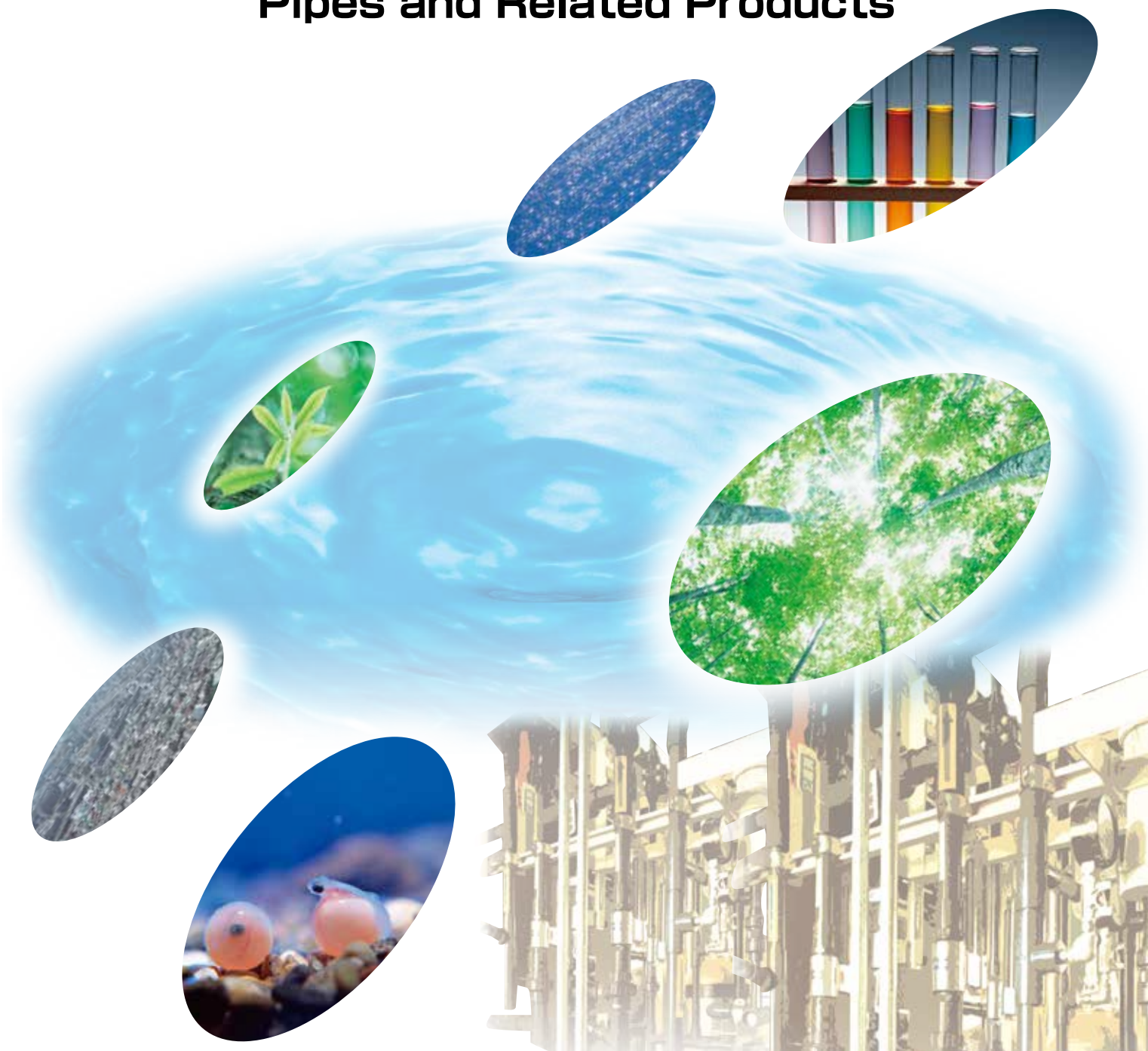
SEKISUI

Printed 2014/3

ESLON VALVE

Manual Operation Valves
&
Pipes and Related Products



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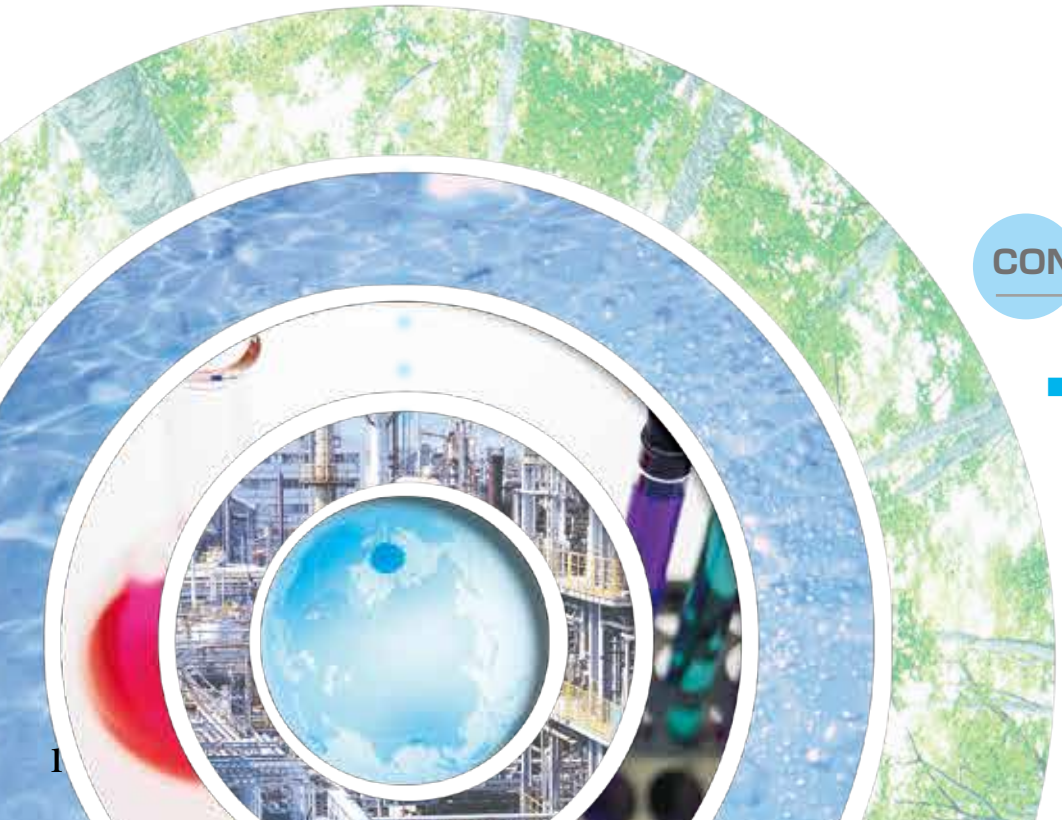
Valve



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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)	●	●	●	●	●	●	●	●	●

■3-WAY BALL VALVE (P.13)

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

■LOCK BALL VALVE (COMPACT BALL VALVE) (P.14)

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

BUTTERFLY VALVE

■BUTTERFLY VALVE (P.17、18)

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)	–	●	–	●	–	●

■FRP BUTTERFLY VALVE (P.19)

Material			FRP
Size A(B)	700	(28)	●
	800	(32)	●

■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・FOOT TYPE・LIFT TYPE) (P.26、27、28、29)

TYPE			SWING TYPE			BALL TYPE			FOOT TYPE			LIFT TYPE
Material			PVC	PP	PVDF	PVC		HT	PVC		HT	PVC
Size			Flange	Flange	Flange	TS	Thread	TS	TS	Thread	TS	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)	●	●	●	–	–	–	–	–	–	–

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

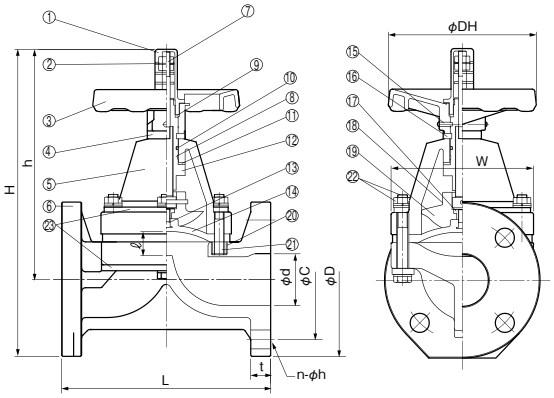
Manual Operation Valve

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
①	Indicator Cover	1	PC
②	Indicator	1	SUS304
③	Handle	1	ABS
④	Collar	1	PE
⑤	Bonnet	1	PVC、HT、PP、GFPP、PVDF
⑥	Body	1	PVC、HT、PP or PVDF
⑦	Indicator Stud Bolt	1	SUS304
⑧	Stem Sleeve	1	C3604
⑨	Stem Packing	1	NBR
⑩	O-ring	1	NBR
⑪	Thrust Washer	1	PTFE、SUJ
⑫	Stem Spindle	1	C3604
⑬	Insert Bolt EPDM	1	Cr Plated SS
	Insert Bolt PTFE	1	SUS304 or Ti-Pd

No.	Part Name	Q'ty	Material	
⑭	Diaphragm	1	EPDM、PTFE、PTFE+PVDF	
⑮	Look Pin for 32~250A	2	SUS304	
⑯	Stem Set	1	PP or PVC	
⑰	Metallic Fixtures for Compressor	1	C3604 or Ti-Pd	
⑱	Lock Pin for Compressor	1	SUS304 or Ti-Pd	
⑲	Compressor	1	15~150A	GF-PP
			200、250A	FCD
⑳	Insert Nut	–	C3604、SUS304	
㉑	Stud Bolt	–	SUS304	
㉒	Bolt & Nut	–	SUS304	
㉓	Reinforcement Plate for HT,PP,PVDF	1	SUS304 or SS400 Painted by Epoxy Resin	

·Quantity of ⑳-㉒bolts & 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

Unit:㎜

Size A	Size B	d	L	H	h	DH	W	ℓ	Flange(JIS 10K) φD	φC	n-φh	t	Weight(kg/pc) PVC	HT	PP	PVDF	Q'ty per Carton
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	195	133	80	90	15	125	90	4-19	14	1.4	1.7	1.3	1.7	8
32	1 1/4	41	180	269	199	125	122	20	140	100	4-19	16	2.6	3.3	2.5	3.4	2
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	26	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

·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 (℃)	max. Working Pressure at Room Temp(MPa) EPDM 15~100A	EPDM 125·150A	EPDM 200A	EPDM 250A	PTFE 15~100A	PTFE 125A	PTFE 150A	PTFE 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

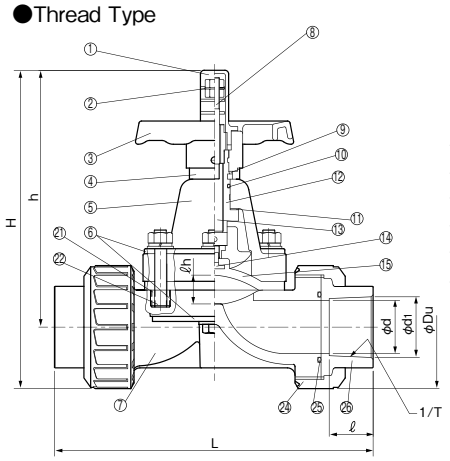
Conforming Standard

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

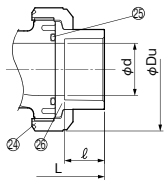
·For flange, dimension of bolt holes conforming the standards

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

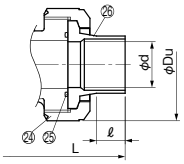
●Thread Type



●TS Socket Type



●Butt Spigot Type



Parts List

No.	Part Name		Q'ty	Material
①	Indicator Cover		1	PC
②	Indicator		1	SUS304
③	Handle		1	ABS
④	Collar		1	PE
⑤	Bonnet		1	PVC、HT or PVDF
⑥	Reinforcement Plate for HT and PVDF		1	SUS304
⑦	Body		1	PVC、HT or PVDF
⑧	Indicator Stud Bolt		1	SUS304
⑨	Stem Packing		1	NBR
⑩	O-ring		1	NBR
⑪	Thrust Washer		1	PTFE
⑫	Stem Sleeve		1	C3604
⑬	Stem Spindle		1	C3604
⑭	Insert Bolt	EPDM	1	SS400;Cr Plated SS
		PTFE	1	SUS304 or Ti-Pd

No.	Part Name	Q'ty	Material
⑮	Diaphragm	1	EPDM、PTFE、PTFE+PVDF
⑯	Lock Pin for 32～50A	2	SUS304
⑰	Stem Set	1	PP
⑱	Lock Pin for Compressor	1	SUS304 or Ti-Pd
⑲	Metallic Fixtures for Compressor	1	C3604 or Ti-Pd
⑳	Compressor	1	GF-PP
㉑	Insert Nut	–	C3604、SUS304
㉒	Stud Bolt	–	SUS304
㉓	Bolt & Nut	–	SUS304
㉔	Union Nut	2	PVC、HT or PVDF
㉕	O-ring	2	EPDM or FKM
㉖	Socket	2	PVC、HT or PVDF
㉗	Inserted Nut	2	C3604

・Uantity of ㉑ - ㉓bolts & 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

Unit:mm

Size A	Size B	d	L Thread	L TS	L Butt Spigot	H Thread・TS Socket	H Butt Spigot	h Thread・TS Socket	h Butt Spigot	DH	W Thread・TS Socket	W Butt Spigot	Du Thread・TS Socket	Du Butt Spigot	ℓh	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Butt Spigot ℓ
15	1/2	15	133	144	176	153	145	128	120	80	76	76	49	48	10	Rc 1/2	18	22.3	1/37	22	30
20	3/4	20	157	172	189	170	162	141	132	80	82	82	59	58	12	Rc 3/4	18	26.3	1/42	25	24
25	1	25	173	187	203	185	180	152	147	80	90	90	67	66	15	Rc 1	23	32.3	1/43	29	24
32	1 1/4	31	–	262	262	257	255	208	206	125	122	122	98	96	20	–	–	38.4	1/37	32	25
40	1 1/2	40	241	262	272	257	255	208	206	125	122	122	98	96	20	Rc 11/2	25	48.5	1/38	35	24
50	2	50	269	298	306	299	291	239	231	148	148	142	120	117	27	Rc 2	30	60.6	1/34	38	28

・Female thread dimensions conform to JIS B 0203.
・Screw dimensions of PVDF size differ from the above. Please refer to the approval drawing.

Size A	Size B	Inserted Nut F	Inserted Nut M×e	Weight (kg/pc) PVC Thread	PVC TS	HT TS	PVDF Thread	PVDF Butt spigot	Q'ty per Carton
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	45	M8×12	–	1.1	–	–	–	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 (℃)	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.

Unit:N・m{kgf-cm}

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

JIS

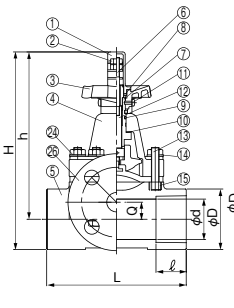
ESLON DEAD SPACE FREE TEE-TYPE DIAPHRAGM VALVE

PAT.No.2968092,2974455

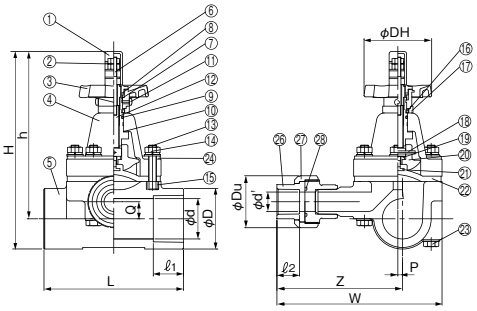
- Uniquely designed compact diaphragm valve with branch flow channel.
- Keep water quality by little obstructed design in flow path.
- Enable optional branch piping and no pressure loss in main pipe.
- Easier pressure control in reverse-turn piping system.

TS Socket Type (Butt Spigot Type)

●Flange Type



●Union Type



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	Cr Plated SS
		PTFE	1	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 ㉓bolts & nuts differ depending on size of valve.
・㉔Reinforcement plate is attached to HT 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(℃)	max. Working Pressure at Room Temp(MPa)
		EPDM・PTFE
PVC	0~50	0.5
HT	0~90	0.5
PVDF	0~120	0.5

Size

TS Socket × Flange

Unit:mm

Size A	L	H	h	DH	P	W	Q	Z	TS Socket D	TS Socket ℓ	TS Socket d	Flange(JIS 10K) φD	Flange(JIS 10K) φC	Flange(JIS 10K) n-φh	Flange(JIS 10K) t	Weight(kg/pc) PVC	Weight(kg/pc) HT	Weight(kg/pc) PVDF	Q'ty per Carton
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

Unit:mm

Size A	L	H	h	DH	P	W	Q	Z	TS Socket D	TS Socket ℓ1	TS Socket d	True Union Socket d'	True Union Socket ℓ2	True Union Socket Du	Weight(kg/pc) PVC	Weight(kg/pc) HT	Weight(kg/pc) PVDF	Q'ty per Carton
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

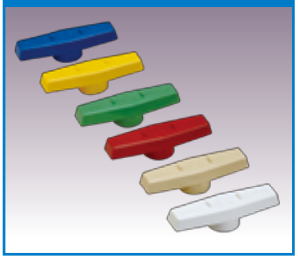
・H, h, D, L, W and t dimension of PVDF type might differ from the dimension table.
・Due to assemble by welding connection for PVDF type, design and dimension might differ from the approval drawing. Please refer to the approval drawing.
・For special order, please contact us.

JIS | ANSI／ASTM | DIN／ISO

ESLON BALL VALVE

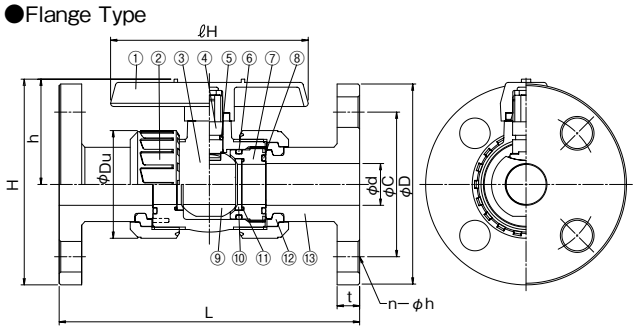
- Left hand screw on ball stopper prevents screw loose and ensures sealing of body part when union nut is loosened.
- Full port in all size. No pressure loss at full opened position by nominal size of inner diameter.
- Keep water quality by little obstructed design in flow path.
- Six colors of handle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

6 Colors Handle for Easy Mentenance

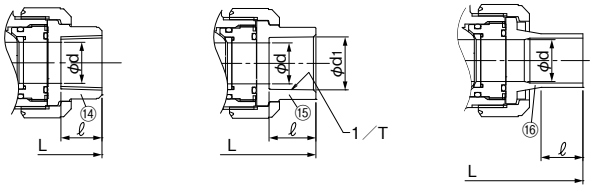


Flange Type・Thread Type・TS Socket Type and Butt Spigot Type

●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	⑨	Ball	1	PVC、HT、PP or PVDF
②	Union Nut	2	PVC、HT、PP or PVDF	⑩	Ball Seat	2	PTFE
③	Body	1	PVC、HT、PP or PVDF	⑪	Ball Seat O-Ring	2	EPDM or FKM
④	Stem	1	PVC、HT、PP or PVDF	⑫	Set Ring	2	PVC、HT、PP or PVDF
⑤	Stem O-Ring	—	EPDM or FKM	⑬	Flange	2	PVC、HT、PP or PVDF
⑥	Ball Holder O-Ring	—	EPDM or FKM	⑭	Thread	2	PVC or PVDF
⑦	Ball Holder	—	PVC、HT、PP or PVDF	⑮	Socket	2	PVC or HT
⑧	Union O-Ring	2	EPDM or FKM	⑯	Socket	2	PVDF

・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(℃)	max. Working Pressure at Room Temp(MPa)
PVC	0～50	1.0
HT	0～90	1.0

Material	Usable Temperature(℃)	max. Working Pressure at Room Temp(MPa)
PP	−20～80	1.0
PVDF	−20～100	1.0

Size

Flange Type

Unit:mm

Size A	Size B	d	L	H	h	ℓH	Du	Flange(JIS 10K) φD	φC	n-φh	t	Weight(kg/pc) PVC	HT	PP	PVDF	Q'ty per Carton
15	1/2	15	143	98	50	95	49	95	70	4-15	14	0.4	0.4	0.3	0.5	12
20	3/4	20	172	103	53	95	59	100	75	4-15	14	0.6	0.6	0.4	0.7	12
25	1	25	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	142	74	123	81	135	100	4-19	16	1.2	1.2	0.7	1.3	12
40	1 1/2	40	212	170	100	152	98	140	105	4-19	16	1.7	1.7	1.1	1.9	2
50	2	50	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	222	146	188	150	175	140	4-19	22	4.2	4.3	2.8	5.0	2
80	3	80	304	262	169	230	186	185	150	8-19	22	6.7	6.9	4.4	8.2	2
100	4	100	372	317	203	283	228	210	175	8-19	24	11.5	11.9	7.4	14.1	1

