



**DRAG® 900D  
Control Valve  
P & ID Kit**



- **Quiet operation, low noise**
- **Customizable flow characterization**
- **ANSI face-to-face pre-engineered dimensions**
- **Compliant with ISA severe service guidelines**
- **Dimensional documents readily available**



### **CCI's Unrivalled Expertise**

CCI's DRAG® technology, pioneered in 1961, is the industry's leading solution for handling demanding service conditions. The 900D is designed to deliver peak process performance with superior control while minimizing losses caused by valve leakage. CCI's proven DRAG® technology will reduce your equipment and maintenance costs through dramatic reductions in cavitation and vibration – the root cause of damage to trim, adjacent equipment and piping. Supported by the world class technical expertise of The Valve Doctor® program, the 900D is a continuation of CCI's industry leading severe service solutions that customers have come to depend on.

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**Table 1a: C<sub>v</sub> Table, Globe Body, Linear Characteristic, Standard Trim**

Valve Rating	Inch (mm)			Min Cv	Maximum Rated Cv											
					Flow to Close						Flow to Open					
	Valve Size NPS	Port Size	Stroke		Number of Turns						Number of Turns					
					2	4	6	8	10	12	2	4	6	8	10	12
Class 150-600	1(25)	1(25)	0.8(20)	0.3	8.4	6.5	5.0	2.2	1.6	1.1	10.4	7.8	6.4	2.3	1.9	1.1
	1.5(40)	1.5(38)	1.2(30)	0.4	17.0	13.0	11.4	5.9	3.7	2.6	22.3	16.9	13.1	5.9	3.7	3.2
	2(50)	2(50)	1.6(40)	0.7	26.8	21.7	17.5	9.9	6.1	4.2	36.0	27.0	22.0	9.9	6.1	5.5
	3(80)	2.5(65)	2.0(50)	1.2	47.0	37.6	31.8	25.3	22.0	17.4	62.1	46.8	39.7	33.3	28.7	24.2
	4(100)	3(76)	2.8(70)	1.7	77	64	53	44	39	31	99	78	66	55	48	41
	6(150)	4(100)	3.9(100)	2.7	186	186	163	142	123	108	187	187	187	187	177	160
	6(150)	5(125)	3.9(100)	4.1	243	243	205	174	149	128	278	278	269	236	207	181
Class 150-300	10(250)	8(203)	5.9(150)	8.6	638	638	539	459	393	339	715	715	663	578	505	441
	12(300)	10(254)	5.9(150)	9.2	822	822	677	567	480	410	984	984	858	732	628	541
	14(350)	12(305)	7.9(200)	11.0	1299	1299	1082	912	776	665	1493	1493	1272	1087	934	807
	16(400)	14(356)	9.8(250)	15.7	1874	1874	1574	1544	1139	979	2099	2099	1798	1544	1331	1152
Class 600	10(250)	8(203)	7.9(200)	8.6	674	674	651	566	493	430	746	746	746	689	615	547
	12(300)	10(254)	7.9(200)	9.2	999	999	845	719	616	531	1158	1158	1036	905	789	690
	14(350)	12(305)	9.8(250)	11.0	1512	1512	1290	1105	951	822	1679	1679	1485	1296	1130	987
	16(400)	14(356)	11.8(300)	15.7	2111	2111	1810	1555	1342	1162	2167	2167	2036	1778	1552	1357
Class 900-1500	3(80)	2.5(65)	2.0(50)	1.2	47.0	37.6	31.8	25.3	22.0	17.4	62.1	46.8	39.7	33.3	28.7	24.2
Class 900-2500	4(100)	3(76)	2.8(70)	1.7	77	64	53	44	39	31	99	78	66	55	48	41
	6(150)	4(100)	5.1(130)	2.7	188	188	188	168	149	132	186	186	186	186	186	186
	6(150)	5(125)	5.1(130)	4.1	283	283	246	231	202	177	289	289	289	289	272	245
	8(200)	6(150)	5.9(150)	5.9	412	412	358	301	269	235	419	419	419	387	345	306
Class 900-1500	10(250)	8(203)	7.9(200)	8.6	674	674	651	566	493	430	746	746	746	689	615	547
	12(300)	10(254)	9.8(250)	9.2	1144	1144	993	862	749	652	1125	1125	1125	995	878	774
Class 2500	3(80)	2.5(65)	2.8(70)	1.2	60.3	49.7	42.8	34.5	30.2	24.1	69.0	60.0	52.2	44.6	38.9	33.1

C<sub>v</sub> values are based on 316 SS disk material for reference only

Table 1b: C<sub>v</sub> Table, Globe Body, Linear Characteristic, High Capacity Trim

