SEOJEON Valmac

EAC CE

Control Valves

Engineering Service
Research & Development

Global Leader of Control & Shut-off Valves

Seojeon Valmac. Co., Ltd

21.12

Introduction

SEOJEON VALMAC CO., LTD(seojeon valmac) is established in 1981 and engaged in supplying its quality products of Control & Special Valves for the Oil, Gas, Refinery, Petro-chemical, Steel, Pupl & paper, Nuclear & Thermal Power plants ,. etc

SEOJEON VALMAC is leading company for its business products in Korea with its qualified equipment, manpower and technical capability to design, manufacture and test.

These products are manufactured in our modern facilities where the quality is rigidly controlled in conformance to all applicable codes, standards and design criteria demanded by our licensors and clients.

SEOJEON VALMAC is quality systems are integral to all designs, procurement, manufacturing administration, and clients service functions are conducted within a comprehensive ISO 9001 and API Q1 quality assurance system.

We, SEOJEON VALMAC will keep trying in order to maintain the best quality of products, satisfaction of costs and the worldwide leader in the Flow Control Valve and system

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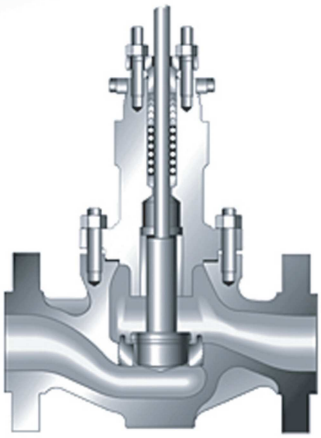
Globe Control Valves Series 1000

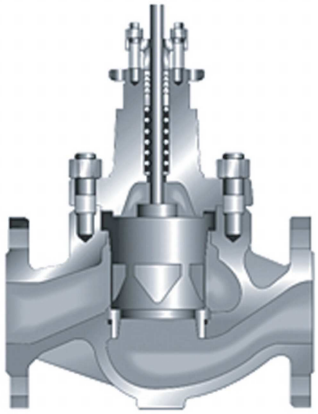


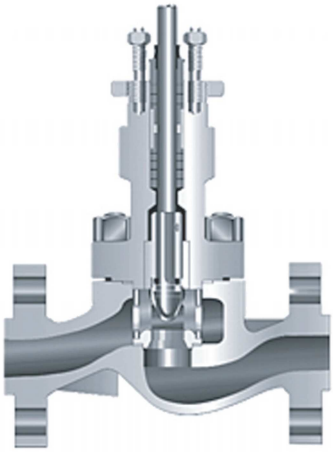
Top Guided Single Seat Type

Valve Size	1/2" (15A)...4"(100A)	
Rating & Class	JIS 10K...20K, ANSI Class 150Lb...600Lb, DIN PN10...PN25	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F (-17°C)...+446°F (+230°C), Other on reguest	
Seat Leakage	Class IV, V	

Balaanced Cage Guided Type

Valve Size	1-1/2" (40A)...24"(600A)	
Rating & Class	JIS 10K...63K, ANSI 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F (-17°C)...+446°F (+230°C), Other on reguest	
Seat Leakage	Class IV, V, VI(Soft Seat)	





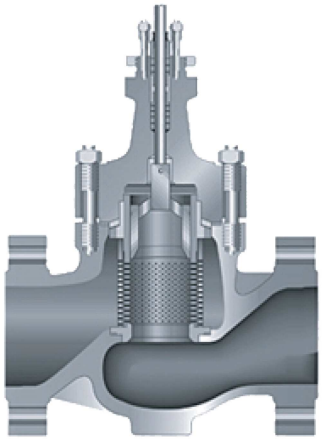
Unbalanced Cage Guided Type

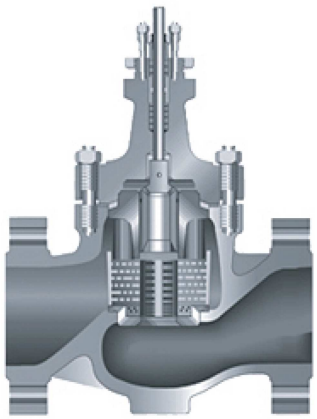
Valve Size	1/2" (15A)...4"(100A)	
Rating & Class	JIS 10K...20K, ANSI 150Lb, 600Lb, DIN PN10...PN25	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F (-17°C)...+446°F (+230°C), Other on reguest	
Seat Leakage	Class Ⅲ, IV, V, VI(Soft Seat)	

Globe Control Valves Series 1000

Balanced, Multi Stage Cage Type

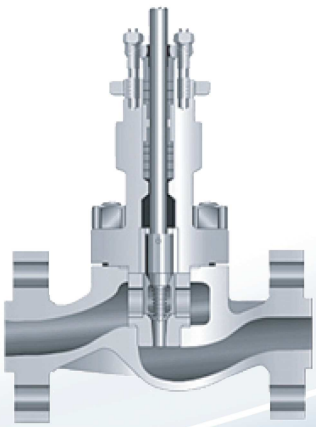
Valve Size	1-1/2"(40A)...24"(600A)	
Rating & Class	JIS 10K...63K, ANSI 150Lb...4500Lb, DIN PN10...PN250	
Connection	Flanged, welded, Thread	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F(-17°C)...+446°F(+230°C), Other on reguest	
Seat Leakage	Class Ⅲ, IV, V, VI(Soft Seat)	





Anti-Cavitation CREA® Type

Valve Size	1-1/2"(40A)...24"(600A)	
Rating & Class	JIS 10K...63K, ANSI 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperatures	1.4°F(-17°C)...+446°F(+230°C), Other on reguest	
Seat Leakages	Class Ⅲ, IV, V	



Unbalanced Multi Stage Cage Type

Valve Size	1/2" (15A)...4"(100A)	
Rating & Class	JIS 10K...20K, ANSI 150Lb, 600Lb, DIN PN10...PN25	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F (-17°C)...+446°F (+230°C), Other on reguest	
Seat Leakage	Class IV, V, VI(Soft Seat)	

Globe Control Valves

Cryogenic Type

Valve Size	1/2" (15A)...18"(450A)	
Rating & Class	JIS 10K...63K, ANSI Class 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged, welded	
Material	Body	Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	320°F (-196°C)...+446°F (+232°C), Other	
Seat Leakage	Class IV, V, VI(Soft Seat), BS6364	

Bellow-Seal Type

Valve Size	1/2" (15A)...24"(600A)	
Rating & Classe	JIS 10K...20K, ANSI 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged, welded	
Material	Body	Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F(-17°C)...+1050°F(+565°C), Option:...+1650°F(+899°C)	
Seat Leakage	Class IV, V, VI(Soft Seat)	

Lined Globe Type

Valve Size	1/2" (15A)...4"(100A)	
Rating & Classe	ANSI 150Lb, JIS 10K	
Connection	Flanged	
Material	Body	A216WCB, Stainless Steel
	Trim	PTFE bellows, PFT Steel & Plug
Linning	PTFE or PFT	
Seat Leakage	Class V, VI	

Globe Control Valves Series 7000, 4000, 3000

Angle Type Series 7000

Valve Size	1/2" (15A)...24"(600A)	
Rating & Class	JIS 10K...63K, ANSI Class150Lb...2500Lb, DIN PN150...PN2500	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	-1.4°F (-17°C)...+446°F (+230°C)	
Seat Leakage	Class IV, V	

Micro Fiow Type Series 4000

Valve Size	1/4" (6A)...1"(25A)	
Rated Cv	Rated Cv 0.1...0.0008..0.1	
Rating & Classe	JIS 10K...63K, ANSI Class 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged, welded, Thread	
Material	Body	Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	23°F (-5°C)...+446°F (+230°C)	
Seat Leakage	Class IV, V, VI(Soft Seat)	

3-Way Series 3000

Valve Size	1/2" (15A)...24"(600A)	
Rating & Classe	JIS 10K...20K, ANSI 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged, welded	
Material	Body	Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F(-17°C)...+1050°F(+565°C), Option:...+1650°F(+899°C)	
Seat Leakage	Class IV, V, VI(Soft Seat)	

Desuper Heater Valves Series 8000

Steam Conditioning Valve Type

Fluid	Superheated Steam	
Valve Size	8" to 24" / 8" to 30"	
Rating & Class	ANSI Class 150Lb...4500Lb	
Seat Leakage	Class VI, V	
Material	Body	A217-WC6/F11, A217-WC9/F22, Others
	Trim	Stainless Steel, Others
Temperature Range	Upto +1198°F(648°C)	

Multiple Nozzle Spray Type

Fluid	Superheated Steam	
Valve Size	Mounting Flanged up to 4"(100A),coolant Flanged 1-1/2"(40A)	
Rating & Class	JIS 10K...63K, ANSI Class 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, etc...
Temperature	up tp...Upto +1050°F(565°C)	
Temperature Control Accuracy	±11°F (±6°C)	
Seat Leakages	Class IV, V	

