

Process Control Valves

08 Series Globe Valves

Heavy Duty
< 900# ~ 2500# >
Unbalanced & Balanced



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General Specification

1. Operation
Manual Handle, Pneumatic actuators, Electric Motors, Electro-hydraulic Actuators.
2. Body rating & size
ANSI 150#, 300#, 600# - 3/4" – 24" – (series 07)
ANSI 900#, 1500# - 3/4" – 16" – (series 08)
ANSI 2500# - 3/4" – 12" – (series 08)
3. End Connection
RF & RTJ, Butt Weld (over 3"), socket weld (below 2"),
Threaded (up to 2")
4. Material
ASTM A 216 WCB, WCC, WC6, WC9, Alloy 20, Hystelloy B&C
Monel, Inconel , Etc.

★option - NACE construction
08000 Series are available to comply with the requirements of NACE
MR0103, MR075 or ISO15156. For details please contact to factory or sales office.



Valve Modeling System

①	②	③	④	⑤	⑥	⑦	⑧
AO	35	08	D	1	M	1	F

① Power source

AO : Air operate
 EM : Electric Motor
 EH : Electric Hydraulic
 PR : Pressure Regulator
 TR : Temperature Regulator
 MH : Manual Handwheel

② Actuator type

01 : Hand Lever
 02 : Hand wheel
 03 : Gear with Wheel
 04 : Hydraulic Hand Pup
 05 : other hand operate
 16 : Linear spring return cylinder
 17 : Linear double acting cylinder
 35 : Linear dia. actuator(reversible)
 36 : Heavy duty dia. actuator
 38 : Rotary spring return cylinder
 39 : Rotary double acting cylinder
 21 : Electric motor (1 ph)
 23 : Electric Motor (3 ph)

③ Valve Body Series

06 : Teflon block globe
 07 : standard globe
 08 : Heavy duty globe
 11 : high performance butterfly valve
 13 : damper butterfly
 14 : lined butterfly
 20 : angle valve (globe)
 31 : 3 way globe
 41 : ball valve (soft seat)
 42 : V-ball valve (top entry)
 43 : V-ball valve (side entry)
 45 : 3 way ball valve (mixing)
 46 : 3 way ball valve (diverting)

47 : 4 way ball valve
 51 : non-lining diaphragm valve
 52 : lined diaphragm valve
 61 : discharge valve (globe)
 62 : discharge valve (ball)
 63 : plug valve
 65 : wedge gate valve
 66 : knife gate valve
 67 : pinch valve

④ Symbol of action

D : direct – air to close
 R : reverse – air to open
 N : Neutral

⑤ Trim type

1 : unbalanced top guided contoured type
 2 : balanced cage guided contoured type
 3 : cage guided unbalanced type
 4 : cage guided balanced type
 5 : anti-cavitation trim
 6 : low-noise trim
 7 : multi-stage trim
 8 : others

⑥ Seat type

M : metal seat
 S : soft seat

⑦ Bonnet type

1. standard
 2. extension
 3. cryogenic
 4. bellows

⑧ Optional

J : semi-jacketed
 F : full jacketed

KOMOTO's Features

Series 08 process control valves are designed for Energy saving, Clean environmental, cost saving as well as perfect performance in the various conditions : various fluids, from low pressure to high pressure, and from low. Temperature to high temperatures. Also these series provide whole process isolation and control solutions for the global needed. Series 0008 provides.

Cost saving

Large flow gallery provides higher flow capacity (Cv), parts interchangeability, Cost effect parts, easy maintenance are essential elements for cost saving.

Clean environmental products

Typical packing system compliance with the CAA(Clean Air Act) Sour service capability.

Energy saving design

08 series process control valves are stream line design permitting high flow Cv design combines with lower pressure recoveries (high F1 factor). And efficient and dependable performance over a wide range in critical application.

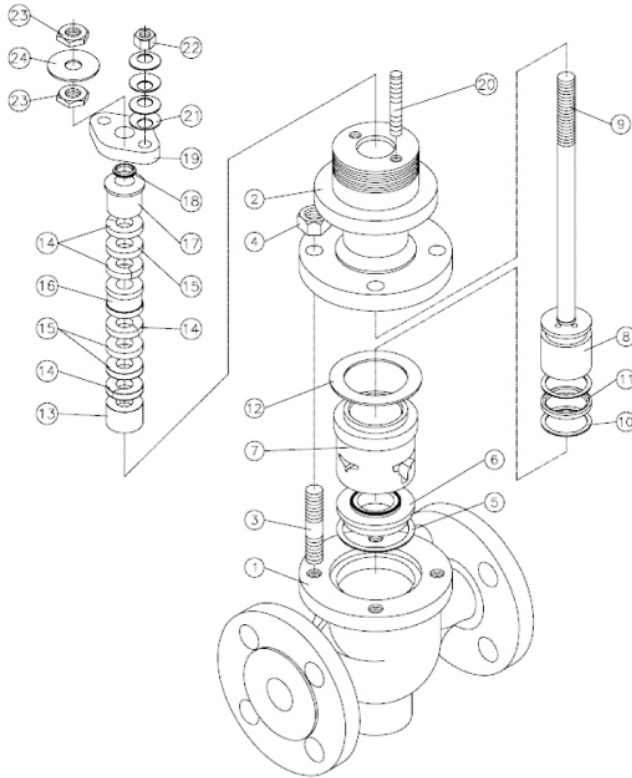
High performance

For high performance in any application should be based on the best selection and specification of the valves with is simplified with the standard construction and material combinations.

