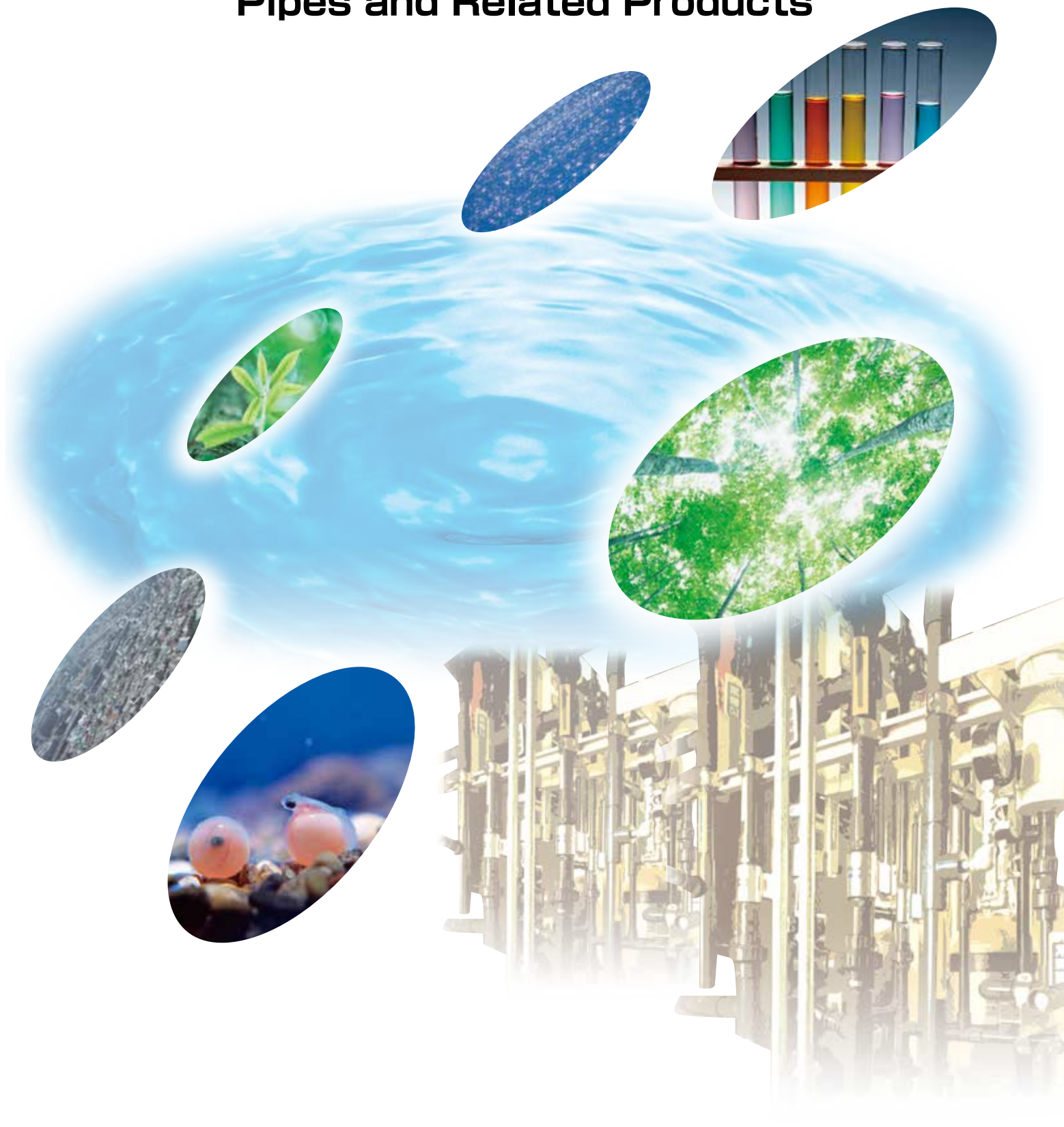


ESLON VALVE

Manual Operation Valves & Pipes and Related Products



ESLON VALVE

Manual Operation Valves & Pipes and Related Products

Valve

CONTENTS

- Product list.....3
- Precautions.....6
- Manual Operation Valve.....8
- Pipe & Related Products.....36
- Technical Information.....58

DIAPHRAGM VALVE



Size: 15~250
Material: PVC, HT, PP, PVDF

9

DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE



Size: 20×16~65×40
Material: PVC, HT, PVDF

11

BALL VALVE



Size: 15~100
Material: PVC, HT, PP, PVDF

12

LOCK BALL VALVE (COMPACT BALL VALVE)



Size: 13~20
Material: PVC

14

LOCK BALL VALVE (COMPACT BALL VALVE)



Size: 25~50
Material: PVC

14

MINI BALL VALVE



Size: 6~15
Material: PVC

15

YP BALL VALVE



Size: 15~50
Material: PVC

16

3-WAY BALL VALVE



Size: 15~50
Material: PVC

17

BUTTERFLY VALVE [LEVER TYPE]



Size: 40~200
Material: PVC, PP, PVDF

18

BUTTERFLY VALVE [GEAR TYPE]



Size: 40~600
Material: PVC, PP, PVDF

19

ROTARY DAMPER



Size: 40~300
Material: PVC

20

BUTTERFLY VALVE FOR UNDER GROUND



Size: 40~300
Material: PVC

21

GATE VALVE



Size: 40~200
Material: PVC

22

NEEDLE VALVE



Size: 15~40
Material: PVC

23

GLOBE VALVE



Size: 15~100
Material: PVC

24

STRAINER



Size: 15~100
Material: PVC

25

CHECK VALVE SWING TYPE



Size: 15~200
Material: PVC, PP, PVDF

26

CHECK VALVE BALL TYPE



Size: 15~100
Material: PVC, HT

27

FOOT VALVE



Size: 15~100
Material: PVC, HT

28

CHECK VALVE LIFT TYPE



Size: 15~50
Material: PVC

29

RELIEF VALVE



Size: 13~50
Material: PVC, PP, PVDF

31

PRESSURE REGULATION VALVE



Size: 13~50
Material: PVC, PP, PVDF

33

ESLON VALVE Manual Operation Product List

DIAPHRAGM VALVE

■ DIAPHRAGM VALVE (P.9)

Material			PVC			HT		PP	PVDF		
Size			Flange	Thread	TS	Flange	TS	Flange	Flange	Thread	Butt
Size A (B)	15	(1/2)	●	●	●	●	●	●	●	●	●
	20	(3/4)	●	●	●	●	●	●	●	●	●
	25	(1)	●	●	●	●	●	●	●	●	●
	32	(1 1/4)	●	●	●	●	●	●	●	●	●
	40	(1 1/2)	●	●	●	●	●	●	●	●	●
	50	(2)	●	●	●	●	●	●	●	●	●
	65	(2 1/2)	●	—	—	●	—	●	●	—	—
	80	(3)	●	—	—	●	—	●	●	—	—
	100	(4)	●	—	—	●	—	●	●	—	—
	125	(5)	●	—	—	—	—	●	●	—	—
	150	(6)	●	—	—	—	—	●	●	—	—
	200	(8)	●	—	—	—	—	●	●	—	—
	250	(10)	●	—	—	—	—	●	●	—	—

■ DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE (P.11)

Material			PVC			HT			PVDF		
Size			Flange	True Union TS	TS	Flange	True Union TS	TS	Flange	True Union Butt	Butt
Size A	20×16		●	●	●	●	●	●	—	—	●
	25×25		●	●	—	●	●	—	●	●	—
	50×25		●	●	—	●	●	—	●	●	—
	65×40		●	●	—	●	●	—	●	●	—

BALL VALVE

■ BALL VALVE (P.12)

Material			PVC			HT		PP	PVDF		
Size			Flange	Thread	TS	Flange	TS	Flange	Flange	Thread	Butt
Size A (B)	15	(1/2)	●	●	●	●	●	●	●	●	●
	20	(3/4)	●	●	●	●	●	●	●	●	●
	25	(1)	●	●	●	●	●	●	●	●	●
	32	(1 1/4)	●	●	●	●	●	●	●	●	●
	40	(1 1/2)	●	●	●	●	●	●	●	●	●
	50	(2)	●	●	●	●	●	●	●	●	●
	65	(2 1/2)	●	●	●	●	●	●	●	●	●
	80	(3)	●	●	●	●	●	●	●	●	●
	100	(4)	●	●	●	●	●	●	●	●	●

■ COMPACT BALL VALVE (P.13)

Material			PVC	
Size			Thread	TS
Size A (B)	13	(3/8)	—	●
	15	(1/2)	●	●
	20	(3/4)	●	●

■ LOCK BALL VALVE (P.14)

Material			PVC	
Size			Thread	TS
Size A (B)	25	(1)	●	●
	32	(1 1/4)	●	●
	40	(1 1/2)	●	●
	50	(2)	●	●

■ MINI BALL VALVE (P.15)

Material			PVC			
Size			Female Thread	Male Thread	TS	Hose Straight
Size A(B)	6	(1/8)	●	●	—	●
	13	(3/8)	—	—	●	—
	15	(1/2)	●	—	●	—

■ YP BALL VALVE (P.16)

Material			PVC		
Size			Flange	Thread	TS
Size A(B)	15	(1/2)	●	●	●
	20	(3/4)	●	●	●
	25	(1)	●	●	●
	32	(1 1/4)	●	●	●
	40	(1 1/2)	●	●	●
	50	(2)	●	●	●

■ 3-WAY BALL VALVE (P.17)

Material			PVC		
Size			Flange	Thread	TS
Size A(B)	15	(1/2)	●	●	●
	20	(3/4)	●	●	●
	25	(1)	●	●	●
	40	(1 1/2)	●	●	●
	50	(2)	●	●	●

BUTTERFLY VALVE

■ BUTTERFLY VALVE (P.18、19)

Material			PVC		PP		PVDF	
Size			LEVER	GEAR	LEVER	GEAR	LEVER	GEAR
Size A(B)	40	(1 1/2)	●	●	●	●	●	●
	50	(2)	●	●	●	●	●	●
	65	(2 1/2)	●	●	●	●	●	●
	80	(3)	●	●	●	●	●	●
	100	(4)	●	●	●	●	●	●
	125	(5)	●	●	●	●	●	●
	150	(6)	●	●	●	●	●	●
	200	(8)	●	●	●	●	●	●
	250	(10)	—	●	—	●	—	●
	300	(12)	—	●	—	●	—	●
	350	(14)	—	●	—	●	—	●
	400	(16)	—	●	—	●	—	●
	450	(18)	—	●	—	●	—	●
	500	(20)	—	●	—	●	—	●
	600	(24)	—	●	—	●	—	●

■ ROTARY DAMPER (P.20)

Material			PVC
Size A(B)	40	(1 1/2)	●
	50	(2)	●
	65	(2 1/2)	●
	80	(3)	●
	100	(4)	●
	125	(5)	●
	150	(6)	●
	200	(8)	●
	250	(10)	●
	300	(12)	●

■ BUTTERFLY VALVE FOR UNDER GROUND (P.21)

Material			PVC	
Size			Handle	Cap
Size A(B)	40	(1 1/2)	●	●
	50	(2)	●	●
	65	(2 1/2)	●	●
	80	(3)	●	●
	100	(4)	●	●
	125	(5)	●	●
	150	(6)	●	●
	200	(8)	●	●
	250	(10)	●	●
	300	(12)	●	●

GATE VALVE

■ GATE VALVE (P.22)

Material			PVC	
Size			Flange	
			Internal Thread	External Thread
Size A(B)	40	(1 1/2)	—	●
	50	(2)	●	●
	65	(2 1/2)	●	●
	80	(3)	●	●
	100	(4)	●	●
	125	(5)	●	●
	150	(6)	●	●
	200	(8)	●	●

■ NEEDLE VALVE (P.23)

Material		PVC
Size		Flange
Size A(B)	15	●
	20	●
	25	●
	32	●
	40	●

GLOBE VALVE

■ GLOBE VALVE (P.24)

Material			PVC		
Size			Flange	Thread	TS
Size A(B)	15	(1/2)	●	●	●
	20	(3/4)	●	●	●
	25	(1)	●	●	●
	32	(1 1/4)	●	●	—
	40	(1 1/2)	●	●	—
	50	(2)	●	●	—
	65	(2 1/2)	●	—	—
	80	(3)	●	—	—
	100	(4)	●	—	—

STRAINER

■ STRAINER (P.25)

Material			PVC			
Size			Flange	Thread	TS	True Union Thread/TS
Size A(B)	15	(1/2)	●	●	●	●
	20	(3/4)	●	●	●	●
	25	(1)	●	●	●	●
	32	(1 1/4)	●	●	●	●
	40	(1 1/2)	●	●	●	●
	50	(2)	●	●	●	●
	65	(2 1/2)	●	—	—	—
	80	(3)	●	—	—	—
	100	(4)	●	—	—	—

Body of Size 15 to 50 is transparency.

CHECK VALVE

■ CHECK VALVE (SWING TYPE · BALL TYPE · LIFT TYPE) (P.26, 27, 29)

TYPE			SWING TYPE			BALL TYPE		LIFT TYPE
Material			PVC	PP	PVDF	PVC	HT	PVC
Size			Flange	Flange	Flange	TS	Thread	Flange
Size A(B)	15	(1/2)	●	●	●	●	●	●
	20	(3/4)	●	●	●	●	●	●
	25	(1)	●	●	●	●	●	●
	32	(1 1/4)	●	●	●	●	●	●
	40	(1 1/2)	●	●	●	●	●	●
	50	(2)	●	●	●	●	●	●
	65	(2 1/2)	●	●	●	●	●	—
	80	(3)	●	●	●	●	●	—
	100	(4)	●	●	●	●	●	—
	125	(5)	●	●	●	—	—	—
	150	(6)	●	●	●	—	—	—
	200	(8)	●	●	●	—	—	—

FOOT VALVE

■ FOOT VALVE (P.28)

Material			PVC		HT
Size			TS	Thread	TS
Size A(B)	15	(1/2)	●	●	●
	20	(3/4)	●	●	●
	25	(1)	●	●	●
	32	(1 1/4)	●	●	●
	40	(1 1/2)	●	●	●
	50	(2)	●	●	●
	65	(2 1/2)	●	●	●
	80	(3)	●	●	●
	100	(4)	●	●	●
	125	(5)	—	—	—
	150	(6)	—	—	—
	200	(8)	—	—	—

RELIEF VALVE

RELIEF VALVE (P.31)

Material			PVC			PP	PVDF	
Size			Flange	Thread	TS	Flange	Flange	Thread
Size A(B)	13	(3/8)	—	●	●	—	—	●
	15	(1/2)	●	●	●	●	●	●
	20	(3/4)	●	●	●	●	●	●
	25	(1)	●	●	●	●	●	●
	32	(1 1/4)	●	●	●	●	●	●
	40	(1 1/2)	●	●	●	●	●	●
	50	(2)	●	●	●	●	●	●

PRESSURE REGULATION VALVE

PRESSURE REGULATION VALVE (P.33)

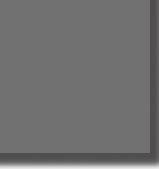
Material			PVC			PP	PVDF	
Size			Flange	Thread	TS	Flange	Flange	Thread
Size A(B)	13	(3/8)	—	●	●	—	—	●
	15	(1/2)	●	●	●	●	●	●
	20	(3/4)	●	●	●	●	●	●
	25	(1)	●	●	●	●	●	●
	32	(1 1/4)	●	●	●	●	●	●
	40	(1 1/2)	●	●	●	●	●	●
	50	(2)	●	●	●	●	●	●

Precautions

- 1.The maximum working pressure at the room temperature is described in each page. The maximum working pressure at actual usable temperature has to refer to Technical Information.
- 2.For chemical resistance of products, please refer to "Chemical Resistance Guide for Plastic Pipes, Fittings & Valves". Please select a valve and material considering operating conditions such as temperature, pressure, feature, and concentration, etc.
- 3.Do not use Eslon valves, Pipes, & Fittings for compressed air or gas applications.
- 4.Fluid containing slurry, solid, sediment, or crystallized fluid might disable the operating or sealing of valve, or might cause damage of valve.
- 5.The relating regulations might be applied to the equipment or facilities where the valve is used. Please confirm it in advance.
- 6.PVDF valves correspond to the export restriction products according to the regulations of the Export Trade Control Order. The export certificate is needed when exporting.

Information in this catalog is subject to change without notice due to improvement of products and productivity. The drawings and the part lists which were described in this catalog might be partially omitted. Please confirm the latest information such as approval drawing and specifications at our website when selecting or ordering.

<http://www.eslon-plant.jp>



MEMO

Manual Operation Valve

■ DIAPHRAGM VALVE ■

● DIAPHRAGM VALVE	9
● DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE	11

■ BALL VALVE ■

● BALL VALVE	12
● COMPACT BALL VALVE	13
● LOCK BALL VALVE	14
● MINI BALL VALVE	15
● YP BALL VALVE	16
● 3-WAY BALL VALVE	17

■ BUTTERFLY VALVE ■

● BUTTERFLY VALVE (LEVER TYPE)	18
● BUTTERFLY VALVE (GEAR TYPE)	19
● ROTARY DAMPER	20
● BUTTERFLY VALVE FOR UNDER GROUND	21

■ GATE VALVE ■

● GATE VALVE	22
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■ Other ■

● NEEDLE VALVE	23
● GLOBE VALVE	24
● STRAINER	25
● CHECK VALVE SWING TYPE	26
● CHECK VALVE BALL TYPE	27
● FOOT VALVE	28
● CHECK VALVE LIFT TYPE	29
● RELIEF VALVE	31
● PRESSURE REGULATION VALVE	33

JIS

ANSI/ASTM

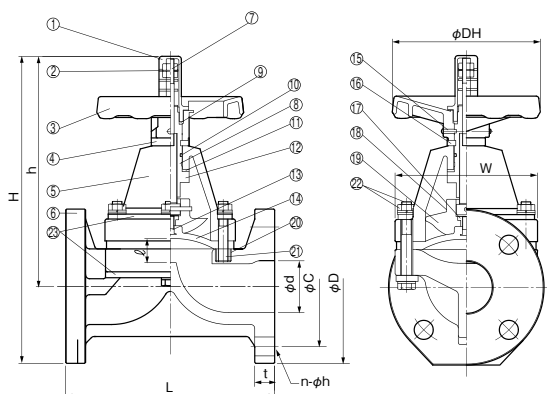
DIN/ISO

ESLON DIAPHRAGM VALVE



- Excellent sealing performance with optimized diaphragm design even by low handle operating torque.
- Improved diaphragm in compression set steadily prevents leakage.
- Available customized version for the applications in high temperature.
- Visual indicator at the handle top for open-close position and prevention of over tightening.
- Drip-proof and dust-proof mechanism for prevention of entering water and dust in bonnet.
- Flat at the bottom of flange and insert nuts for prevention of tumbling and for better workability in plumbing.

Flange Type



Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Indicator Cover	1	PC	⑭	Diaphragm	1	EPDM, PTFE, PTFE+PVDF
②	Indicator	1	SUS304	⑮	Lock Pin for 32~250A	2	SUS304
③	Handle	1	ABS	⑯	Stem Set	1	PP or PVC
④	Collar	1	PE	⑰	Metallic Fixtures for Compressor	1	C3604 or Ti-Pd
⑤	Bonnet	1	PVC, HT, PP, GFPP, PVDF	⑱	Lock Pin for Compressor	1	SUS304 or Ti-Pd
⑥	Body	1	PVC, HT, PP or PVDF	⑲	Compressor	1	15~150A GF-PP 200, 250A FCD
⑦	Indicator Stud Bolt	1	SUS304	⑳	Insert Nut	—	C3604, SUS304
⑧	Stem Sleeve	1	C3604	㉑	Stud Bolt	—	SUS304
⑨	Stem Packing	1	NBR	㉒	Bolt & Nut	—	SUS304
⑩	O-ring	1	NBR	㉓	Reinforcement Plate for HT, PP, PVDF	1	SUS304 or SS400 Painted by Epoxy Resin
⑪	Thrust Washer	1	PTFE, SUJ				
⑫	Stem Spindle	1	C3604				
⑬	Insert Bolt	EPDM 1 PTFE 1	Cr Plated SS SUS304 or Ti-Pd				

•Quantity of ㉑-㉒ bolts & nuts differ depending on size of valve.

•⑮ Lock pin for handle is not attached for the sizes up to 25A.

•㉓ Reinforcement plate is attached to HT, PP, and PVDF type.

Size

Size		d	L	H	h	DH	W	ℓ	Flange (JIS 10K)				Weight (kg/pc)				Q'ty per Carton
A	B								φD	φC	n-φh	t	PVC	HT	PP	PVDF	
15	1/2	16	110	166	119	80	76	10	95	70	4-15	14	0.9	1.1	0.8	1.1	8
20	3/4	20	120	180	130	80	82	12	100	75	4-15	14	1.0	1.3	1.0	1.3	8
25	1	25	130	208	145	80	90	15	125	90	4-19	14	1.4	1.7	1.3	1.7	8
32	1 1/4	32	142	213	145	80	90	15	135	100	4-19	16	1.7	1.8	1.6	2.1	4
40	1 1/2	41	180	269	199	125	122	20	140	105	4-19	16	2.6	3.3	2.5	3.4	2
50	2	52	210	308	230	148	142	27	155	120	4-19	20	3.6	4.5	3.4	4.8	2
65	2 1/2	67	250	379	291	210	170	36	175	140	4-19	22	6.2	7.7	5.9	8.4	2
80	3	80	280	415	322	210	202	37	185	150	8-19	22	8.2	9.6	7.9	11.2	2
100	4	100	340	497	392	260	255	61	210	175	8-19	24	13.8	18.3	15.4	21.1	1
125	5	125	410	560	435	350	320	61	250	210	8-23	24	21.8	—	20.0	26.0	1
150	6	150	480	630	490	350	375	70	280	240	8-23	24	26.3	—	25.5	36.0	1
200	8	198	570	790	632	410	416	96	330	290	12-23	29	51.0	—	44.0	61.0	1
250	10	248	680	980	780	555	540	132	400	355	12-25	31	93.0	—	77.0	108.0	1

Unit:mm

•Bolt hole dimensions on flange conform to JIS B2220.

•Flange dimension of 32A is same as 40A, but long bolt hole on the flange.

Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)							
		EPDM				PTFE			
		15~100A	125~150A	200A	250A	15~100A	125A	150A	200~250A
PVC	0~60	1.0	0.8	0.5	0.45	1.0	0.7	0.5	0.4
HT	0~90	1.0	—	—	—	1.0	—	—	—
PP	0~90	1.0	0.8	0.5	0.45	1.0	0.7	0.5	0.4
PVDF	0~120	1.0	0.8	0.5	0.45	1.0	0.7	0.5	0.4

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743, AS21(65A)
	ASTM	ASTM D2467
Thread	DIN/ISO	DIN8063
	JIS	JIS B 0203(Rc)
Butt	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999 (Rc-Rp)
	DIN/ISO	DIN8077 (PP) ISO10931 (PVDF)

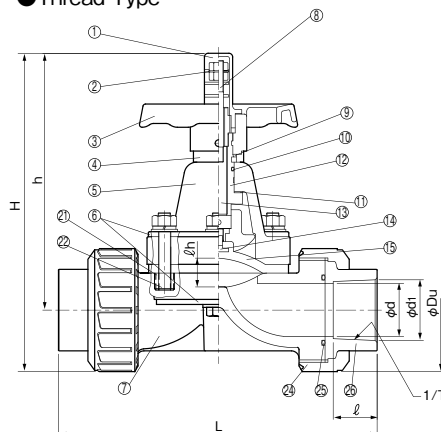
•For flange, dimension of bolt holes conforming the standards

•Socket is referred to the intend diameter.

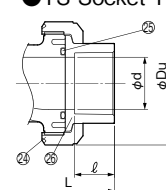
True Union Type (Thread Type · TS Socket Type and Butt Spigot Type)



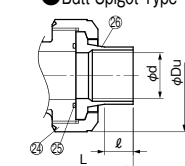
● Thread Type



● TS Socket Type



● Butt Spigot Type



Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Indicator Cover	1	PC	⑮	Diaphragm	1	EPDM, PTFE, PTFE+PVDF
②	Indicator	1	SUS304	⑯	Lock Pin for 32~50A	2	SUS304
③	Handle	1	ABS	⑰	Stem Set	1	PP
④	Collar	1	PE	⑱	Lock Pin for Compressor	1	SUS304 or Ti-Pd
⑤	Bonnet	1	PVC, HT or PVDF	⑲	Metallic Fixtures for Compressor	1	C3604 or Ti-Pd
⑥	Reinforcement Plate for HT and PVDF	1	SUS304	⑳	Compressor	1	GF-PP
⑦	Body	1	PVC, HT or PVDF	㉑	Insert Nut	—	C3604, SUS304
⑧	Indicator Stud Bolt	1	SUS304	㉒	Stud Bolt	—	SUS304
⑨	Stem Packing	1	NBR	㉓	Bolt & Nut	—	SUS304
⑩	O-ring	1	NBR	㉔	Union Nut	2	PVC, HT or PVDF
⑪	Thrust Washer	1	PTFE	㉕	O-ring	2	EPDM or FKM
⑫	Stem Sleeve	1	C3604	㉖	Socket	2	PVC, HT or PVDF
⑬	Stem Spindle	1	C3604	㉗	Inserted Nut	2	C3604
⑭	Insert Bolt	1	EPDM				
		1	PTFE				
			SS400/Cr Plated SS				
			SUS304 or Ti-Pd				

·Quantity of ㉒-㉓ bolts & nuts differ depending on size of valve.
 ·⑯ Lock pin for handle is not attached for the sizes up to 25.
 ·⑥ Reinforcement plate is attached to HT, PP, and PVDF type.

⚠ Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Size

Size		Unit:mm																			
Size		d	L			H		h		DH	W		Du		ℓh	Female Thread		TS Socket			Butt Spigot
A	B		Thread	TS	Butt Spigot	Thread-TS Socket	Butt Spigot	Thread-TS Socket	Butt Spigot		Thread-TS Socket	Butt Spigot	Thread-TS Socket	Butt Spigot		Size	ℓ	d1	1/T Taper	ℓ	
15	1/2	15	133	144	176	153	145	128	120	80	76	76	49	48	10	1/2	18	22.3	1/37	22	30
20	3/4	20	157	172	189	170	162	141	132	80	82	82	59	59	12	3/4	18	26.3	1/42	25	24
25	1	25	173	187	203	179	180	146	146	80	90	90	67	65	15	1	23	32.3	1/43	29	24
32	1 1/4	31	188	210	210	187	187	146	146	80	90	90	81	81	15	1 3/4	23	38.4	1/37	32	25
40	1 1/2	40	248	262	272	257	255	208	206	125	122	122	98	96	20	1 1/2	25	48.5	1/38	35	24
50	2	50	280	298	306	299	291	239	231	148	148	142	120	119	27	2	30	60.6	1/34	38	28

·Screw dimensions of PVDF size differ from the above. Please refer to the approval drawing.

Size		Inserted Nut		Weight (kg/pc)					Q'ty per Carton
A	B	F	Mxℓ	PVC		HT		PVDF	
				Thread	TS	TS	Thread	Butt spigot	
15	1/2	25	M6×12	0.7	0.7	0.8	0.9	0.9	12
20	3/4	25	M6×12	0.8	0.8	1.0	1.0	1.0	12
25	1	25	M6×12	1.1	1.1	1.2	1.4	1.4	12
32	1 1/4	25	M6×12	1.2	1.2	1.3	1.6	1.5	4
40	1 1/2	45	M8×12	2.7	2.7	3.4	3.7	3.7	4
50	2	45	M8×12	3.6	3.6	4.3	5.0	5.0	4

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)	
		EPDM	PTFE
PVC	0~50	1.0	1.0
HT	0~90	1.0	1.0
PVDF	0~100	1.0	1.0

Recommended Torque for Fastening Diaphragm

· Please periodically check tightening torque of the bolts for assembling diaphragm as the bolts might be loosen by temperature variation or compression set of diaphragm. Please re-tighten the bolt up to recommended torque shown in the table below in case the bolts loosen, but be careful not to over-tighten.

Size		15~32	40	50	65	80	100	125	150	200	250
EPDM	8	20	25	30	35	50	60	70	80	100	100
PTFE/PTFE with gas	{80}	{200}	{250}	{300}	{350}	{500}	{600}	{700}	{800}	{1000}	{1000}

JIS

ESLON DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE

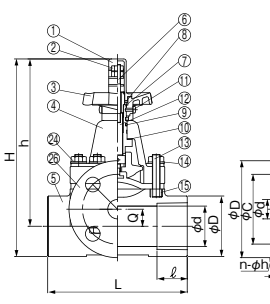


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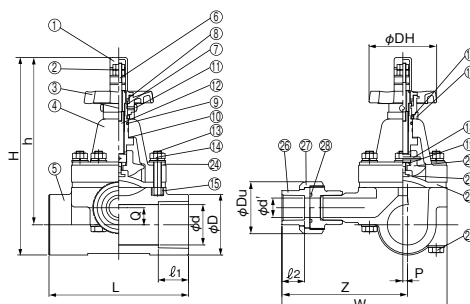
- Uniquely designed compact diaphragm valve with branch flow channel.
- Keep water quality by little obstructed design in flow path.
- Enable optional branch piping and no pressure loss in main pipe.
- Easier pressure control in reverse-turn piping system.

TS Socket Type (Butt Spigot Type)

Flange Type



Union Type



Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
Socket	JIS	JIS K 6743, AS21 (65A)

For flange, dimension of bolt holes conforming the standards

Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	EPDM-PTFE 0.5
HT	0~90	0.5
PVDF	0~120	0.5

Size

TS Socket × Flange

Size	L	H	h	DH	P	W	Q	Z	TS Socket			Flange(JIS 10K)				Weight(kg/pc)			Q'ty per Carton
									D	ℓ	d	φD	φC	n-φh	t	PVC	HT	PVDF	
20×16	120	148	125	80	1.5	119	8	91	35	25	21	95	70	4-15	14	0.7	0.8	—	4
25×25	120	172	152	80	3	142	8	100	44	29	25	125	90	4-19	14	1.1	1.2	1.4	1
50×25	180	261	214	90	6	166	22	115	77	30	52	125	90	4-19	14	2.5	2.8	3.7	1
65×40	240	307	259	148	6	203	30	140	96	61	67	140	105	4-19	16	3.8	4.3	4.6	1

Loose type of flange for PVDF branch. Please refer to the approval drawing.

TS Socket (Butt) × True Union with TS Socket

Size	L	H	h	DH	P	W	Q	Z	TS Socket			True Union Socket			Weight (kg/pc)			Q'ty per Carton
									D	l ₁	d	d'	l ₂	Du	PVC	HT	PVDF	
20×16	120	150	129	80	1.5	142	8	117	35	25	21	16	22.2	49	0.7	0.8	0.6	4
25×25	120	179	154	80	3	187	8	144	44	29	25	25	28.6	67	1.1	1.2	1.1	1
50×25	180	260	221	90	6	210	22	159	77	30	52	25	28.6	67	2.5	2.8	3.6	1
65×40	240	313	265	148	6	257	30	197	96	61	67	40	35	98	3.8	4.3	4.7	1

H, h, D, L, W and t dimension of PVDF type might differ from the dimension table.

Due to assembly by welding connection for PVDF type, design and dimension might differ from the approval drawing. Please refer to the approval drawing.

For special order, please contact us.

Parts List

No.	Part Name	Q'ty	Material
①	Indicator Cover	1	PC
②	Indicator	1	SUS304
③	Handle	1	ABS
④	Bonnet	1	PVC, HT or PVDF
⑤	Body	1	PVC, HT or PVDF
⑥	Indicator Stud Bolt	1	SUS304
⑦	Stem Sleeve	1	C3604
⑧	Stem Packing	1	NBR
⑨	O-ring	1	NBR
⑩	Thrust Washer	1	PTFE
⑪	Lock Pin for 50 and 65A	2	SUS304
⑫	Stem Spindle	1	C3604
⑬	Stud Bolt	—	SUS304
⑭	Nut	—	SUS304
⑮	Insert Nut	—	C3604, SUS304
⑯	Stem Set	1	PP
⑰	Collar	1	PE
⑱	Lock Pin for Compressor	1	SUS304
⑲	Metallic Fixtures for Compressor	1	C3604
⑳	Compressor	1	GF-PP
㉑	Insert Bolt	EPDM 1 PTFE 1	Cr Plated SS SUS304
㉒	Diaphragm	1	EPDM or PTFE
㉓	Bolt	—	SUS304
㉔	Reinforcement Plate for HT & PVDF	1	SUS304
㉕	Flange	1	PVC, HT or PVDF
㉖	TS Socket or Butt Spigot	1	PVC, HT or PVDF
㉗	Union Nut	1	PVC, HT or PVDF
㉘	O-ring	1	EPDM or FKM

Quantity of ⑬, ⑭, ⑮, and ㉓ bolts & nuts differ depending on size of valve.

㉔ Reinforcement plate is attached to HT type.

JIS

ANSI/ASTM

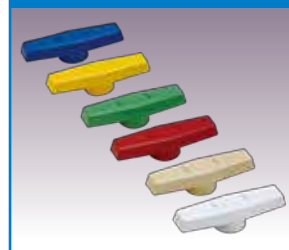
DIN/ISO

ESLON BALL VALVE



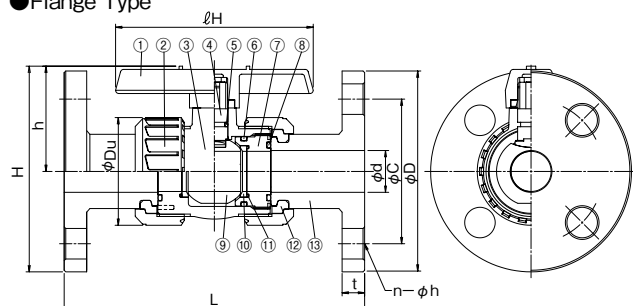
- Left hand screw on ball stopper prevents screw loose and ensures sealing of body part when union nut is loosened.
- Full port in all size. No pressure loss at full opened position by nominal size of inner diameter.
- Keep water quality by little obstructed design in flow path.
- Six colors of handle for sizes 15~50A enable easier management of application and fluid classification.