Variable Orifice Type

Fluid	Superheated Steam	
Valve Size	2"(50A)to 24"(600A)	
Rating & Class	JIS 10K...63K, ANSI Class 150Lb...2500Lb, DIN PN10...PN400	
Connection	Flanged	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, etc...
Temperature	up tp...Upto +1050°F(565°C)	
Temperature Control Accuracy	±11°F (±6°C)	
Seat Leakage	Class IV, V	

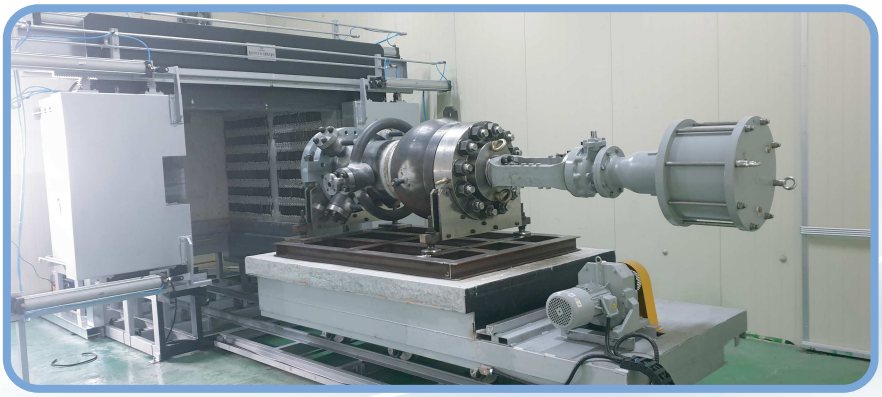
Test Equipment

Desuperheater Nozzle
Test Equipment

Flow and Flow Coefficient
Test Equipment

Cavitaion and Flashing
Diagnostic Equipment

High Temperature Valve
Test Equipment
(Car Type Heating Furnace)



Ball Valves Series 2000

Floating Type

Valve Size	1/2"(15A)...12"(300A)	
Rating & Classe	JIS 10K...20K, ANSI 150Lb...300Lb, DIN PN10...PN250, etc...	
Connection	Flanged, welded, Thread	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
	Seat	PTFE, RTFE, PEEK
Temperature	-20°F(-29°C)...+446°F(+230°C)	
Seat Leakage	Class V, VI	

Trunnion Mounted Type

Valve Size	1"(25A)...60"(1500A)	
Rating & Classe	JIS 10K...63K, ANSI 150Lb...900Lb, DIN PN10...PN60, etc...	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F(-17°C)...+1050°F(+565°C), Other	
Seat Leakage	Class IV, V, VI (Soft Stat)	

Top Entry Type

Valve Size	1"(25A)...16"(400A)	
Rating & Classe	JIS 10K...63K, ANSI 150Lb...900Lb, DIN PN10...PN60, etc...	
Connection	Flanged, welded	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
	Seat	Soft(PTFE, RTFE, PEEK), Metal(Hard Facing)
Temperature	-20°F(-29°C)...+1050°F(+565°C), Soft...+446°F(+230°C)	
Seat Leakage	Class IV, V, VI (Soft Stat)	

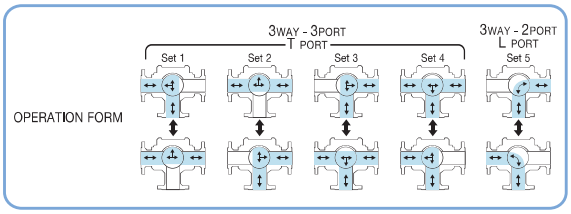
Ball Valves Series 2000

Segment Ball Type

Valve Size	1"(25A)...16"(400A)	
Rating & Class	JIS 10K...40K, ANSI 150Lb...600Lb, DIN PN10...PN40	
Connection	Flanged, welded, Thread	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
Temperature	1.4°F(-17°C)...+1050°F(+565°C), Other	
Seat Leakage	Class IV, V, VI (Soft)	

Multi-Way Type

Valve Size	1/2"(15A)...12"(300A)	
Rating & Class	JIS 10K...20K, ANSI 150Lb...300Lb, DIN PN10...PN25	
Connection	Flanged, Thread	
Material	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
	Seat	PTFE, RTFE, PEEK
Temperature	-20°F(-29°C)...+446°F(+230°C)	
Seat Leakage	Class V, VI	



Lined Ball Type

Valve Size	1/2"(15A)...6"(150A)	
Rating & Class	JIS 10K, 150Lb, ANSI 150Lb, DIN PN16	
Connection	Flanged, Thread	
Material	Body	Carbon Steel, Stainless Steel
	Trim	PFA Lined
Temperature	-30 ~ 150°C	
Seat Leakage	Class V, VI	

Butterfly Valves Series 6000

Centric Type

Valve Sizes	1-1/2"(40A)...78"(8,000A)	
Rating & Classes	JIS 10K...20K, ANSI 150Lb...300Lb, DIN PN10...PN25	
Connections	Flanged, Wafer & Lugged	
Materials	Body	Cast Iron, Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
	Seat	EPDM, NBR, etc...
Temperatures	-20°F(-29°C)...+248°F(+120°C)	
Seat Leakages	Class V, VI	

Hi-Performance Type

Valve Sizes	2"(50A)...48"(1,200A)	
Rating & Classes	JIS 10K...40K, ANSI 150Lb...600Lb, DIN PN10...PN25	
Connections	Flanged, Wafer & Lugged	
Materials	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
	Seat	Soft(PTFE, RTFE, PEEK), Metal(Hard Facing)
Temperatures	-20°F(-29°C)...+446°F(+230°C), Option:...+1050°F(+565°C)	
Seat Leakages	Class IV, V, VI	

Triple-offset Type

Valve Sizes	2"(50A)...48"(1,200A)	
Rating & Classes	JIS 10K...40K, ANSI 150Lb...600Lb, DIN PN10...PN25	
Connections	Flanged, Wafer & Lugged	
Materials	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Trim	Stainless Steel, Alloy, etc...
	Seat	Soft(PTFE, RTFE, PEEK), Metal(Hard Facing)
Temperatures	-20°F(-29°C)...+446°F(+230°C), Option:...+1050°F(+565°C)	
Seat Leakages	Class IV, V, VI(Soft Seat)	

Butterfly Valves Series 6000

3-Way Type

Valve Sizes	2"(50A)...40"(1,000A)	
Rating & Classes	JIS 10K...20K, ANSI 150Lb...300Lb, DIN PN10...PN25	
Connections	Flanged, Wafer & Lugged	
Materials	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Seat	EPDM, NBR, BUNA-N Others, PTEF, etc...
Temperatures	Others -120°C...450°C	
Seat Leakages	Class IV, V, VI	

Check Valve Type

Valve Sizes	8"(200A)...120"(3,000A)	
Rating & Classes	JIS 10K...20K, ANSI 150Lb...300Lb, DIN PN10...PN250	
Connections	Flanged, Wafer & Lugged	
Materials	Body	Carbon Steel, Stainless Steel, Alloy, etc...
	Seat	NBR, EPDM, VITON, METAL, PTEF, etc...
Temperatures	-120°C...450°C	
Seat Leakages	Class Ⅲ, IV, V, VI	

Pneumatic Actuators

Multi Spring Diphragm Type VM-500	
Sizes	Φ220...Φ550
Action	Reverse & Direct spring return
Materials	Case / Carbon Steel, Stem / Stainless steel
	Diaphragm / EPDM+Nylon

Cylinder Type (Linear Action) VM-900	
Sizes	Φ220...Φ735
Action	Spring return, Double acting
Materials	Case / Alluminium Carbon Steel

Cylinder Type (Rotary Action) VM-400	
Sizes	on Reguest
Action	Spring return, Double acting
Materials	Stem / Stainless steel
	Case / Alluminium Carbon Steel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SCPH2
VALMAC
3"
200A 600LB


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Accessories

Pneumatic / Pneumatic Type
YT-1200L & YT-1200R

Motion Type	Linear & Rotary
Standard Stroke	Linear (10~150mm), Rotary (0¡Æ~90¡Æ)
Input Signal	0.2~1.0kgf/cm2 (0.02~0.1MPa)
Connection	Air line (1/4"PT,NPT), Electric conduit (1/2"PF,NPT)
Enclosure	IP66
Weight	1.7kg

Electric / Pneumatic Type
YT-1000L & YT-1000R

Motion Type	Linear & Rotary
Standard Stroke	Linear (10~150mm), Rotary (0°~90°)
Input Signal	4-20mA(4-12mA & 12-20mA)
Supply pressure	1.4~7.0kgf/cm2 (0.14~0.7MPa)
Connection	Air line (1/4"PT,NPT), Electric conduit (1/2"PF,NPT)
Enclosure	Ex dm IIB T5, Ex dm IIC T5, Ex ia IIB T6
Weight	2.8kg