Cost effective Economy parts

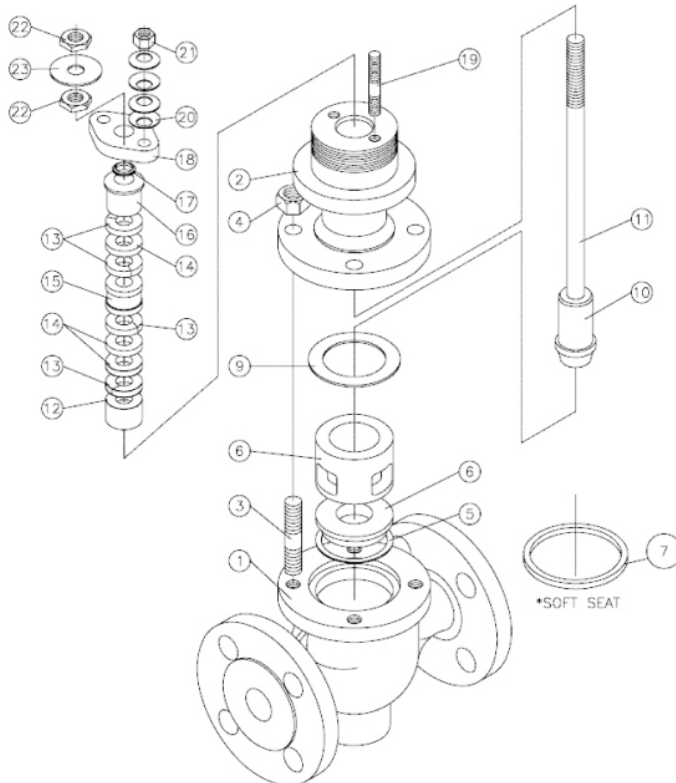
All parts are changeability on the pipe line without removing the valve body. Balanced valve plug construction provide smaller and lower cost actuator, rugged cage guiding permit high plug stability which reduces vibration and noise.

General Construction



PARTS LIST

24	POINTER	1	
23	STEM LOCK NUT	2	
22	HEX. NUT	2	
21	CONED DISC SPRING	8	
20	GLAND BOLT	2	
19	GLAND FLANGE	1	
18	DUST RING	1	
17	GLAND FOLLOWER	1	
16	LANTURN RING	1	
15	GLAND PACKING	3	
14	GLAND PACKING	4	
13	LOWER GUIDE	1	
12	BONNET GASKET	1	
11	O-RING	1	
10	BACK-UP RING	2	
9	STEM	1	
8	INNER VALVE	1	
7	CAGE BALANCE	1	
6	SEAT RING	1	
5	SEAT GASKET	1	
4	HEX. NUT	4	
3	STUD BOLT	4	
2	PLAIN BONNET	1	
1	BODY	1	
NO.	NAME OF PARTS	Q'TY	REMARKS



PARTS LIST

23	POINTER	1	
22	STEM LOCK NUT	2	
21	HEX. NUT	2	
20	CONED DISC SPRING	8	
19	GLAND BOLT	2	
18	GLAND FLANGE	1	
17	DUST RING	1	
16	GLAND FOLLOWER	1	
15	LANTURN RING	1	
14	GLAND PACKING	3	
13	GLAND PACKING	4	
12	BOTTOM GUIDE	1	
11	STEM	1	
10	INNER VALVE	1	
9	BONNET GASKET	1	
8	GUIDE	1	
7	TEFLON SEAT	1	
6	SEAT RETAINER (1)	1	
5	SEAT GASKET	1	
4	HEX. NUT	4	
3	STUD BOLT	4	
2	PLAIN BONNET	1	
1	BODY	1	
NO.	NAME OF PARTS	Q'TY	REMARKS

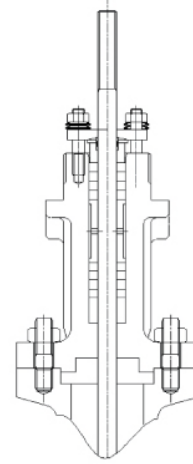
Bonnet type

Standard Bonnet

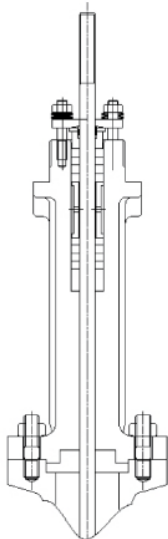
For application, the controlled fluid is from the Temperature 20 °C to 230 °C.

Even graphite packing can be used over 230 °C.

It is not recommendable to void lagging of the valve body.



PLAIN BONNET



EXTENTION BONNET

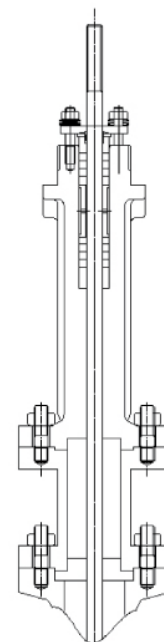
Extension Bonnet

Even modern packing materials are suitable for much higher temperature, it is recommended extension bonnet for normalizing the temperature in the packing box.

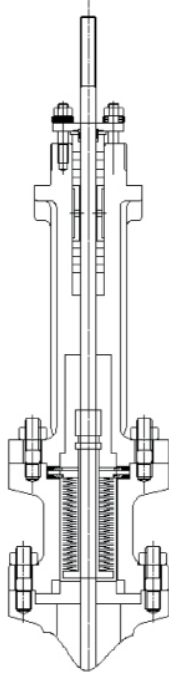
For protection of the gland packing at temperature above 230 °C. and below - 18 °C down to -100 °C.

