

<PART LIST & MATERIALS>

NO.	DESCRIPTION	MATERIAL OF CONSTRUCTION
1	Body	Alloy or Ductile Cast Iron
2	Port Seal	PFA Encapsulated 316L SS
3	Port Seal (Optional)	316L SS
4	Plug	Alloy
5	Diaphragm	PFA
6	Diaphragm	A666
7	Thrust Gland	304SS/17-4PH
8	Grounding Spring	302SS
9	Top Cap	CD4M, Ductile Cast Iron
10	Top Cap Fastener	Grade B9 Class 2B AISI (304SS) or B7
11	Adjusting Bolts	1840 Generic 300 Series Stainless Steel or B7
12	Stop	CF8M
13	Stop Fastener	1840 Generic 300 Series Stainless Steel or B7
14	Stop Collar	Cadmium Plated Carbon Steel
15	Stop Collar Retainer	302 SS
16	Wrench	Ductile Cast Iron
17	Stem Packing	GA
18	Top Cap Gasket	GAWR
19	Diaphragm	PFA
20	Diaphragm	A666

MATERIAL SELECTION
ASTM A395 Ductile Cast Iron
ASTM A216 Gr. WCB (Cast Steel)
ASTM A351/A744 Gr. CF3 (304L S.S.)
ASTM A351/A744 Gr. CF8M (316 S.S.)
Durcomet 5 (Durco's High Silicon Stainless Steel)
ASTM A351/A744 Gr. CD4M Cu (Durcomet 100)
ASTM A351/A744 Gr. CN-7M (Durimet 20)
ASTM A351/A744 Gr. CK-3MCuN (254 SMO)1
ASTM A494 Gr. M35-1 (Monel 400)2
ASTM A494 Gr. CZ-100 (Nickel 200)
ASTM A494 Gr. N-7M (Chlorimet 2)
STM A494 Gr. CW-6M (Chlorimet 3)

<TESET & PRESSURE / TEMPERATURE RATINGS>

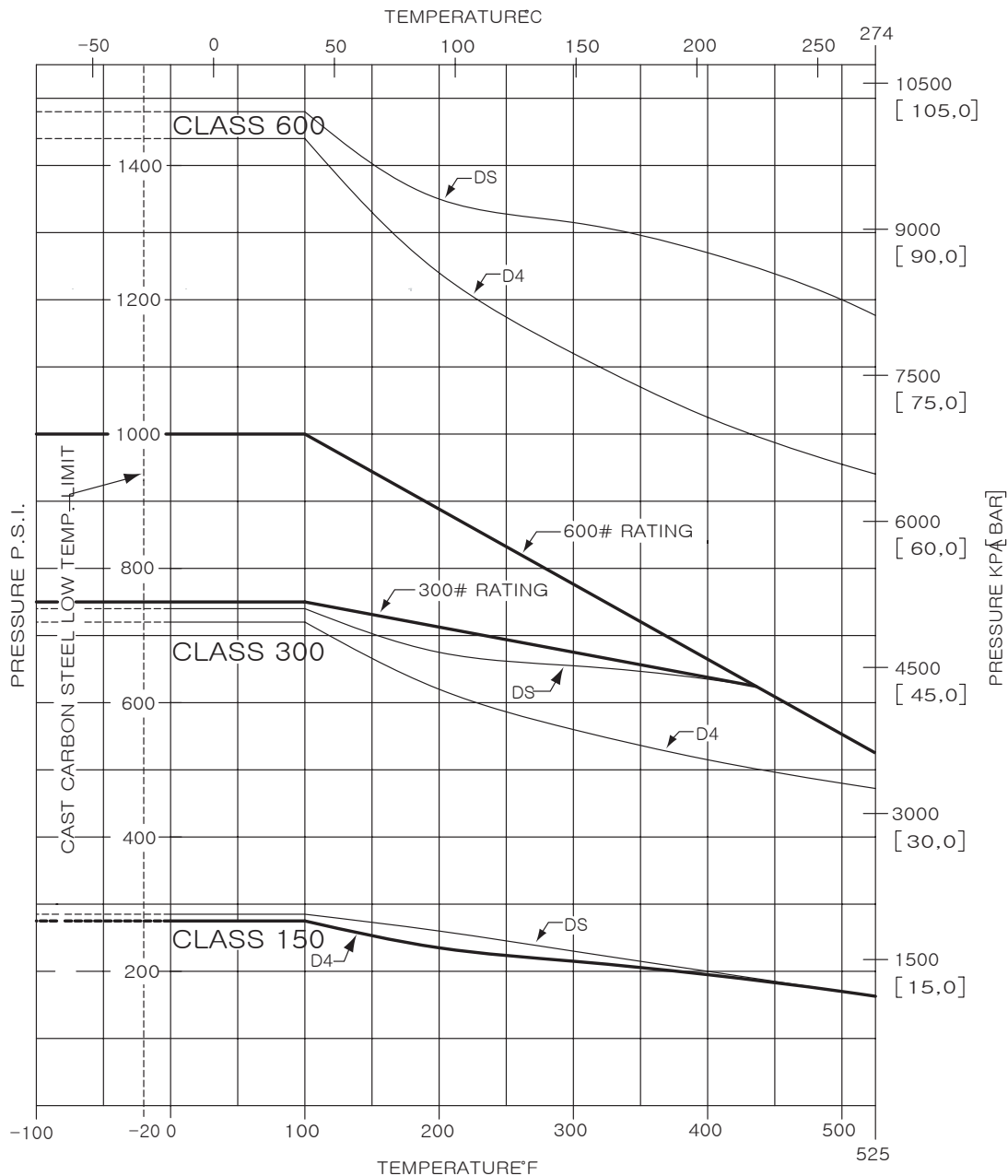
The pressure-temperature ratings of the materials shown are based on mechanical property requirements cited in the latest ASTM or ASME specifications.

