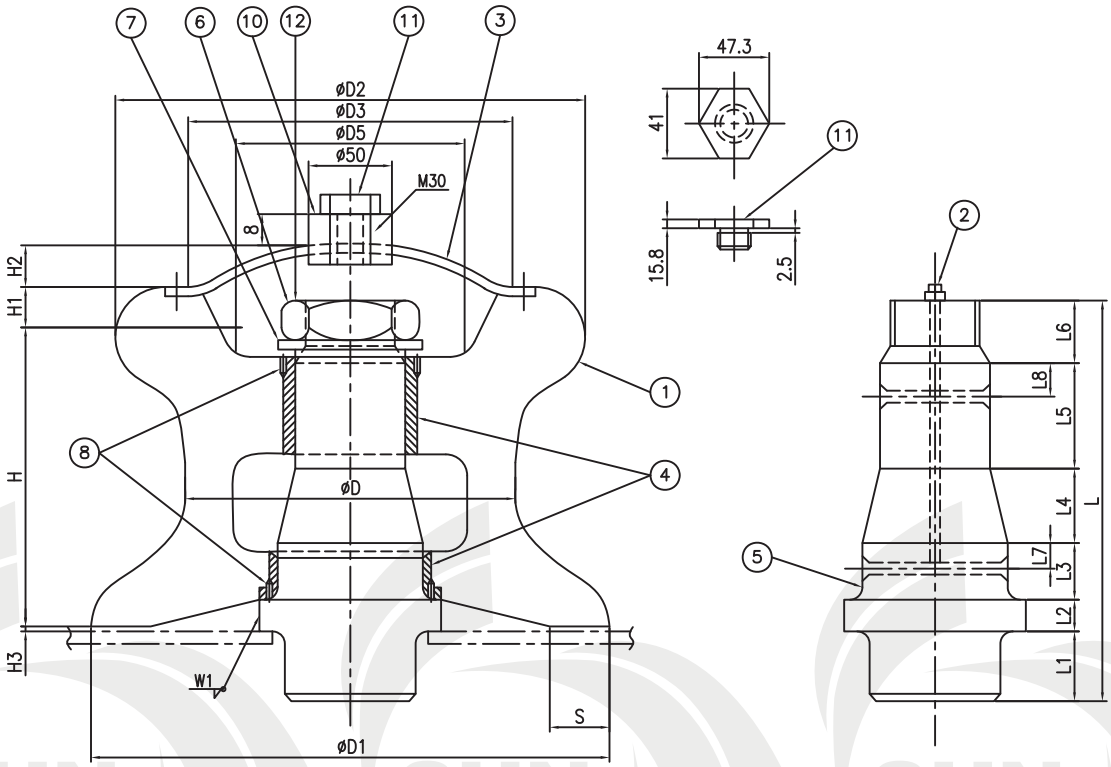


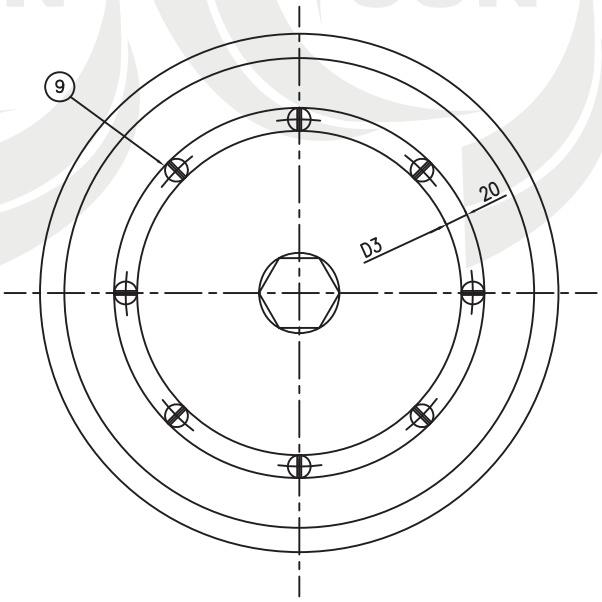
NO	L	B	L1	B1	L2	B2	NUMBER OF BOLT
4535	450	350	610	510	650	550	20
6040	600	400	760	560	794	594	24

NO.	PARTS	MATERIAL
1	FLUSH PLATE	STEEL
2	BRACKET	STEEL
3	HANDLE	STEEL
4	STEEL PLATE	STEEL
5	HANDLE	STEEL
6	SUPPORT PIECE	STEEL
7	SPPS	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Detail of Roller

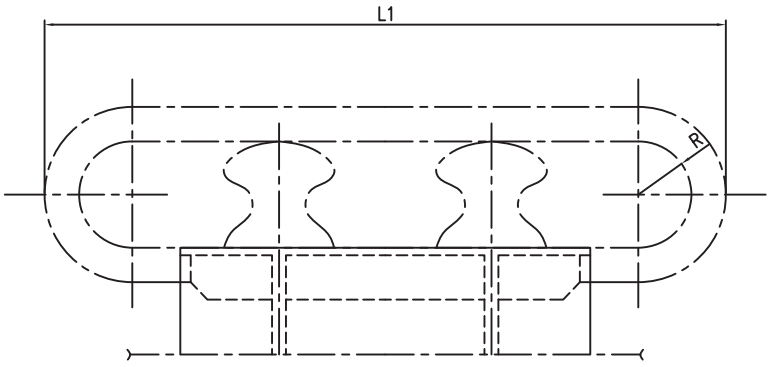




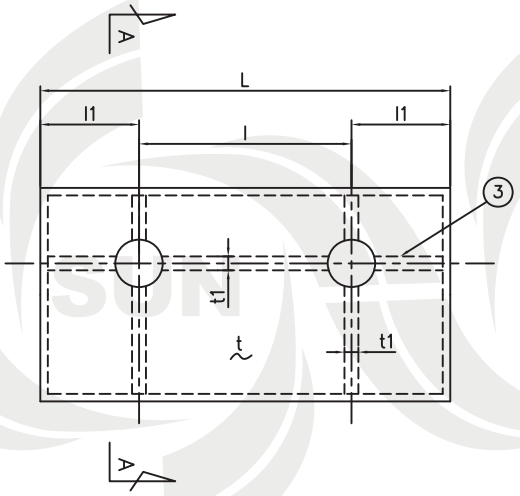
NOMINAL DIA	ROLLER									SEAT	COVER	AXLE & HEX. NUT								
	D	D1	D2	D3	D5	H	H1	H3	S	W1	H2	L	L1	L2	L3	L4	L5	L6	L7	L8
150	150	240	220	140	90	150	20	3	25	9	25	206	40	19	37	41	39	30	17	14
200	200	310	280	190	130	185	24	3	25	10	26	254	49	24	47	51	44	39	19	15
250	250	380	340	250	170	220	29	4	30	10	33	301	58	29	57	58	57	42	21	19
300	300	440	400	300	210	240	30	4	30	12	35	331	61	34	64	63	62	47	23	20
350	350	500	455	350	250	260	33	4	35	13	37	359	65	39	70	67	68	50	25	22
400	400	560	520	410	290	280	36	5	40	14	39	391	67	45	78	70	75	56	28	25

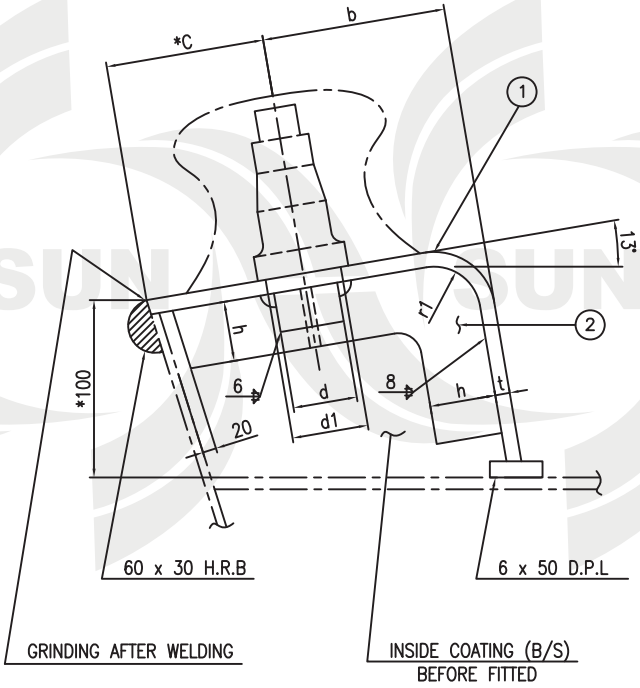
Remark : 1. The name plate shall be specified by purchaser as required.

Bed For A-Type



SECTION A–A





NOTE

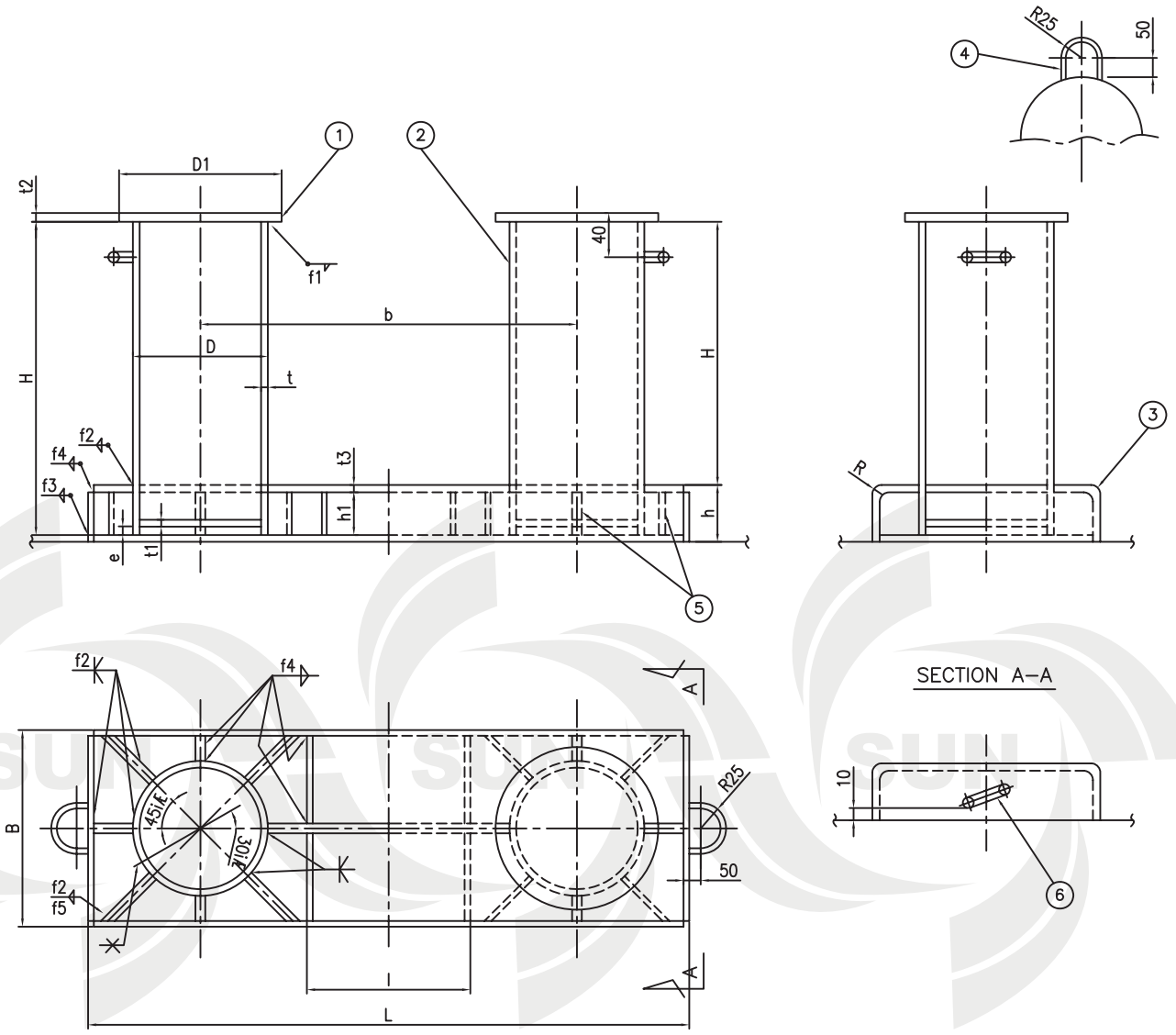
1. DIMENSIONS MARKED WITH * TO BE DETERMINED SUITABLY ACCORDING TO THE SHIP'S SIDE LINE

NOMINAL DIA	BED											OPENING	
	L	l	l1	b	*C	h	t	t1	d	d1	r1	L1	R
150	740	420	160	172	230	70	12	8	60	71	40	1100	140
200	930	530	200	209	250	80	14	10	80	95	40	1400	160
250	1100	640	230	244	300	90	14	10	90	107	40	1500	175
300	1270	750	260	296	350	100	16	14	110	127	60	1650	200
350	1440	860	290	328	370	100	18	14	125	144	60	1850	207
400	1610	970	320	360	405	100	20	16	140	161	60	2000	202

NO.	PARTS	MATERIAL
1	TOP PLATE	STEEL
2	BRACKET	STEEL
3	BRACKET	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Detail of Bollard



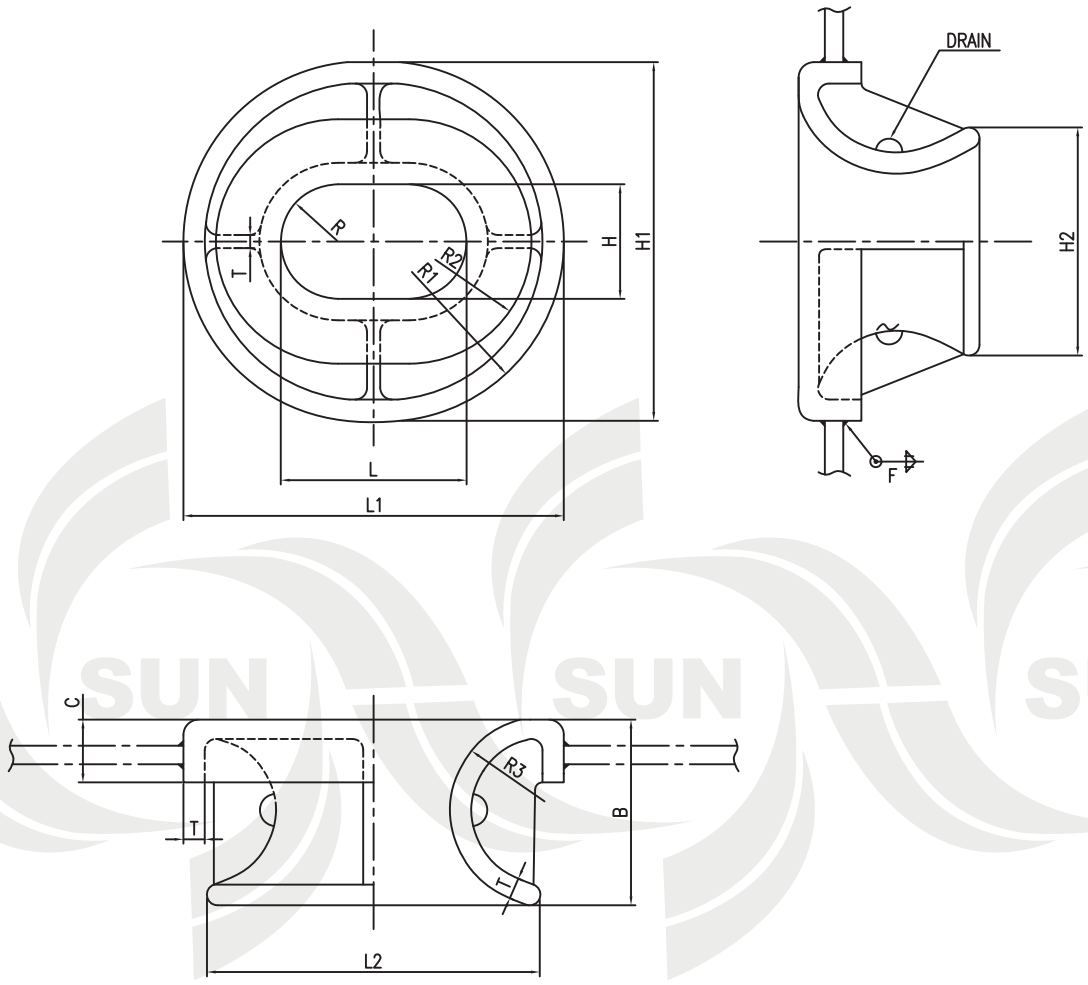
NOMINAL DIA	POST										BED PLATE					
	D	D1	H	H1	t	t1	t2	h1	e	b	B	L	h	t3	l	R
125	139.8	180	296	240	13	6	8	50	6	315	195	540	60	6	70	15
160	165.2	210	366	302	13	6	9	60	8	400	225	670	70	6	145	20
200	216.3	270	450	372	13	8	9	70	8	500	290	860	80	8	160	25
250	267.4	330	542	452	13	10	9	80	8	630	360	1065	100	10	215	30
315	318.5	385	669	552	18	12	9	105	10	800	430	1300	125	12	325	35
355	355.6	425	735	602	20	13	12	120	10	890	480	1475	145	13	360	40

NOMINAL DIA	LEG OF WELD					CALCULATED MASS (kg)	DIA. OF APPLICABLE ROPE (FOR REF.)					
	f1	f2	f3	f4	f5		WIRE ROPE				HEMP ROPE	SYN. FIBER ROPE
							NO2 (6*12)	NO3 (6*24)	NO4 (6*30)	NO5 (6*37)		
125	4	4	4	4	6	49.3	10	9	9	8	24	18
160	4	4	4	4	6	71.3	11.2	10	10	10	28	20
200	4	6	6	6	8	125.4	14	12.5	12.5	12.5	36	26
250	6	6	8	6	10	196.5	18	16	16	14	42	30
315	6	6	10	8	12	293.0	22.4	20	20	20	55	39
355	8	8	10	8	13	438.7	25	22.4	22.4	22.4	65	45

NO.	PARTS	MATERIAL
1	TOP PLATE	STEEL
2	POST	STEEL
3	BED PLATE	STEEL
4	EYE PLATE	STEEL
5	BRACKET	STEEL
6	EYE PLATE (FOR MOORING)	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

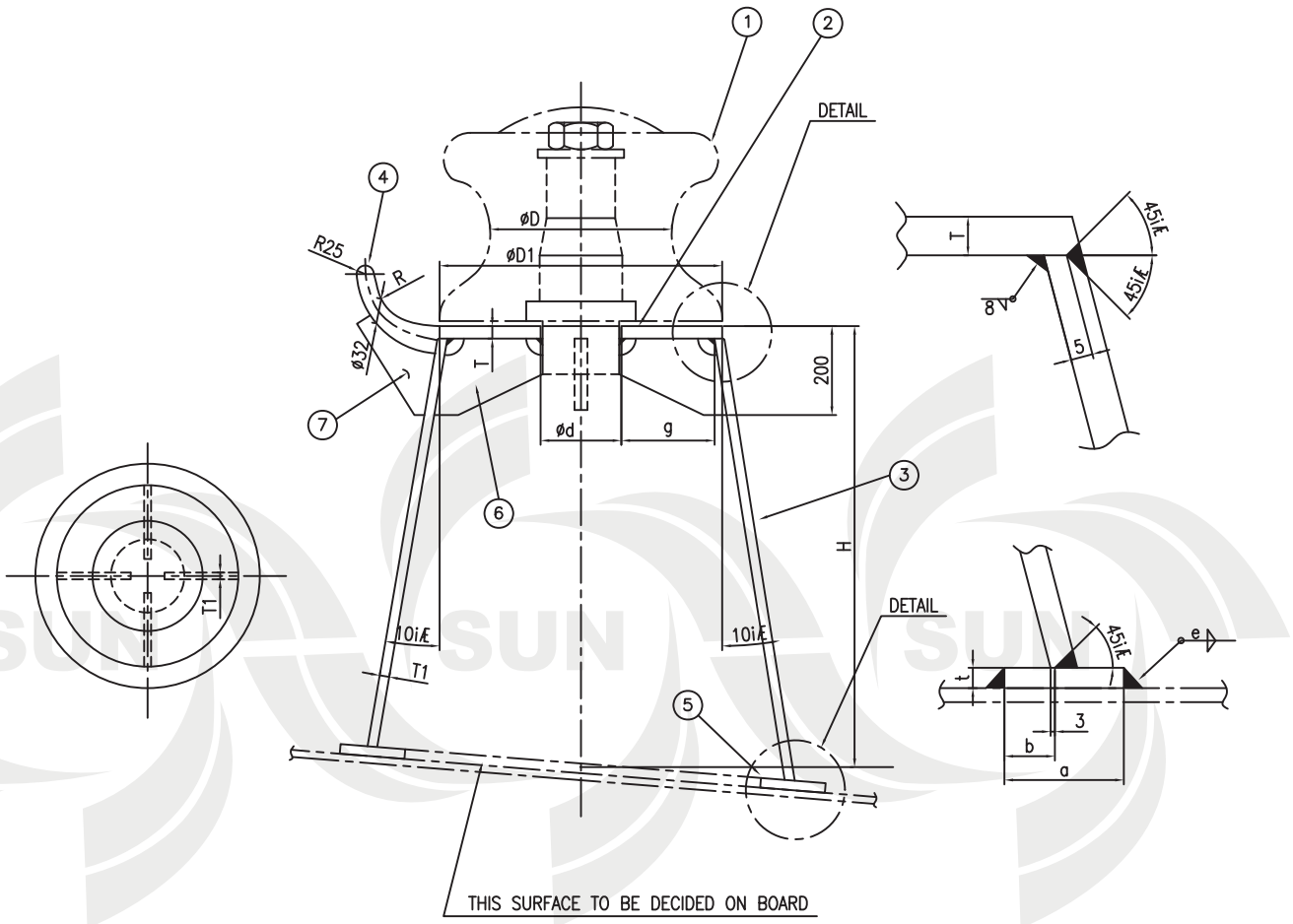
Detail of Mooring Pipe



NOMINAL DIA	L	L1	L2	H	H1	H2	B	C	R	R1	R2	R3	T	NO OF RIB	F	W.T (kg)	APPLICABLE ROPE	
																	WIRE ROPE	MANILA ROPE
150	150	300	270	110	260	202	129	40	55	130	115	65	12	4	5	15.1	16 (6x12)	40
200	200	368	334	150	318	250	143	42	75	159	142	72	12	4	5	20.5	18 (6x12)	45
250	250	430	394	200	380	308	155	44	100	190	172	78	12	4	5	26.9	20 (6x12)	50
300	300	500	460	250	450	372	169	52	125	225	205	85	15	4	6	42.9	22.4 (6x12)	60
350	350	560	518	250	460	378	179	55	125	230	209	90	15	6	6	50.8	24 (6x24)	70
400	400	632	586	250	482	394	195	60	125	244	218	98	18	6	7	76.3	26 (6x24)	80
450	450	700	650	250	500	406	209	62	125	250	225	105	20	6	8	102	30 (6x24)	85
500	500	760	708	250	510	412	219	65	125	255	229	110	20	6	8	115	35.5 (6x24)	90

Remark : 1. The name plate shall be specified by purchaser as required.

Stand Roller Seat



NOTE

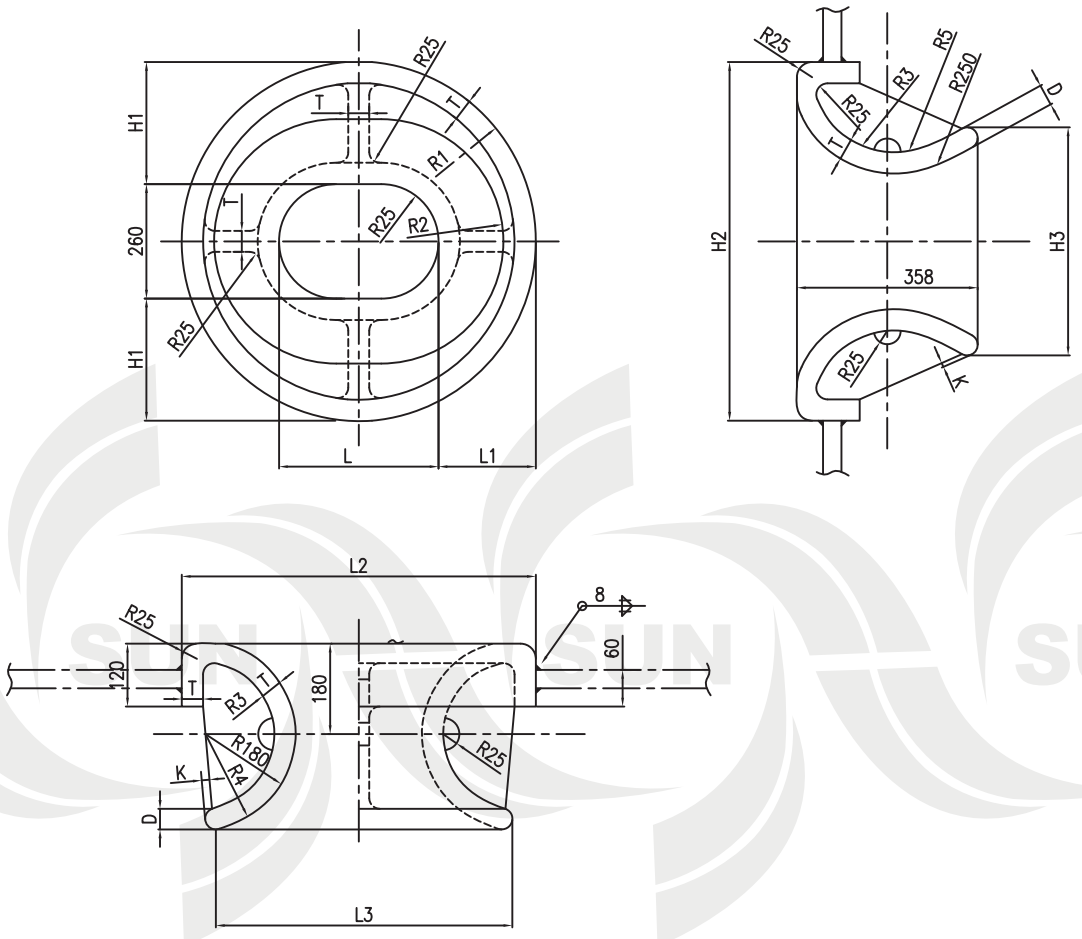
1. HEIGHT(H) : TO BE DECIDED ACCORDING TO PANAMA CHOCK & WINCHES
2. HEIGHT : PRESENTS BED HEIGHT H=600 (ONLY SEAT)

NO. DIA	D	D1	R	T	T1	a	b	d	t	e	f	g	WEIGHT (kg)
150	150	240	90	16	12	100	40	71	12	10	170	72.5	170
300	300	440	120	20	14	110	45	127	14	10	201	142.5	202
350	350	500	130	22	16	130	55	144	36	12	216	162	258
400	400	560	140	22	16	130	55	161	16	12	236	183.5	310

NO.	PARTS	MATERIAL
1	ROLLER	CAST IRON
2	TOP PLATE	STEEL
3	SOCKET	STEEL
4	ROPE GUIDE	STEEL
5	DOUBLE PLATE	STEEL
6	BRACKET	STEEL
7	BRACKET	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

A-Type



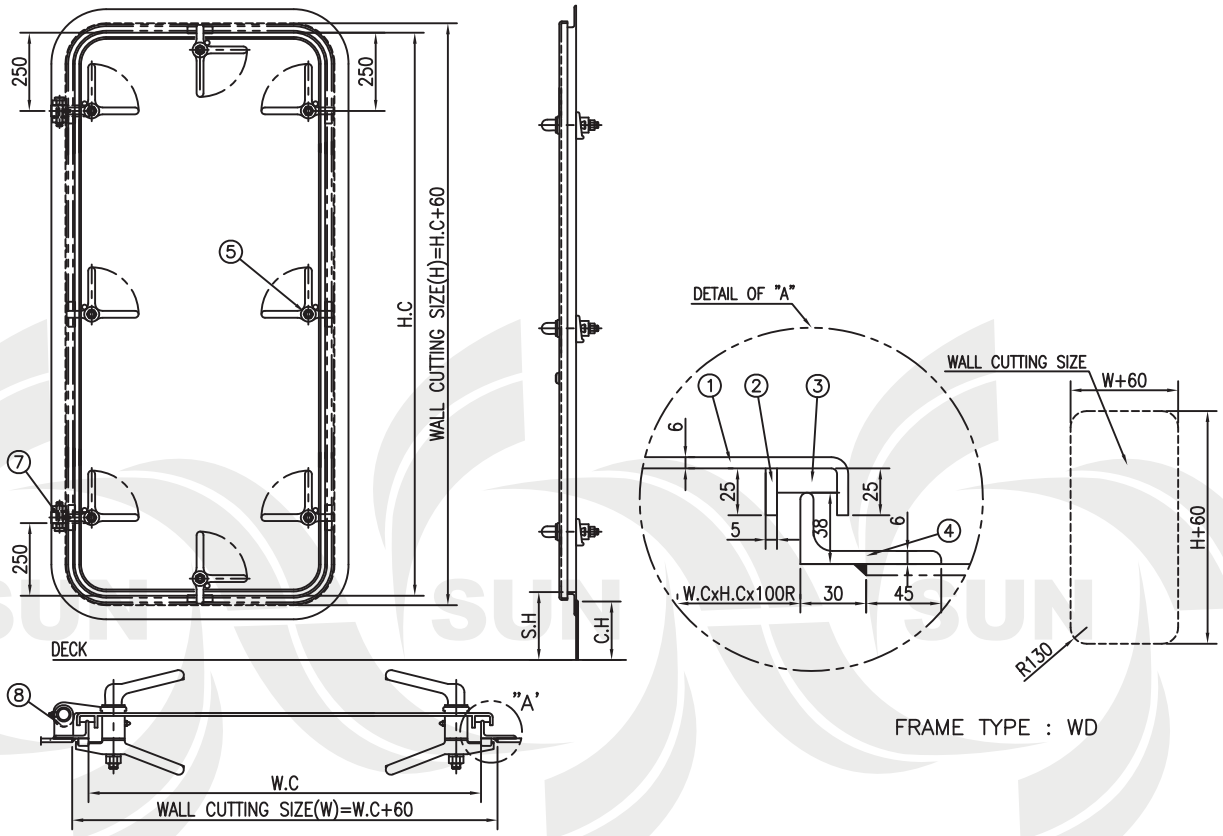
NOTE

1. THE DIMENSION SHALL BE AS SHOWN IN DIMENSIONS TABLE.
2. THE MATERIALS SHALL BE SC42.

NO. DIA	L	L1	L2	L3	D	H1	H2	H3	R1	R2	R3	R4	R5	K	T	W.T(kg)
310	310	212	734	652	38	212	684	462	342	231	148	140	195	15	32	270
350	350	214	778	694	40	214	688	464	344	232	146	138	192	15	34	299
400	400	216	832	750	44	216	692	470	346	235	144	134	185	20	36	344
450	450	218	886	802	46	218	696	474	348	237	142	132	182	20	38	385
500	500	220	940	854	48	220	700	478	350	239	140	130	180	20	40	422

Remark : 1. The name plate shall be specified by purchaser as required.

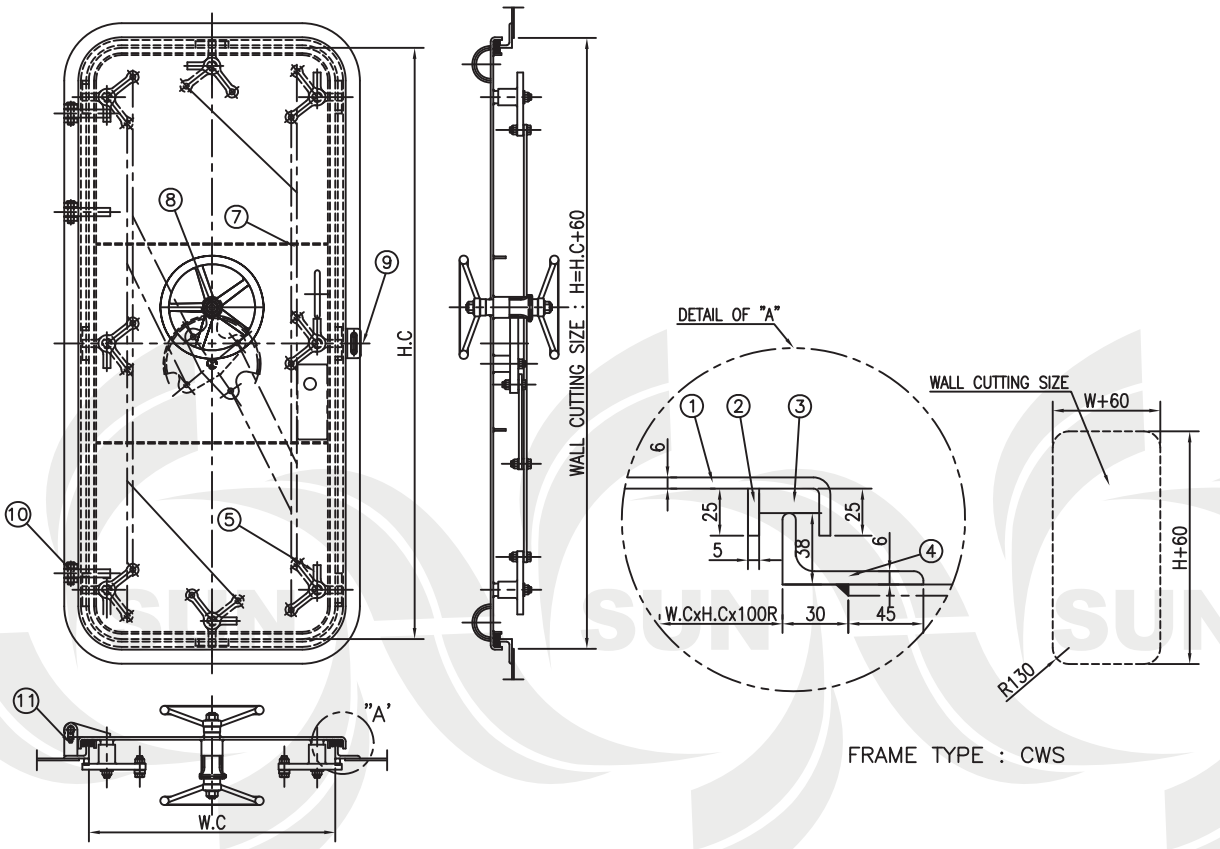
Watertight Door



NO.	PARTS	MATERIAL
1	PANEL PLATE	MILD STEEL
2	PACKING GUIDE	MILD STEEL
3	PACKING	NEOPRENE
4	DOOR FRAME	MILD STEEL
5	DOG ASS'Y	S 45C
6	HASP & EYE	MILD STEEL
7	HINGE PART ASS'Y	MILD STEEL
8	GREASE NIPPLE	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

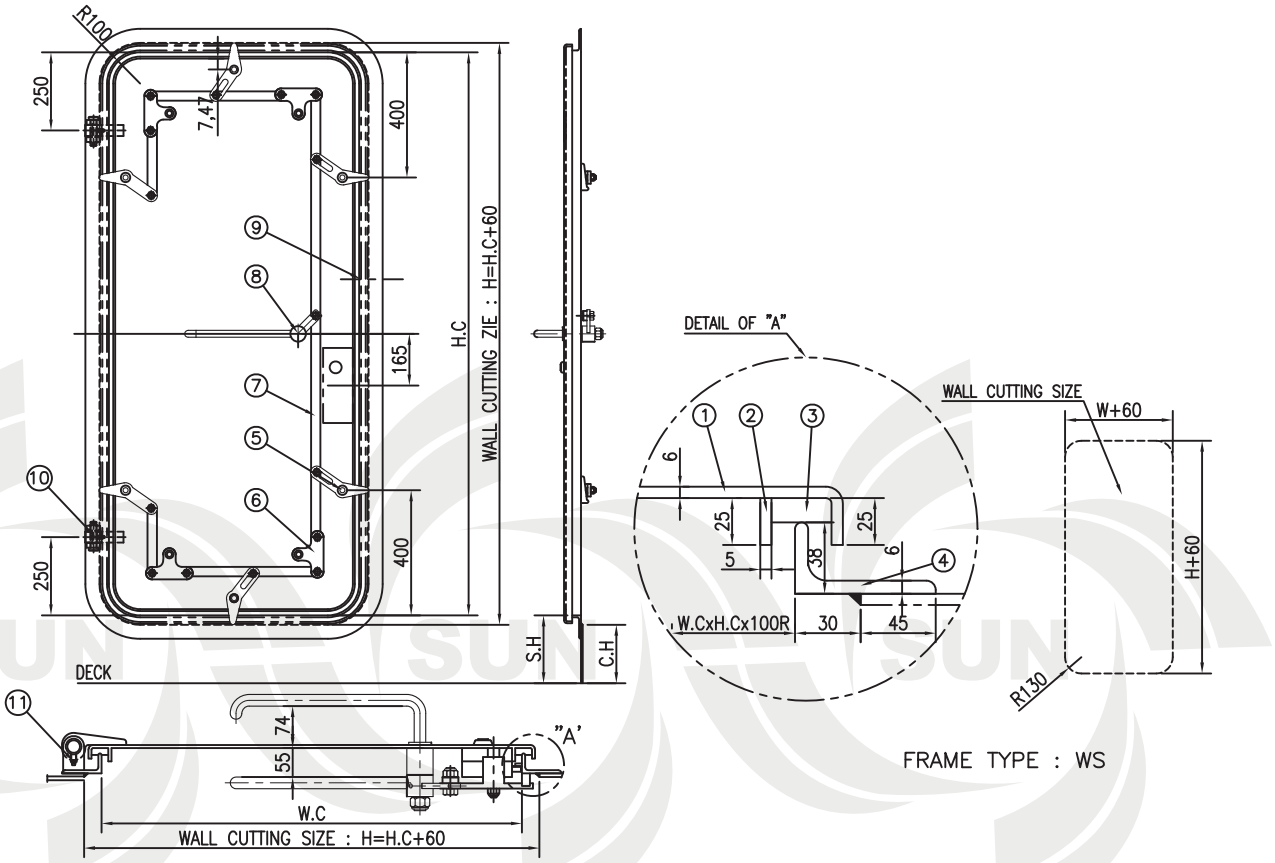
Watertight Door(Handwheel Type)



NO.	PARTS	MATERIAL
1	PANEL PLATE	MILD STEEL
2	PACKING GUIDE	MILD STEEL
3	PACKING	NEOPRENE
4	DOOR FRAME	MILD STEEL
5	DOG ASS'Y	S 45C
6	BELL CRANK	MILD STEEL
7	CONNECTION ROD	MILD STEEL
8	OPERAT'G PART ASS'Y	MILD STEEL
9	HASP & EYE	MILD STEEL
10	HINGE PART ASS'Y	MILD STEEL
11	GREASE NIPPLE	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

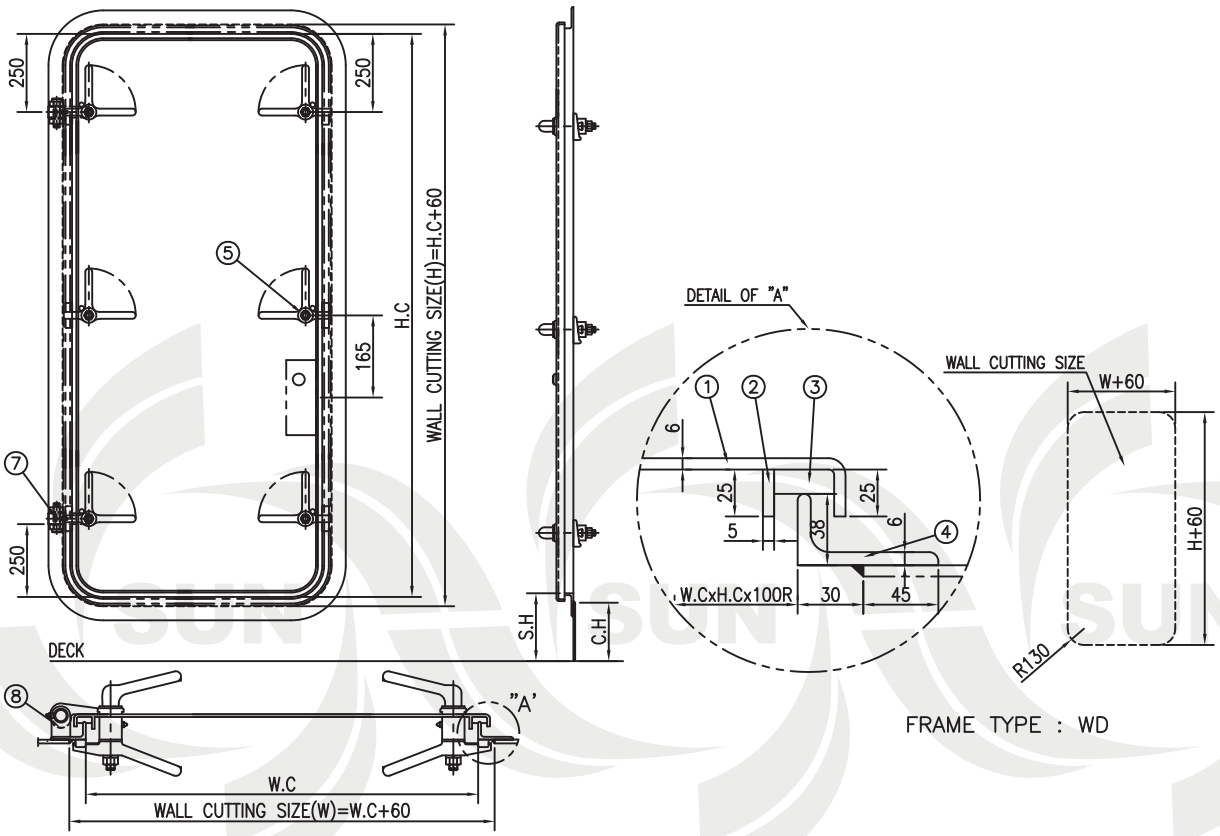
Weathertight Steel Door(Lever Type)



NO.	PARTS	MATERIAL
1	PANEL PLATE	MILD STEEL
2	PACKING GUIDE	MILD STEEL
3	PACKING	NEOPRENE
4	DOOR FRAME	MILD STEEL
5	DOG ASS'Y	STAINLESS STEEL
6	BELL CRANK	STAINLESS STEEL
7	CONNECTION ROD	STAINLESS STEEL
8	OPERAT'G PART ASS'Y	STAINLESS STEEL
9	HASP & EYE	MILD STEEL
10	HINGE PART ASS'Y	MILD STEEL
11	GREASE NIPPLE	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

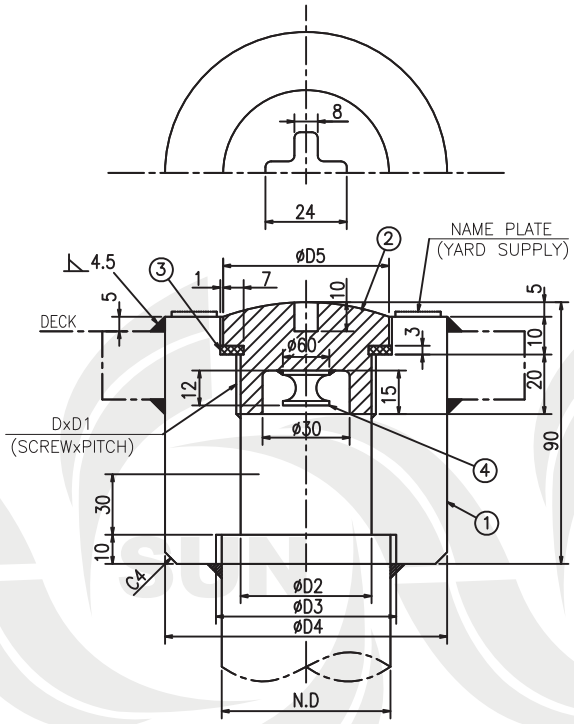
Weathertight Steel Door(Dog Type)



NO.	PARTS	MATERIAL
1	PANEL PLATE	MILD STEEL
2	PACKING GUIDE	MILD STEEL
3	PACKING	NEOPRENE
4	DOOR FRAME	MILD STEEL
5	DOG ASS'Y	S 45C
6	HASP & EYE	MILD STEEL
7	HINGE PART ASS'Y	MILD STEEL
8	GREASE NIPPLE	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

Deck Flush Type Hopper



DIMENSION

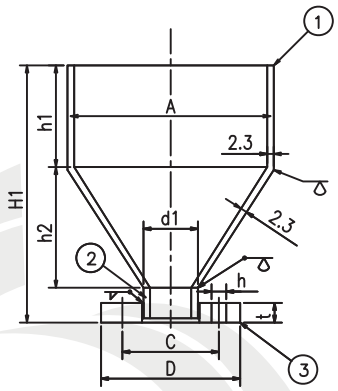
NO.	N.D	PIPE O.D	D X D1	D2	D2	D2	D2	WEIGHT/kg	QTY	REMARK	MCC
1	40A	4.86	M42X3	38	50	90	50	4.02			S
2	50A	60.5	M50X3	45	62	100	60	4.15			S
3	65A	76.3	M58X3	62	78	112	72	5.59			S
4	80A	89.1	M80X3	76	91	130	94	7.46			S

NO.	PARTS	MATERIAL
1	BODY	STEEL (GALV'D)
2	CAP	BRONZE
3	PACKING	NEOPRENE RUBBER
4	SEAT WITH CHAIN	STAINLESS STEEL

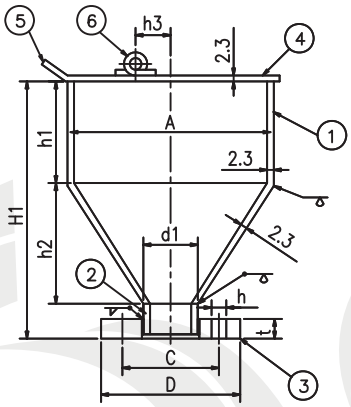
Remark : 1. The name plate shall be specified by purchaser as required.

Hopper

B–TYPE



D–TYPE

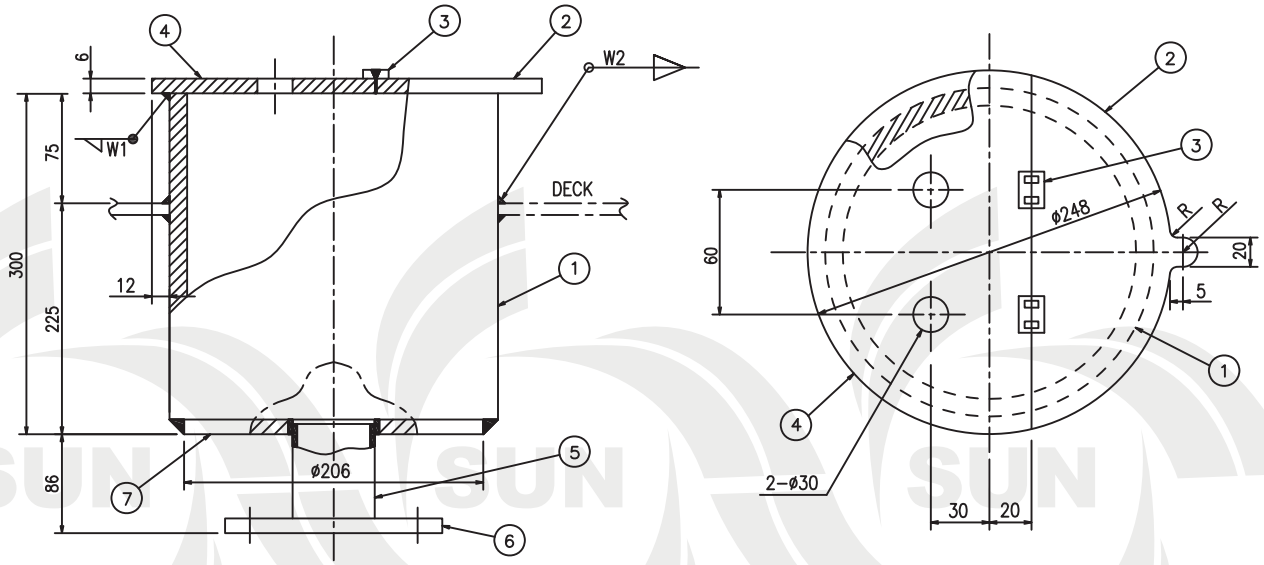


NO.	d1	BODY						D	FLANGE					WEIGHT(KG)	
		A	h1	h2	H	h3	H1		BOLT HOLES C	BOLT HOLES NO.	BOLT HOLES h	N.D OF BOLT	t	B TYPE	B TYPE
15	21.7	100	50	60	110	14	135	80	60	4	12	M10	9	0.84	1.02
20	27.2	100	50	60	110	14	135	85	65	4	12	M10	10	0.93	1.11
25	34.0	100	50	60	110	14	135	95	75	4	12	M10	10	1.04	1.22
32	42.7	115	50	65	115	16	145	115	90	4	15	M12	12	1.52	1.77
40	48.6	140	65	80	145	18	175	120	95	4	15	M12	12	1.94	2.28
50	60.5	165	75	90	165	22	200	130	105	4	15	M12	14	2.60	3.06
65	76.3	190	85	100	185	25	220	155	130	4	15	M16	14	3.51	4.10
80	89.1	215	95	110	205	28	245	180	145	4	19	M16	14	4.56	5.31
100	114.3	265	120	130	250	35	300	200	165	8	19	M16	16	6.34	7.44
125	139.8	320	140	150	290	45	350	235	200	8	19	M16	16	8.88	10.5

NO.	PARTS	MATERIAL
1	BODY	STEEL
2	PIPE	SGP(SPP)
3	FLANGE	STEEL
4	COVER	STEEL
5	COVER	STEEL
6	HINGE	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

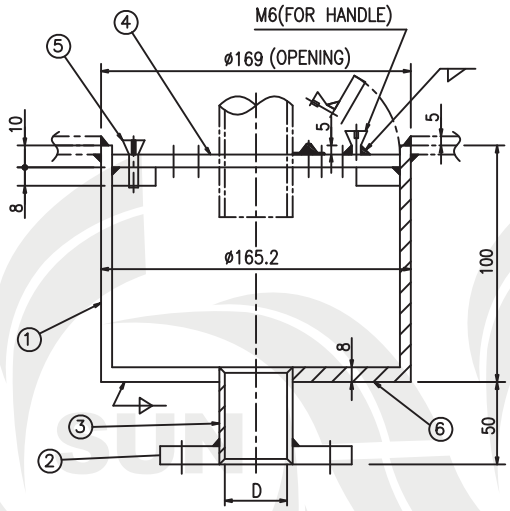
Drain Hopper for Air Receiver

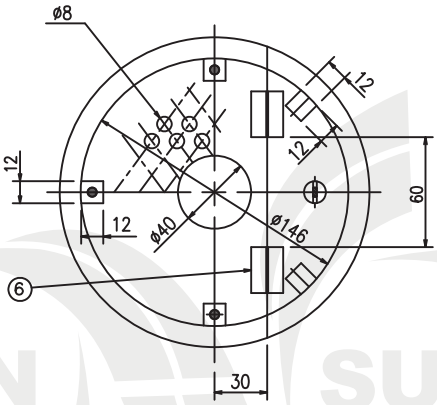


NO.	PARTS	MATERIAL
1	PIPE	STPG370
2	HINGED COVER	STEEL
3	HINGE(WELDING TYPE)	STEEL
4	WELDED COVER	STEEL
5	PIPE	STPG370
6	FLANGE	STEEL
7	PLATE	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Drain Hopper for Hull Tank



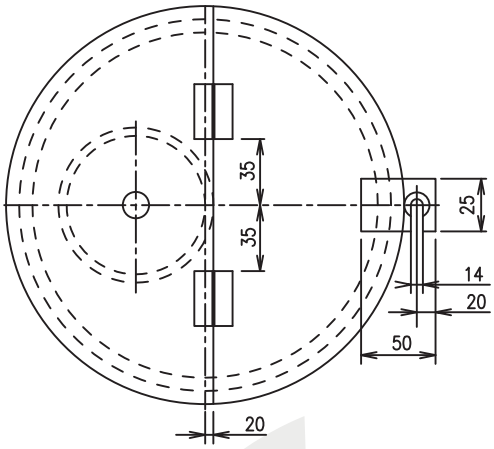


NO.	PARTS	MATERIAL
1	BODY(PIPE)	STPG370
2	FLANGE	STEEL
3	PIPE	STPG370
4	ROSE PLATE	STEEL
5	MACHINE SCREW	BRASS
6	HINGE	STAINLESS STEEL

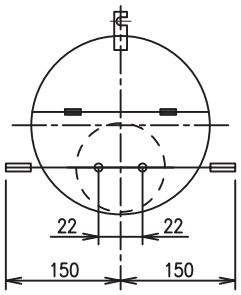
Remark : 1. The name plate shall be specified by purchaser as required.

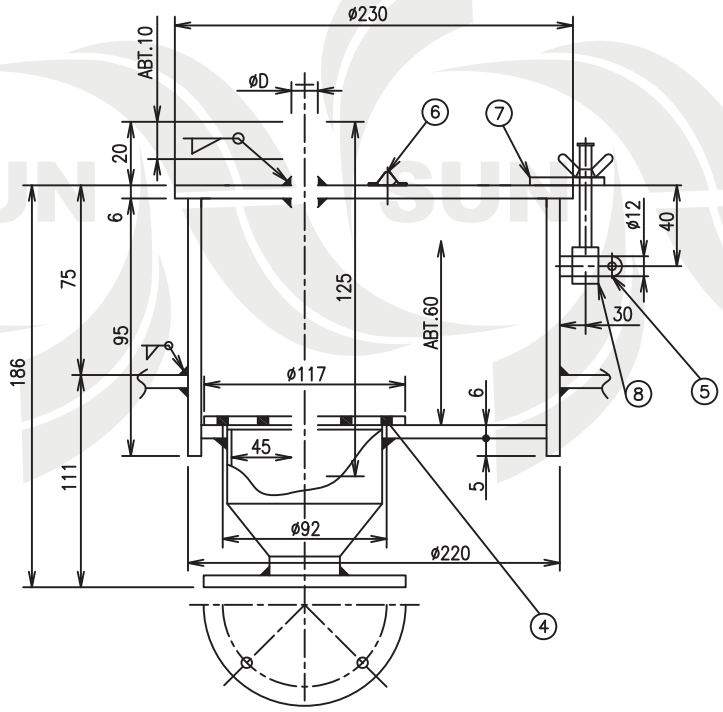
Hopper for Comp.Air(A,B-Type)

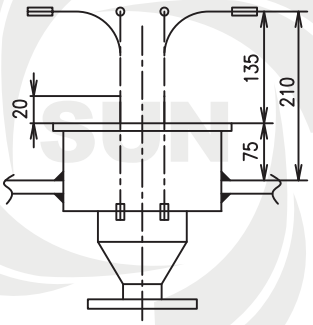
A – TYPE



B – TYPE







PAINT CODE
내면 : H.GALV'G
외면 : MI1G

NO.	PARTS	MATERIAL
1	BODY	SPP(PAINT'G)
2	REDUCER	SPP
3	FLANGE	STEEL
4	EXPANDED METAL	STEEL(PAINT'G)
5	SPLIT PIN	SWRM
6	HINGE	STAINLESS STEEL
7	EYE PLATE	STEEL(PAINT'G)
8	BOLT & B/F NUT	BRASS

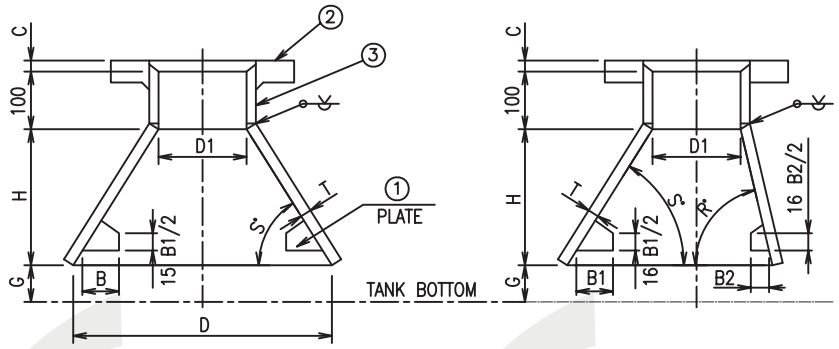
NOTE
PIPING 작업후, SPONGE 삽입할것

Remark : 1. The name plate shall be specified by purchaser as required.

AF,BF-Type

AF – TYPE (50A–15A)

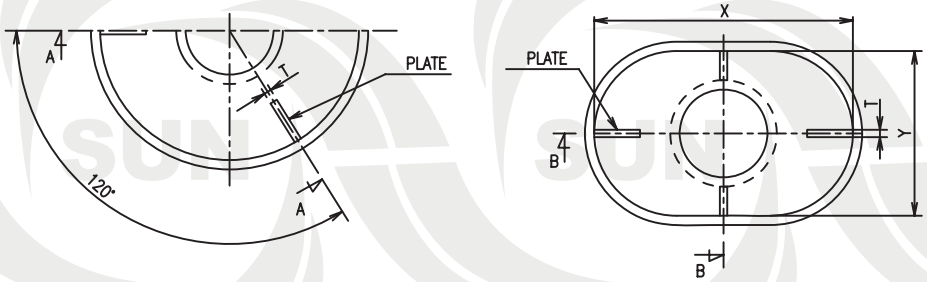
BF – TYPE (200A–600A)



REF. STANDARD	
1	STEEL PLATE
2	DSE–P5301S
3	DSE–P5003S

SEC. A –A

SEC. B–B



MATERIAL : STEEL

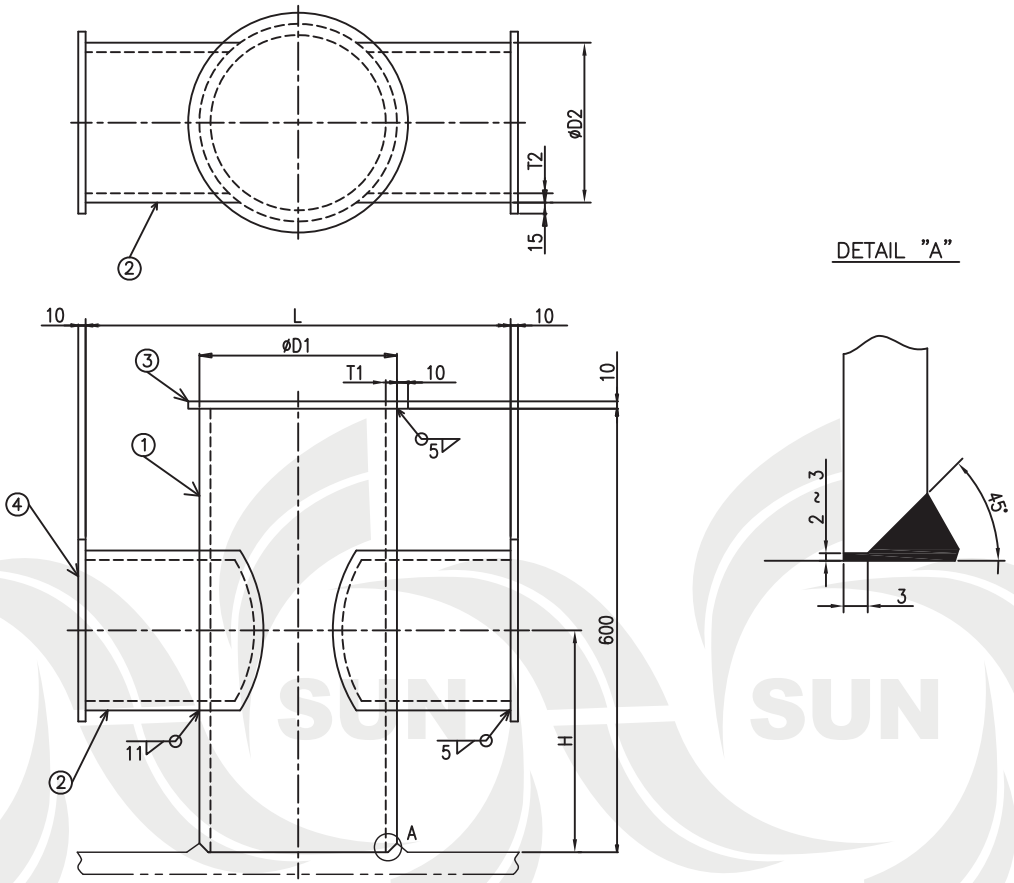
NOTE
TO BE GALVANIZED WHEN FITYED ON GALVANIZED PIPES.
① AF–TYPE PLATE SHALL BE PROVIDED FOR 100A AND ABOVE.

UNIT : mm

N.D	PIPE O.D	BODY												C	PLATE Q'TY	SUCTION AREA RATIO	WEIGHT (kg)	REMARK
		D1	D	H	X	Y	G	B	B1	B2	T	S°	R°					
50A	60.5	51.5	110	35			13				4.6	50°		3	3	2.28	2.0	
65A	76.3	67.3	160	55			15				4.6	50°		3	3	2.27	2.8	
80A	89.1	77.1	220	65			15				6	50°		4	3	2.06	4.8	
90A	101.8	89.6	256	100			20				6	50°		4	3	2.10	6.2	
100A	114.3	102.3	275	103			20	25			6	50°		4	3	2.20	6.7	
125A	139.8	127.8	400	163			20	35			6	50°		5	3	2.04	12.2	
150A	165.2	153.2	450	173			25	45			8	50°		6	3	2.00	18.6	
200A	216.3	196.3		213	532	376	35		100	50	10	52°	69°	6	4	1.67	25.1	
250A	267.4	247.4		253	646	455	55		130	50	10	52°	69°	7	4	2.05	33.4	
300A	318.5	298.5		293	760	538	65		160	85	10	52°	69°	7	4	1.99	45.3	
350A	355.6	331.6		346	876	614	65		160	85	12	52°	69°	8	4	1.83	72.0	
400A	406.4	382.4		386	990	695	75		160	85	12	52°	69°	9	4	1.82	92.0	
450A	457.2	433.2		428	1036	606	85		160	85	12	55°	80°	10	4	1.63	102.7	
500A	508.0	484		468	1142	670	100		190	100	12	55°	80°	10	4	1.70	123.7	
550A	558.8	534.8		518	1263	740	110		190	100	12	55°	80°	10	4	1.71	150.4	
600A	609.6	585		568	1384	808	120		190	100	12	55°	80°	10	4	1.71	180.7	

Remark : 1. The name plate shall be specified by purchaser as required.

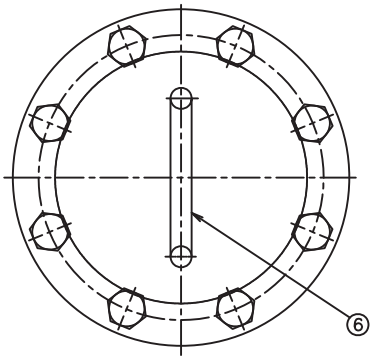
Cruciform Bollard



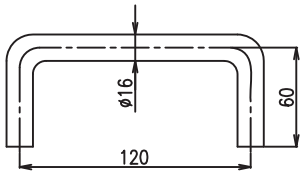
NOMINAL SIZE	MAT'L SYMBOL	L	D1	D2	T1	T2	H	S.W.L (TON)	WEIGHT (KG)	APPLICABLE RANGE (SHIP'S DWT)	SHIP TONNAGE CATEGORY	REMARK
250	P	575	267.4	216.3	15.1	12.7	300	25	92	16,000 TO 160,000	A – C	
	S	575	270	220	14	12	300	25	88			
300	P	625	318.5	267.4	17.4	15.1	300	40	130	OVER 160,000	D	
	S	625	320	270	16	14	300	40	120			
350	P	720	355.6	267.4	19	15.1	300	50	155	FOR PANAMA CANAL BITT		
	S	720	360	270	17	14	300	50	144			
400	P	720	406.4	267.4	21.4	15.1	300	75	182	FOR TUG ON CONTAINER SHIP		
	S	720	410	270	20	14	300	75	173			

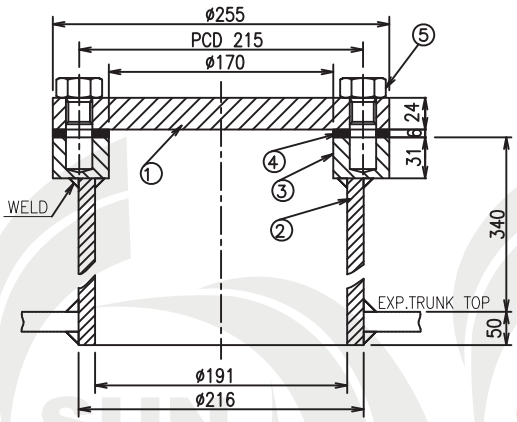
Remark : 1. The name plate shall be specified by purchaser as required.

Fixed Tanker Cleaning Hatch/Portable Tanker Cleaning Hatch

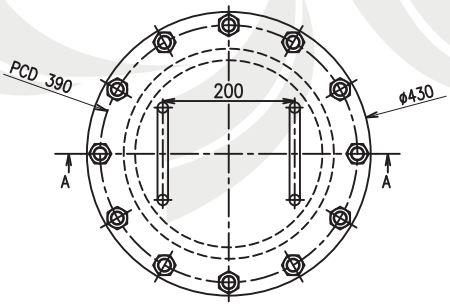


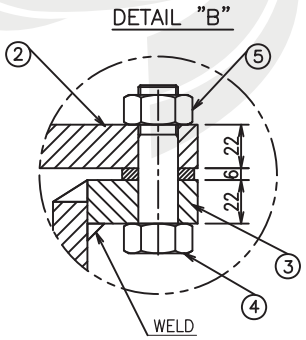
⑥ DETAIL OF HANDLE GRIP



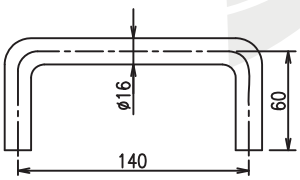


NO.	PARTS	MATERIAL
1		
2		
3		

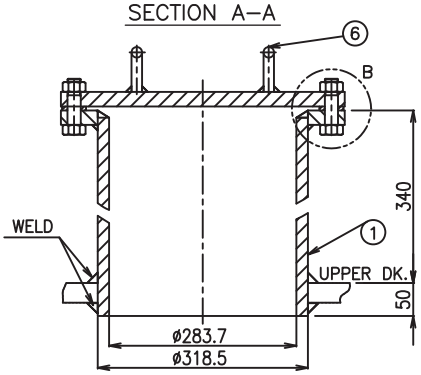




⑥ DETAIL OF HANDLE GRIP



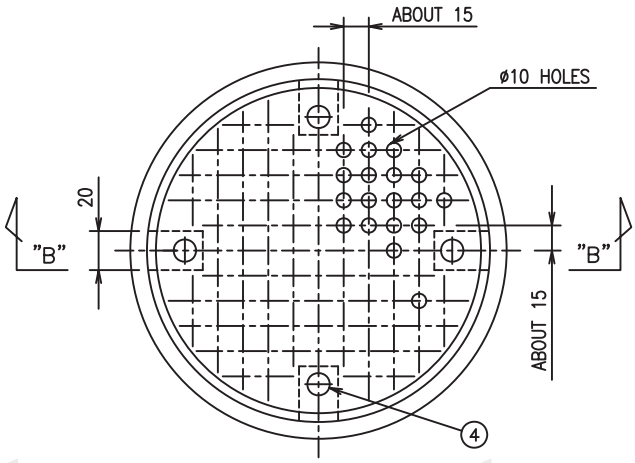
SECTION A–A

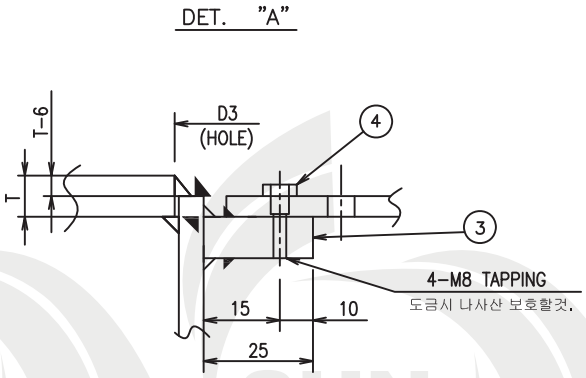


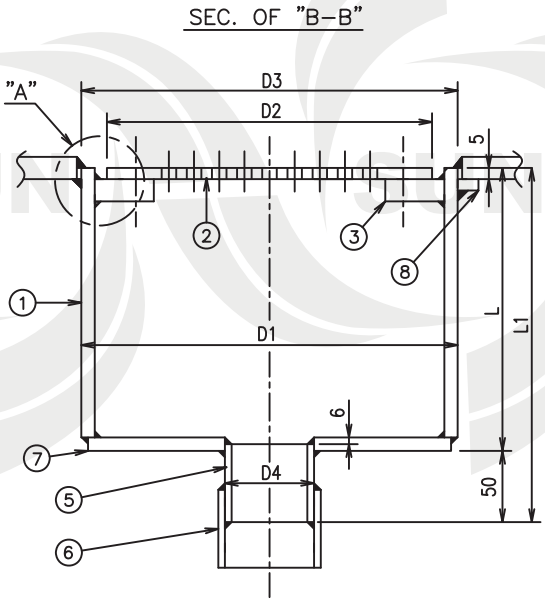
NO.	PARTS	MATERIAL
1	BODY	STEEL
2	FLANGE	STEEL
3	PLATE	STEEL
4	BOLT	STEEL
5	NUT	STEEL
6	HANDLE	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Miscellaneous





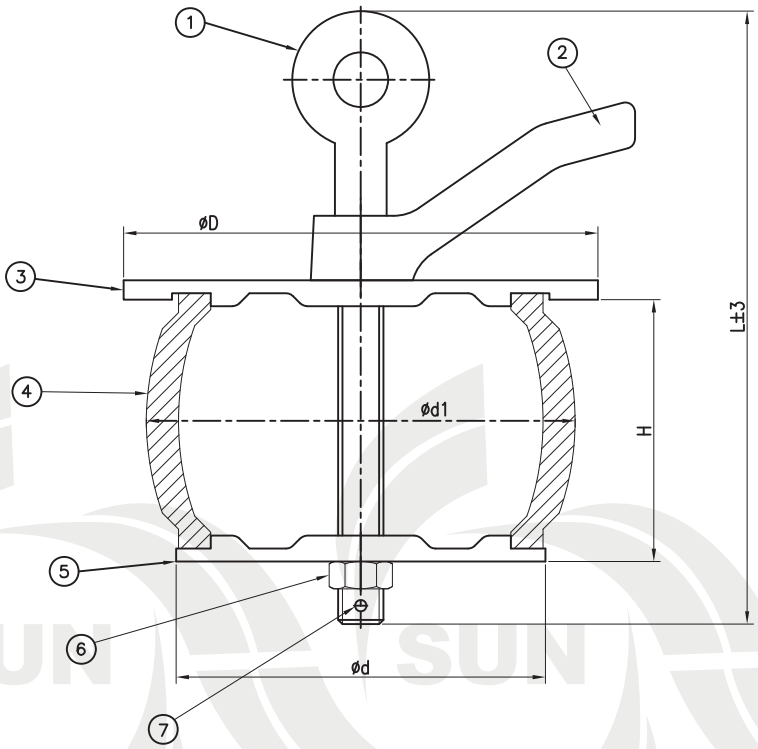


N.D	D1	D2	D3	D4(PIPE OUT DIA)		D5(SL.OUT DIA)		L	TOTAL WEIGHT	REMARK
				50A	60A	50A	60A			
250A	267.4	238	273	60.5	76.3	76.3	95.2	250	28.06	
300A	318.5	289	322					300	36.58	
350A	355.6	326	362					350	51.69	

NO.	PARTS	MATERIAL
1	BILGE HAT BODY	STPG370-E
2	ROSE PLATE	STEEL
3	SUPPORT PIECE	STEEL
4	HEX. BOLT	STAINLESS STEEL
5	SUCTION PIPE	STPG-E #80
6	SLEEVE	STEEL
7	STEEL PLATE	STEEL
8	STOPPER	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Mechanical Type Rubber Plug for Scupper



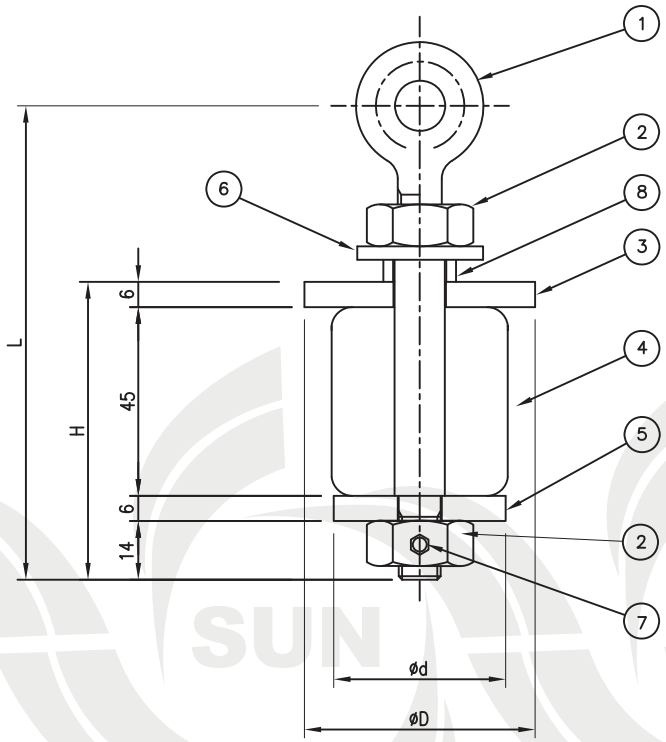
DIMENSION UNIT : mm

N.D \ THK. \ DIM.		D	d	d1	L	H	REMARK
80A	SCH. 80	100	65	70	190	72	
	SCH. 160		60	65	190	72	
100A	SCH. 80	125	90	95	190	72	
	SCH. 160		80	85	190	72	
125A	SCH. 80	150	115	120	190	72	
	SCH. 160		100	105	190	72	
150A	SCH. 80	175	135	140	190	72	
	SCH. 160		120	125	190	72	

NO.	PARTS	MATERIAL
1	EYE BOLT	BRONZE
2	HANDLE	BRONZE
3	UPPER PLATE	BRONZE
4	PACKING	NEOPRENE
5	LOWER PLATE	BRONZE
6	NUT	BRASS
7	SPLIT PIN	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

Mechanical Type Rubber Plug for Scupper(A-Type)



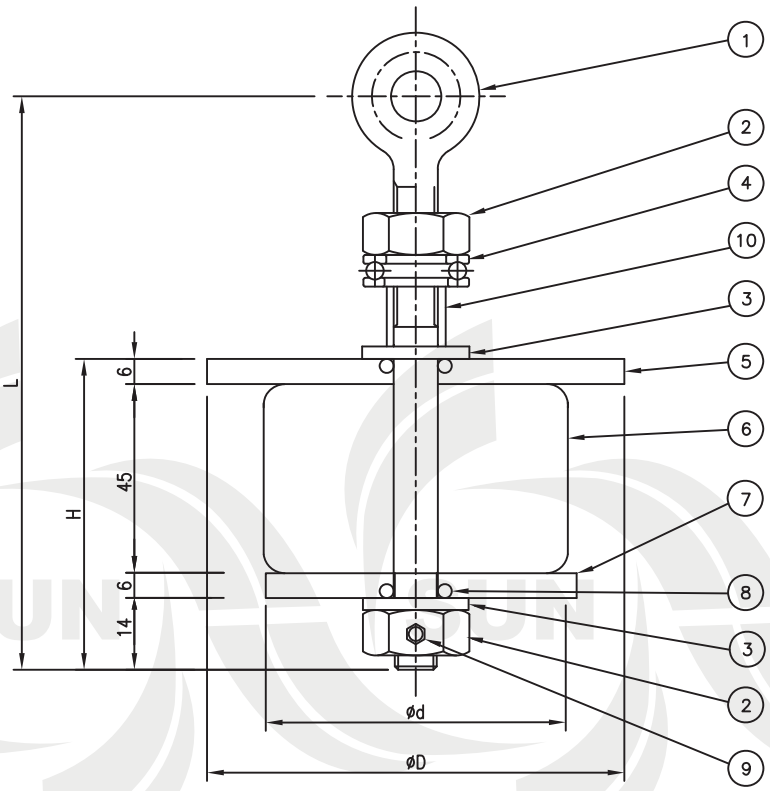
DIMENSION UNIT : mm

N.D	ød	øD	L	H	REMARK
25A	24	35	113	86	
32A	32	43	113	86	
40A	37	49	113	86	
50A	48	61	113	86	
65A	61	77	113	86	
80A	72	90	113	86	
100A	96	115	113	86	
125A	118	140	148	86	
150A	140	166	148	86	

NO.	PARTS	MATERIAL
1	EYE BOLT	STEEL
2	NUT	STAINLESS STEEL
3	TOP PLATE	STEEL
4	RUBBER BALL	NBR
5	BASE PLATE	STEEL
6	WASHER	STAINLESS STEEL
7	SET SCREW	STAINLESS STEEL
8	PIPE	STBG

Remark : 1. The name plate shall be specified by purchaser as required.

Mechanical Type Rubber Plug for Scupper(B-Type)



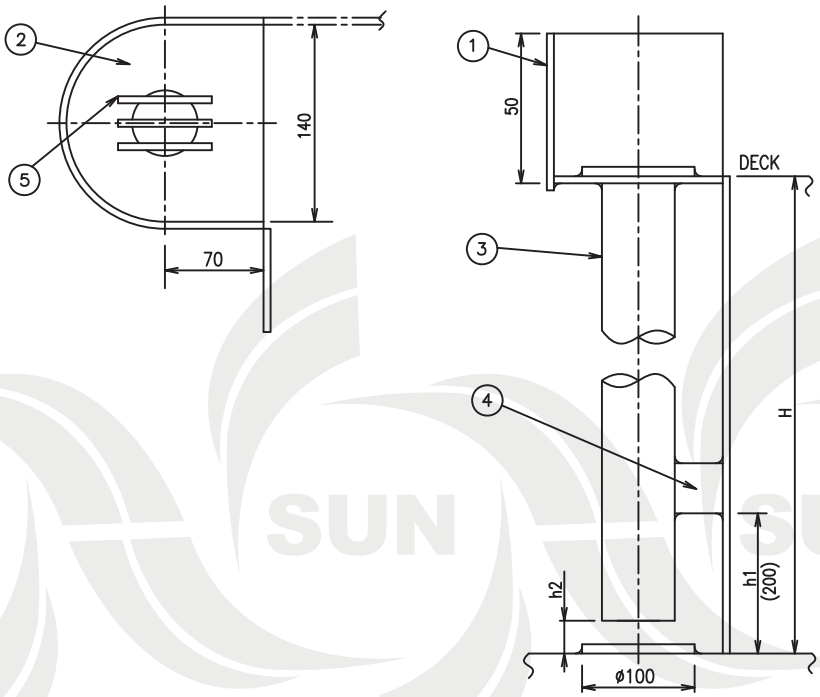
DIMENSION UNIT : mm

N.D	ød	øD	L	H	REMARK
125A	118	140	148	86	
150A	140	166	148	86	

NO.	PARTS	MATERIAL
1	EYE BOLT	STEEL
2	NUT	STAINLESS STEEL
3	WASHER	STAINLESS STEEL
4	THRUST BEARING	KBC
5	TOP PLATE	HDPE
6	RUBBER BALL	EPDM
7	BASE PLATE	HDPE
8	O-RING	NBR
9	SET SCREW	STAINLESS STEEL
10	SUPPORT PIPE	STBG

Remark : 1. The name plate shall be specified by purchaser as required.

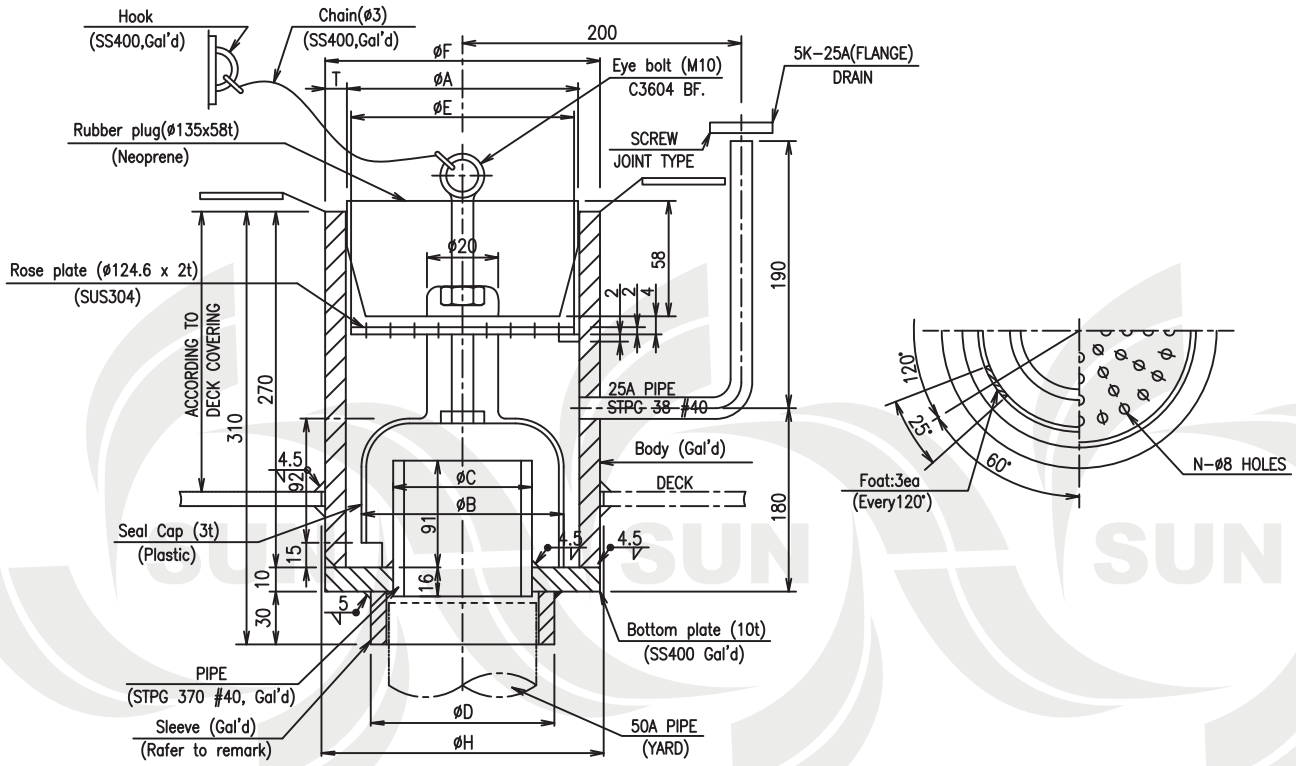
Weather Deck Type



NO.	PARTS	MATERIAL
1	COAM`G	STEEL
2	PAN PL	STEEL
3	PIPE	STPG
4	SUPPORT	STEEL
5	R.BAR	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Cold Chamber



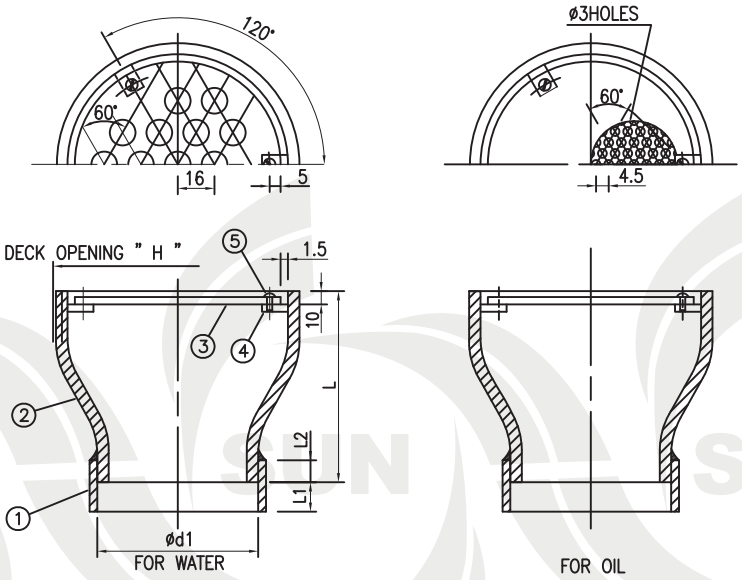
1. SCOPE : THIS STANDARD SPECIFY SCUPPER DS-6
2. APPLICATION
   COLD PROVIISION CHAMBER (WITH DRAIN OF UNIT COOLER
3. ALL STEEL PART TO BE GALVANIZED

(UNIT : mm)

TYPE	A	B	C	D	E	F	H	T	N	REMARK
DS6-50	126.6	82.5	60.5	76.3	95.1	139.8	143	8.6	36	STPG 370 #40
DS6-65	126.6	123.2	76.3	89.1	141.2	139.8	143	11.0	80	STPG 370 #40

Remark : 1. The name plate shall be specified by purchaser as required.

Water & Oil Type

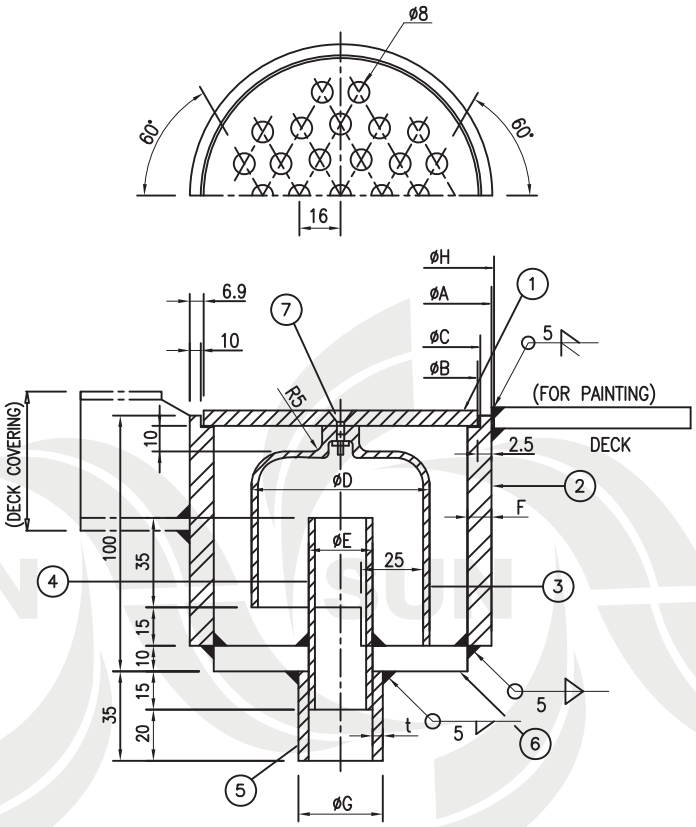


SIZE	REDUCER	L	d1	SLEEVE T	SLEEVE Sch NO.	L1	L2	ø	"H"
25	50X25	76.2	34.4	7.1	160	20	25	10	62
32	65X32	88.9	43.1	8.7	160	20	25	10	78
40	80X40	88.9	49.5	5.5	80	20	25	10	91
50	100X50	101.6	62.3	7.0	80	20	25	10	116
65	125X65	127.0	78.1	5.5	40	20	25	12	142
80	150X80	139.7	92.1	11.1	120	25	35	12	168
100	150X100	139.7	120.8	9.5	80	25	35	12	168
125	200X125	152.4	143.2	11.0	80	25	35	12	219

NO.	PARTS	MATERIAL
1	SLEEVE	STPG
2	REDUCER	STPG
3	ROSE PLATE	BRASS / STAINLESS STEEL
4	STOPPER	STEEL
5	ROUND HEAD SCREW	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

Accommodation Type



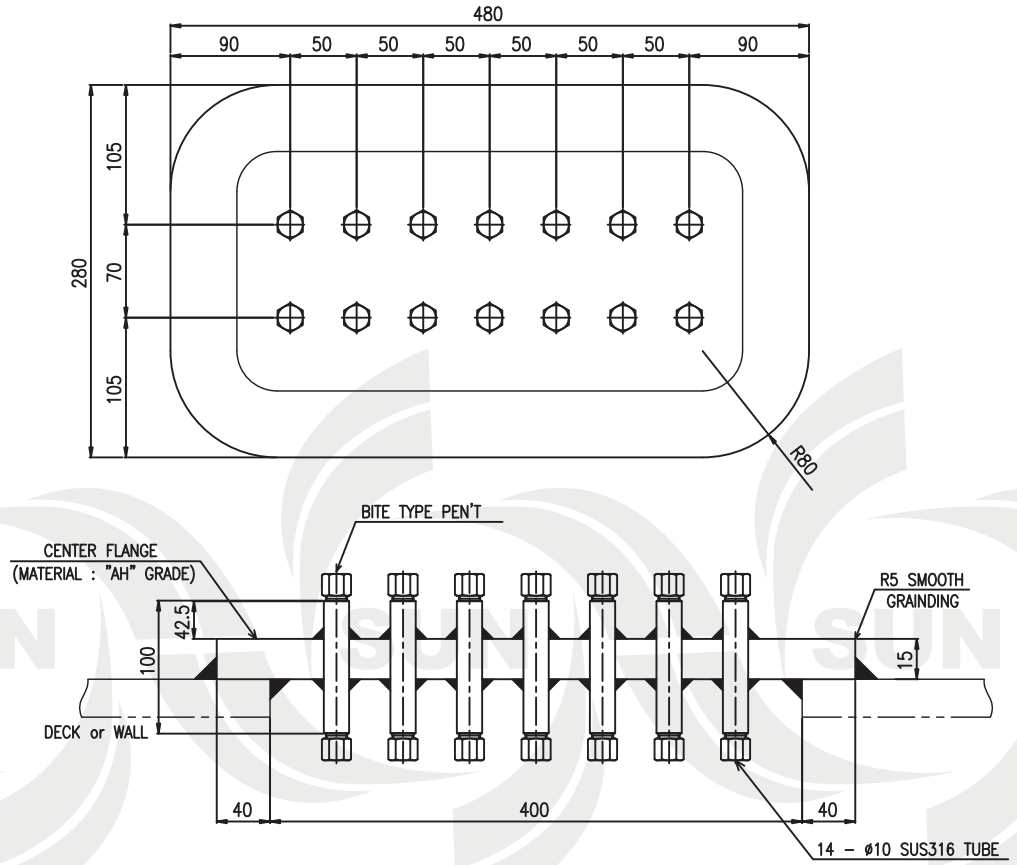
(UNIT : mm)

SIZE	A	B	C	D	E	F	G	H	t
40A	114.4	101	103	76	48.6	8.6	65.5	116	5.5
50A	139.8	126	128	88.5	60.5	9.5	76.3	142	7
65A	165.2	150	152	114	76.3	11	89.1	168	7.6
80A	216.3	198	200	140	89.1	12.7	108.2	219	8.6

NO.	PARTS	MATERIAL
1	ROSE PLATE	STAINLESS STEEL
2	BODY	STPG
3	SEAL CAP	PLASTIC
4	PIPE	STPG
5	SLEEVE	STPG
6	BOTTOM PLATE	STEEL
7	C/S MACHINE SCREW	STAINLESS STEEL

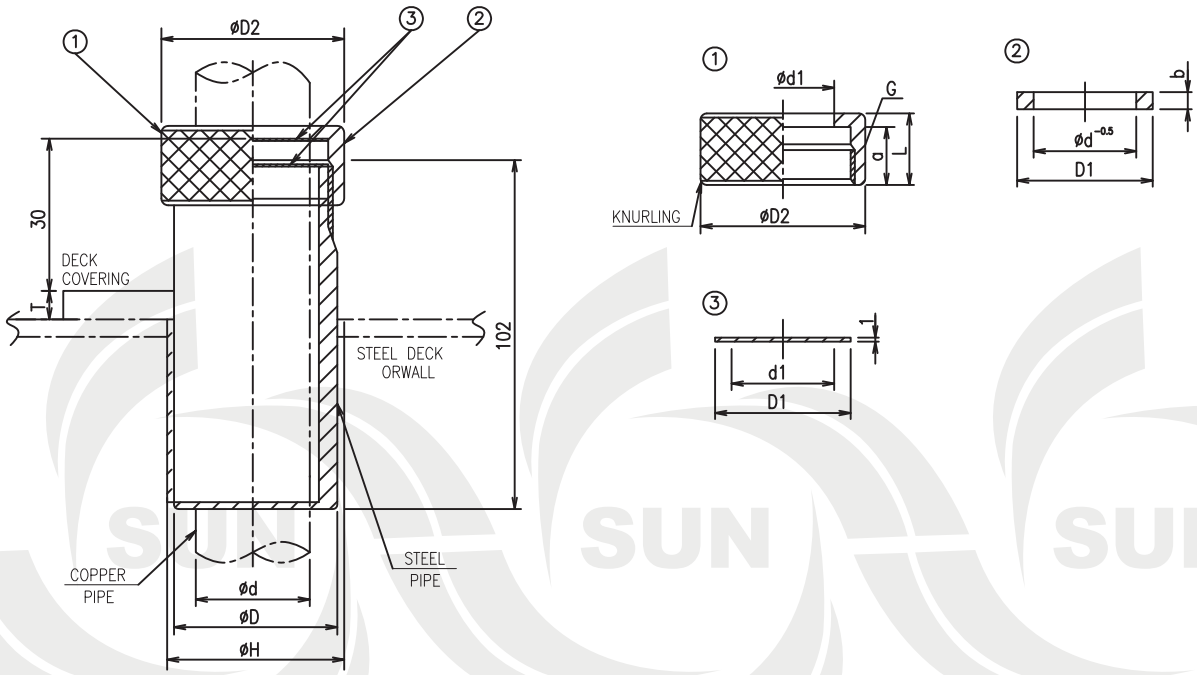
Remark : 1. The name plate shall be specified by purchaser as required.

Penetration with Center Flange



NO.	PARTS	MATERIAL
1	PLATE	STEEL / STAINLESS STEEL
2	PEN PIECE	STEEL / STAINLESS STEEL

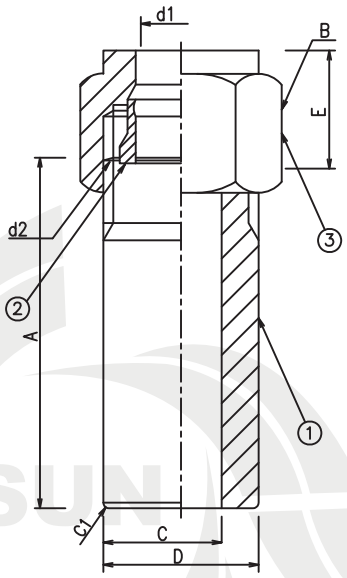
PA-Type



QT'T	d	d1 +0.3	D	D1	D2	G (PF)	H	t	L	a	b	BODY
C-10	10	11	21.7	18	26	1/2	23	4.7	20	16.5	4	STS35,#160
C-15	15	16	27.2	23	32	3/4	30	5.5	20	16.5	4	STS35,#160
C-20	20	21	34.0	29	40	1	36	6.4	20	16.5	4	STS35,#160
C-25	25	26	38.0	34	44	1 1/8	40	5.5	20	16.5	4	SPECIAL PIPE
C-30	30	31.5	42.7	38	48	1 1/4	44	4.9	24	19.5	6	STS35,#80
C-35	35	36.5	48.6	44	48	1 1/2	50	5.1	24	19.5	6	STS35,#80
C-45	45	46.5	60.5	55	68	2	63	5.5	24	19.5	6	STS35,#80
C-55	55	56.5	76.3	71	62	2 1/2	78	9.5	24	19.5	6	STS35,#160

NO.	PARTS	MATERIAL
1	NUT	STEEL
2	PACKING	RUBBER
3	WASHER	STEEL

Brass-RWH Type

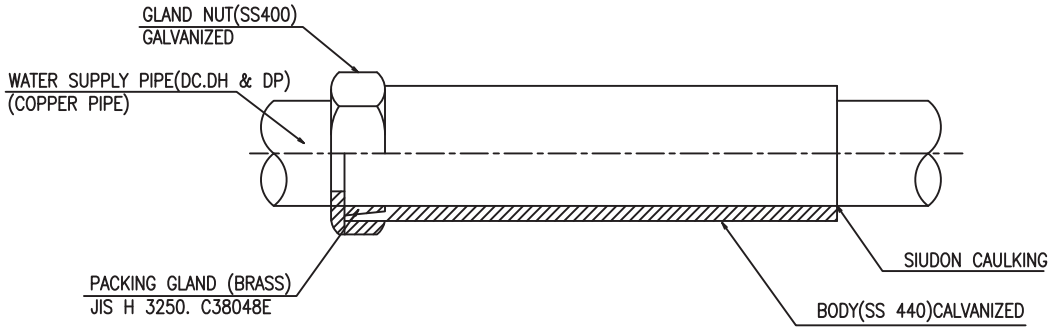


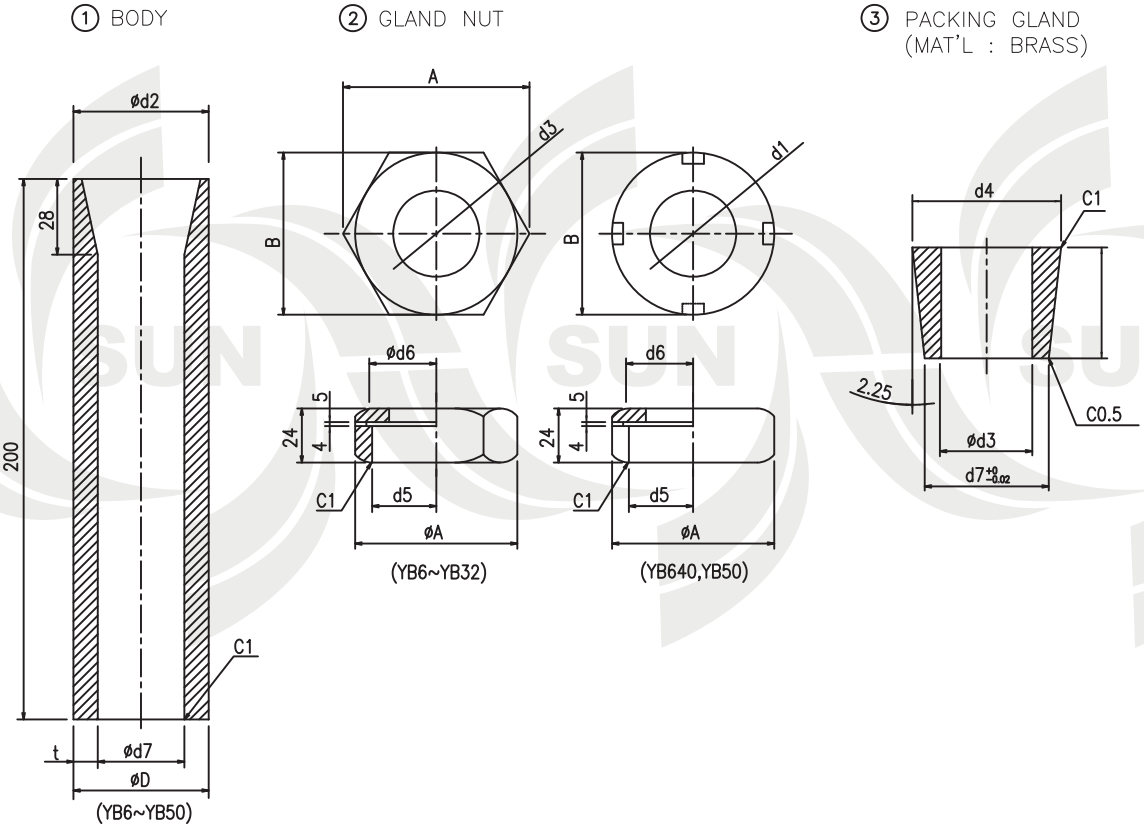
DIMENSION

TYPE	OD	A	B	C	D	E	d1	d2
BR15	15	200/100	36	16.5	32	28	16	M30X2P
BR20	20	200/100	46	21.5	44	32	21	M40X2P
BR25	25	200/100	46	26	44	32	26	M40X2P
BR30	30	200/100	60	31	60	34	31	M40X2P
BR35	35	200/100	60	36	60	34	36	M50X2P
BR45	45	200/100	70	46	63.5	34	46	M64X2P

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL
2	NUT	BRASS
3	SLEEVE	BRASS

YB-Type

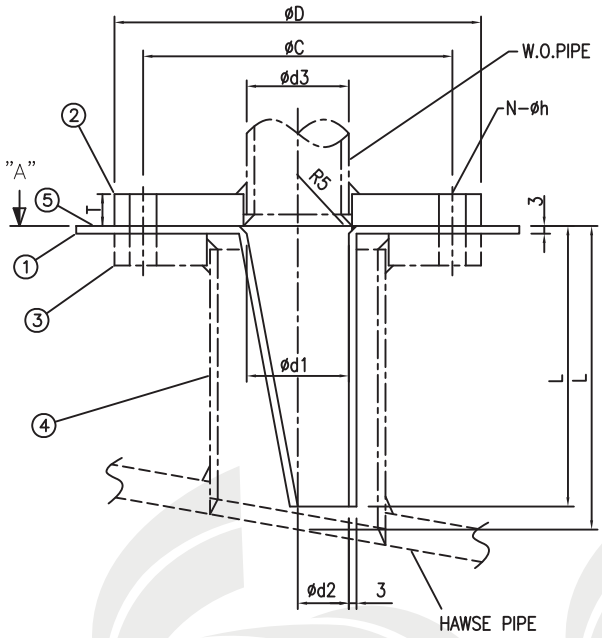




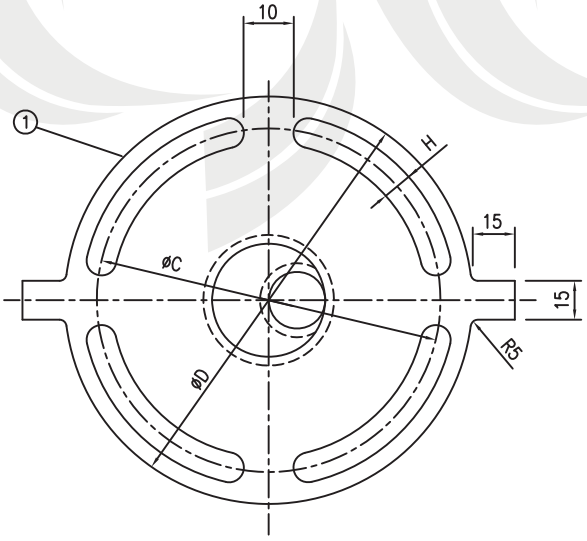
TYPE	O.D d	D	d1	d2	d3±0.02	d4	d5	d6	d7	t	A	B	REMARK
YB-6	10	21.7	10.5	16.3	10.2	16.7	M21X2	22.0	14.3	3.7	34.6	30.0	
YB-8	12	21.7	12.5	16.3	12.2	16.7	M21X2	22.0	14.3	3.7	34.6	30.0	
YB-10	15	27.2	15.5	21.4	15.2	21.8	M27X2	28.0	19.4	3.9	47.0	41.0	
YB-15	20	34.0	20.5	26.2	20.2	26.6	M34X2	35.0	24.2	4.5	58.0	50.0	
YB-20	25	42.7	25.5	36.2	25.2	36.6	M42X2	43.0	34.2	4.9	63.0	55.0	
YB-25	30	42.7	30.5	36.2	30.2	36.6	M42X2	43.0	34.2	4.9	63.0	55.0	
YB-32	35	48.6	35.5	40.4	35.2	40.9	M48X2	49.0	38.4	5.1	69.2	60.0	
YB-40	45	60.5	45.5	51.5	45.2	51.9	M60X3	61.0	49.5	5.5	–	75.0	
YB-50	55	76.3	55.5	64.3	55.2	64.7	M76X3	77.0	62.3	7.0	–	83.0	

NO.	PARTS	MATERIAL
1	BODY	STEEL / STAINLESS STEEL
2	GLAND NUT	STEEL / STAINLESS STEEL
3	PACKING GLAND	BRASS

Chain Washing Nozzle



SEC. "A"

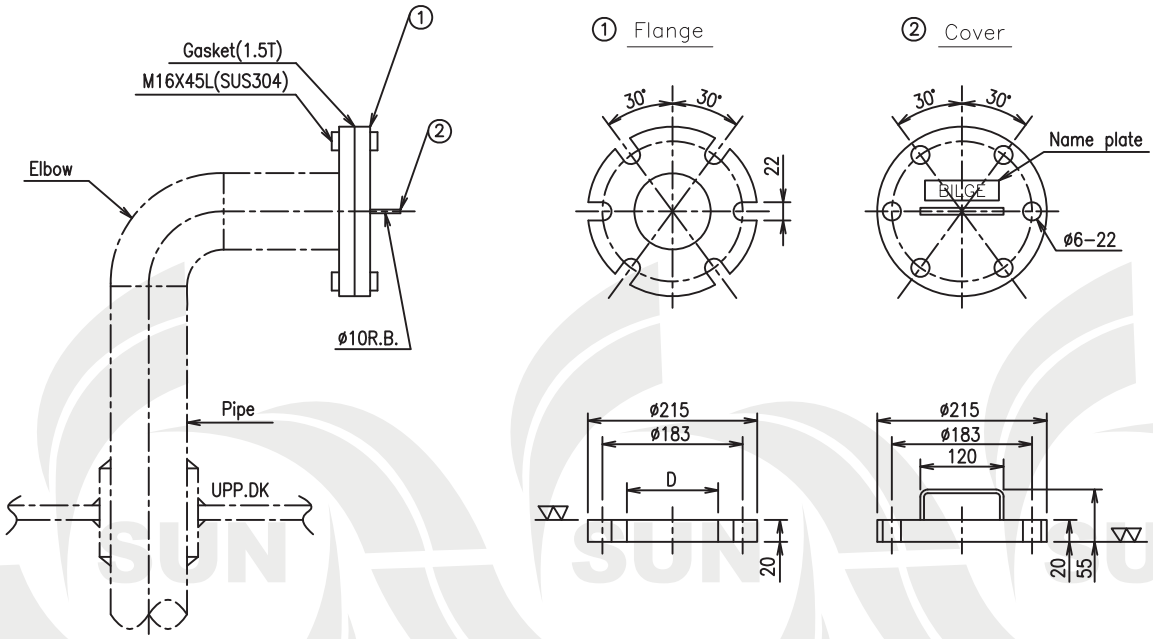


(UNIT : mm)

SIZE	GENERAL		① NOZZLE				② DIFF FLANGE			③④⑤ PIPING		WEIGHT/kg		REMARKS	MCC
	D	C	d1	d2	H	L	d3	T	N-øh	SIZE	L	①	②		
25A	130	105	34	15	17	120	35	14	4-15	5K-50A	140	0.45	1.30		A
32A	155	130	43	20	17	120	44	14	4-15	5K-65A	140	0.61	1.86		A

NO.	PARTS	MATERIAL
1	NOZZLE	BRONZE
2	DIFF.FLANGE	SS400
3	S.O.FLANGE	SS400
4	PIPE	STPG370 #80E
5	GASKET	NON ASBESTOS

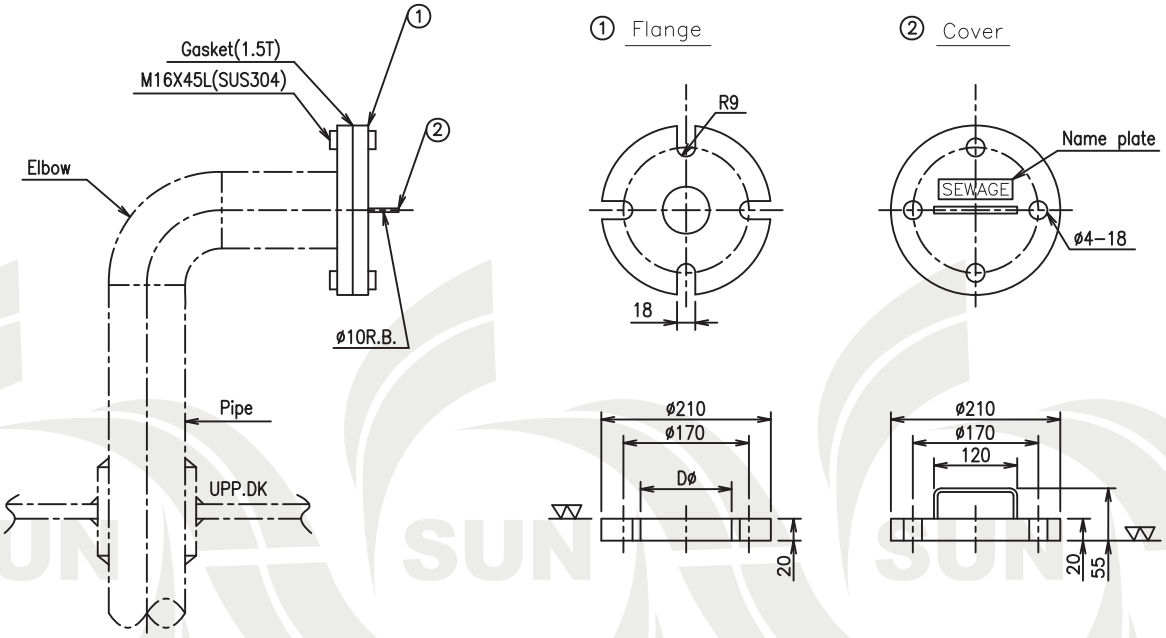
Bilge Shore Connection



* MATERIAL : STEEL

N.D.	FLANGE( ) DØ	REMARK
25A	34.5	
32A	42.7	
40A	49.1	
50A	61.1	
65A	77.1	
80A	90.0	

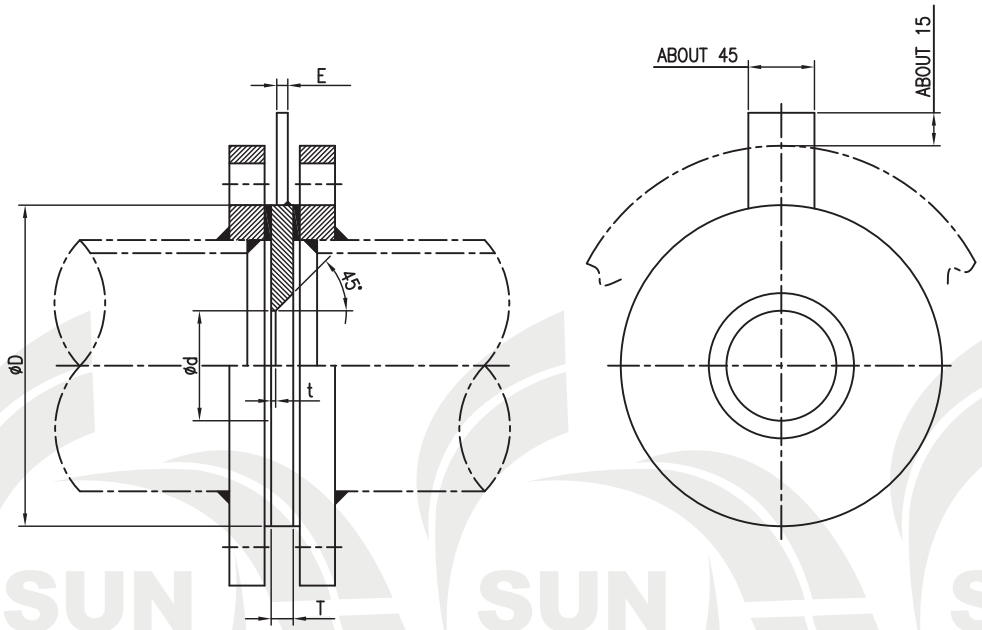
Sewage Shore Connection



* MATERIAL : STEEL

N.D.	FLANGE( ) DØ	REMARK
25A	34.5	
32A	42.7	
40A	49.1	
50A	61.1	
65A	77.1	
80A	90.0	

Fix Orifice

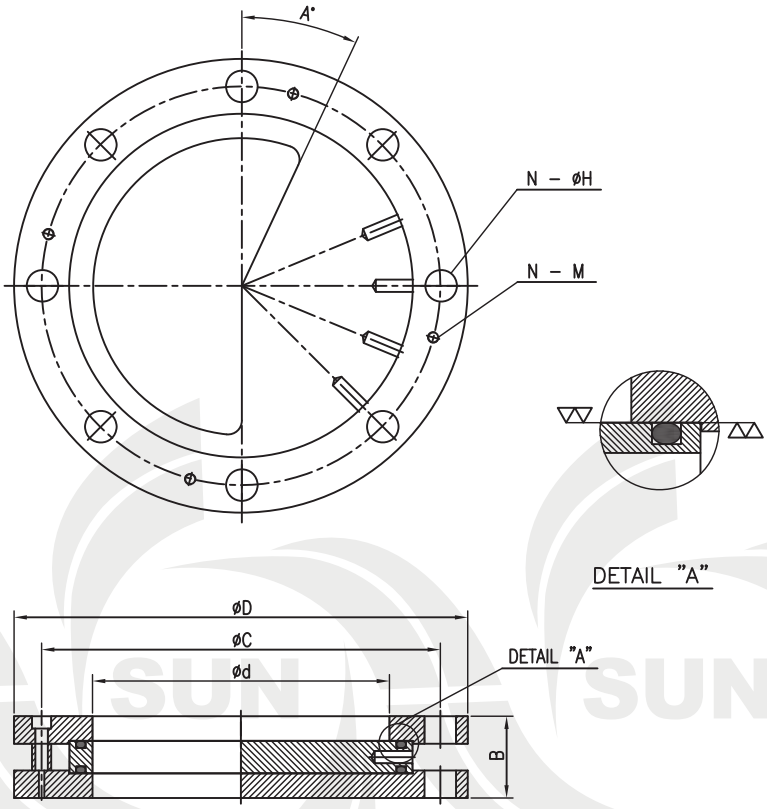


* MATERIAL : STEEL / STAINLESS STEEL

DIMENSION (UNIT : mm)

N.D	d	D (FLANGE)				T	t	E	W.T (Kg)
		5K	10K	16K	30K				
15A		48	55	55	61	3	0.5	3	
25A		63	71	71	76	3	0.6		
32A		75	81	81	86	4	0.8		
40A		80	86	86	86	5	1.0		
50A		90	101	101	111	8	1.5	5	
65A		115	121	121	137	8	1.5		
80A		126	131	137	147	10	2.0		
100A		146	156	162	170	10	2.0		
125A		181	187	200	205	15	3.0		
150A		211	217	235	248	15	3.0		
200A		257	267	280	293	20	4.0		
250A		322	330	353	357	22	5.0		
300A		322	375	403	417	22	6.0		

Adjustable Orifice



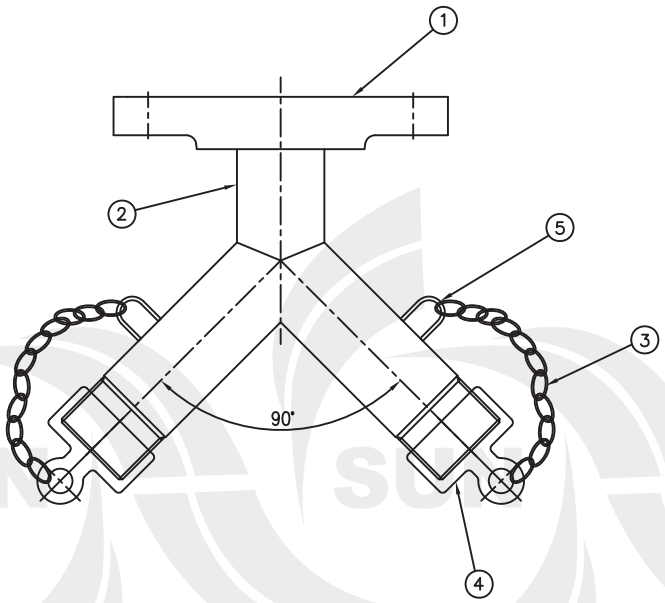
* MATERIAL : STEEL / STAINLESS STEEL

DIMENSION (UNIT : mm)

N.D	ød	øC	øD	A°	B	N – M	N – øH
15A	22.2	60	80	25	34.8	4 – M4	4 – 12
20A	27.7	65	85	25	38.8	4 – M4	4 – 12
25A	34.5	75	95	25	36.8	4 – M4	4 – 12
32A	43.2	90	115	25	40.8	4 – M4	4 – 15
40A	49.1	95	120	25	40.8	4 – M6	4 – 15
50A	61.1	105	130	25	44.8	4 – M6	4 – 15
65A	77.1	130	155	25	44.8	4 – M6	4 – 15
80A	90	145	180	25	48.8	4 – M6	4 – 19
100A	115.4	165	200	25	48.8	4 – M6	8 – 19
125A	141.2	200	235	25	53	4 – M8	8 – 19
150A	166.6	230	265	25	53	4 – M8	8 – 23
200A	218	280	320	25	57	4 – M8	8 – 23
250A	269.5	345	385	30	61	4 – M10	12 – 23

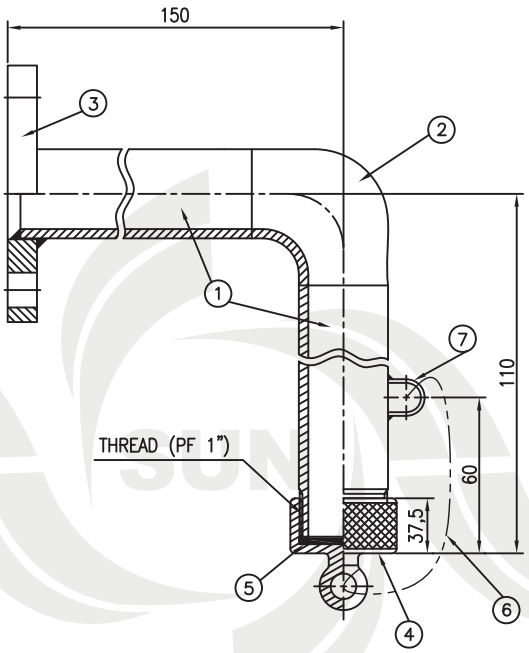
T-Piece with Cap Manifold Pipe End Cap

For Tank Cleaning



NO.	PARTS	MATERIAL
1	FLANGE	STAINLESS STEEL
2	PIPE	STAINLESS STEEL
3	CHAINLET	STAINLESS STEEL
4	CAP	STAINLESS STEEL
5	EYE PLATE	STAINLESS STEEL

Manifold Pipe End Cap



NO.	PARTS	MATERIAL
1	PIPE (40A)	STAINLESS STEEL
2	ELBOW (SHORT)	STAINLESS STEEL
3	FLANGE	STAINLESS STEEL
4	CAP	STAINLESS STEEL
5	GASKET	TEFLON
6	CHAIN	STAINLESS STEEL
7	CHAIN RING	STAINLESS STEEL

PART-B

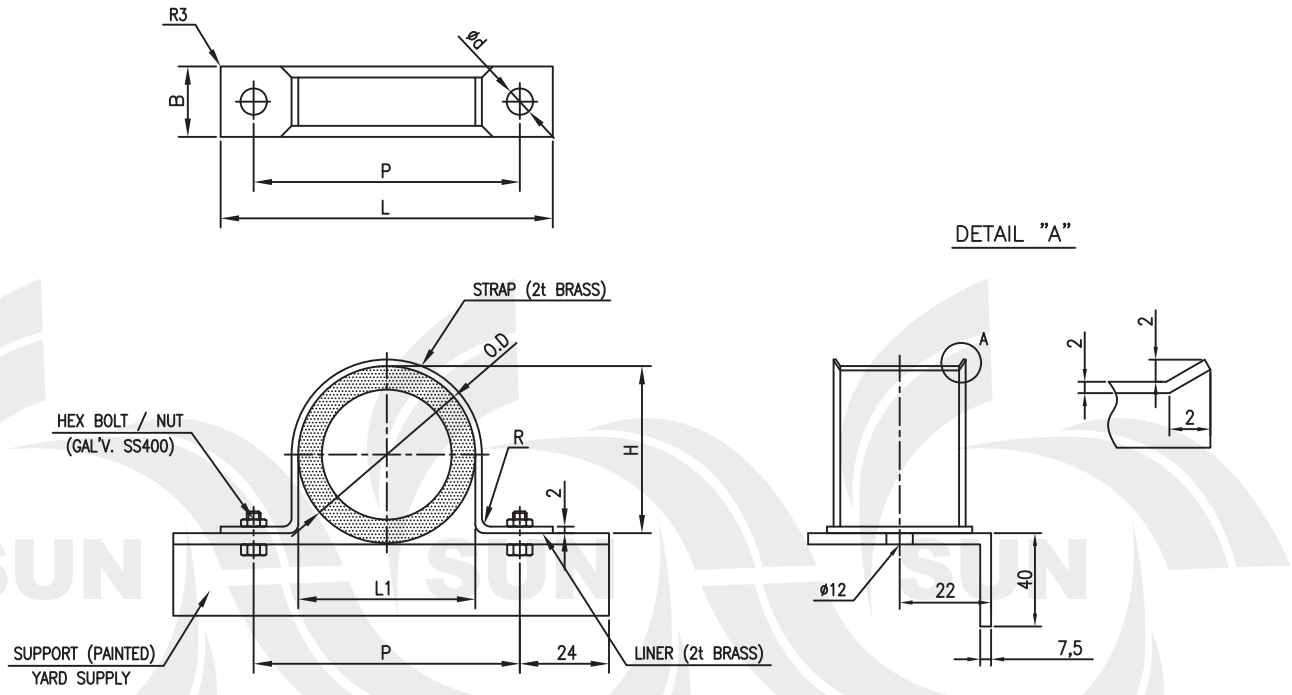
B. PIPING

PART-B

B. PIPING

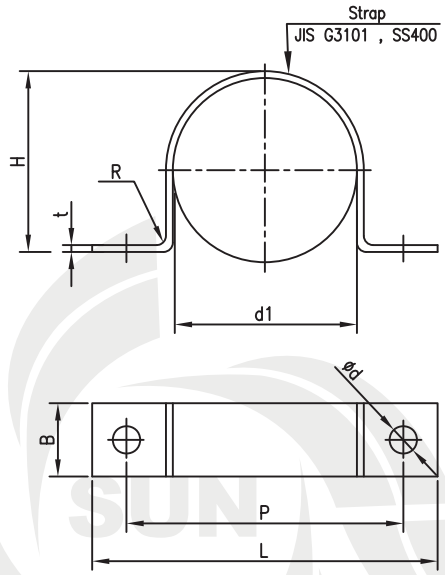
CONTENTS	NO	PAGE
1. SUPPORTING OF PIPES	B-1	82
2. SOUNDING PIPE HEAD	B-7	88
3. MARINE COCKS	B-15	96
4. DRAIN PLUG	B-17	98
5. COUPLINGS	B-19	100
6. DEWATERING OF FORWARD SPACE	B-24	105
7. CONTROL BOX & CONTROL UNIT	B-28	109
8. ACTUATOR FOR HYDRAULIC	B-37	118
9. SPRAY NOZZLE	B-46	127
10. STRAINERS	B-48	129
11. REACH ROD	B-85	166
12. NAME PLATE	B-98	179
13. FIRE FIGHTING	B-101	182
14. MARINE VALVES	B-110	193
15. ANSI VALVES	B-274	357
16. FORGED STEEL VALVES	B-420	499
17. CHECK VALVES	B-505	584
18. SIGHT GLASS	B-510	589
19. SPECIAL VALVES	B-517	596

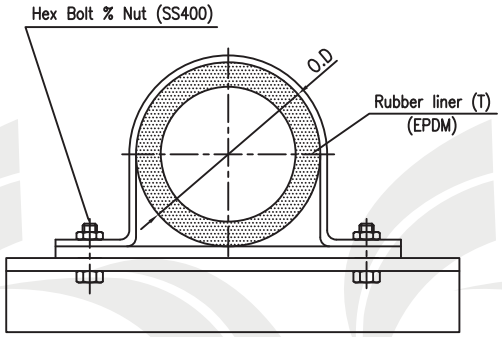
Copper Pipe Strap



PIPE		SIZE							BOLT		REMARKS
NOM.DIA	O.D	L	P	H	L1	B	d	R	M	L	
6A	10	70	46	10	10	25	9	2	M8	20	
8A	12	70	46	12	12	25	9	2	M8	20	
10A	15	70	46	15	15	25	9	2	M8	20	
15A	20	70	46	20	20	25	9	3	M8	20	
20A	25	85	62	25	25	25	9	3	M8	20	
25A	30	85	62	30	30	25	9	3	M8	20	
32A	35	100	74	35	35	25	9	3	M8	20	
40A	45	100	74	45	45	32	9	3	M8	20	
50A	55	125	92	55	55	32	12	3	M10	25	

Steel Strap



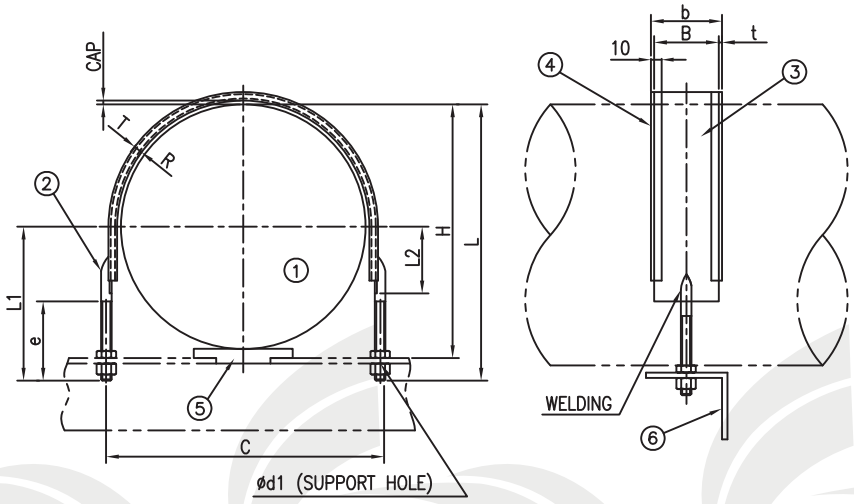


NOTE

* EPDM : Ethylene – Propylene – Diene rubber – Methylene linkoge (ASTM D–1418 , TRADEMARK . BUNAAP KELTAN)

SIZE	PIPE O.D	DIMENSION								HEX BOLT		RUBBER (T)	REMARKS
		L	P	H	J1	B	t	d	R	N.D	LENGTH		
10	10	141	111	69	70.5	32	3	12	4	M10	30	30	
15	15	146	116	74	75.5	32	3	12	4	M10	30	30	
20	20	151	121	79	80.5	32	3	12	4	M10	30	30	
25	25	156	126	84	85.5	32	3	12	4	M10	30	30	
30	30	161	131	89	90.5	32	3	12	4	M10	30	30	
35	35	166	136	94	90.5	32	3	12	4	M10	30	30	
45	45	176	146	104	105.5	32	3	12	4	M10	30	30	
55	55	186	156	114	115.5	32	3	12	4	M10	30	30	
70	70	201	171	129	130.5	32	3	12	4	M10	30	30	
85	85	216	186	144	145.5	32	3	12	4	M10	30	30	
110	110	231	201	159	170.5	32	3	12	4	M10	30	30	

Pipe Strap for G.R.P Pipe



NO.	PARTS	MATERIAL
1	PIPE	G.R.P
2	GUIDE BOLT & NUT	MILD STEEL (GALV'D)
3	STRAP	MILD STEEL (GALV'D)
4	LINING	NEOPRENE RUBBER
5	SLIDING SHOE	TEFLON
6	SUPPORT	MILD STEEL

NOTE

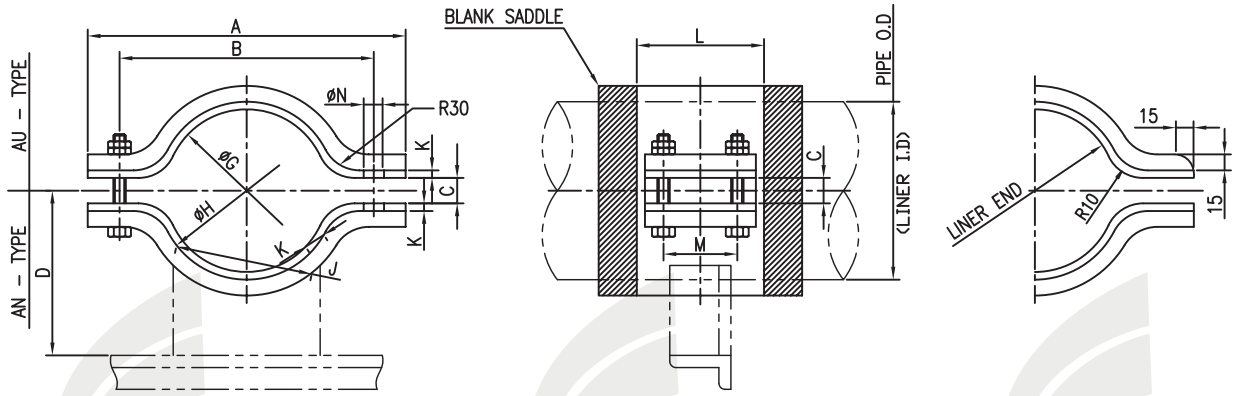
* APPLICATION
  THIS U-BOLT AND NUT TO BE USED FOR AL-BRASS AND CU-NI PIPE IN WEATHER DECK. (NOT IN E/R OR TANK)

DIMENSION

UNIT : mm

N.D	O.D	H	C	R	B x T	b x t	BOLT SIZE	L1	L2	e	ød	ød1	L	ANGLE SIZE	WT(kg)
50A	61.5 60.2	74.5	84	37	50x4.5	56x3	M10 x 54		15	38	10	12	94	50 x 50 x 6T	0.31
80A	90.2 88.9	103.2	114	51	50x4.5	56x3	M12 x 68		20	45	12	15	122	65 x 65 x 6T	0.45
100A	115.4 114.3	128.6	144	64	60x6	66x3	M16 x 86		30	50	16	19	153	65 x 65 x 6T	0.94
150A	169.8 168.5	182.8	198	91	60x6	66x3	M16 x 119		50	55	16	19	213	75 x 75 x 9T	1.34
200A	222.3 221.0	235.3	254	117	60x8	66x3	M20 x 150		50	65	20	24	270	75 x 75 x 9T	2.26
250A	279.3 278.0	291.3	312	146	60x10	66x3	M20 x 179		80	65	20	24	327	90 x 90 x 10T	3.47
300A	332.8 331.5	347.8	374	175	80x10	90x5	M24 x 210		80	75	24	28	387	90 x 90 x 10T	5.42

Pipe Strap for G.R.P Pipe(Anchor Type-Ameron)



1) APPLICATION : ANCHOR SUPPORTS ON ELBOWS & T–PIECE
2) STRAP TOLERANCE (I.D , O.D) : +1% , –0
3) "C" CAN BE CHANGED "B" TOLERANCE OF GRP PIPE O.D AND BOLTING TORQURE FOR TIGHTNESS.

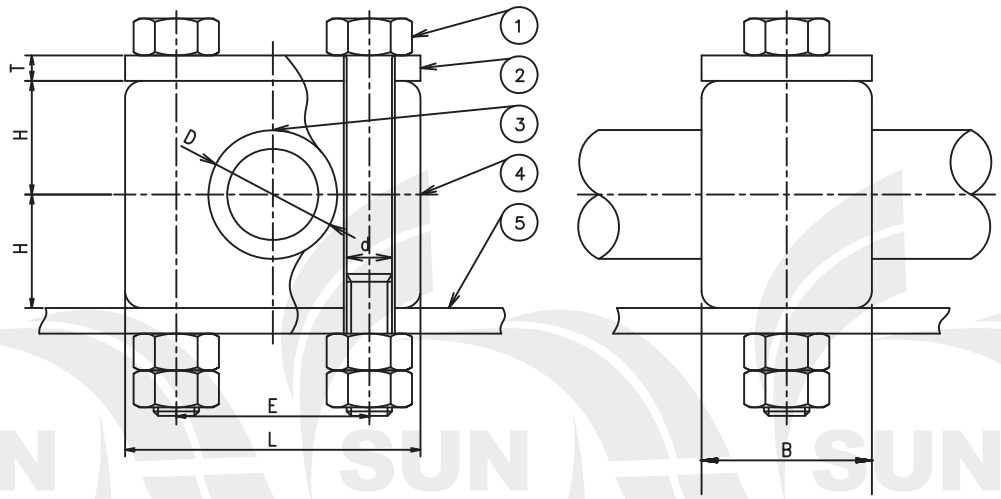
*해당 치수는 PROJECT, MAKER 도면에 따라 재 검토 요망.

NOTE
1. LINER OF NEOPRENE SHALL BE KEPT THE SHAPE BY MOULDING
2. ALLOWANCE : (+0mm)–(–2mm), SPECIALLY DIMENSION "L"
3. STRAP AND LINER TO BE BONDED
4. WELDING PART SHALL SMOOTHLY GROUNDED

UNIT : mm

BALLAST SYSTEM (based on atmosperic pressure)																	
N.D	O.D	A	B	C	D	F	øG	øH	J	K	L	M	øN	LEG SIZE	BOLT/NUT	WT(kg)	
																UPPER	UNDER
50A	61.9	187.0	137.0	20	110	70	73.9	85.9	15	6	100	58	14	50 X 6T	M12 X 60	2.16	2.2
65A																	
80A	90.5	225.5	175.5	20	120	100	102.5	114.5	20	6	100	58	14	50 X 6T	M12 X 60	2.63	2.69
100A	115.9	249.9	199.9	20	111	120	127.9	139.9	25	6	100	58	14	50 X 6T	M12 X 60	2.75	3.81
125A	142.6	271.6	221.6	20	150	150	139.9	160.6	25	6	100	58	14	50 X 6T	M12 X 65	3.90	4.03
150A	169.8	337.2	277.4	20	180	170	181.2	201.2	25	10	140	64	18	50 X 6T	M16 X 75	5.38	6.48
200A	222.3	389.4	329.4	20	214	200	233.4	253.4	30	10	140	64	18	50 X 6T	M16 X 75	6.27	8.09
250A	279.0	446.9	386.9	20	230	250	290.9	310.9	30	10	140	64	18	75 X 9T	M16 X 75	7.13	8.98
300A	332.8	500.2	440.2	20	269	300	344.2	364.2	30	10	140	64	18	75 X 9T	M16 X 75	7.90	9.07

Plastic Clamp for N.D Pipe



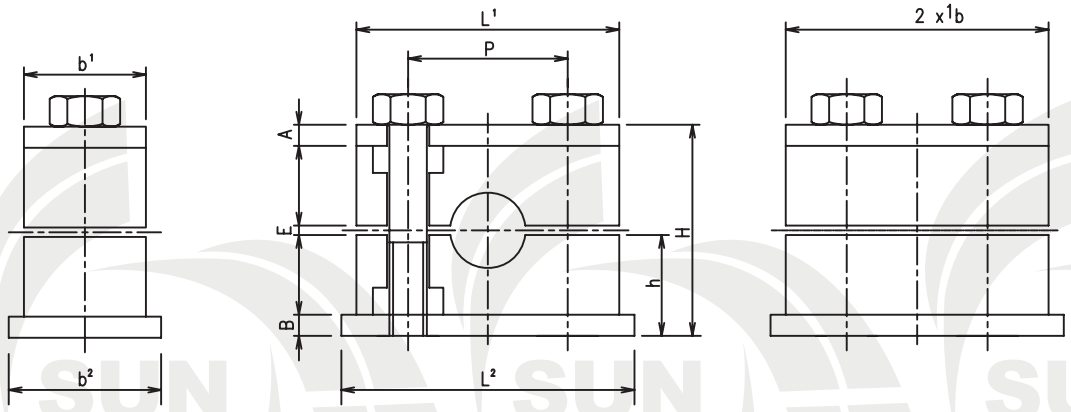
* D = PIPE O.D + 1.0 mm
* "M"란의 ()안 치수는 NUT를 체결하고 남은 여유 길이

DIMENSION

SIZE	D	E	L	B	H	T	d	T = 6 ANGLE	T = 15 ANGLE	REMARK
								M	M	
GS-10A	18.3	30	48	30	20	4.5	10	M8X65(1.5)	M8X74(1.5)	
GS-15A	22.7	34	52	30	20	4.5	10	M8X65(1.5)	M8X74(1.5)	
GS-20A	28.3	41	58	30	22	4.5	10	M8X70(2.5)	M8X79(2.5)	
GS-25A	35	51	75	30	23	6	12	M10X77(3.0)	M10X86(3.0)	
GS-32A	43.7	59	83	30	30	6	12	M10X91(3.0)	M10X100(3.0)	

NO.	PARTS	MATERIAL
1	HEX. BOLT & NUT	MILD STEEL (GALV'D)
2	STEEL PLATE	MILD STEEL (GALV'D)
3	STEEL PIPE	
4	PLASTIC CLAMP	POLYPROPYLENE
5	ANGLE SUPPORT	MILD STEEL

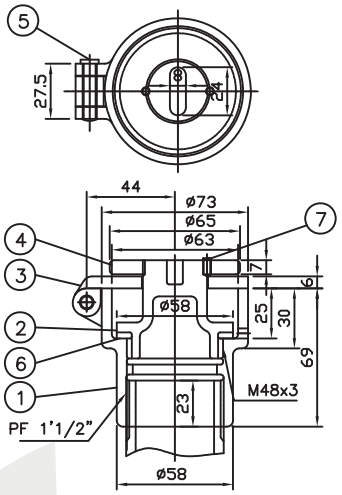
Heavy Type Pipe Clamp



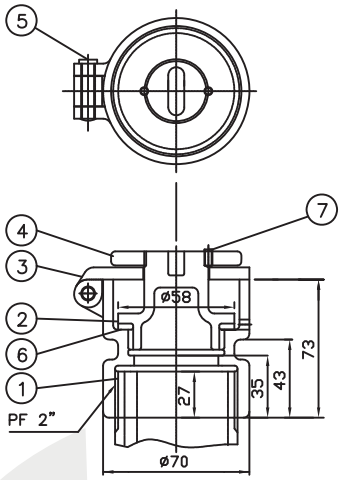
SERIES	TUBINGS				DIMENSION(mm)										BOLT
	SIZE	A	IN	DØ	L¹	b¹	t^A	L^B	b²	t²	h	E	H	P	
H-02				6											
				8											
	01	6	1/8	10.5											
				12											
	02	8	1/4	13.8	55	30	6	73	32	9	25	2	52	33	M10X45
				15											
				16											
	03	10	3/8	17.3											
H-04				20											
	04	15	1/2	21.7											
				25	70	30	6	85	32	9	33	2	68	45	M10X60
	06	20	3/4	27.2											
				30											
H-06				32											
	08	25	1	34.0											
				35											
				38	85	30	6	100	32	9	38	2	78	60	M10X75
				40											
	010	32	1¼	42.7											
				45											

SERIES	TUBINGS				DIMENSION(mm)										BOLT
	SIZE	A	IN	DØ	L¹	b¹	t^A	L^B	b²	t²	h	E	H	P	
H-08	012	40	1½	48.6											
				50											
				55	115	45	8	150	50	9	58	3	119	90	M12X110
	016	50	2	60.5											
				65											
H-10				70											
				73											
	020	65	2½	76.3	150	60	10	200	65	9	72	3	147	122	M16X140
				80											
	024	80	3	89.1											
H-12	028	90	3¼	101.6	205	80	16	270	90	16	101	3	205	168	M20X190
	032	100	4	114.3											
H-14	040	125	5	139.8	250	90	16	310	100	16	115	4	234	205	M24X230
	048	150	6	165.2											
H-16	064	200	8	216.4	320	122	25	380	130	25	160	4	324	265	M30X310
H-18	080	250	10	267.4	466	160	30	520	170	30	235	10	480	395	M33X460
	096	300	12	318.5											
H-20		350	14	355.6	630	180	36	680	190	36	301	30	632	535	M36X580
		400		406.4											

Hinge Cap for Sounding Pipe

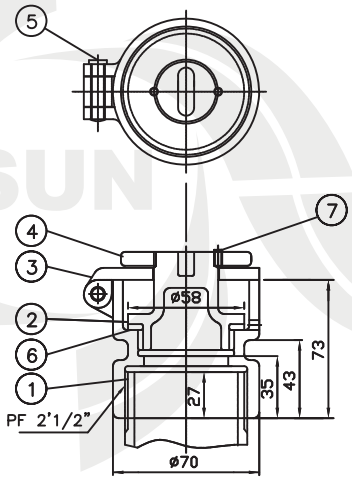


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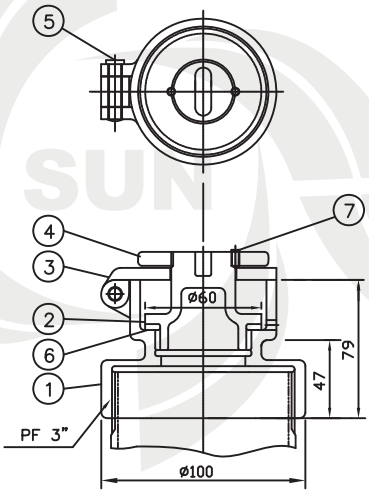


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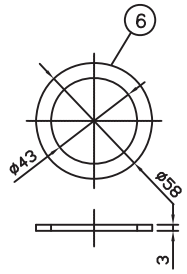
NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	HINGE	BRONZE
4	CHECK RING	BRONZE
5	PIN	BRASS
6	GASKET	RUBBER
7	SET SCREW	BRASS WIRE



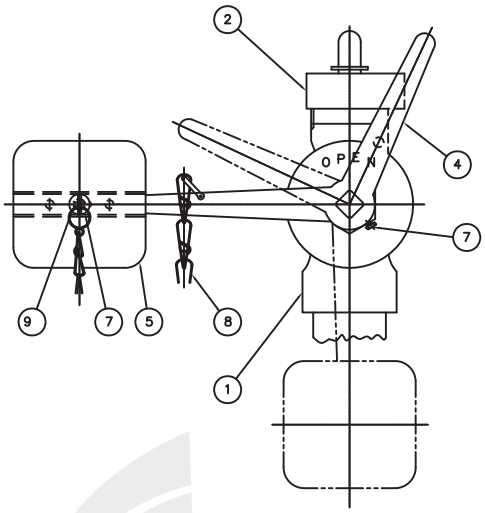
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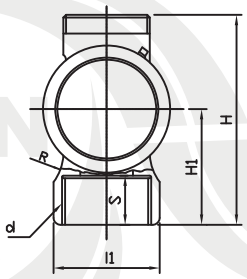
< 80A >



Self Closing Parallel Cock Heads for Short Sounding Pipe



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	CAP	BRONZE
3	COCK PLUG KEEPER	BRONZE
4	LEVER	STEEL
5	COUNTERWEIGHT	CAST IRON
6	PIN	STEEL
7	LEVER CHECK BOLT	STEEL
8	CHAINLET	STEEL
9	SPLIT PIN	BRASS



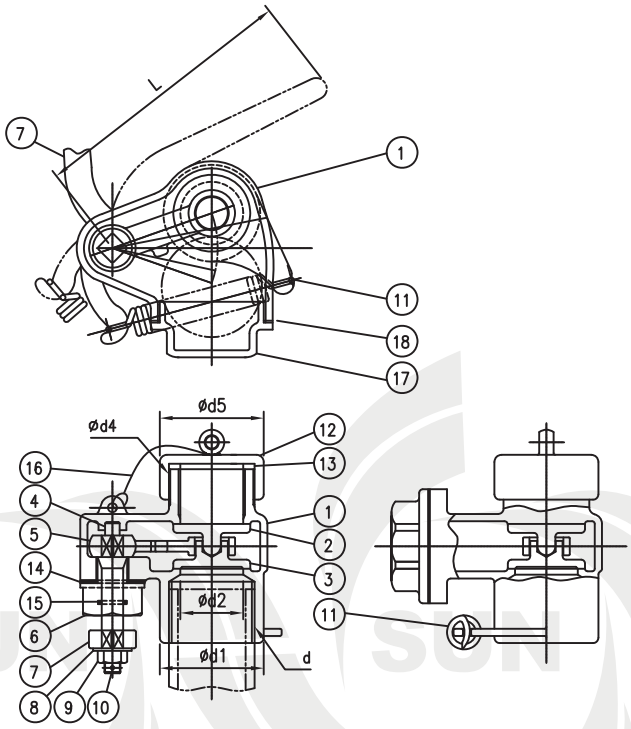
Test Pressure (MPa)

Rating	
Hydrostatic press test (Body)	0.29
Hydrostatic press test (Facing)	0.20

Dimension Table (Unit : mm)

NOMINAL DIA.	BODY					
	d	d1	S	H	H1	R
40A	PF1-1/2	60	25	130	65	10
50A	PF2	70	30	135	70	14
65A	PF2-1/2	86	30	135	70	23
80A	PF3	100	35	145	80	35

Self Closing Gate Valve Heads for Short Sounding Pipe



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	VALVE	BRONZE
3	VALVE	BRONZE
4	SPINDLE FOR HANDLE	BRASS
5	LEVER	BRONZE
6	PACKING GLAND	BRONZE
7	HANDLE	CAST IRON
8	WASHER	BRASS
9	HEXAGON NUT	BRASS
10	SPLIT PIN	BRASS
11	COIL SPRING	STEEL
12	CAP	BRONZE
13	GASKET	OIL RESISTING RUBBER
14	GASKET	OIL RESISTING RUBBER
15	PACKING	OIL RESISTING RUBBER
16	CHAIN	BRASS
17	COVER	BRONZE
18	GASKET	OIL RESISTING RUBBER

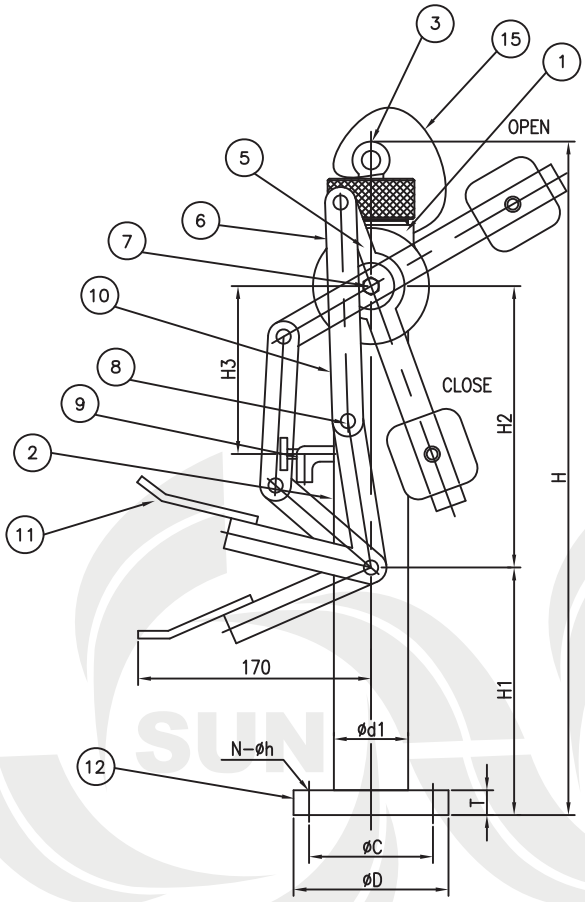
Test Pressure (MPa)

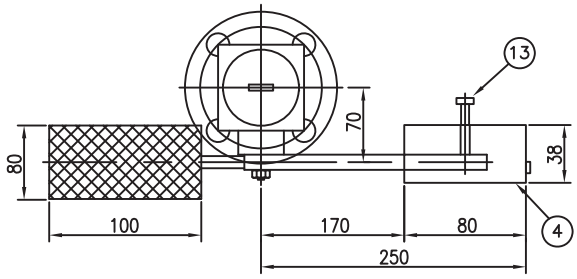
Rating	
Hydrostatic press test (Body)	0.29
Hydrostatic press test (Facing)	0.20

Dimension Table (Unit : mm)

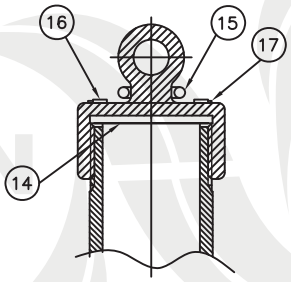
SIZE	ød1	ød2	L	d4	d5	d
40A	58	35	180	PF 1-1/2	68	PF1-1/2
50A	70	50	200	PF 2	70	PF 2
65A	85	50	200	PF 2	70	PF2-1/2
80A	100	50	200	PF 2	70	PF 3

Pedal Type Self Closing Sounding Cap





CAP DETAIL



NOTE

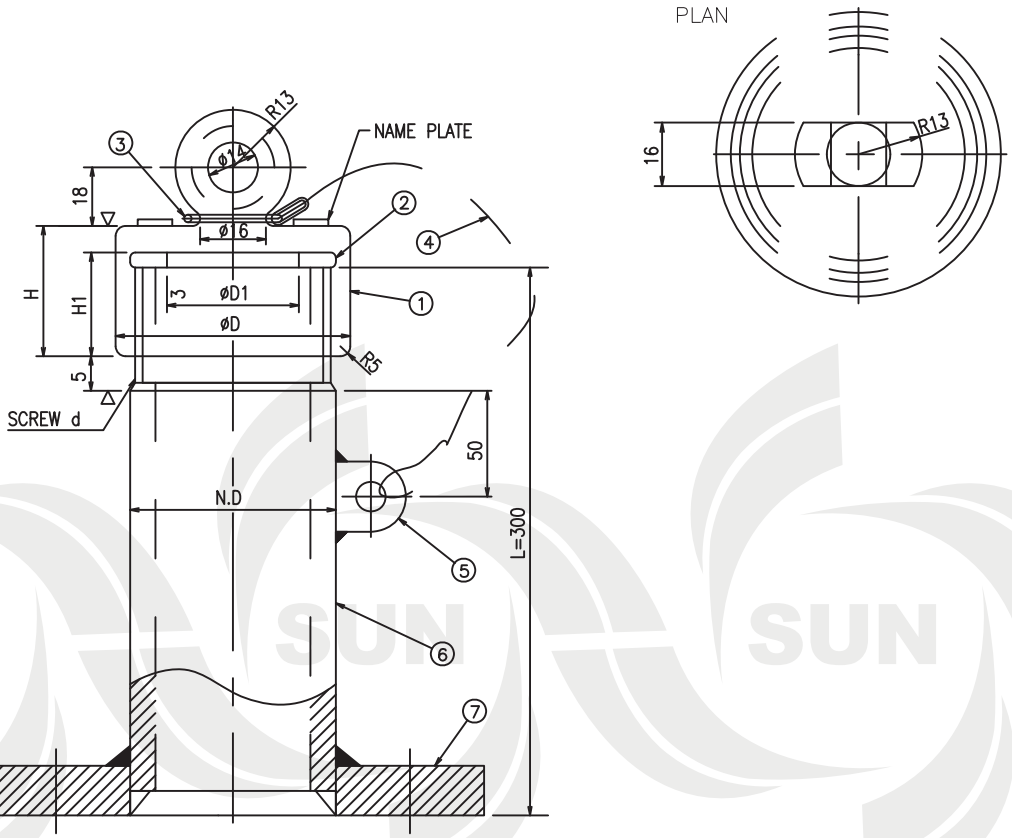
1. FLANGE CONN. : JIS 5K F.F TYPE
2. HYD. TEST PRESSURE : BODY – 0.3 MPa, FACING – 0.2 MPa
3. COATING SPEC : HOT DIP GAL'V

SIZE	ød1	øD	øC	N–øh	r	H	H1	H2	H3	ød	W/T	PIPE
40A	48.6	120	95	4–15	12	670	100	480	150	40	12.7	SCH80
50A	60.5	130	105	4–15	14	670	100	480	150	40	13.0	SCH80
65A	76.3	155	130	4–15	14	670	100	480	150	40	15.1	SCH40
80A	89.1	180	145	4–15	14	670	100	480	150	40	17.2	SCH40

NO.	PARTS	MATERIAL
1	PARALLEL COCK	BRONZE
2	PIPE	STPG370
3	CAP	BRONZE
4	CONTROL WEIGHT	CAST IRON
5	ARM	STEEL
6	LINK	STEEL
7	NUT	STEEL
8	PIN	STEEL
9	SELF COLSING DRAIN COCK	C2600BE
10	CONTROL ROD	STEEL
11	PEDAL PLATE	STEEL
12	FLANGE	STEEL
13	BOLT	STEEL
14	GASKET	NON ASBESTOS
15	CHAIN	BRASS
16	SET SCREW	STAINLESS STEEL
17	NAME PLATE	STAINLESS STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Deck Stand Type Sounding Cap with Flange



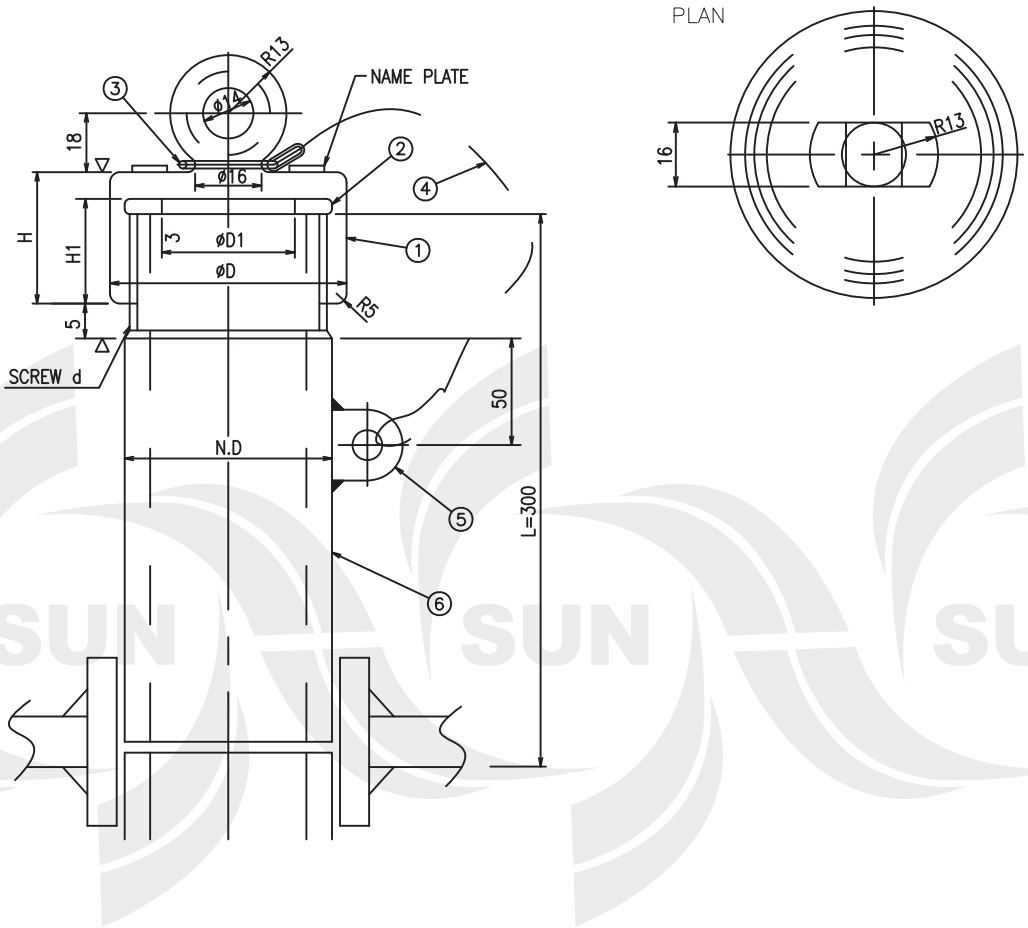
DIMENSION TABLE (UNIT : mm)

NO.	PIPE SIZE		①②SIZE					⑥SIZE	Q'TY WT/kg	REMARK	MCC
	N.D	O.D	SCREW d	D	D1	H	H1	PIPE SIZE(OUT DIA.THK)			
1	40A	48.6	PS 1 1/2	58	36	30	25	40A SCH80E(ø48,6X5,1T)	2.13		A
2	50A	60.5	PS2	70	48	30	25	50A SCH80E(ø60,5X5,5T)	2.82		A
3	65A	76.3	PS2 1/2	86	62	35	28	65A SCH80E(ø76,3X7,0T)	4.52		A
4	80A	89.1	PS3	100	75	35	28	80A SCH40E(ø89,1X5,5T)	4.59		A

NO.	PARTS	MATERIAL
1	CAP	BRONZE
2	PACKING	NEOPRENE RUBBER
3	RING	STAINLESS STEEL
4	WIRE	STAINLESS STEEL
5	EYE PLATE	STEEL
6	STEEL PIPE	STPG370
7	FLANGE	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Deck Stand Type Sounding Cap with Pipe



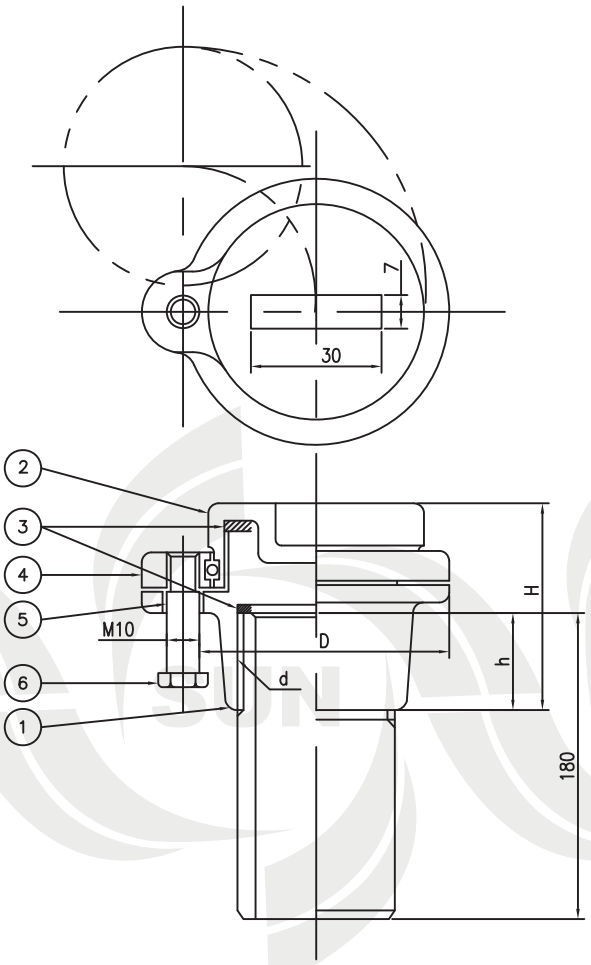
DIMENSION TABLE (UNIT : mm)

NO.	PIPE SIZE		①②SIZE					⑥SIZE	Q'TY WT/kg	REMARK	MCC
	N.D	O.D	SCREW d	D	D1	H	H1	PIPE SIZE(OUT DIA.THK)			
1	40A	48.6	PS 1 1/2	58	36	30	25	40A SCH80E(ø48,6X5,1T)	2.13		A
2	50A	60.5	PS2	70	48	30	25	50A SCH80E(ø60,5X5,5T)	2.82		A
3	65A	76.3	PS2 1/2	86	62	35	28	65A SCH80E(ø76,3X7,0T)	4.52		A
4	80A	89.1	PS3	100	75	35	28	80A SCH40E(ø89,1X5,5T)	4.59		A

NO.	PARTS	MATERIAL
1	CAP	BRONZE
2	PACKING	NEOPRENE RUBBER
3	RING	STAINLESS STEEL
4	WIRE	STAINLESS STEEL
5	EYE PLATE	SS400
6	STEEL PIPE	STPG370

Remark : 1. The name plate shall be specified by purchaser as required.

Deck Stand Type Sounding Cap



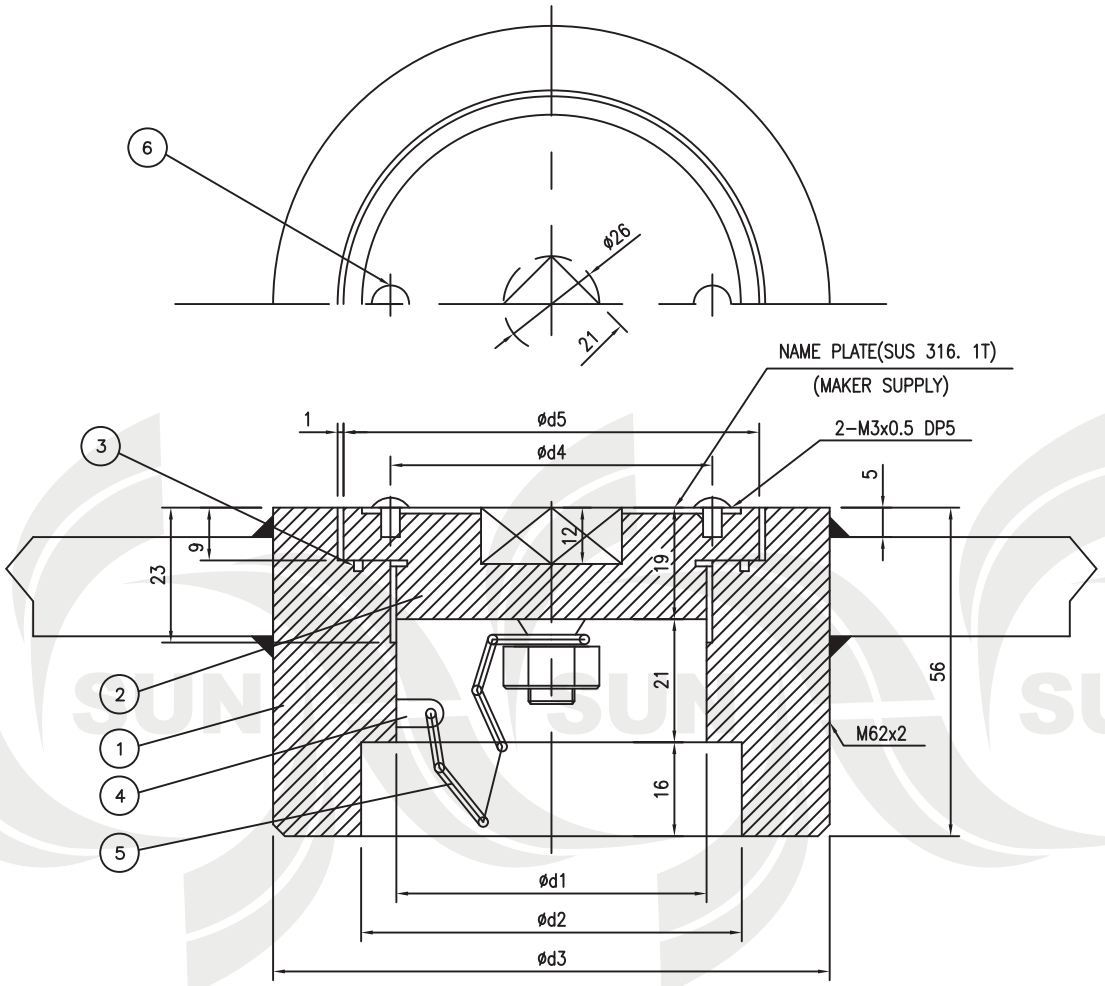
Unit : mm

SIZE	D	d	H	h	L	WEIGHT(kg)	PIPE MATERIAL
40A	58	PF 1 1/2	50	23	40	1.68	STPG370 SCH80
50A	70	PF 2	55	28	43	2.14	STPG370 SCH80
65A	85	PF 2 1/2	55	28	48	3.16	STPG370 SCH80
80A	100	PF 3	64	32	54	3.88	STPG370 SCH80

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	PACKING	NBR
4	RING	BRONZE
5	RING	PHOSPHER BRONZE
6	BOLT	BRASS
7	PIPE	STEEL PIPE

Remark : 1. The name plate shall be specified by purchaser as required.

Deck Flush Type Sounding Pipe Head



NOTE

1. END CONNECTION : S.W

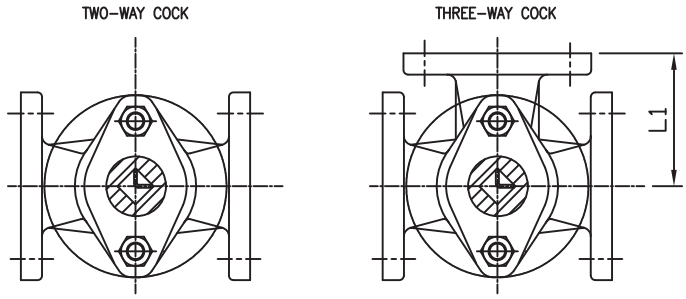
SIZE	d1	d2	d3	d4	d5	DECK OPENING	WEIGHT
32A	35.0	44	79	46	64	81	1.7 kg
40A	38.7	50	79	46	64	81	1.7 kg
50A	49.8	62	91	60	75	93	2.1 kg
65A	66	78	108	68	84	110	3.0 kg
80A	79	91	120	78	94	122	3.6 kg

NO.	PARTS	MATERIAL
1	BODY	STEEL (GALV'D)
2	PLUG	BRONZE
3	O-RING	NBR
4	CHAIN HOCK	STEEL (GALV'D)
5	CHAIN	STAINLESS STEEL
6	ROUND HEAD SCREW	STAINLESS STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

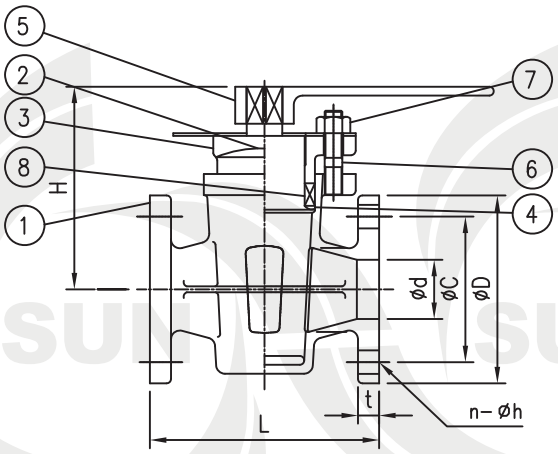
JIS 5K 2 & 3Way Flanged Cocks — JIS F7381

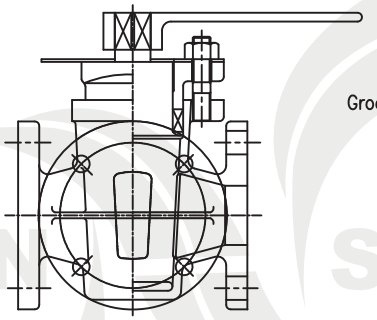
JIS 10K 2 & 3Way Flanged Cocks — JIS F7381



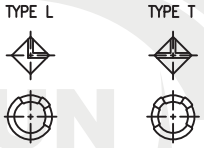
Integral seat Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	PLUG	BRONZE
3	PACKING GLAND	BRONZE / BRASS
4	SEAT RING	BRONZE / BRASS
5	HANDLE	STEEL / BRASS
6	STUD BOLT	BRASS / STAINLESS STEEL
7	HEXAGON NUT	BRASS / STAINLESS STEEL
8	PACKING	NON ASBESTOS





Groove indicating the direction of port



Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K/10K
Oil and Water	0.5

Test Pressure (MPa)

Rating	JIS 5K/10K
Hydrostatic press test (Shell)	0.75
Hydrostatic press test (Seat)	0.55

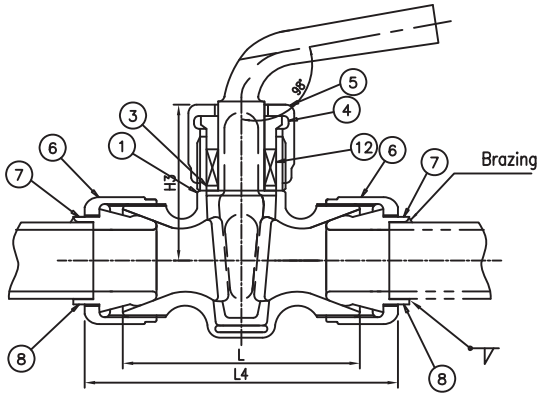
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7381)	15A	25	80	60	4-12	10	130	65	105	3.81
	20A	25	85	65	4-12	10	130	65	105	3.81
	25A	25	95	75	4-12	10	130	65	105	3.81
	32A	32	115	90	4-15	12	160	80	125	6.13
	40A	40	120	95	4-15	12	170	85	135	7.93
	50A	50	130	105	4-15	14	190	95	163	11.8
	65A	65	155	130	4-15	14	220	110	201	19.0
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7381)	15A	25	95	70	4-15	12	130	65	105	5.7
	20A	25	100	75	4-15	14	130	65	105	5.7
	25A	25	125	90	4-19	14	170	85	125	9.5
	32A	32	135	100	4-19	16	180	85	125	13
	40A	40	140	105	4-19	16	180	90	135	20
	50A	50	155	120	4-19	16	190	95	163	25
	65A	65	175	140	4-19	18	220	110	201	30

Remark : 1. The flanges shall conform to JIS B 2240.

JIS 16K Cocks

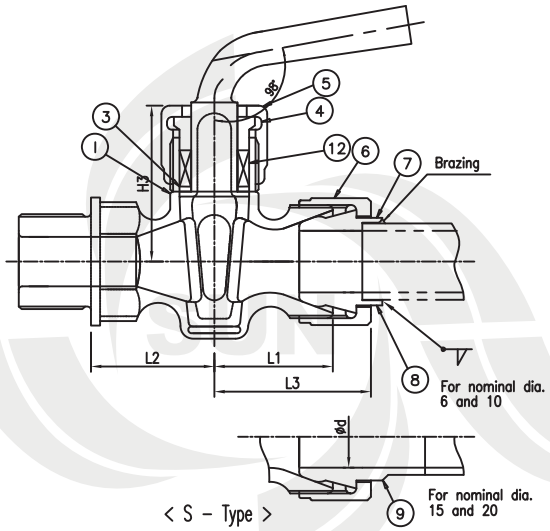
JIS F7387



< U – Type >

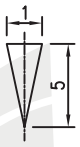
Intergral seat

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2A	PLUG A	BRONZE
2B	PLUG B	BRONZE
3	SEAT RING	BRONZE / BRASS
4	PACKING GLAND	BRONZE / BRASS
5	GLAND NUT	BRONZE / BRASS
6	UNION NUT	BRONZE / BRASS
7	NIPPLE FOR COPPER	BRASS
8	NIPPLE FOR STEEL	STEEL
10	UNION NUT	BRASS
11	SLEEVE	BRASS
12	PACKING	NON ASBESTOS

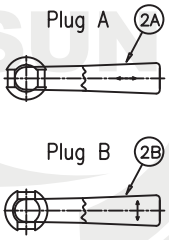


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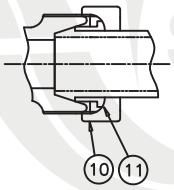
Taper for plug



Direction of plug port



For bite type union
(nominal dia. 6 and 10)



Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	Nominal dia. 6 and 10	Nominal dia. 15 and 20
Oil and pulsation water	1.6	1.3
Staturated steam	1.0	0.5
Non-Shock Water up to 120°C	2.0	1.6

Test Pressure (MPa)

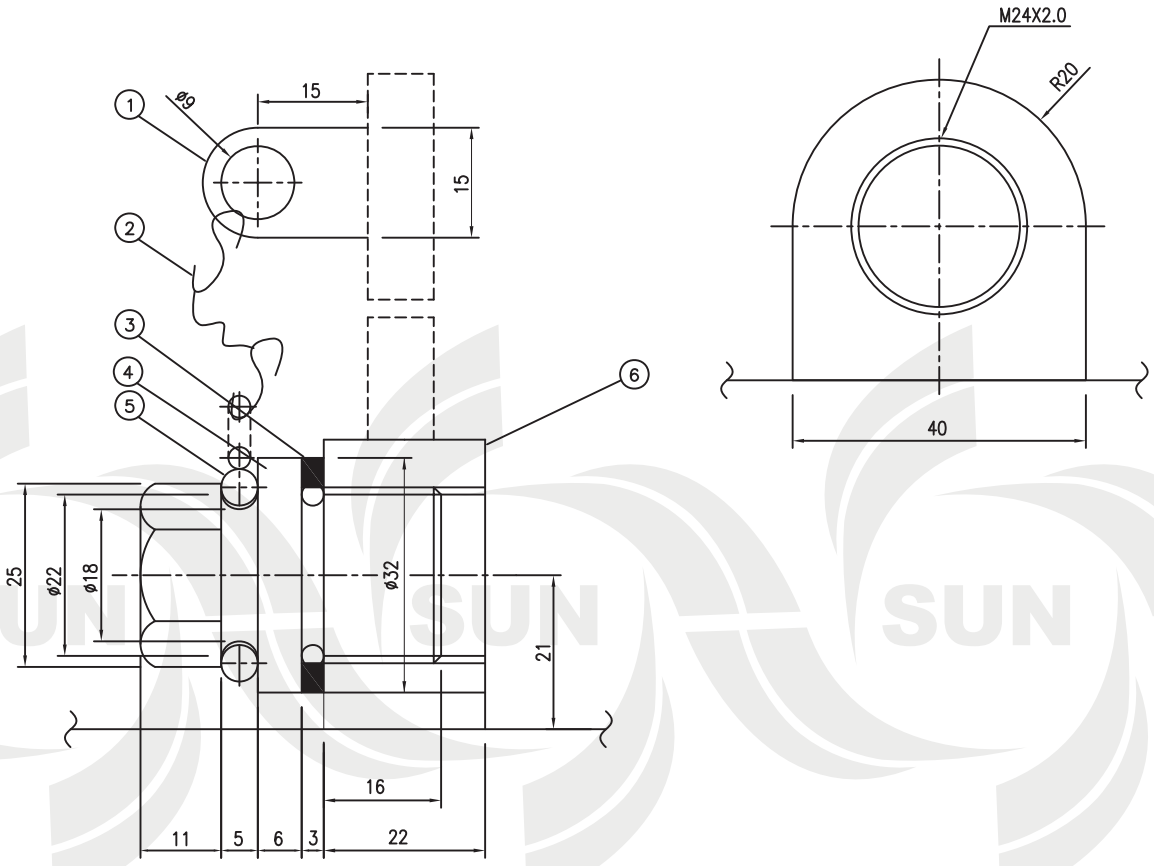
Nominal dia.	6 and 10	15 and 20
Hydrostatic press test (Shell)	3.00	2.40
Hydrostatic press test (Plug)	2.20	1.76

Dimension Table (Unit : mm)

Rating	Size	Copper Pipe	Steel Pipe	L	L1	L2	L3	L4	H3	Weight (kg)
JIS 16K (JIS F7387)	6A	8	10.5	56	28	28	37	74	36	0.46
	6A	10	10.5	56	28	28	37	74	36	0.46
	10A	15	17.3	80	40	35	52	104	44	0.85
	15A	20	21.7		45	45	58		56	1.46
	20A	25	27.2		50	50	65		62	2.09

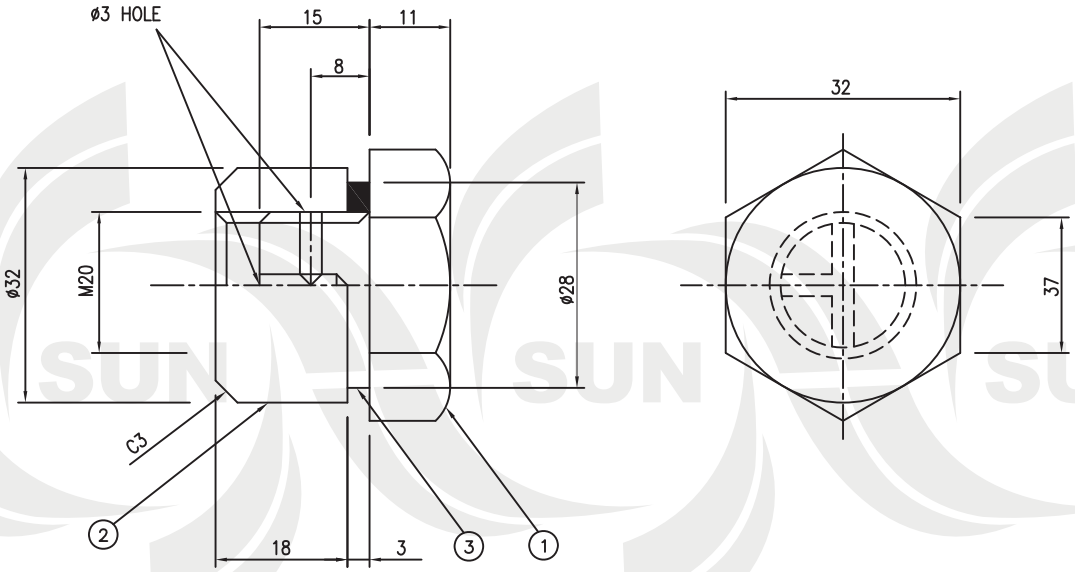
Remark : 1. The dimensions of union for copper pipe shall conform to JIS F 7440 and that for steel pipe to JIS F 7442.

Drain Plug with Boss



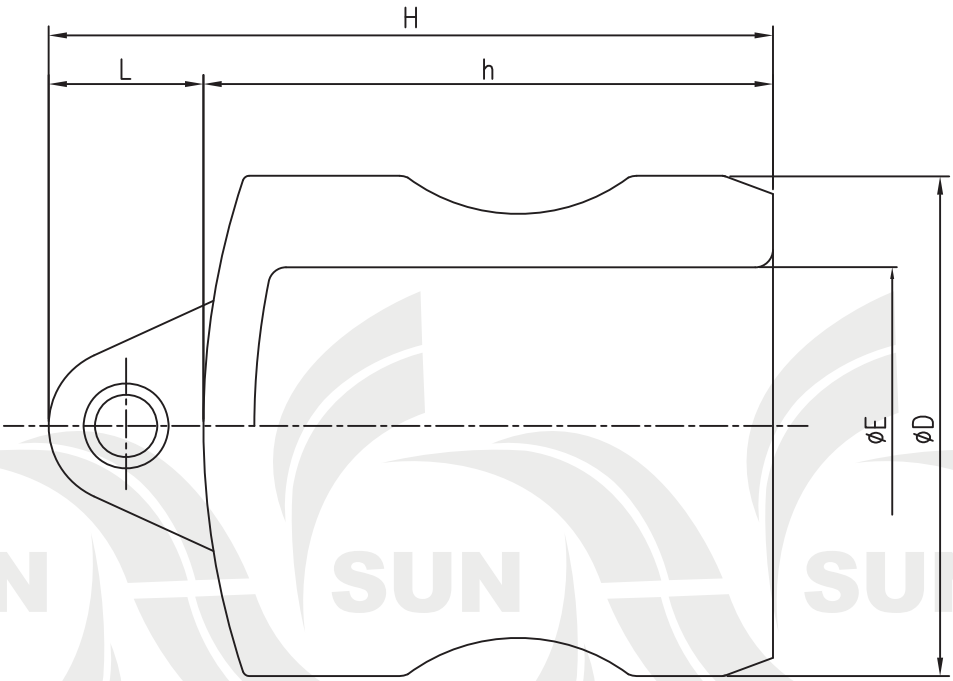
NO.	PARTS	MATERIAL
1	EYEPLATE	STEEL
2	WIRE	STAINLESS STEEL
3	PACKING	NEOPRENE
4	PLUG	BRASS
5	PLUG	C2600W
6	BOSS(SEAT)	STEEL

Drain and Air Plug with Boss



NO.	PARTS	MATERIAL
1	PLUG	BRASS
2	SLEEVE	STEEL
3	GASKET	NEOPRENE

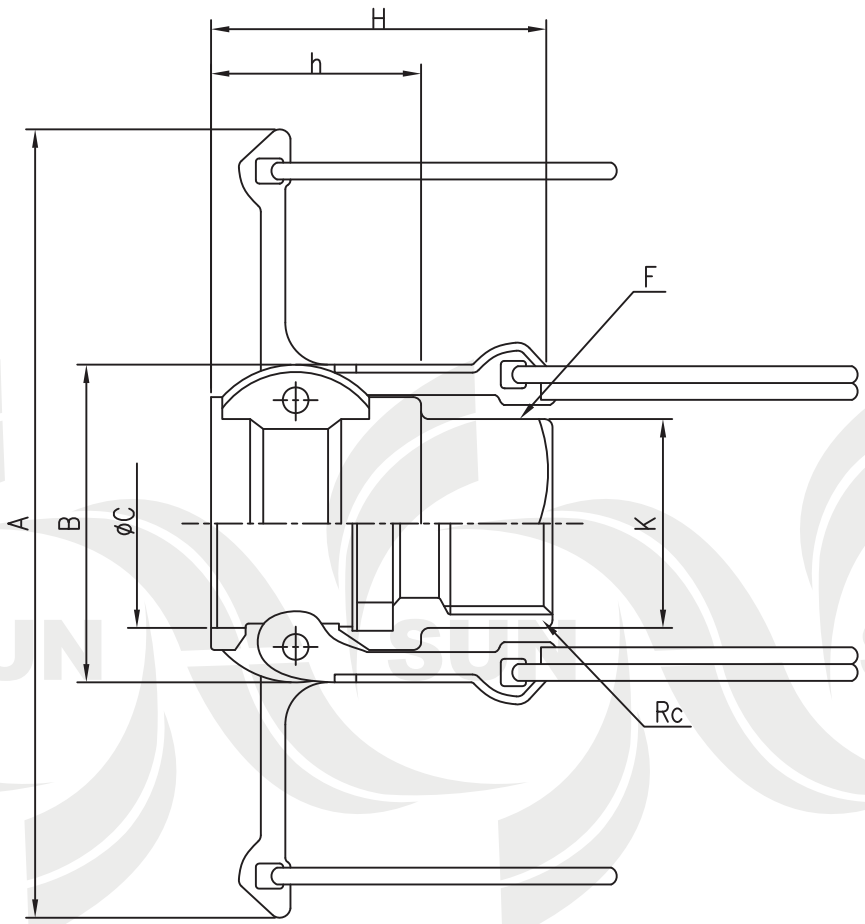
Kamlock Coupling(DP-Type)



DIMENSION

KLDP AL						
	øD	øE	h	L	H	W.T(g)
3/4	32	20	33	10	43	70
1	36.3	22	38	10	48	80
1 1/4	45.4	29.5	43	10	53	150
1 1/2	53.3	35	43	10	53	190
2	63	44	50	10	60	230
2 1/2	75.4	56	52.5	10	62.5	290
3	91.3	74	54	12	66	440
4	119.5	100	56	12	68	680
5	145	119	58	18	76	
6	176	150	66	20	86	

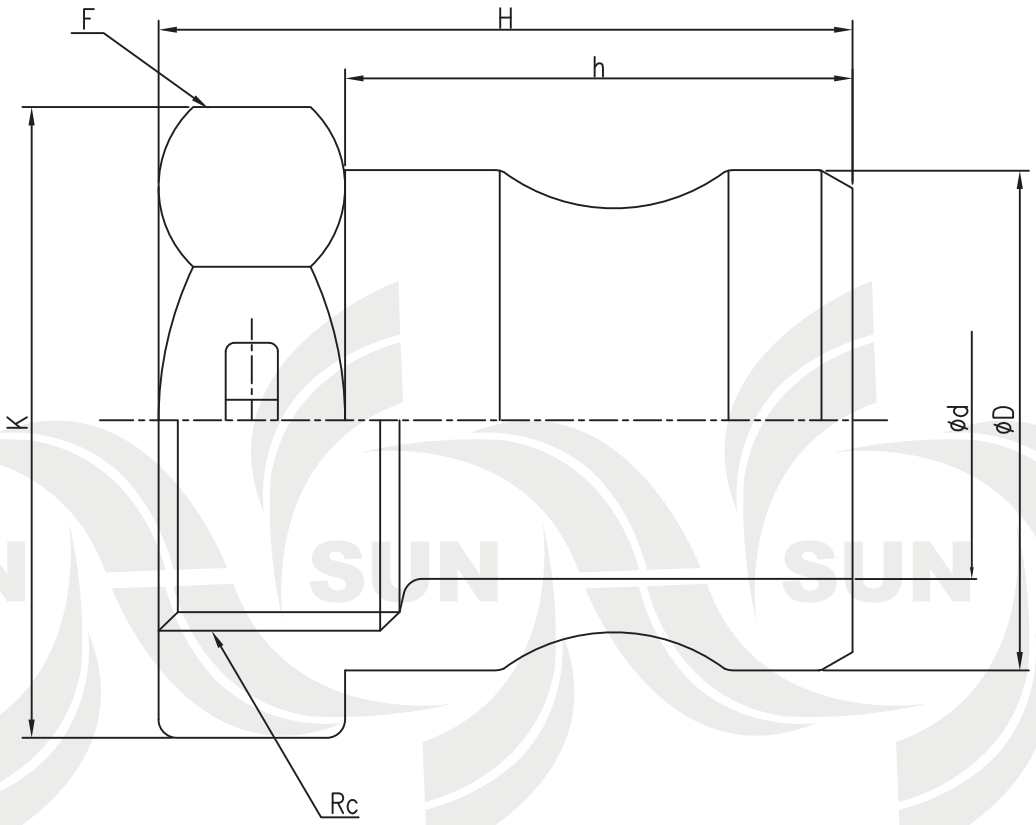
Kamlock Coupling(D-Type)



DIMENSION

KLD AL	A	B	øC	h	H	K	W.T(g)
3/4	130	53	32.8	34	54	36	130
1	133	59	37.5	40	56	45	160
1 1/4	164	75	46.5	46	70	54	240
1 1/2	175	80	54.5	47	69	63	310
2	195	88.5	64	51	75	73	370
2 1/2	217	105	77	52	83	90	550
3	245	126	92.3	56	84	106	700
4	275	156	121	58	94	136	1000
5	340	185	146.5	61	102	160	
6	405	225	177.5	67	114	190	

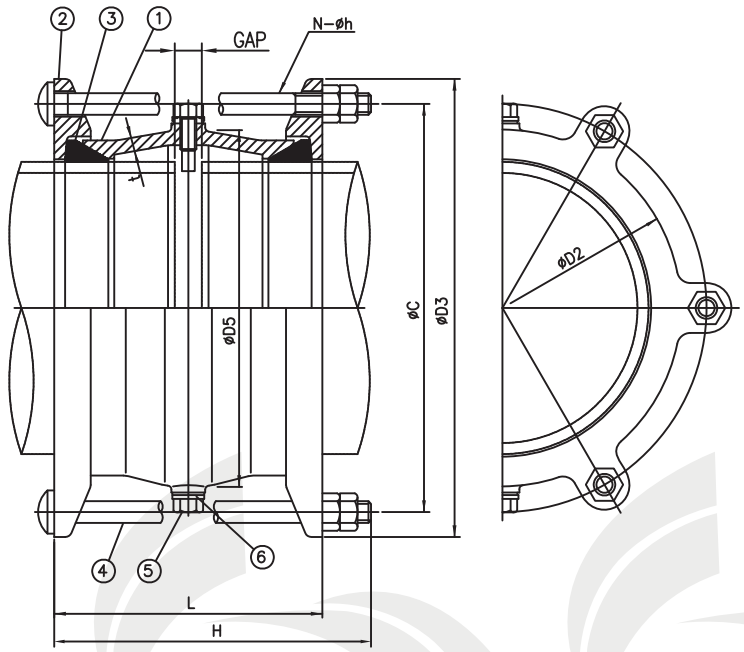
Kamlock Coupling(F-Type)



DIMENSION

KLA AL						
	øD	ød	K	H	h	W.T(g)
3/4	32	19	36	41	28	40
1	36.3	21.5	45	48	33	60
1 1/4	45.4	29.5	54	53	38	90
1 1/2	53.3	38.5	63	60	43	130
2	63	47	73	70	47	200
2 1/2	75.4	56	87	77	47	300
3	91.3	74.5	106	74	52	300
4	119.5	100	136	75	55	600
5	145	119	160	82	55	
6	176	150	190	88	60	

Convex Type Expansion Joint



NO.	PARTS	MATERIAL
1	MIDDLE RING	DUCTILE CAST IRON / STAINLESS STEEL
2	FOLLOWER	DUCTILE CAST IRON / STAINLESS STEEL
3	PACKING	NBR / VITON
4	BOLT & NUT	STEEL / STAINLESS STEEL
5	STOP BOLT	STAINLESS STEEL
6	WASHER	STAINLESS STEEL

Test Pressure (Bar)

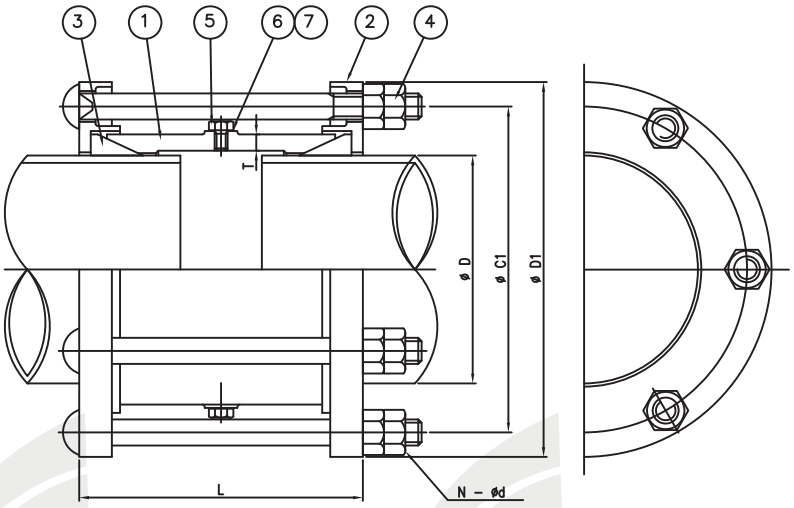
Rating	JIS 16K
Hydrostatic press test (Shell)	64

Dimension (Unit : mm)

MODEL-N.D	Pipe O.D	øD2	øD3	øD5	øC	L		H		t	N-øh		Weight (Kg)	
						SHORT	LONG	SHORT	LONG		SHORT	LONG	SHORT	LONG
EJC-40A	48.26	77	136	89.4	108	149	273	185	305	5.7	3-12	3-12	2.9	4.4
EJC-50A	60.33	91	150	103	122	153	273	185	305	6.6	3-12	3-12	3.7	5.5
EJC-65A	73.03	109	166	119	138	153	273	185	305	6.6	4-12	4-12	4.7	7.0
EJC-80A	88.9	124	189	132	154	165	282	215	320	6.6	4-16	4-16	7.0	10.0
EJC-100A	114.3	151	219	161	184	168	284	215	320	8.8	4-16	4-16	9.8	14.3
EJC-125A	141.3	179	247	187	212	178	294	215	335	8.8	6-16	6-16	13.3	18.8
EJC-150A	168.28	208	277	213	238	189	300	215	335	8.8	6-16	6-16	16.0	22.5
EJC-150A	168.28	208	277	213	238	189	300	215	335	8.8	6-16	6-16	16.0	22.5
EJC-200A	219.08	264	336	272	297	190	307	230	345	12.1	6-16	6-16	22.9	33.5
EJC-200A	219.08	264	336	272	297	190	307	230	345	12.1	6-16	6-16	22.9	33.5
EJC-250A	273.05	317	383	320	345	192	309	230	345	12.1	8-16	8-16	30.1	43.3
EJC-300A	323.85	368	436	370	395	202	311	230	355	12.1	8-16	8-16	34.5	49.7
EJC-300A	323.85	368	436	370	395	202	311	230	355	12.1	8-16	8-16	34.5	49.7
EJC-350A	355.6	406	472	407	431	207	311	230	355	12.1	10-16	10-16	41.3	58.4
EJC-400A	406.4	448	527	456	484	208	311	230	355	12.1	10-16	10-16	44.0	63.2
EJC-450A	457.2	514	581	507	538	208	315	230	355	12.1	12-16	12-16	53.8	75.4
EJC-500A	508.0	566	633	559	590	223	340	255	375	13.2	12-16	12-16	65.4	92.7
EJC-550A	558.8	617	688	611	643	223	340	255	375	13.2	14-16	14-16	72.5	102.6
EJC-600A	609.6	669	741	663	696	223	340	255	385	13.2	14-16	14-16	77.9	110.3
EJC-650A	660.4	721	791	714	746	247	340	290	385	13.2	16-16	16-16	87.4	122.9
EJC-700A	711.2	774	848	766	801	268	340	290	385	13.2	16-16	16-16	94.8	132.4
EJC-750A	762.0	826	898	817	851	268	340	290	385	13.2	16-16	16-16	101.2	141.1
EJC-800A	812.8	877	949	868	902	270	340	290	385	13.2	16-16	16-16	106.7	150.0

Remark : 1. The name plate shall be specified by purchaser as required.

Dresser Type Expansion Joint



NO.	PARTS	MATERIAL
1	MIDDLE RING	DUCTILE CAST IRON / STAINLESS STEEL
2	FOLLOWER	DUCTILE CAST IRON / STAINLESS STEEL
3	GASKET	NBR / VITON
4	BOLT & NUT	STEEL / STAINLESS STEEL
5	STOP BOLT	STAINLESS STEEL
6	WASHER	STAINLESS STEEL
7	PACKING	NBR / VITON

Test Pressure (Bar)

Rating	JIS 16K
Hydrostatic press test (Shell)	28

Dimension

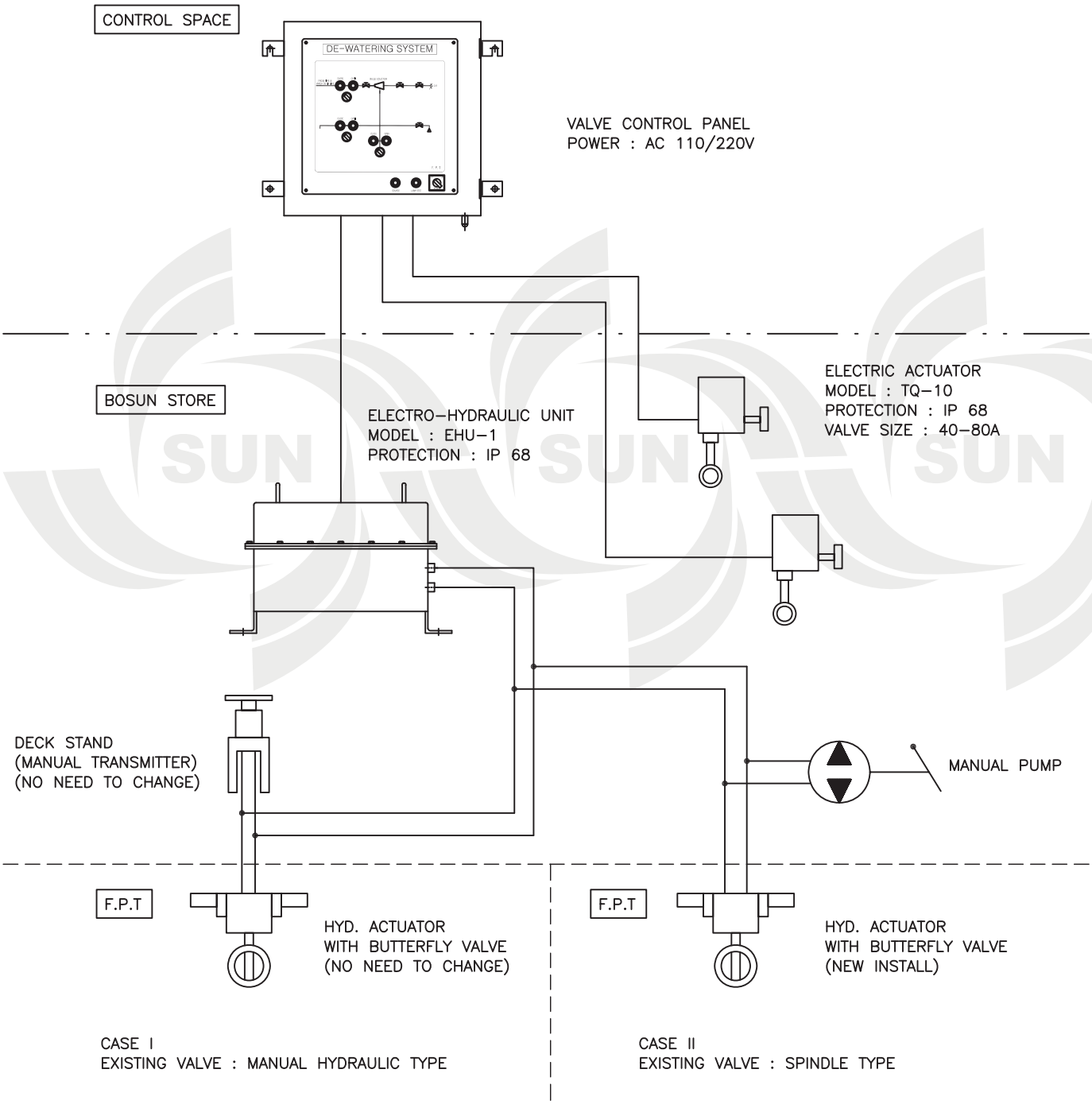
UNIT : MM

TYPE No.	NOMINAL DIA.		ø D	ø D1	ø C1	N – ød	L(APPROX.)		T	
	INCH	MM					STD	LONG	STD	LONG
EJD–20040	1 1/2"	40A	48.6	118	94	3 - 15	153	273	5.2	5.2
EJD–20050	2"	50A	60.5	132	108	3 - 15	153	273	6	6
EJD–20065	2 1/2"	65A	76.3	149	125	4 - 15	154	273	7	7
EJD–20080	3"	80A	89.1	176	146	4 - 19	164	282	7	7
EJD–20100	4"	100A	114.3	204	174	4 - 19	164	284	9	9
EJD–20125	5"	125A	139.8	230	200	6 - 19	174	294	10	10
EJD–20150	6"	150A	165.2	282	230	6 - 19	180	300	11	11
EJD–20200	8"	200A	216.3	320	286	6 - 19	187	307	13	13
EJD–20250	10"	250A	267.4	373	339	8 - 19	189	309	13	13
EJD–20300	12"	300A	318.5	426	390	8 - 19	191	311	13	13
EJD–20350	14"	350A	355.6	466	430	10 - 19	191	311	13	13
EJD–20400	16"	400A	406.4	520	482	10 - 19	191	311	13	13
EJD–20450	18"	450A	457.2	578	583	12 - 19	195	315	13	13
EJD–20500	20"	500A	508.0	634	592	12 - 19	215	340	14	14
EJD–20550	22"	550A	558.8	686	644	14 - 19	215	340	14	14
EJD–20600	24"	600A	609.6	736	694	14 - 19	215	340	14	14
EJD–20650	26"	650A	660.4	790	746	16 - 19	215	340	14	14
EJD–20700	28"	700A	711.2	842	798	16 - 19	215	340	14	14
EJD–20750	30"	750A	762.0	894	850	16 - 19	215	340	14	14
EJD–20800	32"	800A	812.8	948	904	16 - 19	215	340	14	14

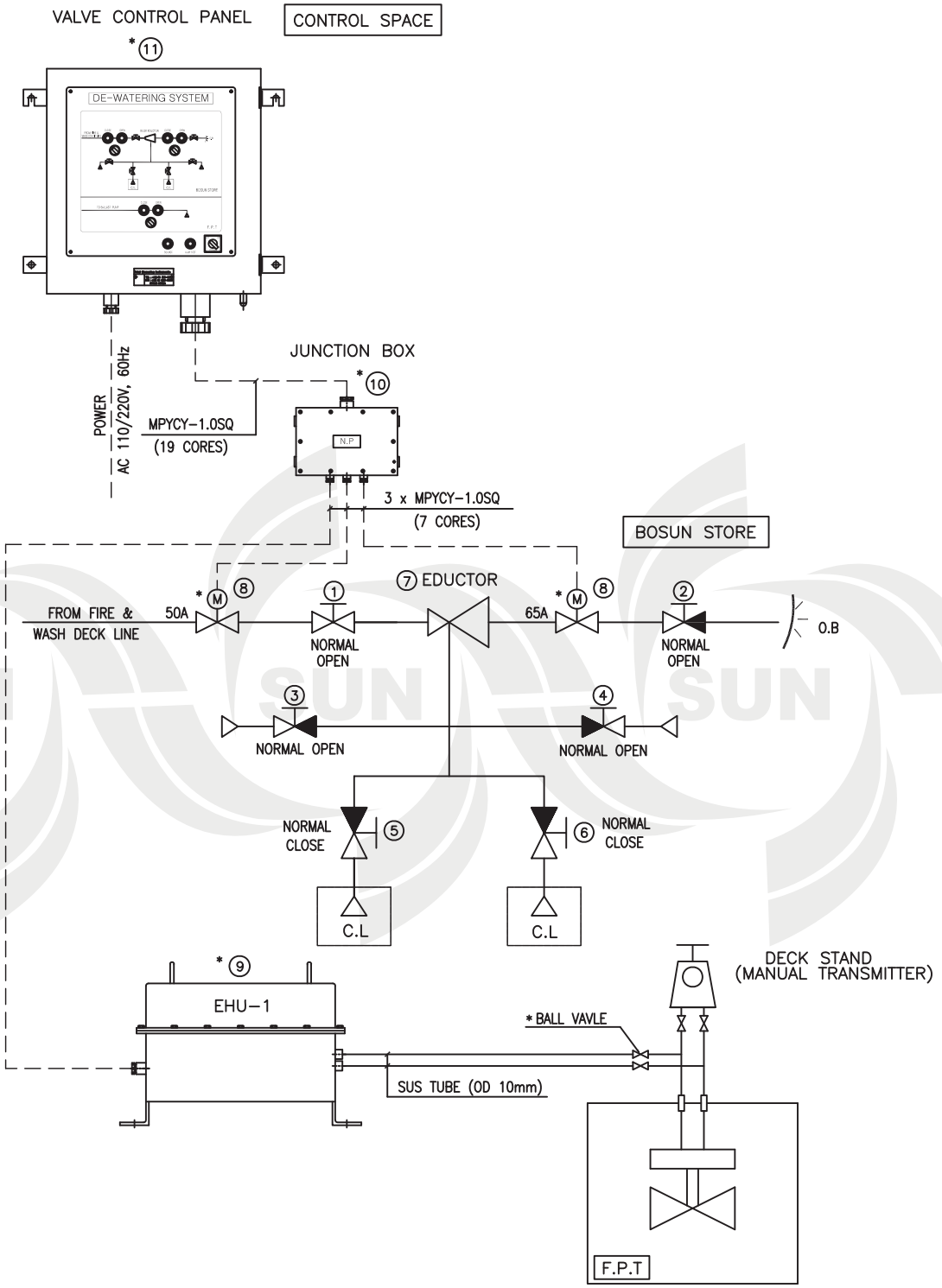
Remark : 1. The name plate shall be specified by purchaser as required.

Electric Type for Bosun Store & Forward Space

DEWATERING SYSTEM as IACS UI SC 179 were designed for discharge of water from ballast tank & forward dry space to overboard as SOLAS Reg. XII/13.
There are two kinds of system
*ELECTRO-HYDRAULIC TYPE : EHU-1
*ELECTRIC MOTOR TYPE : TQ-10



Schematic Diagram



REMARK

- VALVE 1,2,3,4 : ALWAYS SHOULD BE KEEP OPENED WITH LOCKING DEVICE
- VALVE 5,6 : ALWAYS SHOULD BE KEEP CLOSED WITH LOCKING DEVICE
- EDUCTOR 7 : WILL BE USED TO DEWATERING
- ELECTRIC ACTUATOR WITH B/F VALVE 8 SHOULD BE NEW INSTALLED
- IF ITEM 9,10,11,12,13 SHOULD BE NEW INSTALLED
- * MARKED ITEM WILL BE SUPPLIED BY MAKER

Specification

TQ-10 actuator is a engineered products which has been designed for remote controlling of the quarter turn(90°) Rotary Valve or same operating principle equipment.

Specification of System :

- Model : TQ-10
- Power supply : AC220V / 60Hz, 15W
- Electric connection : 6cores cable
- Protection : IP68
- Valve type : Butterfly
- Valve size : 40A~80A
- Manual override and open/close indicator

Application & Installation Condition :

This system is applied where the bilge eductor had installed to discharge of Forward dry space's bilge.
Using the existing eductor(pumping) arrangement as it is, the bilge can be discharge to overboard by remotely control the valve which is installed on "Eductor driving water line"

Feature

- Easy to install & Simple to operating
- Lowest installation cost
- IP 68 as rule requirements



Electro-Hydraulic Type for F.P.T

The Electro-Hydraulic Unit : EHU-1
EHU-1-Electro-Hydraulic Unit were consisted with well known Hydraulic pump, motor, solenoid valve, etc. and Protection of Unit was designed properly to IP68.

If the existing Valve is a Manual Hydraulic (Hydraulic Transmitter) Type, the valve can be remotely controlled with EHU-1 without any modification of existing device.

Specification of System :

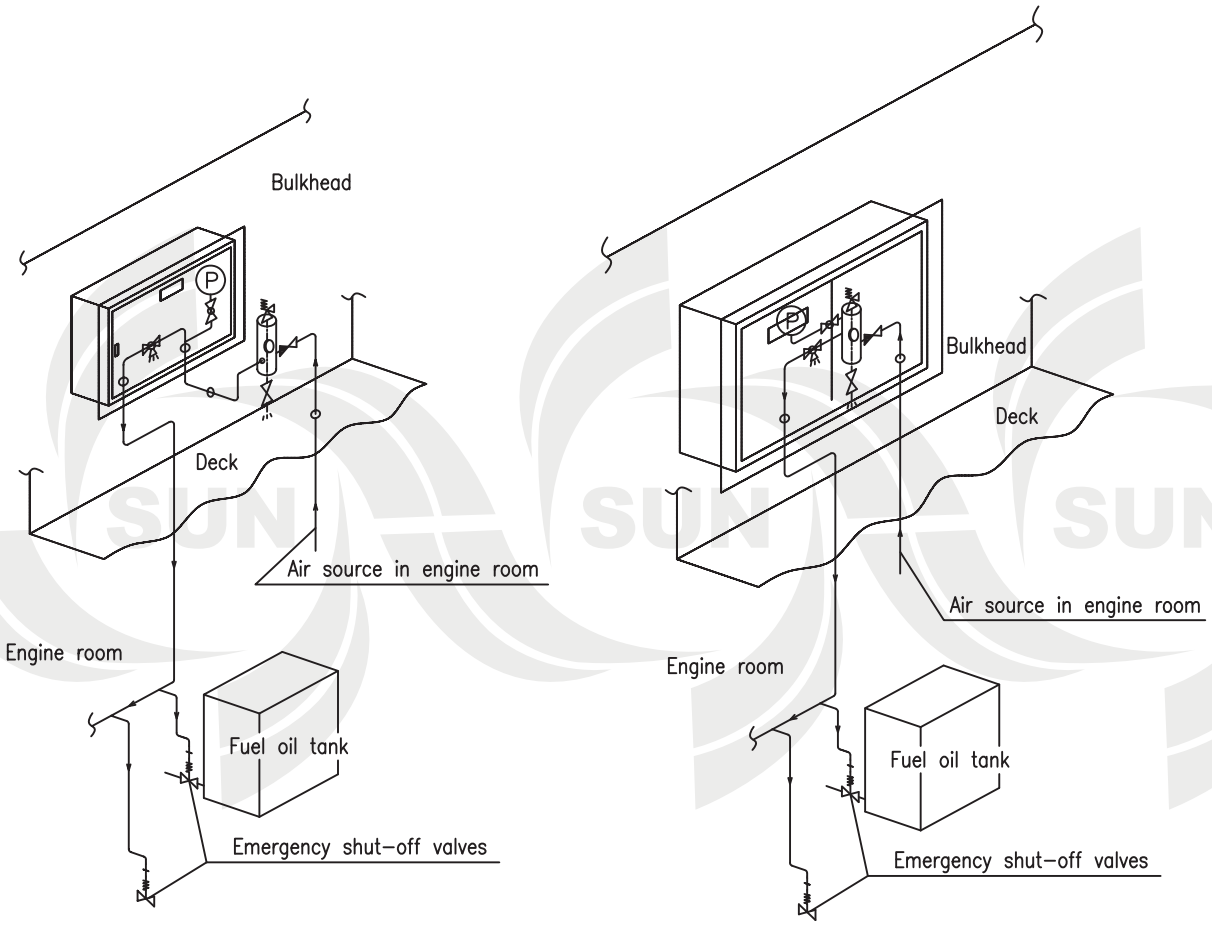
- Model : EHU-1
- Including :
  - 1set of Electro-Hydraulic Power unit
  - 1set of Solenoid valve
  - 2sets of Pressure switch
  - 1set of Safety Relief Valve
  - 1set of Pressure Relief Valve
  - 1set of Pilot Check valve
- Power supply : AC220V / 60Hz, 500W
- Electric connection : 7cores cable
- Hyd. Connection : 2 x G1/4"
- Protection : IP68
- Setting Pressure : 85bars(adjustable)
- Note :
  If the existing Valve is a Spindle-Rod type, the Existing Valve should be changed to Hydraulic Actuator with B/F valve and the Stationary hand pump should be installed for Em'cy operation.



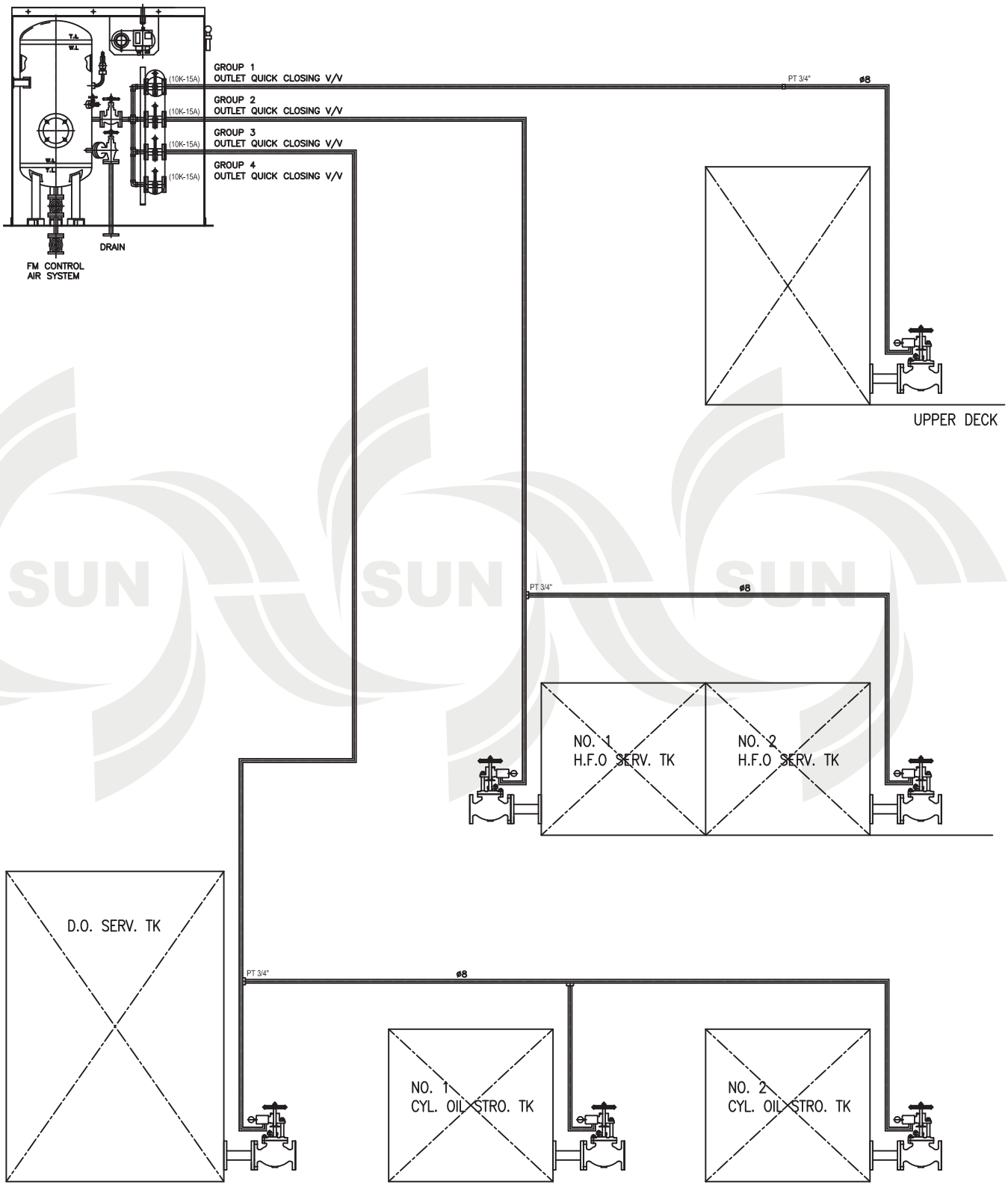
Feature

- Easy to install & maintain and simple to operating
- No need to change the valve & actuator if the exist valve is a Manual Hyd. type for F.P.T
- Lowest cost for installation
- IP 68 as rule requirements

Pneumatically Operated Remote Shut-off Devices for Fuel Oil Tank Emergency Shut-off Valves

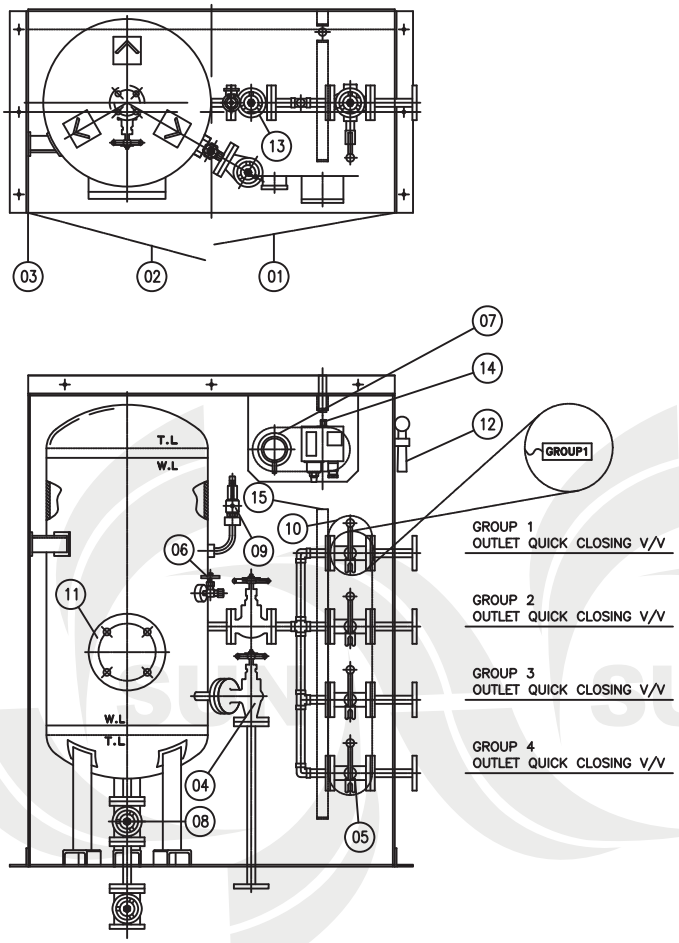


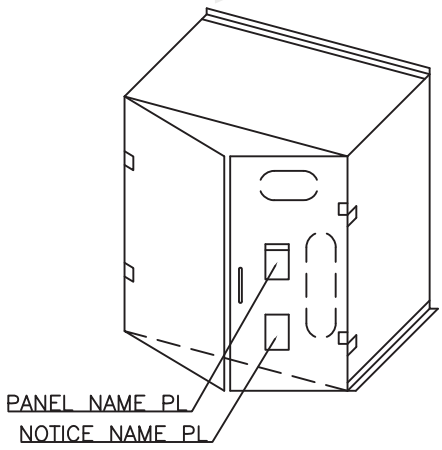
Quick Closing Valves Control System(Typical Diagram)



Pneumatic Control Box for Quick Closing Valves

JIS F7399



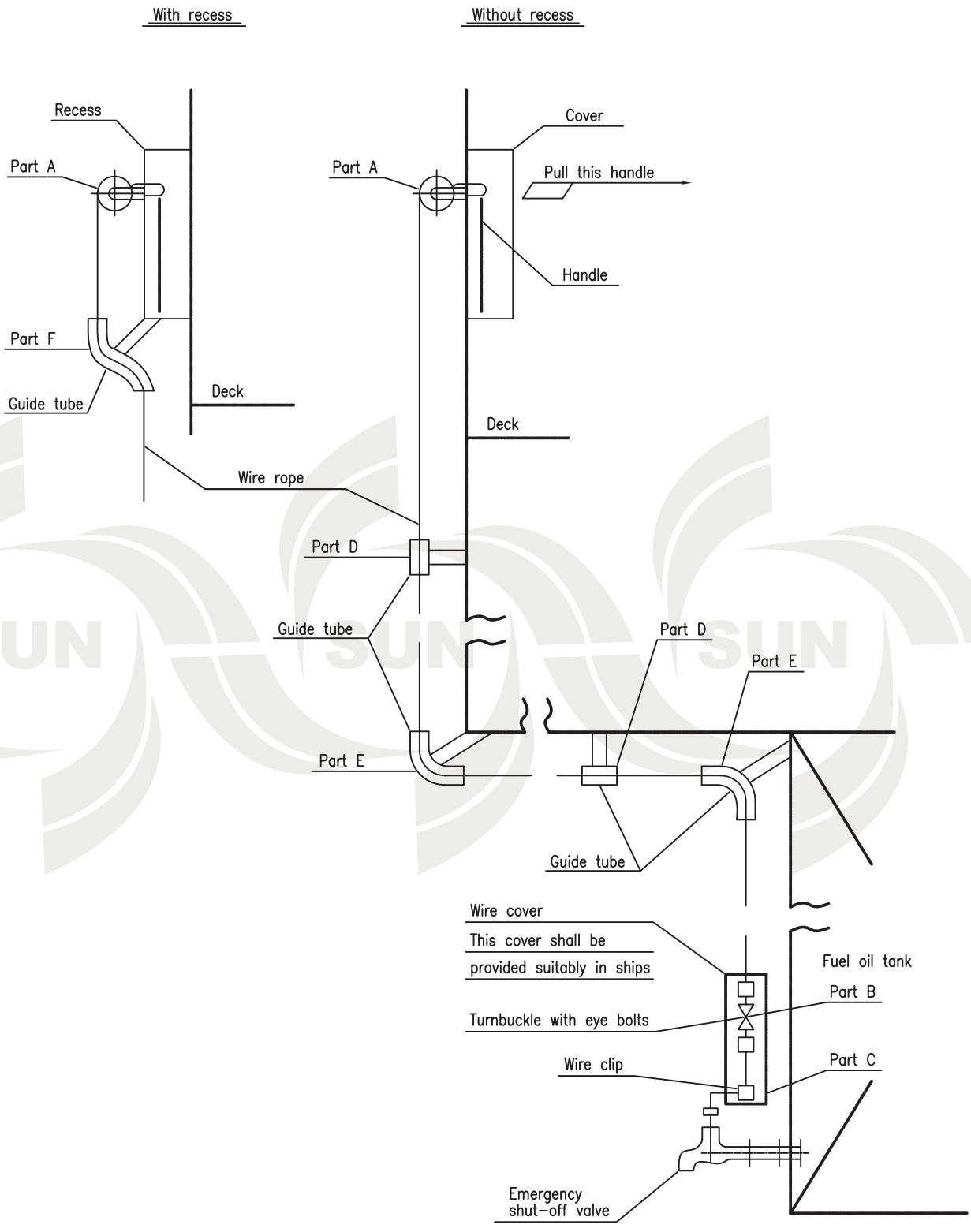


NO.	PARTS	MATERIAL
1	CONTROL BOX	STEEL
2	DOOR	STEEL
3	HINGE	STEEL
4	ANGLE CHECK VALVE	BRONZE
5	3-WAY PISTON VALVE	BRONZE
6	GAUGE VALVE	BRONZE or BRASS
7	PRESSURE. GAUGE	
8	DRAIN VALVE	BRONZE
9	SAFETY VALVE	BRONZE or BRASS
10	GLASS	GLASS
11	CLEANING HOLE	STEEL
12	HAMMER	STEEL
13	GLOBE VALVE	BRONZE
14	PRESSURE SWITCH	
15	FLAT BAR	STEEL

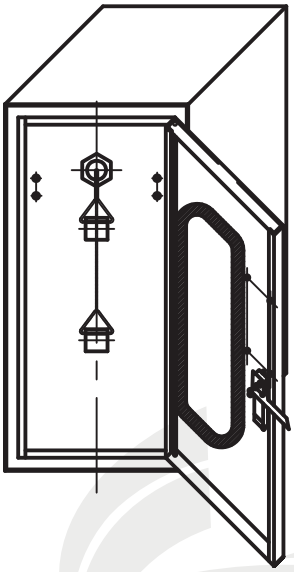
SPECIFICATION

1. WORKING PRESSURE : 7Kg/cm^2
2. DESIGN PRESSURE : 7.7Kg/cm^2
3. TEST PRESSURE : 11.55Kg/cm^2
4. ALARM PRESSURE : 2.0Kg/cm^2
5. PAINTING
   1)CONTROL BOX : INSIDE - ALKYD WHITE
   : OUTSIDE - ALKYD RED
   2)AIR RESERVOIR : INSIDE - TAR EPOXY (2 COATING)
   : OUTSIDE - ALKYD WHITE

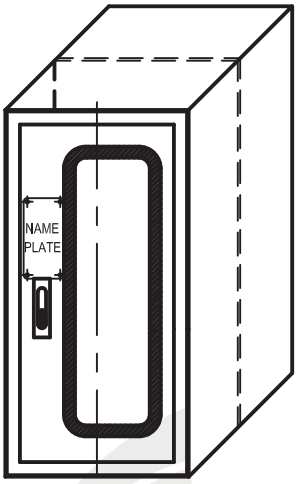
Remote Shut-off Devices for Marine Fuel Oil Tank



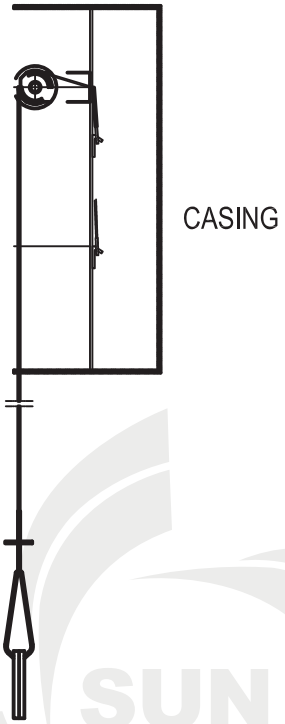
One-Handle Type for Quick Closing Valves(Wire Type)



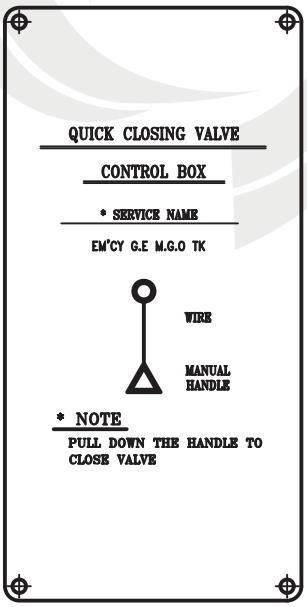
VIEW OF OPEN DOOR



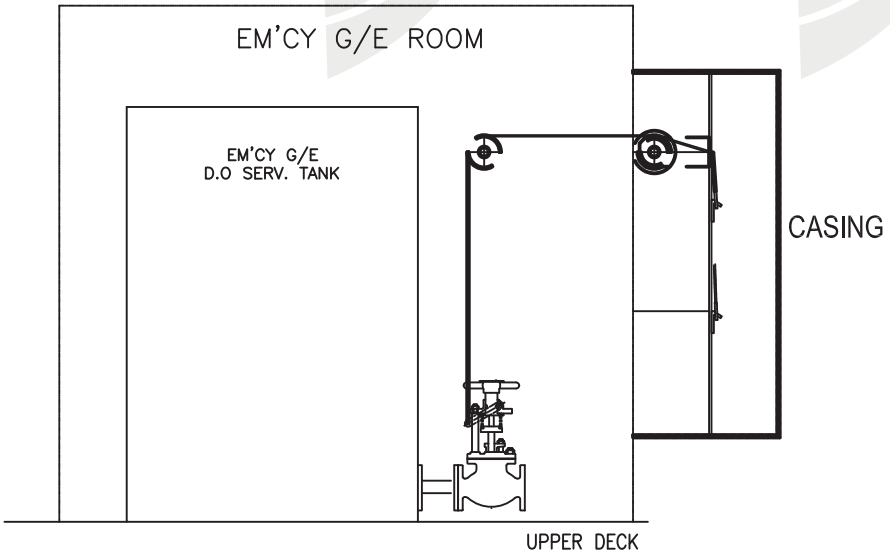
VIEW OF OFF DOOR



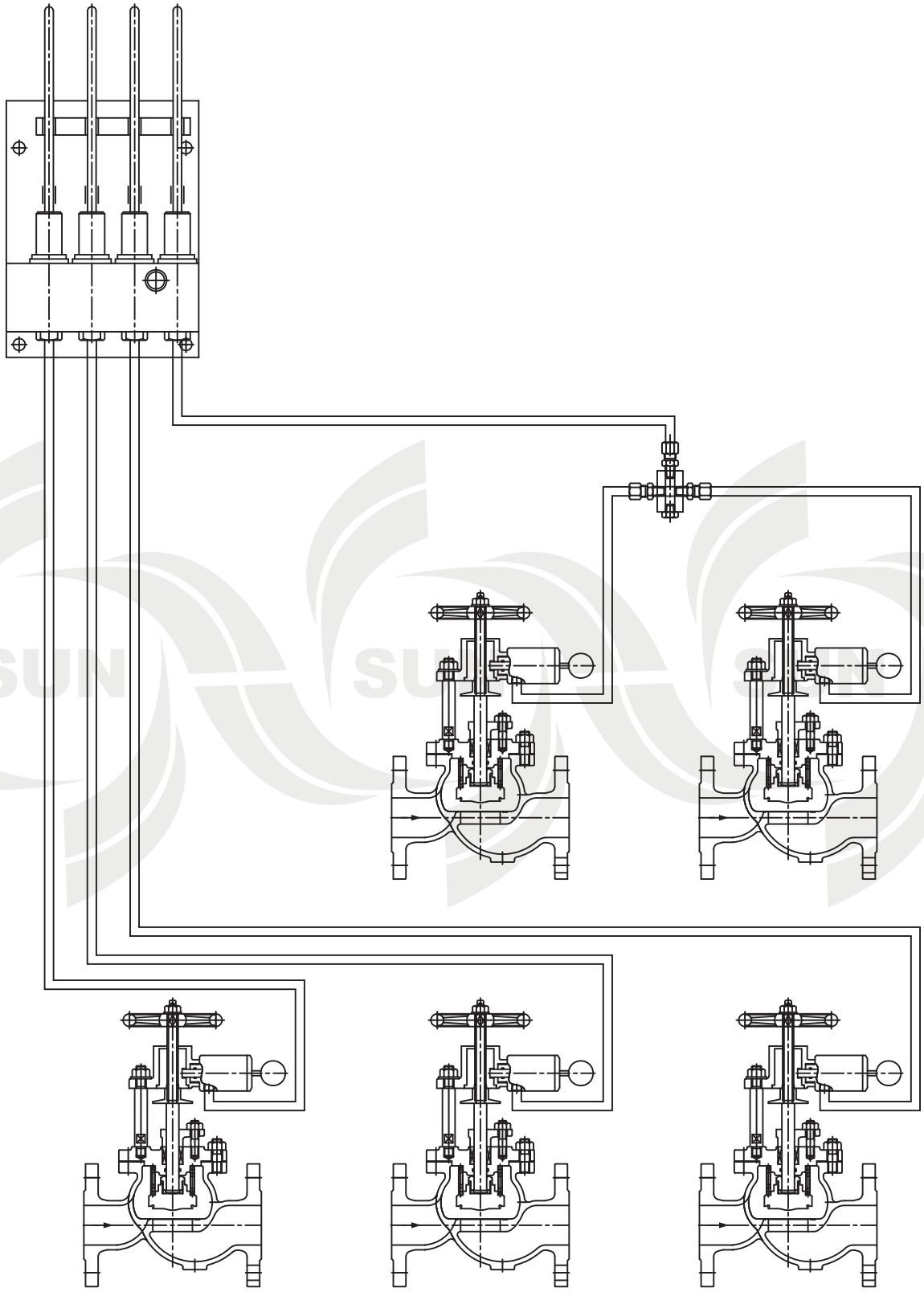
VIEW OF INTERNAL PLATE



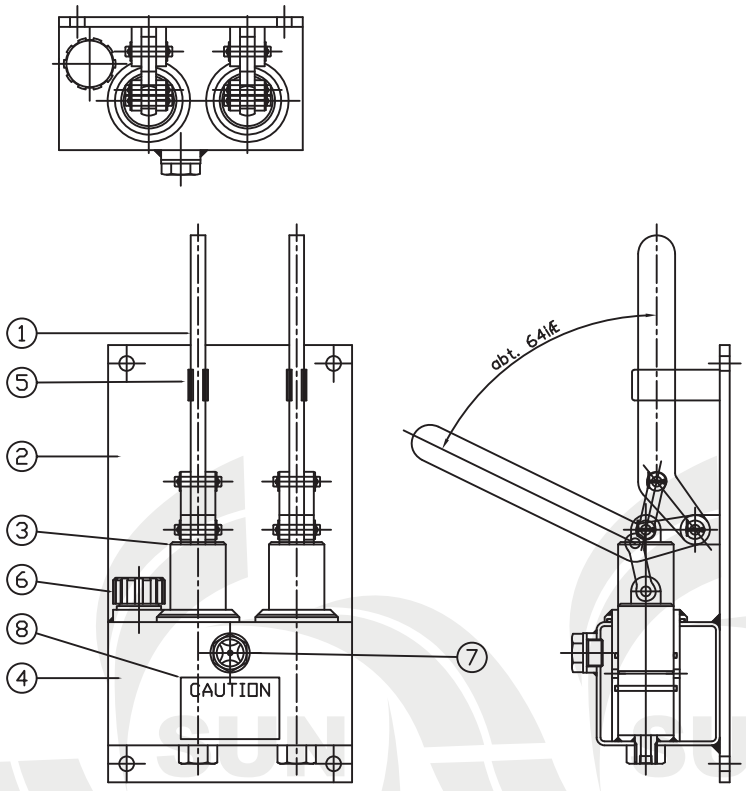
NAME PLATE



Hydraulically Remote-Controlled Quick Closing Valves



Impulse Unit for Hydraulic Remote Controlled Quick Closing Valves



NO.	PARTS	MATERIAL
1	LEVER	STEEL
2	MOUNT PLATE	STEEL
3	PISTON	STAINLESS STEEL
4	HOUSING	STEEL
5	LEVER CLAMP	STEEL
6	FILLING CAP	ALUMINUM / BRASS
7	LEVEL GAUGE	GLASS
8	CAUTION PLATE	ALUMINUM

*** TECHNICAL DETAILS**

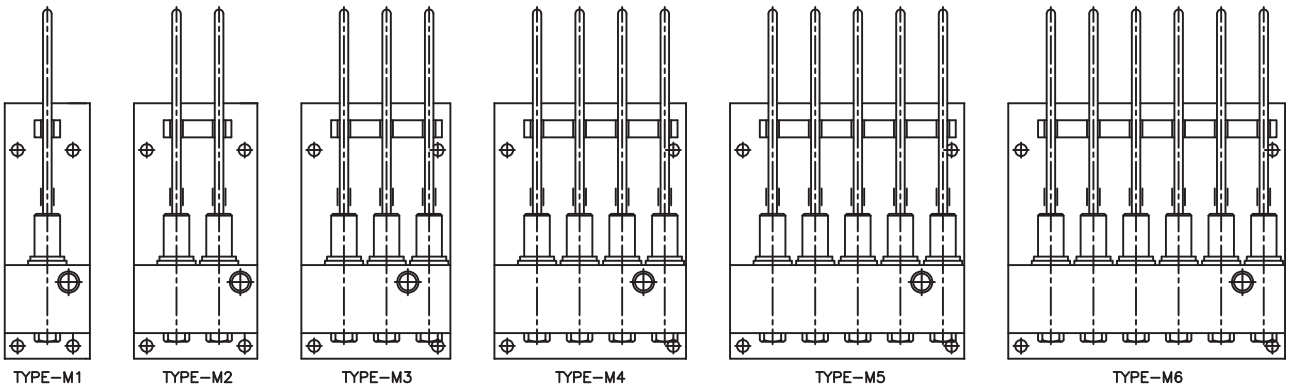
1. STORKE VOLUME EACH CYLI' 50CC
2. NOMINAL RELEASE PRESSURE : 10 to 25BAR
3. ONE(1) QUICK CLOSING VALVE SHOULD BE CONNECTED TO THE ONE(1) PUMP UNIT.
4. RECOMMEND THE USE OF A MINERAL HYD. OIL WITH LOW TO MEDIUM VISCOSITY.

* DESCRIPTION

THE QUICK CLOSING VALVE IS PROVIDED WITH A HYD. CYLINDER FOR HYD. REMOTE CONTROL. THIS CYLINDER IS ACTIVATED THROUGH SPECIAL 2 OR 3 PART IMPULSE UNITS.

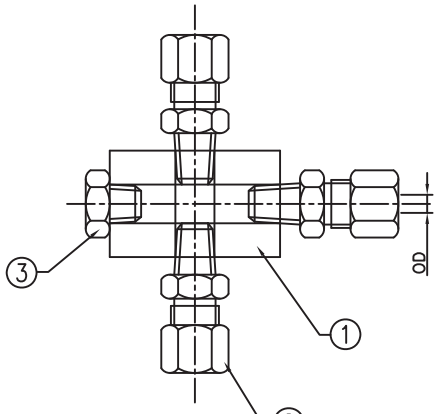
THE MODE OF OPERATION IS AS FOLLOWS : BY PULLING THE LEVER OF THE IMPULSE UNIT, THE OIL VOLUME UNDER THE PISTON IS PRESSED THROUGH THE CONNECTION PIPE TO THE ACCTIVATING CYLINDER OF THE QUICK CLOSING VALVE.

THE OIL VOLUME THAT HAS BEEN REMOVED UNDER PRESSURE WILL MOVE THE PISTON ROD OF THE ACTIVATING CYLINDER WHICH MAKES HANDLE A RELEASE THE BLOCK AND SUBSEQUENTLY THE VALVE CLOSES.



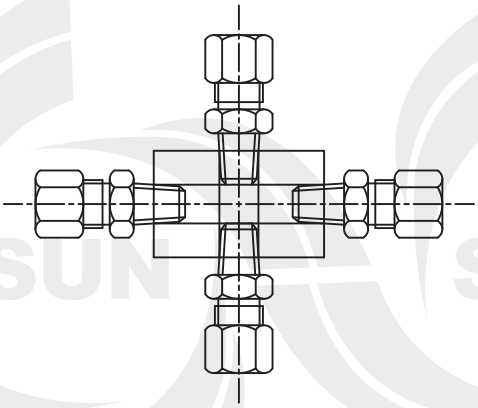
Remark : 1. The name plate shall be specified by purchaser as required.

Distribution Block for Impulse Unit

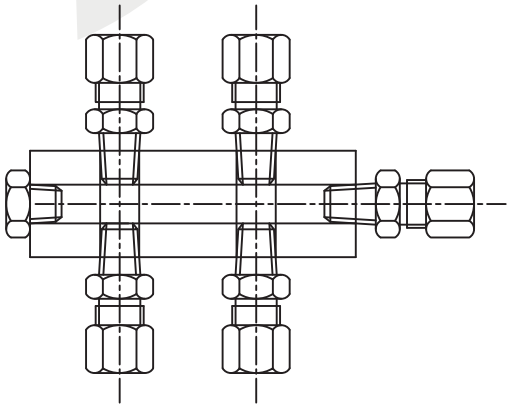


TYPE 1

NO.	PARTS	MATERIAL
1	BLOCK	BRASS / STAINLESS STEEL
2	MALE STUD COUPLING	BRASS / STAINLESS STEEL
3	PLUG	BRASS / STAINLESS STEEL



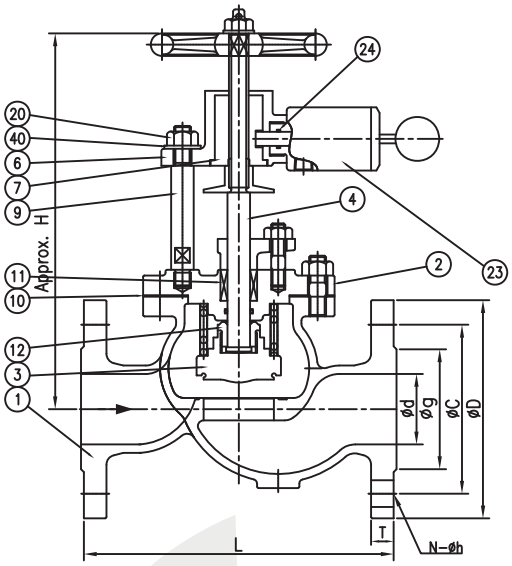
TYPE 2

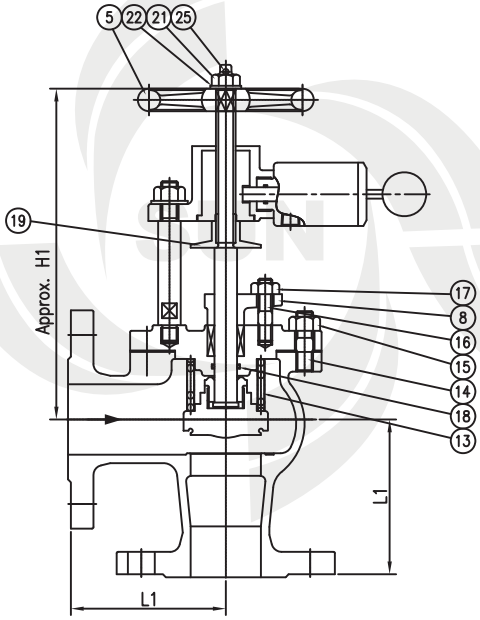


TYPE 3

	INLET	OUTLET	OD
TYPE 1	1	2	6
TYPE 2	1	3	6
TYPE 3	1	4	6

PN 10/16 Hydraulic Remote Controlled Quick Closing Valves





Bolted Bonnet Renewable seat Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE / CAST STEEL
2	BONNET	BRONZE / CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	HANDWHEEL	CAST IRON
6	YOKE	BRONZE
7	YOKE BUSH	BRASS
8	PACKING GLAND	BRONZE
9	STAY	STEEL
10	GASKET	NON ASBESTOS
11	PACKING	NON ASBESTOS
12	DISC NUT	BRASS
13	SPRING	STEEL
14	BOLT	BRASS / STAINLESS STEEL
15	NUT	BRASS / STAINLESS STEEL
16	STUD BOLT	BRASS / STAINLESS STEEL
17	NUT	BRASS / STAINLESS STEEL
18	O-RING	NBR
19	INDICATOR	BRASS
20	NUT	STEEL
21	HANDLE NUT	STEEL
22	NAME PLATE	STAINLESS STEEL
23	ACTUATOR	BRASS
24	O-RING	NBR
25	SPLIT PIN	BRASS

Test Pressure (Bar)

Rating	PN 10	PN 16
Size	15A to 250A	15A to 250A
Hydrostatic press test (Shell)	7	7
Hydrostatic press test (Seat)	2	2

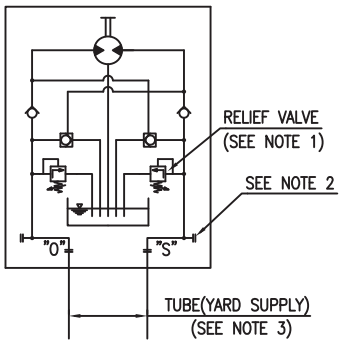
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N-h
PN 10 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	4-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	8-22
	250	250	730	325	600	480	395	350	320	28	12-23
Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N-h
PN 16 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	8-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	12-23
	250	250	730	325	600	480	405	355	320	28	12-27

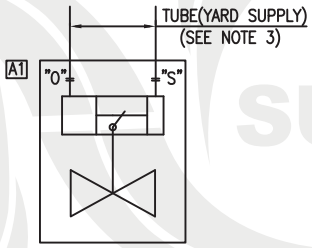
Remark : 1. The name plate shall be specified by purchaser as required.

Manual Hyd. Remote Control Operator for Valves(Piping Diagram)

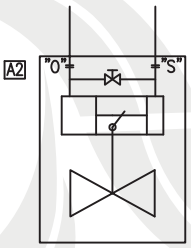
MANUAL HYD. TARNSMITTER



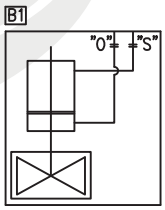
ACTUATOR & VALVES



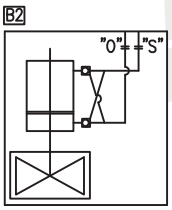
➡ BUTTERFLY VALVE



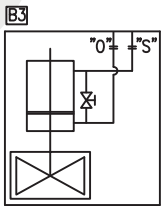
⇨ BUTTERFLY VALVE WITH HANDLE



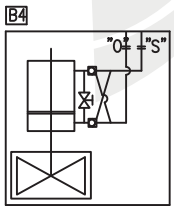
⇨ SDNR GLOBE VELVE
⇨ SDNR ANGLE VELVE
⇨ GATE VALVE (~200A)
⇨ STORM VALVE



⇨ GLOBE VALVE
⇨ ANGLE VALVE
⇨ SURFACE VALVE
⇨ GATE VALVE(250A~)



⇨ SDNR GLOVE V/V WITH HANDLE
⇨ SDNR ANGLE V/V WITH HANDLE
⇨ GATE VALVE WITH HANDLEA(~200A)
⇨ STORM VALVE WITH HANDLE

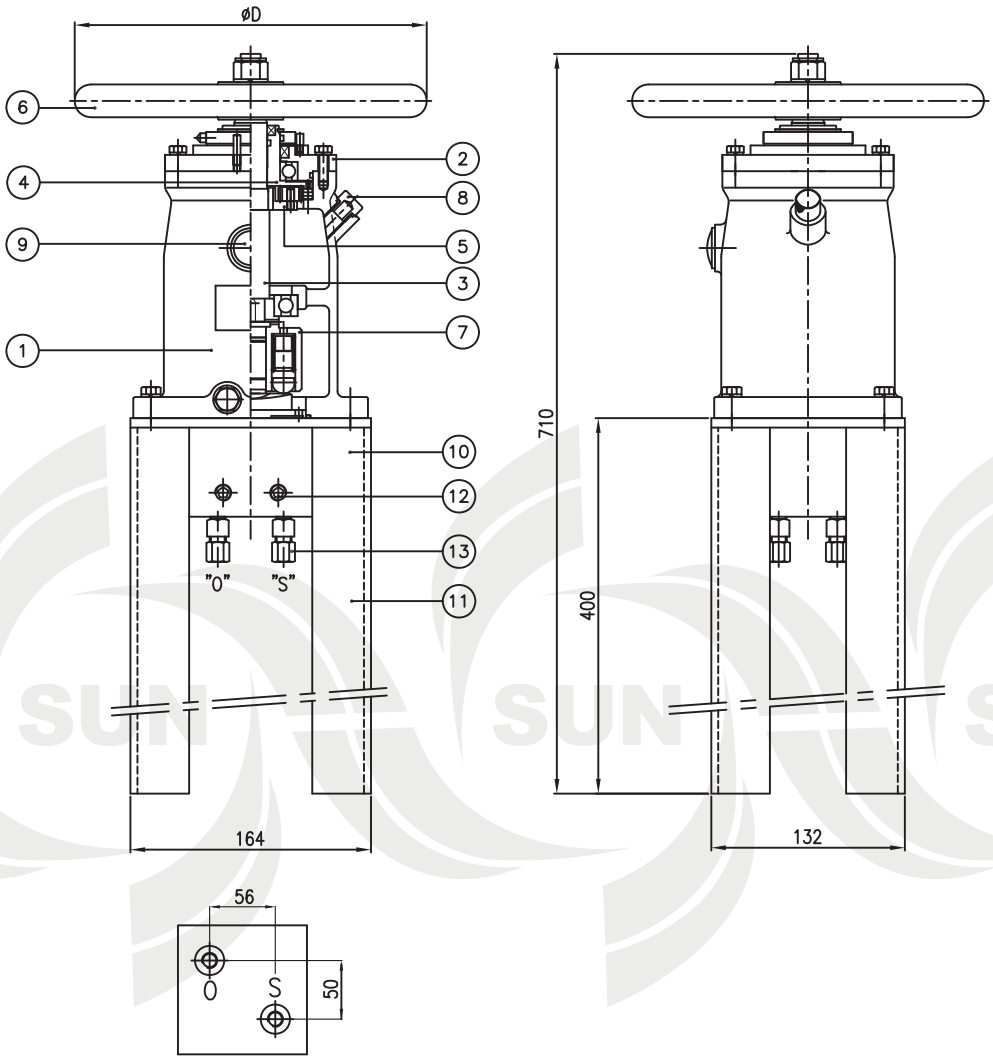


⇨ GLOBE V/V WITH HANDLE
⇨ ANGLE V/V WITH HANDLE
⇨ SURFACE VALVE WIHT HANDLE(~200A)
⇨ GATE VALVE WITH HANDLE(250~)

NOTE
1. RELIEF VALVE SETTING PRESSURE
   – OPEN : 90 BAR
   – CLOSE : 80 BAR
2. SELF SEAL COUPLING for EMERGENCY HANDPUMP
3. PIPING : YARD SUPPLY

Manual Hyd. Transmitter

SUN-HTMC-X001A



NOTE

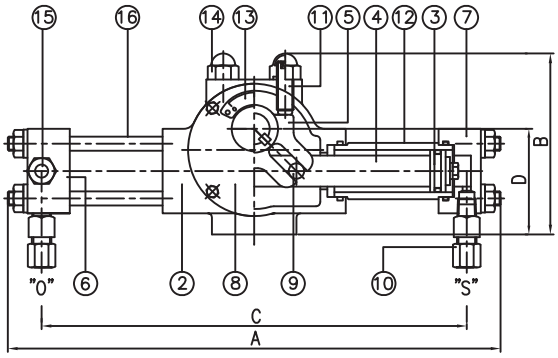
1. "S" : Close Port
   "O" : Open Port
2. TANK OIL VOLUME : 1200 CC

SIZE	øD	DISCHARGE (CC/REV)	WEIGHT (Kg)	VALVE NO.
HTM-CA	300	13	32	
HTM-CB	350	24	34	
HTM-CC	400	45	39	
HTM-CD	500	68	48	

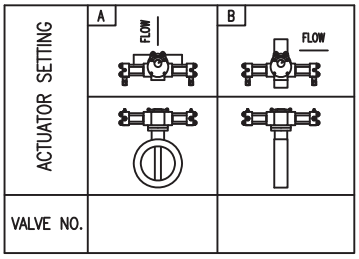
NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	STEEL
3	SHAFT	S 45C
4	GUIDE	BRASS
5	ARM	STEEL
6	HANDLE	CAST IRON
7	CYLINDER BLOCK	DUCTILE CAST IRON
8	OIL PLUG	BRASS
9	LEVEL GAUGE	PUR'
10	BLOCK	DUCTILE CAST IRON
11	STAND	STEEL
12	WRENCH PLUG	BRASS
13	MALE CON. UNION	STAINLESS STEEL

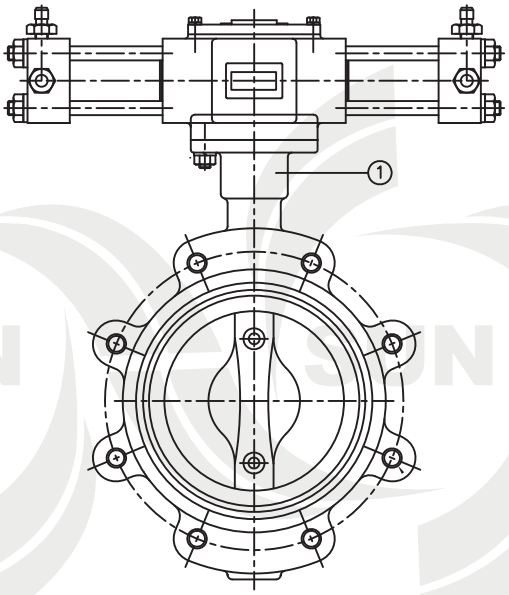
Hyd. Rotary Type Actuator for Butterfly Valves

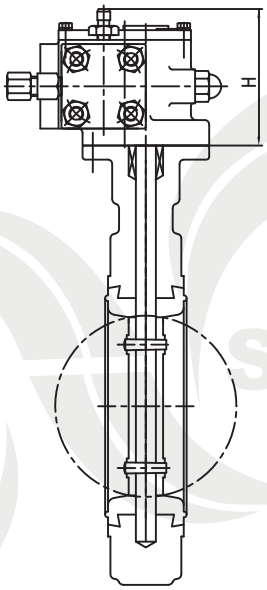
SUN-HAAD-X001A



MOUNTING METHOD







NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "S" : Close Port
   "O" : Open Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Double Acting

DIMENSION TABLE — UNIT : mm

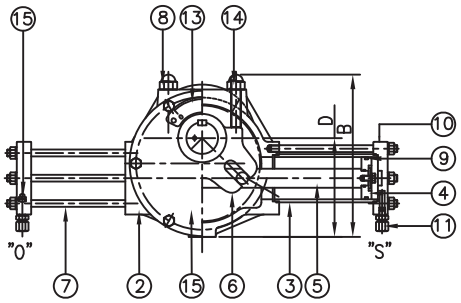
VALVE SIZE	A	B	C	D	H	OIL VOLUME (cc)	WEIGHT (Kg)	MODEL	VALVE NO.
50A	350	131	302	75	91	71	8	HAA-D03	
65A	350	131	302	75	91	71	8	HAA-D03	
80A	350	131	302	75	91	71	8	HAA-D03	
100A	350	131	302	75	91	71	8	HAA-D03	
125A	350	131	302	75	91	71	8	HAA-D03	
150A	500	208	440	115	131	260	15	HAA-D05	
200A	500	208	440	115	131	260	15	HAA-D05	
250A	500	208	440	115	131	260	15	HAA-D05	

NO.	PARTS	MATERIAL
1	VALVE ASS'Y	
2	ACT. BODY	DUCTILE CAST IRON
3	PISTON	STEEL
4	ROD	S45C
5	ARM	CAST STEEL
6	SIDE COVER (L)	STEEL
7	SIDE COVER (R)	STEEL
8	UPPER COVER	STEEL
9	PIN	S45C
10	CONNECTER	STAINLESS STEEL
11	ADJUSTING BOLTS	S45C
12	CYLINDER	STPG38
13	INDICATOR PLATE	STAINLESS STEEL
14	CAP NUT	STEEL
15	ALR VENT PLUG	STAINLESS STEEL
16	STUD BOLT	STEEL

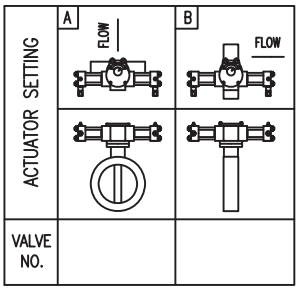
Remark : 1. The name plate shall be specified by purchaser as required.

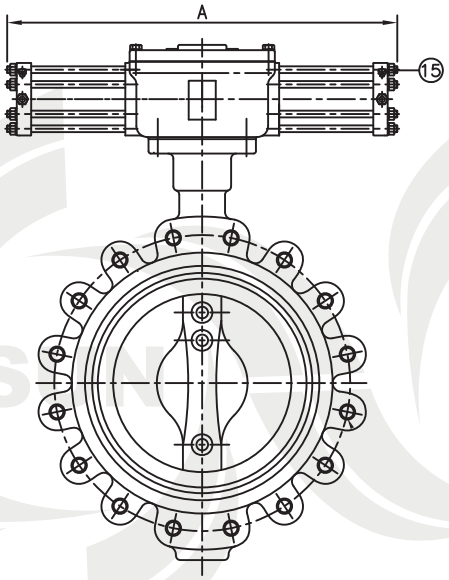
Hyd. Rotary Type Actuator for Butterfly Valves

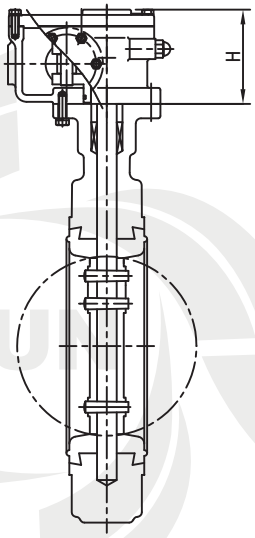
SUN-HAAD-X002



MOUNTING METHOD







NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "S" : Close Port
   "O" : Open Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Double Acting

DIMENSION TABLE UNIT : mm

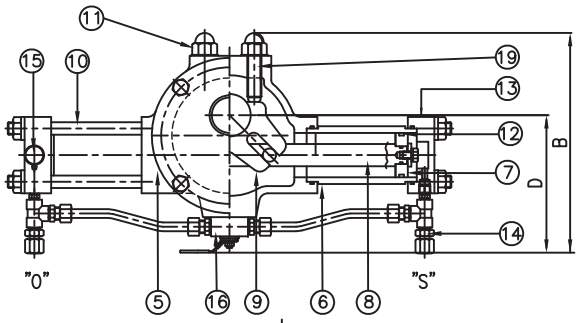
VALVE SIZE	A	B	D	H	WEIGHT (Kg)	OIL VOLUME (cc)	MODEL	VALVE NO.
300A(12")	575	225	128	155	28	500	HAA-D06	
350A(14")	575	225	128	155	28	500	HAA-D06	
400A(16")	575	225	128	155	28	500	HAA-D06	
450A(18")	804	320	200	193	55	1150	HAA-D09	
500A(20")	804	320	200	193	55	1150	HAA-D09	
550A(22")	804	320	200	193	55	1150	HAA-D09	
600A(24")	804	320	200	193	55	1150	HAA-D09	

NO.	PARTS	MATERIAL
1	VALVE ASS'Y	
2	ACT. BODY	DUCTILE CAST IRON
3	CYLINDER	STPG
4	PISTON	C6782B
5	ROD	S45C
6	ARM	CAST STEEL
7	STUD BOLT	S45C
8	CAP NUT	S45C
9	O-RING	NBR
10	SIDE COVER	STEEL
11	CONNECTOR	STAINLESS STEEL
12	AIR VENT PLUG	S45C
13	INDICATOR PLATE	STAINLESS STEEL
14	ADJUSTING BOLTS	S45C
15	UPPER COVER	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

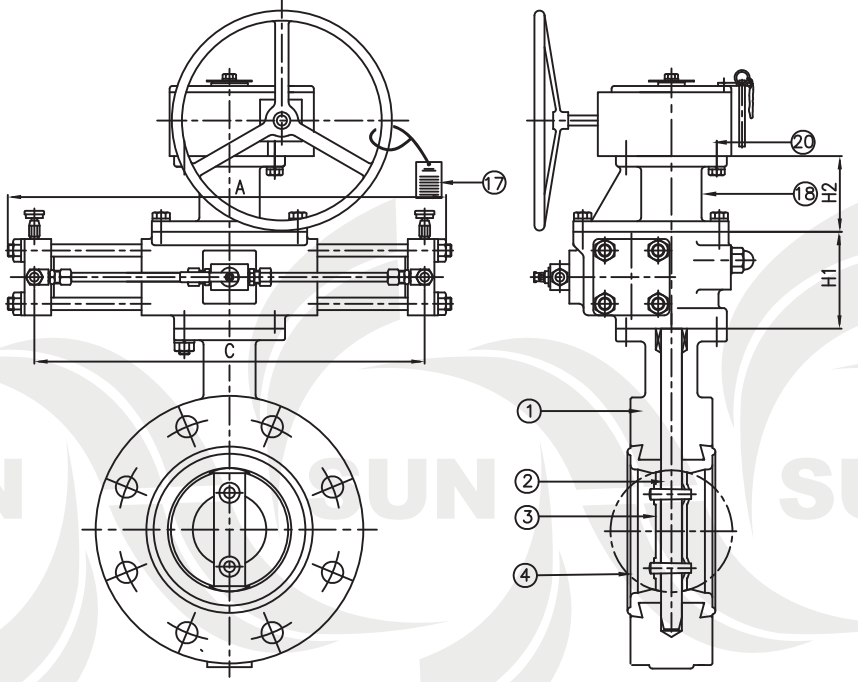
Hyd. Rotary Type Actuator & Gear Box for Butterfly Valves

SUN-HAAD-X002A



MOUNTING METHOD

ACTUATOR SETTING	A–A	A–B	B–A	B–B
VALVE NO.				



NO.	PARTS	MATERIAL
1	VALVE ASS'Y	
2	STEM	
3	DISC	
4	SEAT	
5	ACT. BODY	DUCTILE CAST IRON
6	CYLINDER	STPG38
7	PISTON	C6782B
8	ROD	S45C
9	ARM	CAST STEEL
10	STUD BOLT	S45C
11	CAP NUT	S45C
12	O-RING	NBR
13	SIDE COVER	STEEL
14	CONNECTOR	STAINLESS STEEL
15	AIR VENT PLUG	S45C
16	BY-PASS VALVE	S45C
17	CAUTION PLATE	STAINLESS STEEL
18	MANUAL STAND	CAST IRON
19	ADJUSTING BOLT	S45C
20	GEAR BOX	

NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "S" : Close Port
   "O" : Open Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Double Acting

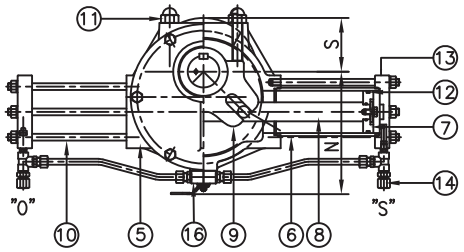
DIMENSION TABLE UNIT : mm

VALVE SIZE	A	B	C	D	H1	H2	OIL VOLUME (cc)	WEIGHT (Kg)	MODEL	VALVE NO.
200A	500	255	440	162	109	86	260	20	HAA-D05	
250A	500	255	440	162	109	86	260	20	HAA-D05	
300A	575	272	510	175	127	102	480	31	HAA-D06	
350A	575	272	510	175	127	102	480	31	HAA-D06	
400A	575	272	510	175	127	102	480	31	HAA-D06	
450A	804	367	720	247	165	140	1100	70	HAA-D09	
500A	804	367	720	247	165	140	1100	70	HAA-D09	

Remark : 1. The name plate shall be specified by purchaser as required.

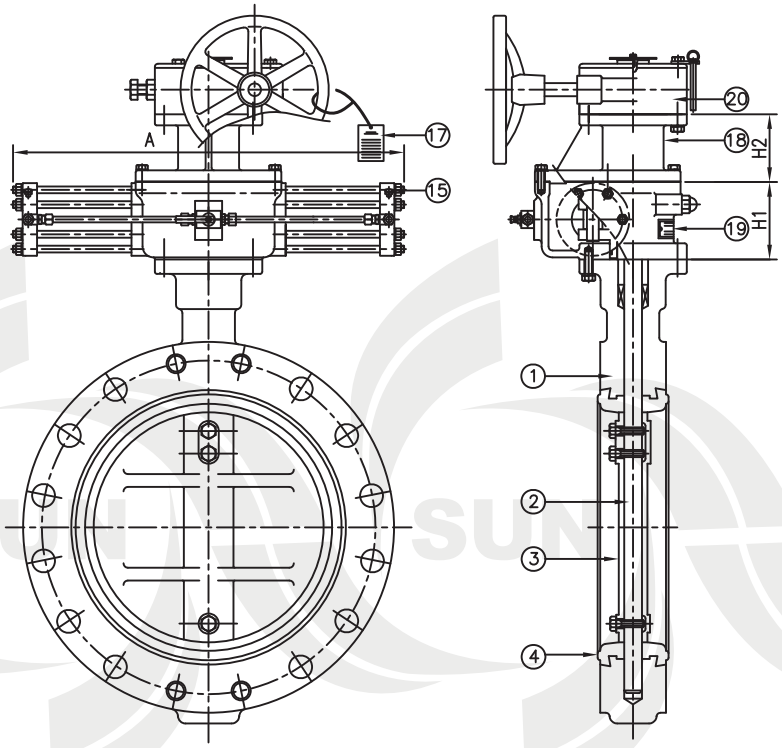
Hyd. Rotary Type Actuator & Gear Box for Butterfly Valves

SUN-HAAD-M003



MOUNTING METHOD

VALVE NO. / ACTUATOR SETTING	A–A	A–B	B–A	B–B



NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "S" : Close Port
   "O" : Open Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Double Acting

DIMENSION TABLE UNIT : mm

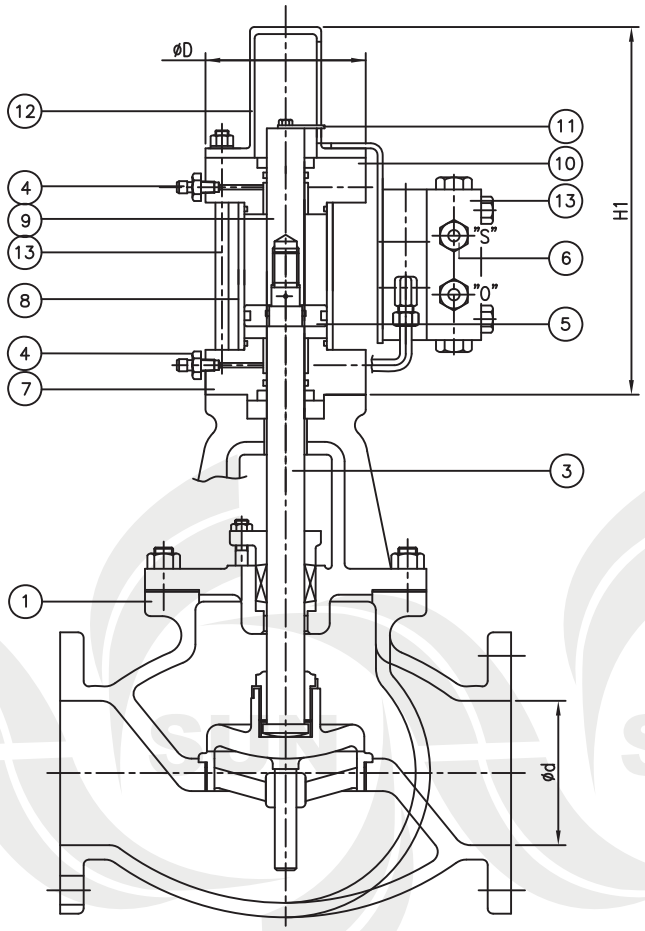
VALVE SIZE	A	H1	H2	N	S	WEIGHT (Kg)	OIL VOLUME (cc)	MODEL
650A(26")	924	183	160	290	150	142	1650	HAA-D10
700A(28")	924	183	160	290	150	142	1650	HAA-D10
750A(30")	924	183	160	290	150	142	1650	HAA-D10
800A(32")	1112	205	180	340	175	168	3200	HAA-A12
850A(34")	1112	205	180	340	175	168	3200	HAA-A12
900A(36")	1112	205	180	340	175	168	3200	HAA-A12

NO.	PARTS	MATERIAL
1	VALVE ASS'Y	
2	STEM	
3	DISC	
4	SEAT	
5	ACT. BODY	DUCTILE CAST IRON
6	CYLINDER	STPG38
7	PISTON	C6782B
8	ROD	S45C
9	ARM	CAST STEEL
10	STUD BOLT	S45C
11	CAP NUT	S45C
12	O-RING	NBR
13	SIDE COVER	STEEL
14	CONNECTOR	STAINLESS STEEL
15	AIR VENT PLUG	S45C
16	BY-PASS VALVE	S45C
17	CAUTION PLATE	STAINLESS STEEL
18	MANUAL STAND	CAST IRON
19	NAME PLATE	STAINLESS STEEL
20	GEAR BOX	

Remark : 1. The name plate shall be specified by purchaser as required.

Hyd. Linear Type Actuator for Globe Valves

SUN-HACD-X001A



NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "S" : Close Port
   "O" : Open Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Double Acting

DIMENSION TABLE UNIT : mm

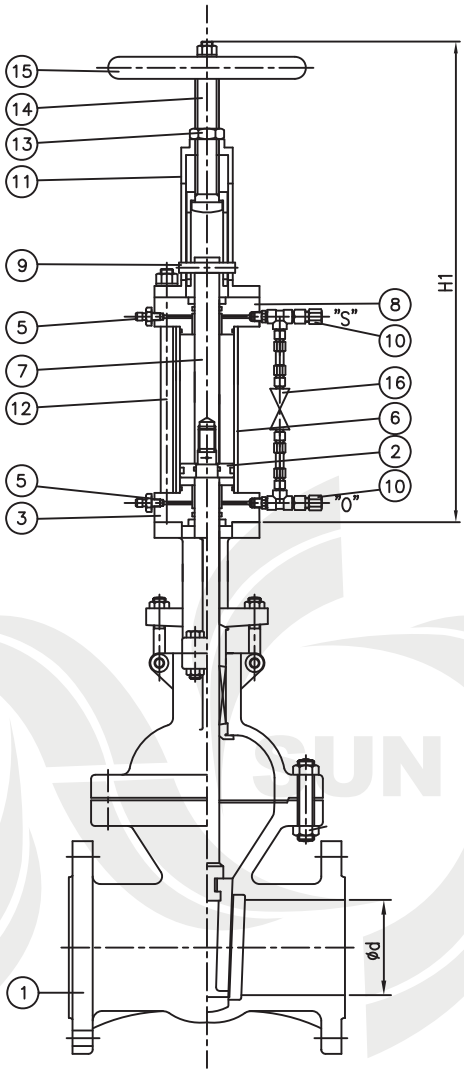
VALVE SIZE	d	ACTUATOR					VALVE NO.
		D	H1	OIL VOL. (cc)	WEIGHT (Kg)	MODEL	
50A	50	102	210	71	8	HAC−D05	
65A	65	102	210	71	8	HAC−D05	
80A	80	102	210	71	8	HAC−D05	
100A	100	116	231	126	10	HAC−D06	
125A	125	146	266	266	15	HAC−D08	
150A	150	180	282	577	22	HAC−D10	

NO.	PARTS	MATERIAL
1	VALVE ASS'Y	
2	STUD BOLT	STEEL
3	STEM	STAINLESS STEEL
4	AIR VENT PLUG	STAINLESS STEEL
5	PISTON	STEEL
6	CONNECTOR	STAINLESS STEEL
7	LOW. COVER	STEEL
8	CYLINDER	STPG38
9	ROD	STAINLESS STEEL
10	UPP. COVER	STEEL
11	INDICATOR	STEEL
12	ROD COVER	STEEL
13	LOCK VALVE	

Remark : 1. The name plate shall be specified by purchaser as required.

Hyd. Linear Type Actuator for Gate Valves

SUN-HACD-M102A



NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "S" : Close Port
   "O" : Open Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Double Acting

DIMENSION TABLE UNIT : mm

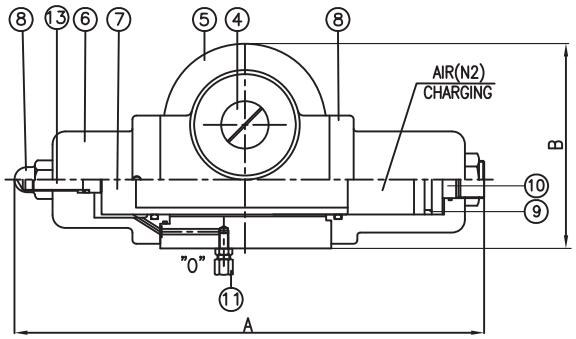
SELECT	VALVE SIZE	d	ACTUATOR H1	ACTUATOR OIL VOL. (cc)	ACTUATOR WEIGHT (Kg)	VALVE NO.
	50A	50	420	68	8	
	65A	65	466	83	8	
	80A	80	582	165	9	
	100A	100	694	196	9	
	125A	125	816	368	12	
	150A	150	914	432	13	
	200A	200	1108	980	18	
	250A	250	1320	1837	25	
	300A	300	1580	2161	30	
	350A	335	1700	3907	38	

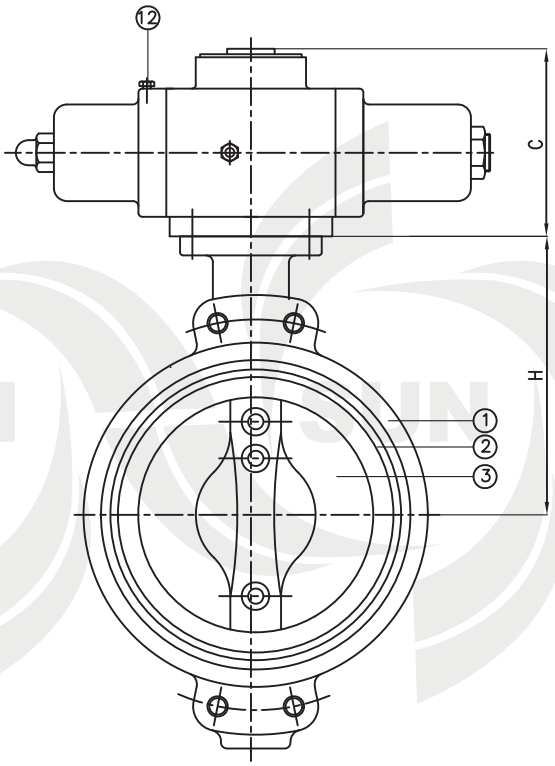
NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	PISTON	STEEL
3	LOW. COVER	STEEL
4	STEM	STAINLESS STEEL
5	AIR VENT PLUG	STAINLESS STEEL
6	CYLINDER	STPG38
7	ROD	STAINLESS STEEL
8	UPP. COVER	STEEL
9	INDICATOR	STEEL
10	CONNECTOR	STAINLESS STEEL / BRASS
11	STAND	STEEL
12	STUD BOLT	STEEL
13	LOCK NUT	C3604B
11	SHAFT	C3604B
12	HANDLE	CAST IRON
13	BY PASS VALVE	SF440

Remark : 1. The name plate shall be specified by purchaser as required.

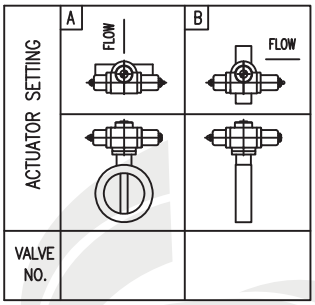
Hyd. Rotary Type Actuator (Single Acting)for Butterfly Valves

SUN-HAAS-X003





MOUNTING METHOD



NOTE

1. Hydro. Tube Spec.

Tube size	Material

2. "O" : Close Port
3. Operating Fluid : Oil
4. Temperature Range : −30 ~ 80°C
5. Actuator Type : Single Acting

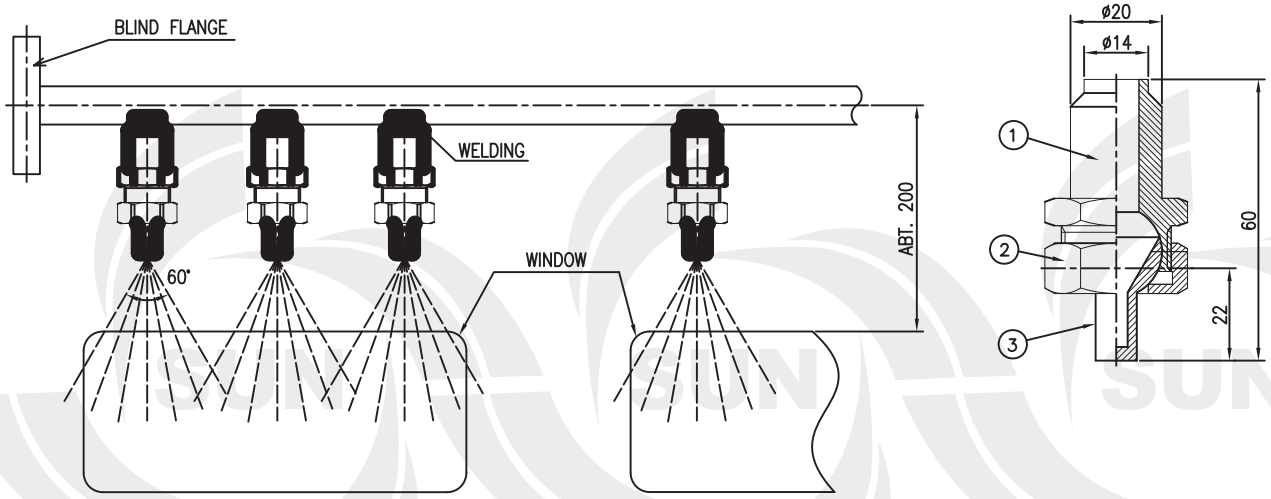
DIMENSION TABLE UNIT : mm

VALVE SIZE	A	B	D	H	FACE TO FACE	WEIGHT (Kg)	MODEL	VALVE NO.
	450	220	150				HAA-S06	
	660	280	185				HAA-S08	
	850	350	260				HAA-S15	

NO.	PARTS	MATERIAL
1	BODY	CAST IRON / CAST STEEL
2	SEAT	NBR / VITON / EPDM
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	STAINLESS STEEL
5	ACT. BODY	DUCTILE CAST IRON
6	CYLINDER(1)	DUCTILE CAST IRON
7	PISTON	DUCTILE CAST IRON
8	CYLINDER(2)	DUCTILE CAST IRON
9	O-RING	NBR
10	ADJUSTING BOLT(1)	S45C
11	CONNECTOR	STAINLESS STEEL
12	AIR VENT PLUG	S45C
13	ADJUSTING BOLT(2)	S45C
14	CAP NUT	S45C

Remark : 1. The name plate shall be specified by purchaser as required.

Welding Type

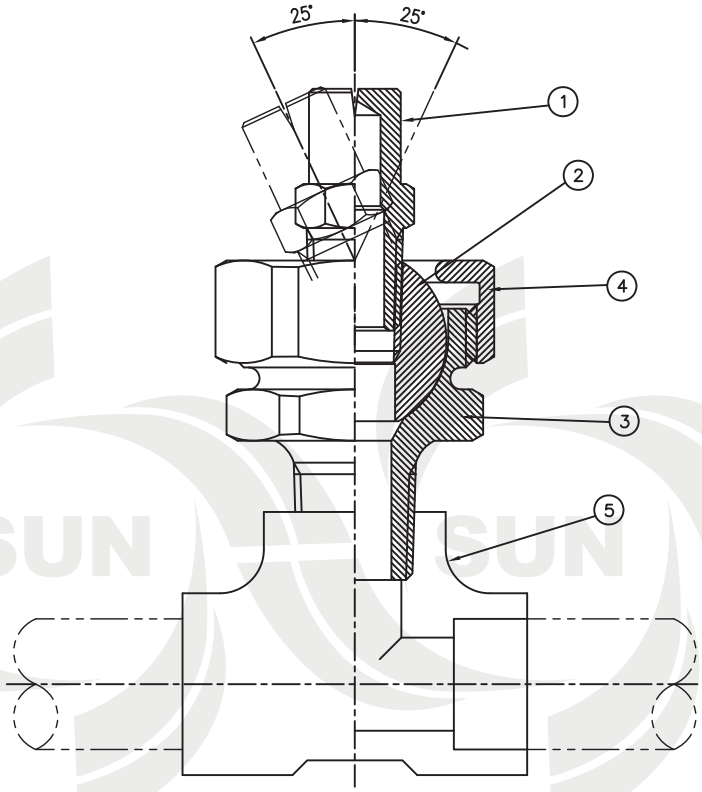


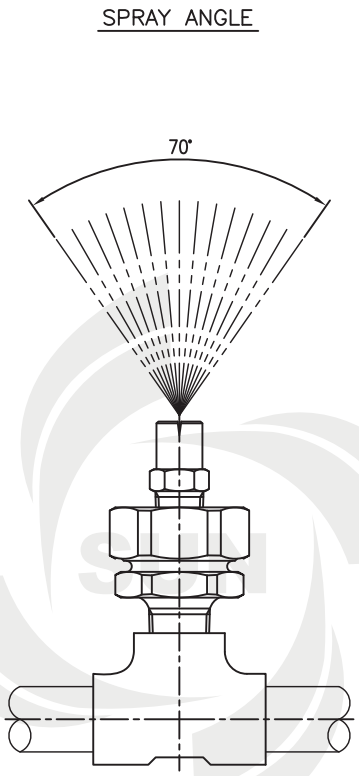
NOTE

1. SERVICE CONDITION
   1) SPRAY ANGLE : 60°
   2) SPRAY PATTERN : FLAT

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304
2	CAP NUT	STAINLESS STEEL 304
3	NOZZLE	STAINLESS STEEL 304

Standard Type

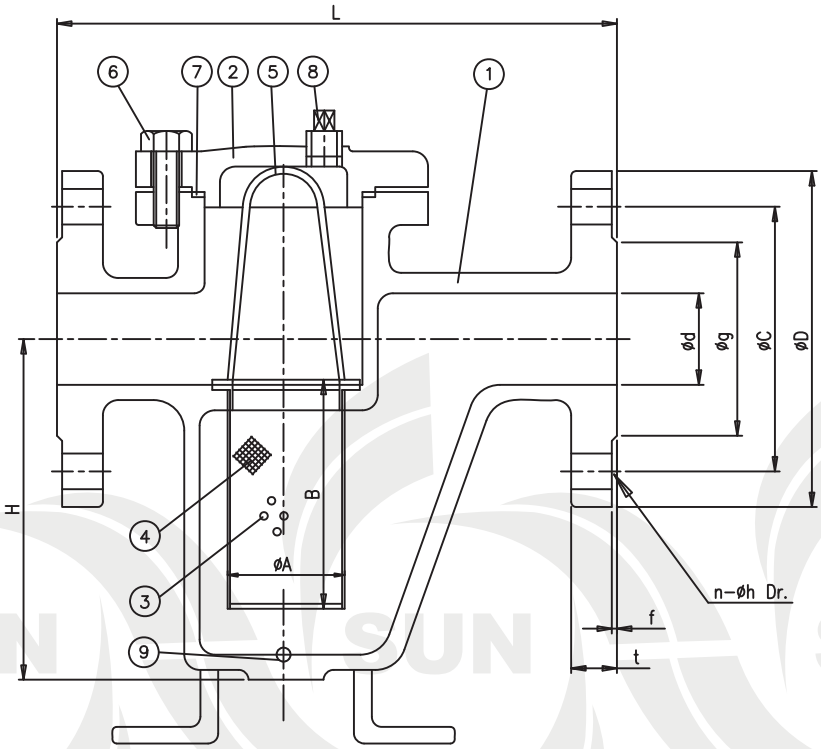




NO.	PARTS	MATERIAL
1	SPRAY NOZZLE	BRASS
2	BALL	BRASS
3	BODY	BRASS
4	CAP NUT	BRASS
5	TEE	STAINLESS STEEL 304

Bucket Strainer(JIS 10K)

SUN-SSTF-B



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE. REFERENCE CODE : JIS B2003, B2220

AIR TEST	SEAT (MIN 15 SEC.)	6 kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

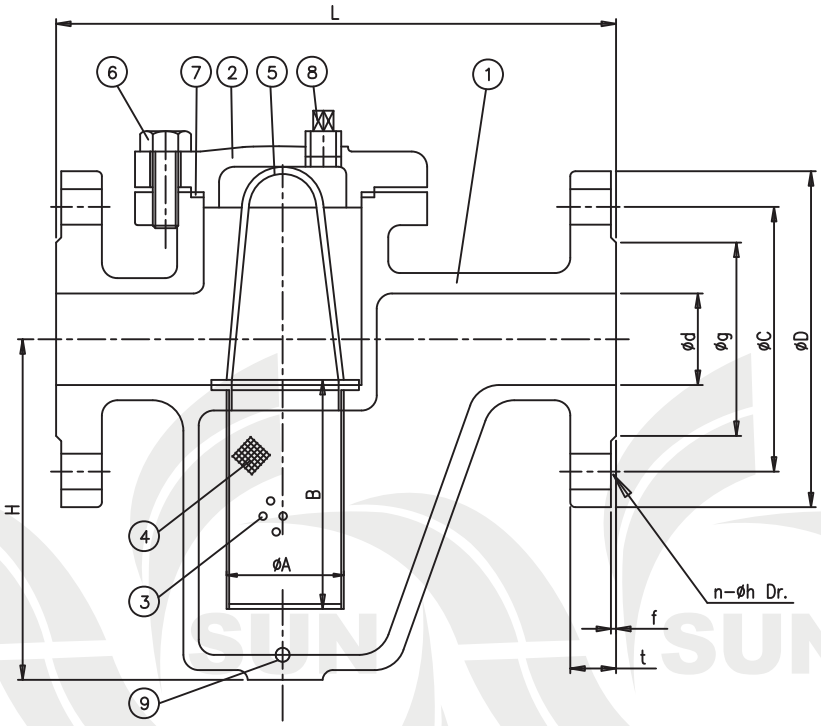
SIZE	L	FLANGE 1							*H	ELEMENT (OUT SIZE)		
		ød	øg	øC	øD	f	t	n – øh		øA	B	
100A	385	100	151	175	210	2	18	8 – 19	290	125	170	
125A	460	125	182	210	250	2	20	8 – 23	350	170	220	
150A	500	150	212	240	280	2	22	8 – 23	420	170	220	
200A	630	200	262	290	330	2	22	12 – 23	552	190	350	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	COVER	STAINLESS STEEL 304 / 316
3	PUNCHING PLATE	STAINLESS STEEL 304 / 316
4	SCREEN MESH	STAINLESS STEEL 304 / 316
5	SUPPORT PLATE	STAINLESS STEEL 304 / 316
6	COVER BOLT	STAINLESS STEEL 304 / 316
7	GASKET	TEFLON
8	VENT PLUG	STAINLESS STEEL 304 / 316
9	DRAIN PLUG	STAINLESS STEEL 304 / 316

Remark : 1. The name plate shall be specified by purchaser as required.

Bucket Strainer(JIS 5K)

SUN-SSTF-B



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE. REFERENCE CODE : JIS B2003, B2220

AIR TEST	SEAT (MIN 15 SEC.)	6 kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

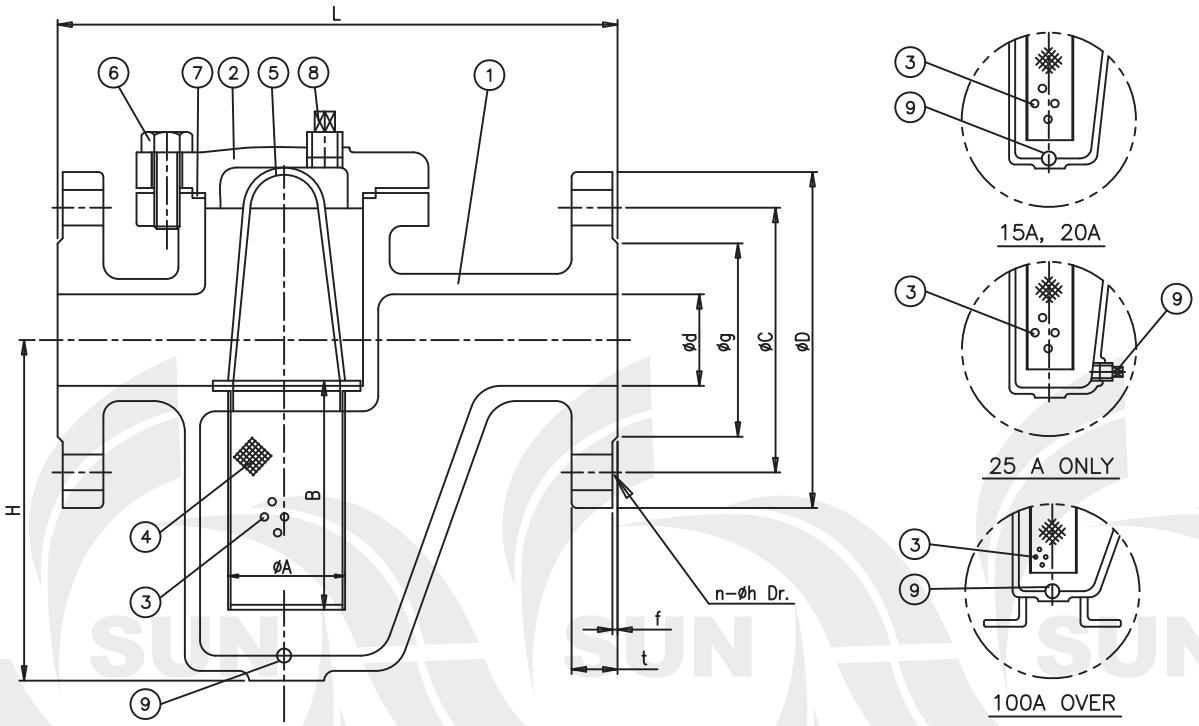
SIZE	L	FLANGE 1							*H	ELEMENT (OUT SIZE)		
		ød	øg	øC	øD	t	f	n – øh		øA	B	
40A	230	40	75	95	120	12	2	4 – M12	145	68	100	
50A	230	50	85	105	130	14	2	4 – M12	145	68	100	
65A	290	65	110	130	155	14	2	4 – 15	180	79	110	
80A	300	80	121	145	180	14	2	4 – 19	200	85	120	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	COVER	STAINLESS STEEL 304 / 316
3	PUNCHING PLATE	STAINLESS STEEL 304 / 316
4	SCREEN MESH	STAINLESS STEEL 304 / 316
5	SUPPORT PLATE	STAINLESS STEEL 304 / 316
6	COVER BOLT	STAINLESS STEEL 304 / 316
7	GASKET	TEFLON
8	VENT PLUG	STAINLESS STEEL 304 / 316
9	DRAIN PLUG	STAINLESS STEEL 304 / 316

Remark : 1. The name plate shall be specified by purchaser as required.

Bucket Strainer(JIS 10K)

SUN-SSTF-B



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE. REFERENCE CODE : JIS B2003, B2220

AIR TEST	SEAT (MIN 15 SEC.)	6 kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

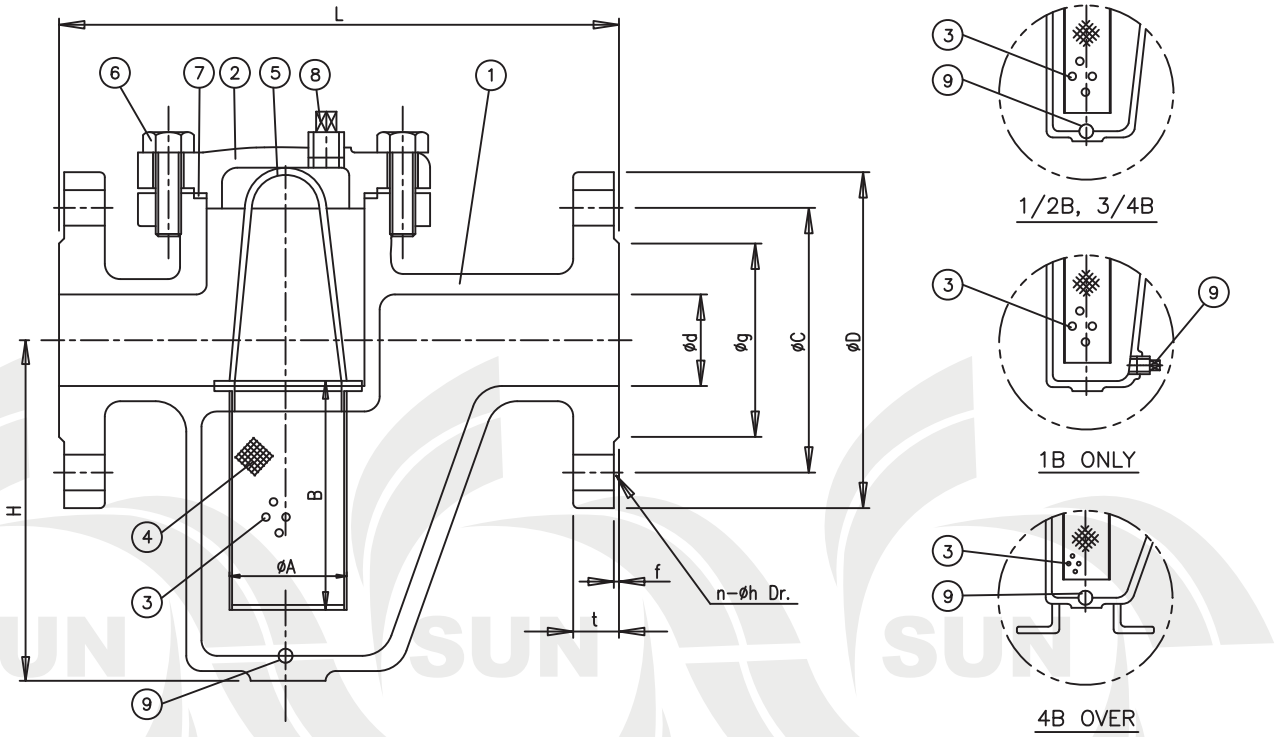
SIZE	L	FLANGE 1							*H	ELEMENT (OUT SIZE)		
		Ød	Øg	ØC	ØD	f	t	n – Øh		ØA	B	
15A	180	15	51	70	95	1	12	4 – 15	75	45	50	
20A	180	20	56	75	100	1	14	4 – 15	75	45	50	
25A	190	25	67	90	125	1	14	4 – 19	120	40	80	
40A	230	40	81	105	140	2	16	4 – 19	145	68	100	
50A	230	50	96	120	155	2	16	4 – 19	145	68	100	
65A	290	65	116	140	175	2	18	4 – 19	180	79	110	
80A	300	80	126	150	185	2	18	8 – 19	200	85	120	
100A	385	100	151	175	210	2	18	8 – 19	290	125	170	
125A	460	125	182	210	250	2	20	8 – 23	350	170	220	
150A	500	150	212	240	280	2	22	8 – 23	420	170	220	
200A	630	200	262	290	330	2	22	12 – 23	552	190	350	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	COVER	STAINLESS STEEL 304 / 316
3	PUNCHING PLATE	STAINLESS STEEL 304 / 316
4	SCREEN MESH	STAINLESS STEEL 304 / 316
5	SUPPORT PLATE	STAINLESS STEEL 304 / 316
6	COVER BOLT	STAINLESS STEEL 304 / 316
7	GASKET	TEFLON
8	VENT PLUG	STAINLESS STEEL 304 / 316
9	DRAIN PLUG	STAINLESS STEEL 304 / 316

Remark : 1. The name plate shall be specified by purchaser as required.

