

Globe Control Valves



Table of Contents

Features	02
Design Standard	03
Construction & Specification	04
Product Range	06
Dimension	07
Shut-Off Pressure	16
Valve Characteristic	17
C _v Value	18
Model No.	Back Cover
Contact Information	Back Cover

Product Feature

Direction : Flow to Open (FTO)

Specification :

Low pressure drop, general medium, non-cavitation process, non-flashing process and non-noise process.

Top Guide / Cage Guide

Below 1.5" is top guide, above 2" is cage guide and balance type is available above 2.5" with full port.

Reduced Capacity and Low Flow Trim

A series of reduced trim is available to provide the wide flow range capabilities in all valve sizes. Optional trim is also available.

Pressure Capability

Shut-off Pressure of various actuators are fit the specific leakage classes, or can be calculated by using WYECO Sizing Program.

Leakage Class

Class IV is standard. Optional constructions meet IEC 60534-4 and ANSI/FCI 70.2 Class V and VI.

Quick Change Trim

Easy for maintenance.

Low Emission

Low Emission Packing to assure compliance with latest environmental regulations.

Optional : NACE Compliance

The 8000 Series is available for Sour Service Applications using design and construction methods in accordance with NACE Standard MR 0103-2010.

Applications requiring compliance to NACE Standard MR 0175/ISO 15156 -2009 require engineering review.

Design Features

- . Plug design : Contour Plug
- . Balanced / Unbalanced Plug
- . Quick-Change
- . Reduced Capacity
- . Leakage Class : Leakage IV, V (Metal Seat) and VI (Soft Seat)
- . Low Emission Packing
- . Bonnet Type : Standard / Extension / Bellows Seal

Design Standard

Valve Body

- ASME/ANSI B16.34 : Valve Flanged, Threaded and Welding End
- ASME/ANSI B16.5 : Pipe Flanged and Flanged Fitting
- ISA 75.03/IEC60534-3-1: Face to Face and End to End Dimension of Valve

Sizing & Test Procedure

- ANSI/ISA S75.01 : Flow Equations for Sizing Control Valve
- ISA S75.02: Control Valve Capacity Test Procedures
- ISA S75.11: Inherent Flow Characteristic and Rangeability
- ISA S75.25: Test Procedure for Control Valve Response Measurement from Step Inputs
- IEC 60534-8-3: Noise considerations – Prediction of noise generated by hydrodynamic flow
- IEC 60534-8-4: Noise considerations – Control valve aerodynamic noise prediction method

Leakage & Hydrostatic test

- ANSI / FCI 70 -2/B16.104 /IEC 60534 -4 : Leakage test

Hydrostatic test

- ANSI/ISA-75.19.01/B16.34

VOC Test:

- ISO-15848-1、 2/EPA Method 21

NACE International (Also available)

- NACE 0175 :

Petroleum and Natural Gas Industry-Materials for Use in H₂S Containing Environment in Oil and Gas Production

- NACE 0103 :

