



VALVE EXPERTS GROUP

LIMANNTech CO., LTD.

Factory: 55, Nakdongnamro 533 beon-gil, Gangseo-Gu, Busan, Republic of Korea

Sales Office: #204-206/207, 50, Yutongdanji-1Ro, Gangseo-Gu, Busan, Republic of Korea

Tel +82-51-989-0101 Fax +82-70-4850-8388 eMail sales@limanntech.com

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LIMANNTech



PROVIDING THE WHOLE RANGE OF VALVES FOR SHIPS AND OFFSHORES

Limanntech is a group of experts in the field of marine valves and ship management, starting from 2018. With tens of experiences of shipyards, ship management companies, valve manufacturers, Limanntech has provided a range of butterfly valves, globe valves, angle valves, storm valves, hose valves, strainers, and ball valves, satisfying the needs of ship owners, ship managers and ship suppliers.

Addition to supplying ship spares, Limanntech is designated as an exclusive agent for several newbuilding ships and offshores in China and USA, providing with Korean Manufacturers' product. Limanntech has accomplished newbuilding projects tens of ships for providing with Triple-offset butterfly valves and Strainers.

Since 2020, Limanntech has started to develop new model of multiple-offset butterfly valves, used for LNG and ammonia vessels. It has been finally completed to be developed and supplied to several vessels for retrofit projects in Korea. Limanntech will continuously go forward and meet all needs of our clients.

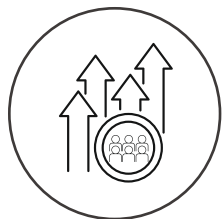
We will continue and produce amazing updates for our customer base.

WHY LIMANNTTECH



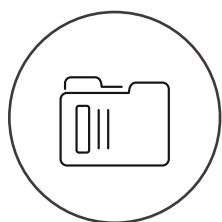
SPECIFICATIONS REVIEW

Limanntech consists of experts with tens-of-years-experiences in valve industry, reviewing your RFQ and drawings meticulously for all types of valves, which makes it possible its our missupply rate very low.



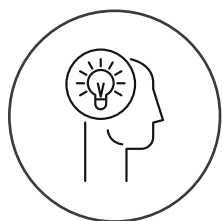
STRONG PARTNERSHIP WITH MANUFACTURES

Purchasing big amount of valves from tens of manufacturers in Korea every year and Doing newbuilding business with them, which results in competitive price and strong partnership.



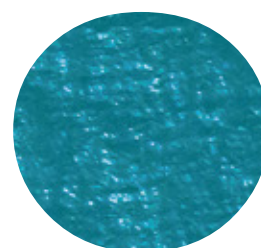
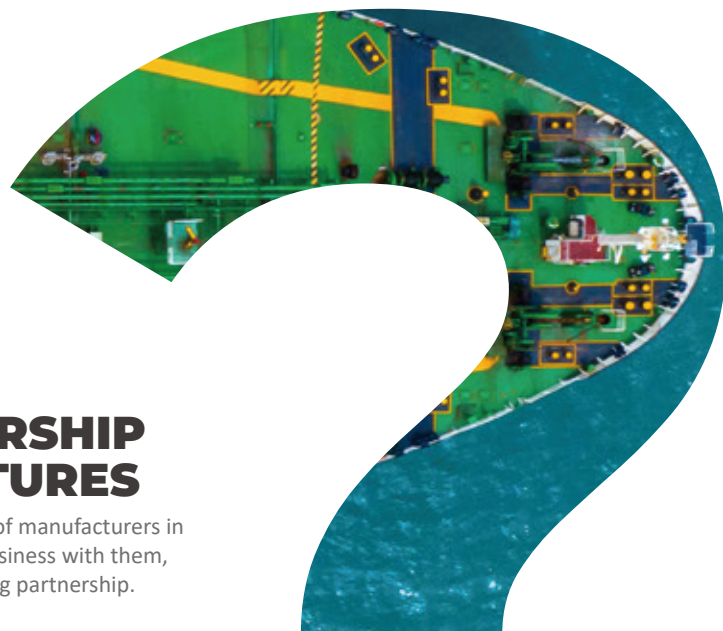
REFERENCE CHECK PROVIDED TO SHIPS

Considering there are errors in RFQ, Limanntech checks the supply history when the ship was newly built in a shipyard. All types of valves are checked by Spec. and Reference Check, so the missupply rate is very low.



COMMITTED AND CONTINUOUS RESEARCH AND DEVELOPMENT ON VALVES

Not only providing valves, but also Limanntech continues developing new models of valves. In accordance of IMO's rules and regulations, the goal of our R&D projects is focused on valves for LNG, ammonia, ethanol, and LH₂.



VALVE
EXPERTS GROUP

NUMBERS

ABOUT LIMANNTTECH



1,821 **SHIPS**

including Tankers, Bulk Carriers, LNG/LPG Vessels, Container Ships, PCTCs and offshores. have been supplied with valves by Limanntech since 2020.

6,682
ORDERS



have been received from various clients which are mostly ship suppliers over the world.

0.1%
MISSUPPLY RATE



is the figure that Limanntech is recording. Our quotation team is dedicated to review the RFQ and drawings from the ship operator's point of view.

142
CLIENTS



over the world have regularly placed orders to Limanntech and the number of clients is expected to be increased every year.

11
NEWBUILDINGS



in USA, China and Korea has been completed to be provided with valves and other ship equipment by Limanntech

35
YEARS



experiences of Limanntech's directors in valve and ship mangement industries is a fundamental of Limanntech's competitiveness.

24
HOURS



is our policy, which means Limanntech gives you quotation within 24 hours after submitting your RFQ. Quick response and exact quotation are our strengths.

KINDS OF VALVES

STANDARD COMPLIANCE	JIS/KS, API, AWWA, BS, ISO	APPLICABLE FLANGE	JIS 5K, 10K, 16K, 20K, 30K, 40K, 63K
SIZE	DN15mm~ 4000mm		ASME B 16.5, 16.47, 150LB~2500LB
WORKING PRESSURE	up to 40 bar		ISO 7005/EN1092 PN6~63
WORKING TEMPERATURE	-196℃ ~ -815℃		

BUTTERFLY VALVES

CONCENTRIC / ECCENTRIC / TRIPLE-OFFSET / CRYOGENIC
WAFER / SEMI-LUG / LUG / FLANGE

DUO CHECK VALVES

WAFER / FLANGE

GLOBE VALVES

GLOBE CHECK VALVE

HOSE VALVES

GLOBE / ANGLE

SWING CHECK VALVES

PAN CHECK VALVES

BALL VALVES

STRAINER

ANGLE VALVES

ANGLE CHECK VALVE

STORM VALVES

STRAIGHT / ANGLE

CONTROL VALVES

PRESSURE/TEMPERATURE

GATE VALVES

BRANDS

IN KOREA, CHINA AND JAPAN

 ACE VALVE

KEYSTONE

 SEJIN VALVE




KORVAL

 BY
CONTROLS, INC.


WOOSUNG FLOWTEC

 HY
HANYANG VALVE


T&S
TECHNOLOGY & SERVICES

 CEPHAS

ORIENTAL

S&S
VALVE

 DK T.M.I

 DK-LOK
Fittings & Valves

 WKV
WONKWANG VALVE

 KS
KEYSUNG METAL CO., LTD.

 株式会社 中北製作所
NAKAKITA SEISAKUSHO CO., LTD.


NEWAY

 CSSC
大连船用阀门有限公司
DALIAN MARINE VALVE CO., LTD.

 PKvalve

 Mt.H
CONTROL VALVES CO., LTD.


DEV
DONG EUN VALVE


KANGRIM

 PLEIGER

 KSB

 Scana
SCANA INDUSTRIES WSA


SAMKUN 89
SAMKUN CENTURY CO., LTD.



01

BUTTERFLY VALVE

VALVE
EXPERTS GROUP

Concentric Butterfly valves

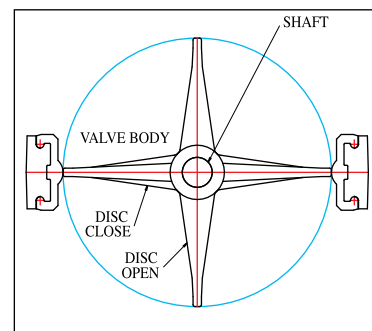
The Concentric Design

CENTER OF SHAFT' in the 'Center of Pipe' / 'Center of the Valve Seat'
 Applicable for BUTTERFLY VALVE WITH ELASTOMER LINING.

- Symmetric disc design ensures favorable flow characteristics and low pressure drop
- Concentric shaft ensures low operating torque
- Lining gives a good protection to valve body, and acts as flange gasket
 - Shaft penetrates the valve seat
 - Limited choice of seating materials(Elastomer, only)

Suitable for installation in 'Low Pressure System'

Not suitable where FIRE-SAFE or FIRE-PROOF requirement apply to the valve or valve installation method



Schema of concentric type

The valve shall be a 90° turn clockwise to close, non-jamming, resilient seated valve for zero leakage service.

The valve shall be torque seated and designed in such a manner that the disc can be rotated the seat without the actuator.

Also this valve enables the fluid perfect shut-off regardless of the flow direction.

Operations

The following operation of the valve is possible depend on the valve location, the type of work and service of the valve to be provided.

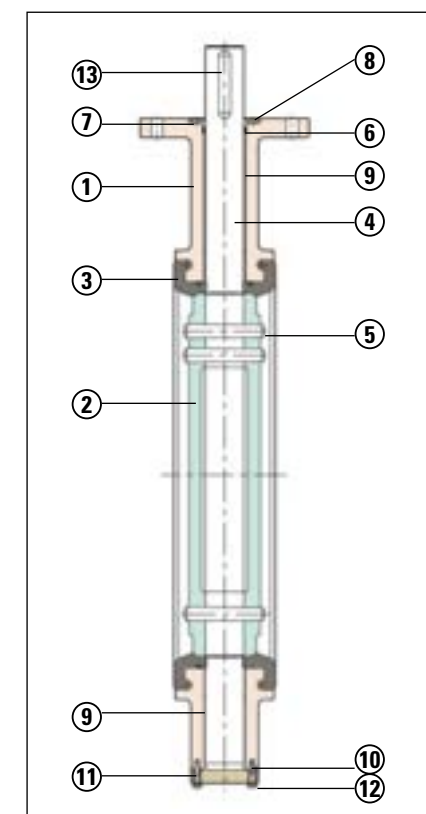
- Manual lever operation
- Manual worm gear operation
- Single or double acting pneumatic actuator operation
- Hydraulic actuator operation
- Electric motor actuator operation



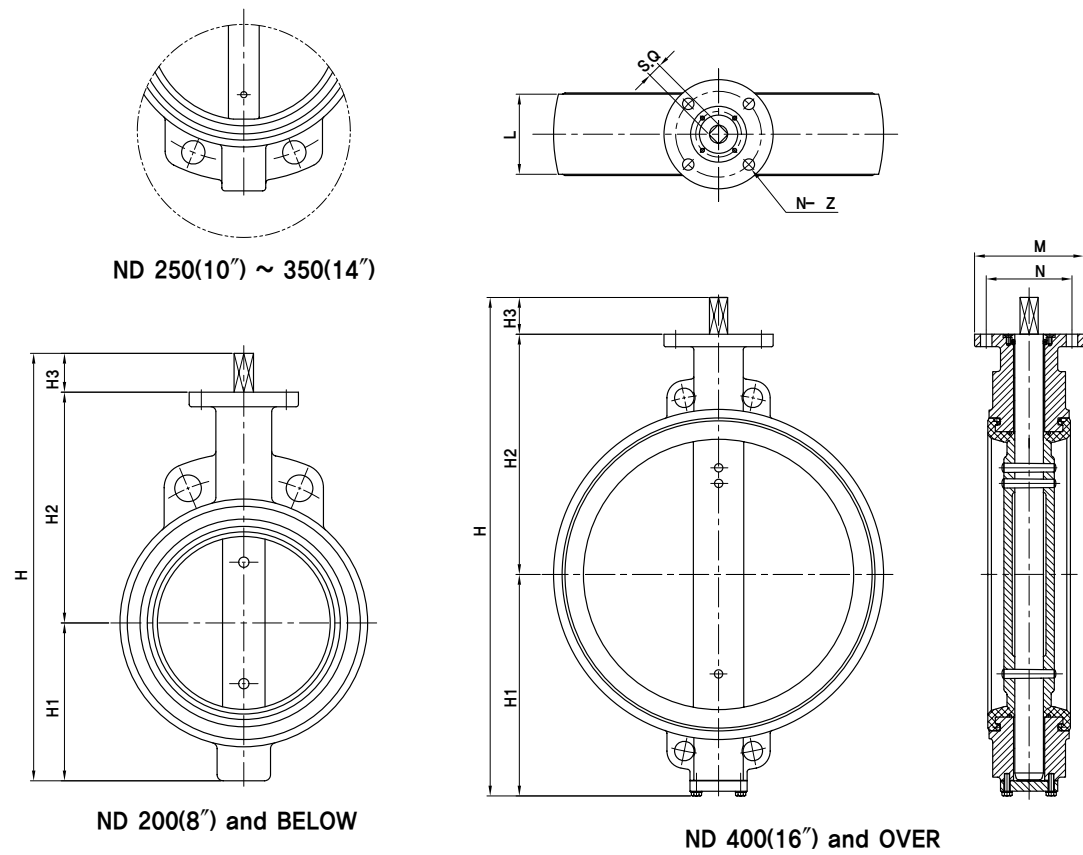
Classification by Connection type

Appearance	Type	General Characteristics
	AV-CWR (WAFER)	• General Applications - Shipbuilding, water works, heating and ventilation, power plants, oil refinery Chemical plants etc. • Valve to be installed with long bolts between the flanges at adjacent pipe without flange on the valve. • Easy handling and light weight. • Easy installation, less bolt quantity and low cost. • Inconvenient maintenance of adjacent pipe.
	AV-CSR (SEMI-LUG)	• General Applications - Shipbuilding, water works, heating and ventilation, power plants, oil refinery Chemical plants etc. • Similar as wafer type except a pair of the jack bolt hole in way of upper and lower sides for easy maintenance of adjacent pipe. • Easy handling and light weight. • Easy installation, less bolt quantity and low cost. • Keep liquid remained during repairing adjacent pipe.
	AV-CLR (FULL-LUG)	• General Applications : general piping system pump outlets, tank drains, ship sides etc. • Ring shape bolt hole for bolting with flange. • Keep pressure inside during repairing adjacent one side pipe. • Different flange shape. • Possible damage on full face gasket. • Hard repairing of corroded bolt. • More man-hour for installation. • Heavy weight.
	AV-CFR (FLANGE)	• General Applications - Shipline valves, ballast valves, water works, power plants, etc all piping system. • Both ends with complete flange. • Suitable to general pipe flange. • Suitable for shipline valve in the ship. • Heavy weight. • Same installation as ordinary valve.

P.NO.	PART NAME	MATERIAL
1	BODY	CAST IRON / DUCTILE IRON STAINLESS STEEL / CARBON STEEL ALUMINUM BRONZE
2	DISC	STAINLESS STEEL / ALLOY STEEL ALUMINUM BRONZE
3	SEAT	NBR / EPDM / SILICON / VITON
4	STEM	STAINLESS STEEL(SS304, 316, 410, 420, 17-4PH)
5	DISC PIN	STAINLESS STEEL
6	O-RING	RUBBER SAME AS SEAT MATERIAL
7	PACKING GLAND	BRONZE
8	GLAND BOLT	STAINLESS STEEL
9	BEARING	PTFE + pb
10	O-RING	RUBBER SAME AS SEAT MATERIAL
11	BOTTOM COVER	CARBON STEEL / STAINLESS STEEL / AL-BRONZE / MILD STEEL
12	BOLT & WASHER	STEEL / STAINLESS STEEL
13	KEY	CARBON STEEL, if necessary



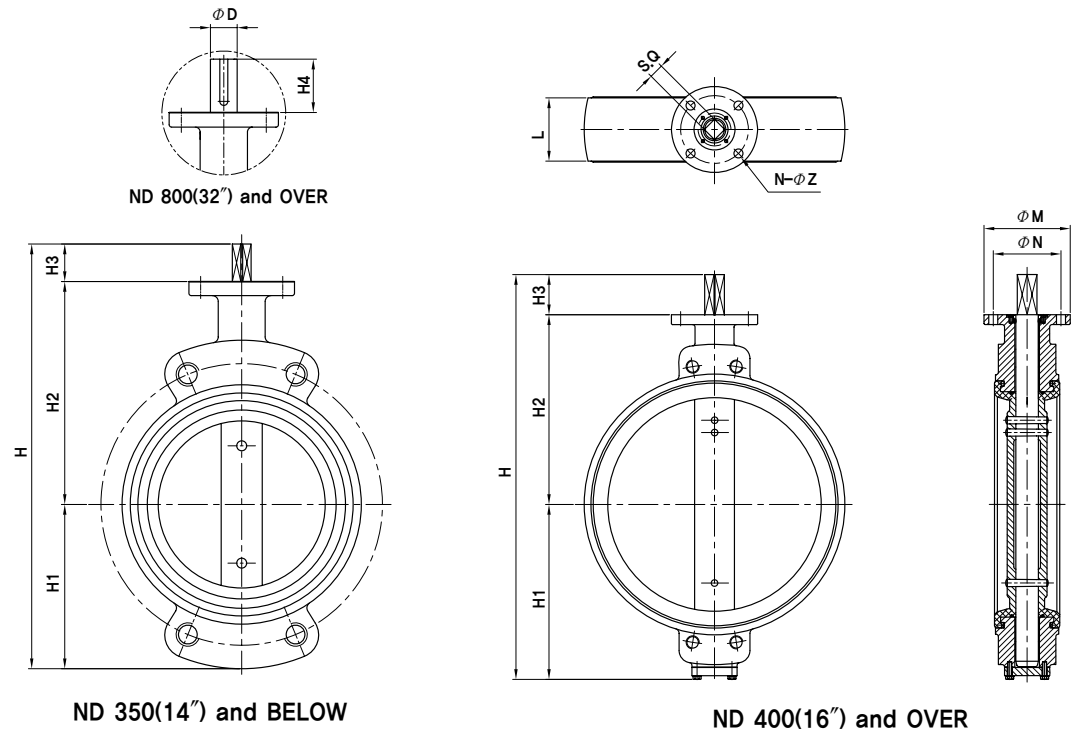
Concentric Wafer Type



VALVE DIMENSIONS

SIZE		L	H	H1	H2	H3	STEM	TOP FLANGE					WEIGHT (APPROX.) (kg)
inch	mm						SQ	TYPE	Φ N	Φ M	N-Φ Z		
2"	50	43	216	55	128	33	9	F07	70	90	4-9	3	
2.5"	65	46	239	66	140	33	9	F07	70	90	4-9	4	
3"	80	46	258	75	150	33	9	F07	70	90	4-9	5	
4"	100	52	293	95	165	33	12	F07	70	90	4-9	5	
5"	125	56	326	115	178	33	12	F07	70	90	4-9	7	
6"	150	56	353	130	190	33	12	F07	70	90	4-9	8	
8"	200	60	435	155	230	50	17	F10	102	125	4-12	13	
10"	250	68	535	215	270	50	17	F10	102	125	4-12	20	
12"	300	78	611	251	310	50	22	F10	102	125	4-12	31	
14"	350	78	655	270	335	50	27	F10	102	125	4-12	43	
16"	400	102	755	325	370	60	27	F14	140	175	4-18	70	
18"	450	114	797	347	390	60	27	F14	140	175	4-18	86	
20"	500	127	883	383	420	80	36	F16	165	210	4-22	128	

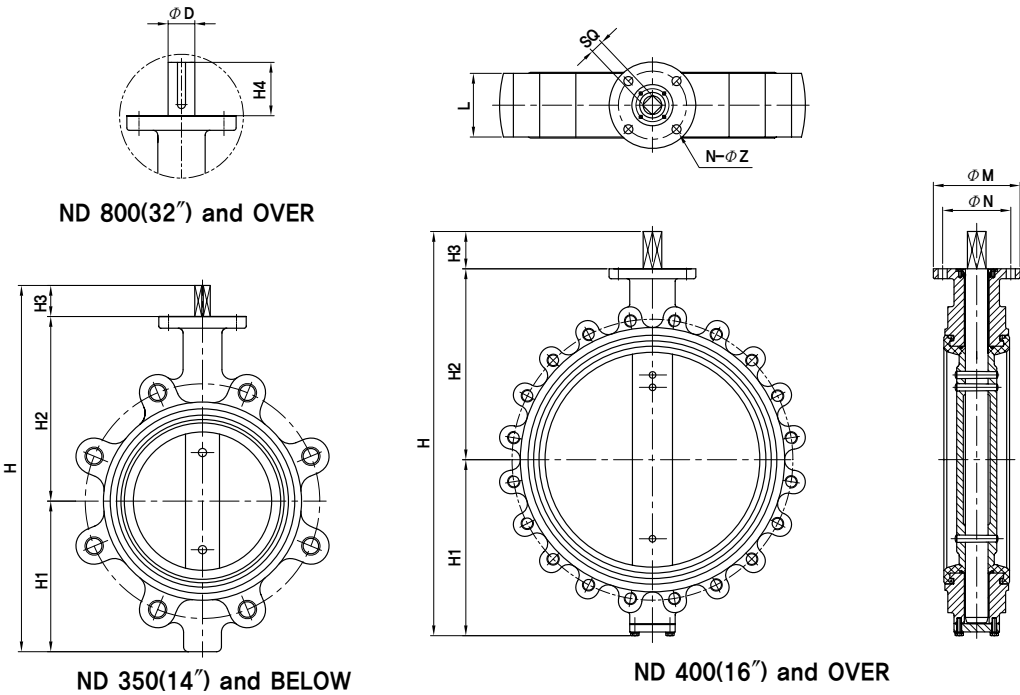
Concentric Semi-Lug Type



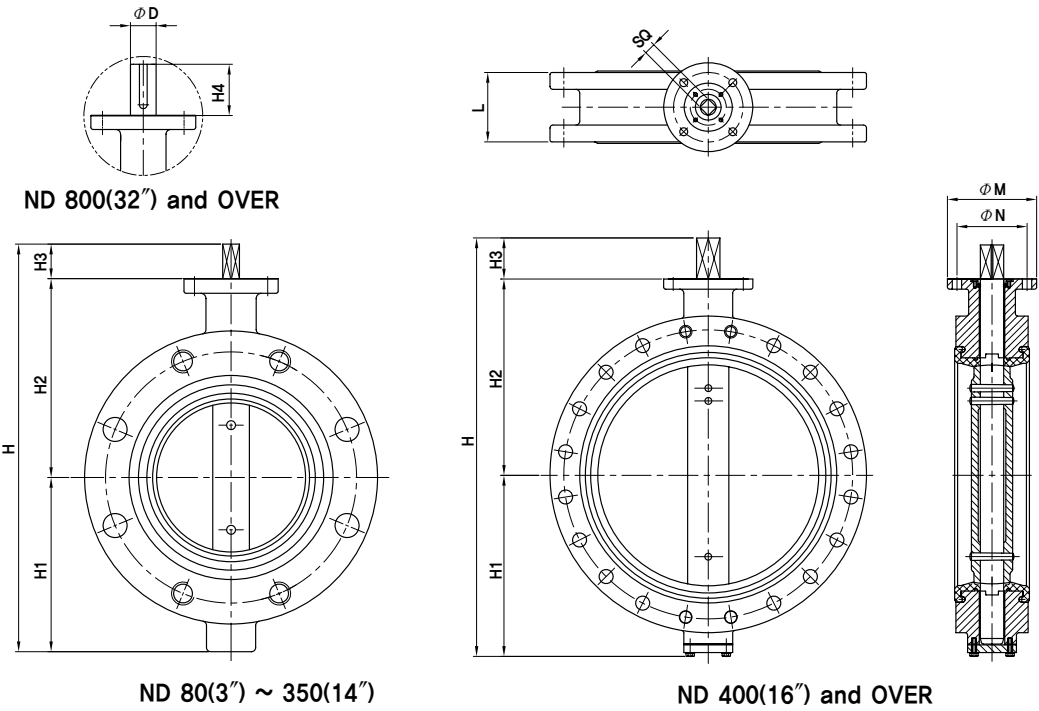
VALVE DIMENSIONS

SIZE		L	H	H1	H2	H4	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm						φ D	KEY SIZE	SQUARE		TYPE	φ N	φ M	N-φ Z	
2"	50	43	216	55	128	-	-	-	9	33	F07	70	90	4-9	3
2.5"	65	46	239	66	140	-	-	-	9	33	F07	70	90	4-9	4
3"	80	46	258	75	150	-	-	-	9	33	F07	70	90	4-9	5
4"	100	52	293	95	165	-	-	-	12	33	F07	70	90	4-9	8
5"	125	56	326	115	178	-	-	-	12	33	F07	70	90	4-9	9
6"	150	56	353	130	190	-	-	-	12	33	F07	70	90	4-9	10
8"	200	60	435	155	230	-	-	-	17	50	F10	102	125	4-12	19
10"	250	68	535	215	270	-	-	-	17	50	F10	102	125	4-12	27
12"	300	78	611	251	310	-	-	-	22	50	F10	102	125	4-12	40
14"	350	78	655	270	335	-	-	-	27	50	F10	102	125	4-12	46
16"	400	102	755	325	370	-	-	-	27	60	F14	140	175	4-18	77
18"	450	114	797	347	390	-	-	-	27	60	F14	140	175	4-18	95
20"	500	127	883	383	420	-	-	-	36	80	F16	165	210	4-22	135
22"	550	154	967	425	462	-	-	-	36	80	F16	165	210	4-22	195
24"	600	154	1028	453	495	-	-	-	50	80	F16	165	210	4-22	240
26"	650	165	1095	490	525	-	-	-	50	80	F16	165	210	4-22	285
28"	700	165	1150	515	555	-	-	-	50	80	F16	165	210	4-22	305
30"	750	190	1230	550	590	-	-	-	50	90	F16	165	210	4-22	362
32"	800	190	1352	592	640	120	80	22x14	-	-	F25	254	300	8-18	442
34"	850	210	1382	612	650	120	80	22x14	-	-	F25	254	300	8-18	505
36"	900	203	1488	658	700	130	80	22x14	-	-	F25	254	300	8-18	620
40"	1000	216	1645	725	770	150	95	25x14	-	-	F30	298	350	8-23	735

Concentric Lug Type



Concentric Flange Type



VALVE DIMENSIONS

unit : mm

SIZE		L	H	H1	H2	H4	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm						Ø D	KEY SIZE	SQUARE		TYPE	Ø N	Ø M	N - Ø Z	
									SQ	H3					
2"	50	43	216	55	128	-	-	-	9	33	F07	70	90	4-9	3
2.5"	65	46	239	66	140	-	-	-	9	33	F07	70	90	4-9	4
3"	80	46	258	75	150	-	-	-	9	33	F07	70	90	4-9	5
4"	100	52	293	95	165	-	-	-	12	33	F07	70	90	4-9	9
5"	125	56	326	115	178	-	-	-	12	33	F07	70	90	4-9	10
6"	150	56	353	130	190	-	-	-	12	33	F07	70	90	4-9	12
8"	200	60	435	155	230	-	-	-	17	50	F10	102	125	4-12	19
10"	250	68	535	215	270	-	-	-	17	50	F10	102	125	4-12	34
12"	300	78	611	251	310	-	-	-	22	50	F10	102	125	4-12	42
14"	350	78	655	270	335	-	-	-	27	50	F10	102	125	4-12	75
16"	400	102	755	325	370	-	-	-	27	60	F14	140	175	4-18	113
18"	450	114	797	347	390	-	-	-	27	60	F14	140	175	4-18	148
20"	500	127	883	383	420	-	-	-	36	80	F16	165	210	4-22	165
22"	550	154	967	425	462	-	-	-	36	80	F16	165	210	4-22	234
24"	600	154	1028	453	495	-	-	-	50	80	F16	165	210	4-22	270
26"	650	165	1095	490	525	-	-	-	50	80	F16	165	210	4-22	309
28"	700	165	1150	515	555	-	-	-	50	80	F16	165	210	4-22	350
30"	750	190	1230	550	590	-	-	-	50	90	F16	165	210	4-22	450
32"	800	190	1352	592	640	120	80	22x14	-	-	F25	254	300	8-18	485
34"	850	210	1382	612	650	120	80	22x14	-	-	F25	254	300	8-18	540
36"	900	203	1488	658	700	130	80	22x14	-	-	F25	254	300	8-18	635
40"	1000	216	1645	725	770	150	95	25x14	-	-	F30	298	350	8-23	750

VALVE DIMENSIONS

unit : mm

SIZE		L	H	H1	H2	H4	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm						Ø D	KEY SIZE	SQUARE		TYPE	Ø N	Ø M	N - Ø Z	
									SQ	H3					
2"	50	40	249	88	128	-	-	-	9	33	F07	70	90	4-9	6
2.5"	65	40	271	98	140	-	-	-	9	33	F07	70	90	4-9	7
3"	80	60	288	105	150	-	-	-	9	33	F07	70	90	4-9	9
4"	100	60	318	120	165	-	-	-	12	33	F07	70	90	4-9	12
5"	125	100	351	140	178	-	-	-	12	33	F07	70	90	4-9	17
6"	150	100	388	165	190	-	-	-	12	33	F07	70	90	4-9	22
8"	200	100	470	190	230	-	-	-	17	50	F10	102	125	4-12	34
10"	250	110	535	215	270	-	-	-	17	50	F10	102	125	4-12	50
12"	300	110	611	251	310	-	-	-	22	50	F10	102	125	4-12	73
14"	350	120	655	270	335	-	-	-	27	50	F10	102	125	4-12	99
16"	400	130	755	325	370	-	-	-	27	60	F14	140	175	4-18	113
18"	450	150	797	347	390	-	-	-	27	60	F14	140	175	4-18	148
20"	500	160	883	383	420	-	-	-	36	80	F16	165	210	4-22	165
22"	550	170	967	425	462	-	-	-	36	80	F16	165	210	4-22	234
24"	600	170	1028	453	495	-	-	-	50	80	F16	165	210	4-22	270
26"	650	170	1095	490	525	-	-	-	50	80	F16	165	210	4-22	309
28"	700	180	1150	515	555	-	-	-	50	80	F16	165	210	4-22	350
30"	750	190	1230	550	590	-	-	-	50	90	F16	165	210	4-22	395
32"	800	200	1352	592	640	120	80	22x14	-	-	F25	254	300	8-18	485
34"	850	210	1382	612	650	120	80	22x14	-	-	F25	254	300	8-18	540
36"	900	230	1488	658	700	130	80	22x14	-	-	F25	254	300	8-18	660
40"	1000	250	1645	725	770	150	95	25x14	-	-	F30	298	350	8-23	780
44"	1100	280	1740	760	830	150	95	25x14	-	-	F30	298	350	8-23	890
48"	1200	300	1880	840	890	150	95	25x14	-	-	F30	298	350	8-23	950
52"	1300	300	2048	938	950	160	115	32x18	-	-	F30	298	350	8-23	1050
56"	1400	330	2129	949	1000	180	130	32x18	-	-	F35	356	415	8-33	1550
60"	1500	330	2259	1024	1055	180	140	36x20	-	-	F35	356	415	8-33	1410
64"	1600	360	2450	1120	1150	180	140	36x20	-	-	F35	356	415	8-33	1580
72"	1800	360	2701	1221	1270	210	160	40x22	-	-	F35	356	415	8-33	2110

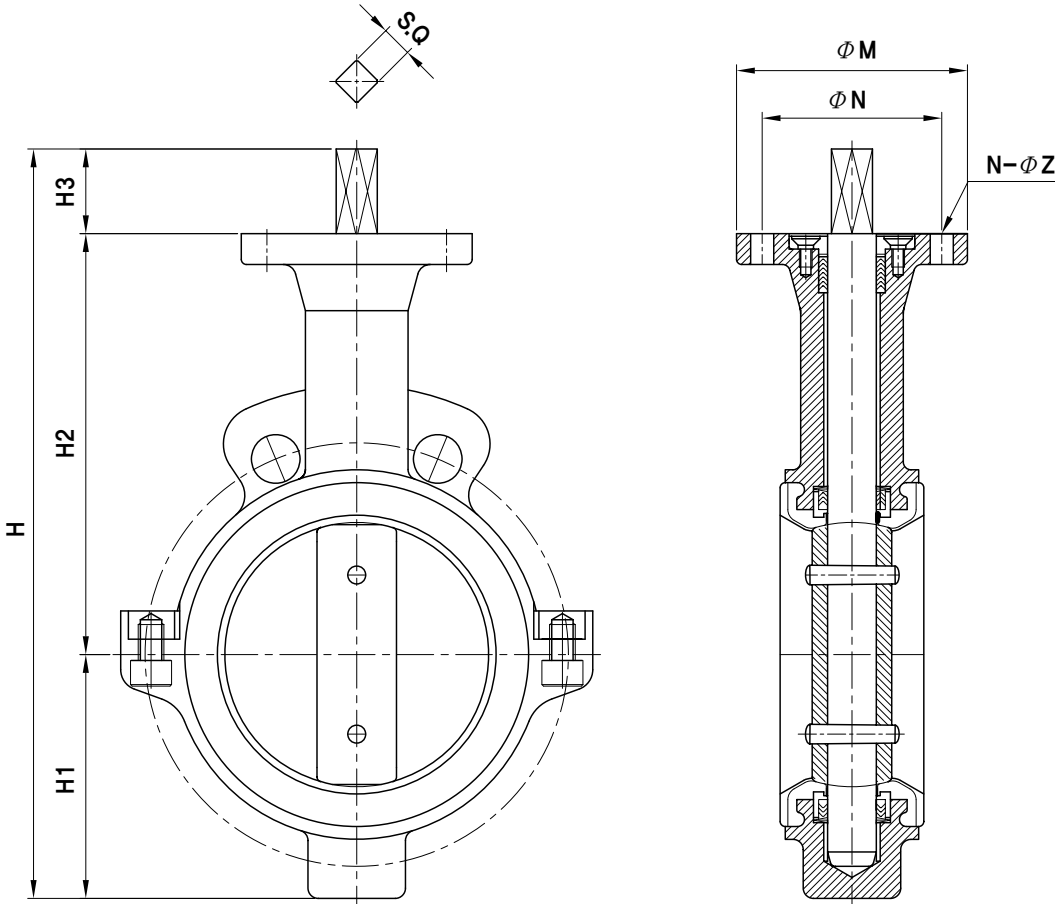
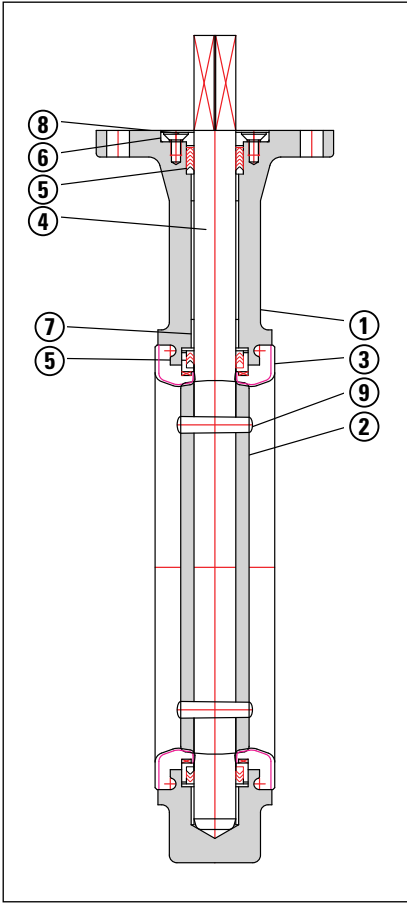
Butterfly Valve with Teflon Lining

Range of Applications

Butterfly valves provide a bubble tight seal. They are used to shut-off, throttle and regulate highly corrosive gases, liquids, slurries and powders. Butterfly valves are designed to handle a variety of applications to the semi conductor, chemical, petrochemical, pulp and paper, mining, food and beverage, sugar refining, sewage, air pollution control, oil and gas, and chemical carrier, shipbuilding industries etc.

VALVE TYPE	AV-TLW(WAFER)	AV-TLL(LUG)	AV-TLF(FLANGE)
Valve Nominal Sizes	50A~500A(2"~20")	50A~600A(2"~24")	50A~600A(2"~24")
Applicable Flange	JIS / KS 5K, 10K, ANSI B 16.5 CLASS 150LB		
Working temperatu rerange	-20 ~ +250℃		
Allowable temperature in continuous use	-10 ~ +230℃		
Face to Face	KS V 7490, JIS F 7480, ISO 5752(Table 6)		
Actuators	LEVER, WORM GEAR, PNEUMATIC CYLINDER ELECTRIC MOTOR, HYDRAULIC ACTUATOR		

P.NO.	PART NAME	MATERIAL
1	BODY	Ductile iron Stainless Steel Carbon Steel
2	DISC	Stainless Steel
3	SEAT	PTFE
4	STEM	Stainless Steel
5	PACKING	PTFE
6	GLAND	Stainless Steel
7	BUSH	Stainless Steel
8	GLAND BOLT	Stainless Steel
9	DISC PIN	Stainless Steel



VALVE DIMENSIONS

SIZE		L	H	H1	H2	H3	STEM	TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm						SQ	TYPE	Φ N	Φ M	N-Φ Z	
2"	50	43	216	55	128	33	9	F 07	70	90	4-9	3
2.5"	65	46	239	66	140	33	9	F 07	70	90	4-9	4
3"	80	46	258	75	150	33	9	F 07	70	90	4-9	4
4"	100	52	293	95	165	33	12	F 07	70	90	4-9	5
5"	125	56	326	115	178	33	12	F 07	70	90	4-9	6
6"	150	56	353	130	190	33	12	F 07	70	90	4-9	8
8"	200	60	435	155	230	50	17	F 10	102	125	4-12	12
10"	250	68	535	215	270	50	17	F 10	102	125	4-12	19
12"	300	78	611	251	310	50	22	F 10	102	125	4-12	30
14"	350	78	655	270	335	50	27	F 10	102	125	4-12	43
16"	400	102	755	325	370	60	27	F 14	140	175	4-18	70
18"	450	114	797	347	390	60	27	F 14	140	175	4-18	86
20"	500	127	883	383	420	80	36	F 16	165	210	4-22	128

High-performance Butterfly valves

Schema of High-performance type

This product is of heavy load designed for high pressure flow application.