Valve Rating	Inch (mm)			Min Cv	Maximum Rated Cv											
					Flow to Close						Flow to Open					
	Valve Size NPS	Port Size	Stroke		Number of Turns						Number of Turns					
					2	4	6	8	10	12	2	4	6	8	10	12
Class 150-600	1(25)	1(25)	0.8(20)	0.3	11.1	9.1	7.6	N/A	N/A	N/A	11.6	10.6	9.9	N/A	N/A	N/A
	1.5(40)	1.5(38)	1.2(30)	0.4	25.5	20.9	17.4	N/A	N/A	N/A	25.6	23.0	21.5	N/A	N/A	N/A
	2(50)	2(50)	1.6(40)	0.7	45.9	37.7	31.6	N/A	N/A	N/A	46.2	41.5	38.9	N/A	N/A	N/A
	3(80)	2.5(65)	2.0(50)	1.2	72.6	67.8	58.3	50.0	43.2	37.4	72.5	67.6	63.6	60.8	53.4	46.9
	4(100)	3(76)	2.8(70)	1.7	101	101	88	76	66	57	105	105	96	92	82	72
	6(150)	4(100)	3.9(100)	2.7	184	184	160	139	121	105	184	184	174	165	166	149
	6(150)	5(125)	3.9(100)	4.1	270	218	177	152	N/A	N/A	290	274	251	219	N/A	N/A
Class 150-300	8(200)	6(150)	3.9(100)	5.9	363	289	237	199	N/A	N/A	386	354	317	271	N/A	N/A
	10(250)	8(203)	5.9(150)	8.6	704	584	487	411	350	300	743	668	616	534	463	400
	12(300)	10(254)	5.9(150)	9.2	967	764	625	522	440	N/A	1042	933	781	661	564	N/A
	14(350)	12(305)	7.9(200)	11.0	1515	1219	1008	846	718	N/A	1593	1385	1164	988	844	N/A
Class 600	16(400)	14(356)	9.8(250)	15.7	2066	1717	1426	1200	1020	N/A	2265	1962	1660	1415	1213	N/A
	10(250)	8(203)	7.9(200)	8.6	708	708	611	528	456	395	707	707	707	659	584	515
	12(300)	10(254)	7.9(200)	9.2	1139	936	784	663	566	N/A	1165	1106	954	824	713	N/A
	14(350)	12(305)	9.8(250)	11.0	1674	1440	1219	1039	890	N/A	1604	1604	1385	1198	1037	N/A
Class 900-1500	16(400)	14(356)	11.8(300)	15.7	2285	1967	1665	1420	1217	N/A	2205	2205	1908	1653	1433	N/A
	3(80)	2.5(65)	2.0(50)	1.2	72.6	67.8	58.3	50.0	43.2	37.4	72.5	67.6	63.6	60.8	53.4	46.9
	4(100)	3(76)	2.8(70)	1.7	101	101	88	76	66	57	105	105	96	92	82	72
	6(150)	4(100)	5.1(130)	2.7	186	186	184	163	145	127	187	187	187	187	187	173
Class 900-2500	6(150)	5(125)	5.1(130)	4.1	291	276	238	206	178	154	288	288	288	270	253	226
	8(200)	6(150)	5.9(150)	5.9	417	376	320	274	N/A	N/A	403	403	403	457	N/A	N/A
	10(250)	8(203)	7.9(200)	8.6	708	708	611	528	456	395	707	707	707	659	584	515
Class 900-1500	12(300)	10(254)	9.8(250)	9.2	1165	1089	936	806	N/A	N/A	1164	1164	1076	946	N/A	N/A
	Class 2500	3(80)	2.5(65)	2.8(70)	1.2	70.2	70.2	70.2	62.1	54.7	48.2	72.6	72.6	72.6	72.6	65.5

N/A = not available

C<sub>v</sub> values are based on 316 SS disk material for reference only

**Table 1c: C<sub>v</sub> Table, Globe Body, Equal Percentage Characteristic, Standard Trim**

Valve Rating	Inch (mm)			Min Cv	Rated Cv															
					Flow to Close						Flow to Open									
					Number of Turns						Number of Turns									
Valve Size NPS	Port Size	Stroke	12	10	8	6	4	2	0	12	10	8	6	4	2	0				
Class 150-300	1(25)	1(25)	0.8(20)	0.3	Cv			0.6	1.4	2.8	4.7	8.0			0.6	1.5	3.2	5.7	9.3	
					Stroke			19%	39%	60%	80%	100%			19%	39%	60%	80%	100%	
	1.5(40)	1.5(38)	1.2(30)	0.4	Cv		1.1		2.4	5.0	8.6	15.1			1.6	3.4	7.0	11.9	19.7	
					Stroke		23%		42%	62%	81%	100%			23%	42%	62%	81%	100%	
	2(50)	2(50)	1.6(40)	0.7	Cv		1.9		3.9	8.1	13.4	25.2			1.9	4.4	9.8	17.4	32.3	
					Stroke		22%		40%	59%	78%	100%			22%	40%	59%	78%	100%	
	3(80)	2.5(65)	2.0(50)	1.2	Cv	4.5		9.1		16.2	25.2	45.9			5.9		12.1	21.2	34.0	59.4
					Stroke	21%		39%		57%	76%	100%			21%		39%		57%	76%
	4(100)	3(76)	2.8(70)	1.7	Cv	8.1		16.7		30.0	45.8	72.4			10.1		21.2	37.9	59.8	90.7
					Stroke	21%		41%		61%	80%	100%			21%		41%		61%	80%
	6(150)	4(100)	3.9(100)	2.7	Cv	41.3		69.7		123.6					64.7		112.7	154.6		
					Stroke	56%		74%		100%							56%		78%	
6(150)	5(125)	3.9(100)	4.1	Cv	45.5		78.7		146.9					66.6		124.3	189.2			
				Stroke	56%		74%		100%							56%		78%		
8(200)	6(150)	3.9(100)	5.9	Cv	58.7		100.4		187.8					80.0		137.6	243.3			
				Stroke	56%		74%		100%							56%		74%		
10(250)	8(203)	5.9(150)	8.6	Cv	127.9		242.4		392.2					195.8		343.4	504.4			
				Stroke	59%		78%		100%							59%		78%		
12(300)	10(254)	5.9(150)	9.2	Cv	158.3		273.6		447.2					207.2		360.9	574.4			
				Stroke	60%		80%		100%							60%		80%		
14(350)	12(305)	7.9(200)	11.0	Cv	240.9		419.1		761.0					289.8		507.9	912.4			
				Stroke	57%		76%		100%							57%		76%		
16(400)	14(356)	9.8(250)	15.7	Cv	369.7		643.5		1075.5					433.0		757.4	1233.9			
				Stroke	59%		79%		100%							59%		79%		