Cryogenic Bonnet

For application below - 100 °C, the packing box should be distanced from the process fluids, and the bonnet is designed by the long neck with a minimum wall thickness Bonnet types.



CRYOGENIC BONNET



BELLOWS BONNET

Bellow Seal Bonnet

To minimize heat transfer form fluid.

The cold box extension / cryogenic bonnets are also available.

The design consist of a welded flexible steel bellows which is clamped in an extended bonnet and packing bonnet flanges.

This effectively cuts out any possible leakage path around the valve stem, and it prevents emissions from the valve packing. Also additional standard packing box acts as secondary stem seal.

Maximum life time design –

All the bellows are designed for 50% stroke to achieve zero stress at the valve middle position for maximum cycle life.

Also the bellows torsion stress are minimized with anti-rotation feature provided by a flat on the stem.

Material of bellow : Standard - 316/316L

Option - Hastelloy, Inconnel, Monel.

Part No.	Name	Standard Materials		
3	Stud-Bolt	-30 ~ 340°C ASTM193 B7		
		~ 510°C A193 B16		
		~ 560°C A453 G660		
4	Nut	-30 ~ 340°C ASTM193 B7		
5	Seat Gasket	Spiral wounded (S.S + Graphite)		
8	Bonnet Gasket	Spiral wounded (S.S + Graphite)		
9	Bottom Guide	Teflon linde S.S		
12	Top Guide	Grafoil lined S.S		
		Solid Bronze		
		O-ring		
13	Gland packing	Max. Temperature		
14	Packing	Plain Bonnet	Extention Bonnet	Cryogenic Bonnet
	Teflon	-20°C ~ 230°C	320°C	400°C
	Graphite + Grafoil	320°C	750°C	1500°C
15	Lanturn Ring	304 St. St / 316 St. St		
16	Gland Follwer	304 St. St / 316 St. St		
19	Gland Flange	304 St. St		
21	Coned Disc Spring	304 St. St		

Bonnet packing box Construction

Typical guiding and packing system

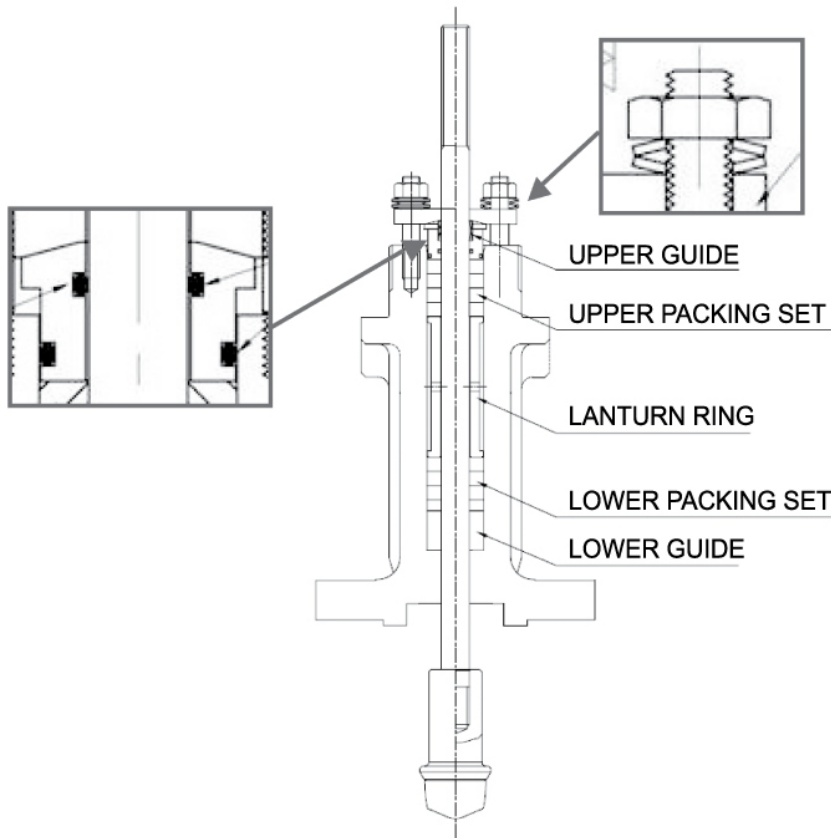
Standard packing box is longer than the other conventional manufacturers. And it can be provided exceptional guiding. The upper guide is using as a packing flower and under guide is guiding close to the plug head for accurate guiding, insuring alignment of the plug, seat and Gland packing.

CLEAN-Packing System (Live loading packing system)

Clean-seal packing system provides exceptional packing sealing ability. These live-loading systems are staining constant pressure in the packing box. The long-life and reliability of these packing systems also reduce maintenance cost. These packing systems are available to assist in compliance with environmental emissions requirement.

Stem guide

Two guides with long lantern ring provide accurate alignment of the plug and seat. Various guides permits superior guiding over wide temperature ranges and completely eliminate stem galling.