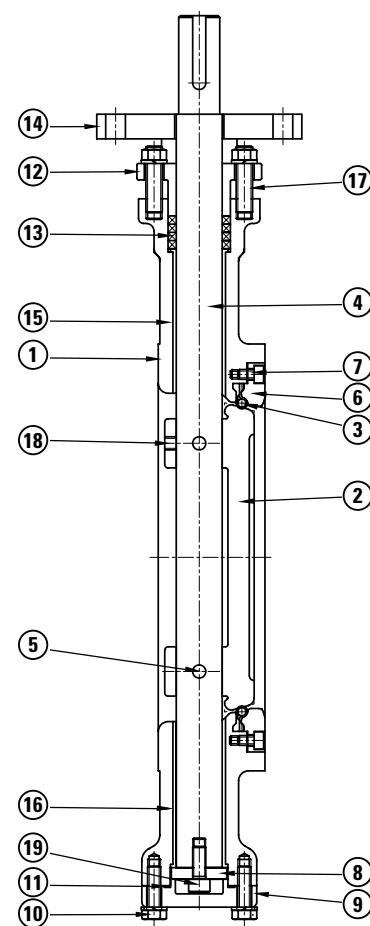
It is widely adopted for cargo valves of product and chemical tankers, steam and air conditioning in buildings, chemical and petro-chemical plants, nuclear power plants and high pressure piping system in general.

Operations

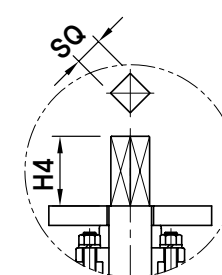
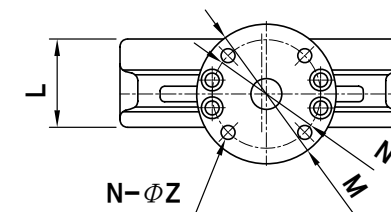
The following operation of the valves are possible, the choice is depending upon the valve location and the type of work and service for which the valve is used.

- Manual lever operation
- Manual worm gear operation
- Single or double acting pneumatic actuator operation
- Hydraulic actuator operation
- Electro motor actuator operation

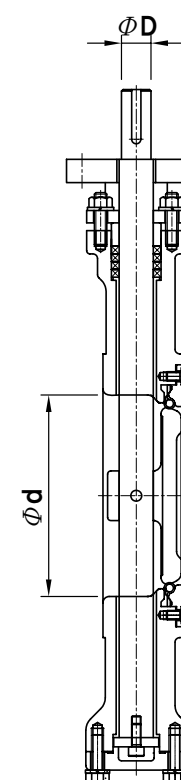
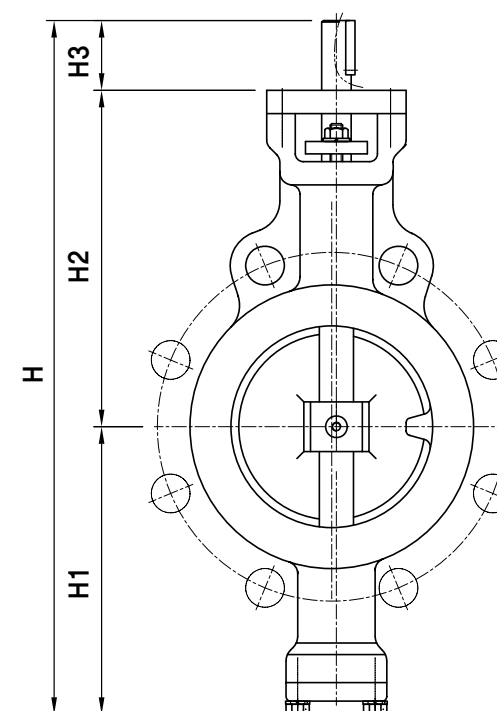
P.NO.	PART NAME	MATERIAL
1	BODY	CAST IRON, DUCTILE IRON, CAST STEEL, STAINLESS STEEL, AL-BRONZE
2	DISC	CAST STEEL, STAINLESS STEEL, AL-BRONZE
3	SEAT	SS. STEEL, TEFLON, RUBBER
4	STEM	SS. STEEL (304, 316, 316L, 630, 17-4PH, Monel)
5	DISC PIN	STAINLESS STEEL
6	RETAINER	STAINLESS STEEL, AL-BRONZE
7	RETAINER BOLT	STAINLESS STEEL
8	THRUST PLATE	BRONZE, STAINLESS STEEL
9	BOTTOM COVER	MILD STEEL, STAINLESS STEEL, AL-BRONZE
10	BOTTOM BOLT	STAINLESS STEEL, MILD STEEL
11	BOTTOM GASKET	TEFLON, GRAPHITE, RUBBER
12	PACKING GLAND	SS. STEEL, MILD STEEL, BRONZE
13	PACKING	TEFLON, GRAPHITE, RUBBER
14	ACTUATOR STAND	MILD STEEL
15	STEM BEARING	TEFLON, STAINLESS, BRONZE
16	STEM BEARING	TEFLON, STAINLESS, BRONZE
17	BOLT & NUT	STAINLESS STEEL, MILD STEEL
18	SET BOLT	STAINLESS STEEL
19	THRUST BOLT	STAINLESS STEEL



High-performance Wafer Type



SHAFT SQUARE

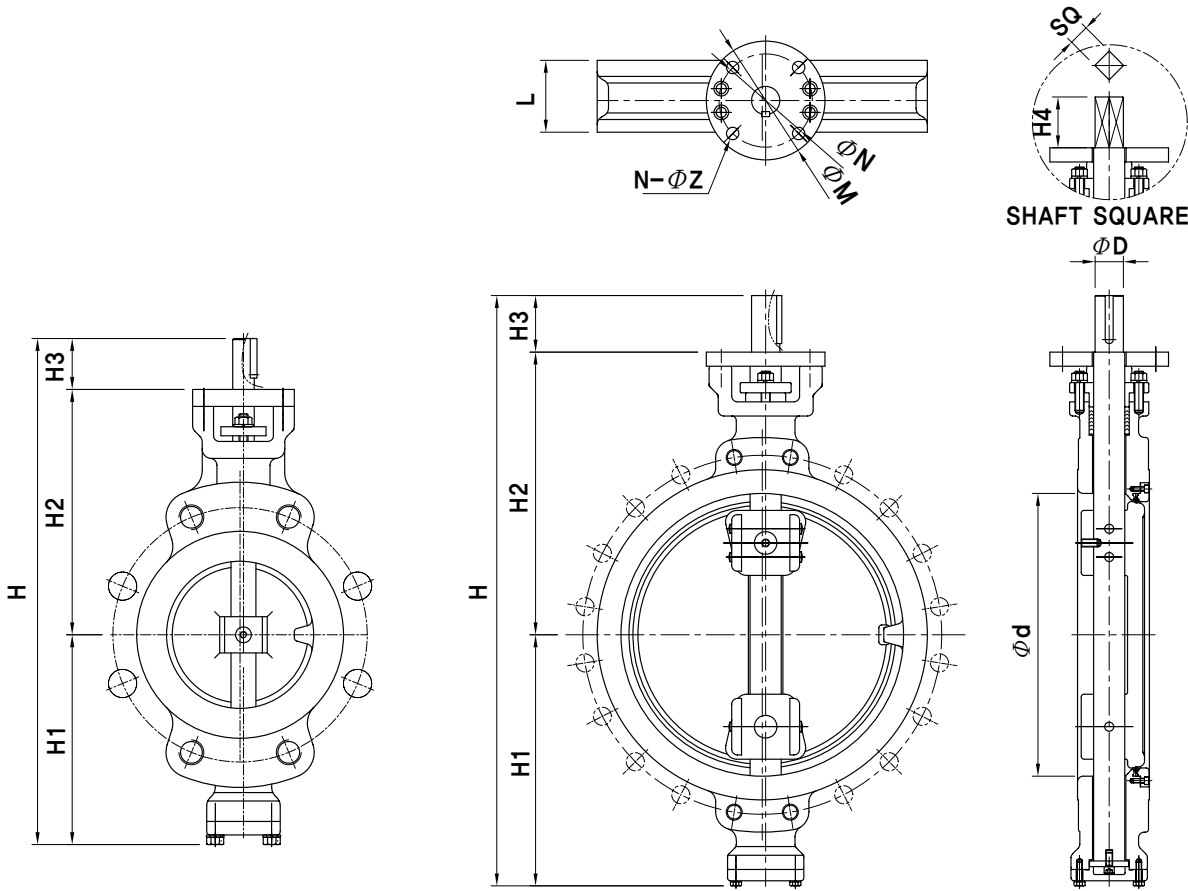


VALVE DIMENSIONS

unit : mm

SIZE		Ø d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							Ø D	KEY SIZE	SQUARE		TYPE	Ø N	Ø M	N-Ø Z	
										SQ	H4					
2"	50	50	43	331	118	168	45	16	5x5	12	33	F07	70	90	4-9	4.5
2.5"	65	65	46	355	133	177	45	16	5x5	12	33	F07	70	90	4-9	5.5
3"	80	80	48	374	144	185	45	19	6x6	12	33	F07	70	90	4-9	9.0
4"	100	100	54	409	164	200	45	19	6x6	12	33	F07	70	90	4-9	10.0
5"	125	125	57	450	188	217	45	19	6x6	12	33	F07	70	90	4-9	13.0
6"	150	150	57	490	205	240	45	19	6x6	12	33	F07	70	90	4-9	17.0
8"	200	200	64	553	223	270	60	25	8x7	17	55	F10	102	125	4-12	26.0
10"	250	250	71	655	275	320	60	25	8x7	22	55	F10	102	125	4-12	40.0

High-performance Semi-lug Type

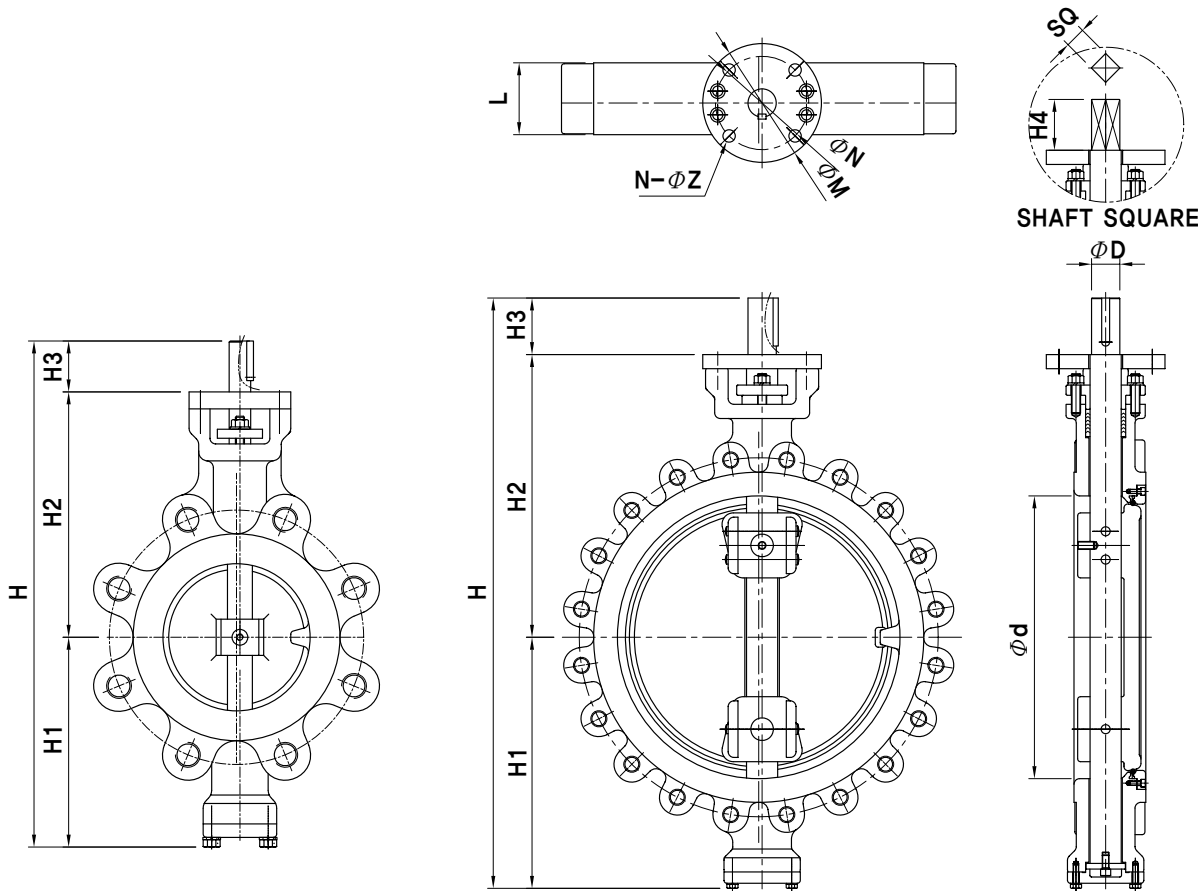


VALVE DIMENSIONS

unit : mm

SIZE		Ø d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							Ø D	KEY SIZE	SQUARE		TYPE	Ø N	Ø M	N-Ø Z	
										SQ	H4					
2"	50	50	43	331	118	168	45	16	5x5	12	33	F07	70	90	4-9	5.0
2.5"	65	65	46	355	133	177	45	16	5x5	12	33	F07	70	90	4-9	6.5
3"	80	80	48	374	144	185	45	19	6x6	12	33	F07	70	90	4-9	10.5
4"	100	100	54	409	164	200	45	19	6x6	12	33	F07	70	90	4-9	15.0
5"	125	125	57	450	188	217	45	19	6x6	12	33	F07	70	90	4-9	18.0
6"	150	150	57	490	205	240	45	19	6x6	12	33	F07	70	90	4-9	25.0
8"	200	200	64	553	223	270	60	25	8x7	17	55	F10	102	125	4-12	36.0
10"	250	250	71	655	275	320	60	25	8x7	22	55	F10	102	125	4-12	56.0
12"	300	300	81	718	308	350	60	32	10x8	27	55	F10	102	125	4-12	68.0
14"	350	350	92	816	346	395	75	38	12x8	27	65	F14	140	175	4-18	93.0
16"	400	400	102	905	385	445	75	38	12x8	27	65	F14	140	175	4-18	121.0
18"	450	450	114	1000	410	490	100	50	14x9	36	90	F16	165	210	4-22	144.0
20"	500	500	127	1048	448	500	100	50	14x9	36	90	F16	165	210	4-22	160.0
22"	550	550	154	1123	488	535	100	65	20x12	50	90	F16	165	210	4-22	228.0
24"	600	600	154	1180	515	565	100	65	20x12	50	90	F16	165	210	4-22	284.0
26"	650	650	165	1271	551	620	100	65	20x12	50	90	F16	165	210	4-22	327.0
28"	700	700	165	1346	596	650	100	65	20x12	50	90	F16	165	210	4-22	388.0
30"	750	750	190	1465	620	695	150	80	22x14	50	90	F16	165	210	4-22	462.0
32"	800	800	190	1535	645	740	150	80	22x14	61	100	F25	254	300	8-18	607.0
36"	900	900	203	1665	710	805	150	90	22x14	68	100	F25	254	300	8-18	860.0
40"	1000	1000	216	1790	770	870	150	90	22x14	68	100	F25	254	300	8-18	1180.0

High-performance Lug Type

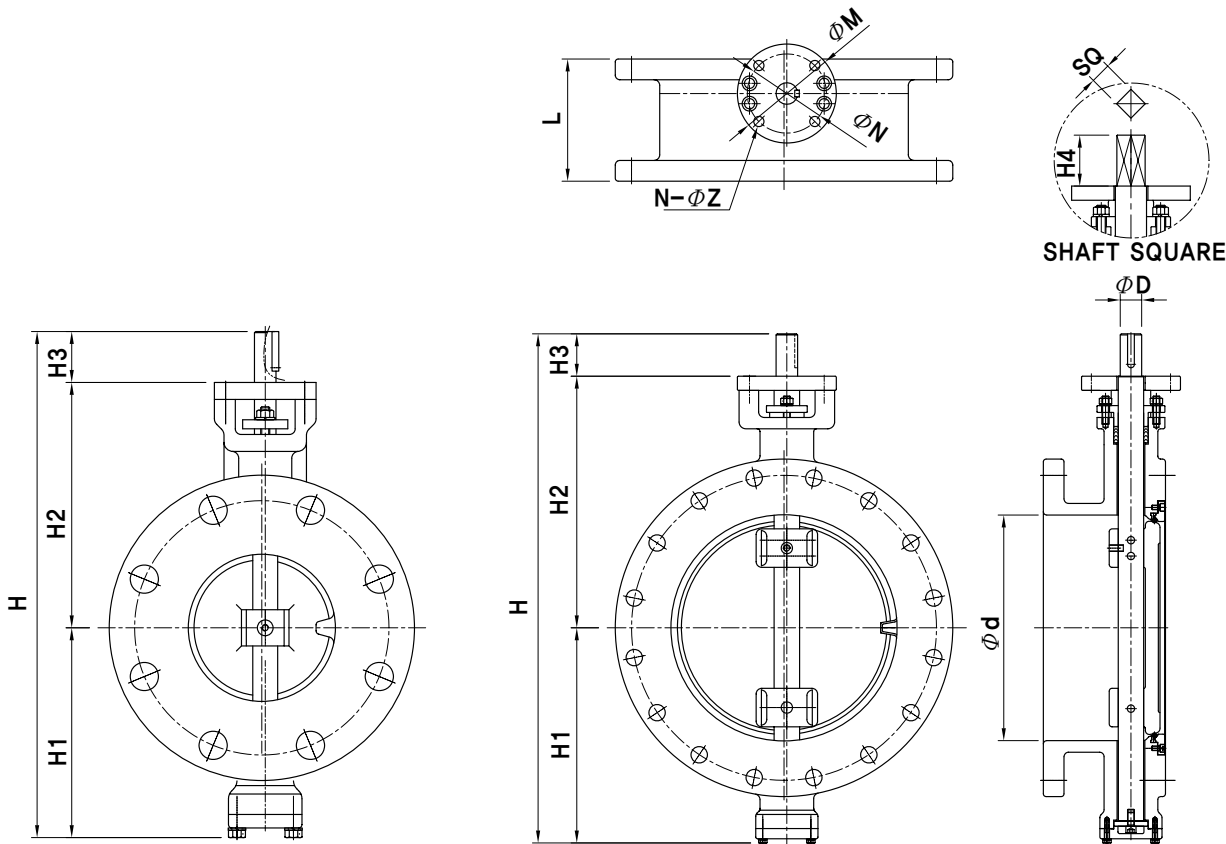


VALVE DIMENSIONS

unit : mm

SIZE		Ø d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							Ø D	KEY SIZE	SQUARE		TYPE	Ø N	Ø M	N-Ø Z	
										SQ	H4					
2"	50	50	43	331	118	168	45	16	5x5	12	33	F07	70	90	4-9	8.0
2.5"	65	65	46	355	133	177	45	16	5x5	12	33	F07	70	90	4-9	9.0
3"	80	80	48	374	144	185	45	19	6x6	12	33	F07	70	90	4-9	12.0
4"	100	100	54	409	164	200	45	19	6x6	12	33	F07	70	90	4-9	15.0
5"	125	125	57	450	188	217	45	19	6x6	12	33	F07	70	90	4-9	20.0
6"	150	150	57	490	205	240	45	19	6x6	12	33	F07	70	90	4-9	29.0
8"	200	200	64	553	223	270	60	25	8x7	17	55	F10	102	125	4-12	44.0
10"	250	250	71	655	275	320	60	25	8x7	22	55	F10	102	125	4-12	65.0
12"	300	300	81	718	308	350	60	32	10x8	27	55	F10	102	125	4-12	80.0
14"	350	350	92	816	346	395	75	38	12x8	27	65	F14	140	175	4-18	130.0
16"	400	400	102	905	385	445	75	38	12x8	27	65	F14	140	175	4-18	144.0
18"	450	450	114	1000	410	490	100	50	14x9	36	90	F16	165	210	4-22	191.0
20"	500	500	127	1048	448	500	100	50	14x9	36	90	F16	165	210	4-22	226.0
22"	550	550	154	1123	488	535	100	65	20x12	50	90	F16	165	210	4-22	278.0
24"	600	600	154	1180	515	565	100	65	20x12	50	90	F16	165	210	4-22	339.0
26"	650	650	165	1271	551	620	100	65	20x12	50	90	F16	165	210	4-22	418.0
28"	700	700	165	1346	596	650	100	65	20x12	50	90	F16	165	210	4-22	519.0
30"	750	750	190	1465	620	695	150	80	22x14	50	90	F16	165	210	4-22	620.0
32"	800	800	190	1535	645	740	150	80	22x14	61	100	F25	254	300	8-18	783.0
36"	900	900	203	1665	710	805	150	90	22x14	68	100	F25	254	300	8-18	1102.0
40"	1000	1000	216	1790	770	870	150	90	22x14	68	100	F25	254	300	8-18	1450.0

High-performance Flanged Type

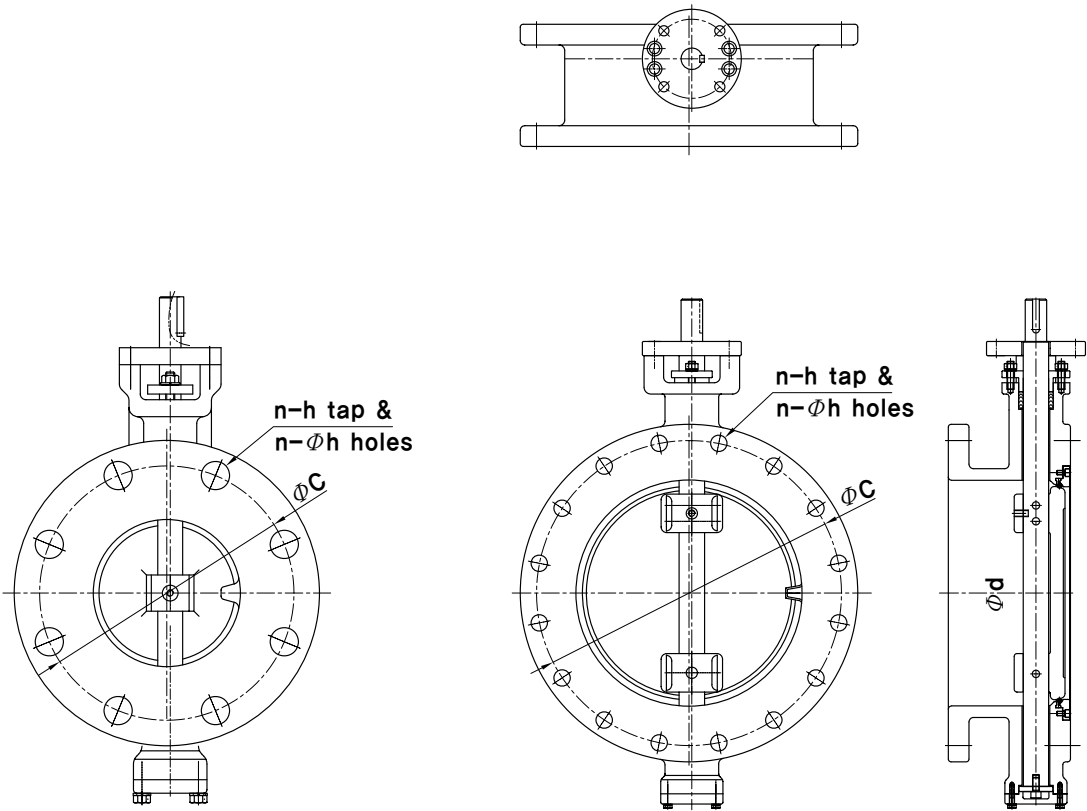


VALVE DIMENSIONS

unit : mm

SIZE		Φ d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							Φ D	KEY SIZE	SQUARE		TYPE	Φ N	Φ M	N-Φ Z	
										SQ	H4					
2"	50	50	108	331	118	168	45	16	5x5	12	33	F07	70	90	4-9	14.0
2.5"	65	65	112	355	133	177	45	16	5x5	12	33	F07	70	90	4-9	18.0
3"	80	80	114	374	144	185	45	19	6x6	12	33	F07	70	90	4-9	22.0
4"	100	100	127	409	164	200	45	19	6x6	12	33	F07	70	90	4-9	28.0
5"	125	125	140	450	188	217	45	19	6x6	12	33	F07	70	90	4-9	37.0
6"	150	150	140	490	205	240	45	19	6x6	12	33	F07	70	90	4-9	44.0
8"	200	200	152	553	223	270	60	25	8x7	17	55	F10	102	125	4-12	64.0
10"	250	250	165	655	275	320	60	25	8x7	22	55	F10	102	125	4-12	87.0
12"	300	300	178	718	308	350	60	32	10x8	27	55	F10	102	125	4-12	123.0
14"	350	350	190	816	346	395	75	38	12x8	27	65	F14	140	175	4-18	155.0
16"	400	400	216	905	385	445	75	38	12x8	27	65	F14	140	175	4-18	224.0
18"	450	450	222	1000	410	490	100	50	14x9	36	90	F16	165	210	4-22	255.0
20"	500	500	229	1048	448	500	100	50	14x9	36	90	F16	165	210	4-22	321.0
22"	550	550	229	1123	488	535	100	65	20x12	50	90	F16	165	210	4-22	410.0
24"	600	600	267	1180	515	565	100	65	20x12	50	90	F16	165	210	4-22	475.0
26"	650	650	267	1271	551	620	100	65	20x12	50	90	F16	165	210	4-22	565.0
28"	700	700	292	1346	596	650	100	65	20x12	50	90	F16	165	210	4-22	685.0
30"	750	750	292	1465	620	695	150	80	22x14	50	90	F16	165	210	4-22	818.0
32"	800	800	318	1535	645	740	150	80	22x14	61	100	F25	254	300	8-18	1050.0
36"	900	900	330	1665	710	805	150	90	22x14	68	100	F25	254	300	8-18	1350.0
40"	1000	1000	410	1790	770	870	150	90	22x14	68	100	F25	254	300	8-18	1720.0
44"	1100	1100	410	1945	835	930	180	120	32x18	90	120	F30	350	350	8-23	2010.0
48"	1200	1200	470	2070	895	995	180	120	32x18	90	120	F30	350	350	8-23	2450.0

High-performance Butterfly valves



FLANGE DIMENSIONS

unit : mm

SIZE		JIS 10K			JIS 16K			JIS 20K			ANSI 150LB			ANSI 300LB			BS 4504 PN10			BS 4504 PN16		
inch	mm	Φ C	n	h	Φ C	n	h	Φ C	n	h	Φ C	n	h	Φ C	n	h	Φ C	n	h	Φ C	n	h
2"	50	120	4	19	120	8	19	120	8	19	120.5	4	19	127	8	19	125	4	19	125	4	19
2.5"	65	140	4	19	140	8	19	140	8	19	139.5	4	19	149	8	22	145	4	19	145	4	19
3"	80	150	8	19	160	8	23	160	8	23	152.5	4	19	168	8	22	160	8	19	160	8	19
4"	100	175	8	19	185	8	23	185	8	23	190.5	8	19	200	8	22	180	8	19	180	8	19
5"	125	210	8	23	225	8	25	225	8	25	216.0	8	22	235	8	22	210	8	19	210	8	19
6"	150	240	8	23	260	12	25	260	12	25	241.5	8	22	270	12	22	240	8	23	240	8	23
8"	200	290	12	23	305	12	25	305	12	25	298.5	8	22	330	12	25	295	8	23	295	12	23
10"	250	355	12	25	380	12	27	380	12	27	362.0	12	25	387.5	16	1	350	12	23	355	12	28
12"	300	400	16	25	430	16	27	430	16	27	432.0	12	25	451	16	1 1/8	400	12	23	410	12	28
14"	350	445	16	25	480	16	33	480	16	33	476.0	12	29	514.5	20	1 1/8	460	16	23	470	16	28
16"	400	510	16	27	540	16	33	540	16	33	539.5	16	29	571.5	20	1 1/4	515	16	28	525	16	31
18"	450	565	20	27	605	20	33	605	20	33	578.0	16	32	628.5	24	1 1/4	565	20	28	585	20	31
20"	500	620	20	27	660	20	33	660	20	33	635.0	20	32	686	24	1 1/4	620	20	28	650	20	34
22"	550	680	20	M30	720	20	M36	720	20	M36	692.2	20	1 1/4	692.15	20	1 1/4	-	-	-	-	-	-
24"	600	730	24	M30	770	24	M36	770	24	M36	749.5	20	1 1/4	813	24	1 1/2	725	20	M27	770	20	M33
26"	650	780	24	M30	820	24	M36	820	24	M36	806.5	24	1 1/4	806.45	24	1 1/2	-	-	-	-	-	-
28"	700	840	24	M30	875	24	M39	875	24	M39	863.5	28	1 1/4	863.6	28	1 1/2	840	24	M27	840	24	M33
30"	750	900	24	M30	935	24	M39	935	24	M39	914.5	28	1 1/4	914.4	28	1 1/2	-	-	-	-	-	-
32"	800	950	28	M30	990	24	M45	990	24	M45	978.0	28	1 1/2	977.9	28	1 1/2	950	24	M30	950	24	M36
34"	850	1000	28	M30	1040	24	M45	1040	24	M45	1029.0	32	1 1/2	1028.7	32	1 1/2	-	-	-	-	-	-
36"	900	1050	28	M30	1090	28	M45	1090	28	M45	1086.0	32	1 1/2	1085.85	32	1 1/2	1050	28	M30	1050	28	M36
40"	1000	1160	28	M36	1210	28	M52	1210	28	M52	1200.0	36	1 1/2	1200.15	36	1 1/2	1160	28	M33	1170	28	M39
44"	1100	1270	28	M36	1310	32	M52	1310	32	M52	1314.5	40	1 1/2	1314.45	40	1 1/2	-	-	-	-	-	-
48"	1200	1380	32	M36	1420	32	M52	1420	32	M52	1422.4	44	1 1/2	1422.4	44	1 1/2	1380	32	M36	1390	32	M45

DESIGN FEATURES

Soft Seat

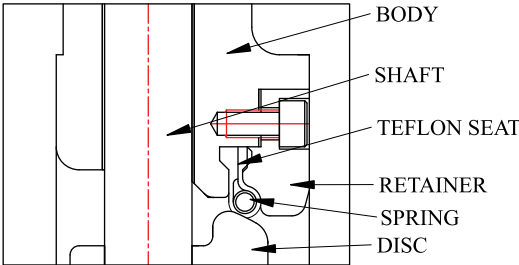
In soft seated models the PTFE seat is mechanically forcing onto the disc by means of the seat energizer which acts as a plate spring.

MATERIAL

PTFE(Polytetrafluoroethylene)
RTFE(Reinforced polytetrafluoroethylene)

APPLICATIONS

Petro-chemicals, water, jet fuel, Saturated steam, chlorine, ammonia, natural gas oxygen, nitrogen
Abrasives, suspended solids, scaling mediums



Fire Safe

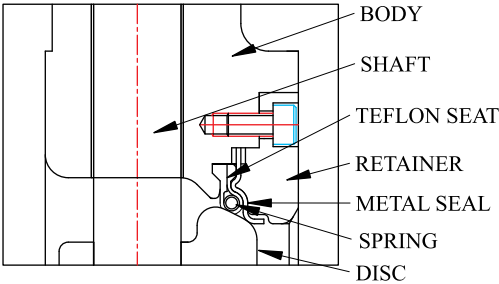
In fire safe models, the energized metal seal is extended so as to form a secondary sealing device in the event of soft seal destruction.

MATERIAL

PTFE(Polytetrafluoroethylene)
RTFE(Reinforced polytetrafluoroethylene)
Stainless steel

APPLICATIONS

Fire-safe applications, abrasives, slurries, steam



Metal Seat

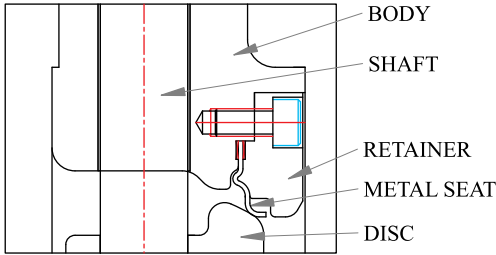
For high temperature or abrasive applications, the metal seat is placed instead of soft seat.

MATERIAL

Stainless steel

APPLICATIONS

High temperature, low temperature, abrasives, fly ash, slurries.



Pressure / Temperature Ratings

Temperature		Class 150				Class 300				Class 600				Class 900			
Temp °F	Temp °C	Carbon steel		Stainless Steel		Carbon steel		Stainless Steel		Carbon steel		Stainless Steel		Carbon steel		Stainless Steel	
		barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig	barg	psig
200-100	-29-38	19.6	285	18.9	275	51	740	49.6	720	102	1480	99.3	1440	153.1	2220	148.9	2160
200	93	17.9	260	16.5	240	46.5	675	42.7	620	93.1	1350	85.5	1240	139.6	2025	128.2	1860
300	149	15.8	230	14.8	215	45.1	655	38.6	560	90.6	1315	77.2	1120	135.8	1970	115.8	1680
400	204	13.7	200	13.4	195	43.7	635	35.5	515	87.5	1270	71	1030	131	1900	106.2	1540
500	260	11.7	170	11.7	170	41.3	600	33.1	480	82.7	1200	65.8	955	123.7	1795	98.9	1435
600	316	9.6	140	9.6	140	37.9	550	31	450	75.5	1095	62.4	905	113.1	1640	93.4	1355
650	343	8.6	125	8.6	125	36.8	535	30.6	445	74.1	1075	61.3	890	111	1610	91.7	1330
700	371	7.5	110	7.5	110	36.8	535	29.6	430	73.3	1065	59.6	865	110.3	1600	89.3	1295
750	399	6.5	95	6.5	95	34.8	505	29.3	425	69.6	1010	58.2	845	104.1	1510	87.5	1270
800	427	5.5	80	5.5	80	28.2	410	28.6	415	56.8	825	57.2	830	85.1	1235	85.8	1245
850	454	4.4	65	4.4	65	18.6	270	27.9	405	36.8	535	55.8	810	55.5	805	83.7	1215
900	482	3.4	50	3.4	50	11.7	170	27.2	395	23.7	345	54.4	790	35.5	515	81.3	1180
950	510	2.4	35	2.4	35	7.2	105	26.5	385	14.1	205	53.4	775	21.3	310	80	1160
1000	538	1.3	20	1.3	20	3.4	50	25.1	365	7.2	105	50	725	10.6	155	75.1	1090
1050	566	-	-	1.3(1)	20(1)	-	-	24.8	360	-	-	49.6	720	-	-	74.4	1080
1100	593	-	-	1.3(1)	20(1)	-	-	22.4	325	-	-	44.4	645	-	-	66.5	965
1150	621	-	-	1.3(1)	20(1)	-	-	18.9	275	-	-	37.9	550	-	-	56.8	825
1200	649	-	-	1.3(1)	20(1)	-	-	14.1	205	-	-	28.2	410	-	-	42.7	620

Note

WCB permissible but not recommended for prolonged use above 426°C (800° F)
for welding end valves only, flanged end ratings terminates at 538°C (1000° F)

Torques Required to Operate Valve

Actuator torques can be calculated by using the following formulas.

$T_a = T_b + T_s + T_h = 1.2 T_b \pm T_d$

$T_s = C_s D^2$

$T_b = 4.17 D^2 d f_p$

$T_d = C_t d^3 P$

$T_h = 3.06 D^4$

$V = C_f \sqrt{P} = Q / 0.785 D^2$

- T_a : The required actuator torque (lb-ft)
- T_s : Seat or unseating torque (lb-ft)
- T_d : Dynamic torque (lb-ft)
- Q : Flow (cubic for per second)
- V : Velocity (feet per second)
- D : Diameter of valve (feet)
- d : Diameter of shaft (inch)
- P : Pressure drop across valve (psi)
- C_s : Coefficient of seating or unseating torque
- C_t : Coefficient of dynamic torque
- C_f : Coefficient of flow
- f : Bearing friction coefficient

TORQUE TABLE

SIZE	WORKING PRESSURE (bar)								
	5 bar			10 bar			16 bar		
	kgf-m	Nm	lbf.ft	kg-m	Nm	lbf.ft	kg-m	Nm	lbf.ft
50A	0.95	9.3	6.87	1.15	11.3	8.31	1.80	17.6	13.01
65A	1.40	13.7	10.12	1.90	18.6	13.73	2.30	22.5	16.62
80A	2.00	19.6	14.46	2.90	28.4	20.96	4.00	39.2	28.91
100A	3.70	36.3	26.74	4.90	48.0	35.42	6.40	62.7	46.26
125A	6.50	63.7	46.98	8.00	78.4	57.82	10.50	102.9	75.90
150A	11.00	107.8	79.51	16.00	156.8	115.65	21.00	205.8	151.79
200A	25.00	245.0	180.70	29.00	284.2	209.62	35.00	343.0	252.98
250A	32.00	313.6	231.30	45.00	441.0	325.26	55.00	539.0	397.55
300A	44.00	431.2	318.04	61.00	597.8	440.91	92.00	901.6	664.99
350A	62.00	607.6	448.14	87.00	852.6	628.85	129.00	1264.2	932.43
400A	82.00	803.6	592.70	116.00	1136.8	838.46	173.00	1695.4	1250.46
450A	99.00	970.2	715.58	151.00	1479.8	1091.44	230.00	2254.0	1662.46
500A	129.00	1264.2	932.43	210.00	2058.0	1517.90	300.00	2940.0	2168.43
550A	174.00	1705.2	1257.69	238.00	2332.4	1720.29	404.00	3959.2	2920.16
600A	223.00	2185.4	1611.87	329.00	3224.2	2378.05	497.00	4870.6	3592.37
650A	278.00	2724.4	2009.41	405.00	3969.0	2927.38	614.00	6017.2	4438.06
700A	335.00	3283.0	2421.42	484.00	4743.2	3498.40	734.00	7193.2	5305.43
750A	402.00	3939.6	2905.70	554.00	5429.2	4004.37	941.00	9221.8	6801.65
800A	482.00	4723.6	3483.95	677.00	6634.6	4893.43	1031.00	10103.8	7452.18
850A	536.00	5252.8	3874.27	815.00	7987.0	5890.91	1322.00	12955.6	9555.56
900A	594.00	5821.2	4293.50	956.00	9368.8	6910.07	1615.00	15827.0	11673.39
1000A	811.00	7947.8	5862.00	1269.00	12436.2	9172.47	2151.00	21079.8	15547.66
1100A	1079.00	10574.2	7799.13	1671.00	16375.8	12078.17	2823.00	27665.4	20404.95
1200A	1400.00	13720.0	10119.35	2151.00	21079.8	15547.66	3638.00	35652.4	26295.86

Double Eccentric Cargo Oil Butterfly valves

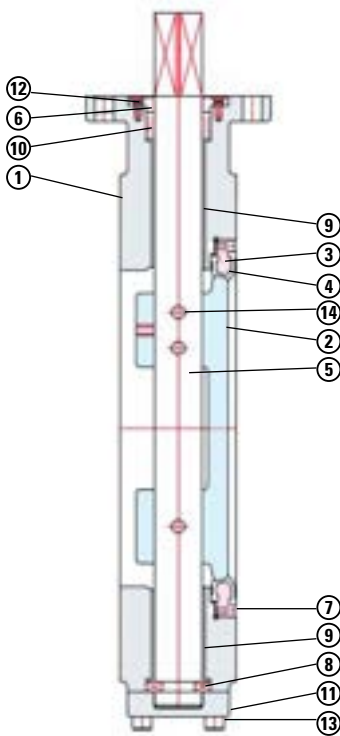
Schema of Double Eccentric type

It is provided of heavy load designed for high pressure and high-flow rate application.
 It is widely adopted for cargo oil valves of tankers, FPSO, terminal and high flow rate piping with abundant reference.
 Semi-Lug, Lug and double flange type connections are available.