Smart Type
YT-3300L & YT-3300R

Motion Type	Linear & Rotary
Standard Stroke	Linear (10~150mm), Rotary (0°~90°)
Input Signal	4-20mA(4-12mA & 12-20mA)
Supply pressure	1.4~7.0kgf/cm2 (0.14~0.7MPa)
Connection	Air line (1/4"PT,NPT), Electric conduit (1/2"PF,NPT)
Enclosure	Ex ia IIC T6/T5, Non Ex Version
Weight	1.5kg

Smart Type (Explosion Proof)
YT-2400L & YT-2400R

Motion Type	Linear & Rotary
Standard Stroke	Linear (10~150mm), Rotary (0°~90°)
Input Signal	4-20mA(4-12mA & 12-20mA)
Supply pressure	1.4~7.0kgf/cm2 (0.14~0.7MPa)
Connection	Air line (1/4"PT,NPT), Electric conduit (1/2"PF,NPT)
Enclosure	Ex d IIB(+H2) T6
Weight	3.4kg

Accessories

1. Air-Filter & Regulator


SW-10


YT-200


AW-20

Model	SW-10 / YT-200 / AW-20
Max. Supply Pressure	150 kg/㎠(231PSI)
Max. Output Pressure	8.4 kg/㎠(120PSI)
Air connection	PT(NPT)1/4
Gauge Connection	PT(NPT)1/4
Ambient Tamp.	- 15...70°C(5...158°F)
Min. Filtering Size	5micron
Material	stainless/Aluminium Diecasting
Weight	0.6 kg

2. Volume Booster


YT-300


YT-310

Model	YT-300 / YT-310
Max. Supply Pressure	10kg/㎠(142PSI)
Max. In / Output Pressure	7kg/㎠(100PSI)/10kg/㎠(100PSI)
In / Output Pressure Ratio	1:1
Flow Capacity(Cv)	1.02 / 4.98
In / Output Connection	PT(NPT)1/4" / PT(NPT)3/4 "
Signal Connetion	PT(NPT)1/4 "
Port Size	1/4 " / 1/2 "
Linearity	±1%F.S
Ambient Temp	-20°C...70°C(-4... 158°F)
Weight	0.5 kg/2.3 kg

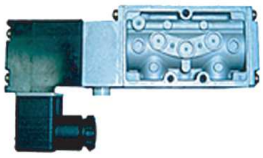
3. Volume Booster


PTM-L


PTM-R

Model	PTM Series
Input Type	2 Wire
Span	Adjustable from5° to 100 ° of angular rotation
Output Signal	4-20mA DC
Load Resistance	0-600ohm
Supply Voltage	12.5...40V DC
Noise Range	50mV p.p
Conduit	PF1/2(G1/2)
Protection	IP67
Explosion Proof	ExdIICT6
Ambient Temp.	-40°C...+120°C(-40...248°F)
Linearity	< =±1%F.S
Hysteresis	< =1%F.S
Sensitivity	< =0.2%F.S
Material	Aluminium Casting
Weight	1.1 kg

4. Solenoid Valve (Weather-Proof Type)


4F3 Series


SF Series

Item	5/2 Wy, 3/2 Way	
Model	SF Series	4F3 Series
Air Connection Size	PT(NPT)1/4 "...3/8 "	PT(NPT)1/4 "...3/8 "
Cable Entries	PF 1/2 "	PF 1/2 "
Amb. Temp. Range	-20°C...+50°C(-4...122°F)	-20°C...+50°C(-4...122°F)
Rated Voltage	AC220, 110V(50/60Hz)DC24V	AC220, 110V(50/60Hz)DC24V
Enclosure	Weather Proof	Weather Proof

5. Solenoid Valve (Ex-Proof Type)


3 Way


4 Way

Item-Type	YT700 Series	
	3 Way	4 Way
Max. Supply Pressure	0~0.4MPa / 0~0.7MPa	0.1~1MPa
Rating Current	AC220V, 110V, DC 24V	AC220V, 110V, DC 24V
Frequency	50 ~ 60Hz	
Explosion Proof Type	Exd IIC T6	
Connection Type	PT(NPT) 1/4	

6. Limit switch & Box (Ex-Proof Type)


YT-850


YT-870


YT-875

Item	T-850	YT-870	YT-875
Enclosure Protection	IP67	IP67	
Ambient Temp.	-20°C ~ 80°C	-20°C ~ 60°C	
Conduit Entry	NPT1/2 (PT1/2,PF1/2,M20,PG13.5)	NPT3/4 (PF3/4,M20)	
Terminal	8Points	8Points	

Technical Engineering Data

1. ASTM Material Specification

Material Group	Nominal Desighation	Pressure Temperature Rating	Applicable ASTM Specification		
			Forgings	Castings	Plates
1.1	C - Si	2 - 1.1	A105	A216 G r.WCB	A515 G r.70
	C - Mn - Si		A350 Gr.LF2		A515 G r.70
					A537 Cl.1
	C - Mn - Si - V		A350 Gr.LF6 Cl.1		
1.2	C - Mn - Si	2 - 1.2		A216 G r.WCB	
				A352 Gr.LCC	
	C - Mn - Si - V		A350 Gr.LF6 Cl.2		
	2 - ½ Ni			A352 Gr.LC2	A203 Gr.B
	3 - ½ Ni			A352 Gr.LC3	A203 Gr.E
1.3	C - Si	2 - 1.3		A352 Gr.LCB	A515 G r.65
	C - Mn - Si				A515 G r.65
	2 - ½ Ni				A203 Gr.A
	3 - ½ Ni				A203 Gr.D
1.4	C - Si	2 - 1.4			A516 G r.60
	C - Mn - Si		A350 Gr.LF1 Cl.1		A516 G r.60
1.5	C - ½ Mo	2 - 1.5	A182 G r.F1	A217 G r.WC1	A204 Gr.A
				A352 Gr.LC1	A204 Gr.B
1.7	C - ½ Mo	2 - 1.7			A204 Gr.C
	½ Cr - ½ Mo		A182 G r.F2		
	Ni - ½ Cr - ½ Mo			A217 G r.WC4	
	¾ Ni - ¾ Cr - 1 Mo			A217 G r.WC5	
1.9	1 C - ½ Mo	2 - 1.9	A182 G r.F12 Cl.2		
	1 - ¼ C - ½ Mo			A217 G r.WC6	
	1 - ¼ C - ½ Mo - Si		A182 G r.F11 Cl.2		A387 Gr.11 Cl.2
1.10	2 - ¼ C - 1 Mo	2 - 1.10	A182 G r.F22 Cl.3	A217 G r.WC9	A387 Gr.22 Cl.2
1.13	5 Cr - ½ Mo	2 - 1.13	A182 G r.F5		
			A182 G r.F5a	A217 G r.C5	
1.14	9 Cr - 1 Mo	2 - 1.14	A182 G r.F9	A217 G r.C12	
1.15	9 Cr - 1 Mo - V	2 - 1.15	A182 G r.F91	A217 G r.C12A	A387 Gr.91 Cl.2
2.1	18 Cr - 8 Ni	2 - 2.1	A182 G r.F304	A351 G r.CF3	A240 Gr.304
			A182 G r.F304H	A351 G r.CF8	A240 Gr.304H
2.2	16 Cr - 12 Ni - 2 Mo	2 - 2.2	A182 G r.F316	A351 G r.CF3M	A240 Gr.316
			A182 G r.F316H	A351 G r.CF8M	A240 Gr.316H
	18 Cr - 13 Ni - 3 Mo				A240 Gr.317
	19 Cr - 10 Ni - 3 Mo			A351 G r.CF8M	
2.3	18 Cr - 8 Ni	2 - 2.3	A182 G r.F304L		A240 Gr.304L
	16 Cr - 12 Ni - 2 Mo		A182 G r.F316L		A240 Gr.316L
2.4	18 Cr - 10 Ni - Ti	2 - 2.4	A182 G r.F321		A240 Gr.321
			A182 G r.F321H		A240 Gr.321H
2.5	18 Cr - 10 Ni - Cb	2 - 2.5	A182 G r.F347	A351 G r.CF8C	A240 Gr.347
			A182 G r.F347H		A240 Gr.347H
			A182 G r.F348		A240 Gr.348
			A182 G r.F348H		A240 Gr.348H
2.6	25 Cr - 12 Ni	2 - 2.6		A351 G r.CH8	
				A351 G r.CH20	
	23 Cr - 12 Ni				A240 Gr.309S
					A240 Gr.309H
2.7	25 Cr - 20 Ni	2 - 2.7	A182 G r.F310	A351 G r.CK20	A240 Gr.310S
					A240 Gr.310H
2.8	20 Cr - 18 Ni - 6 Mo	2 - 2.8	A182 G r.F44	A351 G r.CK3MCuN	A240 Gr.S31254
	22 Cr - 5 Ni - 3 Mo - N		A182 G r.F51		A240 Gr.S31803
	25 Cr - 7 Ni - 4 Mo - N		A182 G r.F53		A240 Gr.S32750
	24 Cr - 10 Ni - 4 Mo - V			A351 G r.CE8MN	
	25 Cr - 5 Ni - 2 Mo - 3 Cu			A351 G r.CD4MCu	
	25 Cr - 7 Ni - 3.5 Mo - W - Cb			A351 G r.CD3MWCuN	
	25 Cr - 7 Ni - 3.5 Mo - N - Cu - W		A182 G r.F55		A240 Gr.S32760