Valves may require adjustment to remain drop tight at the lower end of temperature range when operating below 0°F (-17°C) or during extreme temperature cycles.

The unique reverse lip stem seal has been tested from -50°F (-45°C) at 720 psi to 520°F (270°C) at 525 psi (36 bar). High temperature throttling tests at 520°F (270°C) with pressure drops of 175 psig (12 bar) have proven the superiority of Plug valves over other soft-seated valves.

The valves have been temperature cycled to 520°F (270°C), and have provided performance superior to any other soft-seated valve available for cyclical temperature situations.

Pressure/Temperature Ratings — Class 150, 300 and 600 Valves



B16.34 - 1996 ALLOY
B16.34a - 1998 ALLOY

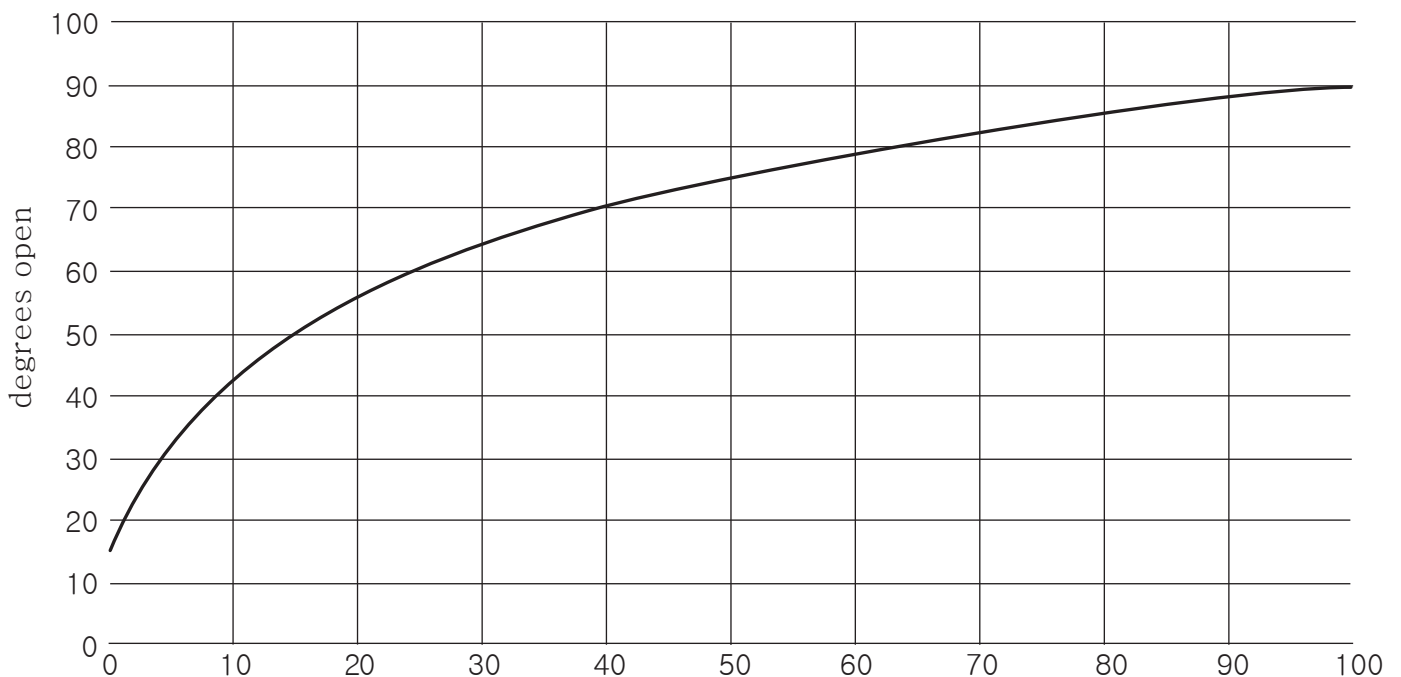
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<TORQUE & CV VALUE>

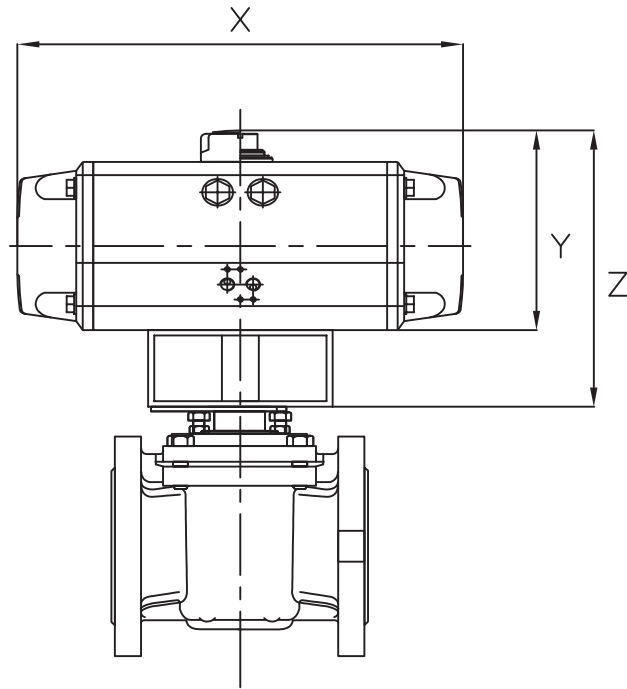
Valve Size	Sizing Torque(Nm)		Flow Rates
	Port Seal	Sleeve	Cv
1"	16.9	22.6	41
1-1/2"	22.6	33.9	81
2"	39.5	53.7	161
3"	53.7	80.2	267
4"	106.2	162.7	548
6"	271.2	406.7	1001