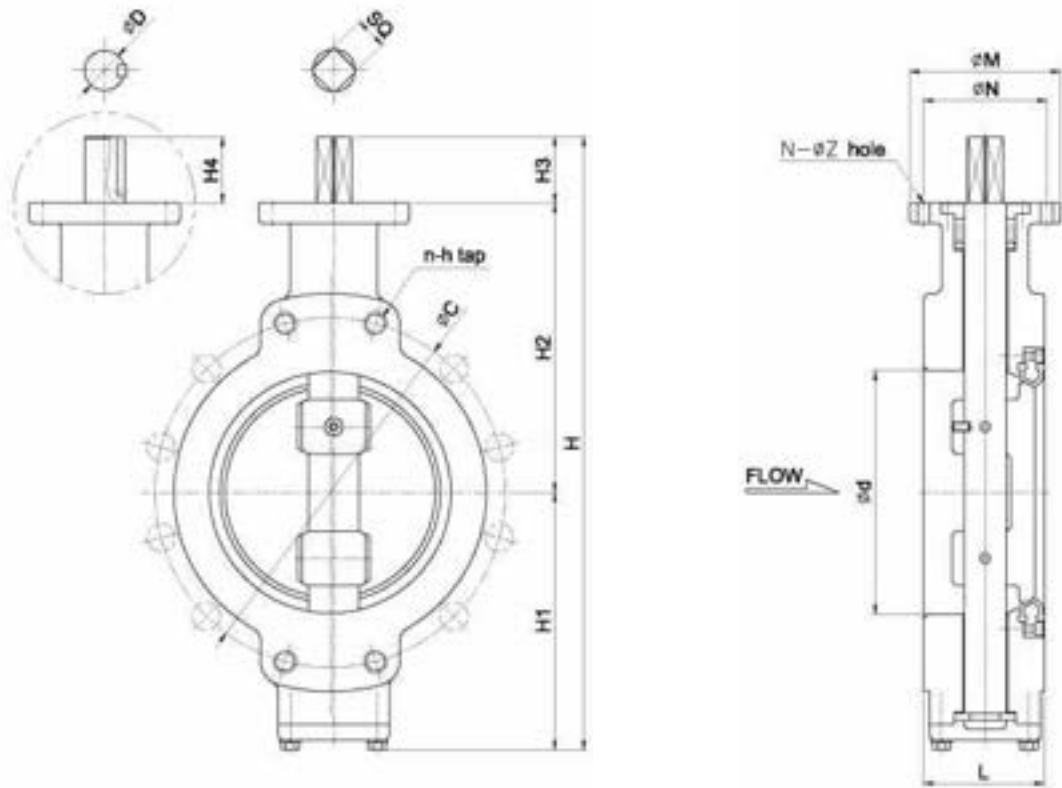
Operations

- The following operation of the valve is available, the choice depending upon the valve location and the type of work and service for which the valve is used,.
- Manual lever operation
 - Manual worm gear operation
 - Single or double acting pneumatic actuator operation
 - Hydraulic actuator operation
 - Electric motor actuator operation

P.NO.	PART NAME	MATERIAL
1	BODY	CAST IRON / DUCTILE IRON STAINLESS STEEL / CARBON STEEL ALUMINUM BRONZE
2	DISC	STAINLESS STEEL / CAST STEEL ALUMINUM BRONZE / ALLOY STEEL
3	RETAINER	CAST IRON / DUCTILE IRON STAINLESS STEEL / CARBON STEEL ALUMINUM BRONZE
4	SEAT	EPDM / NBR / VITON
5	STEM	STAINLESS STEEL(SS304, 316, 410)
6	GLAND BUSH	STAINLESS STEEL / BRONZE
7	RETAINER BOLT	STAINLESS STEEL / GALV. STEEL
8	THRUST PLATE	STAINLESS STEEL / BRONZE
9	STEM B/R	STAINLESS STEEL + PTFE
10	PACKING	NBR / VITON / EPDM
11	BOTTOM COVER	CAST IRON / DUCTILE IRON STAINLESS STEEL / CARBON STEEL ALUMINUM BRONZE
12	GLAND BOLT	STAINLESS STEEL / GALV. STEEL
13	BOTTOM BOLT	STAINLESS STEEL / GALV. STEEL
14	DISC PIN	STAINLESS STEEL / GALV. STEEL



Double Eccentric Cargo Oil Semi-Lug Type

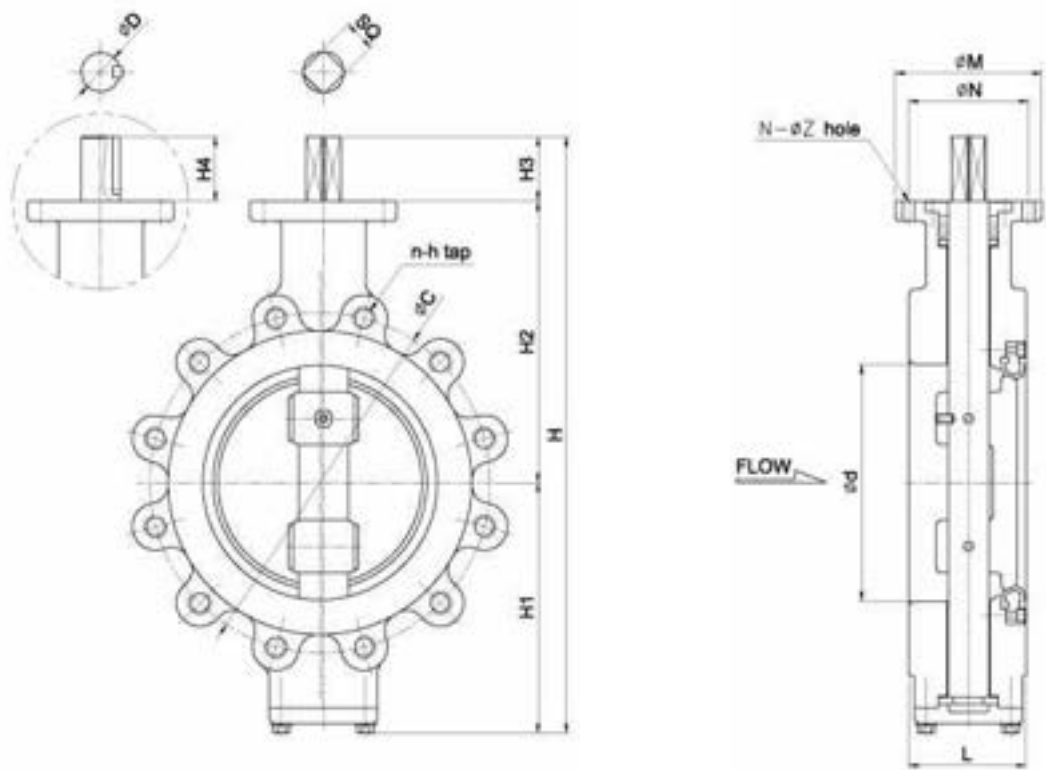


VALVE DIMENSIONS

SIZE		ϕ d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							SQUARE	ROUND			TYPE	ϕ N	ϕ M	N-ϕ Z	
									SQ	ϕ D	H4					
2"	50A	62	44	276	113	130	33	12	16	33	5 x 5	F07	70	90	4 - 9	5.0
2.5"	65A	75	46	286	118	135	33	12	16	33	5 x 5	F07	70	90	4 - 9	6.0
3"	80A	90	62	300	127	140	33	12	19	33	6 x 6	F07	70	90	4 - 9	8.0
4"	100A	106	65	339	146	160	33	12	19	33	6 x 6	F07	70	90	4 - 9	11.0
5"	125A	128	70	407	162	190	55	17	22	55	8 x 7	F10	102	125	4 - 12	18.0
6"	150A	150	90	459	189	215	55	17	25	55	8 x 7	F10	102	125	4 - 12	25.0
8"	200A	202	100	509	214	240	55	27	32	55	10 x 8	F10	102	125	4 - 12	36.0
10"	250A	250	110	606	256	285	65	27	40	65	12 x 8	F14	140	175	4 - 18	48.0
12"	300A	300	110	655	275	315	65	27	40	65	12 x 8	F14	140	175	4 - 18	68.0
14"	350A	335	120	749	309	350	90	36	50	90	14 x 9	F16	165	210	4 - 22	75.0
16"	400A	390	130	820	350	380	90	36	50	90	14 x 9	F16	165	210	4 - 22	110.0
18"	450A	440	150	890	383	417	90	46	55	90	16 x 10	F16	165	210	4 - 22	125.0
20"	500A	490	160	955	420	445	90	50	65	90	20 x 12	F16	165	210	4 - 22	185.0
22"	550A	540	170	1021	454	477	90	50	70	90	20 x 12	F16	165	210	4 - 22	265.0
24"	600A	594	200	1128	488	520	120	50	80	120	22 x 14	F25	254	300	8 - 18	315.0
26"	650A	644	210	1178	513	545	120	-	80	120	22 x 14	F25	254	300	8 - 18	385.0
28"	700A	700	220	1262	552	590	120	-	80	120	22 x 14	F25	254	300	8 - 18	480.0
30"	750A	750	230	1333	583	620	130	-	85	130	22 x 14	F30	298	350	8 - 23	590.0
32"	800A	800	240	1410	625	655	130	-	90	130	25 x 14	F30	298	350	8 - 23	685.0
34"	850A	850	240	1470	655	685	130	-	95	130	25 x 14	F30	298	350	8 - 23	797.0
36"	900A	900	240	1585	690	735	160	-	100	160	28 x 16	F35	356	415	8 - 33	905.0
40"	1000A	1000	240	1725	760	805	160	-	110	160	32 x 18	F35	356	415	8 - 33	1210.0

unit : mm

Double Eccentric Cargo Oil Lug Type

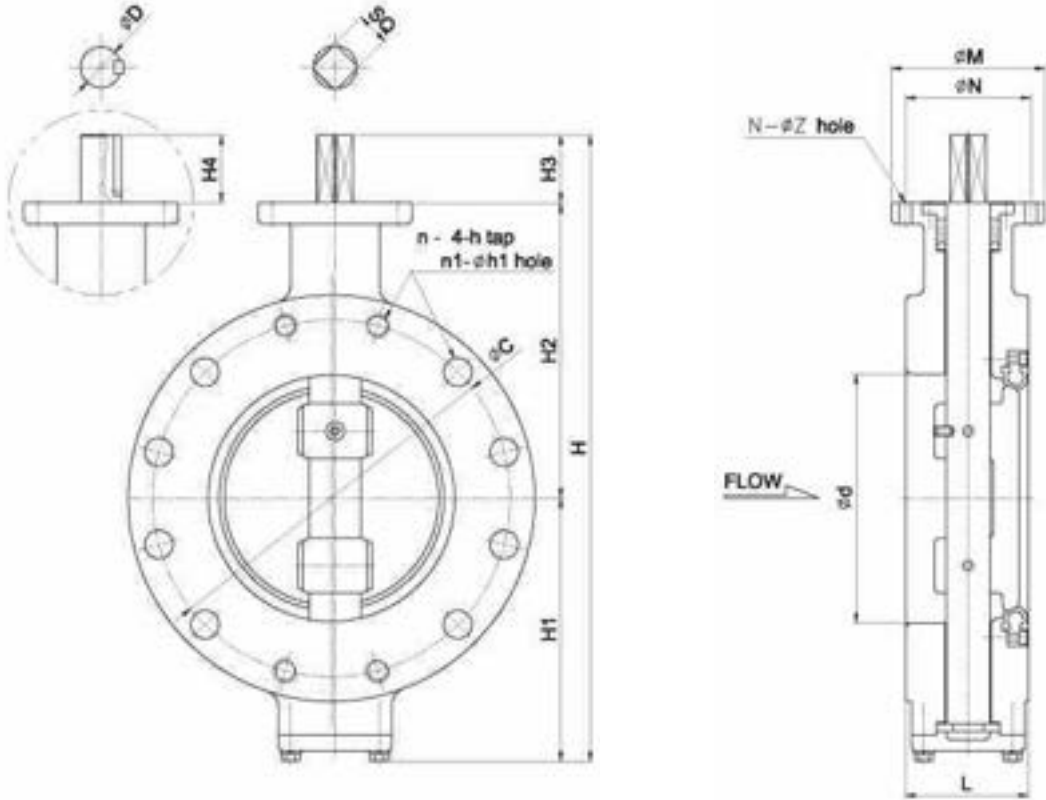


VALVE DIMENSIONS

unit : mm

SIZE		ϕ d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							SQUARE	ROUND			TYPE	ϕ N	ϕ M	N- ϕ Z	
									SQ	ϕ D	H4					
2"	50A	62	44	276	113	130	33	12	16	33	5 x 5	F07	70	90	4 - 9	7.5
2.5"	65A	75	46	286	118	135	33	12	16	33	5 x 5	F07	70	90	4 - 9	9.0
3"	80A	90	62	300	127	140	33	12	19	33	6 x 6	F07	70	90	4 - 9	11.0
4"	100A	106	65	339	146	160	33	12	19	33	6 x 6	F07	70	90	4 - 9	15.0
5"	125A	128	70	407	162	190	55	17	22	55	8 x 7	F10	102	125	4 - 12	20.0
6"	150A	150	90	459	189	215	55	17	25	55	8 x 7	F10	102	125	4 - 12	29.5
8"	200A	202	100	509	214	240	55	27	32	55	10 x 8	F10	102	125	4 - 12	42.0
10"	250A	250	110	606	256	285	65	27	40	65	12 x 8	F14	140	175	4 - 18	60.0
12"	300A	300	110	655	275	315	65	27	40	65	12 x 8	F14	140	175	4 - 18	75.0
14"	350A	335	120	749	309	350	90	36	50	90	14 x 9	F16	165	210	4 - 22	87.0
16"	400A	390	130	820	350	380	90	36	50	90	14 x 9	F16	165	210	4 - 22	125.0
18"	450A	440	150	890	383	417	90	46	55	90	16 x 10	F16	165	210	4 - 22	159.0
20"	500A	490	160	955	420	445	90	50	65	90	20 x 12	F16	165	210	4 - 22	200.0
22"	550A	540	170	1021	454	477	90	50	70	90	20 x 12	F16	165	210	4 - 22	280.0
24"	600A	594	200	1128	488	520	120	50	80	120	22 x 14	F25	254	300	8 - 18	345.0
26"	650A	644	210	1178	513	545	120	-	80	120	22 x 14	F25	254	300	8 - 18	410.0
28"	700A	700	220	1262	552	590	120	-	80	120	22 x 14	F25	254	300	8 - 18	520.0
30"	750A	750	230	1333	583	620	130	-	85	130	22 x 14	F30	298	350	8 - 23	675.0
32"	800A	800	240	1410	625	655	130	-	90	130	25 x 14	F30	298	350	8 - 23	795.0
34"	850A	850	240	1470	655	685	130	-	95	130	25 x 14	F30	298	350	8 - 23	900.0
36"	900A	900	240	1585	690	735	160	-	100	160	28 x 16	F35	356	415	8 - 33	1100.0
40"	1000A	1000	240	1725	760	805	160	-	110	160	32 x 18	F35	356	415	8 - 33	1250.0

Double Eccentric Cargo Oil Flange Type

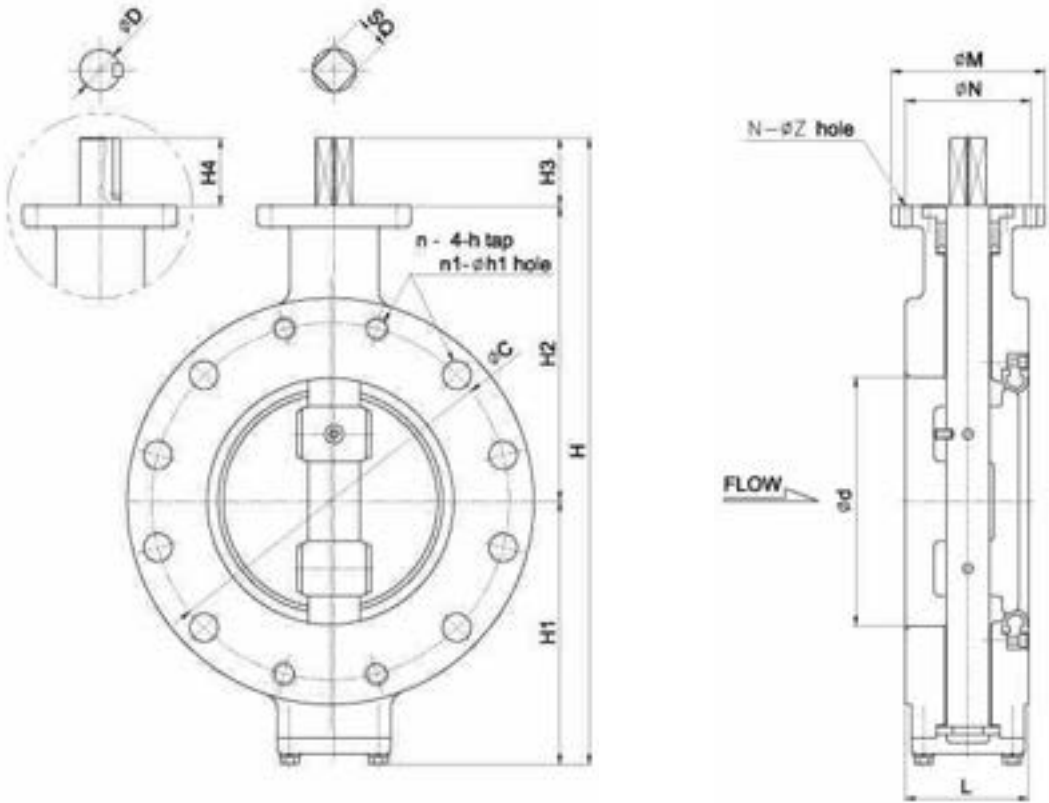


VALVE DIMENSIONS

unit : mm

SIZE		Ø d	L	H	H1	H2	H3	STEM				TOP FLANGE				WEIGHT (APPROX.) (kg)
inch	mm							SQUARE	ROUND			TYPE	Ø N	Ø M	N-Ø Z	
									SQ	Ø D	H4					
2"	50A	62	44	276	113	130	33	12	16	33	5 x 5	F07	70	90	4 - 9	8.0
2.5"	65A	75	46	286	118	135	33	12	16	33	5 x 5	F07	70	90	4 - 9	10.0
3"	80A	90	62	300	127	140	33	12	19	33	6 x 6	F07	70	90	4 - 9	12.0
4"	100A	106	65	339	146	160	33	12	19	33	6 x 6	F07	70	90	4 - 9	16.0
5"	125A	128	70	407	162	190	55	17	22	55	8 x 7	F10	102	125	4 - 12	22.0
6"	150A	150	90	459	189	215	55	17	25	55	8 x 7	F10	102	125	4 - 12	38.0
8"	200A	202	100	509	214	240	55	27	32	55	10 x 8	F10	102	125	4 - 12	45.0
10"	250A	250	110	606	256	285	65	27	40	65	12 x 8	F14	140	175	4 - 18	65.0
12"	300A	300	110	655	275	315	65	27	40	65	12 x 8	F14	140	175	4 - 18	84.0
14"	350A	335	120	749	309	350	90	36	50	90	14 x 9	F16	165	210	4 - 22	100.0
16"	400A	390	130	820	350	380	90	36	50	90	14 x 9	F16	165	210	4 - 22	145.0
18"	450A	440	150	890	383	417	90	46	55	90	16 x 10	F16	165	210	4 - 22	185.0
20"	500A	490	160	955	420	445	90	50	65	90	20 x 12	F16	165	210	4 - 22	245.0
22"	550A	540	170	1021	454	477	90	50	70	90	20 x 12	F16	165	210	4 - 22	295.0
24"	600A	594	200	1128	488	520	120	50	80	120	22 x 14	F25	254	300	8 - 18	370.0
26"	650A	644	210	1178	513	545	120	-	80	120	22 x 14	F25	254	300	8 - 18	460.0
28"	700A	700	220	1262	552	590	120	-	80	120	22 x 14	F25	254	300	8 - 18	555.0
30"	750A	750	230	1333	583	620	130	-	85	130	22 x 14	F30	298	350	8 - 23	705.0
32"	800A	800	240	1410	625	655	130	-	90	130	25 x 14	F30	298	350	8 - 23	865.0
34"	850A	850	240	1470	655	685	130	-	95	130	25 x 14	F30	298	350	8 - 23	988.0
36"	900A	900	240	1585	690	735	160	-	100	160	28 x 16	F35	356	415	8 - 33	1185.0
40"	1000A	1000	240	1725	760	805	160	-	110	160	32 x 18	F35	356	415	8 - 33	1340.0

Double Eccentric Cargo Oil Butterfly Valve



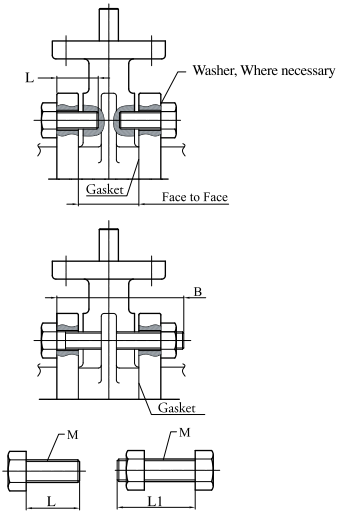
FLANGE DIMENSIONS

unit : mm

SIZE		JIS 10K			JIS 16K			JIS 20K			ANSI 150LB			ANSI 300LB			BS 4504 PN10			BS 4504 PN16		
inch	mm	ø C	n	h	ø C	n	h	ø C	n	h	ø C	n	h	ø C	n	h	ø C	n	h	ø C	n	h
2"	50	120	4	M16	120	8	M16	120	8	M16	120.5	4	$\frac{5}{8}$	127	8	$\frac{5}{8}$	125	4	M16	125	4	M16
2.5"	65	140	4	M16	140	8	M16	140	8	M16	139.5	4	$\frac{5}{8}$	149	8	$\frac{3}{4}$	145	4	M16	145	4	M16
3"	80	150	8	M16	160	8	M20	160	8	M20	152.5	4	$\frac{5}{8}$	168	8	$\frac{3}{4}$	160	8	M16	160	8	M16
4"	100	175	8	M16	185	8	M20	185	8	M20	190.5	8	$\frac{5}{8}$	200	8	$\frac{3}{4}$	180	8	M16	180	8	M16
5"	125	210	8	M20	225	8	M22	225	8	M22	216.5	8	$\frac{3}{4}$	235	8	$\frac{3}{4}$	210	8	M16	210	8	M16
6"	150	240	8	M20	260	12	M22	260	12	M22	241.5	8	$\frac{3}{4}$	270	12	$\frac{3}{4}$	240	8	M20	240	8	M20
8"	200	290	12	M20	305	12	M22	305	12	M22	298.5	8	$\frac{3}{4}$	330	12	$\frac{7}{8}$	295	8	M20	295	12	M20
10"	250	355	12	M22	380	12	M24	380	12	M24	362.0	12	$\frac{7}{8}$	387.5	16	1	350	12	M20	355	12	M24
12"	300	400	16	M22	430	16	M24	430	16	M24	432.0	12	$\frac{7}{8}$	451	16	$1\frac{1}{8}$	400	12	M20	410	12	M24
14"	350	445	16	M22	480	16	M30	480	16	M30	476.0	12	1	514.5	20	$1\frac{1}{8}$	460	16	M20	470	16	M24
16"	400	510	16	M24	540	16	M30	540	16	M30	539.5	16	1	571.5	20	$1\frac{1}{4}$	515	16	M24	525	16	M27
18"	450	565	20	M24	605	20	M30	605	20	M30	578.0	16	$1\frac{1}{8}$	628.5	24	$1\frac{1}{4}$	565	20	M24	585	20	M27
20"	500	620	20	M24	660	20	M30	660	20	M30	635.0	20	$1\frac{1}{8}$	686	24	$1\frac{1}{4}$	620	20	M24	650	20	M30
22"	550	680	20	M30	720	20	M36	720	20	M36	392.2	20	$1\frac{1}{4}$	692.15	20	$1\frac{1}{4}$	-	-	-	-	-	-
24"	600	730	24	M30	770	24	M36	770	24	M36	749.5	20	$1\frac{1}{4}$	813	24	$1\frac{1}{2}$	725	20	M27	770	20	M33
26"	650	780	24	M30	820	24	M36	820	24	M36	806.5	24	$1\frac{1}{4}$	806.45	24	$1\frac{1}{2}$	-	-	-	-	-	-
28"	700	840	24	M30	875	24	M39	875	24	M39	863.5	28	$1\frac{1}{2}$	840	24	M27	840	24	M33	-	-	-
30"	750	900	24	M30	935	24	M39	935	24	M39	914.5	28	$1\frac{1}{4}$	914.4	28	$1\frac{1}{2}$	-	-	-	-	-	-
32"	800	950	28	M30	990	24	M45	990	24	M45	978.0	28	$1\frac{1}{2}$	977.9	28	$1\frac{1}{2}$	950	24	M30	950	24	M36
34"	850	1000	28	M30	1040	24	M45	1040	24	M45	1029.0	32	$1\frac{1}{2}$	1028.7	32	$1\frac{1}{2}$	-	-	-	-	-	-
36"	900	1050	28	M30	1090	28	M45	1090	28	M45	1086.0	32	$1\frac{1}{2}$	1085.65	32	$1\frac{1}{2}$	1050	28	M30	1050	28	M36
40"	1000	1160	28	M36	1210	28	M52	1210	28	M52	1200.0	36	$1\frac{1}{2}$	1200.15	36	$1\frac{1}{2}$	1160	28	M33	1170	28	M39

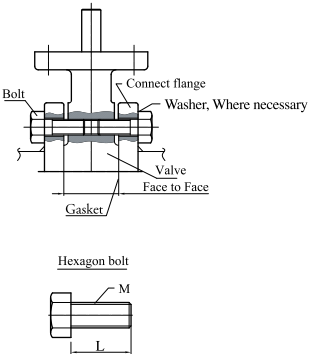
Bolting Dimensions

SEMI-LUG Type



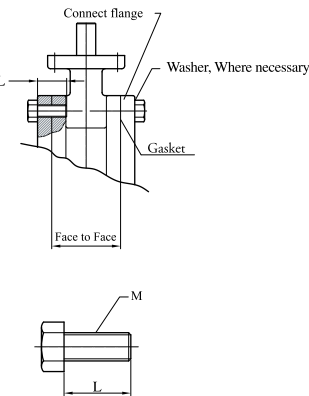
SIZE	Face to Face	JIS 5K			JIS 10K			JIS 16K		
		Bolt Q'ty	Bolt Size	Pipe flange thickness	Bolt Q'ty	Bolt Size	Pipe flange thickness	Bolt Q'ty	Bolt Size	Pipe flange thickness
DN50	44	4	M12	14	4	M16	16	8	M16	16
DN65	46	4	M12	14	4	M16	18	8	M16	18
DN80	62	4	M16	14	8	M16	18	8	M20	20
DN100	65	8	M16	16	8	M16	18	8	M20	22
DN125	70	8	M16	16	8	M20	20	8	M22	22
DN150	90	8	M16	18	8	M20	22	12	M22	24
DN200	100	8	M20	20	12	M20	22	12	M22	26
DN250	110	12	M20	22	12	M22	24	12	M24	28
DN300	110	12	M20	22	16	M22	24	16	M24	30
DN350	120	12	M22	24	16	M22	26	16	M30	34
DN400	130	16	M22	24	16	M24	28	16	M30	38
DN450	150	16	M22	24	20	M24	30	20	M30	40
DN500	160	20	M22	24	20	M24	30	20	M30	42
DN550	170	20	M24	26	20	M30	32	20	M36	44
DN600	200	20	M24	26	24	M30	32	24	M36	46
DN650	210	24	M24	26	24	M30	34	24	M36	48
DN700	220	24	M24	26	24	M30	34	24	M39	50
DN750	230	24	M30	28	24	M30	36	24	M39	52
DN800	240	24	M30	28	28	M30	36	24	M45	54
DN850	240	24	M30	28	28	M30	36	24	M45	56
DN900	240	24	M30	30	28	M30	38	28	M45	58
DN1000	240	28	M30	32	28	M36	40	28	M52	62

LUG Type



SIZE	Face to Face	JIS 5K			JIS 10K			JIS 16K		
		Bolt Q'ty	Bolt Size	Pipe flange thickness	Bolt Q'ty	Bolt Size	Pipe flange thickness	Bolt Q'ty	Bolt Size	Pipe flange thickness
DN50	44	4	M12	14	4	M16	16	8	M16	16
DN65	46	4	M12	14	4	M16	18	8	M16	18
DN80	62	4	M16	14	8	M16	18	8	M20	20
DN100	65	8	M16	16	8	M16	18	8	M20	22
DN125	70	8	M16	16	8	M20	20	8	M22	22
DN150	90	8	M16	18	8	M20	22	12	M22	24
DN200	100	8	M20	20	12	M20	22	12	M22	26
DN250	110	12	M20	22	12	M22	24	12	M24	28
DN300	110	12	M20	22	16	M22	24	16	M24	30
DN350	120	12	M22	24	16	M22	26	16	M30	34
DN400	130	16	M22	24	16	M24	28	16	M30	38
DN450	150	16	M22	24	20	M24	30	20	M30	40
DN500	160	20	M22	24	20	M24	30	20	M30	42
DN550	170	20	M24	26	20	M30	32	20	M36	44
DN600	200	20	M24	26	24	M30	32	24	M36	46
DN650	210	24	M24	26	24	M30	34	24	M36	48
DN700	220	24	M24	26	24	M30	34	24	M39	50
DN750	230	24	M30	28	24	M30	36	24	M39	52
DN800	240	24	M30	28	28	M30	36	24	M45	54
DN850	240	24	M30	28	28	M30	36	24	M45	56
DN900	240	24	M30	30	28	M30	38	28	M45	58
DN1000	240	28	M30	32	28	M36	40	28	M52	62

FLANGE Type



SIZE	Face to Face	JIS 5K			JIS 10K			JIS 16K		
		Bolt Q'ty	Bolt Size	Pipe flange thickness	Bolt Q'ty	Bolt Size	Pipe flange thickness	Bolt Q'ty	Bolt Size	Pipe flange thickness
DN50	44	4	M12	14	4	M16	16	8	M16	16
DN65	46	4	M12	14	4	M16	18	8	M16	18
DN80	62	4	M16	14	8	M16	18	8	M20	20
DN100	65	8	M16	16	8	M16	18	8	M20	22
DN125	70	8	M16	16	8	M20	20	8	M22	22
DN150	90	8	M16	18	8	M20	22	12	M22	24
DN200	100	8	M20	20	12	M20	22	12	M22	26
DN250	110	12	M20	22	12	M22	24	12	M24	28
DN300	110	12	M20	22	16	M22	24	16	M24	30
DN350	120	12	M22	24	16	M22	26	16	M30	34
DN400	130	16	M22	24	16	M24	28	16	M30	38
DN450	150	16	M22	24	20	M24	30	20	M30	40
DN500	160	20	M22	24	20	M24	30	20	M30	42
DN550	170	20	M24	26	20	M30	32	20	M36	44
DN600	200	20	M24	26	24	M30	32	24	M36	46
DN650	210	24	M24	26	24	M30	34	24	M36	48
DN700	220	24	M24	26	24	M30	34	24	M39	50
DN750	230	24	M30	28	24	M30	36	24	M39	52
DN800	240	24	M30	28	28	M30	36	24	M45	54
DN850	240	24	M30	28	28	M30	36	24	M45	56
DN900	240	24	M30	30	28	M30	38	28	M45	58
DN1000	240	28	M30	32	28	M36	40	28	M52	62

Eccentric Disc Seated Butterfly Valves

The Single or Double Eccentric Design

It is defined as single eccentric in case 'CENTER OF SHAFT' is in line with 'Center of Valve' while center of shaft is off set from center of valve in case double eccentric.

Applicable for butterfly valve with interchangeable soft seat.

- Circular unbroken seats on disc and in body.
- Simple maintenance.
- Change of seat ring by dismantling of the retaining ring only.
- Wide variety of seat materials available.

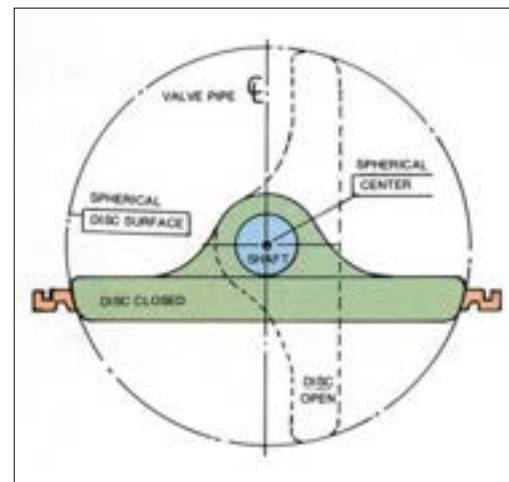
Suitable for installation in Medium Range Pressure System ($<40\text{kg/cm}^2$)

No limitation on corrosiveness of medium when proper seat material chosen.

- Flow characteristics and pressure-drop less favorable than concentric design
- Operating torque of single eccentric is higher than concentric design but substantially lower than double eccentric design

Not suitable for FIRE SAFE.

Suitable for large size diameter valve.



Classification by Connection type

Appearance	Type	General Characteristics
	AV-EWR (WAFFER)	• General Applications - Water works, power plants, heating and ventilation, Chemical plant Shipbuilding etc. • Valve to be installed with long bolts between the flanges at adjacent pipe without flange on the valve. • Easy handling and light weight. • Easy installation, less bolt quantity and low cost. • Inconvenient maintenance of adjacent pipe.
	AV-EFR (FLANGED)	• General Applications - General piping, water works, power plants, large diameter piping. • Both ends with complete flange. • Suitable for general pipe flange. • Suitable for large diameter piping. • Heavy weight. • Same installation as ordinary valve.

Eccentric Disc Seated Butterfly valves

Schema of Disc seated type

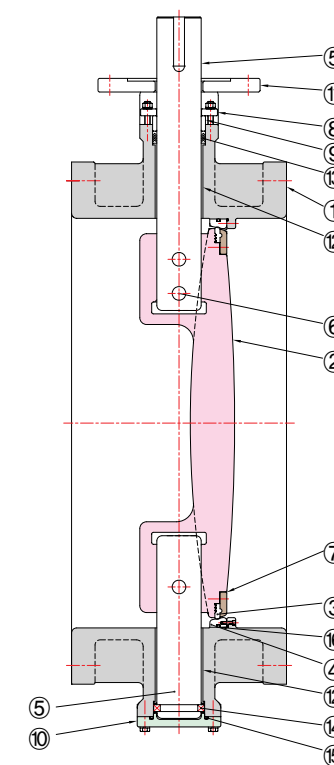
- Basic Design : AWWA C-504 or BS 5155
- Application : pipeline for power plants, water works, desalination plants, etc.
- The valve shall be capable of bi-directional sealing
- Valves are constructed with two shafts and bearing with self lubrication, and operate with low torque.
- Wide variety of body materials available.

Operations

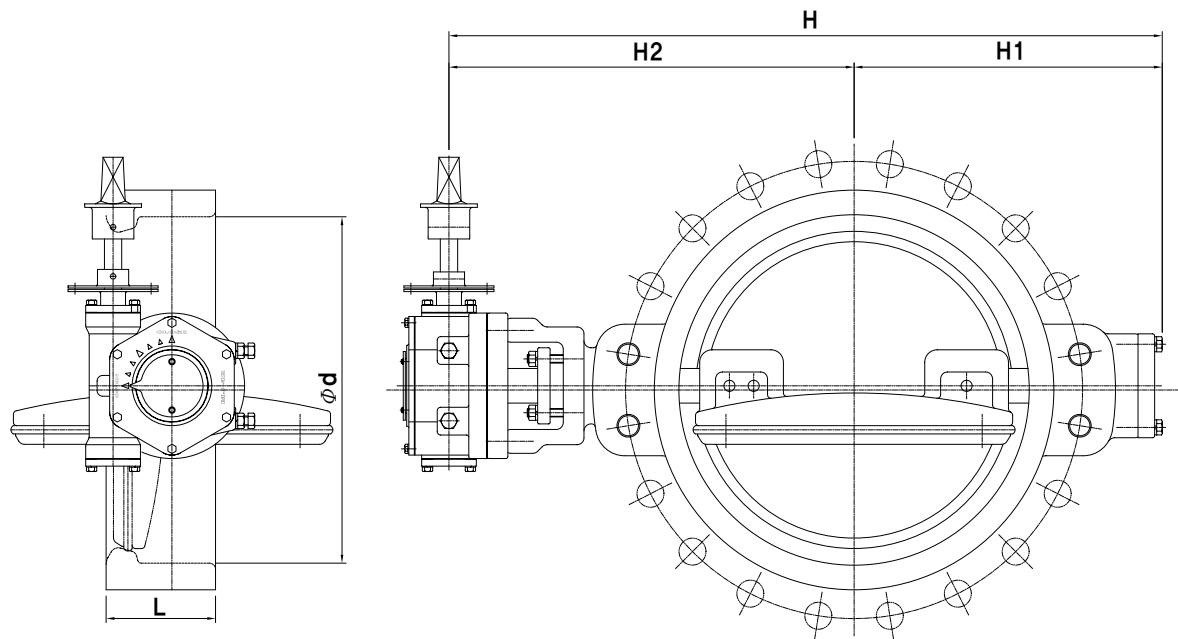
The following operation of the valve is available, the choice depending upon the valve location and the type of work and service for which the valve is used.