Technical Engineering Data

2. Valve Cv

Series 1000 Globe valve Cv								
Body size	Port size	Stroke	Standard parabolic trim		Standard cage trim		Multi hole trim	
Inch	Inch	mm	Cv (EQ%)	Cv (Linear)	Cv (EQ%)	Cv (Linear)	Cv (EQ%)	Cv (Linear)
1/2"~1"	1/4"~1"	15	-	0.01	-	-	-	-
			-	0.04	-	-	-	-
			-	0.1	-	-	-	-
			-	0.16	-	-	-	-
			0.3	0.3	-	-	-	-
			0.4	0.4	-	-	-	-
			0.5	0.5	-	-	-	-
			1	1	-	-	-	-
			1.6	1.6	-	-	-	-
			3	3	-	-	-	-
			6	6	-	-	-	-
			9	9	-	-	-	-
			14	14	-	-	-	-
1-1/2"	1	15	14	14	-	-	-	-
	1-1/4"	25	20	20	-	-	-	-
	1-1/2"		28	28	-	-	-	-
2"	1-1/4"	25	20	20	-	-	15	20
	1-1/2"		28	28	-	-	22	28
	2"		50	50	50	75	40	50
2-1/2"	1-1/2"	25	28	28	-	-	22	28
	2"	25	50	50	-	-	40	50
	2-1/2"	38	70	70	90	110	70	90
3"	2"	25	50	50	-	-	40	50
	2-1/2"	38	70	70	-	-	70	70
	3"		90/130	90/130	130	150	110	90/130
4"	2-1/2"	38	70	70	-	-	70	70
	3"		90/130	90/130	-	-	110	90/130
	4"		180	180	180	220	150	180
5"	3"	38	-	-	-	-	110	130
	4"		-	-	-	-	150	180
	5"	50	-	-	280	300	240	280
6"	4"	38	-	-	-	-	150	180
	5"		-	-	-	-	240	280
	6"	50	-	-	410	460	300	410
8"	5"	50	-	-	-	-	240	280
	6"	50	-	-	-	-	300	410
	8"	75			660	685	600	660
	8"	80	-	-	725	780	-	-
10"	6"	50	-	-	-	-	300	410
	8"	75	-	-	-	-	600	660
	10"	75	-	-	800	840	700	800
		100	-	-	1000	1135	800	1000
12"	8"	75	-	-	-	-	600	660
	10"	100	-	-	-	-	800	1000
	12"		-	-	1400	1600	1000	1400
14"	10"	100	-	-	-	-	800	1000
	12"		-	-	-	-	1000	1400
	14"		-	-	2000	2300	1500	2000
16"	12"	100	-	-	-	-	1000	1400
	14"		-	-	-	-	1500	2000
	16"	130	-	-	2400	2750	1900	2400
18"	14"	100	-	-	-	-	1500	2000
	16"	130	-	-	-	-	1900	2400
	18"	150	-	-	3000	3500	2300	3000

Technical Engineering Data

3. Comparison Materials Table-Casting

ANSI material	JIS material	DIN material	EN material	EN number	UNS number
A 126 B	FC 250	GG 25 (0.6025)	EN-GJL-250	EN-JL1040	F12102
A395	FCD 400	GGG 40.3 (0.7043)	EN-GJS400-18U-LT	EN-JS1049	F32800
A 216 WCB	SCPH2	GS-C 25N (1.0619)	GP240GH	1.0619	J02503
A352 LCB	SCPL 1	GS-21 Mn 5 (1.1138)	G20Mn5+QT	1.6220+QT	J02505
A 351 CF3	SCS 19A	G-X 2CrNiN 18 9 (1.4306)	GX2CrNi19-11	1.4309	J92500
A 351 CF8	SCS 13A	G-X 6 CrNi 18 9 (1.4308)	GX5CrNi19-10	1.4308	J92600
A 351 CF3M	SCS 16A	G-X 2 CrNiMoN 18 10 (1.4404)	GX2CrNiMo 19-11-2	1.4409	J92800
A 351 CF8M	SCS 14A	G-X 6 CrNiMo 18 10 (1.4408)	GX5CrNiMo 19-11-2	1.4408	J92900
A 351 CF8C	SCS 21	G-X 5CrNiNb 18 9 (1.4552)	GX5CrNiNb 19-11	1.4552	J92710
-	-	G-X 5 CrNiMoNb 18 10 (1.4581)	GX5CrNiMoNb 19-11-2	1.4581	-
A 352 LC3	SCPH 31	GS-10 Ni 14 (1.5638)	G9Ni14	1.5638	J31550
A 217 WC6	SCPH 21	GS-17 CrMo 5 5 (1.7357)	G17CrMo5-5	1.7357	J12072
A 217 C5	SCPH 61	GS-12 CrMo 19 5 (1.7363)	GX15CrMo5	1.7365	J42045
A 217 WC9	SCPH 32	GS-12 CrMo 9 10 (1.7380)	G17CrMo9-10	1.7379	J21890
A 217 C12	-	G-X 12 CrMo 10 1 (1.7389)	-	-	J82090
B 62	-	G-CuSn5ZnPb (2.1096.01)	CuSn5Zn5Pb5-C	CC491K	C83600
A 494 M30C	-	Monel 400	G-NiCu 30 Nb	2.4365	N24130
A 995 4A	-	Duplex, CD3MN	GX2CrNiMoN22-5-3	1.4470	J92205
N08904	-	-	GX1NiCrMoCuN25-20-5	1.4538	N08904
A 351 CK3MCuN	-	-	X1CrNiMoCuN20-18-7	9.4547	J93254
A 494 CW2M	-	Hastelloy C4	-	9.461	N26455
A 494 CW6MC	NCF 625	NiCr 22 Mo 9 Nb, Inconel 625	NiCr22Mo9Nb	9.4856	N26625
B 367 C-2	-	Titan Gr.2	G-Ti2	3.7031	-
A 995 5A	-	Super-Duplex	GX2CrNiMoN26-7-4	1.4469	J93404
-	-	GGG 40 (0.7040)	EN-GJS400-15	EN-JS1030	-
-	SCS 1	G-X 8 CrNi 13 (1.4008)	GX7CrNiMo12-1	1.4008	-
A 487 CA6NM-B	SCS 6	-	GX4CrNi13-4	1.4317	J91540
A 217 C12A	-	-	-	-	J84090
A 217 CA15	-	similar to 1.4008	-	-	J91150
A 351 CG3M	-	-	-	-	J92999
A 351 CG8M	-	-	-	-	J93000
A 494 N7M	-	similar to Hastelloy B2	-	-	N30007
A 494 CU5MCuC	-	similar to Incoloy 825	-	-	N08826
R30006	-	Stellite 6	-	-	R30006
-	-	G-CuSn 10 (Bronze, Bz 10)	CuSn10-C	CC408K	-
-	-	(-9.4112)	X90CrMoV18	9.4112	-
A 747 Cb7Cu-1	SCS 24	-	X5CrNiCuNb17-4-4	9.4548.4	J92180
A 494 CX2MW	-	similar to Hastelloy C22	NiCr 21 Mo 14W	9.4602	N26022
N06600	-	similar to Inconel 600	NiCr 15 Fe	9.4816	N06600