Plug & Seat system

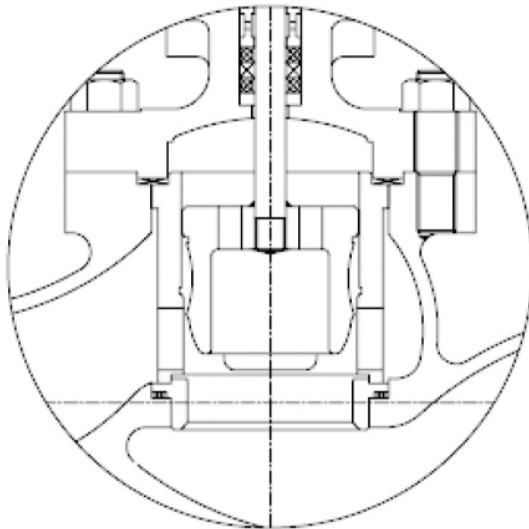
Series 08 is available with a various trim design ; tight shut-off, anti-cavitation, anti-noise trim. There is a wide range of standard and heavy duty trims available which can be fitted withn the same valve body. The options are 1 to 5 stages of multi letdown flow trims and various designs which is covered to suit the special application. A big pressure drop, noise and potential cavitation are all considered to give the most cost effective solution for the particular application.

Single port plug – provides excellent low leak, low noise in gaseous fluids and anti-cavitation solution in liquid service.

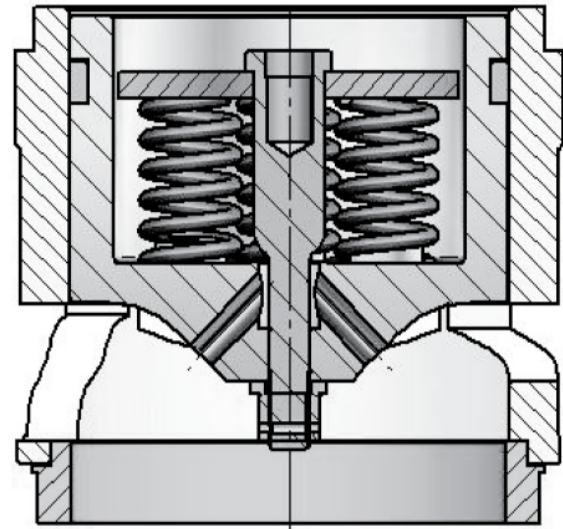
Double port plug – provides high temperature and high pressure solution with multi-stage trim which is provided highly effective low noise and anti-cavitation solution.

Pilot port plug – provides tight shut-off solution in high temperature applications.

Special trim design – provides special applications not covered by standard plug.

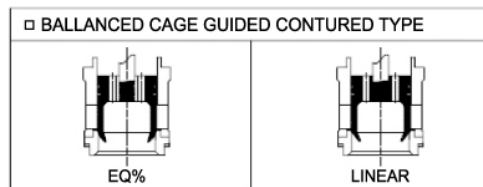
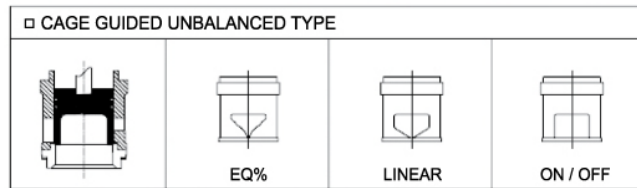
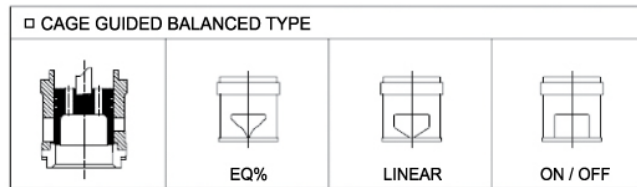
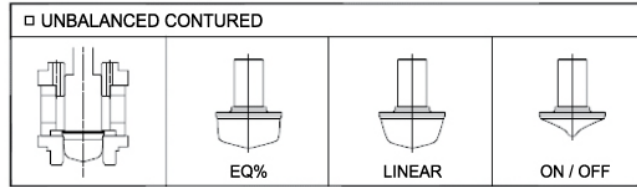


DOUBLE CONTOURED PLUG
<BALANCED>



PILOT PORT PLUG

Seating system

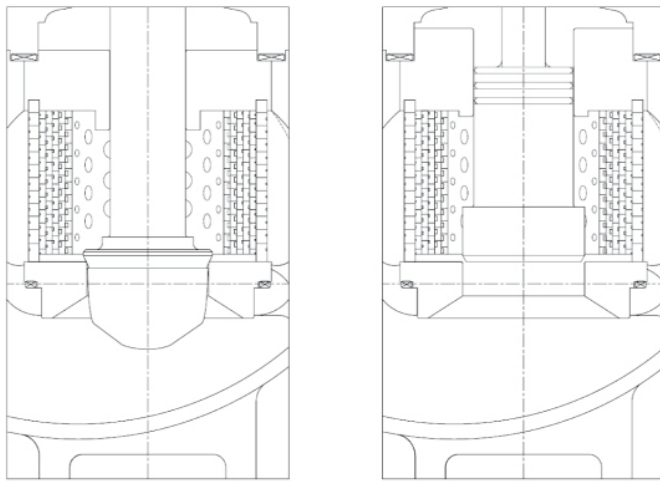


Material Construction

Cage	Plug	Plug stem	Seat	
304.st.st	304.st.st	316.st.st	304.st.st	400°C
304.st.st + chrome plated	304.st.st + stellite		304.st.st + stellite	550°C
316.st.st	316.st.st		316.st.st	400°C
304.st.st + chrome plated	316.st.st + stellite		316.st.st + stellite	550°C

Available special materials

Monel, Inconel, Hatelloy C & B, other Alloy. etc.