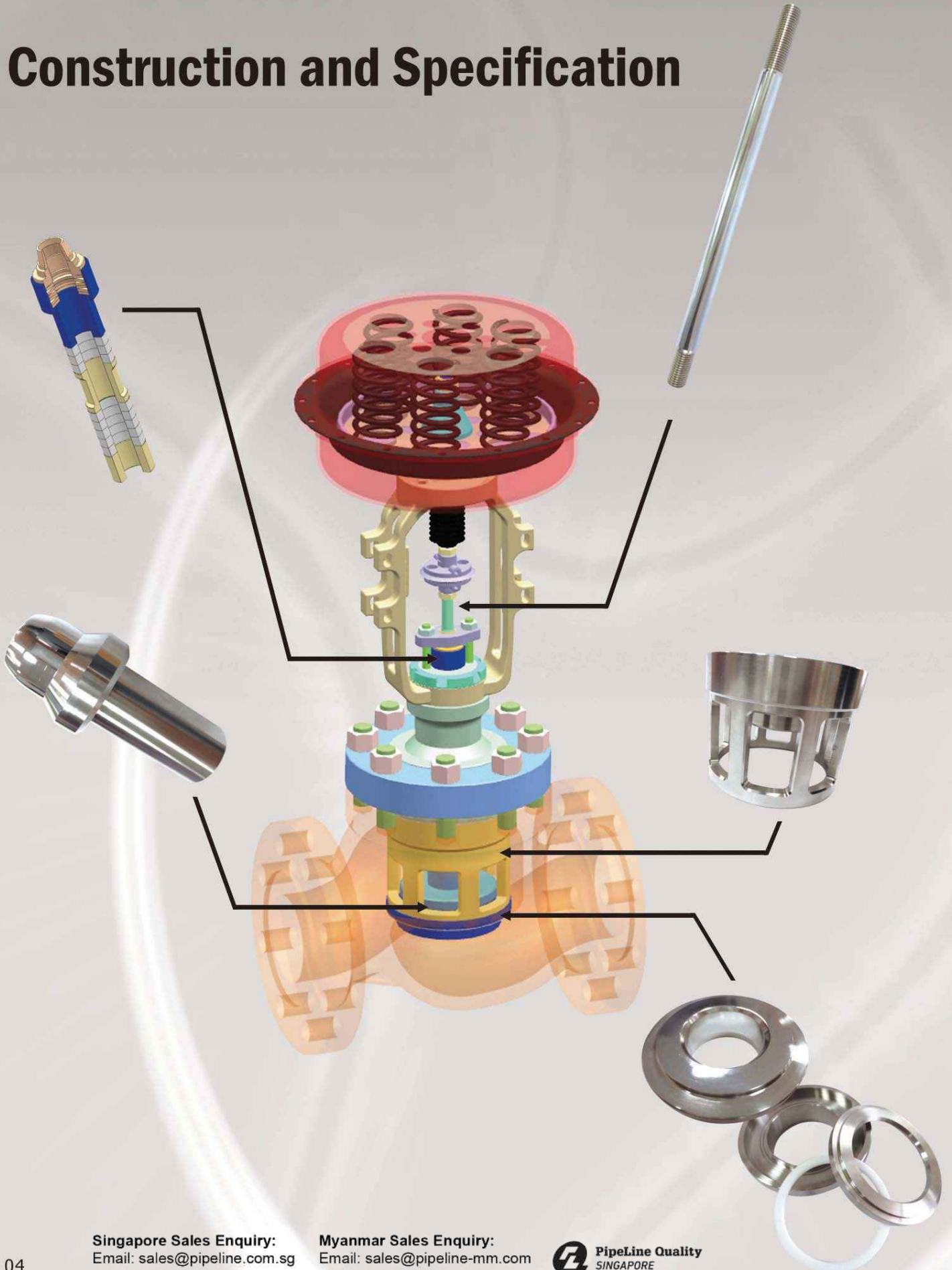
Materials Resistant to Sulfide Stress Cracking in Corrosive Petroleum Refining Environments

Application

1. Machine, Instrument Industry
2. Petrochemical Industry
3. Chemical Industry
4. Textile Industry
5. Gas & Semiconductor Industry
6. Water Treatment Industry
7. Steel Industry
8. General Industry
9. Pulp & Paper Industry

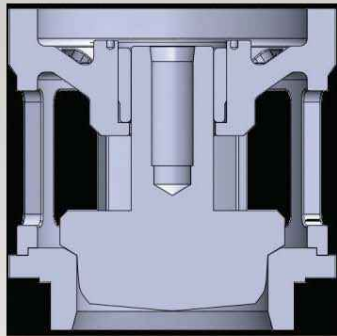


Construction and Specification

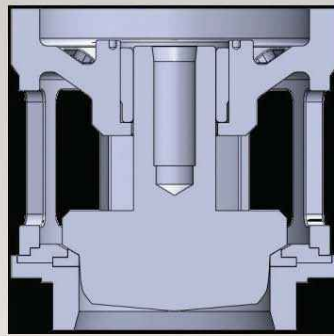


Singapore Sales Enquiry:
 Email: sales@pipeline.com.sg
 Tel: (65) 6570 0310

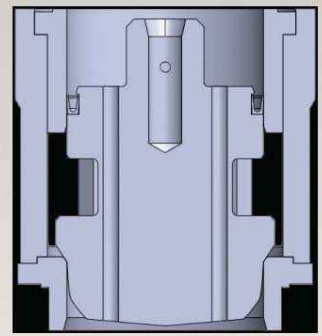
Myanmar Sales Enquiry:
 Email: sales@pipeline-mm.com
 Tel: (95) 9509 5758