- Manual lever operation
- Manual worm gear operation
- Single or double acting pneumatic actuator operation
- Hydraulic actuator operation
- Electric motor actuator operation

No	PART NAME	METERIAL
1	BODY	Ductile iron / Cast steel Stainless steel / Ni-AL Bronze
2	DISC	Stainless steel / Ductile iron / Ni-AL Bronze
3	SEAT	NBR, EPDM, VITON
4	BODY SEAT	Stainless steel / Ni-AL Bronze
5	STEM	Stainless steel (304, 316, 316L, 630 (17-4PH), Super duplex, Monel)
6	DISC PIN	Stainless steel
7	RETAINER	Stainless steel / Ni-AL Bronze / Carbon steel
8	PACKING GLAND	Ductile iron / Cast steel Stainless steel / Ni-AL Bronze
9	GLAND RING	Bronze / Stainless steel
10	BOTTOM COVER	Ductile iron / Cast steel Stainless steel / Ni-AL Bronze
11	STAND	Carbon steel / Cast steel Ductile iron / Stainless steel
12	STEM BEATING	Stainless steel, Bronze, Oilless Bearing
13	V-PACKING	NBR, EPDM, VITON
14	THRUST PLATE	Bronze / Stainless steel
15	BOTTOM O-RING	NBR, EPDM, VITON
16	BODY SEAT O-RING	NBR, EPDM, VITON



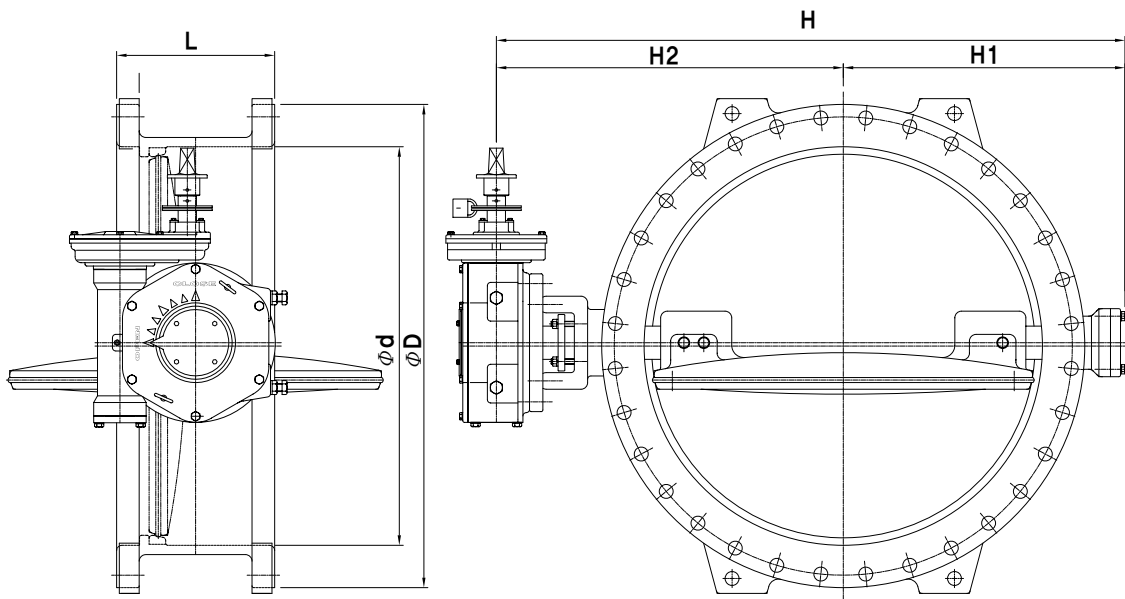
Eccentric Disc Seated Wafer Type



VALVE DIMENSIONS

SIZE		Ø d	L	H	H1	H2	APPROX WEIGHT(kg)
mm	inch						
80	3"	80	64	375	150	225	12
100	4"	100	64	392	160	232	15
125	5"	125	70	445	175	270	18
150	6"	150	76	473	185	288	25
200	8"	200	89	584	235	349	36
250	10"	250	114	622	255	367	56
300	12"	300	114	733	305	428	68
350	14"	350	127	779	330	449	93
400	16"	400	140	829	350	479	121
450	18"	450	152	934	410	524	144
500	20"	500	152	1045	445	600	160
550	22"	550	152	1130	490	640	228
600	24"	600	178	1245	545	700	284
650	26"	650	178	1290	565	725	327
700	28"	700	229	1330	590	740	388
750	30"	750	229	1365	615	750	430
800	32"	800	241	1410	640	770	550
900	36"	900	241	1545	680	865	680
1000	40"	1000	300	1715	770	945	810
1100	44"	1100	300	1860	820	1040	940
1200	48"	1200	350	1945	875	1070	1225
1300	52"	1300	350	2080	925	1155	1315
1350	54"	1350	350	2120	950	1170	1430
1400	56"	1400	390	2205	1015	1190	1560
1500	60"	1500	390	2390	1075	1315	1650
1600	64"	1600	440	2550	1160	1390	1770
1650	66"	1650	440	2615	1190	1425	1980
1800	72"	1800	490	2795	1230	1565	2200
2000	80"	2000	540	2970	1355	1615	2330

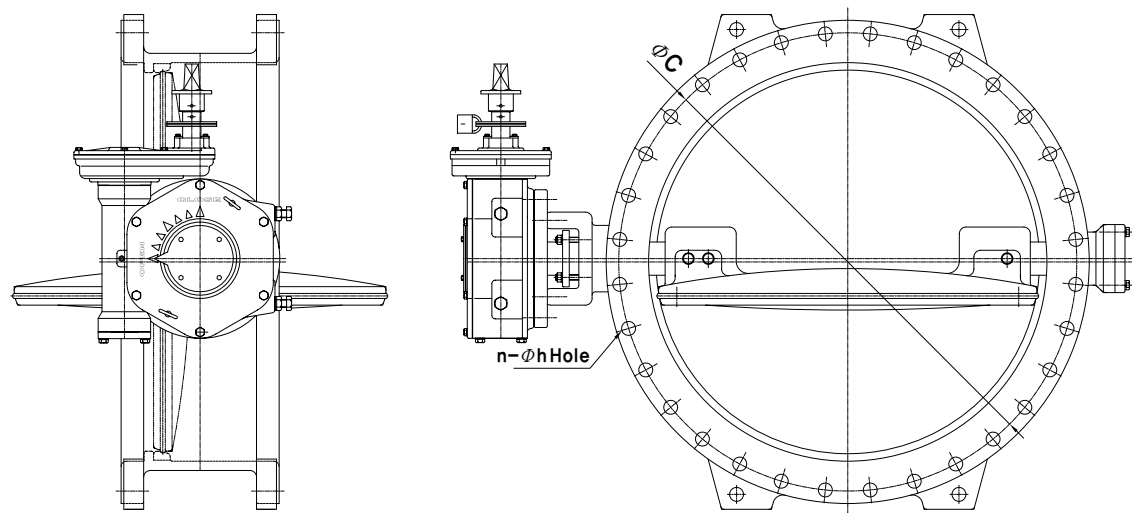
Eccentric Disc Seated Flanged Type



VALVE DIMENSIONS

SIZE		Ø d	L			H	H1	H2	APPROX WEIGHT(kg)
mm	inch		AWWA C504	BS5155(Short)	BS5155(Long)				
80	3"	80	127	114	180	375	150	225	19
100	4"	100	127	127	190	392	160	232	25
125	5"	125	127	140	200	445	175	270	35
150	6"	150	127	140	210	473	185	288	52
200	8"	200	152	152	230	584	235	349	70
250	10"	250	203	165	250	622	255	367	84
300	12"	300	203	178	270	733	305	428	117
350	14"	350	203	190	290	779	330	449	148
400	16"	400	203	216	310	829	350	479	203
450	18"	450	203	222	330	934	410	524	265
500	20"	500	203	229	350	1045	445	600	391
550	22"	550	203	229	350	1130	490	640	487
600	24"	600	203	267	390	1245	545	700	620
650	26"	650	203	267	390	1290	565	725	685
700	28"	700	305	292	430	1330	590	740	813
750	30"	750	305	292	430	1365	615	750	897
800	32"	800	305	318	470	1410	640	770	1140
900	36"	900	305	330	510	1545	680	865	1302
1000	40"	1000	305	410	550	1715	770	945	1540
1100	44"	1100	305	410	550	1860	820	1040	1720
1200	48"	1200	381	470	630	1945	875	1070	2100
1300	52"	1300	381	470	630	2080	925	1155	2400
1350	54"	1350	381	470	630	2120	950	1170	2850
1400	56"	1400	381	530	710	2205	1015	1190	3350
1500	60"	1500	381	530	710	2390	1075	1315	3746
1600	64"	1600	381	600	790	2550	1160	1390	5200
1650	66"	1650	457	600	790	2615	1190	1425	5900
1800	72"	1800	457	670	870	2795	1230	1565	6700
2000	80"	2000	457	760	950	2970	1355	1615	7800
2100	84"	2100	457	760	950	3110	1430	1680	8900
2400	96"	2400	650	760	950	4085	1970	2115	14800
2800	112"	2800	650	760	950	4230	2050	2180	24000
3000	120"	3000	760	760	950	4310	2100	2210	31000
3500	140"	3500	760	800	1350	5460	2700	2760	40100
4000	160"	4000	900	900	1350	6210	3200	3010	48500

Eccentric Disc Seated Flanged Type



FLANGE DIMENSION

SIZE		150LB			300LB			JIS 10K				JIS 16K				PN6			PN10			PN16			PN25		
mm	inch	φC	n	h	φC	n	h	φD	φC	n	h	φD	φC	n	h	φC	n	h	φC	n	h	φC	n	h	φC	n	h
80	3"	152.4	4	5/8"	168.1	8	3/4"	185	150	8	M16	200	160	8	M20	150	4	M16	160	8	M16	160	8	M16	160	8	M16
100	4"	190.5	8	5/8"	200.2	8	3/4"	210	175	8	M16	225	185	8	M20	170	4	M16	180	8	M16	180	8	M16	190	8	M20
125	5"	215.9	8	3/4"	235	8	3/4"	250	210	8	M20	270	225	8	M22	200	8	M16	210	8	M16	210	8	M16	220	8	M24
150	6"	241.3	8	3/4"	269.7	12	3/4"	280	240	8	M20	305	260	12	M22	225	8	M16	240	8	M20	240	8	M20	250	8	M24
200	8"	298.5	8	3/4"	330.2	12	7/8"	330	290	12	M20	350	305	12	M22	280	8	M16	295	8	M20	295	12	M20	310	12	M24
250	10"	362	12	7/8"	387.4	16	1"	400	355	12	M22	430	380	12	M24	335	12	M16	350	12	M20	355	12	M24	370	12	M27
300	12"	431.8	12	7/8"	450.9	16	1 1/8"	445	400	16	M22	480	430	16	M24	395	12	M20	400	12	M20	410	12	M24	430	16	M27
350	14"	476.3	12	1"	514.4	20	1 1/8"	490	445	16	M22	540	480	16	M30	445	12	M20	460	16	M20	470	16	M24	490	16	M30
400	16"	539.8	16	1"	571.5	20	1 1/4"	560	510	16	M24	605	540	16	M30	495	16	M20	515	16	M24	525	16	M27	550	16	M33
450	18"	577.9	16	1 1/8"	628.7	24	1 1/4"	620	565	20	M24	675	605	20	M30	550	16	M20	565	20	M24	585	20	M27	600	20	M33
500	20"	635	20	1 1/8"	685.8	24	1 1/4"	675	620	20	M24	730	660	20	M30	600	20	M20	620	20	M24	650	20	M30	660	20	M33
550	22"	692.2	20	1 1/4"				745	680	20	M30	795	720	20	M36	-	-	-	-	-	-	-	-	-	-	-	-
600	24"	749.3	20	1 1/4"	812.8	24	1 1/2"	795	730	24	M30	845	770	24	M36	705	20	M24	725	20	M27	770	20	M33	770	20	M36
650	26"	806.5	24	1 1/4"				845	780	24	M30	895	820	24	M36	-	-	-	-	-	-	-	-	-	-	-	-
700	28"	863.6	28	1 1/4"				905	840	24	M30	960	875	24	M39	810	24	M24	840	24	M27	840	24	M33	875	24	M39
750	30"	914.4	28	1 1/4"				970	900	24	M30	1020	935	24	M39	-	-	-	-	-	-	-	-	-	-	-	-
800	32"	977.9	28	1 1/2"				1020	950	28	M30	1085	990	24	M45	920	24	M27	950	24	M30	950	24	M36	990	24	M45
900	36"	1085.9	32	1 1/2"				1120	1050	28	M30	1185	1090	28	M45	1020	24	M27	1050	28	M30	1050	28	M36	1090	28	M45
1000	40"	1200.2	36	1 1/2"				1235	1160	28	M36	1320	1210	28	M52	1120	28	M27	1160	28	M33	1170	28	M39	1210	28	M52
1100	44"	1314.5	40	1 1/2"				1345	1270	28	M36	1420	1310	32	M52	-	-	-	-	-	-	-	-	-	-	-	-
1200	48"	1422.4	44	1 1/2"				1465	1380	32	M36	1530	1420	32	M52	1340	32	M30	1380	32	M36	1390	32	M45	1420	32	M52
1300	52"	1536.7	44	13/4"				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1350	54"	1593.9	44	13/4"				1630	1540	36	M42	1700	1590	32	M56	-	-	-	-	-	-	-	-	-	-	-	-
1400	56"	-	-	-				-	-	-	-	-	-	-	-	1560	36	M33	1590	36	M39	1590	36	M45	1640	36	M56
1500	60"	1759.0	52	1 3/4"				1795	1700	40	M42	1865	1750	36	M56	-	-	-	-	-	-	-	-	-	-	-	-
1600	64"	-	-	-				-	-	-	-	-	-	-	-	1760	40	M33	1820	40	M45	1820	40	M52	1860	40	M56
1650	66"	1930.4	52	1 3/4"				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1800	72"	2095.5	60	1 3/4"				-	-	-	-	-	-	-	-	1970	44	M36	2020	44	M45	2020	44	M52	2070	44	M64
2000	80"	-	-	-				-	-	-	-	-	-	-	-	2180	48	M39	2230	48	M45	2230	48	M56	2300	48	M64
2100	84"	2425.7	64	2"				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2200	88"							-	-	-	-	-	-	-	-	2390	52	M39	-	-	-	-	-	-	-	-	
2400	96"	2755.9	68	2 1/4"				-	-	-	-	-	-	-	-	2600	56	M39	-	-	-	-	-	-	-	-	
2600	104"							-	-	-	-	-	-	-	-	2810	60	M45	-	-	-	-	-	-	-	-	
2800	112"	NOTE For DN2800 and larger, it is available upon request.																									
3000	120"																										
3500	140"																										
4000	160"																										

Eccentric Disc Seated Butterfly Valves

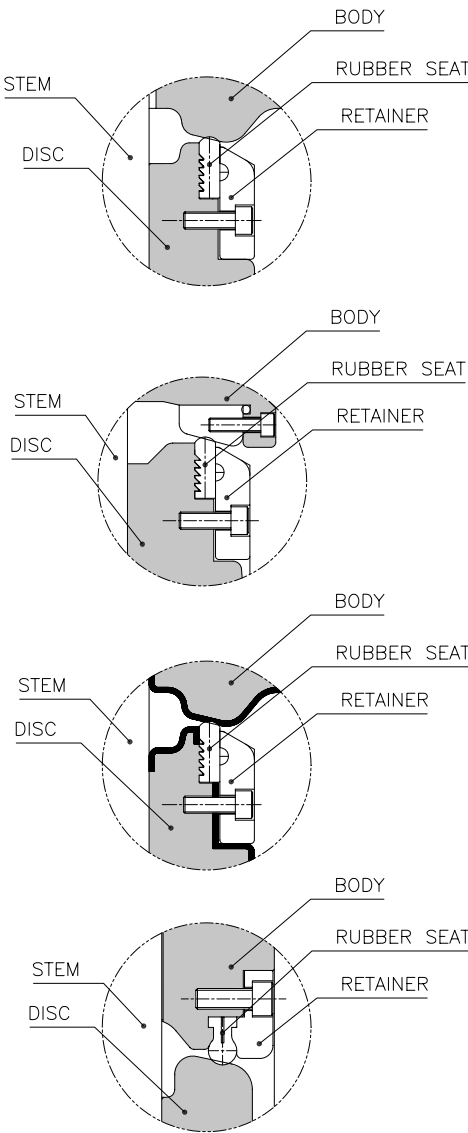
Applications

- Desalination
 - Power plant
 - District heating and cooling
 - Other
- Pump Isolation
 - Salt water service
 - Sea water

Hydro Test Specifications

Series	ISO Series	AWWA Series
"Hydrostatic Shell test"	1.5 x maximum service pressure	2.0 x maximum service pressure
"Hydrostatic Seat test"	1.1 x maximum service pressure	maximum service pressure

SEAT DESIGN



- It is designed rubber seat to be inserted in the disc.
 - More suitable rubber seat can be adopted in accordance with characteristics of fluids.
 - Rubber seat can be exchanged without dismantling of pipeline
- It is designed rubber seat to be inserted in the disc.
 - More suitable rubber seat can be adopted in accordance with characteristics of fluids.
 - Rubber seat can be exchanged without dismantling of pipeline
 - An additional ring is inserted in the body to replace seat ring on the contacting area between body seat and disc seat.
 - The respective maintenance work is possible for seat and disc seat.
- It is designed rubber seat to be inserted in the disc.
 - More suitable rubber seat can be adopted in accordance with characteristics of fluids.
 - Rubber seat can be exchanged without dismantling of pipeline
 - No corrosion prevention is available with special coating on the body and disc.
- It is designed rubber seat to be inserted in the body
 - It is more effective design for the disc material of stainless steel.
 - More suitable rubber seat can be adopted in accordance with characteristics of fluids.
 - No sealing provision is required on the disc.

Triple Eccentric Metal Seated Butterfly valves

Application in major industries

- Petroleum refinery
- Fossil power plants
- Petrochemical plants
- Fire safe line
- Nuclear power plants
- Cryogenic services
- Exhaust gas line & Steam line

Classification by Connection

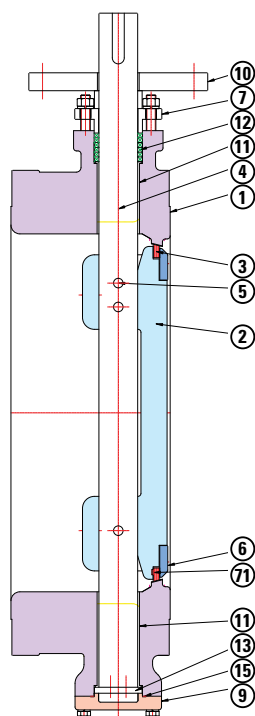
- AV-TMW Series (WAFER) : The valve to be installed with long bolts between the flanges at adjacent pipe without flange on the valve.
- AV-TML Series (LUG) : A pair of thread bolt holes to be provided upper and lower side in order to hold the valve.
- AV-TMF Series (FLANGE) : Both end with complete flange suitable to connect with general pipe flange.

Operations

The following operation of the valve is available. The choice of operation is depend on the valve location and the type of work and service for which the valve is provided.

- Manual lever operation
- Manual worm gear operation
- Single or double acting pneumatic actuator operation
- Hydraulic actuator operation
- Electric motor actuator operation

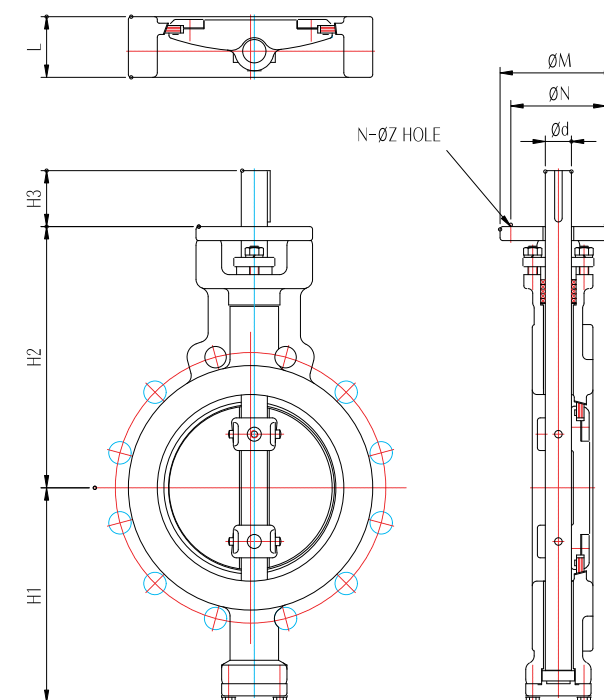
Construction and material



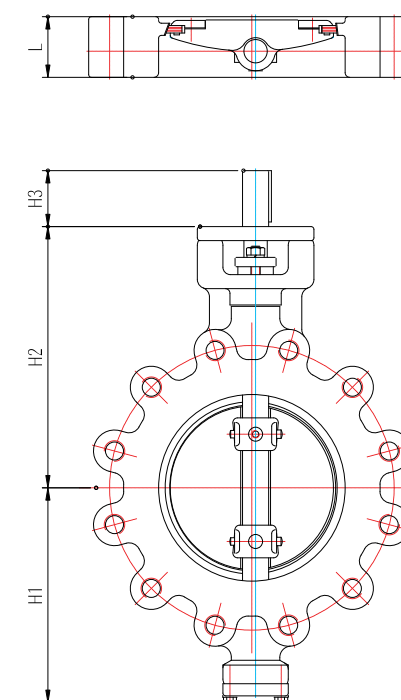
P.NO.	PART NAME	MATERIAL
1	BODY	Cast steel / Stainless steel Ni-Al-Bronze
2	DISC	Cast steel / Stainless steel Ni-Al-Bronze
3	SEAT	Stainless steel + Graphite Laminated Stainless steel / Monel
4	STEM	Stainless steel / Monel
5	DISC PIN	Stainless steel / Monel
6	RETAINER	Cast steel / Stainless steel Ni-Al-Bronze
7	PACKING GLAND	Cast steel / Stainless steel Ni-Al-Bronze
9	BOTTOM COVER	Cast steel / Stainless steel Ni-Al-Bronze
10	ACTUATOR STAND	Carbon steel
11	STEM BEARING	Stainless steel + Teflon Stainless steel / Bronze
12	PACKING	Graphite
13	THRUST PLATE	Stainless steel + Teflon Stainless steel / Bronze
15	BOTTOM GASKET	Graphite
71	SEAT GASKET	Graphite

Triple Eccentric Metal Seated Butterfly Valves

CLASS 150LB WAFER TYPE



CLASS 150LB LUG TYPE



VALVE DIMENSIONS

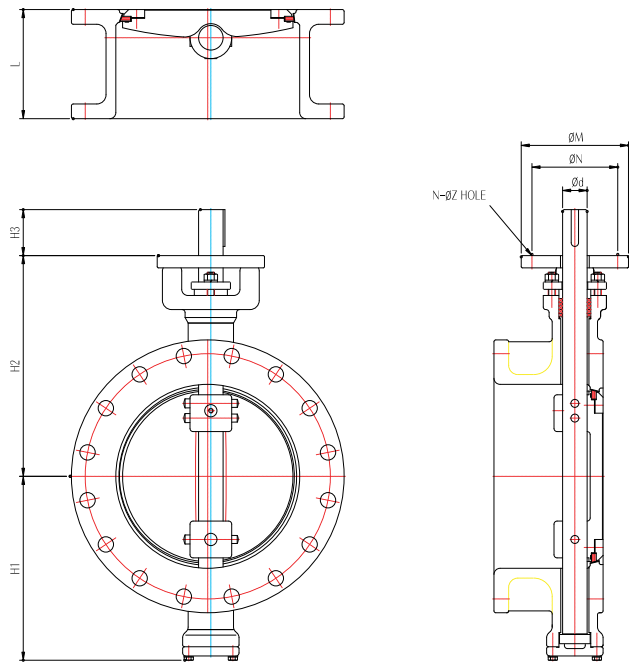
unit : mm

SIZE			L	H1	H2	STEM		TOP FLANGE			
WAFER (inch)	LUG (inch)	mm				KEY		TYPE	Ø N	Ø M	N-Ø Z
						H3	Ø d				
2"	2"	50	43	118	170	45	12	F07	70	90	4 - 9
2.5"	2.5"	65	46	129	177	45	12	F07	70	90	4 - 9
3"	3"	80	48	141	185	45	19	F07	70	90	4 - 9
4"	4"	100	54	161	200	45	19	F07	70	90	4 - 9
5"	5"	125	57	187	217	45	22	F07	70	90	4 - 9
6"	6"	150	57	203	240	45	22	F07	70	90	4 - 9
8"	8"	200	64	230	280	60	25	F10	102	125	4 - 12
10"	10"	250	71	270	320	60	32	F10	102	125	4 - 12
12"	12"	300	81	308	360	75	40	F14	140	175	4 - 18
14"	14"	350	92	340	390	75	40	F14	140	175	4 - 18
16"	16"	400	102	381	445	75	45	F14	140	175	4 - 18
18"	18"	450	114	407	490	100	50	F16	165	210	4 - 22
20"	20"	500	127	444	500	100	55	F16	165	210	4 - 22
22"	22"	550	154	484	530	100	65	F25	254	300	8 - 18
24"	24"	600	154	509	570	100	65	F25	254	300	8 - 18
	26"	650	210	545	645	120	85	F30	298	350	8 - 23
	28"	700	229	570	651	120	95	F30	298	350	8 - 23
	30"	750	230	600	684	120	100	F30	298	350	8 - 23
	32"	800	241	645	740	120	110	F30	298	350	8 - 23
	36"	900	241	699	769	150	120	F35	356	415	8 - 33
	40"	1000	300	770	870	150	140	F35	356	415	8 - 33
	44"	1100	350	835	930	150	160	F40	406	475	8 - 39
	48"	1200	350	898	995	220	180	F48	483	560	12 - 39

※ The flange dimension shall be conformed to ANSI 150LB, KS/JIS 5K/10K/16K, BS PN6/PN10/PN16, DIN PN6/PN10/PN16, ISO PN6/PN10/PN16 respectively.

Triple Eccentric Metal Seated Butterfly Valves

CLASS 150LB FLANGE TYPE



VALVE DIMENSIONS

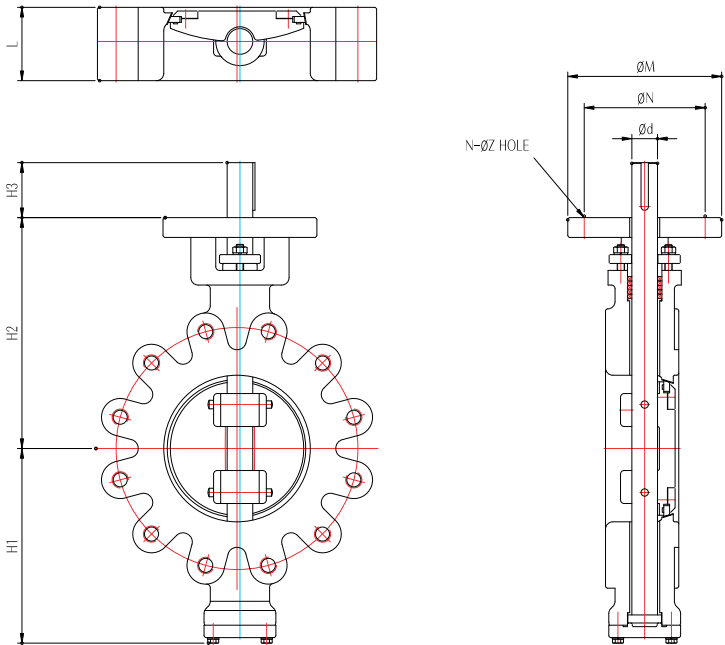
unit : mm

SIZE		L	H1	H2	STEM		TOP FLANGE			
inch	mm				KEY		TYPE	Ø N	Ø M	N - Ø Z
					H3	Ø d				
2"	50	108	118	170	45	12	F07	70	90	4 - 9
2.5"	65	112	129	177	45	12	F07	70	90	4 - 9
3"	80	114	141	185	45	19	F07	70	90	4 - 9
4"	100	127	161	200	45	19	F07	70	90	4 - 9
5"	125	140	187	217	45	22	F07	70	90	4 - 9
6"	150	140	203	240	45	22	F07	70	90	4 - 9
8"	200	152	230	280	60	25	F10	102	125	4 - 12
10"	250	165	270	320	60	32	F10	102	125	4 - 12
12"	300	178	308	360	75	40	F14	140	175	4 - 18
14"	350	190	340	390	75	40	F14	140	175	4 - 18
16"	400	216	381	445	75	45	F14	140	175	4 - 18
18"	450	222	407	490	100	50	F16	165	210	4 - 22
20"	500	229	444	500	100	55	F16	165	210	4 - 22
24"	600	267	509	570	100	65	F25	254	300	8 - 18
26"	650	292	545	645	120	85	F30	298	350	8 - 23
28"	700	292	570	651	120	95	F30	298	350	8 - 23
30"	750	318	600	684	120	100	F30	298	350	8 - 23
32"	800	318	645	740	120	110	F30	298	350	8 - 23
36"	900	330	699	769	150	120	F35	356	415	8 - 33
40"	1000	410	770	870	150	140	F35	356	415	8 - 33
44"	1100	470	835	930	150	160	F40	406	475	8 - 39
48"	1200	470	898	995	220	180	F48	483	560	12 - 39
54"	1350	470	1050	1200	220	190	F48	483	560	12 - 39
60"	1500	530	1105	1310	260	190	F60	603	686	20 - 39
72"	1800	670	1270	1315	260	220	F60	603	686	20 - 39
80"	2000	760	1340	1450	260	230	F60	603	686	20 - 39
96"	2400	760	1622	1950	280	280	F60	603	686	20 - 39
120"	3000	760	2005	2225	350	340	F60	603	686	20 - 39

※ The flange dimension shall be conformed to ANSI 150LB, KS/JIS 5K/10K/16K, BS PN6/PN10/PN16, DIN PN6/PN10/PN16, ISO PN6/PN10/PN16 respectively.

Triple Eccentric Metal Seated Butterfly Valves

CLASS 300LB LUG TYPE



VALVE DIMENSIONS

unit : mm

SIZE		L	H1	H2	STEM		TOP FLANGE			
inch	mm				KEY		TYPE	Ø N	Ø M	N - Ø Z
					H3	Ø d				
3"	80	48	151	191	45	22	F07	70	90	4 - 9
4"	100	54	176	215	45	22	F07	70	90	4 - 9
5"	125	57	191	228	45	22	F07	70	90	4 - 9
6"	150	59	223	252	60	25	F10	102	125	4 - 12
8"	200	73	251	305	75	35	F16	165	210	4 - 22
10"	250	83	290	350	75	45	F16	165	210	4 - 22
12"	300	92	340	380	100	55	F25	254	300	8 - 18
14"	350	117	365	406	100	60	F25	254	300	8 - 18
16"	400	133	415	486	100	70	F25	254	300	8 - 18
18"	450	149	445	525	120	75	F30	298	350	8 - 23
20"	500	159	473	585	120	90	F30	298	350	8 - 23
22"	550	171	490	610	120	100	F30	298	350	8 - 23
24"	600	181	550	657	150	110	F35	356	415	8 - 33
26"	650	210	579	680	150	110	F35	356	415	8 - 33
28"	700	229	632	728	180	120	F40	406	475	8 - 39
30"	750	230	659	756	180	135	F40	406	475	8 - 39
32"	800	241	700	800	180	140	F40	406	475	8 - 39
34"	850	241	730	840	180	140	F40	406	475	8 - 39
36"	900	241	770	885	220	150	F48	483	560	12 - 39
40"	1000	300	800	915	220	170	F48	483	560	12 - 39
44"	1100	350	840	980	260	200	F60	603	686	20 - 39
48"	1200	350	900	1030	260	220	F60	603	686	20 - 39

※ The flange dimension shall be conformed to ANSI 300LB, KS/JIS 20K, BS PN25, DIN PN20/PN25, ISO PN25 respectively.