C<sub>v</sub> values are based on 316 SS disk material for reference only

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**Table 1c: C<sub>v</sub> Table, Globe Body, Equal Percentage Characteristic, Standard Trim (continued)**

Valve Rating	Inch (mm)			Min C <sub>v</sub>	Rated C <sub>v</sub>											
					Flow to Close						Flow to Open					
					Number of Turns						Number of Turns					
Class 600	10(250)	8(203)	7.9(200)	Cv	170.8	295.3	466.5		228.5	421.9	594.1					
				Stroke	60%	80%	100%		60%	80%	100%					
	12(300)	10(254)	7.9(200)	Cv	196.3	338.8	606.2		256.8	444.6	761.1					
				Stroke	57%	76%	100%		57%	76%	100%					
	14(350)	12(305)	9.8(250)	Cv	310.5	538.3	913.0		373.3	649.4	1082.2					
				Stroke	58%	78%	100%		58%	78%	100%					
16(400)	14(356)	11.8(300)	Cv	451.8	783.2	1254.1		528.8	918.5	1450.4						
			Stroke	60%	80%	100%		60%	80%	100%						
Class 900-1500	3(80)	2.5(65)	2.0(50)	Cv	4.5	9.1	16.2	25.2	45.9	21.2	34.0	59.4				
				Stroke	21%	39%	57%	76%	100%	21%	39%	57%	76%	100%		
	4(100)	3(76)	2.8(70)	Cv	8.1	16.7	30.0	45.8	72.4	21.2	37.9	59.8	90.7			
				Stroke	21%	41%	61%	80%	100%	21%	41%	61%	80%	100%		
	6(150)	4(100)	5.1(130)	Cv	64.1	80.1	137.7		92.3		173.8					
				Stroke	69%	77%	100%		66%		100%					
6(150)	5(125)	5.1(130)	Cv	84.9		185.2		113.4		233.4						
			Stroke	69%		100%		66%		100%						
8(200)	6(150)	5.9(150)	Cv	91.5	156.4	257.7		124.6	210.7	324.2						
			Stroke	59%	78%	100%		59%	78%	100%						
Class 900-1500	10(250)	8(203)	7.9(200)	Cv	170.8	295.3	466.5		228.5	421.9	594.1					
				Stroke	60%	80%	100%		60%	80%	100%					
	12(300)	10(254)	9.8(250)	Cv	252.6	433.6	721.6		306.8	523.6	848.1					
				Stroke	58%	78%	100%		58%	78%	100%					
	3(80)	2.5(65)	2.8(70)	Cv	6.2	13.1	23.6	36.3	56.3	18.3	31.5	48.3	68.3			
				Stroke	21%	41%	61%	80%	100%	24%	43%	63%	83%	100%		

C<sub>v</sub> values are based on 316 SS disk material for reference only

**Table 1d: C<sub>v</sub> Table, Angle Body, Linear Characteristic, Standard Trim**

Valve Rating	Inch (mm)			Maximum Rated Cv											
				Flow to Close						Flow to Open					
	Valve Size NPS	Port Size	Stroke	Number of Turns						Number of Turns					
				2	4	6	8	10	12	2	4	6	8	10	12
Class 150-600	1 (25)	1 (25)	0.8 (20)	9.0	6.8	5.1	2.2	1.6	1.1	11.6	8.3	7.0	2.3	1.9	1.1
	1.5 (40)	1.5 (38)	1.2 (30)	18.0	13.4	11.7	5.9	3.7	2.6	24.6	17.8	13.5	5.9	3.7	3.2
	2 (50)	2 (50)	1.6 (40)	28.0	22.3	17.8	9.9	6.1	4.2	39.1	28.2	22.6	9.9	6.1	5.5
	3 (80)	2.5 (65)	2.0 (50)	49.7	39.0	32.6	25.7	22.2	17.5	68.8	49.4	41.3	34.2	29.3	24.5
	4 (100)	3 (76)	2.8 (70)	83	67	54	45	40	32	113	84	70	57	49	41
	6 (150)	4 (100)	3.9 (100)	216	216	181	153	131	112	235	235	217	216	202	178
	6 (150)	5 (125)	3.9 (100)	268	268	219	182	154	131	317	317	303	258	221	191

**Table 1e: C<sub>v</sub> Table, Angle Body, Linear Characteristic, High Capacity Trim**

Valve Rating	Inch (mm)			Min Cv	Rated Cv											
					Flow to Close						Flow to Open					
	Valve Size NPS	Port Size	Stroke		Number of Turns						Number of Turns					
					2	4	6	8	10	12	2	4	6	8	10	12
Class 150-600	1 (25)	1 (25)	0.8 (20)	0.3	12.7	9.9	8.0	N/A	N/A	N/A	13.5	11.9	11.0	N/A	N/A	N/A
	1.5 (40)	1.5 (38)	1.2 (30)	0.4	29.2	22.8	18.5	N/A	N/A	N/A	29.4	25.6	23.6	N/A	N/A	N/A
	2 (50)	2 (50)	1.6 (40)	0.7	52.8	41.2	33.6	N/A	N/A	N/A	53.0	46.5	42.9	N/A	N/A	N/A
	3 (80)	2.5 (65)	2.0 (50)	1.2	95.2	76.7	63.7	53.4	45.3	38.8	94.9	76.5	70.8	67.1	57.5	49.6
	4 (100)	3 (76)	2.8 (70)	1.7	116	116	96	81	69	59	128	128	109	103	89	77
	6 (150)	4 (100)	3.9 (100)	2.7	259	212	178	150	128	110	237	212	197	184	186	163
	6 (150)	5 (125)	3.9 (100)	4.1	305	236	191	158	N/A	N/A	335	312	279	236	N/A	N/A