Bucket Strainer(ANSI 150LB)

SUN-SSTF-B



NOTE

1. HYDROSTATIC TEST PRESSURE &
   DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34

AIR TEST	SEAT (2 MIN.)	6 kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

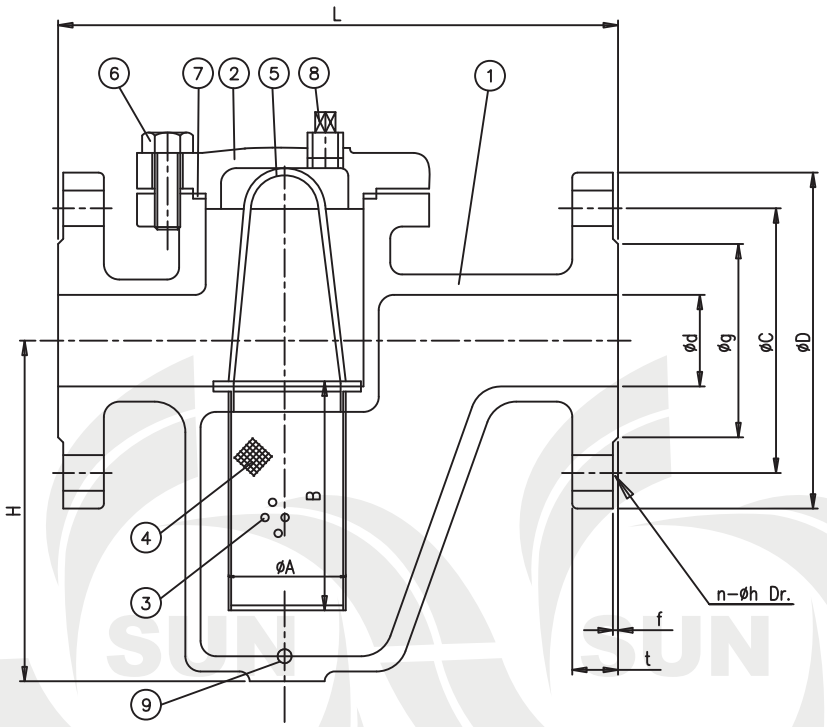
SIZE	L	FLANGE 1							* H	ELEMENT (OUT SIZE)	
		ød	øg	øC	øD	t	f	n – øh		øA	B
1/2B	180	15	35	60.5	89	1.6	11.2	4 – 16	75	45	50
3/4B	180	20	43	70	98	1.6	11.2	4 – 16	75	45	50
1B	190	25	51	79.5	108	1.6	11.2	4 – 16	120	40	80
1 1/2B	230	40	73	98.5	127	1.6	14.3	4 – 16	145	68	100
2B	230	50	92	120.5	152	1.6	15.9	4 – 19	145	68	100
2 1/2B	290	65	105	139.5	178	1.6	17.5	4 – 19	180	79	110
3B	300	80	127	152.5	190	1.6	19.1	4 – 19	200	85	120
4B	385	100	157	190.5	229	1.6	23.9	8 – 19	290	125	170
5B	460	125	186	216	254	1.6	23.9	8 – 22	350	170	220
6B	500	150	216	241.5	279	1.6	25.4	8 – 22	420	170	220
8B	630	200	270	298.5	343	1.6	28.6	8 – 22	552	190	350

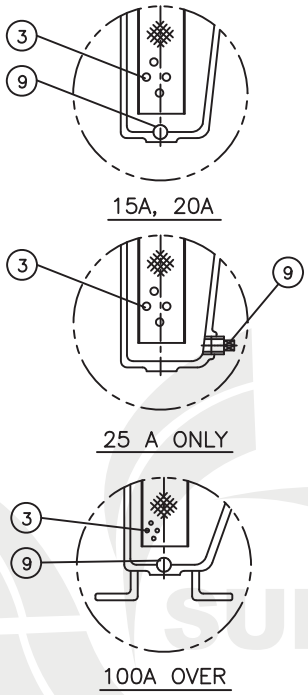
NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	COVER	STAINLESS STEEL 304 / 316
3	PUNCHING PLATE	STAINLESS STEEL 304 / 316
4	SCREEN MESH	STAINLESS STEEL 304 / 316
5	SUPPORT PLATE	STAINLESS STEEL 304 / 316
6	COVER BOLT	STAINLESS STEEL 304 / 316
7	GASKET	TEFLON
8	VENT PLUG	STAINLESS STEEL 304 / 316
9	DRAIN PLUG	STAINLESS STEEL 304 / 316

Remark : 1. The name plate shall be specified by purchaser as required.

Bucket Strainer(JIS 20K)

SUN-SSTF-B





NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE. REFERENCE CODE : JIS B2003, B2220

AIR TEST	SEAT (MIN 15 SEC.)	6 kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

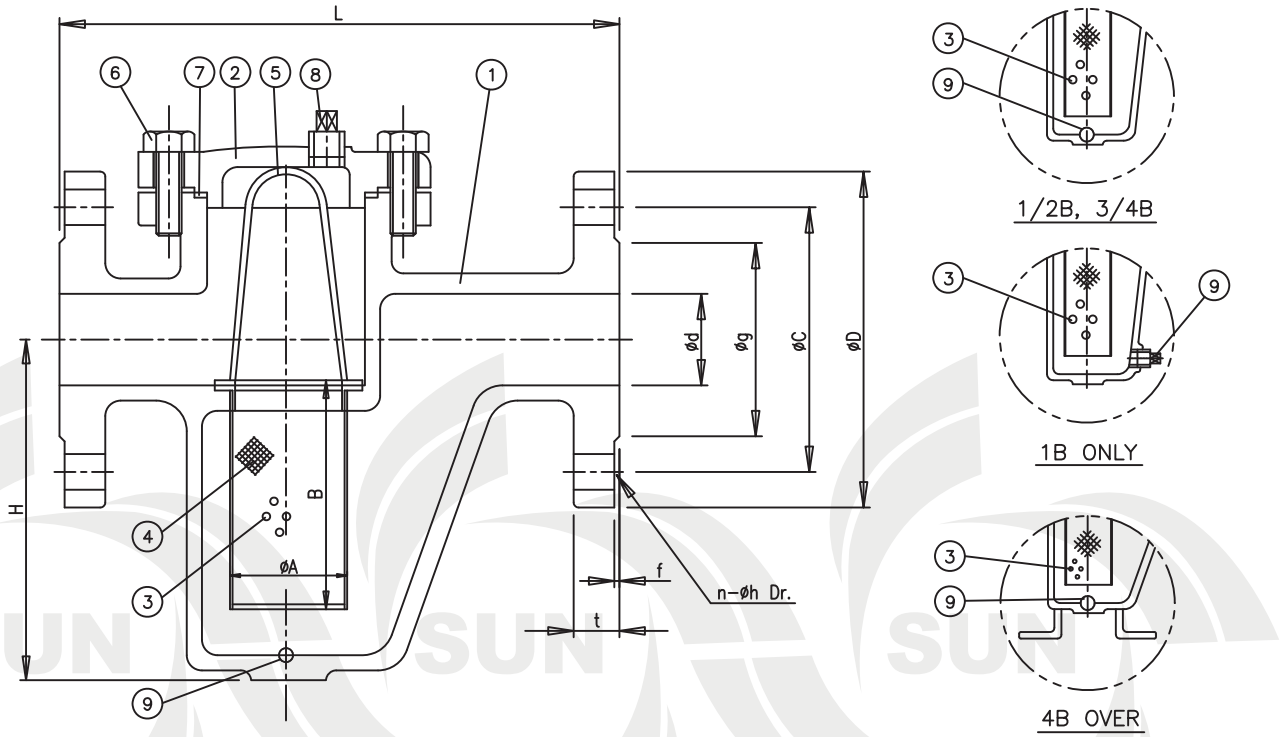
SIZE	L	FLANGE 1							*H	ELEMENT (OUT SIZE)		
		Ød	Øg	ØC	ØD	f	t	n – Øh		ØA	B	
15A	190	15	51	70	95	1	14	4 – 15	80	45	50	
20A	190	20	56	75	100	1	16	4 – 15	80	45	50	
25A	200	25	67	90	125	1	16	4 – 19	120	40	80	
40A	243	40	81	105	140	2	18	4 – 19	160	68	100	
50A	245	50	96	120	155	2	18	8 – 19	210	68	100	
65A	307	65	116	140	175	2	20	8 – 19	190	79	110	
80A	323	80	132	160	200	2	22	8 – 23	310	85	120	
100A	402	100	160	185	225	2	24	8 – 23	330	125	170	
125A	492	125	195	225	270	2	26	8 – 25	351	170	220	
150A	540	150	230	260	305	2	28	12 – 25	410	170	220	
200A	672	200	275	305	350	2	30	12 – 25	550	190	350	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	COVER	STAINLESS STEEL 304 / 316
3	PUNCHING PLATE	STAINLESS STEEL 304 / 316
4	SCREEN MESH	STAINLESS STEEL 304 / 316
5	SUPPORT PLATE	STAINLESS STEEL 304 / 316
6	COVER BOLT	STAINLESS STEEL 304 / 316
7	GASKET	TEFLON
8	VENT PLUG	STAINLESS STEEL 304 / 316
9	DRAIN PLUG	STAINLESS STEEL 304 / 316

Remark : 1. The name plate shall be specified by purchaser as required.

Bucket Strainer(ANSI 300LB)

SUN-SSTF-B



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE. REFERENCE CODE : ANSI B16.5, B16.34

AIR TEST	SEAT (2 MIN.)	10 kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

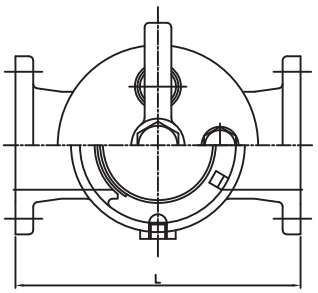
SIZE	L	FLANGE 1							*H	ELEMENT (OUT SIZE)		
		ød	øg	øC	øD	f	t	n – øh		øA	B	
1/2B	190	15	35	66.5	95	1.6	14.3	4 – 16	80	45	50	
3/4B	190	20	43	82.5	117	1.6	15.9	4 – 19	80	45	50	
1B	200	25	51	89	124	1.6	17.5	4 – 19	120	40	80	
1 1/2B	243	40	73	114.5	156	1.6	20.7	4 – 22	210	68	100	
2B	245	50	92	127	165	1.6	22.3	8 – 19	210	68	100	
2 1/2B	307	65	105	149	190	1.6	25.4	8 – 22	250	79	110	
3B	323	80	127	168	210	1.6	28.6	8 – 22	275	85	120	
4B	402	100	157	200	254	1.6	31.8	8 – 22	330	125	170	
5B	492	125	186	235	279	1.6	35	8 – 22	351	170	220	
6B	540	150	216	270	318	1.6	36.6	12 – 22	410	170	220	
8B	672	200	270	330	381	1.6	41.3	12 – 25	552	190	350	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	COVER	STAINLESS STEEL 304 / 316
3	PUNCHING PLATE	STAINLESS STEEL 304 / 316
4	SCREEN MESH	STAINLESS STEEL 304 / 316
5	SUPPORT PLATE	STAINLESS STEEL 304 / 316
6	COVER BOLT	STAINLESS STEEL 304 / 316
7	GASKET	TEFLON
8	VENT PLUG	STAINLESS STEEL 304 / 316
9	DRAIN PLUG	STAINLESS STEEL 304 / 316

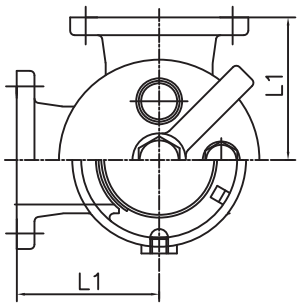
Remark : 1. The name plate shall be specified by purchaser as required.

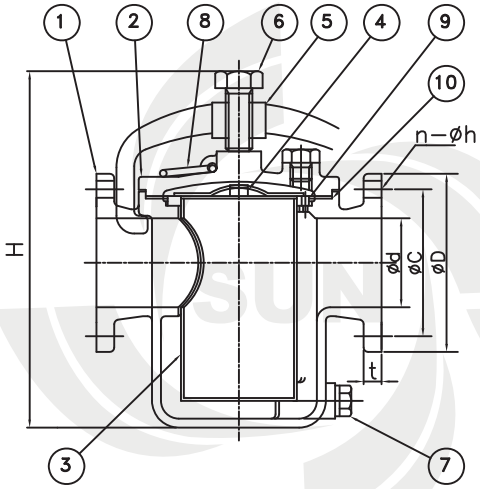
JIS 5K Can WATER filter — JIS F7121
JIS 10K Can WATER filter — JIS F7121

TYPE S

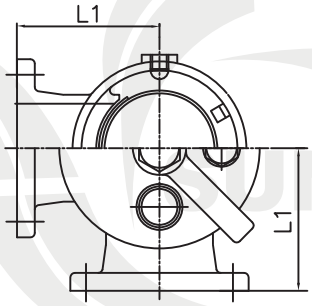


TYPE LA





TYPE LB



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	STRAINER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	COVER PUSHER	DUCTILE IRON / STEEL
6	PUSHING BOLT	STEEL / BRASS
7	PLUG	BRASS
8	HANDLE OF COVER	STEEL
9	SET SCREW	STEEL / STAINLESS STEEL
10	GASKET	RUBBER

Test Pressure (MPa)

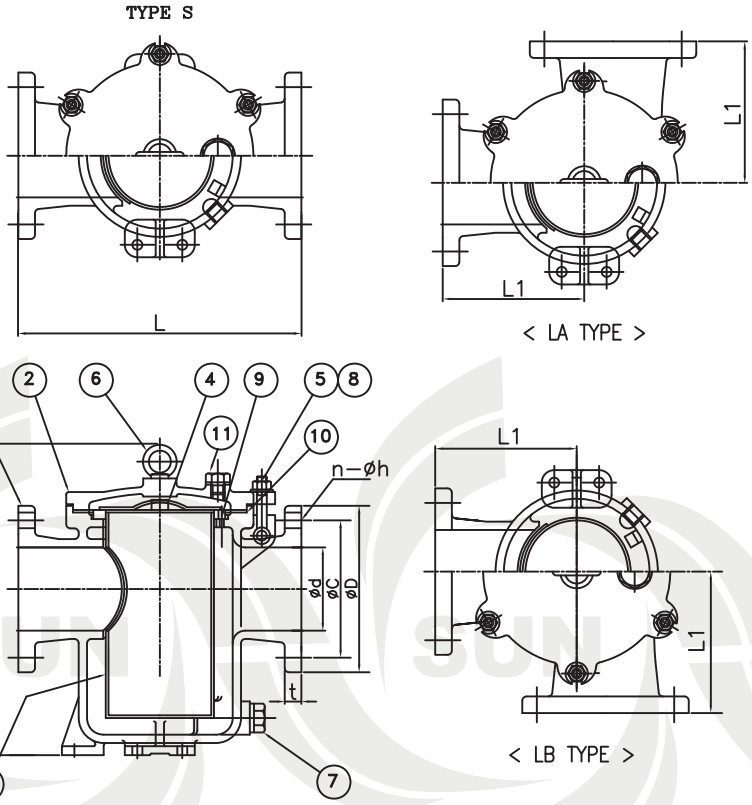
Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.3	0.3

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7121)	25A	25	95	75	4-12	14	170	85	180	5.08
	32A	40	115	90	4-15	16	190	95	215	8.23
	40A	40	120	95	4-15	16	190	95	215	8.43
	50A	50	130	105	4-15	16	200	100	240	10.3
	65A	65	155	130	4-15	18	250	125	305	18.5
	80A	80	180	145	4-19	18	270	135	340	24
	100A	100	200	165	8-19	20	320	160	400	35.7
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7121)	25A	25	125	90	4-19	14	170	85	180	5.34
	32A	40	135	100	4-19	16	190	95	215	8.65
	40A	40	140	105	4-19	16	190	95	215	8.85
	50A	50	155	120	4-19	16	200	100	240	10.82
	65A	65	175	140	4-19	18	250	125	305	19.45
	80A	80	185	150	8-19	18	270	135	340	25.2
	100A	100	210	175	8-19	20	320	160	400	37.5

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm and 11mm.
3. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

JIS 5K Can WATER filter — JIS F7121
JIS 10K Can WATER filter — JIS F7121



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	STRAINER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	HINGE BOLT	BRASS
6	EYE BOLT	FORGED STEEL
7	PLUG	BRASS
8	PIN	BRASS
9	NUT	BRASS / STAINLESS STEEL
10	GASKET	RUBBER
11	PLUG	BRASS

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7121)	125A	125	235	200	8-19	20	400	200	485	62.2
	150A	150	265	230	8-19	22	460	230	575	88.6
	200A	200	320	280	8-23	24	550	275	665	141
	250A	250	385	345	12-23	26	680	340	825	246
	300A	300	430	390	12-23	28	760	380	920	321
	350A	335	480	435	12-25	30	820	410	1030	428
	400A	380	540	495	16-25	30	880	440	1135	518
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7121)	125A	125	250	210	8-23	20	400	200	485	65.32
	150A	150	280	240	8-23	22	460	230	575	93.03
	200A	200	330	290	12-23	24	550	275	665	148.05
	250A	250	400	355	12-25	26	680	340	825	258.3
	300A	300	445	400	16-25	28	760	380	920	337.05
	350A	335	490	445	16-25	30	820	410	1030	449.4
	400A	380	560	510	16-27	30	880	440	1135	544

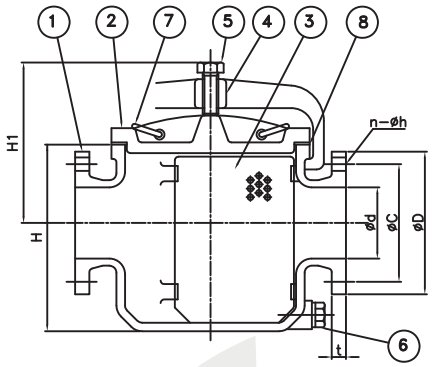
Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.3	0.3

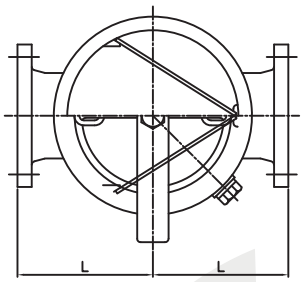
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm and 11mm.
3. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

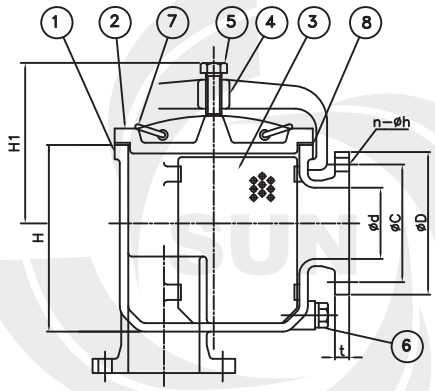
JIS 5K Marine Mud Boxes
JIS 10K Marine Mud Boxes

JIS F7203
JIS F7203

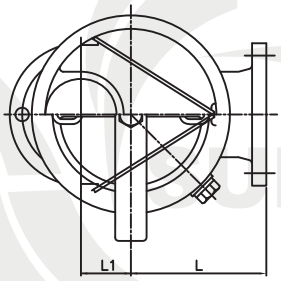


< S TYPE >





< L TYPE >



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	STRAINER PLATE	STEEL / STAINLESS STEEL
4	COVER YOKE	STEEL
5	YOKE BOLT	STEEL
6	PLUG	BRASS
7	HANDLE OF COVER	STEEL
8	GASKET	RUBBER

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.098	0.098

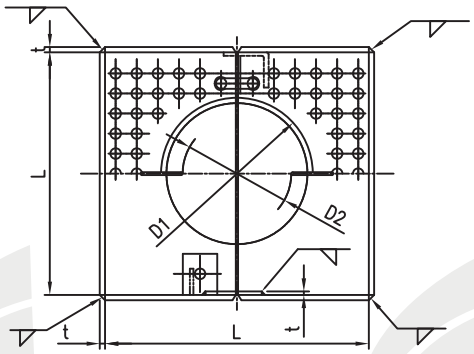
Dimension Table (Unit : mm)

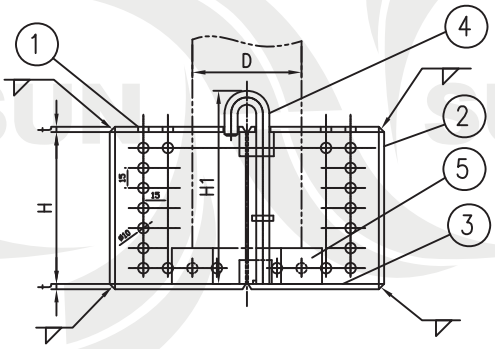
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (kg)
JIS 5K (JIS F7203)	40A	40	120	95	4-15	16	90	22.5	128	145	10.5
	50A	50	130	105	4-15	16	120	40	160	145	17.7
	65A	65	155	130	4-15	18	150	52.5	206	180	29.7
	80A	80	180	145	4-19	18	160	55	231	195	34.3
	100A	100	200	165	8-19	20	190	70	262	225	48.2
	125A	125	235	200	8-19	20	235	87.5	354	275	92.8
	150A	150	265	230	8-19	22	280	110	437	320	156
	200A	200	320	280	8-23	24	330	135	540	405	305
	250A	250	385	345	12-23	26	380	155	680	525	435
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (kg)
JIS 10K (JIS F7203)	40A	40	140	105	4-19	16	90	22.5	128	145	11.02
	50A	50	155	120	4-19	16	120	40	160	145	18.59
	65A	65	175	140	4-19	18	150	52.5	206	180	31.19
	80A	80	185	150	8-19	18	160	55	231	195	36.02
	100A	100	210	175	8-19	20	190	70	262	225	50.6
	125A	125	250	210	8-23	20	235	87.5	354	275	97.45
	150A	150	280	240	8-23	22	280	110	437	320	163.8
	200A	200	330	290	12-23	24	330	135	540	405	320.25
	250A	250	400	355	12-25	26	380	155	680	525	456.8

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

Marine Rose Box

JIS F7206



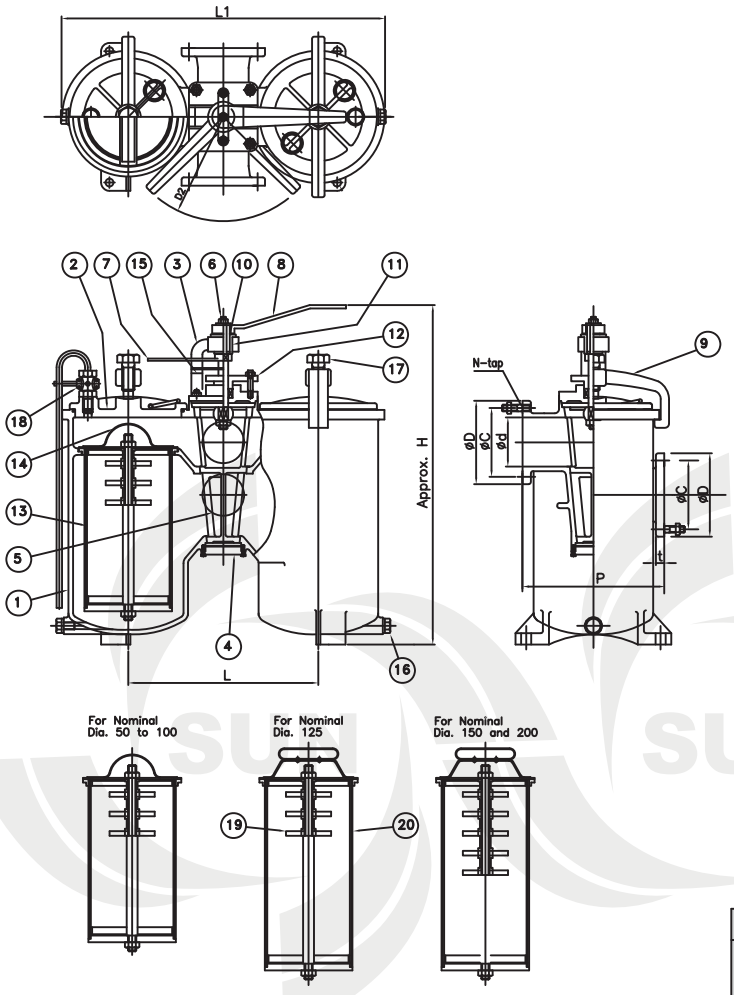


NO.	PARTS	MATERIAL
1	STRAINER PLATE	GALVANIZING STEEL
2	STRAINER PLATE	GALVANIZING STEEL
3	BOTTOM PLATE	GALVANIZING STEEL
4	LOCKING BAR	GALVANIZING STEEL
5	SUPPORT PIECE	GALVANIZING STEEL

Dimension Table (Unit : mm)

SIZE	D	D1	D2	H	H1	H2	t	L
40A	48.6	52	25	65	90	28	3.2	95
50A	60.5	65	25	80	105	35	3.2	110
65A	76.3	82	45	95	120	35	3.2	140
80A	89.1	94	50	110	135	35	3.2	170
100A	114.3	120	80	140	165	40	3.2	200
125A	139.8	145	105	170	200	40	3.2	260
150A	165.2	170	125	200	230	40	3.2	320
200A	216.3	222	180	260	300	55	4.5	380
250A	267.4	272	225	320	360	55	4.5	440
300A	318.5	325	280	350	400	65	4.5	500

JIS 5K Duplex Oil Stainer(H-Type) — JIS F7208
JIS 10K Duplex Oil Stainer(H-Type) — JIS F7208



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	UPPER COCK COVER	CAST IRON
4	LOWER COCK COVER	CAST IRON
5	COCK	BRONZE
6	COCK SHAFT	STEEL
7	COCK CHAIN HANDLE	STEEL
8	COCK LIFT HANDLE	STEEL
9	COVER YOKE	DUCTILE IRON / STEEL
10	LIFTING THREAD	STEEL
11	SCREW RING	BRONZE
12	PACKING GLAND	BRONZE
13	STRAINER CYLINDER	STEEL
14	STRAINER HANDLE	STEEL
15	INDICATOR	BRASS
16	PLUG	BRASS
17	COVER PUSHING BOLT	BRASS
18	AIR VENT COCK	BRONZE
19	MAGNET	
20	WIRE GAUZE	STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.6	0.6
Hydrostatic press test (Cock)	0.44	0.44

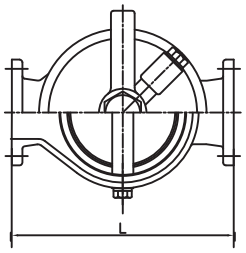
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-tap	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7203)	50A	50	130	105	4-M12	17	260	415	516	180	47
	65A	65	155	130	4-M12	18	324	514	661	215	83
	80A	80	180	145	4-M16	18	380	600	685	245	132
	100A	100	200	165	8-M16	20	456	718	816	285	202
	125A	125	235	200	8-M16	20	544	852	952	330	321
	150A	150	265	230	8-M16	22	680	1046	1299	410	567
	200A	200	320	280	8-M20	24	820	1250	1520	490	1185
Rating	Size	ød	øD	øC	N-tap	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7203)	50A	50	155	120	4-M16	17	260	415	516	180	47
	65A	65	175	140	4-M16	18	324	514	661	215	83
	80A	80	185	150	8-M16	18	380	600	685	245	132
	100A	100	210	175	8-M16	20	456	718	816	285	202
	125A	125	250	210	8-M20	20	544	852	952	330	321
	150A	150	280	240	8-M20	22	680	1046	1299	410	567
	200A	200	330	290	12-M20	24	820	1250	1520	490	1185

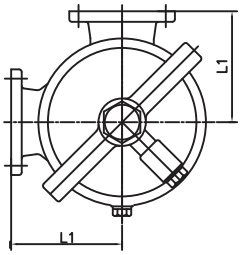
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 12mm and 15mm respectively.

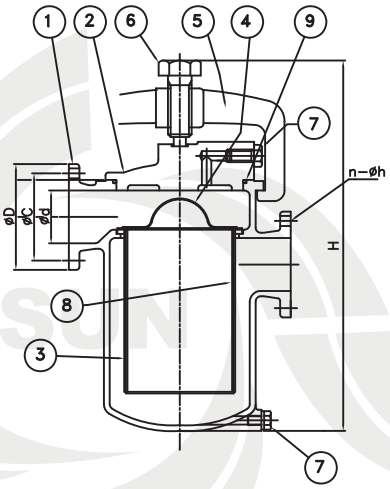
JIS 5K Simplex Oil Stainer — JIS F7209
JIS 10K Simplex Oil Stainer — JIS F7209

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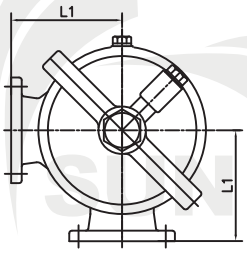


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NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	FILTER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	COVER YOKE	DUCTILE IRON / STEEL
6	YOKE BOLT	STEEL
7	DRAIN PLUG	BRASS
8	WIRE GAUZE	STAINLESS STEEL
9	O-RING	RUBBER

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

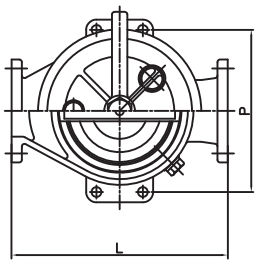
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7209)	25A	25	95	75	4-12	14	190	95	240	6.58
	32A	40	115	90	4-15	16	260	130	315	14.8
	40A	40	120	95	4-15	16	260	130	315	15.0
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7209)	25A	25	125	90	4-19	14	190	95	240	6.91
	32A	40	135	100	4-19	16	260	130	315	15.55
	40A	40	140	105	4-15	16	260	130	315	15.75

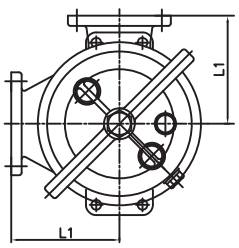
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

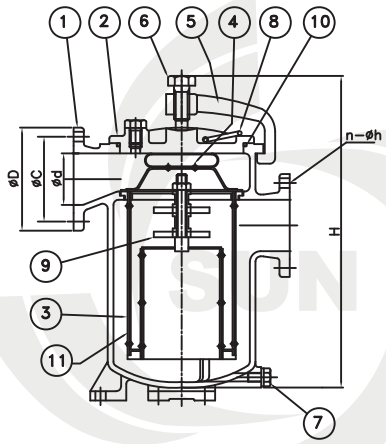
JIS 5K Simplex Oil Stainer — JIS F7209
JIS 10K Simplex Oil Stainer — JIS F7209

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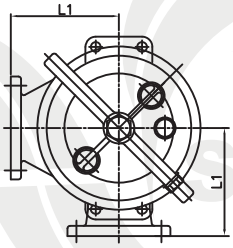


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NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	FILTER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	COVER YOKE	DUCTILE IRON / STEEL
6	YOKE BOLT	STEEL
7	DRAIN PLUG	BRASS
8	HANDLE OF COVER	STEEL
9	MAGNET	
10	O-RING	RUBBER
11	WIRE GAUZE	STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

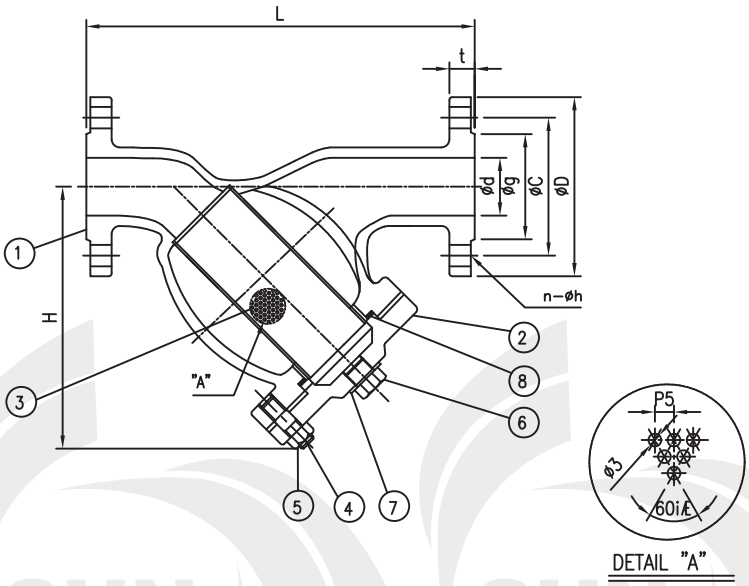
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7209)	50A	50	130	105	4-15	16	280	140	395	200	25.8
	65A	65	155	130	4-15	18	340	170	495	245	43.6
	80A	80	180	145	4-19	18	370	185	525	280	51.0
	100A	100	200	165	8-19	20	420	210	630	315	80.0
	125A	125	235	200	8-19	20	450	225	745	345	107
	150A	150	265	230	8-19	22	470	235	825	370	154
	200A	200	320	280	8-23	24	570	285	970	435	243
	250A	250	385	345	12-23	26	700	350	1140	520	262
	300A	300	430	390	12-23	28	800	400	1220	545	453
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7209)	50A	50	155	120	4-19	16	280	140	395	200	27.1
	65A	65	175	140	4-19	18	340	170	495	245	45.78
	80A	80	185	150	8-19	18	370	185	525	280	53.55
	100A	100	210	175	8-19	20	420	210	630	315	84
	125A	125	250	210	8-23	20	450	225	745	345	112.35
	150A	150	280	240	8-23	22	470	235	825	370	161.7
	200A	200	330	290	12-23	24	570	285	970	435	255.15
	250A	250	400	355	12-25	26	700	350	1140	520	275.1
	300A	300	445	400	16-25	28	800	400	1220	545	475.65

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

JIS 5K Y-Type Strainers
JIS 10K Y-Type Strainers

JIS F7220
JIS F7220



Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	WIRE GAUZE	STAINLESS STEEL
4	STUD BOLT	STEEL
5	HEXAGON NUT	STEEL
6	PLUG	BRASS
7	GASKET	NON ASBESTOS
8	GASKET	NON ASBESTOS

Fluid Condition & Max. Working pressure (MPa)

	Max. Working Pressure (MPa)	
Fluid Condition	JIS 5K	JIS 10K
Steam up to 220°C	0.5	1.0
Air and Gas	0.5	1.0
Non-Shock Water up to 120°C	0.7	1.4

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1

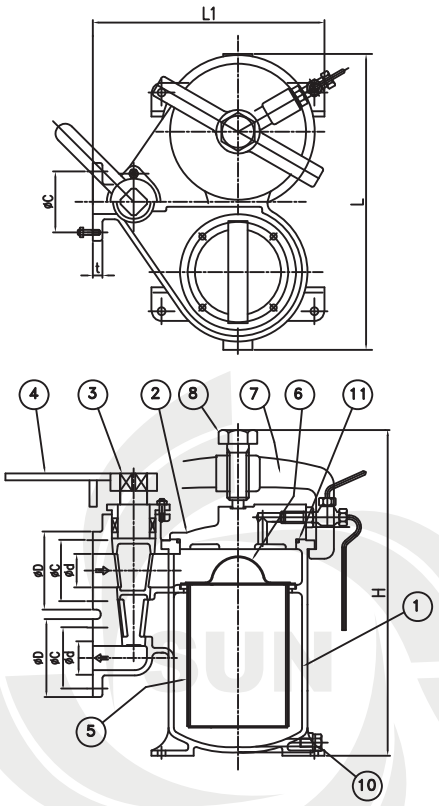
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	H	Weight (kg)
JIS 5K (JIS F7220)	20A	20	85	65	4-12	14	200	128	4.19
	25A	25	95	75	4-12	14	225	153	6.55
	32A	32	115	90	4-15	16	260	164	8.56
	40A	40	120	95	4-15	16	280	180	10.8
	50A	50	130	105	4-15	16	320	208	15.2
Rating	Size	ød	øD	øC	N-øh	t	L	H	Weight (kg)
JIS 10K (JIS F7220)	20A	20	100	75	4-15	14	200	128	4.40
	25A	25	125	90	4-19	14	225	153	6.88
	32A	32	135	100	4-19	16	260	164	8.99
	40A	40	140	105	4-19	16	280	180	11.35
	50A	50	155	120	4-19	16	320	208	15.97

Remark : 1. The flanges shall conform to nominal pressure 5 and 10K of JIS B2210

JIS 5K Small Size Duplex Oil Strainers

JIS F7224



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	COCK PLUG	BRONZE
4	HANDLE	STEEL / STAINLESS STEEL
5	FILTER CYLINDER	STEEL / STAINLESS STEEL
6	STRAINER HANDLE	STEEL
7	COVER YOKE	DUCTILE IRON / STEEL
8	YOKE BOLT	STEEL
9	AIR PURGE COCK	BRONZE
10	DRAIN PLUG	BRASS
11	O-RING	RUBBER

Dimension Table (Unit : mm)

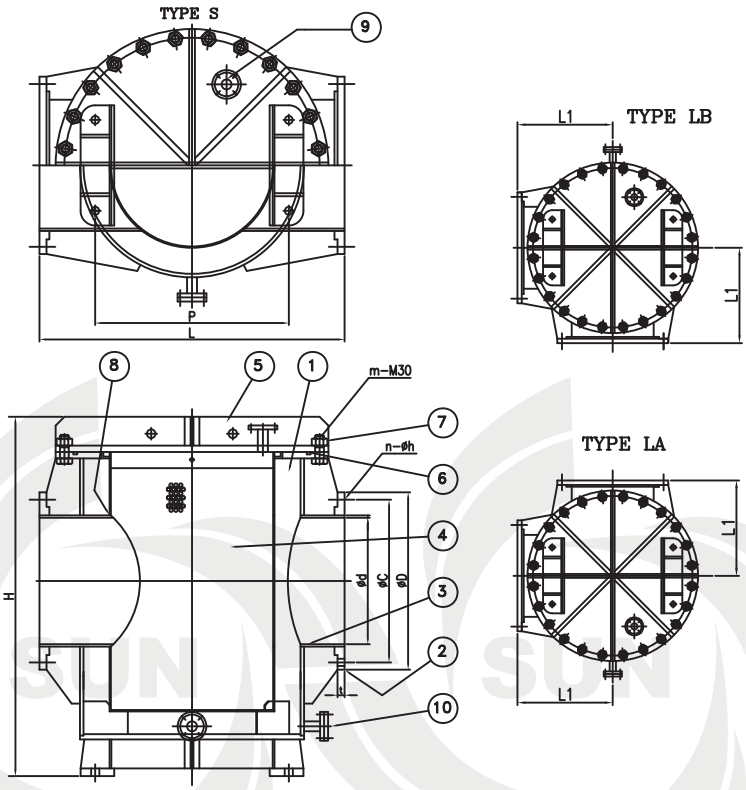
Rating	Size	ød	øD	øC	N-Tap	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7220)	25A	25	78	75	4-M10	14	196	167	250	16.0
	32A	32	95	90	4-M12	16	240	211	295	25.6
	40A	40	120	95	4-M12	16	280	241	330	31.6

Test Pressure (MPa)

Rating	JIS 5K
Hydrostatic press test (Shell)	0.58
Hydrostatic press test (Cock)	0.43

Remark : 1. The flanges shall bolt pitch circle diameter of nominal diameter 25 and 32, and the flange of nominal diameter 40 shall conform to nominal pressure 5K of JIS B2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

JIS 5K Fabricated Water Strainers — JIS F7226
JIS 10K Fabricated Water Strainers — JIS F7226



NO.	PARTS	MATERIAL
1	BODY	MILD STEEL
2	CONNECTION FLANGE	MILD STEEL
3	INLET/OUTLET PIPE	MILD STEEL
4	FILTER CYLINDER	MILD STEEL
5	COVER	MILD STEEL
6	O-RING	NBR
7	HEX. BOLT/NUT	MILD STEEL
8	PACKING	NBR
9	VENT CONNECTION	MILD STEEL
10	DRAIN CONNECTION	MILD STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

Dimension Table (Unit : mm)

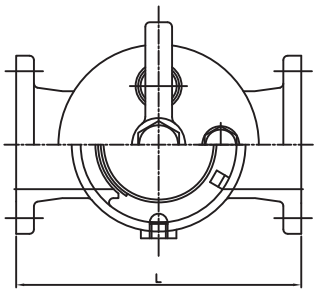
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7226)	450A	431.4	605	555	16-25	24	1040	520	1225	660	724
	500A	492.2	655	605	20-25	24	1130	565	1325	730	908
	550A	543.0	720	665	20-27	26	1220	610	1390	800	1070
	600A	593.8	770	715	20-27	26	1310	655	1475	870	1270
	650A	644.6	825	770	24-27	26	1410	705	1530	950	1480
	700A	695.4	875	820	24-27	26	1500	750	1595	1030	1670
	750A	746.2	945	880	24-33	28	1600	800	1640	1095	1960
	800A	797.0	995	930	24-33	28	1700	850	1670	1170	2320
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7226)	450A	431.4	620	565	20-27	30	1040	520	1225	660	731.2
	500A	492.2	675	620	20-27	30	1130	565	1325	730	918
	550A	543.0	745	680	20-33	32	1220	610	1390	800	1081
	600A	593.8	795	730	24-33	32	1310	655	1475	870	1283
	650A	644.6	845	780	24-33	34	1410	705	1530	950	1495
	700A	695.4	905	840	24-33	34	1500	750	1595	1030	1687
	750A	746.2	970	900	24-33	36	1600	800	1640	1095	1980
	800A	797.0	1020	950	28-33	36	1700	850	1670	1170	2344

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

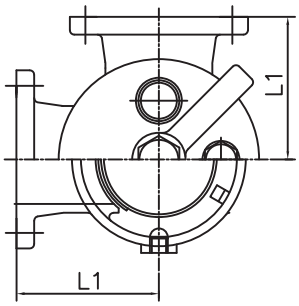
JIS 5K Can Water Filters
JIS 10K Can Water Filters

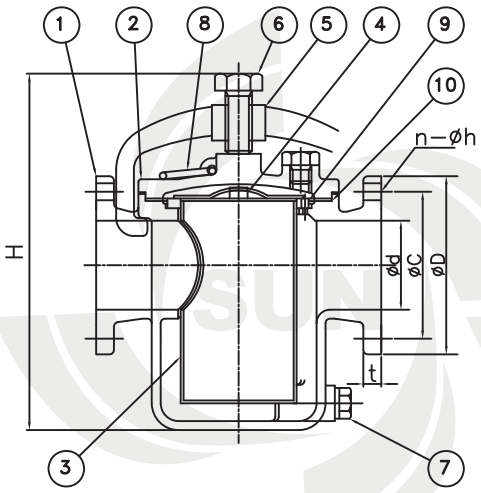
Ref. to JIS F7121
Ref. to JIS F7121

TYPE S

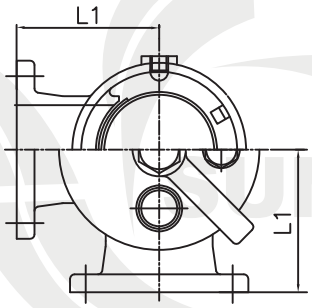


TYPE LA





TYPE LB



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	STRAINER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	COVER PUSHER	DUCTILE IRON / STEEL
6	PUSHING BOLT	STEEL / BRASS
7	PLUG	BRASS
8	HANDLE OF COVER	STEEL
9	SET SCREW	STEEL / STAINLESS STEEL
10	GASKET	RUBBER

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.3	0.3

Dimension Table (Unit : mm)

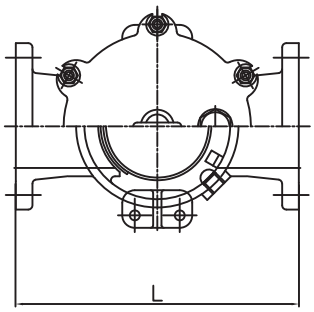
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7121)	25A	25	95	75	4-12	14	170	85	180	5.53
	32A	40	115	90	4-15	16	190	95	215	8.96
	40A	40	120	95	4-15	16	190	95	215	9.18
	50A	50	130	105	4-15	16	200	100	240	11.21
	65A	65	155	130	4-15	18	250	125	305	20.13
	80A	80	180	145	4-19	18	270	135	340	26.12
	100A	100	200	165	8-19	20	320	160	400	38.85
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7121)	25A	25	125	90	4-19	14	170	85	180	5.8
	32A	40	135	100	4-19	16	190	95	215	9.42
	40A	40	140	105	4-19	16	190	95	215	9.63
	50A	50	155	120	4-19	16	200	100	240	11.78
	65A	65	175	140	4-19	18	250	125	305	21.17
	80A	80	185	150	8-19	18	270	135	340	27.42
	100A	100	210	175	8-19	20	320	160	400	40.8

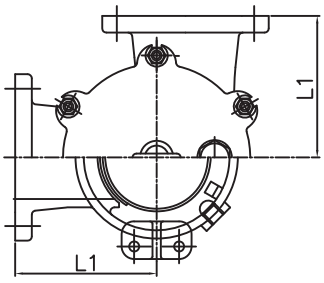
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm and 11mm.
3. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

JIS 5K Can Water Filters
JIS10K Can Water Filters

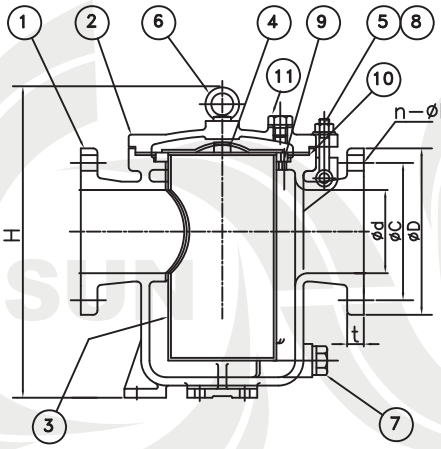
Ref. to JIS F7121
Ref. to JIS F7121

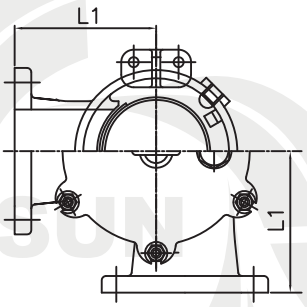
TYPE S





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< LB TYPE >

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	STRAINER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	HINGE BOLT	BRASS
6	EYE BOLT	FORGED STEEL
7	PLUG	BRASS
8	PIN	BRASS
9	NUT	BRASS / STAINLESS STEEL
10	GASKET	RUBBER
11	PLUG	BRASS

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.3	0.3

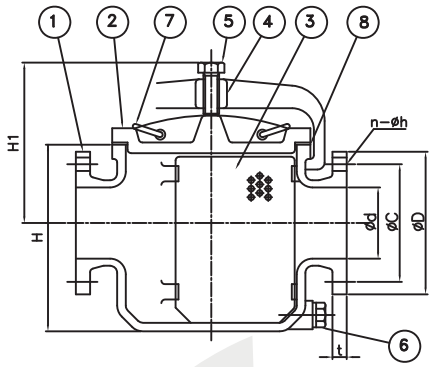
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7121)	125A	125	235	200	8-19	20	400	200	485	67.68
	150A	150	265	230	8-19	22	460	230	575	96.4
	200A	200	320	280	8-23	24	550	275	665	153.4
	250A	250	385	345	12-23	26	680	340	825	267.65
	300A	300	430	390	12-23	28	760	380	920	349.25
	350A	335	480	435	12-25	30	820	410	1030	465.67
	400A	380	540	495	16-25	30	880	440	1135	563.6
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7121)	125A	125	250	210	8-23	20	400	200	485	71.07
	150A	150	280	240	8-23	22	460	230	575	101.22
	200A	200	330	290	12-23	24	550	275	665	161.08
	250A	250	400	355	12-25	26	680	340	825	281.05
	300A	300	445	400	16-25	28	760	380	920	366.72
	350A	335	490	445	16-25	30	820	410	1030	488.95
	400A	380	560	510	16-27	30	880	440	1135	591.88

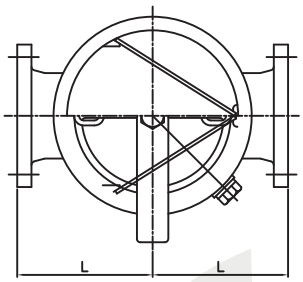
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm and 11mm.
3. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

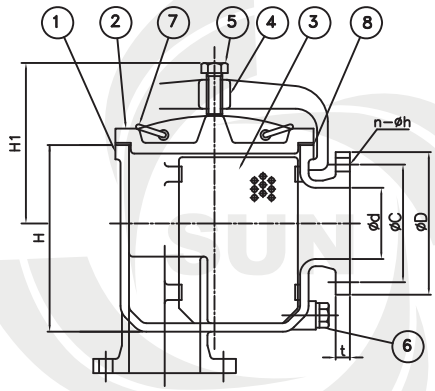
JIS 5K Marine Mud Boxes
Ref. to JIS F7203

JIS 10K Marine Mud Boxes
Ref. to JIS F7203

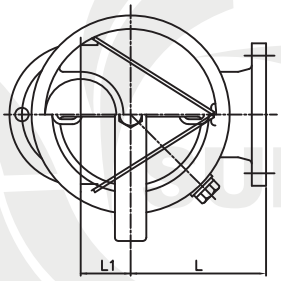


< S TYPE >





< L TYPE >



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	STRAINER PLATE	STEEL / STAINLESS STEEL
4	COVER YOKE	STEEL
5	YOKE BOLT	STEEL
6	PLUG	BRASS
7	HANDLE OF COVER	STEEL
8	GASKET	RUBBER

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.098	0.098

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (kg)
JIS 5K (JIS F7203)	40A	40	120	95	4-15	16	90	22.5	128	145	11.37
	50A	50	130	105	4-15	16	120	40	160	145	19.17
	65A	65	155	130	4-15	18	150	52.5	206	180	32.17
	80A	80	180	145	4-19	18	160	55	231	195	37.15
	100A	100	200	165	8-19	20	190	70	262	225	52.2
	125A	125	235	200	8-19	20	235	87.5	354	275	100.5
	150A	150	265	230	8-19	22	280	110	437	320	168.95
	200A	200	320	280	8-23	24	330	135	540	405	330.32
	250A	250	385	345	12-23	26	380	155	680	525	471.1
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (kg)
JIS 10K (JIS F7203)	40A	40	140	105	4-19	16	90	22.5	128	145	11.95
	50A	50	155	120	4-19	16	120	40	160	145	20.15
	65A	65	175	140	4-19	18	150	52.5	206	180	33.78
	80A	80	185	150	8-19	18	160	55	231	195	39
	100A	100	210	175	8-19	20	190	70	262	225	54.8
	125A	125	250	210	8-23	20	235	87.5	354	275	105.55
	150A	150	280	240	8-23	22	280	110	437	320	177.4
	200A	200	330	290	12-23	24	330	135	540	405	346.85
	250A	250	400	355	12-25	26	380	155	680	525	494.7

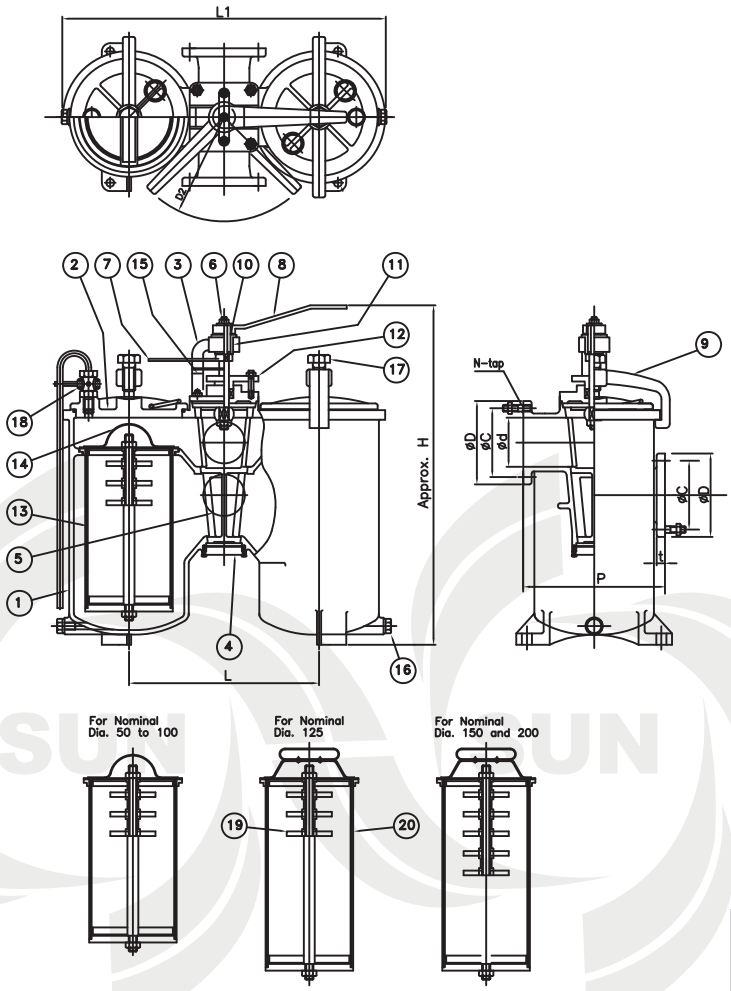
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

JIS 5K Duplex Oil Strainer(H-Type)

Ref. to JIS F7208

JIS 10K Duplex Oil Strainer(H-Type)

Ref. to JIS F7208



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	UPPER COCK COVER	CAST STEEL
4	LOWER COCK COVER	CAST STEEL
5	COCK	BRONZE
6	COCK SHAFT	STEEL
7	COCK CHAIN HANDLE	STEEL
8	COCK LIFT HANDLE	STEEL
9	COVER YOKE	DUCTILE IRON / STEEL
10	LIFTING THREAD	STEEL
11	SCREW RING	BRONZE
12	PACKING GLAND	BRONZE
13	STRAINER CYLINDER	STEEL
14	STRAINER HANDLE	STEEL
15	INDICATOR	BRASS
16	PLUG	BRASS
17	COVER PUSHING BOLT	BRASS
18	AIR VENT COCK	BRONZE
19	MAGNET	
20	WIRE GAUZE	STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.6	0.6
Hydrostatic press test (Cock)	0.44	0.44

Dimension Table (Unit : mm)

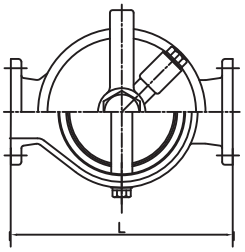
Rating	Size	ød	øD	øC	N-tap	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7203)	50A	50	130	105	4-M12	17	260	415	516	180	51.15
	65A	65	155	130	4-M12	18	324	514	661	215	90.30
	80A	80	180	145	4-M16	18	380	600	685	245	143.62
	100A	100	200	165	8-M16	20	456	718	816	285	219.78
	125A	125	235	200	8-M16	20	544	852	952	330	349.25
	150A	150	265	230	8-M16	22	680	1046	1299	410	616.9
	200A	200	320	280	8-M20	24	820	1250	1520	490	1290
Rating	Size	ød	øD	øC	N-tap	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7203)	50A	50	155	120	4-M16	17	260	415	516	180	51.15
	65A	65	175	140	4-M16	18	324	514	661	215	90.30
	80A	80	185	150	8-M16	18	380	600	685	245	143.62
	100A	100	210	175	8-M16	20	456	718	816	285	219.78
	125A	125	250	210	8-M20	20	544	852	952	330	349.25
	150A	150	280	240	8-M20	22	680	1046	1299	410	616.9
	200A	200	330	290	12-M20	24	820	1250	1520	490	1290

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 12mm and 15mm respectively.

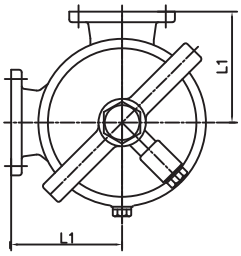
JIS 5K Simplex Oil Strainer
Ref. to JIS F7209

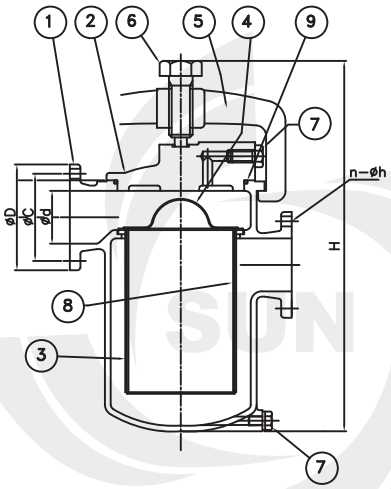
JIS 10K Simplex Oil Strainer
Ref. to JIS F7209

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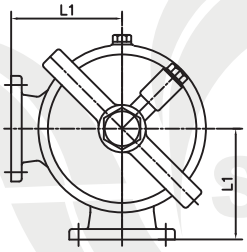


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NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	FILTER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	COVER YOKE	DUCTILE IRON / STEEL
6	YOKE BOLT	STEEL
7	DRAIN PLUG	BRASS
8	WIRE GAUZE	STAINLESS STEEL
9	O-RING	RUBBER

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7209)	25A	25	95	75	4-12	14	190	95	240	7.16
	32A	40	115	90	4-15	16	260	130	315	16.11
	40A	40	120	95	4-15	16	260	130	315	16.32
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7209)	25A	25	125	90	4-19	14	190	95	240	7.52
	32A	40	135	100	4-19	16	260	130	315	16.82
	40A	40	140	105	4-15	16	260	130	315	17.14

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

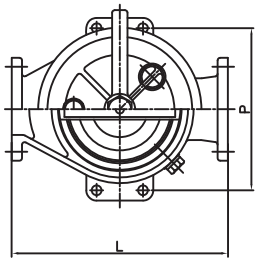
JIS 5K Simplex Oil Strainer

Ref. to JIS F7209

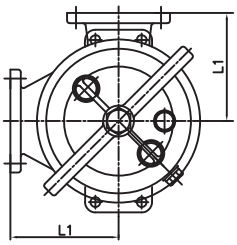
JIS 10K Simplex Oil Strainer

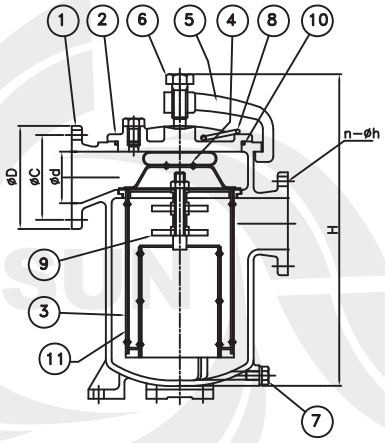
Ref. to JIS F7209

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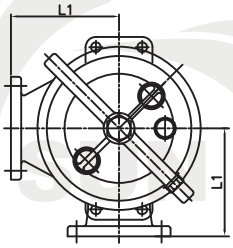


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NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	FILTER CYLINDER	STEEL / STAINLESS STEEL
4	STRAINER HANDLE	STEEL / STAINLESS STEEL
5	COVER YOKE	DUCTILE IRON / STEEL
6	YOKE BOLT	STEEL
7	DRAIN PLUG	BRASS
8	HANDLE OF COVER	STEEL
9	MAGNET	
10	O-RING	RUBBER
11	WIRE GAUZE	STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

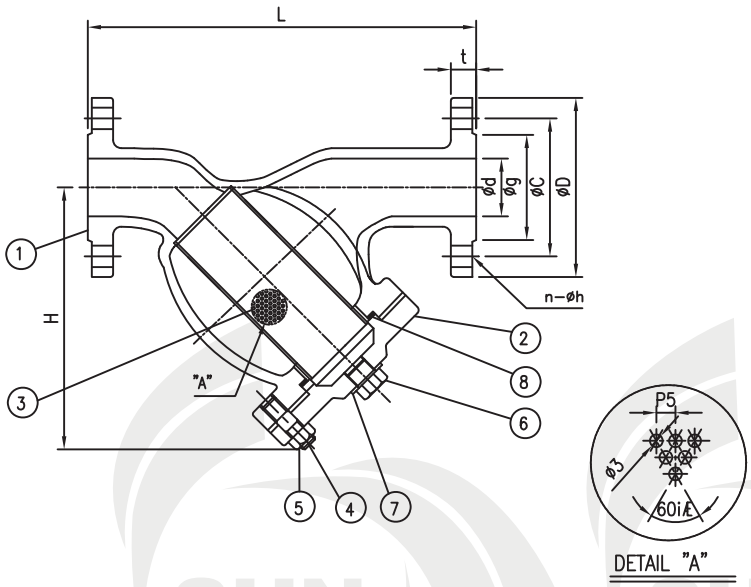
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7209)	50A	50	130	105	4-15	16	280	140	395	200	27.95
	65A	65	155	130	4-15	18	340	170	495	245	47.22
	80A	80	180	145	4-19	18	370	185	525	280	55.24
	100A	100	200	165	8-19	20	420	210	630	315	86.65
	125A	125	235	200	8-19	20	450	225	745	345	115.89
	150A	150	265	230	8-19	22	470	235	825	370	166.79
	200A	200	320	280	8-23	24	570	285	970	435	263.17
	250A	250	385	345	12-23	26	700	350	1140	520	283.75
	300A	300	430	390	12-23	28	800	400	1220	545	490.6
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7209)	50A	50	155	120	4-19	16	280	140	395	200	29.35
	65A	65	175	140	4-19	18	340	170	495	245	49.58
	80A	80	185	150	8-19	18	370	185	525	280	58
	100A	100	210	175	8-19	20	420	210	630	315	90.98
	125A	125	250	210	8-23	20	450	225	745	345	122.24
	150A	150	280	240	8-23	22	470	235	825	370	175.93
	200A	200	330	290	12-23	24	570	285	970	435	277.5
	250A	250	400	355	12-25	26	700	350	1140	520	299.3
	300A	300	445	400	16-25	28	800	400	1220	545	517.5

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

JIS 5K Y-Type Strainers
JIS 10K Y-Type Strainers

Ref. to JIS F7220
Ref. to JIS F7220



Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	WIRE GAUZE	STAINLESS STEEL
4	STUD BOLT	STEEL
5	HEXAGON NUT	STEEL
6	PLUG	BRASS
7	GASKET	NON ASBESTOS
8	GASKET	NON ASBESTOS

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 5K (JIS F7220)	20A	20	85	65	4-12	14	200	128	4.56
	25A	25	95	75	4-12	14	225	153	7.13
	32A	32	115	90	4-15	16	260	164	9.32
	40A	40	120	95	4-15	16	280	180	11.76
	50A	50	130	105	4-15	16	320	208	16.54
Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 10K (JIS F7220)	20A	20	100	75	4-15	14	200	128	4.79
	25A	25	125	90	4-19	14	225	153	7.49
	32A	32	135	100	4-19	16	260	164	9.78
	40A	40	140	105	4-19	16	280	180	12.35
	50A	50	155	120	4-19	16	320	208	17.38

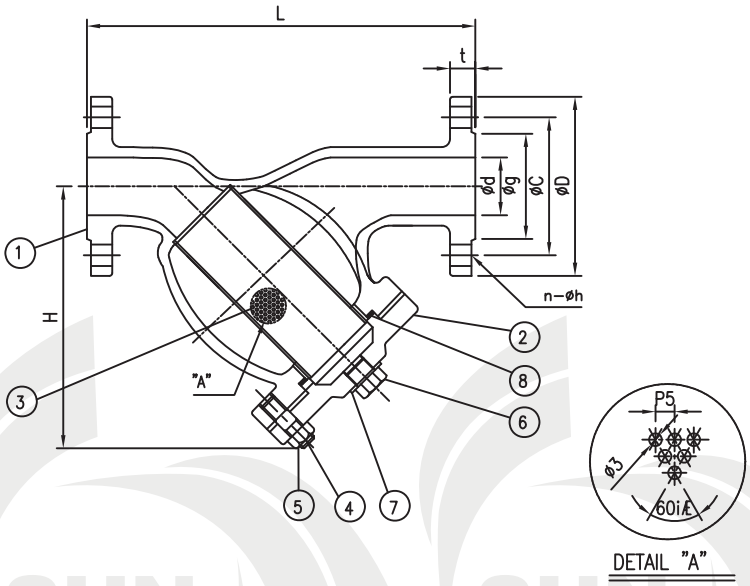
Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1

Remark : 1. The flanges shall conform to nominal pressure 5 and 10K of JIS B2210

JIS 40K Y-Type Strainer

JIS F7222



DETAIL "A"

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	WIRE GAUZE	STAINLESS STEEL
4	STUD BOLT	CARBON STEEL
5	HEXAGON NUT	CARBON STEEL
6	PLUG	STAINLESS STEEL
7	GASKET	NON ASBESTOS
8	GASKET	NON ASBESTOS

Fluid Condition & Max. Working pressure (MPa)

	Max. Working Pressure (MPa)	
Fluid Condition	JIS 10K	JIS 20K
Steam of 400°C		2.3
Steam of 350°C		2.6
Steam of 300°C	1.0	2.9
Steam up to 220°C	1.2	3.1
Air, Gas, Oil and Pulsation Water	1.2	3.1
Non-Shock Water up to 120°C	1.4	3.4

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	øg	N-øh	t	L	H	Weight (kg)
JIS 40K (JIS F7222)	20A	20	120	85	60	4-19	20	220	134	-
	25A	25	130	95	70	4-19	22	240	153	-
	32A	32	140	105	80	4-19	24	265	165	-
	40A	40	160	120	90	4-23	24	315	197	-
	50A	50	165	130	105	8-19	26	355	213	-

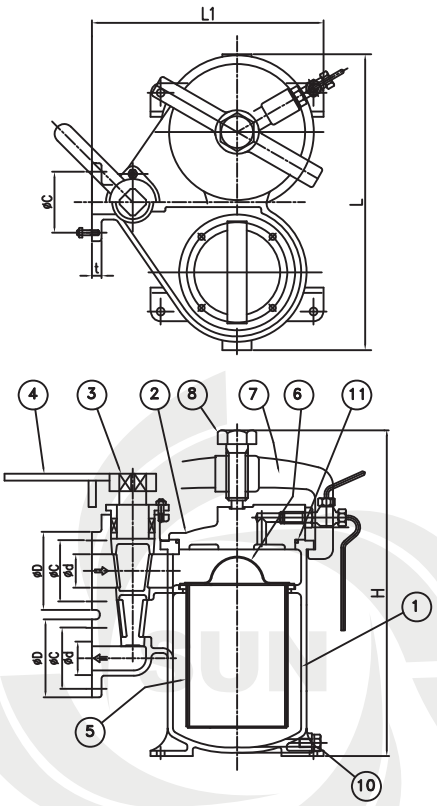
Test Pressure (MPa)

Rating	JIS 40K
Hydrostatic press test (Shell)	9.12

Remark : 1. The flanges shall conform to nominal pressure 10K and 20K of JIS B2210

JIS 5K Small Size Duplex Oil Strainers

Ref. to JIS F7224



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	COVER	CAST STEEL
3	COCK PLUG	BRONZE
4	HANDLE	STEEL / STAINLESS STEEL
5	FILTER CYLINDER	STEEL / STAINLESS STEEL
6	STRAINER HANDLE	STEEL
7	COVER YOKE	DUCTILE IRON / STEEL
8	YOKE BOLT	STEEL
9	AIR PURGE COCK	BRONZE
10	DRAIN PLUG	BRASS
11	O-RING	RUBBER

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-Tap	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7220)	25A	25	78	75	4-M10	14	196	167	250	17.4
	32A	32	95	90	4-M12	16	240	211	295	27.85
	40A	40	120	95	4-M12	16	280	241	330	34.4

Test Pressure (MPa)

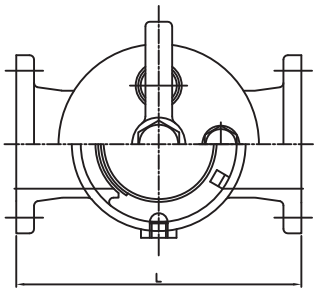
Rating	JIS 5K
Hydrostatic press test (Shell)	0.58
Hydrostatic press test (Cock)	0.43

Remark : 1. The flanges shall bolt pitch circle diameter of nominal diameter 25 and 32, and the flange of nominal diameter 40 shall conform to nominal pressure 5K of JIS B2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

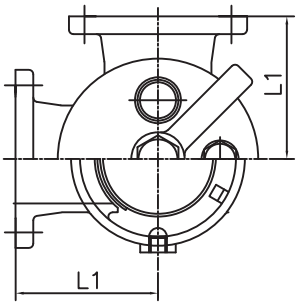
JIS 5K Can Water Filters
JIS 10K Can Water Filters

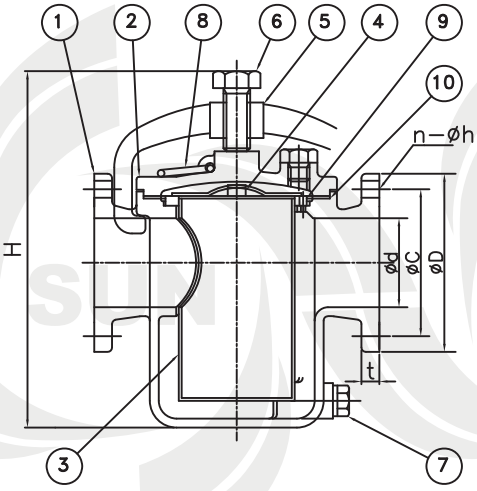
Ref. to JIS F7121
Ref. to JIS F7121

TYPE S

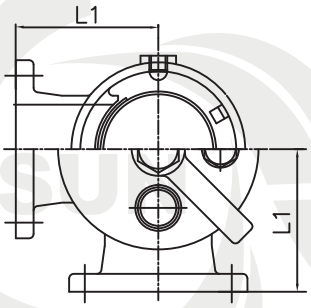


TYPE LA





TYPE LB



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	STRAINER CYLINDER	STAINLESS STEEL
4	STRAINER HANDLE	STAINLESS STEEL
5	COVER PUSHER	BRONZE
6	PUSHING BOLT	BRASS / STAINLESS STEEL
7	PLUG	BRASS
8	HANDLE OF COVER	STAINLESS STEEL
9	SET SCREW	STAINLESS STEEL
10	GASKET	RUBBER

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7121)	25A	25	95	75	4-12	14	170	85	180	6.2
	32A	40	115	90	4-15	16	190	95	215	10.05
	40A	40	120	95	4-15	16	190	95	215	10.3
	50A	50	130	105	4-15	16	200	100	240	12.57
	65A	65	155	130	4-15	18	250	125	305	22.58
	80A	80	180	145	4-19	18	270	135	340	29.3
	100A	100	200	165	8-19	20	320	160	400	43.56
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7121)	25A	25	125	90	4-19	14	170	85	180	6.52
	32A	40	135	100	4-19	16	190	95	215	10.56
	40A	40	140	105	4-19	16	190	95	215	10.8
	50A	50	155	120	4-19	16	200	100	240	13.2
	65A	65	175	140	4-19	18	250	125	305	23.73
	80A	80	185	150	8-19	18	270	135	340	30.75
	100A	100	210	175	8-19	20	320	160	400	45.75

Test Pressure (MPa)

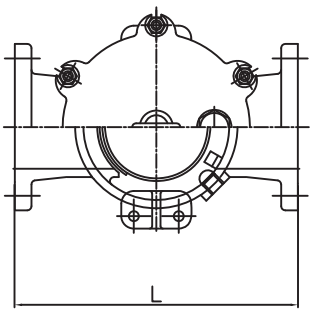
Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.3	0.3

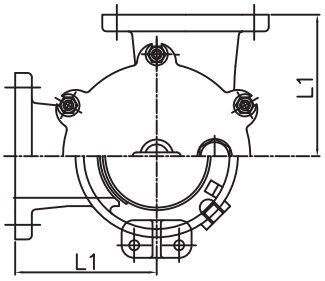
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm and 11mm.
3. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

JIS 5K Can Water Filters
Ref. to JIS F7121

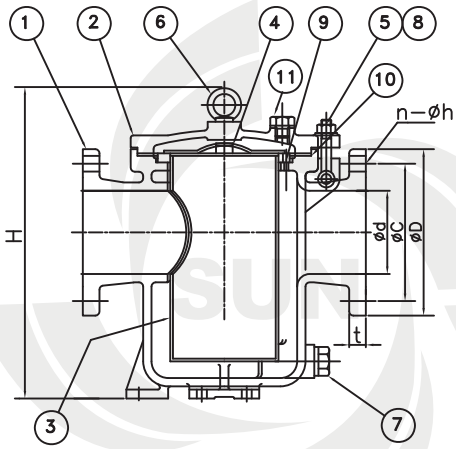
JIS 10K Can Water Filters
Ref. to JIS F7121

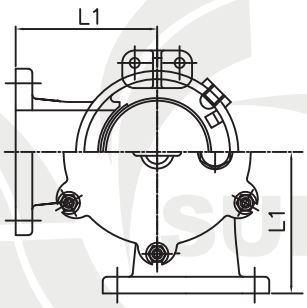
TYPE S





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< LB TYPE >

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	STRAINER CYLINDER	STAINLESS STEEL
4	STRAINER HANDLE	STAINLESS STEEL
5	HINGE BOLT	BRASS
6	EYE BOLT	STAINLESS STEEL
7	PLUG	BRASS
8	PIN	BRASS
9	NUT	BRASS / STAINLESS STEEL
10	GASKET	RUBBER
11	PLUG	BRASS

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.3	0.3

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7121)	125A	125	235	200	8-19	20	400	200	485	75.89
	150A	150	265	230	8-19	22	460	230	575	108.1
	200A	200	320	280	8-23	24	550	275	665	172.03
	250A	250	385	345	12-23	26	680	340	825	300.15
	300A	300	430	390	12-23	28	760	380	920	391.65
	350A	335	480	435	12-25	30	820	410	1030	522.2
	400A	380	540	495	16-25	30	880	440	1135	631.96
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7121)	125A	125	250	210	8-23	20	400	200	485	79.7
	150A	150	280	240	8-23	22	460	230	575	113.5
	200A	200	330	290	12-23	24	550	275	665	180.65
	250A	250	400	355	12-25	26	680	340	825	315.15
	300A	300	445	400	16-25	28	760	380	920	411.2
	350A	335	490	445	16-25	30	820	410	1030	548.3
	400A	380	560	510	16-27	30	880	440	1135	663.7

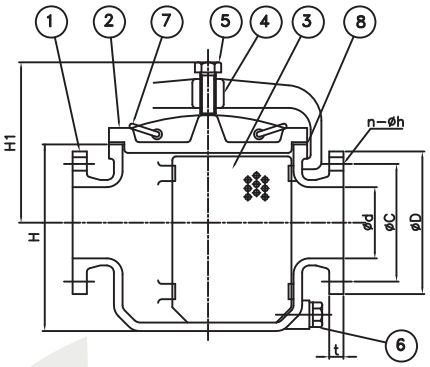
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm and 11mm.
3. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

Cast Bronze Marine Strainer

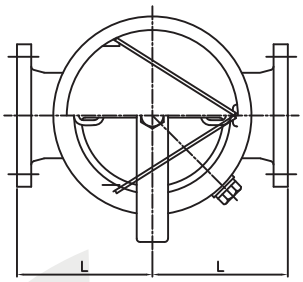
SUN KOREA
(SUN KOREA CO., LTD.)

JIS 5K Marine Mud Boxes
Ref. to JIS F7203

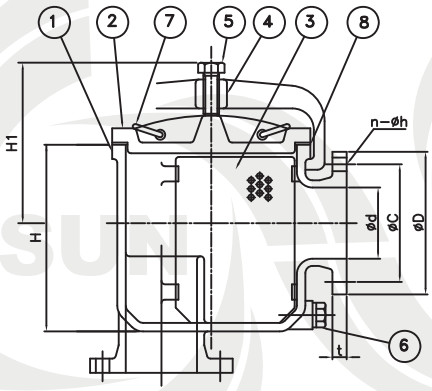
JIS 10K Marine Mud Boxes
Ref. to JIS F7203



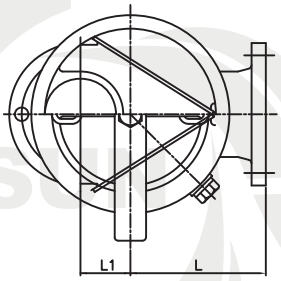
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NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	STRAINER PLATE	STAINLESS STEEL
4	COVER YOKE	BRONZE
5	YOKE BOLT	BRASS / STAINLESS STEEL
6	PLUG	BRASS
7	HANDLE OF COVER	STAINLESS STEEL
8	GASKET	RUBBER



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Dimension Table (Unit : mm)

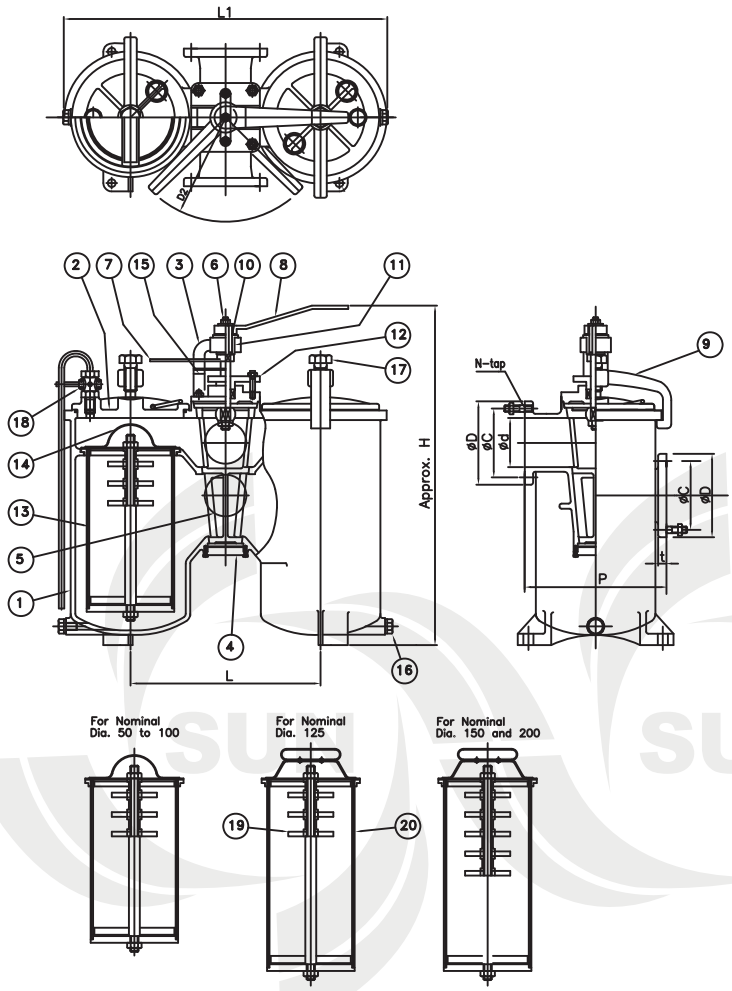
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (kg)
JIS 5K (JIS F7203)	40A	40	120	95	4-15	16	90	22.5	128	145	12.82
	50A	50	130	105	4-15	16	120	40	160	145	21.6
	65A	65	155	130	4-15	18	150	52.5	206	180	36.25
	80A	80	180	145	4-19	18	160	55	231	195	41.85
	100A	100	200	165	8-19	20	190	70	262	225	58.8
	125A	125	235	200	8-19	20	235	87.5	354	275	113.22
	150A	150	265	230	8-19	22	280	110	437	320	190.35
	200A	200	320	280	8-23	24	330	135	540	405	372.1
	250A	250	385	345	12-23	26	380	155	680	525	530.7
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (kg)
JIS 10K (JIS F7203)	40A	40	140	105	4-19	16	90	22.5	128	145	13.45
	50A	50	155	120	4-19	16	120	40	160	145	22.68
	65A	65	175	140	4-19	18	150	52.5	206	180	38.05
	80A	80	185	150	8-19	18	160	55	231	195	43.95
	100A	100	210	175	8-19	20	190	70	262	225	61.75
	125A	125	250	210	8-23	20	235	87.5	354	275	118.9
	150A	150	280	240	8-23	22	280	110	437	320	199.85
	200A	200	330	290	12-23	24	330	135	540	405	390.7
	250A	250	400	355	12-25	26	380	155	680	525	557.3

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.098	0.098

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The total area of filtering holes shall be approximately 4 times or more the area of inlet part after galvanizing.

JIS 5K Duplex Oil Strainer(H-Type) — Ref. to JIS F7208
JIS 10K Duplex Oil Strainer(H-Type) — Ref. to JIS F7208



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	UPPER COCK COVER	BRONZE
4	LOWER COCK COVER	BRONZE
5	COCK	BRONZE
6	COCK SHAFT	STAINLESS STEEL
7	COCK CHAIN HANDLE	STAINLESS STEEL
8	COCK LIFT HANDLE	STAINLESS STEEL
9	COVER YOKE	BRONZE
10	LIFTING THREAD	STAINLESS STEEL
11	SCREW RING	BRONZE
12	PACKING GLAND	BRONZE
13	STRAINER CYLINDER	STAINLESS STEEL
14	STRAINER HANDLE	STAINLESS STEEL
15	INDICATOR	BRASS
16	PLUG	BRASS
17	COVER PUSHING BOLT	BRASS
18	AIR VENT COCK	BRONZE
19	MAGNET	
20	WIRE GAUZE	STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.6	0.6
Hydrostatic press test (Cock)	0.44	0.44

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-tap	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7203)	50A	50	130	105	4-M12	17	260	415	516	180	57.35
	65A	65	155	130	4-M12	18	324	514	661	215	101.28
	80A	80	180	145	4-M16	18	380	600	685	245	161.05
	100A	100	200	165	8-M16	20	456	718	816	285	246.45
	125A	125	235	200	8-M16	20	544	852	952	330	391.65
	150A	150	265	230	8-M16	22	680	1046	1299	410	691.75
	200A	200	320	280	8-M20	24	820	1250	1520	490	1446
Rating	Size	ød	øD	øC	N-tap	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7203)	50A	50	155	120	4-M16	17	260	415	516	180	57.35
	65A	65	175	140	4-M16	18	324	514	661	215	101.28
	80A	80	185	150	8-M16	18	380	600	685	245	161.05
	100A	100	210	175	8-M16	20	456	718	816	285	246.45
	125A	125	250	210	8-M20	20	544	852	952	330	391.65
	150A	150	280	240	8-M20	22	680	1046	1299	410	691.75
	200A	200	330	290	12-M20	24	820	1250	1520	490	1446

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 12mm and 15mm respectively.

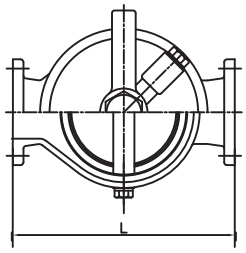
JIS 5K Simplex Oil Strainer

Ref. to JIS F7209

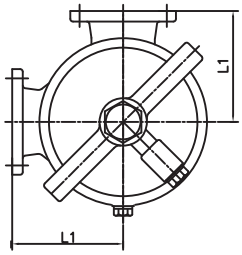
JIS 10K Simplex Oil Strainer

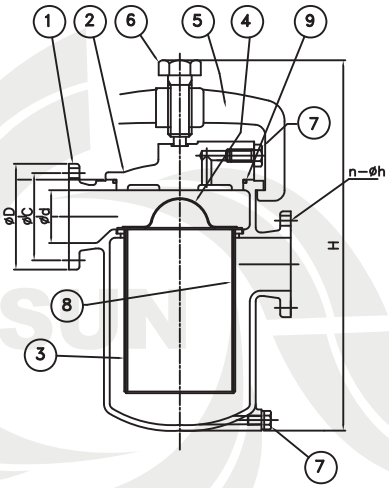
Ref. to JIS F7209

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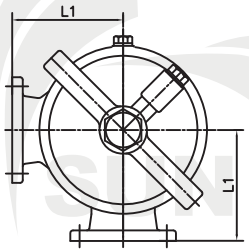


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< TYPE LB >



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	FILTER CYLINDER	STAINLESS STEEL
4	STRAINER HANDLE	STAINLESS STEEL
5	COVER YOKE	BRONZE
6	YOKE BOLT	STAINLESS STEEL
7	DRAIN PLUG	BRASS
8	WIRE GAUZE	STAINLESS STEEL
9	O-RING	RUBBER

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

Dimension Table (Unit : mm)

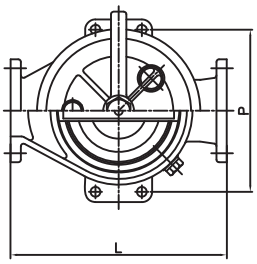
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7209)	25A	25	95	75	4-12	14	190	95	240	8.03
	32A	40	115	90	4-15	16	260	130	315	18.06
	40A	40	120	95	4-15	16	260	130	315	18.3
Rating	Size	ød	øD	øC	N–øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7209)	25A	25	125	90	4-19	14	190	95	240	8.44
	32A	40	135	100	4-19	16	260	130	315	18.98
	40A	40	140	105	4-15	16	260	130	315	19.22

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

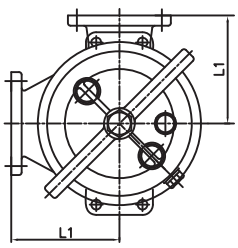
JIS 5K Simplex Oil Strainer
JIS 10K Simplex Oil Strainer

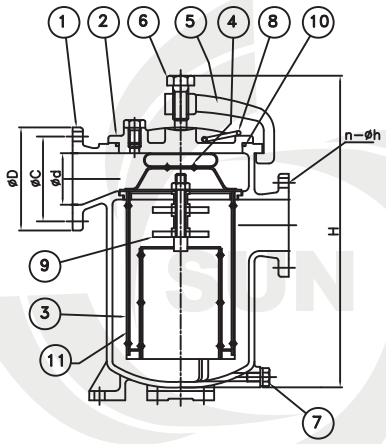
Ref. to JIS F7209
Ref. to JIS F7209

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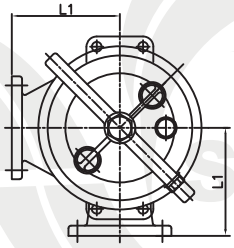


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< TYPE LB >



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	FILTER CYLINDER	STAINLESS STEEL
4	STRAINER HANDLE	STAINLESS STEEL
5	COVER YOKE	BRONZE
6	YOKE BOLT	STAINLESS STEEL
7	DRAIN PLUG	BRASS
8	HANDLE OF COVER	STAINLESS STEEL
9	MAGNET	
10	O-RING	RUBBER
11	WIRE GAUZE	STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.74	0.74

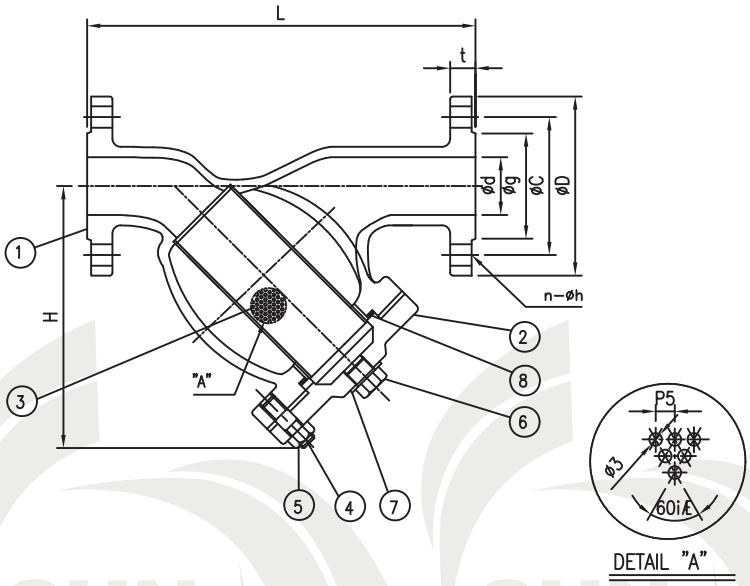
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	P	Weight (kg)
JIS 5K (JIS F7209)	50A	50	130	105	4-15	16	280	140	395	200	31.48
	65A	65	155	130	4-15	18	340	170	495	245	53.2
	80A	80	180	145	4-19	18	370	185	525	280	62.23
	100A	100	200	165	8-19	20	420	210	630	315	97.6
	125A	125	235	200	8-19	20	450	225	745	345	130.55
	150A	150	265	230	8-19	22	470	235	825	370	187.88
	200A	200	320	280	8-23	24	570	285	970	435	296.46
	250A	250	385	345	12-23	26	700	350	1140	520	319.64
	300A	300	430	390	12-23	28	800	400	1220	545	552.66
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	P	Weight (kg)
JIS 10K (JIS F7209)	50A	50	155	120	4-19	16	280	140	395	200	33.06
	65A	65	175	140	4-19	18	340	170	495	245	55.85
	80A	80	185	150	8-19	18	370	185	525	280	65.33
	100A	100	210	175	8-19	20	420	210	630	315	102.48
	125A	125	250	210	8-23	20	450	225	745	345	137.07
	150A	150	280	240	8-23	22	470	235	825	370	197.28
	200A	200	330	290	12-23	24	570	285	970	435	311.29
	250A	250	400	355	12-25	26	700	350	1140	520	335.63
	300A	300	445	400	16-25	28	800	400	1220	545	580.3

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

JIS 5K Y-Type Strainer
JIS 10K Y-Type Strainer

Ref. to JIS F7220
Ref. to JIS F7220



Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	WIRE GAUZE	STAINLESS STEEL
4	STUD BOLT	STAINLESS STEEL
5	HEXAGON NUT	STAINLESS STEEL
6	PLUG	BRASS
7	GASKET	NON ASBESTOS
8	GASKET	NON ASBESTOS

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 5K (JIS F7220)	20A	20	85	65	4-12	14	200	128	5.12
	25A	25	95	75	4-12	14	225	153	8
	32A	32	115	90	4-15	16	260	164	10.45
	40A	40	120	95	4-15	16	280	180	13.18
	50A	50	130	105	4-15	16	320	208	18.55
Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 10K (JIS F7220)	20A	20	100	75	4-15	14	200	128	5.37
	25A	25	125	90	4-19	14	225	153	8.4
	32A	32	135	100	4-19	16	260	164	10.97
	40A	40	140	105	4-19	16	280	180	13.85
	50A	50	155	120	4-19	16	320	208	19.49

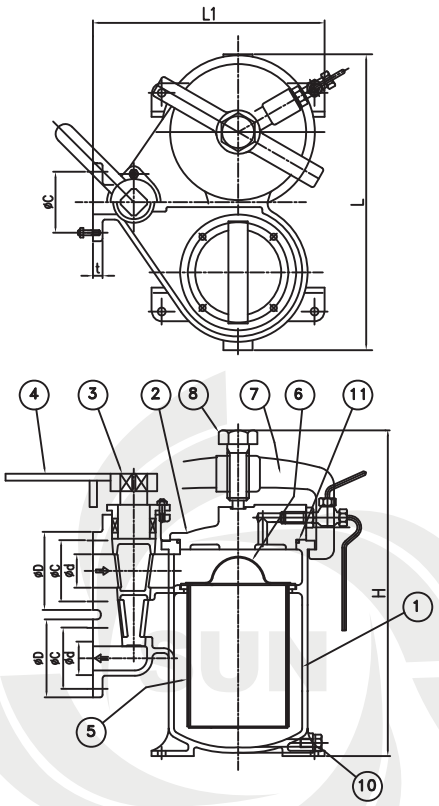
Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1

Remark : 1. The flanges shall conform to nominal pressure 5 and 10K of JIS B2210

JIS 5K Small Size Duplex Oil Strainer

Ref. to JIS F7224



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COVER	BRONZE
3	COCK PLUG	BRONZE
4	HANDLE	STAINLESS STEEL
5	FILTER CYLINDER	STAINLESS STEEL
6	STRAINER HANDLE	STAINLESS STEEL
7	COVER YOKE	BRONZE
8	YOKE BOLT	STAINLESS STEEL
9	AIR PURGE COCK	BRONZE
10	DRAIN PLUG	BRASS
11	O-RING	RUBBER

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–Tap	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7220)	25A	25	78	75	4-M10	14	196	167	250	19.52
	32A	32	95	90	4-M12	16	240	211	295	31.25
	40A	40	120	95	4-M12	16	280	241	330	38.55

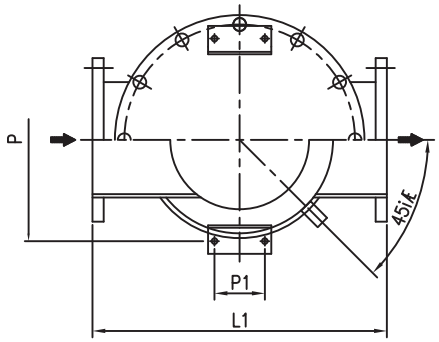
Test Pressure (MPa)

Rating	JIS 5K
Hydrostatic press test (Shell)	0.58
Hydrostatic press test (Cock)	0.43

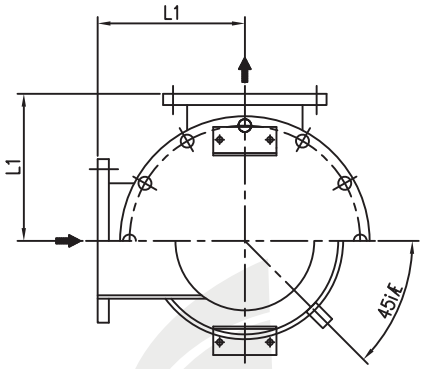
Remark : 1. The flanges shall bolt pitch circle diameter of nominal diameter 25 and 32, and the flange of nominal diameter 40 shall conform to nominal pressure 5K of JIS B2210.
2. The diameter and pitch of strainer cylinder holes shall be 8mm, pitch of holes 10mm.

Fabricated Simplex Water Strainer

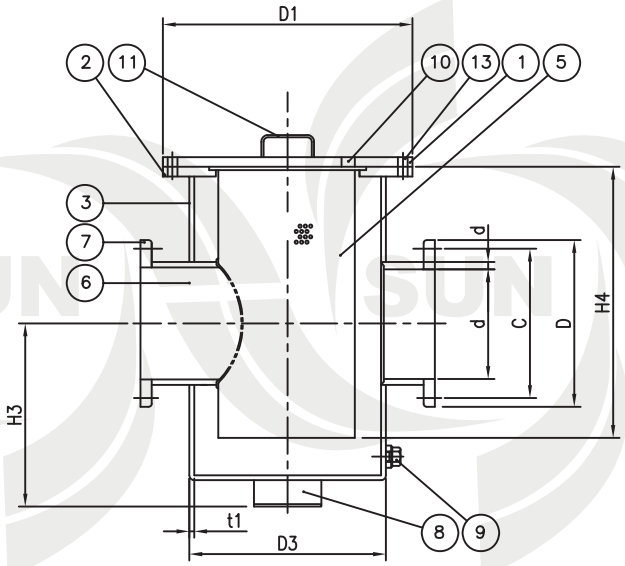
SUN-S125400S

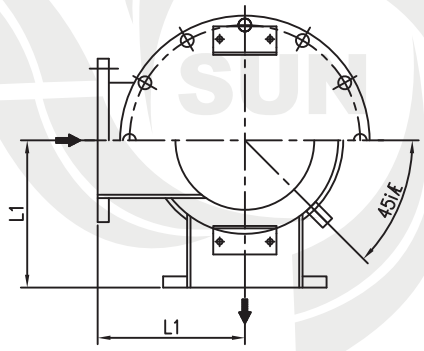


S–TYPE



LA–TYPE





LB–TYPE

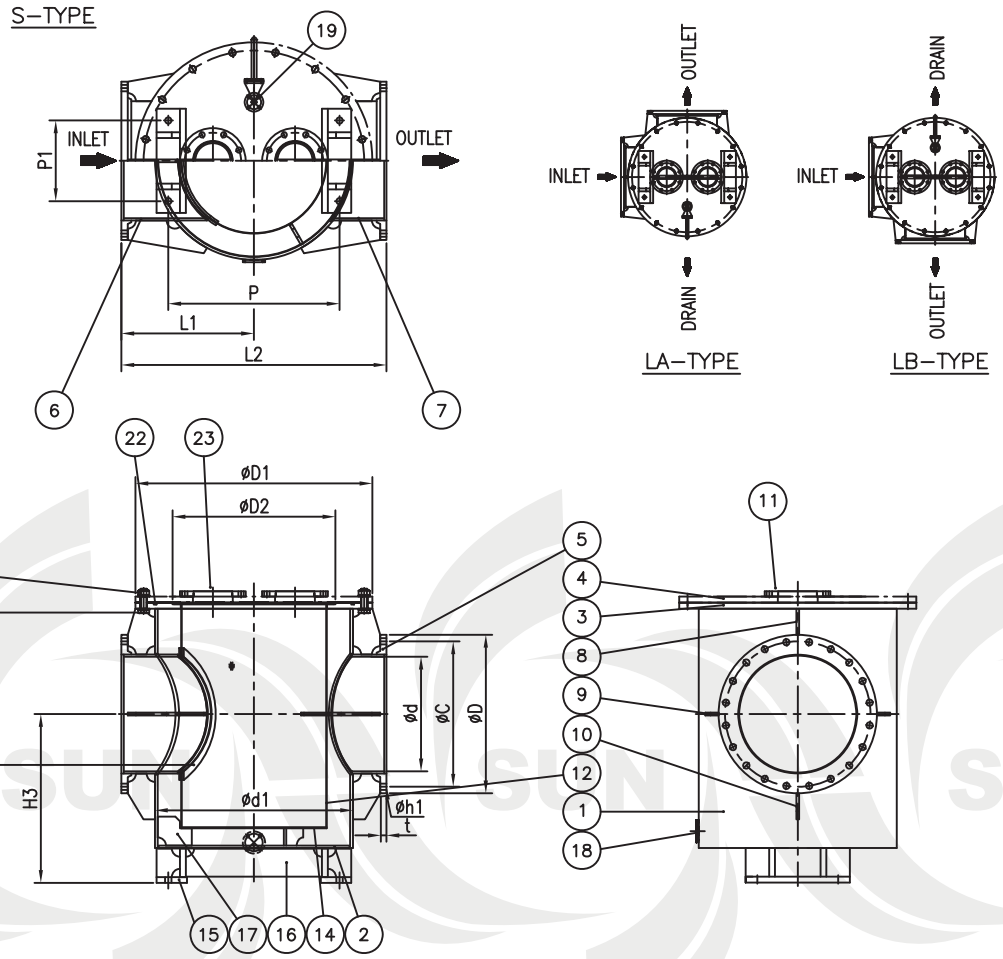
NOMINAL DIA.	PIPE d	L	L1	FLANGE JIS 5K				FLANGE JIS 10K				BODY & COVER			SEAT (ANGLE)		
				D	C	n–øh	M	D	C	n–øh	M	D1	D3	H3	P	P1	h1
125A	139.8	400	200	235	200	8–19	16	250	210	8–23	20	360	267.4	235	260	80	19
150A	165.2	460	230	265	230	8–19	16	280	240	8–23	20	430	318.5	290	310	90	19
200A	216.3	550	275	320	280	8–23	20	330	290	12–23	20	480	355.6	310	380	100	23
250A	267.4	680	340	385	345	12–23	20	400	355	12–25	22	605	457.2	380	480	140	25
300A	318.5	760	380	430	390	12–23	20	445	400	16–25	22	655	508	420	510	160	25
350A	355.6	780	390	480	435	12–25	22	490	445	16–25	22	660	508	350	530	180	25
400A	406.4	880	440	540	495	16–25	22	560	510	16–27	24	720	558.8	645	560	200	25

NO.	PARTS	MATERIAL
1	COVER FLANGE	MILD STEEL
2	FLANGE	MILD STEEL
3	BODY	MILD STEEL
4	DOUBLE RING	MILD STEEL
5	FILTER	STAINLESS STEEL 304 / 316
6	PIPE(IN.OUT)	MILD STEEL
7	FLANGE(IN.OUT)	MILD STEEL
8	SEAT	MILD STEEL
9	DRAIN PLUG	MILD STEEL
10	VENT PLUG	BRASS
11	LIFTING LUG	MILD STEEL
12	GASKET	NBR
13	BOLT & NUT	MILD STEEL

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Fabricated Simplex Water Strainer

SUN-WS450800



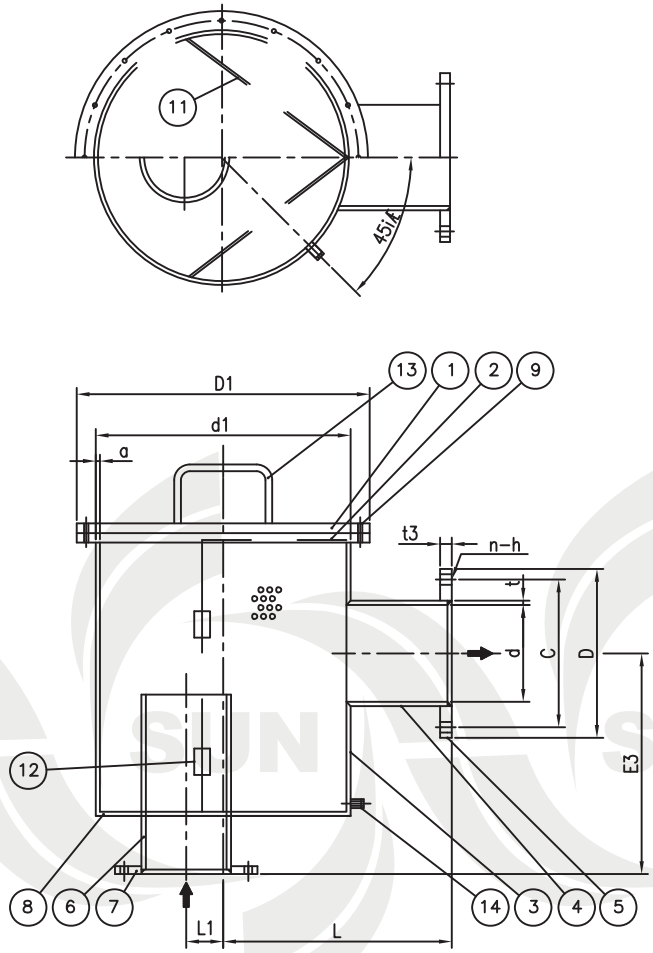
NOMINAL DIA.				FLANGE JIS 5K					FLANGE JIS 10K											
				BOLT HOLE					BOLT HOLE											
	d	L1	L2	D	C	NO.	h	t	D	C	NO.	h	t	D1	d1	H3	d2	P	P1	h1
450	457.2	520	1040	605	555	16	25	24	620	565	20	27	30	930	740	665	553	660	310	27
500	508	565	1130	655	605	20	25	24	675	620	20	27	30	1010	844	720	616	730	344	27
550	558.8	610	1220	720	665	20	27	26	745	680	20	33	32	1090	924	755	680	800	380	27
600	609.6	655	1310	770	715	20	27	26	795	730	24	33	32	1175	1004	800	744	870	410	27
650	660.4	705	1410	825	770	24	27	26	845	780	24	33	34	1265	1094	830	807	950	450	33
700	711.2	750	1500	875	820	24	27	26	905	840	24	33	34	1340	1148	865	870	1030	480	33
800	812.8	850	1700	995	930	24	33	28	1020	950	28	33	36	1510	1314	905	998	1170	550	33

NO.	PARTS	MATERIAL
1	BODY	MILD STEEL
2	BODY BOTTOM PLATE	MILD STEEL
3	BODY FLANGE	MILD STEEL
4	COVER	MILD STEEL
5	INLET & OUTLET FLANGES	MILD STEEL
6	INLET PIPE	STPG370 & MILD STEEL
7	OUTLET PIE	STPG370 & MILD STEEL
8	RIB	MILD STEEL
9	RIB	MILD STEEL
11		MILD STEEL
12	FILTER	STAINLESS STEEL 304/316
13	RUBBER PACKING	MILD STEEL
14	FILTER BOTTOM PLATE	STAINLESS STEEL 304/316
15	BASE PLATE	MILD STEEL
16	BASE PLATE SUPPORT	MILD STEEL
17	SUPPORT PLATE	MILD STEEL
18	DRAIN FLANGE	MILD STEEL
19	AIR VENT PIPE & FLANGE	STPG370 & MILD STEEL
20	HEXAGON HEAD BOLT	MILD STEEL
21	HEXAGON NUT	MILD STEEL
22	O-RING	RUBBER

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Fabricated Marine Mud Box

SUN-S125250S



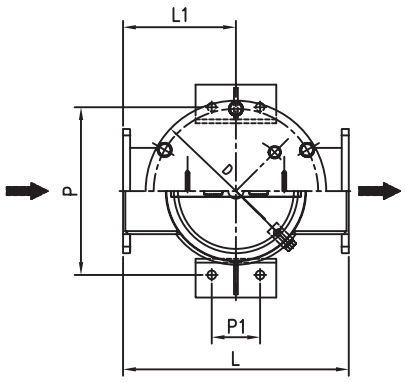
NOMINAL DIA.	PIPE d	L	L1	FLANGE JIS 5K t3	D	C	n-øh	M	FLANGE JIS 10K t3	D	C	n-øh	M	BODY & COVER D1	E3
125A	139.8	273	50	16	235	200	8-19	16	20	250	210	8-19	16	430	285
150A	165.2	310	80	18	265	230	8-19	16	22	280	240	8-19	16	540	345
200A	216.3	375	90	20	320	280	8-23	20	22	330	290	8-23	20	655	440
250A	267.4	430	105	22	385	345	12-23	20	24	400	355	12-23	20	770	500

NO.	PARTS	MATERIAL
1	COVER FLANGE	MILD STEEL
2	FLANGE	MILD STEEL
3	BODY	MILD STEEL
4	OUTLET PIPE	MILD STEEL
5	OUTLET FLANGE	MILD STEEL
6	INLET PIPE	MILD STEEL
7	INLET FLANGE	MILD STEEL
8	PLATE	MILD STEEL
9	BOLT & NUT	MILD STEEL
10	GASKET	NBR
11	FILTER	MILD STEEL
12	STOPPER	MILD STEEL
13	LUG	MILD STEEL
14	DRAIN PLUG	BRASS

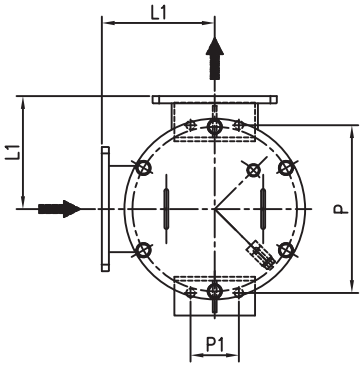
Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Fabricated Simplex Oil Strainer

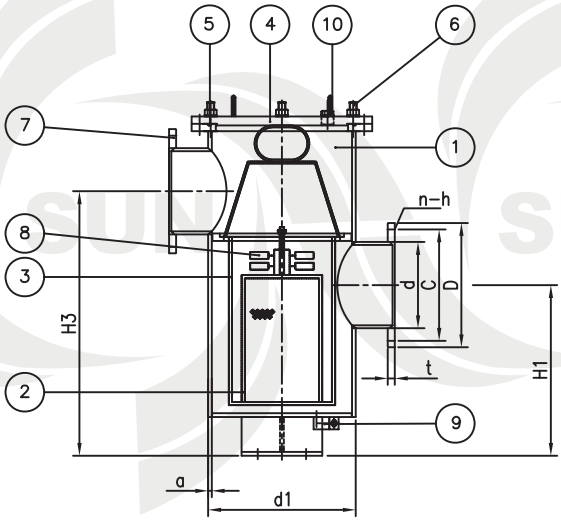
SUN-S125300S

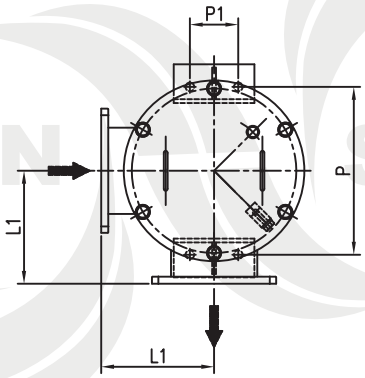


S–TYPE



LA–TYPE





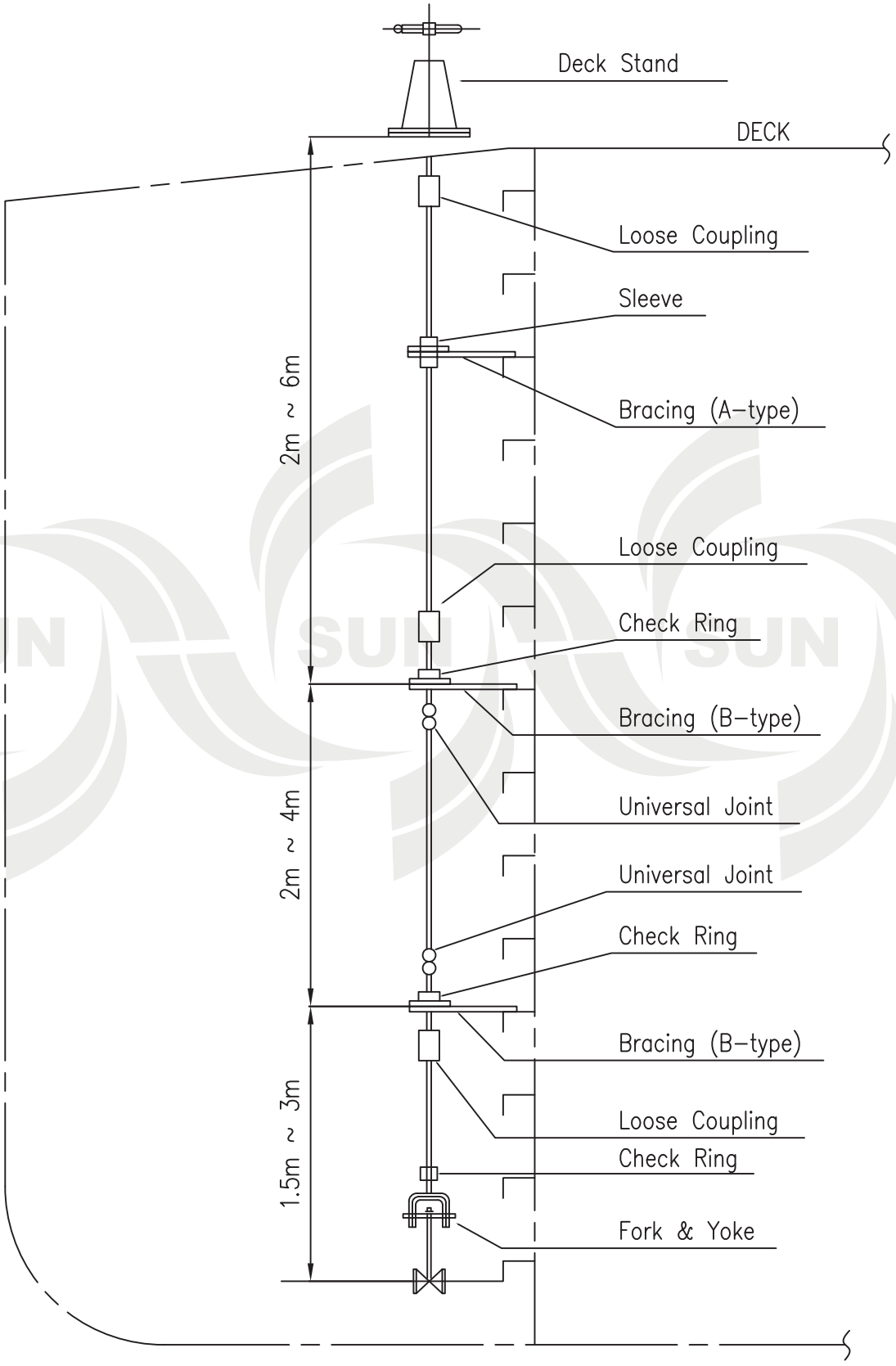
LB–TYPE

ND	d	L	L1	FLANGE JIS 5K					FLANGE JIS 10K					d1	D	H1	H3	P	P1	h1
				D	C	n	h	t	D	C	n	h	t							
125A	139.8	450	225	235	200	8	19	16	250	210	8	23	20	318.5	415	373	482	345	90	23
150A	165.2	470	235	265	230	8	19	18	280	240	8	23	22	318.5	420	410	540	370	90	23
200A	216.3	570	285	320	280	8	23	20	330	290	12	23	22	406.4	505	475	630	435	120	25
250A	267.4	700	350	385	345	12	23	22	400	355	12	25	24	457.2	556	529	729	520	150	27
300A	318.5	800	400	430	390	12	23	22	445	400	16	25	24	508	620	542	772	545	160	27

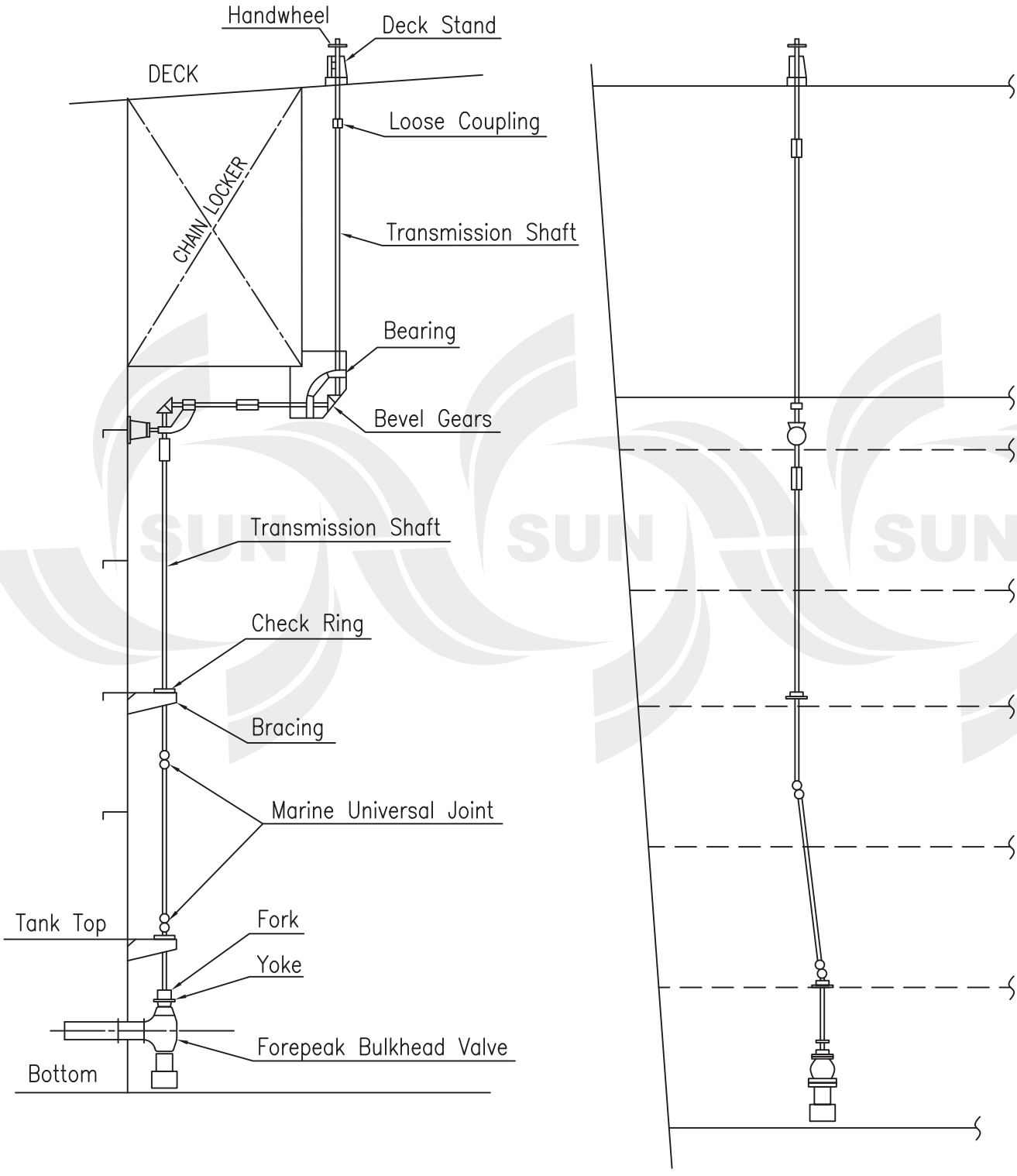
NO.	PARTS	MATERIAL
1	BODY	STPG370 & MILD STEEL
2	FILTER	STAINLESS STEEL 304
3	WIRE GAUZE	STAINLESS WIRE
4	COVER	MILD STEEL
5	O-RING	NBR / VITON
6	HINGE BOLT/NUT	MILD STEEL
7	FLANGE	MILD STEEL
8	MAGNET	MAGNET STEEL
9	DRAIN PLUG	MILD STEEL
10	VENT PLUG	MILD STEEL

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

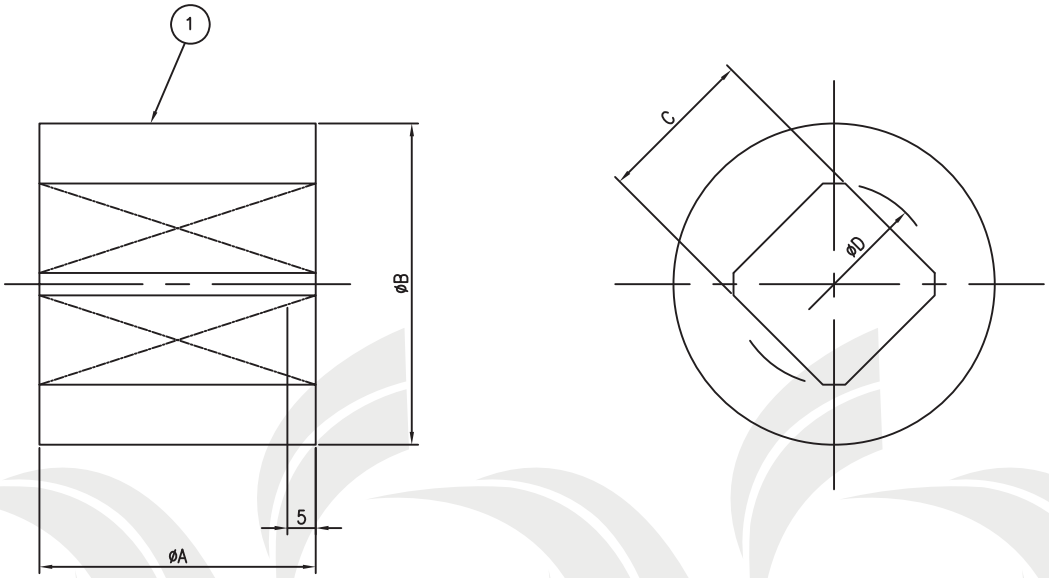
Typecal of Reach Rod Install(For Wing T. or C.O.T)



Typecal of Reach Rod Install(For Forepeak Tank)



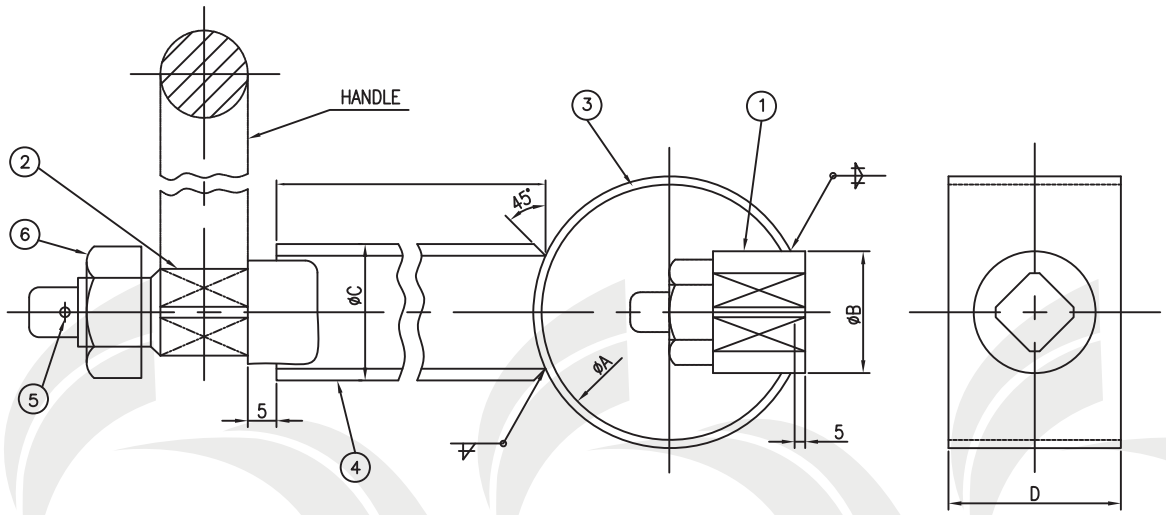
Conn. Piece Reach Rod



	A	øB	C	øD	WEIGHT
7	14	16	8	9.2	
8	15	18	9	10.9	
10	16	20	11	12.2	
10	18	25	11	13.6	
12	20	26	13	16.5	
14	22	30	15	19.2	
17	26	32	18	23.0	
19	28	36	20	26.0	
22	30	38	23	29.5	
32	32	46	23	29.5	
27	36	48	28	36.5	
30	38	54	31	40.0	
32	42	60	33	43.0	

NO.	PARTS	MATERIAL
1	CONN. PIECE	MILD STEEL

Reach Rod



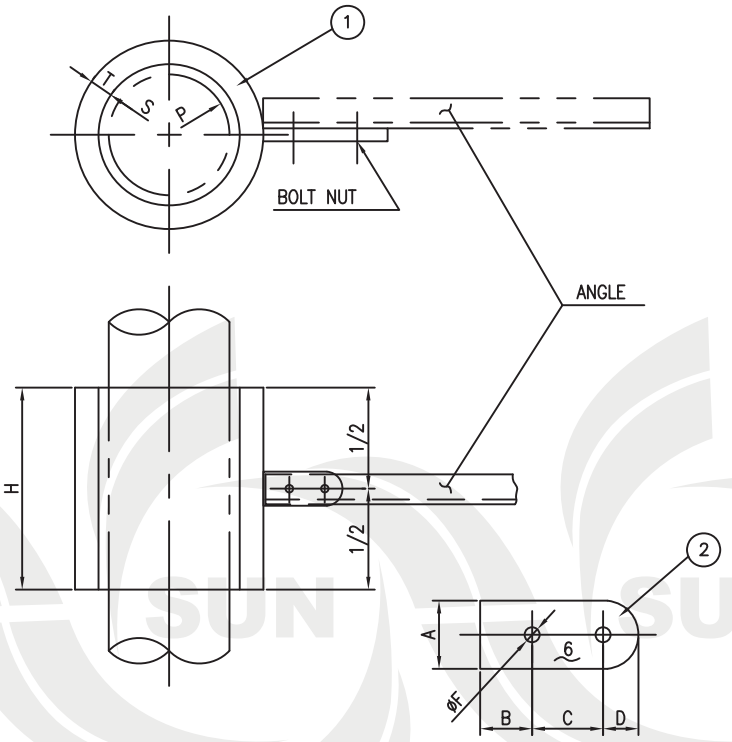
NOTE

1. 기호 4 연결관의 길이의 촌법은 REACH ROD LIST를 참조하여 제작할 것.
2. 아래 WEIGHT 는 4 을 포함하지 않은 TOTAL WEIGHT임.

	øA	øB	øC	D	WEIGHT
7	50A	16	8A	26	
8	50A	18	10A	28	
10	50A	20	10A	30	
10	65A	25	15A	35	
12	65A	26	15A	38	
14	65A	30	20A	42	
17	100A	32	20A	45	
19	100A	36	25A	50	
22	100A	38	25A	55	
22	100A	46	32A	60	
27	100A	48	32A	65	
30	125A	54	40A	70	
32	150A	60	40A	75	

NO.	PARTS	MATERIAL
1	CONN. PIECE	MILD STEEL
2	HANDLE PIECE	MILD STEEL
3	PIPE	SPP
4	PIPE	SPP
5	SPLIT PIN	SWRS
6	NUT	MILD STEEL

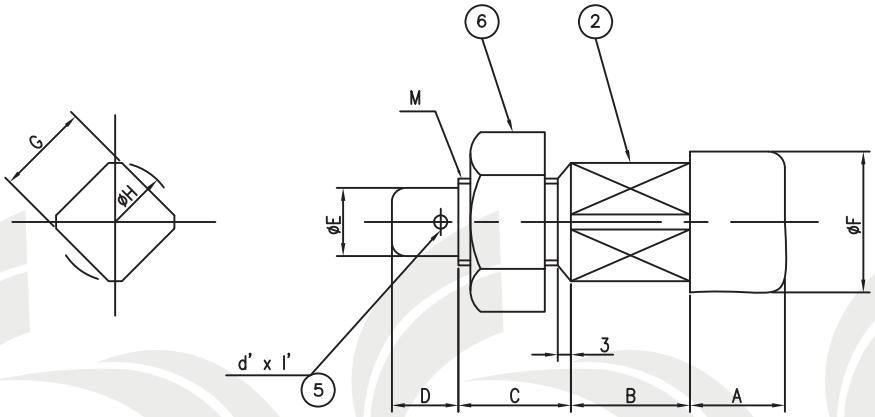
Support for Reach Rod



ROD		SLEEVE			EYE-PLATE				BOLT & NUT		ANGLE	WEIGHT
NO.	P'	S	T	H	A	B	C	D	M x L x S	øE	L x L x T	
1	8A	16.0	4.5	50	40	25	45	20	M10x20x20	ø12	40x40x5	
2	10A	19.5	4.5	50	40	25	45	20	M10x20x20	ø12	40x40x5	
3	15A	24.0	5.0	50	40	25	45	25	M10x25x20	ø12	40x40x5	
4	20A	29.5	5.0	60	50	30	45	25	M10x25x25	ø12	40x40x5	
5	25A	36.5	6.0	60	50	30	45	25	M10x25x25	ø12	40x40x5	
6	32A	45.0	6.0	70	65	35	50	25	M12x25x25	ø15	50x50x6	
7	40A	51.0	6.0	70	65	35	50	25	M12x25x25	ø15	50x50x6	

NO.	PARTS	MATERIAL
1	SLEEVE	MILD STEEL
2	EYE-PLATE	MILD STEEL

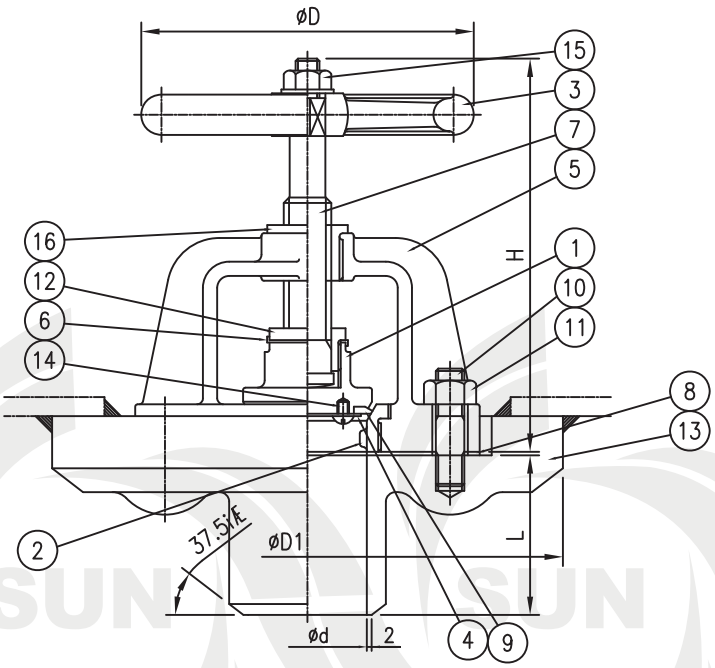
Handle for Reach Rod



	A	B	C	D	ØE	ØF	G	ØH	M	d1	l'	WEIGHT
7	10	12	9	3	4	8.5	6	8.5	M6	1.2	8	
8	10	13	10	5	5.5	12	7	9.5	M8	2	10	
10	10	14	10	5	5.5	12	8	12	M8	2	10	
10	12	16	12	5	7	15	9	13	M10	2	12	
12	12	18	14	6	9	15	11	15	M12	3	15	
14	12	20	14	6	9	21	13	18	M12	3	15	
17	15	24	17	8	12	21	16	21	M16	4	20	
19	15	26	17	8	12	26	18	24	M16	4	20	
22	15	28	20	8	15	26	21	26	M20	4	22	
22	15	30	20	8	15	35	21	29	M20	4	22	
27	15	34	22	10	17	35	26	34	M22	5	28	
30	20	36	23	10	18	40	29	38	M24	5	28	
32	30	39	29	12	23	40	31	40	M30	6	35	

NO.	PARTS	MATERIAL
1	HANDLE PIECE	MILD STEEL
2	NUT	MILD STEEL
3	SPLIT. PIN	SWR3

Surface Valves-Spill Oil(With Handle)



NO.	PARTS	MATERIAL
1	DISC	BRONZE
2	SEAT RING	BRONZE
3	HANDLE	CAST IRON
4	PLATE	BRASS
5	STAND	CAST STEEL
6	DISC STOPPER	BRASS
7	STEM	STAINLESS STEEL
8	GASKET	NON ASBESTOS
9	VALVE SEAT	NBR
10	BOLT	STEEL
11	NUT	STEEL
12	DISC NUT	BRASS
13	LINER	CAST STEEL
14	SET SCREW	BRASS
15	NUT	BRASS
16	BUSH	BRONZE

Dimension Table (Unit : mm)

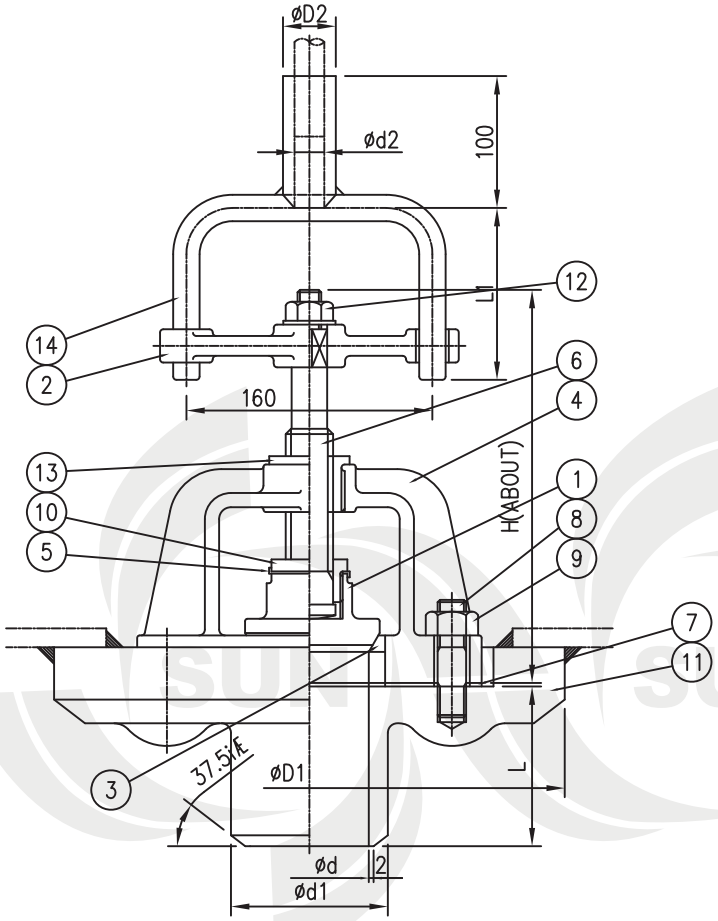
Model No.	Size	d	L	H	D1	D
SFV-50	50	50	80	250	215	140
SFV-65	65	65	90	300	256	160
SFV-80	80	80	100	350	275	160
SFV-100	100	100	120	350	300	160
SFV-125	125	125	120	350	350	200
SFV-150	150	150	120	450	380	250
SFV-200	200	200	120	450	435	280
SFV-250	250	150	120	480	490	315
SFV-300	300	200	120	480	560	355

Test Pressure (MPa)

Hydrostatic press test (Shell)	1
Hydrostatic press test (Seat)	0.2

Remark : 1. The name plate shall be specified by purchaser as required.

Surface Valves-Natural Discharge Type



NO.	PARTS	MATERIAL
1	DISC	STEEL
2	FORK HANDLE	STEEL
3	SEAT RING	BRONZE
4	STAND	CAST STEEL
5	DISC STOPPER	BRASS
6	STEM	STAINLESS STEEL
7	GASKET	NON ASBESTOS
8	BOLT	STEEL
9	NUT	STEEL
10	DISC NUT	BRASS
11	LINER	STEEL
12	NUT	BRASS
13	BUSH	BRONZE
14	HANDLE FORK	STEEL

Dimension Table (Unit : mm)

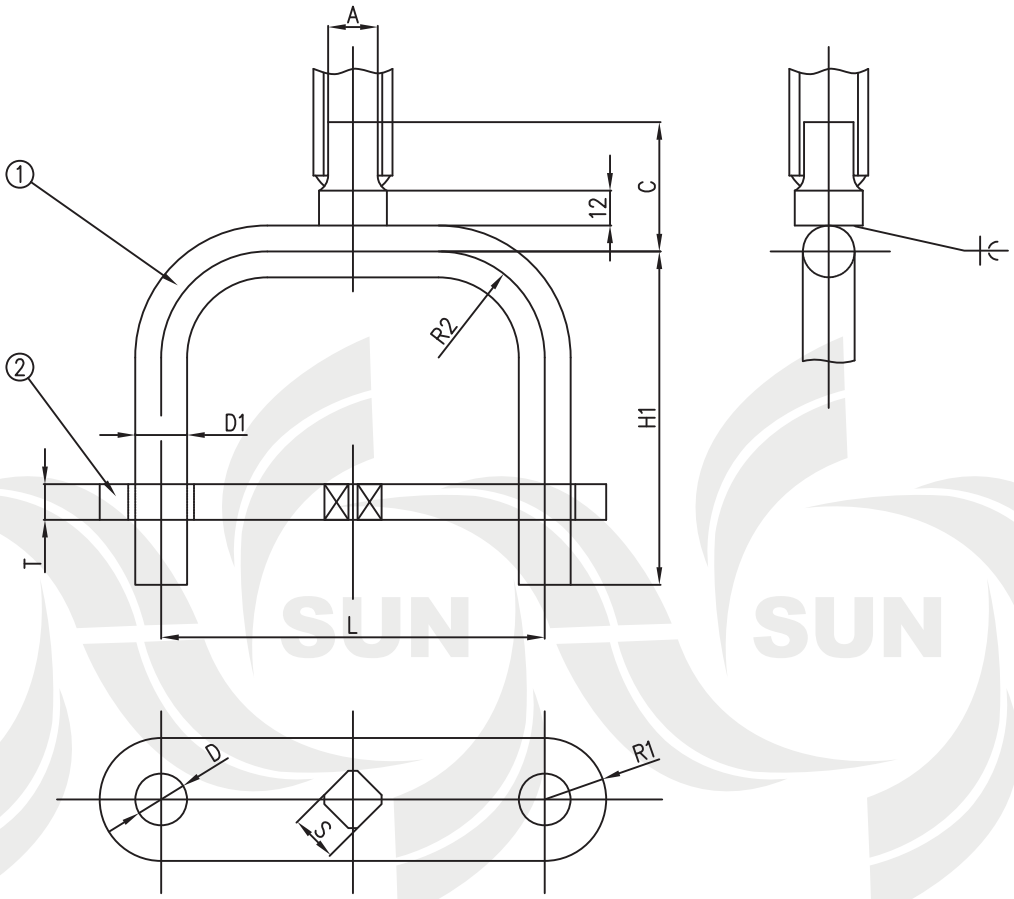
Model No.	Size	d	d2	H	D1	D2
SFVD-100	100	100	25	195	300	40
SFVD-125	125	125	25	220	350	40
SFVD-150	150	150	25	255	380	40
SFVD-200	200	200	32	290	435	55
SFVD-250	250	250	32	335	490	55
SFVD-300	300	300	32	365	560	55

Test Pressure (MPa)

Hydrostatic press test (Shell)	1
Hydrostatic press test (Seat)	0.2

Remark : 1. The name plate shall be specified by purchaser as required.

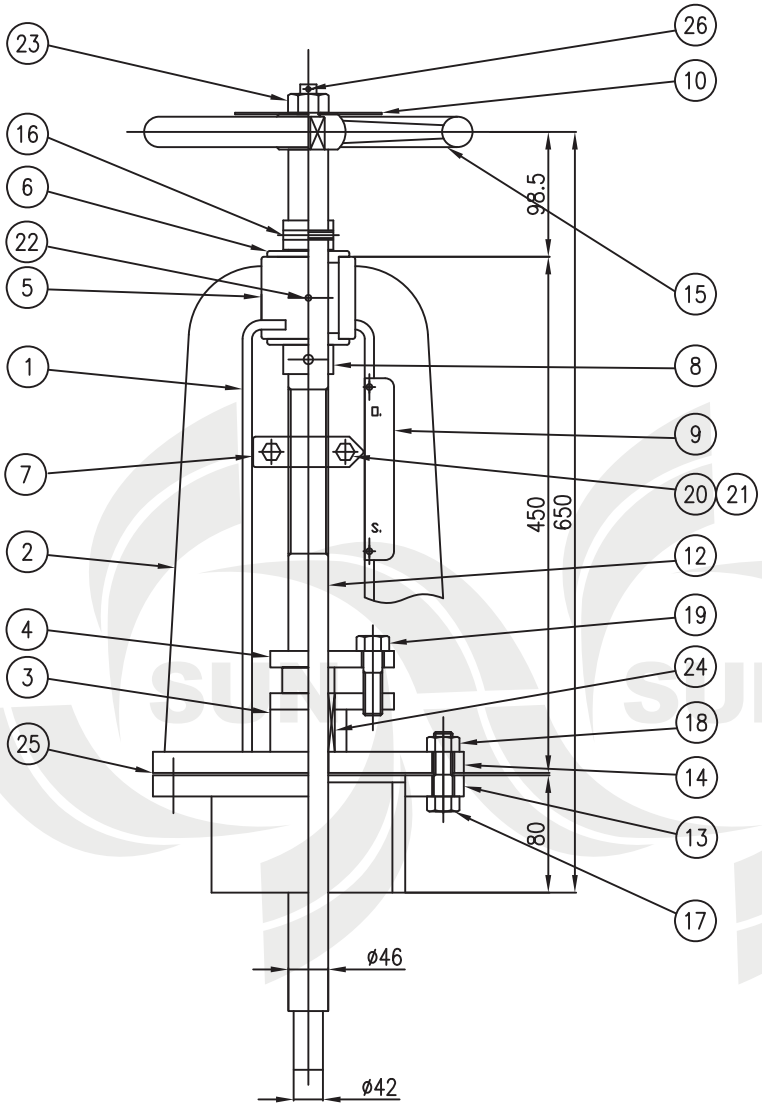
Fork and Yoke



DIMENSION

N.D	YOKE					FORK				
	L	S	D	R1	T	A	C	H1	D1	R2
80	120	14.5	26	26.5	20	25	80	110	25	30
100	120	17.5	26	26.5	20	25	80	110	25	30
125	120	22.5	26	26.5	22	25	80	110	25	30
150	120	22.5	33	33.5	22	32	80	110	32	37
200	160	27.5	33	33.5	25	32	80	110	32	37
250	200	20.5	43	43.5	30	42	80	110	42	47
300	200	32.5	43	43.5	30	42	80	110	42	47

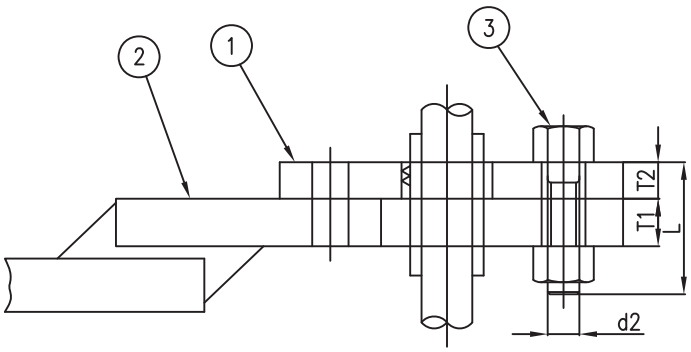
Deck Stand



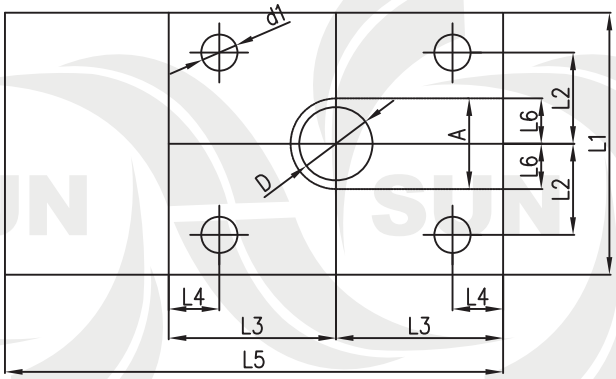
NO.	PARTS	MATERIAL
1	FRAME	STEEL
2	FRAME	STEEL
3	STUFFING BOX	STEEL
4	PACKING GLAND	BRONZE
5	GUIDE RING	STEEL
6	SLEEVE	BRONZE
7	POINTER	BRONZE
8	COLLAR	STEEL
9	SCALE PLATE	BRONZE
10	NAME PLATE	STAINLESS STEEL
11	BLANK	
12	SPINDLE	STAINLESS STEEL or BRASS
13	FLANGE	STEEL
14	FLANGE	STEEL
15	HANDWHEEL	CAST IRON
16	SPRING PIN	
17	HEX. BOLT	STEEL
18	HEX. NUT	STEEL
19	HEX. BOLT	STEEL
20	HEX. BOLT	STEEL
21	HEX. NUT	STEEL
22	GREASE NIPPLE	BRASS
23	HEX. NUT	STEEL
24	PACKING	NON ASBESTOS
25	GASKET	NON ASBESTOS
26	SPLIT PIN	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Bracing and Seat(A-Type)



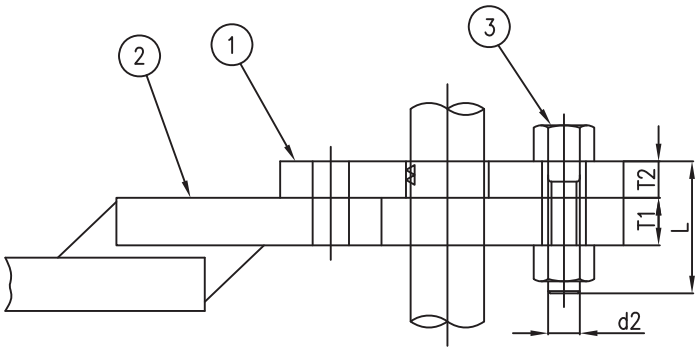
NO.	PARTS	MATERIAL
1	BRACING	BRONZE
2	SEAT	STEEL
3	HEX. BOLT & NUT	STEEL



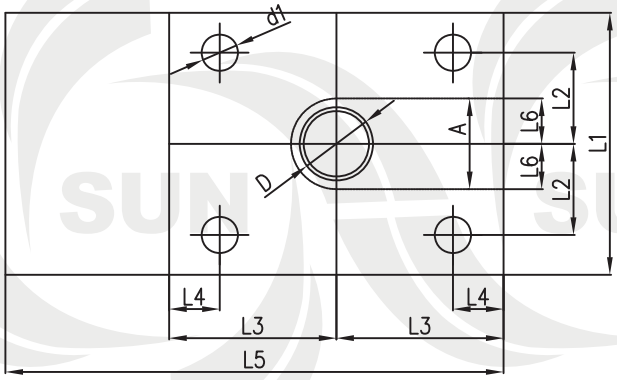
DIMENSION

N.D	BRACING							SEAT				BOLT/NUT	
	D	d1	L1	L2	L3	L4	T1	L5	L6	T2	A	d2	1
25	40.5	16	110	39	55	20	20	200	23	20	46	M14	53
32	50.5	16	120	44	60	20	20	220	28	20	56	M14	53
42	60.5	16	130	49	65	20	25	240	33	25	66	M14	63

Bracing and Seat(B-Type)



NO.	PARTS	MATERIAL
1	BRACING	BRONZE
2	SEAT	STEEL
3	HEX. BOLT & NUT	STEEL

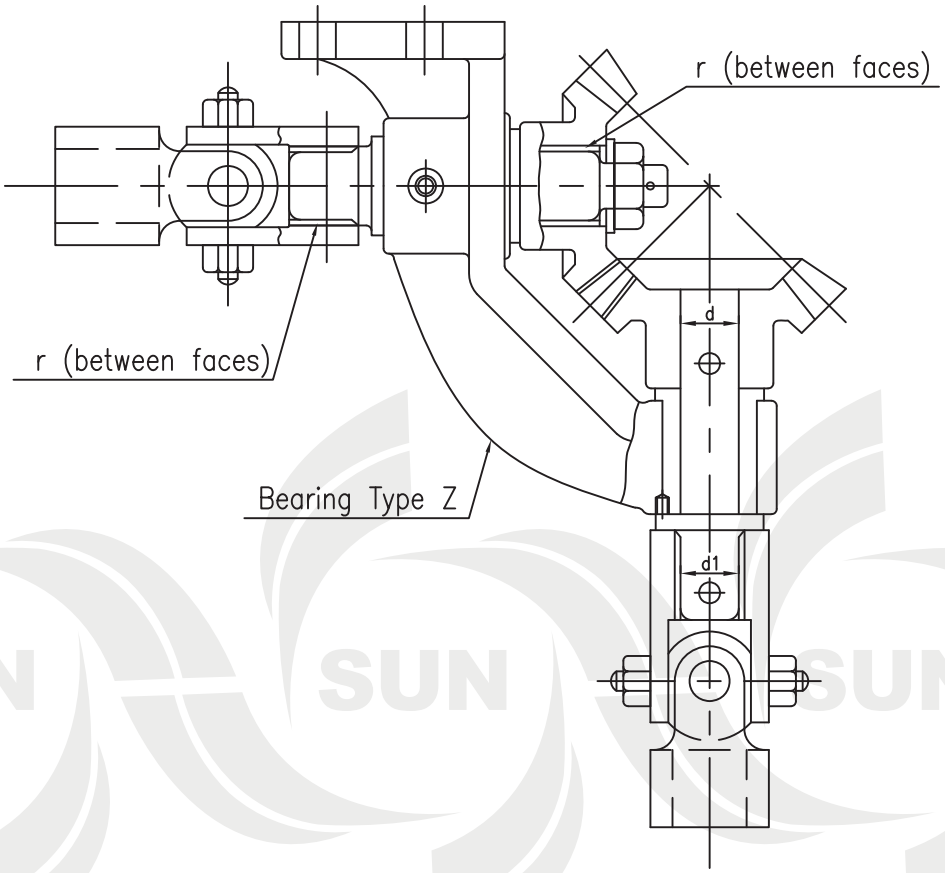


DIMENSION

N.D	BRACING							SEAT				BOLT/NUT	
	D	d1	L1	L2	L3	L4	T1	L5	L6	T2	A	d2	1
25	25.5	16	110	39	55	20	20	200	23	20	46	M14	53
32	32.5	16	120	44	60	20	20	220	28	20	56	M14	53
42	42.5	16	130	49	65	20	25	240	33	25	66	M14	63

Marine Transmission Shaft Bearings

SUN-M-TR-BG-U



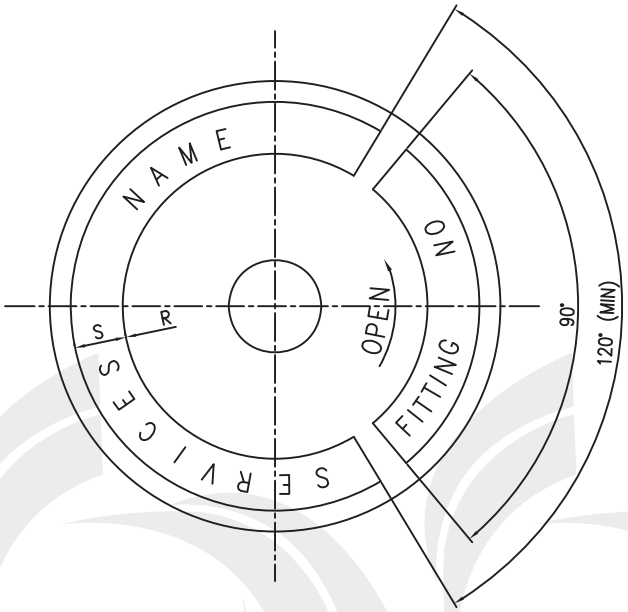
Reference : Application examples of bearing, bevel gear and universal joint

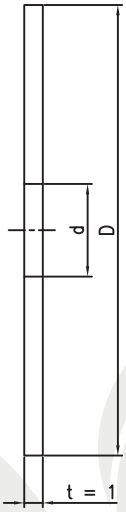
Unit : mm

Bearing (JIS F 7455)	Bevel gear (JIS F 7451)				Universal joint (JIS F 7452)		
Types H.L. and Z	Nominal size	P.C. dia.	Round hole	Round hole	Nominal size	Round hole	Round hole
Nominal size			d	d		d1	d
20	20	90	20	20	20	20.5	20
25	25	90	25	25	25	25.5	25
30	30	120	30	30	32	32.5	30
35	35	120	35	35	38	38.5	35
40	40	140	40	40	42	42.5	40
45	45	160	45	45	48	48.5	45

Remark : Reference figure shows an example of the above combination.

Valve Name Plate





NOTE

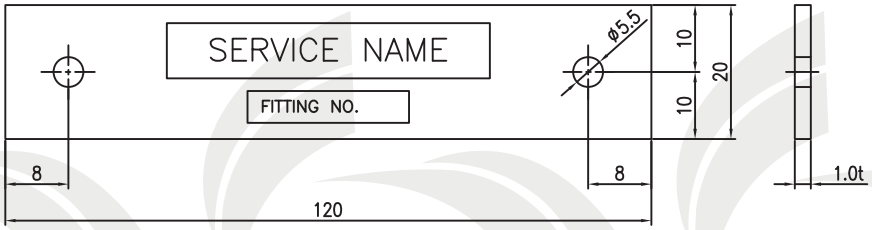
1. THE NAME AND ARROW TO BE ENAMELED ON ENGRAVED MARK (BLACK COLOR)
2. DISCRIMINATION OF NAME AND ARROW TO BE DESIGNATED IN PARTICULAR.
3. MATERIAL : STAINLESS STEEL or BRASS PLATE
4. LETTER COLOR RED : FIRE & DIRECT BILGE SUCTION
   BLACK : OTHERS

UNIT : mm

VALVE		NAME PLATE				ITEM NO.
NOM. DIA.	HANDLE. DIA.	D	d	R	S	
400	630	150	50	45	20	
350	560	150	46	45	20	
300	500	100	40	35	20	
250	450	120	40	35	20	
200	315	100	32	35	20	
150	280	100	26	25	20	
125	250	70	26	20	10	
100	224	70	22	20	10	
80	180	60	18	20	10	
65	180	60	18	15	10	
50	160	60	18	15	10	
40	140	60	16	15	10	
32	125	50	14	12	10	
25	125	50	14	12	10	
20	100	50	14	12	10	
15	80	50	10	12	10	

Remark : 1. The name plate shall be specified by purchaser as required.

Air Vent and Sounding Head Name Plate

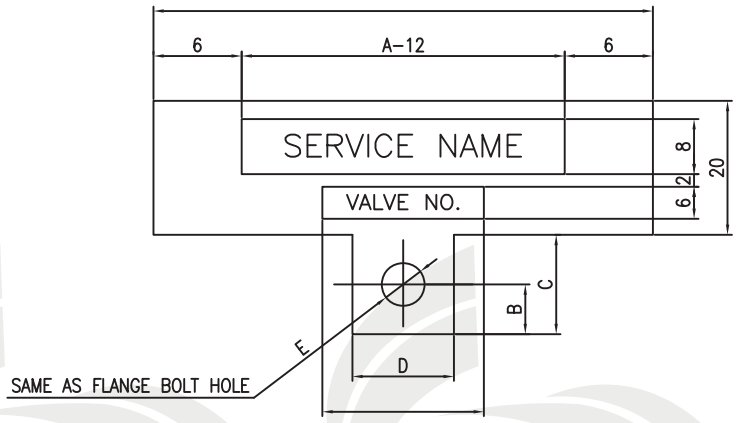


NOTE

1. THE CHARACTERS TO BE ENAMELED ON ENGRAVED MARK, (BLACK COLOUR)
2. THESE TO BE USED FOR A.V.R. & SOUNDING PIPE, FILLING PIPE
3. DISCRIMINATION OF NAME TO BE DESIGNATED IN PARTICULAR
4. MATERIAL : BRASS PLATE (1.0t)

Remark : 1. The name plate shall be specified by purchaser as required.

Valve Fitting Name Plate



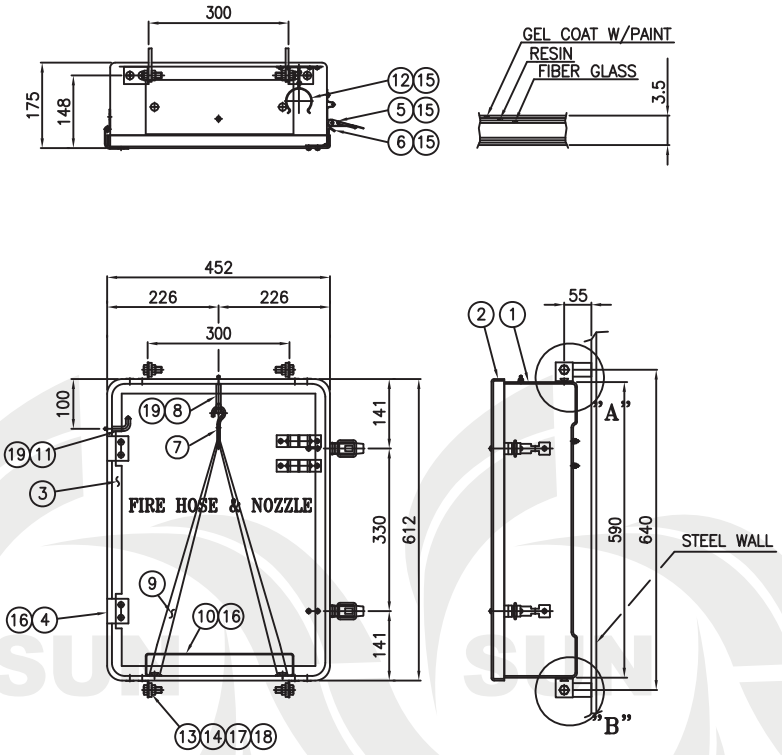
NOTE

1. THE NAME TO BE ENAMELED ON ENGRAVED MARK.
2. DISCRIMINATION OF NAME TO BE DESIGNATED IN PARTICULAR
3. MATERIAL : BRASS PLATE (t=1.0)
4. LETTER COLOUR : BLACK
5. LETTERS ARE TO BE ARRANGED SUITABLE IN ACC. WITH NUMBER OF LETTER

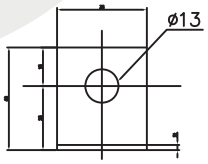
NO.	NOM. DIA.	NAME PLATE						REMARK
		A	B	C	D	E	F	
1.	15	120	15	28	25		12	
2.	20	120	15	28	25		12	
3.	25	120	20	35	29		12	
4.	32	120	20	35	29		15	
5.	40	120	20	35	29		15	
6.	50	120	20	35	29		15	
7.	65	120	20	35	29		15	
8.	80	120	20	35	29		19	
9.	100	120	20	35	29		19	
10.	125	120	22	39	33		19	
11.	150	120	22	39	33		19	
12.	200	120	22	39	33		23	
13.	250	120	25	43	35		23	
14.	300	120	25	43	35		23	

Remark : 1. The name plate shall be specified by purchaser as required.

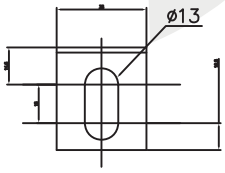
Fire Hose Box



NO.	PARTS	MATERIAL
1	BOX	F.R.P
2	DOOR	F.R.P
3	BOX ANGLE	AL
4	HINGE	STAINLESS STEEL 304
5	DOOR CLIP	STAINLESS STEEL 304
6	DOOR HOOK	STAINLESS STEEL 304
7	BELT EYE	STAINLESS STEEL 304
8	BELT HOOK	STAINLESS STEEL
9	BELT	CANVAS
10	HOSE SEAT	STAINLESS STEEL 304
11	SPANNER HOOK	STAINLESS STEEL 304
12	NOZZLE CLIP	STAINLESS STEEL 304
13	BOX EYE	STAINLESS STEEL 304
14	HANGER	STEEL
15	ROUND HEAD SCREW	STAINLESS STEEL 304
16	FLAT HEAD SCREW	STAINLESS STEEL 304
17	FLAT HEAD SCREW	STAINLESS STEEL 304
18	HEX. BOLT & NUT, S/W	STAINLESS STEEL 304
19	HEX. NUT, S/W	STAINLESS STEEL 304



DETAIL A



DETAIL B

NOTE

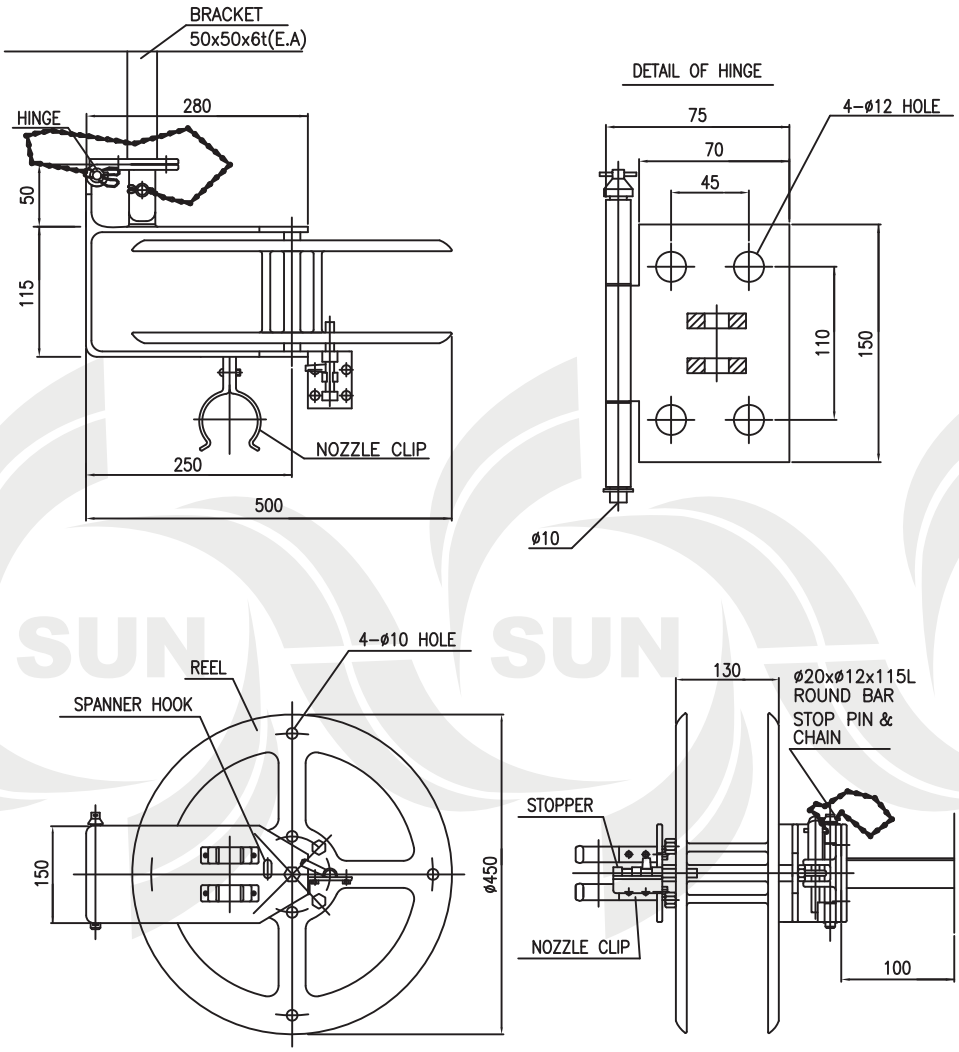
– FINISHED

* EXTERNAL : RED COLOR

* INTERNAL : WHITE COLOR

* LETTER : WHITE COLOR

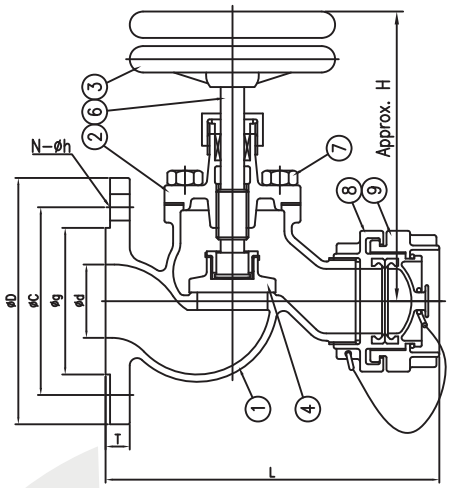
Fire Hose Reel with Seat



SPECIFICATION

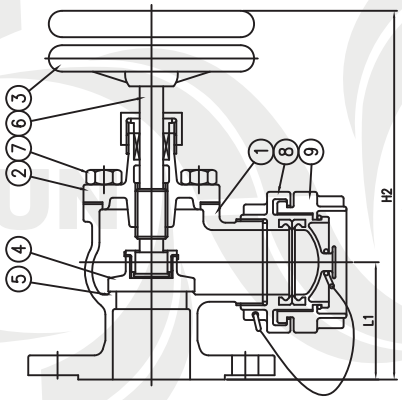
- MATERIAL : MILD STEEL
- PAINTING : RED
- WEIGHT : APPROX. 3.5kg

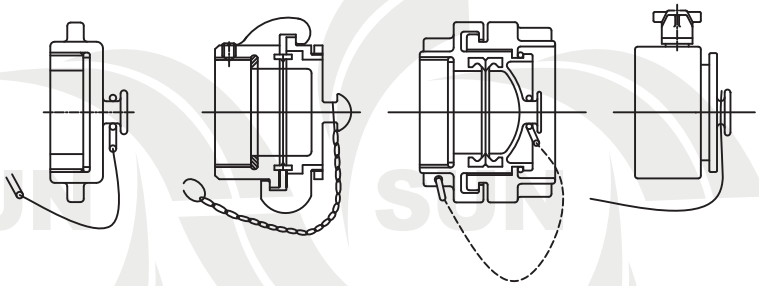
Fire Hydrant Valves



Bolted Bonnet Integral seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE
5	SEAT	INTEGRAL
6	STEM	BRASS
7	BOLT	STAINLESS STEEL
8	COUPLING BODY	BRONZE
9	COUPLING DUST	BRONZE





(ANSI COUPLING)
50A to 65A

(NAKAJIMA COUPLING)
40A to 65A

(STORZ COUPLING)
50A & 65A

(AB COUPLING)
Only 65A

Test Pressure (Bar)

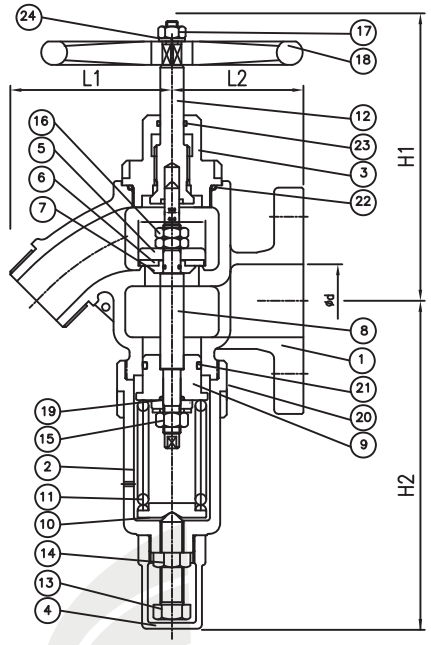
Rating	JIS 16K/PN 16	JIS 10K/PN 10	JIS 5K/PN 6
Size	50A & 65A		
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE
JIS 16K/PN 16	50	50	222	75	175	235	
	65	65	260	90	205	265	SUITABLE FOR
JIS 10K/PN 10	50	50	222	75	175	235	JIS 5K / JIS 10K / JIS 16K
ANSI 150LB	65	65	260	90	205	265	ANSI 150LB
JIS 5K/PN 6	50	50	222	75	175	235	PN 6 / PN10 / PN16
	65	65	260	90	205	265	

Remark : 1. The name plate shall be specified by purchaser as required.

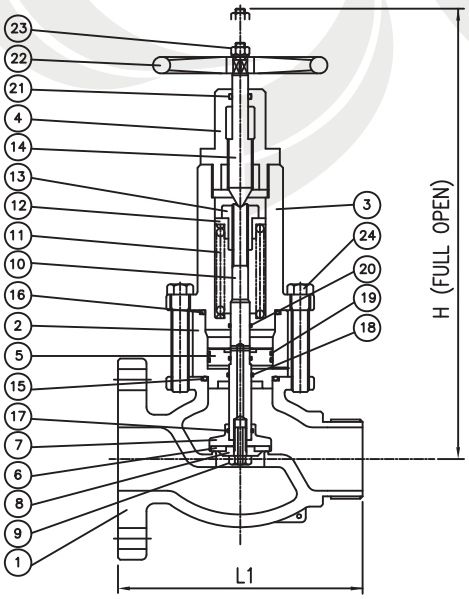
Hydrant Reducing Valves



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	SPRING CASE	BRONZE
3	BONNET	BRONZE
4	CAP	BRASS
5	DISC HOLDER	MONEL
6	DISC	VITON
7	DISC WASHER	MONEL
8	STEM	MONEL
9	BUSHING	MONEL
10	SPRING SEAT	BRASS
11	SPRING	SWP-A
12	HANDLE STEM	STAINLESS STEEL 316
13	ADJUST SCREW	STAINLESS STEEL 304
14	NUT	STAINLESS STEEL 304
15	NUT	STAINLESS STEEL 304
16	NUT	STAINLESS STEEL 304
17	NUT	STAINLESS STEEL 304
18	HANDLE	DUCTILE IRON
19	O-RING	NBR
20	O-RING	NBR
21	O-RING	NBR
22	O-RING	NBR
23	O-RING	NBR
24	NAME PLATE	STAINLESS STEEL 304

DIMENSIONS unit : mm

SIZE	ød	L1	L2	H1	H2
50A	50	110.0	90.0	190.0	235.0

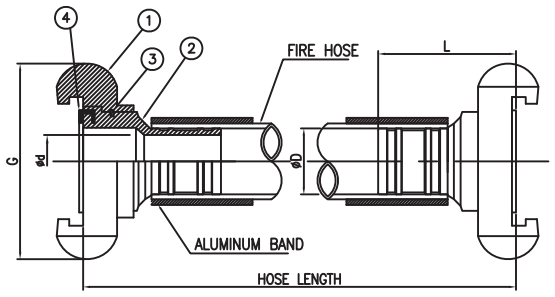


NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	SPRING CASE	BRONZE
4	CAP	BRASS
5	PISTON	STAINLESS STEEL 316L
6	DISC	PTFE
7	DISC HOLDER	MONEL
8	DISC WASHER	MONEL
9	LOCK BOLT	MONEL
10	STEM	MONEL
11	SPRING	SW
12	SPRING SEAT	BRASS
13	ADJUST SCREW	BRASS
14	SHUT-OFF SCREW	BRASS
15	O-RING	NBR
16	O-RING	NBR
17	O-RING	NBR
18	O-RING	NBR
19	O-RING	NBR
20	O-RING	NBR
21	O-RING	NBR
22	HANDLE	DUCTILE IRON
23	NUT	STAINLESS STEEL 304
24	BOLT	STAINLESS STEEL 304

DIMENSIONS

SIZE	L1	H
65A	213.0	390.0

Fire Hose with Coupling / Jet / Fog Nozzle for JIS Type

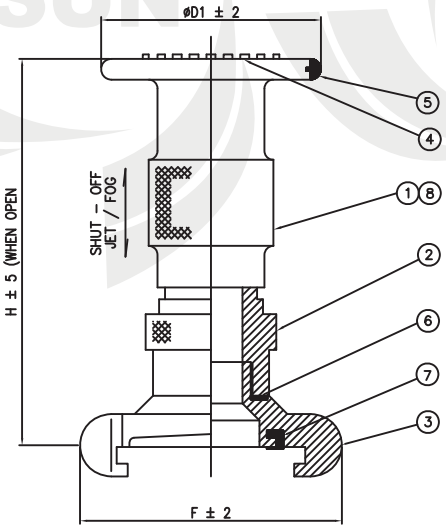


NO.	PARTS	MATERIAL
1	COUPLING	BRONZE
2	BASE COUPLING	BRONZE
3	RING	STAINLESS STEEL 304
4	PACKING	EPDM

N.D	HOSE LENGTH	HOSE WEIGHT	øD	ød	G	L
40A	15m	3.4kg	38	31	90	66
	18m	4.0kg				
	20m	4.5kg				
	25m	5.6kg				
50A	15m	4.5kg	52	41	110	78.5
	18m	5.3kg				
	20m	6.0kg				
	25m	7.4kg				
65A	15m	5.9kg	64	56	135	94.4
	18m	7.0kg				
	20m	7.8kg				
	25m	9.7kg				

SPECIFICATION

1. HOSE MATERIAL
   : JACKET - 100% HIGH TENACITY SYNTHETIC YARN CIRCULAR WOVEN
   LINER - EPDM-COMPOUND, STEAM OR HOT AIR VULCANIZED
   COATING - SYNTHETIC COATING IN PLAIN AND RELIEF VERSION FOR BETTER ABRASION-RESISTANCE

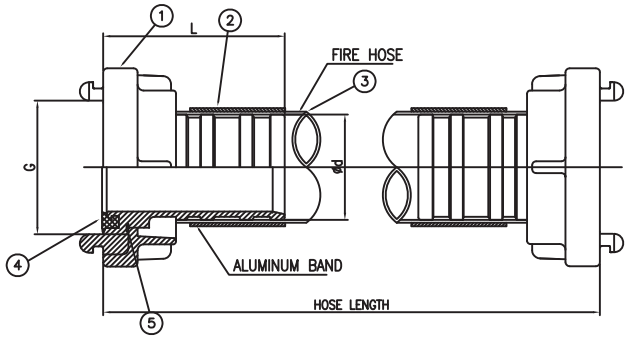


NO.	PARTS	MATERIAL
1	OUT COVER	BRONZE
2	BODY	BRONZE
3	COUPLING	BRONZE
4	NOZZLE	BRONZE
5	RING COVER	EPDM
6	PACKING	EPDM
7	PACKING	EPDM
8	O-RING	EPDM

	F	øD1	WEIGHT (kg)	FOG ANGLE
40A	90	78.5	2.35±3%	120°±10°
50A	110	86.5	2.95±3%	125°±10°
65A	135	86.5	3.35±3%	125°±10°

	NOZZLE DIA			REMARK
	ø12	ø16	ø19	
40A				
50A				
65A				

Fire Hose with Coupling / Jet / Fog Nozzle for Storz Type

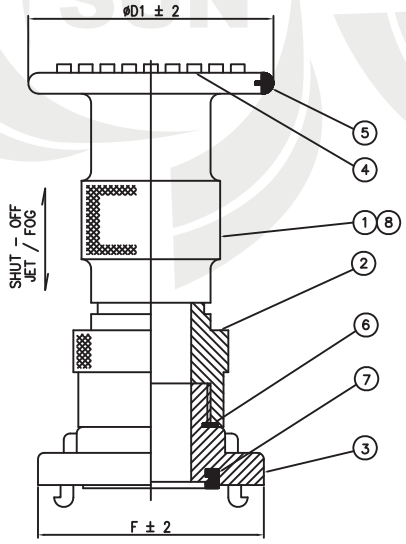


NO.	PARTS	MATERIAL
1	COUPLING	BRONZE
2	BASE COUPLING	BRONZE
3	HOSE	EPDM / POLYESTER
4	PACKING	NBR
5	RING	STAINELSS STEEL 304

SPECIFICATION

1. MATERIAL
   1) COUPLING : BC6
   2) PACKING : EPDM
   3) HOSE : JACKET - 100% HIGH TENACITY SYNTHETIC YARN CIRCULAR WOVEN
      LINER - EPDM-COMPOUND, STEAM OR HOT AIR VULCANIZED
      COATING - SYNTHETIC COATING IN PLAIN AND RELIEF VERSION FOR BETTER ABRASION-RESISTANCE

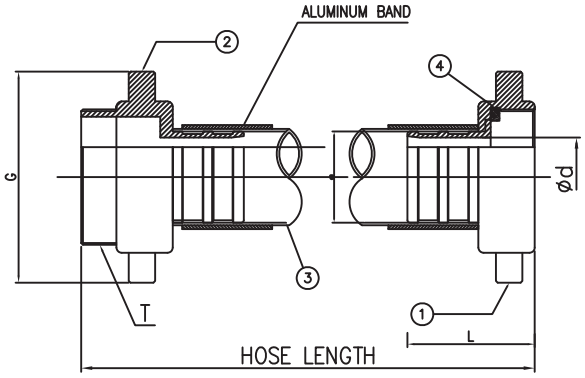
N.D	HOSE LENGTH	ød	G	L
52 "C"	15m	52	66	90
	18m			
	20m			
	25m			
65A	15m	75	89	
	18m			
	20m			
	25m			



NO.	PARTS	MATERIAL
1	OUT COVER	BRONZE
2	BODY	BRONZE
3	COUPLING	BRONZE
4	NOZZLE	BRONZE
5	RING COVER	EPDM
6	PACKING	EPDM
7	PACKING	EPDM
8	O-RING	EPDM

	F	øD1	WEIGHT (kg)	FOG ANGLE
52 "C"	98	86.5	2.8±3%	125°±10°
65A	124	86.5	3.2±3%	125°±10°

Fire Hose with Coupling / Jet / Fog Nozzle for ANSI Type

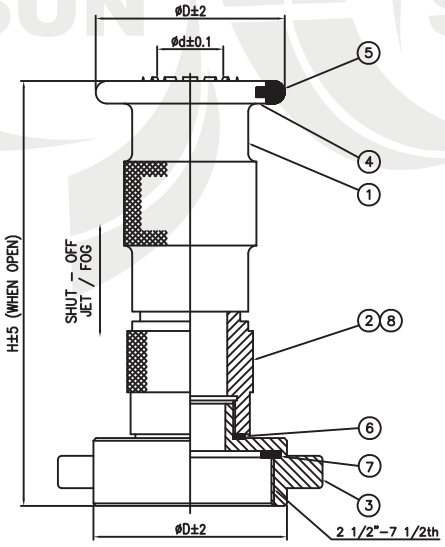


NO.	PARTS	MATERIAL
1	FEMALE COUPLING	BRONZE
2	MALE COUPLING	BRONZE
3	HOSE	EPDM / POLYESTER
4	PACKING	EPDM

N.D	HOSE LENGTH	WEIGHT (kg)	ØD	Ød	G	L	T
40A	15m	5.5	40	31	104	66	1 1/2"-9th
	18m	6.7					
	20m	7.2					
	25m	8.5					
65A	15m	9.0	64.9	56	123	94.4	2 1/2"-7 1/2th
	18m	10.0					
	20m	10.7					
	25m	12.3					

SPECIFICATION

1. HOSE MATERIAL
: JACKET - 100% HIGH TENACITY SYNTHETIC YARN CIRCULAR WOVEN
LINER - EPDM-COMPOUND, STEAM OR HOT AIR VULCANIZED
COATING - SYNTHETIC COATING IN PLAIN AND RELIEF VERSION FOR BETTER ABRASION-RESISTANCE

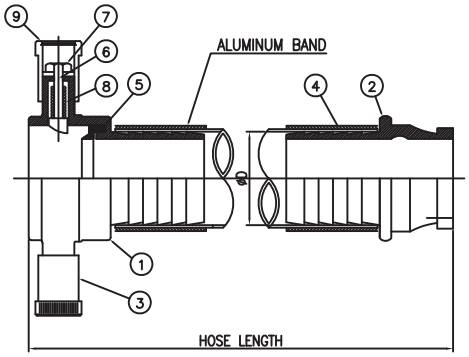


NO.	PARTS	MATERIAL
1	OUT COVER	BRONZE
2	BODY	BRONZE
3	COUPLING	BRONZE
4	NOZZLE	BRONZE
5	COVER RING	SBR
6	PACKING	SBR
7	PACKING	SBR
8	O-RING	SBR

N.D	ØD	ØD1	H	WEIGHT (kg)	Q'TY
40A	85	78.5	202	2.55	
65A	85	86.5	208	2.85	

N.D	IN DIA. Ød			REMARK
	ø12	ø16	ø19	
40A				
65A				

Fire Hose with Coupling / Jet / Fog Nozzle for BS336 Type

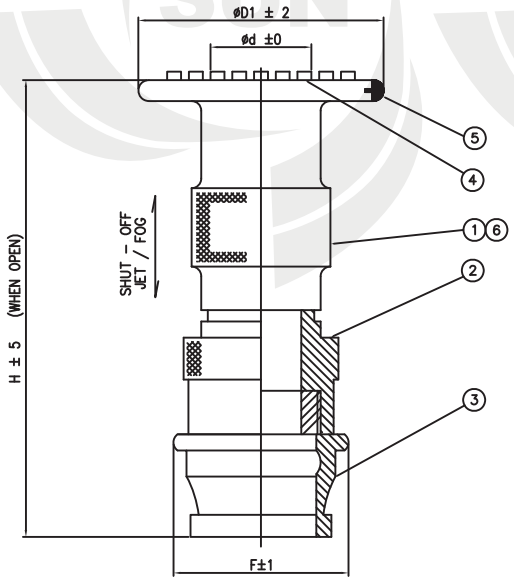


NO.	PARTS	MATERIAL
1	FEMALE COUPLING	BRONZE
2	MALE COUPLING	BRONZE
3	RELEASE	BRASS
4	HOSE	EPDM / POLYESTER
5	PACKING	EPDM
6	LOCK PIN	BRASS
7	LOCK NUT	STEEL
8	SPRING	PBR
9	COVER	PLASTIC

SPECIFICATION

1. HOSE MATERIAL
: JACKET - 100% HIGH TENACITY SYNTHETIC YARN CIRCULAR WOVEN
LINER - EPDM-COMPOUND, STEAM OR HOT AIR VULCANIZED
COATING - SYNTHETIC COATING IN PLAIN AND RELIEF VERSION FOR BETTER ABRASION-RESISTANCE

N.D	HOSE LENGTH				ØD
	5m	15m	20m	25m	
45A					38
50A					52
65A					64

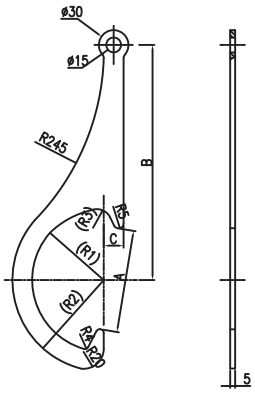


NO.	PARTS	MATERIAL
1	OUT COVER	BRONZE
2	BODY	BRONZE
3	COUPLING	BRONZE
4	NOZZLE	BRONZE
5	RING COVER	EPDM
6	O-RING	EPDM

	F	ØD1	WEIGHT (kg)	FOG ANGLE
65A	82	86.5	3.2±3%	125°±10°

Spanner for Coupling (JIS Type)
Spanner for Coupling (Storz Type)
Spanner for Coupling (ANSI Type)

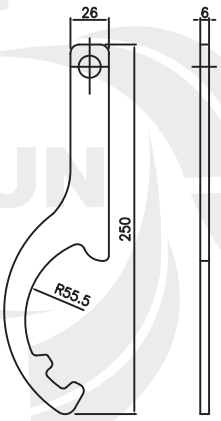
< JIS Type >



SIZE	R1	R2	R3	A	B	C
65A	72.5	94.5	20	104	238	20
50A	57	79	11	84	228	13.5

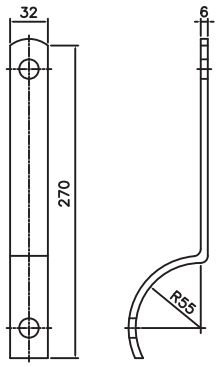
NOTE.
1. MATERIAL :SS400
2. GALV.

< Storz Type >



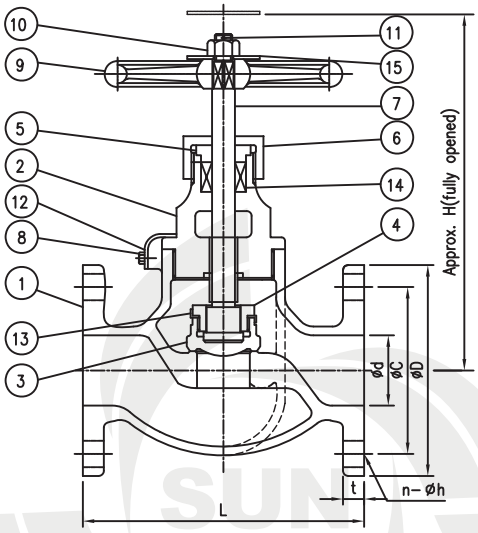
NOTES
- MAT'L : SS400
- PAINT : RED COLOR

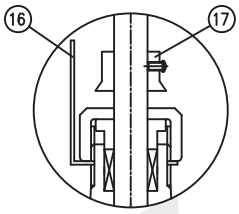
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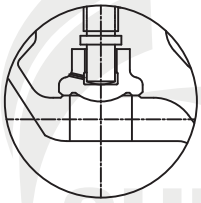
NOTES
- MAT'L : SS400
- PAINT : RED COLOR

JIS 5K Globe Valves — JIS F7301
JIS 16K Globe Valves — JIS F7303
JIS 5K Globe Screw-Down Check Valves — JIS F7351
JIS 16K Globe Screw-Down Check Valves — JIS F7409





Indicator


Screw Down Non Return (SDNR)

Screwed Bonnet Intergral seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	DISC	BRONZE / BRASS
4	VALVE DISC NUT	BRASS
5	PACKING GLAND	BRASS
6	GLAND NUT	BRASS
7	STEM	BRASS
8	SET SCREW	BRASS
9	HANDWHEEL	CAST IRON
10	HEXAGON NUT	BRASS
11	SPLIT PIN	BRASS
12	LOCK PLATE	BRASS
13	DISC LOCK WASHER	BRASS
14	PACKING	NON ASBESTOS
15	WASHER	STEEL
16	INDICATOR PLATE	BRASS
17	INDICATOR PIECE	BRASS

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 16K
Steam up to 205°C	0.49	1.6
Air, Gas, Oil and Pulsation Water		
Non-Shock Water up to 120°C	0.69	2.2

Test Pressure (MPa)

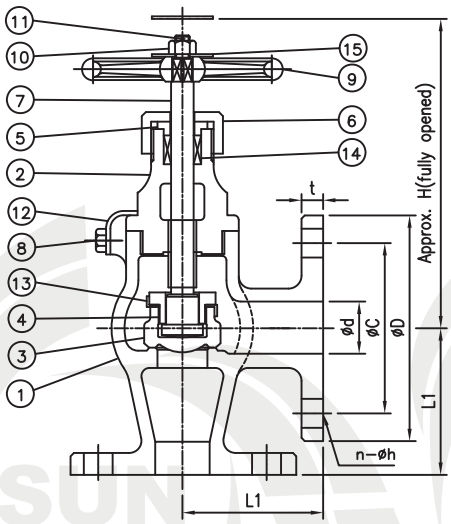
Rating	JIS 5K	JIS 16K
Hydrostatic press test (Shell)	1.03	3.3
Hydrostatic press test (Seat)	0.76	2.42

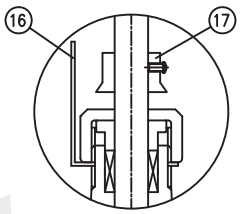
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 5K (JIS F7301)	15A	15	80	60	4-12	9	100	130	2.02
	20A	20	85	65	4-12	10	110	140	2.86
	25A	25	95	75	4-12	10	120	160	3.54
	32A	32	115	90	4-15	12	140	170	5
	40A	40	120	95	4-15	12	160	190	6.48
	50A	50	130	105	4-15	14	210	235	11.7
	65A	65	155	130	4-15	14	250	260	17
JIS 16K (JIS F7303)	15A	15	95	70	4-15	12	110	130	2.76
	20A	20	100	75	4-15	14	120	140	3.72
	25A	25	125	90	4-19	14	130	160	5.20
	32A	32	135	100	4-19	16	160	170	6.91
	40A	40	140	105	4-19	16	180	190	8.43

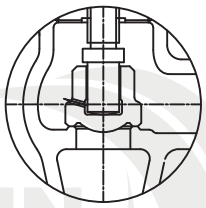
Remark : 1. The flanges shall conform to nominal pressure 5K and 16K of JIS B 2240.
2. JIS F7301 5K for nominal dia 50 and 65 shall be made Bolted Bonnet type.

JIS 5K Angle Valves — JIS F7302
JIS 16K Angle Valves — JIS F7304
JIS 5K Angle Screw-Down Check Valves — JIS F7352
JIS 16K Angle Screw-Down Check Valves — JIS F7410





Indicator



Screw Down Non Return (SDNR)

Screwed Bonnet Intergral seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	DISC	BRONZE / BRASS
4	VALVE DISC NUT	BRASS
5	PACKING GLAND	BRASS
6	GLAND NUT	BRASS
7	STEM	BRASS
8	SET SCREW	BRASS
9	HANDWHEEL	CAST IRON
10	HEXAGON NUT	BRASS
11	SPLIT PIN	BRASS
12	LOCK PLATE	BRASS
13	DISC LOCK WASHER	BRASS
14	PACKING	NON ASBESTOS
15	WASHER	STEEL
16	INDICATOR PLATE	BRASS
17	INDICATOR PIECE	BRASS

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 16K
Steam up to 205°C	0.49	1.6
Air, Gas, Oil and Pulsation Water		
Non-Shock Water up to 120°C	0.69	2.2

Test Pressure (MPa)

Rating	JIS 5K	JIS 16K
Hydrostatic press test (Shell)	1.03	3.3
Hydrostatic press test (Seat)	0.76	2.42

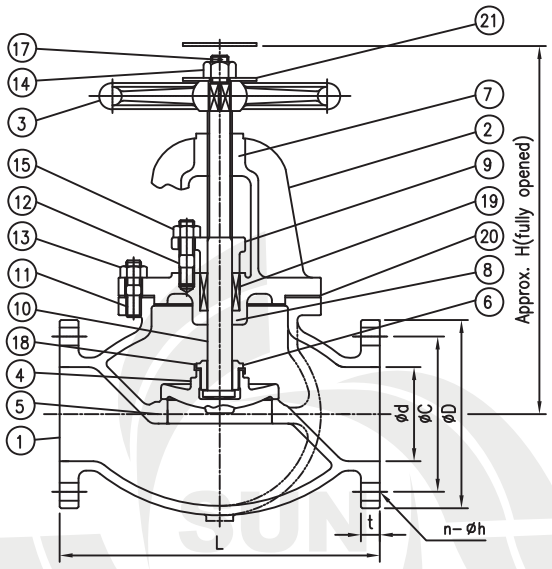
Dimension Table (Unit : mm)

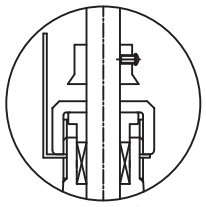
Rating	Size	ød	øD	øC	N–øh	t	L1	H	Weight (kg)
JIS 5K (JIS F7302)	15A	15	80	60	4-12	9	55	120	1.98
	20A	20	85	65	4-12	10	60	130	2.73
	25A	25	95	75	4-12	10	65	145	3.44
	32A	32	115	90	4-15	12	80	150	4.77
	40A	40	120	95	4-15	12	85	165	5.99
	50A	50	130	105	4-15	14	100	200	10.1
	65A	65	155	130	4-15	14	115	220	15.6
JIS 16K (JIS F7304)	15A	15	95	70	4-15	12	70	120	2.73
	20A	20	100	75	4-15	14	75	130	3.65
	25A	25	125	90	4-19	14	85	145	5.16
	32A	32	135	100	4-19	16	95	150	6.72
	40A	40	140	105	4-19	16	100	165	8.13

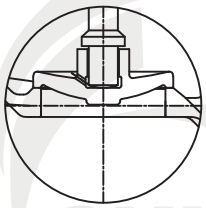
Remark : 1. The flanges shall conform to nominal pressure 5K and 16K of JIS B 2240.
2. JIS F7301 5K for nominal dia 50 and 65 shall be made Bolted Bonnet type.

JIS 5K Globe Valves — Ref. to JIS F7305
JIS 10K Globe Valves — Ref. to JIS F7307
JIS 16K Globe Valves — Ref. to JIS F7309
JIS 5K Globe Screw-Down Check Valves — Ref. to JIS F7353
JIS 10K Globe Screw-Down Check Valves — Ref. to JIS F7375
JIS 16K Globe Screw-Down Check Valves — Ref. to JIS F7377

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends




Indicator


Screw Down Non Return (SDNR)

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE
5	VALVE SEAT	INTEGRAL / BRONZE
6	DISC NUT	BRASS
7	SCREW BONNET BUSH	INTEGRAL
8	BONNET BUSH	INTEGRAL
9	PACKING GLAND	BRONZE
10	STEM	BRASS
11	STUD BOLT	STAINLESS STEEL / BRASS
12	STUD BOLT	STAINLESS STEEL / BRASS
13	HEXAGON NUT	STAINLESS STEEL
14	HEXAGON NUT	STAINLESS STEEL
15	HEXAGON NUT	STAINLESS STEEL
17	SPLIT PIN	BRASS
18	DISC LOCK WASHER	BRASS
19	PACKING	NON ASBESTOS
20	GASKET	NON ASBESTOS
21	WASHER	STEEL

Test Pressure (MPa)

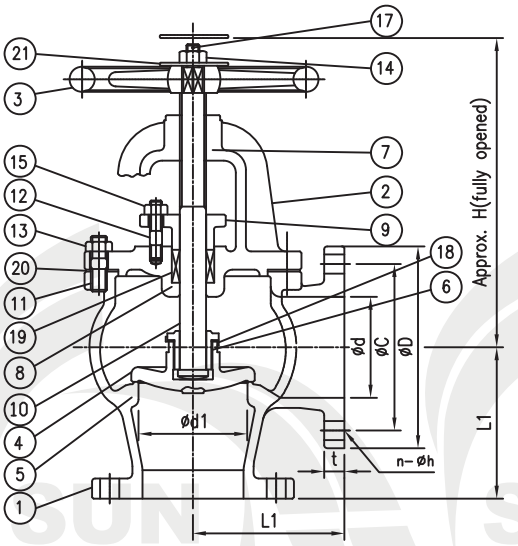
Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 300A	350A to 400A	Up to 200A	Over 250A	50A~200A
	Globe / Globe Screw Down check				
Hydrostatic press test (Shell)	1.05	0.9	2.1	1.5	3.3
Hydrostatic press test (Seat)	0.77	0.66	1.54	1.1	2.42

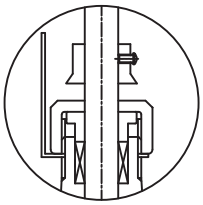
Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7305) (JIS F7353)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N-øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	14	14	14	16	16	18	20	22	22	24	24
	L	210	250	280	340	410	480	570	740	840	940	1050
	H	270	300	310	360	390	445	530	650	740	840	940
	Weight	17.64	25.56	33.25	48.96	69.12	96.36	166.8	295.2	452.4	554.4	776.4
JIS 10K (JIS F7307) (JIS F7375)	ød	50	65	80	100	125	150	200	250	300		
	øD	155	175	185	210	250	280	330	400	445		
	øC	120	140	150	175	210	240	290	355	400		
	N-øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25		
	t	16	18	18	18	20	22	22	24	24		
	L	220	270	300	350	420	490	570	740	840		
	H	285	310	320	370	420	470	555	680	770		
	Weight	23.88	34.44	38.88	58.44	87.72	124.8	194.4	364.8	549.6		
JIS 16K (JIS F7309) (JIS F7377)	ød	50	65	80	100	125	150	200				
	øD	155	175	200	225	270	305	350				
	øC	120	140	160	185	225	260	305				
	N-øh	8-19	8-19	8-23	8-23	8-25	12-25	12-25				
	t	16	18	20	22	24	26	28				
	L	220	270	300	350	430	500	570				
	H	285	310	340	385	455	510	630				
	Weight	23.52	33.96	48.48	68.28	107.4	147.6	225.6				

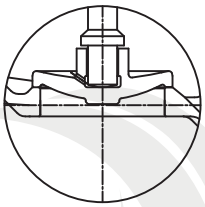
Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K Angle Valves	Ref. to JIS F7306
JIS 10K Angle Valves	Ref. to JIS F7308
JIS 16K Angle Valves	Ref. to JIS F7310
JIS 5K Angle Screw-Down Check Valves	Ref. to JIS F7354
JIS 10K Angle Screw-Down Check Valves	Ref. to JIS F7376
JIS 16K Angle Screw-Down Check Valves	Ref. to JIS F7378





Indicator



Screw Down Non Return (SDNR)

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE
5	VALVE SEAT	INTEGRAL / BRONZE
6	DISC NUT	BRASS
7	SCREW BONNET BUSH	INTEGRAL
8	BONNET BUSH	INTEGRAL
9	PACKING GLAND	BRASS
10	STEM	BRASS
11	STUD BOLT	STAINLESS STEEL / BRASS
12	STUD BOLT	STAINLESS STEEL / BRASS
13	HEXAGON NUT	STAINLESS STEEL
14	HEXAGON NUT	STAINLESS STEEL
15	HEXAGON NUT	STAINLESS STEEL
17	SPLIT PIN	BRASS
18	DISC LOCK WASHER	BRASS
19	PACKING	NON ASBESTOS
20	GASKET	NON ASBESTOS
21	WASHER	STEEL

Dimension Table (Unit : mm)

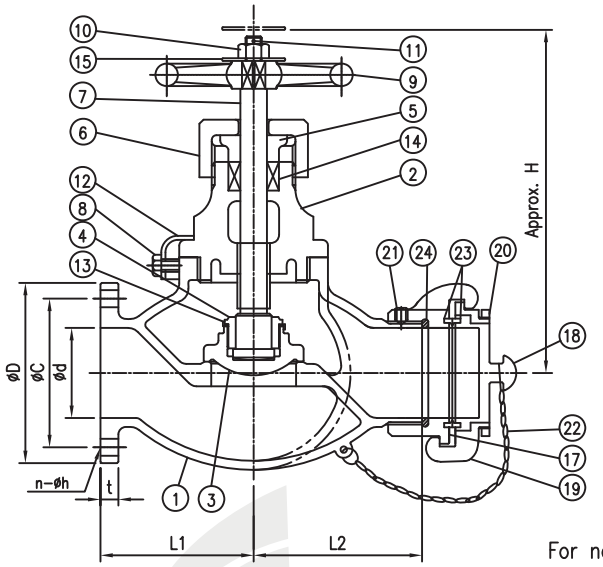
Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7306) (JIS F7354)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N-øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	14	14	14	16	16	18	20	22	22	24	24
	L1	100	115	130	150	170	190	220	275	310	360	395
	H	240	255	265	310	330	380	450	540	610	690	770
	Weight	15.48	21.84	28.08	40.44	55.44	76.08	126	199.2	291.6	392.4	550.8
JIS 10K (JIS F7308) (JIS F7376)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	155	175	185	210	250	280	330	400	445	490	560
	øC	120	140	150	175	210	240	290	355	400	445	510
	N-øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25	16-25	16-27
	t	16	18	18	18	20	22	22	24	24	26	28
	L1	120	130	140	160	180	205	230	290	320	360	420
	H	255	270	275	315	360	405	475	570	645	710	790
	Weight	21.84	30.48	32.88	48.72	83.88	97.2	150	253.2	351.6	463.2	652.8
JIS 16K (JIS F7310) (JIS F7378)	ød	50	65	80	100	125	150	200				
	øD	155	175	200	225	270	305	350				
	øC	120	140	160	185	225	260	305				
	N-øh	8-19	8-19	8-23	8-23	8-25	12-25	12-25				
	t	16	18	20	22	24	26	28				
	L1	120	130	150	170	200	225	250				
	H	255	270	295	330	390	435	540				
	Weight	21.6	30	42.84	59.04	91.32	123.6	186				

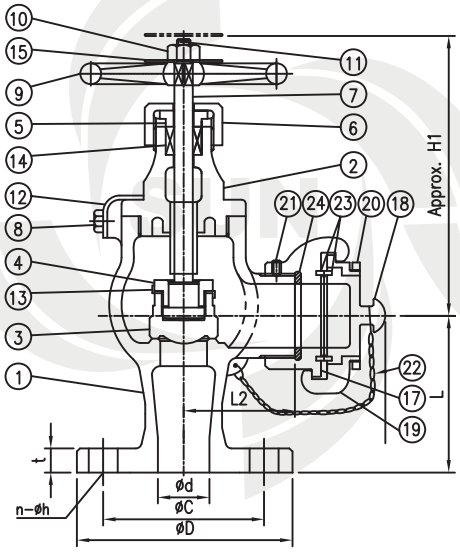
Test Pressure (MPa)

Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 300A	350A to 400A	Up to 200A	Over 250A	50A~200A
	Globe / Globe Screw Down check				
Hydrostatic press test (Shell)	1.05	0.9	2.1	1.5	3.3
Hydrostatic press test (Seat)	0.77	0.66	1.54	1.1	2.42

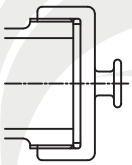
Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K/10K Hose Globe Valves — JIS F7334
JIS 5K/10K Hose Angle Valves — JIS F7334



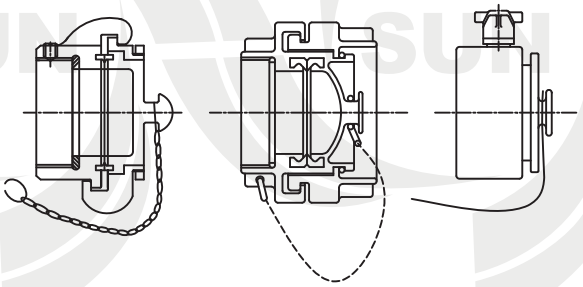


For nominal dia. up to 25A



Screwed Bonnet Integral seat

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	DISC	BRONZE / BRASS
4	DISC NUT	BRASS
5	PACKING GLAND	BRASS
6	GLAND NUT	BRASS
7	STEM	BRASS
8	MACHINE SCREW	BRASS
9	HANDWHEEL	CAST IRON
10	HEXAGON NUT	BRASS
11	SPLIT PIN	BRASS
12	BONNET LOCK PLATE	BRASS
13	DISC LOCK WASHER	BRASS
14	PACKING	NON ASBESTOS
15	WASHER	STEEL
17	BASE CONNECTION	BRONZE
18	CAP	BRONZE
19	COUPLING RING	BRONZE
20	SET RING	BRONZE
21	SET SCREW	STEEL
22	CHAIN	STAINLESS WIRE
23	GASKET	RUBBER
24	GASKET	NON ASBESTOS



(NAKAJIMA COUPLING) 40A to 65A
(STORZ COUPLING) 40A, 50A & 65A
(AB COUPLING) Only 65A

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 10K
Steam up to 205°C	0.5(15A)	1.0(15A)
Air, Gas, Oil and Pulsation Water	0.5	1.0
Non-Shock Water up to 120°C	0.7	1.4

Test Pressure (MPa)

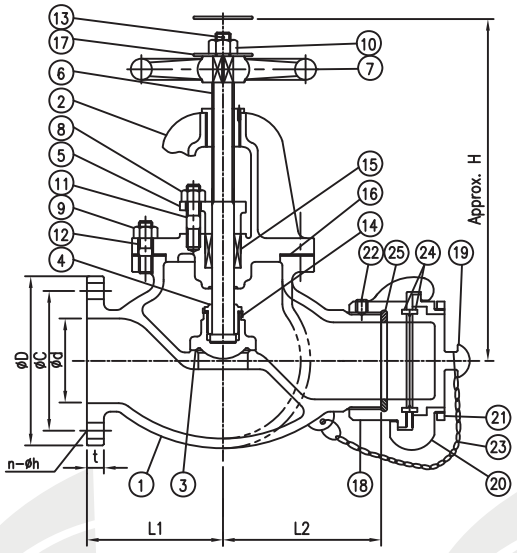
Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

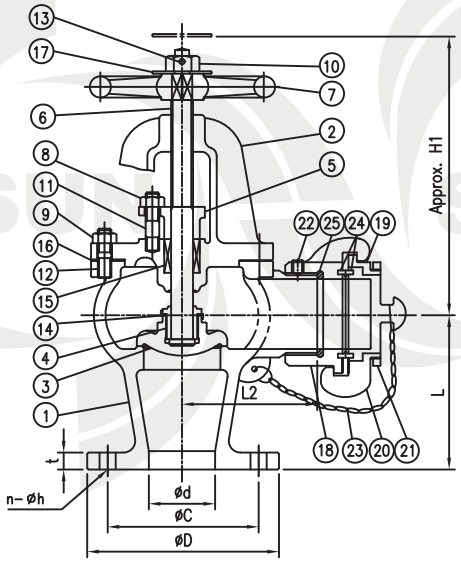
Dimension Table (Unit : mm)

Rating	Size	Ød	ØD	ØC	N-Øh	t	L1	L	H	H1	Weight (kg)	Weight (kg)
JIS 5K (JIS F7334)	15A	15	80	60	4-12	9	73	55	130	120	2.51	2.41
	20A	20	85	65	4-12	10	78	65	160	145	3.55	3.44
	25A	25	95	75	4-12	10	78	65	160	145	3.55	3.44
	32A	32	115	90	4-15	12	128.5	85	190	165	6.26	5.91
	40A	40	120	95	4-15	12	128.5	85	190	165	6.26	5.91
JIS 10K (JIS F7334)	15A	15	95	70	4-15	12	73	70	130	120	2.76	2.72
	20A	20	100	75	4-15	14	83	85	160	145	4.15	4.04
	25A	25	125	90	4-19	14	83	85	160	145	4.15	4.04
	32A	32	135	100	4-19	16	140	100	190	165	8.43	8.19
	40A	40	140	105	4-19	16	140	100	190	165	8.43	8.19

Remark : 1. The flanges shall conform to JIS B 2240.

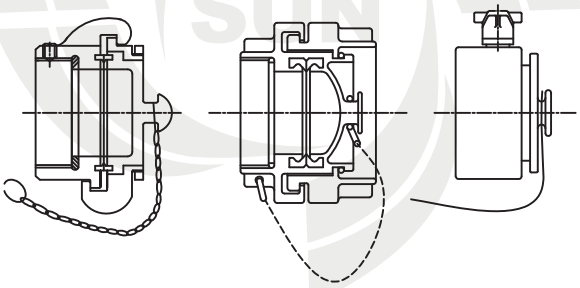
JIS 5K/10K/16K Hose Globe Valves — JIS F7334
JIS 5K/10K/16K Hose Angle Valves — JIS F7334





Bolted Bonnet Integral seat

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	DISC NUT	BRASS
5	PACKING GLAND	BRASS
6	STEM	BRASS
7	HANDWHEEL	CAST IRON
8	HEXAGON NUT	BRASS / STAINLESS STEEL
9	HEXAGON NUT	BRASS / STAINLESS STEEL
10	HEXAGON NUT	BRASS / STAINLESS STEEL
11	STUD BOLT	BRASS
12	STUD BOLT	BRASS
13	SPLIT PIN	BRASS
14	DISC LOCK WASHER	BRASS
15	PACKING	NON ASBESTOS
16	GASKET	NON ASBESTOS
17	WASHER	STEEL
18	BASE CONNECTION	BRONZE
19	CAP	BRONZE
20	COUPLING RING	BRONZE
21	SET RING	BRONZE
22	SET SCREW	BRASS
23	CHAIN	STAINLESS WIRE
24	GASKET	RUBBER
25	GASKET	NON ASBESTOS



(NAKAJIMA COUPLING) 40A to 65A

(STORZ COUPLING) 40A, 50A & 65A

(AB COUPLING) Only 65A

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 10K/16K
Steam up to 205°C	–	–
Air, Gas, Oil and Pulsation Water	0.5	1.0
Non-Shock Water up to 120°C	0.7	1.4

Test Pressure (MPa)

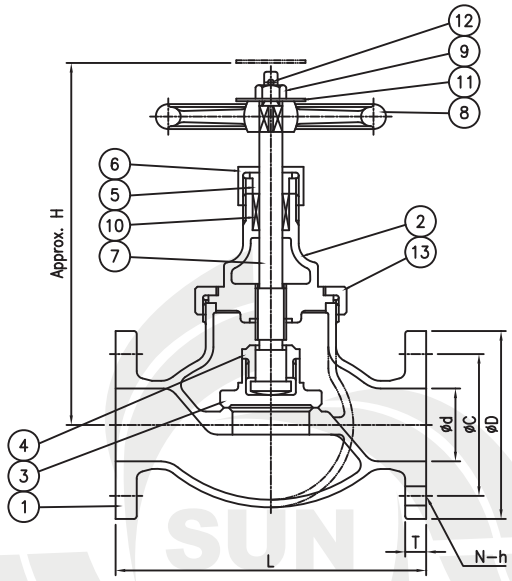
Rating	JIS 5K	JIS 10K/16K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

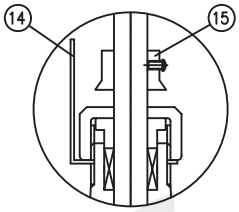
Dimension Table (Unit : mm)

Rating	Size	Ød	ØD	ØC	N-Øh	t	L1	L	H	H1	Weight (kg)	Weight (kg)
JIS 5K (JIS F7334)	50A	50	130	105	4-15	14	105	100	255	225	12.9	11.0
	65A	65	155	130	4-15	18	135	130	295	255	27.8	23.0
JIS 10K (JIS F7334)	50A	50	155	120	4-19	16	110	120	270	240	15.4	14.3
	65A	65	175	140	4-19	18	135	130	295	255	27.8	23.0
JIS 16K (JIS F7334)	50A	50	155	120	8-19	16	110	120	270	240	15.4	14.3
	65A	65	175	140	8-19	18	135	130	295	255	27.8	23.0

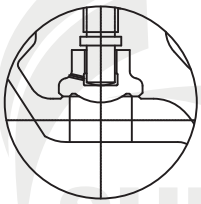
Remark : 1. The flanges shall conform to nominal pressure 5K , 10K and 16K of JIS B 2210.

JIS 5K Globe Valves — JIS F7336
JIS 16K Globe Valves — JIS F7348
JIS 5K Globe Screw-Down Check Valves — JIS F7411
JIS 16K Globe Screw-Down Check Valves — JIS F7413





Indicator


Screw Down Non Return (SDNR)

Union Bonnet Intergral seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	DISC	BRASS
4	DISC NUT	BRASS
5	PACKING GLAND	BRASS
6	GLAND NUT	BRASS
7	STEM	BRASS
8	HANDWHEEL	CAST IRON
9	HANDLE NUT	STEEL
10	PACKING	NON ASBESTOS
11	WASHER	STEEL
12	SPLIT PIN	BRASS
13	BONNET NUT	BRONZE
14	INDICATOR PLATE	BRASS
15	INDICATOR PIECE	BRASS

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 16K
Steam up to 205°C	0.5	1.6
Air, Gas, Oil and Pulsation Water		
Non-Shock Water up to 120°C	0.7	2.2

Test Pressure (MPa)

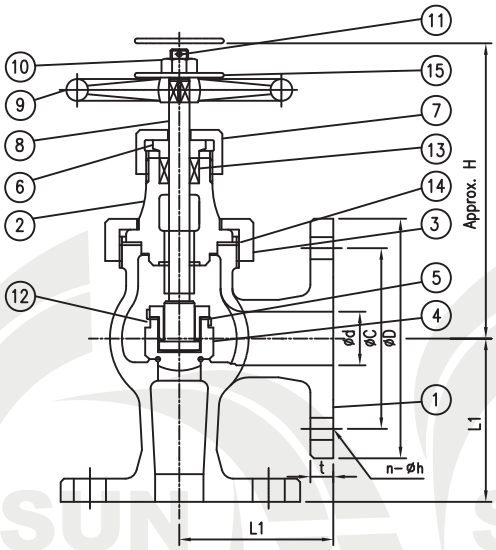
Rating	JIS 5K	JIS 16K
Hydrostatic press test (Shell)	1.05	3.3
Hydrostatic press test (Seat)	0.77	2.42

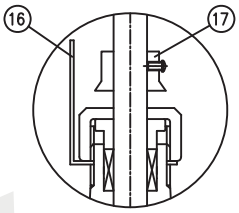
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 5K (JIS F7346)	15A	15	80	60	4-12	9	100	155	2.21
	20A	20	85	65	4-12	10	110	165	3.04
	25A	25	95	75	4-12	10	120	185	3.97
	32A	32	115	90	4-15	12	140	195	5.23
	40A	40	120	95	4-15	12	160	210	6.94
JIS 16K (JIS F7348)	15A	15	95	70	4-15	12	110	155	2.96
	20A	20	100	75	4-15	14	120	165	3.92
	25A	25	125	90	4-19	14	130	185	5.65
	32A	32	135	100	4-19	16	160	195	7.24
	40A	40	140	105	4-19	16	180	210	9.12

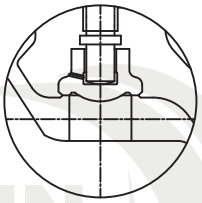
Remark : 1. The flanges shall conform to nominal pressure 5K and 16K of JIS B 2240.
2. JIS F7301 5K for nominal dia 50 and 65 shall be made Bolted Bonnet type.

JIS 5K Angle Valves — JIS F7347
JIS 16K Angle Valves — JIS F7349
JIS 5K Angle Screw-Down Check Valves — JIS F7412
JIS 16K Angle Screw-Down Check Valves — JIS F7414





Indicator



Screw Down Non Return (SDNR)

Union Bonnet Intergral seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	BONNET NUT	BRASS
4	DISC	BRASS
5	DISC NUT	BRASS
6	PACKING GLAND	BRASS
7	GLAND NUT	BRASS
8	STEM	BRASS
9	HANDWHEEL	CAST IRON
10	HEXAGON NUT	STEEL
11	SPLIT PIN	BRASS
12	DISC LOCK WASHER	BRASS
13	PACKING	NON ASBESTOS
14	GASKET	NON ASBESTOS
15	WASHER	STEEL
16	INDICATOR PLATE	BRASS
17	INDICATOR PIECE	BRASS

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 16K
Steam up to 205°C	0.5	1.6
Air, Gas, Oil and Pulsation Water		
Non-Shock Water up to 120°C	0.7	2.2

Test Pressure (MPa)

Rating	JIS 5K	JIS 16K
Hydrostatic press test (Shell)	1.05	3.3
Hydrostatic press test (Seat)	0.77	2.42

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L1	H	Weight (kg)
JIS 5K (JIS F7347)	15A	15	80	60	4-12	9	55	145	2.15
	20A	20	85	65	4-12	10	60	155	2.94
	25A	25	95	75	4-12	10	65	175	3.82
	32A	32	115	90	4-15	12	80	175	4.99
	40A	40	120	95	4-15	12	85	190	6.4
JIS 16K (JIS F7349)	15A	15	95	70	4-15	12	70	145	2.94
	20A	20	100	75	4-15	14	75	155	3.88
	25A	25	125	90	4-19	14	85	175	5.53
	32A	32	135	100	4-19	16	95	175	6.98
	40A	40	140	105	4-19	16	100	190	8.57

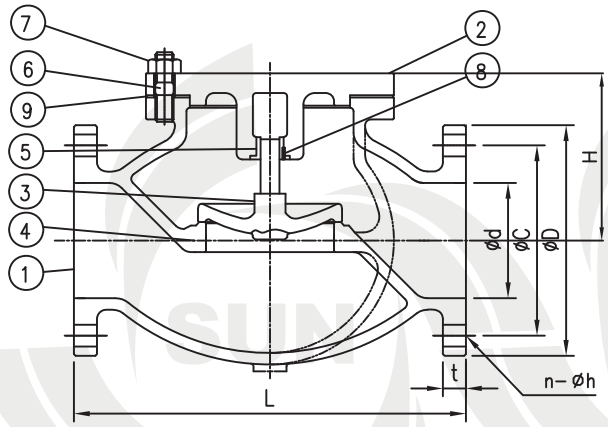
Remark : 1. The flanges shall conform to nominal pressure 5K and 16K of JIS B 2240.
2. JIS F7301 5K for nominal dia 50 and 65 shall be made Bolted Bonnet type.

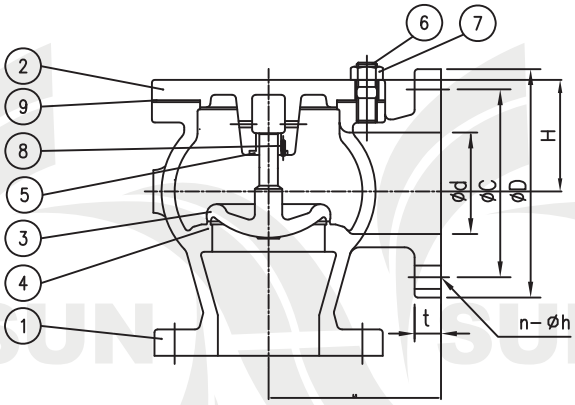
JIS 5K Lift Check Globe Valves
JIS 5K Lift Check Angle Valves

Ref.to JIS F7358
Ref.to JIS F7359

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	VALVE SEAT	INTEGRAL
5	BUSH	BRONZE
6	STUD BOLT	STAINLESS STEEL / BRASS
7	HEXAGON NUT	STAINLESS STEEL
8	SET SCREW	STAINLESS STEEL
9	GASKET	NON ASBESTOS





Test Pressure (MPa)

Rating	JIS 5K
Hydrostatic press test (Shell)	1.05
Hydrostatic press test (Seat)	0.77

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 5K (JIS F7358)	ød	50	65	80	100	125	150	
	øD	130	155	180	200	235	265	
	øC	105	130	145	165	200	230	
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	
	t	14	14	14	16	18	18	
	L	210	250	280	340	410	480	
	H	107	124	129	146	166	188	
	Weight	13.56	20.16	27.84	39	57.72	81.48	
JIS 5K (JIS F7359)	ød	50	65	80	100	125	150	200
	øD	130	155	180	200	235	265	320
	øC	105	130	145	165	200	230	280
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23
	t	14	14	14	16	18	18	20
	L1	100	115	130	150	170	190	220
	H	77	81	84	96	108	125	157
	Weight	11.4	16.56	22.68	30.72	44.04	61.08	114

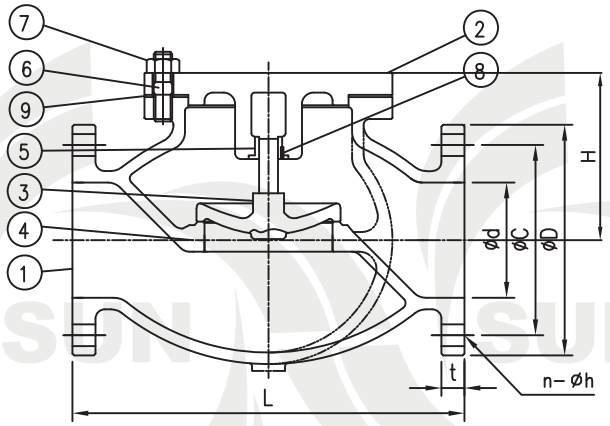
Remark : 1. The flanges shall conform to nominal pressure 5K of JIS B 2210.

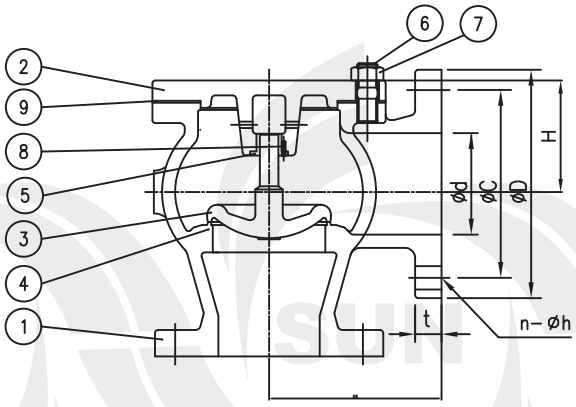
JIS 10K Lift Check Globe Valves
JIS 10K Lift Check Angle Valves

Ref.to JIS F7358
Ref.to JIS F7359

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	VALVE SEAT	INTEGRAL
5	BUSH	BRONZE
6	STUD BOLT	STAINLESS STEEL
7	HEXAGON NUT	STAINLESS STEEL
8	SET SCREW	STAINLESS STEEL
9	GASKET	NON ASBESTOS





Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 10K (JIS F7358)	ød	50	65	80	100	125	150	
	øD	155	175	185	210	250	280	
	øC	120	140	150	175	210	240	
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	
	t	16	18	18	18	20	22	
	L	220	270	300	350	420	490	
	H	107	124	129	146	166	188	
JIS 10K (JIS F7359)	ød	50	65	80	100	125	150	200
	øD	155	175	185	210	250	280	330
	øC	120	140	150	175	210	240	290
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23
	t	16	18	18	18	20	22	22
	L1	120	130	140	160	180	205	230
	H	77	81	84	96	108	125	157

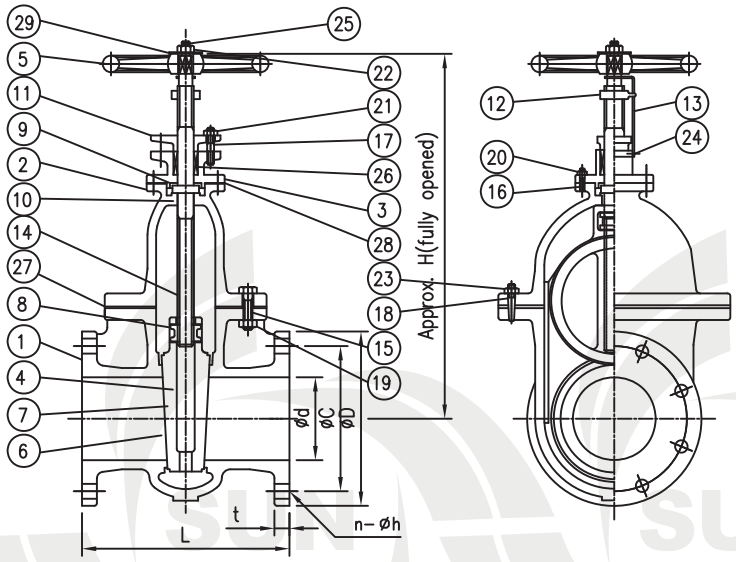
Test Pressure (MPa)

Rating	JIS 10K
Hydrostatic press test (Shell)	2.1
Hydrostatic press test (Seat)	1.54

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2210.

JIS 5K Gate Valves — Ref.to JIS F7363
JIS 10K Gate Valves — Ref.to JIS F7364
JIS 16K Gate Valves — Ref.to JIS F7369

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	STUFFING BOX	BRONZE
4	DISC	BRONZE
5	HANDWHEEL	CAST IRON
6	VALVE SEAT OF BODY	INTEGRAL / BRONZE
7	VALVE SEAT OF DISC	INTEGRAL / BRONZE
8	SCREWED PIECE	BRASS
9	GUIDE BUSH	INTEGRAL
10	GUIDE BUSH	INTEGRAL
11	PACKING GLAND	BRONZE
12	INDICATOR	BRASS
13	INDICATOR PLATE	BRASS
14	STEM	BRASS
15	STUD BOLT	STAINLESS STEEL / BRASS
16	STUD BOLT	STAINLESS STEEL / BRASS
17	STUD BOLT	STAINLESS STEEL / BRASS
18	TAPER PIN WITH THREAD	STAINLESS STEEL
19	HEXAGON NUT	STAINLESS STEEL
20	HEXAGON NUT	STAINLESS STEEL
21	HEXAGON NUT	STAINLESS STEEL
22	HEXAGON NUT	STAINLESS STEEL
23	HEXAGON NUT	STAINLESS STEEL
24	MACHINE SCREW	BRASS
25	SPLIT PIN	BRASS
26	PACKING	NON ASBESTOS
27	GASKET	NON ASBESTOS
28	GASKET	NON ASBESTOS
29	WASHER	STEEL

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7363)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	14	14	14	16	16	18	20	22	22	24	24
	L	180	190	200	230	250	270	290	330	370	410	470
	H	285	330	380	430	495	560	680	800	920	1000	1100
	Weight	16.2	23.52	29.05	42.36	57.72	78.36	123.6	196.8	283.2	368.4	486
JIS 10K (JIS F7364)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	155	175	185	210	250	280	330	400	445	490	560
	øC	120	140	150	175	210	240	290	355	400	445	510
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25	16-25	16-27
	t	16	18	18	18	20	22	22	24	24	26	28
	L	200	220	230	250	270	290	320	380	440	500	590
	H	300	350	400	450	520	580	700	840	960	1050	1150
	Weight	23.28	33.12	39.6	54.96	79.08	103.2	163.2	276	397.2	519.6	716.4
JIS 16K (JIS F7369)	ød	50	65	80	100	125	150					
	øD	155	175	185	210	250	280					
	øC	120	140	150	175	210	240					
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23					
	t	16	18	20	22	24	26					
	L	200	220	230	250	270	290					
	H	300	350	400	450	520	580					
	Weight	24.45	34.78	41.58	57.70	83.05	108.4					

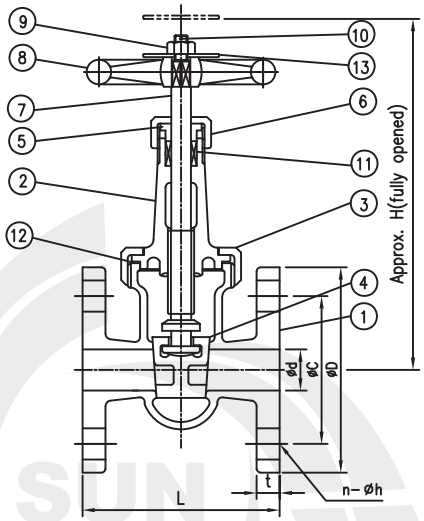
Test Pressure (MPa)

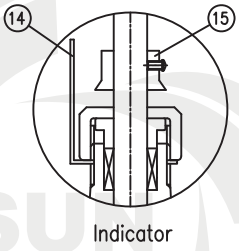
Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 400A	450A to 600A	Up to 400A	450A to 600A	300~400A
Hydrostatic press test (Shell)	1.05	0.75	2.1	1.8	2.4
Hydrostatic press test (Seat)	0.77	0.55	1.54	1.32	1.76

Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K Gate Valves
JIS 10K Gate Valves

JIS F7367
JIS F7368





Union Bonnet Intergral seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	BONNET NUT	BRONZE
4	DISC	BRONZE
5	PACKING GLAND	BRASS
6	PACKING GLAND NUT	BRASS
7	STEM	BRASS
8	HANDWHEEL	CAST IRON
9	HEXAGON NUT	BRASS
10	SPLIT PIN	BRASS
11	PACKING	NON ASBESTOS
12	GASKET	NON ASBESTOS
13	WASHER	STEEL
14	INDICATOR PLATE	BRASS
15	INDICATOR PIECE	BRASS

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 10K
Oil and pulsation water	0.5	1.0
Staturated steam	0.2	0.2
Non-Shock Water up to 120°C	0.7	1.4

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.7	1.54

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L	H	Weight (kg)
JIS 5K (JIS F7367)	15A	15	80	60	4-12	9	90	175	2.29
	20A	20	85	65	4-12	10	100	200	2.98
	25A	25	95	75	4-12	10	110	220	4.1
	32A	32	115	90	4-15	12	130	250	5.79
	40A	40	120	95	4-15	12	140	290	7.78
JIS 10K (JIS F7368)	15A	15	95	70	4-15	12	100	175	2.96
	20A	20	100	75	4-15	14	110	200	3.89
	25A	25	125	90	4-19	14	120	220	5.82
	32A	32	135	100	4-19	16	140	250	7.52
	40A	40	140	105	4-19	16	150	290	9.71

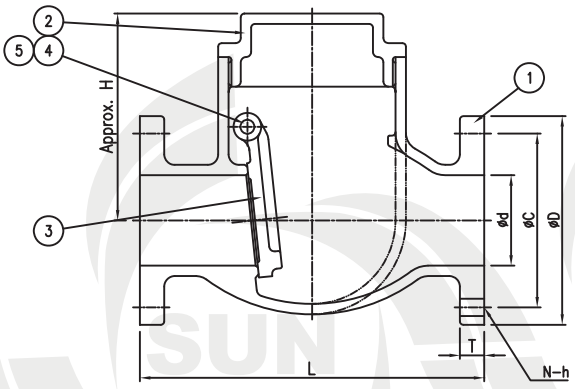
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2240.

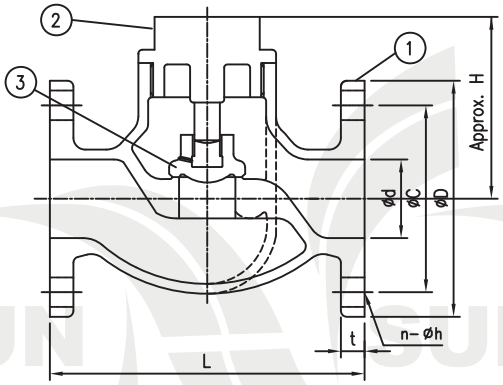
JIS 5K Swing Check Valves
JIS 5K Lift Check Globe Valves

JIS F7371
JIS F7356

Screw Bonnet Intergral seat
Swing type & Lift type Disc Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	HINGE PIN	BRASS
5	PLUG	BRASS / STAINLESS STEEL





Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K
Oil and pulsation water	0.5
Non-Shock Water up to 120°C	0.7

Test Pressure (MPa)

Rating	JIS 5K
Hydrostatic press test (Shell)	1.05
Hydrostatic press test (Seat)	0.77

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 5K (JIS F7371)	15A	25	80	60	4-12	10	110	69	2.24
	20A	25	85	65	4-12	10	110	69	2.24
	25A	25	95	75	4-12	10	110	69	2.24
	32A	32	115	90	4-15	12	130	79	3.07
	40A	40	120	95	4-15	12	140	93	4.34
JIS 5K (JIS F7356)	15A	25	80	60	4-12	10	120	77	2.39
	20A	25	85	65	4-12	10	120	77	2.39
	25A	25	95	75	4-12	10	120	77	2.39
	32A	32	115	90	4-15	12	140	81	3.8
	40A	40	120	95	4-15	12	160	91	4.95

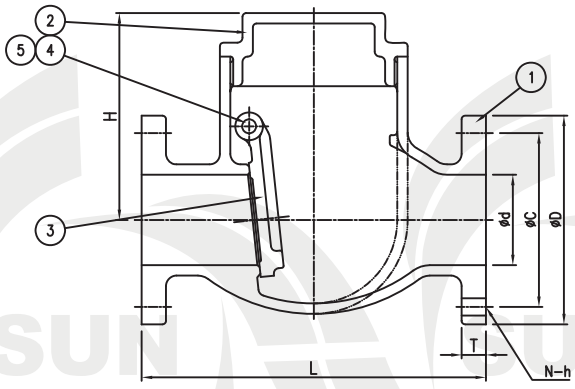
Remark : 1. The flanges shall conform to nominal pressure 5K of JIS B 2240.

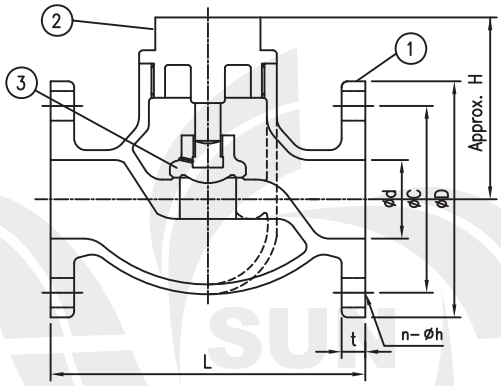
JIS 10K Swing Check Valves
JIS 10K Lift Check Globe Valves

Ref. to JIS F7371
Ref. to JIS F7356

Screw Bonnet Intergral seat
Swing type & Lift type Disc Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	HINGE PIN	BRASS
5	PLUG	BRASS / STAINLESS STEEL





Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 10K
Oil and pulsation water	0.5
Non-Shock Water up to 120°C	0.7

Test Pressure (MPa)

Rating	JIS 10K
Hydrostatic press test (Shell)	1.05
Hydrostatic press test (Seat)	0.77

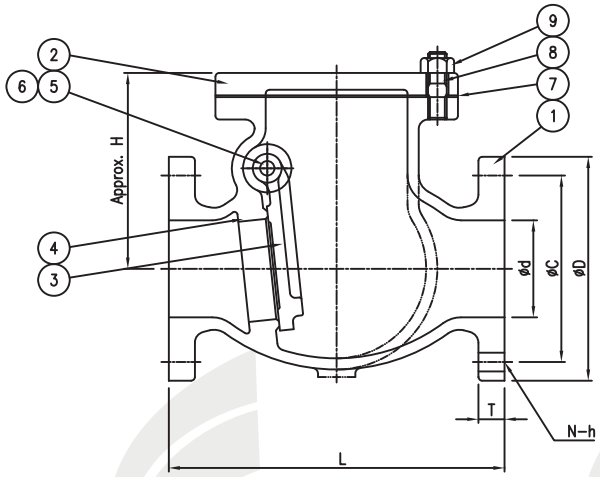
Dimension Table (Unit : mm)

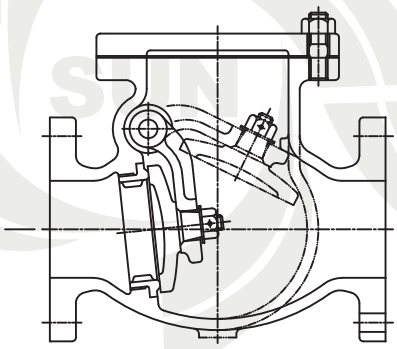
Rating	Size	ød	øD	øC	N-øh	t	L	H	Weight (kg)
JIS 10K (JIS F7371)	15A	25	95	70	4-15	12	110	69	5
	20A	25	100	75	4-15	14	110	69	5
	25A	25	125	90	4-19	14	110	69	5
	32A	32	135	100	4-19	16	130	79	7
	40A	40	140	105	4-19	16	140	93	9.5
JIS 10K (JIS F7356)	15A	15	95	70	4-15	12	110	77	-
	20A	20	100	75	4-15	14	120	77	-
	25A	25	125	90	4-19	14	130	77	-
	32A	32	135	100	4-19	16	160	81	-
	40A	40	140	105	4-19	16	180	91	-

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2240.

JIS 5K Swing Check Valves
JIS 10K Swing Check Valves

Ref. to JIS F7372
Ref. to JIS F7373





< ABOVE 100A >

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	SEAT RING	INTEGRAL / BRONZE
5	HINGE PIN	BRONZE
6	PLUG	BRONZE / STAINLESS STEEL
7	GASKET	NON ASBESTOS
8	BONNET BOLT	BRASS / STAINLESS STEEL
9	BONNET NUT	BRASS / STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

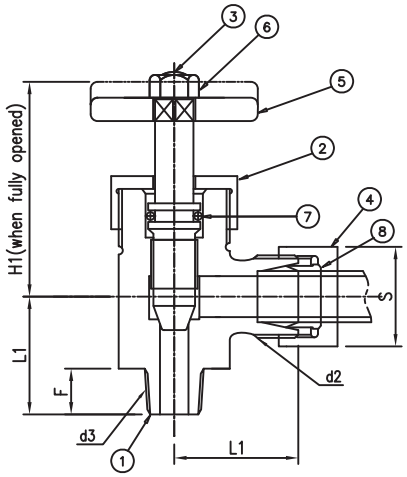
Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A
JIS 5K (JIS F7372)	ød	50	65	80	100	125	150	200	250
	øD	130	155	180	200	235	265	320	385
	øC	105	130	145	165	200	230	280	345
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23
	t	14	14	14	16	20	22	24	26
	L	190	220	250	280	330	380	460	550
	H	97	119	129	146	171	198	235	290
	Weight	9.06	13.9	19.1	27.1	39.0	53.7	94.4	150
JIS 10K (JIS F7373)	ød	50	65	80	100	125	150	200	
	øD	155	175	185	210	250	280	330	
	øC	120	140	150	175	210	240	290	
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	
	t	16	18	18	18	24	26	26	
	L	210	240	270	300	350	400	480	
	H	109	126	136	153	180	205	242	
	Weight	13.6	19.6	22.6	30.9	49.2	64.9	103	

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.

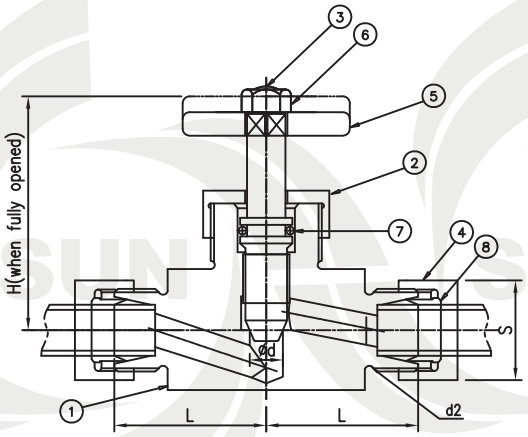
JIS 30K Stop Valves with Bite Joint

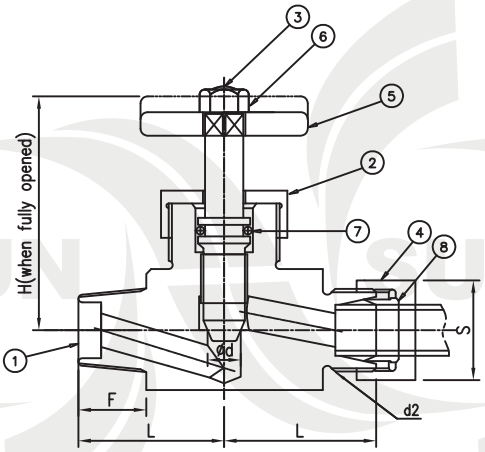
JIS F7379



Intergral seat

NO.	PARTS	MATERIAL
1	BODY	BRASS
2	CAP NUT	BRASS
3	STEM	BRASS
4	UNION NUT	BRASS
5	HANDWHEEL	BRASS
6	HEXAGON NUT	BRASS
7	O-RING	NITRILE RUBBER
8	SLEEVE	BRASS





Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 30K
Non-Shock Water up to 80°C	3.0

Dimension Table (Unit : mm)

Rating	Nominal dia.	L	L1	F	Threads d3	H	H1	S	Pipe out dia.
JIS 30K (JIS F7379)	4	24	22	11	PT 1/8	42	39	17	6
	6	28	25	12	PT 1/4	45	41	22	8/10
	10	35	31	13	PT 3/8	60	54	30	15

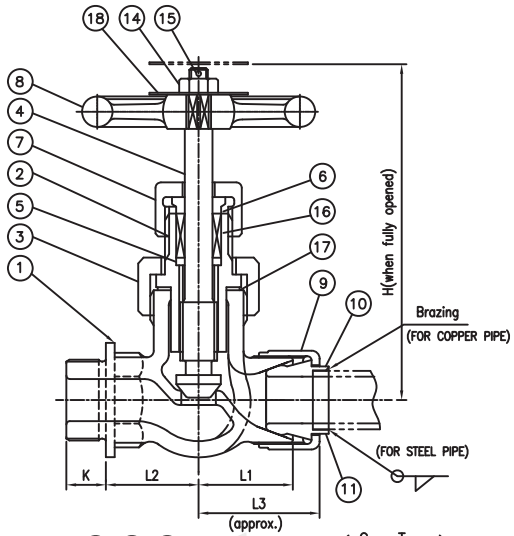
Test Pressure (MPa)

Nominal dia.	JIS 30K
Hydrostatic press test (Shell)	4.5
Hydrostatic press test (Seat)	3.3

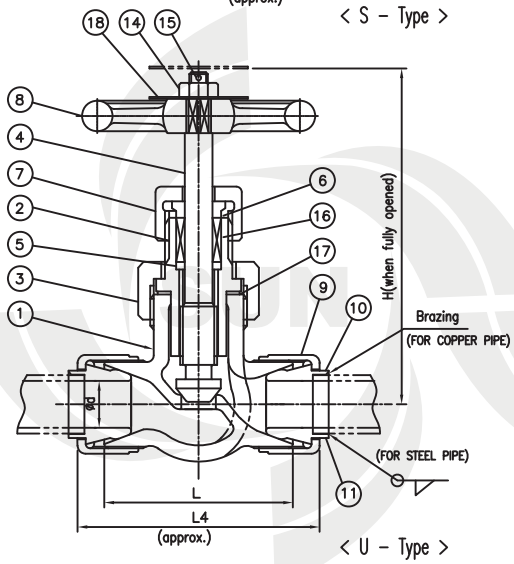
Remark : 1. The name plate shall be specified by purchaser as required.

JIS 20K Globe Valves

JIS F7388



< S - Type >

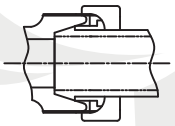


< U - Type >

Union Bonnet Intergral seat
Rising Stem

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	BONNET NUT	BRONZE / BRASS
4	STEM	BRASS
5	SEAT RING	BRONZE / BRASS
6	PACKING GLAND	BRONZE / BRASS
7	GLAND NUT	BRONZE / BRASS
8	HANDWHEEL	CAST IRON
9	UNION NUT	BRONZE / BRASS
10	NIPPLE FOR COPPER	BRASS
11	NIPPLE FOR STEEL	STEEL
12	UNION NUT	BRASS
13	SLEEVE	BRASS
14	HEXAGON NUT	BRASS
15	SPLIT PIN	BRASS
16	PACKING	NON ASBESTOS
17	GASKET	NON ASBESTOS
18	WASHER	STEEL

For bite type union



Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 20K
Air, Oil, Gas and pulsation water	2.0
Steam up to 205°C	1.6
Non-Shock Water up to 120°C	2.8

Test Pressure (MPa)

Rating	JIS 20K
Hydrostatic press test (Shell)	4.20
Hydrostatic press test (Seat)	3.08

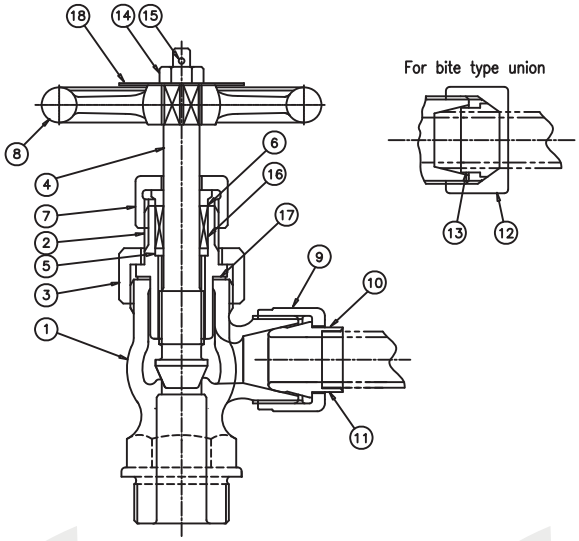
Dimension Table (Unit : mm)

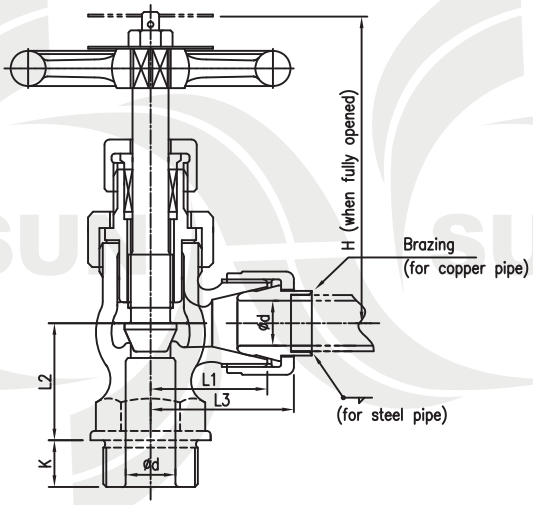
Rating	Size	Copper Pipe	Steel Pipe	L	L1	L2	L3	L4	H	Weight (kg)
JIS 20K (JIS F7388)	6A	8	10.5	64	32	32	41	82	100	0.85
	6A	10	10.5	64	32	32	41	82	100	0.85
	10A	15	17.3	72	36	35	48	96	115	1.37

Remark : 1. The dimensions of union for copper pipe shall conform to JIS F 7440 and that for steel pipe to JIS F 7442.

JIS 20K Angle Valves

JIS F7389





Union Bonnet Intergral seat
Rising Stem

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	BONNET NUT	BRONZE / BRASS
4	STEM	BRASS
5	SEAT RING	BRONZE / BRASS
6	PACKING GLAND	BRONZE / BRASS
7	GLAND NUT	BRONZE / BRASS
8	HANDWHEEL	CAST IRON
9	UNION NUT	BRONZE / BRASS
10	NIPPLE FOR COPPER	BRASS
11	NIPPLE FOR STEEL	STEEL
12	UNION NUT	BRASS
13	SLEEVE	BRASS
14	HEXAGON NUT	BRASS
15	SPLIT PIN	BRASS
16	PACKING	NON ASBESTOS
17	GASKET	NON ASBESTOS
18	WASHER	STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 20K
Air, Oil, Gas and pulsation water	2.0
Steam up to 205°C	1.6
Non-Shock Water up to 120°C	2.8

Test Pressure (MPa)

Rating	JIS 20K
Hydrostatic press test (Shell)	4.20
Hydrostatic press test (Seat)	3.08

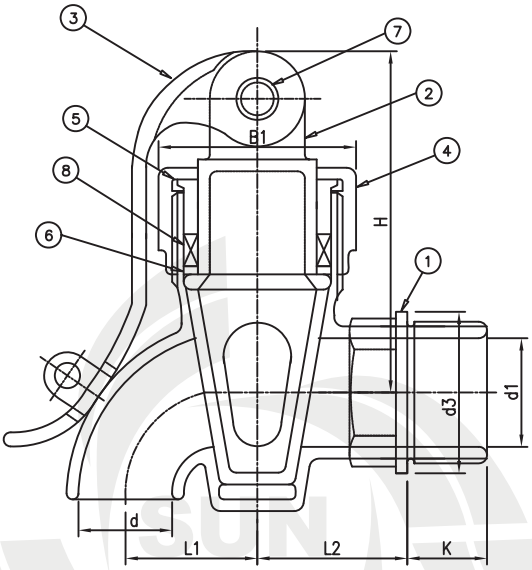
Dimension Table (Unit : mm)

Rating	Size	Copper Pipe	Steel Pipe	K	L1	L2	L3	H	Weight (kg)
JIS 20K (JIS F7389)	6A	8	10.5	12	32	32	41	95	0.83
	6A	10	10.5	12	32	32	41	95	0.83
	10A	15	17.3	72	39	35	51	105	1.2

Remark : 1. The dimensions of union for copper pipe shall conform to JIS F 7440 and that for steel pipe to JIS F 7442.

Cocks with Lock

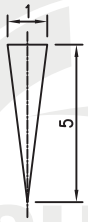
JIS F7390



Integral seat

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	COCK PLUG	BRONZE
3	HANDLE	BRONZE
4	PACKING NUT	BRONZE / BRASS
5	PACKING GLAND	BRONZE / BRASS
6	SEAT RING	BRONZE / BRASS
7	HINGE PIN	BRASS
8	PACKING	NON ASBESTOS

Taper of plug



Test Pressure (MPa)

Nominal dia.	10 to 25
Hydrostatic press test (Shell)	0.2
Hydrostatic press test (Seat)	0.2

Dimension Table (Unit : mm)

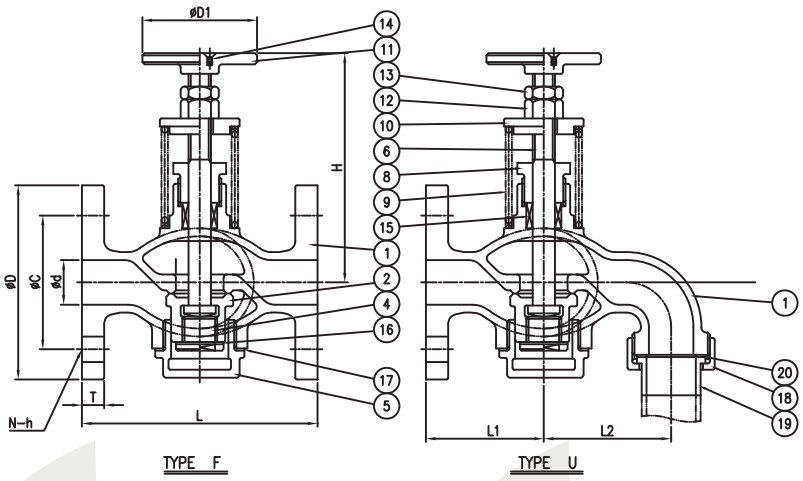
Rating	Size	d	L1	L2	K	d1	B1	d3	H	Weight (kg)
(JIS F7390)	10A	10	22	28	14	15	32	34	50	0.32
	15A	15	28	37	18	20	41	42	63	0.61
	20A	20	35	43	20	26	50	48	73	0.99
	25A	25	43	52	22	32	60	55	87	1.50

Remark : 1. The threads shall conform to JIS B 0207.

Fuel Oil Tank Self-Closing Drain Valves

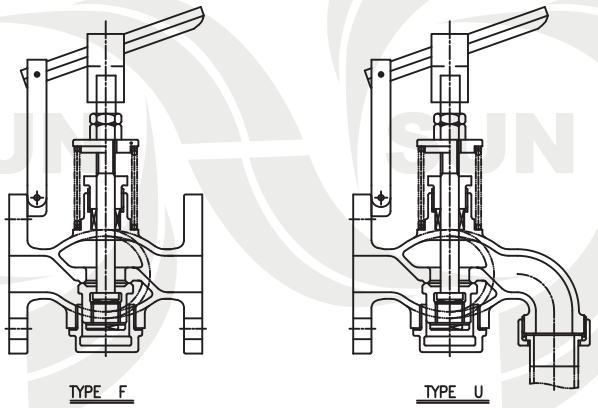
JIS F7398

FOR NOMINAL DIA. 15 to 40 (PUSH TYPE)

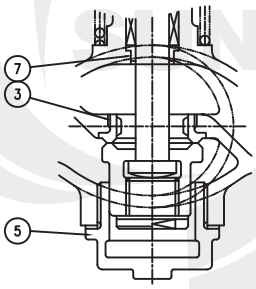


NO.	PARTS	MATERIAL
1	BODY (15A-40A)	BRONZE
1	BODY (50A)	BRONZE / CAST STEEL
2	DISC	BRONZE
3	SEAT RING	INTEGRAL / BRONZE
4	PLUG	BRONZE
5	BONNET (15A-40A)	BRONZE
5	BONNET (50A)	BRONZE / CAST STEEL
6	STEM	BRASS
7	PACKING BUSH	BRASS
8	PACKING GLAND	BRASS
9	SPRING	SWP-A
10	SPRING SUPPORT	BRONZE / STEEL
11	HANDLE	STEEL
12	NUT	BRASS
13	NUT	BRASS
14	SET SCREW	BRASS
15	PACKING	NON ASBESTOS
16	GASKET	NON ASBESTOS
17	GASKET	NON ASBESTOS
18	UNION NUT	STEEL
19	NIPPLE	STEEL
20	GASKET	NON ASBESTOS

FOR NOMINAL DIA. 15 to 40 (LEVER TYPE)



FOR NOMINAL DIA. 50



Test Pressure (MPa)

Rating	JIS 5K/10K
Hydrostatic press test (Shell)	0.15
Hydrostatic press test (Seat)	0.11

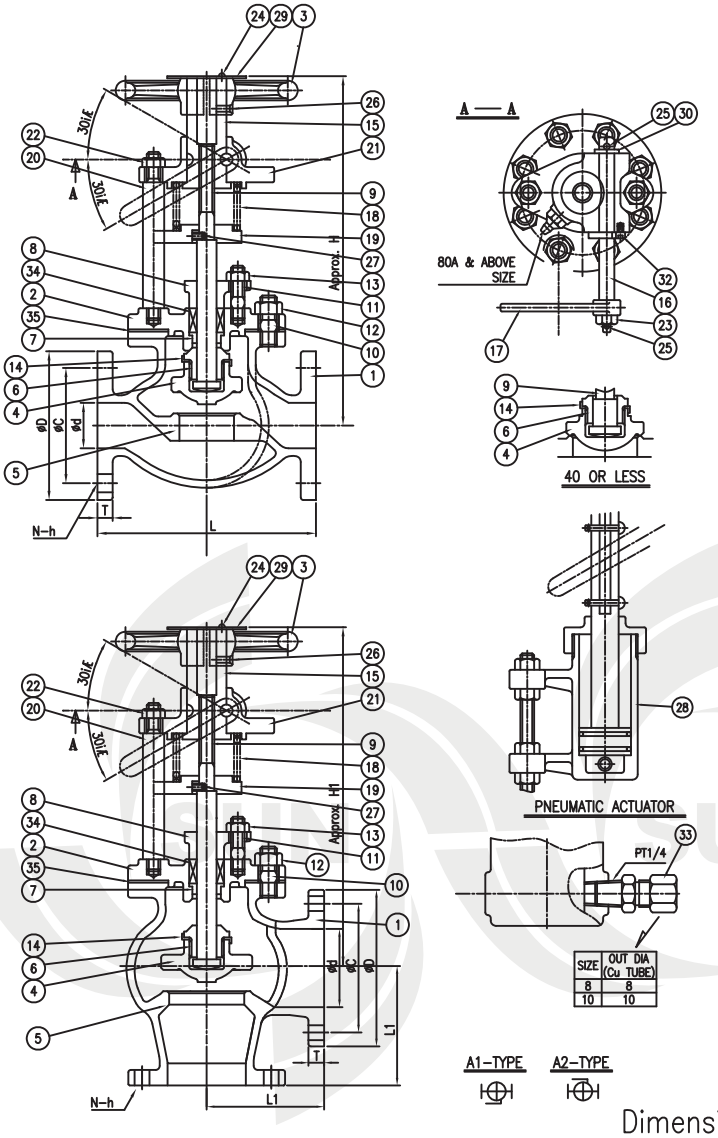
Dimension Table (Unit : mm)

Rating	Size	Ød	ØD	ØC	N-Øh	t	L	L1	H	Weight (kg)
JIS 5K (JIS F7398)	15A	25	80	60	4-12	10	130	65	130	4.7
	20A	25	85	65	4-12	10	130	65	130	4.7
	25A	25	95	75	4-12	10	130	65	130	4.7
	32A	40	115	90	4-15	12	180	90	165	8.1
	40A	40	120	95	4-15	12	180	90	165	8.1
	50A	50	130	105	4-15	14	220	110	195	12.4
Rating	Size	Ød	ØD	ØC	N-Øh	t	L	L1	H	Weight (kg)
JIS 10K (JIS F7398)	15A	25	95	70	4-15	14	130	65	130	4.7
	20A	25	100	75	4-15	14	130	65	130	4.7
	25A	25	125	90	4-19	14	130	65	130	4.7
	32A	40	135	100	4-19	16	180	90	165	8.1
	40A	40	140	105	4-19	16	180	90	165	8.1
	50A	50	155	120	4-19	16	220	110	195	12.4

Remark : 1. The flanges of nominal diameter 15 to 50 shall conform to JIS B 2240.

Fuel Oil Tank Emergency Shut-Off Valves

JIS F7399



NO.	PARTS	MATERIAL
		15A to 250A
1	BODY	BRONZE
2	BONNET	BRONZE
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE
5	BODY SEAT RING	INTEGRAL / BRONZE
6	DISC NUT	BRASS
7	BONNET BUSH	BRASS
8	PACKING GLAND	BRONZE
9	STEM	BRASS
10	BONNET BOLT	STEEL
11	PACKING BOLT	STEEL
12	BONNET NUT	STEEL
13	PACKING NUT	BRASS
14	DISC WASHER	BRASS
15	STEM BUSH	BRASS
16	SPINDLE	STAINLESS STEEL
17	LEVER	STEEL
18	SPRING	SWP-A
19	SPRING SUPPORT	BRONZE / DUCTILE IRON
20	STAY	STEEL
21	SUPPORT BUSH	BRONZE / DUCTILE IRON
22	STAY NUT	STEEL
23	NUT	STEEL
24	MACHINE SCREW	BRASS
25	SPLIT PIN	BRASS
26	MACHINE SCREW	BRASS
27	LOCK PIN	STEEL
28	PNEUMATIC CYLINDER	BRONZE / BRASS
29	NAME PLATE	BRASS
30	WASHER	STEEL
32	SET SCREW	STEEL
33	NIPPLE	BRASS
34	PACKING	NON ASBESTOS
35	BONNET GASKET	NON ASBESTOS

Test Pressure (MPa)

Rating	JIS 10K
Hydrostatic press test (Shell)	0.7
Hydrostatic press test (Seat)	0.2

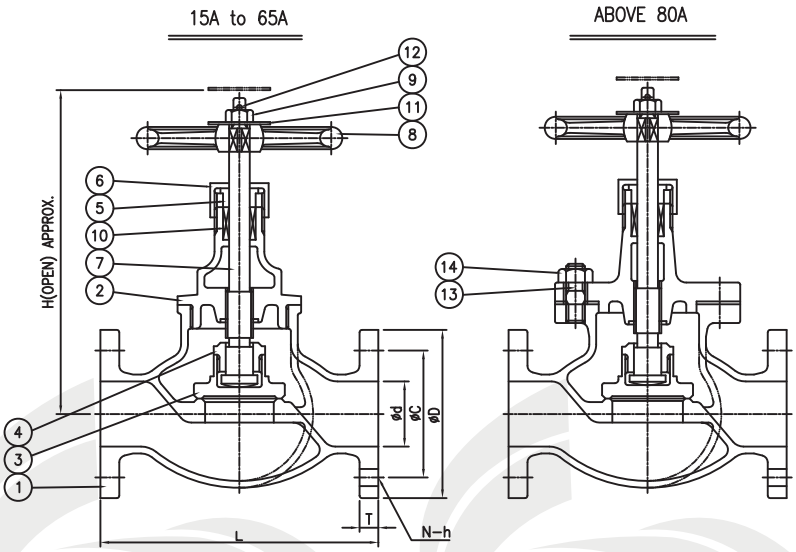
Dimension Table (Unit : mm)

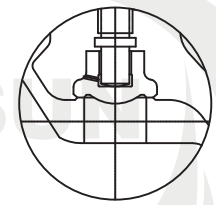
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (Kg)	
JIS 10K (JIS F7399)	15A	15	95	70	4-15	14	110	85	130	265	8.5	8.5
	20A	25	100	75	4-15	14	130	85	130	265	8.5	8.5
	25A	25	125	90	4-19	14	130	85	130	265	8.5	8.5
	32A	32	135	100	4-19	16	160	95	165	310	12.7	12.7
	40A	40	140	105	4-19	16	170	100	165	310	12.7	12.7
	50A	50	155	120	4-19	16	220	120	335	335	20.9	20.9
	65A	65	175	140	4-19	18	270	130	395	395	30.5	30.5
	80A	80	185	150	8-19	18	300	140	420	420	35.4	35.4
	100A	100	210	175	8-19	18	350	160	510	510	55.6	55.6
	125A	125	250	210	8-23	20	420	180	570	570	8.1	70.3
	150A	150	280	240	8-23	22	490	205	660	660	12.4	96.4
	200A	200	330	290	12-23	22	570	230	780	780	8.1	159
	250A	250	400	355	12-25	24	740	290	860	860	8.1	257

Remark : 1. The flanges of nominal diameter 40 or less shall conform to JIS B 2240 – 10K and the flanges of nominal diameter 50 or more shall conform to JIS B 2210 – 10K, however they may conform to JIS B 2240 – 5K or JIS B 2210 – 5K

JIS 10K Globe Valves
JIS B2026

JIS 10K Globe Screw-Down Check Valves
JIS B2026





Screw Down Non Return
(SDNR)

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE / BRASS
3	DISC	BRONZE / BRASS
4	DISC NUT	BRONZE / BRASS
5	PACKING GLAND	BRONZE / BRASS
6	GLAND NUT	BRONZE / BRASS
7	STEM	BRASS
8	HANDWHEEL	CAST IRON
9	HANDLE NUT	STEEL
10	PACKING	NON ASBESTOS
11	WASHER	STEEL
12	SPLIT PIN	BRASS
13	BONNET BOLT	STAINLESS STEEL
14	BONNET NUT	STAINLESS STEEL

Dimension Table (Unit : mm)

Rating	Size	d	L	FLANGE				H
				D	C	N-h	T	
JIS 10K (JIS B2026)	15A	15	85	95	70	4-15	10	110
	20A	20	95	100	75	4-15	10	125
	25A	25	110	125	90	4-19	12	140
	32A	32	130	135	100	4-19	12	170
	40A	40	150	140	105	4-19	12	180
	50A	50	180	155	120	4-19	16	205
	65A	65	210	175	140	4-19	18	240
	80A	80	240	185	150	8-19	20	275

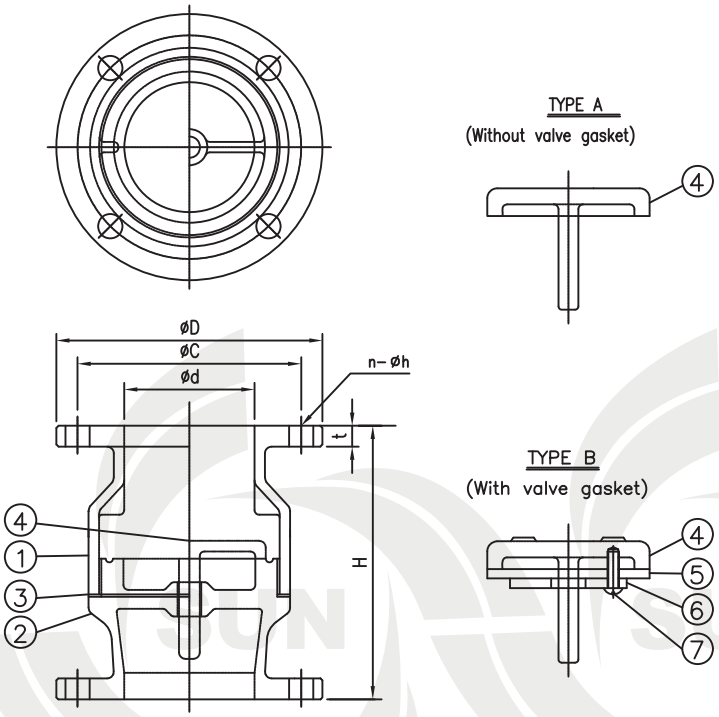
Test Pressure (MPa)

Rating	JIS 10K
Hydrostatic press test (Shell)	2.1
Hydrostatic press test (Seat)	1.54

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K.

JIS 5K Ship's Foot Valves
JIS 10K Ship's Foot Valves

JIS F3056
JIS F3056



NO.	PARTS	MATERIAL
1	BODY (UPPER PART)	BRONZE
2	BODY (LOWER PART)	BRONZE
3	GASKET	BRONZE
4	VALVE	BRONZE
5	VALVE GASKET	BRONZE
6	GASKET KEEP	BRONZE
7	MACHINE SCREW	BRASS

Dimension Table (Unit : mm)

Rating	Size	Ød	ØD	ØC	N-Øh	t	H
JIS 5K (JIS F7301)	40A	40	120	95	4-15	12	130
	50A	50	130	105	4-15	14	142
	80A	80	180	145	4-19	14	194
Rating	Size	Ød	ØD	ØC	N-Øh	t	H
JIS 10K (JIS F7301)	40A	40	140	105	4-19	14	130
	50A	50	155	120	4-19	14	142
	80A	80	185	150	8-19	16	194

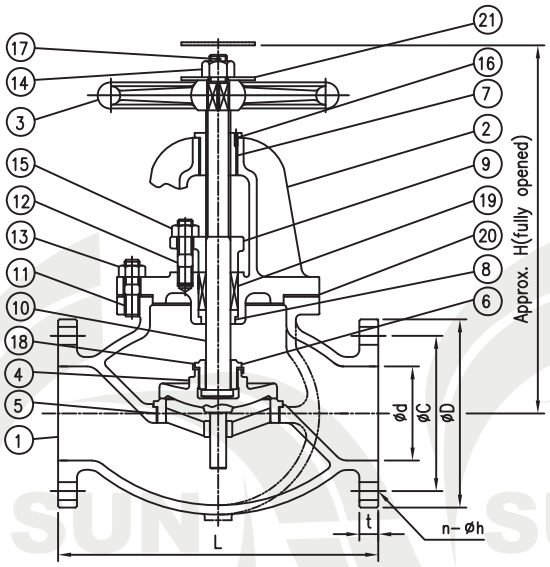
Test Pressure (MPa)

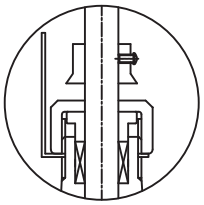
Rating	JIS 5K	JIS 10K
Hydrostatic press test (Body)	0.2	0.2

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K.

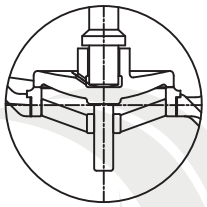
JIS 5K Globe Valves — JIS F7305
JIS 10K Globe Valves — JIS F7307
JIS 16K Globe Valves — JIS F7309
JIS 5K Globe Screw-Down Check Valves — JIS F7353
JIS 10K Globe Screw-Down Check Valves — JIS F7375
JIS 16K Globe Screw-Down Check Valves — JIS F7377

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends





Indicator



Screw Down Non Return (SDNR)

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	DISC NUT	BRONZE / STAINLESS STEEL
7	SCREW BONNET BUSH	BRONZE / STAINLESS STEEL
8	BONNET BUSH	BRONZE / STAINLESS STEEL
9	PACKING GLAND	BRONZE
10	STEM	BRASS / STAINLESS STEEL
11	STUD BOLT	STEEL
12	STUD BOLT	STEEL
13	HEXAGON NUT	STEEL
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	STEEL
16	LOCK PIN	STEEL
17	SPLIT PIN	BRASS
18	DISC LOCK WASHER	BRASS
19	PACKING	NON ASBESTOS
20	GASKET	NON ASBESTOS
21	WASHER	STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition	Rating	Max. Working Pressure (MPa)									
		JIS 5K			JIS 10K				JIS 16K		
	Size	Up to 200A		250A to 400A	Up to 200A		Over 250A		50A to 200A		
	Trim	Class B	Class S	Class B	Class B	Class S	Class B	Class S	Class B	Class S	
Steam up to 230°C		–	0.5	–	–	1.0	–		–	1.6	
Steam up to 205°C		0.5			1.0				1.6		
Saturated Steam							0.5				
Air and Gas		0.5 (Up to 300A)					–		1.6		
Oil and Pulsation Water		0.5					1.0				
Non-Shock Water up to 120°C		0.7 (Up to 300A)		0.6	1.4				2.2		

Test Pressure (MPa)

Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 300A	350A to 400A	Up to 200A	Over 250A	50A~200A
	Globe / Globe check(SDNR)				
Hydrostatic press test (Shell)	1.05	0.9	2.1	1.5	3.3
Hydrostatic press test (Seat)	0.77	0.66	1.54	1.1	2.42

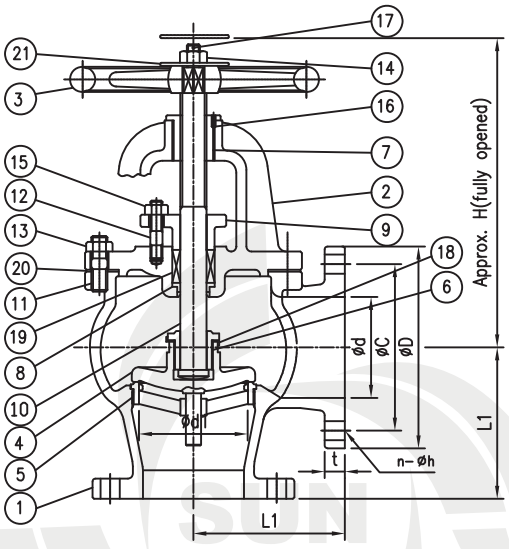
Dimension Table (Unit : mm)

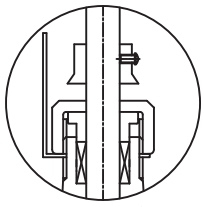
Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7305) (JIS F7353)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	16	18	18	20	20	22	24	26	28	30	30
	L	210	250	280	340	410	480	570	740	840	940	1050
	H	270	300	310	56.9	390	445	530	650	740	840	940
	Weight	14.7	21.3	27.7	40.8	57.6	80.3	139	246	377	462	647
JIS 10K (JIS F7307) (JIS F7375)	ød	50	65	80	100	125	150	200	250	300		
	øD	155	175	185	210	250	280	330	400	445		
	øC	120	140	150	175	210	240	290	355	400		
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25		
	t	20	22	22	24	24	26	26	30	32		
	L	220	270	300	350	420	490	570	740	840		
	H	285	310	320	370	420	470	555	680	770		
	Weight	19.9	28.7	32.4	48.7	73.1	104	162	304	458		
JIS 16K (JIS F7309) (JIS F7377)	ød	50	65	80	100	125	150	200				
	øD	155	175	200	225	270	305	350				
	øC	120	140	160	185	225	260	305				
	N–øh	8-19	8-19	8-23	8-23	8-25	12-25	12-25				
	t	20	22	24	26	26	28	30				
	L	220	270	300	350	430	500	570				
	H	285	310	340	385	455	510	630				
	Weight	19.6	28.3	40.4	56.9	89.5	123	188				

Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

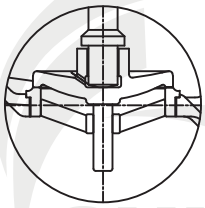
JIS 5K Angle Valves	JIS F7306
JIS 10K Angle Valves	JIS F7308
JIS 16K Angle Valves	JIS F7310
JIS 5K Angle Screw-Down Check Valves	JIS F7354
JIS 10K Angle Screw-Down Check Valves	JIS F7376
JIS 16K Angle Valves	JIS F7378

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends





Indicator



Screw Down Non Return (SDNR)

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	DISC NUT	BRONZE / STAINLESS STEEL
7	SCREW BONNET BUSH	BRONZE / STAINLESS STEEL
8	BONNET BUSH	BRONZE / STAINLESS STEEL
9	PACKING GLAND	BRONZE
10	STEM	BRASS / STAINLESS STEEL
11	STUD BOLT	STEEL
12	STUD BOLT	STEEL
13	HEXAGON NUT	STEEL
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	STEEL
16	LOCK PIN	STEEL
17	SPLIT PIN	BRASS
18	DISC LOCK WASHER	BRASS
19	PACKING	NON ASBESTOS
20	GASKET	NON ASBESTOS
21	WASHER	STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition	Trim	Rating	JIS 5K			JIS 10K				JIS 16K	
		Size	Up to 200A		250A to 400A	Up to 200A		Over 250A		50A to 200A	
			Class B	Class S	Class B	Class B	Class S	Class B	Class S	Class B	Class S
Steam up to 230°C			–	0.5	–	–	1.0	–		–	1.6
Steam up to 205°C			0.5			1.0				1.6	
Saturated Steam			0.5 (Up to 300A)					0.5		1.6	
Air and Gas								–			
Oil and Pulsation Water			0.5					1.0			
Non-Shock Water up to 120°C			0.7 (Up to 300A)		0.6	1.4				2.2	

Test Pressure (MPa)

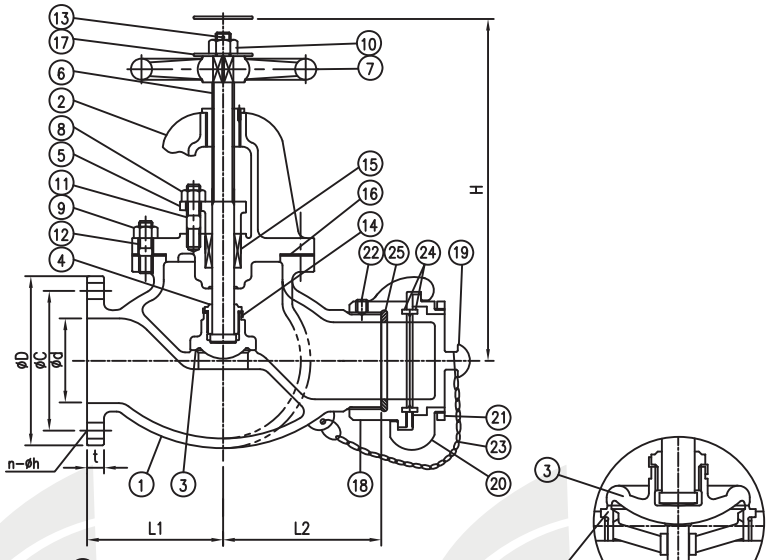
Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 300A	350A to 400A	Up to 200A	Over 250A	50A~200A
	Globe / Globe check(SDNR)				
Hydrostatic press test (Shell)	1.05	0.9	2.1	1.5	3.3
Hydrostatic press test (Seat)	0.77	0.66	1.54	1.1	2.42

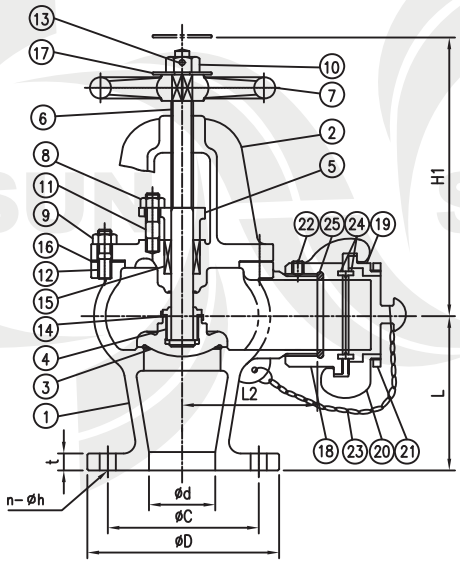
Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7306) (JIS F7354)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N-øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	16	18	18	20	20	22	24	26	28	30	30
	L1	100	115	130	150	170	190	220	275	310	360	395
	H	240	255	265	310	330	380	450	540	610	690	770
	Weight	12.9	18.2	23.4	33.7	46.2	63.4	105	166	243	327	459
JIS 10K (JIS F7308) (JIS F7376)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	155	175	185	210	250	280	330	400	445	490	560
	øC	120	140	150	175	210	240	290	355	400	445	510
	N-øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25	16-25	16-27
	t	20	22	22	24	24	26	26	30	32	34	36
	L1	120	130	140	160	180	205	230	290	320	360	420
	H	255	270	275	315	360	405	475	570	645	710	790
	Weight	18.2	25.4	27.4	40.6	69.9	81	125	211	293	386	544
JIS 16K (JIS F7310) (JIS F7378)	ød	50	65	80	100	125	150	200				
	øD	155	175	200	225	270	305	350				
	øC	120	140	160	185	225	260	305				
	N-øh	8-19	8-19	8-23	8-23	8-25	12-25	12-25				
	t	20	22	24	26	26	28	30				
	L1	120	130	150	170	200	225	250				
	H	255	270	295	330	390	435	540				
	Weight	18	25	35.7	49.2	76.1	103	155				

Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

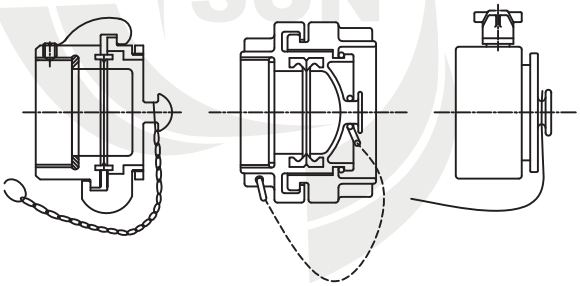
JIS 5K/10K Hose Globe Valves — JIS F7333
JIS 5K/10K Hose Angle Valves — JIS F7333





Bolted Bonnet Integral seat

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE
4	DISC NUT	BRONZE / BRASS
5	PACKING GLAND	BRONZE / BRASS
6	STEM	BRASS
7	HANDWHEEL	CAST IRON
8	HEXAGON NUT	STEEL
9	HEXAGON NUT	STEEL
10	HEXAGON NUT	STEEL
11	STUD BOLT	STEEL
12	STUD BOLT	STEEL
13	SPLIT PIN	BRASS
14	DISC LOCK WASHER	BRASS
15	PACKING	NON ASBESTOS
16	GASKET	NON ASBESTOS
17	WASHER	STEEL
18	BASE CONNECTION	BRONZE
19	CAP	BRONZE
20	COUPLING RING	BRONZE
21	SET RING	BRONZE
22	SET SCREW	BRASS
23	CHAIN	STAINLESS WIRE
24	GASKET	RUBBER
25	GASKET	NON ASBESTOS
26	VALVE SEAT	BRONZE



(NAKAJIMA COUPLING) 50A to 65A — (STORZ COUPLING) 40A, 50A & 65A — (AB COUPLING) Only 65A

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 10K
Pulsation Water	0.5	1.0
Non-Shock Water up to 120°C	0.7	1.4

Dimension Table (Unit : mm)

Rating	Size	Ød	ØD	ØC	N-Øh	t	L1	L	H	H1	Weight G(kg)	Weight A(kg)
JIS 5K (JIS F7333)	50A	50	130	105	4-15	16	105	100	270	240	14.7	12.8
	65A	65	155	130	4-15	22	135	130	310	270	28.2	24.3
JIS 10K (JIS F7333)	50A	50	155	120	4-19	20	110	120	285	255	18.9	17.0
	65A	65	175	140	4-19	22	135	130	310	270	28.2	24.3

Test Pressure (MPa)

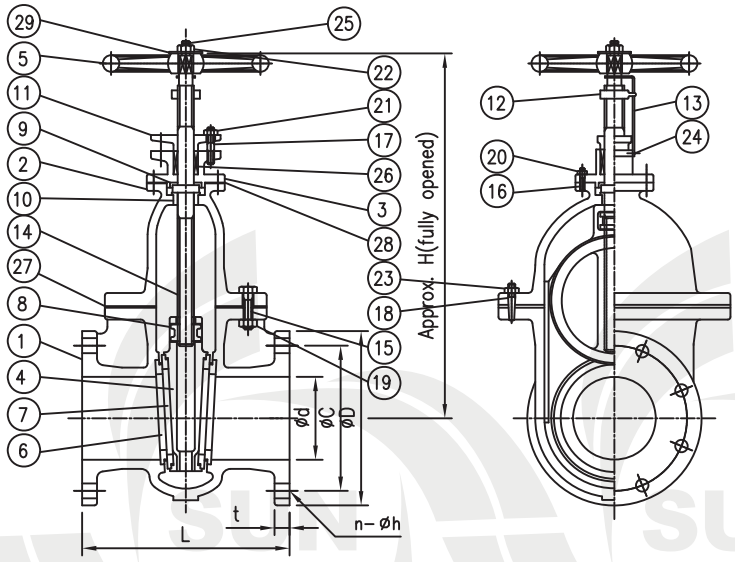
Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.

JIS 5K Gate Valves
JIS 10K Gate Valves
JIS 16K Gate Valves

JIS F7363
JIS F7364
JIS F7369

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	STUFFING BOX	CAST IRON
4	DISC	CAST IRON
5	HANDWHEEL	CAST IRON
6	VALVE SEAT OF BODY	BRONZE / STAINLESS STEEL
7	VALVE SEAT OF DISC	BRONZE / STAINLESS STEEL
8	SCREWED PIECE	BRONZE / STAINLESS STEEL
9	GUIDE BUSH	BRONZE / STAINLESS STEEL
10	GUIDE BUSH	BRONZE / STAINLESS STEEL
11	PACKING GLAND	BRONZE
12	INDICATOR	BRASS
13	INDICATOR PLATE	BRASS
14	STEM	BRASS / STAINLESS STEEL
15	STUD BOLT	STEEL
16	STUD BOLT	STEEL
17	STUD BOLT	STEEL
18	TAPER PIN WITH THREAD	STAINLESS STEEL
19	HEXAGON NUT	STEEL
20	HEXAGON NUT	STEEL
21	HEXAGON NUT	STEEL
22	HEXAGON NUT	STEEL
23	HEXAGON NUT	STEEL
24	MACHINE SCREW	STEEL
25	SPLIT PIN	BRASS
26	PACKING	NON ASBESTOS
27	GASKET	NON ASBESTOS
28	GASKET	NON ASBESTOS
29	WASHER	STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition	Max. Working Pressure (MPa)					
	JIS 5K			JIS 10K		
	Up to 200A	250 to 400A	450 to 600A	Up to 200A	250 to 400A	450 to 600A
Saturated Steam	0.3	0.2		0.5	0.3	
Oil and Pulsation Water	0.5			1.0		
Non-Shock Water up to 120℃	0.7		0.5	1.4		1.2
Fluid Condition	JIS 16K					
	300A to 400A					
Oil and Pulsation Water	1.6					

Test Pressure (MPa)

Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 400A	450A to 600A	Up to 400A	450A to 600A	300~400A
Hydrostatic press test (Shell)	1.05	0.75	2.1	1.8	2.4
Hydrostatic press test (Seat)	0.77	0.55	1.54	1.32	1.76

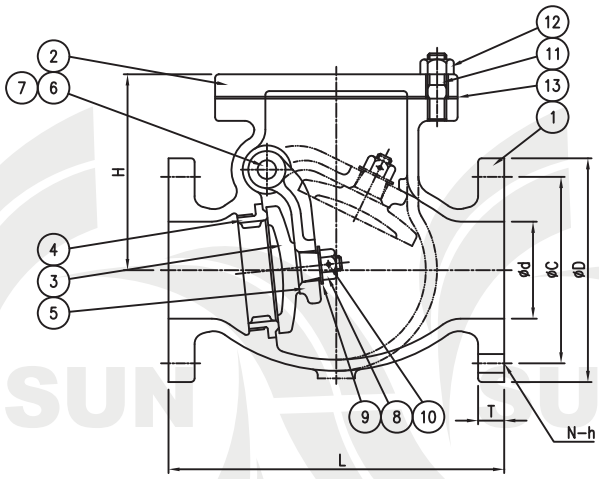
Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7363)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N-øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	16	18	18	20	20	22	24	26	28	30	30
	L	180	190	200	230	250	270	290	330	370	410	470
	H	285	330	380	430	495	560	680	800	920	1000	1100
	Weight	13.5	19.6	24.2	35.3	48.1	65.3	103	164	236	307	405
JIS 10K (JIS F7364)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	155	175	185	210	250	280	330	400	445	490	560
	øC	120	140	150	175	210	240	290	355	400	445	510
	N-øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25	16-25	16-27
	t	20	22	22	24	24	26	26	30	32	34	36
	L	200	220	230	250	270	290	320	380	440	500	590
	H	300	350	400	450	520	580	700	840	960	1050	1150
	Weight	19.4	27.6	33	45.8	65.9	86	136	230	331	433	597
JIS 16K (JIS F7369)	ød									300	335	380
	øD									480	540	605
	øC									430	480	540
	N-øh									16-27	16-33	16-33
	t									36	38	42
	L									490	540	610
	H									1010	1070	1185
	Weight									430	580	780

Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K Swing Check Valves
JIS 10K Swing Check Valves

JIS F7372
JIS F7373



Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	BODY SEAT RING	BRONZE / STAINLESS STEEL
5	ARM	BRONZE
6	HINGE PIN	BRONZE
7	PLUG	BRONZE
8	DISC NUT	BRONZE
9	WASHER	BRASS
10	SPLIT PIN	BRASS
11	BONNET BOLT	STEEL
12	BONNET NUT	STEEL
13	GASKET	NON ASBESTOS

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K	JIS 10K
Oil and pulsation water	0.5	1.0
Non-Shock Water up to 120°C	0.7	1.4

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A
JIS 5K (JIS F7372)	Ød	50	65	80	100	125	150	200	250
	ØD	130	155	180	200	235	265	320	385
	ØC	105	130	145	165	200	230	280	345
	N–Øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23
	t	16	18	18	20	20	22	24	26
	L	190	220	250	280	330	380	460	550
	H	97	119	129	146	171	198	235	290
	Weight	9.06	13.9	19.1	27.1	39.0	53.7	94.4	150
JIS 10K (JIS F7373)	Ød	50	65	80	100	125	150	200	
	ØD	155	175	185	210	250	280	330	
	ØC	120	140	150	175	210	240	290	
	N–Øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	
	t	20	22	22	24	24	26	26	
	L	210	240	270	300	350	400	480	
	H	109	126	136	153	180	205	242	
	Weight	13.6	19.6	22.6	30.9	49.2	64.9	103	

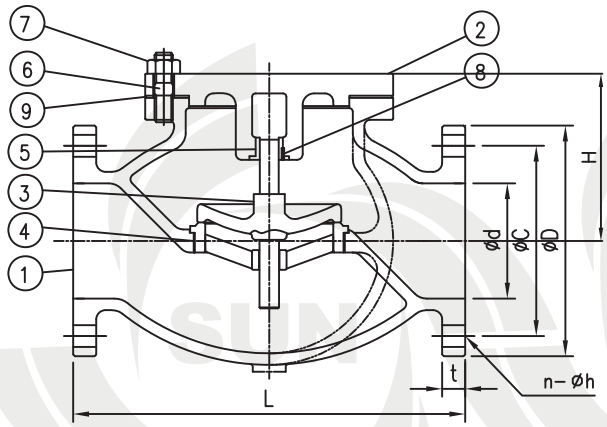
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.

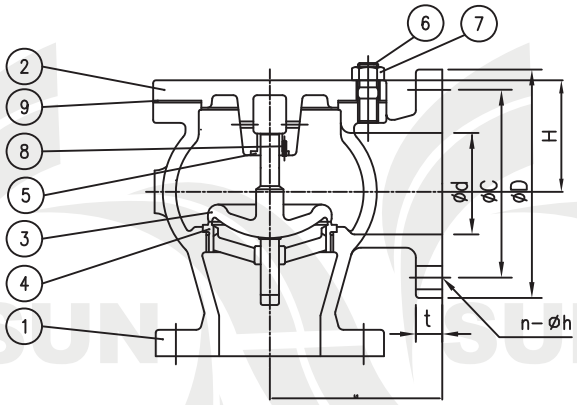
JIS 5K Lift Check Globe Valves
JIS 5K Lift Check Angle Valves

JIS F7358
JIS F7359

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	VALVE SEAT	BRONZE / STAINLESS STEEL
5	BUSH	BRONZE / STAINLESS STEEL
6	STUD BOLT	STEEL
7	HEXAGON NUT	STEEL
8	SET SCREW	STEEL
9	GASKET	NON ASBESTOS





Fluid Condition & Max. Working pressure (MPa)

Fluid Condition \ Rating	JIS 5K
Oil and pulsation water	0.5
Non-Shock Water up to 120°C	0.7

Test Pressure (MPa)

Rating	JIS 5K
Hydrostatic press test (Shell)	1.05
Hydrostatic press test (Seat)	0.77

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 5K (JIS F7358)	ød	50	65	80	100	125	150	
	øD	130	155	180	200	235	265	
	øC	105	130	145	165	200	230	
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	
	t	16	18	18	20	20	22	
	L	210	250	280	340	410	480	
	H	107	124	129	146	166	188	
	Weight	11.3	16.8	23.2	32.5	48.1	67.9	
JIS 5K (JIS F7359)	ød	50	65	80	100	125	150	200
	øD	130	155	180	200	235	265	320
	øC	105	130	145	165	200	230	280
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23
	t	16	18	18	20	20	22	24
	L1	100	115	130	150	170	190	220
	H	77	81	84	96	108	125	157
	Weight	9.5	13.8	18.9	25.6	36.7	50.9	95

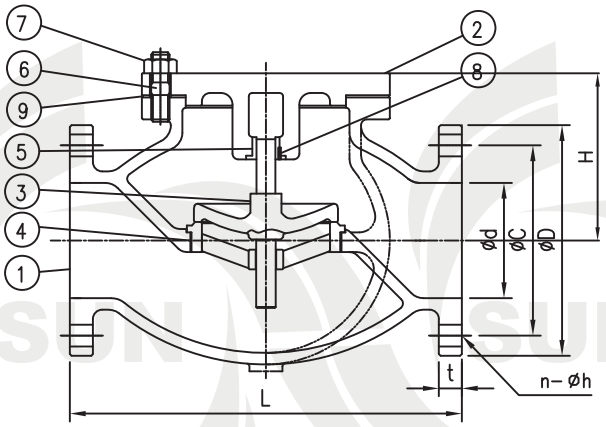
Remark : 1. The flanges shall conform to nominal pressure 5K of JIS B 2210.

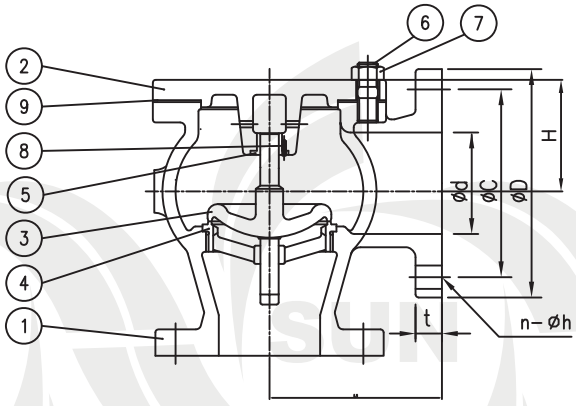
JIS 10K Lift Check Globe Valves
JIS 10K Lift Check Angle Valves

Ref. to JIS F7358
Ref. to JIS F7359

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	VALVE SEAT	BRONZE / STAINLESS STEEL
5	BUSH	BRONZE / STAINLESS STEEL
6	STUD BOLT	STEEL
7	HEXAGON NUT	STEEL
8	SET SCREW	STEEL
9	GASKET	NON ASBESTOS





Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 10K (JIS F7358)	ød	50	65	80	100	125	150	
	øD	155	175	185	210	250	280	
	øC	120	140	150	175	210	240	
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	
	t	20	22	22	24	24	26	
	L	220	270	300	350	420	490	
	H	107	124	129	146	166	188	
Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 10K (JIS F7359)	ød	50	65	80	100	125	150	200
	øD	155	175	185	210	250	280	330
	øC	120	140	150	175	210	240	290
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23
	t	20	22	22	24	24	26	26
	L1	120	130	140	160	180	205	230
	H	77	81	84	96	108	125	157

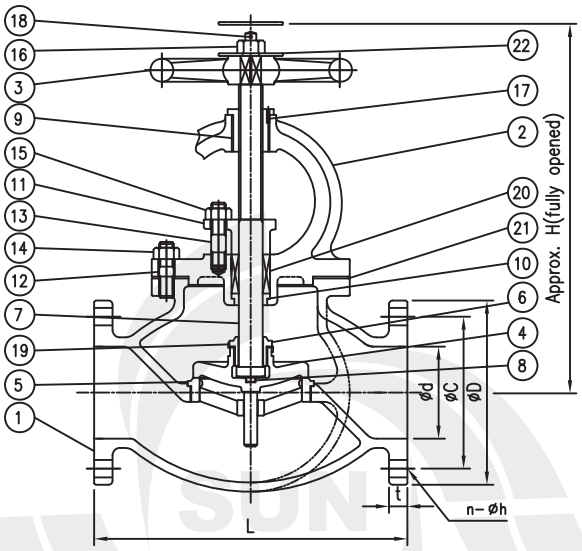
Test Pressure (MPa)

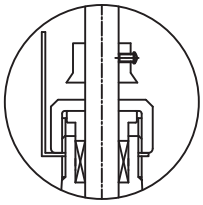
Rating	JIS 10K
Hydrostatic press test (Shell)	2.1
Hydrostatic press test (Seat)	1.54

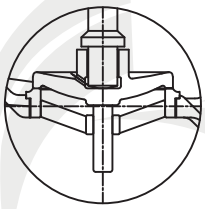
Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2210.