Conforming Standard

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

・For flange, dimension of bolt holes conforming the standards

Thread Type・TS Socket Type and Butt Spigot Type

Unit:mm

Size A	Size B	d	L Thread	L TS	L PVDF Thread	L PVDF Butt	H	h	ℓH	Du	Female Thread Size	Female Thread ℓ Size PVC	Female Thread ℓ Size PVDF	TS Socket d1	TS Socket 1/T	TS Socket ℓ	Butt Spigot ℓ	Weight(kg/pc) PVC Thread-TS Socket	Weight(kg/pc) HT TS	Weight(kg/pc) PVDF Thread-Butt	Q'ty per Carton
15	1/2	15	97	109	99	143	75	50	95	49	Rc 1/2	18	20	22.3	1/37	22	30	0.2	0.2	0.2	24
20	3/4	20	117	132	116	152	82	53	95	59	Rc 3/4	18	22	26.3	1/42	25	24	0.3	0.3	0.3	24
25	1	25	128	143	136	161	100	66	123	67	Rc 1	23	24	32.3	1/43	29	24	0.4	0.4	0.5	24
32	1 1/4	32	146	166	148	167	115	74	123	81	Rc 1 1/4	23	25	38.4	1/37	32	25	0.6	0.6	0.6	24
40	1 1/2	40	163	175	169	190	149	100	152	98	Rc 1 1/2	25	28	48.5	1/38	35	24	1.1	1.1	1.2	4
50	2	50	188	203	196	216	167	107	152	120	Rc 2	30	30	60.6	1/34	38	28	1.6	1.7	1.9	4
65	2 1/2	65	227	259	227	208	221	146	188	150	Rc 2 1/2	32	32	76.6	1/48	61	23	3.0	3.3	3.6	2
80	3	80	278	311	278	301	262	169	230	186	Rc 3	37	37	89.6	1/49	64	45	5.6	6.1	7.0	1
100	4	100	330	390	330	340	317	203	283	228	Rc 4	45	45	114.7	1/56	84	43	10.5	11.2	12.5	1

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

LINK Working Pressure and Temp ▶ 60 Flow Diagram ▶ 64 Installation ▶ 65

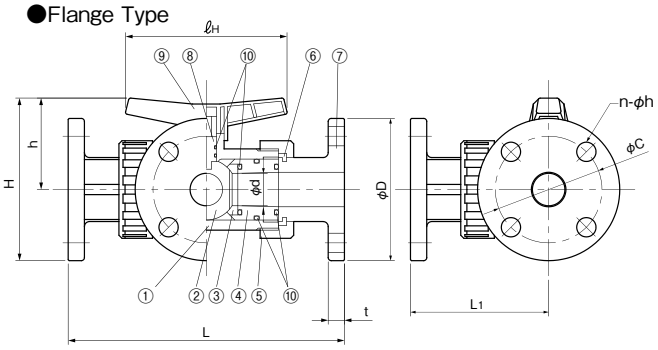
JIS

ESLON 3-WAY BALL VALVE

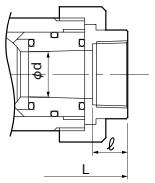
- Lock mechanism of ball stopper prevents popping out of the ball.
- Arrow marks on handle and body ensure flow direction.
- Two types of flow direction available, T-Port and L-Port.

Flange Type・Thread Type and TS Socket Type

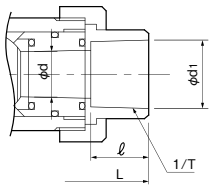
●Flange Type



●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

Unit:mm

Size A	Size B	d	L	L1	H	h	ℓH	Flange(JIS 10K) D	C	n-φh	t	Weight (kg/pc) PVC	Q'ty per Carton
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

Conforming Standard

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

・For flange, dimension of bolt holes conforming the standards

Usable Liquid Temperature & Maximum Working Pressure

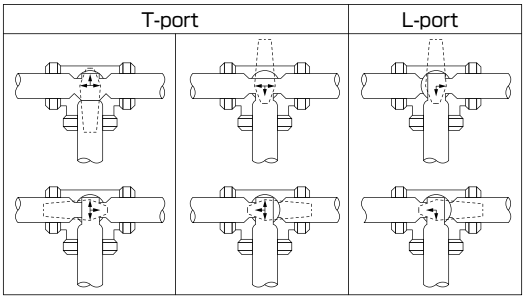
Material	Usable Temperature(℃)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

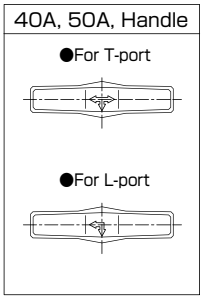
Thread Type and TS Socket Type

Unit:mm

Size A	Size B	d	L Thread	L TS Socket	L1 Thread	L1 TS Socket	H	h	ℓH	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Weight(kg/pc) PVC Thread	Weight(kg/pc) PVC TS	Q'ty per Carton
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.

JIS

ESLON LOCK BALL VALVE (COMPACT BALL VALVE)

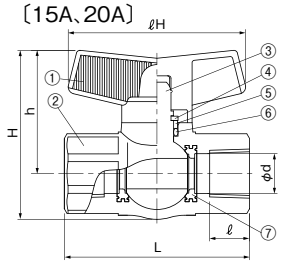
- Compact body and short face to face dimension enable installation even in narrow space.
- Usable even in the condition with vibration or thermal expansion as unified body with connection end.
- Six colors of handle for sizes 15~50A enable easier management of application and fluid classification.

6 Colors Handle for Easy Mentenance

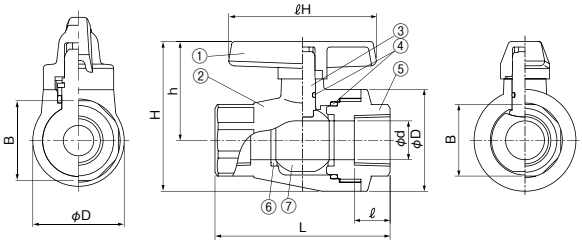
Thread Type and TS Socket Type

●Female Thread Type

〔15A、20A〕

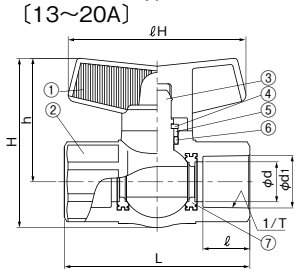


〔25~50A〕

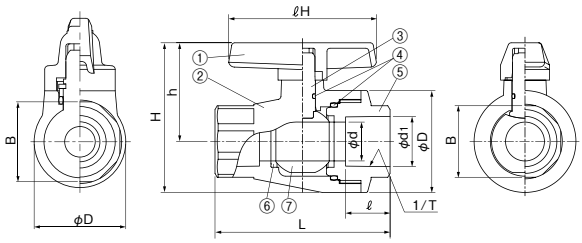


●TS Socket Type

〔13~20A〕



〔25~50A〕



Parts List for size 13·15A

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

Parts List for size 20 ~ 50A

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

Conforming Standard

Connection	Standard	Classification
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203

Size

Thread Type (15 ~ 50A) and TS Socket Type (13 ~ 50A)

Unit:mm

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	
13	3/8	13	72.5	65	45.5	22.5	70	34	–	–	18.3	1/30	18.0	–	0.1	30
15	1/2	15	77.5	65	45.5	31.5	70	34	Rc 1/2	18	22.3	1/37	22.4	0.1	0.1	30
20	3/4	20	90.0	75	52.0	36.0	76	41	Rc 3/4	18	26.3	1/42	25.6	0.2	0.2	20
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 (℃)	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

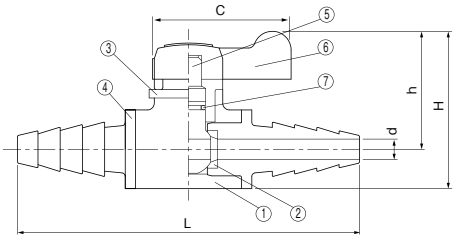
ESLON MINI BALL VALVE

- 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.

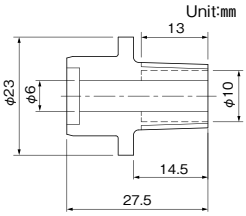
Thread Type and TS Socket Type

Thread Type・TS Socket Type and Hose Type

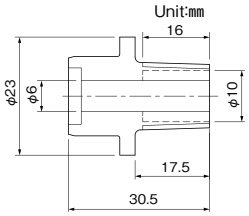
●Hose×Hose(6A)



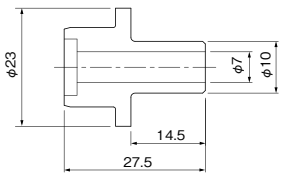
●Male Thread(R 1/4,3/8)



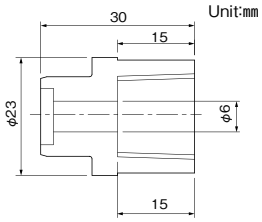
●Male Thread(R 1/2)



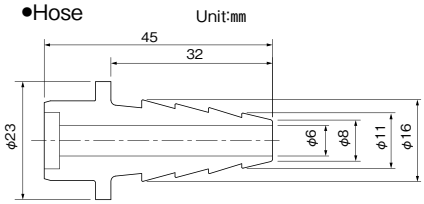
●Straight



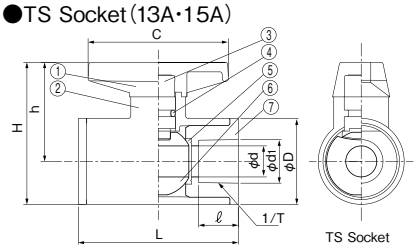
●Female Thread (Rc 1/4,3/8)



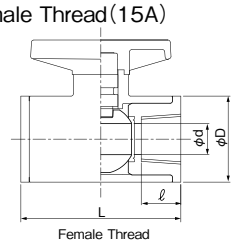
●Hose



●TS Socket(13A・15A)



●Female Thread(15A)



Size

Unit:mm

Size A	Size B	d	H	h	D	C	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Q'ty per Carton
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(℃)	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

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)
6A	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
13A	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

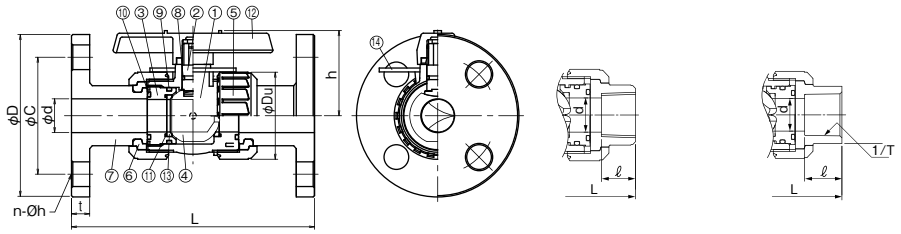
ESLON YP BALL VALVE

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



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	1	EPDM or FKM
		40,50A	2	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

Size

Flange Type

Unit:mm

Size A	Size B	d	L	H	h	Flange(JIS 10K) φD	φC	n-φh	t	Weight (kg/pc) Flange	Q'ty per Carton
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

Usable Liquid Temperature & Maximum Working Pressure

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

Thread Type and TS Socket Type

Unit:mm

Size A	Size B	d	L Thread	L TS Socket	H	h	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Weight(kg/pc) Thread	Weight(kg/pc) TS	Q'ty per Carton
15	1/2	15	97	109	74	50	Rc 1/2	18	22.3	1/37	22	0.2	0.2	24
20	3/4	20	117	132	82	53	Rc 3/4	18	26.3	1/42	25	0.3	0.3	24
25	1	25	128	143	102	69	Rc 1	23	32.3	1/43	29	0.4	0.4	24
32	1 1/4	32	146	166	115	75	Rc 1 1/4	23	38.4	1/37	32	0.6	0.6	24
40	1 1/2	40	163	175	149	102	Rc 1 1/2	25	48.5	1/38	35	1.1	1.1	4
50	2	50	188	203	166	108	Rc 2	30	60.6	1/34	38	1.6	1.6	4

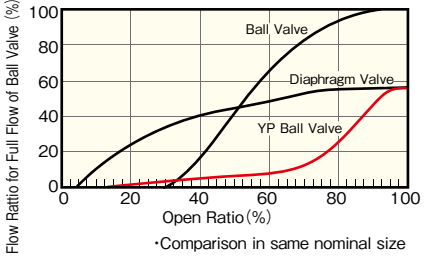
・The valve should be installed in correct flow direction according to the arrow noted on the body.

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	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
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999

・For flange, dimension of bolt holes conforming the standards

Flow Characteristic of YP Ball Valve



・Comparison in same nominal size

⚠ Important Notes

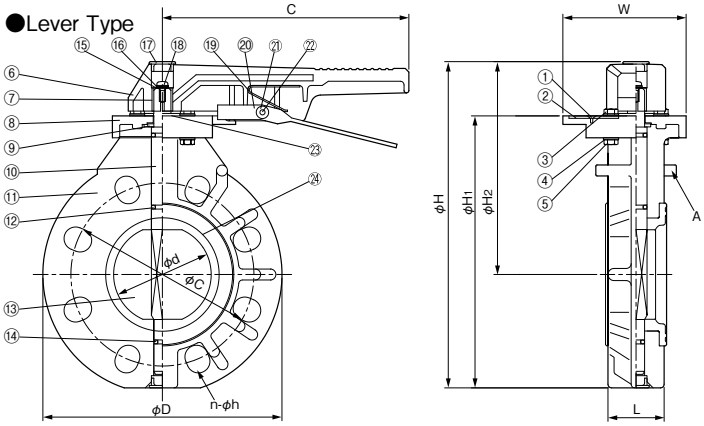
Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

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 dismounting 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

Unit:㎜

Size A	Size B	d	L	H	H1	H2	C	W	D	Flange(JIS 10K) C	Flange(JIS 10K) n-ϕh	Weight(kg/pc) PVC	Weight(kg/pc) PP	Weight(kg/pc) PVDF	Q'ty per Carton
40	1/2	45	33	217	174	148	202	101	140	105	4-19	1.2	1.1	1.3	2
50	2	57	43	232	189	156	202	101	155	120	4-19	1.4	1.2	1.6	2
65	2 1/2	71	46	253	210	166	202	101	178	140	4-19	1.7	1.5	1.9	2
80	3	80	46	268	222	173	202	101	196	150	8-19	2.0	1.8	2.3	2
100	4	100	52	306	263	192	245	123	229	175	8-19	3.0	2.7	3.4	2
125	5	125	56	347	294	220	310	155	254	210	8-23	4.6	4.1	5.3	2
150	6	150	60	372	319	229	310	155	286	240	8-23	5.5	4.8	6.5	2
200	8	198	71	466	399	297	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.

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	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	ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10

·For flange, dimension of bolt holes conforming the standards

⚠ Important Notes

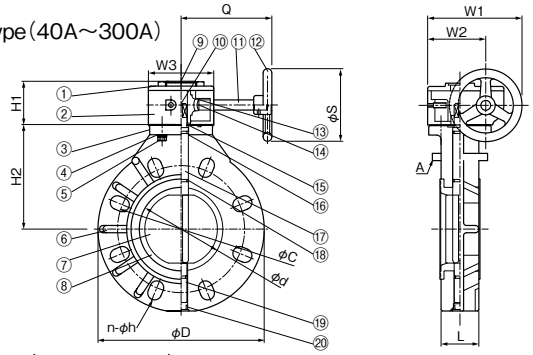
Fluid containing slurry, solid, sediment, or crystallized fluid might disable sealing.

JIS10K ANSI DIN／ISO

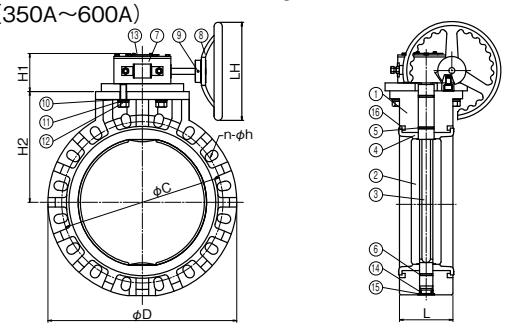
ESLON BUTTERFLY VALVE GEAR TYPE

- 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.

●Gear Type(40A~300A)



●Gear Type(350A~600A)



Parts List (40A ~ 300A)

No.	Part Name	Q'ty	Material	No.	Part Name	Q'ty	Material
①	Housing Cover	1	FC200 Painted by Epoxy Resin	⑪	Shaft Cover	1	PVC
②	Housing	1	FC200 Painted by Epoxy Resin	⑫	Handle	1	FC200 Painted by Epoxy Resin
③	Gasket	1	EPDM	⑬	Segment Gear	1	FCD450
④	Washer	4	SUS304	⑭	Worm Gear	2	S45C
⑤	Bolt	4	SUS304	⑮	Spaser	1	SUS304
⑥	Body	1	PVC, PP or PVDF	⑯	O-ring(1)	1	EPDM or FKM
⑦	Gate	1	PP or PVDF	⑰	Shaft	1	SUS420J2 or SUS316
⑧	Seat ring	1	EPDM or FKM	⑱	O-ring(2)	1	EPDM or FKM
⑨	Indicator Cover	1	Acrylic	⑲	O-ring(3)	1	EPDM or FKM
⑩	Indicator	1	SUS304	⑳	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, PP or PVDF	⑨	Rock Pin	1	SUS304
②	Gate	1	PP or PVDF	⑩	Washer	4	SUS304
③	Shaft	1	SUS420J2 or SUS316	⑪	Spring Washer	4	SUS304
④	Seat ring	1	EPDM or FKM	⑫	Bolt	4	SUS304
⑤	O-ring	2	EPDM or FKM	⑬	Indicator	1	AL
⑥	O-ring	1	EPDM or FKM	⑭	O-ring	1	EPDM
⑦	Worm Gear Box	1	–	⑮	Cap	1	PP
⑧	Handle	1	FC	⑯	Reinforcement (Only for PP)	2	S45C + Painting

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	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.

Size

Gear Type (40A~300A)

Unit:mm

Size A	Size B	d	L	H1	H2	Q	W1	W2	W3	φS	D	Flange(JIS 10K) C	Flange(JIS 10K) n-φh	Weight(kg/pc) PVC	Weight(kg/pc) PP	Weight(kg/pc) PVDF	Q'ty per Carton
40	1 1/2	45	33	60	105	125	130	105	90	100	140	105	4-19	3.6	3.5	3.7	1
50	2	57	43	60	112	125	130	105	90	100	155	120	4-19	3.8	3.6	4.0	1
65	2 1/2	71	46	60	123	125	130	105	90	100	178	140	4-19	4.2	4.0	4.4	1
80	3	80	46	60	130	125	130	105	90	100	196	150	8-19	4.5	4.3	4.8	1
100	4	100	52	60	152	125	130	105	90	100	229	175	8-19	5.3	5.1	5.7	1
125	5	125	56	64	169	242	193	128	115	180	254	210	8-23	8.2	7.7	8.9	1
150	6	150	60	64	178	242	193	128	115	180	286	240	8-23	9.8	9.1	10.8	1
200	8	198	71	64	230	242	193	128	115	180	343	290	12-23	11.6	10.7	13.2	1
250	10	246	73	96	250	297	303	215	200	250	410	355	12-25	28.1	26.6	30.7	1
300	12	299	114	96	280	297	303	215	200	250	485	400	16-25	35.2	33.3	39.6	1

·Only PVC JIS10K type has centering pin A. ·Disc full-open / full close by 6 times of handle rotation. ·Bolt hole is applied to JIS10K, ANSI, and DIN standards.

Gear Type (350A~600A)

Unit:mm

Size A	Size B	L	φD	H1	H2	LH	Flange(JIS 10K) φC	Flange(JIS 10K) n-φh	Flange(JIS 10K) M	Weight(kg/pc) PVC	Weight(kg/pc) PP	Weight(kg/pc) PVDF	Q'ty per Carton
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 6 times rotation. ·Bolt holes in size 400A multi-conforming to JIS10K, ANSI, and DIN standards.