Technical Engineering Data

4. Comparison Materials Table-Forging

ANSI material	JIS material	DIN material	EN material	EN number	UNS number
A 105	SFVC 2 A	C 22.8 (1.0460)	P250GH	1.0460	K03504
A 350 LF2	SFL 2	TStE 355 (1.0566)	P355NL1	1.0566	K03011
A 182 F304L	SUS F304L	X 2 CrNi 19 11 (1.4306)	X2CrNi19-11	1.4306	S30403
A182 F304	SUS F304	X 5 CrNi 18 10 (1.4301)	X5CrNi18-10	1.4301	S30400
A182 F316/ A 182 F316L	SUS F316/ SUS F316L	X 2 CrNiMo 17 13 2 (1.4404)	X5CrNiMo17-12-2/ X2CrNiMo17-12-2	1.4401/ 1.4404	S31600/ S31603
A182 F347	SUS F347	X 6 CrNiNb 18 10 (1.4550)	X6CrNiNb18-10	1.4550	S34700
-	-	X 6 CrNiMoTi 17 12 2 (1.4571)	X6CrNiMoTi17-12-2	1.4571	-
A 350 LF3 Cl.2	SFL 3	10 Ni 14 (1.5637)	12Ni14	1.5637	K32025
A 182 F12 Cl.2	SFVA F12	13 CrMo 4 4 (1.7335)	13CrMo4-5	1.7335	K11564
A 182 F5	SFVA F5B	12 CrMo 19 5 V (1.7362)	12CrMo19-5V	1.7362 V	K41545
A 182 F22 Cl.3	SFVA F22B	10 CrMo 9 10 (1.7380)	11CrMo9-10	1.7383	K21590
A 182 F9	SFVA F9	X 12 CrMo 9 1 (1.7386)	X11CrMo9-1+NT	1.7386+NT	K90941
-	-	CuZn38Pb1,5 (2.0371)	CuZn36Pb2As	CW602N	-
B 564 N04400	-	Monel 400	NiCu 30 Fe	2.4360	N04400
A 182 F51	-	Duplex	X2CrNiMoN22-5-3	1.4662	S31803
B 649 N08904	-	904 L	X1NiCrMoCu25-20-5	1.4539	N08904
A 182 F44	-	-	X1CrNiMoCuN20-18-7	1.4547	S31254
B 574 N06455	-	NiMo 16 Cr 16 Ti, Hastelloy C4	NiMo 16 Cr 16 Ti	2.4610	N06455
B 564 N06625	NCF 625	NiCr 22 Mo 9 Nb, Inconell 625	NiCr22Mo9Nb	2.4856	N06625
B 462 N10276	-	NiMo 16 Cr 15 W, Hastelloy C276	NiMo 16 Cr 15 W	2.4819	N10276
B 381 F-2	-	Titan Gr.2	Ti2	3.7035	R50400
A 182 F53	-	SAF 2507, Uranus 47 N+	X2CrNiMoN25-7-4	1.4410	S32750
K02502	-	RSt 37-2 (1.0038)	S235JR	1.0038	K02502
-	-	RPSt 37-2 (1.0172)	-	1.0172	-
G10350	-	C 35 V (1.0501)	C35+QT	1.0501+QT	G10350
A 182 F6a Cl.2	SUS F410-B	X 10 Cr 13 (1.4006), AISI 410	X12Cr13+QT	1.4006+QT	S41000
-	SUS 440B	X 90 CrMoV 18 (1.4112), AISI 440B	X90CrMoV18	1.4112	-
-	SUS 303	X 10 CrNiS 18 9 (1.4305)	X8CrNiS18-9	1.4305	-
A 182 F6NM	-	X 4 CrNi 13 4	X3CrNiMo13-4	1.4313	S41500
A 182 F46	-	Antinit, Uranus S1	X1CrNiSi18-15-4	1.4361	S30600
A 182 F316L	SUS F316L	X 2 CrNiMo 18 14 3 (1.4435)	X2CrNiMo18-14-3	1.4435	S31603
-	-	X 2 CrNiMoN 17 13 5 (1.4439)	X2CrNiMoN17-13-5	1.4439	-
A 182 F321	SUS F321	X 6 CrNiTi 18 10 (1.4541)	X6CrNiTi18-10	1.4541	S32100
B 564 N08800	NCF 800	X 10 NiCrAiTi 32 20, Incoloy 800	X10NiCrAlTi32-21	1.4876	N08800
-	-	CuZn40Pb2 F44 (2.0402.26)	CuZn40Pb2	2.0402	-
B 160 N02201	-	LC-Ni 99, Nickel 201	LC-Ni99	2.4068	N02201
B865 N05500	-	NiCu 30 Al, Monel K-500	NiCu30Al	2.4375	N05500
B462 N06022	-	NiCr 21 Mo 14 W, Hastelloy C22	NiCr 21 Mo 14 W	2.4602	N06022
B 564 N06059	-	NiCr 23 Mo 16 Al, Alloy 59	NiCr 23 Mo 16 Al	2.4605	N06059
B 462 N10665	-	NiMo 28, Hastelloy B2	NiMo 28	2.4617	N10665
B 462 N08020	-	NiCr 20 CuMo, A 20	NiCr20CuMo	2.4660	N08020
B 564 N0620	-	NiCr 23 Mo 16 Cu, Hastelloy C-2000	NiCr23Mo16Cu	2.4675	-

Technical Engineering Data

5. Standard Press. Temp. Ratings for Valves

5-1. ASME Standard CL 150 Valves

Temperature(°C)		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538
Working Pressure (Bar)	LCB	18.4	18.2	17.4	15.8	13.8	12.1	10.2	9.3	8.4	7.4	6.5	5.5	-	-	-	-
	WCB	19.6	19.2	17.7	15.8	13.8	12.1	10.2	9.3	8.4	7.4	6.5	5.5	-	-	-	-
	WC6	19.8	19.5	17.7	15.8	13.8	12.1	10.2	9.3	8.4	7.4	6.5	5.5	4.6	3.7	2.8	1.4
	WC9	19.8	19.5	17.7	15.8	13.8	12.1	10.2	9.3	8.4	7.4	6.5	5.5	4.6	3.7	2.8	1.4
	C12A	20.0	19.5	17.7	15.8	13.8	12.1	10.2	9.3	8.4	7.4	6.5	5.5	4.6	3.7	2.8	1.4
	CF8/304	19.0	18.3	15.7	14.2	13.2	12.1	10.2	9.3	8.4	7.4	6.5	5.5	4.6	3.7	2.8	1.4
	CF8M/316	19.0	18.4	16.2	14.8	13.7	12.1	10.2	9.3	8.4	7.4	6.5	5.5	4.6	3.7	2.8	1.4
	CF3M	19.0	18.4	16.2	14.8	13.7	12.1	10.2	9.3	8.4	7.4	6.5	5.5	4.6	-	-	-

5-2. ASME Standard CL 300 Valves

Temperature(°C)		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538
Working Pressure (Bar)	LCB	48.0	47.5	45.3	43.9	42.5	40.8	38.7	37.6	36.4	7.4	32.6	27.3	-	-	-	-
	WCB	51.1	50.1	46.6	45.1	43.8	41.9	39.8	38.7	37.6	7.4	34.7	28.8	-	-	-	-
	WC6	51.7	51.7	51.5	49.7	48.0	46.3	42.9	41.4	40.3	7.4	36.5	35.2	33.7	31.7	25.7	14.9
	WC9	51.7	51.7	51.5	50.3	48.6	46.3	42.9	41.4	40.3	7.4	36.5	35.2	33.7	31.7	28.2	18.4
	C12A	51.7	51.7	51.5	50.3	48.6	46.3	42.9	41.4	40.3	7.4	36.5	35.2	33.7	31.7	28.2	25.2
	CF8/304	49.6	47.8	40.9	37.0	34.5	32.5	30.9	30.2	29.6	7.4	28.4	28.0	27.4	26.9	26.5	24.4
	CF8M/316	49.6	48.1	42.2	38.5	35.7	33.4	31.6	30.9	30.3	7.4	29.4	29.1	28.8	28.7	28.2	25.2
	CF3M	49.6	48.1	42.2	38.5	35.7	33.4	31.6	30.9	30.3	7.4	29.4	29.1	28.8	-	-	-

5-3. ASME Standard CL 600 Valves

Temperature(°C)		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538
Working Pressure (Bar)	LCB	96.0	94.9	90.7	87.9	85.1	81.6	77.4	75.2	72.8	69.9	65.2	54.6	-	-	-	-
	WCB	102.1	100.2	93.2	90.2	87.6	83.9	79.6	77.4	75.1	72.7	69.4	57.5	-	-	-	-
	WC6	103.4	103.4	103.0	99.5		92.7	85.7	82.6	80.4	77.6	73.3	70.0	67.7	63.4	51.5	29.8
	WC9	103.4	103.4	103.0	100.3	97.2	92.7	85.7	82.6	80.4	77.6	73.3	70.0	67.7	63.4	56.5	36.9
	C12A	103.4	103.4	103.0	100.3	97.2	92.7	85.7	82.6	80.4	77.6	73.3	70.0	67.7	63.4	56.6	50.0
	CF8/304	99.3	95.6	81.7	74.0	69.0	65.0	61.8	60.4	59.3	58.1	56.9	56.0	54.8	53.9	53.0	48.9
	CF8M/316	99.3	96.2	84.4	77.0	71.3	66.8	63.2	61.8	60.7	59.8	58.9	58.3	57.7	57.3	56.5	50.0
	CF3M	99.3	96.2	84.4	77.0	71.3	66.8	63.2	61.8	60.7	59.8	58.9	58.3	57.7	-	-	-