<FLOW CHARACTERISTICS>

Typical characteristic curve

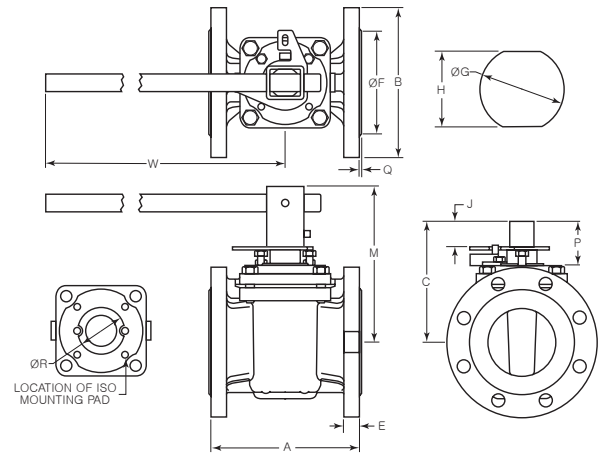
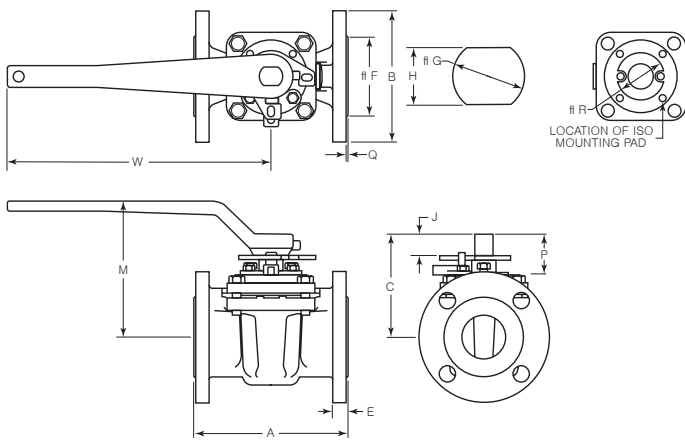


< PNEUMATIC >



1 in (25 mm) ~ 3 in (80 mm) Valves

4 in (100 mm) ~ 6 in (150 mm) Valves



ANSI (inch)

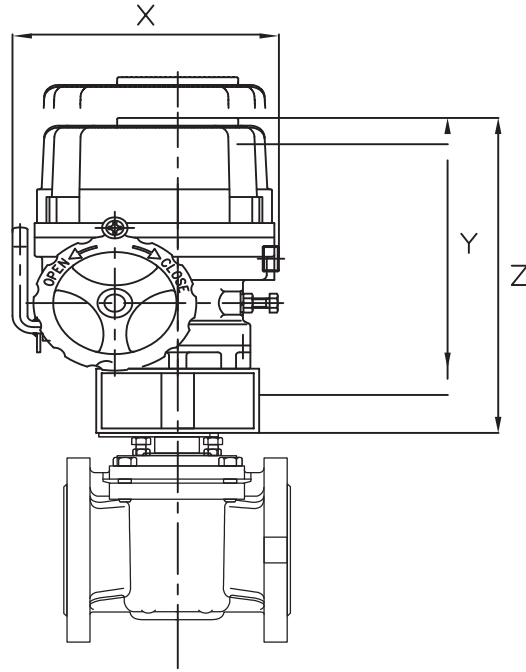
Valve Size	Mounting Pad PCD	A			B			C	E			F	G	H	J	M	P	Q			R	W	X	Y	Z
		Class			Class				Class									Class							
		150	300	600	150	300	600		150	300	600							150	300	600					
1"	F05	5.00	6.50	8.50	4.25	4.88	4.88	3.49	0.44	0.69	0.94	2.00	0.787/0.782	0.656/0.651	0.62	4.65	1.50	0.06	0.06	0.25	1.38	7.00			
1-1/2"	F05	6.50	7.50	9.50	5.00	6.13	6.13	3.93	0.56	0.81	1.13	2.88	0.787/0.782	0.656/0.651	0.75	4.96	1.56	0.06	0.06	0.25	1.38	9.00			
2"	F07	7.00	8.50	11.50	6.00	6.50	6.50	4.74	0.63	0.88	1.25	3.63	1.075/1.065	0.875/0.870	1.00	6.24	1.88	0.06	0.06	0.25	2.17	12.00			
3"	F07	8.00	11.13	14.00	7.50	8.25	8.25	5.21	0.75	1.13	1.50	5.00	1.075/1.065	0.875/0.870	1.00	6.71	1.89	0.06	0.06	0.25	2.17	20.00			
4"	F10	9.00	12.00	17.00	9.00	10.00	10.75	7.18	0.94	1.25	1.75	6.19	1.687/1.677	1.421/1.416	1.50	9.31	2.60	0.06	0.06	0.25	2.76	29.88			
6"	F12	10.50	15.88	22.00	11.00	12.50	14.00	8.44	1.00	1.44	2.13	8.50	1.687/1.677	1.421/1.416	1.47	10.60	2.59	0.06	0.06	0.25	3.34	46.00			