Usable Liquid Temperature & Maximum Working Pressure

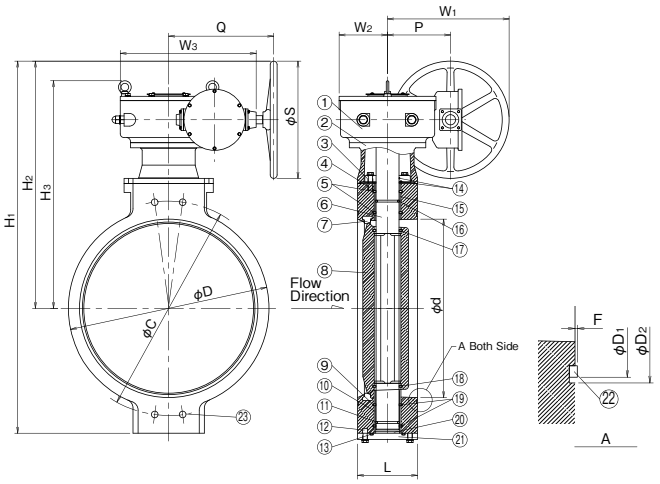
Material	Usable Temperature (℃)	Max. Working Pressure at Room Temp 40~300A	350A	400A	450A	500·600A
PVC	0~50	1.0	0.75	0.6	0.5	0.35
PP	0~80	1.0	0.75	0.6	0.5	0.35
PVDF	0~120	1.0	0.75	0.6	0.5	0.35

LINK Working Pressure and Temp ▶ 60 Flow Diagram ▶ 64 Installation ▶ 65

JIS10K

ESLON FRP BUTTERFLY VALVE

- Superior durability, high temperature and chemical resistance as FRP body and disc.
- Offset disc enable reliable sealing performance with low stem torque.
- Built-in sealing liners requires no gaskets between flanges.
- Changeable assembled direction of worm gear handle into opposite even after installation.
- Lighter weight than cast-iron butterfly valve provides easier handling and installation, reducing load on piping.
- Usable as under ground valve.



Parts List

No.	Part Name	Q'ty	Material
①	Worm Gear Box	1	—
②	Stand	1	FC200
③	Pushout Protection Plate	1	PP
④	Screw	4	SUS304
⑤	O-ring	2	EPDM
⑥	Shaft	1	SUS304
⑦	Rubber Seat	1	EPDM
⑧	Gate	1	FRP
⑨	Body	1	FRP
⑩	Bush	1	PTFE+FRP
⑪	O-ring	1	EPDM
⑫	Screw	4	SUS304
⑬	O-ring	1	EPDM
⑭	O-ring	2	EPDM
⑮	Bush	1	PTFE+FRP
⑯	O-ring	1	EPDM
⑰	O-ring	1	EPDM
⑱	O-ring	1	EPDM
⑲	O-ring	2	EPDM
⑳	Slust	1	PTFE+FRP
㉑	Bottom Cover	1	SUS304
㉒	Flange Gasket	2	EPDM
㉓	Screw	8	SUS304

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	max. Working Pressure at Room Temp(MPa)	
FRP	0~80℃	Flow Direction	0.5
		anti-Flow Direction	0.25

Size

Unit:㎜

Size		d	L	H1	H2	H3	P	Q	ϕS	ϕD1	ϕD2	F	Flange(JIS 10K)			Weight (kg/pc)
A	B												ϕD	ϕC	M	
700	28	700	235	1488	970	841	247	412	460	721	737	1-5	787	840	M30	304
800	32	800	250	1608	1030	901	247	412	460	825	841	1-5	895	950	M30	369

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220

·For flange, dimension of bolt holes conforming the standards

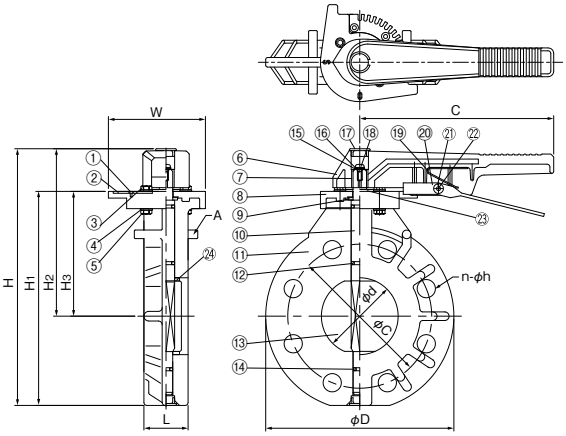
⚠ Important Notes

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

JIS10K ANSI DIN／ISO

ESLON 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	Screw	3	SUS304	⑬	Gate	1	PP
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	Laminated Spring	1	SUS304-CSP
⑧	Indicator Plate	1	PVC	⑳	Handle Lever	1	SUS304
⑨	Slust Ring	1	SUS304	㉑	Cover	1	PP
⑩	Shaft	1	PVC	㉒	Rock Pin	1	SUS304
⑪	Body	1	PVC	㉓	Handle Washer	1	PP
⑫	O-ring	2	EPDM or FKM	㉔	Spasar Ring	1	PVC

Size

Unit:㎜

Size		d	L	Height				W	C	Flange(JIS 10K)			Weight(kg/pc)	Q'ty per Carton
A	B			H	H1	H2	H3			φD	φC	n-φh	PVC	
40	1 1/2	46	31±1.5	217	174	148	98	101	202	140	105	4-19	1.2	1
50	2	58	40±1.5	232	189	156	105	101	202	155	120	4-19	1.4	1
65	2 1/2	72	43±1.5	253	210	166	116	101	202	178	140	4-19	1.7	1
80	3	81	46±1.5	268	222	173	123	101	202	196	150	8-19	2.0	1
100	4	101	52±1.5	306	263	192	143	123	245	229	175	8-19	3.1	1
125	5	127	56±1.5	347	294	220	159	155	310	254	210	8-23	4.7	1
150	6	152	60±1.5	372	319	229	168	155	310	286	240	8-23	5.6	1
200	8	200	71±1.5	466	399	297	220	200	400	343	290	12-23	9.1	1
250	10	246	73±1.5	527	450	327	250	200	400	410	355	12-25	18.5	1
300	12	301	114±1.5	594	517	357	280	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(℃)	max. Working Pressure at Room Temp(MPa)	
		40~200A	250·300A
PVC	0~50℃	0.1	0.05

Conforming Standard

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

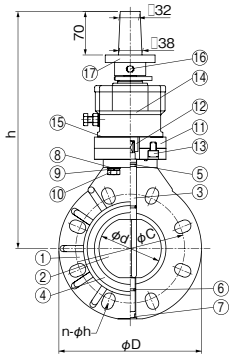
·For flange, dimension of bolt holes conforming the standards

JIS10K ANSI DIN／ISO

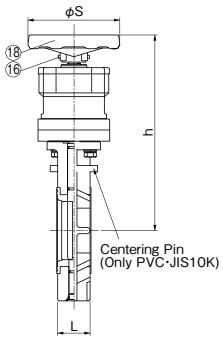
ESLON BUTTERFLY VALVE FOR UNDER GROUND

- 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.

●Cap Type



●Handle Type



■Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC
②	Gate	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	Spasar 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

■Size

Unit:㎜

Size A	Size B	d	L	h1 Handle	h1 Cap	D	Flange Water Supply C	Flange Water Supply n-φh	Flange JIS 10K C	Flange JIS 10K n-φh	S	Weight(kg/pc) Handle	Weight(kg/pc) Cap	Q'ty per Carton
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

■Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	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.

■Conforming Standard

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

･For flange, dimension of bolt holes conforming the standards

JIS10K

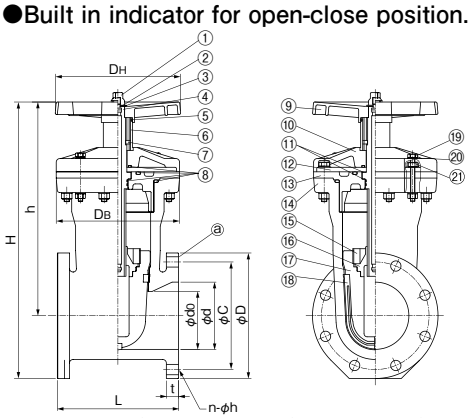
ESLON GATE VALVE

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.

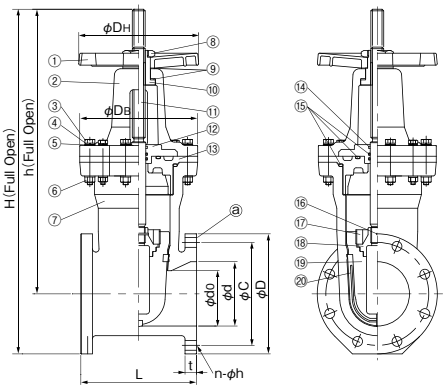
Internal Thread Type

- 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	ABS	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	ABS	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	⑳	Seat	1	EPDM

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

Size

Unit:㎜

Size A	Size B	d	do	L	H Internal Thread	H External Thread	h Internal Thread	h External Thread	DH	DB	Flange(JIS 10K) D	C	n-φh	t	Rotation Times to Close Internal Thread	Rotation Times to Close External Thread	Weight(kg/pc) Internal Thread	Weight(kg/pc) External Thread	Q'ty per Carton
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

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	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

LINH Working Pressure and Temp ▶ 60 Flow Diagram ▶ 64 Installation ▶ 65

JIS10K

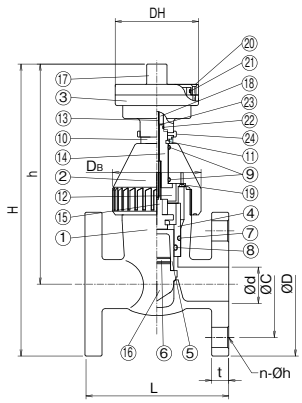
ESLON NEEDLE VALVE

- 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.

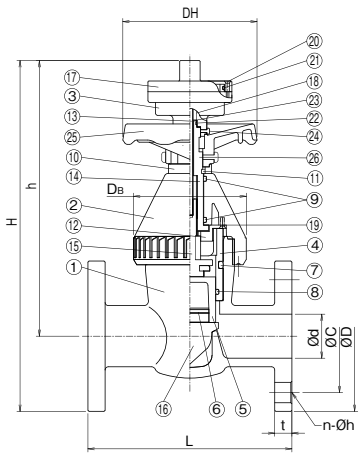
Parts List

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 Colt		1	SUS304				

●Flange Type(15A~32A)



●Flange Type(40A)



Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220

·For flange, dimension of bolt holes conforming the standards

Size

Unit:㎜

Size		d	L	Flange				Height		Handle DH	DB	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

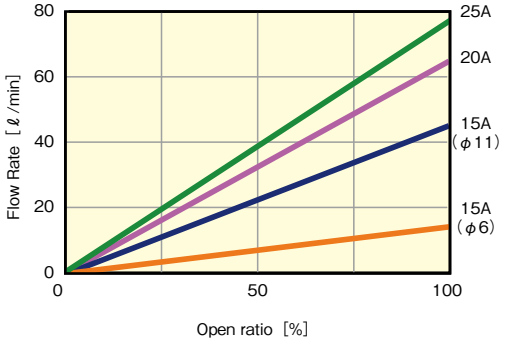
Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	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



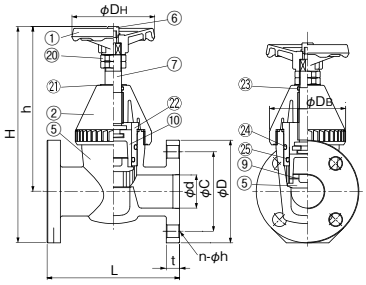
JIS

ESLON GLOBE VALVE

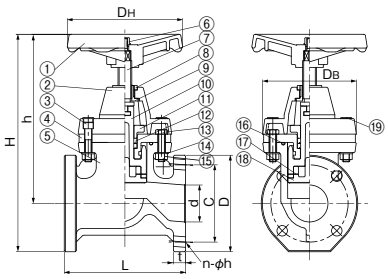
- Superior chemical resistance and durability as unique plug sealing and non-contact stem with medium.
- Built in indicator for open-close position and preventive mechanism for over-tightening (15~50A)
- Flat at the bottom of flange for prevention of tumbling and for better workability in plumbing.

Flange Type・Thread Type and TS Socket Type

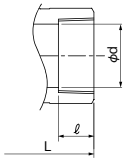
●Flange Type (15A~50A)



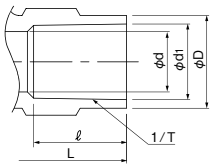
●Flange Type (65A~100A)



●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	Slust 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.

⚠ Important Notes

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

Size

Flange Type

Unit:mm

Size A	Size B	d	L	H (max)	h (max)	DH	DB	Flange(JIS 10K) D	C	n-φh	t	Weight (kg/pc)	Q'ty per Carton
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

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

Unit:mm

Size A	Size B	d	L Thread	L TS	H(max) Thread	H(max) TS	h(max) Thread	h(max) TS	DH	DB	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Weight(kg/pc) Thread	Weight(kg/pc) TS	Q'ty per Carton
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

Usable Liquid Temperature & Maximum Working Pressure

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

Conforming Standard

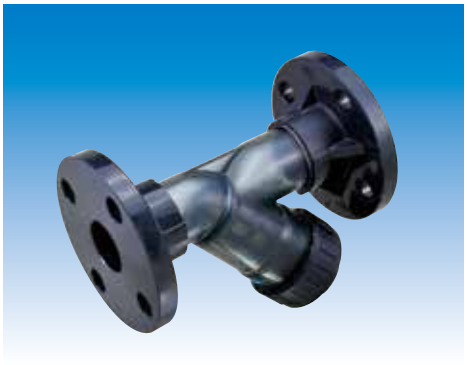
Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
Socket	JIS	JIS K 6743
Thread	JIS	JIS B 0203

・For flange, dimension of bolt holes conforming the standards

LINK Working Pressure and Temp ▶ 60 Flow Diagram ▶ 64 Installation ▶ 65

JIS | ANSI／ASTM | DIN／ISO

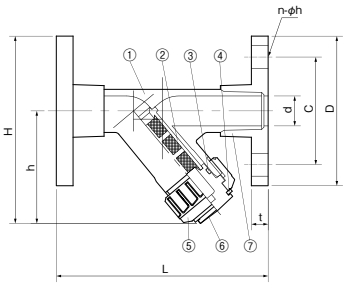
ESLON STRAINER



- 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.

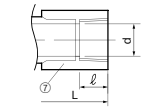
Flange Type・Thread Type・TS Socket Type and True Union Type

●Flange Type(15~50A)

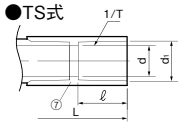


·Install strainer as bonnet bottom up.

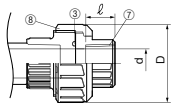
●Thread Type



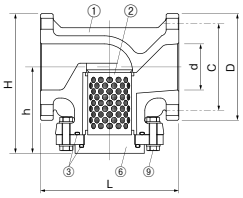
●TS式



●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	15~50A	1	EPDM or FKM
		65~100A	2	
④	Open Ring		1	PVC
⑤	Cap Nat		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

Unit:㎜

Size A	Size B	d	L	H	h	Flange(JIS 10K) D	C	n-φh	t	Weight (kg/pc) PVC	Q'ty per Carton
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	228	141	175	140	4-19	22	3.6	1
80	3	80	240	243	150	185	150	8-19	22	4.4	1
100	4	100	290	269	164	210	175	8-19	24	6.8	1

Screen Type and Mesh Size

Mesh Size	15A·20A PVDC	15A·20A SUS304	15A·20A SUS316	25A~100A PVDC	25A~100A SUS304	25A~100A SUS316
10	—	○	—	○	○	—
20	—	○	—	○	○	—
30	○	○	—	○	○	—
40	○	○	—	○	○	—
50	○	○	—	○	○	—
60	○	○	—	○	○	—
70	—	○	—	—	○	—
80	—	○	—	—	○	—
100	—	○	—	—	○	—
120	—	—	○	—	—	○

Thread Type・TS Socket Type and True Union Type

Unit:㎜

Size A	Size B	d	L Thread	L TS	L Union	H Thread	H TS	H Union	h	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Weight(kg/pc) PVC Thread	Weight(kg/pc) PVC TS	Weight(kg/pc) PVC Union	Q'ty per Carton
15	1/2	15	153	190	192	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	199	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	249	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	270	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	363	175	172	197	137	Rc 2	38	60.8	1/34	63	1.4	1.4	2.1	2

Usable Liquid Temperature & Maximum Working Pressure

Material	Size	Usable Temperature(℃)	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	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
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999

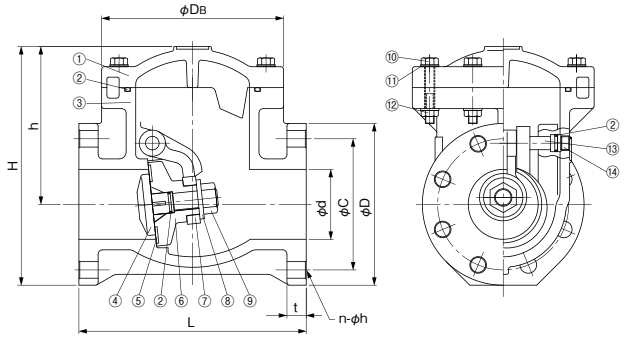
·For flange, dimension of bolt holes conforming the standards

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

Unit:㎜

Size A	Size B	d	L	H	h	DB	Flange(JIS 10K) D	C	t	n-φh	Numbers of Bolt	Numbers of Nut	Weight(kg/pc) PVC	PP	PVDF	Q'ty per Carton
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

Unit:kPa

Size(A)		15	20	25	32	40	50	65	80	100	125	150	200
Vertical Piping	Min.Opened Pressure	9.8											
	Min.Closed Pressure	29.4										39.2	
Horizontal Piping	Min.Opened Pressure	9.8											
	Min.Closed Pressure	29.4					39.2					49.0	

·Minimum operating pressure has about 2.94 - 6.87kPa variation.

⚠ Important Notes

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

Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	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

Conforming Standard

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

·For flange, dimension of bolt holes conforming the standards

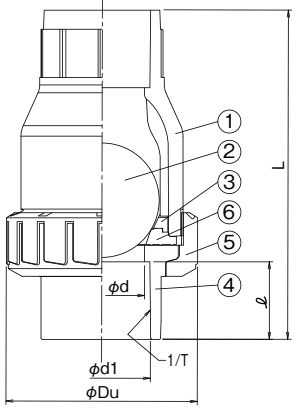
Working Pressure and Temp ▶ 60 Flow Diagram ▶ 64 Installation ▶ 65

JIS | ANSI／ASTM | DIN／ISO

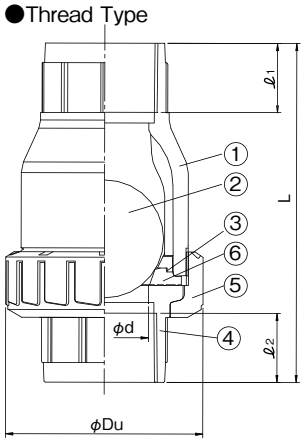
ESLON CHECK VALVE BALL TYPE

- 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

Unit:㎜

Size A	Size B	d	L TS	L Thread	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Female Thread Size	Female Thread ℓ1	Female Thread ℓ2	ϕDu	Weight(kg/pc) PVC TS·Thread	Weight(kg/pc) HT TS	Q'ty per Carton
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

Minimum Operating Pressure

Unit:kPa

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

⚠ 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. Eslon 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.