6 Colors Handle for Easy Maintenance

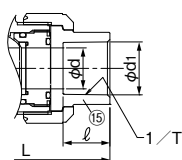
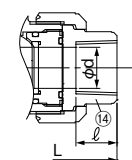


Flange Type · Thread Type · TS Socket Type and Butt Spigot Type

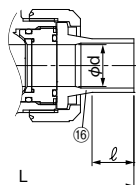
● Flange Type



● Female Thread Type ● TS Socket Type



● Butt Spigot Type



Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Handle	1	ABS	⑩	Ball Seat	2	PTFE
②	Union Nut	2	PVC, HT, PP or PVDF	⑪	Ball Seat O-Ring	2	EPDM or FKM
③	Body	1	PVC, HT, PP or PVDF	⑫	Set Ring	2	PVC, HT, PP or PVDF
④	Stem	1	PVC, HT, PP or PVDF	⑬	Flange	2	PVC, HT, PP or PVDF
⑤	Stem O-Ring	—	EPDM or FKM	⑭	Thread	2	PVC or PVDF
⑥	Ball Holder O-Ring	—	EPDM or FKM	⑮	Socket	2	PVC or HT
⑦	Ball Holder	—	PVC, HT, PP or PVDF	⑯	Socket	2	PVDF
⑧	Union O-Ring	2	EPDM or FKM				

• Quantity of ⑤ : 1 for 15~32A, 2 for 40~100A. • Quantity of ⑥, ⑦ : 1 for 15~50A, 2 for 65~100A.

⚠ Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk. Gas relief type of customized ball valve which has relief orifice on the ball is available.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)	Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	1.0	PP	-20~80	1.0
HT	0~90	1.0	PVDF	-20~100	1.0

Size

Flange Type

Size		d	L		H	h	ℓ _H	D _u	Flange (JIS 10K)				Weight (kg/pc)				Q'ty per Carton
A	B		PVC, HT	PP, PVDF					φD	φC	n-φh	t	PVC	HT	PP	PVDF	
15	1/2	15	143	143	98	50	95	49	95	70	4-15	14	0.4	0.4	0.3	0.5	12
20	3/4	20	172	172	103	53	95	59	100	75	4-15	14	0.6	0.6	0.4	0.7	12
25	1	25	187	187	129	66	123	67	125	90	4-19	14	0.9	0.9	0.5	1.0	12
32	1 1/4	30	190	190	142	74	123	81	135	100	4-19	16	1.2	1.2	0.7	1.3	12
40	1 1/2	40	212	212	170	100	152	98	140	105	4-19	16	1.7	1.7	1.1	1.9	2
50	2	50	234	234	185	107	152	120	155	120	4-19	20	2.6	2.6	1.6	3.0	2
65	2 1/2	65	259	257	222	146	188	150	175	140	4-19	22	4.2	4.3	2.8	5.0	2
80	3	80	304	304	262	169	230	186	185	150	8-19	22	6.7	6.9	4.4	8.2	2
100	4	100	372	367	317	203	283	228	210	175	8-19	24	11.5	11.9	7.4	14.1	1

Unit:mm

Thread Type · TS Socket Type and Butt Spigot Type

Size		d	L		H	h	ℓ _H	D _u	Female Thread		TS Socket		Butt Spigot	Weight (kg/pc)				Q'ty per Carton
A	B		Thread	TS					Size	ℓ	Size	d ₁	1/T	ℓ	PVC	HT	PVDF	
15	1/2	15	97	109	99	143	75	50	Rc 1/2	18	20	22.3	1/37	22	0.2	0.2	0.2	24
20	3/4	20	117	132	116	152	82	53	Rc 3/4	18	22	26.3	1/42	25	0.3	0.3	0.3	24
25	1	25	128	143	136	161	100	66	Rc 1	23	24	32.3	1/43	29	0.4	0.4	0.5	24
32	1 1/4	32	146	166	148	167	115	74	Rc 1 1/4	23	25	38.4	1/37	32	0.6	0.6	0.6	24
40	1 1/2	40	163	175	169	190	149	100	Rc 1 1/2	25	28	48.5	1/38	35	1.1	1.1	1.2	4
50	2	50	188	203	196	216	167	107	Rc 2	30	30	60.6	1/34	38	1.6	1.7	1.9	4
65	2 1/2	65	227	259	227	208	221	146	Rc 2 1/2	32	32	76.6	1/48	61	3.0	3.3	3.6	2
80	3	80	278	311	278	301	262	169	Rc 3	37	37	89.6	1/49	64	5.6	6.1	7.0	1
100	4	100	330	390	330	340	317	203	Rc 4	45	45	114.7	1/56	84	10.5	11.2	12.5	1

• H, h, D_u, and t dimension of PP/PVDF type might differ from the dimension table.

• For flange, dimension of bolt holes conforming the standards
• Socket is referred to the intend diameter.

Unit:mm



Working Pressure and Temp

60

Flow Diagram

64

Installation

65

JIS

ESLON COMPACT BALL VALVE



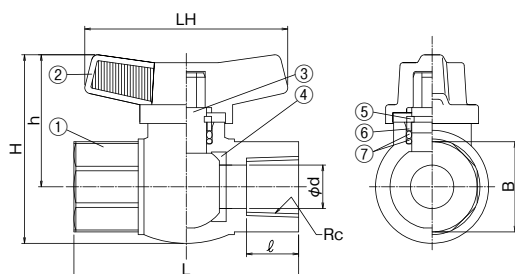
- Compact body and short face to face dimension enable installation even in narrow space.
- Usable even in the condition with vibration or thermal expansion as unified body with connection end.
- Six colors of handle enable easier management of application and fluid classification.

6 Colors Handle for Easy Maintenance

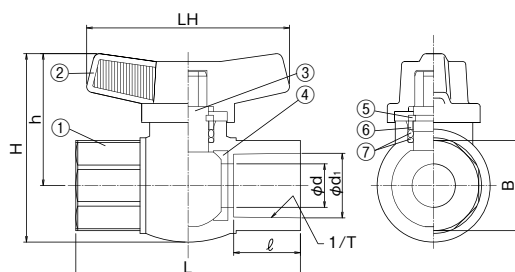


Thread Type and TS Socket Type

● Female Thread Type



● TS Socket Type



Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Handle	1	ABS
③	Stem	1	CPVC
④	Ball Seat	2	PTFE
⑤	Retaining	1	PVDF
⑥	Collar	1	PVDF
⑦	O-ring	2	EPDMorFKM

Conforming Standard

Connection	Standard	Classification
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203(Rc)

Size

Size		d	L	H	h	LH	B	Female Thread		TS Socket		Weight (kg/pc)		Q'ty per Carton	
A	B							Size	ℓ	d1	1/T Taper	ℓ	Thread		TS Socket
13	3/8	13	72.5	65	45.5	70	25.4	Rc 3/8	15	18.3	1/30	18.0	0.1	30	30
15	1/2	15	77.5	65	45.5	70	32.0	Rc 1/2	18	22.3	1/37	22.4	0.1	30	30
20	3/4	20	90.0	75	52.0	76	36.0	Rc 3/4	18	26.3	1/42	25.6	0.2	20	20

*Female thread dimensions conform to JIS B 0203.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(°C)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

JIS

ESLON LOCK BALL VALVE



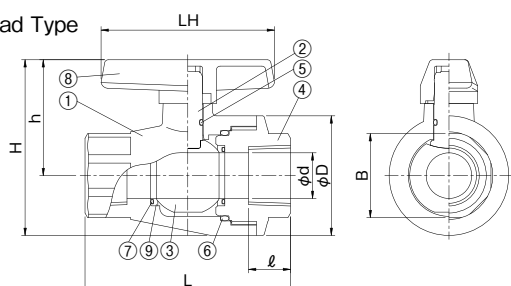
- Usable even in the condition with vibration or thermal expansion as unified body with connection end.
- Six colors of handle enable easier management of application and fluid classification.

6 Colors Handle for Easy Maintenance

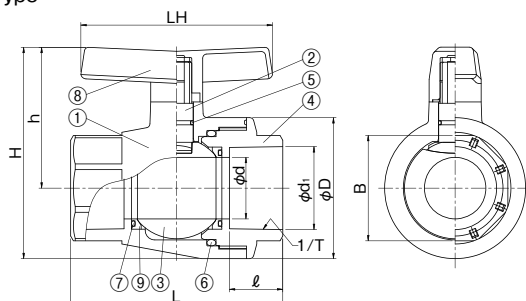


Thread Type and TS Socket Type

● Female Thread Type



● TS Socket Type



Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Stem	1	PVC
③	Ball	1	PVC
④	Body Cap	1	PVC
⑤	Stem O-ring	1	EPDMorFKM
⑥	Body O-ring	1	EPDMorFKM
⑦	Back up O-ring	2	EPDMorFKM
⑧	Handle	1	ABS
⑨	Ball Seat	2	PTFE

Conforming Standard

Connection	Standard	Classification
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203(Rc)

Size

Size		d	L	H	h	φD	ℓH	B	Female Thread		TS Socket			Weight(kg/pc)		Q'ty per Carton
A	B								Size	ℓ	d1	1/T Taper	ℓ	Thread	TS Socket	
25	1	25	113.0	96	64.0	66.0	95	46	Rc 1	23	32.3	1/43	29.0	0.3	0.3	20
32	1 1/4	29	114.0	119	82.0	74.0	110	54	Rc 1 1/4	28	38.4	1/37	32.0	0.4	0.4	12
40	1 1/2	35	130.0	133	91.0	85.0	110	65	Rc 1 1/2	30	48.5	1/38	35.0	0.6	0.6	12
50	2	45	155.0	154	103.0	103.0	140	77	Rc 2	35	60.6	1/35	39.0	1.0	1.0	12

*Female thread dimensions conform to JIS B 0203.

Usable Liquid Temperature & Maximum Working Pressure

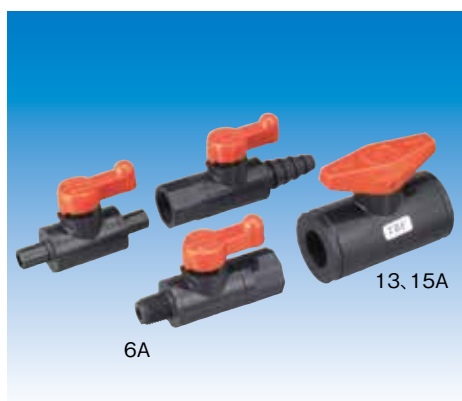
Material	Usable Temperature(°C)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

JIS

ESLON MINI BALL VALVE

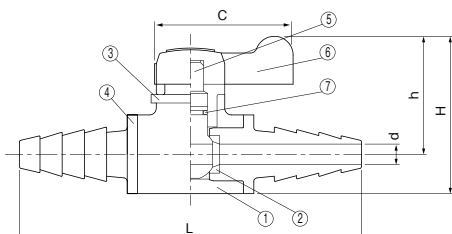


- Low stem torque and reliable sealing performance.
- Position indicator at handle enable easier flow calibration.
- Five types of end connections and several combination on both end connection available.

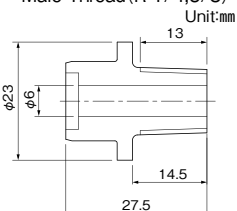
Thread Type and TS Socket Type

Thread Type · TS Socket Type and Hose Type

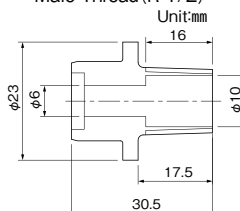
●Hose×Hose(6A)



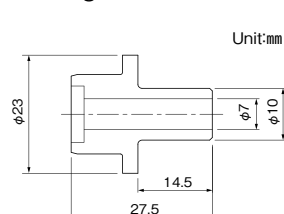
●Male Thread(R 1/4,3/8)



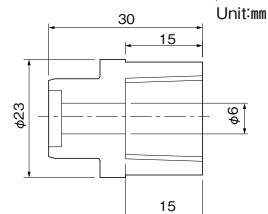
●Male Thread(R 1/2)



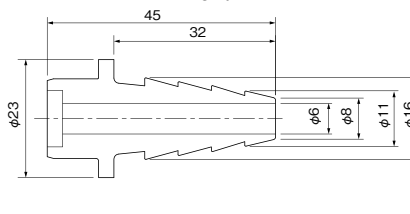
●Straight



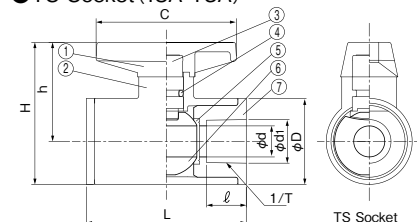
●Female Thread(Rc 1/4,3/8)



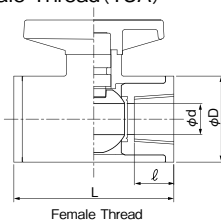
●Hose



●TS Socket(13A·15A)



●Female Thread(15A)



Size

Size		d	H	h	D	C	Female Thread		TS Socket			Q'ty per Carton
A	B						Size	ℓ	d1	1/T Taper	ℓ	
6	1/8	6	47	35	23	40	—	—	—	—	—	40 (20×2)
13	3/8	13	60	42	35	60	—	—	18.3	1/33	16.5	40
15	1/2	13	60	42	35	60	Rc1/2	16	22.3	1/33	16.5	40

*Female thread dimensions conform to JIS B 0203.

*Please refer to dimension table for combination of end connection.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(°C)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

Conforming Standard

Connection	Standard	Classification
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203(Rc)

Parts List for 6A

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Ball Seat	2	EPDM or FKM
③	Stem Stopper	1	PVC
④	Socket	1	PVC
⑤	Ball	1	PVC
⑥	Handle	1	ABS
⑦	O-ring	1	EPDM or FKM

Parts List for 13A & 15A

No.	Part Name	Q'ty	Material
①	Handle	1	ABS
②	Body	1	PVC
③	Stem	1	PVC
④	O-ring	1	EPDM or FKM
⑤	Ball Seat	2	PTFE
⑥	Ball	1	PVC
⑦	Socket	2	PVC

L & Weight for Each Connection Type

Unit:mm

Size	Connection Type	L	Weight (g/pc)	
6 A	Male Thread×Male Thread	66 (72)	30	
	Male Thread×Female Thread	69 (72)	40	
	Male Thread×Hose	83 (86)	40	
	Male Thread×Straight	66 (69)	30	
	Female Thread×Female Thread	71	40	
	Female Thread×Hose	85	40	
	Female Thread×Straight	69	40	
	Hose×Hose	100	40	
	Hose×Straight	83	40	
	Straight×Straight	66	30	
13 A · 15 A	Same type for both ends	Female Thread Rc1/2	67	90
		TS 13	67	90
		TS 15	67	80

*13 and 15A : Same type for both ends.

*L) : L for R1/2 thread end.

Important Notes

- Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

JIS

ANSI/ASTM

DIN/ISO

ESLON YP BALL VALVE



PAT.No.012171,3012204

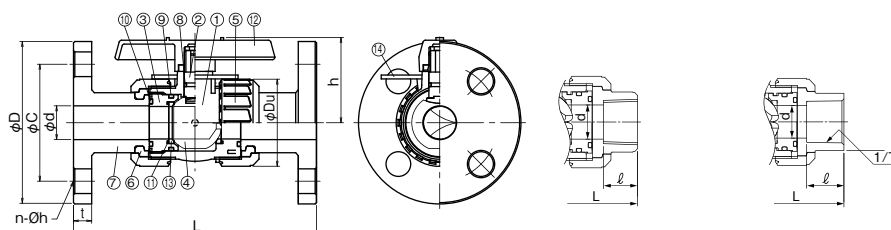
- Unique flow channel design of the ball enable precise flow rate control.
- High range ability over 200 and equal percentage flow characteristic.
- Large visual indicator for flow rate control.

Flange Type · Thread Type and TS Socket Type

Flange Type

Female Thread Type

TS Socket Type



Size

Flange Type

Size		d	L	H	h	Flange (JIS 10K)				Weight (kg/pc) Flange	Q'ty per Carton
A	B					φD	φC	n-φh	t		
15	1/2	15	143	98	50	95	70	4-15	14	0.4	12
20	3/4	20	172	103	53	100	75	4-15	14	0.6	12
25	1	25	187	132	66	125	90	4-19	14	0.9	12
32	1 1/4	30	190	143	74	135	100	4-19	16	1.2	12
40	1 1/2	40	212	171	100	140	105	4-19	16	1.7	2
50	2	50	234	185	107	155	120	4-19	20	2.6	2

Unit:mm

Thread Type and TS Socket Type

Size		d	L		H	h	Female Thread		TS Socket		Weight (kg/pc)	Q'ty per Carton
A	B		Thread	TS Socket			Size	ℓ	d1	1/T Taper	Thread	TS
15	1/2	15	97	109	74	50	Rc 1/2	18	22.3	1/37	0.2	0.2
20	3/4	20	117	132	82	53	Rc 3/4	18	26.3	1/42	0.3	0.3
25	1	25	128	143	102	69	Rc 1	23	32.3	1/43	0.4	0.4
32	1 1/4	32	146	166	115	75	Rc 1 1/4	23	38.4	1/37	0.6	0.6
40	1 1/2	40	163	175	149	102	Rc 1 1/2	25	48.5	1/38	1.1	1.1
50	2	50	188	203	166	108	Rc 2	30	60.6	1/34	1.6	1.6

Unit:mm

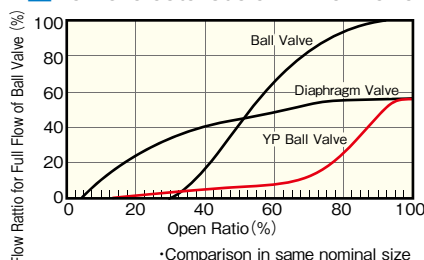
*The valve should be installed in correct flow direction according to the arrow noted on the body.

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203 (Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999 (Rc·Rp)

*For flange, dimension of bolt holes conforming the standards

Flow Characteristic of YP Ball Valve



Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Stem	1	PVC
③	Ball Stopper	1	PVC
④	Ball	1	PVC
⑤	Union Nut	2	PVC
⑥	Set Ring	2	PVC
⑦	Flange End	2	PVC
⑧	Stem O-Ring	15-32A	EPDM or FKM
		40,50A	EPDM or FKM
⑨	Ball Stopper O-Ring	1	EPDM or FKM
⑩	Union O-ring	2	EPDM or FKM
⑪	Ball Seat O-Ring	2	EPDM or FKM
⑫	Handle	1	ABS
⑬	Ball Seat	2	PTFE
⑭	Open position display plate	1	PVC

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(°C)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

Important Notes

Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

JIS

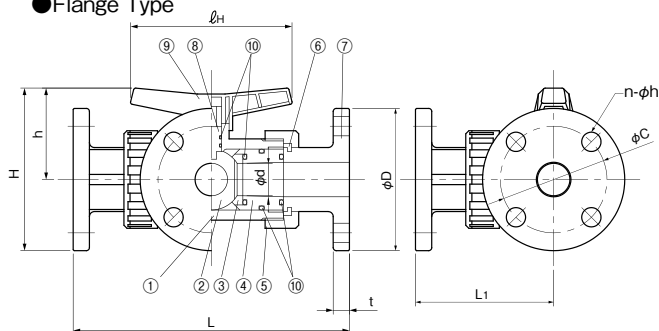
ESLON 3-WAY BALL VALVE



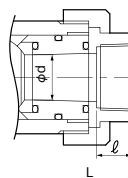
- Lock mechanism of ball stopper prevents popping out of the ball.
- Arrow marks on handle and body ensure flow direction.
- Two types of flow direction available, T-Port and L-Port.

Flange Type · Thread Type and TS Socket Type

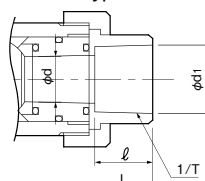
● Flange Type



● Female Thread Type



● TS Socket Type



Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Ball	1	PVC
③	Seat	4	PTFE
④	Ball Stopper	2	PVC
⑤	Union Nut	3	PVC
⑥	Set Ring	3	PSF
⑦	Socket	3	PVC
⑧	Stem	1	PVC
⑨	Handle	1	PVC
⑩	O-ring	11	EPDM or FKM

Size

Flange Type

Size		d	L	L1	H	h	Lh	Flange (JIS 10K)				Weight (kg/pc)	Q'ty per Carton
A	B							D	C	n-φh	t	PVC	
15	1/2	11	163	82	95	48	73	95	70	4-15	14	0.8	6
20	3/4	16	200	100	102	52	85	100	75	4-15	14	0.9	4
25	1	20	221	111	126	64	94	125	90	4-19	16	1.5	4
40	1 1/2	32	272	136	160	90	160	140	105	4-19	18	2.5	1
50	2	38	306	153	176	98	160	155	120	4-19	20	4.0	1

Unit:mm

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203(Rc)

*For flange, dimension of bolt holes conforming the standards

Usable Liquid Temperature & Maximum Working Pressure

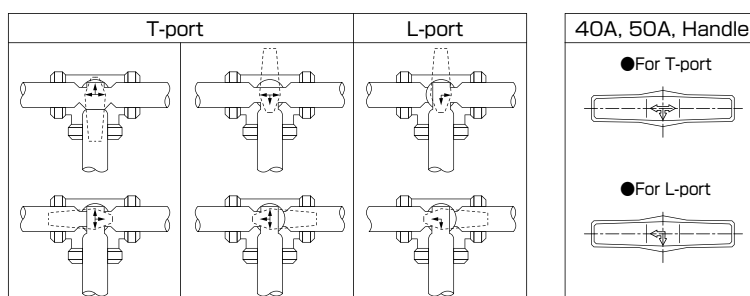
Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	1.0

Unit:mm

Thread Type and TS Socket Type

Size		d	L		L1		H	h	Lh	Female Thread		TS Socket		Weight (kg/pc)		Q'ty per Carton
A	B		Thread	TS Socket	Thread	TS Socket				Size	ℓ	d1	1/T Taper	ℓ	PVC Thread TS	
15	1/2	11	118	129	59	65	73	48	73	Rc 1/2	14	22.3	1/34	24	0.3 0.3	6
20	3/4	16	134	151	67	76	81	52	85	Rc 3/4	16	26.3	1/34	28	0.4 0.4	4
25	1	20	156	175	78	88	98	64	94	Rc 1	18	32.4	1/34	32	0.6 0.6	4
40	1 1/2	32	203	232	102	116	138	90	160	Rc 1 1/2	20	48.5	1/37	41	1.5 1.5	1
50	2	38	225	260	113	130	154	98	160	Rc 2	25	60.6	1/37	47	2.2 2.3	1

Flow Control Pattern by Handle



⚠ Important Notes

Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

JIS10K

ANSI/ASTM

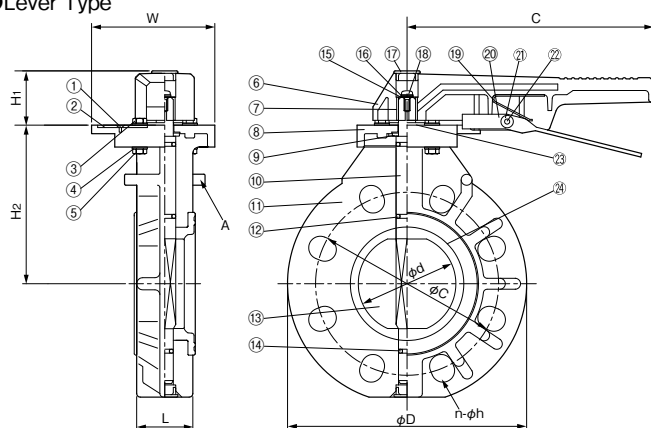
DIN/ISO

ESLON BUTTERFLY VALVE LEVER TYPE



- Reliable sealing performance as spherical disc and preventive flange design against over-tightening.
- Changeable operating direction of lever handle into opposite even after installation.
- Exchangeable into gear type or automatic type by dismantling lever handle and indicator plate.
- Positioning pin for easy piping work (JIS10K)
- Controllable flow in 12 levels. Lockable lever type which has key hole available.

● Lever Type



■ Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Screw	3	SUS304	⑬	Disc	1	PP or PVDF
②	Lock Plate	1	SUS304	⑭	O-ring	1	EPDM or FKM
③	Bolt	2	SUS304	⑮	Washer	1	SUS304
④	Washer	4	SUS304	⑯	Spring Washer	1	SUS304
⑤	Nut	2	SUS304	⑰	Cap	1	PP
⑥	Handle	1	ABS	⑱	Screw	1	SUS304
⑦	Handle Insert	1	SUS304	⑲	Spring Plate	1	SUS304-CSP
⑧	Indicator Plate	1	PVC	⑳	Handle Lever	1	SUS304
⑨	Thrust Ring	1	SUS304	㉑	Cover	1	PP
⑩	Stem	1	SUS420J2 or SUS316	㉒	Lock Pin	1	SUS304
⑪	Body	1	PVC, PP or PVDF	㉓	Handle Washer	1	PP
⑫	O-ring	2	EPDM or FKM	㉔	Seat ring	1	EPDM or FKM

■ Size Lever Type

Size		d	L	H1	H2	C	W	D	Flange (JIS 10K)		Weight (kg/pc)			Q'ty per Carton
A	B								C	n-φh	PVC	PP	PVDF	
40	1 1/2	45	33	44	112	202	101	140	105	4-19	1.2	1.1	1.3	2
50	2	57	43	44	119	202	101	155	120	4-19	1.4	1.2	1.6	2
65	2 1/2	71	46	44	130	202	101	178	140	4-19	1.7	1.5	1.9	2
80	3	80	46	44	137	202	101	196	150	8-19	2.0	1.8	2.3	2
100	4	100	52	44	161	245	123	229	175	8-19	3.0	2.7	3.4	2
125	5	125	56	54	179	310	155	254	210	8-23	4.6	4.1	5.3	2
150	6	150	60	54	188	310	155	286	240	8-23	5.5	4.8	6.5	2
200	8	198	71	68	240	400	200	343	290	12-23	8.9	8.0	10.5	2

•Only PVC JIS10K type has centering pin A.

•Bolt holes multi-conforming to JIS10K, ANSI, and DIN standards.

•D and H2 of each type of PP, PVDF may differ from the dimension table. Please refer to the approval drawing.

■ Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	1.0
PP	0~80	1.0
PVDF	0~120	1.0

■ Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10

•For flange, dimension of bolt holes conforming the standards

⚠ Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

JIS10K

ANSI

DIN/ISO

ESLON BUTTERFLY VALVE GEAR TYPE



- Reliable sealing performance as spherical disc and preventive flange design against over-tightening.
- Changeable assembled direction of worm gear handle into opposite even after installation.
- Exchangeable into lever type or automatic type by dismounting worm gear.
- Positioning pin for easy piping work (JIS10K)
- Long Spindle Type, Chain Wheel Type, and Lockable handle type available.

Parts List (40A ~ 300A)

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Body	1	PVC, PPorPVDF	⑨	Gasket	1	EPDM
②	Disc	1	PPorPVDF	⑩	Washer	4	SUS304
③	Shaft	1	SUS420J2orSUS316	⑪	Spring Washer	4	SUS304
④	Seat ring	1	EPDMorFKM	⑫	Hexagon Bolt	4	SUS304
⑤	O-ring (1)	2	EPDMorFKM	⑬	Indicator	1	ABS
⑥	O-ring (2)	1	EPDMorFKM	⑭	Shaft Cover	1	PVC
⑦	Housing cover	1	GF-PP	⑮	Handle	1	ABS
⑧	Housing	1	GF-PP	⑯	Cap	1	PP

*For sea water application, the stem material must be SUS316. Please contact us as in advance.

Parts List (350A ~ 600A)

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Body	1	PVC, PPorPVDF	⑩	Washer	4	SUS304
②	Disc	1	PPorPVDF	⑪	Spring Washer	4	SUS304
③	Shaft	1	SUS420J2orSUS316	⑫	Bolt	4	SUS304
④	Seat ring	1	EPDMorFKM	⑬	Indicator	1	AL
⑤	O-ring	2	EPDMorFKM	⑭	O-ring	1	EPDM
⑥	O-ring	1	EPDMorFKM	⑮	Cap	1	PP
⑦	Worm Gear Box	1	-	⑯	Reinforcement (Only for PP)	2	S45C+Painting
⑧	Handle	1	FC	⑰	Insert(450~600A)	8	C3604
⑨	Rock Pin	1	SUS304				

Conforming Standard

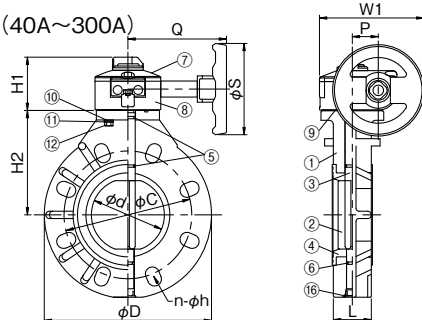
Connection	Standard	Classification
Flange	JIS10K	JIS B 2220 (Rc)
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10

*For flange, dimension of bolt holes conforming the standards.

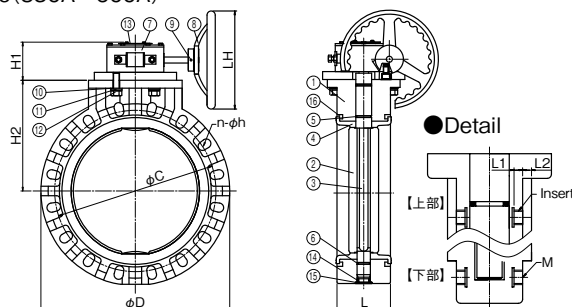
Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

● Gear Type (40A~300A)



● Gear Type (350A~600A)



Size

Gear Type (40A~300A)

Size		L	φD			Flange (JIS 10K)		H1	H2			W1	P	Q	φS	Weight (kg/pc)			Q'ty per Carton
A	B		PVC	PP	PVDF	φC	n-φh		PVC	PP	PVDF					PVC	PP	PVDF	
40	1 1/2	33	140	138	136	105	4-19	72	105	103	102	143	36	135	125	2.1	2.0	2.2	1
50	2	43	155	152	150	120	4-19	72	112	110	109	143	36	135	125	2.3	2.1	2.5	1
65	2 1/2	46	178	174	174	140	4-19	72	123	121	119	143	36	135	125	2.7	2.5	2.9	1
80	3	46	196	192	190	150	8-19	72	130	127	126	143	36	135	125	3.0	2.8	3.3	1
100	4	52	229	225	223	175	8-19	72	152	149	147	143	36	135	125	3.8	3.6	4.2	1
125	5	56	254	249	251	210	8-23	84	169	166	164	235	68	178	210	5.9	5.4	6.6	1
150	6	60	286	280	278	240	8-23	84	178	174	173	235	68	178	210	7.5	6.8	8.5	1
200	8	71	343	336	331	290	12-23	84	230	225	223	235	68	178	210	9.3	8.4	10.9	1
250	10	73	410	402	397	355	12-25	115	250	245	243	353	88	270	350	19.3	17.8	21.9	1
300	12	114	485	477	474	400	16-25	115	280	274	272	353	88	270	350	26.4	24.5	30.8	1

*Only PVC JIS10K type has centering pin A. *Disc full-open / full close by 5 times of handle rotation for 40-100A, 10 times of handle rotation for 125-300A. *Bolt hole is applied to JIS10K, ANSI, and DIN standards.

Gear Type (350A~600A)

Size		L	φD	H1	H2	LH	Flange (JIS 10K)			Weight (kg/pc)			Q'ty per Carton
A	B						φC	n-φh	Insert	PVC	PP	PVDF	
350	14	129	535	105	325	310	445	16-25	-	39.0	37.0	51.3	1
400	16	169	597	130	350	310	510	16-27	-	46.4	44.5	61.0	1
450	18	179	635	155	370	310	565	20-27	M24	81.3	78.4	104.0	1
500	20	190	700	155	410	407	620	20-27	M24	98.1	95.0	125.0	1
600	24	209	815	155	465	407	730	24-33	M30	144.0	140.0	181.0	1

*Handle will be full-open / full close by 12.5 times for 350-400A, 16 times for 450-600A.

*Bolt holes in size 350, 400A multi-conforming to JIS10K, ANSI, and DIN standards.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	Max. Working Pressure at Room Temp				
		40~300A	350A	400A	450A	500~600A
PVC	0~50	1.0	0.75	0.6	0.5	0.35
PP	0~80	1.0	0.75	0.6	0.5	0.35
PVDF	0~120	1.0	0.75	0.6	0.5	0.35

JIS10K

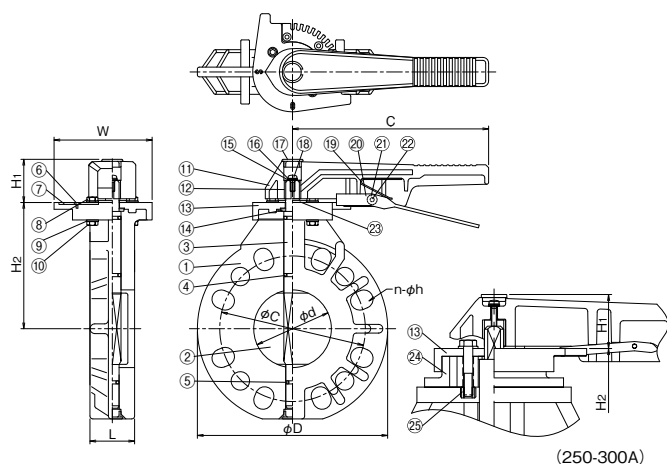
ANSI

DIN/ISO

ESLON ROTARY DAMPER



- Damper butterfly valve for airflow control.
- Changeable operating direction of lever handle into opposite even after installation.
- Positioning pin for easy piping work (JIS10K)



Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Body	1	PVC	⑭	Thrust Ring	1	SUS304
②	Disc	1	PVC	⑮	Washer	1	SUS304
③	Shaft	1	PVC	⑯	Spring Washer	1	SUS304
④	O-ring	2	EPDMorFKM	⑰	Cap	1	PP
⑤	O-ring	1	EPDMorFKM	⑱	Machine Screw	1	SUS304
⑥	Topping Screw	3	SUS304	⑲	Flat Spring	1	SUS304
⑦	Lock Plate	1	SUS304	⑳	Lever	1	SUS304
⑧	Hexagon Bolt	2	SUS304	㉑	Pin Cover	1	PP
⑨	Washer	4	SUS304	㉒	Spring Pin	1	SUS304
⑩	Nut	2	SUS304	㉓	Handle Washer	1	PP
⑪	Handle	1	ABS	㉔	Yoke(250,300A)	1	PVC
⑫	Handle Insert	1	SUS304	㉕	Insert(250,300A)	2	C3604
⑬	Indicator Plate	1	PVC				

Unit:mm

Size		d	L	Height		W	C	Flange (JIS 10K)			Weight(kg/pc)	Q'ty per Carton
A	B			H1	H2			φD	φC	n-φh		
40	1 1/2	45	31	44	112	101	202	140	105	4-19	1.2	1
50	2	57	40	44	119	101	202	155	120	4-19	1.4	1
65	2 1/2	71	43	44	130	101	202	178	140	4-19	1.7	1
80	3	80	46	44	137	101	202	196	150	8-19	2.0	1
100	4	100	52	44	161	123	245	229	175	8-19	3.1	1
125	5	125	56	54	179	155	310	254	210	8-23	4.7	1
150	6	150	60	54	188	155	310	286	240	8-23	5.6	1
200	8	198	71	68	240	200	400	343	290	12-23	9.1	1
250	10	246	73	68	300	200	400	410	355	12-25	18.5	1
300	12	299	114	68	330	200	400	485	400	16-25	26.2	1

*Only PVC JIS10K type has centering pin A.