< Low Noise Trim & Anti Cavitation Trim >



Materials construction

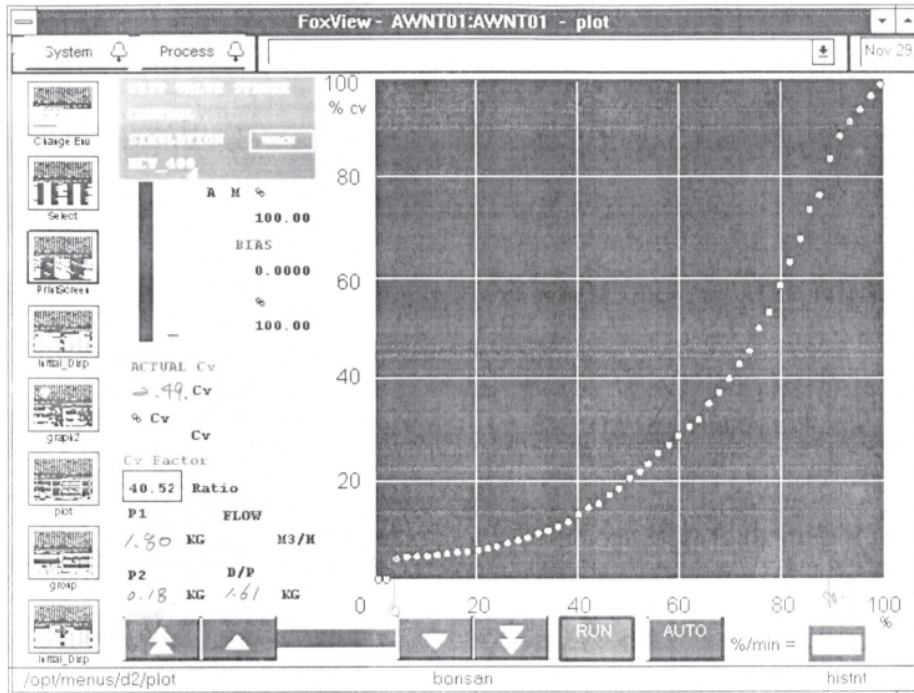
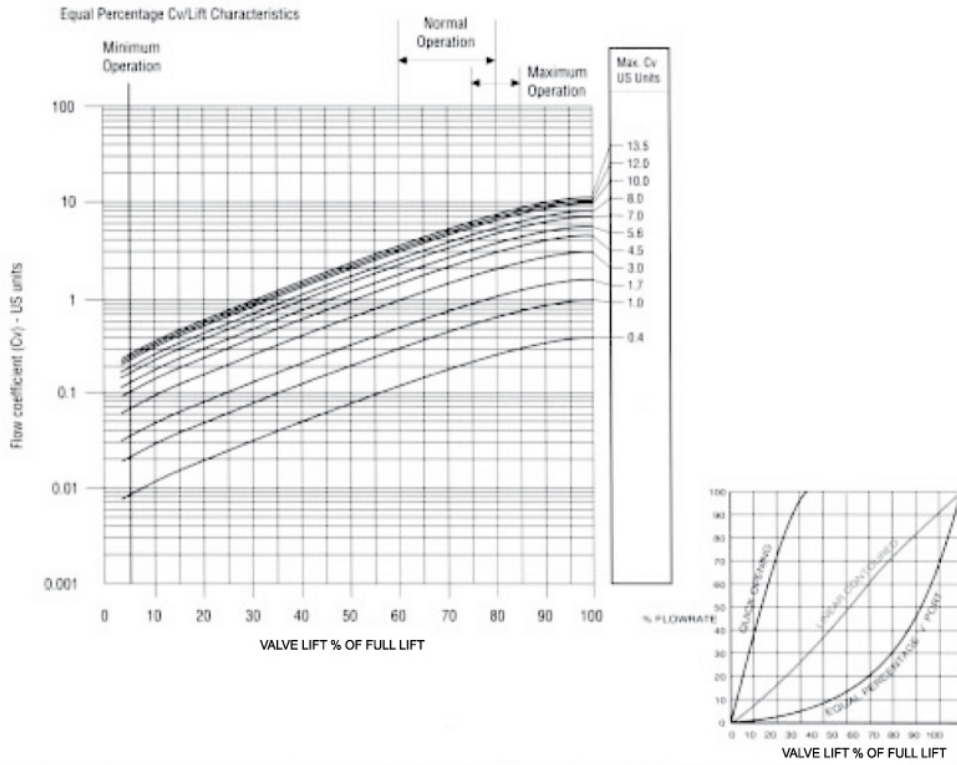
Cage	Plug	Plug Stem	Seat	Service
420 ST.ST. Hardened	17-4PH ST.ST. Hardened	316 ST.ST. / 17.4PH	Integral with Cage/ 316 ST.ST. 316 + Stellite	-35°C to 399°C
420 ST.ST. Hardened	316 ST.ST. with Stellite face & Guide			-30°F to 750°F
316 ST.ST. / 17-4PH ST.ST.	316 ST.ST. with Chrome Plated Guide Diameter			400°C to 565°C
				750°F to 1050°F
420 ST.ST. Hardened	17-4PH ST.ST. Hardened with PTFE Face		316 ST.ST.	NACE MR-01-75
Monel K500	monel 400	Monel 400/ Monel K500		-35°C to 232°C
Hastelloy C Duplex	Hastelloy C Duplex	Hastelloy C Duplex	Integral with Cage/ Monel K500	-30°F to 450°F
Ceramic/420 ST.ST.	316 ST.ST. + Ceramic	316 ST.ST.	Integral with cage/Duplex 316 ST.ST. + Ceramic	-35°C to 232°C
				-30°F to 450°F
				-35°C to 500°C
				-30°F to 932°F

*options for Stellite face or full stellite available for most materials.