Usable Liquid Temperature & Maximum Working Pressure

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

Conforming Standard

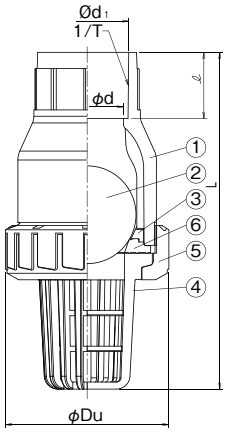
Connection	Standard	Classification
Socket	JIS	JIS K 6743, AS21(65A)
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999

JIS | ANSI／ASTM | DIN／ISO

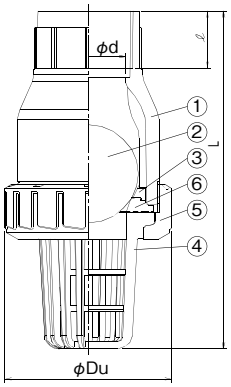
ESLON FOOT VALVE

- 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
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999

Size

Thread Type and TS Socket Type

Unit:㎜

Size A	Size B	ϕd	ϕDu	L TS	L Thread	TS Socket ϕd1	TS Socket 1/T	TS Socket ℓ	Female Thread Size	Female Thread ℓ	Weight(kg/pc) PVC TS·Thread	Weight(kg/pc) HT TS	Q'ty per Carton
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

Minimum Operating Pressure

Unit:kPa

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

⚠ Important Notes

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

Usable Liquid Temperature & Maximum Working Pressure

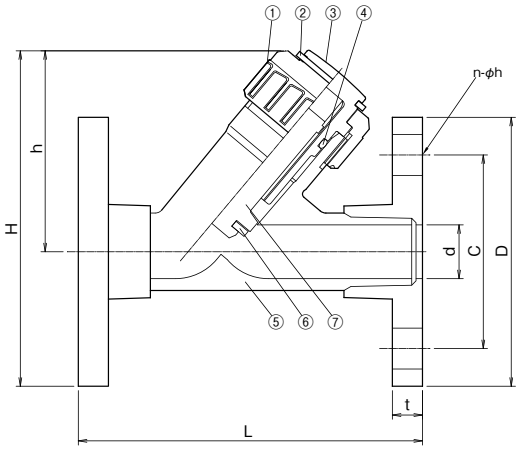
Material	Usable Temperature(℃)	Max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0
HT	0~90	1.0

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(℃)	max. Working Pressure at Room Temp(MPa)
PVC	0~50	1.0

Size

Unit:㎜

Size		d	L	H	h	Flange(JIS 10K)				Weight (kg/pc)	Q'ty per Carton
A	B					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

Unit:kPa

Size(A)		15	20	25	32	40	50
Vertical Piping	Min.Opened Pressure	1.96				2.94	
	Min.Closed Pressure	49					
Horizontal Piping	Min.Opened Pressure	1.96				2.94	
	Min.Closed Pressure	49					

Conforming Standard

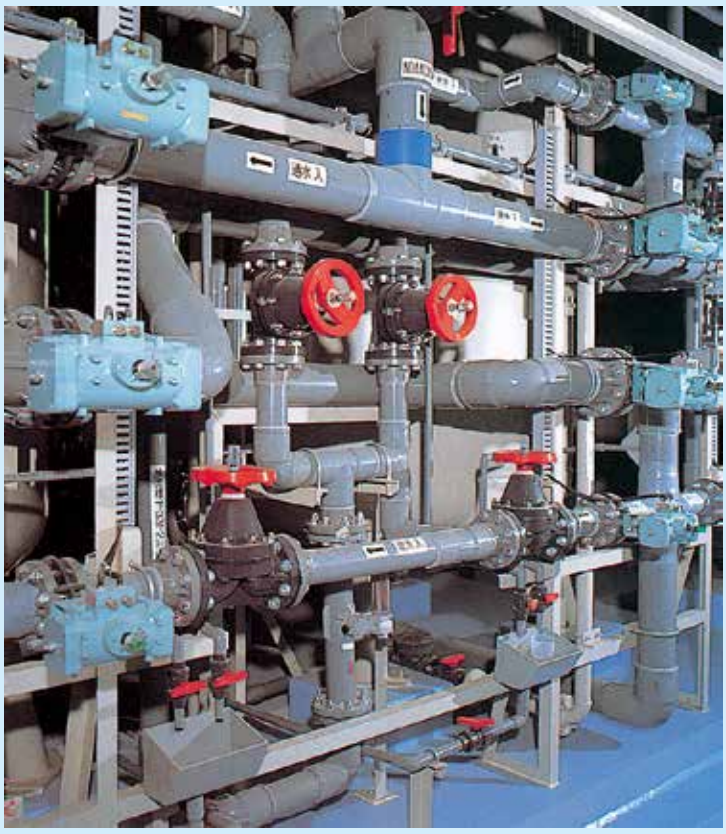
Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	ANSI B16.5
	DIN/ISO	DIN EN 1092-1 PN-10
Socket	JIS	JIS K 6743
	ASTM	ASTM D2467
	DIN/ISO	DIN8063
Thread	JIS	JIS B 0203
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999

·For flange, dimension of bolt holes conforming the standards

⚠ Important Notes

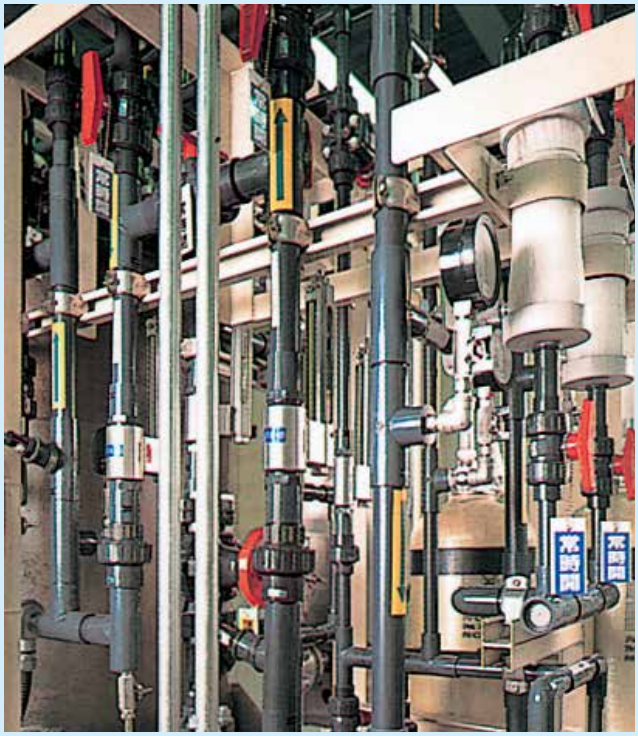
Fluid containing slurry, solid, sediment, or crystallized fluid might disable checking and sealing.

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.

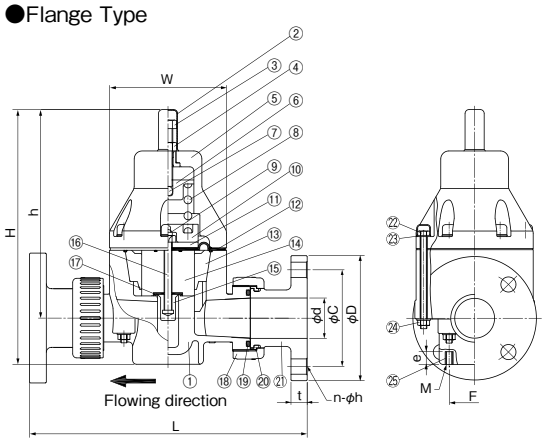
JIS | ANSI／ASTM | DIN／ISO

ESLON RELIEF VALVE

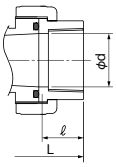
- De-pressure and prevent from the damage of piping line by excess pressure.
- Pressure adjustment range of 0.02 - 1.0 MPa by 2 types.
- Reliable relief performance in both horizontal and vertical direction of pipe line.
- Superior corrosion & chemical resistance as all plastic component for contact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

Flange Type・Thread Type and TS Socket Type

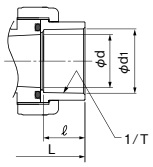
●Flange Type



●Female Thread Type



●TS Socket Type



Parts List

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

・Quantity of ㉒ - ㉔ : 4 for 15A, 6 for 20A - 50A
・For PVDF body type, sealing material is FKM.

⚠ 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

Unit:mm

Size A	Size B	d	L	H	h	W	Fixation Thread F	Fixation Thread M×e	Flange(JIS 10K) D	Flange(JIS 10K) C	Flange(JIS 10K) n-φh	Flange(JIS 10K) t	Weight (kg/pc) PVC	Weight (kg/pc) PP	Weight (kg/pc) PVDF	Q'ty per Carton
15	1/2	15	224	220	172	81	41	M6×16	95	70	4-15	14	1.2	0.9	1.5	1
20	3/4	20	255	252	202	107	47	M6×16	100	75	4-15	14	1.3	1.8	1.6	1
25	1	26	269	265	202	107	47	M6×16	125	90	4-19	14	2.5	2.0	2.9	1
32	1 1/4	32	323	330	262	147	66	M8×16	135	100	4-19	16	5.8	4.6	6.4	1
40	1 1/2	40	338	332	262	147	66	M8×16	140	105	4-19	16	6.0	4.7	6.6	1
50	2	50	346	340	262	147	66	M8×16	155	120	4-19	20	6.4	5.1	7.1	1

Thread and TS Socket Type

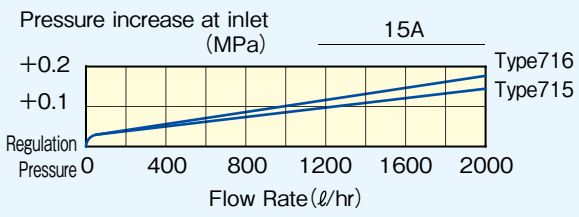
Unit:mm

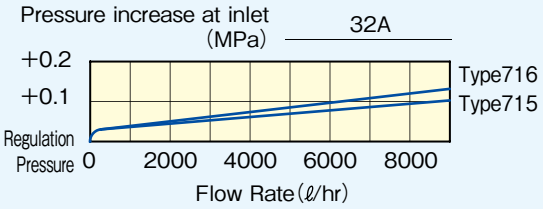
Size A	Size B	d	L Thread	L TS	H	h	W	Fixation Thread F	Fixation Thread M×e	Female Tread Size	Female Tread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Weight (kg/pc) PVC Thread・TS Socket	Weight (kg/pc) PVDF Thread	Q'ty per Carton
13	3/8	10	164	164	197	172	81	41	M6×16	Rc 1/4	14	18.3	1/31	19	0.9	1.1	1
15	1/2	15	172	177	197	172	81	41	M6×16	Rc 1/2	16	22.3	1/37	22	1.0	1.2	1
20	3/4	21	209	211	240	202	107	47	M6×16	Rc 3/4	20	26.3	1/42	25	2.0	2.2	1
25	1	26	218	220	240	202	107	47	M6×16	Rc 1	24	32.3	1/43	29	2.0	2.3	1
32	1 1/4	33	276	276	320	262	147	66	M8×16	Rc 1 1/4	28	38.4	1/37	32	5.1	5.6	1
40	1 1/2	40	281	281	320	262	147	66	M8×16	Rc 1 1/2	30	48.5	1/38	35	5.2	5.7	1
50	2	50※	290	290	320	262	147	66	M8×16	Rc 2	33	60.6	1/34	38	5.3	5.8	1

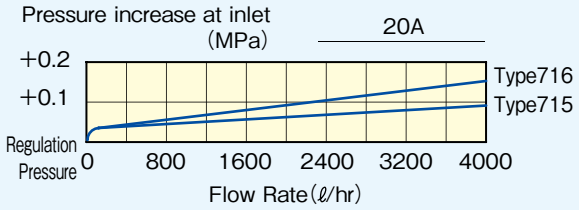
※TS Socket Type : 54

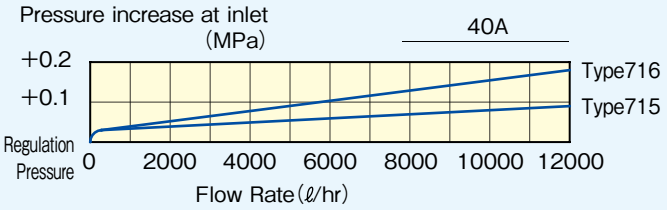
Pressure characteristic at Inlet Side

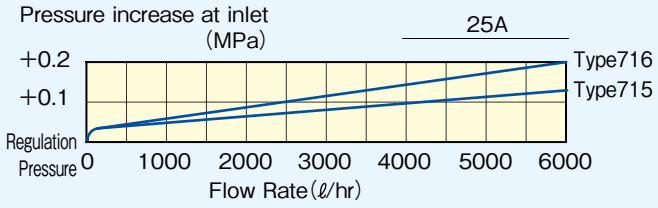
The below diagram show the relation of flow rate and pressure increase at inlet. Pressure at inlet increase with increasing flow rate.

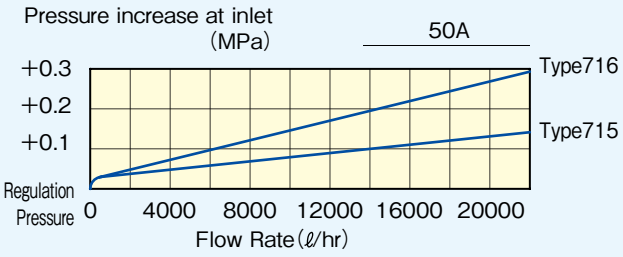












Usable Liquid Temperature & Maximum Working Pressure

Material	Usable Temperature(℃)	max. Working Pressure at Room Temp(MPa)	
		Regulation Pressure Type	
		715	716
PVC	0～ 50	0.4	1.0
PP	10～ 70	0.4	1.0
PVDF	−30～100	0.4	1.0

Regulation Pressure Range

Regulation Pressure Type	Regulation Pressure Range
715	0.02～0.4MPa
716	0.05～1.0MPa

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	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
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999
Butt	DIN/ISO	DIN8077 (PP)
		ISO10931 (PVDF)

·For flange, dimension of bolt holes conforming the standards

JIS | ANSI／ASTM | DIN／ISO

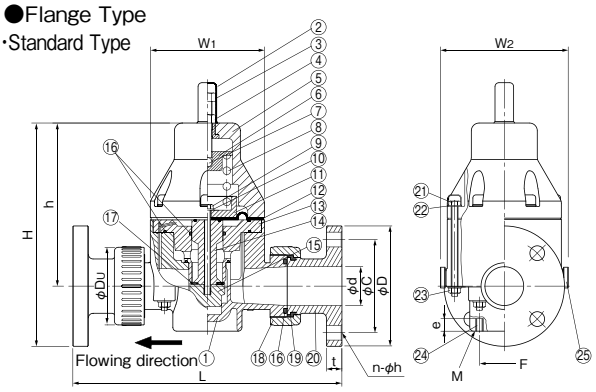
ESLON PRESSURE REGULATION VALVE

- Diaphragm type of pressure regulation valve adjusts outlet pressure in high accuracy (±0.02MPa)
- 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.

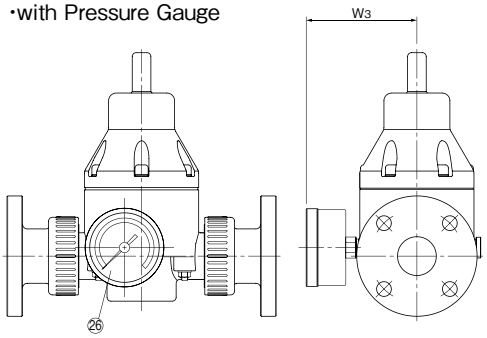
Flange Type・Thread Type・TS Socket Type

●Flange Type

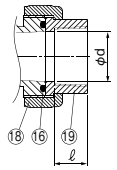
・Standard Type



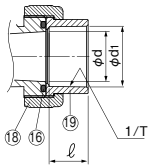
・with Pressure Gauge



●Female Thread Type



●TS Socket Type



Size

Flange Type

Unit:mm

Size A	Size B	d	L	H	h	W1	W2	W3	Fixation Thread F	Fixation Thread M×e	Flange(JIS 10K) D	Flange(JIS 10K) PCD	Flange(JIS 10K) n-ϕh	Flange(JIS 10K) t	Weight (kg/pc) PVC	Weight (kg/pc) PP	Weight (kg/pc) PVDF	Q'ty per Carton
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 A	Size B	d	L Thread	L TS	L Butt	H	h	W1	W2	W3	Fixation Thread F	Fixation Thread M×e	Female Thread Size	Female Thread ℓ	TS Socket d1	TS Socket 1/T Taper	TS Socket ℓ	Weight (kg/pc) PVC Thread·TS Socket	Weight (kg/pc) PVDF Thread	Q'ty per Carton
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.

Parts List

No.	Part Name	Q'ty	Material
①	Body	1	PVC、PP or PVDF
②	Cover	1	PE
③	Plessure 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.

Usable Liquid Temperature & Maximum Working Pressure

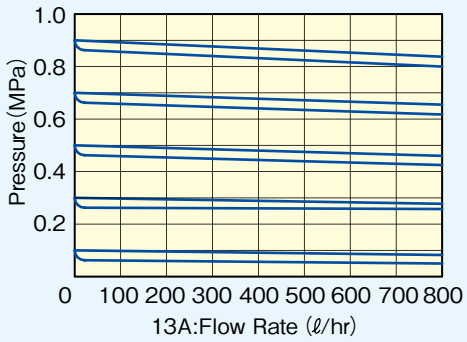
Material	Usable Temperature(℃)	max. Working Pressure at Room Temp(MPa)
PVC	0～ 50	1.0
PP	10～ 70	1.0
PVDF	−30～100	1.0

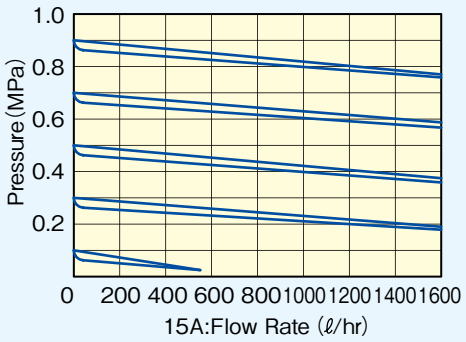
⚠ Important Notes

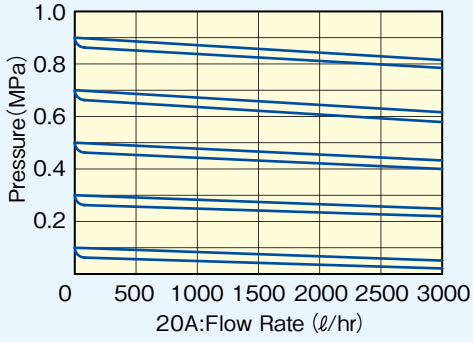
Do not use for the fluid containing slurry, solid, sediment, or crystallized fluid. Or for those kinds of fluid, strainer should be used in upstream.

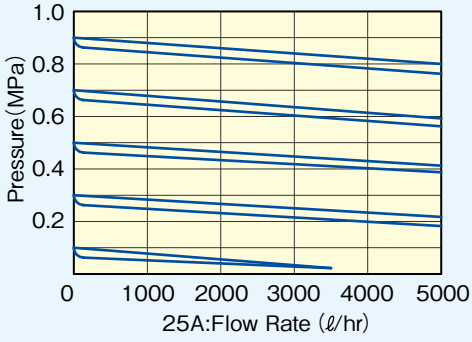
Pressure charactristic at outlet side

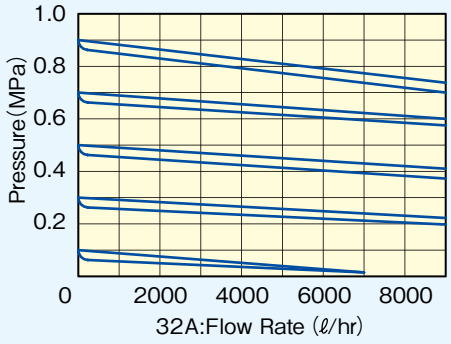
The below diagram show the relation of flow rate and pressure at outlet by each set pressure (0.1 / 0.3 / 0.5 / 0.7 / 0.9MPa) . Pressure at outlet decrease with increasing flow rate.