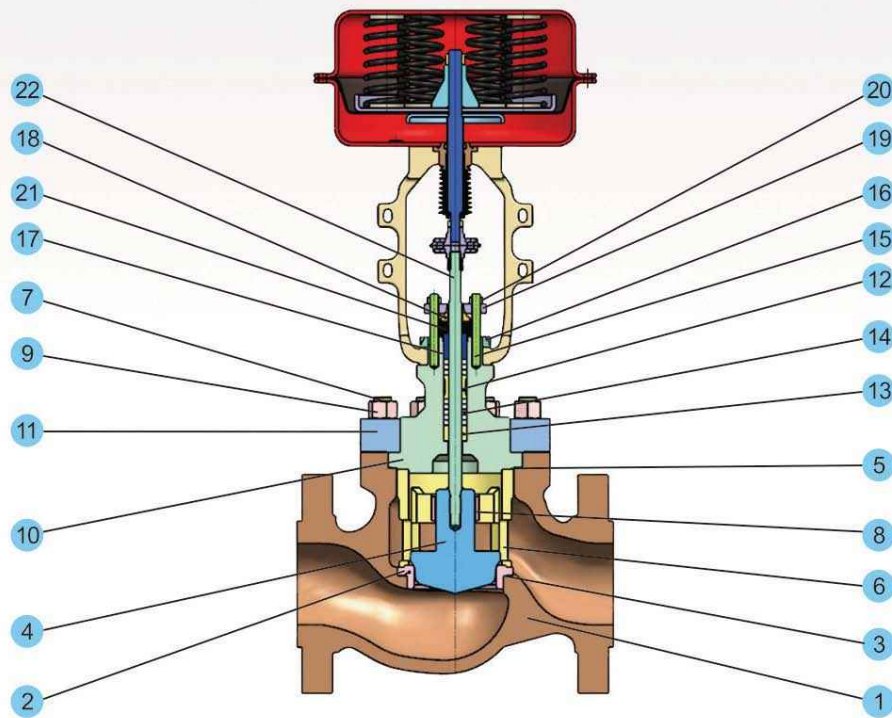
METAL / UNBLANCE



SOFT / UNBLANCE



METAL / BALANCE

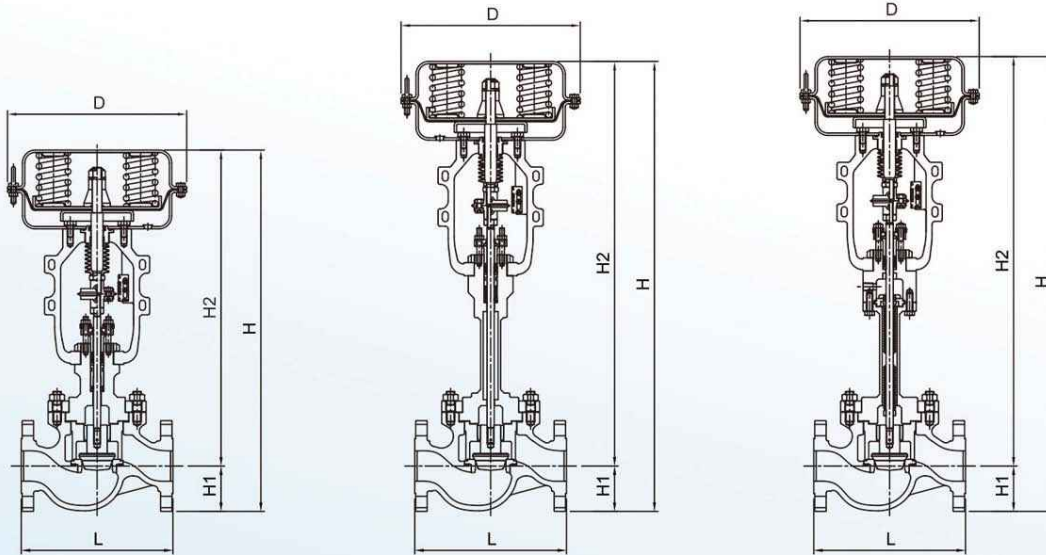


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|----|------------------|----|--------------------|
| 1 | Body | 12 | Lantern Ring |
| 2 | Seat & Gasket | 13 | Packing Ring |
| 3 | Seat Ring Gasket | 14 | Gland-Packing |
| 4 | Plug | 15 | Packing Bolting |
| 5 | Bonnet Gasket | 16 | Drive Nut |
| 6 | Retainer | 17 | Packing Follower |
| 7 | Bonnet Stud | 18 | Dust Cover |
| 8 | Guiding Bushing | 19 | Packing Flange |
| 9 | Bonnet Stud Nut | 20 | Packing Flange Nut |
| 10 | Bonnet | 21 | Disk Spring |
| 11 | Bonnet Ring | 22 | Stem |

Product Range

Body Type		High Capacity Globe
Body Size		1/2"~4"
End Connection		ANSI 150LB、300LB、600LB JIS 10、20K PN 16、PN25、PN40
Body Material		A216 WCB A351 CF8 A351 CF8M A351 CF3M Hastelloy C Optional
Bonnet Type		Standard (-17°C~250°C)
		Extension (-196°C~350°C)
		Bellows (-196°C~350°C)
Leakage Class		IV、V、VI
Trim	Type	Contour
	Seat	Metal
		Soft
	Flow Character	Linear
		EQ%
		ON-OFF