N/A = not available  
C<sub>v</sub> values are based on 316 SS disk material for reference only

**Table 1f: C<sub>v</sub> Table, Angle Body, Equal Percentage Characteristic, Standard Trim**

Valve Rating	Inch (mm)		Min Cv	Rated Cv													
				Flow to Close						Flow to Open							
				Number of Turns						Number of Turns							
1 (25)	1 (25)	Stroke (20)	0.3	12	10	8	6	4	2	0	12	10	8	6	4	2	0
						0.6	1.4	2.9	4.8	8.5			0.6	1.5	3.2	5.9	10.2
1.5 (40)	1.5 (38)	Stroke (30)	0.4	12	10	8	6	4	2	0	12	10	8	6	4	2	0
					1.1	2.4	5.1	8.7	15.8			1.6	3.5	7.1	12.3	21.2	
2 (50)	2 (50)	Stroke (40)	0.7	12	10	8	6	4	2	0	12	10	8	6	4	2	0
					1.9	3.9	8.1	13.5	26.2		1.9	4.4	9.9	17.7	34.5		
3 (80)	2.5 (65)	Stroke (50)	1.2	12	10	8	6	4	2	0	12	10	8	6	4	2	0
					22%	40%	59%	78%	100%		22%	40%	59%	78%	100%		
4 (100)	3 (76)	Stroke (70)	1.7	12	10	8	6	4	2	0	12	10	8	6	4	2	0
					8.1	16.8	30.3	47.0	77.2		8.1	16.3	25.6	48.4	5.9	21.5	35.0
6 (150)	4 (100)	Stroke (100)	2.7	12	10	8	6	4	2	0	12	10	8	6	4	2	0
					41.6	70.9	131.1	100%	100%		41.6	70.9	131.1	100%	100%		
6 (150)	5 (125)	Stroke (100)	4.1	12	10	8	6	4	2	0	12	10	8	6	4	2	0
					45.6	79.5	151.9	100%	100%		45.6	79.5	151.9	100%	100%		
		Stroke		12	10	8	6	4	2	0	12	10	8	6	4	2	0
						74%							74%				

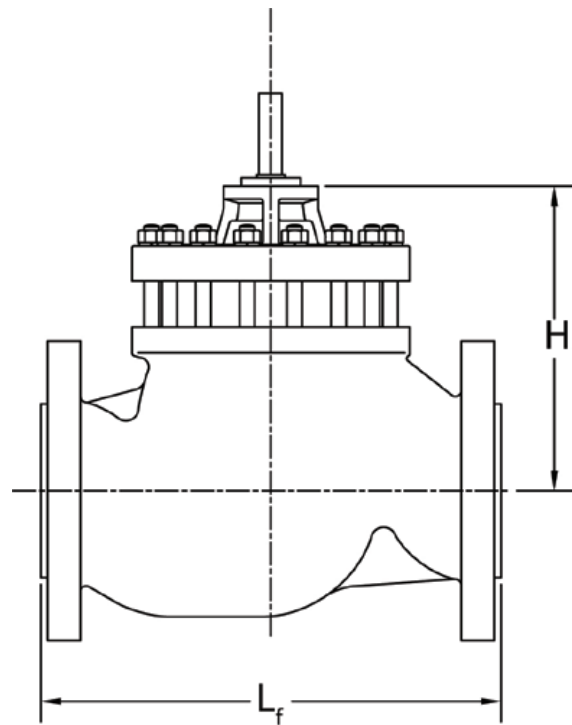
**Notes:**

- Intermediate Cv values can be calculated by linear extrapolation between each discrete Cv/Stroke value.
- Custom disk stack characterizations designed to fit specific system requirements are available.

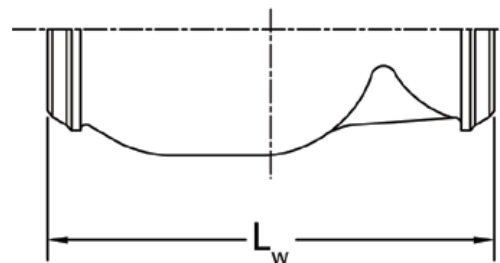
C<sub>v</sub> values are based on 316 SS disk material for reference only