Technical Engineering Data

5-4. ASME Standard CL 900 Valves

Temperature(°C)		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538
Working Pressure (Bar)	LCB	144.1	142.4	136.0	131.8	127.6	122.3	116.1	112.7	109.2	104.9	97.9	81.9	-	-	-	-
	WCB	153.2	150.4	139.8	135.2	131.4	125.8	119.5	116.1	112.7	109.1	104.2	86.3	-	-	-	-
	WC6	155.1	155.1	154.4	149.2	143.9	139.0	128.6	124.0	120.7	116.5	109.8	105.1	101.4	95.1	77.2	44.7
	WC9	155.1	155.1	154.6	150.6	145.8	139.0	128.6	124.0	120.7	116.5	109.8	105.1	101.4	95.1	84.7	55.3
	C12A	155.1	155.1	154.6	150.6	145.8	139.0	128.6	124.0	120.7	116.5	109.8	105.1	101.4	95.1	84.7	75.2
	CF8/304	148.9	143.5	122.6	111.0	103.4	97.5	92.7	90.7	88.9	87.1	85.3	84.0	82.2	80.8	79.5	73.3
	CF8M/316	148.9	144.3	126.6	115.5	107.0	100.1	94.9	92.7	91.0	89.6	88.3	87.4	86.5	86.0	84.7	75.2
	CF3M	148.9	144.3	126.6	115.5	107.0	100.1	94.9	92.7	91.0	89.6	88.3	87.4	86.5	-	-	-

5-5. ASME Standard CL 1500 Valves

Temperature(°C)		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538
Working Pressure (Bar)	LCB	240.1	237.3	226.7	219.7	212.7	203.9	193.4	187.9	182.0	174.9	163.1	136.5	-	-	-	-
	WCB	255.3	250.6	233.0	225.4	219.0	209.7	199.1	193.6	187.8	181.8	173.6	143.8	-	-	-	-
	WC6	258.6	258.6	257.4	248.7	239.8	231.8	214.4	206.6	201.1	194.1	183.1	175.1	169.0	158.2	128.6	74.5
	WC9	258.6	258.6	257.6	250.8	243.4	231.8	214.4	206.6	201.1	194.1	183.1	175.1	169.0	158.2	140.9	92.2
	C12A	258.6	258.6	257.6	250.8	243.4	231.8	214.4	206.6	201.1	194.1	183.1	175.1	169.0	158.2	140.9	125.5
	CF8/304	248.2	239.1	204.3	185.0	172.4	162.4	154.6	151.1	148.1	145.2	142.2	140.0	137.0	134.7	132.4	122.1
	CF8M/316	248.2	240.6	211.0	192.5	178.3	166.9	158.1	154.4	151.6	149.4	147.2	145.7	144.2	143.4	140.9	125.5
	CF3M	248.2	240.6	211.0	192.5	178.3	166.9	158.1	154.4	151.6	149.4	147.2	145.7	144.2	-	-	-

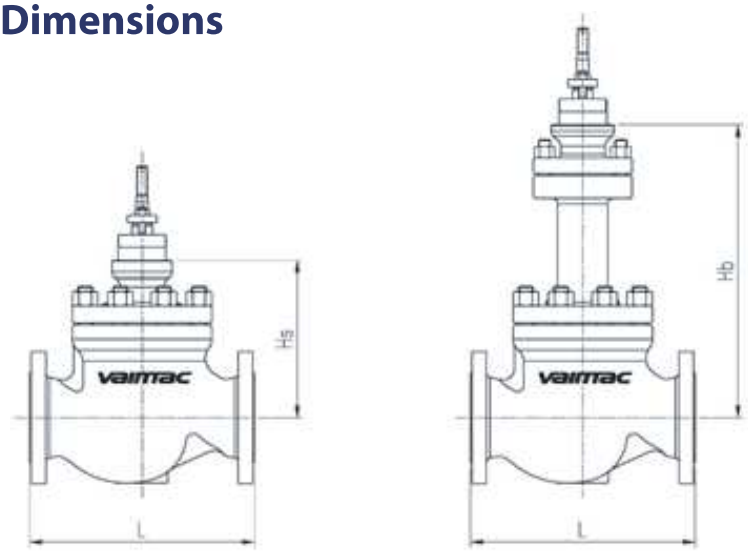
5-6. ASME Standard CL 2500 Valves

Temperature(°C)		-29 to 38	50	100	150	200	250	300	325	350	375	400	425	450	475	500	538
Working Pressure (Bar)	LCB	400.1	395.6	377.8	87.9	354.4	339.8	322.4	313.1	72.8	291.4	271.9	227.5	-	-	-	-
	WCB	425.5	417.7	388.3	90.2	365.0	349.5	331.8	322.6	75.1	303.1	289.3	239.7	-	-	-	-
	WC6	430.9	430.9	429.0	99.5	399.6	386.2	357.1	344.3	80.4	323.2	304.9	291.6	281.8	263.9	214.4	124.1
	WC9	430.9	430.9	429.4	100.3	405.4	386.2	357.1	344.3	80.4	323.2	304.9	291.6	281.8	263.9	235.0	153.7
	C12A	430.9	430.9	429.4	100.3	405.4	386.2	357.1	344.3	80.4	323.2	304.9	291.6	281.8	263.9	235.0	208.9
	CF8/304	413.7	398.5	340.4	74.0	287.3	270.7	257.6	251.9	59.3	241.9	237.0	233.3	228.4	224.5	220.7	203.6
	CF8M/316	413.7	400.9	351.6	77.0	297.2	278.1	263.5	257.4	60.7	249.0	245.3	242.9	240.4	238.9	235.0	208.9
	CF3M	413.7	400.9	351.6	77.0	297.2	278.1	263.5	257.4	60.7	249.0	245.3	242.9	240.4	-	-	-

Technical Engineering Data

6. Dimensions and Weight

6-1. Standard Dimensions



RATING \ SIZE		1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	Remark
CLASS 150 / JIS 10K	RF FLANGE(L)	184	184	184	222	254	276	298	352	403	451	543	
	STD BONNET(Hs)	130	130	130	164	174	207	220	237	252	287	366	
	BELLOWS BONNET(Hb)	271	271	271	343	354	400	410	432	435	460	650	
CLASS 300 / JIS 20K	RF FLANGE(L)	190	194	197	235	267	292	318	368	425	473	568	
	STD BONNET(Hs)	130	130	130	164	174	207	220	237	252	287	366	
	BELLOWS BONNET(Hb)	271	271	271	343	371	400	410	432	435	479	650	
CLASS 600 / JIS 40K	RF FLANGE(L)	203	206	210	251	286	311	337	394	457	508	610	
	STD BONNET(Hs)	144	144	144	174	187	207	225	245	275	310	390	
	BELLOWS BONNET(Hb)	-	-	-	-	-	-	-	-	-	-	-	

Note
1) Extension bonnet type : on request; differs case by case
2) Face to face dimension conform to ISA 75.08.01
3) "-" marks must be confirmed by manufacturer.

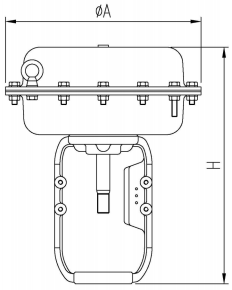
6-2. Valve Weights

RATING \ SIZE		1/2	3/4	1	1 1/2	2	2 1/2	3	4	5	6	8	Remark
CLASS 150 / JIS 10K	Std Bonnet	8	9	9	18	23	33	38	52	78	105	171	
	Bellows Bonnet	10	11	11	22	28	40	46	62	100	134	219	
CLASS 300 / JIS 20K	Std Bonnet	10	11	11	23	27	41	45	60	101	137	215	
	Bellows Bonnet	12	13	13	27	32	49	53	71	129	175	275	
CLASS 600 / JIS 40K	Std Bonnet	12	13	13	29	33	55	59	89	148	197	325	
	Bellows Bonnet	-	-	-	-	-	-	-	-	-	-	-	

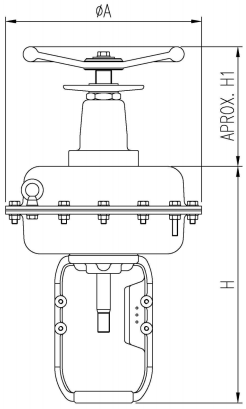
Note
1) Table above displays the dimensions and weights of standard valves.
2) "-" marks must be confirmed by manufacturer