Dimension



Standard

Extension

Bellows Seal

Face to Face : ISO 5752

Pressure Rating : JIS 10K, 20K

Valve Size	L	H1		H2						H						D
				STANDARD		EXTENSION		BELLOWS		STANDARD		EXTENSION		BELLOWS		
		10K	20K	10K	20K	10K	20K	10K	20K	10K	20K	10K	20K	10K	20K	
15A	130	48	48	489	489	650	650	663	706	537	537	698	698	711	754	250
20A	150	50	50	489	489	660	660	663	706	539	539	710	710	713	756	250
25A	160	63	63	489	489	670	670	663	706	552	552	733	733	726	769	250
40A	200	70	70	517	517	696	696	689	732	587	587	766	766	759	802	300
50A	230	78	78	529	529	678	678	686	729	607	607	756	756	764	807	300
65A	290	88	88	576	576	790	790	841	1038	664	664	878	878	929	1126	300
80A	310	93	100	675	675	835	835	936	1133	768	775	928	935	1029	1233	350
100A	350	105	113	705	705	874	874	944	1141	810	818	979	987	1049	1254	350

Face to Face : ISO 5752

Pressure Rating : ANSI CL150, ANSI CL300

Valve Size	L	H1		H2						H						D
				STANDARD		EXTENSION		BELLOWS		STANDARD		EXTENSION		BELLOWS		
		CL150	CL300	CL150	CL300	CL150	CL300	CL150	CL300	CL150	CL300	CL150	CL300	CL150	CL300	
15A	130	45	48	489	489	650	650	663	706	534	537	695	698	708	754	250
20A	150	49	59	489	489	660	660	663	706	538	548	709	719	712	765	250
25A	160	54	62	489	489	670	670	663	706	543	551	724	732	717	768	250
40A	200	64	78	517	517	696	696	689	732	581	595	760	774	753	810	300
50A	230	76	83	529	529	678	678	686	729	605	612	754	761	762	812	300
65A	290	89	95	576	576	790	790	841	1038	665	671	879	885	930	1133	300
80A	310	95	105	675	675	835	835	936	1133	770	780	930	940	1031	1238	350
100A	350	115	127	705	705	874	874	944	1141	820	832	989	1001	1059	1268	350

Unit : mm

Face to Face : ISO 5752

Pressure Rating : DIN PN16, PN25, PN40

Valve Size	L	H1			H2									H									D
					STANDARD			EXTENSION			BELLOWS			STANDARD			EXTENSION			BELLOWS			
		PN16	PN25	PN40	PN16	PN25	PN40	PN16	PN25	PN40	PN16	PN25	PN40	PN16	PN25	PN40	PN16	PN25	PN40	PN16	PN25	PN40	
15A	130	48	48	48	489	489	489	650	650	650	663	706	706	537	537	537	698	698	698	711	754	754	250
20A	150	53	53	53	489	489	489	660	660	660	663	706	706	542	542	542	713	713	713	716	759	759	250
25A	160	58	58	58	489	489	489	670	670	670	663	706	706	547	547	547	728	728	728	721	764	764	250
40A	200	75	75	75	517	517	517	696	696	696	689	732	732	592	592	592	771	771	771	764	807	807	300
50A	230	83	83	83	529	529	529	678	678	678	686	729	729	612	612	612	761	761	761	769	812	812	300
65A	290	93	93	93	576	576	576	790	790	790	841	1038	1038	669	669	669	883	883	883	934	1131	1131	300
80A	310	100	100	100	675	675	675	835	835	835	936	1133	1133	775	775	775	935	935	935	1036	1233	1233	350
100A	350	110	118	118	705	705	705	874	874	874	944	1141	1141	815	823	823	984	992	992	1054	1259	1259	350