**Table 2a: Valve Dimensions & Weights, Globe Body Configuration**

Valve Size NPS	ANSI	H in(mm)	L <sub>f</sub> in(mm)	L <sub>w</sub> in(mm)	Weight lbs (kgs)
1 (25)	150	4.8 (122)	7.25 (184)	8.25 (210) L	25 (11)
	300	4.8 (122)	7.75 (197)	8.25 (210) L	27 (12)
	600	4.8 (122)	8.25 (210)	8.25 (210) L	29 (13)
1.5 (40)	150	7.9 (201)	8.75 (222)	9.88 (251) L	49 (22)
	300	7.9 (201)	7.75 (197)	8.25 (210) L	51 (23)
	600	7.9 (201)	9.88 (251)	9.88 (251) L	53 (24)
2 (50)	150	9.86 (250)	10 (254)	11.25 (286) L	74 (34)
	300	9.86 (250)	10.5 (267)	11.25 (286) L	78 (35)
	600	9.86 (250)	11.25 (286)	11.25 (286) L	82 (37)
3 (80)	150	11.05 (281)	11.75 (298)	12.5 (318) S	123 (56)
	300	11.05 (281)	12.5 (318)	12.5 (318) S	133 (60)
	600	11.06 (281)	13.25 (337)	13.25 (337) L	170 (77)
	900	13.6 (346)	17.38 (441)	18.12 (460) L	321 (146)
	1500	13.6 (346)	18.12 (460)	18.12 (460) L	331 (150)
	2500	16.87 (429)	19.62 (498)	19.62 (498) L	468 (213)
4 (100)	150	12.78 (325)	13.88 (353)	14.5 (368) S	207 (94)
	300	12.78 (325)	14.5 (368)	14.5 (368) S	222 (101)
	600	13.78 (350)	15.5 (394)	15.5 (394) L	281 (128)
	900	13.82 (351)	20.12 (511)	20.88 (530) L	472 (215)
	1500	13.82 (351)	20.87 (530)	20.88 (530) L	502 (228)
	2500	17.67 (449)	22.62 (575)	22.62 (575) L	687 (312)
6 (150)	150	15.98 (406)	17.75 (451)	18.62 (473)	440 (200)
	300	15.98 (406)	18.62 (473)	18.62 (473)	475 (216)
	600	16.55 (420)	20 (508)	20 (508) L	560 (255)
	900	20.61 (523)	28.12 (714)	30.25 (768) L	1276 (580)
	1500	20.61 (523)	30.25 (768)	30.25 (768) L	1356 (616)
	2500	23.73 (603)	32.25 (819)	32.25 (819) L	1948 (885)
8 (200)	150	16.86 (428)	21.38 (543)	22.38 (568)	663 (301)
	300	16.86 (428)	22.38 (568)	22.38 (568)	718 (326)
	600	17.35 (441)	24 (610)	24 (610) L	1007 (458)
	900	23.23 (590)	30.75 (781)	32.75 (832) L	1678 (763)
	1500	23.23 (590)	33 (838)	32.75 (832) L	1793 (815)
	2500	21.7 (551)	40.25 (1022)	40.25 (1022) L	2988 (1358)
10 (250)	150	21.47 (545)	26.5 (673)	29.62 (752) L	1067 (485)
	300	21.47 (545)	27.88 (708)	29.62 (752) L	1147 (521)
	600	26.65 (677)	29.62 (752)	29.62 (752) L	1965 (893)
	900	27.19 (691)	39 (991)	39 (991) L	2987 (1358)
	1500	27.19 (691)	39 (991)	39 (991) L	3257 (1480)



**RAISED FACE FLANGE  
PER ANSI/ISA-75.08.01-2002**

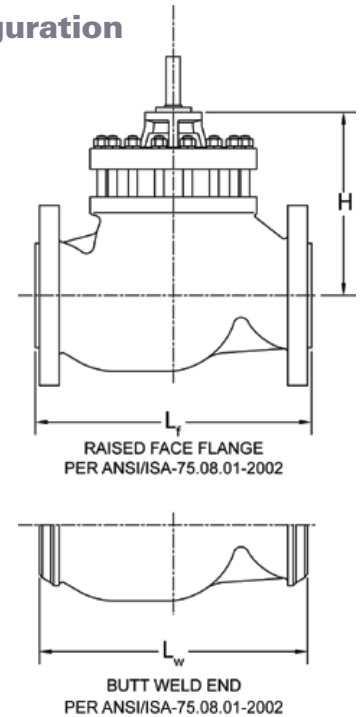


**BUTT WELD END  
PER ANSI/ISA-75.08.01-2002**

- Note: 1. All dimensions are for reference only. Please consult the factory for certified dimensions.  
 2. Flanged End Face-to-Face dimensions are per ANSI/ISA-75.08.01-2002  
 3. Butt weld end face-to-face dimensions are per ANSI/ISA -75.08.05-2002 when denoted by "L" or "S" "S" indicates short and "L" indicates long.

**Table 2a: Valve Dimensions & Weights, Globe Body Configuration**

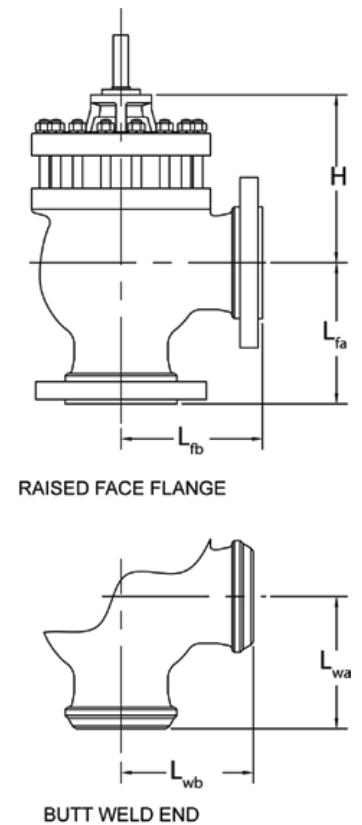
Valve Size NPS	ANSI	H in(mm)	L <sub>f</sub> in(mm)	L <sub>w</sub> in(mm)	Weight lbs (kgs)
12 (300)	150	21.59 (548)	29 (737)	32.25 (819) L	1459 (663)
	300	21.59 (548)	30.5 (775)	32.25 (819) L	1514 (688)
	600	26.59 (675)	32.25 (819)	32.25 (819) L	2322 (1055)
	900	32.77 (832)	44.5 (1130)	44.5 (1130) L	4392 (1996)
	1500	32.77 (832)	44.5 (1130)	44.5 (1130) L	4552 (2069)
14 (350)	150	26.46 (672)	35 (889)	40.5 (1029) L	2049 (931)
	300	26.46 (672)	36.5 (927)	40.5 (1029) L	2084 (947)
	600	31.54 (801)	38.25 (972)	40.5 (1029) L	3449 (1568)
16 (400)	150	31.39 (797)	40 (1016)	43.62 (1108) L	3248 (1476)
	300	31.39 (797)	41.62 (1057)	43.62 (1108) L	3448 (1567)
	600	36.19 (919)	43.62 (1108)	43.62 (1108) L	4739 (2154)