02

GENERAL VALVE

VALVE
EXPERTS GROUP



Shipbuilding Valves

BRONZE PART / CAST IRON PART / CAST STEEL PART /
STAINLESS STEEL PART / BALL VALVES / STRAINER PART /
Control Panel With Air Reservoir / G/E Box, Wire handle /
Turbocharger Cut-Out Valve

| BRONZE PART

GLOBE VALVES



GLOBE VALVES

Standard	Pressure	Size
JS F7301	5K	15A-65A
JS F7303	16K	15A-40A

GLOBE CHECK VALVES

Standard	Pressure	Size
JS F7351	5K	15A-65A
JS F7409	16K	15A-40A

ANGLE VALVES



ANGLE VALVES

Standard	Pressure	Size
JS F7302	5K	15A-65A
JS F7304	16K	15A-40A

ANGLE CHECK VALVES

Standard	Pressure	Size
JS F7352	5K	15A-65A
JS F7410	16K	15A-40A

GATE VALVES



GATE VALVES (RISING STEM)

Standard	Pressure	Size
JS F7367	5K	15A-40A
JS F7368	10K	15A-40A

SWING CHECK VALVES



SWING CHECK VALVES

Standard	Pressure	Size
JS F7371	5K	25A-40A

LIFT CHECK VALVES



LIFT CHECK GLOBE VALVES

Standard	Pressure	Size
JS F7415	5K	15A-40A
JS F7417	16K	15A-40A

LIFT CHECK ANGLE VALVES

Standard	Pressure	Size
JS F7416	5K	15A-40A
JS F7418	16K	15A-40A

Shipbuilding Valves

| BRONZE PART

HOSE VALVES (15A, 25A)



HOSE GLOBE VALVES

Standard	Pressure	Size
.J5-F7334	5K	15A, 25A
	10K	15A, 25A

HOSE ANGLE VALVES

Standard	Pressure	Size
.J5-F7334	5K	15A, 25A
	10K	15A, 25A

HOSE VALVES (40A~65A)



HOSE GLOBE VALVES

Standard	Pressure	Size
.J5-F7334	5K	40A~65A
	10K	40A~65A

HOSE ANGLE VALVES

Standard	Pressure	Size
.J5-F7334	5K	40A~65A
	10K	40A~65A

SELF CLOSING VALVES



SELF CLOSING VALVES

Standard	Pressure	Size
.J5-F7398	5K	25A~50A
	10K	25A~50A

EMERGENCY SHUT-OFF VALVES



EMERGENCY SHUT-OFF VALVES

Standard	Pressure	Size
.J5-F7399	5K	15A~40A
	10K	15A~40A

FOOT VALVES



FOOT VALVES

Standard	Pressure	Size
.J5-F3056	5K	40A~80A

| CAST IRON PART

GLOBE VALVES



GLOBE VALVES

Standard	Pressure	Size
JS F7305	5K	50A~400A
JS F7307	10K	50A~400A
JS F7309	16K	50A~400A

GLOBE CHECK VALVES

Standard	Pressure	Size
JS F7353	5K	50A~400A
JS F7375	10K	50A~400A
JS F7377	16K	50A~400A

ANGLE VALVES



ANGLE VALVES

Standard	Pressure	Size
JS F7306	5K	50A~400A
JS F7308	10K	50A~400A
JS F7310	16K	50A~400A

ANGLE CHECK VALVES

Standard	Pressure	Size
JS F7354	5K	50A~400A
JS F7376	10K	50A~400A
JS F7378	16K	50A~400A

GATE VALVES



GATE VALVES (NON-RISING STEM)

Standard	Pressure	Size
JS F7363	5K	50A~400A
JS F7364	10K	50A~400A
JS F7369	16K	300A~400A

SWING CHECK VALVES



SWING CHECK VALVES

Standard	Pressure	Size
JS F7372	5K	50A~250A
JS F7373	10K	50A~200A

Shipbuilding Valves

| CAST IRON PART

LIFT CHECK GLOBE VALVES



LIFT CHECK GLOBE VALVES

Standard	Pressure	Size
JIS F7358	5K	50A~150A
	10K	50A~200A

LIFT CHECK ANGLE VALVES



LIFT CHECK ANGLE VALVES

Standard	Pressure	Size
JIS F7359	5K	50A~150A
	10K	50A~200A

SIGHT GLASS (FLAT TYPE)



SIGHT GLASS (FLAT TYPE)

Standard	Pressure	Size
	5K	40A~100A

| CAST STEEL PART

GLOBE VALVES



GLOBE VALVES

Standard	Pressure	Size
JS F7309R	5K	50A~300A
JS F7319	10K	50A~300A
JS F7309R	16K	50A~200A

GLOBE CHECK VALVES

Standard	Pressure	Size
JS F7353R	5K	50A~300A
JS F7471	10K	50A~300A
JS F7377R	16K	50A~200A

ANGLE VALVES



ANGLE VALVES

Standard	Pressure	Size
JS F7306R	5K	50A~300A
JS F7320	10K	50A~300A
JS F7310R	16K	50A~200A

ANGLE CHECK VALVES

Standard	Pressure	Size
JS F7354R	5K	50A~300A
JS F7472	10K	50A~300A
JS F7378R	16K	50A~200A

GLOBE VALVES (20K)



GLOBE VALVES

Standard	Pressure	Size
JS F7313	20K	32A~250A

GLOBE CHECK VALVES

Standard	Pressure	Size
JS F7473	20K	32A~250A

ANGLE VALVES (20K)



ANGLE VALVES

Standard	Pressure	Size
JS F7314	20K	32A~250A

ANGLE CHECK VALVES

Standard	Pressure	Size
JS F7474	20K	32A~250A

Shipbuilding Valves

| CAST STEEL PART

GLOBE / ANGLE VALVES (30K, 40K)



GLOBE VALVES

Standard	Pressure	Size
JS F7340	30K	32A-150A
JS F7317	40K	32A-150A

ANGLE VALVES

Standard	Pressure	Size
JS F7475	30K	32A-150A
JS F7318	40K	32A-150A

GATE VALVES



GATE VALVES (NON-RISING STEM)

Standard	Pressure	Size
JS F7366	10K	50A-400A

EMERGENCY SHUT-OFF VALVES



EMERGENCY SHUT-OFF VALVES

Standard	Pressure	Size
JS F7399	5K	50A-200A
	10K	50A-200A

STORM GLOBE VALVES



STORM GLOBE VALVES

Standard	Pressure	Size
JS F3060	5K	50A-150A

STORM ANGLE VALVES



STORM ANGLE VALVES

Standard	Pressure	Size
JS F3060R	5K	50A-150A

| STAINLESS STEEL PART

GLOBE VALVES



GLOBE VALVES

Standard	Pressure	Size
J5 F7301R	5K	15A~40A
J5 F7303R	16K	15A~40A

GLOBE CHECK VALVES

Standard	Pressure	Size
J5 F7351R	5K	15A~40A
J5 F7409R	16K	15A~40A

ANGLE VALVES



ANGLE VALVES

Standard	Pressure	Size
J5 F7302R	5K	15A~40A
J5 F7304R	16K	15A~40A

ANGLE CHECK VALVES

Standard	Pressure	Size
J5 F7352R	5K	15A~40A
J5 F7410R	16K	15A~40A

GLOBE VALVES (50A~300A)



GLOBE VALVES

Standard	Pressure	Size
J5 F7305R	5K	50A~300A
J5 F7319R	10K	50A~300A

GLOBE CHECK VALVES

Standard	Pressure	Size
J5 F7353R	5K	50A~300A
J5 F7375R	10K	50A~300A

ANGLE VALVES (50A~300A)



ANGLE VALVES

Standard	Pressure	Size
J5 F7306R	5K	50A~300A
J5 F7320R	10K	50A~300A

ANGLE CHECK VALVES

Standard	Pressure	Size
J5 F7354R	5K	50A~300A
J5 F7376R	10K	50A~300A

Shipbuilding Valves

| BALL VALVES

BALL VALVES



BALL VALVES

Standard	Pressure	Size
MAKER STANDARD	5K	15A~65A
	10K	15A~65A
	16K	50A~80A

Material

SCS13, SCS14, SCS16, CAC406

HOSE BALL VALVES



HOSE BALL VALVES

Standard	Pressure	Size
MAKER STANDARD	5K	15A, 25A, 40A~65A
	10K	15A, 25A, 40A~65A

Material

SCS13, SCS14, SCS16, CAC406

3-WAY BALL VALVES



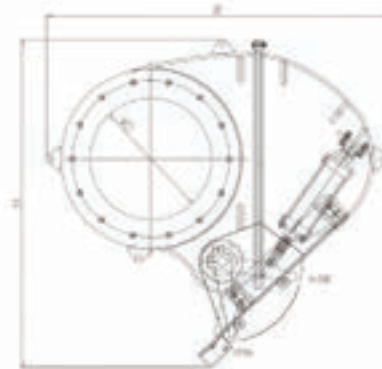
3-WAY BALL VALVES (T, L)

Standard	Pressure	Size
MAKER STANDARD	5K	15A~150A
	10K	15A~150A

Material

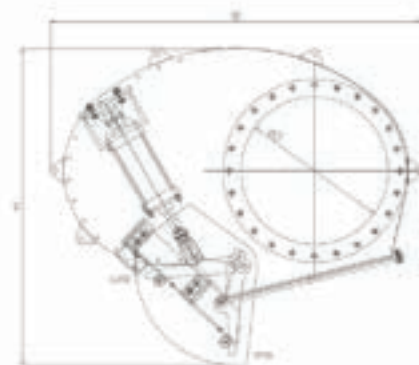
SC, CAC406

| Turbocharger Cut-Out Valve (AIR)

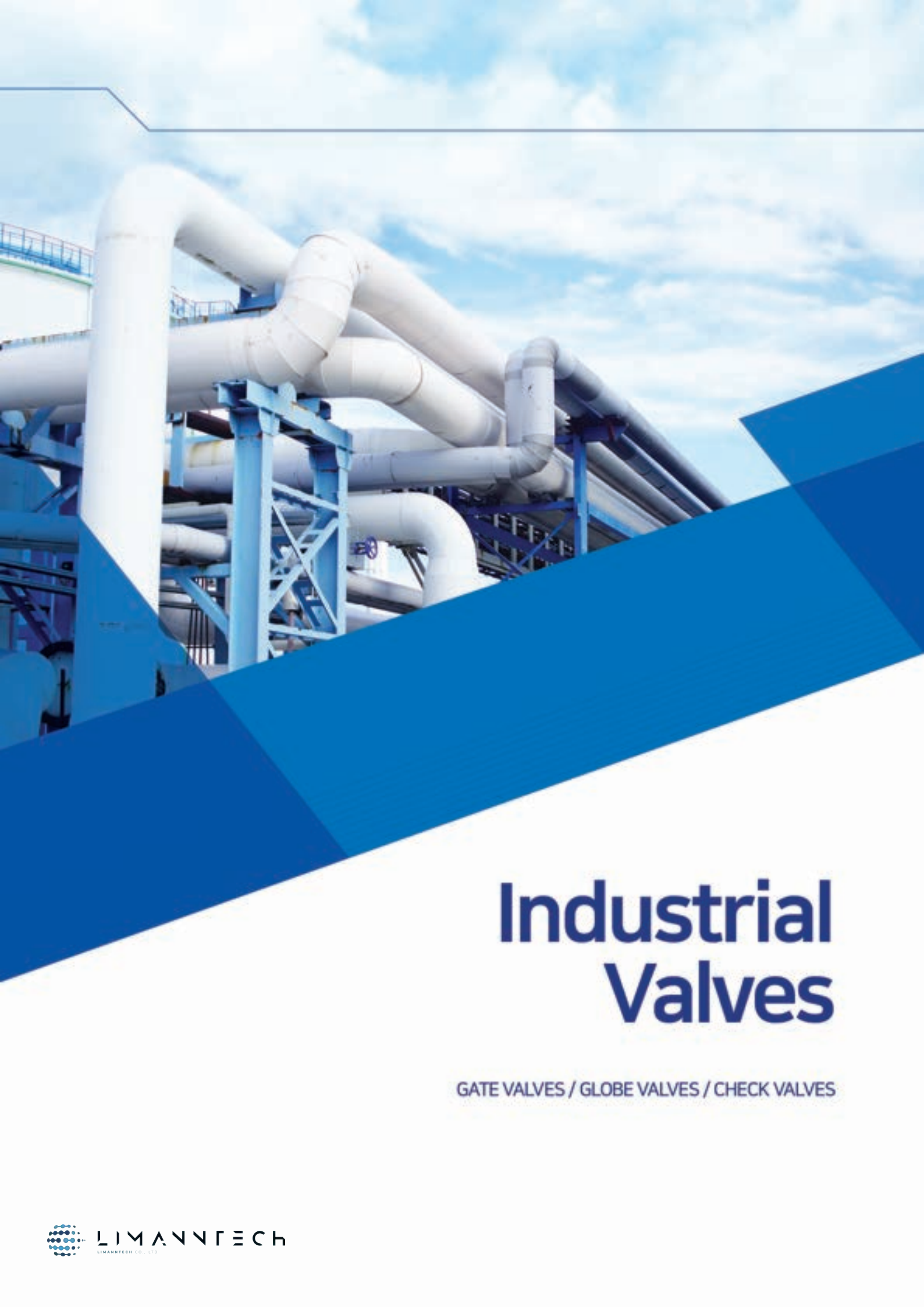


MODEL NO.	W	H	ØD
TPL 85	1500	1400	Ø534
TPL 91	1981	1700	Ø703
TCA 77	1450	1550	Ø490
MET 66	1380	1480	Ø380
MET 71 SE	1450	1520	Ø453

| Turbocharger Cut-Out Valve (TURBINE)



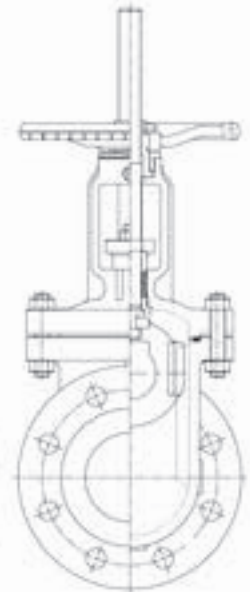
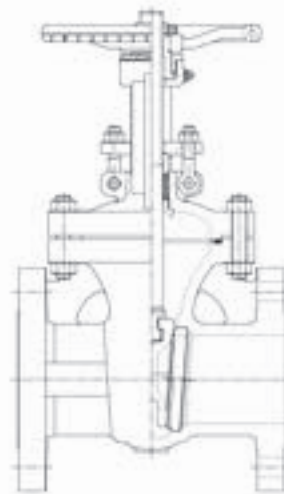
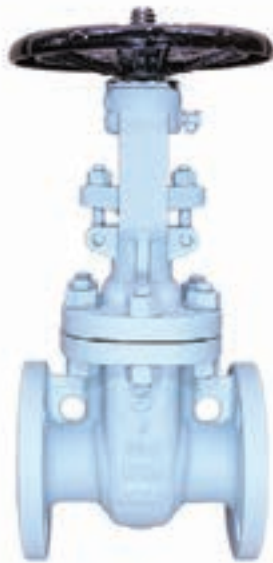
MODEL NO.	W	H	ØD
TPL 85	1700	1500	Ø680
TPL 91	2100	1800	Ø816
TCA 77	1600	1450	Ø510
MET 66	1450	1500	Ø480
MET 71 SE	1500	1550	Ø515



Industrial Valves

GATE VALVES / GLOBE VALVES / CHECK VALVES

| GATE VALVES



Production Range

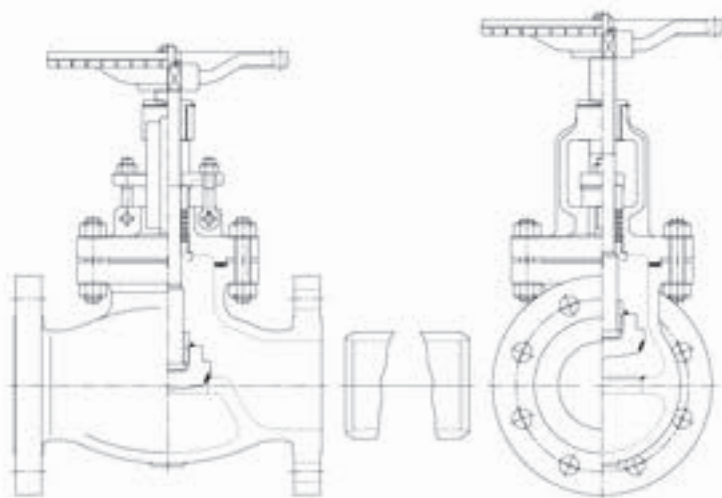
STANDARD	TYPE	CLASS	SIZE	CONNECTION
ANSI ASME	Bolted Bonnet	150# - 2500#	2" - 30"	Range RF / FF / RT, BW
	Pressure Seal Bonnet	600# - 2500#	2" - 30"	Range RF / FF / RT, BW
JIS KS	Bolted Bonnet	10K / 20K / 40K / 63K	50A - 750A	Range RF / FF / RT, BW
	Pressure Seal Bonnet	40K / 63K	50A - 750A	Range RF / FF / RT, BW

Material

Stainless Steel	Hi Alloy / Duplex	Carbon Steel	Low Alloy Steel
CF3 / SCS19	MONEL	WCB / SCPL2	WC6
CF3M / SCS16	INCONEL	LCB / SCPL1	WC9
CF8 / SCS13	HASTELLOY	LCC	C5
CF8M / SCS14	NI-AL BRONZE		C12
CG8M	DUPLEX		C12A
CF3C	SUPER DUPLEX		
OK20 / SCS18			
OK7M / SCS23			

Industrial Valves

| GLOBE VALVES



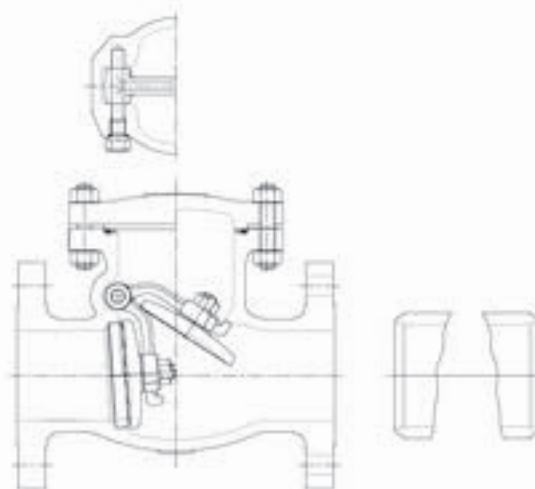
Production Range

STANDARD	TYPE	CLASS	SIZE	CONNECTION
ANSI ASME	Bolted Bonnet	150# - 2500#	2" - 30"	Flange (RF / FF / RT) / BW
	Pressure Seal Bonnet	600# - 2500#	2" - 30"	Flange (RF / FF / RT) / BW
JIS KS	Bolted Bonnet	10K / 20K / 40K / 63K	50A - 750A	Flange (RF / FF / RT) / BW
	Pressure Seal Bonnet	40K / 63K	50A - 750A	Flange (RF / FF / RT) / BW

Material

Stainless Steel	Hi Alloy / Duplex	Carbon Steel	Low Alloy Steel
CF3 / SC519	MONEL	WCB / SCPL2	WC6
CF3M / SC516	INCONEL	LCB / SCPL1	WC9
CF8 / SC513	HASTELLOY	LCC	C5
CF8M / SC514	NI-AL BRONZE		C12
CG8M	DUPLEX		C12A
CF3C	SUPER DUPLEX		
OK20 / SC518			
OK7M / SC523			

| CHECK VALVES



Production Range

STANDARD	TYPE	CLASS	SIZE	CONNECTION
ANSI ASME	Bolted Bonnet	150# - 2500#	2" - 30"	Flange (RF / FF / RT.) BW
	Pressure Seal Bonnet	600# - 2500#	2" - 30"	Flange (RF / FF / RT.) BW
JIS KS	Bolted Bonnet	10K / 20K / 40K / 63K	50A - 750A	Flange (RF / FF / RT.) BW
	Pressure Seal Bonnet	40K / 63K	50A - 750A	Flange (RF / FF / RT.) BW

Material

Stainless Steel	Hi Alloy / Duplex	Carbon Steel	Low Alloy Steel
CF3 / SC519	MONEL	WCB / SCF10	WC6
CF3M / SC516	INCONEL	LCB / SCPL1	WC9
CF8 / SC513	HASTELLOY	LCC	C5
CF8M / SC514	NI-AL BRONZE		C12
CG8M	DUPLEX		C12A
CF3C	SUPER DUPLEX		
OK20 / SC518			
OK7M / SC523			



Cryogenic Valves

Cryogenic Valves

CRYOGENIC TOP ENTRY BALL VALVE (LEVER TYPE)



CRYOGENIC TOP ENTRY BALL VALVE (LEVER TYPE)

Standard	Type	Pressure	Size
ANSI, ASME, API	BOLTED BONNET	150#	1/2"~2"

CRYOGENIC TOP ENTRY BALL VALVE (WORM GEAR TYPE)



CRYOGENIC TOP ENTRY BALL VALVE (WORM GEAR TYPE)

Standard	Type	Pressure	Size
ANSI, ASME, API	BOLTED BONNET	150#	2~1/2"~12"

CRYOGENIC GATE VAVE



CRYOGENIC GATE VAVE

Standard	Type	Pressure	Size
ANSI, ASME	BOLTED BONNET	150#~300#	2"~14"

CRYOGENIC GLOBE VAVE



CRYOGENIC GLOBE VAVE

Standard	Type	Pressure	Size
ANSI, ASME	BOLTED BONNET	150#~300#	2"~14"

CRYOGENIC SWING CHECK VAVE



CRYOGENIC SWING CHECK VAVE

Standard	Type	Pressure	Size
ANSI, ASME	BOLTED BONNET	150#~300#	2"~14"

03

CONTROL VALVE

VALVE
EXPERTS GROUP



Valve Remote Control System V.R.C. System



► General Information of VRCS

Valve Remote Control System is applied for remote control of valve and designed primarily for use on board ship. The remote valve is provided with hydraulic actuator powered from hydraulic power unit and controlled by solenoid valves. All remote valve actuators are designed to be capable of local manual operation.



► Control Console

Electric Control Console is designed for centralization control of all valve included in the system. The Control Console is designed and manufactured to include Cargo Handling and Monitoring systems.

► Hydraulic Actuator

Rack & Pinion Type Hydraulic Actuators are designed to the operation of various type of valves including butterfly valve, globe valve, angle valve and other special valves and have been proved high efficiency and reliability of performance. Single and Double Acting are also available.



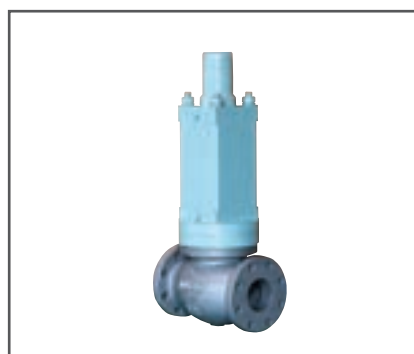
ROTARY (DOUBLE ACTING) ACTUATOR

1. ACTUATOR MODEL	HRB 35/60/80/100/125
2. MECHANISM	RACK & PINION
3. TYPE	DOUBLE ACTING
4. WORKING PRESSURE	100/130 Bar
5. TEST PRESSURE	150/195 Bar
6. ADJUSTABLE RANGE	90 ± 5°
7. FAIL POSITION	FAIL LOCK



ROTARY (SINGLE ACTING) ACTUATOR

1. ACTUATOR MODEL	HRR 35/60/80/100/125
2. MECHANISM	RACK & PINION
3. TYPE	SPRING RETURN
4. WORKING PRESSURE	100/130 Bar
5. TEST PRESSURE	150/195 Bar
6. ADJUSTABLE RANGE	90 ± 5° (At Closed Position)
7. FAIL POSITION	FAIL CLOSE OR OPEN



LINEAR(SINGLE ACTING) ACTUATOR

1. ACTUATOR MODEL	HLS 110 / 130
2. MECHANISM	LINEAR PISTON TYPE
3. TYPE	SPRING RETURN
4. WORKING PRESSURE	100 Bar
5. TEST PRESSURE	150 Bar
6. FAIL POSITION	CLOSE
7. APPLICATION VALVE TYPE	GLOBE/GLOBE CHECK/GATE



Valve Remote Control System V.R.C. System



► Valve Position Indicator

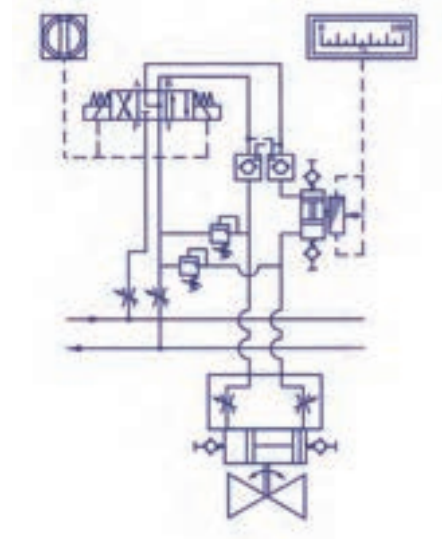
Valve Position Indicator for open / close is designed to indicate the position of hydraulically actuated valves. In general, the valve position indication to be obtained with the limit switch or potentiometer directly mounted on the valve respectively. Both On / Off and Throttle types are available.



► Solenoid Valve Cabinet

Solenoid Valve Cabinet is designed to install of solenoid valves regulating the oil flow to each actuator according to the requirements and to contain complete manifold systems consisting of manifolds, solenoid valves and electric control components. The solenoid cabinet shall be installed in safety area.

► Typical Schematic Diagram





Valve Remote Control System V.R.C. System



► Emergency Hand Pump Unit

Portable hand pump, when open / close operation of hydraulic remote valve can not be done due to damage of hydraulic piping, electric power failure or malfunction of hydraulic pump, etc., the operation can be done manually by the hand pump.

► Hydraulic Power Unit

HPU is designed to generate hydraulic pressure to open / close operation of the hydraulically operated valve. HPU consists of main electric motor & hydraulic pump and assistant electric motor & hydraulic pump. All components are selected to ensure high reliability and low noise. Accumulator will be provided.



STANDARD SPECIFICATION

Oil Tank Volume	100 ~ 1000 Liters	
Electric Motor	Voltage-3Ø440V60Hz or customer's requirement	
	Enclosure-IP56	
Pump Capacity	2.6 ~ 12.1 Liters	
Accumulator	32 ~ 400 Liters	
Max.Working Pressure	105 bar	
Pressure Switch Setting	Pump	Start at 150 bar
		Stop at 180 bar
Relief Valve Setting	190 bar	
Alarm	Level, Temperature, Low pressure & High Pressure	



Manual Hydraulic Remote Control System

HYDECK



► HYDECK

Hydeck is named for Manual Hydraulic Remote Valve Operating System. This system was developed to replace the reach rod system which is used to transmit the force needed to operate the valve in remote place mechanically. The Hydeck system is primarily composed of two parts, the transmitter which generates the power by pumping the hydraulic oil and the actuator which is fitted onto the valve body and receives the hydraulic oil from the transmitter to actuate the valve.



► FEATURES

- Easy and cost-effective installation
- Easier operation with higher efficiency and reliability of the performance.
- The transmitter can be installed in any position.
- High reliability without the necessity of special maintenance.
- Emergency local manual handle can be mounted on the receiver valve.



HYD. ACTUATOR

STANDARD SPECIFICATION (RACK & PINION ACTUATOR)

OPERATING FLUID	OIL
CYLINDER MATERIAL	STKM 13C
TEST PRESSURE	135 kg/cm ²
TEMPERATURE RANGE	-29~70°C (-20~128°F)
ACTUATOR TYPE	DOUBLE ACTING

※PATENT NO. 0382037



TRANSMITTER

STANDARD SPECIFICATION (TRANSMITTER)

OPERATING FLUID	OIL
DISCHARGE CAPACITY	12 cc/rev, 24 cc/rev 48 cc/rev, 67 cc/rev
RELIEF PRESSURE	OPEN : 110 kg/cm ² CLOSE : 100 kg/cm ²
TEST PRESSURE	150 kg/cm ²
TANK VOLUME	1.6 l



Electro-Hydraulic Actuator ER Series



ERB 60

► ER FEATURES

- The Local Hyd. Power Unit(LHPU)is an integrated electro–hydraulic system for remote control of valves and acutators.
- The LHPU is a robust and compact self–contained actuator designed to operate quarter turn valves.
- Designed to mount the LHPU directly onto actuator.
- Provides throttling function with current output(4~20mA)

GENERAL SPECIFICATION

Model	ERB 35 / 60 / 80 / 100 / 125
Operating System	Electro–Hydraulic Driven
Power	220VAC / 1Ph / 50Hz or 60Hz
Pump	Radial Piston Type
Operating Pressure	130 bar
Safety Valve Setting	150 bar
Hydraulic Fluid	ISO VG 15
Electric Motor	Max. Temperature 140 $\pm$ 5°C / IP 40
Enclosure	Weathertight



Control Valve DP Series



► DP FEATURES



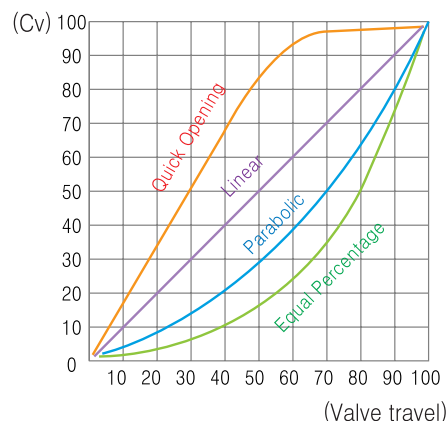
EQ%



Linear



Quick Opening



- Cage retained seat design is adopted.
There are no internal threaded parts, and no special tool is required for replacement of the seats.
- Lock nut connects the bonnet and the actuator. Lock nut connection allows quick assembly and disassembly of the valves, and the design also allows the actuator to be oriented in any direction (360 degrees) in relation to the body.
- Handwheel and positioner are provided as an option. Any other accessories such as Air Filter Regulator, I/P Transducer, Pressure / Temperature Transmitter, Solenoid Valve and Limit Switch can be provided if required.

DP GENERAL SPECIFICATION

Valve Body Type & Style	Single seated globe body with cage retained trim
Pressure Rating	ANSI 125~600 or JIS 5~63K
Valve Size	1/2"~2" (15~50mm)
Temperature Range	PTFE V-ring : -20~460°F (-29~238°C) Laminated Graphite : -320~800°F (-195~427°C)
Body & Bonnet Material	ASTM A126 CL.B (FC200) ASTM A216 WCB (SCPH2) ASTM A536 65-45-12 (FCD450) ASTM B584 C905 or C836 (BC3 or BC6) ASTM A351 CF8 or CF8M (SCS13 or SCS14)
Flow Coefficient (Rated CV)	3.8 to 56
Flow Characteristics	Parabolic, Equal Percentage, Linear, Quick Opening
Leakage Class	ANSI IV, V, VI
Rangeability	30:1~50:1
Actuator Size	35 in ² , 55 in ² , 85 in ² , 135 in ² , 180 in ²
Actuator Action	Direct (air to close) / Reverse (air to open)
Spring Range	3~15 psi (0.2~1.0 kg/cm ²) / 6~30 psi (0.4~2.0 kg/cm ²)

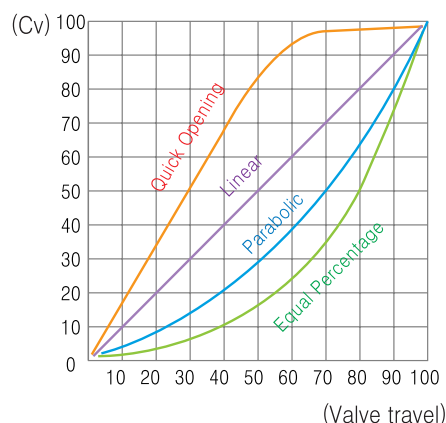
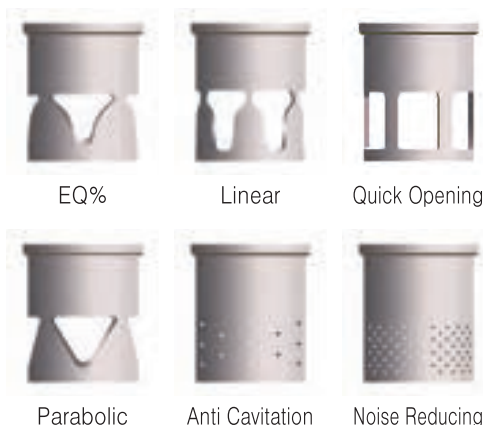


Control Valve

DG Series



► DG FEATURES



- Eagle DG-Series Globe Body Control Valve is designed to operate under the most demanding flow control conditions. The core of this valve is the massive cage guidance system for the valve plug which provides strength, rigidity and years of precise flow control even in very high pressure drop applications.

DG GENERAL SPECIFICATION

Valve Body Type & Style	Single seated globe body with cage guided throttling trim
Pressure Rating	ANSI 125~2500 or JIS 5~63K
Valve Size	1"~16" (25~400mm)
Temperature Range	PTFE V-ring : -20~460°F (-29~238°C) Laminated Graphite : -320~800°F (-195~427°C)
Body & Bonnet Material	ASTM A126 CL.B (FC200) ASTM A216 WCB (SCPH2) ASTM A536 65-45-12 (FCD450) ASTM A351 CF8 or CF8M (SCS13 or SCS14)
Flow Coefficient (Rated CV)	18 to 1200
Flow Characteristics	Equal Percentage, Linear, Quick Opening, Parabolic, Noise Reducing, Anti-Cavitation
Leakage Class	ANSI IV, V, VI
Rangeability	30:1~50:1
Actuator Size	35 in ² , 55 in ² , 85 in ² , 135 in ² , 180 in ² ,
Actuator Action	Direct (air to close) / Reverse (air to open)
Spring Range	3~15 psi (0.2~1.0 kg/cm ²) / 6~30 psi (0.4~2.0 kg/cm ²)

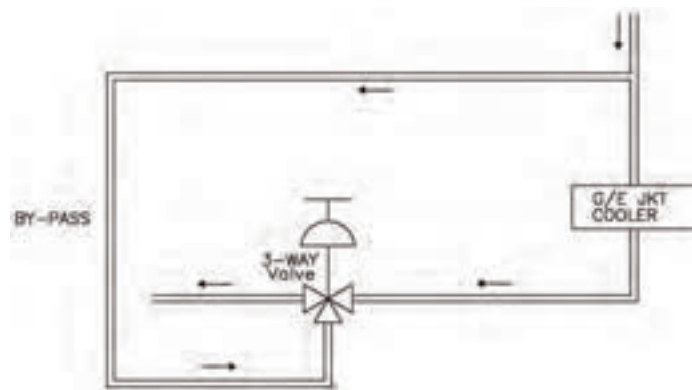
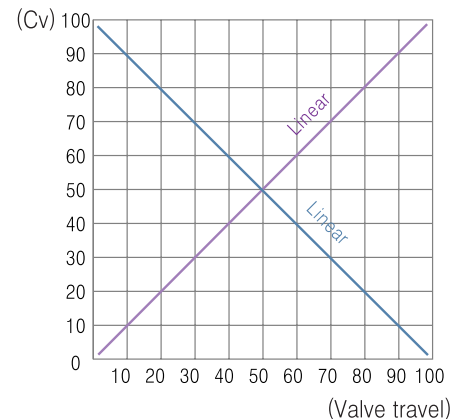


Control Valve TG Series

► TG FEATURES

TG-Series 3-Way Globe Type Control Valve can be used to control the circulation of water, oil, sea water or other liquids in heating or cooling application.

- Cage trim provides easy maintenance.
All trim parts can be removed from the top of the valve.
- Cage-guided trim for increased valve stability and trim life.
- Spring located teflon stem packing eliminates the need for periodic adjustment.
- Lower maintenance cost through less down-time.
- No need to remove valve from line to replace trim.
- Lower stem friction for increased stability.



TG GENERAL SPECIFICATION

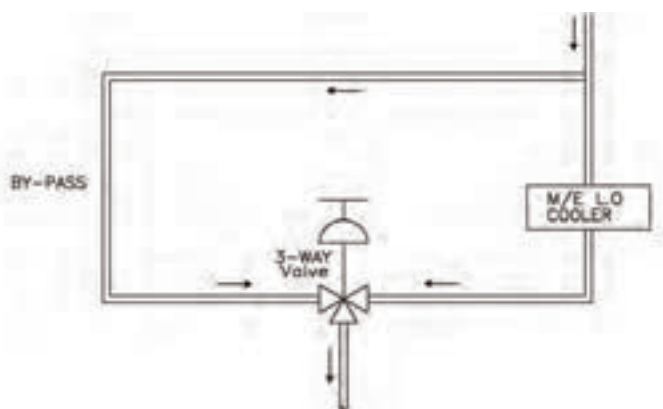
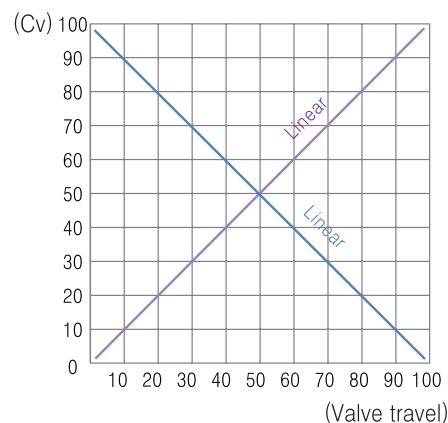
Valve Body Type & Style	3-Way Globe Type
Pressure Rating	ANSI 125~2500 or JIS 5~63K
Valve Size	1"~16" (25~400mm)
Temperature Range	PTFE V-ring : -20~460°F (-29~238°C) Laminated Graphite : -320~800°F (-195~427°C)
Body Material	ASTM A126 CL.B (FC200) ASTM A216 WCB (SCPH2) ASTM A536 65-45-12 (FCD450) ASTM B584 C905 or C836 (BC3 or BC6)
Flow Coefficient (Rated CV)	9 to 1890
Flow Characteristics	Linear
Leakage Class	ANSI III , IV , V , VI
Rangeability	30:1~50:1
Spring Range	3~15 psi (0.2~1.0 kg/cm ²) / 6~30 psi (0.4~2.0 kg/cm ²)



Control Valve TR Series

► TR FEATURES

- Smoother throttling with greater accuracy
 - Both converging and diverging flow configurations are available.
 - The rotary plug is designed to prevent from being stuck by fine particulates or fouling material in the fluid.
 - Air Failure Position can be easily reversed by re-installing the arm upside-down without taking out the valve body from the line.
 - Handwheel and positioner are provided as an option.
- Any other accessories such as air filter regulators, I/P transducers, pressure / temperature transmitters, solenoid valves, limit switches can be provided if required.
- The actuator normally installed perpendicular to the valve stem could be installed at any horizontal angle (360 degrees) in accordance with the site conditions where the valve is located.



TR GENERAL SPECIFICATION

Valve Body Type & Style	3-Way Rotary Type
Pressure Rating	ANSI 125~150 or JIS 5~10K
Valve Size	4"~24" (100~600mm)
Temperature Range	32~212°F (0~100°C)
Body & Bonnet Material	ASTM A126 CL.B (FC200) ASTM A216 WCB (SCPH2) ASTM A536 65-45-12 (FCD450)
Flow Coefficient (Rated CV)	145~5500
Flow Characteristics	Linear
Leakage Class	1.8% of the rated Cv
Rangeability	30:1
Spring Range	3~15 psi (0.2~1.0 kg/cm ²) / 6~30 psi (0.4~2.0 kg/cm ²)



Control Valve MOV



Rotary Type Electric Actuator



Linear Type Electric Actuator



► FEATURES

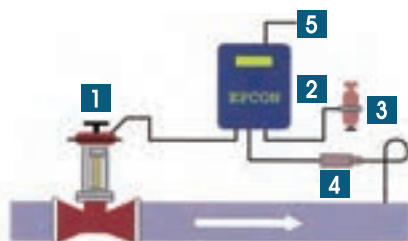
- Compact and Robust construction
- Fulfill all requirements for control valve actuators
- Precise Positioning
- Reliable performance and ability with long life at high loads
- Central arrangement of accessories

GENERAL SPECIFICATION

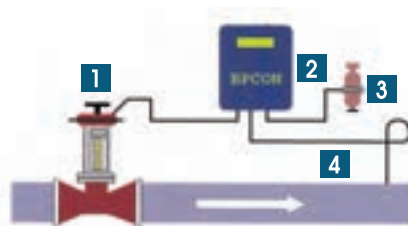
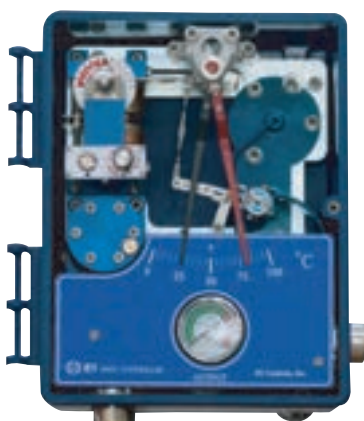
Valve Body Type & Style		2-way Globe Type	3-way Globe Type	3-way Rotary Type
Motor Actuator	Type	Linear Type Electric Actuator		Rotary Type Electric Actuator
	Power supply	115/230VAC/1Ph/50/60Hz, 24VDC		110/220VAC/1Ph/50/60Hz
	Force / Torque	1 ~ 25kN		100 ~ 1100Nm
	IP Class	IP67		IP67
	Action	On/Off & Modulating		
Pressure Rating		ANSI 125 ~ 300 JIS 5 ~ 20k	ANSI 125 ~ 300 JIS 5 ~ 20k	ANSI 125 ~ 150 JIS 5 ~ 10k
Valve Size		1/2" ~ 16" (15 ~ 400mm)	1" ~ 16" (25 ~ 400mm)	4" ~ 24" (100 ~ 600mm)
Temperature	Motor	-20°C ~ 80°C		-20°C ~ 80°C
	Valve	PTFE V-ring: -20 ~ 460°F (-29 ~ 238°C) Laminated Graphite: -320 ~ 800°F (-195 ~ 427°C)		32 ~ 212°F (0 ~ 100°C)
Accessory		Limit Switch, Electronic Positioner, Position Transmitter, Local Control Module with Auto/Manual Select Switch, etc.		



Control Valve EPCON • BPCON



- 1 Control Valve
- 2 EPCON Controller
- 3 Air Filter Regulator
- 4 Transmitter
- 5 Power Supply



- 1 Control Valve
- 2 BPCON Controller
- 3 Air Filter Regulator
- 4 Sensor

► EPCON FEATURES

BY EPCON controller does not require positioner and I/P converter.
This means that EPCON controller is more reliable and cost-effective.

EPCON GENERAL SPECIFICATION

Power Supply Voltage	110 / 220V AC50 / 60Hz, 24V DC
Power Consumption	10W (Max), 9W (Steady state)
Input	4~20mA
Output	4~20mA standard, 5% span accuracy
Control Action	Direct or Reverse
Control Method	P, PI, PID
Local Set Point Adjustment	Push Button Switches and Digital Display
Remote Set Point Adjustment	4~20mA Standard Input
Display Modes	Process Value(PV), Set Point(SP)
Air Input	2.4±0.1 bar (35±1.5 psi)
Air Output	0.4~2.0 bar (6~30 psi)
Air Consumption	Zero at steady state conditions
Accuracy	0.5% of Full Span
Ambient Temperature Rating	-20~60℃
Dimension	228(W)×295(H)×149(D)mm
Enclosure / Material	IP44 / Polycarbonate

► BPCON FEATURES

BY BPCON controller is applied to the process control of liquid, gaseous or vapor media.
The controller is generally used in combination with temperature or pressure control device as control valve.

