

Series 1000 Control Valves Globe-Double Seated, Top & Bottom Guide

for promotes more tightness and heavy duty control

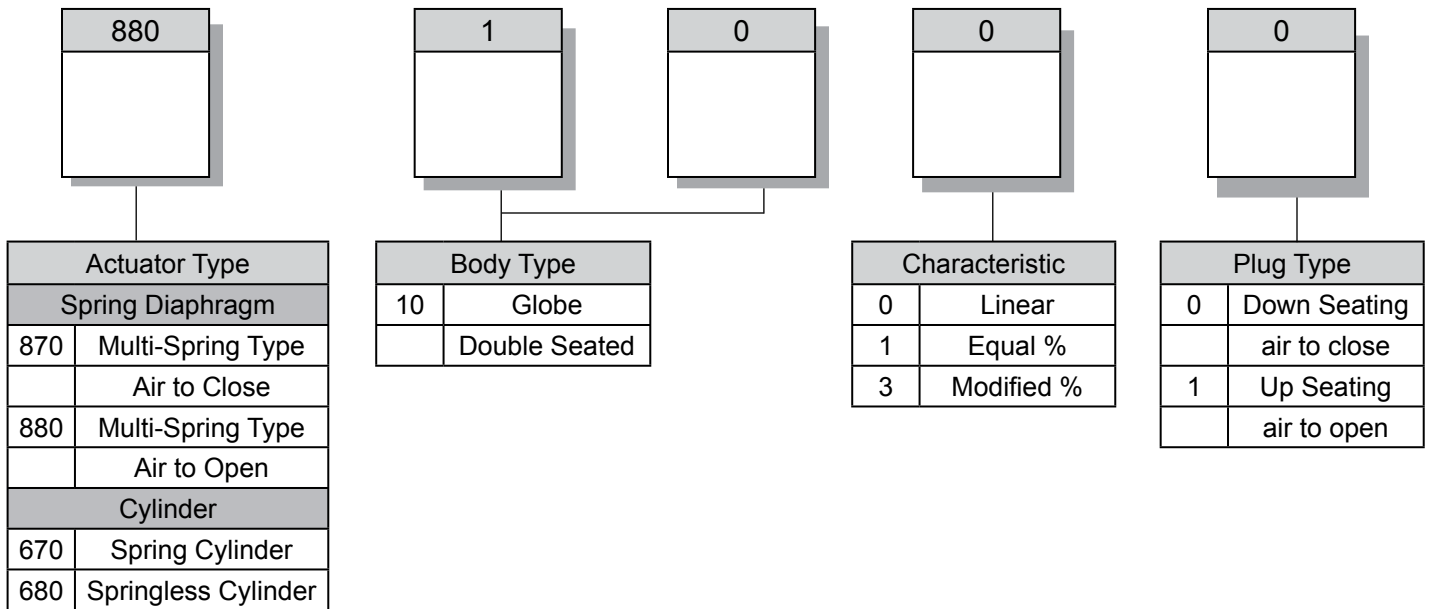


*Series 1000 Control Valves
Globe - Double Seated, Top & Bottom Guide*

J Flow Controls

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Ordering Schematic



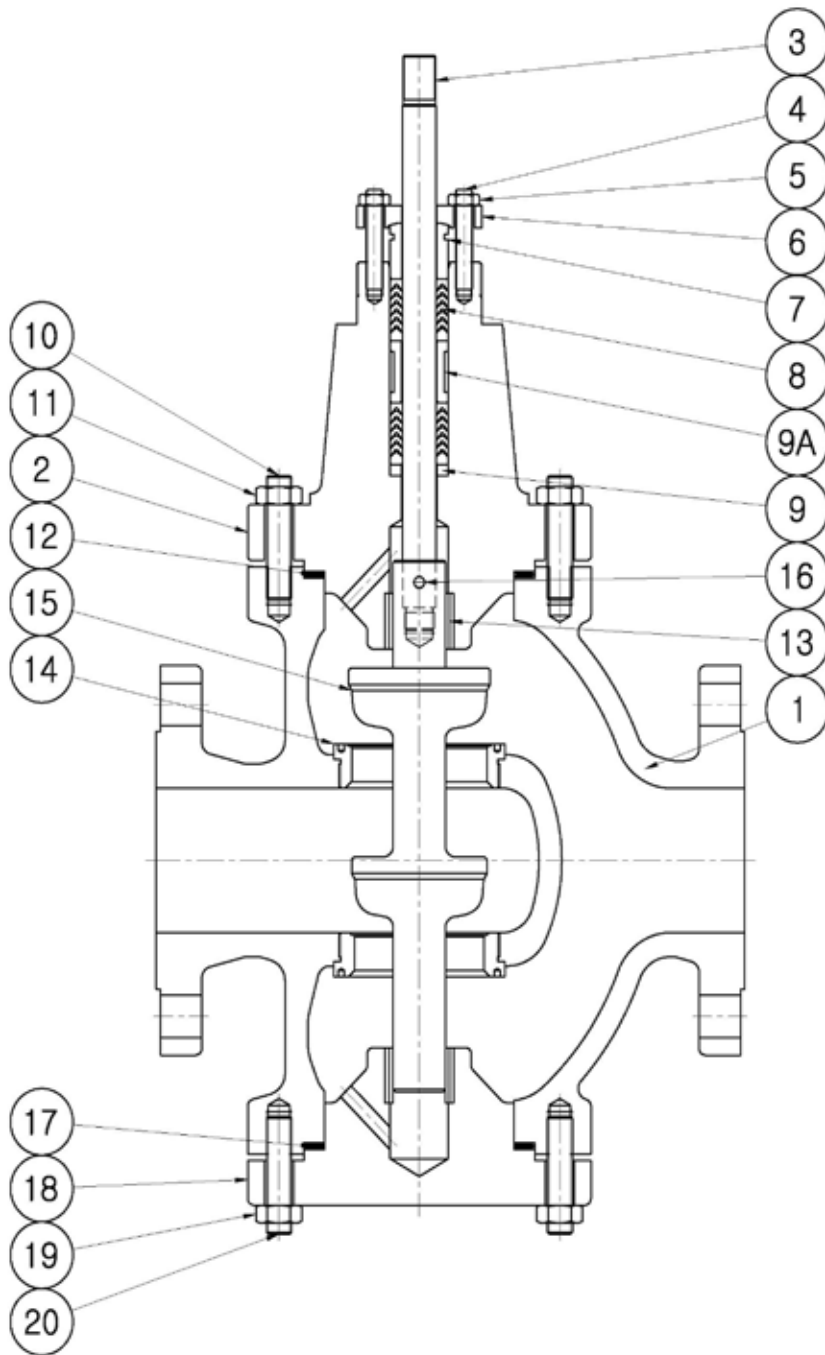
Manufacturing Range

Description	Manufacturing Range	Remark
Body Size	2" – 16"	
Ratings	ANSI Class 150 – 1500	
Connections	Flanged, Butt-Weld	
Body Material	A216 Gr-WCB, A351 Gr-CF8, CF8M, Alloy Steel Available	
Trim Material	304, 316 SST, Alloy Steel Available	

General Specifications

- Flow Direction: Flow to Open or Flow to Close
- Max. Fluid Temperature: 1049°F
- Minimum Fluid Temperature: -320°F
- Seat Leakages: ANSI B16.104 Class IV
 - Option 1: ANSI B16.104 Class V for Metal Seat Tight Shutoff
 - Option 2: ANSI B16.104 Class VI for Teflon Soft Seat & Seal (-22°F ~ 446°F)
- Body: Double Seated Top and Bottom Guide
- Bonnet Type: Stud Bolted
 - Standard Type: -0.4°F ~ 536°F
 - Extension Type: 538°F ~ 1049°F & under -0.4°F
- Flow Characteristics: Linear, Equal Percentage, Modified %
- Cv Ratio: 50:1
- Diaphragm actuators enclosed, heavy duty cylinders (spring-cylinder and double-cylinder) available
- Applicable for various instruments (positioner, SOV, Limit switch)