- Note: 1. All dimensions are for reference only. Please consult the factory for certified dimensions.  
 2. Flanged End Face-to-Face dimensions are per ANSI/ISA-75.08.01-2002  
 3. Butt weld end face-to-face dimensions are per ANSI/ISA -75.08.05-2002 when denoted by "L" or "S", "S" indicates short and "L" indicates long.

**Table 2b: Valve Dimensions & Weights, Angle Body Configuration**

Valve Size NPS	ANSI	H in(mm)	L <sub>fa</sub> in(mm)	L <sub>fb</sub> in(mm)	L <sub>wa</sub> in(mm)	L <sub>wb</sub> in(mm)	Weight lbs (kgs)
1 (25)	150	4 (99)	3.86 (98)	3.86 (98)	3.86 (98)	3.86 (98)	25 (12)
	300	4 (99)	3.86 (98)*	3.86 (98)*	3.86 (98)	3.86 (98)	27 (12)
	600	4 (99)	3.86 (98)	3.86 (98)	3.86 (98)	3.86 (98)	29 (13)
1.5 (40)	150	7 (172)	5.51 (140)	5.51 (140)	5.51 (140)	5.51 (140)	49 (22)
	300	7 (172)	5.51 (140)	5.51 (140)	5.51 (140)	5.51 (140)	51 (23)
	600	7 (172)	5.51 (140)	5.51 (140)	5.51 (140)	5.51 (140)	53 (24)
2 (50)	150	9 (218)	5.63 (143)	5.63 (143)	5.63 (143)	5.63 (143)	74 (33)
	300	9 (218)	5.63 (143)*	5.63 (143)*	5.63 (143)	5.63 (143)	78 (35)
	600	9 (218)	5.63 (143)	5.63 (143)	5.63 (143)	5.63 (143)	82 (37)
3 (80)	150	9 (228)	6.26 (159)	6.26 (159)	6.26 (159)	6.26 (159)	123 (56)
	300	9 (228)	6.26 (159)*	6.26 (159)*	6.26 (159)	6.26 (159)	133 (60)
	600	9 (230)	6.65 (169)	6.65 (169)	6.65 (169)	6.65 (169)	170 (77)
4 (100)	150	10 (256)	7.24 (184)	7.24 (184)	7.24 (184)	7.24 (184)	207 (94)
	300	10 (256)	7.24 (184)*	7.24 (184)*	7.24 (184)	7.24 (184)	222 (101)
	600	11 (286)	9.06 (230)	9.06 (230)	9.06 (230)	9.06 (230)	281 (128)
6 (150)	150	12 (308)	9.33 (237)	9.33 (237)	9.33 (237)	9.33 (237)	440 (200)
	300	12 (308)	9.33 (237)*	9.33 (237)*	9.33 (237)	9.33 (237)	475 (216)
	600	13 (323)	11.02 (280)	11.02 (280)	11.02 (280)	11.02 (280)	560 (254)



- Note: 1. All dimensions are for reference only. Please consult the factory for certified dimensions.  
 2. Dimensions denoted with \* are per ANSI/ISA-75.08.08