JIS 10K Globe Valves — JIS F7319
JIS 20K Globe Valves — JIS F7313
JIS 10K Globe Screw-Down Check Valves — JIS F7471
JIS 20K Globe Screw-Down Check Valves — JIS F7473

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends




Indicator


Screw Down Non Return (SDNR)

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	PACKING BUSH	BRONZE / STAINLESS STEEL
7	STEM	BRONZE / STAINLESS STEEL
8	WASHER FOR STEM	BRONZE / STAINLESS STEEL
9	BONNET BUSH	BRONZE
10	PACKING BUSH	BRONZE
11	PACKING GLAND	STEEL
12	STUD BOLT	STEEL
13	STUD BOLT	STEEL
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	STEEL
16	HEXAGON NUT	STEEL
17	LOCK PIN	STEEL
18	SPLIT PIN	BRASS
19	DISC LOCK WASHER	BRASS / STAINLESS STEEL
20	PACKING	NON ASBESTOS
21	GASKET	NON ASBESTOS
22	WASHER	STEEL

Fluid Condition & Max. Working pressure (MPa)

	Max. Working Pressure (MPa)	
Fluid Condition	JIS 10K	JIS 20K
Steam of 400°C		2.3
Steam of 350°C		2.6
Steam of 300°C	1.0	2.9
Steam up to 220°C	1.2	3.1
Air, Gas, Oil and Pulsation Water	1.2	3.1
Non-Shock Water up to 120°C	1.4	3.4

Test Pressure (MPa)

Rating	JIS 10K	JIS 20K
Hydrostatic press test (Shell)	2.1	5.1
Hydrostatic press test (Seat)	1.54	3.74

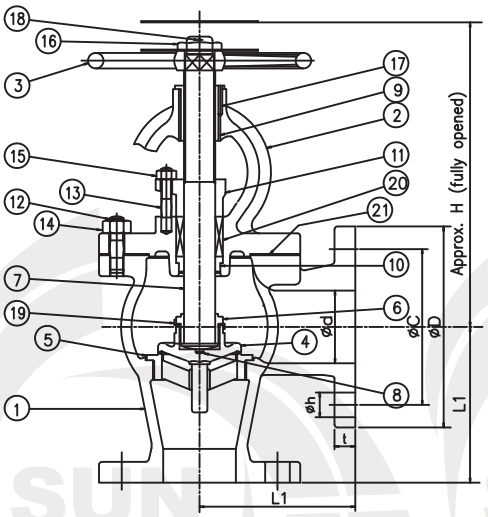
Dimension Table (Unit : mm)

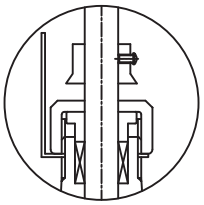
Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 10K (JIS F7319) (JIS F7471)	ød	50	65	80	100	125	150	200	250	300		
	øD	155	175	185	210	250	280	330	400	445		
	øC	120	140	150	175	210	240	290	355	400		
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25		
	t	16	18	18	18	20	22	22	24	24		
	L	220	270	300	350	420	490	570	740	840		
	H	270	300	310	355	415	470	565	645	735		
	Weight	17.9	26.0	29.8	44.7	70.3	96.4	159	257	370		

Rating	Size	32A	40A	50A	65A	80A	100A	125A	150A	200A	250A	
JIS 20K (JIS F7313) (JIS F7473) (RF)	ød	32	40	50	65	80	100	125	150	200	250	
	øD	135	140	155	175	200	225	270	305	350	430	
	øC	100	105	120	140	160	185	225	260	305	380	
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	8-25	12-25	12-25	12-27	
	t	18	18	18	20	22	24	26	28	30	34	
	L	190	200	230	270	300	350	430	500	560	660	
	H	270	290	305	345	385	440	500	550	630	725	
	Weight	14.4	16.0	21.6	30.4	43.5	62.3	95.7	133.3	296.1	339.1	

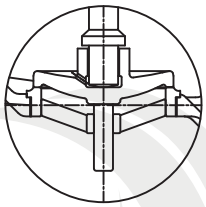
Remark : 1. The flanges shall conform to nominal pressure 10K and 20K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 10K Angle Valves — JIS F7320
JIS 20K Angle Valves — JIS F7314
JIS 10K Angle Screw-Down Check Valves — JIS F7472
JIS 20K Angle Screw-Down Check Valves — JIS F7474





Indicator



Screw Down Non Return (SDNR)

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	PACKING BUSH	BRONZE / STAINLESS STEEL
7	STEM	BRONZE / STAINLESS STEEL
8	WASHER FOR STEM	BRONZE / STAINLESS STEEL
9	BONNET BUSH	BRONZE
10	PACKING BUSH	BRONZE
11	PACKING GLAND	STEEL
12	STUD BOLT	STEEL
13	STUD BOLT	STEEL
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	STEEL
16	HEXAGON NUT	STEEL
17	LOCK PIN	STEEL
18	SPLIT PIN	BRASS
19	DISC LOCK WASHER	BRASS / STAINLESS STEEL
20	PACKING	NON ASBESTOS
21	GASKET	NON ASBESTOS

Fluid Condition & Max. Working pressure (MPa)

	Max. Working Pressure (MPa)	
Fluid Condition	JIS 10K	JIS 20K
Steam of 400°C		2.3
Steam of 350°C		2.6
Steam of 300°C	1.0	2.9
Steam up to 220°C	1.2	3.1
Air, Gas, Oil and Pulsation Water	1.2	3.1
Non-Shock Water up to 120°C	1.4	3.4

Test Pressure (MPa)

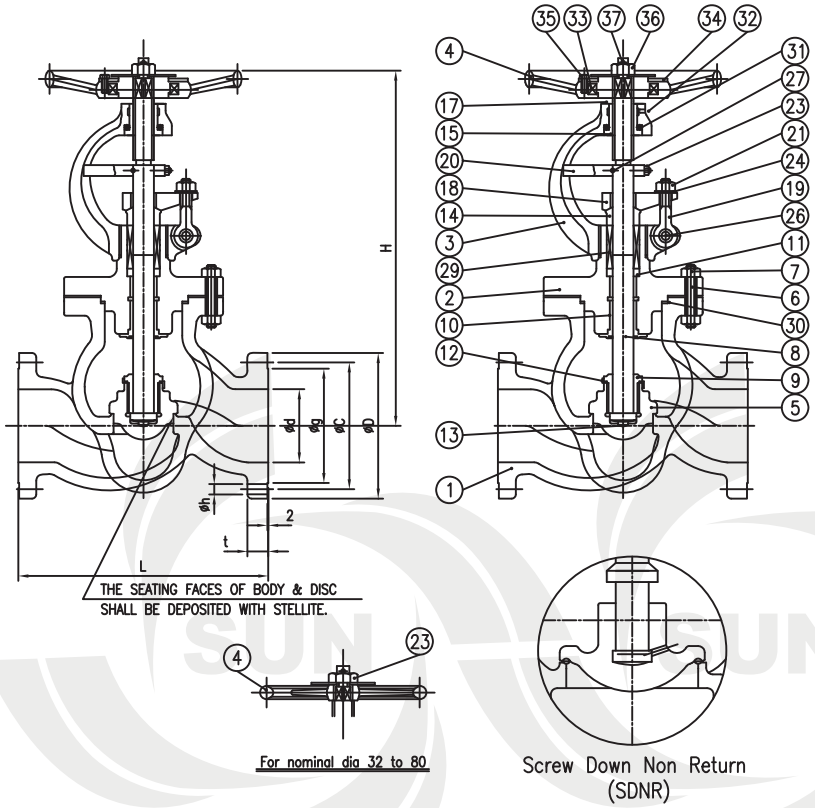
Rating	JIS 10K	JIS 20K
Hydrostatic press test (Shell)	2.1	5.1
Hydrostatic press test (Seat)	1.54	3.74

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 10K (JIS F7320) (JIS F7472)	ød	50	65	80	100	125	150	200	250	300		
	øD	155	175	185	210	250	280	330	400	445		
	øC	120	140	150	175	210	240	290	355	400		
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25		
	t	16	18	18	18	20	22	22	24	24		
	L1	120	130	140	160	180	205	230	290	320		
	H	240	260	265	300	350	400	480	535	610		
	Weight	16.3	23.0	25.3	37.0	57.1	77.2	116	188	256		
Rating	Size	32A	40A	50A	65A	80A	100A	125A	150A	200A	250A	
JIS 20K (JIS F7314) (JIS F7474) (RF)	ød	32	40	50	65	80	100	125	150	200	250	
	øD	135	140	155	175	200	225	270	305	350	430	
	øC	100	105	120	140	160	185	225	260	305	380	
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	8-25	12-25	12-25	12-27	
	t	18	18	18	20	22	24	26	28	30	34	
	L1	100	110	125	135	150	170	200	225	280	310	
	H	250	265	275	305	340	385	440	485	540	620	
	Weight	13.0	15.2	20.0	26.9	38.9	54.4	80.7	112.3	183.6	285.9	

Remark : 1. The flanges shall conform to nominal pressure 10K and 20K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 30K Globe Valves — JIS F7315
JIS 40K Globe Valves — JIS F7317
JIS 30K Globe Screw-Down Check Valves — Ref. to JIS F7315
JIS 40K Globe Screw-Down Check Valves — Ref. to JIS F7317



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	YOKE	CAST STEEL
4	HANDWHEEL	CAST IRON
5	DISC	STAINLESS STEEL
6	STUD BOLT	CARBON STEEL
7	HEXAGON NUT	CARBON STEEL
8	STEM	STAINLESS STEEL
9	PACKING BUSH	STAINLESS STEEL
10	BACK SEAT RING	STAINLESS STEEL
11	SEAT RING	STAINLESS STEEL
12	DISC LOCK WASHER	STAINLESS STEEL
13	WASHER FOR STEM	STAINLESS STEEL
14	PACKING GLAND RING	STAINLESS STEEL
15	SCREWED BUSH	BRASS
17	WASHER	BRONZE
18	PACKING GLAND	CARBON STEEL
19	HINGE BOLT	CARBON STEEL
20	STOPPER FOR STEM	CARBON STEEL
21	HEXAGON NUT	STEEL
23	HEXAGON NUT	STEEL
24	WASHER	STEEL
26	PIN	CARBON STEEL
27	TAPER PIN	CARBON STEEL
29	PACKING	NON ASBESTOS
30	GASKET	NON ASBESTOS
31	THRUST BALL BEARING	
32	GREASE NIPPLE	
33	POUNDING RECEIVER	CARBON STEEL
34	HANDWHEEL COVER	STEEL
35	HANDWHEEL COVER	STEEL
36	HEXAGON NUT	STEEL
37	SPLIT PIN	BRASS

Fluid Condition & Max. Working pressure (MPa)

	JIS 30K		JIS 40K	
Fluid Condition	Carbon steel	Molybdenum steel	Carbon steel	Molybdenum steel
Steam of 490°C	-	-	-	-
Steam of 475°C	-	-	-	4.0
Steam of 450°C	-	3.4	-	4.5
Steam of 425°C	3.0	3.6	4.0	4.8
Steam of 400°C	3.4	3.8	4.6	5.1
Steam of 350°C	3.9	3.9	5.2	5.2
Steam up to 300°C	4.3	4.3	5.7	5.7
Air, Gas, Oil and Pulsation Water	4.6	4.6	6.2	6.2

Test Pressure (MPa)

Rating	JIS 30K	JIS 40K
Hydrostatic press test (Shell)	6.9	9.3
Hydrostatic press test (Seat)	5.06	6.82

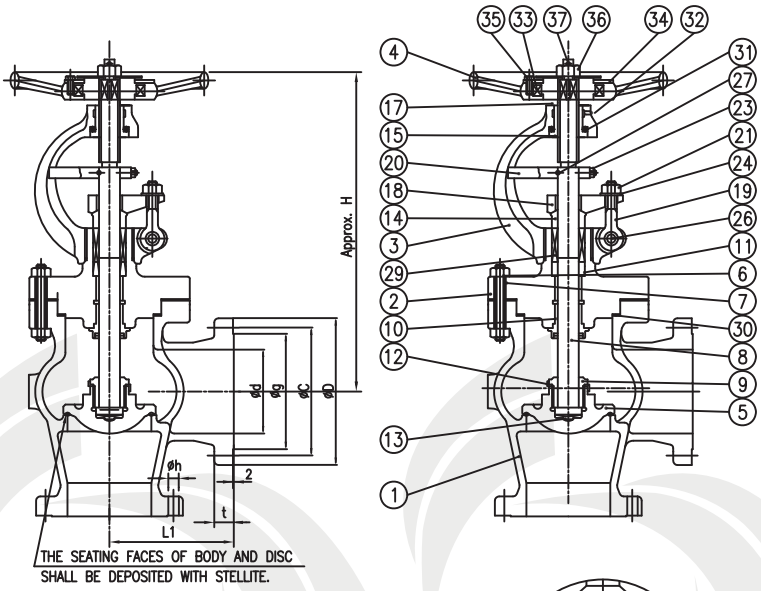
Dimension Table (Unit : mm)

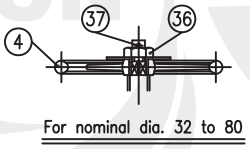
Rating	Size	32A	40A	50A	65A	80A	100A	125A	150A
JIS 30K (JIS F7315) (RF)	ød						100	125	150
	øD						240	275	325
	øC						195	230	275
	øg						160	195	235
	N–øh						8-25	8-25	12-27
	t						32	36	38
	L						410	460	500
	H						575	670	755
	Weight						115	168	242

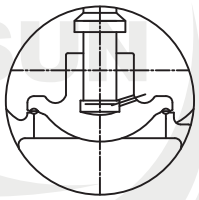
Rating	Size	32A	40A	50A	65A	80A	100A	125A	150A
JIS 40K (JIS F7317) (RF)	ød	32	38	50	62	75	100	120	145
	øD	140	160	165	200	210	250	300	355
	øC	105	120	130	160	170	205	250	295
	øg	80	90	105	130	140	165	200	240
	N–øh	4-19	4-23	8-19	8-23	8-23	8-25	8-27	12-33
	t	24	24	26	30	32	36	40	44
	L	229	241	292	330	356	432	508	559
	H	370	395	435	490	540	640	720	815
	Weight	25.4	30.2	41.0	62.3	79.0	140	197	298

Remark : 1. The flanges shall conform to nominal pressure 30K and 40K of JIS B2210.
2. The name plate shall be specified by purchaser as required.

JIS 30K Angle Valves — JIS F7316
JIS 40K Angle Valves — JIS F7318
JIS 30K Angle Screw-Down Check Valves — Ref. to JIS F7316
JIS 40K Angle Screw-Down Check Valves — Ref. to JIS F7318







Screw Down Non Return (SDNR)

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	YOKE	CAST STEEL
4	HANDWHEEL	CAST IRON
5	DISC	STAINLESS STEEL
6	STUD BOLT	CARBON STEEL
7	HEXAGON NUT	CARBON STEEL
8	STEM	STAINLESS STEEL
9	PACKING BUSH	STAINLESS STEEL
10	BACK SEAT RING	STAINLESS STEEL
11	SEAT RING	STAINLESS STEEL
12	DISC LOCK WASHER	STAINLESS STEEL
13	WASHER FOR STEM	STAINLESS STEEL
14	PACKING GLAND RING	STAINLESS STEEL
15	SCREWED BUSH	BRASS
17	WASHER	BRONZE
18	PACKING GLAND	CARBON STEEL
19	HINGE BOLT	CARBON STEEL
20	STOPPER FOR STEM	CARBON STEEL
21	HEXAGON NUT	STEEL
23	HEXAGON NUT	STEEL
24	WASHER	STEEL
26	PIN	CARBON STEEL
27	TAPER PIN	CARBON STEEL
29	PACKING	NON ASBESTOS
30	GASKET	NON ASBESTOS
31	THRUST BALL BEARING	
32	GREASE NIPPLE	
33	POUNDING RECEIVER	CARBON STEEL
34	HANDWHEEL COVER	STEEL
35	HANDWHEEL COVER	STEEL
36	HEXAGON NUT	STEEL
37	SPLIT PIN	BRASS

Fluid Condition & Max. Working pressure (MPa)

	JIS 30K		JIS 40K	
Fluid Condition	Carbon steel	Molybdenum steel	Carbon steel	Molybdenum steel
Steam of 490°C	-	-	-	-
Steam of 475°C	-	-	-	4.0
Steam of 450°C	-	3.4	-	4.5
Steam of 425°C	3.0	3.6	4.0	4.8
Steam of 400°C	3.4	3.8	4.6	5.1
Steam of 350°C	3.9	3.9	5.2	5.2
Steam up to 300°C	4.3	4.3	5.7	5.7
Air, Gas, Oil and Pulsation Water	4.6	4.6	6.2	6.2

Test Pressure (MPa)

Rating	JIS 30K	JIS 40K
Hydrostatic press test (Shell)	6.9	9.3
Hydrostatic press test (Seat)	5.06	6.82

Dimension Table (Unit : mm)

Rating	Size	32A	40A	50A	65A	80A	100A	125A	150A
JIS 30K (JIS F7316) (RF)	ød						100	125	150
	øD						240	275	325
	øC						195	230	275
	øg						160	195	235
	N–øh						8-25	8-25	12-27
	t						32	36	38
	L1						205	230	250
	H						530	615	690
	Weight						106	154	223

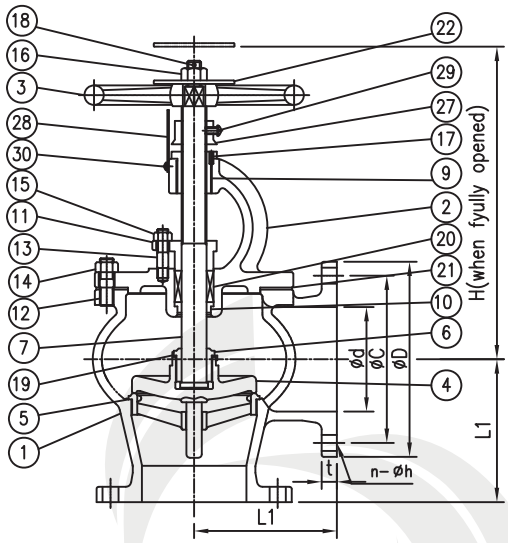
Rating	Size	32A	40A	50A	65A	80A	100A	125A	150A
JIS 40K (JIS F7318) (RF)	ød	32	38	50	62	75	100	120	145
	øD	140	160	165	200	210	250	300	355
	øC	105	120	130	160	170	205	250	295
	øg	80	90	105	130	140	165	200	240
	N–øh	4-19	4-23	8-19	8-23	8-23	8-25	8-27	12-33
	t	24	24	26	30	32	36	40	44
	L1	114	121	146	165	178	216	254	279
	H	350	370	405	455	500	590	660	740
	Weight	24.9	29.4	40.0	60.3	76.2	135	189	284

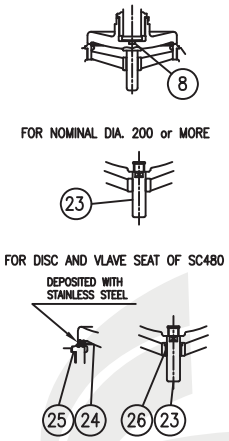
Remark : 1. The flanges shall conform to nominal pressure 30K and 40K of JIS B2210.
2. The name plate shall be specified by purchaser as required.

JIS 10K Hull Angle Valves

JIS F7350

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends





NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	DISC NUT	BRONZE / STAINLESS STEEL
7	STEM	BRONZE / STAINLESS STEEL
8	WASHER FOR STEM	STAINLESS STEEL
9	BONNET BUSH	BRONZE
10	SEAT RING	BRONZE / STAINLESS STEEL
11	PACKING GLAND	BRONZE
12	STUD BOLT	STEEL
13	STUD BOLT	BRASS
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	BRASS
16	HEXAGON NUT	STEEL
17	LOCK PIN	STEEL
18	SPLIT PIN	BRASS
19	DISC LOCK WASHER	BRASS / STAINLESS STEEL
20	PACKING	NON ASBESTOS
21	GASKET	NON ASBESTOS
22	WASHER	STEEL
23	DISC GUIDE	STAINLESS STEEL
24	DISC	CAST STEEL
25	VALVE SEAT	CAST STEEL
26	GUIDE BUSH	STAINLESS STEEL
27	INDICATOR PIECE	BRASS
28	INDICATOR PLATE	BRASS
29	MACHINE SCREW	BRASS
30	MACHINE SCREW	BRASS

Fluid Condition & Max. Working pressure (MPa)

Fluid condition	Max. Working Pressure (MPa)			
	Nominal dia. up to 200		Nominal dia. 200 & 300	
	Class B	Class S	Class B	Class S
Sea water and bilge	1.0		0.7	1.0

Test Pressure (MPa)

Nominal dia.	Up to 200	200 & 300
Hydrostatic press test (Shell)	1.5	1.5
Hydrostatic press test (Seat)	1.1	1.1

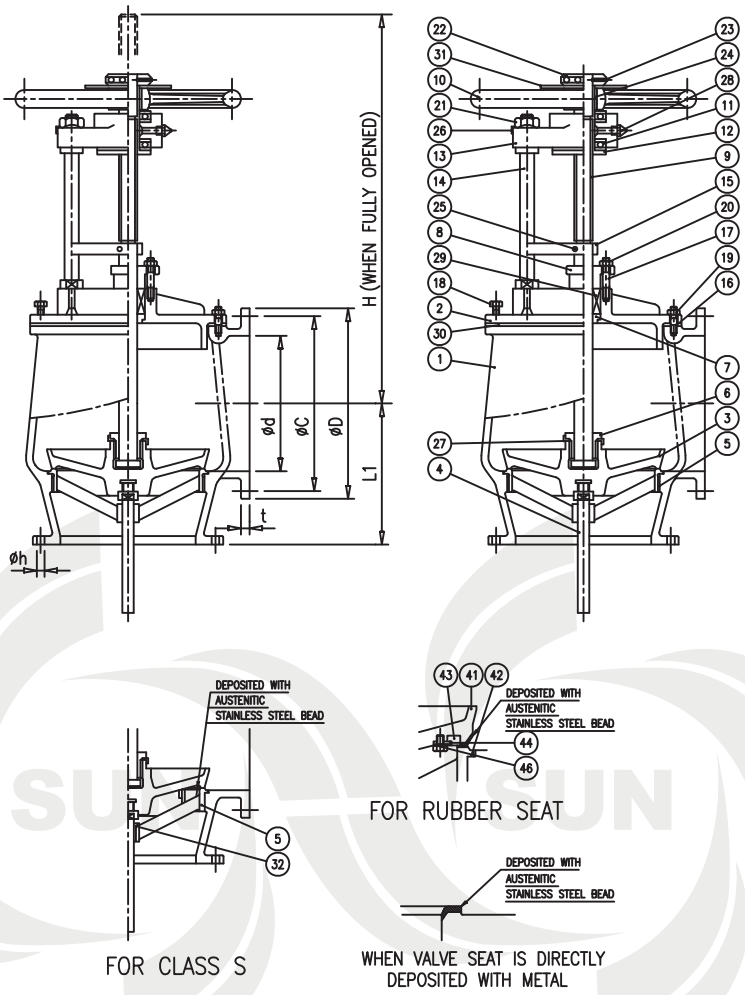
Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A
JIS 5K (JIS F7350)	ød	50	65	80	100	125	150	200	250	300
	øD	130	155	180	200	235	265	320	385	430
	øC	105	130	145	165	200	230	280	345	390
	N-øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23
	t	16	18	18	18	20	22	22	24	24
	L1	120	130	140	160	180	205	230	290	320
	H	265	290	300	340	400	455	555	625	720
	Weight	16.5	23.3	25.5	37.3	57.7	78	117	190	258
Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A
JIS 10K (JIS F7350)	ød	50	65	80	100	125	150	200	250	300
	øD	155	175	185	210	250	280	330	400	445
	øC	120	140	150	175	210	240	290	355	400
	N-øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25
	t	16	18	18	18	20	22	22	24	24
	L	120	130	140	160	180	205	230	290	320
	H	265	290	300	340	400	455	555	625	720
	Weight	16.5	23.3	25.5	37.3	57.7	78	117	190	258

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 10K Hull Angle Valves

JIS F7350



FOR CLASS S

FOR RUBBER SEAT

WHEN VALVE SEAT IS DIRECTLY DEPOSITED WITH METAL

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	DISC GUIDE	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / CAST STEEL
6	DISC NUT	BRONZE / STAINLESS STEEL
7	BONNET BUSH	BRONZE / STAINLESS STEEL
8	PACKING GLAND	BRONZE
9	STEM	BRASS / STAINLESS STEEL
10	HANDWHEEL	CAST IRON
11	BALL VEARING	
12	SCREWED BUSH	BRONZE
13	BEARING FOR STEM	STEEL
14	PILLAR	STEEL
15	CHECK FOR STEM	STEEL
16	STUD BOLT	STEEL
17	STUD BOLT	BRASS
18	JACK BOLT	BRASS
19	HEXAGON NUT	STEEL
20	HEXAGON NUT	BRASS
21	HEXAGON NUT	BRASS
22	NUT	STEEL
23	SET SCREW	STEEL
24	KEY	FORGED STEEL
25	TAPER PIN	STAINLESS STEEL
26	LOCK WASHER	STEEL
27	DISC LOCK WASHER	BRASS / STAINLESS STEEL
28	GREASE NIPPLE	
29	PACKING	NON ASBESTOS
30	GASKET	NON ASBESTOS
31	NAME PLATE	BRASS / ALUMINUM
32	GUIDE BUSH	STAINLESS STEEL
41	DISC	CAST STEEL
42	VALVE SEAT	CAST STEEL
43	RUBBER SEAT	
44	SUPPORTING RING	STAINLESS STEEL
45	HEXAGON BOLT	STAINLESS STEEL
46	SPRING WASHER	STAINLESS STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid condition	Max. Working Pressure (MPa)		
	Nominal dia. 350 or more		
	Class B	Class S	
Sea water and bilge	0.2		

Test Pressure (MPa)

Nominal dia.	350 or more
Hydrostatic press test (Shell)	0.5
Hydrostatic press test (Seat)	0.25

Dimension Table (Unit : mm)

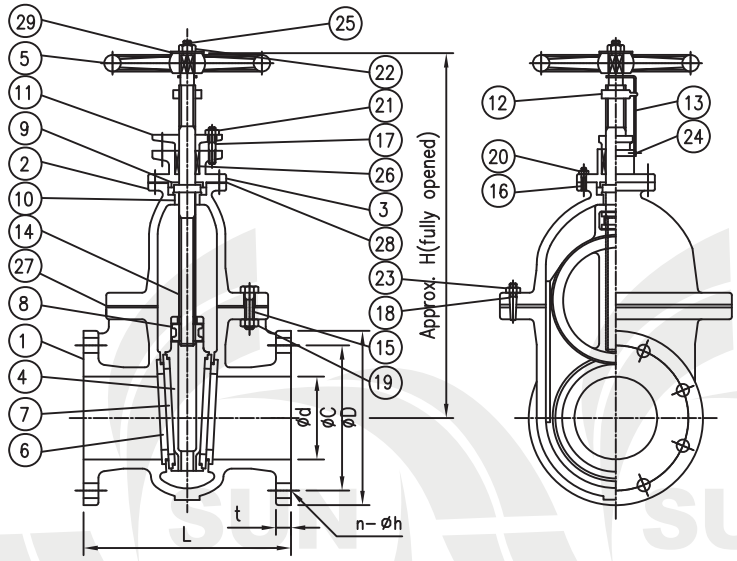
Rating	Size	350A	400A	450A	500A	550A	600A	650A	700A	750A	800A
JIS 5K (JIS F7350)	ød	335	380	430	480	530	580	630	680	730	780
	øD	480	540	605	655	720	770	825	875	945	995
	øC	435	495	555	605	665	715	770	820	880	930
	N–øh	12-25	16-25	16-25	20-25	20-27	20-27	24-27	24-27	24-33	24-33
	t	26	28	30	30	32	32	34	34	36	36
	L1	360	400	450	500	550	610	660	710	760	810
	H	1010	1130	1250	1380	1505	1630	1765	1890	2005	2115
	Weight	376	490	632	839	1060	1270	1590	1930	2300	2720
Rating	Size	350A	400A	450A	500A	550A	600A	650A	700A	750A	800A
JIS 10K (JIS F7350)	ød	335	380	430	480	530	580	630	680	730	780
	øD	490	560	620	675	745	795	845	905	970	1020
	øC	445	510	565	620	680	730	780	840	900	950
	N–øh	16-25	16-27	20-27	20-27	20-33	24-33	24-33	24-33	24-33	28-33
	t	26	28	30	30	32	32	34	34	36	36
	L1	360	400	450	500	550	610	660	710	760	810
	H	1010	1130	1250	1380	1505	1630	1765	1890	2005	2115
	Weight	376	490	632	839	1060	1270	1590	1930	2300	2720

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 10K Hull Gate Valves
JIS 10K Gate Valves

JIS F7360
JIS F7366

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	STUFFING BOX	CAST STEEL
4	DISC	CAST STEEL
5	HANDWHEEL	CAST IRON
6	VALVE SEAT OF BODY	BRONZE / STAINLESS STEEL
7	VALVE SEAT OF DISC	BRONZE / STAINLESS STEEL
8	SCREWED PIECE	BRONZE / STAINLESS STEEL
9	GUIDE BUSH	BRONZE / STAINLESS STEEL
10	GUIDE BUSH	BRONZE / STAINLESS STEEL
11	PACKING GLAND	BRONZE
12	INDICATOR	BRASS
13	INDICATOR PLATE	BRASS
14	STEM	BRASS / STAINLESS STEEL
15	STUD BOLT	STEEL
16	STUD BOLT	STEEL
17	STUD BOLT	STEEL
18	TAPER PIN WITH THREAD	STAINLESS STEEL
19	HEXAGON NUT	STEEL
20	HEXAGON NUT	STEEL
21	HEXAGON NUT	STEEL
22	HEXAGON NUT	STEEL
23	HEXAGON NUT	STEEL
24	MACHINE SCREW	STEEL
25	SPLIT PIN	BRASS
26	PACKING	NON ASBESTOS
27	GASKET	NON ASBESTOS
28	GASKET	NON ASBESTOS
29	WASHER	STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition	Max. Working Pressure (MPa)					
	JIS 10K (JIS F7360)				JIS 10K (JIS F7366)	
	Up to 400A		450 to 500A		Up to 200A	250 to 400A
	Class B	Class S	Class B	Class S		
Sea water and bilge	1.0		0.2			
Saturated Steam					0.7	0.5
Oil and Pulsation Water					1.0	
Non-Shock Water up to 120℃					1.4	

Test Pressure (MPa)

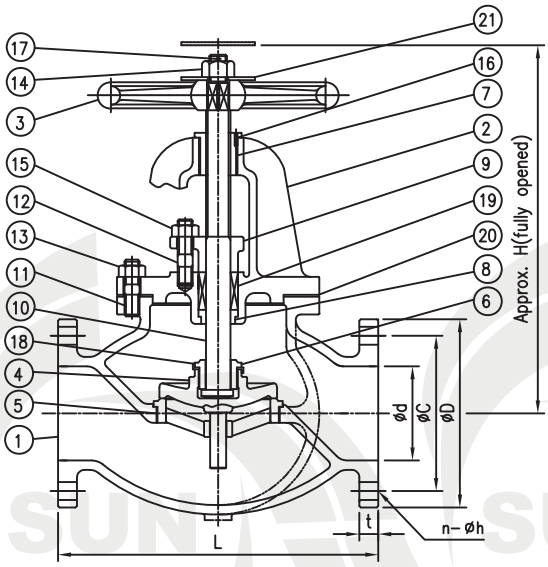
Rating	JIS 10K (JIS F7360)		JIS 10K (JIS F7366)	
Size	Up to 400A	450A to 500A	Up to 250A	300A to 400A
Hydrostatic press test (Shell)	1.5	0.5	2.1	1.8
Hydrostatic press test (Seat)	1.1	0.25	1.54	1.32

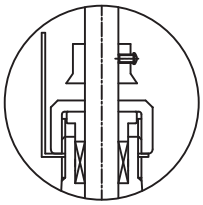
Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 10K (JIS F7360)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	155	175	185	210	250	280	330	400	445	490	560
	øC	120	140	150	175	210	240	290	355	400	445	510
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25	16-25	16-27
	t	16	18	18	18	20	22	22	24	24	26	28
	L	200	220	230	250	270	290	310	340	380	420	480
	H	300	350	400	450	520	580	700	840	960	1050	1150
	Weight	17.1	26.5	31.5	44.9	63.2	82.3	130	203	291	368	507
JIS 10K (JIS F7366)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	155	175	185	210	250	280	330	400	445	490	560
	øC	120	140	150	175	210	240	290	355	400	445	510
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	12-25	16-25	16-25	16-27
	t	16	18	18	18	20	22	22	24	24	26	28
	L	200	220	230	250	270	290	310	340	380	420	480
	H	300	350	400	450	520	580	700	840	960	1050	1150
	Weight	17.1	26.5	31.5	44.9	63.2	82.3	130	203	291	368	507

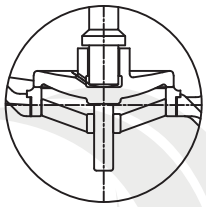
Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K Globe Valves — Ref. to JIS F7305
JIS 16K Globe Valves — Ref. to JIS F7309
JIS 5K Globe Screw-Down Check Valves — Ref. to JIS F7353
JIS 16K Globe Screw-Down Check Valves — Ref. to JIS F7377





Indicator



Screw Down Non Return (SDNR)

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	DISC NUT	BRONZE / STAINLESS STEEL
7	SCREW BONNET BUSH	BRONZE / STAINLESS STEEL
8	BONNET BUSH	BRONZE / STAINLESS STEEL
9	PACKING GLAND	BRONZE
10	STEM	BRASS / STAINLESS STEEL
11	STUD BOLT	STEEL
12	STUD BOLT	STEEL
13	HEXAGON NUT	STEEL
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	STEEL
16	LOCK PIN	STEEL
17	SPLIT PIN	BRASS
18	DISC LOCK WASHER	BRASS
19	PACKING	NON ASBESTOS
20	GASKET	NON ASBESTOS
21	WASHER	STEEL

Test Pressure (MPa)

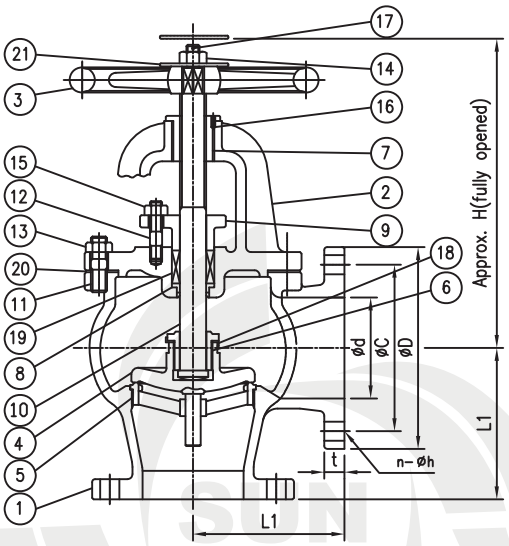
Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 300A	350A to 400A	Up to 200A	Over 250A	50A~200A
	Globe / Globe check(SDNR)				
Hydrostatic press test (Shell)	1.05	0.9	2.1	1.5	3.3
Hydrostatic press test (Seat)	0.77	0.66	1.54	1.1	2.42

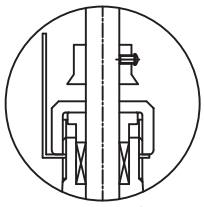
Dimension Table (Unit : mm)

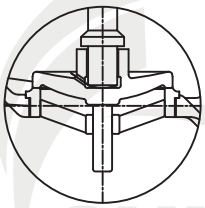
Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7305) (JIS F7353)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	16	18	18	20	20	22	24	26	28	30	30
	L	210	250	280	340	410	480	570	740	840	940	1050
	H	270	300	310	56.9	390	445	530	650	740	840	940
	Weight	15.93	23.07	30	44.19	62.39	86.97	150.54	266.42	408.3	500.35	700.7
JIS 16K (JIS F7309) (JIS F7377)	ød	50	65	80	100	125	150	200				
	øD	155	175	200	225	270	305	350				
	øC	120	140	160	185	225	260	305				
	N–øh	8-19	8-19	8-23	8-23	8-25	12-25	12-25				
	t	20	22	24	26	26	28	30				
	L	220	270	300	350	430	500	570				
	H	285	310	340	385	455	510	630				
	Weight	21.23	30.65	43.75	61.63	96.93	133.21	203.60				

Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K Angle Valves — Ref. to JIS F7306
JIS 16K Angle Valves — Ref. to JIS F7310
JIS 5K Angle Screw-Down Check Valves — Ref. to JIS F7354
JIS 16K Angle Screw-Down Check Valves — Ref. to JIS F7378




Indicator


Screw Down Non Return (SDNR)

Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	BRONZE / STAINLESS STEEL
5	VALVE SEAT	BRONZE / STAINLESS STEEL
6	DISC NUT	BRONZE / STAINLESS STEEL
7	SCREW BONNET BUSH	BRONZE / STAINLESS STEEL
8	BONNET BUSH	BRONZE / STAINLESS STEEL
9	PACKING GLAND	BRONZE
10	STEM	BRASS / STAINLESS STEEL
11	STUD BOLT	STEEL
12	STUD BOLT	STEEL
13	HEXAGON NUT	STEEL
14	HEXAGON NUT	STEEL
15	HEXAGON NUT	STEEL
16	LOCK PIN	STEEL
17	SPLIT PIN	BRASS
18	DISC LOCK WASHER	BRASS
19	PACKING	NON ASBESTOS
20	GASKET	NON ASBESTOS
21	WASHER	STEEL

Test Pressure (MPa)

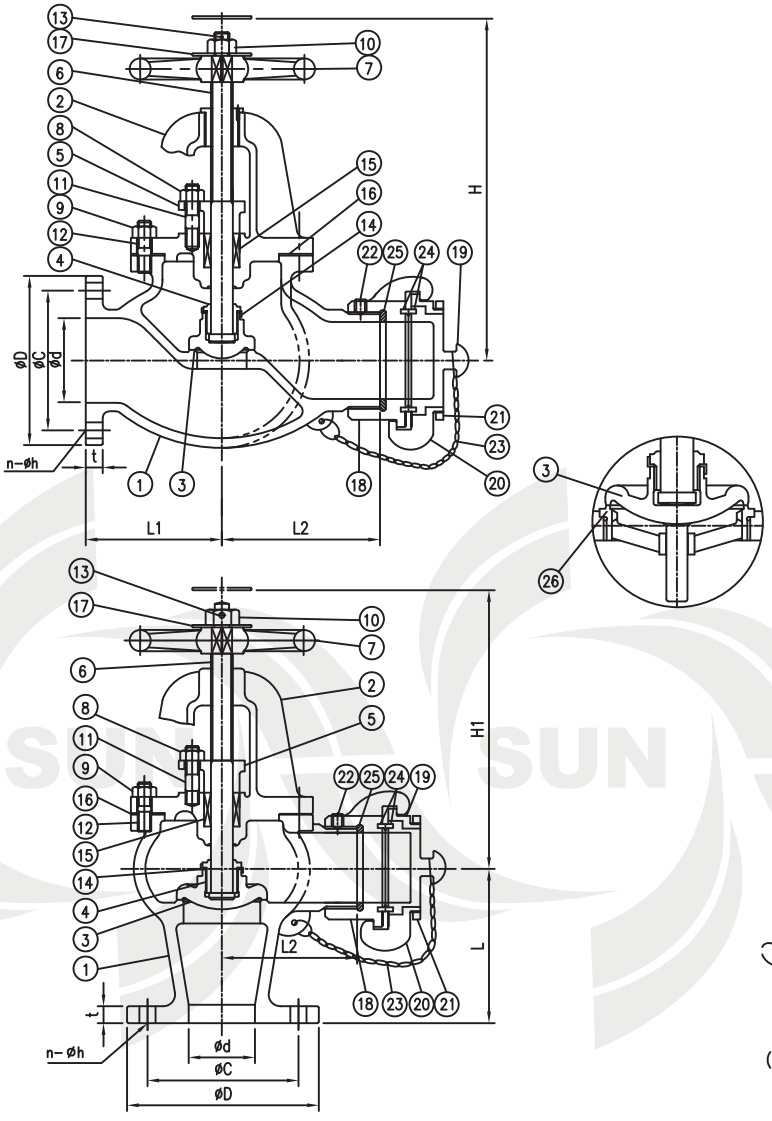
Rating	JIS 5K		JIS 10K		JIS 16K
Size	Up to 300A	350A to 400A	Up to 200A	Over 250A	50A~200A
	Globe / Globe check(SDNR)				
Hydrostatic press test (Shell)	1.05	0.9	2.1	1.5	3.3
Hydrostatic press test (Seat)	0.77	0.66	1.54	1.1	2.42

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
JIS 5K (JIS F7306) (JIS F7354)	ød	50	65	80	100	125	150	200	250	300	335	380
	øD	130	155	180	200	235	265	320	385	430	480	540
	øC	105	130	145	165	200	230	280	345	390	435	495
	N-øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23	12-23	12-25	16-25
	t	16	18	18	20	20	22	24	26	28	30	30
	L1	100	115	130	150	170	190	220	275	310	360	395
	H	240	255	265	310	330	380	450	540	610	690	770
	Weight	13.98	19.72	25.35	36.5	50.04	68.67	113.72	179.78	263.17	354.15	497.1
JIS 16K (JIS F7310) (JIS F7378)	ød	50	65	80	100	125	150	200				
	øD	155	175	200	225	270	305	350				
	øC	120	140	160	185	225	260	305				
	N-øh	8-19	8-19	8-23	8-23	8-25	12-25	12-25				
	t	20	22	24	26	26	28	30				
	L1	120	130	150	170	200	225	250				
	H	255	270	295	330	390	435	540				
	Weight	19.5	27.08	38.67	53.29	82.42	111.55	167.87				

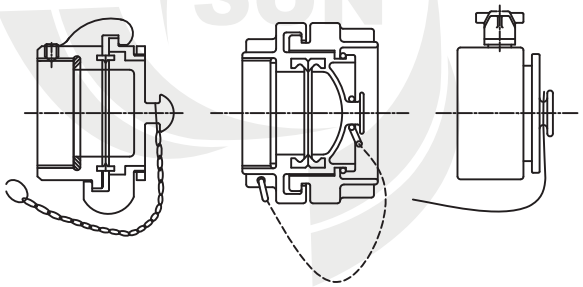
Remark : 1. The flanges shall conform to nominal pressure 5K, 10K and 16K of JIS B2210
2. The name plate shall be specified by purchaser as required.

JIS 5K/10K Hose Globe Valves — Ref. to JIS F7333
JIS 5K/10K Hose Angle Valves — Ref. to JIS F7333



Bolted Bonnet Integral seat

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE
4	DISC NUT	BRONZE / BRASS
5	PACKING GLAND	BRONZE / BRASS
6	STEM	BRASS
7	HANDWHEEL	CAST IRON
8	HEXAGON NUT	STEEL
9	HEXAGON NUT	STEEL
10	HEXAGON NUT	STEEL
11	STUD BOLT	STEEL
12	STUD BOLT	STEEL
13	SPLIT PIN	BRASS
14	DISC LOCK WASHER	BRASS
15	PACKING	NON ASBESTOS
16	GASKET	NON ASBESTOS
17	WASHER	STEEL
18	BASE CONNECTION	BRONZE
19	CAP	BRONZE
20	COUPLING RING	BRONZE
21	SET RING	BRONZE
22	SET SCREW	BRASS
23	CHAIN	STAINLESS WIRE
24	GASKET	RUBBER
25	GASKET	NON ASBESTOS
26	VALVE SEAT	BRONZE



(NAKAJIMA COUPLING)
50A to 65A

(STORZ COUPLING)
40A, 50A & 65A

(AB COUPLING)
Only 65A

Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L1	L	H	H1	Weight (kg)	Weight (kg)
JIS 5K (JIS F7333)	50A	50	130	105	4-15	16	105	100	270	240	14.7	12.8
	65A	65	155	130	4-15	22	135	130	310	270	28.2	24.3
JIS 10K (JIS F7333)	50A	50	155	120	4-19	20	110	120	285	255	18.9	17.0
	65A	65	175	140	4-19	22	135	130	310	270	28.2	24.3

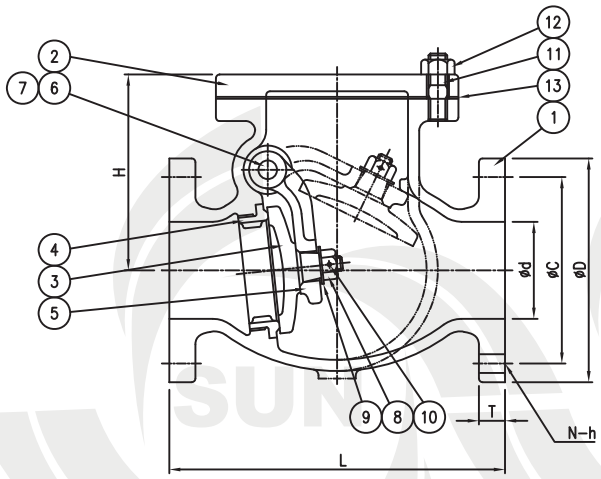
Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.

JIS 5K Swing Check Valves
JIS 10K Swing Check Valves

Ref. to JIS F7372
Ref. to JIS F7373



Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	BODY SEAT RING	BRONZE / STAINLESS STEEL
5	ARM	BRONZE
6	HINGE PIN	BRONZE
7	PLUG	BRONZE
8	DISC NUT	BRONZE
9	WASHER	BRASS
10	SPLIT PIN	BRASS
11	BONNET BOLT	STEEL
12	BONNET NUT	STEEL
13	GASKET	NON ASBESTOS

Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A	250A
JIS 5K (JIS F7372)	Ød	50	65	80	100	125	150	200	250
	ØD	130	155	180	200	235	265	320	385
	ØC	105	130	145	165	200	230	280	345
	N–Øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23	12-23
	t	16	18	18	20	20	22	24	26
	L	190	220	250	280	330	380	460	550
	H	97	119	129	146	171	198	235	290
	Weight	9.81	15.05	20.68	29.35	42.24	58.15	102.25	162.45
JIS 10K (JIS F7373)	Ød	50	65	80	100	125	150	200	
	ØD	155	175	185	210	250	280	330	
	ØC	120	140	150	175	210	240	290	
	N–Øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23	
	t	20	22	22	24	24	26	26	
	L	210	240	270	300	350	400	480	
	H	109	126	136	153	180	205	242	
	Weight	14.75	21.25	24.5	33.5	53.3	70.3	111.55	

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	1.05	2.1
Hydrostatic press test (Seat)	0.77	1.54

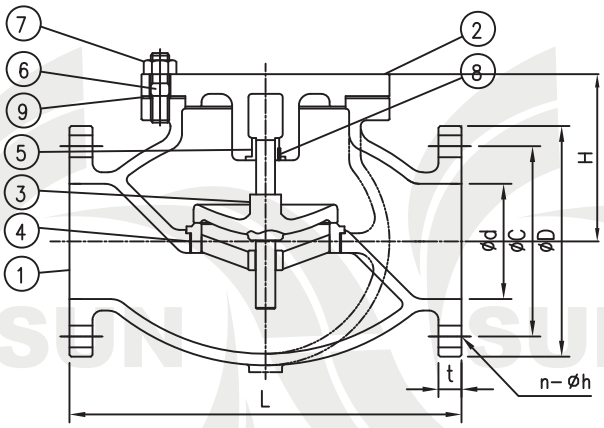
Remark : 1. The flanges shall conform to nominal pressure 5K and 10K of JIS B 2210.

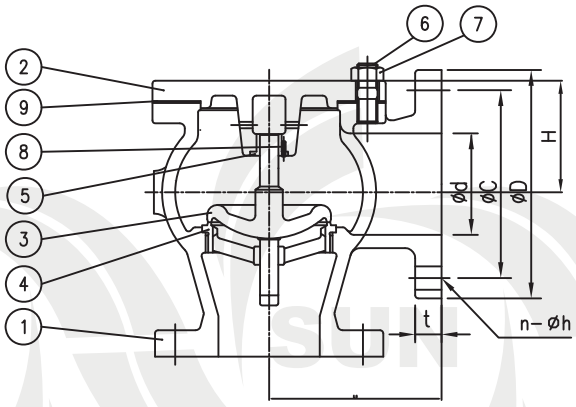
JIS 5K Lift Check Globe Valves
JIS 5K Lift Check Angle Valves

Ref. to JIS F7358
Ref. to JIS F7359

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	VALVE SEAT	BRONZE / STAINLESS STEEL
5	BUSH	BRONZE / STAINLESS STEEL
6	STUD BOLT	STEEL
7	HEXAGON NUT	STEEL
8	SET SCREW	STEEL
9	GASKET	NON ASBESTOS





Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 5K (JIS F7358)	ød	50	65	80	100	125	150	
	øD	130	155	180	200	235	265	
	øC	105	130	145	165	200	230	
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	
	t	16	18	18	20	20	22	
	L	210	250	280	340	410	480	
	H	107	124	129	146	166	188	
	Weight	12.25	18.2	25.15	35.2	52.1	73.55	
JIS 5K (JIS F7359)	ød	50	65	80	100	125	150	200
	øD	130	155	180	200	235	265	320
	øC	105	130	145	165	200	230	280
	N–øh	4-15	4-15	4-19	8-19	8-19	8-19	8-23
	t	16	18	18	20	20	22	24
	L1	100	115	130	150	170	190	220
	H	77	81	84	96	108	125	157
	Weight	10.3	14.95	20.5	27.75	39.75	55.15	102.9

Test Pressure (MPa)

Rating	JIS 5K
Hydrostatic press test (Shell)	1.05
Hydrostatic press test (Seat)	0.77

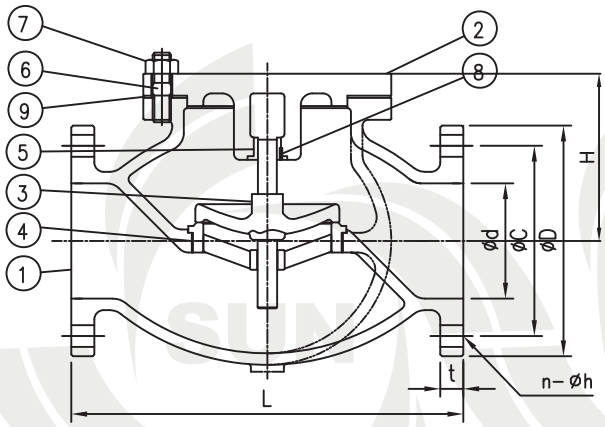
Remark : 1. The flanges shall conform to nominal pressure 5K of JIS B 2210.

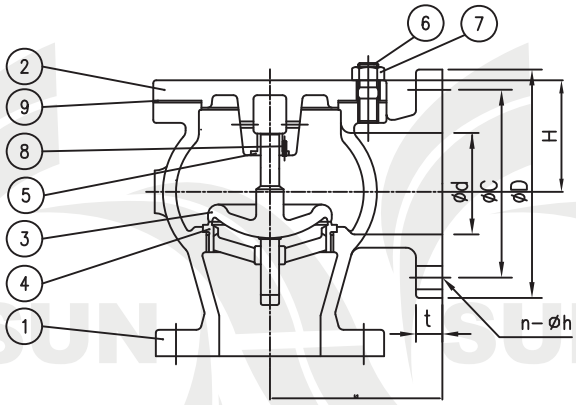
JIS 10K Lift Check Globe Valves
JIS 10K Lift Check Angle Valves

Ref. to JIS F7358
Ref. to JIS F7359

Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	VALVE SEAT	BRONZE / STAINLESS STEEL
5	BUSH	BRONZE / STAINLESS STEEL
6	STUD BOLT	STEEL
7	HEXAGON NUT	STEEL
8	SET SCREW	STEEL
9	GASKET	NON ASBESTOS





Dimension Table (Unit : mm)

Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 10K (JIS F7358)	ød	50	65	80	100	125	150	
	øD	155	175	185	210	250	280	
	øC	120	140	150	175	210	240	
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	
	t	16	18	18	18	20	22	
	L	220	270	300	350	420	490	
	H	107	124	129	146	166	188	
Rating	Size	50A	65A	80A	100A	125A	150A	200A
JIS 10K (JIS F7359)	ød	50	65	80	100	125	150	200
	øD	155	175	185	210	250	280	330
	øC	120	140	150	175	210	240	290
	N–øh	4-19	4-19	8-19	8-19	8-23	8-23	12-23
	t	16	18	18	18	20	22	22
	L1	120	130	140	160	180	205	230
	H	77	81	84	96	108	125	157

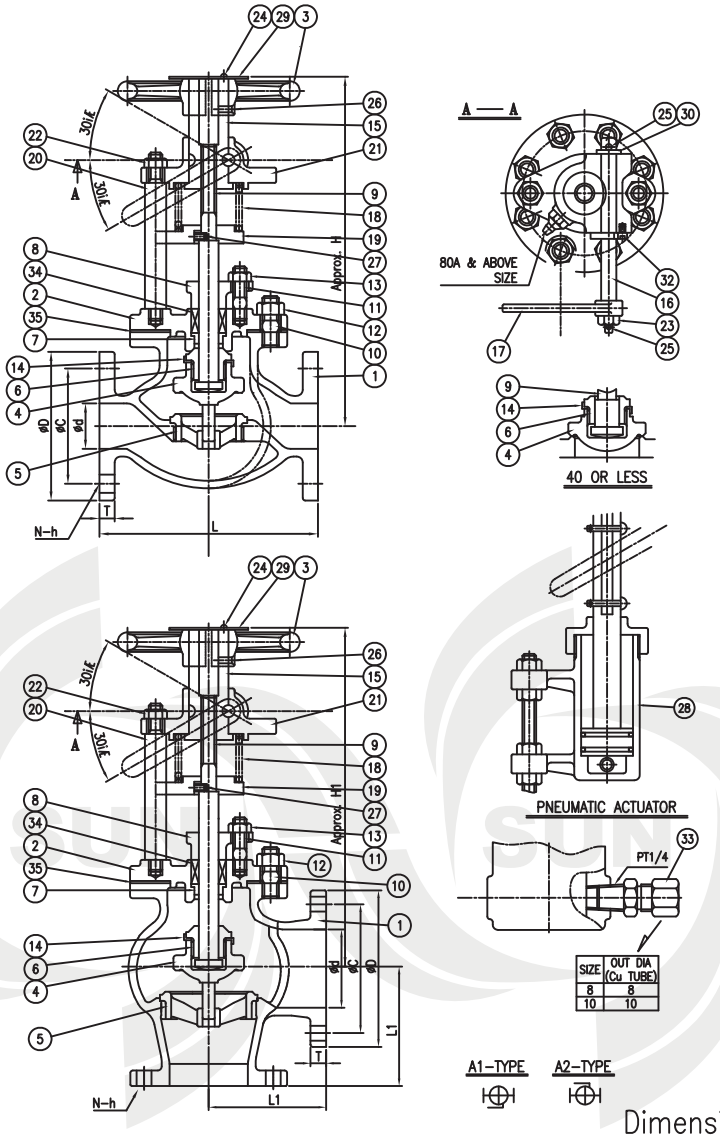
Test Pressure (MPa)

Rating	JIS 10K
Hydrostatic press test (Shell)	2.1
Hydrostatic press test (Seat)	1.54

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2210.

Fuel Oil Tank Emergency Shut-Off Valves

JIS F7399



NO.	PARTS	MATERIAL
		50A to 250A
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	STAINLESS STEEL
5	BODY SEAT RING	STAINLESS STEEL
6	DISC NUT	BRASS
7	BONNET BUSH	BRASS
8	PACKING GLAND	BRONZE
9	STEM	STAINLESS STEEL
10	BONNET BOLT	STEEL
11	PACKING BOLT	STEEL
12	BONNET NUT	STEEL
13	PACKING NUT	BRASS
14	DISC WASHER	STAINLESS STEEL
15	STEM BUSH	BRASS
16	SPINDLE	STAINLESS STEEL
17	LEVER	STEEL
18	SPRING	SUP4
19	SPRING SUPPORT	BRONZE / STEEL
20	STAY	STEEL
21	SUPPORT BUSH	BRONZE / STEEL
22	STAY NUT	STEEL
23	NUT	STEEL
24	MACHINE SCREW	BRASS
25	SPLIT PIN	BRASS
26	MACHINE SCREW	BRASS
27	LOCK PIN	STEEL
28	PNEUMATIC CYLINDER	BRONZE / BRASS
29	NAME PLATE	BRASS
30	WASHER	STEEL
32	SET SCREW	STEEL
33	NIPPLE	BRASS
34	PACKING	NON ASBESTOS
35	BONNET GASKET	NON ASBESTOS

Test Pressure (MPa)

Rating	JIS 10K
Hydrostatic press test (Shell)	0.7
Hydrostatic press test (Seat)	0.2

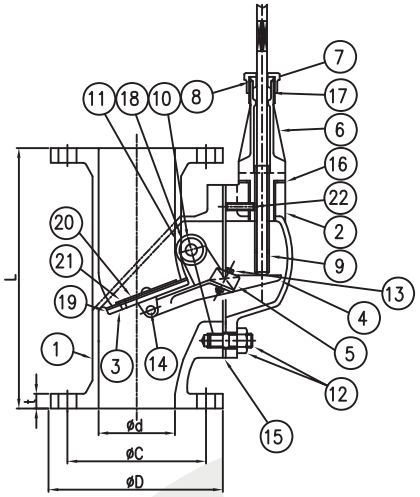
Dimension Table (Unit : mm)

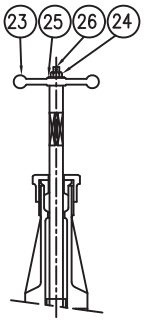
Rating	Size	ød	øD	øC	N-øh	t	L	L1	H	H1	Weight (Kg) Globe	Weight (Kg) Angle
JIS 10K (JIS F7399)	50A	50	155	120	4-19	16	220	120	335	335	20.9	20.9
	65A	65	175	140	4-19	18	270	130	395	395	30.5	30.5
	80A	80	185	150	8-19	18	300	140	420	420	35.4	35.4
	100A	100	210	175	8-19	18	350	160	510	510	55.6	55.6
	125A	125	250	210	8-23	20	420	180	570	570	8.1	8.1
	150A	150	280	240	8-23	22	490	205	660	660	12.4	12.4
	200A	200	330	290	12-23	22	570	230	780	780	8.1	8.1
	250A	250	400	355	12-25	24	740	290	860	860	8.1	8.1

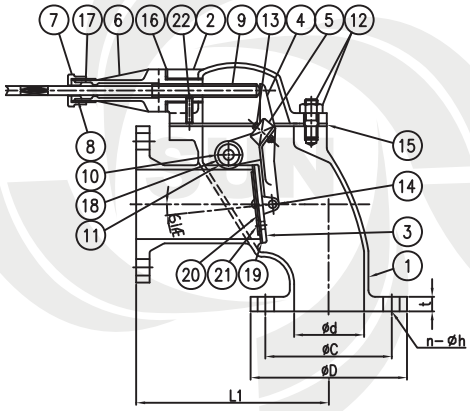
Remark : 1. The flanges of nominal diameter 40 or less shall conform to JIS B 2240 – 10K and the flanges of nominal diameter 50 or more shall conform to JIS B 2210 – 10K, however they may conform to JIS B 2240 – 5K or JIS B 2210 – 5K

JIS 5K/10K Vertical / Angle Storm Valves
JIS 5K/10K Vertical / Angle Storm Valves

JIS F3059
JIS F3060







NO.	PARTS	MATERIAL
1	BODY	CAST STEEL / BRONZE
2	COVER	CAST STEEL / BRONZE
3	VALVE PLATE	BRONZE
4	ARM	BRONZE
5	COUNTERWEIGHT	LEAD
6	SPINDLE BOX	BRONZE
7	PACKING GLAND NUT	BRONZE
8	PACKING GLAND	BRONZE
9	STEM	BRASS
10	PLUG	BRASS
11	WASHER	BRASS
12	SUTD BOLT & NUT	STEEL / STAINLESS STEEL
13	HEXAGON BOLT & NUT	STEEL / BRASS
14	HEXAGON BOLT & NUT	STEEL / BRASS
15	GASKET	NON ASBESTOS
16	GASKET	NON ASBESTOS
17	PACKING	NON ASBESTOS
18	GASKET	NON ASBESTOS
19	GASKET	OIL RESISTING RUBBER
20	SET PLATE	BRASS
21	SET SCREW	BRASS
22	SET SCREW	BRASS
23	HANDLE	CAST IRON
24	HEXAGON NUT	STEEL / BRASS
25	WASHER	STEEL / BRASS
26	SPLIT PIN	BRASS

Dimension Table (Unit : mm)

Rating	SIZE	ød	FLANGE JIS 5K FF				L	L1
			øD	øC	n-øh	t		
JIS 5K	50A	50	130	105	4-15	14	210	170
	65A	65	155	130	4-15	14	240	200
	80A	80	180	145	4-19	14	260	220
	100A	100	200	165	8-19	16	280	250
	125A	125	235	200	8-19	16	330	270
	150A	150	265	230	8-19	18	360	310
Rating	SIZE	ød	FLANGE JIS 10K FF				L	L1
			øD	øC	n-øh	t		
JIS 10K	50A	50	155	120	4-19	14	210	170
	65A	65	175	140	4-19	14	240	200
	80A	80	185	150	8-19	14	260	220
	100A	100	210	175	8-19	16	280	250
	125A	125	250	210	8-23	16	330	270
	150A	150	280	240	8-23	18	360	310

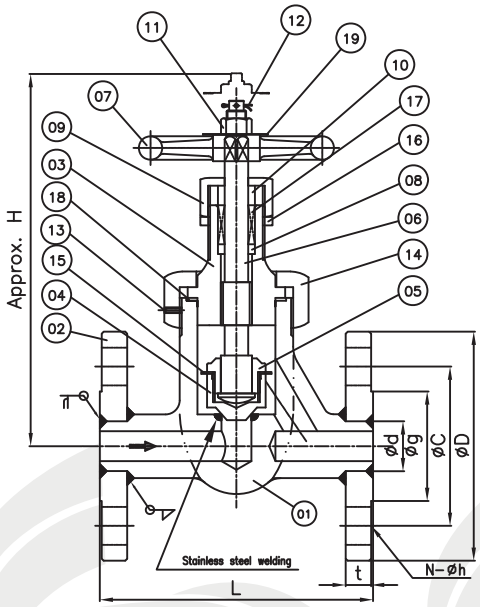
Test Pressure (MPa)

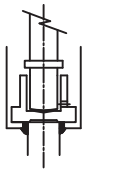
Rating	JIS 5K	JIS 10K
Hydrostatic press test (Shell)	0.51	0.51

Remark : 1. The flanges shall conform to nominal pressure 5K and 10K.

JIS 40K Globe Valves
JIS 40K Globe Screw-Down Check Valves

JIS F7329
JIS F7329

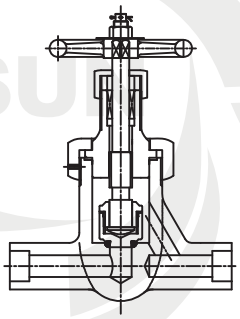




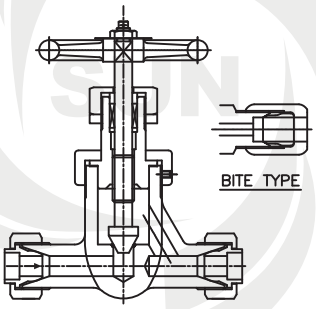
S.D.N.R TYPE

Union Bonnet Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	FORGED STEEL
2	FLANGE	MILD STEEL
3	BONNET	FORGED STEEL
4	DISC	STAINLESS STEEL
5	DISC NUT	STAINLESS STEEL
6	STEM	STAINLESS STEEL
7	HANDWHEEL	CAST IRON
8	PACKING BUSH	BRASS
9	GLAND NUT	BRASS
10	GLAND	BRASS
11	HEXAGON NUT	BRASS
12	SPRIT PIN	BRASS
13	LOCKING BOLT	STEEL
14	BONNET NUT	FORGED STEEL
15	DISC LOCK WASHER	STAINLESS STEEL
16	LOCK NUT	BRASS
17	PACKING	GRAPHITE
18	GASKET	BRASS
19	NAME PLATE	BRASS



< W Type >



< U Type >

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition	Max. Working Pressure (MPa)
	JIS 40K
Steam of 425°C	4.0
Steam of 400°C	4.6
Steam of 350°C	5.2
Steam up to 300°C	5.7
Air, Gas, Oil and Pulsation Water	6.2

Test Pressure (MPa)

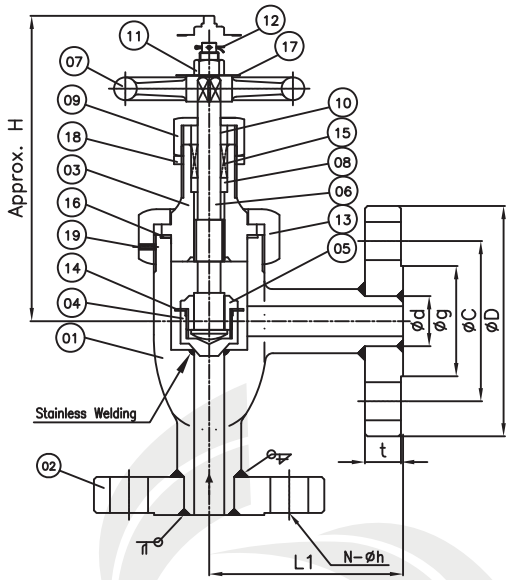
Rating	JIS 40K
Hydrostatic press test (Shell)	9.3
Hydrostatic press test (Seat)	6.82

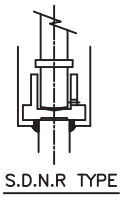
Dimension Table (Unit : mm)

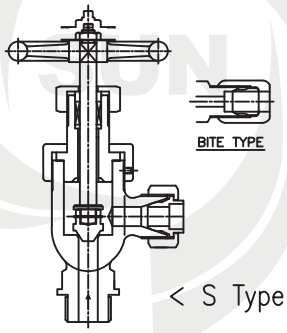
Rating	Size	ød	øD	øC	N-øh	t	L	H	Weight (kg)
JIS 40K (JIS F7329)	15A	15	115	80	4-19	20	150	188	5.2
	20A	20	120	85	4-19	20	170	188	6.8
	25A	25	130	95	4-19	22	200	230	8.9

Remark : 1. The flanges shall conform to nominal pressure 40K of JIS B2210.
2. The name plate shall be specified by purchaser as required.

JIS 40K Angle Valves — JIS F7330
JIS 40K Angle Screw-Down Check Valves — JIS F7330







< S Type >

Union Bonnet Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	FORGED STEEL
2	FLANGE	MILD STEEL
3	BONNET	FORGED STEEL
4	DISC	STAINLESS STEEL
5	DISC NUT	STAINLESS STEEL
6	STEM	STAINLESS STEEL
7	HANDWHEEL	CAST IRON
8	PACKING BUSH	BRASS
9	GLAND NUT	BRASS
10	GLAND	BRASS
11	HEXAGON NUT	BRASS
12	SPRIT PIN	BRASS
13	BONNET NUT	FORGED STEEL
14	DISC LOCK WASHER	STAINLESS STEEL
15	PACKING	GRAPHITE
16	GASKET	BRASS
17	NAME PLATE	ALUMINUM
18	LOCK NUT	BRASS
19	LOCK BOLT	STEEL

Fluid Condition & Max. Working pressure (MPa)

Fluid Condition	Max. Working Pressure (MPa)
	JIS 40K
Steam of 425°C	4.0
Steam of 400°C	4.6
Steam of 350°C	5.2
Steam up to 300°C	5.7
Air, Gas, Oil and Pulsation Water	6.2

Test Pressure (MPa)

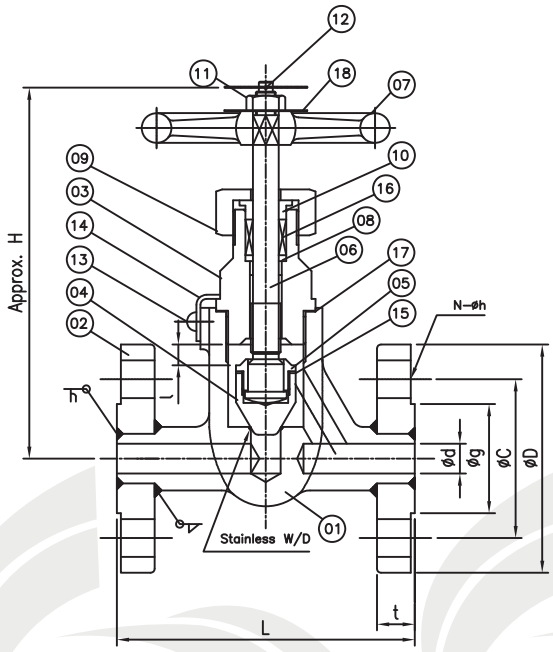
Rating	JIS 40K
Hydrostatic press test (Shell)	9.3
Hydrostatic press test (Seat)	6.82

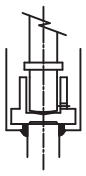
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L1	H	Weight (kg)
JIS 40K (JIS F7330)	15A	15	115	80	4-19	20	90	163	5.2
	20A	20	120	85	4-19	20	95	163	6.6
	25A	25	130	95	4-19	22	100	193	8.5

Remark : 1. The flanges shall conform to nominal pressure 40K of JIS B2210.
2. The name plate shall be specified by purchaser as required.

JIS 30K Globe Air Valves — JIS F7336
JIS 30K Globe Screw-Down Check Air Valves — JIS F7336

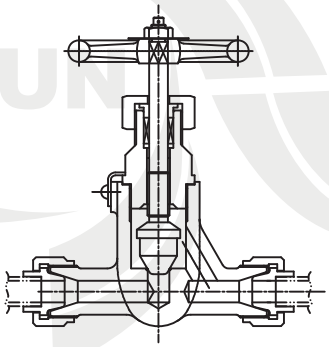




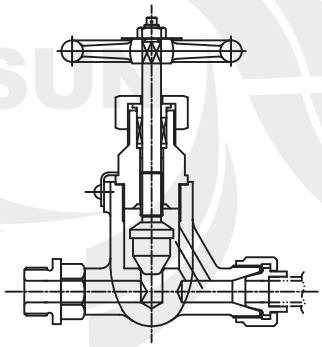
S.D.N.R TYPE

Screwed Bonnet Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	FORGED STEEL
2	FLANGE	MILD STEEL
3	BONNET	FORGED STEEL
4	DISC	BRASS
5	VALVE DISC NUT	BRASS
6	STEM	BRASS
7	HANDWHEEL	CAST IRON
8	SEAT RING	BRASS
9	GLAND NUT	BRASS
10	GLAND	BRASS
11	HEXAGON NUT	BRASS
12	SPRIT PIN	BRASS
13	SCREW	STEEL
14	BONNET LOCK PLATE	STAINLESS STEEL
15	DISC LOCK WASHER	BRASS
16	PACKING	GRAPHITE
17	GASKET	BRASS
18	NAME PLATE	ALUMINUM



< U Type >



< S Type >

Test Pressure (MPa)

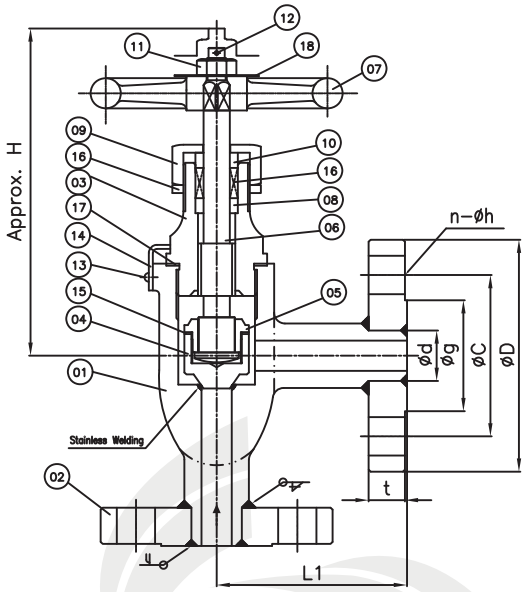
Rating	JIS 30K
Hydrostatic press test (Shell)	6.9
Hydrostatic press test (Seat)	5.06

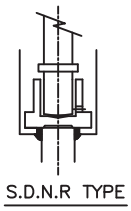
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N–øh	t	L	H	Weight (kg)
JIS 30K (JIS F7336)	15A	15	115	80	4-19	18	150	200	5.6
	20A	20	120	85	4-19	18	170	220	7.1
	25A	25	130	95	4-19	20	200	250	9.5

Remark : 1. The flanges shall conform to nominal pressure 30K of JIS B2210.
2. The name plate shall be specified by purchaser as required.

JIS 30K Angle Air Valves — JIS F7337
JIS 30K Angle Screw-Down Check Air Valves — JIS F7337





Screwed Bonnet Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	FORGED STEEL
2	FLANGE	MILD STEEL
3	BONNET	FORGED STEEL
4	DISC	BRASS
5	VALVE DISC NUT	BRASS
6	STEM	BRASS
7	HANDWHEEL	CAST IRON
8	SEAT RING	BRASS
9	GLAND NUT	BRASS
10	GLAND	BRASS
11	HEXAGON NUT	BRASS
12	SPRIT PIN	BRASS
13	SCREW	STEEL
14	BONNET LOCK PLATE	STAINLESS STEEL
15	DISC LOCK WASHER	BRASS
16	PACKING	GRAPHITE
17	GASKET	BRASS
18	NAME PLATE	ALUMINUM

Test Pressure (MPa)

Rating	JIS 30K
Hydrostatic press test (Shell)	6.9
Hydrostatic press test (Seat)	5.06

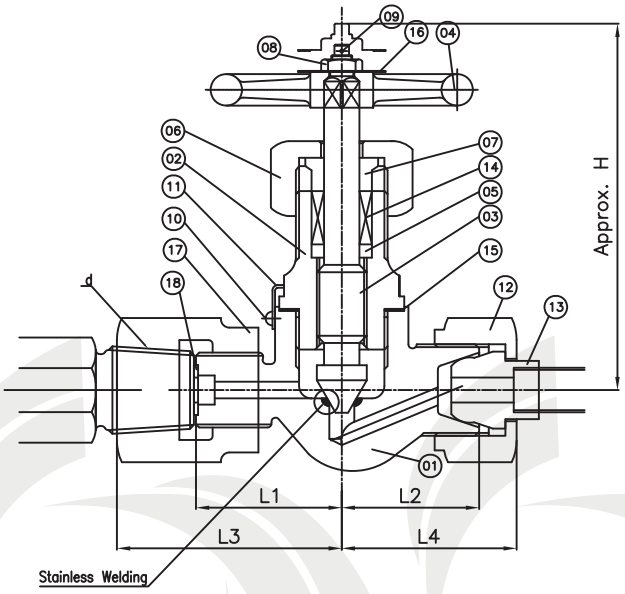
Dimension Table (Unit : mm)

Rating	Size	ød	øD	øC	N-øh	t	L1	H	Weight (kg)
JIS 30K (JIS F7337)	15A	15	115	80	4-19	18	90	170	5.6
	20A	20	120	85	4-19	18	95	170	7.1
	25A	25	130	95	4-19	20	100	200	9.2

Remark : 1. The flanges shall conform to nominal pressure 30K of JIS B2210.
2. The name plate shall be specified by purchaser as required.

JIS 100K Pressure Gauge Valves

JIS F7341



Union Bonnet Rising Stem

NO.	PARTS	MATERIAL
1	BODY	FORGED STEEL
2	BONNET	BRASS
3	STEM	STAINLESS STEEL
4	HANDWHEEL	CAST IRON
5	PACKING BUSH	BRASS
6	GLAND NUT	BRASS
7	GLAND	BRASS
8	HEXAGON NUT	BRASS
9	SPRIT PIN	BRASS
10	LOCKING BOLT	STAINLESS STEEL
11	BONNET LOCK PLATE	STAINLESS STEEL
12	UNION NUT	BRASS
13	NIPPLE	BRASS
14	PACKING	GRAPHITE
15	GASKET	BRASS
16	NAME PLATE	BRASS / ALUMINUM
17	UNION NUT	BRASS
18	GASKET	BRASS

Test Pressure (MPa)

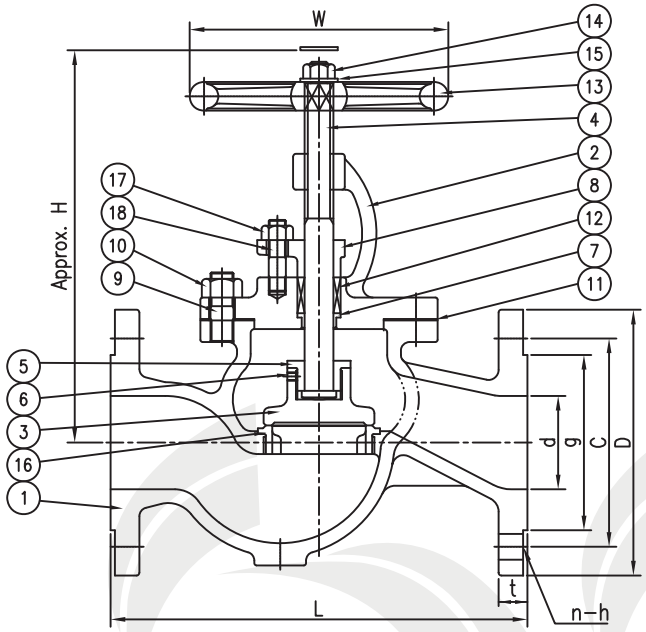
Rating	JIS 100K
Hydrostatic press test (Shell)	15.0
Hydrostatic press test (Seat)	11.0

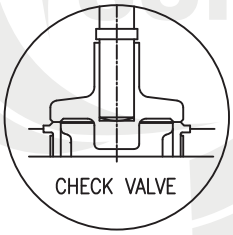
Dimension Table (Unit : mm)

Rating	Size	Pipe out dia.		Dimension d	L1	L2	L3	L4	H	Weight (kg)
JIS 100K (JIS F7341)	3/8	Copper	8	PF 3/8"	35	33	54	42	88	0.68
			10							
		Steel	10.5							
	1/2	Copper	8	PF 1/2"	35	33	54	42	88	0.71
			10							
		Steel	10.5							

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6/10/16 Globe Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	DISC NUT	BRONZE / STAINLESS STEEL
6	SET SCREW	STEEL
7	PACKING RING	BRASS / STAINLESS STEEL
8	PACKING GLAND	BRASS / STAINLESS STEEL
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	STEEL
15	WASHER	STEEL
16	SEAT RING	BRONZE / STAINLESS STEEL
17	NUT	STEEL
18	BOLT	STEEL

Test Pressure (Bar)

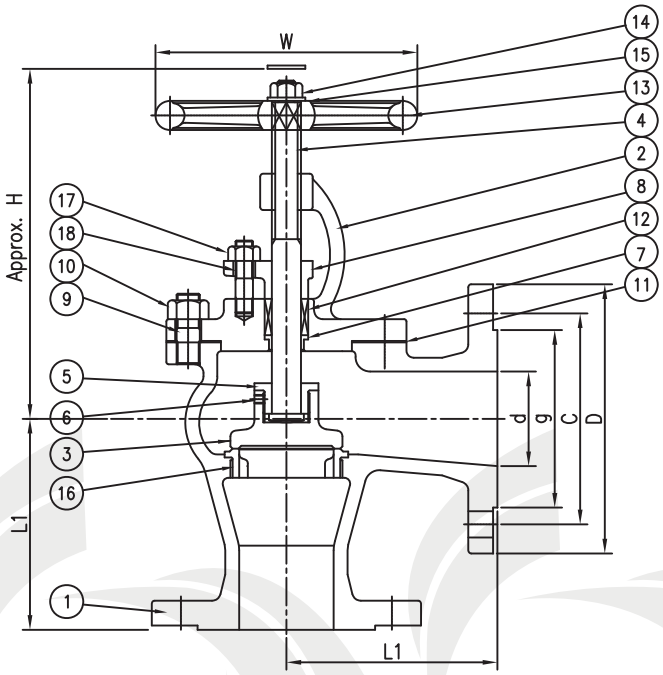
Rating	PN 16	PN 10	PN 6
Size	15A to 175A	200A to 300A	350A to 500A
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

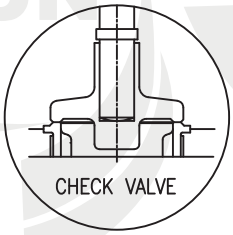
Dimension Table (Unit : mm)

Rating	Size	d	L	H	W	FLANGE					Weight (kg)
						D	C	g	t	n–h	
PN 16 (DIN 2533)	15	15	130	220	100	95	65	45	14	4-14	4.5
	20	20	150	225	100	105	75	58	16	4-14	5.5
	25	25	160	235	100	115	85	68	16	4-14	8.5
	32	32	180	240	125	140	100	78	18	4-18	9
	40	40	200	275	160	150	110	88	18	4-18	12.5
	50	50	230	280	160	165	125	102	20	4-18	15.5
	65	65	290	310	180	185	145	122	20	4-18	22
	80	80	310	345	180	200	160	138	22	8-18	27.5
	100	100	350	380	200	220	180	158	24	8-18	38.5
	125	125	400	420	200	250	210	188	26	8-18	60
	150	150	480	470	250	285	240	212	26	8-22	83
	175	175	550	500	250	315	270	242	28	8-22	100
PN 10 (DIN 2532)	200	200	600	580	315	340	295	268	26	8-22	127
	250	250	730	690	315	395	350	320	28	12-22	255
	300	300	850	800	315	445	400	370	28	12-22	355
PN 6 (DIN 2531)	350	350	980	910	400	490	445	415	26	12-22	560
	400	400	1100	1070	500	540	495	465	28	16-22	650
	450	450	1200	1165	500	595	550	520	28	16-22	980
	500	500	1350	1350	560	645	600	570	30	20-22	1210

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6/10/16 Angle Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	DISC NUT	BRONZE / STAINLESS STEEL
6	SET SCREW	STEEL
7	PACKING RING	BRASS / STAINLESS STEEL
8	PACKING GLAND	BRASS / STAINLESS STEEL
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	STEEL
15	WASHER	STEEL
16	SEAT RING	BRONZE / STAINLESS STEEL
17	NUT	STEEL
18	BOLT	STEEL

Test Pressure (Bar)

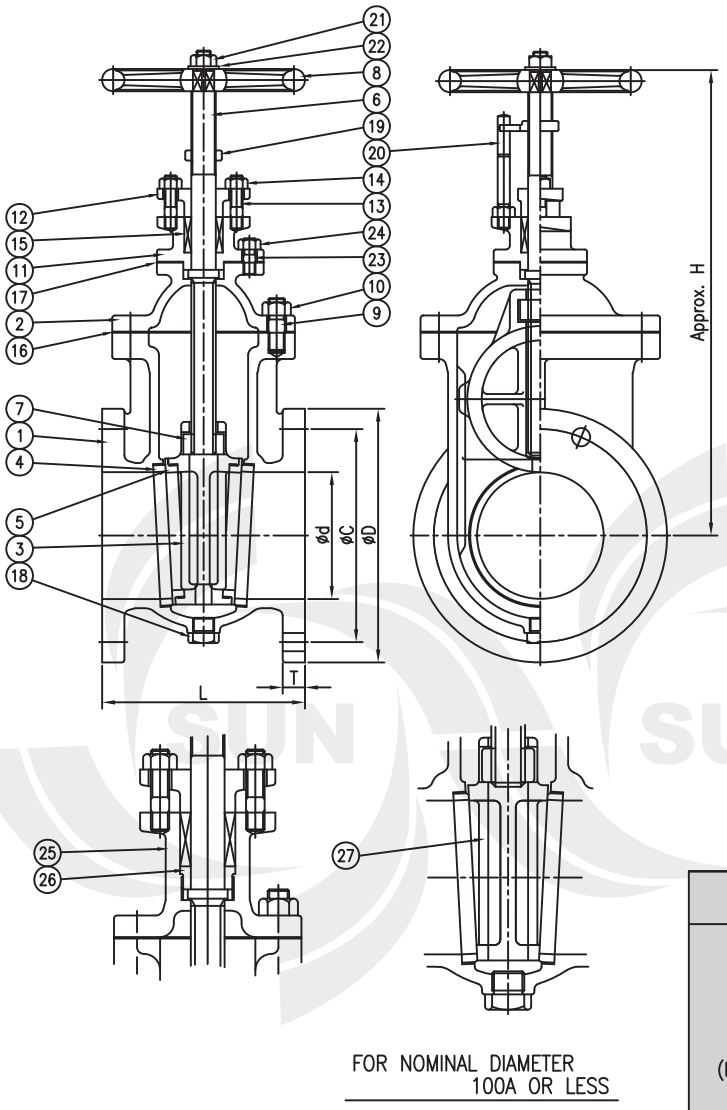
Rating	PN 16	PN 10	PN 6
Size	15A to 175A	200A to 300A	350A to 500A
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

Dimension Table (Unit : mm)

Rating	Size	d	L1	H	W	FLANGE					Weight (kg)
						D	C	g	t	n–h	
PN 16 (DIN 2533)	15	15	90	200	100	95	65	45	14	4-14	4.5
	20	20	95	200	100	105	75	58	16	4-14	5.5
	25	25	100	210	100	115	85	68	16	4-14	7.5
	32	32	105	215	125	140	100	78	18	4-18	8.5
	40	40	115	245	160	150	110	88	18	4-18	11
	50	50	125	250	160	165	125	102	20	4-18	14
	65	65	145	280	180	185	145	122	20	4-18	20
	80	80	155	310	180	200	160	138	22	8-18	24
	100	100	175	330	200	220	180	158	24	8-18	33
	125	125	200	360	200	250	210	188	26	8-18	55
	150	150	225	385	250	285	240	212	26	8-22	66
	175	175	250	415	250	315	270	242	28	8-22	90
PN 10 (DIN 2532)	200	200	275	485	315	340	295	268	26	8-22	115
	250	250	325	560	315	395	350	320	28	12-22	190
	300	300	375	660	315	445	400	370	28	12-22	285
PN 6 (DIN 2531)	350	350	425	825	400	490	445	415	26	12-22	450
	400	400	475	700	500	540	495	465	28	16-22	530
	450	450	500	810	500	595	550	520	28	16-22	630
	500	500	515	780	560	645	600	570	30	20-22	700

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Gate Valves



FOR NOMINAL DIAMETER
100A OR LESS

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	CAST IRON
4	BODY SEAT RING	BRONZE / STAINLESS STEEL
5	DISC SEAT RING	BRONZE / STAINLESS STEEL
6	STEM	BRASS / STAINLESS STEEL
7	DISC NUT	BRONZE / STAINLESS STEEL
8	HANDWHEEL	CAST IRON
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	STUFFING BOX	CAST IRON
12	PACKING GLAND	BRONZE
13	GLAND BOLT	STEEL
14	GLAND NUT	STEEL
15	PACKING	NON ASBESTOS
16	BONNET GASKET	NON ASBESTOS
17	BOX GASKET	NON ASBESTOS
18	PLUG	BRASS
19	INDICATOR	BRONZE
20	INDICATOR BAR	BRASS
21	HANDLE NUT	STEEL
22	WASHER	STEEL
23	BOX BOLT	STEEL
24	BOX NUT	STEEL
25	BONNET	CAST IRON
26	PACKING RING	BRASS / STAINLESS STEEL
27	DISC	BRONZE / STAINLESS STEEL

Dimension Table (Unit : mm)

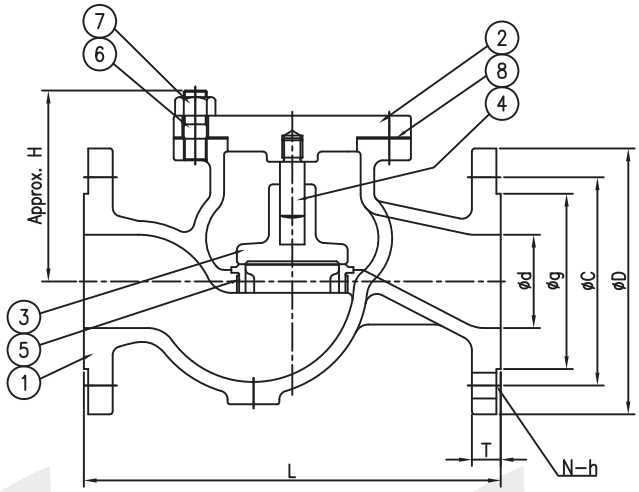
Rating	Size	d	L	H	FLANGE				Weight (kg)
					D	C	T	N–h	
PN 10 (DIN 3216)	40	40	140	230	150	110	18	4-18	13
	50	50	150	240	165	125	20	4-18	16
	65	65	170	270	185	145	20	4-18	21
	80	80	180	310	200	160	22	8-18	27
	100	100	190	345	220	180	22	8-18	35
	125	125	200	435	250	210	24	8-18	48
	150	150	210	510	285	240	24	8-22	60
	200	200	230	645	340	295	26	8-22	90
	250	250	250	695	395	350	28	12-22	130
	300	300	270	810	445	400	28	12-22	160
PN 16 (DIN 3216)	40	40	140	230	150	110	18	4-18	13
	50	50	150	240	165	125	20	4-18	16
	65	65	170	270	185	145	20	4-18	21
	80	80	180	310	200	160	22	8-18	27
	100	100	190	345	220	180	22	8-18	35
	125	125	200	435	250	210	24	8-18	48
	150	150	210	510	285	240	24	8-22	60
	200	200	230	645	340	295	26	12-22	90
	250	250	250	695	405	355	28	12-26	130
	300	300	270	810	460	410	28	12-26	160
	350	350	290	900	520	470	30	16-26	240
	400	400	310	1000	580	525	32	16-30	320

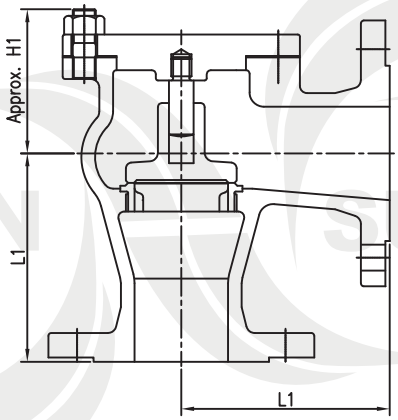
Test Pressure (Bar)

Rating	PN 10	PN 16
Size	40A to 300A	40A to 400A
Hydrostatic press test (Shell)	16	25
Hydrostatic press test (Seat)	10	16

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Lift Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	SEAT RING	BRONZE / STAINLESS STEEL
6	BONNET BOLT	STEEL
7	BONNET NUT	STEEL
8	GASKET	GRAPHITE

Test Pressure (Bar)

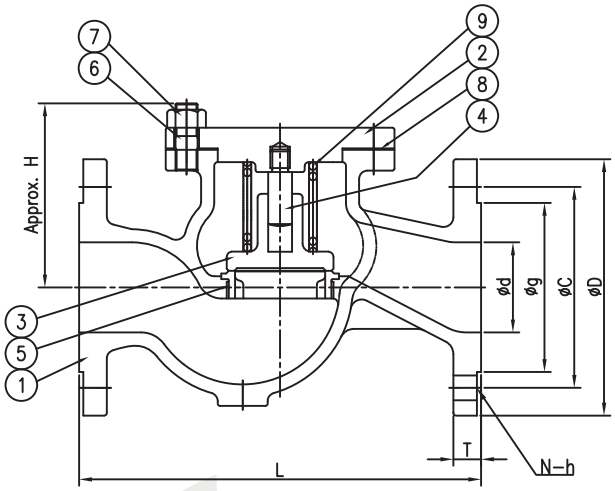
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

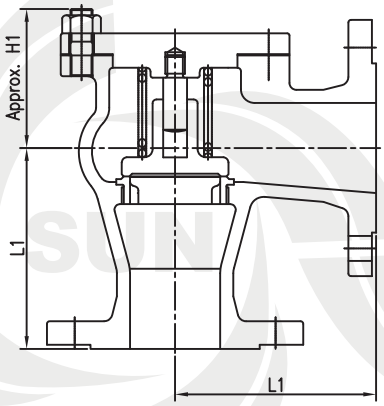
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	4-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	8-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Feed Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	BONNET	CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	SEAT RING	BRONZE / STAINLESS STEEL
6	BONNET BOLT	STEEL
7	BONNET NUT	STEEL
8	GASKET	GRAPHITE
9	SPRING	STAINLESS STEEL

Test Pressure (Bar)

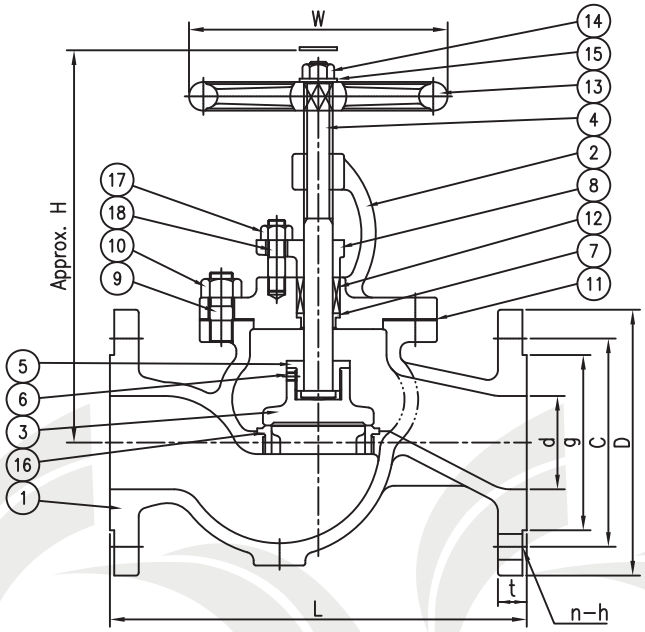
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

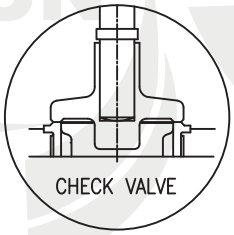
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n-h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	4-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n-h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	8-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6/10 Globe Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	DUCTILE CAST IRON
2	BONNET	DUCTILE CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	DISC NUT	BRONZE / STAINLESS STEEL
6	SET SCREW	STEEL
7	PACKING RING	BRASS / STAINLESS STEEL
8	PACKING GLAND	BRASS / STAINLESS STEEL
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	STEEL
15	WASHER	STEEL
16	SEAT RING	BRONZE / STAINLESS STEEL
17	NUT	STEEL
18	BOLT	STEEL

Test Pressure (Bar)

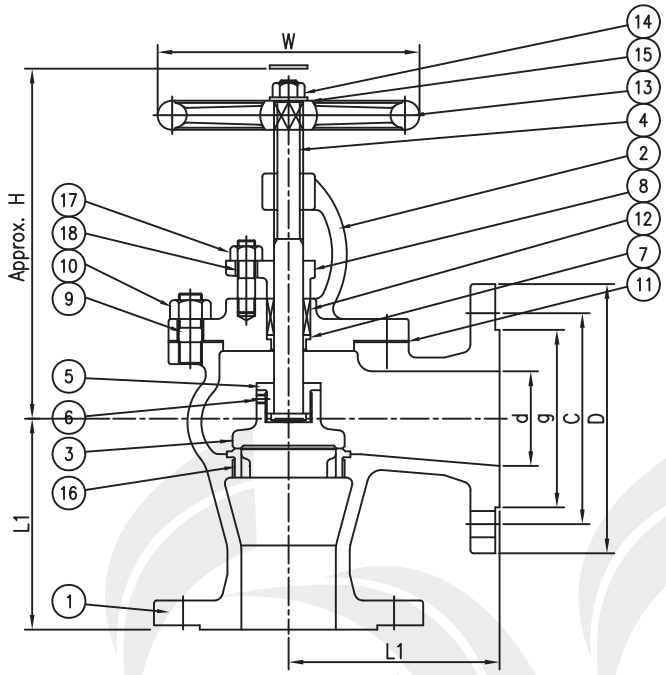
Rating	PN 16	PN 10	PN 6
Size	15A to 175A	200A to 300A	350A to 500A
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

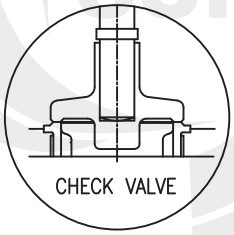
Dimension Table (Unit : mm)

Rating	Size	d	L	H	W	FLANGE					Weight (kg)
						D	C	g	t	n–h	
PN 16 (DIN 2533)	15	15	130	220	100	95	65	45	14	4-14	4.5
	20	20	150	225	100	105	75	58	16	4-14	5.5
	25	25	160	235	100	115	85	68	16	4-14	8.5
	32	32	180	240	125	140	100	78	18	4-18	9
	40	40	200	275	160	150	110	88	18	4-18	12.5
	50	50	230	280	160	165	125	102	20	4-18	15.5
	65	65	290	310	180	185	145	122	20	4-18	22
	80	80	310	345	180	200	160	138	22	8-18	27.5
	100	100	350	380	200	220	180	158	24	8-18	38.5
	125	125	400	420	200	250	210	188	26	8-18	60
	150	150	480	470	250	285	240	212	26	8-22	83
	175	175	550	500	250	315	270	242	28	8-22	100
PN 10 (DIN 2532)	200	200	600	580	315	340	295	268	26	8-22	127
	250	250	730	690	315	395	350	320	28	12-22	255
	300	300	850	800	315	445	400	370	28	12-22	355
PN 6 (DIN 2531)	350	350	980	910	400	490	445	415	26	12-22	560
	400	400	1100	1070	500	540	495	465	28	16-22	650
	450	450	1200	1165	500	595	550	520	28	16-22	980
	500	500	1350	1350	560	645	600	570	30	20-22	1210

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6/10/16 Angle Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	DUCTILE CAST IRON
2	BONNET	DUCTILE CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	DISC NUT	BRONZE / STAINLESS STEEL
6	SET SCREW	STEEL
7	PACKING RING	BRASS / STAINLESS STEEL
8	PACKING GLAND	BRASS / STAINLESS STEEL
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	STEEL
15	WASHER	STEEL
16	SEAT RING	BRONZE / STAINLESS STEEL
17	NUT	STEEL
18	BOLT	STEEL

Test Pressure (Bar)

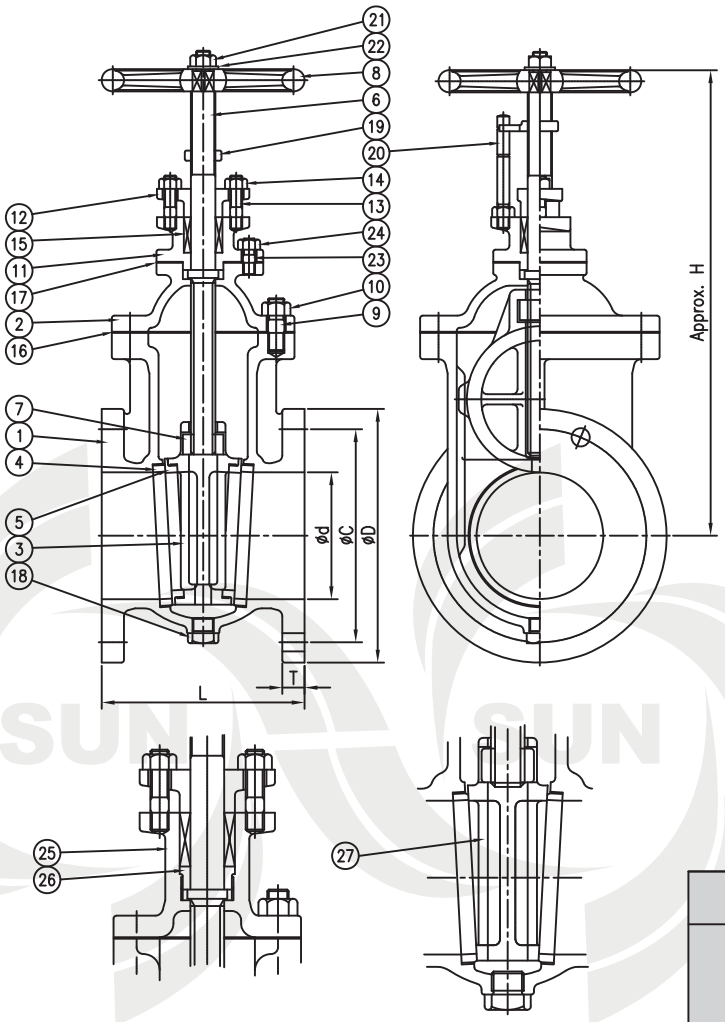
Rating	PN 16	PN 10	PN 6
Size	15A to 175A	200A to 300A	350A to 500A
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

Dimension Table (Unit : mm)

Rating	Size	d	L1	H	W	FLANGE					Weight (kg)
						D	C	g	t	n-h	
PN 16 (DIN 2533)	15	15	90	200	100	95	65	45	14	4-14	4.5
	20	20	95	200	100	105	75	58	16	4-14	5.5
	25	25	100	210	100	115	85	68	16	4-14	7.5
	32	32	105	215	125	140	100	78	18	4-18	8.5
	40	40	115	245	160	150	110	88	18	4-18	11
	50	50	125	250	160	165	125	102	20	4-18	14
	65	65	145	280	180	185	145	122	20	4-18	20
	80	80	155	310	180	200	160	138	22	8-18	24
	100	100	175	330	200	220	180	158	24	8-18	33
	125	125	200	360	200	250	210	188	26	8-18	55
	150	150	225	385	250	285	240	212	26	8-22	66
	175	175	250	415	250	315	270	242	28	8-22	90
PN 10 (DIN 2532)	200	200	275	485	315	340	295	268	26	8-22	115
	250	250	325	560	315	395	350	320	28	12-22	190
	300	300	375	660	315	445	400	370	28	12-22	285
PN 6 (DIN 2531)	350	350	425	825	400	490	445	415	26	12-22	450
	400	400	475	700	500	540	495	465	28	16-22	530
	450	450	500	810	500	595	550	520	28	16-22	630
	500	500	515	780	560	645	600	570	30	20-22	700

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Gate Valves



FOR NOMINAL DIAMETER
100A OR LESS

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	DUCTILE CAST IRON
2	BONNET	DUCTILE CAST IRON
3	DISC	DUCTILE CAST IRON
4	BODY SEAT RING	BRONZE / STAINLESS STEEL
5	DISC SEAT RING	BRONZE / STAINLESS STEEL
6	STEM	BRASS / STAINLESS STEEL
7	DISC NUT	BRONZE / STAINLESS STEEL
8	HANDWHEEL	CAST IRON
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	STUFFING BOX	DUCTILE CAST IRON
12	PACKING GLAND	BRONZE
13	GLAND BOLT	STEEL
14	GLAND NUT	STEEL
15	PACKING	NON ASBESTOS
16	BONNET GASKET	NON ASBESTOS
17	BOX GASKET	NON ASBESTOS
18	PLUG	BRASS
19	INDICATOR	BRONZE
20	INDICATOR BAR	BRASS
21	HANDLE NUT	STEEL
22	WASHER	STEEL
23	BOX BOLT	STEEL
24	BOX NUT	STEEL
25	BONNET	DUCTILE CAST IRON
26	PACKING RING	BRASS / STAINLESS STEEL
27	DISC	BRONZE / STAINLESS STEEL

Dimension Table (Unit : mm)

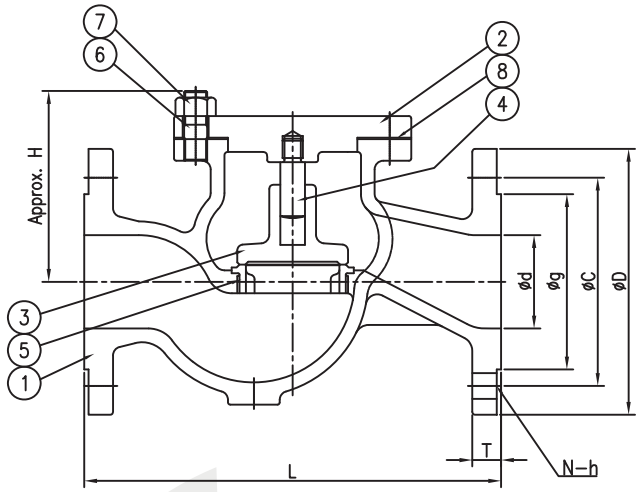
Rating	Size	d	L	H	FLANGE				Weight (kg)
					D	C	T	N–h	
PN 10 (DIN 3216)	40	40	140	230	150	110	18	4-18	13
	50	50	150	240	165	125	20	4-18	16
	65	65	170	270	185	145	20	4-18	21
	80	80	180	310	200	160	22	8-18	27
	100	100	190	345	220	180	22	8-18	35
	125	125	200	435	250	210	24	8-18	48
	150	150	210	510	285	240	24	8-22	60
	200	200	230	645	340	295	26	8-22	90
	250	250	250	695	395	350	28	12-22	130
	300	300	270	810	445	400	28	12-22	160
PN 16 (DIN 3216)	40	40	140	230	150	110	18	4-18	13
	50	50	150	240	165	125	20	4-18	16
	65	65	170	270	185	145	20	4-18	21
	80	80	180	310	200	160	22	8-18	27
	100	100	190	345	220	180	22	8-18	35
	125	125	200	435	250	210	24	8-18	48
	150	150	210	510	285	240	24	8-22	60
	200	200	230	645	340	295	26	12-22	90
	250	250	250	695	405	355	28	12-26	130
	300	300	270	810	460	410	28	12-26	160
	350	350	290	900	520	470	30	16-26	240
	400	400	310	1000	580	525	32	16-30	320

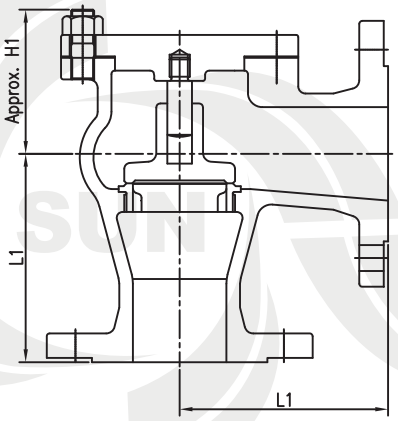
Test Pressure (Bar)

Rating	PN 10	PN 16
Size	40A to 300A	40A to 400A
Hydrostatic press test (Shell)	16	25
Hydrostatic press test (Seat)	10	16

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Lift Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	DUCTILE CAST IRON
2	BONNET	DUCTILE CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	SEAT RING	BRONZE / STAINLESS STEEL
6	BONNET BOLT	STEEL
7	BONNET NUT	STEEL
8	GASKET	GRAPHITE

Test Pressure (Bar)

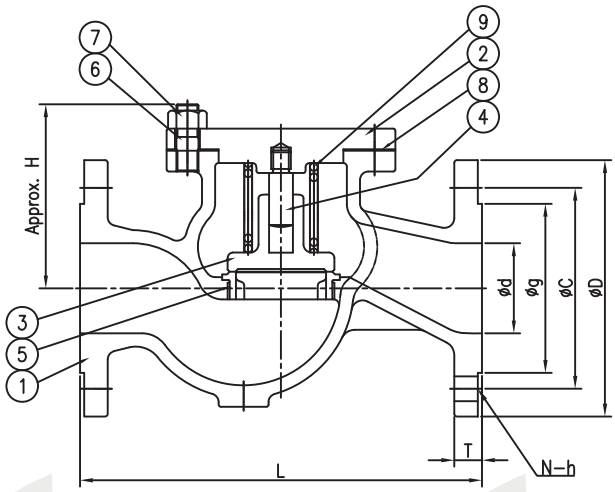
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

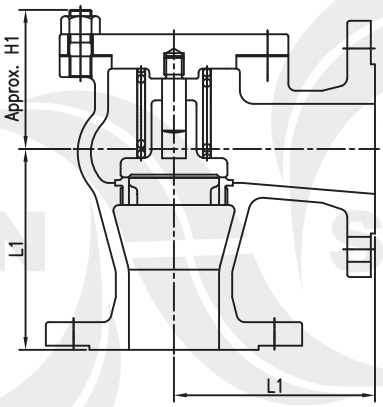
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	4-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	8-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Feed Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	DUCTILE CAST IRON
2	BONNET	DUCTILE CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	SEAT RING	BRONZE / STAINLESS STEEL
6	BONNET BOLT	STEEL
7	BONNET NUT	STEEL
8	GASKET	GRAPHITE
9	SPRING	STAINLESS STEEL

Test Pressure (Bar)

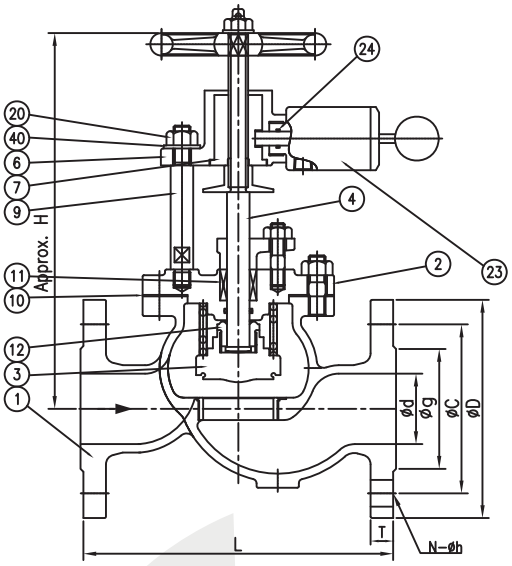
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

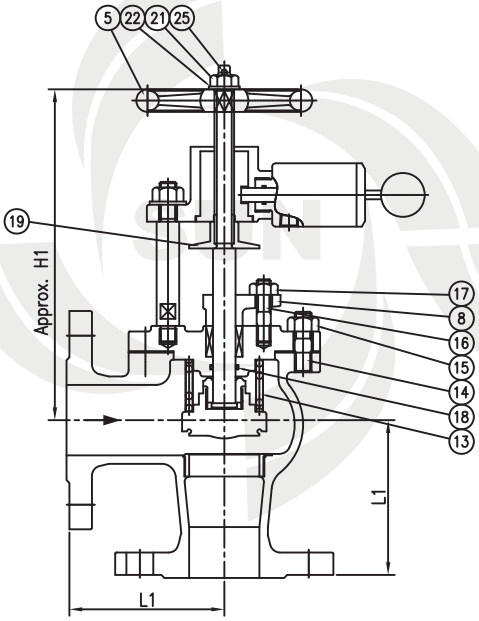
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	4-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	11
	50	50	230	125	105	80	165	125	102	20	4-18	14
	65	65	290	145	120	90	185	145	122	20	4-18	20
	80	80	310	155	135	95	200	160	138	22	8-18	24
	100	100	350	175	155	105	220	180	158	24	8-18	33

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Hydraulic Remote Controlled Quick Closing Valves





Bolted Bonnet Renewable seat Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	DUCTILE CAST IRON
2	BONNET	DUCTILE CAST IRON
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	HANDWHEEL	CAST IRON
6	YOKE	BRONZE
7	YOKE BUSH	BRASS
8	PACKING GLAND	BRONZE
9	STAY	STEEL
10	GASKET	NON ASBESTOS
11	PACKING	NON ASBESTOS
12	DISC NUT	BRASS
13	SPRING	STEEL
14	BOLT	STEEL
15	NUT	STEEL
16	STUD BOLT	STEEL
17	NUT	STEEL
18	O-RING	NBR
19	INDICATOR	BRASS
20	NUT	STEEL
21	HANDLE NUT	STEEL
22	NAME PLATE	STAINLESS STEEL
23	ACTUATOR	BRASS
24	O-RING	NBR
25	SPLIT PIN	BRASS

Test Pressure (Bar)

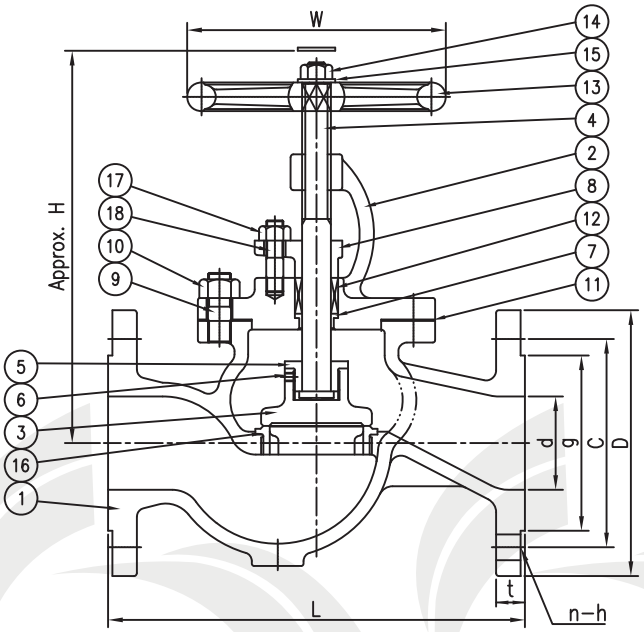
Rating	PN 10	PN 16
Size	15A to 250A	15A to 250A
Hydrostatic press test (Shell)	7	7
Hydrostatic press test (Seat)	2	2

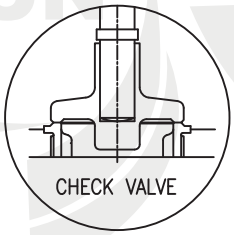
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N–h
PN 10 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	4-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	8-22
	250	250	730	325	600	480	395	350	320	28	12-23
Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N–h
PN 16 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	8-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	12-23
	250	250	730	325	600	480	405	355	320	28	12-27

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6/10/16 Globe Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	DISC NUT	BRONZE / STAINLESS STEEL
6	SET SCREW	STEEL
7	PACKING RING	BRASS / STAINLESS STEEL
8	PACKING GLAND	BRASS / STAINLESS STEEL
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	STEEL
15	WASHER	STEEL
16	SEAT RING	BRONZE / STAINLESS STEEL
17	NUT	STEEL
18	BOLT	STEEL

Test Pressure (Bar)

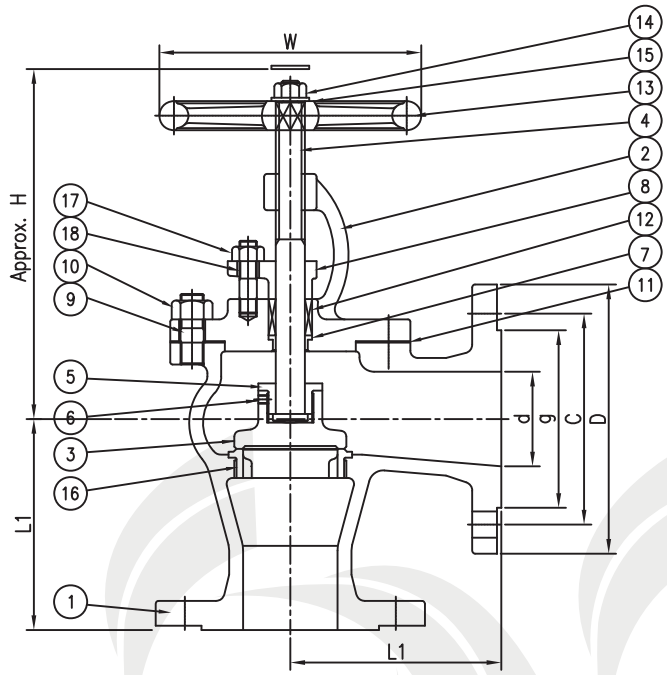
Rating	PN 16	PN 10	PN 6
Size	15A to 175A	200A to 300A	350A to 500A
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

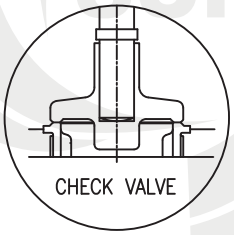
Dimension Table (Unit : mm)

Rating	Size	d	L	H	W	FLANGE					Weight (kg)
						D	C	g	t	n–h	
PN 16 (DIN 2533)	15	15	130	220	100	95	65	45	14	4-14	4.9
	20	20	150	225	100	105	75	58	16	4-14	5.99
	25	25	160	235	100	115	85	68	16	4-14	9.25
	32	32	180	240	125	140	100	78	18	4-18	9.8
	40	40	200	275	160	150	110	88	18	4-18	13.6
	50	50	230	280	160	165	125	102	20	4-18	16.85
	65	65	290	310	180	185	145	122	20	4-18	23.95
	80	80	310	345	180	200	160	138	22	8-18	29.95
	100	100	350	380	200	220	180	158	24	8-18	41.9
	125	125	400	420	200	250	210	188	26	8-18	65.3
	150	150	480	470	250	285	240	212	26	8-22	90.3
	175	175	550	500	250	315	270	242	28	8-22	108.8
PN 10 (DIN 2532)	200	200	600	580	315	340	295	268	26	8-22	138.2
	250	250	730	690	315	395	350	320	28	12-22	277.45
	300	300	850	800	315	445	400	370	28	12-22	386.25
PN 6 (DIN 2531)	350	350	980	910	400	490	445	415	26	12-22	609.3
	400	400	1100	1070	500	540	495	465	28	16-22	707.2
	450	450	1200	1165	500	595	550	520	28	16-22	1066
	500	500	1350	1350	560	645	600	570	30	20-22	1316.5

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6/10/16 Angle Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	DISC NUT	BRONZE / STAINLESS STEEL
6	SET SCREW	STEEL
7	PACKING RING	BRASS / STAINLESS STEEL
8	PACKING GLAND	BRASS / STAINLESS STEEL
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	STEEL
15	WASHER	STEEL
16	SEAT RING	BRONZE / STAINLESS STEEL
17	NUT	STEEL
18	BOLT	STEEL

Test Pressure (Bar)

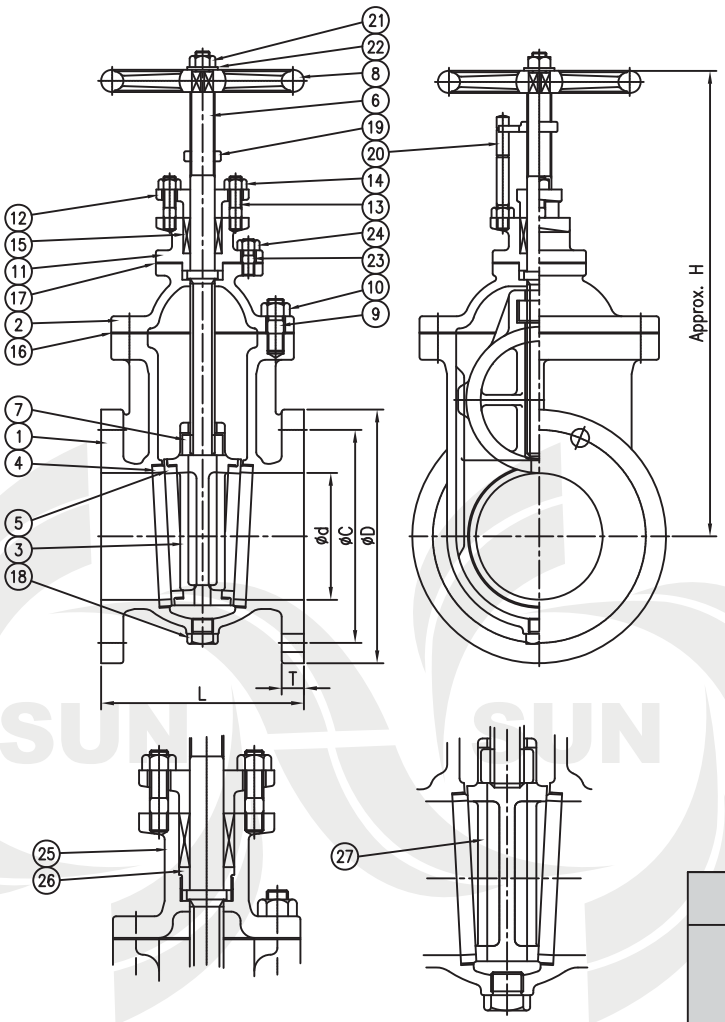
Rating	PN 16	PN 10	PN 6
Size	15A to 175A	200A to 300A	350A to 500A
Hydrostatic press test (Shell)	25	16	9
Hydrostatic press test (Seat)	16	10	7

Dimension Table (Unit : mm)

Rating	Size	d	L1	H	W	FLANGE					Weight (kg)
						D	C	g	t	n-h	
PN 16 (DIN 2533)	15	15	90	200	100	95	65	45	14	4-14	4.9
	20	20	95	200	100	105	75	58	16	4-14	5.99
	25	25	100	210	100	115	85	68	16	4-14	8.16
	32	32	105	215	125	140	100	78	18	4-18	9.25
	40	40	115	245	160	150	110	88	18	4-18	11.97
	50	50	125	250	160	165	125	102	20	4-18	15.25
	65	65	145	280	180	185	145	122	20	4-18	21.8
	80	80	155	310	180	200	160	138	22	8-18	26.12
	100	100	175	330	200	220	180	158	24	8-18	35.9
	125	125	200	360	200	250	210	188	26	8-18	59.85
	150	150	225	385	250	285	240	212	26	8-22	71.81
	175	175	250	415	250	315	270	242	28	8-22	97.95
PN 10 (DIN 2532)	200	200	275	485	315	340	295	268	26	8-22	125.15
	250	250	325	560	315	395	350	320	28	12-22	206.75
	300	300	375	660	315	445	400	370	28	12-22	310.1
PN 6 (DIN 2531)	350	350	425	825	400	490	445	415	26	12-22	489.7
	400	400	475	700	500	540	495	465	28	16-22	576.7
	450	450	500	810	500	595	550	520	28	16-22	685.45
	500	500	515	780	560	645	600	570	30	20-22	761.6

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Gate Valves



FOR NOMINAL DIAMETER
100A OR LESS

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	CAST STEEL
4	BODY SEAT RING	BRONZE / STAINLESS STEEL
5	DISC SEAT RING	BRONZE / STAINLESS STEEL
6	STEM	BRASS / STAINLESS STEEL
7	DISC NUT	BRONZE / STAINLESS STEEL
8	HANDWHEEL	CAST IRON
9	BONNET BOLT	STEEL
10	BONNET NUT	STEEL
11	STUFFING BOX	CAST STEEL
12	PACKING GLAND	BRONZE
13	GLAND BOLT	STEEL
14	GLAND NUT	STEEL
15	PACKING	NON ASBESTOS
16	BONNET GASKET	NON ASBESTOS
17	BOX GASKET	NON ASBESTOS
18	PLUG	BRASS
19	INDICATOR	BRONZE
20	INDICATOR BAR	BRASS
21	HANDLE NUT	STEEL
22	WASHER	STEEL
23	BOX BOLT	STEEL
24	BOX NUT	STEEL
25	BONNET	CAST STEEL
26	PACKING RING	BRASS / STAINLESS STEEL
27	DISC	BRONZE / STAINLESS STEEL

Dimension Table (Unit : mm)

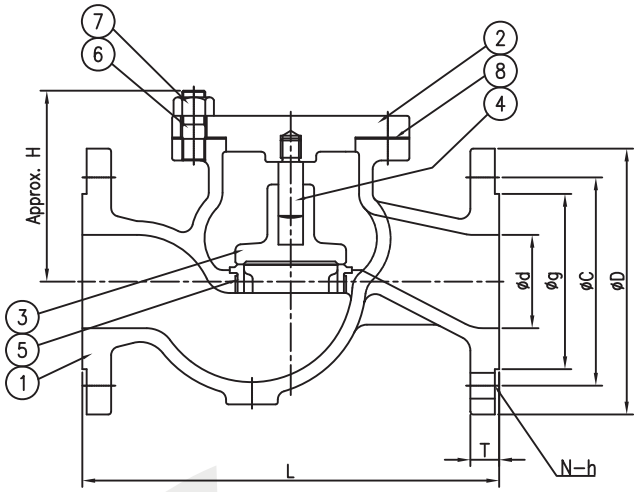
Rating	Size	d	L	H	FLANGE				Weight (kg)
					D	C	T	N–h	
PN 10 (DIN 3216)	40	40	140	230	150	110	18	4-18	14.15
	50	50	150	240	165	125	20	4-18	17.4
	65	65	170	270	185	145	20	4-18	22.85
	80	80	180	310	200	160	22	8-18	29.38
	100	100	190	345	220	180	22	8-18	38.1
	125	125	200	435	250	210	24	8-18	52.25
	150	150	210	510	285	240	24	8-22	65.3
	200	200	230	645	340	295	26	8-22	97.95
	250	250	250	695	395	350	28	12-22	141.45
	300	300	270	810	445	400	28	12-22	174.1
PN 16 (DIN 3216)	40	40	140	230	150	110	18	4-18	14.15
	50	50	150	240	165	125	20	4-18	17.4
	65	65	170	270	185	145	20	4-18	22.85
	80	80	180	310	200	160	22	8-18	29.38
	100	100	190	345	220	180	22	8-18	38.1
	125	125	200	435	250	210	24	8-18	52.25
	150	150	210	510	285	240	24	8-22	65.3
	200	200	230	645	340	295	26	12-22	97.95
	250	250	250	695	405	355	28	12-26	141.45
	300	300	270	810	460	410	28	12-26	174.1
	350	350	290	900	520	470	30	16-26	261.15
	400	400	310	1000	580	525	32	16-30	348.2

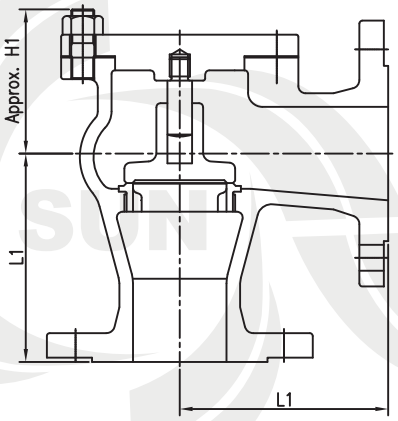
Test Pressure (Bar)

Rating	PN 10	PN 16
Size	40A to 300A	40A to 400A
Hydrostatic press test (Shell)	16	25
Hydrostatic press test (Seat)	10	16

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Lift Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	SEAT RING	BRONZE / STAINLESS STEEL
6	BONNET BOLT	STEEL
7	BONNET NUT	STEEL
8	GASKET	GRAPHITE

Test Pressure (Bar)

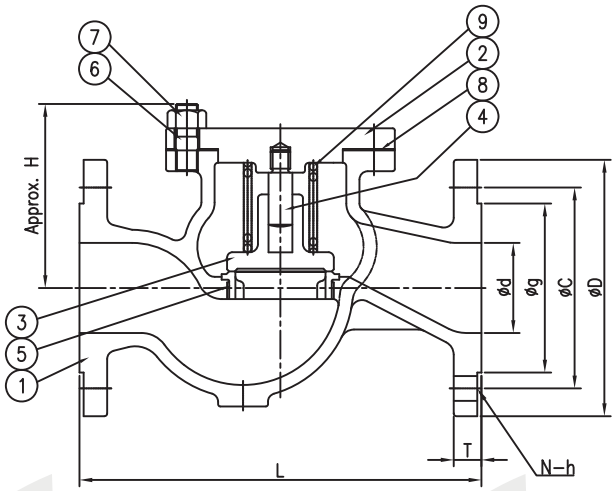
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

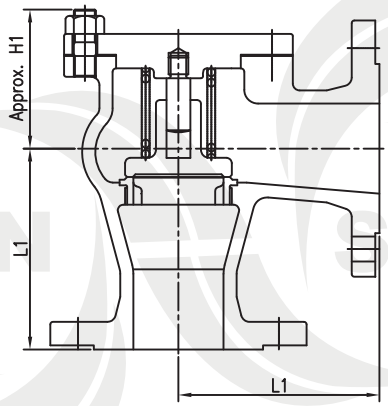
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	12
	50	50	230	125	105	80	165	125	102	20	4-18	15.25
	65	65	290	145	120	90	185	145	122	20	4-18	21.78
	80	80	310	155	135	95	200	160	138	22	4-18	26.12
	100	100	350	175	155	105	220	180	158	24	8-18	35.95
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	12
	50	50	230	125	105	80	165	125	102	20	4-18	15.25
	65	65	290	145	120	90	185	145	122	20	4-18	21.78
	80	80	310	155	135	95	200	160	138	22	8-18	26.12
	100	100	350	175	155	105	220	180	158	24	8-18	35.95

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Feed Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	SEAT RING	BRONZE / STAINLESS STEEL
6	BONNET BOLT	STEEL
7	BONNET NUT	STEEL
8	GASKET	GRAPHITE
9	SPRING	STAINLESS STEEL

Test Pressure (Bar)

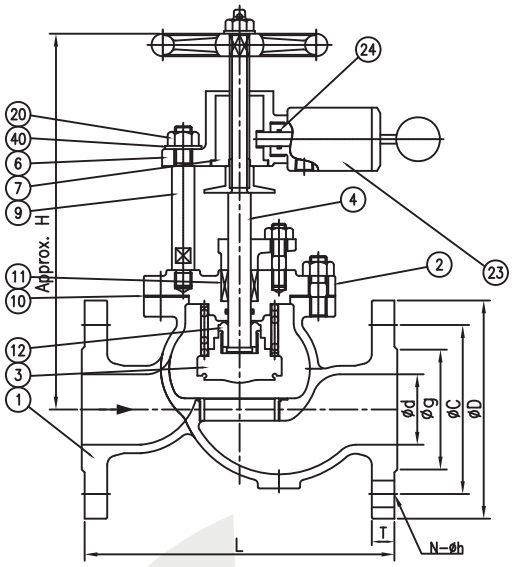
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

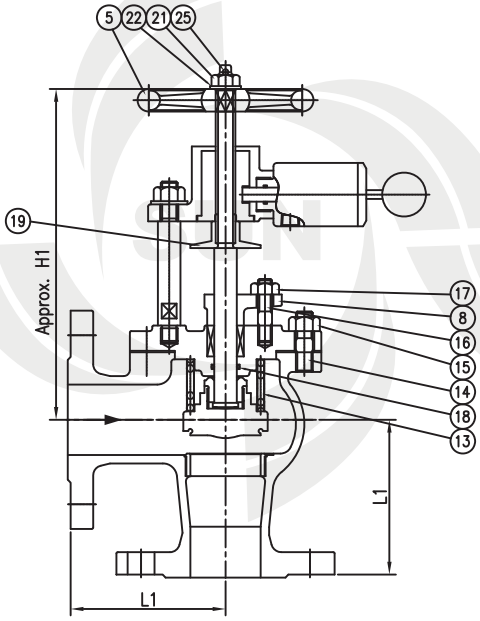
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	12
	50	50	230	125	105	80	165	125	102	20	4-18	15.25
	65	65	290	145	120	90	185	145	122	20	4-18	21.8
	80	80	310	155	135	95	200	160	138	22	4-18	26.15
	100	100	350	175	155	105	220	180	158	24	8-18	35.95
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	12
	50	50	230	125	105	80	165	125	102	20	4-18	15.25
	65	65	290	145	120	90	185	145	122	20	4-18	21.8
	80	80	310	155	135	95	200	160	138	22	8-18	26.15
	100	100	350	175	155	105	220	180	158	24	8-18	35.95

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Hydraulic Remote Controlled Quick Closing Valves





Bolted Bonnet Renewable seat Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	DISC	BRONZE / STAINLESS STEEL
4	STEM	BRASS / STAINLESS STEEL
5	HANDWHEEL	CAST IRON
6	YOKE	BRONZE
7	YOKE BUSH	BRASS
8	PACKING GLAND	BRONZE
9	STAY	STEEL
10	GASKET	NON ASBESTOS
11	PACKING	NON ASBESTOS
12	DISC NUT	BRASS
13	SPRING	STEEL
14	BOLT	STEEL
15	NUT	STEEL
16	STUD BOLT	STEEL
17	NUT	STEEL
18	O-RING	NBR
19	INDICATOR	BRASS
20	NUT	STEEL
21	HANDLE NUT	STEEL
22	NAME PLATE	STAINLESS STEEL
23	ACTUATOR	BRASS
24	O-RING	NBR
25	SPLIT PIN	BRASS

Test Pressure (Bar)

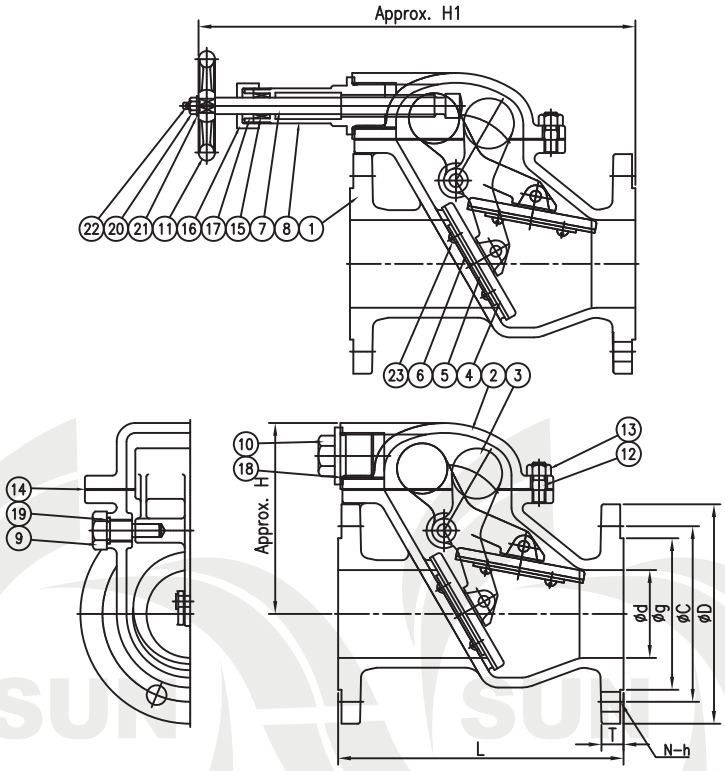
Rating	PN 10	PN 16
Size	15A to 250A	15A to 250A
Hydrostatic press test (Shell)	7	7
Hydrostatic press test (Seat)	2	2

Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N–h
PN 10 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	4-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	8-22
	250	250	730	325	600	480	395	350	320	28	12-23
Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N–h
PN 16 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	8-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	12-23
	250	250	730	325	600	480	405	355	320	28	12-27

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Storm Valves



Bolted Bonnet Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BOONET	CAST STEEL
3	ARM	BRONZE
4	FLAP	BRONZE
5	GASKET	NBR
6	PLATE	BRASS
7	SPINDLE	BRASS
8	HEAD PIECE	BRONZE
9	STAY	STAINLESS STEEL
10	DUST PLUG	BRASS
11	HANDLE	CAST IRON
12	BONNET BOLT	STEEL
13	BONNET NUT	STEEL
14	GASKET	NON ASBESTOS
15	PACKING	NON ASBESTOS
16	GLAND NUT	BRASS
17	PACKING RING	BRASS
18	O-RING	NBR
19	O-RING	NBR
20	HANDLE NUT	BRASS
21	WASHER	STEEL
22	SPLIT PIN	BRASS
23	SET SCREW	BRASS

Test Pressure (Bar)

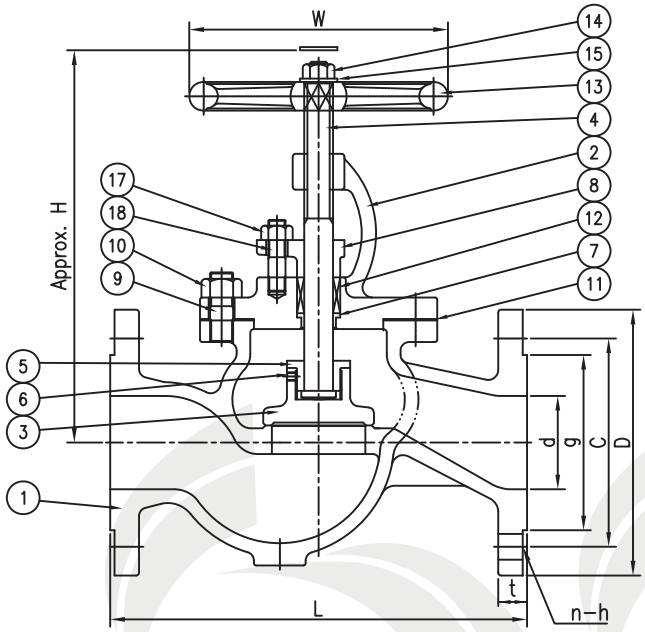
Rating	PN 10	PN 16
Size	50A to 150A	50A to 150A
Hydrostatic press test (Shell)	2	2

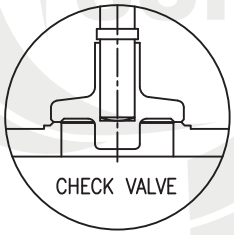
Dimension Table (Unit : mm)

Rating	SIZE	d	L	H	H1	FLANGE				
						D	C	g	N-h	T
PN 10 (DIN 2331)	50	50	200	140	370	165	125	102	4-18	18
	65	65	240	150	410	185	145	122	4-18	18
	80	80	260	175	420	200	160	138	8-18	20
	100	100	300	195	510	220	180	158	8-18	20
	125	125	350	220	540	250	210	188	8-18	22
	150	150	400	245	585	285	240	212	8-22	22
Rating	SIZE	d	L	H	H1	FLANGE				
						D	C	g	N-h	T
PN 16 (DIN 2331)	50	50	200	140	370	165	125	102	4-18	18
	65	65	240	150	410	185	145	122	4-18	18
	80	80	260	175	420	200	160	138	8-18	20
	100	100	300	195	510	220	180	158	8-18	20
	125	125	350	220	540	250	210	188	8-18	22
	150	150	400	245	585	285	240	212	8-22	22

Remark : 1. The name plate shall be specified by purchaser as required.

PN 16 Globe Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	STEM	BRASS
5	DISC NUT	BRASS
6	SET SCREW	STEEL
7	PACKING RING	BRASS
8	PACKING GLAND	BRASS
9	BONNET BOLT	BRASS
10	BONNET NUT	BRASS
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	BRASS
15	WASHER	BRASS
17	NUT	BRASS
18	BOLT	BRASS

Test Pressure (Bar)

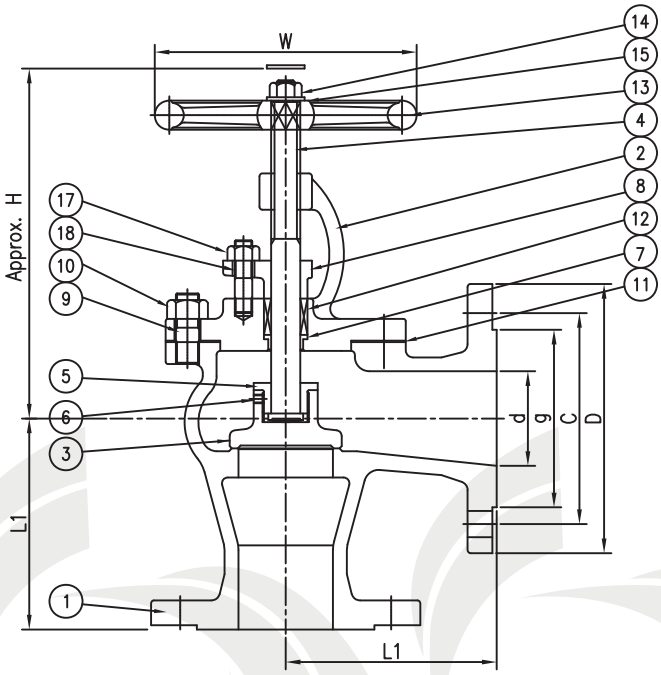
Rating	PN 16	PN 16
Size	15A to 175A	200A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

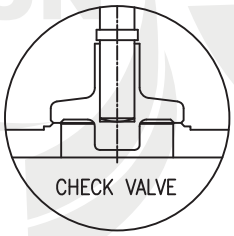
Dimension Table (Unit : mm)

Rating	Size	d	L	H	W	FLANGE				Weight (Kg)
						D	C	t	n-h	
PN 16 (DIN 2533)	15	15	130	220	100	95	65	14	4-14	6
	20	20	150	225	100	105	75	16	4-14	6.5
	25	25	160	235	100	115	85	16	4-14	7
	32	32	180	240	125	140	100	18	4-18	9
	40	40	200	275	160	150	110	18	4-18	12
	50	50	230	280	160	165	125	20	4-18	14
	65	65	290	310	180	185	145	20	4-18	19
	80	80	310	345	180	200	160	22	8-18	26
	100	100	350	380	200	220	180	24	8-18	33
	125	125	400	420	200	250	210	26	8-18	54
	150	150	480	470	250	285	240	26	8-22	69
	175	175	550	500	250	315	270	28	8-22	90
	200	200	600	580	315	340	295	26	12-22	115

Remark : 1. The name plate shall be specified by purchaser as required.

PN 16 Angle Valves





Bolted Bonnet Renewable seat
Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	STEM	BRASS
5	DISC NUT	BRASS
6	SET SCREW	STEEL
7	PACKING RING	BRASS
8	PACKING GLAND	BRASS
9	BONNET BOLT	BRASS
10	BONNET NUT	BRASS
11	GASKET	NON ASBESTOS
12	PACKING	NON ASBESTOS
13	HANDWHEEL	CAST IRON
14	HANDLE NUT	BRASS
15	WASHER	BRASS
17	NUT	BRASS
18	BOLT	BRASS

Test Pressure (Bar)

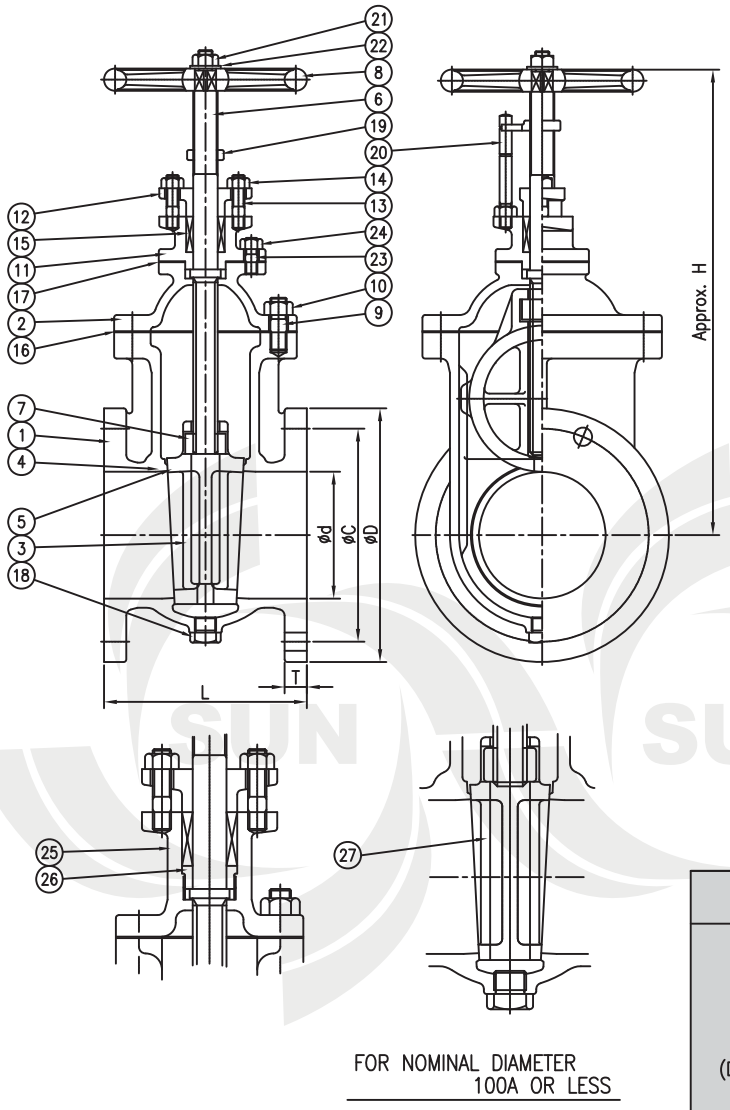
Rating	PN 16	PN 16
Size	15A to 175A	200A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

Dimension Table (Unit : mm)

Rating	Size	d	L1	H	W	FLANGE				Weight (Kg)
						D	C	t	n–h	
PN 16 (DIN 2533)	15	15	90	200	100	95	65	14	4-14	4.8
	20	20	95	200	100	105	75	16	4-14	5
	25	25	100	210	100	115	85	16	4-14	6
	32	32	105	215	125	140	100	18	4-18	8
	40	40	115	245	160	150	110	18	4-18	10
	50	50	125	250	160	165	125	20	4-18	13
	65	65	145	280	180	185	145	20	4-18	18
	80	80	155	310	180	200	160	22	8-18	22
	100	100	175	330	200	220	180	24	8-18	28
	125	125	200	360	200	250	210	26	8-18	43
	150	150	225	385	250	285	240	26	8-22	53
	175	175	250	415	250	315	270	28	8-22	79
	200	200	275	485	315	340	295	26	12-22	100

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Gate Valves



FOR NOMINAL DIAMETER
100A OR LESS

Bolted Bonnet Renewable seat
Non Rising Stem Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	BODY SEAT RING	INTEGRAL
5	DISC SEAT RING	INTEGRAL
6	STEM	BRASS
7	DISC NUT	BRONZE
8	HANDWHEEL	CAST IRON
9	BONNET BOLT	BRASS / STAINLESS STEEL
10	BONNET NUT	BRASS / STAINLESS STEEL
11	STUFFING BOX	BRONZE
12	PACKING GLAND	BRONZE
13	GLAND BOLT	BRASS / STAINLESS STEEL
14	GLAND NUT	BRASS / STAINLESS STEEL
15	PACKING	NON ASBESTOS
16	BONNET GASKET	NON ASBESTOS
17	BOX GASKET	NON ASBESTOS
18	PLUG	BRASS
19	INDICATOR	BRONZE
20	INDICATOR BAR	BRASS
21	HANDLE NUT	BRASS / STAINLESS STEEL
22	WASHER	STEEL
23	BOX BOLT	BRASS / STAINLESS STEEL
24	BOX NUT	BRASS / STAINLESS STEEL
25	BONNET	BRONZE
26	PACKING RING	BRASS
27	DISC	BRONZE

Dimension Table (Unit : mm)

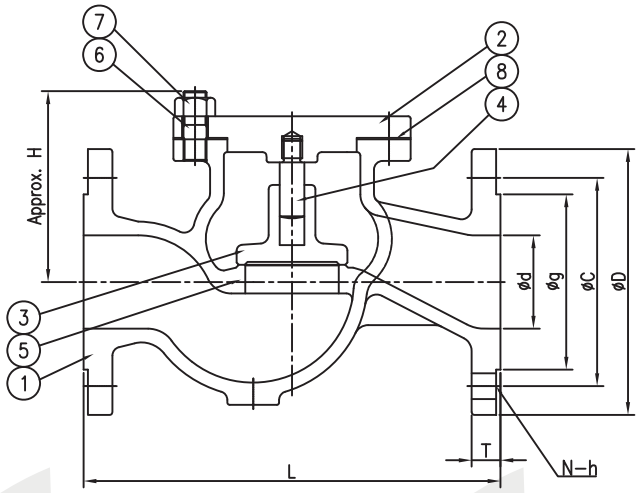
Rating	Size	d	L	H	FLANGE				Weight (kg)
					D	C	T	N–h	
PN 10 (DIN 3216)	40	40	140	230	150	110	18	4-18	15.6
	50	50	150	240	165	125	20	4-18	19.2
	65	65	170	270	185	145	20	4-18	25.2
	80	80	180	310	200	160	22	8-18	32.4
	100	100	190	345	220	180	22	8-18	42
	125	125	200	435	250	210	24	8-18	57.6
	150	150	210	510	285	240	24	8-22	72
	200	200	230	645	340	295	26	8-22	108
	250	250	250	695	395	350	28	12-22	156
	300	300	270	810	445	400	28	12-22	192
PN 16 (DIN 3216)	40	40	140	230	150	110	18	4-18	15.6
	50	50	150	240	165	125	20	4-18	19.2
	65	65	170	270	185	145	20	4-18	25.2
	80	80	180	310	200	160	22	8-18	32.4
	100	100	190	345	220	180	22	8-18	42
	125	125	200	435	250	210	24	8-18	57.6
	150	150	210	510	285	240	24	8-22	72
	200	200	230	645	340	295	26	12-22	108
	250	250	250	695	405	355	28	12-26	156
	300	300	270	810	460	410	28	12-26	192
	350	350	290	900	520	470	30	16-26	288
	400	400	310	1000	580	525	32	16-30	384

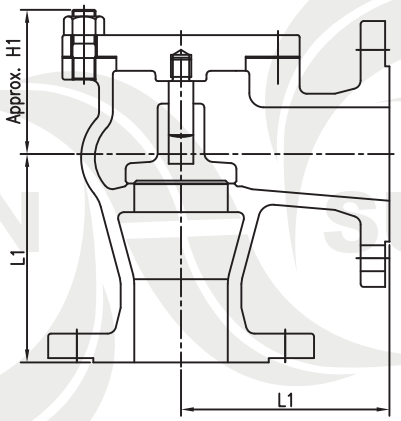
Test Pressure (Bar)

Rating	PN 10	PN 16
Size	40A to 300A	40A to 400A
Hydrostatic press test (Shell)	16	25
Hydrostatic press test (Seat)	10	16

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Lift Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	STEM	BRASS
5	SEAT RING	INTEGRAL
6	BONNET BOLT	BRASS / STAINLESS STEEL
7	BONNET NUT	BRASS / STAINLESS STEEL
8	GASKET	GRAPHITE

Test Pressure (Bar)

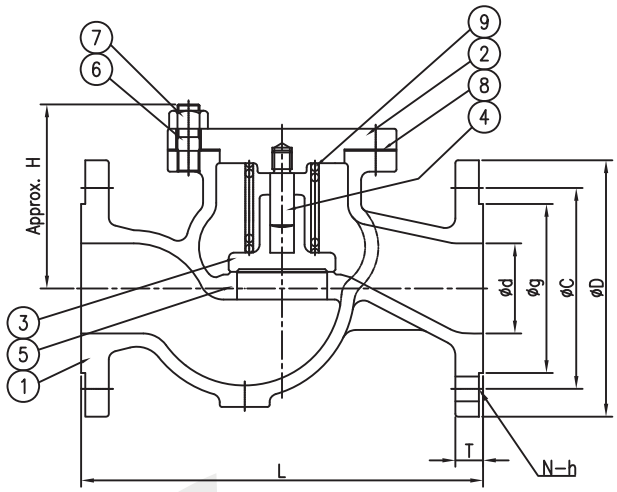
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

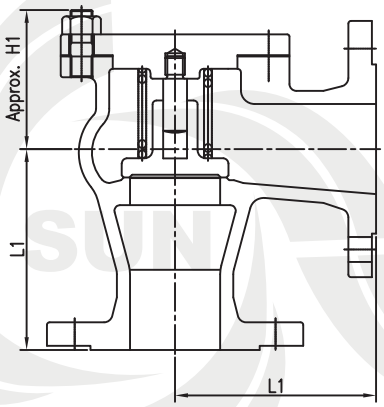
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	13.2
	50	50	230	125	105	80	165	125	102	20	4-18	16.8
	65	65	290	145	120	90	185	145	122	20	4-18	24
	80	80	310	155	135	95	200	160	138	22	4-18	28.8
	100	100	350	175	155	105	220	180	158	24	8-18	39.6
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	13.2
	50	50	230	125	105	80	165	125	102	20	4-18	16.8
	65	65	290	145	120	90	185	145	122	20	4-18	24
	80	80	310	155	135	95	200	160	138	22	8-18	28.8
	100	100	350	175	155	105	220	180	158	24	8-18	39.6

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Feed Check Valves





Bolted Bonnet Renewable seat
Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	STEM	BRASS
5	SEAT RING	INTEGRAL
6	BONNET BOLT	BRASS / STAINLESS STEEL
7	BONNET NUT	BRASS / STAINLESS STEEL
8	GASKET	GRAPHITE
9	SPRING	STAINLESS STEEL

Test Pressure (Bar)

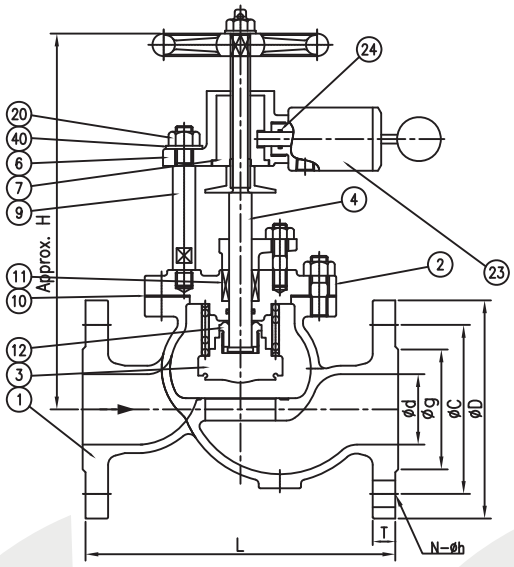
Rating	PN 10	PN 16
Size	40A to 100A	40A to 100A
Hydrostatic press test (Shell)	25	16
Hydrostatic press test (Seat)	16	10

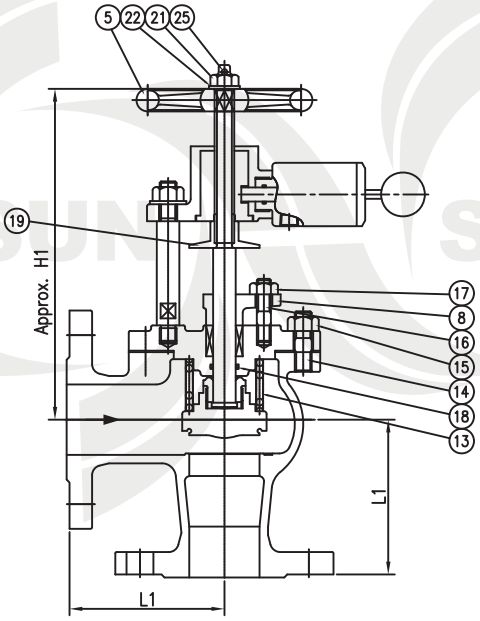
Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 10 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	13.2
	50	50	230	125	105	80	165	125	102	20	4-18	16.8
	65	65	290	145	120	90	185	145	122	20	4-18	24
	80	80	310	155	135	95	200	160	138	22	4-18	28.8
	100	100	350	175	155	105	220	180	158	24	8-18	39.6
Rating	Size	d	L	L1	H	H1	FLANGE					Weight (kg)
							D	C	g	t	n–h	
PN 16 (DIN 2533)	40	40	200	115	95	75	150	110	88	18	4-18	13.2
	50	50	230	125	105	80	165	125	102	20	4-18	16.8
	65	65	290	145	120	90	185	145	122	20	4-18	24
	80	80	310	155	135	95	200	160	138	22	8-18	28.8
	100	100	350	175	155	105	220	180	158	24	8-18	39.6

Remark : 1. The name plate shall be specified by purchaser as required.

PN 10/16 Hydraulic Remote Controlled Quick Closing Valves





Bolted Bonnet Renewable seat Flanged Ends

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	STEM	BRASS
5	HANDWHEEL	CAST IRON
6	YOKE	BRONZE
7	YOKE BUSH	BRASS
8	PACKING GLAND	BRONZE
9	STAY	STEEL
10	GASKET	NON ASBESTOS
11	PACKING	NON ASBESTOS
12	DISC NUT	BRASS
13	SPRING	STEEL
14	BOLT	BRASS / STAINLESS STEEL
15	NUT	BRASS / STAINLESS STEEL
16	STUD BOLT	BRASS / STAINLESS STEEL
17	NUT	BRASS / STAINLESS STEEL
18	O-RING	NBR
19	INDICATOR	BRASS
20	NUT	STEEL
21	HANDLE NUT	STEEL
22	NAME PLATE	STAINLESS STEEL
23	ACTUATOR	BRASS
24	O-RING	NBR
25	SPLIT PIN	BRASS

Test Pressure (Bar)

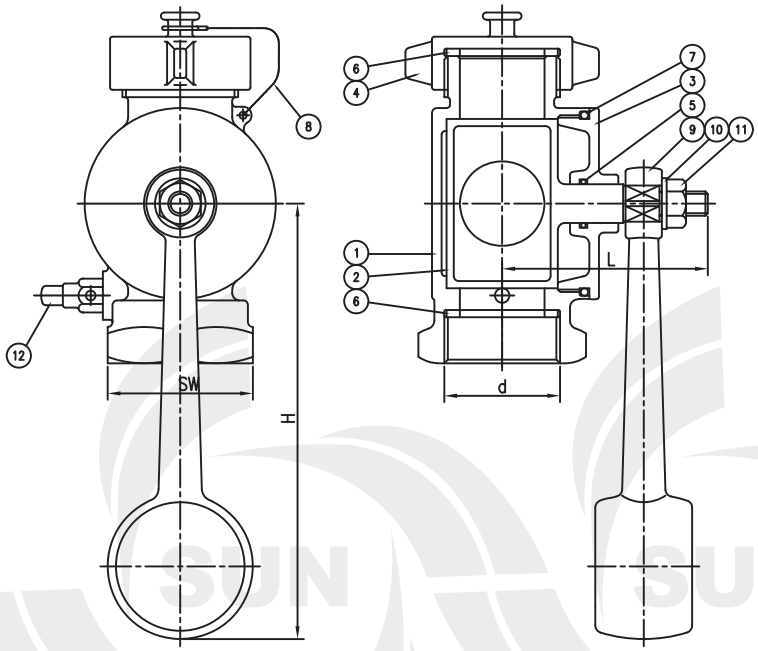
Rating	PN 10	PN 16
Size	15A to 250A	15A to 250A
Hydrostatic press test (Shell)	7	7
Hydrostatic press test (Seat)	2	2

Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N-h
PN 10 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	4-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	8-22
	250	250	730	325	600	480	395	350	320	28	12-23
Rating	Size	d	L	L1	H	H1	FLANGE				
							D	C	g	T	N-h
PN 16 (DIN 2331)	15	15	130	90	200	190	95	65	45	14	4-14
	20	20	150	95	200	190	105	75	58	16	4-14
	25	25	160	100	200	190	115	85	68	16	4-14
	32	32	180	105	230	215	140	100	78	18	4-18
	40	40	200	115	235	215	150	110	88	18	4-18
	50	50	230	125	265	240	165	125	102	20	4-18
	65	65	290	145	305	275	185	145	122	20	4-18
	80	80	310	155	325	285	200	160	138	22	8-18
	100	100	350	175	370	320	220	180	158	24	8-18
	125	125	400	200	400	340	250	210	188	26	8-18
	150	150	480	225	450	380	285	240	212	26	8-22
	175	175	550	250	500	415	315	270	242	28	8-22
	200	200	600	275	570	470	340	395	268	26	12-23
	250	250	730	325	600	480	405	355	320	28	12-27

Remark : 1. The name plate shall be specified by purchaser as required.

Self Closing Sounding Cocks



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	PLUG	BRONZE
3	COVER	BRONZE
4	SCREW CAP	BRONZE
5	O-RING	NBR
6	GASKET	NBR
7	O-RING	NBR
8	CHAIN WITH CLIP	BRASS
9	LEVER	CAST IRON
10	WASHER	STAINLESS STEEL
11	NUT	STAINLESS STEEL
12	DRAIN COCK	BRASS

Dimension Table (Unit : mm)

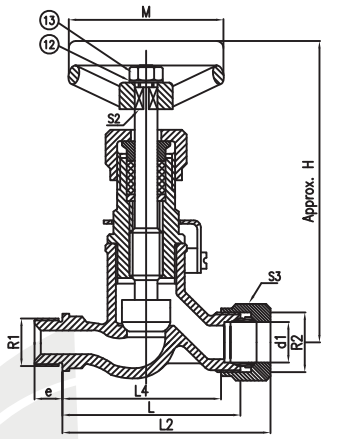
SIZE	d	SW	L	H	WEIGHT(kg)
40A	R 1-1/2	60	85	240	4.0
50A	R 2	70	85	240	7.5

Test Pressure (Bar)

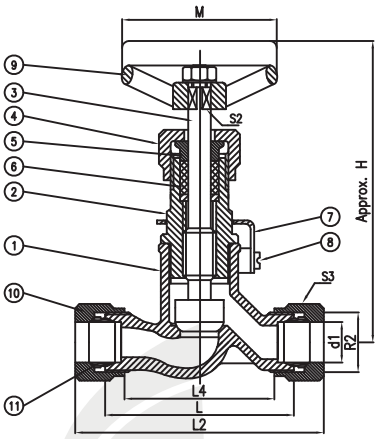
Rating	
Hydrostatic press test (Shell)	2

Remark : 1. The name plate shall be specified by purchaser as required.

PN 40 Globe Valves

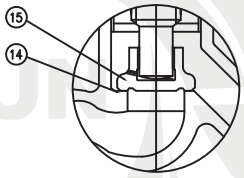


< BSP Male thread x Bite type Union >



< 2 x Bite type Union >

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE or BRASS
3	STEM	BRASS
4	GLAND NUT	BRASS
5	PACKING GLAND	BRASS
6	PACKING	GRAPHITE
7	LOCK PLATE	BRASS or SUS
8	MACHINE SCREW	BRASS or SUS
9	HANDWHEEL	CAST IRON
10	UNION NUT	BRASS
11	BITE-TYPE SEALRING	BRASS
12	WASHER	STEEL
13	NUT	STEEL
14	SEAT	INTEGRAL
15	DISC	BRASS



< Screw-Down Non Return >

DIMENSION (Unit : mm)

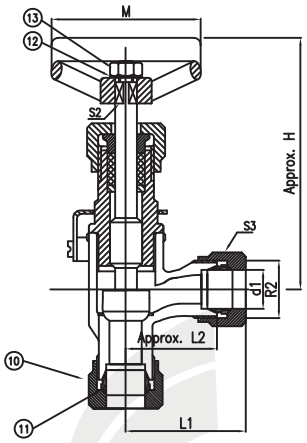
DN	d1	H max.	e	L	L2	L4	M	R1 (")	R2	S2	S3	Type
6	10	110		60	74	45	63		R1/2	7	27	Bite type Union X Bite type Union
8	12	110		64	78	49	63		R5/8	7	27	
10	14	110		70	88	54	63		R3/4	7	36	
12	16	130		84	102	67	80		R7/8	8	36	
16	20	130		90	110	69	80		R1	8	41	
20	25	150		110	132	86	100		R1'1/8	9	46	
25	30	150		120	144	93	100		R1'3/8	9	50	
32	38	180		140	164	108	125		R1'3/4	11	60	
6	10	110	10	60	67	52.5	63	R3/8	R1/2	7	27	BSP Male Thread X Bite type Union
8	12	110	12	64	71	62.5	63	R1/2	R5/8	7	27	
10	14	110	14	70	78	61.5	63	R1/2	R3/4	7	36	
12	16	130	16	84	93	75.5	80	R3/4	R7/8	8	36	
16	20	130	20	90	100	79.5	80	R3/4	R1	8	41	
20	25	150	25	110	121	98	100	R1	R1'1/8	9	46	
25	30	150	30	120	132	107	100	R1'1/4	R1'3/8	9	50	
32	38	180	38	140	154	126	125	R1'1/2	R1'3/4	11	60	

Test Pressure (MPa)

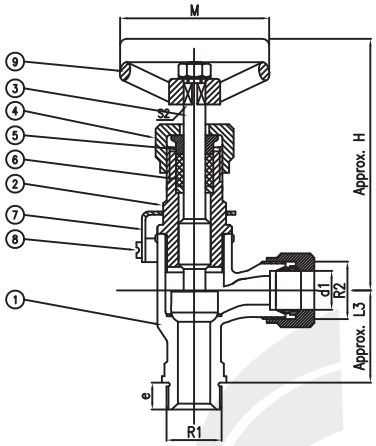
Rating	PN 40
Hydrostatic press test (Shell)	6
Hydrostatic press test (Seat)	4.4

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2240.

PN 40 Angle Valves

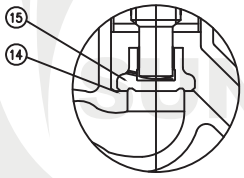


< 2 x Bite type Union >



< BSP Male thread x Bite type Union >

NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE or BRASS
3	STEM	BRASS
4	GLAND NUT	BRASS
5	PACKING GLAND	BRASS
6	PACKING	GRAPHITE
7	LOCK PLATE	BRASS or SUS
8	MACHINE SCREW	BRASS or SUS
9	HANDWHEEL	CAST IRON
10	UNION NUT	BRASS
11	BITE-TYPE SEALRING	BRASS
12	WASHER	STEEL
13	NUT	STEEL
14	SEAT	INTEGRAL
15	DISC	BRASS



< Screw-Down Non Return >

DIMENSION (Unit : mm)

DN	d1	H max.	e	L1	L2	L3	M	R1 (")	R2	S2	S3	Type
10	14	110		44	35		63		R3/4	7	36	Bite type Union X Bite type Union
12	16	130		51	42		80		R7/8	8	36	
16	20	130		55	45		80		R1	8	41	
20	25	150		66	55		100		R1'1/8	9	46	
25	30	150		77	60		100		R1'3/8	9	50	
32	38	180		82	70		125		R1'3/4	11	60	
10	14	110	14		35	35	63	R1/2	R3/4	7	36	BSP Male Thread X Bite type Union
12	16	130	16		42	42	80	R3/4	R7/8	8	36	
16	20	130	20		45	45	80	R3/4	R1	8	41	
20	25	150	25		55	55	100	R1	R1'1/8	9	46	
25	30	150	30		60	60	100	R1'1/4	R1'3/8	9	50	
32	38	180	38		70	70	125	R1'1/2	R1'3/4	11	60	

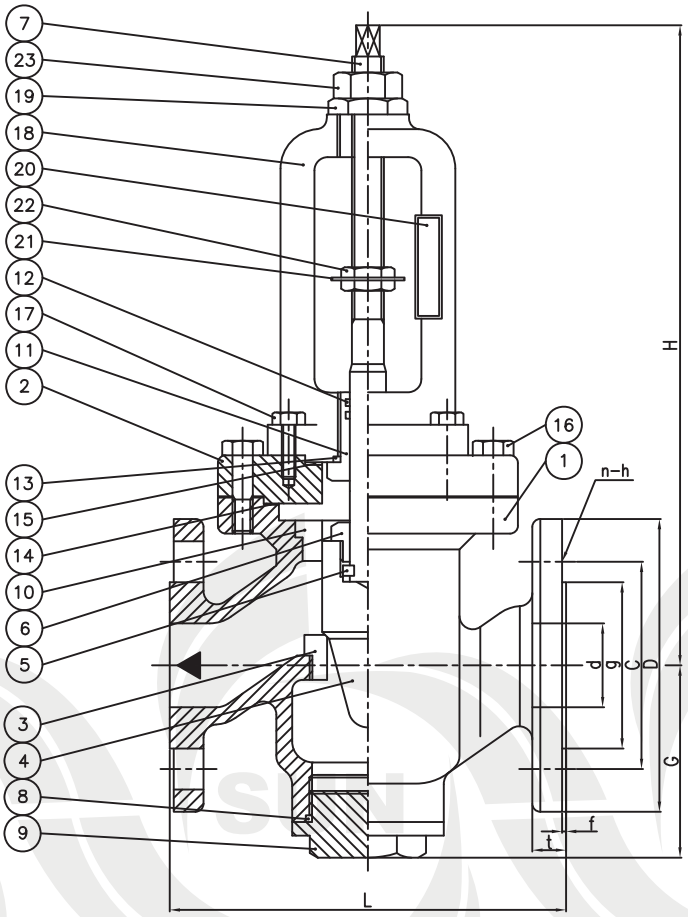
Test Pressure (MPa)

Rating	PN 40
Hydrostatic press test (Shell)	6
Hydrostatic press test (Seat)	4.4

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2240.

JIS 5K/10K

SUN-CH10G 15 to 50A



NOTE1

FCD450
SC480
BC6

NO.	PARTS	MATERIAL
1	BODY	NOTE1
2	COVER	SS400 or SUS304
3	SEAT	SUS304
4	DISC	SUS304
5	STOPER RING	SUS304
6	LOCKING BOLT	SUS304
7	STEM	SUS304
8	O-RING	NBR
9	PLUG	SS400 or BSBFE
10	DISC GUIDE	BSBFE
11	BUSHING	BSBFE
12	O-RING	NBR
13	O-RING	NBR
14	GASKET	ASBESTOS FREE
15	GASKET	ASBESTOS FREE
16	HEX BOLT	SS400 or SUS304
17	HEX BOLT	SS400 or SUS304
18	FREAM	FCD450
19	BUSHING	BSBFE
20	SCALE	SUS304
21	INDICATOR	SUS304
22	LOCK NUT	SS400
23	LOCK NUT	SS400

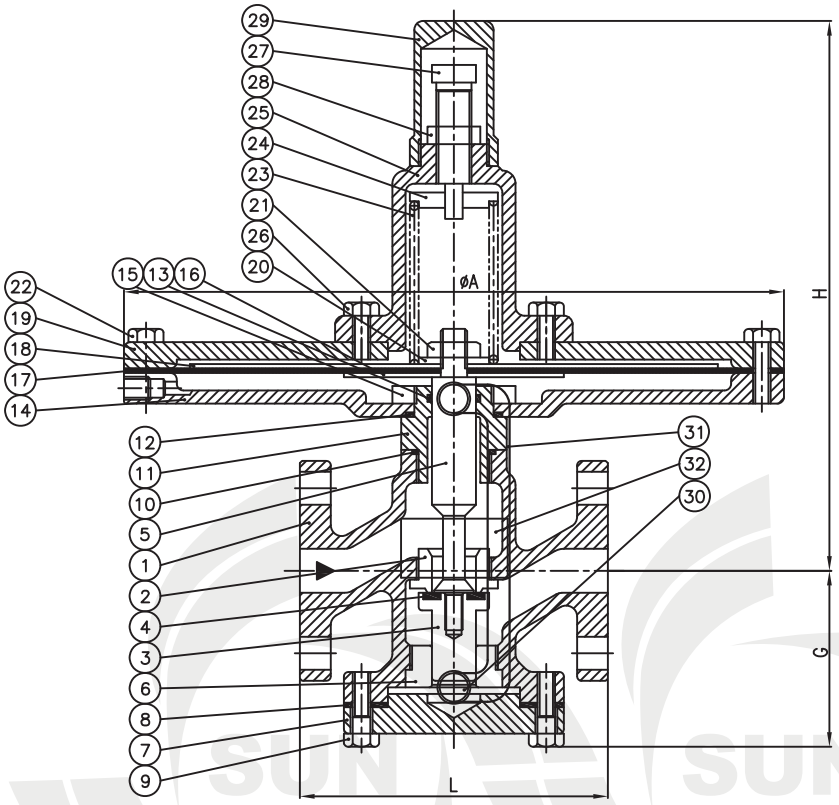
DIMENSIONS UNIT : mm

SIZE	RATING	d	g	C	D	n–h	T	f	L	G	H
15A	5K	15	–	70	95	4–15	9	1	132	65	265
	10K	15	52	70	95	4–15	12	1	136		
20A	5K	20	–	75	100	4–15	10	1	132	65	265
	10K	20	58	75	100	4–15	14	1	140		
25A	5K	25	–	90	125	4–19	10	1	142	70	275
	10K	25	70	90	125	4–19	14	1	150		
32A	5K	32	–	100	135	4–19	12	2	182	92	305
	10K	32	80	100	135	4–19	16	2	190		
40A	5K	40	–	105	140	4–19	12	2	182	92	305
	10K	40	85	105	140	4–19	16	2	190		
50A	5K	50	–	120	155	4–19	14	2	196	97	310
	10K	50	100	120	155	4–19	16	2	200		

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CR10DLG 15 to 25A



NO.	PARTS	MATERIAL
1	BODY	SC480 / SCS13 / SCS14
2	VALVE SEAT	SUS304 / SUS304 / SUS316
3	DISC HOLDER	SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR
5	VALVE STEM	SUS304 / SUS304 / SUS316
6	HOLDER GUIDE	SUS304 / SUS304 / SUS316
7	COVER	SUS304 / SUS304 / SUS316
8	GASKET	NON ASBESTOS
9	HEX.BOLT & WASHER	SUS304
10	GASKET	NON ASBESTOS
11	CONNECTOR	BSBFE / SUS304 / SUS316
12	O-RING	NBR
13	O-RING	NBR
14	DIAPHRAGM SEAT	AL / SUS304 / SUS316
15	LOCK NUT	SS400 / SUS304 / SUS316
16	LOW DIAP WASHER	SUS304 / SUS316
17	DIAPHRAGM	NBR
18	UPPER DIAP WASHER	SUS304 / SUS316
19	UP DIAP WASHER	AL / SUS304
20	LOW SPRING SEAT	SUS304
21	LOCK NUT & WASHER	SUS304
22	HEX.BOLT & WASHER	SUS304
23	ADJUST SPRING	SWOSC-V or SUS304
24	UP SPRING SEAT	SUS304
25	SPRING CASE	SC480 / SCS13
26	HEX.BOLT & WASHER	SS400 / SUS304
27	ADJUST SCREW	SUS304
28	LOCK NUT	SUS304
29	CAP	SS400 / SUS304
30	CONNECTOR	BSBFE / SUS304 / SUS316
31	SENSING TUBE	CU / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Air, N_2 , GAS
* Inlet pressure : 4 Kgf/cm² G Below
* Outlet pressure : 0.02 ~ 0.3 Kgf/cm² G
* Max, Reducing Rate : 100 : 1
* Applicable temperature : 5 ~ 60 °C
* Leakage allowance : 0.01%
* Hydro. test pr. : 1.5 times working pr.(3min)
* End Connections : JIS 16K-RF, ANSI 150LBS-RF

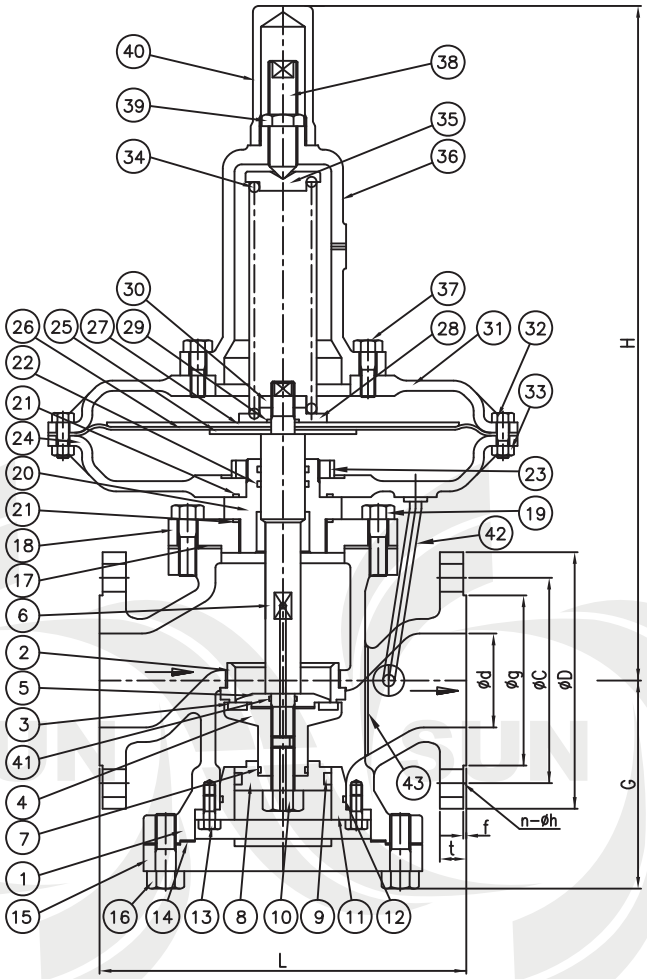
DIMENSIONS UNIT : mm

SIZE	L	G	H	ø A(0.02~0.1)	ø A(0.1~0.3)
15A	140	80	250	300	220
20A	145	80	250	300	220
25A	155	90	255	300	220

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CR10DLG 65 to 100A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC480/SCPH2 / SCS13 / SCS14
2	VALVE SEAT	SUS304 / SUS304 / SUS316
3	VALVE DISC	NBR
4	DISC HOLDER	BC6 / SCS13 / SCS14
5	DISC WASHER	SUS304 / SUS304 / SUS316
6	VALVE STEM	SUS304 / SUS304 / SUS316
7	O-RING	NBR
8	BLANCE PISTON	BC6 / SUS304 / SUS316
9	O-RING	NBR
10	LOCK BOLT	SUS304 / SUS304 / SUS316
11	CYLINDER	BC6 / SCS13 / SCS14
12	O-RING	NBR
13	HEX. BOLT	SUS304 / SUS304 / SUS316
14	GASKET	ASBESTOS FREE
15	BELOW COVER	SC480/SCPH2 / SCS13 / SCS14
16	HEX. BOLT&WASHER	SS400 / SUS304 / SUS304
17	GASKET	ASBESTOS FREE
18	UPPER COVER	SS400 / SUS304 / SUS316
19	HEX. BOLT&WASHER	SS400 / SUS304 / SUS304
20	CONNECTOR	BsBFE / SUS304 / SUS316
21	O-RING	NBR
22	O-RING	NBR
23	LOCK NUT	SS400 / SUS304 / SUS316
24	DIAPHRAGM SEAT	AC4C / SCS13 / SCS14
25	BELOW DIAP. WASHER	SUS304 / SUS304 / SUS316
26	DIAPHRAGM	NBR
27	UPPER DIAP. WASHER	SUS304 / SUS304 / SUS316
28	BELOW SPRING SEAT	SUS304 / SUS304 / SUS304
29	O-RING	NBR
30	STEM LOCK NUT	SUS304 / SUS304 / SUS304
31	DIAPHRAGM COVER	AC4C / SCS13 / SCS14
32	HEX. BOLT	SS400 / SUS304 / SUS304
33	HEX. NUT&WASHER	SS400 / SUS304 / SUS304
34	ADJUSTING SPRING	SWOSC-V
35	UPPER SPRING SEAT	SS400 / SUS304 / SUS304
36	SPRING CASE	SC480 / SCS13 / SCS14
37	HEX. BOLT&WASHER	SS400 / SUS304 / SUS304
38	ADJUSTING SCREW	SUS304 / SUS304 / SUS304
39	LOCK NUT	SUS304 / SUS304 / SUS304
40	CAP	SS400 / SUS304 / SUS304
41	O-RING	NBR
42	CONNECTOR&TUBE	Cu+BsBFE / SUS304 / SUS316
43	NAME PLATE	SUS304 / SUS304 / SUS304

Specifications

* Applicable fluid : Air, N_2 , GAS
* Applicable Pr. : below 4kgf/Cm^2 G
* Reducing Pr.Range : 0.01~0.3, 0.03~0.1, 0.1~0.3kg/Cm^2 G
* Reducing Ratio : 300:1
* Applicable temperature : MAX 60°C
* Leakage Allowance : 0
* Hydraulic test pressure : Inlet pressure x 1.5 time

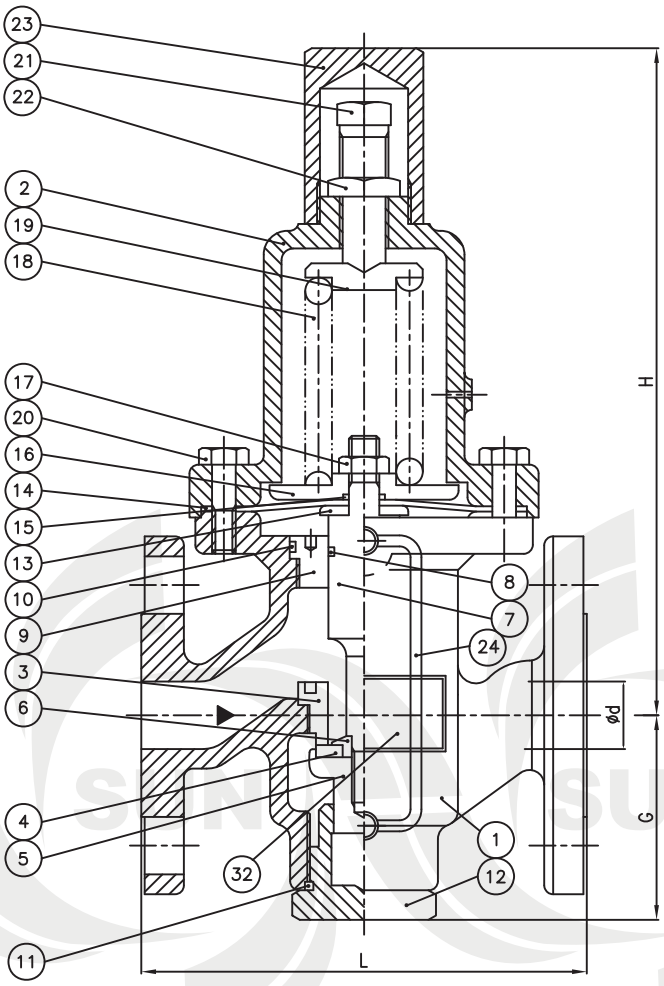
DIMENSIONS UNIT : mm

PART / SIZE	ød	JIS 10K FLANGE RF						L	G	H	WEIGHT (Kg)
		øD	t	f	øg	øC	n–øh				
65A	65	175	18	2	116	140	4–19	250	140	460	
80A	80	185	18	2	126	150	8–19	270	145	470	
100A	100	210	18	2	151	175	8–19	320	165	500	

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CR20DDL 15 to 25A



Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : 1 to 10Kgf/cm² G
  : 1 to 20Kgf/cm² G
* Reducing pr. range : 0.5 to 7Kgf/cm² G
* Reducing ratio : 10 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature

Part No.	60° C below	60° C over
4, 8, 10	NBR	VITON
11, 14, 15		

* Leakage allowance : Less than 0.01% of flow rate
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K–FF, JIS 20K–RF

DIMENSIONS UNIT : mm

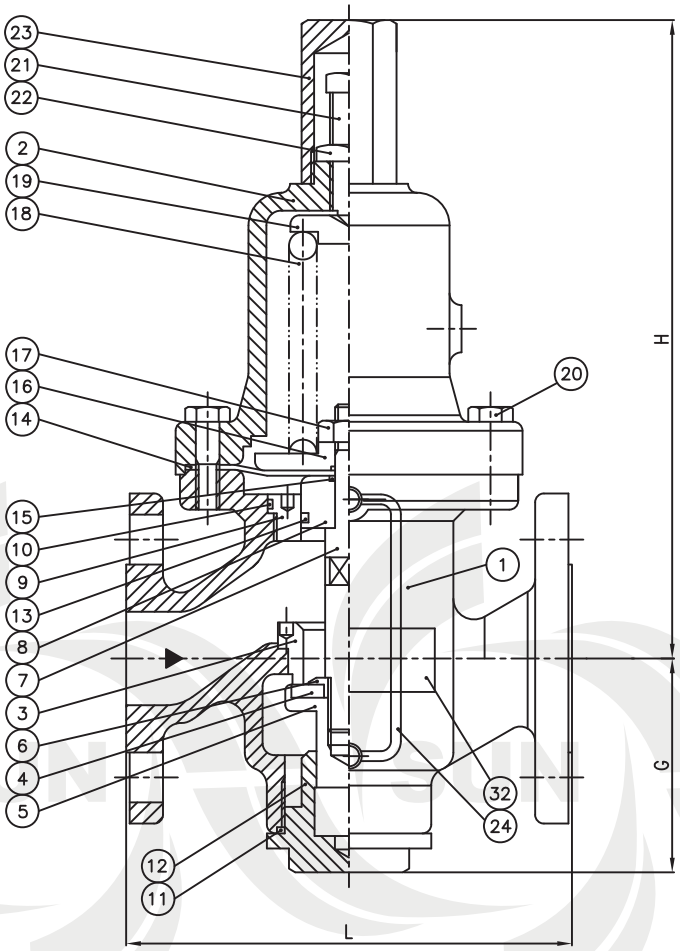
SIZE	RATING	L	G	H	WEIGHT(kg)
15A	10K	140	65	205	
	20K	145			
20A	10K	145	65	205	
	20K	150			
25A	10K	155	70	230	
	20K	160			

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	DIAP.WASHER	BsBFE / BsBFE / SUS304 / SUS316
14	DIAPHRAGM	NBR or VITON
15	O-RING	NBR or VITON
16	B.SPRING SEAT	SS400(Zn Coat) / SUS304
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CR20DDL 32 to 50A



Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : 1 to 10Kgf/cm² G
  : 1 to 20Kgf/cm² G
* Reducing pr. range : 0.5 to 7Kgf/cm² G
* Reducing ratio : 10 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature

Part No.	60° C below	60° C over
4, 10, 11	NBR	VITON
13, 14, 15		

* Leakage allowance : Less than 0.01% of flow rate
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K-FF, JIS 20K-RF

DIMENSIONS UNIT : mm

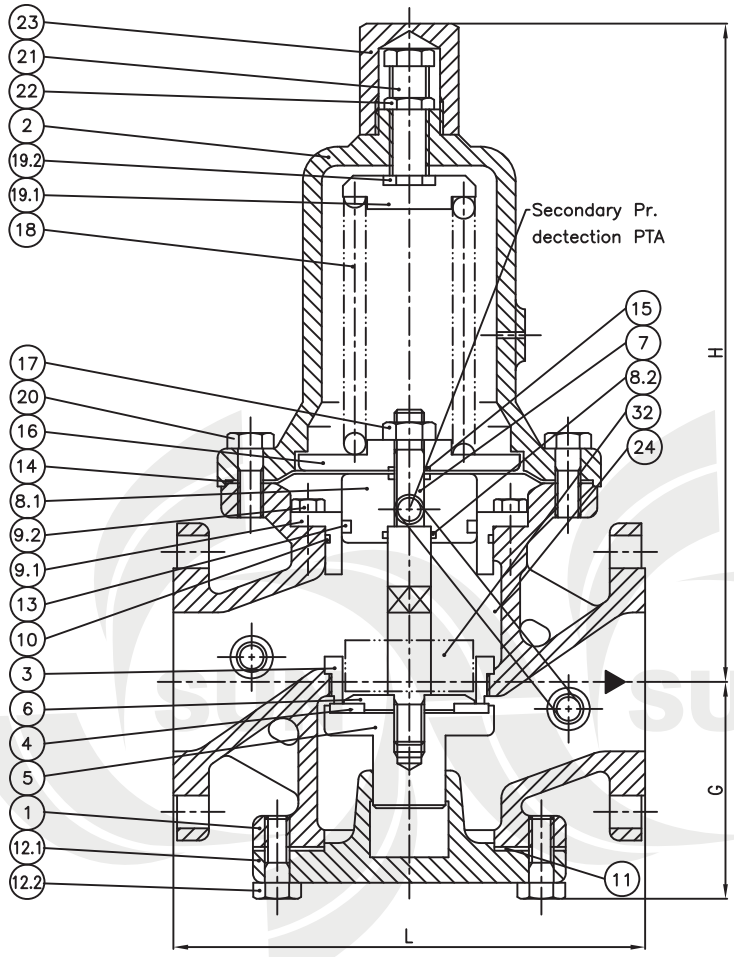
SIZE	RATING	L	G	H	WEIGHT(kg)
32A	10K	190	95	270	
	20K	195			
40A	10K	190	95	270	
	20K	195			
50A	10K	200	100	285	
	20K	205			

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	PISTON	BsBFE / BsBFE / SUS304 / SUS316
9	CYLINDER	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	O-RING	NBR or VITON
14	DIAPHRAGM	NBR or VITON
15	O-RING	NBR or VITON
16	B.SPRING SEAT	SS400(Zn Coat) / SUS304
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CR20DDL 65 to 150A



Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : 1 to 10Kgf/cm² G
  : 1 to 20Kgf/cm² G
* Reducing pr. range : 0.5 to 8Kgf/cm² G
* Reducing ratio : 10 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature

Part No.	60° C below	60° C over
4, 8.2, 10	NBR	VITON
13, 14, 15		

* Leakage allowance : 0
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 10K–RF , JIS 20K–RF

DIMENSIONS UNIT : mm

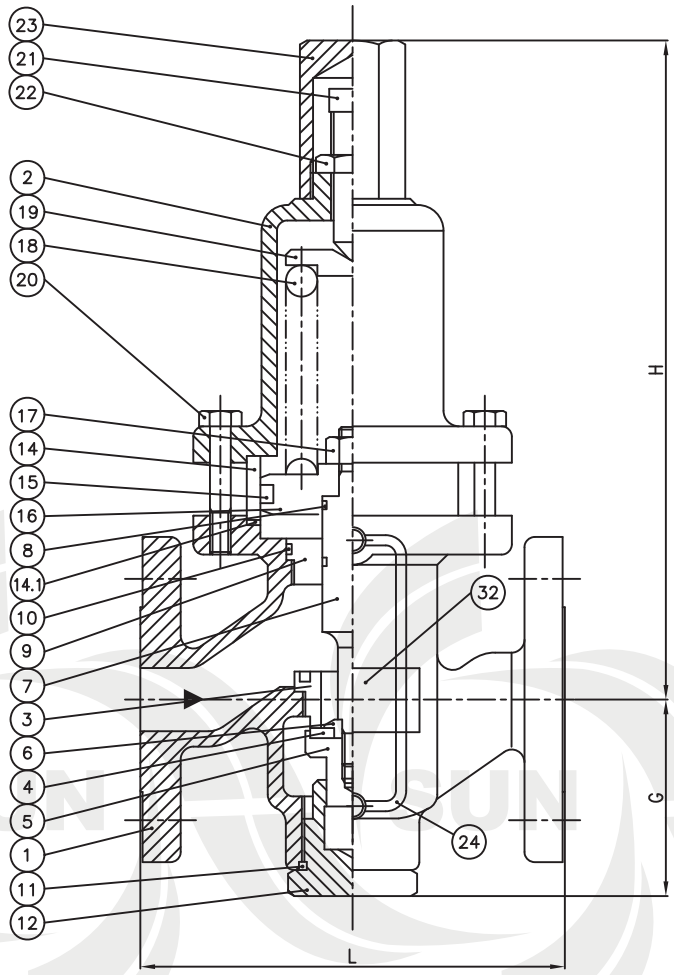
SIZE	RATING	L	G	H	PT A
65A	5K	242	115	370	3/8"
	10K	250			
	20K	255			
80A	5K	262	125	400	3/8"
	10K	270			
	20K	280			
100A	5K	315	140	420	3/8"
	10K	320			
	20K	330			
125A	5K		160	520	3/8"
	10K	350			
	20K	360			
150A	5K		190	590	3/8"
	10K	400			
	20K	410			

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8.1	PISTON	BC6 / BC6 / SUS304 / SUS316
8.2	O-RING	NBR or VITON
9.1	CYLINDER	BC6 / BC6 / SUS304 / SUS316
9.2	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
10	O-RING	NBR or VITON
11	GASKET	ASBESTOS FREE
12.1	DISC HOLDER GUIDE	SC480 / BC6 / SCS13 / SCS14
12.2	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
13	O-RING	NBR or VITON
14	DIAPHRAGM	NBR or VITON
15	O-RING	NBR or VITON
16	B.SPRING SEAT	SS400(Zn Coat) / SUS304
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19.1	T. SPRING SEAT	SS400(Zn Coat) / SUS304
19.2	BEARING	
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	BsBFE / BsBFE / SUS304 / SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CR20DPL 15 to 25A



Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : 1 to 10Kgf/cm² G
  : 1 to 20Kgf/cm² G
* Reducing pr. range : 0.5 to 16Kgf/cm² G
* Reducing ratio : 10 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature

Part No.	60° C below	60° C over
4, 8, 10	NBR	VITON
11, 15		

* Leakage allowance : Less than 0.01% of flow rate
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K-RF, JIS 20K-RF

DIMENSIONS UNIT : mm

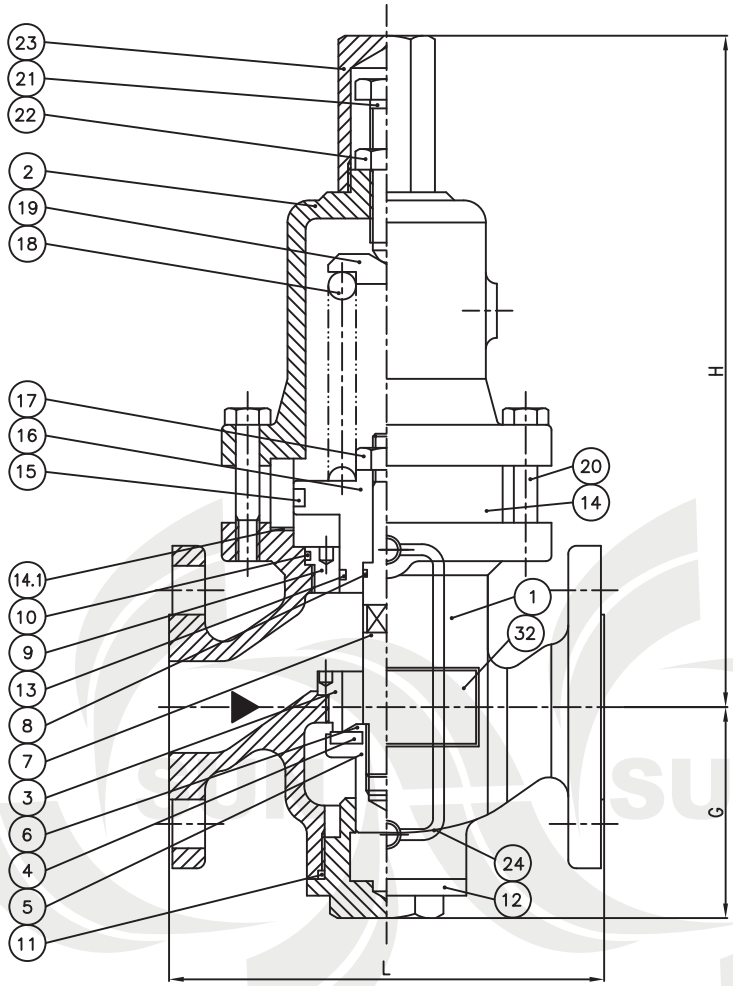
SIZE	RATING	L	G	H	WEIGHT(kg)
15A	10K/16K	140	65	225	
	20K	145			
20A	10K/16K	145	65	225	
	20K	150			
25A	10K/16K	155	70	250	
	20K	160			

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
14	CYLINDER	BC6 / BC6 / SUS304 / SUS316
14.1	GASKET	PTFE
15	O-RING & B.U.R	NBR or VITON+PTFE
16	PISTON	BsBFE / BsBFE / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CR20DPL 32 to 50A



Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : 1 to 10Kgf/cm² G
  : 1 to 20Kgf/cm² G
* Reducing pr. range : 0.5 to 16Kgf/cm² G
* Reducing ratio : 10 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature

Part No.	60° C below	60° C over
4, 8, 10	NBR	VITON
11, 13, 15		

* Leakage allowance : Less than 0.01% of flow rate
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K–FF, JIS 20K–RF

DIMENSIONS UNIT : mm

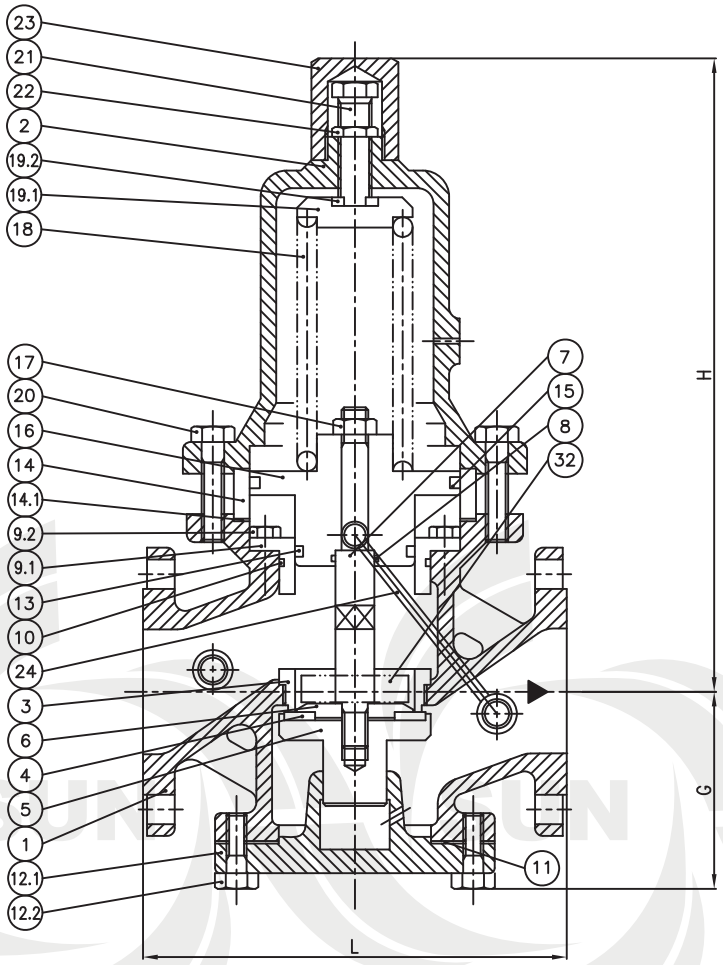
SIZE	RATING	L	G	H	WEIGHT(kg)
32A	10K	190	95	295	
	20K	195			
40A	10K	190	95	295	
	20K	195			
50A	10K	200	100	310	
	20K	205			

NO.	PARTS	MATERIAL
1	VALVE BODY	SC / BC6 / SCS13 / SCS14
2	SPRING CASE	SC / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	O-RING	NBR or VITON
14	CYLINDER	BC6 / BC6 / SUS304 / SUS316
14.1	GASKET	PTFE
15	O-RING & B.U.R	NBR or VITON+PTFE
16	PISTON	BsBFE / BsBFE / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CR20DPL 65 to 125A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC / BC6 / SCS13 / SCS14
2	SPRING CASE	SC / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	BS6 / BS6 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	O-RING	NBR or VITON
9.1	CYLINDER	BC6 / BC6 / SCS13 / SCS14
9.2	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	GASKET	ASBESTOS FREE
12.1	BELOW COVER	SC / SC / SCS13 / SCS14
12.2	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
13	O-RING	NBR or VITON
14	CYLINDER	SUS304 / SUS304 / SUS304 / SUS316
14.1	GASKET	PTFE
15	O-RING & B.U.R	NBR or VITON
16	PISTON	BC6 / BC6 / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	BsBFE / BsBFE / SUS304 / SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : 1 to 10Kgf/cm² G
  : 1 to 20Kgf/cm² G
* Reducing pr. range : 0.5 to 16Kgf/cm² G
* Reducing ratio : 10 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature

Part No.	60° C below	60° C over
4, 8.2, 10 13, 14, 15	NBR	VITON

* Leakage allowance : Less than 0.01% of flow rate
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K-RF, JIS 20K-RF

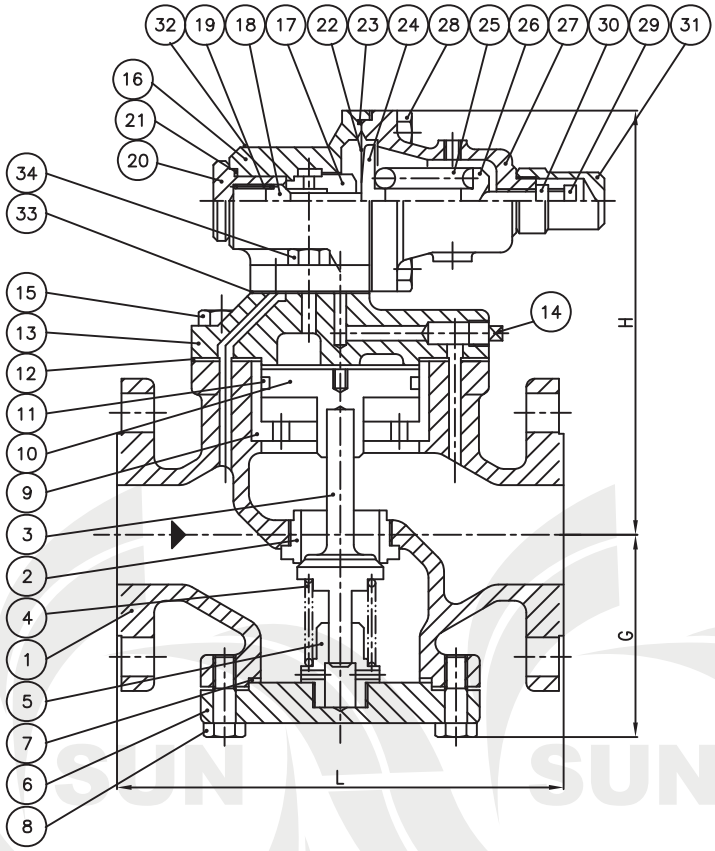
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	WEIGHT(kg)
65A	10K	250	115	400	
	20K	255			
80A	10K	270	125	430	
	20K	280			
100A	10K	320	140	450	
	20K	330			
125A	10K	350	160	560	
	20K	360			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Pilot Acting for Piston Type

SUN-CR20PPS 20 to 150A



NO.	PARTS	MATERIAL
1	MAIN BODY	BC6 / SC480 / SCS13
2	MAIN SEAT	SUS304 / SUS304 / SUS304
3	MAIN DISC	SUS304 / SUS304 / SUS304
4	MAIN SPRING	SUS304 / SUS304 / SUS304
5	DISC GUIDE	SUS304 / SUS304 / SUS304
6	BELOW COVER	SUS304 / SS400 / SUS304
7	GASKET	GRAPHITE / SUS304
8	HEX.BOLT&S/W	SUS304 / SS400 / SUS304
9	CYLINDER	SUS304 / SUS304 / SUS304
10	PISTON	SUS304 / SUS304 / SUS304
11	PISTON RING	TEFLON
12	GASKET	GRAPHITE
13	UP COVER	BC6 / SC480 / SCS13
14	PLUG	SUS304 / SS400 / SUS304
15	HEX.BOLT&S/W	SUS304 / SS400 / SUS304
16	PILOT BODY	BC6 / SC480 / SCS13
17	PILOT SEAT	SUS304 / SUS304 / SUS304
18	PILOT DISC	SUS304 / SUS304 / SUS304
19	PILOT SPRING	SUS304 / SUS304 / SUS304
20	PLUG	SUS304 / SS400 / SUS304
21	GASKET	GRAPHITE
22	DIAPHRAGM	SUS304 / SUS304 / SUS304
23	GASKET	TEFLON
24	BELOW SP.SEAT	BSBFE
25	ADJUST SPRING	SWOSC-V
26	UNDER SP.SEAT	BSBFE
27	PILOT SP.CASE	BC6 / SC480 / SCS13
28	HEX.BOLT&S/W	SUS304 / SS400 / SUS304
29	ADJUST SCREW	SUS304 / SUS304 / SUS304
30	LOCK NUT	SUS304 / SUS304 / SUS304
31	PILOT CAP	BSBFE / SS400 / SUS304
32	NAME PLATE	SUS304 / SUS304 / SUS304
33	GASKET	GRAPHITE
34	HEX.BOLT&S/W	SUS304 / SS400 / SUS304

Specifications

* Applicable fluid : Steam
* Inlet pressure : Max 11kgf/cm² G
* Outlet pressure : 0.5~8kgf/cm² G
* Applicable temperature : Max 220° C
* Max.reducing ratio : 20 : 1
* Leakage allowance : Less than 0.05% of rate flow
* Hydro.test pr : 1.5 times working pr.(3min)
* End connection : JIS 10K-RF

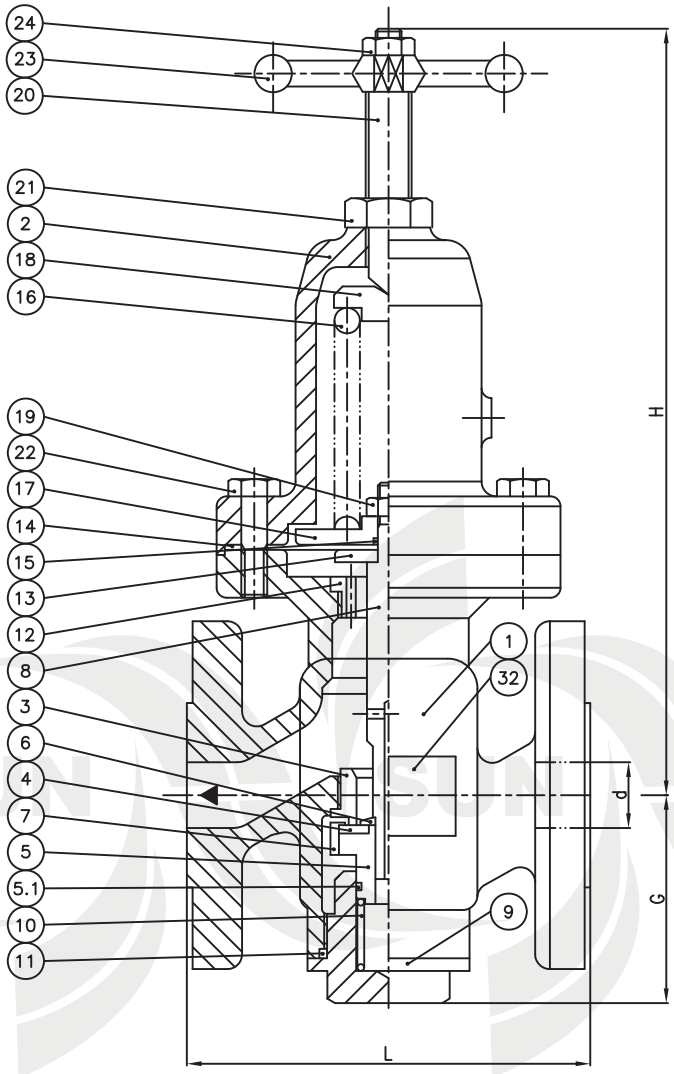
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	WEIGHT(kg)
20A	10K	170	78	180	
	20K	175			
25A	10K	170	78	180	
	20K	175			
32A	10K	200	85	200	
	20K	205			
40A	10K	200	85	200	
	20K	205			
50A	10K	220	100	210	
	20K	225			
65A	10K	250	110	245	
	20K	255			
80A	10K	280	120	255	
	20K	290			
100A	10K	320	150	265	
	20K	330			
150A	10K	420	205	340	
	20K	430			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type (JIS 30K)

SUN-CR30DDG 15 to 40A



Specifications

* Applicable fluid : Air, Gas
* Applicable pressure : Max. 40Kgf/cm² G
* Reducing pr. range : 0.5 to 8Kgf/cm² G
* Reducing ratio : 20 : 1
* Lock up pressure : set. pr. * 10%
* Applicable temperature : Max. 60° C
* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 30K-RF

DIMENSIONS UNIT : mm

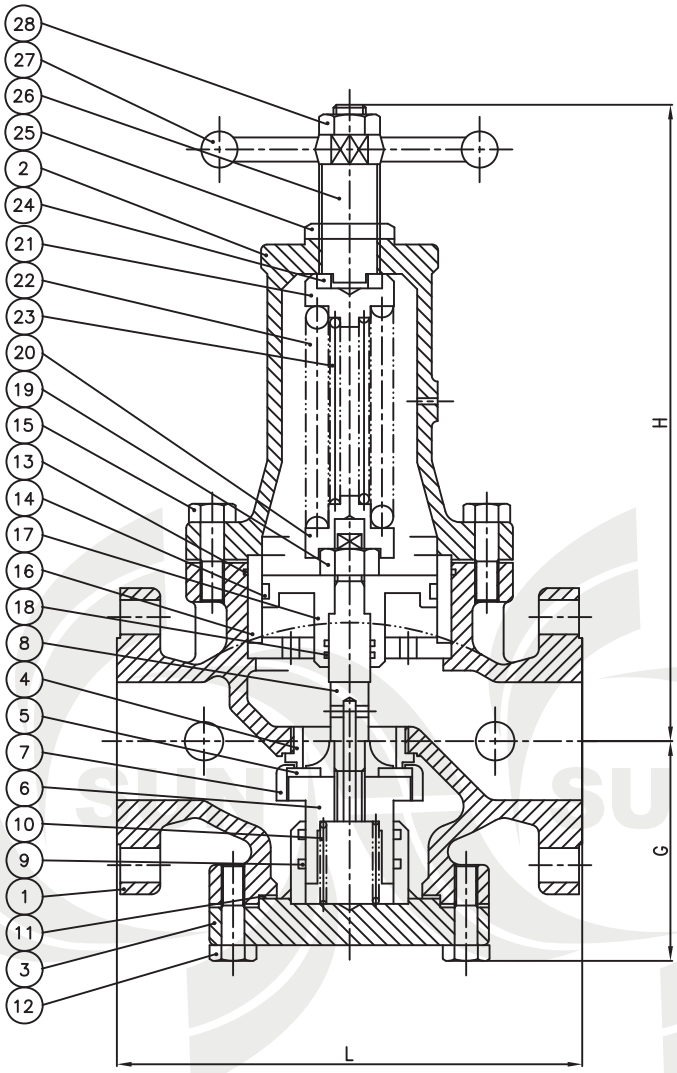
SIZE	RATING	L	G	H	WEIGHT(kg)
15A	30K	145	80	290	
20A	30K	145	80	290	
25A	30K	150	80	290	
32A	30K	180	90	320	
40A	30K	180	90	320	

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13
2	SPRING CASE	SC480 / BC6 / SCS13
3	VALVE SEAT	SUS304 / SUS304 / SUS304
4	VALVE DISC	NBR
5	DISC HOLDER	SUS304 / SUS304 / SUS304
5.1	O-RING	NBR
6	DISC WASHER	SUS304 / SUS304 / SUS304
7	DISC LOCK NUT	SUS304 / SUS304 / SUS304
8	VALVE STEM	SUS304 / SUS304 / SUS304
9	PLUG	BSBFE / BSBFE / SUS304
10	SPRING	SUS304 / SUS304 / SUS304
11	O-RING	NBR
12	STEM GUIDE	BSBFE / BSBFE / SUS304
13	DIAP. WASHER	SUS304 / SUS304 / SUS304
14	DIAPHRAGM	NBR
15	O-RING	NBR
16	SPRING	SWOSC-V
17	B. SPRING SEAT	SS400(Zn Coat) / SUS304
18	T. SPRING SEAT	SS400(Zn Coat) / SUS304
19	STEM LOCK NUT	SUS304 / SUS304 / SUS304
20	ADJUST SCREW	BSBFE / BSBFE / SUS304
21	LOCK NUT	SS400 / SUS304 / SUS304
22	HEX. BOLT	SS400 / SUS304 / SUS304
23	ADJUST HANDLE	FC200
24	HANDLE LOCK NUT	SS400 / SUS304 / SUS304
32	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CR20DPG 50 to 100A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / SCS13 / SCS14
2	SPRING CASE	SC480 / SCS13 / SCS14
3	COVER	SS400 / SUS304 / SUS316
4	SEAT	SUS304 / SUS304 / SUS316
5	DISC	NBR
6	DISC HOLDER	SUS304 / SUS304 / SUS316
7	DISC LOCK NUT	SUS304 / SUS304 / SUS316
8	STEM	SUS304 / SUS304 / SUS316
9	O-RING & B.U.R	NBR+PTFE
10	SPRING	SUS304 / SUS304 / SUS304
11	GASKET	GRAPHITE
12	HEX BOLT & WASHER	SS400 / SUS304 / SUS316
13	O-RING	NBR
14	O-RING & B.U.R	NBR+PTFE
15	HEX BOLT & WASHER	SS400 / SUS304 / SUS316
16	CYLINDER	BC6 / SCS13 / SCS14
17	PISTON	BC6 / SCS13 / SCS14
18	O-RING	NBR
19	STEM LOCK NUT	SUS304 / SUS304 / SUS304
20	B.SPRING SEAT	SS400 / SUS304 / SUS304
21	T.SPRING SEAT	SS400 / SUS304 / SUS304
22	ADJUST SPRING A	SWOSC-V
23	ADJUST SPRING B	SWOSC-V
24	BEARING	SUJ2
25	LOCK NUT	BSBFE / SUS304 / SUS304
26	ADJUST SCREW	SUS304 / SUS304 / SUS304
27	ADJUST HANDLE	FC200 / FC200 / FC200
28	LOCK NUT & WASHER	SUS304 / SUS304 / SUS304

Specifications

* Applicable fluid : Air, Gas, Water
* Applicable pressure : 30Kgf/cm² G
* Reducing pressure : 5~10kgf/cm² G,10~15kg/cm² G,15~20kg/cm² G
* Reducing ratio : 10 : 1
* Applicable temperature : Max 60°C
* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 40K-RF

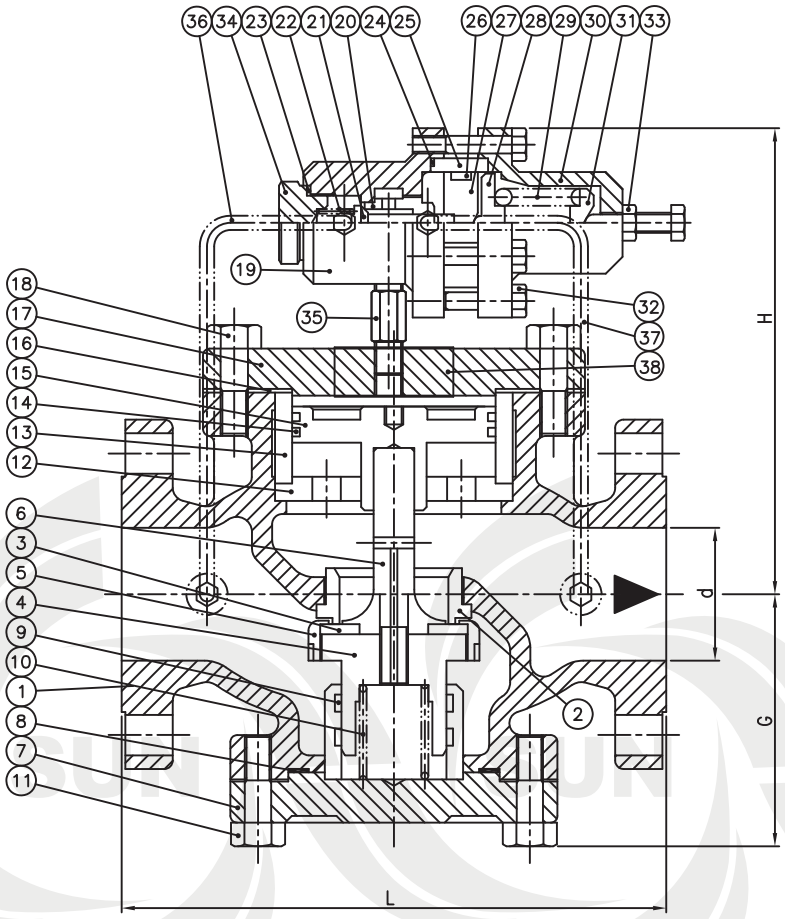
DIMENSIONS UNIT : mm

SIZE	L	G	H	WEIGHT(kg)
40A	280	100	410	
50A	280	100	410	
65A	290	105	450	
80A	320	115	480	
100A	420	170	480	

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Pilot Acting for Piston Type

SUN-CR30PPG 50 to 200A



NO.	PARTS	MATERIAL
1	Valve Body	A216WCB / SCS13 / SCS14 / SCS16
2	Valve Seat	SUS304 / SUS316 / SUS316L
3	Valve Disc	N.B.R or TEFLON
4	Disc Holder	SUS304 / SUS316 / SUS316L
5	Disc Cap	SUS304 / SUS316 / SUS316L
6	Valve Stem	SUS304 / SUS316 / SUS316L
7	Bellow Cover	SCS13 / SCS13 / SCS14 / SCS16
8	Gasket	GRAPHITE
9	O-Ring & B.U.R	N.B.R or TEFLON
10	Spring	SUS304
11	Hex.Bolt & Washer	S45C / SUS304 / SUS304
12	Cylinder Seat	SUS304 / SUS316
13	Cylinder	SUS304 / SUS316
14	Piston Ring	TEFLON
15	Piston	SUS304 / SUS316 / SUS316L
16	Gasket	GRAPHITE
17	Upper Cover	SS400 / SUS304 / SUS316 / SUS316L
18	Hex.Bolt & Washer	S45C / SUS304 / SUS304
19	Pilot Body	S45C / SUS304 / SUS304
20	Pilot Seat	SUS316 / SUS316L
21	Pilot Disc & Stem	TEFLON&SUS304 / PTFE&316 / PTFE&316L
22	Pilot Spring	SUS304
23	Gasket	GRAPHITE
24	O-Ring	N.B.R
25	Pilot Cylinder	SUS304 / SUS316 / SUS316L
26	Piston Ring	N.B.R + TEFLON
27	Pilot Piston	SUS304 / SUS316 / SUS316L
28	Spring Seat	SUS304
29	Adjust Spring	SWOSC-V
30	Pilot Spring Case	S45C / SUS304 / SUS316 / SUS316L
31	Up Spring Seat	SUS304
32	Hex.Bolt & Washer	S45C / SUS304 / SUS304
33	Adjust Screw & Nut	SUS304
34	Plug	S45C / SUS304 / SUS316 / SUS316L
35	Nipple	SUS304 / SUS316 / SUS316L
36	Inlet Sensing Tube	SUS304 / SUS316
37	Outlet Sensing Tube	SUS304 / SUS316
38	Name Plate	SUS304

Specifications

* Applicable fluid : Air, Gas, Water
* Applicable pressure : Max. 40Kgf/cm² G
* Reducing pr. range : 1 to 25Kgf/cm² G
* Reducing ratio : 10 : 1
* Applicable temperature : Max. 120°C
* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : ANSI 300LBS–RF

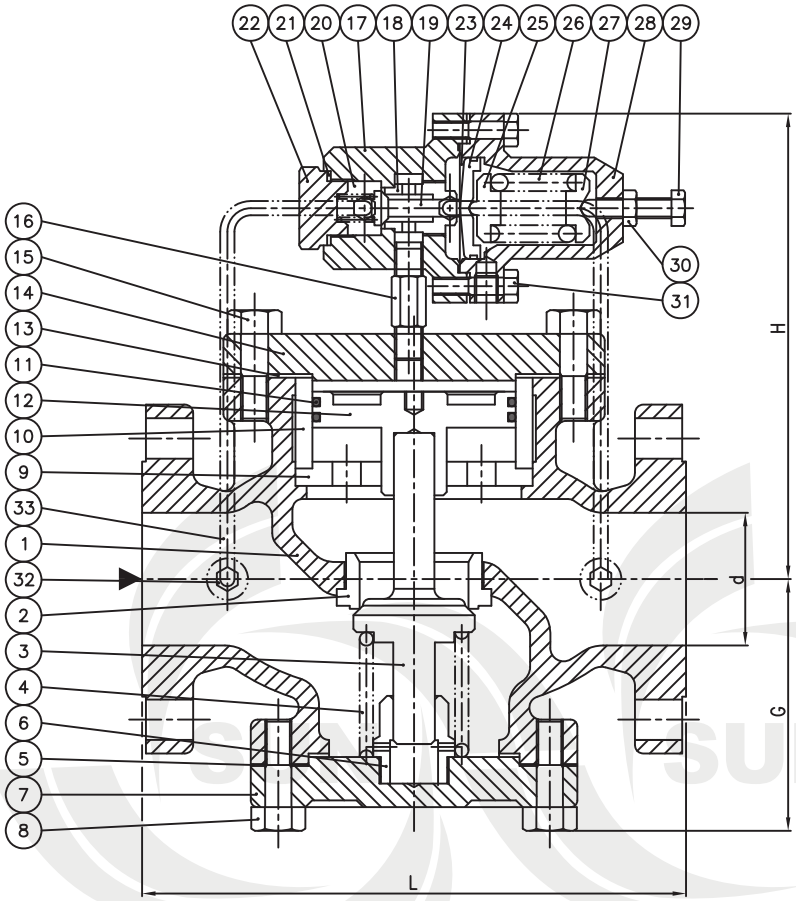
DIMENSIONS UNIT : mm

SIZE	L	G	H	WEIGHT(kg)
50A	280	125	230	
65A	320	145	280	
80A	320	145	280	
100A	420	195	300	
125A	430	195	300	
150A	460	250	420	
200A	540	270	480	

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Pilot Acting for Piston Type

SUN-CR30PPS 20 to 100A



NO.	PARTS	MATERIAL
1	BODY	SCPH2
2	VALVE SEAT	SUS316 / STELLITE WELD
3	VALVE DISC	SUS316 / STELLITE WELD
4	MAIN SPRING	SUS304
5	GASKET	GRAPHITE
6	DISC GUIDE	SUS403
7	BELOW COVER	SS400
8	HEX. BOLT & WASHER	S45C
9	CYLINDER SEAT	SUS304
10	CYLINDER	SUS403
11	PISTON RING	FC200
12	PISTON	SUS304
13	GASKET	GRAPHITE
14	UNDER COVER	SS400
15	HEX. BOLT & WASHER	S45C
16	NIPPLE	S45C
17	PILOT BODY	SS400
18	PILOT SEAT	SUS316 / STELLITE WELD
19	PILOT DISC	SUS316 / STELLITE WELD
20	PILOT SPRING	SUS304
21	GASKET	GRAPHITE
22	PLUG	SUS304
23	DIAPHRAGM	SUS304
24	BELOW SPRING SEAT	SS400
25	SPRING SEAT	SS400
26	ADJUST SPRING	SWOSC-V
27	UP SPRING SEAT	SS400
28	PILOT SPRING CASE	SS400
29	ADJUST SCREW	SUS304
30	LOCK NUT	SUS304
31	HEX. BOLT & WASHER	S45C
32	CONNECTOR	SUS304
33	SENSING TUBE	SUS316

Specifications

* Applicable fluid : Steam
* Applicable pressure : Max. 40Kgf/cm² G
* Reducing pr. range : 1 to 20Kgf/cm² G
* Reducing ratio : 10 : 1
* Applicable temperature : Max. 260°C
* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : ANSI 300LBS–RF, JIS 30K–RF

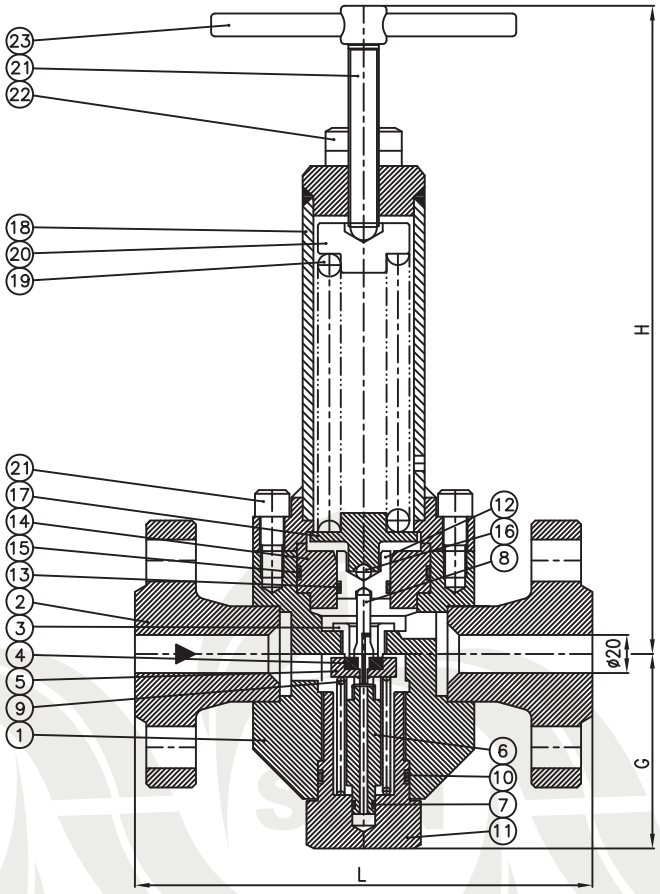
DIMENSIONS UNIT : mm

SIZE	L	G	H	WEIGHT(kg)
20A	240	115	215	
25A	240	115	215	
32A	280	125	230	
40A	280	125	230	43
50A	280	125	230	45
65A	320	145	280	59
80A	320	145	280	62
100A	420	195	300	134

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Pilot Acting for Piston Type

SUN-CR63DPL 15 to 25A



NO.	PARTS	MATERIAL
1	VALVE BODY	SUS304
2	FLANGE	SUS304
3	VALVE SEAT	SUS304
4	DISC	PTFE
5	DISC HOLDER	SUS304
6	HOLDER GUIDE	SUS304
7	O-RING & B.U.R	NBR + PTEF
8	STEM	SUS304
9	SPRING	SUS304
10	O-RING & B.U.R	NBR + PTEF
11	PLUG	SUS304
12	PISTON	SUS304
13	O-RING & B.U.R	NBR + PTEF
14	CYLINDER	SUS304
15	O-RING & B.U.R	NBR + PTEF
16	BALL	SUS304
17	SPRING SEAT	SUS304
18	SPRING CASE	SUS304
19	ADJUST SPRING	CARBON STEEL
20	SPRING SEAT	SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	HANDLE	SUS304

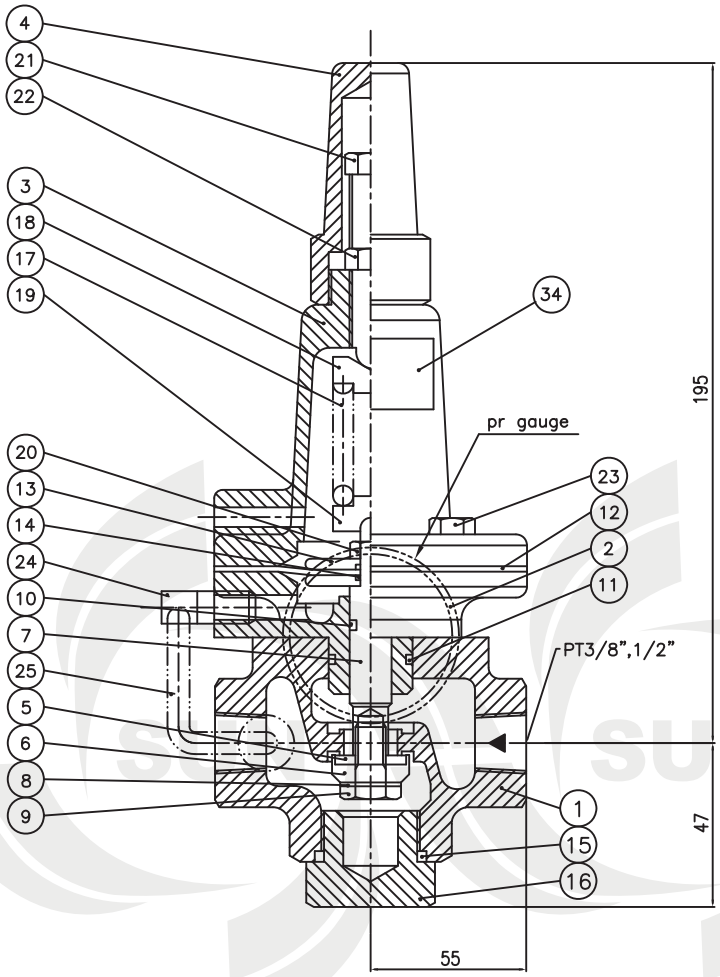
Specifications

* Applicable fluid : Water, Liquid, Air
* Inlet pressure : 150Kgf/cm² G
* outlet pressure : 5~20Kgf/cm² G
* Applicable temperature : Below 80°C
* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 210K-RF

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CRSDDL 10 to 15A



NO.	PARTS	MATERIAL
1	BODY	BC6 / SCS13 / SCS14
2	DIAP. SEAT	BC6 / SCS13 / SCS14
3	SPRING CASE	BC6 / SCS13 / SCS14
4	CAP	BSBFE / SUS304 / SUS304
5	DISC	NBR
6	DISC HOLDER	SUS304 / SUS304 / SUS316
7	STEM	SUS304 / SUS304 / SUS316
8	WASHER	SUS304 / SUS304 / SUS316
9	HEX BOLT	SUS304 / SUS304 / SUS316
10	O-RING	NBR
11	O-RING	NBR
12	DIAPHRAGM	NBR
13	DIAP. WASHER	BSBFE / SUS304 / SUS316
14	O-RING	NBR
15	O-RING	NBR
16	PLUG	BSBFE / SUS304 / SUS316
17	SPRING	SUS304 / SUS304 / SUS304
18	T. SPRING SEAT	BSBFE / SUS304 / SUS304
19	B. SPRING SEAT	BSBFE / SUS304 / SUS304
20	LOCK NUT & WASHER	SUS304 / SUS304 / SUS304
21	ADJUST SCREW	BSBFE / SUS304 / SUS304
22	LOCK NUT	SUS304 / SUS304 / SUS304
23	HEX BOLT & WASHER	SUS304 / SUS304 / SUS304
24	CONNECTOR	BSBFE / SUS304 / SUS316
25	SENSING TUBE	COPPER / SUS316 / SUS316
34	NAME PLATE	SUS304

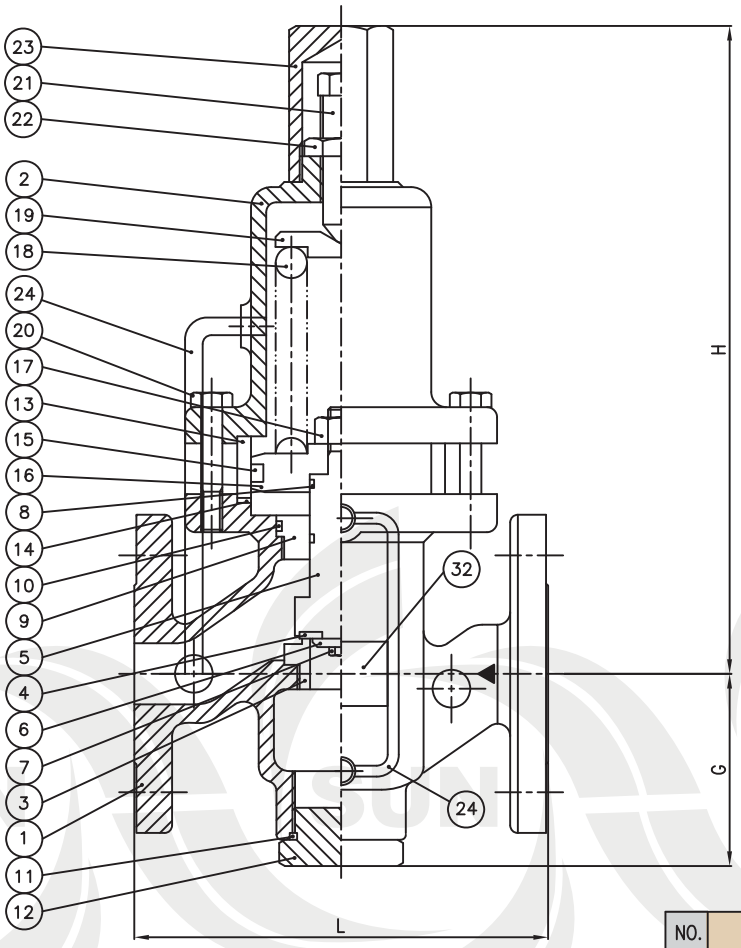
Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : Max. 20Kgf/cm² G
* Reducing pr. range : 0.5 to 6Kgf/cm² G
* Applicable temperature : Max. 80°C
* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS Threaded

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CD10DPL 15 to 25A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON+PTFE
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	CYLINDER	BC6 / BC6 / SUS304 / SUS316
14	O-RING	NBR or VITON
15	O-RING & B.U.R	NBR or VITON+PTFE
16	PISTON	BsBFE / BsBFE / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	PTFE, VITON
10, 11, 15	NBR	VITON

* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K-RF, JIS 16K-RF

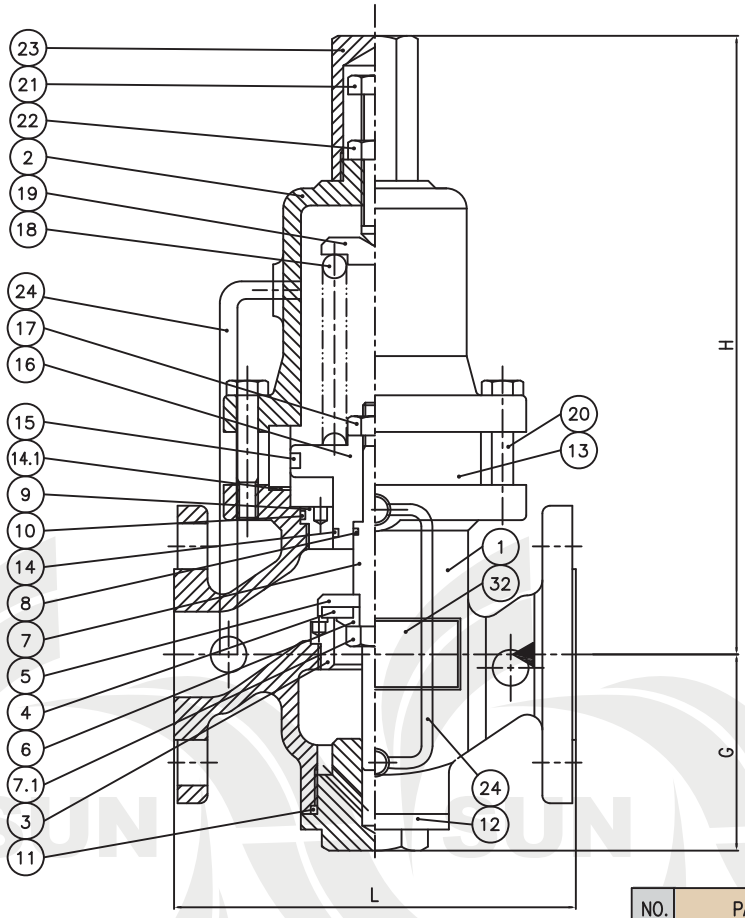
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	WEIGHT(kg)
15A	10K,16K	140	65	225	
20A	10K,16K	145	65	225	
25A	10K,16K	155	70	250	

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CD10DPL 32 to 50A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON+PTFE
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
7.1	DISC LOCK NUT	SUS304
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	CYLINDER	BC6 / BC6 / SUS304 / SUS316
14	O-RING	NBR or VITON
14.1	O-RING	NBR or VITON
15	O-RING & B.U.R	NBR or VITON+PTFE
16	PISTON	BsBFE / BsBFE / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	VITON
10, 11, 13, 15	NBR	VITON

* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 10K–RF

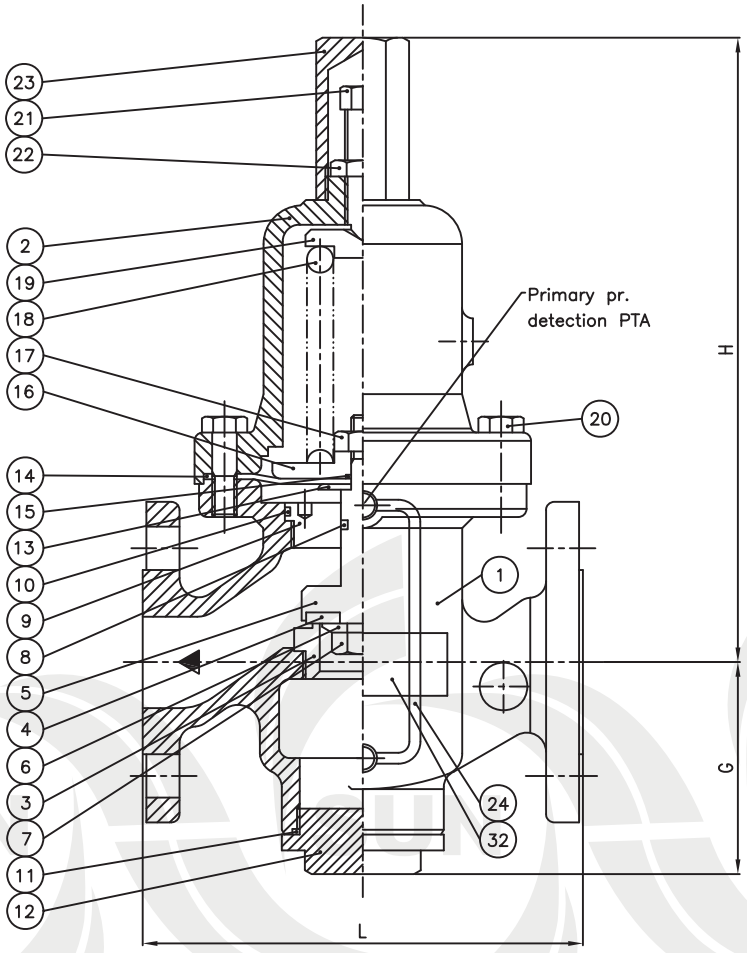
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	PT A
32A	5K	182	92	295	1/4"
	10K/16K	190			
40A	5K	182	92	295	1/4"
	10K/16K	190			
50A	5K	196	97	310	1/4"
	10K/16K	200			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CP10DDL 15 to 25A



Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	PTFE, VITON
8,10,11,14,15	NBR	VITON

* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 16K–RF

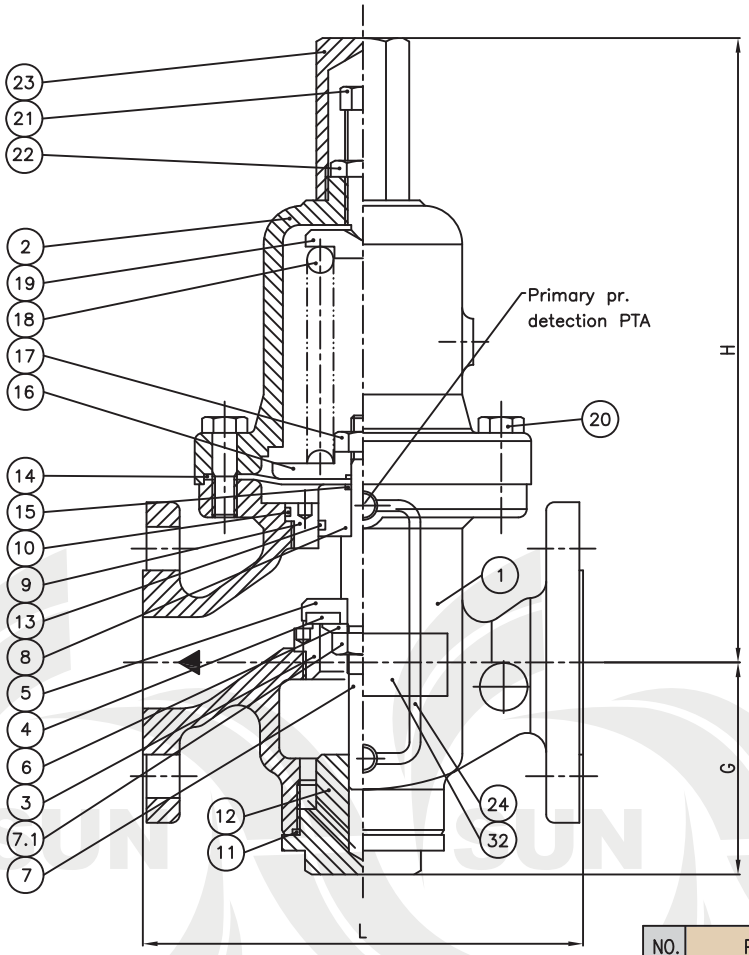
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	PT A
15A	5K	135	65	205	1/8"
	16K	140			
20A	5K	140	65	205	1/8"
	16K	145			
25A	5K	150	70	230	1/8"
	16K	155			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CP10DDL 32 to 50A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC / BC6 / SCS13 / SCS14
2	SPRING CASE	SC / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON+PTFE
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
7.1	STEM LOCK NUT	SUS304
8	PISTON	SUS304 / SUS304 / SUS304 / SUS316
9	CYLINDER	SUS304 / SUS304 / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	STEM GUIDE	SUS304 / SUS304 / SUS304 / SUS316
13	O-RING	NBR or VITON
14	DIAPHRAGM	NBR or VITON
15	O-RING	NBR or VITON
16	B. SPRING SEAT	SS400 / SUS304 / SUS304 / SUS304
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400 / SUS304 / SUS304 / SUS304
20	HEX.BOLT & WASHER	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / SUS304 / SUS304 / SUS304
24	CONNECTOR & TUBR	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	PTFE, VITON
10,11,13,14,15	NBR	VITON

* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 16K–FF

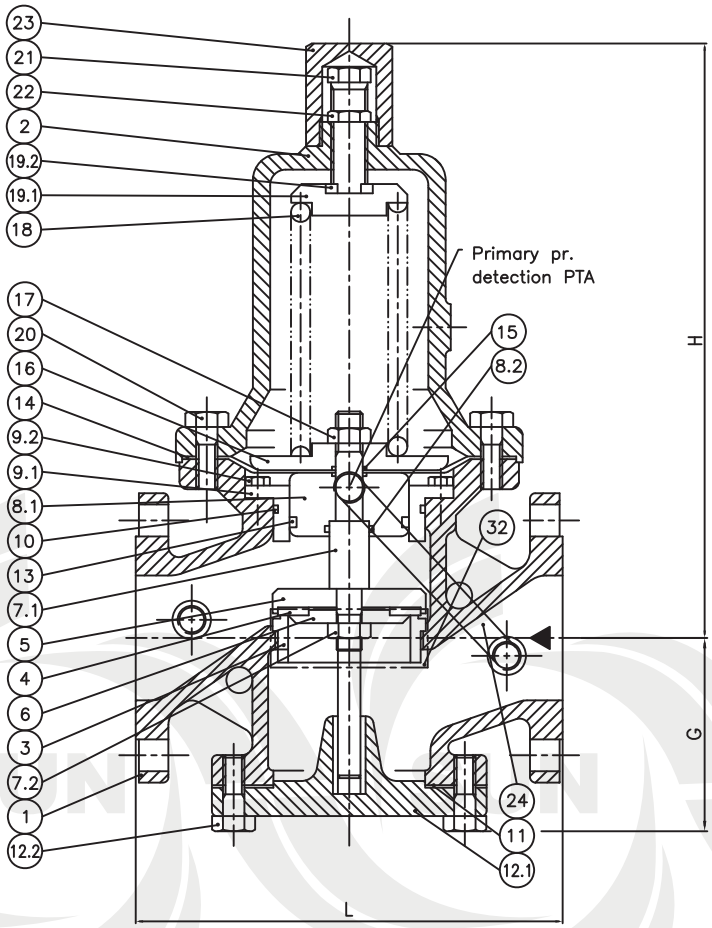
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	PT A
32A	5K	182	92	270	1/4"
	16K	190			
40A	5K	182	92	270	1/4"
	16K	190			
50A	5K	196	97	285	1/4"
	16K	200			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CP10DDL 65 to 150A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7.1	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
7.2	DISC LOCK NUT	SUS304 / SUS304 / SUS304 / SUS304
8.1	PISTON	BC6 / BC6 / SUS304 / SUS316
8.2	O-RING	NBR or VITON
9.1	CYLINDER	BC6 / BC6 / SUS304 / SUS316
9.2	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
10	O-RING	NBR or VITON
11	GASKET	ASBESTOS FREE
12.1	DISC HOLDER GUIDE	SC480 / BC6 / SCS13 / SCS14
12.2	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
13	O-RING	NBR or VITON
14	DIAPHRAGM	NBR or VITON
15	O-RING	NBR or VITON
16	B.SPRING SEAT	SS400(Zn Coat) / SUS304
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19.1	T. SPRING SEAT	SS400(Zn Coat) / SUS304
19.2	BEARING	
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	BsBFE / BsBFE / SUS304 / SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	PTFE, VITON
8.2,10,13,14,15	NBR	VITON

* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 10K–RF

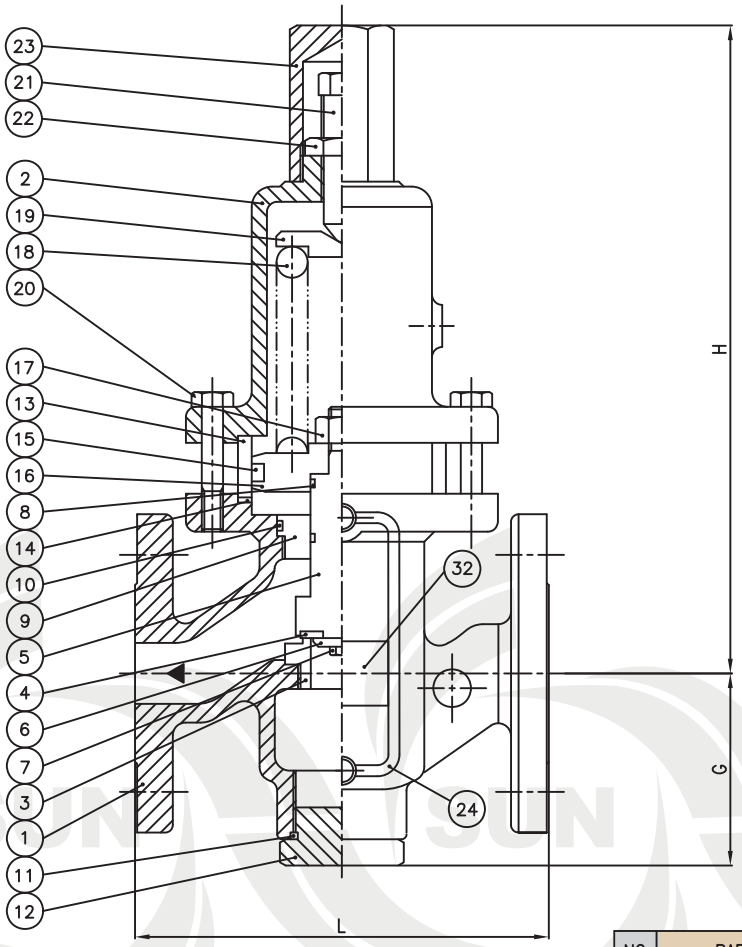
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	PT A
65A	5K	242	115	370	3/8"
	10K	250			
80A	5K	262	125	400	3/8"
	10K	270			
100A	5K	315	140	420	3/8"
	10K	330			
125A	5K		160	520	3/8"
	10K	350			
150A	5K		190	590	3/8"
	10K	400			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CP10DPL 15 to 25A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC / BC6 / SCS13 / SCS14
2	SPRING CASE	SC / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON+PTFE
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	CYLINDER	BC6 / BC6 / SUS304 / SUS316
14	O-RING	NBR or VITON
15	O-RING & B.U.R	NBR or VITON+PTFE
16	PISTON	BsBFE / BsBFE / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	PTFE, VITON
10, 11, 15	NBR	VITON

* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K-RF, JIS 16K-RF

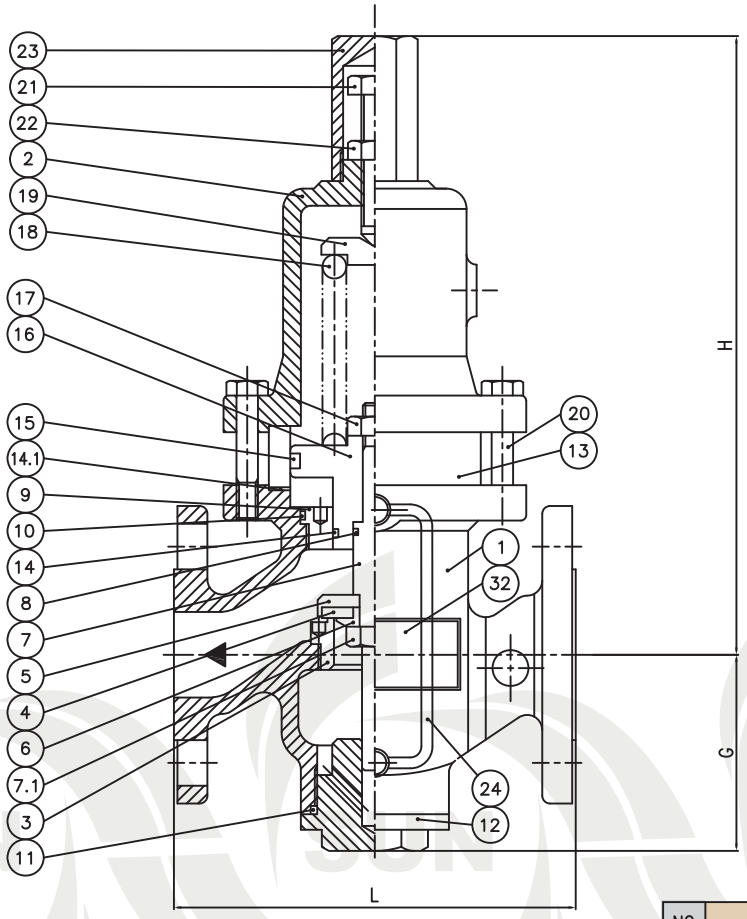
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	WEIGHT(kg)
15A	10K/16K	140	65	225	
20A	10K/16K	145	65	225	
25A	10K/16K	155	70	250	

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CP10DPL 32 to 50A



NO.	PARTS	MATERIAL
1	VALVE BODY	SC / BC6 / SCS13 / SCS14
2	SPRING CASE	SC / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON+PTFE
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
7.1	DISC LOCK NUT	SUS304
8	O-RING	NBR or VITON
9	STEM GUIDE	BsBFE / BsBFE / SUS304 / SUS316
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	PLUG	BsBFE / BsBFE / SUS304 / SUS316
13	CYLINDER	BC6 / BC6 / SUS304 / SUS316
14	O-RING	NBR or VITON
14.1	O-RING	NBR or VITON
15	O-RING & B.U.R	NBR or VITON+PTFE
16	PISTON	BsBFE / BsBFE / SUS304 / SUS316
17	STEM LOCK NUT	SUS304
18	ADJUST SPRING	SWOSC-V
19	T. SPRING SEAT	SS400(Zn Coat) / SUS304
20	HEX. BOLT	SS400 / SUS304 / SUS304 / SUS304
21	ADJUST SCREW	SUS304
22	LOCK NUT	SUS304
23	CAP	SS400 / BsBFE / SUS304 / SUS304
24	CONNECTOR & TUBE	BsBFE+Copper / SUS304 / SUS316
32	NAME PLATE	SUS304

Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 10Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	VITON
10, 11, 13, 15	NBR	VITON

* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 10K–RF, JIS 16K–RF

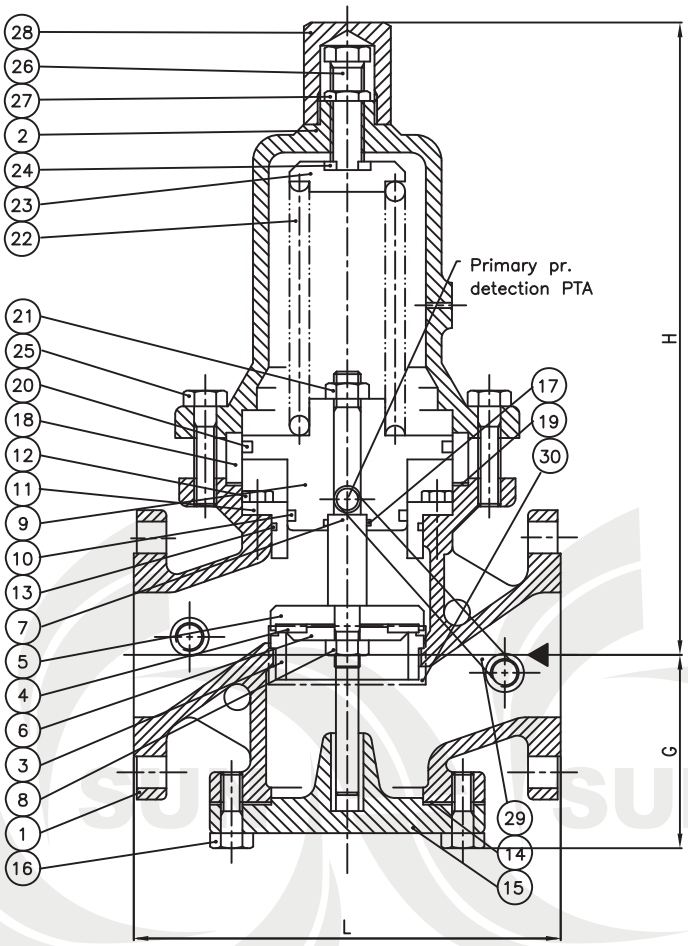
DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	PT A
32A	5K	182	92	295	1/4"
	10K/16K	190			
40A	5K	182	92	295	1/4"
	10K/16K	190			
50A	5K	196	97	310	1/4"
	10K/16K	200			

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Piston Type

SUN-CP10DPL 65 to 150A



Specifications

* Applicable fluid : Oil, Water, Liquids
* Inlet adjust pr. range : 0.5 to 16Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4	NBR	PTFE, VITON
10, 13, 17, 20	NBR	VITON

* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 10K–RF, JIS 20K–RF

DIMENSIONS UNIT : mm

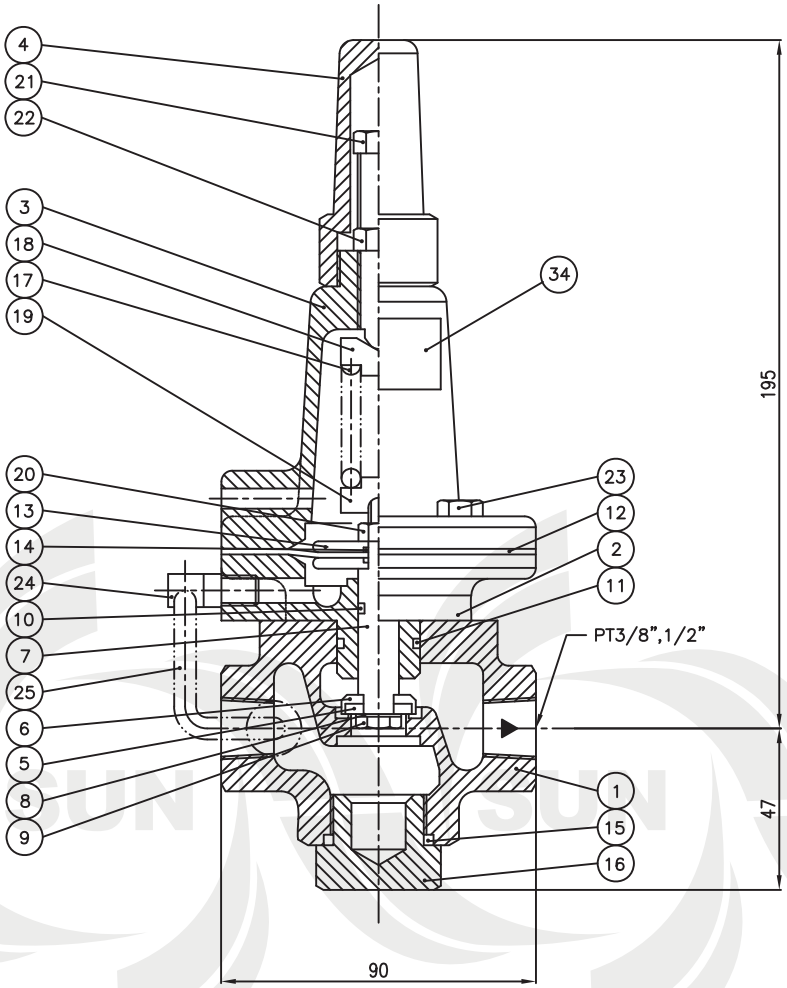
SIZE	RATING	L	G	H	PT A
65A	10K	250	115	370	3/8"
	20K	255			
80A	10K	270	125	400	3/8"
	20K	280			
100A	10K	320	140	420	3/8"
	20K	330			
125A	10K	350	160	560	3/8"
	20K	360			
150A	10K	400	185	650	3/8"
	20K	410			

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / BC6 / SCS13 / SCS14
2	SPRING CASE	SC480 / BC6 / SCS13 / SCS14
3	VALVE SEAT	SUS304 / SUS304 / SUS304 / SUS316
4	VALVE DISC	NBR or VITON & TEFLON
5	DISC HOLDER	SUS304 / SUS304 / SUS304 / SUS316
6	DISC WASHER	SUS304 / SUS304 / SUS304 / SUS316
7	VALVE STEM	SUS304 / SUS304 / SUS304 / SUS316
8	DISC LOCK NUT	SUS304
9	PISTON	BC6 / BC6 / SUS304 / SUS316
10	O-RING	NBR or VITON
11	CYLINDER	BC6 / BC6 / SUS304 / SUS316
12	HEX.BOLT & WASHER	SUS304 / SUS304 / SUS304 / SUS316
13	O-RING	NBR or VITON
14	GASKET	ASBESTOS FREE
15	STEM GUIDE	SC480 / BC6 / SCS13 / SCS14
16	HEX.BOLT & WASHER	SS400 / SUS304 / SUS304 / SUS304
17	O-RING	NBR or VITON
18	CYLINDER	BC6 / BC6 / SUS304 / SUS316
19	GASKET	ASBESTOS FREE
20	O-RING & B.U.R	NBR or VITON & TEFLON
21	STEM LOCK NUT	SUS304
22	ADJUST SPRING	SWOSC-V
23	T. SPRING SEAT	SS400 / SUS304 / SUS304
24	BEARING	
25	HEX.BOLT & WASHER	SS400 / SUS304 / SUS304
26	ADJUST SCREW	BsBFE / SUS304
27	LOCK NUT	BsBFE / SUS304
28	CAP	SS400 / BsBFE / SUS304
29	CONNECTOR & TUBE	BsBFE & Cu / SUS304 / SUS316
30	NAME PLATE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Direct Acting for Diaphragm Type

SUN-CPSDDL 10 to 15A



NO.	PARTS	MATERIAL
1	BODY	BC6 / SCS13 / SCS14
2	DIAP. SEAT	BC6 / SCS13 / SCS14
3	SPRING CASE	BC6 / SCS13 / SCS14
4	CAP	BSBFE / SUS304 / SUS304
5	DISC	NBR
6	DISC HOLDER	SUS304 / SUS304 / SUS316
7	STEM	SUS304 / SUS304 / SUS316
8	WASHER	SUS304 / SUS304 / SUS316
9	HEX BOLT	SUS304 / SUS304 / SUS316
10	O-RING	NBR
11	O-RING	NBR
12	DIAPHRAGM	NBR
13	DIAP. WASHER	BSBFE / SUS304 / SUS316
14	O-RING	NBR
15	O-RING	NBR
16	PLUG	BSBFE / SUS304 / SUS316
17	SPRING	SUS304 / SUS304 / SUS304
18	T. SPRING SEAT	BSBFE / SUS304 / SUS304
19	B. SPRING SEAT	BSBFE / SUS304 / SUS304
20	LOCK NUT & WASHER	SUS304 / SUS304 / SUS304
21	ADJUST SCREW	BSBFE / SUS304 / SUS304
22	LOCK NUT	SUS304 / SUS304 / SUS304
23	HEX BOLT & WASHER	SUS304 / SUS304 / SUS304
24	CONNECTOR	BSBFE / SUS304 / SUS316
25	SENSING TUBE	COPPER / SUS316 / SUS316
34	NAME PLATE	SUS304

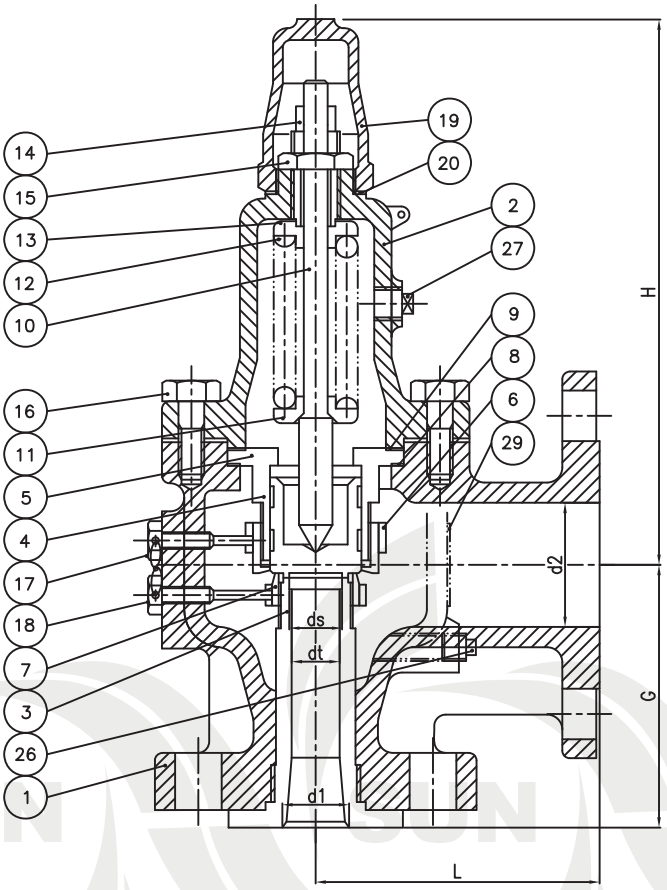
Specifications

* Applicable fluid : Air, Water, Liquids
* Applicable pressure : Max. 20Kgf/cm² G
* Reducing pr. range : 0.5 to 5Kgf/cm² G
* Applicable temperature : NBR : Max. 60°C
* Leakage allowance : Less than 0.01% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS Threaded

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

JIS 10K / 16K / 20K

SUN-CS20FC 15 to 200A



Specifications

* Applicable fluid : Air
* Applicable pressure : Max 20kgf/cm² G
* Applicable temperature : Max 220°C
* Hydro. test pr. : 1.5 times working pr.(3min) for NOZZLE
* End connection : JIS 10K–RF, JIS 16K–RF, JIS 20K–RF

DIMENSIONS UNIT : mm

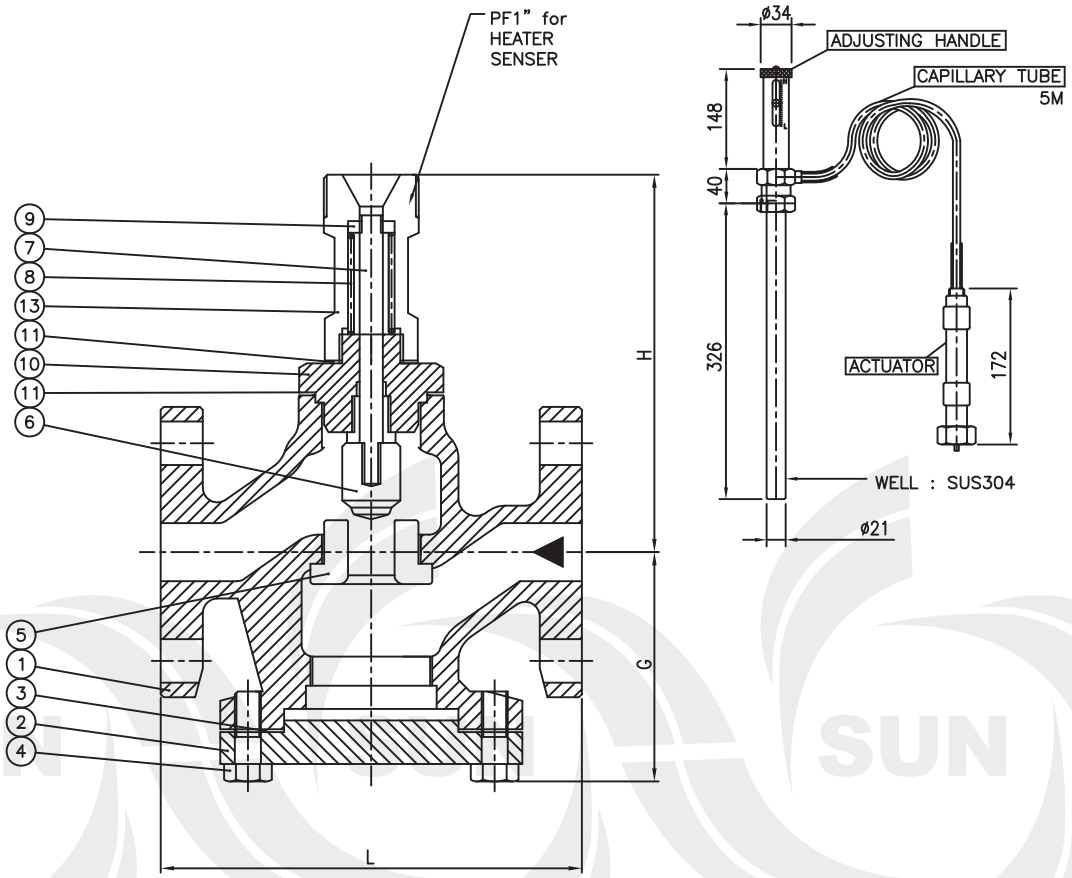
NO OF LIST	SIZE	SEAT DIA.	THROAT DIA.	LIFT	CENTER TO FACE		APPROX. HEIGHT	DRAIN HOLE PT	W/T(kg)
	d1*d2	ds	dt	l	L	G	H		
1	15*25	18	15	3.8	90	85	200	–	7.5
2	20*25	18	15	3.8	90	85	200	–	8.0
3	25*40	22	19	4.8	115	105	220	1/4	12.0
4	25*50	22	19	4.8	115	105	220	1/4	13.0
5	40*50	36	30	7.5	130	125	310	3/8	23.0
6	40*65	36	30	7.5	130	125	310	3/8	24.0
7	50*80	45	38	9.5	140	140	340	3/8	
8	65*100	58	49	12.3	160	155	450	1/2	44.0
9	80*100	71	61	15.3	185	170	510	1/2	
10	80*125	71	61	15.3	175	170	510	1/2	
11	100*150	88	76	19	210	195	580	1/2	82
12	125*200	111	95	23.8	230	225	700	3/4	
13	150*200	134	115	28.8	250	230	780	3/4	197
14	200*250	170	146	36.5	275	275	900	3/4	310

NO.	PARTS	MATERIAL
1	VALVE BODY	SC480 / SCS13 / BC6
2	BONNET	SC480 / SCS13 / BC6
3	NOZZLE SEAT	15to25:SUS304 40to200:SCS13 / 15to25:SUS304 40to200:SCS13 / 15to25:SUS304 40to200:BC6
4	DISC	15to40:SUS304 50to200:SCS13 / 15to40:SUS304 50to200:SCS13 / 15to25:SUS304 40to200:BC6
5	DISC GUIDE	BC6 / SCS13 / BC6
6	UPPER CONTROL RING	15to25:BsBFE 40to200:BC6 / 15to25:SUS304 40to200:SCS13 / 15to25:BsBFE 40to200:BC6
7	LOW CONTROL RING	15to25:BsBFE 40to200:BC6 / 15to25:SUS304 40to200:SCS13 / 15to25:BsBFE 40to200:BC6
8	BODY GASKET	ASBESTOS FREE
9	BONNET GASKET	ASBESTOS FREE
10	SPINDLE	SUS304 / SUS304 / SUS304
11	LOW SPRING WASHER	SS400 / SUS304 / SUS304
12	ADJUSTING SPRING	SWOSC-V or SUP-9A
13	UPPER SPRING WASHER	SS400 / SUS304 / SUS304
14	ADJUSTING SCREW	BsBFE / SUS304 / BsBFE
15	ADJUSTING SCREW LOCK NUT	BsBFE / SUS304 / BsBFE
16	HEX.BOLT & WASHER	SS400 / SUS304 / SUS304
17	UPPER LOCK BOLT & GASKET	SUS304 / SUS304 / SUS304
18	LOW LOCK BOLT & GASKET	SUS304 / SUS304 / SUS304
19	CAP	SS400orFCD450 / SUS304 / BsBFEorBC6
20	CAP GASKET	ASBESTOS FREE
26	DRAIN PLUG	SS400 / SUS304 / BsBFE
27	PLUG or COCK V/V	SS400 / SUS304 / BsBFE
29	NAME PLATE	SUS304 / SUS304 / SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

2-Way Type

SUN-CT10D 15 to 40A



Specifications

* Applicable fluid : Steam, Hot Water
* Applicable pressure : Max 22Kg/cm² G
* Applicable temperature : Max 220°C
* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–RF, JIS 16K–RF

DIMENSIONS UNIT : mm

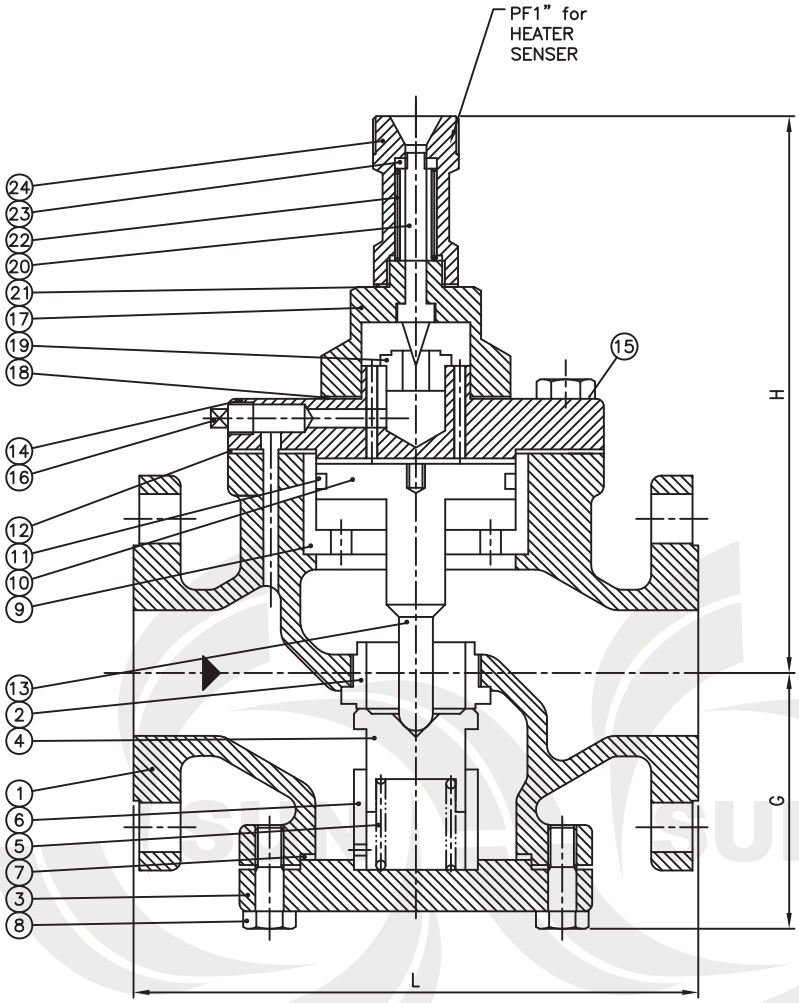
SIZE	RATING	L	G	H	Q'TY	TAG NO
15A	5K	135	60	125		
	16K	140				
20A	5K	135	60	125		
	16K	145				
25A	5K	148	65	130		
	16K	155				
32A	5K	192	100	145		
	16K	195				
40A	5K	192	100	145		
	16K	195				

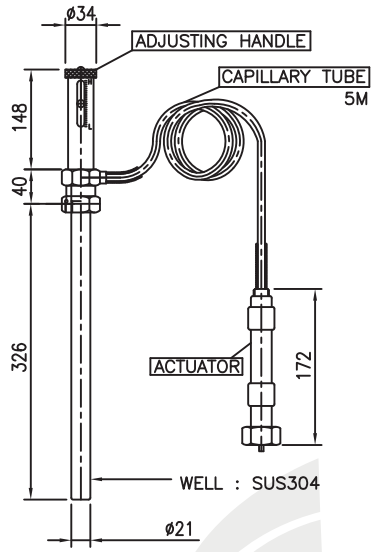
NO.	PARTS	MATERIAL
1	VALVE BODY	BC6
2	COVER	BC6
3	GASKET	ASBESTOS FREE
4	HEX BOLT & WASHER	SUS304
5	VALVE SEAT	SUS304
6	VALVE DISC	SUS304
7	VALVE STEM	SUS304
8	SPRING	SUS304
9	SPRING SEAT	SUS304
10	DISC GUIDE	SUS304
11	GASKET	TEFLON
13	CONNECTOR	BSBFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

2-Way Type

SUN-CT10P32 to 150A





NO.	PARTS	MATERIAL
1	Body	A216WCB
2	Seat	SUS304
3	Bellow Cover	SS400
4	Disc	SUS304
5	Spring	SUS304
6	Disc Guide	SUS304
7	Gasket	ASBESTOS FREE
8	Hex. Bolt & Washer	SS400
9	Cylinder	SUS304
10	Piston	SUS304
11	Piston Ring	PTFE
12	Stem	SUS304
13	Gasket	ASBESTOS FREE
14	Top Cover	SS400
15	Hex. Bolt & Washer	SS400
16	Plug	SS400
17	Pilot Case	BSBFE
18	Gasket	PTFE
19	Pilot Seat	SUS304
20	Pilot Disc & Stem	SUS304
21	Gasket	PTFE
22	Pilot Spring	SUS304
23	Stem Washer	BSBFE
24	Sensor Connector	BSBFE

Specifications

* Applicable fluid : Steam
* Applicable pressure : Max 10Kg/cm² G
* Applicable temperature : Max 220°C
* Leakage allowance : Less than 0.05% of rate flow
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : ANSI 150LBS-RF

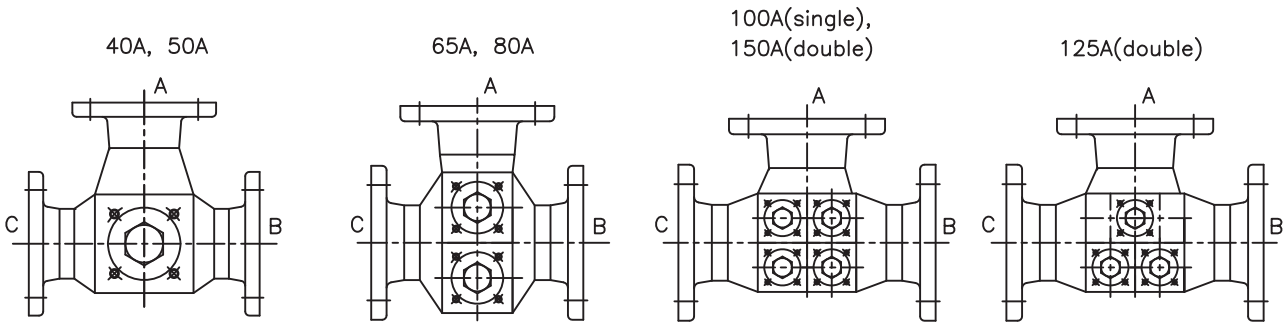
DIMENSIONS UNIT : mm

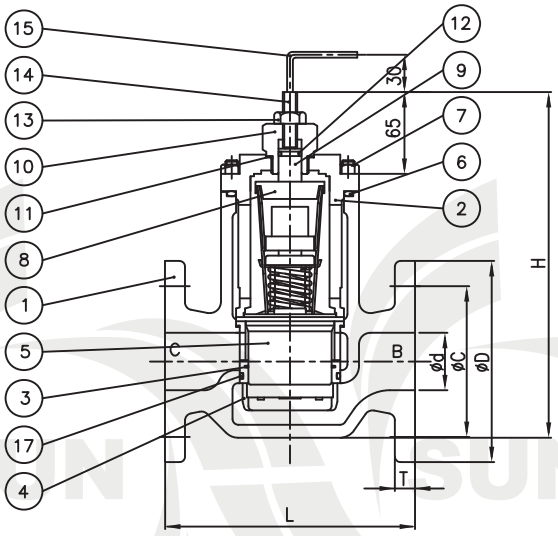
SIZE	L	G	H
32A(11/4")	200	80	215
40A(11/2")	200	80	215
50A(1")	220	90	225
65A(21/2")	280	130	255
80A(3")	280	130	255
100A(4")	315	145	270
150A(6")	420	205	330

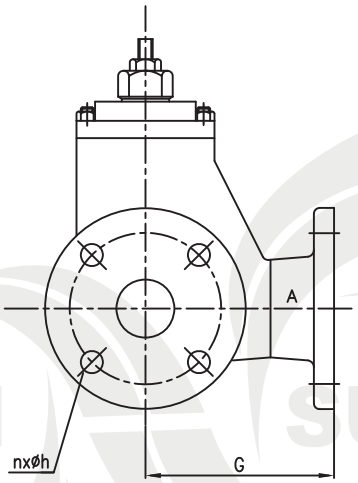
Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Wax Type

SUN-HTR-FL-00511-00

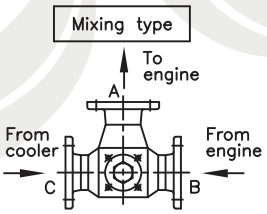


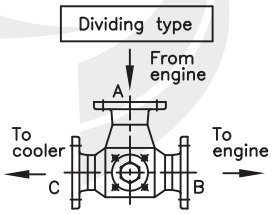




Thermostat range

	Temp. Range
	20~30°C
	27~41°C
	31~42°C
	35~43°C
	38~47°C
	40~50°C
	43~55°C
	51~60°C
	54~63°C
	57~66°C
	63~72°C
	66~74°C
	68~78°C
	71~80°C
	74~83°C
	77~85°C
	80~88°C
	85~94°C





Specifications

* Hyd. Test pressure : 7.5Kg/Cm²
* Max. Working pressure : 5Kg/Cm²
* Fluid : lub oil, fuel oil, water
* Flange size : JIS B 2210 5K–FF
* For sea water valves are to be TAR EPOXY coated on inner surface.
* Temperature range tolerance : ±1.5°C
* Thermostats stroke : 9.5mm
* For port action

Dimensions — JIS B 2210, 5K–FF Flanged — UNIT : mm

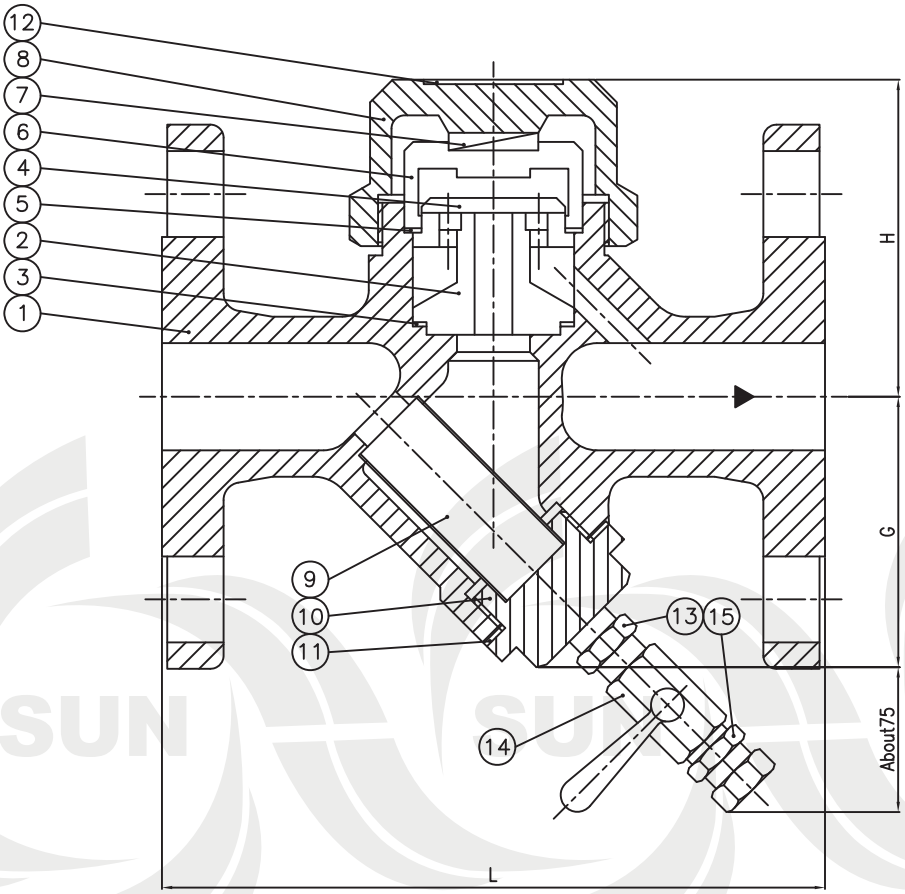
VALVE No.	Nom. size	Flange dimensions					Body dimensions			Weight (Kg)	Thermostat n
		d	C	D	T	nxh	L	G	H		
	40A	40	95	120	12	4x15	170	98	237	16.5	1
	50A	50	105	130	14	4x15	217	146	237	19.5	1
	65A	65	130	155	14	4x15	246	161	237	21.7	2
	80A	80	145	180	14	4x19	259	167	237	23.0	2
	100A	100	165	200	16	8x19	395	213	237	42.0	4
	125A	125	200	235	16	8x19	481	237	380	61.0	6
	150A	150	230	265	18	8x19	481	250	380	75.0	8

NO.	PARTS	MATERIAL
1	Body	FCD450
2	Cover	FCD450
3	Ring	NBR
4	Seat	BC6
5	Thermostat	SUS304
6	O-ring	NBR
7	Stud bolt & nut	SS400
8	Thermostat seat	C3712BE
9	Thermostat guide	C3712BE
10	Bushing	C3712BE
11	Gasket	C1100P
12	O-ring	NBR
13	Lock nut	SCM
14	Adjusting screw	SCM
15	Adjusting handle	SCM
17	O-ring	NBR

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Thermodynamic Type

SUN-CT16DY15 to 40A



Specifications

* Applicable fluid : Steam
* Inlet pressure : Max. 16Kgf/cm² G
* Applicable temperature : Max. 220°C
* Hydro. test pr. : Two time of working pr.(3min)
* End connection : JIS 5K–FF , JIS 10K–RF, JIS 16K–RF

DIMENSIONS UNIT : mm

SIZE	RATING	L	G	H	WEIGHT
15A	5K	132	57	67	
	10K/16K	136			
20A	5K	132	57	67	
	10K/16K	140			
25A	5K	142	62	72	
	10K/16K	150			
32A	5K	172	70	80	
	10K/16K	180			
40A	5K	172	70	80	
	10K/16K	180			

NOTE1

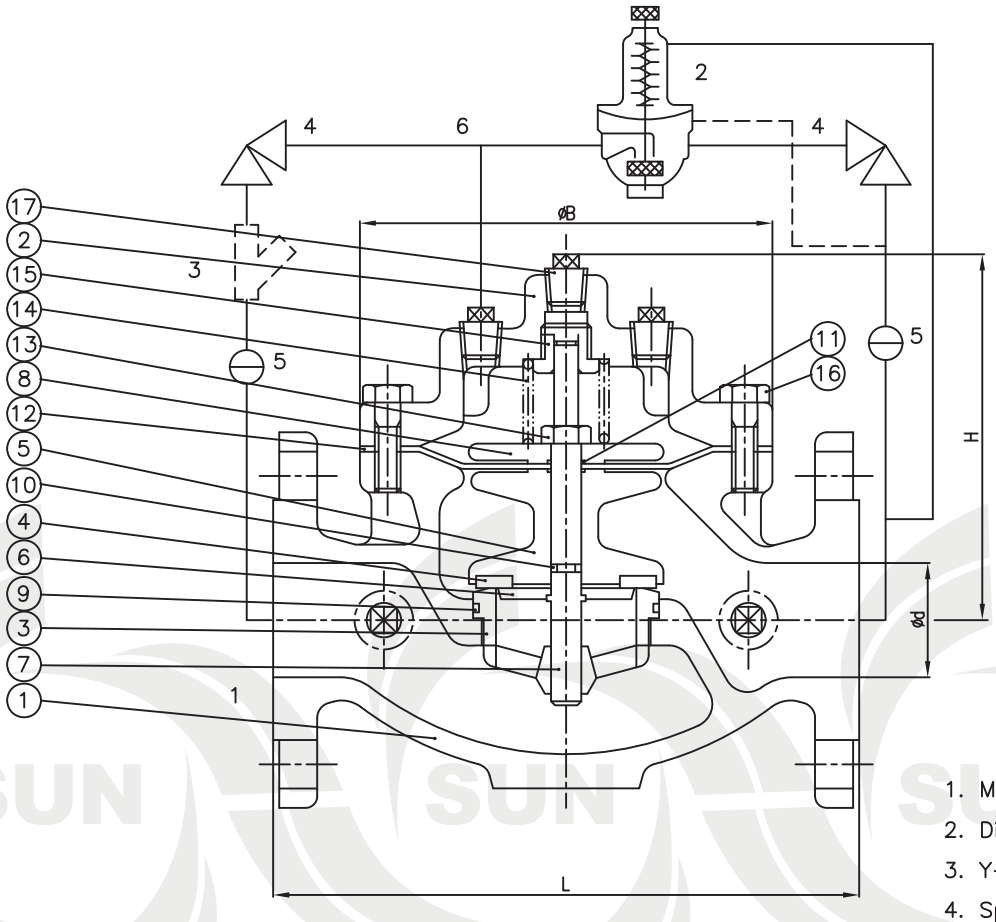
FCD450
BC6

NO.	PARTS	MATERIAL
1	BODY	NOTE1
2	SEAT	SUS304
3	GASKET	PTFE
4	DISC	SUS420J2
5	GASKET	PTFE
6	INSIDE CAP	SUS304
7	SPRING	SUS304
8	OUTSIDE CAP	FCD450
9	SCREEN	SUS304
10	STRAINER PLUG	SS400
11	GASKET	ASBESTOS FREE
12	NAME PLATE	SUS304
13	NIPPLE or PLUG	BSBFE
14	DRAIN VALVE	BSBFE
15	CONNECTOR	BSBFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

JIS 10K / ANSI 150#

SUN-CW10D32 to 200A



1. Main valve Differential
2. Diff pr.Regulating Pilot
3. Y–strainer
4. Speed control valve
5. Ball valve
6. Pilot line

Specifications

* Applicable fluid : Cold Water, Hot Water, Sea Water
* Applicable pressure : Max. 10Kgf/cm² G
* Diff pr. range : 0.5 to 5Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4, 9, 10	NBR	VITON
11, 12		

* Hydro. test pr. : 15kgf/cm² G–3min
* End connection : JIS 10K–RF, ANSI 150LBS–RF

DIMENSIONS UNIT : mm

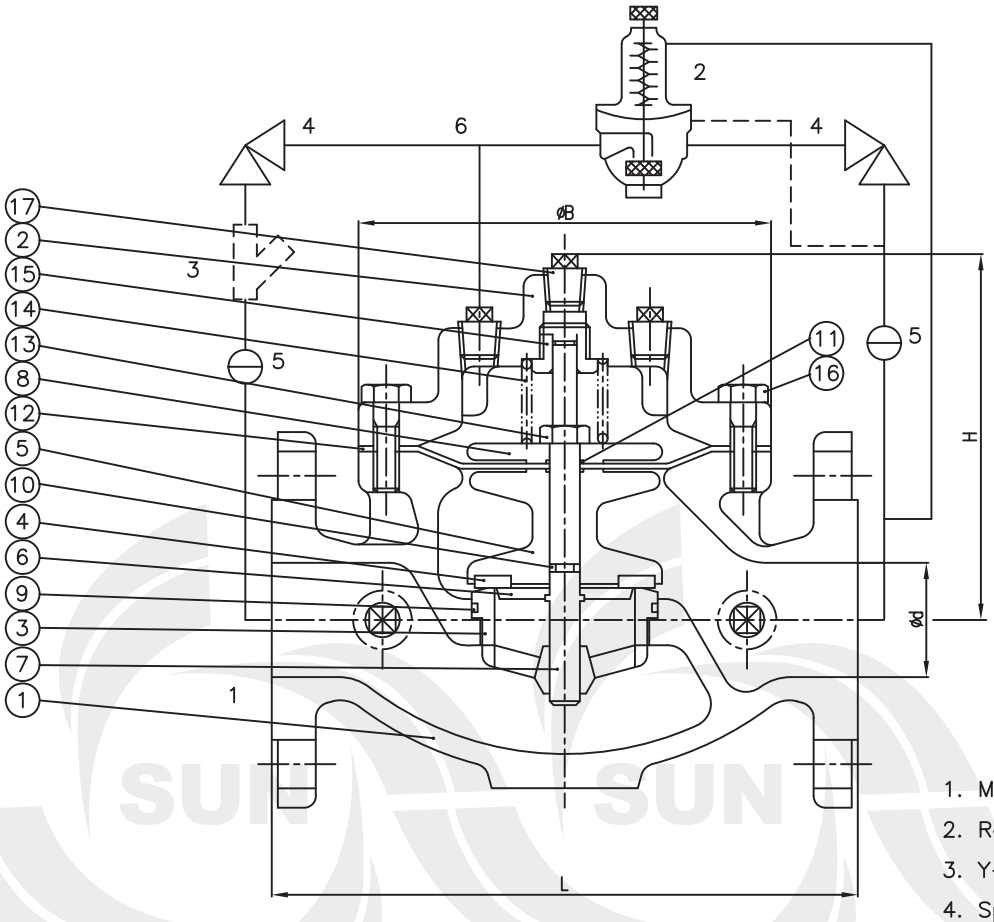
SIZE	L	G	B	WEIGHT(kg)
32A(11/4")	220	135	150	
40A(11/2")	220	135	150	
50A(2")	240	145	170	
65A(21/2")	290	180	210	
80A(3")	290	180	210	
100A(4")	360	190	260	
125A(5")	360	190	260	
150A(6")	470	245	360	
200A(8")	560	380	460	
250A(10")	660	450	600	
300A(12")	780	550	700	

NO.	PARTS	MATERIAL
1	BODY	FCD / SC49
2	COVER	FCD / SC49
3	SEAT	BC6 / BC6
4	DISC	NBR / VITON
5	DISC HOLDER	BC6 / BC6
6	DISC WASHER	SUS304 / SUS304
7	STEM	SUS304 / SUS304
8	DIAP. WASHER	BC6 / BC6
9	O-RING	NBR / VITON
10	O-RING	NBR / VITON
11	O-RING	NBR / VITON
12	DIAPHRAGM	NBR / VITON
13	LOCK NUT & WASHER	SUS304 / SUS304
14	SPRING	SUS304 / SUS304
15	STEM GUIDE	BSBFE / BSBFE
16	HEX BOLT & WASHER	SS41 / SS41
17	PLUG	SS41 / SS41

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

JIS 5K / 10K

SUN-CW10P32 to 300A



1. Main valve
2. Regulating Pilot
3. Y-strainer
4. Speed control valve
5. Ball valve
6. Pilot line

Specifications

* Applicable fluid : Cold Water, Hot Water
* Applicable pressure : Max. 10Kgf/cm² G
* Applicable temperature : Max. 90°C
* Min Pressure Differential across the Disc : 0.8kgf/cm² G
* Hydro. test pr. : 15kgf/cm² G-3min
* End connection : JIS 5K-FF, JIS 10K-RF

DIMENSIONS UNIT : mm

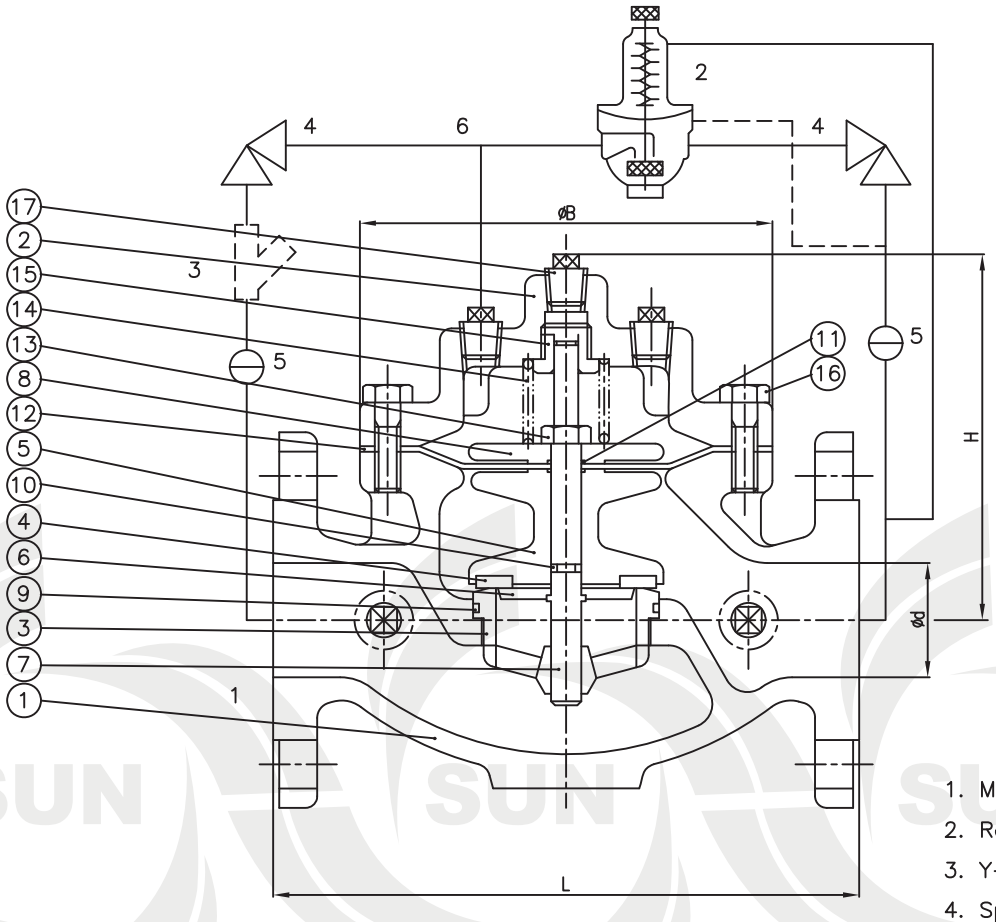
SIZE	L	G	B	WEIGHT(kg)
32A(11/4")	220	135	150	
40A(11/2")	220	135	150	
50A(2")	240	145	170	
65A(21/2")	290	180	210	
80A(3")	290	180	210	
100A(4")	360	190	260	
125A(5")	360	190	260	
150A(6")	470	245	360	
200A(8")	560	380	460	
250A(10")	660	450	600	
300A(12")	780	550	700	

NO.	PARTS	MATERIAL
		60°C Below / 60°C UP
1	BODY	FCD / SC480
2	COVER	FCD / SC480
3	SEAT	BC6 / BC6
4	DISC	NBR / VITON
5	DISC HOLDER	BC6 / BC6
6	DISC WASHER	SUS304 / SUS304
7	STEM	SUS304 / SUS304
8	DIAP. WASHER	BC6 / BC6
9	O-RING	NBR / VITON
10	O-RING	NBR / VITON
11	O-RING	NBR / VITON
12	DIAPHRAGM	NBR / VITON
13	LOCK NUT & WASHER	SUS304 / SUS304
14	SPRING	SUS304 / SUS304
15	STEM GUIDE	BSBFE / BSBFE
16	HEX BOLT & WASHER	SS41 / SS41
17	PLUG	SS41 / SS41

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

ANSI 150LB

SUN-CW10R32 to 300A



1. Main valve
2. Reducing Pilot
3. Y-strainer
4. Speed control valve
5. Ball valve
6. Pilot line

Specifications

* Applicable fluid : Cold Water, Hot Water, Sea Water
* Applicable pressure : Max. 10Kgf/cm² G
* Reducing pr. range : 0.5 to 8Kgf/cm² G
* Applicable temperature