Usable Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)	
		40~200A	250~300A
PVC	0~50°C	0.1	0.05

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220 (Rc)
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10

*For flange, dimension of bolt holes conforming the standards

JIS10K

ANSI

DIN/ISO

ESLON BUTTERFLY VALVE FOR UNDER GROUND



- Reliable sealing performance as spherical disc and preventive flange design against over-tightening.
- Worm gear operational from the ground with low torque and wide range of flow rate control.
- Light weight in 1/10 - 1/15 of cast-iron butterfly valve provides easier handling and installation.
- Long spindle type available.

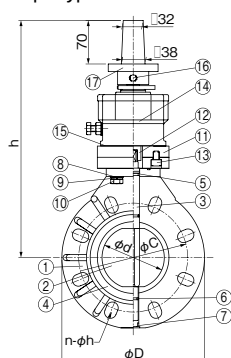
Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Disc	1	PP
③	Shaft	1	SUS420J2 or SUS316
④	Seat ring	1	EPDM or FKM
⑤	O-ring	2	EPDM or FKM
⑥	O-ring	1	EPDM or FKM
⑦	Cap	1	PP
⑧	Washer	4	SUS304
⑨	Spring Washer	4	SUS304
⑩	Bolt	4	SUS304
⑪	Spaser Ring	—	PVC
⑫	Connector	1	SUS303
⑬	Bolt	—	SUS304
⑭	Worm Gear Box	1	FCD450
⑮	Gasket	1	NBR
⑯	Pin	1	SUS304
⑰	Cap	1	FC200
⑱	Handle	1	ABS

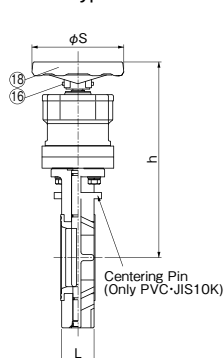
•Quantity of ⑪: 1 for 40~80A, 2 for 100~300A

•Quantity of ⑬: 4 for 40~80A, 8 for 100~300A

●Cap Type



●Handle Type



Size

Size		d	L	h1		D	Flange				S	Weight (kg/pc)		Q'ty per Carton
A	B			Handle	Cap		Water Supply		JIS 10K			Handle	Cap	
							C	n-φh	C	n-φh				
40	1 1/2	45	33	257	318	140	—	—	105	4-19	148	6.1	6.5	1
50	2	57	43	265	326	155	120	4-19	120	4-19	148	6.3	6.7	1
65	2 1/2	71	46	275	336	178	—	—	140	4-19	148	6.5	6.9	1
80	3	80	46	282	343	196	168	4-19	150	8-19	148	6.7	7.1	1
100	4	100	52	320	381	229	195	4-19	175	8-19	148	7.7	8.1	1
125	5	125	56	360	404	254	220	6-19	210	8-23	210	9.7	9.9	1
150	6	150	60	369	413	286	247	6-19	240	8-23	210	10.7	10.9	1
200	8	198	71	421	465	343	299	8-19	290	12-23	210	14.0	14.2	1
250	10	246	73	510	523	410	360	8-23	355	12-25	350	24.8	25.0	1
300	12	299	114	540	553	485	—	—	400	16-25	350	32.5	32.7	1

Unit:mm

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(°C)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10

•For flange, dimension of bolt holes conforming the standards

Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

JIS10K

ESLON GATE VALVE

Internal Thread Type

External Thread Type

Internal Thread Type



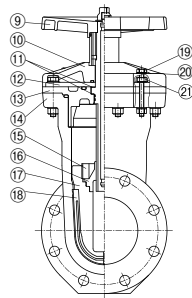
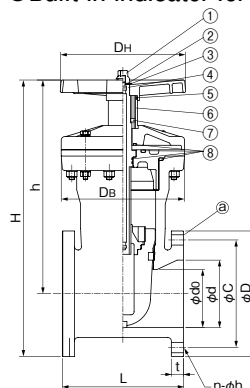
External Thread Type



- Reliable sealing performance as unique U-O type seat with low stem torque.
- Superior durability and high pressure resistance.
- Flat flow path provide little sediment and no pressure loss.
- Flat at the bottom of flange for prevention of tumbling and for better workability in plumbing.

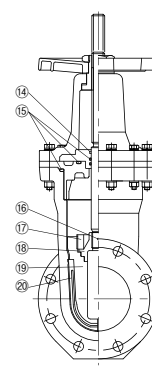
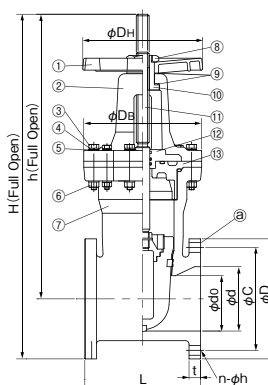
Internal Thread Type

- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Built in indicator for open-close position.



External Thread Type

- Usable for slurry or crystalline fluid.



Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

- Please insert washers for bolts and nuts for prevention of damage on flange. Please observe the following precautions so as not to damage valve body by bolt end.

1. Please use short nuts conforming JIS-III and washers. 2. Please select bolt length to remain 1 pitch of bolt thread after installation.

Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Cap Nut, Washer	1	SUS	⑫	Slust Plate	1	SUS304
②	Gasket Stopper	1	PP	⑬	Bonnet	1	HI-PVC
③	Gasket	1	EPDM	⑭	Body	1	HI-PVC
④	Shaft	1	HT-PVC+SS	⑮	Lock Ring	1	HI-PVC
⑤	O-ring	1	EPDM	⑯	Female Connector	1	HT
⑥	Indicator Cover	1	PC	⑰	Disc	1	HI-PVC+EPDM
⑦	Indicator	1	PVC	⑱	Seat	2	EPDM
⑧	O-ring	5	EPDM	⑲	Bolt	—	SUS304
⑨	Handle	1	PVC	⑳	Washer	—	SUS304
⑩	Gasket Box	1	HI-PVC	㉑	Nut	—	SUS304
⑪	Slust Washer	—	PP				

• Quantity of ⑪ bolts, nuts, and washers differ depending on size of valve.

• Thrust plate is attached only for 50, 80 - 200A. No thrust plate for 65A.

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Handle	1	PVC	⑪	Shaft	1	SUS304
②	Yoke	1	HI-PVC	⑫	Seal Plate	1	HI-PVC
③	Bolt	—	SUS304	⑬	Bonnet	1	HI-PVC
④	Spring Washer	—	SUS304	⑭	Dust Seal	2	NBR
⑤	Washer	—	SUS304	⑮	O-ring	4	EPDM
⑥	Nut	—	SUS304	⑯	Set Pin	1	SUS304
⑦	Body	1	HI-PVC	⑰	Lock Ring	1	HI-PVC
⑧	Lock Nut	1	CAC406	⑱	Connector	1	CAC406
⑨	Slust Ring	2	PP	⑲	Disc	1	HI-PVC
⑩	Sleeve	1	CAC406	㉑	Seat	1	EPDM

• Quantity of ③ - ⑥ differ depending on size of valve.

Size

Size		d	do	L	H		h		DH	DB	Flange (JIS 10K)				Rotation Times to Close		Weight (kg/pc)		Q'ty per Carton
A	B				Internal Thread	External Thread	Internal Thread	External Thread			D	C	n-φh	t	Internal Thread	External Thread	Internal Thread	External Thread	
40	1 1/2	40	40	165	—	403	—	333	140	140	140	105	4-19	20	—	11	—	3.8	1
50	2	50	50	180	364	447	286	369	170	152	155	120	4-19	20	5 1/8	12 3/4	4.3	5.5	1
65	2 1/2	65	65	190	414	528	327	440	170	174	175	140	4-19	22	6 3/4	16 2/4	5.8	7.5	1
80	3	75	75	200	431	557	338	465	170	183	185	150	8-19	22	6 3/4	14 1/4	7.0	9.0	1
100	4	100	100	230	520	662	415	557	210	226	210	175	8-19	24	8 1/4	18 1/2	12.7	15.0	1
125	5	125	115	250	581	778	456	662	210	255	250	210	8-23	25	9 1/2	21 1/4	18.3	19.0	1
150	6	150	128	270	633	830	493	690	280	275	280	240	8-23	26	9 1/4	19 3/4	23.5	27.0	1
200	8	200	168	290	752	1012	586	847	280	347	330	290	12-23	28	12	26 1/4	40.1	40.5	1

Unit:mm

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	1.0

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220

• For flange, dimension of bolt holes conforming the standards



Working Pressure and Temp

60

Flow Diagram

64

Installation

65

JIS10K

ESLON NEEDLE VALVE



- Equal percentage flow characteristic proportional to valve openness by unique plug design.
- Large visual indicator on the top of handle for flow percentage control.
- High chemical resistance, lightweight & compact as all plastic component.

Parts List

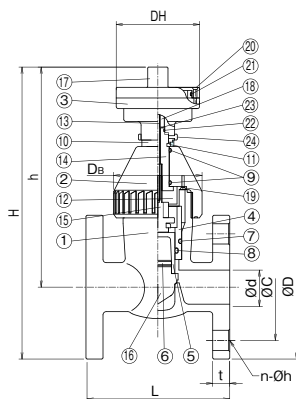
No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Body	1	PVC	⑭	Stem Sleeve	1	SUS304
②	Bonnet	1	PVC	⑮	Stem	1	SUS304
③	Indicator	1	PVC	⑯	Disk	1	PP
④	Bush	1	PVC	⑰	Indicator Cover	1	PC
⑤	Disk Holder	1	PVC	⑱	Indicator Stud Cover	1	C3604
⑥	Pin	1	PVC	⑲	Screw	4	SUS304
⑦	O-Ring	1	EPDM or FKM	⑳	Screw	3	SUS304
⑧	O-Ring	1	EPDM or FKM	㉑	O-Ring	1	NBR
⑨	O-Ring	2	NBR	㉒	O-Ring	1	NBR
⑩	Collar	1	PP	㉓	Thrust Washer	1	SUS304
⑪	Retaining Ring	15-20A 1	C3604	㉔	Screw	2	SUS304
		25-40A 1	PP	㉕	Handle	1	ABS
⑫	Stopper	1	SUS304	㉖	Screw	2	SUS304
⑬	Indicator Stud Bolt	1	SUS304				

Conforming Standard

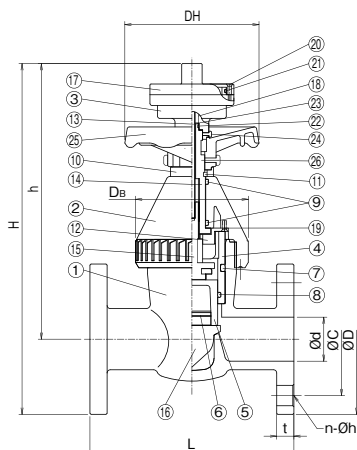
Connection	Standard	Classification
Flange	JIS10K	JIS B 2220

*For flange, dimension of bolt holes conforming the standards

●Flange Type (15A~32A)



●Flange Type (40A)



Size

Size		d	L	Flange				Height		Handle DH	D _B	Weight (kg/pc)	Q'ty per Carton
A	B			φD	φC	n-φh	t	H	h				
15	1/2	16	85	95	70	4-15	14	217	170	80	52	0.8	1
20	3/4	21	95	100	75	4-15	14	232	182	80	62	1.0	1
25	1	26	110	125	90	4-19	14	255	192	80	72	1.4	1
32	1 1/4	32	135	135	100	4-19	16	275	207	80	83	1.7	1
40	1 1/2	41	190	140	105	4-19	16	328	257	125	105	2.5	1

Unit:mm

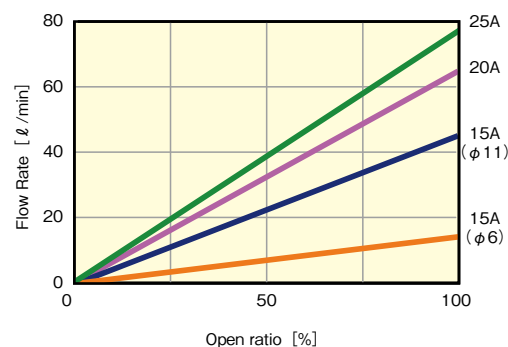
Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	1.0

⚠ Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

Flow Characteristic of Needle Valve



JIS

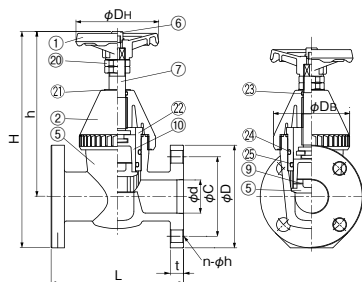
ESLON GLOBE VALVE



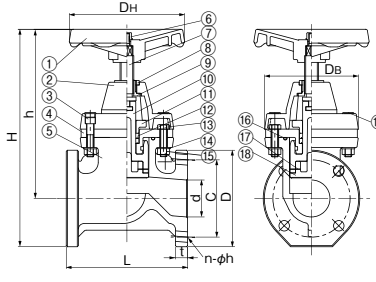
- Superior chemical resistance and durability as unique plug sealing and non-contact stem with medium.
- Built in indicator for open-close position and preventive mechanism for over-tightening (15~50A)
- Flat at the bottom of flange for prevention of tumbling and for better workability in plumbing.

Flange Type · Thread Type and TS Socket Type

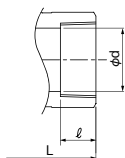
● Flange Type (15A~50A)



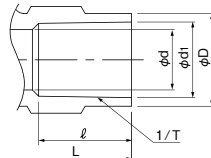
● Flange Type (65A~100A)



● Female Thread Type



● TS式



Parts List

No.	Part Name	Q'ty	Material
①	Handle	1	ABS
②	Bonnet	1	PVC
③	Bolt	4	Ni plated SCM
④	Bonnet	1	PVC
⑤	Body	1	PVC
⑥	Handle Nut	1	PVC
⑦	Stem	1	C3601
⑧	Set Nut	1	C3601
⑨	Sleeve	1	C3601
⑩	Disk Holder	1	PVC
⑪	Gasket Stopper	1	PP
⑫	Y Gasket	2	EPDM
⑬	Hexagon Bolt	4	Ni plated SCM
⑭	Washer	8	SUS304
⑮	Hexagon Nut	8	SUS304
⑯	O-ring	1	EPDM
⑰	Set Pin	—	PVC
⑱	Gate	1	PP
⑲	Bolt Cap	1	PP
⑳	Stopper Nut	2	PVC
㉑	Slut Washer	1	PTFE
㉒	Bush	1	PVC
㉓	O-ring	1	NBR
㉔㉕	O-ring	1	EPDM or FKM

● Thrust washer is assembled for size 40A and 50A.

Size Flange Type

Size		d	L	H (max)	h (max)	DH	DB	Flange (JIS 10K)				Weight (kg/pc)	Q'ty per Carton
A	B							D	C	n-φh	t		
15	1/2	16	85	199	152	65	52	95	70	4-15	14	0.5	24
20	3/4	21	95	215	165	65	62	100	75	4-15	14	0.6	24
25	1	26	110	239	177	80	72	125	90	4-19	14	0.9	24
32	1 1/4	32	135	272	205	80	83	140	100	4-19	16	1.3	8
40	1 1/2	41	190	304	234	125	105	140	105	4-19	16	1.9	2
50	2	50	200	327	249	125	115	155	120	4-19	20	2.6	2
65	2 1/2	65	220	390	303	150	170	175	140	4-19	22	5.5	2
80	3	80	240	442	350	210	189	185	150	8-19	22	7.5	2
100	4	102	290	500	395	210	231	210	175	8-19	24	11.0	1

Unit:mm

Thread Type (15A ~ 50A) and TS Socket Type (15A ~ 25A)

Size		d	L		H(max)		h(max)		DH	DB	Female Thread		TS Socket			Weight (kg/pc)		Q'ty per Carton
			Thread	TS	Thread	TS	Thread	TS			Size	ℓ	d1	1/T Taper	ℓ	Thread	TS	
15	1/2	16	85	110	169	169	152	152	65	52	Rc 1/2	15	22.4	1/34	30	0.3	0.3	24
20	3/4	21	95	130	186	186	165	165	65	62	Rc 3/4	17	26.5	1/34	35	0.4	0.4	24
25	1	26	110	150	201	201	177	177	80	72	Rc 1	20	32.6	1/34	40	0.5	0.5	24
32	1 1/4	32	135	—	234	—	205	203	80	83	Rc 1 1/4	22	—	—	—	0.8	—	8
40	1 1/2	41	140	—	257	—	234	225	125	105	Rc 1 1/2	25	—	—	—	1.3	—	2
50	2	50	180	—	298	—	249	239	125	115	Rc 2	28	—	—	—	1.8	—	2

Unit:mm

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~50	1.0

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203(Rc)

● For flange, dimension of bolt holes conforming the standards



Working Pressure and Temp

60

Flow Diagram

64

Installation

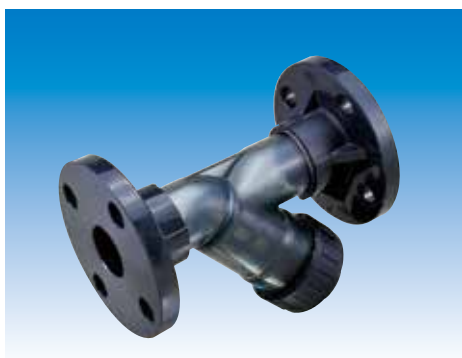
65

JIS

ANSI/ASTM

DIN/ISO

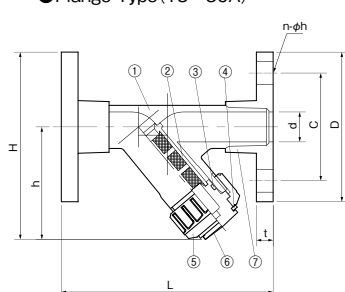
ESLON STRAINER



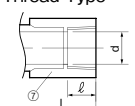
- Transparency body enables easy monitoring medium and screen (15-50A)
- Easy maintenance such as exchange or cleaning up screen by detaching union nut.
- Superior chemical & pressure resistance and durability.

Flange Type · Thread Type · TS Socket Type and True Union Type

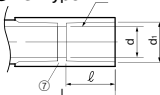
● Flange Type (15~50A)



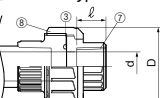
● Thread Type



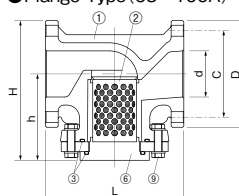
● TS Type



● Union Type



● Flange Type (65~100A)



*For sizes 65~100A, only flange type is available. TS, thread and union type is not available.

Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Holder with Screen	1	PVC
③	O-ring	1 15~50A 2 65~100A	EPDM or FKM
④	Open Ring	1	PVC
⑤	Cap Nut	1	PVC
⑥	Bonnet	1	PVC
⑦	Socket	2	PVC
⑧	Union Nut	2	PVC
⑨	Bolt & Nut	8	SUS304

*Body in size 65 - 100A is not transparency.

Size

Flange Type

Size		d	L	H	h	Flange (JIS 10K)				Weight (kg/pc)	Q'ty per Carton
A	B					D	C	n-φh	t		
15	1/2	15	150	119	71	95	70	4-15	14	0.4	6
20	3/4	20	158	131	81	100	75	4-15	14	0.5	6
25	1	25	177	157	94	125	90	4-19	14	0.7	6
32	1 1/4	30	197	162	94	135	100	4-19	16	1.0	6
40	1 1/2	40	220	188	118	140	105	4-19	16	1.2	2
50	2	50	264	215	137	155	120	4-19	20	2.0	2
65	2 1/2	65	220	240	153	175	140	4-19	22	3.6	1
80	3	80	240	253	161	185	150	8-19	22	4.4	1
100	4	100	290	283	178	210	175	8-19	24	6.8	1

Unit:mm

Screen Type and Mesh Size

Mesh Size	15A-20A			25A-100A			clear opening	
	PVDC	SUS304	SUS316	PVDC	SUS304	SUS316	PVDC	SUS
10	—	○	—	○	○	—	1.62	2.07
20	—	○	—	○	○	—	0.98	0.93
30	○	○	—	○	○	—	0.54	0.57
40	○	○	—	○	○	—	0.42	0.42
50	○	○	—	○	○	—	0.32	0.33
60	○	○	—	○	○	—	0.26	0.28
70	—	○	—	—	○	—	—	0.24
80	—	○	—	—	○	—	—	0.20
100	—	○	—	—	○	—	—	0.15
120	—	—	○	—	—	○	—	0.13

Thread Type · TS Socket Type and True Union Type

Size		d	L			H			h	Female Thread		TS Socket			Weight(kg/pc)			Q'ty per Carton
A	B		Thread	TS	Union	Thread	TS	Union		Size	ℓ	d1	1/T Taper	ℓ	PVC			
															Thread	TS	Union	
15	1/2	15	153	190	201	86	86	96	71	Rc 1/2	16	22.4	1/34	30	0.2	0.2	0.3	6
20	3/4	20	176	210	214	99	98	111	81	Rc 3/4	19	26.5	1/34	35	0.2	0.2	0.4	6
25	1	25	200	243	254	117	114	128	94	Rc 1	22	32.6	1/34	40	0.4	0.4	0.6	6
32	1 1/4	32	232	274	287	122	117	135	94	Rc 1 1/4	26	38.6	1/34	44	0.6	0.6	0.8	6
40	1 1/2	40	271	332	301	151	147	167	118	Rc 1 1/2	31	48.7	1/34	55	0.9	0.9	1.3	2
50	2	50	321	390	370	175	172	197	137	Rc 2	38	60.8	1/34	63	1.4	1.4	2.1	2

Unit:mm

Usable Liquid Temperature & Maximum Working Pressure

Material	Size	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	15A~50A	0~50	1.0
	65A~100A	0~50	0.6

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203(Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999(Rc-Rp)

*For flange, dimension of bolt holes conforming the standards

JIS10K

ANSI

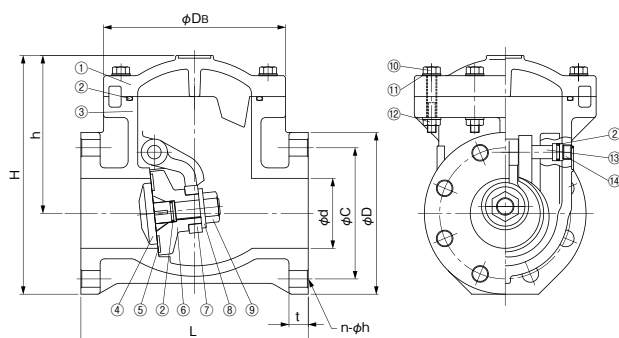
DIN/ISO

ESLON CHECK VALVE SWING TYPE



- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior durability and high pressure resistance.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Light weight in 1/4 - 1/5 of cast-iron valve provides easier handling and installation.

Flange Type



Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Bonnet	1	PVC, PP or PVDF	⑧	Washer	1	PVC, PP or PVDF
②	O-ring	3	EPDM or FKM	⑨	Hexagon Nut	1	PVC, PP or PVDF
③	Body	1	PVC, PP or PVDF	⑩	Hexagon Bolt	—	SUS304
④	Gasket Stopper	1	PVC or PVDF	⑪	Washer	—	SUS304
⑤	Gasket	1	EPDM or PTFE	⑫	Hexagon Nut	—	SUS304
⑥	Gate	1	PVC, PP or PVDF	⑬	shaft	1	PVC, PP or PVDF
⑦	Arm	1	PVC, PP or PVDF	⑭	Plug	1	PVC, PP or PVDF

•Quantity of ⑩ - ⑫ marked*, please refer to the dimension table.

Size

Size		d	L	H	h	Da	Flange (JIS 10K)				Numbers of Bolt	Numbers of Nut	Weight (kg/pc)			Q'ty per Carton
A	B						D	C	t	n-φh			PVC	PP	PVDF	
15	1/2	21	140	143	93	112	100	70	14	4-15	6	6	1.0	0.8	1.3	2
20	3/4	21	140	143	93	112	100	75	14	4-15	6	6	1.0	0.8	1.3	2
25	1	25	160	180	118	132	125	90	14	4-19	6	6	1.6	1.3	2.2	2
32	1 1/4	40	180	206	136	148	140	100	18	4-19	6	6	2.7	1.9	3.3	2
40	1 1/2	40	180	206	136	148	140	105	18	4-19	6	6	2.7	1.9	3.3	2
50	2	51	200	229	152	180	155	120	20	4-19	8	8	3.6	3.0	4.5	2
65	2 1/2	67	240	254	166	200	175	140	22	4-19	8	8	4.8	3.8	6.0	2
80	3	80	260	270	178	208	185	150	22	8-19	8	8	5.8	4.3	7.5	2
100	4	100	300	318	213	265	210	175	24	8-19	12	12	9.4	7.3	11.8	1
125	5	125	350	372	247	330	250	210	24	8-23	12	12	16.4	12.7	21.0	1
150	6	150	400	420	280	375	280	240	26	8-23	12	12	20.1	16.0	26.0	1
200	8	200	500	494	329	425	330	290	30	12-23	16	16	31.7	27.0	44.0	1

•Size 15A is same as 20A and size 32A is same as 40A, it is fabricated to long bolt hole of the flange.

•D, DB, H, h, C, and t dimension of PP/PVDF type might differ from the dimension table.

Minimum Operating Pressure(Gasket:EPDM)

Size (A)		15	20	25	32	40	50	65	80	100	125	150	200
Vertical Piping	Min.Opened Pressure	10											
	Min.Closed Pressure	30											40
Horizontal Piping	Min.Opened Pressure	10											
	Min.Closed Pressure	30											50

•The pressure in the above table has tolerance.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)		
		EPDM-PTFE		
		15~80A	100~150A	200A
PVC	0~50	1.0	0.7	0.5
PP	0~80	1.0	0.7	0.5
PVDF	0~100	1.0	0.7	0.5

Important Notes

Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10

•For flange, dimension of bolt holes conforming the standards

JIS

ANSI/ASTM

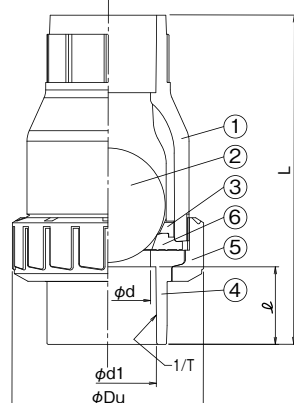
DIN/ISO

ESLON CHECK VALVE BALL TYPE

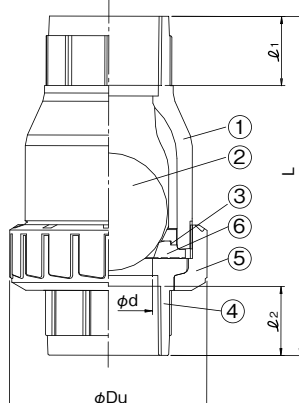


- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Easy maintenance by detaching union nut.

● TS Socket Type



● Thread Type



Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC or HT
②	Ball	1	PVC or HT
③	Ring	1	PVC or HT
④	Socket	1	PVC or HT
⑤	Union Nut	1	PVC or HT
⑥	Seat	1	EPDM or FKM

Size

Thread Type and TS Socket Type

Size		d	L		TS Socket			Female Thread			φDu	Weight(kg/pc)		Q'ty per Carton
A	B		TS	Thread	d1	1/T Taper	ℓ	Size	ℓ ₁	ℓ ₂		PVC	HT	
15	1/2	16	98	88	22.3	1/37	22	Rc1/2	18	18	49	0.1	0.1	24
20	3/4	20	118	106	26.3	1/42	25	Rc3/4	21	18	59	0.2	0.2	24
25	1	25	124	112	32.3	1/43	29	Rc 1	24	23	67	0.3	0.3	24
32	1 1/4	32	153	149	38.4	1/37	32	Rc1 1/4	30	31	98	0.6	0.6	4
40	1 1/2	40	153	144	48.5	1/38	35	Rc1 1/2	31	25	98	0.5	0.5	4
50	2	50	180	172	60.6	1/34	38	Rc 2	38	30	120	0.8	0.8	4
65	2 1/2	65	259	226	76.6	1/48	61	Rc2 1/2	44	32	150	2.2	2.2	2
80	3	78	281	251	89.6	1/49	64	Rc 3	37	37	150	2.4	2.5	2
100	4	102	408	349	114.7	1/56	84	Rc 4	55	45	228	6.8	6.8	1

Unit:mm

Minimum Operating Pressure

Size (A)		15	20	25	32	40	50	65	80	100
Vertical Piping	Min.Opened Pressure	5			10			50		
	Min.Closed Pressure	30			50			50		
Horizontal Piping	Min.Opened Pressure	1			2			50		
	Min.Closed Pressure	30			50			50		

Unit:kPa

*The pressure in the above table has tolerance.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(°C)	Max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0
HT	0~90	1.0

Important Notes

- In the condition of low flow rate or frequent flow rate fluctuation, the ball might vibrate in the body, and might cause sound or damage of valve. Esilon check valve swing type or lift type may be usable in those cases.
- Turbulent flow might disable checking by irregular ball bouncing.
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.

Conforming Standard

Connection	Standard	Classification
Socket	JIS	JIS K 6743, AS21(65A)
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203(Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999(Rc-Rp)

JIS

ANSI/ASTM

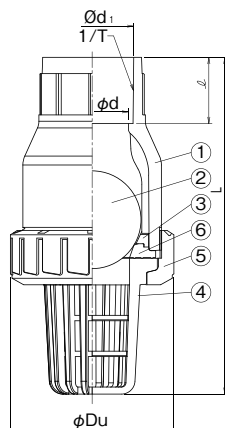
DIN/ISO

ESLON FOOT VALVE

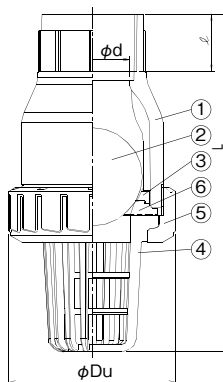


- Low pressure loss and reliable checking performance even with small differential pressure.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Easy maintenance by detaching union nut.

● TS Socket Type



● Thread Type



Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC or HT
②	Ball	1	PVC or HT
③	Sheet career	1	PVC or HT
④	Filter	1	PVC or HT
⑤	Union Nut	1	PVC or HT
⑥	Seat	1	EPDM or FKM

Conforming Standard

Connection	Standard	Classification
Socket	JIS	JIS K 6743, AS21(65A)
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203 (Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999 (Rc·Rp)

Size

Thread Type and TS Socket Type

Size		φd	φDu	L		TS Socket			Female Thread		Weight(kg/pc)		Q'ty per Carton
A	B			TS	Thread	φd ₁	1/T	ℓ	Size	ℓ	PVC	HT	
15	1/2	16	49	119	117	22.3	1/37	22	Rc 1/2	18	0.1	0.1	12
20	3/4	20	59	140	137	26.3	1/42	25	Rc 3/4	21	0.2	0.2	12
25	1	25	67	151	148	32.3	1/43	29	Rc 1	24	0.3	0.3	12
32	1 1/4	32	98	205	208	38.4	1/37	32	Rc 1 1/4	30	0.8	0.8	4
40	1 1/2	40	98	205	203	48.5	1/38	35	Rc 1 1/2	31	0.7	0.7	4
50	2	50	120	235	237	60.6	1/34	38	Rc 2	38	1.2	1.2	4
65	2 1/2	65	150	313	294	76.6	1/48	61	Rc 2 1/2	44	2.5	2.6	2
80	3	78	150	335	320	89.6	1/49	64	Rc 3	37	2.2	2.3	2
100	4	102	228	488	458	114.7	1/56	84	Rc 4	55	8.3	8.6	1

Unit:mm

Minimum Operating Pressure

Size (A)		15	20	25	32	40	50	65	80	100
Vertical Piping	Min.Opened Pressure	5			10			50		
	Min.Closed Pressure	30			50			50		
Horizontal Piping	Min.Opened Pressure	1			2			50		
	Min.Closed Pressure	30			50			50		

•The pressure in the above table has tolerance.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(°C)	Max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0
HT	0~90	1.0

•The pressure in the above table has tolerance.

Important Notes

- Turbulent flow might disable checking by irregular ball bouncing.
- Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.



Working Pressure and Temp

60

Flow Diagram

64

Installation

65

JIS

ANSI/ASTM

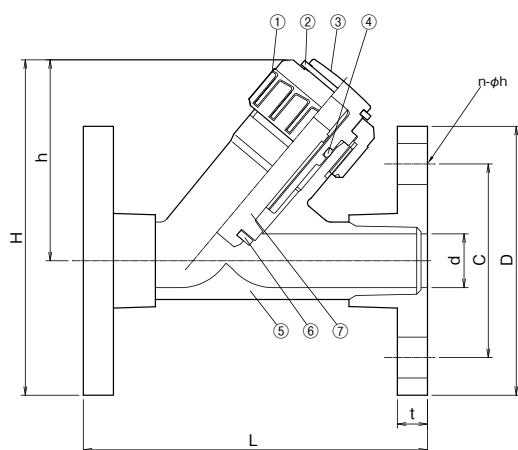
DIN/ISO

ESLON CHECK VALVE LIFT TYPE



- Reliable checking performance in both horizontal and vertical direction as angle type.
- Easy maintenance by detaching union nut.
- Superior chemical & pressure resistance and durability.

Flange Type



•Install the valve as bonnet upward.

Parts List

No.	Part Name	Q'ty	Material
①	Cap Nut	1	PVC
②	Stem Set	1	PVC
③	Bonnet	1	PVC
④	O-ring	1	EPDM or FKM
⑤	Body	1	PVC
⑥	Piston Gasket	1	EPDM or FKM
⑦	Piston	1	PVC+SS

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp. (MPa)
PVC	0~50	1.0

Size

Size						Flange (JIS 10K)				Weight (kg/pc)	Q'ty per Carton
A	B	d	L	H	h	D	C	n-φh	t	PVC	
15	1/2	15	130	119	71	95	70	4-15	14	0.4	6
20	3/4	20	150	131	81	100	75	4-15	14	0.5	6
25	1	25	160	157	94	125	90	4-19	14	0.8	6
32	1 1/4	32	180	162	94	135	100	4-19	16	1.0	6
40	1 1/2	40	200	188	118	140	105	4-19	16	1.4	2
50	2	50	234	215	137	155	120	4-19	20	2.2	2

•Thread, TS, and union type available.