Leakage class

Seal Ring Material	Leakage Class	Temperature
Carbon Graphite	Class 111	-35°C to 565°C
Carbon PTFE 'U' Seal	Class IV & V	-35°C to 260°C
High temp 'U' Seal	Class IV & V	260°C to 350°C
Virgin PTFE 'U' Seal	Class IV & V	Cryogenic to -35°C
Carbon Triple Seal	Class IV	350°C to 565°C
Pilot Balanced	Class V & MSS-SP-81	-35°C to 565°C
Soft Face Seat	Class VI	-35°C to 232°C
None (un-balanced)	Class III, IV & V	Cryogenic to 565°C

Cv curve



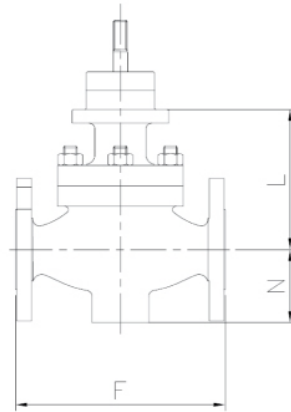
< Actual Cv curve >

Multi-flow trim design CV (900LBS, 1500LBS, 2500LBS)

VALVE SIZE	MF1		MF2		MF4		MF6		VALVE TRAVEL
	=%	LINEAR	=%	LINEAR	=%	LINEAR	=%	LINEAR	
1 1/2" 40mm	30	30	20	20	14	14	8	8	1 1/3" 28.5mm
2" 50mm	38	45	32	32	23	23	13	13	1 1/3" 28.5mm
3" 80mm	84	100	72	72	50	50	29	29	1 1/2" 38mm
4" 100mm	155	200	130	130	90	90	52	52	2 1/4" 57mm
6" 150mm	-	360	280	280	195	195	112	112	2 1/4" 57mm
	400	450							3 1/2" 89mm
8" 200mm	550	620	520	520	365	365	210	210	3 1/2" 89mm
	600	700							5" 127mm
10" 250mm	830	830	750	750	525	525	300	300	3 1/2" 89mm
	900	1100							5" 127mm
12" 300mm	-	-	1100	1100	770	770	440	440	3 1/2" 89mm
	1400	1600							5" 127mm
14" 350mm	1940	2200	1600	1600	1400	1400	1200	1200	7" 175mm
16" 400mm	2500	2750	2200	2200	1750	1750	1400	1400	7" 175mm
18" 450mm	3100	3500	2800	2800	2200	2200	1750	1750	10" 250mm
20" 500mm	3900	4430	3100	3100	2800	2800	2200	2200	10" 250mm
24" 600mm	5700	6000	3900	3900	3100	3100	2800	2800	12" 300 mm
30" 750mm	CF	CF	CF	CF	CF	CF	CF	CF	CF

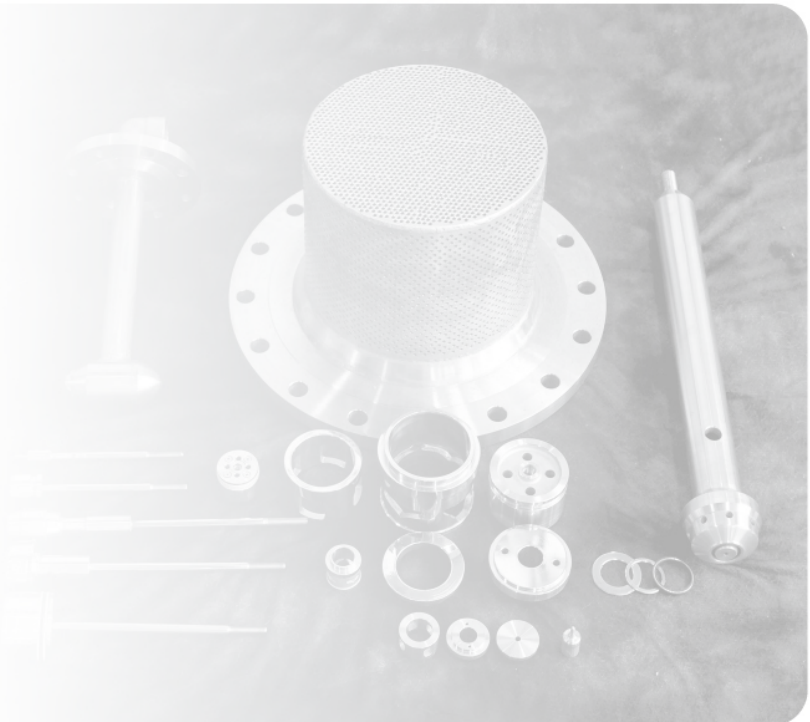
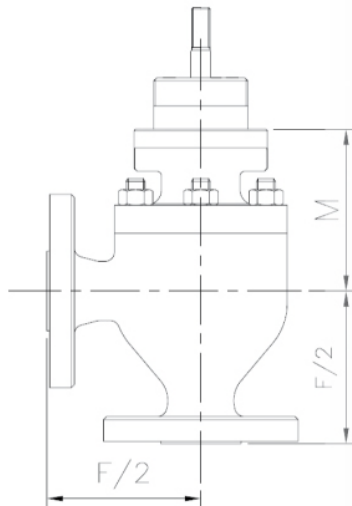
Cascade trim design CV (900LBS, 1500LBS, 2500LBS)