BPCON GENERAL SPECIFICATION

Control Action	Direct or Reverse
Control Method	PI, PID
Air Input	2.4±0.1 bar (35±1.5 psi)
Air Output	0.4~2.0 bar (6~30 psi)
Air Consumption	Steady: 0.13 Nm ³ /h. Maximum: 2.6 Nm ³ /h
Proportional Action	Proportional band 0~200%
Integral Action	0~10 minutes per repeat
Derivative Action	0~5 minutes per repeat
Accuracy	With in 1% Scale
Pneumatic Connection	PT 1/4"
Ambient Temperature Rating	-20~60℃
Dimension (only controller)	228.6(W)×261.5(H)×181(D)mm
Material	Polycarbonate



Diaphragm Actuator

PDD-85

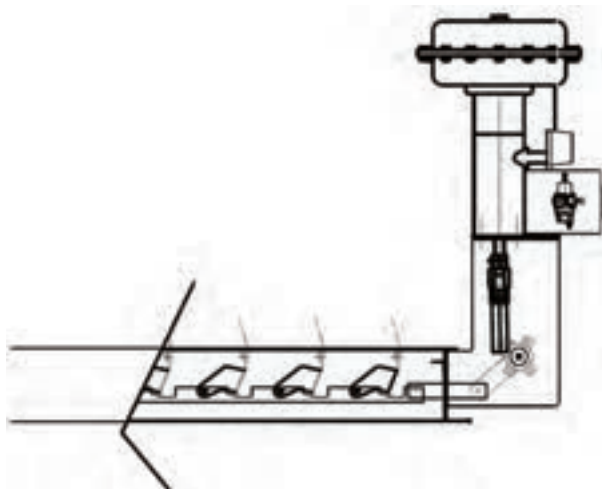


► PDD-85

- The actuator controls the air cooler louver to be on and off.

► PDD-85 FEATURES

- Direct acting, Diaphragm type actuator for either throttling or on-off service.
- Easy maintenance and lower maintenance cost.
- Positioner is provided. Any other accessories such as Air Filter Regulator, I/P Transducer, Pressure/Temperature Transmitter, Solenoid Valve and Limit Switch can be provided if required.



PDD-85 GENERAL SPECIFICATION

Size / Actuator Trust	85 in ² / 244 kgf
Input Pressure	0.4 ~ 2.0 Bar
Action	Direct
Fail Position	Open
Mounting	STD.
Diaphragm Material	Nitrile-Butadiene Rubber
Yoke Material	FCD45
Casing & Spring Material	Steel
Pneumatic Connection Size	NPT 1/4, Ø8 Brass Bite Type
Max Travel	60 mm
Painting (Diaphragm Case & Yoke)	ET5740 E56356 100μ x 2 Coated
Operating Temp.	-20~80 °C (option: -40 °C)



Pressure Reducing Valve

RV Series



► RV01 FEATURES

EAGLE RV01 Pilot Type Pressure Reducing Valve is designed for general steam service, heating service, boiler burner service and etc.

This valve does not need assistant power such as electricity and air.

RV01 GENERAL SPECIFICATION

Valve Type	Pilot Operated
Pressure Rating	ANSI 150 (JIS 10K)
Design Temperature	220℃
Valve Size	1/2" ~ 6" (15 ~ 150mm)
Applicable Fluid	Steam
Max Inlet	16 kgf/cm ²
Outlet Press	0.5 ~ 8 kgf/cm ²
Min Differetial Pressure	0.7 kgf/cm ²
Leakage Class	ANSI IV (0.01% of Rated Cv)



► RV02 FEATURES

EAGLE RV02 Direct Type Pressure Reducing Valve is designed for Air, Gas and liquid. This is possible to regulate the fluid pressure at constant value on the outlet side of the valve, irrespective of fluctuation in load. Set pressure is designed within a range of 10 to 1.0 kgf/cm². The valve is designed for enable to disassembling the valve from upside without disconnecting a pipe.

RV02 GENERAL SPECIFICATION

Valve Type	Direct Operated
Pressure Rating	ANSI 300 (JIS 20K)
Design Temperature	150℃
Valve Size	1/2" ~ 6" (15 ~ 150mm)
Applicable Fluid	Air, Gas, Liquid
Max Inlet	16 kgf/cm ²
Outlet Press	0.5 ~ 8 kgf/cm ²
Min Differetial Pressure	0.5 kgf/cm ²
Leakage Class	ANSI IV (0.01% of Rated Cv)



► RV03 FEATURES

EAGLE RV03 Direct Type Pressure Reducing Valve is designed for Air and Gas.

The pressure balanced disc constantly and stably regulates the secondary pressure, it depends on the primary pressure variation.

RV03 GENERAL SPECIFICATION

Valve Type	Direct Operated
Pressure Rating	ANSI 600 (JIS 40K)
Design Temperature	80℃
Valve Size	1/2" ~ 2 1/2" (15 ~ 65mm)
Applicable Fluid	Air, Gas
Max Inlet	30 kgf/cm ²
Outlet Press	0.5~11 kgf/cm ²
Min Differetial Pressure	0.5 kgf/cm ²
Leakage Class	ANSI IV (0.01% of Rated Cv)





Safety & Regulating Valve



► PRIMARY PRESSURE REGULATING VALVE - PV01 FEATURES

EAGLE PV01 Direct Type Pressure Regulating Valve is designed for Air, Gas and Liquid. This is piston balance type, generally installed on discharge line of pump and stably maintains regular discharge pressure. The valve is designed for enable to disassembling the valve from upside without disconnecting a pipe.



PV01 GENERAL SPECIFICATION

Valve Type	Direct Operated
Pressure Rating	ANSI 300 (JIS 20K)
Design Temperature	150℃
Valve Size	1/2" ~ 6" (15 ~ 150mm)
Applicable Fluid	Air, Gas, Liquid
Max Inlet	16 kgf/cm ²
Outlet Press	0.5 ~ 8 kgf/cm ²
Min Differetial Pressure	0.5 kgf/cm ²
Leakage Class	ANSI IV (0.01% of Rated Cv)

► TEMPERATURE REGULATING VALVE - TC01 FEATURES

EAGLE TC01 Direct Type Temperature Regulating Valve is designed for steam and thermal oil. The design of this valve is simple to ensure that easy to install, steady operating and does not need assistant power. This valve does not need strainer because the screen is installed on inside body.



TC01 GENERAL SPECIFICATION

Valve Type	Direct Operated
Pressure Rating	ANSI 300 (JIS 20K)
Valve Size	1/2" ~ 6" (15 ~ 150mm)
Applicable Fluid	Steam, Hot Water, Thermal oil
Max Inlet	10 kgf/cm ²
Leakage Class	ANSI IV (0.01% of Rated Cv)

► SAFETY&RELIEF VALVE - SV01 / 02 / 03 FEATURES

EAGLE SV01, 02, 03 series Safety Relief Valve to protect from overpressure of process lines. The fluid to be applied is air, gas, steam, vapor and liquid. Disc Parts of SV01, 02, 03 valves are composed of the disc and disc holder. Being used in high temperature, the seperated disc and holder have excellent seat tightness of the distortion more than unified disc.



SV01 / 02 / 03 GENERAL SPECIFICATION

Valve Type	Full Bore
Pressure Rating	SV01 : ANSI 150 (JIS 10K) SV02 : ANSI 300 (JIS 20K) SV03 : ANSI 600 (JIS 40K)
Design Temperature	350℃
Valve Size	SV01 : 1/2" ~ 8" (15 ~ 200mm) SV02 : 1/2" ~ 8" (15 ~ 200mm) SV03 : 1/2" ~ 1 1/2" (15 ~ 40mm)
Applicable Fluid	Steam, Hot Water, Gas & Liquid
Leakage Class	JIS B 8210

04

STRAINER

VALVE
EXPERTS GROUP

SIMPLEX STRAINER

WATER STRAINER FOR CASTING (M/N:WC1)



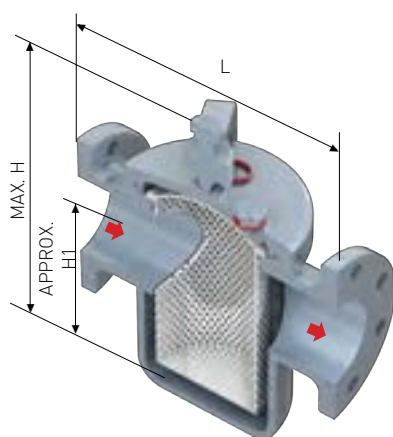
General

Water strainers for casting are available with bolted or quick release yoked cover. Yoke cover units are ideally suited for applications where frequent clean-out of the filter is expected.

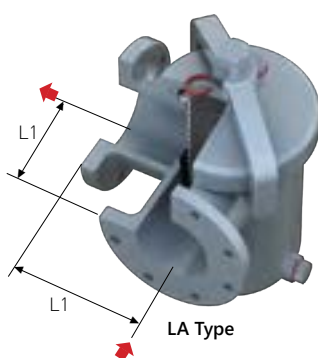
Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

Specifications

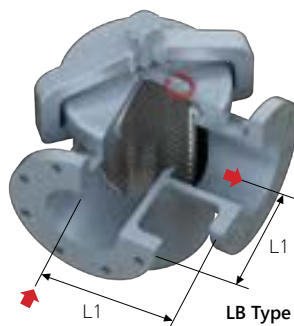
Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #100 / 11100 ~ 140 micron
Lifting	Ring, Yoke
Cover bolting	Yoke, Bolt
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, Hot Dipped Galv, etc.
Liquid name	Water, etc.



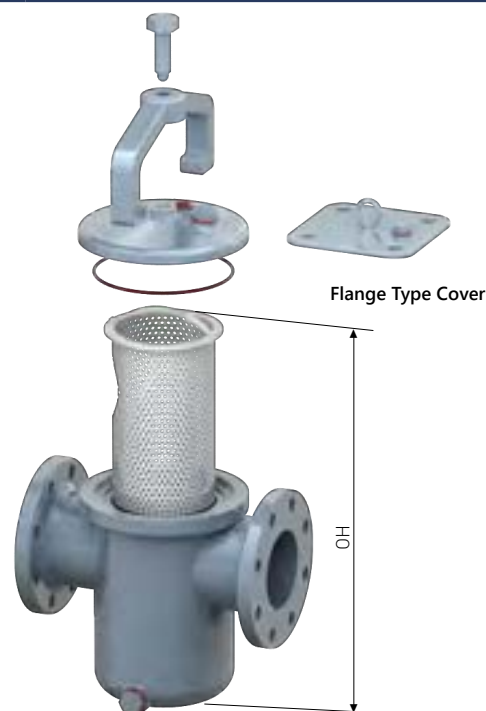
S Type



LA Type



LB Type



Flange Type Cover

OH

DIMENSION TABLE

UNIT(mm)

Nominal dia	L	L1	H1	H	OH	DRAIN/VENT PLUG	Net Weight(kg)
25A	170	85	75	180	213	M16x2P	6
32A	190	95	85	215	250	M16x2P	8.5
40A	190	95	85	215	250	M16x2P	9
50A	200	100	100	240	291	M16x2P	11
65A	250	125	135	305	376	M20x1.5P	19
80A	270	135	152	340	432	M20x1.5P	24
100A	320	160	185	400	521	M20x1.5P	36

※ We can provide bigger size strainers.

SIMPLEX STRAINER

WATER STRAINER FOR CASTING (M/N:WC2)

General

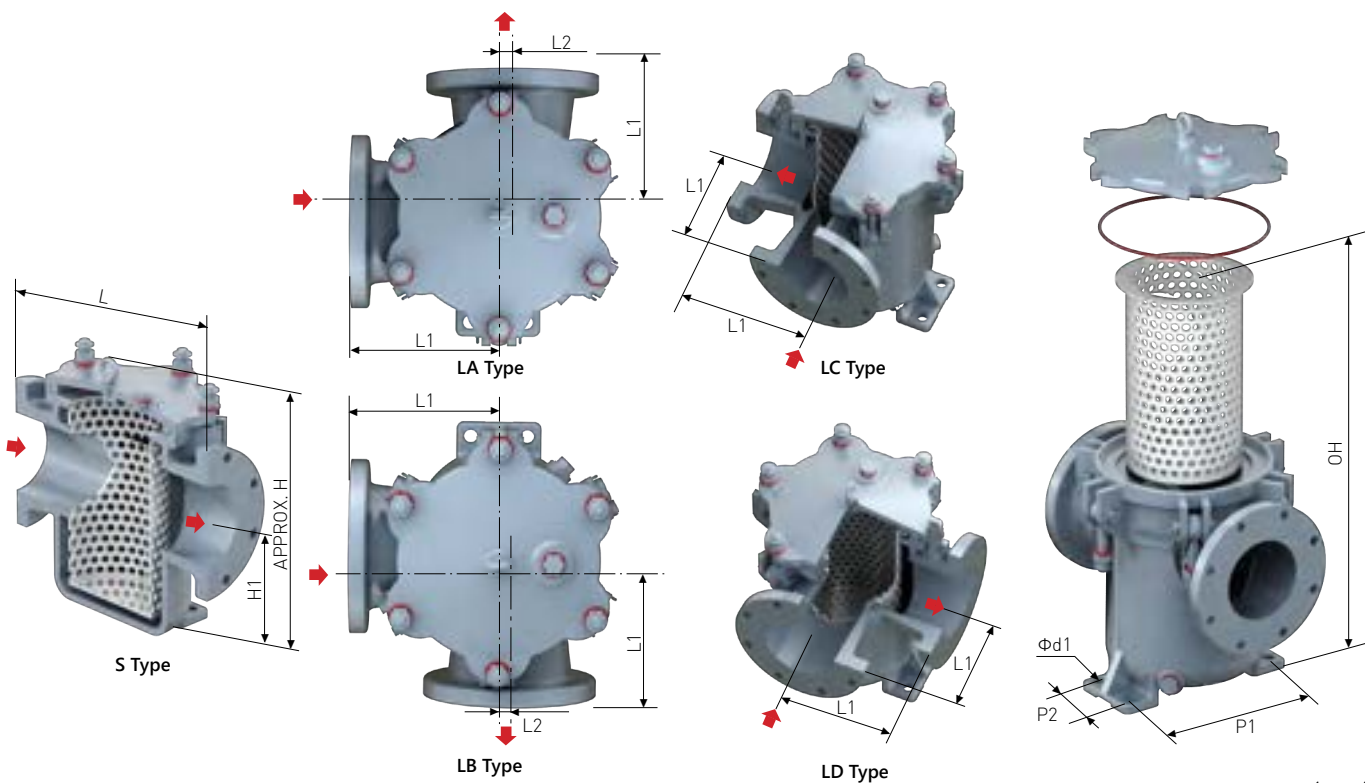
Water strainers for casting are available with bolted or quick release hinge bolted cover. hinge bolted cover units are ideally suited for applications where frequent clean-out of the filter is expected.

Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.



Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #100 / 11100 ~ 140 micron
Lifting	Lug, Eye bolt, etc.
Cover bolting	Hinge, Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, Hot Dipped Galv, etc.
Liquid name	Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	L1	L2	H1	H	OH	MOUNTING LEG			DRAIN/VENT PLUG	Net Weight(kg)
							P1	P2	d1		
125A	400	200	30	235	485	672	260	80	Ø19	M24x2P	64
150A	460	230	35	290	575	809	310	90	Ø19	M24x2P	91
200A	550	275	50	350	665	1010	380	100	Ø23	M24x2P	158
250A	680	340	60	450	825	1254	480	140	Ø25	M24x2P	265
300A	760	380	70	515	920	1434	540	160	Ø25	M24x2P	334
350A	820	410	75	575	1030	1634	590	180	Ø25	M24x2P	457
400A	880	440	80	645	1135	1823	650	200	Ø25	M24x2P	615

※ We can provide bigger size strainers.

SIMPLEX STRAINER

WATER STRAINER FOR STEEL PLATE (M/N:WS1)



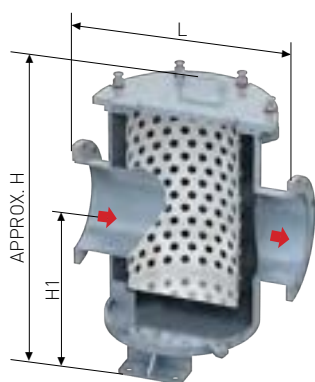
General

Water strainers for steel plate are available with bolted or quick release hinge bolted cover. hinge bolted cover units are ideally suited for applications where frequent clean-out of the filter is expected.

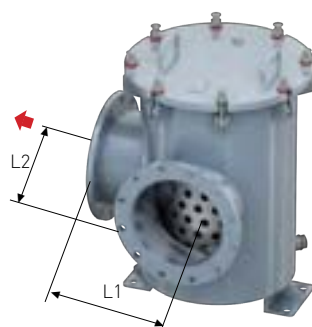
Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

Specifications

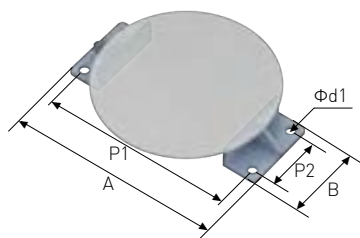
Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #100 / 11100 ~ 140 micron
Lifting	Davit, Lug, Handle, etc.
Cover bolting	Hinge, Stud, Hexagon
Vent / Drain type	Screw, Flange, Valve, etc..
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, etc.



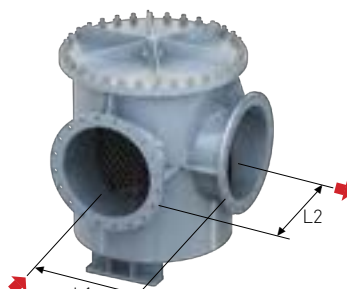
S Type



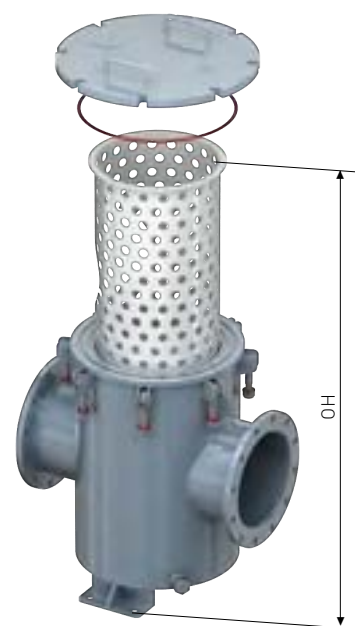
LA Type



SEAT



LB Type



UNIT(mm)

DIMENSION TABLE

Nominal dia	L	L1	L2	H1	H	OH	LEG					DRAIN SIZE	VENT SIZE	Net Weight(kg)	
							A	B	P1	P2	d1			5K	10K
125A	400	200	200	228	472	690	320	140	260	80	19	M20x1.5P		57	60
150A	460	230	230	270	551	830	370	150	310	90	19	M20x1.5P		85	89
200A	550	275	275	310	670	1020	440	160	380	100	23	M20x1.5P		119	122
250A	680	340	340	380	793	1270	540	200	480	140	25	M20x1.5P		218	223
300A	760	380	380	420	900	1450	600	220	540	160	25	M20x1.5P		287	292
350A	820	410	410	470	1019	1700	650	240	590	180	25	M20x1.5P		374	379

※ We can provide bigger size strainers.

SIMPLEX STRAINER

WATER STRAINER FOR STEEL PLATE (M/N:WS2)



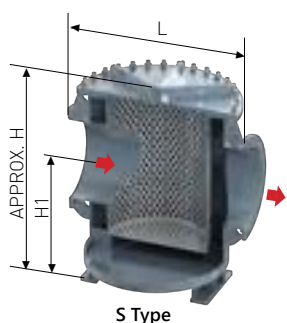
Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #100 / 11100 ~ 140 micron
Lifting	Davit, Lug, etc.
Cover bolting	Bolt, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, etc.

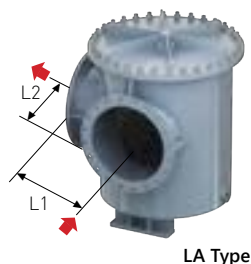
General

Water strainers for steel plate are available with bolted cover. Bolted cover units are ideally suited for applications where frequent clean-out of the filter is expected.

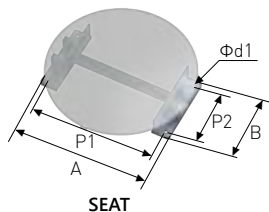
Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.



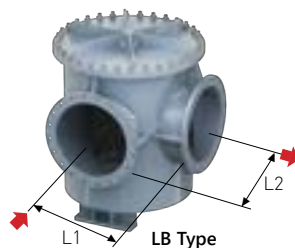
S Type



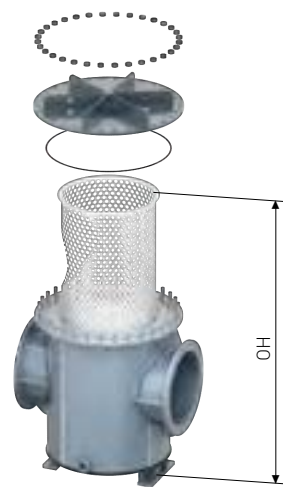
LA Type



SEAT



LB Type



DIMENSION TABLE ※ If customer requirement M.G.P.S, we can installation M.G.P.S in this products.

UNIT(mm)

Nominal dia	L	L1	L2	H1	H	OH	LEG					DRAIN SIZE	VENT SIZE	Net Weight(kg)	
							A	B	P1	P2	d1			5K	10K
400A	880	440	520	645	1124	1850	710	260	650	220	25	40A	25A	468	480
450A	1040	520	520	665	1225	1990	740	390	660	310	27	40A	25A	672	687
500A	1130	565	565	720	1325	2150	810	424	730	344	27	40A	25A	797	818
550A	1220	610	610	755	1383	2260	880	460	800	380	27	40A	25A	1004	1030
600A	1310	655	655	800	1455	2390	950	490	870	410	27	40A	25A	1176	1203
650A	1410	705	705	830	1511	2490	1050	550	950	450	33	40A	25A	1418	1451
700A	1500	750	750	865	1568	2600	1130	580	1030	480	33	40A	25A	1515	1557
750A	1600	800	800	890	1608	2660	1145	615	1095	515	33	40A	25A	1811	1860
800A	1700	850	850	905	1635	2710	1270	650	1170	550	33	40A	25A	2028	2078
850A	1800	900	900	955	1725	2910	1320	715	1220	615	33	40A	25A	2278	2331
900A	1900	950	950	1004	1811	3030	1416	718	1316	618	33	40A	25A	2561	2617
1000A	2100	1050	1050	1084	1944	3260	1582	786	1482	686	33	40A	25A	3026	3104

※ We can provide bigger size strainers.

SIMPLEX STRAINER

WATER STRAINER FOR MULTI TYPE (M/N:WM)

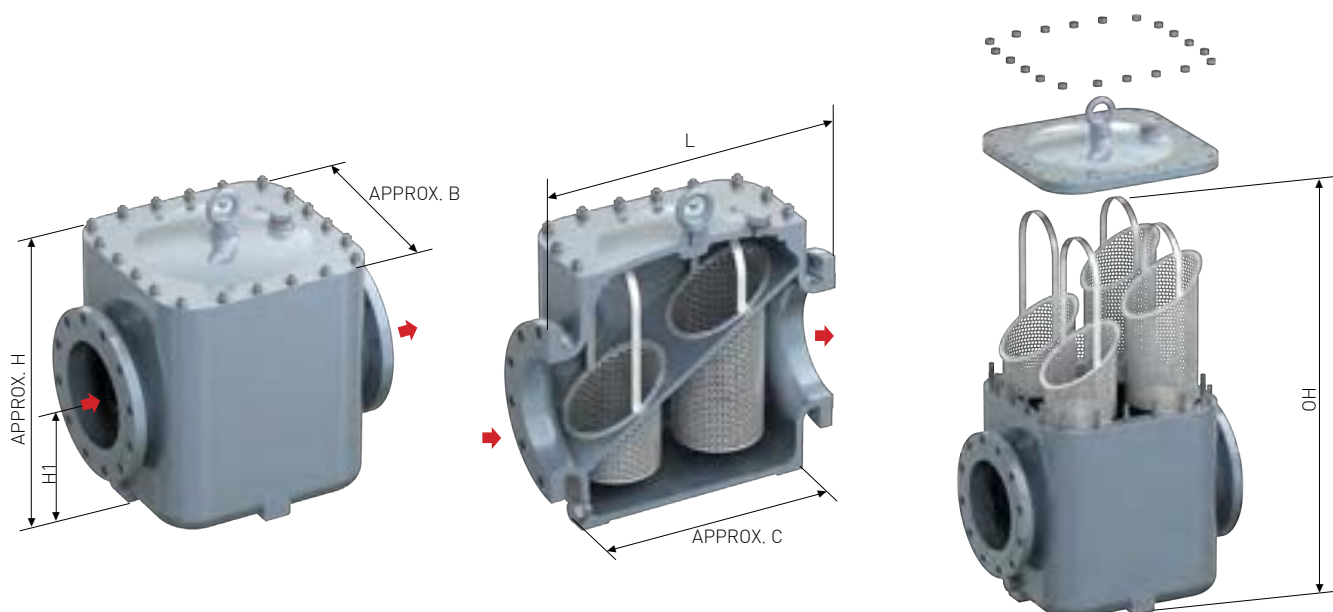


Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, etc.
Filter	ø2 ~ ø12
Mesh	N/A
Lifting	Lug, Eye bolt, etc.
Cover bolting	Stud
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, etc.

General

Water strainers for Multi Type are for handling very large volumes of water. They have been in service for 20 years in the electric power industry and the primary metals industry for cleaning cooling water. They are also in wide use in the paper, sewage and water treatment as well as the chemical industries for straining water and to protect equipment. The petroleum industry uses them to remove gums, tars and dirt from oil and oil products.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	C	B	H1	H	OH	DRAIN/VENT PLUG	Net Weight(kg)
200A	591	457	470	232	511	965	¾"	249
250A	664	514	533	289	603	1118	¾"	332
300A	737	565	578	372	721	1321	¾"	491
350A	775	626	638	425	794	1524	¾"	618
400A	851	689	705	486	902	1676	¾"	795
500A	1137	832	883	724	1175	2235	¾"	1514
600A	1227	930	978	800	1327	2489	¾"	2068
750A	1562	1207	1207	1057	1689	3175	¾"	4036
900A	1562	1207	1207	1057	1689	3175	¾"	4409

※ We can provide bigger size strainers.

SIMPLEX STRAINER

WATER STRAINER FOR TRAPEZOID TYPE (M/N:WT)

Specifications

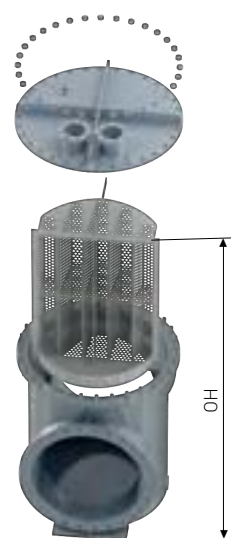
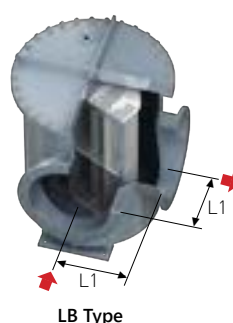
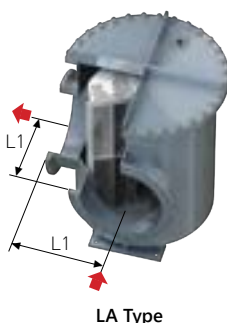
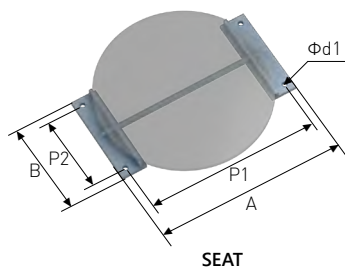
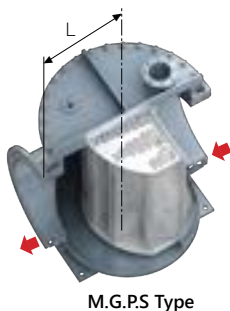
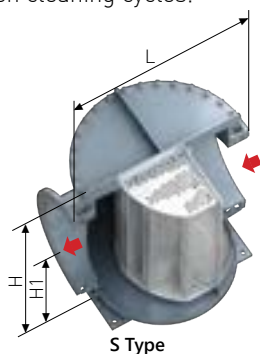


General

Water Strainers for Trapezoid type are available cover, where frequent clean-out of the filter is expected.

Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	N/A
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L1		L	H1	H	P1	P2	d1	OH	Net Weight(kg)	
	S	LA/LB								5K	10K
450A	410	475	730	440	854	580	270	27	1570	439	455
500A	445	510	820	470	894	640	300	27	1650	532	553
550A	495	560	890	480	926	700	330	27	1715	647	673
600A	535	600	990	520	985	780	360	33	1830	782	808
650A	575	640	1070	550	1045	850	400	33	1950	904	937
700A	610	680	1150	585	1105	910	430	33	2070	1104	1147
750A	650	720	1220	600	1180	980	460	33	2220	1268	1317
800A	685	755	1300	605	1185	1030	480	33	2430	1428	1589
900A	740	890	1480	720	1440	1130	510	33	2740	1699	1880
1000A	830	970	1660	790	1577	1270	560	39	3015	2109	2187

※ We can provide bigger size strainers.

SIMPLEX STRAINER

OIL STRAINER FOR CASTING (M/N:OC)



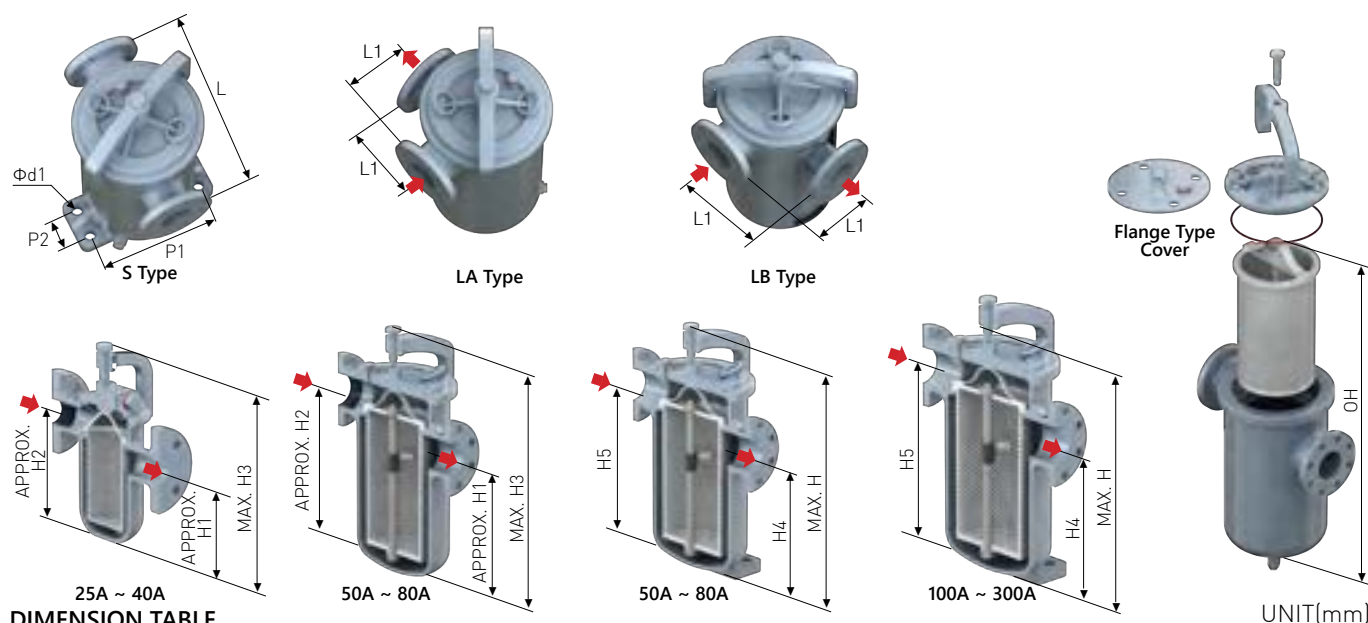
General

Oil strainers for Casting are available with bolted or quick release yoked cover. Yoke cover units are ideally suited for applications where frequent clean-out of the filter is expected.

Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Yoke, Ring, Eye bolt
Cover bolting	Yoke, Stud bolt
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Oily Water, etc.



DIMENSION TABLE

Nominal dia	L	L1	H1	H2	H3	H4	H5	H	OH	P1	P2	d1	DRAIN/VENT PLUG	Net Weight (kg)
25A	190	95	91	123	240	-	-	-	281	-	-	-	M20x1.5P	7
32A	260	130	145	188	315	-	-	-	411	-	-	-	M20x1.5P	15
40A	260	130	145	188	315	-	-	-	411	-	-	-	M20x1.5P	15
50A	280	140	187	237	374	208	258	395	521(542)	-	-	-	M20x1.5P	26
65A	340	170	248	315	470	273	340	495	684(709)	-	-	-	M20x1.5P	44
80A	370	185	258	331	500	283	356	525	743(768)	-	-	-	M20x1.5P	51
100A	420	210	-	-	-	315	430	630	893	315	90	19	M20x1.5P	80
125A	450	225	-	-	-	373	482	745	1045	345	90	23	M24x2P	107
150A	470	235	-	-	-	410	540	825	1189	370	90	23	M24x2P	154
200A	570	285	-	-	-	475	630	970	1413	435	120	25	M24x2P	243
250A	700	350	-	-	-	529	729	1140	1683	520	150	27	M24x2P	262
300A	800	400	-	-	-	542	772	1220	1810	545	160	27	M24x2P	453

※ We can provide bigger size strainers.

World best product with high quality

SIMPLEX STRAINER

OIL STRAINER FOR STEEL PLATE (M/N:OS)

B
PRODUCT

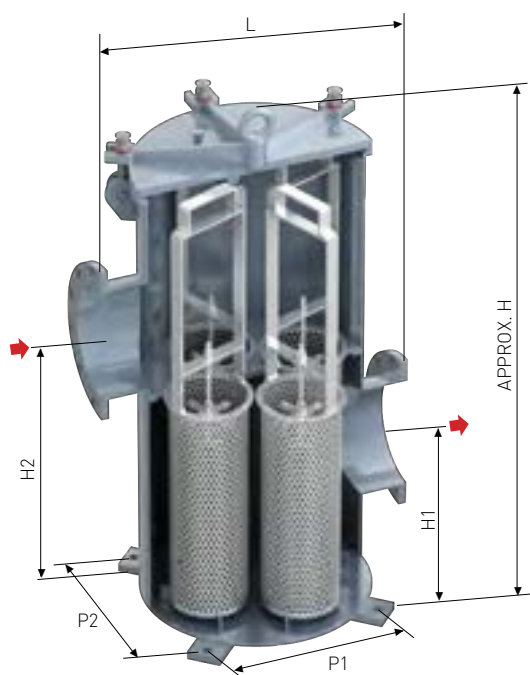


Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Hinge, Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.

General

Oil Strainers for Steel Plate (here in after referred to as "Oil strainer") used on the suction side of main lubricating oil pumps in ships.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	H1	H2	H	P1	P2	OH	Net Weight (kg)
350A	880	390	790	1210	530	530	1995	547
400A	880	515	965	1415	530	530	2405	613

※ We can provide bigger size strainers.

SIMPLEX STRAINER

BUCKET STRAINER FOR CASTING (M/N:BC)



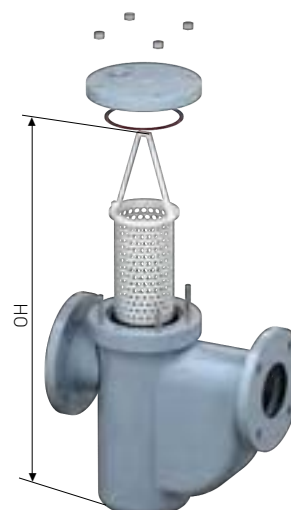
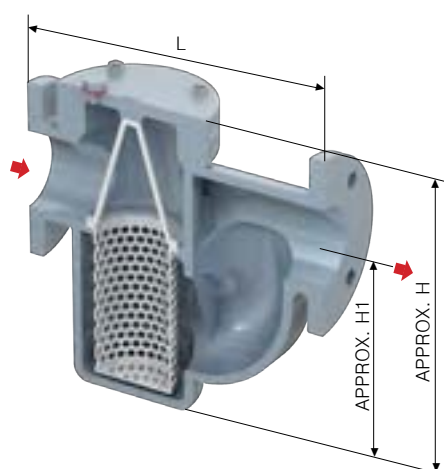
Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.

General

Bucket Strainers for casting are mainly installed in horizontal piping.

Since the bucket strainer elements housed in the bodies can be taken out from the tops, the debris caught by the elements can be taken outside easily. The design of bucket strainers can be arranged to suit lager piping .



DIMENSION TABLE

UNIT(mm)

Nominal dia	L		H1	H		OH	DRAIN	VENT	Net Weight(kg)	
	150LB	300LB		150LB	300LB				150LB	300LB
25A	200	210	120	205	205	300	1/2"	1/2"	11	15
32A	225	235	120	208	208	370	1/2"	1/2"	13	17
40A	225	235	120	222	222	370	1/2"	1/2"	14	19
50A	245	255	160	253	253	430	1/2"	1/2"	18	24
65A	280	290	195	280	280	490	1/2"	1/2"	25	30
80A	300	310	210	330	330	560	1/2"	1/2"	33	45
100A	355	370	250	390	390	690	1/2"	1/2"	50	60
125A	445	495	317	467	467	878	1/2"	1/2"	86	100
150A	505	540	400	643	643	1062	1/2"	1/2"	116	145
200A	665	700	520	854	854	1350	3/4"	3/4"	170	195
250A	710	755	637	996	996	1715	3/4"	3/4"	240	300
300A	850	885	778	1185	1185	2067	3/4"	3/4"	550	580

※ We can provide bigger size strainers.