DIN / JIS (mm / A)

Valve Size	Mounting Pad PCD	A		B		C	E		F		G	H	J	M	P	Q		R	W	X	Y	Z	
		Class		Class			Class		Class							Class							
		10-16	25-40	10-16	25-40		10-16	25-40	10-16	25-40						10-16	25-40						
25	F05	160.0	160.0	115.1	115.1	88.7	19.4	19.4	68.1	68.1	20.00/19.86	16.66/16.54	15.8	118.1	36.2	1.6	1.6	35.0	177.8				
32	F05	160.0	160.0	140.0	140.0	88.7	20.3	20.3	80.9	80.9	20.00/19.86	16.66/16.54	15.8	118.1	36.3	1.6	1.6	35.0	177.8				
40	F05	199.9	199.9	150.1	150.1	99.8	19.8	19.8	88.1	88.1	20.00/19.86	16.66/16.54	19.0	126.0	39.5	1.6	1.6	35.0	228.6				
50	F07	229.0	229.0	165.1	165.1	120.4	21.7	21.7	102.1	102.1	27.31/27.05	22.23/22.10	25.4	158.5	45.5	1.6	1.6	55.0	304.8				
65	F07	290.0	290.0	184.9	184.9	132.3	23.6	23.6	123.0	123.0	27.31/27.05	22.23/22.10	25.4	170.4	48.1	1.6	1.6	55.0	508.0				
80	F07	310.0	310.0	200.0	200.0	132.3	25.6	25.6	138.2	138.2	27.31/27.05	22.23/22.10	25.4	170.4	48.1	1.6	1.6	55.0	508.0				
100	F10	350.0	350.0	219.9	235.0	182.3	21.8	25.8	158.0	162.0	42.85/42.60	36.09/35.97	38.1	236.5	65.9	1.6	6.4	70.0	759.0				
125	F10	400.1	400.1	249.9	269.9	182.3	23.6	27.6	190.2	190.2	42.85/42.60	36.09/35.97	38.1	236.5	65.9	1.6	6.4	70.0	759.0				
150	F12	480.1	480.1	285.5	300.0	214.1	27.0	29.8	212.0	218.0	42.85/42.60	36.09/35.97	37.3	236.2	65.9	1.6	6.4	84.8	1168.4				

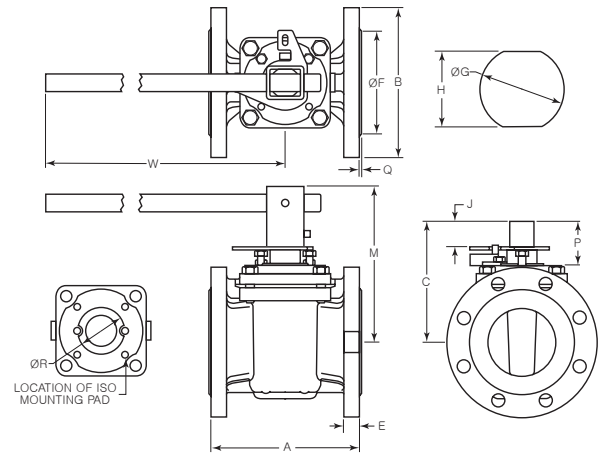
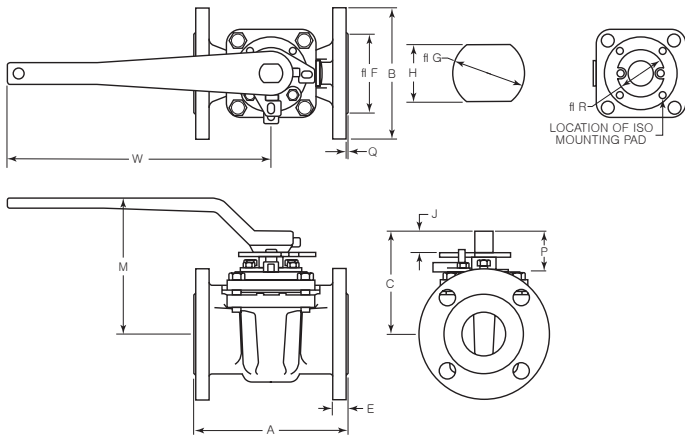
* OPERATING TIME : OPTION (0.2 ~ 20 SEC)