Part No.	60° C below	60° C over
4, 9, 10	NBR	VITON
11, 12		

* Hydro. test pr. : 15kgf/cm² G-3min
* End connection : ANSI 150LBS-RF

DIMENSIONS UNIT : mm

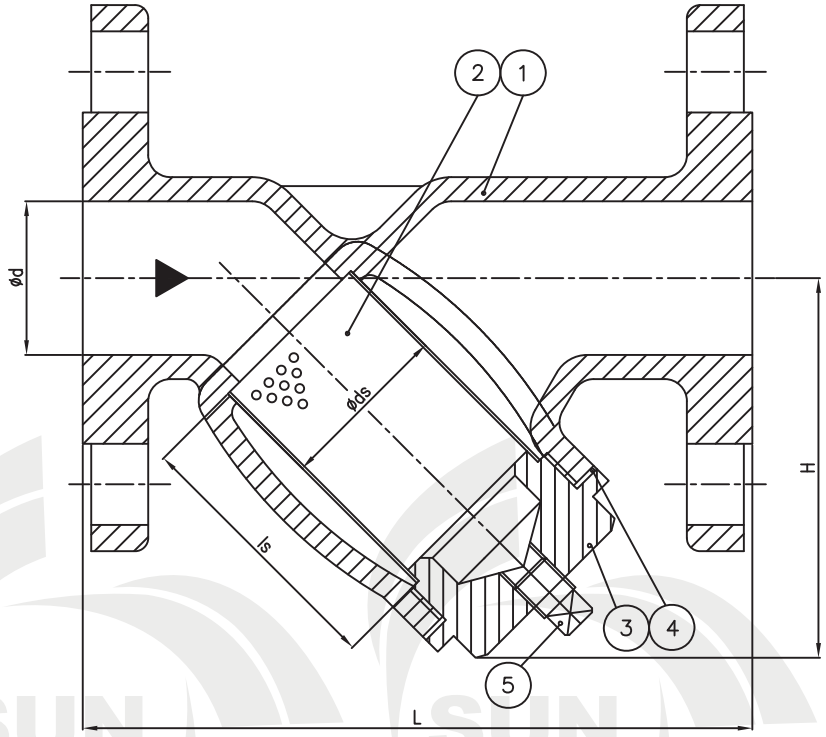
SIZE	L	H	B	WEIGHT(kg)
32A(11/4")	220	135	150	
40A(11/2")	220	135	150	
50A(2")	240	145	170	
65A(21/2")	290	180	210	
80A(3")	290	180	210	
100A(4")	360	190	260	
125A(5")	360	190	260	
150A(6")	470	245	360	
200A(8")	560	320	450	
250A(10")	760	450	600	
300A(12")	780	550	700	

NO.	PARTS	MATERIAL
1	BODY	FCD / SC480 / SCS13
2	COVER	FCD / SC480 / SS13
3	SEAT	BC6 / BC6 / SCS13
4	DISC	NBR or VITON
5	DISC HOLDER	BC6 / BC6 / SCS13
6	DISC WASHER	SUS304 / SUS304 / SUS304
7	STEM	SUS304 / SUS304 / SUS304
8	DIAP. WASHER	BC6 / BC6 / SCS13
9	O-RING	NBR or VITON
10	O-RING	NBR or VITON
11	O-RING	NBR or VITON
12	DIAPHRAGM	NBR or VITON
13	LOCK NUT & WASHER	SUS304 / SUS304 / SUS304
14	SPRING	SUS304 / SUS304 / SUS304
15	STEM GUIDE	BSBFE / BSBFE / SUS304
16	HEX BOLT & WASHER	SS41 / SS41 / SUS304
17	PLUG	SS41 / SS41 / SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Screwed Cover

SUN-CS20Y15 to 50A



Specifications

* Applicable fluid : Air, Water, Steam
* Applicable pressure : Max. 20Kgf/cm² G
* Applicable temperature : Max. 220°C
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS 5K–FF, JIS 10K–FF, JIS 20K–RF

DIMENSIONS UNIT : mm

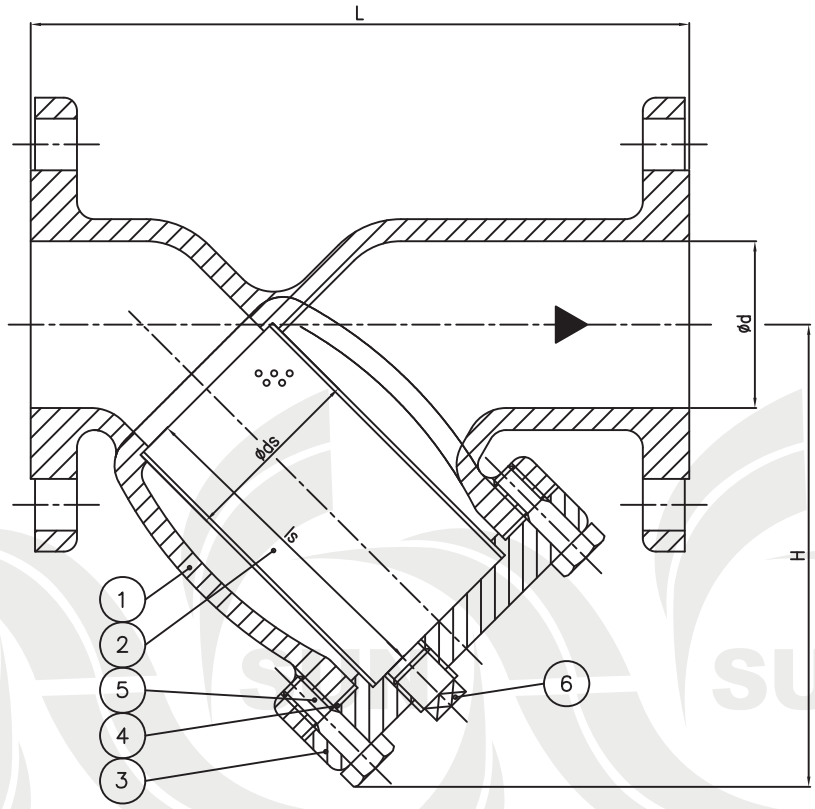
SIZE	RATING	L	H	SCREEN ds	SCREEN ls	WEIGHT(kg)
15A	5K	122	70	24	48	
	10K	126				
	20K	130				
20A	5K	122	70	24	48	
	10K	130				
	20K	135				
25A	5K	142	80	28	55	
	10K	150				
	20K	155				
32A	5K	158	92	36	65	
	10K	165				
	20K	170				
40A	5K	172	100	44	70	
	10K	180				
	20K	185				
50A	5K	196	115	56	80	
	10K	200				
	20K	205				

NO.	PARTS	MATERIAL
1	BODY	SC / BC / SCS13 / SCS13
2	SCREEN	SUS304 / SUS316
3	PLUG	BsBFE / BsBFE / SUS304 / SUS316
4	GASKET	ASBESTOS FREE
5	DRAIN PLUG	SS400 / BsBFE / SUS304 / SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Bolted Cover

SUN-CS20Y65 to 200A



Specifications

* Applicable fluid : Air, Water, Steam
* Applicable pressure : Max. 20Kgf/cm² G
* Applicable temperature : Max. 220°C
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : ANSI 150LBS-RF

DIMENSIONS UNIT : mm

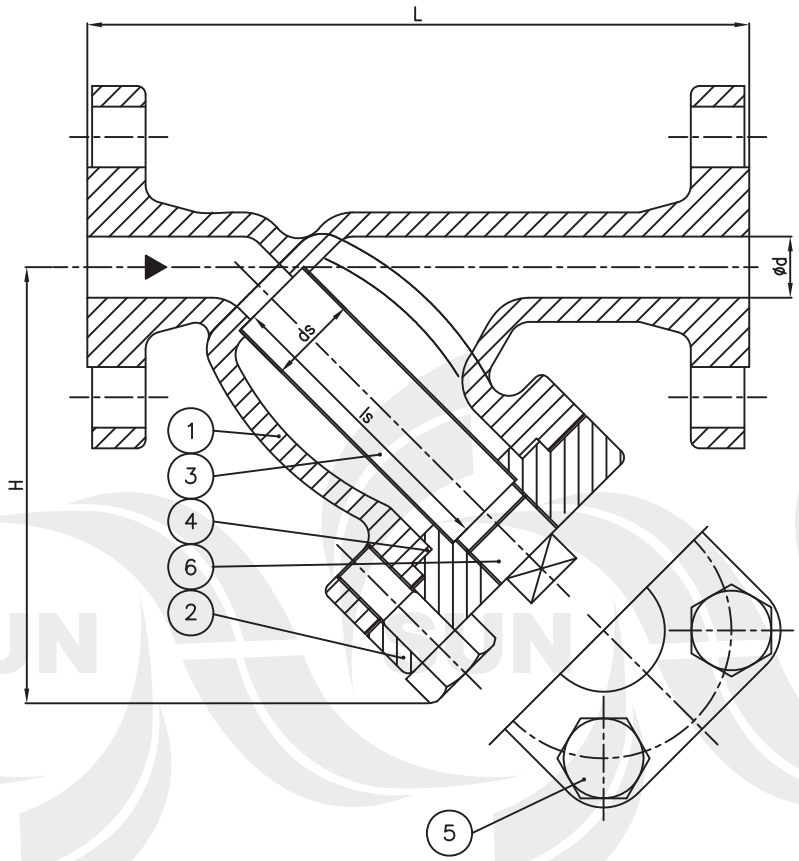
SIZE	RATING	L	H	SCREEN		WEIGHT(kg)
				ds	ls	
65A	150LBS	265	185	71	130	
80A	150LBS	300	210	86	140	
100A	150LBS	365	285	108	170	
125A	150LBS	425	330	135	190	
150A	150LBS	450	390	160	220	
200A	150LBS	560	450	210	310	
250A	150LBS	650	480	260	330	

NO.	PARTS	MATERIAL
1	BODY	A216WCB / BC6 / SCS13 / SCS13
2	SCREEN	SS316 / SUS316
3	COVER	A216WCB / BC6 / SCS13 / SCS13
4	GASKET	NON ASBESTOS FREE
5	HEX.BOLT	SS400 / SUS304 / SUS304 / SUS316
6	DRAIN PLUG	SS400 / BsBFE / SUS304 / SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Bolted Cover

SUN-CS30Y15 to 100A



Specifications

* Applicable fluid : Air, Water, Steam
* Applicable pressure : 40Kgf/cm² G
* Applicable temperature : Max. 300°C
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : JIS30K–RF

DIMENSIONS UNIT : mm

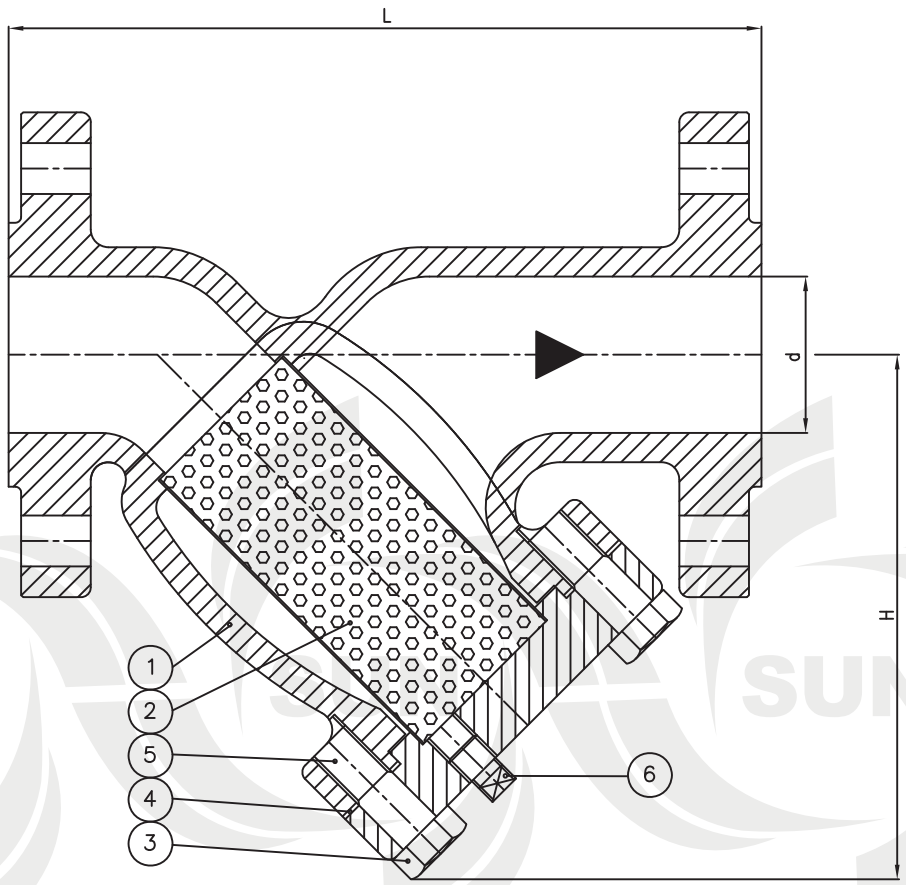
SIZE	d	L	H	SCREEN		WEIGHT(kg)
				ls	ds	
15A	15	220	130	30	100	
20A	20	220	130	30	100	
25A	25	240	150	40	115	
32A	32	265	165	50	120	
40A	40	265	165	50	120	
50A	50	280	200	50	135	
65A	65	350	270	90	185	
80A	80	360	270	90	185	
100A	100	370	270	100	185	

NO.	PARTS	MATERIAL
1	BODY	SC480
2	COVER	SC480
3	SCREEN	SUS304
4	GASKET	ASBESTOS FREE
5	HEX BOLT & WASHER	SS400
6	DRAIN PLUG	SS400

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Bolted Cover

SUN-CS900Y50 to 100A



Specifications

* Applicable fluid : Steam, Water, Air
* Applicable pressure : MAX 60Kgf/cm² G
* Applicable temperature : Max. 300°C
* Hydro. test pr. : 1.5 times working pr.(3min)
* End connection : ANSI 900LBS–RF

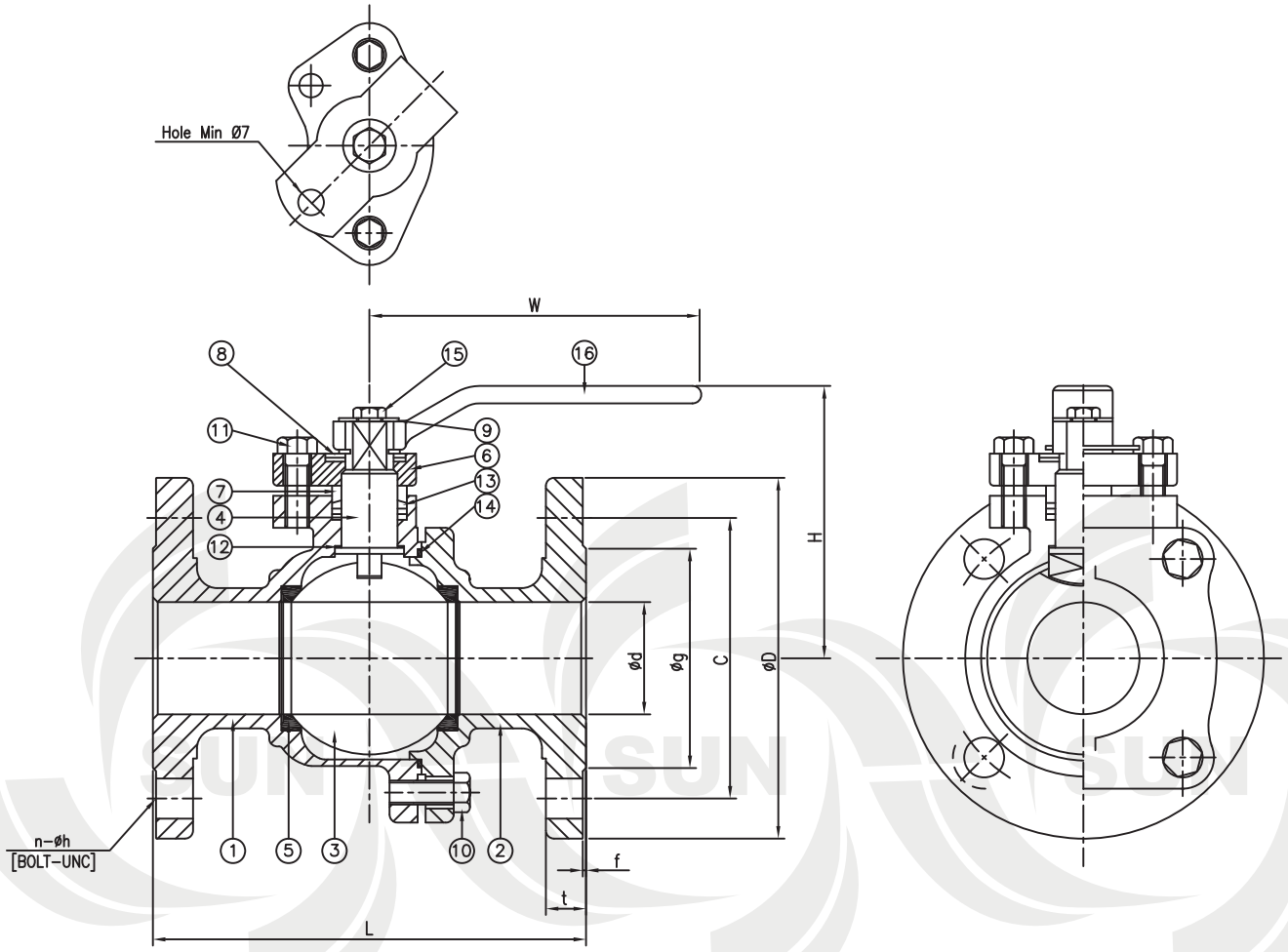
DIMENSIONS UNIT : mm

PART / SIZE	d	L	H	WEIGHT(kg)
50A	50	310	200	
65A	65	380	270	
80A	80	380	270	
100A	100	390	270	

NO.	PARTS	MATERIAL
1	BODY	A216WCB
2	SCREEN	304SS
3	COVER	A216WCB
4	GASKET	GRAPHITE
5	HEX. BOLT	CARBON STEEL
6	DRAIN PLUG	CARBON STEEL

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve(ANSI 150LB)



VALVE SPECIFICATION SHEET

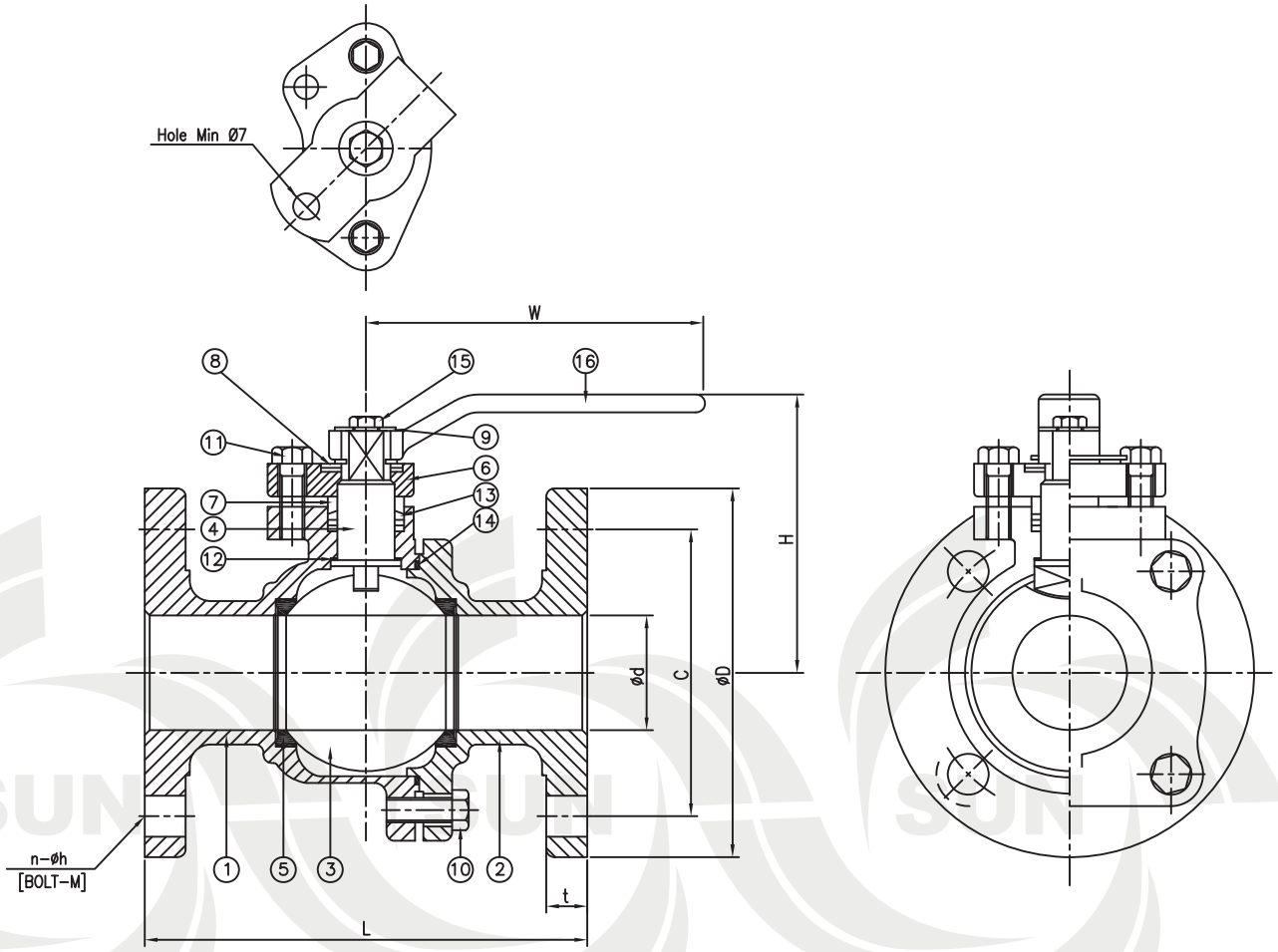
STANDARD'S	DESIGN	MSS SP-72
	FACE TO FACE	ASME B 16.10
	FLANGE DIMENSION	ASME B 16.5
	INSPECTION & TESTING	ASME B 16.34
HYDROSTATIC TEST PRESSURE	BODY	425 psi (2.93 Mpa)
	SEAT	300psi or Air 80psi

SIZE	ød	øg	C	øD	H	L	W	t	f	n-øh
1/2"	15	35	60.4	88.9	105	108	123	11.2	1.6	4-15.7
3/4"	20	42.9	69.8	98.5	107	117	123	11.2	1.6	4-15.7
1"	25	50.8	79.2	107.9	117	127	143	11.2	1.6	4-15.7
1-1/4"	32	63.5	88.9	117.3	122	140	143	12.7	1.6	4-15.7
1-1/2"	40	73.1	98.5	127	130	165	233	14.3	1.6	4-15.7
2"	50	91.9	120.7	152.4	135	178	233	15.9	1.6	4-19.1
2-1/2"	65	104.6	139.7	177.8	155	190	270	17.5	1.6	4-19.1
3"	80	127	152.4	190.5	172	203	270	19.1	1.6	4-19.1
4"	100	157.2	190.5	228.6	214	229	400	23.9	1.6	4-19.1

NO.	PARTS	MATERIAL
1	BODY	CF3M
2	BODY CAP	CF3M
3	BALL	F316L
4	STEM	F316L
5	SEAT RING	PTFE
6	GLAND FLANGE	CF8M
7	GLAND RING	F316
8	STOPPER	316SS
9	WASHER	316SS
10	HEX BOLT	B8M
11	GLAND BOLT	B8M
12	THRUST WASHER	PTFE
13	GLAND PACKING	PTFE
14	GASKET	PTFE
15	HANDLE BOLT	B8M
16	LEVER HANDLE	CF8M

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve(JIS 5K)



VALVE SPECIFICATION SHEET

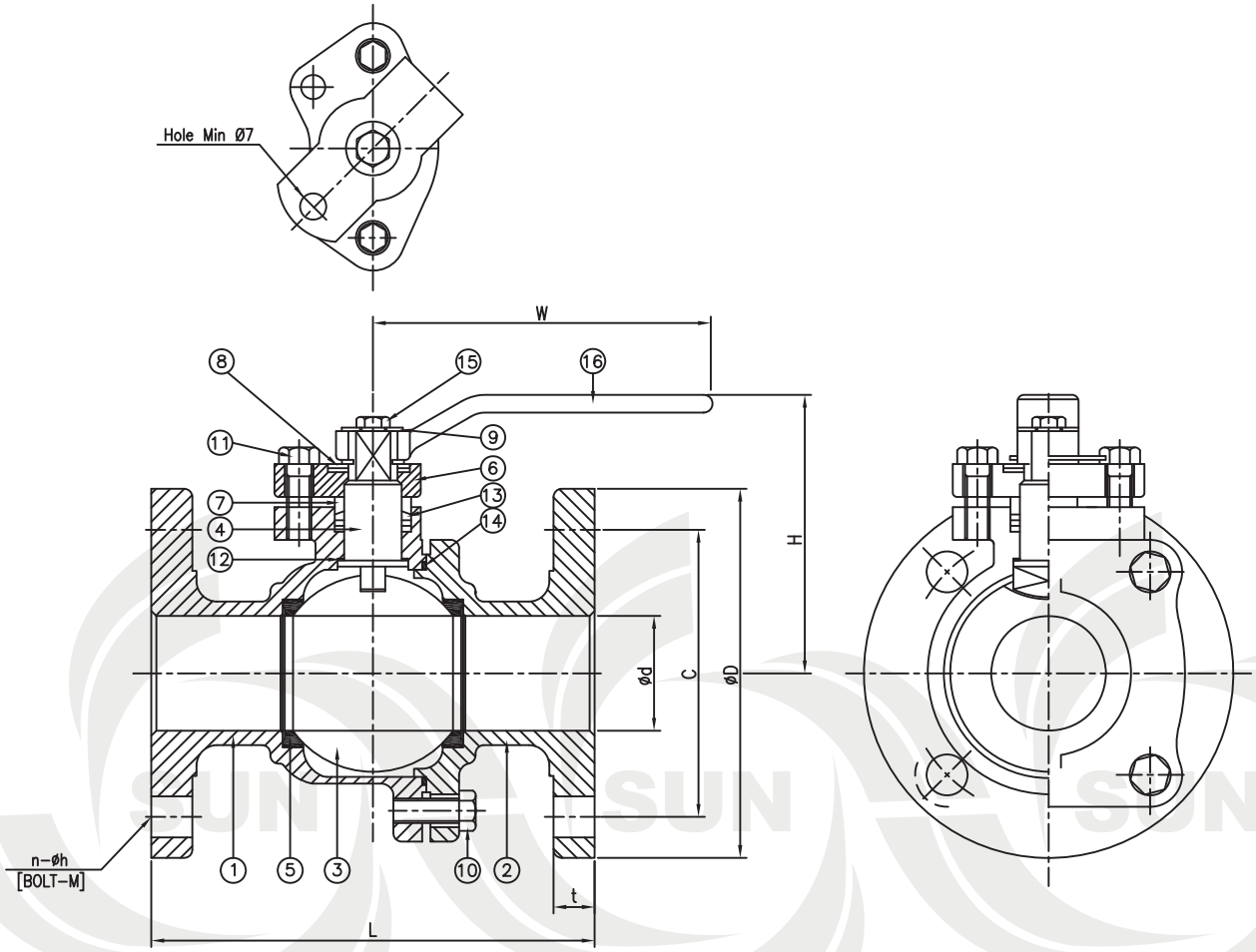
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	12 kgf/cm²
		SEAT	8 kgf/cm²

SIZE	Ød	C	ØD	H	L	W	t	n-Øh
15A	15	60	80	105	100	123	9	4-12
20A	20	65	85	107	110	123	10	4-12
25A	25	75	95	117	120	143	10	4-12
32A	32	90	115	122	140	143	12	4-15
40A	40	95	120	130	160	233	12	4-15
50A	50	105	130	135	178	233	14	4-15
65A	65	130	155	155	190	270	14	4-15
80A	80	145	180	172	203	270	14	4-19
100A	100	165	200	214	229	400	16	8-19

NO.	PARTS	MATERIAL
1	BODY	SCS16
2	BODY CAP	SCS16
3	BALL	SUS316L
4	STEM	SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS16
7	GLAND RING	SUS316
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	THRUST WASHER	PTFE
13	GLAND PACKING	PTFE
14	GASKET	PTFE
15	HANDLE BOLT	SUS316
16	LEVER HANDLE	SCS14

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve(JIS 10K)



VALVE SPECIFICATION SHEET

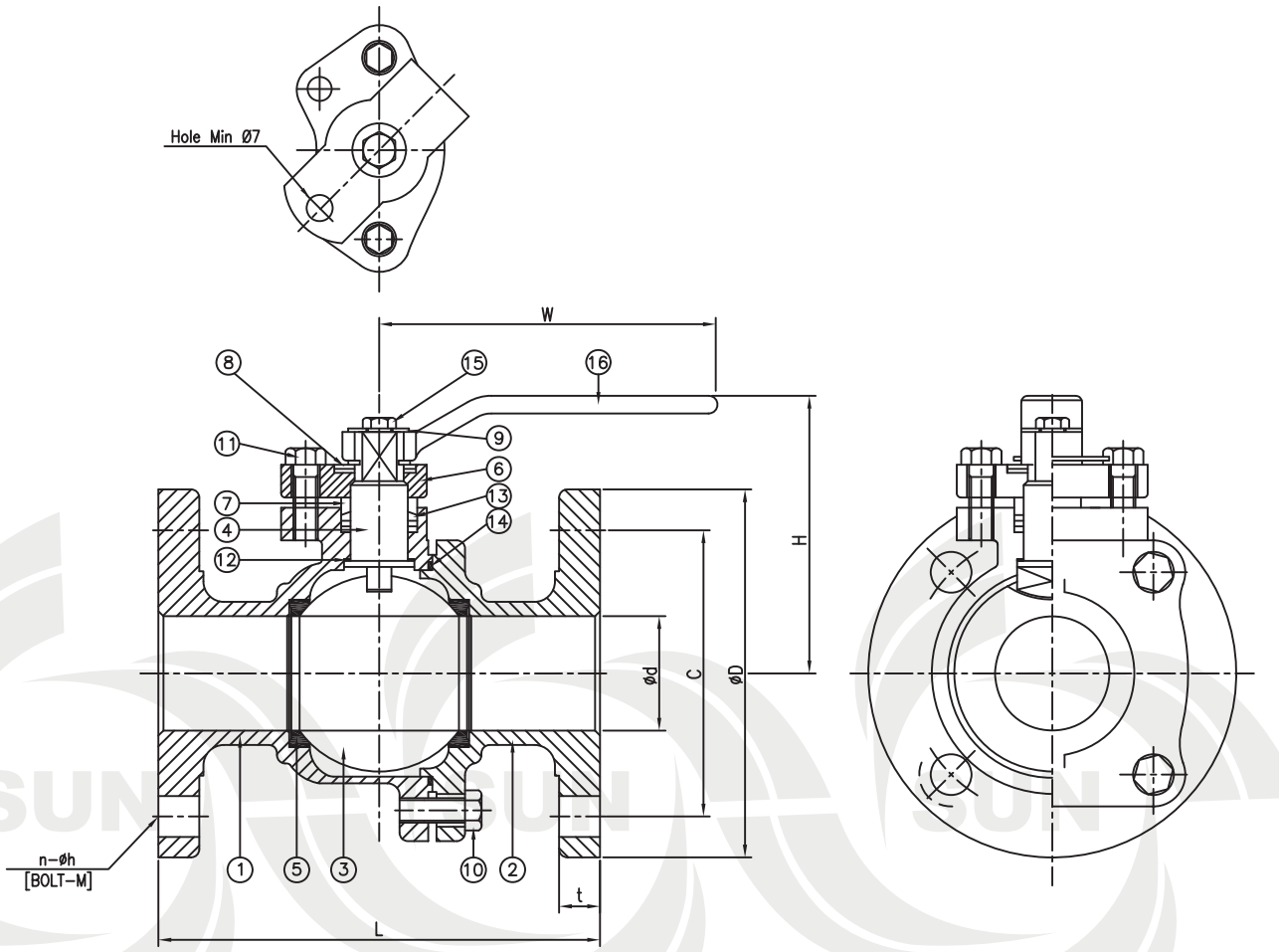
STANDARD'S	FACE TO FACE	JIS B 2002
	FLANGE DIMENSION	JIS B 2210
	BASIC DESIGN	JIS B 2081
	INSPECTION & TESTING	JIS B 2003
HYDROSTATIC TEST PRESSURE	BODY	24 kgf/cm²
	SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	W	t	n-øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	4-19
65A	65	140	175	155	190	270	18	4-19
80A	80	150	185	172	203	270	18	8-19
100A	100	175	210	214	229	400	18	8-19

NO.	PARTS	MATERIAL
1	BODY	SCS16
2	BODY CAP	SCS16
3	BALL	SUS316L
4	STEM	SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS16
7	GLAND RING	SUS316
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	THRUST WASHER	PTFE
13	GLAND PACKING	PTFE
14	GASKET	PTFE
15	HANDLE BOLT	SUS316
16	LEVER HANDLE	SCS14

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve(JIS 16K)



VALVE SPECIFICATION SHEET

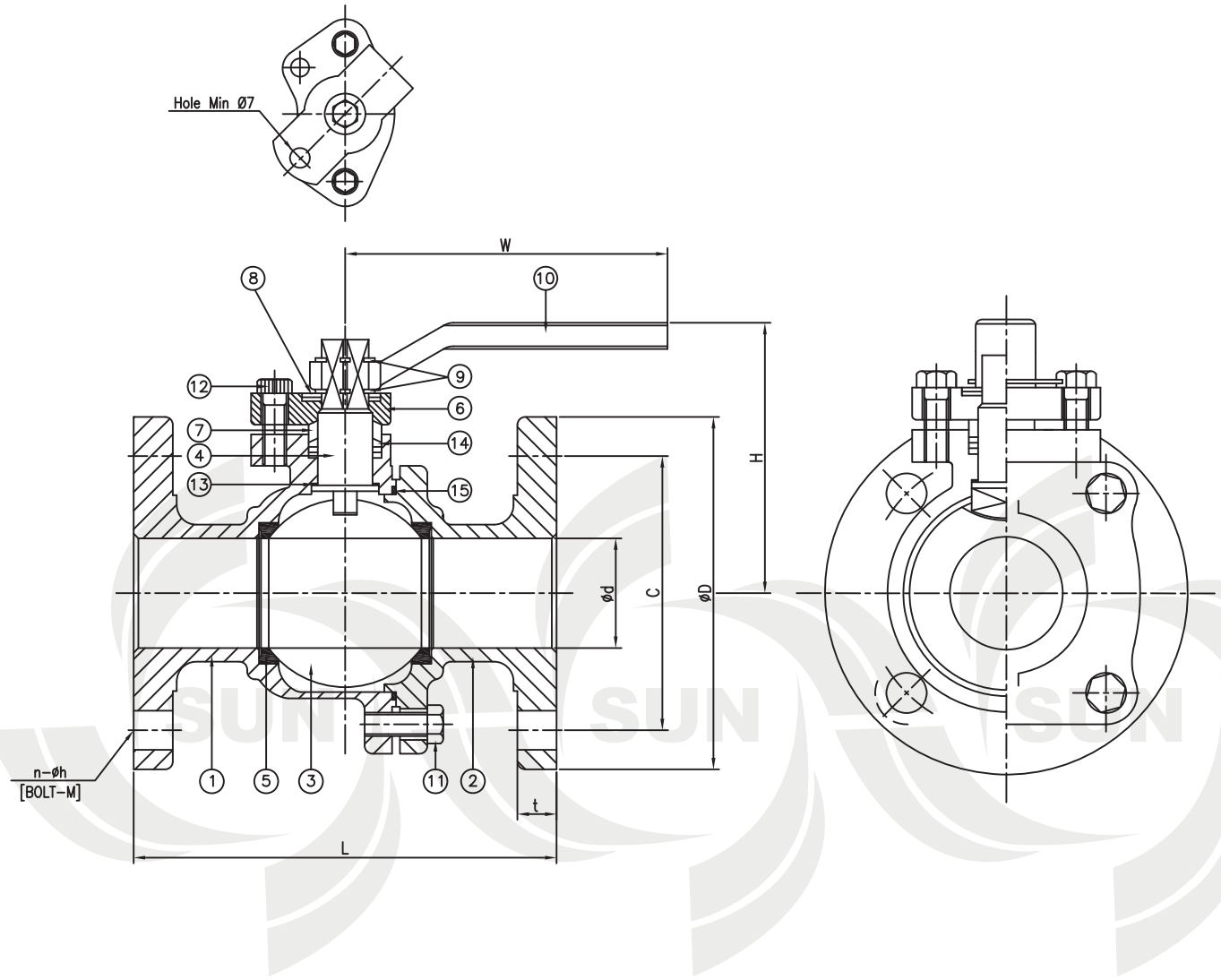
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

SIZE	Ød	C	ØD	H	L	W	t	n-Øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	8-19
65A	65	140	175	155	190	270	18	8-19
80A	80	160	200	172	203	270	20	8-23
100A	100	185	225	214	229	400	22	8-23

NO.	PARTS	MATERIAL
1	BODY	SCS16
2	BODY CAP	SCS16
3	BALL	SUS316L
4	STEM	SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS16
7	GLAND RING	SUS316
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	THRUST WASHER	PTFE
13	GLAND PACKING	PTFE
14	GASKET	PTFE
15	HANDLE BOLT	SUS316
16	LEVER HANDLE	SCS14

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve(ANSI 150LB)



VALVE SPECIFICATION SHEET

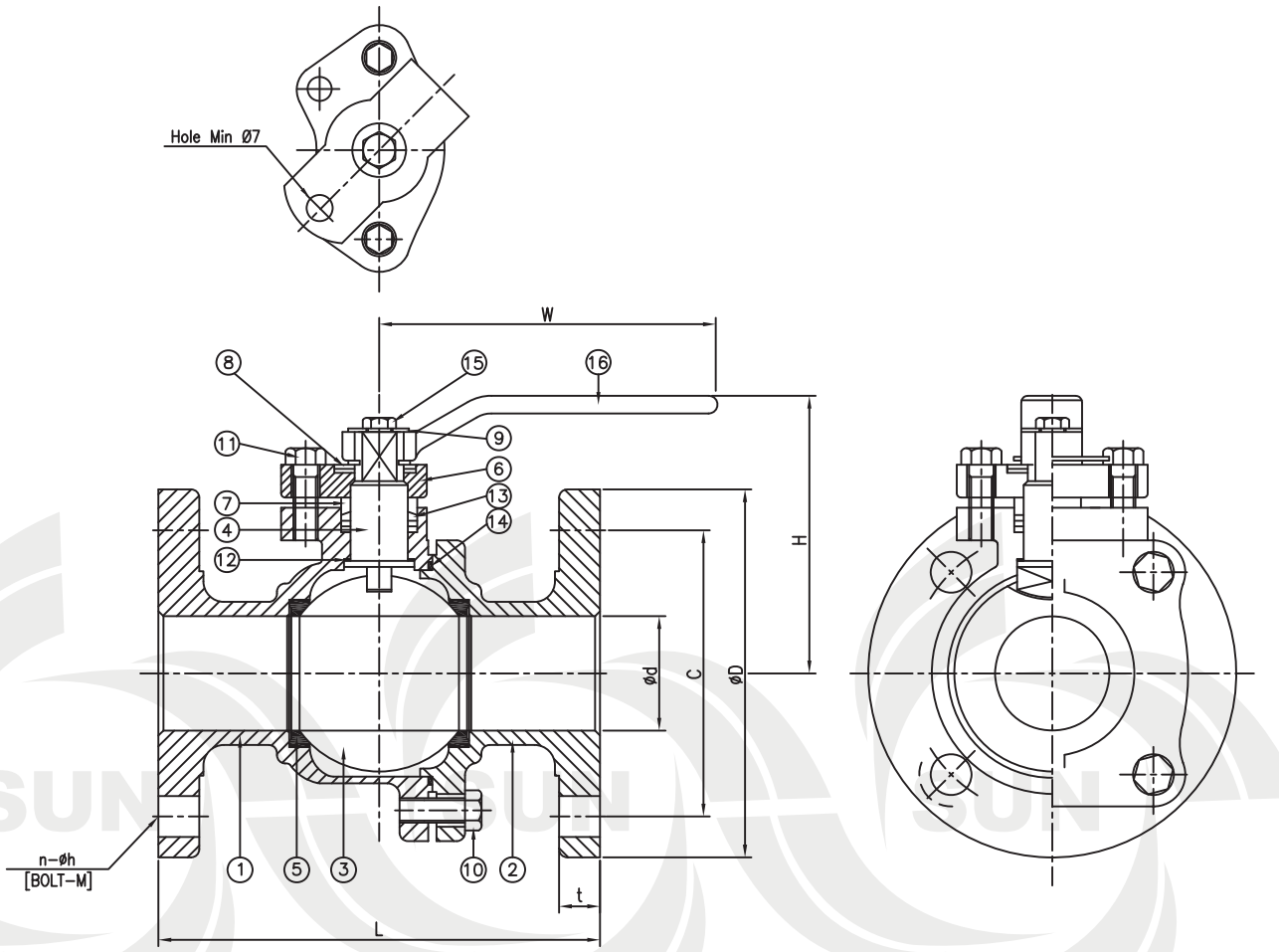
STANDARD'S	DESIGN		MSS SP-72
	FACE TO FACE		ASME B 16.10
	FLANGE DIMENSION		ASME B 16.24
	INSPECTION & TESTING		ASME B 16.34
HYDROSTATIC TEST PRESSURE		BODY	425 psi (2.93 Mpa)
		SEAT	300psi or Air 80psi

SIZE	ød	øg	C	øD	H	L	W	t	f	n-øh
1/2"	15	35	60.4	88.9	105	108	123	9	1.6	4-15.7
3/4"	20	42.9	69.8	98.5	107	117	123	10	1.6	4-15.7
1"	25	50.8	79.2	107.9	117	127	143	10	1.6	4-15.7
1-1/4"	32	63.5	88.9	117.3	122	140	143	12	1.6	4-15.7
1-1/2"	40	73.1	98.5	127	130	165	233	12	1.6	4-15.7
2"	50	91.9	120.7	152.4	135	178	233	12.7	1.6	4-19.1
2-1/2"	65	104.6	139.7	177.8	155	190	270	14.2	1.6	4-19.1
3"	80	127	152.4	190.5	172	203	270	15.7	1.6	4-19.1
4"	100	157.2	190.5	228.6	214	229	400	17.5	1.6	4-19.1

NO.	PARTS	MATERIAL
1	BODY	C83600
2	BODY CAP	C83600
3	BALL	C83600
4	STEM	C63200
5	SEAT RING	PTFE
6	GLAND FLANGE	C83600
7	GLAND RING	F316
8	STOPPER	316SS
9	WASHER	316SS
10	LEVER HANDLE	WCB
11	HEX BOLT	B8M(S31600)
12	GLAND BOLT	B8M(S31600)
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve(JIS 5K)



VALVE SPECIFICATION SHEET

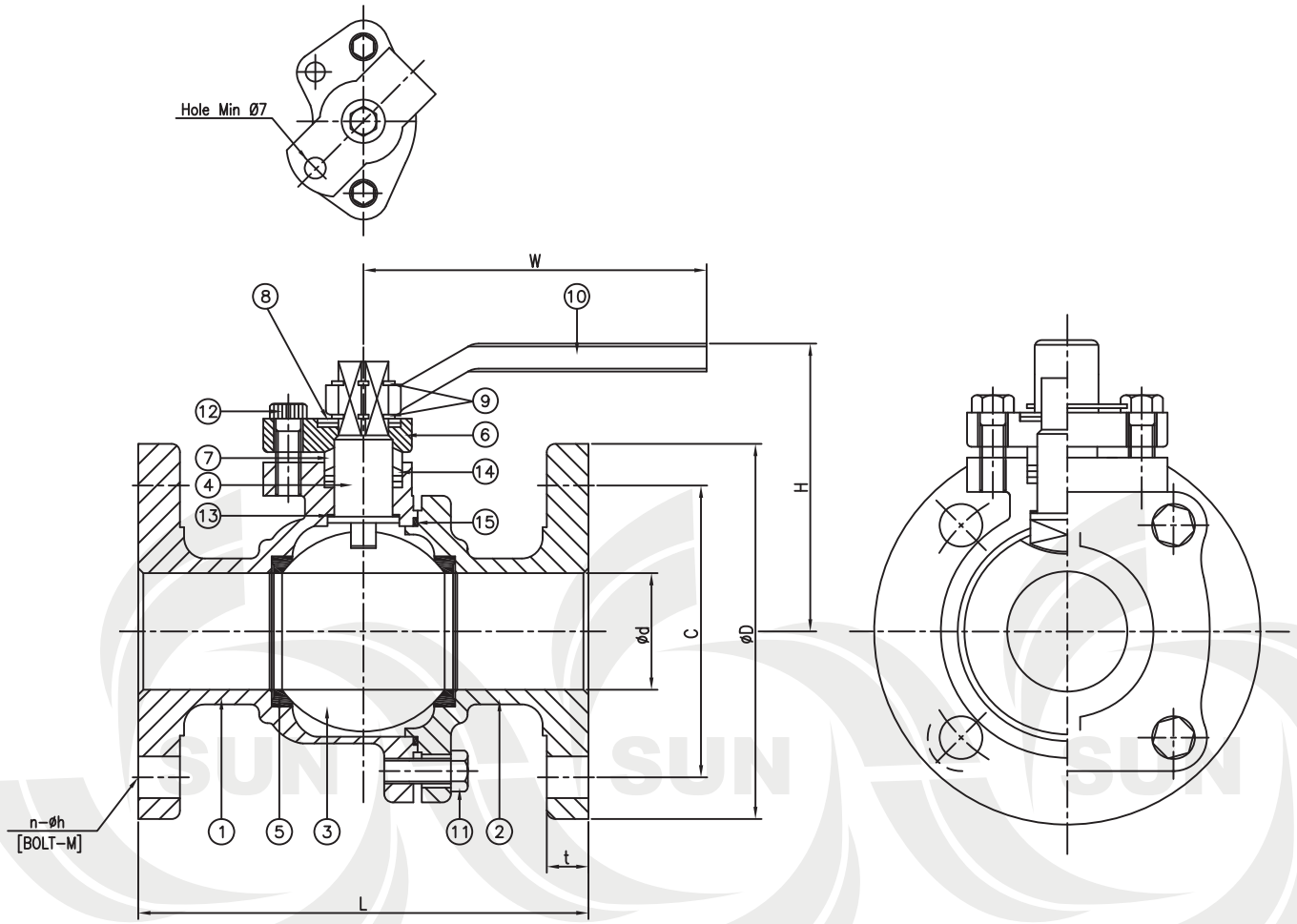
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

SIZE	ød	C	øD	H	L	W	t	n-øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	8-19
65A	65	140	175	155	190	270	18	8-19
80A	80	160	200	172	203	270	20	8-23
100A	100	185	225	214	229	400	22	8-23

NO.	PARTS	MATERIAL
1	BODY	SCS16
2	BODY CAP	SCS16
3	BALL	SUS316L
4	STEM	SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS16
7	GLAND RING	SUS316
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	THRUST WASHER	PTFE
13	GLAND PACKING	PTFE
14	GASKET	PTFE
15	HANDLE BOLT	SUS316
16	LEVER HANDLE	SCS14

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve(JIS 10K)



VALVE SPECIFICATION SHEET

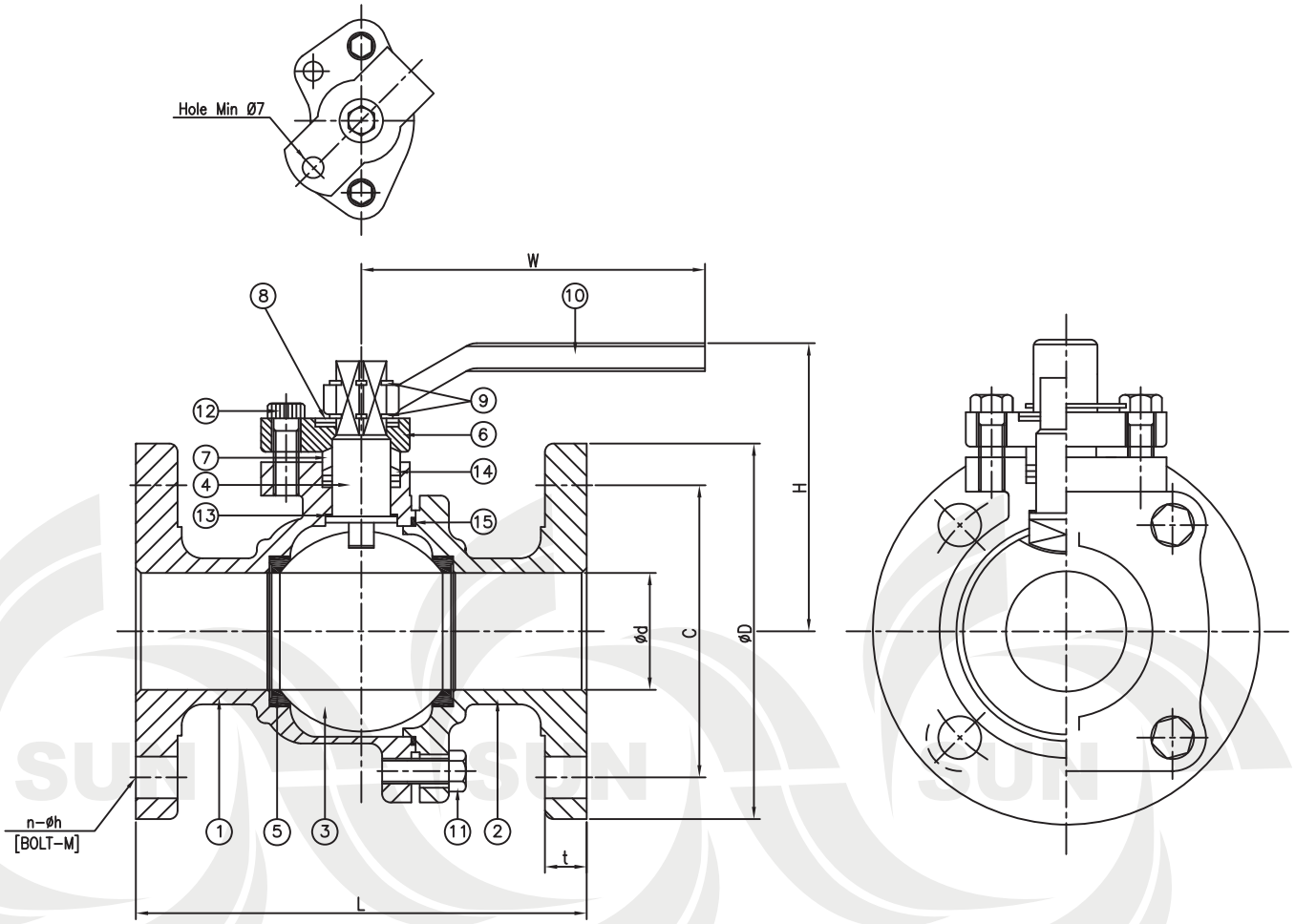
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	24 kgf/cm²
		SEAT	15 kgf/cm²

SIZE	Ød	C	ØD	H	L	W	t	n-Øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	4-19
65A	65	140	175	155	190	270	18	4-19
80A	80	150	185	172	203	270	18	8-19
100A	100	175	210	214	229	400	18	8-19

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SS400
9	STOP RING	SUS304
10	LEVER HANDLE	AL
11	HEX BOLT	SUS304
12	GLAND BOLT	SUS304
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve(JIS 16K)



VALVE SPECIFICATION SHEET

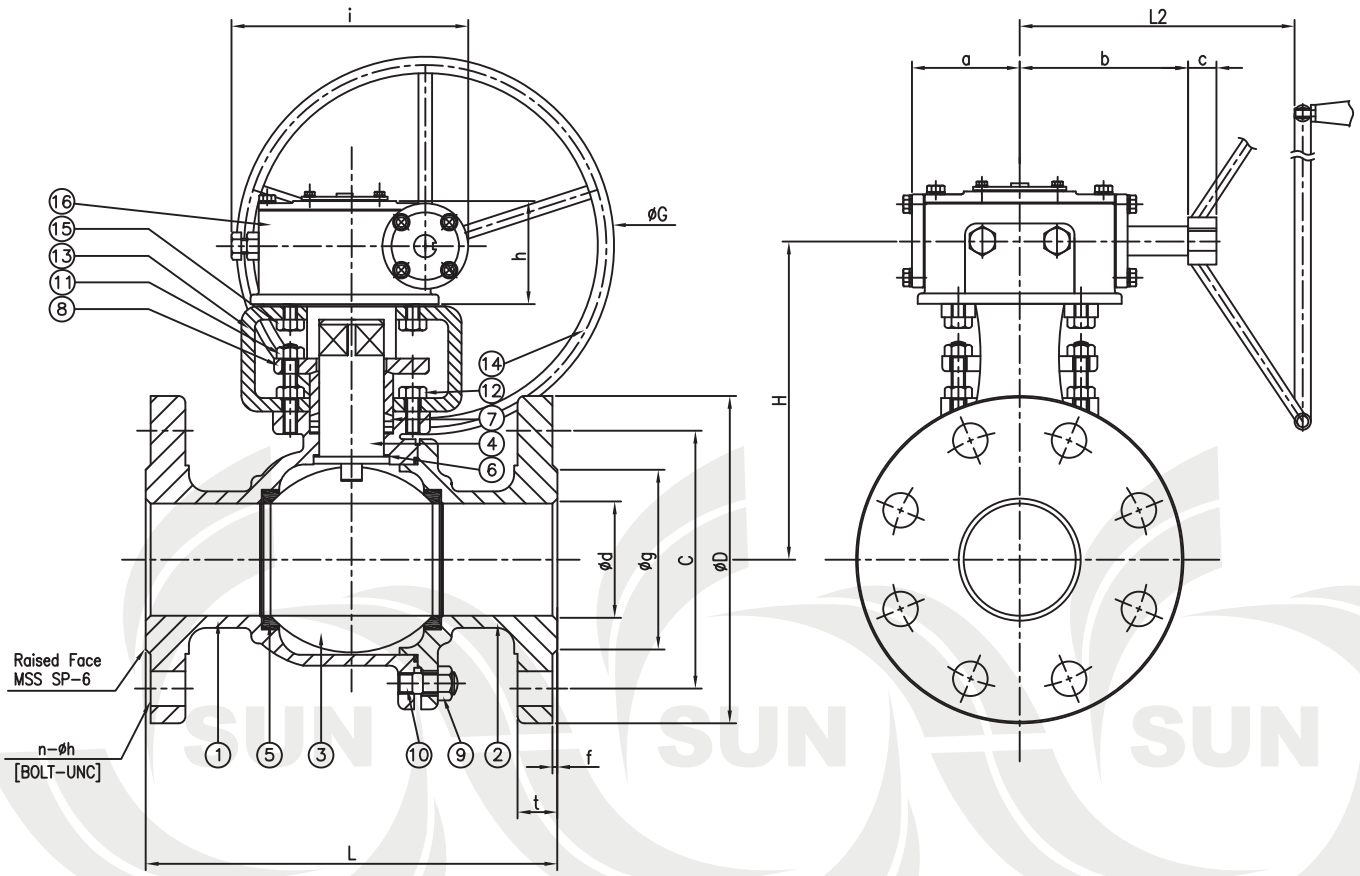
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

SIZE	Ød	C	ØD	H	L	W	t	n-Øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	8-19
65A	65	140	175	155	190	270	18	8-19
80A	80	160	200	172	203	270	20	8-23
100A	100	185	225	214	229	400	22	8-23

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SS400
9	STOP RING	SUS304
10	LEVER HANDLE	AL
11	HEX BOLT	SUS304
12	GLAND BOLT	SUS304
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve(ANSI 150LB)



NO.	PARTS	MATERIAL
1	BODY	CF8M
2	BODY CAP	CF8M
3	BALL	CF8M
4	STEM	F316
5	SEAT RING	RTFE
6	THRUST BEARING	PTFE
7	GLAND PACKING	PTFE
8	GLAND FLANGE	CF8M
9	HEX NUT	8M
10	STUD BOLT	B8M
11	GLAND BOLT	B8M
12	BRACKET BOLT	B8M
13	BRACKET	FCD400
14	HANDLE WHEEL	SS410
15	GEAR BOX BOLT	B8M
16	GEAR BOX ASS'Y	FCD400

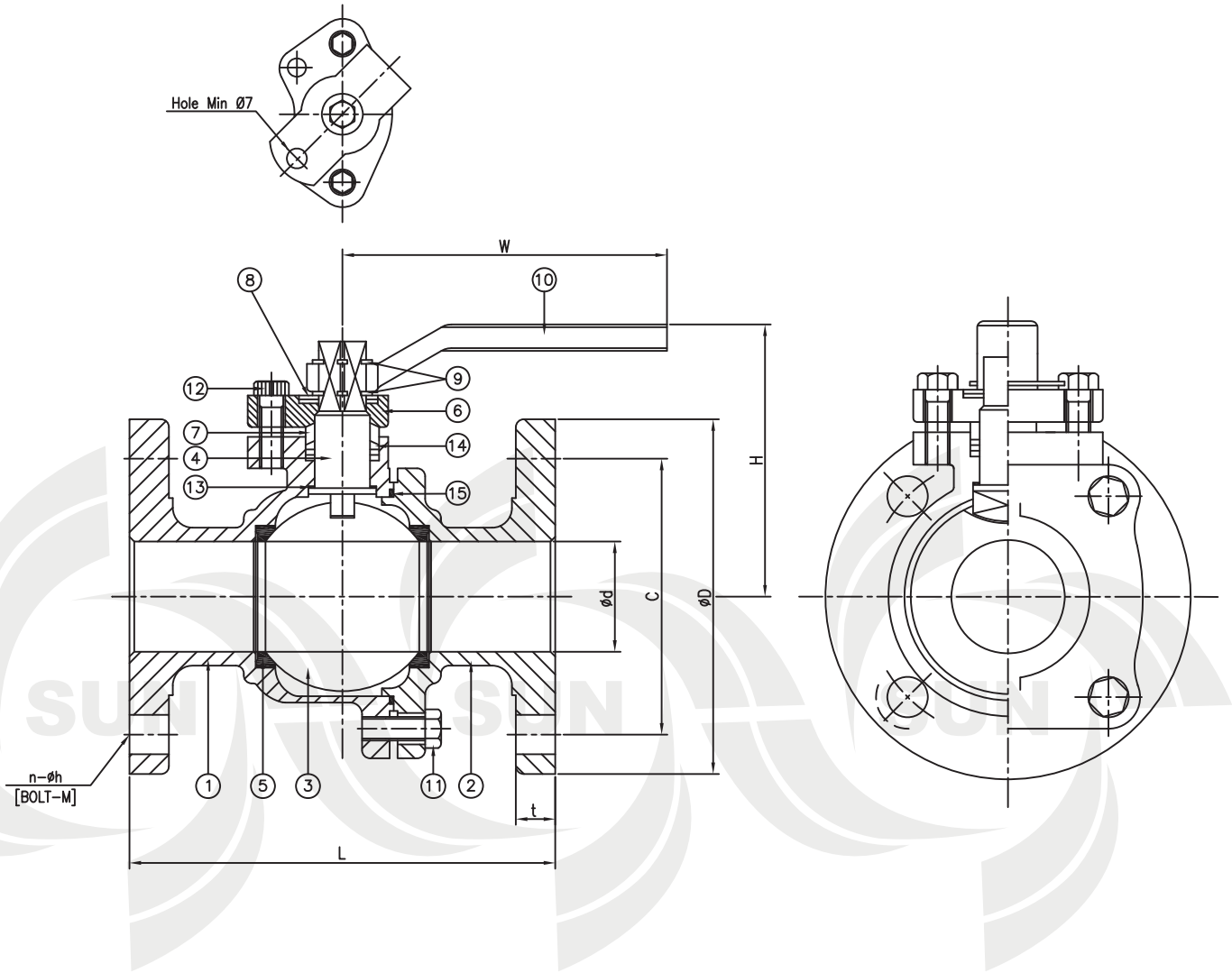
VALVE SPECIFICATION SHEET

STANDARD'S	DESIGN		ASME B 16.34
	FACE TO FACE		ASME B 16.10 #150
	FLANGE DIMENSION		ASME B 16.5
	INSPECTION & TESTING		ASME B 16.34
HYDROSTATIC TEST PRESSURE		BODY	425psi
		SEAT	300psi

SIZE	Ød	C	ØD	L	H	t	n-Øh	Øg	f	ØG	h	i	L2	a	b	c
6"	150	241.3	279.4	394	362	25.4	8-22.4	215.9	1.6	400	97	202.5	300	92.5	144.5	29
8"	200	298.5	342.9	457	385	28.4	8-22.4	269.7	1.6	500	115.5	246.5	350	110.5	168.5	34
10"	250	362.0	406.4	533	480	30.2	12-25.4	269.7	1.6	500	115.5	246.5	350	110.5	168.5	34

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 2-Way Ball Valve(JIS 5K)



VALVE SPECIFICATION SHEET

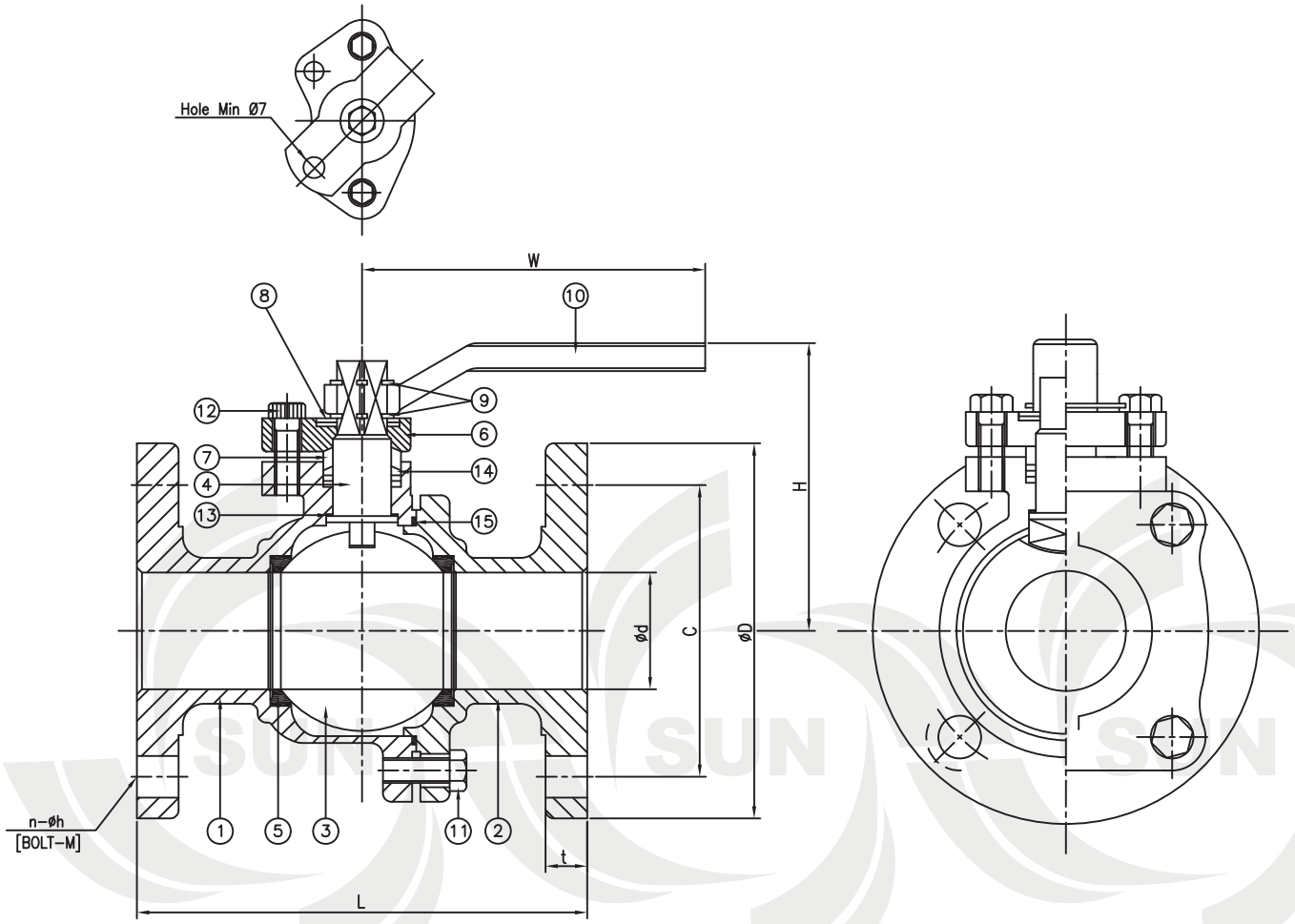
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	12 kgf/cm²
		SEAT	8 kgf/cm²

SIZE	ød	C	øD	H	L	W	t	n-øh
15A	15	60	80	105	100	123	9	4-12
20A	20	65	85	107	110	123	10	4-12
25A	25	75	95	117	120	143	10	4-12
32A	32	90	115	122	140	143	12	4-15
40A	40	95	120	130	160	233	12	4-15
50A	50	105	130	135	178	233	14	4-15
65A	65	130	155	155	190	270	14	4-15
80A	80	145	180	172	203	270	14	4-19
100A	100	165	200	214	229	400	16	8-19

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	SC480
7	GLAND RING	SUS304
8	STOPPER	SS400
9	STOP RING	SUS304
10	LEVER HANDLE	AL
11	HEX BOLT	SS400
12	GLAND BOLT	SS400
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 2-Way Ball Valve(JIS 10K)



VALVE SPECIFICATION SHEET

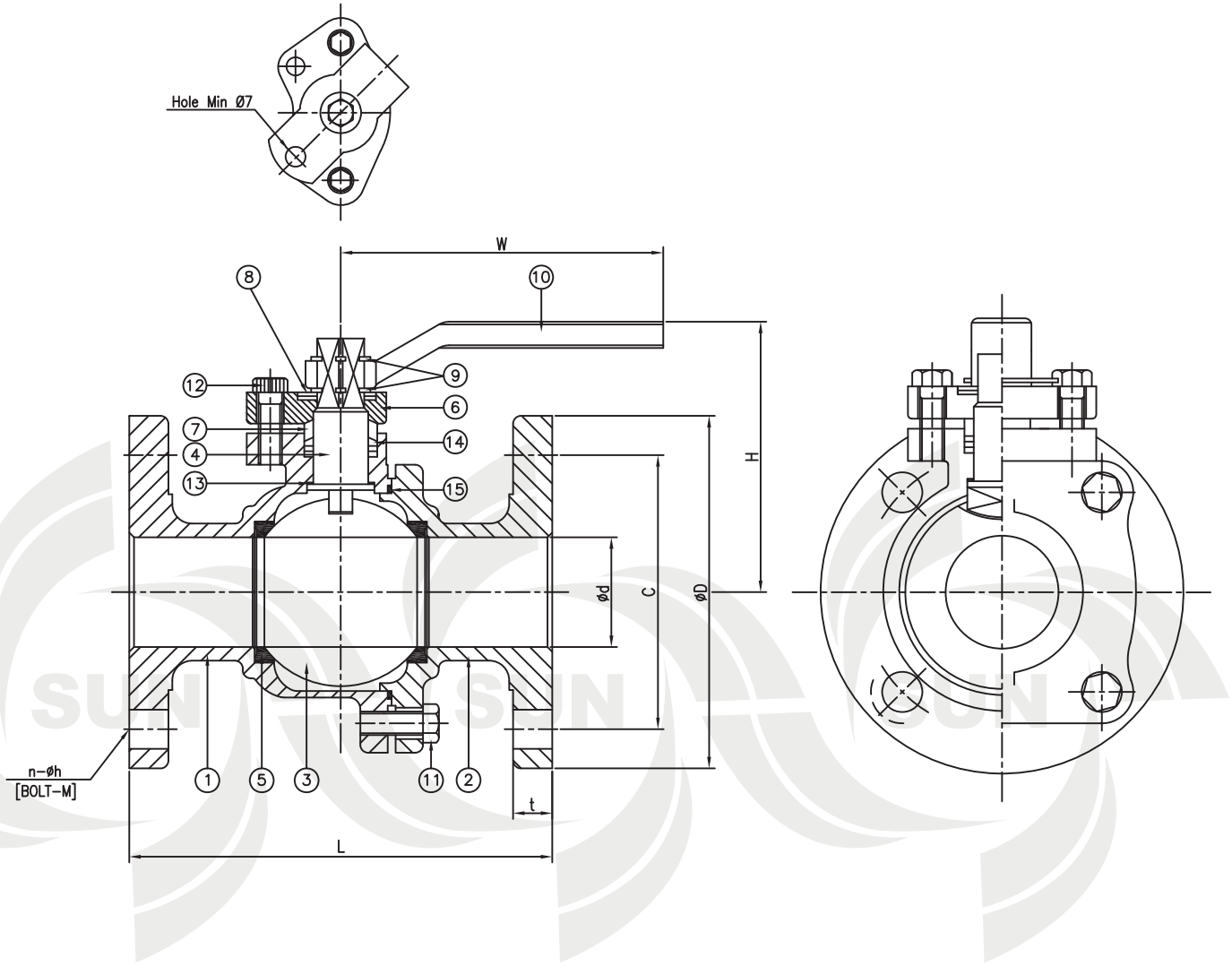
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	24 kgf/cm²
		SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	W	t	n-øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	4-19
65A	65	140	175	155	190	270	18	4-19
80A	80	150	185	172	203	270	18	8-19
100A	100	175	210	214	229	400	18	8-19

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	SC480
7	GLAND RING	SUS304
8	STOPPER	SS400
9	STOP RING	SUS304
10	LEVER HANDLE	AL
11	HEX BOLT	SS400
12	GLAND BOLT	SS400
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 2-Way Ball Valve(JIS 16K)



VALVE SPECIFICATION SHEET

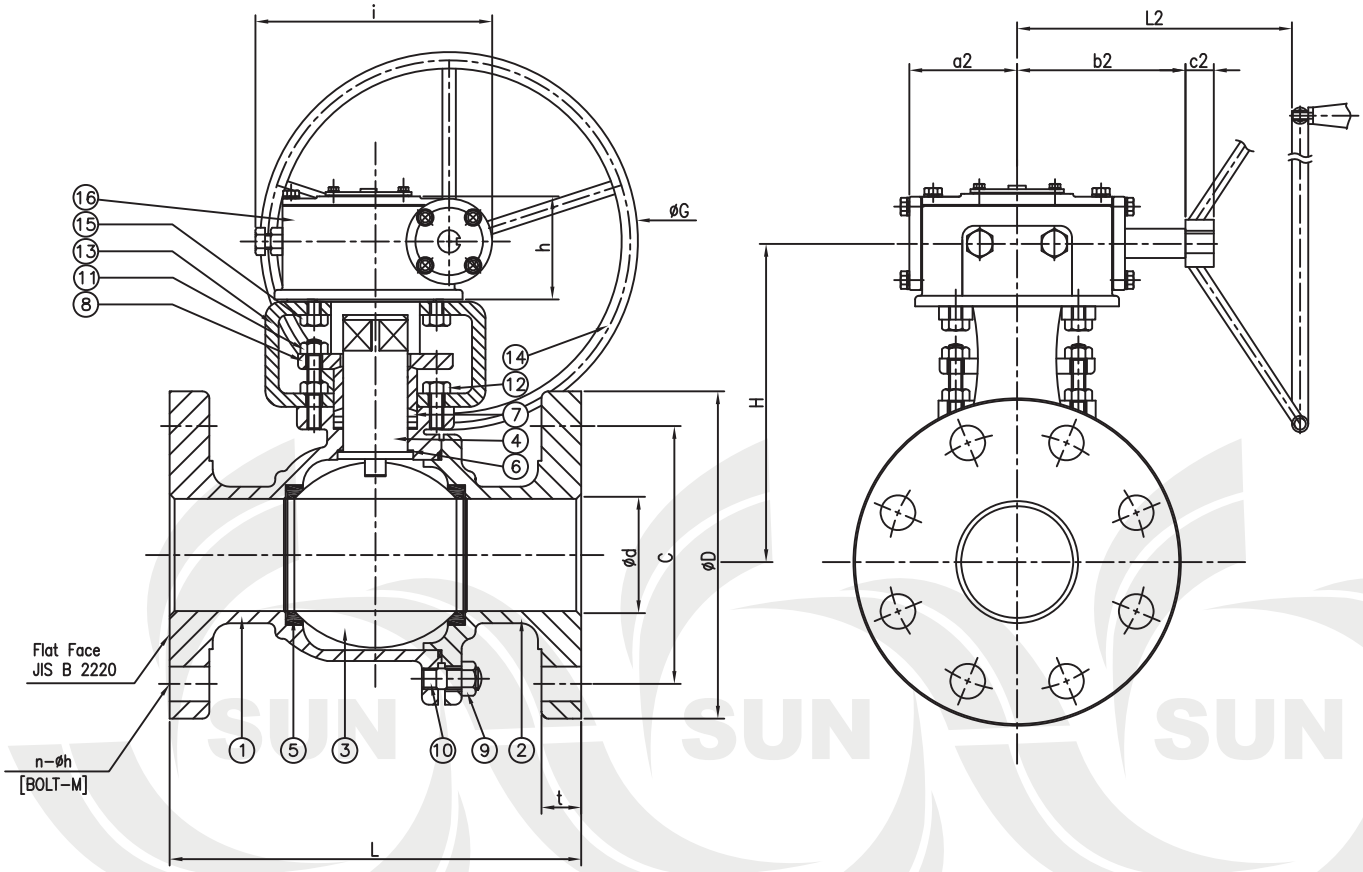
STANDARD'S	FACE TO FACE		JIS B 2002
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

SIZE	Ød	C	ØD	H	L	W	t	n-Øh
15A	15	70	95	105	110	123	12	4-15
20A	20	75	100	107	120	123	14	4-15
25A	25	90	125	117	130	143	14	4-19
32A	32	100	135	122	160	143	16	4-19
40A	40	105	140	130	180	233	16	4-19
50A	50	120	155	135	178	233	16	8-19
65A	65	140	175	155	190	270	18	8-19
80A	80	160	200	172	203	270	20	8-23
100A	100	185	225	214	229	400	22	8-23

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	SC480
7	GLAND RING	SUS304
8	STOPPER	SS400
9	STOP RING	SUS304
10	LEVER HANDLE	AL
11	HEX BOLT	SS400
12	GLAND BOLT	SS400
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	C83600
2	BODY CAP	C83600
3	BALL	C83600
4	STEM	C63200
5	SEAT RING	RTFE
6	THRUST BEARING	PTFE
7	GLAND PACKING	GRAPHITE
8	GLAND FLANGE	C83600
9	HEX NUT	8M
10	STUD BOLT	B8M
11	GLAND BOLT	B8M
12	BRACKET BOLT	B8M
13	BRACKET	SC480
14	HANDLE WHEEL	SS410
15	GEAR BOX BOLT	B8M
16	GEAR BOX ASS'Y	FCD400

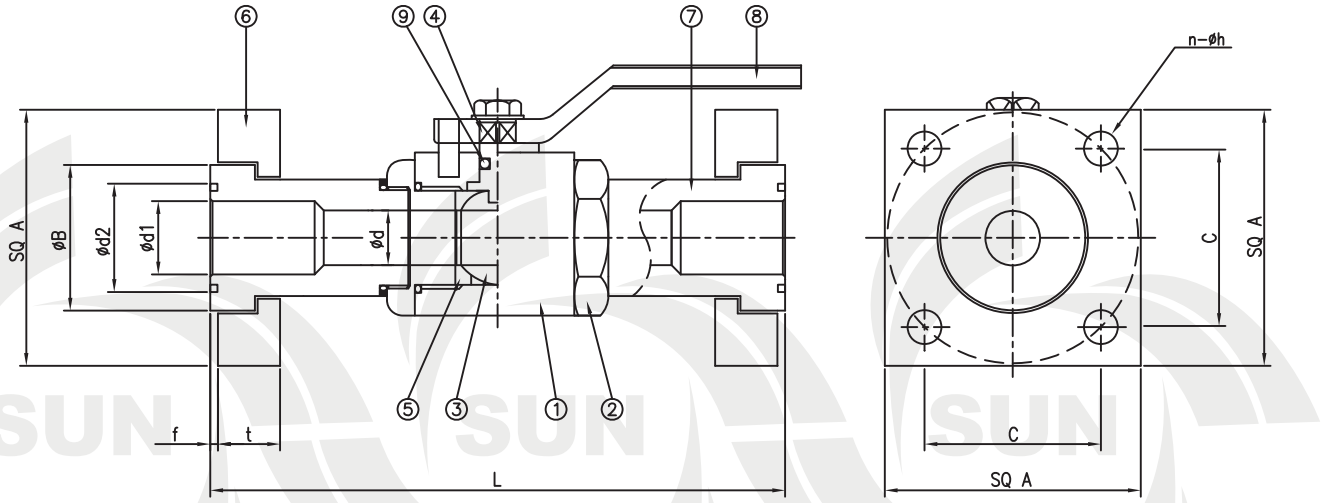
VALVE SPECIFICATION SHEET

STANDARD'S	DESIGN		MSS SP-72 ASME B 16.24
	FIRE SAFE DESIGN		API 607
	FACE TO FACE		ASME B 16.10 #150
	FLANGE DIMENSION		JIS B 2240
	INSPECTION & TESTING		ASME B 16.34
	HYDROSTATIC TEST PRESSURE	BODY	10.5 kgf/cm² (1.03Mpa)
		SEAT	7.7kgf/cm² or Air 6.0kgf/cm²

SIZE	Ød	C	ØD	L	H	t	n-Øh	S	ØG	h	i	L2	a2	b2	c2
150A	150	230	265	394	362	18	8-19	245	400	97	202.5	300	92.5	144.5	29
200A	200	280	320	457	385	20	8-23	245	500	115.5	246.5	350	110.5	168.5	34
250A	250	320	385	533	440	22	12-23	245	500	115.5	246.5	350	110.5	168.5	34

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve(JIS 210K)



VALVE SPECIFICATION SHEET

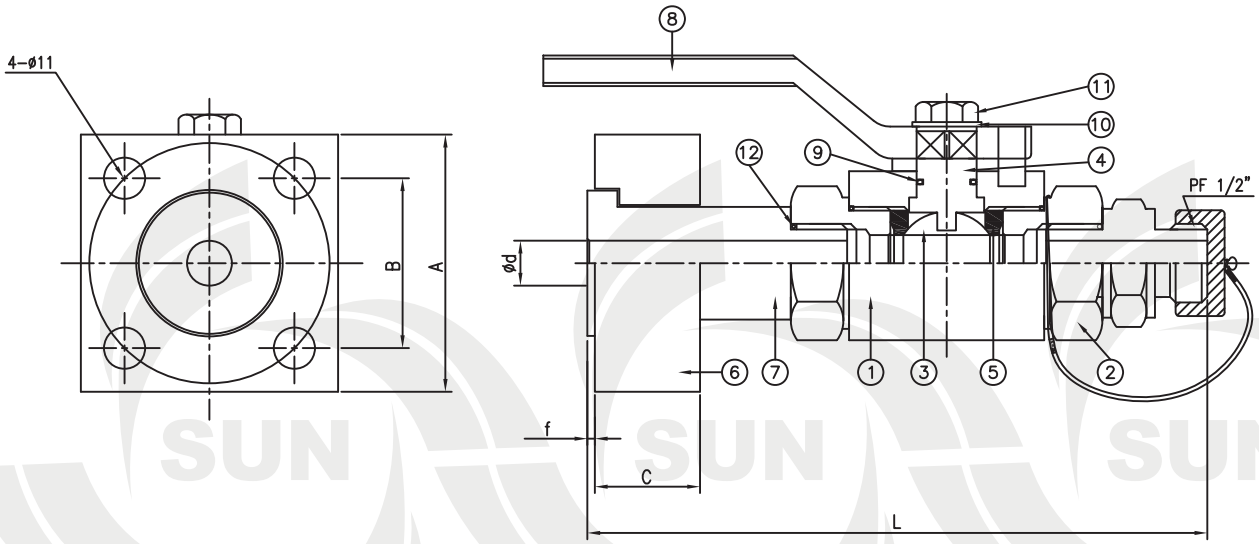
HYDROSTATIC TEST PRESSURE	BODY	315 kgf/cm²
	SEAT	315 kgf/cm²

SIZE	ød	ød1	ød2	L	SQ A	øB	C	f	t	n-øh
15A	12	16	30	200	63	38.5	40	2	22	4-11
25A	22	25	40	240	80	54.5	53	2	28	4-13

NO.	PARTS	MATERIAL
1	BODY	SUS316
2	MALE CONNECTOR	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	FLANGE	SUS316
7	SLEEVE	SUS316
8	HANDLE	SUS316
9	O-RING	VITON

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Hose Ball Valve(JIS 210K)



VALVE SPECIFICATION SHEET

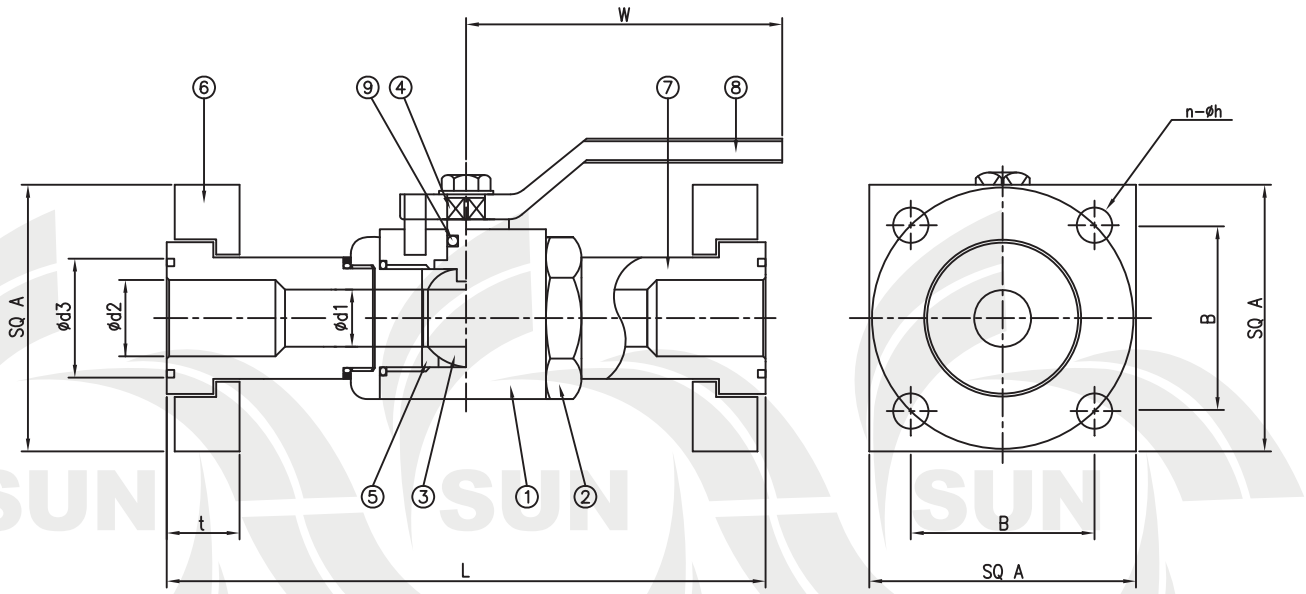
HYDROSTATIC TEST PRESSURE	BODY	315 kgf/cm²
	SEAT	315 kgf/cm²

SIZE	ød	A	B	C	L	f
15A	12.3	63	40	22	165	2

NO.	PARTS	MATERIAL
1	BODY	SUS316
2	MALE CONNECTOR	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	FLANGE	SUS316
7	SLEEVE	SUS316
8	HANDLE	AL
9	PACKING	PTFE
10	HANDLE WASHER	SS400
11	HANDLE BOLT	SUS316
12	O-RING	VITION

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Ball Valve(JIS 280K)



VALVE SPECIFICATION SHEET

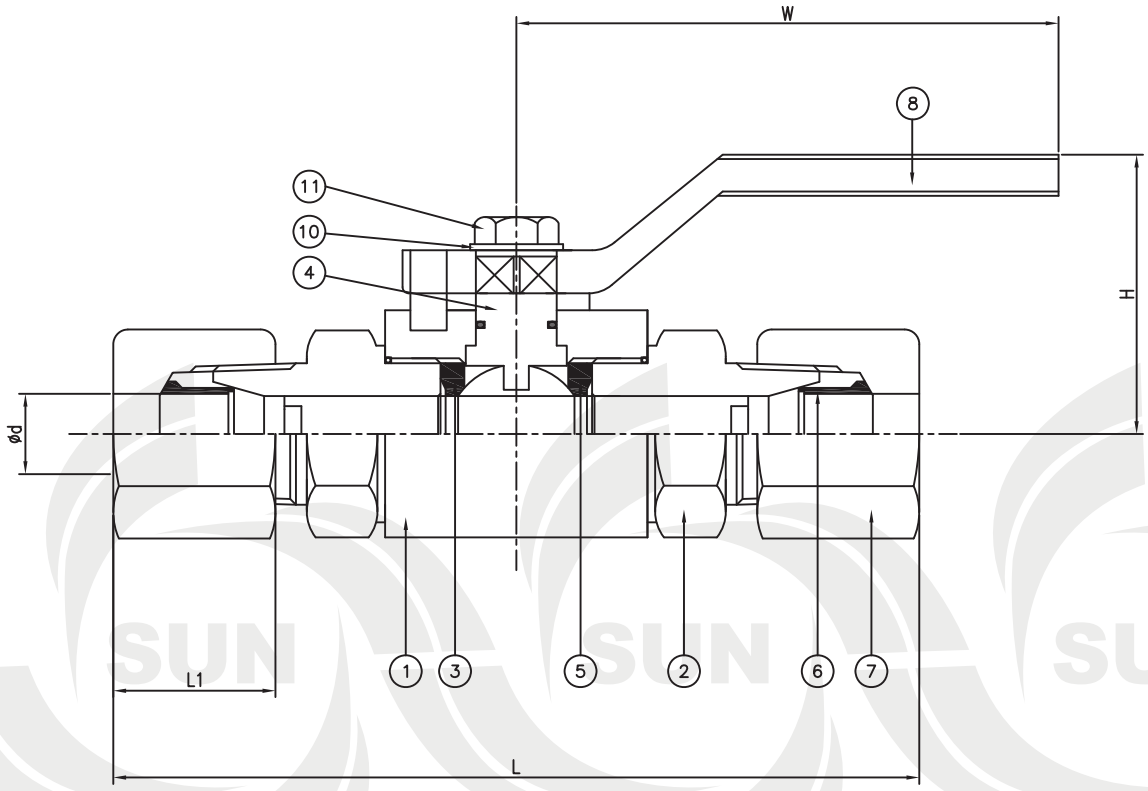
HYDROSTATIC TEST PRESSURE	BODY	420 kgf/cm²
	SEAT	420 kgf/cm²

SIZE	ød	ød2	ød3	L	SQ A	B	C	W	n–øh
15A	12.3	22.2	24	240	66	43	22	123	4–11
25A	21.2	34.5	35	240	85	58	35	143	4–13.5

NO.	PARTS	MATERIAL
1	BODY	SUS316L
2	MALE CONNECTOR	SUS316L
3	BALL	SUS316L
4	STEM	SUS316L
5	SEAT RING	POM
6	FLANGE	SUS316
7	SLEEVE	SUS316
8	HANDLE	SUS316
9	O-RING	VITON

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve with Union(JIS 210K)



NO.	PARTS	MATERIAL
1	BODY	SUS316
2	MALE CONNECTOR	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	SLEEVE	SUS316
7	UNION NUT	SUS316
8	HANDLE	AL
9	PACKING	PTFE
10	HANDLE WASHER	SS400
11	HANDLE BOLT	SUS316
12	CAP	SUS316

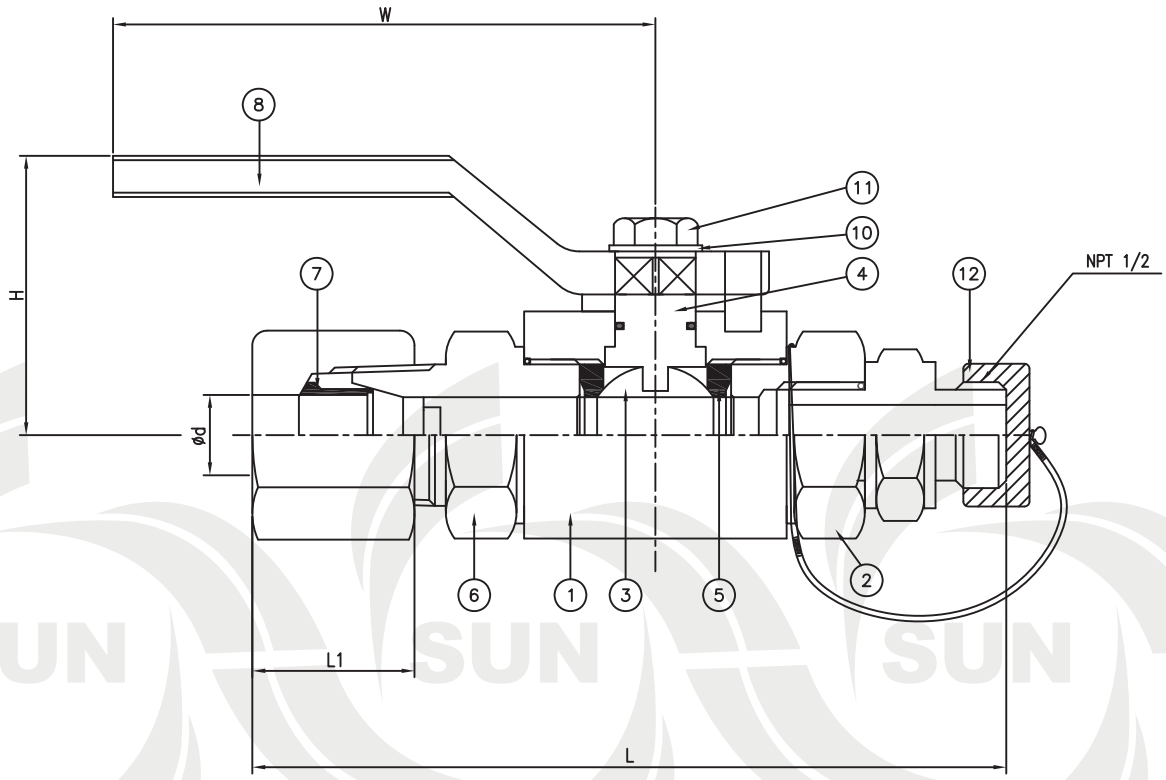
VALVE SPECIFICATION SHEET

HYDROSTATIC TEST PRESSURE	BODY	315 kgf/cm²
	SEAT	315 kgf/cm²

SIZE	Ød	L	L1	H	W
6A	10	130	19	35	120

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Hose Ball Valve with Union(JIS 210K)



VALVE SPECIFICATION SHEET

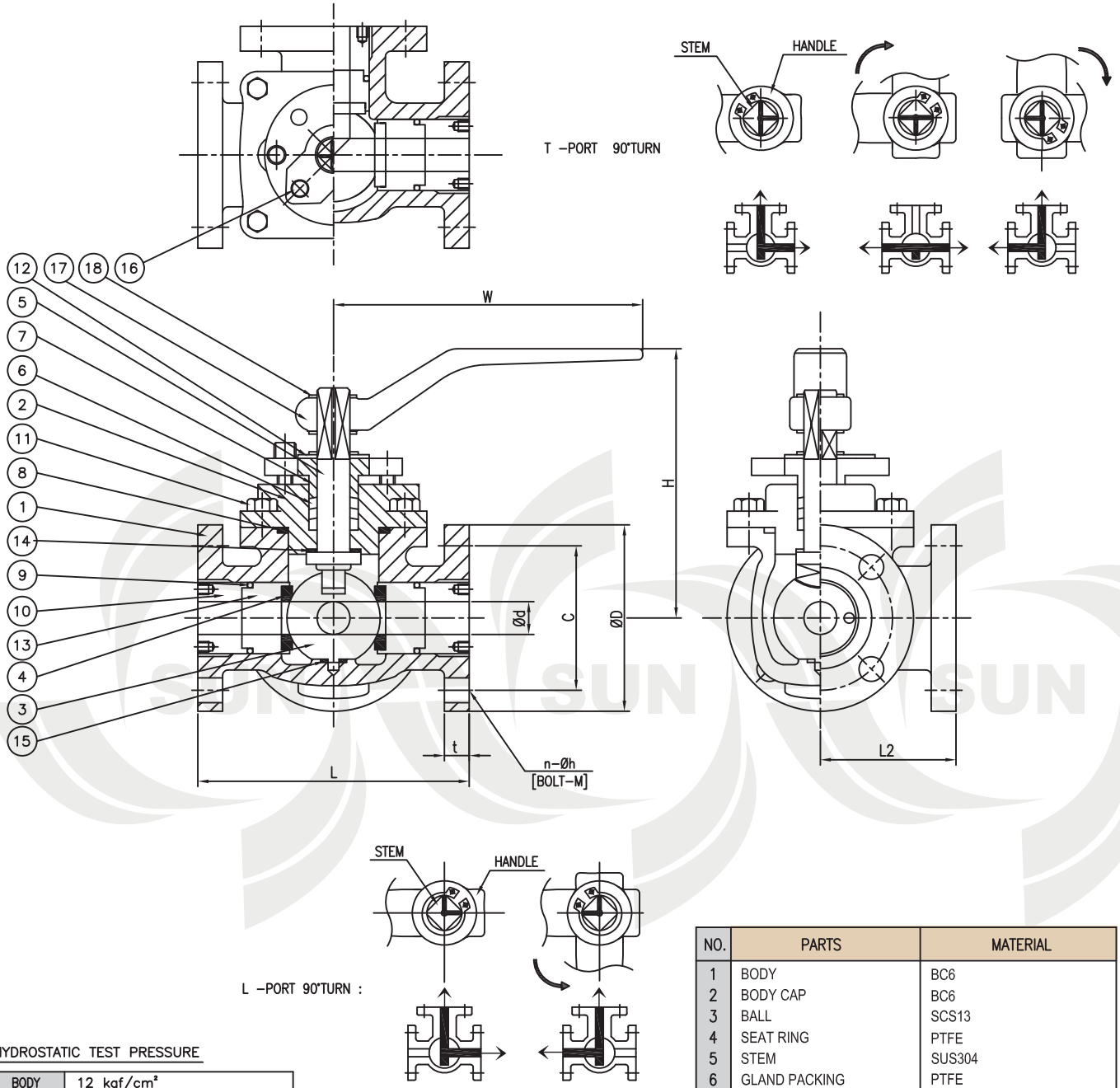
HYDROSTATIC TEST PRESSURE	BODY	315 kgf/cm²
	SEAT	315 kgf/cm²

SIZE	ød	L	L1	H	W
8A	12	138	19	35	120

NO.	PARTS	MATERIAL
1	BODY	SUS316
2	MALE CONNECTOR	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	MALE CONNECTOR	SUS316
7	SLEEVE	SUS316
8	HANDLE	AL
9	PACKING	PTFE
10	HANDLE WASHER	SS400
11	HANDLE BOLT	SUS316
12	CAP	SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 3-Way Ball Valves(JIS 5K)



HYDROSTATIC TEST PRESSURE

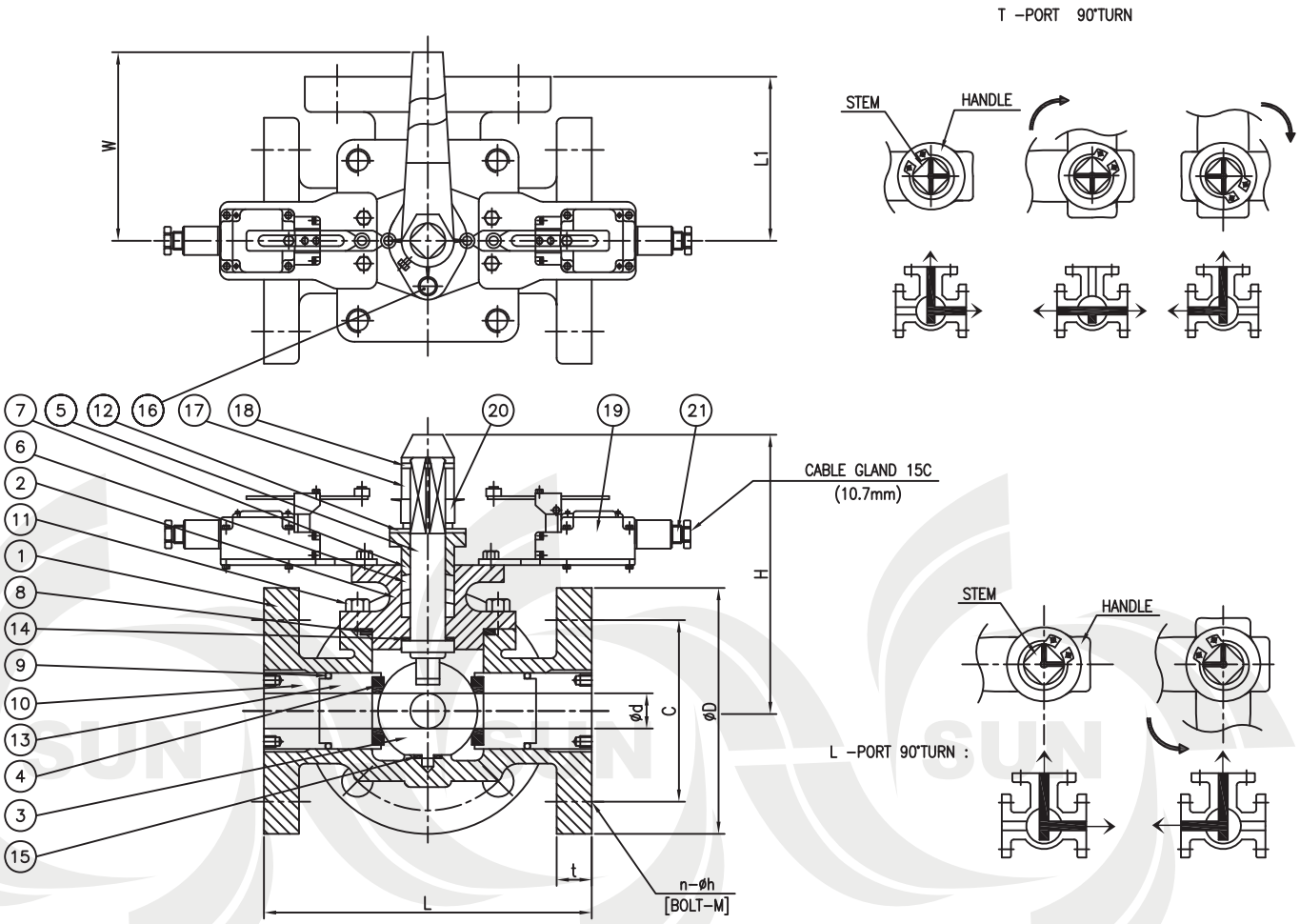
BODY	12 kgf/cm²
SEAT	8 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	60	80	110	110	55	130	9	4–12
20A	20	65	85	110	120	60	130	10	4–12
25A	25	75	95	120	130	65	160	10	4–12
32A	32	90	115	140	160	80	160	12	4–15
40A	40	95	120	170	170	85	240	12	4–15
50A	50	105	130	207	190	95	240	14	4–15
65A	65	130	155	230	220	110	350	14	4–15
80A	80	145	180	245	320	160	350	14	4–19
100A	100	165	200	260	370	185	420	16	8–19
125A	125	200	235	315	440	220	420	16	8–19

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SUS304
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	C3604
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	C3604
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 3-Way Ball Valves with Limit Switch(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SCS13
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	C3604
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	C3604
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304
19	LIMIT SWITCH	AL
20	INDICATE	SS400
21	CABLE GLAND	C3604

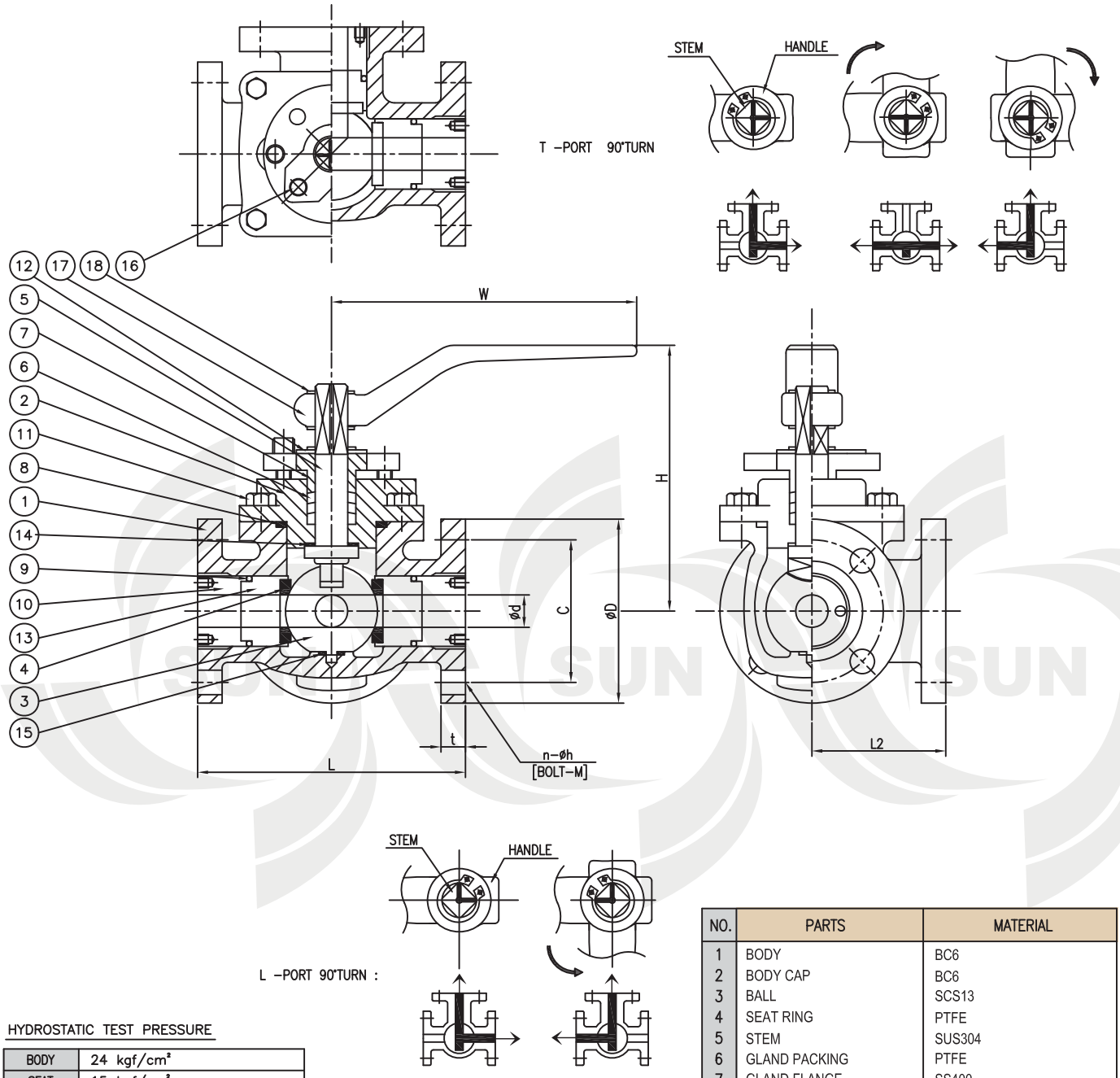
HYDROSTATIC TEST PRESSURE

BODY	12 kgf/cm²
SEAT	8 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	60	80	190	110	55	130	9	4–12
20A	20	65	85	190	120	60	130	10	4–12
25A	25	75	95	200	130	65	160	10	4–12
32A	32	90	115	210	160	80	160	12	4–15
40A	40	95	120	220	170	85	240	12	4–15
50A	50	105	130	247	190	95	240	14	4–15
65A	65	130	155	270	220	110	350	14	4–15
80A	80	145	180	285	320	160	350	14	4–19
100A	100	165	200	300	370	185	420	16	8–19
125A	125	200	235	315	440	220	420	16	8–19

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 3-Way Ball Valves(JIS 10K)



HYDROSTATIC TEST PRESSURE

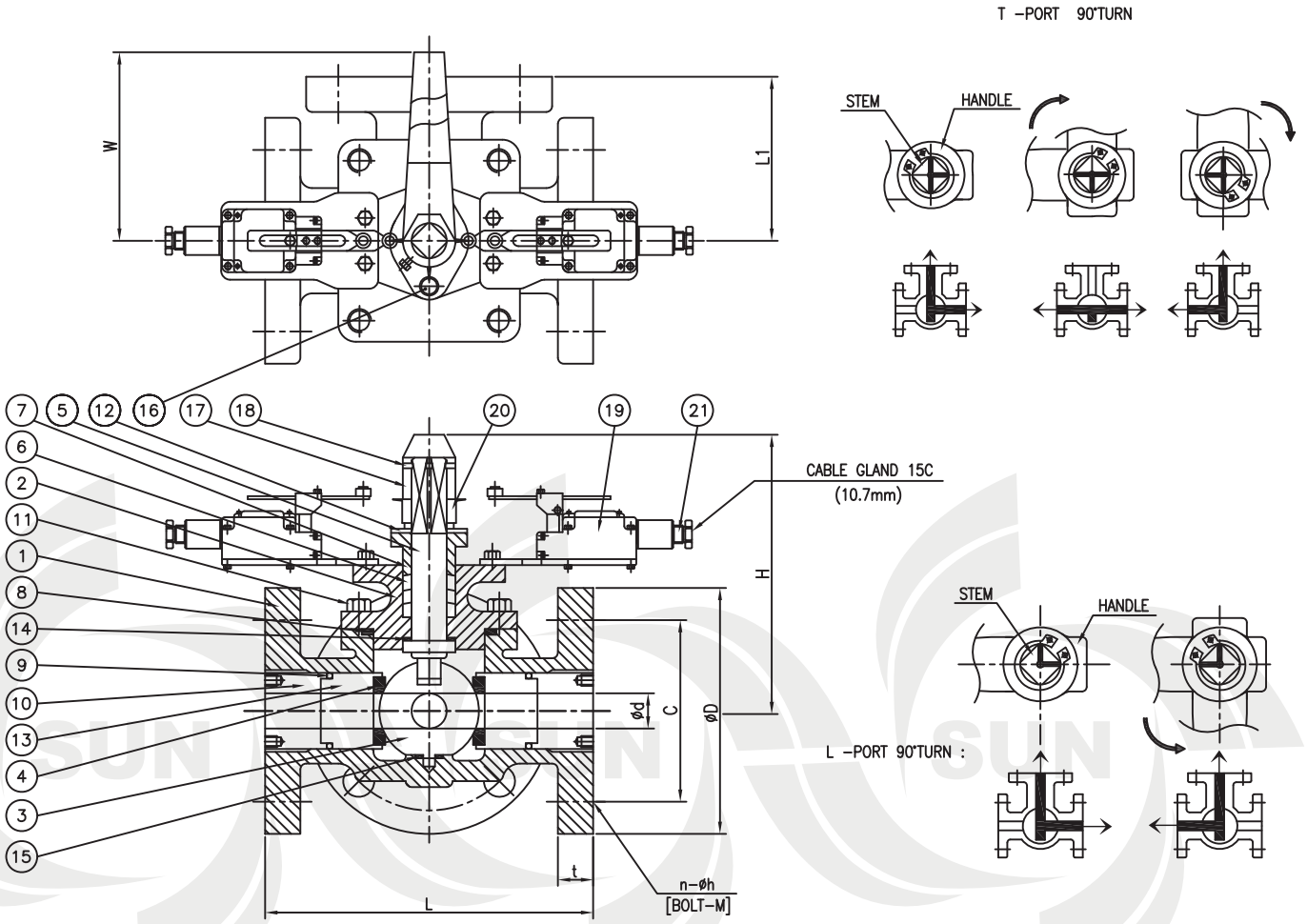
BODY	24 kgf/cm²
SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	207	240	120	240	16	4–19
65A	65	140	175	230	300	150	350	18	4–19
80A	80	150	185	245	320	160	350	18	8–19
100A	100	175	210	260	370	185	420	18	8–19
125A	125	210	210	315	440	220	420	20	8–23

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SUS304
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	C3604
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	C3604
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 3-Way Ball Valves with Limit Switch(JIS 10K)



NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SCS13
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	C3604
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	C3604
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304
19	LIMIT SWITCH	AL
20	INDICATE	SS400
21	CABLE GLAND	C3604

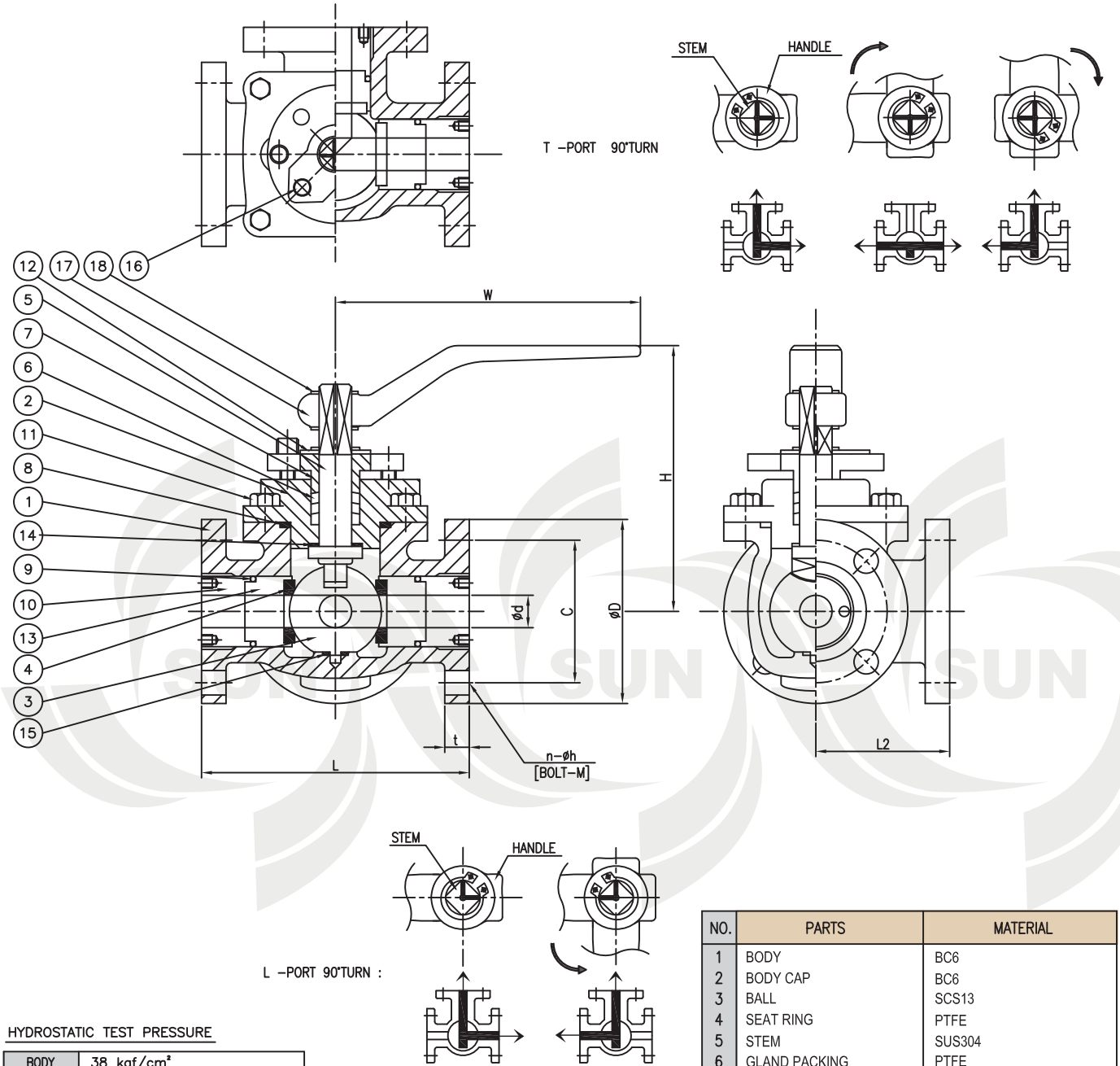
HYDROSTATIC TEST PRESSURE

BODY	24 kgf/cm²
SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	247	240	120	240	16	4–19
65A	65	140	175	270	300	150	350	18	4–19
80A	80	150	185	285	320	160	350	18	8–19
100A	100	175	210	300	370	185	420	18	8–19
125A	125	210	210	355	440	220	420	20	8–23

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 3-Way Ball Valves(JIS 16K)



HYDROSTATIC TEST PRESSURE

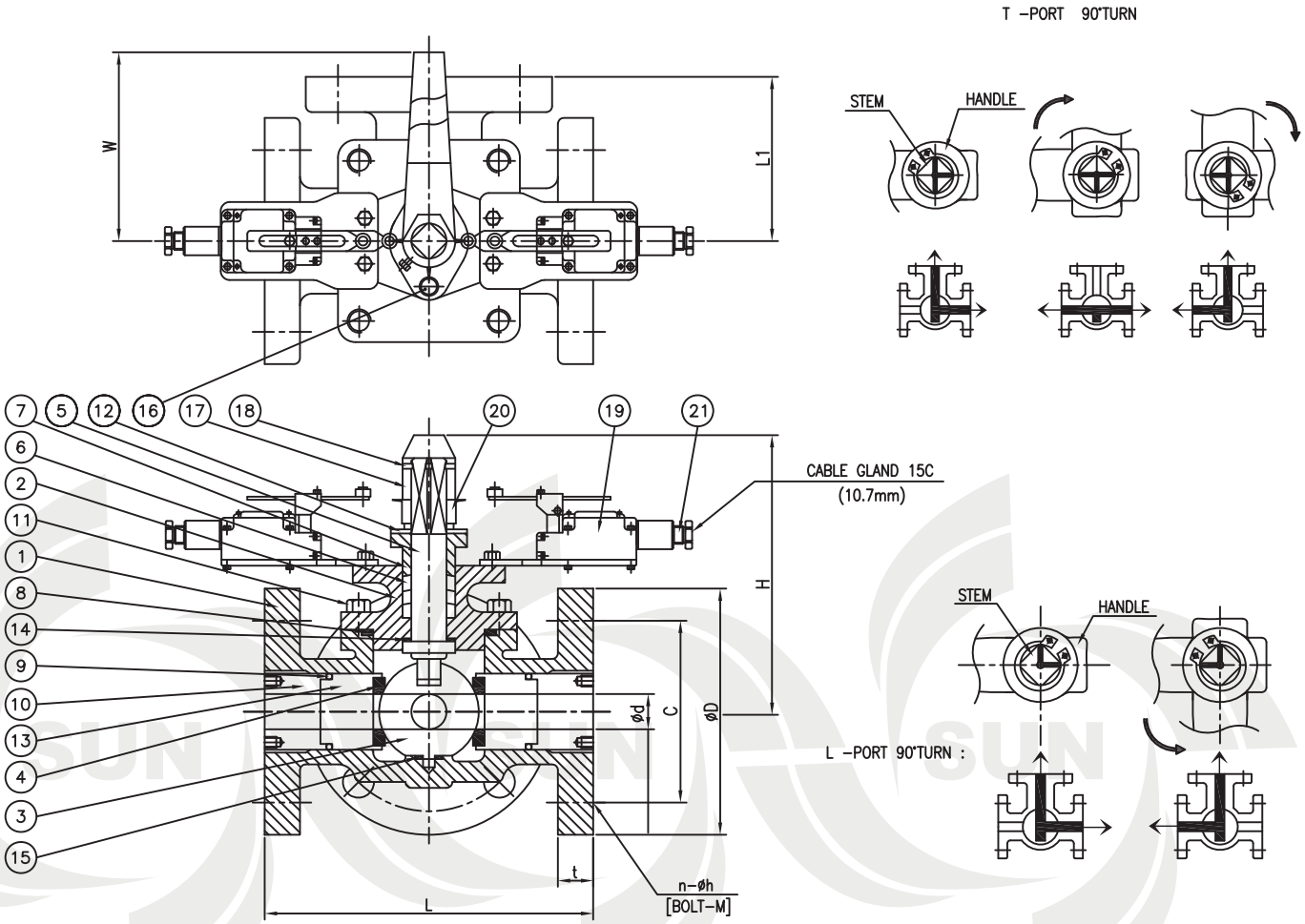
BODY	38 kgf/cm²
SEAT	24 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	207	240	120	240	16	8–19
65A	65	140	175	230	300	150	350	18	8–19
80A	80	160	200	245	320	160	350	20	8–23
100A	100	185	225	260	370	185	420	22	8–23
125A	125	225	270	315	440	220	420	22	8–25

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SUS304
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	C3604
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	C3604
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 3-Way Ball Valves with Limit Switch(JIS 16K)



HYDROSTATIC TEST PRESSURE

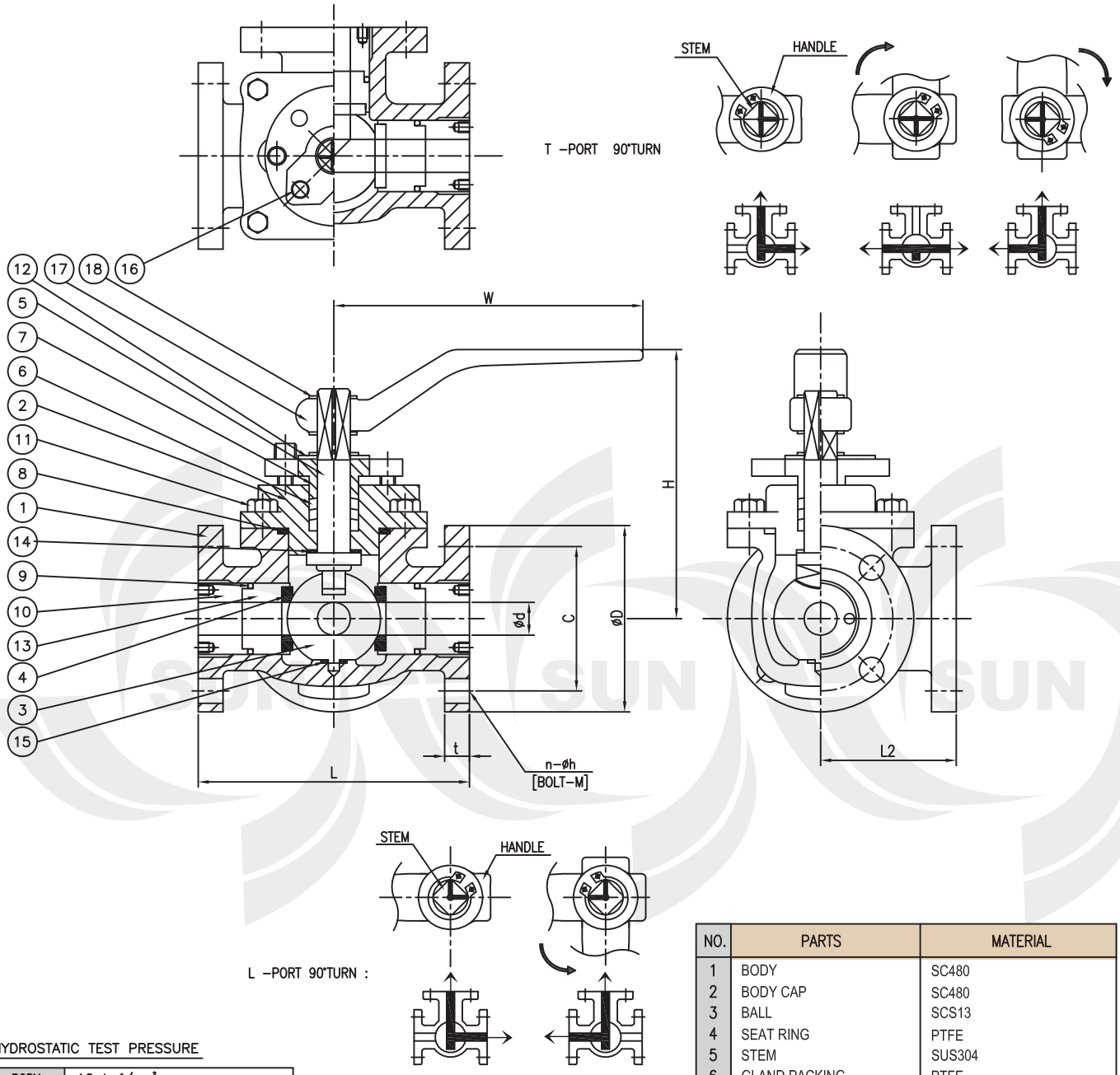
BODY	38 kgf/cm²
SEAT	24 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	247	240	120	240	16	8–19
65A	65	140	175	270	300	150	350	18	8–19
80A	80	160	200	285	320	160	350	20	8–23
100A	100	185	225	300	370	185	420	22	8–23
125A	125	225	270	355	440	220	420	22	8–25

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SCS13
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	C3604
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	C3604
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304
19	LIMIT SWITCH	AL
20	INDICATE	SS400
21	CABLE GLAND	C3604

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valves(JIS 5K)



HYDROSTATIC TEST PRESSURE

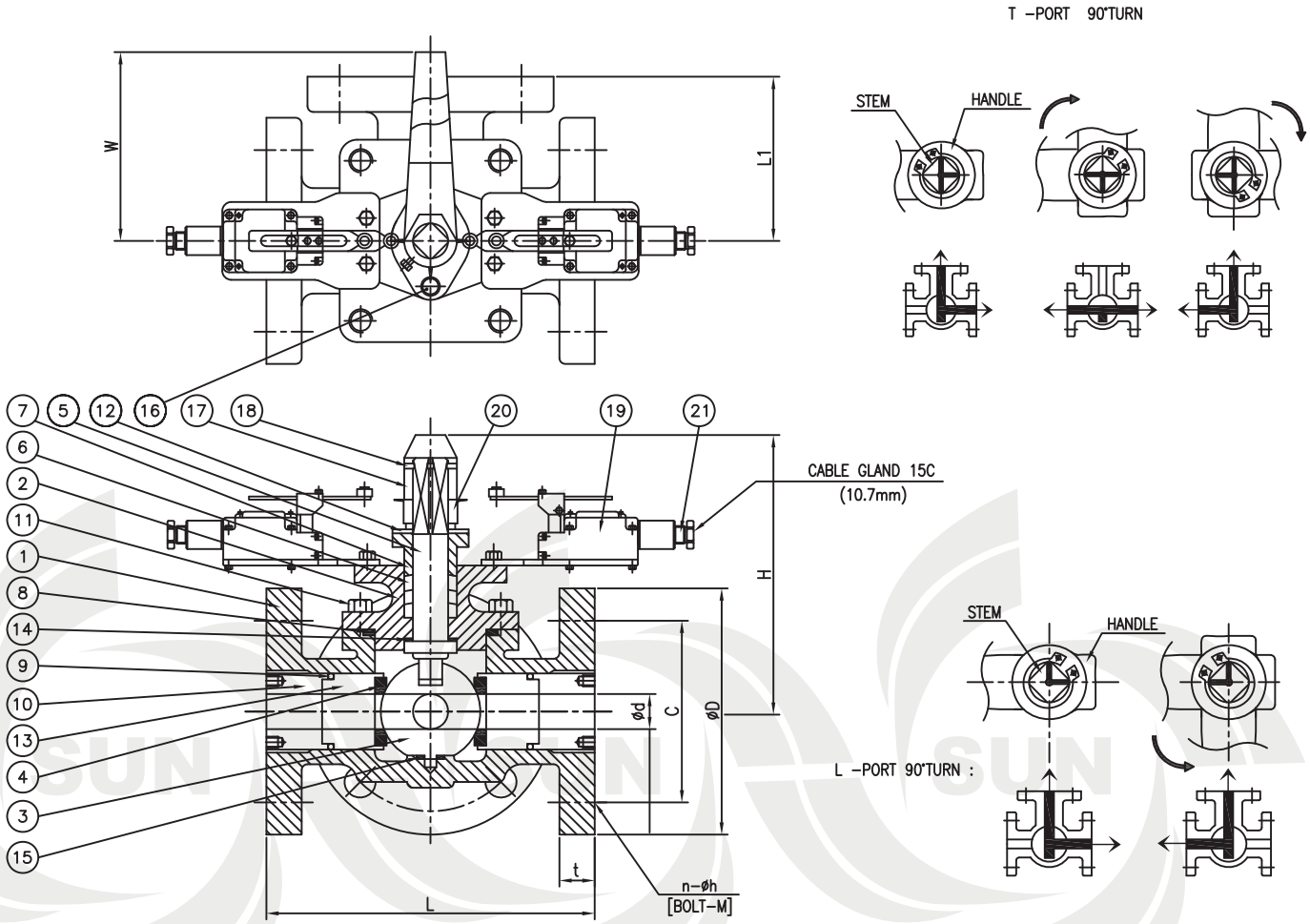
BODY	12 kgf/cm²
SEAT	8 kgf/cm²

SIZE	ød	C	øD	H	L	L 1	W	t	n–øh
15A	15	60	80	110	110	55	130	9	4–12
20A	20	65	85	110	120	60	130	10	4–12
25A	25	75	95	120	130	65	160	10	4–12
32A	32	90	115	140	160	80	160	12	4–15
40A	40	95	120	170	170	85	240	12	4–15
50A	50	105	130	207	190	95	240	14	4–15
65A	65	130	155	230	220	110	350	14	4–15
80A	80	145	180	245	320	160	350	14	4–19
100A	100	165	200	260	370	185	420	16	8–19
125A	125	200	235	315	440	220	420	16	8–19

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SUS304
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	S45C
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	S45C
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valves with Limit Switch(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SCS13
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	S45C
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	S45C
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304
19	LIMIT SWITCH	AL
20	INDICATE	SS400
21	CABLE GLAND	C3604

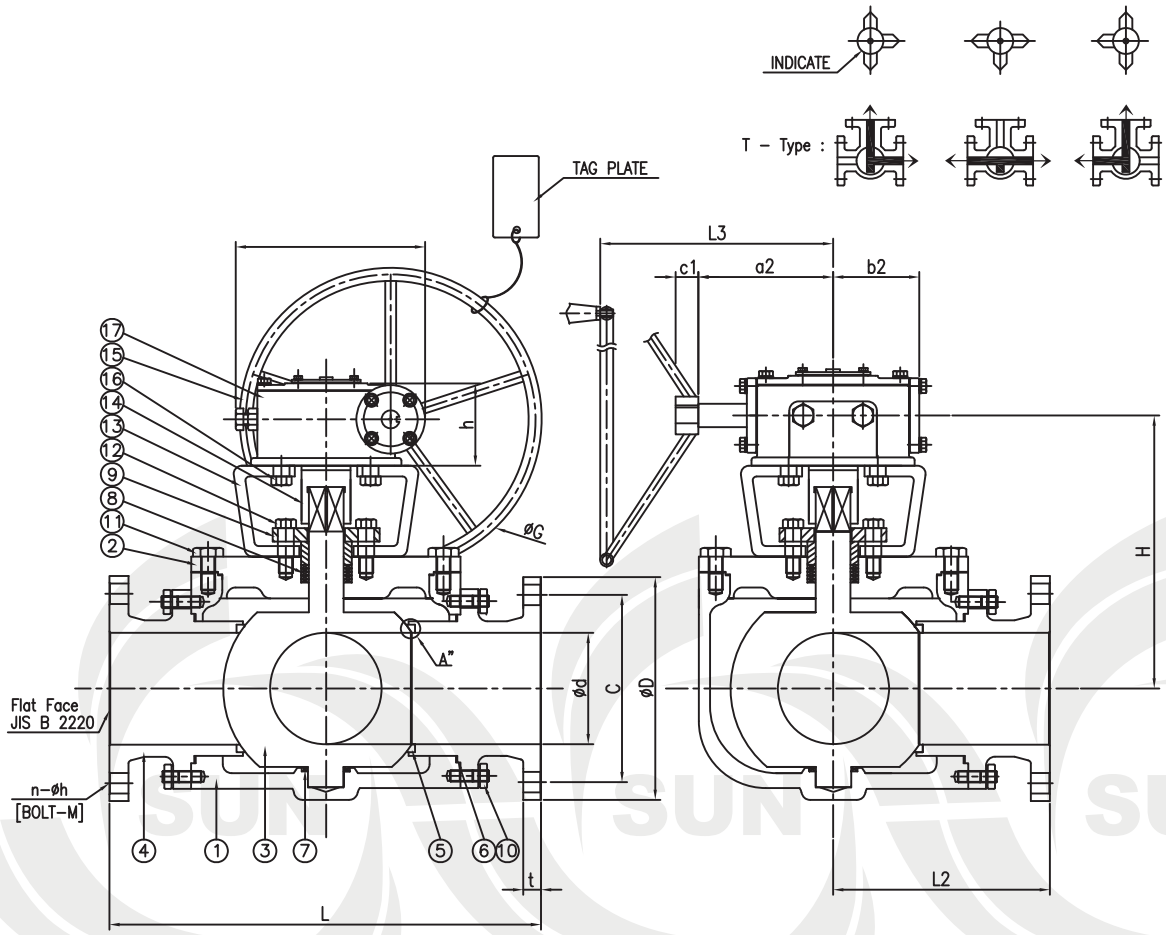
HYDROSTATIC TEST PRESSURE

BODY	12 kgf/cm²
SEAT	8 kgf/cm²

SIZE	ød	C	øD	H	L	L1	W	t	n–øh
15A	15	60	80	190	110	55	130	9	4–12
20A	20	65	85	190	120	60	130	10	4–12
25A	25	75	95	200	130	65	160	10	4–12
32A	32	90	115	210	160	80	160	12	4–15
40A	40	95	120	220	170	85	240	12	4–15
50A	50	105	130	247	190	95	240	14	4–15
65A	65	130	155	270	220	110	350	14	4–15
80A	80	145	180	285	320	160	350	14	4–19
100A	100	165	200	300	370	185	420	16	8–19
125A	125	200	235	315	440	220	420	16	8–19

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valves(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	WCB
2	BODY CAP	WCB
3	BALL	CF8M
4	BODY FLANGE	WCB
5	SEAT RING	RTFE
6	GASKET	PTFE
7	PACKING	PTFE
8	GLAND PACKING	PTFE
9	GLAND FLANGE	WCB
10	HEX BOLT	B7
11	HEX BOLT	B7
12	BRACKET BOLT	B7
13	BRACKET	FCD400
14	COUPLING	S45C
15	HANDLE WHEEL	SS410
16	GEAR BOX BOLT	S45C
17	GEAR BOX ASS'Y	FCD400

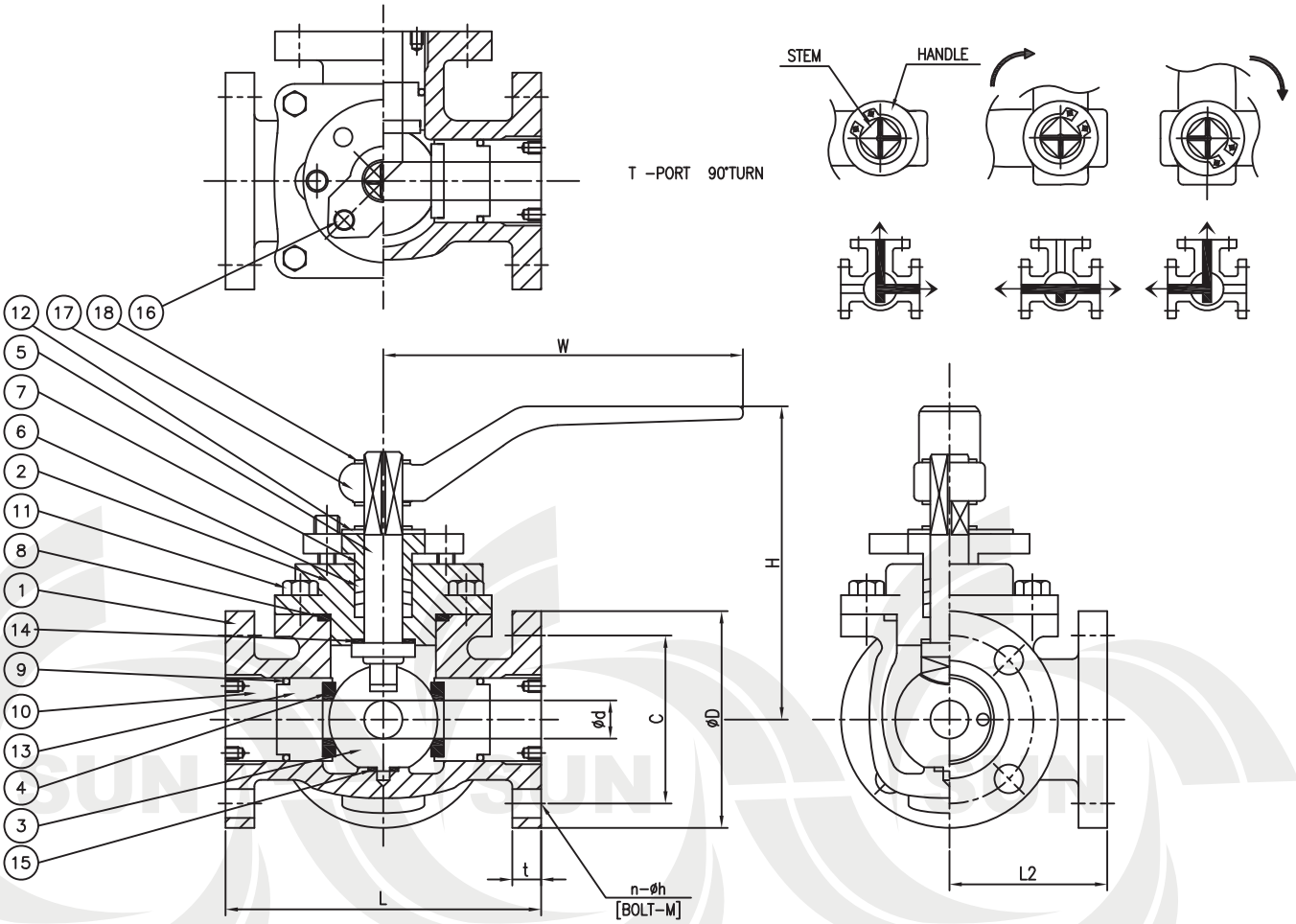
VALVE SPECIFICATION

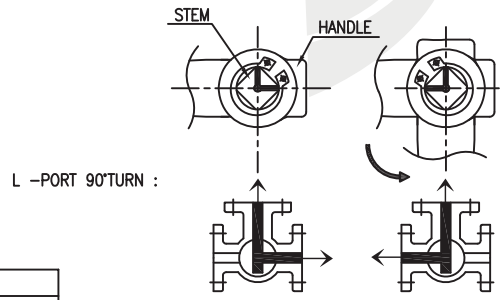
STANDARD'S	DESIGN		DongHun standard ASME B 16.34
	FIRE SAFE DESIGN		API 607
	FACE TO FACE		DongHun standard
	FLANGE DIMENSION		JIS B 2220
	INSPECTION & TESTING		ASME B 16.34
HYDROSTATIC TEST PRESSURE		BODY	10.5 kgf/cm² (1.03Mpa)
		SEAT	7.7kgf/cm² or Air 6.0kgf/cm²

SIZE	ød	C	øD	L	H	t	n–øh	L2	i	øG	h	L3	a2	b2	c1
150A	150	230	265	500	329	18	8–19	250	246.5	500	115.5	350	168.5	110.5	34
200A	200	280	320	650	405	20	8–23	325	246.5	500	115.5	350	168.5	110.5	34
250A	250	345	385	750	500	22	12–23	400	288.0	560	117.0	350	182.0	124.0	34

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valves(JIS 10K)





HYDROSTATIC TEST PRESSURE

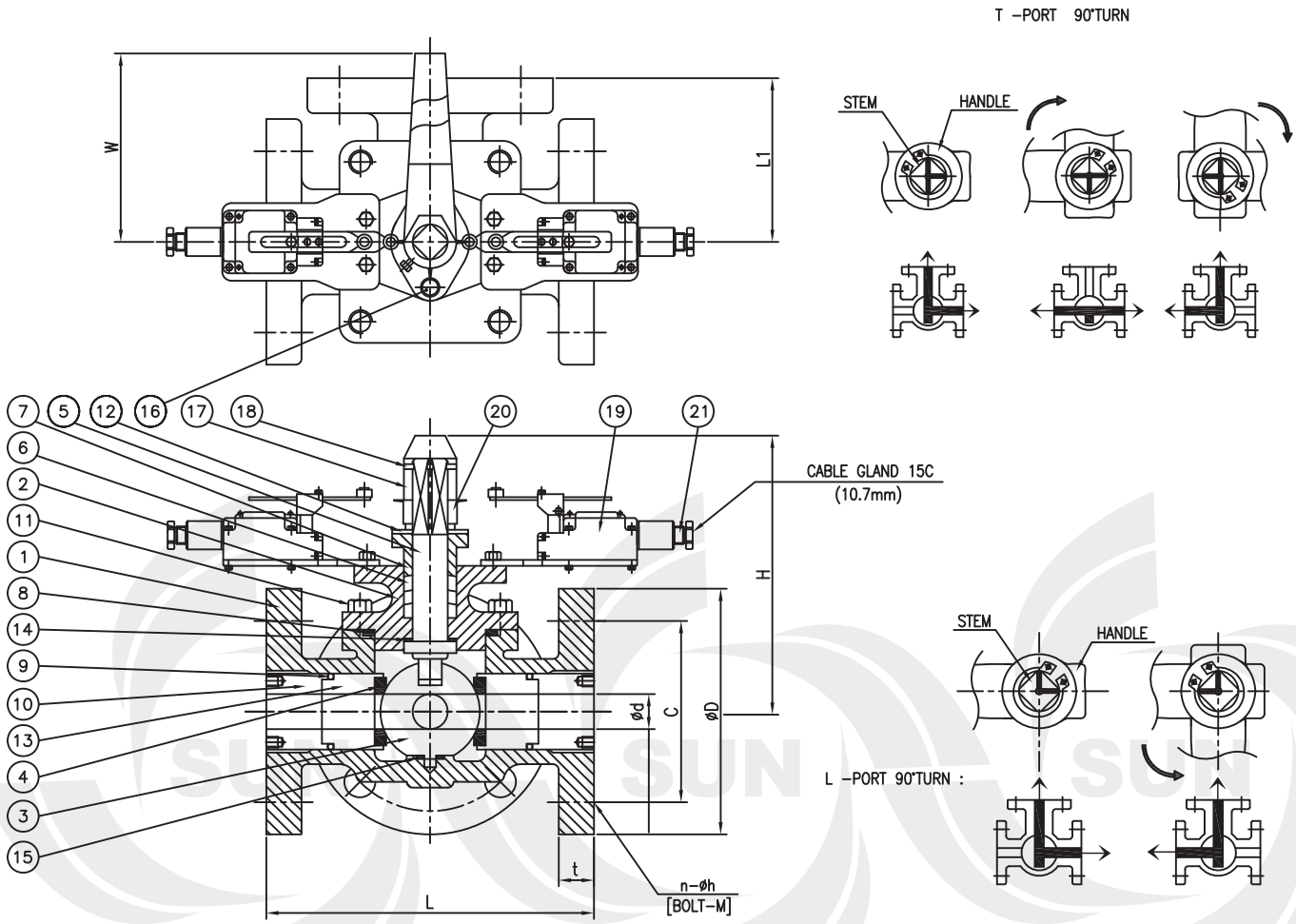
BODY	24 kgf/cm²
SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	L1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	207	240	120	240	16	4–19
65A	65	140	175	230	300	150	350	18	4–19
80A	80	150	185	245	320	160	350	18	8–19
100A	100	175	210	260	370	185	420	18	8–19
125A	125	210	210	315	440	220	420	20	8–23

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SUS304
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	S45C
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	S45C
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valve with Limit Switch(JIS 10K)



HYDROSTATIC TEST PRESSURE

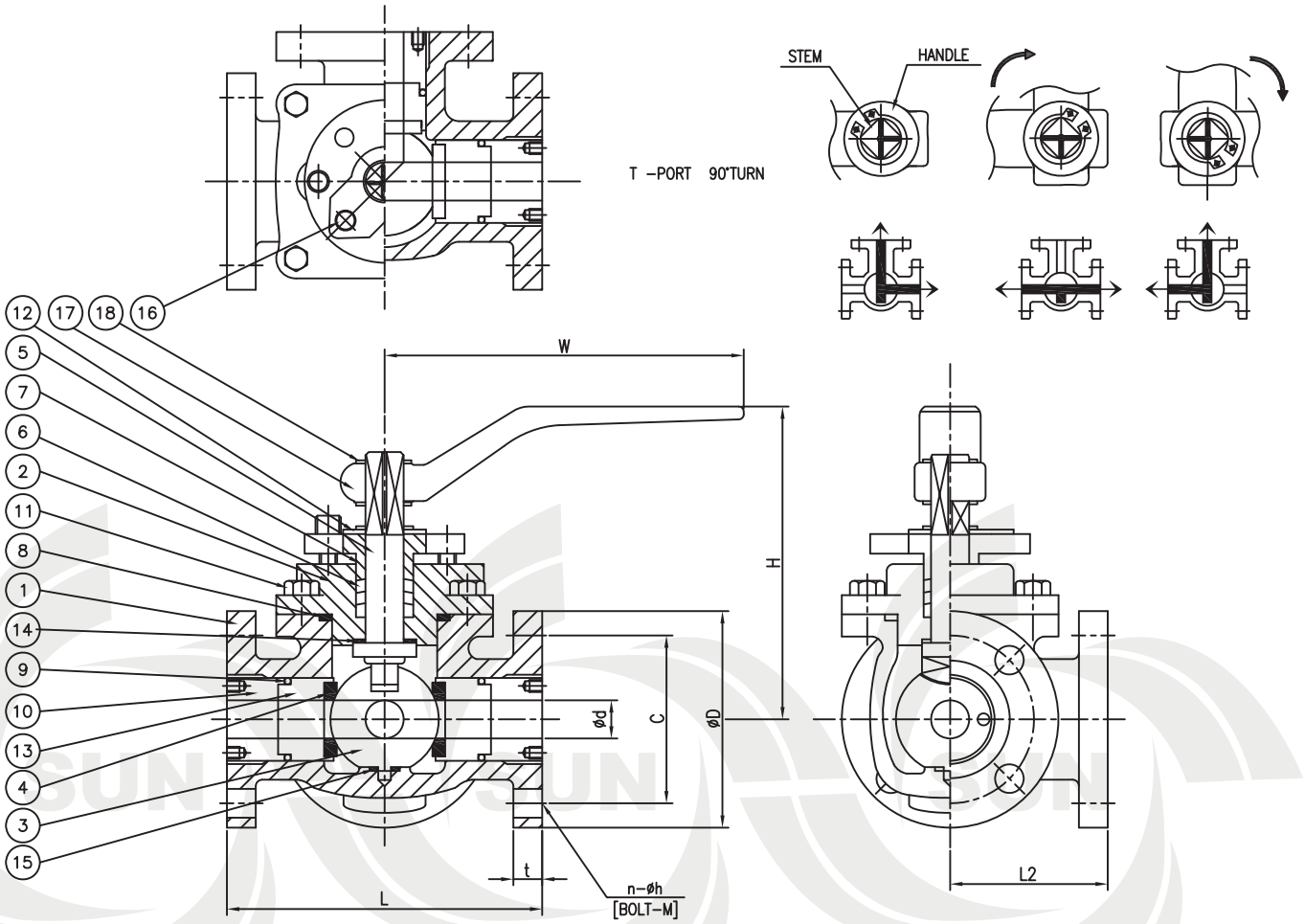
BODY	24 kgf/cm²
SEAT	15 kgf/cm²

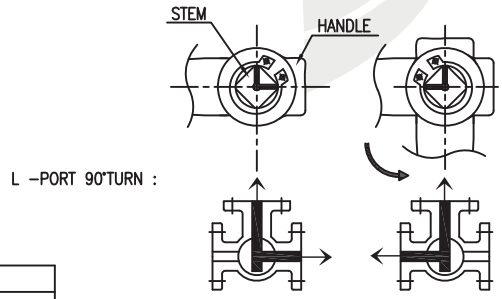
SIZE	ød	C	øD	H	L	L1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	247	240	120	240	16	4–19
65A	65	140	175	270	300	150	350	18	4–19
80A	80	150	185	285	320	160	350	18	8–19
100A	100	175	210	300	370	185	420	18	8–19
125A	125	210	210	355	440	220	420	20	8–23

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SCS13
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	S45C
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	S45C
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304
19	LIMIT SWITCH	AL
20	INDICATE	SS400
21	CABLE GLAND	C3604

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valves(JIS 16K)





HYDROSTATIC TEST PRESSURE

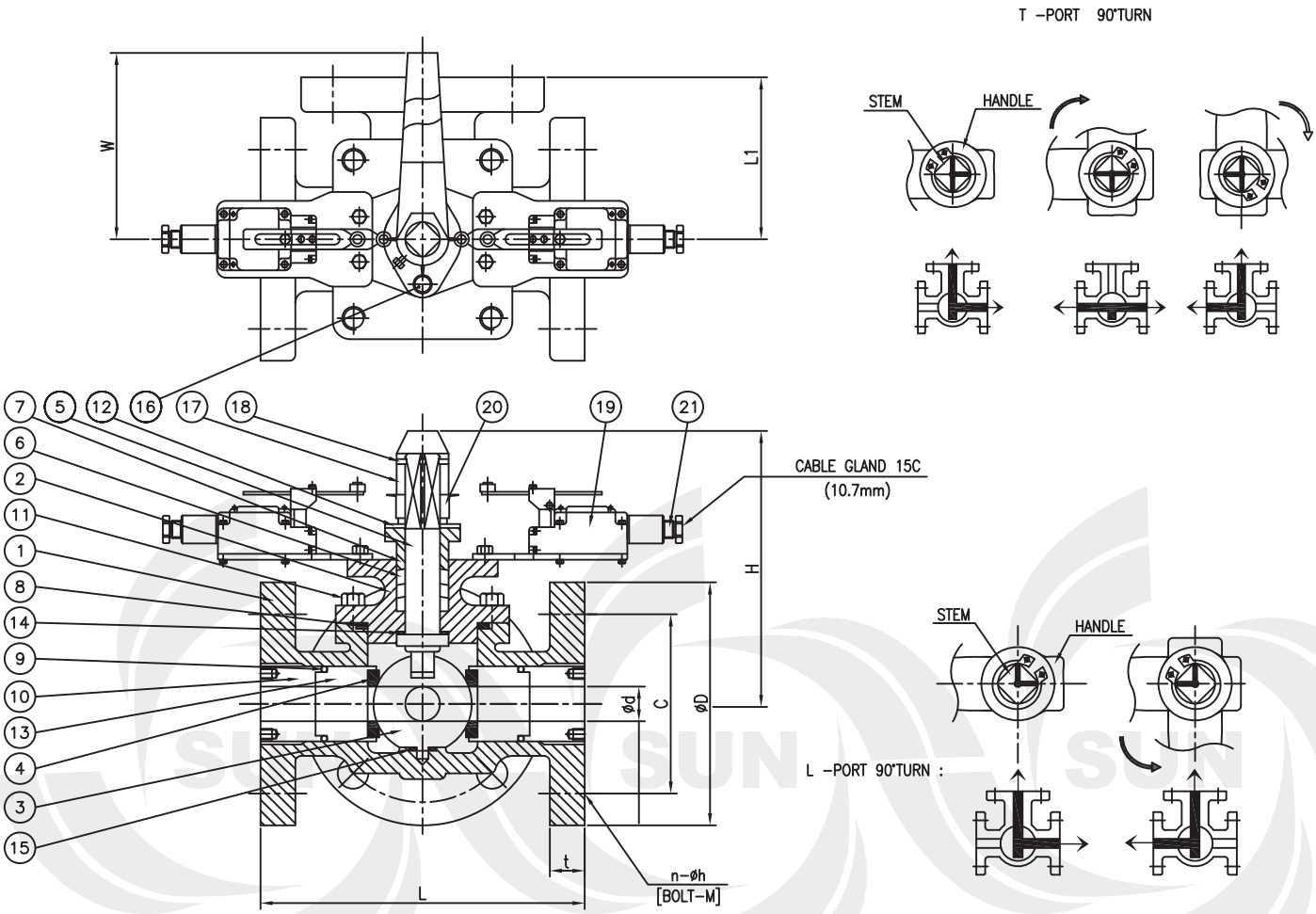
BODY	38 kgf/cm²
SEAT	24 kgf/cm²

SIZE	ød	C	øD	H	L	L1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	207	240	120	240	16	8–19
65A	65	140	175	230	300	150	350	18	8–19
80A	80	160	200	245	320	160	350	20	8–23
100A	100	185	225	260	370	185	420	22	8–23
125A	125	225	270	315	440	220	420	22	8–25

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SUS304
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	S45C
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	S45C
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Steel 3-Way Ball Valve with Limit Switch(JIS 16K)



HYDROSTATIC TEST PRESSURE

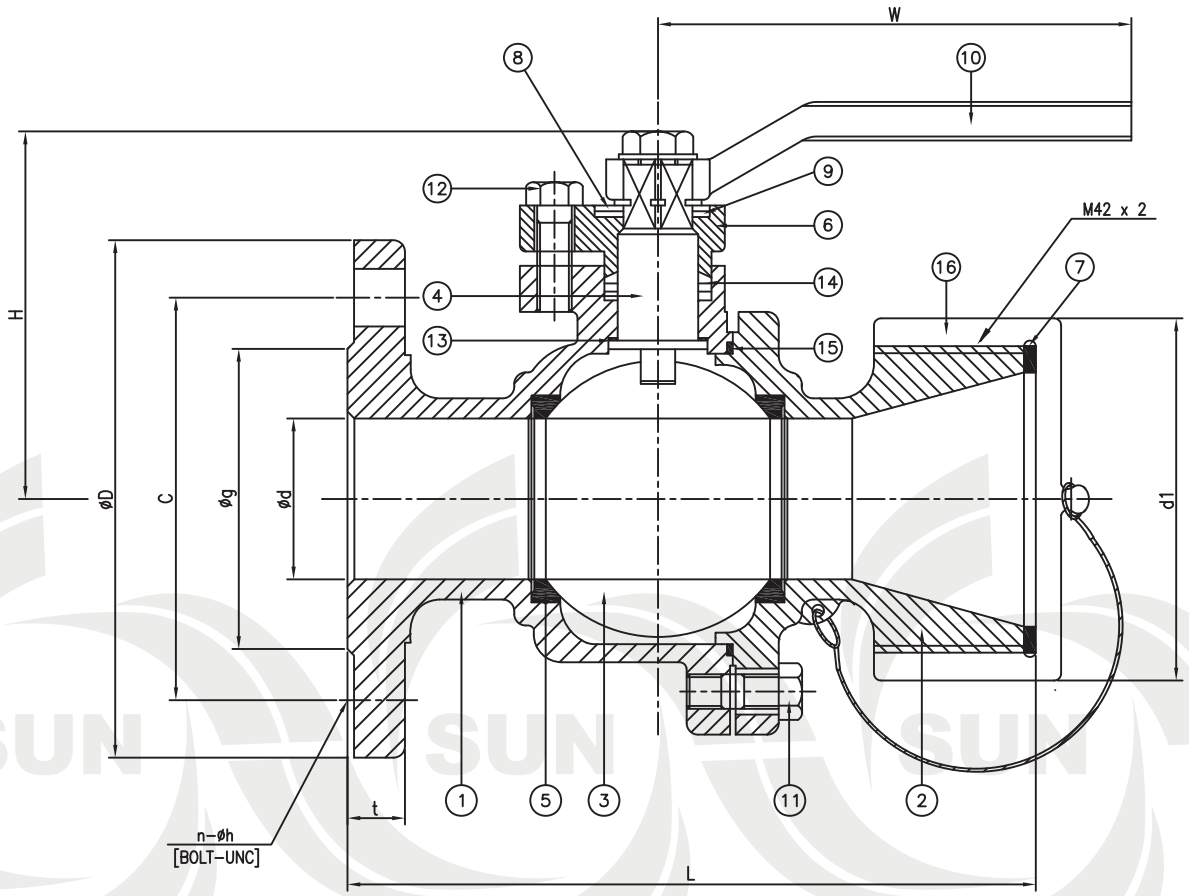
BODY	38 kgf/cm²
SEAT	24 kgf/cm²

SIZE	ød	C	øD	H	L	L1	W	t	n–øh
15A	15	70	95	110	130	65	130	12	4–15
20A	20	75	100	110	150	75	130	14	4–15
25A	25	90	125	120	160	80	160	14	4–19
32A	32	100	135	140	190	95	160	16	4–19
40A	40	105	140	170	220	110	240	16	4–19
50A	50	120	155	247	240	120	240	16	8–19
65A	65	140	175	270	300	150	350	18	8–19
80A	80	160	200	285	320	160	350	20	8–23
100A	100	185	225	300	370	185	420	22	8–23
125A	125	225	270	355	440	220	420	22	8–25

NO.	PARTS	MATERIAL
1	BODY	SC480
2	BODY CAP	SC480
3	BALL	SCS13
4	SEAT RING	PTFE
5	STEM	SCS13
6	GLAND PACKING	PTFE
7	GLAND FLANGE	SS400
8	BODY PACKING	PTFE
9	PACKING	VITON
10	ADAPTER	S45C
11	HEX BOLT	SUS304
12	STOPPER	SUS304
13	BUSHING	S45C
14	THRUST WASHER	PTFE
15	THRUST PACKING	PTFE
16	GLAND BOLT	SUS304
17	LEVER HANDLE	AL
18	STOP RING	SUS304
19	LIMIT SWITCH	AL
20	INDICATE	SS400
21	CABLE GLAND	C3604

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Hose Ball Valves(ANSI 150LB)



VALVE SPECIFICATION SHEET

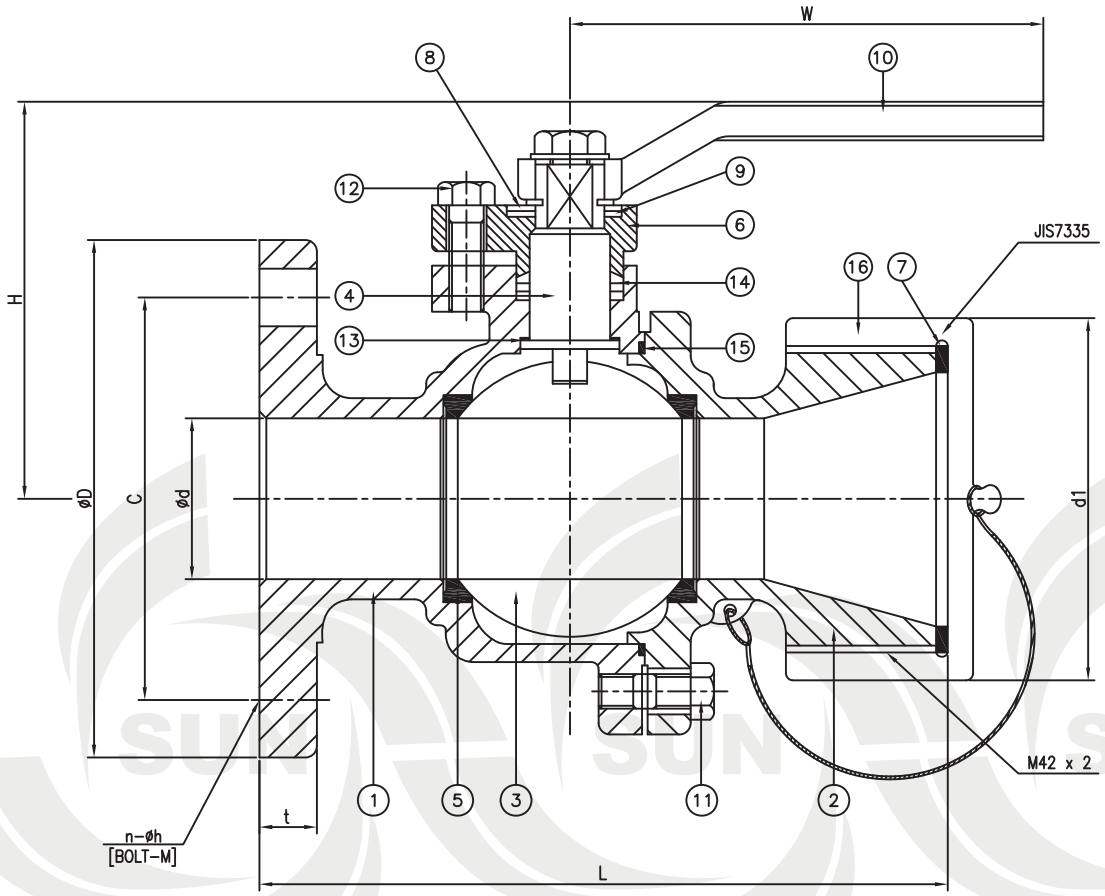
STANDARD'S	DESIGN	ASME B 16.34
	FACE TO FACE	DongHun standard
	FLANGE DIMENSION	ASME B 16.5
	INSPECTION & TESTING	ASME B 16.34
HYDROSTATIC TEST PRESSURE	BODY	425psi
	SEAT	300psi

SIZE	ød	d1	øg	C	øD	H	L	W	t	f	n-øh
1/2"	15	50	35	60.4	88.9	100	108	120	11.2	1.6	4-15.7

NO.	PARTS	MATERIAL
1	BODY	CF8M
2	BODY CAP	CF8M
3	BALL	F316
4	STEM	F316
5	SEAT RING	PTFE
6	GLAND FLANGE	CF8M
7	GASKET	NBR
8	STOPPER	316SS
9	WASHER	316SS
10	LEVER HANDLE	CF8M
11	HEX BOLT	B8M
12	GLAND BOLT	B8M
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	F316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Hose Ball Valves(JIS 5K / 10K/ 16K)



VALVE SPECIFICATION SHEET

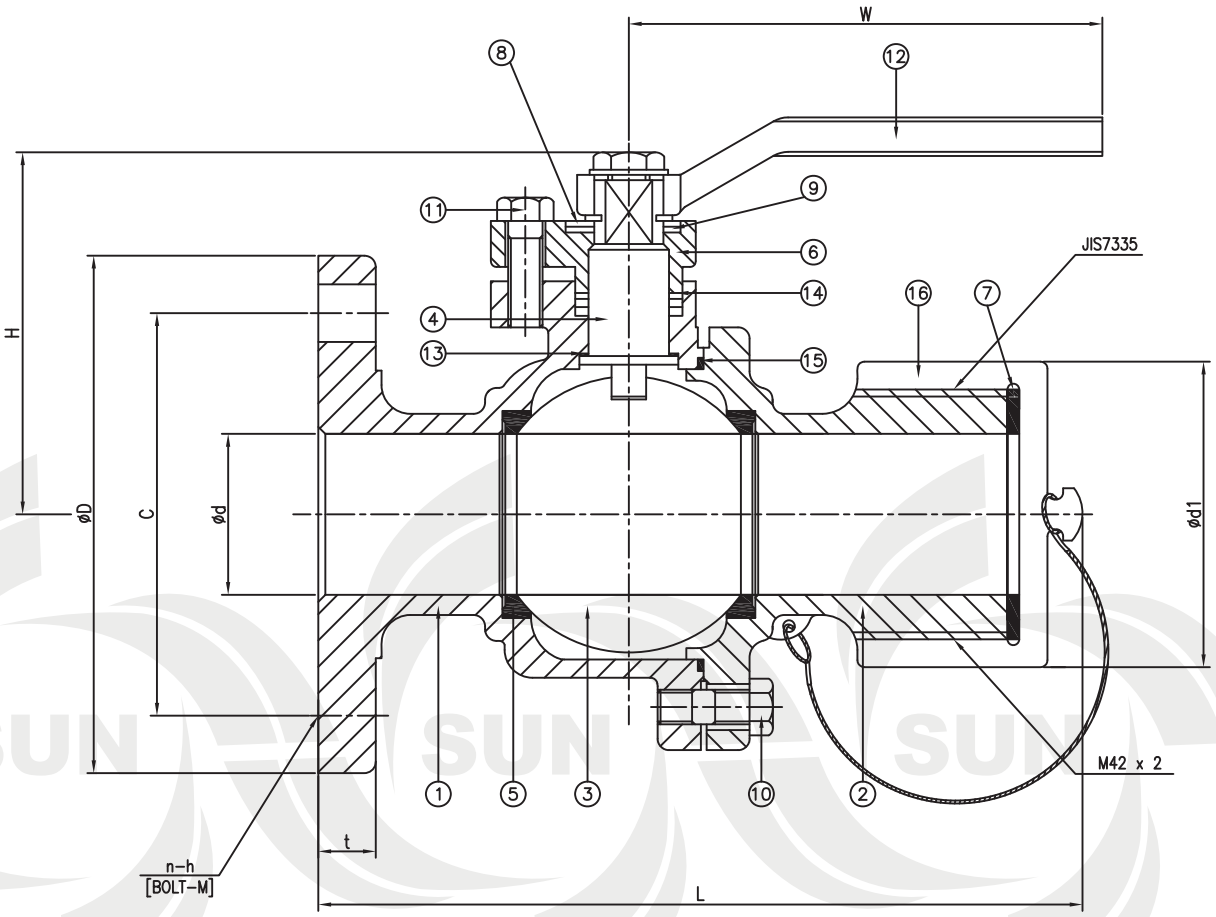
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2220
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	Ød	Ød1	C	ØD	H	L	W	t	n-Øh
5K	15A	15	50	60	80	105	110	123	9	4-12
10K/16K	15A	15	50	70	95	105	120	123	12	4-15

NO.	PARTS	MATERIAL
1	BODY	SCS13 / SCS14 / SCS16
2	BODY CAP	SCS13 / SCS14 / SCS16
3	BALL	SUS304 / SUS316 / SUS316L
4	STEM	SUS304 / SUS316 / SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS14
7	GASKET	PTFE
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS304 / SUS316
11	GLAND BOLT	SUS304 / SUS316
12	LEVER HANDLE	SCS14
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	SCS14

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Hose Ball Valves(JIS 5K/ 10K/ 16K)



VALVE SPECIFICATION SHEET

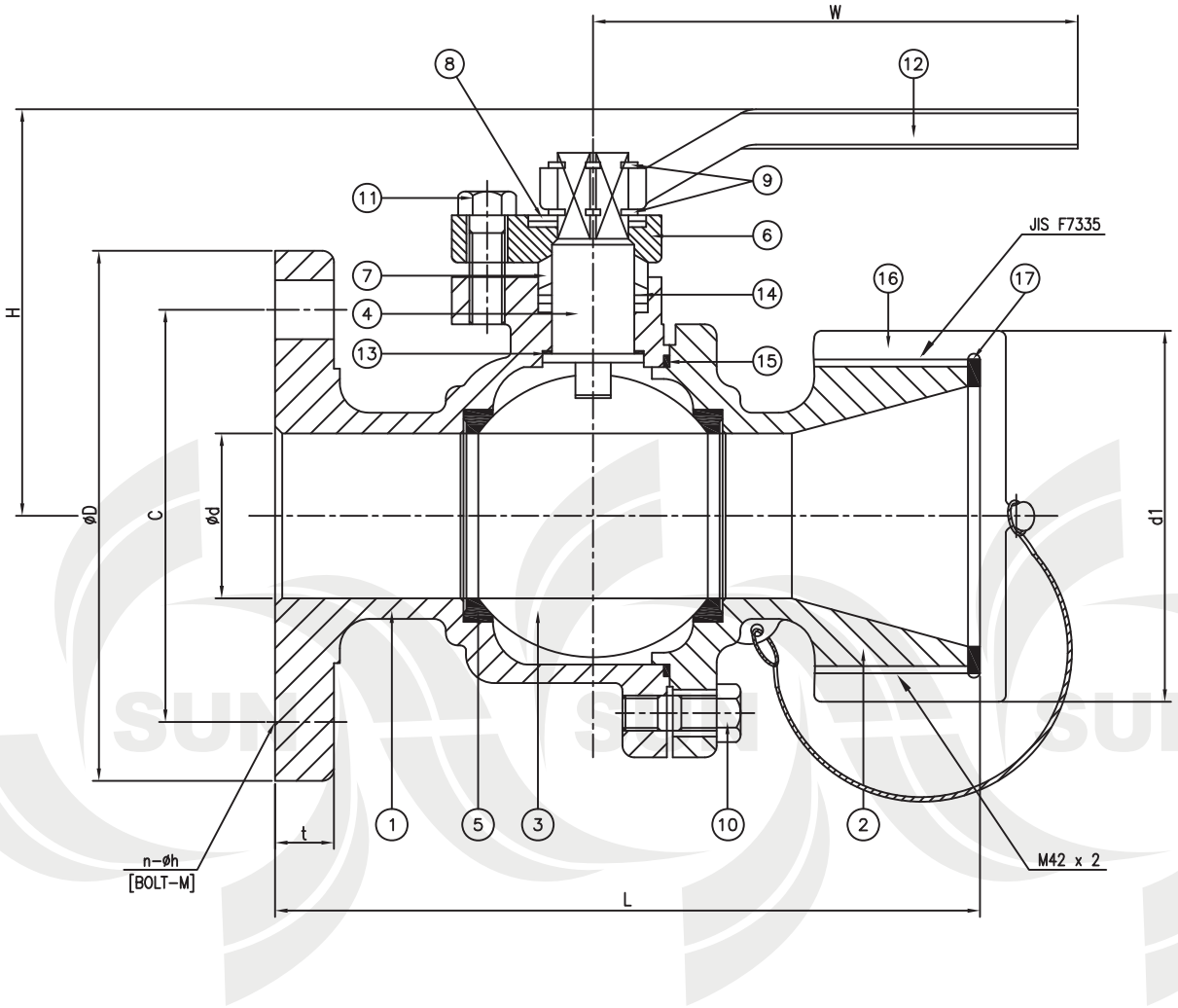
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2200
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	ød	ød1	C	øD	H	L	W	t	n-øh
5K	25A	25	50	75	95	117	135	143	10	4-12
10K/16K	25A	25	50	90	125	117	140	143	14	4-19

NO.	PARTS	MATERIAL
1	BODY	SCS13 / SCS14 / SCS16
2	BODY CAP	SCS13 / SCS14 / SCS16
3	BALL	SCS13 / SCS14 / SCS16
4	STEM	SUS304 / SUS316 / SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS14
7	GASKET	PTFE
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS304
11	GLAND BOLT	SUS304
12	LEVER HANDLE	SCS14
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	SCS14

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze Hose Ball Valves(JIS 5K / 10K/ 16K)



VALVE SPECIFICATION SHEET

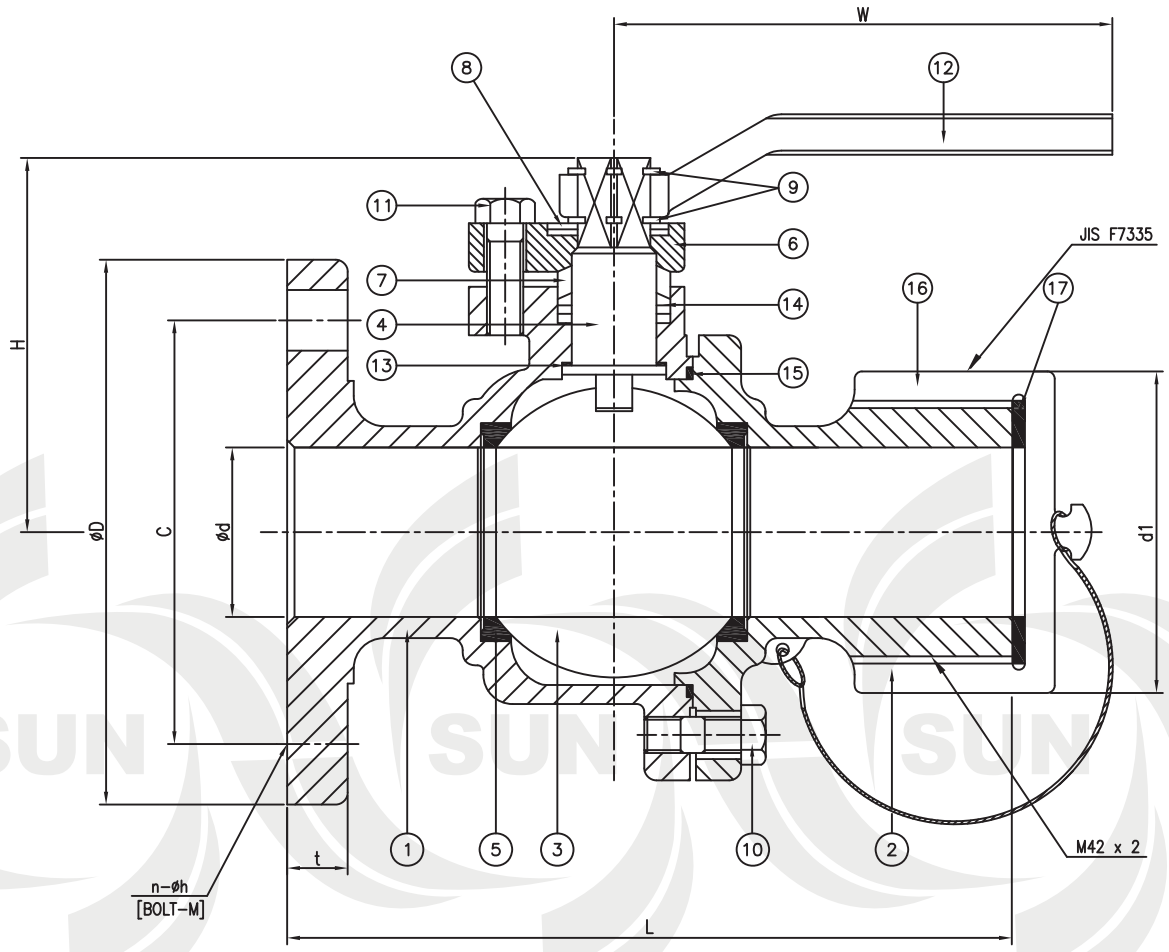
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2220
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	Ød	Ød1	C	ØD	H	L	W	t	n–Øh
5K	15A	15	50	60	80	105	100	130	9	4–12
10K/16K	15A	15	50	70	95	105	110	130	12	4–15

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SS400
9	STOP RING	SUP
10	HEX BOLT	SUS304
11	GLAND BOLT	SUS304
12	LEVER HANDLE	AL
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	C3771
17	GASKET	NBR

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze Hose Ball Valves(JIS 5K/ 10K/ 16K)



VALVE SPECIFICATION SHEET

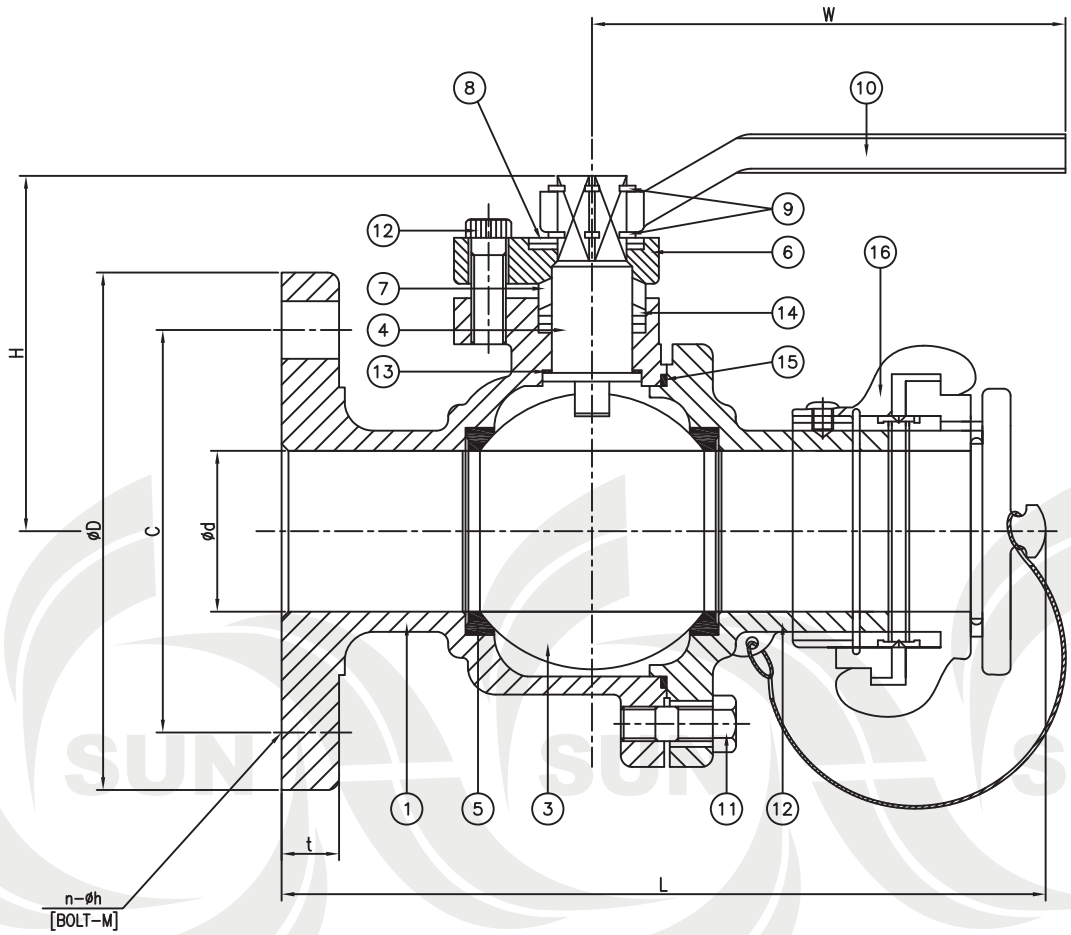
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2240
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	Ød	Ød1	C	ØD	H	L	W	t	n-Øh
5K	25A	25	50	75	95	117	130	160	10	4-12
10K/16K	25A	25	50	90	125	117	140	160	14	4-19

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SUS304
9	STOP RING	SUS304
10	HEX BOLT	SUS304
11	GLAND BOLT	SUS304
12	LEVER HANDLE	AL
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	C3771
17	GASKET	NBR

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze Hose Ball Valves(JIS 10K)



VALVE SPECIFICATION SHEET

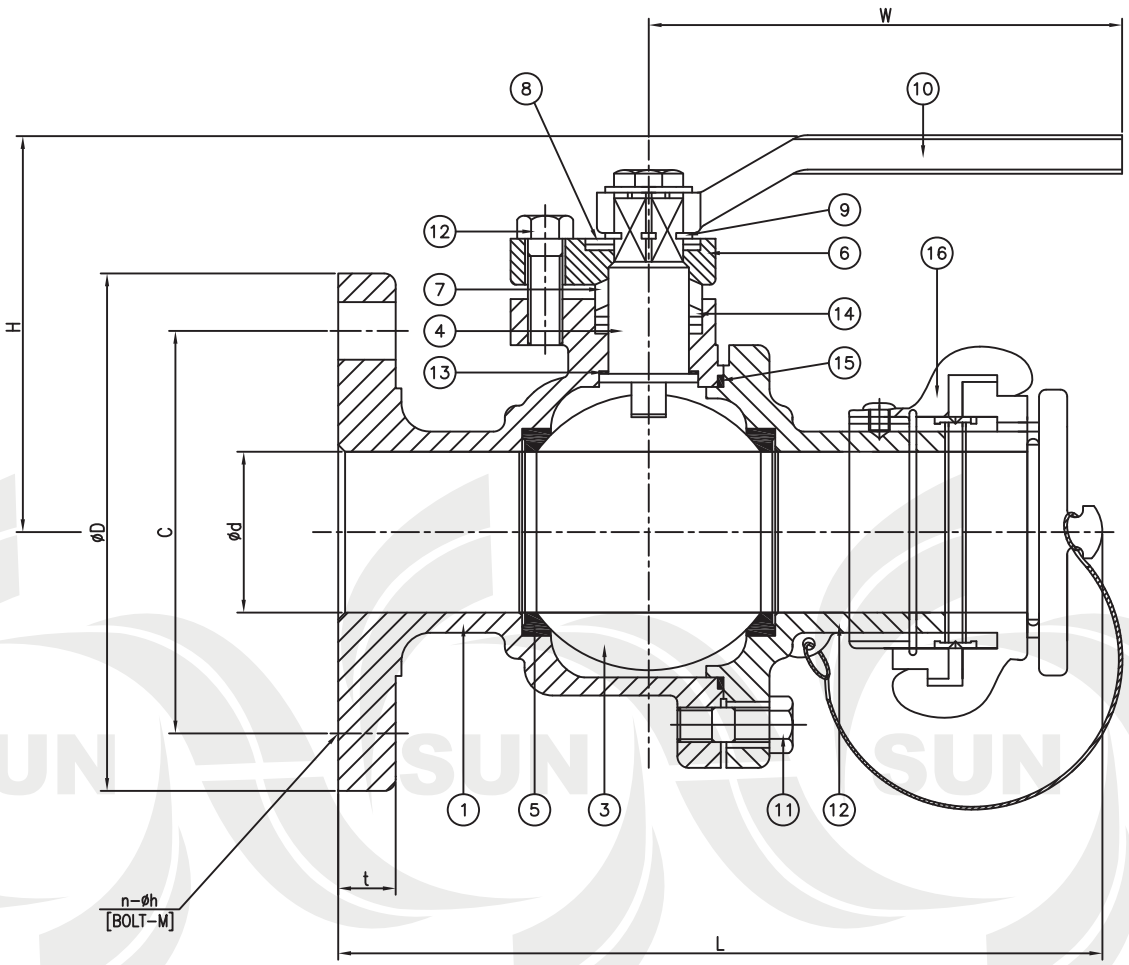
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	24 kgf/cm²
		SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	W	t	n-øh
40A	40	105	140	110	213	245	16	4-19
50A	50	120	155	120	223	245	16	4-19

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SUS304
9	STOP RING	SUS304
10	LEVER HANDLE	AL
11	HEX BOLT	SUS304
12	GLAND BOLT	SUS304
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	BC6

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel Hose Ball Valves(JIS 10K)



VALVE SPECIFICATION SHEET

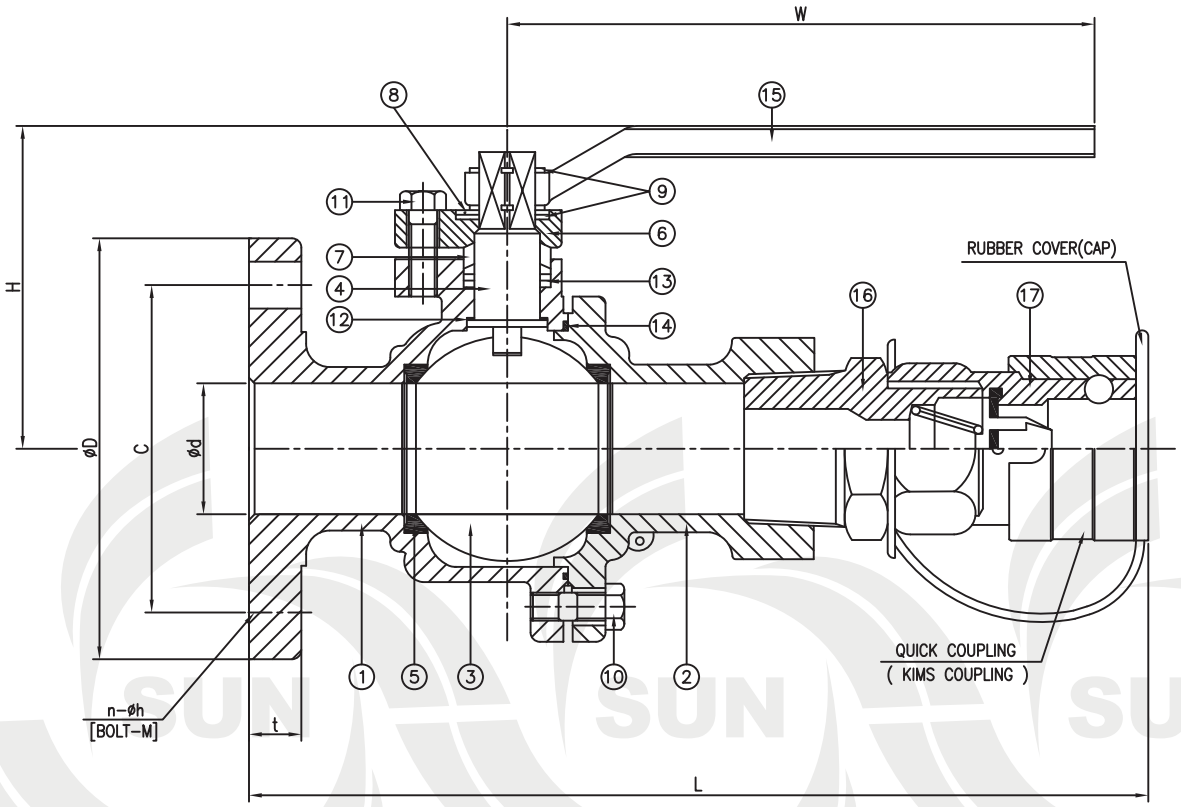
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE		BODY	24 kgf/cm²
		SEAT	15 kgf/cm²

SIZE	ød	C	øD	H	L	W	t	n-øh
40A	40	105	140	110	213	245	16	4-19
50A	50	120	155	120	223	245	16	4-19

NO.	PARTS	MATERIAL
1	BODY	SCS13
2	BODY CAP	SCS13
3	BALL	SUS304
4	STEM	SUS304
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS13
7	GLAND RING	SUS304
8	STOPPER	SUS304
9	WASHER	SUS304
10	LEVER HANDLE	SCS14
11	HEX BOLT	SUS304
12	GLAND BOLT	SUS304
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	CAP	BC6

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve with Quick Coupling(JIS 5K/ 10K/ 16K)



VALVE SPECIFICATION SHEET

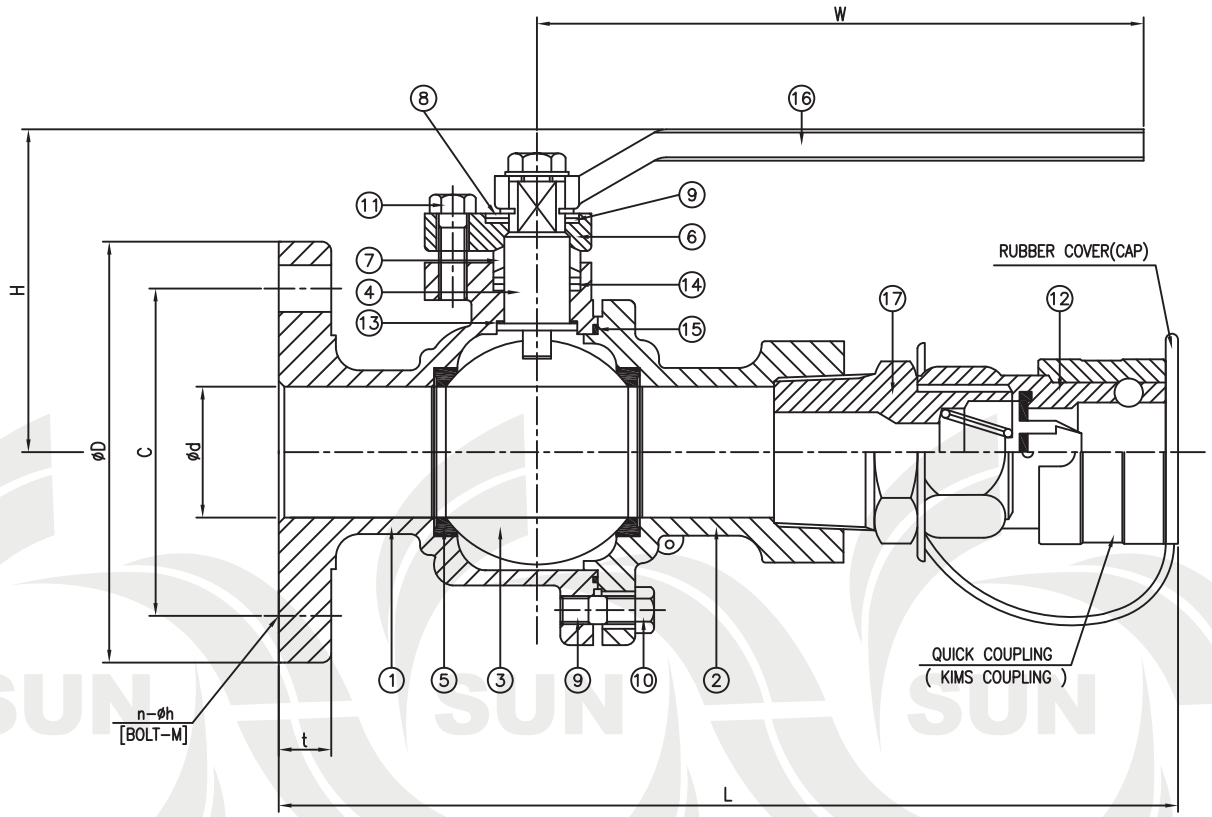
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	ød	C	øD	H	L	W	t	n-øh	QUICK COUPLING
5K	15A	15	60	80	105	140	130	9	4-12	40SM
	25A	25	75	95	117	180	160	10	4-12	800SM
10K,16K	15A	15	70	95	105	140	130	12	4-15	40SM
	25A	25	90	125	117	180	160	14	4-19	800SM

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SUS304
9	STOP RING	SUS304
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	THRUST WASHER	PTFE
13	GLAND PACKING	PTFE
14	GASKET	PTFE
15	LEVER HANDLE	SCS14
16	HEX NIPPLE	SUS316
17	QUICK CUPLING	SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve with Quick Coupling(JIS 5K/ 10K/ 16K)



VALVE SPECIFICATION SHEET

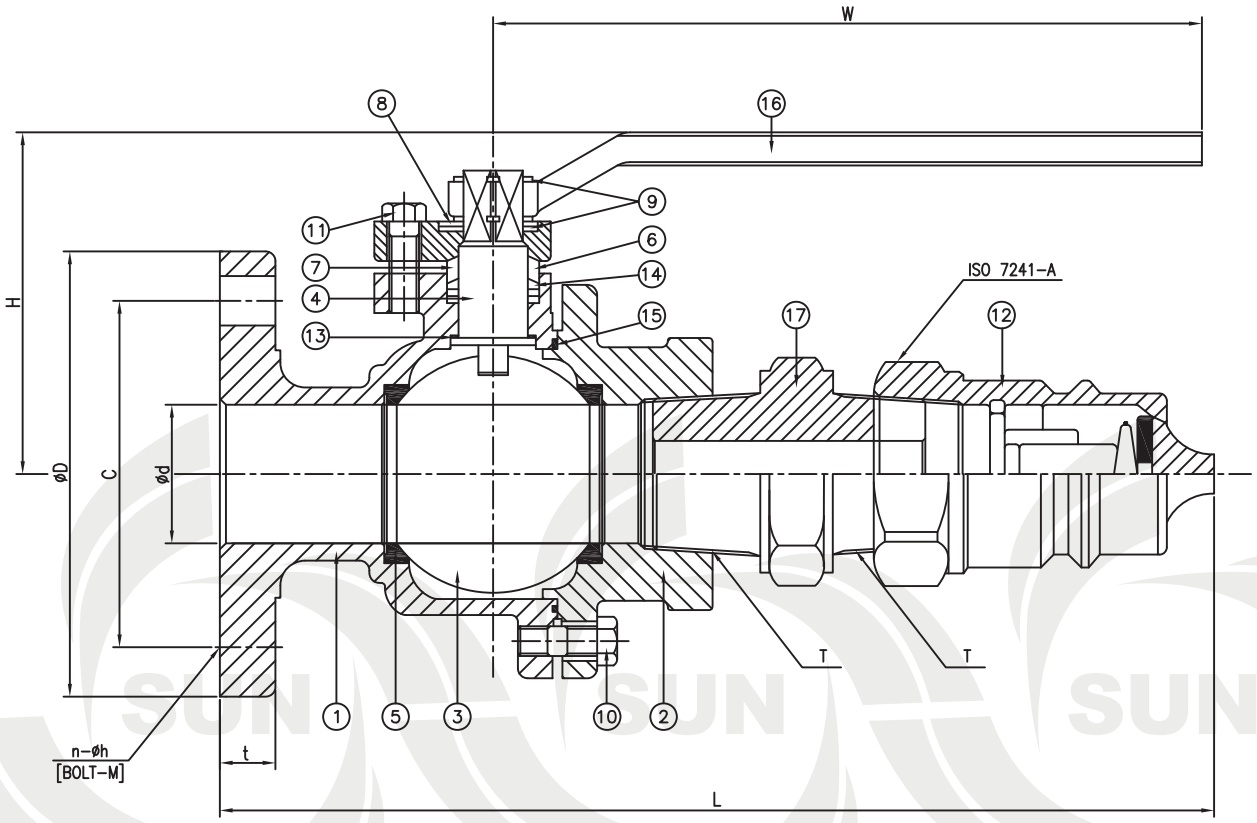
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	Ød	C	ØD	H	L	W	t	n-Øh	QUICK COUPLING
5K	15A	15	60	80	105	155	123	9	4-12	40SM
	25A	25	75	95	117	180	143	10	4-12	800SM
10K,16K	15A	15	70	95	105	160	123	12	4-15	40SM
	25A	25	90	125	117	200	143	14	4-19	800SM

NO.	PARTS	MATERIAL
1	BODY	SCS14
2	BODY CAP	SCS14
3	BALL	SCS14
4	STEM	SUS316
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS14
7	GLAND RING	SCS14
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	QULCK CUPLING	SUS316
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	LEVER HANDLE	SCS14
17	HEX NIPPLE	SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve with Quick Coupling(JIS 5K/ 10K/ 16K)



VALVE SPECIFICATION SHEET

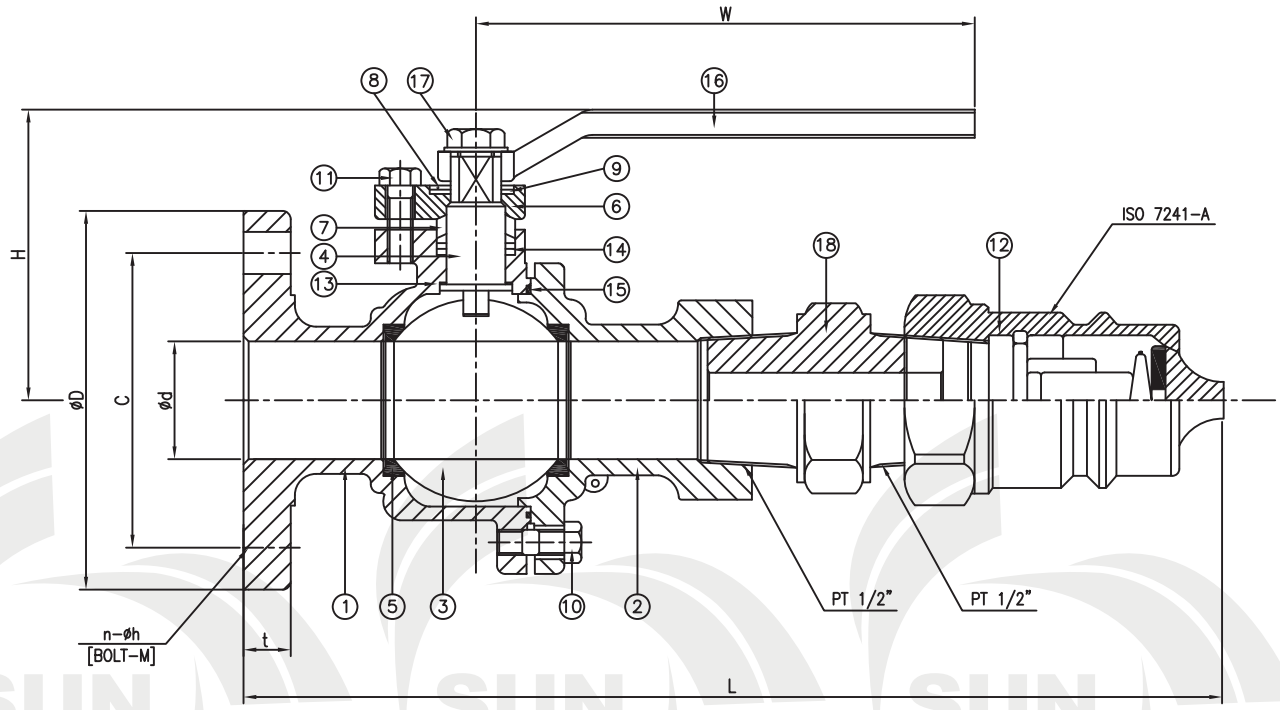
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	ød	C	øD	H	L	W	t	n-øh	T
5K	15A	15	60	80	105	160	130	9	4-12	PT 1/2"
	25A	25	75	95	117	190	160	10	4-12	PT 1"
10K,16K	15A	15	70	95	105	160	130	12	4-15	PT 1/2"
	25A	25	90	125	117	225	160	14	4-19	PT 1"

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	SUS304
4	STEM	C3604
5	SEAT RING	PTFE
6	GLAND FLANGE	BC6
7	GLAND RING	C3604
8	STOPPER	SUS304
9	STOP RING	SUS304
10	HEX BOLT	SUS304
11	GLAND BOLT	SUS304
12	QUICK CUPLING	SUS316
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	LEVER HANDLE	AL
17	HEX NIPPLE	SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve with Quick Coupling(JIS 5K/ 10K/ 16K)



VALVE SPECIFICATION SHEET

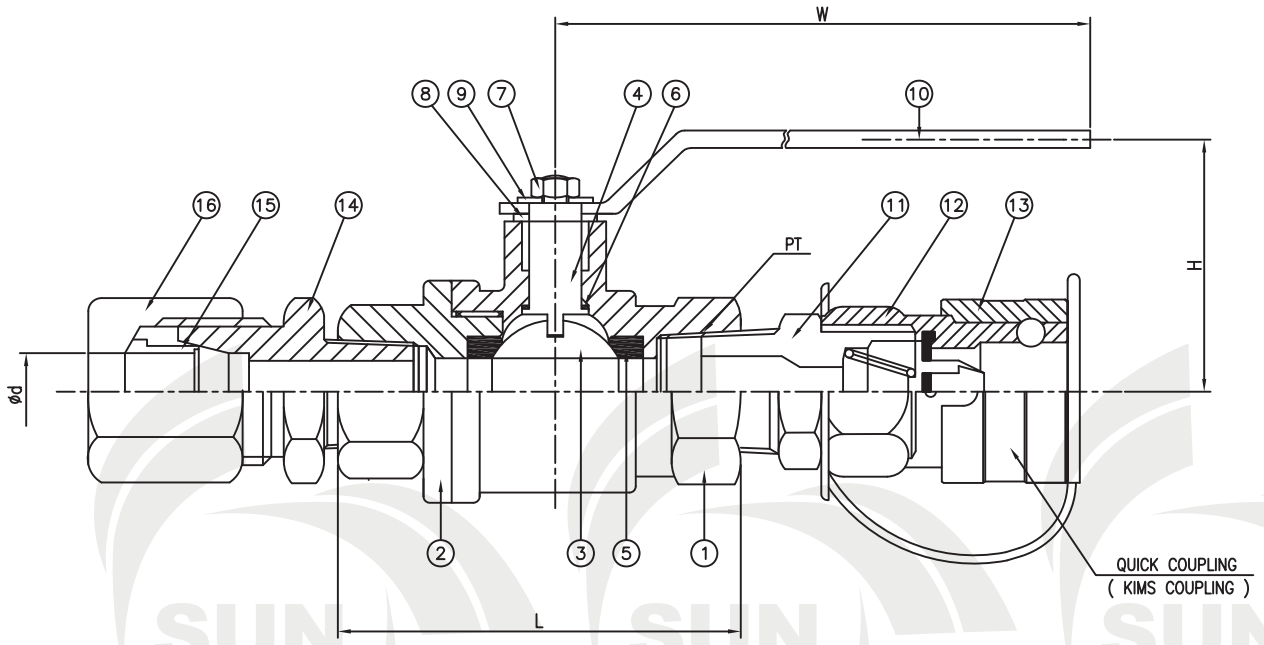
STANDARD'S	FACE TO FACE		
	FLANGE DIMENSION		JIS B 2210
	BASIC DESIGN		JIS B 2081
	INSPECTION & TESTING		JIS B 2003
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²
	16K	BODY	38 kgf/cm²
		SEAT	24 kgf/cm²

	SIZE	ød	C	øD	H	L	W	t	n–øh	T
5K	15A	15	60	80	105	175	123	9	4–12	PT 1/2"
	25A	25	75	95	117	230	143	10	4–12	PT 1"
10K,16K	15A	15	70	95	105	180	123	12	4–15	PT 1/2"
	25A	25	90	125	117	240	143	14	4–19	PT 1"

NO.	PARTS	MATERIAL
1	BODY	SCS16
2	BODY CAP	SCS16
3	BALL	SUS316L
4	STEM	SUS316L
5	SEAT RING	PTFE
6	GLAND FLANGE	SCS14
7	GLAND RING	SUS316
8	STOPPER	SUS316
9	WASHER	SUS316
10	HEX BOLT	SUS316
11	GLAND BOLT	SUS316
12	QULCK CUPLING	SUS316
13	THRUST WASHER	PTFE
14	GLAND PACKING	PTFE
15	GASKET	PTFE
16	LEVER HANDLE	SUS316
17	HANDLE BOLT	SUS316
18	HEX NIPPLE	SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve with Quick Coupling(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	C3604
4	STEM	C3604
5	SEAT RING	PTFE
6	O - RING	NBR
7	HANDLE NUT	SUS304
8	SNAP RING	PTFE
9	HANDLE WASHER	SUS304
10	LEVERM HANDLE	SUS304
11	SOCKET	SUS316
12	CAP	SUS316
13	SLEEVE	SUS316
14	MALE CONNECTOR	C3604
15	SLEEVE	C3604
16	UNION NUT	C3604

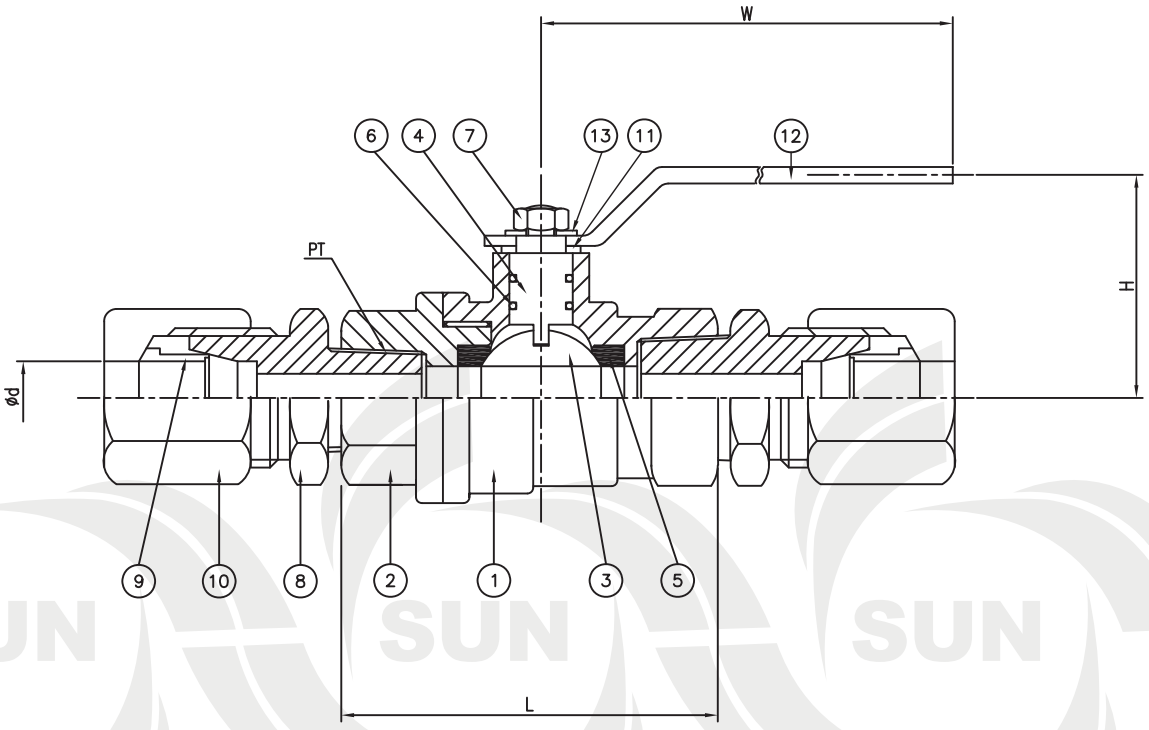
VALVE SPECIFICATION SHEET

HYDROSTATIC TEST PRESSURE	BODY	12 kgf/cm²
	SEAT	8 kgf/cm²

SIZE	ød	L	H	W	PT	COUPLING
15A	15	54	49	124	PT 1/2"	40SM

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve with Union(JIS 5K/ 10K)



VALVE SPECIFICATION SHEET

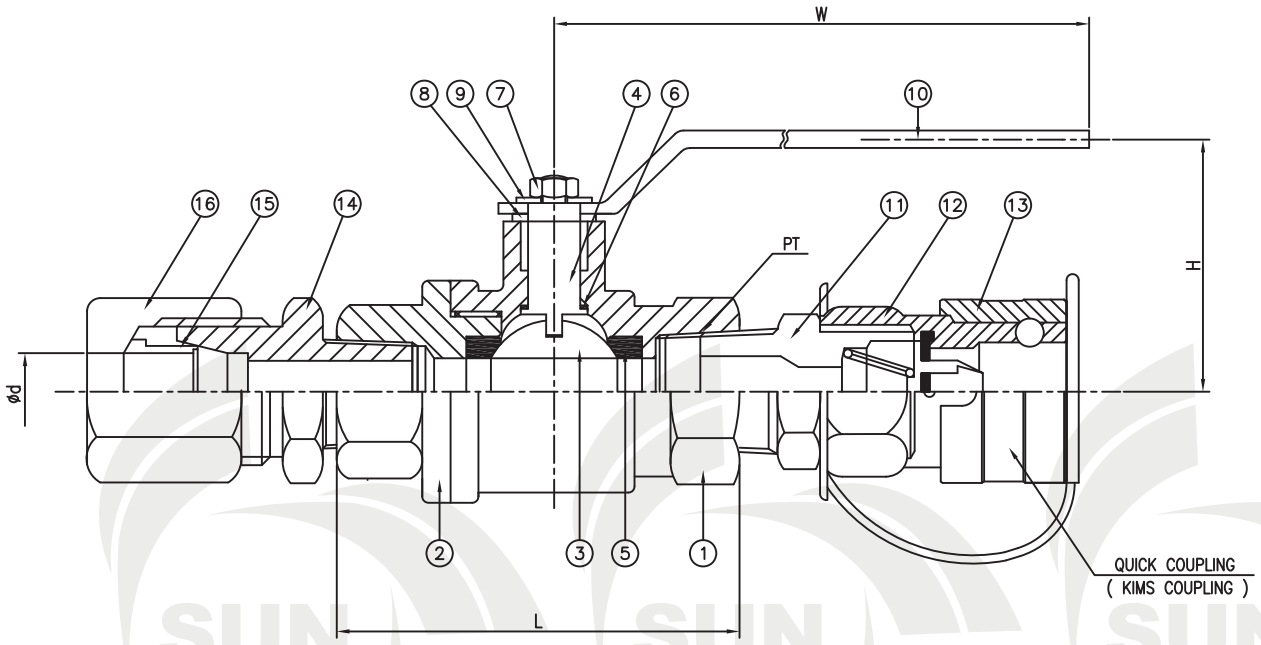
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²

	SIZE	Ød	L	H	W	PT
5K	15A	15	54	49	124	PT 1/2"
10K	10A	10	54	49	124	PT 1/2"
	15A	15	54	49	124	PT 1/2"

NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	C3604
4	STEM	C3604
5	SEAT RING	PTFE
6	O - RING	NBR
7	HANDLE NUT	SUS304
8	MALE CONNECTOR	C3604
9	SLEEVE	C3604
10	UNION NUT	C3604
11	SNAP RING	PTFE
12	LEVER HANDLE	SUS304
13	HANDLE WASHER	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Bronze 2-Way Ball Valve with Quick Coupling(JIS 10K)



NO.	PARTS	MATERIAL
1	BODY	BC6
2	BODY CAP	BC6
3	BALL	C3604
4	STEM	C3604
5	SEAT RING	PTFE
6	O - RING	NBR
7	HANDLE NUT	SUS304
8	SNAP RING	PTFE
9	HANDLE WASHER	SUS304
10	LEVERM HANDLE	SUS304
11	SOCKET	SUS316
12	CAP	SUS316
13	SLEEVE	SUS316
14	MALE CONNECTOR	C3604
15	SLEEVE	C3604
16	UNION NUT	C3604

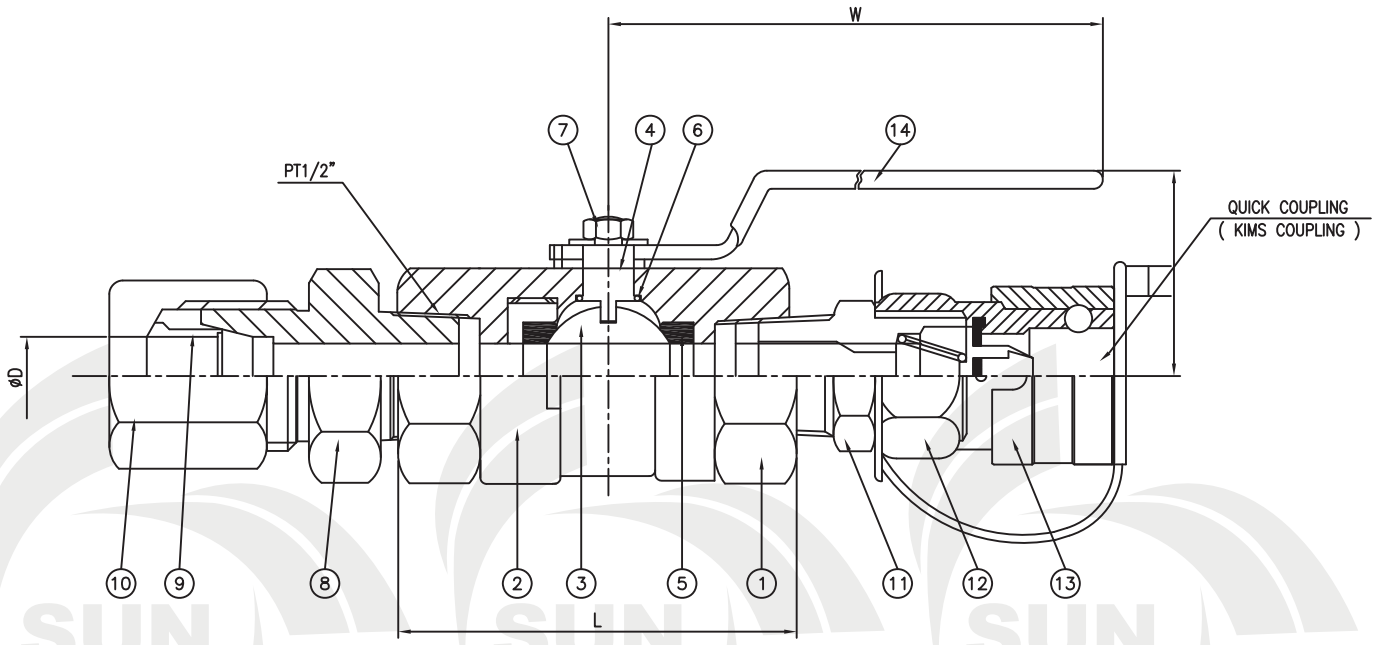
VALVE SPECIFICATION SHEET

HYDROSTATIC TEST PRESSURE	BODY	24 kgf/cm²
	SEAT	15 kgf/cm²

SIZE	ød	L	H	W	PT	COUPLING
15A	15	54	49	124	PT 1/2"	40SM

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve with Quick Coupling(JIS 5K/ 10K)



VALVE SPECIFICATION SHEET

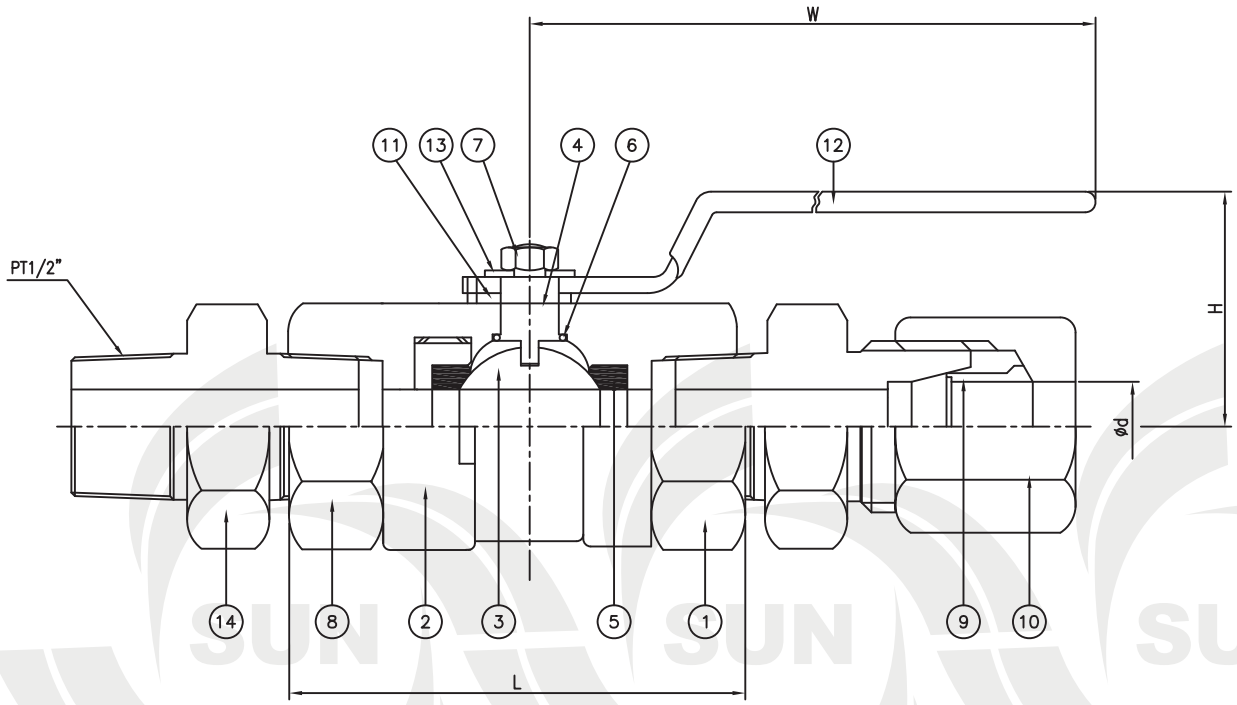
HYDROSTATIC TEST PRESSURE	5K	BODY	12 kgf/cm²
		SEAT	8 kgf/cm²
	10K	BODY	24 kgf/cm²
		SEAT	15 kgf/cm²

SIZE	L1	L2	H	W	PT	COUPLING
15A	54	104	49	124	PT 1/2"	40SM

NO.	PARTS	MATERIAL
1	BODY	SUS316
2	BODY CAP	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	O - RING	NBR
7	HANDLE NUT	SUS304
8	CONNECTOR	SUS316
9	SLEEVE	SUS316
10	UNION NUT	SUS316
11	SOCKET	SUS316
12	CAP	SUS316
13	SLEEVE	SUS316
14	LEVERM HANDLE	SUS304

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve with Union(JIS 30K)



NO.	PARTS	MATERIAL
1	BODY	SUS316
2	BODY CAP	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	O - RING	NBR
7	HANDLE NUT	SUS304
8	CONNECTOR	SUS316
9	SLEEVE	SUS316
10	UNION NUT	SUS316
11	SNAP RING	PTFE
12	LEVER HANDLE	SUS304
13	HANDLE WASHER	SUS304
14	NIPPLE	SUS316

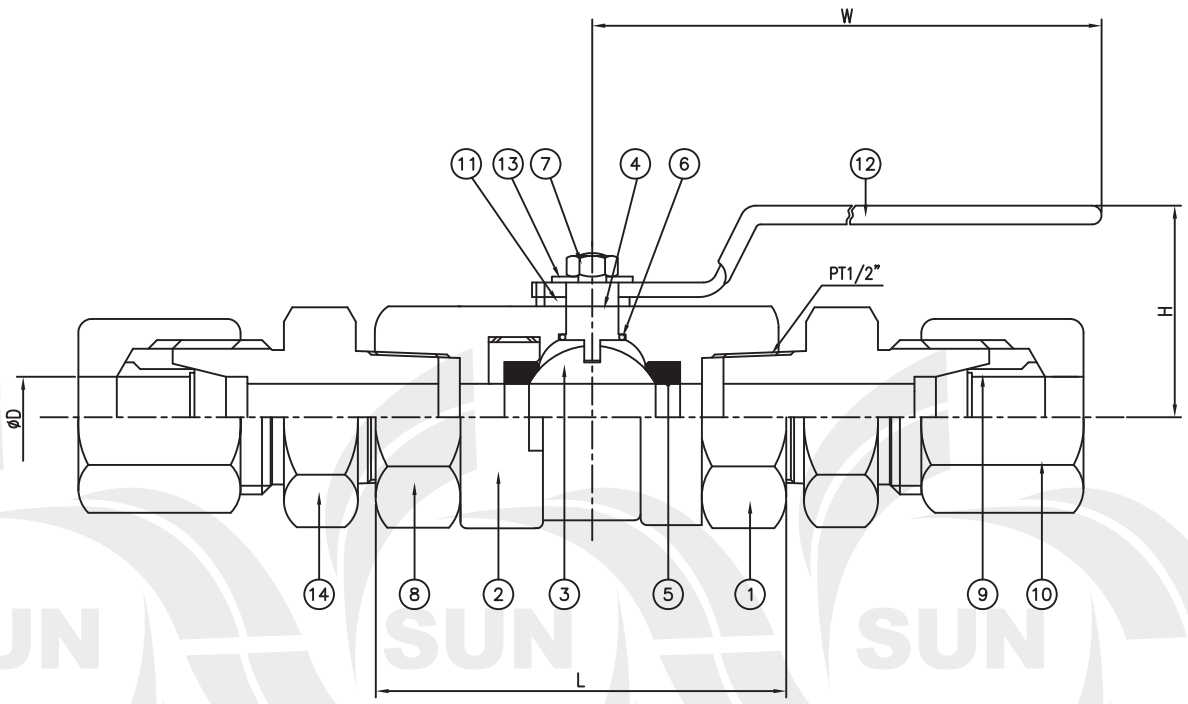
HYDROSTATIC TEST PRESSURE

BODY	60 kgf/cm²
SEAT	45 kgf/cm²

SIZE	øD	L	H	W
8A	12	57.5	41	86

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 2-Way Ball Valve with Union(JIS 20K)



NO.	PARTS	MATERIAL
1	BODY	SUS316
2	BODY CAP	SUS316
3	BALL	SUS316
4	STEM	SUS316
5	SEAT RING	PTFE
6	O - RING	NBR
7	HANDLE NUT	SUS304
8	CONNECTOR	SUS316
9	SLEEVE	SUS316
10	UNION NUT	SUS316
11	SNAP RING	PTFE
12	LEVER HANDLE	SUS304
13	HANDLE WASHER	SUS304
14	NIPPLE	SUS316

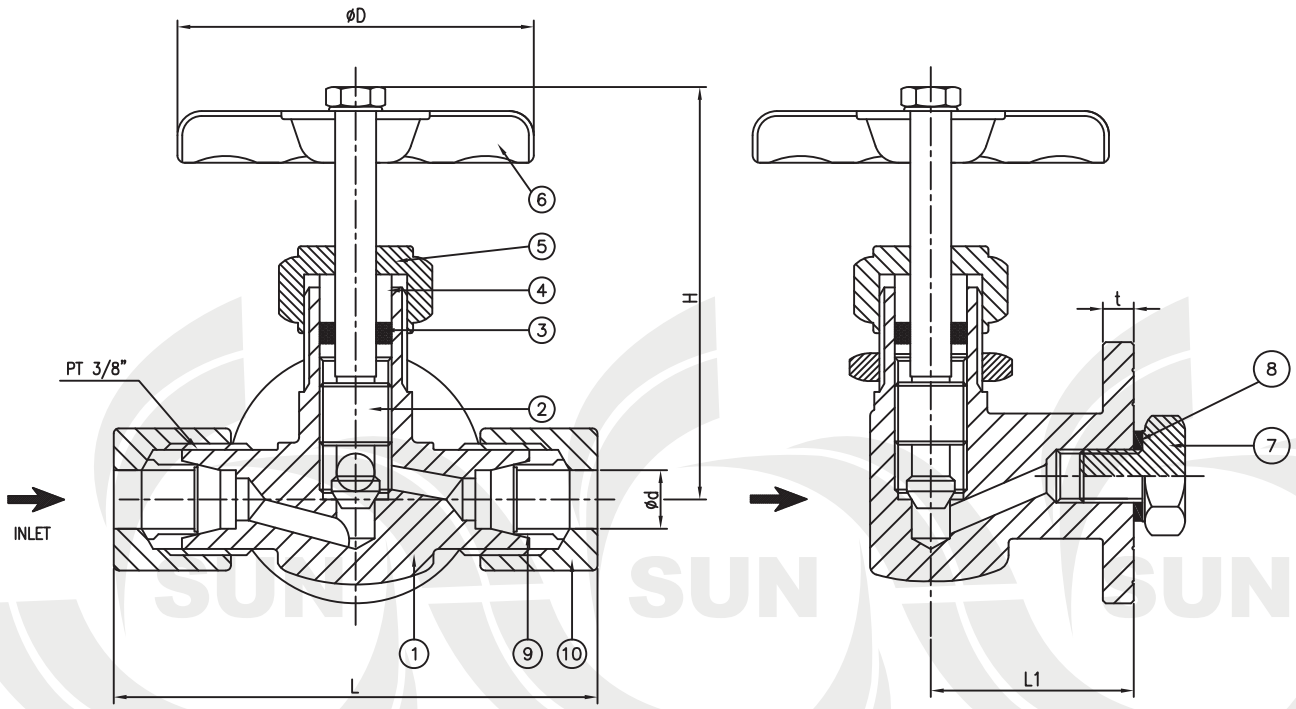
VALVE SPECIFICATION SHEET

HYDROSTATIC TEST PRESSURE	BODY	45 kgf/cm²
	SEAT	30 kgf/cm²

SIZE	ØD	L	H	W
8A	12	57.5	41	86

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Cast Stainless Steel 3-Way Gauge Cocks(JIS 10K)



VALVE SPECIFICATION SHEET

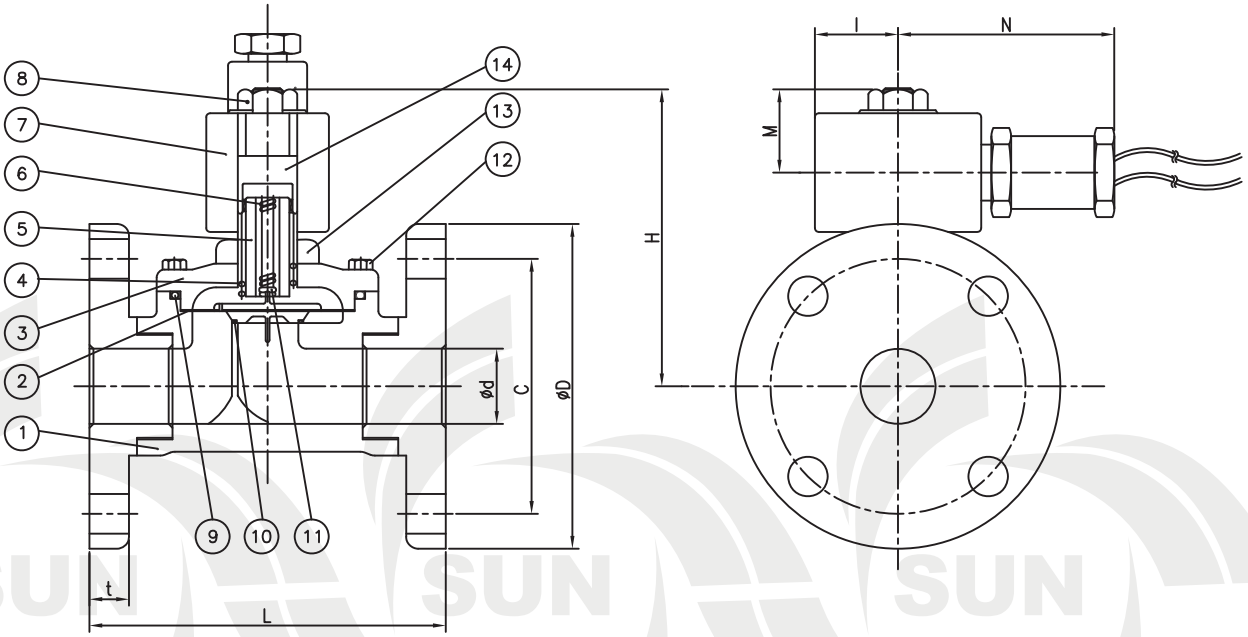
HYDROSTATIC TEST PRESSURE	BODY	24 kgf/cm²
	SEAT	15 kgf/cm²

SIZE	Ød	L	L1	H	ØD	ØD"	t
6A	10	69	47	64	48	40	7

NO.	PARTS	MATERIAL
1	BODY	SUS316
2	STEM	SUS316
3	PACKING	PTFE
4	GLAND RING	SUS316
5	GLAND NUT	SUS316
6	HANDLE	SS400
7	HEX PLUG	SUS316
8	O-RING	Cu
9	SLEEVE	SUS316
10	SLEEVE NUT	SUS316

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Solenoid Valves(JIS 5K)



NOTE

* V/V TYPE = PILOT KIC 2-WAY V/V
* FLANGE TYPE = JIS B 2240-1977
* CABLE GLAND = JIS 15b TYPE
* 공급전원 = AC 220V 60Hz
* 전원공급 = OPEN TYPE

VALVE SPECIFICATION SHEET

STANDARD'S	FACE TO FACE	JIS B 2002
	FLANGE DIMENSION	JIS B 2240
	BASIC DESIGN	JIS B 2081
	INSPECTION & TESTING	JIS B 2003
HYDROSTATIC TEST PRESSURE	BODY	12 kgf/cm²
	SEAT	8 kgf/cm²

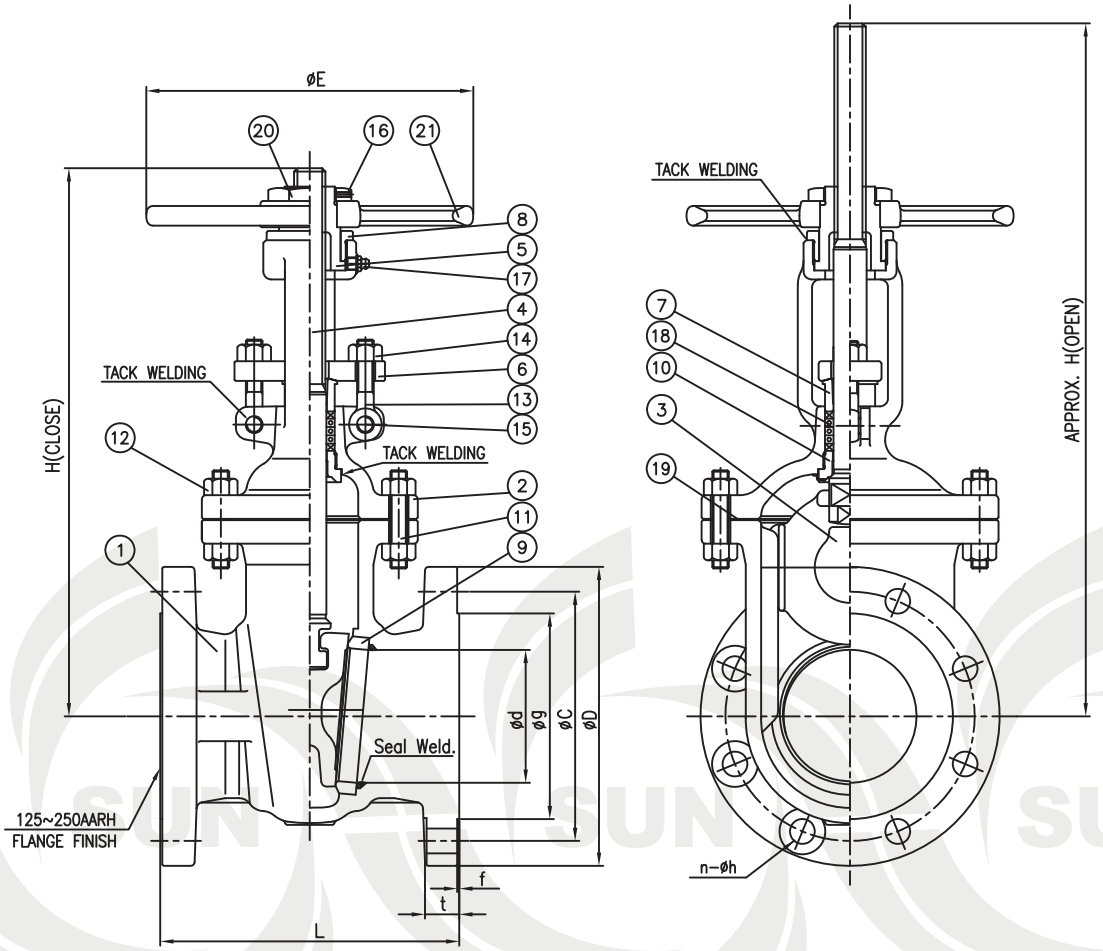
SIZE	ød	C	øD	L	t	H	I	M	N
20A	20	65	95	110	10	78	23.5	22	90
25A	25	75	95	120	10	80	23.5	22	90

NO.	PARTS	MATERIAL
1	BODY	C3771
2	DIAPHRAGM	NBR
3	STUFFING	C3771
4	KICK SPRING	SUS304
5	PLUNGER	SUS405
6	PLUNGER SPRING	SUS304
7	COIL	MOLD
8	CORE UNION	SUS405
9	STUFFING O-RING	NBR
10	DIAPHRAGM O-RING	NBR
11	DISK	NBR
12	STUFFING HEX	SS400
13	PLUNGER HEX	SUS405
14	PLUNGER COVER	SUS405

Remark : 1. The flange connection will be adjusted by purchaser's requirement.
2. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GA1F-HO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. 12" & LARGER : A216-WCB+13Cr
5. 8" & LARGER : A283-D

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

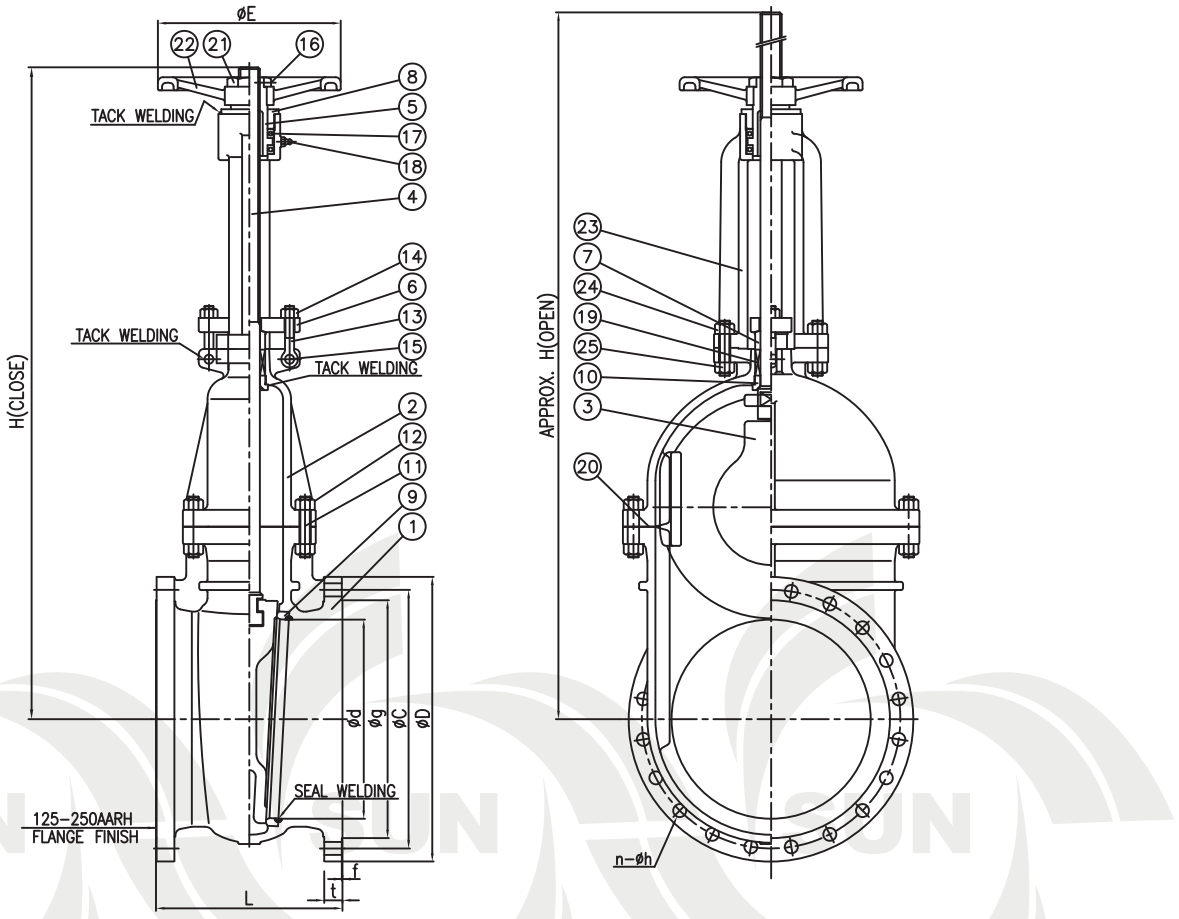
SIZE	L	d	FLANGE						E	H (OPEN)	H (CLOSE)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	177.8	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	200	341	281	17
3	203.2	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	250	440	355	29
4	228.6	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	250	530	419	44
6	266.7	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	315	725	563	70
8	292.1	203.2	342.9	298.5	269.7	28.5	1.6	8-22.4	355	915	702	120
10	330.2	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	400	1114	847	180
12	355.6	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	450	1328	1009	256

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC(WEDGE)	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020 (Zn Plated)
9	SEAT RING	A105+STELLITED
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B (Zn Plated)
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	GRAPHITE TANGED INS.+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GA1F-HO-2



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	GRAPHITE TANGED INSERT+304
21	HANDWHEEL NUT	A576-1020
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H

NOTE
1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

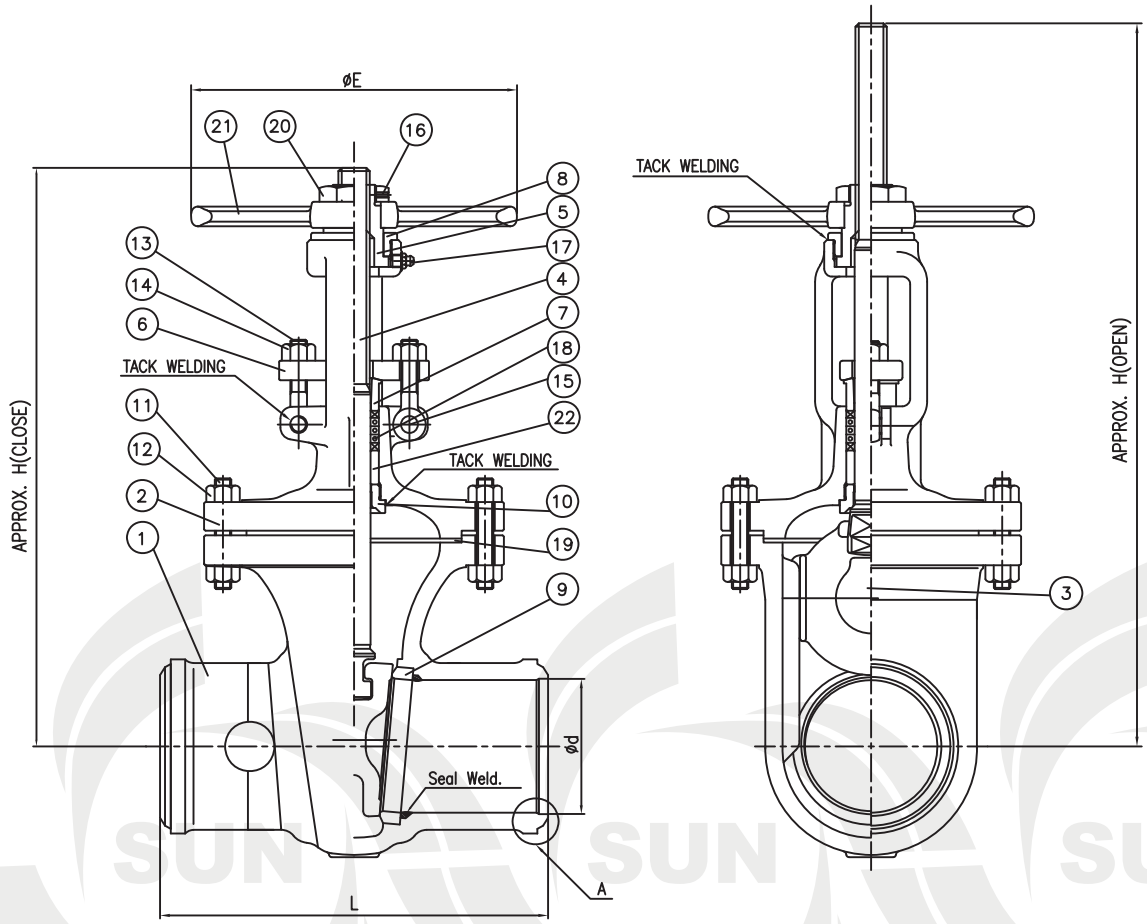
UNIT : mm

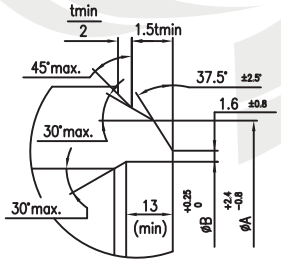
SIZE	L	d	FLANGE						E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n–h				
14"	381.0	336.6	533.4	476.3	412.8	35.1	1.6	12–28.5	500	1151	1499	364
16"	406.4	387.4	596.9	539.8	469.9	36.6	1.6	16–28.5	560	1286	1692	475
18"	431.8	438.2	635.0	577.9	533.4	39.6	1.6	16–31.8	560	1418	1878	645
20"	457.2	489.0	698.5	635.0	584.2	43.0	1.6	20–31.8	630	1603	2110	780
24"	508.0	590.6	812.8	749.3	692.2	47.8	1.6	20–35.1	630	1875	2485	1150

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, BW

SUN-GA1W-HO-1





DETAIL "A"

NOTE
1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

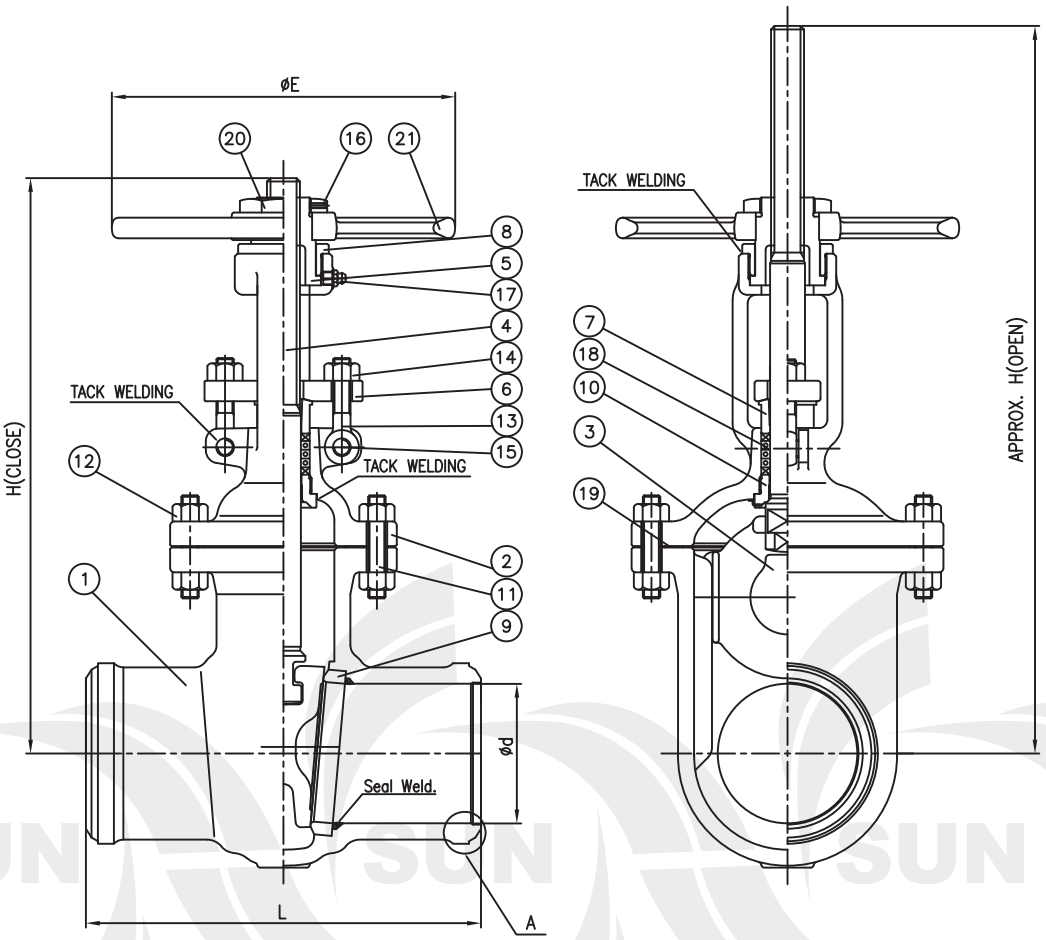
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	215.9	50.8	60.3	52.5	3.91	40	200	365	325	23
3	282.5	76.2	91.0	78.0	5.5	40	250	465	380	41
4	304.8	101.6	117	102.0	6.02	40	250	555	445	61

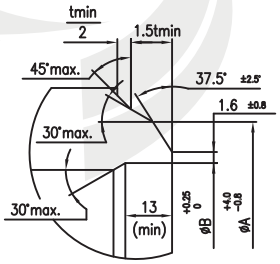
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC(WEDGE)	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020 (Zn Plated)
9	SEAT RING	A105+STELLITED
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGE EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B (Zn Plated)
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
26	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, BW

SUN-GA1W-HO-2





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. END TO END DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 150
4. 12" & LARGER : A216-WCB+13Cr
5. 8" & LARGER : A283-D

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

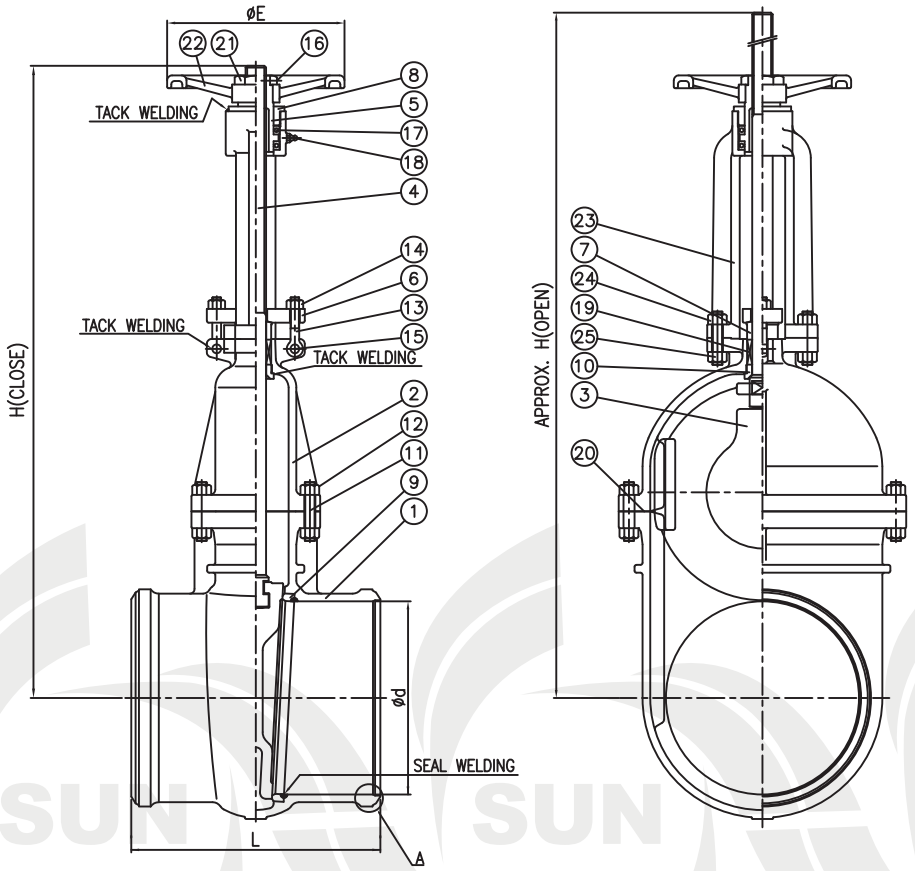
SIZE	L	d	BUTTWELDING END				E	H (OPEN)	H (CLOSE)	WEIGHT (kg)
			A	B	t	SCH. NO.				
6	403.4	152.4	172	154.0	7.11	40	315	725	563	70
8	419.1	203.2	223	203.0	8.18	40	355	915	702	120
10	457.2	254.0	278	254.5	9.27	40	400	1114	847	180
12	501.7	304.8	329	305.0	9.53	STD.	450	1328	1009	256

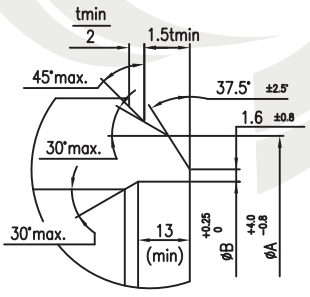
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC(WEDGE)	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020 (Zn Plated)
9	SEAT RING	A105+STELLITED
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGE EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B (Zn Plated)
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	GRAPHITE+TANGED INS.+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, BW

SUN-GA1W-HO-3





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. END TO END DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

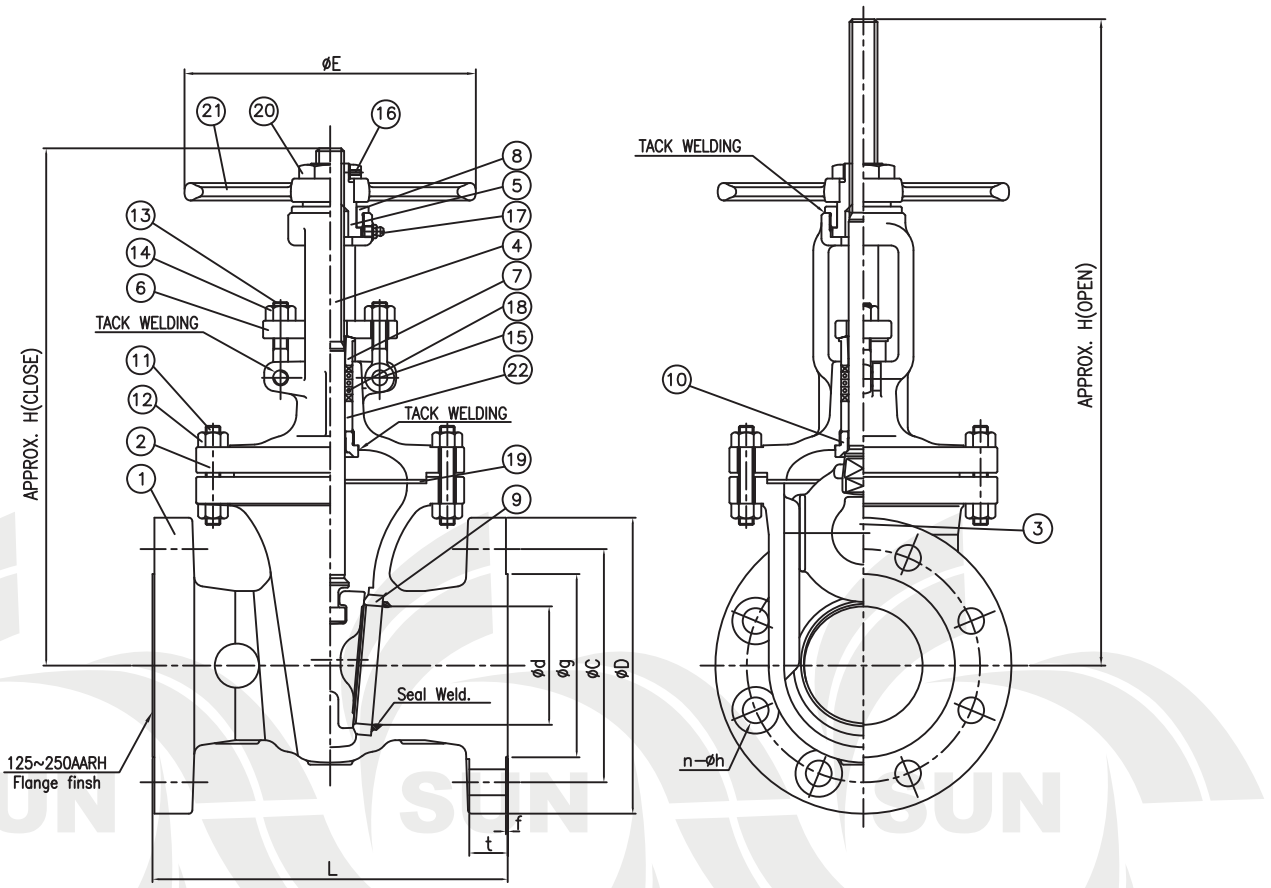
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
14	571.5	336.6	362	337	9.55	STD.	500	1151	1499	364
16	609.6	387.4	413	387	9.55	STD.	560	1286	1692	475
18	660.4	438.2	464	438	9.55	STD.	560	1418	1878	645
20	711.2	489.0	516	489	9.55	STD.	630	1603	2110	780
24	812.8	590.6	619	591	9.55	STD.	630	1875	2485	1150

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC(WEDGE)	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020 (Zn Plated)
9	SEAT RING	A105+STELLITED
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGE EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B (Zn Plated)
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	GRAPHITE TANGED INS.+304
21	HANDWHEEL NUT	A576-1020 (Zn Plated)
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GA3F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. 8" & LARGER : A283-D

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

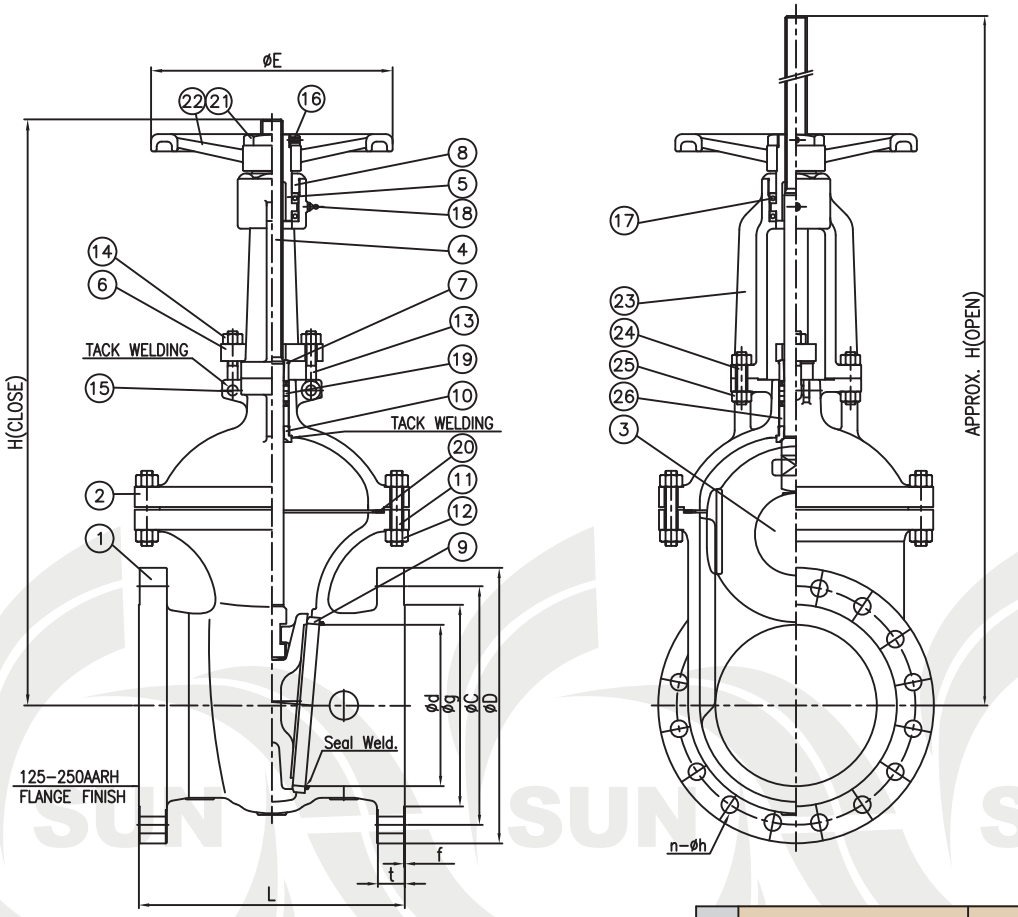
UNIT : mm

SIZE	L	d	FLANGE						E	H (OPEN)	H (CLOSE)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	215.9	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	200	365	325	23
3	282.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	465	380	41
4	304.8	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	250	555	445	61
6	403.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	355	770	607	123
8	419.1	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	400	955	740	200
10	457.0	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	450	1171	905	291

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GA3F-HO-2



NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

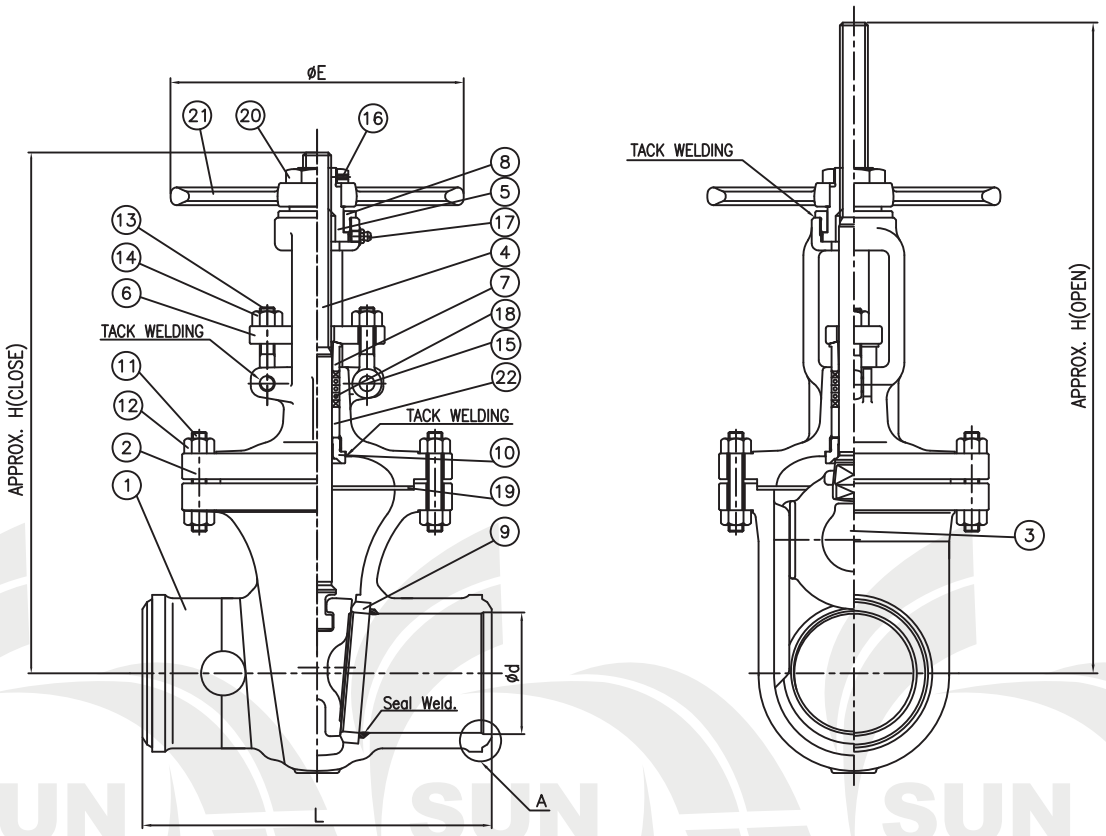
SIZE	L	d	FLANGE						E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n–h				
12	501.7	304.8	520.7	450.9	381.0	50.8	1.6	16–31.8	500	1081	1400	435
14	762.0	336.6	584.2	514.4	412.8	53.9	1.6	20–31.8	560	1222	1638	682
16	838.2	387.4	647.7	571.5	469.9	57.2	1.6	20–35.1	560	1347	1758	920
18	914.4	431.8	711.2	628.7	533.4	60.5	1.6	24–35.1	630	1508	1963	1187
20	990.6	482.6	774.7	685.8	584.2	63.5	1.6	24–35.1	630	1693	2176	1611
24	1143.0	584.2	914.4	812.8	692.2	69.9	1.6	24–41.2	800	1963	2528	2470

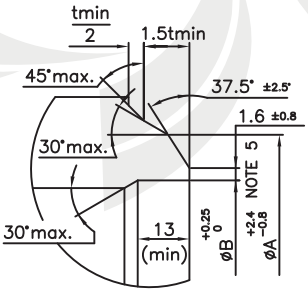
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
21	HANDWHEEL NUT	A576-1020
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
26	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, BW

SUN-GA3W-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. END TO END DIMENSION : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 300
4. 8" & LARGER : A283-D
5. 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

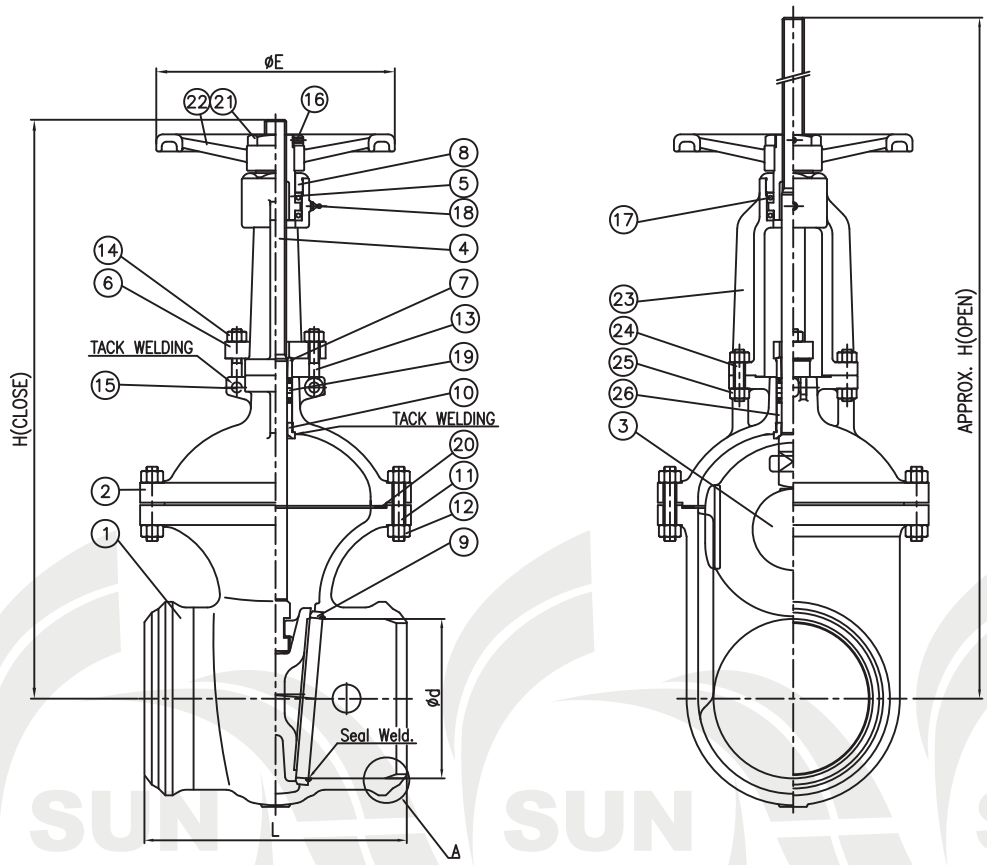
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	215.9	50.8	60.3	52.5	3.91	40	200	365	325	23
3	282.5	76.2	91.0	78.0	5.5	40	250	465	380	41
4	304.8	101.6	117	102.0	6.02	40	250	555	445	61
6	403.4	152.4	172	154.0	7.11	40	355	770	607	123
8	419.1	203.2	223	203.0	8.2	40	400	955	740	200
10	457.0	254.0	278	254.5	9.3	40	450	1171	905	291

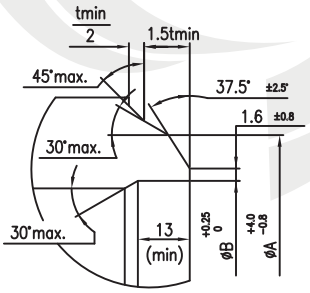
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A193-B7
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, BW

SUN-GA3W-HO-2





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. END TO END DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

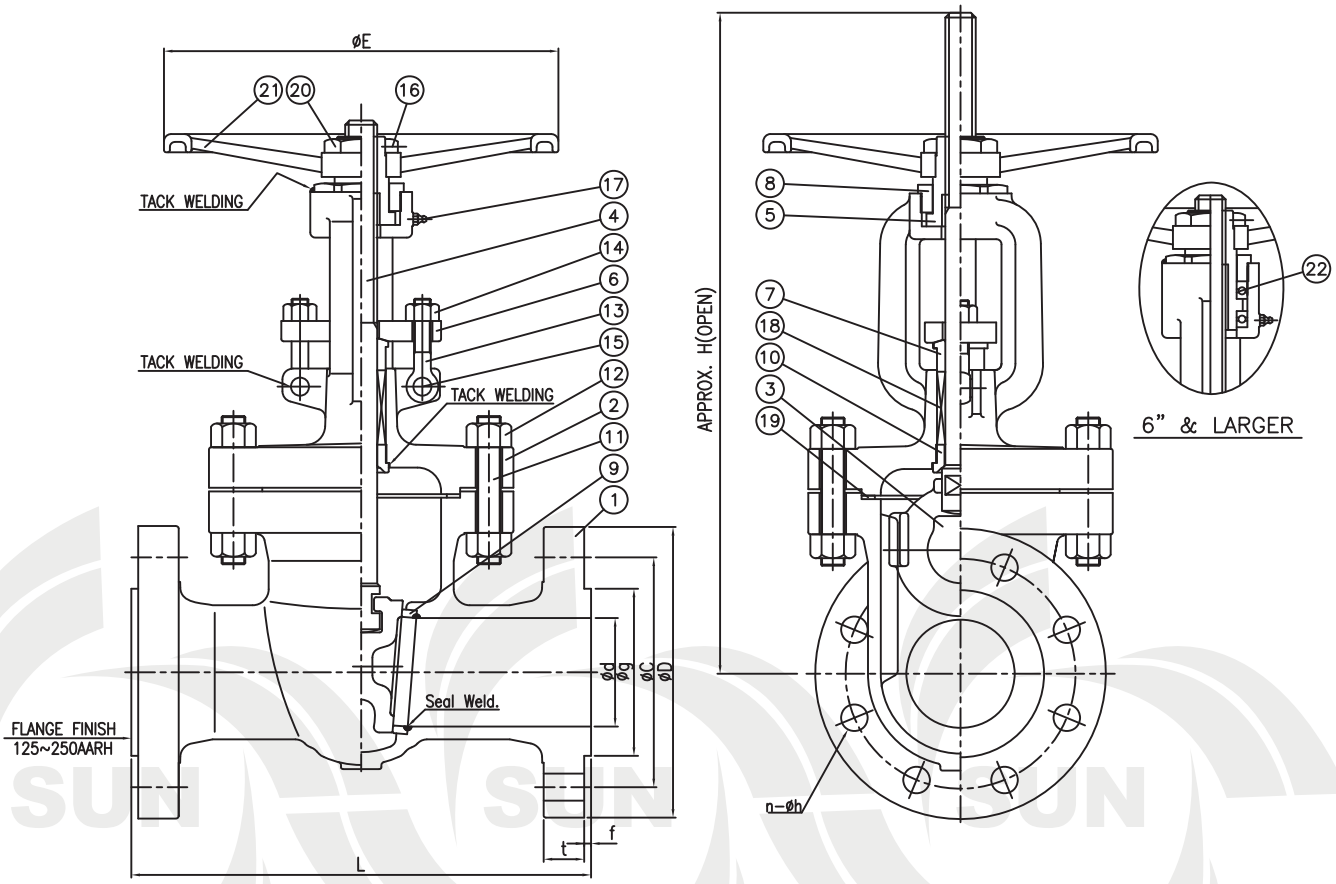
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
12	501.7	304.8	329	305	9.55	STD.	500	1081	1400	435
14	762.0	336.6	362	337	9.55	STD.	560	1222	1638	682
16	838.2	387.4	413	387	9.55	STD.	560	1347	1758	920
18	914.4	431.8	464	438	9.55	STD.	630	1508	1963	1187
20	990.6	482.6	516	489	9.55	STD.	630	1693	2176	1611
24	1143.0	584.2	619	591	9.55	STD.	800	1963	2528	2470

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A193-B7
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
21	HANDWHEEL NUT	A576-1020
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
26	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GA6F-HO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

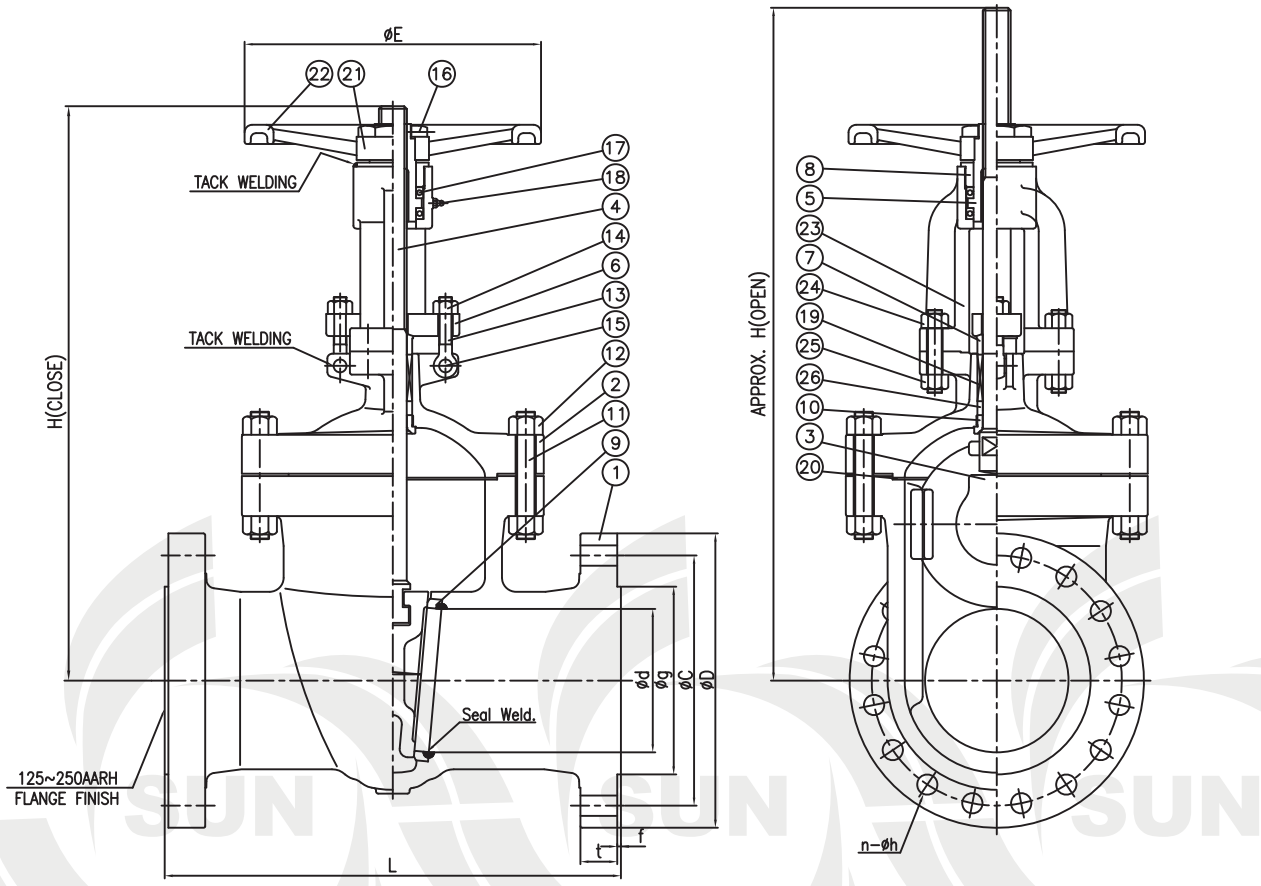
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	200	440	36
2-1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8-22.4	250	443	51
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.4	300	490	65
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	350	628	126
5	508.0	127.0	330.2	266.7	185.7	44.5	6.4	8-28.5	400	725	195
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	500	914	241
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	500	1072	424

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GA6F-HO-2



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN BOLT	A576-1020
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
21	HANDWHEEL NUT	A576-1020
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

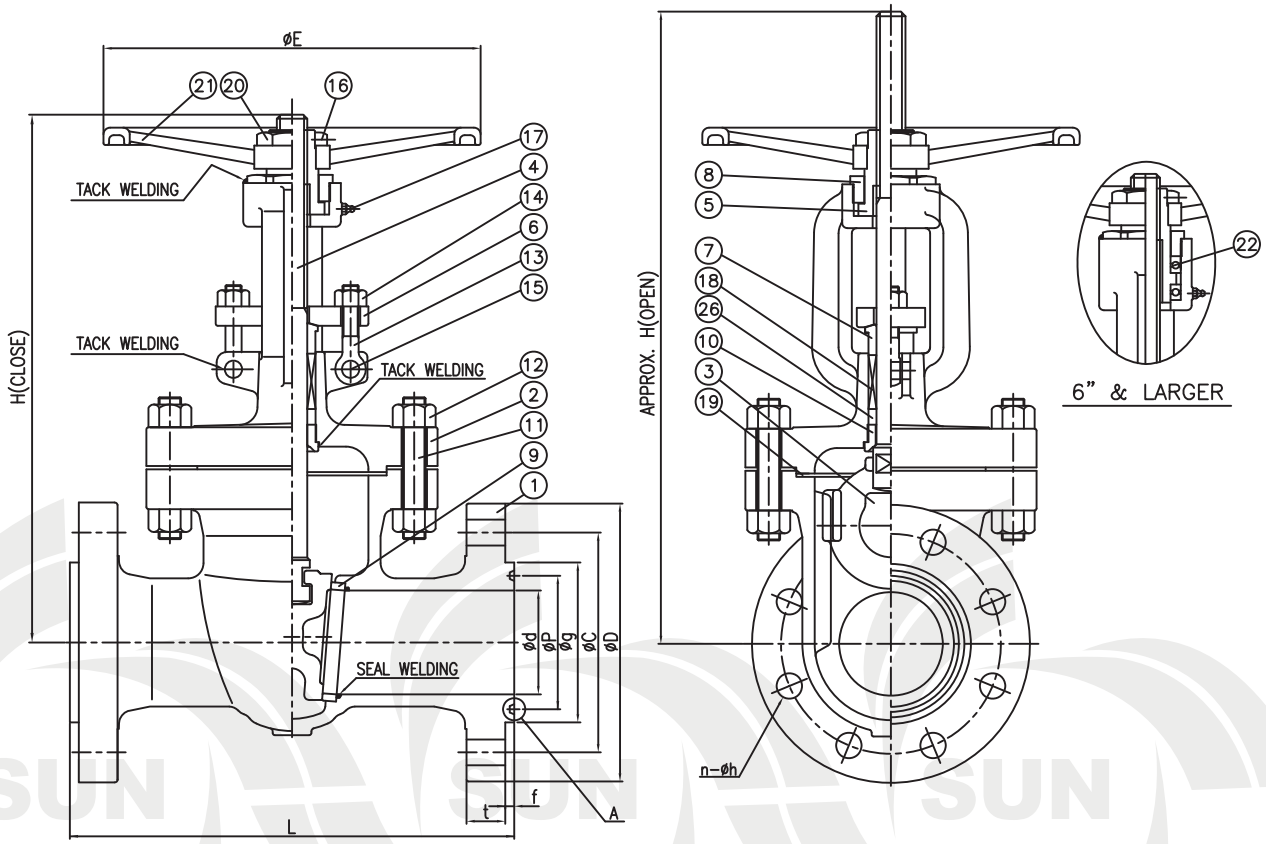
UNIT : mm

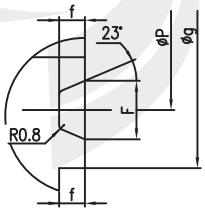
SIZE	L	d	FLANGE						E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h				
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-35.1	560	973	1266	628
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20-35.1	630	1175	1490	900
14	889.0	326.9	603.3	527.1	412.8	69.9	6.4	20-38.1	630	1264	1606	1206
16	990.6	374.7	685.8	603.3	469.9	76.2	6.4	20-41.3	800	1407	1810	1410
18	1092.9	419.1	743.0	654.1	533.4	82.6	6.4	20-44.5	800	1557	1980	2218
20	1193.8	463.6	812.8	723.9	584.2	88.9	6.4	24-44.5	1000	1708	2030	2811
24	1397.0	558.8	939.8	838.2	692.2	101.6	6.4	24-50.8	1000	2125	2591	3626

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RTJ

SUN-GA6J-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

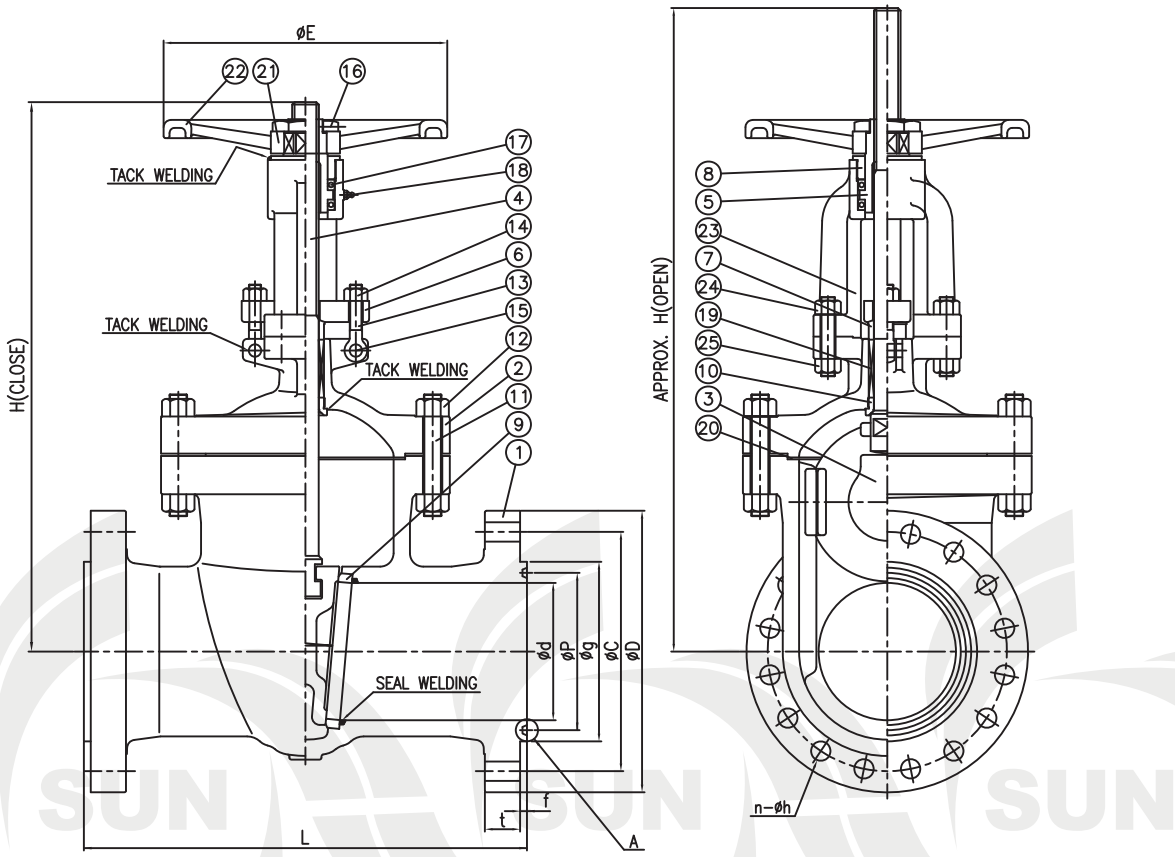
SIZE	L	d	FLANGE									E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	P	F	t	f	n-h	RING NO.				
2	295.2	50.8	165.1	127.0	108.0	82.6	11.9	25.4	7.9	8-19.1	R23	200	388	449	36
2-1/2	333.3	63.5	190.5	149.4	127.0	101.6	11.9	28.5	7.9	8-22.4	R26	250	372	447	51
3	358.7	76.2	209.6	168.1	146.1	123.8	11.9	31.8	7.9	8-22.4	R31	300	403	490	65
4	434.9	101.6	273.1	215.9	174.8	149.2	11.9	38.1	7.9	8-25.4	R37	350	515	628	114
6	561.9	152.4	355.6	292.1	241.3	211.1	11.9	47.8	7.9	12-28.5	R45	500	745	907	245
8	663.5	199.9	419.1	349.3	301.8	269.9	11.9	55.6	7.9	12-31.8	R49	500	844	1058	374

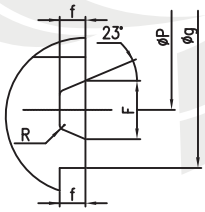
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RTJ

SUN-GA6J-HO-2





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

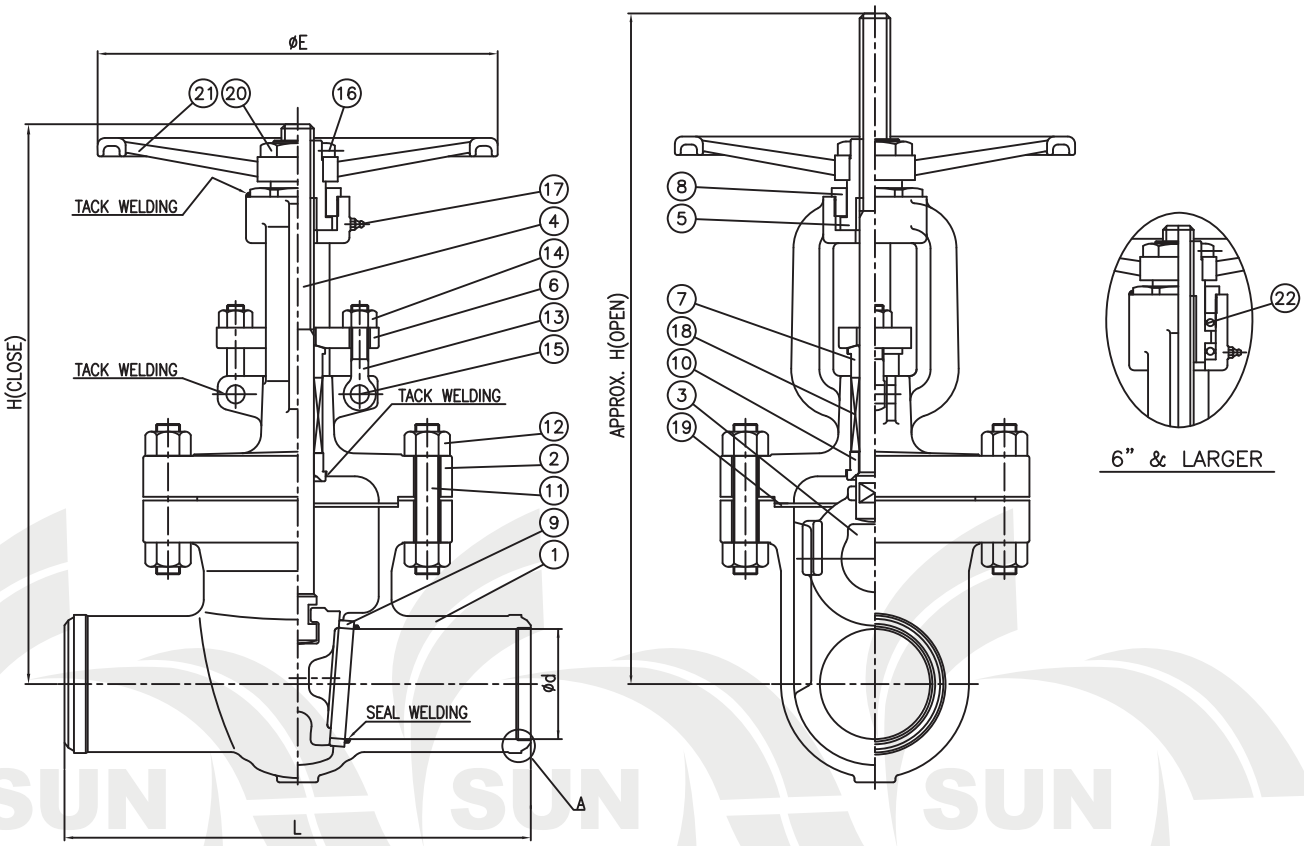
SIZE	L	d	FLANGE										E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	P	F	t	f	R	n-h	RING NO.				
10	790.5	247.7	508.0	431.8	355.6	323.9	11.9	63.5	7.9	0.8	16-35.1	R53	560	973	1239	628
12	841.3	298.5	558.8	489.0	412.8	381.0	11.9	66.6	7.9	0.8	20-35.1	R57	630	1179	1505	900
14	892.1	326.9	603.3	527.1	457.2	419.1	11.9	69.9	7.9	0.8	20-38.1	R61	630	1264	1605	1206
16	993.7	374.7	685.8	603.3	508.0	469.9	11.9	76.2	7.9	0.8	20-41.3	R65	800	1407	1809	1410
18	1096.0	419.1	743.0	654.1	574.6	533.4	11.9	82.6	7.9	0.8	20-44.5	R69	800	1557	2101	2218
20	1200.2	463.6	812.8	723.9	635.0	584.2	13.5	88.9	9.5	1.6	24-44.5	R73	1000	1708	2194	2811
24	1406.7	558.8	939.8	838.2	749.3	692.2	16.7	101.6	11.1	1.6	24-50.8	R77	1000	2125	2703	3626

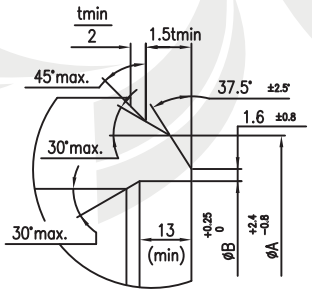
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
21	HANDWHEEL NUT	A576-1020
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, BW

SUN-GA6W-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. END TO END DIMENSIONS : ASME B16.10 CLASS 600
3. BUTTWELD END DIMENSIONS : ASME B16.25

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

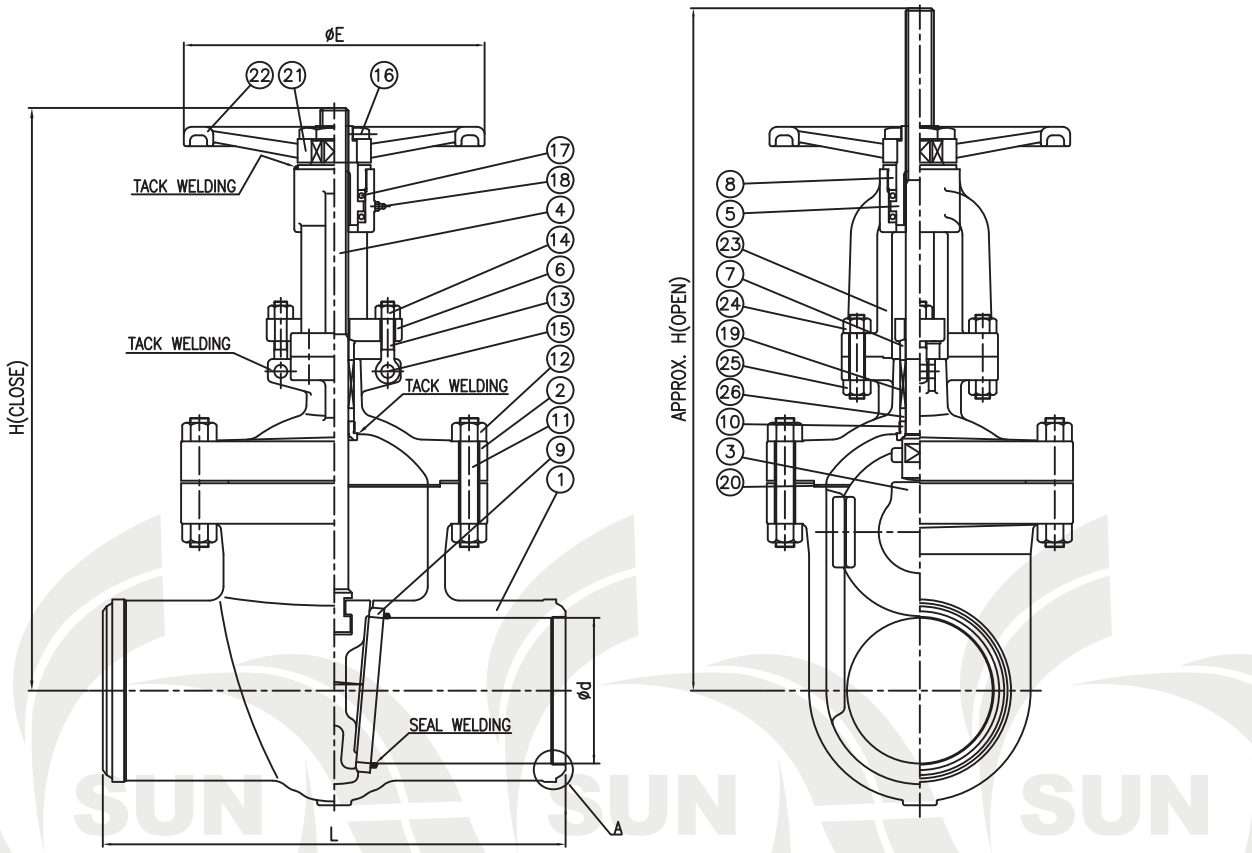
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	292.1	50.8	60.3	52.5	3.91	STD.	200	383	443	36
2-1/2	330.2	63.5	75.0	63.0	5.15	STD.	250	372	446	51
3	355.6	76.2	91.0	78.0	5.5	STD.	300	403	490	65
4	431.8	101.6	117	102	6.0	STD.	350	515	628	114
6	558.8	152.4	172	154	7.1	STD.	500	744	914	245
8	660.4	199.9	223	203	8.2	STD.	500	844	1072	374

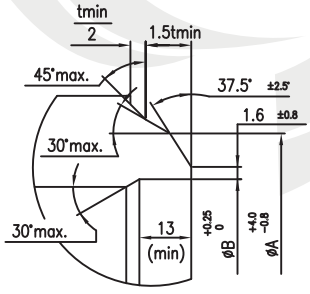
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, BW

SUN-GA6W-HO-2





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. END TO END DIMENSIONS : ASME B16.10 CLASS 600
3. BUTTWELD END DIMENSIONS : ASME B16.25

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

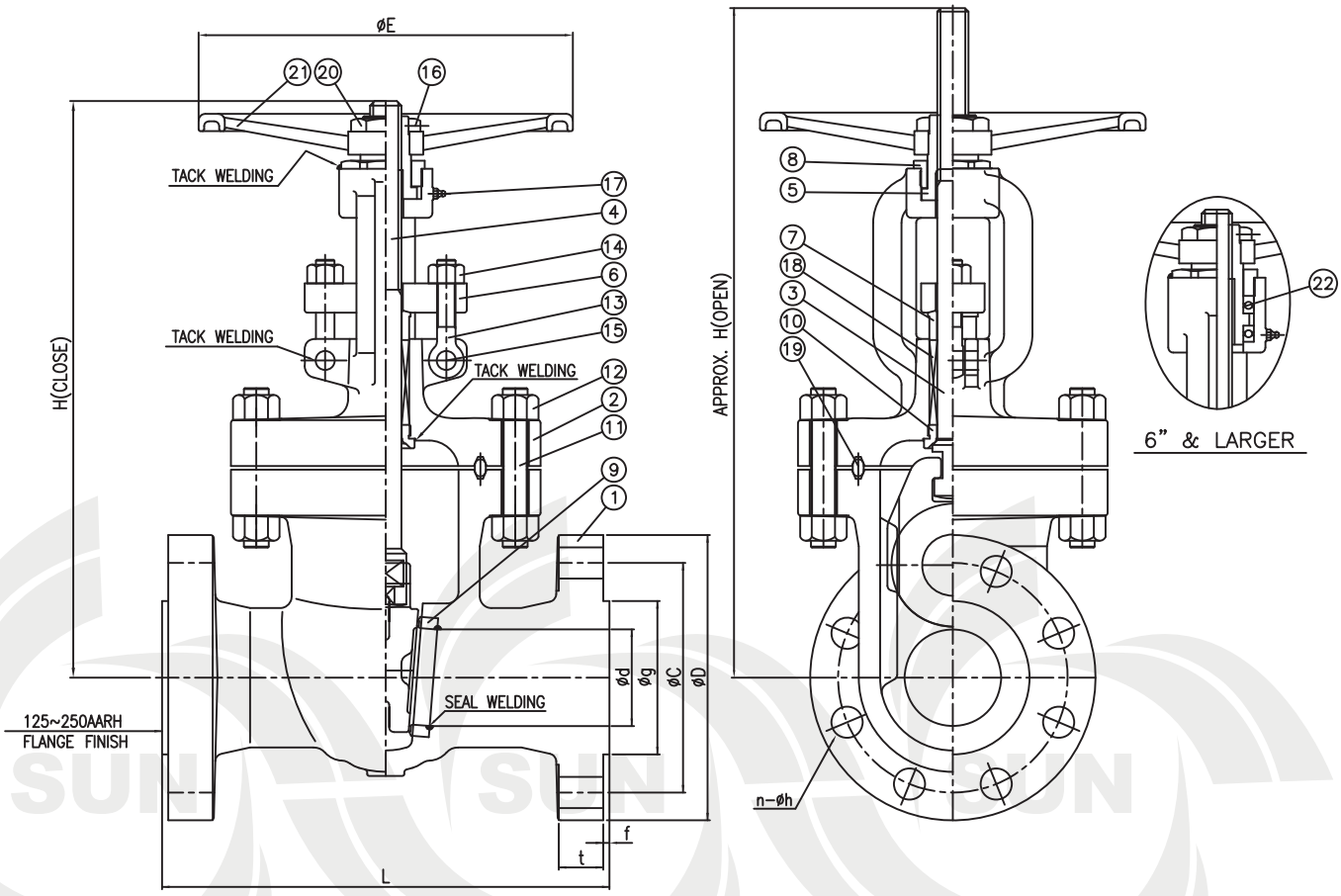
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
10	787.4	247.7	278	255	9.25	STD.	560	973	1239	628
12	838.2	298.5	329	305	9.55	STD.	630	1175	1505	900
14	889.0	326.9	362	337	9.55	STD.	630	1264	1605	1206
16	990.6	374.7	413	387	9.55	STD.	800	1407	1810	1410
18	1092.9	419.1	464	438	9.55	STD.	800	1557	2101	2218
20	1193.8	463.6	516	489	9.55	STD.	1000	1708	2194	2811
24	1397.0	558.8	619	591	9.55	STD.	1000	2125	2703	3626

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A307-B
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304-304
21	HANDWHEEL NUT	A576-1020
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, RF

SUN-GA9F-HO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

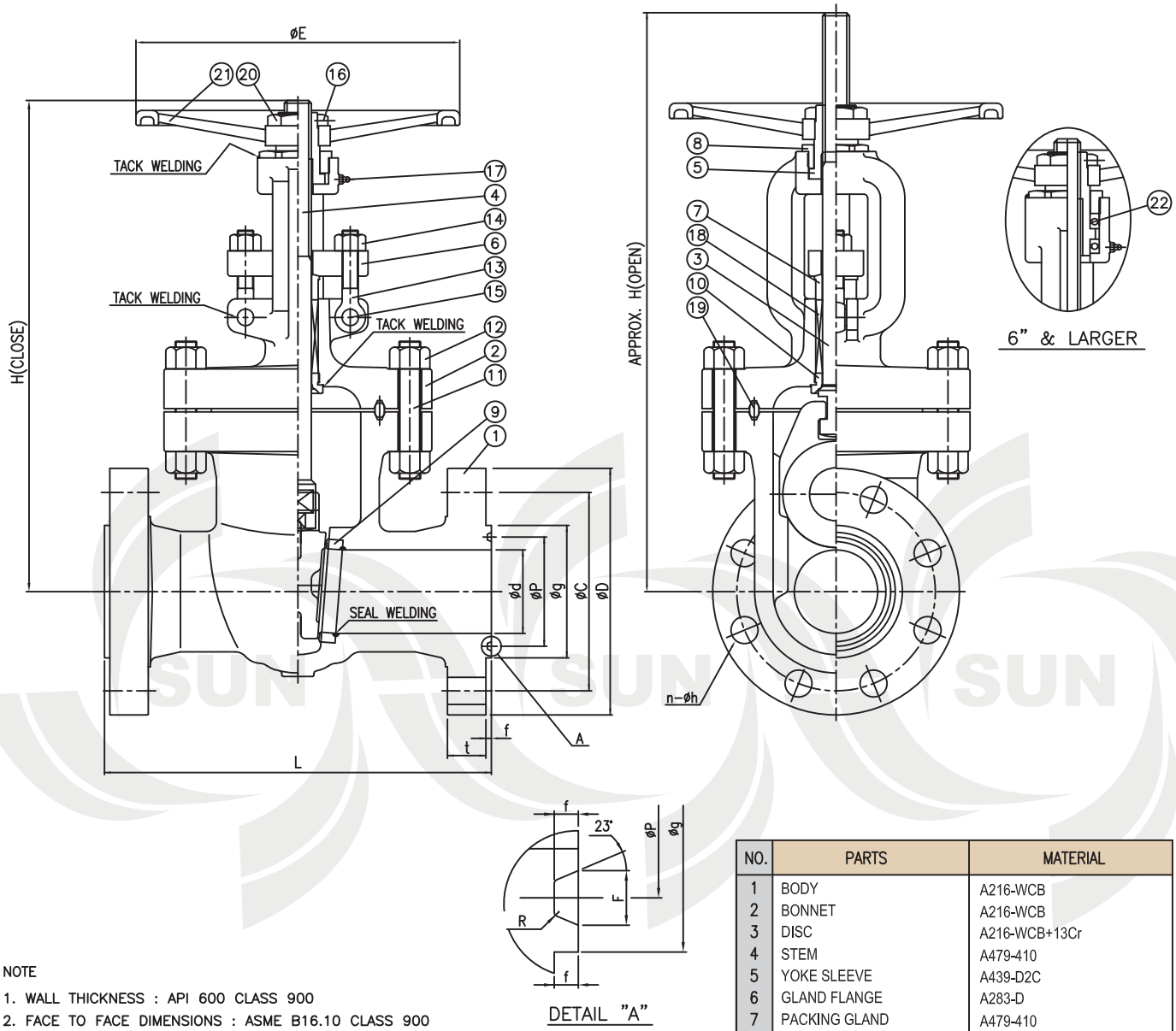
SIZE	L	d	FLANGE						E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	368.3	47.5	215.9	165.1	92.0	38.1	6.4	8-25.4	300	385	470	81
2-1/2	419.1	57.2	244.0	190.5	104.6	41.1	6.4	8-28.6	350	475	540	92
3	381.0	72.9	241.3	190.5	127.0	38.1	6.4	8-25.4	350	521	605	99
4	457.2	98.3	292.1	235.0	157.2	44.5	6.4	8-31.8	400	594	706	139
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12-31.8	500	697	960	352
8	736.6	190.5	469.9	393.7	269.9	63.5	6.4	12-38.1	560	860	1300	606