World best product with high quality

SIMPLEX STRAINER

BUCKET STRAINER FOR STEEL PLATE (M/N:BS1)

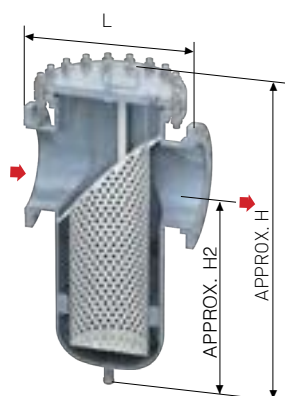
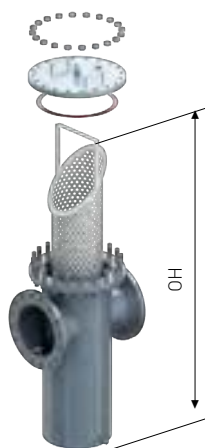
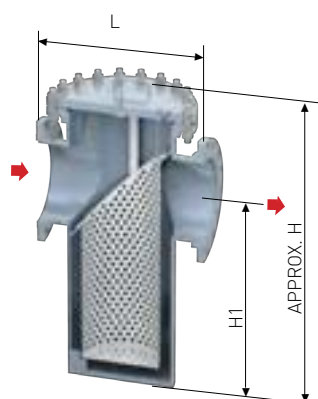
B
PRODUCT

General



Bucket Strainers for steel plate are mainly installed in horizontal piping.

Since the bucket strainer elements housed in the bodies can be taken out from the tops, the debris caught by the elements can be taken outside easily. The design of bucket strainers can be arranged to suit larger piping.



Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.

DIMENSION TABLE

UNIT(mm)

Nominal dia		L		H1	H		OH		VENT	Net Weight(kg)		H1	H2
		150LB	300LB		150LB	300LB	150LB	300LB		150LB	300LB		
125A	5"	500	538	495	791	852	1163	1250	½"	116	261	360	495
150A	6"	510	540	555	861	930	1303	1410	½"	126	279	420	555
200A	8"	560	600	680	1028	1107	1610	1735	½"	190	323	520	680
250A	10"	610	720	758	1149	1218	1835	1935	½"	253	406	600	758
300A	12"	700	780	906	1348	1428	2214	2214	1"	351	562	740	906
350A	14"	750	820	1018	1493	1584	2475	2615	1"	431	706	830	1018
400A	16"	800	940	1163	1672	1742	2797	2900	1"	560	909	960	1163
450A	18"	900	1040	1329	1880	1980	3185	3340	1"	684	1099	1250	1329
500A	20"	1000	1100	1482	2157	2229	3535	3635	1"	848	1629	1410	1482
550A	22"	1100	1200	1632	2368	2484	3915	4115	1"	1151	1726	1560	1632
600A	24"	1150	1250	1782	2552	2670	4275	4475	1"	1359	2095	1710	1782
650A	26"	1200	1340	1850	2735	2855	4635	4835	1"	1631	2355	1780	1850
700A	28"	1300	1420	2150	2871	3010	4895	5135	1"	1977	2792	2080	2150
750A	30"	1400	1520	2400	2971	3131	5075	5355	1"	2437	3273	2330	2400
800A	32"	1500	1620	2524	3160	3276	5413	5610	1"	2785	3409	2455	2524
900A	36"	1650	1670	2697	3535	3657	6153	6353	1"	3497	4216	2630	2697
1000A	40"	1750	1750	2805	3890	4015	6811	7011	1"	4268	4640	2735	2805

※ We can provide bigger size strainers.

SIMPLEX STRAINER

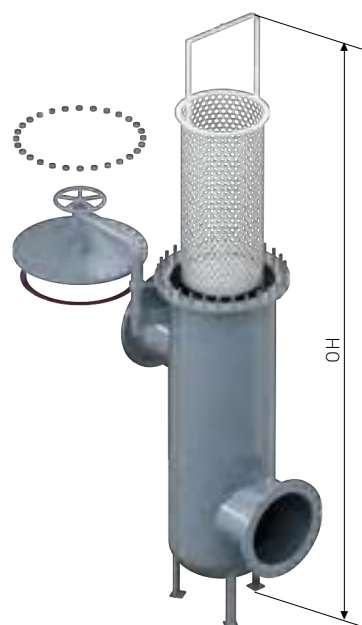
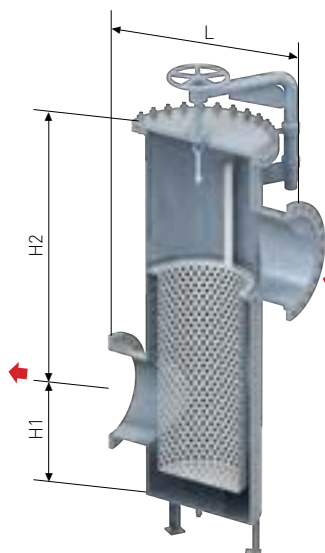
BUCKET STRAINER FOR STEEL PLATE (M/N:BS2)



General

Bucket Strainers for steel plate are mainly installed in horizontal piping.

Since the bucket strainer elements housed in the bodies can be taken out from the tops, the debris caught by the elements can be taken outside easily. The design of bucket strainers can be arranged to suit larger piping.



Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.

DIMENSION TABLE

UNIT(mm)

Nominal dia	L		H1	H2		OH	DRAIN	VENT	Net Weight(kg)	
	150LB	300LB		150LB	300LB				150LB	300LB
125A	500	580	495	791	802	1163	½"	½"	110	190
150A	510	600	555	861	872	1303	½"	½"	130	210
200A	560	680	681	1028	1041	1610	½"	½"	200	310
250A	610	760	759	1150	1168	1832	½"	½"	240	390
300A	700	840	906	1348	1367	2214	½"	½"	360	570
350A	750	900	1019	1494	1513	2472	1"	1"	460	750
400A	800	980	1164	1672	1693	2797	1"	1"	570	940
450A	900	1050	1329	1881	1902	3182	1"	1"	770	1280
500A	1000	1100	1482	2150	2179	3535	1"	1"	1050	1650
550A	1100	1131	1632	2368	2389	3915	1"	1"	1220	1960
600A	1150	1182	1782	2552	2574	4275	1"	1"	1490	2420
650A	1200	1326	1932	2735	2746	4635	1"	1"	1680	3050
700A	1300	1444	2032	2871	2885	4895	1"	1"	1740	3360
750A	1400	1546	2082	2971	2988	5075	1"	1"	2180	3685
800A	1500	1655	2220	3160	3178	5413	1"	1"	2460	3993
900A	1650	1818	2520	3535	3550	6153	1"	1"	3190	4340
1000A	1750	1904	2808	3890	3914	6811	1"	1"	3970	5860

※ We can provide bigger size strainers.

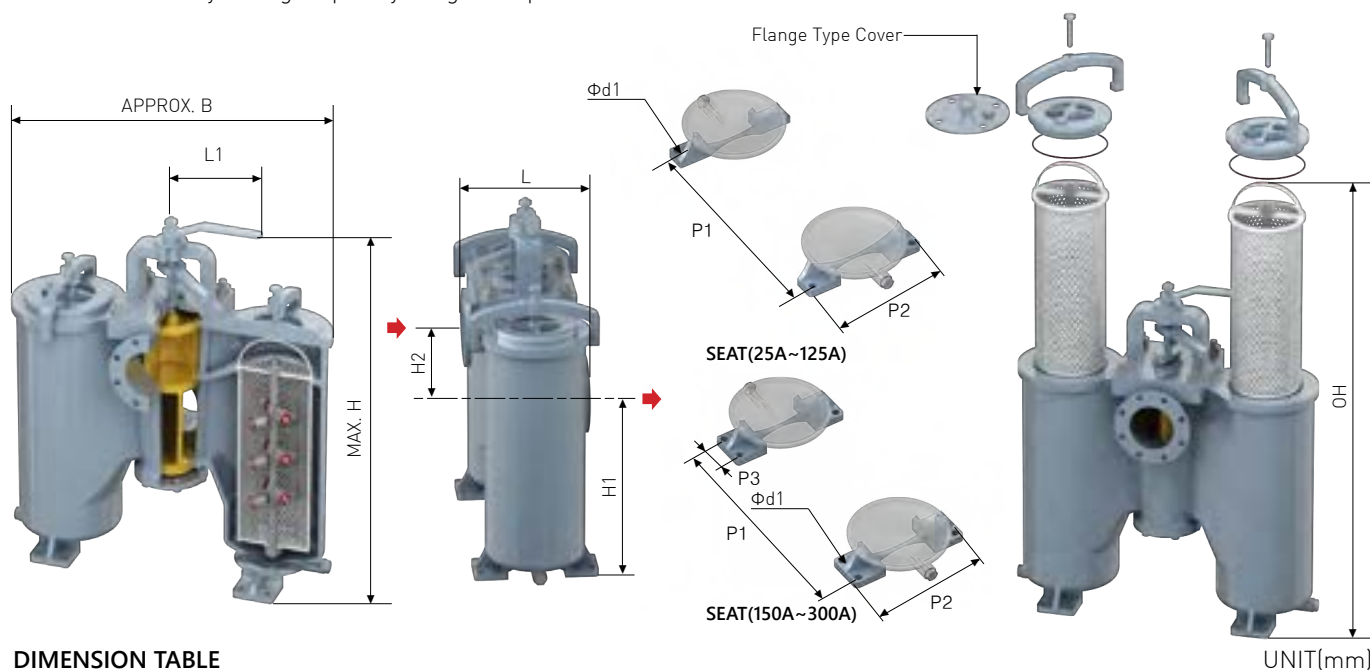
DUPLEX STRAINERS COCK VALVE H TYPE (M/N:DC)

General

Cock Valve H Type is a simple, economical, and trouble free design... time tested in applications around the world over many years. This type of strainer is actually a high quality, pressure rated plug valve with integral straining filters. Switching the flow from one filter to the other is accomplished by moving the operating handle through a 90 degree arc. The design is such that is impossible for this operation to stop the flow because of the unique port design in the diverter plug. The plug is automatically positioned each time in exactly the right spot by integral stops.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Yoke, Lug, etc.
Cover bolting	Yoke, Bolt, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L1	B	L	H1	H2	H	P1	P2	P3	d1	OH	DRAIN/VENT PLUG	Net Weight (kg)
25A	150	315	165	130	40	410	220	100	-	12	370	M20x1.5P	36
32A	150	380	195	165	55	490	290	140	-	15	490	M20x1.5P	50
40A	150	380	195	165	55	490	290	140	-	15	490	M20x1.5P	50
50A	150	415	180	219	66	516	302	150	-	15	610	M20x1.5P	60
65A	180	514	215	273	85	661	375	185	-	19	745	M20x1.5P	87
80A	210	600	245	312	102	685	440	215	-	19	884	M20x1.5P	126
100A	250	718	285	371	126	816	524	255	-	23	1052	M24x2P	191
125A	300	852	330	431	157	952	620	305	-	23	1255	M24x2P	321
150A	320	1046	410	516	201	1299	760	365	80	23	1538	M24x2P	566
200A	380	1250	490	645	245	1520	920	430	100	27	1940	M24x2P	906
250A	380	1600	570	695	370	1783	1100	495	120	33	2466	M24x2P	1555
300A	380	1900	700	695	370	1940	1425	540	120	33	2780	M24x2P	1986

※ We can provide bigger size strainers.

DUPLEX STRAINERS

COCK VALVE HS TYPE (M/N:DC2)



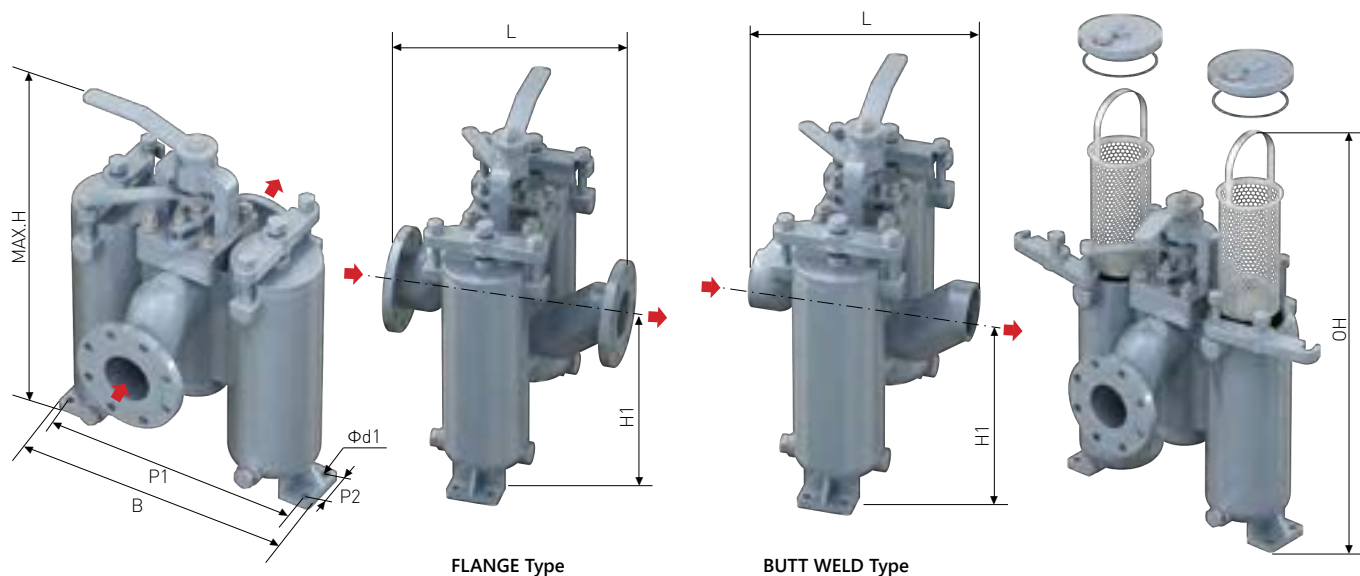
General



Cock Valve H Type is a simple, economical, and trouble free design... time tested in applications around the world over many years. This type of strainer is actually a high quality, pressure rated plug valve with integral straining filters. Switching the flow from one filter to the other is accomplished by moving the operating handle through a 90 degree arc. The design is such that is impossible for this operation to stop the flow because of the unique port design in the diverter plug. The plug is automatically positioned each time in exactly the right spot by integral stops.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Yoke, Lug, etc.
Cover bolting	Yoke, Bolt, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	B	L	H1	H	P1	P2	d1	OH	DRAIN/VENT PLUG	Net Weight (kg)
25A	268	175	127	407	236	50	12	510	M20x1.5P	36
32A	330	175	173	453	298	60	15	530	M20x1.5P	50
40A	330	238	173	453	298	60	15	530	M20x1.5P	50
50A	458	300	220	500	430	60	15	538	M20x1.5P	60
65A	559	343	225	546	527	64	16	633	M20x1.5P	87
80A	559	343	225	546	527	64	16	633	M20x1.5P	126
100A	584	406	336	765	546	76	16	919	M20x1.5P	191
125A	899	467	375	845	849	76	23	1148	M24x2P	321
150A	910	570	550	1133	860	153	23	1345	M24x2P	566
200A	1310	635	586	1286	1250	153	27	1706	M24x2P	906

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DUPLEX STRAINERS

COCK VALVE PC TYPE (M/N:DC3)

B
PRODUCT

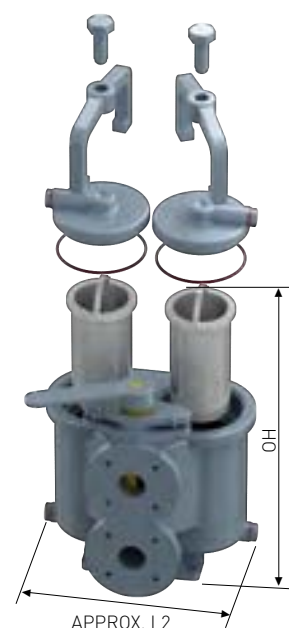
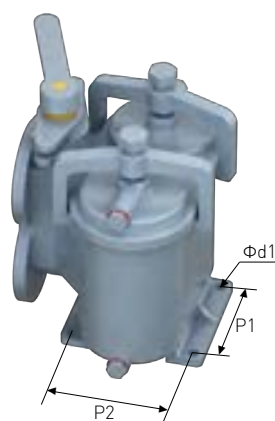
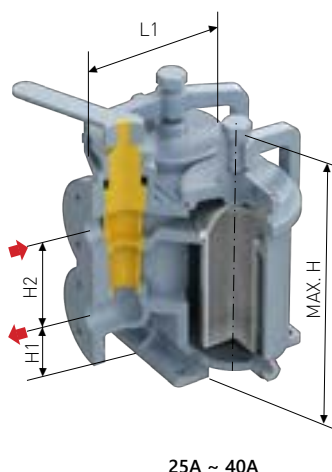
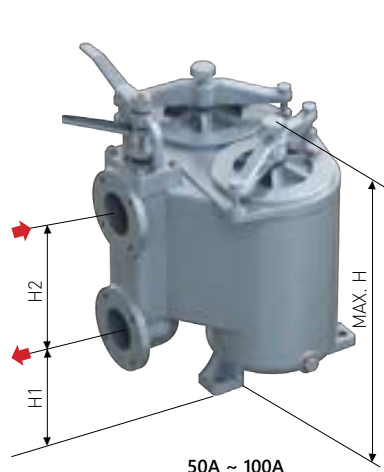
General



Cock Valve PC Type is a simple, economical, and trouble free design... time tested in applications around the world over many years. This type of strainer is actually a high quality, pressure rated plug valve with integral straining filters. Switching the flow from one filter to the other is accomplished by moving the operating handle through a 90 degree arc. The design is such that is impossible for this operation to stop the flow because of the unique port design in the diverter plug. The plug is automatically positioned each time in exactly the right spot by integral stops.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Yoke, Lug
Cover bolting	Yoke
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L1	L2	H1	H2	H	P1	P2	d1	OH	DRAIN	VENT	Net Weight (kg)
25A	167	196	53	80	235	128	100	12	265	M20x1.5P	M20x1.5P	36
32A	241	280	78	125	355	176	152	15	350	M20x1.5P	M20x1.5P	50
40A	241	280	78	125	355	176	152	15	406	M20x1.5P	M20x1.5P	50
50A	317	354	120	145	495	235	200	15	530	M20x1.5P	M20x1.5P	72
65A	397	436	123	195	580	280	260	15	635	M20x1.5P	M20x1.5P	114
80A	445	501	150	320	670	320	290	15	740	M20x1.5P	M20x1.5P	159
100A	525	585	115	310	760	360	340	15	850	M20x1.5P	M20x1.5P	244

※ We can provide bigger size strainers.

DUPLEX STRAINERS BUTTERFLY VALVE Y TYPE (M/N:DC4)



General

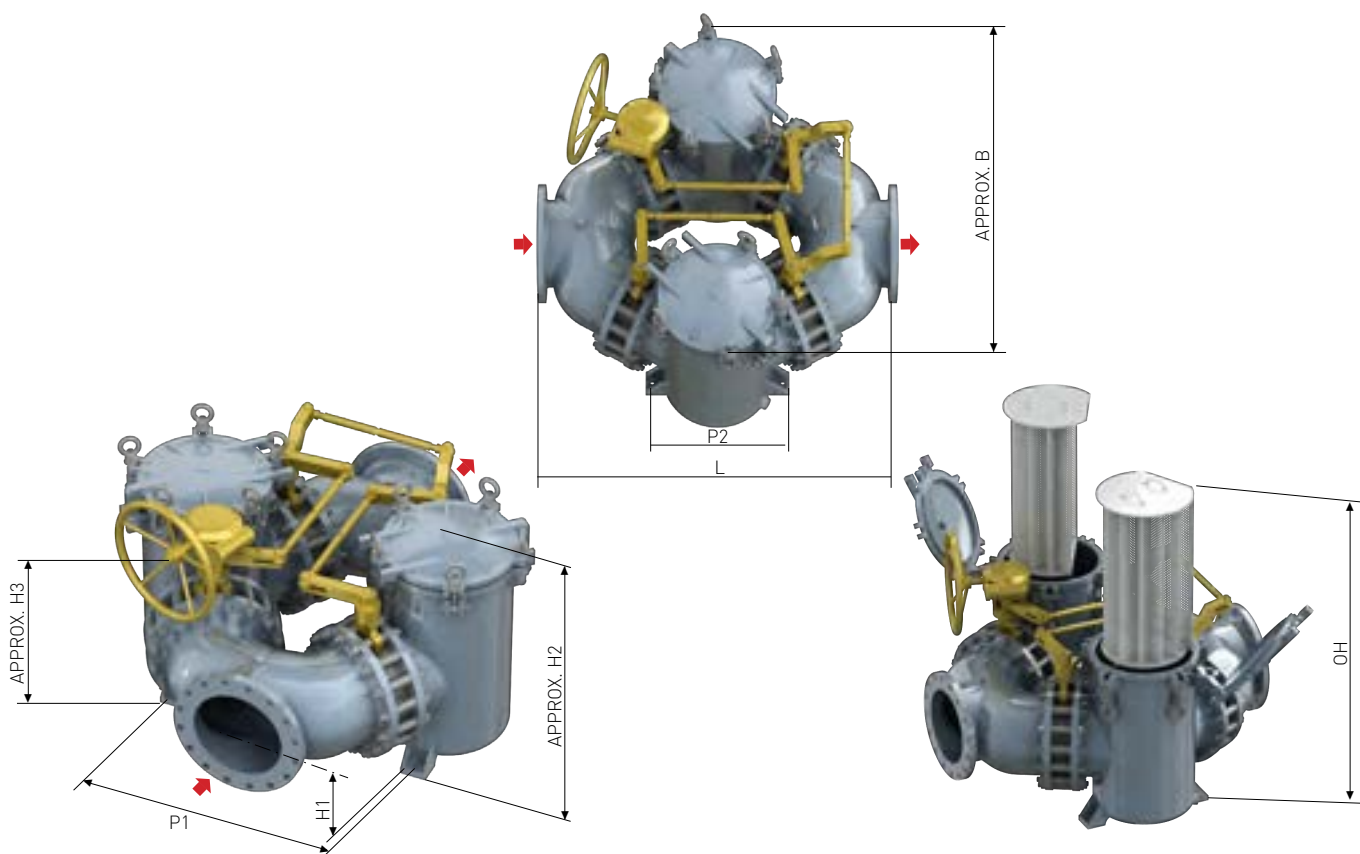
Butterfly Valve Y Type is a new design with several interesting features and advantages. Flow is switched from one basket to the other by a pair of synchronized butterfly valves. This gives a straight flow pattern with no sudden changes in direction. Result – low pressure loss.

A 10" strainer of this type, for example, can handle 2,000 GPM of water with a pressure drop of only 2 psi. This is the strainer to use when high flow and low pressure loss are critical.



Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, etc.
Filter	ø2 ~ ø12
Mesh	N/A
Lifting	Lug, etc.
Cover bolting	Hinge, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, Hot Dipped Galv, etc.
Liquid name	Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	B	H1	H2	H3	P1	P2	OH	DRAIN	VENT	Net Weight(kg)
250A	1143	1296	310	737	770	813	483	1245	1 ½"	¼"	910
300A	1575	1626	427	966	930	1041	584	1677	1 ½"	¼"	1508
350A	1829	1931	478	1131	1138	1219	686	1956	1 ½"	¼"	2447
400A	1829	1931	478	1131	1138	1219	686	1956	1 ½"	¼"	3147
450A	1829	1931	478	1131	1138	1219	686	1956	1 ½"	¼"	3847

※ We can provide bigger size strainers.

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B
PRODUCT

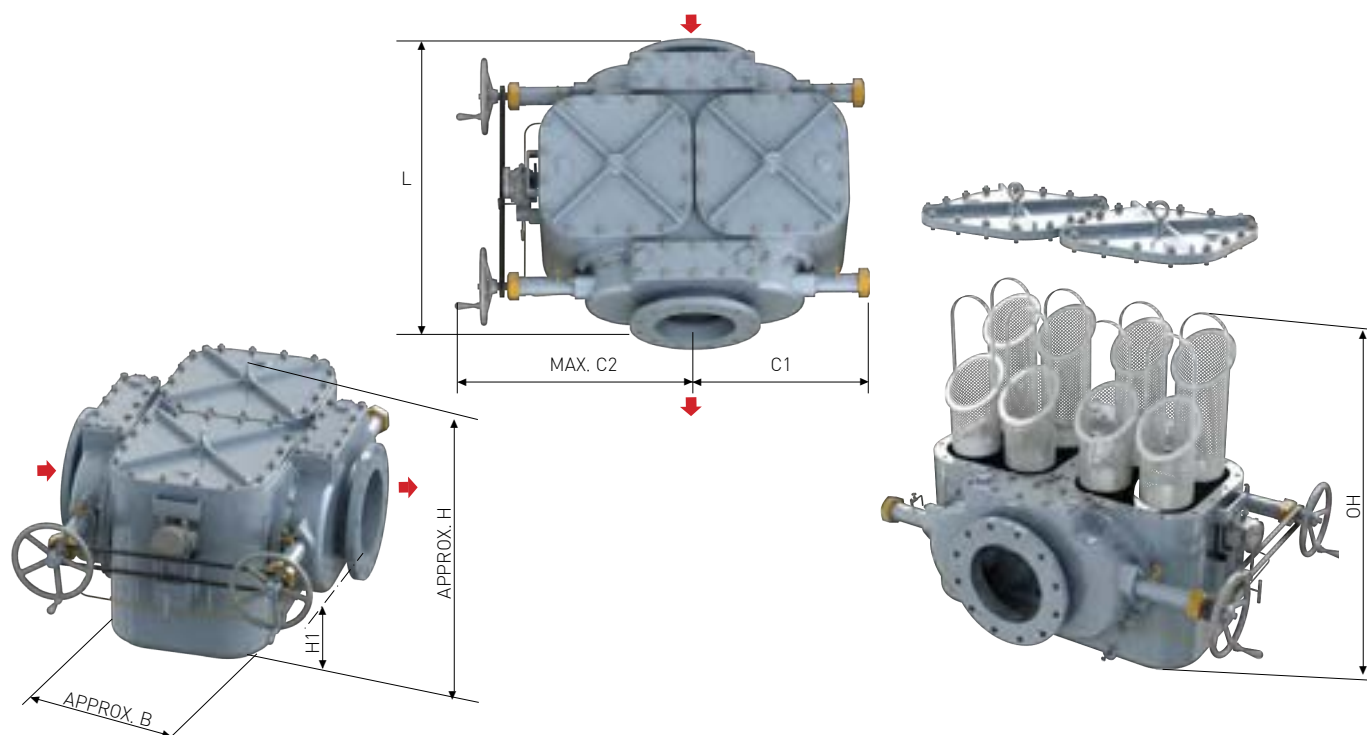
DUPLEX STRAINERS MULTI TYPE (M/N:DC5)

Specifications

General

Multi Type is for handling very large volumes of water. They have been in service for 20 years in the electric power industry and the primary metals industry for cleaning cooling water. They are also in wide use in the paper, sewage and water treatment as well as the chemical industries for straining water and to protect equipment. The petroleum industry uses them to remove gums, tars and dirt from oil and oil products.

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, etc.
Filter	ø2 ~ ø12
Mesh	N/A
Lifting	Lug, Eye bolt, etc.
Cover bolting	Stud
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	C1	C2	B	H1	H	OH	DRAIN/VENT PLUG.	Net Weight(kg)
200A	978	458	724	465	210	521	966	3/4"	910
250A	1029	516	775	521	264	604	1118	3/4"	1555
300A	1105	595	826	585	343	743	1321	3/4"	1986
350A	1176	651	889	633	401	803	1524	3/4"	2397
400A	1260	707	953	714	453	889	1677	3/4"	2985
500A	1626	864	1113	859	677	1163	2236	3/4"	5045
600A	1773	1027	1258	930	750	1347	2490	3/4"	5772
750A	2515	1677	1829	1169	991	1702	3150	3/4"	9600
900A	3023	1677	1829	1194	991	1702	3150	3/4"	9980

※ We can provide bigger size strainers.

DUPLEX STRAINERS BUTTERFLY VALVE H TYPE (M/N:DS1)



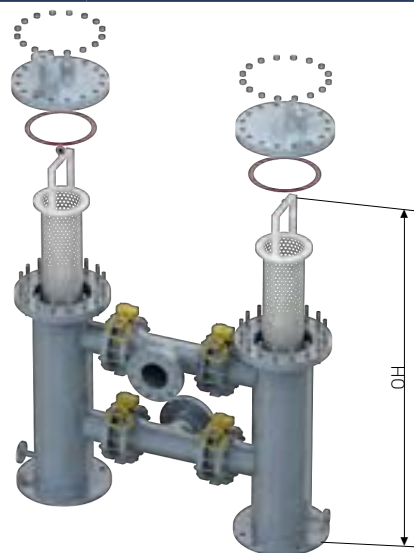
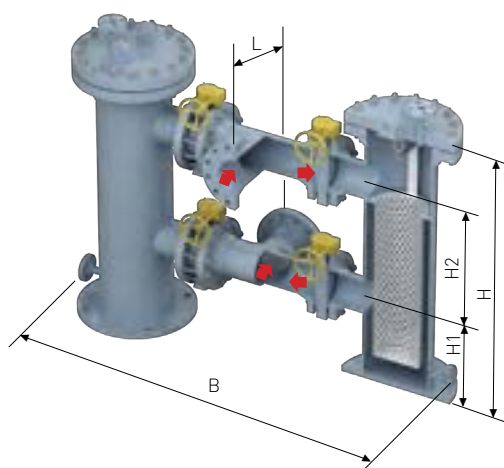
General



Butterfly Valve H Type is a simple, economical, and trouble free design... time tested in applications around the world over many years. This type of strainer is actually a high quality, pressure rated butterfly valve with integral straining filters. Switching the flow from one filter to the other is accomplished by moving the operating handle through a 90 degree arc. The design is such that is impossible for this operation to stop the flow because of the unique port design in the diverter plug. The plug is automatically positioned each time in exactly the right spot by integral stops.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.C, etc.
Butterfly valve type	Metal seat, Teflon, E.P.D.M, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.



UNIT(mm)

DIMENSION TABLE

Nominal dia		L		B		H1	H2	H		OH		Net Weight(kg)	
JIS	ANSI	5K 150LB	10K 300LB	5K 150LB	10K 300LB			5K 150LB	10K 300LB	5K 150LB	10K 300LB	5K 150LB	10K 300LB
50A	2"	254	266.5	724	749	110	300	530	550	1030	1065	194	228
65A	2 1/2"	292	305	762	789	130	320	580	600	1120	1160	232	278
80A	3"	311.5	330.5	825	865	150	350	640	665	1240	1290	268	341
100A	4"	361.5	380.5	972	1010	200	400	760	796	1465	1535	373	489
125A	5"	426	445	1116	1154	220	430	830	880	1595	1695	492	604
150A	6"	463	482	1155	1198	250	450	890	940	1730	1830	525	836
200A	8"	559	579	1365	1402	300	500	1030	1090	2005	2125	898	1223
250A	10"	635	667	1475	1571	330	600	1200	1250	2325	2425	1182	1832
300A	12"	736.5	768.5	1677	1780	360	700	1380	1440	2680	2800	1678	2476
350A	14"	813	844.5	1855	1977	400	800	1550	1620	2995	3130	2217	3302
400A	16"	864	902	1976	2126	450	900	1730	1780	3380	3480	2945	4164
450A	18"	965	1003.5	2181	2320	550	1000	1970	2030	3835	3955	3532	5434
500A	20"	1051	1086	2373	2572	600	1200	2165	2215	4235	4335	4592	7324
600A	24"	1169	1200.5	2665	2831	700	1450	2670	2780	5220	5435	6750	11043

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DUPLEX STRAINERS

3-WAY BALL VALVE TYPE (M/N:DS2)

B
PRODUCT

Specifications

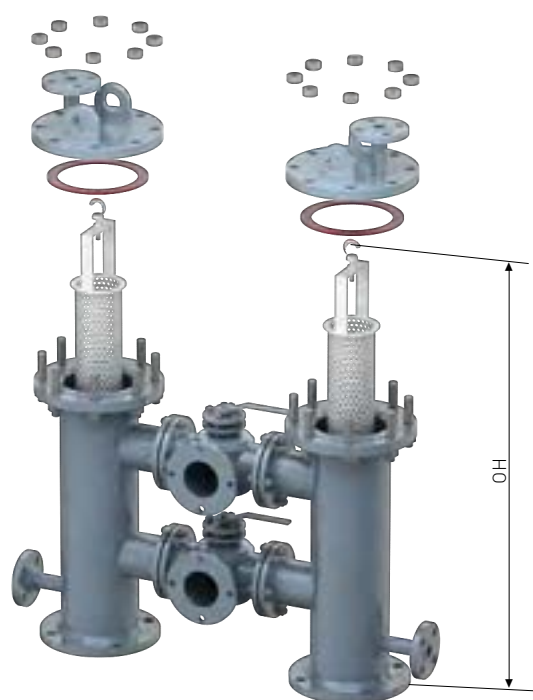
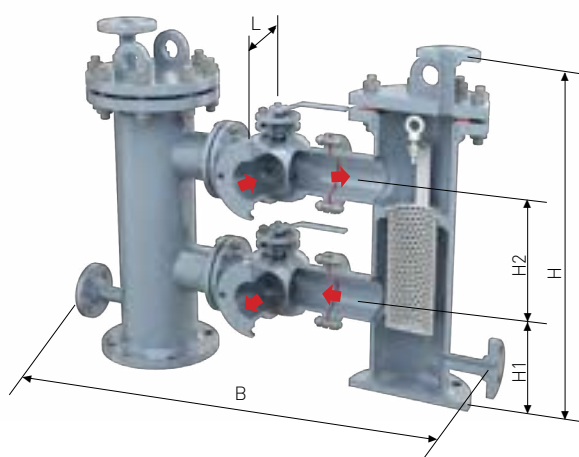
General



3-Way Ball Valve Type is a simple, economical, and trouble free design... time tested in applications around the world over many years. This type of strainer is actually a high quality, pressure rated 3-way ball valve with integral straining filters. Switching the flow from one filter to the other is accomplished by moving the operating handle through a 90 degree arc. The design is such that it is impossible for this operation to stop the flow because of the unique port design in the diverter plug.

The plug is automatically positioned each time in exactly the right spot by integral stops.

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.C, etc.
Butterfly valve type	Metal seat, Teflon, E.P.D.M, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	B	H2	H1	H	OH	Net Weight(kg)
							5K-150LB
40A	140	915	400	280	966	1524	156
50A	140	925	450	280	991	1550	228
80A	140	966	500	280	1105	1702	278
100A	172	1232	550	305	1197	1905	341
150A	204	1524	650	331	1456	2337	489
200A	267	1837	800	381	1867	3252	836

※ We can provide bigger size strainers.

Y STRAINERS CASTING (M/N:YC)

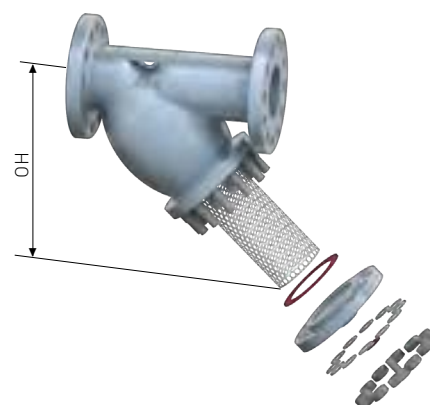
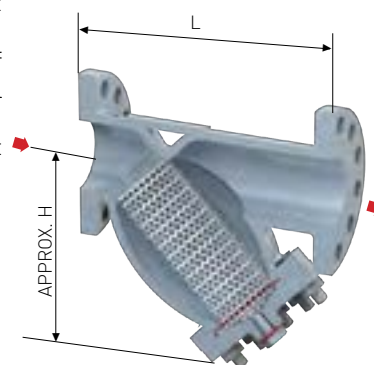


General

Y Strainers for casting take their name from their configuration. They are most commonly used in pressurized lines, gas or liquid, but can also be used in suction or vacuum conditions. They are intended for applications where small amounts of solid particulate are expected, and where clean-out will be infrequent. If solids will flush easily from the screen, and fluid can be exhausted to atmosphere, a blow-down valve on the drain port will allow clean-out without removal of the screen, and without interrupting the process flow.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Lug
Cover bolting	Stud, Hexagon
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, Steam, Gas, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	JIS-5K				JIS-10K				150LB				300LB			
	L	H	OH	Net Weight(kg)	L	H	OH	Net Weight(kg)	L	H	OH	Net Weight(kg)	L	H	OH	Net Weight(kg)
15A	180	111	122	7.5	180	111	122	9	180	111	122	9	180	111	122	9
20A	190	111	122	8	190	111	122	10	190	111	122	10	190	111	122	10
25A	190	122	145	9	190	122	145	12	190	122	145	12	190	122	145	12
32A	218	143	163	12	218	143	215	15	218	143	215	15	248	143	163	17
40A	218	143	163	13	218	143	215	16	218	143	215	16	248	143	163	18
50A	255	156	181	14	255	156	244	18	255	156	244	18	260	156	181	19
65A	280	219	272	23	280	219	337	28	280	219	337	28	320	219	224	28
80A	322	240	309	30	322	240	393	33	322	240	393	33	360	240	309	38
100A	348	265	336	37	348	265	439	40	348	265	439	40	410	265	336	46
125A	394	317	415	55	394	317	523	62	394	317	523	62	434	317	415	65
150A	442	355	474	70	442	355	586	78	442	355	586	78	515	355	494	85
200A	590	484	720	143	590	484	913	149	590	484	913	149	620	484	670	193
250A	680	583	840	205	680	583	976	210	680	583	976	210	715	583	976	245
300A	775	660	1175	368	775	660	1175	378	775	660	1175	378	775	660	1175	430

Nominal dia	600LB				900LB				1500LB				2500LB			
	L	H	OH	Net Weight(kg)	L	H	OH	Net Weight(kg)	L	H	OH	Net Weight(kg)	L	H	OH	Net Weight(kg)
15A	225	119	135	9	206	108	195	11	350	215	230	25	350	215	230	28
20A	225	119	135	10	230	121	218	15	350	215	230	26	350	215	230	29
25A	225	119	135	12	271	146	263	22	350	215	230	38	350	215	230	42
32A	295	155	170	19	280	155	279	48	450	261	270	76	450	261	270	84
40A	295	155	170	20	280	155	279	50	450	261	270	80	450	261	270	88
50A	340	195	230	22	315	170	306	57	460	292	350	97	460	292	350	107
65A	385	207	250	30	470	282	350	66	520	328	414	106	660	400	492	117
80A	480	320	390	40	530	382	430	74	680	380	492	148	680	417	720	170
100A	520	328	576	50	590	360	450	115	590	417	684	220	860	515	927	253
125A	574	400	720	72	630	430	774	160	700	450	810	311	950	550	990	358
150A	628	460	820	95	720	515	927	250	790	520	936	425	1000	585	1053	488
200A	840	550	990	220	890	645	1161	488	990	685	1233	724	-	-	-	-
250A	980	710	1278	270	-	-	-	-	-	-	-	-	-	-	-	-
300A	1110	810	1458	475	-	-	-	-	-	-	-	-	-	-	-	-

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World best product with high quality

B
PRODUCT

Y STRAINERS

FORGED 150LB ~ 600LB (M/N:YF)

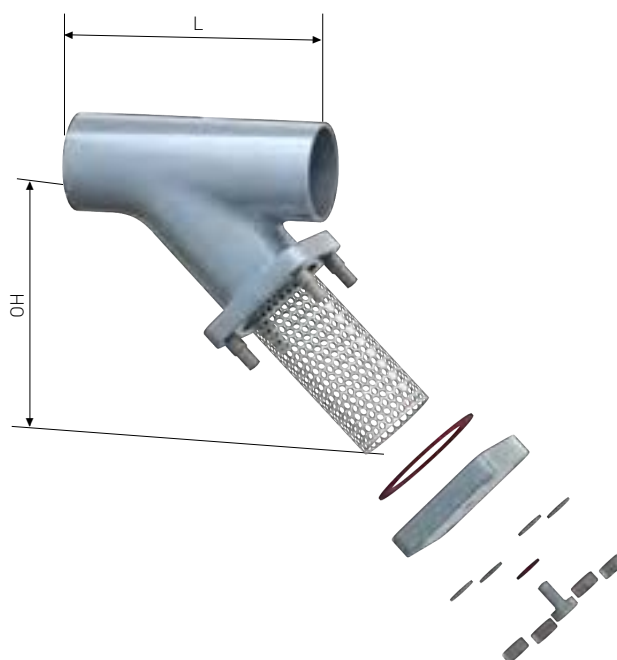
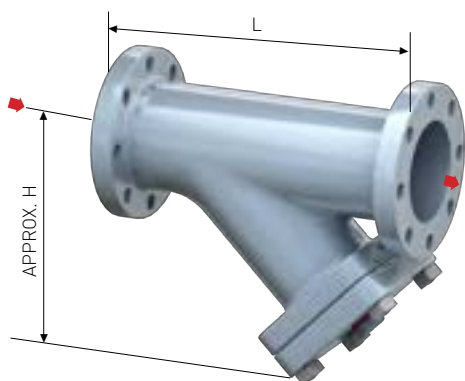
Specifications



General

Y Strainers for forged take their name from their configuration. They are most commonly used in pressurized lines, gas or liquid, but can also be used in suction or vacuum conditions. They are intended for applications where small amounts of solid particulate are expected, and where clean-out will be infrequent. If solids will flush easily from the screen, and fluid can be exhausted to atmosphere, a blow-down valve on the drain port will allow clean-out without removal of the screen, and without interrupting the process flow.