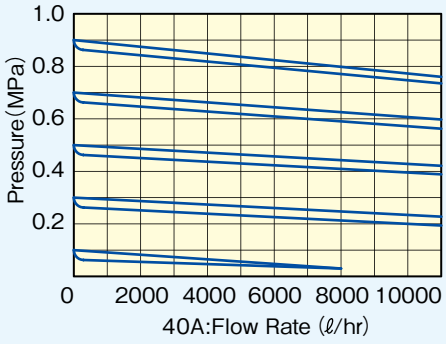


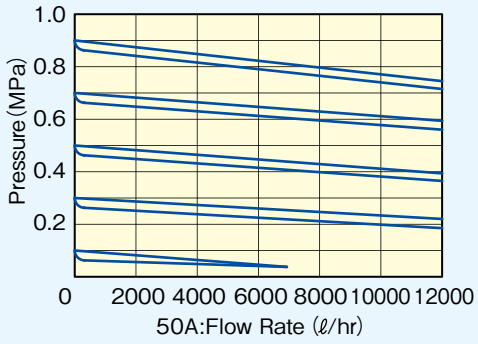


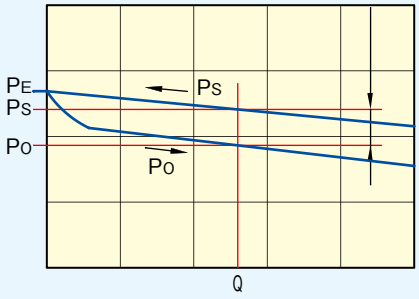












PE=Reguration Pressure　　PO=Pressure at Opend Point

PS=Pressure at Closed Point　　Q : Flow Rate

Conforming Standard

Connection	Standard	Classification
Flange	JIS10K	JIS B 2220
	ANSI	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
	ANSI	ANSI B1.20.1
	DIN/ISO	DIN2999
Butt	DIN/ISO	DIN8077 (PP)
		ISO10931 (PVDF)

·For flange, dimension of bolt holes conforming the standards

MEMO

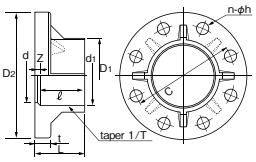
Pipe & Related Products

PRODUCTS RELATED TO VALVE

PIPES AND FITTINGS

PRODUCTS RELATED TO VALVE

ESLON FLANGE WOTH TS SOCKET(TS FLANGE)



JIS 10K Type　Material : PVC・HT and HI　JIS 5K Type　Material : PVC and HT

Unit:mm

Size		TS Socket					L	Z	d	Flange(10K)						Flange(5K)						Weight(PVC)	
					D1																	kg/pc	
A	B	d1	ℓ	taper 1/T	10K	5K				C	D2	t	n-φh	Applicable Bolt		C	D2	t	n-φh	Applicable Bolt		10K	5K
13	3/8	18.4	26	1/30	26	24	31	5	14	65	90	14	4-15	M12	50	55	75	9	4-12	M10	45	0.11	0.05
15	1/2	22.4	30	1/34	31	29	35	5	17	70	95	14	4-15	M12	50	60	80	9	4-12	M10	45	0.13	0.06
20	3/4	26.5	35	1/34	35	33	40	5	21	75	100	14	4-15	M12	50	65	85	10	4-12	M10	45	0.15	0.85
25	1	32.6	40	1/34	42	40	45	5	25	90	125	14	4-19	M16	55	75	95	10	4-12	M10	45	0.24	0.11
32	1 1/4	38.6	44	1/34	48	46	50	6	31	100	135	16	4-19	M16	60	90	115	12	4-15	M12	50	0.30	0.20
40	1 1/2	48.7	55	1/37	61	59	61	6	41	105	140	16	4-19	M16	60	95	120	12	4-15	M12	50	0.34	0.25
50	2	60.8	63	1/37	73	70	70	7	52	120	155	20	4-19	M16	70	105	130	14	4-15	M12	55	0.52	0.31
65	2 1/2	76.6	61	1/48	88	86※	70	9	67	140	175	22	4-19	M16	75	130	155	14	4-15	M12	55	0.70	0.43※
80	3	89.6	64	1/49	102	101※	72	8	78	150	185	22	8-19	M16	75	145	180	14	4-19	M16	55	0.71	0.59※
100	4	114.7	84	1/56	132	129※	90	8	100	175	210	22	8-19	M16	75	165	200	16	8-19	M16	60	1.24	0.91※
125	5	140.9	104	1/58	158	156※	114	10	125	210	250	24	8-23	M20	80	200	235	16	8-19	M16	60	1.71	1.29※
150	6	166.0	132	1/63	186	185※	142	10	146	240	280	26	8-23	M20	85	230	265	18	8-19	M16	65	2.65	2.05※
200	8	217.5	155	1/50	238	238※	166	11	196	290	330	28	12-23	M20	90	280	320	28	8-23	M20	90	3.62	3.40※
250	10	268.8	185	1/50	289	289※	198	13	247	355	400	30	12-25	M22	95	345	385	30	12-23	M20	95	5.50	5.20※
300	12	319.0	185	1/57	344	—	203	18	298	400	445	32	16-25	M22	100	—	—	—	—	—	—	9.20	—

・Flange dimensions conform to JIS B2220.　・Usable maximum temperature is 50℃ for PVC Flange.　・※Only PVC is available.
・TS socket dimensions conform to JIS K 6743.　・JIS 5K HT Flange : Available 13-50A

Water Supply Type　Material : PVC

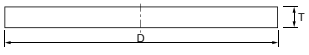
Unit:mm

Size		TS Socket				L	Z	d	Flange						Weight
A	B	d1	ℓ	taper 1/T	D1				C	D2	t	n-φh	Applicable Bolt		kg/pc
75	3	89.6	64	1/49	102	72	8	78	168	211	22	4-19	M16	75	1.1
100	4	114.7	84	1/56	132	90	8	100	195	238	24	4-19	M16	80	1.6
125	5	140.9	104	1/58	158	114	10	125	220	263	24	6-19	M16	80	2.1
150	6	166.0	132	1/63	186	142	10	146	247	290	26	6-19	M16	85	2.9
200	8	217.5	155	1/50	238	166	11	196	299	342	28	8-19	M16	90	4.4
250	10	268.8	185	1/50	289	198	13	247	360	410	30	8-23	M20	95	6.2
300	12	319.0	185	1/57	344	203	18	298	414	464	32	10-23	M20	100	8.6

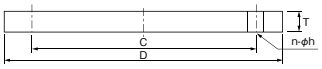
・TS socket dimensions conform to JIS K 6743.　・Flange dimensions conform to JWWA G113・114.

BLIND FLANGE

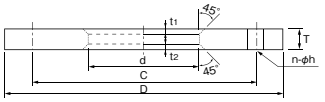
①SP Type(Blind Flange)
JIS10K Material : PVC
JIS5K　Material : PVC



②SB Type(Blind Flange)
JIS10K Material : PVC、HI、HT
JIS5K　Material : PVC



③SJ Type(For Welding)
JIS10K Material : PVC
JIS5K　Material : PVC



JIS10K　Material : PVC、HI、HT

Unit:mm

Size		D	C	d	T	t1	t2	n-φh	Applicable Bolt	
A	B									
13	3/8	90	65	18	12	1.5	3	4-15	M12	50
15	1/2	95	70	22	12	1.5	3	4-15	M12	50
20	3/4	100	75	26	14	1.5	3	4-15	M12	50
25	1	125	90	32	14	1.5	3	4-19	M16	55
32	1 1/4	135	100	38	16	2.5	3	4-19	M16	60
40	1 1/2	140	105	48	16	2.5	3	4-19	M16	60
50	2	155	120	60	16	2.5	4	4-19	M16	70
65	2 1/2	175	140	76	18	2.5	4	4-19	M16	75
80	3	185	150	89	18	2.5	4	8-19	M16	75
100	4	210	175	114	18	3	4	8-19	M16	80
125	5	250	210	140	20	4	4	8-23	M20	80
150	6	280	240	165	22	4	4	8-23	M20	85
200	8	330	290	216	22	4	4	12-23	M20	90
250	10	400	355	267	24	4	4	12-25	M22	95
300	12	445	400	321	24	4	4	16-25	M22	95

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

JIS5K　Material : PVC

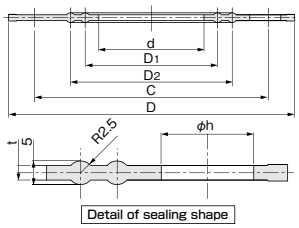
Unit:mm

Size		D	C	d	T	t1	t2	n-φh	Applicable Bolt	
A	B									
13	3/8	75	55	18	9	1.5	3	4-12	M10	45
15	1/2	80	60	22	9	1.5	3	4-12	M10	45
20	3/4	85	65	26	10	1.5	3	4-12	M10	45
25	1	95	75	32	10	1.5	3	4-12	M10	45
32	1 1/4	115	90	38	12	2.5	3	4-15	M12	50
40	1 1/2	120	95	48	12	2.5	3	4-15	M12	50
50	2	130	105	60	14	2.5	4	4-15	M12	55
65	2 1/2	155	130	76	14	2.5	4	4-15	M12	55
80	3	180	145	89	14	2.5	4	4-19	M16	55
100	4	200	165	114	16	3	4	8-19	M16	60
125	5	235	200	140	16	4	4	8-19	M16	60
150	6	265	230	165	18	4	4	8-19	M16	65
200	8	320	280	216	20	4	4	8-23	M20	90
250	10	385	345	267	22	4	4	12-23	M20	95
300	12	430	390	321	22	4	4	12-23	M20	95

・Usable maximum temperature is 60℃ for PVC Flange.

PACKING(GASKET)

●EPDM PACKING



●Durometer Hardness 70°±5℃

- 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℃. Available for hot water piping ※Usable maximum temperature of water supply type is 60℃.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

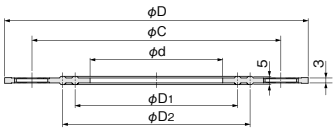
■Size

EPDM (JIS 10K、5K、Water Supply、ANSI)

Unit:mm

Size		d			D1			D2			C			D			t	n-φh			Weight g/pc			Recommended Fasten Torque N·m		
A	B	JIS 10K	JIS 5K	Water Supply	JIS 10K	JIS 5K	Water Supply	JIS 10K	JIS 5K	Water Supply	JIS 10K	JIS 5K	Water Supply	JIS 10K	JIS 5K	Water Supply		JIS 10K	JIS 5K	Water Supply	JIS 10K	JIS 5K	Water Supply	JIS 10K	JIS 5K	Water Supply
13	3/8	17	17	–	25	24	–	38	36	–	65	55	–	88	73	–	3	4-15	4-12	–	20	17	–	15	15	–
15	1/2	20	20	–	28	28	–	42	40	–	70	60	–	93	78	–	3	4-15	4-12	–	23	19	–	15	15	–
20	3/4	25	25	–	33	33	–	47	45	–	75	65	–	98	83	–	3	4-15	4-12	–	29	21	–	30	30	–
25	1	30	30	–	38	38	–	53	52	–	90	75	–	123	93	–	3	4-19	4-12	–	40	25	–	30	30	–
30	1 1/4	38	38	–	48	46	–	63	61	–	100	90	–	133	113	–	3	4-19	4-15	–	46	34	–	30	30	–
40	1 1/2	46	46	–	54	54	–	69	68	–	105	95	–	138	118	–	3	4-19	4-15	–	50	37	–	30	30	–
50	2	58	58	58	68	66	68	83	80	83	120	105	120	153	128	153	3	4-19	4-15	4-19	55	41	55	30	30	30
65	2 1/2	73	73	–	86	82	–	101	100	–	140	130	–	173	153	–	3	4-19	4-15	–	75	56	–	45	45	–
75	3	–	–	84	–	–	98	–	–	115	–	–	168	–	–	211	3	–	–	4-19	–	–	100	–	–	45
80	3	84	84	–	98	94	–	113	113	–	150	145	–	183	178	–	3	8-19	4-19	–	77	69	–	45	45	–
100	4	106	106	106	120	116	120	138	135	140	175	165	195	208	198	238	3	8-19	8-19	4-19	95	78	120	45	45	45
125	5	131	131	131	145	142	145	168	164	168	210	200	220	248	233	263	3	8-23	8-19	6-19	115	103	130	55	55	55
150	6	155	155	155	170	168	175	196	190	195	240	230	247	278	263	290	3	8-23	8-19	6-19	145	124	150	55	55	55
200	8	204	204	205	218	220	226	248	243	248	290	280	299	328	318	342	3	12-23	8-23	8-19	185	167	200	55	55	65
250	10	254	254	254	270	270	276	306	300	300	355	345	360	398	383	410	3	12-25	12-23	8-23	250	220	250	65	65	65
300	12	304	–	305	324	–	328	356	–	350	400	–	414	443	–	464	3	16-25	–	10-23	278	–	290	65	–	65
350	14	352	–	–	368	–	–	400	–	–	445	–	–	488	–	–	3	16-25	–	–	290	–	–	65	–	–

●PTFE PACKING



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

■Size

PTFE (JIS 10K、ANSI)

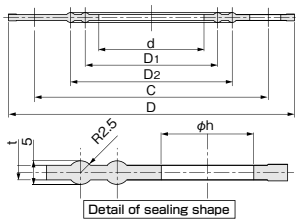
Unit:mm

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

⚠ 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



●Durometer Hardness 70°±5°C

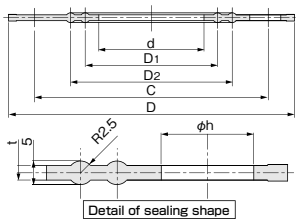
- Excellent chemical, oil, high temperature resistance.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

■Size
FKM

Unit:mm

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

●FKM-FB PACKING



●Durometer Hardness 70±5°

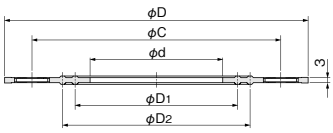
- Excellent strong acid resistance such as hydrochloric acid or sulfuric acid.
- Excellent chemical, oil, high temperature resistance.
- Excellent sealing performance with double rib even by low bolt-tightening torque.

■Size
FKM-FB

Unit:mm

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

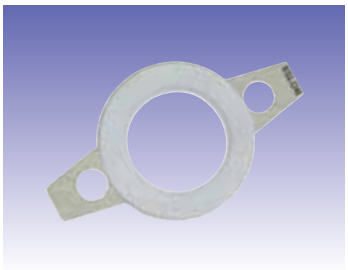
Unit:mm

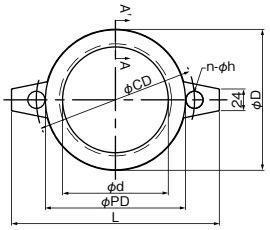
Size A	Size B	d	D1	D2	C	D	t	n-φh	Weight g/pc	Recommended Fasten Torque N·m
13	3/8	17	25	38	65	88	3	4-15	20	15
15	1/2	20	28	42	70	93	3	4-15	23	15
20	3/4	25	33	47	75	98	3	4-15	29	15
25	1	30	38	53	90	123	3	4-19	40	30
30	1 1/4	38	48	63	100	133	3	4-19	46	30
40	1 1/2	46	54	69	105	138	3	4-19	50	30
50	2	58	68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





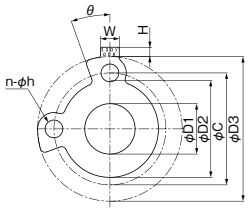
- PTFE-clad gasket mainly consisting expanded graphite and aramid fibers. Excellent mechanical property and heat resistance.
- Tab with bolt hole enable easy alignment in installation.
- Usable for Raised face flange, Lining piping, and stainless steel piping.

■Size
For Raised face

Unit:㎜

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



- 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℃～+315℃
- Not contain foaming agent, fillers, nor adhesive.
- Conforming to the standards of Food Sanitation Law.
- Usable for Lining piping and stainless steel piping.

■Size
JIS10K

Unit:㎜

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

■Size
JPI Class150

Unit:㎜

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

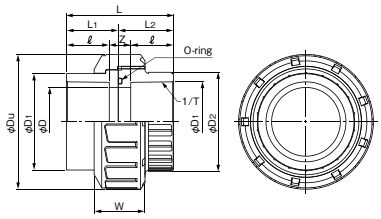
⚠ Important Notes

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, PVDF TRANSITION FITTING)

●TS Socket

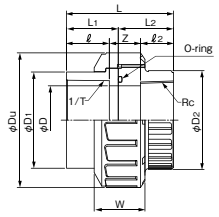


- Compact body enable minimized face to face distance for piping.
- Easy tightening with trapezoidal thread.

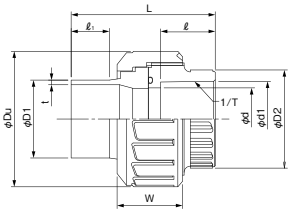
Union nut of compact type is not compatible with true union ball valve compatible type.

・Thread type is available only with PVC.

Thread Transtion



●PVDF Transtion



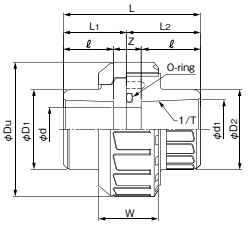
■Size

Material : PVC・HT (C-PVC)

Unit:mm

Size		TS Socket						Thread				Butt				L2	d	Du	D1	D2	W	O-ring
A	B	d1	1 /T	Z	ℓ	L1	L	Rc	Z	ℓ2	L	D1	t	ℓ1	L							
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	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	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	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	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	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	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



■Size

Material : PVC・HT (C-PVC)

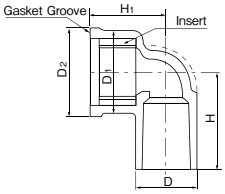
Unit:mm

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	11/4	38.4	1/37	32	90	44.5	45.5	26	30	81	54	54	31	P-36
40	11/2	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.

①Insert Faucet Elbow (PVC、HT)

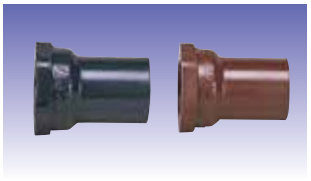


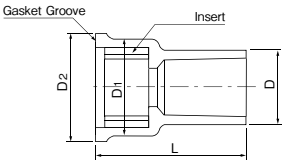
Unit:mm

Size	D	D1	D2	H	H1
13A×Rp3/8	28	34	35	32	29
13A×Rp1/2	28	34	35	32	29
16A×Rp3/8	31	34	35	38	32
16A×Rp1/2	31	34	35	38	32
20A×Rp1/2	36	42	44	51	36
25A×Rp1	42	52	54	59	40

·Thread : Rp conforming to JIS B 0203 ·Parallel Female Thread : Rp
Taper Male Thread : R

②Faucet Socket (PVC、HT)



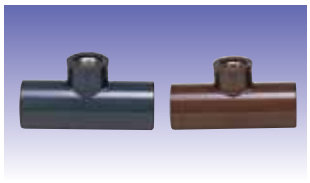


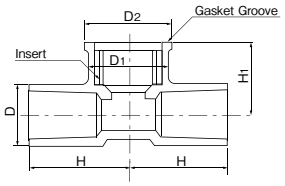
Unit:mm

Size	D	D1	D2	L
13A×Rp3/8	28	34	35	45
13A×Rp1/2	28	34	35	45
16A×Rp3/8	31	34	35	50
16A×Rp1/2	31	34	35	50
20A×Rp1/2	36	42	44	63
20A×Rp3/4	36	42	44	63
25A×Rp1	42	52	54	63

·Thread : Rp conforming to JIS B 0203 ·Parallel Female Thread : Rp
Taper Male Thread : R

③Insert Faucet Tee (PVC、HT)



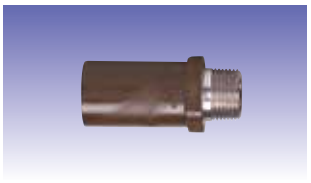


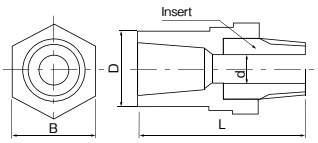
Unit:mm

Size	D	D1	D2	H	H1
13A×Rp3/8	28	34	35	32	29
13A×Rp1/2	28	34	35	32	29
16A×Rp3/8	29	33	34	42	32
16A×Rp1/2	29	33	34	42	32
20A×Rp3/8	33	33	34	47	34
20A×Rp1/2	33	33	34	47	34
25A×Rp3/8	40	33	34	52	38
25A×Rp1/2	40	33	34	52	38

·Thread : Rp conforming to JIS B 0203 ·Parallel Female Thread : Rp
Taper Male Thread : R

④Insert Valve Socket (HT)



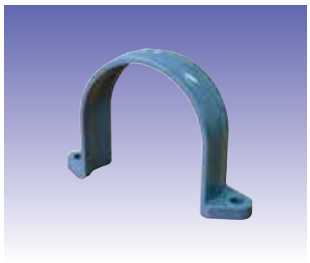


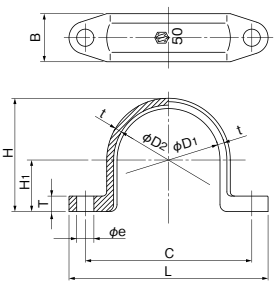
Unit:mm

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

·Thread : Rp conforming to JIS B 0203

ESLON SADDLE BAND





Size

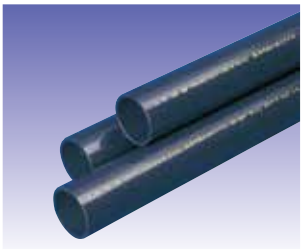
Unit:mm

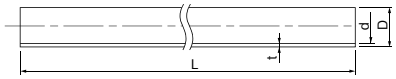
Size	φD1	φD2	t	C	L	φe	T	H1	H	B	Bolt
16	22	24	3	42	53	6	5	11	26	15	M5
20	26	29	3	48	59	6	5	13	30.5	18	M5
25	32	35	3	54	65	6	6	16	36.5	18	M5
28	34	37	3	59	73	7	7	17	38.5	20	M6
30	38	41	4	66	80	7	7	19	43.5	20	M6
40	48	52	4	90	109	10	9	24	54	25	M8
50	60	64	4	97	116	10	9	30	66	28	M8
65	76	81	4	114	134	10	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

PIPES AND FITTINGS

ESLON U-PVC PIPE

●U-PVC PIPE FOR PORTABLE WATER(ESLON VP & HI-GOLD)





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

Size

Unit:㎜

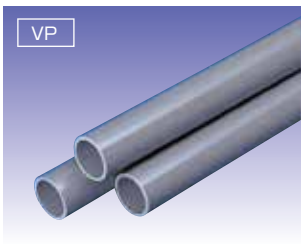
Size	D	Tolerance		t	d	L		Weight(kg/m)		Standard		
		Max/min	Average					HI-VPW-G	VPW	JIS	AS	SEKISUI
13	18.0	±0.20	±0.2	2.5 ±0.20	13.0	4000 $^{+30}_{-10}$	–	0.170	0.174	HI/VPW	–	–
16	22.0	±0.20	±0.2	3.0 ±0.30	16.0	4000 $^{+30}_{-10}$	–	0.251	0.256	HI/VPW	–	–
20	26.0	±0.20	±0.2	3.0 ±0.30	20.0	4000 $^{+30}_{-10}$	–	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	4000 $^{+30}_{-10}$	(5000)$^{+30}_{-10}$	10.338	10.129	–	–	HI
250	267.0	±1.60	±0.9	14.2±0.90	238.6	4000 $^{+30}_{-10}$	(5000)$^{+30}_{-10}$	15.781	15.481	–	–	HI
300	318.0	±1.90	±1.0	17.0±1.10	284.0	4000 $^{+30}_{-10}$	(5000)$^{+30}_{-10}$	22.494	21.962	–	–	HI

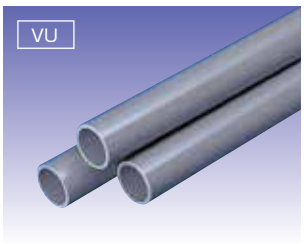
·Weight is calculated with specific gravity HI-VPW-G: 1.40, VPW: 1.43 for reference.