**Table 3: Actuator Sizing**

in (mm)			ANSI	Shut Off Class IV & VI (Soft Seat)				Shut Off Class V			
Valve Size NPS	Port Size,	Stroke		Teflon Seals		Graphite Seals		Teflon Seals		Graphite Seals	
				Under-the-Plug Flow	Over-the-Plug Flow	Under-the-Plug Flow	Over-the-Plug Flow	Under-the-Plug Flow	Over-the-Plug Flow	Under-the-Plug Flow	Over-the-Plug Flow
1 (25)	1 (25)	0.79 (20)	150	MSD III 250	SC/V 200	SC/V 200	SC/V 200	MSD III 250	SC/V 200	SC/V 200	SC/V 200
		0.79 (20)	300	MSD III 250	SC/V 200	SC/V 200	SC/V 200	MSD III 250	SC/V 200	SC/V 200	SC/V 200
		0.79 (20)	600	MSD III 250	SC/V 200	SC/V 200	SC/V 200	MSD III 250	SC/V 200	SC/V 200	SC/V 200
1.5 (40)	1.5 (38)	1.18 (30)	150	MSD III 250	MSD III 250	SC/V 200	SC/V 200	MSD III 290	SC/V 200	SC/V 200	SC/V 200
		1.18 (30)	300	MSD III 250	MSD III 250	SC/V 200	SC/V 200	MSD III 290	SC/V 200	SC/V 200	SC/V 200
		1.18 (30)	600	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200
2 (50)	2 (51)	1.57 (40)	150	SC/V 200	SC/V 200	SC/V 200	SC/V 200	MSD III 290	SC/V 200	SC/V 200	SC/V 200
		1.57 (40)	300	SC/V 200	SC/V 200	SC/V 200	SC/V 200	MSD III 370	SC/V 200	SC/V 200	SC/V 200
		1.57 (40)	600	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200
3 (80)	2.5 (64)	1.97 (50)	150	MSD III 370	MSD III 370	SC/V 200	SC/V 200	MSD III 370	SC/V 200	SC/V 200	SC/V 200
		1.97 (50)	300	MSD III 370	MSD III 370	SC/V 200	SC/V 200	MSD III 370	SC/V 200	SC/V 200	SC/V 200
		1.97 (50)	600	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200
		1.97 (50)	900	SC/V 200	SC/V 200	SC/V 320	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200
		1.97 (50)	1500	SC/V 320	SC/V 200	SC/V 320	SC/V 200	SC/V 320	SC/V 200	SC/V 320	SC/V 320
		2.76 (70)	2500	SC/V 320	SC/V 200	SC/V 320	SC/V 200	SC/V 320	SC/V 320	SC/V 320	SC/V 320
4 (100)	3 (76)	2.76 (70)	150	MSD III 480	MSD III 480	SC/V 200	SC/V 200	MSD III 480	SC/V 200	SC/V 200	SC/V 200
		2.76 (70)	300	MSD III 480	MSD III 480	SC/V 200	SC/V 200	MSD III 480	SC/V 200	SC/V 200	SC/V 200
		2.76 (70)	600	SC/V 200	MSD III 480	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200	SC/V 200
		2.76 (70)	900	SC/V 200	SC/V 200	SC/V 320	SC/V 320	SC/V 200	SC/V 200	SC/V 320	SC/V 320
		2.76 (70)	1500	SC/V 320	SC/V 200	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		2.76 (70)	2500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
6 (150)	4 (102)	3.94 (100)	150	MSD III 480	MSD III 480	SC/V 320	SC/V 320	MSD III 480	SC/V 320	SC/V 320	SC/V 320
		3.94 (100)	300	MSD III 480	MSD III 480	SC/V 320	SC/V 320	MSD III 480	SC/V 320	SC/V 320	SC/V 320
		3.94 (100)	600	MSD III 480	MSD III 480	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.12 (130)	900	SC/V 320	MSD III 550	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.12 (130)	1500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.12 (130)	2500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
6 (150)	5 (127)	3.94 (100)	150	MSD III 480	MSD III 480	SC/V 320	SC/V 320	MSD III 480	SC/V 320	SC/V 320	SC/V 320
		3.94 (100)	300	MSD III 480	MSD III 480	SC/V 320	SC/V 320	MSD III 550	SC/V 320	SC/V 320	SC/V 320
		3.94 (100)	600	SC/V 320	MSD III 480	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.12 (130)	900	SC/V 320	MSD III 550	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.12 (130)	1500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.12 (130)	2500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 320
8 (200)	6 (152)	3.94 (100)	150	MSD III 480	MSD III 480	SC/V 320	SC/V 320	MSD III 550	SC/V 320	SC/V 320	SC/V 320
		3.94 (100)	300	MSD III 480	MSD III 480	SC/V 320	SC/V 320	MSD III 550	SC/V 320	SC/V 320	SC/V 320
		3.94 (100)	600	SC/V 320	MSD III 480	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320
		5.91 (150)	900	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 320
		5.91 (150)	1500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400
		5.91 (150)	2500	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 400

**DRAG® 900D**

Actuator sizes are for reference only. Please contact the factory for specific sizing.