Unit : mm

Shut-Off Pressure

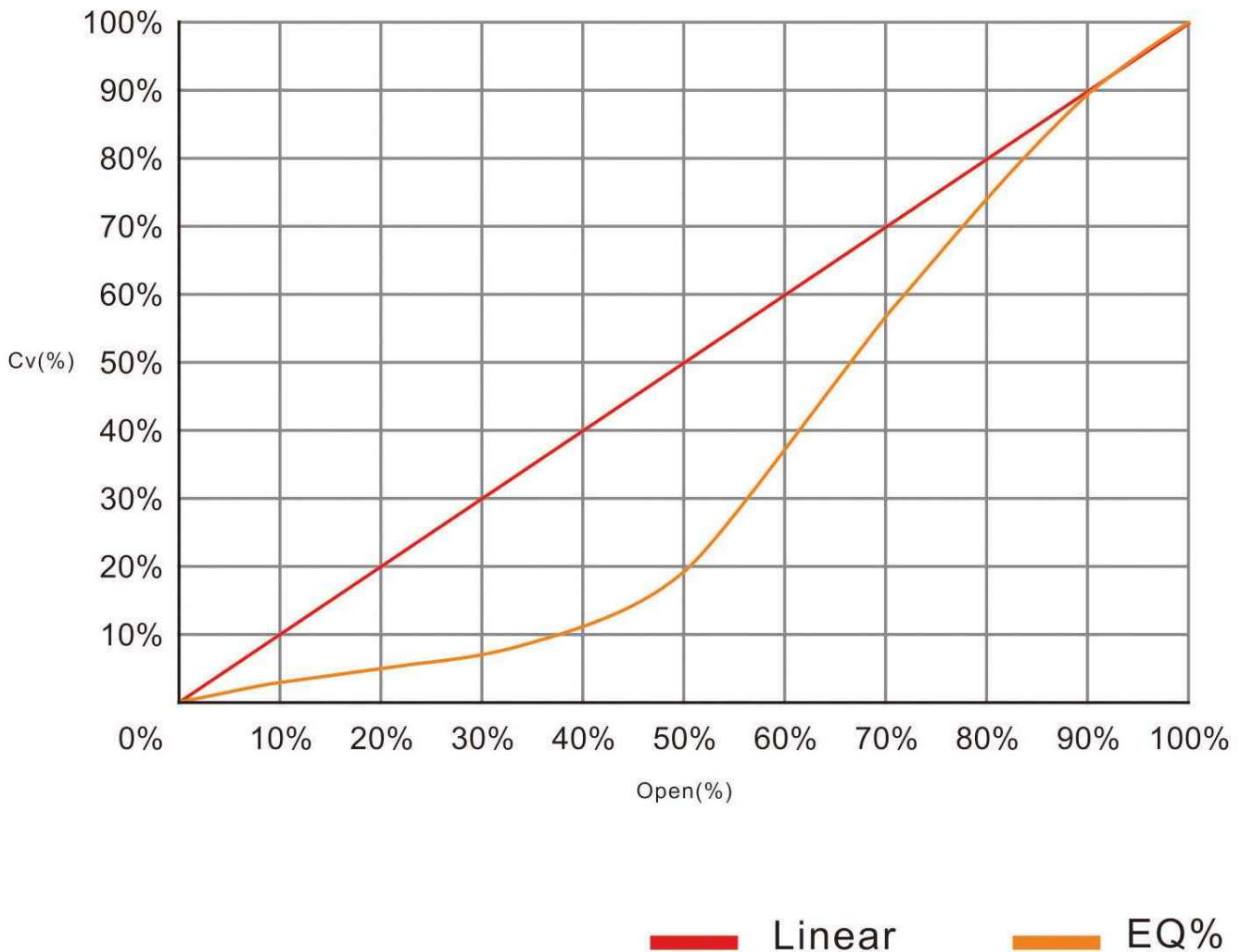
Metal Seat Contoured Plug

Standard ATO Actuator for Normal Metal Seat in Leakage Class IV

Actuator Size	Spring Range (kg/cm ²)	Valve Size							
		15	20	25	40	50	65	80	100
		1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
Travel (mm)		20				30			35
250	0.2~1.0	9	8	7					
	0.4~2.0	30	19	11	4				
	0.6~1.1	46	17	7					
	0.8~1.5	50	30	14	4				
	1.0~2.0		50	29	10	4			
300	0.2~1.0				4				
	0.4~2.0				9	4			
	0.8~2.4						3		
	0.8~1.6			39	15	7			
	1.0~2.0			50	21	10			
	1.2~2.3				27	13			
	1.1~2.5						5		
1.3~2.9						7	4		
350	0.8~2.4							5.5	1.5
	1.2~1.8				40	20			
	1.5~2.4				50	29			
	1.7~2.7					34			
	1.2~2.2						11	8	
	1.6~2.8						17	12	
	1.7~3.2						19	14	
	1.6~3.0								5
1.7~3.4								7	
460	1.1~1.5					43			
	1.4~1.9					50			
	1.1~1.7						25	18	
	1.4~2.2						33	24	
	1.7~2.6						42	30	
	1.1~1.8								9
	1.4~2.3								12
1.7~2.8								16	