< ELECTRIC >



1 in (25 mm) ~ 3 in (80 mm) Valves

4 in (100 mm) ~ 6 in (150 mm) Valves



ANSI (inch)

Valve Size	Mounting Pad PCD	A			B			C	E			F	G	H	J	M	P	Q			R	W	X	Y	Z
		Class			Class				Class									Class							
		150	300	600	150	300	600		150	300	600							150	300	600					
1"	F05	5.00	6.50	8.50	4.25	4.88	4.88	3.49	0.44	0.69	0.94	2.00	0.787/0.782	0.656/0.651	0.62	4.65	1.50	0.06	0.06	0.25	1.38	7.00			
1-1/2"	F05	6.50	7.50	9.50	5.00	6.13	6.13	3.93	0.56	0.81	1.13	2.88	0.787/0.782	0.656/0.651	0.75	4.96	1.56	0.06	0.06	0.25	1.38	9.00			
2"	F07	7.00	8.50	11.50	6.00	6.50	6.50	4.74	0.63	0.88	1.25	3.63	1.075/1.065	0.875/0.870	1.00	6.24	1.88	0.06	0.06	0.25	2.17	12.00			
3"	F07	8.00	11.13	14.00	7.50	8.25	8.25	5.21	0.75	1.13	1.50	5.00	1.075/1.065	0.875/0.870	1.00	6.71	1.89	0.06	0.06	0.25	2.17	20.00			
4"	F10	9.00	12.00	17.00	9.00	10.00	10.75	7.18	0.94	1.25	1.75	6.19	1.687/1.677	1.421/1.416	1.50	9.31	2.60	0.06	0.06	0.25	2.76	29.88			
6"	F12	10.50	15.88	22.00	11.00	12.50	14.00	8.44	1.00	1.44	2.13	8.50	1.687/1.677	1.421/1.416	1.47	10.60	2.59	0.06	0.06	0.25	3.34	46.00			

DIN / JIS (mm / A)

Valve Size	Mounting Pad PCD	A		B		C	E		F		G	H	J	M	P	Q		R	W	X	Y	Z
		Class		Class			Class		Class							Class						
		10-16	25-40	10-16	25-40		10-16	25-40	10-16	25-40						10-16	25-40					
25	F05	160.0	160.0	115.1	115.1	88.7	19.4	19.4	68.1	68.1	20.00/19.86	16.66/16.54	15.8	118.1	36.2	1.6	1.6	35.0	177.8			
32	F05	160.0	160.0	140.0	140.0	88.7	20.3	20.3	80.9	80.9	20.00/19.86	16.66/16.54	15.8	118.1	36.3	1.6	1.6	35.0	177.8			
40	F05	199.9	199.9	150.1	150.1	99.8	19.8	19.8	88.1	88.1	20.00/19.86	16.66/16.54	19.0	126.0	39.5	1.6	1.6	35.0	228.6			
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125	F10	400.1	400.1	249.9	269.9	182.3	23.6	27.6	190.2	190.2	42.85/42.60	36.09/35.97	38.1	236.5	65.9	1.6	6.4	70.0	759.0			
150	F12	480.1	480.1	285.5	300.0	214.1	27.0	29.8	212.0	218.0	42.85/42.60	36.09/35.97	37.3	236.2	65.9	1.6	6.4	84.8	1168.4			

* OPERATING TIME : OPTION (13 ~ 100 SEC)

(주) HK CONTROMATIC

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