Minimum Operating Pressure

Minimum Operating Pressure							Unit:kPa
Size(A)		15	20	25	32	40	50
Vertical Piping	Min.Opened Pressure	2.0				3.0	
	Min.Closed Pressure	50					
Horizontal Piping	Min.Opened Pressure	2.0				3.0	
	Min.Closed Pressure	50					

•The pressure in the above table has tolerance.

Conforming Standard

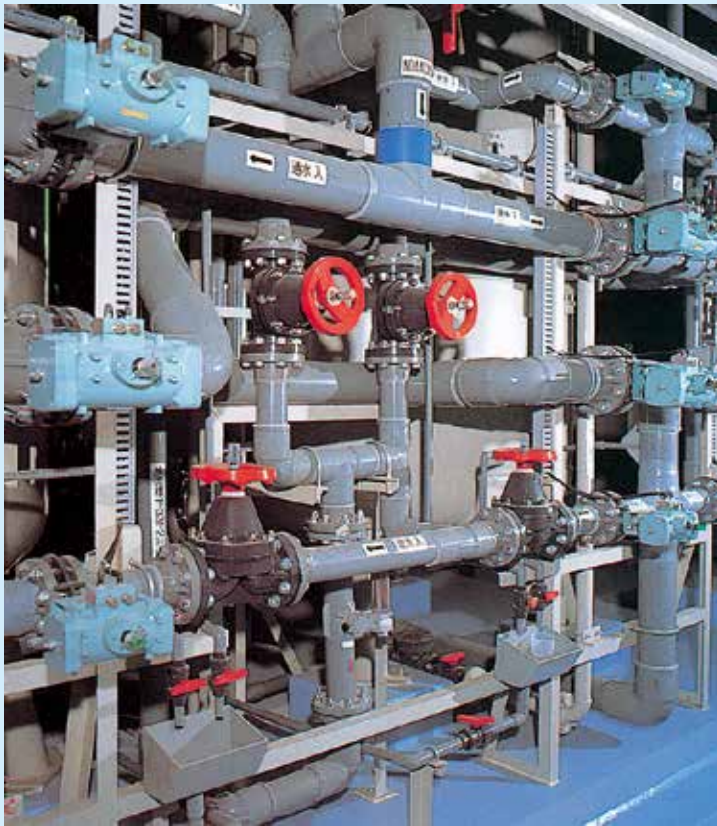
Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203 (Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999 (Rc-Rp)

•For flange, dimension of bolt holes conforming the standards

Important Notes

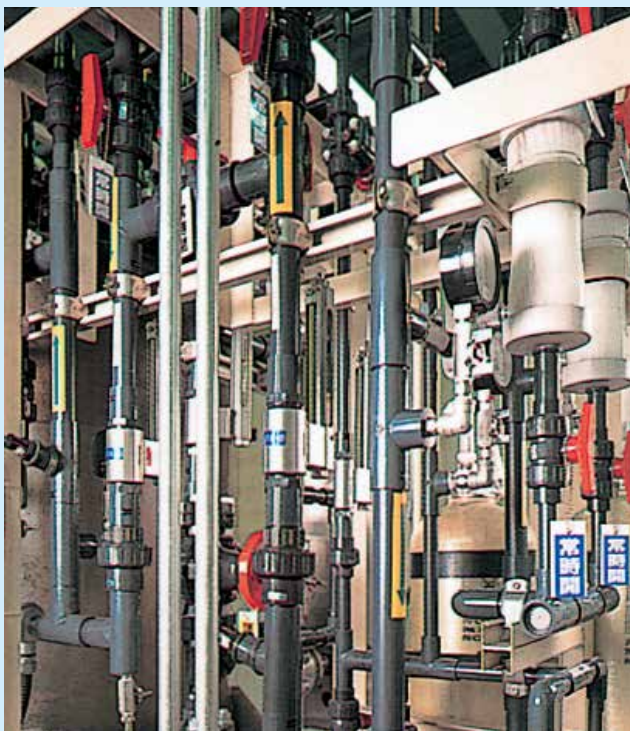
Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.

Example of Installation



▲Eslon Valves and Eslon VPFW pipe & fittings for water treatment equipment.

Chemical treatment piping for water purification system. ►



▲EsloClean pipe & fittings and Eslon Clean Valves for high purity water equipment.



▲Eslon Valves for Aquarium piping.

JIS

ANSI/ASTM

DIN/ISO

ESLON RELIEF VALVE

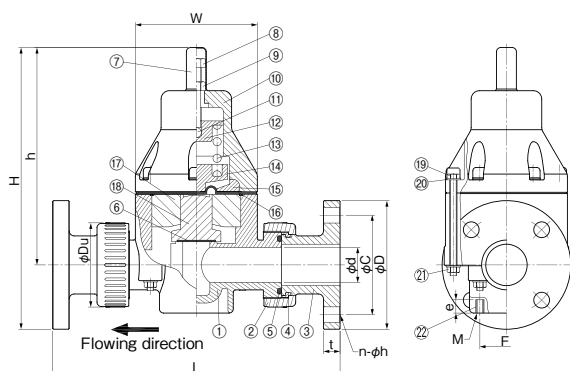


Type 712

- De-pressure and prevent from the damage of piping line by excess pressure.
- Pressure adjustment range of 0.02 - 1.0 MPa by 2 types.
- Reliable relief performance in both horizontal and vertical direction of pipe line.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.

Flange Type · Thread Type and TS Socket Type

● Flange Type



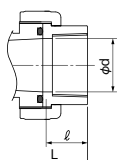
Parts List

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Body	1	PVC, PPorPVDF	⑫	Pressure Plate	1	SS400+Ni plating
②	Union Nut	2	PVC, PPorPVDF	⑬	Pressure Spring	1	Spring Steel
③	Flange End	2	PVC, PPorPVDF	⑭	Spring Plate	1	SS400+Ni plating
④	Set Ring	2	PVDF	⑮	Pressure Disk	1	SUS304
⑤	O-ring	2	EPDMorFKM	⑯	Diaphragm	1	PTFE+EPDM
⑥	Gasket	1	EPDMorFKM	⑰	Separate Disk	1	PVC
⑦	Cover	1	PE	⑱	Piston	1	PVC
⑧	Adjust bolt	1	SUS304	⑲	Hexagon Bolt	※	SUS304
⑨	Lock Nut	1	SUS304	⑳	Washer	※	SUS304
⑩	Bonnet	1	GF-PP	㉑	Hexagon Nut	※	SUS304
⑪	Thrust ball	1	SSS400+Ni plating	㉒	fixing Insert Nut	2	SUS304

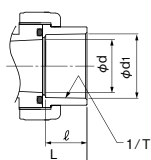
•Quantity of ⑲ - ㉑ : 4 for 15A, 6 for 20A - 50A

•For PVDF body type, sealing material is FKM.

● Female Thread Type



● TS Socket Type



⚠ Important Notes

Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Size

Flange Type

Size		d	L	H	h	W	Fixation Thread		Flange (JIS 10K)				Weight (kg/pc)			Q'ty per Carton
A	B						F	Mxe	D	C	n-φh	t	PVC	PP	PVDF	
15	1/2	15	224	220	172	81	41	M6×16	95	70	4-15	14	1.1	1.3	1.3	1
20	3/4	20	255	252	202	107	47	M6×16	100	75	4-15	14	1.2	1.4	1.4	1
25	1	26	269	265	202	107	47	M6×16	125	90	4-19	14	2.4	2.8	2.8	1
32	1 1/4	32	323	330	262	147	66	M8×16	135	100	4-19	16	5.7	6.6	6.6	1
40	1 1/2	40	338	332	262	147	66	M8×16	140	105	4-19	16	5.9	6.8	6.8	1
50	2	50	346	340	262	147	66	M8×16	155	120	4-19	20	6.3	7.2	7.2	1

Unit:mm

Thread Type and TS Socket Type

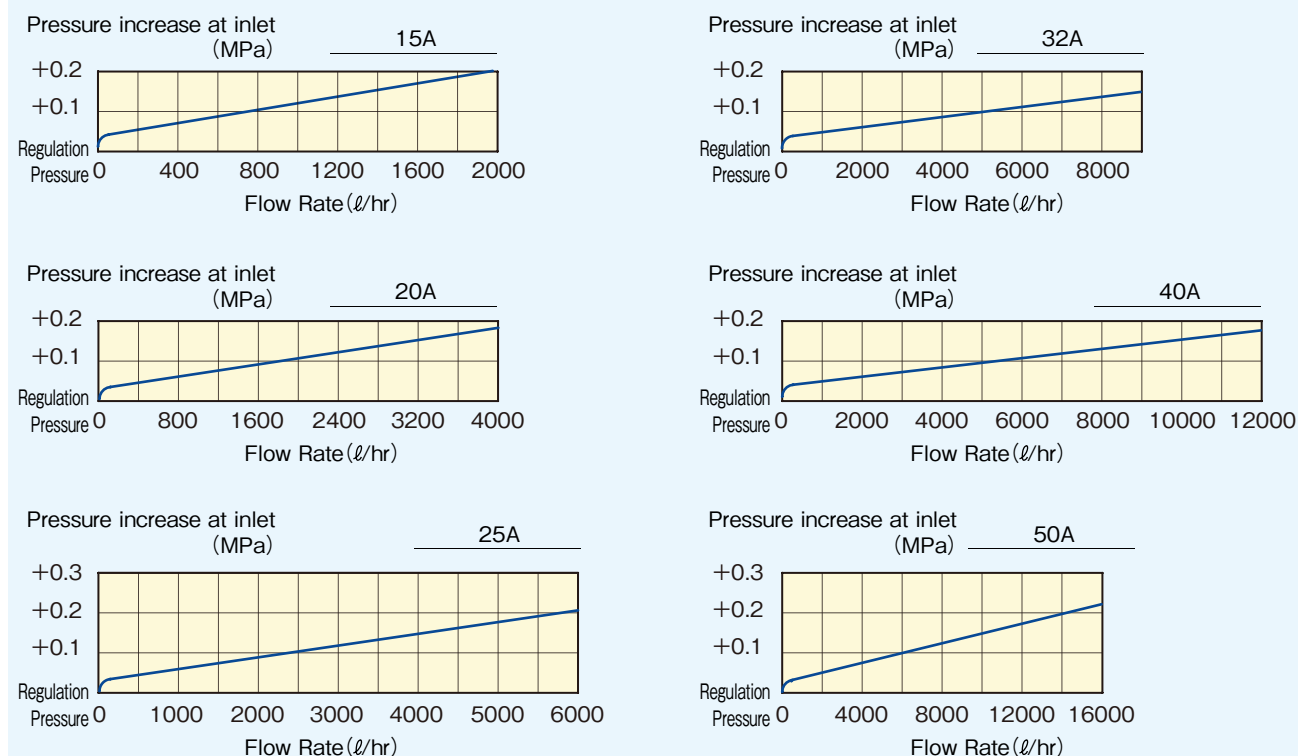
Size		d	L		H	h	W	Fixation Thread		Female Tread		TS Socket			Weight (kg/pc)		Q'ty per Carton
A	B		Thread	TS				F	Mxe	Size	ℓ	d1	1/T Taper	ℓ	PVC	PVDF	
13	3/8	10	164	164	197	172	81	41	M6×16	Rc 1/4	14	18.3	1/31	19	0.8	1.0	1
15	1/2	15	172	177	197	172	81	41	M6×16	Rc 1/2	16	22.3	1/37	22	0.9	1.1	1
20	3/4	21	209	211	240	202	107	47	M6×16	Rc 3/4	20	26.3	1/42	25	1.9	2.1	1
25	1	26	218	220	240	202	107	47	M6×16	Rc 1	24	32.3	1/43	29	1.9	2.2	1
32	1 1/4	33	276	276	320	262	147	66	M8×16	Rc 1 1/4	28	38.4	1/37	32	5.0	5.5	1
40	1 1/2	40	281	281	320	262	147	66	M8×16	Rc 1 1/2	30	48.5	1/38	35	5.1	5.6	1
50	2	50 ※	290	290	320	262	147	66	M8×16	Rc 2	33	60.6	1/34	38	5.2	5.7	1

Unit:mm

※TS Socket Type : 54

■ Pressure characteristic at Inlet Side

The below diagram show the relation of flow rate and pressure increase at inlet. Pressure at inlet increase with increasing flow rate.



■ Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~ 50	1.0
PP	10~ 70	1.0
PVDF	-30~100	1.0

■ Regulation Pressure Range : 0.03~1.0MPa

■ Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203(Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999(Rc·Rp)
Butt	DIN/ISO	DIN8077 (PP)
		ISO10931 (PVDF)

*For flange, dimension of bolt holes conforming the standards

JIS

ANSI/ASTM

DIN/ISO

ESLON PRESSURE REGULATION VALVE



Type 755

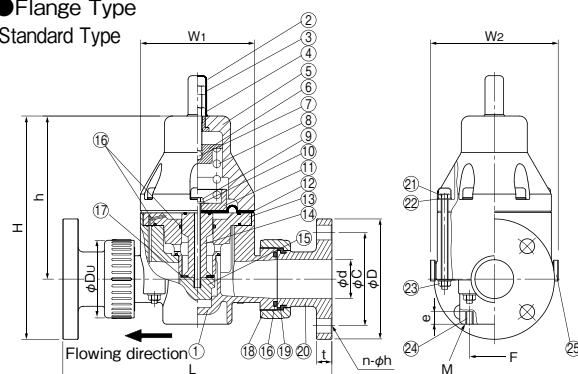
- Diaphragm type of pressure regulation valve adjusts outlet pressure in high accuracy ($\pm 0.02\text{MPa}$)
- Pressure adjustment range of 0.1 - 0.9 MPa.
- Reliable relief performance in both horizontal and vertical direction of pipe line.
- Superior corrosion & chemical resistance as all plastic component for contact parts with medium.
- Integrated pressure gauge type available.

Pressure gauge(Display/Connection thread)

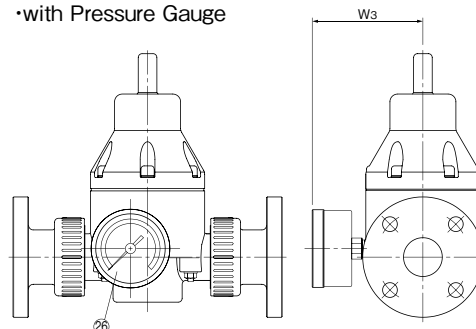
- Standard (SPC/C3604BD)
- Glycerin enclosure (SUS304/C3604BD)
- SUS (SPC/SUS304)
- SUS+Glycerin (SUS304/SUS304)

Flange Type · Thread Type · TS Socket Type

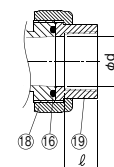
● Flange Type · Standard Type



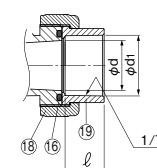
· with Pressure Gauge



● Female Thread Type



● TS Socket Type



Size Flange Type

Unit:mm

Size		d	L	H	h	W1	W2	W3	Fixation Thread		Flange (JIS 10K)				Weight (kg/pc)			Q'ty per Carton
A	B								F	M×e	D	PCD	n-φh	t	PVC	PP	PVDF	
15	1/2	15	224	220	172	81	97	124	41	M6×16	95	70	4-15	14	1.1	1.3	1.3	1
20	3/4	20	255	252	202	107	123	150	47	M6×16	100	75	4-15	14	1.2	1.4	1.4	1
25	1	26	269	265	202	107	123	150	47	M6×16	125	90	4-19	14	2.4	2.8	2.8	1
32	1 1/4	32	323	330	262	147	163	190	66	M8×16	135	100	4-19	16	5.7	6.6	6.6	1
40	1 1/2	40	338	332	262	147	163	190	66	M8×16	140	105	4-19	16	5.9	6.8	6.8	1
50	2	50	346	340	262	147	163	190	66	M8×16	155	120	4-19	20	6.3	7.2	7.2	1

Thread Type and TS Socket Type

Unit:mm

Size		d	L			H	h	W1	W2	W3	Fixation Thread		Female Thread		TS Socket			Weight (kg/pc)		Q'ty per Carton
A	B		Thread	TS	Butt						F	M×e	Size	ℓ	d1	1/T Taper	ℓ	PVC	PVDF	
13	3/8	10	164	164	—	197	172	81	97	124	41	M6×16	Rc 1/4	14	18.3	1/31	19	0.8	0.8	1
15	1/2	16	172	177	227	197	172	81	97	124	41	M6×16	Rc 1/2	16	22.3	1/37	22	0.9	0.9	1
20	3/4	20	209	211	263	240	202	107	123	150	47	M6×16	Rc 3/4	20	26.3	1/42	25	1.9	1.9	1
25	1	25	218	220	269	240	202	107	123	150	47	M6×16	Rc 1	24	32.3	1/43	29	1.9	1.9	1
32	1 1/4	32	276	276	330	320	262	147	163	190	66	M8×16	Rc 1 1/4	28	38.4	1/37	32	5.0	5.0	1
40	1 1/2	41	281	281	336	320	262	147	163	190	66	M8×16	Rc 1 1/2	30	48.5	1/38	35	5.1	5.1	1
50	2	52	290	290	342	320	262	147	163	190	66	M8×16	Rc 2	33	60.6	1/34	38	5.2	5.2	1

*Each dimension might differ from the dimension table depending on body material.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature (°C)	max. Working Pressure at Room Temp (MPa)
PVC	0~ 50	1.0
PP	10~ 70	1.0
PVDF	-30~100	1.0

Important Notes

Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

Parts List

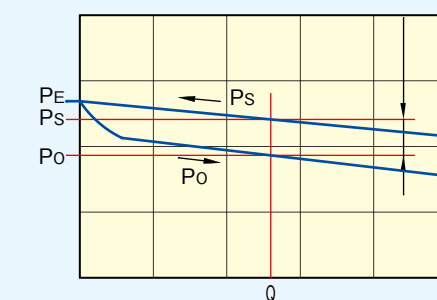
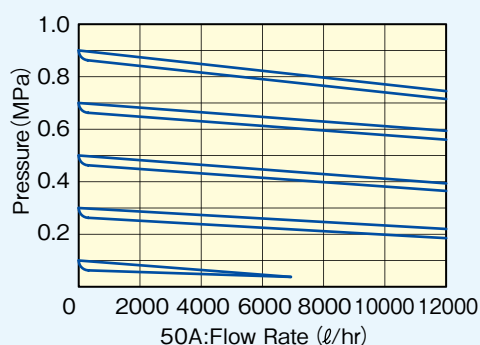
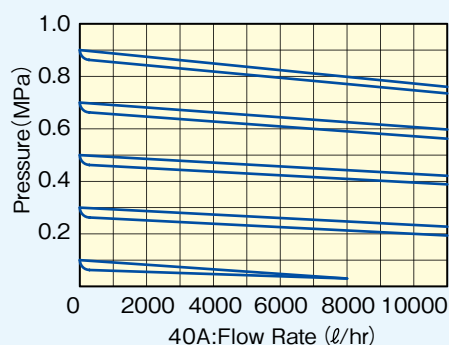
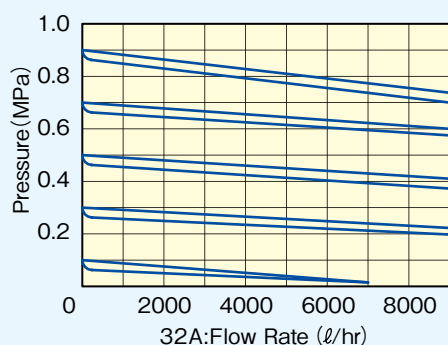
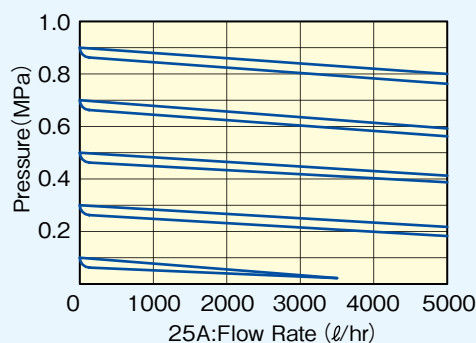
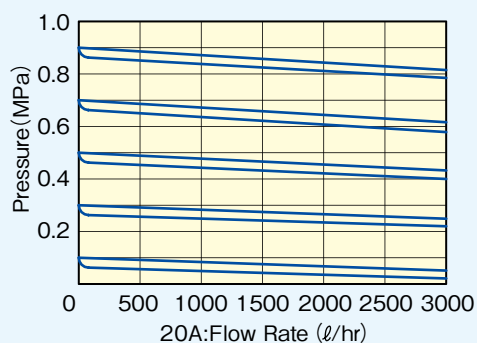
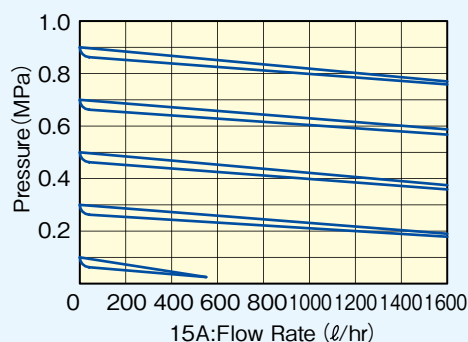
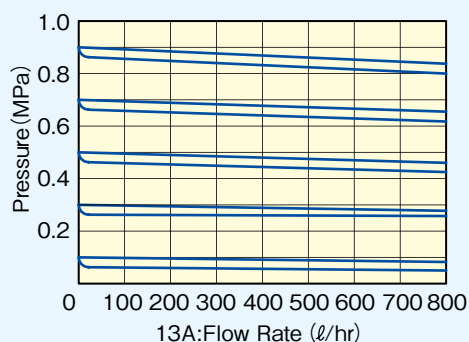
No.	Part Name	Q'ty	Material
①	Body	1	PVC, PP or PVDF
②	Cover	1	PE
③	Pressure Regulation Bolt	1	SUS304
④	Lock Nut	1	SUS304
⑤	Bonnet	1	GF-PP
⑥	Spring Plate	1	SS400+Ni plated
⑦	Slust	1	SUS304
⑧	Adjust Spring	1	Spring Steel
⑨	Connection Bolt	1	SUS304
⑩	Washer	1	SUS304
⑪	Spring Plate	1	GF-PP
⑫	Diaphragm	1	PTFE + EPDM
⑬	Separate Disc	1	PVC, PP or PVDF
⑭	Piston	1	PVC, PP or PVDF
⑮	Piston Guide	1	PVDF
⑯	O-ring	7	EPDM or FKM
⑰	Gasket	1	EPDM or FKM
⑱	Union Nut	2	PVC, PP or PVDF
⑲	Set Ring	2	PVDF
⑳	Socket	2	PVC, PP or PVDF
㉑	Bolt	—	SUS304
㉒	Washer	—	SUS304
㉓	Nut	—	SUS304
㉔	Insert Nut	2	SUS304
㉕	Plug	—	PVC, PP or PVDF
㉖	Pressure Gauge	1	—

*Quantity of ㉑)~㉓): 4 for 15A, 6 for 20A · 50A

*For PVDF body type, sealing material is FKM.

■ Pressure characteristic at outlet side

The below diagram show the relation of flow rate and pressure at outlet by each set pressure (0.1 / 0.3 / 0.5 / 0.7 / 0.9MPa) . Pressure at outlet decrease with increasing flow rate.



PE=Reguration Pressure PO=Pressure at Opend Point
PS=Pressure at Closed Point Q : Flow Rate

■ Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ASME / ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203(Rc)
	ANSI	ANSI B1.20.1 (NPT)
	DIN/ISO	DIN2999 (Rc·Rp)
Butt	DIN/ISO	DIN8077 (PP)
		ISO10931 (PVDF)

·For flange, dimension of bolt holes conforming the standards

MEMO

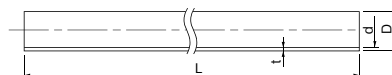
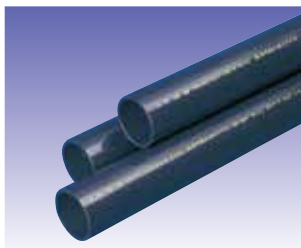
Pipe & Related Products

● ESILON U-PVC PIPE	37
U-PVC PIPE FOR PORTABLE WATER(ESILON VP & HI-GOLD) --	37
U-PVC PIPE(ESILON VP, VU)	37
● PLANT VP PIPE	38
● ESILON CPVC PIPE(ESILON HT)	39
● ESILON CPVC PIPE FOR INDUSTRIAL APPLICATIONS --	40
● ESILON LARGE DIAMETER FITTINGS	41
● U-PVC TS FITTINGS / HITS FITTINGS-GOLD --	42
● ESILON FLANGE WITH TS SOCKET(TS FLANGE) --	43
● PACKING(GASKET)	45
● ESILON TRUE UNION FITTING	48
● SUS INSERT FITTINGS	49
● ESILON SADDLE BAND	49
● ESILON VPFW-HTFW	50
● ESILON PVDF	51
● ESILON DUCT PIPES	52
● DUCT FITTINGS	52
● ESILON UVS-VP	53
● ESILON PLANT HYPER BK	54
● ESILON CLEAR PIPE	55
● PVC WELDING ROD	55
● ESILON SOLVENT CEMENT	56

PIPES AND FITTINGS

ESLON U-PVC PIPE

● U-PVC PIPE FOR PORTABLE WATER (ESLON VPW & HI-PipeGold+(plus) [HI-VPW·G])



- Excellent corrosion resistance.
- Conform to Food Sanitation Law.
- Durable flow rate with smooth inner surface as no scale or rust.
- Esilon HI pipe has more than twice of impact strength compared to normal PVC type.

Size

Unit:mm

Size	D	Tolerance		t	d	L		Weight (kg/m)		Standard	
		Max/min	Average			JIS K 6742	AS20	HI-VPW-G	VPW	JIS K 6742	AS20
13	18.0	±0.20	±0.2	2.5 ±0.20	13.0	4000 ⁺³⁰ ₋₁₀	—	0.170	0.174	HI/VPW	—
16	22.0	±0.20	±0.2	3.0 ±0.30	16.0	4000 ⁺³⁰ ₋₁₀	—	0.251	0.256	HI/VPW	—
20	26.0	±0.20	±0.2	3.0 ±0.30	20.0	4000 ⁺³⁰ ₋₁₀	—	0.303	0.310	HI/VPW	—
25	32.0	±0.20	±0.2	3.5 ±0.30	25.0	4000 ⁺³⁰ ₋₁₀	—	0.439	0.448	HI/VPW	—
30	38.0	±0.30	±0.2	3.5 ±0.30	31.0	4000 ⁺³⁰ ₋₁₀	—	0.531	0.542	HI/VPW	—
40	48.0	±0.30	±0.2	4.0 ±0.30	40.0	4000 ⁺³⁰ ₋₁₀	5000 ⁺³⁰ ₋₁₀	0.774	0.791	HI/VPW	—
50	60.0	±0.40	±0.2	4.5 ±0.40	51.0	4000 ⁺³⁰ ₋₁₀	5000 ⁺³⁰ ₋₁₀	1.098	1.122	HI/VPW	—
65	76.0	±0.50	±0.2	4.5 ±0.40	67.0	4000 ⁺³⁰ ₋₁₀	(5000) ⁺³⁰ ₋₁₀	1.415	1.445	—	HI
75	89.0	±0.50	±0.2	5.9 ±0.40	77.2	(4000) ⁺³⁰ ₋₁₀	5000 ⁺³⁰ ₋₁₀	2.156	2.202	HI/VPW	—
100	114.0	±0.60	±0.2	7.1 ±0.50	99.8	(4000) ⁺³⁰ ₋₁₀	5000 ⁺³⁰ ₋₁₀	3.338	3.409	HI/VPW	—
125	140.0	±0.80	±0.5	7.5 ±0.50	125.0	4000 ⁺³⁰ ₋₁₀	(5000) ⁺³⁰ ₋₁₀	4.370	4.464	—	HI
150	165.0	±1.00	±0.3	9.6 ±0.60	145.8	(4000) ⁺³⁰ ₋₁₀	5000 ⁺³⁰ ₋₁₀	6.561	6.701	HI/VPW	—
200	216.0	±1.30	±0.7	11.5 ±0.70	193.0	—	(5000) ⁺³⁰ ₋₁₀	10.338	10.129	—	—
250	267.0	±1.60	±0.9	14.2 ±0.90	238.6	—	(5000) ⁺³⁰ ₋₁₀	15.781	15.481	—	—
300	318.0	±1.90	±1.0	17.0 ±1.10	284.0	—	(5000) ⁺³⁰ ₋₁₀	22.494	21.962	—	—

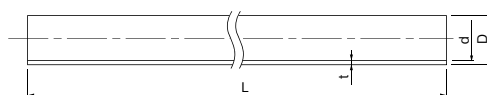
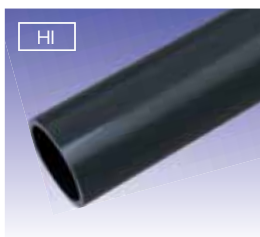
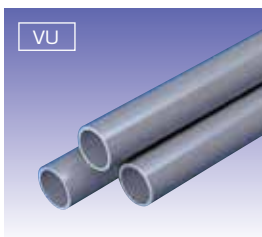
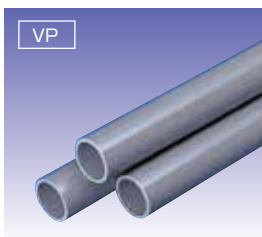
*Weight is calculated with specific gravity HI-VPW-G: 1.40, VPW: 1.43 for reference.

*For 65A and 125A, they authorized by JWWA as AS20.

⚠ Important Notes

Do not use for acid, such as sulfuric acid or hydrochloric acid. For acid chemical application, plant VP pipe is usable.

● U-PVC PIPE (ESLON VP, VU) JIS K 6741



- Excellent corrosion resistance.
- Durable flow rate with smooth inner surface as no scale or rust.

Size

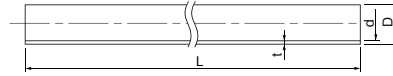
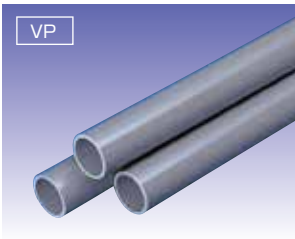
Unit:mm

Size	Tolerance D	t			d			L	Weight (kg/m)		
		VP	VU	HI	VP	VU	HI		VP	VU	HI
40	48 ±0.2	3.6 ±0.8	1.8 ±0.4	—	40	44	—	4000 ±10	0.791	0.413	—
50	60 ±0.2	4.1 ±0.8	1.8 ±0.4	—	51	56	—		1.122	0.521	—
65	76 ±0.3	4.1 ±0.8	2.2 ±0.6	—	67	71	—		1.445	0.825	—
75	89 ±0.3	5.5 ±0.8	2.7 ±0.6	—	77	83	—		2.202	1.159	—
100	114 ±0.4	6.6 ±1.0	3.1 ±0.8	—	100	107	—		3.409	1.737	—
125	140 ±0.5	7.0 ±1.0	4.1 ±0.8	—	125	131	—		4.464	2.739	—
150	165 ±0.5	8.9 ±1.4	5.1 ±0.8	—	146	154	—		6.701	3.941	—
200	216 ±0.7	10.3 ±1.4	6.5 ±1.0	10.3 ±1.4	194	202	194		10.129	6.572	10.338
250	267 ±0.9	12.7 ±1.8	7.8 ±1.2	12.7 ±1.8	240	250	240		15.481	9.758	15.781
300	318 ±1.0	15.1 ±2.2	9.2 ±1.4	15.1 ±2.2	286	298	286		21.962	13.701	22.494
350	370 ±1.2	—	10.5 ±1.4	—	—	348	—		—	18.051	—
400	420 ±1.3	—	11.8 ±1.6	—	—	395	—		—	23.059	—
450	470 ±1.5	—	13.2 ±1.8	—	—	442	—		—	28.875	—
500	520 ±1.6	—	14.6 ±2.0	—	—	489	—		—	35.346	—
600	630 ±3.2	—	17.8 ±2.8	—	—	592	—		—	52.679	—

1.350~600A : Only VU Pipe is available.

2. Weight is calculated with specific gravity HI-VPW-G: 1.40, VPW: 1.43 for reference.

PLANT VP PIPE



- Ideal PVC Pipe for chemical application. Ultimate chemical and corrosion resistance with particularly formulated PVC material.
- Conform to RoHS and Food Sanitation Law.

Performance

Chemical resistance (immersion test for pipe and fittings)

Esilon Plant VP Pipe and Esilon TS Fittings perform excellent chemical resistance.

Chemical	Before Immersion	Hydrochloric acid	Sulfuric acid	Nitric acid	Chromic acid
Concentration		35%	90%	60%	50%
Immersion Period		180 days			
Plant VP Pipe					
Normal PVC Pipe					
ESLON TS Fitting					
Normal PVC Fitting					

<Test method>

Specimens cut from products and adjusted into 2mm thickness are immersed in chemicals at 55°C. After immersion, observe the surface of specimens by microscope.

Chemical resistance (permeation test by hydrochloric acid)

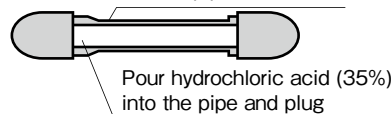
Permeation of hydrochloric acid into the material of pipe and oozing out is prevented.

Specimen for permeation test



Specimen

Cut the thickness of pipe down to 0.75mm



Observe the surface of pipe by microscope.



Plant VP Pipe



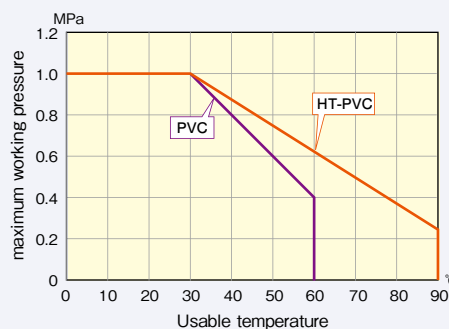
Normal PVC Pipe

<Test method>

Pour hydrochloric acid (35%) into the pipe cut the thickness down to 0.75mm, and plug. After keeping it at 55°C for 26 days, observe the surface of pipe by microscope.