Valve Characteristic



C_v Value

Trim Type : Contour

Direction : FTO

Flow Characteristic : EQ%

Percent of Travel							F _L	10	20	30	40	50	60	70	80	90	100	
Valve Size		ASME Rating	Orifice Diameter		Travel			Rated C _v										
inch	mm		inch	mm	inch	mm												
0.5	15	Class 150-600	0.79	20	0.5	12.7	0.86	0.25	0.40	0.53	0.82	1.32	2.24	3.13	3.79	4.26	4.59	
					0.4	10	0.85	0.08	0.15	0.24	0.37	0.60	1.11	1.64	2.08	2.43	2.73	
					0.3	8	0.91	0.08	0.12	0.17	0.28	0.49	0.91	1.35	1.72	2.04	2.35	
					0.24	6	0.92	0.04	0.07	0.10	0.16	0.27	0.50	0.75	0.98	1.16	1.31	
					0.24	6	0.89	0.02	0.04	0.07	0.12	0.21	0.40	0.6	0.78	0.92	1.04	
					0.24	6	0.88	0.02	0.03	0.05	0.08	0.15	0.30	0.46	0.61	0.74	0.84	
					0.16	4	0.85	0.01	0.02	0.03	0.06	0.11	0.22	0.33	0.44	0.52	0.59	
					0.16	4	0.87	0.02	0.04	0.05	0.06	0.08	0.17	0.27	0.35	0.43	0.50	
					0.16	4	0.90	0.02	0.03	0.04	0.05	0.09	0.16	0.24	0.30	0.36	0.41	
0.75	20		0.75	19	0.93	0.36	0.57	0.84	1.29	2.09	3.67	5.39	6.80	8.14	9.35			
			0.5	12.7	0.92	0.18	0.32	0.49	0.76	1.30	2.28	3.37	4.28	5.06	5.60			
			0.4	10	0.93	0.09	0.17	0.24	0.36	0.62	1.13	1.67	2.13	2.53	2.86			
			0.3	8	0.98	0.06	0.10	0.17	0.29	0.50	0.92	1.36	1.77	2.11	2.44			
			0.24	6	0.96	0.04	0.07	0.09	0.16	0.27	0.50	0.75	0.98	1.17	1.32			
			0.24	6	0.92	0.04	0.06	0.08	0.12	0.20	0.40	0.60	0.77	0.92	1.06			
			0.24	6	0.90	0.02	0.05	0.07	0.10	0.18	0.31	0.48	0.63	0.75	0.86			
			0.16	4	0.85	0.01	0.02	0.03	0.06	0.11	0.22	0.33	0.44	0.52	0.59			
			0.16	4	0.87	0.02	0.04	0.05	0.06	0.08	0.17	0.27	0.35	0.43	0.50			
1	25	1	25.4	0.85	0.47	0.78	1.10	1.80	3.10	5.53	8.32	11.4	14.7	17.1				
		0.75	19	0.89	0.30	0.50	0.73	1.18	2.09	3.78	5.57	7.23	8.78	10.4				
		0.5	12.7	0.88	0.16	0.29	0.45	0.75	1.25	2.28	3.33	4.32	5.11	5.81				
		0.4	10	0.93	0.21	0.30	0.36	0.53	0.89	1.46	2.17	2.84	3.36	3.74				
		0.3	8	0.86	0.08	0.13	0.21	0.32	0.56	1.03	1.50	1.90	2.22	2.54				
		0.24	6	0.96	0.05	0.07	0.10	0.17	0.29	0.53	0.79	1.01	1.20	1.35				
		0.24	6	0.92	0.03	0.05	0.08	0.11	0.20	0.40	0.60	0.77	0.92	1.06				
		0.24	6	0.90	0.02	0.03	0.05	0.09	0.15	0.30	0.46	0.61	0.73	0.86				
		0.16	4	0.85	0.01	0.02	0.04	0.06	0.12	0.23	0.34	0.44	0.52	0.59				
		0.16	4	0.87	0.02	0.03	0.04	0.06	0.09	0.17	0.27	0.36	0.44	0.50				
		0.16	4	0.90	0.01	0.02	0.03	0.05	0.08	0.15	0.23	0.30	0.36	0.42				