VALVE SIZE	RATING	CS2		CS3		CS4		CS5		VALVE TRAVEL
		MOD	LINER	MOD	LINER	MOD	LINER	MOD	LINER	
		=%		=%		=%		=%		
1 1/2" 40mm	ALL	20	33	10	12					1 1/18 28.5mm
2" 50mm	900, 1500 & 2000LB	20	33	10	12					1 1/2" 38mm
	2500LB & 4500LB	20	33	12	16					1 1/2" 38mm
3" 80mm	900, 1500 & 2000LB	40	48	8	10					1 1/2" 38mm
	2500LB & 4500LB	40	48	20	24	10	12			1 1/2" 38mm
	900, 1500 & 2000LB	60	72	12	16					2 1/4" 57mm
4" 100mm	2500LB & 4500LB	60	72	30	36	15	18			2 1/4" 57mm
	900, 1500 & 2000LB	72	96	36	36	18	18	9	9	2 1/4" 57mm
6" 150mm	2500LB & 4500LB	96	96	48	48	24	24	12	12	2 1/4" 57mm
	ALL	108	144	54	72	27	36	13	18	2 1/4" 57mm
8" 200mm	ALL	1468	224	84	112	42	56	21	28	3 1/2" 89mm
	900, 1500 & 2000LB	200	263	84	112	42	56	21	28	3 1/2" 89mm
8" 200mm	2500LB & 4500LB	340	450	140	188	70	94	35	47	6" 150mm
		200	263	100	132	50	66	25	33	3 1/2" 89mm
		340	450	170	225	85	112	42	56	6" 150mm
10" 250mm	ALL	370	495	185	248	92	124	46	62	3 1/2" 89mm
	ALL	640	850	320	425	160	212	80	106	6" 150mm
12" 300mm	ALL	470	625	235	312	117	156	58	78	3 1/2" 89mm
	ALL	670	893	335	446	167	223	83	112	6" 150mm
	ALL	940	1250	470	625	235	312	117	156	7" 175mm



Globe valves dimensions

VALVE SIZE		1 1/2"	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	
		40mm	50mm	80mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm	500mm	600mm	750mm	
RATINGS UP TO AND INCLUDING ANSI CLASS 1500lb																
ANSI 900	F	12	13 1/4	15 1/2	18 1/2	21 7/8	36 3/4	36	44 1/2	56	56	68	68 1/2	CF	CF	
RF & PN160		305	337	394	470	556	934	914	1130	1422	1422	1727	1740			
ANSI 900 RTJ		12	13 3/8	15 3/8	18 5/8	22	36 7/8	36 1/8	44 1/2	56	56	68	68 1/2	CF	CF	
		305	340	397	473	559	937	918	1130	1422	1422	1727	1740			
ANSI 1500		12	13 1/4	16 1/4	19 1/2	24	39	45	45 1/8	56	56	68	68 1/2	CF	CF	
RF & PN250		305	337	413	489	610	990	1142	1146	1422	1422	1727	1740			
ANSI 1500 RTJ		12	13 1/8	16 3/8	19 3/8	24 1/4	39 3/8	45 3/8	45 1/8	56	56	68	68 1/2	CF	CF	
		305	340	416	492	616	1001	1153	1146	1422	1422	1727	1740			
ANSI 900 & 1500 PN160 & PN250 Butt Weld		12	13 1/4	16 1/4	19 1/2	24	39 3/8	45	45 1/8	56	56	68	68 1/2	CF	CF	
		305	337	413	489	610	1001	1142	1146	1422	1422	1727	1740			
Plain Bonnet	L	7 7/8	8 1/2	9 3/8	12 1/2	11 7/8	19 5/8	24 1/2	26 3/4	28 3/4	28 3/4	37	41 1/2	CF	CF	
		200	215	238	298	302	498	602	660	730	730	940	1054			
Norm Bonnet 313	L	12 5/16	12 7/8	14	16	16 5/16	27 1/2	29 1/2	31 1/2	35 1/2	35 1/2	43 1/2	49 1/4	46 3/8	CF	
		327	355	406	415	695	750	800	902	902	1105	1250	1178			
N 86		3 3/8	3 3/4	5	5 7/8	7 3/8	11 1/4	12 3/8	13	13 1/2	13 1/2	17 3/4	19 5/8	22 7/8	CF	
Standard Travels		1 1/3	1 1/8	1 1/2	2 1/4	2 1/4	3 1/2	3 1/2	REFER TO TRIM SELECTION							
Bonnet Mount Dia		26.6	28.6	38	57	57	69	89								
		2 1/8	2 1/8	2 13/16	3 9/16	3 9/16	3 9/16	5	5	5	5	5	5	5	5	
		54	54	71	90	90	90	127	127	127	127	127	127	127	127	
ANSI CLASS 2000lb																
ANSI 2000 Butt Weld	F	12	14 1/4	20	24	32	39	44 15/16	52	CF	CF	CF	68	CF	CF	
		305	366	508	610	813	990	1142	1321				1727			
Plain Bonnet	L	7 7/8	8 9/16	9 7/8	12 1/8	13 3/4	19 5/8	22 3/4	26 1/4	CF	CF	CF	33 7/8	CF	CF	
		200	217	251	309	350	499	603	667				859			
Norm Bonnet		12 5/16	13 9/16	15 1/8	16 5/8	20	27 3/8	31 1/4	34 1/8	CF	CF	CF	CF	CF	CF	
		313	344	385	422	507	696	800	867							
N 86		3 3/8	4 1/16	5	6 1/16	9 1/2	11 1/4	13 3/8	15 5/8	CF	CF	CF	CF	CF	CF	
		86	103	128	154	235	266	339	397							
Travel		1 1/8	1 1/8	1 1/2	2 1/4	2 1/4	3 1/2	3 1/2	REFER TO TRIM SELECTION							
Bonnet Mount Dia		26.6	28.6	38	57	57	69	89								
		2 1/8	2 1/8	2 13/16	3 9/16	3 9/16	3 9/16	5	5	5	5	5	5	5	5	
		359	54	71	90	90	90	127	127	127	127	127	127	127	127	
ANSI CLASS 2500lb																
ANSI 2500 Butt Weld	F	14 1/8	16 1/4	21 1/2	25 5/8	35 7/16	45 1/4	55 1/8	63	71	CF	CF	CF	CF	CF	
		359	413	546	650	900	1150	1400	1600	1803						
Plain Bonnet	L	8 7/8	10 1/4	11 5/8	15	20 1/4	25 1/4	CF	CF	CF	CF	CF	CF	CF	CF	
		225	260	296	381	514	649									
Norm Bonnet		14	14 7/8	16 5/8	19 7/8	26 3/8	45 1/4	CF	CF	CF	CF	CF	CF	CF	CF	
		355	377	422	504	669	846									
N 100		4	4 3/8	5	7	9 3/8	12 3/8	CF	CF	CF	CF	CF	CF	CF	CF	
		100	110	128	177	238	315									
Travel		1 1/8	1 1/8	1 1/2	2 1/4	2 1/4	3 1/2	3 1/2	REFER TO TRIM SELECTION							
Bonnet Mount Dia		26.6	28 3/8	38	57	57	69	89								
		2 13/16	2 13/16	3 9/16	3 9/16	3 9/16	5	5	5	5	5	5	5	5	5	
		71	71	90	90	90	127	127	127	127	127	127	127	127	127	