Usable temperature and maximum working pressure of PVC and HT pipe.

PVC Pipe : Esilon HI Pipe, Esilon VP Pipe, and Esilon Plant VP Pipe



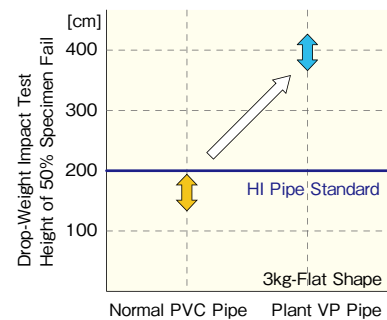
Size

Size	D	t	d	L	Weight (kg/m)
16	22±0.2	2.7+0.6	16	4000±10	0.256
20	26±0.2	2.7+0.6	20		0.310
25	32±0.2	3.1+0.8	25		0.448
30	38±0.2	3.1+0.8	31		0.542
40	48±0.2	3.6+0.8	40		0.791
50	60±0.2	4.1+0.8	51		1.122
65	76±0.3	4.1+0.8	67		1.445
75	89±0.3	5.5+0.8	77		2.202
100	114±0.4	6.6+1.0	100		3.409
125	140±0.5	7.0+1.0	125		4.464
150	165±0.5	8.9+1.4	146		6.701
200	216±0.7	10.3+1.4	194		10.129
250	267±0.9	12.7+1.8	240		15.481
300	318±1.0	15.1+2.2	286		21.962

*Weight is calculated with specific gravity HI-VPW-G: 1.40, VPW: 1.43 for reference.

Impact strength

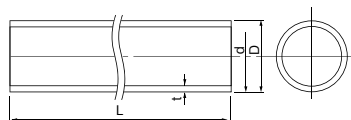
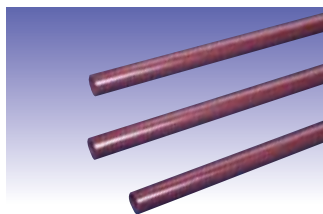
Plant VP Pipe has excellent impact resistance up to meet JIS standards (JIS K6742) for HIPP.



<Test method>

Size:50A, Weight:3kg flat shape, Temperature:0°C

ESLON CPVC PIPE AND FITTINGS (ESLON HT)



- For high temperature application.
- Excellent durability and thermal insulation.

Size (JIS K 6776)

Unit:mm

Size	D	Tolerance		t	d	L	Weight (kg/m)	Standard	
		Max/min	Average					JIS	SEKISUI
13	18.0	±0.20	±0.20	2.5 ±0.20	13.0	4000±10	0.180	○	—
16	22.0	±0.20	±0.20	3.0 ±0.30	16.0		0.265	○	—
20	26.0	±0.20	±0.20	3.0 ±0.30	20.0		0.321	○	—
25	32.0	±0.20	±0.20	3.5 ±0.30	25.0		0.464	○	—
30	38.0	±0.30	±0.20	3.5 ±0.30	31.0		0.561	○	—
40	48.0	±0.40	±0.20	4.0 ±0.30	40.0		0.818	○	—
50	60.0	±0.40	±0.20	4.5 ±0.40	51.0		1.161	○	—
65	76.0	±0.40	±0.20	5.0 ±0.50	66.0		1.651	—	○
75	89.0	±0.40	±0.25	5.8 ±0.50	77.4		2.244	—	○
100	114.0	±0.50	±0.25	7.0 ±0.60	100.0		3.483	—	○
125	140.0	±0.60	±0.40	8.2 ±0.60	123.6		5.025	—	○
150	165.0	±0.80	±0.45	9.7 ±0.70	145.6		7.004	—	○

•Weight is calculated with specific gravity HT: 1.48 for reference.

•Length : 400±10

Color : Dark brown

Product List Fitting(JIS K 6777)

Product Size	Socket	Reducing Elbow	90°Elbow	45°Elbow	Tee	Reducing Tee	Cap	11 1/4" Bend	22 1/2" Bend	45°Bend	90°Bend	Expansion Joint
13	○	—	○	○	○	—	○	○	○	○	○	○
16	○	○	○	○	○	○	○	○	○	○	○	○
20	○	○	○	○	○	○	○	○	○	○	○	○
25	○	○	○	○	○	○	○	○	○	○	○	○
30	○	○	○	○	○	○	○	○	○	○	○	○
40	○	○	○	○	○	○	○	○	○	○	○	○
50	○	○	○	○	○	○	○	○	○	○	○	○
65	○	○	○	○	○	○	—	○	○	○	○	○
75	○	○	○	○	○	○	—	○	○	○	○	○
100	○	○	○	○	○	○	—	○	○	○	○	○
125	○	○	○	○	○	○	—	○	○	○	○	—
150	○	○	○	○	○	○	—	○	○	○	○	—

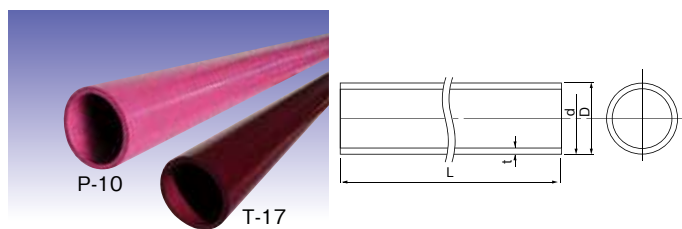
•For over 200A, please refer page 47 and 48.

Product List Insert Fitting

Product Size	Insert Faucet Socket	Insert Faucet Elbow	Insert Faucet Long Elbow	Insert Faucet Tee	Insert Valve Socket
13	○	○	○	○	○
16	○	○	—	—	○
20	○	○	—	—	○
20×13	○	○	—	—	—
25	○	○	—	—	○
30	—	—	—	—	○
40	—	—	—	—	○
50	—	—	—	—	○

•For maximum working pressure, please refer page 44.

ESLON CPVC PIPE FOR INDUSTRIAL APPLICATIONS



● Ideal HT Pipe for chemical application. Ultimate chemical and corrosion resistance with particularly formulated C-PVC (Chlorinated PVC) material.

● Specialized 2 types of HT Pipe are available according to chemicals.

Type P-10 : For sodium hydroxide

Type T-17 : For Acid and Low salinity chlorine water

Size

Unit:mm

Size	D	t	d	L	Weight (kg/m)
13	18±0.1	2.5±0.2	13	4000±10	0.180
16	22±0.1	3.0±0.3	16		0.265
20	26±0.1	3.0±0.3	20		0.321
25	32±0.1	3.5±0.3	25		0.464
30	38±0.1	3.5±0.3	31		0.561
40	48±0.1	4.0±0.3	40		0.818
50	60±0.15	4.5±0.4	51		1.161
65	76±0.2	5.0±0.5	67		1.651
75	89±0.25	5.8±0.5	77		2.244
100	114±0.25	7.0±0.6	100		3.483
125	140±0.4	8.2±0.6	125		5.025
150	165±0.45	9.7±0.7	146		7.004
200	216±0.80	11.0 ^{+1.3} _{-0.7}	194		10.485
250	267±1.0	13.6 ^{+1.5} _{-0.9}	240		16.023
300	318±1.1	16.2 ^{+1.7} _{-1.1}	286		22.732

*Weight is calculated with specific gravity HT: 1.48 for reference.

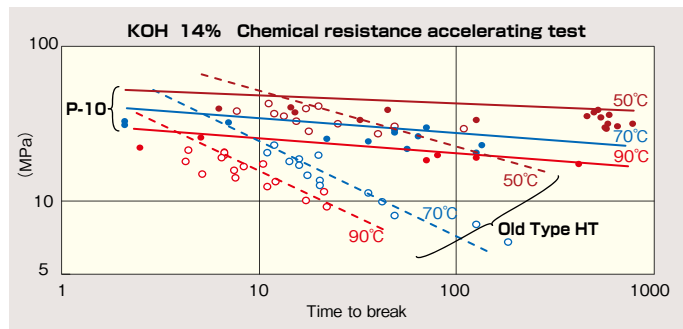
Performance

Test for type P-10

●ESCR test in KOH

P-10 has an excellent sodium hydroxide-resistance.

Pipe under lower stress condition performs better durability.



<Test method>Time at failure with constant load in KOH 14% by Launder Stress Cracking Tester.

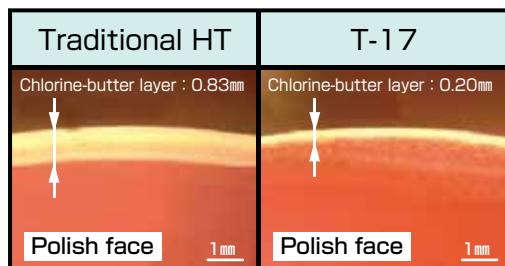
●Erosion test in soda electrolysis plant.

The bleached wall thickness by soda is small and mechanical properties are almost same as before the erosion test.

		Sample1	Sample2	Reference
Terms of use	Size	40A	50A	
	Chemical	NaOH 35%	NaOH 35%	
	Temperature	85°C	85°C	
	Pressure	Non Pressure	Non Pressure	
	Period	1Year	1Year	
Tensile Strength(MPa)		45	48	45~50
Elongation at break point(%)		98	117	80~130
Whitening depth(mm)		0.1	0.1	—
Sample photograph				

Low salinity water resistance test for type T-17

Low chemical penetration into pipe wall and retard to grow chlorine-butter layer compared with ordinary HT pipe.

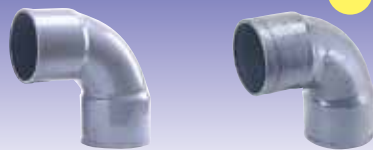


<Test condition>In saturated saline water (NaCl 20wt%) with 0.2MPa at 85°C for 8 weeks.

ESLON LARGE DIAMETER FITTINGS

Material : PVC

FRP



Material : HI-PVC

FRP



Material : HT (C-PVC)

FRP



● Applications; Industrial & process piping, chemical waste piping, sewage treatment, pressure piping, agricultural water etc.

● Excellent chemical and corrosion resistance.

■ Maximum Working Pressure (at room temperature)

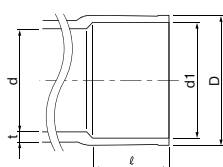
Size	Material	PVC	HI-PVC	HT (C-PVC)
200		0.75MPa	0.75MPa	0.6MPa
250		0.75MPa	0.75MPa	0.6MPa
300		0.6MPa	0.6MPa	0.6MPa

•FRP reinforced type : 1.0MPa

Common Taper Socket Dimension

● 200A~300A

Unit:mm



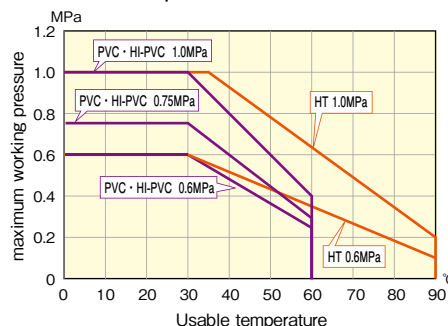
Size	D	t	PVC, HI-PVC	HT (C-PVC)	l	d
200A	243	13.0	217.4	216.9	145	196
250A	300	14.5	268.6	268.1	175	242
300A	356	16.0	319.8	319.4	185	288

● Reducing Blanch

Unit:mm

Size	D	d1	l	d
100A	134	114.7	84	102
150A	189	166.0	132	146

■ Usable temperature and maximum working pressure.

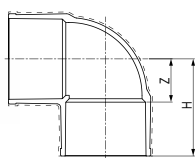


maximum working pressure

- 0.6MPa at 20°C
- 0.75MPa at 20°C
- FRP reinforced type: 1.0MPa at 20°C

90° Elbow

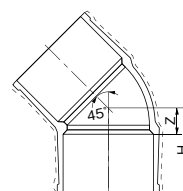
Dashed Shape for Fiber Reinforced 1.0MPa fitting.



Size	H	Z
200A	261.5	116.5
250A	317.8	142.8
300A	355.0	170

45° Elbow

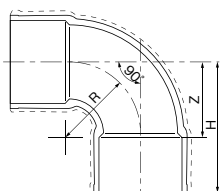
Dashed Shape for Fiber Reinforced 1.0MPa fitting.



Size	H	Z
200A	205	60
250A	254	79
300A	280	95

90° Bend

Dashed Shape for Fiber Reinforced 1.0MPa fitting.



Size	H	Z	R
200A	341	196	196
250A	428	253	242
300A	441	256	242

Reducing Coupling

Dashed Shape for Fiber Reinforced 1.0MPa fitting.

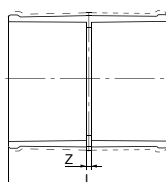


Size	L	Z
200A×150A	368	91
※250A×150A	557	250
250A×200A	400	80
※300A×150A	605	288
※300A×200A	601	271
300A×250A	435	75

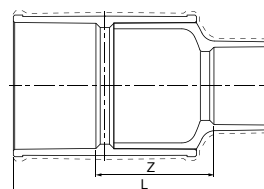
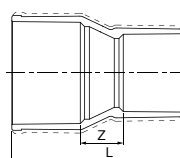
•With Bushing

Coupling

Dashed Shape for Fiber Reinforced 1.0MPa fitting.



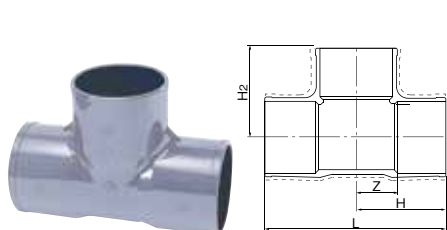
Size	Z	L
200A	10	300
250A	34	384
300A	38	408



With Bushing

Tee

Dashed Shape for Fiber Reinforced 1.0MPa fitting.



Unit:mm				
Size	H	H2	L	Z
200A	267	267	533	122
250A	355	355	710	180
300A	410	375	820	225

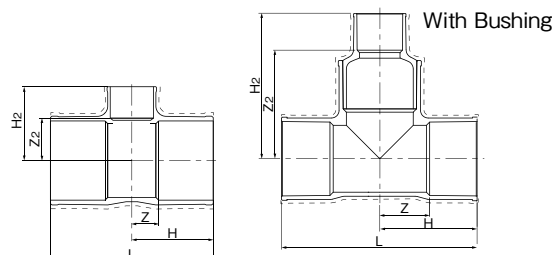
Reducing Tee

Dashed Shape for Fiber Reinforced 1.0MPa fitting.

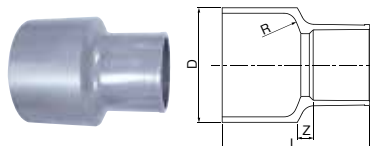


Unit:mm						
Size	H	Z	L	H2	Z2	
200A×75A	201	56	402	180	116	
200A×100A	218	73	436	200	116	
200A×150A	245	100	490	257	125	
250A×75A	246	71	492	210	146	
250A×100A	267	92	534	225	141	
*250A×150A	355	180	710	524	392	
250A×200A	335	160	670	335	190	
300A×75A	260	75	520	236	172	
300A×100A	266	81	532	257	173	
*300A×150A	375	190	750	561	429	
*300A×200A	410	225	820	599	454	
300A×250A	375	190	750	392	217	

*With Bushing



Bushing



Unit:mm				
Size	L	Z	R	D
250A×150A	344	37	242	267.0±0.9
300A×200A	374	44	288	318.0±1.0

U-PVC TS FITTINGS / HITS FITTINGS-GOLD (JIS K 6743)

Fitting Products List

Product Size	Socket (TSS)	Tee (TST)	Elbow (TSL)	Valve Socket	45° Elbow	True Union Socket	Cap	Simple Joint	Faucet Elbow (TSSL)	Faucet Socket (TSSS)	Faucet Tee (TSST)
13	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / —	TS / HITS	TS / HITS	TS / HITS
16	TS / HITS	TS / HITS	TS / HITS	TS / HITS	—	TS / HITS	TS / HITS	TS / —	TS / HITS	TS / HITS	—
20	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / —	TS / HITS	TS / HITS	TS / HITS
25	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / —	TS / HITS	TS / HITS	TS / HITS
30	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / —	—	—	—
40	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / —	—	—	—
50	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / —	—	—	—
65	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	—	—	—	—	—	—
75	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	—	TS / HITS	—	—	—	—
100	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	—	TS / HITS	—	—	—	—
125	TS / HITS	TS / HITS	TS / HITS	—	TS / HITS	—	—	—	—	—	—
150	TS / HITS	TS / HITS	TS / HITS	—	TS / HITS	—	TS / —	—	—	—	—

Reducing Fittings

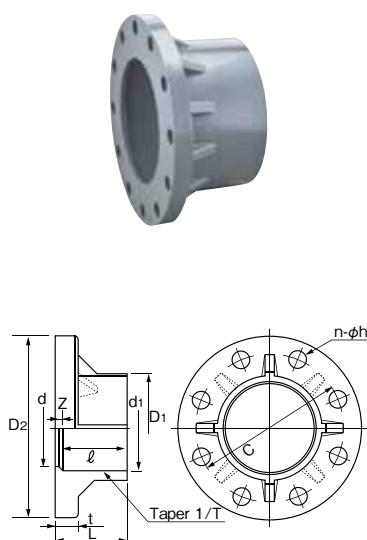
Product Size	Socket (TSS)	Tee (TST)	Elbow (TSL)	Faucet Tee (TSST)
16×13	TS / HITS	TS / HITS	—	TS / —
20×13	TS / HITS	TS / HITS	TS / HITS	TS / HITS
20×16	TS / HITS	TS / HITS	—	—
25×13	TS / HITS	TS / HITS	TS / HITS	—
25×16	TS / HITS	TS / HITS	—	—
25×20	TS / HITS	TS / HITS	TS / HITS	—
30×13	TS / HITS	TS / HITS	—	—
30×16	—	TS / HITS	—	—
30×20	TS / HITS	TS / HITS	—	—
30×25	TS / HITS	TS / HITS	—	—
40×13	—	TS / HITS	—	—
40×16	—	TS / HITS	—	—
40×20	TS / HITS	TS / HITS	—	—
40×25	TS / HITS	TS / HITS	—	—
40×30	TS / HITS	TS / HITS	—	—
50×13	—	TS / HITS	—	—
50×16	—	TS / HITS	—	—
50×20	TS / HITS	TS / HITS	—	—
50×25	TS / HITS	TS / HITS	—	—
50×30	TS / HITS	TS / HITS	—	—
50×40	TS / HITS	TS / HITS	—	—

Insert Faucet Fittings JIS K 6743

Product Size	Insert Faucet Elbow (S)	Faucet Elbow with Insert Seat	Insert Faucet Elbow (L)	Insert Faucet Socket	Insert Faucet Tee	Insert male / female Elbow	Insert Valve Socket
13	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	—	TS / HITS
16	TS / HITS	—	—	TS / HITS	—	—	TS / HITS
20	TS / HITS	—	—	TS / HITS	TS / HITS	— / HITS	TS / HITS
25	TS / HITS	—	—	TS / HITS	TS / HITS	—	TS / HITS
30	—	—	—	—	—	—	TS / HITS
40	—	—	—	—	—	—	TS / HITS
50	—	—	—	—	—	—	TS / HITS
16×13	—	—	TS / HITS	—	TS / HITS	—	—
20×13	TS / HITS	TS / HITS	TS / HITS	TS / HITS	TS / HITS	—	—
25×13	—	—	—	—	TS / HITS	—	—
25×20	—	—	—	—	TS / —	—	—

PRODUCTS RELATED TO VALVE

ESLON FLANGE WITH TS SOCKET (TS FLANGE)



Size

JIS 10K Material : PVC · HT and HI

Unit:mm

Size		TS Socket				L	Z	d	Flange					Weight (PVC) kg/pc	
A	B	d1	ℓ	1/T	D1				C	D2	t	n-φh	Applicable Bolt		
13	3/8	18.4	26	1/30	26	31	5	14	65	90	14	4-15	M12	50	0.12
15	1/2	22.4	30	1/34	31	35	5	17	70	95	14	4-15	M12	50	0.13
20	3/4	26.5	35	1/34	35	40	5	21	75	100	14	4-15	M12	50	0.15
25	1	32.6	40	1/34	42	45	5	25	90	125	14	4-19	M16	55	0.24
32	1 1/4	38.6	44	1/34	48	50	6	31	100	135	16	4-19	M16	60	0.31
40	1 1/2	48.7	55	1/37	61	61	6	41	105	140	16	4-19	M16	60	0.36
50	2	60.8	63	1/37	73	70	7	52	120	155	20	4-19	M16	70	0.52
65	2 1/2	76.6	61	1/48	88	70	9	67	140	175	22	4-19	M16	75	0.71
80	3	89.6	64	1/49	102	72	8	78	150	185	22	8-19	M16	75	0.75
100	4	114.7	84	1/56	132	90	8	100	175	210	22	8-19	M16	75	1.14
125	5	140.9	104	1/58	158	114	10	125	210	250	24	8-23	M20	80	1.67
150	6	166.0	132	1/63	186	142	10	146	240	280	26	8-23	M20	85	2.53
200	8	217.5	155	1/50	238	166	11	196	290	330	28	12-23	M20	90	3.62
250	10	268.8	185	1/50	289	198	13	247	355	400	30	12-25	M22	95	5.48
300	12	319.0	185	1/57	344	203	18	298	400	445	32	16-25	M22	100	7.80

•Flange dimensions conform to JIS B2220.

•TS socket dimensions conform to JIS K 6743.

•Usable maximum temperature is 60°C for PVC Flange.

JIS 5K Material : PVC and HT

Unit:mm

Size		TS Socket				L	Z	d	Flange					Weight (PVC) kg/pc	
A	B	d1	ℓ	1/T	D1				C	D2	t	n-φh	Applicable Bolt		
13	3/8	18.4	26	1/30	26	31	5	14	55	75	9	4-12	M10	45	0.05
15	1/2	22.4	30	1/34	31	35	5	17	60	80	9	4-12	M10	45	0.06
20	3/4	26.5	35	1/34	35	40	5	21	65	85	10	4-12	M10	45	0.08
25	1	32.6	40	1/34	42	45	5	25	75	95	10	4-12	M10	45	0.11
32	1 1/4	38.6	44	1/34	48	50	6	31	90	115	12	4-15	M12	50	0.20
40	1 1/2	48.7	55	1/37	61	61	6	41	95	120	12	4-15	M12	50	0.25
50	2	60.8	63	1/37	73	70	7	52	105	130	14	4-15	M12	55	0.31
65	2 1/2	76.6	61	1/48	88	70	9	67	130	155	14	4-15	M12	55	0.43
80	3	89.6	64	1/49	102	72	8	78	145	180	14	4-19	M16	55	0.59
100	4	114.7	84	1/56	132	92	8	100	165	200	16	8-19	M16	60	0.91
125	5	140.9	104	1/58	158	114	10	125	200	235	16	8-19	M16	60	1.29
150	6	166.0	132	1/63	186	142	10	146	230	265	18	8-19	M16	65	2.05
200	8	217.5	155	1/50	238	166	11	196	280	320	28	8-23	M20	90	3.43
250	10	268.8	185	1/50	289	198	13	247	345	385	30	12-23	M20	95	5.19

•Flange dimensions conform to JIS B2220.

•TS socket dimensions conform to JIS K 6743.

•Usable maximum temperature is 60°C for PVC Flange.

•HT Flange : Available 13-50A

ANSI Material : PVC · HT and HI

Unit:mm

Size		TS Socket				L	Z	d	Flange					Weight (PVC) kg/pc
A	B	d1	ℓ	1/T	D1				C	D2	t	n-φh	Applicable Bolt	
15	1/2	22.4	30	1/34	31	35	5	17	60.5	89	14	4-16	0.13	
20	3/4	26.5	35	1/34	35	40	5	21	70	98.6	14	4-16	0.15	
25	1	32.6	40	1/34	42	45	5	25	79.5	108	14	4-16	0.24	
32	1 1/4	38.6	44	1/34	48	50	6	31	89	117.5	16	4-16	0.31	
40	1 1/2	48.7	55	1/37	61	61	6	41	98.5	127	16	4-16	0.36	
50	2	60.8	63	1/37	73	70	7	52	120.5	155	20	4-20	0.52	
65	2 1/2	76.6	61	1/48	88	70	9	67	139.5	175	22	4-20	0.71	
80	3	89.6	64	1/49	102	72	8	78	152.5	190.5	22	4-20	0.89	
100	4	114.7	84	1/56	132	90	6	100	190.5	229	22	4-20	1.65	
125	5	140.9	104	1/58	158	114	10	125	216	250	24	8-22	1.67	
150	6	166.0	132	1/63	186	142	10	146	241.5	280	26	8-22	2.53	
200	8	217.5	155	1/50	238	166	11	196	298.5	343	28	8-22	4.39	
250	10	268.8	185	1/50	289	198	13	247	362	406	30	12-26	5.48	
300	12	319.0	185	1/57	344	203	18	298	432	483	32	12-26	7.80	

•TS socket dimensions conform to JIS K 6743.

•Flange dimensions conform to ANSI B16.5-1981 class 150.

Water Supply Type Material : PVC

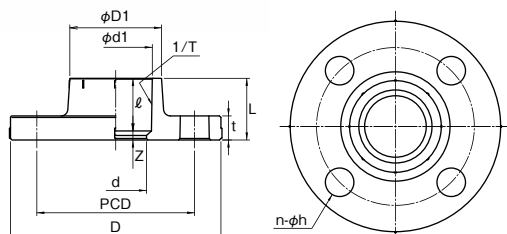
Unit:mm

Size		TS Socket				L	Z	d	Flange						Weight kg/pc
		d1	ℓ	1/T	D1				C	D2	t	n-φh	Applicable Bolt		
75	3	89.6	64	1/49	102	72	8	78	168	211	22	4-19	M16	75	1.13
100	4	114.7	84	1/56	132	90	8	100	195	238	24	4-19	M16	80	1.65
125	5	140.9	104	1/58	158	114	10	125	220	263	24	6-19	M16	80	2.09
150	6	166.0	132	1/63	186	142	10	146	247	290	26	6-19	M16	85	2.87
200	8	217.5	155	1/50	238	166	11	196	299	342	28	8-19	M16	90	4.39
250	10	268.8	185	1/50	289	198	13	247	360	410	30	8-23	M20	95	6.25
300	12	319.0	185	1/57	344	203	18	298	414	464	32	10-23	M20	100	8.60

•TS socket dimensions conform to JIS K 6743.

•Flange dimensions conform to JWWA G113-114.

COMPACT FLANGE



Size

JIS 10K Material : PVC and HI

Unit:mm

Size		TS Socket				L	Z	d	Flange				Applicable Bolt		Weight (PVC) kg/pc
A	B	d1	ℓ	1/T	D1				PCD	D	t	n-h			
25	1	32.3	29	1/43	40	34	5	25	90	125	14	4-19	M16	55	0.22
32	1 1/4	38.4	32	1/37	48	38	6	31	100	135	16	4-19	M16	60	0.29
40	1 1/2	48.5	35	1/38	61	41	6	41	105	140	16	4-19	M16	60	0.32
50	2	60.6	38	1/34	73	45	7	52	120	155	20	4-19	M16	70	0.47

•Flange dimensions conform to JIS B2220.

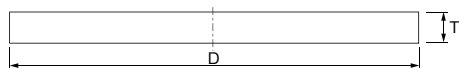
•Usable maximum temperature is 60°C for PVC Flange.

BLIND FLANGE

①SP Type(Blind Flange)

JIS10K Material : PVC

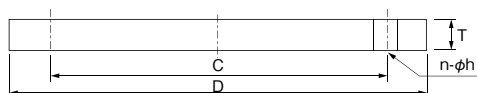
JIS5K Material : PVC



②SB Type(Blind Flange)

JIS10K Material : PVC, HI, HT

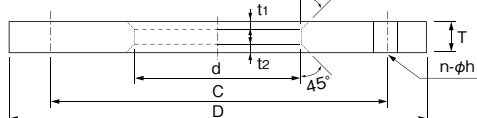
JIS5K Material : PVC



③SJ Type(For Welding)

JIS10K Material : PVC

JIS5K Material : PVC



Size

JIS10K Material : PVC, HI, HT

Unit:mm

Size		D	C	d	T	t1	t2	n-φh	Applicable Bolt	Weight(PVC) kg/pc			
A	B									SP	SB	SJ	
13	3/8	90	65	18	12	1.5	3	4-15	M12	50	0.11	0.10	0.10
15	1/2	95	70	22	12	1.5	3	4-15	M12	50	0.13	0.11	0.11
20	3/4	100	75	26	14	1.5	3	4-15	M12	50	0.16	0.15	0.14
25	1	125	90	32	14	1.5	3	4-19	M16	55	0.25	0.23	0.21
32	1 1/4	135	100	38	16	2.5	3	4-19	M16	60	0.34	0.31	0.28
40	1 1/2	140	105	48	16	2.5	3	4-19	M16	60	0.36	0.34	0.29
50	2	155	120	60	16	2.5	4	4-19	M16	70	0.44	0.42	0.35
65	2 1/2	175	140	76	18	2.5	4	4-19	M16	75	0.64	0.61	0.49
80	3	185	150	89	18	2.5	4	8-19	M16	75	0.71	0.65	0.49
100	4	210	175	114	18	3	4	8-19	M16	80	0.92	0.86	0.59
125	5	250	210	140	20	4	4	8-23	M20	80	1.44	1.35	0.89
150	6	280	240	165	22	4	4	8-23	M20	85	1.99	1.88	1.19
200	8	330	290	216	22	4	4	12-23	M20	90	2.77	2.61	1.42
250	10	400	355	267	24	4	4	12-25	M22	95	4.31	3.98	2.19
300	12	445	400	321	24	4	4	16-25	M22	95	5.34	4.84	2.29

Material	Maximum Working Pressure(20°C)	Temperature
PVC	13A~150A:1.0MPa, 200A:0.6MPa, 250A~300A:0.5MPa	60°C
HI	15A~100A:1.0MPa, 125~150A:0.8MPa, 200A:0.5MPa, 250A:0.4MPa, 300A:0.3MPa	60°C
HT	15A~150A:1.0MPa, 200A:0.6MPa, 250A~300A:0.5MPa	90°C

JIS5K Material : PVC

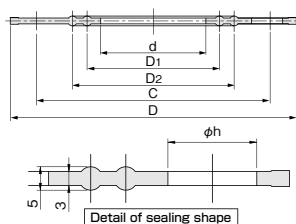
Unit:mm

Size		D	C	d	T	t1	t2	n-φh	Applicable Bolt	Weight(PVC)kg/pc			
A	B									SP	SB	SJ	
13	3/8	75	55	18	9	1.5	3	4-12	M10	45	0.06	0.05	0.05
15	1/2	80	60	22	9	1.5	3	4-12	M10	45	0.07	0.06	0.06
20	3/4	85	65	26	10	1.5	3	4-12	M10	45	0.08	0.08	0.07
25	1	95	75	32	10	1.5	3	4-12	M10	45	0.10	0.10	0.09
32	1 1/4	115	90	38	12	2.5	3	4-15	M12	50	0.18	0.17	0.15
40	1 1/2	120	95	48	12	2.5	3	4-15	M12	50	0.20	0.19	0.16
50	2	130	105	60	14	2.5	4	4-15	M12	55	0.27	0.26	0.20
65	2 1/2	155	130	76	14	2.5	4	4-15	M12	55	0.39	0.37	0.28
80	3	180	145	89	14	2.5	4	4-19	M16	55	0.52	0.50	0.37
100	4	200	165	114	16	3	4	8-19	M16	60	0.74	0.66	0.45
125	5	235	200	140	16	4	4	8-19	M16	60	1.02	0.92	0.61
150	6	265	230	165	18	4	4	8-19	M16	65	1.46	1.33	0.83
200	8	320	280	216	20	4	4	8-23	M20	90	2.36	2.14	1.19
250	10	385	345	267	22	4	4	12-23	M20	95	3.66	3.39	1.74
300	12	430	390	321	22	4	4	12-23	M20	95	4.57	4.21	1.86

•Usable maximum temperature is 60°C for PVC Flange.

PACKING(GASKET)

●EPDM PACKING



●Durometer Hardness 70 $\pm$ 5 $^{\circ}$ C

- Excellent chlorinated water & chemical resistance. Usable for water including residual chlorine.
※Eslon IIR-X Packing is recommendable for high concentration of sodium hypochlorite.
- Usable maximum temperature is 100 $^{\circ}$ C. Available for hot water piping ※Usable maximum temperature of water supply type is 60 $^{\circ}$ C.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

■Size EPDM (JIS 10K)

Size									Unit:mm
A	B	d	D1	D2	C	D	n-phi	Weight g/pc	Recommended Fasten Torque N·m
13	3/8	17	25	38	65	88	4-15	20	15
15	1/2	20	28	42	70	93	4-15	23	15
20	3/4	25	33	47	75	98	4-15	29	15
25	1	30	38	53	90	123	4-19	40	30
30	1 1/4	38	48	63	100	133	4-19	46	30
40	1 1/2	46	54	69	105	138	4-19	50	30
50	2	58	68	83	120	153	4-19	55	30
65	2 1/2	73	86	101	140	173	4-19	75	45
80	3	84	98	113	150	183	8-19	77	45
100	4	106	120	138	175	208	8-19	95	45
125	5	131	145	168	210	248	8-23	115	55
150	6	155	170	196	240	278	8-23	145	55
200	8	204	218	248	290	328	12-23	185	55
250	10	254	270	306	355	398	12-25	250	65
300	12	304	324	356	400	443	16-25	278	65
350	14	352	368	400	445	488	16-25	290	65

EPDM (JIS 5K)

Unit:mm

Size		d	D1	D2	C	D	n-phi	Weight g/pc	Recommended Fasten Torque N·m
13	3/8	17	24	36	55	73	4-12	17	15
15	1/2	20	28	40	60	78	4-12	19	15
20	3/4	25	33	45	65	83	4-12	21	15
25	1	30	38	52	75	93	4-12	25	30
30	1 1/4	38	46	61	90	113	4-15	34	30
40	1 1/2	46	54	68	95	118	4-15	37	30
50	2	58	66	80	105	128	4-15	41	30
65	2 1/2	73	82	100	130	153	4-15	56	45
80	3	84	94	113	145	178	4-19	69	45
100	4	106	116	135	165	198	8-19	78	45
125	5	131	142	164	200	233	8-19	103	55
150	6	155	168	190	230	263	8-19	124	55
200	8	204	220	243	280	318	8-23	167	55
250	10	254	270	300	345	383	12-23	220	65

EPDM (Water Supply)

Unit:mm

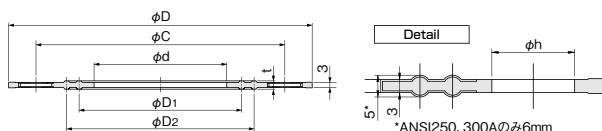
Size		d	D1	D2	C	D	n-phi	Weight g/pc	Recommended Fasten Torque N·m
50	2	58	68	83	120	153	4-19	55	30
75	3	84	98	115	168	211	4-19	100	45
100	4	106	120	140	195	238	4-19	120	45
125	5	131	145	168	220	263	6-19	130	55
150	6	155	175	195	247	290	6-19	150	55
200	8	205	226	248	299	342	8-19	200	65
250	10	254	276	300	360	410	8-23	250	65
300	12	305	328	350	414	464	10-23	290	65

EPDM (ANSI)

Unit:mm

Size		d	D1	D2	C	D	n-phi	Weight g/pc	Recommended Fasten Torque N·m
15	1/2	18	25	38	60.5	86	4-16	17	14
20	3/4	23	33	48	70.1	97	4-16	21	14
25	1	30	38	53	79.5	107	4-16	25	20
32	1 1/4	38	51	66	88.9	114	4-16	29	20
40	1 1/2	43	53	69	98.6	124	4-16	34	20
50	2	53	69	84	120.7	150	4-19	49	34
65	2 1/2	69	86	102	139.7	175	4-19	66	34
80	3	81	99	112	152.4	188	4-19	74	41
100	4	102	119	137	190.5	226	8-19	101	41
125	5	127	145	165	215.9	251	8-22	117	55
150	6	149	168	191	241.3	277	8-22	134	68
200	8	198	216	246	298.5	340	8-22	192	68
250	10	249	269	307	362.0	404	12-25	246	89
300	12	300	325	353	431.8	480	12-25	356	102

●PTFE PACKING



*ANSI250, 300Aのみ6mm

- Excellent corrosion and chemical resistance by PTFE laminated EPDM backing.
- Reliable sealing performance with double rib.