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, RTJ

SUN-GA9J-HO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

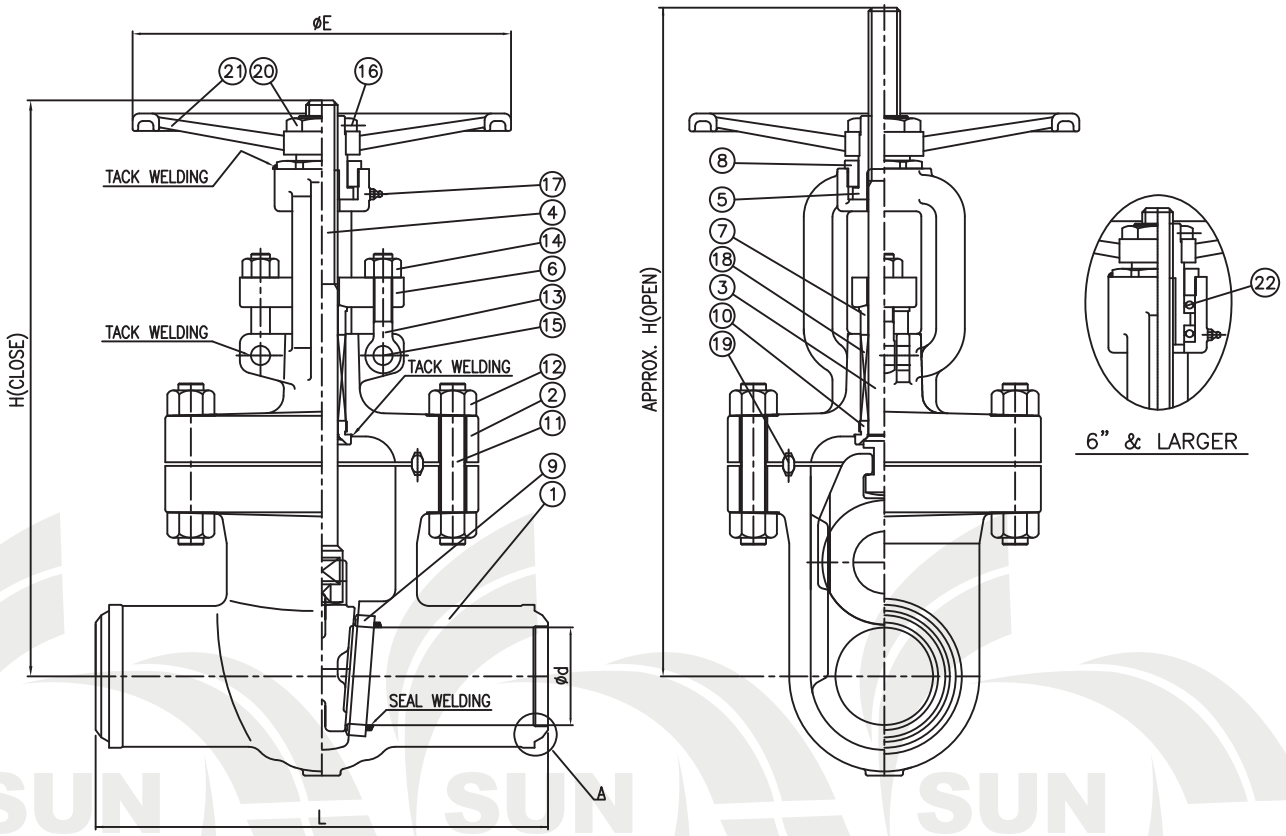
SIZE	L	d	FLANGE										E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	P	F	t	f	R	n-h	Ring No.				
2	371.4	47.5	215.9	165.1	124.0	95.25	11.9	38.1	7.9	0.8	8-25.4	R24	250		470	81
3	384.1	72.9	241.3	190.5	155.5	123.8	11.9	38.1	7.9	0.8	8-25.4	R31	350	526	580	99
4	460.3	98.3	292.1	235.0	180.9	149.2	11.9	44.5	7.9	0.8	8-31.8	R37	350	594	690	139
6	612.7	146.1	381.0	317.5	241.3	211.1	11.9	55.6	7.9	0.8	12-31.8	R45	500	697	960	352
8	739.7	190.5	469.9	393.7	307.9	269.9	11.9	63.5	7.9	0.8	12-38.1	R49	630	860	1300	606

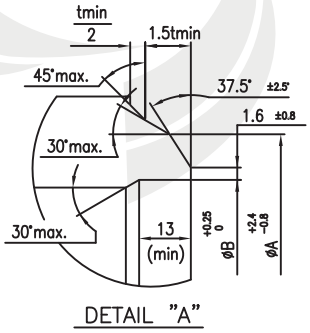
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, BW

SUN-GA9W-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 900
2. END TO END DIMENSIONS : ASME B16.10 CLASS 900
3. BUTTWELD END DIMENSIONS : ASME B16.25

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

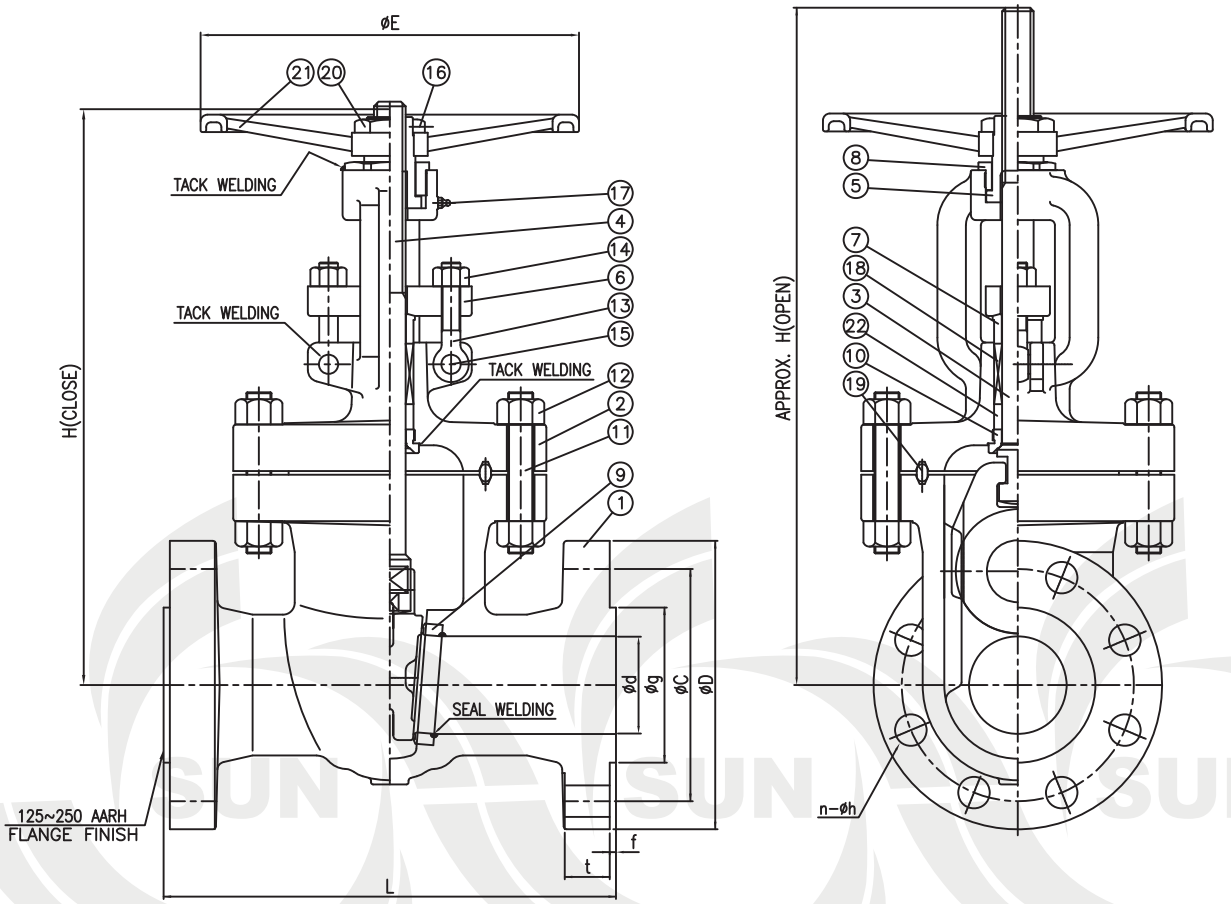
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	368.3	47.5	60.3	49.2	5.5	80	250		470	81
2-1/2	419.1	58.0	75.0	59.0	7.0	80	350		540	
3	381.0	73.0	91.0	74.0	7.6	80	350	526	580	99
4	457.2	98.3	117	97.0	8.6	80	400	594	690	139
5	558.8	120.6	144	122.0	9.6	80	500		830	
6	609.6	146.1	172	146.0	11.0	80	500	697	960	352
8	736.6	190.5	223	194.0	12.7	80	560	860	1300	606

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, RF

SUN-GA15F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

NOTE

1. WALL THICKNESS : API 600 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

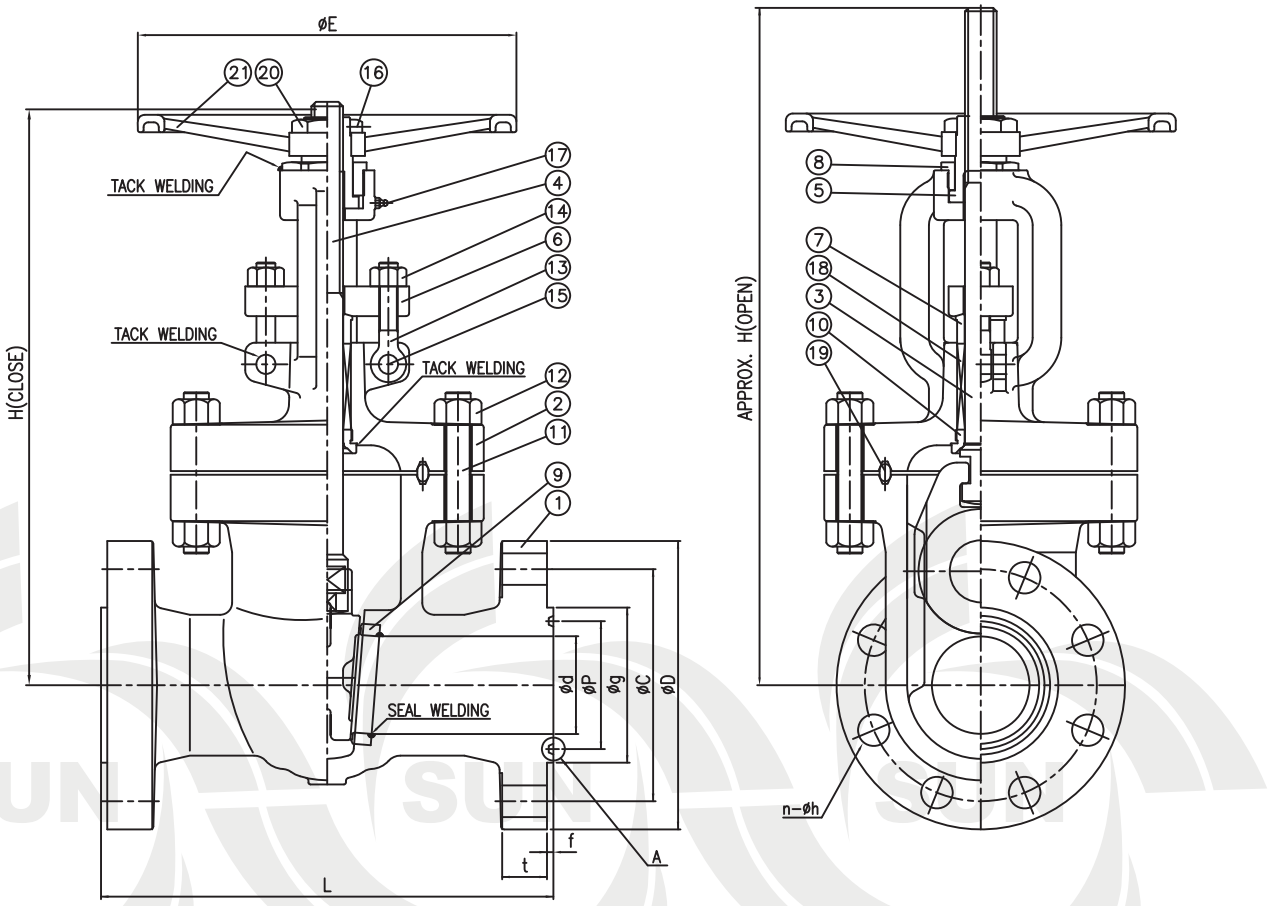
UNIT : mm

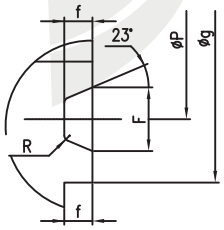
SIZE	L	d	FLANGE						E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	368.3	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	300	451	561	81
3	469.9	69.9	266.7	203.2	127.0	47.8	6.4	8-31.8	400	581	662	142
4	546.1	92.0	311.0	241.3	157.2	53.9	6.4	8-34.9	450	643	754	240

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, RTJ

SUN-GA15J-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5515
Hydrostatic press test (Seat)	4100

UNIT : mm

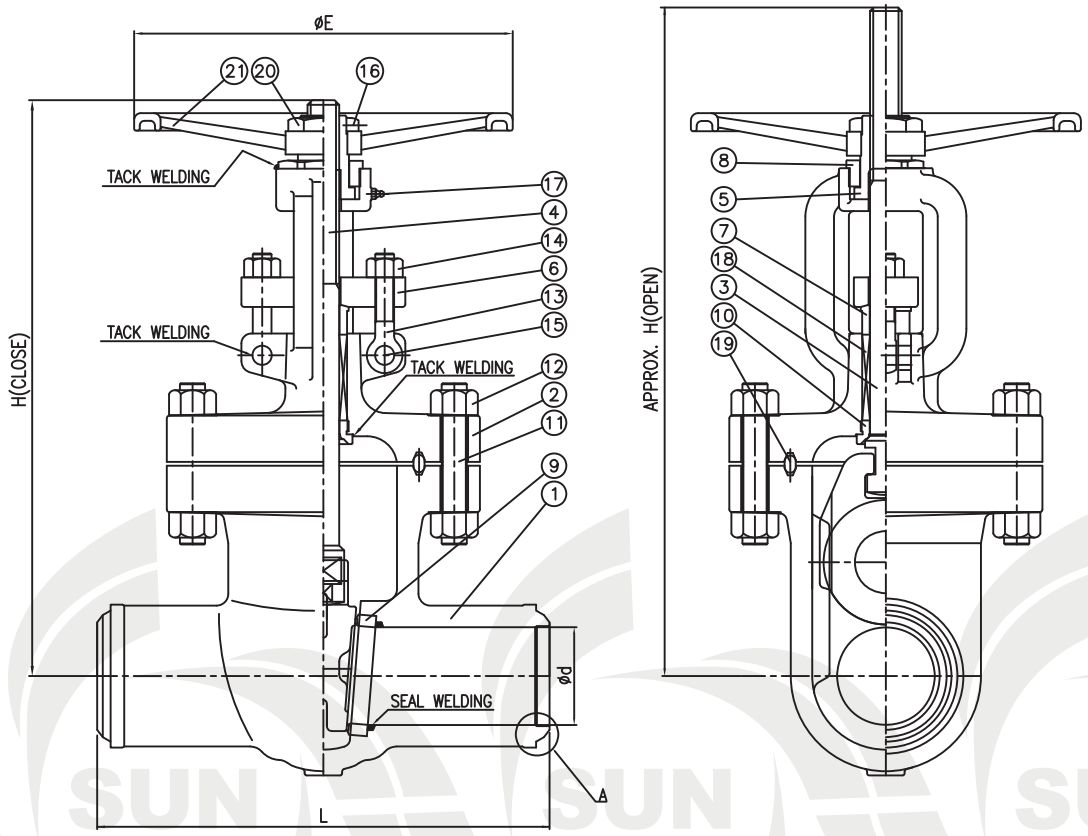
SIZE	L	d	FLANGE								E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			D	C	g	P	F	t	f	n-h	RING NO.			
2	371.3	47.5	215.9	165.1	124.0	95.25	11.9	38.1	7.9	8-25.4	R24	300	451	561	81
3	472.9	69.9	266.7	203.2	168.2	136.5	11.9	47.8	7.9	8-31.8	R35	400	581	662	142
4	549.1	92.0	311.0	241.3	193.6	161.9	11.9	53.9	7.9	8-34.9	R39	450	643	754	240

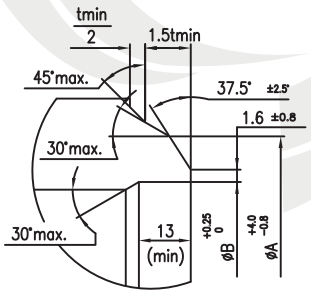
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, BW

SUN-GA15W-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 1500
2. END TO END DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

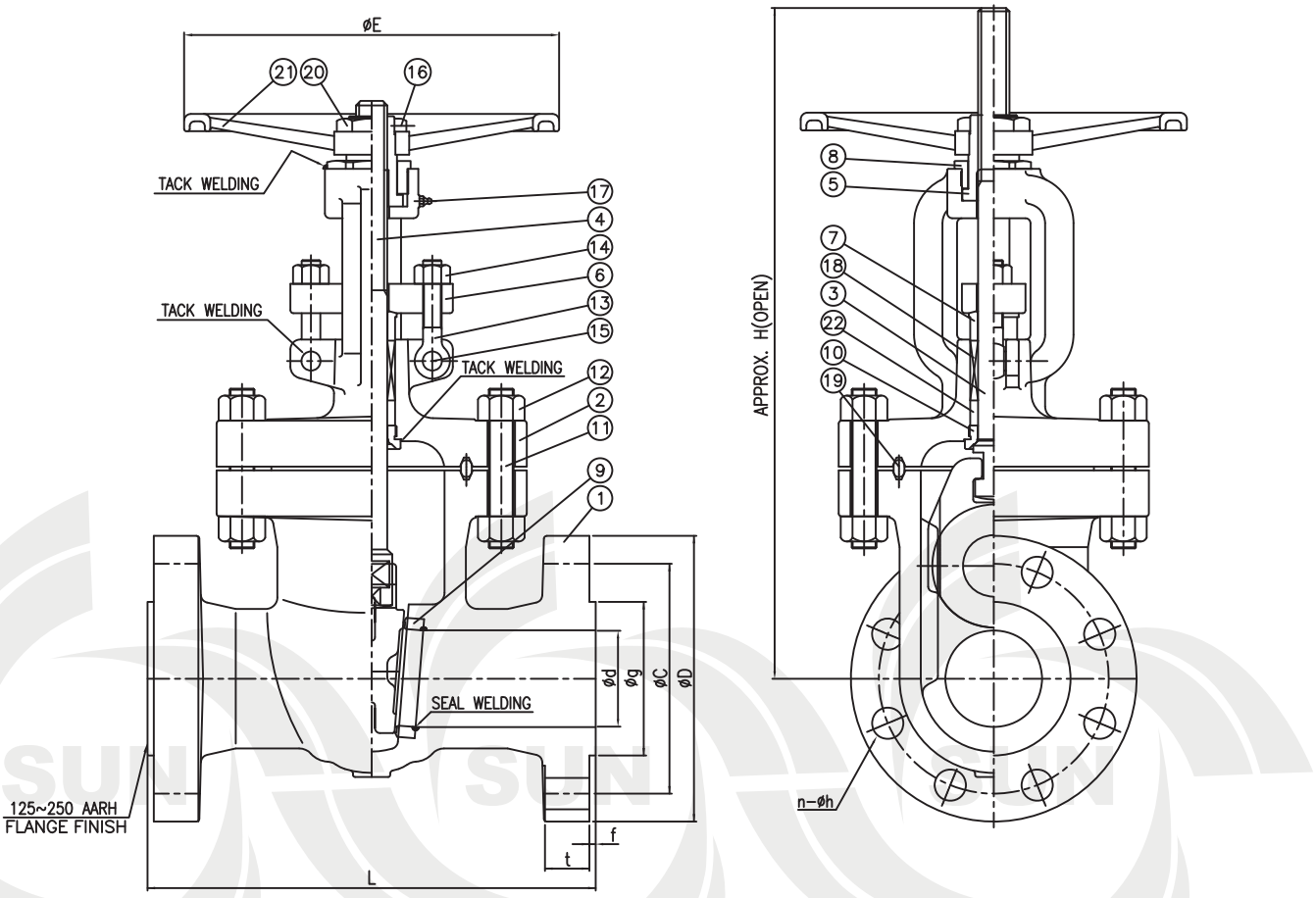
SIZE	L	d	BUTTWELDING END				E	H (CLOSE)	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	326.8	47.5	60.3	38.2	11.07	160	300	451	561	55
3	469.9	69.9	91.0	66.5	11.13	160	400	581	662	117
4	546.1	92.0	117	87.5	13.5	160	450	643	754	160

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, RF

SUN-GA25F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN BOLT	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536
22	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : API 600 CLASS 2500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

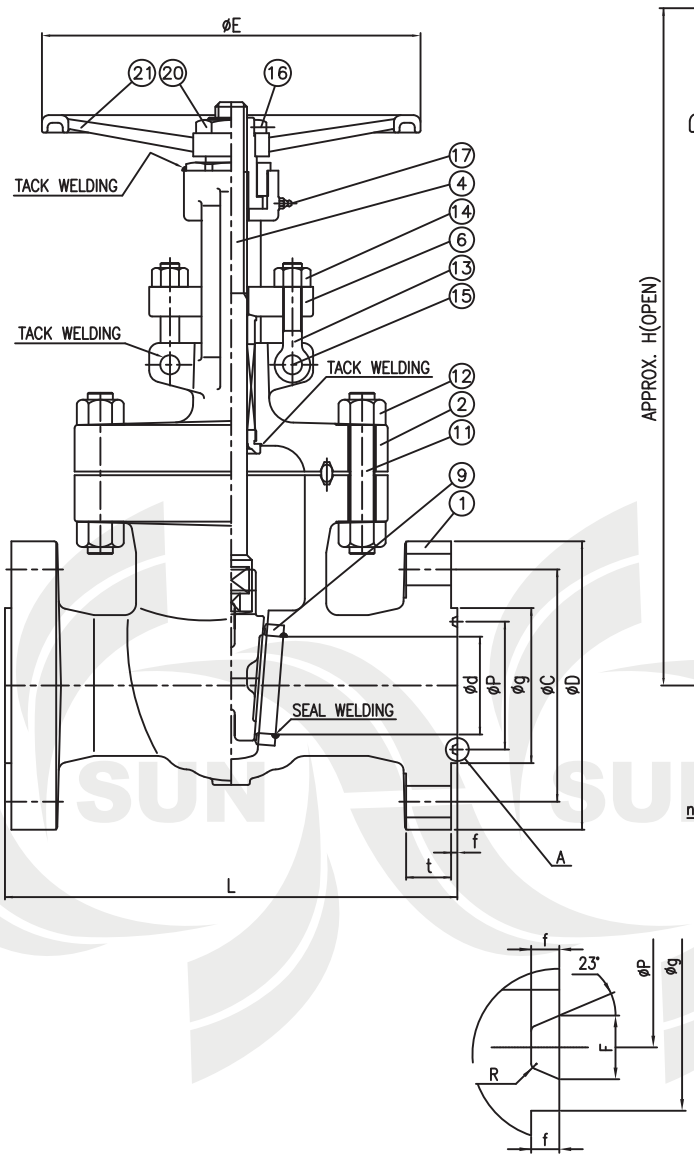
UNIT : mm

SIZE	L	d	FLANGE						E	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	451.0	38.1	235.0	171.5	91.9	50.8	6.4	8-28.6	300	615	95
3	578.0	57.2	304.8	228.6	127.0	66.5	6.4	8-34.9	450	820	200
4	673.0	72.9	355.6	273.1	157.2	76.2	6.4	8-41.3	630	1075	605

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, RTJ

SUN-GA25J-HO-1



DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 2500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

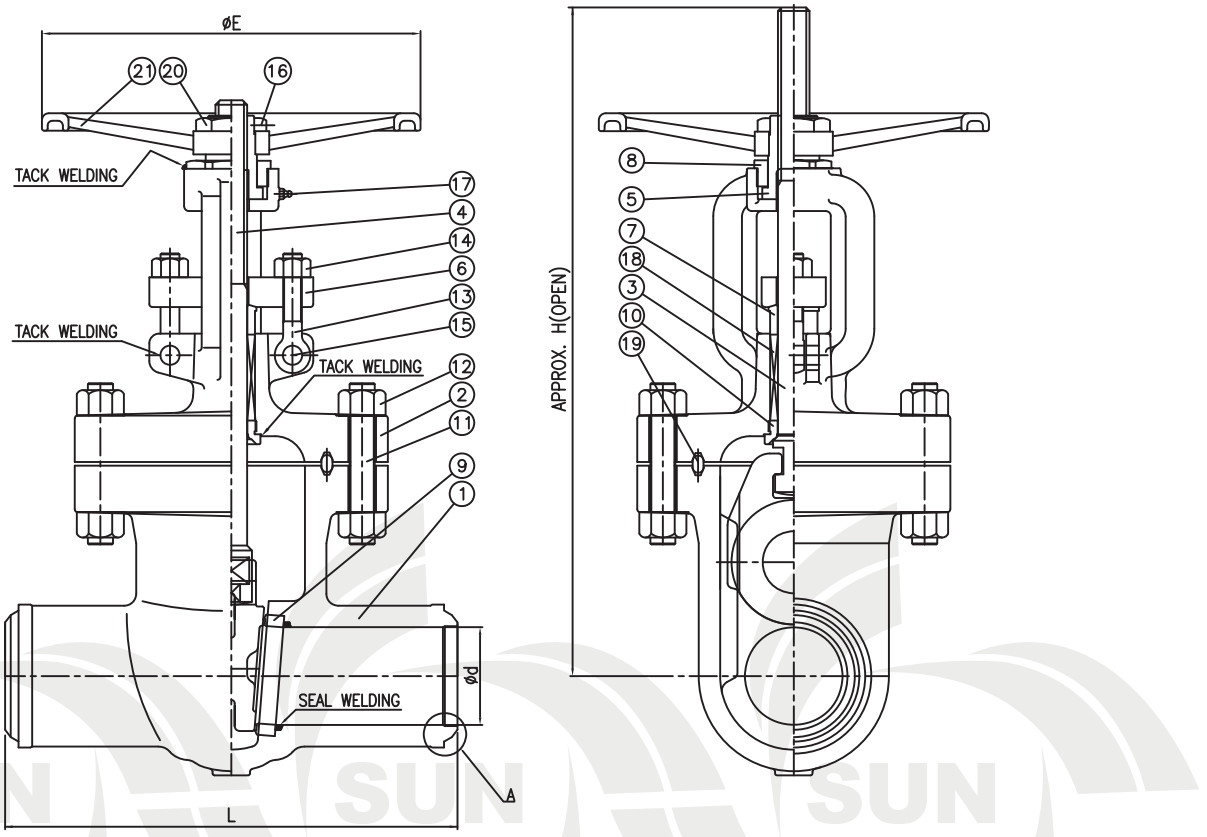
SIZE	L	d	FLANGE									E	H (OPEN)	WEIGHT (kg)
			D	C	g	P	F	t	f	n-h	RING NO.			
2	454.0	38.1	235.0	171.5	133.0	101.6	11.9	50.8	7.9	8-28.6	R26	300	615	95
3	584.0	57.2	304.8	228.6	168.0	127.0	13.5	66.5	9.5	8-34.9	R32	450	820	200
4	683.0	72.9	355.6	273.1	203.0	157.2	16.7	76.2	11.1	8-41.3	R38	630	1075	605

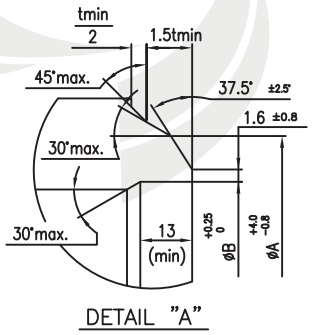
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, BW

SUN-GA25W-HO-1





DETAIL "A"

NOTE

1. WALL THICKNESS : API 600 CLASS 2500
2. END TO END DIMENSIONS : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

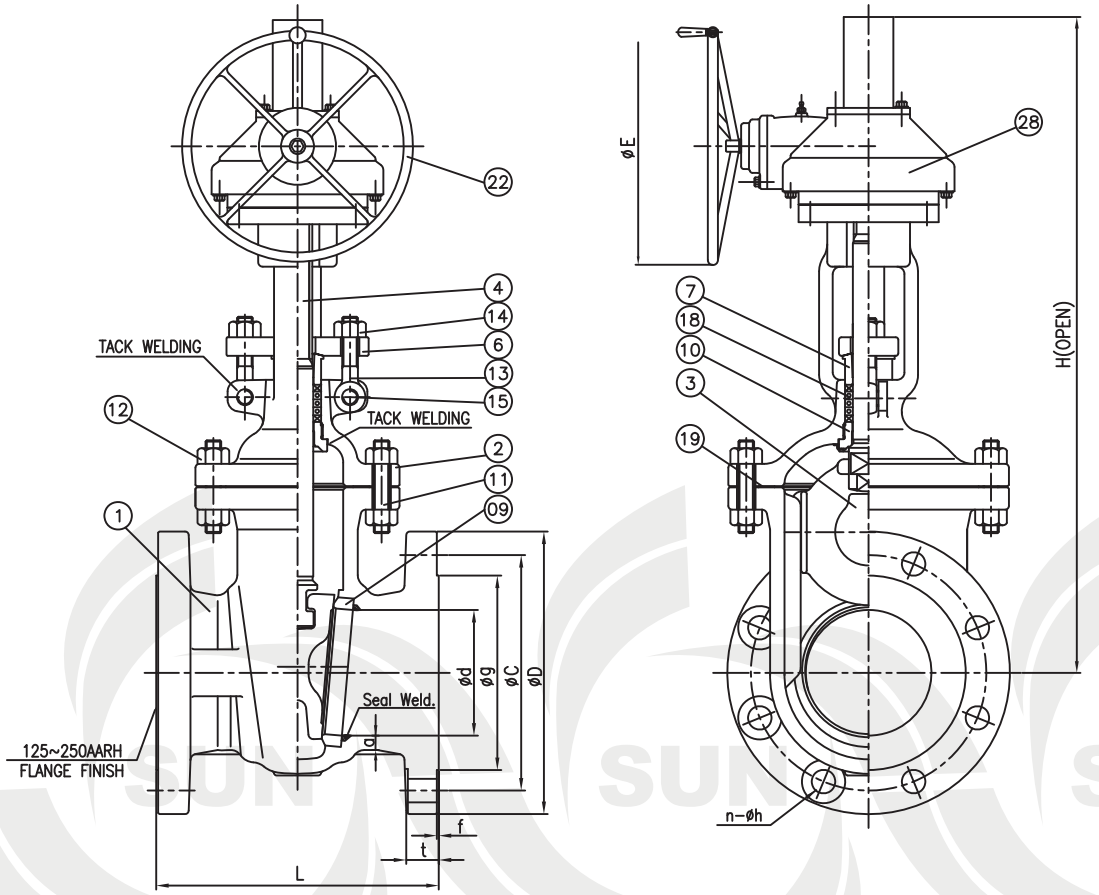
SIZE	L	d	BUTTWELDING END				E	H (OPEN)	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	451.0	47.5	60.3	38.2	11.07	XXS	300	615	56
3	469.9	69.9	91.0	58.5	15.24	XXS	450	820	130
4	546.1	92.0	117	80.0	17.12	XXS	630	1075	485

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	SET SCREW	AISI 4135
17	GREASE NIPPLE	A307-B
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
20	HANDWHEEL NUT	A576-1020
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Gear, RF

SUN-CA1F-GO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. 12" & LARGER : A216-WCB+13Cr
5. 8" & LARGER : A283-D

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

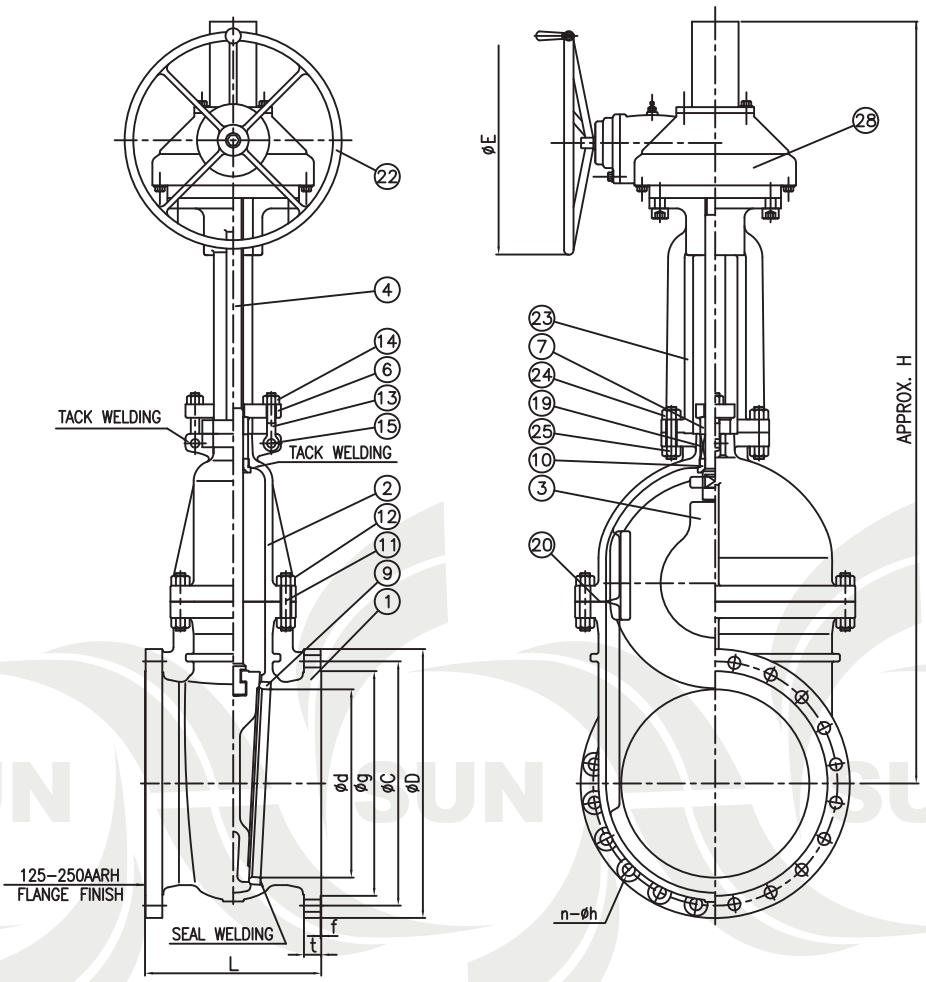
SIZE	L	d	FLANGE						E	a (min)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	177.8	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	200	8.6	441	17
3	203.2	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	250	10.4	540	29
4	228.6	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	250	11.2	630	44
6	266.7	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	315	11.9	825	70
8	292.1	203.2	342.9	298.5	269.7	28.5	1.6	8-22.4	355	12.7	1015	120
10	330.2	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	450	14.2	1214	180
12	355.6	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	450	16.0	1428	256

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
9	BODY SETARING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	GRAPHITE TANGED INSERT+304
22	HANDWHEEL	A53
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Gear, RF

SUN-CA1F-GO-2



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	GRAPHITE TANGED INSERT+304
22	HANDWHEEL	A53
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
28	GEAR BOX	A536

NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

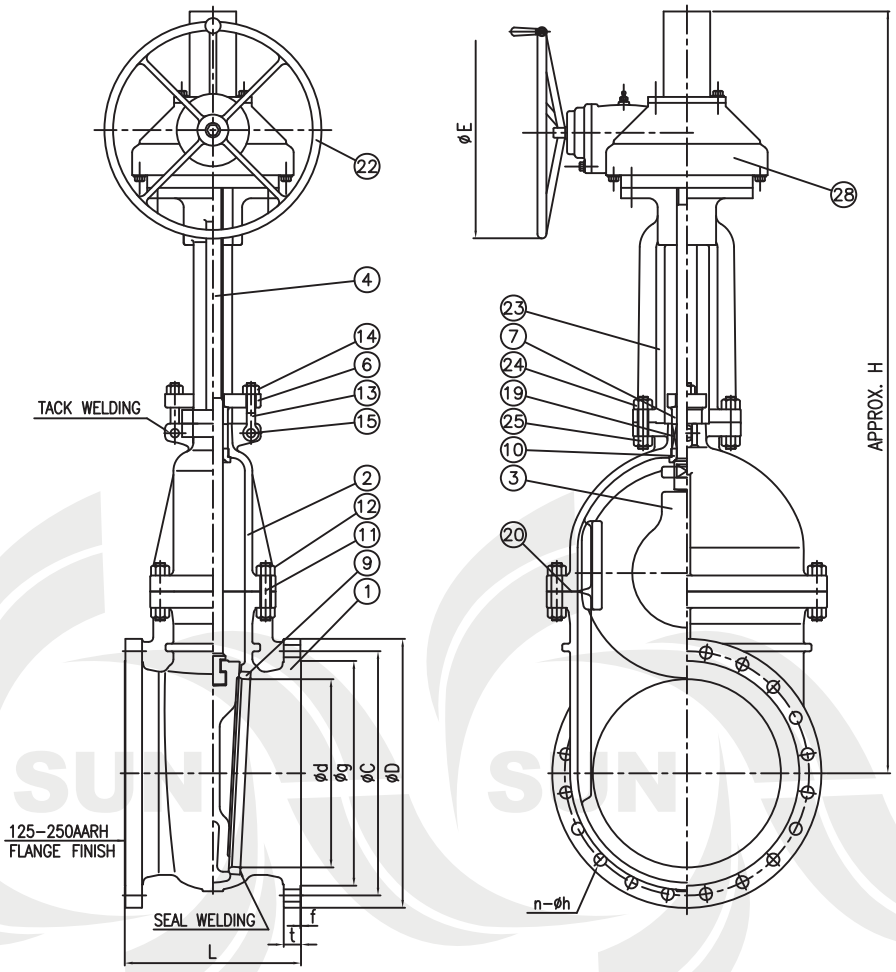
UNIT : mm

SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
14	381.0	336.6	533.4	476.3	412.8	35.1	1.6	12–28.5	500	1610	364
16	406.4	387.4	596.9	539.8	469.9	36.6	1.6	16–28.5	500	1790	475
18	431.8	438.2	635.0	577.9	533.4	39.6	1.6	16–31.8	630	1980	645
20	457.2	489.0	698.5	635.0	584.2	43.0	1.6	20–31.8	630	2230	780
24	508.0	590.6	812.8	749.3	692.2	47.8	1.6	20–35.1	710	2600	1150

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Gear, RF

SUN-CA1F-GO-3



NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.47 150 SERIES 'A'

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

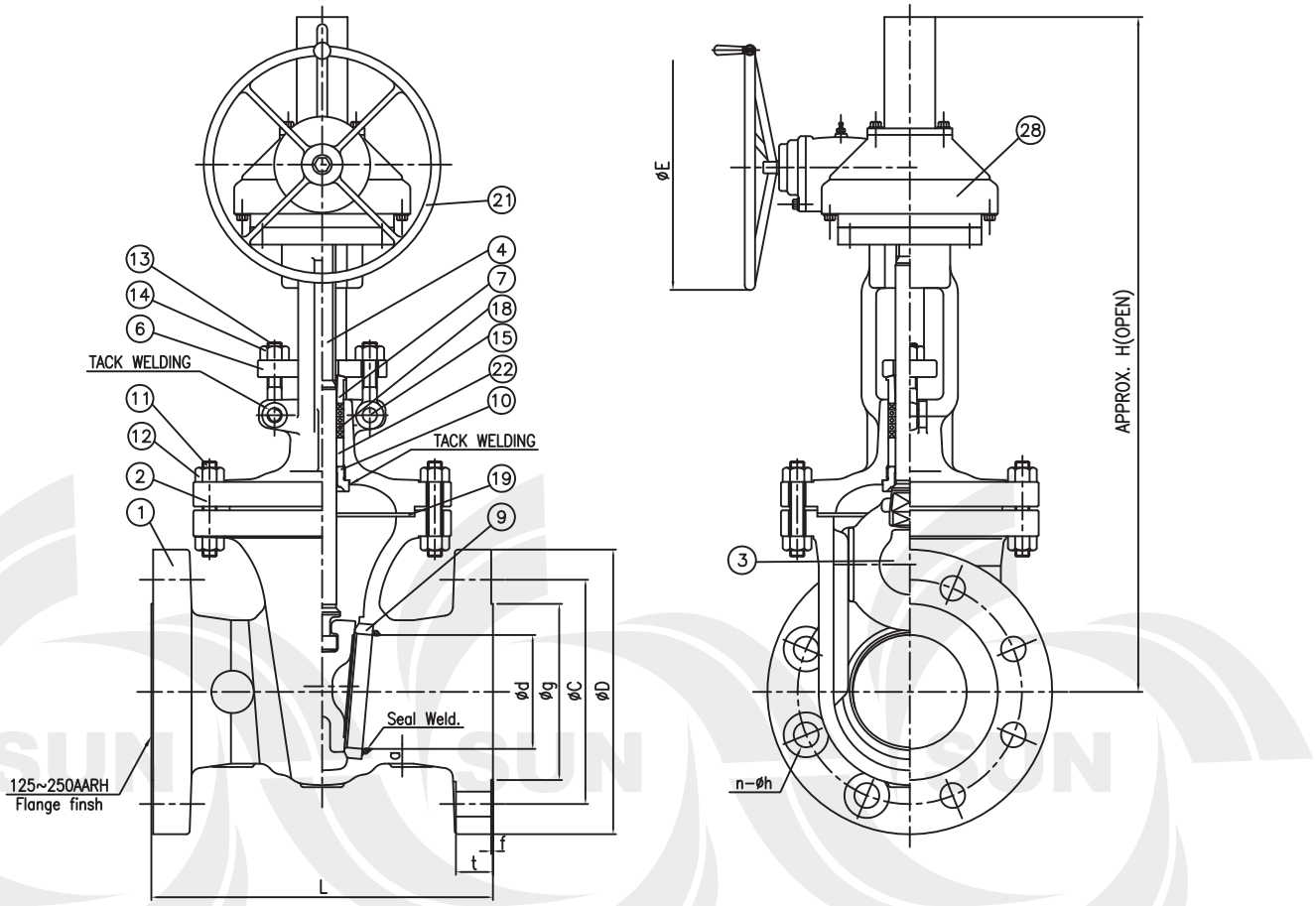
SIZE	L	d	FLANGE						E	WEIGHT (kg)	H
			D	C	g	t	f	n–h			
26	558.8	641.4	870.0	806.5	749.3	68.3	1.6	24–35.1	800	1552	2970
28	609.6	692.2	927.1	863.6	800.1	71.4	1.6	28–35.1	800	2067	3120
30	609.6	743.0	984.3	914.4	857.3	74.7	1.6	28–35.1	900	2200	3340
32	660.0	781.0	1061	977.9	914.4	81.1	1.6	28–41.2	900	2615	3650
36	711.2	819.2	1168	1085.9	1022.4	90.4	1.6	32–41.2	900	2903	4055
38	762.0	927.0	1238.3	1149.4	1073.2	87.4	1.6	32–41.2	900	4330	3985
42	830.0	1066	1404	1314.5	1244.6	101.6	1.6	40–41.2	900	4900	4470
48	863.6	1168	1512	1422.4	1358.9	108.0	1.6	44–41.2	1000	6875	5000
54	1016.0	1315.0	1682.8	1593.9	1511.3	120.7	1.6	44–47.8	1000	9265	5705

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	GRAPHITE+316
22	HANDWHEEL	A536
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Gear, RF

SUN-GA3F-GO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. 8" & LARGER : A283-D

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

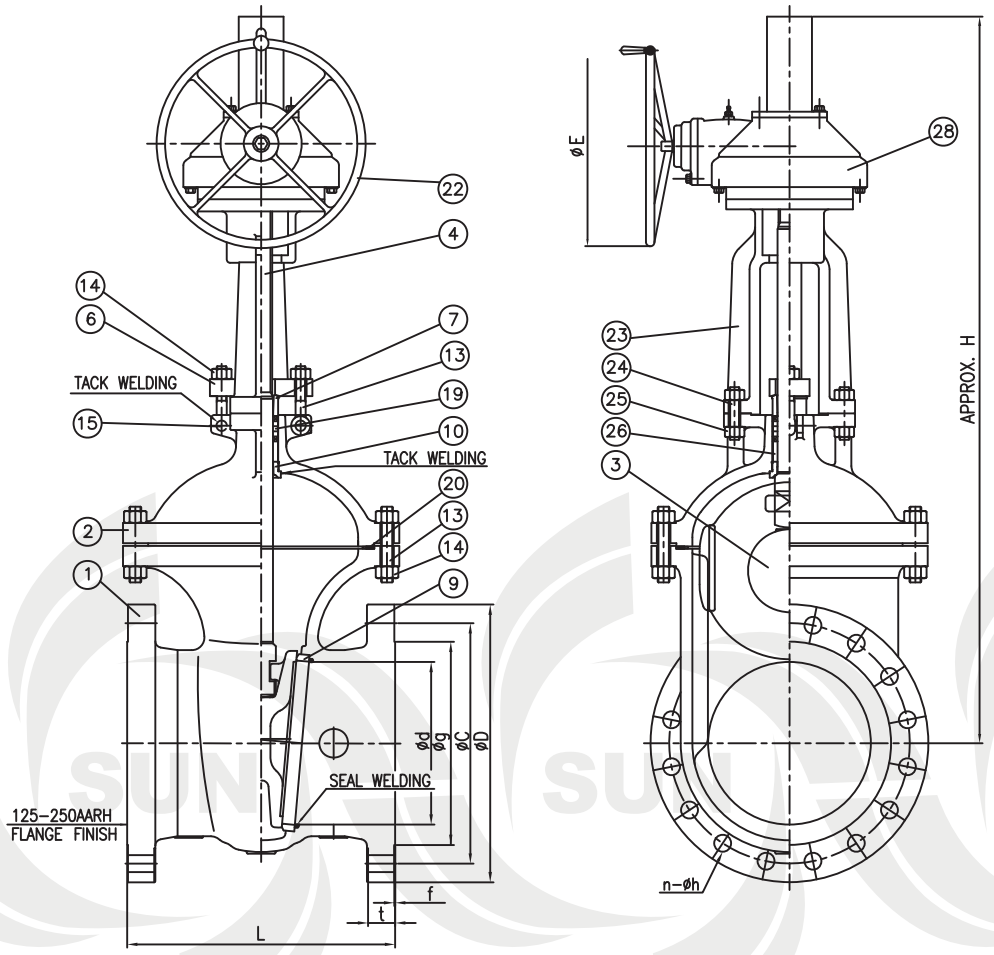
SIZE	L	d	FLANGE						E	a (min)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	215.9	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	200	9.7	365	23
3	282.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	11.9	465	41
4	304.8	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	250	12.7	555	61
6	403.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	355	16.0	770	123
8	419.1	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	400	17.5	955	200
10	457.0	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	450	19.1	1171	291

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A217-CA15
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+304+304
21	HANDWHEEL	A536
22	BACKUP RING	A479-316L
28	GEAR BOX	A53

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Gear, RF

SUN-GA3F-GO-2



NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

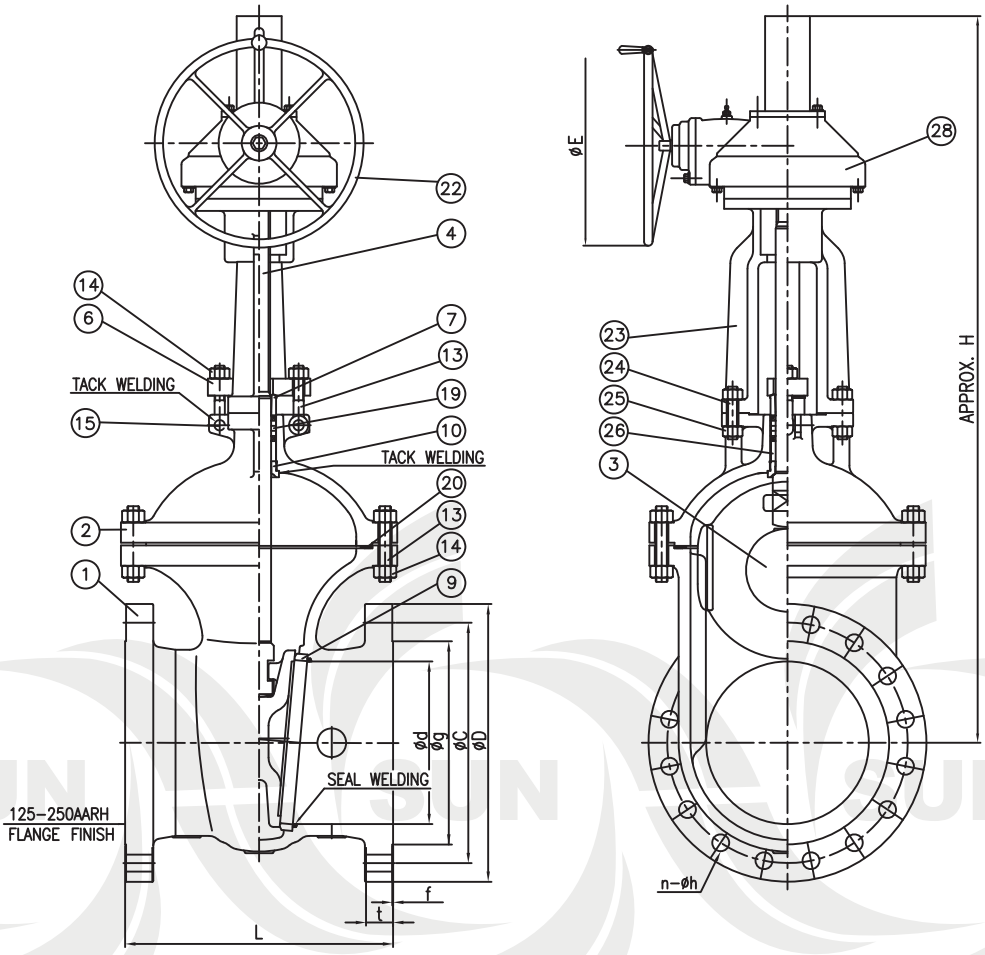
SIZE	L	d	FLANGE						E	WEIGHT (kg)	H
			D	C	g	t	f	n–h			
12	501.7	304.8	520.7	450.9	381.0	50.8	1.6	16–31.8	350	435	1480
14	762.0	336.6	584.2	514.4	412.8	53.9	1.6	20–31.8	500	682	1690
16	838.2	387.4	647.7	571.5	469.9	57.2	1.6	20–35.1	500	920	1800
18	914.4	431.8	711.2	628.7	533.4	60.5	1.6	24–35.1	630	1187	2000
20	990.6	482.6	774.7	685.8	584.2	63.5	1.6	24–35.1	630	1611	2200
24	1143.0	584.2	914.4	812.8	692.2	69.9	1.6	24–41.2	710	2470	2570

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
22	HANDWHEEL	A53
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
26	BACKUP RING	A479-316L
28	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Gear, RF

SUN-GA3F-GO-3



NOTE

1. WALL THICKNESS : ASME B16.34 + 6.4mm(min) CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.47 SERIES 'A' CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

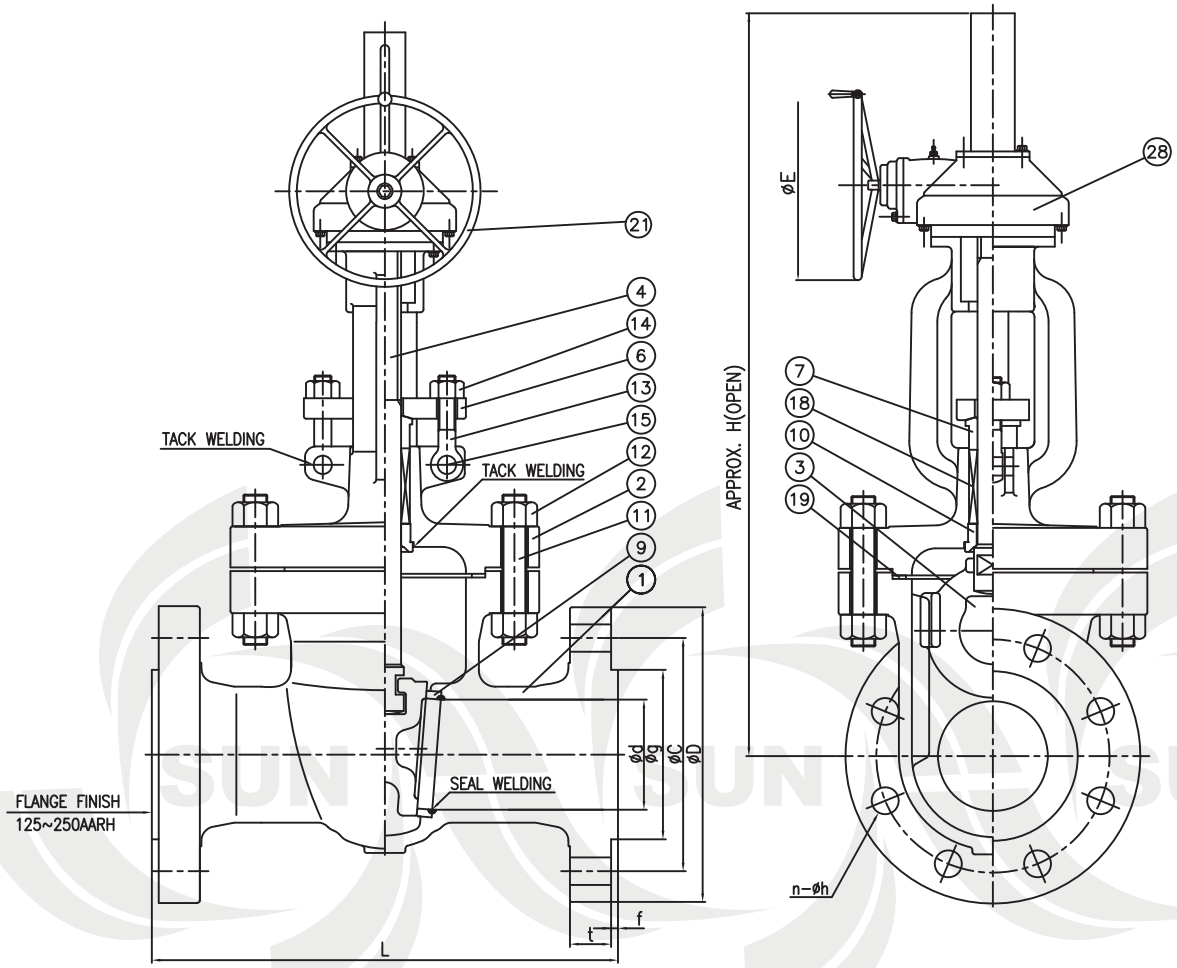
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-øh			
26	1244.6	635.0	971.6	876.3	749.3	79.2	1.6	28-44.5	800	2775	2900
28	1346.2	686.0	1035.1	939.8	800.1	85.9	1.6	28-44.5	800	3092	3555
30	1397.0	736.6	1092.2	997.0	857.3	92.0	1.6	28-47.8	900	3253	4245
32	1524.0	781.0	1150.0	1054.1	914.0	98.5	1.6	28-50.8	900	3382	4790
34	1625.6	838.2	1206.5	1104.9	965.2	101.6	1.6	28-50.8	900	3950	5500
36	1727.2	889.0	1270.0	1168.4	1022.4	104.7	1.6	32-53.9	900	4205	6850
42	1981.0	1020.0	1289.1	1206.5	1136.7	119.1	1.6	32-44.5	1000	4325	9265

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
22	HANDWHEEL	A53
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
26	BACKUP RING	A479-316L
28	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

SUN-GA6F-GO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ANSI B16.5
4. 8" & LARGER : A216-WCB+13Cr

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1650

UNIT : mm

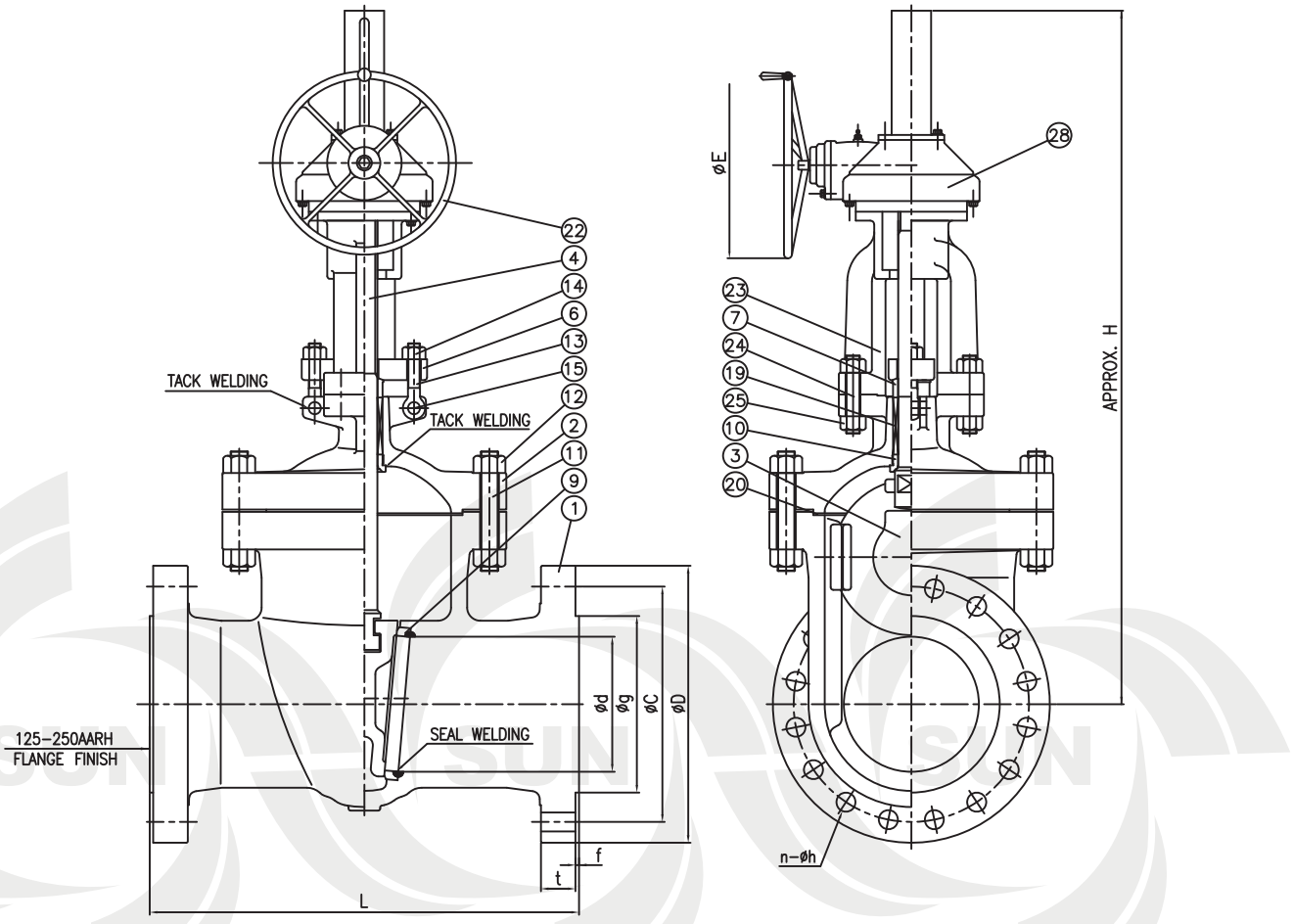
SIZE	L	d	FLANGE						E	WEIGHT (kg)	H
			D	C	g	t	f	n-h			
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	500	245	980
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	500	374	1140

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+316+316
21	HANDWHEEL	A53
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

SUN-GA6F-GO-2



NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

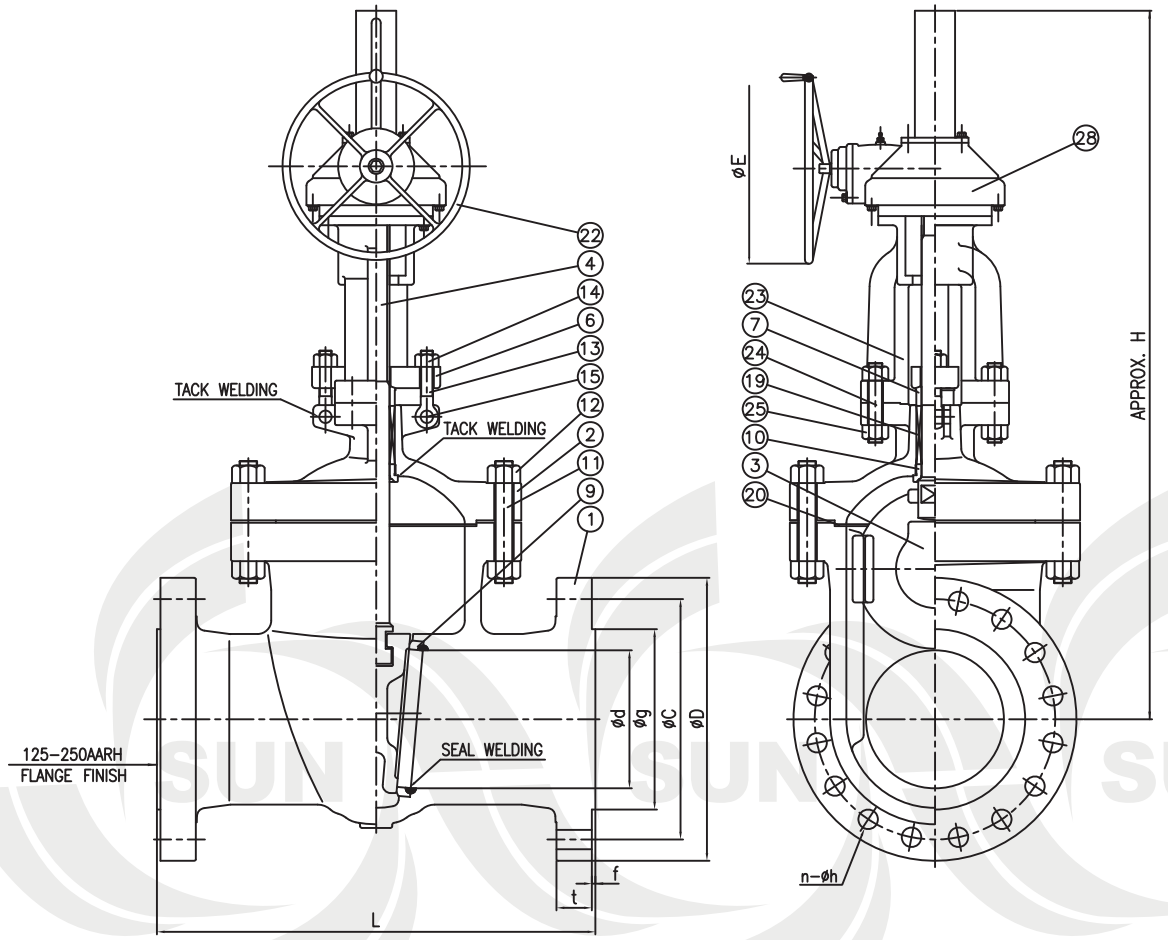
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16–35.1	500	1430	628
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20–35.1	630	1580	900
14	889.0	326.9	603.3	527.1	412.8	69.9	6.4	20–38.1	630	1705	1206
16	990.6	374.7	685.8	603.3	469.9	76.2	6.4	20–41.3	710	1915	1410
18	1092.9	419.1	743.0	654.1	533.4	82.6	6.4	20–44.5	710	2070	2218
20	1193.8	463.6	812.8	723.9	584.2	88.9	6.4	24–44.5	800	2120	2811
24	1397.0	558.8	939.8	838.2	692.2	101.6	6.4	24–50.8	900	2710	3626

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
22	HANDWHEEL	A53
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
28	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

SUN-GA6F-GO-3



NOTE

1. WALL THICKNESS : ASME B16.34+6.4mm(Min) CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
   40" FACE TO FACE DIMENSIONS : Manufacture Standard
3. END FLANGE DIMENSIONS : ASME B16.47 SERIES "A" CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

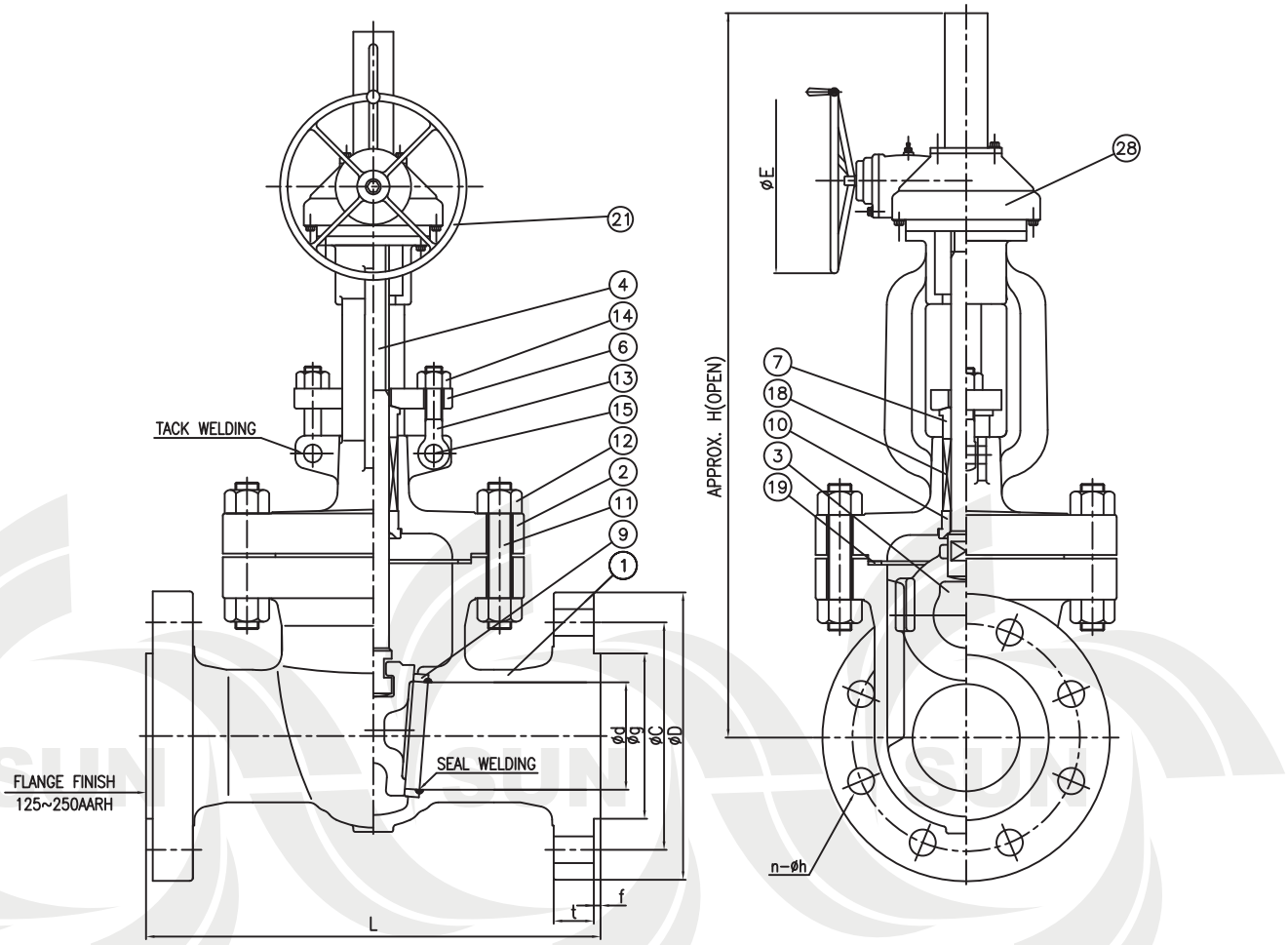
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
26	1447.8	603.3	1016.0	914.4	749.3	108.0	6.4	28–50.8	800	3010	4437
28	1549.4	647.7	1073.2	965.2	800.1	111.3	6.4	28–53.9	900	3310	5870
30	1651.0	695.2	1130.3	1022.4	857.3	114.3	6.4	28–53.9	710	3285	6787
36	2083	838	1315	1193.8	1022	123.9	6.4	28–66.7	800	3848	9503
40	2286	925	1320.8	1212.8	1111	158.8	6.4	32–60.3	900	4331	14500
42	2438	978	1405	1282.7	1168	168.3	6.4	28–66.7	1000	4271	14500
48	2540	1130	1595	1460.5	1334	189.0	6.4	32–73.0	1000	4886	21500

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+304+304
21	BACKUP RING	A479-316L
22	HANDWHEEL	A53
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, RF

SUN-GA9F-GO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

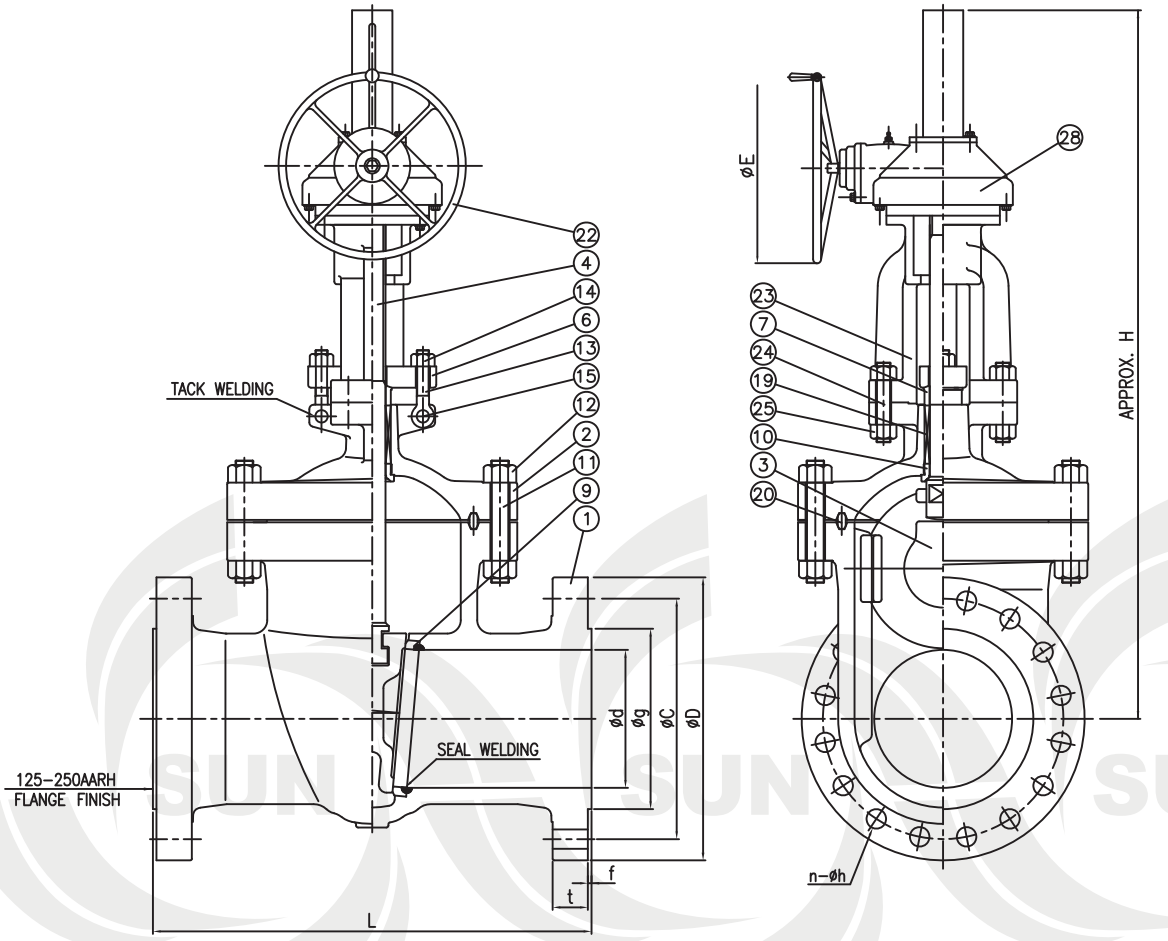
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
4	457.2	98.3	292.1	235.0	180.9	44.5	6.4	8-31.8	350	690	139
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12-31.8	500	960	352
8	736.6	190.5	469.9	393.7	269.9	63.5	6.4	12-38.1	500	1300	606
10	838.2	238.0	546.1	469.9	323.9	69.9	6.4	16-38.1	630	1463	1185

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
21	HANDWHEEL	A53
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, RF

SUN-GA9F-GO-2



NOTE

1. WALL THICKNESS : API 600 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

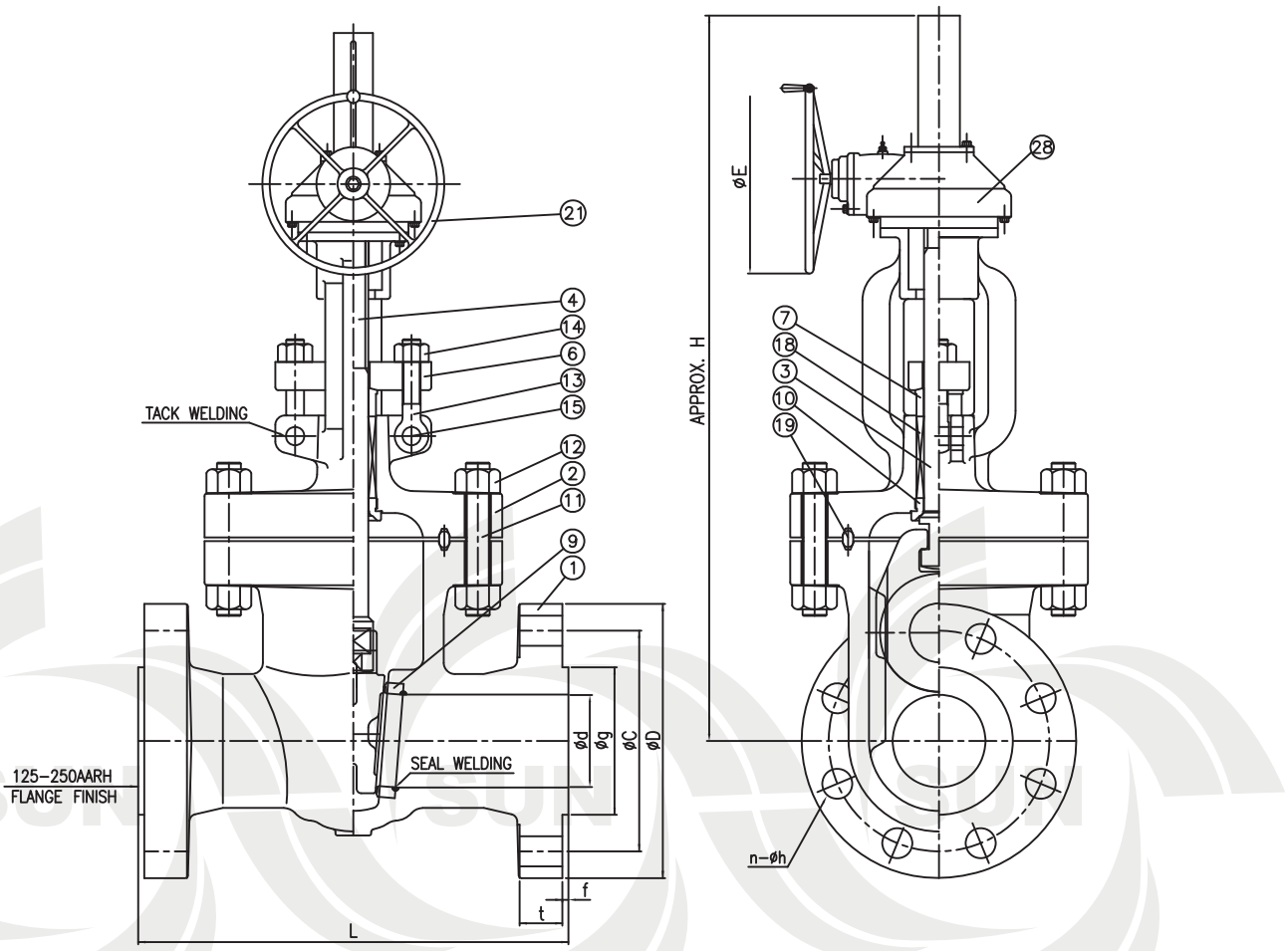
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
12	965.2	282.4	609.6	533.4	381.0	79.2	6.4	20–38.1	710	1600	1446
14	1028.7	311.1	641.3	558.8	412.8	85.9	6.4	20–41.1	710	1750	1700
16	1130.3	355.6	704.8	616.0	469.9	88.9	6.4	20–44.4	800	2051	2300
18	1219.2	400.1	787.4	685.8	533.4	101.6	6.4	20–50.8	900	2255	3865
20	1320.8	444.5	857.3	749.3	584.2	108.0	6.4	20–53.9	900	2800	4855
24	1549.4	533.4	1041.4	901.7	692.2	139.7	6.4	20–66.7	1000	3150	7305

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SOFT IRON
22	HANDWHEEL	A53
23	YOKE	A216-WCB
24	YOKE BOLT	A193-B7
25	YOKE BOLT NUT	A194-2H
28	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Gear, RF

SUN-GA15F-GO-1



NOTE

1. WALL THICKNESS : API 600 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4080

UNIT : mm

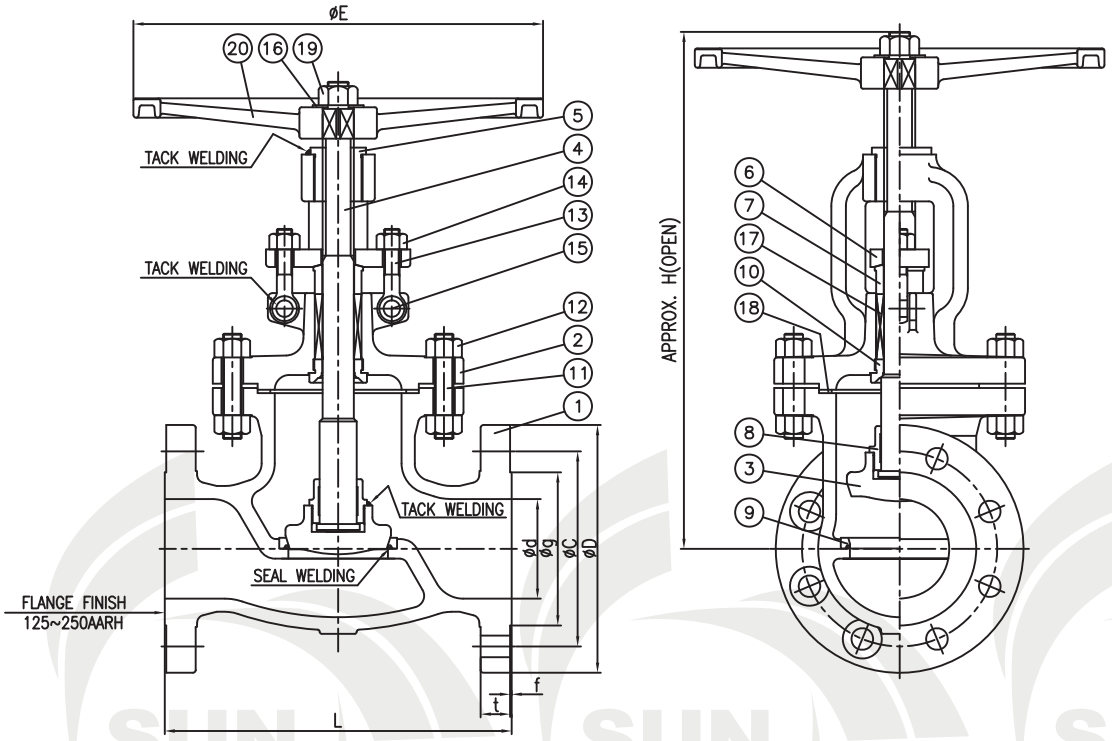
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.3	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	200	580	81
3	469.9	69.9	266.7	203.2	127.0	47.8	6.4	8-31.8	350	684	142
4	546.1	92.0	311.0	241.3	157.2	53.9	6.4	8-34.9	400	774	240
6	704.9	136.4	394.0	317.5	215.9	82.6	6.4	12-38.1	630	1150	505
8	831.9	177.8	482.6	393.7	269.7	91.9	6.4	12-44.5	630	1545	1440
10	990.6	222.2	584.2	482.6	323.9	108.0	6.4	12-50.8	710	1600	2000

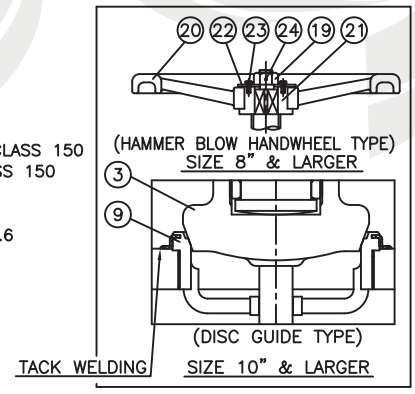
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	YOKE CAP	A576-1020
9	SEAT RING	A105+ST'L No.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SOFT IRON
21	HANDWHEEL	A53
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GL1F-HO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. SIZE 8" AND LARGER : A216-WCB+13Cr
   SIZE 4" AND SMALLER : A479-410
5. SIZE 10" AND LARGER : A216-WCB+ST'L NO.6

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

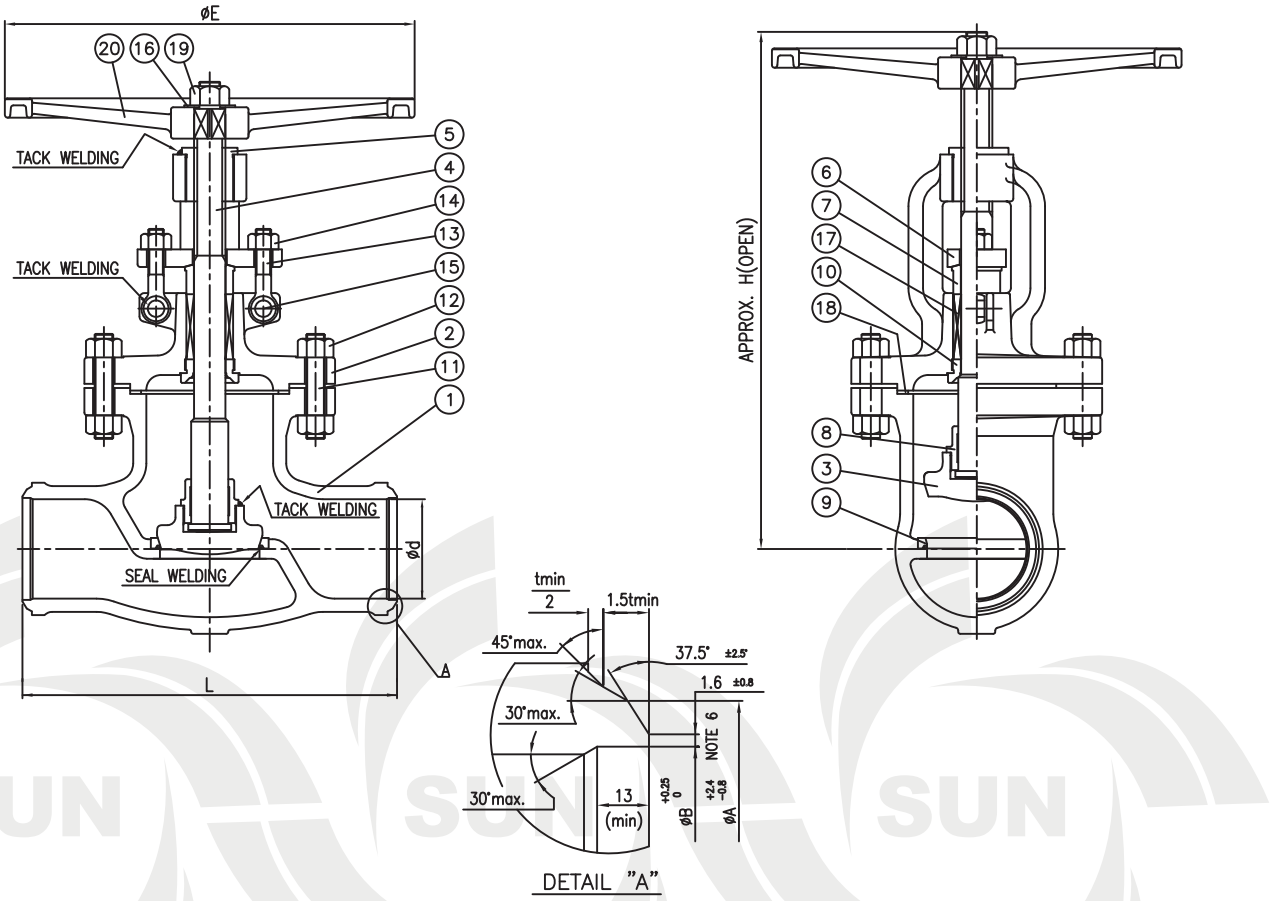
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	203.2	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	200	273	25
2-1/2	215.9	63.5	177.8	139.7	104.7	17.5	1.6	4-19.1	250	314	28
3	241.3	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	250	343	34
4	292.1	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	300	368	52
6	406.4	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	450	486	95
8	495.3	203.2	342.9	298.5	269.7	27.5	1.6	8-22.4	450	565	168
10	622.3	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	450	637	242
12	698.5	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	610	695	404

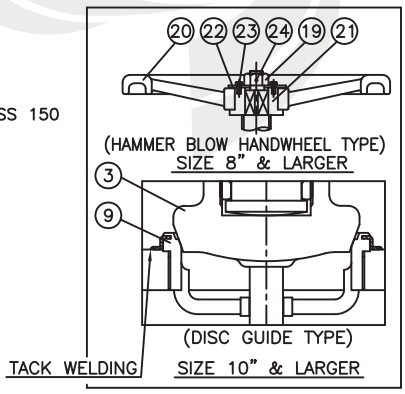
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, BW

SUN-GL1W-HO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 150
2. END TO END DIMENSIONS : ASME B16.10 CLASS 150
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. SIZE 8" AND LARGER : A216-WCB+13Cr
   SIZE 4" AND SMALLER : A479-410
5. 10" AND LARGER : A216-WCB+ST'L NO.6
6. 6" AND LARGER : +4.0

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

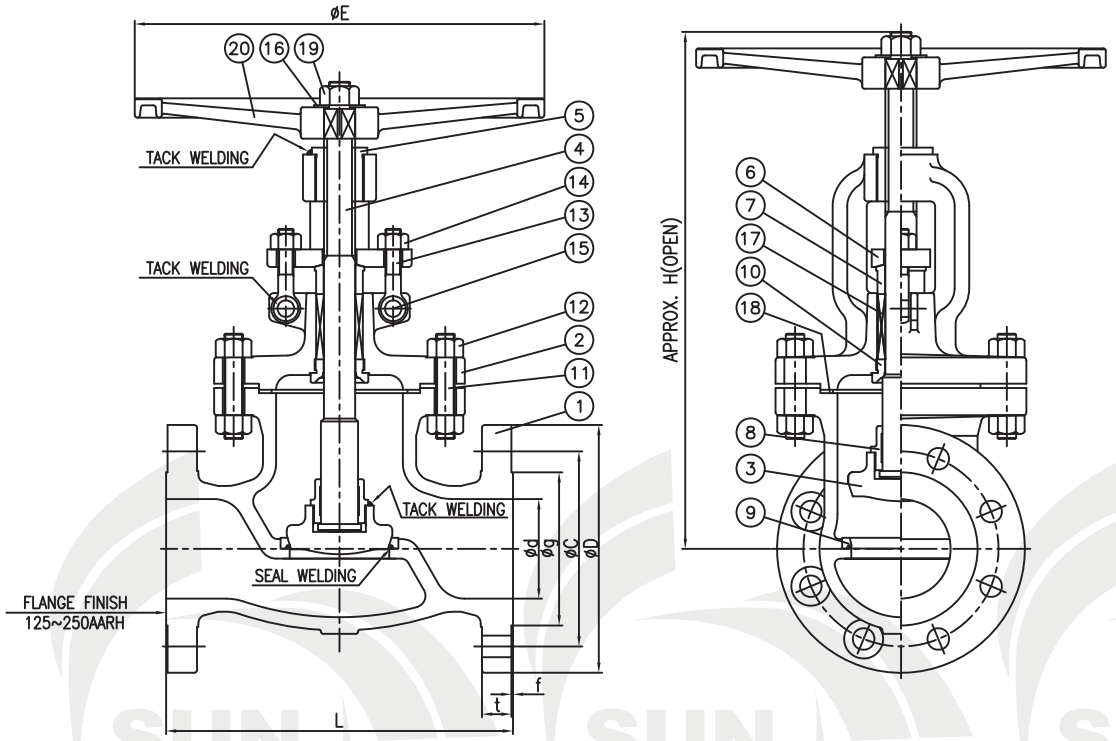
UNIT : mm

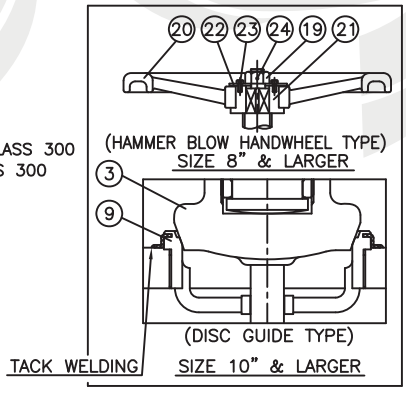
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	203.2	50.8	60.3	52.5	3.91	STD.	200	273	15
2-1/2	215.9	63.5	75.0	63.0	5.15	STD.	250	314	30
3	241.3	76.2	91.0	78.0	5.5	STD.	250	343	32
4	292.1	101.6	117	102	6.0	STD.	300	368	41
6	406.4	152.4	172	154	7.1	STD.	450	486	83
8	495.3	203.2	223	203	8.2	STD.	450	565	150
10	622.3	254.0	278	255	9.25	STD.	450	637	225
12	698.5	304.8	329	305	9.55	STD.	610	695	330

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GL3F-HO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. SIZE 8" AND LARGER : A216-WCB+13Cr
   SIZE 4" AND SMALLER : A479-410
5. 10" & LARGER : A216-WCB+ST'L NO.6

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

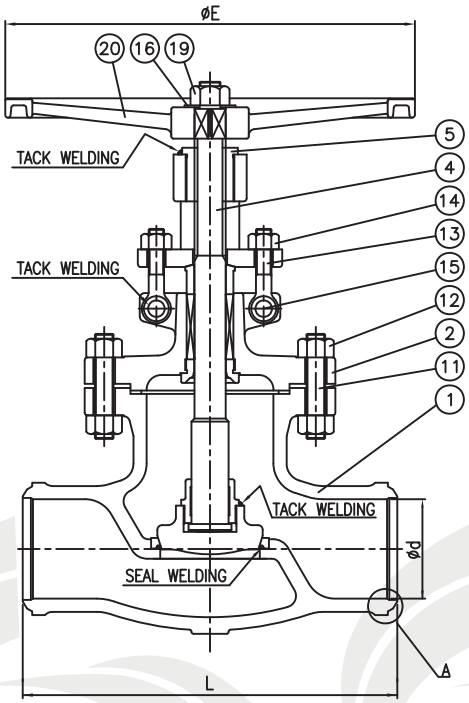
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	266.7	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	200	329	30
2-1/2	292.1	63.5	190.5	149.4	104.7	25.4	1.6	8-22.4	250	354	40
3	317.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	383	53
4	355.6	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	300	443	80
6	444.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	450	567	168
8	558.8	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	450	615	248
10	622.3	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	610	676	456
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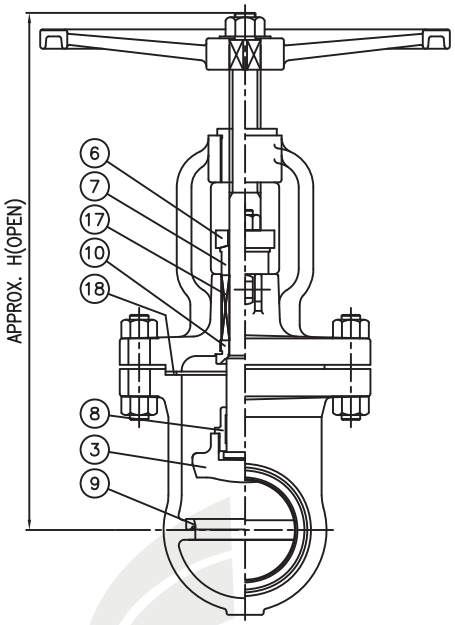
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020

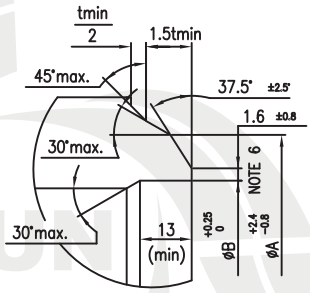
Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, BW

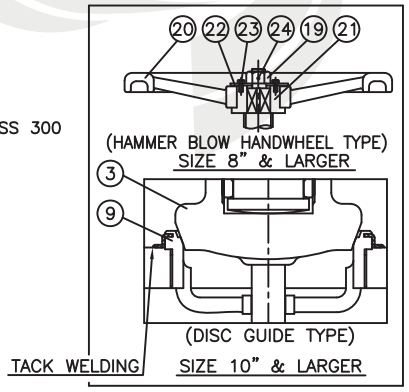
SUN-GL3W-HO-1







DETAIL "A"



NOTE

1. WALL THICKNESS : BS 1873 CLASS 300
2. END TO END DIMENSIONS : ASME B16.10 CLASS 300
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. SIZE 8" AND LARGER : A216-WCB+13Cr
   SIZE 4" AND SMALLER : A479-410
5. 10" & LARGER : A216-WCB+STL NO.6
6. 6" AND LARGER : +4.0

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

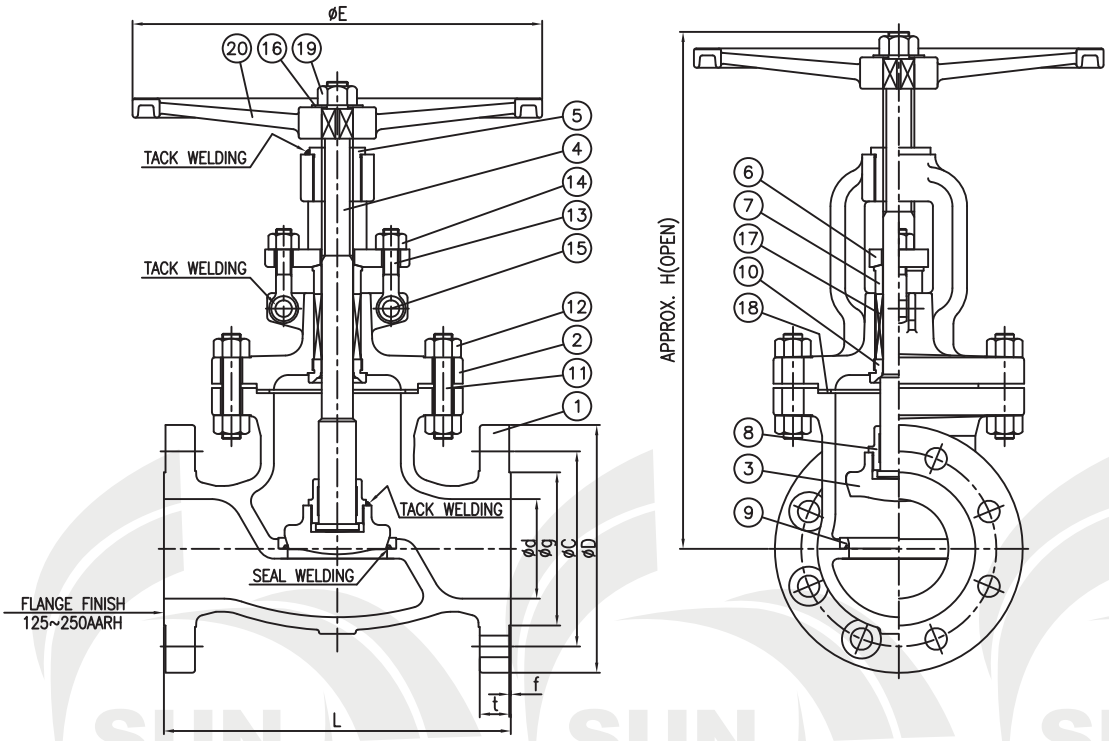
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	266.7	50.8	60.3	52.5	3.91	STD.	200	329	30
2-1/2	292.1	63.5	75.0	63.0	5.15	STD.	250	354	30
3	317.5	76.2	91.0	78.0	5.5	STD.	250	383	48
4	355.6	101.6	117	102	6.0	STD.	300	443	88
6	444.4	152.4	172	154	7.1	STD.	350	567	149
8	558.8	203.2	223	203	8.2	STD.	450	615	200
10	622.3	254.0	278	255	9.25	STD.	610	676	440
12	711.2	304.8	329	305	9.55	STD.	610	740	906

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GL6F-HO-1

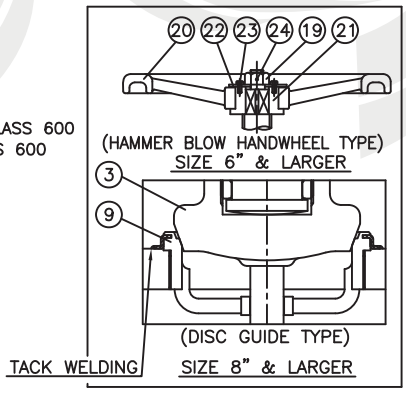


NOTE

1. WALL THICKNESS : BS 1873 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. SIZE 8" AND LARGER : A216–WCB+13Cr
   6" : A217–CA15
5. SIZE 8" AND LARGER : A216–WCB+ST'L NO.6

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630



UNIT : mm

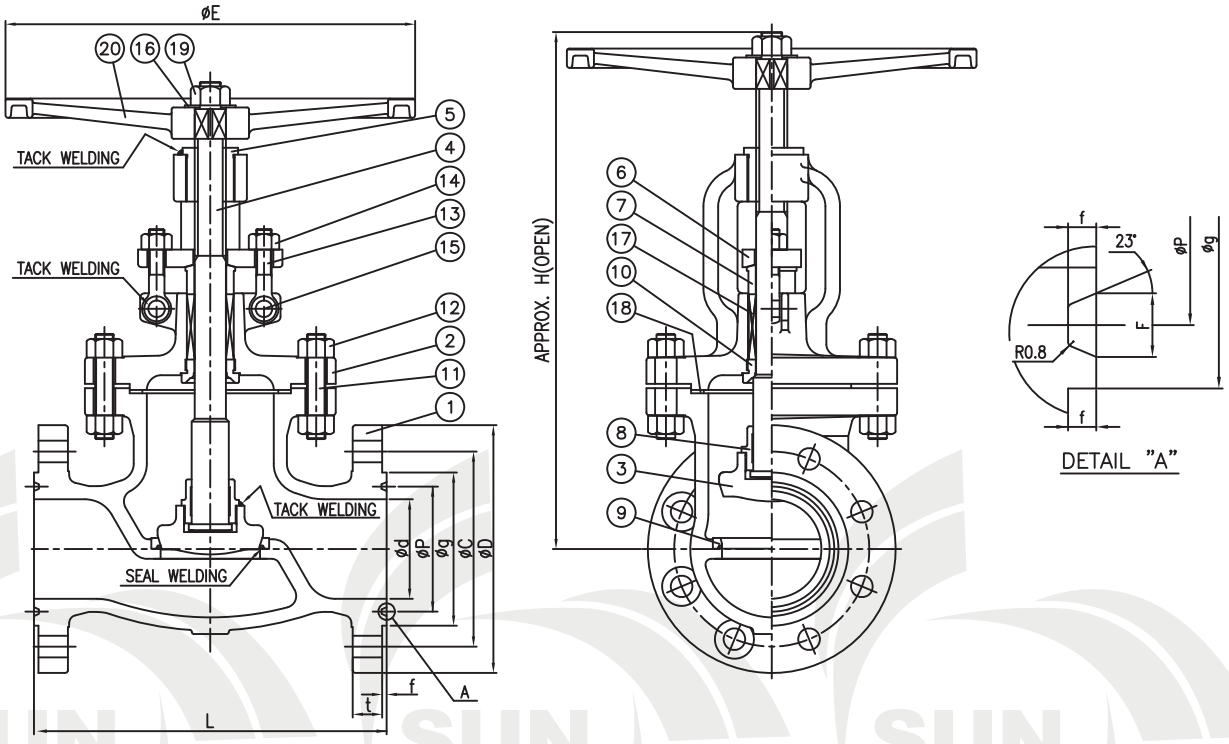
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8–19.1	250	394	37
2–1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8–22.4	300	450	47
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8–22.4	350	520	62
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8–25.4	350	609	95.5
5	508.0	127.0	330.2	266.7	185.7	44.5	6.4	8–28.5	450	680	
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12–28.5	450	750	238
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12–31.8	610	815	363
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16–35.1	610	885	683
12	838.2	298.5	558.8	489.0	381.0	66.5	6.4	20–35.1	610	955	900

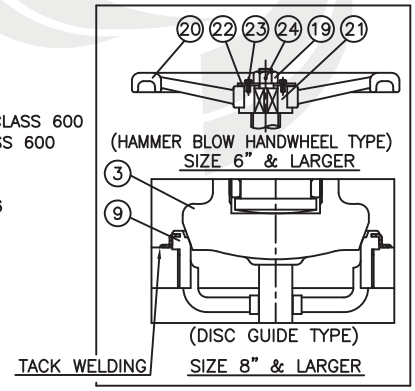
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A479-410
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A576-1020
23	BOLT	A307-B
24	SPLIT PIN	A576-1020

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RTJ

SUN-GL6J-HO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. SIZE 8" AND LARGER : A216-WCB+13Cr
   6" : A217-CA15
5. SIZE 8" AND LARGER : A216-WCB+ST'L NO.6

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

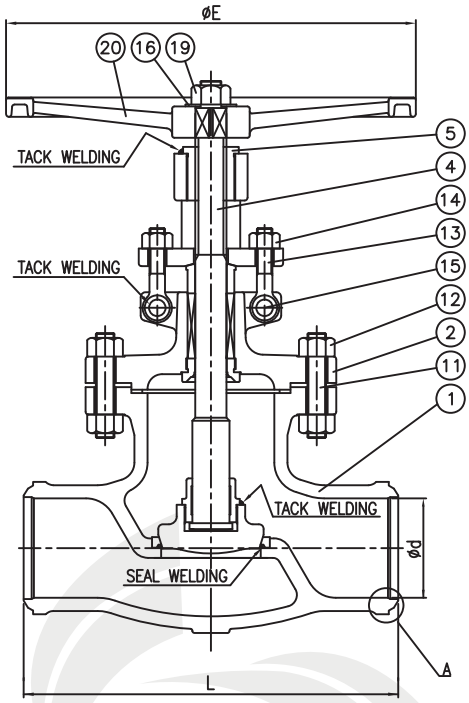
SIZE	L	d	FLANGE									E	H	WEIGHT (kg)
			D	C	g	P	F	t	f	n-h	Ring No.			
2	295.2	50.8	165.1	127.0	108.0	82.6	11.9	25.4	7.9	8-19.1	R23	250	394	37
2-1/2	333.3	63.5	190.5	149.4	127.0	101.6	11.9	28.5	7.9	8-22.4	R26	300	450	47
3	358.7	76.2	209.6	168.1	146.1	123.8	11.9	31.8	7.9	8-22.4	R31	350	520	62
4	434.9	101.6	273.1	215.9	174.8	149.2	11.9	38.1	7.9	8-25.4	R37	350	609	95.5
5	511.1	127.0	330.2	266.7	209.6	181.0	11.9	44.5	7.9	8-28.5		450	680	
6	561.9	152.4	355.6	292.1	241.3	211.1	11.9	47.8	7.9	12-28.5	R45	450	750	238
8	663.5	199.9	419.1	349.3	301.8	269.9	11.9	55.6	7.9	12-31.8	R49	610	815	363
10	790.5	247.7	508.0	431.8	355.6	323.9	11.9	63.5	7.9	16-35.1	R53	610	885	683
12	841.3	298.5	558.8	489.0	412.8	381.0	11.9	66.5	7.9	20-35.1	R57	610	955	900

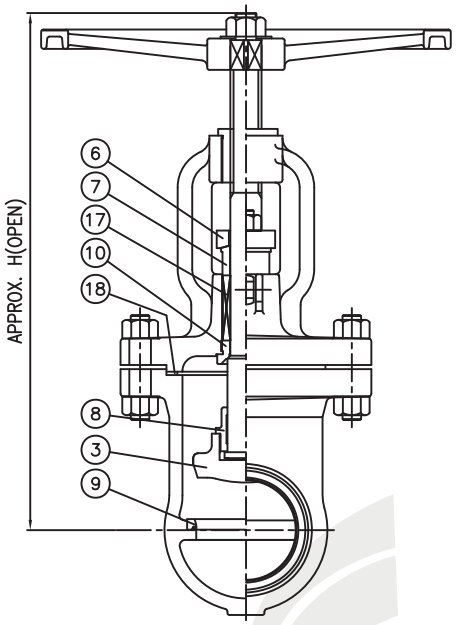
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A479-410
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020

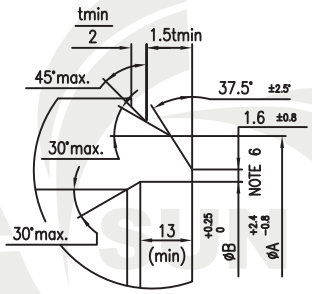
Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, BW

SUN-GL6W-HO-1





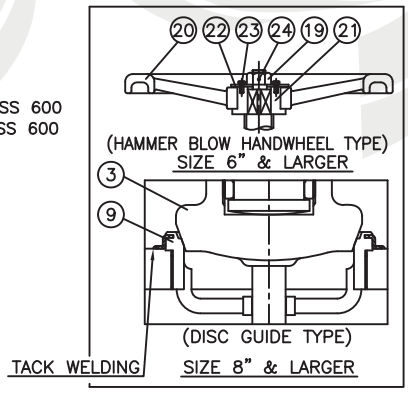


NOTE

1. WALL THICKNESS : BS 1873 CLASS 600
2. END TO END DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 600
4. SIZE 8" AND LARGER : A216-WCB+13Cr
   6" : A217-CA15
5. SIZE 8" AND LARGER : A216-WCB+ST'L NO.6
6. 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630



UNIT : mm

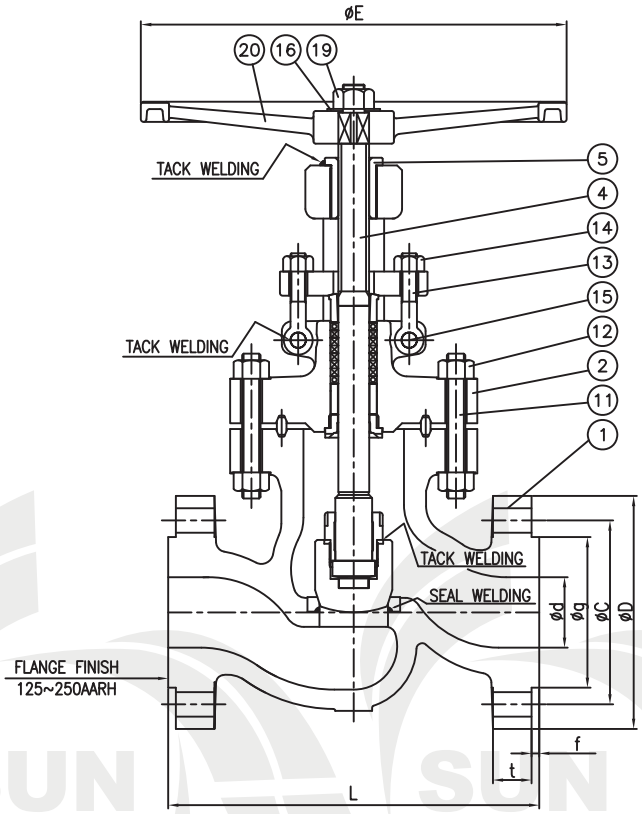
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	292.1	50.8	60.3	52.5	3.91	STD.	250	394	33
2-1/2	330.2	63.5	75.0	63.0	5.15	STD.	300	450	55
3	355.6	76.2	91.0	78.0	5.5	STD.	350	520	60
4	431.8	101.6	117	102	6.0	STD.	350	609	98
5	508.0	127.0	144	128	6.55	STD.	450	680	
6	558.8	152.4	172	154	7.1	STD.	450	750	206
8	660.4	199.9	223	203	8.2	STD.	610	815	510
10	787.4	247.7	278	255	9.25	STD.	610	885	792
12	838.2	298.5	329	305	9.55	STD.	610	955	1480

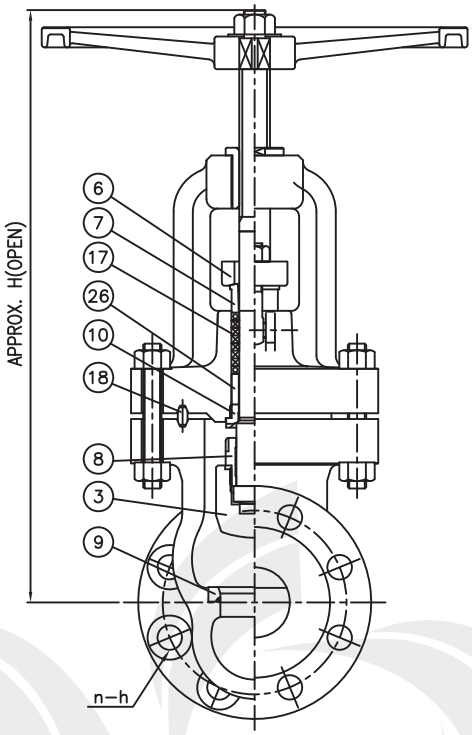
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A479-410
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A576-1020
23	BOLT	A307-B
24	SPLIT PIN	A576-1020

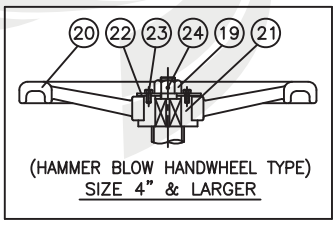
Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, RF

SUN-GL9F-HO-1







NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
26	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : BS 1873 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

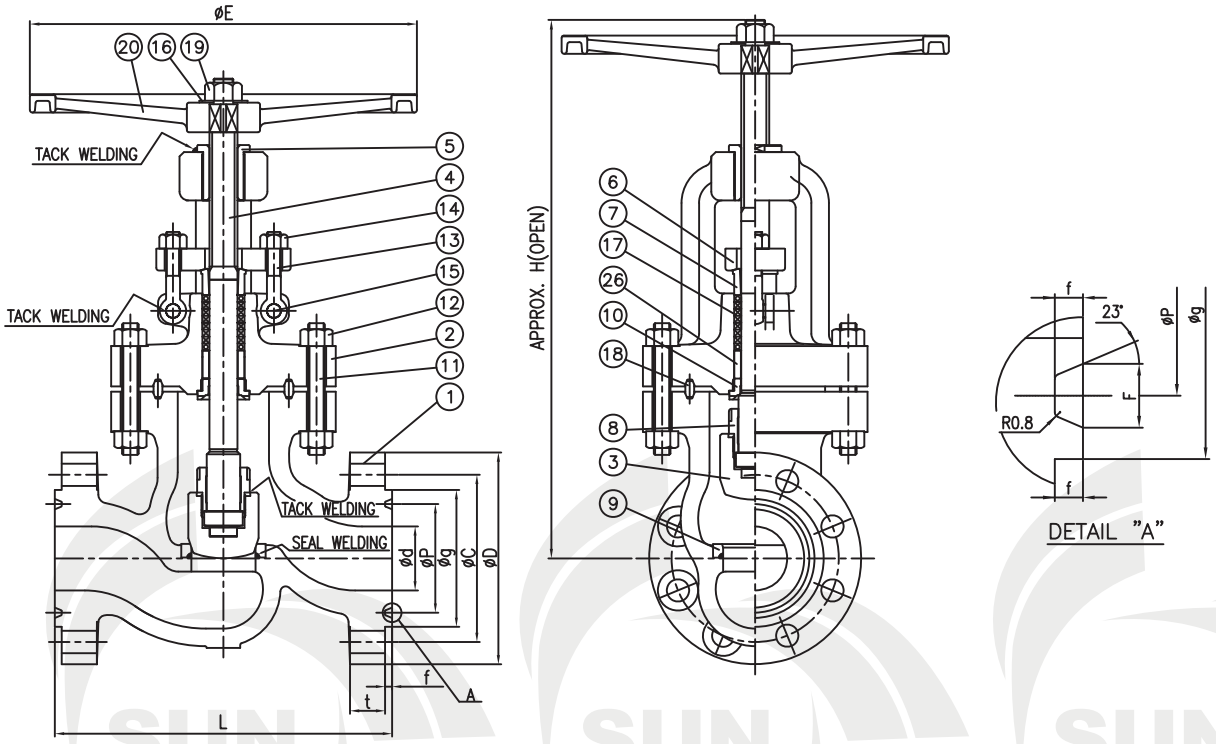
UNIT : mm

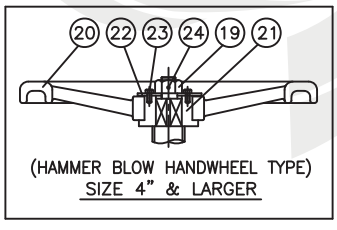
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.3	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	350	450	97
3	381.0	73.0	241.3	190.5	127.0	38.1	6.4	8-25.4	450	535	177
4	457.2	98.3	292.1	235.0	157.2	44.5	6.4	8-31.8	450	623	200
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12-31.8	610	785	417
8	736.6	190.5	469.9	393.7	269.7	63.5	6.4	12-38.1	610	860	526

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, RTJ

SUN-GL9J-HO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

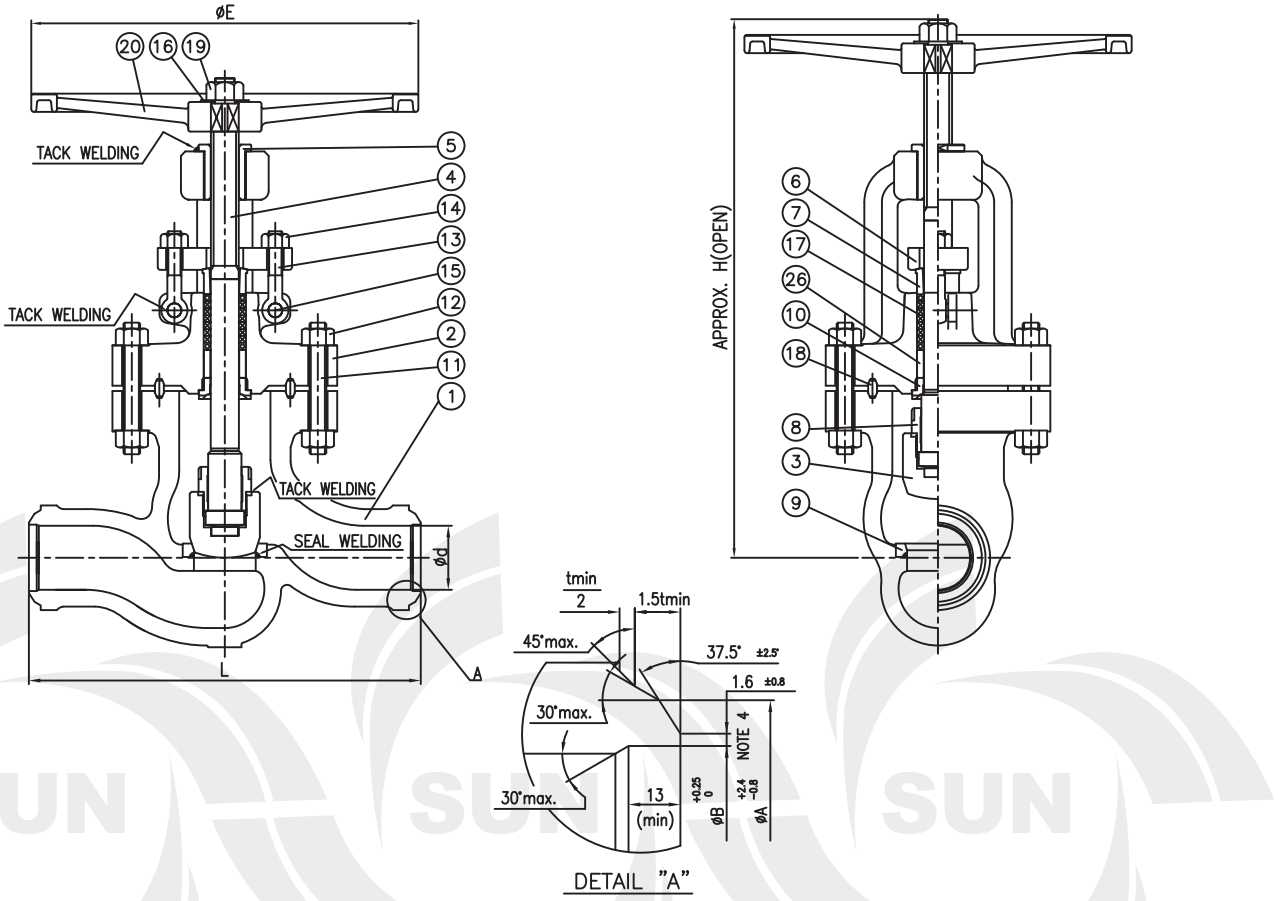
SIZE	L	d	FLANGE									E	H	WEIGHT (kg)
			D	C	g	P	F	t	f	n-h	Ring No.			
2	371.5	47.5	215.9	165.1	124.0	92.3	11.9	38.1	7.9	8-25.4	R24	200	450	97
3	384.0	72.9	241.3	190.5	155.4	123.8	11.9	38.1	7.9	8-25.4	R31	450	614	177
4	460.4	98.3	292.1	235.0	180.8	149.2	11.9	44.5	7.9	8-31.8	R37	450	961	200
6	612.8	146.1	381.0	317.5	241.3	211.1	11.9	55.7	7.9	12-31.8	R45	610	1088	417
8	739.8	190.5	469.9	393.7	307.8	269.9	11.9	63.5	7.9	12-38.1	E49	610	1265	526

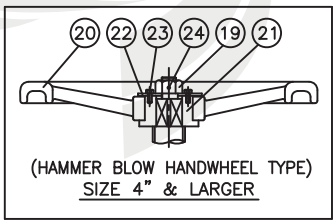
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
26	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, BW

SUN-GL9W-HO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 900
2. END TO END DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 900
4. 6" AND LARGER : +4.0

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

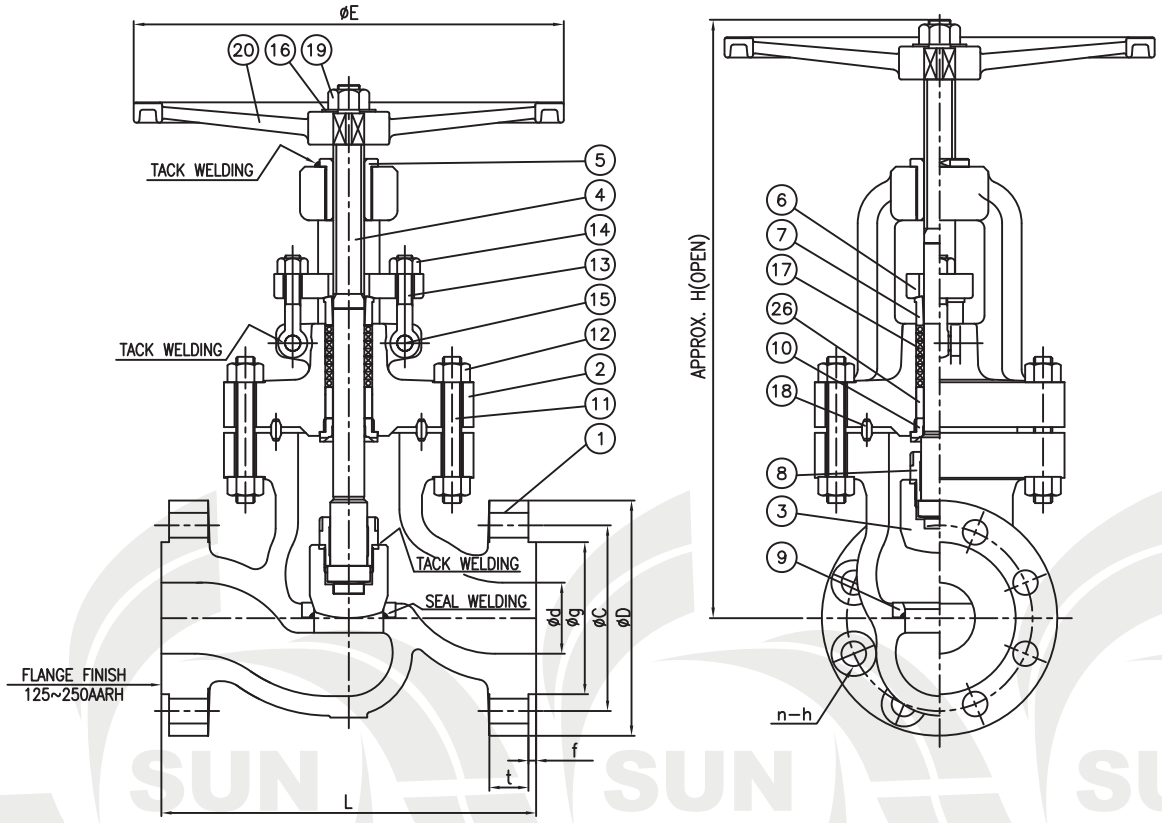
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	368.3	47.5	60.3	49.2	5.5	80	350	450	93
2-1/2	419.1	58.0	75.0	59.0	7.0	80	350	510	120
3	381.0	73.0	91.0	74.0	7.6	80	450	520	89
4	457.2	98.3	117	97.0	8.6	80	450	600	152
6	609.6	146.1	172	146.0	11.0	80	610	900	410
8	736.6	190.5	223	194.0	12.7	80	610	1200	1100

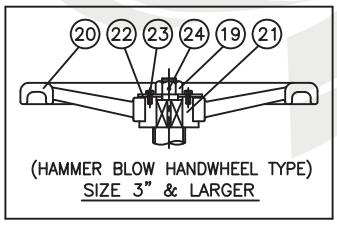
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	A307-B	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
26	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, RF

SUN-GL15F-HO-1





NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
26	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : BS 1873 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

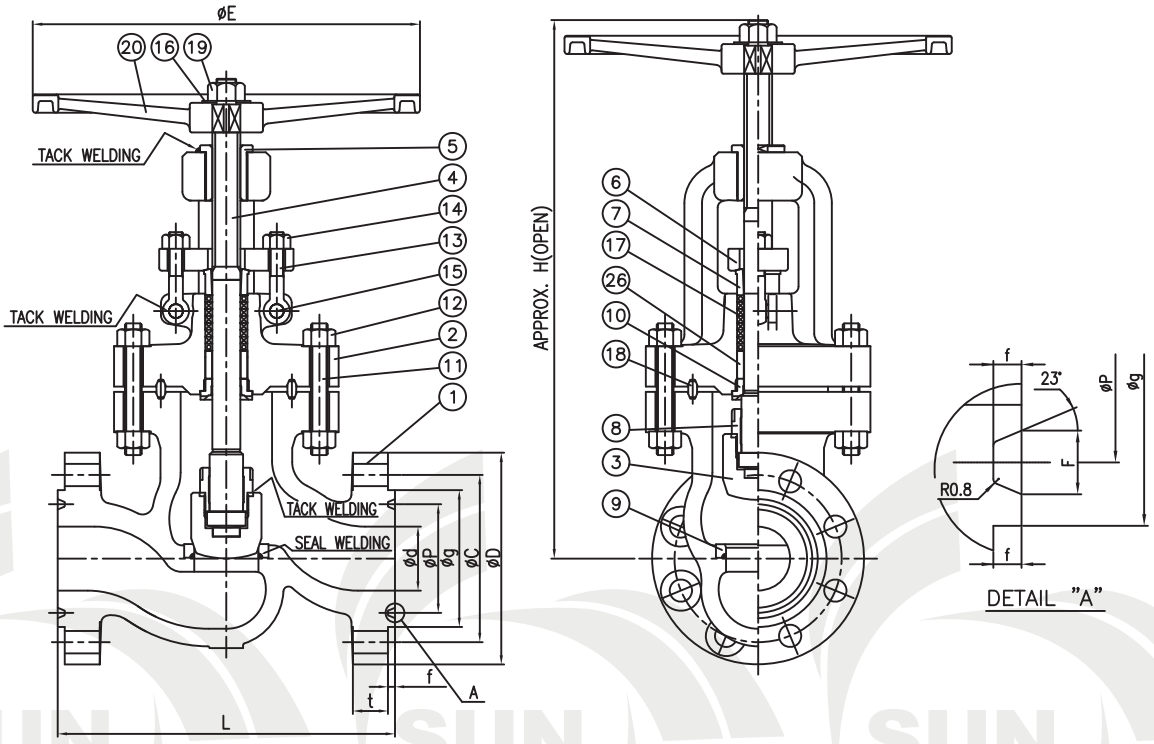
UNIT : mm

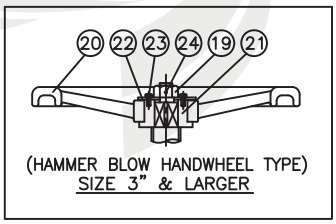
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.3	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	350	500	97
3	469.9	69.9	267.0	203.2	127.0	47.8	6.4	8-31.8	450	550	200
4	546.1	92.0	311.0	241.3	157.2	53.9	6.4	8-34.9	450	615	350

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, RTJ

SUN-GL15J-HO-1





NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
26	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : BS 1873 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

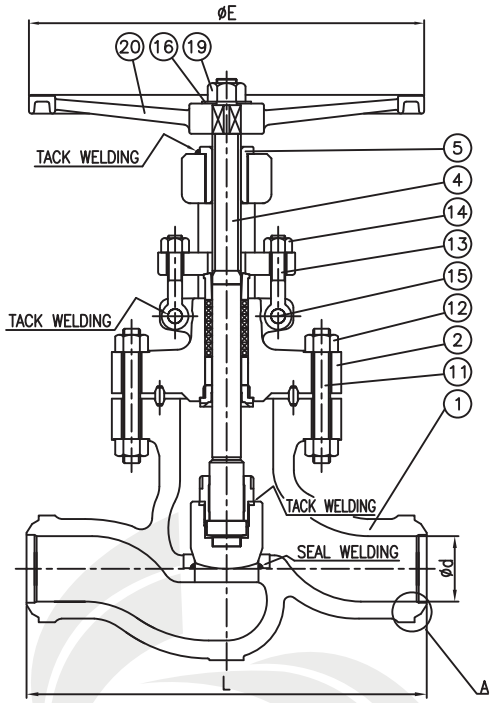
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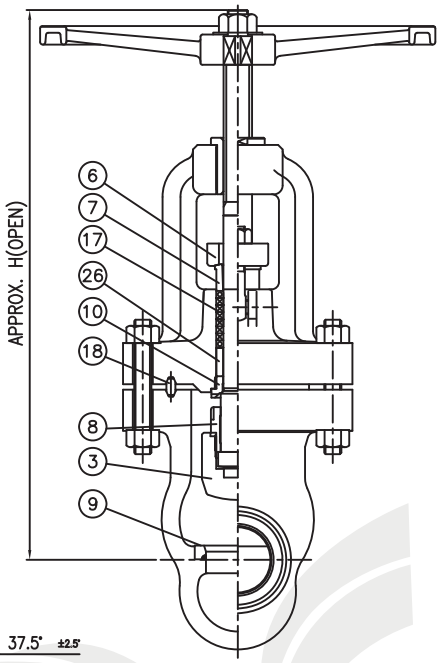
SIZE	L	d	FLANGE									E	H	WEIGHT (kg)
			D	C	g	P	F	t	f	n-h	Ring No.			
2	371.3	47.5	215.9	165.1	124.0	95.25	11.9	38.1	7.9	8-25.4	R24	350	500	81
3	472.9	69.9	266.7	203.2	168.2	136.5	11.9	47.8	7.9	8-31.8	R35	450	550	142
4	549.2	92.0	311.2	241.3	193.6	161.9	11.9	53.9	7.9	8-35.1	R39	450	615	240

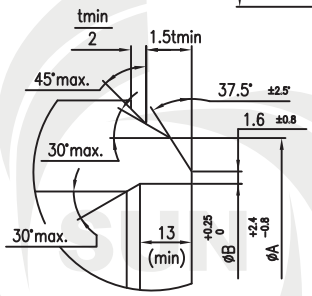
Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, BW

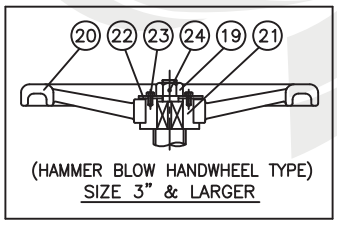
SUN-GL15W-HO-1







DETAIL "A"



(HAMMER BLOW HANDWHEEL TYPE)
SIZE 3" & LARGER

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
16	WASHER	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
19	HANDWHEEL NUT	A194-2H
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
26	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : BS 1873 CLASS 1500
2. END TO END DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

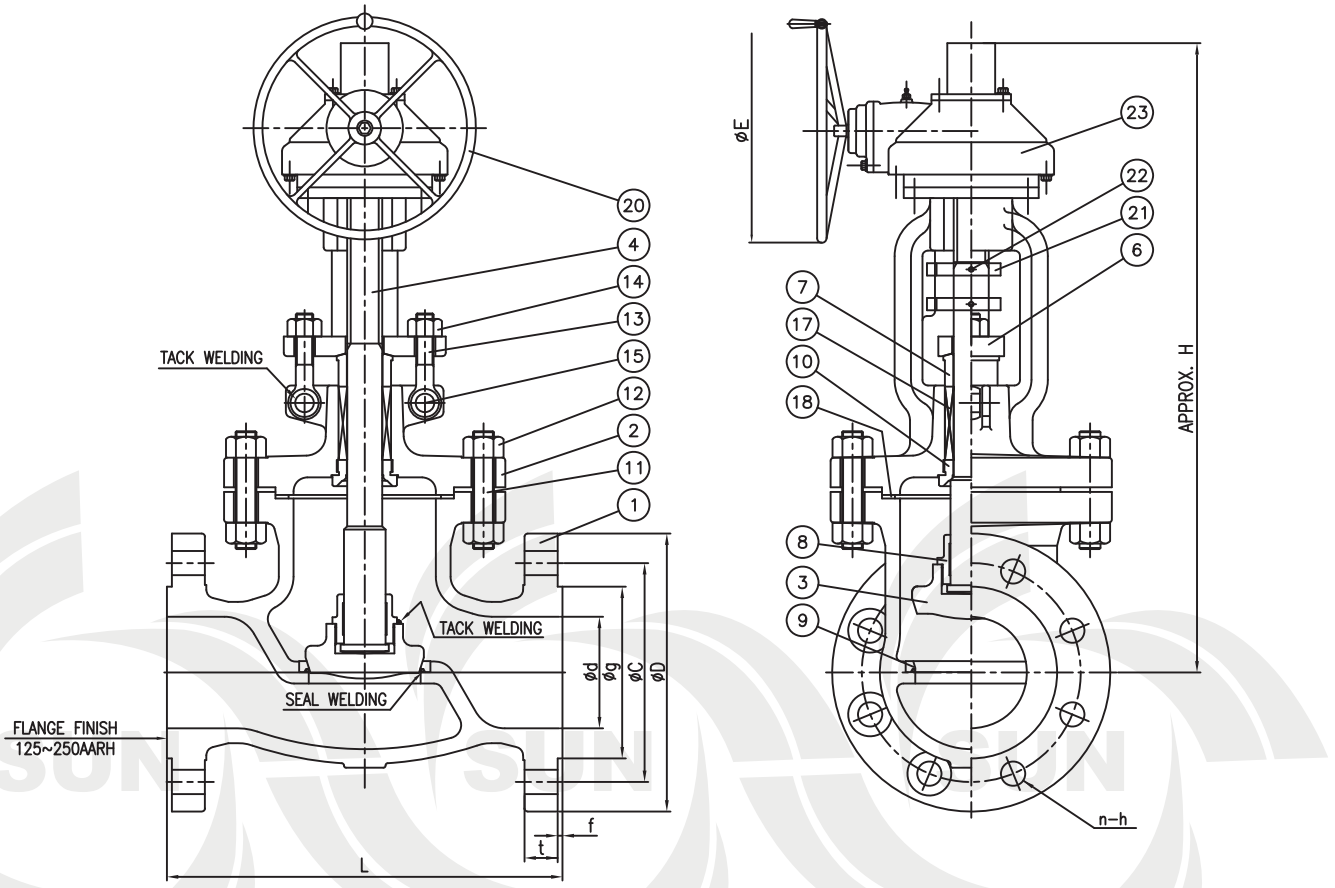
UNIT : mm

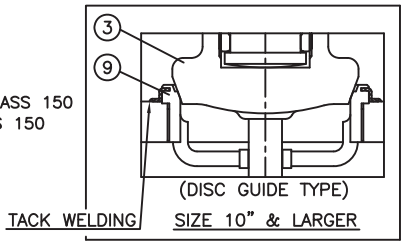
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	368.3	47.5	60.3	42.8	8.74	160	350	500	93
3	469.9	69.9	91.0	66.5	11.13	160	450	550	135
4	546.1	92.0	117	87.5	13.5	160	450	615	282

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Gear, RF

SUN-GL1F-GO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. 10" & LARGER : A216-WCB+ST'L NO.6

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

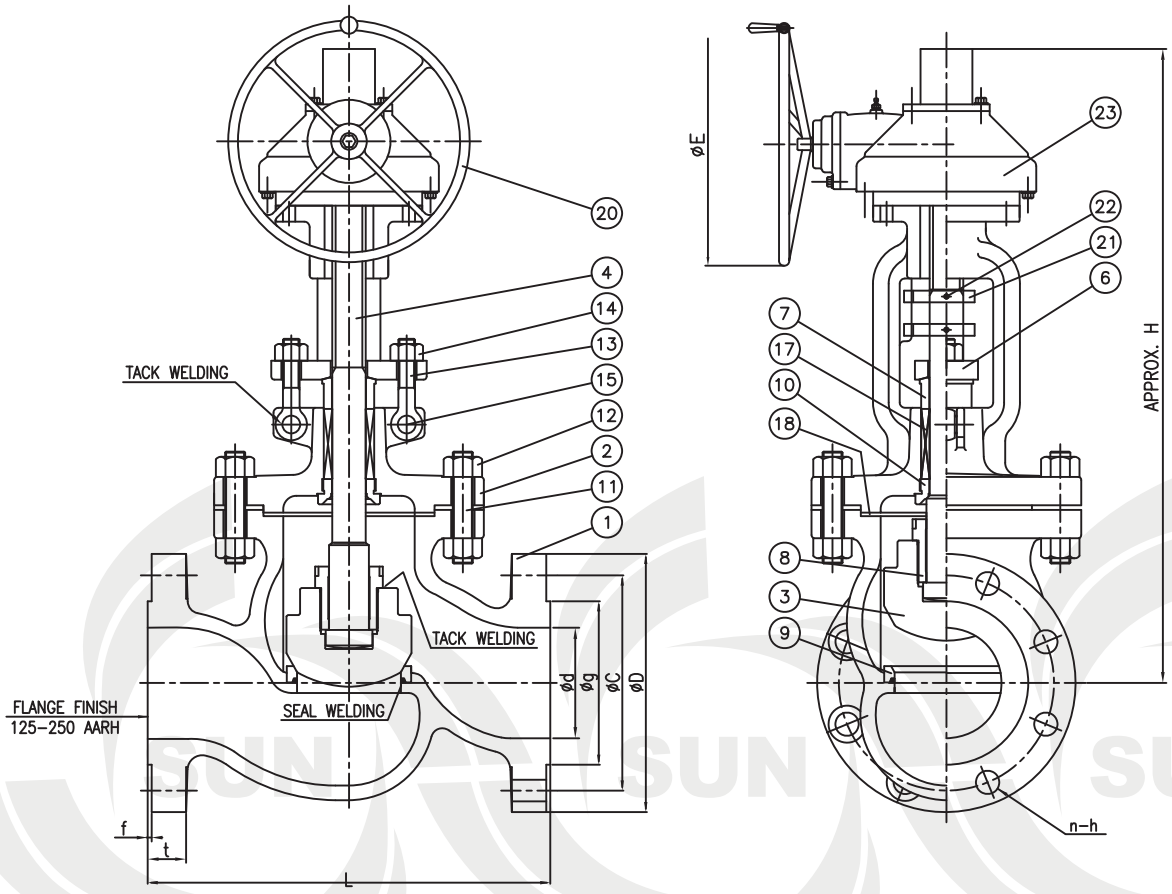
SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
8	495.3	203.2	342.9	298.5	269.7	27.5	1.6	8-22.4	610	500	168
10	622.3	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	767	500	242
12	698.5	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	883	630	404
14	787.4	336.6	533.4	476.3	412.8	35.1	1.6	12-28.6	1056	710	620

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL	A53
21	GUIDE PLATE	A576-1020
22	GUIDE PLATE BOLT	A307-B
23	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Gear, RF

SUN-GL15F-GO-2



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL	A53
21	GUIDE PLATE	A576-1020
22	GUIDE PLATE BOLT	A307-B
23	GEAR BOX.	A536

NOTE

1. WALL THICKNESS : BS 1873 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

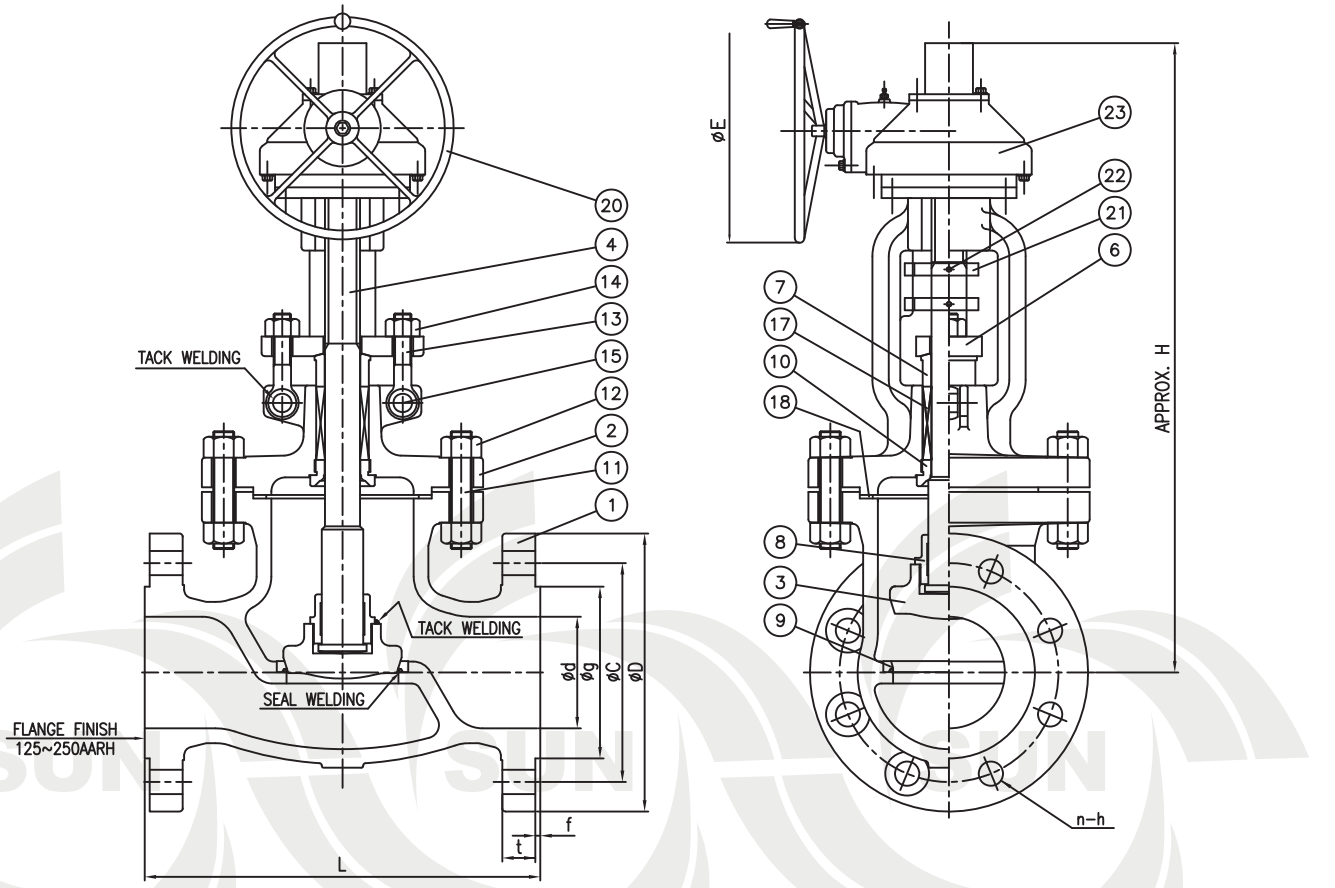
UNIT : mm

SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
16	914.4	387.4	596.9	539.8	469.9	36.6	1.6	16-28.6	710	1202	820

Remark : 1. The name plate shall be specified by purchaser as required.

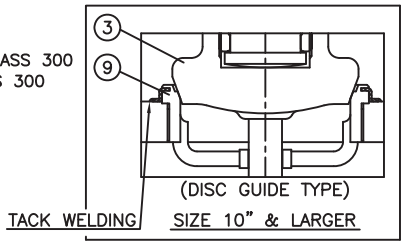
Class 300 Bolted Bonnet, Gear, RF

SUN-GL3F-GO-1



NOTE

1. WALL THICKNESS : BS 1873 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. 8" & LARGER : A216-WCB+13Cr
5. 10" & LARGER : A216-WCB+ST'L NO.6



Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

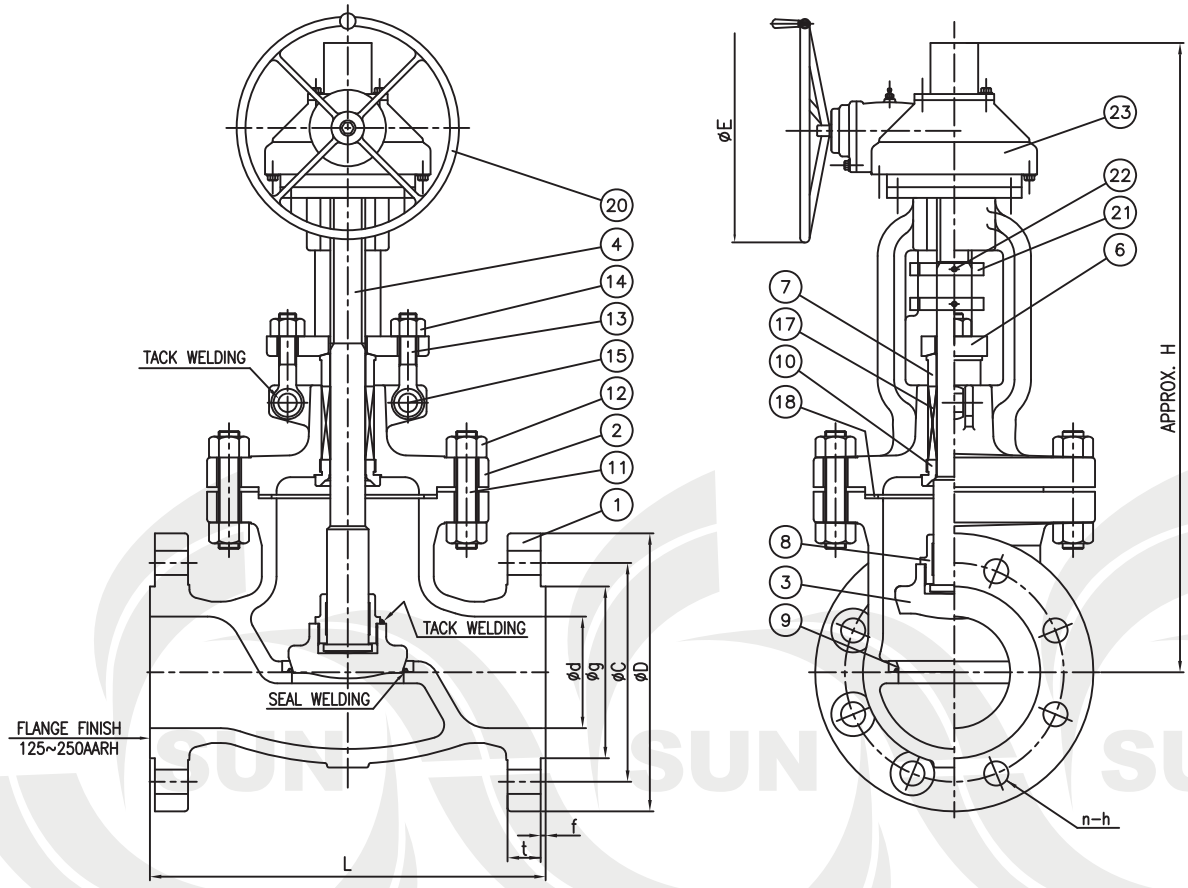
SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
6	444.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	565	500	168
8	558.8	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	695	630	248
10	622.3	254.0	444.5	387.4	323.9	47.8	1.6	16-28.6	828	630	456
12	711.2	304.8	520.7	450.9	381.0	50.8	1.6	16-31.8	879	710	608
16	863.6	387.4	647.7	571.5	469.9	57.2	1.6	20-34.9	1211	900	1700

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL	A53
21	GUIDE PLATE	A576-1020
22	GUIDE PLATE BOLT	A307-B
23	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

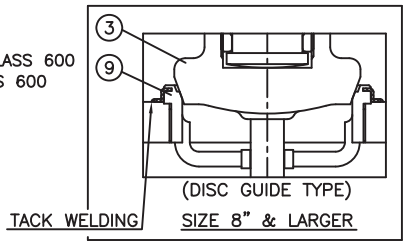
Class 600 Bolted Bonnet, Gear, RF

SUN-GL6F-GO-1



NOTE

1. WALL THICKNESS : BS 1873 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. 8" & LARGER : A216-WCB+13Cr
5. 8" & LARGER : A216-WCB+ST'L NO.6



Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

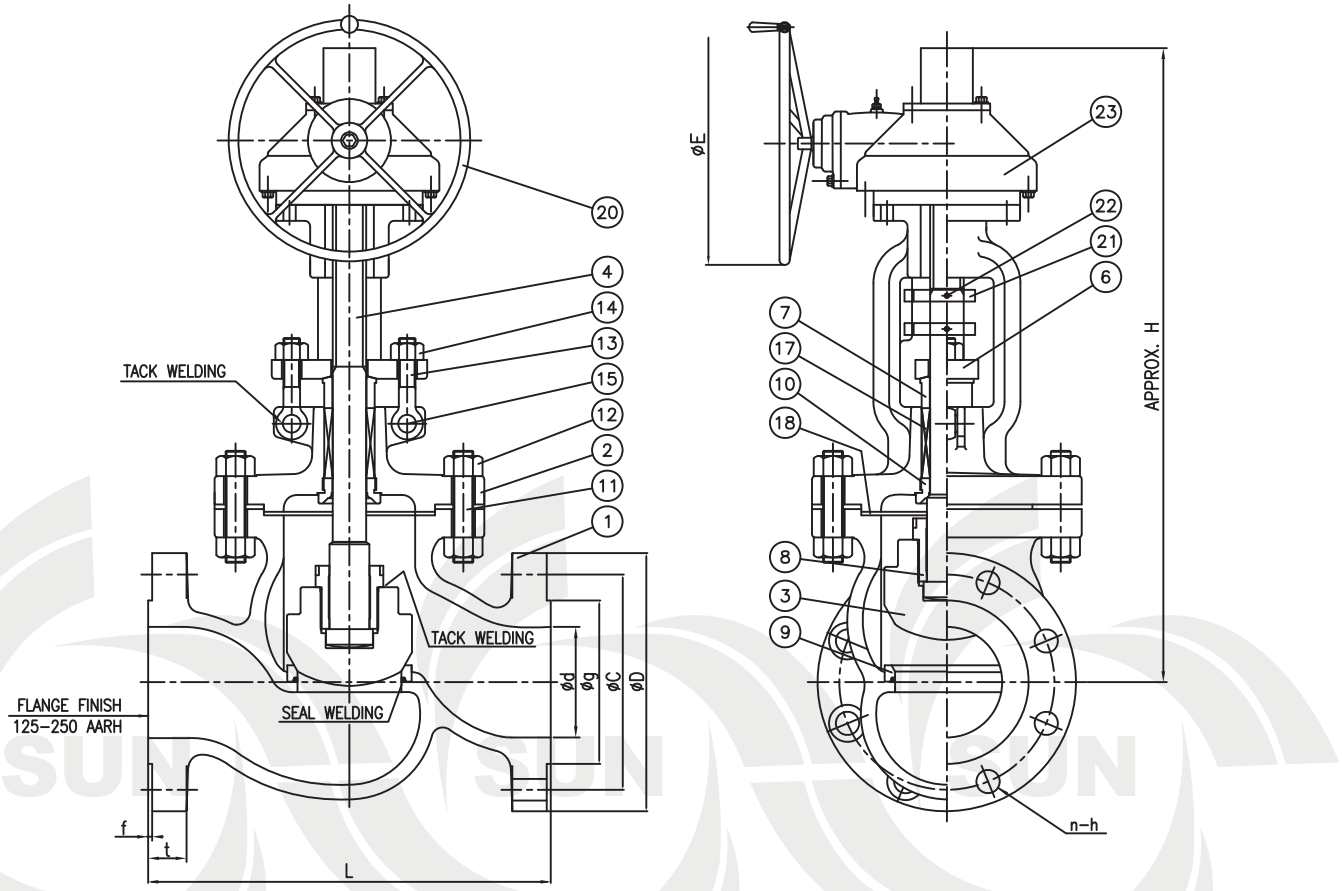
SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	724	630	238
8	660.4	199.9	419.1	349.3	269.7	55.7	6.4	12-31.8	883	710	363
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-34.9	1095	800	683
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20-34.9	1087	900	900

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A217-CA15
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A105+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+304+304
20	HANDWHEEL	A53
21	GUIDE PLATE	A576-1020
22	GUIDE PLATE BOLT	A307-B
23	GEAR BOX.	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, RF

SUN-GL9F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
20	HANDWHEEL	A53
21	GUIDE PLATE	A576-1020
22	GUIDE PLATE BOLT	A307-B
23	GEAR BOX.	A536

NOTE

1. WALL THICKNESS : BS 1873 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

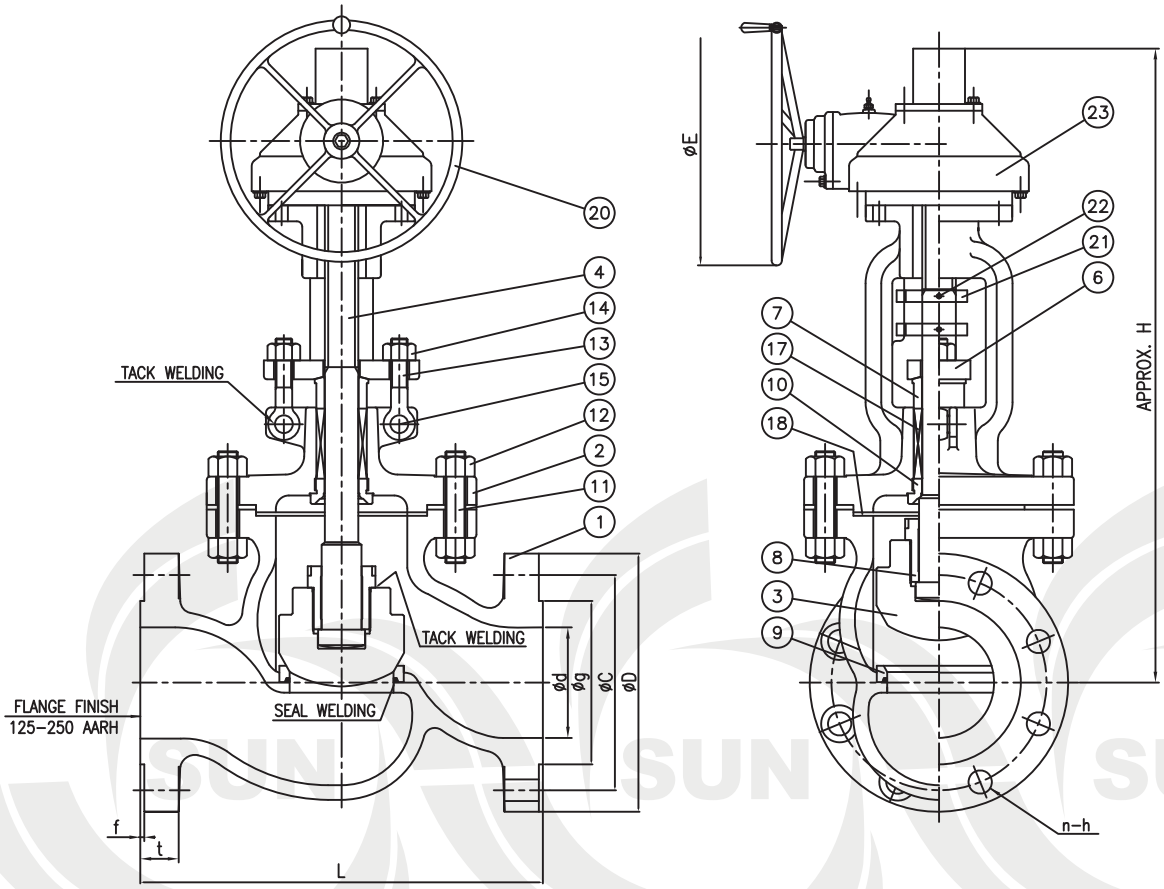
UNIT : mm

SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n–h			
4	457.2	98.3	292.1	235.0	157.2	44.5	6.4	8–31.8	761	630	200
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12–31.8	1088	710	417
8	736.6	190.5	470.0	393.7	269.7	63.5	6.4	12–38.1	1265	800	526
10	838.2	238.0	546.1	469.9	323.9	69.9	6.4	16–38.1	1585	800	2045
12	965.2	282.4	609.6	533.4	381.0	79.2	6.4	20–38.1	1670	900	2400

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Gear, RF

SUN-GL15F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	DISC	A216-WCB+13Cr
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	DISC NUT	A479-410
9	BODY SEAT	A216-WCB+ST'L NO.6
10	BACK SEATRING	A479-410
11	BONNET BOLT	A193-B7
12	NUT	A194-2H
13	HINGED EYE BOLT	A307-B
14	NUT	A194-2H
15	HINGE PIN	A576-1020
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SOFT IRON
20	HANDWHEEL	A53
21	GUIDE PLATE	A576-1020
22	GUIDE PLATE BOLT	A307-B
23	GEAR BOX	A536

NOTE

1. WALL THICKNESS : BS 1873 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

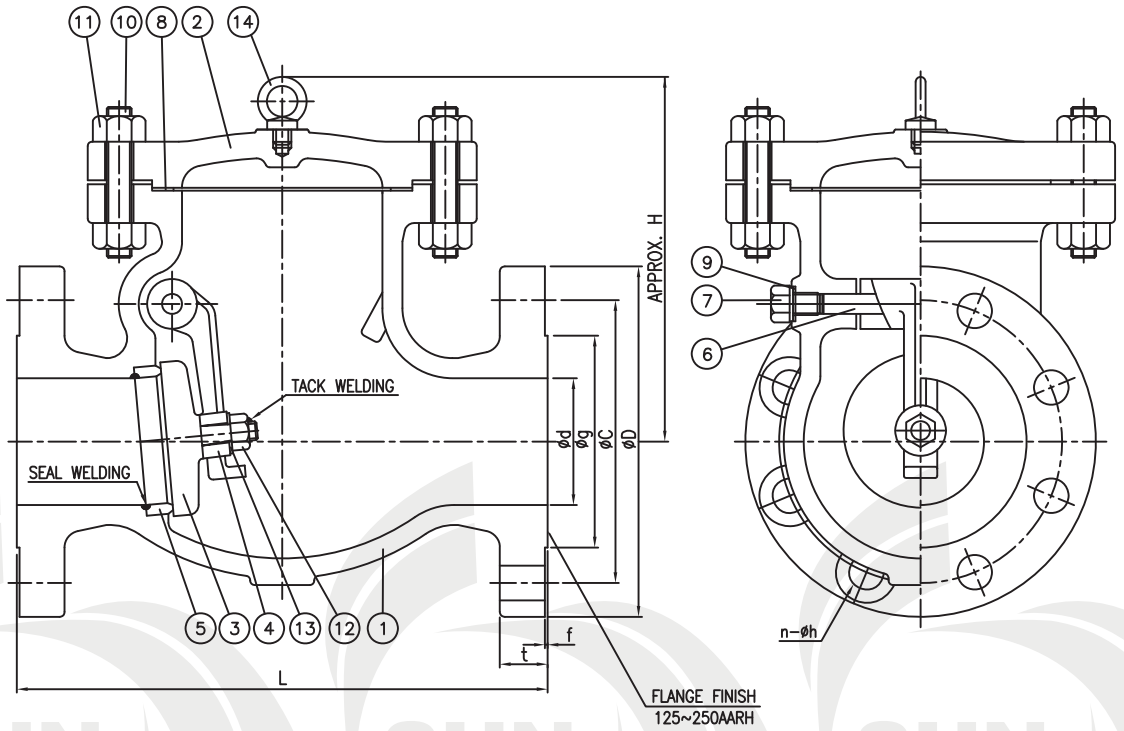
UNIT : mm

SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n–h			
4	546.1	92.0	311.2	241.3	157.2	53.9	6.4	8–35.1	795	630	350
6	704.9	136.4	393.7	317.5	215.9	82.6	6.4	12–38.1	1345	710	670
8	831.9	177.8	482.6	393.7	269.7	91.9	6.4	12–44.5	1960	800	2050
10	990.6	222.2	584.2	482.6	323.9	108.0	6.4	12–50.8	2305	900	3105

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 RF

SUN-SC1F-ZZ-1



NOTE

1. WALL THICKNESS : BS 1868 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. SIZE 8" & LARGER : A216-WCB+13Cr

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

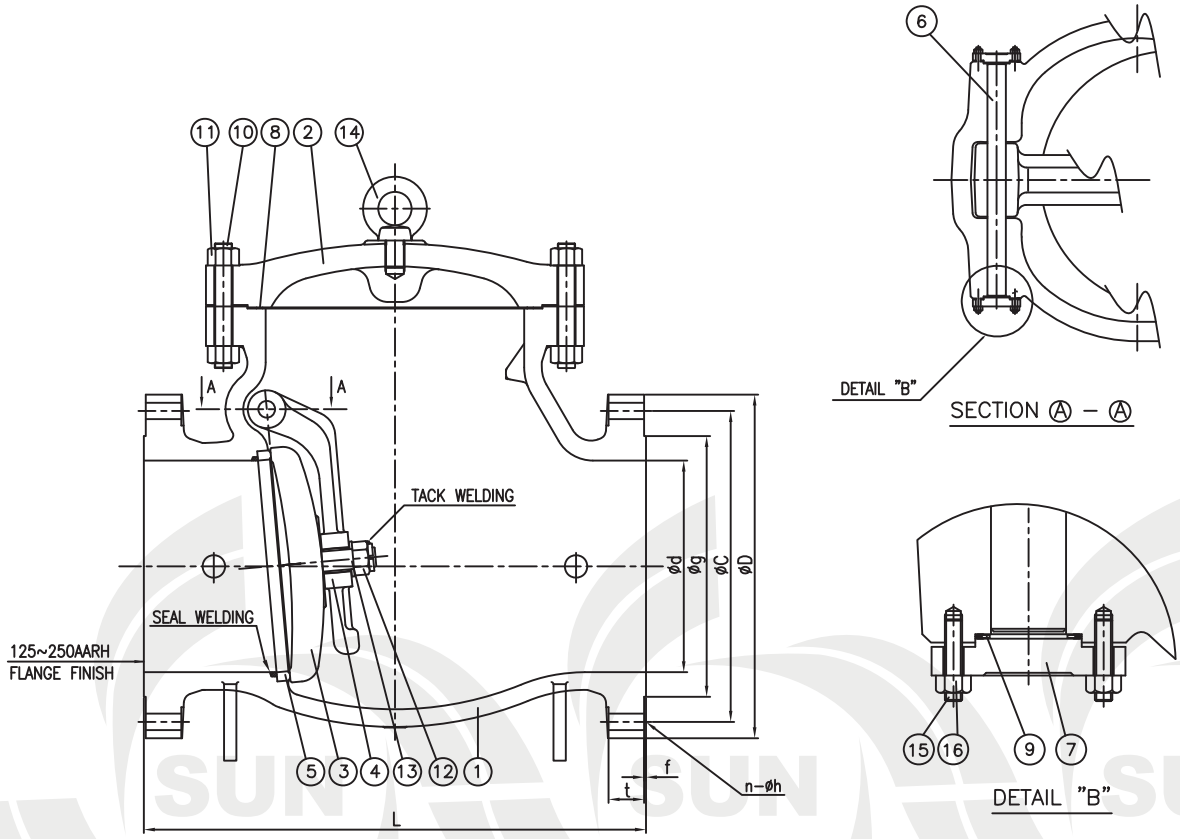
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
2	203.2	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	153	17
2-1/2	215.9	63.5	177.8	139.7	104.7	17.5	1.6	4-19.1	155	22
3	241.3	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	175	31
4	292.1	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	202	50
6	355.6	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	291	82
8	495.3	203.2	342.9	298.5	269.7	28.5	1.6	8-22.4	327	136
10	622.3	254.0	406.4	362.0	323.9	30.2	1.6	12-25.4	360	195
12	698.5	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	417	285
14	787.4	336.6	533.4	476.3	412.8	35.1	1.6	12-28.5	478	420
16	863.6	387.4	596.9	539.8	469.9	36.6	1.6	16-28.5	516	500
18	977.9	438.2	635.0	577.9	533.4	39.6	1.6	16-31.8	554	640
20	977.9	489.0	698.5	635.0	584.2	43.0	1.6	20-31.8	620	780
24	1295.4	590.6	812.8	749.3	692.2	47.8	1.6	20-35.1	670	1490

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 RF

SUN-SC1F-ZZ-2



NOTE

1. WALL THICKNESS : ASME B16.34 + 6.4mm(min) CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.47 SERIES 'A' & 'B' CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

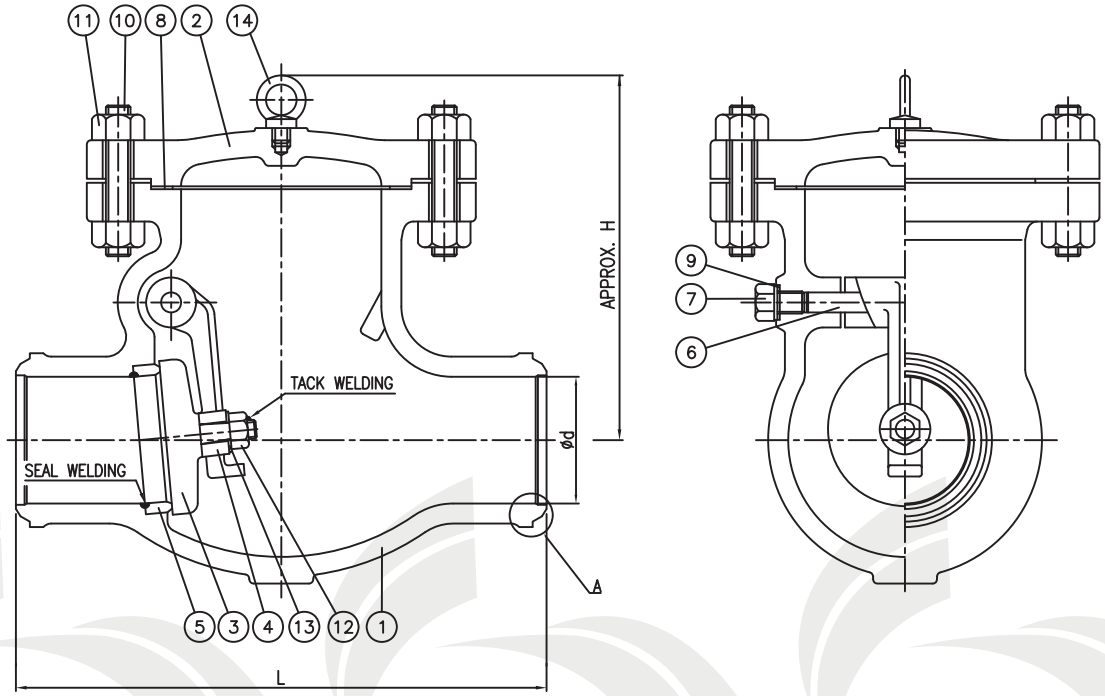
SIZE	L	d	FLANGE						WEIGHT (kg)	REMARK
			D	C	g	t	f	n-h		
30	1524.0	743.0	984.3	914.4	857.3	74.7	1.6	28-35.0	2105	SERIES 'A'
			887.5	846.1	812.8	44.5	1.6	44-22.2		SERIES 'B'

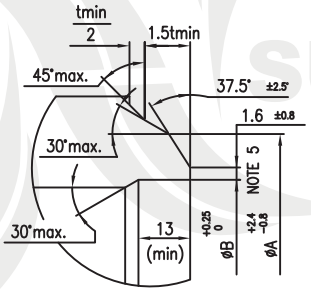
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PIN COVER	A576-1020
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SPIRAL WOUND/GRAPHITE+316+316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B
15	PIN COVER BOLT	A193-B7
16	PIN COVER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 BW

SUN-SC1W-ZZ-1





NOTE

1. WALL THICKNESS : BS 1868 CLASS 150
2. END TO END DIMENSIONS : ASME B16.10 CLASS 150
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. SIZE 8" & LARGER : A216-WCB + 13Cr
5. 6" AND LARGER : +4.0

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	450
Hydrostatic press test (Seat)	315

UNIT : mm

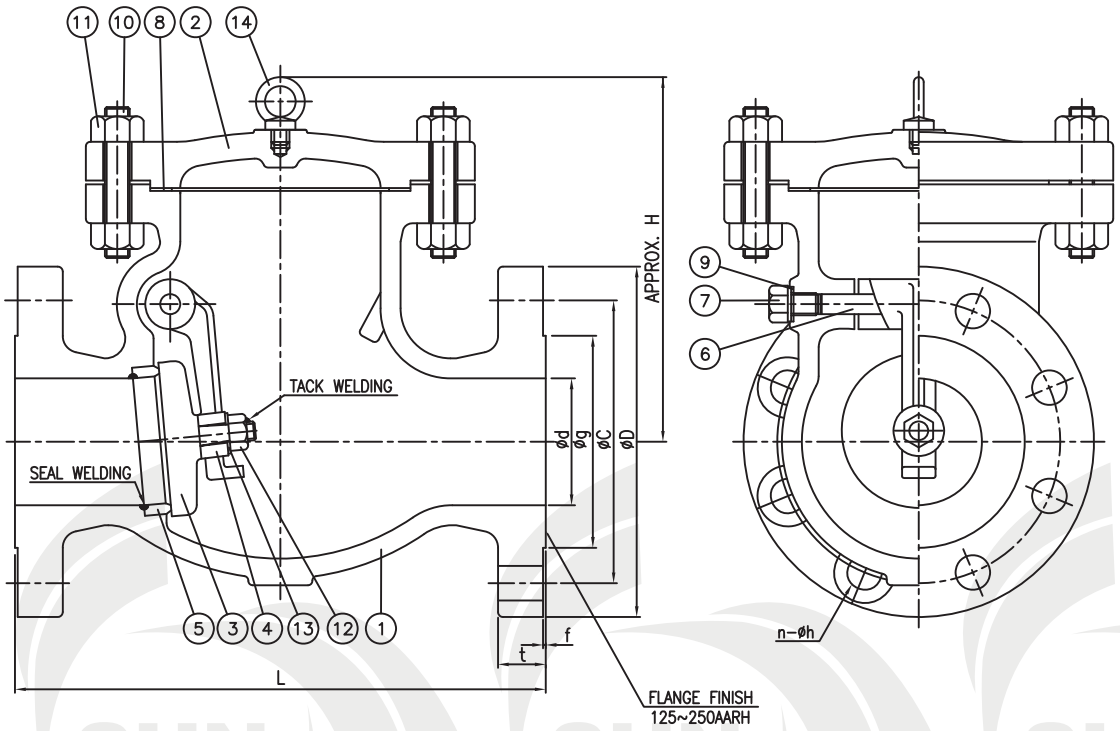
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)
			A	B	t	SCH. NO.		
2	203.2	50.8	60.3	52.5	3.91	STD.	153	12
2-1/2	215.9	63.5	75.0	63.0	5.15	STD.	155	15
3	241.3	76.2	91.0	78.0	5.5	STD.	175	21
4	292.1	101.6	117	102	6.0	STD.	202	26
6	355.6	152.4	172	154	7.1	STD.	291	62
8	495.3	203.2	223	203	8.2	STD.	327	91
10	622.3	254.0	278	255	9.25	STD.	360	204
12	698.5	304.8	329	305	9.55	STD.	417	293
14	787.4	336.6	362	337	9.55	STD.	478	352
16	863.6	387.4	413	387	9.55	STD.	516	420
18	977.9	438.2	464	438	9.55	STD.	554	585
20	977.9	489.0	516	489	9.55	STD.	620	640
24	1295.4	590.6	619	591	9.55	STD.	670	1280

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 RF

SUN-SC3F-ZZ-1



NOTE

1. WALL THICKNESS : BS 1868 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. SIZE 8" & LARGER : A216-WCB+13Cr

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

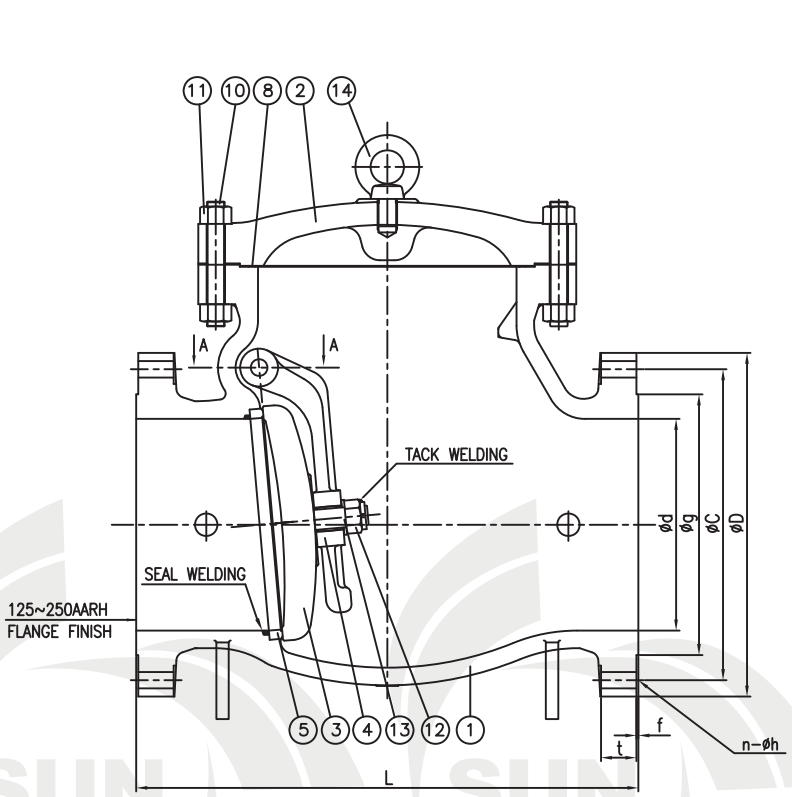
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
2	266.7	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	165	25
2-1/2	292.1	63.5	190.5	149.4	104.7	25.4	1.6	8-22.4	190	33
3	317.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	186	49
4	355.6	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	219	72
6	444.5	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	262	136
8	533.4	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	334	184
10	622.3	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	398	298
12	711.2	304.8	520.7	450.9	381.0	50.8	1.6	16-31.8	475	415
14	838.2	336.6	584.2	514.4	412.8	53.9	1.6	20-31.8	540	682
16	863.6	387.4	647.7	571.5	469.9	57.2	1.6	20-35.1	605	748
18	977.9	431.8	711.2	628.7	533.4	60.5	1.6	24-35.1	650	1058
20	1016.0	482.6	774.7	685.8	584.2	63.5	1.6	24-35.1	715	1210
24	1346.2	584.2	914.4	812.8	692.2	69.9	1.6	24-41.2	964	1916

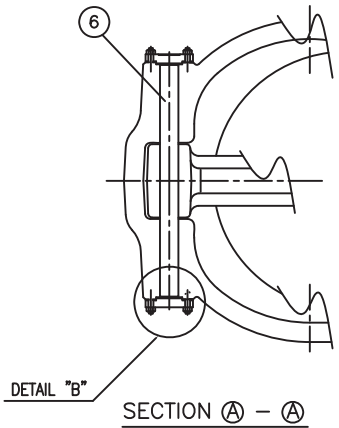
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

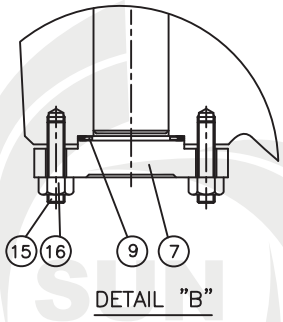
Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 RF

SUN-SC3F-ZZ-2







NOTE

1. WALL THICKNESS : ASME B16.34 + 6.4mm(min) CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.47 SERIES 'A' & 'B' CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

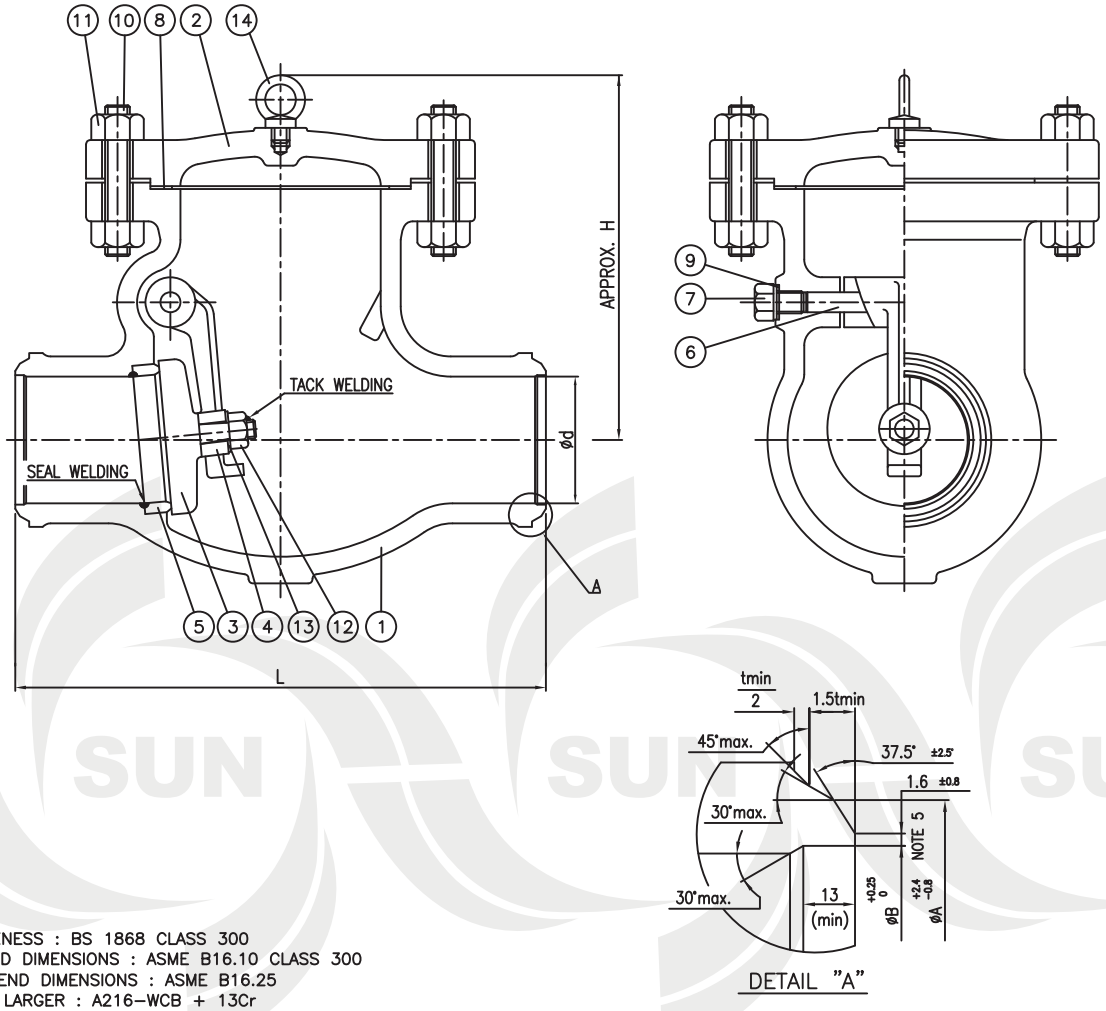
SIZE	L	d	FLANGE						WEIGHT (kg)	REMARK
			D	C	g	t	f	n-h		
36	2082.8	876.0	1270	1168.4	1022	103.2	1.6	32-54.0	3400	SERIES 'A'
			1170	1089.0	1010	101.6	1.6	32-44.5		SERIES 'B'

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PIN COVER	A576-1020
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SPIRAL WOUND/GRAPHITE+316+316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B
15	PIN COVER BOLT	A193-B7
16	PIN COVER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 BW

SUN-SC3W-ZZ-1



NOTE

1. WALL THICKNESS : BS 1868 CLASS 300
2. END TO END DIMENSIONS : ASME B16.10 CLASS 300
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. SIZE 8" & LARGER : A216-WCB + 13Cr
5. 6" AND LARGER : +4.0

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1125
Hydrostatic press test (Seat)	815

UNIT : mm

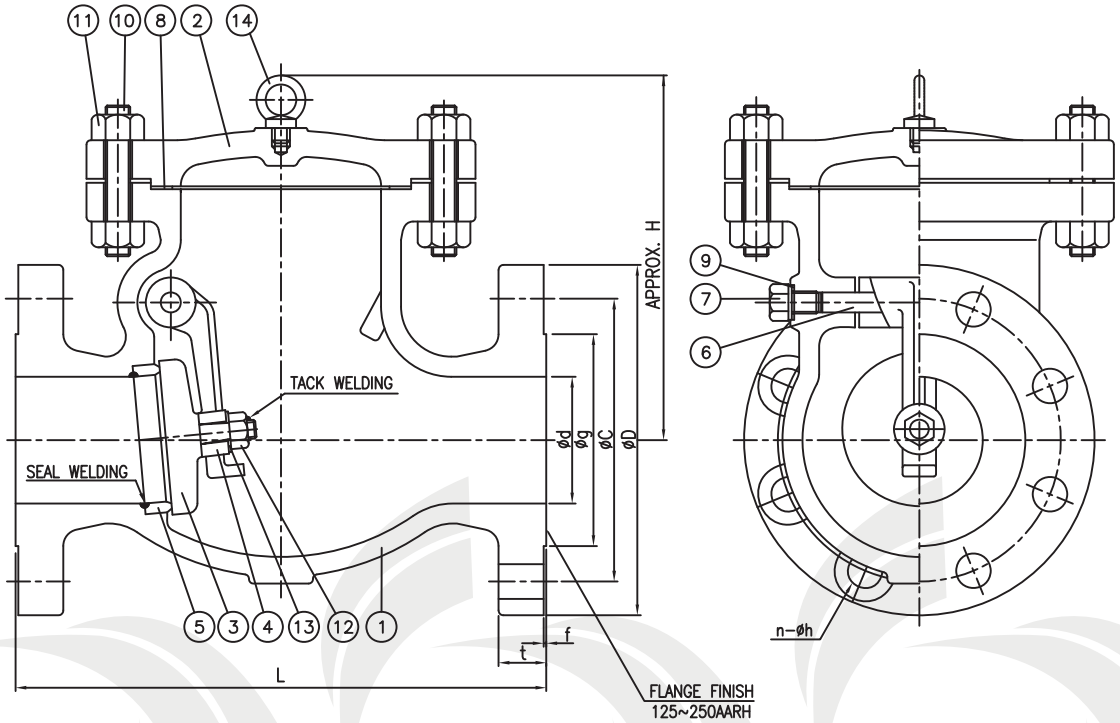
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)
			A	B	t	SCH. NO.		
2	266.7	50.8	60.3	52.5	3.91	STD.	165	21
2-1/2	292.1	63.5	75.0	63.0	5.15	STD.	190	30
3	317.5	76.2	91.0	78.0	5.5	STD.	186	35
4	355.6	101.6	117	102	6.0	STD.	219	51
6	444.5	152.4	172	154	7.1	STD.	262	110
8	533.4	203.2	223	203	8.2	STD.	334	172
10	622.3	254.0	278	255	9.25	STD.	398	210
12	711.2	304.8	329	305	9.55	STD.	475	360
14	838.2	336.6	362	337	9.55	STD.	540	525
16	863.6	387.4	413	387	9.55	STD.	605	700
18	977.9	431.8	464	438	9.55	STD.	650	920
20	1016.0	482.6	516	489	9.55	STD.	715	1020
24	1346.2	584.2	619	591	9.55	STD.	964	1780

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 RF

SUN-SC6F-ZZ-1



NOTE

1. WALL THICKNESS : BS1868 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. SIZE 8" & LARGER : A216-WCB+13Cr

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

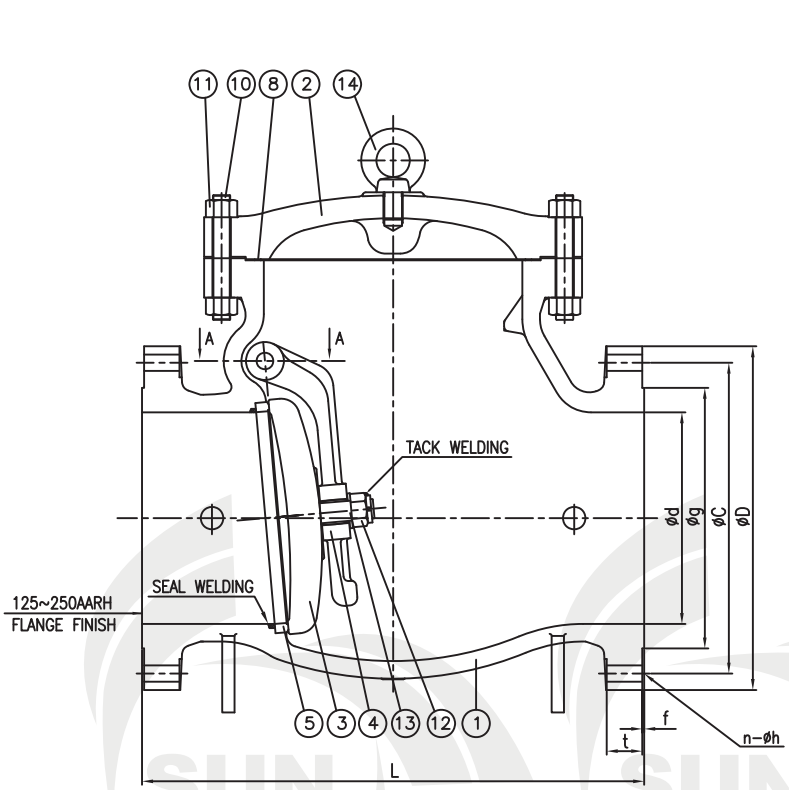
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	187	32
2-1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8-22.4	200	50
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.4	210	59
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	256	112
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	329	215
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	364	385
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-35.1	464	613
12	838.2	298.5	558.8	489.0	381.0	66.5	6.4	20-35.1	486	870
14	889.0	326.9	603.3	527.1	412.8	69.9	6.4	20-38.1	515	938
16	990.6	374.7	685.8	603.3	469.9	76.2	6.4	20-41.3	550	1350
18	1092.9	419.1	743.0	654.1	533.4	82.6	6.4	20-44.5	590	2020
20	1193.8	463.6	812.8	723.9	584.2	88.9	6.4	24-44.5	635	2390
24	1397.0	558.8	939.8	838.2	692.2	101.6	6.4	24-50.8	680	2873

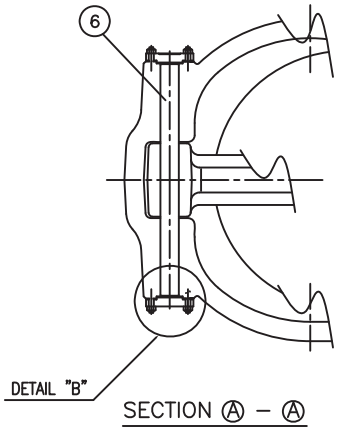
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

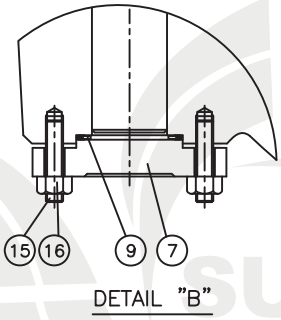
Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 RF

SUN-SC6F-ZZ-2







NOTE

1. WALL THICKNESS : ASME B16.34 + 6.4mm(min) CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.47 SERIES 'A' & 'B' CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

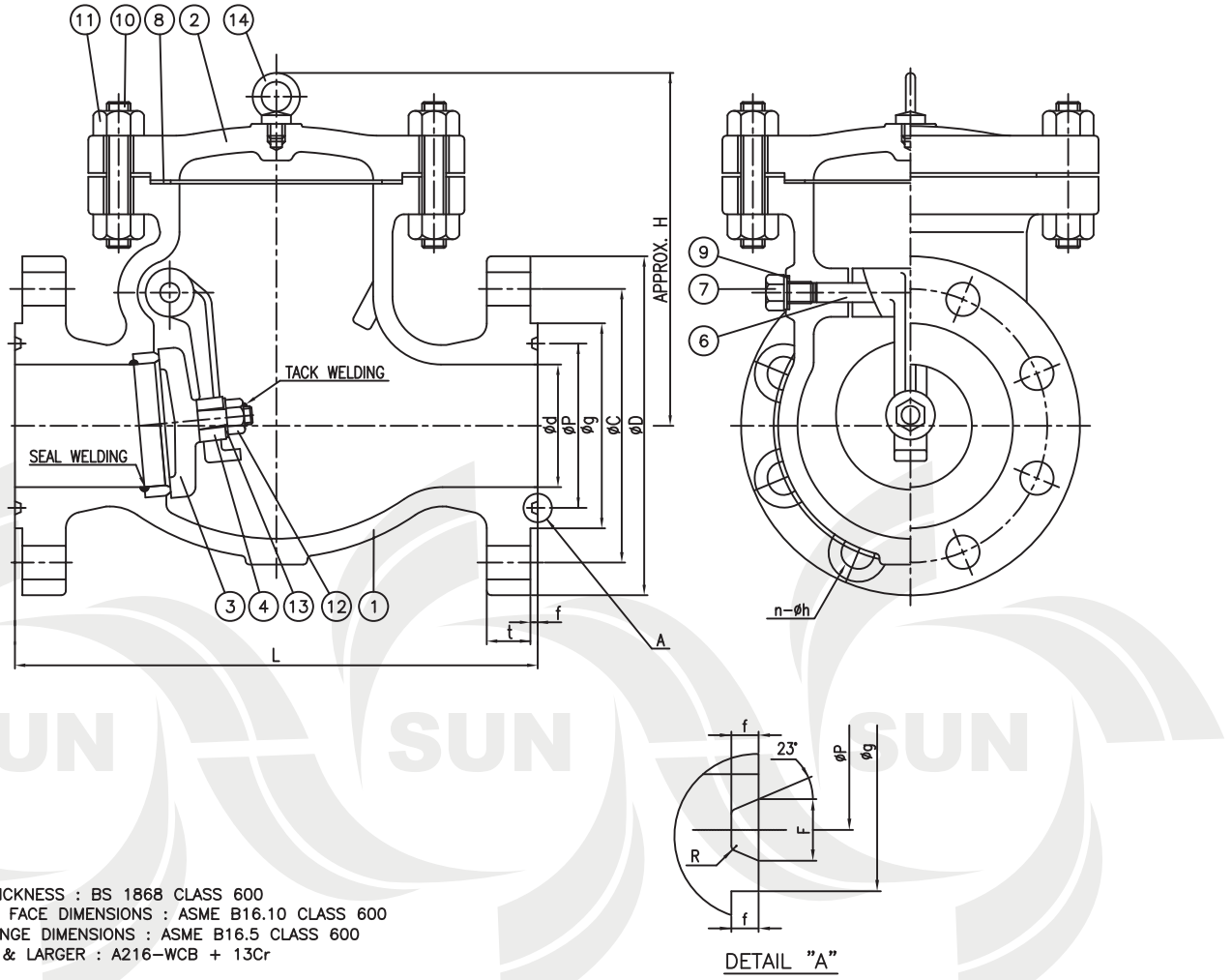
SIZE	L	d	FLANGE						WEIGHT (kg)	REMARK
			D	C	g	t	f	n-h		
30	1651.0	695.2	1130	1022.4	857.0	114.3	6.4	28-54.0	5000	SERIES 'A'
			1020	927.1	841.0	125.5	6.4	28-50.8		SERIES 'B'
36	2082.8	838.0	1315	1193.8	1022	123.9	6.4	28-66.7	15000	SERIES 'A'
			1215	1104.9	1010	146.1	6.4	28-60.3		SERIES 'B'

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PIN COVER	A576-1020
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SPIRAL WOUND/GRAPHITE+316+316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B
15	PIN COVER BOLT	A193-B7
16	PIN COVER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 RTJ

SUN-SC6J-ZZ-1



DETAIL "A"

NOTE

1. WALL THICKNESS : BS 1868 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. SIZE 8" & LARGER : A216-WCB + 13Cr

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

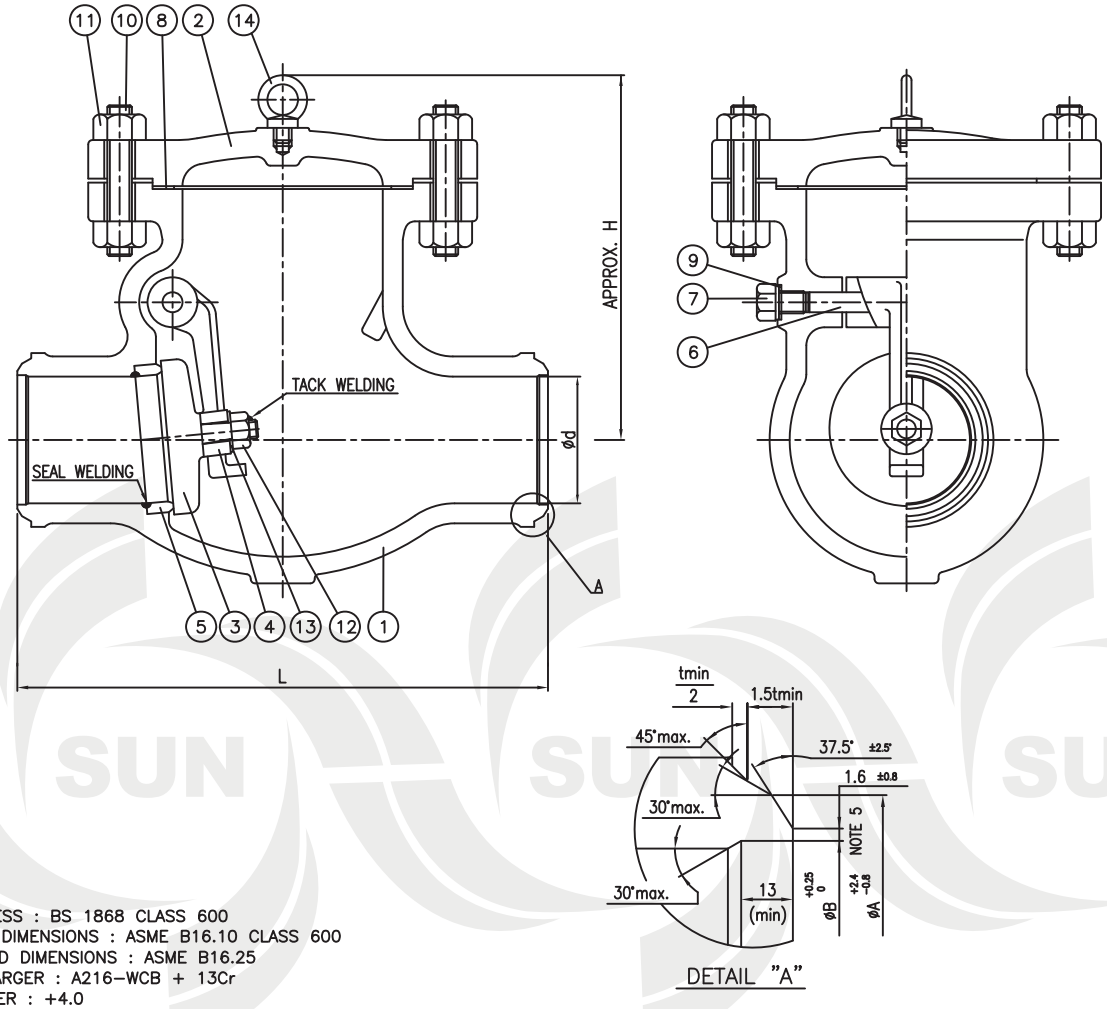
SIZE	L	d	FLANGE										H	WEIGHT (kg)
			D	C	g	P	F	t	f	R	n-h	RING NO.		
2	295.2	50.8	165.1	127.0	108.0	82.6	11.9	25.4	7.9	0.8	8-19.1	R23	187	32
2-1/2	333.3	63.5	190.5	149.4	127.0	101.6	11.9	28.5	7.9	0.8	8-22.4	R26	200	50
3	358.7	76.2	209.6	168.1	146.1	123.8	11.9	31.8	7.9	0.8	8-22.4	R31	210	59
4	434.9	101.6	273.1	215.9	174.8	149.2	11.9	38.1	7.9	0.8	8-25.4	R37	256	112
5	511.1	127.0	330.2	266.7	209.6	181.0	11.9	44.5	7.9	0.8	8-28.5	R41	260	
6	561.9	152.4	355.6	292.1	241.3	211.1	11.9	47.8	7.9	0.8	12-28.5	R45	329	215
8	663.5	199.9	419.1	349.3	301.8	269.9	11.9	55.6	7.9	0.8	12-31.8	R49	364	385
10	790.5	247.7	508.0	431.8	355.6	323.9	11.9	63.5	7.9	0.8	16-35.1	R53	464	613
12	841.3	298.5	558.8	489.0	412.8	381.0	11.9	66.5	7.9	0.8	20-35.1	R57	486	870
14	892.1	326.9	603.3	527.1	457.2	419.1	11.9	69.9	7.9	0.8	20-38.1	R61	515	938
16	993.7	374.7	685.8	603.3	508.0	469.9	11.9	76.2	7.9	0.8	20-41.3	R65	550	1350
18	1095.2	419.1	743.0	654.1	574.6	533.4	11.9	82.6	7.9	0.8	20-44.5	R69	590	2020
20	1200.2	463.6	812.8	723.9	635.0	584.2	13.5	88.9	9.5	1.6	24-44.5	R73	635	2390
24	1406.7	558.8	939.8	838.2	749.3	692.2	16.7	101.6	11.1	1.6	24-50.8	R77	680	2390

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 BW

SUN-SC6W-ZZ-1



NOTE

1. WALL THICKNESS : BS 1868 CLASS 600
2. END TO END DIMENSIONS : ASME B16.10 CLASS 600
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. SIZE 8" & LARGER : A216-WCB + 13Cr
5. 6" AND LARGER : +4.0

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

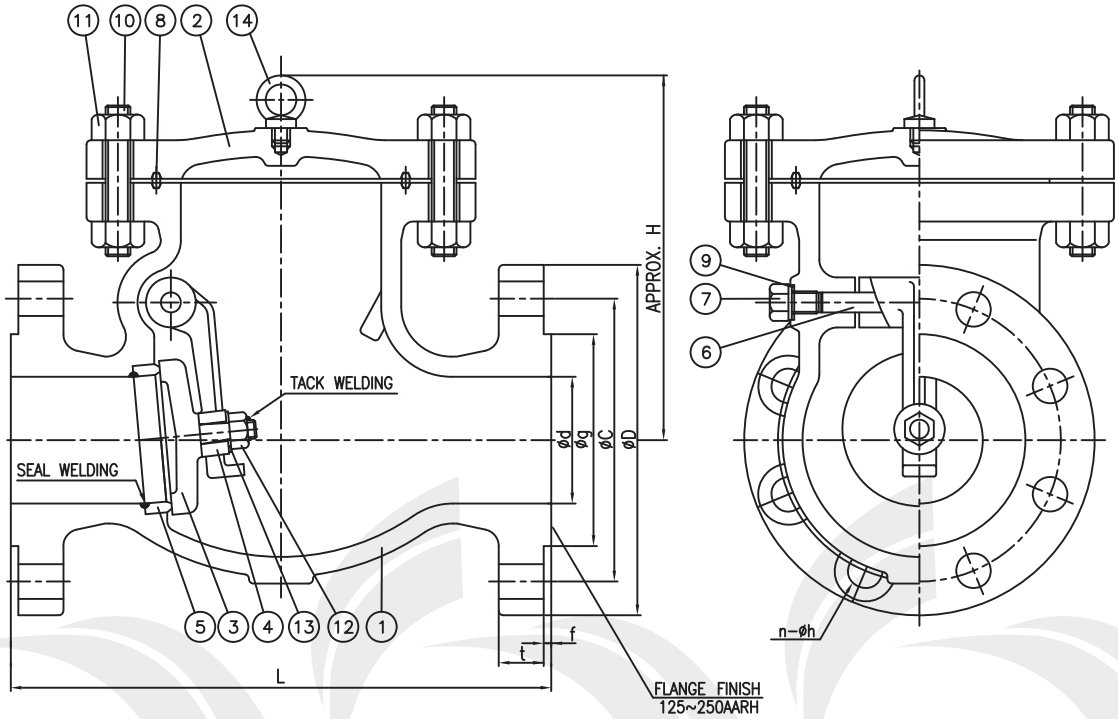
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)	Q'TY
			A	B	t	SCH. NO.			
2	292.1	50.8	60.3	52.5	3.91	STD.	187	28	
2-1/2	330.2	63.5	75.0	63.0	5.15	STD.	200	45	
3	355.6	76.2	91.0	78.0	5.5	STD.	210	54	
4	431.8	101.6	117	102	6.0	STD.	256	80	
5	508.0	127.0	144	128	6.55	STD.	260		
6	558.8	152.4	172	154	7.1	STD.	329	205	
8	660.4	199.9	223	203	8.2	STD.	364	365	
10	787.4	247.7	278	255	9.25	STD.	464	492	
12	838.2	298.5	329	305	9.55	STD.	486	715	
14	889.0	326.9	362	337	9.55	STD.	515	880	
16	990.6	374.7	413	387	9.55	STD.	550	1240	
18	1092.9	419.1	464	438	9.55	STD.	590	1450	
20	1193.8	463.6	516	489	9.55	STD.	635	2150	
24	1397.0	558.8	619	591	9.55	STD.	680	2564	

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A217-CA15
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SPIRAL WOUND/GRAPHITE+316+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 RF

SUN-SC9F-ZZ-1



NOTE

1. WALL THICKNESS : BS 1868 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

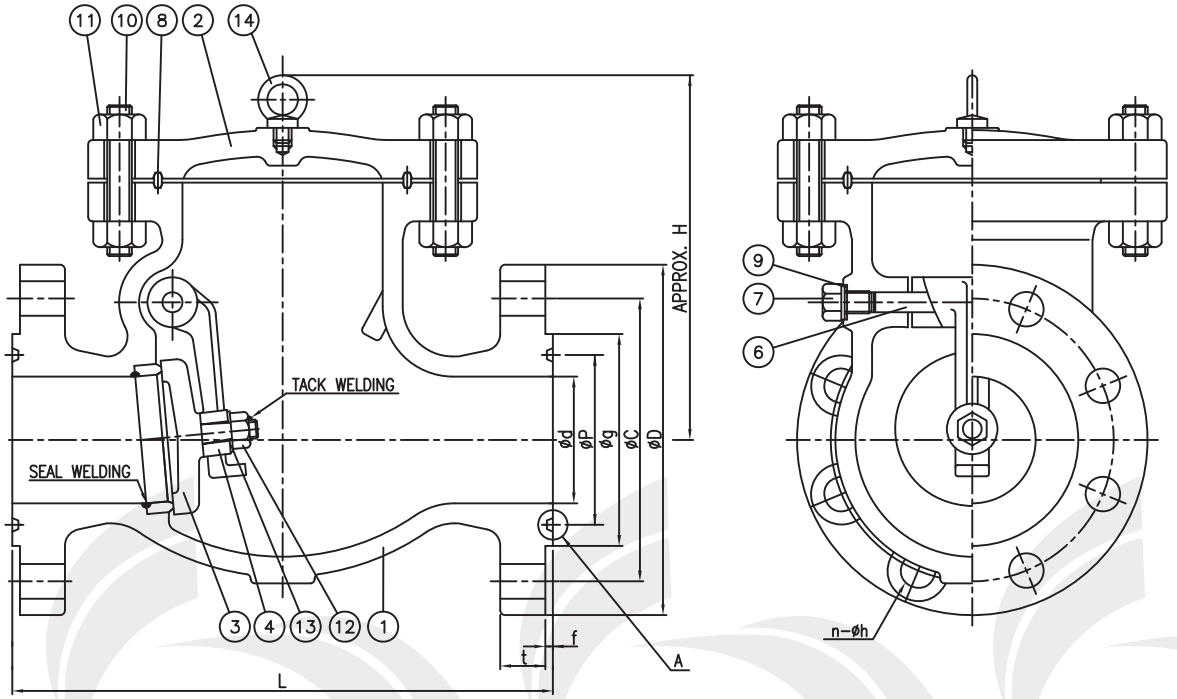
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
2	368.3	47.5	215.9	165.1	92.0	38.1	6.4	8-25.4	270	73
3	381.0	72.9	241.3	190.5	127.0	38.1	6.4	8-25.4	295	82
4	457.2	98.3	292.1	235.0	157.2	44.5	6.4	8-31.8	310	139
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12-31.8	340	264
8	736.6	190.5	469.9	393.7	269.9	63.5	6.4	12-38.1	465	624
10	838.2	238.0	546.1	469.9	323.9	69.9	6.4	16-38.1	510	1150
12	965.2	282.5	609.6	533.4	381.0	79.3	6.4	20-38.1	580	1125
14	1028.7	311.2	641.4	558.8	412.8	85.9	6.4	20-41.3	657	1750
16	1130.3	355.6	704.9	616.0	469.9	88.9	6.4	20-44.5	750	2420
18	1219.2	400.1	787.4	685.8	533.4	101.6	6.4	20-50.8	921	3250
20	1320.8	444.5	857.3	749.3	584.2	108.0	6.4	20-53.9	1050	4000
24	1549.4	533.4	1041.4	901.7	692.2	139.7	6.4	20-66.7	1210	5800

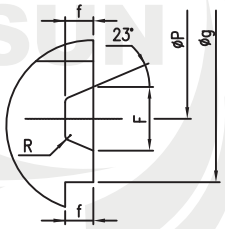
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 RTJ

SUN-SC9J-ZZ-1





DETAIL "A"

NOTE

1. WALL THICKNESS : BS 1868 CLASS 900
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

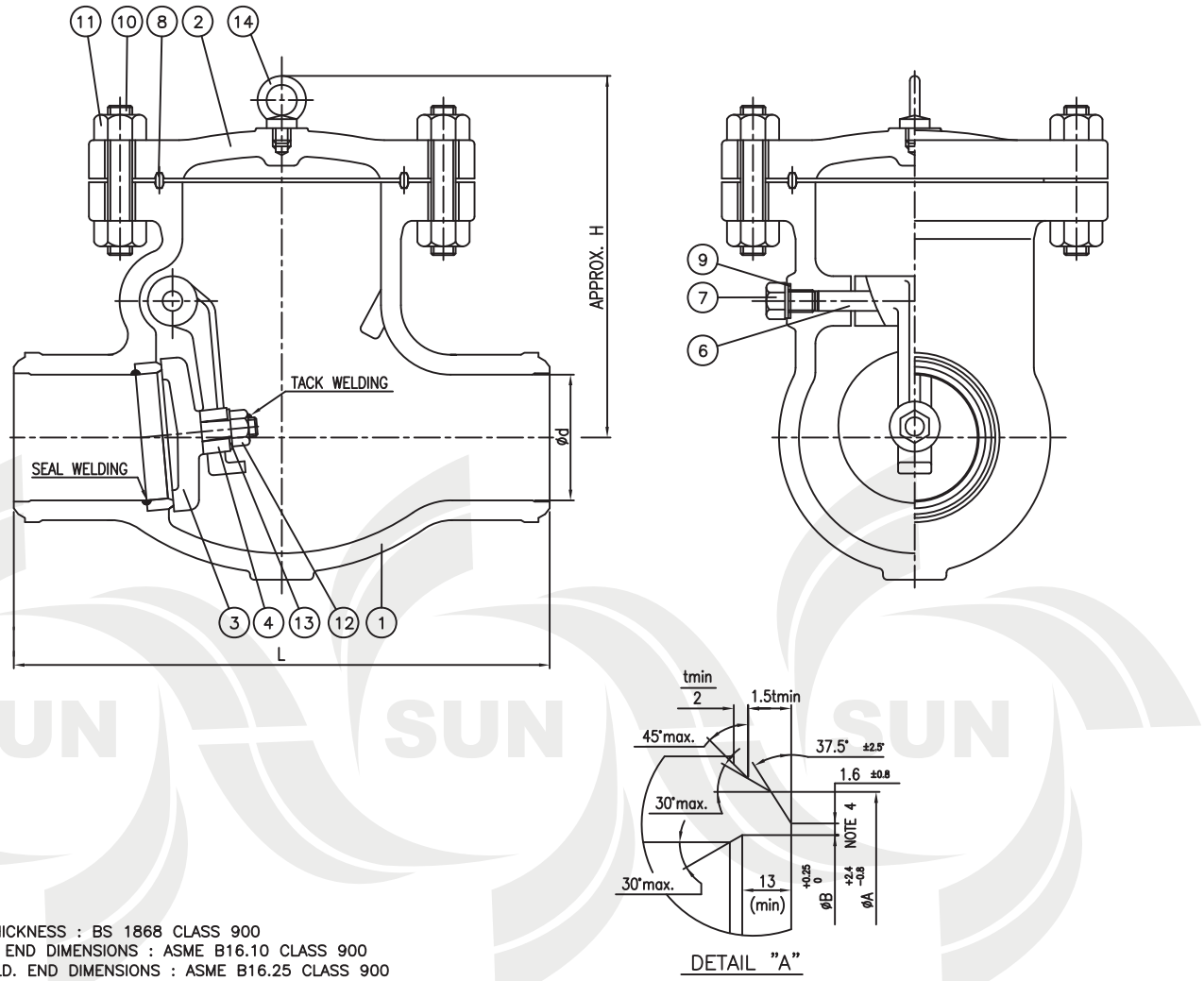
SIZE	L	d	FLANGE										H	WEIGHT (kg)
			D	C	g	P	F	t	f	R	n-h	RING NO.		
2	371.3	47.5	215.9	165.1	123.9	95.3	11.9	38.1	7.9	0.8	8-25.4	R24	270	73
3	384.0	72.9	241.3	190.5	155.4	123.8	11.9	38.1	7.9	0.8	8-25.4	R31	295	82
4	460.2	98.3	292.1	235.0	180.8	149.2	11.9	44.5	7.9	0.8	8-31.8	R37	310	139
6	612.6	146.1	381.0	317.5	241.3	211.1	11.9	55.6	7.9	0.8	12-31.8	R45	340	264
8	739.6	190.5	469.9	393.7	307.8	269.9	11.9	63.5	7.9	0.8	12-38.1	R49	465	624
10	841.2	238.0	546.1	469.9	362.0	323.9	11.9	69.9	7.9	0.8	16-38.1	R53	510	1150
12	968.2	282.5	609.6	533.4	419.1	381.0	11.9	79.3	7.9	0.8	20-38.1	R57	580	1125
14	1038.2	311.2	641.4	558.8	466.9	419.1	16.7	85.9	11.1	1.6	20-41.3	R62	665	1750
16	1139.7	355.6	704.8	616.0	523.7	469.9	16.7	88.9	11.1	1.6	20-44.4	R66	750	2420
18	1231.9	400.1	787.4	685.8	593.9	533.4	19.8	101.6	12.7	1.6	20-50.8	R70	921	3250
20	1333.5	444.5	857.3	749.3	647.7	584.2	19.8	108	12.7	1.6	20-53.9	R74	1050	4000
24	1568.5	533.4	1041.4	901.7	771.7	692.2	27.0	139.7	15.9	2.4	20-53.9	R78	1210	5800

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 BW

SUN-SC9W-ZZ-1



DETAIL "A"

NOTE

1. WALL THICKNESS : BS 1868 CLASS 900
2. END TO END DIMENSIONS : ASME B16.10 CLASS 900
3. BUTTWELD. END DIMENSIONS : ASME B16.25 CLASS 900
4. SIZE 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

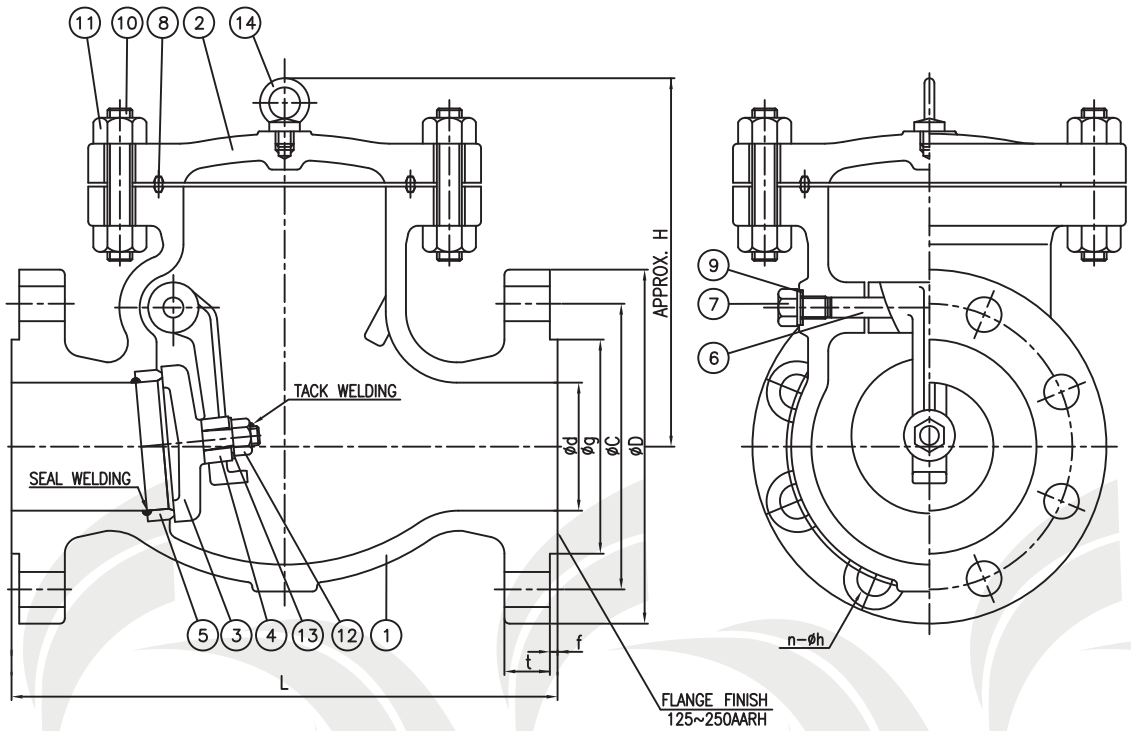
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)
			A	B	t	SCH. NO.		
2	368.3	47.5	60.3	52.5	3.91	STD.	270	50
3	381.0	73.0	91.0	78.0	5.5	STD.	295	75
4	457.0	98.3	117	102	6.0	STD.	310	125
6	610.0	146.1	172	154	7.1	STD.	340	225
8	737.0	190.5	223	203	8.2	STD.	465	494
10	838.2	238.0	278	254.5	9.3	STD.	510	950
12	965.2	282.5	329	305	9.5	STD.	580	1080
14	1028.7	311.2	362	336.5	9.5	STD.	657	1450
16	1130.3	355.6	413	387.5	9.5	STD.	750	2050
18	1219.2	400.1	464	439.5	9.5	STD.	921	2700
20	1320.8	444.5	516	490.3	9.5	STD.	1050	3300
24	1549.4	533.4	619	590.5	9.5	STD.	1210	4500

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 RF

SUN-SC15F-ZZ-1



NOTE

1. WALL THICKNESS : BS1868 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
2	368.3	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	290	73
3	469.9	69.9	266.7	203.2	127.0	47.8	6.4	8-31.8	315	125
4	546.1	92.0	311.0	241.3	157.2	53.9	6.4	8-34.9	380	212

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

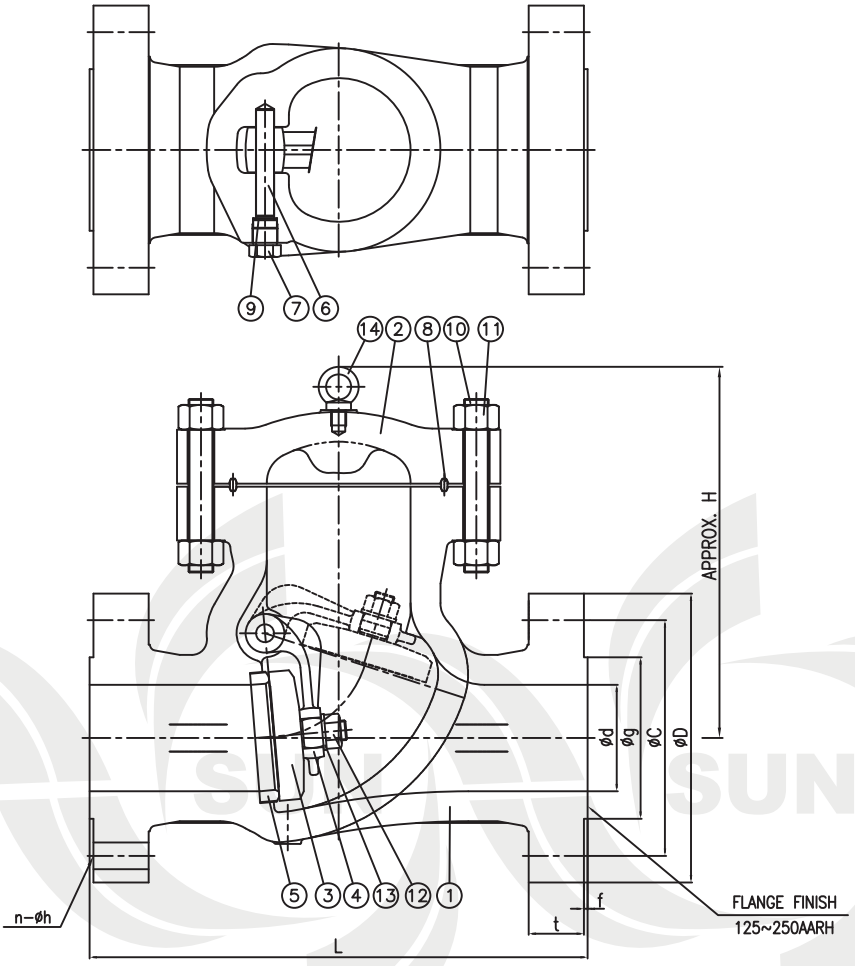
Remark : 1. The name plate shall be specified by purchaser as required.

Cast Carbon Steel S/Check Valves(API 600)

SUN KOREA
(SUN KOREA CO., LTD.)

Class 1500 RF

SUN-SC15F-ZZ-2



NOTE

1. WALL THICKNESS : BS 1868 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B 16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

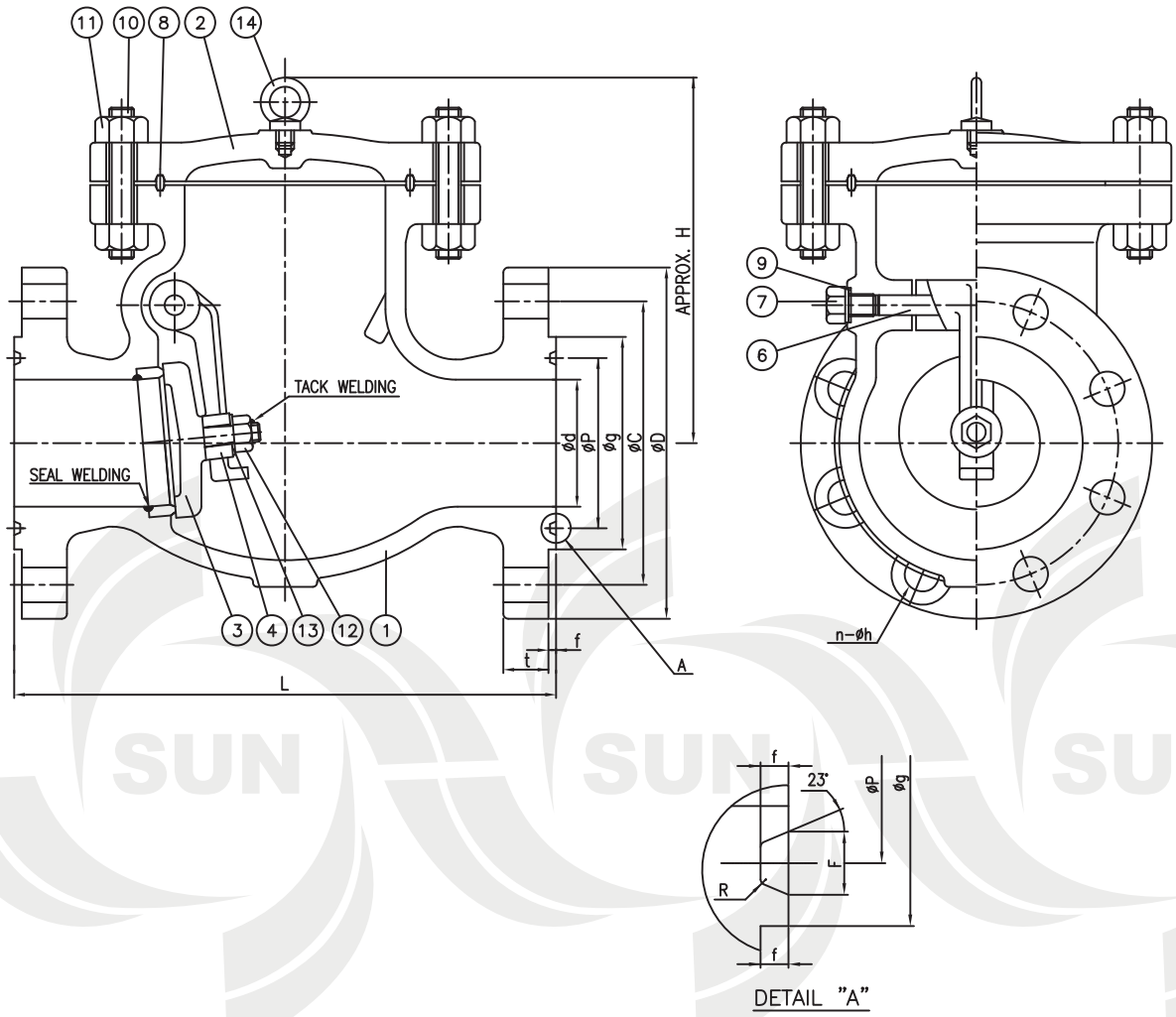
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
6	704.9	136.4	394.0	317.5	215.9	82.6	6.4	12-38.1	523	484
8	831.9	177.8	483.0	393.7	269.7	91.9	6.4	12-44.5	650	1190
10	990.6	222.2	584.0	482.6	323.9	108.0	6.4	12-50.8	783	1850
12	1130.3	263.4	674.0	571.5	381.0	124.0	6.4	16-54.0	850	3330

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 RTJ

SUN-SC15J-ZZ-1



DETAIL "A"

NOTE

1. WALL THICKNESS : BS 1868 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

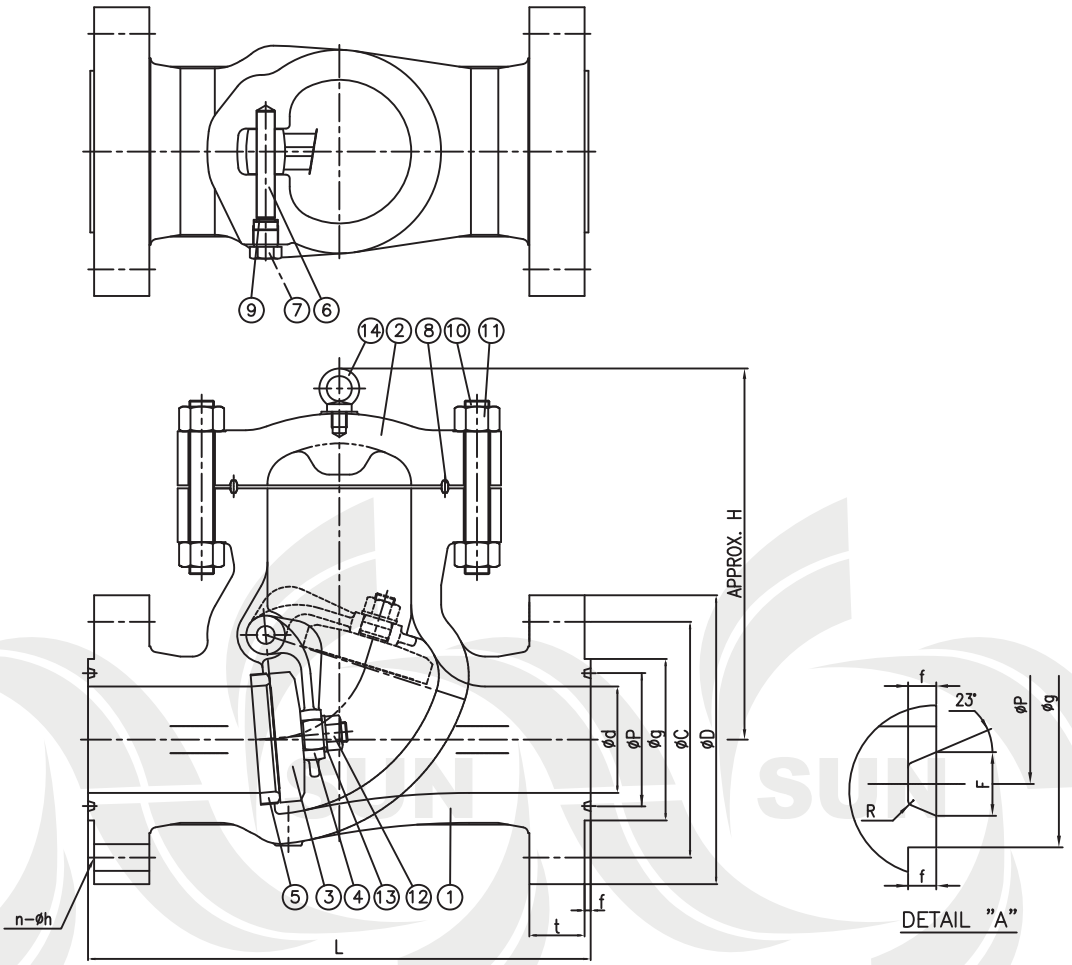
SIZE	L	d	FLANGE										H	WEIGHT (kg)
			D	C	g	P	F	t	f	R	n–h	Ring No.		
2	371.3	47.5	215.9	165.1	124.0	95.3	11.9	38.1	7.9	0.8	8–25.4	R24	290	73
3	472.9	69.9	266.7	203.2	168.1	136.5	11.9	47.8	7.9	0.8	8–31.8	R35	315	125
4	549.1	92.0	311.0	241.3	193.5	161.9	11.9	53.9	7.9	0.8	8–34.9	R39	380	212

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 RTJ

SUN-SC15J-ZZ-2



NOTE

1. WALL THICKNESS : BS 1868 CLASS 1500
2. FACE TO FACE DIMENSIONS : ASME B 16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

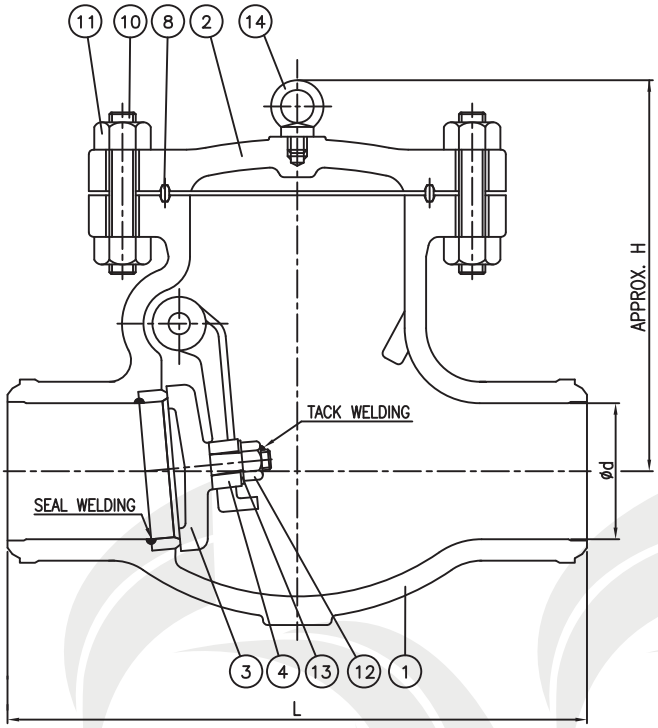
SIZE	L	d	FLANGE										H	WEIGHT (kg)
			D	C	g	P	F	t	f	R	n-h	Ring No.		
6	711.1	136.4	394.0	317.5	247.7	211.1	13.5	82.6	9.5	1.6	12-38.1	R46	523	484
8	841.3	177.8	483.0	393.7	317.5	269.9	16.7	91.9	11.1	1.6	12-44.5	R50	600	1190
10	1000.0	222.3	584.0	482.6	371.3	323.9	16.7	108.0	11.1	1.6	12-50.8	R54	783	1850
12	1146.2	263.4	674.0	571.5	438.2	381.0	23.02	124.0	16.7	1.6	16-54.0	R58	850	3330

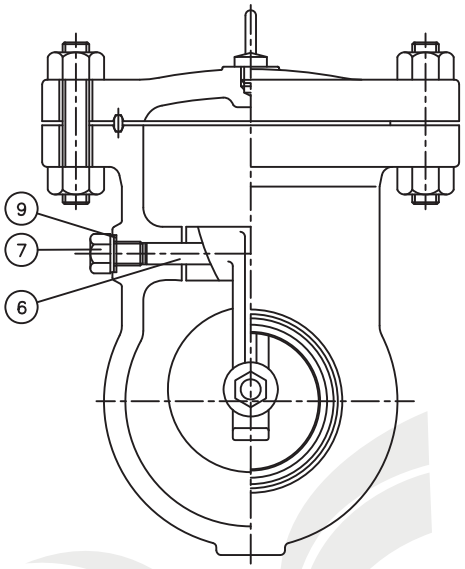
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

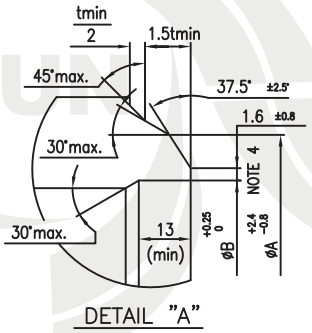
Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 BW

SUN-SC15W-ZZ-1







NOTE

1. WALL THICKNESS : BS 1868 CLASS 1500
2. END TO END DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 1500
4. SIZE 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

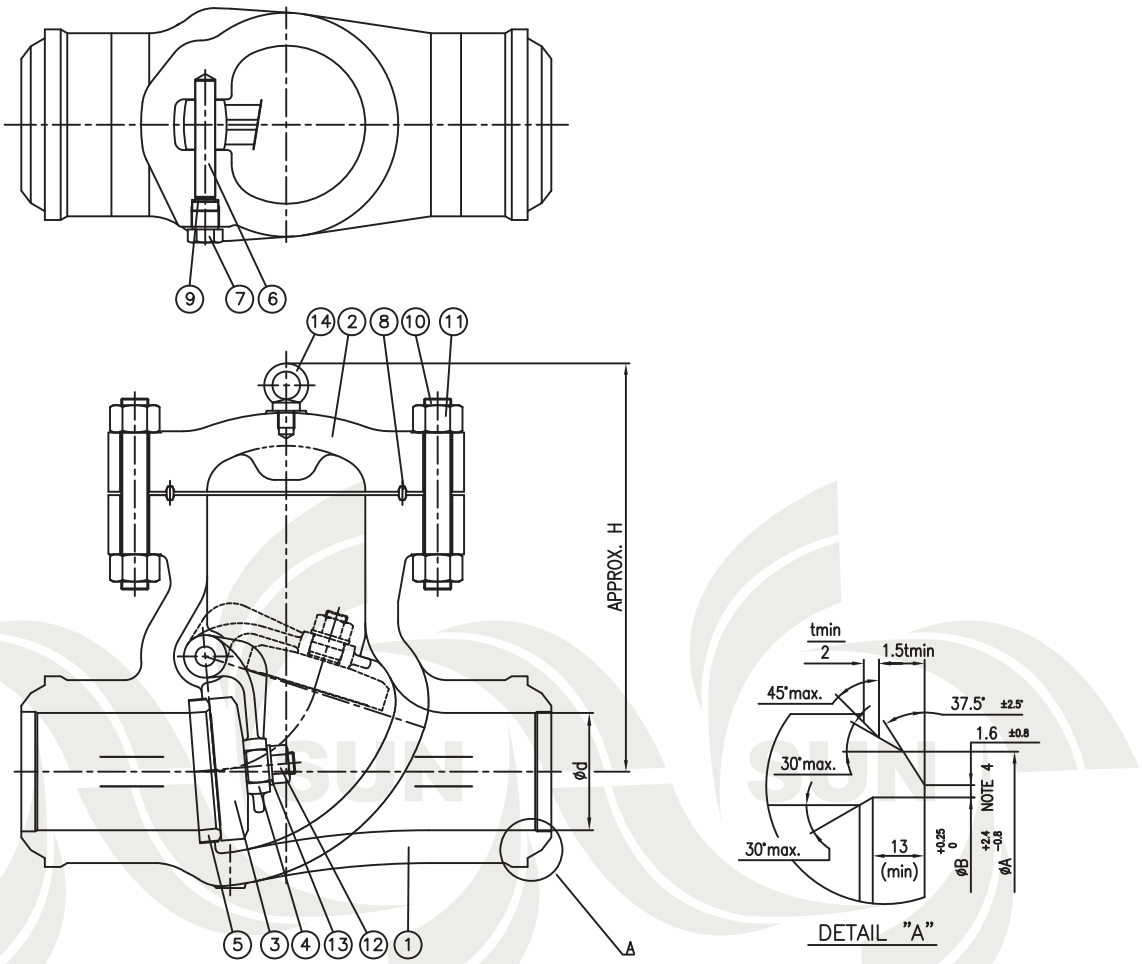
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)
			A	B	t	SCH. NO.		
2	368.3	47.5	60.3	52.5	3.91	STD.	280	50
2-1/2	419.1	57.2	75.0	63.0	5.15	STD.	290	87
3	470.0	69.9	91.0	78.0	5.5	STD.	305	115
4	546.1	92.0	117	102	6.0	STD.	320	185

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 BW

SUN-SC15W-ZZ-2



NOTE

1. WALL THICKNESS : BS 1868 CLASS 1500
2. END TO END DIMENSIONS : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.25 CLASS 1500
4. SIZE 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

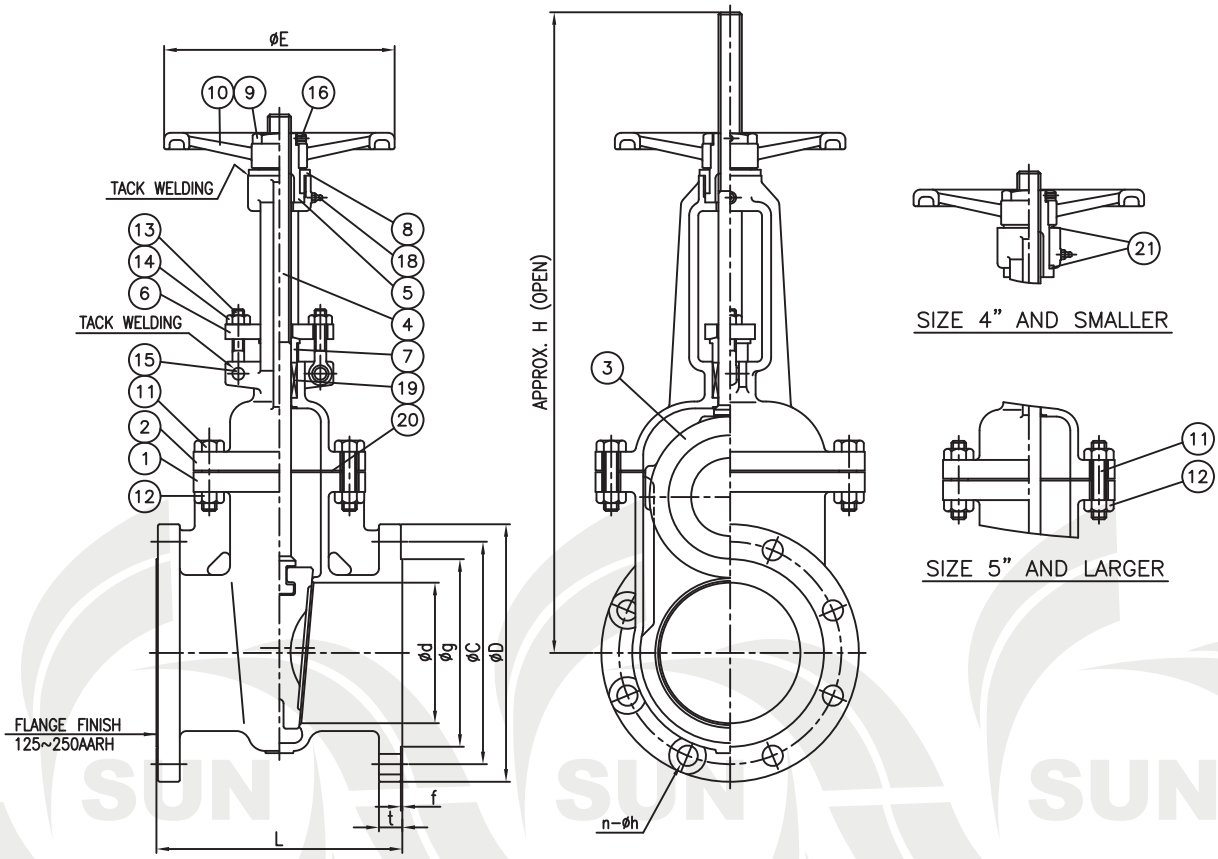
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)
			A	B	t	SCH. NO.		
6	704.9	136.4	172	154	7.1	STD.	523	384
8	831.9	177.8	223	203	8.2	STD.	650	965
10	990.6	222.3	278	255	9.25	STD.	783	1480
12	1130.3	263.4	329	305	9.5	STD.	850	2760

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+13Cr
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B7
11	NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GA1F-HO-1



NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

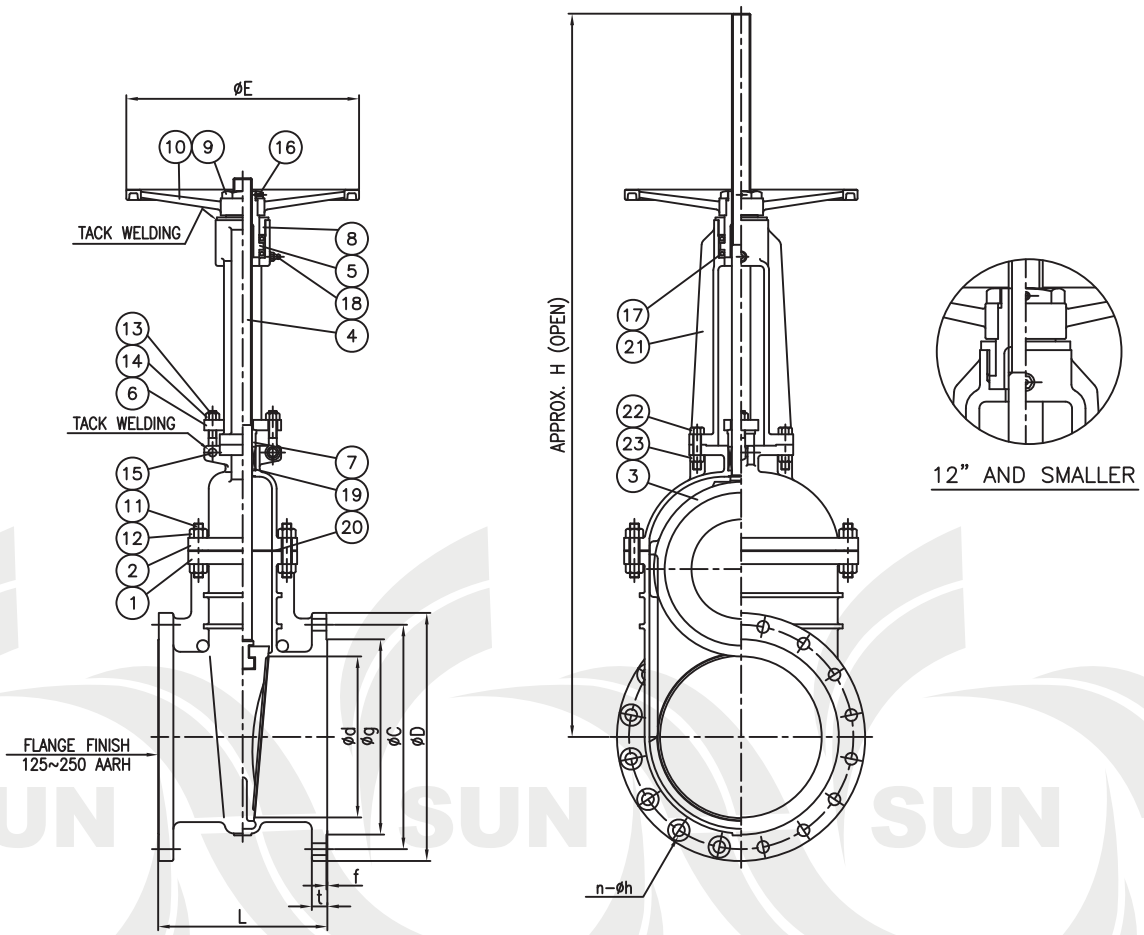
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
1/2	108.0	19.1	88.9	60.5	35.1	11.2	1.6	4-15.8	120	190	3.1
3/4	117.4	19.1	98.6	69.9	42.9	11.2	1.6	4-15.8	120	205	3.5
1	127.0	25.4	108.0	79.3	50.8	11.2	1.6	4-15.8	120	230	4.4
1-1/2	165.1	38.1	127.0	98.6	73.2	14.2	1.6	4-15.8	140	302	8.4
2	177.8	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	180	333	11.9
2-1/2	190.5	63.5	177.8	139.7	104.7	17.5	1.6	4-19.1	180	371.3	17.8
3	203.2	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	200	410	22
4	228.6	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	250	498	35
5	254.0	127.0	254.0	215.9	185.4	23.9	1.6	8-22.4	300	590	47
6	266.7	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	300	710.2	62
8	292.1	203.2	342.9	298.5	269.7	28.5	1.6	8-22.4	350	929.1	92
10	330.2	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	400	1097	142

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	HANDWHEEL NUT	A479-304
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	THRUST WASHER	A240-304

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GA1F-HO-2



NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

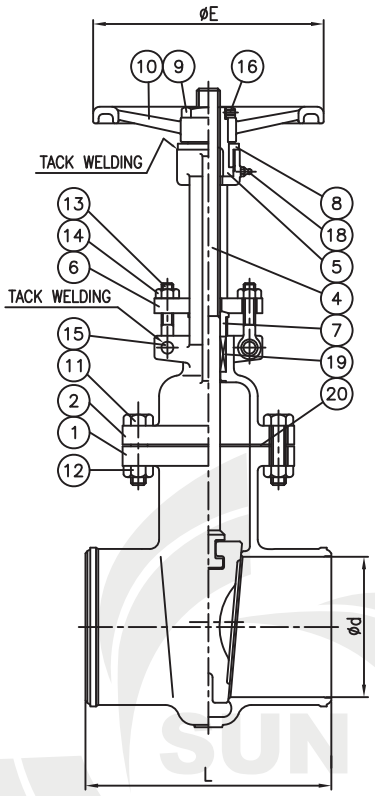
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
12	355.6	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	450	1315.9	205
14	381.0	336.6	533.4	476.3	412.8	35.1	1.6	12-28.5	500	1355	293
16	406.4	387.4	596.9	539.8	469.9	36.6	1.6	16-28.5	560	1540	369
18	431.8	438.2	635.0	577.9	533.4	39.6	1.6	16-31.8	560	1910	475
20	457.2	489.0	698.5	635.0	584.2	43.0	1.6	20-31.8	630	2143	620
24	508.0	590.6	812.8	749.3	692.2	47.8	1.6	20-35.1	630	2460.8	970

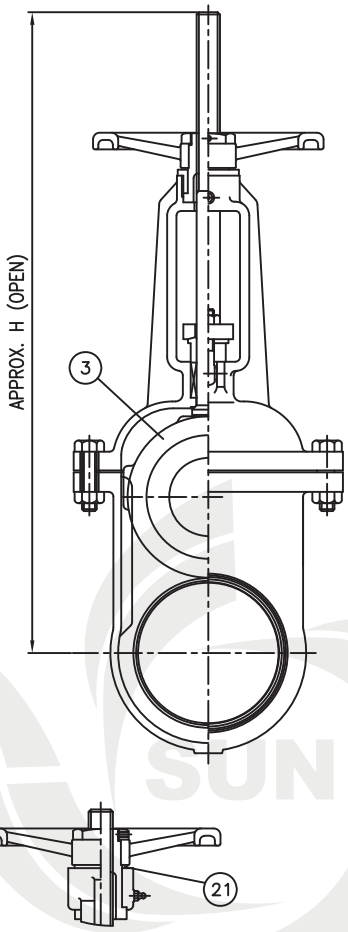
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	HANDWHEEL NUT	A479-304
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	YOKE	A351-CF8
22	YOKE BOLT	A193-B8
23	NUT	A194-8

Remark : 1. The name plate shall be specified by purchaser as required.

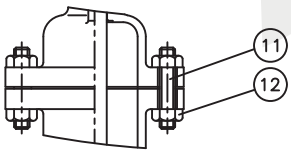
Class 150 Bolted Bonnet, Handwheel, BW

SUN-GA1W-HO-1

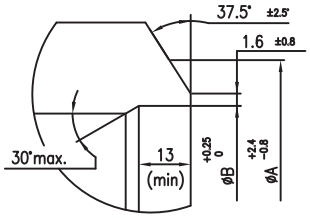




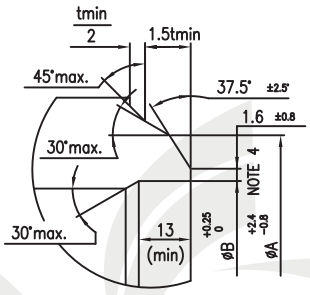
SIZE 4" AND SMALLER



SIZE 5" AND LARGER



DETAIL "A" SIZE 2" AND SMALLER



DETAIL "A" SIZE 2-1/2" AND LARGER

NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. 6" AND LARGER : +4.0
5. WEDGE DESIGN : 1-1/2" AND SMALLER SOLID
   2" AND LARGER FLEXIBLE

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

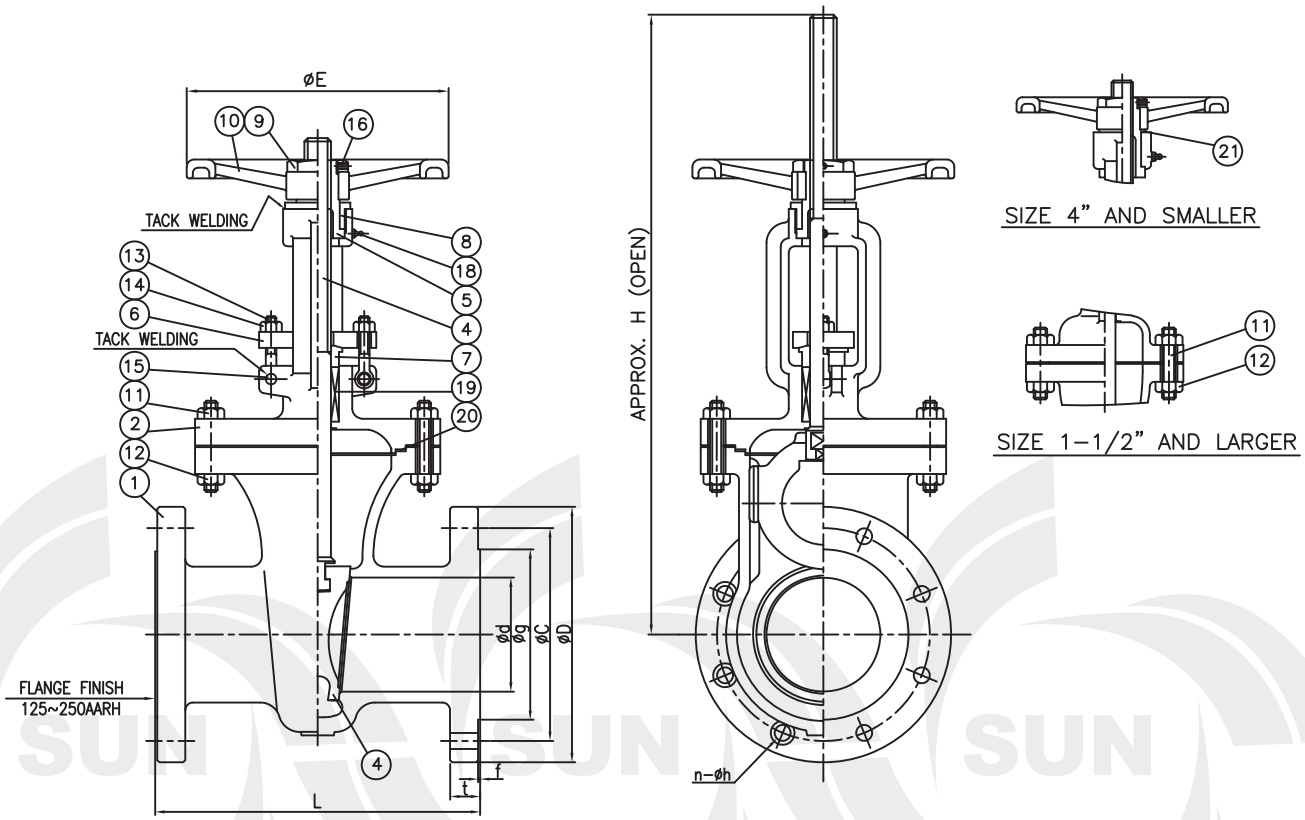
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
1/2	108.0	15.0	21.3	15.8	2.77	STD.	120	190	3.1
3/4	117.4	19.1	26.7	21.0	2.87	STD.	120	205	3.5
1	127.0	25.4	33.4	26.6	3.38	STD.	120	230	4.4
1-1/2	165.1	38.1	48.3	40.9	3.68	STD.	140	302	8.4
2	215.9	50.8	60.3	52.5	3.91	STD.	180	333	11.9
2-1/2	241.3	63.5	75.0	62.5	5.16	40	180	365	17.8
3	282.5	76.2	91.0	78.0	5.49	40	200	410	22
4	304.8	101.6	117	102	6.02	40	250	498	35
5	381.0	127.0	144	128	6.55	40	300	590	47
6	403.4	152.4	172	154	7.11	40	300	683	62
8	419.1	203.2	223	203	8.18	40	350	920	92
10	457.2	254.0	278	255	9.27	40	400	1100	142

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	HANDWHEEL NUT	A479-304
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	THRUST WASHER	A240-304

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GA3F-HO-1



NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. WEDGE DESIGN : 1-1/2" AND SMALLER SOLID
   UP TO 2" FLEXIBLE

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

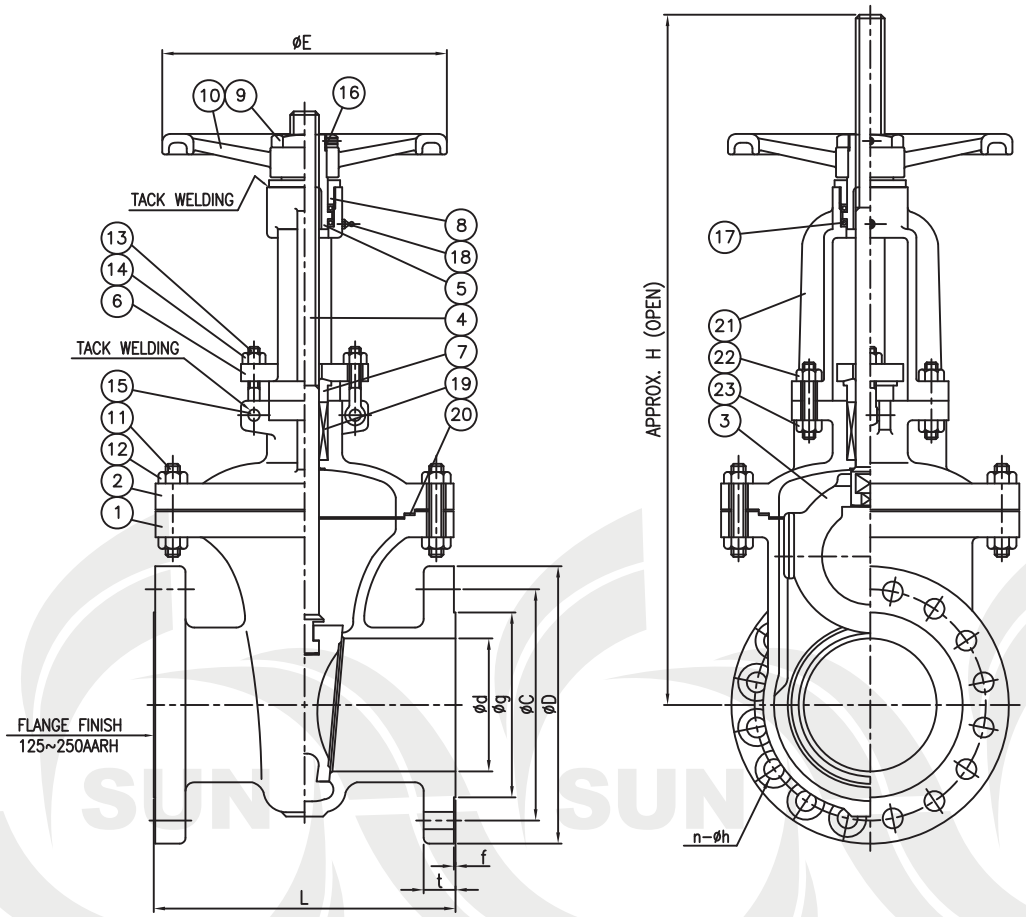
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	215.9	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	200	390	22.5
3	282.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	491	38.5
4	304.8	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	300	588	57.5
6	403.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	400	809	107
8	419.1	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	450	1002	177
10	457.2	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	450	1216	272

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	HANDWHEEL NUT	A479-304
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	THRUST WASHER	A240-304

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GA3F-HO-2



NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	HANDWHEEL NUT	A479-304
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	YOKE	A351-CF8
22	YOKE BOLT	A193-B8
23	NUT	A194-8

NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 300
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

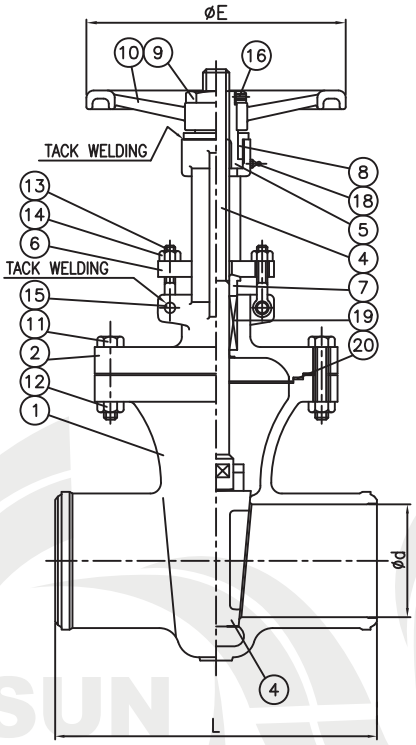
UNIT : mm

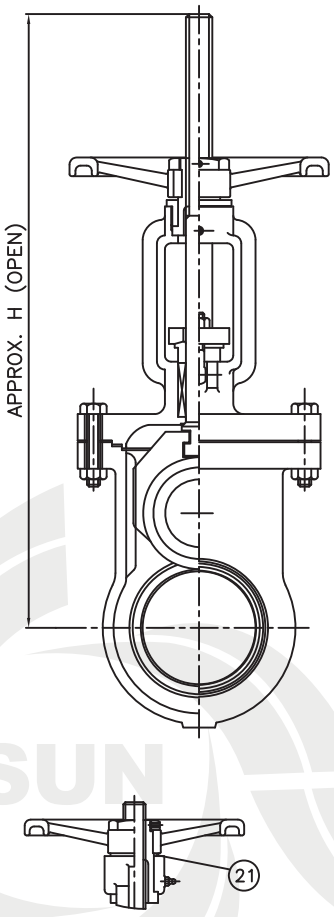
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
12	501.7	304.8	520.7	450.9	381.0	50.8	1.6	16-31.8	500	1417	435
14	762.0	336.6	584.2	514.4	412.8	53.9	1.6	20-31.8	560	1638	682
16	838.2	387.4	647.7	571.5	469.9	57.2	1.6	20-35.1	560	1784	920
18	914.4	431.8	711.2	628.7	533.4	60.5	1.6	24-35.1	630	1972	1187
20	990.6	482.6	774.7	685.8	584.2	63.5	1.6	24-35.1	630	2200	1611
24	1143.0	584.2	914.4	812.8	692.2	69.9	1.6	24-41.2	630	2553	2470

Remark : 1. The name plate shall be specified by purchaser as required.

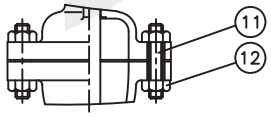
Class 300 Bolted Bonnet, Handwheel, BW

SUN-GA3W-HO-1

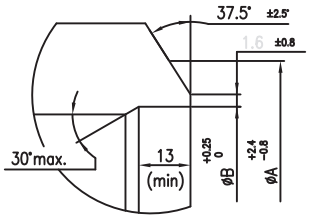




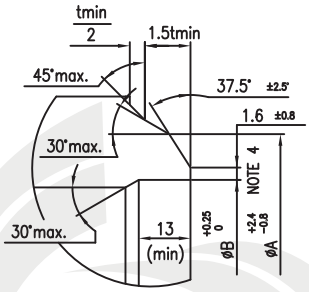
SIZE 4" AND SMALLER



SIZE 1–1/2" AND LARGER



DETAIL "A" SIZE 2" AND SMALLER



DETAIL "A" SIZE 2–1/2" AND LARGER

NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. BUTTWELD END DIMENSIONS : ASME B16.25
4. 6" AND LARGER : +4.0
5. WEDGE DESIGN : 1–1/2" AND SMALLER SOLID
   UP TO 2" FLEXIBLE

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

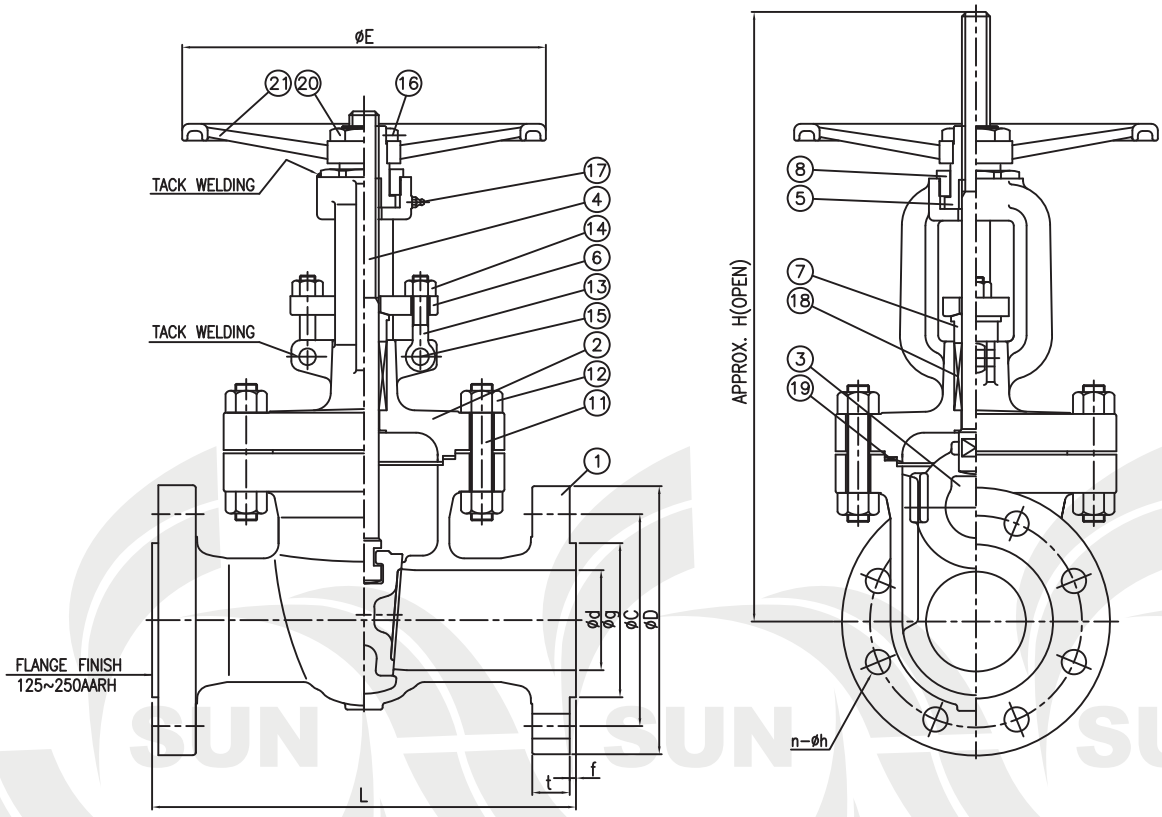
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
1/2	139.7	12.7	21.3	15.8	2.77	STD.	120	208	5.5
3/4	152.4	19.1	26.7	21.0	2.87	STD.	120	211	7.5
1	165.1	25.4	33.4	26.6	3.38	STD.	180	303	10
1–1/2	190.5	38.1	48.3	40.9	3.68	STD.	200	349	16
2	215.9	50.8	60.3	52.5	3.91	STD.	200	390	22.5
2–1/2	241.3	63.5	75.0	62.5	5.16	40	200	432	28.3
3	282.5	76.2	91.0	78.0	5.49	40	250	491	38.5
4	304.8	101.6	117	102	6.02	40	300	588	57.5
5	381.0	127.0	144	128	6.55	40	350	630	85
6	403.4	152.4	172	154	7.11	40	400	809	107
8	419.1	203.2	223	203	8.18	40	450	1002	177
10	457.2	254.0	278	255	9.27	40	450	1216	272

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	HANDWHEEL NUT	A479-304
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	THRUST WASHER	A240-304

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GA6F-HO-1



NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

UNIT : mm

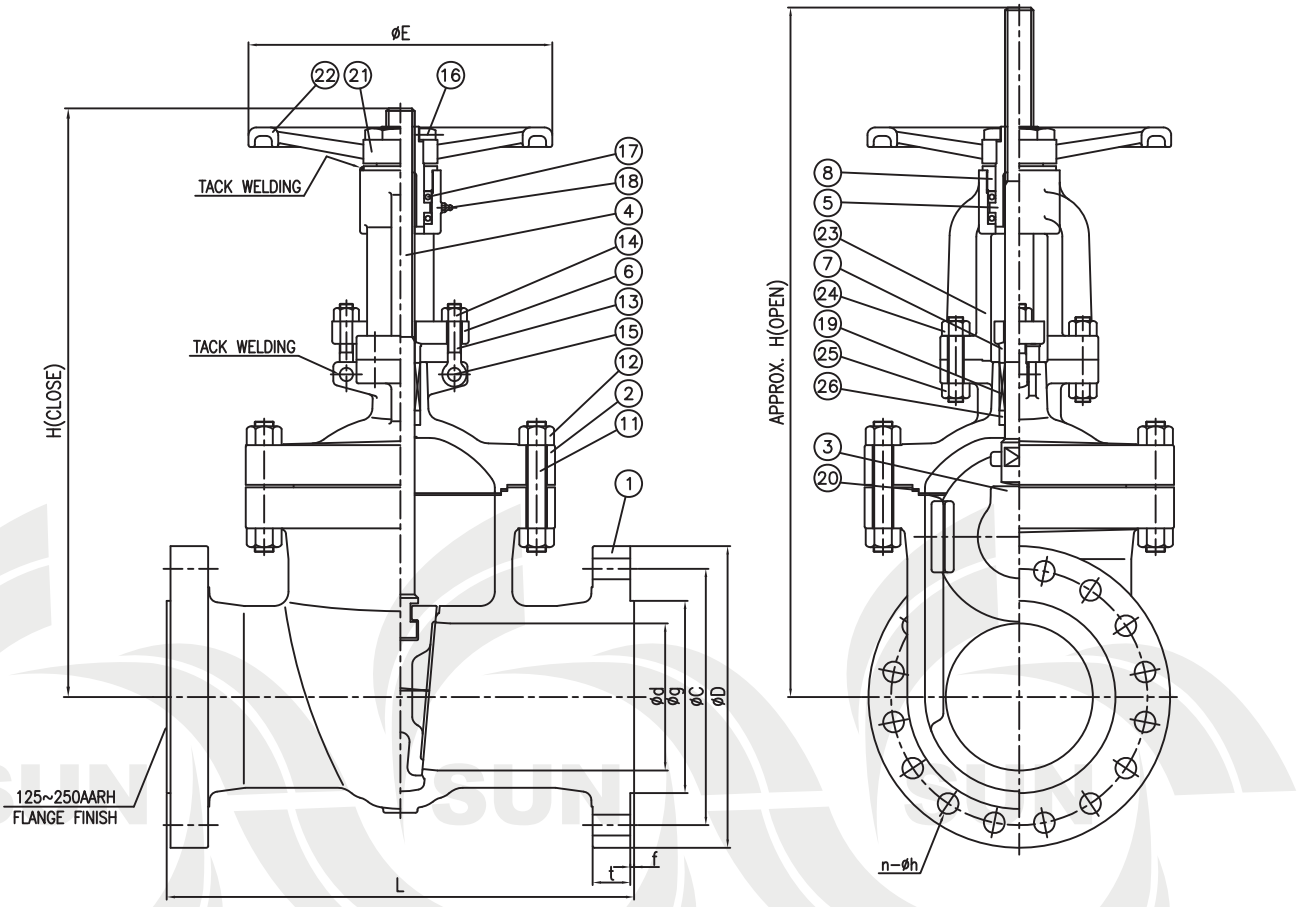
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	200	394	35
2-1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8-22.4	224	427	64
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.4	300	475	60
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	350	591	108
5	508.0	127.0	330.2	266.7	185.7	44.5	6.4	8-28.5	400	725	136
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	450	801	218
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	500	1005	345

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	WEDGE	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	GREASE NIPPLE	A479-304
18	PACKING	PTFE
19	GASKET	SPIRAL WOUND/PTFE+316
20	HANDWHEEL NUT	A479-304
21	HANDWHEEL	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GA6F-HO-2



NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	THRUST BALL BEARING	STEEL
18	GREASE NIPPLE	A479-304
19	PACKING	PTFE
20	GASKET	SPIRAL WOUND/PTFE+316
21	HANDWHEEL NUT	A479-304
22	HANDWHEEL	A536
23	YOKE	A351-CF8
24	YOKE BOLT	A193-B8
25	YOKE BOLT NUT	A194-8
26	BACKUP RING	A479-316L

NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

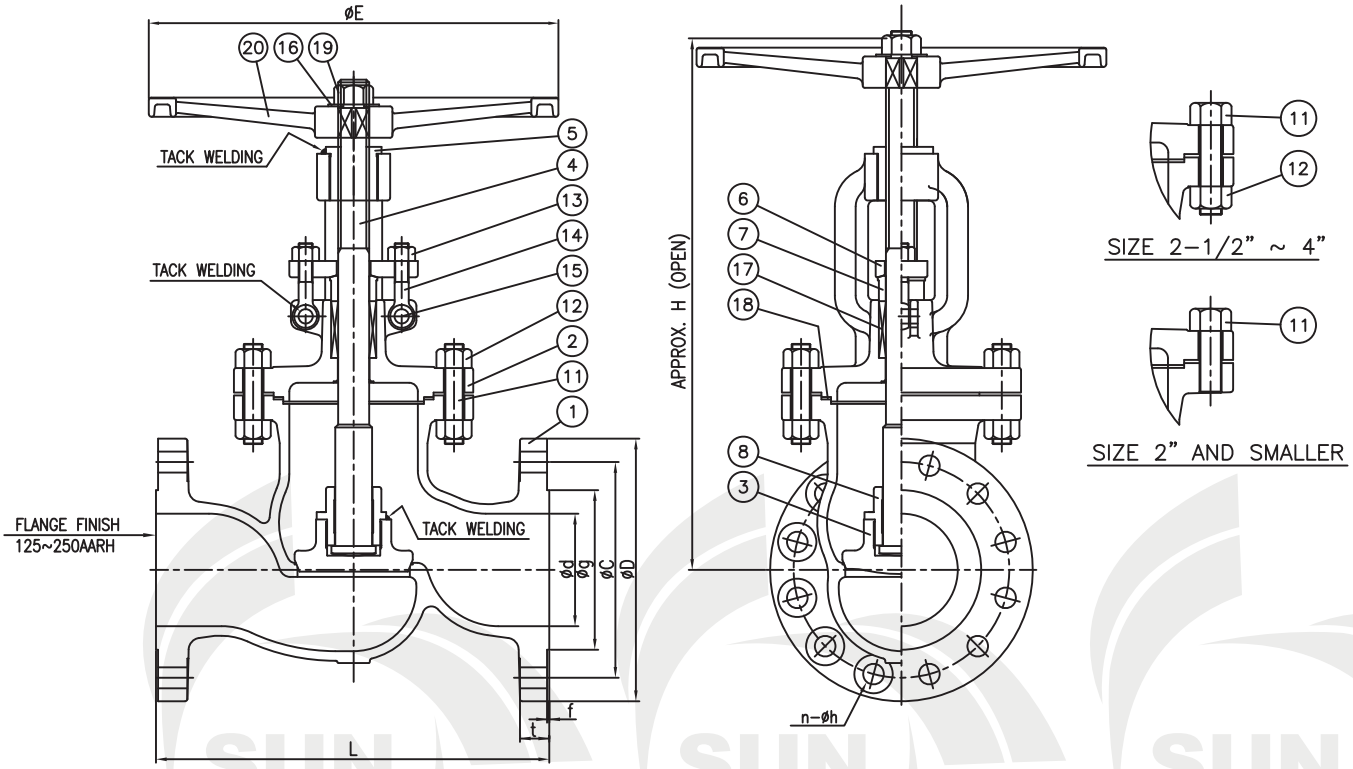
UNIT : mm

SIZE	L	d	FLANGE						E	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h			
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-35.1	630	1245	612
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20-35.1	710	1455	1205

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GA1F-HO-1



NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 150
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 150
4. SIZE 4" AND SMALLER : A479-316

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

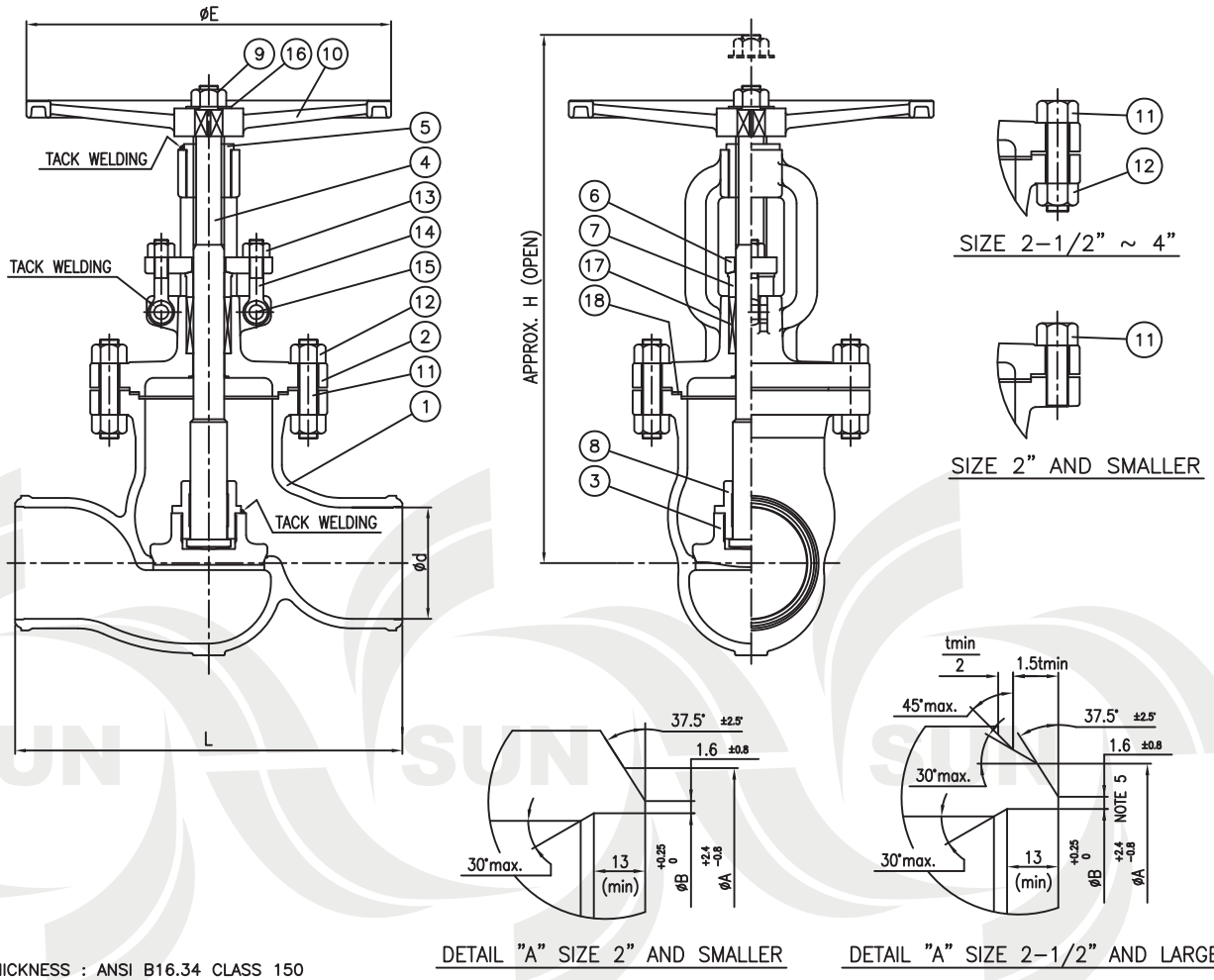
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
1/2	108.0	15.0	88.9	60.5	35.1	11.2	1.6	4-15.8	178	3.5
3/4	117.4	19.1	98.6	69.9	42.9	11.2	1.6	4-15.8	187	4
1	127.0	25.4	108.0	79.3	50.8	11.2	1.6	4-15.8	216	4
1-1/2	165.1	38.1	127.0	98.6	73.2	14.2	1.6	4-15.8	251	6.9
2	203.2	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	273	11.5
2-1/2	215.9	63.5	177.8	139.7	104.7	17.5	1.6	4-19.1	314	18.5
3	241.3	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	343	22.9
4	292.1	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	368	37.6
5	355.6	127.0	254.0	215.9	185.4	23.9	1.6	8-22.4	412	59
6	406.4	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	486	70
8	495.3	203.2	342.9	298.5	269.7	27.5	1.6	8-22.4	565	117

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	HANDWHEEL NUT	A194-8
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	PTFE
18	GASKET	SPIRAL WOUND/PTFE+316

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, BW

SUN-GL1W-HO-1



NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 150
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 150
3. BUTTWELD END DIMENSIONS : ANSI B16.25
4. SIZE 4" AND SMALLER : A479-316
5. 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

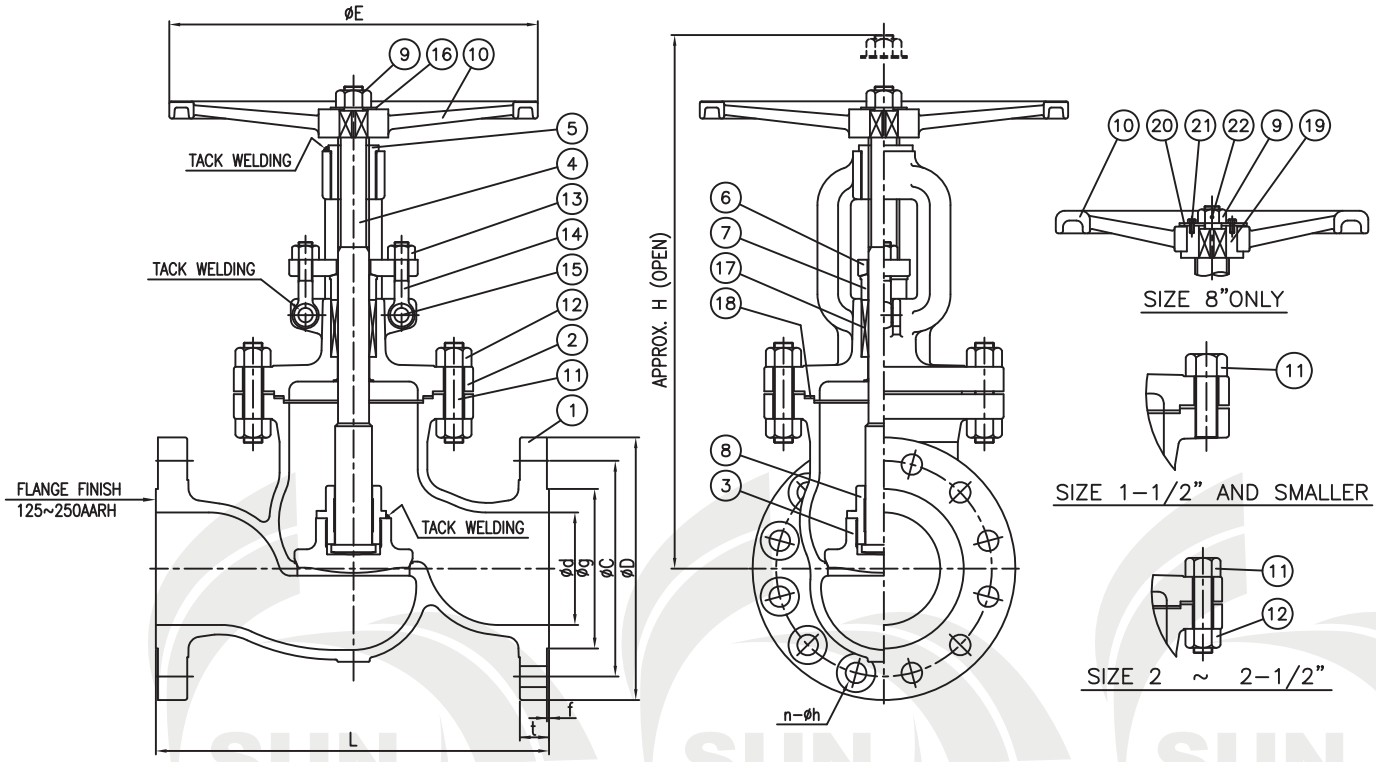
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
1/2	108.0	15.0	21.3	15.8	2.77	STD.	120	178	3.5
3/4	117.4	19.1	26.7	21.0	2.87	STD.	120	187	4
1	127.0	25.4	33.4	26.6	3.38	STD.	120	216	4
1-1/2	165.1	38.1	48.3	40.9	3.68	STD.	140	251	6.9
2	203.2	50.8	60.3	52.5	3.91	STD.	180	273	11.5
2-1/2	215.9	63.5	75.0	63.0	5.15	STD.	180	314	18.5
3	241.3	76.2	91.0	78.0	5.5	STD.	200	343	22.9
4	292.1	101.6	117	102	6.0	STD.	250	368	37.6
5	355.6	127.0	144	128	6.55	STD.	300	412	52
6	406.4	152.4	172	154	7.1	STD.	300	486	70
8	495.3	203.2	223	203	8.2	STD.	450	565	117

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	HANDWHEEL NUT	A194-8
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	PTFE
18	GASKET	SPIRAL WOUND/PTFE+316

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GA3F-HO-1



NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 300
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 300
4. SIZE 4" AND SMALLER : A479-316

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

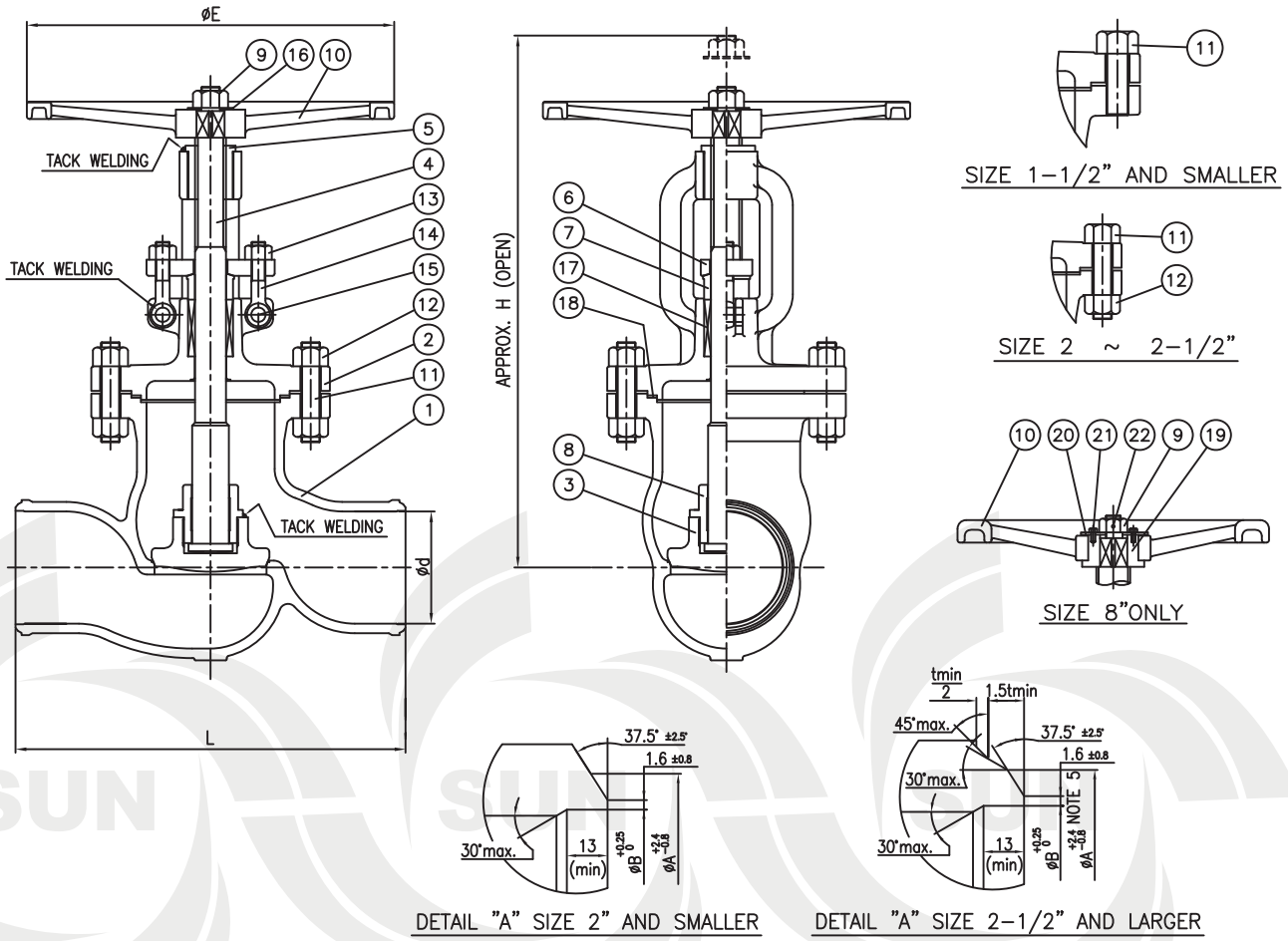
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
1/2	152.4	12.7	95.3	66.6	35.1	14.2	1.6	4-15.8	120	185	6
3/4	177.8	19.1	117.4	82.6	42.9	15.8	1.6	4-19.1	120	194	8
1	203.2	25.4	124.0	88.9	50.8	17.5	1.6	4-19.1	120	224	10
1-1/2	228.6	38.1	155.5	114.3	73.2	20.6	1.6	4-22.4	180	267	18
2	266.7	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	180	329	21.5
2-1/2	292.1	63.5	190.5	149.4	104.7	25.4	1.6	8-22.4	250	354	36
3	317.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	383	50
4	355.6	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	300	443	60
5	400.0	127.0	279.4	235.0	185.7	35.1	1.6	8-22.4	350	500	93
6	444.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	450	567	122
8	558.8	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	450	615	277

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	HANDWHEEL NUT	A194-8
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	PTFE
18	GASKET	SPIRAL WOUND/PTFE+316
19	IMPACTOR BOSS	A536
20	HANDWHEEL COVER	A283-D
21	BOLT	A307-B
22	SPLIT PIN	A576-1020

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, BW

SUN-GL3W-HO-1



NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 300
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 300
3. BUTTWELD END DIMENSIONS : ANSI B16.25
4. SIZE 4" AND SMALLER : A479-316
5. 6" & LARGER : +4.0

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

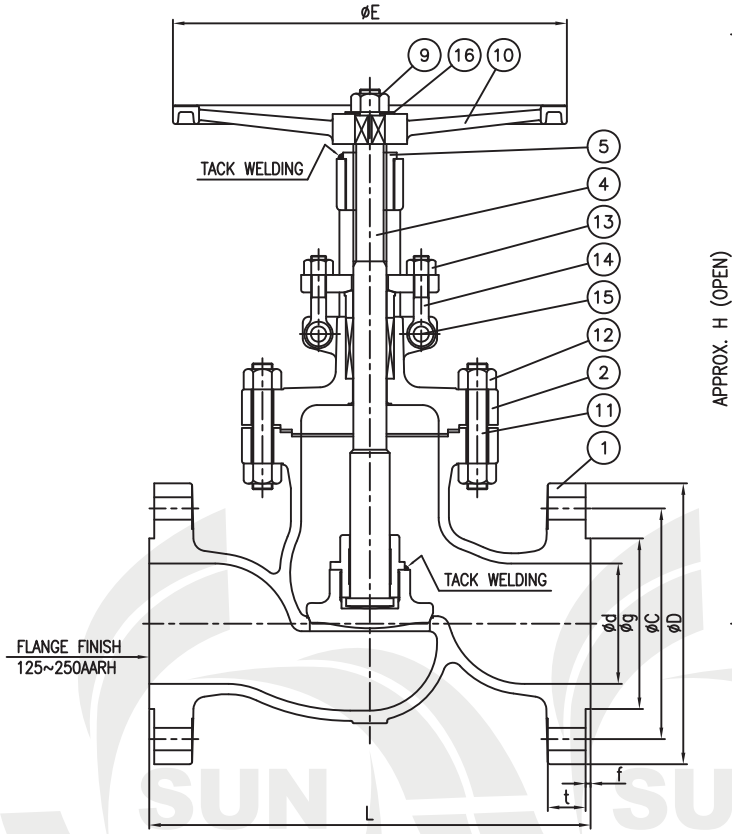
SIZE	L	d	BUTTWELDING END				E	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
1/2	152.4	12.7	21.3	15.8	2.77	STD.	120	185	6
3/4	177.8	19.1	26.7	21.0	2.87	STD.	120	194	8
1	203.2	25.4	33.4	26.6	3.38	STD.	120	224	10
1-1/2	228.6	38.1	48.3	40.9	3.68	STD.	180	267	18
2	266.7	50.8	60.3	52.5	3.91	STD.	180	329	21.5
2-1/2	292.1	63.5	75.0	63.0	5.15	STD.	250	354	36
3	317.5	76.2	91.0	78.0	5.5	STD.	250	383	50
4	355.6	101.6	117	102	6.0	STD.	300	443	60
5	400.0	127.0	144	128	6.55	STD.	350	500	88
6	444.4	152.4	172	154	7.1	STD.	450	567	122
8	558.8	203.2	223	203	8.2	STD.	450	615	277

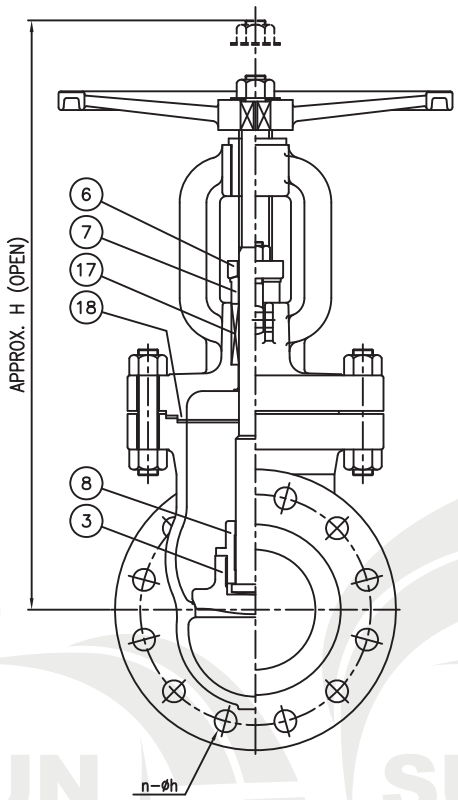
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	HANDWHEEL NUT	A194-8
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	PTFE
18	GASKET	SPIRAL WOUND/PTFE+316
19	IMPACTOR BOSS	A536
20	HANDWHEEL COVER	A283-D
21	BOLT	A307-B
22	SPLIT PIN	A576-1020

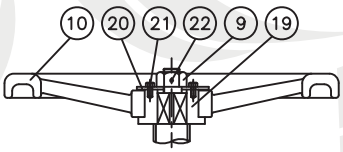
Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GL6F-HO-1







SIZE 6" AND LARGER

NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 600
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

UNIT : mm

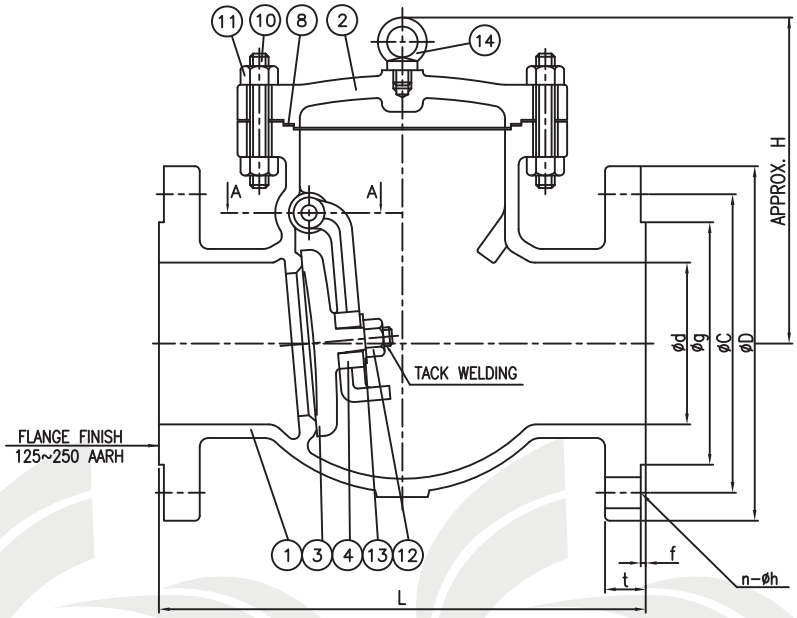
SIZE	L	d	FLANGE						E	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	200	394	28
2-1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8-22.4	250	450	57
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.4	300	520	95
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	400	609	148
5	508.0	127.0	330.2	266.7	185.7	44.5	6.4	8-28.5	450	680	162
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	450	750	195
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	550	815	507

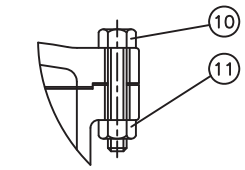
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	HANDWHEEL NUT	A194-8
10	HANDWHEEL	A536
11	BONNET BOLT	A193-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	PTFE
18	GASKET	SPIRAL WOUND/PTFE+316
19	IMPACTOR BOSS	A536
20	HANDWHEEL COVER	A283-D
21	BOLT	A307-B
22	SPLIT PIN	A576-1020

Remark : 1. The name plate shall be specified by purchaser as required.