Angle valves dimensions

VALVE SIZE	1 1/2" 40mm	2" 50mm	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 300mm	14" 350mm	16" 400mm	18" 450mm	20" 500mm	24" 600mm	30" 750mm
RATINGS UP TO AND INCLUDING ANSI CLASS 1500lb														
ANSI 900 RF & PN160	6	7	8 1/8	9 1/4	12 13/16	CF	CF	CF	CF	CF	CF	CF	CF	CF
ANSI 900 RTJ	6	7 1/16	8 13/16	9 5/16	12 1/4	CF	CF	CF	CF	CF	CF	CF	CF	CF
ANSI 1500 RF & PN250	6	7 1/16	8 1/2	9 5/8	13 1/4	CF	CF	CF	CF	CF	CF	CF	CF	CF
ANSI 1500 RTJ	6	7 1/16	8 9/16	9 11/16	13 5/16	CF	CF	CF	CF	CF	CF	CF	CF	CF
ANSI 900 & 1500 PN160 & PN250 Butt Weld	6	6 5/8	8 1/2	9 5/8	13 1/4	CF	CF	CF	CF	CF	CF	CF	CF	CF
Plain Bonnet	6 7/8	7	7 7/16	9 1/16	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
Norm Bonnet	11 3/8	11 1/8	12	13 3/8	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
Standard Travels	1 1/8	1 1/8	1 1/2	2 1/4	2 1/4	3 1/2	3 1/2	REFER TO TRIM SELECTION						
Bonnet Mount Dia	28.6	28.6	38	57	57	89	89	5	5	5	5	5	5	5
	2 1/8	2 1/8	2 13/16	3 9/16	3 9/16	3 9/16	5	5	5	5	5	5	5	5
	54	54	71	90	90	90	127	127	127	127	127	127	127	127
ANSI CLASS 2000lb														
ANSI 2000 Butt Weld	6	7 1/4	10	12	16	19 1/4	22 1/4	24 3/4	CF	CF	CF	CF	CF	CF
Plain Bonnet	6 7/8	7	7 13/16	9 7/16	12 3/16	16 1/4	CF	CF	CF	CF	CF	CF	CF	CF
Bonnet	175	178	199	239	310	413	CF	CF	CF	CF	CF	CF	CF	CF
Norm Bonnet	11 3/8	12	13 1/8	13 1/8	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
Bonnet	288	306	333	352	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
Travel	1 1/8	1 1/8	1 1/2	2 1/4	2 1/4	3 1/2	3 1/2	REFER TO TRIM SELECTION						
Bonnet Mount Dia	28.6	28.6	38	57	57	89	89	5	5	5	5	5	5	5
	2 1/8	2 1/8	2 1/8	2 13/16	3 9/16	3 9/16	5	5	5	5	5	5	5	5
	54	54	71	90	90	90	127	127	127	127	127	127	127	127
ANSI CLASS 2500lb														
ANSI 2500 Butt Weld	6 7/8	8 1/8	10 3/4	12 13/16	17 3/4	22 5/8	27 9/16	31 1/2	CF	CF	CF	CF	CF	CF
Plain Bonnet	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
Norm Bonnet	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
Travel	1 1/8	1 1/8	1 1/2	2 1/4	2 1/4	3 1/2	3 1/2	REFER TO TRIM SELECTION						
Bonnet Mount Dia	28.6	38	57	57	89	89	5	5	5	5	5	5	5	5
	2 13/16	2 13/16	3 9/16	3 9/16	3 9/16	5	5	5	5	5	5	5	5	5
	71	90	90	90	90	127	127	127	127	127	127	127	127	127