C_v Value

Trim Type : Contour

Direction : FTO

Flow Characteristic : EQ%

Valve Size		ASME Rating	Percent of Travel				F _L	Rated C _v										
			Orifice Diameter		Travel			10	20	30	40	50	60	70	80	90	100	
inch	mm		inch	mm	inch	mm												
1.5	40	Class 150-600	1.5	38	0.79	20	0.88	1.17	1.91	2.69	4.18	6.95	12.5	21.4	30.1	35.6	38.4	
			1.25	32			0.91	1.02	1.59	2.33	3.63	5.88	10.5	15.8	20.5	25.3	29.4	
			1	25.4			0.87	0.84	1.23	1.73	2.72	4.39	7.73	11.4	14.8	18.0	20.9	
			0.75	19			0.89	0.47	0.87	1.18	1.79	2.94	5.27	7.58	9.75	11.7	13.4	
2	50		2	51	0.79	20	0.92	2.35	3.45	4.91	7.61	11.5	19.2	28.8	39.2	48.1	54.5	
			1.5	38			0.93	1.16	2.18	3.13	4.91	8.37	14.3	21.1	27.5	33.7	39.3	
			1	25			0.92	0.73	1.19	1.74	2.70	4.38	7.74	11.3	14.4	17.2	19.6	
			0.5	15			0.92	0.17	0.36	0.68	1.15	1.95	3.48	5.23	6.72	7.97	8.95	
2.5	65		2.5	65	1.18	30	0.91	3.40	5.31	7.39	11.6	18.6	32.8	49.7	66.9	82.8	95.7	
			2	61			0.92	2.35	3.79	5.28	8.18	13.4	23.7	34.9	45.5	56.2	66.0	
			1.5	38			0.86	1.50	2.58	3.66	5.70	9.28	16.5	24.2	31.0	37.8	44.5	
			1	25			0.85	0.72	1.24	1.81	2.85	4.68	8.48	12.7	16.4	19.7	23.0	
3	80		3	76	1.18	30	0.87	3.90	5.20	9.20	14.7	23.8	43.0	66.5	87.9	106	116	
			2.5	65			0.89	2.90	4.80	7.10	11.3	18.7	32.1	45.9	61.3	77.3	90.1	
			2	51			0.88	1.80	3.20	4.60	7.30	12.2	20.7	30.0	39.8	49.6	58.3	
			1.5	38			0.92	1.50	2.30	3.20	4.70	8.20	14.5	20.6	26.8	32.6	38.3	
4	100	4	101.6	1.38	35	0.84	5.60	10.0	14.8	22.1	37.3	74.5	120	155	182	198		
		3	76			0.81	5.03	8.04	11.2	17.2	28.6	50.4	73.6	95.7	117	135		
		2.5	65			0.95	3.01	5.15	7.35	11.2	19.4	34.5	50.4	65.1	80.5	94.5		
		2	51			0.95	2.17	4.05	5.80	7.40	11.4	23.0	35.5	46.4	56.3	66.3		

C_v Value

Trim Type : Contour

Direction : FTO

Flow Characteristic : Linear

Valve Size		ASME Rating	Orifice Diameter		Travel		F _L	Percent of Travel										
inch	mm		inch	mm	inch	mm		10	20	30	40	50	60	70	80	90	100	
0.5	15	Class 150-600	0.5	12.7	0.79	20	F _L	Rated C _v										
			0.4	10				0.86	0.72	1.37	1.94	2.49	2.96	3.40	3.74	4.08	4.40	4.63
			0.3	8				0.85	0.34	0.65	0.96	1.24	1.53	1.78	2.03	2.29	2.53	2.77
			0.24	6				0.89	0.27	0.51	0.77	1.02	1.25	1.47	1.69	1.91	2.13	2.37
			0.24	6				0.93	0.15	0.29	0.43	0.57	0.71	0.84	0.97	1.09	1.21	1.33
			0.24	6				0.91	0.11	0.22	0.33	0.44	0.54	0.65	0.75	0.85	0.95	1.06
			0.24	6				0.89	0.09	0.17	0.25	0.34	0.43	0.52	0.60	0.68	0.77	0.87
			0.16	4				0.89	0.07	0.13	0.19	0.26	0.32	0.38	0.44	0.49	0.55	0.61
			0.16	4				0.88	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41	0.46	0.52
0.16	4		0.90	0.04	0.08	0.12		0.16	0.20	0.24	0.28	0.32	0.36	0.40				
0.75	20		0.75	19	0.79	20		0.86	1.15	2.17	3.15	4.07	4.86	5.59	6.25	6.88	7.52	8.22
			0.5	12.7				0.88	0.69	1.36	1.97	2.56	3.10	3.63	4.12	4.56	5.01	5.44
			0.4	10				0.92	0.33	0.63	0.94	1.24	1.54	1.83	2.09	2.36	2.62	2.92
			0.3	8				0.84	0.27	0.52	0.77	1.03	1.27	1.49	1.73	1.96	2.20	2.47
			0.24	6				0.89	0.15	0.289	0.43	0.57	0.71	0.84	0.97	1.10	1.23	1.36
			0.24	6				0.88	0.11	0.22	0.33	0.44	0.55	0.65	0.75	0.85	0.96	1.07
			0.24	6				0.86	0.092	0.178	0.26	0.34	0.43	0.515	0.60	0.69	0.78	0.87
			0.16	4				0.89	0.07	0.14	0.20	0.26	0.32	0.38	0.45	0.51	0.56	0.61
		0.16	4	0.88			0.05	0.10	0.16	0.21	0.26	0.31	0.36	0.41	0.47	0.53		
1	25	0.16	4	0.79	20	0.90	0.04	0.08	0.12	0.16	0.20	0.21	0.28	0.32	0.36	0.41		
		1	25.4			0.87	1.57	3.05	4.50	5.80	7.19	8.70	10.4	12.5	15.0	17.2		
		0.75	19			0.89	1.12	2.13	3.12	4.13	5.06	6.02	6.96	8.00	9.16	10.6		
		0.5	12.7			0.92	0.70	1.37	2.00	2.64	3.22	3.80	4.35	4.90	5.49	6.06		
		0.4	10			0.92	0.37	0.70	1.03	1.34	1.63	1.91	2.20	2.47	2.72	2.96		
		0.3	8			0.86	0.28	0.53	0.79	1.06	1.31	1.54	1.78	2.02	2.28	2.54		
		0.24	6			0.89	0.14	0.27	0.41	0.56	0.69	0.82	0.95	1.08	1.21	1.36		
		0.24	6			0.88	0.10	0.20	0.31	0.42	0.53	0.63	0.73	0.84	0.94	1.07		
		0.24	6			0.86	0.08	0.17	0.25	0.33	0.42	0.50	0.59	0.67	0.77	0.87		
		0.16	4			0.89	0.07	0.13	0.19	0.25	0.32	0.38	0.44	0.49	0.55	0.61		
		0.16	4			0.88	0.05	0.10	0.16	0.21	0.26	0.31	0.36	0.41	0.47	0.53		
0.16	4	0.99	0.03	0.07	0.11	0.16	0.20	0.24	0.27	0.31	0.36	0.41						