Body Constructions



1	Body
2	Bonnet
3	Plug Stem
4	Packing Stud
5	Packing Nut
6	Packing Flange
7	Gland
8	Packing
9	Packing Spacer
9A	Lantern Ring
10	Body Stud
11	Body Nut
12	Body Gasket
13	Guide Bushing
14	Seat Ring
15	Plug
16	Plug Stem Pin
17	Bottom Flange Gasket
18	Bottom Flange
19	Bottom Flange Nut
20	Bottom Flange Stud

Body Materials: Carbon Steel or Alloy Steel

Part No.	Description	Material
1	Body	ASTM A216 Gr-WCB / Alloy Steel Available
2	Bonnet	ASTM A216 Gr-WCB / Alloy Steel Available
3	Plug Stem	316 Stainless Steel
4	Packing Stud	316 / 304 Stainless Steel
5	Packing Nut	316 / 304 Stainless Steel
6	Packing Flange	316 / 304 / 303 Stainless Steel
7	Gland	316 / 304 / 303 Stainless Steel
8	Packing	PTFE Carbon Fiber / Graphite / Grafoil + Graphite
9	Packing Spacer	316 / 304 / 303 Stainless Steel
9A	Lantern Ring	316 / 304 / 303 Stainless Steel
10	Body Stud	A193 B7
11	Body Nut	A194 2H
12	Body Gasket	316 SST with Grafoil Filler
13	Guide Bushing	Solid Stellite / 440C Stainless Steel
14	Seat Ring	316 Stainless Steel
15	Plug	316 Stainless Steel
16	Plug Stem Pin	316 Stainless Steel
17	Bottom Flange Gasket	316 SST with Grafoil Filler
18	Bottom Flange	ASTM A216 Gr-WCB / Alloy Steel Available
19	Bottom Flange Nut	A194 2H
20	Bottom Flange Stud	A193 B7

Body Materials: Stainless Steel

Part No.	Description	Material
1	Body	ASTM A351 Gr-GF8 / A351 Gr-CF8M
2	Bonnet	ASTM A351 Gr-GF8 / A351 Gr-CF8M
3	Plug Stem	316 Stainless Steel
4	Packing Stud	316 / 304 Stainless Steel
5	Packing Nut	316 / 304 Stainless Steel
6	Packing Flange	316 / 304 / 303 Stainless Steel
7	Gland	316 / 304 / 303 Stainless Steel
8	Packing	PTFE Carbon Fiber / Graphite / Grafoil + Graphite
9	Packing Spacer	316 / 304 / 303 Stainless Steel
9A	Lantern Ring	316 / 304 / 303 Stainless Steel
10	Body Stud	A193 B7
11	Body Nut	A194 2H
12	Body Gasket	316 SST with Grafoil Filler
13	Guide Bushing	Solid Stellite / 440C Stainless Steel
14	Seat Ring	316 Stainless Steel
15	Plug	316 Stainless Steel
16	Plug Stem Pin	316 Stainless Steel
17	Bottom Flange Gasket	316 SST with Grafoil Filler
18	Bottom Flange	ASTM A351 Gr-GF8 / A351 Gr-CF8M
19	Bottom Flange Nut	A194 2H
20	Bottom Flange Stud	A193 B7

Flow Coefficients – Rated Cv

V-Port Trim

Flow Characteristics: EQUAL PERCENTAGE

Valve Size	Orifice Diameter Upper/Lower		Travel	Percent of Valve Travel									
				10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2"	1.46	1.34	0.79	0.6	1.1	1.5	2	2.8	4.2	5.5	8.5	12.3	19
	2.0	1.89	0.79	1.4	2.8	3.8	5.3	7.2	10.5	13.9	21.6	31.2	48
3"	1.89	1.77	1.50	1.3	2.6	3.5	4.8	6.6	9.7	12.8	19.8	28.6	44
	2.64	2.52	1.50	3.3	6.6	8.8	12.1	16.5	24.2	31.9	49.5	71.5	110
4"	2.36	2.28	1.50	2.3	4.7	6.2	8.6	11.7	17.2	22.6	35.1	50.7	78
	3.50	3.43	1.50	5.8	11.7	15.6	21.4	29.2	42.9	56.5	87.7	126	195
6"	3.50	3.43	2.00	5	11	14	20	27	40	52	81	117	180
	5.24	5.16	2.00	14	27	36	50	68	99	130	202	292	450
8"	4.65	4.53	2.52	9	18	24	33	45	66	87	135	195	300
	7.01	6.89	2.52	23	45	60	83	112	165	217	337	487	750
10"	5.24	5.16	2.52	14	28	37	51	69	101	133	207	299	460
	8.74	8.62	2.52	35	70	93	127	174	255	336	522	754	1160
12"	6.38	6.26	3.50	20	39	52	72	98	143	189	293	423	650
	10.51	10.39	3.50	49	97	130	178	243	356	469	729	1053	1620
14"	12.24	12.13	4.02	60	120	160	220	300	440	580	900	1300	2000
16"	14.02	13.86	4.02	77	153	207	281	384	563	742	1152	1664	2560