■Size PTFE (JIS 10K)

Unit:mm

Size		d	D1	D2	C	D	n-phi	Weight g/pc	Recommended Fasten Torque N·m
13	3/8	14	23	37	65	88	4-15	23	16
15	1/2	18	26	41	70	93	4-15	25	16
20	3/4	22	36	46	75	98	4-15	32	16
25	1	28	38	53	90	123	4-19	46	35
30	1 1/4	37	50	65	100	133	4-19	51	35
40	1 1/2	43	54	69	105	138	4-19	57	35
50	2	54	68	83	120	153	4-19	63	35
65	2 1/2	69	86	101	140	173	4-19	84	52
80	3	80	98	113	150	183	8-19	88	52
100	4	102	120	138	175	208	8-19	105	52
125	5	127	145	168	210	248	8-23	130	63
150	6	150	168	190	240	278	8-23	160	63
200	8	198	216	248	290	328	12-23	200	63
250	10	250	270	306	355	398	12-25	290	75
300	14	300	324	356	400	443	16-25	340	75

PTFE (ANSI)

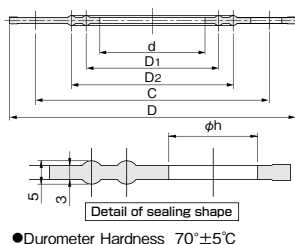
Unit:mm

Size		d	D1	D2	C	D	n-phi	Weight g/pc	Recommended Fasten Torque N·m
15	1/2	18	30	—	60.3	85	4-16	22	16
20	3/4	22	32	44	69.9	95	4-16	29	16
25	1	29	38	50	79.4	103	4-16	34	35
32	1 1/4	39	47	59	88.9	111	4-16	39	35
40	1 1/2	44	53	68	98.4	121	4-16	44	35
50	2	55	65	83	120.7	146	4-19	65	35
65	2 1/2	70	81	101	139.7	173	4-19	84	52
80	3	81	94	112	152.4	186	4-19	98	52
100	4	103	124	148	190.5	223	8-19	137	52
125	5	128	150	174	215.9	249	8-22	153	68
150	6	152	172	196	241.3	274	8-22	182	68
200	8	200	222	246	298.5	337	8-22	258	68
250	10	251	276	300	362.0	401	12-25	348	102
300	12	302	335	365	431.8	477	12-25	484	136

⚠ Important Notes

- Eslon Packing is usable for Flat Face Flange. Do not use for Raised Face Flange or Lining pipe with flange.
- Tighten bolts diagonally, evenly, and gradually.
Recommended tightening torque for bolts is referred in dimension table.
- Support pipe line by proper method not to load excess stress at flange to prevent leakage by deformation of packing.

●FKM PACKING

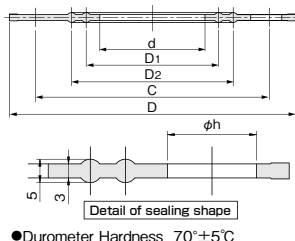


- Excellent chemical, oil, high temperature resistance.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

■Size FKM (JIS 10K)

Size								Unit:mm
A	B	d	D1	D2	C	D	n-φh	Tighten Torque N·m
15	1/2	20	28	42	70	93	4-φ15	15
20	3/4	25	33	47	75	98	4-φ15	15
25	1	30	38	53	90	123	4-φ19	30
30	1-1/4	38	48	63	100	133	4-φ19	30
40	1-1/2	46	54	69	105	138	4-φ19	30
50	2	58	68	83	120	153	4-φ19	30
65	2-1/2	73	86	101	140	173	4-φ19	45
80	3	84	98	113	150	183	8-φ19	45
100	4	106	120	138	175	208	8-φ19	45
125	5	131	145	168	210	248	8-φ23	55
150	6	155	170	196	240	278	8-φ23	55
200	8	204	218	248	290	328	12-φ23	55
250	10	254	270	306	355	398	12-φ25	65
300	12	304	324	356	400	443	16-φ25	65

●FKM-FB PACKING

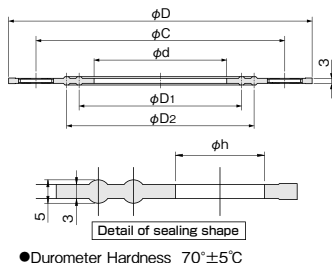


- Excellent strong acid resistance such as hydrochloric acid or sulfuric acid.
- Excellent chemical, oil, high temperature resistance.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

■Size FKM-FB (JIS 10K)

Size								Unit:mm
A	B	d	D1	D2	C	D	n-φh	Tighten Torque N·m
15	1/2	20	28	42	70	93	4-φ15	15
20	3/4	25	33	47	75	98	4-φ15	15
25	1	30	38	53	90	123	4-φ19	30
30	1-1/4	38	48	63	100	133	4-φ19	30
40	1-1/2	46	54	69	105	138	4-φ19	30
50	2	58	68	83	120	153	4-φ19	30
65	2-1/2	73	86	101	140	173	4-φ19	45
80	3	84	98	113	150	183	8-φ19	45
100	4	106	120	138	175	208	8-φ19	45
125	5	131	145	168	210	248	8-φ23	55
150	6	155	170	196	240	278	8-φ23	55
200	8	204	218	248	290	328	12-φ23	55
250	10	254	270	306	355	398	12-φ25	65
300	12	304	324	356	400	443	16-φ25	65

●IIR-X PACKING (For Sodium hypochlorite)



- Excellent resistance against sodium hypochlorite.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

■Size IIR-X (JIS 10K)

HR-X (JIS TUK)

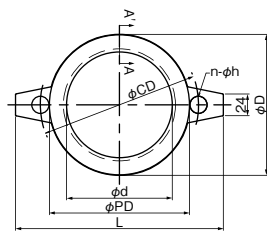
Unit:mm

Size		d	D1	D2	C	D	n-φh	Weight g/pc	Recommended Fasten Torque N·m
A	B								
13	3/8	14	23	37	65	88	4-15	20	15
15	1/2	18	26	41	70	93	4-15	23	15
20	3/4	22	32	47	75	98	4-15	29	15
25	1	28	38	53	90	123	4-19	40	30
30	1 1/4	37	50	65	100	133	4-19	46	30
40	1 1/2	43	54	69	105	138	4-19	50	30
50	2	54	68	83	120	153	4-19	55	30
65	2 1/2	69	86	101	140	173	4-19	75	45
80	3	80	98	113	150	183	8-19	77	45
100	4	102	120	138	175	208	8-19	95	45
125	5	127	145	168	210	248	8-23	115	55
150	6	150	168	190	240	278	8-23	145	55
200	8	198	216	248	290	328	12-23	185	55
250	10	250	270	306	355	398	12-25	250	65

⚠ Important Notes

- Eslon Packing is usable for Flat Face Flange. Do not use for Raised Face Flange or Lining pipe with flange.
- Tighten bolts diagonally, evenly, and gradually. Recommended tightening torque for bolts is referred in dimension table.
- Support pipe line by proper method not to load excess stress at flange to prevent leakage by deformation of packing.

● RAISED FACE PACKING



- PTFE-clad gasket mainly consisting expanded graphite and aramid fibers. Excellent mechanical property and heat resistance.
- Tab with bolt hole enable easy alignment in installation.
- Usable for Raised face flange, Lining piping, and stainless steel piping.

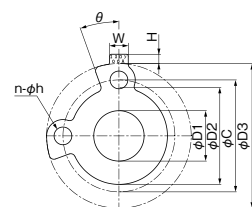
■ Size

For Raised face (JIS 10K)

Unit:mm

Size		PTFE		Gasket				t	n-φh
A	B	d	PD	CD	D	L	Thickness		
20	3/4	28	59	75	60	120	2	2.8	2-φ15
25	1	35	70	90	71	145	2	2.8	2-φ19
30	1-1/4	43	79	100	81	155	2	2.8	2-φ19
40	1-1/2	49	84	105	86	160	2	2.8	2-φ19
50	2	62	99	120	101	175	2	2.8	2-φ19
65	2-1/2	78	119	140	121	195	2	2.8	2-φ19
80	3	91	129	150	131	205	2	2.8	2-φ19
100	4	117	155	175	156	230	2	2.8	2-φ19
125	5	144	185	210	187	270	2	2.8	2-φ23
150	6	171	215	240	217	300	2	2.8	2-φ23
200	8	219	265	290	267	350	2	2.8	2-φ23
250	10	271	321	355	330	420	2	2.8	2-φ25
300	12	321	370	400	375	465	2	2.8	2-φ25
350	14	356	415	445	420	510	2	2.8	2-φ25
400	16	407	471	510	483	580	2	2.8	2-φ27

● TRIGUARD PTFE PACKING



- Excellent sealing performance with special cell structure even by low bolt-tightening torque.
- Low elution and excellent chemical resistance as composed from 100% PTFE.
- Wide range of usable temperature, -240°C~+315°C
- Not contain foaming agent, fillers, nor adhesive.
- Usable for Lining piping and stainless steel piping.

■ Size

JIS 10K

Unit:mm

Size	D1	D2	C	D3	H	W	θ	n-φh	Tighten Torque N·m
15	18	58	70	95	10	20	25°	2×15	14
20	22	63	75	100	10	20	23°	2×15	14
25	28	74	90	125	10	20	27°	2×19	29
30	37	84	100	135	10	20	24°	2×19	29
40	43	89	105	140	10	20	23°	2×19	29
※50	54	104	120	155	10	20	20°	2×19	29
65	69	124	140	175	10	20	17°	2×19	44
80	80	134	150	185	10	20	16°	2×19	44
100	102	159	175	210	10	20	14°	2×19	44
※125	127	190	210	250	10	20	13°	2×23	54
150	150	220	240	280	10	20	12°	2×23	54
※200	198	270	290	330	10	20	10°	2×23	54

JPI Class 150

Unit:mm

Size	D1	D2	C	D3	H	W	θ	n-φh	Tighten Torque N·m
50	61	104	120.6	152	10	20	20°	2×20	29
125	143	196	215.9	254	10	20	13°	2×23	54
200	220	277	298.4	343	10	20	10°	2×23	54

- 1.Flange dimension conform to JIS 10K: JIS B 2210 or JPI Class: JPI-7S-15.
- 2.JPI Class of TriGuard gasket with *mark adopts for 50A, 125A, and 200A of PVDF piping.
- 3.Thickness: 3mm

⚠ Important Notes

Tighten evenly bolts with specified recommended torque in dimension table. In case unable to measure torque, tighten evenly bolts so that thickness of TriGuard after tightening is 1/3 of original thickness.

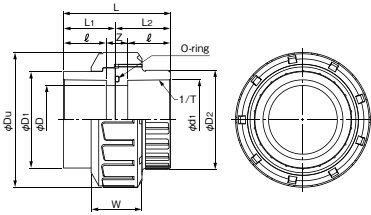
ESLON TRUE UNION FITTING

● COMPACT TYPE (TS SOCKET, THREAD TRANSITION PVDF TRANSITION FITTING)

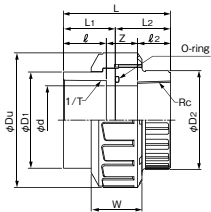
● TS Socket



TS Socket(PVC,HT)



TS Socket-Thread(PVC)



- Compact body enable minimized face to face distance for piping.
- Easy tightening with trapezoidal thread.

■ Compatibility of Union nut

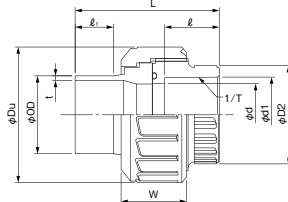
True Union Fitting Compact type	✗ Not compatible	True Union Ball Valve Compatible type
	✗ Not compatible	Eslon Ball Valve Union type
	✗ Not compatible	Eslon Diaphragm Valve Union type

※ Thread type is available only with PVC.

● PVDF Transtion



TS Socket-Butt(PVC-PVDF,HT-PVDF)
PVDF Transition



■ Size

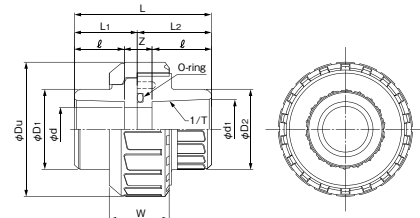
Material : PVC · HT (C-PVC)

O-ring:EPDM or FKM

Unit:mm

Size		TS Socket							Thread				Butt					L2	d	Du	D1	D2	W	O-ring
A	B	d1	1/T	Z	ℓ	L1	L2	L	Rc	Z	ℓ2	L	D1	t	ℓ1	L	OD							
13	3/8	18.3	1/30	6	18	20	42	3/8	9	15	42	—	—	—	—	—	—	22	13	40	24	26	17	P-16
16	1/2	22.3	1/37	8	22	25	52	1/2	15	15	52	20	1.9	30	72	20	27	15	46	30	32	20		P-20
20	3/4	26.3	1/42	9	25	28	59	3/4	18	16	59	25	1.9	24	76	25	31	20	54	35	37	23		P-24
25	1	32.3	1/44	9	29	32	67	1	13	25	67	32	2.4	24	81	32	35	25	67	43	45	28		P-30
30	1 1/4	38.4	1/37	12	32	36	76	1 1/4	11	33	76	40	2.4	25	85	40	40	31	78	53	55	31		P-36
40	1 1/2	48.5	1/38	12	35	39	82	1 1/2	18.5	28.5	82	50	3.0	24	93	50	43	40	87	61	63	42		P-46
50	2	60.6	1/34	16	38	43	92	2	21	33	92	63	3.0	28	104	63	49	51	107	76	78	43		P-58
65	2 1/2	76.6	1/38	18	45	52	108	2 1/2	31	32	108	—	—	—	—	—	56	65	128	90	93	50		P-71
75	3	89.6	1/40	24	48	58	120	3	35	37	120	—	—	—	—	—	62	77	151	108	111	57		P-85
100	4	114.7	1/42	36	58	72	152	4	49	45	152	—	—	—	—	—	80	100	185	132	136	72		P-112

● TRUE UNION BALL VALVE COMPATIBLE TYPE



■ Compatibility of Union nut

True Union Ball Valve Compatible type	✗ Not compatible	True Union Fitting Compact type
	○ Compatible	Eslon Ball Valve Union type
	○ Compatible	Eslon Diaphragm Valve Union type

■ Size

Material : PVC · HT

O-ring:EPDM or FKM

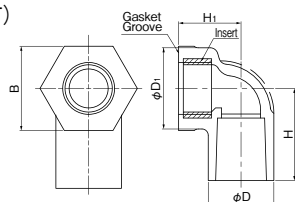
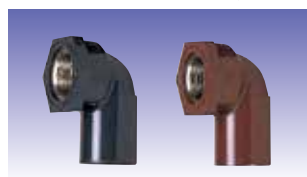
Unit:mm

Size		TS Socket					L	L2	L1	Z	d	Du	D1	D2	W	O-ring
A	B	d1	1/T	ℓ												
16	1/2	22.3	1/37	22			59	29	30	13	16	49	33	31	24	P-20
20	3/4	26.3	1/42	25			68	35	33	16	20	59	35	36	26	P-24
25	1	32.3	1/43	29			78	36	42	20	25	67	44	44	31	P-30
30	1 1/4	38.4	1/37	32			90	44.5	45.5	26	30	81	54	54	31	P-36
40	1 1/2	48.5	1/38	35			94	42	52	24	40	98	65	67	40	P-48A
50	2	60.6	1/34	38			110	48	61	34	50	120	77	79	43	P-56

SUS INSERT FITTINGS

● Excellent corrosion and chemical resistance with SUS303 screw insert.

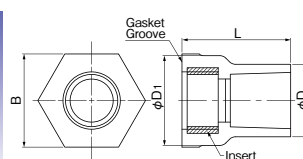
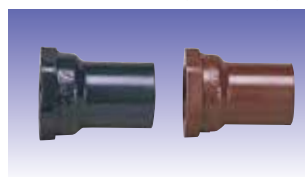
① Insert Faucet Elbow (PVC, HT)



Unit:mm

Size	D	D1	B	H	H1
13×Rp3/8	27.5	34	35	33	29
13×Rp1/2	27.5	34	35	33	29
16×Rp3/8	31.0	34	35	38	32
16×Rp1/2	31.0	34	35	38	32
20×Rp1/2	36.0	42	44	51	36
25×Rp1	42.0	52	54	64	40

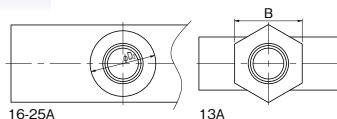
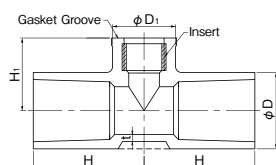
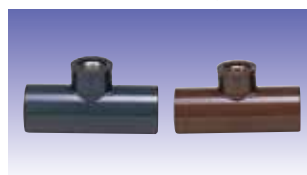
② Faucet Socket (PVC, HT)



Unit:mm

Size	D	D1	B	L
13×Rp3/8	27.5	34	35	46
13×Rp1/2	27.5	34	35	46
16×Rp3/8	31.0	34	35	52
16×Rp1/2	31.0	34	35	52
20×Rp1/2	36.0	42	44	63
20×Rp3/4	36.0	42	44	63
25×Rp1	42.0	52	54	72

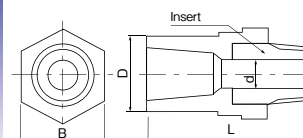
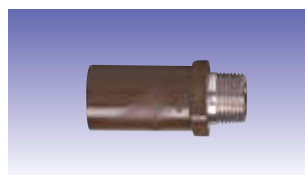
③ Insert Faucet Tee (PVC, HT)



Unit:mm

Size	D	D1	D2	B	H	H1
13×Rp3/8	27.5	34	—	35	34	29
13×Rp1/2	27.5	34	—	35	36	32
16×Rp3/8	29.0	33	34	—	43	32
16×Rp1/2	29.0	33	34	—	43	32
20×Rp3/8	33.0	33	34	—	48	34
20×Rp1/2	33.0	33	34	—	48	34
25×Rp3/8	40.0	33	34	—	53	38
25×Rp1/2	40.0	33	34	—	53	38

④ Insert Valve Socket (HT)

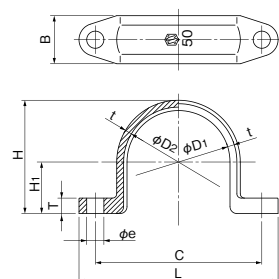


Unit:mm

Size	D	d	L	B
13×R1/2	28	13	64	34
16×R1/2	31	13	70	34
20×R3/4	36	18	85	40
25×R1	42	28	99	45
30×R1 1/4	48	31	109	62
40×R1 1/2	58	37	114	68
50×R2	70	48	132	84

•Thread : R conforming to JIS B 0203

ESLON SADDLE BAND

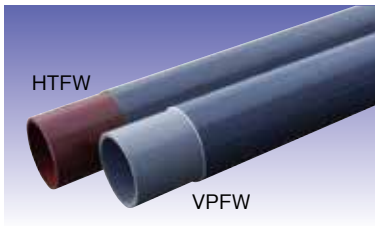


Size

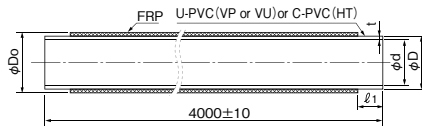
Unit:mm

Size	φD1	φD2	t	C	L	φe	T	H1	H	B	Bolt
16	22	24	3	42	53	6	5	11	26	15	M5
20	26	29	3	48	59	6	5	13	30.5	18	M5
25	32	35	3	54	65	6	6	16	36.5	18	M5
28	34	37	3	59	73	7	7	17	38.5	20	M6
30	38	41	4	66	80	7	7	19	43.5	20	M6
40	48	52	4	90	109	10	9	24	54	25	M8
50	60	64	4	97	116	10	9	30	66	28	M8
65	76	81	4	114	134	10	10	38	82.5	30	M8
75	89	94	4	134	158	12	11	44.5	95.5	38	M10
100	114	120	4.5	160	186	12	12	57	121.5	42	M10
125	140	150	5	192	218	12	12	70	150	46	M10
150	165	177	8	238	268	17	14	82.5	179	50	M14
200	216	236	10	316	356	18	20	108	236	70	M16

ESLON VPFW · HTFW (FRP REINFORCED PVC & HT PIPE)



- High pressure & high temperature resistance.
- 2 types of VPFW are available according to working pressure and temperature.
- Inner PVC Pipe for VPFW
16~300A : Eslon Plant VP Pipe, 350~600A : Eslon VU Pipe
- 2 types of HTFW Pipe (Inner HT Pipe : T-17 or P-10) are available according to chemical application. (Standard type : T-17)
- Lightweight and easy handling.



Applications

- Industrial Piping
Caustic Soda, Plating, Acid pickling, Non-ferrous metal refining, Paper & Pulp, Fertilizer, Medical, Food, and other chemicals.
- Sea Water Piping
Aquarium, Fish farm, Seawater desalination, Salt processing, Power plant.

Size

VPFW ST Type : Usable maximum temperature 90°C Unit:mm

Size	D	t	l ₁	Do	d	Weight (kg/m)
A						
16	22±0.2	3.0	40	26	16	0.45
20	26±0.2	3.0	45	30	20	0.55
25	32±0.2	3.5	50	36	25	0.75
30	38±0.2	3.5	55	42	31	0.80
40	48±0.2	4.0	65	52	40	1.20
50	60±0.25	4.5	75	64	51	1.60
65	76±0.3	4.5	75	80	67	2.00
75	89±0.3	5.9	80	93	77	2.95
100	114±0.4	7.1	100	118	100	4.25
125	140±0.5	7.5	120	144	125	5.63
150	165±0.6	9.6	150	169	146	7.98
200	216±0.7	11.0	175	220	194	12.00
250	267±0.9	13.6	205	271	240	17.90
300	318±1.0	16.2	205	322	286	24.83
350	370±1.2	11.2	270	374	348	20.25
400	420±1.3	12.6	320	424	395	25.50
450	470±1.5	14.1	370	474	442	31.50
500	520±1.6	15.6	370	524	489	38.25
600	630±3.2	19.2	420	634	592	56.00

- Inner PVC Pipe for ST type
- 16~300A : Eslon Plant VP Pipe
- 350~600A : Eslon VU Pipe

VPFW EX Type : Usable maximum temperature 95°C Unit:mm

Size	D	t	l ₁	Do	d	Weight (kg/m)
A						
16	22±0.2	3.0	40	26	16	0.45
20	26±0.2	3.0	45	30	20	0.55
25	32±0.2	3.5	50	36	25	0.75
30	38±0.2	3.5	55	42	31	0.80
40	48±0.2	4.0	65	52	40	1.20
50	60±0.25	4.5	75	66	51	1.85
65	76±0.3	4.5	75	82	67	2.38
75	89±0.3	5.9	80	95	77	3.35
100	114±0.4	7.1	100	120	100	4.88
125	140±0.5	7.5	120	146	125	6.33
150	165±0.6	9.6	150	171	146	10.45
200	216±0.7	11.0	175	224	194	14.98
250	267±0.9	13.6	205	275	240	21.55
300	318±1.0	16.2	205	326	286	29.40
350	370±1.2	11.2	270	377	348	22.93
400	420±1.3	12.6	320	428	395	29.50
450	470±1.5	14.1	370	478	442	36.50
500	520±1.6	15.6	370	528	489	46.00
600	630±3.2	19.2	420	640	592	66.00

- Inner PVC Pipe for EX type
- 16~300A : Eslon Plant VP Pipe
- 350~600A : Eslon VU Pipe

HTFW Usable maximum temperature 100°C Unit:mm

Size	D	t	l ₁	Do	d	Weight (kg/m)
A						
16	22±0.2	3.0	40	26	16	0.47
20	26±0.2	3.0	45	30	20	0.57
25	32±0.2	3.5	50	36	25	0.78
30	38±0.2	3.5	55	42	31	0.92
40	48±0.2	4.0	65	52	40	1.25
50	60±0.25	4.5	75	64	51	1.68
65	76±0.3	4.5	75	80	67	2.14
75	89±0.3	5.9	80	93	77	3.05
100	114±0.4	7.1	100	118	100	4.50
125	140±0.5	7.5	120	145	125	6.35
150	165±0.6	9.6	150	170	146	8.83
200	216±0.7	11.0	175	221	194	13.4
250	267±0.9	13.6	205	272	240	19.4
300	318±1.0	16.2	205	323	286	27.1

- Inner HT Pipe : T-17 or P-10
- Standard type : T-17

VPFW Fittings 16~600A

Product	Nominal Diameter
One Side Sleeve pipe	16~300
Socket	16~600
Reducing Socket	20×16~600×500
Eccentric Socket	20×16~600×500
Tee	16~600
Reducing Tee	20×16~600×500
90° Elbow	16~150
45° Elbow	20~300
90° Bend	200~600
45° Bend	350~600
Flange	16~600
Blind Flange	16~600

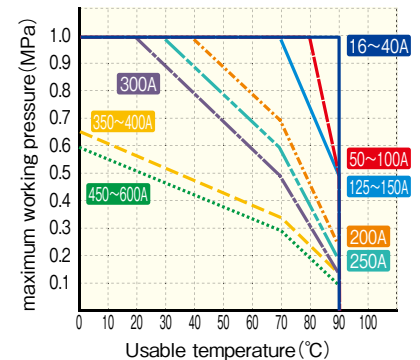
- Bend 350~600A : Miter bend

HTFW Fittings 16~300A

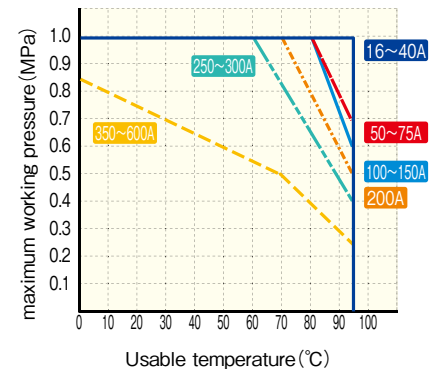
Product	Nominal Diameter
Socket	16~300
Reducing Socket	20×16~300×250
Eccentric Socket	20×16~300×250
Tee	16~300
Reducing Tee	20×16~300×250
90° Elbow	16~150
45° Elbow	20~300
90° Bend	200~300
Flange	16~300
Blind Flange	16~300

Working pressure and temperature

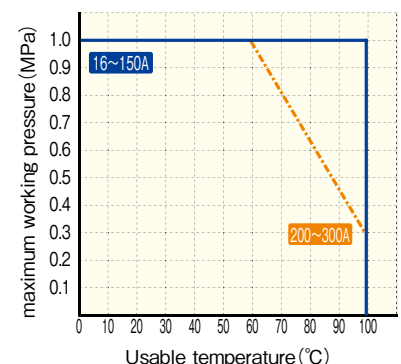
● VPFW (ST Type)



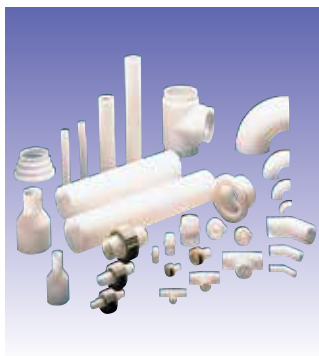
● VPFW (EX Type)



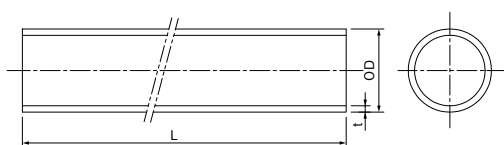
● HTFW



ESLON PVDF



- Excellent chemical resistance in high temperature.
- Excellent UV & gamma ray resistance.
- Excellent abrasion resistance, mechanical properties, and electrical isolation.



PIPE

Unit:mm

Size A	OD	t	L
15	20	1.9	5000
20	25	1.9	5000
25	32	2.4	5000
32	40	2.4	5000
40	50	3.0	5000
50	63	3.0	5000
65	75	3.6	5000
80	90	4.3	5000
100	110	5.3	5000
125	140	4.3	5000
150	160	4.9	5000
200	225	6.9	5000

Fitting Products List

Size [A]	OD [mm]	90°Bend	45°Elbow	Tee	Cap
15	20	○	○	○	○
20	25	○	○	○	○
25	32	○	○	○	○
32	40	○	○	○	○
40	50	○	○	○	○
50	63	○	○	○	○
65	75	○	—	○	○
80	90	○	○	○	○
100	110	○	○	○	○
125	140	○	○	○	—
150	160	○	○	○	—

Reducing Fittings Products List

Size [A]	OD [mm]	Tee	Reducer	Size [A]	OD [mm]	Tee	Reducer
20×15	25×20	—	○	50×40	63×50	—	○
25×15	32×20	—	○	65×40	75×50	—	○
25×20	32×25	—	○	65×50	75×63	—	○
30×15	40×20	—	○	80×50	90×63	○	○
30×20	40×25	—	○	80×65	90×75	—	○
30×25	40×32	—	○	100×50	110×63	○	○
40×15	50×20	—	○	100×80	110×90	○	○
40×20	50×25	—	○	125×100	140×110	—	—
40×25	50×32	—	○	150×50	160×63	○	—
40×32	50×40	—	○	150×80	160×90	○	—
50×25	63×32	○	○	150×100	160×110	○	○
50×32	63×40	—	○	150×125	—	—	○

Others Products List

Size [A]	OD [mm]	Stub Flange	Backing Ring PP+SS	Union FPM
15	20	○	○	○
20	25	○	○	○
25	32	○	○	○
32	40	○	○	○
40	50	○	○	○
50	63	○	○	○
65	75	○	○	—
80	90	○	○	—
100	110	○	○	—
125	140	○	○	—
150	160	○	○	—

Size [A]	OD [mm]	Female Adapter	Male Adapter
15×1/2	20	○	○
20×3/4	25	○	○
25×1	32	○	○
32×1 1/4	40	○	○
40×1 1/2	50	○	○
50×2	63	○	○

•Dimension of Backing ring : JIS 10K

ESLON DUCT PIPES

● Duct Pipes

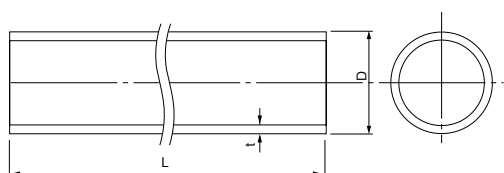


- Available ventilation application.
- Excellent chemical resistance.
- Excellent physical properties like impact, bending and tensile strength.
- Self extinguishing and excellent flame retardant.
- Light weight and easy installation.

■ Size E-Type

Unit:mm

Size	D	Tolerance	t	L	Weight (kg/pc)
E150	165	±0.8	2.5	4,000	7.3
E200	216	±1.8	2.5	4,000	9.7
E250	267	±2.6	3.0	4,000	14.4
E300	318	±3.0	3.0	4,000	17.2
E350	370	±3.0	3.5	4,000	23.0
E400	420	±3.5	4.0	4,000	30.0
E450	470	±3.5	4.5	3,000	28.6
E450	470	±3.5	4.5	4,000	38.2
E500	520	±3.5	5.0	3,000	35.2
E550	550	±3.5	5.0	4,000	46.9
E600	612	±3.5	6.0	2,000	33.1



DUCT FITTINGS

● Sleeve (Socket) Type



■ Products List

Product	Size (A)
90° Elbow	150~600
45° Elbow	150~600
Socket	150~600
Reducing Socket	All size
Eccentric Reducing Socket	All size
Tee	All size
Y-Tee	All size
Cap	150~600

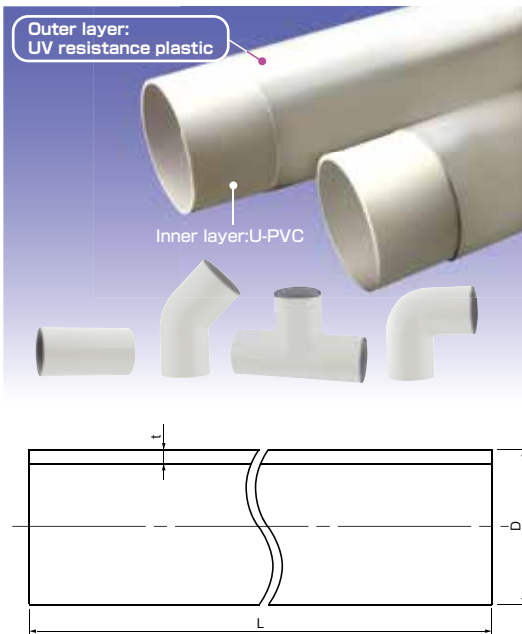
● Flange Type



■ Products List

Product	Size (A)
90° Elbow	150~600
45° Elbow	150~600
Reducing Socket	All size
Eccentric Reducing Socket	All size
Tee	All size
Expansion Joint	75~600
Lever-Type Damper	150~600
Handle-Type Damper	75~300
Gear-Type Damper	300~600
Flange	75A~600A
Blind Flange	75~600

Eslon UVS-VP



- High UV disability surface of UVS is coated by UV resistance plastic.
- Long life and LCC effective.
- No painting needed. Suitable for exposed piping.