Technical Engineering Data

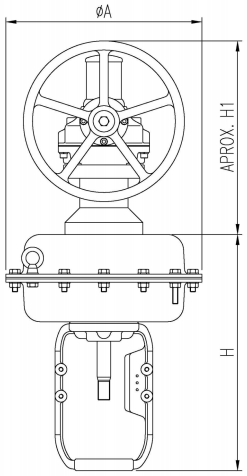
7. Dimensions and Weights for Actuator



Typy 500



Typy 510



Typy 530

Type 500						
ACTUATOR MODEL	SIZE	TRAVER (mm)	H (mm)	DIAPHRAGM (cm2)	WEIGHT (kg)	REMARK
500-23	220	15	264	141	7	
500-42	270	~25	340	291	13	
500-61	319	~38	355	410	19	
500-74	365	~50	441	545	32	
500-145	450	~75	519	939	55	
500-202	552	~100	732	1500	116	

Type 510							
ACTUATOR MODEL	SIZE	TRAVER (mm)	H (mm)	H1 (mm)	DIAPHRAGM (cm2)	WEIGHT (kg)	REMARK
510-23	220	15	264	165	141	12	
510-42	270	~25	340	224	291	19	
510-61	319	~38	355	235	410	26	
510-74	365	~50	441	270	545	42	
510-145	450	~75	519	368	939	76	
510-202	552	~100	732	424	1500	160	

Type 530							
ACTUATOR MODEL	SIZE	TRAVER (mm)	H (mm)	H1 (mm)	DIAPHRAGM (cm2)	WEIGHT (kg)	REMARK
530-42	270	~25	340	313	291	32	
530-61	319	~38	355	313	410	39	
530-74	365	~50	441	356	545	55	
530-145	450	~75	519	473	939	91	
530-202	552	~100	732	553	1500	177	

Technical Engineering Data

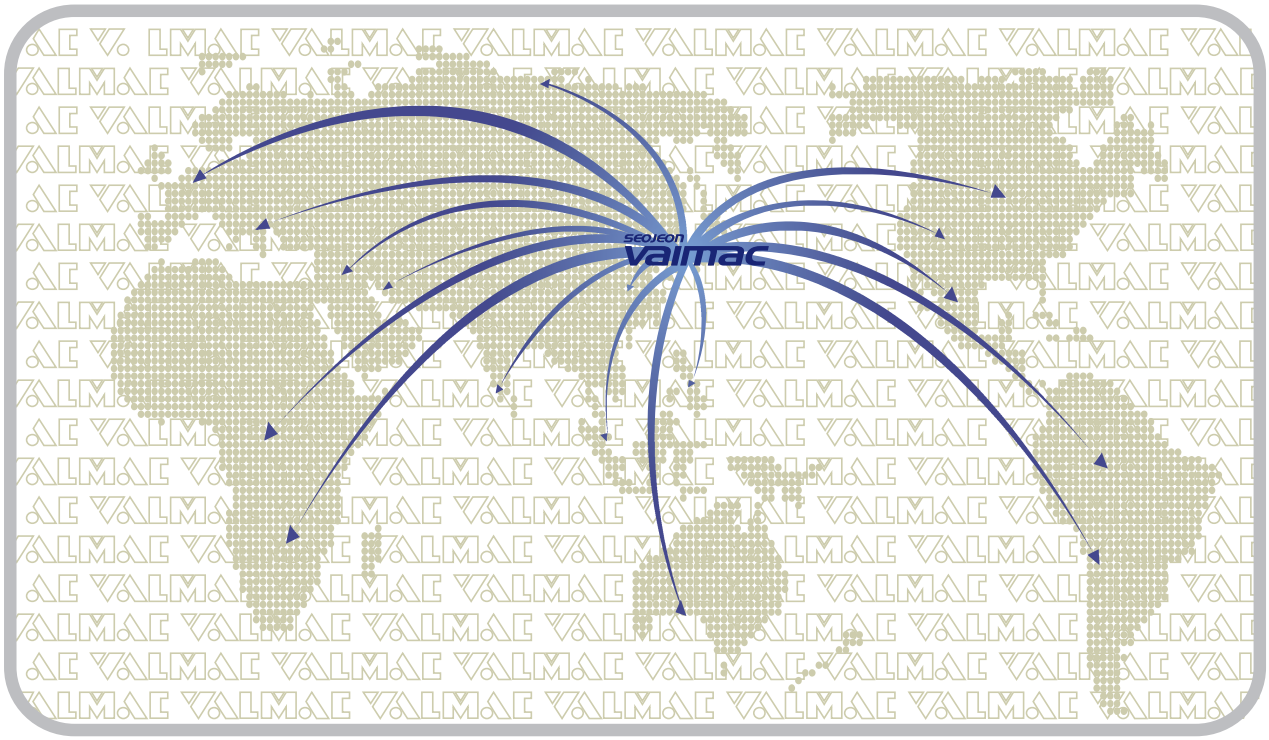
8. Corrosion Data

Corrosive media	Cast iron	Carbon Steel	Bronze	St.F304	St.F316	St. 12%Cr	Monel
Acetic Acid-Pu re	C	C	C	B	A	A	A
Acetic Acid-10%	C	C	C	B	A	A	A
Acetic Anh ydride	C	C	C	B	B	B	B
Acetone	A	A	A	A	A	A	A
Alcohol methyl (Mathanol)	B	B	B	A	A	A	A
Alcohol methyl 150°F	B	B	B	B	B	A	B
Ammonia-Conc&Aq, Sol.	A	A	D	A	A	A	B
Ammonia-Gas	A	A	D	A	A	A	B
Ammonium chloride- Still	D	D	D	B	C	A	A
Ammonium nitra te	C	C	D	A	B	A	C
Ammonium phospha te-Sat.	D	D	C	B	B	A	B
Ammonium sulpha te 1% & 5%	C	C	C	B	C	A	B
Ammonium-satu red	C	C	C	C	C	A	B
Amylacetate	C	C	C	B	C	A	B
Aniline	C	C	C	B	C	B	B
Arsenic acid-150°F	D	D	D	B	C	B	D
Asphalt	B	B	A	A	A	A	A
Bariumchloride-Sat.	C	C	B	A	C	A	B
Barium-Aqueous sol	C	C	C	B	C	A	B
Benzoic acid	D	D	B	A	C	A	B
Benzol	B	B	B	A	B	A	A
Boric acid	D	D	B	A	B	A	A
Butane gas	B	B	A	B	B	B	B
Butyric acid	D	D	C	A	A	A	B
Calcium bisulphi te	D	D	D	B	C	A	D
Calcium carbona te	D	D	C	B	C	A	B
Calcium chloride	C	C	B	C	C	B	A
Calcium hypochlori te	D	D	D	C	D	C	D
Carbon tetrachloride	B	B	B	A	A	A	B
Carbonic acid	D	D	D	B	C	A	A
Chlorine-Dry gas	B	B	D	B	B	B	B
Chlorine-Moist	D	D	D	D	D	D	C
Chromic acid	C	C	D	B	C	A	B
Citric acid-5%- Still	D	D	C	A	A	A	A
Citric acid-Sat	D	D	C	B	B	A	A
Copper nitra te	D	D	D	A	A	A	C
Copper sulpha te	A	A	C	A	A	A	B
Creosote-Crude	A	A	C	A	A	A	A
Dowtherms	B	B	A	A	A	A	A
Ether	B	B	B	A	B	A	D
Ethyl alcohol	B	B	B	A	B	A	B
Ethyl gl ycol	A	A	A	A	A	A	A
Ferric chloride	D	D	D	D	D	D	D
Ferric sulpha te	D	D	D	B	C	A	C
Ferrous chloride	D	D	D	D	D	D	C
Ferrous sulpha te	D	D	B	B	B	B	B
Fluorine	D	D	D	D	D	D	C
Formaldehyde-Cold	B	A	A	A	A	A	A
Formic acid	D	D	D	C	C	A	B
Furfural	B	A	A	A	A	A	A
Gasoline dour	B	B	C	A	B	A	B
Gasoline refined	B	A	A	A	A	A	A
Gelatine	D	D	B	B	C	A	A
Glucose	B	B	A	A	B	B	A
Glue-Dry	B	B	A	A	A	A	A
Glycerine	B	B	B	A	A	A	A
Hydrochloric-acid (Muriatic)	D	D	D	D	D	D	C
Hydrocyanic acid	C	C	D	A	C	A	C
Hydrofluroic acid	D	D	C	D	D	A	B
Hydrogen-Gas	B	B	B	A	A	A	A
Hydrogen-Peroxide	C	C	D	A	B	A	B
Hydrogen sulphi te-Dry	B	B	D	A	B	A	C
Hydrogen sulphi te-Wet	C	C	D	A	B	A	D
Iodine-Dry-Wet	D	D	D	D	D	D	D
Kerosene	B	B	A	A	A	A	A
Laquer sol vents	B	B	B	A	B	A	B
Lactic acid-1%	D	D	D	A	B	A	C
Lactic acid-5%	D	D	D	A	B	A	C
Lactic acid 5%-Boiling	D	D	D	A	D	B	D
Lactic acid 10%-150°F	D	D	D	B	D	C	D
Lactic acid-cone-70°F	D	D	D	B	D	C	D
Lime sulphur	A	A	D	A	A	A	B
Linseed oil	A	A	B	B	B	B	B
Lubricating oil-Sour	C	C	D	A	B	A	C