Contoured Trim

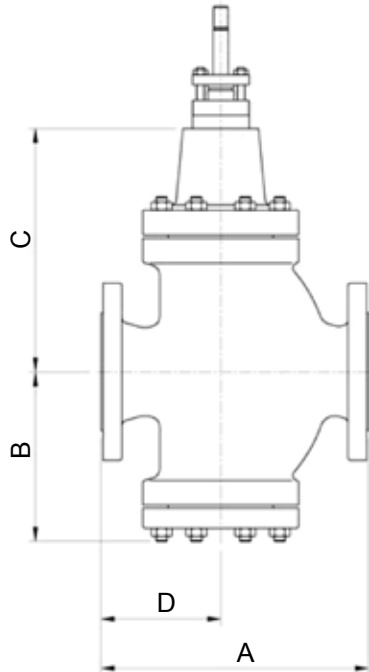
Flow Characteristics: LINEAR

Valve Size	Orifice Diameter Upper/Lower		Travel	Percent of Valve Travel									
				10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2"	1.46	1.34	0.79	1.9	3.8	5.7	7.6	9.5	11.4	13.3	15.2	17.1	19
	2.0	1.89	0.79	4.8	9.6	14.4	19.2	24	28.8	33.6	38.4	43.2	48
3"	1.89	1.77	1.50	4.4	8.8	13.2	17.6	22	26.4	30.8	35.2	39.6	44
	2.64	2.52	1.50	11	22	33	44	55	66	77	88	99	110
4"	2.36	2.28	1.50	7.8	15.6	23.4	31.2	39	46.8	54.6	62.4	70.2	78
	3.50	3.43	1.50	19.5	39	58.5	78	97.5	117	136	156	175	195
6"	3.50	3.43	2.00	18	36	54	72	90	108	126	144	162	180
	5.24	5.16	2.00	45	90	135	180	225	270	315	360	405	450
8"	4.65	4.53	2.52	30	60	90	120	150	180	210	240	270	300
	7.01	6.89	2.52	75	150	225	300	375	450	525	600	675	750
10"	5.24	5.16	2.52	46	92	138	184	230	276	322	368	414	460
	8.74	8.62	2.52	116	232	348	464	580	696	812	928	1044	1160
12"	6.38	6.26	3.50	65	130	195	260	325	390	455	520	585	650
	10.51	10.39	3.50	162	324	486	648	810	972	1134	1296	1458	1620

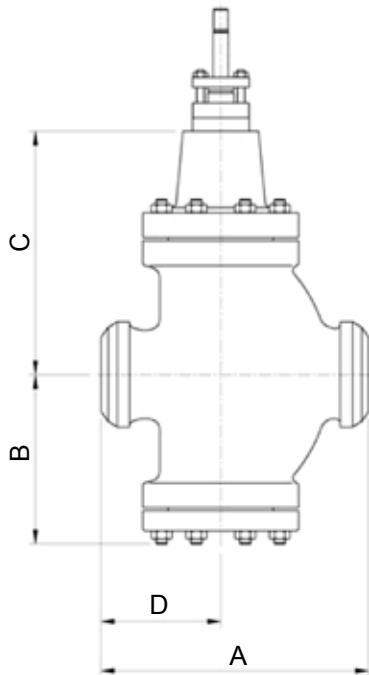
** The Cv shown in our catalog is for reference only.