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	N/A
Cover bolting	Hexagon
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, Steam, Gas, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia.		150LB					300LB					600LB							
		L		H	OH	Net Weight(kg)		L		H	OH	Net Weight(kg)		L		H	OH	Net Weight(kg)	
mm	(")	SW	BW			SW	BW	SW	BW			SW	BW	SW	BW			SW	BW
15A	1/2"	180	120	195	8.5	180	120	195	7.5	180	120	195	8.5						
20A	3/4"	180	120	195	10	180	120	195	8	180	120	195	10						
25A	1"	180	120	195	12	180	120	195	9	180	120	195	12						
32A	1 1/4"	248	130	215	15	218	130	215	12	248	130	215	15						
40A	1 1/2"	248	130	215	18	218	130	215	13	248	130	215	18						
50A	2"	260	150	244	19	255	150	244	14	260	150	244	19						

Y STRAINERS

STEEL PLATE (M/N:YS)

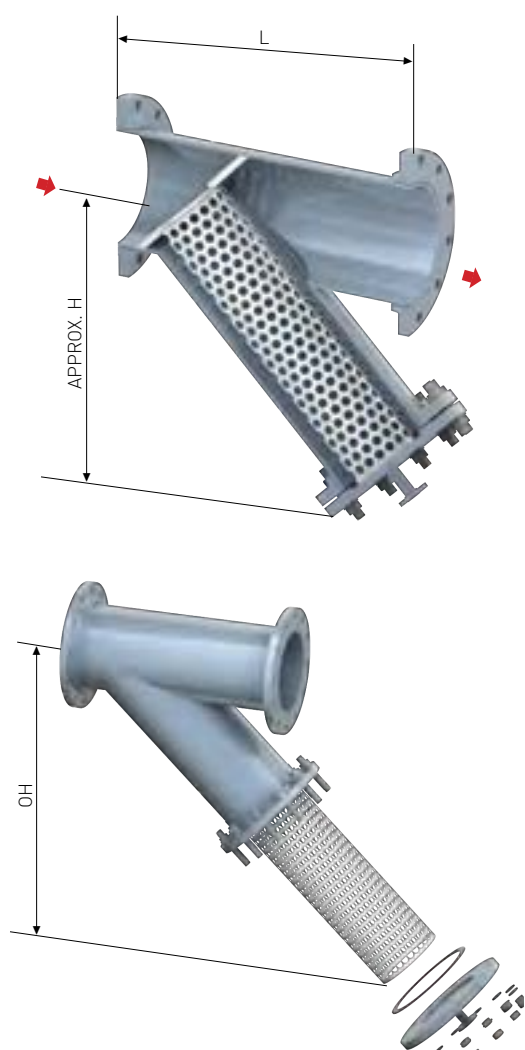


General

Y Strainers for steel plate take their name from their configuration. They are most commonly used in pressurized lines, gas or liquid, but can also be used in suction or vacuum conditions. They are intended for applications where small amounts of solid particulate are expected, and where clean-out will be infrequent. If solids will flush easily from the screen, and fluid can be exhausted to atmosphere, a blow-down valve on the drain port will allow clean-out without removal of the screen, and without interrupting the process flow.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Lug
Cover bolting	Stud, Hexagon
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, Steam, Gas, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L		H		OH		Net Weight(kg)			
	150LB	300LB	150LB	300LB	150LB	300LB	B/W		FLANGE	
							150LB	300LB	150LB	300LB
50A	290	370	241	247	390	390	10	13	15	20
65A	320	440	272	284	440	440	15	21	24	32
80A	350	490	298	312	490	490	20	28	30	44
100A	410	580	340	355	550	550	30	45	44	68
125A	490	670	382	395	620	620	43	61	60	91
150A	540	700	415	432	670	670	57	82	77	122
200A	660	840	507	526	790	950	97	138	130	199
250A	770	940	593	612	1050	1100	152	220	198	306
300A	880	1080	704	729	1240	1300	228	315	301	446
350A	970	1170	771	795	1350	1430	275	401	375	585
400A	1030	1290	874	906	1520	1600	356	591	485	816
450A	1160	1300	969	1000	1640	1750	442	707	594	995
500A	1270	1330	1060	1095	1800	1910	655	871	832	1206
550A	1370	1440	1167	1211	1980	2090	805	968	999	1543
600A	1460	1550	1268	1316	2130	2187	947	1296	1212	1767
650A	1600	1800	1409	1452	2187	2270	1287	1706	1554	2275
700A	1750	1950	1519	1568	2380	2380	1448	2046	1889	2754
750A	1850	2000	1618	1680	2545	2545	1749	2353	2107	3203
800A	2000	2200	1733	1789	2714	2714	2039	2728	2502	3689
850A	2100	2300	1852	1908	2910	2910	2340	3105	2833	4204
900A	2250	2450	1960	2016	3085	3085	2718	3545	3309	4770
950A	2350	2550	2077	2067	3275	3275	3006	4082	3678	5797
1000A	2500	2700	2171	2174	3435	3435	3340	4561	4061	6418

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TEE STRAINERS

ANGLE FLOW TYPE (M/N:T1/T2)



Specifications

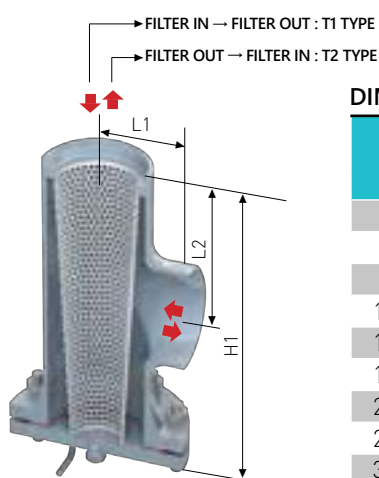
Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, Steam, Gas, etc.

General

Tee angle strainer is similar to the standard tee strainer except that it is designed for angled flow. The strainer can be fabricated with a standard bolted cover or a quock openng hinged cover. The strainer can be fabricated to meet your specifications. The standard strainer is constructed of carbon or stainless steel material. Other materials, end connections and accessories are available

* Option : Flange END, PWHT, Internal Paint, Bolt/Nut Coating, Davit or Hinge, Nace

FLOW DIRECTION



DIMENSION TABLE

UNIT(mm)

Nominal dia.		L1		L2		H1		OH	Net Weight(kg)			
		B/W	FLANGE	B/W	FLANGE	150LB	300LB		B/W		FLANGE	
									150LB	300LB	150LB	300LB
50A	2"	64	128	128	128	279	295	500	9	12	14	19
65A	2.5"	76	146	146	146	318	334	623	14	18	22	29
80A	3"	86	156	156	156	340	364	671	17	24	27	40
100A	4"	105	181	181	181	391	418	783	25	37	39	61
125A	5"	124	213	213	213	454	484	924	36	50	53	81
150A	6"	143	232	232	232	494	524	1013	46	67	67	108
200A	8"	178	280	280	280	592	624	1227	75	110	110	172
250A	10"	216	318	318	318	670	719	1405	115	174	163	263
300A	12"	254	368	368	368	773	824	1634	173	250	249	381
350A	14"	279	406	406	406	852	902	1801	212	326	312	508
400A	16"	305	432	432	432	905	964	1927	272	450	400	679
450A	18"	343	483	483	483	1010	1090	2156	342	566	491	846
500A	20"	381	526	526	526	1100	1154	2351	472	684	653	1026
550A	22"	419	569	569	569	1188	1240	2549	575	881	777	1315
600A	24"	432	584	584	584	1221	1275	2638	664	989	928	1474
650A	26"	495	618	618	618	1308	1384	2792	830	1139	1107	1554
700A	28"	521	648	648	648	1335	1425	2935	956	1358	1272	1856
750A	30"	559	698	698	698	1370	1458	3160	1106	1572	1478	2156
800A	32"	597	743	743	743	1571	1665	3368	1357	1837	1823	2530
850A	34"	635	786	786	786	1658	1759	3563	1519	2010	2017	2882
900A	36"	673	832	832	832	1758	1860	3775	1761	2109	2348	3064
950A	38"	711	870	870	870	1831	1872	3952	1938	2318	2620	3267
1000A	40"	725	885	915	915	1924	1974	4157	2138	2392	2854	3355
1050A	42"	749	915	936	936	1971	2019	4263	2404	2568	3223	3415
1100A	44"	762	942	993	993	2091	2138	4518	2704	2896	3615	3837
1150A	46"	800	988	1039	1039	2184	2236	4728	2933	3265	3914	4326
1200A	48"	838	1032	1083	1083	2277	2331	4929	3266	3600	4350	4773

※ We can provide bigger size strainers.

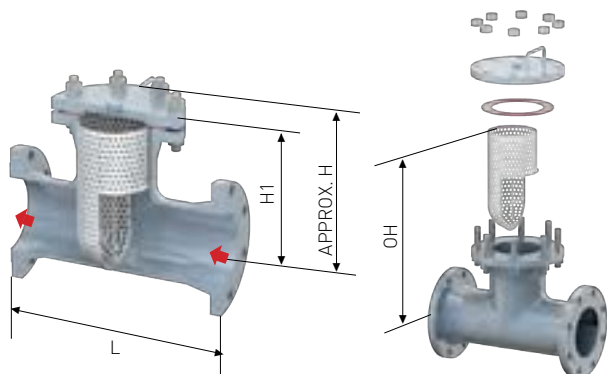
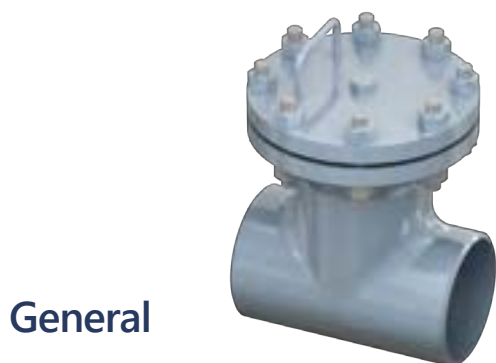
TEE STRAINERS

STRAIGHT FLOW TYPE (M/N:T3R)



General

Tee strainers for straight flow type are installed at 90° bend piping. The cylindrical element housed in the body can be taken out to horizontal center line by removing the cover.



Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, Steam, Gas, etc.

DIMENSION TABLE

UNIT(mm)

Nominal dia.	L				H1		APPROX. H		APPROX. OH		Net Weight(kg)				Applicable filter types
	BW		FLANGE		150LB	300LB	150LB	300LB	150LB	300LB	BW		FLANGE		
	150LB	300LB	150LB	300LB							150LB	300LB	150LB	300LB	
80A	171.5	171.5	311.1	330.3	155.5	165.1	250	270	360	380	20	23	34	39	R
100A	209.6	209.6	362	381	181	190.5	280	300	420	440	24	36	40	61	R
125A	247.7	247.7	425.5	444.5	212.7	222.2	310	330	500	520	32	47	52	81	R
150A	285.8	285.8	463.6	482.6	231.8	241.3	330	350	550	570	42	64	66	108	R
200A	355.6	355.6	558.8	577.8	279.4	288.9	380	410	670	690	69	102	109	169	R
250A	431.8	431.8	635	666.8	317.5	333.4	420	460	780	810	106	162	159	258	R
300A	508	508	736.6	768.4	368.3	384.2	480	510	900	940	159	222	244	332	R
350A	558.8	558.8	812.8	844.6	406.4	422.3	520	550	1000	1030	211	319	325	515	R
400A	609.6	609.6	863.6	901.6	431.8	450.8	540	580	1070	1110	279	421	421	670	R
450A	685.8	685.8	963.8	1003.4	481.9	501.7	600	640	1200	1240	344	523	506	825	R
500A	762	762	1051	1085.8	525.5	542.9	640	680	1310	1340	434	638	635	1004	R
550A	838.2	838.2	1137	1168.4	568.5	584.2	690	730	1420	1450	524	789	751	1211	R
600A	863.6	863.6	1168.4	1200.2	584.2	600.1	710	740	1480	1510	605	933	878	1462	R
650A	990.6	990.6	1232.6	1358.6	616.3	679.3	760	830	1570	1690	827	1175	1143	1775	R
700A	1041.4	1041.4	1291.4	1435.4	645.7	717.7	790	880	1650	1800	954	1395	1314	2117	R
750A	1117.6	1117.6	1391.6	1537.6	695.8	768.8	850	940	1780	1920	1103	1626	1524	2460	R
800A	1193.8	1193.8	1482.8	1637.8	741.4	818.9	900	990	1890	2050	1359	1897	1884	2854	R
850A	1270	1270	1568	1734	784	867	940	1040	2000	2170	1518	1992	2080	3220	R
900A	1346.2	1346.2	1660.2	1784	830.1	892.2	1000	1080	2120	2270	1768	2137	2431	3644	R
950A	1422.4	1422.4	1736.4	1828	868.2	911.2	1030	1090	2220	2290	1940	2324	2680	3863	R
1000A	1498.6	1498.6	1826.6	1886.6	882.7	914.1	1050	1110	2300	2360	2152	2445	2950	4031	R
1050A	1524	1524	1867	1924	913.3	943.3	1080	1130	2340	2400	2388	2527	3302	4111	R
1100A	1625.6	1625.6	1981.6	2037.6	940	968	1120	1170	2440	2500	2701	2892	3718	4297	R
1150A	1701.8	1701.8	2073.8	2133.8	986.1	1016.1	1160	1220	2560	2620	2918	3254	4004	4414	R
1200A	1778	1778	2162	2226	1030.2	1062.2	1210	1270	2670	2740	3252	3571	4452	4804	R

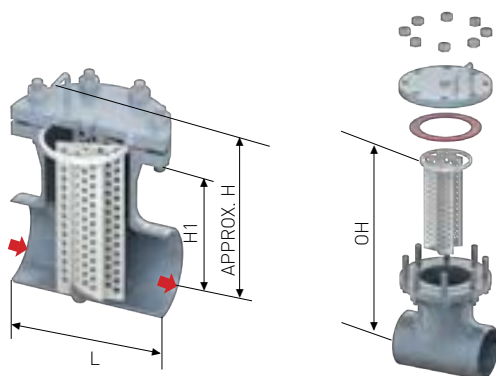
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TEE STRAINERS

STRAIGHT FLOW TYPE (M/N:T3W(WV&WW))

General

Tee strainers for straight flow type are installed at 90° bend piping. The cylindrical element housed in the body can be taken out to horizontal center line by removing the cover.



Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, Non-Asbestos, S.W.G, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Oil, Water, Steam, Gas, etc.

DIMENSION TABLE

UNIT(mm)

Nominal dia.	L				H1		APPROX. H		APPROX. OH		Net Weight(kg)				Applicable filter types
	BW		FLANGE		150LB	300LB	150LB	300LB	150LB	300LB	BW		FLANGE		
	150LB	300LB	150LB	300LB							150LB	300LB	150LB	300LB	
150A	285.8	285.8	463.6	482.6	231.8	241.3	330	350	550	570	42	64	66	108	WV,WW
200A	355.6	355.6	558.8	577.8	279.4	288.9	380	410	670	690	69	102	109	169	WV,WW
250A	431.8	431.8	635	666.8	317.5	333.4	420	460	780	810	106	162	159	258	WV,WW
300A	508	508	736.6	768.4	368.3	384.2	480	510	900	940	159	222	244	332	WV,WW
350A	558.8	558.8	812.8	844.6	406.4	422.3	520	550	1000	1030	211	319	325	515	WV,WW
400A	609.6	609.6	863.6	901.6	431.8	450.8	540	580	1070	1110	279	421	421	670	WV,WW
450A	685.8	685.8	963.8	1003.4	481.9	501.7	600	640	1200	1240	344	523	506	825	WV,WW
500A	762	762	1051	1085.8	525.5	542.9	640	680	1310	1340	434	638	635	1004	WV,WW
550A	838.2	838.2	1137	1168.4	568.5	584.2	690	730	1420	1450	524	789	751	1211	WV,WW
600A	863.6	863.6	1168.4	1200.2	584.2	600.1	710	740	1480	1510	605	933	878	1462	WV,WW
650A	990.6	990.6	1232.6	1358.6	616.3	679.3	760	830	1570	1690	827	1175	1143	1775	WV,WW
700A	1041.4	1041.4	1291.4	1435.4	645.7	717.7	790	880	1650	1800	954	1395	1314	2117	WV,WW
750A	1117.6	1117.6	1391.6	1537.6	695.8	768.8	850	940	1780	1920	1103	1626	1524	2460	WV,WW
800A	1193.8	1193.8	1482.8	1637.8	741.4	818.9	900	990	1890	2050	1359	1897	1884	2854	WV,WW
850A	1270	1270	1568	1734	784	867	940	1040	2000	2170	1518	1992	2080	3220	WV,WW
900A	1346.2	1346.2	1660.2	1784	830.1	892.2	1000	1080	2120	2270	1768	2137	2431	3644	WV,WW
950A	1422.4	1422.4	1736.4	1828	868.2	911.2	1030	1090	2220	2290	1940	2324	2680	3863	WV,WW
1000A	1498.6	1498.6	1826.6	1886.6	882.7	914.1	1050	1110	2300	2360	2152	2445	2950	4031	WV,WW
1050A	1524	1524	1867	1924	913.3	943.3	1080	1130	2340	2400	2388	2527	3302	4111	WV,WW
1100A	1625.6	1625.6	1981.6	2037.6	940	968	1120	1170	2440	2500	2701	2892	3718	4297	WV,WW
1150A	1701.8	1701.8	2073.8	2133.8	986.1	1016.1	1160	1220	2560	2620	2918	3254	4004	4414	WV,WW
1200A	1778	1778	2162	2226	1030.2	1062.2	1210	1270	2670	2740	3252	3571	4452	4804	WV,WW

※ We can provide bigger size strainers.

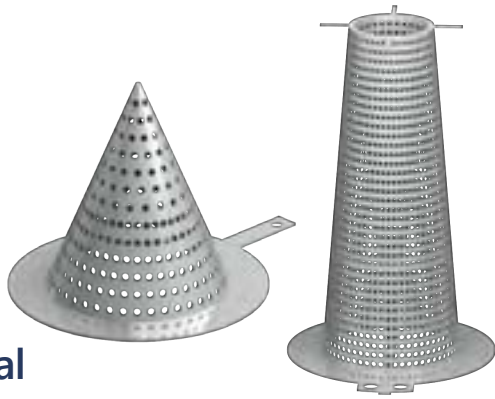
TEMPORARY STRAINERS

FLAT TYPE (M/N:CF) / **CONICAL TYPE** (M/N:CC)

BASKET TYPE (M/N:CB) / **W TYPE** (M/N:CW)



Specifications



General

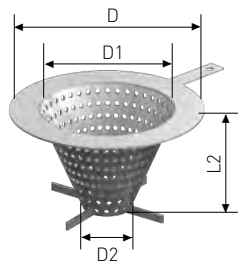
They shall be used for flushing before starting regular operation of the piping. These type are temporary strainers, which are installed between flanges of piping line.

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Flange Rating	150LB, 300LB, 400LB, 600LB, 900LB, 1500LB, 2500LB
Materials	
Filter	Stainless Steel, Monel, Titanium, etc.
Filter	ø2 ~ ø12
Mesh	#2 ~ #400 / 11100 ~ 35 micron
Lifting	Handle
Cover bolting	N/A
Liquid name	Oil, Water, Steam, Gas, etc.

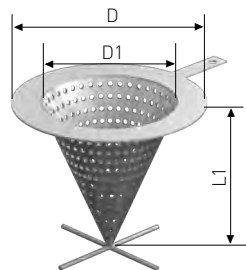
DIMENSION TABLE

UNIT[mm]

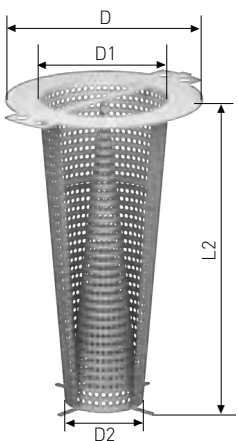
Nominal dia	D		D1	D2	L1	L2	Net Weight(kg)		
	150LB	300LB					CONICAL (FLAT)	BASKET	W(VW)
25A	64	70	23	-	40	-	0.2[0.1]	-	-
32A	73	80	30	-	45	-	0.3[0.2]	-	-
40A	83	92	36	-	50	-	0.4[0.3]	-	-
50A	102	108	46	-	60	-	0.5[0.4]	-	-
65A	121	127	58	35	70	80	0.6[0.5]	0.6	0.7[0.9]
80A	134	149	70	45	85	100	0.7[0.6]	0.8	0.9[1.1]
100A	172	181	93	60	115	110	1.1[0.7]	1.2	1.4[1.7]
125A	194	213	115	75	145	140	1.4[0.8]	1.6	1.9[2.3]
150A	220	248	135	90	180	170	1.8[0.9]	2.1	2.6[3.2]
200A	277	308	185	125	230	210	3.8[2]	3.3	4.1[5.2]
250A	337	362	235	150	295	270	5.5[3]	4.9	6.2[7.8]
300A	407	426	275	180	365	325	8.2[4]	7.2	9.0[11]
350A	447	485	305	205	390	350	8.8[5]	7.8	9.8[12]
400A	511	543	350	245	455	400	9.5[6]	11	13[16]
450A	546	597	400	270	510	450	11[7]	12	14[18]
500A	603	651	450	305	570	500	18[12]	14	17[21]
550A	657	657	500	335	625	550	21[13]	16	20[25]
600A	715	715	550	360	675	600	24[16]	19	24[30]
650A	772	772	595	385	730	650	28[17]	28	35[46]
700A	829	829	645	415	780	700	32[19]	39	48[60]
750A	880	880	695	450	835	750	35[20]	43	54[67]
800A	937	937	740	470	885	800	40[23]	49	60[76]
850A	987	987	790	500	945	850	44[25]	54	67[84]
900A	1045	1045	840	530	995	900	45[28]	55	69[87]
950A	1108	1108	890	560	1060	950	51[31]	62	77[97]
1000A	1159	1159	930	600	1130	1000	56[34]	69	86[108]
1050A	1216	1216	975	630	1180	1050	62[38]	76	95[119]
1100A	1273	1273	1020	650	1240	1100	68[41]	83	103[129]
1150A	1324	1324	1070	680	1285	1150	70[44]	86	107[134]
1200A	1381	1381	1120	710	1350	1200	76[47]	93	116[146]
1250A	1432	1432	1160	740	1410	1250	82[51]	100	126[158]
1300A	1489	1489	1210	770	1460	1300	88[55]	108	136[170]
1350A	1546	1546	1260	800	1520	1350	90[59]	111	140[175]
1500A	1711	1711	1400	890	1700	1500	110[71]	136	172[215]
1650A	1883	1883	1540	980	1850	1650	122[86]	151	190[238]
1800A	2048	2048	1680	1060	2030	1800	144[101]	178	224[280]
1950A	2207	2207	1830	1150	2200	1950	165[114]	205	259[324]
2100A	2372	2372	1970	1250	2360	2100	189[132]	237	300[376]



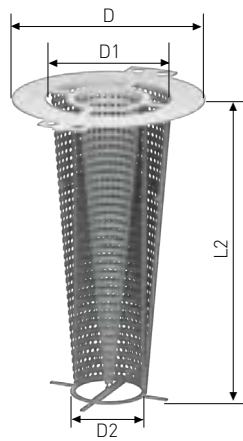
BASKET Type
(65A~2100A)



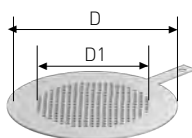
CONICAL Type
(25A~2100A)



W Type
(65A~2100A)



VW Type
(65A~2100A)



FLAT Type
(65A~2100A)

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MUD / ROSE BOXES

MUD BOXES FOR CASTING (M/N:MC1)

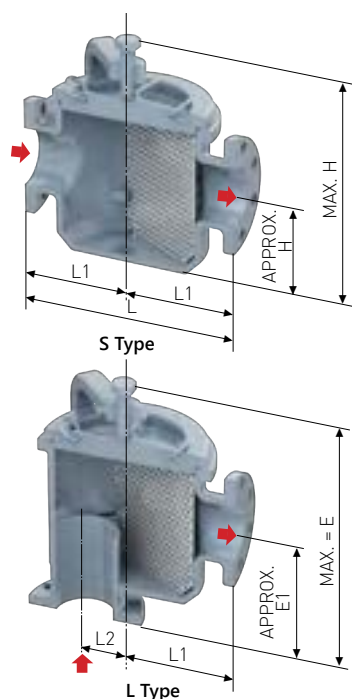
B
PRODUCT

Specifications

General

Mud Boxes for casting are available with bolted or quick release yoked cover. Yoke cover units are ideally suited for applications where frequent clean-out of the filter is expected. Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, Bronze, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø19
Mesh	N/A
Lifting	Ring, Yoke
Cover bolting	Yoke, Stud bolt, Eye bolt
Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, Oily Water, Gas, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L1	L2	L	E1	E	H1	H	OH		DRAIN PLUG	Net Weight (kg)
								S-Type	L-Type		
25A	90	23	180	110	255	73	218	238	275	M16x2P	10
32A	90	23	180	110	255	73	218	238	275	M16x2P	11
40A	90	23	180	110	255	73	218	238	275	M16x2P	12
50A	120	40	240	135	280	90	235	296	341	M20x1.5P	22
65A	150	53	300	160	340	116	296	389	433	M20x1.5P	36
80A	160	55	320	180	375	131	326	436	485	M20x1.5P	40
100A	190	70	380	210	435	152	377	494	552	M20x1.5P	58
125A	235	88	470	285	560	214	489	674	745	M20x1.5P	97
150A	280	110	560	345	665	267	587	832	910	M24x2P	158
200A	330	135	660	440	845	330	735	1025	1135	M30x2P	259
250A	380	155	760	500	1025	400	925	1300	1400	M30x2P	447

※ We can provide bigger size strainers.



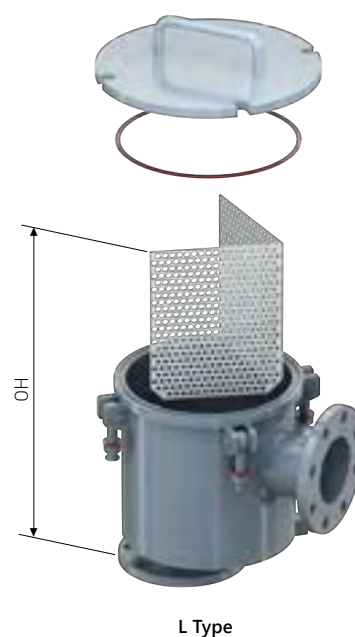
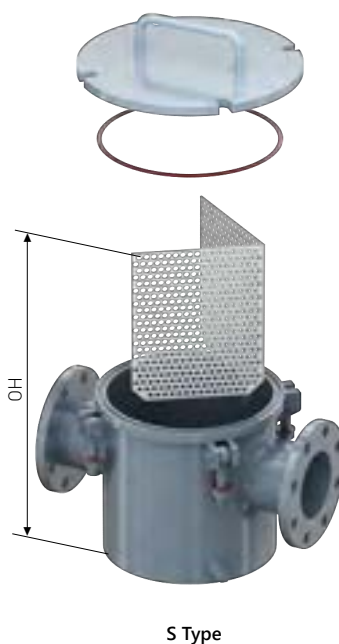
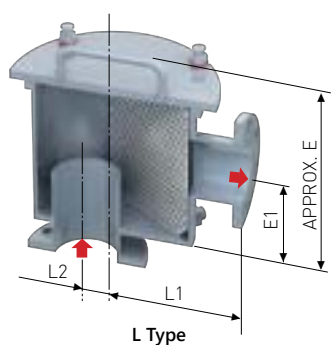
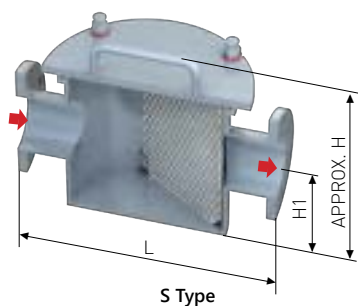
General

Mud Boxes for steel plate are available with bolted or quick release hinge bolted cover. Hinge bolted cover units are ideally suited for applications where frequent clean-out of the filter is expected.

Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø19
Mesh	N/A
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Hinge, Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, Oily Water, Gas, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	L1	L2	H	H1	E	E1	OH		DRAIN PLUG	Net Weight (kg)
								S Type	L Type		
100A	430	215	45	332	152	390	210	509	567	M20x1.5P	40
125A	545	273	50	436	214	507	285	691	762	M20x1.5P	69
150A	620	310	80	522	267	600	345	854	932	M20x1.5P	113
200A	750	375	90	631	330	741	440	1057	1167	M20x1.5P	191
250A	840	420	115	773	400	873	500	1355	1435	M20x1.5P	286
300A	840	420	85	784	410	884	510	1366	1457	M20x1.5P	296

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MUD / ROSE BOXES

MUD BOXES FOR ROUND TYPE (M/N:MC2/MS2)

B
PRODUCT



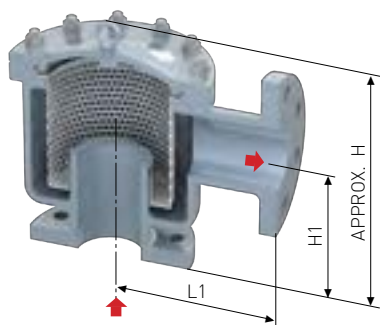
Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Body	Carbon Steel, Stainless Steel, etc.
Filter	Carbon Steel, Stainless Steel, Monel, Titanium, etc.
Packing	N.B.R, E.P.D.M, P.T.F.E, Viton, etc.
Filter	ø2 ~ ø19
Mesh	N/A
Lifting	Handle, Davit, Lug, etc.
Cover bolting	Stud, Hexagon, etc.
Vent / Drain type	Screw, Flange, Valve, etc.
Coating	Tar Free Epoxy, N.B.R, P.E, Hot Dipped Galv, etc.
Liquid name	Water, Oily Water, Gas, etc.

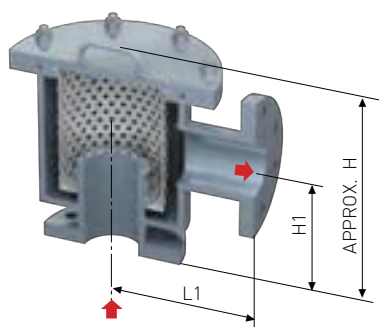
General

Mud boxes for round type are available with bolted or quick release hinge bolted cover. Hinge bolted cover units are ideally suited for applications where frequent clean-out of the filter is expected.

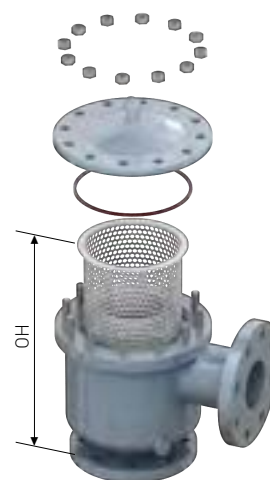
Having a spare, clean filter on hand will greatly reduce the cleaning time, and differential pressure gauges, with alarms, can be supplied to get the maximum on-stream time between cleaning cycles.



CASTING (M/N : MC2)



STEEL PLATE (M/N : MS2)



DIMENSION TABLE
[CASTING - MC2]

Nominal dia	L1	H	H1	OH	DRAIN	Net Weight(KG)
25A	90	255	110	275	M16x2P	8
32A	90	255	110	275	M16x2P	11
40A	90	255	110	275	M16x2P	11
50A	120	280	135	341	M20x1.5P	18
65A	150	340	160	433	M20x1.5P	35
80A	160	375	180	485	M20x1.5P	40
100A	190	435	210	552	M20x1.5P	54
125A	235	560	285	745	M20x1.5P	96
150A	280	665	345	910	M24x2P	151
200A	330	845	440	1135	M24x2P	258
250A	380	1025	500	1400	M24x2P	454

DIMENSION TABLE
[STEEL PLATE - MS2]

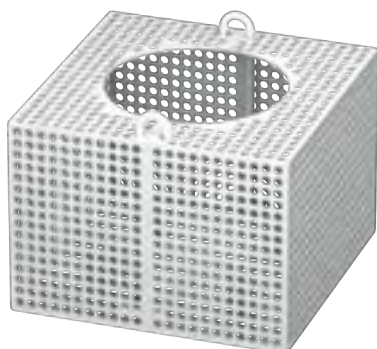
Nominal dia	L1	H	H1	OH	DRAIN	Net Weight(KG)
125A	545	507	285	762	M20x1.5P	69
150A	620	600	345	932	M20x1.5P	112
200A	750	741	440	1167	M20x1.5P	192
250A	840	873	500	1435	M20x1.5P	287
300A	840	884	540	1455	M20x1.5P	296

UNIT(mm)

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MUD / ROSE BOXES

ROSE BOXES FOR STEEL PLATE (M/N:RB)

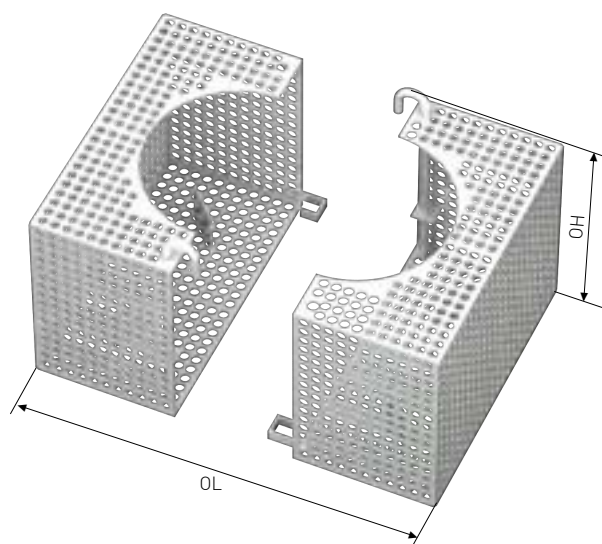
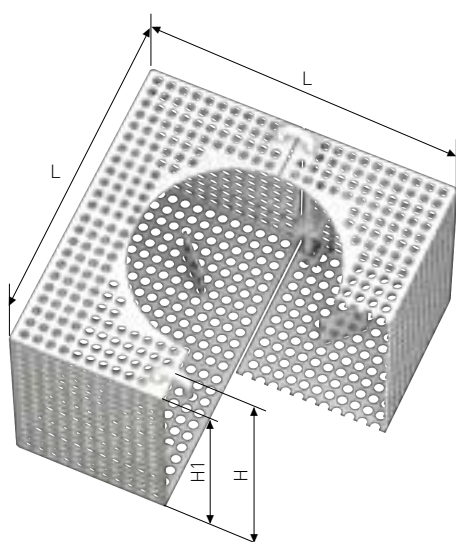


General

They shall be used for filtering that the collected bilge from each compartment. These type are installed for end position of suction piping line

Specifications

Stress analysis code	ASME Section VIII Division 1.
Connection Flange	JIS B 2210, ANSI B 16.5, DIN, etc.
Materials	
Filter	Stainless Steel, Carbon steel, Monel, Titanium, etc.
Filter	ø2 ~ ø12
Cover bolting	N/A
Liquid name	Oil, Water, etc.



DIMENSION TABLE

UNIT(mm)

Nominal dia	L	H1	H	OH	OL	Net Weight (kg)
25A	95	50	80	112	129	0.4
32A	95	65	90	122	138	0.5
40A	95	65	90	122	144	1
50A	110	80	105	144	171	2
65A	140	95	120	158	237	3
80A	170	110	135	173	260	4
100A	200	140	165	209	315	5
125A	260	170	200	244	400	7
150A	320	200	230	274	486	10
200A	380	260	300	360	597	21
250A	440	320	360	420	708	28
300A	500	350	400	470	819	36

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STRAINER



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<http://limanntech.com>

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