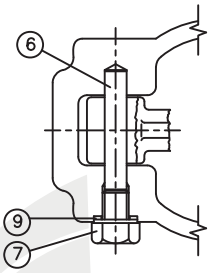
Class 150 RF

SUN-SC1F-ZZ-1





SIZE 4" AND SMALLER



SECTION Ⓐ – Ⓐ

NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 150
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 150
4. SIZE 1" AND SMALLER A479-316

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

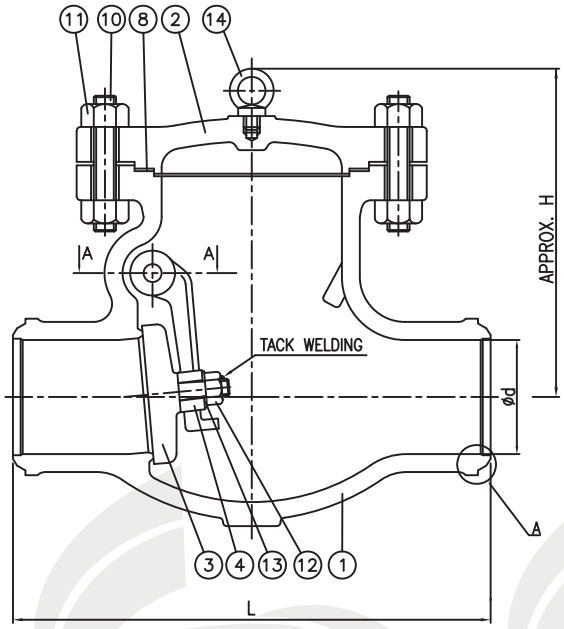
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
1/2	108.0	12.7	88.9	60.5	35.1	11.2	1.6	4-15.8	85	2.6
3/4	117.4	19.1	98.6	69.9	42.9	11.2	1.6	4-15.8	89	3.2
1	127.0	25.4	108.0	79.3	50.8	11.2	1.6	4-15.8	102	4.2
1-1/2	165.1	38.1	127.0	98.6	73.2	14.2	1.6	4-15.8	120	6.5
2	203.2	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	138	9.6
2-1/2	215.9	63.5	177.8	139.7	104.7	17.5	1.6	4-19.1	155	16
3	241.3	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	160	21
4	292.1	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	201	32.8
5	330.2	127.0	254.0	215.9	185.4	23.9	1.6	8-22.4	215	50.5
6	355.6	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	248	64
8	495.3	203.2	342.9	298.5	269.7	28.5	1.6	8-22.4	293	108
10	622.3	254.0	406.4	362.0	323.9	30.2	1.6	12-25.4	330	149
12	698.5	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	354	260
14	787.4	336.6	533.4	476.3	412.8	35.1	1.6	12-28.5	387	297
16	863.6	387.4	596.9	539.8	469.9	36.6	1.6	16-28.5	421	410
18	977.9	438.2	635.0	577.9	533.4	39.6	1.6	16-31.8	461	585
20	977.9	489.0	698.5	635.0	584.2	43.0	1.6	20-31.8	526	780
24	1295.4	590.6	812.8	749.3	692.2	47.8	1.6	20-35.1	568	1468

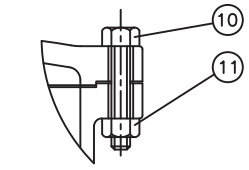
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	COVER	A351-CF8M
3	DISC	A351-CF8M
4	ARM	A351-CF8M
6	PIN	A479-316
7	PLUG BOLT	A479-304
8	GASKET	SPIRAL WOUND/PTFE+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B8
11	NUT	A194-8
12	DISC NUT	A194-8M
13	WASHER	A240-316
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

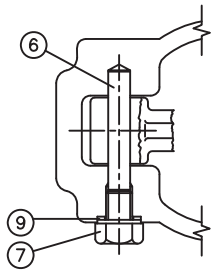
Class 300 BW

SUN-SC3W-ZZ-1

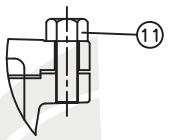




SIZE 1–1/2 ~ 2 1/2"



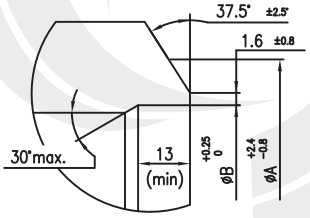
SECTION Ⓐ – Ⓐ



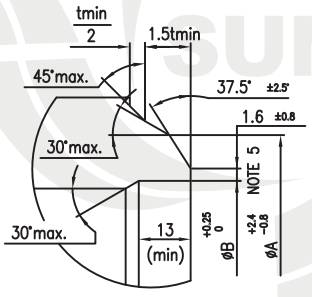
SIZE 1" AND SMALLER

NOTE

1. WALL THICKNESS : ANSI B16.34 CLASS 300
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 300
3. BUTTWELD END DIMENSIONS : ANSI B16.25
4. SIZE 1" AND SMALLER : A479–304
5. SIZE 6" & LARGER : +4.0



DETAIL "A" SIZE 2" AND SMALLER



DETAIL "A" SIZE 2–1/2" AND LARGER

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

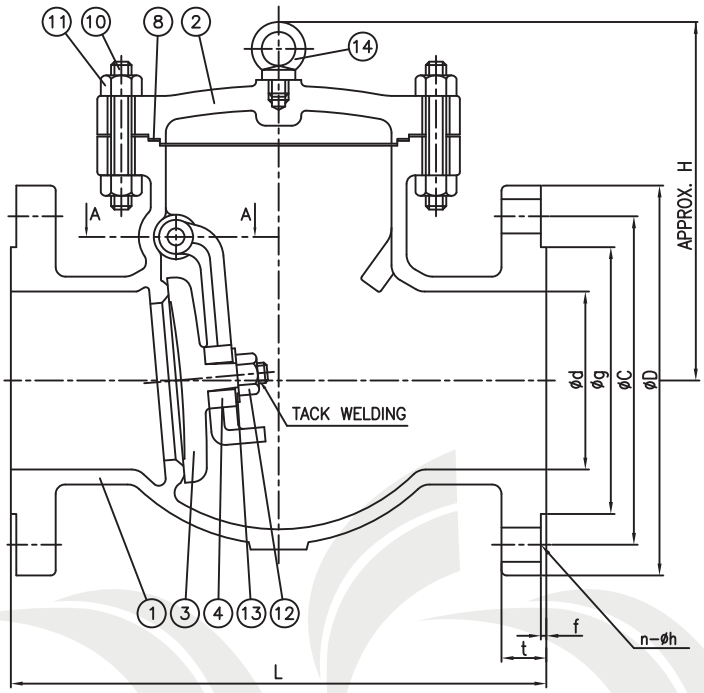
SIZE	L	d	BUTTWELDING END				H	WEIGHT (kg)
			A	B	t	SCH. NO.		
1/2	152.4	12.7	21.3	15.8	2.77	STD.	93	3.8
3/4	177.8	19.1	26.7	21.0	2.87	STD.	96	5.5
1	215.9	25.4	33.4	26.6	3.38	STD.	112	5.8
1–1/2	241.3	38.1	48.3	40.9	3.68	STD.	126	6.6
2	266.7	50.8	60.3	52.5	3.91	STD.	152	16
2–1/2	292.1	63.5	75.0	63.0	5.15	STD.	164	23
3	317.5	76.2	91.0	78.0	5.5	STD.	176	37.2
4	355.6	101.6	117	102	6.0	STD.	186	44.8
5	400.1	127.0	144	128	6.55	STD.	233	56
6	444.5	152.4	172	154	7.1	STD.	262	75
8	533.4	203.2	223	203	8.2	STD.	312	93
10	622.3	254.0	278	255	9.25	STD.	355	153

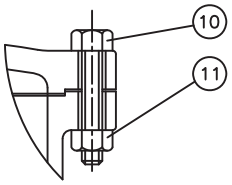
NO.	PARTS	MATERIAL
1	BODY	A351-CF8
2	COVER	A351-CF8
3	DISC	A351-CF8
4	ARM	A351-CF8
6	PIN	A479-304
7	PLUG BOLT	A479-304
8	GASKET	SPIRAL WOUND/PTFE+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B8
11	NUT	A194-8
12	DISC NUT	A194-8
13	WASHER	A240-304
14	EYE BOLT	A193-B8

Remark : 1. The name plate shall be specified by purchaser as required.

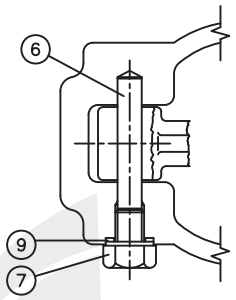
Class 600 RF

SUN-SC4F-ZZ-1

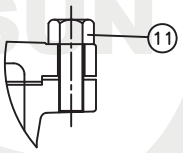




SIZE 1-1/2 ~ 2 1/2"



SECTION (A) - (A)



SIZE 1" AND SMALLER

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

UNIT : mm

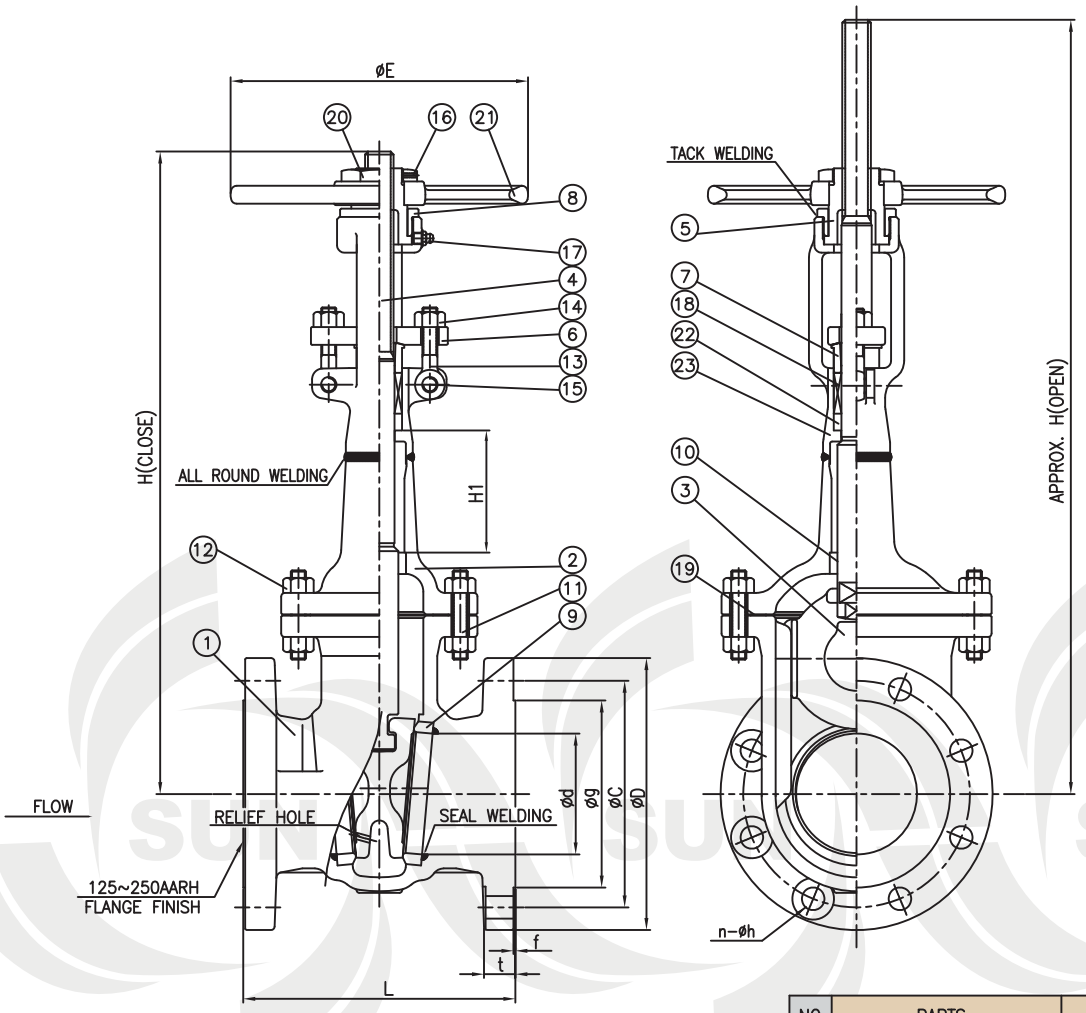
SIZE	L	d	FLANGE						H	WEIGHT (kg)
			D	C	g	t	f	n-h		
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	187	25.5
2-1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8-22.4	200	45
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.4	210	53
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	256	91
5	508.0	127.0	330.2	266.7	185.7	44.5	6.4	8-28.5	260	158
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	329	204
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	364	320
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-35.1	464	535
12	838.2	298.5	558.8	489.0	381.0	66.5	6.4	20-35.1	486	725

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	COVER	A351-CF8M
3	DISC	A351-CF8M
4	ARM	A351-CF8M
6	PIN	A479-316
7	PLUG BOLT	A479-316
8	GASKET	SPIRAL WOUND/PTFE+316
9	PLUG GASKET	SS316
10	COVER BOLT	A193-B8
11	NUT	A194-8
12	DISC NUT	A194-8M
13	WASHER	A240-316
14	EYE BOLT	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GA1F-CRY-1



NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	WEDGE	A351-CF8M+ST'L NO.6
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	SEAT RING	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	GREASE NIPPLE	A479-304
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+316+316
20	HANDWHEEL NUT	A479-304
21	HANDWHEEL	A536
22	BACKUP RING	A479-316L
23	YOKE	A351-CF8M

NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

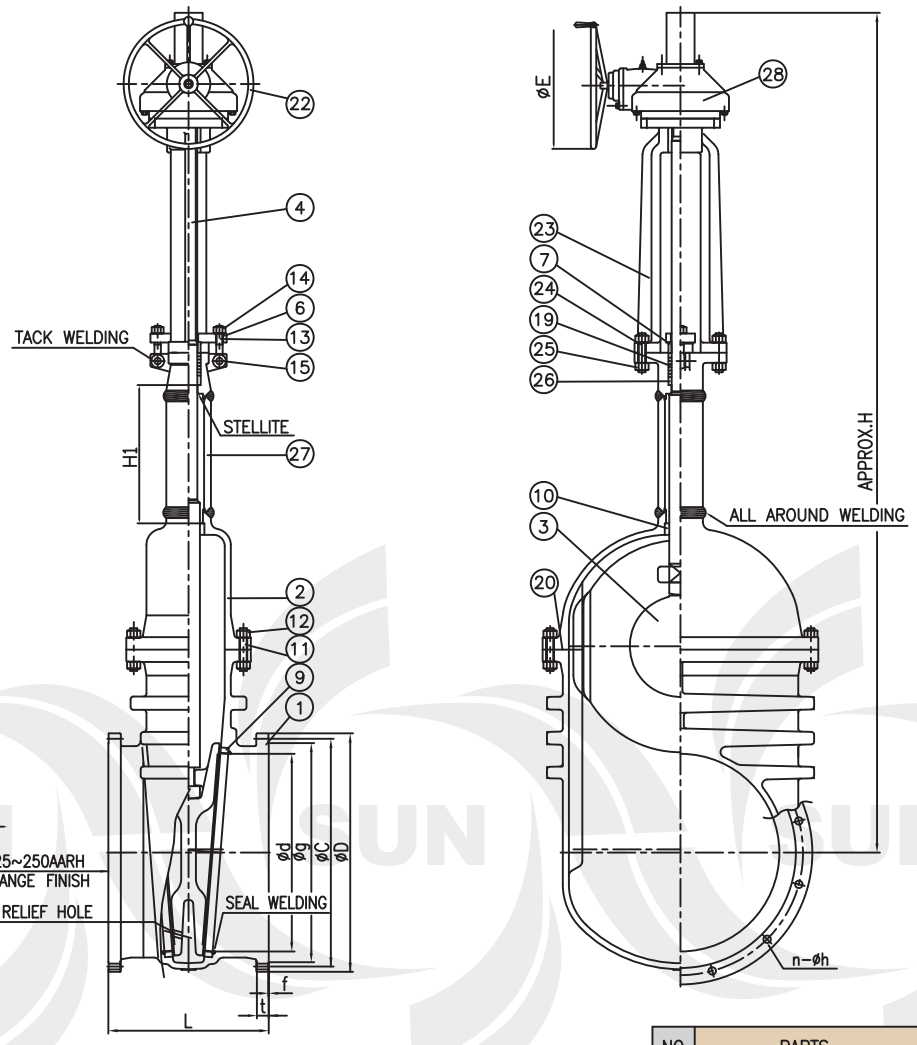
UNIT : mm

SIZE	L	d	FLANGE						E	H1	H (OPEN)	H (CLOSE)
			D	C	g	t	f	n-h				
2	177.8	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	200	240	591	524
3	203.2	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	250	250	690	605
4	228.6	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	250	250	780	669
6	266.7	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	315	350	1075	913
8	292.1	203.2	342.9	298.5	269.7	28.5	1.6	8-22.4	355	500	1415	1202
10	330.2	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	400	500	1614	1347
12	355.6	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	450	500	1828	1509

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Gear, RF

SUN-GA1F-CRYGO-1



NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M+ST'L NO.6
4	STEM	A479-316
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
9	SEAT RING	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+316+316
22	HANDWHEEL	A53
23	YOKE	A351-CF8
24	YOKE BOLT	A193-B8
25	YOKE BOLT NUT	A194-8
26	BACKUP RING	A479-316L
27	PIPE	A351-CF8
28	GEAR BOX	A536

NOTE

1. WALL THICKNESS : API 600 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

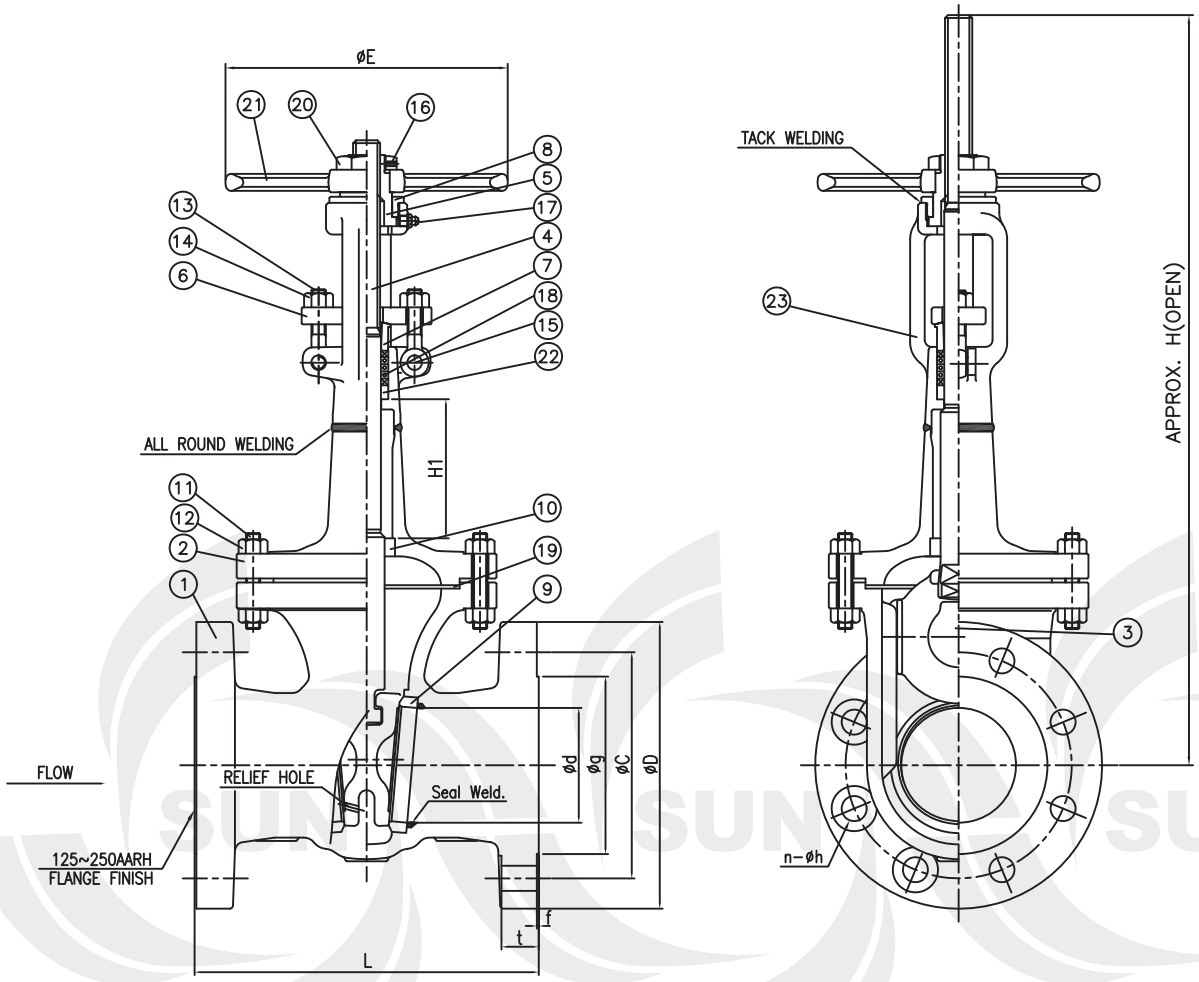
UNIT : mm

SIZE	L	d	FLANGE						H1	H	E
			D	C	g	t	f	n-h			
14	381.0	336.6	533.4	476.3	412.8	35.1	1.6	12-ø28.5	500	2006	500
16	406.4	387.4	596.9	539.8	469.9	36.6	1.6	16-ø28.5	500	2189	500
18	431.8	438.2	635.0	577.9	533.4	39.6	1.6	16-ø31.8	500	2371	630
20	457.2	489.0	698.5	635.0	584.2	43.0	1.6	20-ø31.8	500	2610	630
24	508.0	590.6	812.8	749.3	692.2	47.8	1.6	20-ø35.1	500	2984	710

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GA3F-CRY-1



NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

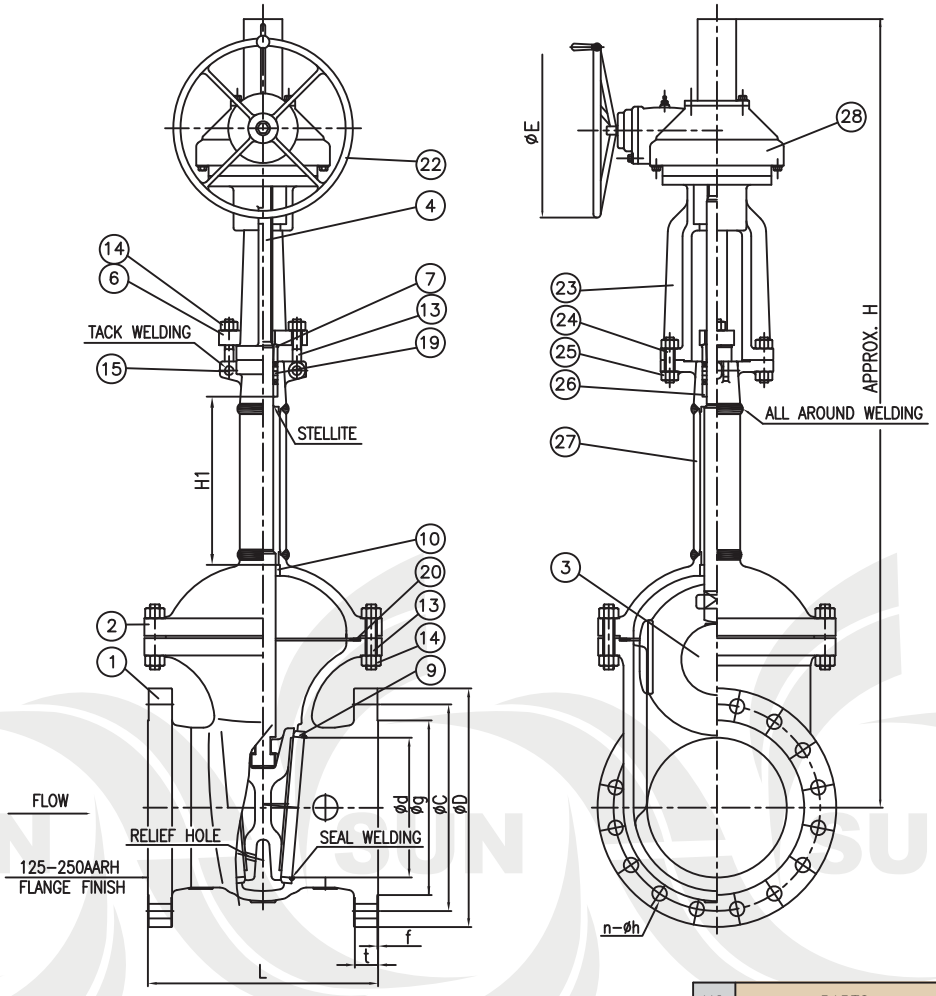
SIZE	L	d	FLANGE						E	H1	H (OPEN)	H (CLOSE)
			D	C	g	t	f	n-h				
2	215.9	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	200	250	615	575
3	282.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	250	715	630
4	304.8	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	250	250	805	695
6	403.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	355	350	1120	957
8	419.1	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	400	500	1455	1240
10	457.0	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	450	500	1671	1405

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	WEDGE	A351-CF8M+ST'L NO.6
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	SEAT RING	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	GREASE NIPPLE	A479-304
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+316+316
20	HANDWHEEL NUT	A351-CF8
21	HANDWHEEL	A536
22	BACKUP RING	A479-316L
23	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Gear, RF

SUN-GA3F-CRYGO-1



NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M+ST'L NO.6
4	STEM	A479-316
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
9	SEAT RING	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN BOLT	A193-B8
15A	HINGE PIN NUT	A194-8
16	SET SCREW	A479-304
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+316+316
22	HANDWHEEL	A53
23	YOKE	A351-CF8
24	YOKE BOLT	A193-B8
25	YOKE BOLT NUT	A194-8
26	BACKUP RING	A479-316L
27	PIPE	A479-316
28	GEAR BOX	A536

NOTE

1. WALL THICKNESS : API 600 CLASS 300
2. FACE TO FACE DIMENSIONS : ANSI B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 300

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

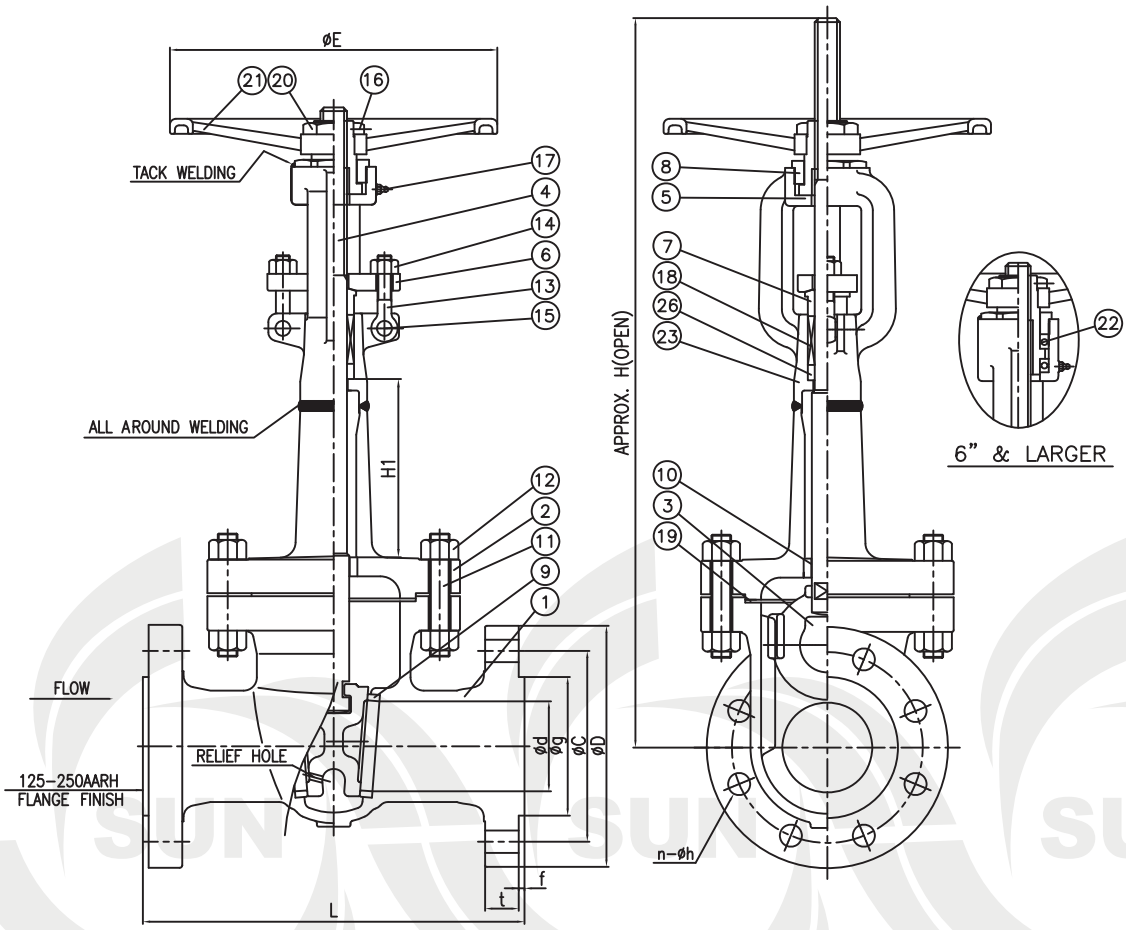
UNIT : mm

SIZE	L	d	FLANGE						H	H1	E
			D	C	g	t	f	n–øh			
12	501.7	304.8	520.7	450.9	381.0	50.8	1.6	16–31.8	1400	500	400
14	762.0	336.6	584.2	514.4	412.8	53.9	1.6	20–31.8	1573	500	500
16	838.2	387.4	647.7	571.5	469.9	57.2	1.6	20–35.1	1800	500	500
18	914.4	431.8	711.2	628.7	533.4	60.5	1.6	24–35.1	1963	500	630
20	990.6	482.6	774.7	685.8	584.2	63.5	1.6	24–35.1	2196	500	710
24	1143.0	584.2	914.4	812.8	692.2	69.9	1.6	24–41.2	2566	500	710

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GA6F-CRY-1



NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

UNIT : mm

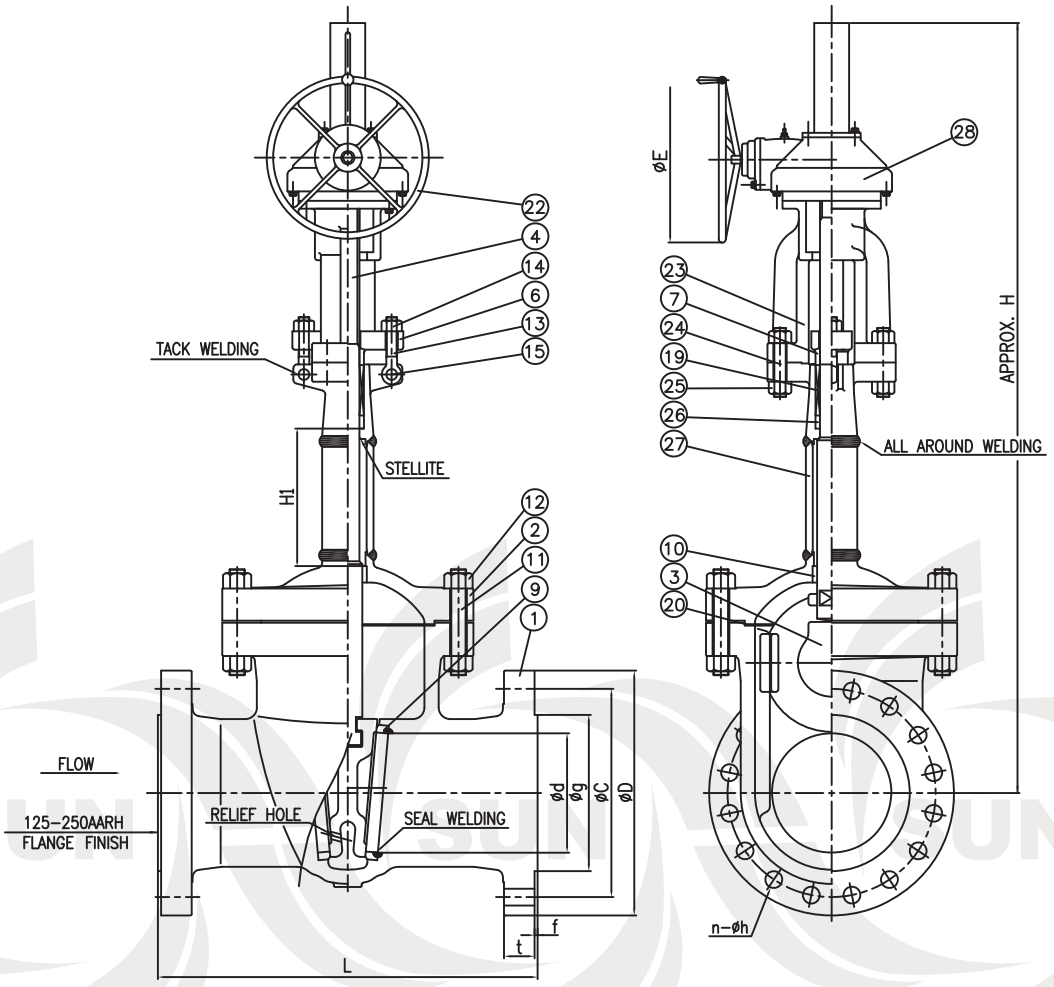
SIZE	L	d	FLANGE						E	H1	H
			D	C	g	t	f	n–h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8–19.1	200	250	690
2–1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8–22.4	250	250	693
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8–22.4	300	250	740
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8–25.4	350	250	878
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12–28.5	500	350	1264
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12–31.8	500	500	1572

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M+ST'L NO.6
4	STEM	A479-316
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	YOKE CAP	A351-CF8
9	SEAT RING	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	SET SCREW	A479-304
17	GREASE NIPPLE	A479-304
18	PACKING	GRAPHITE+CARBON FIBER
19	GASKET	SPIRAL WOUND/GRAPHITE+316+316
20	HANDWHEEL NUT	A479-304
21	HANDWHEEL	A536
22	THRUST BALL BEARING	STEEL
23	YOKE	A351-CF8M
26	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

SUN-GA6F-CRYGO-1



NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M+ST'L NO.6
4	STEM	A479-316
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
9	SEAT RING	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
19	PACKING	GRAPHITE+CARBON FIBER
20	GASKET	SPIRAL WOUND/GRAPHITE+316+316
22	HANDWHEEL	A53
23	YOKE	A351-CF8
24	YOKE BOLT	A193-B8
25	YOKE BOLT NUT	A194-8
26	BACKUP RING	A479-316L
27	PIPE	A351-CF8
28	GEAR BOX	A536

NOTE

1. WALL THICKNESS : API 600 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

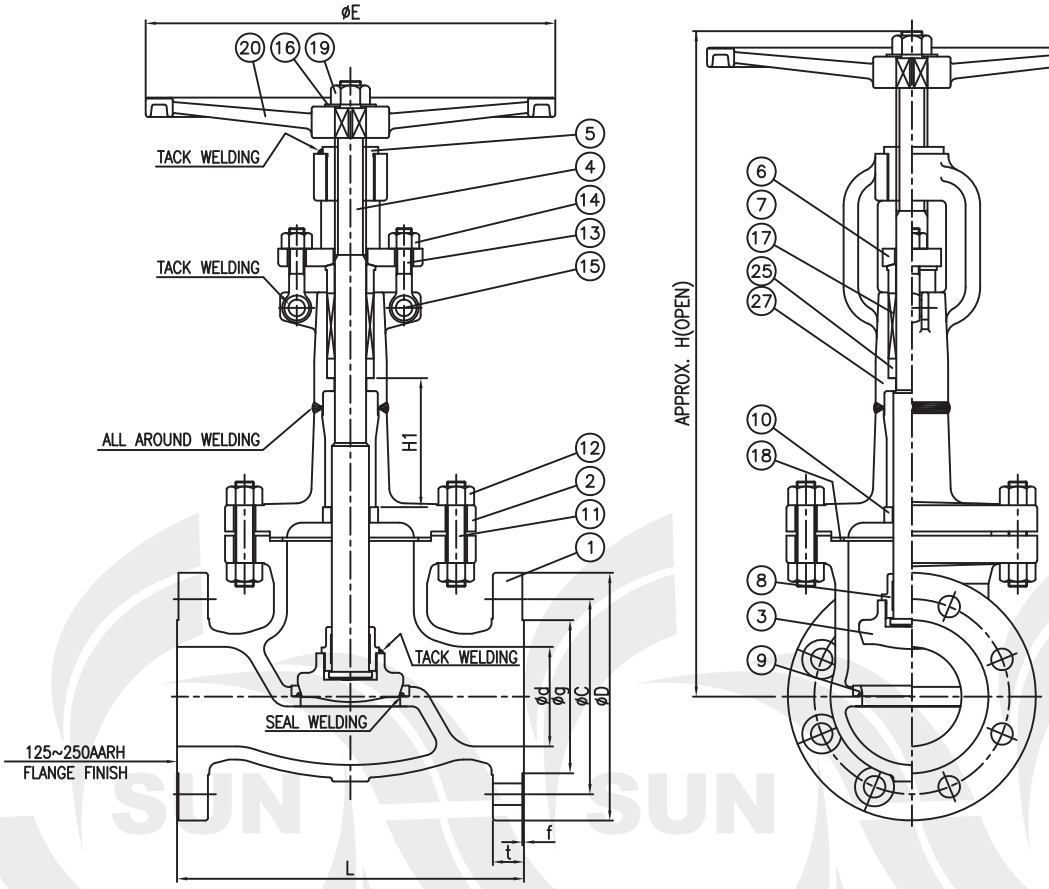
UNIT : mm

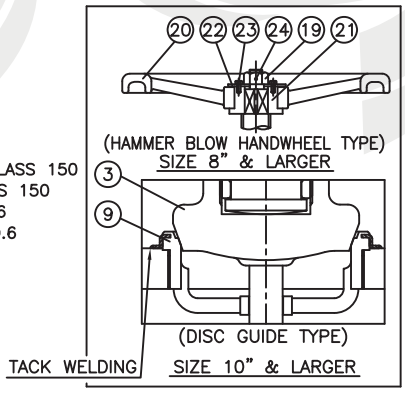
SIZE	L	d	FLANGE						H1	H	E
			D	C	g	t	f	n–h			
10	787.4	248	508	431.8	323.8	63.5	6.4	16–ø35	500	1737	630
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20–35.1	500	2004	630
14	889.0	326.9	603.3	527.1	412.8	69.9	6.4	20–38.1	500	2105	710
16	990.6	374.7	685.8	603.3	469.9	76.2	6.4	20–41.3	500	2310	710
18	1092.9	419.1	743.0	654.1	533.4	82.6	6.4	20–44.5	500	2501	710
20	1193.8	463.6	812.8	723.9	584.2	88.9	6.4	24–44.5	500	2694	800
24	1397.0	558.8	939.8	838.2	692.2	101.6	6.4	24–50.8	500	3204	900

Remark : 1. The name plate shall be specified by purchaser as required.

Class 150 Bolted Bonnet, Handwheel, RF

SUN-GL1F-CRY-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. SIZE 6" AND LARGER : A351-CF8M+ST'L NO.6
5. SIZE 10" AND LARGER : A351-CF8M+ST'L NO.6

Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

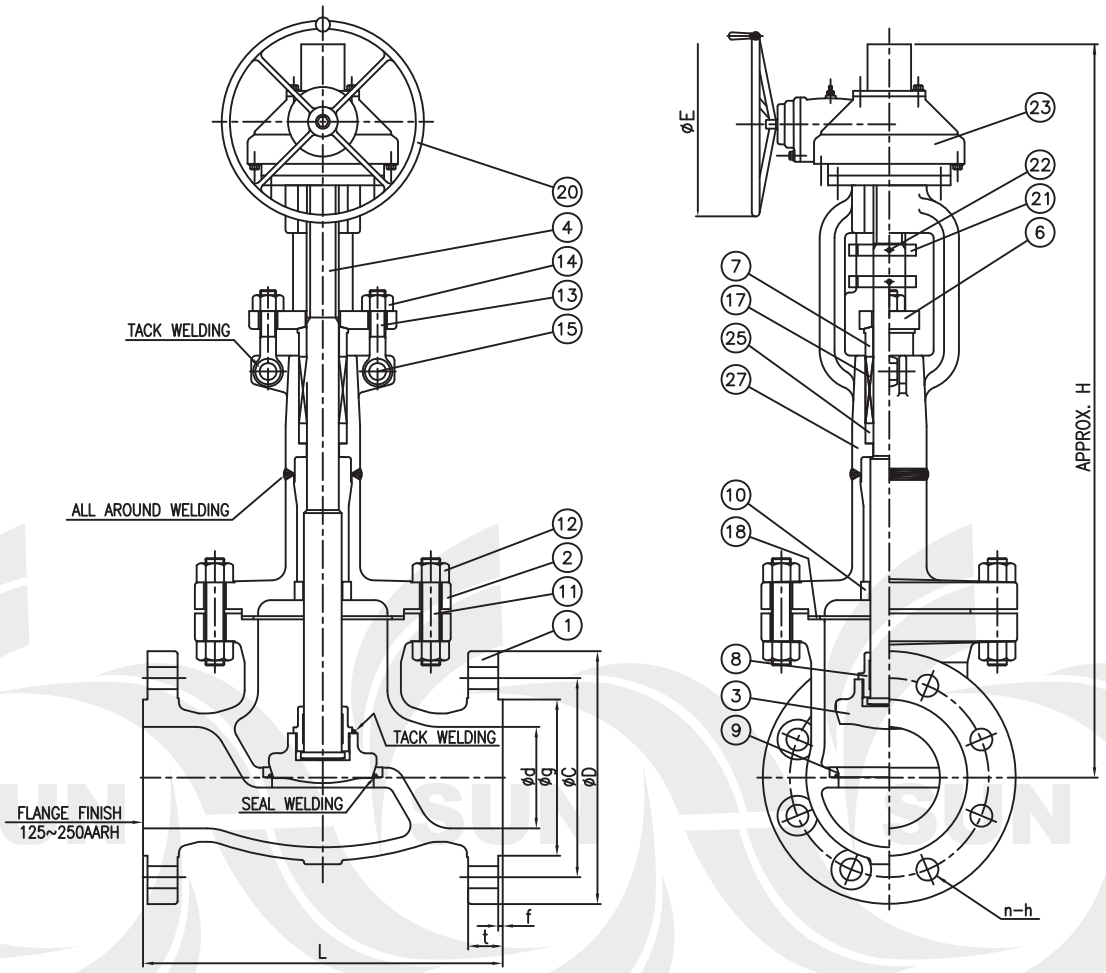
SIZE	L	d	FLANGE						E	H1	H
			D	C	g	t	f	n-h			
2	203.2	50.8	152.4	120.7	92.0	15.8	1.6	4-19.1	200	250	523
2-1/2	215.9	63.5	177.8	139.7	104.7	17.5	1.6	4-19.1	250	250	564
3	241.3	76.2	190.5	152.4	127.0	19.1	1.6	4-19.1	250	250	593
4	292.1	101.6	228.6	190.5	157.2	23.9	1.6	8-19.1	300	250	618
6	406.4	152.4	279.4	241.3	215.9	25.4	1.6	8-22.4	450	350	836
8	495.3	203.2	342.9	298.5	269.7	27.5	1.6	8-22.4	450	500	1065
10	622.3	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	450	500	1137
12	698.5	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	610	500	1195

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A479-316+ST'L NO.6
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	BODY SEAT	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+316+316
19	HANDWHEEL NUT	A194-8
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
25	BACKUP RING	A479-316L
27	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

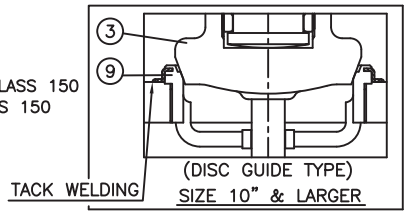
Class 150 Bolted Bonnet, Gear, RF

SUN-GL1F-CRYGO-1



NOTE

1. WALL THICKNESS : BS 1873 CLASS 150
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 150
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 150
4. 10" & LARGER : A351-CF8M+ST'L NO.6



Test Pressure (Psig)

Rating	Class 150
Hydrostatic press test (Shell)	425
Hydrostatic press test (Seat)	305

UNIT : mm

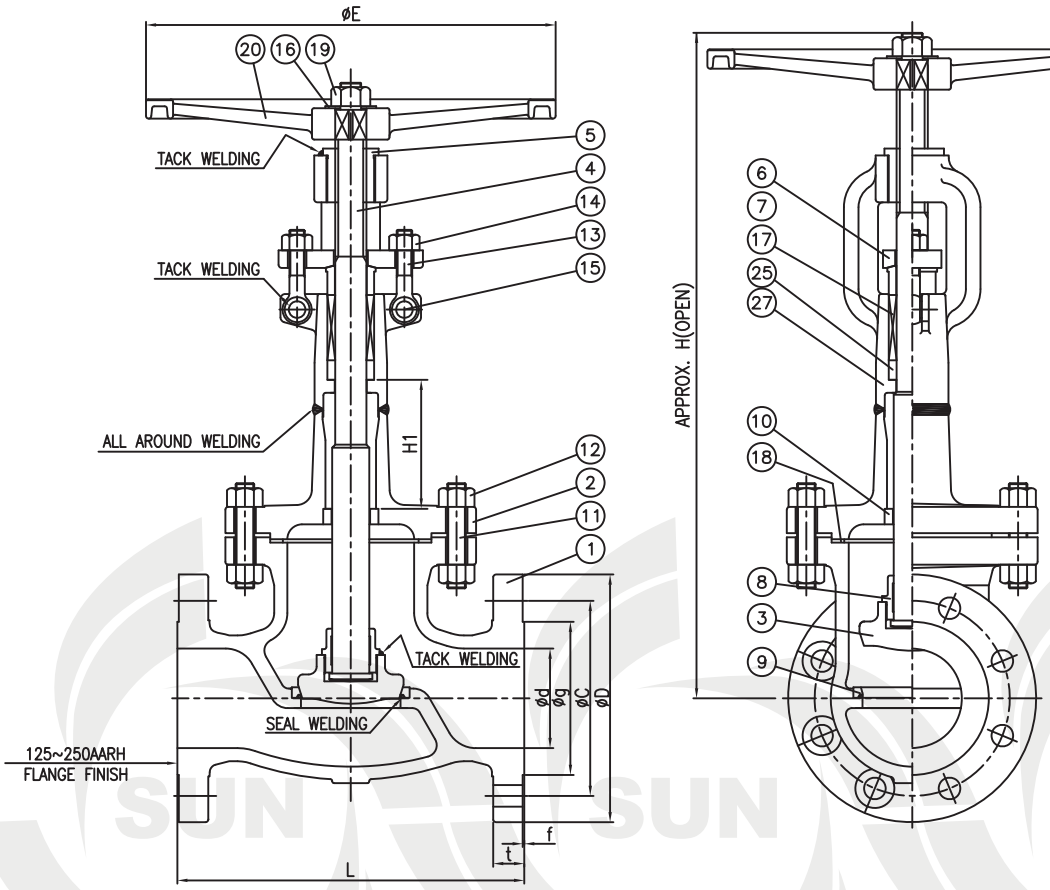
SIZE	L	d	FLANGE						H1	H
			D	C	g	t	f	n-h		
8	495.3	203.2	342.9	298.5	269.7	27.5	1.6	8-22.4	500	1110
10	622.3	254.0	406.4	362.0	323.9	30.3	1.6	12-25.4	500	1267
12	698.5	304.8	482.6	431.8	381.0	31.8	1.6	12-25.4	500	1383
14	787.4	336.6	533.4	476.3	412.8	35.1	1.6	12-28.6	500	1556

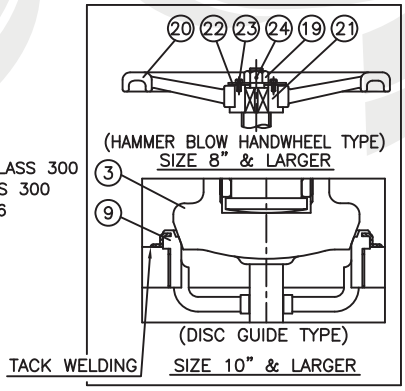
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A351-CF8M+ST'L NO.6
4	STEM	A479-316
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	BODY SEAT	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+316+316
21	GUIDE PLATE	A479-304
22	GUIDE PLATE BOLT	A193-B8
25	BACKUP RING	A479-316L
27	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Handwheel, RF

SUN-GL3F-CRY-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. SIZE 6" AND LARGER : A351-CF8M+ST'L NO.6
5. 10" & LARGER : A351-CF8M+ST'L NO.6

Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

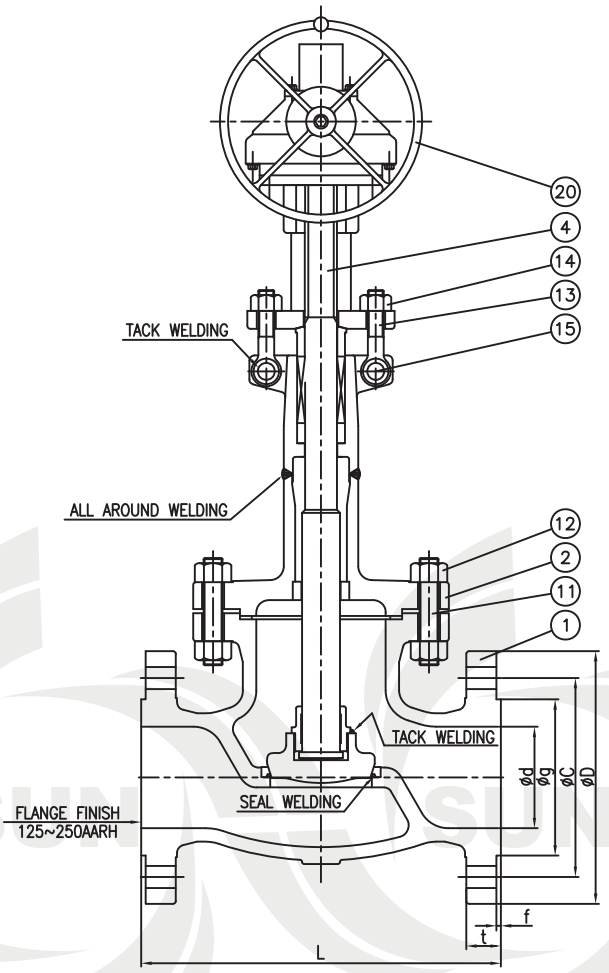
SIZE	L	d	FLANGE						E	H1	H
			D	C	g	t	f	n-h			
2	266.7	50.8	165.1	127.0	91.9	22.4	1.6	8-19.1	200	250	579
2-1/2	292.1	63.5	190.5	149.4	104.7	25.4	1.6	8-22.4	250	250	604
3	317.5	76.2	209.6	168.1	127.0	28.5	1.6	8-22.4	250	250	633
4	355.6	101.6	254.0	200.2	157.2	31.8	1.6	8-22.4	300	250	693
6	444.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	450	350	917
8	558.8	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	450	500	1115
10	622.3	254.0	444.5	387.4	323.9	47.8	1.6	16-28.5	610	500	1176
12	711.2	304.8	520.7	450.9	381.0	50.8	1.6	16-31.8	610	500	1240

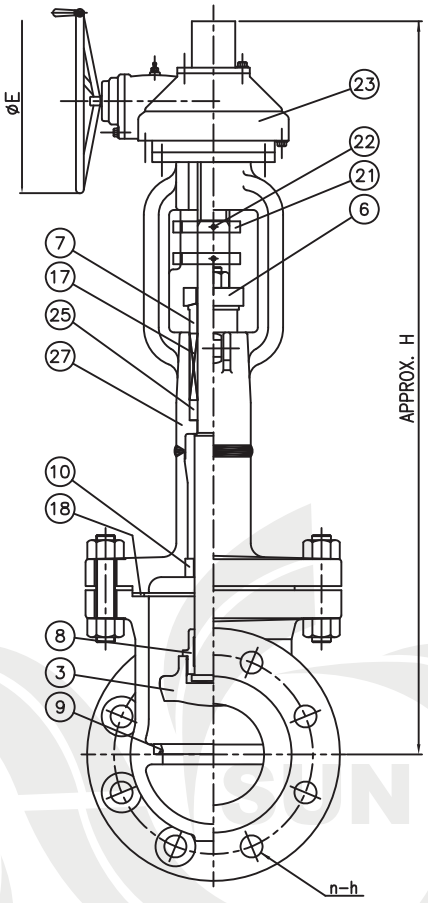
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A479-316+ST'L NO.6
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	BODY SEAT	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+316+316
19	HANDWHEEL NUT	A194-8
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A283-D
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
25	BACKUP RING	A479-316L
27	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

Class 300 Bolted Bonnet, Mounting Pad, RF

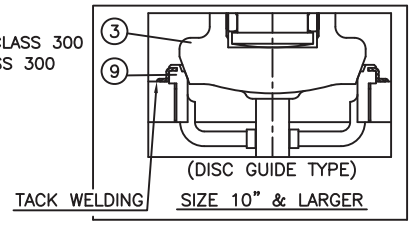
SUN-GL3F-CRYGO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 300
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 300
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 300
4. 6" & LARGER : A351-CF8M+ST'L NO.6
5. 10" & LARGER : A351-CF8M+ST'L NO.6



Test Pressure (Psig)

Rating	Class 300
Hydrostatic press test (Shell)	1100
Hydrostatic press test (Seat)	800

UNIT : mm

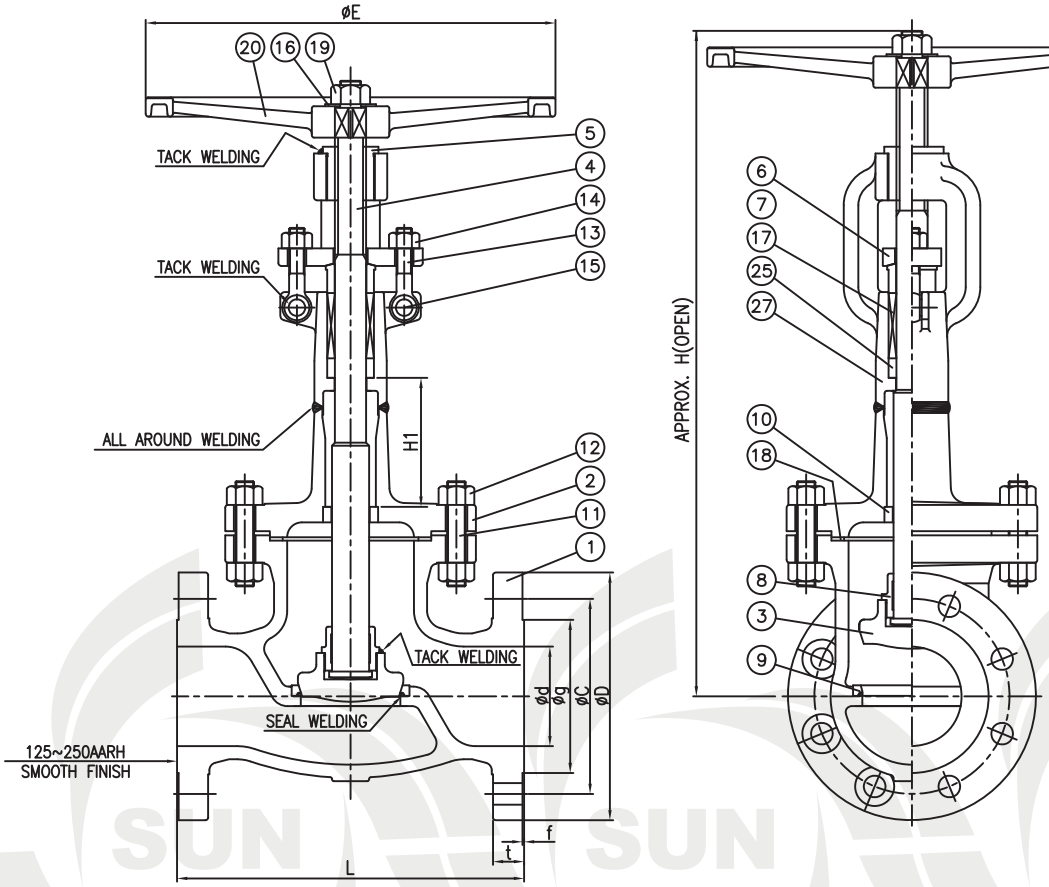
SIZE	L	d	FLANGE						H1	H
			D	C	g	t	f	n-h		
6	444.4	152.4	317.5	269.8	215.9	36.6	1.6	12-22.4	350	565
8	558.8	203.2	381.0	330.2	269.7	41.2	1.6	12-25.4	500	695
10	622.3	254.0	444.5	387.4	323.9	47.8	1.6	16-28.6	500	828
12	711.2	304.8	520.7	450.9	381.0	50.8	1.6	16-31.8	500	879
16	863.6	387.4	647.7	571.5	469.9	57.2	1.6	20-34.9	500	1211

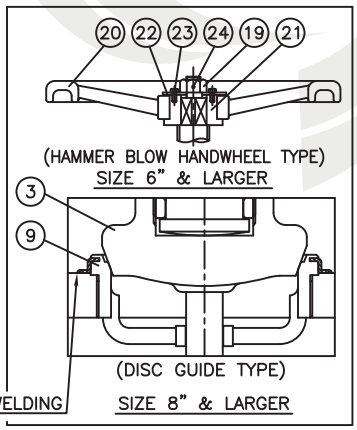
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A479-316+ST'L NO.6
4	STEM	A479-316
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	BODY SEAT	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN BOLT	A193-B8
15A	HINGE PIN NUT	A194-8
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+316+316
21	GUIDE PLATE	A479-304
22	GUIDE PLATE BOLT	A193-B8
25	BACKUP RING	A479-316L
27	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-GL6F-CRY-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. SIZE 6" AND LARGER : A351-CF8M+ST'L NO.6
5. SIZE 8" AND LARGER : A351-CF8M+ST'L NO.6

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

UNIT : mm

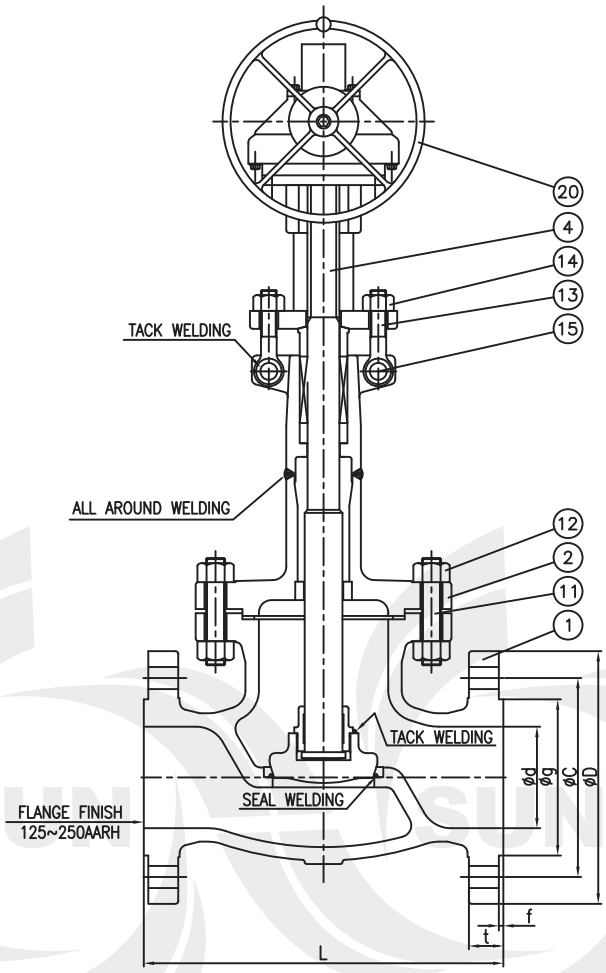
SIZE	L	d	FLANGE						E	H1	H
			D	C	g	t	f	n-h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	250	250	644
2-1/2	330.2	63.5	190.5	149.4	104.7	28.5	6.4	8-22.4	300	250	700
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.4	350	250	770
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	350	250	859
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	450	350	1100
8	660.4	199.9	419.1	349.3	269.7	55.6	6.4	12-31.8	610	500	1315
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-35.1	610	500	1385
12	838.2	298.5	558.8	489.0	381.0	66.5	6.4	20-35.1	610	500	1465

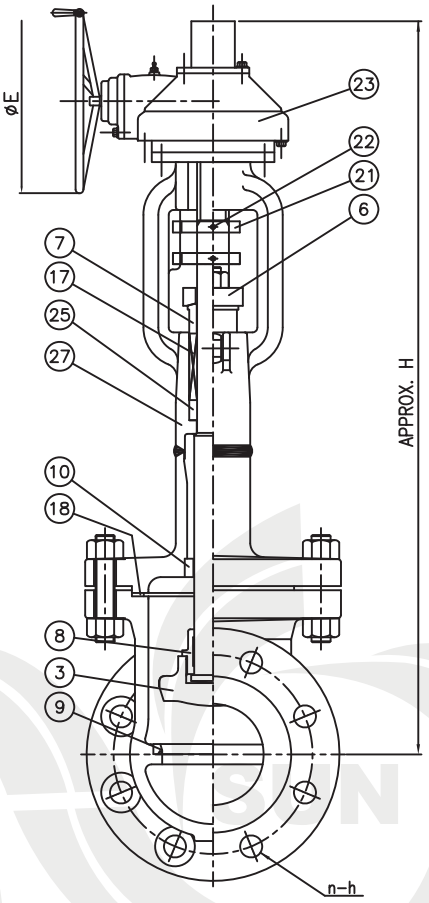
NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A479-316+ST'L NO.6
4	STEM	A479-316
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	BODY SEAT	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
16	WASHER	A240-304
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+316+316
19	HANDWHEEL NUT	A194-8
20	HANDWHEEL	A536
21	IMPACTOR BOSS	A216-WCB
22	HANDWHEEL COVER	A576-1020
23	BOLT	A307-B
24	SPLIT PIN	A576-1020
25	BACKUP RING	A479-316L
27	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

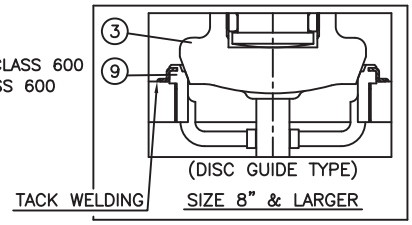
SUN-GL6F-CRYGO-1





NOTE

1. WALL THICKNESS : BS 1873 CLASS 600
2. FACE TO FACE DIMENSIONS : ASME B16.10 CLASS 600
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 600
4. 8" & LARGER : A351-CF8M+ST'L NO.6
5. 8" & LARGER : A351-CF8M+ST'L NO.6



Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2175
Hydrostatic press test (Seat)	1585

UNIT : mm

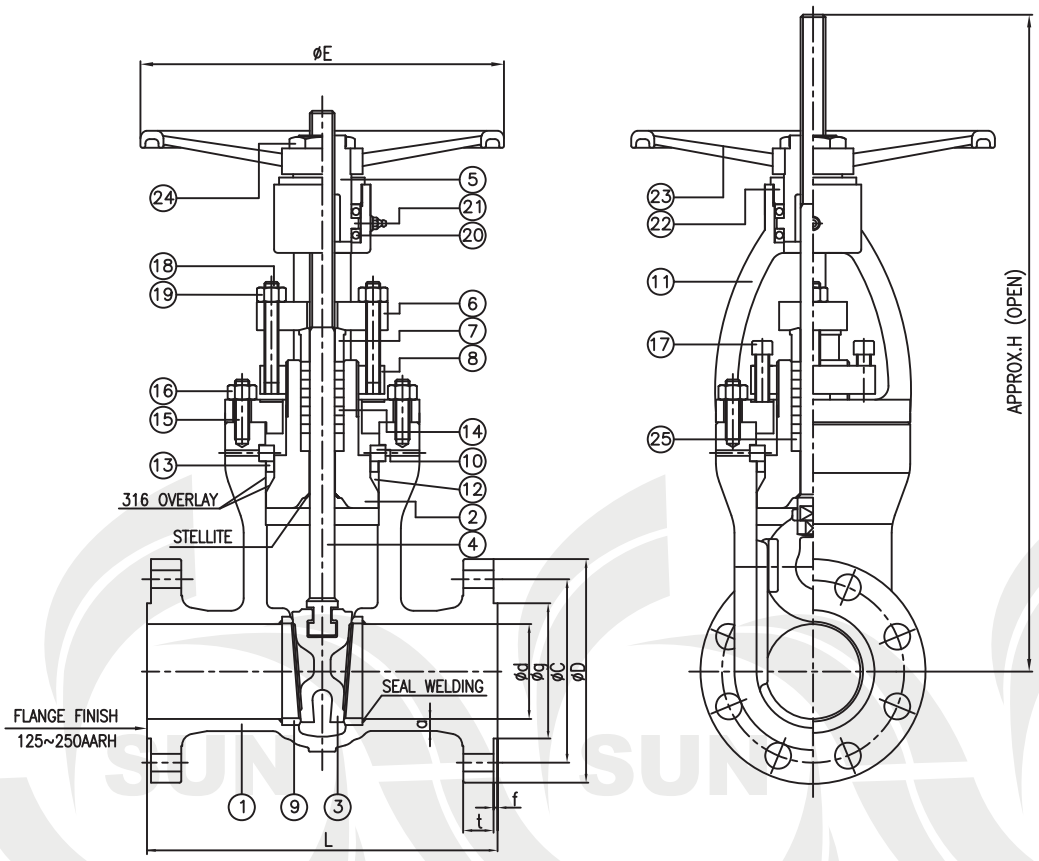
SIZE	L	d	FLANGE						H1	H
			D	C	g	t	f	n-h		
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.5	350	724
8	660.4	199.9	419.1	349.3	269.7	55.7	6.4	12-31.8	500	883
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-34.9	500	1095
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20-34.9	500	1087

NO.	PARTS	MATERIAL
1	BODY	A351-CF8M
2	BONNET	A351-CF8M
3	DISC	A479-316+ST'L NO.6
4	STEM	A479-316
6	GLAND FLANGE	A351-CF8
7	PACKING GLAND	A479-316
8	DISC NUT	A479-316
9	BODY SEAT	316+ST'L NO.6
10	GUIDE RING	A479-316L
11	BONNET BOLT	A320-B8
12	NUT	A194-8
13	HINGED EYE BOLT	A193-B8
14	NUT	A194-8
15	HINGE PIN	A479-304
17	PACKING	GRAPHITE+CARBON FIBER
18	GASKET	SPIRAL WOUND/GRAPHITE+316+316
21	GUIDE PLATE	A479-304
22	GUIDE PLATE BOLT	A193-B8
25	BACKUP RING	A479-316L
27	YOKE	A351-CF8M

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, RF

SUN-PGA6F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 600
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 600 (LONG PATTERN)
3. END FLANGE DIMENSION : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

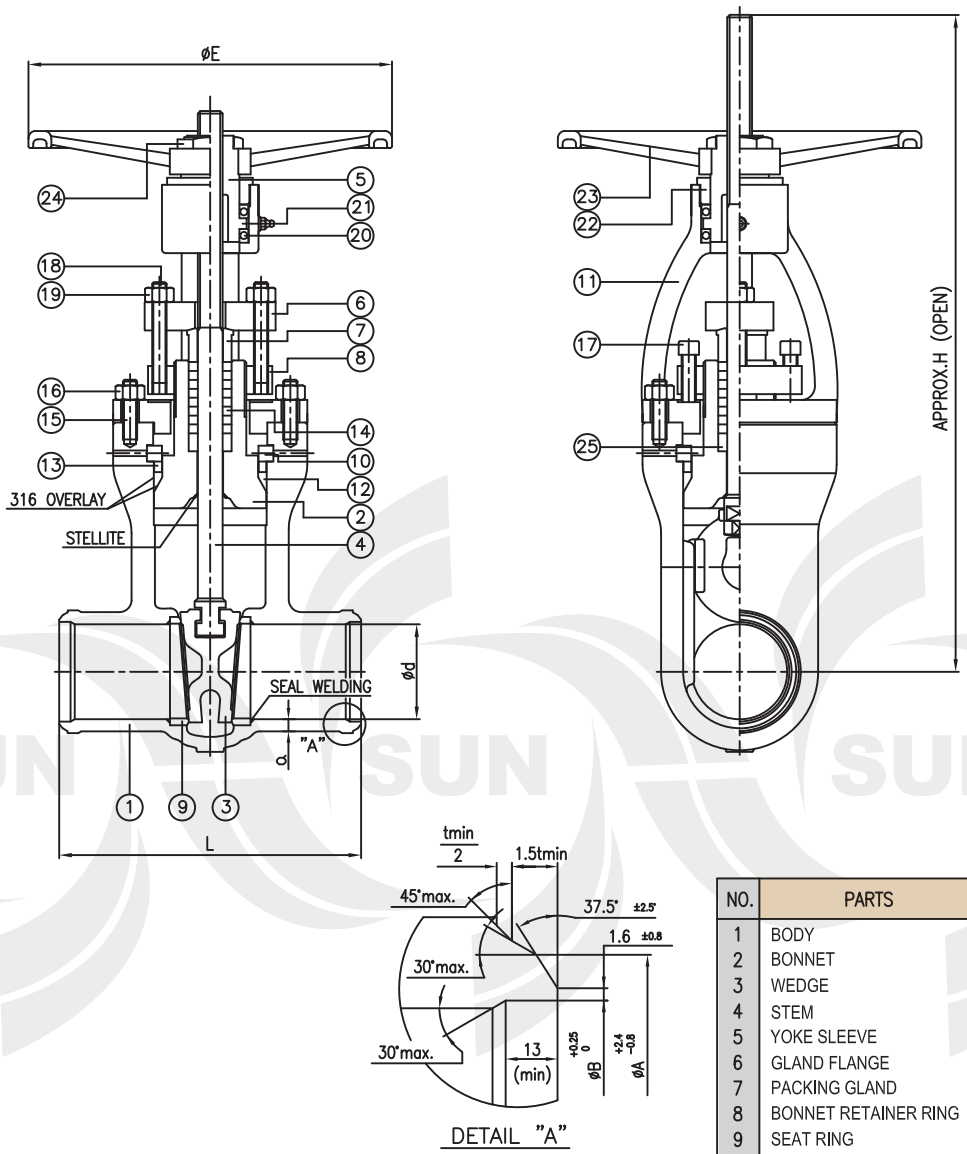
UNIT : mm

SIZE	L	d	FLANGE						E	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	292.1	50.8	165.1	127.0	91.9	25.4	6.4	8-19.1	200	585	68
3	355.6	76.2	209.6	168.1	127.0	31.8	6.4	8-22.2	250	665	95
4	431.8	101.6	273.1	215.9	157.2	38.1	6.4	8-25.4	300	915	145

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Handwheel, BW

SUN-PGA6W-HO-1



DETAIL "A"

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 600
2. END TO END DIMENSION : ASME B16.10 CLASS 600 (SHORT PATTERN)
3. END FLANGE DIMENSION : ASME B16.25

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

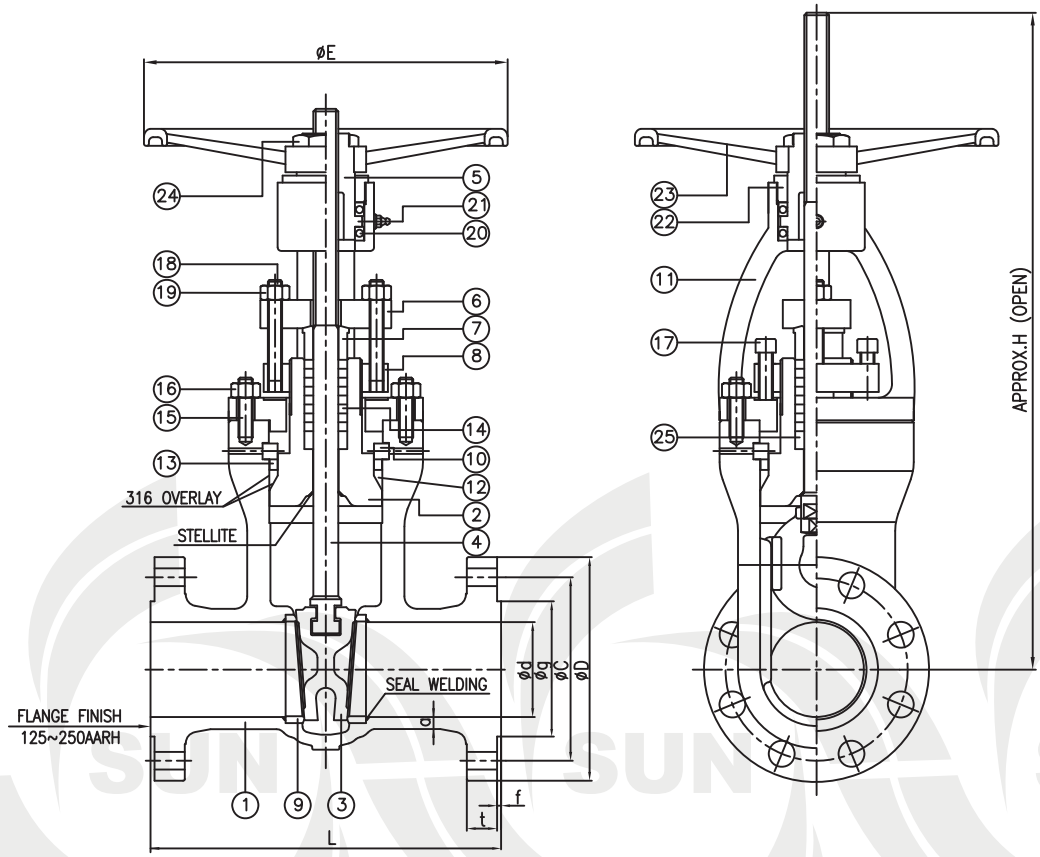
UNIT : mm

SIZE	L	d	BUTTWELDING END				(min) a	E	H	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	178	50.8	60.3	49.2	5.54	80	6.4	200	585	60
3	254	76.2	91	73.5	7.62	80	7.9	250	665	85
4	305	101.6	117	97.0	8.56	80	9.6	300	915	115

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, RF

SUN-PGA9F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 900
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 900 (LONG PATTERN)
3. END FLANGE DIMENSION : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

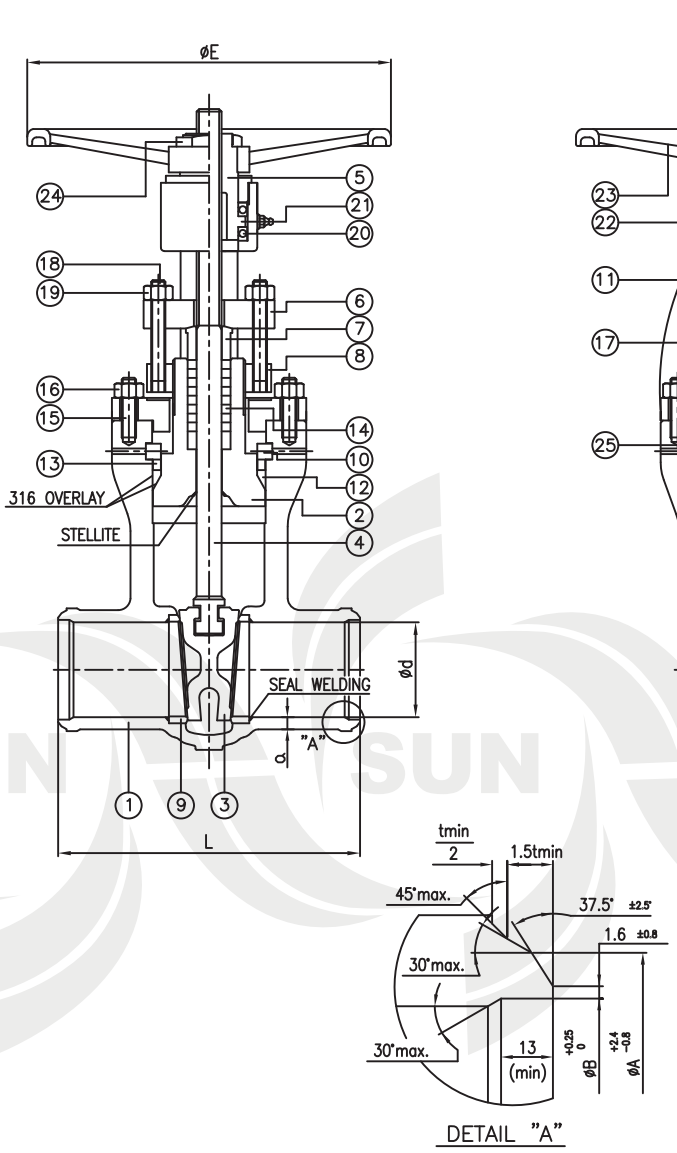
UNIT : mm

SIZE	L	d	FLANGE						E	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.0	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	300	530	60
3	381.0	72.9	241.3	190.5	127.0	38.1	6.4	8-25.4	350	610	100
4	457.0	98.3	292.1	235.0	157.2	44.5	6.4	8-31.8	400	710	165

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Handwheel, BW

SUN-PGA9W-HO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 900
2. END TO END DIMENSION : ASME B16.10 CLASS 900 (SHORT PATTERN)
3. END FLANGE DIMENSION : ASME B16.25

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

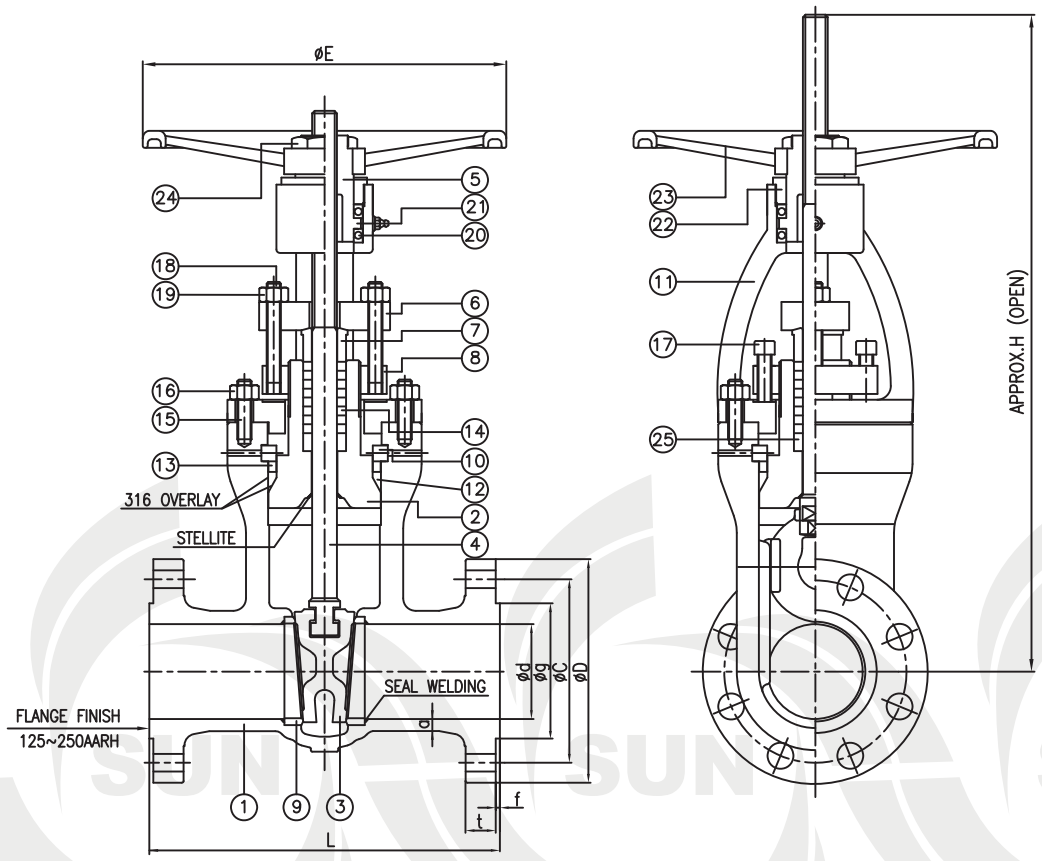
SIZE	L	d	BUTTWELDING END				(min) a	E	H	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	216	47.5	60.3	42.8	8.74	160	7.9	300	530	40
3	305	72.9	91	66.5	11.13	160	10.4	350	610	80
4	356	98.3	117	92	11.13	120	12.7	400	710	100

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, RF

SUN-PGA15F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 1500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 1500 (LONG PATTERN)
3. END FLANGE DIMENSION : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

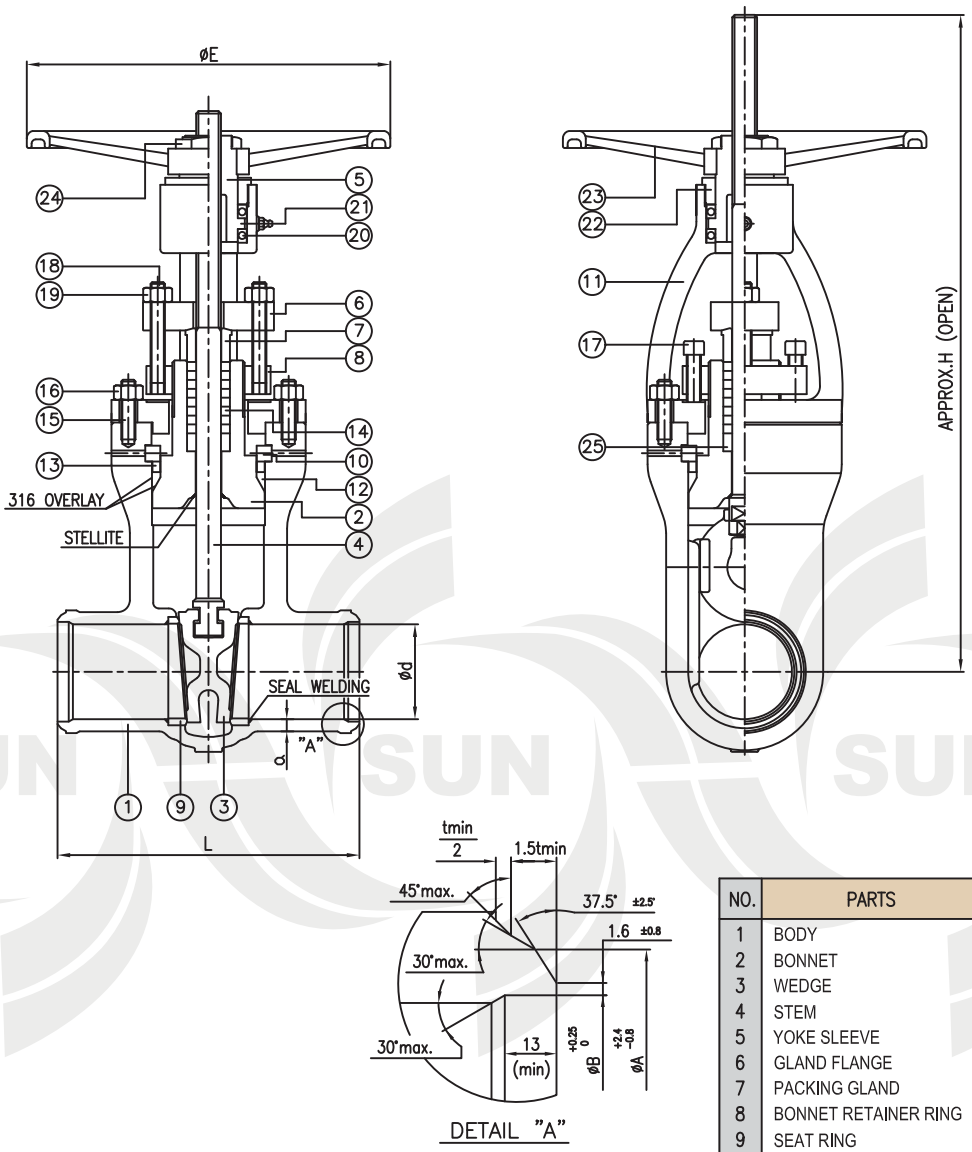
UNIT : mm

SIZE	L	d	FLANGE						E	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.0	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	300	530	60
3	470.0	69.9	266.7	203.2	127.0	47.8	6.4	8-31.8	400	610	115
4	546.0	91.9	311.2	241.3	157.2	53.8	6.4	8-34.9	450	734	205

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, BW

SUN-PGA15W-HO-1



DETAIL "A"

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 1500
2. END TO END DIMENSION : ASME B16.10 CLASS 1500 (SHORT PATTERN)
3. END FLANGE DIMENSION : ASME B16.25

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

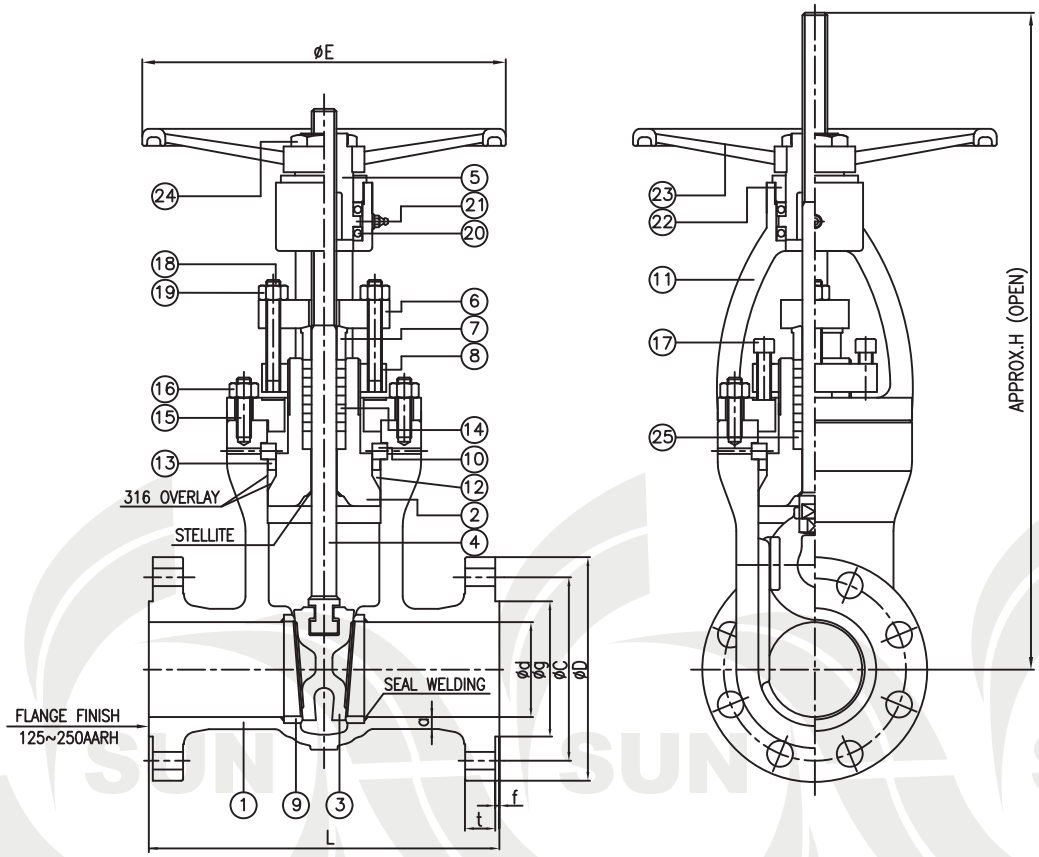
UNIT : mm

SIZE	L	d	BUTTWELDING END				(min) a	E	H	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	216	47.5	60.3	42.8	8.74	160	11.2	300	530	40
3	305	69.9	91.0	66.5	11.13	160	15.7	400	610	78
4	406	91.9	117	87.5	13.5	160	19.0	450	734	145

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, RF

SUN-PGA25F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 2500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 2500 (LONG PATTERN)
3. END FLANGE DIMENSION : ASME B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

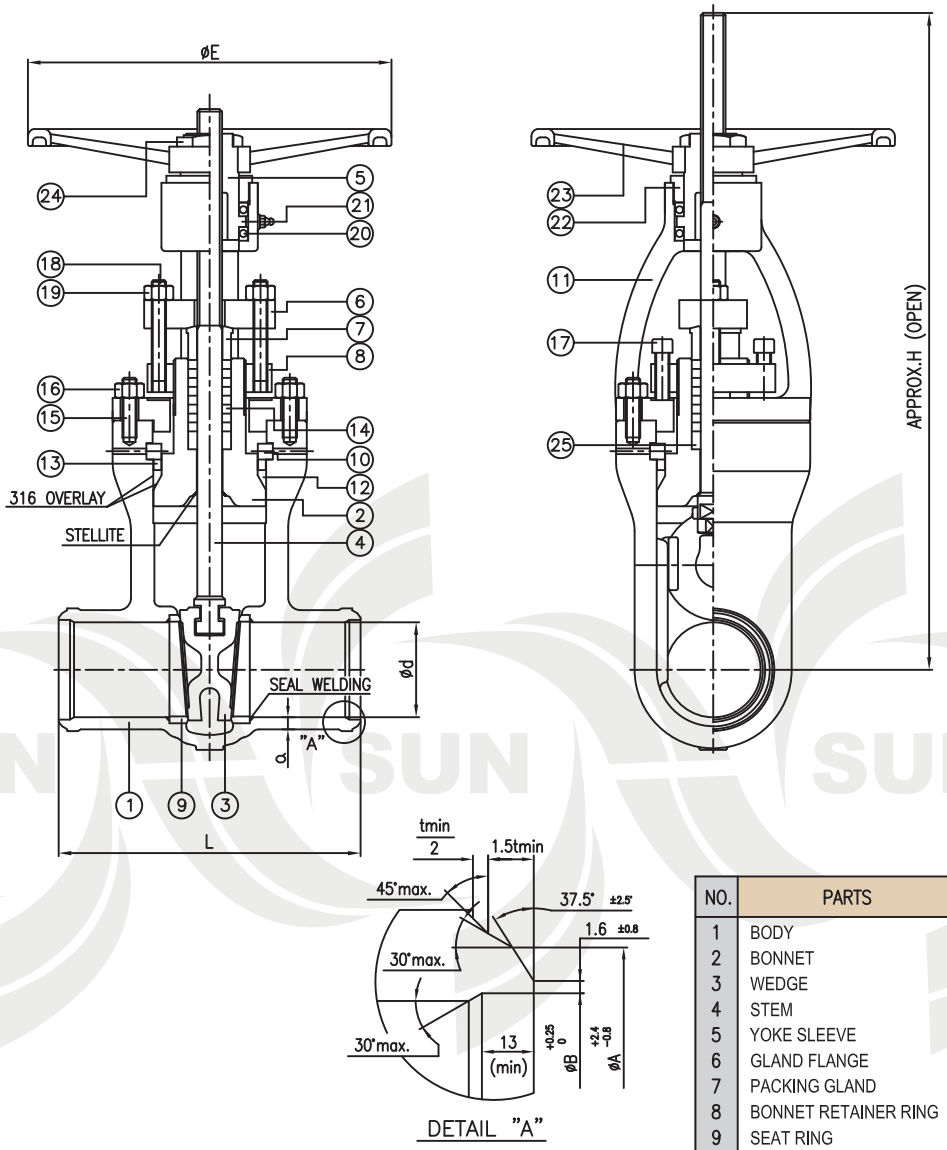
UNIT : mm

SIZE	L	d	FLANGE						E	a (min)	H (OPEN)	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	451.0	38.1	235.0	171.5	91.9	50.8	6.4	8-28.6	350	15.8	530	85
3	578.0	57.2	304.8	228.6	127.0	66.5	6.4	8-34.9	400	22.4	610	165
4	673.0	72.9	355.6	273.1	157.2	76.2	6.4	8-41.3	450	27.7	810	345

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, BW

SUN-PGA25W-HO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 2500
2. END TO END DIMENSION : ASME B16.10 CLASS 2500 (SHORT PATTERN)
3. END FLANGE DIMENSION : ASME B16.25

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

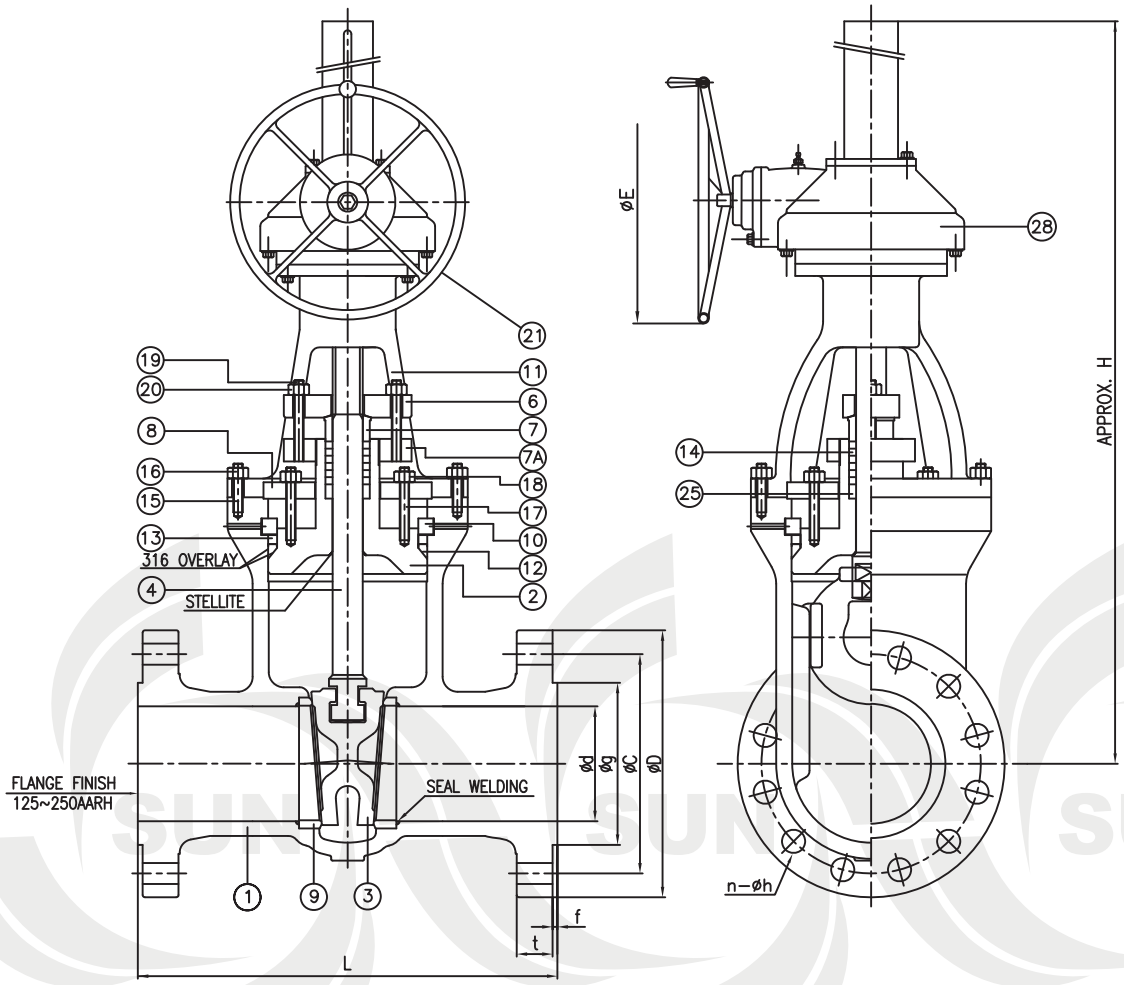
SIZE	L	d	BUTTWELDING END				(min) a	E	H	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	279	38.1	60.3	38.2	11.07	XXS	15.8	350	530	50
3	368	57.2	91.0	58.5	15.24	XXS	22.4	400	610	85
4	457	72.9	117	80.0	17.12	XXS	27.7	450	810	180

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE SLEEVE	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	GASKET PRESSURE SEAL	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
20	THRUST BALL BEARING	STEEL
21	GREASE NIPPLE	A307-B
22	YOKE CAP	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A576-1020
25	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

SUN-PGA6F-GO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 600
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 600
3. END DIMENSION : ASME B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

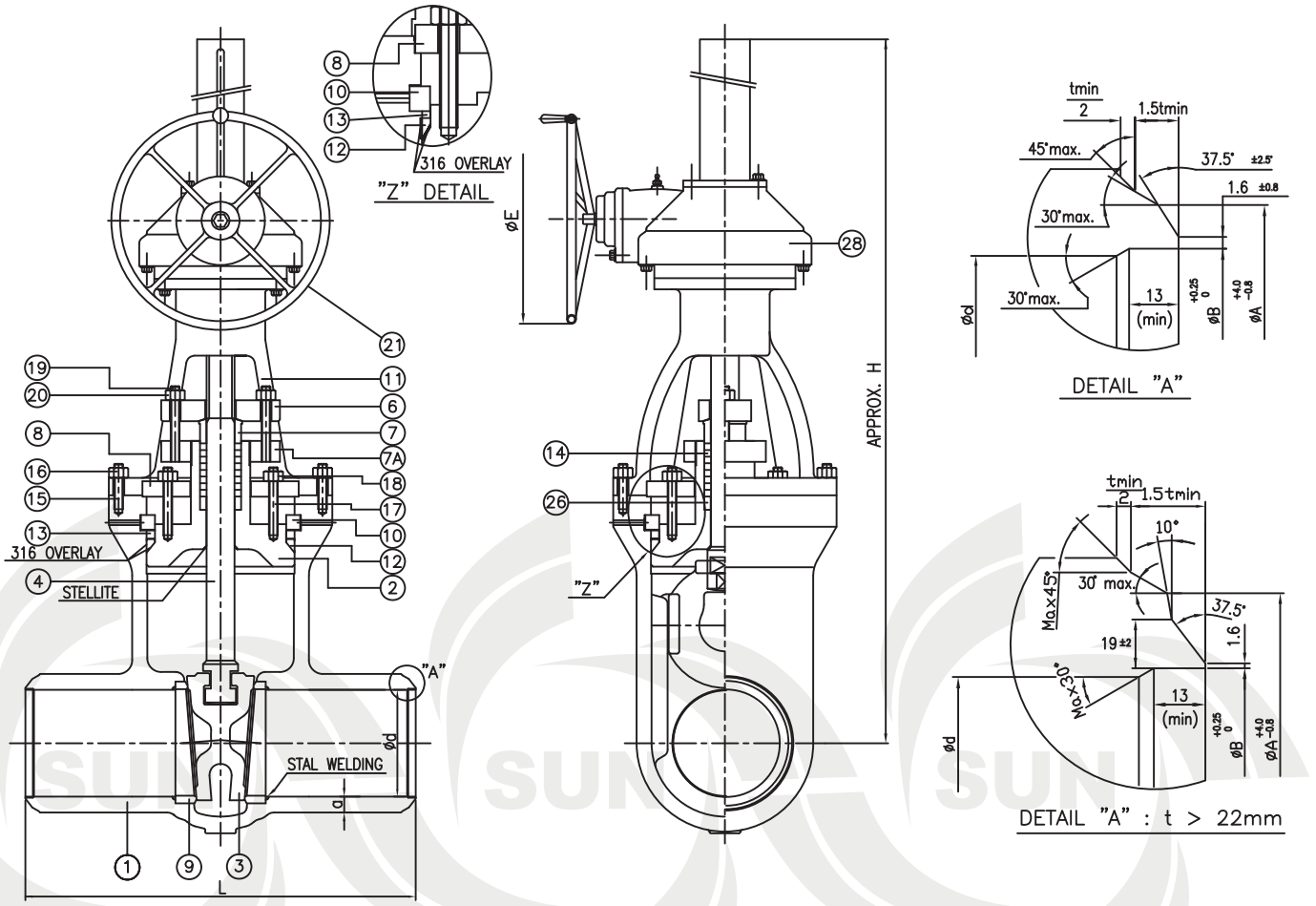
SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.6	1075	500	245
8	660.4	199.9	419.1	349.3	269.7	55.7	6.4	12-31.8	1265	500	320
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-34.9	1510	630	430
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20-34.9	1790	630	515
14	889.0	326.9	603.3	527.1	412.8	69.9	6.4	20-38.1	1855	710	670
16	990.6	374.7	685.8	603.3	469.9	76.2	6.4	20-41.3	2160	710	905
18	1092.2	419.1	743.0	654.1	533.4	82.6	6.4	20-44.5	2250	710	1150
20	1193.8	463.6	812.8	723.9	584.2	88.9	6.4	24-44.5	2470	800	1445
24	1397.0	558.8	939.8	838.2	692.2	101.6	6.4	24-50.8	2995	900	2080

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
25	BACKUP RING	A479-316
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, BW

SUN-PGA6W-GO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 600
2. END TO END DIMENSION : ASME B16.10 CLASS 600 (SHORT PATTERN)
3. B.W END DIMENSION : ASME B16.25 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

UNIT : mm

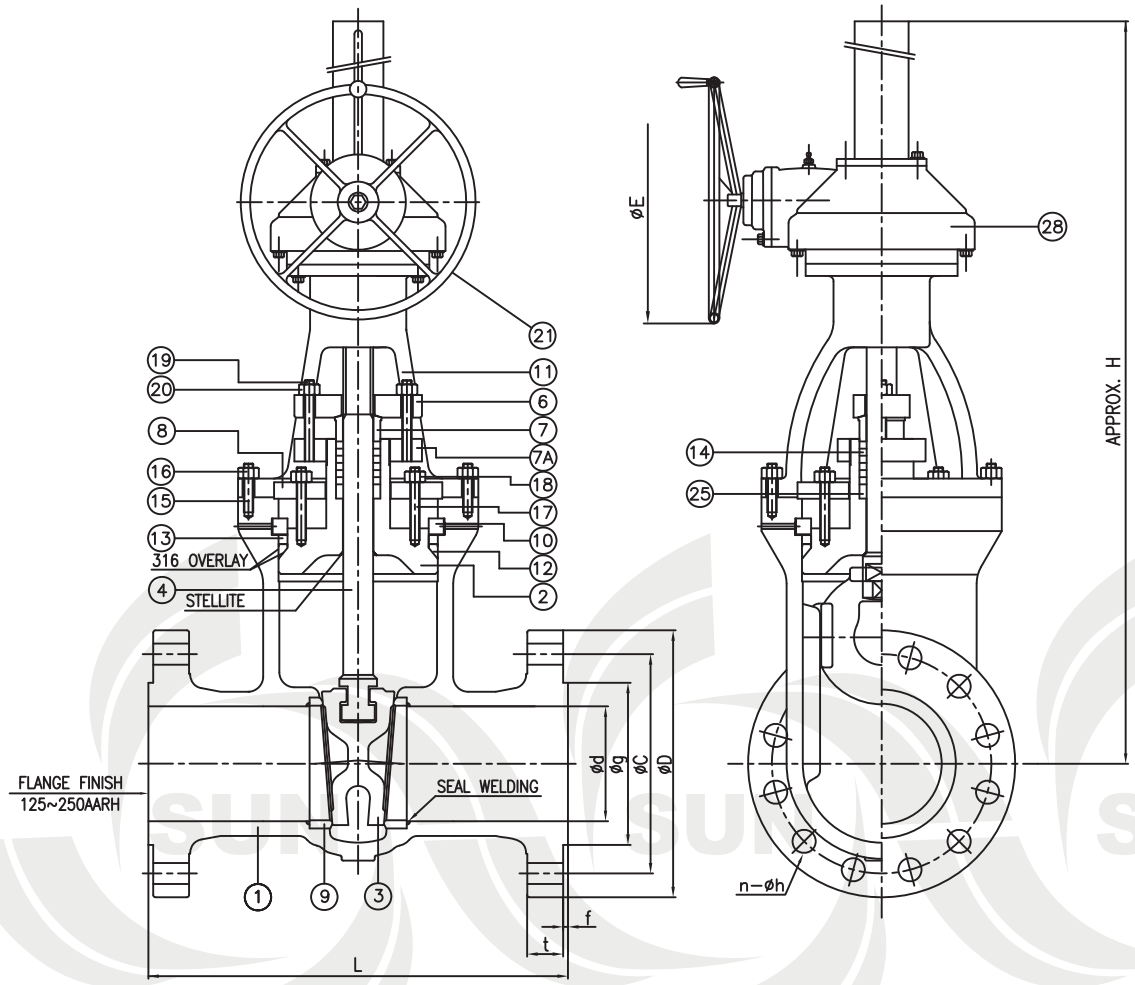
SIZE	L	d	BUTTWELDING END				H	E	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	457.0	152.4	172	146.5	10.97	80	1075	500	170
8	584.0	199.9	223	193.5	12.7	80	1265	500	213
10	711.0	247.7	278	243	15.09	80	1510	630	268
12	813.0	298.5	329	289	17.5	80	1790	630	315
14	889.0	326.9	362	317.5	19.05	80	1855	710	435
16	991.0	374.7	413	363.5	21.44	80	2160	710	570
18	1092	419.1	464	409.5	23.83	80	2250	710	720
20	1194	463.6	516	455.5	26.19	80	2470	800	890
24	1397	558.8	567	501	28.6	80	2995	900	1285

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B8
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
26	BACKUP RING	A479-316
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, RF

SUN-PGA9F-GO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 900
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 900
3. END DIMENSION : ASME B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

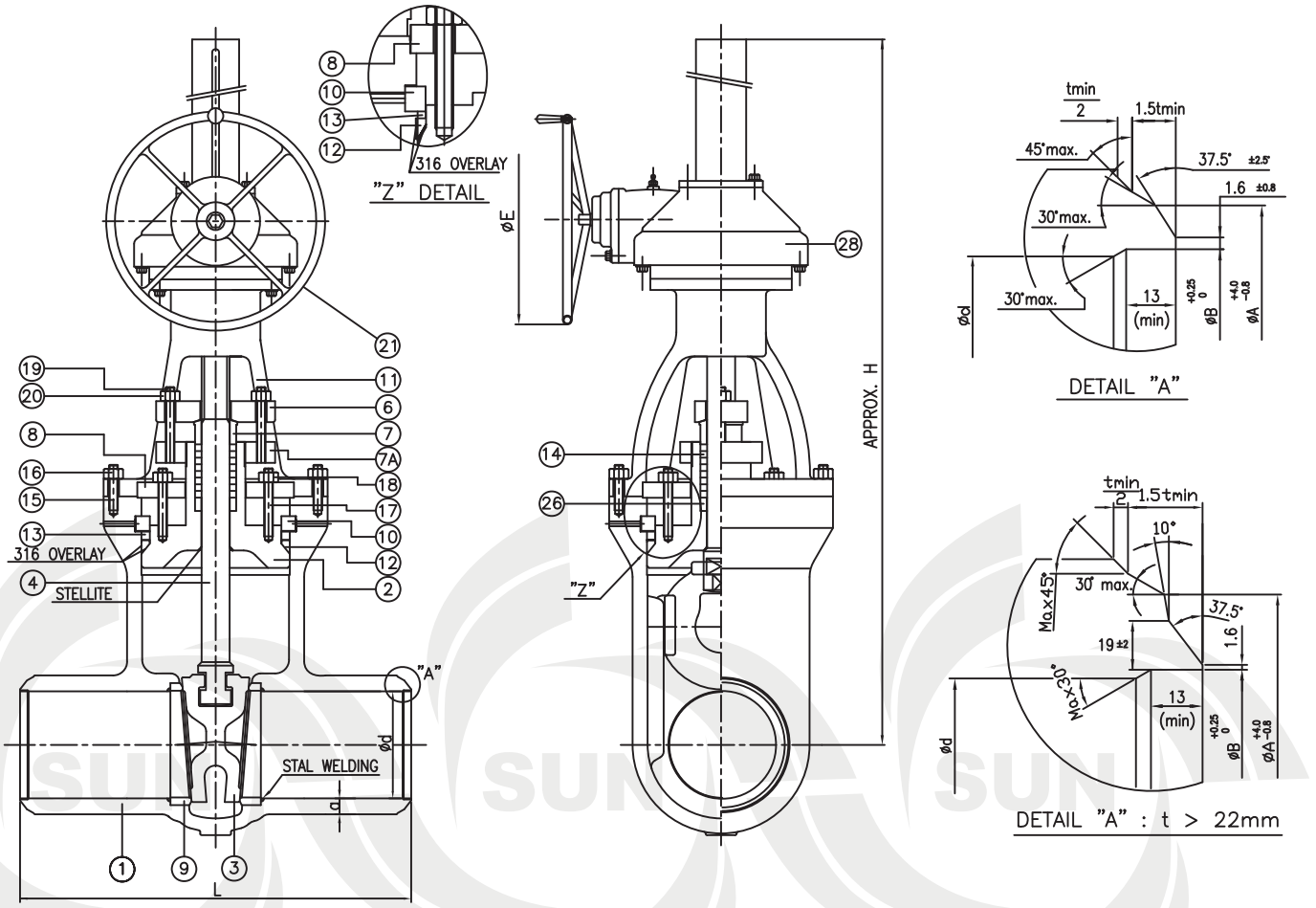
SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12-31.8	900	500	275
8	736.6	190.5	469.9	393.7	269.9	63.5	6.4	12-38.1	1100	630	645
10	838.2	238.0	546.1	469.9	323.9	69.9	6.4	16-38.1	1426	630	945
12	965.2	282.4	609.6	533.4	381.0	79.3	6.4	20-38.1	1654	710	1345
14	1028.7	311.1	641.3	558.8	412.8	85.9	6.4	20-41.1	1730	710	1685
16	1130.3	355.6	704.8	616.0	469.9	88.9	6.4	20-44.4	2061	800	2350
18	1219.2	400.1	787.4	685.8	533.4	101.6	6.4	20-50.8	2465	900	3315
20	1320.8	444.5	857.3	749.3	584.2	108.0	6.4	20-53.9	2745	900	4410
24	1549.4	533.4	1041.4	901.7	692.2	139.7	6.4	20-66.7	3240	1000	6750

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
25	BACKUP RING	A479-316
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, BW

SUN-PGA9W-GO-1



DETAIL "A"

DETAIL "A" : t > 22mm

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 900
2. END TO END DIMENSION : ASME B16.10 CLASS 900 (SHORT PATTERN)
3. B.W END DIMENSION : ASME B16.25 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

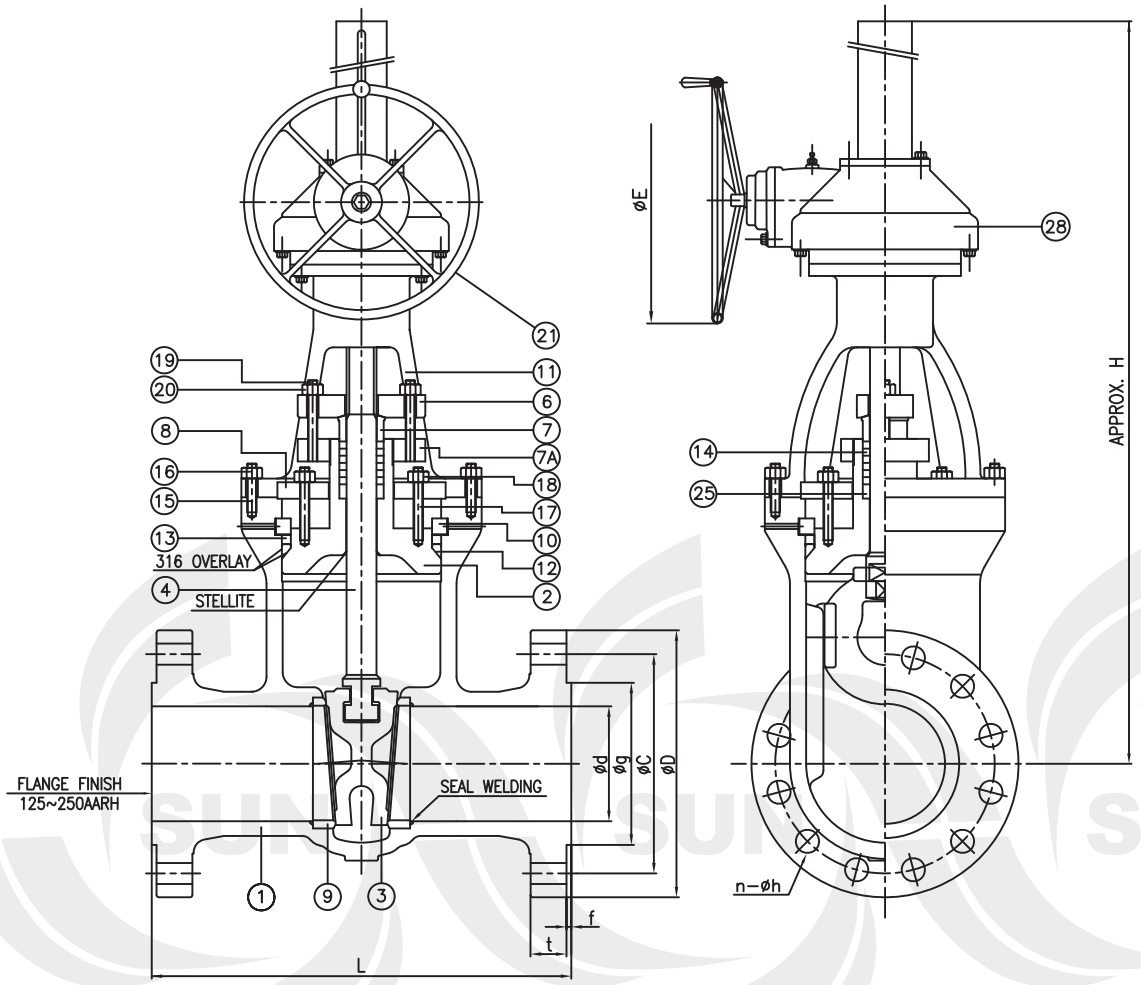
SIZE	L	d	BUTTWELDING END				H	E	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	508.0	146.1	172	140	14.27	120	1050	500	169
8	660.0	190.5	223	182.5	18.26	120	1250	630	462
10	787.0	238.0	278	230	21.44	120	1576	630	702
12	914.0	282.4	329	273	25.4	120	1804	710	1002
14	991.0	311.2	362	300	27.79	120	1880	710	1352
16	1092.0	355.6	413	344.5	30.96	120	2211	800	1945

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B8
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
26	BACKUP RING	A479-316
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Gear, RF

SUN-PGA15F-GO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 1500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 1500
3. END DIMENSION : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

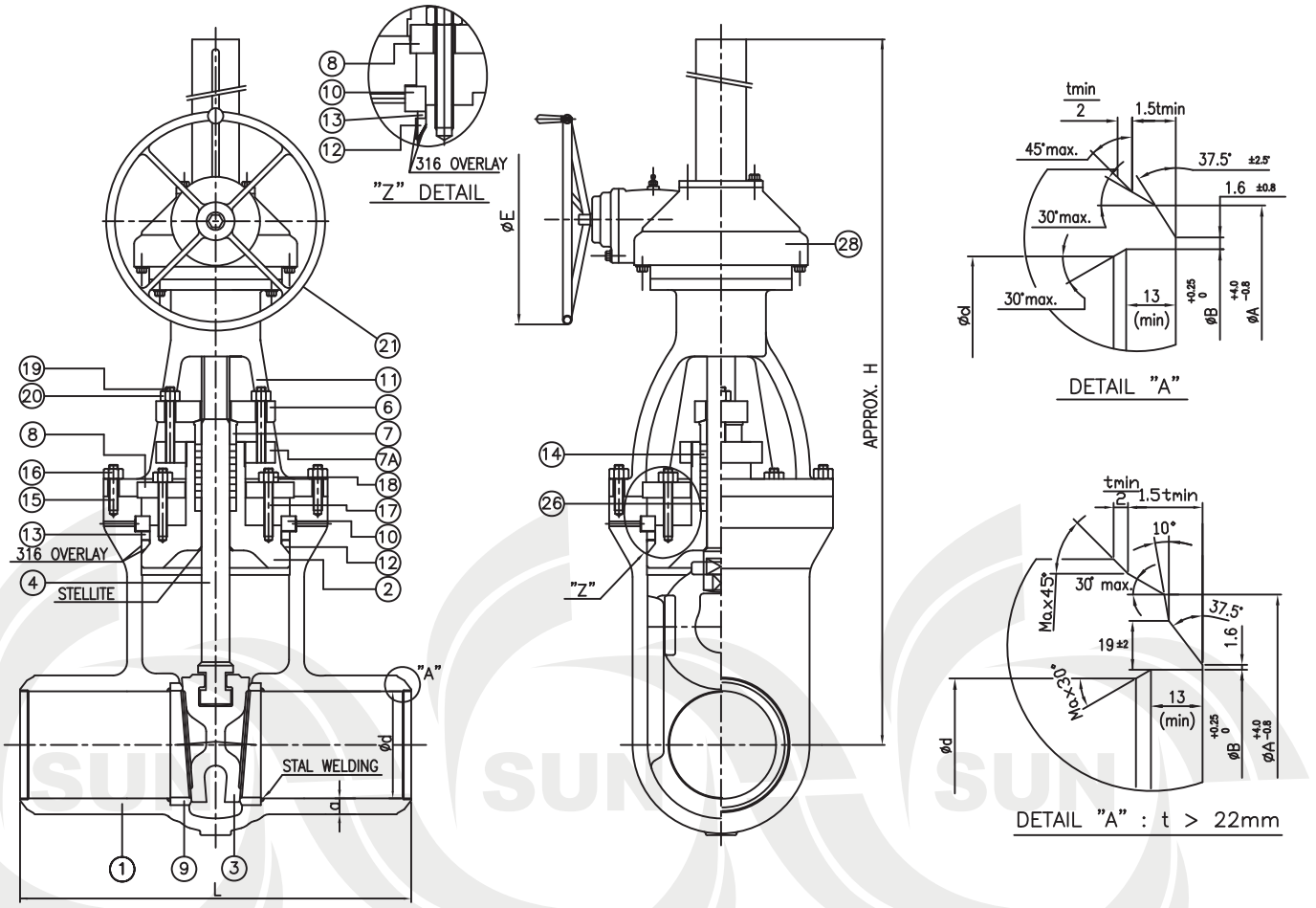
SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
6	705	136.4	393.7	317.5	215.9	82.6	6.4	12-38.1	992	630	475
8	832	177.8	482.6	393.7	269.7	91.9	6.4	12-44.5	1275	630	905
10	991	222.3	584.2	482.6	323.9	108.0	6.4	12-50.8	1477	710	1405
12	1130	263.4	673.1	571.5	381.0	124.0	6.4	16-54.0	1825	710	2085
14	1257	288.8	749.3	635.0	412.8	133.4	6.4	16-60.3	2055	800	2605
16	1384	330.2	825.5	704.9	469.9	146.1	6.4	16-66.7	2150	900	3555
18	1537	371.3	914.4	774.7	533.4	162.1	6.4	16-73.0	2680	900	5950
20	1664	415.8	984.3	831.9	584.2	177.8	6.4	16-79.4	2850	1000	7375
24	1943	498.3	1168.4	990.6	692.2	203.2	6.4	16-92.1	3765	1000	10605

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
25	BACKUP RING	A479-316
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Gear, BW

SUN-PGA15W-GO-1



DETAIL "A"

DETAIL "A" : t > 22mm

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 1500
2. END TO END DIMENSION : ASME B16.10 CLASS 1500 (SHORT PATTERN)
3. B.W END DIMENSION : ASME B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

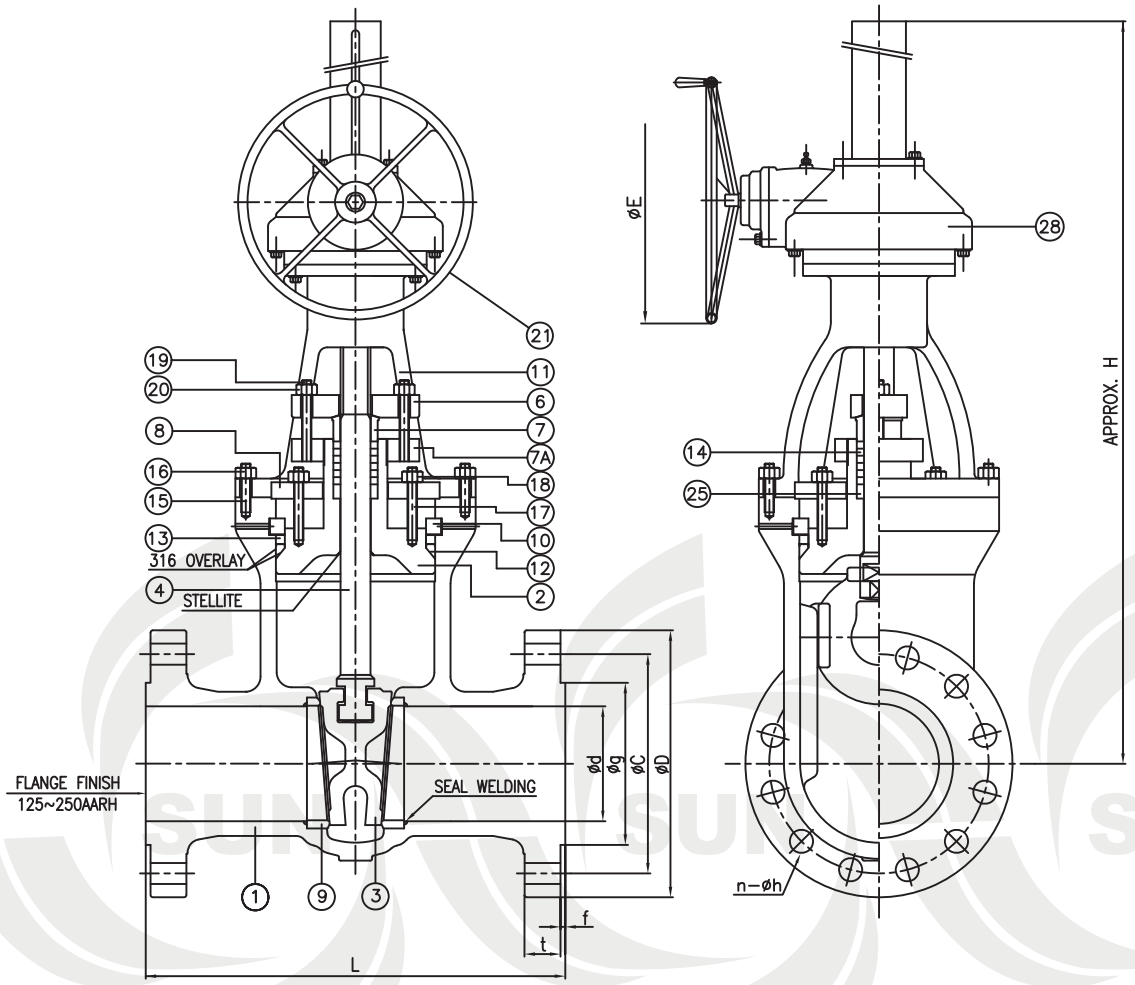
SIZE	L	d	BUTTWELDING END				H	E	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	559	136.4	172	132	18.26	160	992	630	323
8	711	177.8	223	173	23.01	160	1275	630	647
10	864	222.3	278	216	28.6	160	1477	710	972
12	991	263.4	329	257	33.32	160	1825	710	1455
14	1067	288.8	362	284	35.71	160	2055	800	1750
16	1194	330.2	413	325.5	40.5	160	2150	800	2755
18	1346	371.3	464	366.5	45.24	160	2680	900	4472
20	1473	415.8	516	408.0	50.01	160	2850	900	5562

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B8
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
26	BACKUP RING	A479-316L
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Gear, RF

SUN-PGA25F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
25	BACKUP RING	A479-316
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 2500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 2500
3. END DIMENSION : ASME B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

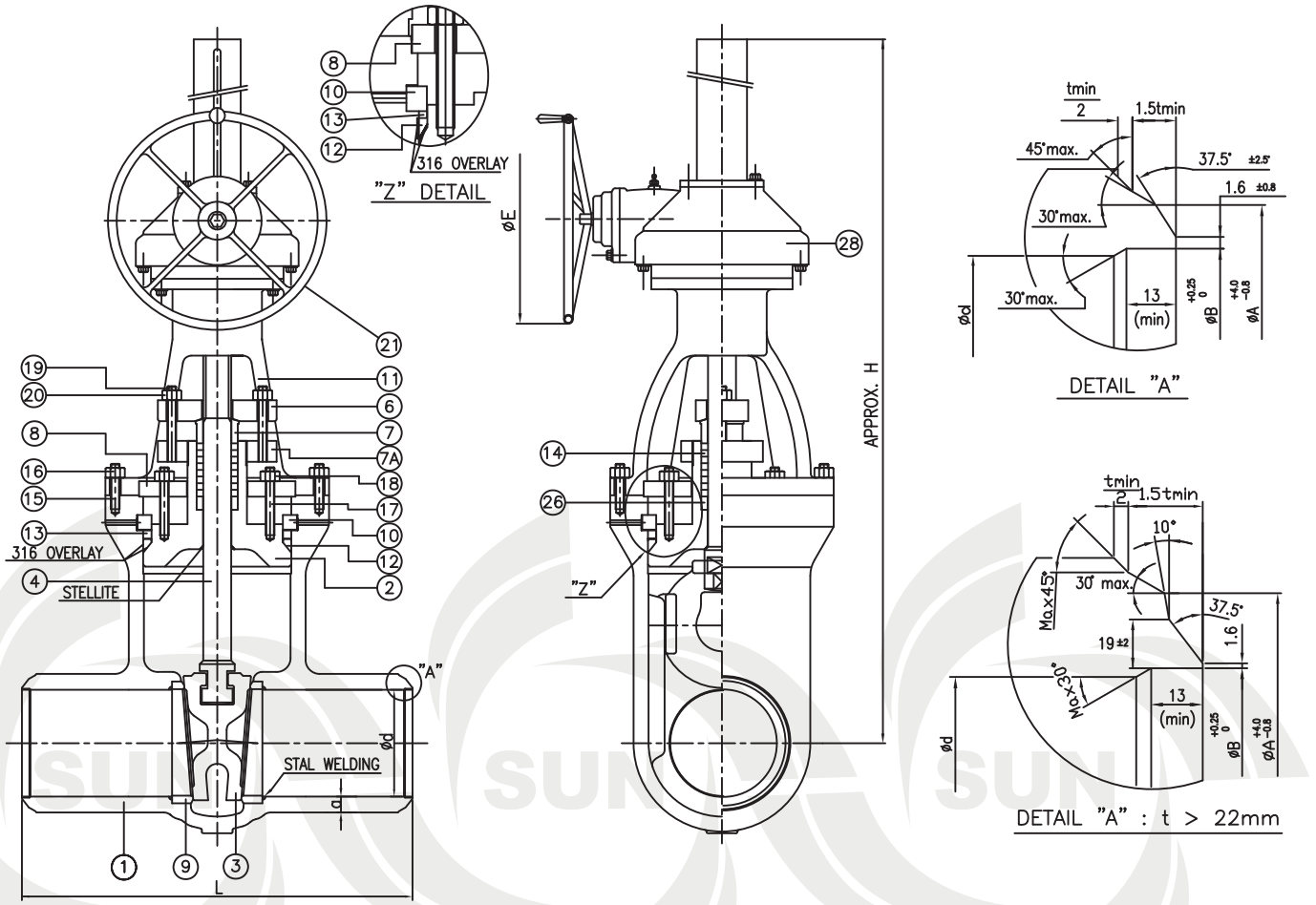
UNIT : mm

SIZE	L	d	FLANGE						H	E	WEIGHT (kg)
			D	C	g	t	f	n-h			
6	914	111.0	482.6	368.3	215.9	108.0	6.4	8-54.0	1042	710	805
8	1022	146.1	552.5	438.2	269.7	127.0	6.4	12-54.0	1301	710	1315
10	1270	184.2	673.1	540.0	323.9	165.1	6.4	12-66.7	1460	800	2375
12	1422	218.9	762.0	619.3	381.0	184.2	6.4	12-73.0	1946	800	3415

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Gear, BW

SUN-PGA25W-GO-1



DETAIL "A"

DETAIL "A" : t > 22mm

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A105+ST'L NO.6
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B8
20	GLAND NUT	A194-2H
21	HANDWHEEL	A53
26	BACKUP RING	A479-316
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 2500
2. END TO END DIMENSION : ASME B16.10 CLASS 2500 (SHORT PATTERN)
3. B.W END DIMENSION : ASME B16.25 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

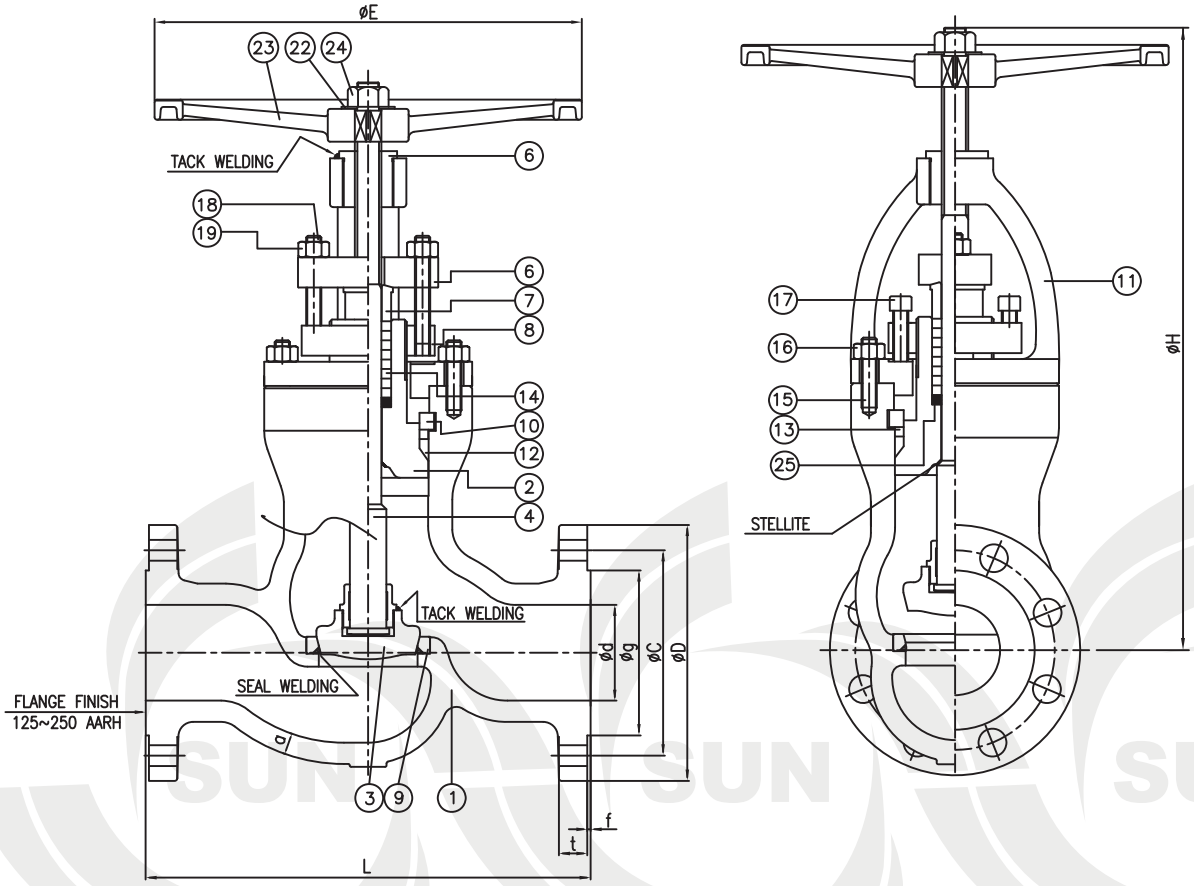
UNIT : mm

SIZE	L	d	BUTTWELDING END				H	E	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	610	111.0	172	124.5	21.95	XXS	1192	710	472
8	762	146.1	223	173.0	23.01	160	1451	710	692
10	914	184.2	278	216.0	28.6	160	1610	800	1522
12	1041	218.9	329	257.0	33.32	160	2190	800	2897

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, RF

SUN-PGL15F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
22	WASHER	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A194-2H
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 1500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSION : ANSI B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

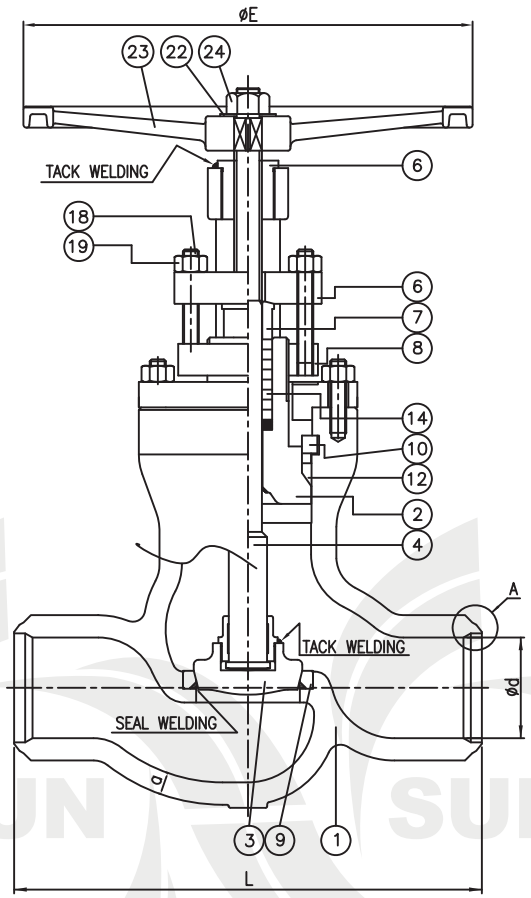
UNIT : mm

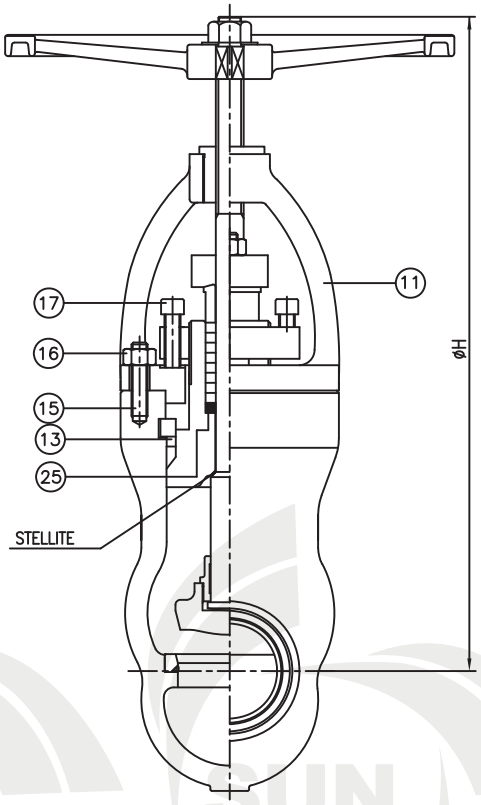
SIZE	L	d	FLANGE						(min) a	E	H	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	368.0	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	11.2	315	575	75
3	470.0	69.9	266.7	203.2	127.0	47.8	6.4	8-31.8	15.7	355	658	135
4	546.0	91.9	311.2	241.3	157.2	53.8	6.4	8-34.9	19.0	400	765	230

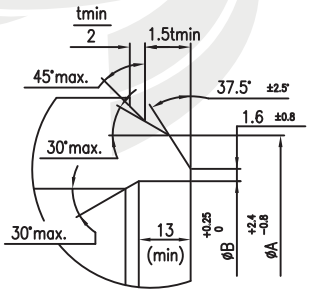
Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Handwheel, BW

SUN-PGL15W-HO-1







DETAIL "A"

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 1500
2. END TO END DIMENSION : ASME B16.10 CLASS 1500 (SHORT PATTERN)
3. END FLANGE DIMENSION : ANSI B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

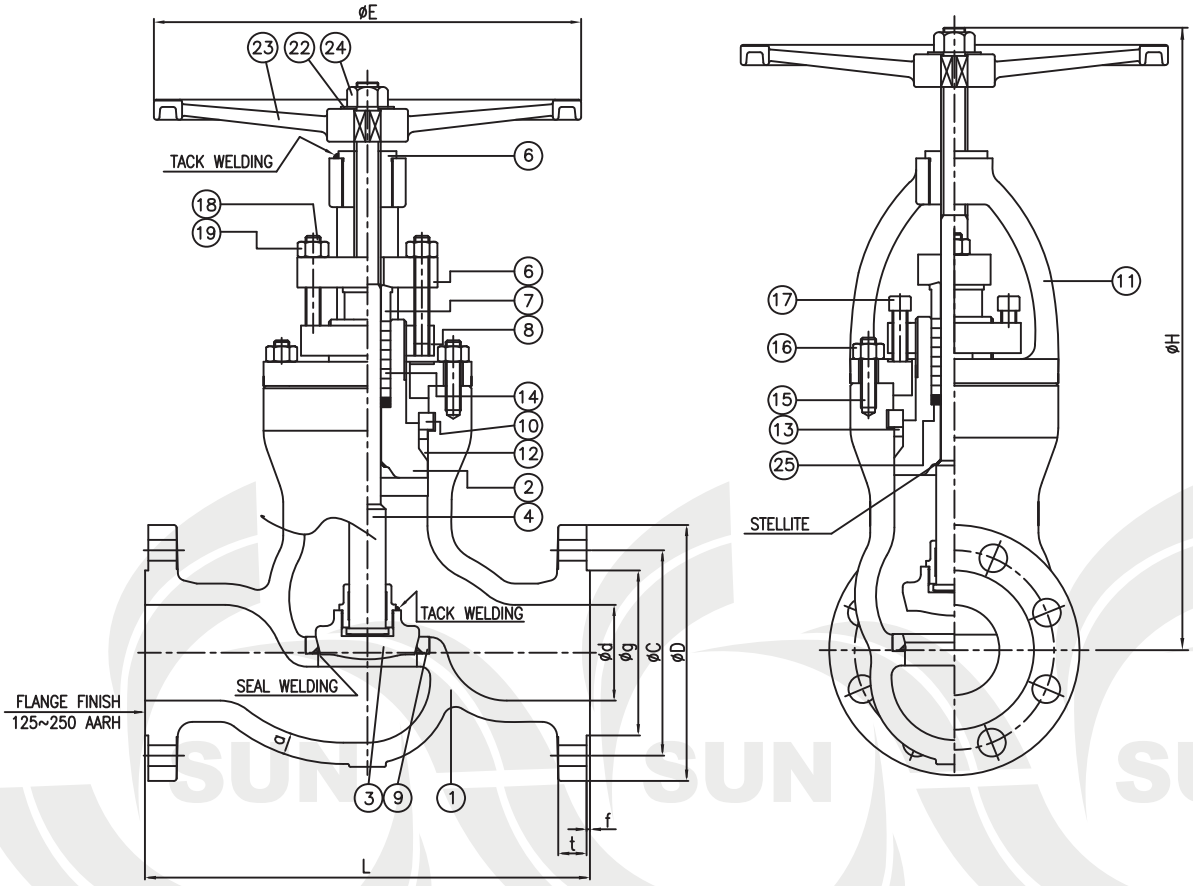
SIZE	L	d	BUTTWELDING END				(min) a	E	H	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	215.9	47.5	60.3	42.8	8.74	160	11.2	315	575	55
3	304.8	69.9	91.0	66.5	11.13	160	15.7	355	658	95
4	406.0	91.9	117.0	87.5	13.49	160	19.0	400	765	155

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
22	WASHER	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A194-2H
25	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, RF

SUN-PGL25F-HO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
22	WASHER	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A194-2H
25	BACKUP RING	A479-316L

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 2500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSION : ANSI B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

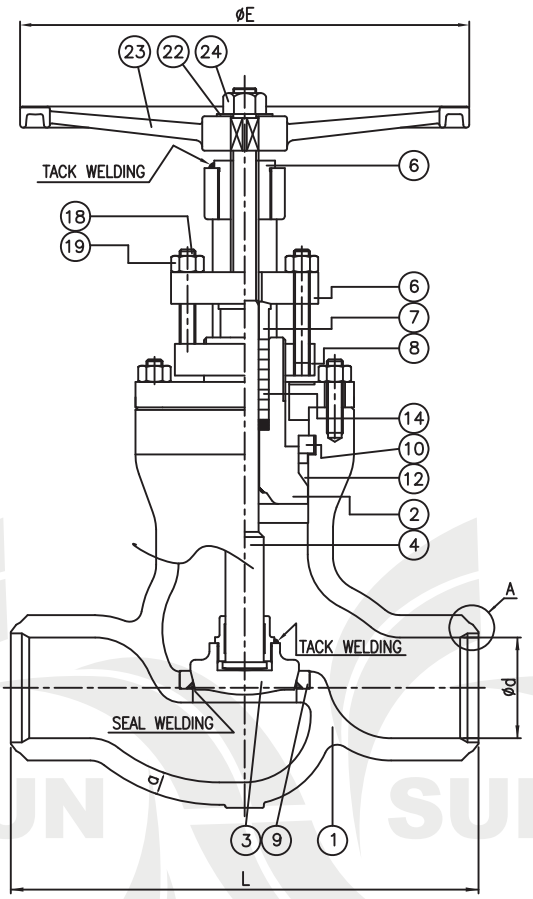
UNIT : mm

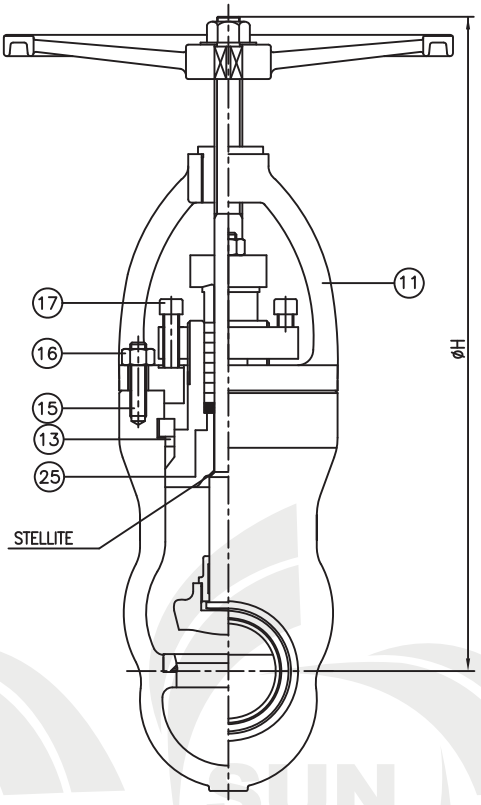
SIZE	L	d	FLANGE						(min) a	E	H	WEIGHT (kg)
			D	C	g	t	f	n-h				
2	451.0	38.1	235.0	171.5	91.9	50.8	6.4	8-28.6	15.8	400	615	95
3	578.0	57.2	304.8	228.6	127.0	66.5	6.4	8-34.9	22.4	500	755	205
4	673.0	72.9	355.6	273.1	157.2	76.2	6.4	8-41.3	27.7	610	1265	495

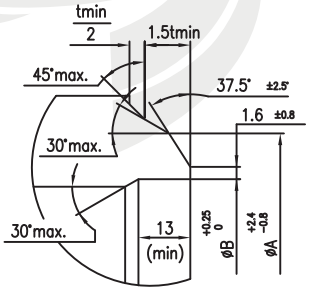
Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Handwheel, BW

SUN-PGL25W-HO-1







DETAIL "A"

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 2500
2. END TO END DIMENSION : ASME B16.10 CLASS 2500 (SHORT PATTERN)
3. END FLANGE DIMENSION : ANSI B16.25 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

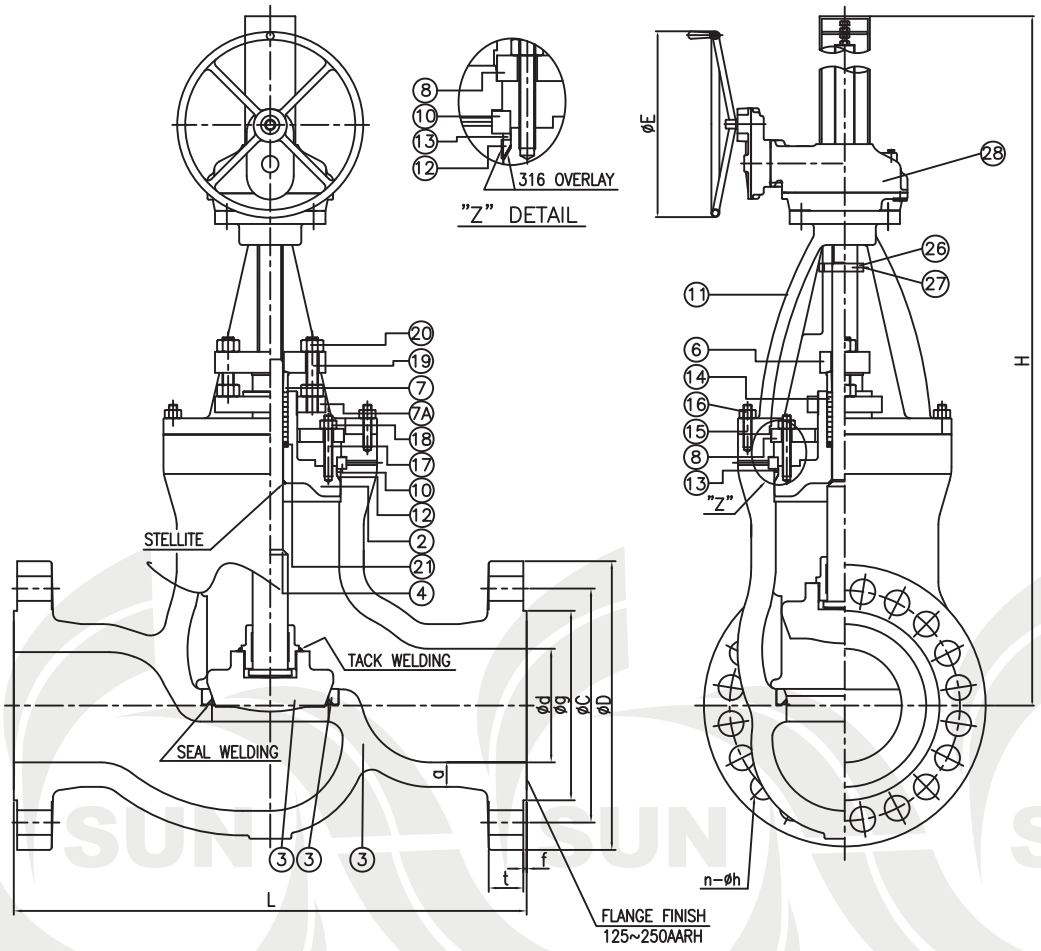
SIZE	L	d	BUTTWELDING END				(min) a	E	H	WEIGHT (kg)
			A	B	t	SCH. NO.				
2	279.0	38.1	60.3	38.2	11.07	XXS	15.8	400	615	68
3	368.0	57.2	91.0	58.5	15.24	XXS	22.4	500	755	135
4	457.0	72.9	117.0	80.0	17.12	XXS	27.7	610	1265	345

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
5	YOKE BUSH	A439-D2C
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	GLAND BOLT	A193-B7
19	GLAND NUT	A194-2H
22	WASHER	A576-1020
23	HANDWHEEL	A536
24	HANDWHEEL NUT	A194-2H
25	BACKUP RING	A479-316L

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, RF

SUN-PGL6F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A283-D
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 600
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 600
3. END FLANGE DIMENSION : ANSI B16.5 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

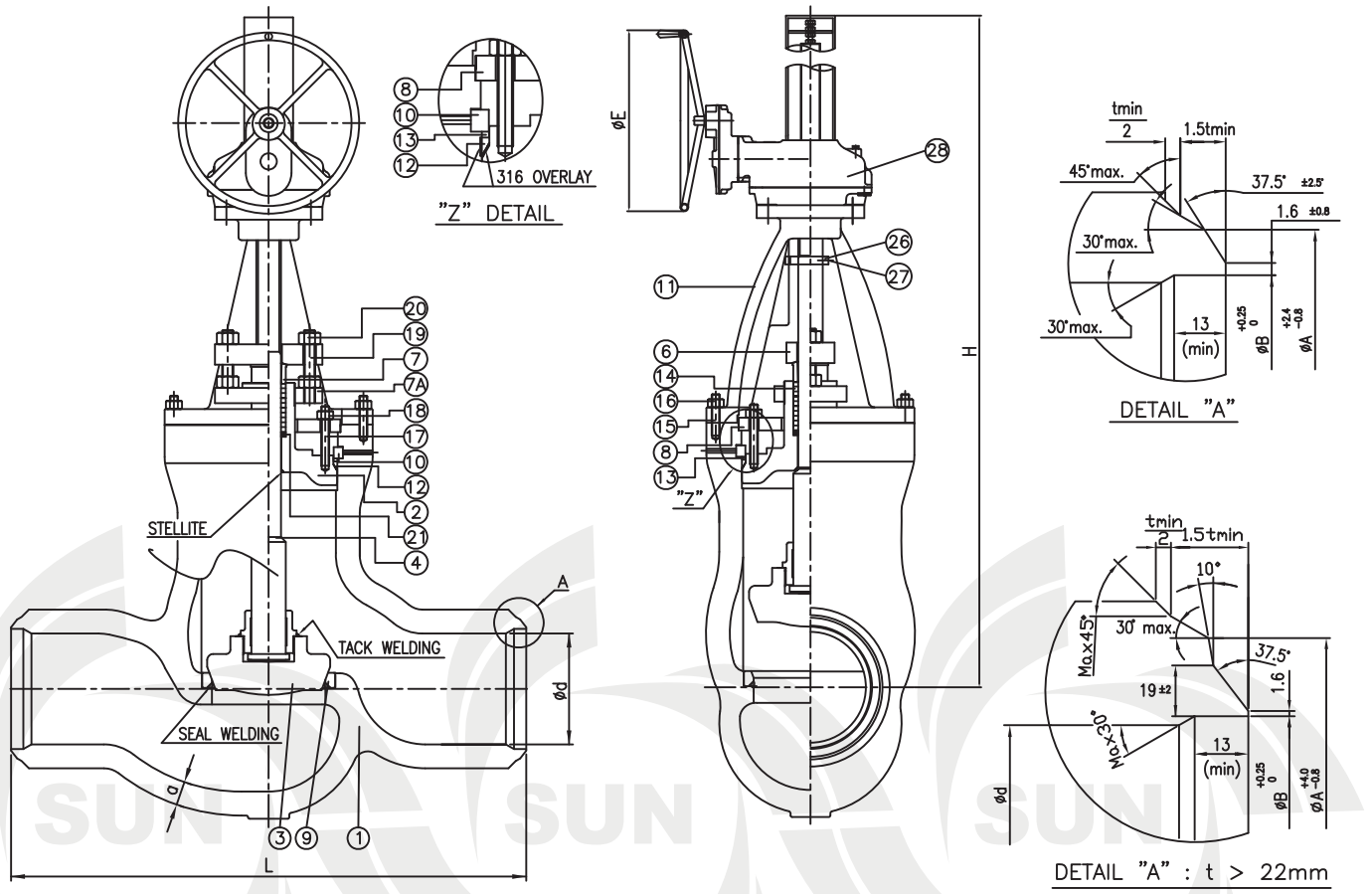
UNIT : mm

SIZE	L	d	FLANGE						(min) a	H	E	WEIGHT (kg)
			D	C	g	t	f	n-h				
6	558.8	152.4	355.6	292.1	215.9	47.8	6.4	12-28.6	12.7	1150	630	305
8	660.4	199.9	419.1	349.3	269.7	55.7	6.4	12-31.8	15.8	1250	710	620
10	787.4	247.7	508.0	431.8	323.9	63.5	6.4	16-34.9	19.0	1400	800	1310
12	838.2	298.5	558.8	489.0	381.0	66.6	6.4	20-34.9	23.1	1550	900	1900

Remark : 1. The name plate shall be specified by purchaser as required.

Class 600 Bolted Bonnet, Gear, BW

SUN-PGL6W-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 600
2. END TO END DIMENSION : ASME B16.10 CLASS 600 (SHORT PATTERN)
3. END FLANGE DIMENSION : ANSI B16.25 CLASS 600

Test Pressure (Psig)

Rating	Class 600
Hydrostatic press test (Shell)	2225
Hydrostatic press test (Seat)	1630

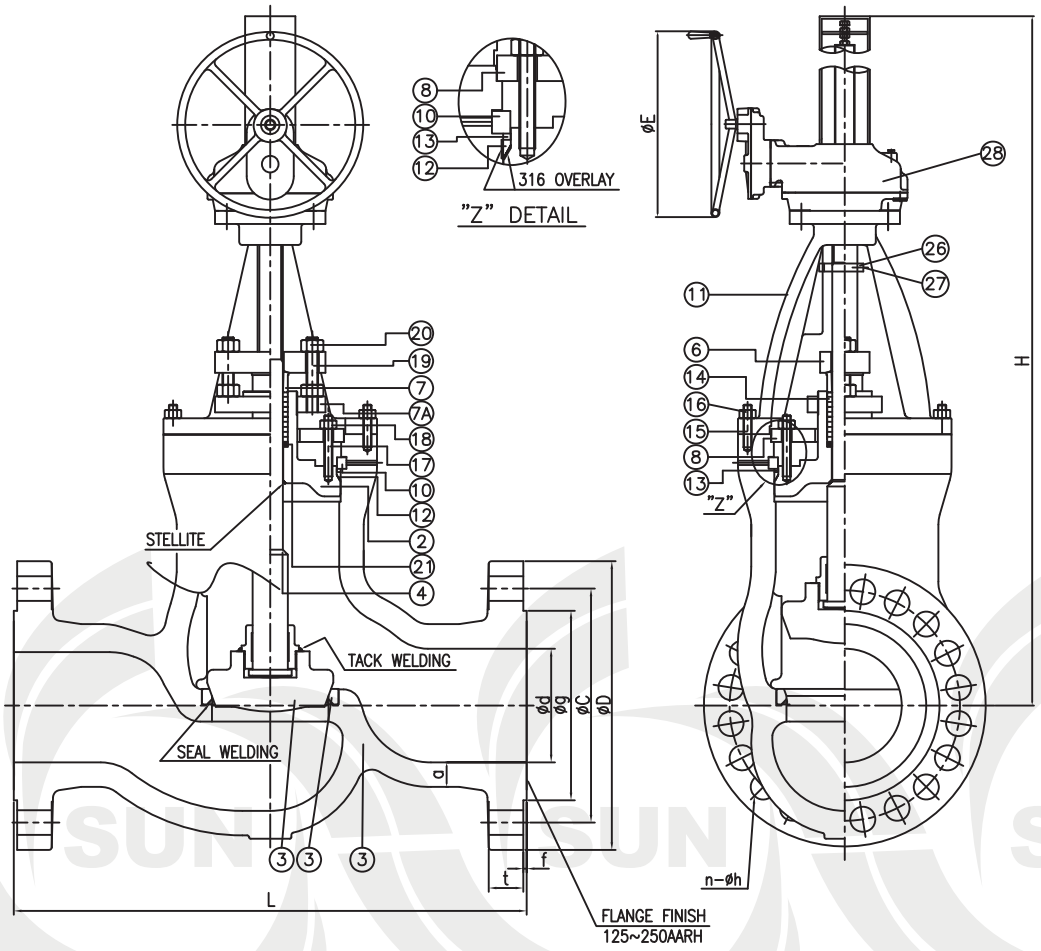
UNIT : mm

SIZE	L	d	BUTTWELDING END				(min) a	H	E	WEIGHT (kg)
			A	B	t	SCH. NO.				
6	457.0	152.4	172	146.5	10.97	80	12.7	1150	630	225
8	584.0	199.9	223	193.5	12.7	80	15.8	1250	710	535
10	711.0	247.7	278	243.0	15.09	80	19.0	1400	800	1150
12	813.0	298.5	329	289.0	17.5	80	23.1	1550	900	1715

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, RF

SUN-PGL9F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 900
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 900
3. END FLANGE DIMENSION : ANSI B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

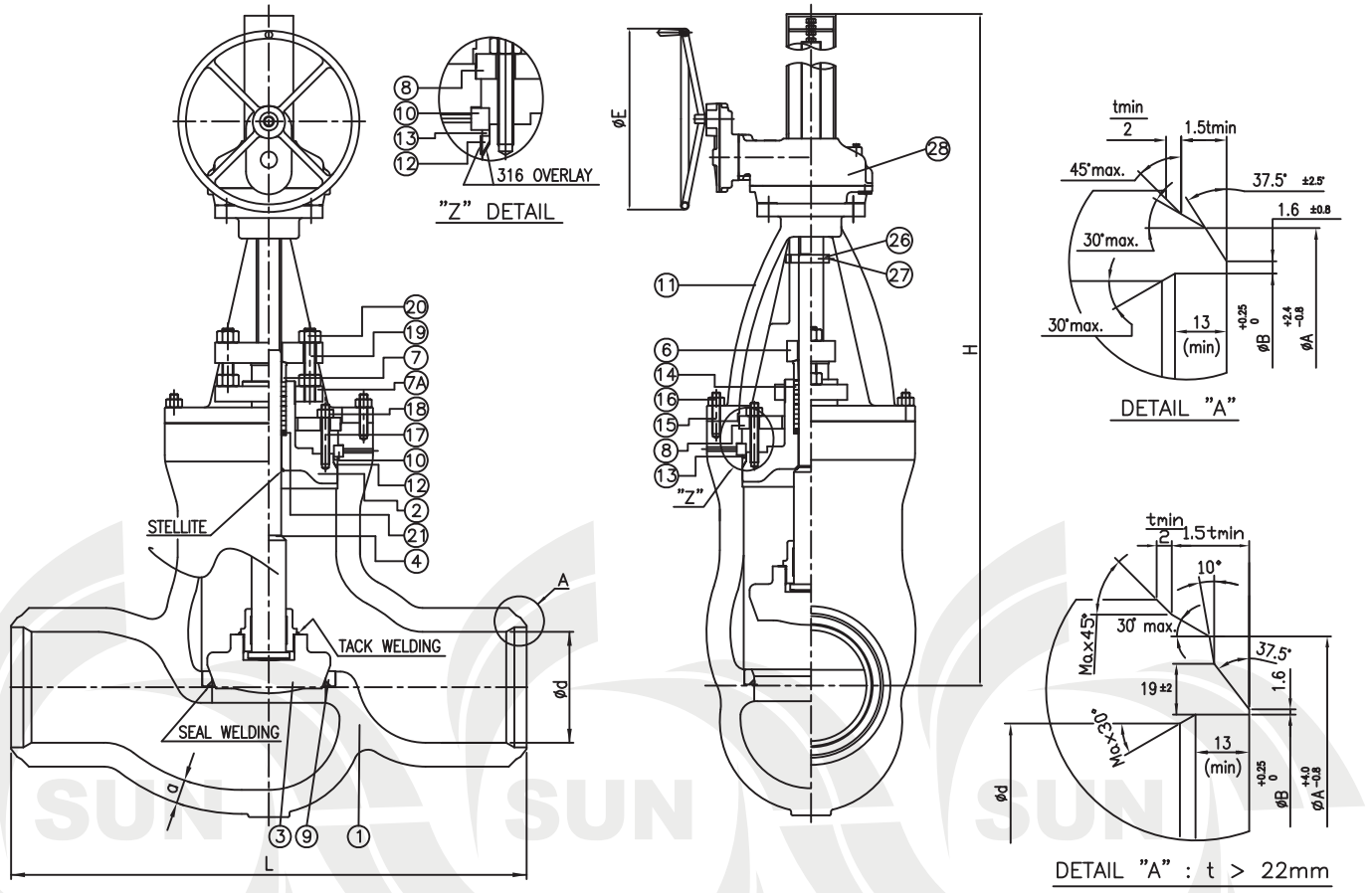
UNIT : mm

SIZE	L	d	FLANGE						(min) a	H	E	WEIGHT (kg)
			D	C	g	t	f	n-h				
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12-31.8	18.3	1075	500	415
8	736.6	190.5	469.9	393.7	269.9	63.5	6.4	12-38.1	22.4	1200	630	995
10	838.2	238.0	546.1	469.9	323.9	69.9	6.4	16-38.1	26.9	1400	630	1715
12	965.2	282.4	609.6	533.4	381.0	79.3	6.4	20-38.1	31.8	1600	710	2305
14	1028.7	311.2	641.3	558.8	412.8	85.9	6.4	20-41.1	35.0	1850	800	3345

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 Bolted Bonnet, Gear, BW

SUN-PGL9W-GO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 900
2. END TO END DIMENSION : ASME B16.10 CLASS 900 (SHORT PATTERN)
3. END FLANGE DIMENSION : ANSI B16.25 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

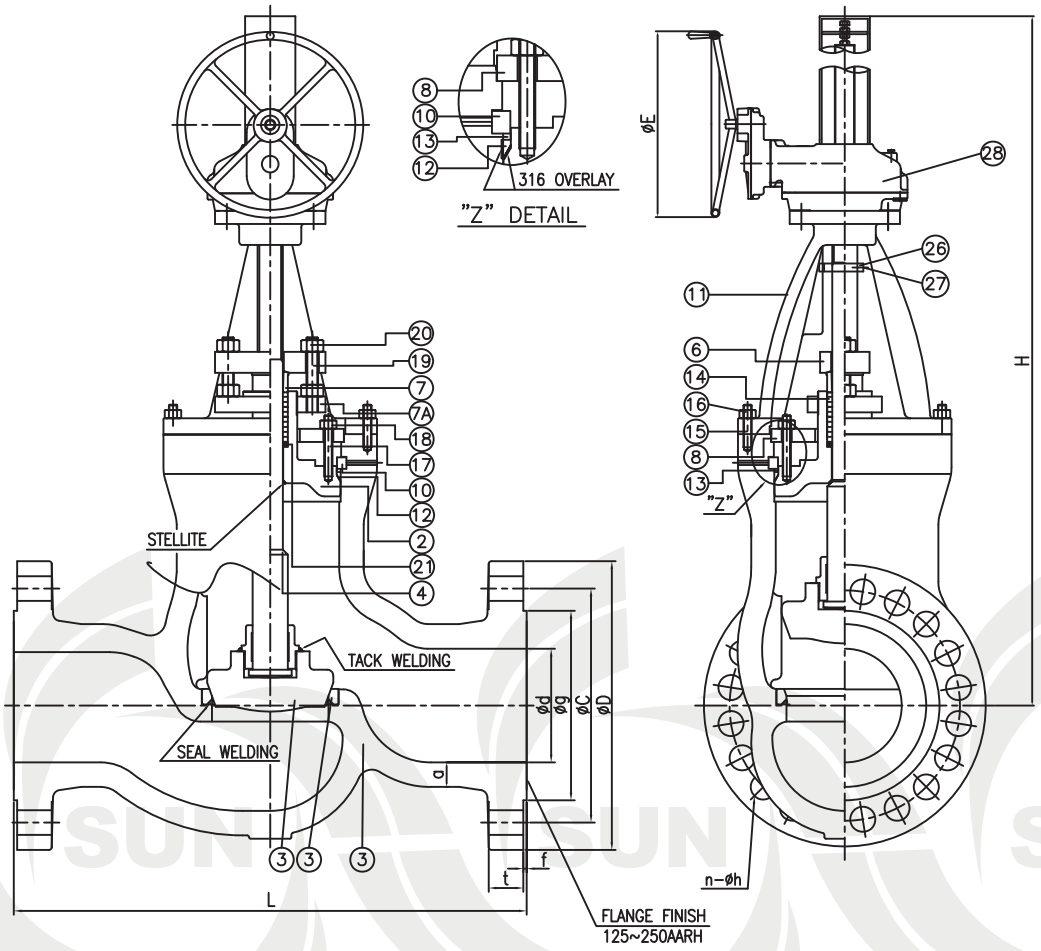
SIZE	L	d	BUTTWELDING END				(min) a	H	E	WEIGHT (kg)
			A	B	t	SCH. NO.				
6	508.0	146.1	172	140.0	14.3	120	18.3	1075	500	315
8	660.0	190.5	223	182.5	18.3	120	22.4	1200	630	820
10	787.0	238.0	278	230.0	21.44	120	26.9	1400	630	1415
12	914.0	282.4	329	273.0	25.4	120	31.8	1600	710	1890
14	991.0	311.2	362	300.0	27.8	120	35.0	1850	800	2810
16	1092.0	355.6	413	344.5	30.96	120	39.6	2160	900	3280

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Gear, RF

SUN-PGL15F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 1500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSION : ANSI B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

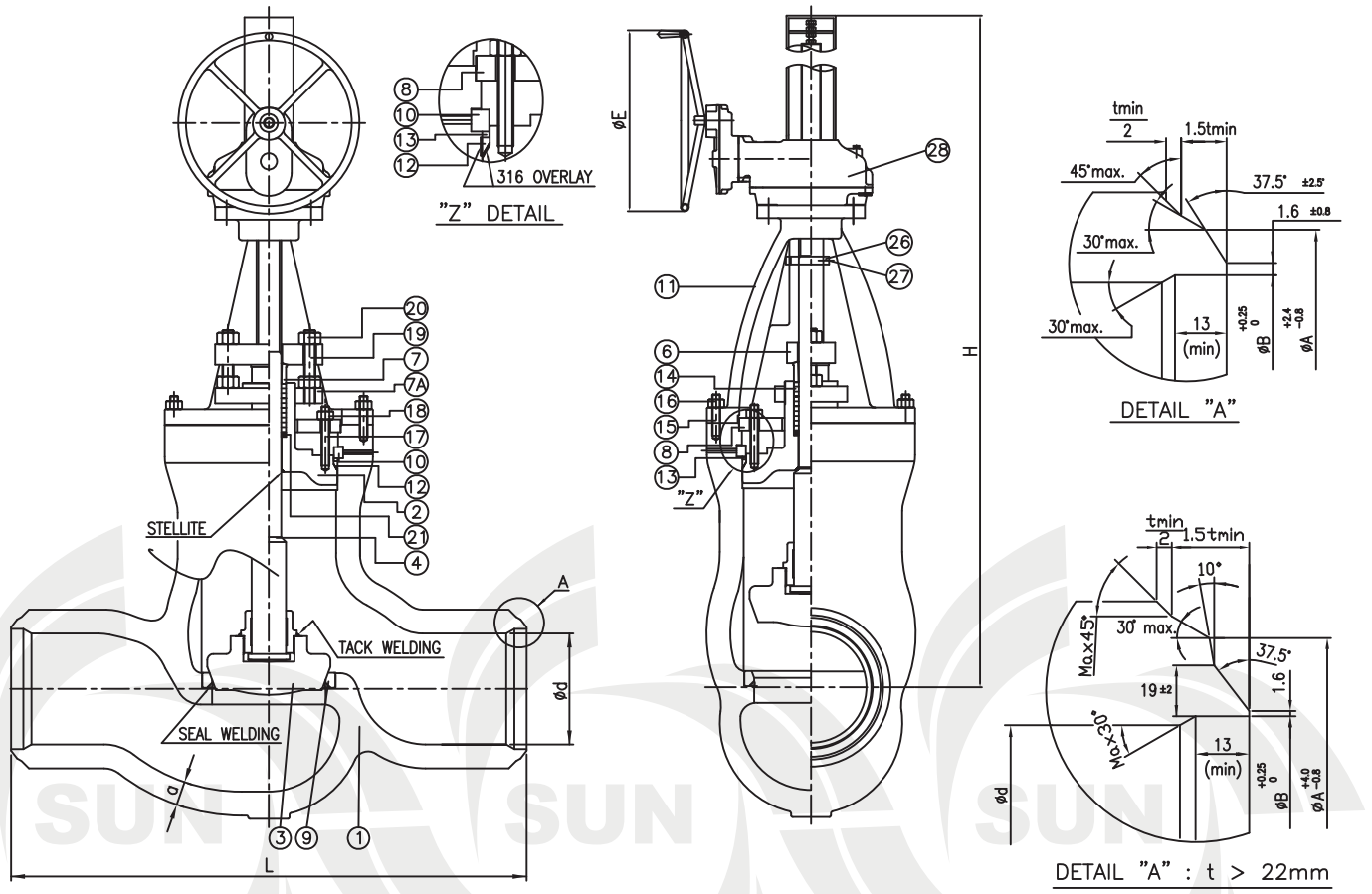
UNIT : mm

SIZE	L	d	FLANGE						(min) a	H	E	WEIGHT (kg)
			D	C	g	t	f	n-h				
6	705.0	136.4	393.7	317.5	215.9	82.6	6.4	12-38.1	27.7	1080	630	645
8	832.0	177.8	482.6	393.7	269.7	91.9	6.4	12-44.5	35.8	1650	630	1675
10	991.0	222.3	584.2	482.6	323.9	108.0	6.4	12-50.8	43.7	1850	710	2675
12	1130	263.4	673.1	571.5	381.0	124.0	6.4	16-54.0	50.8	2160	800	3405
14	1257	288.8	749.3	635.0	412.8	133.4	6.4	16-60.3	55.6	2540	800	4325

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 Bolted Bonnet, Gear, BW

SUN-PGL15W-GO-1



NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 1500
2. END TO END DIMENSION : ASME B16.10 CLASS 1500 (SHORT PATTERN)
3. END FLANGE DIMENSION : ANSI B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

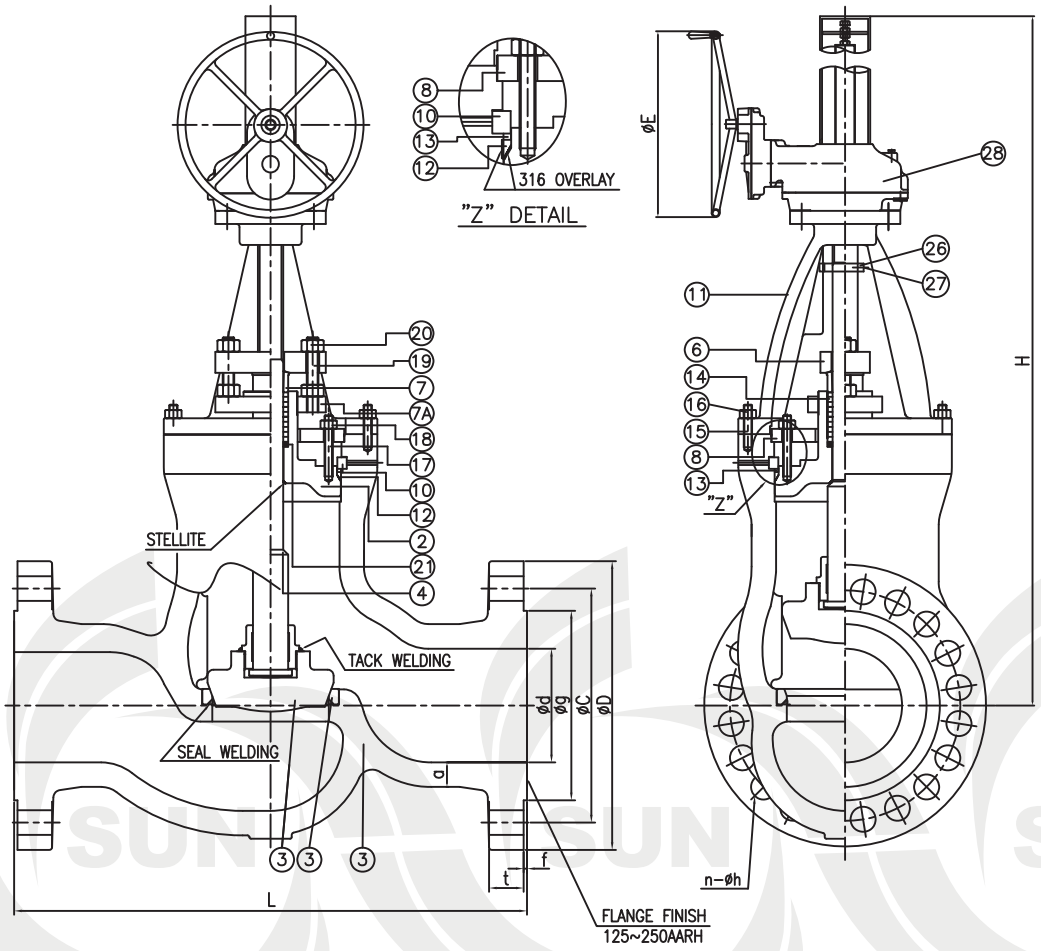
SIZE	L	d	BUTTWELDING END				(min) a	H	E	WEIGHT (kg)
			A	B	t	SCH. NO.				
6	559.0	136.4	172	132.0	18.26	160	27.7	1080	630	420
8	711.0	177.8	223	173	23.01	160	35.8	1650	630	1330
10	864.0	222.3	278	216	28.6	160	43.7	1850	710	2125
12	991.0	263.4	329	257	33.3	160	50.8	2160	800	2590
14	1067	288.8	362	284	35.7	160	55.6	2540	800	3280

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Gear, RF

SUN-PGL25F-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 2500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSION : ANSI B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

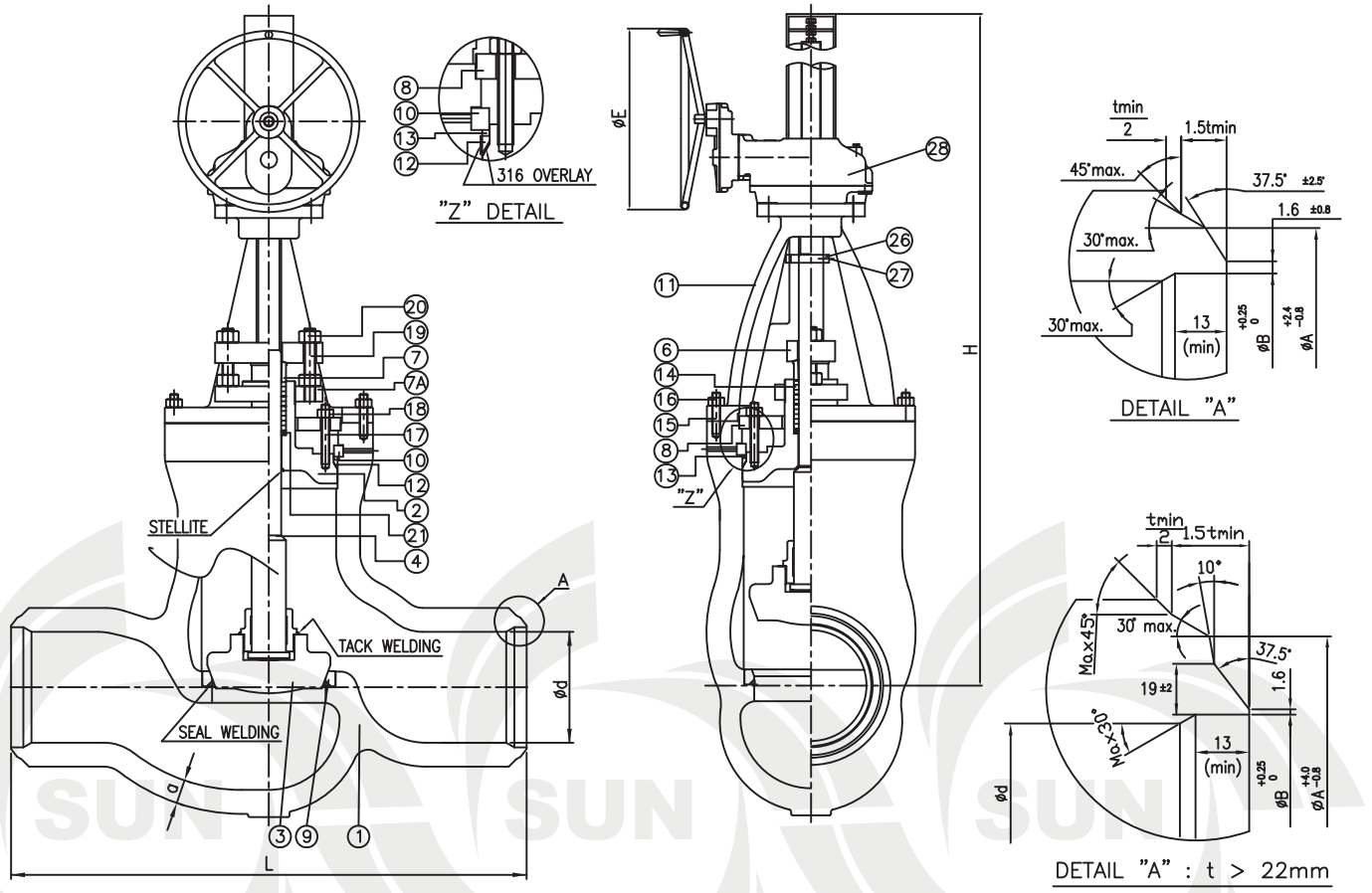
UNIT : mm

SIZE	L	d	FLANGE						(min) a	H	E	WEIGHT (kg)
			D	C	g	t	f	n-h				
6	914.0	111.0	482.6	368.3	215.9	108.0	6.4	8-54.0	40.4	1220	630	1245
8	1022	146.1	552.5	438.2	269.7	127.0	6.4	12-54.0	52.3	2010	710	2395
10	1270	184.2	673.1	540.0	323.9	165.1	6.4	12-66.7	65.8	2390	800	3250
12	1422	218.9	762.0	619.3	381.0	184.2	6.4	12-73.0	77.0	2542	900	4195

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 Bolted Bonnet, Gear, BW

SUN-PGL25W-GO-1



NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	BONNET	A216-WCB
3	WEDGE	A216-WCB+ST'L NO.6
4	STEM	A479-410
6	GLAND FLANGE	A105
7	PACKING GLAND	A479-410
7A	GLAND CLAMP	A515 GR60
8	BONNET RETAINER RING	A515 GR60
9	SEAT RING	A479-410
10	SEGMENT RING	A479-410
11	YOKE	A216-WCB
12	PRESSURE SEAL GASKET	SOFT IRON
13	THRUST RING	A479-410
14	PACKING	GRAPHITE+CARBON FIBER
15	YOKE BOLT	A193-B7
16	YOKE NUT	A194-2H
17	BONNET BOLT	A193-B7
18	BONNET NUT	A194-2H
19	GLAND BOLT	A193-B7
20	GLAND NUT	A194-2H
21	BACKUP RING	A479-316L
26	GUIDE PLATE	A576-1020
27	GUIDE PLATE BOLT	A193-B7
28	GEAR BOX	A536

NOTE

1. SHELL WALL THICKNESS : ASME B16.34 CLASS 2500
2. END TO END DIMENSION : ASME B16.10 CLASS 2500 (SHORT PATTERN)
3. END FLANGE DIMENSION : ANSI B16.25 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

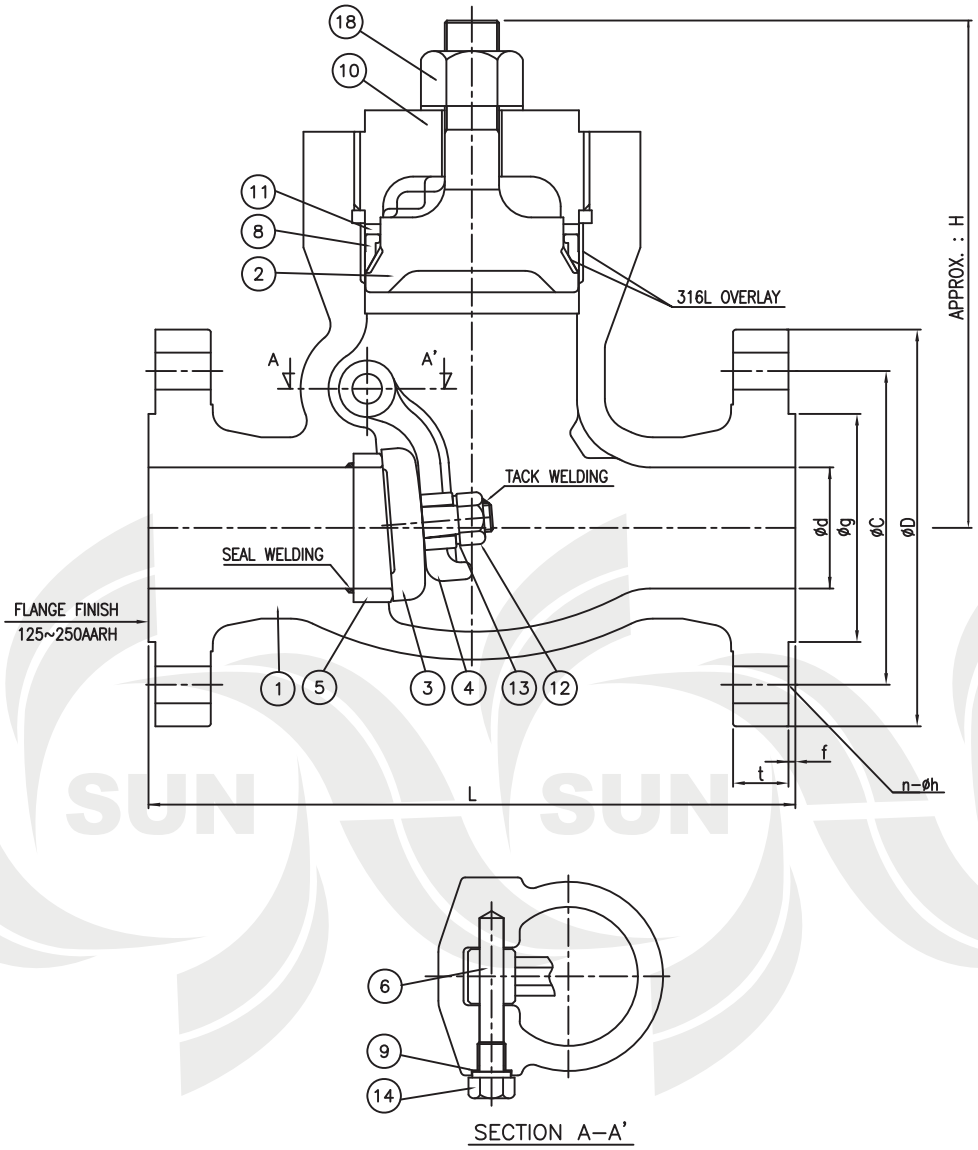
UNIT : mm

SIZE	L	d	BUTTWELDING END				(min) a	H	E	WEIGHT (kg)
			A	B	t	SCH. NO.				
6	610.0	111.0	172	124.5	21.95	XXS	40.4	1220	630	875
8	762.0	146.1	223	173	23.01	160	52.3	2010	710	1845
10	914.0	184.2	278	216	28.6	160	65.8	2390	800	2260
12	1041	218.9	329	257	33.32	160	77.0	2542	900	2980

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 RF

SUN-PSC9F-ZZ-1



NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 900
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

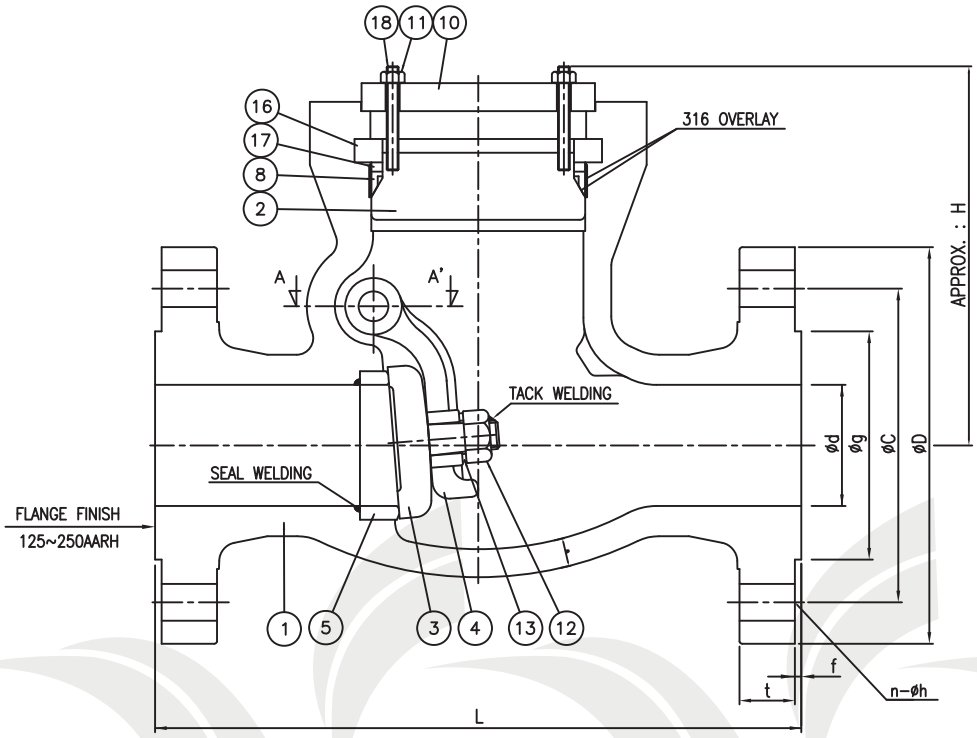
SIZE	L	d	FLANGE						a (min)	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.0	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	7.9	235	40
3	381.0	72.9	241.3	190.5	127.0	38.1	6.4	8-25.4	10.4	260	50
4	457.0	98.3	292.1	235.0	157.2	44.5	6.4	8-31.8	12.7	315	105

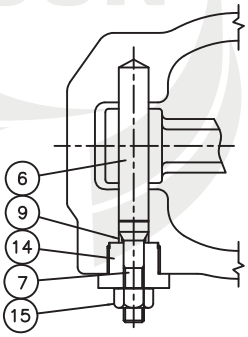
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
8	SEAL RING	SOFT IRON
9	PLUG GASKET	SS316
10	COVER RETAINER	A515 GR60
11	THRUST RING	A479-410
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT	A479-410
18	RETAINER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 900 RF

SUN-PSC9F-ZZ-2





SECTION A–A'

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 900
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 900
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

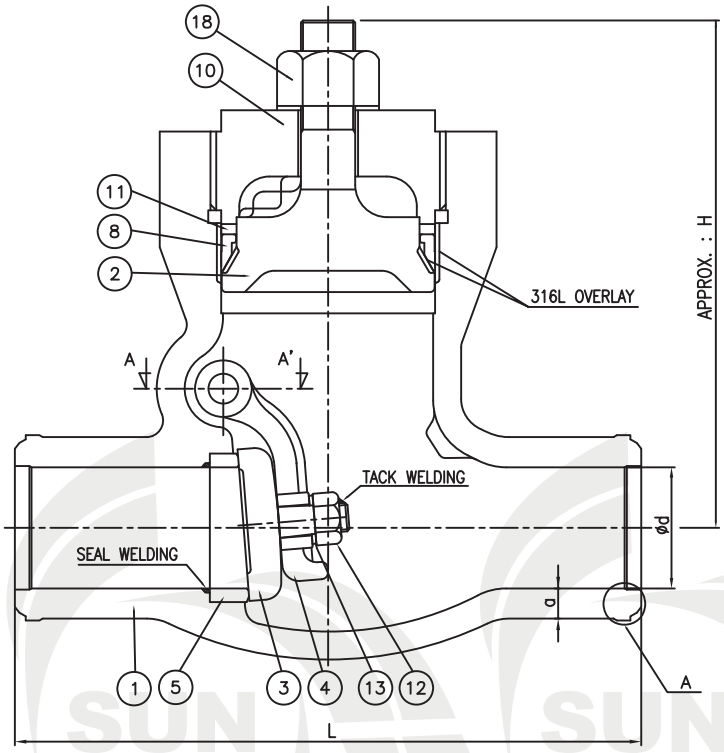
SIZE	L	d	FLANGE						(min) a	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
6	609.6	146.1	381.0	317.5	215.9	55.6	6.4	12–31.8	18.3	395	230
8	736.6	190.5	469.9	393.7	269.9	63.5	6.4	12–38.1	22.4	585	570
10	838.2	238.0	546.1	469.9	323.9	69.9	6.4	16–38.1	26.9	610	850
12	965.2	282.5	609.6	533.4	381.0	79.3	6.4	20–38.1	31.8	690	1300
14	1028.7	311.2	641.4	558.8	412.8	85.9	6.4	20–41.3	35.0	750	1550
16	1130.3	355.6	704.9	616.0	469.9	88.9	6.4	20–44.5	39.6	785	1650

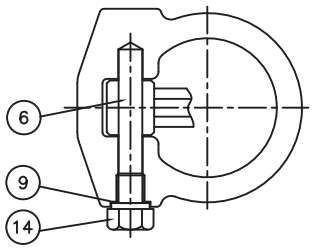
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PRESSURE SEAL GASKET	SOFT IRON
10	COVER RETAINER	A515 GR60
11	COVER NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT RETAINER	A479-410
15	NUT	A194-2H
16	SEGMENT RING	A479-410
17	THRUST RING	A479-410
18	COVER BOLT	A193-B7

Remark : 1. The name plate shall be specified by purchaser as required.

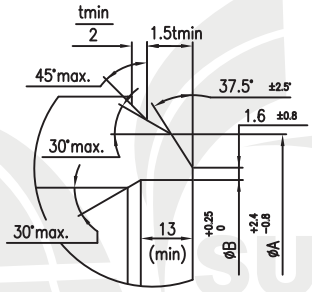
Class 900 BW

SUN-PSC9W-ZZ-1





SECTION A–A'



DETAIL "A"

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 900
2. END TO END DIMENSION : ASME B16.10 CLASS 900 (SHORT PATTERN)
3. END FLANGE DIMENSIONS : ANSI B16.25 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

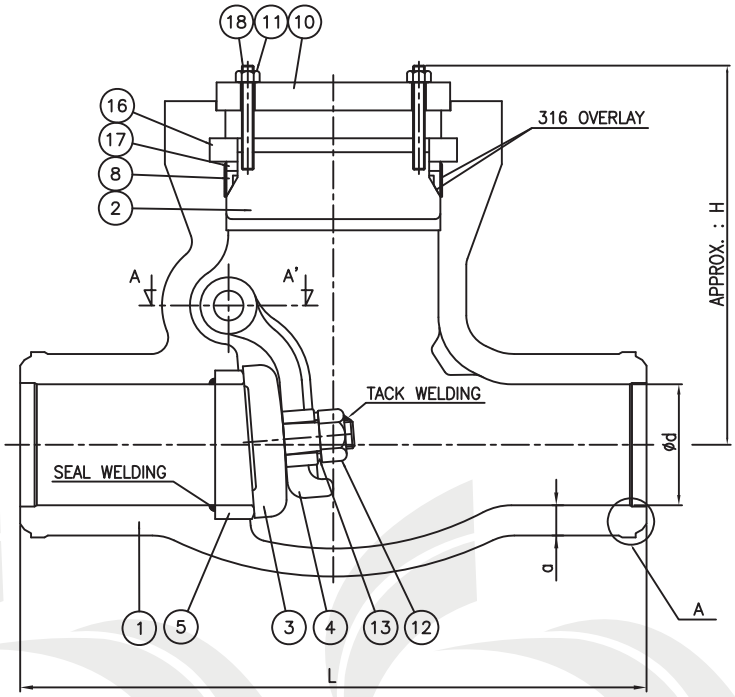
SIZE	L	d	BUTTWELDING END				(min) a	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	216.0	47.5	60.3	42.8	8.74	160	7.9	235	20
3	305.0	73.0	91.0	66.5	11.13	160	10.4	260	29
4	356.0	98.3	117	92.0	11.13	120	12.7	315	63

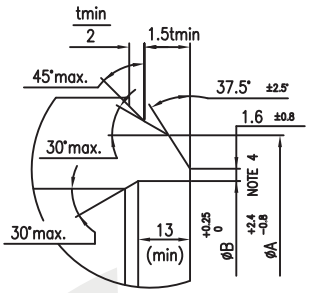
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER RETAINER	A216-WCB
11	THRUST RING	A479-410
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT	A479-410
18	RETAINER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

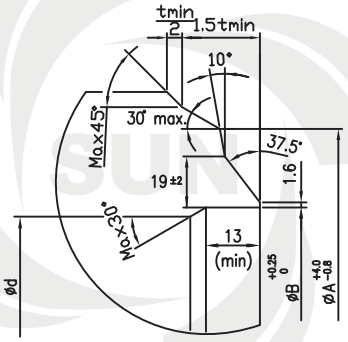
Class 900 BW

SUN-PSC9W-ZZ-2

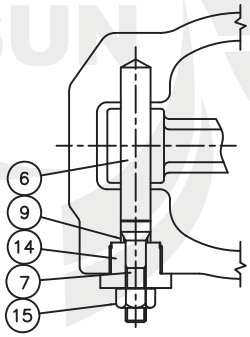




DETAIL "A"



DETAIL "A" : 12"~



SECTION A–A'

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 900
2. END TO END DIMENSION : ASME B16.10 CLASS 900 (SHORT PATTERN)
3. END FLANGE DIMENSIONS : ANSI B16.25 CLASS 900

Test Pressure (Psig)

Rating	Class 900
Hydrostatic press test (Shell)	3350
Hydrostatic press test (Seat)	2445

UNIT : mm

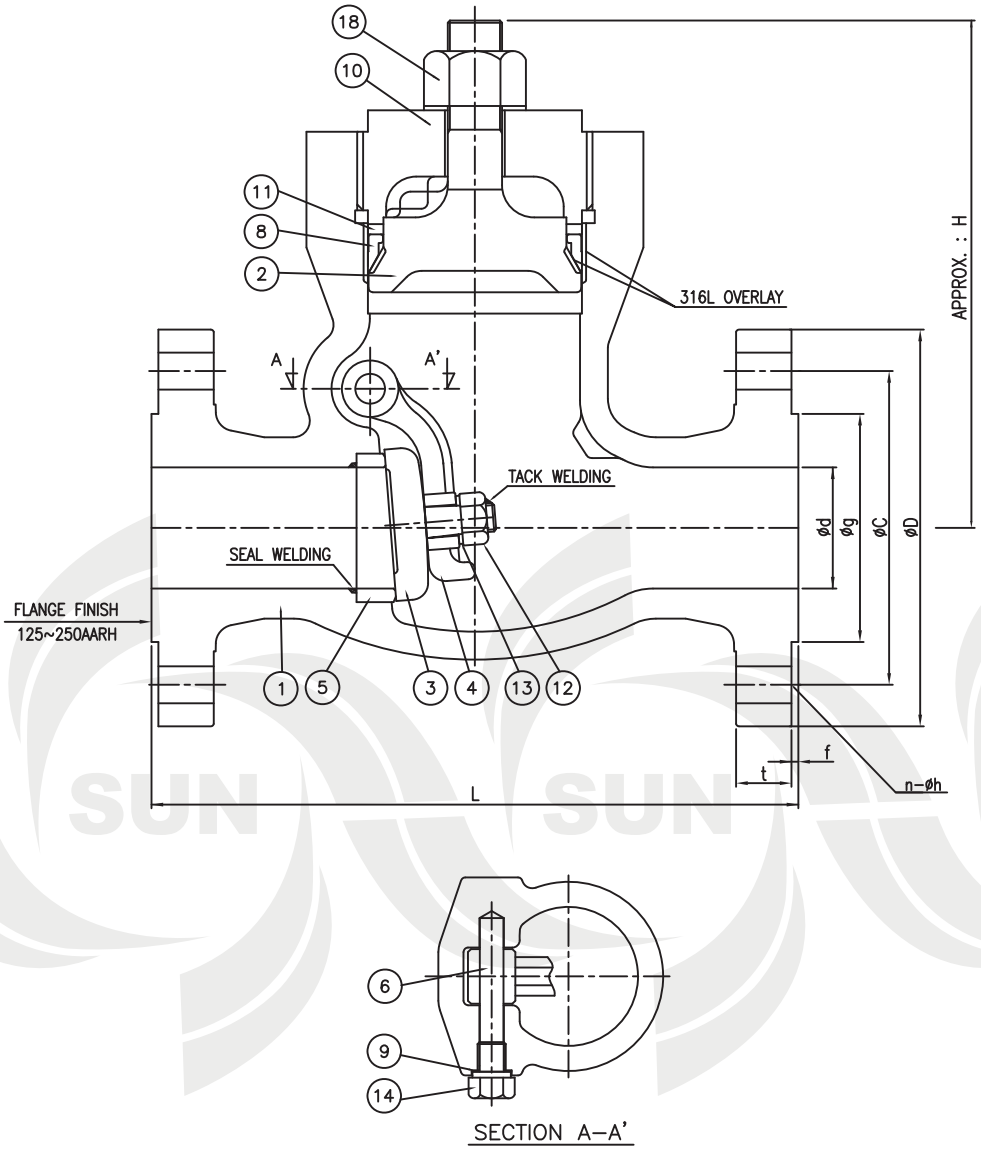
SIZE	L	d	BUTTWELDING END				(min) a	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	508.0	146.1	172	140	14.3	120	18.3	395	162
8	660.0	190.5	223	182.5	18.3	120	22.4	585	435
10	787.0	238.0	278	230.0	21.44	120	26.9	610	685
12	914.0	282.4	329	273.0	25.4	120	31.8	690	1015
14	991.0	311.2	362	300.0	27.8	120	35.0	750	1220
16	1092	355.6	413	344.5	30.96	120	39.6	785	1355

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PRESSURE SEAL GASKET	SOFT IRON
10	COVER RETAINER	A515 GR60
11	COVER NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT RETAINER	A479-410
15	NUT	A194-2H
16	SEGMENT RING	A479-410
17	THRUST RING	A479-410
18	COVER BOLT	A193-B7

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 RF

SUN-PSC15F-ZZ-1



NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 1500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ANSI B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

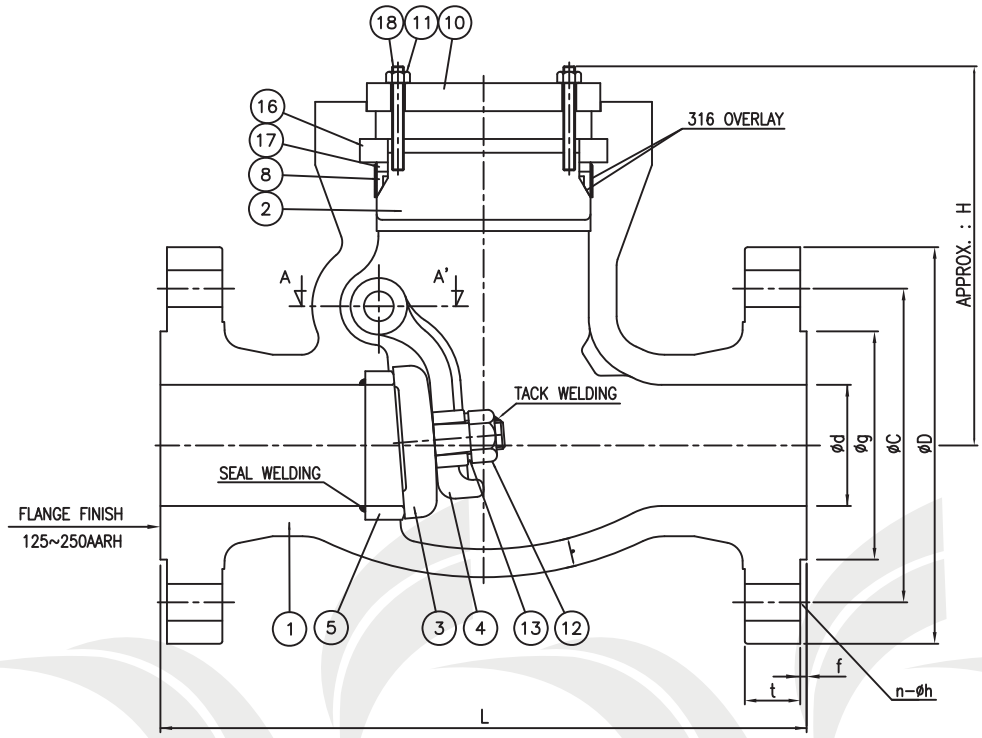
SIZE	L	d	FLANGE						(min) a	H	WEIGHT (kg)
			D	C	g	t	f	n-h			
2	368.0	47.5	215.9	165.1	91.9	38.1	6.4	8-25.4	11.2	240	40
3	470.0	69.9	266.7	203.2	127.0	47.8	6.4	8-31.8	15.7	275	100
4	546.0	91.9	311.2	241.3	157.2	53.8	6.4	8-34.9	19.0	320	140

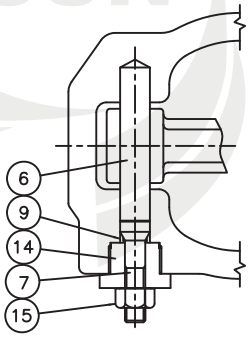
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
8	SEAL RING	SOFT IRON
9	PLUG GASKET	SS316
10	COVER RETAINER	A515 GR60
11	THRUST RING	A479-410
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT	A479-410
18	RETAINER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 1500 RF

SUN-PSC15F-ZZ-2





SECTION A–A'

NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 1500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 1500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

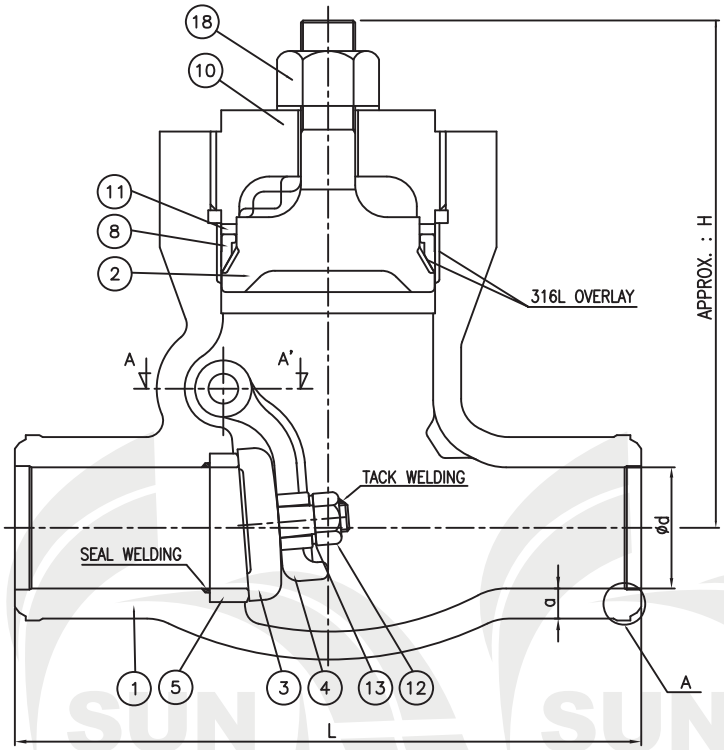
SIZE	L	d	FLANGE						(min) a	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
6	704.9	136.4	394.0	317.5	215.9	82.6	6.4	12–38.1	27.7	400	400
8	831.9	177.8	483.0	393.7	269.7	91.9	6.4	12–44.5	35.8	480	610
10	990.6	222.2	584.0	482.6	323.9	108.0	6.4	12–50.8	43.7	590	1050
12	1130.3	263.4	674.0	571.5	381.0	124.0	6.4	16–54.0	50.8	650	1550

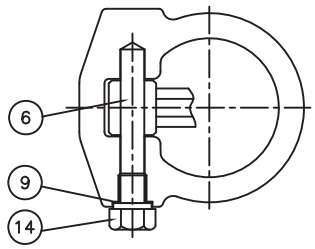
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PRESSURE SEAL GASKET	SOFT IRON
10	COVER RETAINER	A515 GR60
11	COVER NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT RETAINER	A479-410
15	NUT	A194-2H
16	SEGMENT RING	A479-410
17	THRUST RING	A479-410
18	COVER BOLT	A193-B7

Remark : 1. The name plate shall be specified by purchaser as required.

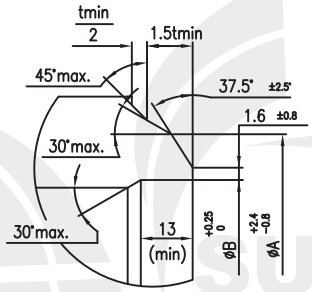
Class 1500 BW

SUN-PSC15W-ZZ-1





SECTION A–A'



DETAIL "A"

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 1500
2. END TO END DIMENSION : ASME B16.10 CLASS 1500 (SHORT PATTERN)
3. END FLANGE DIMENSIONS : ANSI B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

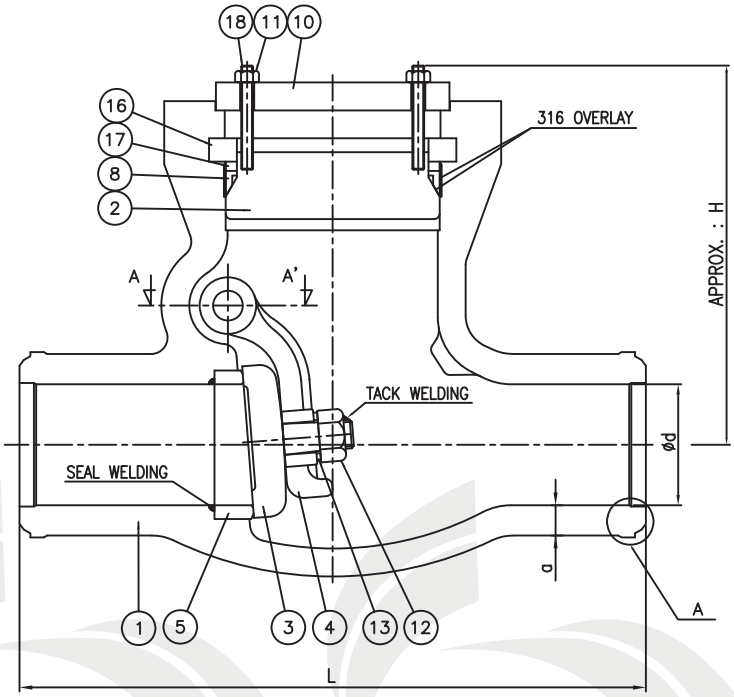
SIZE	L	d	BUTTWELDING END				(min) a	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	216.0	47.5	60.3	42.8	8.74	160	11.2	240	20
3	305.0	69.9	91.0	66.5	11.13	160	15.7	275	45
4	406.0	91.9	117	87.5	13.5	160	19.0	320	70

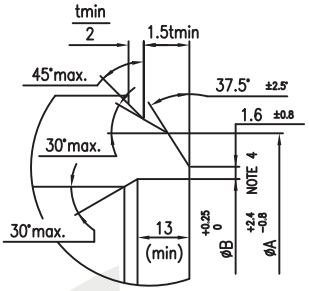
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER RETAINER	A216-WCB
11	THRUST RING	A479-410
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT	A479-410
18	RETAINER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

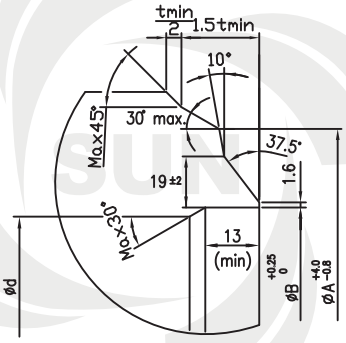
Class 1500 BW

SUN-PSC15W-ZZ-2

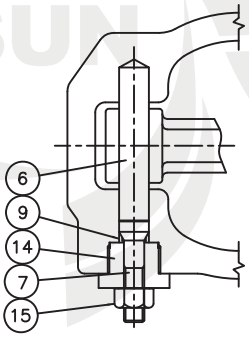




DETAIL "A"



DETAIL "A" : 8"~



SECTION A–A'

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 1500
2. END TO END DIMENSION : ASME B16.10 CLASS 1500 (SHORT PATTERN)
3. END FLANGE DIMENSIONS : ANSI B16.25 CLASS 1500

Test Pressure (Psig)

Rating	Class 1500
Hydrostatic press test (Shell)	5575
Hydrostatic press test (Seat)	4084

UNIT : mm

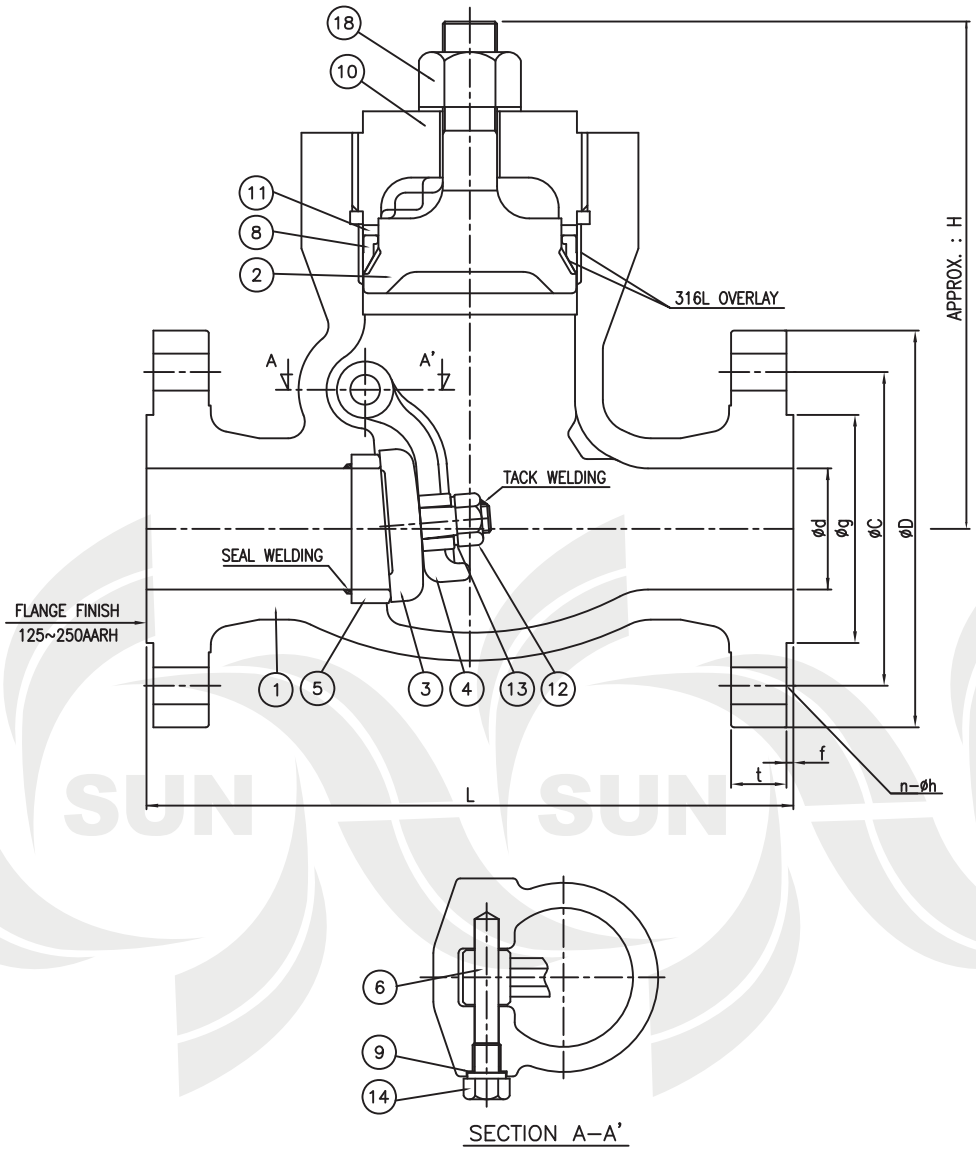
SIZE	L	d	BUTTWELDING END				(min) a	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	559.0	136.4	172	124.5	21.95	160	27.7	400	280
8	711.0	177.8	223	173.0	23.01	160	35.8	480	485
10	864.0	222.3	278	216.0	28.6	160	43.7	590	735
12	991.0	263.4	329	257.0	33.3	160	50.8	650	1105
14	1067.0	288.8	362	284.0	35.7	160	55.6	710	1415
16	1194.0	330.2	413	325.5	40.5	160	63.5	750	1605

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PRESSURE SEAL GASKET	SOFT IRON
10	COVER RETAINER	A515 GR60
11	COVER NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT RETAINER	A479-410
15	NUT	A194-2H
16	SEGMENT RING	A479-410
17	THRUST RING	A479-410
18	COVER BOLT	A193-B7

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 RF

SUN-PSC25F-ZZ-1



SECTION A–A'

NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 2500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

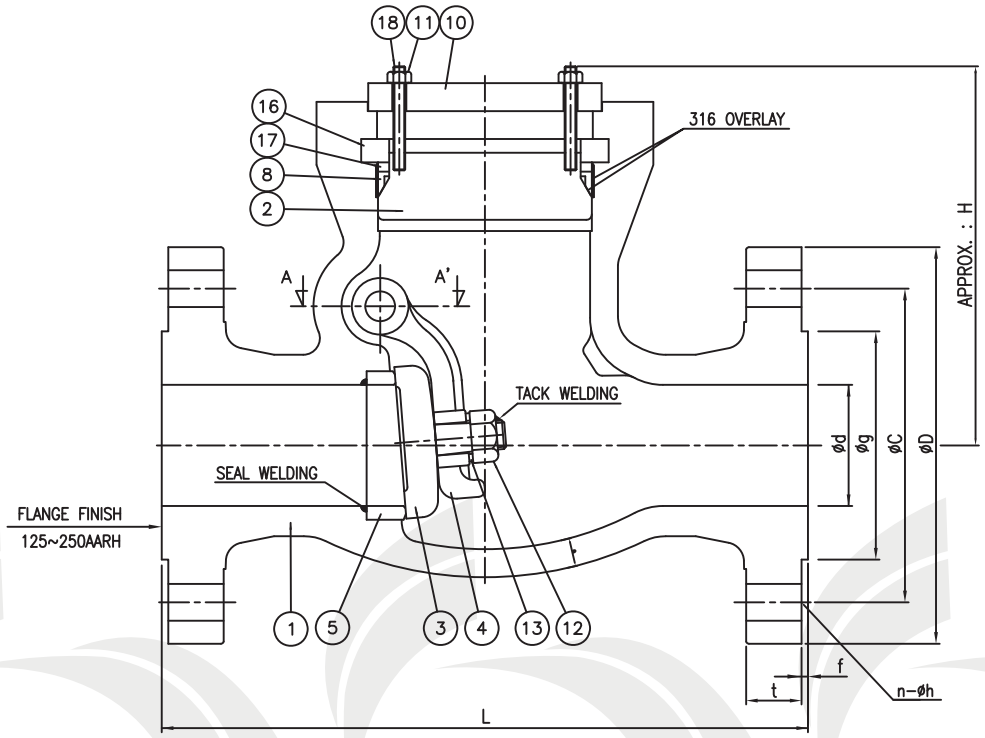
SIZE	L	d	FLANGE						a	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
2	451.0	38.1	235.0	171.5	91.9	50.8	6.4	8–28.6	15.8	245	85
3	578.0	57.2	304.8	228.6	127.0	66.5	6.4	8–34.9	22.4	275	155
4	673.0	72.9	355.6	273.0	157.2	76.2	6.4	8–41.3	27.7	320	285

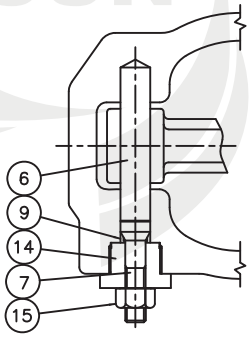
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
8	SEAL RING	SOFT IRON
9	PLUG GASKET	SS316
10	COVER RETAINER	A515 GR60
11	THRUST RING	A479-410
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT	A479-410
18	RETAINER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Class 2500 RF

SUN-PSC25F-ZZ-2





SECTION A–A'

NOTE

1. WALL THICKNESS : ASME B16.34 CLASS 2500
2. FACE TO FACE DIMENSION : ASME B16.10 CLASS 2500
3. END FLANGE DIMENSIONS : ASME B16.5 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

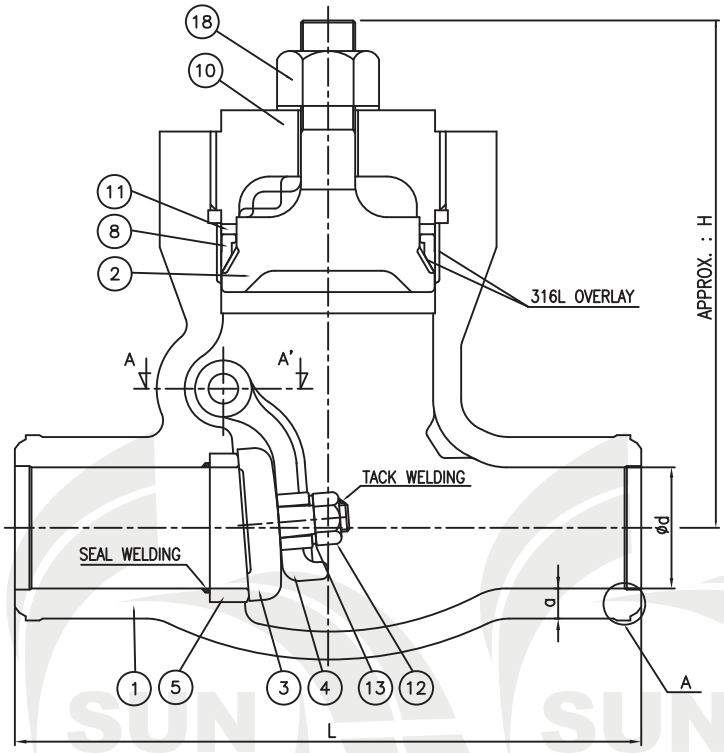
SIZE	L	d	FLANGE						a	H	WEIGHT (kg)
			D	C	g	t	f	n–h			
6	914.0	111.0	482.6	368.3	215.9	108.0	6.4	8–54.0	40.4	400	750
8	1022	146.1	552.5	438.2	269.7	127.0	6.4	12–54.0	52.3	560	1350
10	1270	184.2	673.1	540.0	323.9	165.1	6.4	12–66.7	65.8	630	2150
12	1422	218.9	762.0	619.3	381.0	184.2	6.4	12–73.0	77.0	700	3000

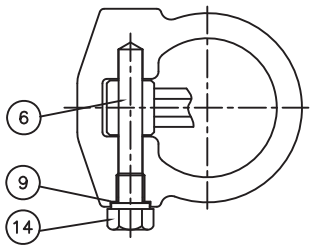
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PRESSURE SEAL GASKET	SOFT IRON
10	COVER RETAINER	A515 GR60
11	COVER NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT RETAINER	A479-410
15	NUT	A194-2H
16	SEGMENT RING	A479-410
17	THRUST RING	A479-410
18	COVER BOLT	A193-B7

Remark : 1. The name plate shall be specified by purchaser as required.

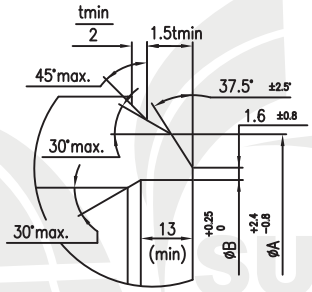
Class 2500 BW

SUN-PSC25W-ZZ-1





SECTION A–A'



DETAIL "A"

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 2500
2. END TO END DIMENSION : ASME B16.10 CLASS 2500 (SHORT PATTERN)
3. END FLANGE DIMENSIONS : ANSI B16.25 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

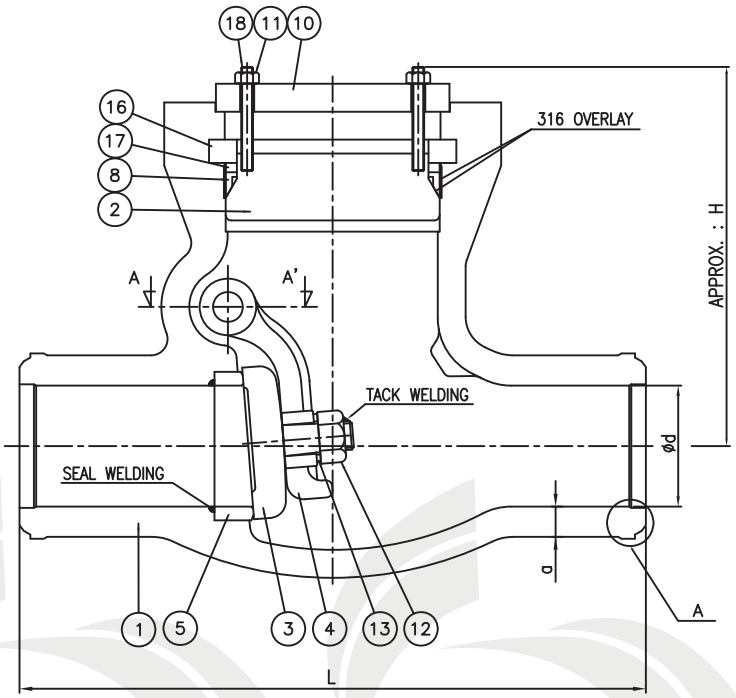
SIZE	L	d	BUTTWELDING END				(min) a	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
2	279.0	38.1	60.3	38.2	11.07	XXS	15.8	245	50
3	368.0	57.2	91.0	58.5	15.24	XXS	22.4	275	85
4	457.0	72.9	117	80.0	17.12	XXS	27.7	320	165

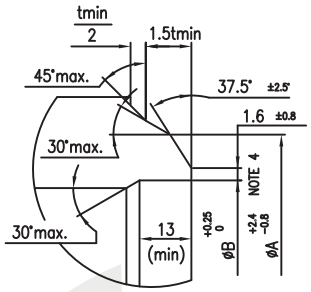
NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PLUG GASKET	SS316
10	COVER RETAINER	A216-WCB
11	THRUST RING	A479-410
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT	A479-410
18	RETAINER NUT	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

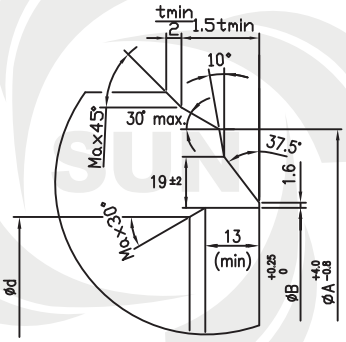
Class 2500 BW

SUN-PSC25W-ZZ-2

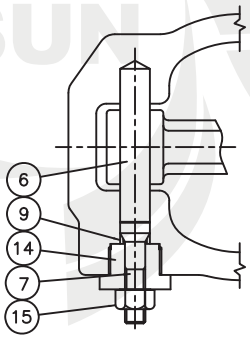




DETAIL "A"



DETAIL "A" : 8"~



SECTION A–A'

NOTE

1. SHELL WALL THICKNESS : ANSI B16.34 CLASS 2500
2. END TO END DIMENSION : ASME B16.10 CLASS 2500 (SHORT PATTERN)
3. END FLANGE DIMENSIONS : ANSI B16.25 CLASS 2500

Test Pressure (Psig)

Rating	Class 2500
Hydrostatic press test (Shell)	9275
Hydrostatic press test (Seat)	6790

UNIT : mm

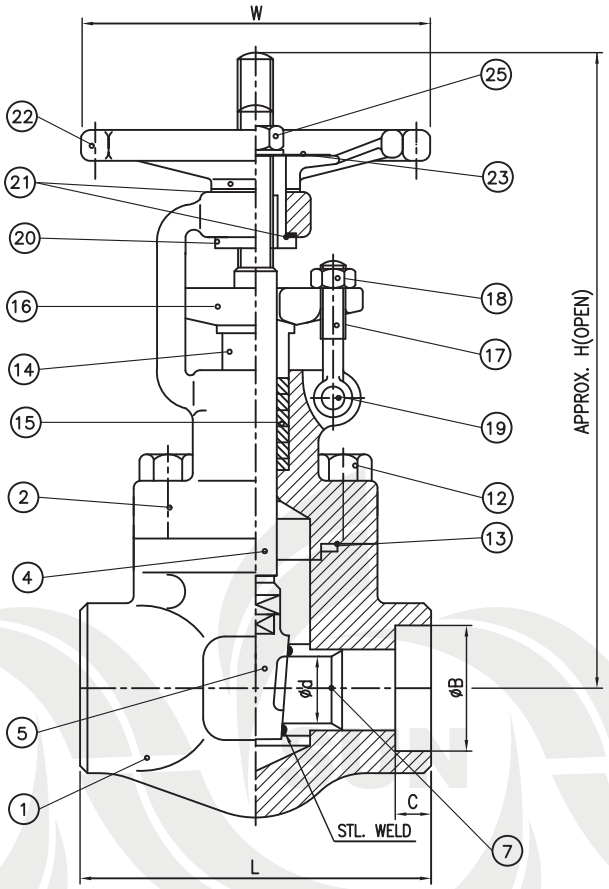
SIZE	L	d	BUTTWELDING END				(min) a	H	WEIGHT (kg)
			A	B	t	SCH. NO.			
6	610.0	111.0	172	124.5	21.95	XXS	40.4	400	455
8	762.0	146.1	223	173.0	23.01	160	52.3	560	890
10	914.0	184.2	278	216.0	28.6	160	65.8	630	1295
12	1041.0	218.9	329	257.0	33.3	160	77.0	700	1800

NO.	PARTS	MATERIAL
1	BODY	A216-WCB
2	COVER	A216-WCB
3	DISC	A216-WCB+ST'L NO.6
4	ARM	A216-WCB
5	SEAT RING	A105+ST'L NO.6
6	PIN	A479-410
7	PLUG BOLT	A479-410
8	PRESSURE SEAL GASKET	SOFT IRON
9	PRESSURE SEAL GASKET	SOFT IRON
10	COVER RETAINER	A515 GR60
11	COVER NUT	A194-2H
12	DISC NUT	A194-8
13	WASHER	A240-304
14	PLUG BOLT RETAINER	A479-410
15	NUT	A194-2H
16	SEGMENT RING	A479-410
17	THRUST RING	A479-410
18	COVER BOLT	A193-B7

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, SW

SUN-GA-SW-05



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

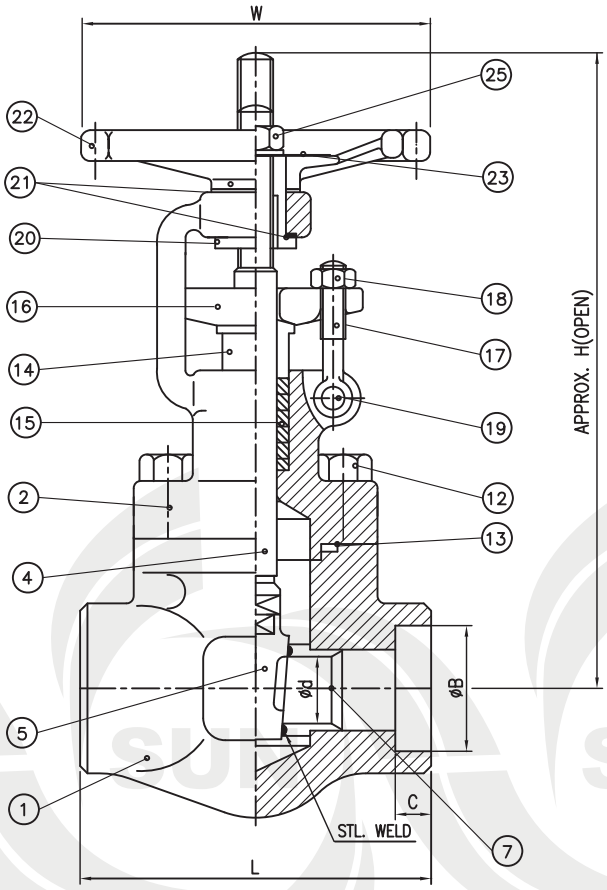
DIMENSION UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	13	22.00	10	1.9	
3/4"	20A	96	181	105	19	27.40	13	2.8	
1"	25A	121	213	135	25	34.10	13	4.8	
1 1/4"	32A	141	226	135	30	42.90	13	5.4	
1 1/2"	40A	161	260	160	33	49.00	13	9.1	
2"	50A	172	287	175	35	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.B, OS & Y, SW

SUN-GA-SW-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Backseat & Seat: 153kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

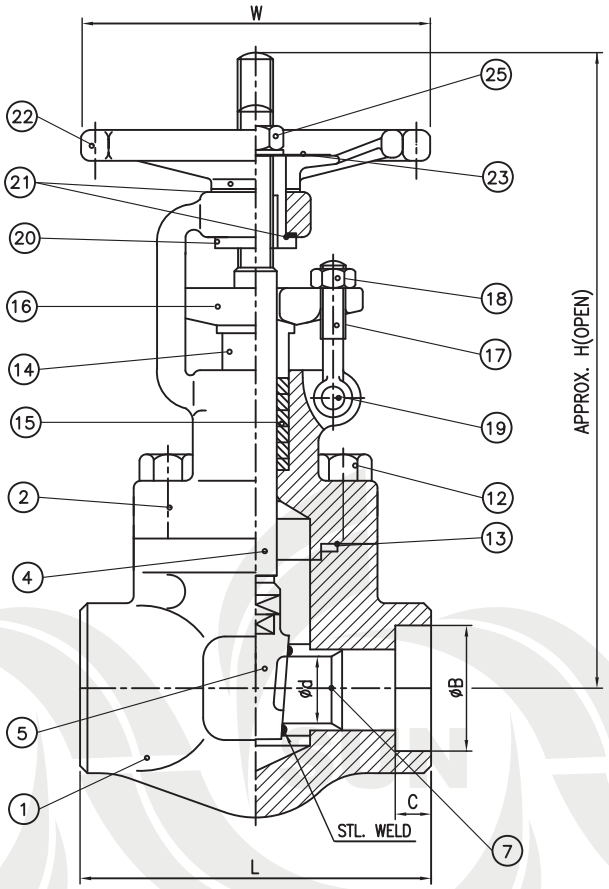
UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	139	95	10	22.00	10	1.4	
3/4"	20A	87	151	95	13	27.40	13	1.9	
1"	25A	96	181	105	19	34.10	13	2.7	
1 1/4"	32A	121	213	135	25	42.90	13	4.8	
1 1/2"	40A	141	226	135	30	49.00	13	5.4	
2"	50A	161	260	160	35	61.45	16	8.9	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, SW

SUN-GA-SW-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

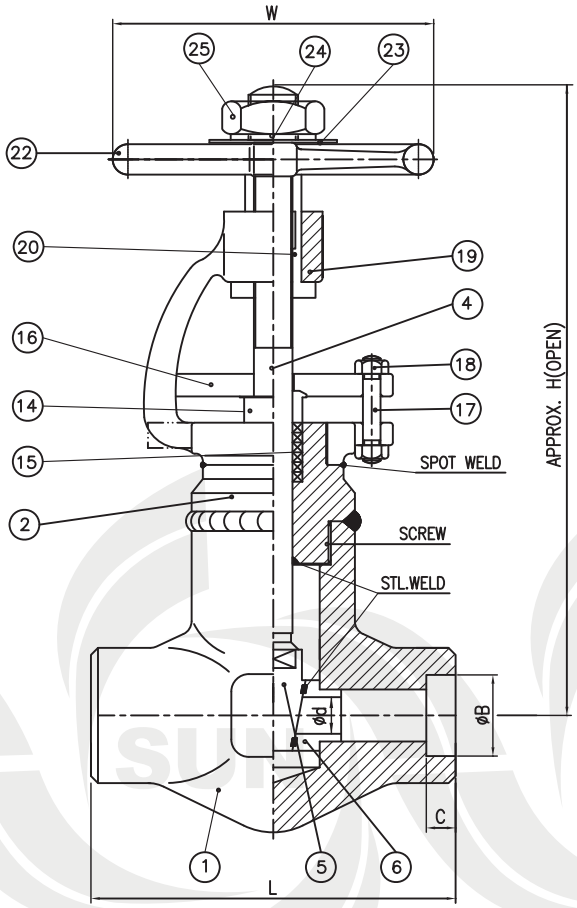
DIMENSION UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	10	22.00	10	1.9	
3/4"	20A	96	181	105	13	27.40	13	2.8	
1"	25A	121	213	135	19	34.10	13	4.8	
1 1/4"	32A	141	226	135	25	42.90	13	5.4	
1 1/2"	40A	161	260	160	30	49.00	13	9.1	
2"	50A	172	287	175	35	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

2500LBS, A105 / 13CR, W.B, OS & Y, SW

SUN-GA-SW-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 652.5kg/cm²
Backseat & Seat: 478.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

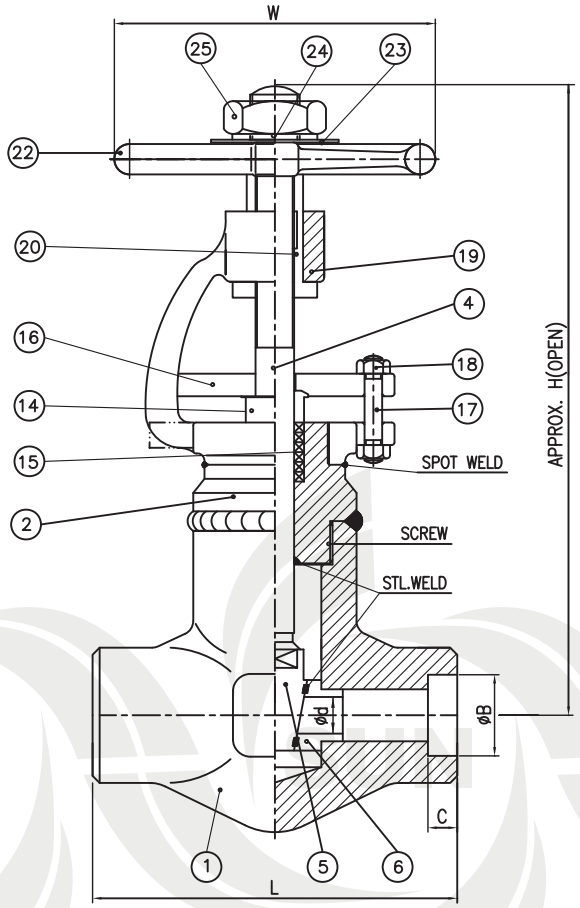
SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	121	213	160	13	22.00	10	2.9	
3/4"	20A	141	226	160	19	27.40	13	4.8	
1"	25A	161	260	160	25	34.10	13	5.4	
1 1/4"	32A	172	315	250	30	42.90	13	8.9	
1 1/2"	40A	200	420	250	33	49.00	13	26.8	
2"	50A	220	450	315	35	61.45	16	33.4	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
6	Seat Ring	A276-410
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Yoke	A216-WCB
20	Sleeve	HIGH-TENSION BRASS
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
24	Wheel Washer	A108-1020
25	Hand Wheel Nut	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, W.B, OS & Y, SW

SUN-GA-SW-04



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

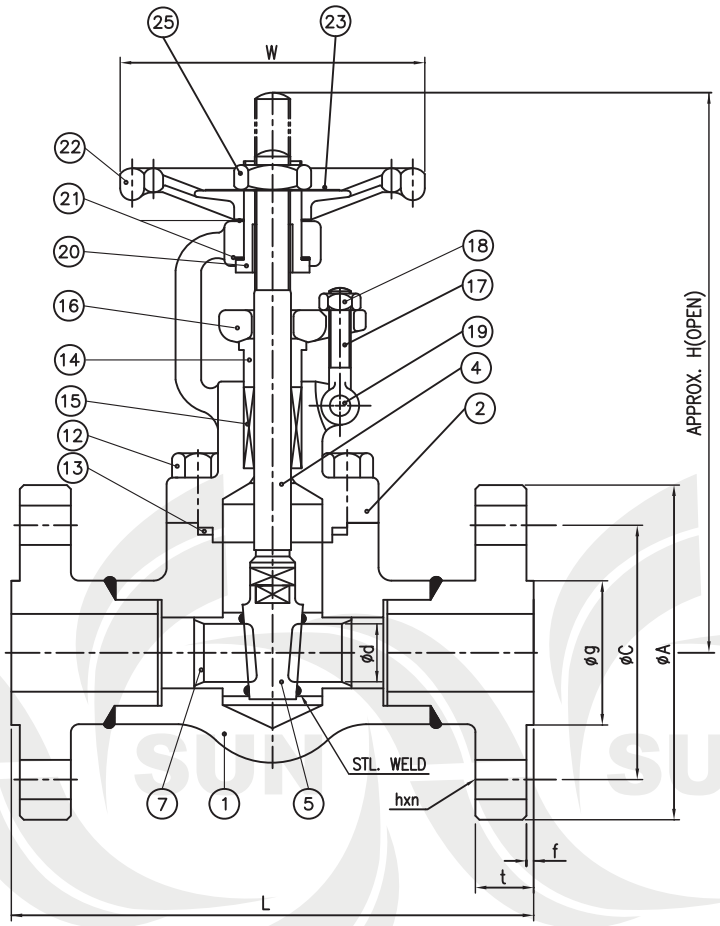
SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	96	205	160	13	22.00	10	2.9	
3/4"	20A	121	230	160	19	27.40	13	4.8	
1"	25A	141	275	200	25	34.10	13	5.4	
1 1/4"	32A	161	285	250	30	42.90	13	8.9	
1 1/2"	40A	172	315	250	33	49.00	13	26.8	
2"	50A	200	420	250	35	61.45	16	33.4	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
6	Seat Ring	A276-410
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Yoke	A216-WCB
20	Sleeve	HIGH-TENSION BRASS
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
24	Wheel Washer	A108-1020
25	Hand Wheel Nut	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

150LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GA-RF-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-410
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 32kg/cm²
Backseat & Seat: 23kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

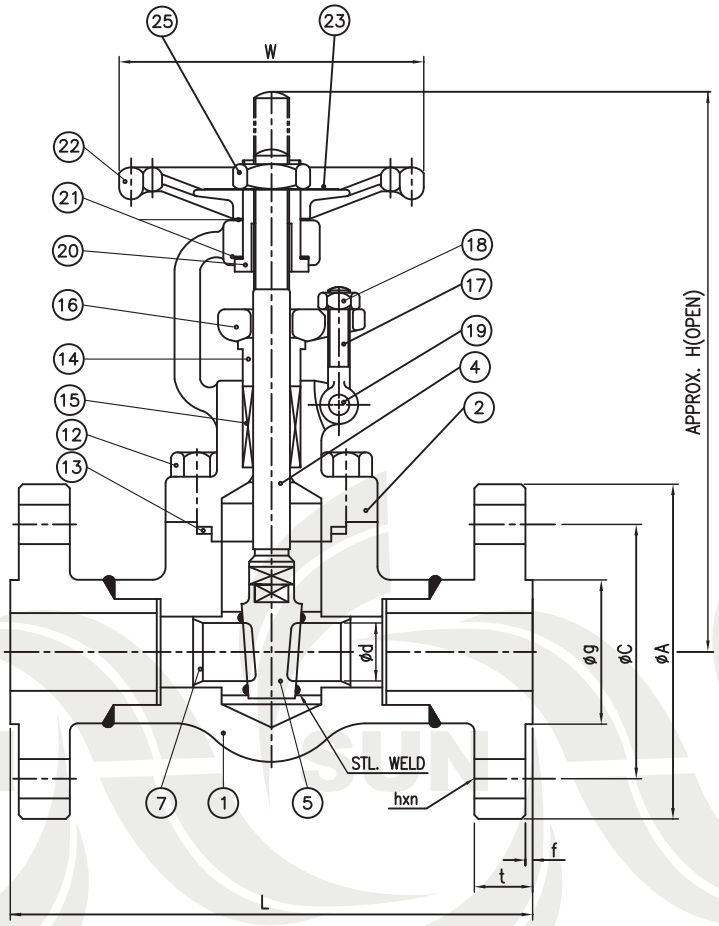
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	108	139	95	89	60.3	16x4	34.9	1.6	11.2	10	2.43	
3/4"	20A	117	151	95	98	69.9	16x4	42.9	1.6	12.7	13	3.32	
1"	25A	127	181	105	108	79.4	16x4	50.8	1.6	14.2	19	4.58	
1 1/4"	32A	140	213	135	117	88.9	16x4	63.5	1.6	15.7	25	7.10	
1 1/2"	40A	165	226	135	127	98.4	16x4	73.0	1.6	17.5	30	8.78	
2"	50A	178	260	160	152	120.6	19x4	92.1	1.6	19.1	35	13.48	

Remark : 1. The name plate shall be specified by purchaser as required.

300LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GA-RF-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-410
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 79.5kg/cm²
Backseat & Seat: 58.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

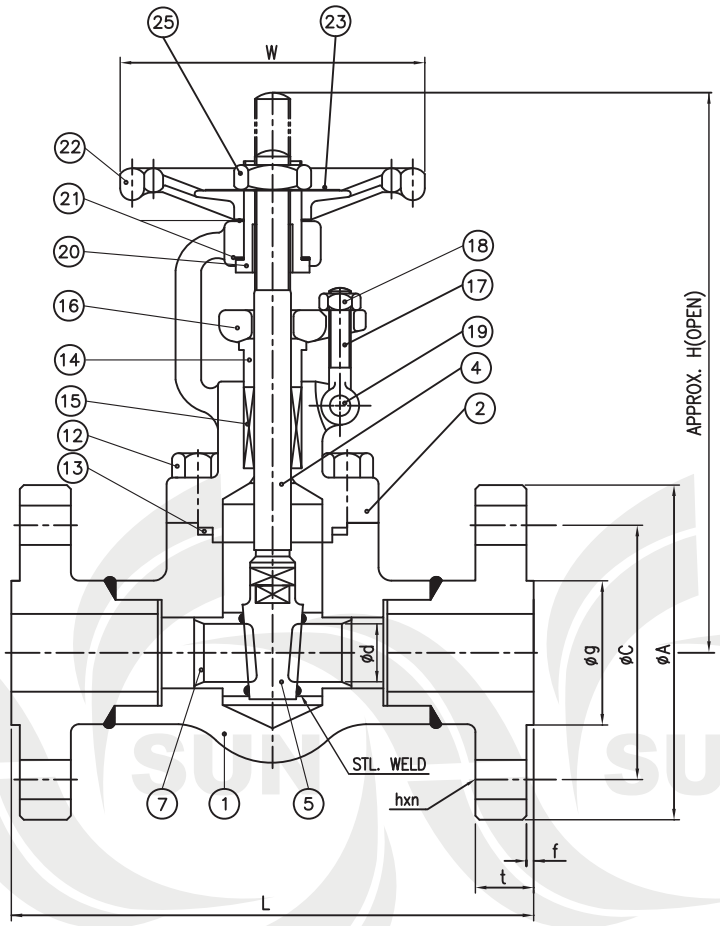
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	140	139	95	95	66.7	16x4	34.9	1.6	14.2	10	3.00	
3/4"	20A	152	151	95	117	82.5	19x4	42.9	1.6	15.7	13	4.64	
1"	25A	165	181	105	124	88.9	19x4	50.8	1.6	17.5	19	6.00	
1 1/4"	32A	178	213	135	133	98.4	19x4	63.5	1.6	19.1	25	8.91	
1 1/2"	40A	190	226	135	156	114.3	22x4	73.0	1.6	20.6	30	11.79	
2"	50A	216	260	160	165	127.0	19x8	92.1	1.6	22.4	35	15.96	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GA-RF-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-410
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
  Shell: 156.5kg/cm²
  Backseat & Seat: 116.5kg/cm²
  Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

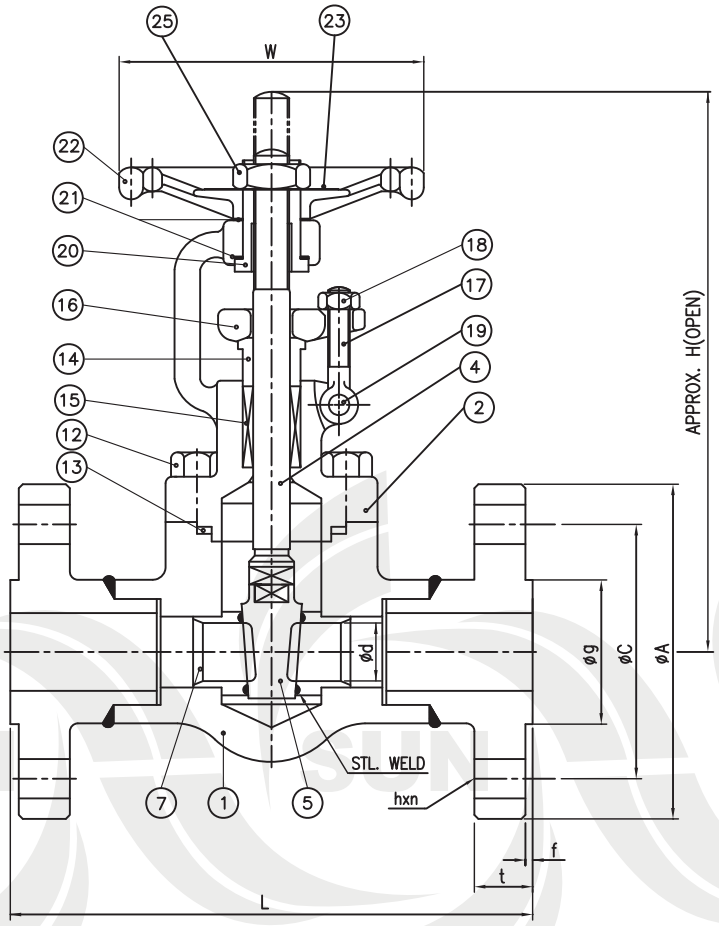
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	165	139	95	95	66.7	16x4	34.9	6.4	14.3	10	3.38	
3/4"	20A	190	151	95	117	82.5	19x4	42.9	6.4	15.9	13	4.98	
1"	25A	216	181	105	124	88.9	19x4	50.8	6.4	17.5	19	6.54	
1 1/4"	32A	229	213	135	133	98.4	19x4	63.5	6.4	20.7	25	9.94	
1 1/2"	40A	241	226	135	156	114.3	22x4	73.0	6.4	22.3	30	12.99	
2"	50A	292	260	160	165	127.0	19x8	92.1	6.4	25.4	35	18.58	

Remark : 1. The name plate shall be specified by purchaser as required.

900LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GA-RF-04



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-410
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 236kg/cm²
Backseat & Seat: 172.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

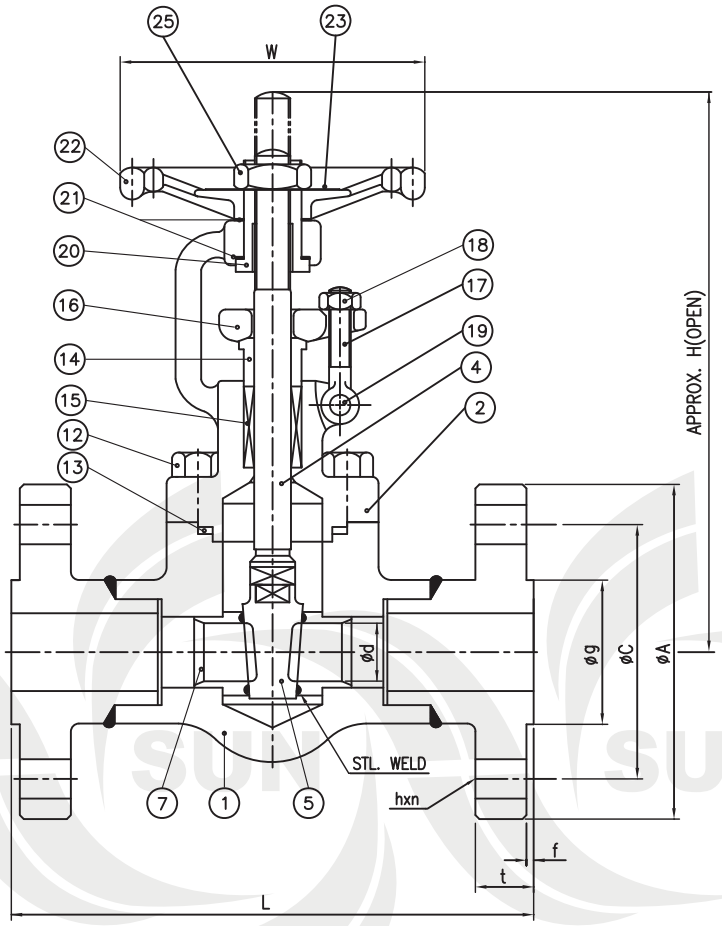
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	148	95	121	82.5	22x4	34.9	6.4	22.3	10	5.00	
3/4"	20A	229	181	105	130	88.9	22x4	42.9	6.4	25.4	13	6.64	
1"	25A	254	210	135	149	101.6	25x4	50.8	6.4	28.6	19	8.00	
1 1/4"	32A	279	223	135	159	111.1	25x4	63.5	6.4	28.6	25	10.91	
1 1/2"	40A	305	255	160	178	123.8	29x4	73.0	6.4	31.8	30	13.79	
2"	50A	368	284	180	216	165.1	25x8	92.1	6.4	38.1	35	17.96	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GA-RF-05



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-410
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

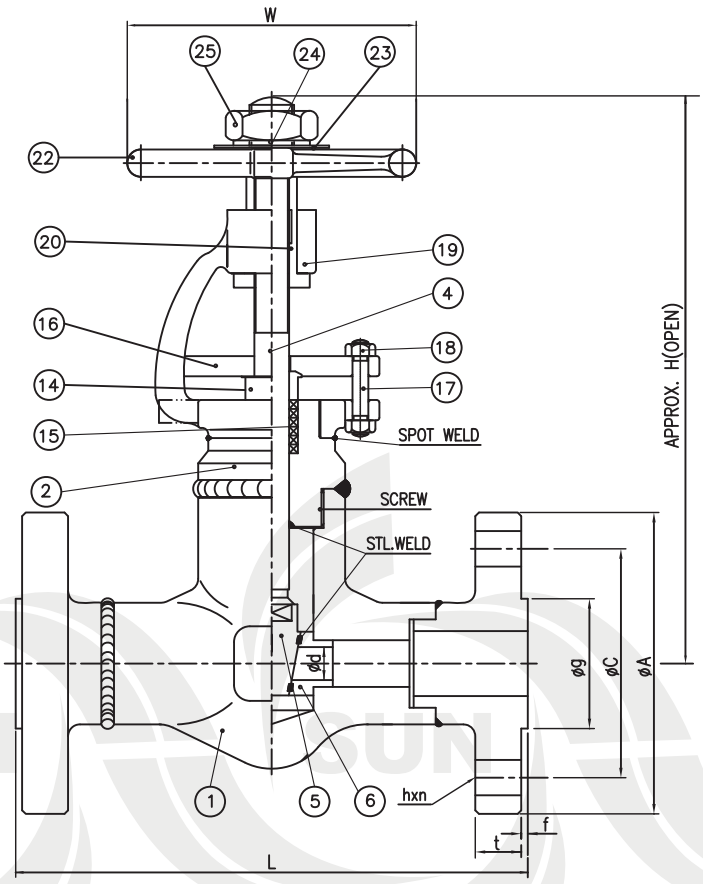
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	148	95	121	82.5	22x4	34.9	6.4	22.3	10	5.00	
3/4"	20A	229	181	105	130	88.9	22x4	42.9	6.4	25.4	13	6.64	
1"	25A	254	210	135	149	101.6	25x4	50.8	6.4	28.6	19	8.00	
1 1/4"	32A	279	223	135	159	111.1	25x4	63.5	6.4	28.6	25	10.91	
1 1/2"	40A	305	255	160	178	123.8	29x4	73.0	6.4	31.8	30	13.79	
2"	50A	368	284	180	216	165.1	25x8	92.1	6.4	38.1	35	17.96	

Remark : 1. The name plate shall be specified by purchaser as required.

2500LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GA-RF-06



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 652.5kg/cm²
Backseat & Seat: 478.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

UNIT : mm

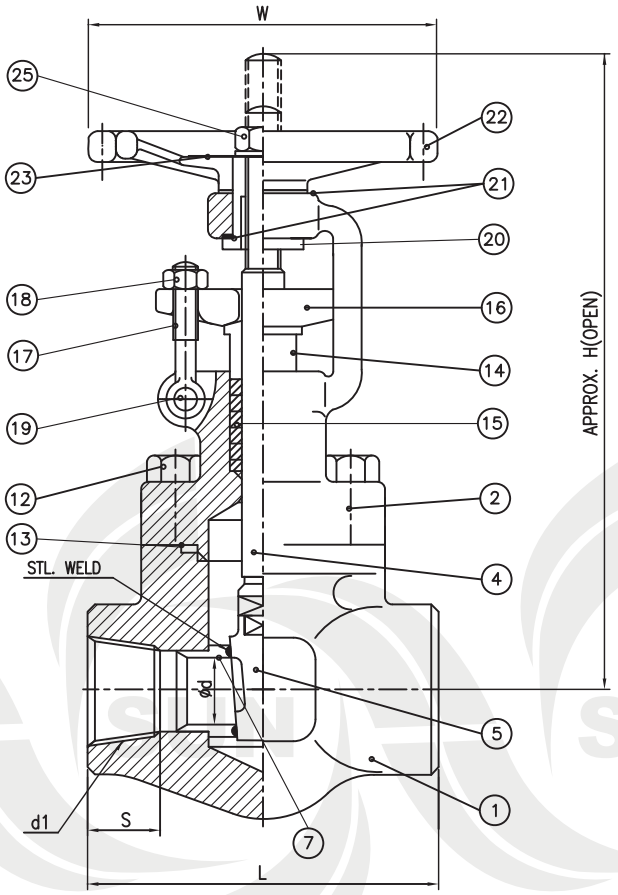
SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A		205	160							10	5.00	
3/4"	20A		230	160							13	6.64	
1"	25A		275	200							19	8.00	
1 1/4"	32A		285	250							25	10.91	
1 1/2"	40A		315	250							30	13.79	
2"	50A		388	350							35	17.96	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
6	Seat Ring	A276-410
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Yoke	A216-WCB
20	Sleeve	HIGH-TENSION BRASS
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
24	Wheel Washer	A108-1020
25	Hand Wheel Nut	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, NPT

SUN-GA-NPT-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

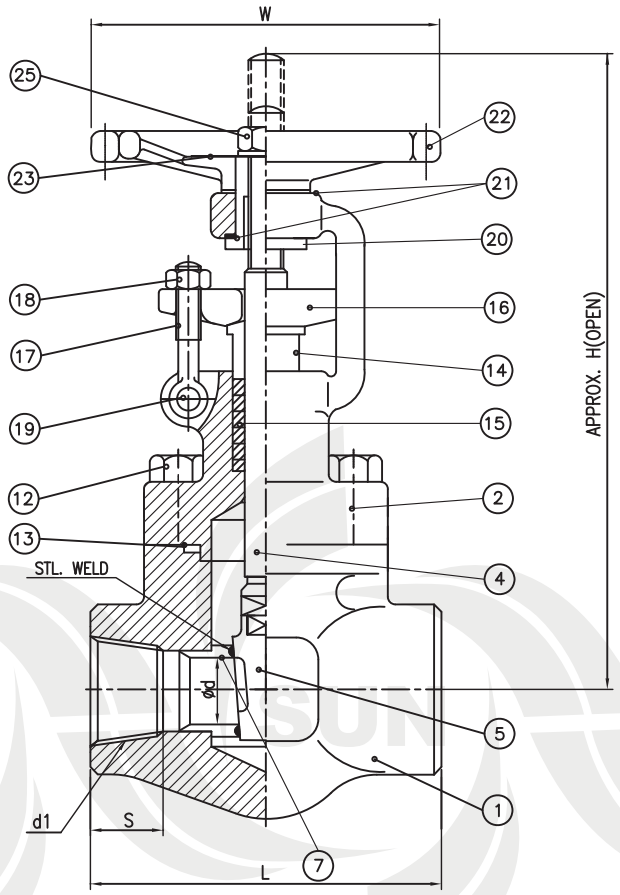
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	13	13.5	1/2-14NPT	1.9	
3/4"	20A	96	181	105	19	14.0	3/4-14NPT	2.8	
1"	25A	121	213	135	25	17.5	1-11 1/2NPT	4.8	
1 1/4"	32A	141	226	135	30	18.0	1 1/4-11 1/2NPT	5.4	
1 1/2"	40A	161	260	160	33	18.5	1 1/2-11 1/2NPT	9.1	
2"	50A	172	287	175	35	19.0	2-11 1/2NPT	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.B, OS & Y, NPT

SUN-GA-NPT-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Backseat & Seat: 153kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

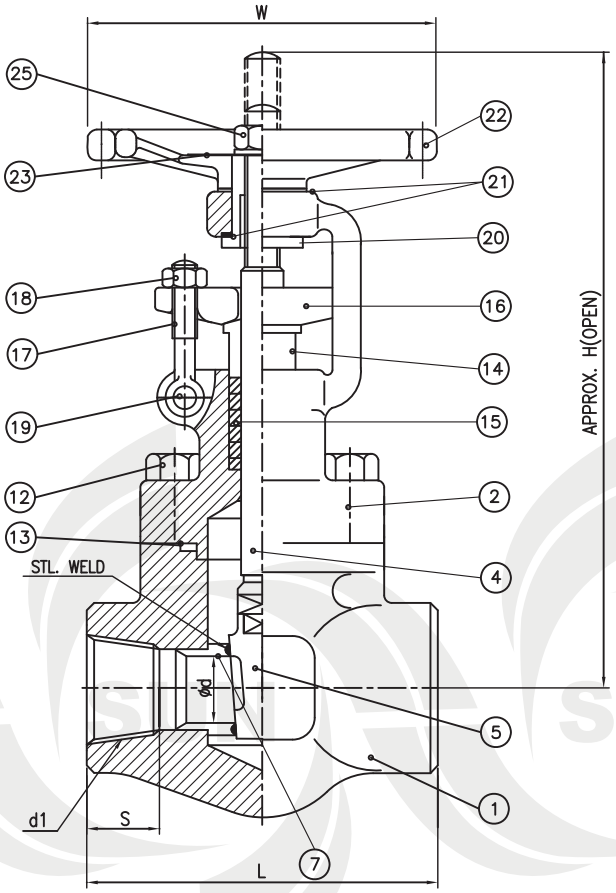
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	73	139	95	10	13.5	1/2-14NPT	1.4	
3/4"	20A	87	151	95	13	14.0	3/4-14NPT	1.9	
1"	25A	96	181	105	19	17.5	1-11 1/2NPT	2.7	
1 1/4"	32A	121	213	135	25	18.0	1 1/4-11 1/2NPT	4.8	
1 1/2"	40A	141	226	135	30	18.5	1 1/2-11 1/2NPT	5.4	
2"	50A	161	260	160	35	19.0	2-11 1/2NPT	8.9	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, NPT

SUN-GA-NPT-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

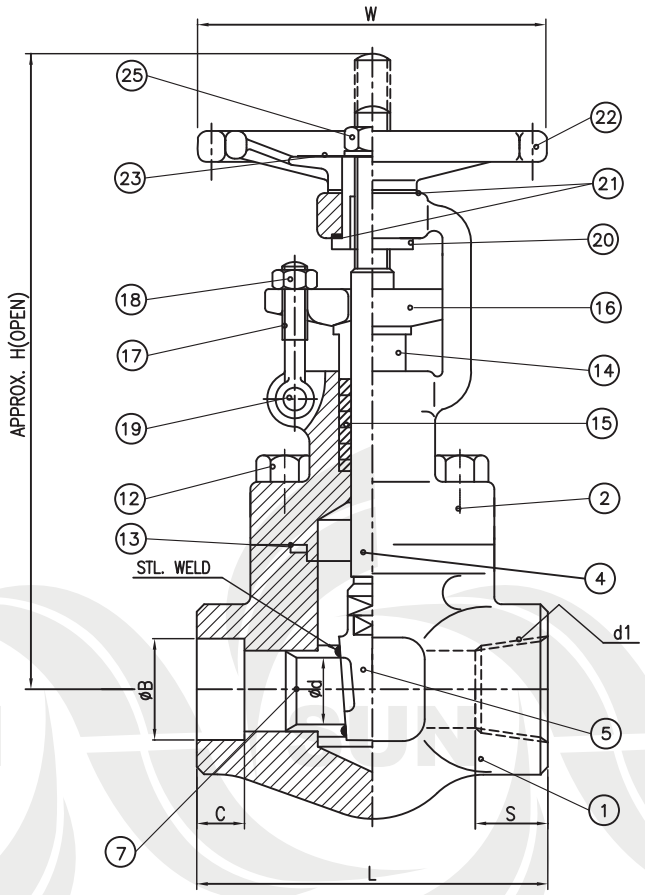
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	10	13.5	1/2-14NPT	1.9	
3/4"	20A	96	181	105	13	14.0	3/4-14NPT	2.8	
1"	25A	121	213	135	19	17.5	1-11 1/2NPT	4.8	
1 1/4"	32A	141	226	135	25	18.0	1 1/4-11 1/2NPT	5.4	
1 1/2"	40A	161	260	160	30	18.5	1 1/2-11 1/2NPT	9.1	
2"	50A	172	287	175	35	19.0	2-11 1/2NPT	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, SWxNPT

SUN-GA-SN-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

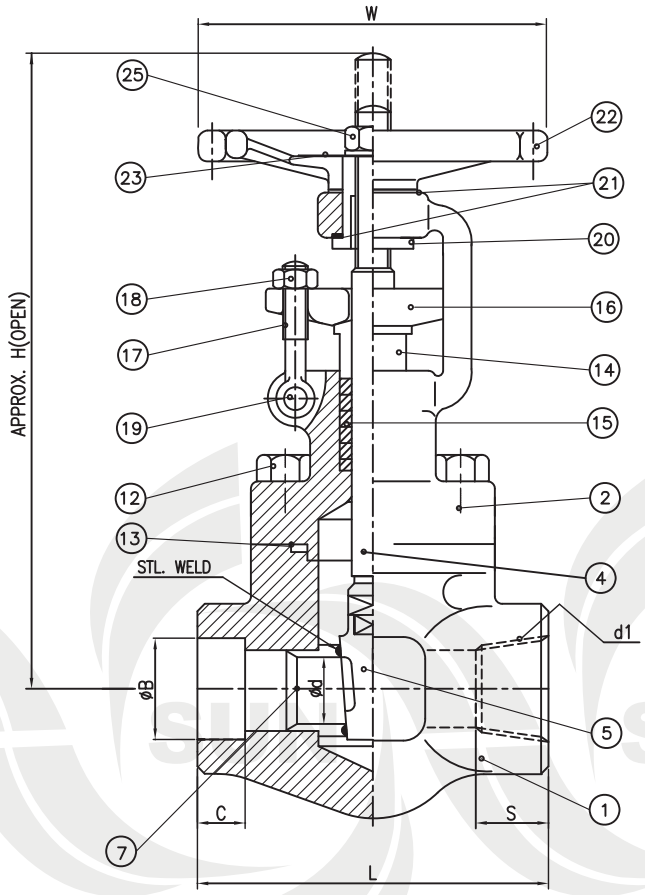
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	13	13.5	1/2-14NPT	22.00	10	1.9	
3/4"	20A	96	181	105	19	14.0	3/4-14NPT	27.40	13	2.8	
1"	25A	121	213	135	25	17.5	1-11 1/2NPT	34.10	13	4.8	
1 1/4"	32A	141	226	135	30	18.0	1 1/4-11 1/2NPT	42.90	13	5.4	
1 1/2"	40A	161	260	160	33	18.5	1 1/2-11 1/2NPT	49.00	13	9.1	
2"	50A	172	287	160	35	19.0	2-11 1/2NPT	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.B, OS & Y, SWxNPT

SUN-GA-SN-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Backseat & Seat: 153kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

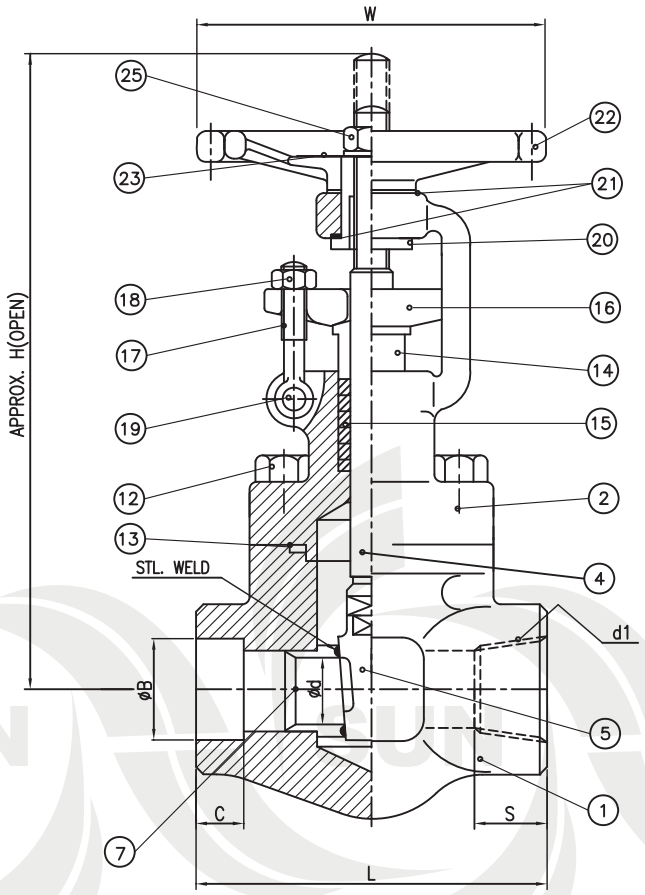
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	139	95	10	13.5	1/2-14NPT	22.00	10	1.4	
3/4"	20A	87	151	95	13	14.0	3/4-14NPT	27.40	13	1.9	
1"	25A	96	181	105	19	17.5	1-11 1/2NPT	34.10	13	2.7	
1 1/4"	32A	121	213	135	25	18.0	1 1/4-11 1/2NPT	42.90	13	4.8	
1 1/2"	40A	141	226	135	30	18.5	1 1/2-11 1/2NPT	49.00	13	5.4	
2"	50A	161	260	160	35	19.0	2-11 1/2NPT	61.45	16	8.9	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, SWxNPT

SUN-GA-SN-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

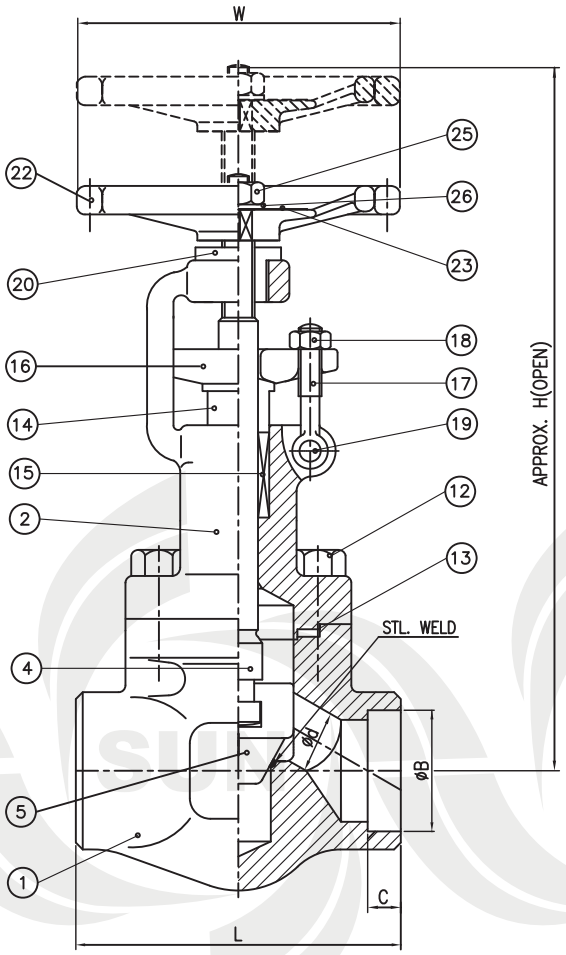
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	10	13.5	1/2-14NPT	22.00	10	1.9	
3/4"	20A	96	181	105	13	14.0	3/4-14NPT	27.40	13	2.8	
1"	25A	121	213	135	19	17.5	1-11 1/2NPT	34.10	13	4.8	
1 1/4"	32A	141	226	135	25	18.0	1 1/4-11 1/2NPT	42.90	13	5.4	
1 1/2"	40A	161	260	160	30	18.5	1 1/2-11 1/2NPT	49.00	13	9.1	
2"	50A	172	287	160	35	19.0	2-11 1/2NPT	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, SW

SUN-GL-SW-05



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

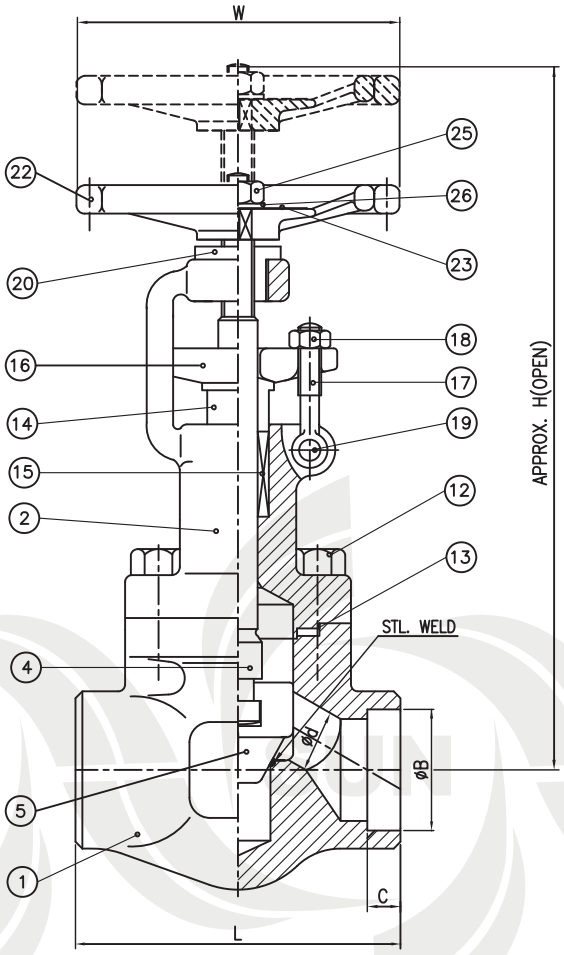
UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	13	22.00	10	1.9	
3/4"	20A	96	181	105	19	27.40	13	2.8	
1"	25A	121	213	135	25	34.10	13	4.8	
1 1/4"	32A	141	226	135	28	42.90	13	5.4	
1 1/2"	40A	161	260	160	33	49.00	13	9.1	
2"	50A	172	287	175	35	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.B, OS & Y, SW

SUN-GL-SW-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Backseat & Seat: 153kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

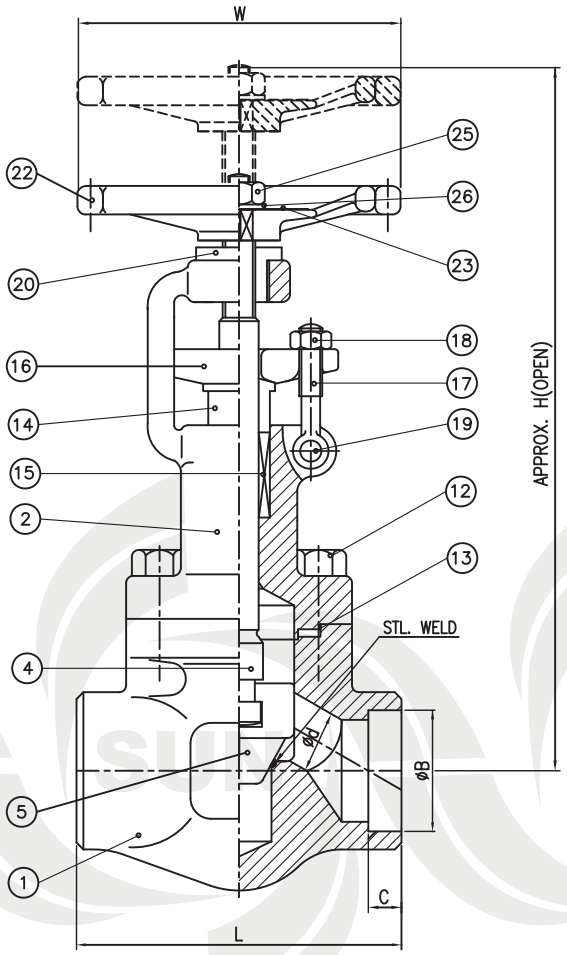
UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	139	95	10	22.00	10	1.4	
3/4"	20A	87	151	95	13	27.40	13	1.9	
1"	25A	96	181	105	19	34.10	13	2.7	
1 1/4"	32A	121	213	135	25	42.90	13	4.8	
1 1/2"	40A	141	226	135	28	49.00	13	5.4	
2"	50A	161	260	160	35	61.45	16	8.9	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, SW

SUN-GL-SW-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

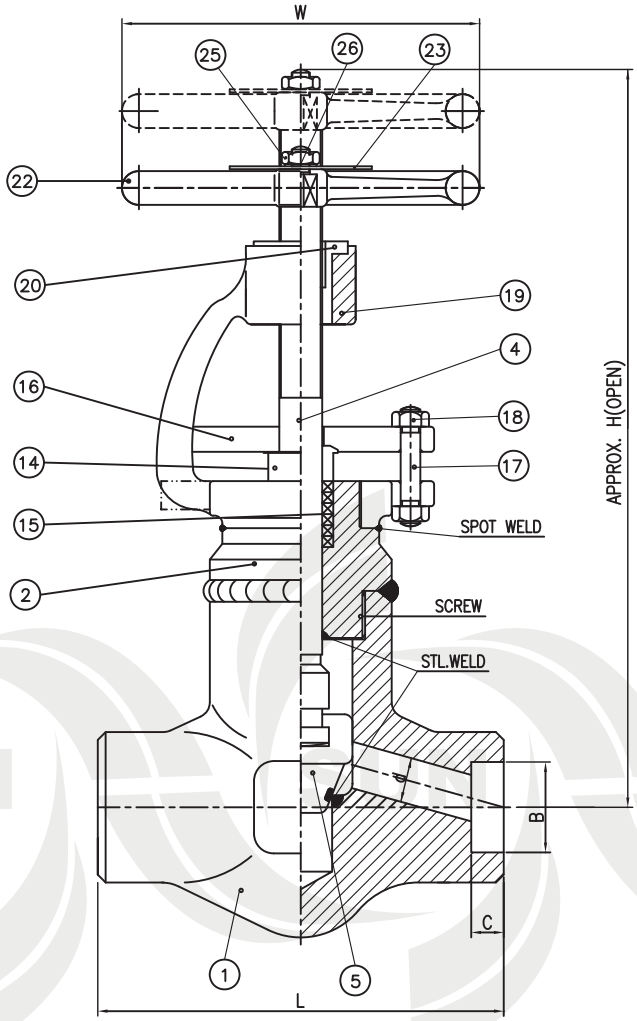
DIMENSION UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	10	22.00	10	1.9	
3/4"	20A	96	181	105	13	27.40	13	2.8	
1"	25A	121	213	135	19	34.10	13	4.8	
1 1/4"	32A	141	226	135	25	42.90	13	5.4	
1 1/2"	40A	161	260	160	28	49.00	13	9.1	
2"	50A	172	287	175	35	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

2500LBS, A105 / 13CR, W.B, OS & Y, SW

SUN-GL-SW-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 652.5kg/cm²
Backseat & Seat: 478.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

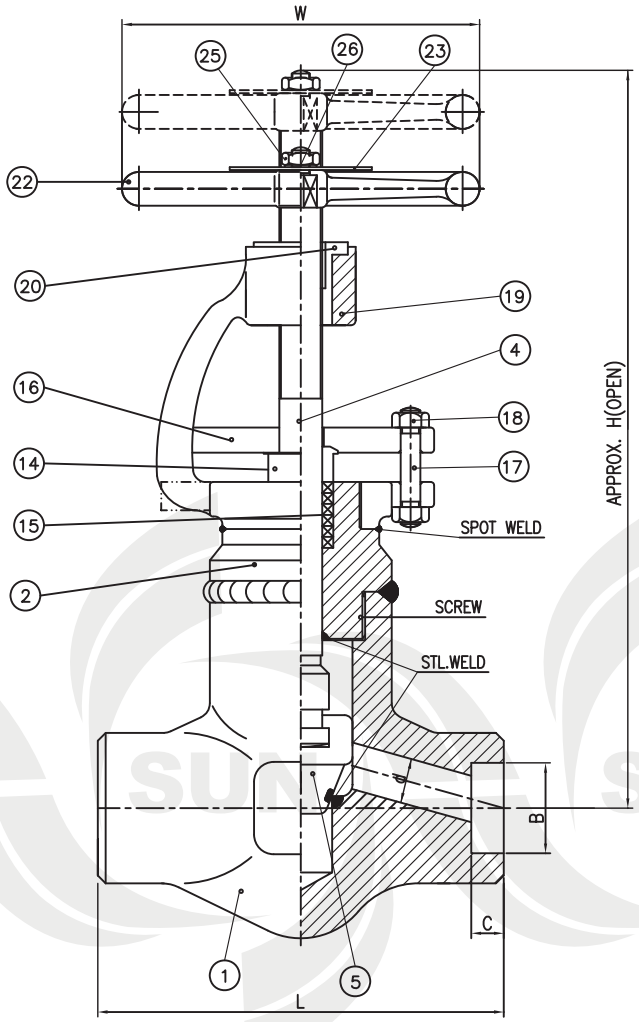
SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	121	213	160	11	22.00	10	4.49	
3/4"	20A	141	226	160	13	27.40	13	8.12	
1"	25A	161	260	160	18	34.10	13	9.65	
1 1/4"	32A	172	315	250	23	42.90	13	16.7	
1 1/2"	40A	200	420	250	28	49.00	13	32.7	
2"	50A	220	450	315	35	61.45	16	33.9	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Yoke	A216-WCB
20	Sleeve	HIGH-TENSION BRASS
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, W.B, OS & Y, SW

SUN-GL-SW-04



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

UNIT : mm

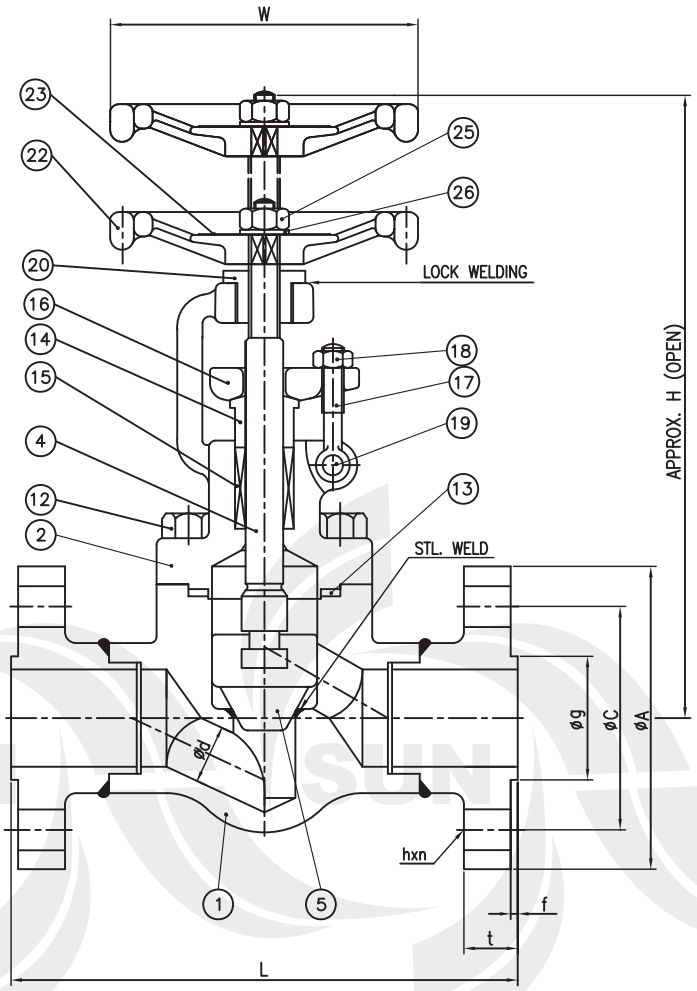
SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	96	205	160	13	22.00	10	4.49	
3/4"	20A	121	230	160	19	27.40	13	8.12	
1"	25A	141	275	200	25	34.10	13	9.65	
1 1/4"	32A	161	285	250	28	42.90	13	16.7	
1 1/2"	40A	172	315	250	33	49.00	13	32.7	
2"	50A	200	420	250	35	61.45	16	33.9	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Yoke	A216-WCB
20	Sleeve	HIGH-TENSION BRASS
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

Remark : 1. The name plate shall be specified by purchaser as required.

150LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GL-RF-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 32kg/cm²
Backseat & Seat: 23kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

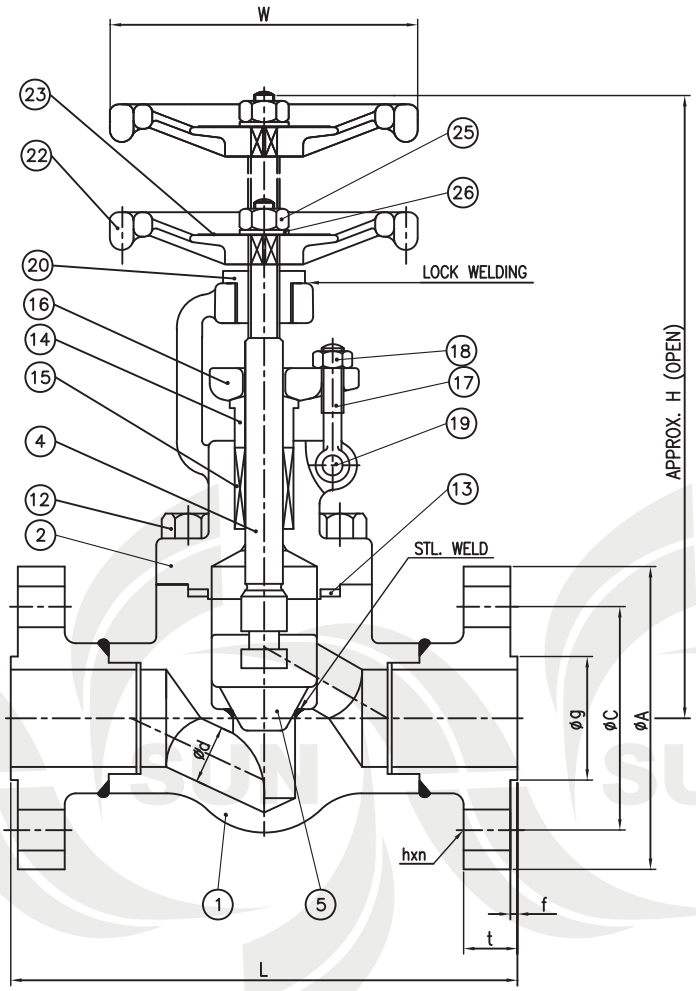
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	108	139	95	89	60.3	16x4	34.9	1.6	11.2	10	2.43	
3/4"	20A	117	151	95	98	69.9	16x4	42.9	1.6	12.7	13	3.32	
1"	25A	127	181	105	108	79.4	16x4	50.8	1.6	14.2	19	4.58	
1 1/4"	32A	140	213	135	117	88.9	16x4	63.5	1.6	15.7	25	7.10	
1 1/2"	40A	165	226	135	127	98.4	16x4	73.0	1.6	17.5	28	8.78	
2"	50A	203	260	160	152	120.6	19x4	92.1	1.6	19.1	35	13.48	

Remark : 1. The name plate shall be specified by purchaser as required.

300LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GL-RF-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 79.5kg/cm²
Backseat & Seat: 58.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

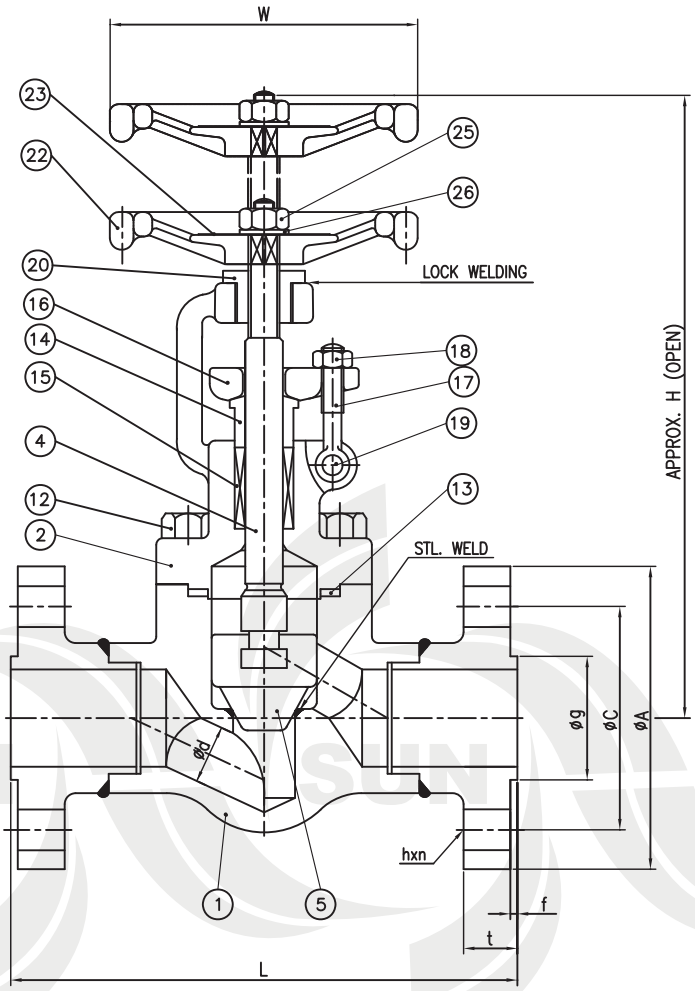
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	152	139	95	95	66.7	16x4	34.9	1.6	14.2	10	3.00	
3/4"	20A	178	151	95	117	82.5	19x4	42.9	1.6	15.7	13	4.64	
1"	25A	203	181	105	124	88.9	19x4	50.8	1.6	17.5	19	6.00	
1 1/4"	32A	216	213	135	133	98.4	19x4	63.5	1.6	19.1	25	8.91	
1 1/2"	40A	229	226	135	156	114.3	22x4	73.0	1.6	20.6	28	11.79	
2"	50A	267	260	160	165	127.0	19x8	92.1	1.6	22.4	35	15.96	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GL-RF-03



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

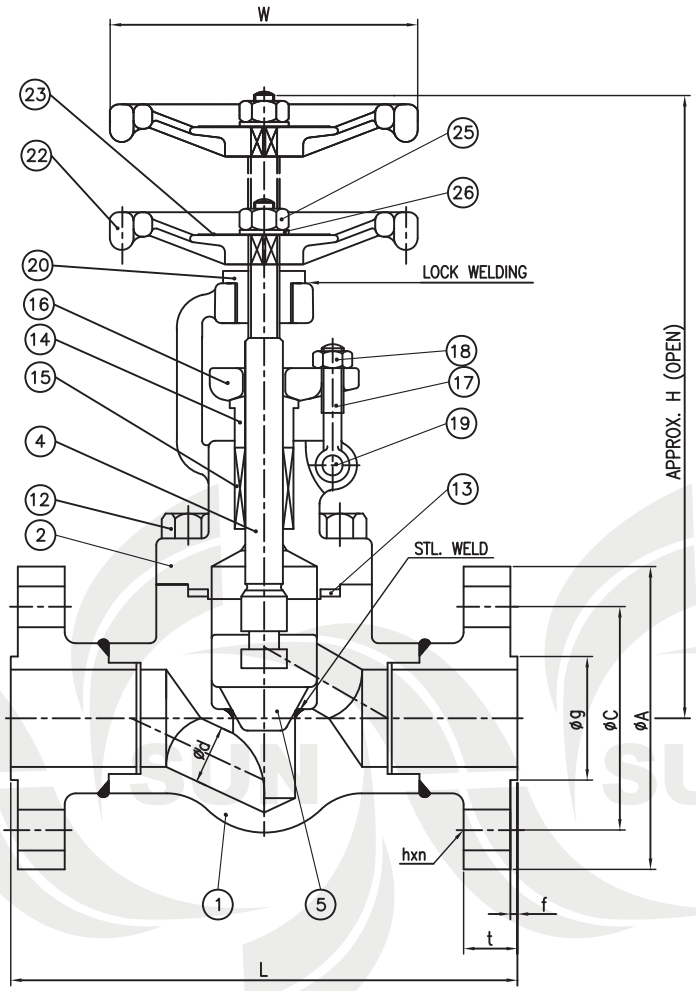
SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	165	139	95	95	66.7	16x4	34.9	6.4	14.3	10	3.38	
3/4"	20A	190	151	95	117	82.5	19x4	42.9	6.4	15.9	13	4.98	
1"	25A	216	181	105	124	88.9	19x4	50.8	6.4	17.5	19	6.54	
1 1/4"	32A	229	213	135	133	98.4	19x4	63.5	6.4	20.7	25	9.94	
1 1/2"	40A	241	226	135	156	114.3	22x4	73.0	6.4	22.3	28	12.99	
2"	50A	292	260	160	165	127.0	19x8	92.1	6.4	25.4	35	18.58	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

Remark : 1. The name plate shall be specified by purchaser as required.

900LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GL-RF-04



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 236kg/cm²
Backseat & Seat: 172.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

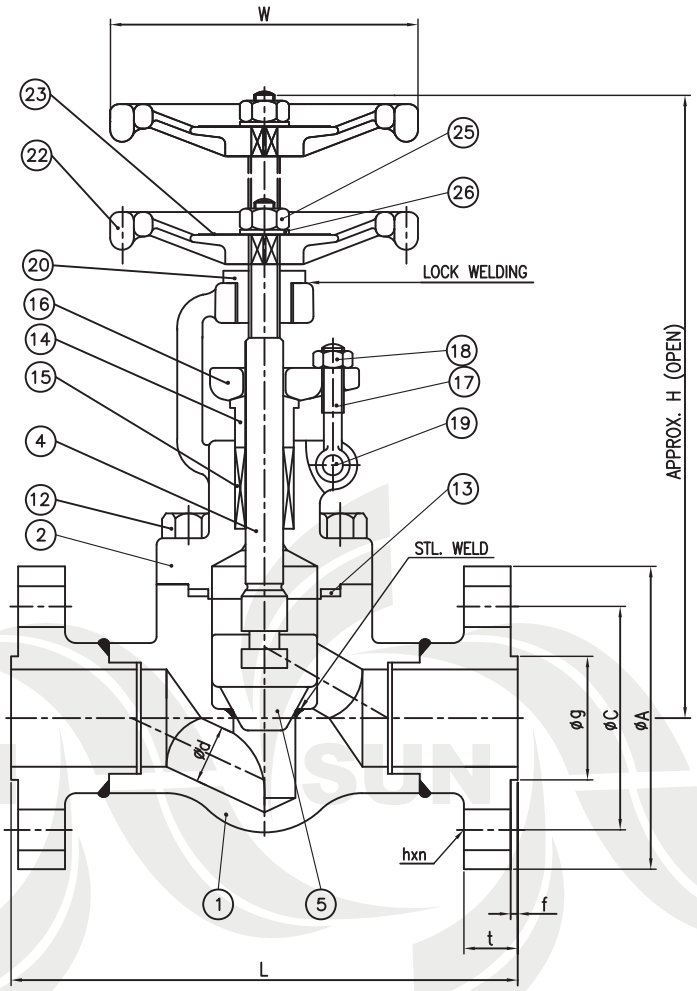
SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	148	95	121	82.5	22x4	34.9	6.4	22.3	10	5.00	
3/4"	20A	229	181	105	130	88.9	22x4	42.9	6.4	25.4	13	6.64	
1"	25A	254	210	135	149	101.6	25x4	50.8	6.4	28.6	19	8.00	
1 1/4"	32A	279	223	135	159	111.1	25x4	63.5	6.4	28.6	25	10.91	
1 1/2"	40A	305	255	160	178	123.8	29x4	73.0	6.4	31.8	28	13.79	
2"	50A	368	284	180	216	165.1	25x8	92.1	6.4	38.1	35	17.96	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, RF

SUN-GL-RF-05



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

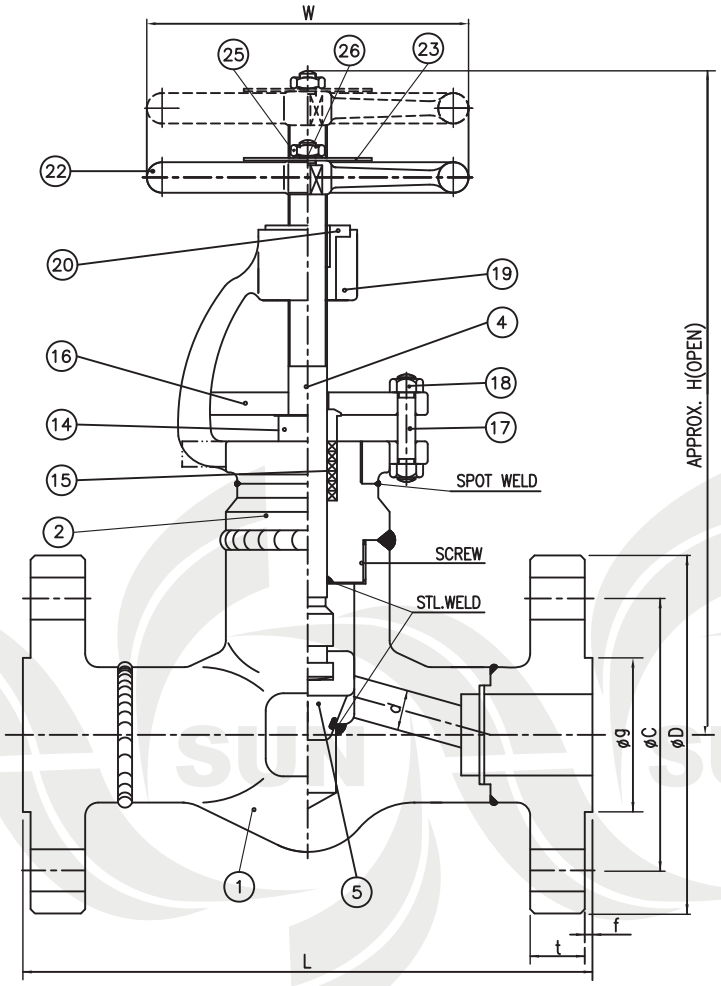
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	148	95	121	82.5	22x4	34.9	6.4	22.3	10	5.00	
3/4"	20A	229	181	105	130	88.9	22x4	42.9	6.4	25.4	13	6.64	
1"	25A	254	210	135	149	101.6	25x4	50.8	6.4	28.6	19	8.00	
1 1/4"	32A	279	223	135	159	111.1	25x4	63.5	6.4	28.6	25	10.91	
1 1/2"	40A	305	255	160	178	123.8	29x4	73.0	6.4	31.8	28	13.79	
2"	50A	368	284	180	216	165.1	25x8	92.1	6.4	38.1	35	17.96	

Remark : 1. The name plate shall be specified by purchaser as required.

2500LBS, A105 / 13CR, W.B, OS & Y, RF

SUN-GL-RF-06



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 652.5kg/cm²
Backseat & Seat: 478.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

UNIT : mm

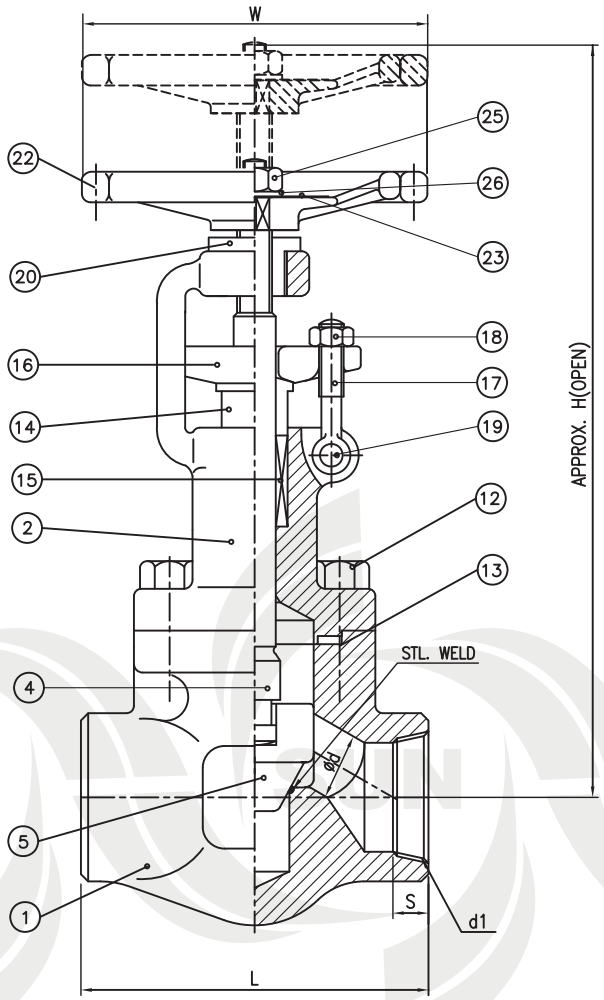
SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A		180	160							10	5.00	
3/4"	20A		210	160							13	6.64	
1"	25A		223	200							19	8.00	
1 1/4"	32A		255	250							25	10.91	
1 1/2"	40A		382	250							28	13.79	
2"	50A		458	350							35	17.96	

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Yoke	A216-WCB
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, NPT

SUN-GL-NPT-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

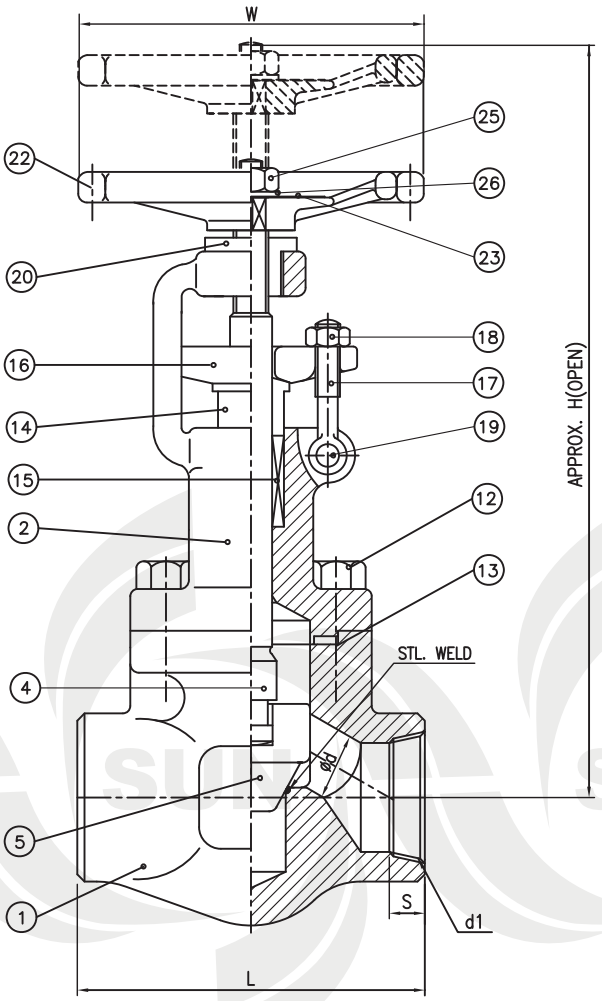
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	13	13.5	1/2-14NPT	1.9	
3/4"	20A	96	181	105	19	14.0	3/4-14NPT	2.8	
1"	25A	121	213	135	25	17.5	1-11 1/2NPT	4.8	
1 1/4"	32A	141	226	135	28	18.0	1 1/4-11 1/2NPT	5.4	
1 1/2"	40A	161	260	160	33	18.5	1 1/2-11 1/2NPT	9.1	
2"	50A	172	287	175	35	19.0	2-11 1/2NPT	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.B, OS & Y, NPT

SUN-GL-NPT-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Backseat & Seat: 153kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

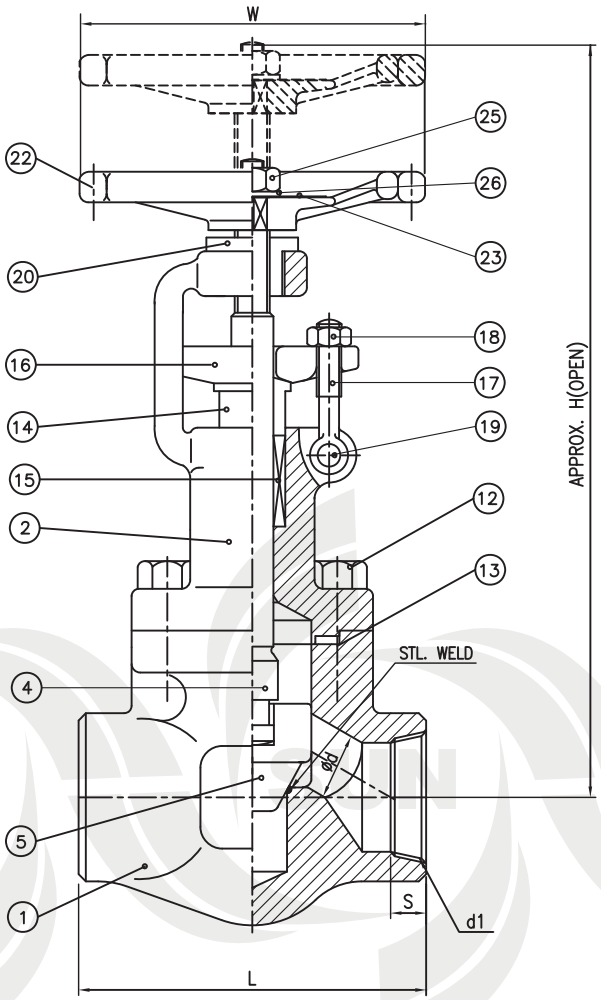
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	73	139	95	10	13.5	1/2-14NPT	1.4	
3/4"	20A	87	151	95	13	14.0	3/4-14NPT	1.9	
1"	25A	96	181	105	19	17.5	1-11 1/2NPT	2.7	
1 1/4"	32A	121	213	135	25	18.0	1 1/4-11 1/2NPT	4.8	
1 1/2"	40A	141	226	135	28	18.5	1 1/2-11 1/2NPT	5.4	
2"	50A	161	260	160	35	19.0	2-11 1/2NPT	8.9	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, NPT

SUN-GL-NPT-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

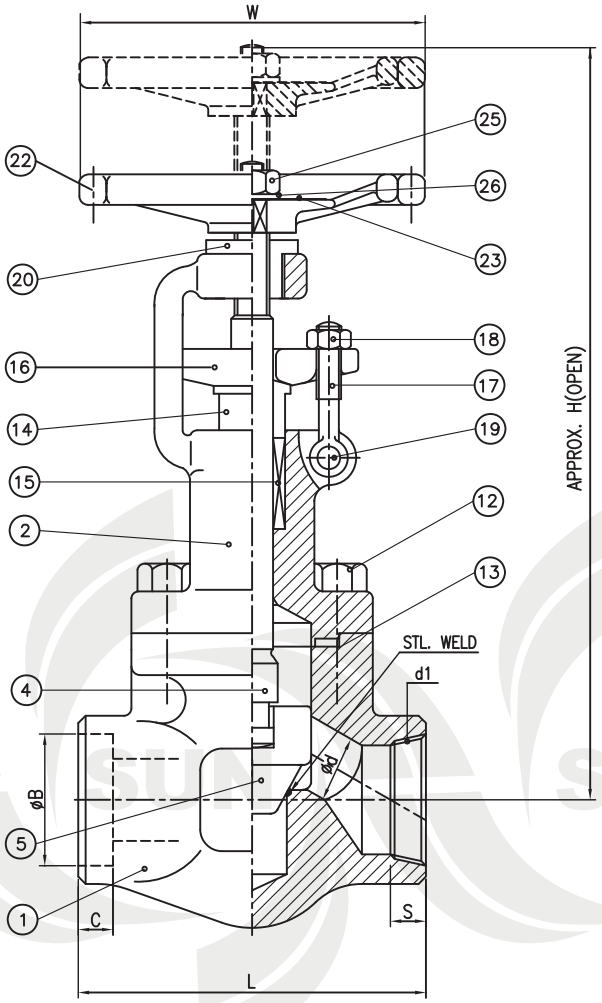
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	10	13.5	1/2-14NPT	1.9	
3/4"	20A	96	181	105	13	14.0	3/4-14NPT	2.8	
1"	25A	121	213	135	19	17.5	1-11 1/2NPT	4.8	
1 1/4"	32A	141	226	135	25	18.0	1 1/4-11 1/2NPT	5.4	
1 1/2"	40A	161	260	160	28	18.5	1 1/2-11 1/2NPT	9.1	
2"	50A	172	287	175	35	19.0	2-11 1/2NPT	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.B, OS & Y, SWxNPT

SUN-GL-NPT-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Backseat & Seat: 116.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

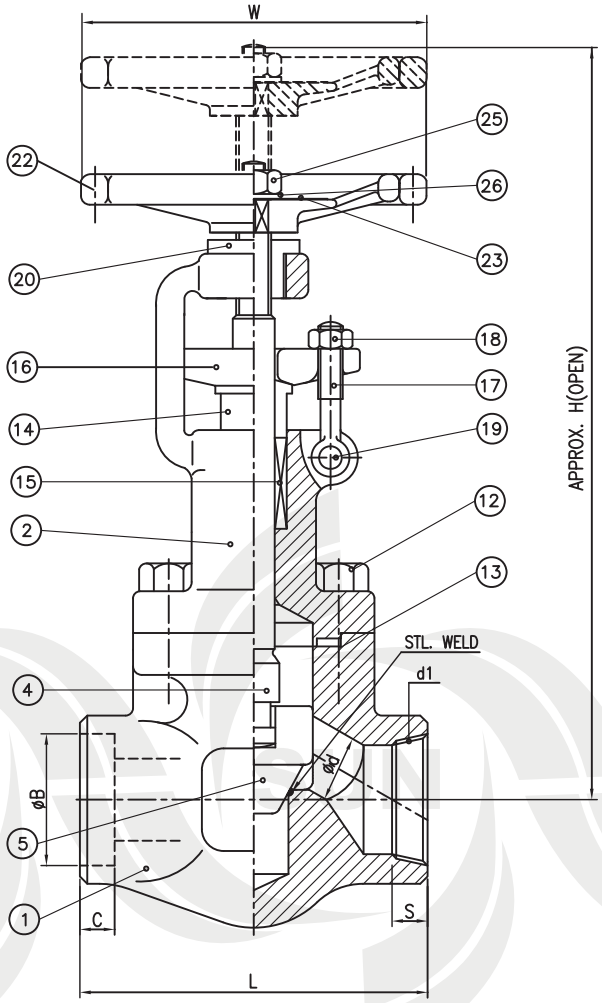
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	13	13.5	1/2-14NPT	22.00	10	1.9	
3/4"	20A	96	181	105	19	14.0	3/4-14NPT	27.40	13	2.8	
1"	25A	121	213	135	25	17.5	1-11 1/2NPT	34.10	13	4.8	
1 1/4"	32A	141	226	135	28	18.0	1 1/4-11 1/2NPT	42.90	13	5.4	
1 1/2"	40A	161	260	160	33	18.5	1 1/2-11 1/2NPT	49.00	13	9.1	
2"	50A	172	287	160	35	19.0	2-11 1/2NPT	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.B, OS & Y, SWxNPT

SUN-GL-SN-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Backseat & Seat: 153kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

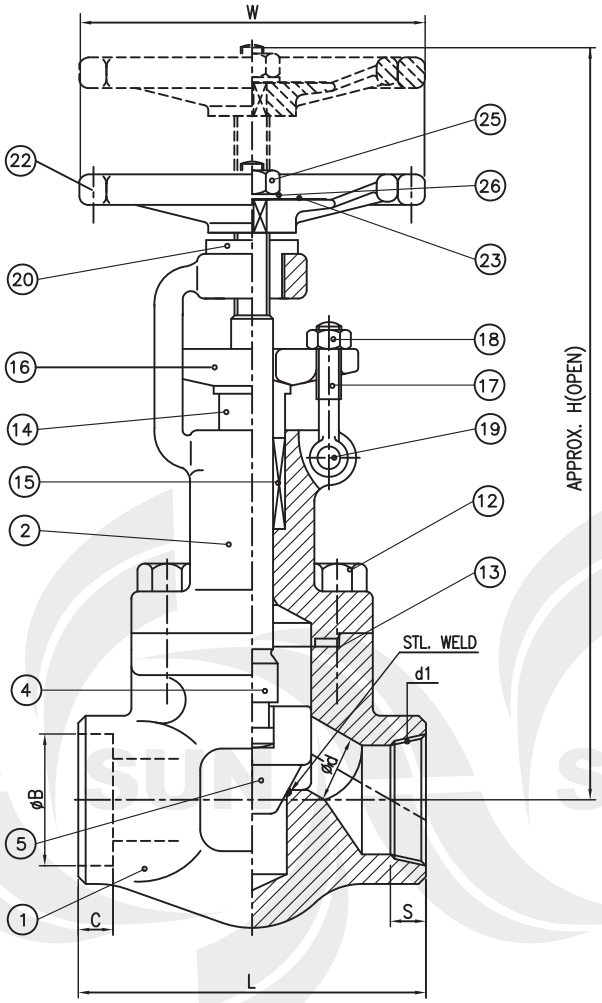
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	139	95	10	13.5	1/2-14NPT	22.00	10	1.4	
3/4"	20A	87	151	95	13	14.0	3/4-14NPT	27.40	13	1.9	
1"	25A	96	181	105	19	17.5	1-11 1/2NPT	34.10	13	2.7	
1 1/4"	32A	121	213	135	25	18.0	1 1/4-11 1/2NPT	42.90	13	4.8	
1 1/2"	40A	141	226	135	28	18.5	1 1/2-11 1/2NPT	49.00	13	5.4	
2"	50A	161	260	160	35	19.0	2-11 1/2NPT	61.45	16	8.9	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.B, OS & Y, SWxNPT

SUN-GL-SN-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-410
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A307-B
26	Wheel Washer	A108-1020

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Backseat & Seat: 288.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

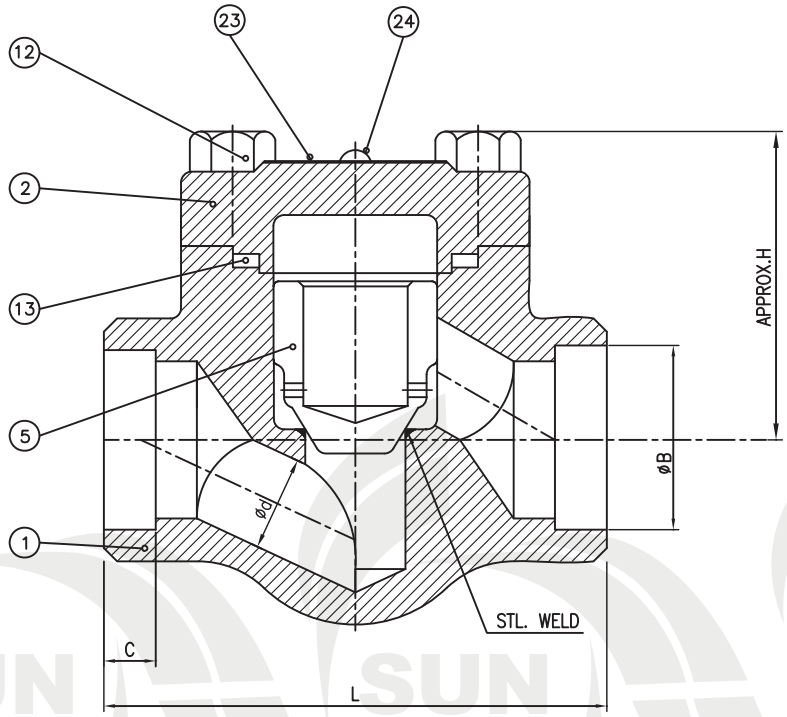
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	151	95	10	13.5	1/2-14NPT	22.00	10	1.9	
3/4"	20A	96	181	105	13	14.0	3/4-14NPT	27.40	13	2.8	
1"	25A	121	213	135	19	17.5	1-11 1/2NPT	34.10	13	4.8	
1 1/4"	32A	141	226	135	25	18.0	1 1/4-11 1/2NPT	42.90	13	5.4	
1 1/2"	40A	161	260	160	28	18.5	1 1/2-11 1/2NPT	49.00	13	9.1	
2"	50A	172	287	160	35	19.0	2-11 1/2NPT	61.45	16	11.8	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, SW

SUN-LC-SW-05



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

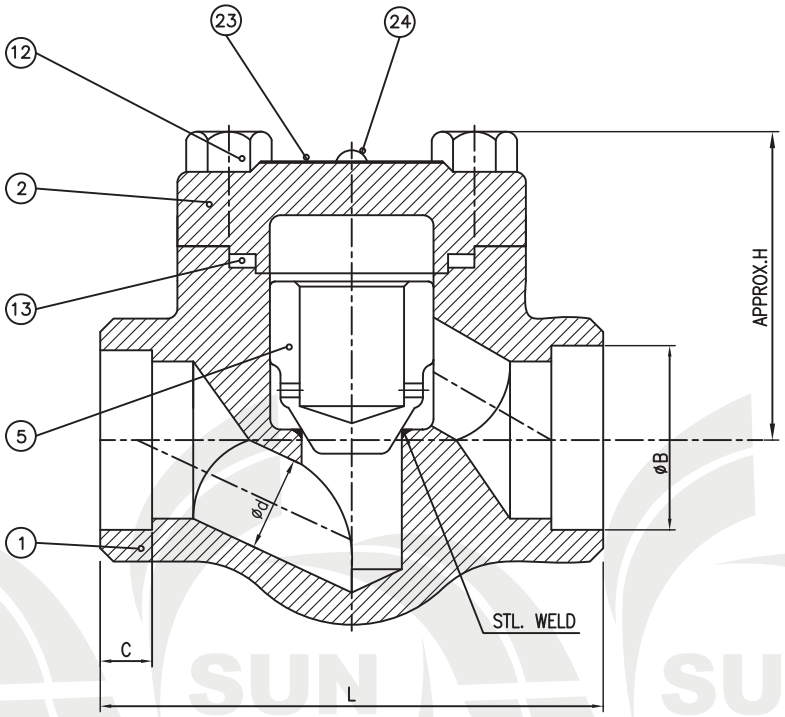
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	13	22.00	10	1.2	
3/4"	20A	96	65	19	27.40	13	2.1	
1"	25A	121	76	25	34.10	13	4.0	
1 1/4"	32A	141	84	28	42.90	13	4.7	
1 1/2"	40A	161	101	33	49.00	13	7.1	
2"	50A	172	116	35	61.45	16	10.5	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.C, SW

SUN-LC-SW-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

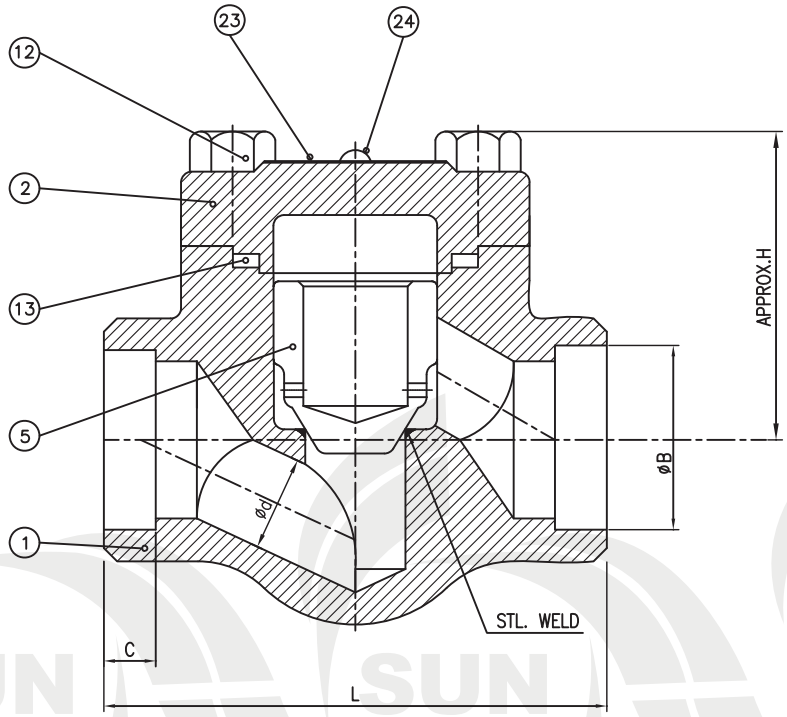
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	51	10	22.00	10	1.2	
3/4"	20A	87	55	13	27.40	13	1.3	
1"	25A	96	65	19	34.10	13	2.1	
1 1/4"	32A	121	76	25	42.90	13	4.0	
1 1/2"	40A	141	84	28	49.00	13	4.7	
2"	50A	161	101	35	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, SW

SUN-LC-SW-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

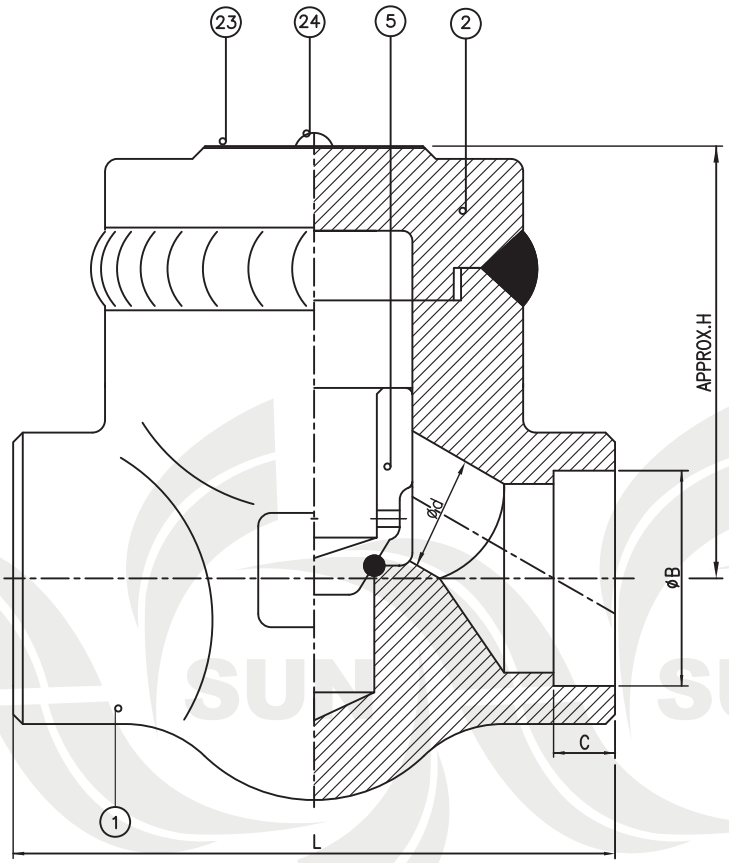
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	10	22.00	10	1.2	
3/4"	20A	96	65	13	27.40	13	2.1	
1"	25A	121	76	19	34.10	13	4.0	
1 1/4"	32A	141	84	25	42.90	13	4.7	
1 1/2"	40A	161	101	28	49.00	13	7.1	
2"	50A	172	116	35	61.45	16	10.5	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

2500LBS, A105 / 13CR, W.B, SW

SUN-LC-SW-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 652.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

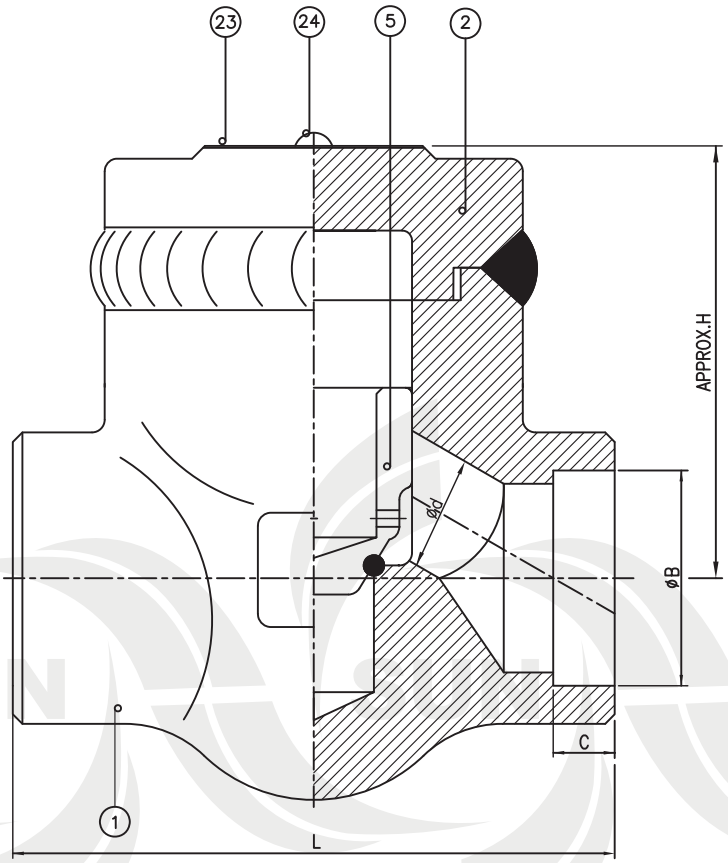
SIZE		L	H	Ød	ØB	C	WEIGHT(kg)	Q'TY
1/2"	15A	121	213	11	22.00	10	2.1	
3/4"	20A	141	226	13	27.40	13	4.0	
1"	25A	161	260	18	34.10	13	4.7	
1 1/4"	32A	172	315	23	42.90	13	7.1	
1 1/2"	40A	200	420	28	49.00	13	17.5	
2"	50A	220	450	35	61.45	16	17.5	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, W.B, SW

SUN-LC-SW-04



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

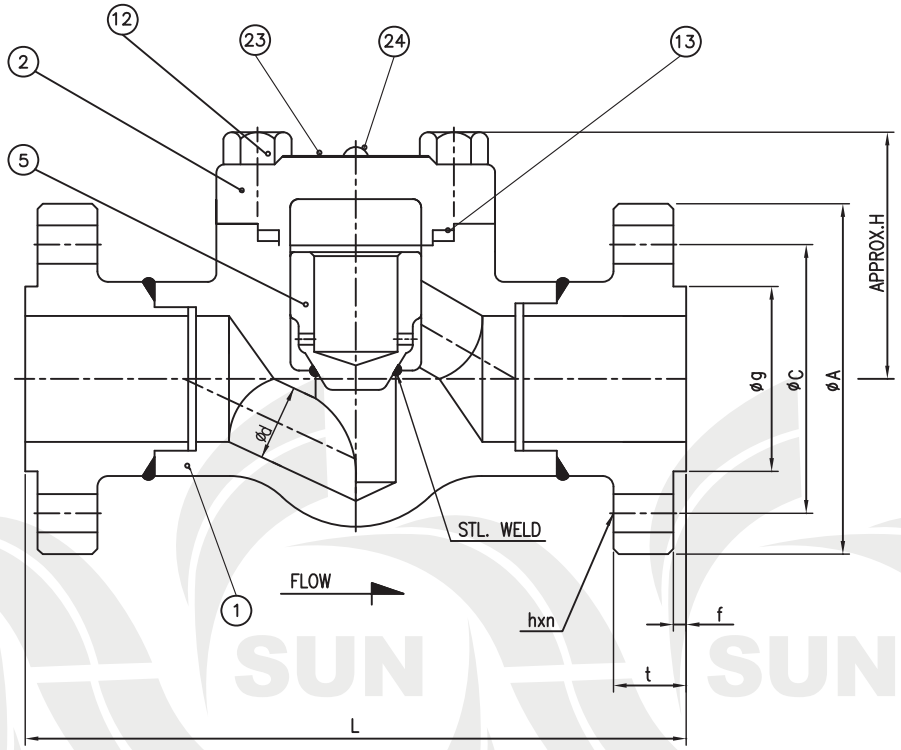
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	96	205	13	22.00	10	2.1	
3/4"	20A	121	230	19	27.40	13	4.0	
1"	25A	141	275	25	34.10	13	4.7	
1 1/4"	32A	161	285	28	42.90	13	7.1	
1 1/2"	40A	172	315	33	49.00	13	17.5	
2"	50A	200	420	35	61.45	16	17.5	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

150LBS, A105 / 13CR, B.C, RF

SUN-LC-RF-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 32kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

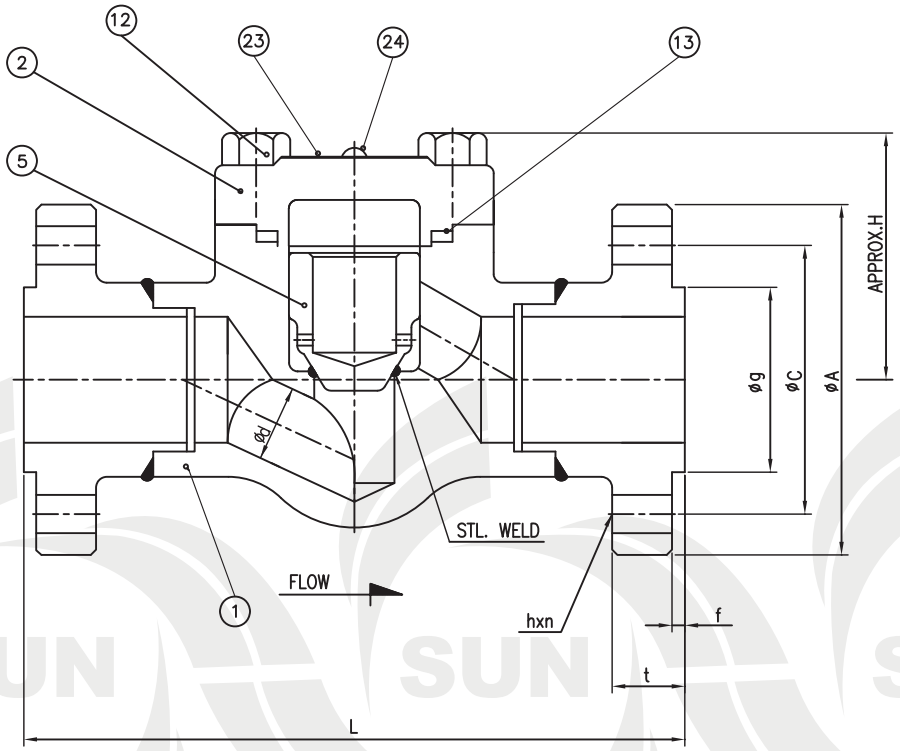
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	108	51	89	60.3	16x4	34.9	1.6	11.2	10	2.1	
3/4"	20A	117	55	98	69.9	16x4	42.9	1.6	12.7	13	2.9	
1"	25A	127	65	108	79.4	16x4	50.8	1.6	14.2	19	3.8	
1 1/4"	32A	140	76	117	88.9	16x4	63.5	1.6	15.7	25	5.6	
1 1/2"	40A	165	84	127	98.4	16x4	73.0	1.6	17.5	28	7.2	
2"	50A	203	101	152	120.6	19x4	92.1	1.6	19.1	35	11.7	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

300LBS, A105 / 13CR, B.C, RF

SUN-LC-RF-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 79.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

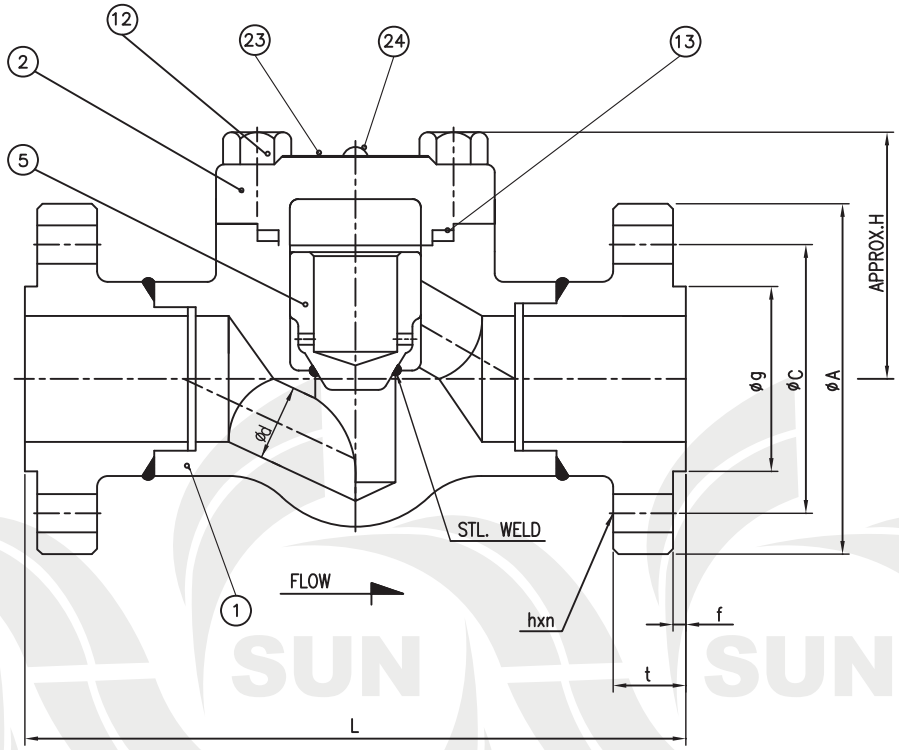
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	152	51	95	66.7	16x4	34.9	1.6	14.2	10	2.8	
3/4"	20A	178	55	117	82.5	19x4	42.9	1.6	15.7	13	4.3	
1"	25A	203	65	124	88.9	19x4	50.8	1.6	17.5	19	5.7	
1 1/4"	32A	216	76	133	98.4	19x4	63.5	1.6	19.1	25	6.6	
1 1/2"	40A	229	84	156	114.3	22x4	73.0	1.6	20.6	28	11.1	
2"	50A	267	101	165	127.0	19x8	92.1	1.6	22.4	35	15.3	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, RF

SUN-LC-RF-03



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

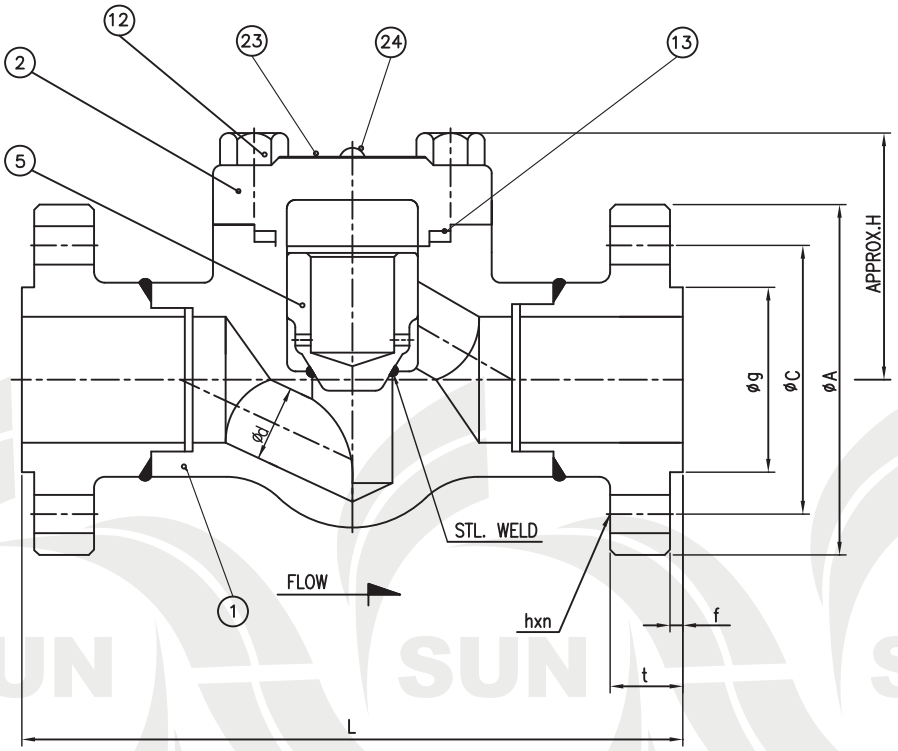
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	165	51	95	66.7	16x4	34.9	6.4	14.3	10	3.0	
3/4"	20A	190	55	117	82.5	19x4	42.9	6.4	15.9	13	4.7	
1"	25A	216	65	124	88.9	19x4	50.8	6.4	17.5	19	6.0	
1 1/4"	32A	229	76	133	98.4	19x4	63.5	6.4	20.7	25	8.9	
1 1/2"	40A	241	84	156	114.3	22x4	73.0	6.4	22.3	28	11.8	
2"	50A	292	101	165	127.0	19x8	92.1	6.4	25.4	35	15.6	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

900LBS, A105 / 13CR, B.C, RF

SUN-LC-RF-04



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 236kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

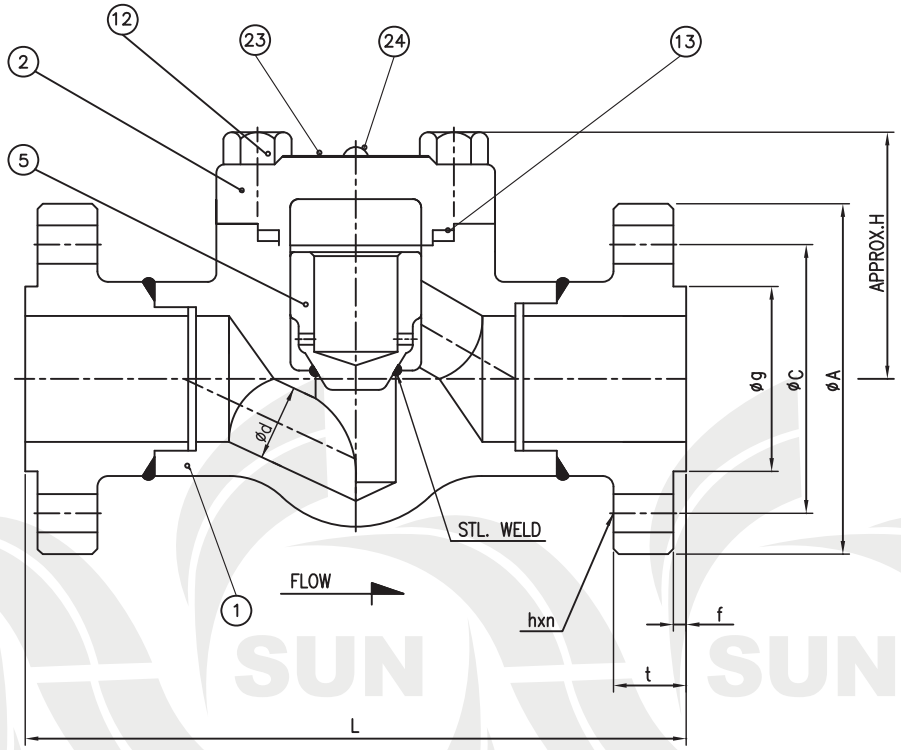
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	55	121	82.5	22x4	34.9	6.4	22.3	10		
3/4"	20A	229	65	130	88.9	22x4	42.9	6.4	25.4	13		
1"	25A	254	76	149	101.6	25x4	50.8	6.4	28.6	19		
1 1/4"	32A	279	84	159	111.1	25x4	63.5	6.4	28.6	25		
1 1/2"	40A	305	101	178	123.8	29x4	73.0	6.4	31.8	28		
2"	50A	368	116	216	165.1	25x8	92.1	6.4	38.1	35		

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, RF

SUN-LC-RF-05



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

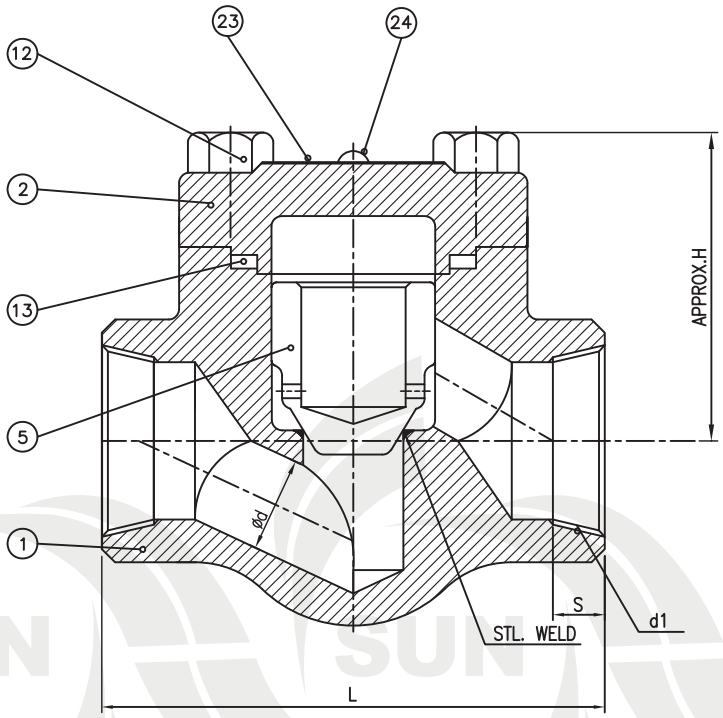
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	55	121	82.5	22x4	34.9	6.4	22.3	10		
3/4"	20A	229	65	130	88.9	22x4	42.9	6.4	25.4	13		
1"	25A	254	76	149	101.6	25x4	50.8	6.4	28.6	19		
1 1/4"	32A	279	84	159	111.1	25x4	63.5	6.4	28.6	25		
1 1/2"	40A	305	101	178	123.8	29x4	73.0	6.4	31.8	28		
2"	50A	368	116	216	165.1	25x8	92.1	6.4	38.1	35		

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, NPT

SUN-LC-NPT-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

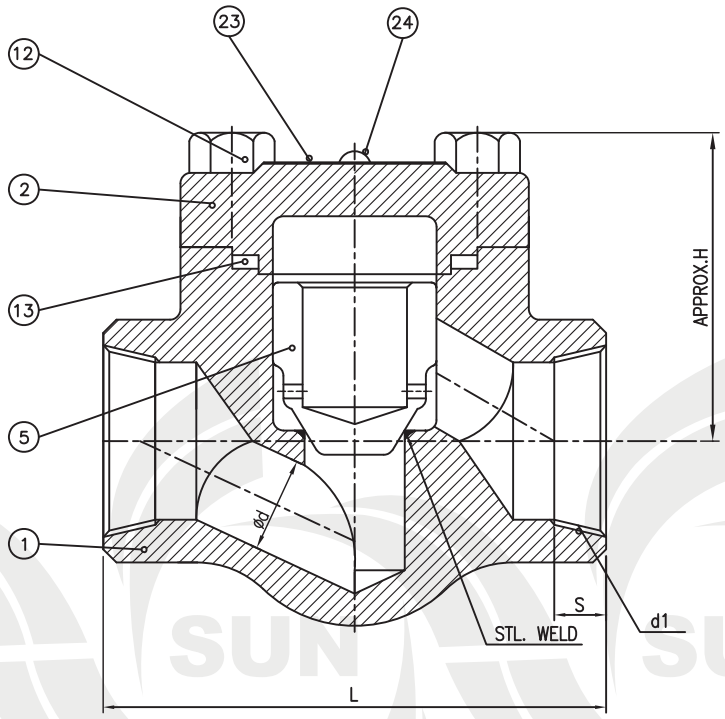
SIZE		L	H	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	13	13.5	1/2-14NPT	1.2	
3/4"	20A	96	65	19	14.0	3/4-14NPT	1.3	
1"	25A	121	76	25	17.5	1-11 1/2NPT	2.1	
1 1/4"	32A	141	84	28	18.0	1 1/4-11 1/2NPT	4.0	
1 1/2"	40A	161	101	33	18.5	1 1/2-11 1/2NPT	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.C, NPT

SUN-LC-NPT-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

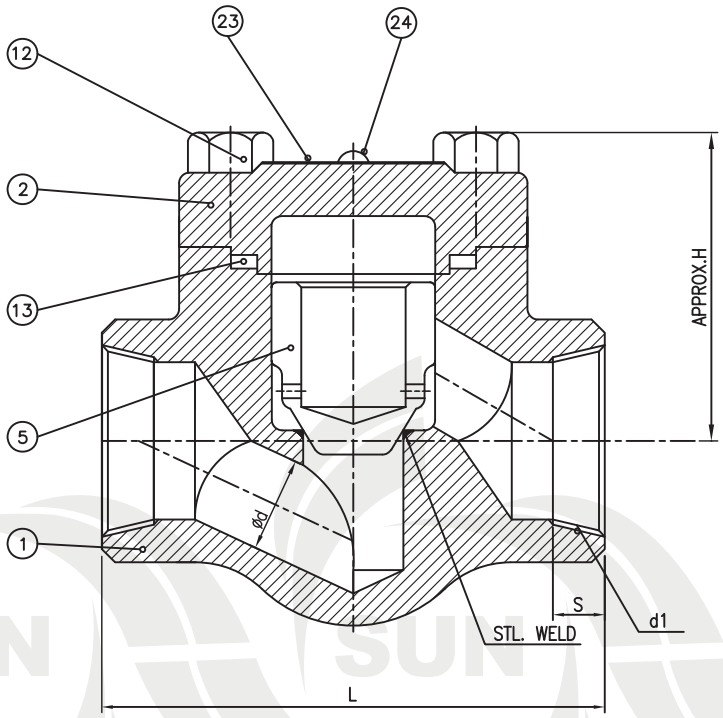
SIZE		L	H	Ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	73	51	10	13.5	1/2-14NPT	1.2	
3/4"	20A	87	55	13	14.0	3/4-14NPT	1.3	
1"	25A	96	65	19	17.5	1-11 1/2NPT	2.1	
1 1/4"	32A	121	76	25	18.0	1 1/4-11 1/2NPT	4.0	
1 1/2"	40A	141	84	28	18.5	1 1/2-11 1/2NPT	4.7	
2"	50A	161	101	35	19.0	2-11 1/2NPT	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, NPT

SUN-LC-NPT-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

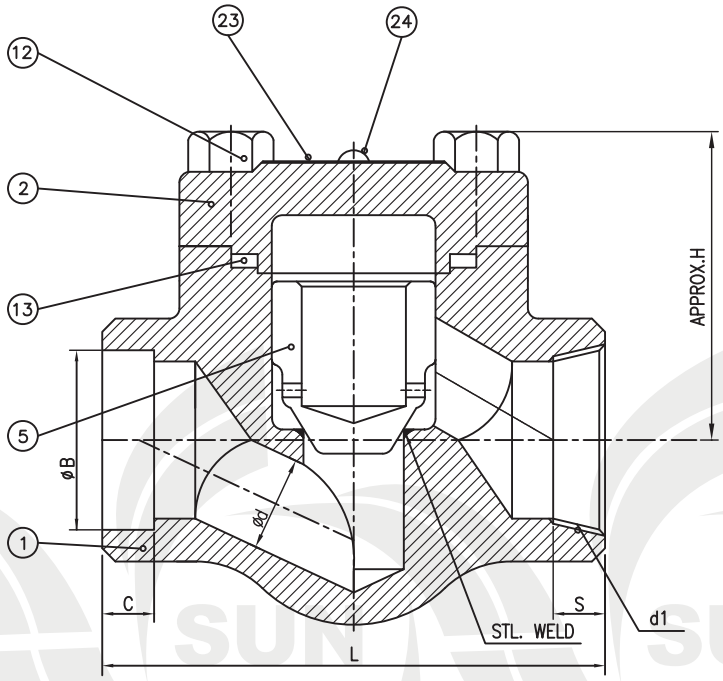
SIZE		L	H	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	10	13.5	1/2-14NPT	1.2	
3/4"	20A	96	65	13	14.0	3/4-14NPT	1.3	
1"	25A	121	76	19	17.5	1-11 1/2NPT	2.1	
1 1/4"	32A	141	84	25	18.0	1 1/4-11 1/2NPT	4.0	
1 1/2"	40A	161	101	28	18.5	1 1/2-11 1/2NPT	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, SWxNPT

SUN-LC-SN-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

UNIT : mm

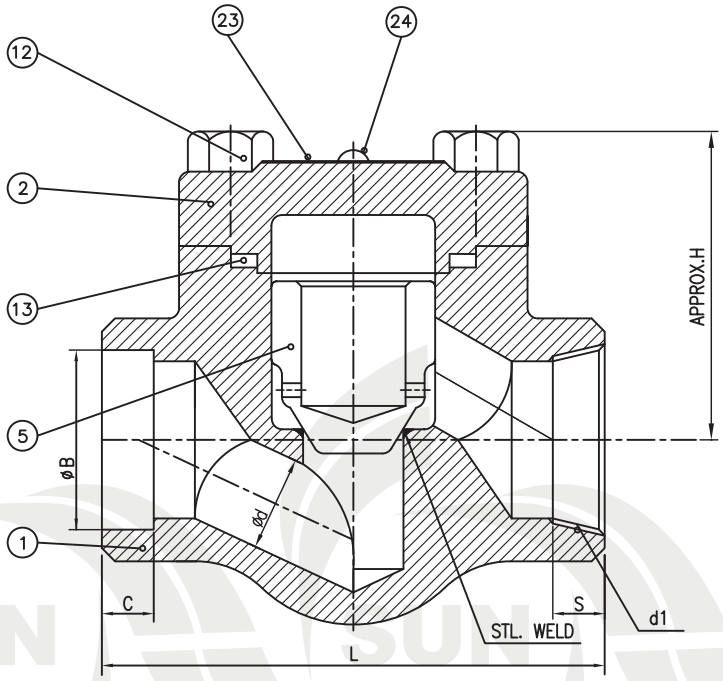
SIZE		L	H	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	13	13.5	1/2-14NPT	22.00	10	1.2	
3/4"	20A	96	65	19	14.0	3/4-14NPT	27.40	13	1.3	
1"	25A	121	76	25	17.5	1-11 1/2NPT	34.10	13	2.1	
1 1/4"	32A	141	84	28	18.0	1 1/4-11 1/2NPT	42.90	13	4.0	
1 1/2"	40A	161	101	33	18.5	1 1/2-11 1/2NPT	49.00	13	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.C, SWxNPT

SUN-LC-SN-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

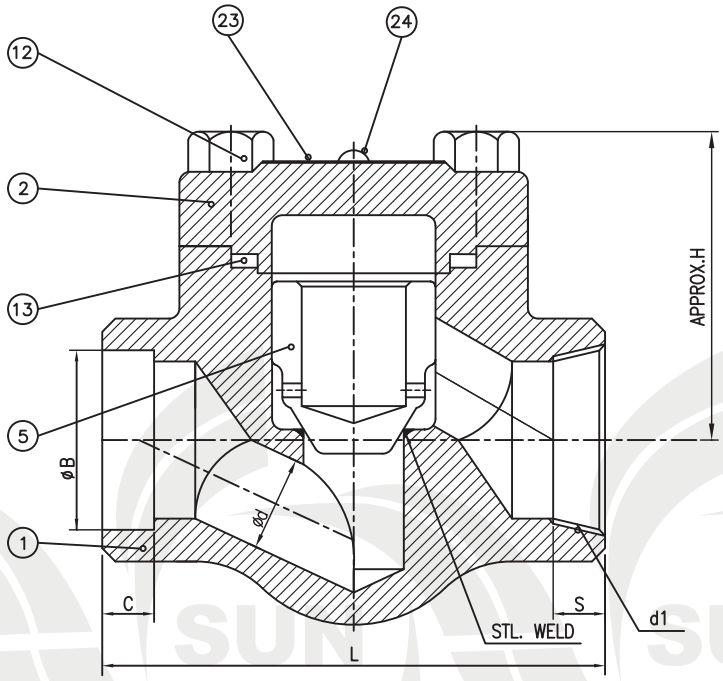
SIZE		L	H	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	51	10	13.5	1/2-14NPT	22.00	10	1.2	
3/4"	20A	87	55	13	14.0	3/4-14NPT	27.40	13	1.3	
1"	25A	96	65	19	17.5	1-11 1/2NPT	34.10	13	2.1	
1 1/4"	32A	121	76	25	18.0	1 1/4-11 1/2NPT	42.90	13	4.0	
1 1/2"	40A	141	84	28	18.5	1 1/2-11 1/2NPT	49.00	13	4.7	
2"	50A	161	101	35	19.0	2-11 1/2NPT	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, SWxNPT

SUN-LC-SN-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

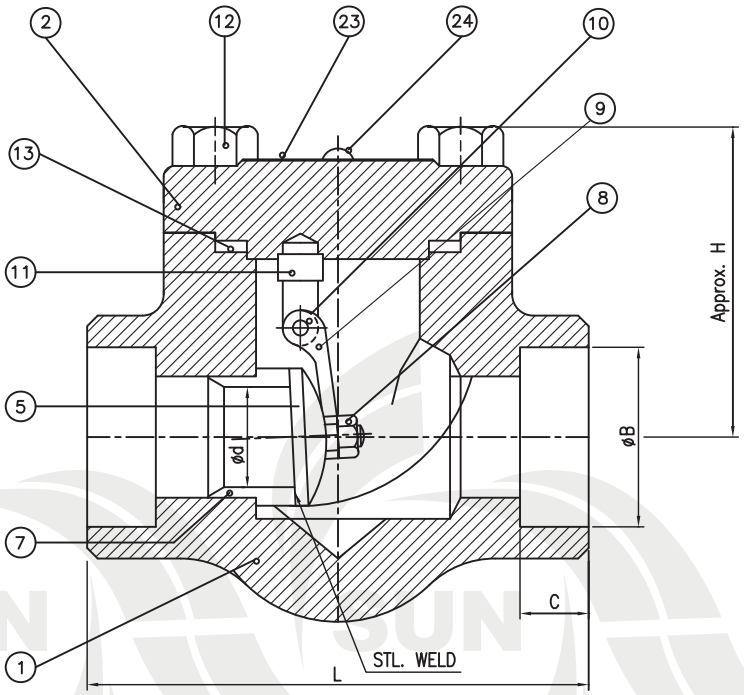
SIZE		L	H	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	10	13.5	1/2-14NPT	22.00	10	1.2	
3/4"	20A	96	65	13	14.0	3/4-14NPT	27.40	13	1.3	
1"	25A	121	76	19	17.5	1-11 1/2NPT	34.10	13	2.1	
1 1/4"	32A	141	84	25	18.0	1 1/4-11 1/2NPT	42.90	13	4.0	
1 1/2"	40A	161	101	28	18.5	1 1/2-11 1/2NPT	49.00	13	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, SW

SUN-SC-SW-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

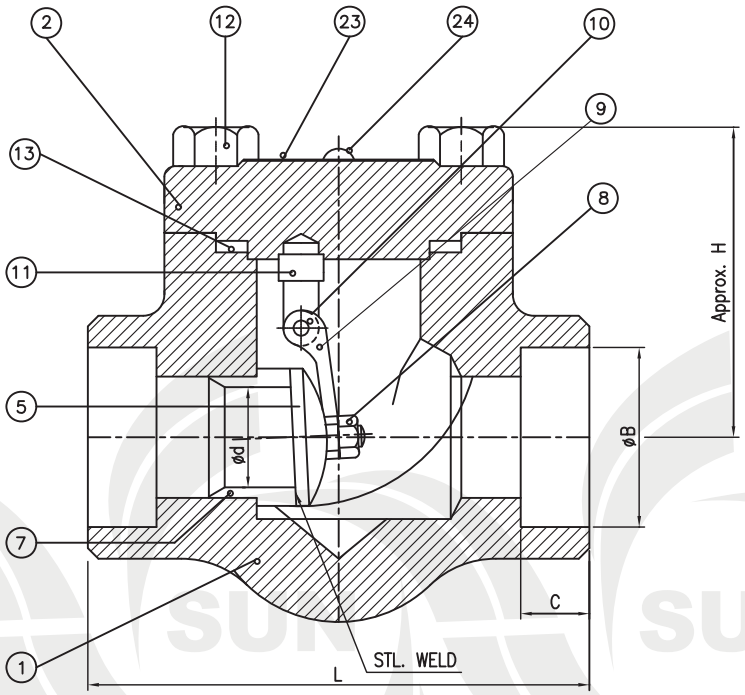
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	13	22.00	10	1.2	
3/4"	20A	96	65	19	27.40	13	1.3	
1"	25A	121	76	25	34.10	13	2.1	
1 1/4"	32A	141	84	30	42.90	13	4.0	
1 1/2"	40A	161	101	33	49.00	13	4.7	
2"	50A	172	116	35	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.C, SW

SUN-SC-SW-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

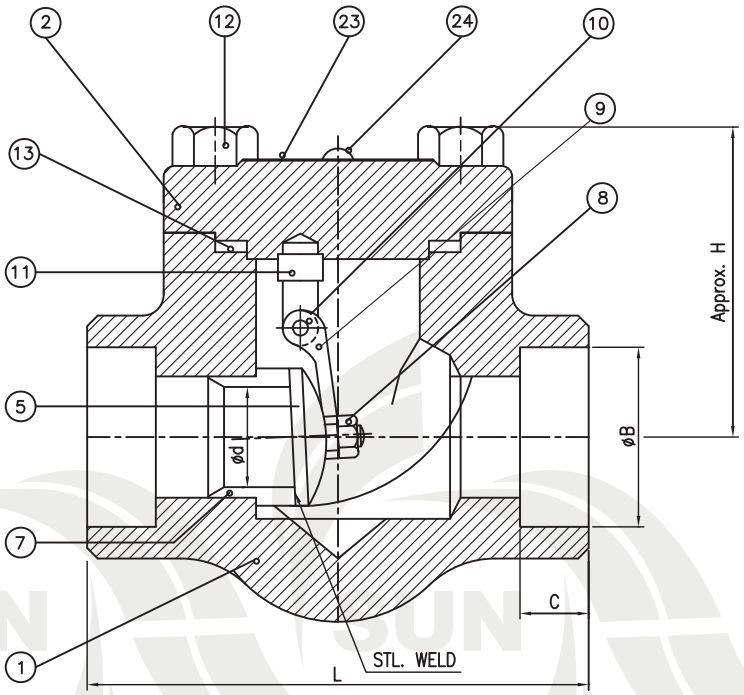
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	51	10	22.00	10	1.0	
3/4"	20A	87	55	13	27.40	13	1.4	
1"	25A	96	65	19	34.10	13	2.1	
1 1/4"	32A	121	76	25	42.90	13	4.0	
1 1/2"	40A	141	84	30	49.00	13	4.7	
2"	50A	161	101	35	61.45	16	6.9	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, SW

SUN-SC-SW-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

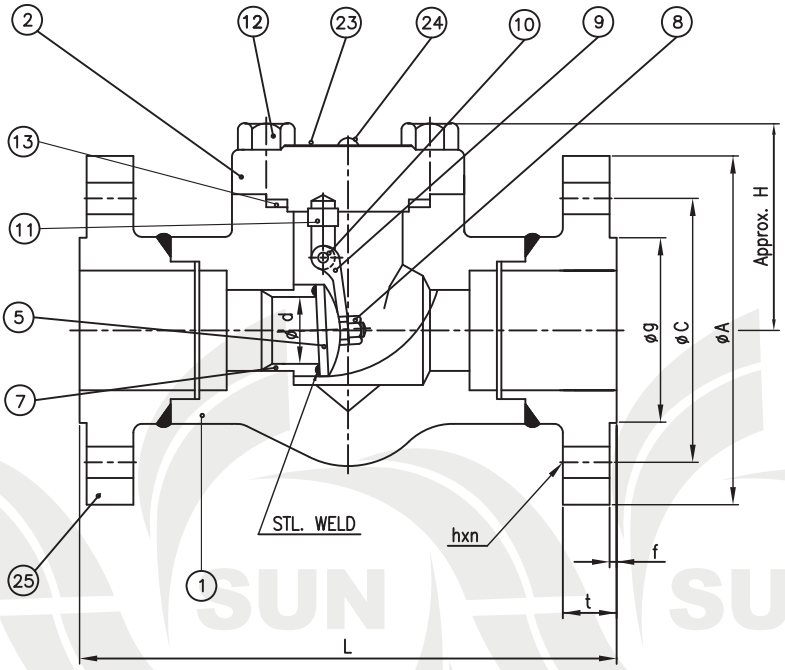
SIZE		L	H	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	10	22.00	10	1.2	
3/4"	20A	96	65	13	27.40	13	1.3	
1"	25A	121	76	19	34.10	13	2.1	
1 1/4"	32A	141	84	25	42.90	13	4.0	
1 1/2"	40A	161	101	30	49.00	13	4.7	
2"	50A	172	116	35	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

150LBS, A105 / 13CR, B.C, RF

SUN-SC-RF-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 32kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

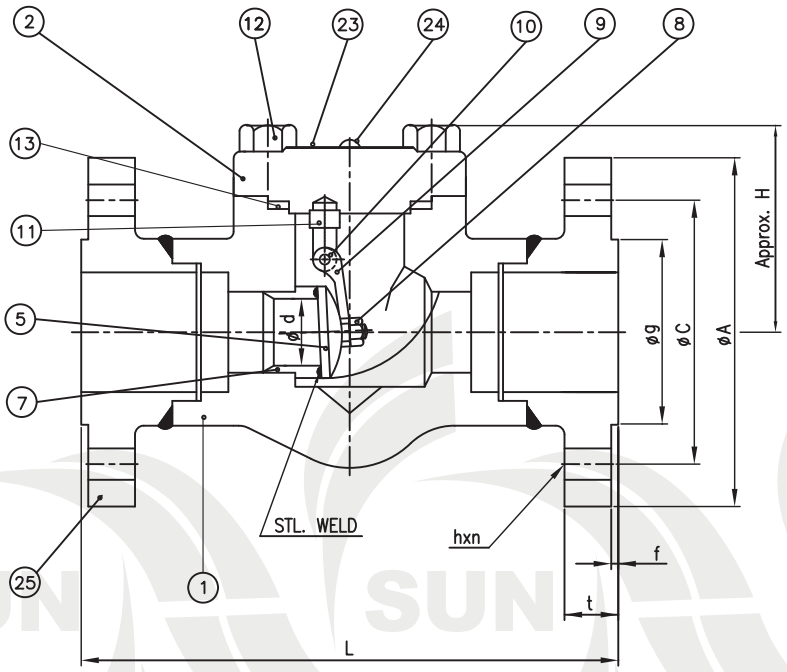
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	108	51	89	60.3	16x4	34.9	1.6	11.2	10	2.0	
3/4"	20A	117	55	98	69.9	16x4	42.9	1.6	12.7	13	2.8	
1"	25A	127	65	108	79.4	16x4	50.8	1.6	14.2	19	3.8	
1 1/4"	32A	140	76	117	88.9	16x4	63.5	1.6	15.7	25	5.6	
1 1/2"	40A	165	84	127	98.4	16x4	73.0	1.6	17.5	30	7.2	
2"	50A	203	101	152	120.6	19x4	92.1	1.6	19.1	35	11.7	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

300LBS, A105 / 13CR, B.C, RF

SUN-SC-RF-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 79.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

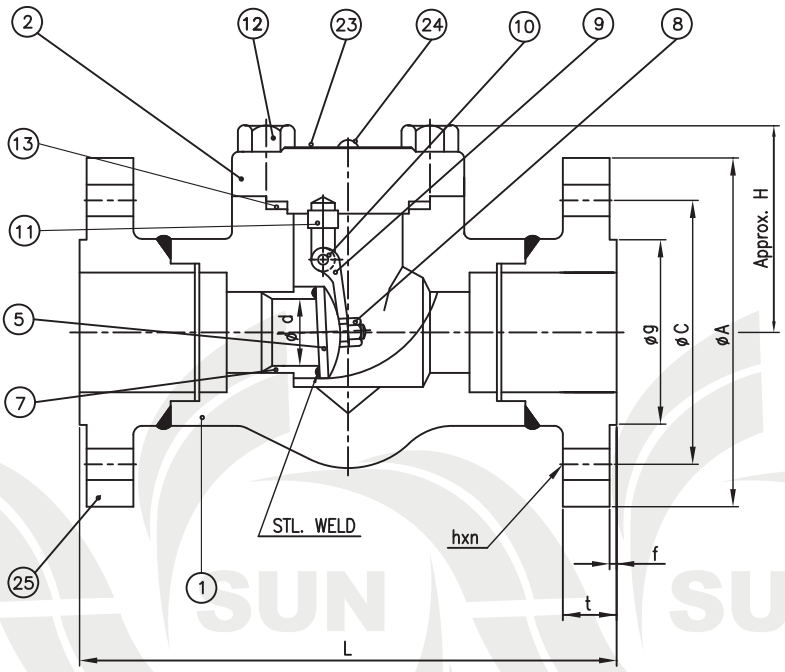
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	152	51	95	66.7	16x4	34.9	1.6	14.2	10	2.8	
3/4"	20A	178	55	117	82.5	19x4	42.9	1.6	15.7	13	4.3	
1"	25A	203	65	124	88.9	19x4	50.8	1.6	17.5	19	5.7	
1 1/4"	32A	216	76	133	98.4	19x4	63.5	1.6	19.1	25	6.6	
1 1/2"	40A	229	84	156	114.3	22x4	73.0	1.6	20.6	30	11.1	
2"	50A	267	101	165	127.0	19x8	92.1	1.6	22.4	35	15.3	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, RF

SUN-SC-RF-03



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 165.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

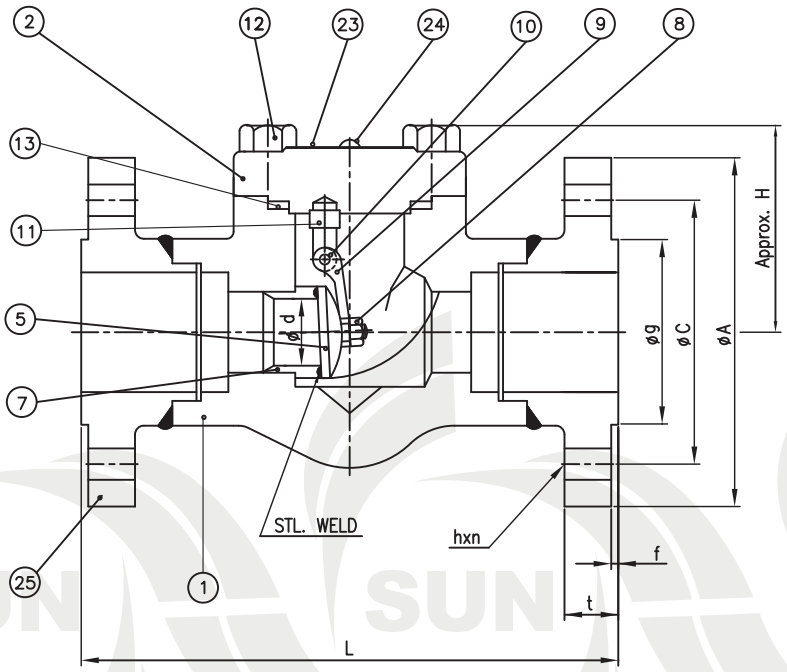
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	165	51	95	66.7	16x4	34.9	6.4	14.3	10	3.0	
3/4"	20A	190	55	117	82.5	19x4	42.9	6.4	15.9	13	4.7	
1"	25A	216	65	124	88.9	19x4	50.8	6.4	17.5	19	6.0	
1 1/4"	32A	229	76	133	98.4	19x4	63.5	6.4	20.7	25	8.9	
1 1/2"	40A	241	84	156	114.3	22x4	73.0	6.4	22.3	30	11.8	
2"	50A	292	101	165	127.0	19x8	92.1	6.4	25.4	35	15.6	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

900LBS, A105 / 13CR, B.C, RF

SUN-SC-RF-04



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 236kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

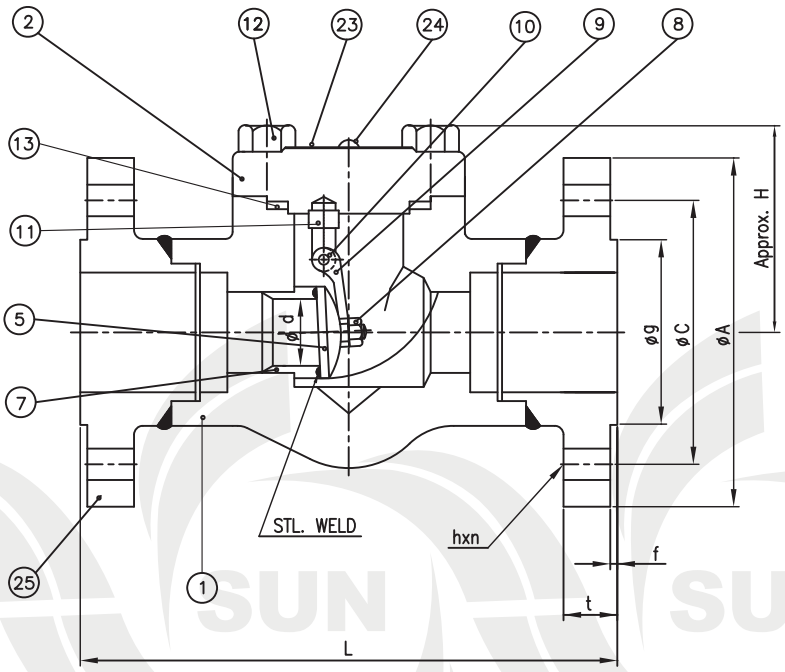
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	55	121	82.5	22x4	34.9	6.4	22.3	10		
3/4"	20A	229	65	130	88.9	22x4	42.9	6.4	25.4	13		
1"	25A	254	76	149	101.6	25x4	50.8	6.4	28.6	19		
1 1/4"	32A	279	84	159	111.1	25x4	63.5	6.4	28.6	25		
1 1/2"	40A	305	101	178	123.8	29x4	73.0	6.4	31.8	30		
2"	50A	368	116	216	165.1	25x8	92.1	6.4	38.1	35		

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, RF

SUN-SC-RF-05



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

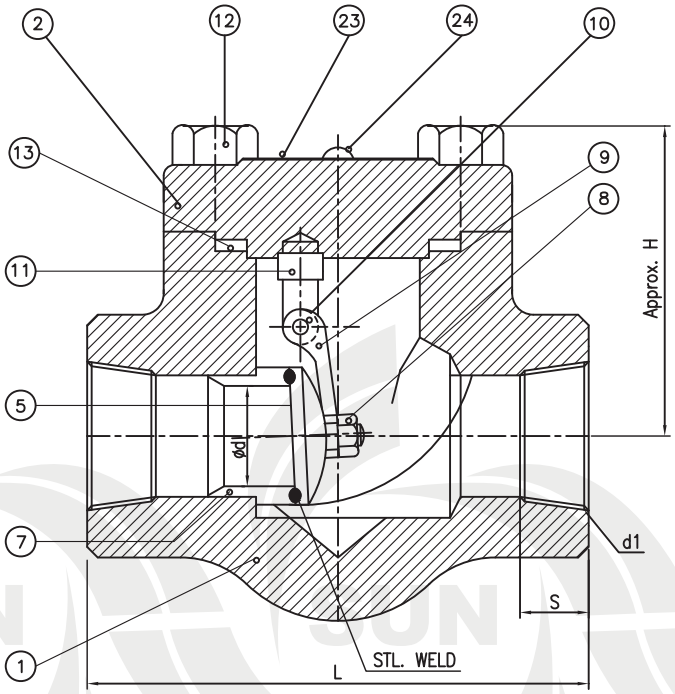
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	216	55	121	82.5	22x4	34.9	6.4	22.3	10		
3/4"	20A	229	65	130	88.9	22x4	42.9	6.4	25.4	13		
1"	25A	254	76	149	101.6	25x4	50.8	6.4	28.6	19		
1 1/4"	32A	279	84	159	111.1	25x4	63.5	6.4	28.6	25		
1 1/2"	40A	305	101	178	123.8	29x4	73.0	6.4	31.8	30		
2"	50A	368	116	216	165.1	25x8	92.1	6.4	38.1	35		

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, NPT

SUN-SC-NPT-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION UNIT : mm

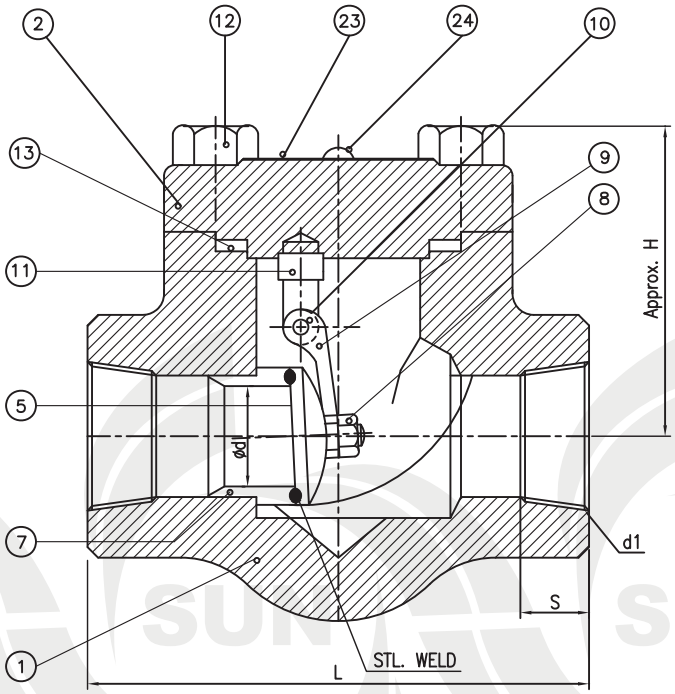
SIZE		L	H	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	13	13.5	1/2-14NPT	1.2	
3/4"	20A	96	65	19	14.0	3/4-14NPT	1.3	
1"	25A	121	76	25	17.5	1-11 1/2NPT	2.1	
1 1/4"	32A	141	84	30	18.0	1 1/4-11 1/2NPT	4.0	
1 1/2"	40A	161	101	33	18.5	1 1/2-11 1/2NPT	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR, B.C, NPT

SUN-SC-NPT-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

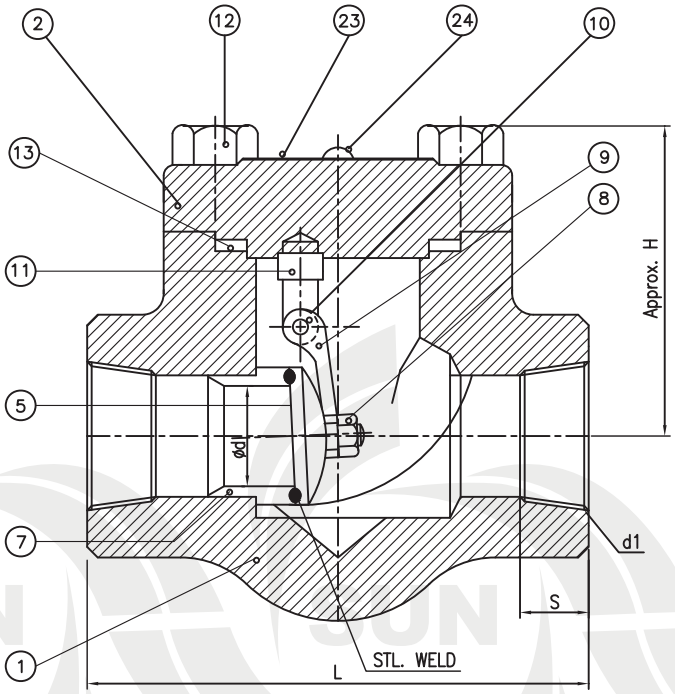
SIZE		L	H	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	73	51	10	13.5	1/2-14NPT	1.2	
3/4"	20A	87	55	13	14.0	3/4-14NPT	1.3	
1"	25A	96	65	19	17.5	1-11 1/2NPT	2.1	
1 1/4"	32A	121	76	25	18.0	1 1/4-11 1/2NPT	4.0	
1 1/2"	40A	141	84	30	18.5	1 1/2-11 1/2NPT	4.7	
2"	50A	161	101	35	19.0	2-11 1/2NPT	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR B.C, NPT

SUN-SC-NPT-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

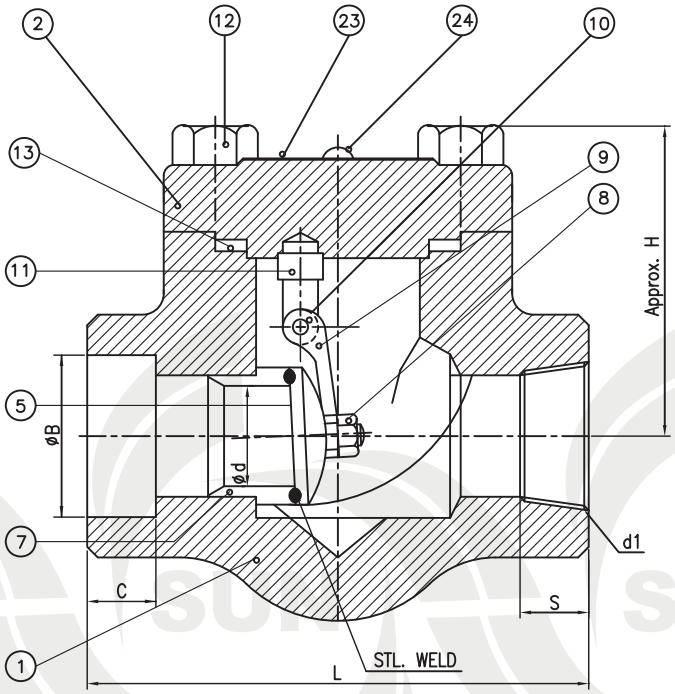
SIZE		L	H	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	10	13.5	1/2-14NPT	1.2	
3/4"	20A	96	65	13	14.0	3/4-14NPT	1.3	
1"	25A	121	76	19	17.5	1-11 1/2NPT	2.1	
1 1/4"	32A	141	84	25	18.0	1 1/4-11 1/2NPT	4.0	
1 1/2"	40A	161	101	30	18.5	1 1/2-11 1/2NPT	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 13CR, B.C, SWxNPT

SUN-SC-SN-03



NOTE

1.VALVE DESIGN: ASME B16.34
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: FULL

DIMENSION

UNIT : mm

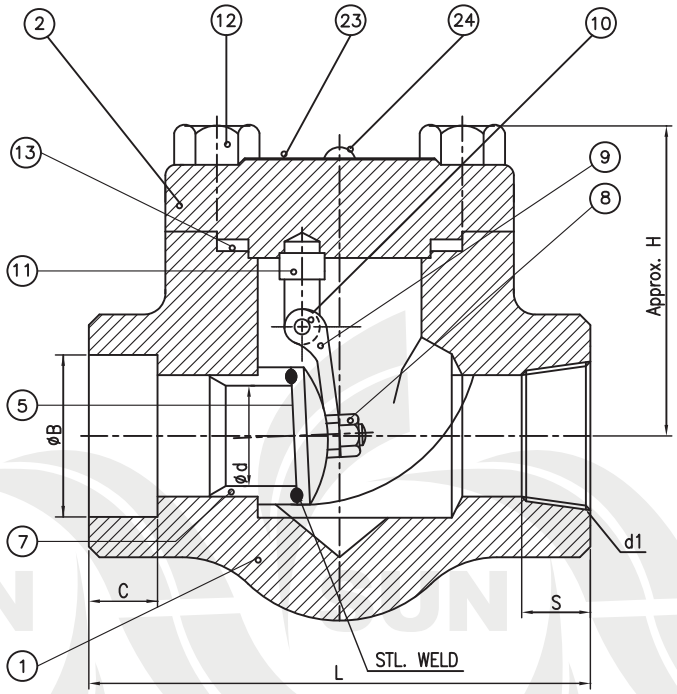
SIZE		L	H	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	13	13.5	1/2-14NPT	22.00	10	1.2	
3/4"	20A	96	65	19	14.0	3/4-14NPT	27.40	13	1.3	
1"	25A	121	76	25	17.5	1-11 1/2NPT	34.10	13	2.1	
1 1/4"	32A	141	84	30	18.0	1 1/4-11 1/2NPT	42.90	13	4.0	
1 1/2"	40A	161	101	33	18.5	1 1/2-11 1/2NPT	49.00	13	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 13CR B.C, SWxNPT

SUN-SC-SN-01



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

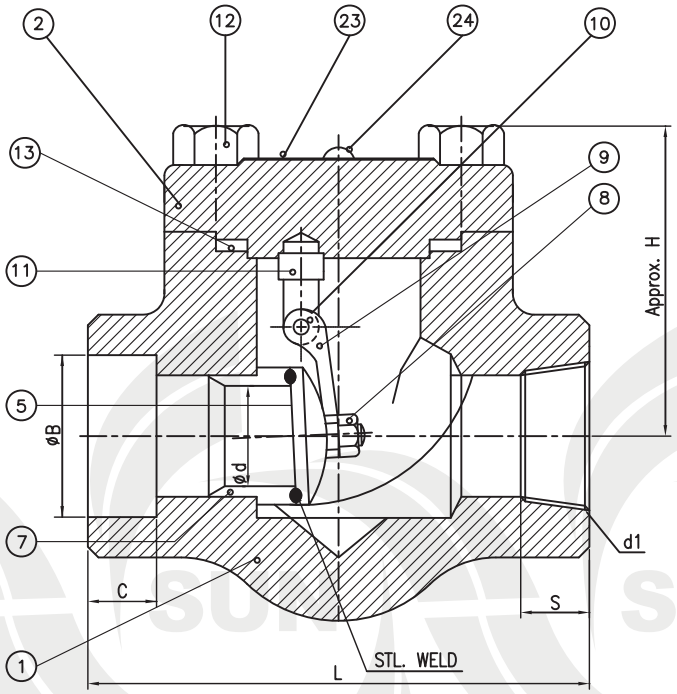
SIZE		L	H	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	73	51	10	13.5	1/2-14NPT	22.00	10	1.2	
3/4"	20A	87	55	13	14.0	3/4-14NPT	27.40	13	1.3	
1"	25A	96	65	19	17.5	1-11 1/2NPT	34.10	13	2.1	
1 1/4"	32A	121	76	25	18.0	1 1/4-11 1/2NPT	42.90	13	4.0	
1 1/2"	40A	141	84	30	18.5	1 1/2-11 1/2NPT	49.00	13	4.7	
2"	50A	161	101	35	19.0	2-11 1/2NPT	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 13CR, B.C, SWxNPT

SUN-SC-SN-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

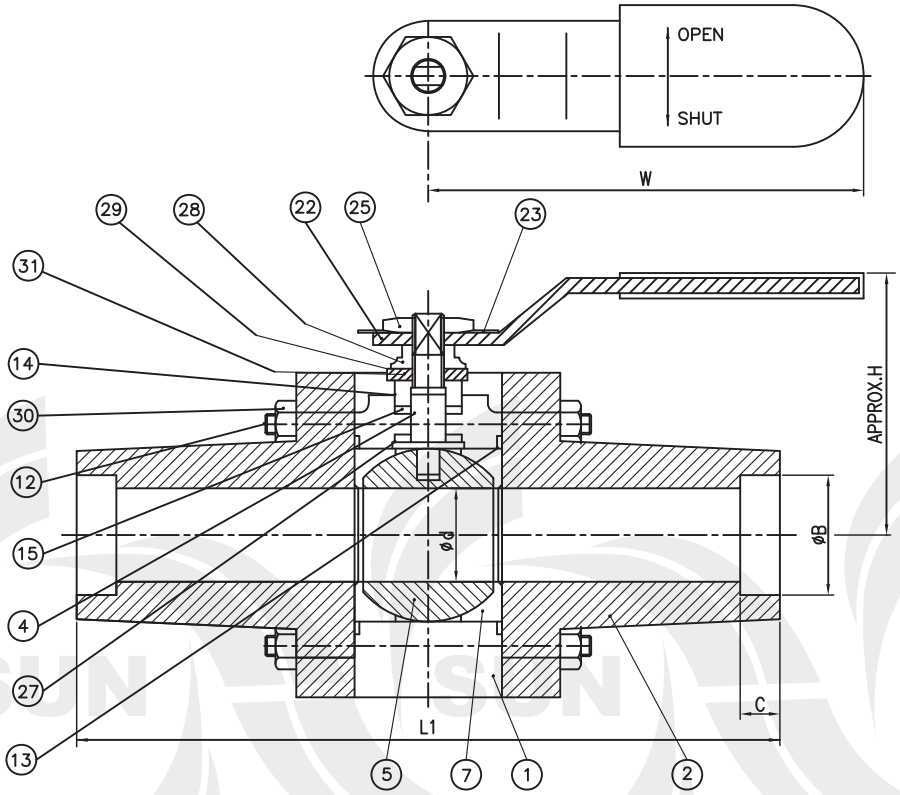
SIZE		L	H	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	87	55	10	13.5	1/2-14NPT	22.00	10	1.2	
3/4"	20A	96	65	13	14.0	3/4-14NPT	27.40	13	1.3	
1"	25A	121	76	19	17.5	1-11 1/2NPT	34.10	13	2.1	
1 1/4"	32A	141	84	25	18.0	1 1/4-11 1/2NPT	42.90	13	4.0	
1 1/2"	40A	161	101	30	18.5	1 1/2-11 1/2NPT	49.00	13	4.7	
2"	50A	172	116	35	19.0	2-11 1/2NPT	61.45	16	7.1	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
5	Disc	A276-410
7	Seat Ring	A276-410
8	Retaining Nut	A194-2H
9	Hinge	A351-CF8M
10	Hinge Pin	A276-304
11	Supporter	A276-410
12	Cover Bolt	A193-B7
13	Gasket	See Below
23	Name Plate	Aluminum
24	Rivet	304 SS

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 304, SW

SUN-BA-SW-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

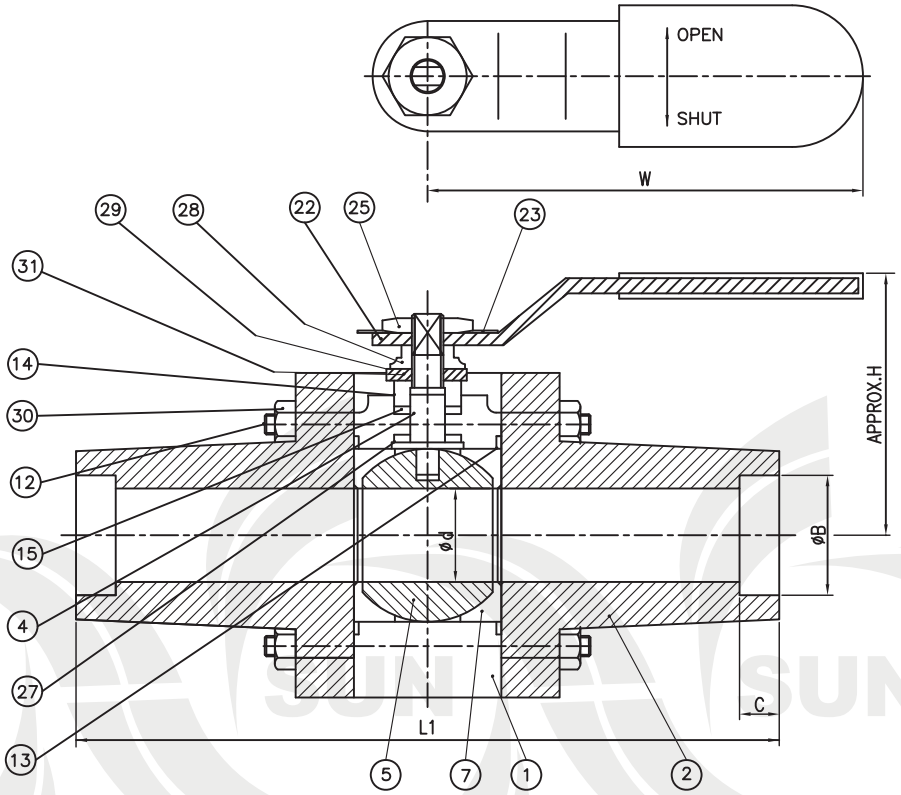
DIMENSION UNIT : mm

SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	150	62	130	14.2	22.00	10	1.0	
3/4"	20A	150	62	130	14.2	27.40	13	1.0	
1"	25A	160	74	160	20.5	34.10	13	1.5	
1 1/4"	32A	180	88	230	31.6	42.90	13	3.0	
1 1/2"	40A	180	88	230	31.6	49.00	13	3.0	
2"	50A	190	93	230	38.0	61.45	16	4.0	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 304, SW

SUN-BA-SW-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

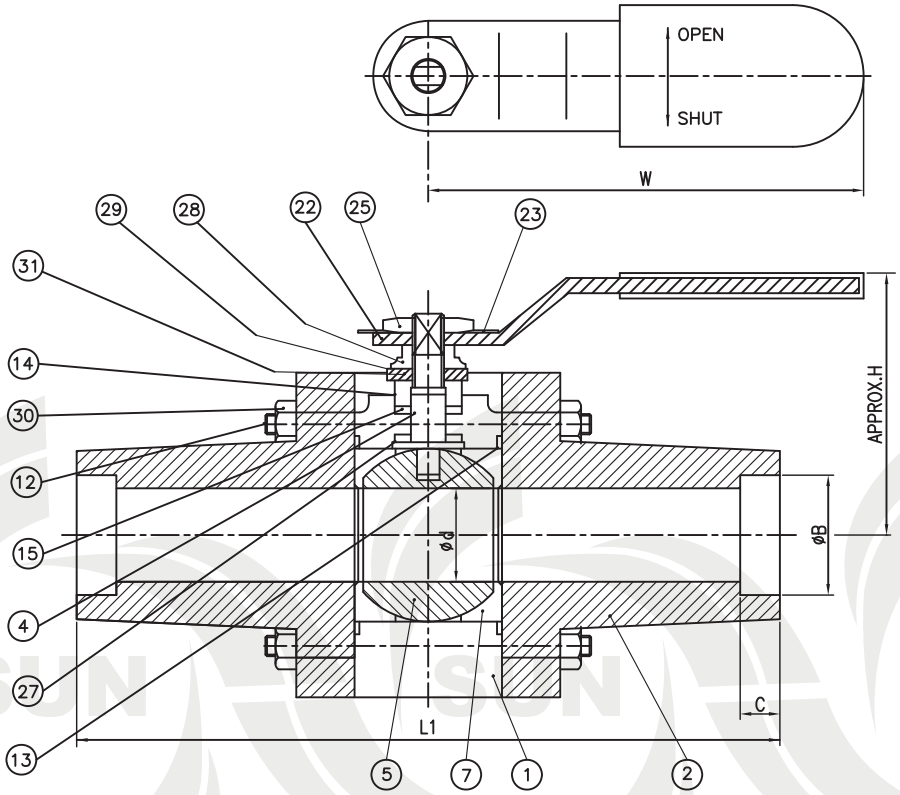
SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	150	62	130	14.2	22.00	10	1.0	
3/4"	20A	150	62	130	14.2	27.40	13	1.0	
1"	25A	160	74	160	20.5	34.10	13	1.5	
1 1/4"	32A	180	88	230	31.6	42.90	13	3.0	
1 1/2"	40A	180	88	230	31.6	49.00	13	3.0	
2"	50A	190	93	230	38.0	61.45	16	4.0	

NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 304, SW

SUN-BA-SW-03



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

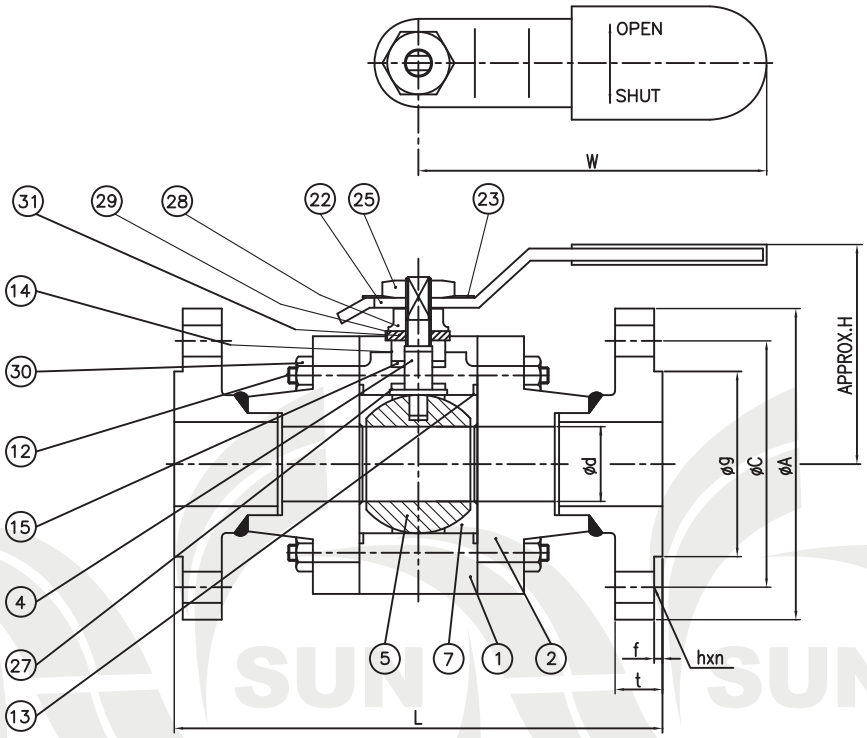
SIZE		L	H	W	ød	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	150	62	130	14.2	22.00	10	1.0	
3/4"	20A	160	74	160	20.5	27.40	13	1.5	
1"	25A	180	88	230	31.6	34.10	13	3.0	
1 1/4"	32A	180	88	230	31.6	42.90	13	3.0	
1 1/2"	40A	190	93	230	38.0	49.00	13	4.0	
2"	50A		125	230	45.0	61.45	16	9.0	

NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

Remark : 1. The name plate shall be specified by purchaser as required.

150LBS, A105 / 304, RF

SUN-BA-RF-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 32kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

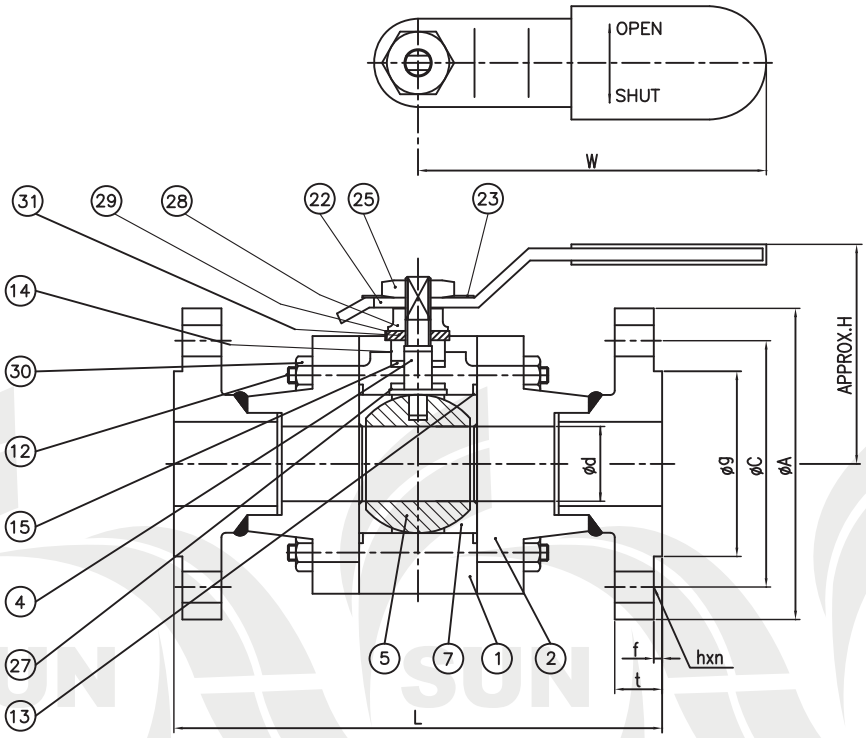
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	108	60	130	89	60.3	16x4	34.9	1.6	11.2	14.2	2.43	
3/4"	20A	117	62	130	98	69.9	16x4	42.9	1.6	12.7	14.2	3.32	
1"	25A	127	75	160	108	79.4	16x4	50.8	1.6	14.2	20.5	4.58	
1 1/4"	32A	165	88	230	117	88.9	16x4	63.5	1.6	15.7	31.6	7.10	
1 1/2"	40A	165	88	230	127	98.4	16x4	73.0	1.6	17.5	31.6	8.78	
2"	50A	178	95	230	152	120.6	19x4	92.1	1.6	19.1	38.0	13.48	

Remark : 1. The name plate shall be specified by purchaser as required.

300LBS, A105 / 304, RF

SUN-BA-RF-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 79.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

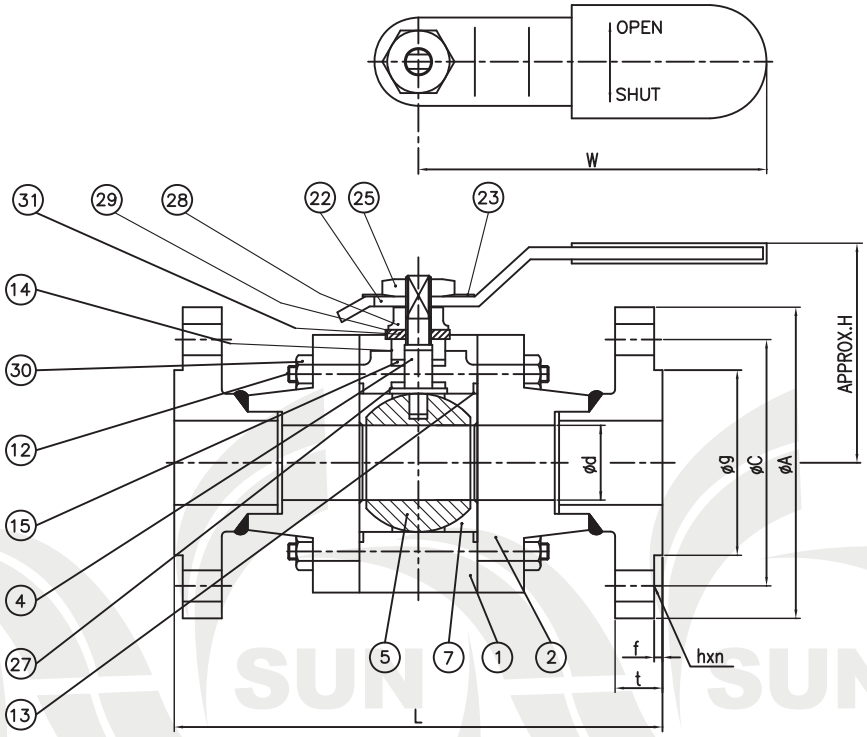
SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	140	60	130	95	66.7	16x4	34.9	1.6	14.2	14.2	3.00	
3/4"	20A	152	62	130	117	82.5	19x4	42.9	1.6	15.7	14.2	4.64	
1"	25A	165	75	160	124	88.9	19x4	50.8	1.6	17.5	20.5	6.00	
1 1/4"	32A	178	88	230	133	98.4	19x4	63.5	1.6	19.1	31.6	8.91	
1 1/2"	40A	190	88	230	156	114.3	22x4	73.0	1.6	20.6	31.6	11.79	
2"	50A	216	95	230	165	127.0	19x8	92.1	1.6	22.4	38.0	15.96	

NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 304, RF

SUN-BA-RF-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.10, ASME B16.5
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

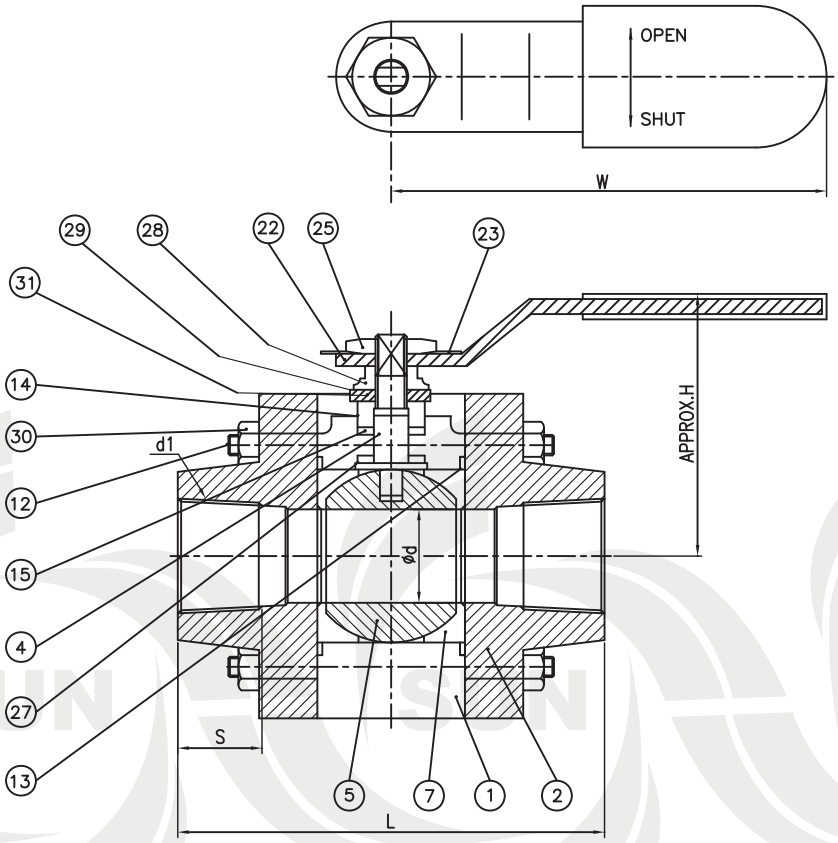
UNIT : mm

SIZE		L	H	W	øA	øC	hxn	øg	f	t	ød	WEIGHT(kg)	Q'TY
1/2"	15A	165	60	130	95	66.7	16x4	34.9	6.4	14.3	14.2	3.38	
3/4"	20A	190	62	160	117	82.5	19x4	42.9	6.4	15.9	14.2	4.98	
1"	25A	216	75	230	124	88.9	19x4	50.8	6.4	17.5	20.5	6.54	
1 1/4"	32A	229	88	230	133	98.4	19x4	63.5	6.4	20.7	31.6	9.94	
1 1/2"	40A	241	88	230	156	114.3	22x4	73.0	6.4	22.3	31.6	12.99	
2"	50A	292	95	230	165	127.0	19x8	92.1	6.4	25.4	38.0	18.58	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 304, NPT

SUN-BA-NPT-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

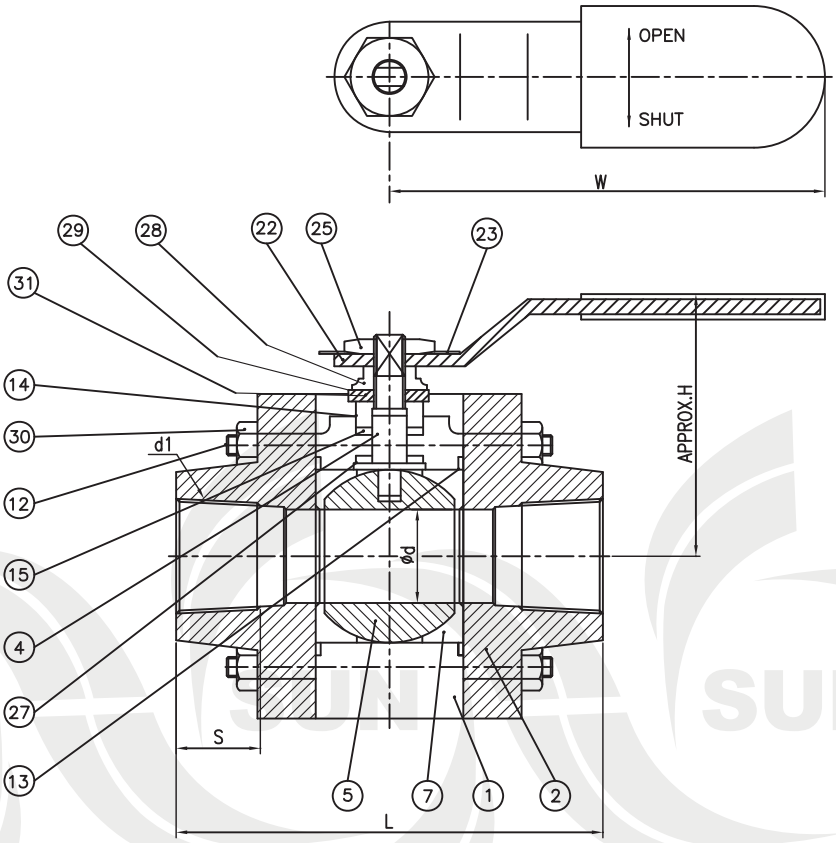
DIMENSION UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	75	62	130	14.2	13.5	1/2-14NPT	1.10	
3/4"	20A	75	62	130	14.2	14.0	3/4-14NPT	1.05	
1"	25A	95	74	160	20.5	17.5	1-11 1/2NPT	2.04	
1 1/4"	32A	116	88	230	31.6	18.0	1 1/4-11 1/2NPT	4.13	
1 1/2"	40A	116	88	230	31.6	18.5	1 1/2-11 1/2NPT	3.90	
2"	50A	128	93	230	38.0	19.0	2-11 1/2NPT	5.07	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 304, NPT

SUN-BA-NPT-02



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

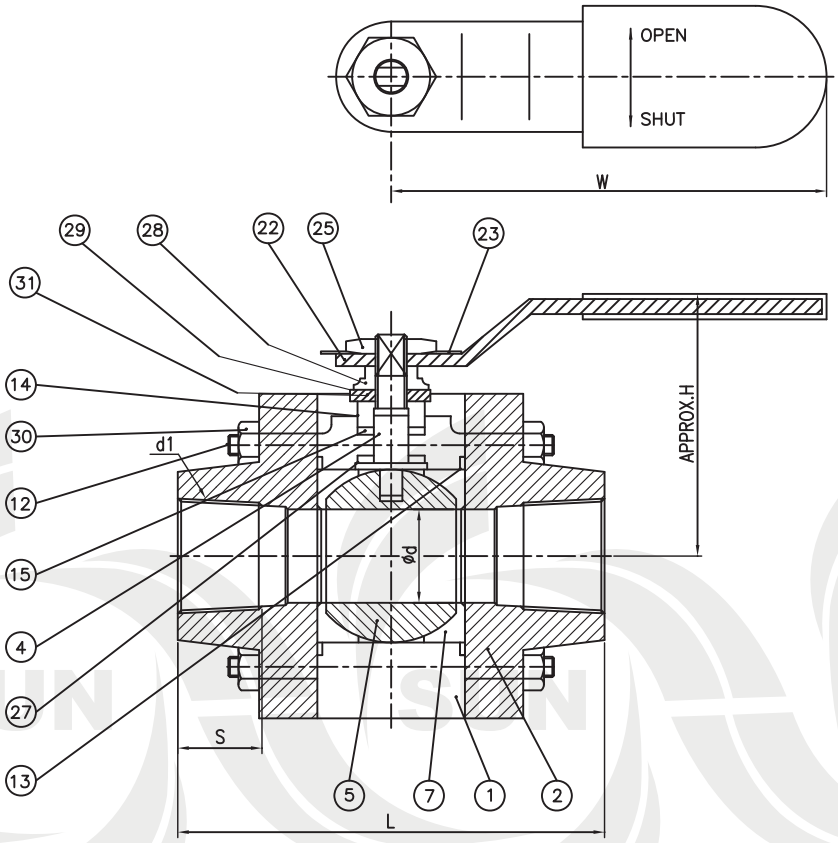
UNIT : mm

SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	75	62	130	14.2	13.5	1/2-14NPT	1.10	
3/4"	20A	75	62	130	14.2	14.0	3/4-14NPT	1.05	
1"	25A	95	74	160	20.5	17.5	1-11 1/2NPT	2.04	
1 1/4"	32A	116	88	230	31.6	18.0	1 1/4-11 1/2NPT	4.13	
1 1/2"	40A	116	88	230	31.6	18.5	1 1/2-11 1/2NPT	3.90	
2"	50A	128	93	230	38.0	19.0	2-11 1/2NPT	5.07	

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 304, NPT

SUN-BA-NPT-03



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION UNIT : mm

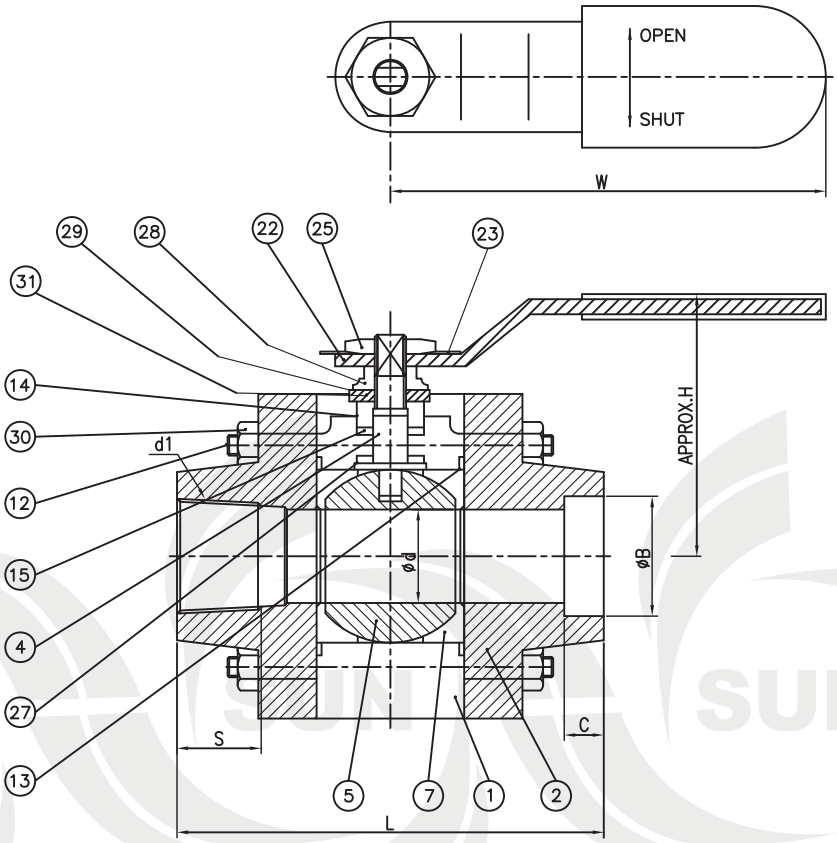
SIZE		L	H	W	ød	S	d1	WEIGHT(kg)	Q'TY
1/2"	15A	75	62	130	14.2	13.5	1/2-14NPT	1.05	
3/4"	20A	95	74	160	20.5	14.0	3/4-14NPT	2.04	
1"	25A	116	88	230	31.6	17.5	1-11 1/2NPT	4.13	
1 1/4"	32A	116	88	230	31.6	18.0	1 1/4-11 1/2NPT	3.90	
1 1/2"	40A	128	93	230	38.0	18.5	1 1/2-11 1/2NPT	5.07	
2"	50A	160	125	230	45.0	19.0	2-11 1/2NPT	9.00	

NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105 / 304, SWxNPT

SUN-BA-SN-01



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

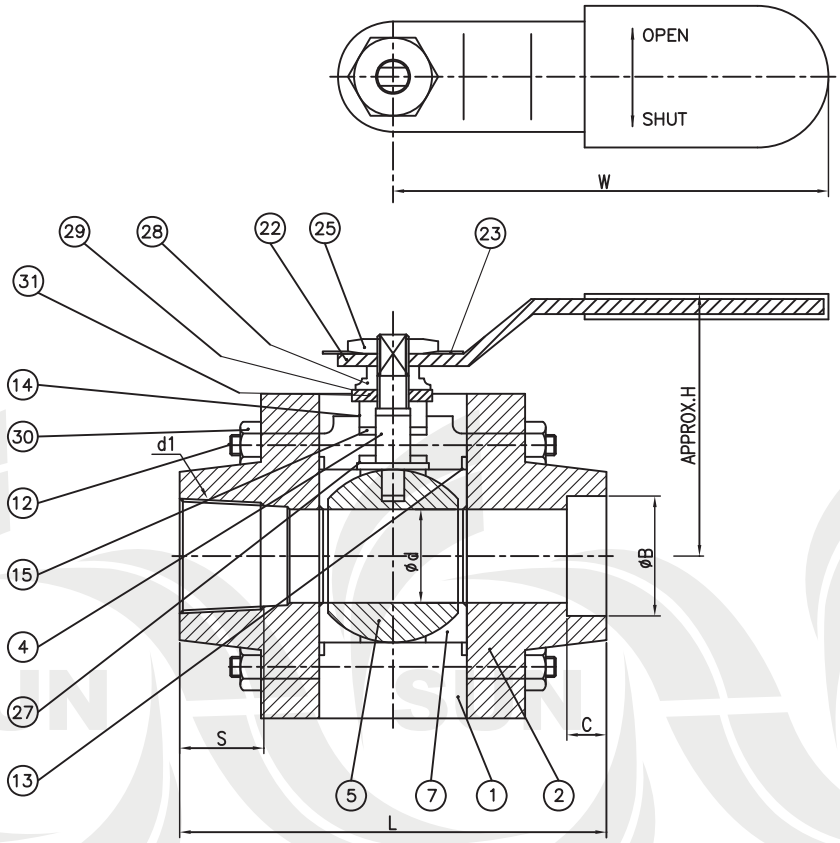
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	75	62	130	14.2	13.5	1/2-14NPT	22.00	10	1.0	
3/4"	20A	75	62	130	14.2	14.0	3/4-14NPT	27.40	13	1.0	
1"	25A	95	74	160	20.5	17.5	1-11 1/2NPT	34.10	13	1.5	
1 1/4"	32A	116	88	230	31.6	18.0	1 1/4-11 1/2NPT	42.90	13	3.0	
1 1/2"	40A	116	88	230	31.6	18.5	1 1/2-11 1/2NPT	49.00	13	3.0	
2"	50A	128	93	230	38.0	19.0	2-11 1/2NPT	61.45	16	4.0	

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105 / 304, SWxNPT

SUN-BA-SN-02



NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

UNIT : mm

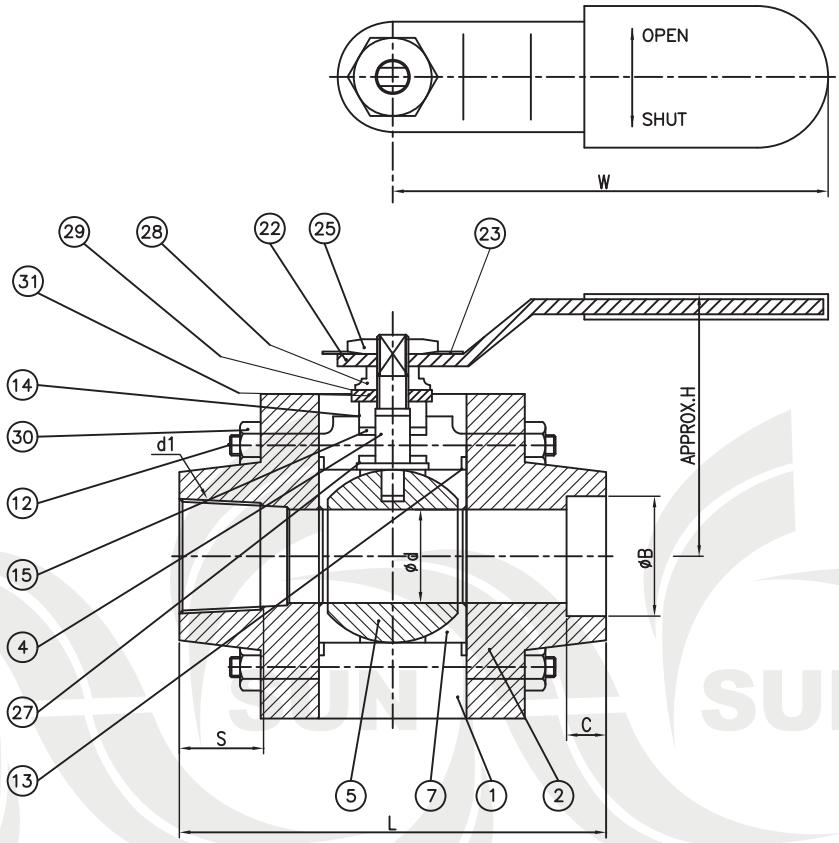
SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	75	62	130	14.2	13.5	1/2-14NPT	22.00	10	1.0	
3/4"	20A	75	62	130	14.2	14.0	3/4-14NPT	27.40	13	1.0	
1"	25A	95	74	160	20.5	17.5	1-11 1/2NPT	34.10	13	1.5	
1 1/4"	32A	116	88	230	31.6	18.0	1 1/4-11 1/2NPT	42.90	13	3.0	
1 1/2"	40A	116	88	230	31.6	18.5	1 1/2-11 1/2NPT	49.00	13	3.0	
2"	50A	128	93	230	38.0	19.0	2-11 1/2NPT	61.45	16	4.0	

NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105 / 304, SWxNPT

SUN-BA-SN-03



NO.	PARTS	MATERIAL
1	Body	A105
2	Body Cap	A105
4	Stem	A276-304
5	Ball	A276-304
7	Seat	PTFE
12	Cap Bolt	A193-B7
13	Gasket	PTFE
14	Gland	A276-304
15	Gland Packing	Reinforced PTFE
22	Handle	A108-1020
23	Nameplate	ALUMINIUM
25	Handle Nut	A276-304
27	Thrust Bearing	Reinforced PTFE
28	Stem Nut	A276-304
29	Tab Washer	A167-304
30	Cap Bolt Nut	A194-2H
31	Conical Spring	A276-302

NOTE

1.VALVE DESIGN: API 602
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²
Pneumatic Seat Test: 6 kg/cm²
4.PORT: REDUCED

DIMENSION

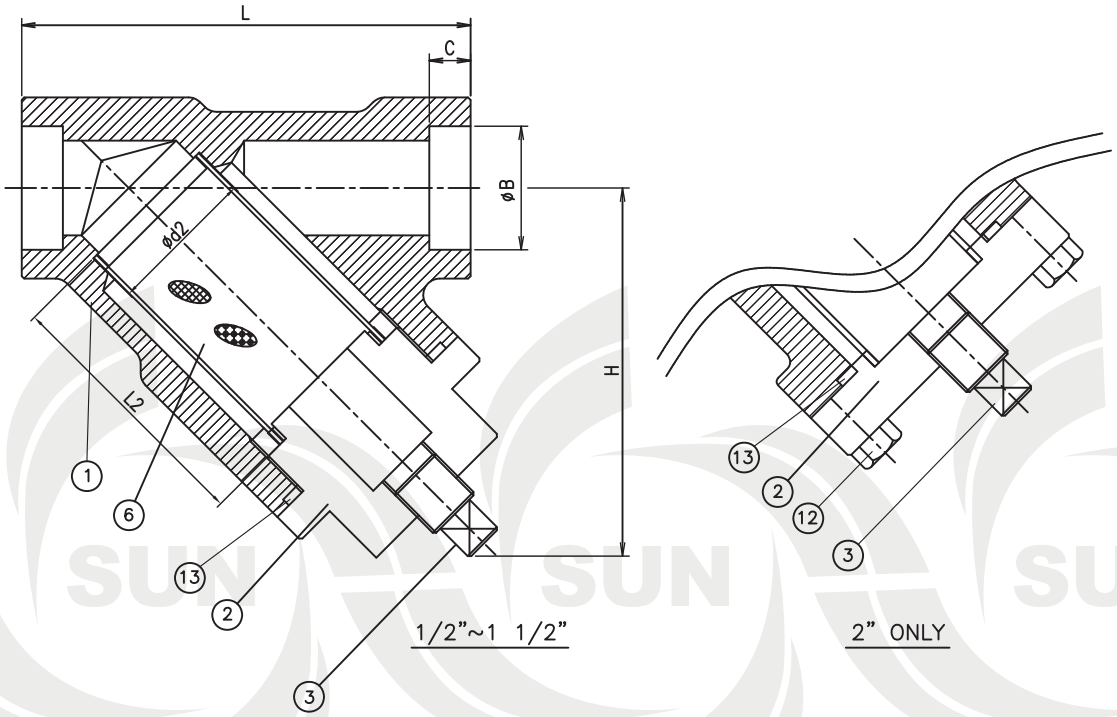
UNIT : mm

SIZE		L	H	W	ød	S	d1	øB	C	WEIGHT(kg)	Q'TY
1/2"	15A	75	62	130	14.2	13.5	1/2-14NPT	22.00	10	1.0	
3/4"	20A	95	74	160	20.5	14.0	3/4-14NPT	27.40	13	1.5	
1"	25A	116	88	230	31.6	17.5	1-11 1/2NPT	34.10	13	3.0	
1 1/4"	32A	116	88	230	31.6	18.0	1 1/4-11 1/2NPT	42.90	13	3.0	
1 1/2"	40A	128	93	230	38.0	18.5	1 1/2-11 1/2NPT	49.00	13	4.0	
2"	50A	160	125	230	45.0	19.0	2-11 1/2NPT	61.45	16	9.0	

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105, SW

SUN-YS-SW-01



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²

DIMENSION UNIT : mm

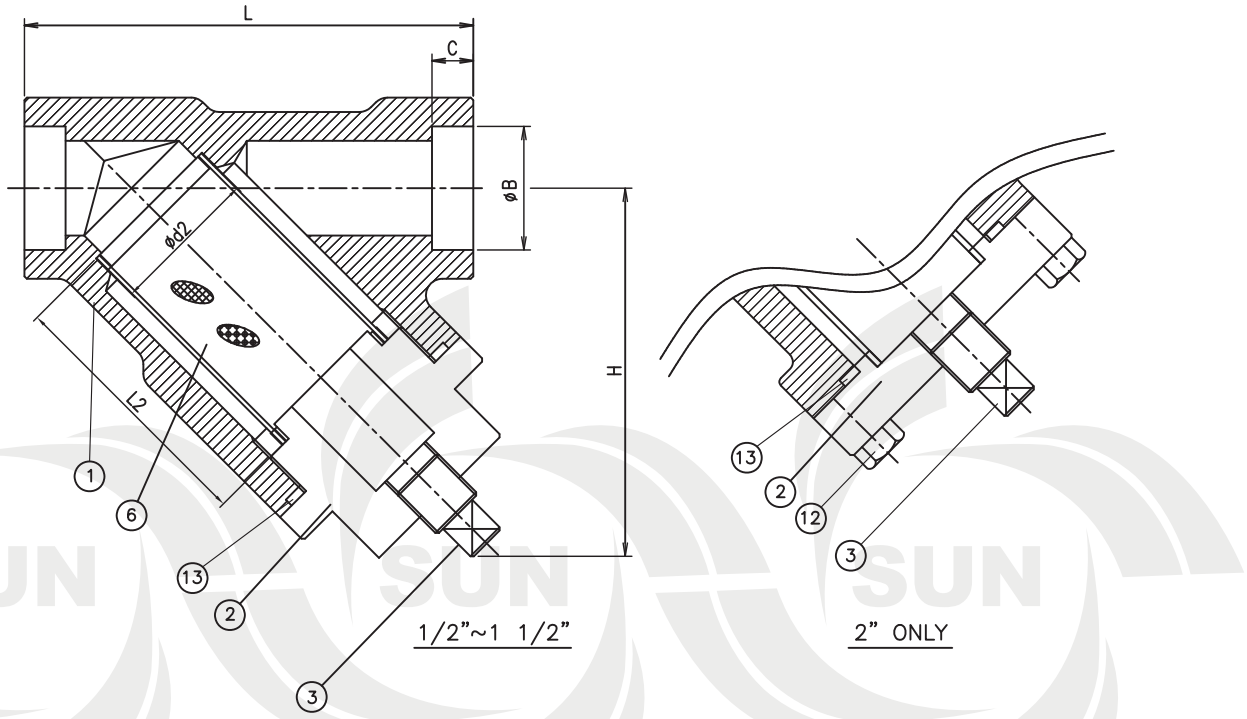
SIZE		L	H	øB	C	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	110	84	22.00	10	24	43	1.8	
3/4"	20A	110	84	27.40	13	24	43	1.8	
1"	25A	120	90	34.10	13	31	45	2.3	
1 1/4"	32A	170	120	42.90	13	44.5	60	5.8	
1 1/2"	40A	170	120	49.00	13	44.5	60	5.8	
2"	50A	170	142	61.45	16	54	75	6.7	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

800LBS, A105, SW

SUN-YS-SW-02



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²

DIMENSION UNIT : mm

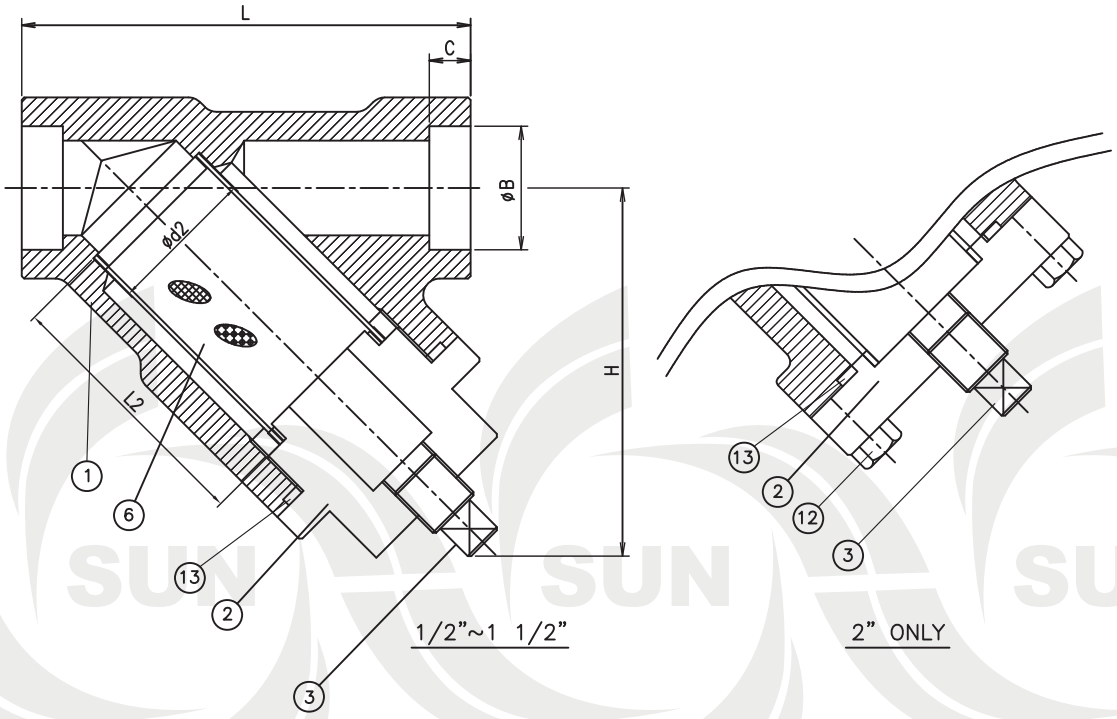
SIZE		L	H	øB	C	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	110	84	22.00	10	24	43	1.8	
3/4"	20A	110	84	27.40	13	24	43	1.8	
1"	25A	120	90	34.10	13	31	45	2.3	
1 1/4"	32A	170	120	42.90	13	44.5	60	5.8	
1 1/2"	40A	170	120	49.00	13	44.5	60	5.8	
2"	50A	170	142	61.45	16	54	75	6.7	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105, SW

SUN-YS-SW-03



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²

DIMENSION UNIT : mm

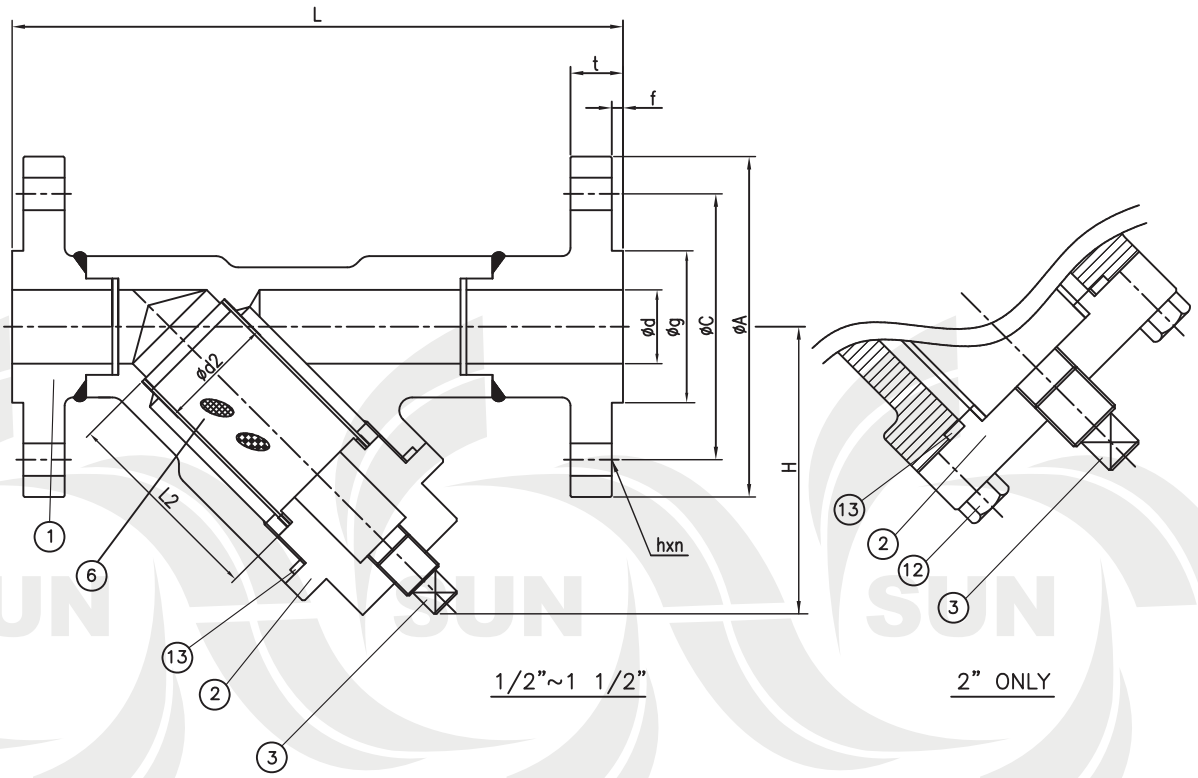
SIZE		L	H	øB	C	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	110	84	22.00	10	24	43	1.8	
3/4"	20A	120	90	27.40	13	31	45	2.3	
1"	25A	170	120	34.10	13	44.5	60	5.8	
1 1/4"	32A	200	142	42.90	13	44.5	60	6.7	
1 1/2"	40A	200	142	49.00	13	54	75	6.7	
2"	50A	240	170	61.45	16	46	98	14.4	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

150LBS, A105, RF

SUN-YS-RF-01



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.5
3.HYDROSTATIC TEST
Shell: 32kg/cm²

DIMENSION

UNIT : mm

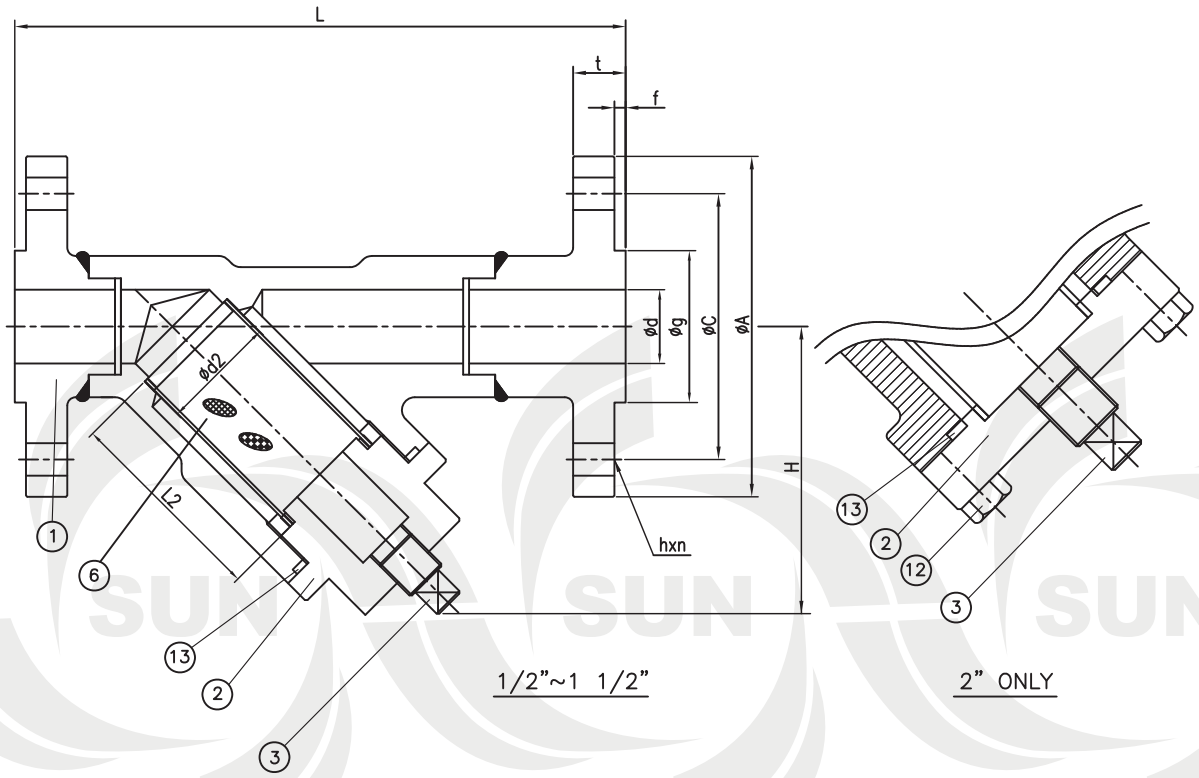
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	178	84	89	60.3	16x4	34.9	1.6	11.2	15	24	43	2.9	
3/4"	20A	187	90	98	69.9	16x4	42.9	1.6	12.7	20	24	43	3.3	
1"	25A	209	120	108	79.4	16x4	50.8	1.6	14.2	25	31	45	4.5	
1 1/4"	32A	241	140	117	88.9	16x4	63.5	1.6	15.7	32	44.5	60	5.6	
1 1/2"	40A	241	140	127	98.4	16x4	73.0	1.6	17.5	40	44.5	60	9.4	
2"	50A	278	170	152	120.6	19x4	92.1	1.6	19.1	50	54	75	11.9	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

300LBS, A105, RF

SUN-YS-RF-02



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.5
3.HYDROSTATIC TEST
Shell: 79.5kg/cm²

DIMENSION

UNIT : mm

SIZE		L	H	øA	øC	hxn	øg	f	t	ød	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	178	84	95	66.7	16x4	34.9	1.6	14.2	15	24	43	3.4	
3/4"	20A	187	90	117	82.5	19x4	42.9	1.6	15.7	20	24	43	4.5	
1"	25A	209	120	124	88.9	19x4	50.8	1.6	17.5	25	31	45	5.6	
1 1/4"	32A	241	140	133	98.4	19x4	63.5	1.6	19.1	32	44.5	60	10.0	
1 1/2"	40A	241	140	156	114.3	22x4	73.0	1.6	20.6	40	44.5	60	12.0	
2"	50A	278	170	165	127.0	19x8	92.1	1.6	22.4	50	54	75	13.5	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

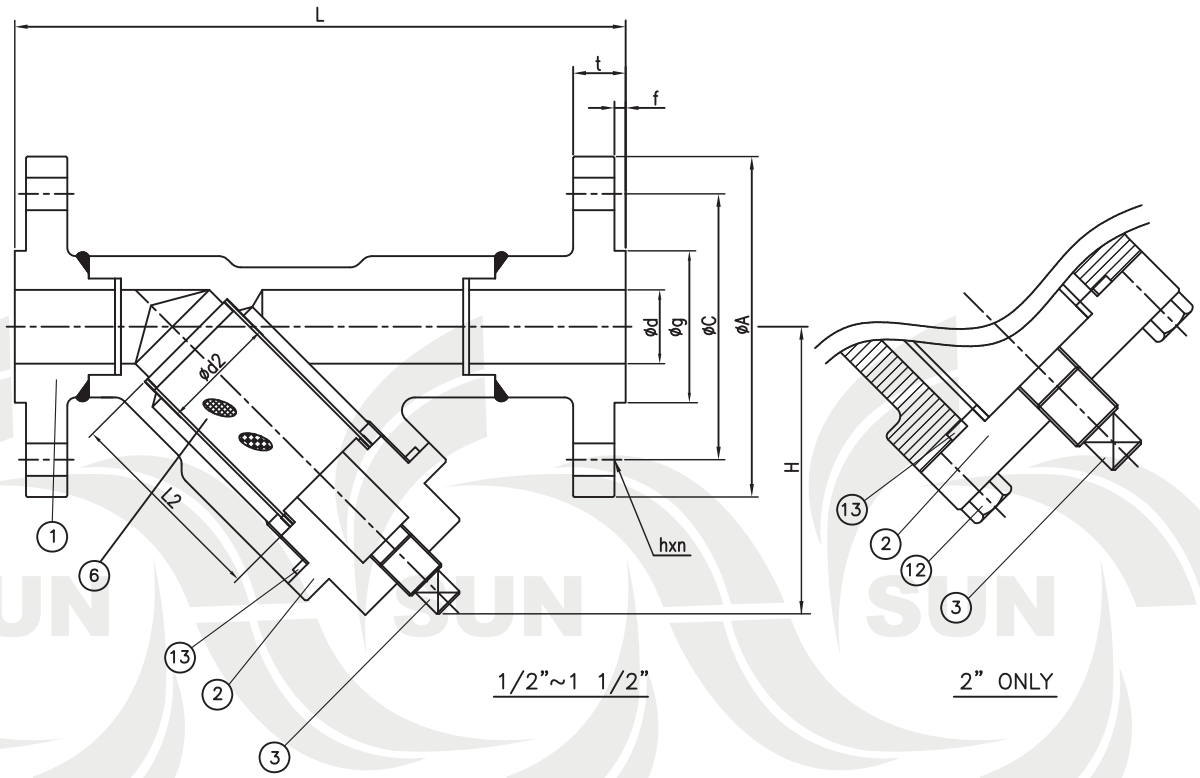
Remark : 1. The name plate shall be specified by purchaser as required.

Forged Steel Y-Strainer

SUN KOREA
(SUN KOREA CO., LTD.)

600LBS, A105, RF

SUN-YS-RF-03



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.5
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²

DIMENSION

UNIT : mm

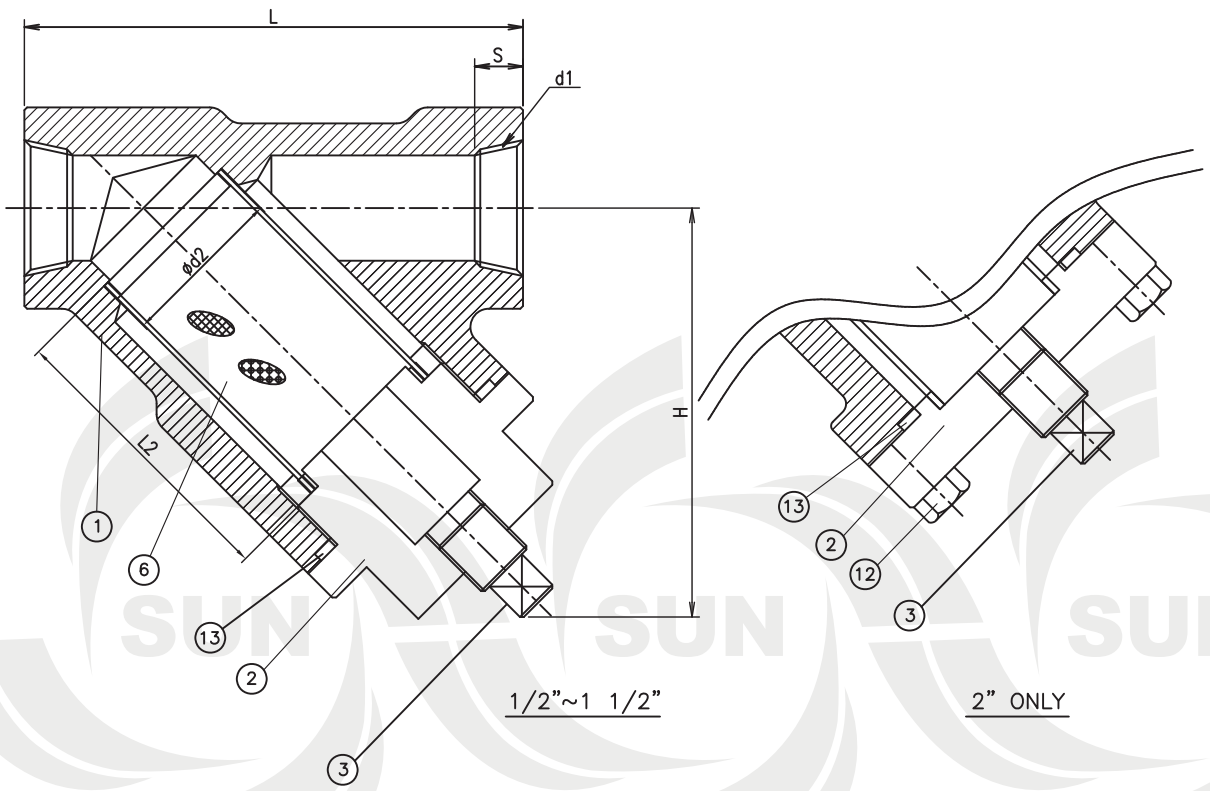
SIZE		L	H	øA	øC	hxn	øg	f	t	ød	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	180	84	95	66.7	16x4	34.9	6.4	14.3	15	24	43	3.6	
3/4"	20A	190	90	117	82.5	19x4	42.9	6.4	15.9	20	31	45	5.0	
1"	25A	216	120	124	88.9	19x4	50.8	6.4	17.5	25	44.5	60	6.1	
1 1/4"	32A	260	140	133	98.4	19x4	63.5	6.4	20.7	32	44.5	60	10.8	
1 1/2"	40A	260	140	156	114.3	22x4	73.0	6.4	22.3	40	54	75	13.1	
2"	50A	292	170	165	127.0	19x8	92.1	6.4	25.4	50	46	98	15.8	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

600LBS, A105, NPT

SUN-YS-NPT-01



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 156.5kg/cm²

DIMENSION

UNIT : mm

SIZE		L	H	S	d1	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	110	84	13.5	1/2-14NPT	24	43	1.8	
3/4"	20A	110	84	14.0	3/4-14NPT	24	43	1.8	
1"	25A	120	90	17.5	1-11 1/2NPT	31	45	2.3	
1 1/4"	32A	170	120	18.0	1 1/4-11 1/2NPT	44.5	60	5.8	
1 1/2"	40A	170	120	18.5	1 1/2-11 1/2NPT	44.5	60	5.8	
2"	50A	170	142	19.0	2-11 1/2NPT	54	75	6.7	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

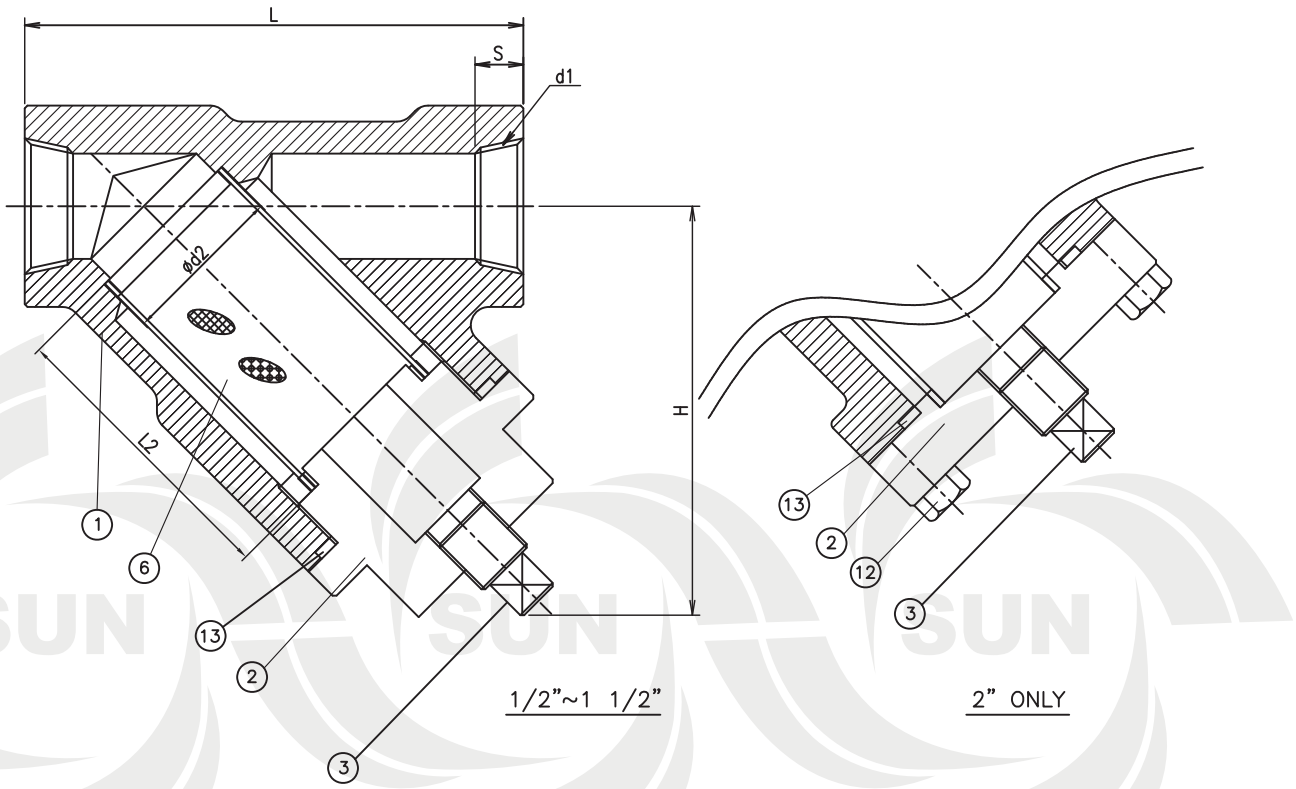
Remark : 1. The name plate shall be specified by purchaser as required.

Forged Steel Y-Strainer

SUN KOREA
(SUN KOREA CO., LTD.)

800LBS, A105, NPT

SUN-YS-NPT-02



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 210kg/cm²

DIMENSION

UNIT : mm

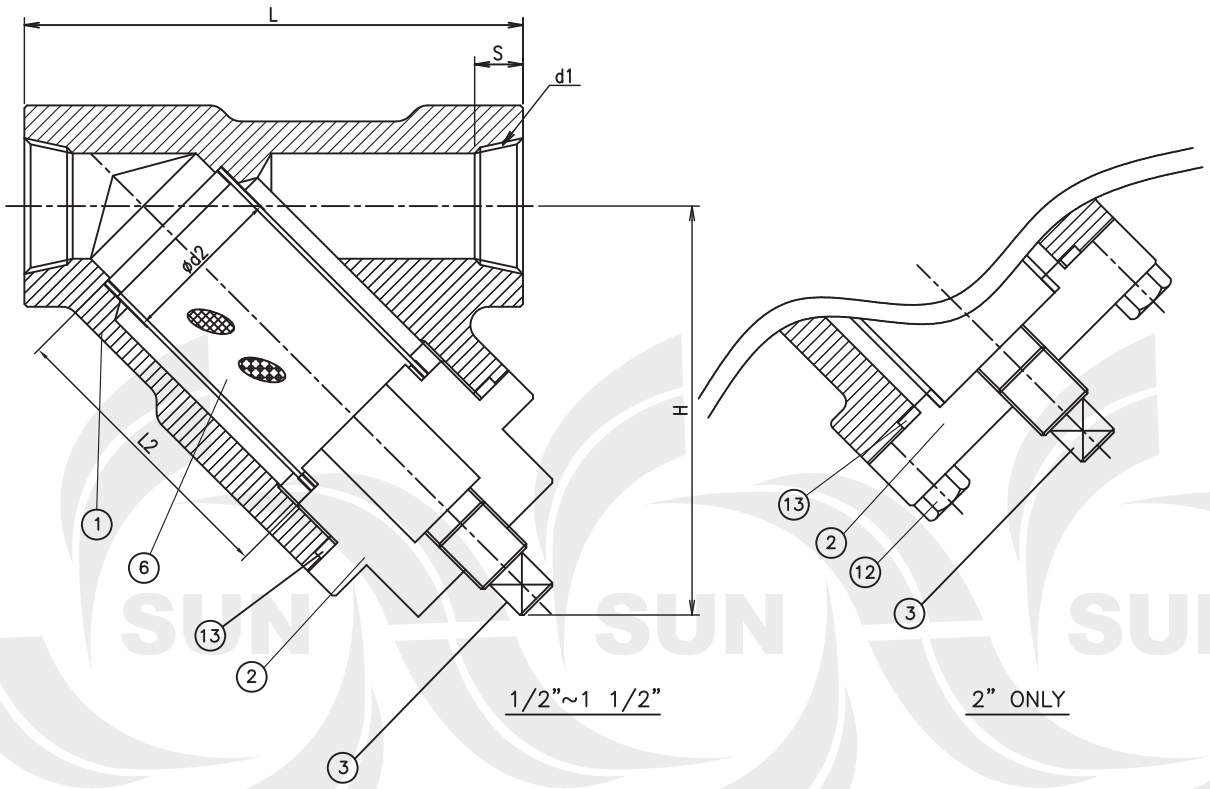
SIZE		L	H	S	d1	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	110	84	13.5	1/2-14NPT	24	43	1.8	
3/4"	20A	110	84	14.0	3/4-14NPT	24	43	1.8	
1"	25A	120	90	17.5	1-11 1/2NPT	31	45	2.3	
1 1/4"	32A	170	120	18.0	1 1/4-11 1/2NPT	44.5	60	5.8	
1 1/2"	40A	170	120	18.5	1 1/2-11 1/2NPT	44.5	60	5.8	
2"	50A	170	142	19.0	2-11 1/2NPT	54	75	6.7	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

1500LBS, A105, NPT

SUN-YS-NPT-03



NOTE

1.FACE TO FACE : MAKER STD.
2.END CONNECTION: ASME B16.11
3.HYDROSTATIC TEST
Shell: 392kg/cm²

DIMENSION

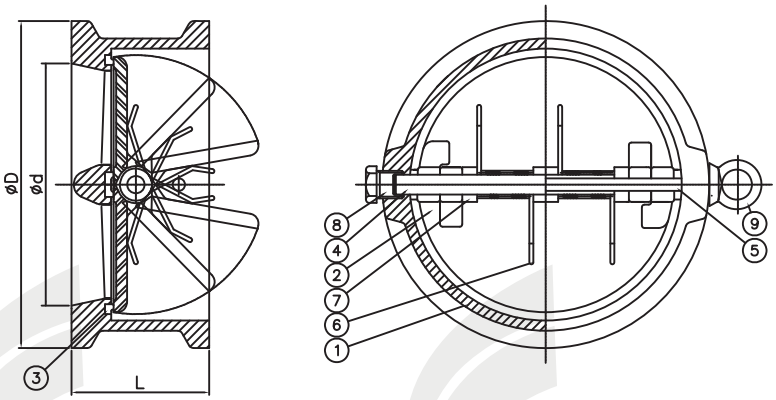
UNIT : mm

SIZE		L	H	S	d1	ød2	L2	WEIGHT(kg)	Q'TY
1/2"	15A	110	84	13.5	1/2-14NPT	24	43	1.8	
3/4"	20A	120	90	14.0	3/4-14NPT	31	45	1.8	
1"	25A	170	120	17.5	1-11 1/2NPT	44.5	60	2.3	
1 1/4"	32A	200	142	18.0	1 1/4-11 1/2NPT	44.5	60	5.8	
1 1/2"	40A	200	142	18.5	1 1/2-11 1/2NPT	54	75	5.8	
2"	50A	240	170	19.0	2-11 1/2NPT	46	98	14.4	

NO.	PARTS	MATERIAL
1	Body	A105
2	Cover	A105
3	Plug	A105
6	Screen	SUS304(40MESH)
12	Cover Bolt	A193-B7
13	Gasket	SUS304+GRAPHITE

Remark : 1. The name plate shall be specified by purchaser as required.

JIS 5K Dual Plate Check Valves(Wafer)
JIS 10K Dual Plate Check Valves(Wafer)
JIS 20K Dual Plate Check Valves(Wafer)



NO.	PARTS	MATERIAL
1	BODY	CAST IRON / CAST STEEL / BRONZE
2	DISC	BRONZE / STAINLESS STEEL
3	SEAT	METAL / PTFE / RUBBER
4	HINGE PIN	STAINLESS STEEL
5	STOPPER PIN	STAINLESS STEEL
6	SPRING	STAINLESS STEEL / MONEL
7	BEARING BUSH	BRASS / TEFLON / STAINLESS STEEL
8	PLUG	BRASS / STAINLESS STEEL
9	EYE BOLT	FORGED STEEL / STAINLESS STEEL

Test Pressure (MPa)

Rating	JIS 5K	JIS 10K	JIS 20K
Hydrostatic press test (Shell)	0.75	1.5	3.0
Hydrostatic press test (Seat)	0.55	1.1	2.2

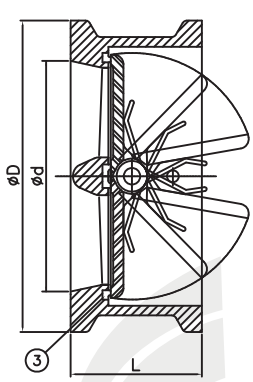
Pressure Rating : JIS 5K														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A	550A	600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500	550	600
øD	90	115	126	146	181	211	257	322	367	410	470	530	580	638	688
L	60	67	73	73	86	98	127	146	181	184	190	203	213	220	222

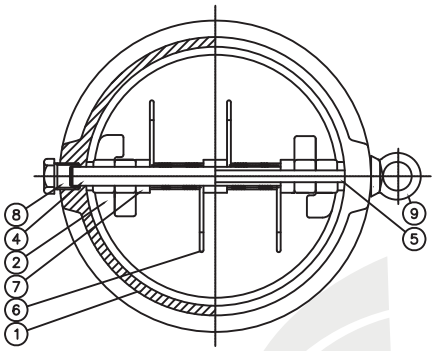
Pressure Rating : JIS 10K														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A	550A	600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500	550	600
øD	101	121	131	156	187	217	267	330	375	420	483	538	593	647	697
L	60	67	73	73	83	98	127	146	181	184	191	203	213	222	222

Pressure Rating : JIS 20K														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A	550A	600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500	550	600
øD	101	121	137	162	200	235	280	353	403	447	507	572	627	681	731
L	60	67	73	73	83	98	127	146	181	184	191	203	213	222	222

Remark : 1. The name plate shall be specified by purchaser as required.

ANSI 150LBS Dual Plate Check Valves(Wafer)
ANSI 300LBS Dual Plate Check Valves(Wafer)
ANSI 600LBS Dual Plate Check Valves(Wafer)





NO.	PARTS	MATERIAL
1	BODY	CAST IRON / CAST STEEL / BRONZE
2	DISC	BRONZE / STAINLESS STEEL
3	SEAT	METAL / PTFE / RUBBER
4	HINGE PIN	STAINLESS STEEL
5	STOPPER PIN	STAINLESS STEEL
6	SPRING	STAINLESS STEEL / MONEL
7	BEARING BUSH	BRASS / TEFLON / STAINLESS STEEL
8	PLUG	BRASS / STAINLESS STEEL
9	EYE BOLT	FORGED STEEL / STAINLESS STEEL

Test Pressure (PSI)

Rating	ANSI 150LB	ANSI 300LB	ANSI 600LB
Hydrostatic press test (Shell)	225	450	900
Hydrostatic press test (Seat)	165	325	650

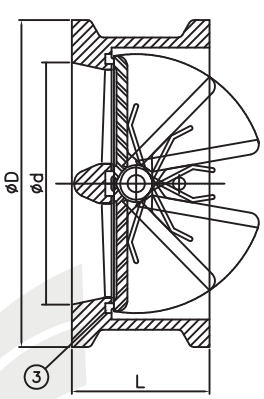
Pressure Rating : ANSI 150LB														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A	600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500	600
øD	104	123	136	174	196	222	279	339	409	450	514	549	606	717
L	60	67	73	73	86	98	127	146	181	184	191	203	213	222

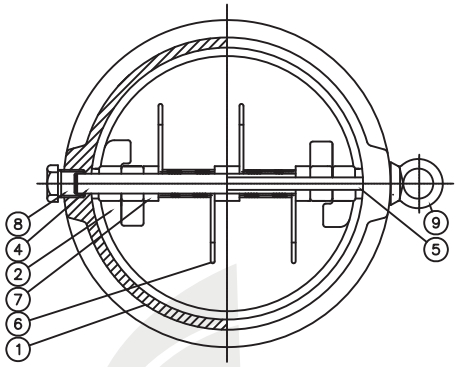
Pressure Rating : ANSI 300LB														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A	600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500	600
øD	111	130	149	180	215	250	307	361	422	485	539	596	654	774
L	60	67	73	73	86	98	127	146	181	184	191	203	213	222

Pressure Rating : ANSI 600LB														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A	600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500	600
øD	111	130	149	193	241	266	320	400	457	492	565	612	682	790
L	60	67	73	73	86	137	165	213	229	273	305	362	368	438

Remark : 1. The name plate shall be specified by purchaser as required.

PN 6 Dual Plate Check Valves(Wafer)
PN 10 Dual Plate Check Valves(Wafer)
PN 16 Dual Plate Check Valves(Wafer)





NO.	PARTS	MATERIAL
1	BODY	CAST IRON / CAST STEEL / BRONZE
2	DISC	BRONZE / STAINLESS STEEL
3	SEAT	METAL / PTFE / RUBBER
4	HINGE PIN	STAINLESS STEEL
5	STOPPER PIN	STAINLESS STEEL
6	SPRING	STAINLESS STEEL / MONEL
7	BEARING BUSH	BRASS / TEFLON / STAINLESS STEEL
8	PLUG	BRASS / STAINLESS STEEL
9	EYE BOLT	FORGED STEEL / STAINLESS STEEL

Test Pressure (BAR)

Rating	PN 6	PN 10	PN 16
Hydrostatic press test (Shell)	9	15	24
Hydrostatic press test (Seat)	7	11	17.6

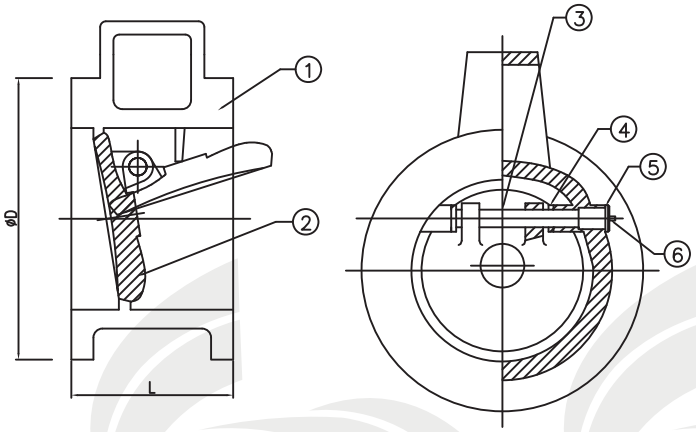
Pressure Rating : PN 6														
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A		500A		600A
ød	50	65	80	100	125	150	200	250	300	350	400		500		600
øD	96	116	132	152	182	207	262	317	372	422	488		577		678
L	60	67	73	73	86	98	127	146	181	184	190		213		222

Pressure Rating : PN 10															
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A		600A
ød	50	65	80	100	125	150	200	250	300	350	400	450	500		600
øD	107	127	142	162	192	217	272	327	377	437	488	538	593		695
L	60	67	73	73	86	98	127	146	181	184	190	203	213		222

Pressure Rating : PN 16															
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A		500A		600A
ød	50	65	80	100	125	150	200	250	300	350	400		500		600
øD	107	127	142	162	192	217	272	328	383	443	495		617		734
L	60	67	73	73	86	98	127	146	181	184	190		213		222

Remark : 1. The name plate shall be specified by purchaser as required.

JIS 10K / ANSI 150LBS Tilting Check Valves
JIS 20K / ANSI 300LBS Tilting Check Valves



NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL / ALLOY STEEL
2	DISC	STAINLESS STEEL / ALLOY STEEL
3	PIN	STAINLESS STEEL / ALLOY STEEL
4	BUSH	STAINLESS STEEL
5	GASKET	TEFLON
6	PLUG	STAINLESS STEEL

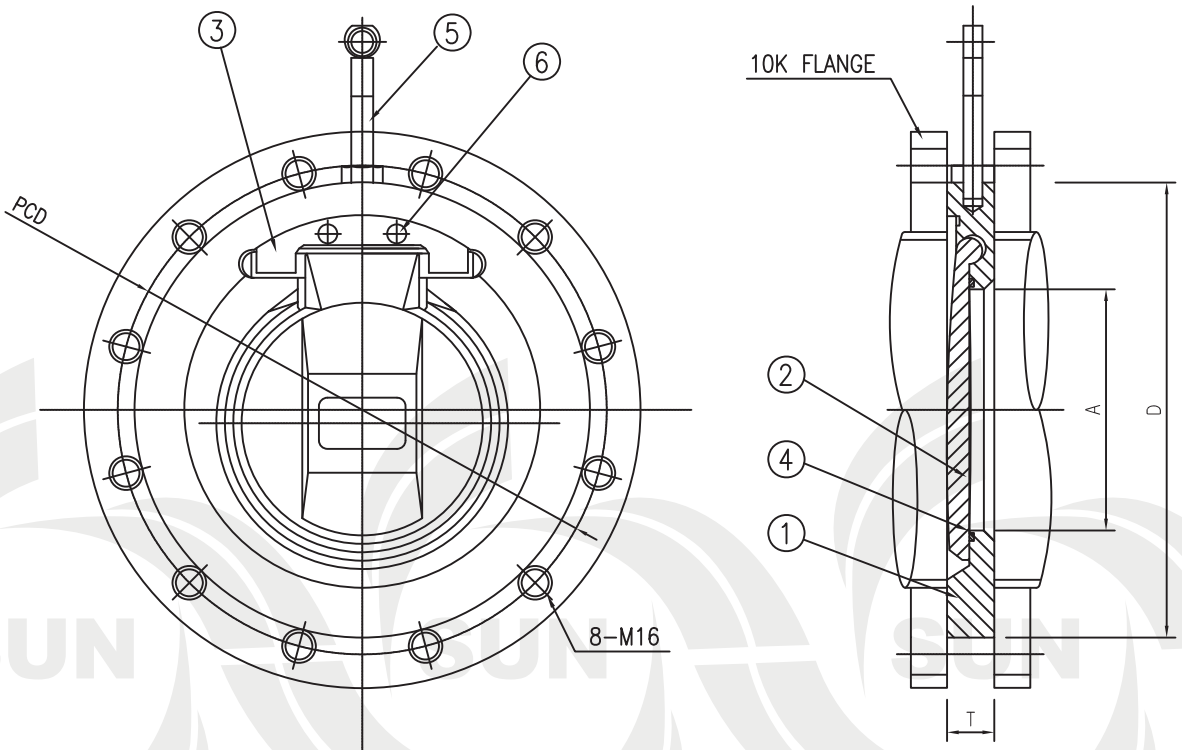
Test Pressure (MPa)

Rating	JIS 10K/ANSI 150LB	JIS 20K/ANSI 300LB
Hydrostatic press test (Shell)	1.5	2.1
Hydrostatic press test (Seat)	1.1	1.5

Pressure Rating : JIS 10K & ANSI 150LB															
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A		
øD	100	120	127	156	187	216	267	330	375	413	470	535	580		
L	60	73	73	73	82	98	127	146	181	184	191	203	219		
Pressure Rating : JIS 20K / ANSI 300LB															
SIZE	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A	450A	500A		
øD	111	122	149	181	218	251	308	362	422	486	540	597	654		
L	60	73	73	73	82	98	127	146	181	222	232	264	292		

Remark : 1. The name plate shall be specified by purchaser as required.

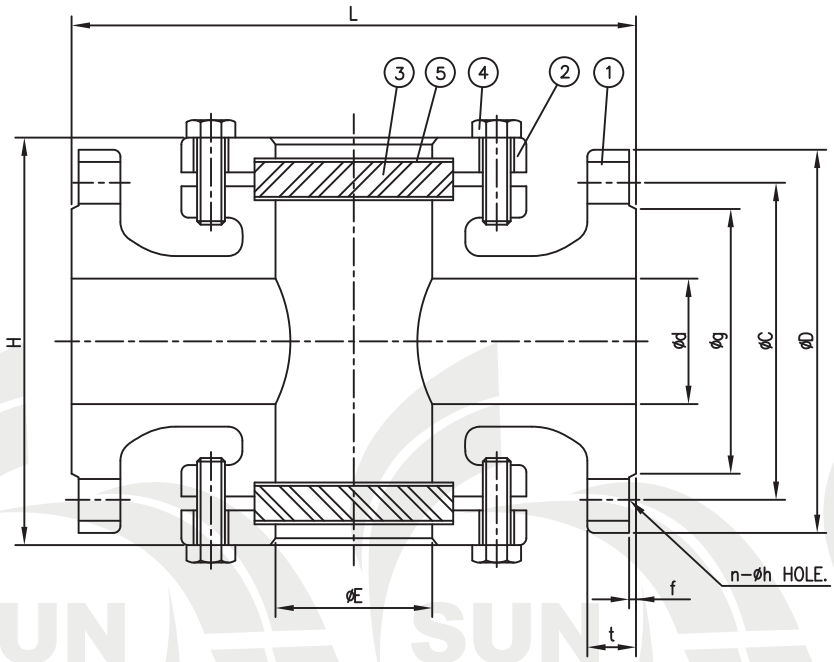
Swing Pan Check Valves(Wafer Type)



Size	A	D	E	T	FLANGE		
					PCD	Bolt Size	Bolt No
50	21	104	44	18	120	M16	4
65	44	124	46	19	140	M16	4
80	54	134	46	19	150	M16	8
100	76	159	68	19	175	M16	8
125	90	190	68	21	210	M20	8
150	110	220	81	24	240	M20	8
200	143	270	83	28	290	M20	12
250	187	333	83	30	355	M22	12
300	215	378	83	38	400	M22	16
350	260	423	83	41	445	M22	16
400	310	486	122	48	510	M24	16
450	347	541	136	51	565	M24	20
500	390	596	178	65	620	M24	20
600	460	700	178	75	730	M30	24

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304 / 316
2	DISC	STAINLESS STEEL 304 / 316
3	DISC COVER	STAINLESS STEEL 304 / 316
4	SEAT O-RING	NBR / VITON
5	UPPER BOLT	STAINLESS STEEL
6	COVER BOLT	STAINLESS STEEL

Cross Type(JIS 10K)



NOTE

1. HYDROSTATIC TEST PRESSURE &
   DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34, JPI–7S–39, KS B2304, API–598

HYDRO TEST	SHELL (MIN 60 SEC.)	1.5 MPa
	SEAT (MIN 15 SEC.)	
AIR TEST	SEAT (MIN 15 SEC.)	

* REFERENCE DIMENSION

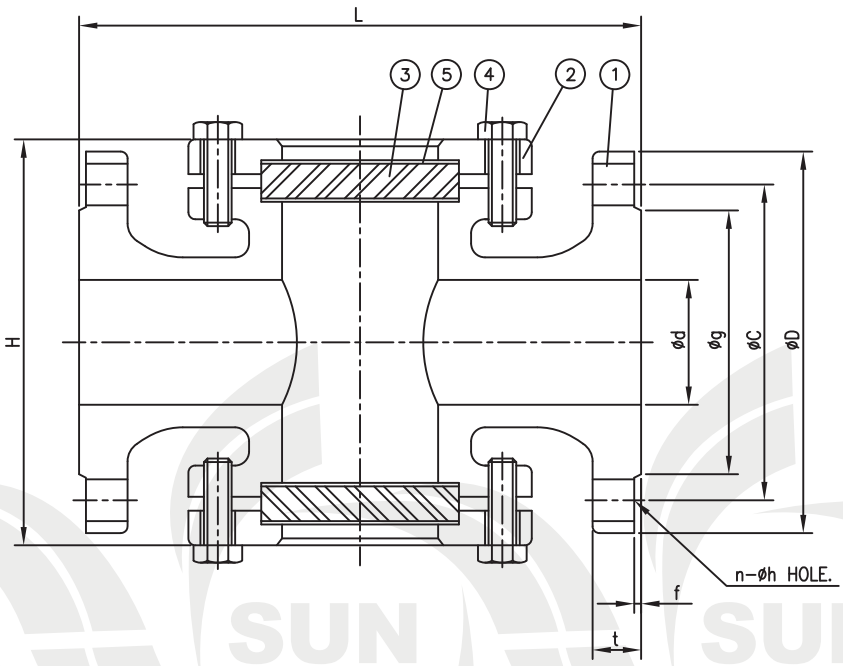
UNIT : mm

SIZE	L	*H	FLANGE 1							*øE	Q'TY
			ød	øg	øC	øD	t	f	n – øh		
15A	130	155	15	51	70	95	12	1	4 – 15	36	
20A	150	100	20	56	75	100	14	1	4 – 15	36	
25A	170	110	25	67	90	125	14	1	4 – 19	45	
32A	200	125	32	76	100	135	16	2	4 – 19	60	
40A	200	125	40	81	105	140	16	2	4 – 19	60	
50A	220	140	50	96	120	155	16	2	4 – 19	78	
65A	254	200	65	116	140	175	18	2	4 – 19	90	
80A	260	220	80	126	150	185	18	2	8 – 19	110	
100A	295	255	100	151	175	210	18	2	8 – 19	128	
125A	380	300	125	182	210	250	20	2	8 – 23	169	
150A	380	310	150	212	240	280	22	2	8 – 23	210	
200A	460	340	200	262	290	330	22	2	12 – 23	250	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304
2	BODY CAP	STAINLESS STEEL 304
3	GLASS	HARD
4	CAP BOLT	STAINLESS STEEL 304
5	GASKET	TEFLON

Remark : 1. The name plate shall be specified by purchaser as required.

Cross Type(ANSI 150LBS)



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34

HYDRO TEST	SHELL (2 MIN)	1.5 MPa
	SEAT (2 MIN)	
AIR TEST	SEAT (2 MIN)	

* REFERENCE DIMENSION

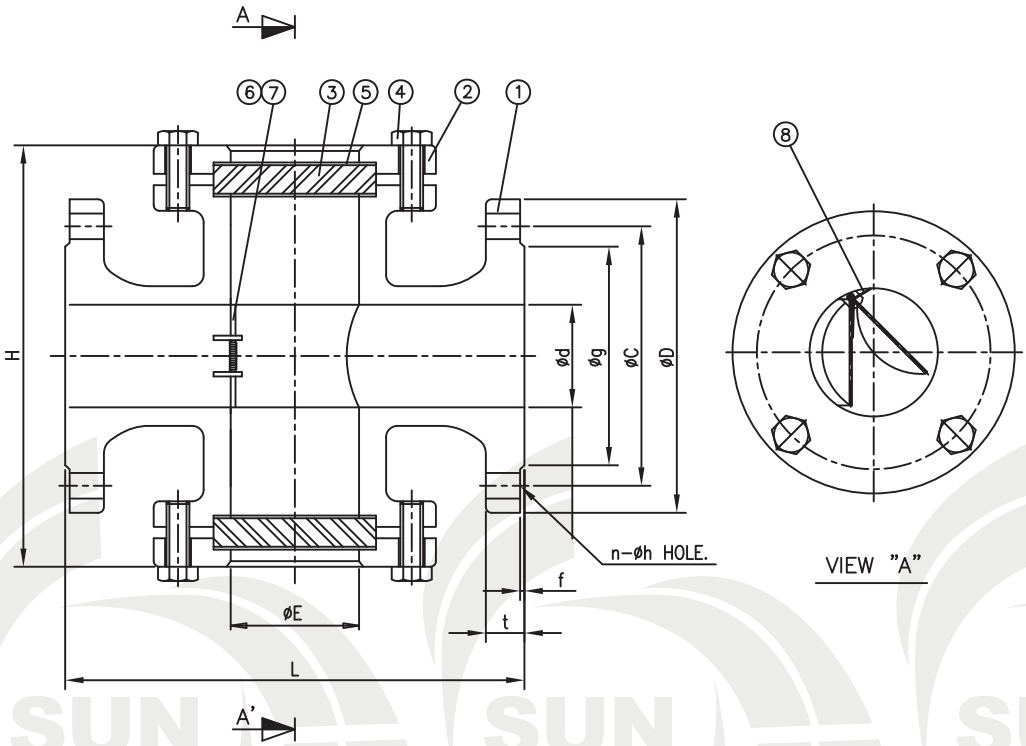
UNIT : mm

SIZE	L	*H	FLANGE							*øE	Q'TY
			ød	øg	øC	øD	t	f	n – øh		
1/2B	130	155	15	35	60.5	89	11.2	1.6	4 – 16	36	
3/4B	150	100	20	43	70.0	98	11.2	1.6	4 – 16	36	
1B	170	110	25	51	79.5	108	11.2	1.6	4 – 16	45	
1 1/4B	200	125	32	64	89.0	117	12.7	1.6	4 – 16	60	
1 1/2B	200	125	40	73	98.5	127	14.3	1.6	4 – 16	60	
2B	220	140	50	92	120.5	152	15.9	1.6	4 – 19	78	
2 1/2B	254	200	65	105	139.5	178	17.5	1.6	4 – 19	90	
3B	260	220	80	127	152.5	190	19.1	1.6	4 – 19	110	
4B	295	255	100	157	190.5	229	23.9	1.6	8 – 19	128	
5B	380	300	125	186	216.0	254	23.9	1.6	8 – 22	169	
6B	380	310	150	216	241.5	279	25.4	1.6	8 – 22	210	
8B	460	340	200	270	298.5	343	28.6	1.6	8 – 22	250	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304
2	BODY CAP	STAINLESS STEEL 304
3	GLASS	HARD
4	CAP BOLT	STAINLESS STEEL 304
5	GASKET	TEFLON

Remark : 1. The name plate shall be specified by purchaser as required.

Flapper Type(ANSI 150LBS)



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34, API-398
2. 2B AND 2B UNDER : P.T.F.E
   3B : GRAPHITE

HYDRO TEST	SHELL (2 MIN)	3.0 MPa
	SEAT (2 MIN)	2.2 MPa
AIR TEST	SEAT (2 MIN)	0.6 MPa

* REFERENCE DIMENSION

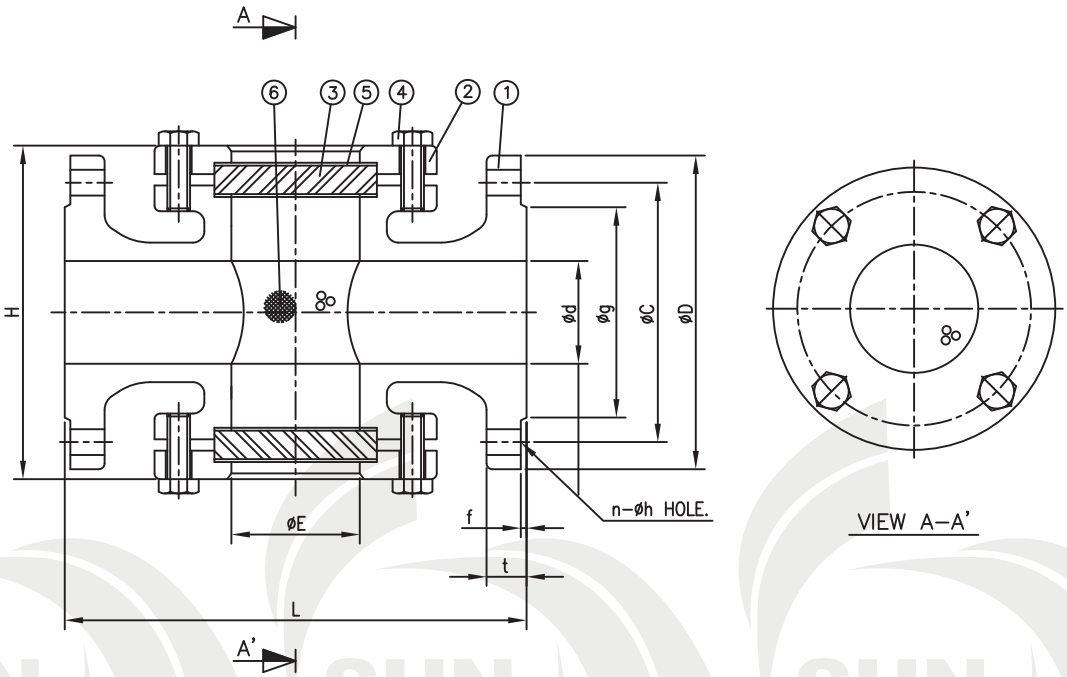
UNIT : mm

SIZE	L	*H	FLANGE							*øE	Q'TY
			ød	øg	øC	øD	t	f	n – øh		
1/2B	130	155	15	35	60.5	89	11.2	1.6	4 – 16	36	
3/4B	150	100	20	43	70.0	98	11.2	1.6	4 – 16	36	
1B	170	110	25	51	79.5	108	11.2	1.6	4 – 16	45	
1 1/4B	200	125	32	64	89.0	117	12.7	1.6	4 – 16	60	
1 1/2B	200	125	40	73	98.5	127	14.3	1.6	4 – 16	60	
2B	220	140	50	92	120.5	152	15.9	1.6	4 – 19	78	
2 1/2B	254	200	65	105	139.5	178	17.5	1.6	4 – 19	90	
3B	260	220	80	127	152.5	190	19.1	1.6	4 – 19	110	
4B	295	255	100	157	190.5	229	23.9	1.6	8 – 19	128	
5B	380	300	125	186	216.0	254	23.9	1.6	8 – 22	169	
6B	380	310	150	216	241.5	279	25.4	1.6	8 – 22	210	
8B	460	340	200	270	298.5	343	28.6	1.6	8 – 22	250	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304
2	BODY CAP	STAINLESS STEEL 304
3	GLASS	HARD
4	CAP BOLT	STAINLESS STEEL 304
5	GASKET	
6	FLAPPER STEM	STAINLESS STEEL 304
7	FLAPPER	STAINLESS STEEL 304
8	SPRING	STAINLESS STEEL 304

Remark : 1. The name plate shall be specified by purchaser as required.

Ball Type(ANSI 150LBS)



NOTE

1. HYDROSTATIC TEST PRESSURE & DURATION OF REQUIRED TEST PRESSURE. REFERENCE CODE : ANSI B16.5, B16.34

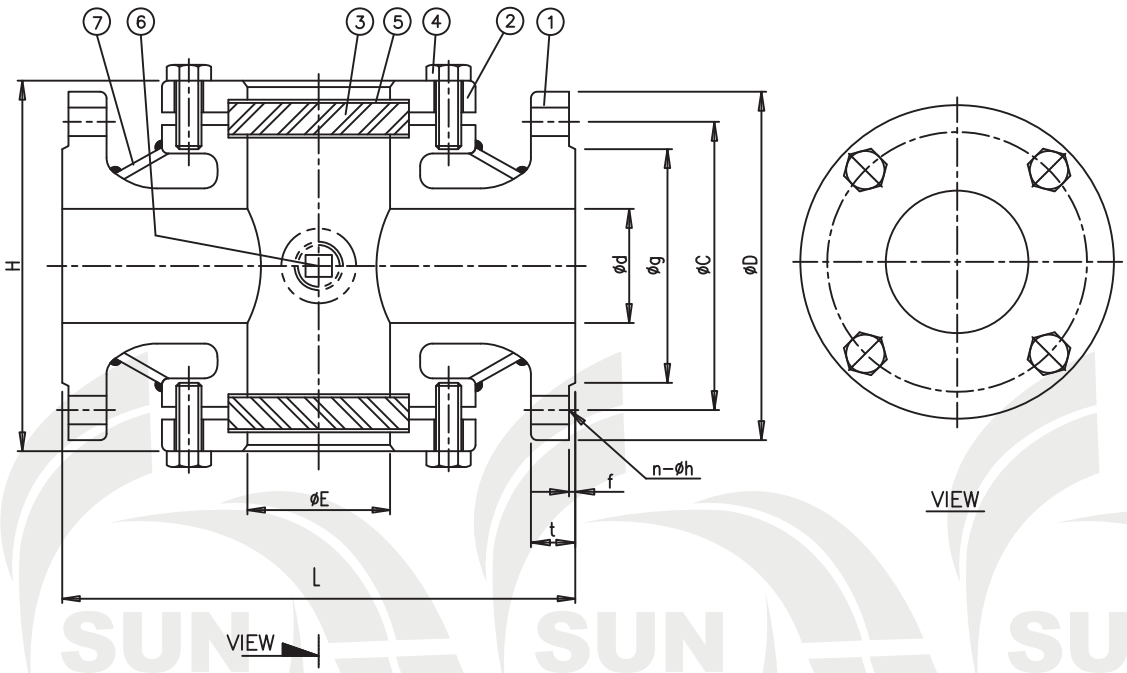
HYDRO TEST	SHELL (2 MIN)	2.0 MPa
	SEAT (2 MIN)	
AIR TEST	SEAT (2 MIN)	

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 304
2	BODY CAP	STAINLESS STEEL 304
3	GLASS	HARD
4	CAP BOLT	STAINLESS STEEL 304
5	GASKET	GRAPHITE
6	SCREEN MESH	STAINLESS STEEL 304

Remark : 1. The name plate shall be specified by purchaser as required.

Jacket Type

SUN-SSGF-C



NOTE

1. HYDROSTATIC TEST PRESSURE &
   DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34, JPI-7S-39, KS B2304, API-598

HYDRO TEST	SHELL (2 MIN)	15 kgf/cm²
	SEAT (2 MIN)	– kgf/cm²
AIR TEST	SEAT (2 MIN)	– kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

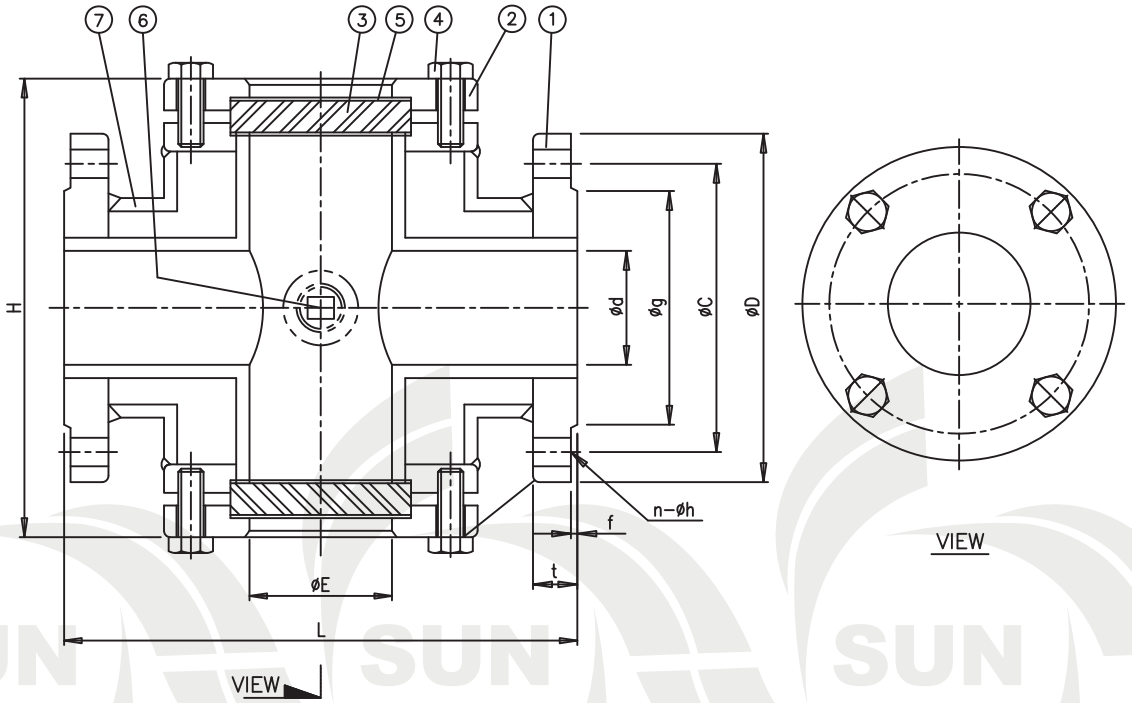
SIZE	L	*H	FLANGE							*øE
			ød	øg	øC	øD	t	f	n – øh	
1*2B	175	107	25	92	120.5	152	15.9	1.6	4 – 19	46
2*3B	226	137	50	127	152.5	191	19.1	1.6	4 – 19	78
3*5B	272	213	80	186	216.0	254	23.9	1.6	8 – 22	107
4*6B	310	250	100	216	241.5	279	25.4	1.6	8 – 22	129
6*8B	398	303	150	270	298.5	343	28.6	1.6	8 – 22	210
8*10B	473	340	200	324	362.0	406	30.2	1.6	12 – 25	260

NO.	PARTS	MATERIAL
1	BODY	STAINLESS STEEL 316
2	BODY CAP	STAINLESS STEEL 316
3	GLASS	B.SILICATE
4	CAP BOLT	A193-B8
5	GASKET	TEFLON
6	JACKET	STAINLESS STEEL 304
7	DRAIN PLUG	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Jacket Type

SUN-SSGF-C



NOTE

1. HYDROSTATIC TEST PRESSURE &
   DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34, JPI–7S–39, KS B2304, API–598

HYDRO TEST	SHELL (2 MIN)	15 kgf/cm²
	SEAT (2 MIN)	– kgf/cm²
AIR TEST	SEAT (2 MIN)	– kgf/cm²

* REFERENCE DIMENSION

UNIT : mm

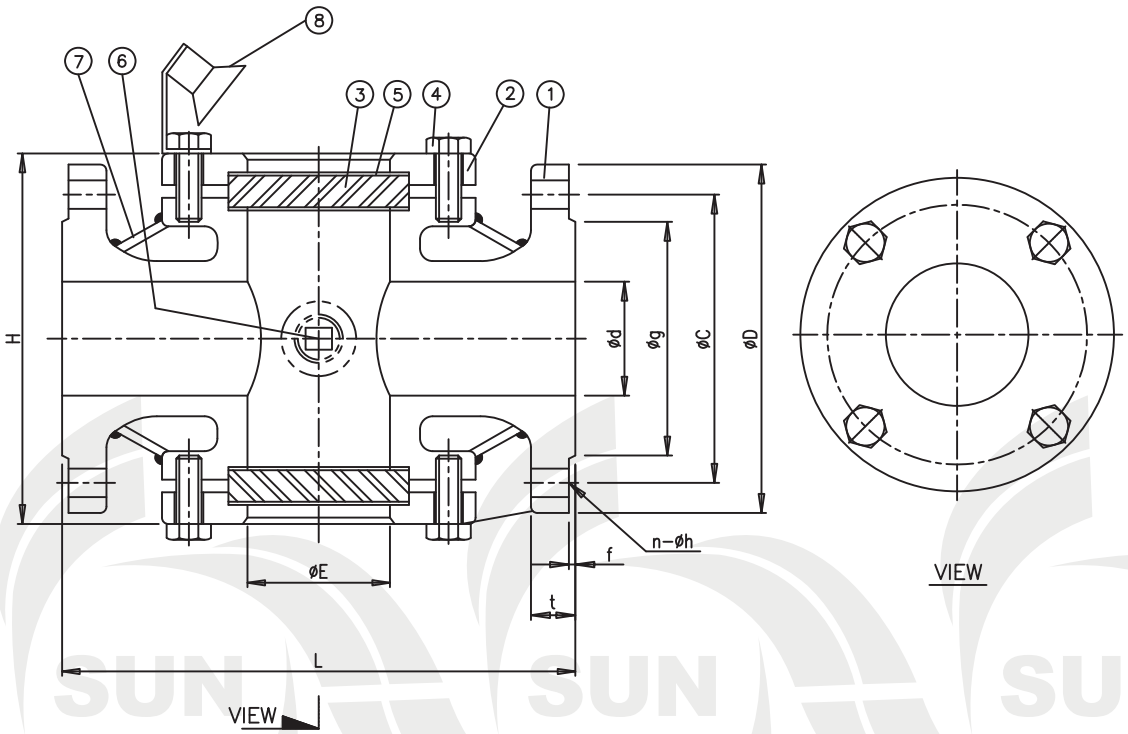
SIZE	L	*H	FLANGE							*øE	Q'TY
			ød	øg	øC	øD	t	f	n – øh		
12*14B	760	600	305	413	476.5	533	35.0	1.6	12 – 29	340	1 EA

NO.	PARTS	MATERIAL
1	BODY	A312-TP316
2	BODY CAP	A312-TP316
3	GLASS	B.SILICATE
4	CAP BOLT	A193-B8
5	GASKET	TEFLON
6	JACKET	STAINLESS STEEL 316
7	DRAIN PLUG	A307-B

Remark : 1. The name plate shall be specified by purchaser as required.

Jacket Type(With Lamp)

SUN-SSGF-C



NOTE

1. HYDROSTATIC TEST PRESSURE &
   DURATION OF REQUIRED TEST PRESSURE.
   REFERENCE CODE : ANSI B16.5, B16.34, JPI-7S-39, KS B2304, API-598

HYDRO TEST	SHELL (2 MIN)	15 kgf/cm²
	SEAT (2 MIN)	– kgf/cm²
AIR TEST	SEAT (2 MIN)	– kgf/cm²

* REFERENCE DIMENSION

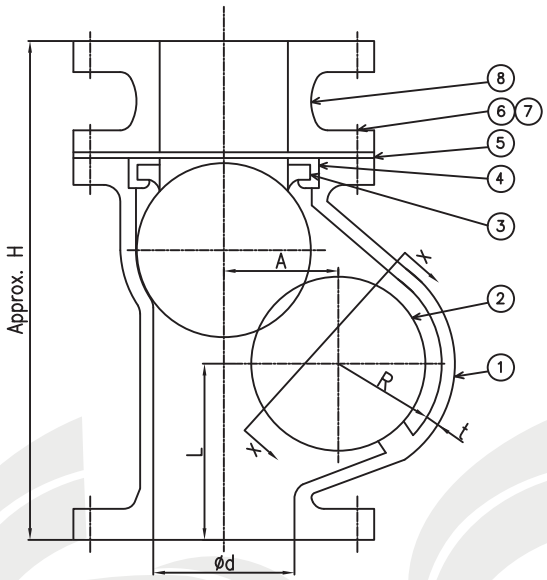
UNIT : mm

SIZE	L	*H	FLANGE							*øE
			ød	øg	øC	øD	t	f	n – øh	
2*3B	226	137	50	127	152.5	191	19.1	1.6	4 – 19	78
3*5B	272	213	80	186	216.0	254	23.9	1.6	8 – 22	107
6*8B	398	303	150	270	298.5	343	28.6	1.6	8 – 22	210
8*10B	473	340	200	324	362.0	406	30.2	1.6	12 – 25	260

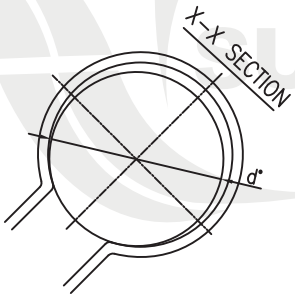
NO.	PARTS	MATERIAL
1	LAMP	COMMERCIAL
2	DRAIN PLUG	A307-B
3	JACKET	STAINLESS STEEL 304
4	GASKET	TEFLON
5	CAP BOLT	A193-B8
6	GLASS	B.SILICATE
7	BODY CAP	STAINLESS STEEL 316
8	BODY	STAINLESS STEEL 316

Remark : 1. The name plate shall be specified by purchaser as required.

Float Check Valves for Over Flow Pipes(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	FLOAT	STAINLESS STEEL
3	PACKING	RUBBER
4	HOLDER	BRONZE
5	GASKET	NON ASBESTOS
6	STUD BOLT	STEEL / BRASS
7	NUT	STEEL / BRASS
8	PIECE	CAST IRON



Test Pressure (MPa)

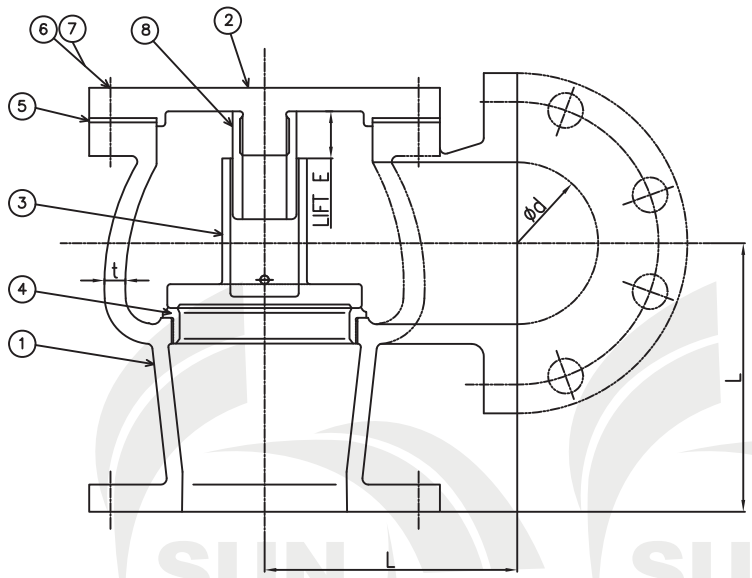
Rating	JIS 5K
Hydrostatic press test (Shell)	0.5
Hydrostatic press test (Seat)	0.25

Dimension Table (Unit : mm)

Rating	Size	d	d'	t	R	A	L	H	WEIGHT kg
JIS 5K	50	50	70	5	37	50	81	240	6.5
	65	65	95	6	50	65	99	285	11.5
	80	80	105	7	55	75	108	315	16
	100	100	125	8	65	90	133	365	22.5
	125	125	155	9	82	114	154	425	33.5
	150	150	185	10	97	135	174	475	47
	200	200	230	12	120	150	205	505	72.5
	250	250	300	14	156	195	250	600	120
	300	300	350	15	182	235	285	680	170

Remark : 1. The flanges shall conform to nominal pressure 5K of JIS B 2240.

Smooth Angle Check Valves(JIS 5K)



NO.	PARTS	MATERIAL
1	BODY	CAST IRON
2	COVER	CAST IRON
3	DISC	BRONZE
4	SEAT RING	BRONZE
5	GASKET	NON ASBESTOS
6	STUD BOLT	STEEL / BRASS
7	NUT	STEEL / BRASS
8	BUSH	BRASS

Test Pressure (MPa)

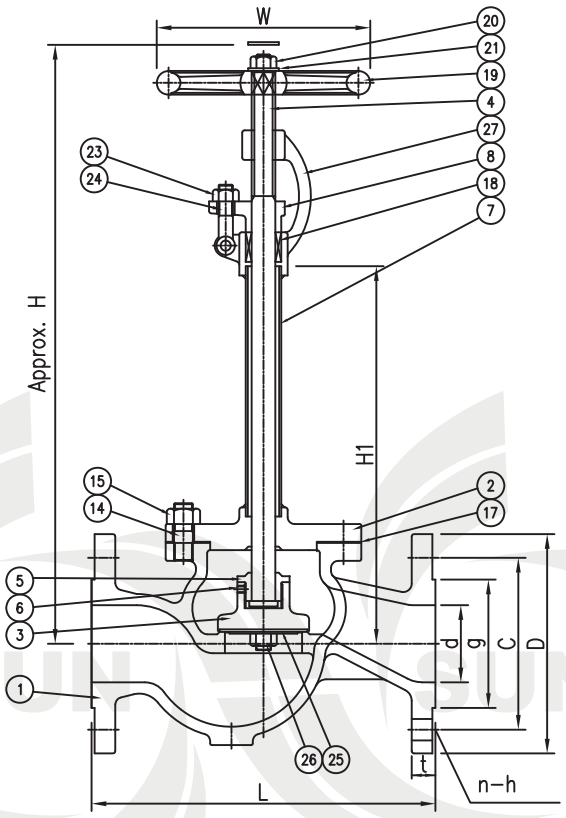
Rating	JIS 5K
Hydrostatic press test (Shell)	0.5
Hydrostatic press test (Seat)	0.3

Dimension Table (Unit : mm)

NS NO.	CONN FLANGE	d	L	E	t	WEIGHT kg
SCA-50	JIS 5K - 50A	50	100	18	8	8
SCA-65	JIS 5K - 65A	65	115	20	9	12
SCA-80	JIS 5K - 80A	80	130	22	9	17
SCA-100	JIS 5K - 100A	100	150	28	10	24
SCA-125	JIS 5K - 125A	125	170	36	11	35
SCA-150	JIS 5K - 150A	150	190	42	12	50
SCA-200	JIS 5K - 200A	200	220	55	15	75

Remark : 1. The flanges shall conform to nominal pressure 5K of JIS B 2240.

Extended Bonnet Type Globe Valves(PN 16)



NO.	PARTS	MATERIAL
1	BODY	BRONZE
2	BONNET	BRONZE
3	DISC	BRONZE
4	STEM	BRASS
5	DISC NUT	BRASS
6	SET SCREW	STEEL
7	PIPE	BRASS
8	PACKING GLAND	BRONZE
14	BONNET BOLT	BRASS / STAINLESS STEEL
15	BONNET NUT	BRASS / STAINLESS STEEL
17	GASKET	NON ASBESTOS
18	PACKING	NON ASBESTOS
19	HANDWHEEL	CAST IRON
20	HANDLE NUT	STEEL / BRASS
21	WASHER	STEEL / BRASS
23	PACKING NUT	BRASS
24	PACKING BOLT	BRASS
25	DISC SEAT	TEFLON
26	NUT	BRASS
27	YOKE	BRASS

Test Pressure (MPa)

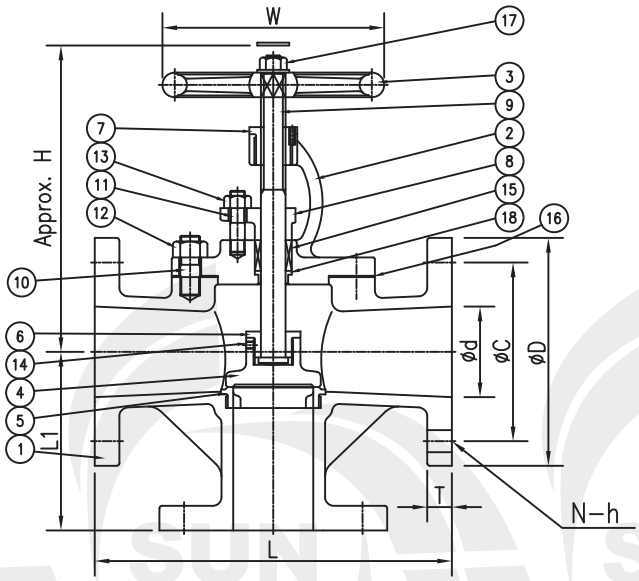
Rating	PN 16
Hydrostatic press test (Shell)	2.5
Hydrostatic press test (Seat)	1.6

Dimension Table (Unit : mm)

Rating	d	L	H	H1	W	FLANGE				
						D	C	g	t	n–h
PN 16	65	290	310	310	180	185	145	145	20	4-18
	80	310	345	345	180	200	160	160	22	8-18
	100	350	380	380	200	220	180	180	24	8-18
	125	400	420	420	200	250	210	210	26	8-18
	150	480	470	470	250	285	240	240	26	8-22
	200	600	580	580	315	340	295	295	26	12-22

Remark : 1. The flanges shall conform to nominal pressure PN16.

3-Way Cross Valves(JIS 10K)



NO.	PARTS	MATERIAL
1	BODY	CAST STEEL
2	BONNET	CAST STEEL
3	HANDWHEEL	CAST IRON
4	DISC	STAINLESS STEEL
5	SEAT RING	STAINLESS STEEL
6	DISC NUT	STAINLESS STEEL
7	BONNET BUSH	BRONZE
8	PACKING GLAND	BRONZE
9	STEM	STAINLESS STEEL
10	BONNET BOLT	STEEL
11	PACKING BOLT	STEEL
12	BONNET NUT	STEEL
13	PACKING NUT	STEEL
14	SET SCREW	STEEL
15	PACKING	NON ASBESTOS
16	BONNET GASKET	NON ASBESTOS
17	HANDLE NUT	STEEL
18	PACKING BUSH	STAINLESS STEEL

Test Pressure (MPa)

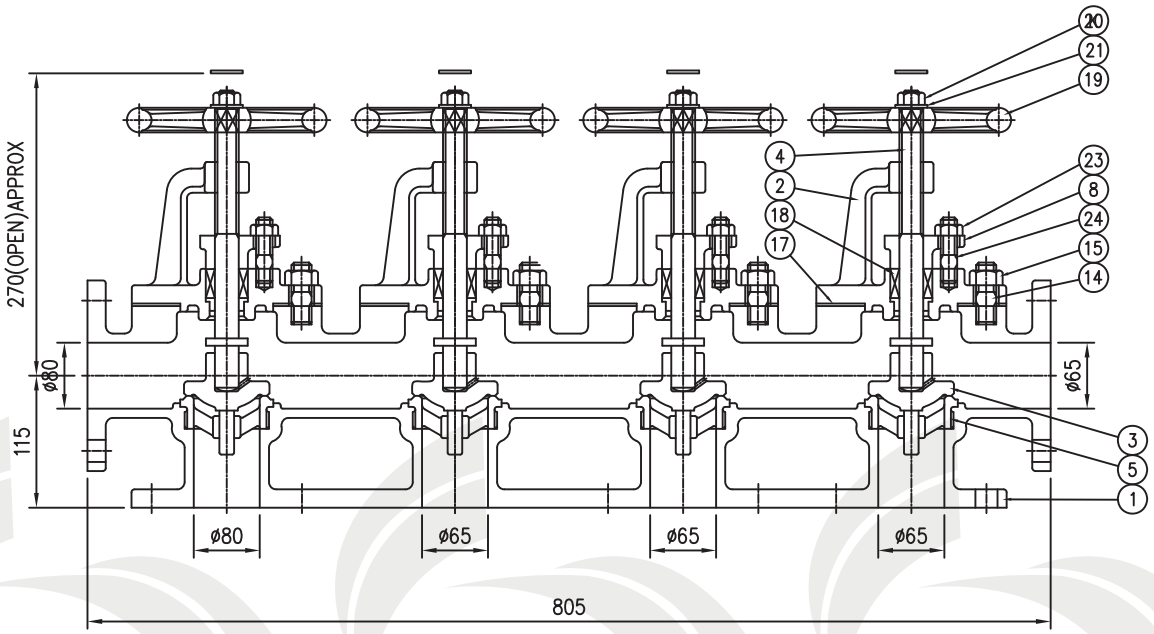
Rating	JIS 10K
Hydrostatic press test (Shell)	1.5
Hydrostatic press test (Seat)	0.6

Dimension Table (Unit : mm)

Rating	Size	d	L	L1	H	W	FLANGE			
							D	C	T	N–h
JIS 10K	50	50	250	125	250	160	155	120	16	4-19
	65	65	290	145	280	180	175	140	18	4-19
	80	80	310	155	315	180	185	150	18	8-19
	100	100	350	175	330	200	210	175	18	8-19
	125	125	400	200	360	200	250	210	20	8-23
	150	150	450	225	385	250	280	240	22	8-23
	200	200	550	275	485	315	330	290	22	12-23

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2240.

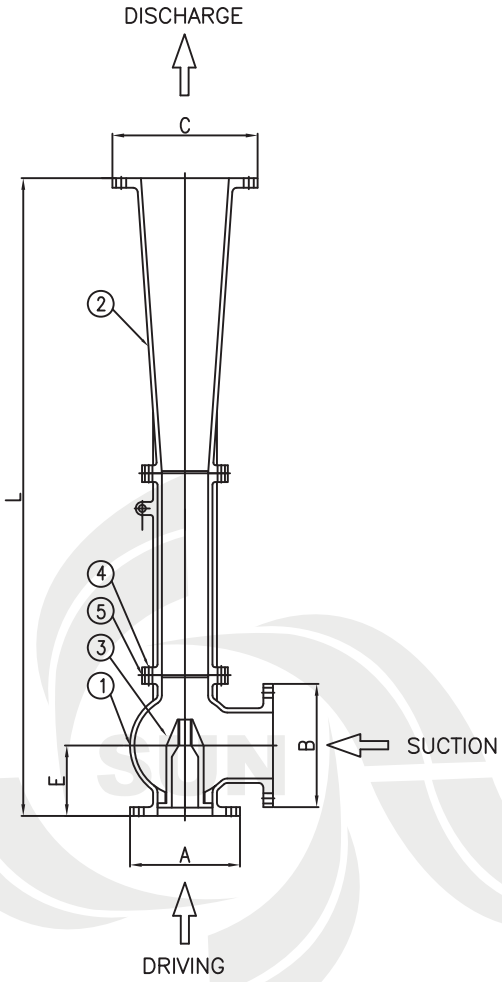
Distribution Box of Suction Type Screw-Down Non Return Valves



NO.	PARTS	MATERIAL
1	BODY	CAST IRON / CAST STEEL
2	BONNET	CAST IRON / CAST STEEL
3	DISC	BRONZE
4	STEM	BRASS
5	SEAT RING	BRONZE
8	PACKING GLAND	BRONZE
14	BONNET BOLT	STEEL
15	BONNET NUT	STEEL
17	GASKET	NON ASBESTOS
18	PACKING	NON ASBESTOS
19	HANDWHEEL	CAST IRON
20	HANDLE NUT	STEEL
21	WASHER	STEEL
23	NUT	STEEL
24	BOLT	STEEL

Remark : 1. The flanges shall conform to nominal pressure 10K of JIS B 2240.

Eductor

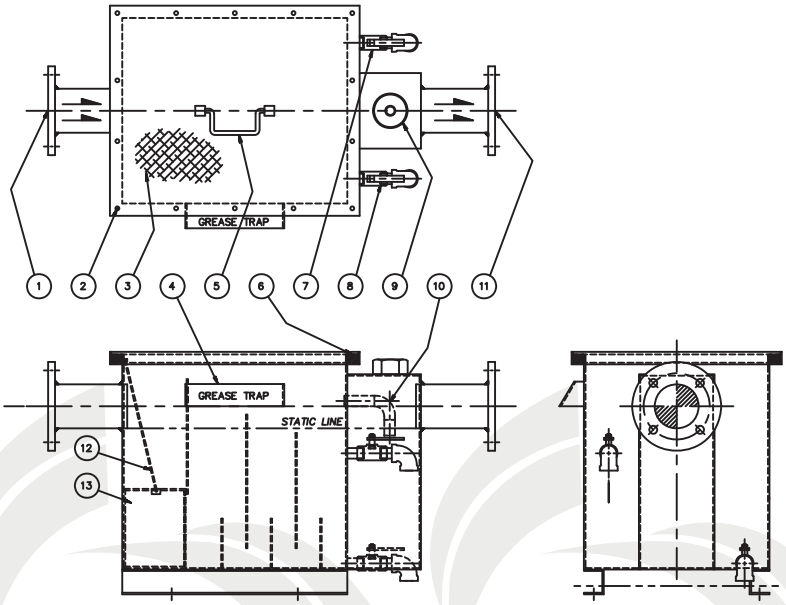


NO.	PARTS	MATERIAL
1	BODY	CAST IRON / STEEL / BRONZE
2	DIFFUSER	CAST IRON / STEEL / BRONZE
3	NOZZLE	STAINLESS STEEL 304 / 316
4	STUD BOLT / NUT	STEEL / STAINLESS STEEL
5	GASKET	NON ASBESTOS

Dimension Table (Unit : mm)

NS NO.	TYPE	TYPE	L	E	H
ED-50	1'1/2 x 2 x 2'1/2	40 x 50 x 65	480	105	100
ED-65	2 x 2'1/2 x 3	50 x 65 x 80	560	100	110
ED-80	2'1/2 x 3 x 4	65 x 80 x 100	650	115	130
ED-100	3 x 4 x 5	80 x 100 x 125	860	135	135
ED-125	4 x 5 x 6	100 x 125 x 150	1000	155	165
ED-150	5 x 6 x 8	125 x 150 x 200	1300	160	200
ED-200	6 x 8 x 10	100 x 200 x 250	1960	225	275
ED-250	8 x 10 x 12	200 x 250 x 300	2200	290	300
ED-300	10 x 12 x 16	250 x 300 x 380	2510	285	300

Grease Trap



NO.	PARTS	MATERIAL
1	INLET	STAINLESS STEEL 304
2	BOLT FOR OPEN	STEEL
3	COVER	STEEL
4	NAME PLATE	BRONZE
5	LIFTING HANDLE	STEEL
6	GASKET	NBR
7	WATER DRAIN VALVE	BRONZE
8	GREASE DRAIN VALVE	BRONZE
9	PLUG	STAINLESS STEEL 304
10	AIR VENT PIPE	STAINLESS STEEL 304
11	OUTLET	STAINLESS STEEL 304
12	HANDLE OF BASKET	STAINLESS STEEL 304
13	SLUDGE BASKET	STAINLESS STEEL 304

OPERATING & INSTRUCTIONS FOR GREASE TRAP

1. Periodic removal of grease is dependent upon the quantity of grease in the waste water, grease removal periods is required once a day or every other day in normally. But periodic and frequent removal is recommended to maintain efficiency.
2. To remove grease, user just open the grease drain valve for remove grease at least once a week.
3. To periodic maintenance, do the clean the sludge basket in grease trap at least once a week.

1) First, user open the grease drain valve
2) Finish the drain the grease and then open the water drain valve.
3) And loosen a bolt, remove the upper cover and pick out the sludge basket.
4) Clean the sludge basket as fresh water and remove the solid sludge. * If solid sludge some exit in sludge basket, that is occured the clog.
5) And clean the inside of trap for remove the other sludge.
6) Replace the sludge basket, the cover, and tighten a bolt for normal use.

PART-C

C. LEVEL GAUGING

PART-C

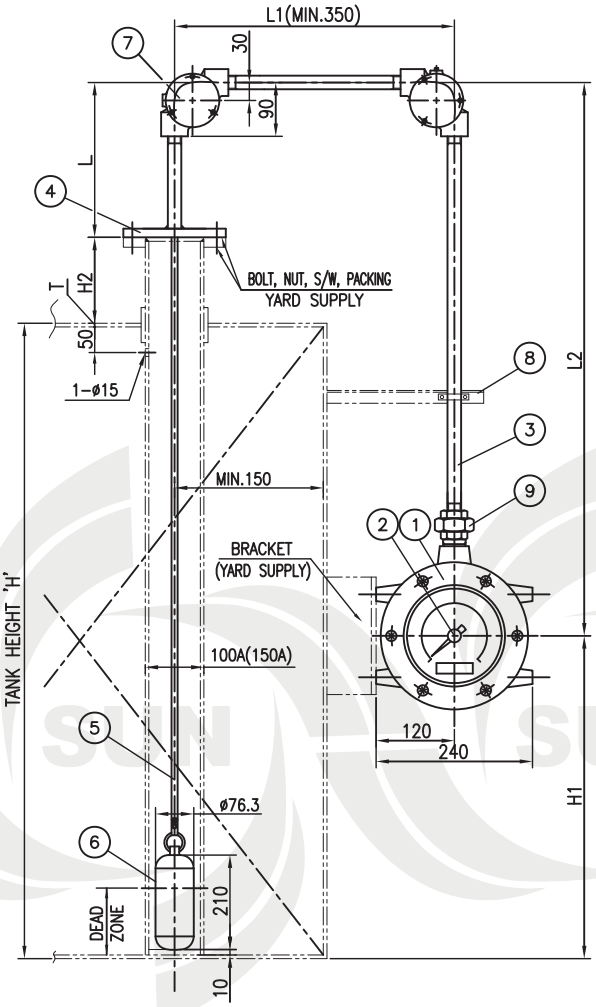
C. LEVEL GAUGING

CONTENTS

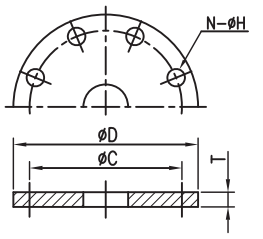
	NO	PAGE
1. DIAL TYPE FLOAT LEVEL GAUGE	C-1	607
2. DISPLACEMENT TYPE FLOAT LEVEL SUITCH	C-6	612
3. MAGNETIC TYPE FLOAT LEVEL SWITCH	C-16	622
4. REFLEX TYPE GLASS LEVEL GAUGE	C-25	631
5. MARINE FLOAT LEVEL GAUGE	C-45	651
6. MAGNETIC TYPE FLOAT LEVEL GAUGE	C-50	656
7. OPERATED TYPE FLOAT LEVEL SWITCH	C-60	666
8. CONTENT GAUGE	C-61	667

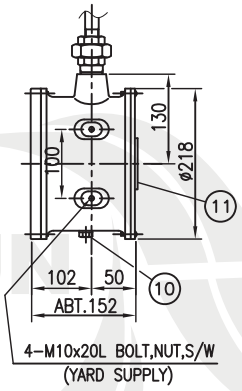
Dial Type Float Level Gauge

SUN-DFLG-02114



FLANGE DIMENSION TABLE





SPECIFICATION

1. MEASURING RANGE : MAX. 6.5M
2. ACCURACY : ±15MM
3. SP.GR RANGE OF LIQUID : 0.65-1.5
4. INDICATING TYPE : ONE NEEDLE & DIAL TYPE
5. GAUGE TYPE : GAS TIGHT TYPE
6. MAX. WORKING TEMP. : 150°
7. ENCLOSURE : WEATHER PROOF
8. MOUNTING TYPE : SIDE
9. SCALE : DUAL SCALE (M/M³)

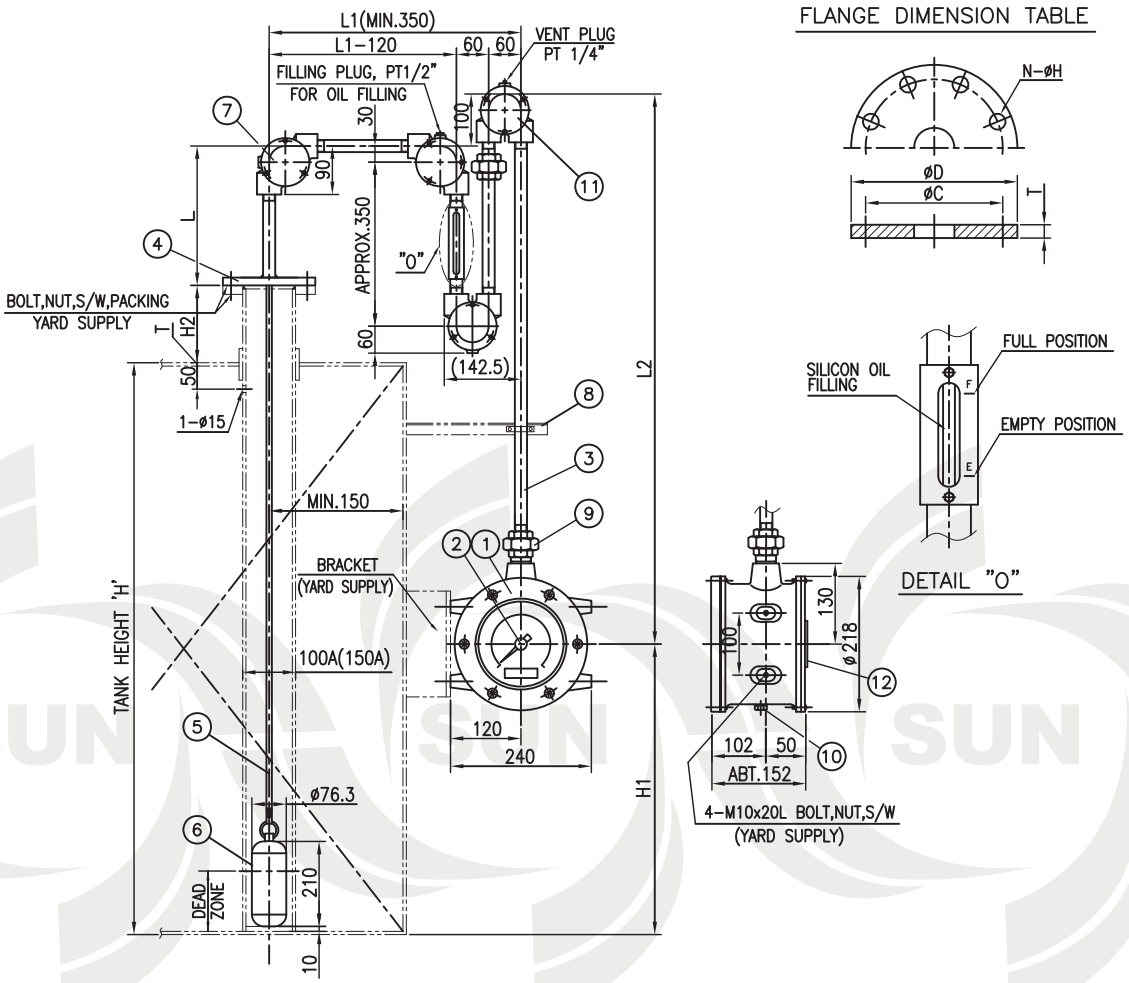
SIZE	D	C	N	H	T	REMARK
5K 100A	ø200	ø165	8	ø19	16	
5K 150A	ø265	ø230	8	ø19	18	

NO.	PARTS	MATERIAL
1	GAUGE BODY	AC
2	NEEDLE	AL
3	GUIDE PIPE	SGP
4	FLANGE	SS400
5	TAPE	SUS304
6	FLOAT	SUS304
7	SHEAVE ELBOW	AC
8	BRACKET	SS400
9	UNION	FC
10	DRAIN PLUG	BS
11	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Dial Type Float Level Gauge

SUN-DFLG-02115



SPECIFICATION

1. MEASURING RANGE : MAX. 6.5M
2. ACCURACY : ±15MM
3. SP.GR RANGE OF LIQUID : 0.65-1.5
4. INDICATING TYPE : ONE NEEDLE & DIAL TYPE
5. GAUGE TYPE : GAS TIGHT TYPE
6. MAX. WORKING TEMP. : 150°
7. ENCLOSURE : WEATHER PROOF
8. MOUNTING TYPE : SIDE
9. SCALE : DUAL SCALE (M/M^3)
10. OIL FILLED TYPE
11. KIND OF OIL : SILICON OIL
    -MODEL : KF-96-1,000CS
    -MAKER : Shin-Etsu Silicone Korea Co.,Ltd.

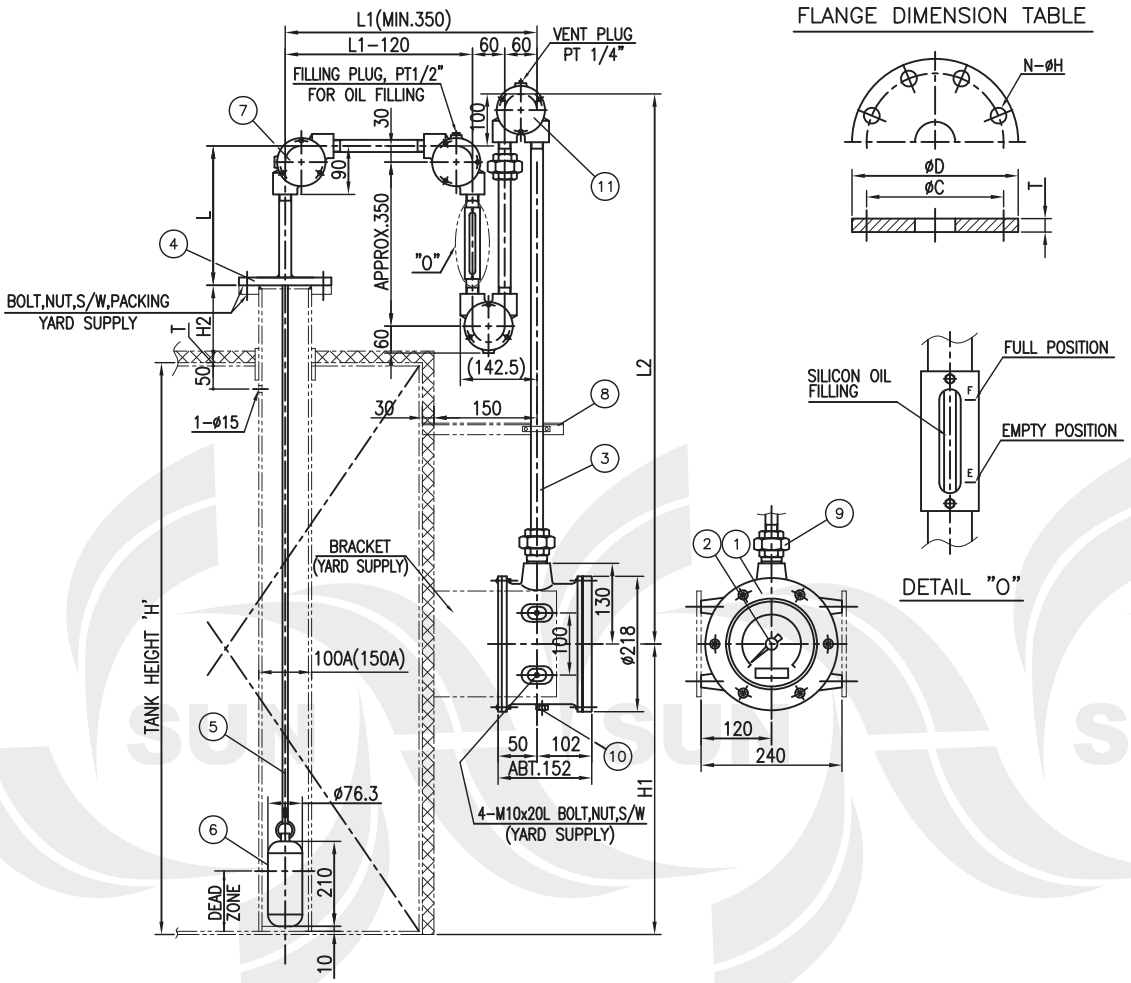
SIZE	D	C	N	H	T	REMARK
5K 100A	ø200	ø165	8	ø19	16	
5K 150A	ø265	ø230	8	ø19	18	

NO.	PARTS	MATERIAL
1	GAUGE BODY	AC
2	NEEDLE	AL
3	GUIDE PIPE	SGP
4	FLANGE	SS400
5	TAPE	SUS304
6	FLOAT	SUS304
7	SHEAVE ELBOW	AC
8	BRACKET	SS400
9	UNION	FC
10	DRAIN PLUG	BS
11	U-ELBOW	AC
12	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Dial Type Float Level Gauge

SUN-DFLG-02116



SPECIFICATION

1. MEASURING RANGE : MAX. 6.5M
2. ACCURACY : ±15MM
3. SP.GR RANGE OF LIQUID : 0.65-1.5
4. INDICATING TYPE : ONE NEEDLE & DIAL TYPE
5. GAUGE TYPE : GAS TIGHT TYPE
6. MAX. WORKING TEMP. : 150°
7. ENCLOSURE : WEATHER PROOF
8. MOUNTING TYPE : SIDE
9. SCALE : DUAL SCALE (M/M^3)
10. OIL FILLED TYPE
11. KIND OF OIL : SILICON OIL
    -MODEL : KF-96-1,000CS
    -MAKER : Shin-Etsu Silicone Korea Co.,Ltd.

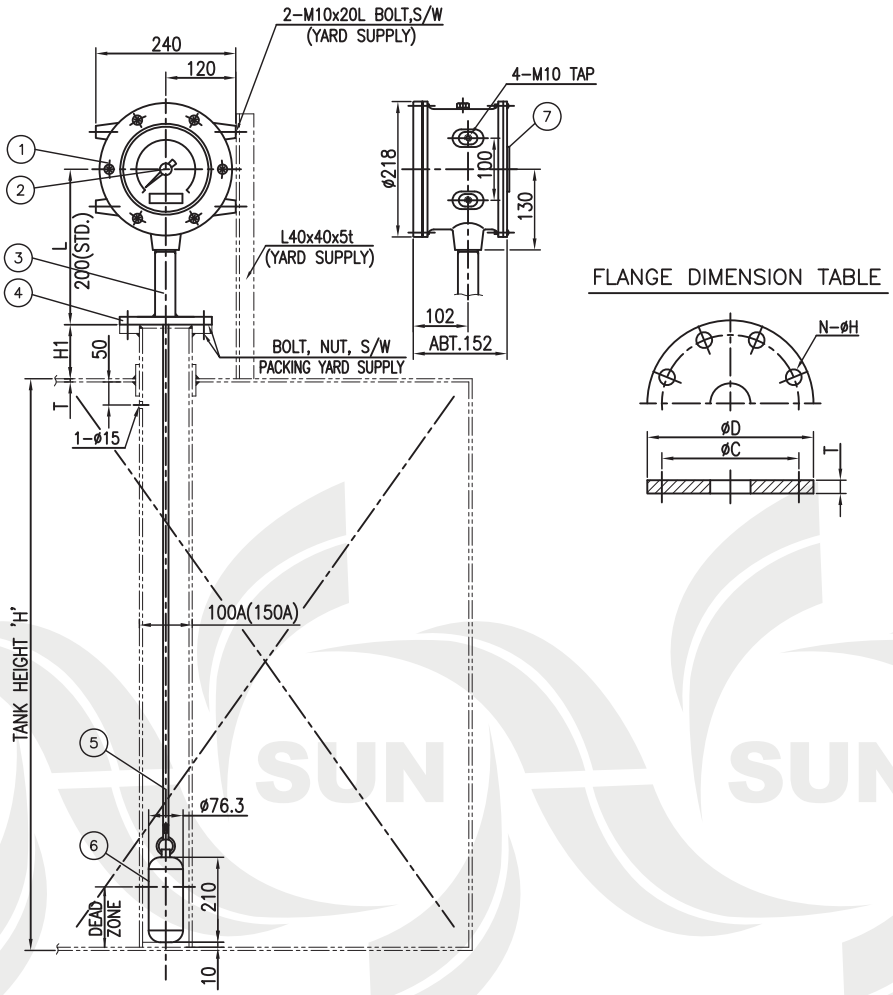
SIZE	D	C	N	H	T	REMARK
5K 100A	ø200	ø165	8	ø19	16	
5K 150A	ø265	ø230	8	ø19	18	

NO.	PARTS	MATERIAL
1	GAUGE BODY	AC
2	NEEDLE	AL
3	GUIDE PIPE	SGP
4	FLANGE	SS400
5	TAPE	SUS304
6	FLOAT	SUS304
7	SHEAVE ELBOW	AC
8	BRACKET	SS400
9	UNION	FC
10	DRAIN PLUG	BS
11	U-ELBOW	AC

Remark : 1. The name plate shall be specified by purchaser as required.

Dial Type Float Level Gauge

SUN-DFLG-02117



APPLICATION

1. LUB. OIL & FUEL OIL, FRESH&SEA WATER (E/R TANKS)
2. SEWAGE TANK

SPECIFICATION

1. MEASURING RANGE : MAX. 6.5M
2. ACCURACY : ±15MM
3. SP.GR RANGE OF LIQUID : 0.65-1.5
4. INDICATING TYPE : ONE NEEDLE & DIAL TYPE
5. GAUGE TYPE : GAS TIGHT TYPE
6. MAX. WORKING TEMP. : 150°
7. ENCLOSURE : WEATHER PROOF
8. MOUNTING TYPE : TOP
9. SCALE : DUAL SCALE (M/M^3)

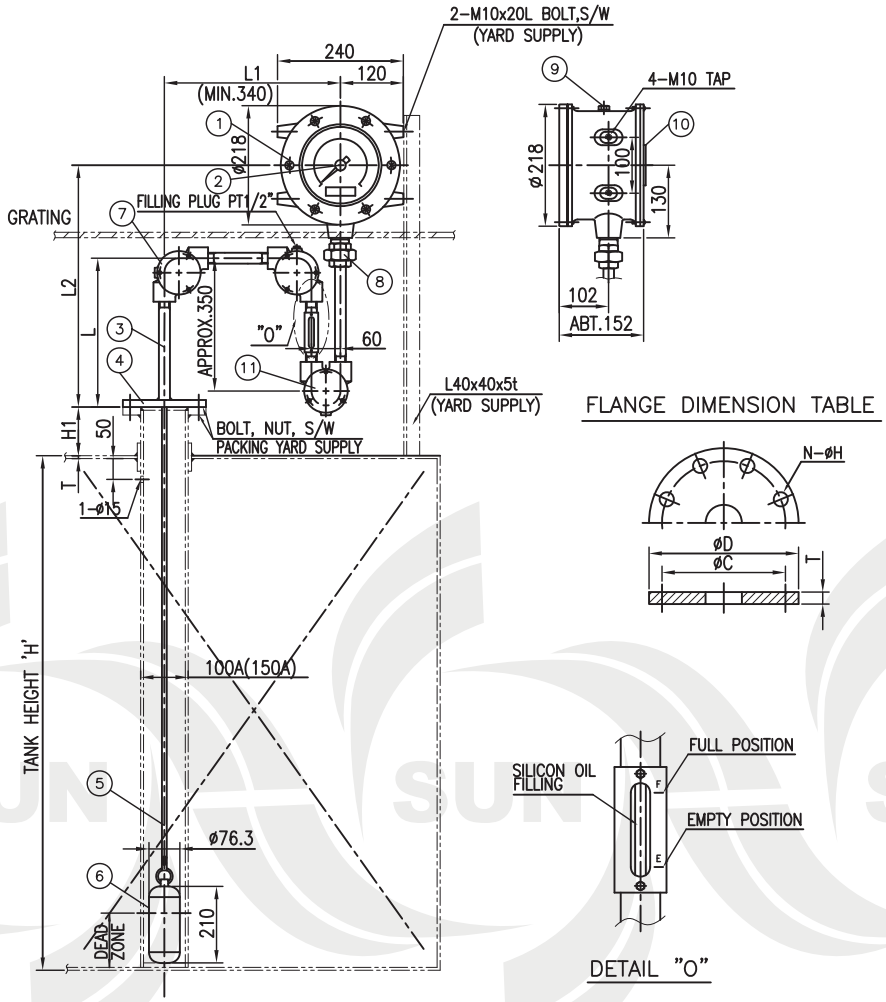
SIZE	D	C	N	H	T	REMARK
5K 100A	ø200	ø165	8	ø19	16	
5K 150A	ø265	ø230	8	ø19	18	

NO.	PARTS	MATERIAL
1	GAUGE BODY	AC
2	NEEDLE	AL
3	GUIDE PIPE	SGP
4	FLANGE	SS400
5	TAPE	SUS304
6	FLOAT	SUS304
7	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Dial Type Float Level Gauge

SUN-DFLG-02118



APPLICATION

1. LUB. OIL & FUEL OIL, FRESH&SEA WATER (E/R TANKS)
2. SEWAGE TANK, WASTE OIL TK.

SPECIFICATION

1. MEASURING RANGE : MAX. 6.5M
2. ACCURACY : ±15MM
3. SP.GR RANGE OF LIQUID : 0.65–1.5
4. INDICATING TYPE : ONE NEEDLE & DIAL TYPE
5. GAUGE TYPE : GAS TIGHT TYPE
6. MAX. WORKING TEMP. : 150°
7. ENCLOSURE : WEATHER PROOF
8. MOUNTING TYPE : TOP
9. SCALE : DUAL SCALE (M/M^3)
10. OIL FILLED TYPE
11. KIND OF OIL : SILICON OIL
    –MODEL : KF–96–1,000CS
    –MAKER : Shin–Etsu Silicone Korea Co.,Ltd.

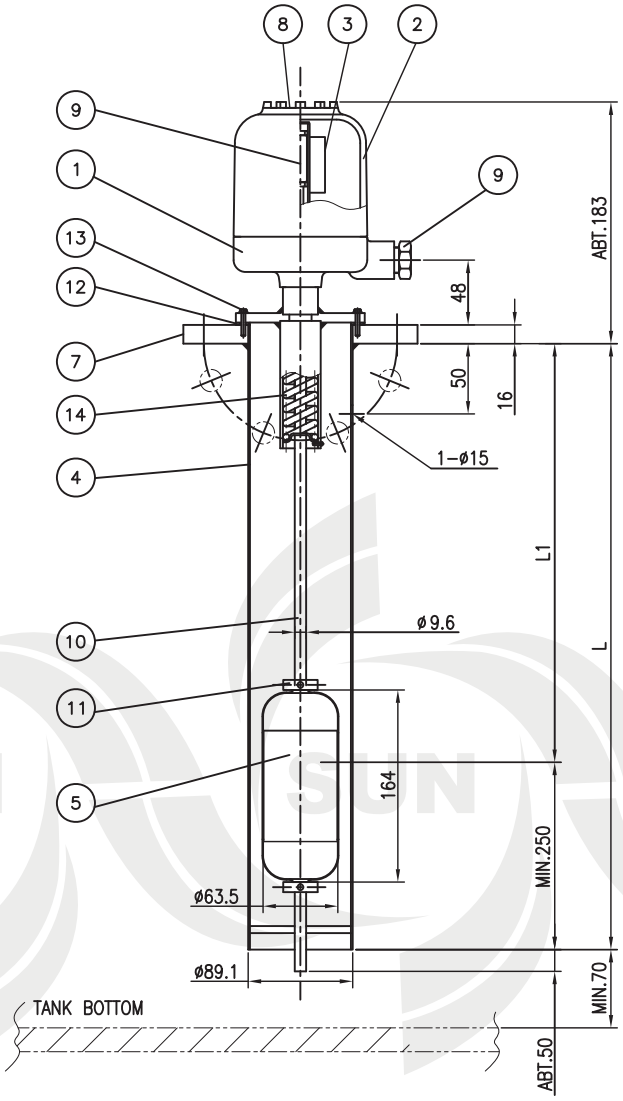
SIZE	D	C	N	H	T	REMARK
5K 100A	ø200	ø165	8	ø19	16	
5K 150A	ø265	ø230	8	ø19	18	

NO.	PARTS	MATERIAL
1	GAUGE BODY	AC
2	NEEDLE	AL
3	GUIDE PIPE	SGP
4	FLANGE	SS400
5	TAPE	SUS304
6	FLOAT	SUS304
7	SHEAVE ELBOW	AC
8	UNION	FC
9	VENT PLUG	BS
10	NAME PLATE	BS
11	'U' ELBOW	AC

Remark : 1. The name plate shall be specified by purchaser as required.

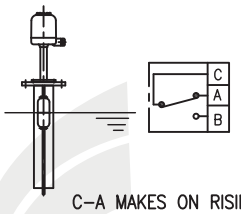
Displacement Type Float Level Switch

SUN-DLS-07001



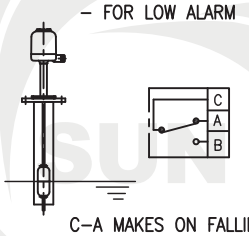
WIRING DIAGRAM

– FOR HIGH ALARM



C–A MAKES ON RISING LEVEL

– FOR LOW ALARM



C–A MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

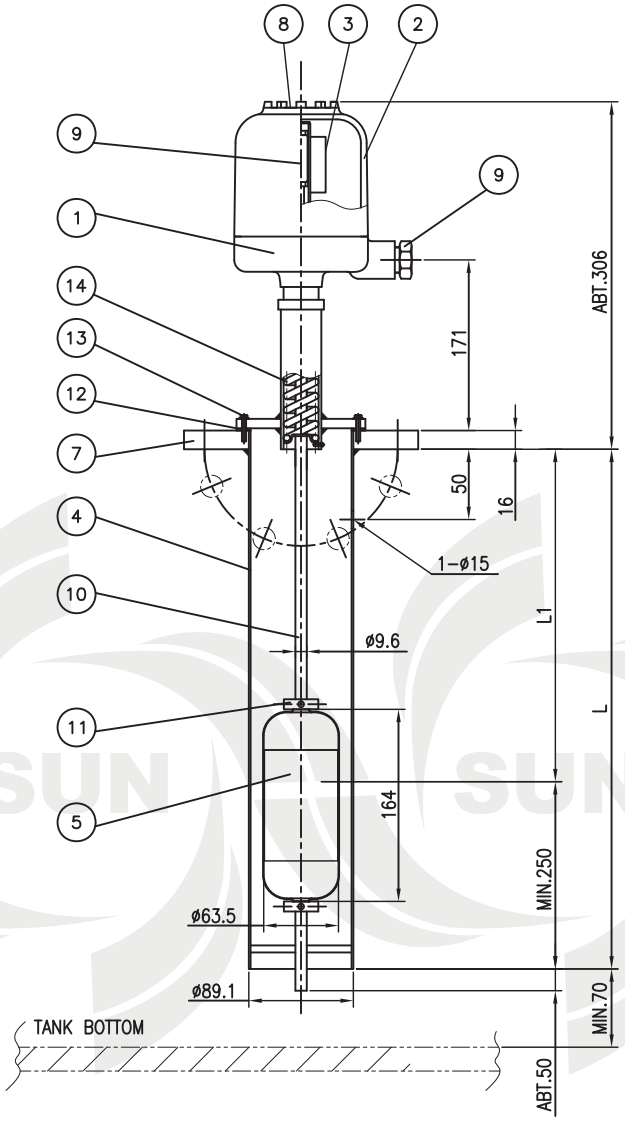
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	PACKING	NON - ASBESTOS
13	HEX-BOLT, S/W	SUS304
14	SPRING	SUS304

Remark : 1. The name plate shall be specified by purchaser as required.

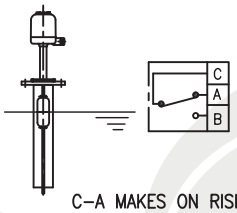
Displacement Type Float Level Switch

SUN-DLS-07001



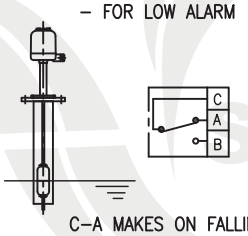
WIRING DIAGRAM

– FOR HIGH ALARM



C–A MAKES ON RISING LEVEL

– FOR LOW ALARM



C–A MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

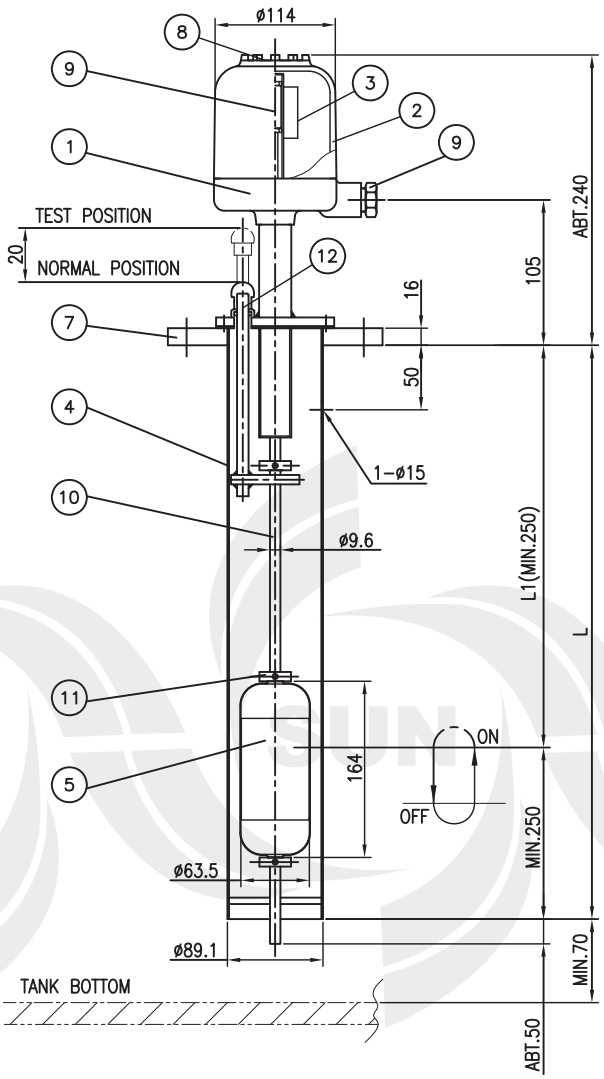
SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	PACKING	NON-ASBESTOS
13	HEX-BOLT, S/W	SUS304
14	SPRING	SUS304

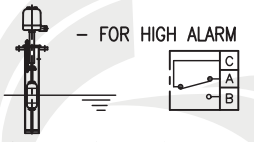
Remark : 1. The name plate shall be specified by purchaser as required.

Displacement Type Float Level Switch

SUN-DLS-07008



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

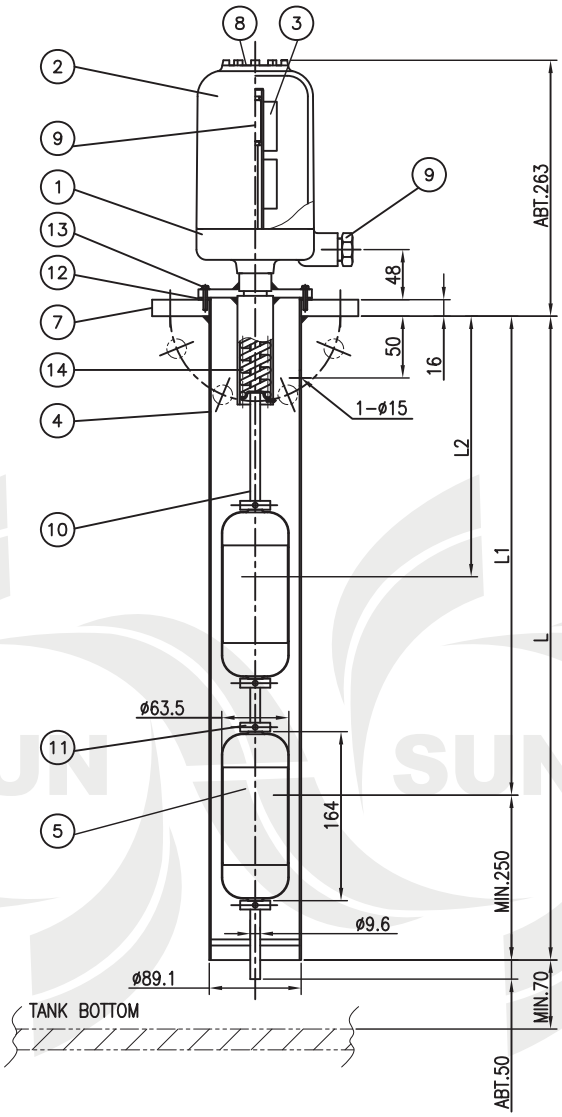
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	TEST DEVICE	BS/SUS304

Remark : 1. The name plate shall be specified by purchaser as required.

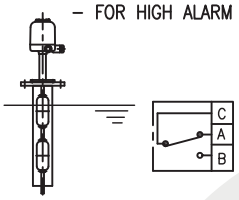
Displacement Type Float Level Switch

SUN-DLS-07002



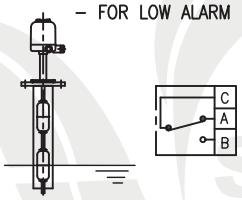
WIRING DIAGRAM

– FOR HIGH ALARM



C–A MAKES ON RISING LEVEL

– FOR LOW ALARM



C–A MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : 2 x SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

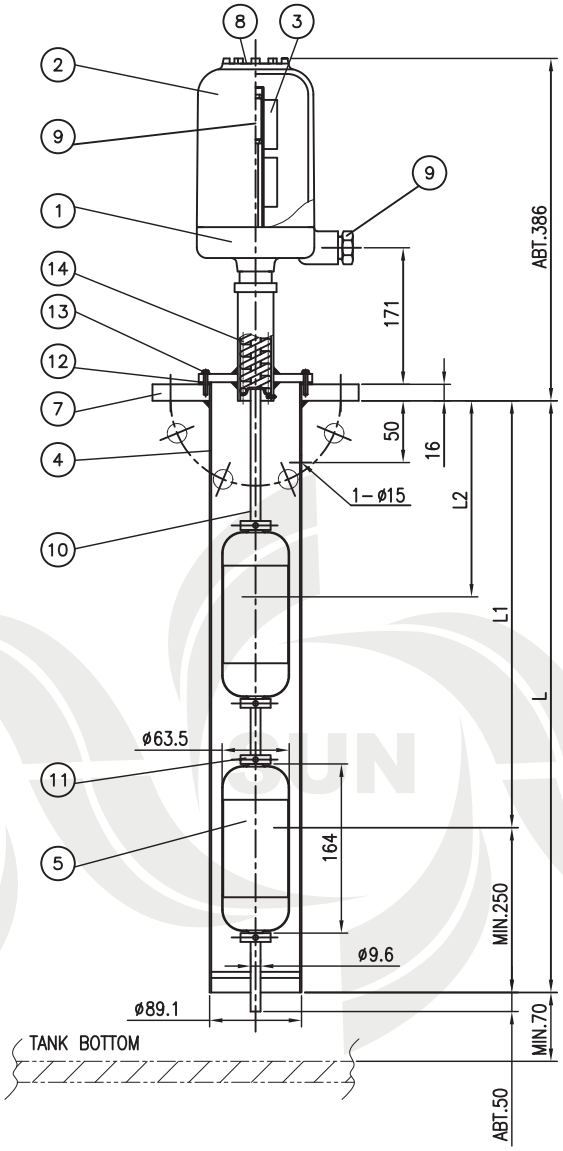
SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	PACKING	NON-ASBESTOS
13	HEX-BOLT, S/W	SUS304
14	SPRING	SUS304

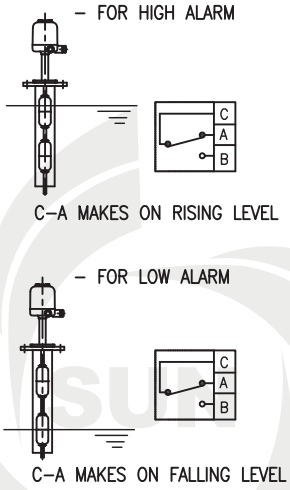
Remark : 1. The name plate shall be specified by purchaser as required.

Displacement Type Float Level Switch

SUN-DLS-07002



WIRING DIAGRAM



TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : -10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : 2 x SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

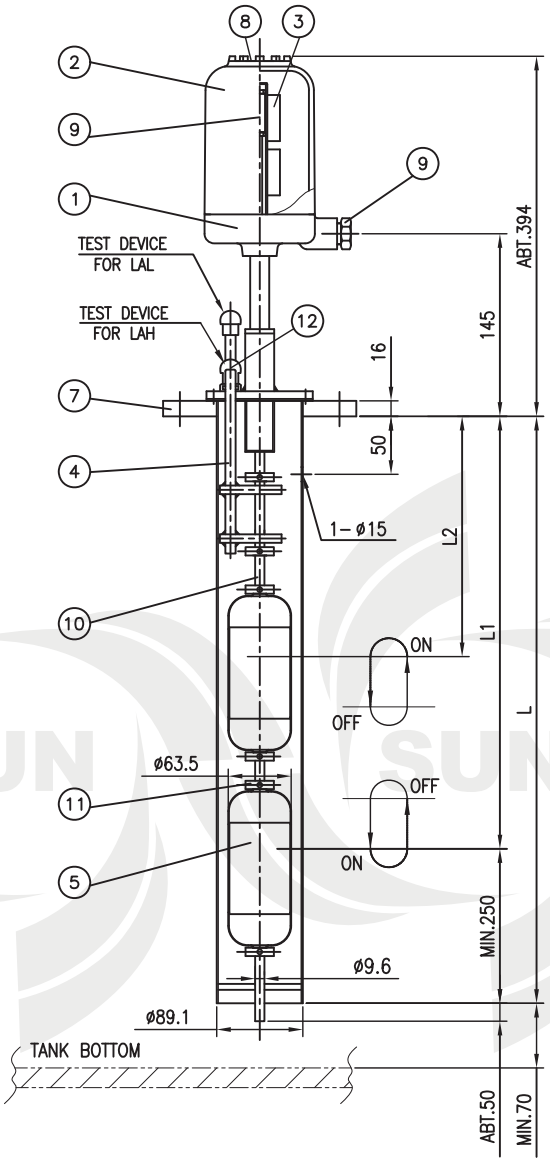
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	PACKING	NON-ASBESTOS
13	HEX-BOLT, S/W	SUS304
14	SPRING	SUS304

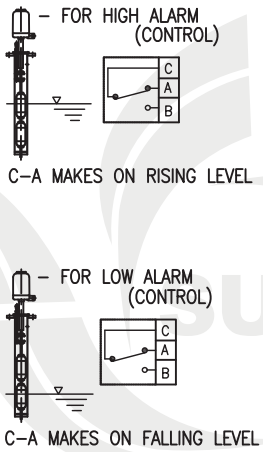
Remark : 1. The name plate shall be specified by purchaser as required.

Displacement Type Float Level Switch

SUN-DLS-07009



WIRING DIAGRAM



TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : 2 x SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

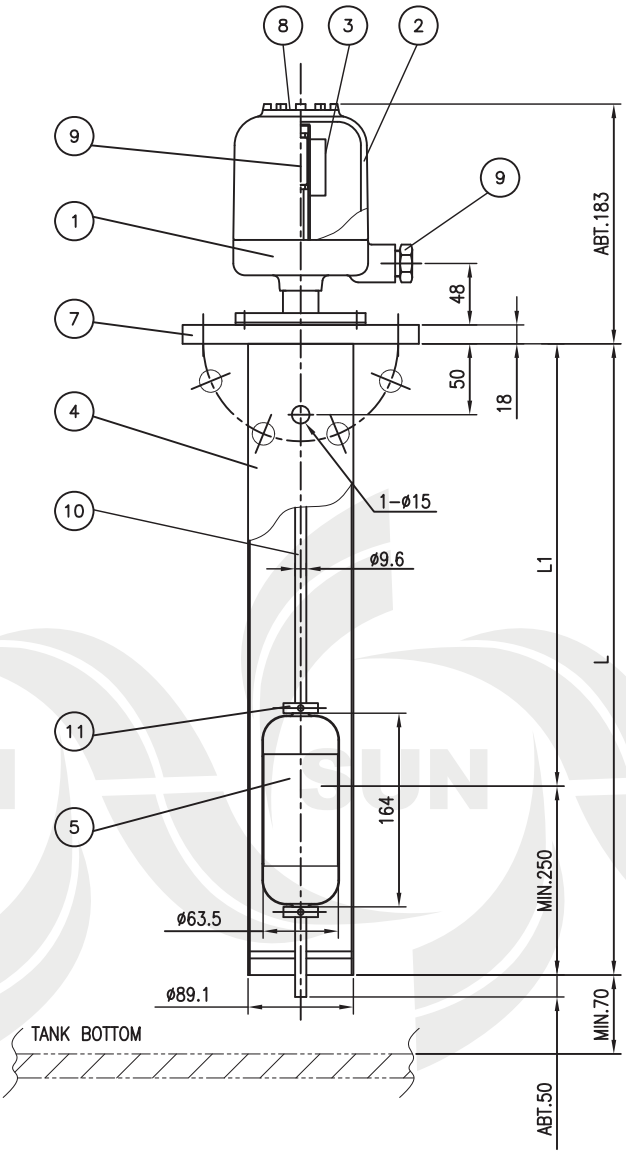
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	TEST DEVICE	BS/SUS304

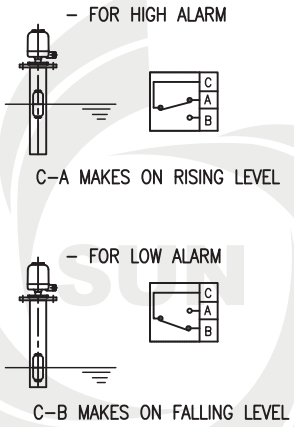
Remark : 1. The name plate shall be specified by purchaser as required.

Displacement Type Float Level Switch

SUN-DLS-06072



WIRING DIAGRAM



TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

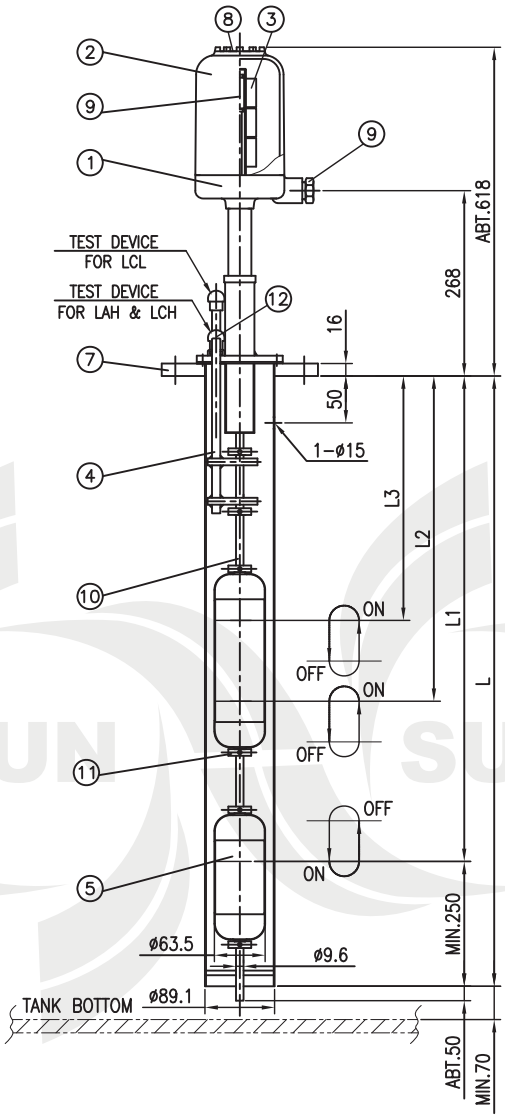
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
10K 100A	210	175	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304

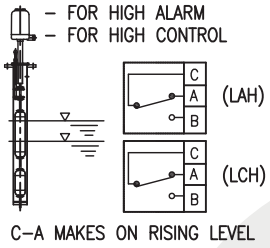
Remark : 1. The name plate shall be specified by purchaser as required.

Displacement Type Float Level Switch with Test Device

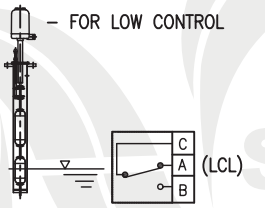
SUN-DLS-07010



WIRING DIAGRAM



C-A MAKES ON RISING LEVEL



C-A MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : 3 x SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

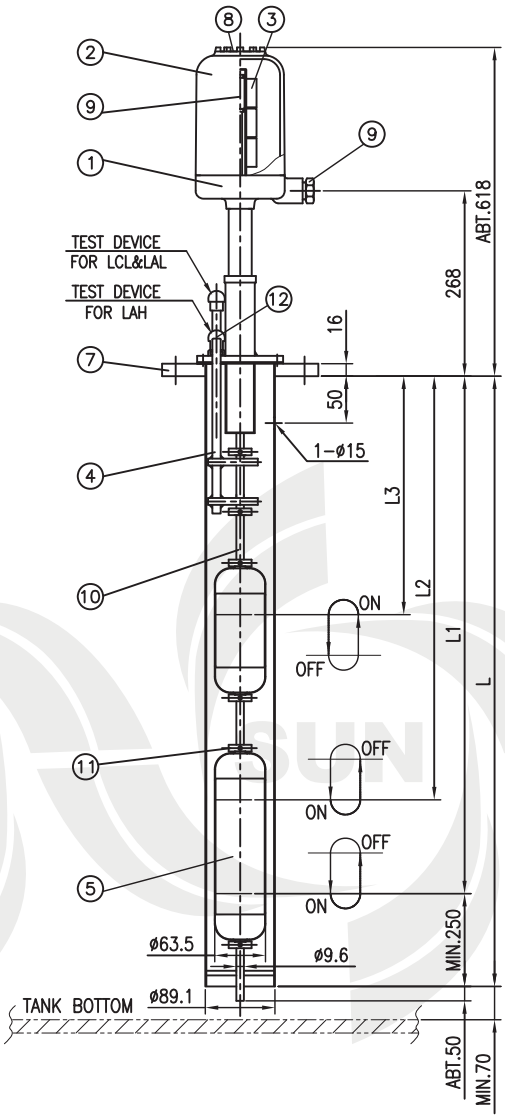
SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	TEST DEVICE	BS/SUS304

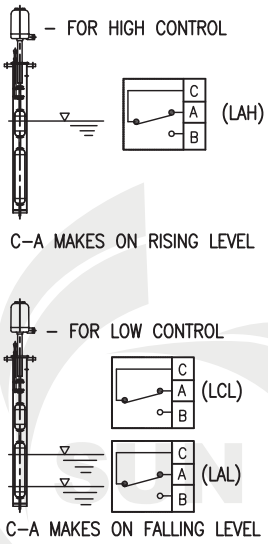
Remark : 1. The name plate shall be specified by purchaser as required.

Displacement Type Float Level Switch with Test Device

SUN-DLS-07011



WIRING DIAGRAM



TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : 3 x SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 100A	200	165	8	19	

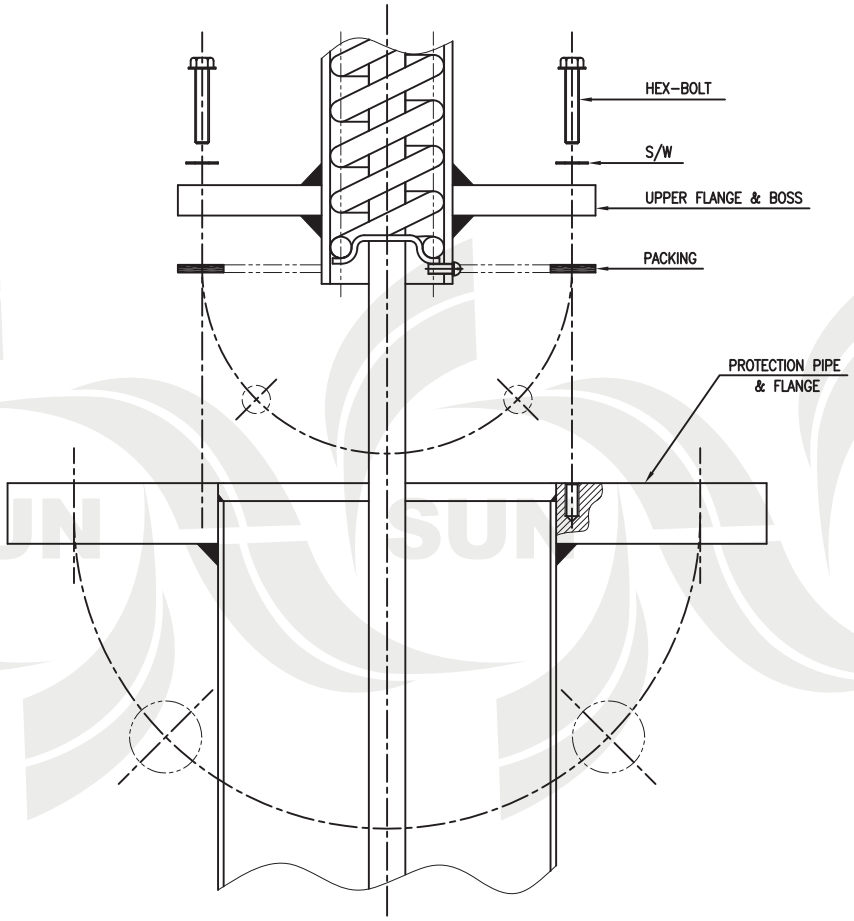
NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	SWITCH BOX	
4	PROTECTION PIPE	SUS304
5	FLOAT	SUS304
6	CORE	SS400
7	FLANGE	SS400
8	NAME PLATE	BS
9	CABLE GLAND	BS
10	PIPE	SUS304
11	STOPPER	SUS304
12	TEST DEVICE	BS/SUS304

Remark : 1. The name plate shall be specified by purchaser as required.

Detail of Parts

SUN

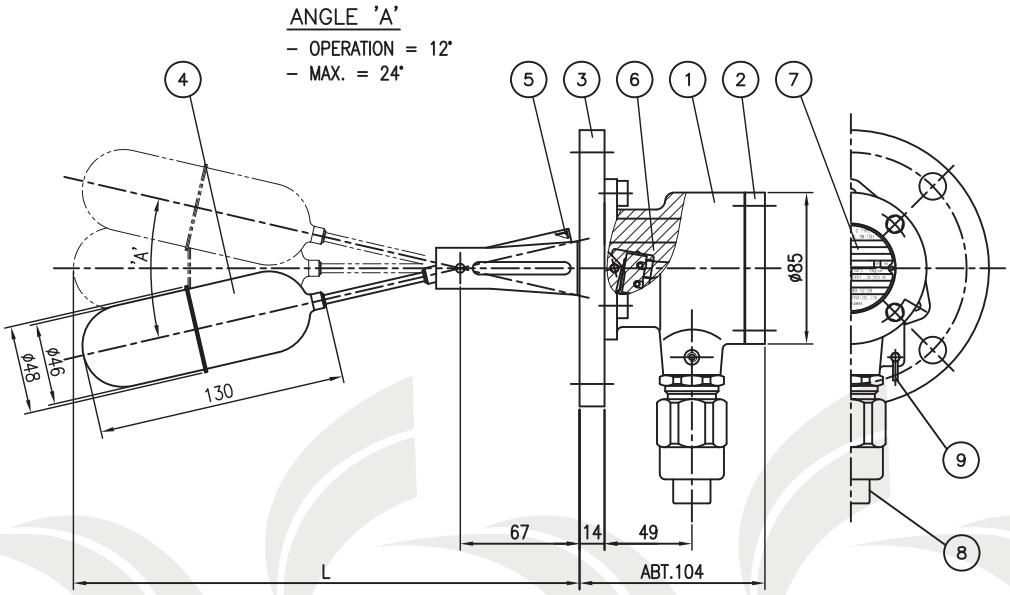
REV. PARTS DETAIL VIEW



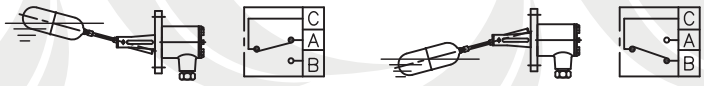
Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch

SUN-FLS-07016



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL

C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : SIDE MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : EXPLOSION PROOF(Ex d IIC T6)

FLANGE DIMENSION

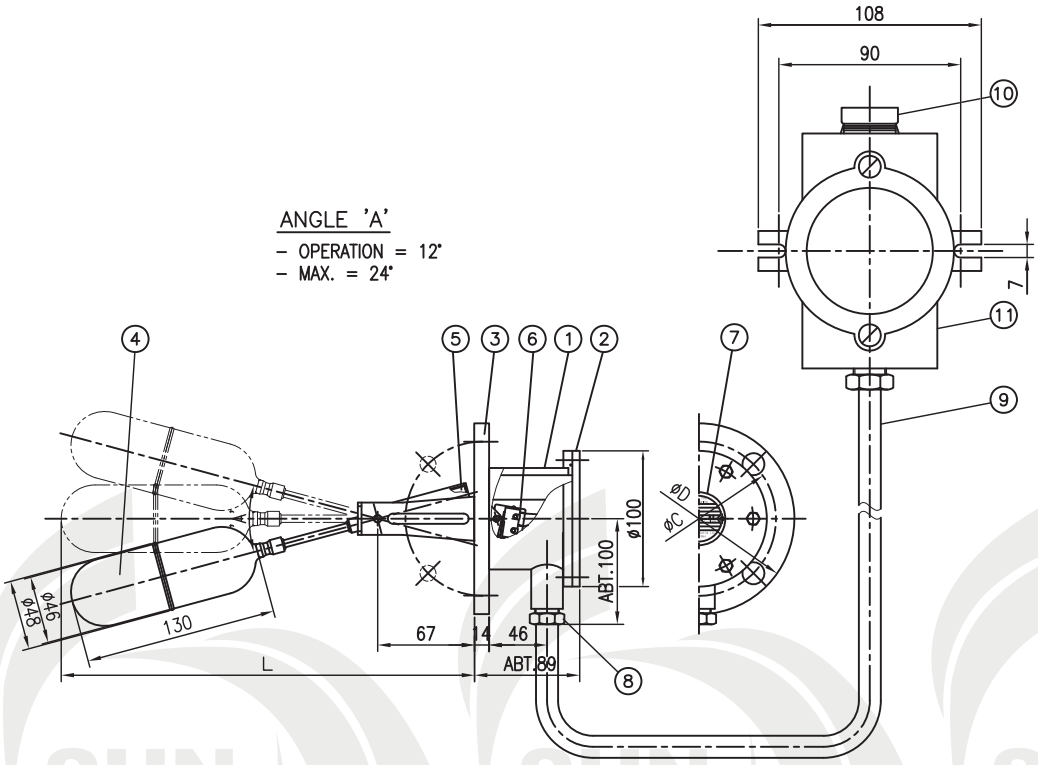
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL

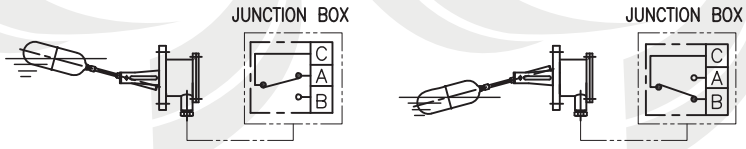
Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch with Junction Box

SUN-FLS-07006



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL

C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : SIDE MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP68)
   JUNCTION BOX : (IP56)

FLANGE DIMENSION

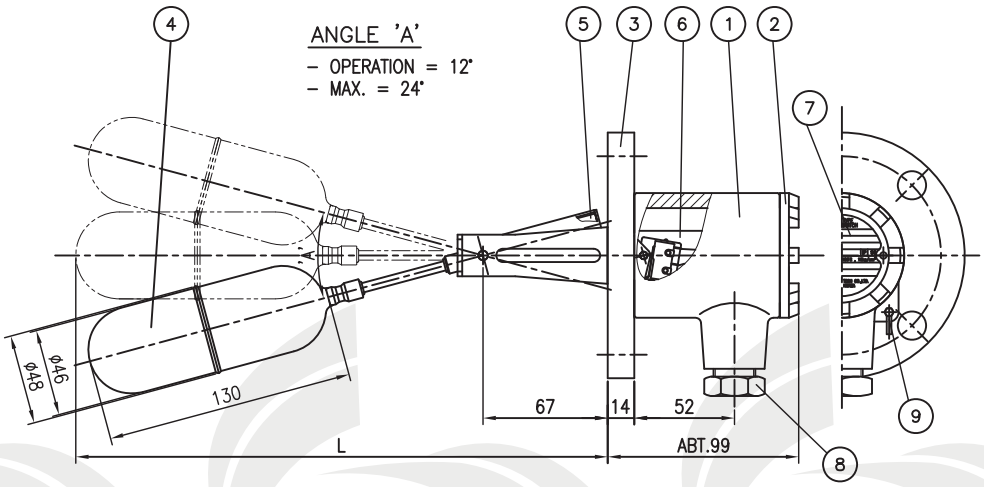
SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	SUS304
2	COVER	SUS304
3	FLANGE	SUS304
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	SUS304
8	CABLE GLAND	SUS304
9	CABLE	
10	CABLE GLAND	BS
11	JUNCTION BOX	BC

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch

SUN-FLS-07001



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL



C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : SIDE MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : –10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

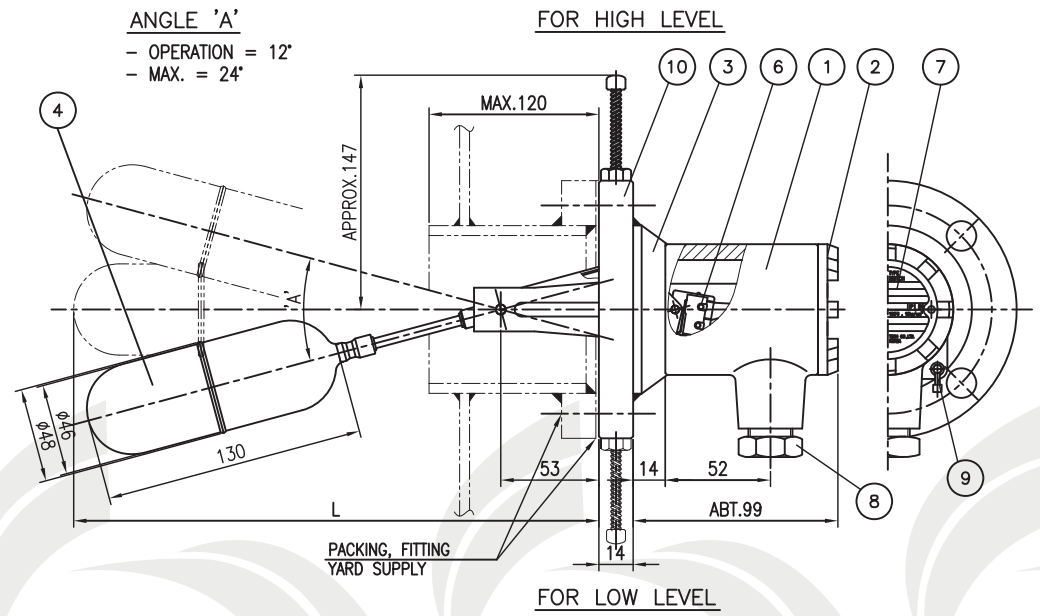
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL

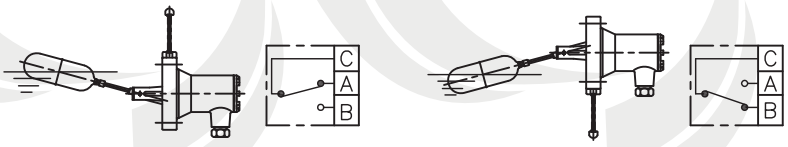
Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch with Test Device

SUN-FLS-07004



WIRING DIAGRAM



TECHNICAL DATA

1. INSTALLATION : SIDE MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

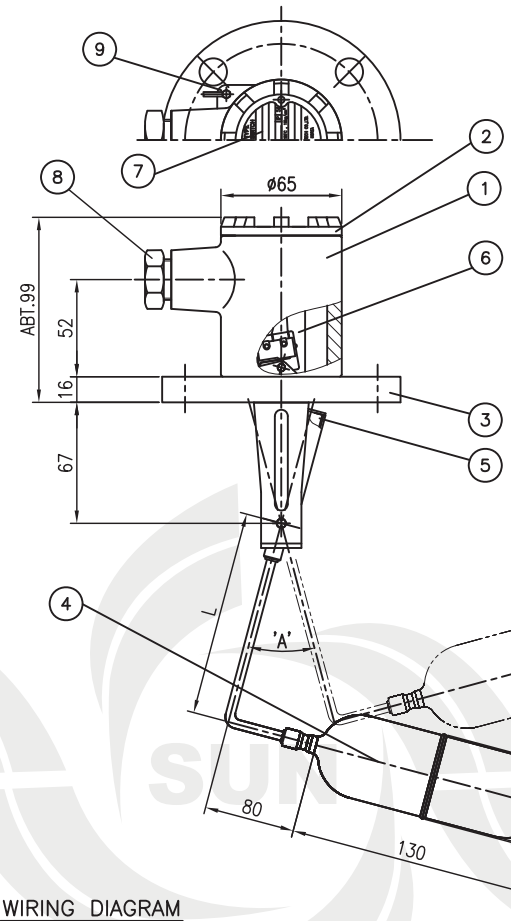
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL
10	FLANGE	SS400
11	TEST DEVICE	SUS304/BS

Remark : 1. The name plate shall be specified by purchaser as required.

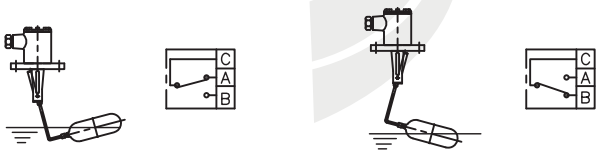
Magnetic Type Float Level Switch with Test Device

SUN-FLS-99002



ANGLE 'A'
- OPERATION = 12°
- MAX. = 24°

WIRING DIAGRAM



C–A MAKES ON RISING LEVEL

C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : SIDE MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

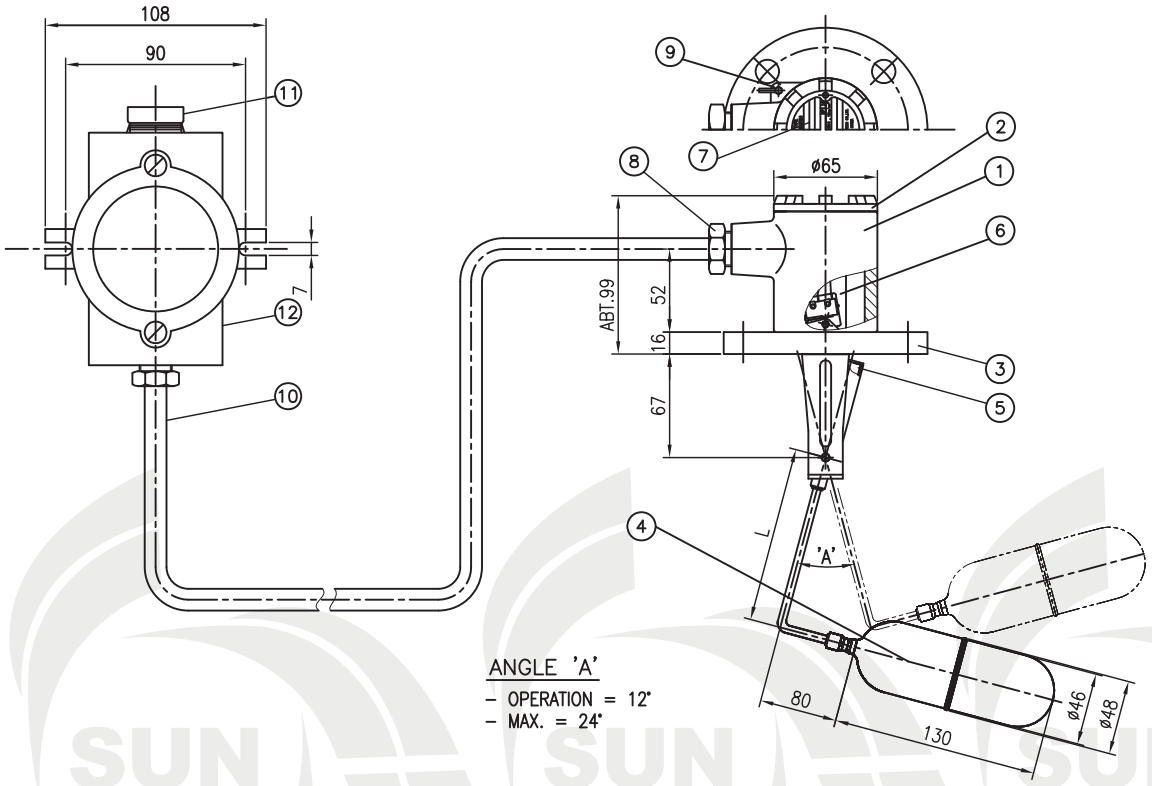
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL

Remark : 1. The name plate shall be specified by purchaser as required.

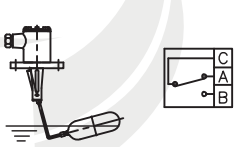
Magnetic Type Float Level Switch with Test Device

SUN-FLS-01002

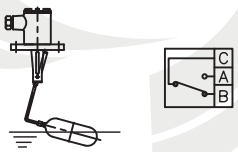


ANGLE 'A'
- OPERATION = 12°
- MAX. = 24°

WIRING DIAGRAM



C–A MAKES ON RISING LEVEL



C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

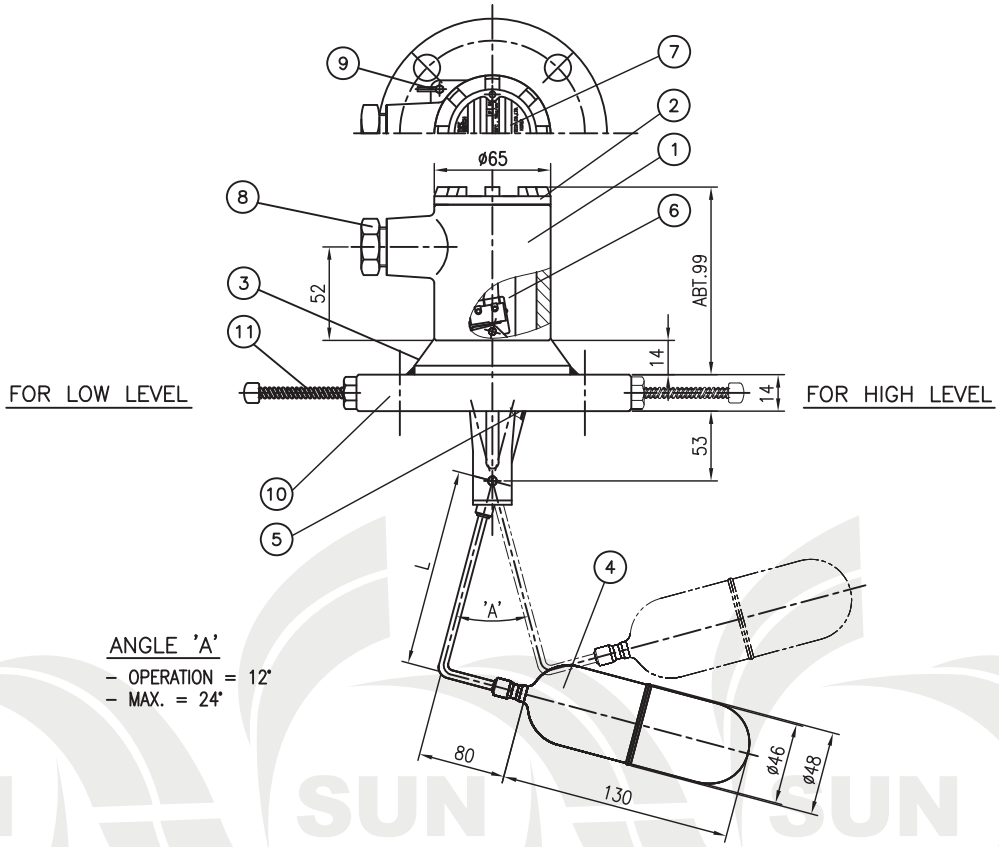
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL
10	CABLE	
11	CABLE GLAND	BS
12	JUNCTION BOX	BC

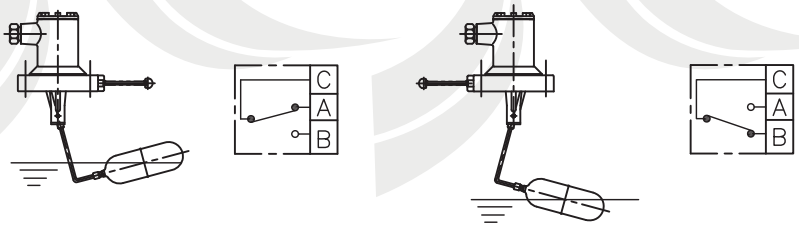
Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch with Test Device

SUN-FLS-07005



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL

C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : –10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

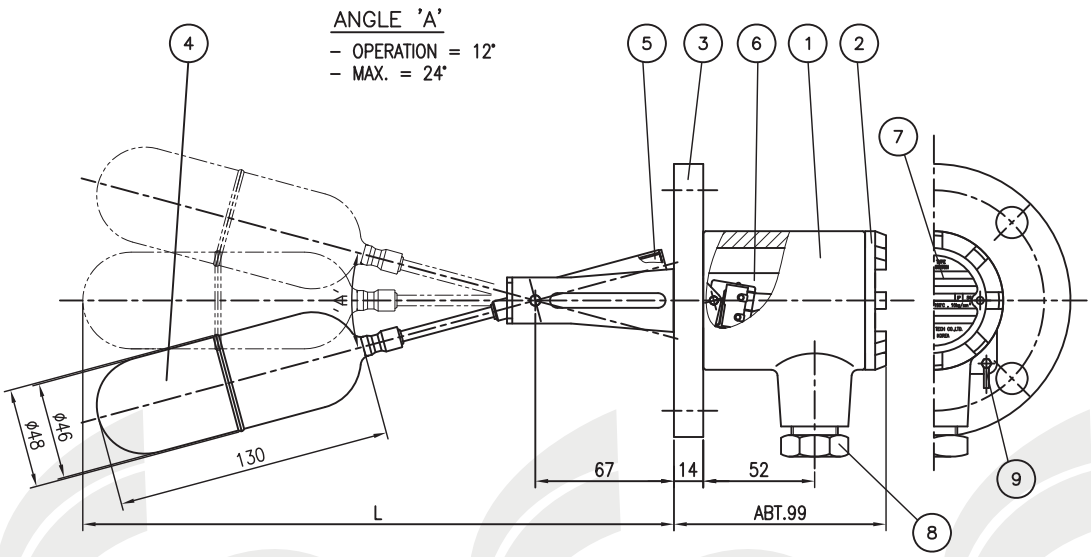
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL
10	FLANGE	SS400
11	TEST DEVICE	SUS304/BS

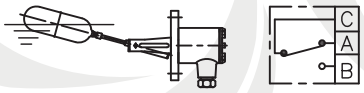
Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch

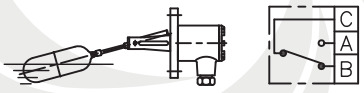
SUN-FLS-02038



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL



C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : SIDE MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : −10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

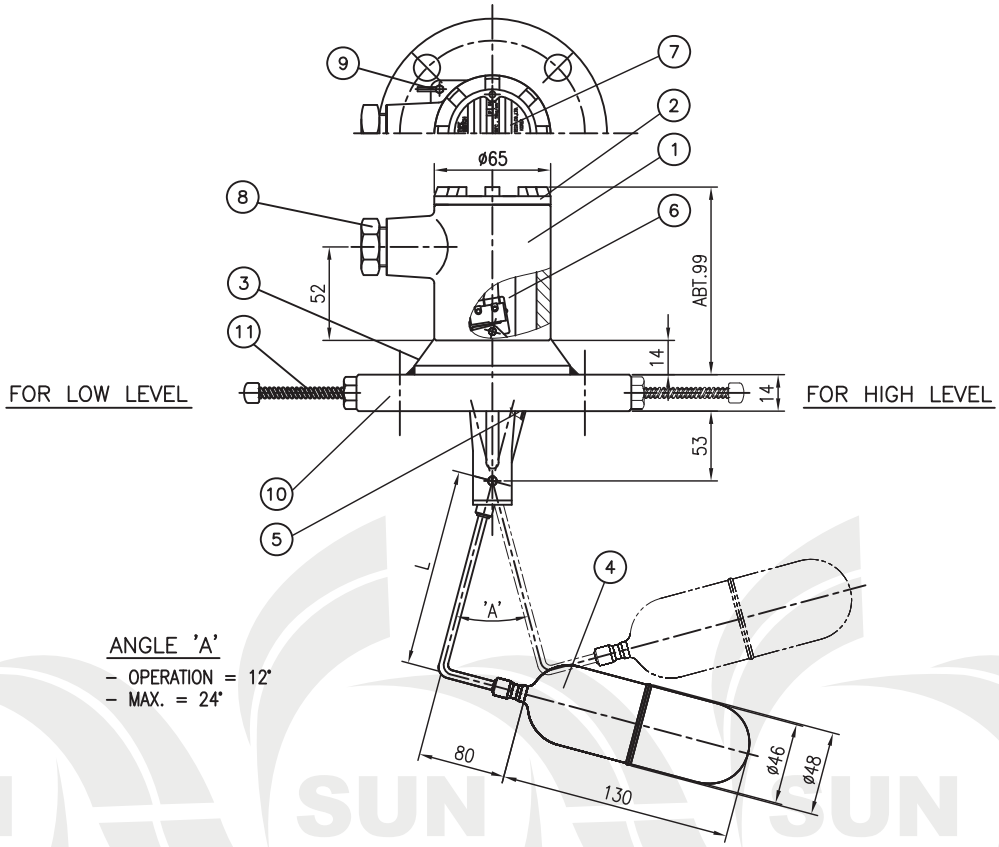
SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 50A	130	105	4	15	

NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL

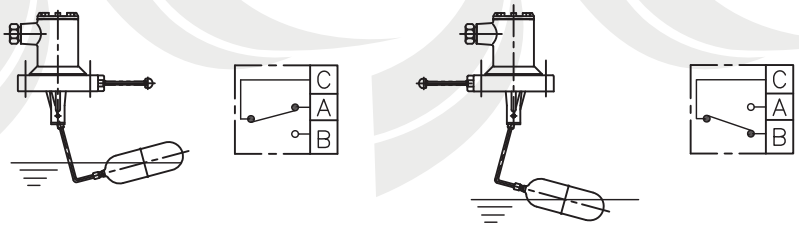
Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Switch with Test Device

SUN-FLS-07009



WIRING DIAGRAM



C–A MAKES ON RISING LEVEL

C–B MAKES ON FALLING LEVEL

TECHNICAL DATA

1. INSTALLATION : VERTICAL MOUNTING
2. MAX.WORKING PRESS. : 10kg/cm²
3. MAX.WORKING TEMP. : 150°C
4. PERMISSIBLE AMB.TEMP. : –10 ~ 60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65 ~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 3A 250V AC
9. ENCLOSURE : WEATHER PROOF (IP56)

FLANGE DIMENSION

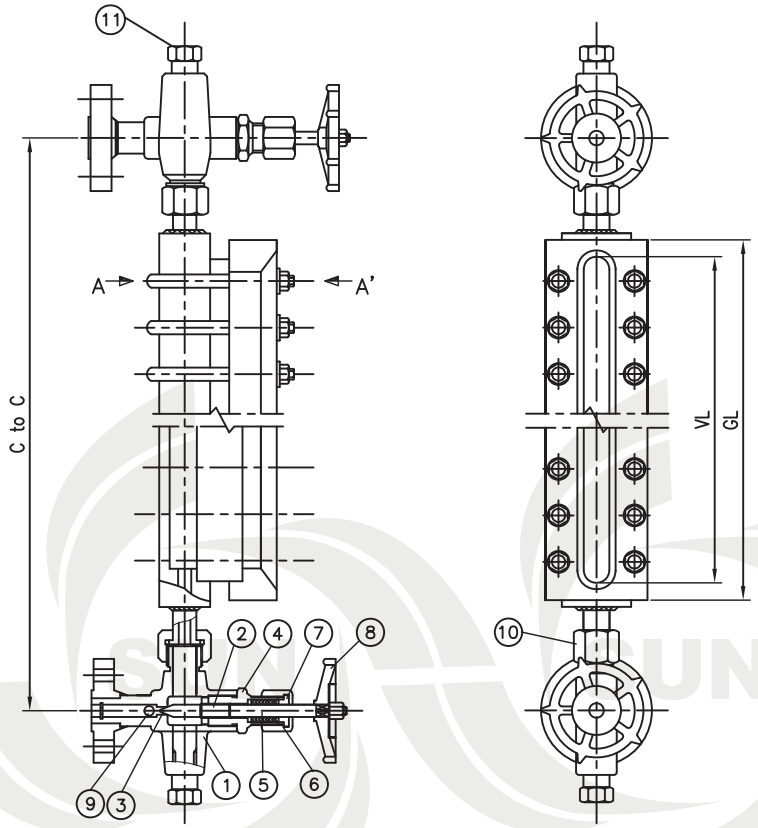
SIZE	O.D	P.C.D	No. of Hole	Hole Size	REMARK
5K 65A	155	130	4	15	

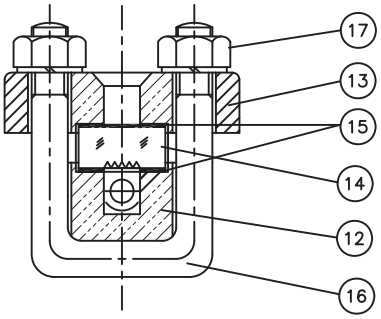
NO.	PARTS	MATERIAL
1	BODY	AC
2	COVER	AC
3	FLANGE	SS400
4	FLOAT	SUS316
5	MAGNET	ALNICO
6	SWITCH BOX	
7	NAME PLATE	BS
8	CABLE GLAND	BS
9	EARTH TERMINAL	AL
10	FLANGE	SS400
11	TEST DEVICE	SUS304/BS

Remark : 1. The name plate shall be specified by purchaser as required.