J Flow Controls can design and modify the seat design to meet different customer requirements

Dimensions



Valve Size	ANSI CLASS													
	150-600 BW,SW		150				300				600			
	A	D	RF		RTJ		RF		RTJ		RF		RTJ	
2"	9.3	4.1	10	4.6	11	4.9	11	4.9	11	5.2	11	5.2	11	5.3
3"	13	6.3	12	5.5	12	5.8	13	5.9	13	6.2	13	6.3	13	6.3
4"	16	7.4	14	6.6	14	6.8	14	6.9	15	7.2	16	7.4	16	7.4
6"	20	8.7	18	7.6	18	7.9	19	8.1	19	8.4	20	8.7	20	8.8
8"	24	9.9	21	8.5	22	8.8	22	9.1	23	9.4	24	9.9	24	9.9
10"	28	12	25	9.9	25	10	26	11	27	11	28	12	28	12
12"	32	13	29	11	29	12	30	12	31	12	32	13	32	13
14"	37	15	32	13	34	13	35	14	36	14	37	15	37	15
16"	39	17	35	16	36	16	37	17	38	17	39	17	39	17



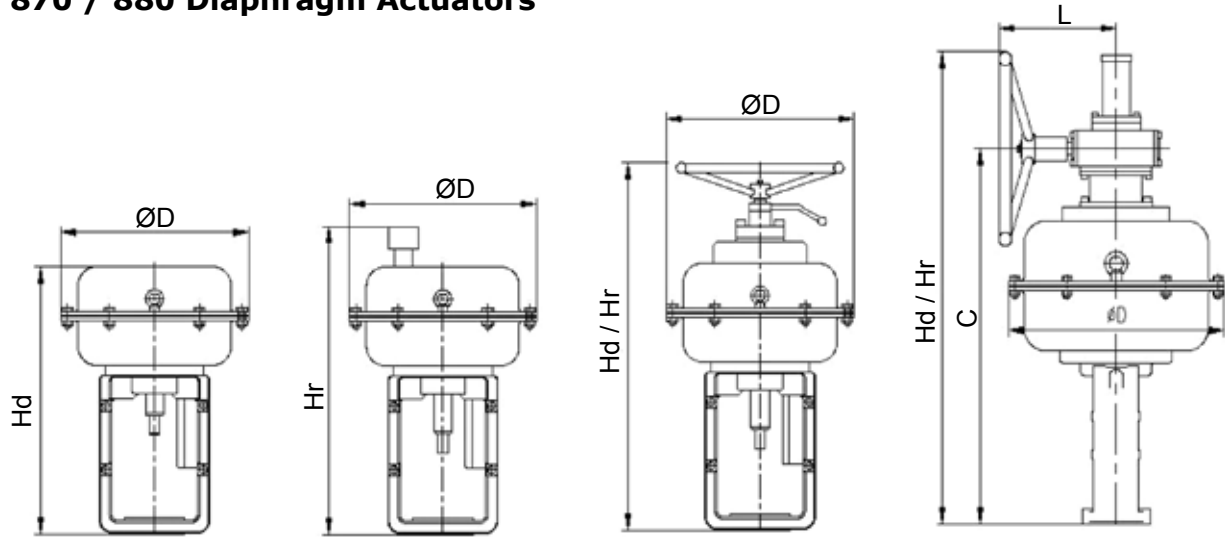
Valve Size	ANSI CLASS									
	900-1500 BW,SW		900				1500			
	A	D	RF		RTJ		RF		RTJ	
2"	12	5.9	12	5.9	12	5.9	12	5.9	12	5.9
3"	16	7.5	15	7.1	15	7.2	16	7.5	16	7.6
4"	19	9.0	18	8.6	18	8.7	19	9.0	19	9.1
6"	24	11	21	9.5	21	9.5	24	11	24	11
8"	30	14	28	13	28	13	30	14	31	14
10"	36	17	33	15	33	15	36	17	36	17
12"	40	18	35	16	35	16	40	18	41	18

Valve Size	ANSI Class 150 – 1500	
	B	C
	(Max)	(Min)
2"	6.0	7.2
3"	7.8	9.3
4"	8.1	9.5
6"	11.2	12.6
8"	13.4	14.7
10"	14.8	16.4
12"	17.8	19.8
14"	21.5	24.1
16"	22.3	26.1