NOTE : A=Good resistance / B=Satisfac tory / C=Poor / D=Not Recommended

Corrosive media	Cast iron	Carbon Steel	Bronze	St.F304	St.F316	St. 12%Cr	Monel
Lubricating oil- Refined	A	A	B	A	A	A	B
Magnesium chloride	C	C	B	B	B	B	B
Magnesium hid roxide	C	C	C	A	A	B	A
Magnesium sulpha te	C	B	B	B	B	C	B
Mercuric chloride	D	D	D	D	C	D	C
Mercury	A	A	D	A	A	A	B
Methane gas	B	B	A	A	A	A	A
Methyl Ethyl Ketone	A	A	A	A	A	A	A
Milk (F resh or Soul)	D	D	B	A	A	B	A
Naphtha (Crude or Pu re)	B	B	B	A	A	B	B
Natural gas	B	B	B	A	A	A	A
Nickel chloride	D	D	D	B	B	C	B
Nickel sulpha te	D	D	B	B	B	D	B
Nitric acid - Crude	D	D	D	C	B	D	D
Nitric acid - 50%	D	D	D	A	A	A	D
Nitric acid - Conc. 70°F	D	D	D	A	A	A	D
Nitric acid - Conc. Boiling	D	D	D	C	B	D	D
Nitric acid - Fuming Conc.110°F	D	D	D	A	A	B	D
Nitric acid - Fuming Conc.Boiling	D	D	D	D	D	D	D
Nitrobenzene	B	B	D	B	A	B	B
Oils - Miner & Veget	B	B	B	A	A	B	B
Oxalic acid-10%-70	D	D	B	A	A	D	B
Oxalic acid-10%-Boiling	D	D	B	D	C	D	D
Oxygen	B	B	A	A	A	A	A
Petroleum oils-Crude	B	B	C	A	A	A	A
Phosphoric acid-Crude	C	C	D	D	D	D	D
Phosphoric acid-5%&Boiling	D	D	D	A	A	B	C
Phosphoric acid-10% Still	D	D	D	B	A	C	C
Phosphoric acid-10% Agita ted	D	D	D	C	D	D	D
Phosphoric acid-10% Ae r.-Boiling	D	D	D	D	A	D	D
Picric acid	C	C	D	A	A	C	C
Potassium chloride	B	B	B	C	C	B	B
Potassium cyanide	B	B	D	A	A	B	B
Potassium h ydroxide-5%-Still	A	A	D	A	A	A	A
Potassium h ydroxide-50%-Boiling	B	A	D	A	A	A	A
Potassium nitra te	B	B	B	A	A	A	B
Propane gas	B	B	A	A	A	A	A
Sea wa ter	D	D	B	B	A	D	A
Soap solution	B	A	A	A	A	A	A
Sodium bicarbona te	C	C	B	A	A	A	B
Sodium carbona te-50%	B	B	B	A	A	A	B
Sodium chloride	C	C	B	B	A	C	A
Sodium cyanide	B	B	D	B	B	C	B
Sodium h ydroxide	B	C	B	B	A	C	A
Sodium hypochlori te	D	D	D	C	B	D	C
Sodium nitra te	B	B	B	B	A	B	B
Sodium phospha te (di-Basic)	C	C	C	B	B	C	B
Sodium phospha te (tri-Basic)	B	B	D	B	B	B	B
Sodium sulpha te	B	B	B	B	A	B	A
Sodium sulphide	B	B	D	B	A	B	A
Steam	A	A	C	A	A	A	A
Stearic acid-Conc.	C	C	C	A	A	C	B
Sulphur-500°F-Molten	C	C	D	A	A	B	B
Sulphur di oxide	B	B	B	A	A	B	A
Sulphuric acid->10%	D	D	C	C	B	D	A
Sulphuric acid-50%-70°F	D	D	B	D	C	D	B
Sulphuric acid-50%-Boiling	D	D	D	D	D	D	C
Sulphuric acid-Conc-70°F	B	B	A	A	A	B	A
Sulphuric acid-300°F	D	D	C	D	D	D	C
Sulphuric acid-Fuming	D	D	C	C	B	D	C
Sulphurous acid-Sat.	D	D	C	C	B	D	D
Sulphurous acid-Spray	D	D	D	C	C	D	D
Tannic acid-10%	C	C	B	A	A	C	B
Tannic acid-10%-Boiling	D	D	C	C	C	D	C
Tar	A	A	A	A	A	A	A
Tartaric-70°F	D	D	B	A	A	C	A
Tartaric-150°F	D	D	B	B	A	D	B
Trichloro Ethylene	C	C	B	B	B	C	A
Turpentine	B	B	B	A	A	B	A
Tomato Juice	C	C	C	A	A	B	A
Vinegar	D	D	B	A	A	A	A
Water (Fresh)	C	C	A	A	A	A	A
Water distilled (Labo r, Garde)	D	D	C	A	A	D	C
Water distilled (Return Cond.)	B	B	B	A	A	B	A
Zinc Chloride	C	D	D	D	D	C	B

Global Service



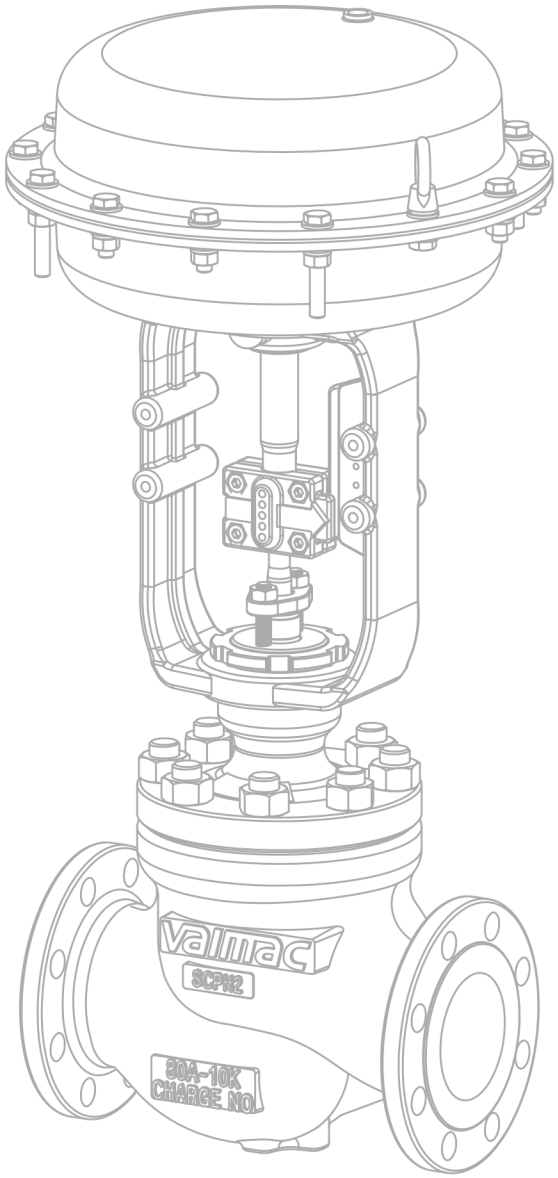
Service Capability

SEOJEON VALMAC has a long specific experience on designing, erecting, commissioning and training of personnel on the field of reducing and metering stations and of components for the Mechatronics Auto Control & System.

SEOJEON VALMAC is available to provide technical advise & service, as well as several fields assistance all around world, such as domestic and overseas.

Quality Guarantee

All products manufactured by SEOJEON VALMAC are warranted free of defects in material and workmanship.
SEOJEON VALMAC guarantee this order for 18 months after arriving job site or 12 months after shipped in wave
During the guarantee year if any problem, SEOJEON VALMAC must replace it with a new valve in free of charge.
But, when authorized, any defective product maybe returned to the factory and if found defective will be repaired or replaced free of charge,at the discretion of SEOJEON VALMAC ex-works our measured by the refund price of the defective product only.
All warrantees are based on the product being used within the range recommended.
This document dose not cover the performance of valves tested at site on test equipment that is not to the same technical standard as that the manufacturer.
SEOJEON VALMAC shall keep the goods clean, dry, and free form damage while in storage and while in their installed position and comply with reasonable detailed ,written preservation procedures which supplier may provide to SEOJEON VALMAC .
SEOJEON VALMAC shall test the goods prior to operational use, in accordance with industry accepted standards.



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