Reflex Type Glass Level Gauge

SUN-GLG-04164





SECTION A–A'

NO.	PARTS	MATERIAL
1	VALVE BODY	C.S
2	STEM	SUS304
3	SEAT	C.S
4	BONNET	C.S
5	G.D PACKING	NON-ASBESTOS
6	G.D NUT	C.S
7	GLAND	C.S
8	HANDLE	F . C
9	BALL	SUS304
10	UNION	C.S
11	PLUG	C.S
12	GAUGE BODY	C.S
13	GAUGE COVER	C.S
14	GLASS	BOROSILICATE
15	GASKET	GRAFOIL
16	U-BOLT	C.S
17	NUT	C.S

SPECIFICATION

1. VALVE TYPE : SCREW DOWN VALVE
2. MAX. WORKING TEMP. : 200°C
3. TEST PRESS. : 20kg/cm²
4. APPLICATION : BOILER, WATER TANK

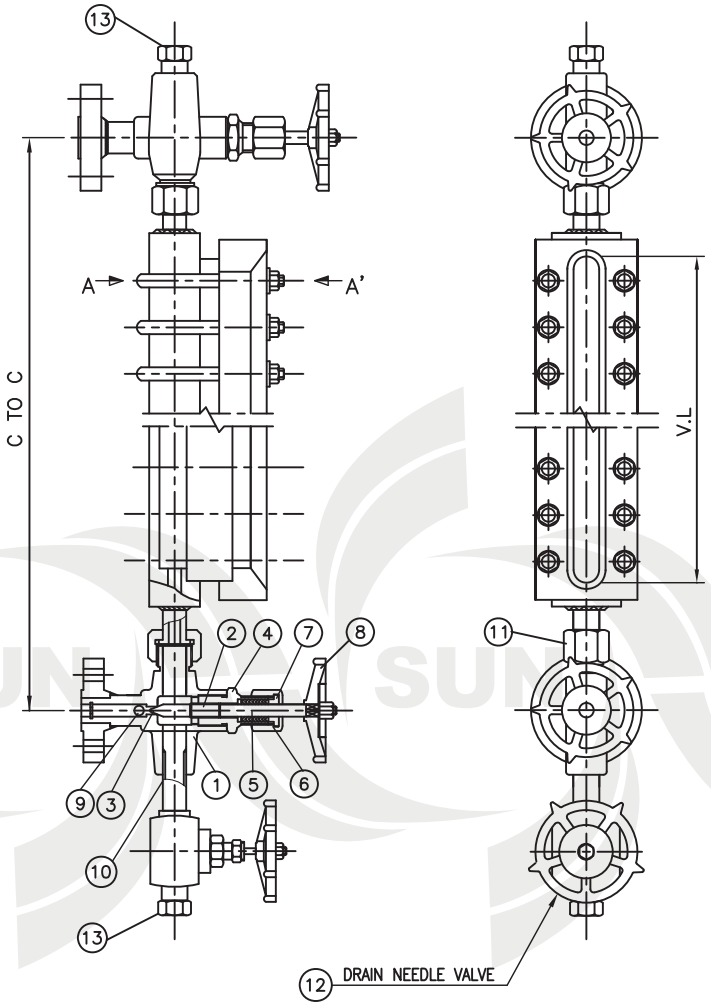
FLANGE DIMENSION

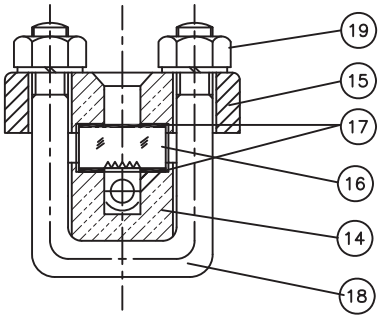
SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 20A	85	65	4	12	

Remark : 1. The name plate shall be specified by purchaser as required.

Reflex Type Glass Level Gauge

SUN-GLG-05148





SECTION A–A'

NO.	PARTS	MATERIAL
1	VALVE BODY	C.S
2	STEM	SUS 304
3	SEAT	SUS 304
4	BONNET	C.S
5	G.D PACKING	NON-ASBESTOS
6	G.D NUT	C.S
7	GLAND	C.S
8	HANDLE	F . C
9	BALL	C.S
10	NIPPLE	C.S
11	UNION	C.S
12	DRAIN V/V	C.S
13	PLUG	C.S
14	GAUGE BODY	SS400
15	GAUGE COVER	SS400
16	GLASS	BOROSILICATE
17	GASKET	GRAFOIL
18	U-BOLT	C.S
19	NUT	C.S

SPECIFICATION

1. MOUNTING TYPE : TOP – BOTTOM

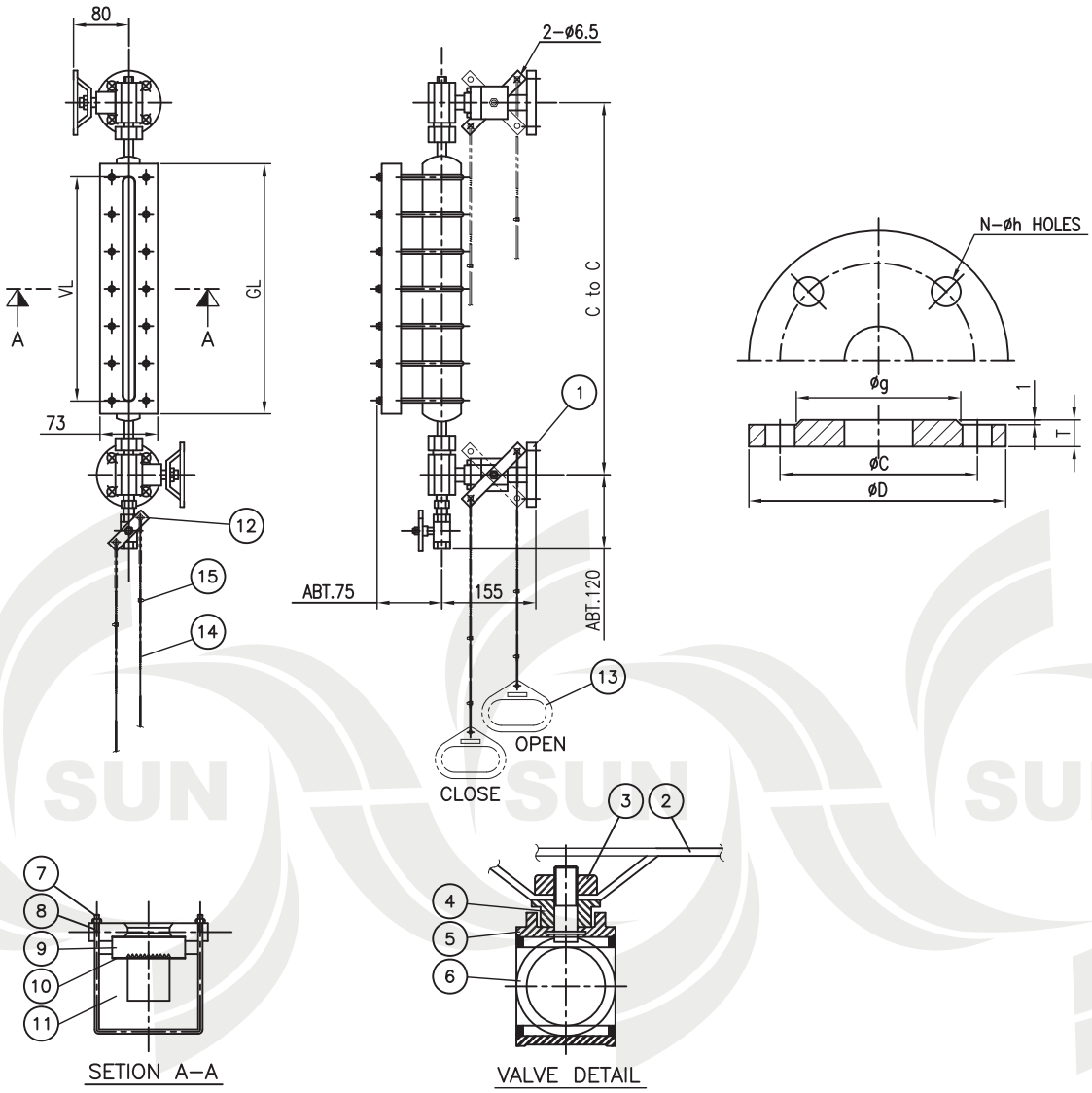
FLANGE DIMENSION

SIZE	O.D	P.C.D	No of Hole	Hole Size	REMARK
5K 20A	85	65	4	12	

Remark : 1. The name plate shall be specified by purchaser as required.

Reflex Type Glass Level Gauge with Operation Handle(Cock Type)

SUN-GLG-05166



NO.	PARTS	MATERIAL
1	BODY FLANGE	A105
2	COCK HANDLE	SS400
3	STEM	T316
4	BONNET	A105
5	VALVE BODY	A105
6	BALL DISK	CF8M
7	U-BOLT	SS400
8	GAUGE COVER	SS400
9	GLASS	BORO-SILICATE
10	PACKING	NON-ASBESTOS
11	GAUGE BODY	S45C
12	DRAIN VALVE	C.S
13	HANDLE	AL
14	WIRE	SUS304
15	WIRE CLAMP	SUS304

TECHNICAL DATA

1. VALVE TYPE : COCK VALVE
2. MAX. WORKING TEMP. : 200°C
3. MAX. WORKING PRESS. : 16kg/cm²
4. APPLICATION : BOILER, WATER TANK

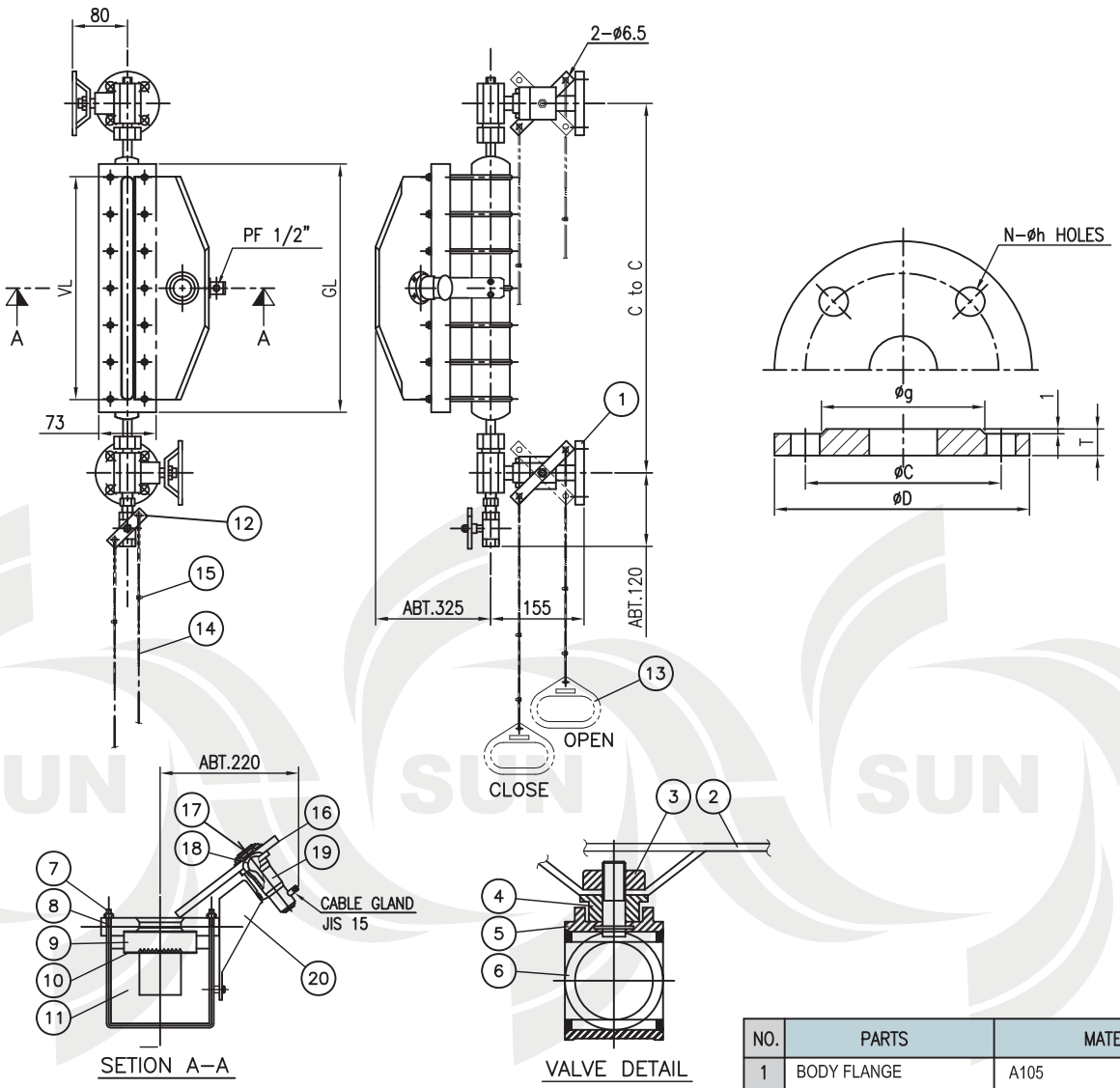
FLANGE DIMENSION TABLE

SIZE	øD	øC	øg	N	øh	T
JIS 16K 20A RF	100	75	58	4	15	14

Remark : 1. The name plate shall be specified by purchaser as required.

Reflex Type Glass Level Gauge with Operation Handle(illuminator Type)

SUN-GLG-05167



NO.	PARTS	MATERIAL
1	BODY FLANGE	A105
2	COCK HANDLE	SS400
3	STEM	T316
4	BONNET	A105
5	VALVE BODY	A105
6	BALL DISK	CF8M
7	U-BOLT	SS400
8	GAUGE COVER	SS400
9	GLASS	BORO-SILICATE
10	PACKING	NON-ASBESTOS
11	GAUGE BODY	S45C
12	DRAIN VALVE	C.S
13	HANDLE	AL
14	WIRE	SUS304
15	WIRE CLAMP	SUS304
16	REFLECTAR	ACRYL
17	COVER	AL
18	BULB LIGHT	
19	LIGHT HOUSING	AL
20	SUPPORT	SS400

TECHNICAL DATA

1. VALVE TYPE : COCK VALVE
2. MAX. WORKING TEMP. : 200°C
3. MAX. WORKING PRESS. : 16kg/cm²
4. APPLICATION : BOILER, WATER TANK

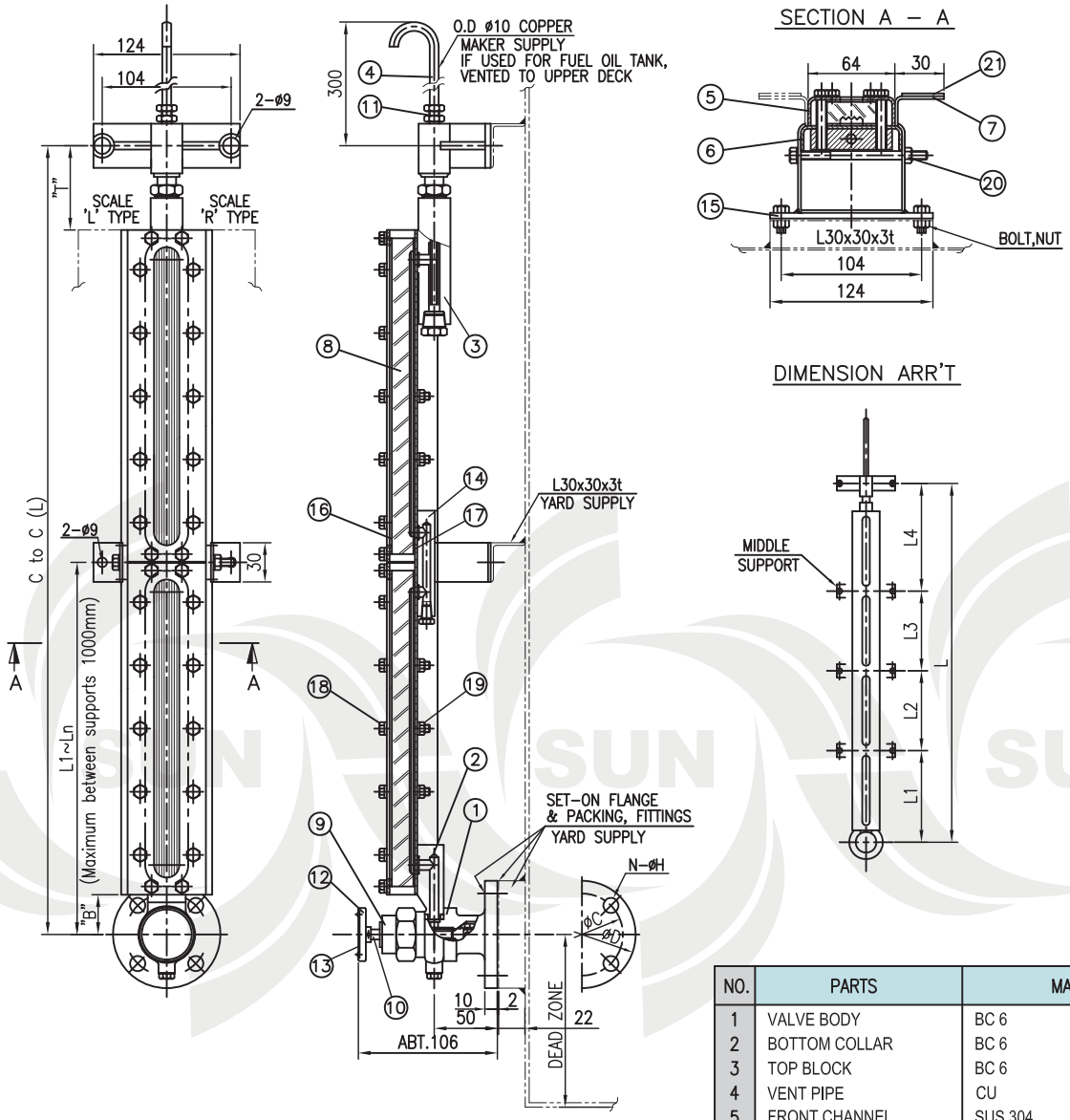
FLANGE DIMENSION TABLE

SIZE	øD	øC	øg	N	øh	T
JIS 16K 20A RF	100	75	58	4	15	14

Remark : 1. The name plate shall be specified by purchaser as required.

Flat Type Glass Level Gauge

SUN-GLG-07073



NO.	PARTS	MATERIAL
1	VALVE BODY	BC 6
2	BOTTOM COLLAR	BC 6
3	TOP BLOCK	BC 6
4	VENT PIPE	CU
5	FRONT CHANNEL	SUS 304
6	BACK CHANNEL	SUS 304
7	SCALE SUPPORT	SUS 304
8	GLASS	BOROSILI-CATE
9	VALVE CAP	BS
10	VALVE STEM	SUS 303
11	BITE CONNECTOR	BS
12	HANDLE	AL
13	NAME PLATE	BS
14	CONNECTOR	BS
15	MIDDLE SUPPORT	SUS 304
16	CUSHION	NON-ASBESTOS
17	PACKING	N.B.R
18	BOLT	SUS 304
19	NUT	SUS 304
20	BOLT, NUT, S/W	SUS 304
21	SCALE BOARD	BS

SPECIFICATION

1. APPLICATION : WATER TANKS & ALL OIL TANKS
2. APPLICABLE LIQUID : WATER, ALL OIL (FLASH POINT : ABOVE 60°C)
3. MAX. WORKING TEMP. : 150°C
4. MAX. WORKING PRESS. : ATM

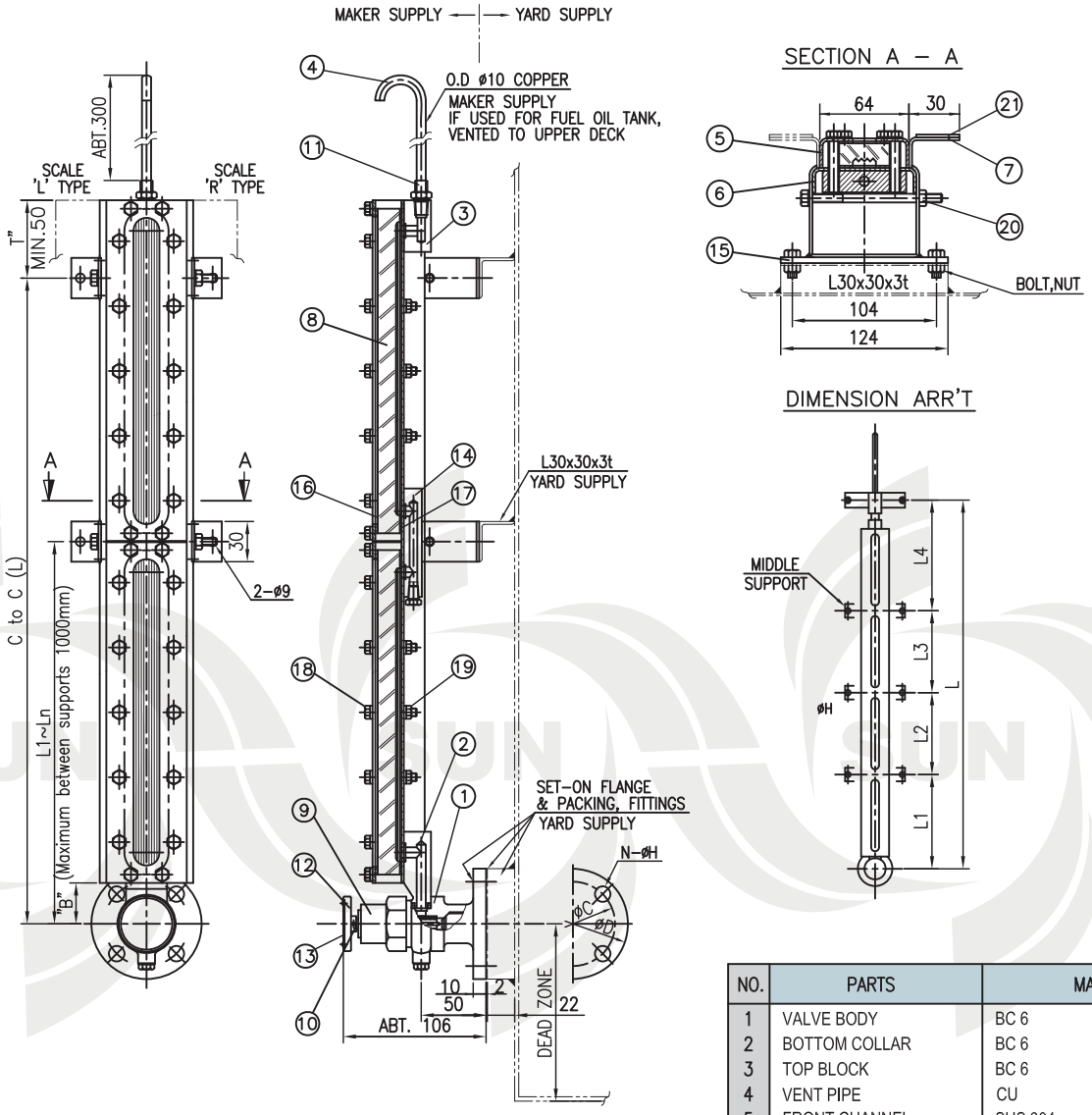
FLANGE DIMENSION TABLE

SIZE	D	C	N	øH
5K 20A	85	65	4	12
5K 25A	95	75	4	12

Remark : 1. The name plate shall be specified by purchaser as required.

Flat Type Glass Level Gauge

SUN-GLG-01138



NO.	PARTS	MATERIAL
1	VALVE BODY	BC 6
2	BOTTOM COLLAR	BC 6
3	TOP BLOCK	BC 6
4	VENT PIPE	CU
5	FRONT CHANNEL	SUS 304
6	BACK CHANNEL	SUS 304
7	SCALE SUPPORT	SUS 304
8	GLASS	BOROSILI-CATE
9	VALVE CAP	BS
10	VALVE STEM	SUS 303
11	BITE CONNECTOR	BS
12	HANDLE	AL
13	NAME PLATE	BS
14	CONNECTOR	BS
15	MIDDLE SUPPORT	SUS 304
16	CUSHION	NON-ASBESTOS
17	PACKING	N.B.R
18	BOLT	SUS 304
19	NUT	SUS 304
20	BOLT, NUT, S/W	SUS 304
21	SCALE BOARD	BS

SPECIFICATION

1. APPLICATION : WATER TANKS & ALL OIL TANKS
2. APPLICABLE LIQUID : WATER, ALL OIL (FLASH POINT : ABOVE 60°C)
3. MAX. WORKING TEMP. : 200°C
4. MAX. WORKING PRESS. : 3kg/cm²

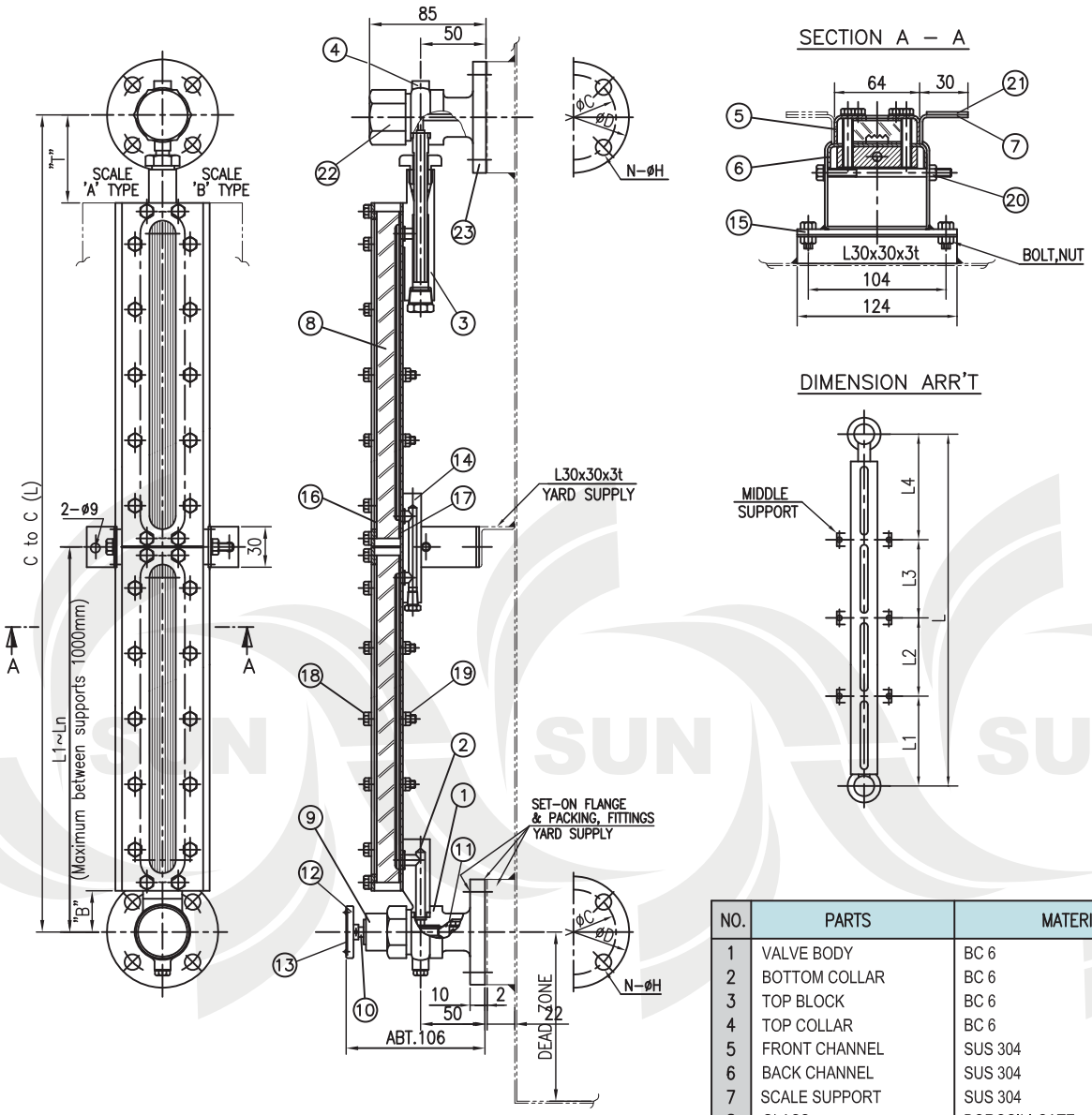
FLANGE DIMENSION TABLE

SIZE	D	C	N	øH
5K 20A	85	65	4	12
5K 25A	95	75	4	12

Remark : 1. The name plate shall be specified by purchaser as required.

Flat Type Glass Level Gauge

SUN-GLG-07020



NO.	PARTS	MATERIAL
1	VALVE BODY	BC 6
2	BOTTOM COLLAR	BC 6
3	TOP BLOCK	BC 6
4	TOP COLLAR	BC 6
5	FRONT CHANNEL	SUS 304
6	BACK CHANNEL	SUS 304
7	SCALE SUPPORT	SUS 304
8	GLASS	BOROSILI-CATE
9	VALVE CAP	BS
10	VALVE STEM	SUS 303
11	DISC	BS
12	HANDLE	AL
13	NAME PLATE	BS
14	CONNECTOR	BS
15	MIDDLE SUPPORT	SUS 304
16	CUSHION	NON-ASBESTOS
17	PACKING	N.B.R
18	BOLT	SUS 304
19	NUT	SUS 304
20	BOLT, NUT, S/W	SUS 304
21	SCALE BOARD	BS
22	RETURN CAP	BS
23	RETURN VALVE BODY	BC 6

TECHNICAL DATA

1. APPLICATION : WATER TANKS & ALL OIL TANKS
2. APPLICABLE LIQUID : WATER, ALL OIL (FLASH POINT : ABOVE 60°C)
3. MAX. WORKING TEMP. : 150°C
4. MAX. WORKING PRESS. : 3kg/cm²

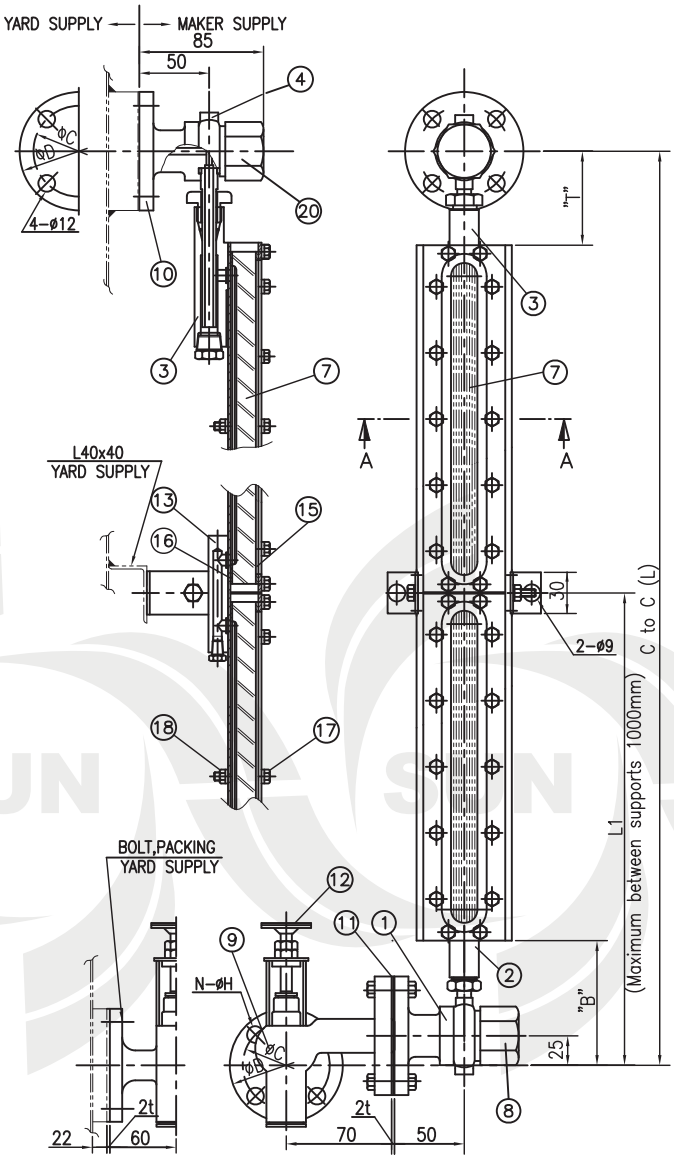
FLANGE DIMENSION TABLE

SIZE	D	C	N	øH
5K 20A	85	65	4	12
5K 25A	95	75	4	12

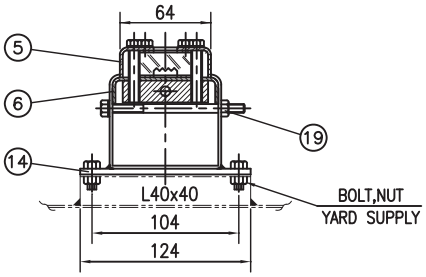
Remark : 1. The name plate shall be specified by purchaser as required.

Flat Type Glass Level Gauge with Tank Return Valves

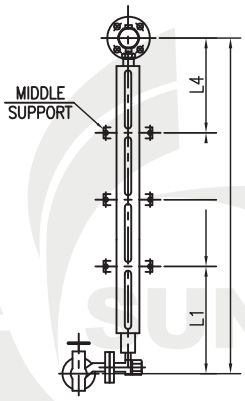
SUN-GLG-01126



SECTION A – A



DIMENSION ARR'T



NO.	PARTS	MATERIAL
1	VALVE BODY	BC 6
2	BOTTOM BLOCK	BC 6
3	TOP BLOCK	BC 6
4	TOP COLLAR	BC 6
5	FRONT CHANNEL	SUS 304
6	BACK CHANNEL	SUS 304
7	GLASS	BOROSILI-CATE
8	VALVE CAP	BS
9	SELF CLOSING V/V	BC 6
10	RETURN VALVE BODY	BC 6
11	PACKING	NON-ASBESTOS
12	NAME PLATE	BS
13	CONNECTOR	BS
14	MIDDLE SUPPORT	SUS 304
15	CUSHION	NON-ASBESTOS
16	PACKING	N.B.R
17	BOLT	SUS 304
18	NUT	SUS 304
19	BOLT, NUT, S/W	SUS 304
20	RETURN CAP	BS

SPECIFICATION

1. APPLICATION : WATER TANKS & ALL OIL TANKS
2. APPLICABLE LIQUID : WATER, ALL OIL (FLASH POINT : ABOVE 60°C)
3. MAX. WORKING TEMP. : 150°C
4. MAX. WORKING PRESS. : 3kg/cm²

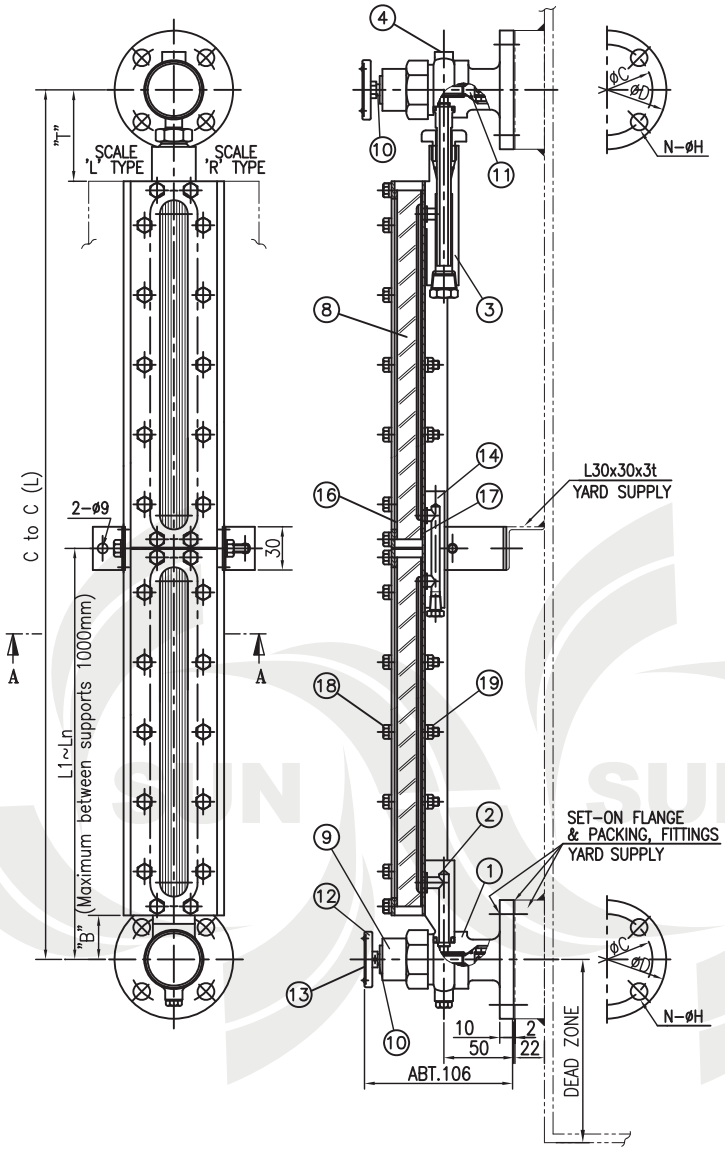
FLANGE DIMENSION TABLE

SIZE	D	C	N	øH
5K 20A	85	65	4	12
5K 25A	95	75	4	12

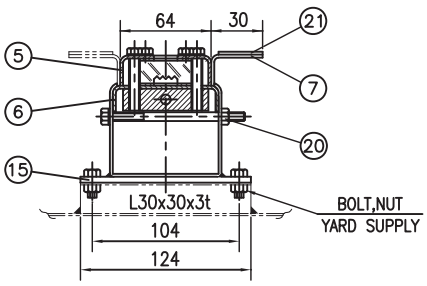
Remark : 1. The name plate shall be specified by purchaser as required.

Flat Type Glass Level Gauge

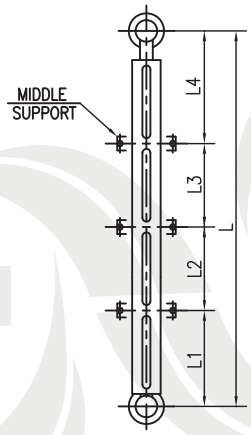
SUN-GLG-07072



SECTION A – A



DIMENSION ARR'T



NO.	PARTS	MATERIAL
1	VALVE BODY	BC 6
2	BOTTOM COLLAR	BC 6
3	TOP BLOCK	BC 6
4	TOP COLLAR	BC 6
5	FRONT CHANNEL	SUS 304
6	BACK CHANNEL	SUS 304
7	SCALE SUPPORT	SUS 304
8	GLASS	BOROSILI-CATE
9	VALVE CAP	BS
10	VALVE STEM	SUS 303
11	DISC	BS
12	HANDLE	AL
13	NAME PLATE	BS
14	CONNECTOR	BS
15	MIDDLE SUPPORT	SUS 304
16	CUSHION	NON-ASBESTOS
17	PACKING	N.B.R
18	BOLT	SUS 304
19	NUT	SUS 304
20	BOLT, NUT, S/W	SUS 304
21	SCALE BOARD	BS

SPECIFICATION

1. APPLICATION : WATER TANKS & ALL OIL TANKS
2. APPLICABLE LIQUID : WATER, ALL OIL (FLASH POINT : ABOVE 60°C)
3. MAX. WORKING TEMP. : 150°C
4. MAX. WORKING PRESS. : 3kg/cm²

FLANGE DIMENSION TABLE

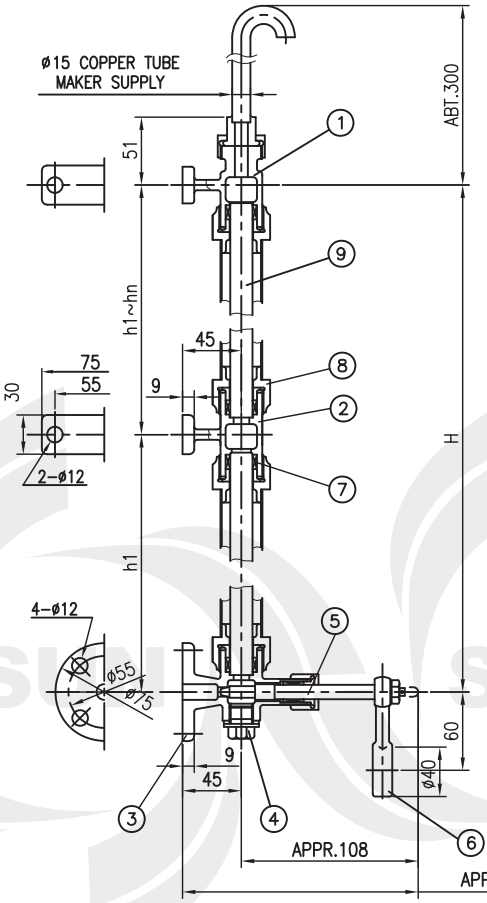
SIZE	D	C	N	øH
5K 20A	85	65	4	12
5K 25A	95	75	4	12

Remark : 1. The name plate shall be specified by purchaser as required.

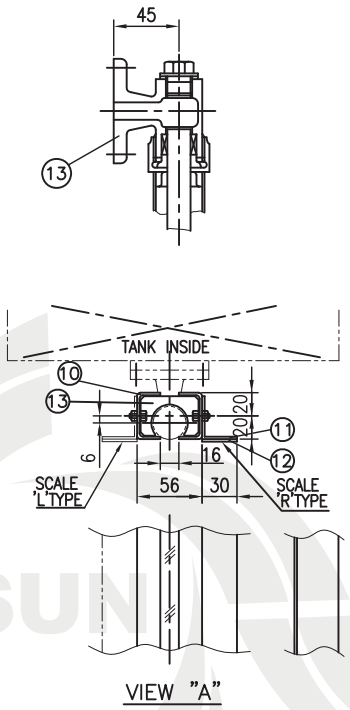
Tubular Type Glass Level Gauge

SUN-GLG-01139

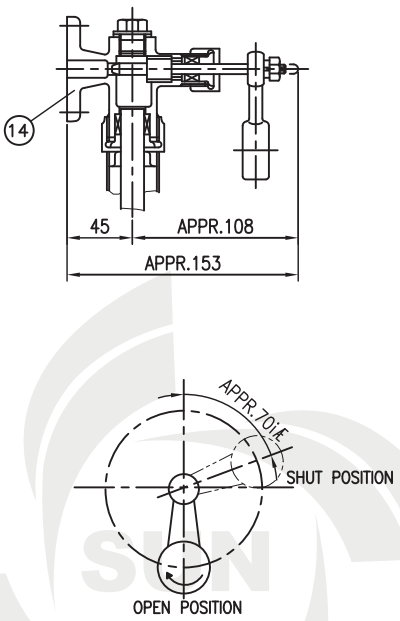
A–TYPE



B–TYPE



C–TYPE



NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	UPPER BODY	BC 6
14	UPPER BODY	BC 6
15	PROTECTION HOLDER	SS400

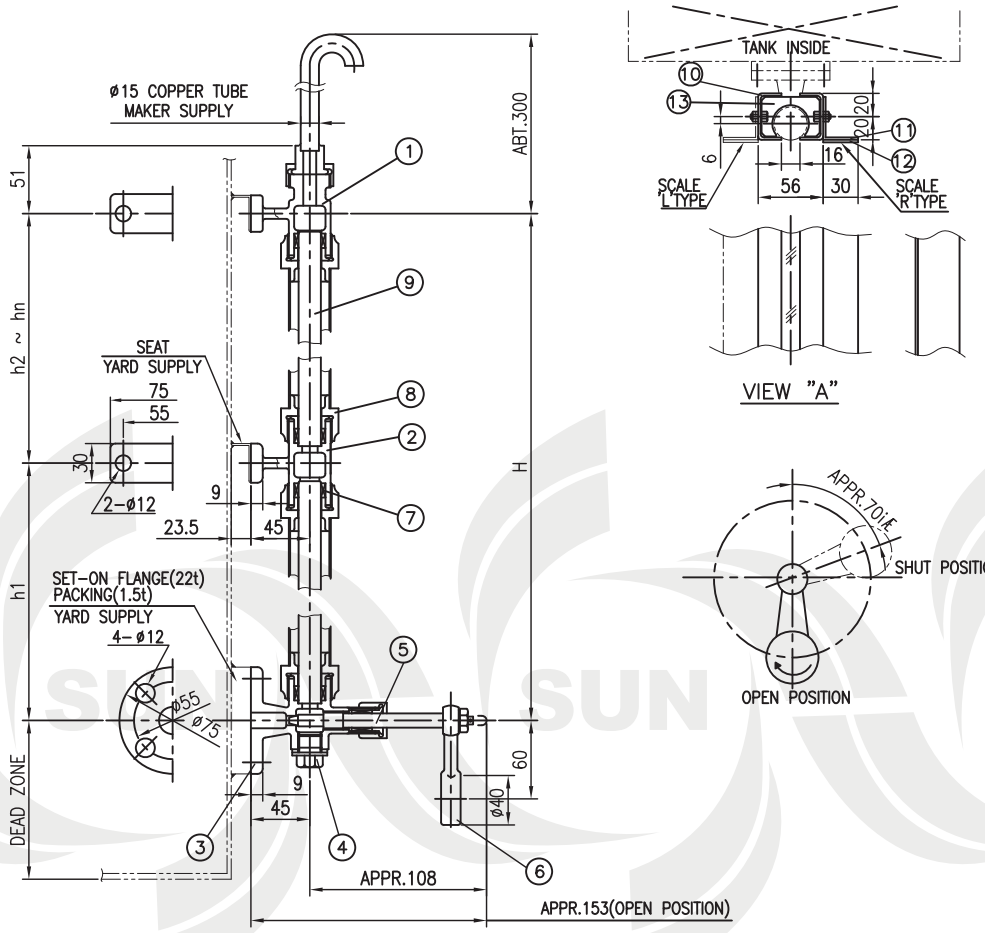
TECHNICAL DATA

1. MAX. WORKING PRESS : 3 kg/cm³
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

Tubular Type Glass Level Gauge(A-Type)

SUN-GLG-00001



NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	PROTECTION HOLDER	SS400

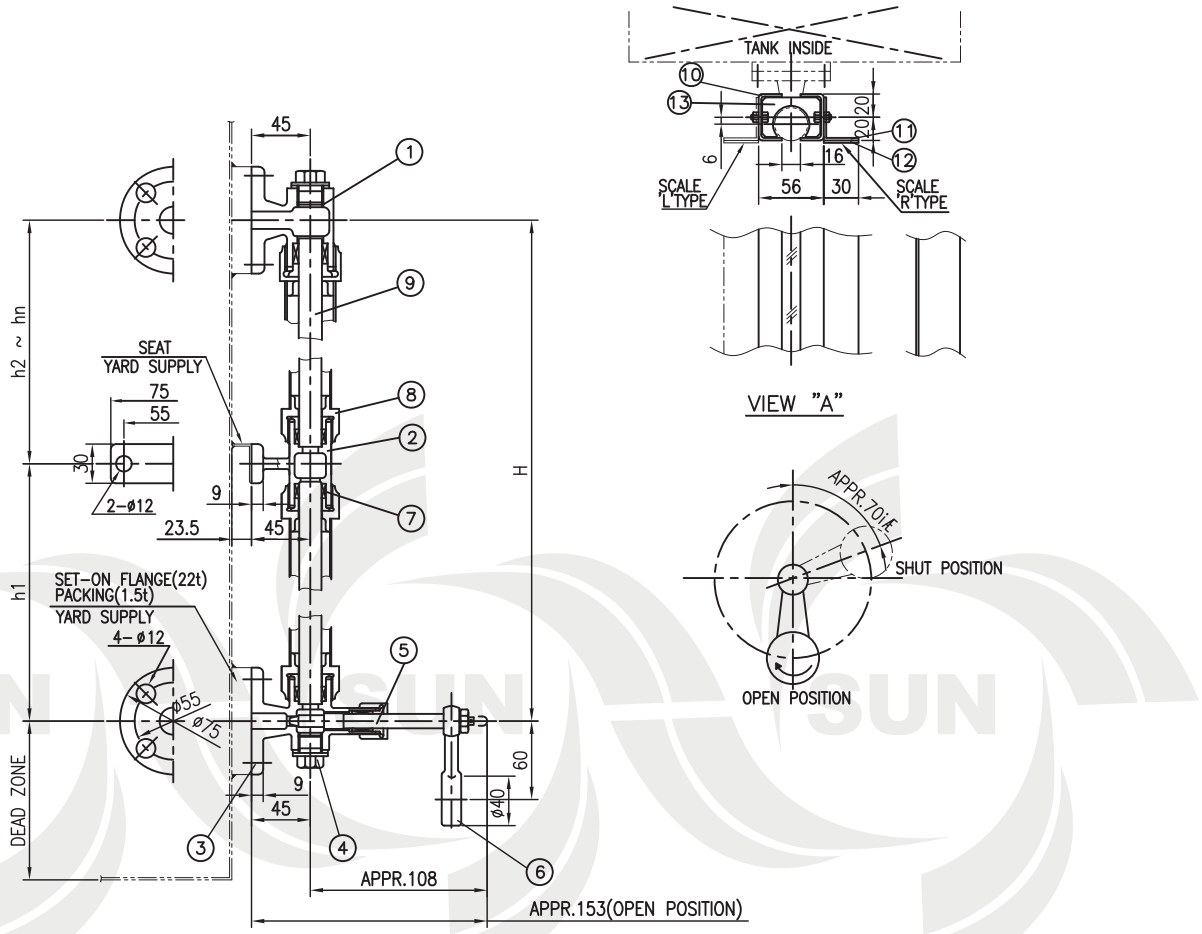
TECHNICAL DATA

1. MAX. WORKING PRESS : 3 kg/cm³
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

Tubular Type Glass Level Gauge(B-Type)

SUN-GLG-00002



NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	PROTECTION HOLDER	SS400

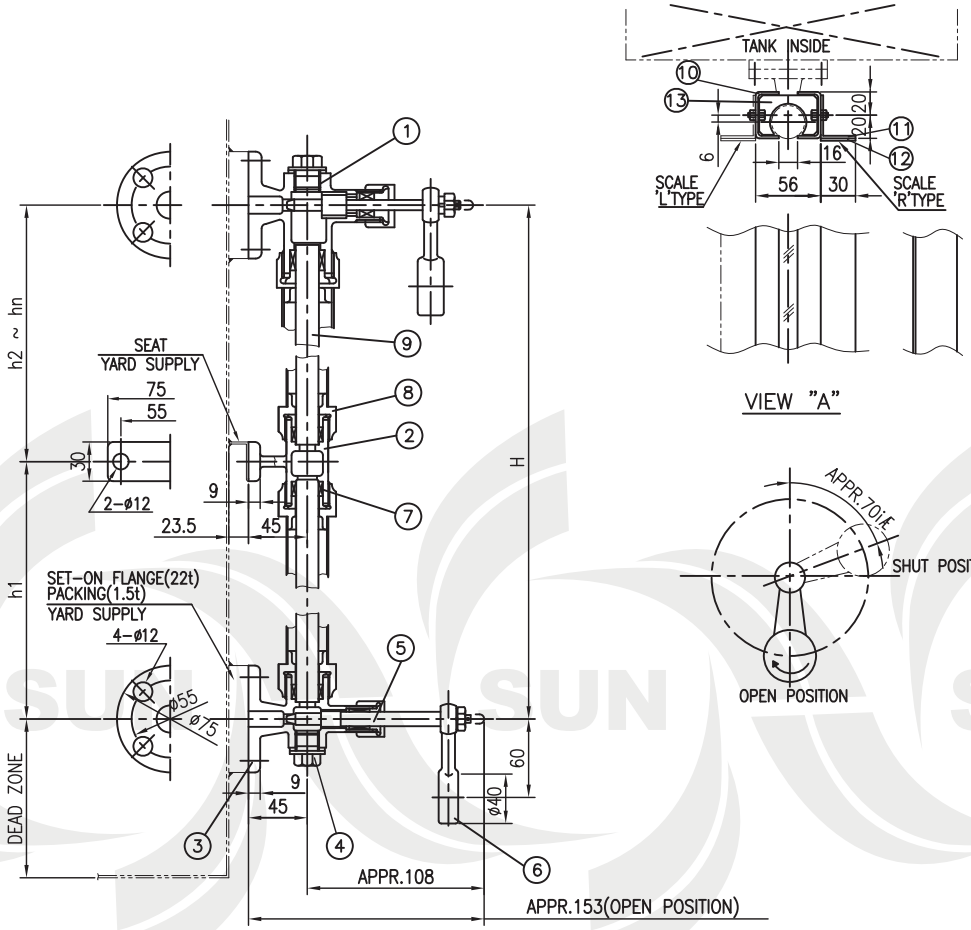
TECHNICAL DATA

1. MAX. WORKING PRESS : 3 kg/cm³
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

Tubular Type Glass Level Gauge(C-Type)

SUN-GLG-00003



NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	PROTECTION HOLDER	SS400

TECHNICAL DATA

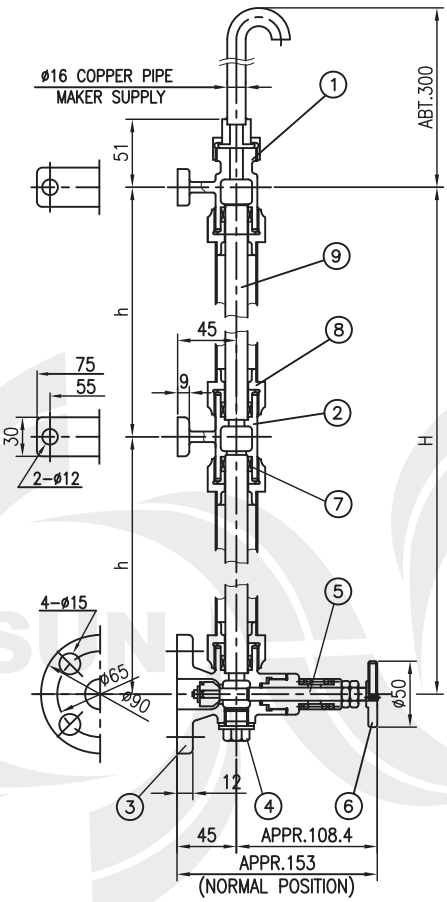
1. MAX. WORKING PRESS : 3 kg/cm³
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

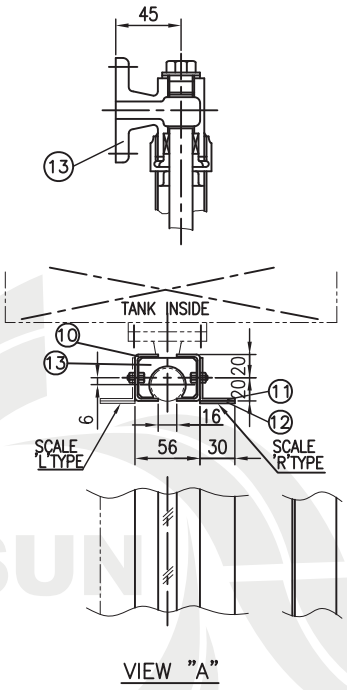
Tubular Type Glass Level Gauge(JIS F7212)

SUN-GLG-01140

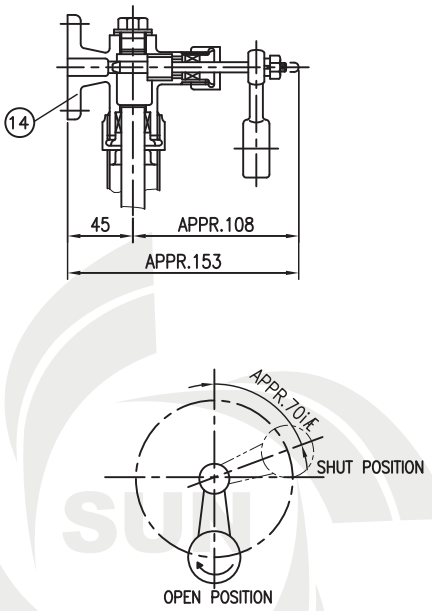
A–TYPE



B–TYPE



C–TYPE



NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS41
11	SCALE SUPPORT	SS41
12	SCALE BOARD	BS
13	UPPER BODY	BC 6
14	UPPER BODY	BC 6
15	PROTECTION HOLDER	SS41

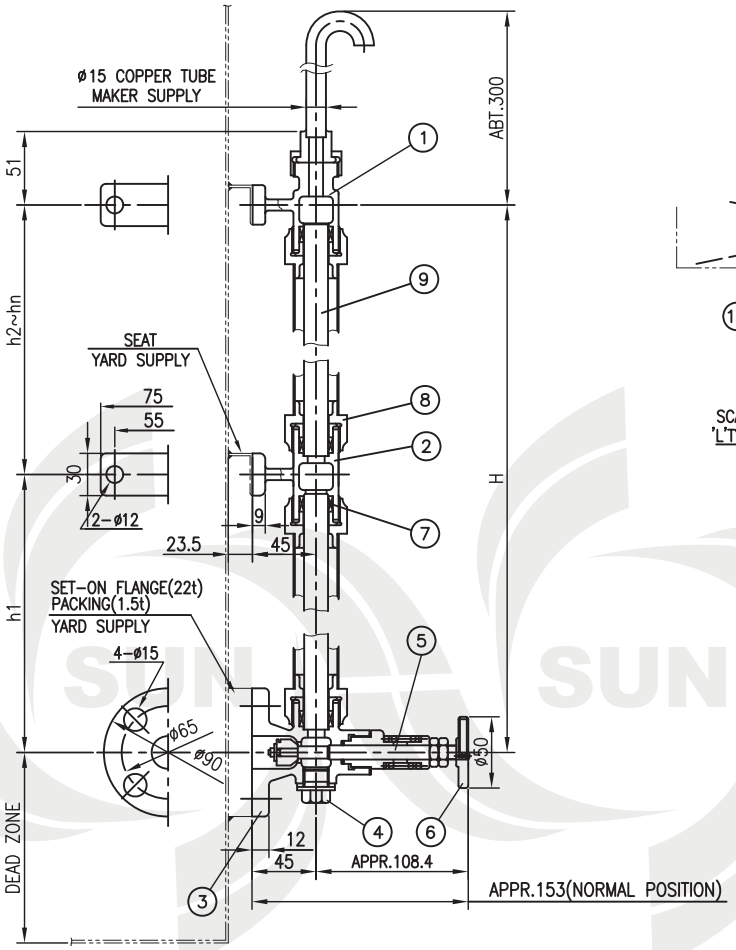
TECHNICAL DATA

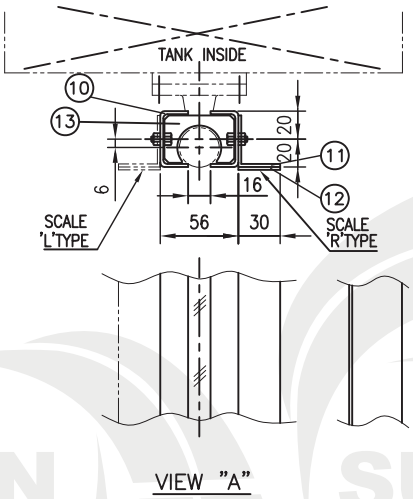
1. MAX. WORKING PRESS : 3 kg/cm³
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

Tubular Type Glass Level Gauge(JIS F7212-A Type)

SUN-GLG-00004





NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	PROTECTION HOLDER	SS400

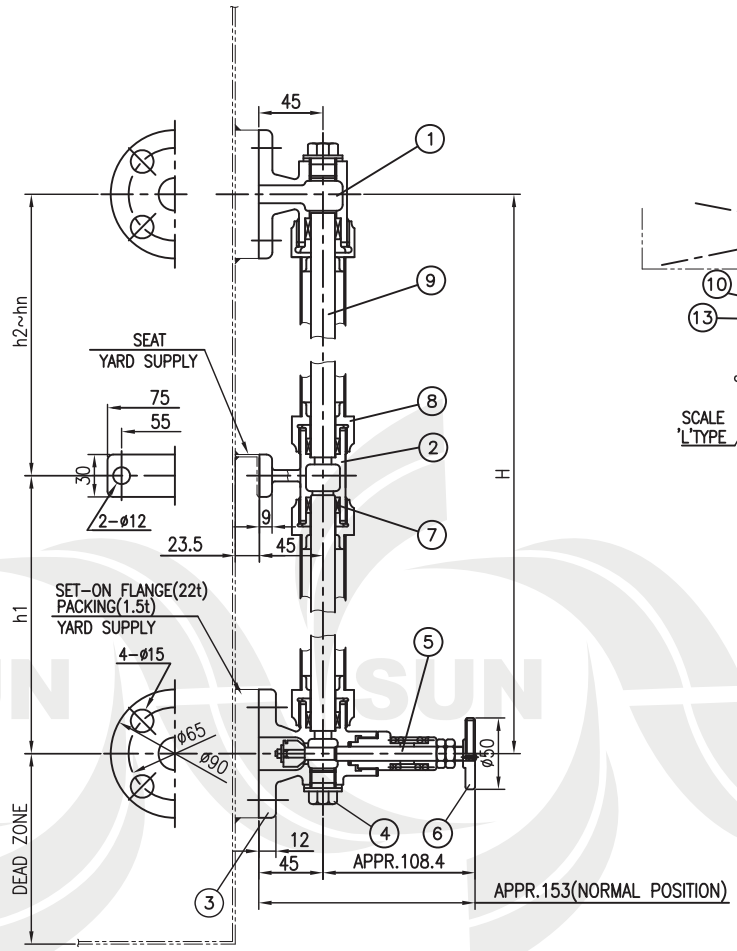
TECHNICAL DATA

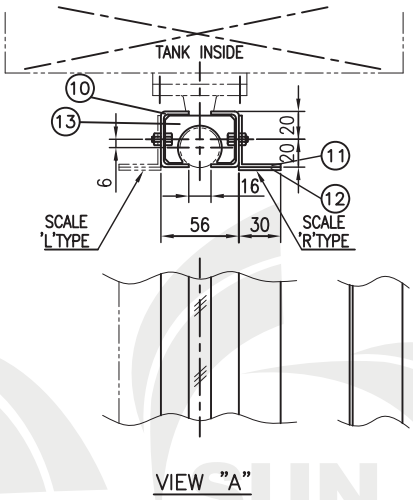
1. MAX. WORKING PRESS : 3 kg/cm^3
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

Tubular Type Glass Level Gauge(JIS F7212-B Type)

SUN-GLG-00005





NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	PROTECTION HOLDER	SS400

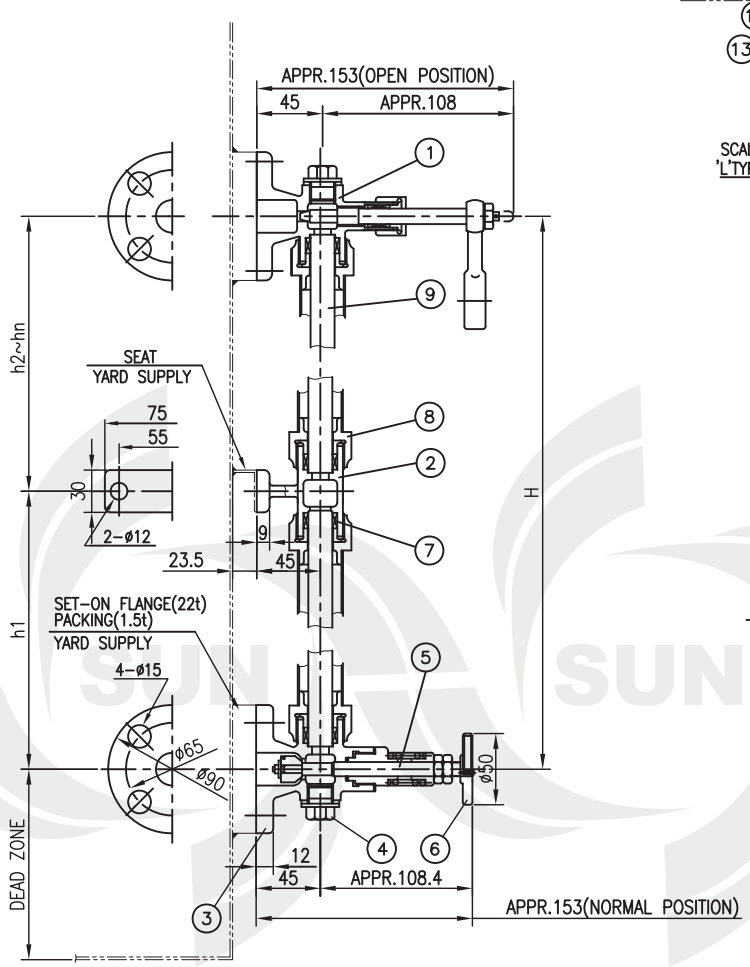
TECHNICAL DATA

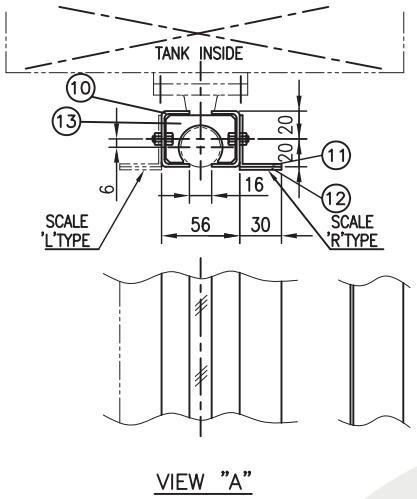
1. MAX. WORKING PRESS : 3 kg/cm^3
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

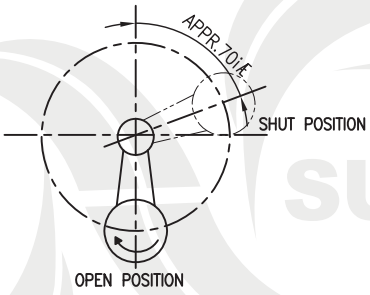
Tubular Type Glass Level Gauge(JIS F7212-C Type)

SUN-GLG-00006





VIEW "A"



NO.	PARTS	MATERIAL
1	UPPER BODY	BC 6
2	MIDDLE BODY	BC 6
3	LOWER BODY	BC 6
4	DRAIN PLUG	BS
5	SHAFT	BS
6	HANDLE	FC20
7	SEAL RING	NBR
8	GLAND	BS
9	GLASS	HARD GLASS
10	PROTECTION	SS400
11	SCALE SUPPORT	SS400
12	SCALE BOARD	BS
13	PROTECTION HOLDER	SS400

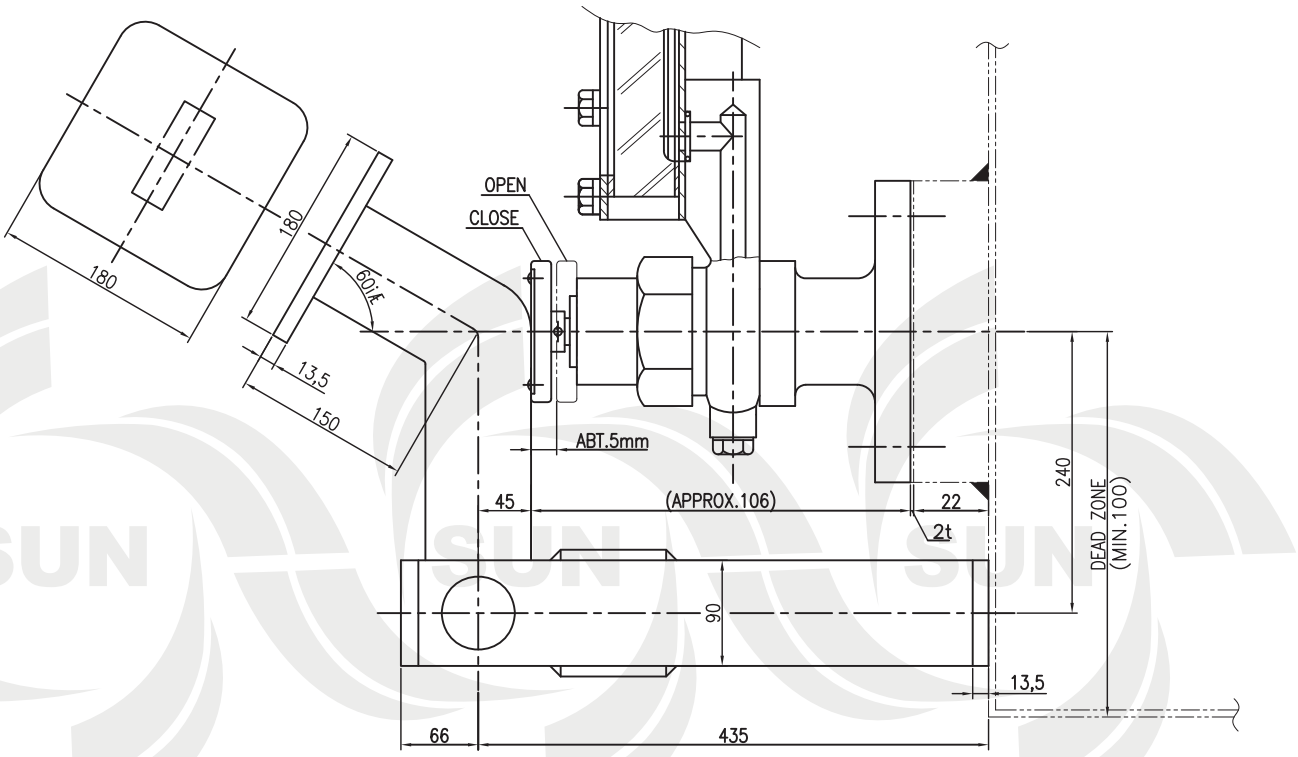
TECHNICAL DATA

1. MAX. WORKING PRESS : 3 kg/cm³
2. WORKING TEMP. : 0~100°C
3. APPLICATION : WATER TANK, F.O, D.O, L.O, WASTE OIL, CYLINDER OIL AND HYDRAUIC OIL TANKS
4. PAINTING(ONLY PROTECTION) : CARBO WELD 11 GRAY

Remark : 1. The name plate shall be specified by purchaser as required.

Operating Device

SUN-GLG-05270

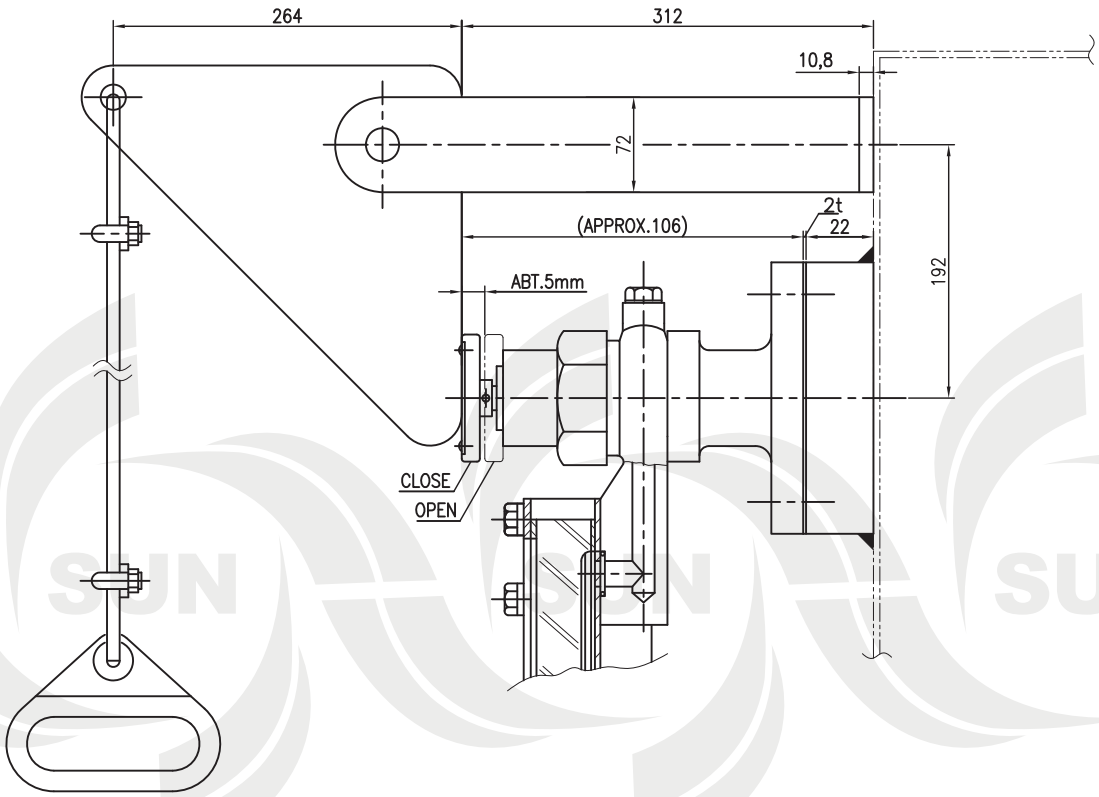


DETAIL "A"

Remark : 1. The name plate shall be specified by purchaser as required.

Operating Device(A-Type)

SUN-GLG-05271

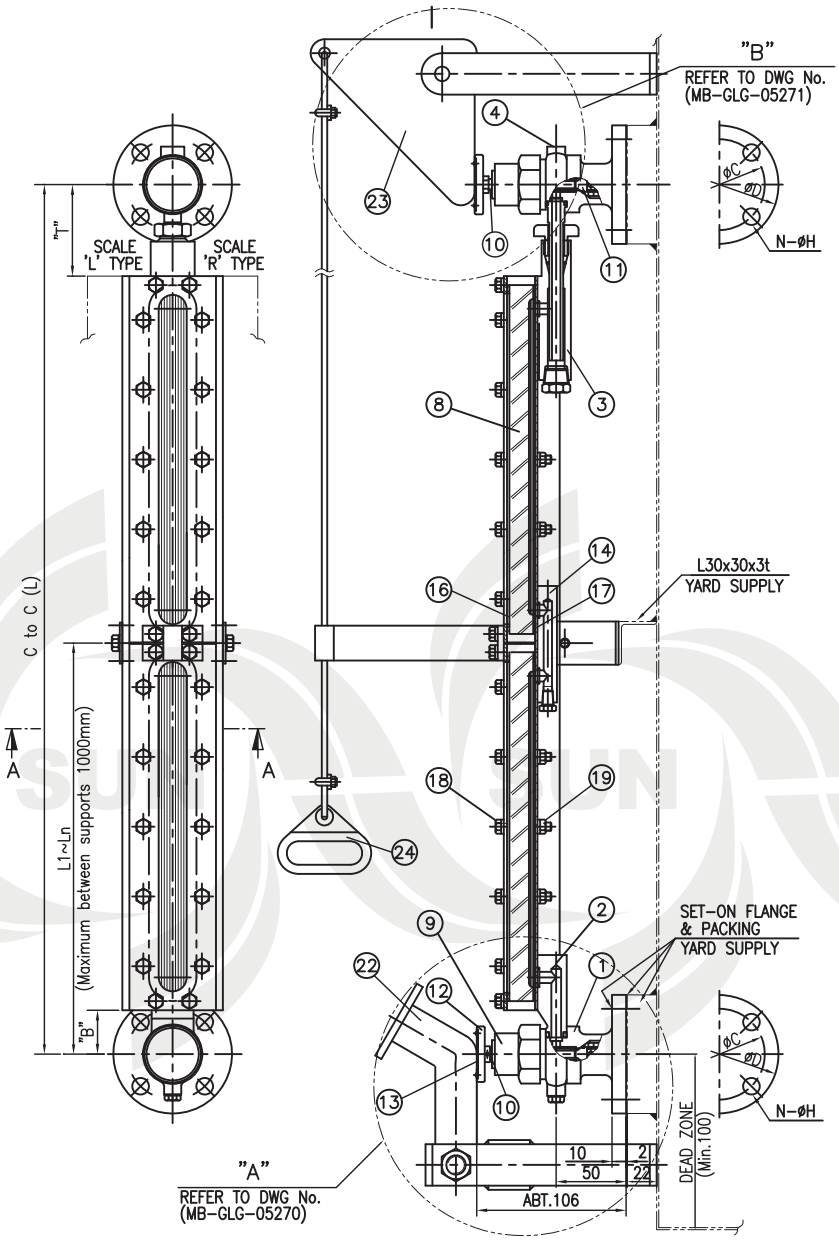


DETAIL "B"

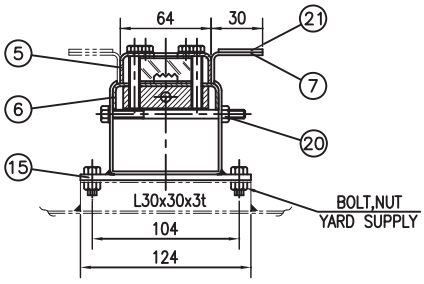
Remark : 1. The name plate shall be specified by purchaser as required.

Flat Type Glass Level Gauge

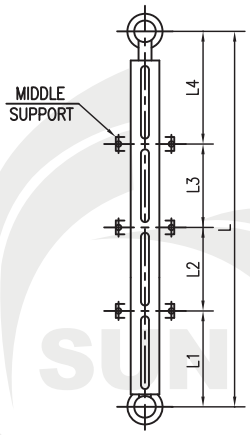
SUN-GLG-05269



SECTION A – A



DIMENSION ARR'T



NO.	PARTS	MATERIAL
1	VALVE BODY	BC 6
2	BOTTOM COLLAR	BC 6
3	TOP BLOCK	BC 6
4	TOP COLLAR	BC 6
5	FRONT CHANNEL	SUS 304
6	BACK CHANNEL	SUS 304
7	SCALE SUPPORT	SUS 304
8	GLASS	BOROSILI-CATE
9	VALVE CAP	BS
10	VALVE STEM	SUS 303
11	DISC	BS
12	HANDLE	AL
13	NAME PLATE	BS
14	CONNECTOR	BS
15	MIDDLE SUPPORT	SUS 304
16	CUSHION	NON-ASBESTOS
17	PACKING	N.B.R
18	BOLT	SUS 304
19	NUT	SUS 304
20	BOLT, NUT, S/W	SUS 304
21	SCALE BOARD	BS
22	OPERATING DEVICE	SS400
23	OPERATING DEVICE	SS400
24	HANDLE	AL

SPECIFICATION

1. APPLICATION : WATER TANKS & ALL OIL TANKS
2. APPLICABLE LIQUID : WATER, ALL OIL (FLASH POINT : ABOVE 60°C)
3. MAX. WORKING TEMP. : 150°C
4. MAX. WORKING PRESS. : 3kg/m²

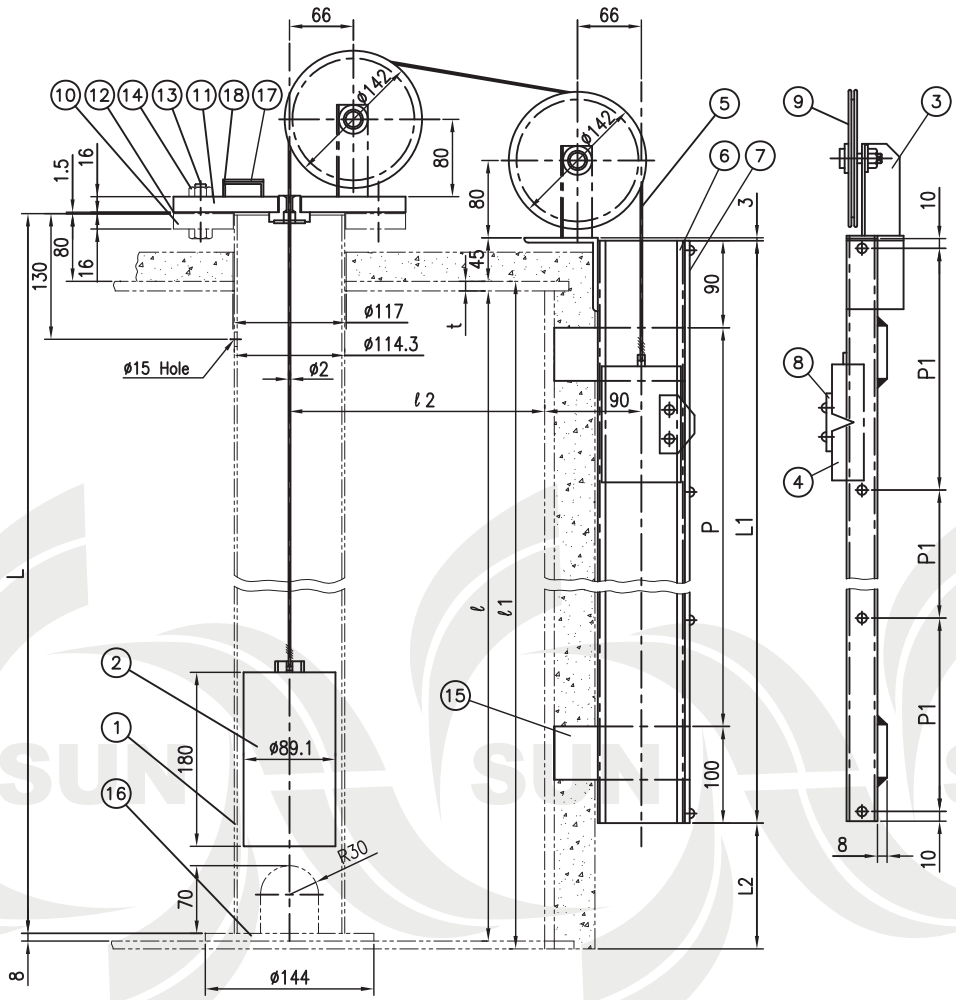
FLANGE DIMENSION

SIZE	D	C	N	øH	
5K 20A	85	65	4	12	
5K 25A	95	75	4	12	

Remark : 1. The name plate shall be specified by purchaser as required.

Marine Float Level Gauge(JIS F 7217 A-100)

SUN-MFLG-06086



NO.	PARTS	MATERIAL
1	CHAMBER	SGP
2	FLOAT	SUS304
3	ANGLE	SS400
4	WEIGHT	SS400
5	WIRE	SUS304
6	WEIGHT GUIDE	SS400
7	SCALE PLATE	BS
8	NEEDLE	BS
9	ROLLER	SS400
10	FLANGE	SS400
11	FLANGE	SS400
12	PACKING	350SJR
13	BOLT	SS400
14	NUT	SS400
15	PLATE	SS400
16	PLATE	SS400
17	NAME PLATE	BS
18	SEAT	SS400

SPECIFICATION

1. APPLICATION : MEDIUM TK.
2. WORKING PRESS. : ATM
3. WORKING TEMP. : MAX.100°C

DETERMINATION OF DIMENSIONS

$L = \ell + 72 + t$

$L_1 = \ell - 28$

$L_2 = \ell_1 + 45 - L_3 - 3 = \ell_1 - L_1 + 42 = 82$

P = ABT. 600 ~ 700

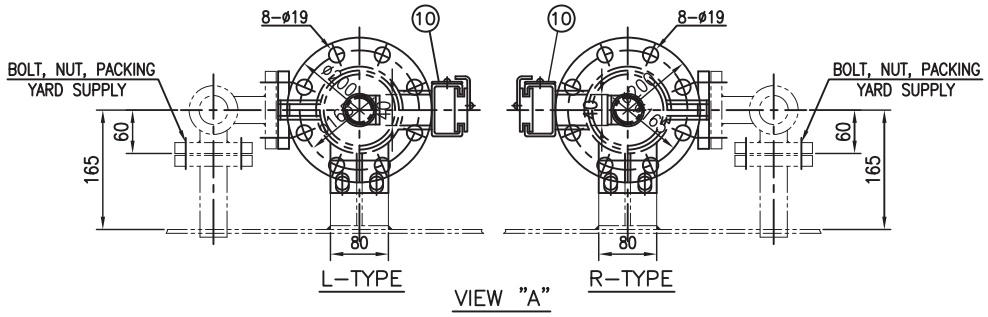
P_1 = ABT. 200 (DIVIDED)

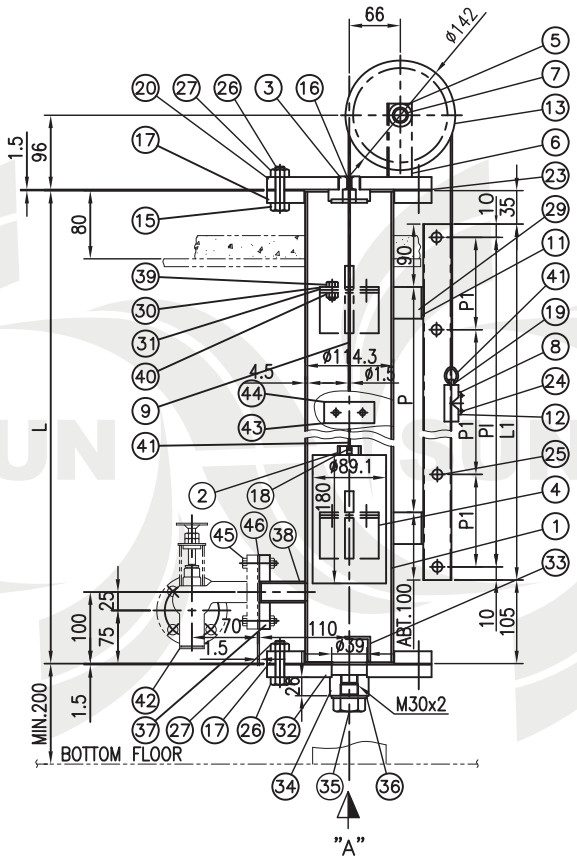
Length of wire $\approx \ell_1 + \ell_2 + 500$

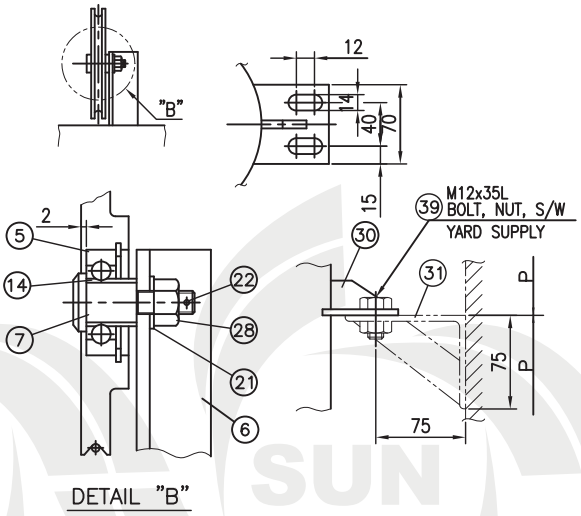
Remark : 1. The name plate shall be specified by purchaser as required.

Marine Float Level Gauge(JIS F 7217 B-100)

SUN-MFLG-07017







NO.	PARTS	MATERIAL		PARTS	MATERIAL
1	CHAMBER	SGP	24	SCREW & S.W	SS400
2	FLOAT BOSS	SUS304	25	SCREW & S.W	SS400
3	GUIDE BOSS	SS400	26	HEX BOLT	SS400
4	FLOAT	SUS304	27	NUT	SS400
5	BEARING		28	NUT	SS400
6	ANGLE	SS400	29	PLATE	SS400
7	SHAFT	SS400	30	SUPPORT	SS400
8	WEIGHT	SS400	31	ANGLE	SS400
9	WIRE	SUS304	32	FLANGE	SS400
10	SCALE PLATE	BS	33	ANGLE	SS400
11	WEIGHT GUIDE	SS400	34	DRAIN BOSS	SS400
12	POINTER	BS	35	DRAIN PLUG	BS
13	ROLLER	SS400	36	O-RING	N.B.R
14	RING	SS400	37	FLANGE	SS400
15	SEAL	N.B.R	38	PIPE	SGP
16	WIRE BUSH	BS	39	BOLT	SS400
17	FLANGE	SS400	40	NUT	SS400
18	RING	SUS304	41	WIRE BEND	SUS304
19	WEIGHT BOSS	SS400	42	SELF CLOSING V/V	BC6
20	FLANGE	SS400	43	NAME PLATE	BS
21	S.W	SS400	44	SEAT	SS400
22	PIN	SS400	45	BOLT & NUT	SS400
23	GASKET	350SJR	46	PACKING	350STR

SPECIFICATION

1. APPLICATION : LARGE AND MEDIUM TK.
2. PRESS. : ATM
3. WORKING TEMP. : MAX 100°C

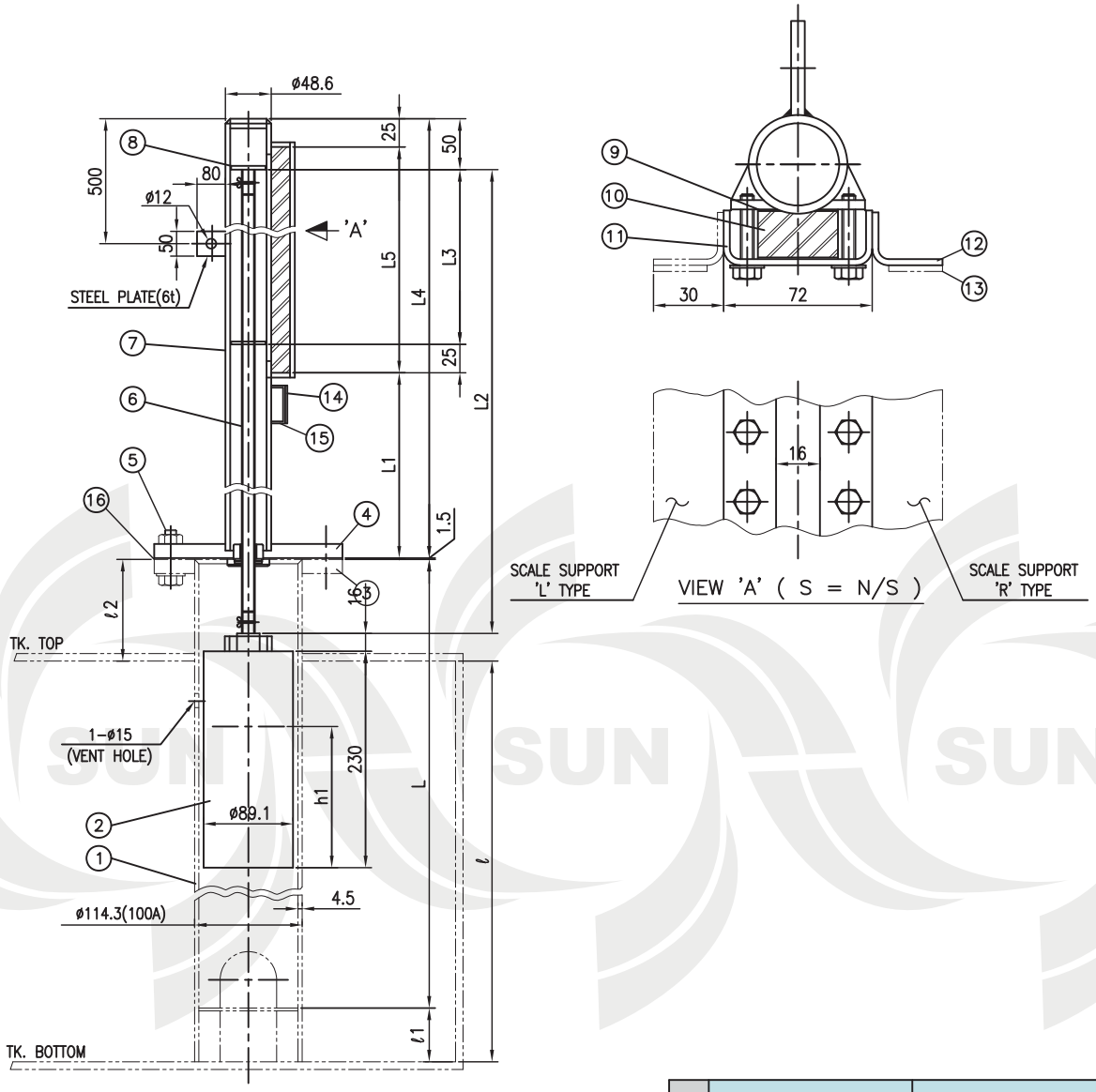
DETERMINATION OF DIMENSIONS

$L_1 = L - 140$
P = ABT. 600 ~ 700
P_1 = ABT. 200 (DIVIDED)
Length of wire = $\ell_1 + \ell_2 + 500$

Remark : 1. The name plate shall be specified by purchaser as required.

Marine Float Level Gauge(JIS F 7217 C-100)

SUN-MFLG-07006



NO.	PARTS	MATERIAL
1	CHAMBER	SGP
2	FLOAT	SUS304
3	FLANGE	SS400
4	FLANGE	SS400
5	BOLT, NUT, S/W	SS400
6	SPINDLE	SUS304
7	PIPE	SGP
8	NEEDLE	SUS304
9	PACKING	NBR
10	GLASS	HEAT RESIS. GLASS
11	GLASS COVER	SS400
12	SCALE SUPPORT	SS400
13	SCALE BOARD	BS
14	NAME PLATE	BS
15	SEAT	SS400
16	PACKING	NON-ASBESTOS

SPECIFICATION

1. APPLICATION : SUMP & DOUBLE BOTTOM TK.
2. GAUGE TYPE : GAS TIGHT TYPE
3. WORKING TEMP. : 80°C

DETERMINATION OF DIMENSIONS

$L = \ell + \ell_2 - \ell_1$

$L_2 = L + L_1 - 221$

$L_3 = \ell - h_1 - \ell_1$

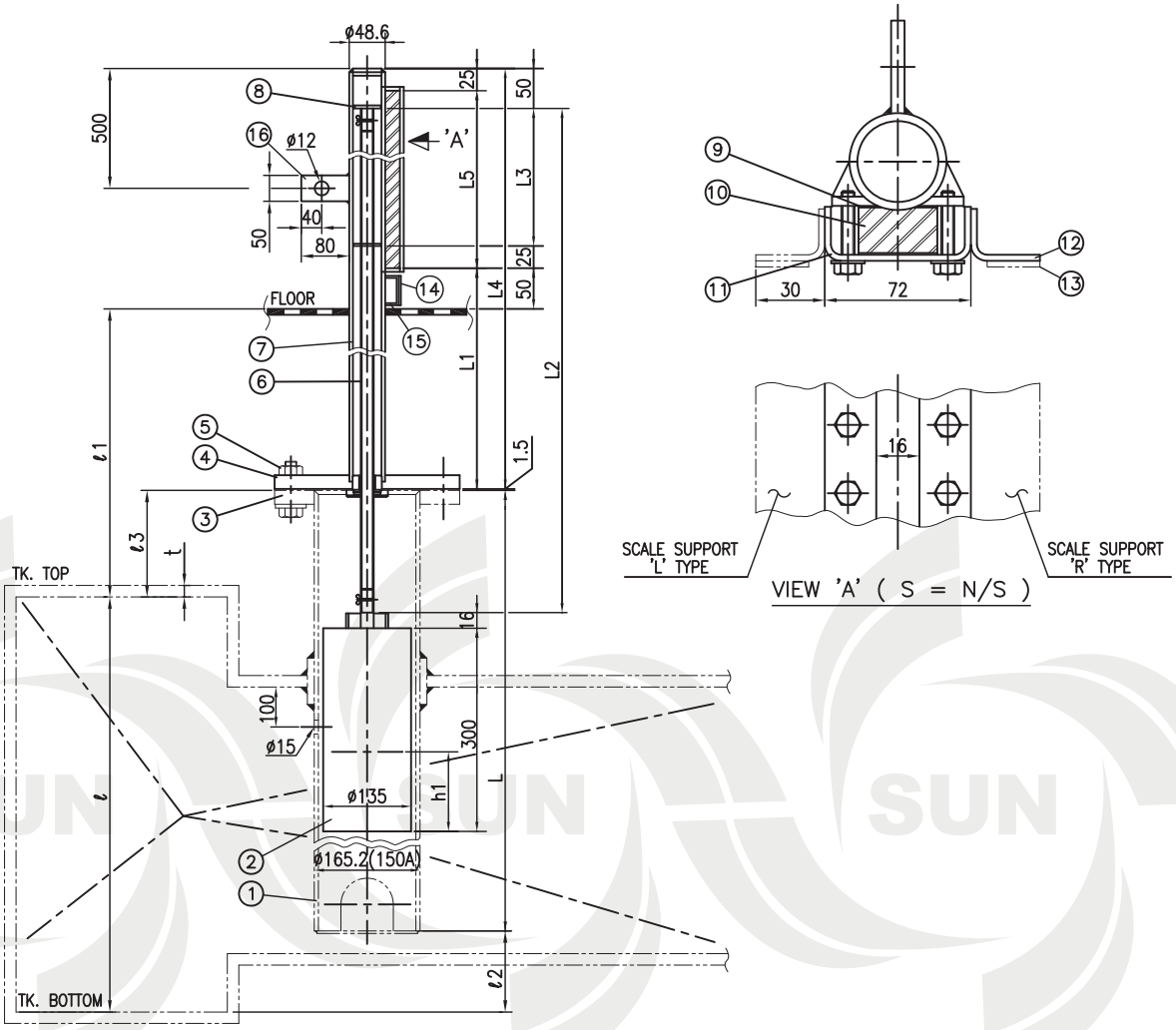
$L_4 = L_1 + L_3 + 75$

$L_5 = L_4 - L_1 - 25$

Remark : 1. The name plate shall be specified by purchaser as required.

Marine Float Level Gauge(JIS F 7217 C-150)

SUN-MFLG-06111



NO.	PARTS	MATERIAL
1	CHAMBER	SGP
2	FLOAT	SUS304
3	FLANGE	SS400
4	FLANGE	SS400
5	BOLT, NUT, S/W, PACKING	SS400
6	SPINDLE	SUS304
7	PIPE	SGP
8	NEEDLE	SUS304
9	PACKING	NBR
10	GLASS	HEAT RESIS. GLASS
11	GLASS COVER	SS400
12	SCALE SUPPORT	SS400
13	SCALE BOARD	BS
14	NAME PLATE	BS
15	SEAT	SS400
16	PACKING	SS400

SPECIFICATION

1. APPLICATION : SUMP & DOUBLE BOTTOM TK.
2. GAUGE TYPE : GAS TIGHT TYPE
3. WORKING TEMP. : 80°C

DETERMINATION OF DIMENSIONS

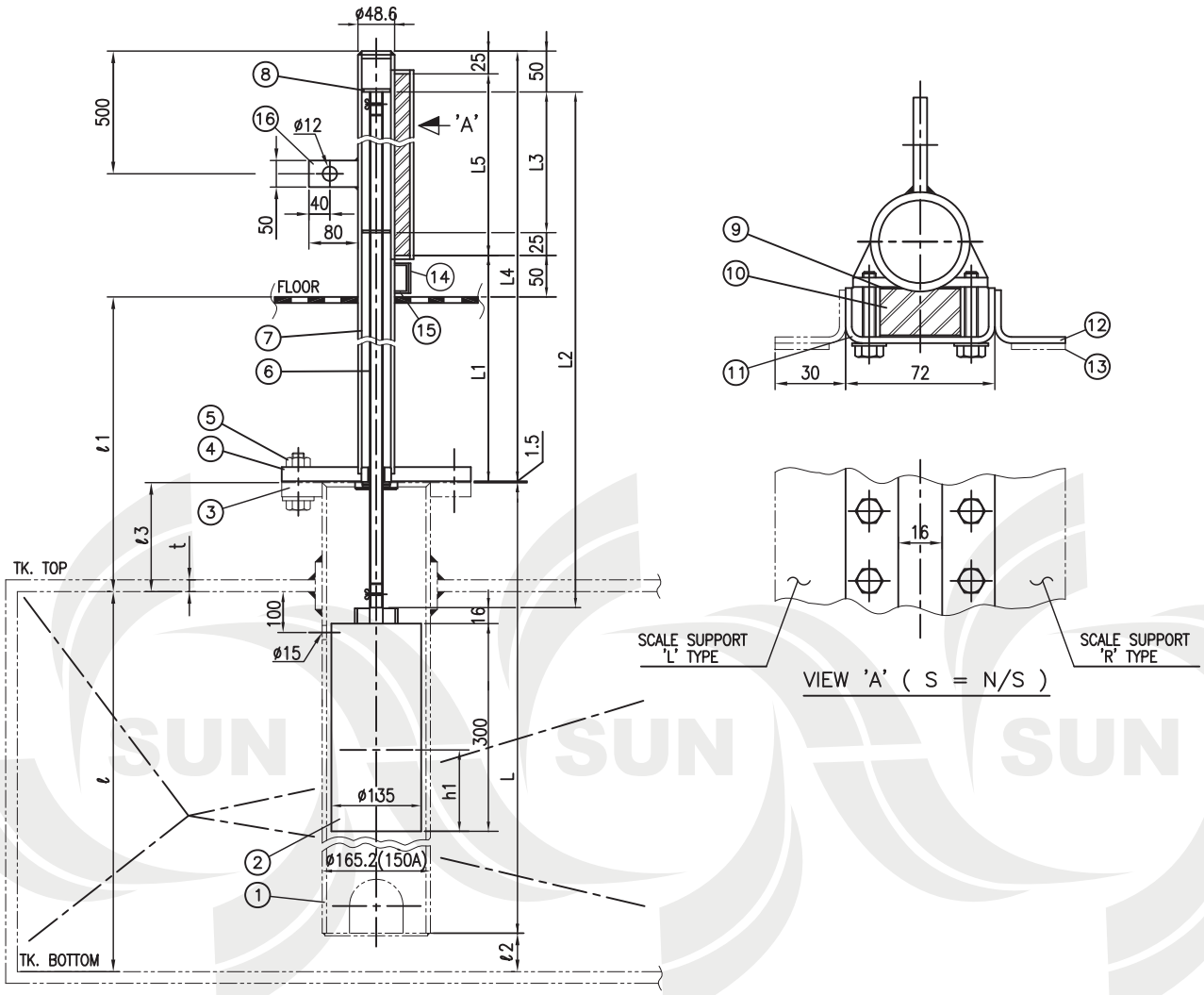
$L = \ell + \ell_3 - \ell_2$
$L_1 = \ell_1 - \ell_3 + 50$
$L_2 = \ell + \ell_1 - \ell_2 - 241$
$L_3 = \ell - h_1 - \ell_2$
$L_4 = L_1 + L_3 + 75$
$L_5 = L_4 - L_1 - 25$

TAG No.	TANK NAME	Q'TY	ℓ	ℓ1	ℓ2	ℓ3	L	L1	L2	L3	L4	L5	h1	t	SP.GR	SCALE TYPE	REMARK
	MAIN L.O. SUMP. TK.	1	2562	2220	345	300	2517	1970	4196	2017	4062	2067	200	50	0.9	R	

Remark : 1. The name plate shall be specified by purchaser as required.

Marine Float Level Gauge(JIS F 7217 C-150)

SUN-MFLG-06092



NO.	PARTS	MATERIAL
1	CHAMBER	SGP
2	FLOAT	SUS304
3	FLANGE	SS400
4	FLANGE	SS400
5	BOLT, NUT, S/W, PACKING	SS400
6	SPINDLE	SUS304
7	PIPE	SGP
8	NEEDLE	SUS304
9	PACKING	NBR
10	GLASS	HEAT RESIS. GLASS
11	GLASS COVER	SS400
12	SCALE SUPPORT	SS400
13	SCALE BOARD	BS
14	NAME PLATE	BS
15	SEAT	SS400
16	BRACKET	SS400

SPECIFICATION

1. APPLICATION : SUMP & DOUBLE BOTTOM TK.
2. GAUGE TYPE : GAS TIGHT TYPE
3. WORKING TEMP. : 80°C

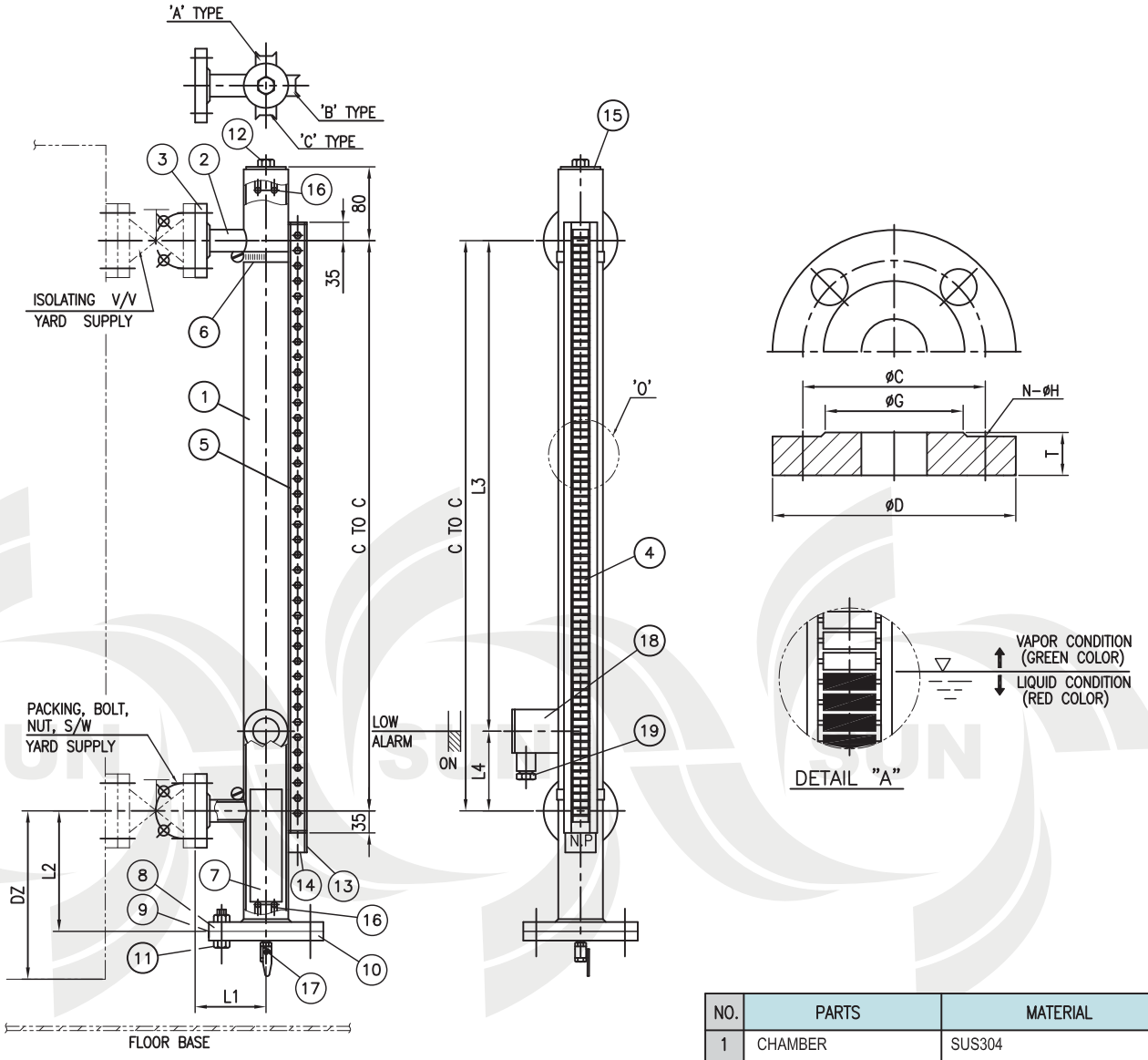
DETERMINATION OF DIMENSIONS

$L = \ell + \ell_3 - \ell_2$
$L_1 = \ell_1 - \ell_3 + 50$
$L_2 = \ell + \ell_1 - \ell_2 - 241$
$L_3 = \ell - h_1 - \ell_2$
$L_4 = L_1 + L_3 + 75$
$L_5 = L_4 - L_1 - 25$

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-06073



NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	AL
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	NON-ASBESTOS
10	FLANGE	SUS304
11	BOLT, NUT. S/W	SUS304
12	PLUG	SUS304
13	NAME PLATE	SUS304
14	SEAT	SUS304
15	TOP COVER	SUS304
16	SPRING	SUS304
17	BALL VALVE	SUS304
18	ALARM/CONTROL SWITCH	AC
19	CABLE GLAND	BS

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL
5. SWITCH TYPE : REED SWITCH
6. CONTACT FORM / RATING : SPST / 0.5A 250V AC

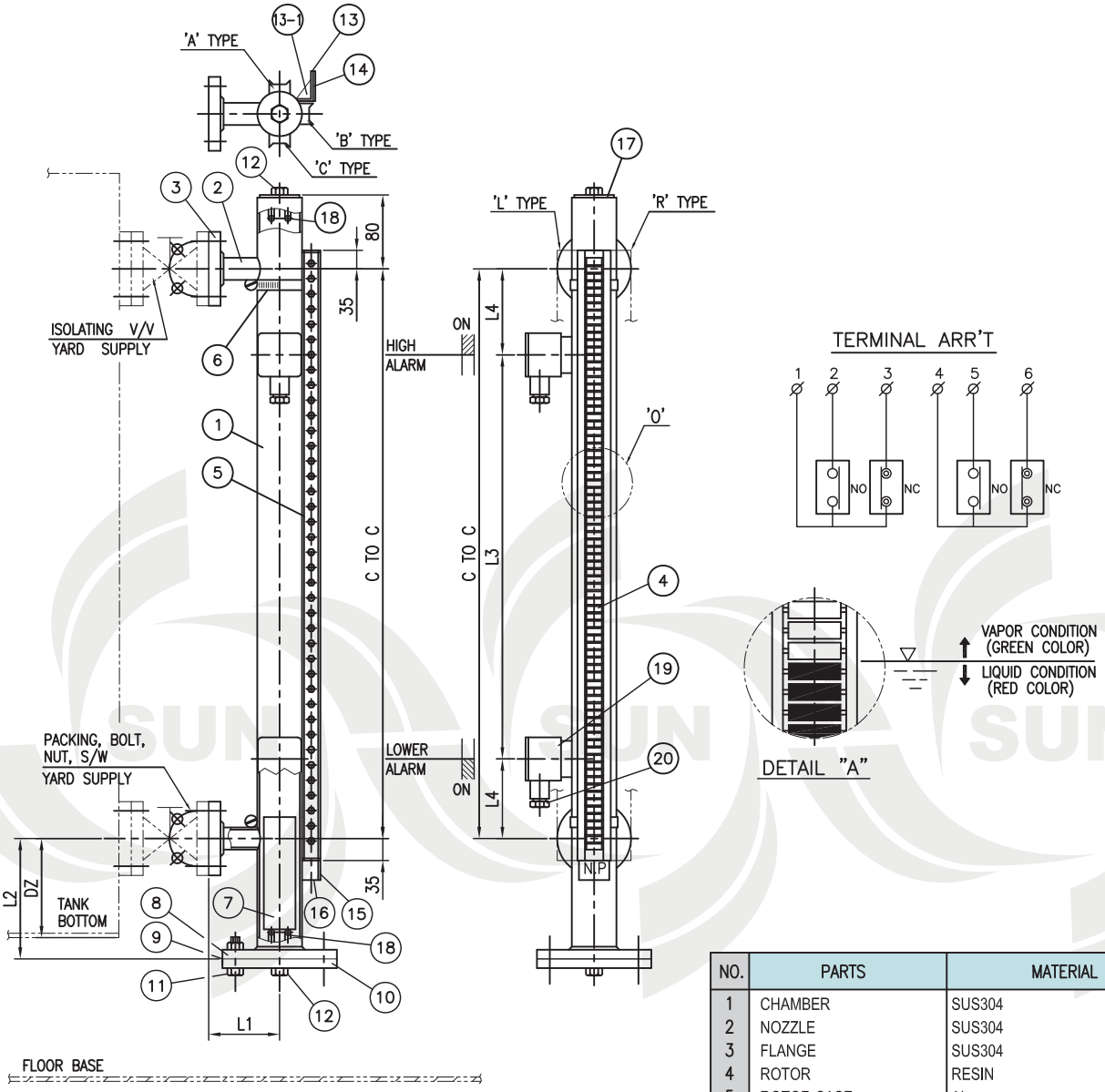
FLANGE DIMENSION TABLE

SIZE	øD	øC	øG	N	H	T
1/2" ANSI 150# RF	ø88.9	ø60.5	ø35.1	4	15.8	11.2

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-06061



NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	350 SJR
10	FLANGE	SUS304
11	BOLT, NUT. S/W	SUS304
12	PLUG	SUS304
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	BS
15	NAME PLATE	BS
16	SEAT	SUS304
17	TOP COVER	SUS304
18	SPRING	SUS304
19	ALARM/CONTROL SWITCH	ABS
20	CABLE GLAND	BS

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL
5. SWITCH TYPE : REED SWITCH
6. CONTACT FORM / RATING : DPDT / 0.5A 250VAC

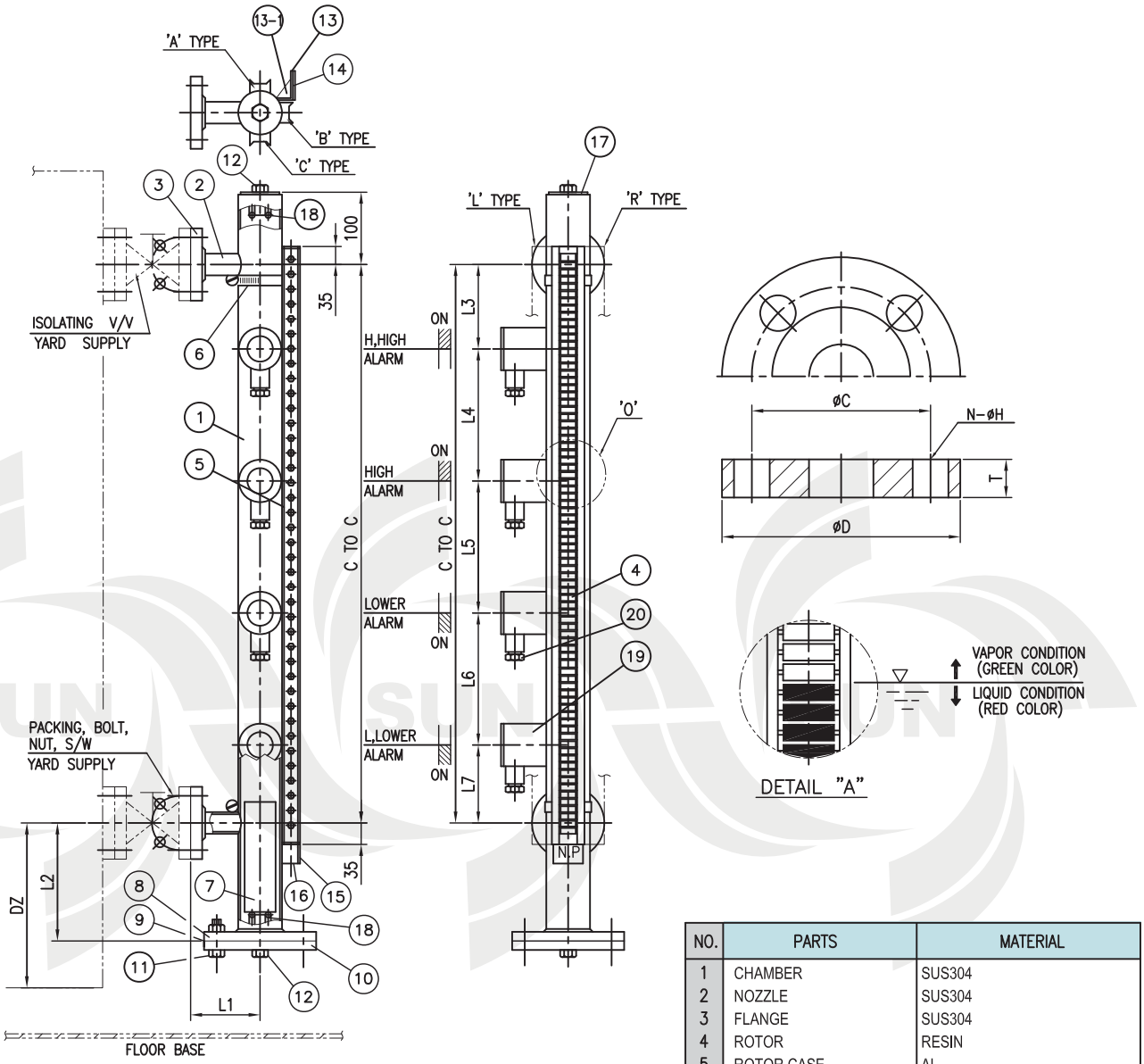
FLANGE DIMENSION TABLE

SIZE	øD	øC	øG	N	H
1" ANSI 150# RF	ø108	ø79.3	ø50.8	4	15.8

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-06001



NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	350 SJR
10	FLANGE	SUS304
11	BOLT, NUT. S/W	SUS304
12	PLUG	BS
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	BS
15	NAME PLATE	BS
16	SEAT	SUS304
17	TOP COVER	SUS304
18	SPRING	SUS304
19	ALARM/CONTROL SWITCH	AC
20	CABLE GLAND	BS

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL
5. SWITCH TYPE : REED SWITCH
6. CONTACT FORM / RATING : SPST / 0.5A 250V AC

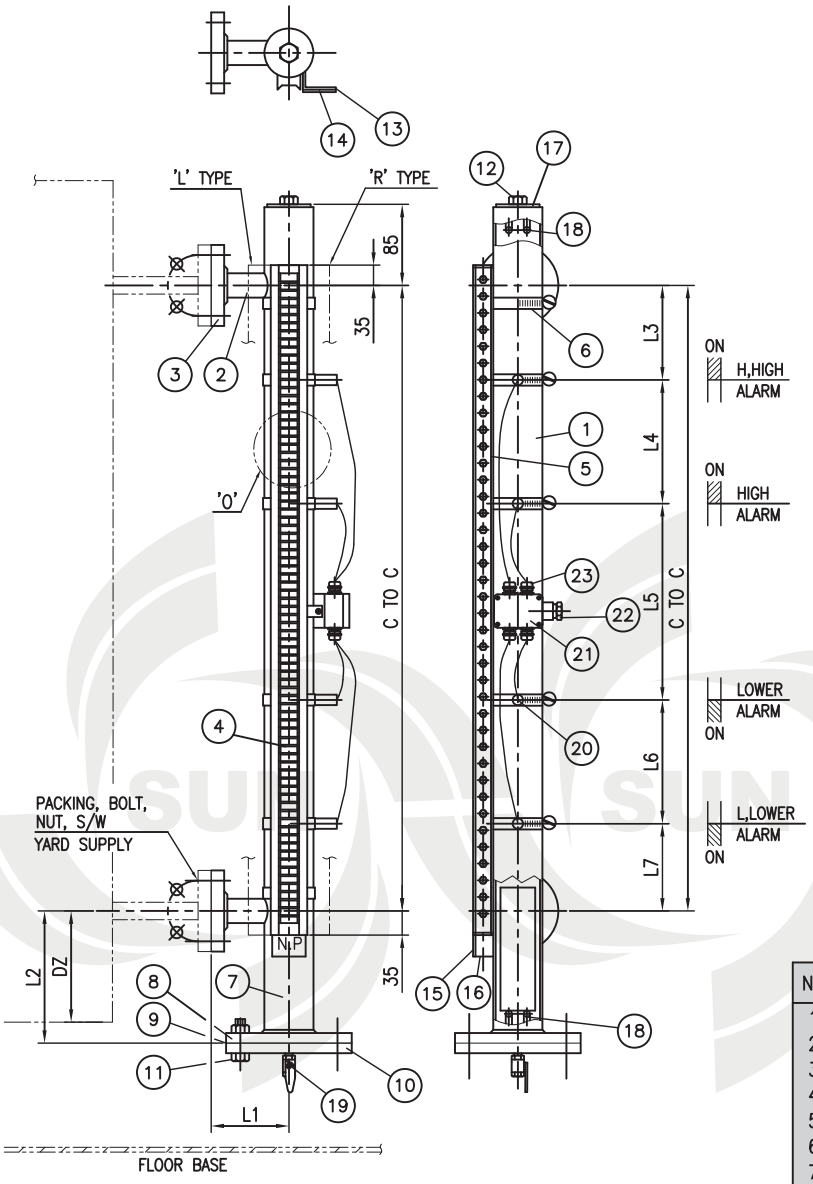
FLANGE DIMENSION TABLE

SIZE	øD	øC	N	H	T
5K 25A	ø95	ø75	4	12	10

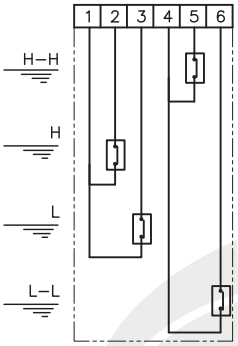
Remark : 1. The name plate shall be specified by purchaser as required.

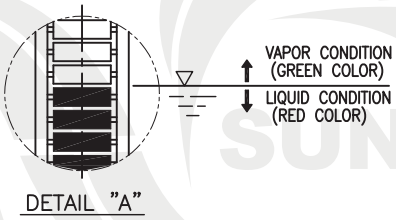
Magnetic Type Float Level Gauge

SUN-MLG-06046



WIRING DIAGRAM





DETAIL "A"

NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	NON-ASBESTOS
10	FLANGE	SUS304
11	BOLT, NUT, S/W	SUS304
12	PLUG	SUS304
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	SUS304
15	NAME PALTE	SUS304
16	SEAT	SUS304
17	TOP COVER	SUS304
18	SPRING	SUS304
19	BALL VALVE	SUS304
20	ALARM / CONTROL SWITCH	
21	JUNCTION BOX	ABS
22	CALE GLAND	BS
23	CALE GLAND	BS

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL
5. SWITCH TYPE : REED SWITCH
6. CONTACT FORM / RATING : : SPST / 0.25A 250VAC

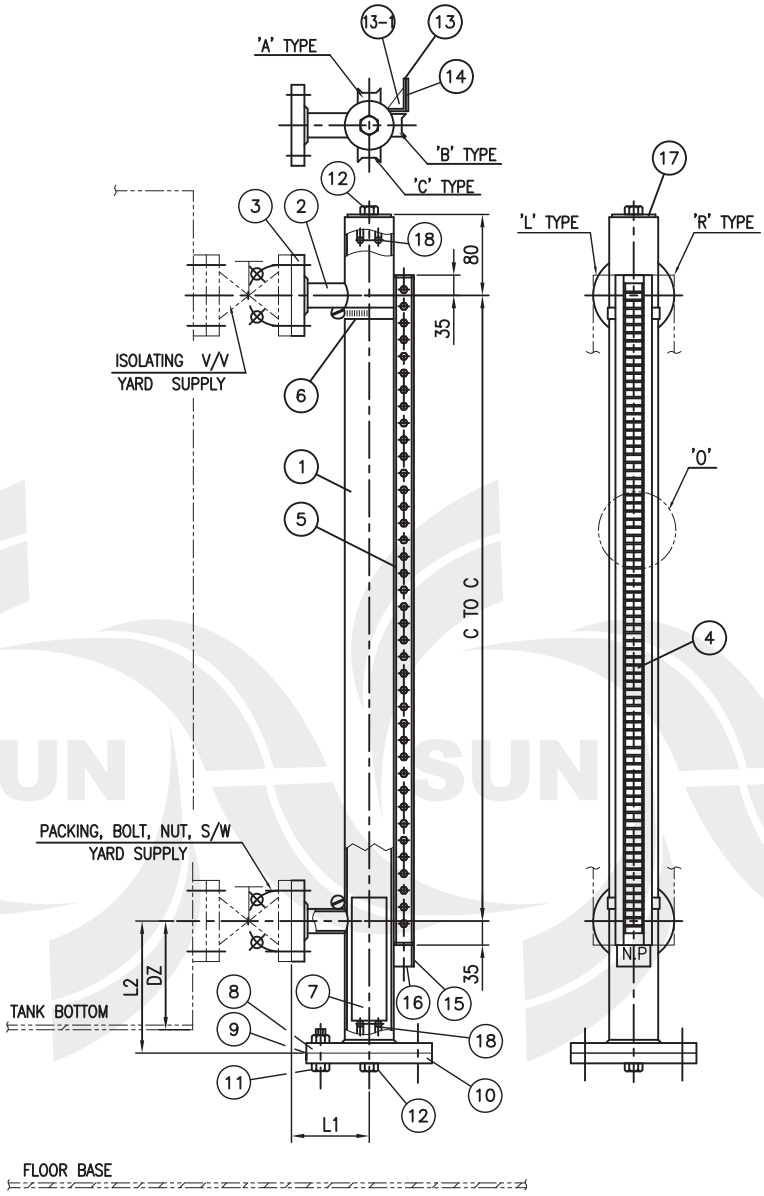
FLANGE DIMENSION TABLE

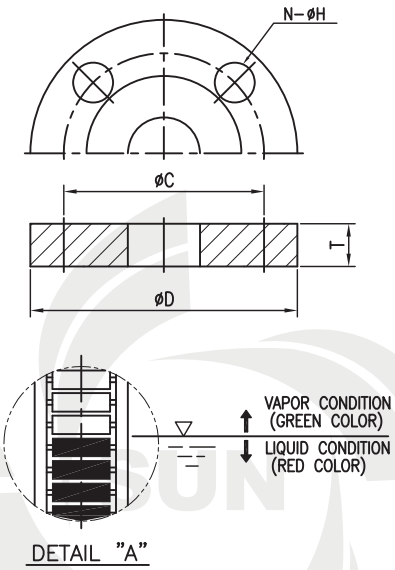
SIZE	øD	øC	N	H	T
5K 25A	ø95	ø75	4	12	10

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-04026





NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	NON-ASBESTOS
10	FLANGE	SUS304
11	BOLT, NUT, S/W	SUS304
12	PLUG	BS
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	SUS304
15	NAME PALTE	SUS304
16	SEAT	SUS304
17	TOP COVER	SUS304
18	SPRING	SUS304

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL

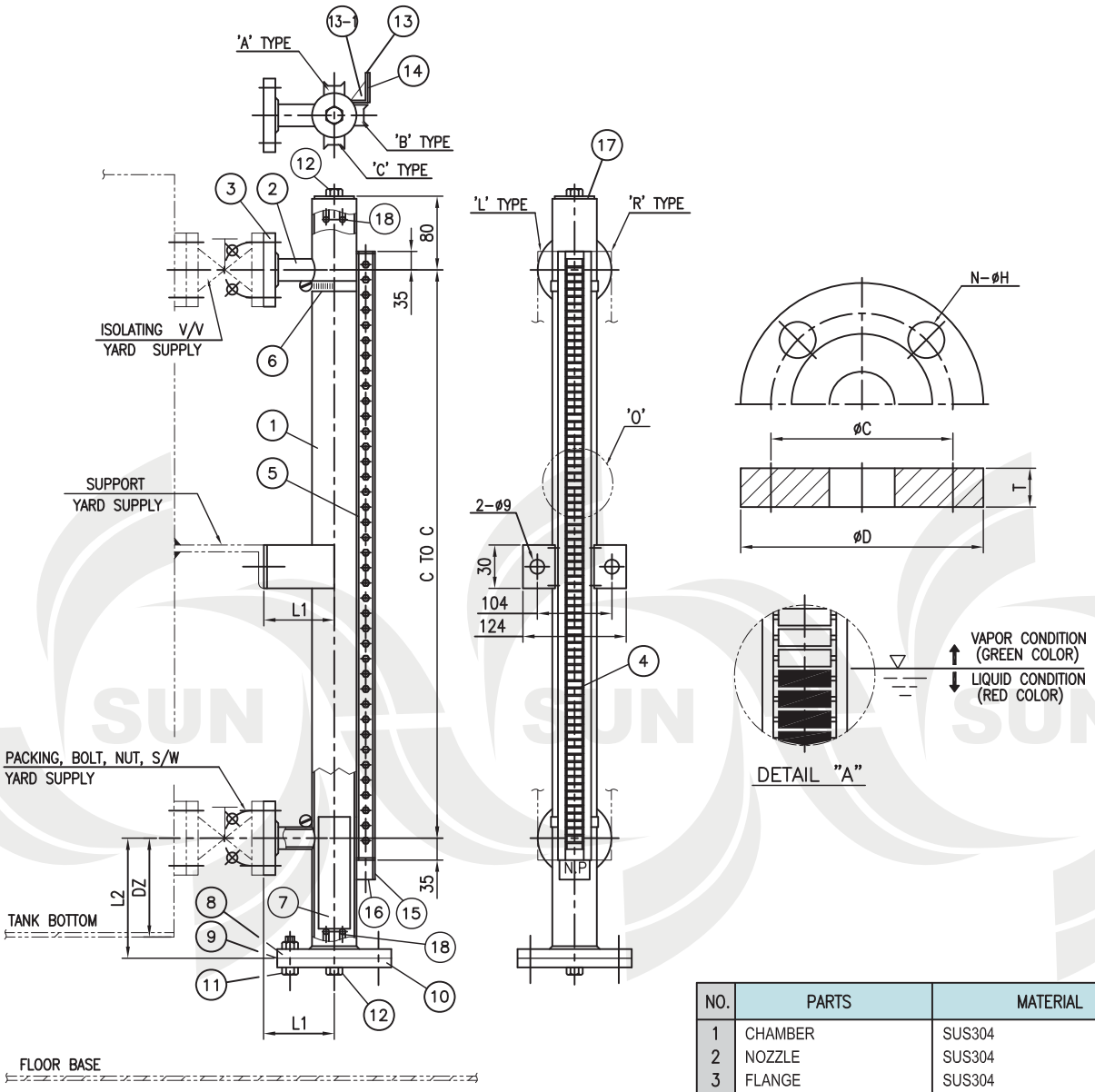
FLANGE DIMENSION TABLE

SIZE	øD	øC	N	H	T
5K 25A	ø95	ø75	4	12	10

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-01025



NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	NON-ASBESTOS
10	FLANGE	SUS304
11	BOLT, NUT, S/W	SUS304
12	PLUG	BS
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	SUS304
15	NAME PALTE	SUS304
16	SEAT	SUS304
17	TOP COVER	SUS304
18	SPRING	SUS304

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL

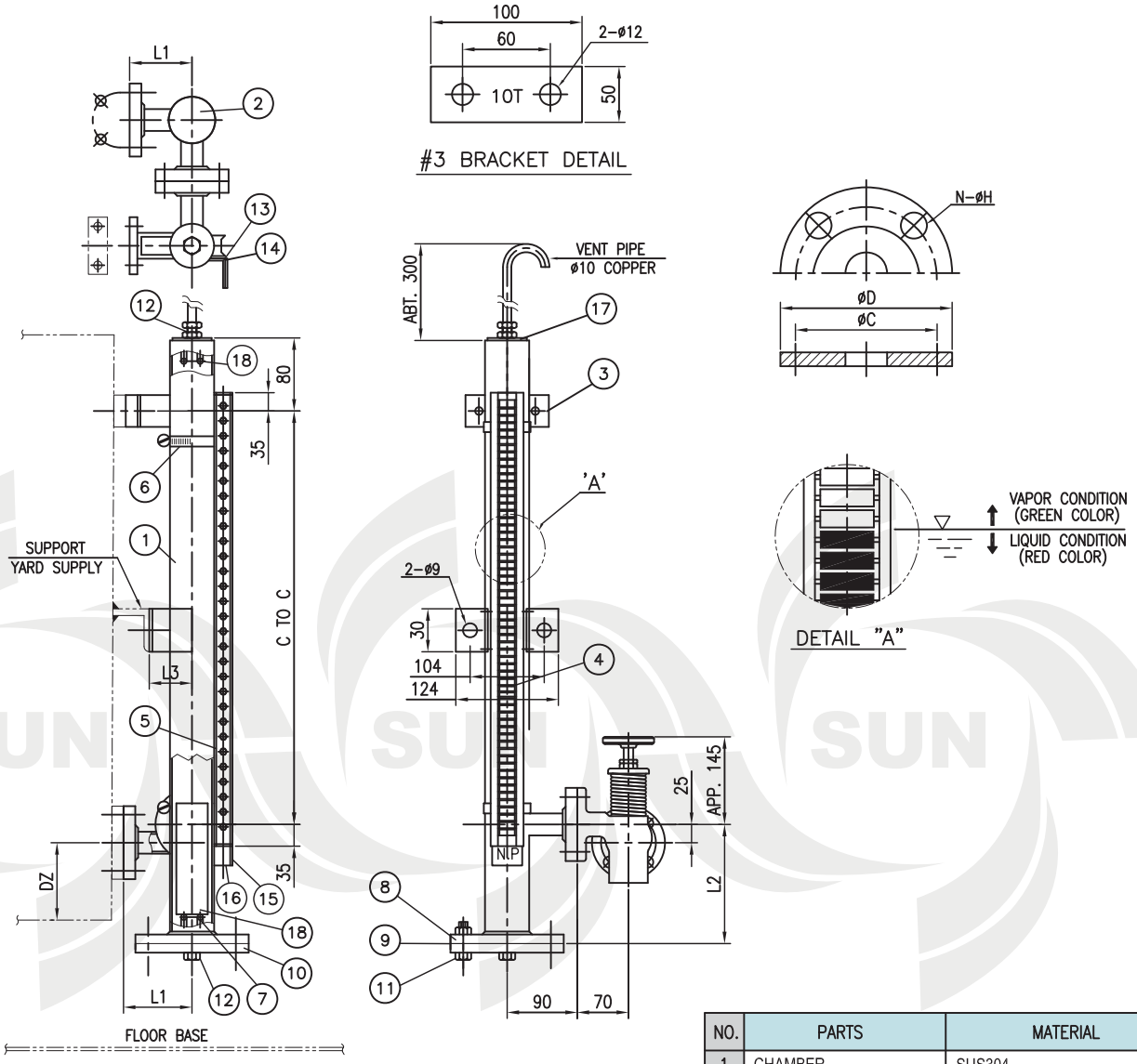
FLANGE DIMENSION TABLE

SIZE	øD	øC	N	H	T
5K 25A	ø95	ø75	4	12	10

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-07047



NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	SELF-CLOSING V/V	BC
3	BRACKET	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	SPRING	SUS304
8	FLANGE	SUS304
9	PACKING	NON-ASBESTOS
10	FLANGE	SUS304
11	BOLT, NUT, S/W	SUS304
12	BITE CONNECTOR	BS
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	BS
15	NAME PALTE	BS
16	SEAT	SUS304
17	TOP COVER	SUS304
18	FLOAT	TITANIUM

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL

V/V FLANGE DIMENSION TABLE

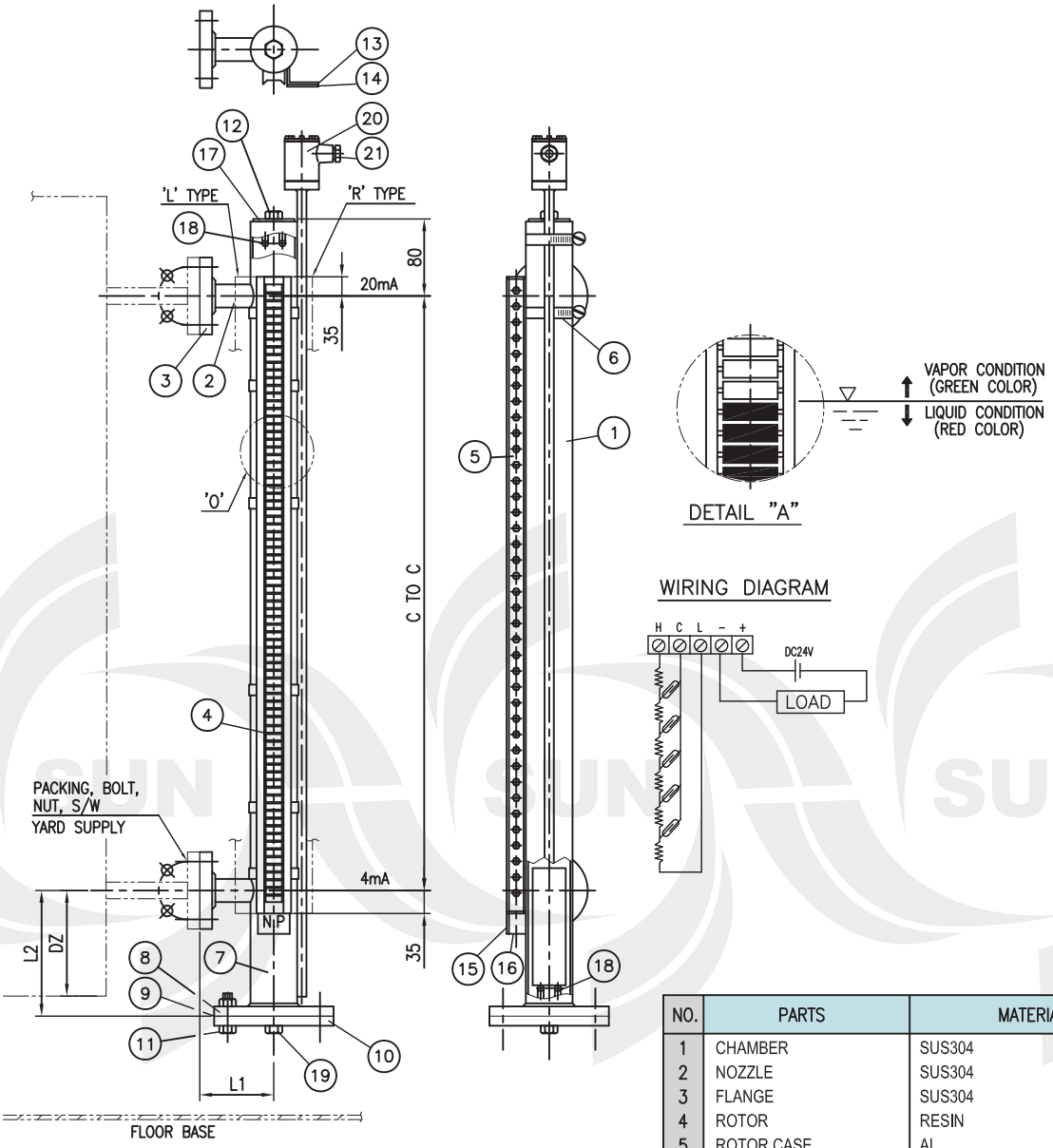
SIZE	D	C	N	H
5K 40A	ø120	ø95	4	ø15

TAG NO.	TANK NAME	Q'TY	C to C	DZ	L1	L2	L3	LIQUID	PRESS./ TEMP. / SP.GR. OPERATING CONDITION			SCALE TYPE
		1	3100		100	180						

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-07019



NO.	PARTS	MATERIAL
1	CHAMBER	SUS304
2	NOZZLE	SUS304
3	FLANGE	SUS304
4	ROTOR	RESIN
5	ROTOR CASE	AL
6	BAND	SUS304
7	FLOAT	TITANIUM
8	FLANGE	SUS304
9	PACKING	NON-ASBESTOS
10	FLANGE	SUS304
11	BOLT, NUT, S/W	SUS304
12	PLUG	SUS304
13	SCALE SUPPORT	SUS304
14	SCALE BOARD	SUS304
15	NAME PALTE	SUS304
16	SEAT	SUS304
17	TOP COVER	SUS304
18	SPRING	SUS304
19	PLUG	SUS304
20	LEVEL TRANSMITTER	AC/SUS304
21	CABLE GLAND	BS

TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL
5. LEVEL TRANSMITTER
   - POWER : DC 24V
   - OUTPUT : 4~20mA, 2-WIRE

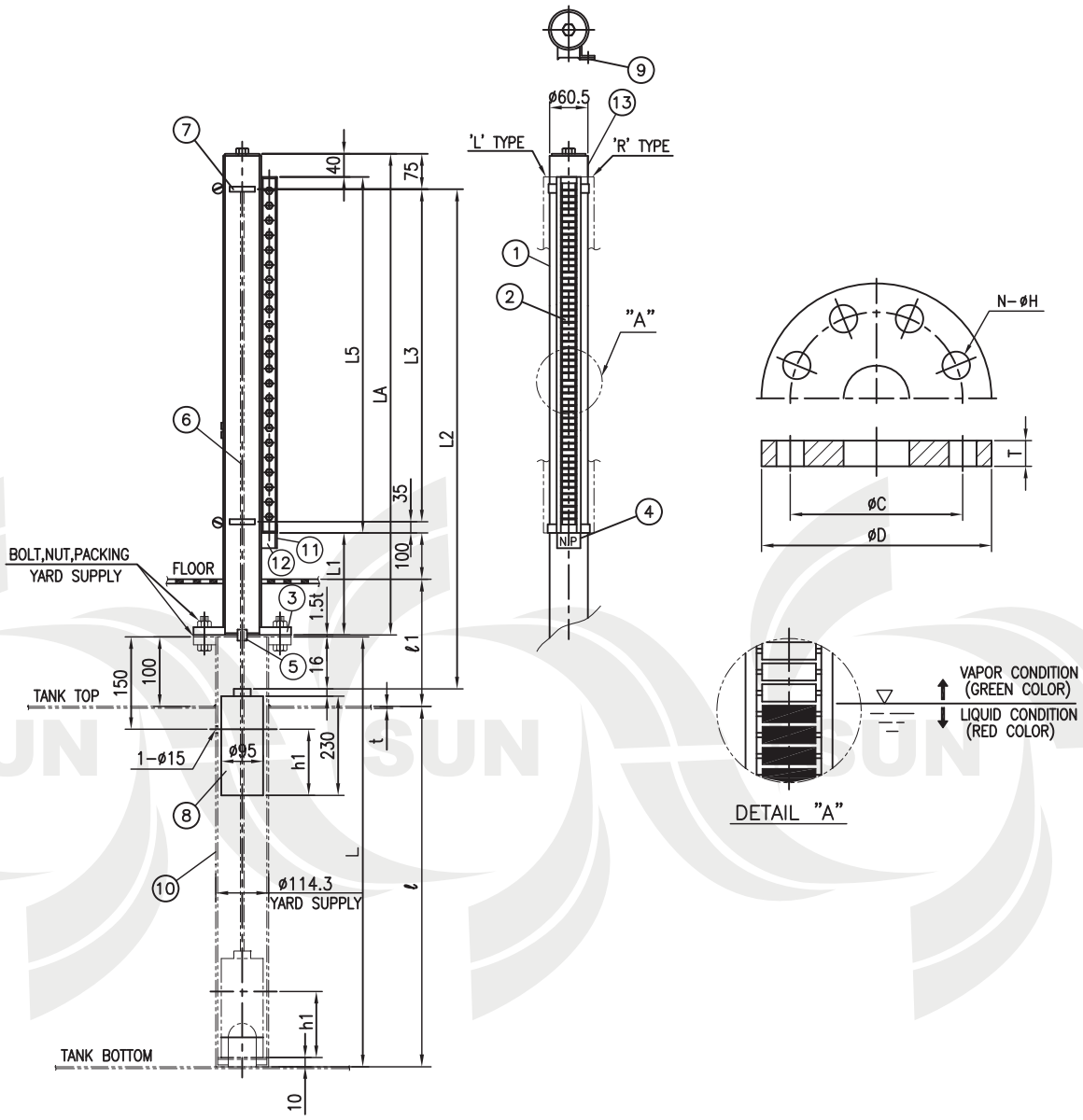
FLANGE DIMENSION TABLE

SIZE	øD	øC	N	H	T
3/4" ANSI 150# RF	ø98.6	ø69.9	4	15.8	12.7

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge

SUN-MLG-05044



TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL

DETERMINATION OF DIMENSIONS

L = ℓ + 100
L1 = ℓ1
L2 = ℓ + ℓ1 − 121

FLANGE DIMENSION TABLE

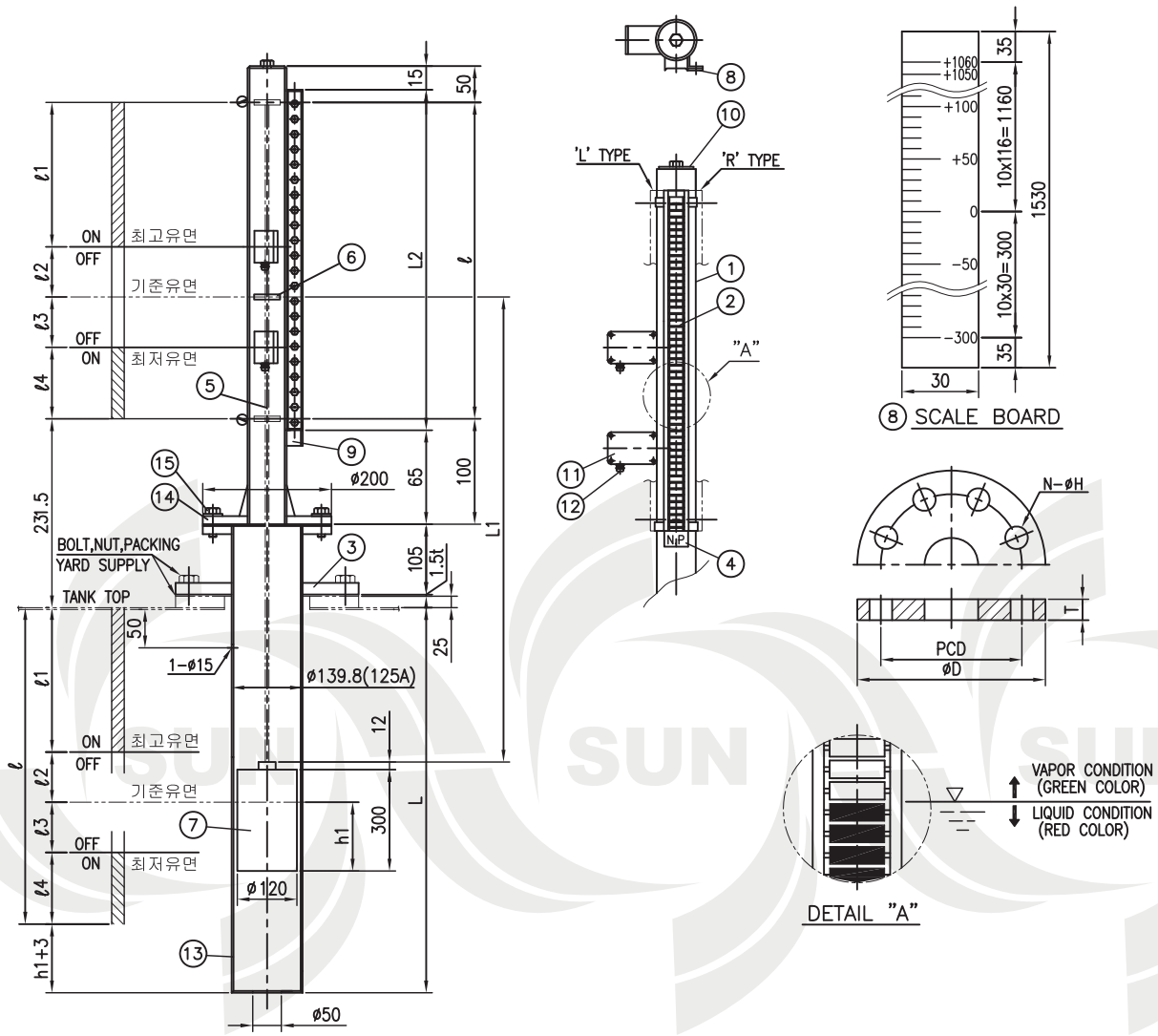
SIZE	øD	øC	N	H	T
5K 100A	ø200	ø165	8	19	16

NO.	PARTS	MATERIAL
1	GUIDE PIPE	SUS 304
2	ROTOR	RESIN
3	FLANGE	SUS 304
4	NAME PLATE	BS
5	GUIDE PLATE	SUS 304
6	SPINDLE	SUS 304
7	MAGNET	N.D
8	FLOAT	TITANIUM
9	SCALE BOARD	BS
10	CHAMBER	SUS 304
11	NAME PLATE	BS
12	NAME PLATE SEAT	SUS 304
13	TOP COVER	SUS 304

Remark : 1. The name plate shall be specified by purchaser as required.

Magnetic Type Float Level Gauge with Alarm / Control Switch

SUN-MLG-06051



TECHNICAL DATA

1. WORK TEMP. : MAX 150°C
2. WORK PRESS : MAX 5 kg/cm²
3. INDICATOR INTERVAL : 10mm
4. APPLICATION : WATER & ALL OIL
5. SWITCH TYPE : MICRO SWITCH
6. CONTACT FORM / RATING : 2xDPDT / 15A 250VAC

DETERMINATION OF DIMENSIONS

L = ℓ + 203
L1 = ℓ + 119.5
L2 = ℓ + 70

FLANGE DIMENSION TABLE

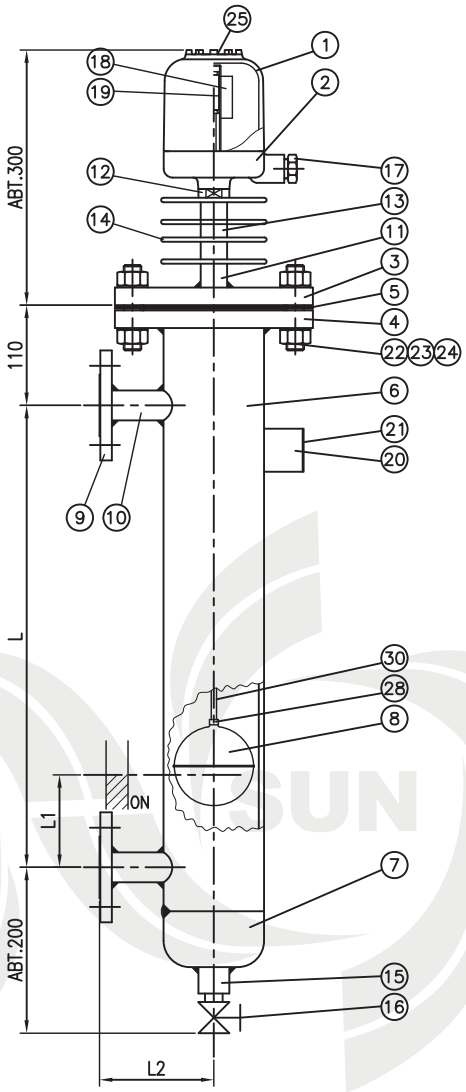
SIZE	O.D	PCD	N	H	T
6" ANSI 150# FF	ø279.4	ø241.3	8	22.35	25.4

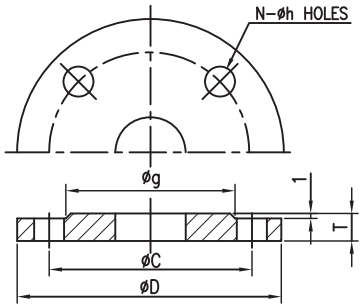
NO.	PARTS	MATERIAL
1	BODY	SUS304
2	ROTOR	RESIN/AL
3	FLANGE	SUS304
4	NAME PLATE	SUS304
5	SPLINDER	SUS304
6	MAGNET	
7	FLOAT	SUS304
8	SCALE BOARD	SUS304
9	NAME PLATE SEAT	SUS304
10	TOP COVER	SUS304
11	ALARM/CONTROL SWITCH	
12	CABLE GLAND	ABS
13	GUIDE PIPE	SUS304
14	FLANGE	SUS304
15	HEX BOLT, NUT, S/W, P/W	SUS304

Remark : 1. The name plate shall be specified by purchaser as required.

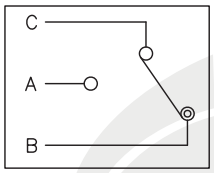
Operated Type Float Level Switch

SUN-OLS-05006





WIRING DIAGRAM



NO.	PARTS	MATERIAL
1	COVER	AC
2	BODY	AC
3	UPPER FLANGE	SS400
4	LOWER FLANGE	SS400
5	GASKET	NON-ASBESTOS
6	CHAMBER	SEAMESS
7	LOWER COVER	SS400
8	FLOAT	SUS316
9	CONNECTION FLANGE	SS400
10	NOZZLE	SEAMESS
11	BOSS	SS400
12	BOSS	SUS304
13	RING	AL
14	RADIATION FIN	AL
15	RING	SS400
16	DRAIN VALVE	SUS304
17	CABLE GLAND	BS
18	SWITCH BOX	BC 6
19	CORE	SS400
20	SEAT	SS400
21	NAME PLATE	BS
22	STUD BOLT	B7
23	NUT	B7
24	SPRING WASHER	2H
25	NAME PLATE	BS
26	STOP PLATE	SUS304
27	STOP RING	SUS304
28	FLOAT BOSS	SUS304
29	CORE PIPE	SUS304
30	CORE ROD	SUS304
31	CORE BOSS	SUS304

SPECIFICATION

1. INSTALLATION : SIDE–SIDE MOUNTING
2. MAX. WORKING PRESS. : 16kg/cm²
3. MAX. WORKING TEMP. : 200°C
4. PERMISSIBLE AMB. TEMP. : –10~60°C
5. PERMISSIBLE SPECIFIC GRAVITY : 0.65~1.3
6. SWITCH TYPE : MICRO SWITCH
7. CONTACT FORM : SPDT
8. CONTACT RATING : 5A 125V, 250V AC
9. ENCLOSURE : WEATHER PROOF(IP56)

FLANGE DIMENSION TABLE

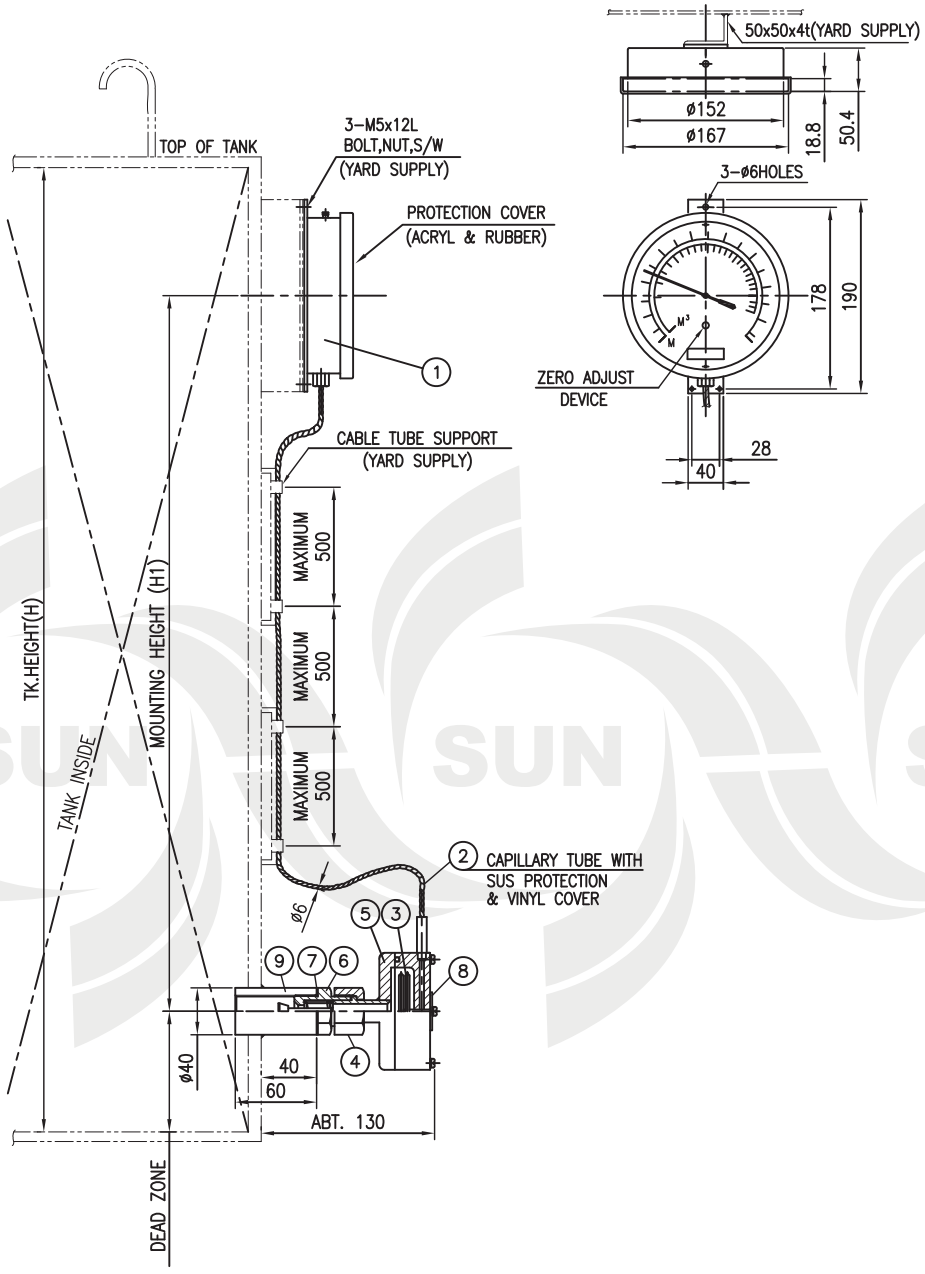
SIZE	øD	øC	øg	N	øh	T
JIS 16K 25A RF	125	90	70	4	19	14

TAG NO.	TANK NAME	Q'TY	L	L1	L2	PRESS.	TEMP.	SP.GR.	REMARK
						OPERATING CONDITION			
1			525	150	130				

Remark : 1. The name plate shall be specified by purchaser as required.

Content Gauge with Mounting Boss

SUN-SPCG-07314



NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS304
2	CAPILLARY TUBE	SUS304
3	DIAPHRAGM	PbP
4	GLAND	BS
5	DIAPHRAGM PROTECTOR	SUS304
6	NON RETURN VALVE	BS
7	PACKING	TEFLON
8	NAME PLATE	BS
9	BOSS	SUS304

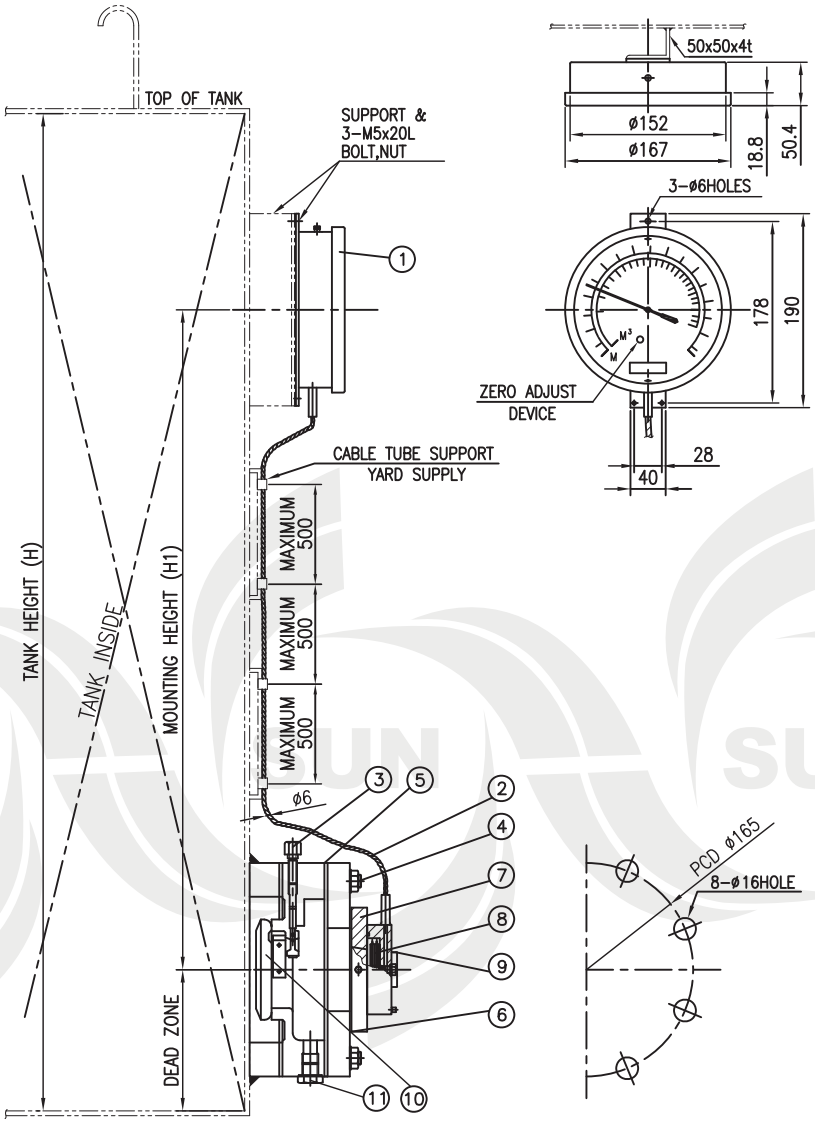
TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.

Remark : 1. The name plate shall be specified by purchaser as required.

Content Gauge with Non-Return Valves

SUN-SPCG-05469



NO.	PARTS	MATERIAL
1	GAUGE BODY	AC
2	CAPILLARY TUBE	SUS304
3	V/V ADJ. SCREW	SUS304
4	ST'D BOLT, NUT, S/W	SS400
5	NON-RETURN VALVE	SC49
6	PACKING	ASBESTOS-FREE
7	PROTECTOR FLANGE	SC49
8	DIAPHRAGM	PBP
9	NAME PLATE	BS
10	NON-RETURN V/V DISC	SS400
11	DRAIN PLUG	BS

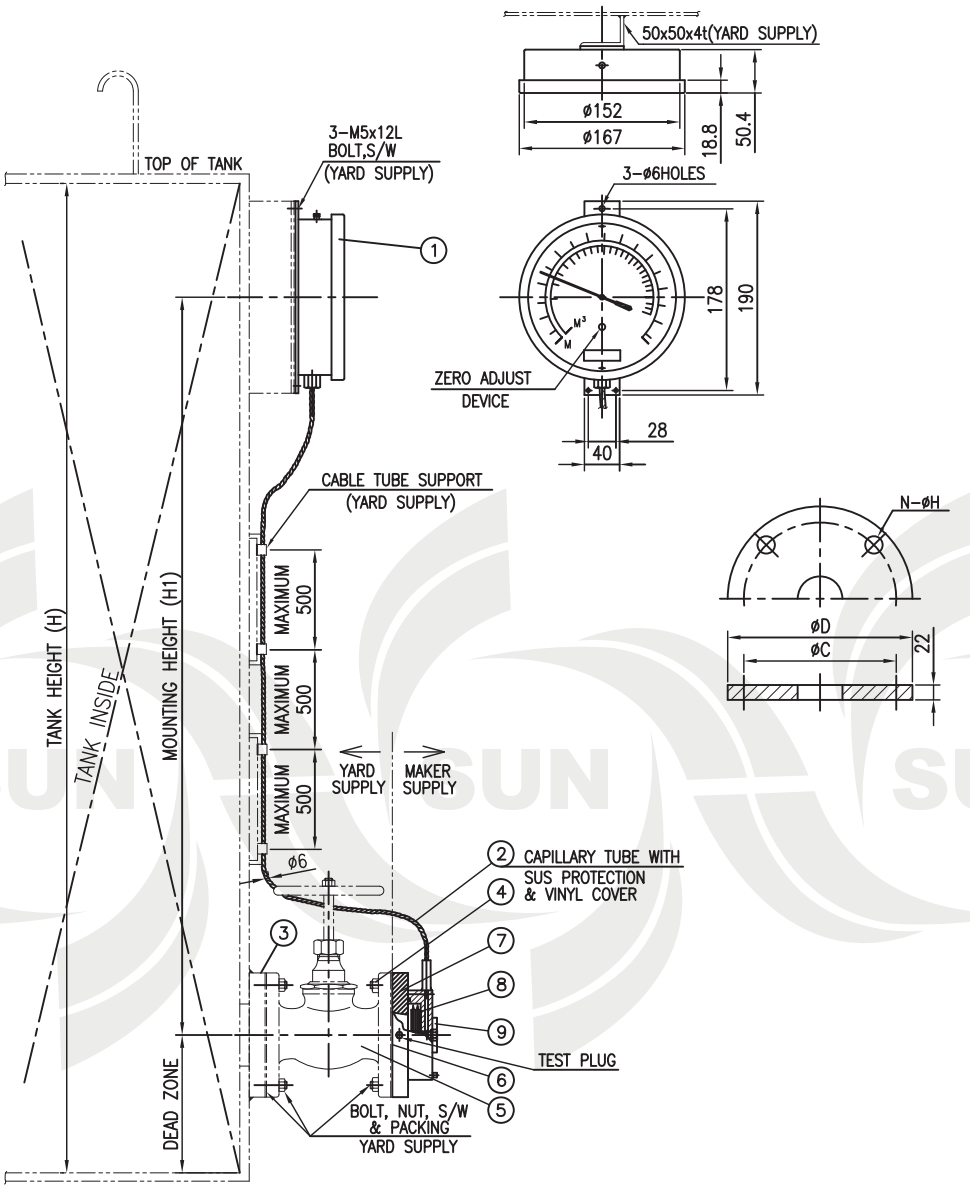
TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : 3M
2. ACCURACY : +1.0% OF FULL RANGE
3. OPERATING TEMP. : MIN.-40°C ~ MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB.OIL, D.O, FUEL OIL, WATER ETC.
7. GAUGE RANGE = ABT.110%TK.HEIGHT

Remark : 1. The name plate shall be specified by purchaser as required.

Content Gauge with Isolating Valves

SUN-SPCG-07242



TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MIN.-40°C ~ MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.

FLANGE DIMENSION TABLE

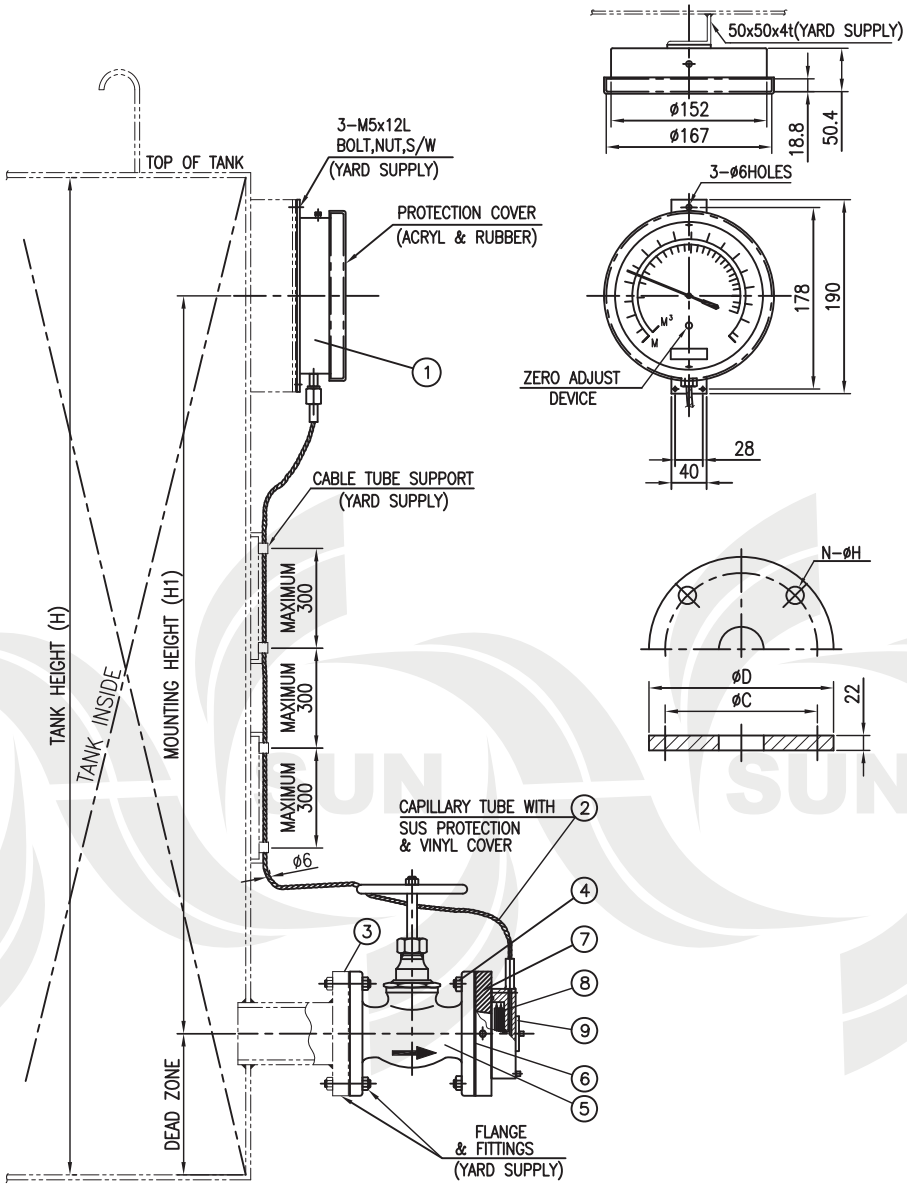
SIZE	D	C	N	H	REMARK
5K 25A FF	ø95	ø75	4	ø12	
10K 25A FF	ø125	ø90	4	ø19	

NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS304
2	CAPILLARY TUBE	SUS304
3	SET-ON FLANGE	SS400
4	STUD BOLT, NUT, S/W	SS400
5	I.S VALVE	BC 6
6	PACKING	NON-ASBESTOS
7	PROTECTION FLANGE	SS400
8	DIAPHRAGM	PBP
9	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Content Gauge with Isolating Valves

SUN-SPCG-07667



TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.

FLANGE DIMENSION TABLE

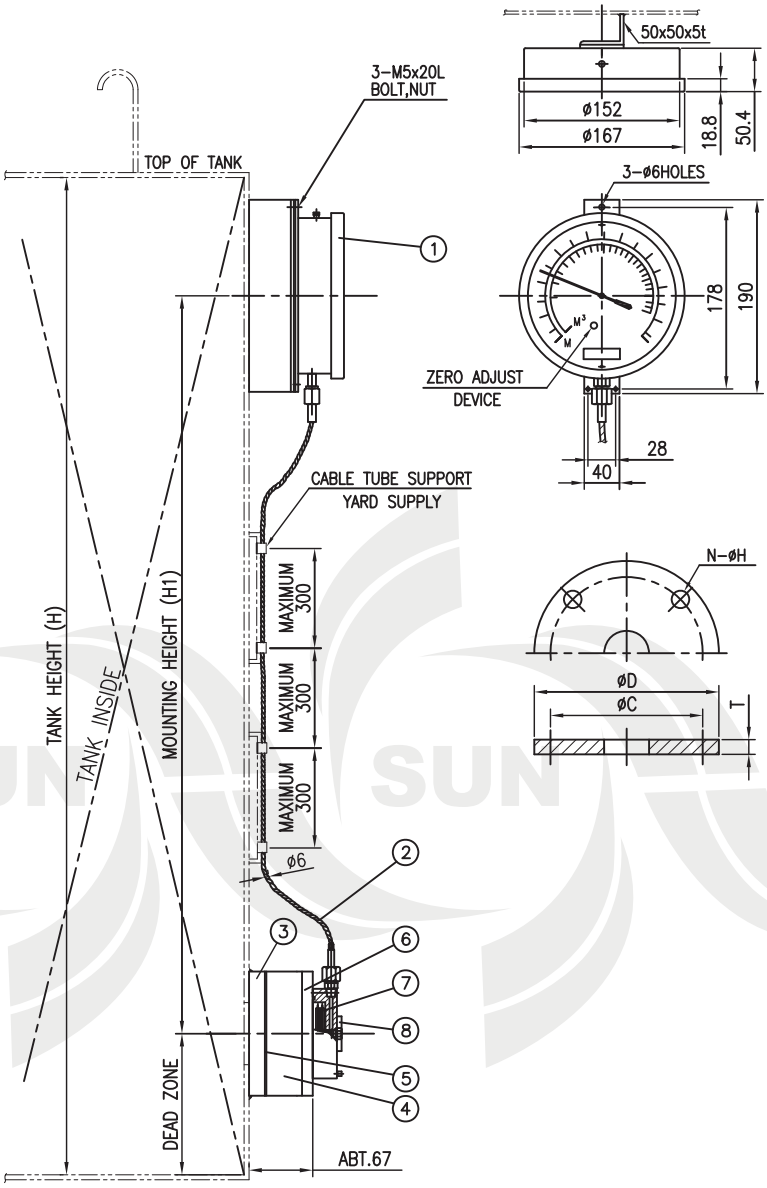
SIZE	D	C	N	H	REMARK
5K 25A FF	ø95	ø75	4	ø12	
10K 25A FF	ø125	ø90	4	ø19	

NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS304
2	CAPILLARY TUBE	SUS304
3	FLANGE	SS400
4	ST'D BOLT, NUT, S/W	SS400
5	I.S VALVE	BC 6
6	PACKING	ASBESTOS-FREE
7	PROTECTOR FLANGE	SS400
8	DIAPHRAGM	PBP
9	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Content Gauge

SUN-SPCG-04108



TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.
7. GAUGE RANGE = ABT. 110% TK. HEIGHT

FLANGE DIMENSION TABLE

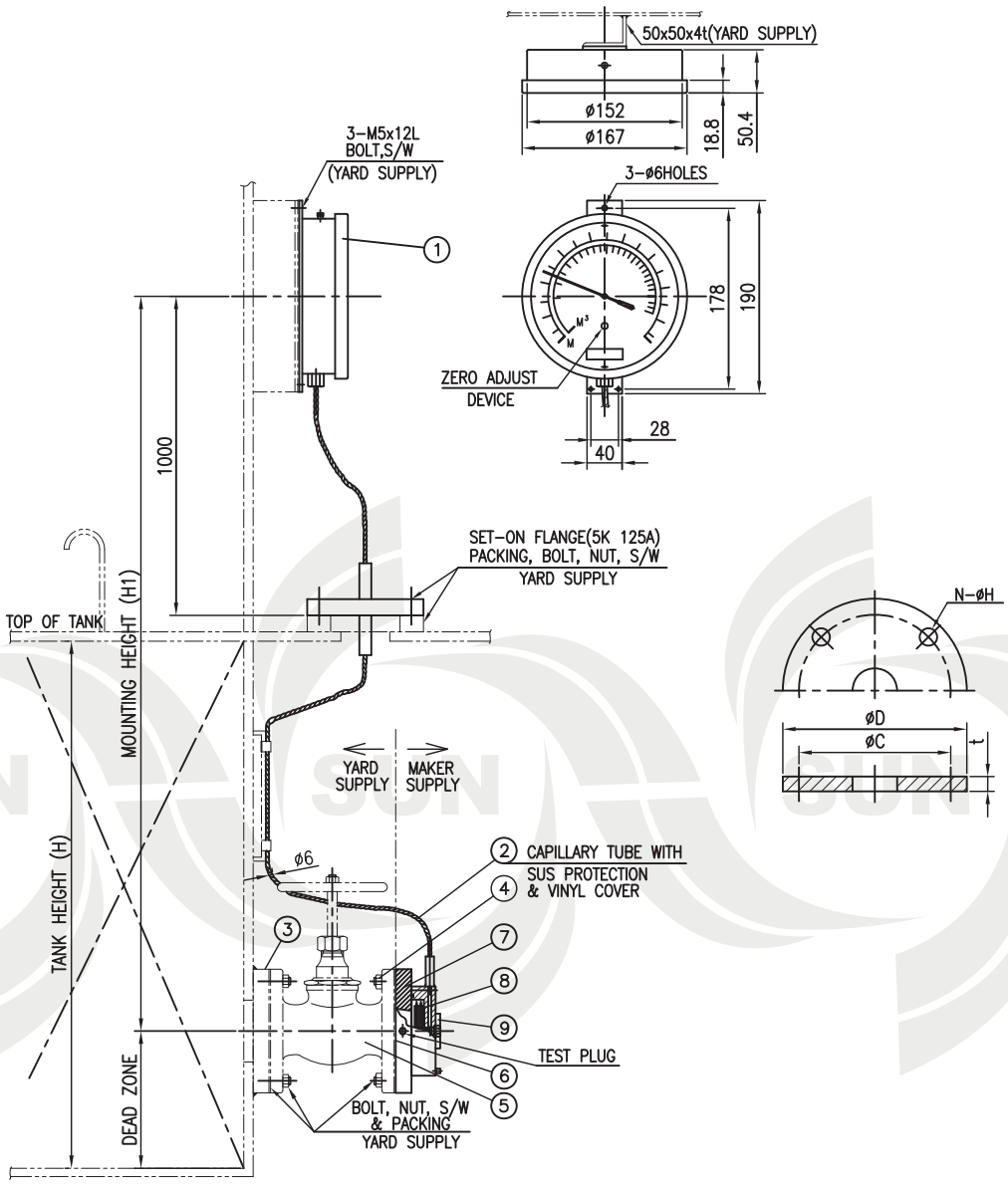
SIZE	D	C	N	H	REMARK
5K 50A FF	ø130	ø105	4	ø15	

NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS304
2	CAPILLARY TUBE	SUS304
3	SET-ON FLANGE	SS400
4	CHECK VALVE	SS400
5	PACKING	ASBESTOS-FREE
6	PROTECTOR FLANGE	SS400
7	DIAPHRAGM	PBP
8	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Content Gauge with Isolating Valves

SUN-SPCG-07171



TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MIN.−40°C ~ MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.

FLANGE DIMENSION TABLE

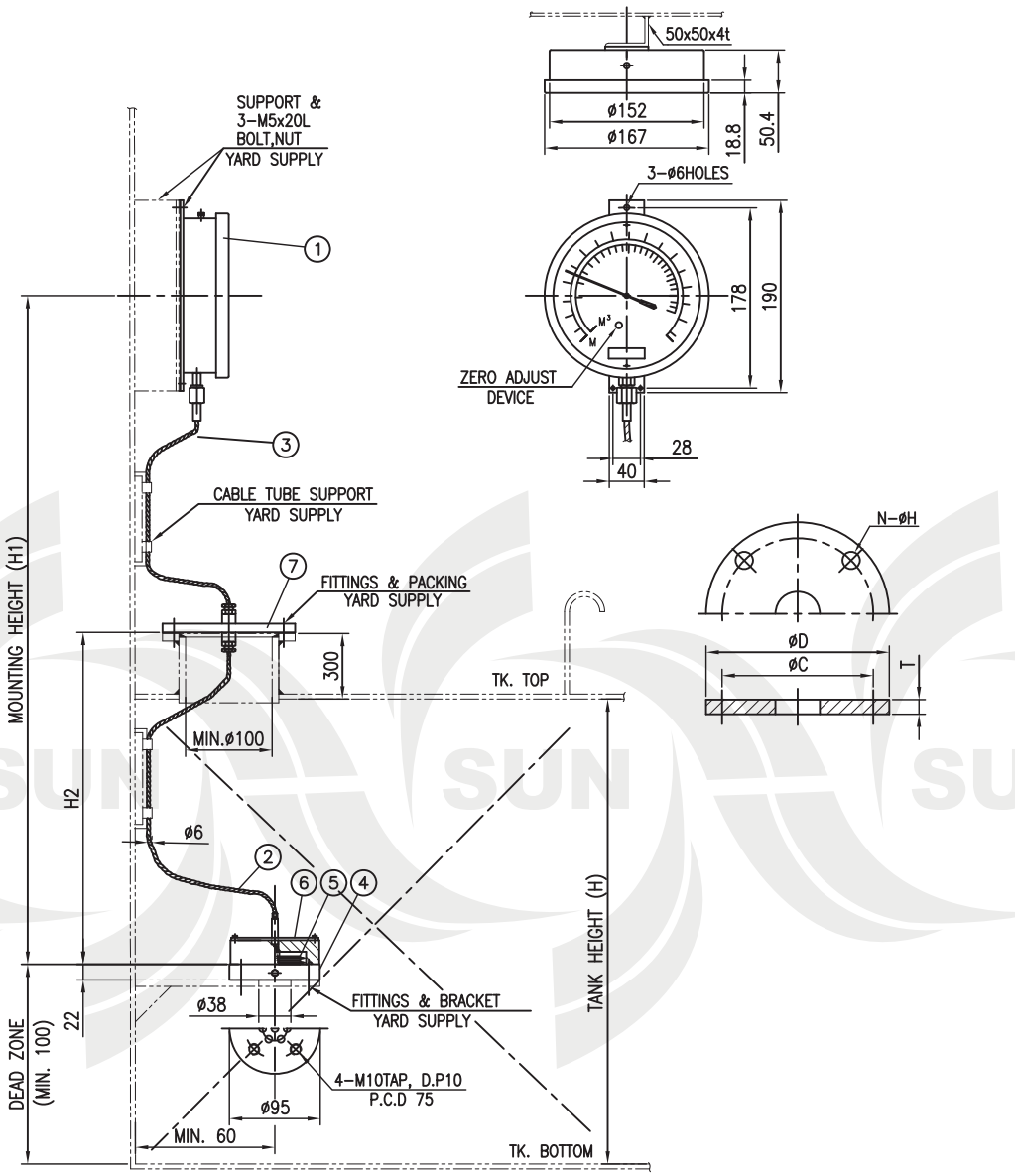
SIZE	D	C	N	H	t	REMARK
10K 25A FF	ø125	ø90	4	ø19	22	
5K 125A FF	ø235	ø200	8	ø19	16	

NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS304
2	CAPILLARY TUBE	SUS304
3	SET-ON FLANGE	SS400
4	ST'D BOLT, NUT, S/W	SS400
5	I.S VALVE	BC 6
6	PACKING	ASBESTOS-FREE
7	PROTECTION FLANGE	SS400
8	DIAPHRAGM	PBP
9	NAME PLATE	BS

Remark : 1. The name plate shall be specified by purchaser as required.

Submersible Type Content Gauge

SUN-SPCG-05314



TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M³)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.
7. GAUGE RANGE = ABT. 110% TK. HEIGHT

FLANGE DIMENSION TABLE

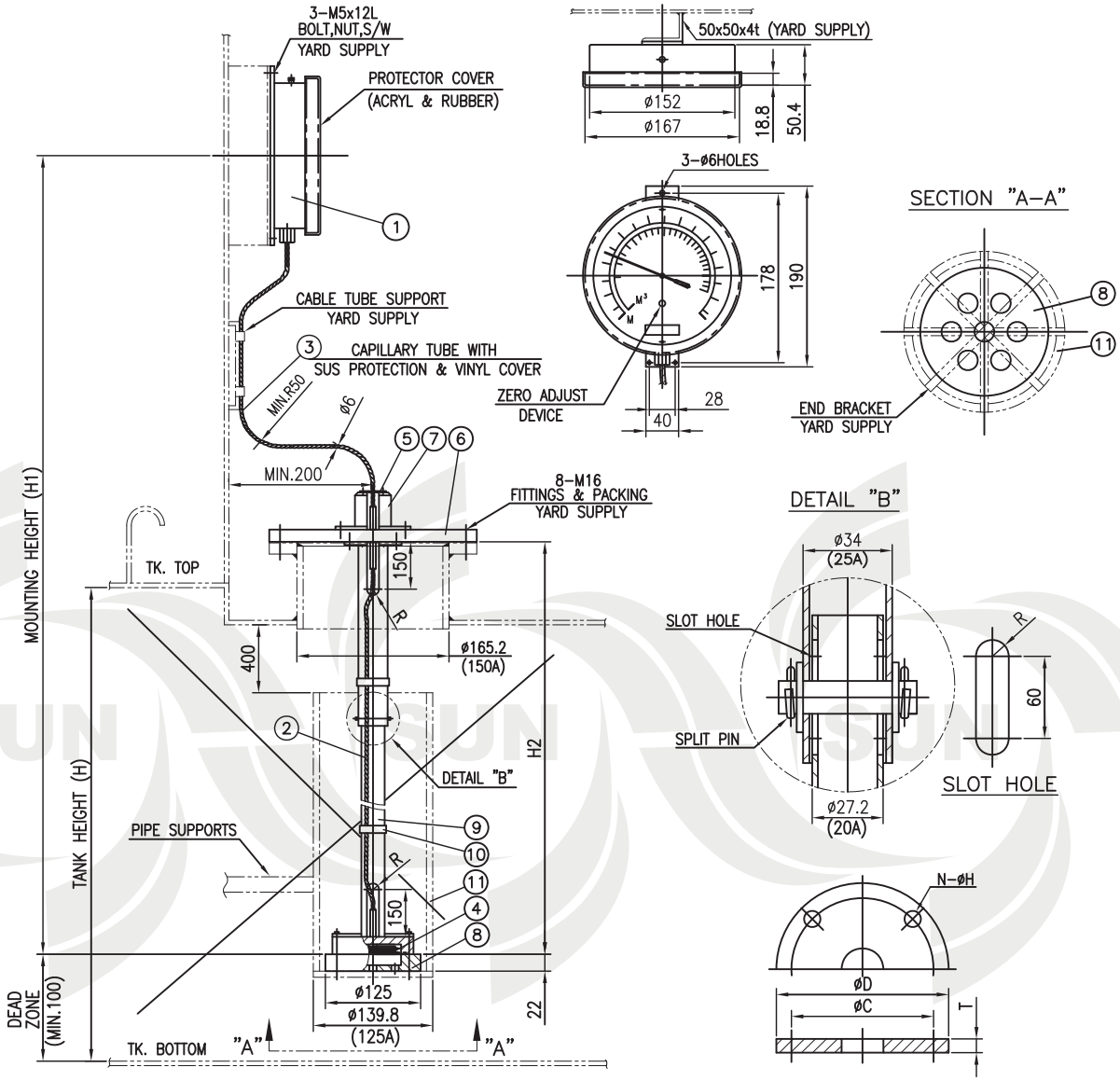
SIZE	D	C	N	H	T	REMARK
5K 100A FF	ø200	ø165	8	ø19	16	#7

NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS 304
2	LOWER CAPILLART TUBE	SUS 304
3	UPPER CAPILLART TUBE	SUS 304
4	SET-ON FLANGE	SS400
5	DIAPHRAM	PBP
6	NAME PLATE	BS
7	PENETRATION FLANGE	SUS304

Remark : 1. The name plate shall be specified by purchaser as required.

Submersible Type Content Gauge

SUN-SPCG-06235



NO.	PARTS	MATERIAL
1	GAUGE BODY	SUS 304
2	LOWER CAPILLARY TUBE	SUS 304
3	UPPER CAPILLARY TUBE	SUS 304
4	DIAPHRAM	PBP
5	NAME PLATE	BS
6	PENETRATION FLANGE	SUS304
7	PROTECTOR	SUS304
8	PROTECTOR PLATE	SS400
9	HOLD PIPE	SUS304
10	BAND	SUS304
11	GUIDE PIPE	SGP

TECHNICAL DATA

1. CAPILLARY TUBE LENGTH : REFER TO BELOW TABLE
2. ACCURACY : ±1.0% OF FULL RANGE
3. OPERATING TEMP. : MIN.-40°C ~ MAX. 120°C
4. OVER LOAD : ABT. 120% OF FULL RANGE
5. SCALE TYPE : DUAL SCALE(M/M^3)
6. APPLICATION : LUB. OIL, D.O, FUEL OIL, WATER ETC.

FLANGE DIMENSION TABLE

SIZE	D	C	N	H	T	REMARK
5K 150A FF	ø265	ø230	8	ø19	18	#6

Remark : 1. The name plate shall be specified by purchaser as required.

PART-D

D. ELECTRIC

PART-D

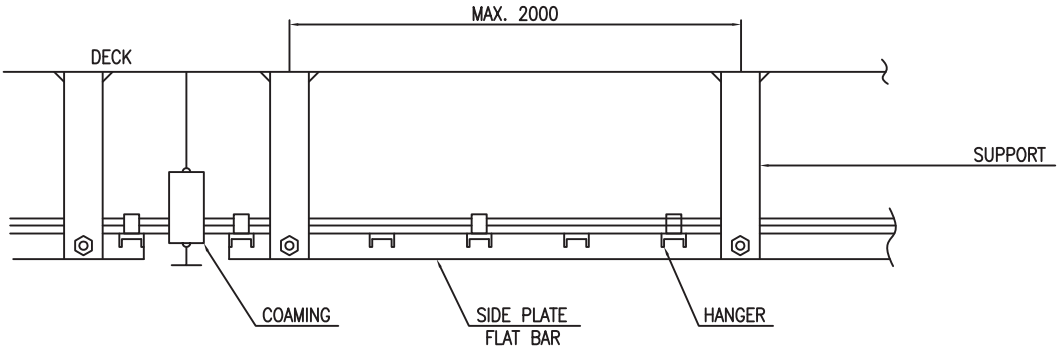
D. ELECTRIC

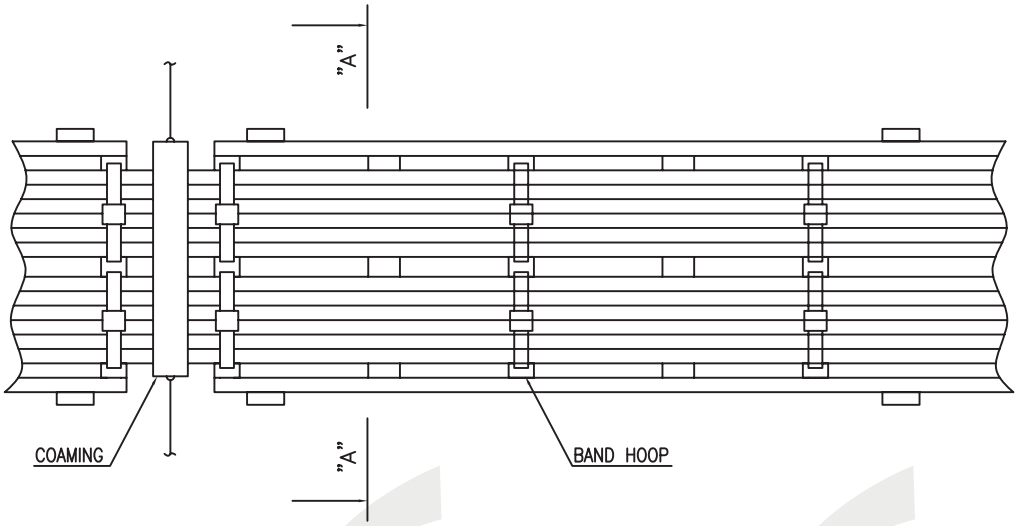
CONTENTS	NO	PAGE
1. CABLE INSTALLATION	D-1	678
2. CABLE TIES	D-12	689
3. MARINE FAN	D-19	696

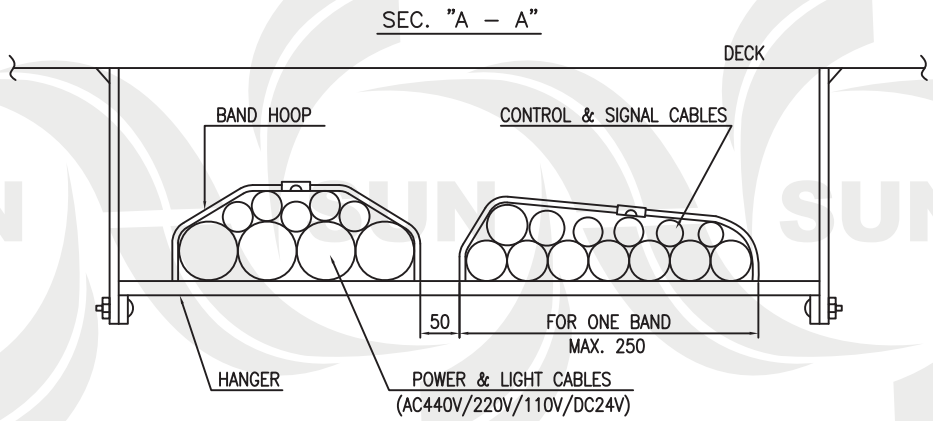
Horizontal Main Cable Way Single Type

NOTE

THIS DWG. ONLY ILLUSTRATES TYPICAL METHOD.
HEAVY GAUGE CABLES OVER THAN 40mm IN OUTER DIAMETER TO BE ARRANGED IN A SINGLE LAYER IF PRACTICABLE.



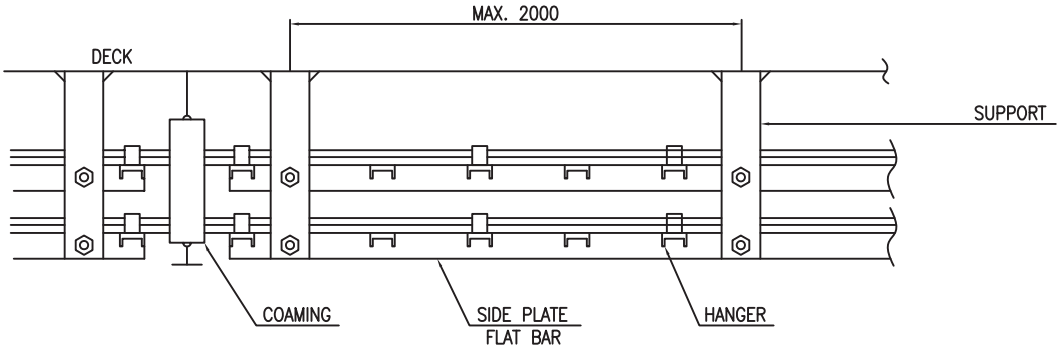


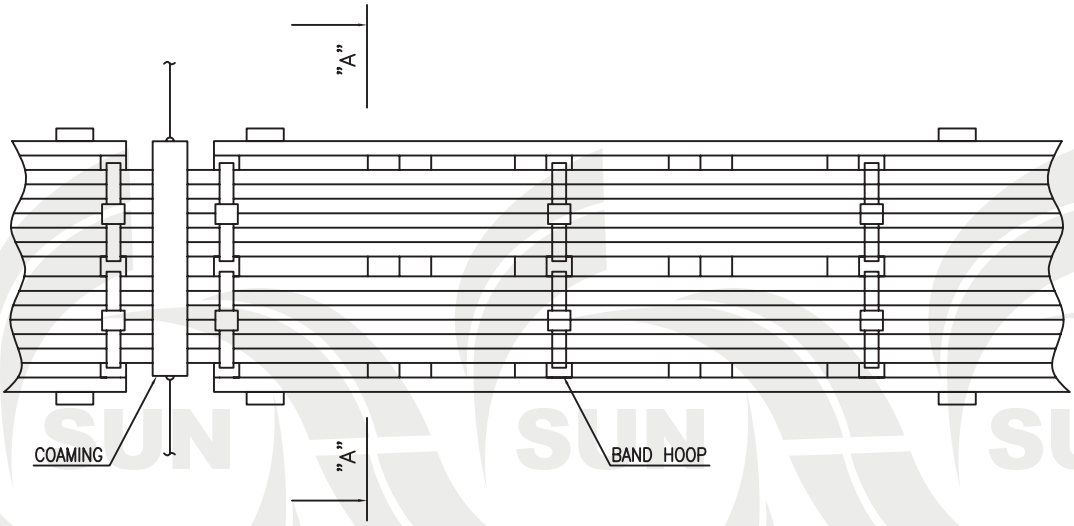


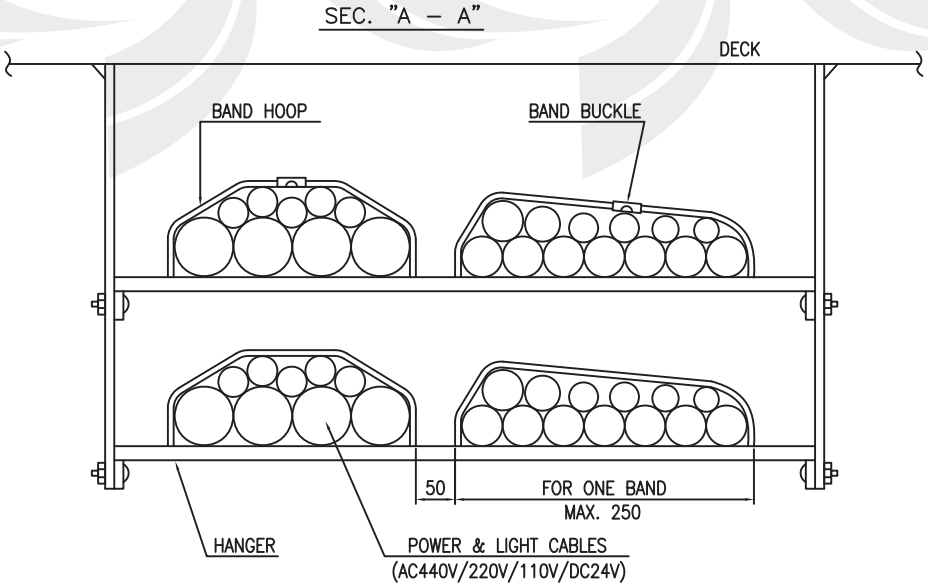
IN CASE OF THE SPECIFIED ABOVE CONFIGURATIONS. LOAD CAPACITY OF EACH CABLES TO BE REDUCED TO 85% OF CURRENT CARRING CAPACITY OF THE VALUES GIVEN FROM RULE.

Remark : 1. The name plate shall be specified by purchaser as required.

Horizontal Main Cable Way Double Type



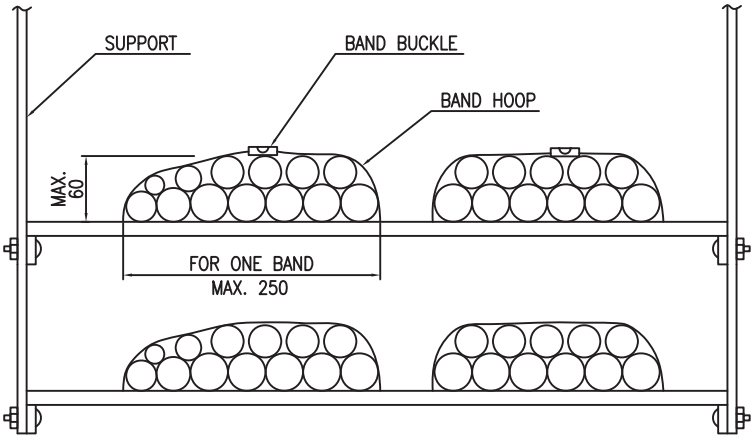




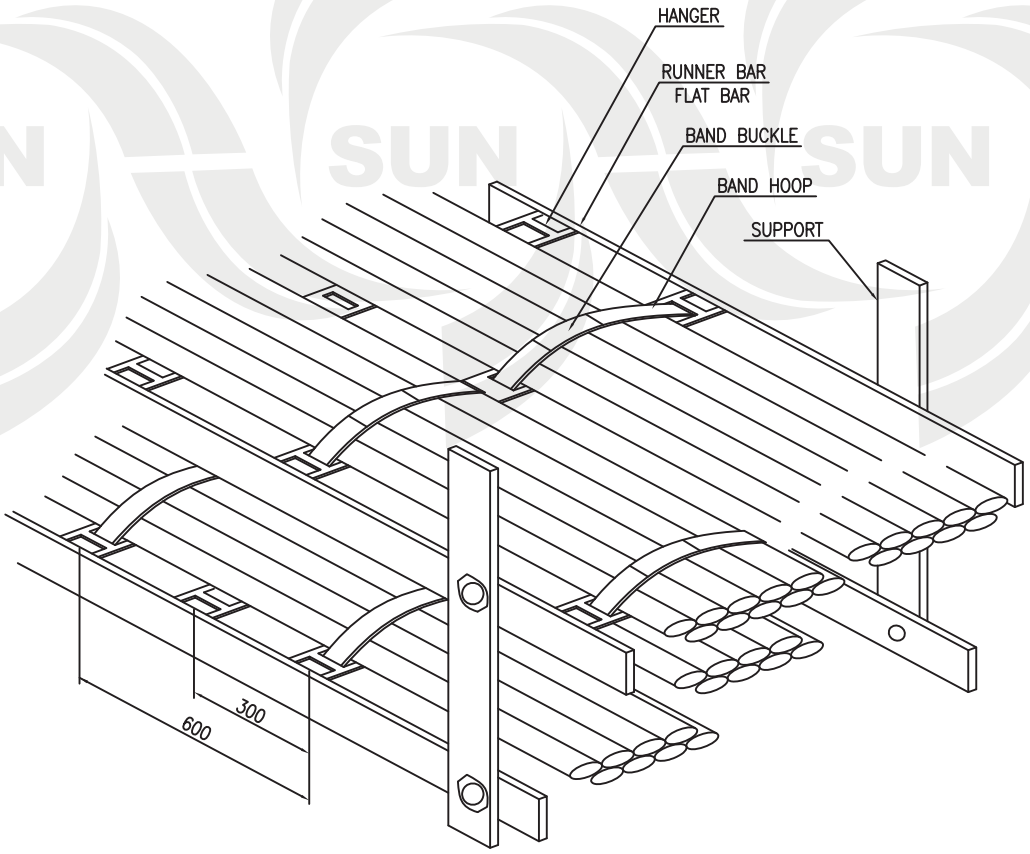
IN CASE OF THE SPECIFIED ABOVE CONFIGURATIONS. LOAD CAPACITY OF EACH CABLES TO BE REDUCED TO 85% OF CURRENT CARRING CAPACITY OF THE VALUES GIVEN FROM RULE.

Remark : 1. The name plate shall be specified by purchaser as required.

Horizontal Main Cable Way Side View

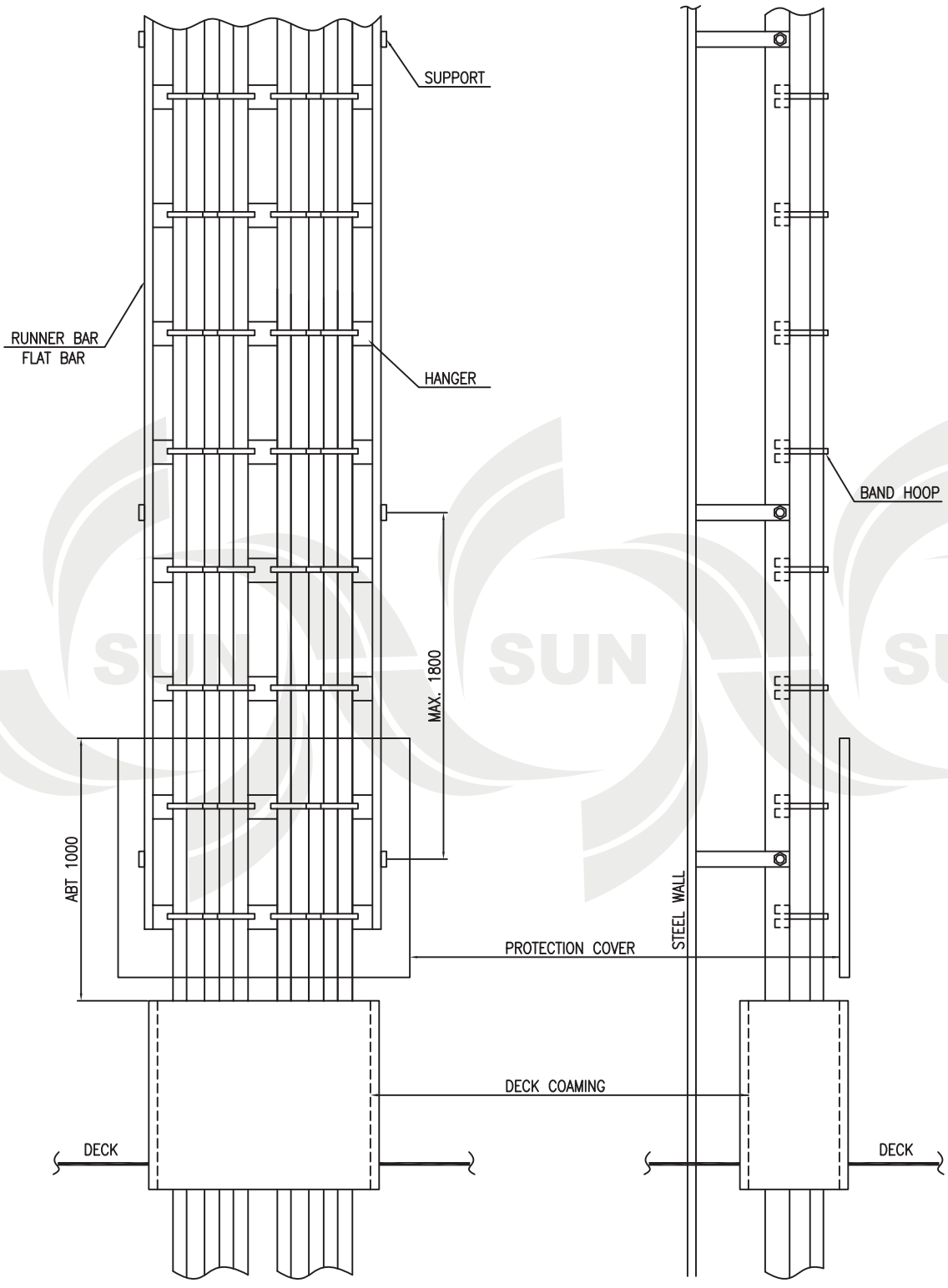


IN CASE OF THE SPECIFIED ABOVE CONFIGURATIONS. LOAD CAPACITY OF EACH CABLES TO BE REDUCED TO 85% OF CURRENT CARRING CAPACITY OF THE VALUES GIVEN FROM RULE.



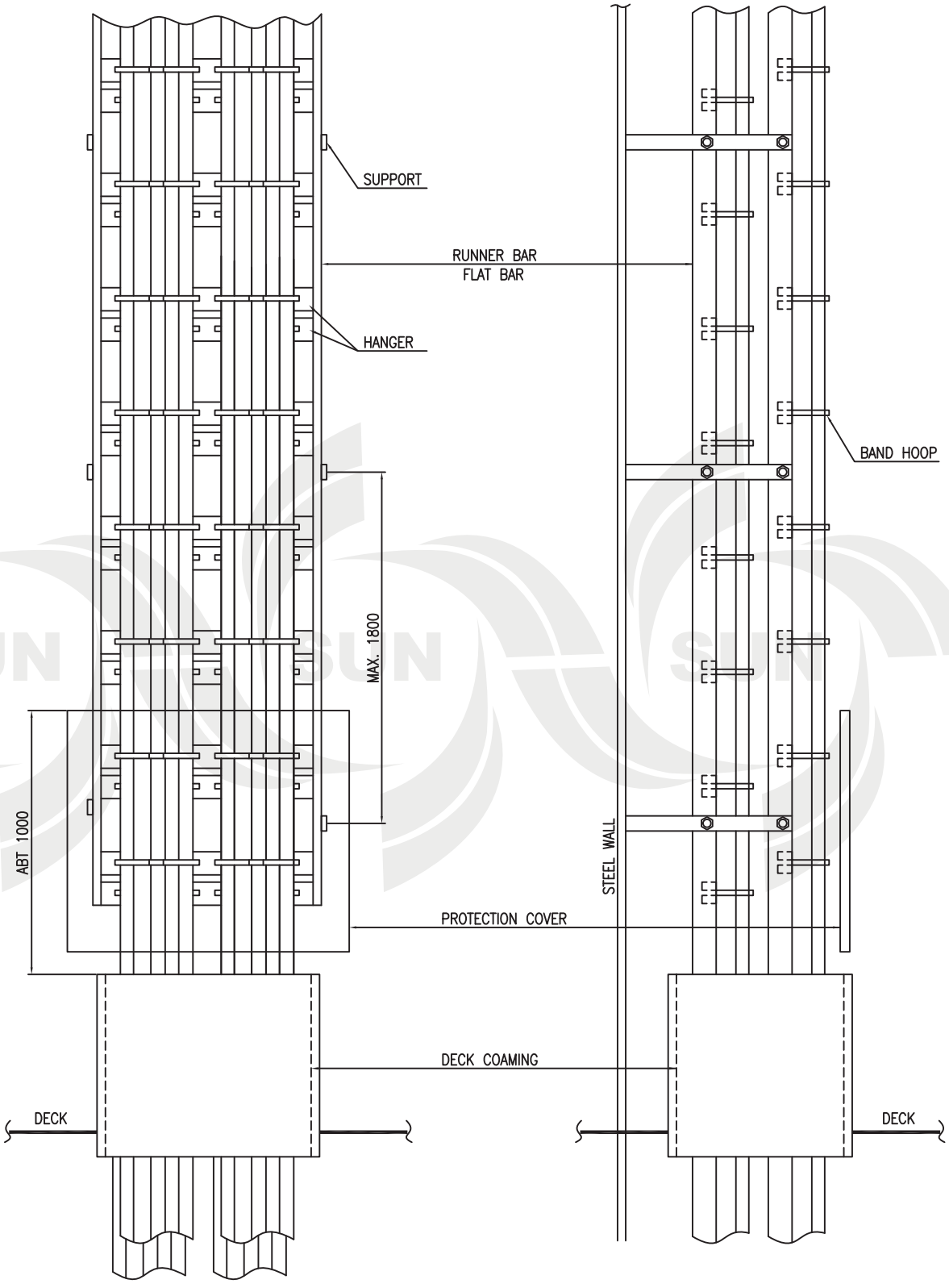
Remark : 1. The name plate shall be specified by purchaser as required.

Vertical Main Cable Way Single Type



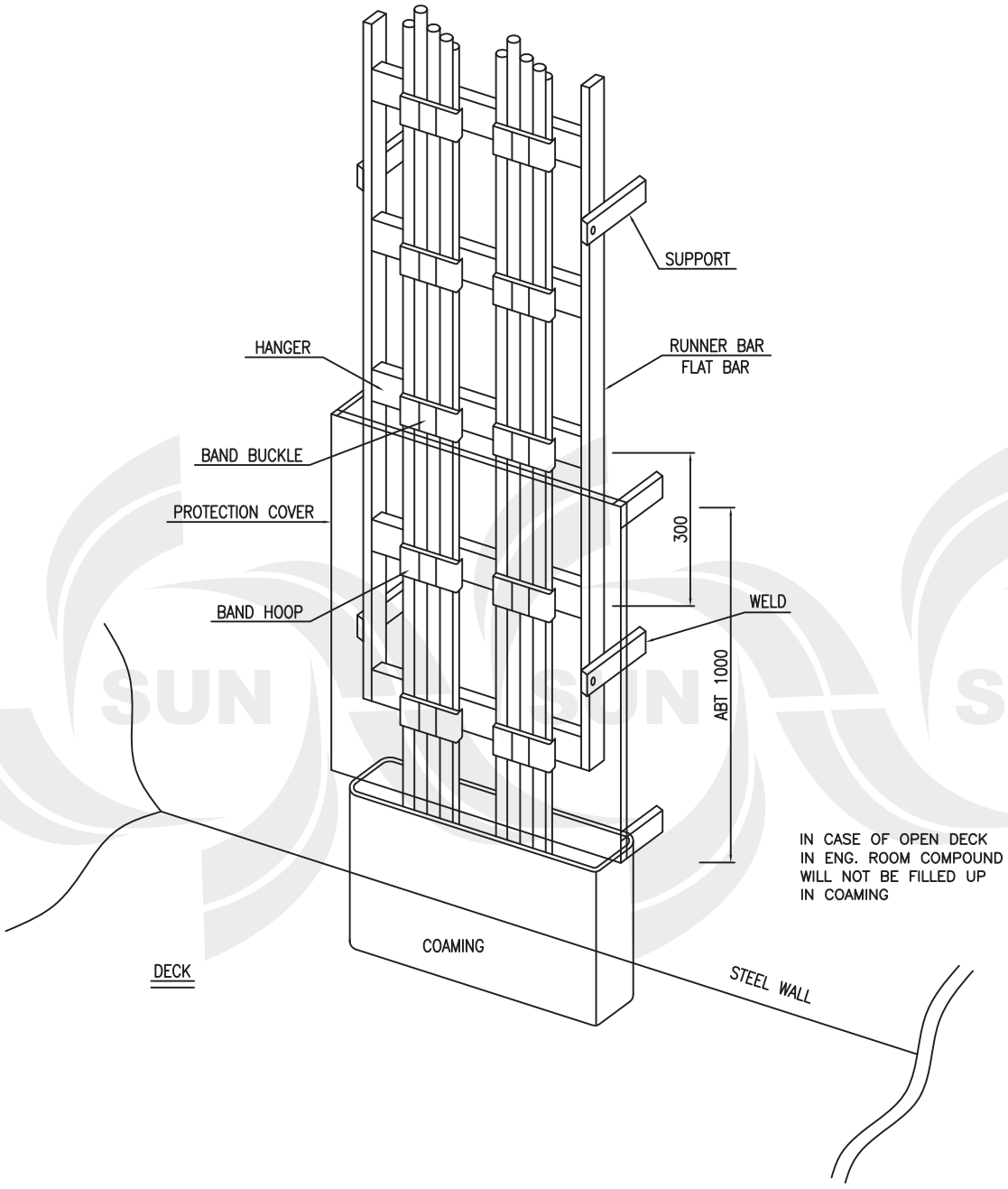
Remark : 1. The name plate shall be specified by purchaser as required.

Vertical Main Cable Way Double Type



Remark : 1. The name plate shall be specified by purchaser as required.

Vertical Main Cable Way Side View

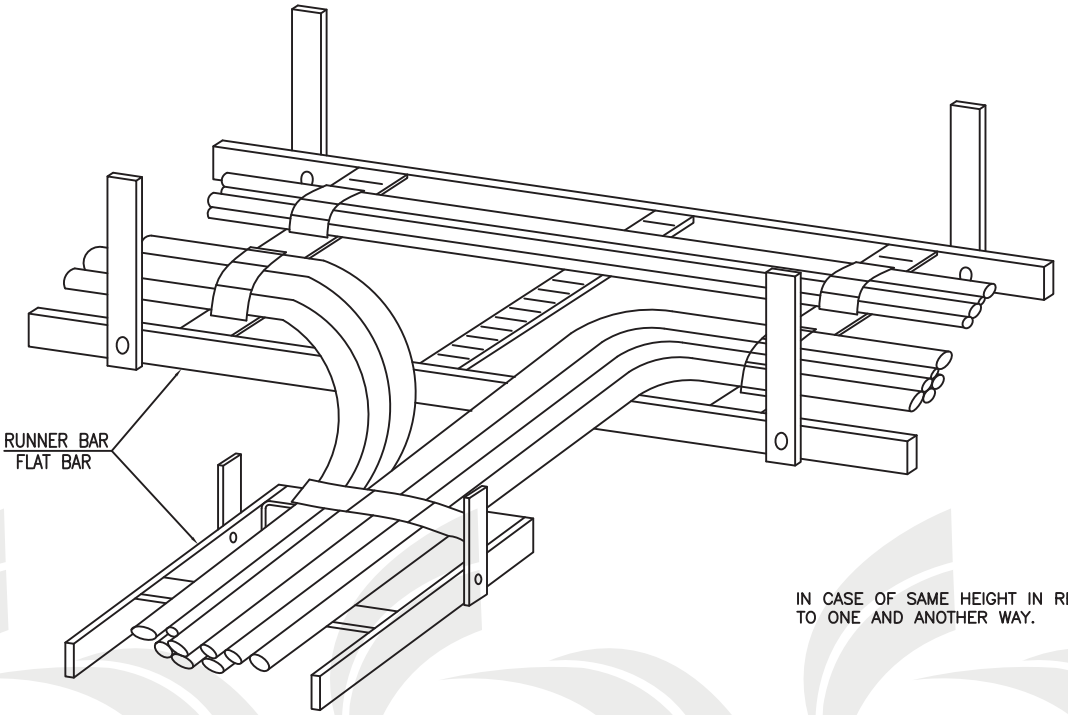


NOTE

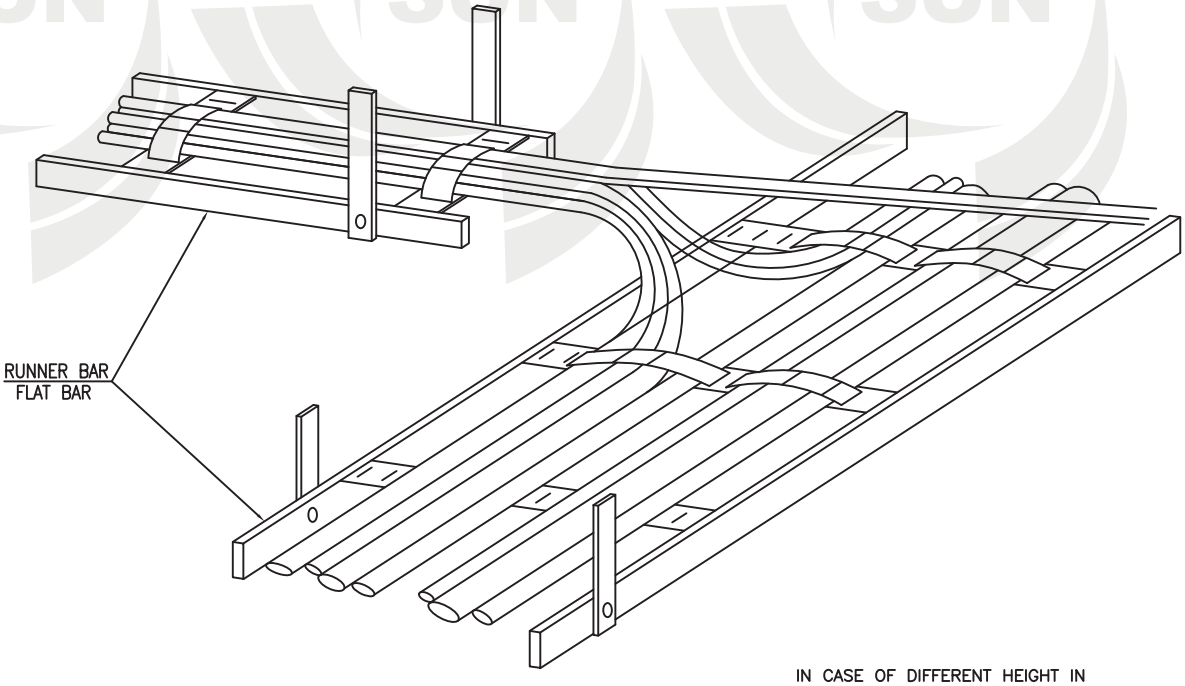
1) SPACING BETWEEN HANGERS TO BE OF 300mm.
2) SPACING BETWEEN BANDS TO BE OF 300mm.
3) CABLE ARR'T PER HANGER ON THIS DWG. ONLY ILLUSTRATES TYPICAL METHOD OF CABLE INSTALLATION.
   IN GENERAL, HEAVY GAUGE CABLES SUCH AS GENERATOR CABLES OR OVER THAN
   40mm IN OUTER DIAMETER ONLY TO BE ARRANGED IN A SINGLE LAYER IF PRACTICABLE.

Remark : 1. The name plate shall be specified by purchaser as required.

Turning Method of Main Cable Way"A"



IN CASE OF SAME HEIGHT IN RELATION TO ONE AND ANOTHER WAY.



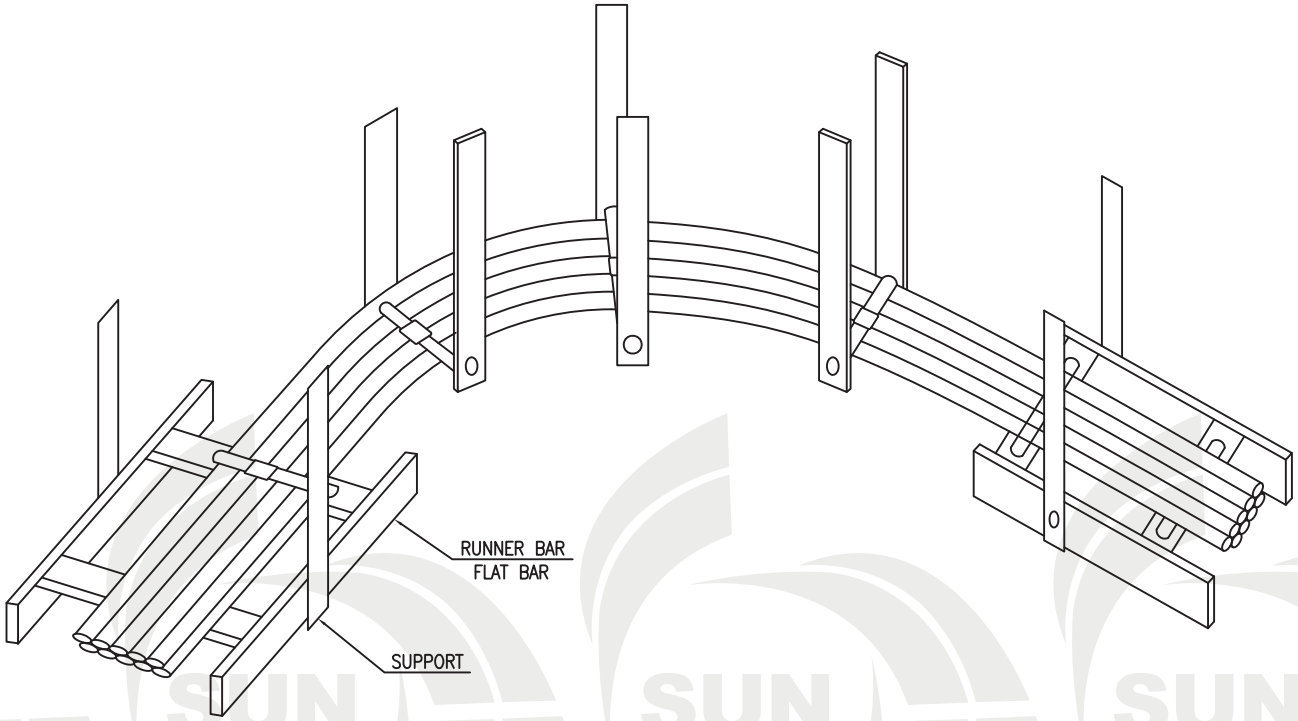
IN CASE OF DIFFERENT HEIGHT IN RELATION TO ONE AND ANOTHER WAY.

Remark : 1. The name plate shall be specified by purchaser as required.

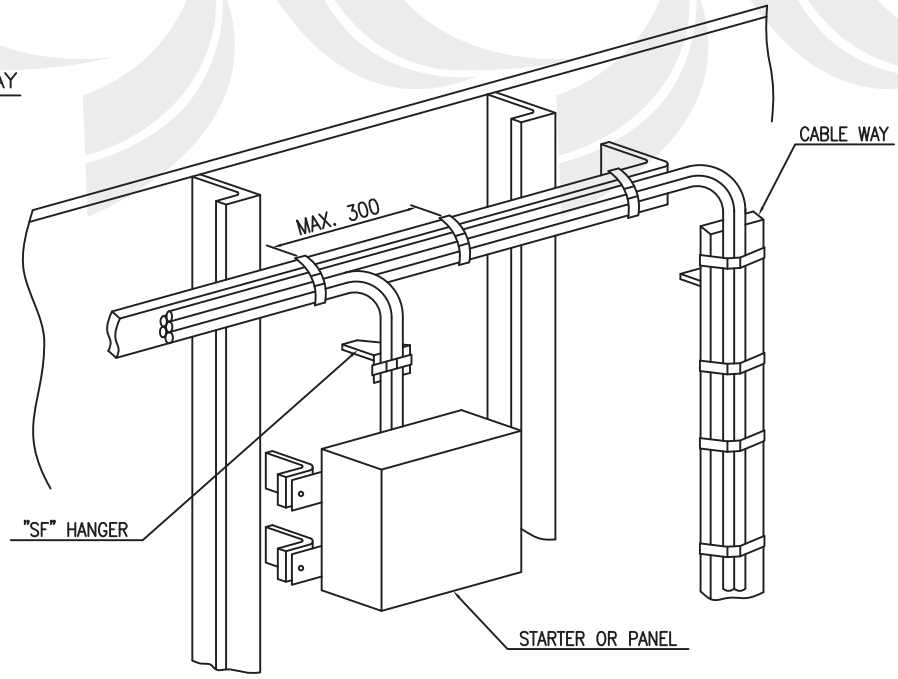
Curved & Branch Cable Way

WHERE CABLE WAY CURVED

THE CABLE SHALL BE INSTALLED ON ADEQUATE SUPPORT AS SHOWN ON FOLLOWING FIGURE.

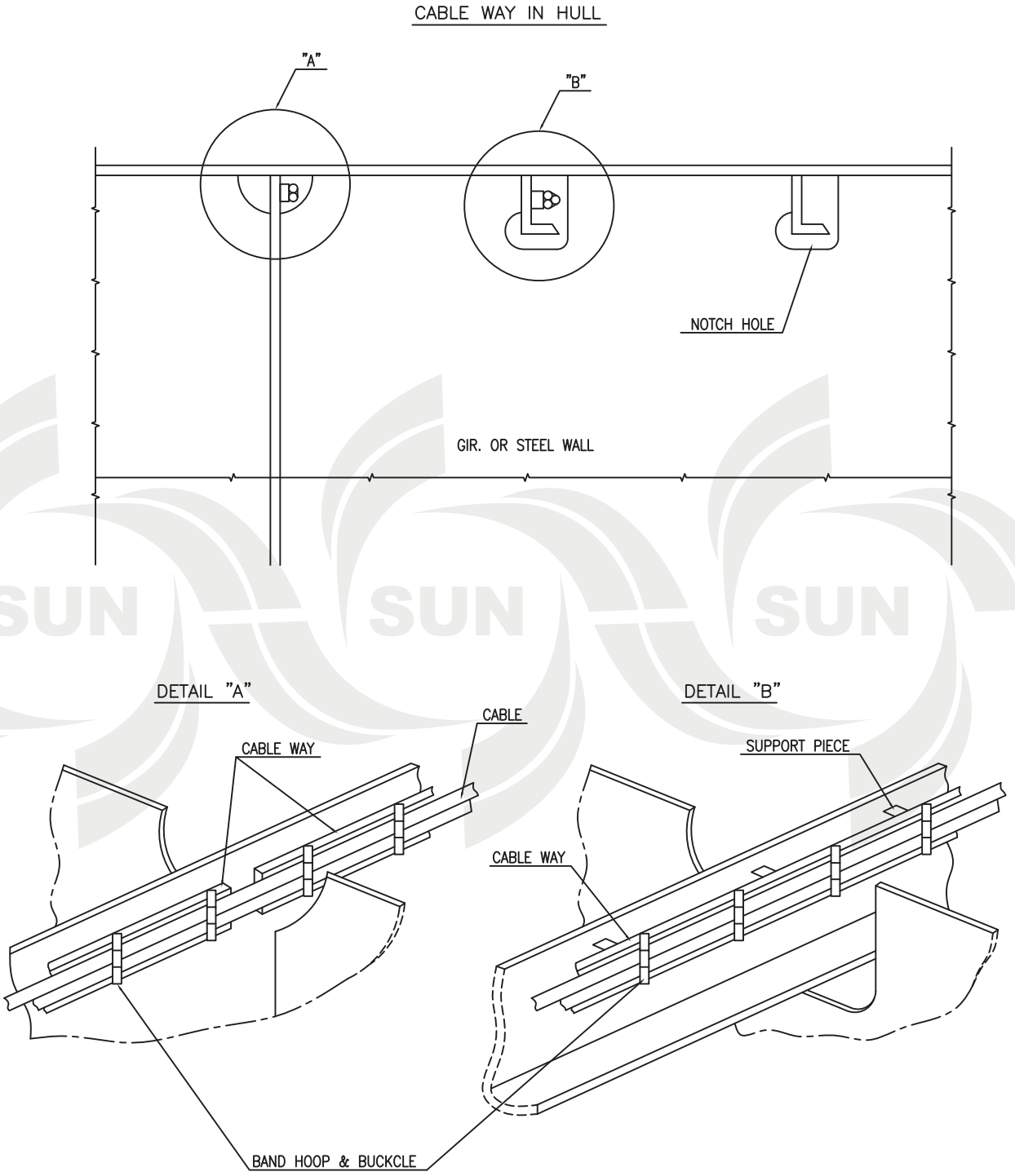


BRANCH CABLE WAY



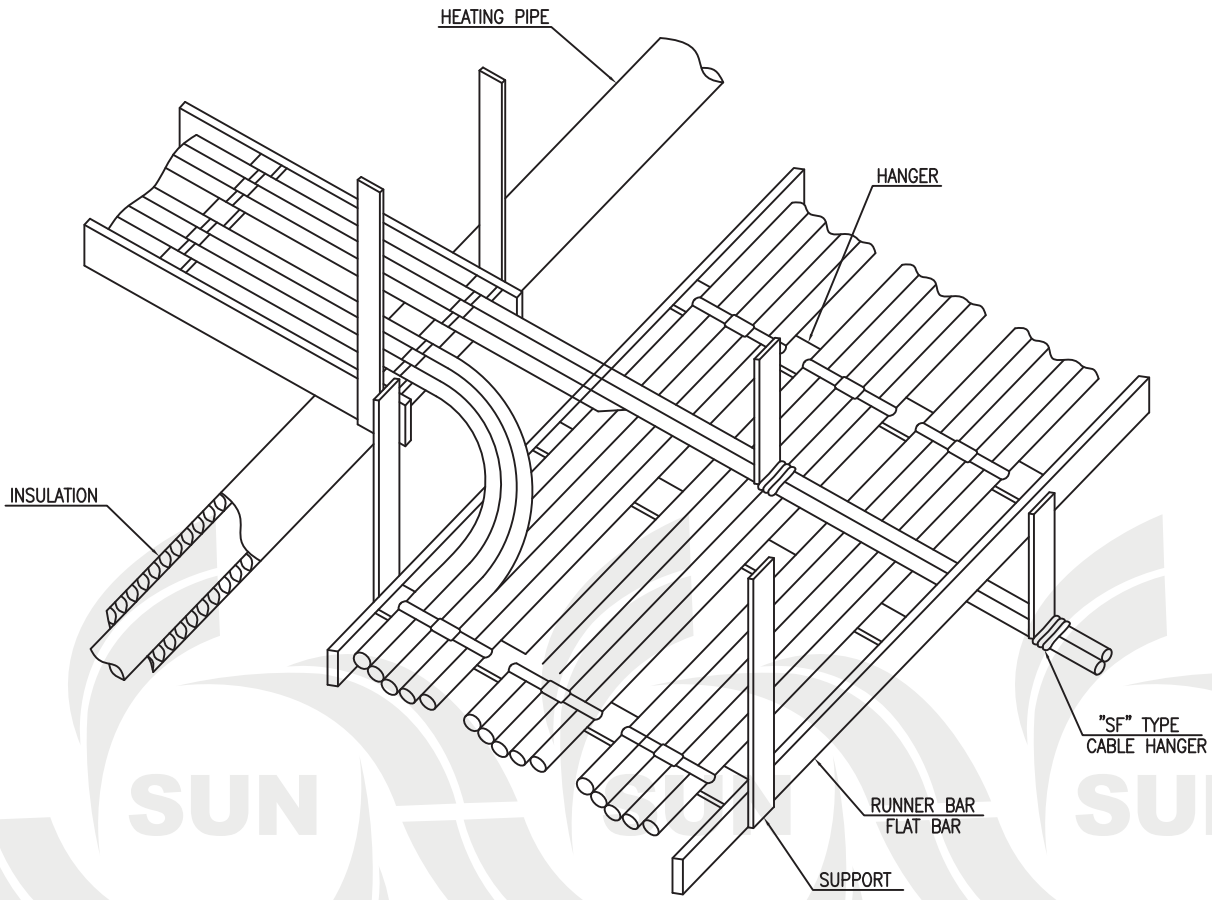
Remark : 1. The name plate shall be specified by purchaser as required.

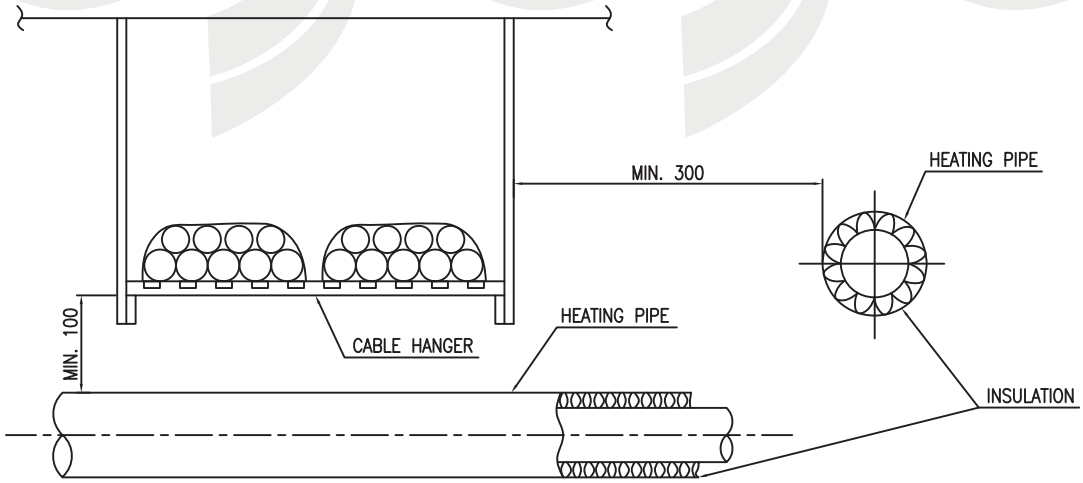
For in Hull



Remark : 1. The name plate shall be specified by purchaser as required.

Distance of Heating Pipe



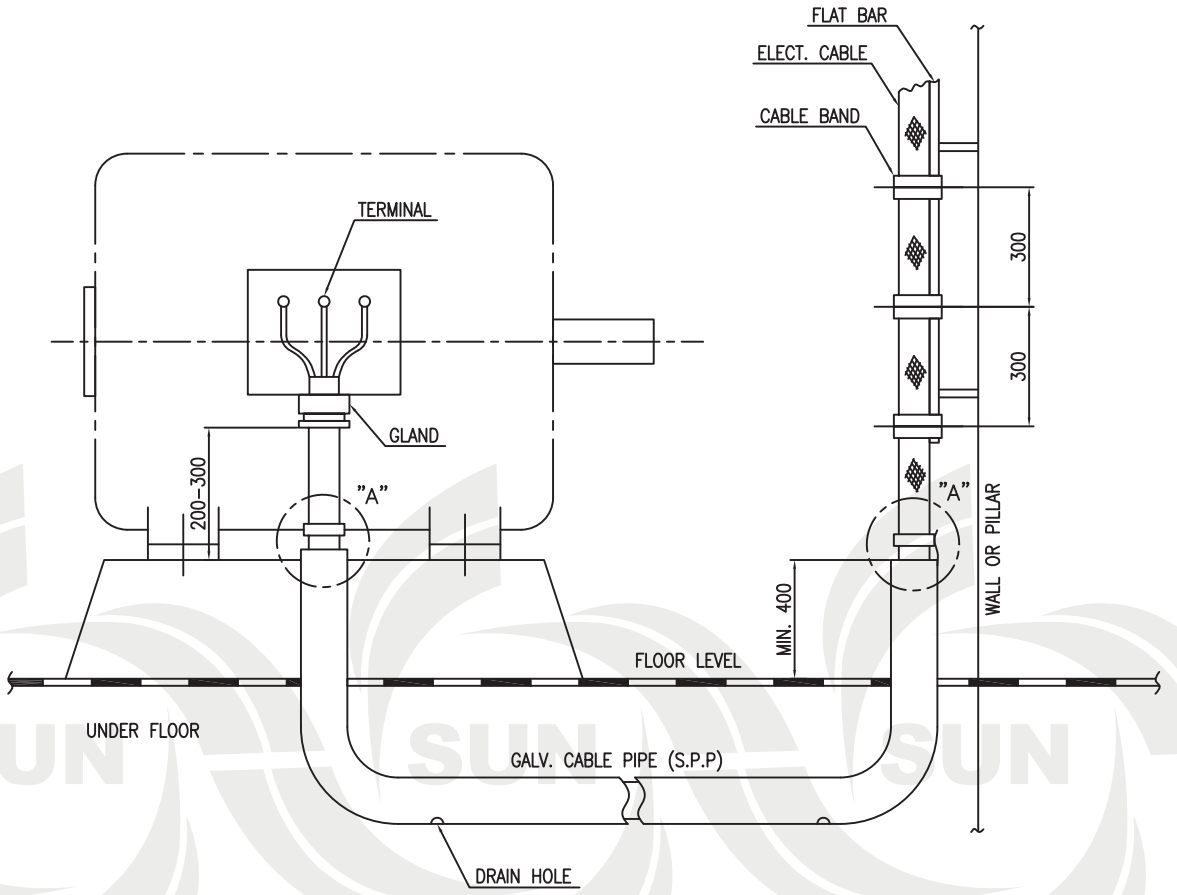


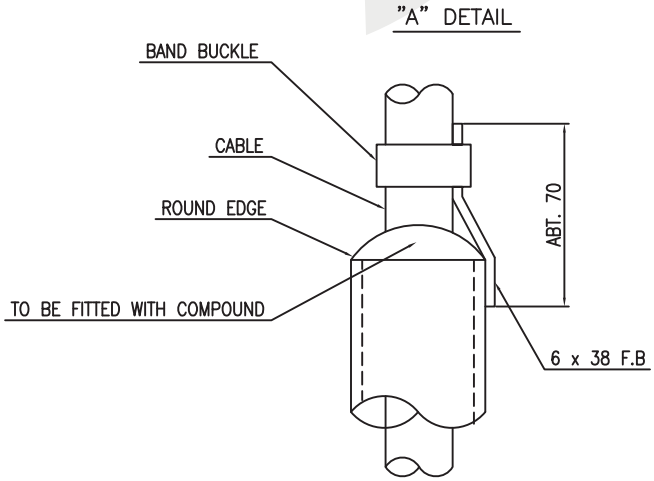
NOTE

1. IN CASE CABLES RUN ACROSS THE HEATING PIPE. THE DISTANCE TO BE KEPT NOT LESS THAN 100mm AND IN CASE OF RUNNING PARALLEL THE DISTANCE TO BE KEPT NOT LESS THAN 300mm.

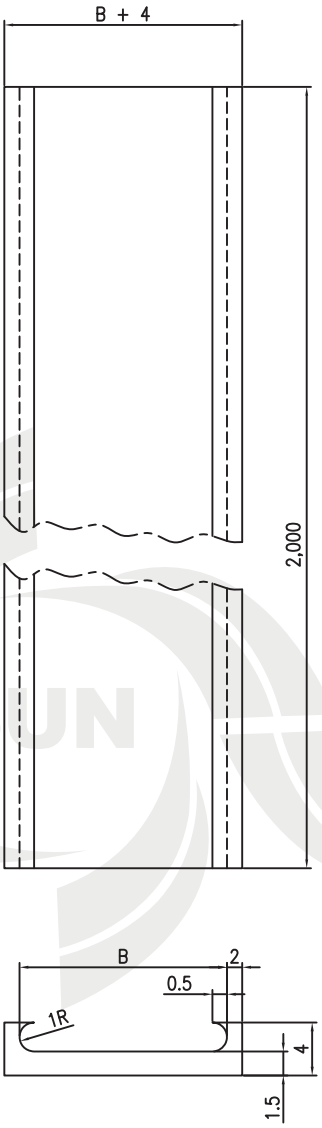
Remark : 1. The name plate shall be specified by purchaser as required.

Cable Installation for Under Floor





Remark : 1. The name plate shall be specified by purchaser as required.



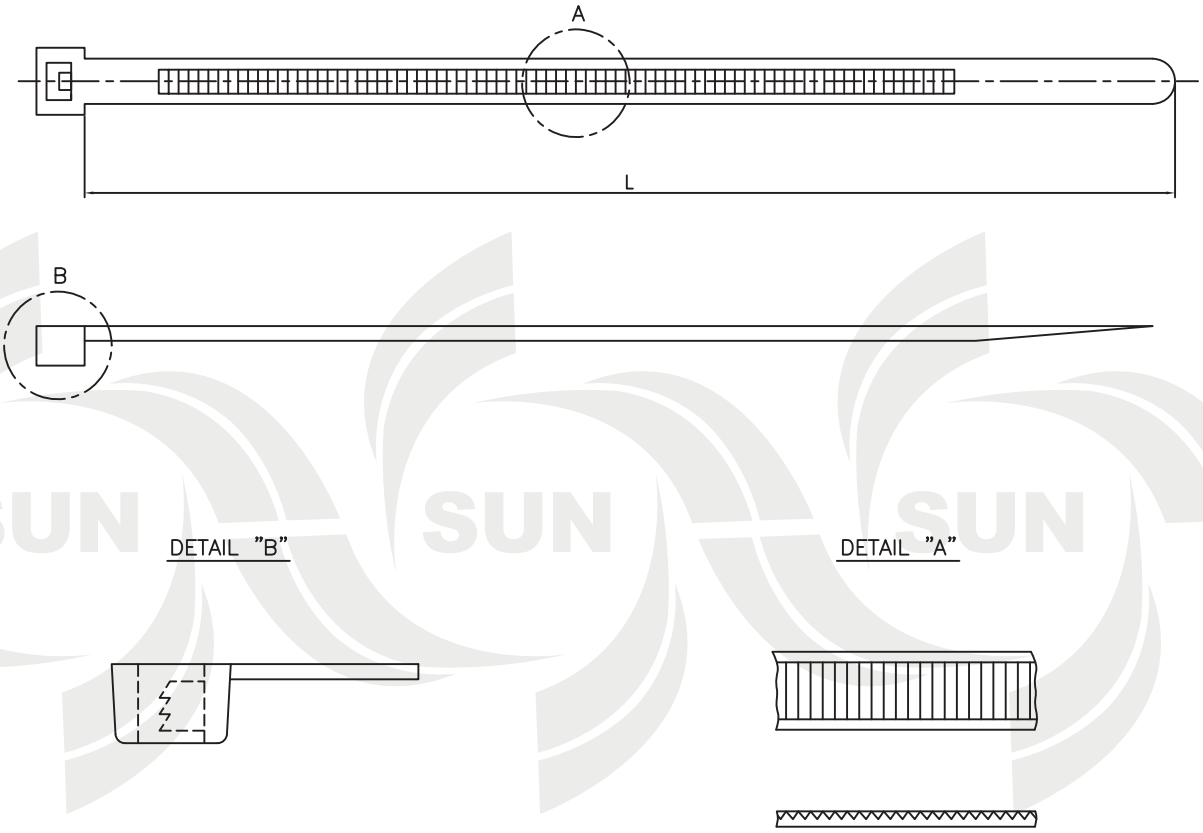


NOTE

1. COLOR : GRAY
2. LENGTH : 2,000
3. B : DECIDED BY P.O.S
4. MATERIALS : P.V.C INCOMBUSTIBLE

TYPE	TYPE-1	TYPE-2	TYPE-3
'B' DIMENSION	11	15	17

Remark : 1. The name plate shall be specified by purchaser as required.

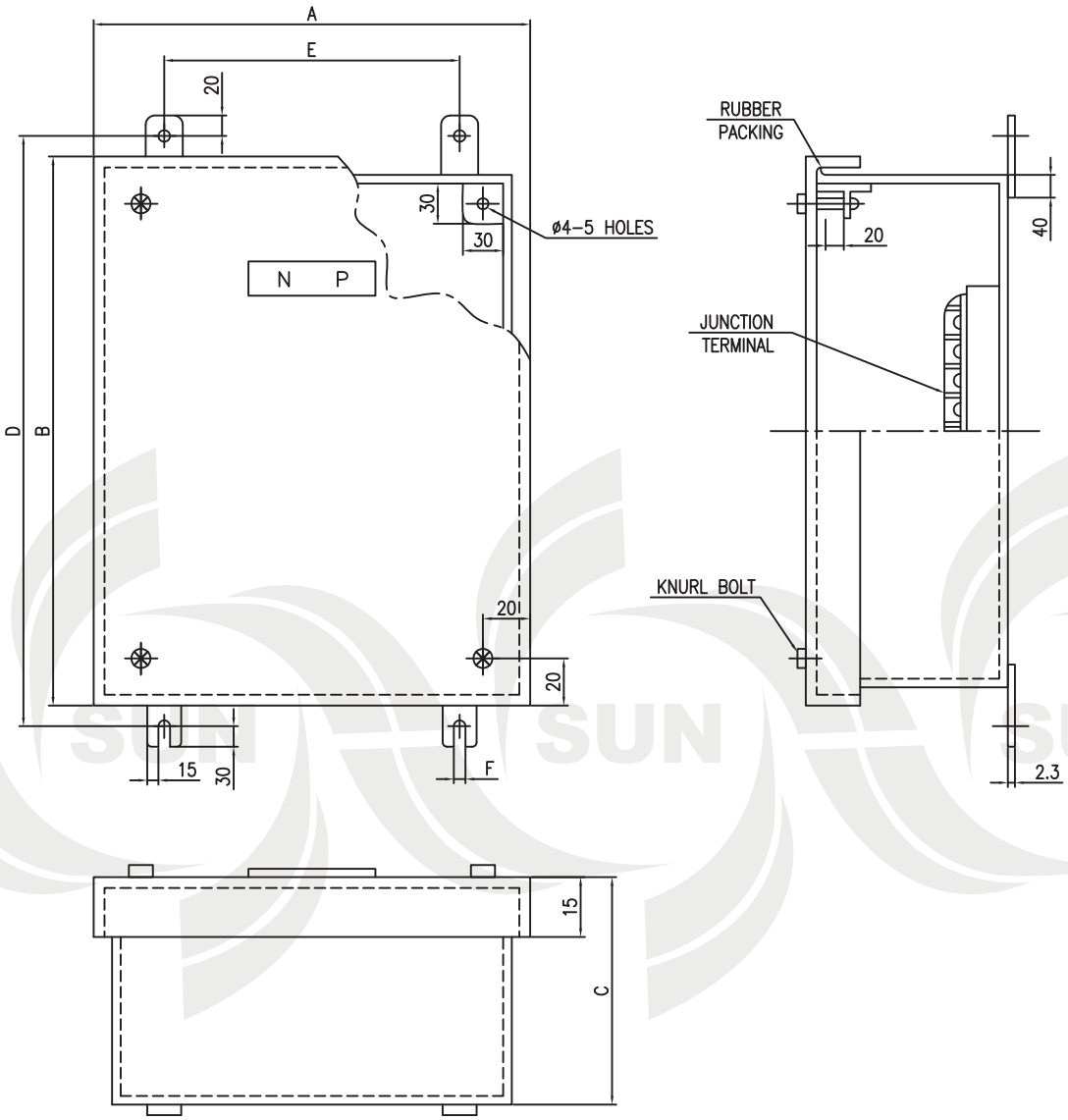


NOTE

MATERIAL : VINYL. INCOMBUSTIBLE
COLOUR : MAKER STANDARD
THIS CABLE TIE SHALL ONLY BE APPLIED FOR CABLE FASTENING
INSIDE SWITCH BOARD, CONTROL CONSOLE, ETC

Remark : 1. The name plate shall be specified by purchaser as required.

W.T.Type



NOTE

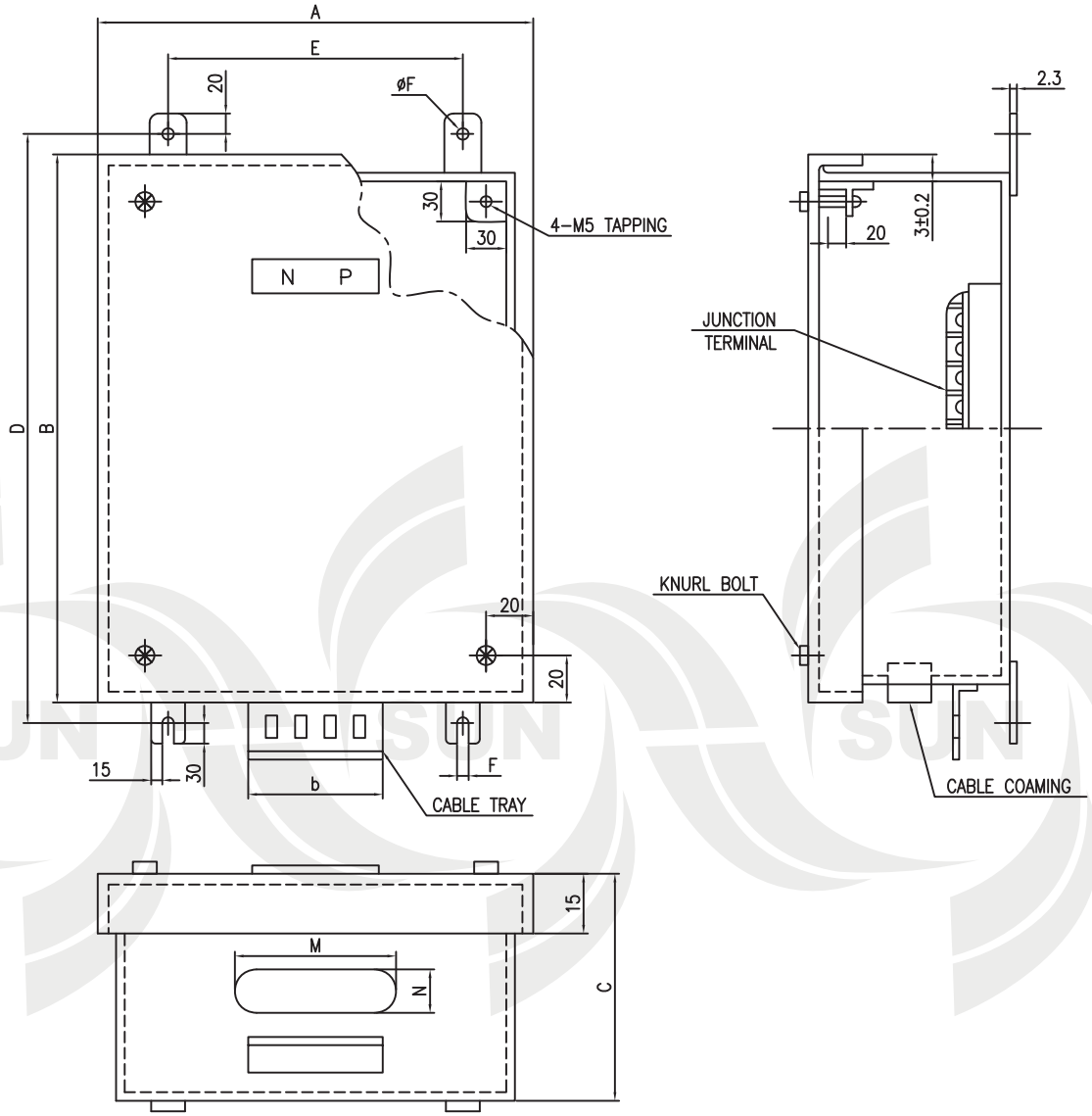
1. PAINT COLOR : DECIDED BY P.O.R
2. NAME PLATE : DECIDED BY P.O.R

MATERIAL : STEEL PLATE

TYPE	SIZE						JUNCTION TERMINAL	REMARK
	A	B	C	D	E	F		
JB-1S	200	200	120	250	140	8	20P	
JB-2S	250	350	120	400	190	8	40P	
JB-3S	350	350	140	400	250	8	60P	
JB-4S	350	500	140	550	250	11	90P	
JB-5S	450	500	160	550	350	11	120P	
JB-6S	450	650	160	700	350	11	160P	

Remark : 1. The name plate shall be specified by purchaser as required.

N.W.T.Type



NOTE

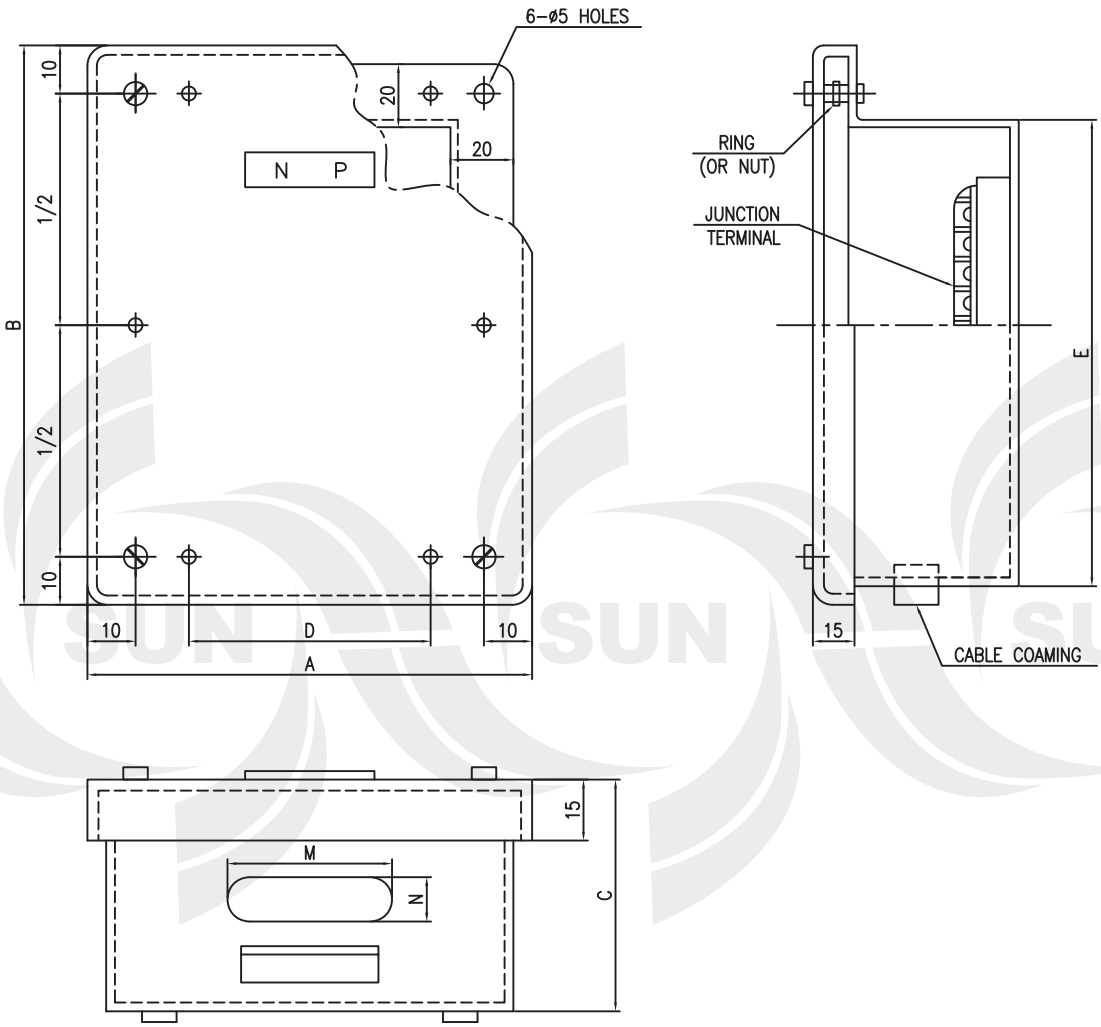
1. PAINT COLOR : DECIDED BY P.O.R
2. NAME PLATE : DECIDED BY P.O.R

MATERIAL : STEEL PLATE

TYPE	SIZE						COAMING		JUNCTION TERMINAL	TRAY SIZE
	A	B	C	D	E	F	M	N		
JB-1S	200	200	80	250	120	8	150	30	20P	b : 100
JB-2S	200	300	80	350	120	8	150	30	40P	b : 100
JB-3S	300	300	80	350	200	8	200	30	60P	b : 200
JB-4S	300	450	100	500	200	11	200	40	90P	b : 200
JB-5S	400	450	100	500	300	11	300	40	120P	b : 250
JB-6S	400	600	100	500	300	11	300	40	160P	b : 250

Remark : 1. The name plate shall be specified by purchaser as required.

N.W.T. Flush Type



NOTE

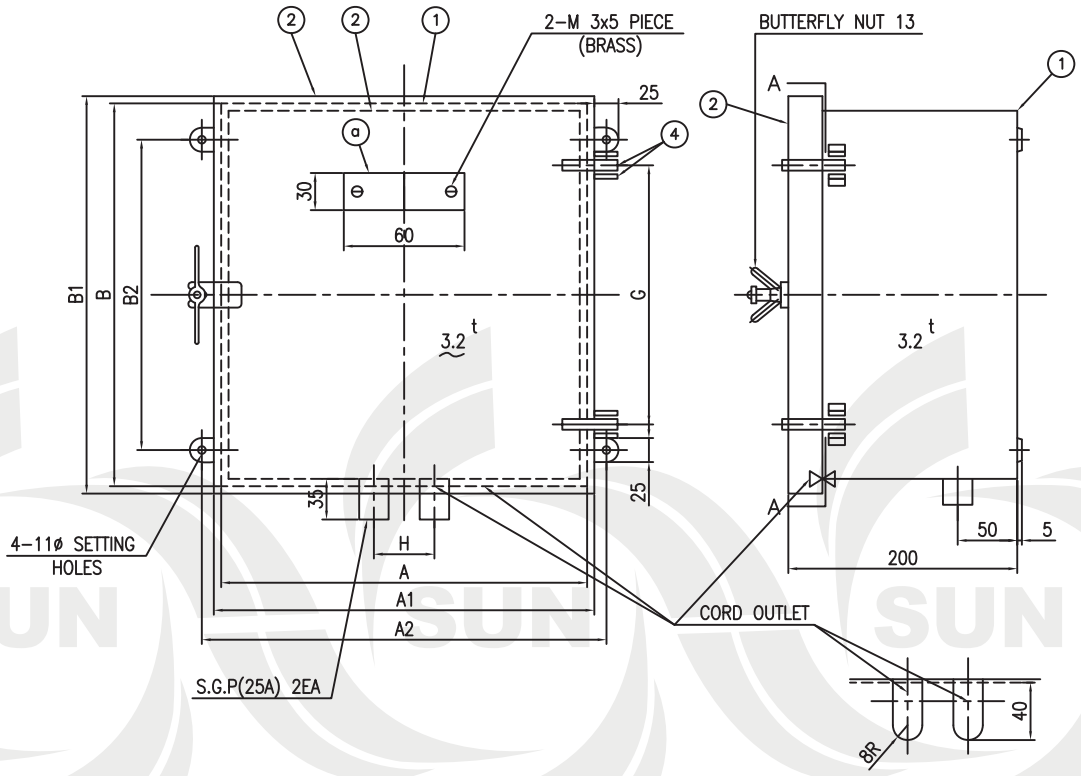
1. PAINT COLOR : DECIDED BY P.O.R
2. NAME PLATE : DECIDED BY P.O.R

MATERIAL : STEEL PLATE

TYPE	SIZE						COAMING		JUNCTION TERMINAL	REMARK
	A	B	C	D	E	F	M	N		
JB-1S	250	250	80	120	200	200	150	30	20P	
JB-2S	250	350	80	120	300	200	150	30	40P	
JB-3S	350	350	80	200	300	300	200	30	60P	
JB-4S	350	500	100	200	450	300	200	40	90P	
JB-5S	450	500	100	300	450	400	300	40	120P	
JB-6S	450	650	100	300	600	400	300	40	160P	

Remark : 1. The name plate shall be specified by purchaser as required.

A-Type



REMARKS

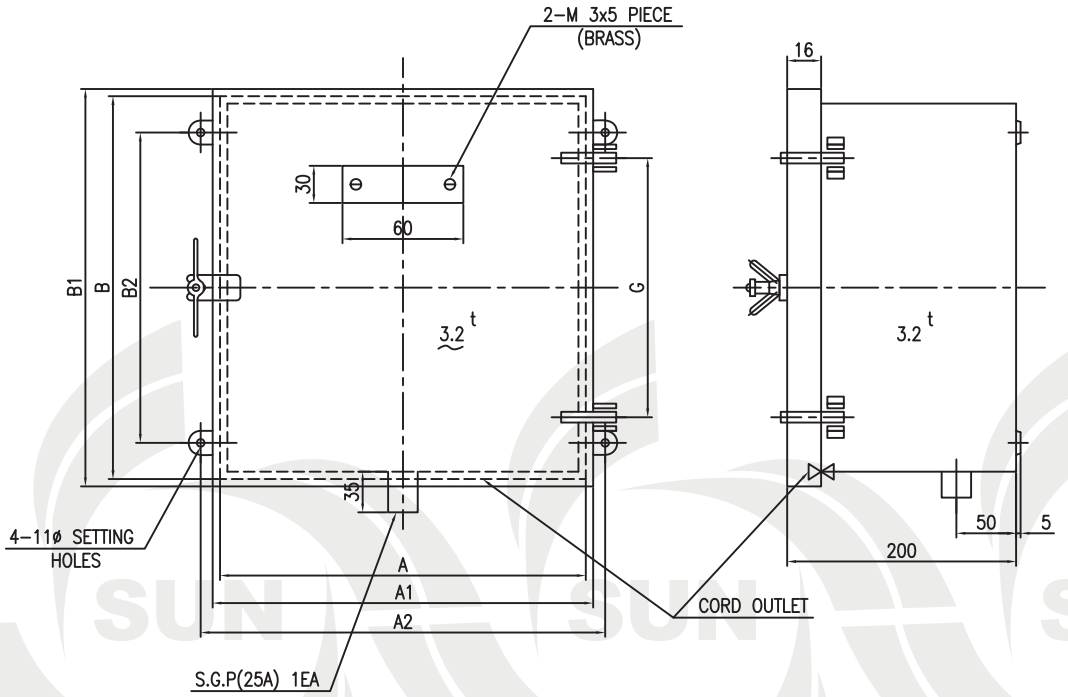
1) MARINE USE DRIP PROOF
a. A-1 TYPE : FOR 2.R.P.B
FOR 2 RECEPTACLE WITH SWITCH
FOR 2 RECEPTACLE
FOR 2 SWITCH
FOR 2 COMBINED SW & RECEPTACLE
b. A-2 TYPE : FOR 1 PORTABLE MIC WITH SPEAKER RECEPTACLE
FOR 1 SWITCH FOR BATT RM LIGHTING
c. A-3 TYPE : FOR 1 RECEPTACLE WITH SWITCH
2) PAINTING : TWO TIMES OF ANTI CORROSION PAINTING ZINC PRIMER

TYPE	A	A1	A2	B	B1	B2	G	H
A-1	350	365	390	350	365	290	230	130
A-2	200	215	240	200	215	140	150	60
A-3	200	215	240	300	315	240	180	60

NO.	PARTS	MATERIAL
1	BODY	STEEL
2	COVER	STEEL
3	NAME PLATE	STAINLESS STEEL
4	HINGE & SUPPORT	STEEL

Remark : 1. The name plate shall be specified by purchaser as required.

B-Type



REMARKS

1) MARINE USE DRIP PROOF
a. B-1 TYPE : FOR 2 MARINE RECEPTACLE WITH SWITCH
FOR 2 RECEPTACLE
FOR 2 COMBINED SW & RECEPTACLE

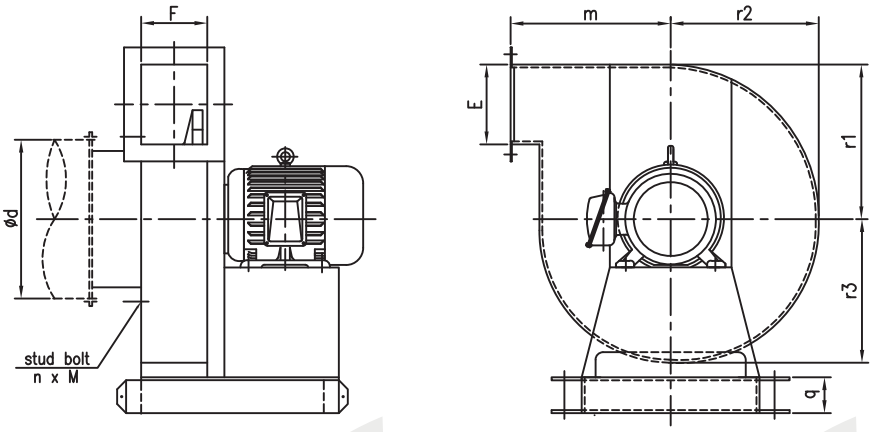
b. B-2 TYPE : FOR 1 TYFON PUSH BUTTON
FOR 1 MIC RECEPTACLE
FOR 1 SHIP LOG SOCKET
c. B-3 TYPE : FOR 1 GENERAL PUSH BUTTON
d. B-4 TYPE : FOR 1 RECEPTACLE WITH SWITCH

2) PAINTING : TWO TIMES OF ANTI CORROSION PAINTING ZINC PRIMER

TYPE	A	A1	A2	B	B1	B2	G
B-1	350	365	390	350	365	290	230
B-2	200	215	240	200	215	140	150
B-3	150	165	190	200	215	140	150
B-4	200	215	240	300	315	240	180

Remark : 1. The name plate shall be specified by purchaser as required.

Centrifugal Fan Type



Installation Position

Selection	□	□	□	□	□	□	□	□
Installation Position :								
Air flow :	F1	F2	F3	F4	F5	F6	F7	F8

Remark

1. You can choose Air direcction as above position table.
2. This fan can have options such as paint color, Expiosion proof, Voltage, ect.

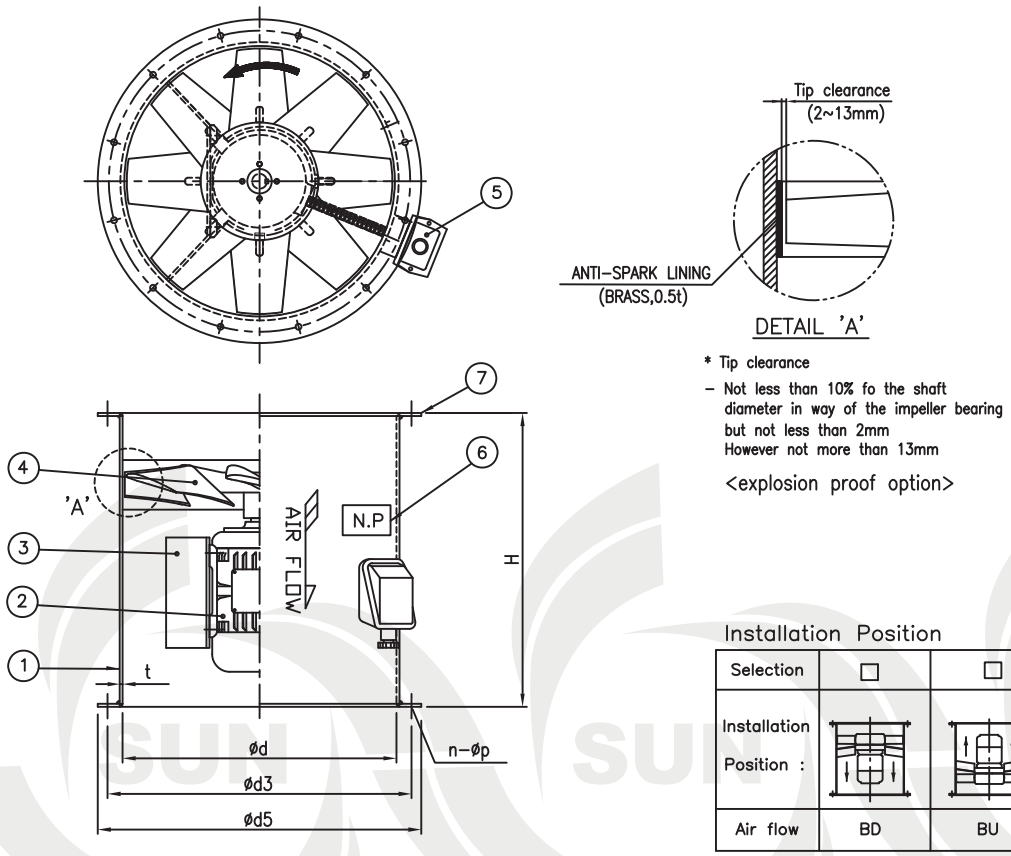
Dimension & Capa.

SPEC' / MODEL	ød	r1	r2	r3	E	m	F	n	M	Thickness	FAN CAPA		MOTOR	
											AIR VOL. (M^3/min)	STATIC (mmAq)	Kw	POLE
TCS025-002	200	255	234	213	198	257	158	8	M6	3t	30	40	0.4	2P
TCS035-014	250	285	262	238	222	279	176	8	M6	3t	35	50	0.75	4P
TCS045-024	280	318	292	266	248	314	197	8	M8	3t	60	80	1.5	4P
TCS050-034	300	356	327	298	280	343	222	8	M8	3t	70	90	2.2	4P
TCS055-054	350	401	368	335	315	377	248	8	M8	3t	90	110	3.7	4P
TCS060-074	400	452	414	377	353	415	278	8	M8	4t	110	150	5.5	4P
TCS063-104	450	509	467	425	396	453	311	12	M8	4t	130	170	7.5	4P
TCS065-154	500	573	525	478	446	506	351	12	M8	4t	150	200	11	4P
TCS068-204	550	636	584	531	498	559	396	12	M8	4t	180	220	15	4P
TCS073-254	600	713	654	595	557	616	449	16	M10	4t	200	250	18	4P
TCS075-306	650	802	736	669	628	683	499	16	M10	4t	230	280	22	6P
TCS080-406	700	903	829	754	711	760	557	16	M10	4t	250	300	30	6P
TCS090-506	750	1018	934	850	800	866	624	24	M10	5t	280	380	37	6P
TCS100-606	800	1145	1051	956	900	962	708	24	M10	5t	320	450	45	6P
TCS110-706	900	1273	1168	1063	998	1058	798	24	M10	5t	380	550	55	6P
TCS120-1006	1000	1425	1308	1190	1118	1172	898	32	M12	5t	400	600	75	6P

NO.	PARTS	MATERIAL
1	Body	A105
2	Bonnet	A105
4	Stem	A276-410
5	Disc	A217-CA15
7	Seat Ring	A276-410
12	Bonnet Bolt	A193-B7
13	Gasket	SEE BELOW
14	Gland	A276-304
15	Gland Packing	SEE BELOW
16	Gland Flange	A105
17	Gland Bolt	A276-304
18	Gland Bolt Nut	A194-2H
19	Gland Bolt Pin	A276-304
20	Sleeve	A276-410
21	Sleeve Washer	A276-410
22	Hand Wheel	A197
23	Name Plate	ALUMINUM
25	Hand Wheel Nut	A194-2H

Remark : 1. The name plate shall be specified by purchaser as required.

Combined Fan Type



* Tip clearance
- Not less than 10% fo the shaft diameter in way of the impeller bearing but not less than 2mm
  However not more than 13mm

<explosion proof option>

Installation Position

Selection	☐	☐	☐
Installation Position :			
Air flow	BD	BU	B

Remark

1. You can choose Air direcction as above position table.
2. In case of explosion proof fan,view "A"(detail "A") can be expressed.
3. This fan can have options such as paint color, Expiosion proof, Voltage, ect.

Dimension & Capa.

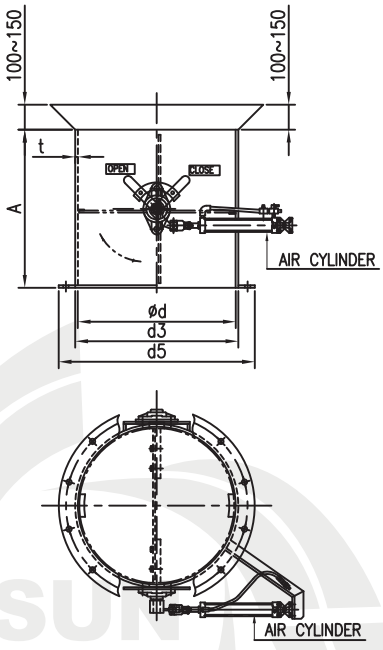
SPEC' / MODEL	ød (I.D)	ød3 (P.C.D)	ød5 (O.D)	H	t	n	P	FAN CAPA AIR VOL. (M³/min)	FAN CAPA STATIC (mmAq)	MOTOR Kw	MOTOR POLE
ACS030-002	300	352	384	350	6	8	12	~30	25	0.4	2
ACS035-012	350	402	434	400	6	8	12	~60	30	0.75	2
ACS040-014	400	452	512	400	6	12	12	~80	20	0.75	4
ACS045-014	450	502	534	400	6	12	12	~100	20	0.75	4
ACS050-024	500	562	608	500	8	12	12	~150	25	1.5	4
ACS055-034	550	612	658	500	8	12	12	~200	25	2.2	4
ACS060-054	600	662	708	550	8	16	12	~300	30	3.7	4
ACS070-074	700	762	808	630	8	16	12	~400	30	5.5	4
ACS080-104	800	862	908	630	8	16	12	~500	30	7.5	4
ACS090-154	900	962	1008	750	10	16	12	~700	40	11.0	4
ACS100-156	1000	1078	1138	800	10	20	14	~800	40	11.0	6
ACS110-206	1100	1178	1238	850	10	20	14	~1000	40	15.0	6
ACS125-256	1250	1328	1388	1000	10	20	14	~1200	40	18.5	6
ACS140-296	1400	1478	1538	1100	10	20	14	~1350	40	22.0	6

NO.	PARTS	MATERIAL
1	MOTOR CASING	SS400
2	MOTOR	ASS'Y
3	MOTOR BASE	SS400
4	IMPELLER	AC4A
5	TERMINAL BOX	FC20
6	NAME PLATE	SUS304
7	FLANGE	SS400

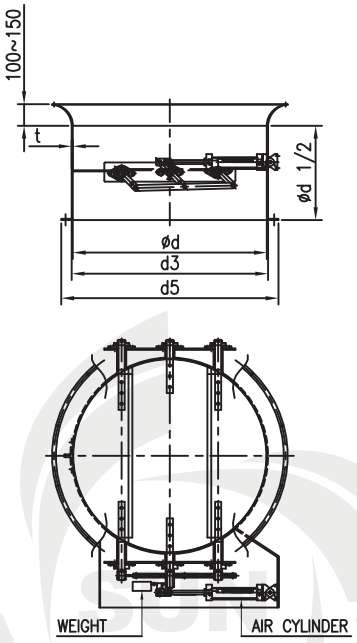
Remark : 1. The name plate shall be specified by purchaser as required.

Ventilation Fan Damper

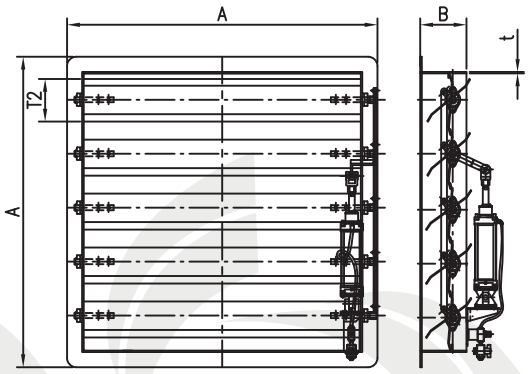
TYPE.I
<PNEUMATIC 1 STEP DAMPER>



TYPE.II
<PNEUMATIC 3 STEP DAMPER>



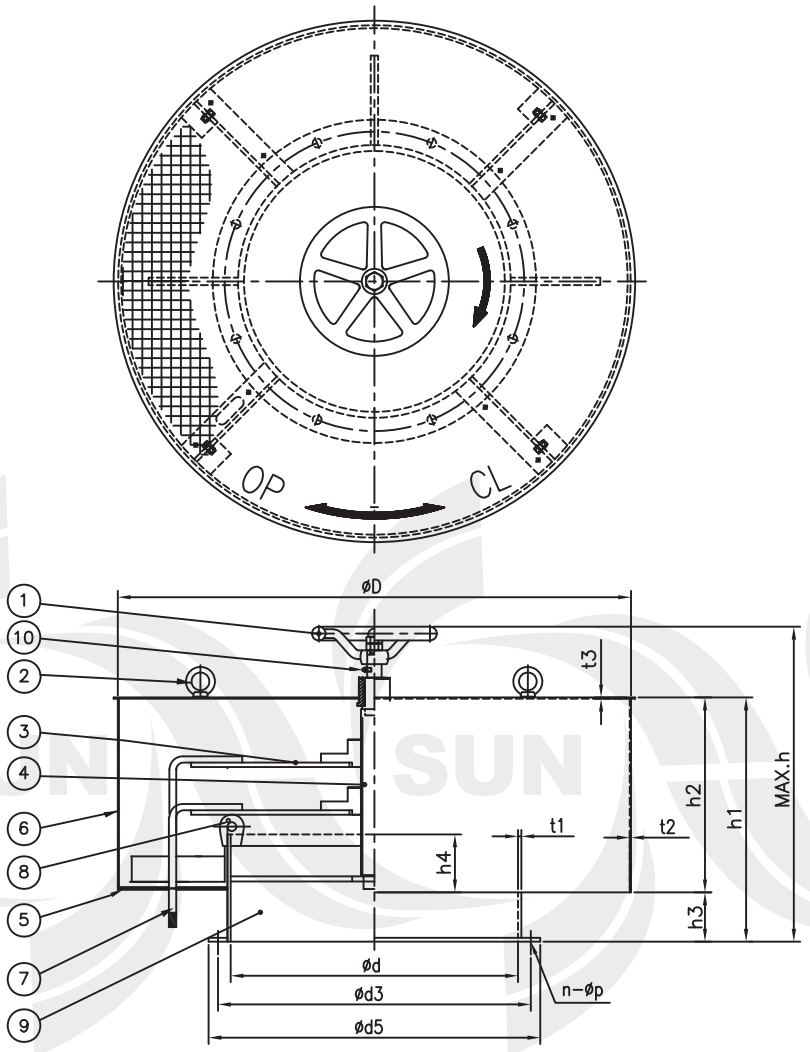
TYPE.III
<PNEUMATIC LOUVER DAMPER>



MODEL			DIMENSIONS						PNEUMATIC– AIR CYLINDER	REMARKS
I	II	III	ød	d3	d5	A	B	t		
FD030		LV030	300	316	380	300	90	8	ø30 x 150st.	
FD035		LV035	350	366	430	350	100	8	ø30 x 150st.	
FD040		LV040	400	416	480	400	110	8	ø40 x 150st.	
FD045		LV045	450	466	530	450	120	8	ø40 x 150st.	
FD050		LV050	500	520	600	500	130	10	ø40 x 150st.	
FD055		LV055	550	570	650	550	140	10	ø40 x 150st.	
FD060	3FD060	LV060	600	620	700	600	150	10	ø50 x 150st.	
FD065	3FD065	LV065	650	670	750	650	160	10	ø50 x 150st.	
FD070	3FD070	LV070	700	720	800	700	170	10	ø50 x 150st.	
FD075	3FD075	LV075	750	770	850	750	180	10	ø50 x 150st.	
FD080	3FD080	LV080	800	820	900	800	190	10	ø50 x 150st.	
FD085	3FD085	LV085	850	870	950	850	200	10	ø50 x 150st.	
FD090	3FD090	LV090	900	920	1000	900	200	10	ø50 x 150st.	
FD095	3FD095	LV095	950	970	1050	950	200	10	ø50 x 150st.	
FD100	3FD100	LV100	1000	1020	1100	1000	210	10	ø80 x 150st.	
FD110	3FD110	LV110	1100	1120	1200	1100	210	10	ø80 x 150st.	
FD120	3FD120	LV120	1200	1220	1300	1200	210	10	ø80 x 150st.	
FD130	3FD130	LV130	1300	1320	1400	1300	220	10	ø80 x 150st.	
FD140	3FD140	LV140	1400	1420	1500	1400	220	10	ø80 x 150st.	
FD150	3FD150	LV150	1500	1520	1600	1500	220	10	ø80 x 150st.	
FD160	3FD160	LV160	1600	1620	1700	1600	230	10	ø80 x 150st.	
	3FD170	LV170	1700	1720	1800	1700	230	10	ø80 x 150st.	
	3FD180	LV180	1800	1820	1900	1800	240	10	ø80 x 150st.	
	3FD190	LV190	1900	1920	2000	1900	240	10	ø80 x 150st.	
	3FD200	LV200	2000	2020	2100	2000	250	10	ø80 x 150st.	

Remark : 1. The name plate shall be specified by purchaser as required.

Mushroom Fan Type



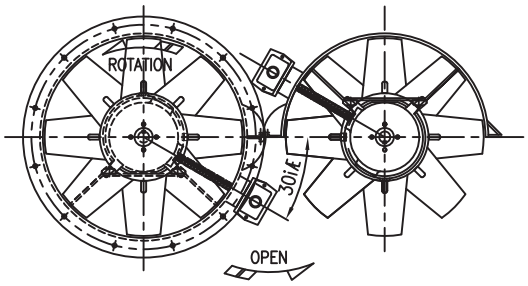
Dimension & Capa.

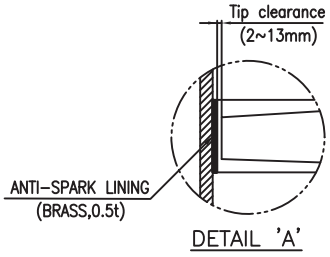
SPEC' / MODEL	FLANGE			n	p	t1	t2	t3	h	h1	h2	h3	h4	handle
	Ød	Ød3	Ød5											
MD030	300	352	384	8	12	6	3	6	367	270	270	/	70	ø200
MD035	350	402	434	8	12	6	3	6	426	300	300	/	80	ø200
MD040	400	452	512	12	12	6	3	6	384	300	300	/	80	ø200
MD045	450	502	534	12	12	6	3	6	455	350	350	/	90	ø200
MD050	500	562	608	12	12	8	4.5	8	608	500	400	100	100	ø200
MD055	550	612	658	12	12	8	4.5	8	625	520	420	100	100	ø200
MD060	600	662	708	16	12	8	4.5	8	675	570	450	120	120	ø300
MD070	700	762	808	16	12	8	4.5	8	742	650	530	120	120	ø300
MD080	800	862	908	16	12	8	4.5	8	822	680	550	130	130	ø300
MD090	900	962	1008	16	12	10	4.5	10	912	770	630	140	140	ø300
MD100	1000	1078	1138	20	14	10	4.5	10	992	850	700	150	150	ø500
MD110	1100	1178	1238	20	14	10	4.5	10	992	850	700	150	150	ø500

NO.	PARTS	MATERIAL
1	HAND WHEEL	BC
2	EYE BOLT	SS400
3	DAMPER	SS400
4	SPINDLE	S45C
5	SAFETY GRILL	SUS304
6	MUSHROOM HEAD	SS400
7	DAMPER GUIDE	SS400
8	SEALING RUBBER	RUBBER
9	UPPER CASING	SS400
10	GREASE NIPPLE	BRASS

Remark : 1. The name plate shall be specified by purchaser as required.

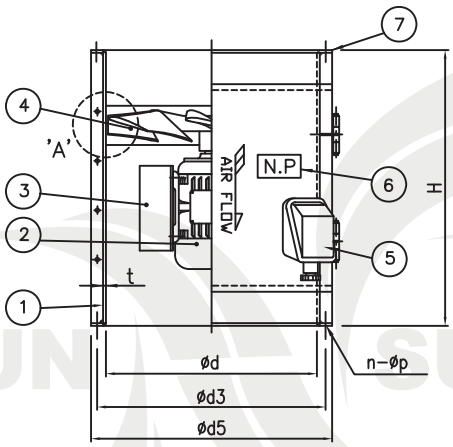
Swing Door Fan Type





* Tip clearance
- Not less than 10% fo the shaft diameter in way of the impeller bearing but not less than 2mm
However not more than 13mm

<explosion proof option>



Installation Position

Selection	□	□	□	□	□
Installation Position :					
Air flow : Hinge :	BD R	BD L	BU R	BU L	B

Remark

1. You can choose Air direcction as above position table.
2. In case of explosion proof fan,view "A"(detail "A") can be expressed.

Dimension & Capa.

SPEC' / MODEL	FLANGE			n	p	H	t	FAN CAPA		MOTOR	
	ød	ød3	ød5					AIR VOL. (M^3/min)	STATIC (mmAq)	Kw	POLE
ASS050-024	500	562	608	12	12	700	6	150	25	1.5	4
ASS055-034	550	612	658	12	12	700	6	200	25	2.2	4
ASS060-054	600	662	708	16	12	750	6	300	30	3.7	4
ASS070-074	700	762	808	16	12	830	6	400	30	5.5	4
ASS080-104	800	862	908	16	12	830	8	500	30	7.5	4
ASS090-154	900	962	1008	16	12	1000	8	700	40	11.0	4
ASS100-156	1000	1078	1138	16	12	1000	8	800	40	11.0	6
ASS110-206	1100	1178	1238	16	12	1100	8	1000	40	15.0	6
ASS125-256	1250	1328	1388	16	12	1240	8	1200	40	18.5	6
ASS140-406	1400	1478	1538	20	14	1240	10	1700	40	30.0	6
ASS160-606	1600	1700	1138	24	14	1240	10	2350	40	45.0	6
ASS180-738	1800	1900	1964	24	14	1400	10	2900	40	55.0	8
ASS200-1008	2000	2100	2164	24	18	1400	10	3650	40	75.0	8

NO.	PARTS	MATERIAL
1	MOTOR CASING	SS400
2	MOTOR	ASS'Y
3	MOTOR BASE	SS400
4	IMPELLER	AC4A
5	TERMINAL BOX	FC20
6	NAME PLATE	SUS304
7	FLANGE	SS400

Remark : 1. The name plate shall be specified by purchaser as required.

PART-E

E. TECHNICAL

PART-E

E. TECHNICAL

CONTENTS

	NO	PAGE
1. COMPARSION LIST FOR CASTING & FORGING	E-1	702

General Classification	Casting			Forging		
	ASTM	JIS	BS	ASTM	JIS	BS
Cast Iron	A126 – Class A	G5501 – FC20	1452 – 14	–	–	–
	– Class B	– FC25	– 17	–	–	–
	– Class C	– FC30	– 20	–	–	–
Malleable Iron	A197	G5703 – FCMB28	310 – B18/6	–	–	–
	A47 – 32510	– FCMB35	– B22/14	–	–	–
	– 35018	– FCMB37	–	–	–	–
Ductile Iron	A395	G5502 – FCD40	–	–	–	–
	–	G5502 – FCD45	–	–	–	–
	A536	– FCD55	–	–	–	–
Carbon Steel	A216 – WCA	G5151 – SCPH1	–	A105	G3201 – SF45	1503 – 161B
	–	G5101 – SC46	1504 – 161	–	–	–
	A216 – WCB	G5151 – SCPH2	– B	A105	G3201 – SF50	1503 – 161C
	– WCC	–	–	–	–	–
	–	G5101 – SC55	– C	–	–	–
Carbon–½ Mo	A217 – WC1	G5111 – SCA41	1504 – 240	A182 – F1	–	1503 – 161C
½Cr–½Mo–½ Ni	– WC4	–	–	–	–	–
1Cr–½Mo–½ Ni	– WC5	–	–	– F12	–	–
1¼ Cr–½ Mo	– WC6	G5111 – SCA51	1504 – 621	– F11	–	1503 – 240B
2¼ Cr–1Mo	– WC9	–	– 622	– F22	–	–
3Cr–1Mo	–	–	–	– F21	–	1503 – 620
5Cr–½Mo(C 0.15)	–	–	–	– F5	–	–
5Cr–½Mo(C 0.25)	A217 – C5	G5111 – SCA52	1504 – 625	– FFa	–	1503 – 622
7Cr–½Mo	–	–	–	– F7	–	–
9Cr–1Mo	A217 – C12	–	1504 – 629	– F9	–	–
Carbon Steel for Low Temp	A352 – LCB	–	4242 – GRA	A350 – LF1	–	1503 – 625
Carbon–Si	–	–	–	– LF2	–	–
Carbon–1Mo for Low Temp	A352 – LC1	–	–	–	–	–
2½Ni	– LC2	–	–	–	–	–
3½Ni	– LC3	–	–	A350 – LF3	–	–
Cr–Ni–Cu–Al	–	–	–	– LF4	–	–
13Cr	A217 – CA15	G5121 – SCS1	–	A182 – F6	G4303 – SUS51B	1503 – 713
18Cr–8Ni (C 0.03)	A351 – CF3	–	–	– F304L	– SUS28B	–
18Cr–8Ni (C 0.08)	A351 – CF8	G5121 – SCS13	–	– F304	– SUS27B	1503 – 801
18Cr–8Ni (C 0.10)	–	–	1504 – 801	– F304H	–	–
18Cr–8Ni–2Mo (C 0.03)	A351 – CF3M	G5121 – SCS16	–	– F316L	G4303 – SUS33B	–
18Cr–8Ni–2Mo (C 0.08)	A351 – CF8M	G5121 – SCS14	1632 – GRC	– F316	– SUS32B	1503 – 845B
18Cr–8Ni–2Mo (C 0.10)	–	–	–	– F316H	–	–
18Cr–8Ni–Ti (C 0.08)	–	–	–	– F3211	G4303 – SUS29B	–
18Cr–8Ni–Ti (C 0.10)	–	–	1504 – 821Ti	–	– F321H	1503 – 821Ti
18Cr–8Ni–Cb (C 0.08)	A351 – CF8C	–	–	– F347	G4303 – SUS43B	1503 – 821Nb
18Cr–8Ni–Cb (C 0.10)	–	–	1504 – 821Nb	– F347H	–	–
18Cr–8Ni–Ta–Cb (C 0.08)	–	–	–	– F348	–	–
18Cr–8Ni–Ta–Cb (C 0.10)	–	–	–	– F348H	–	–
25Cr–20Ni (C 0.15)	–	–	–	– F310	–	–
22Cr–12Ni (C 0.08)	A351 – CH18	–	–	–	–	–
22Cr–12Ni (C 0.10)	– CH10	–	–	–	–	–
22Cr–12Ni (C 0.20)	– CH20	–	–	–	–	–
23Cr–19Ni (C 0.20)	– CK20	–	–	–	–	–
23Cr–19Ni (C 0.35)	– HK30	–	–	–	–	–
23Cr–19Ni (C 0.45)	– HK40	–	–	–	–	–
13Cr–33Ni–Mo (C 0.35)	– HT30	–	–	–	–	–
15Cr–13Ni–2Mo–Cb (C 0.35)	CF10MC	–	–	–	–	–
19Cr–27Ni–2Mo–3Cb (C 0.07)	– CN7M	–	–	–	–	–
8Cr–20Ni (C 0.20)	–	–	–	A182 – F10	–	–
HASTELLOY. B	A494 – N–12MV	–	–	–	–	–



SUN KOREA
(SUN KOREA CO., LTD.)

Overseas Marketing Office

492-2, DAEWOO EDEN PLAZA 217, HADAN-2 DONG, SAHA-GU, BUSAN, KOREA

Phone: +82(0)51-205-1345(REP.) Fax: +82(0)51-205-1333

Factory

#4115, DAEJEO-1 DONG, GANGSEO-GU, BUSAN, KOREA

Phone: +82(0)51-941-8338 Fax: +82(0)51-941-8339

Warehouse

3686-7, DAEJEO 1 DONG, KANGSEO-GU, BUSAN, KOREA

6319, DAEJEO 2 DONG, KANGSEO-GU, BUSAN, KOREA