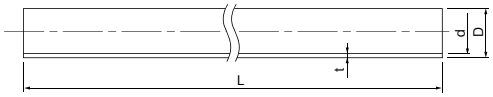
⚠ Important Notes

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.

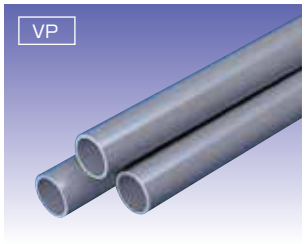
Size

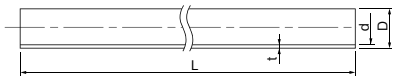
Unit:㎜

Size	Tolerance D	t		d		L	Weight(kg/m)	
		VP	VU	VP	VU		VP	VU
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	194	202		10.129	6.572
250	267±0.9	12.7+1.8	7.8+1.2	240	250		15.481	9.758
300	318±1.0	15.1+2.2	9.2+1.4	286	298		21.962	13.701
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





Size

Unit:mm

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

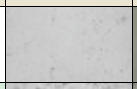
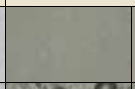
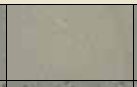
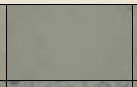
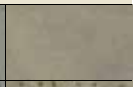
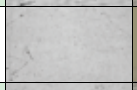
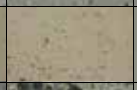
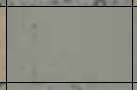
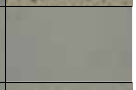
・Weight is calculated with specific gravity HI-VPW-G: 1.40, VPW: 1.43 for reference.

- 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)

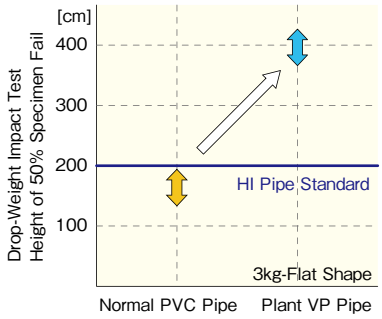
Eslon Plant VP Pipe and Eslon TS Fittings perform excellent chemical resistance.

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℃. After immersion, observe the surface of specimens by microscope.

◎Impact strength

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



<Test method>
Size:50A, Weight:3kg flat shape, Temperature:0℃

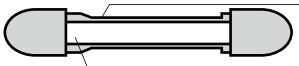
◎Chemical resistance (permeation test by hydrochloric acid)

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



Pour hydrochloric acid (35%) into the pipe and plug

Observe the surface of pipe by microscope.

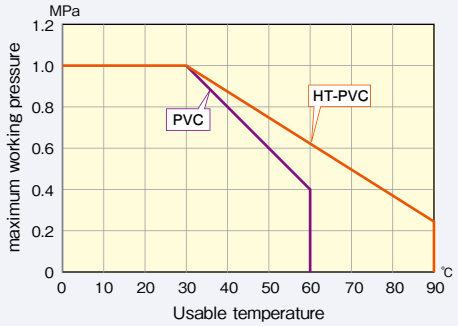
Plant VP Pipe

Normal PVC Pipe

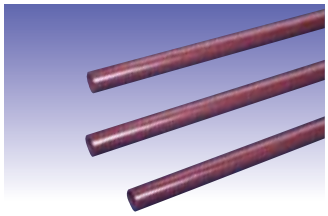
<Test method>
Pour hydrochloric acid (35%) into the pipe cut the thickness down to 0.75mm, and plug. After keeping it at 55℃ for 26 days, observe the surface of pipe by microscope.

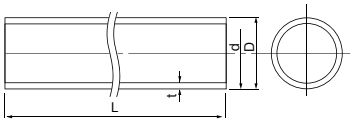
Usable temperature and maximum working pressure of PVC and HT pipe.

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



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	○	○	○	○	○	○	–	○	○	○	○	–

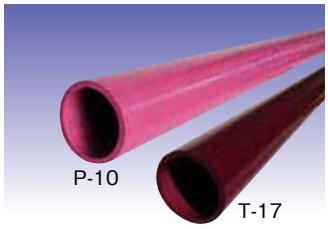
·For over 200A, please refer page 47 and 48.

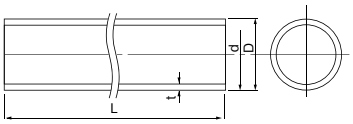
Product List Insert Fitting

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:㎜

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

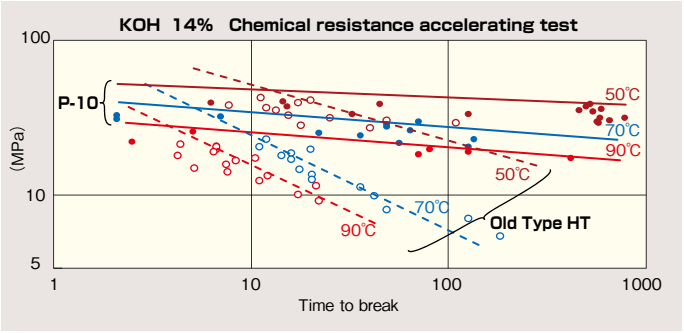
·Weight is calculated with specific gravity HT: 1.48 for reference.

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.

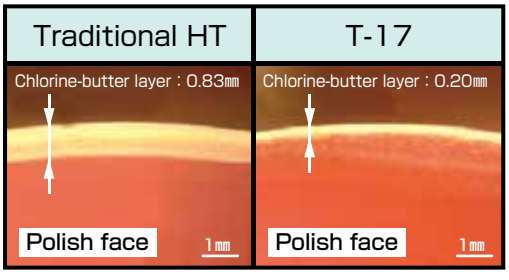
◎Erosion test in soda electrolysis plant.

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℃	85℃	
	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				

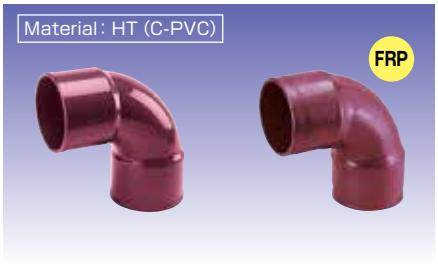
Low salinity water resistance test for type T-17

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℃ for 8 weeks.

ESLON LARGE DIAMETER FITTINGS



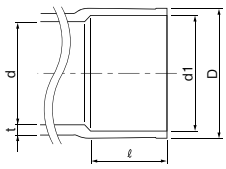
- Applications; Industrial & process piping, chemical waste piping, sewage treatment, pressure piping, agricultural water etc.
- Excellent chemical and corrosion resistance.

■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	d1		ℓ	d
			PVC, HI-PVC	HT(C-PVC)		
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

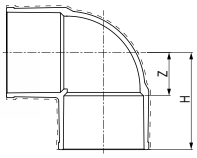
●Reducing Blanch

Unit:mm

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

90°Elbow

Dashed Shape for Fiber Reinforced 1.0MPa fitting.

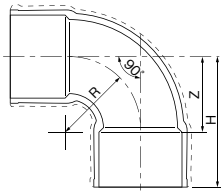


Unit:mm

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

90° Bend

Dashed Shape for Fiber Reinforced 1.0MPa fitting.

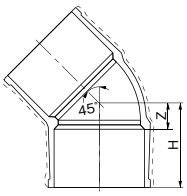


Unit:mm

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

45°Elbow

Dashed Shape for Fiber Reinforced 1.0MPa fitting.

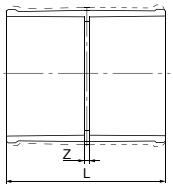


Unit:mm

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

Coupling

Dashed Shape for Fiber Reinforced 1.0MPa fitting.



Unit:mm

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

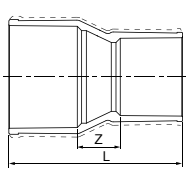
Reducing Coupling

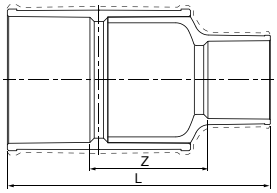
Dashed Shape for Fiber Reinforced 1.0MPa fitting.

Unit:mm

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

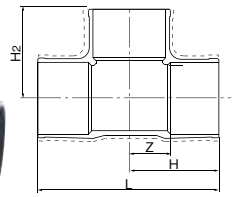




With Bushing

Tee

Dashed Shape for Fiber Reinforced 1.0MPa fitting.



Unit:㎜

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

Reducing Tee

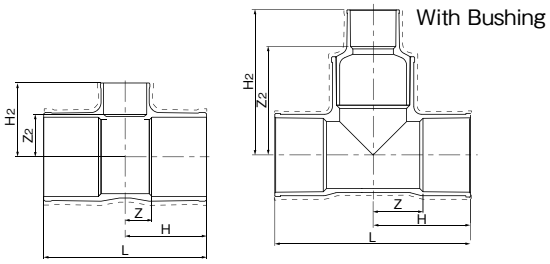
Dashed Shape for Fiber Reinforced 1.0MPa fitting.

Unit:㎜

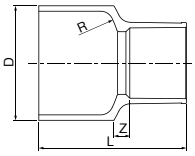
Size	H	Z	L	H2	Z2
200A×100A	218	73	436	200	116
200A×150A	245	100	490	257	125
※250A×150A	355	180	710	524	392
250A×200A	335	160	670	335	190
※300A×150A	375	190	750	561	429
※300A×200A	410	225	820	599	454
300A×250A	375	190	750	392	217

・With Bushing

With Bushing



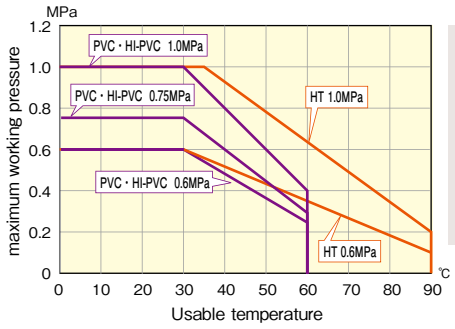
Bushing



Unit:㎜

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

Usable temperature and maximum working pressure.



maximum working pressure

- 0.6MPa at 20℃
- 0.75MPa at 20℃
- FRP reinforced type: 1.0MPa at 20℃

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	—	—

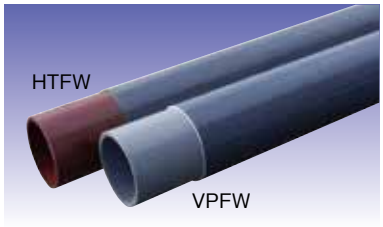
Product / Size	Socket (TSS)	Tee (TST)
40×13	—	TS / HITS
40×16	—	TS / HITS
40×20	TS / HITS	TS / HITS
40×25	TS / HITS	TS / HITS
40×30	TS / HITS	TS / HITS
50×13	—	TS / HITS
50×16	—	TS / HITS
50×20	TS / HITS	TS / HITS
50×25	TS / HITS	TS / HITS
50×30	TS / HITS	TS / HITS
50×40	TS / HITS	TS / HITS

Product / Size	Socket (TSS)	Tee (TST)
65× 50	TS / HITS	TS / HITS
75× 25	—	TS / HITS
75× 40	—	TS / HITS
75× 50	TS / HITS	TS / HITS
75× 65	TS / HITS	TS / HITS
100× 50	—	TS / HITS
100× 75	TS / HITS	TS / HITS
125×100	TS / HITS	TS / HITS
150× 75	—	TS / HITS
150×100	TS / HITS	TS / HITS
150×125	TS / HITS	TS / HITS

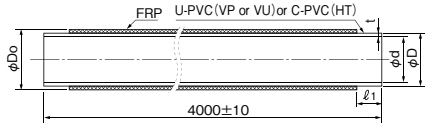
Insert Faucet Fittings JIS K 6743

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 / —	—	—

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.

VPFW ST Type : Usable maximum temperature 90℃ Unit:mm

Size A	D	t	ℓ1	Do	d	Weight (kg/m)
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	144	125	5.83
150	165±0.6	9.6	150	169	146	8.04
200	216±0.7	11.0	175	220	194	11.9
250	267±0.9	13.6	205	271	240	17.8
300	318±1.0	16.2	205	322	286	24.6
350	370±1.2	11.2	270	374	348	20.2
400	420±1.3	12.6	320	424	395	25.5
450	470±1.5	14.1	370	474	442	31.6
500	520±1.6	15.6	370	524	489	38.5
600	630±3.2	19.2	420	634	592	56.7

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

VPFW EX Type : Usable maximum temperature 95℃ Unit:mm

Size A	D	t	ℓ1	Do	d	Weight (kg/m)
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	66	51	1.80
65	76±0.3	4.5	75	82	67	2.41
75	89±0.3	5.9	80	95	77	3.38
100	114±0.4	7.1	100	120	100	4.91
125	140±0.5	7.5	120	146	125	6.35
150	165±0.6	9.6	150	171	146	8.83
200	216±0.7	11.0	175	224	194	13.5
250	267±0.9	13.6	205	275	240	19.7
300	318±1.0	16.2	205	326	286	27.0
350	370±1.2	11.2	270	377	348	22.0
400	420±1.3	12.6	320	428	395	27.7
450	470±1.5	14.1	370	478	442	34.6
500	520±1.6	15.6	370	528	489	41.8
600	630±3.2	19.2	420	640	592	61.6

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

HTFW Usable maximum temperature 100℃ Unit:mm

Size A	D	t	ℓ1	Do	d	Weight (kg/m)
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
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

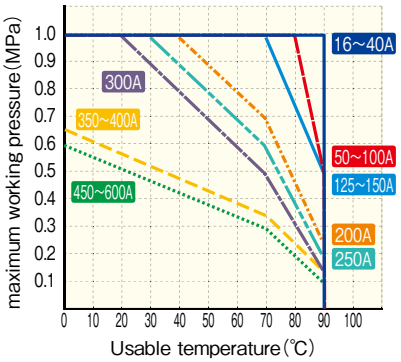
·Bend 350~600A : Miter bend

HTFW Fittings 16~300A

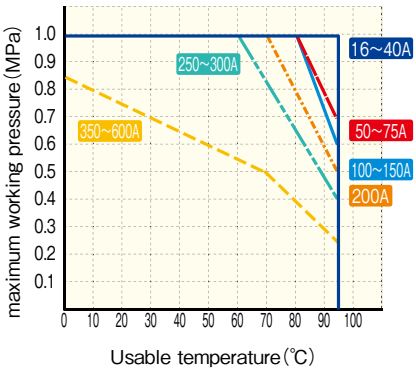
Product	Nominal Diameter
Socket	16~300
Reducing Socket	20×16~300×250
Eccentric Socket	20×16~300×250
Tee	16~300
Reducing Tee	20×16~300×250
90°Elbow	16~150
45°Elbow	20~300
90°Bend	200~300
Flange	16~300
Blind Flange	16~300

Working pressure and temperature

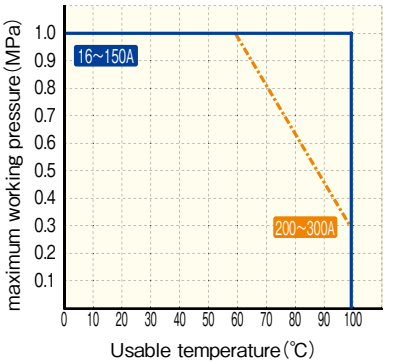
●VPFW(ST Type)



●VPFW(EX Type)

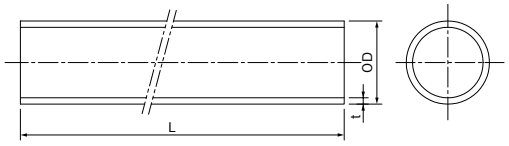


●HTFW



ESLON PVDF

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



PIPE

Unit:㎜

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

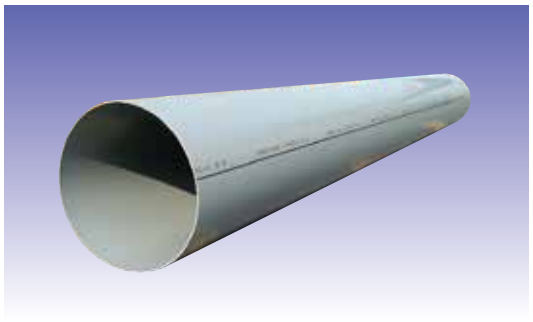
Size (A)	OD (mm)	Stab Flange	Backing Ring PP+SS	Union FPM
15	20	○	○	○
20	25	○	○	○
25	32	○	○	○
32	40	○	○	○
40	50	○	○	○
50	63	○	○	○
65	75	○	○	–
80	90	○	○	–
100	110	○	○	–
125	140	○	○	–
150	160	○	○	–

·Dimension of Backing ring : JIS 10K

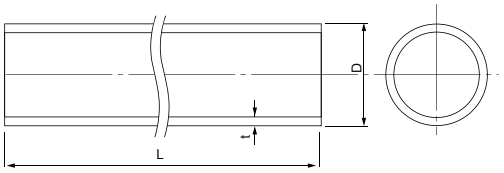
Size (A)	OD (mm)	Female Adapter	Male Adapter
15×1/2	20	○	○
20×3/4	25	○	○
25×1	32	○	○
32×1 1/4	40	○	○
40×1 1/2	50	○	○
50×2	63	○	○

ESLON DUCT PIPES

●Duct Pipes



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



■Size

E-Type

Unit:㎜

Size	D	Tolerance	t	L	Weight (kg/pc)
E75	89	±0.3	1.5	4,000	2.4
E100	114	±0.4	2.0	4,000	4.1
E125	140	±0.5	2.5	4,000	6.3
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
E500	520	±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

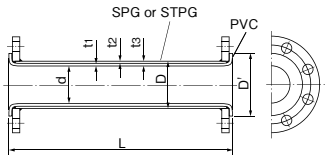
Product	Size(A)
90°Elbow	150~600
45°Elbow	150~600
Socket	150~600
Reducing Socket	All size
Eccentric Reducing Socket	All size
Tee	All size
Y-Tee	All size
Cap	150~600

●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 LP WITH FLANGE (PVC Lining Steel Pipe)



- Excellent corrosion and chemical resistance High mechanical strength.
- Available for cooling water, water supply, and chemical pipe applications.

Size

Pipe

Unit:㎜

Size		D	t3	t1	D'	L	d	t2	Weight (kg/pc)	
A	B								5KF	10KF
20	3/4	27.2	4.3	1.5	46	5500±5	18.6	2.8	10.7	11.5
25	1	34.0	4.7	1.5	56		24.6	3.2	15.3	16.7
32	1 1/4	42.7	5.0	1.5	66		32.7	3.5	21.5	22.9
40	1 1/2	48.6	5.0	1.5	71		38.6	3.5	24.6	26.0
50	2	60.5	5.3	1.5	84		49.9	3.8	33.2	34.9
65	2 1/2	76.3	5.7	1.5	104		64.9	4.2	46.6	48.4
80	3	89.1	6.2	2.0	118		76.9	4.2	56.3	57.5
100	4	114.3	6.5	2.0	140		101.3	4.5	76.9	78.4
125	5	139.8	6.5	2.0	175		126.8	4.5	95.4	98.4
150	6	165.2	7.5	2.5	201		150.2	5.0	126.8	130.7
200	8	216.3	8.8	3.0	250		198.7	5.8	193.2	196.6
250	10	267.4	10.4	4.0	315		246.2	6.6	278.3	283.5
300	12	318.5	10.9	4.0	358		296.7	6.9	343.8	348.8
350	14	355.6	11.9	4.0	403		331.8	7.9	436.0	442.0
400	16	406.4	11.9	4.0	460		382.6	7.9	499.4	503.6

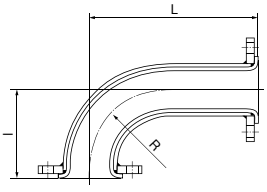
·Thickness of LP : Thickness of PVC lining (t1) + Thickness of steel pipe (t2)
·Weight is calculated value for reference.
·Available maximum 5500mm length on request.
Tolerance of length : ±3mm

Fitting Products List

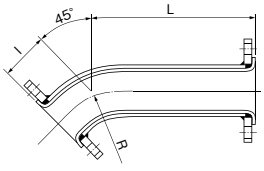
Size	90°Long Elbow	45°Long Elbow	Tee	Reducer
				
20	○	○	○	–
25	○	○	○	○
32	○	○	○	○
40	○	○	○	○
50	○	○	○	○
65	○	○	○	○
80	○	○	○	○
100	○	○	○	○
125	○	○	○	○
150	○	○	○	○
200	○	○	○	○
250	○	○	○	○
300	○	○	○	○
350	○	○	○	○
400	○	○	○	○

Special Fittings

90°Elbow pipe



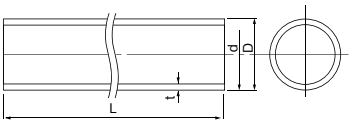
45°Elbow pipe



Unit:㎜

Size	L
50~80	1000
100~250	1500
300~350	1000

ESLON CLEAR PIPE

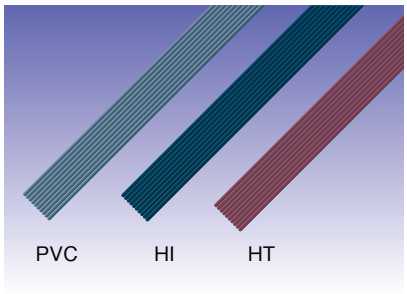


Unit:㎜

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

Excellent transparency PVC pipe.