C_v Value

Trim Type : Contour

Direction : FTO

Flow Characteristic : Linear

Valve Size		ASME Rating	Percent of Travel				F _L	10	20	30	40	50	60	70	80	90	100
			Orifice Diameter		Travel			Rated C _v									
inch	mm		inch	mm	inch	mm											
1.5	40	Class 150-600	1.5	38	0.79	20	0.86	3.91	7.18	10.6	14.0	17.5	21.8	26.2	31.0	35.2	38.5
			1.25	32			0.91	3.23	6.17	9.18	11.8	14.5	17.2	20.2	23.5	27.2	30.4
			1	25.4			0.92	2.31	4.48	6.72	9.02	11.0	12.8	14.8	16.9	19.2	21.7
			0.75	19			0.88	1.55	2.98	4.47	6.04	7.42	8.65	9.90	11.2	12.6	13.9
2	50		2	51	0.79	20	0.89	5.04	10.0	15.2	20.4	25.9	31.6	37.8	44.0	50.7	56.9
			1.5	38			0.960	4.08	7.93	12.1	16.1	20.0	24.0	28.0	32.5	37.3	41.7
			1	25			0.94	2.36	4.46	6.64	8.85	11.0	12.9	14.8	16.8	18.9	20.6
			0.5	15			0.96	1.00	2.01	2.93	3.94	4.89	5.85	6.75	7.64	8.53	9.23
2.5	65		2.5	65	1.18	30	0.86	9.60	18.8	27.8	36.9	45.8	55.4	65.8	76.4	86.8	97.7
			2	51			0.89	7.06	13.7	20.2	26.6	33.0	39.3	46.0	53.2	60.6	68.9
			1.5	38			0.87	5.18	9.82	14.4	18.8	23.3	27.6	31.7	36.1	40.5	44.6
			1	25			0.86	2.55	4.91	7.27	9.72	12.2	14.6	16.9	19.2	21.4	23.7
3	80		.	76	1.18	30	0.86	11.5	23.0	34.5	46.5	58.9	72.0	85.6	98.8	110	120
			2.5	65			0.91	9.30	17.6	25.8	33.6	42.2	51.0	60.8	70.8	82.2	94.2
			2	51			0.85	6.80	12.8	18.4	24.2	30.1	36.0	42.4	49.2	56.2	63.3
			1.5	38			0.88	4.10	8.20	12.4	16.5	20.4	24.2	28.0	32.0	36.0	40.2
4	100	4	101.6	1.38	35	0.90	18.8	37.4	56.0	75.6	97.0	118	140	161	182	200	
		3	76			0.93	14.3	27.6	40.8	54.6	67.7	81.2	95.7	111	126	141	
		2.5	65			0.91	9.21	18.2	27.6	37.2	47.0	56.1	65.6	76.0	87.0	98.5	
		2	51			0.87	7.02	13.4	20.2	26.8	33.6	40.3	47.0	54.0	61.4	69.3	