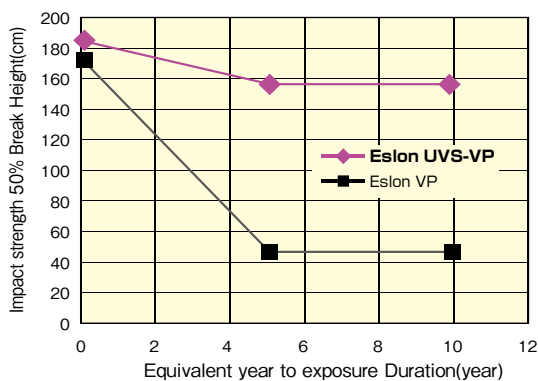
Size

unit:mm

Size	D	t	Approximate Inner diameter	L	Weight (kg/m)
A					
20	26.3	2.7	20	4000±10	0.310
25	32.3	3.1	25		0.448
40	48.2	3.6	40		0.782
50	60.2	4.1	51		1.122
65	76.3	4.1	67		1.445
75	89.3	5.5	77		2.202
100	114.3	6.6	100		3.409
125	140.3	7	125		4.464
150	165.3	8.9	146		6.701
200	216.3	10.3	194		10.129

Evaluation for Impact strength

Impact strength decrease only 10% after accelerating evaluation to UV exposure for 10 years.



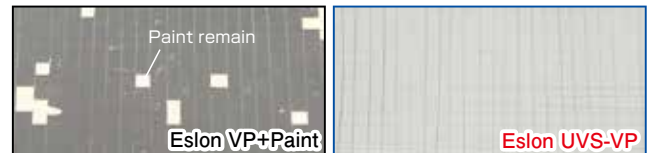
Appearance of pipe outside surface

※After Accelerated Weathering Test



Evaluation method for Laminating strength

※Tape on cross cut-paint, and peel off the tape 5 time repeatedly.

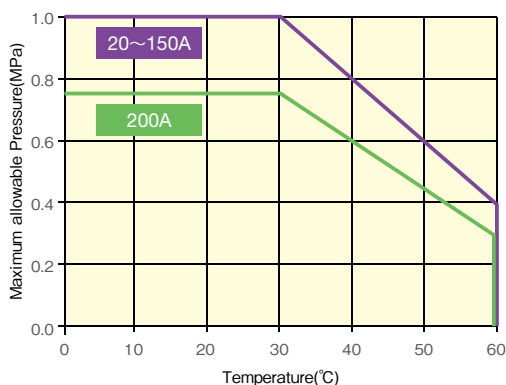


Paint remain

All cut paint pc remain

※Cross-cut peeling test(JIS K5600-5-6)

Maximum allowable Pressure

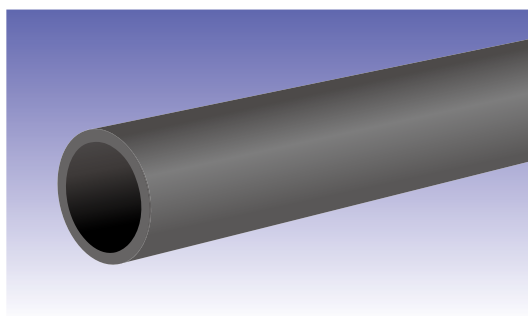


Product List Fitting

Size	90°Elbow	45°Elbow	Tee	Socket	Flange
20	○	○	○	○	○
25	○	○	○	○	○
40	○	○	○	○	○
50	○	○	○	○	○
65	○	○	○	○	○
75	○	○	○	○	○
100	○	○	○	○	○
125	○	○	○	○	○
150	○	○	○	○	○
200	○	○	○	○	○

•Reducing Coupling and Reducing Tees are available.

Eslon Plant Hyper BK (PE100)



- Excellent earthquake resistance.
- Excellent chemical resistance.
- Highly UV resistance.Suitable for exposed piping.
- Easy to installation.

Use

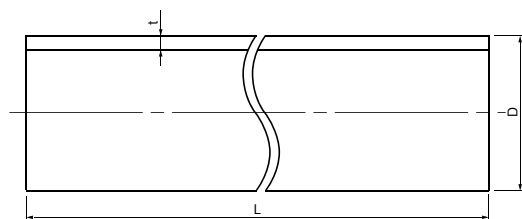
- For acid and alkali line
- industrial water
- sea water

Size

単位:mm

Size	SDR	D	t	L	Weight (kg/m)
A					
50	11	63	5.8	5000	1.06
75	17	90	5.4	5000	1.47
100	17	125	7.4	5000	2.78
150	17	180	10.7	5000	5.76
200	17	250	14.8	5000	11.00
250	17	315	18.7	5000	17.40
300	17	355	21.1	5000	22.20

・ SDR=D/t



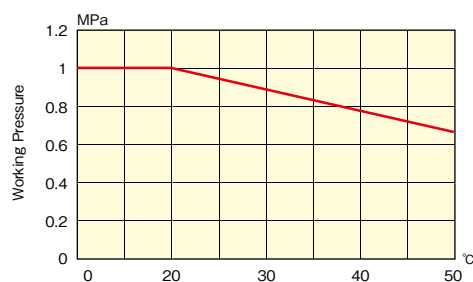
Product List Fitting

Size (A)	OD (Tolerance) (mm)	90°Elbow		45°Elbow		Tee		Reducer		Short pipe with Flange (F type,G type,10K)	Socket
		SP	EF	SP	EF	SP	EF	SP	EF		
50	63	—	○	—	○	—	○	○	—	—	○
75	90	—	○	—	○	—	○	○	—	○	○
100	125	—	○	—	○	—	○	○	—	○	○
150	180	○	—	○	—	○	—	○	—	○	○
200	250	○	—	—	—	○	—	○	—	○	○
250	315	○	—	—	—	○	—	○	—	○	○
300	355	○	—	—	—	○	—	○	—	○	○

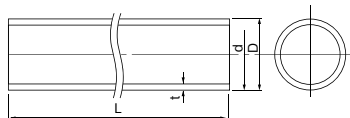
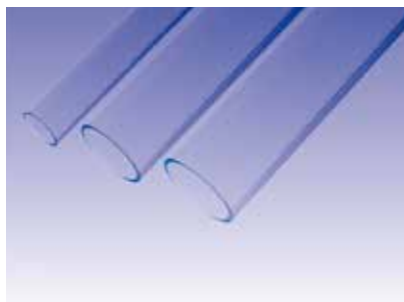
・SP indicates "spigot",EF indicates "Electrical Fusion" .

・For special order,please contact us.

Working Pressure and Temperature



ESLON CLEAR PIPE

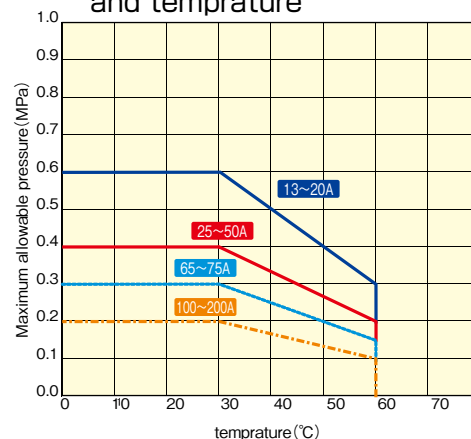


● Excellent transparency PVC pipe.

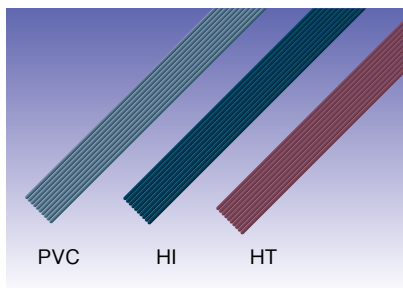
Size

Unit:mm					
Size	D	t	d	L	Weight (kg/m)
13	18±0.2	2.5±0.3	13	4000±10	0.173
16	22±0.2	3.0±0.3	16		0.254
20	26±0.2	3.0±0.3	20		0.308
25	32±0.2	3.0±0.3	26		0.388
30	38±0.2	3.0±0.3	32		0.468
40	48±0.2	3.5±0.4	41		0.695
50	60±0.2	4.0±0.4	52		0.999
65	76±0.3	4.0±0.4	68		1.285
75	89±0.3	4.5±0.4	80		1.696
100	114±0.4	5.5±0.4	103		2.662
125	140±0.5	6.0±0.5	128		3.587
150	165±0.5	7.0±0.5	151		4.934
200	216±0.7	8.0±0.5	200		7.423

Maximum allowable pressure and temperature



PVC WELDING ROD

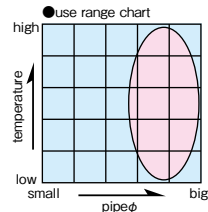


Size

Unit:mm					
	Color	Quantity for Reference		length (mm)	Unite of Packing (kg)
		Single (●)	Double (●●)		
For PVC pipe	Gray	530	270	1,000	5
For HI pipe	Navy Blue	540	280	1,000	5
For Plant HT pipe(T-17)	Brown	440	220	1,000	5
For Plant HT pipe(P-10)	Pink	440	220	1,000	5

ESLON SOLVENT CEMENT

ESLON SOLVENT CEMENT NO.65S

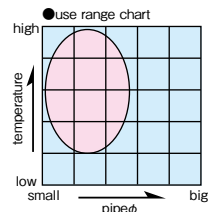


- Semi-quick-drying type.
For agricultural and sewage piping, medium and large diameter piping.



Volume	Remarks
1kg	—

ESLON SOLVENT CEMENT NO.73S

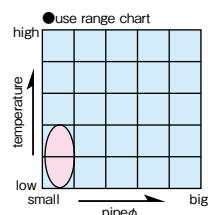


- Standard type.
For small and medium diameter piping.



Volume	Remarks
500g	with brush
1kg	with brush

ESLON SOLVENT CEMENT NO.75S



- Low viscosity and quick-drying type.
For winter season, small diameter piping.

⚠ Don't use in summer season or large diameter piping.



Volume	Remarks
500g	with brush
1kg	with brush

ESLON SOLVENT CEMENT NO.80S / NO.83S

NO.80S



NO.83S White



- High cementing strength.
For Eslon HI Pipe and PVC piping.

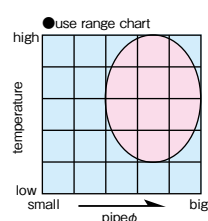
⚠ For Eslon HI piping, No.80S must be used.

⚠ For Eslon HI Clear Blue fittings, No.83S must be used.
Useable for HI Pipe and PVC Piping.



Volume	Remarks
500g	with brush
1kg	with brush

ESLON SOLVENT CEMENT NO.95C / NO.95C White



- Semi-quick-drying type For Eslon VP pipe HI pipe and clean piping.

⚠ Brush is not included. Please prepare it by yourself.



Volume	Remarks
1kg	not with brush

ESLON HEAT PROOF CEMENT NO.100S/NO.110 (For large diameter HT)

NO.100S



NO.110



- High cementing strength even in high temperature
For ESLON HT.

⚠ For small and medium diameter of HT piping, No.100S must be used.
For large diameter HT piping, VPFW & HTFW piping, No.110 must be used.



No.100S
(Small and medium diameter)

Volume	Remarks
250g	with brush
500g	with brush

No.110
(VPFW, HTFW, large diameter HT)

Volume	Remarks
500g	with brush

MEMO

Technical Information

■ Technical Information ■	
● Material Characteristics	59
● Material Property	59
● Chemical Resistance Guide	60
● Maximum Working Pressure - Temperature Rating	62
■ Flow Characteristic ■	
● Flow Characteristic of Eslon Valve	66
● Cv & Kv Values of Eslon Valve	66
● Flow Diagram	67
■ User's guide ■	
● Installation	68

Technical Information

■Characteristic of Material

	Material	Abbreviation	General Characteristic
V a l v e b o d y	Polyvinyl Chloride	PVC	Resistant against most of acids, alkalis and salts of high to low concentration level, however tends to be attacked by some chemicals such as aromatic hydrocarbon, ketones, esters and chlorinated hydrocarbon.
	Hi-Impact Polyvinyl Chloride	HI-PVC	Almost same mechanical properties as PVC however higher impact strength and durability. Inferior to PVC in chemical resistance.
	Chlorinated Polyvinyl Chloride	C-PVC	Almost same properties as PVC however higher heat resistance and usable for higher temperature application than PVC.
	Polypropylene	PP	Resist against most of acids, alkalis and salts however weak resistant against strong acids such as highly-concentrated nitric acid, chrome acid, and mixture of them. Resistant against many solvents (specifically the solvent with active group), however tends to be attacked by chlorine-containing solvents, aliphatic series, and aromatic hydro-carbon.
	Glass Fiber reinforced polypropylene	GF-PP	Glass fiber reinforced PP(polypropylene) has higher mechanical properties and temperature resistance than PP. High chemical resistance and light weight.
	Polyvinylidene difluoride	PVDF	Highly resistant in higher temperature range, against ordinary acids and chemicals, however broken down by fuming sulfuric acid and strong basic amines. Usable conditions and application are limited for ketones, amides, esters, solvents and alkalis.
S e a l m a t e r i a l e t c	Polytetra-fluoroethylene (Trade name Teflon)	PTFE	Highly resistant against ordinary acids and alkalis, and not dissolved nor changed by ordinary solvent medium. Attacked by melted alkali metal and by fluorine and chlorine trifluoride in high temperature.
	Ethylene Propylene Rubber	EPDM	Chemical resistant and ozone resistant. Comparatively resistant against ketones and esters, however weak resistant against aromatics, aliphatic families, gasoline, and oil.
	Fluororubber (Trade name Viton)	FKM	Highly resistant against ordinary chemicals, especially acids. Resistant against oils, however attacked by ketones, ammonia anhydride, concentrated caustic soda, etc.
	Chlorinated polyethylene	FKM-FB	Enhanced FKM in chemical resistance. Superior resistant especially against high-temperature acids and highly concentrated acids. Remarkably low metal elution by chemicals. Same level of oil-resistance and high temperature resistance as FKM.
	Polyvinylidene chloride	PVDC	Almost same properties as PVC however resistant and durability in higher temperature.

■Basic Physical Property of Material for Valve at Temp.23°C

Material		PVC	HI-PVC	C-PVC (HT)	PP	GF-PP	PVDF	PTFE
Property	Unit							
Density	g/cc	1.43	1.40	1.48	0.92	1.04	1.77	2.17
Water Absorption	mg/m ²	0.04~0.06	0.04~0.06	0.04~0.06	0.01		0.04	0.00
Tensile Strength Yield	MPa	50~55	40~45	50~55	35~40	77~83	49~54	17~22
Modulus of Elasticity	MPa	2.5~3.0×10 ³	2.0~2.5×10 ³	2.5~3.0×10 ³	1.0~1.5×10 ³	3.3~3.8×10 ³	2.3~2.8×10 ³	3.7~4.2×10 ²
Flexural Strength	MPa	78~89	76~81	88	24~35	93~98	64	
Charpy Impact Strength	kJ/m ²	5~10	90	10~15	3~8	7~12	17~21	2~5
Heat Deflection Temperature	°C	61~66	63~68	98~103	118~123	145~150	145~150	
Linear Expansion Coefficient	/°C	7×10 ⁻⁵	7×10 ⁻⁵	7×10 ⁻⁵	12×10 ⁻⁵	4.5×10 ⁻⁵	12×10 ⁻⁵	10×10 ⁻⁵
Thermal Conductivity	W/m·K	0.15	0.15	0.14	0.12		0.12	0.7
Dielectric Strength	kV/mm	40	40	40	26	26	70	
Volume Resistivity	Ωcm	5.3×10 ¹⁵	5.3×10 ¹⁵	5.3×10 ¹⁵	4.9×10 ¹⁵		5×10 ¹⁵	1×10 ¹⁸

•This data is intended to serve as reference.

Chemical Resistance Guide

Please refer to "Chemical Resistance Manual for Esion Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.

2 "PVC" in chemical resistance guide does not include "HI-PVC".

3 This table is intended to serve as guide only. The information based on data accumulated from immersion test and experiments herein is believed to be reliable, but no representations, guarantee or warranties of any kinds are made as to its accuracy, suitability for particular applications or results to be obtained.

++ : Excellent Resistant - : Caution
+ : Good Resistant (Actual testing suggested)
-- : Not recommended

Chemical	Concentration	Temp.		Plastic							Rubber			
	(%)	(°C)	(°F)	PVC	CPVC (HT)	PP	GF-PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM-FB	IIR-X
Ammonia water NH ₃ Aq	10	20	68	+	--	++	++		++	++	++	+	+	++
		40	104	+	--	++	++		++	++	++	-	-	++
		60	140	+	--	++	++		++	++	++	--	--	++
		80	176		--	+	+		++	++	++			++
		100	212				+		++	++	++			+
Hydrochloric acid HCl	15	20	68	+	++	++	++	++	++	++	++	++	++	++
		40	104	+	++	++	++	++	++	++	+	+	++	+
		60	140	+	++	++	++	++	++	++	-	-	++	-
		80	176		++	++	++		++	++	--	--	+	--
		100	212				-		++	++				
	25	20	68	+	++	++	++	++	++	++	++	++	++	++
		40	104	+	++	++	++	++	++	++	+	+	++	+
		60	140	+	++	++	++	++	++	++	-	-	++	-
		80	176		++	++	++	++	++	++	--	--	+	--
		100	212				-		++	++				
	35	20	68	+	++	++	++	++	++	++	+	++	++	+
		40	104	+	++	++	++	++	++	++	-	-	++	-
		60	140	+	+	++	++	++	++	++	--	--	+	--
		80	176		+	+	+	++	++	++			+	
		100	212				-		+	++				
Chlorine gas Cl ₂	Wet	20	68	+	+	--	--	++	-	++	--	--	--	--
		40	104	-	-					++				
		60	140	-	-					++				
		80	176		-					++				
		100	212						++	++				
	Dry	20	68	+	++	--	--	++	++	++	--	+	+	--
		40	104	+	++				++	++		-	-	
		60	140	+	++				++	++		--	--	
		80	176		++				++	++				
		100	212						++	++				
Sodium hydroxide NaOH	5	20	68	+	+	++	++	++	++	++	++	++	++	
		40	104	+	--	++				++	++	++	++	
		60	140	+	--	++				++	++	+	+	
		80	176							++	+			
		100	212											
	15	20	68	++	+	++	++	++	++	++	++	+	++	++
		40	104	++	-	++	++		++	++	++	-	+	++
		60	140	++		++			+	++	++	--		
		80	176		--	+			-	++	+			
		100	212						--	++	+			
Potassium permanganate KMnO ₄	10	20	68	++	++	+	+	++	++	++	++	++	++	++
		40	104	++	++	-	-	++	++	++	++	++	++	
		60	140	+	++				++	++	++	++	++	
		80	176		+				++	++				
		100	212						++	++				
	25	20	68	++	++	+	+	++	++	++	++	+	+	++
		40	104	-	++	-	-	++	++	++	++	+	+	
		60	140	-	++				++	++	++			
		80	176		+				++	++				
		100	212						++	++				
Chromic acid H ₂ CrO ₄	20	20	68	+	+	--	--	++	++	++	+	+	+	--
		40	104	+	+			+	++	++	--	+	+	
		60	140	+	+			+	++	++		+	+	
		80	176						++	++		-	-	
		100	212						++	++		--	--	
	50	20	68	+	+	--	--	++	++	++	--	+	+	--
		40	104	+	+			+	-	++				
		60	140					+	--	++				
		80	176							++				
		100	212							++				
Acetic acid CH ₃ COOH	20	20	68	++	++	++	++	++	++	++	++	++	++	--
		40	104	+	++	++	++	++	++	++	++	+	++	
		60	140	-	+	+	+		++	++	+	-	+	
		80	176		-	-	-		++	++		--	+	
		100	212						+	++				
	50	20	68	++	++	++	++	++	++	++	--	+	+	--
		40	104	+	+	+	+	++	++	++		-	-	
		60	140	-	-	-	-		++	++		--	--	
		80	176		--		--		++	++				
		100	212						+	++				

Chemical Resistance Guide

Please refer to "Chemical Resistance Manual for Esion Plastics Pipe, Valves and Relative Materials" for details.

1 Please note that plastic might be strongly affected by surface-activating agent.

2 "PVC" in chemical resistance guide does not include "HI-PVC".

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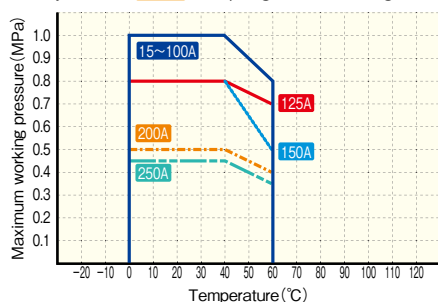
Chemical	Concentration	Temp.		Plastic							Rubber				
	(%)	(°C)	(°F)	PVC	CPVC (HT)	PP	GF-PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM-FB	IIR-X	
Sodium hypochlorite NaClO	5	20	68	++	++	+	+	++	++	++	+	++	++	++	
		40	104	++	++	+	+	++	++	++	+	++	++	+	
		60	140	+	—	—	—	+	++	++	—	++	++	—	
		80	176						++						
		100	212						++						
	10	20	68	++	++	+	+	++	++	++	++	--	++	++	++
		40	104	++	++	—	—	+	++	++	++		++	++	+
		60	140	+	—	—	—	+	++	++	++		++	++	—
		80	176						++	++					
		100	212						++						
Nitric acid HNO3	30	20	68	++	++	++	++	++	++	++	+	++	++	++	
		40	104	+	+	++	++	++	++	++	+	+	++	+	
		60	140	—	—	+	+	++	++	++	--	+	++	—	
		80	176		--	+	+		++	++		—	+		
		100	212						++	++		—	+		
	50	20	68	++	++	++	++	++	++	++	--	++	++	--	
		40	104	—	—	+	+	++	++	++		+	++		
		60	140	--	--	—	—		+	++		—	+		
		80	176			--	—		+	++		--	+		
		100	212						—	++					
	70	20	68	--	--	--	--	--	--	—	++	--	--	—	--
		40	104							--	+				
		60	140								+				
		80	176								—				
		100	212								—				
Toluene (Toluol) C6H5CH3	Pure	20	68	--	--	+	+	--	++	++	--	—	—	--	
		40	104			—	—		++	++					
		60	140			--	--		+	++					
		80	176						+	++					
		100	212						—	+					
Hydrofluoric acid HF	Dilute	20	68	++	++	++	--	++	++	++	++	++		++	
		40	104	++	+	+		++	++	++	++	++	++		
		60	140	—	+	+		++	++	++	++	++	++		
		80	176		—	+		++	++	++	++	++	++		
		100	212			+			++	++	++	++	++		
	50	20	68	+	+	++	--	++	++	++	++	++	++	++	++
		40	104	--	--	+		++	++	++	++	+	++	++	
		60	140			+		++	++	++	++	—	++	++	
		80	176			+			++	++		++	++		
		100	212						++	++		+	++		
Benzene C6H6	Pure	20	68	—	—	+	+	++	++	++	--	+	+	--	
		40	104	--	--	—	—		+	++		+	+		
		60	140						+	++		+	+		
		80	176						+	++		+	+		
		100	212												
Formaldehyde HCHO	35	20	68	++	++	++	++	++	++	++	++	++	++	—	
		40	104	++	++	++	++	++	++	++	++	++	++		
		60	140	—	+	++	++		+	++	+	+	+		
		80	176			+	++		--	++	+	—	—		
		100	212							++					
Methyl alcohol CH3OH	Pure	20	68	—	—	++	++	++	++	++	++	++	++	+	
		40	104	--	--	++	++	++	++	++	++	++	++	++	
		60	140			+	+	+	+	+	+	+	+		
		80	176												
		100	212												
Sulfuric acid H2SO4	30	20	68	++	++	++	++	++	++	++	++	++	++	++	
		40	104	++	++	++	++		++	++	++	++	++	++	
		60	140	++	++	++	++		++	++	++	++	++	++	
		80	176		++	++	++		++	++	+	++	++	+	
		100	212				++		++	++	--	++	++		
	90	20	68	+	+	++	++	--	++	++	++	++	++	++	--
		40	104	+	+	++	++		++	++	+	++	++		
		60	140	—	—	+	+		++	++	—	++	++		
		80	176			+	+		+	++	--	+	+		
		100	212						+	+		--	+		
	98	20	68	+	+	--	--	--	++	++	--	++	++	--	
		40	104	—	—				+	++		+	++		
		60	140	--	--					++		—	+		
		80	176							++					
		100	212							+					

Maximum Working Pressure - Temperature Rating

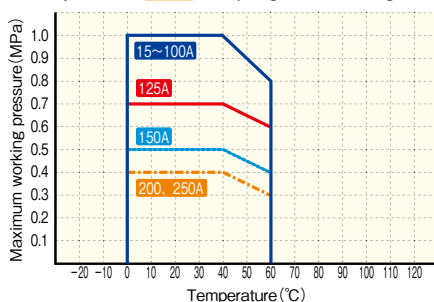
Mechanical properties of Esion valves decrease with increasing temperature as with other ordinary thermoplastic.
Maximum working pressure = Static normal operation pressure + Water hammer.

Diaphragm Valve

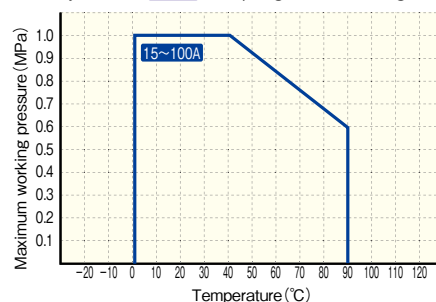
■ Body material: **PVC** / Diaphragm: EPDM / Flange



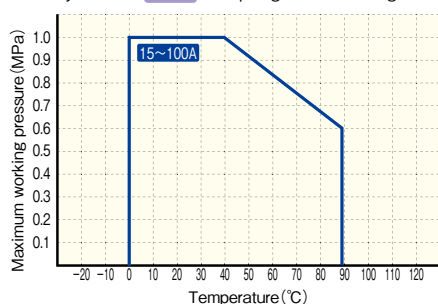
■ Body material: **PVC** / Diaphragm: PTFE / Flange



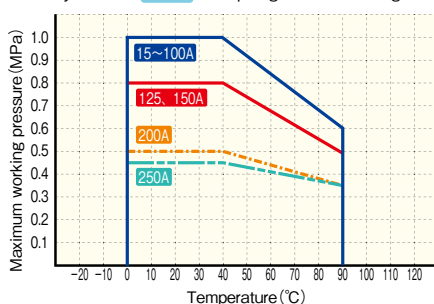
■ Body material: **HT** / Diaphragm: EPDM / Flange



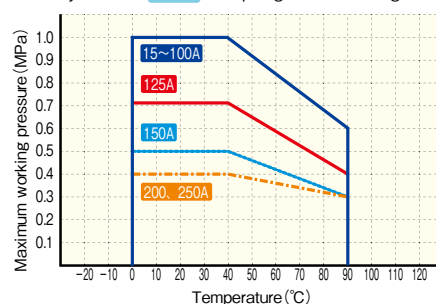
■ Body material: **HT** / Diaphragm: PTFE / Flange



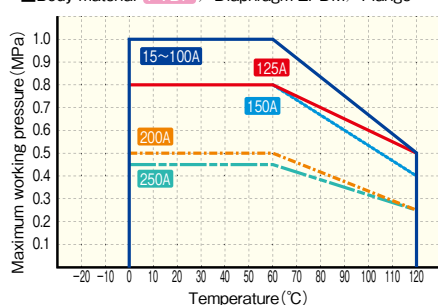
■ Body material: **PP** / Diaphragm: EPDM / Flange



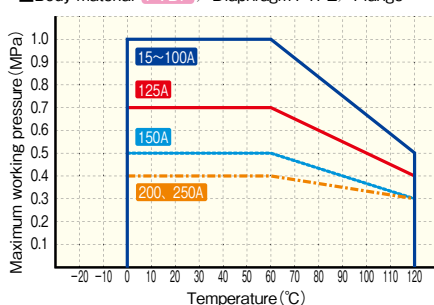
■ Body material: **PP** / Diaphragm: PTFE / Flange



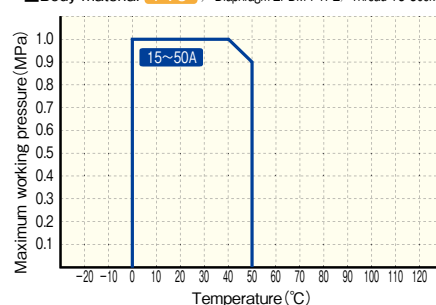
■ Body material: **PVDF** / Diaphragm: EPDM / Flange



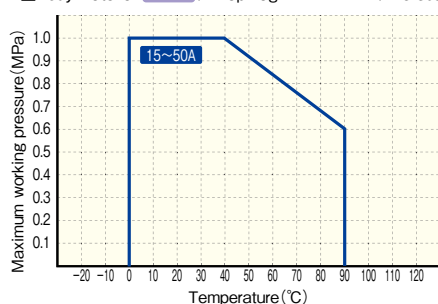
■ Body material: **PVDF** / Diaphragm: PTFE / Flange



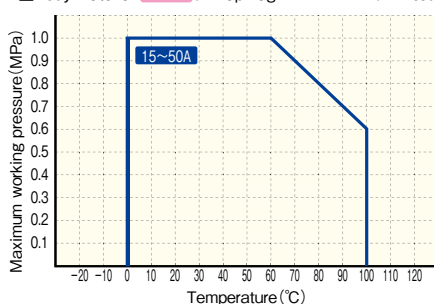
■ Body material: **PVC** / Diaphragm: EPDM-PTFE / Thread-TS Socket



■ Body material: **HT** / Diaphragm: EPDM-PTFE / TS Socket

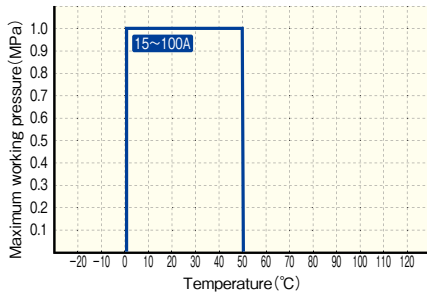


■ Body material: **PVDF** / Diaphragm: EPDM-PTFE / Thread-Butt Spigot

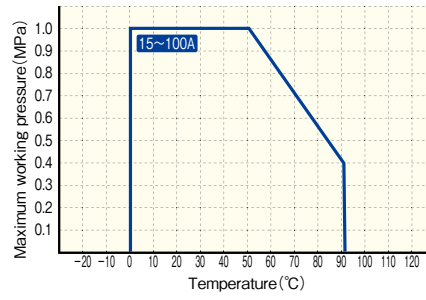


Ball Valve

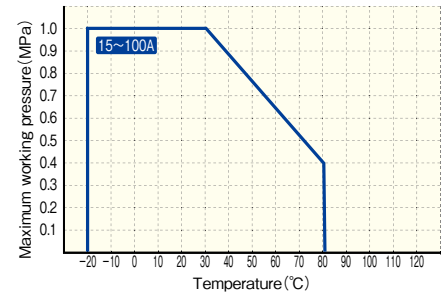
■ Body material: **PVC**



■ Body material: **HT**

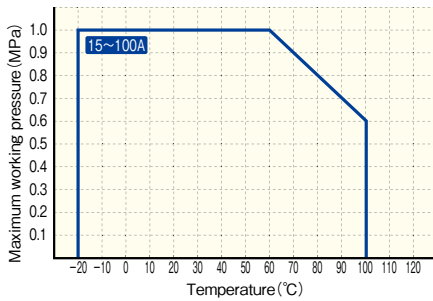


■ Body material: **PP**



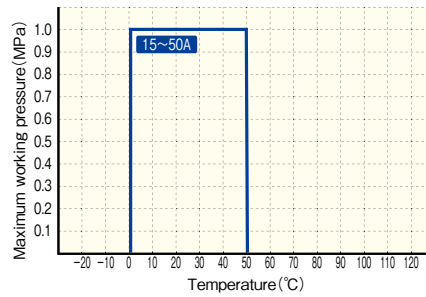
Ball Valve

■ Body material: **PVDF**



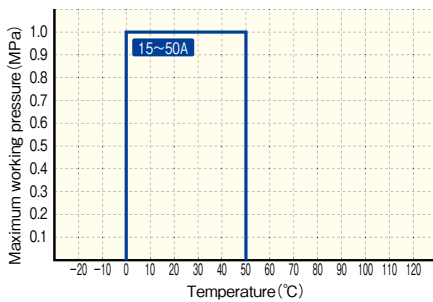
YP Ball Valve

■ Body material: **PVC**



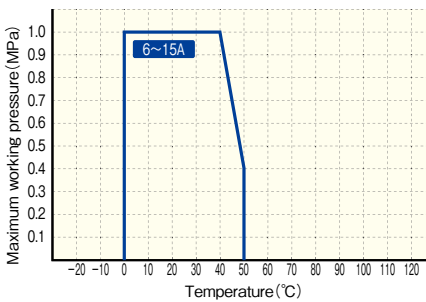
Lock Ball Valve•Compact Ball Valve

■ Body material: **PVC**



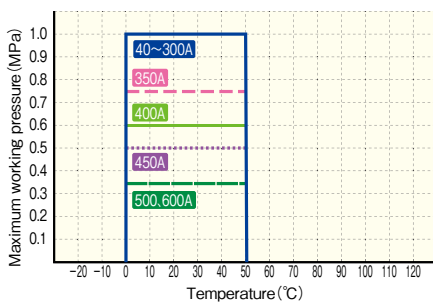
Mini Ball Valve

■ Body material: **PVC**

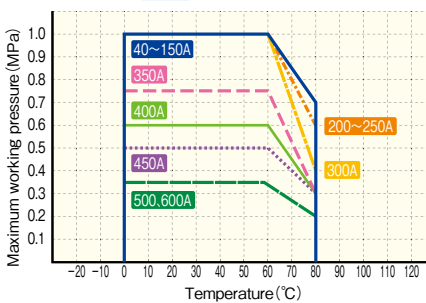


Butterfly Valve(Lever Type•Gear Type•For Under Ground)