ANSI 150 – 600 only
ANSI 150 – 600 only

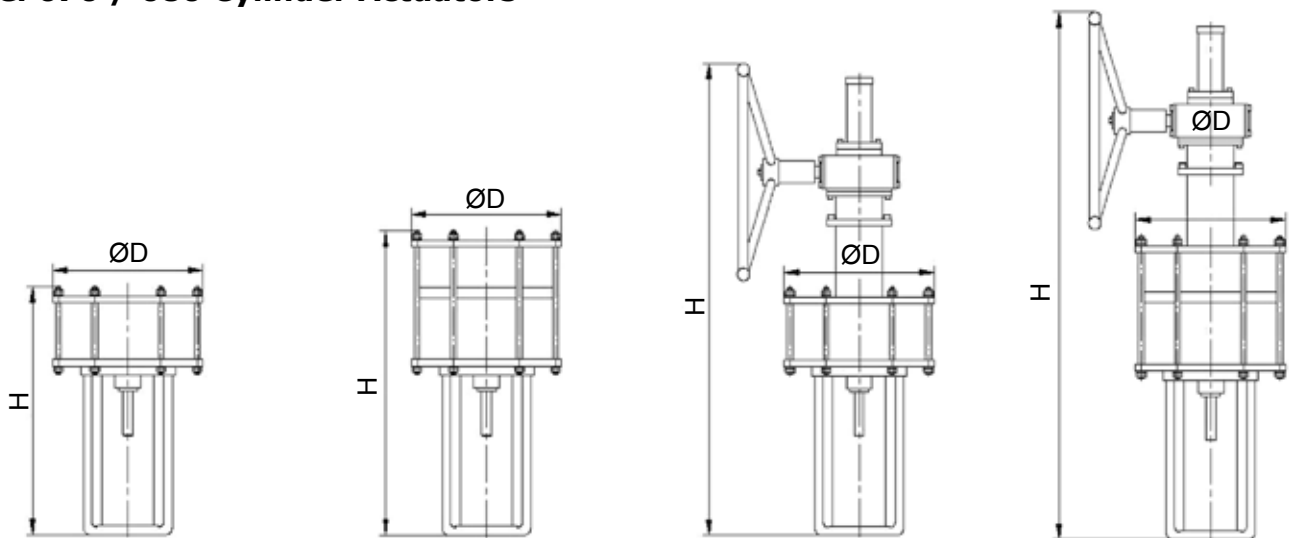
Actuator Constructions

Model 870 / 880 Diaphragm Actuators



Actuator Size	D	Without Handwheel		With Handwheel				
		DA HD	RA Hr	Handwheel Type	DA Hd	RA Hr	C	L
#25	9.8	13.1	13.9	Top	17.7	18.6	-	-
#29	11.4	14.5	16.5	Top	21.0	22.4	-	-
#37	14.6	16.1	18.1	Top	22.6	24.4	-	-
#48	18.9	24.8	26.7	Side	3.8.5	38.5	30.7	10.2
#55	21.7	26.7	28.7	Side	43.2	43.2	33.4	11.8
#55H	21.7	28.7	30.6	Side	45.2	45.2	33.4	11.8

Model 670 / 680 Cylinder Actuators



without Volume Chamber

with Volume Chamber

with optional Handwheel

Weight

Body Sub-Assembly

Valve Size	BW, SW up to 600 lbs	Flanged				
		ANSI Class				
		150	300	600	900	1500
2"	50.7	150	161	174	298	298
3"	110	245	256	269	397	408
4"	192	304	311	335	492	505
6"	364	516	529	595	893	911
8"	668	800	825	959	1440	1460
10"	1168	1349	1380	1499	2251	2251
12"	1453	1700	1739	1900	2851	2851

Actuator

Actuator Size	Standard	With Handwheel	
		Top	Side
#25	22	29	33
#29	42	55	60
#37	82	101	108
#48	203	238	247
#55	256	309	320
#55H	265	318	331

Accessories

- Positioners
Smart, E/P, P/P Positioners for Single / Double Acting
- Instrument Valves
Transfer (Trip) Valves, Volume Booster Relay
Air Regulators (Air Set), Speed Control Valves
- Limit Switches
- Solenoid Valves