PVC WELDING ROD



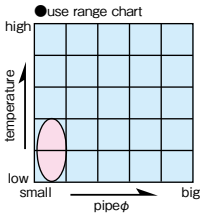
Size

Unit:㎜

	Color	Shape		length (㎜)	Unite of Packing (kg)
		Single(●)	Double(●●)		
		ϕ3	ϕ3		
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.75S



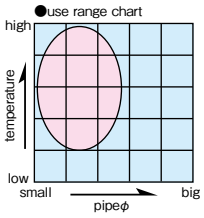
◉ Low viscosity and quick-drying type.
For winter season, small diameter piping.

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

日本水道協会規格準拠 JWWA S 101 TS DV

Volume	Remarks
500g	with brush
1kg	with brush

ESLON SOLVENT CEMENT NO.73S

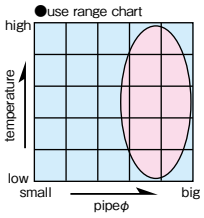


◉ Standard type.
For small and medium diameter piping.

日本水道協会規格準拠 JWWA S 101 TS DV

Volume	Remarks
500g	with brush
1kg	with brush

ESLON SOLVENT CEMENT NO.65S

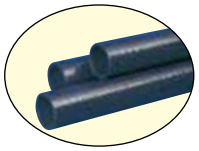


◉ Semi-quick-drying type.
For agricultural and sewage piping, medium and large diameter piping.

日本水道協会規格準拠 JWWA S 101 TS DV

Volume	Remarks
1kg	–

ESLON SOLVENT CEMENT NO.80S



For Eslon HI Pipe and PVC piping

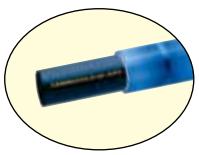
◉ High cementing strength.
For Eslon HI Pipe and PVC piping.

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

日本水道協会規格準拠 JWWA S 101 HI TS

Volume	Remarks
500g	with brush
1kg	with brush

ESLON SOLVENT CEMENT NO.83S



For Eslon HI Pipe and PVC piping

◉ High cementing strength.
Enable easier visual inspection for applying solvent cement in installation.

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

日本水道協会規格準拠 JWWA S 101 HI TS

Volume	Remarks
500g	with brush
1kg	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.

VPFW HTFW HT TS

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

Technical Information

Technical Information

Characteristic of Material

	Material	Abbreviation	General Characteristic
Valve body	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.
	Vinylidene Fluoride	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.
Seal material etc	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, alphatic 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℃

Material / Property	Unit	PVC	HI-PVC	C-PVC(HT)	PP	GF-PP	PVDF	PTFE
Density	g/cc	1.43	1.40	1.48	0.92	1.04	1.77	2.17
Water Absorption	mg/m²	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	$2.5\sim3.0\times10^{3}$	$2.0\sim2.5\times10^{3}$	$2.5\sim3.0\times10^{3}$	$1.0\sim1.5\times10^{3}$	$3.3\sim3.8\times10^{3}$	$2.3\sim2.8\times10^{3}$	$3.7\sim4.2\times10^{2}$
Flexural Strength	MPa	78~89	76~81	88	24~35	93~98	64	
Sharpy Impact Strength	kJ/m²	5~10	90	10~15	3~8	7~12	17~21	2~5
Heat Deflection Temperature	℃	61~66	63~68	98~103	118~123	145~150	145~150	
Linear Expansion Coefficient	/℃	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 Eslon 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
\+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

Chemical	Concentration	Temp.		Plastic							Rubber			
	(%)	(℃)	(℉)	PVC	CPVC (HT)	PP	GF-PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM-FB	IIR-X
Ammonia water NH_3Aq	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_2CrO_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_3COOH	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 Eslon 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
\+ : Good Resistant
− : Caution (Actual testing suggested)
−− : Not recommended

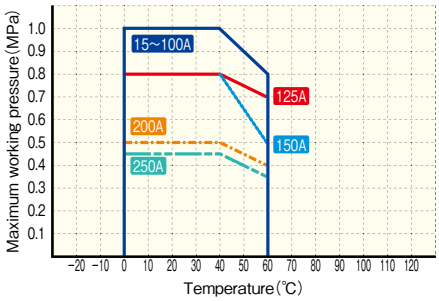
Chemical	Concentration	Temp.		Plastic							Rubber			
	(%)	(℃)	(℉)	PVC	CPVC (HT)	PP	GF-PP	PVDC	PVDF	PTFE	EPDM	FKM	FKM-FB	IIR-X
Sodium hypochlorite NaClO	5	20	68	++	++	+	+	++	++	++	+	++	++	++
		40	104	++	++	+	+	++	++	++	+	+	+	+
		60	140	−	−	−	−	+	++	++	−	−	−	−
		80	176						++					
		100	212						++					
	10	20	68	++	++	+	+	++	++	++	−−	++	++	++
		40	104	++	++	−	−	+	++	++				
		60	140	−	−	−	−	+	++	++				
		80	176						++					
		100	212						++					
Nitric acid HNO_3	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) $C_6H_5CH_3$	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 C_6H_6	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 CH_3OH	Pure	20	68	−	−	++	++	++	++	++	++	−−		++
		40	104	−−	−−	++	++	++	++	++	++			++
		60	140			+	+	+	+	+	+			+
		80	176											
		100	212											
Sulfuric acid H_2SO_4	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

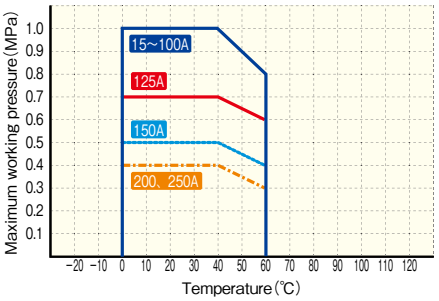
Mechanical properties of Eslon valves decrease with increasing temperature as with other ordinary thermoplastic.
Maximum working pressure = Static normal operation pressure + Water hammer.

Diaphragm Valve

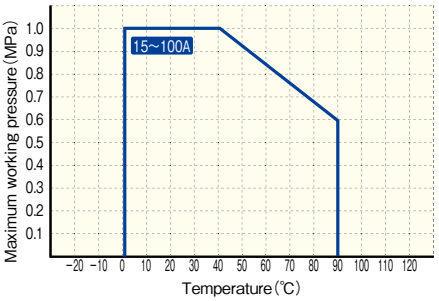
■Body material: PVC ／Diaphragm:EPDM／Flange



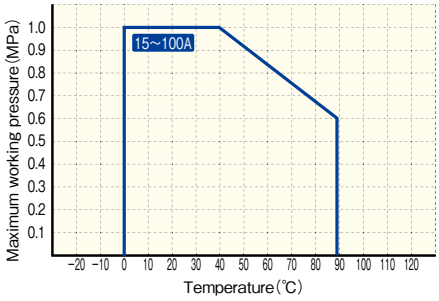
■Body material: PVC ／Diaphragm:PTFE／Flange



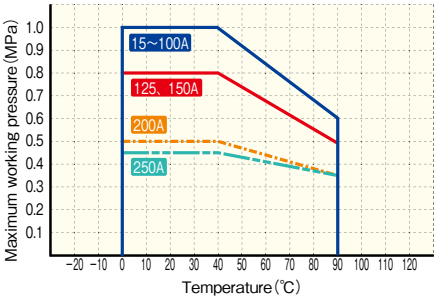
■Body material: HT ／Diaphragm:EPDM／Flange



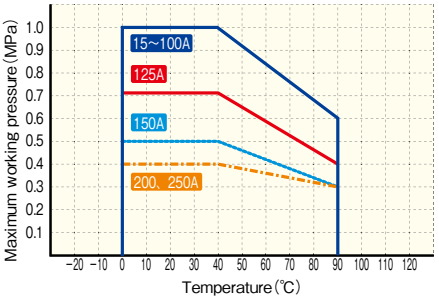
■Body material: HT ／Diaphragm:PTFE／Flange



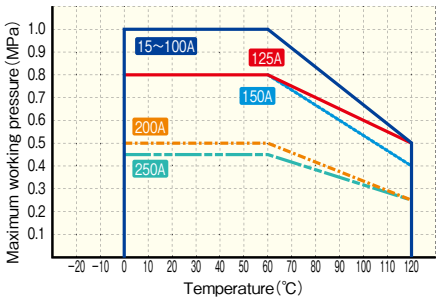
■Body material: PP ／Diaphragm:EPDM／Flange



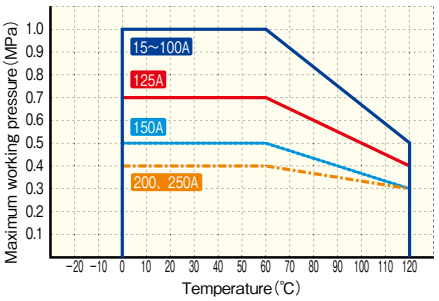
■Body material: PP ／Diaphragm:PTFE／Flange



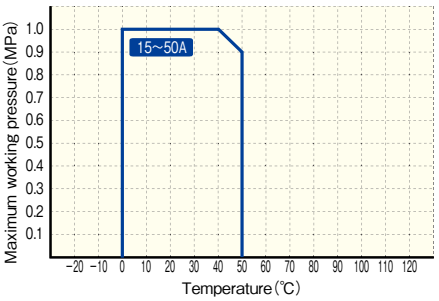
■Body material: PVDF ／Diaphragm:EPDM／Flange



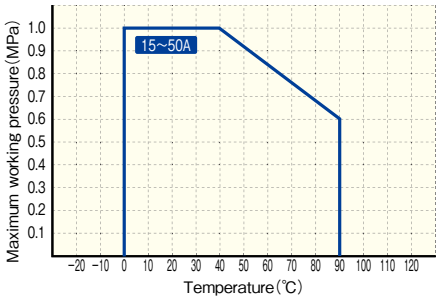
■Body material: PVDF ／Diaphragm:PTFE／Flange



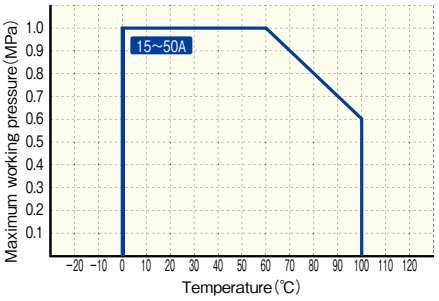
■Body material: PVC ／Diaphragm:EPDM･PTFE／Thread･TS Socket



■Body material: HT ／Diaphragm:EPDM･PTFE／TS Socket

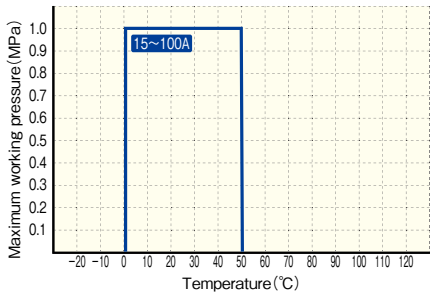


■Body material: PVDF ／Diaphragm:EPDM･PTFE／Thread･Butt Spigot

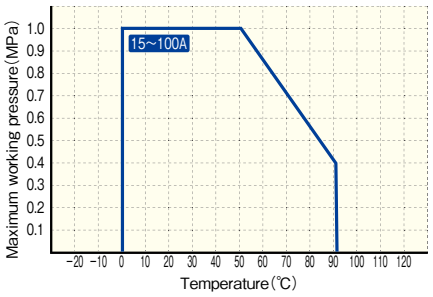


Ball Valve

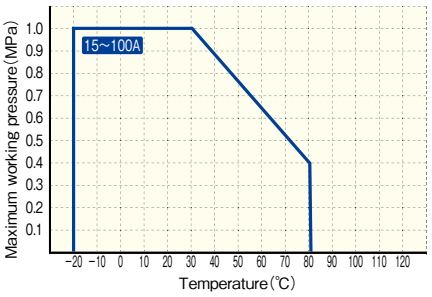
■Body material: PVC



■Body material: HT

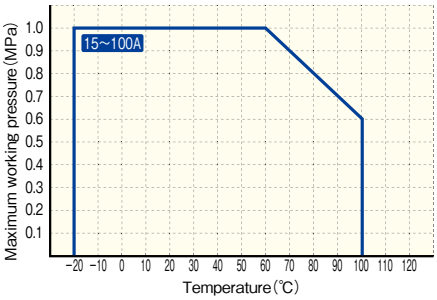


■Body material: PP



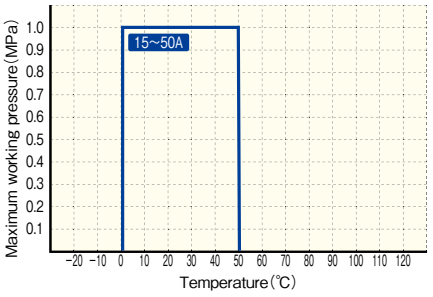
Ball Valve

■Body material: PVDF



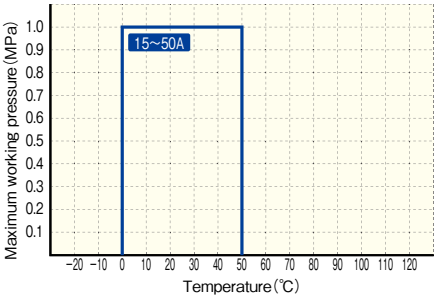
YP Ball Valve

■Body material: PVC



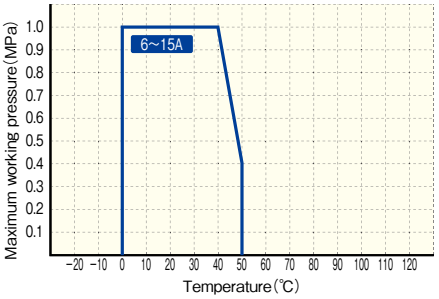
Lock Ball Valve·Compact Ball Valve

■Body material: PVC



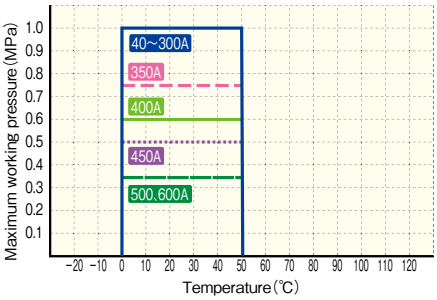
Mini Ball Valve

■Body material: PVC

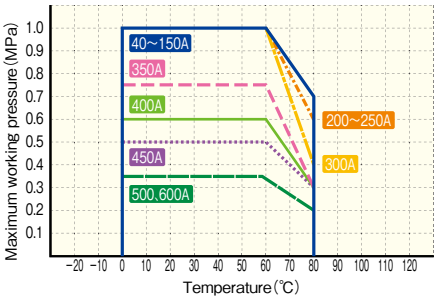


Butterfly Valve(Lever Type·Gear Type·For Under Ground)