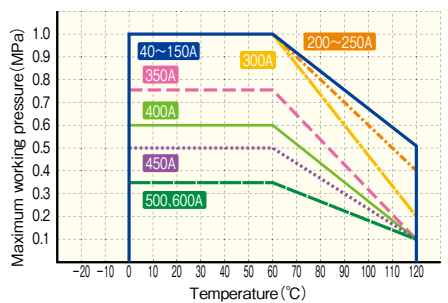
■ Body material: **PVC**



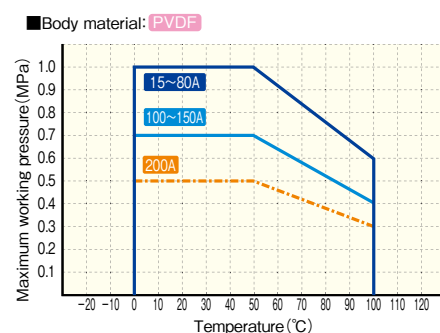
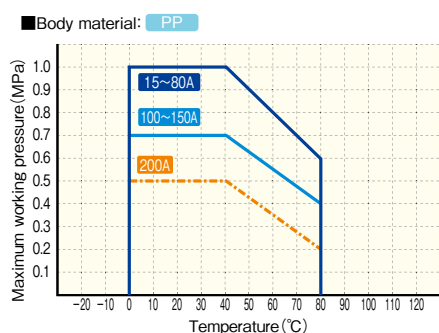
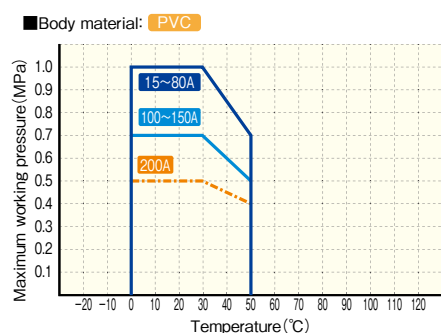
■ Body material: **PP**



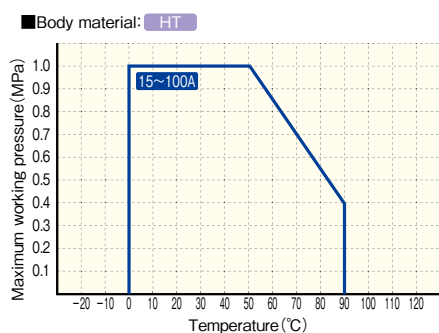
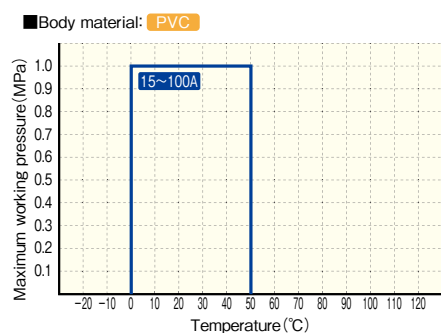
■ Body material: **PVDF**



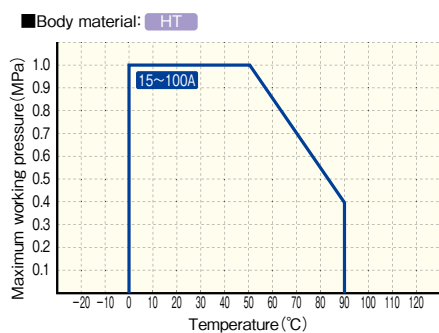
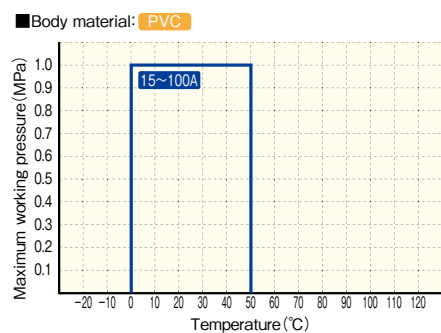
Check Valve Swing Type



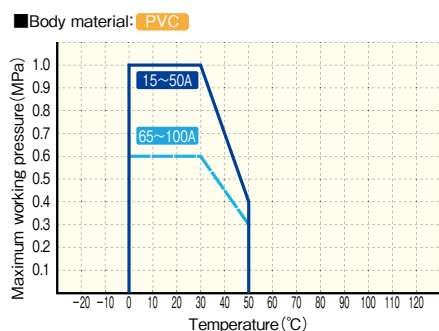
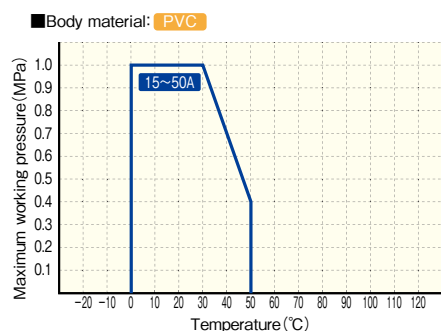
Check Valve Ball Type



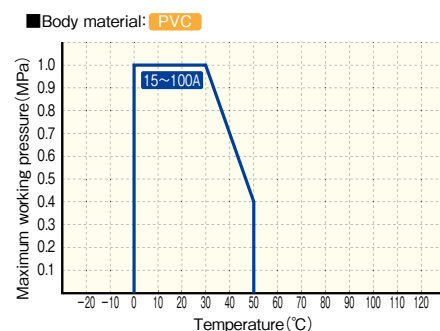
Foot Valve



Check Valve Lift Type

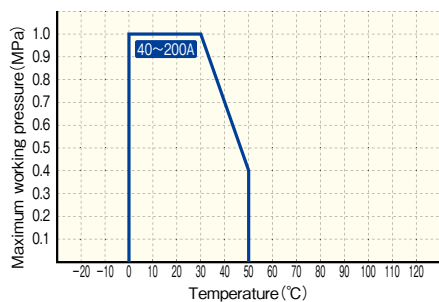


Globe Valve



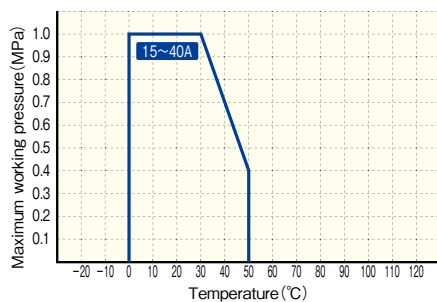
Gate Valve

■ Body material: **PVC**



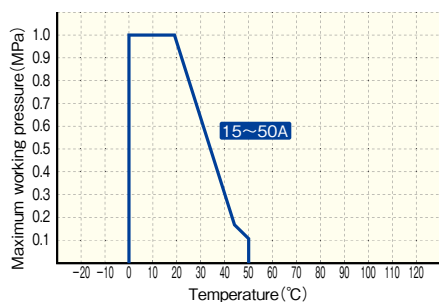
Needle Valve

■ Body material: **PVC**

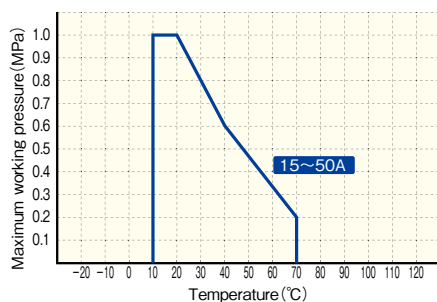


Relief Valve

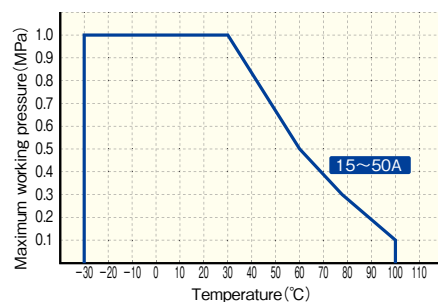
■ Body material: **PVC**



■ Body material: **PP**

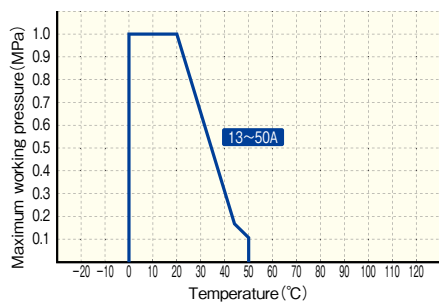


■ Body material: **PVDF**

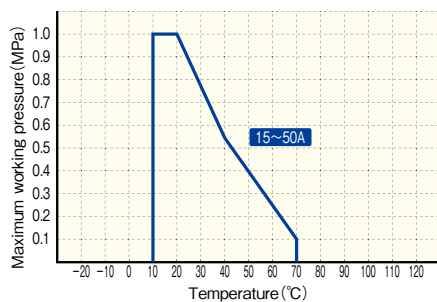


Pressure Regulation Valve

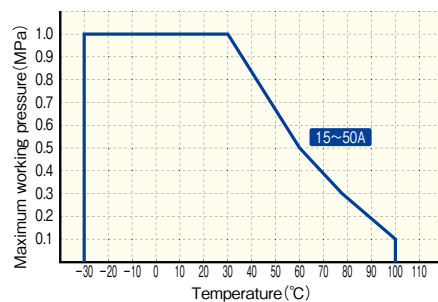
■ Body material: **PVC**



■ Body material: **PP**

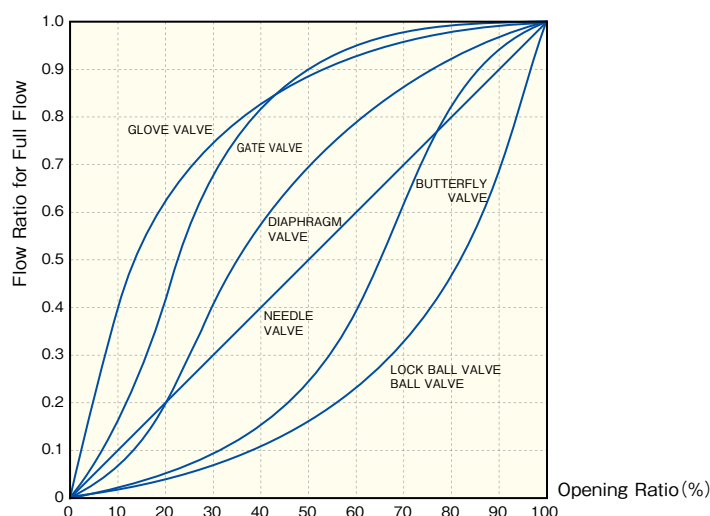


■ Body material: **PVDF**



Flow Characteristic

Flow Characteristics Of Eslon Valve



Cv & Kv Values

Cv value (valve constant) is the flow coefficient used in USA, and non-dimensional value representing how many gallons (1 US gallon = 3.7852 litres) of water of 60°F (15.5°C) pass valve for one minute, where the pressure difference at the inlet and the outlet of the valve is 1 psi (0.0703 kgf/cm²) at its full open. 1 gallon is treated as 1 Cv.

Kv value is the flow capacity coefficient used in the International Standards. It represents how many liters of water can pass the valve for one hour where the pressure difference at the inlet and the outlet of the valve is 1 bar (1.0197 kgf/cm²) at its full open.

The Cv and Kv value for liquids is expressed by the following equation;

$$Cv = Q \sqrt{\frac{\gamma}{P_1 - P_2}}$$

Cv : Valve capacity coefficient

Q : Volumetric flow [gal/min]

P₁ : Inlet pressure [psi]

P₂ : Outlet pressure [psi]

γ : Specific gravity

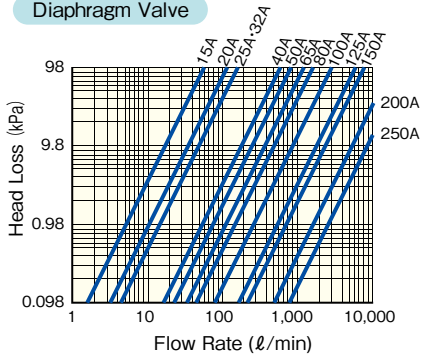
$$Cv = 1.16 Kv$$

Cv VALUE · Kv VALUE

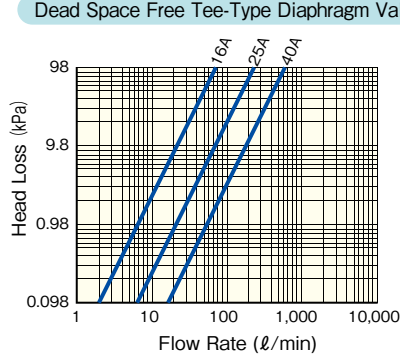
Size (A) Item	Cv VALUE · Kv VALUE												
	Diaphragm Valve	Dead Space Free Tee-Type	Ball Valve	Lock Ball Valve	Butterfly Valve	Gate Valve	Globe Valve	Needle Valve	Check Valve			Strainer	Relief Valve
	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Swing	Ball	Lift	Cv Kv	Cv Kv
15	6.3 5.4	5.2 4.5	12.1 10.5	10 8.7	— —	— —	4.7 4.1	port6 0.6 0.5 port11 1.8 1.6	—	10.5 9.1	5.6 4.8	2.8 2.4	2.46 2.1
20	12 10.4	— —	31.5 27.2	26.8 23.2	— —	— —	6.7 5.8	3.4 2.9	17.6 15.2	25.7 22.2	8.3 7.2	4.9 4.2	7.2 6.2
25	17.6 15.2	13.1 11.3	48.9 42.3	43.1 37.3	— —	— —	10 8.7	4.6 4	24.2 20.9	36.9 31.9	13.8 11.9	7.2 6.2	7.58 6.6
32	17.6 15.2	— —	80.1 69.3	69.6 60.2	— —	— —	16 13.8	8 6.9	— —	— —	20.2 17.5	13.2 11.4	19.4 16.8
40	46.3 40	30.1 26	154 133.2	115 99.5	74 64	— —	25.8 22.3	13.1 11.3	67.8 58.6	84 72.7	31.7 27.4	17.9 15.5	21.3 18.4
50	76.1 65.8	— —	267 231	196 169.5	172 148.8	210 181.7	45.2 39.1	— —	91.4 79.1	146 126.3	56.5 48.9	28.7 24.8	21.3 18.4
65	135 116.8	— —	352 304.5	— —	282 243.9	360 311.4	66.3 57.3	— —	222 192	— —	— —	39.8 34.4	— —
80	180 155.7	— —	471 407.4	— —	309 267.3	530 458.5	87.6 75.8	— —	306 264.7	280 242.2	— —	52.6 45.5	— —
100	280 242.2	— —	780 674.7	— —	446 385.8	880 761.2	141 122	— —	596 515.5	547 473.2	— —	84.6 73.2	— —
125	533 461	— —	— —	— —	755 653.1	1050 908.3	— —	— —	771 666.9	— —	— —	— —	— —
150	857 741.3	— —	— —	— —	993 858.9	1400 1211	— —	— —	1084 937.7	— —	— —	— —	— —
200	1113 962.7	— —	— —	— —	2213 1914.2	2390 2067.4	— —	— —	1920 1660.8	— —	— —	— —	— —
250	1864 1612.4	— —	— —	— —	3440 2975.6	— —	— —	— —	— —	— —	— —	— —	— —
300	— —	— —	— —	— —	4929 4263.6	— —	— —	— —	— —	— —	— —	— —	— —
350	— —	— —	— —	— —	6311 5459	— —	— —	— —	— —	— —	— —	— —	— —
400	— —	— —	— —	— —	8757 7574.8	— —	— —	— —	— —	— —	— —	— —	— —
450	— —	— —	— —	— —	11107 9607.6	— —	— —	— —	— —	— —	— —	— —	— —
500	— —	— —	— —	— —	14622 12648	— —	— —	— —	— —	— —	— —	— —	— —
600	— —	— —	— —	— —	17945 15522.4	— —	— —	— —	— —	— —	— —	— —	— —

Flow Diagram

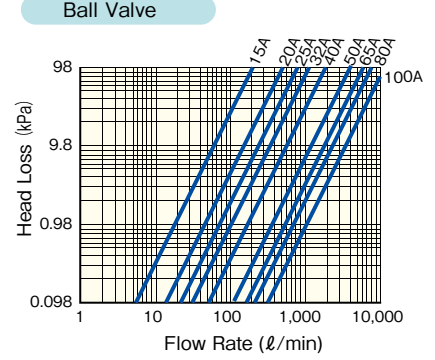
Diaphragm Valve



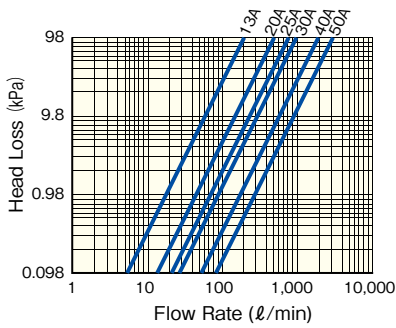
Dead Space Free Tee-Type Diaphragm Valve



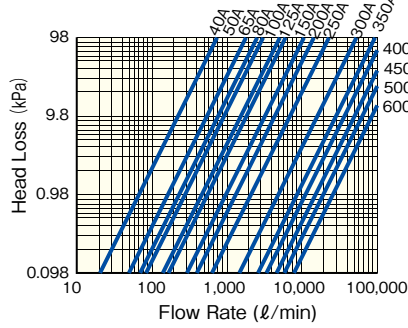
Ball Valve



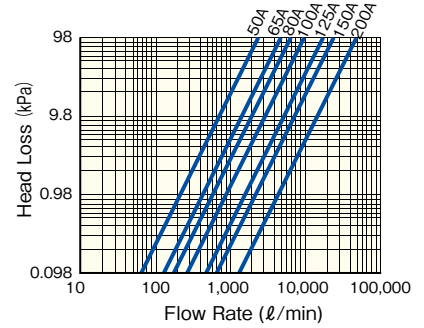
Lock Ball Valve



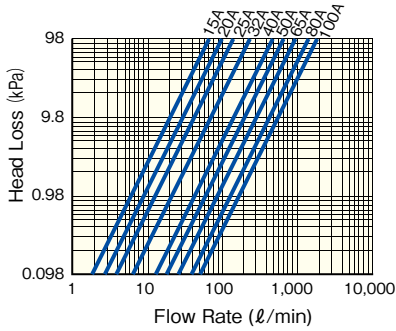
Butterfly Valve



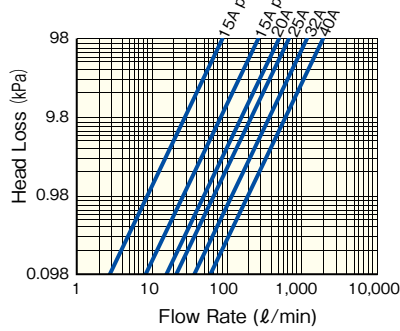
Gate Valve



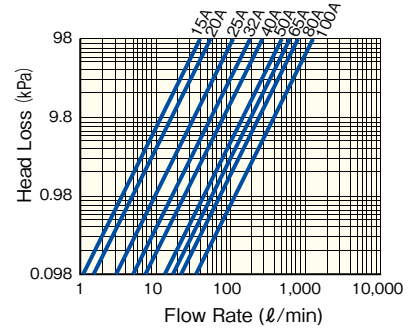
Globe Valve



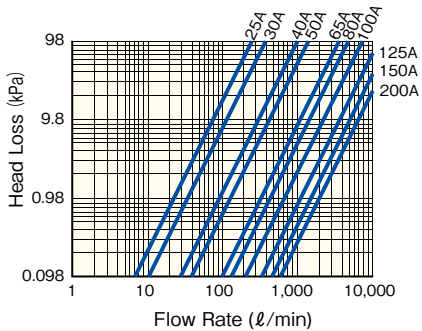
Needle Valve



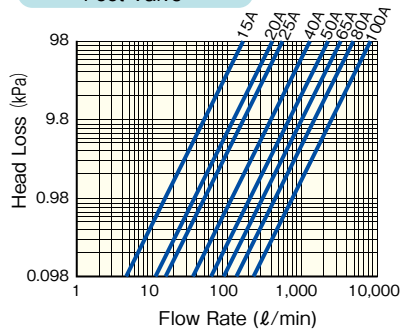
Strainer



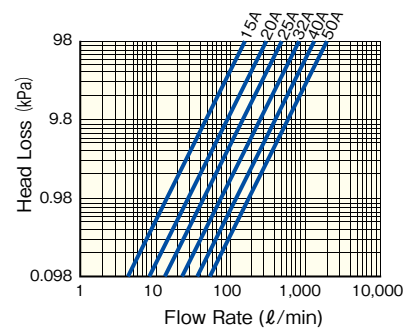
Check Valve Swing Type



Check Valve Ball Type
Foot Valve



Check Valve Lift Type



Installation

1 Storage and Transportation

- 1 Handle products carefully, avoid dropping and throwing products. Products might be affected in performance or damaged by strong impact.
- 2 As large size of product is heavy, unload and handle by 2-persons if necessary.
- 3 For storage, store products in their cartons or wrapping and stack up orderly not to unpile.
- 4 Avoid exposing products to direct sunlight. Avoid storing and handling products in the condition of excessive temperature or humidity.

2 Operating Instructions

- 1 Check inspection certificate packed with the products and observe the precaution.
- 2 When installing products, avoid bending, tension, or other external load on products.
Avoid stepping or apply excessive weight on products. It might cause failure, leaking, or damage of products.
- 3 Do not install and use products under out of condition of temperature or humidity.
- 4 Keep ventilating when products are installed in corrosive atmosphere.
- 5 In case that fluid might freeze up due to operating condition, prevent freezing by thermal insulation or other methods.
- 6 In case of leaking from union nut, retighten evenly both sides of union nuts.
- 7 Inspect and exchange periodically valves in use for slurry medium.
- 8 Prevent using for crystalline fluid.
- 9 Check periodically bolt torque for flange connection and keep them specified torque. Bolt looseness might cause leaking.
- 10 Gasifying, volatile, or evaporating fluid such as hydrogen peroxide and sodium hypochlorite might rise inner pressure of valve and burst the valve. Please contact us concerning such risk.
- 11 Do not insert your hands into the valve in operating test to prevent serious injury accident.
- 12 Do not use Eslon valves, Pipes, and Fittings for compressed air or gas applications.
- 13 Do not disassemble valves while applying inner pressure to valves to avoid accident such as burst of valves or scatter fluid.

3 Installation Procedure for Flange connection

- 1 Use Eslon gasket (packing) as sealing for flange connection.
- 2 Tighten evenly bolts, using washers and spring washers for both of bolts and nuts for prevention of damage of flanges.
- 3 Set valve and gaskets between flanges, then tighten bolts after adjusting the position and dimensions not to make a gap between them.
- 4 Use flat faced flanges for Eslon valves and gaskets, do not use raised faced flange.
- 5 Tighten bolts diagonally, evenly, and gradually as shown below.
- 6 For tighten torque of bolts, refer to the dimension table of Eslon Packing (Gasket) on page 45-47.
- 7 Use specified size and length of bolts shown in table.

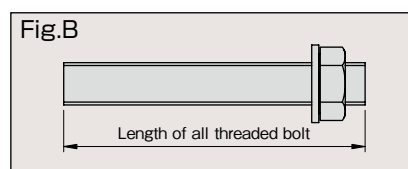
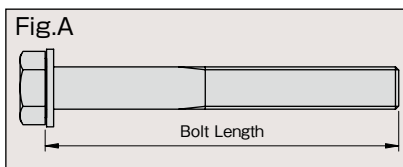
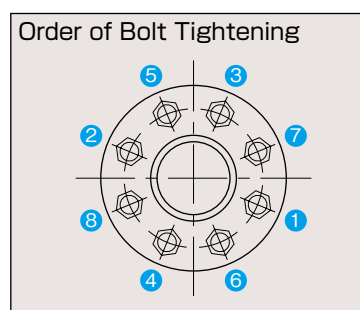


Table Bolt of

Nominal Diameter A		15	20	25	32	40	50	65	75	80	100	125	150	200	250	300	350	400	450	500	600
BALL-STOP-STRAINER CHECK-TS Flange(10K)	Bolt Diameter	M12	M12	M16	M16	M16	M16	M16	—	M16	M16	M20	M20	M20	M22	M22	—	—	—	—	—
	Bolt Length	50	50	55	60	60	70	75	—	75	75	80	85	90	95	100	—	—	—	—	—
TS Flange(5K)	Bolt Diameter	M10	M10	M10	M12	M12	M12	M12	—	M16	M16	M16	M16	M20	M20	—	—	—	—	—	—
	Bolt Length	45	45	45	50	50	55	55	—	55	60	60	65	90	95	—	—	—	—	—	—
TS Flange (For Water Supply)	Bolt Diameter	—	—	—	—	—	—	—	M16	—	M16	M16	M16	M16	M20	M20	—	—	—	—	—
	Bolt Length	—	—	—	—	—	—	—	75	—	80	80	85	90	95	100	—	—	—	—	—
DIAPHRAGM(10K)	Bolt Diameter	M12	M12	M16	M16	M16	M16	M16	—	M16	M16	M20	M20	M20	M22	—	—	—	—	—	—
	Bolt Length	45	45	50	55	55	65	70	—	70	80	80	85	90	95	—	—	—	—	—	—
GATE VALVE FOR PIPELINE(10K)	Bolt Diameter	—	—	—	—	—	M16	M16	—	M16	M16	M20	M20	M20	—	—	—	—	—	—	—
	Bolt Length	—	—	—	—	—	70	70	—	70	75	80	85	90	—	—	—	—	—	—	—
BUTTERFLY VALVE	Bolt Diameter	—	—	—	—	M16	M16	M16	—	M16	M16	M20	M20	M20	M22	M22	M22	M24	M24	M24	M30
	Bolt Length	—	—	—	—	90	110	120	—	120	130	140	140	160	180	210	250	265	280	295	330
Length of all threaded bolt		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	120	120	140

※For length of all threaded bolt for Butterfly valves 350 - 600A, please refer to Fig.B.

4 Installation Procedure by Solvent Cement

Disassemble union nut and socket ends from valve body, then connect by solvent cement. Cementing without disassembling socket ends might cause failure of valve function by flowing solvent cement in valve. Make marks on union nuts and body in accordance with fully-tighten position before loosen union nuts, and becomes easy to reassemble.

- 1 Cut pipe in a right angle to the pipe axis.
- 2 Remove all burrs and saw dust by knife then round off edge by 1-2 degree.
- 3 Mark the insert length of pipe and depth of socket to ensure 0 (zero) point and complete inserting.
- 4 Wipe cementing surfaces of pipe and fitting by dry and clean cloth to remove all dirt, dust, moisture and oil.
- 5 Use specified grade of Eslon solvent cement.
- 6 Apply solvent cement evenly but slightly more on pipe and less on fitting to avoid overflowing of solvent cement to inside.
- 7 Apply solvent cement evenly but slightly more on pipe and less on fitting to avoid overflowing of solvent cement to inside.
- 8 After applying solvent cement, insert pipe quickly into socket end and wipe away overflowing cement.
- 9 Hold pipe and socket for 1 - 2 minutes after insertion. Avoid any impact and bending until dry. Ventilate inside of valve and piping to release solvent vapors in order to prevent solvent crack. Blow inside of piping if necessary.
- 10 Because of slow evaporation of solvent, installation at less than 5 degree C is not recommended.
- 11 Solvent cement is flammable hazardous material including organic solvents. Prohibit use of fire such as smoking, torching, or fire-working around work and storage area. Ventilate sufficiently, do not inhale solvent vapors.

■ Holding time after installation

Season	Size	
	Up to 50A	65~150A
Summer	More than 30 seconds	More than 1 minute
Winter		More than 2 minutes

5 Installation Procedure for Thread connection

- 1 Disassemble union nut and thread ends from valve body, then connect to pipe.
Make marks on union nuts and body in accordance with fully-tighten position before loosen union nuts, and becomes easy to reassemble.
- 2 Do not screw with metal thread to prevent damage. Use plastic thread of fittings such as PVC valve sockets.
- 3 Threads dimension is conforming to JIS B 0203, however prevent over-tightening to avoid damage of thread.
- 4 Use sealing tape for thread connection (wrap 2 - 3 ply). Do not use required sealing, hemp, or paint. It can cause stress cracking.
- 5 Tighten by single hand then use water-pump pliers or belt wrench by turning 180 - 360°
- 6 In case of tightening by belt wrench, turn carefully not to damage thread.

6 Installation Procedure by Socket welding

- 1 For socket welding work, wide space to set welding machine is needed. Keep enough work space for safety and work by 2-persons.
- 2 Prevent receiving wind during installation as temperature of heater face is affected and it cause failure in welding.
- 3 Ensure the type of welding machine corresponding to the size and material of pipe.
- 4 Ensure ground connection before turning on the power of welding machine.
- 5 Be careful of an electric shock by electrical leakage.
- 6 Be careful not to burn yourself by touch to heater face heated at 260 - 270 degree C.
- 7 Follow the instruction and specified welding condition such as heater face temperature, fusion time, and length of insertion as directed.
- 8 Insert pipe smoothly into socket with 5 seconds after pipe is pulled out from heater face.

For details, refer to the instruction manual for welding machine.

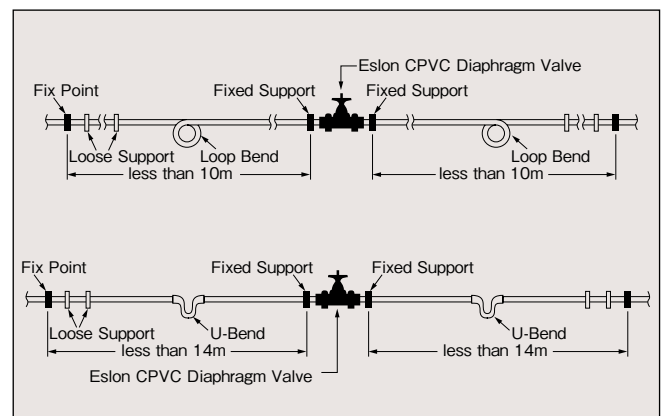
7 Leak test on installed piping

- 1 Prohibit using compressed air or gas in leak test for thermoplastic piping systems. Conduct leak test under hydrostatic pressure. Apply hydrostatic pressure after releasing air in piping.
- 2 Prohibit using leak detector including surface-activating agent. That can cause damage or crack on valves, pipes, and fittings.

8 Expansion and Contraction

Linear expansion coefficient of plastic and temperature variation by fluid or change in atmosphere temperature cause thermal expansion & contraction, and tensile or compress stress on piping. Especially in case of installation of Eslon valve with metal piping, inlet and outlet around valves needs to be fixed not to be affected on valve as mechanical properties and loaded stress between plastic valve and metal piping absolutely differ.

■ Example in case of a long straight pipeline

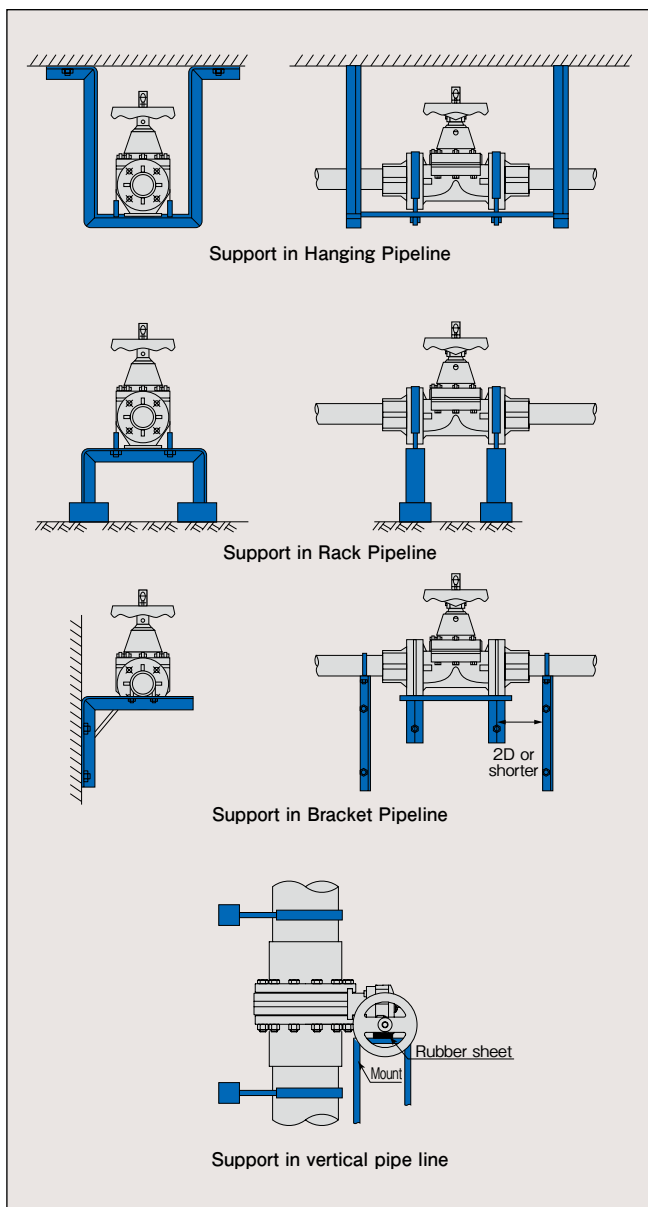


9 Supporting

Support valve by proper method not to load excess stress.

- ① Support valve body, not at connection ends by union or other parts.
- ② In case of installation of Esilon valve with metal piping, support metal piping not to load on valve with concerning support position and method.
- ③ For flange type of valve, support by fixing valve flange with metal band and bolts. For union type of diaphragm valve, support by fixing with insert nuts at the bottom of valve body.
- ④ Support pipes of both sides of valve at the position within 2D (D : nominal size) distance from valve, separately from support of valve itself.
- ⑤ In case that pipe line or valve is vibrating, fix absolutely both of valve and piping.

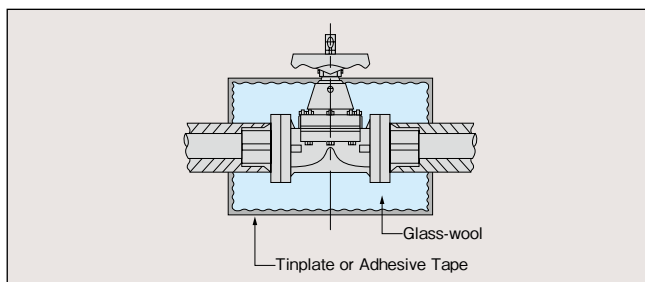
Standard Supporting Method



10 Thermal Insulation

Fluid might freeze up in valve when temperature is under freezing point of fluid and stop flowing. Install thermal insulation material such as glass wool or foamed urethane onto piping in those cases. Refer to insulation handbook to consult for proper thickness of insulation.

Heat Insulation Materials



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