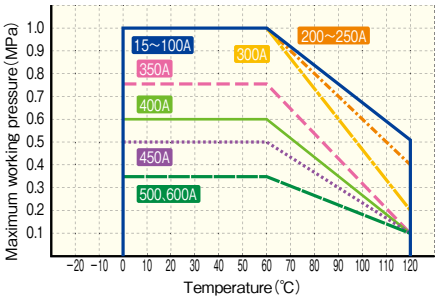
■Body material: PVC



■Body material: PP

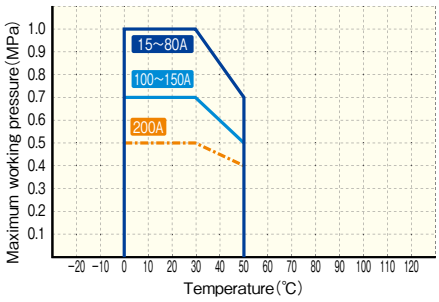


■Body material: PVDF

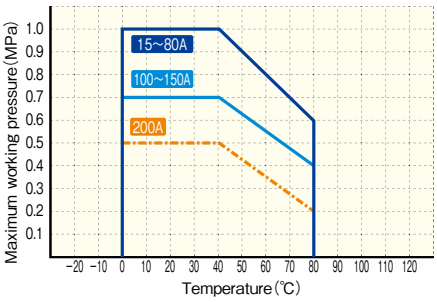


Check Valve Swing Type

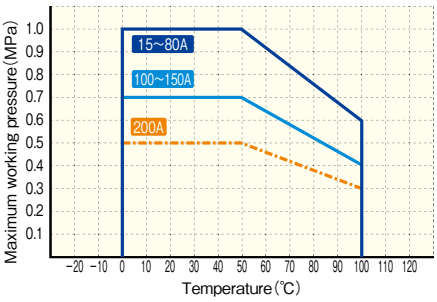
■Body material: PVC



■Body material: PP

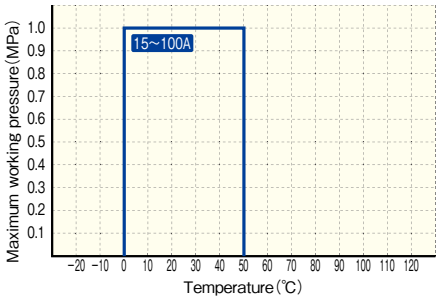


■Body material: PVDF

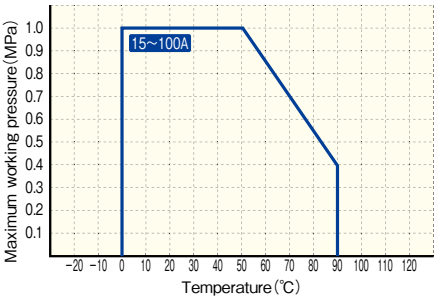


Check Valve Ball Type

■Body material: PVC

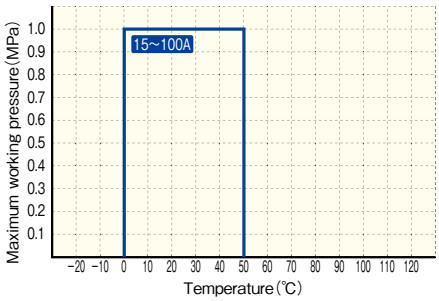


■Body material: HT

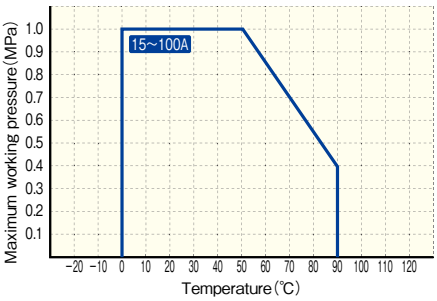


Foot Valve

■Body material: PVC

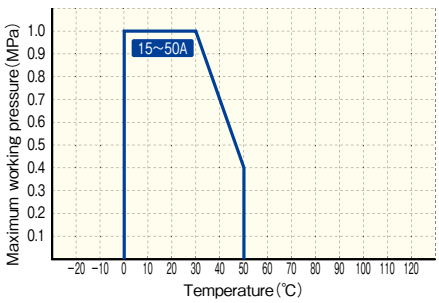


■Body material: HT



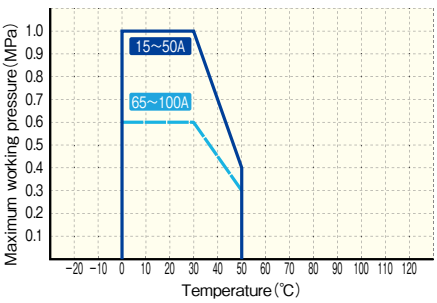
Check Valve Lift Type

■Body material: PVC



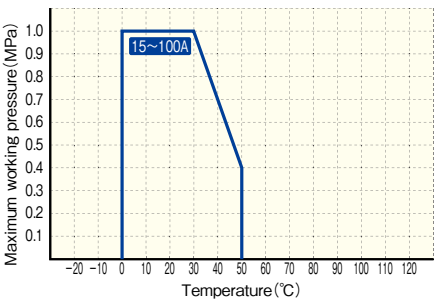
Strainer

■Body material: PVC



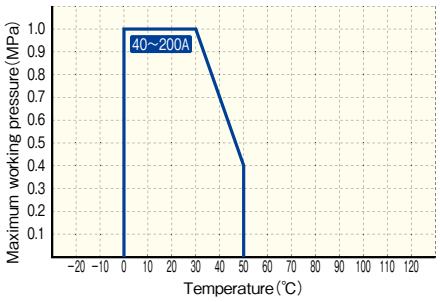
Globe Valve

■Body material: PVC



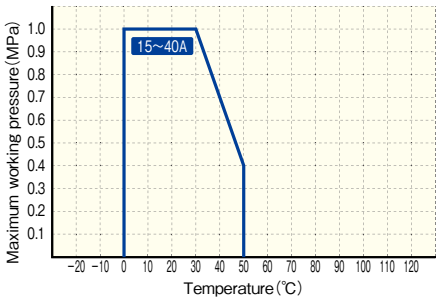
Gate Valve

■Body material: PVC



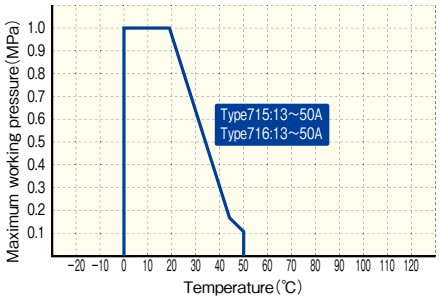
Needle Valve

■Body material: PVC

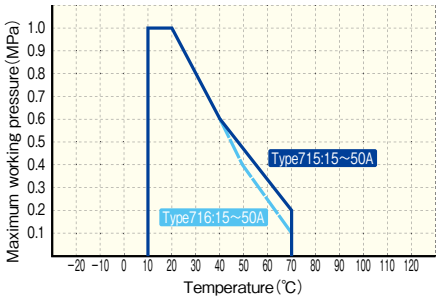


Relief Valve

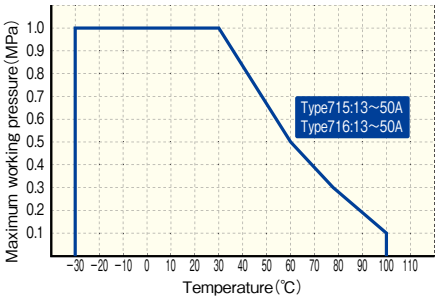
■Body material: PVC



■Body material: PP

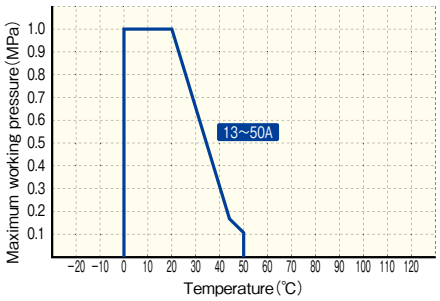


■Body material: PVDF

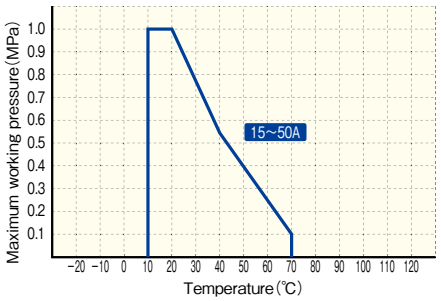


Pressure Regulation Valve

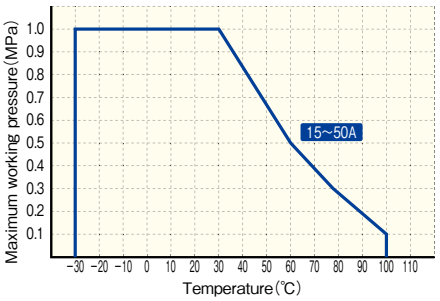
■Body material: PVC



■Body material: PP

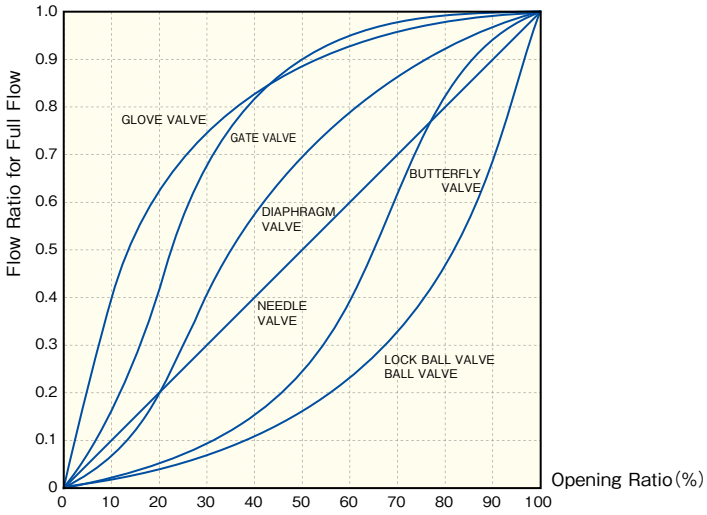


■Body material: PVDF



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 (0.0703kgf/cm²)at its full open. 1 gallon is treated as 1Cv.

Kv value is the flow capacity coefficient used in the International Standards. It represents howmany liters of watre can pass the valve for one minute, where the pressure difference at the inlet and the outlet of the valve is 1 bar(1.0197kgf/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 : Volmetric flow〔GALLON〕
P1 : Inlet pressure〔PSI〕
P2 : Outlet pressure〔PSI〕
γ : Liquid density〔b/gal〕

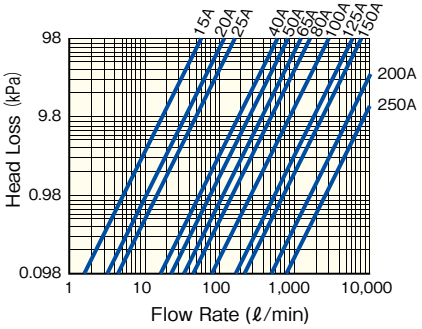
Cv=0.0703Kv

Cv VALUE · Kv VALUE

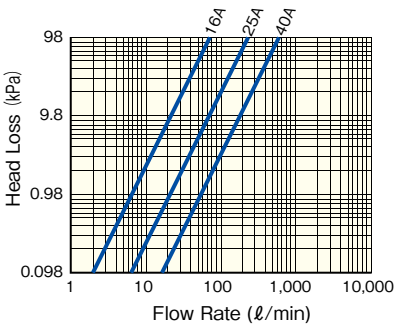
Size(A) \ Item	Diaphragm Valve	Dead Space Free Tee-Type	Ball Valve	Lock Ball Valve	Butterfly Valve	Gate Valve	Clobe Valve	Needle Valve	Check Valve: Swing	Check Valve: Ball	Check Valve: Lift	Strainer	Relief Valve
	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv	Cv Kv		Cv Kv		Cv Kv	Cv Kv
15	6.3 89.6	5.2 74	12.1 172	10.0 142	— —	— —	4.7 66.9	port6 0.6 8.5 / port11 1.8 25.6	— —	10.5 149.0	5.6 80.0	2.8 39.8	2.46 35.0
20	12.0 171	— —	31.5 448	26.8 381	— —	— —	6.7 95.3	3.4 48.4	17.6 250	25.7 366.0	8.3 118.0	4.9 69.7	7.20 102
25	17.6 250	13.1 186	48.9 696	43.1 613	— —	— —	10.0 142	4.6 65.4	24.2 344	36.9 525.0	13.8 196	7.2 102	7.58 107
32	— —	— —	80.1 1139	69.6 990	— —	— —	16.0 228	8.0 114	— —	— —	20.2 287	13.2 188	19.4 275
40	46.3 659	30.1 428	154 2191	115 1636	74 1053	— —	25.8 367	13.1 186	67.8 964	84.0 1195	31.7 451	17.9 255	21.3 302
50	76.1 1083	— —	267 3798	196 2788	172 2447	210 3000	45.2 643	— —	91.4 1300	146 2077	56.5 804	28.7 408	21.3 302
65	135 1920	— —	352 5007	– –	282 4011	360 5000	66.3 943	— —	222 3158	— —	— —	39.8 568	— —
80	180 2560	— —	471 6700	– –	309 4395	530 7500	87.6 1246	— —	306 4353	280 3980	— —	52.6 751	— —
100	280 3983	— —	780 11095	– –	446 6344	880 12500	141 2006	— —	596 8478	547 7781	— —	84.6 1208	— —
125	533 7582	— —	– –	– –	755 10740	1050 15000	— —	— —	771 10967	— —	— —	— —	— —
150	857 12191	— —	– –	– –	993 14125	1400 20000	— —	— —	1084 15420	— —	— —	— —	— —
200	1113 15832	— —	– –	– –	2213 31479	2390 34000	— —	— —	1920 27312	— —	— —	— —	— —
250	1864 26515	— —	– –	– –	3440 48993	— —	— —	— —	— —	— —	— —	— —	— —
300	— —	— —	– –	– –	4929 70114	— —	— —	— —	— —	— —	— —	— —	— —
350	— —	— —	– –	– –	6311 89772	— —	— —	— —	— —	— —	— —	— —	— —
400	— —	— —	– –	– –	8757 124566	— —	— —	— —	— —	— —	— —	— —	— —
450	— —	— —	– –	– –	11107 157994	— —	— —	— —	— —	— —	— —	— —	— —
500	— —	— —	– –	– –	14622 207994	— —	— —	— —	— —	— —	— —	— —	— —
600	— —	— —	– –	– –	17945 255263	— —	— —	— —	— —	— —	— —	— —	— —

Flow Diagram

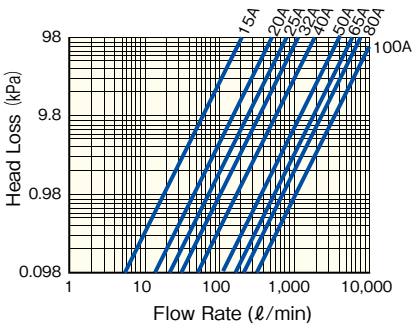
Diaphragm Valve



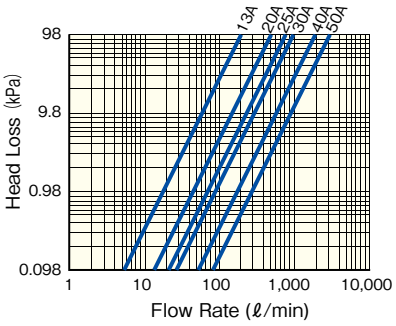
Dead Space Free Tee-Type Diaphragm Valve



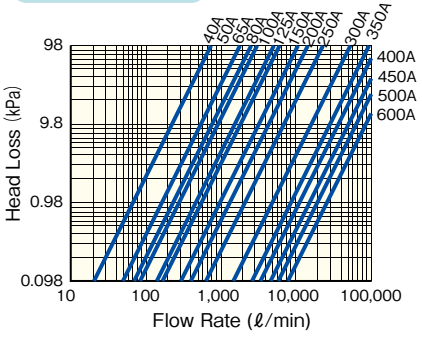
Ball Valve



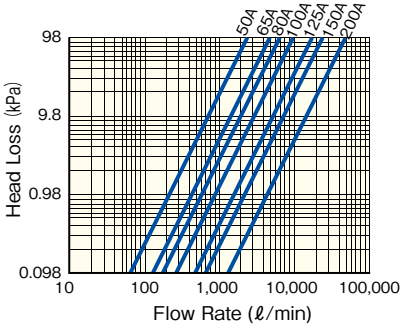
Lock Ball Valve



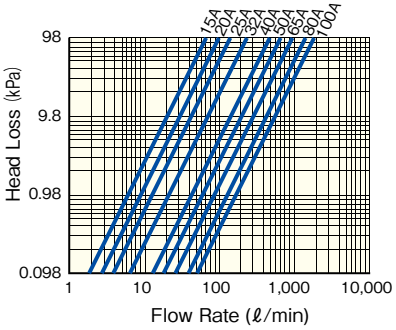
Butterfly Valve



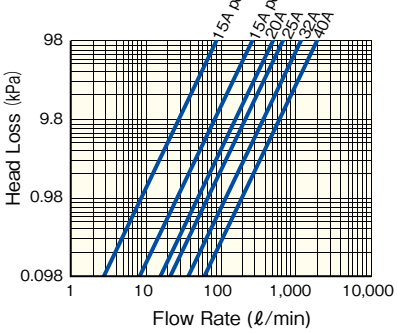
Gate Valve



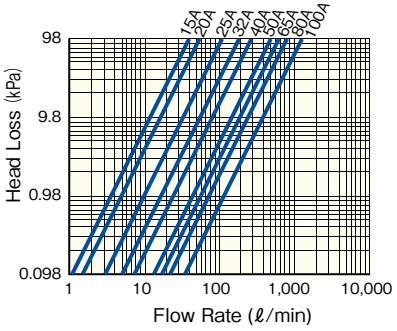
Globe Valve



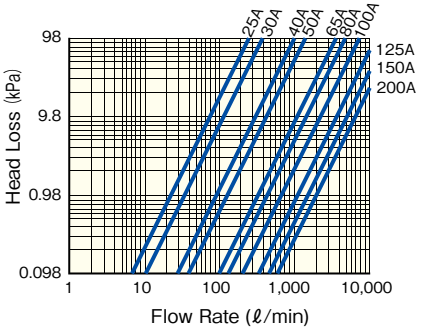
Needle Valve



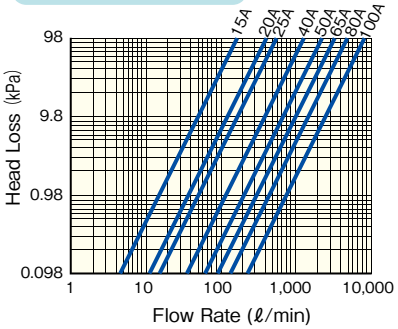
Strainer



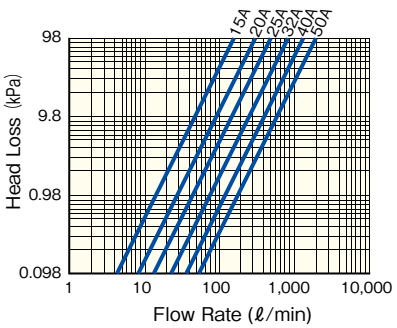
Check Valve Swing Type



Check Valve Ball Type Foot Valve



Check Valve Lift Type



Installation

1 Storage and Transportation

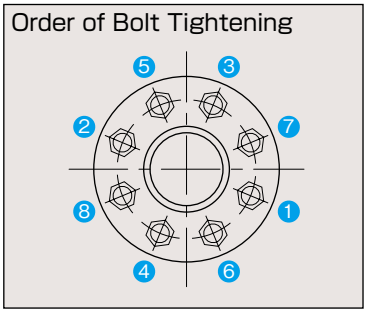
❶Handle products carefully, avoid dropping and throwing products. Products might be affected in performance or damaged by strong impact.
❷As large size of product is heavy, unload and handle by 2-persons if necessary.
❸For storage, store products in their cartons or wrapping and stack up orderly not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

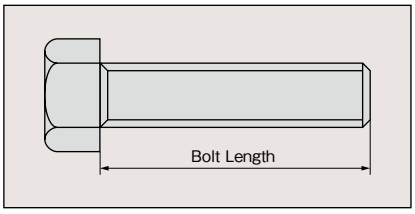
2 Operating Instructions

❶Check inspection certificate packed with the products and observe the precaution.
❷When 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.
❸Do not install and use products under out of condition of temperature or humidity.
❹Keep ventilating when products are installed in corrosive atmosphere.
❺In case that fluid might freeze up due to operating condition, prevent freezing by thermal insulation or other methods.
❻In case of leaking from union nut, retighten evenly both sides of union nuts.
❼Inspect and exchange periodically valves in use for slurry medium.
❽Prevent using for crystalline fluid.
❾Check periodically bolt torque for flange connection and keep them specified torque. Bolt looseness might cause leaking.
❿Gasifying, 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.

3 Installation Procedure for Flange connection

❶Use Eslon gasket (packing) as sealing for flange connection.
❷Tighten evenly bolts, using washers and spring washers for both of bolts and nuts for prevention of damage of flanges.
❸Set valve and gaskets between flanges, then tighten bolts after adjusting the position and dimensions not to make a gap between them.
❹Use flat faced flanges for Eslon valves and gaskets, do not use raised faced flange.
❺Tighten bolts diagonally, evenly, and gradually as shown below.
❻Recommended torque for bolts is specified in table. 1 (for Eslon EPDM gaskets).
❼Use specified size and length of bolts shown in table.2.





■Table1 Torque Standards for Bolt Tightening

Unit:N·m

Size(A)	15~20	25~50	65~100	125~200	250~300
Torque	15	30	45	55	65

■Table2 Bolt of

Unit:mm

	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	M20	M20	M20	M22	–	–	–	–	–	–
	Bolt Length	45	45	50	–	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

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.

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.

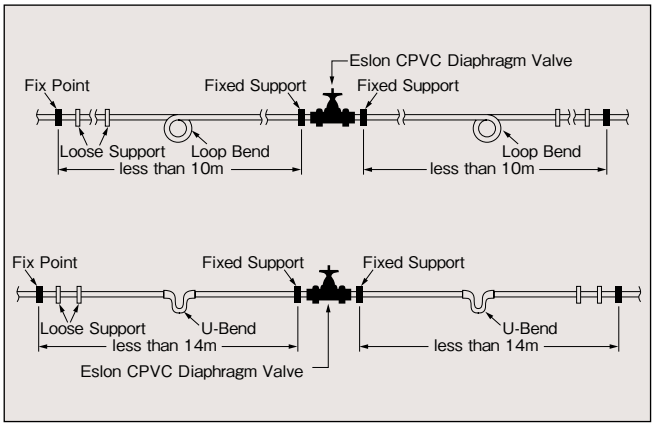
7 Leak test on installed piping

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

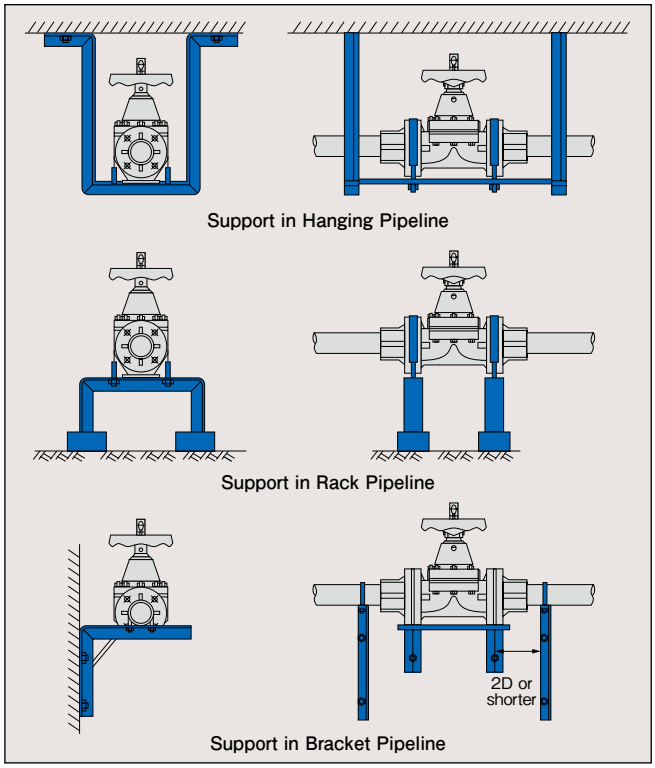
Support valve by proper method not to load excess stress.

1. Support valve body, not at connection ends by union or other parts.
2. In case of installation of Eslon 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 : nominalsize) 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.

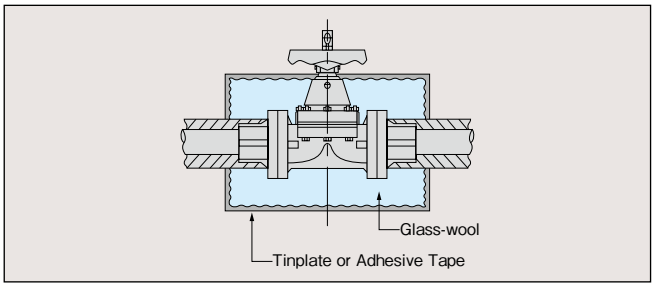
10 Thermal Insulation

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.

■Standard Supporting Method



■Heat Insulation Materials



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Printed March.2014.
Eslon Valve
Manual OperationValves &
Pipes and Related Products
catalogue
SEKISUI CHEMICAL CO.,LTD
Industrial Piping System Division

No. 06266
2014. 3. 0TH TX