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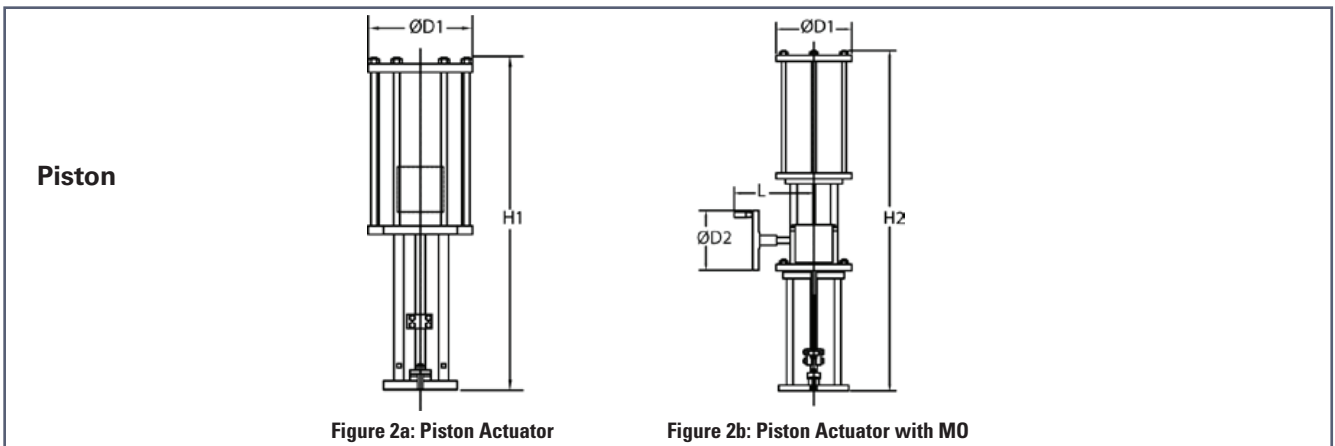
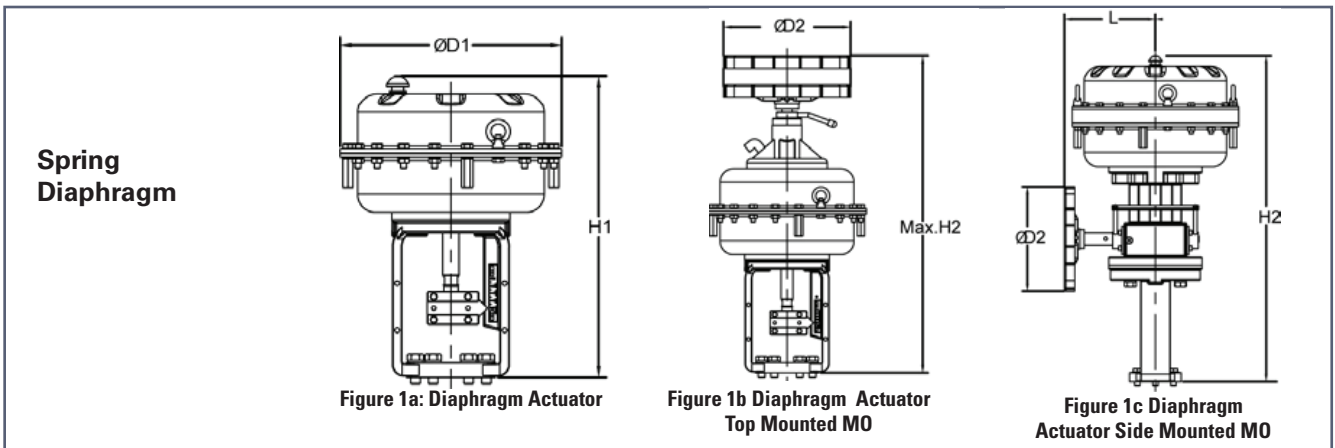
Table 3: Actuator Sizing

in (mm)			ANSI	Shut Off Class IV & VI (Soft Seat)				Shut Off Class V			
Valve Size NPS	Port Size,	Stroke		Teflon Seals		Graphite Seals		Teflon Seals		Graphite Seals	
				Under-the-Plug Flow	Over-the-Plug Flow	Under-the-Plug Flow	Over-the-Plug Flow	Under-the-Plug Flow	Over-the-Plug Flow	Under-the-Plug Flow	Over-the-Plug Flow
10 (250)	8 (203)	5.91 (150)	150	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400
		5.91 (150)	300	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400
		7.87 (200)	600	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400
		7.87 (200)	900	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400
		7.87 (200)	1500	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400
12 (300)	10 (254)	5.91 (150)	150	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 320	SC/V 320	SC/V 400	SC/V 400
		5.91 (150)	300	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 320	SC/V 400	SC/V 400
		7.87 (200)	600	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 400
		9.84 (250)	900	SC/V 320	SC/V 320	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400
		9.84 (250)	1500	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 500	SC/V 500
14 (350)	12 (305)	7.87 (200)	150	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 400
		7.87 (200)	300	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 500	SC/V 400
		9.84 (250)	600	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 500	SC/V 500
16 (400)	14 (356)	9.84 (250)	150	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 500	SC/V 500
		9.84 (250)	300	SC/V 320	SC/V 320	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 500	SC/V 500
		11.81 (300)	600	SC/V 300	SC/V 300	SC/V 400	SC/V 400	SC/V 400	SC/V 400	SC/V 500	SC/V 500

Actuator sizes are for reference only. Please contact the factory for specific sizing.

**Table 4: Actuator Dimensions & Weights**

Actuator Model	Actuator Type	Max Stroke in (mm)	Figure No.	D1 in (mm)	D2 in (mm)	H1 in (mm)	H2 in (mm)	L in (mm)	Weights, lb (kg)	
									W/O MO	W/ MO
MSD III 250	Diaphragm	1 (30)	1a & 1b	9.8 (250)	11.8 (300)	15 (380)	22.4 (570)	-	33 (15)	53 (24)
MSD III 290	Diaphragm	1.5 (40)	1a & 1b	11.5 (292)	11.8 (300)	16.9 (430)	24.4 (620)	-	48 (22)	66 (30)
MSD III 370	Diaphragm	2 (50)	1a & 1b	14.8 (375)	11.8 (300)	20.5 (520)	28.9 (735)	-	106 (48)	130 (59)
MSD III 480	Diaphragm	4 (100)	1a & 1c	19 (482)	11.8 (300)	26 (660)	37.4 (950)	10.6 (269)	211 (96)	334 (152)
MSD III 550	Diaphragm	5 (130)	1a & 1c	21.7 (552)	11.8 (300)	28.7 (730)	42.3 (1075)	11.9 (302)	330 (150)	471 (214)
SC/V 200	Piston	4 (100)	2a & 2b	9.8 (250)	7.9 (200)	37.4 (949)	45.9 (1165)	9.8 (250)	220 (100)	330 (150)
SC/V 320	Piston	4 (100)	2a & 2b	15.2 (385)	9.8 (250)	39.4 (1000)	49.6 (1259)	9.8 (250)	297 (135)	458 (208)
SC/V 320	Piston	8 (200)	2a & 2b	15.2 (385)	9.8 (250)	35.2 (893)	50 (1270)	15 (380)	330 (150)	515 (234)
SC/V 320	Piston	10 (250)	2a & 2b	15.2 (385)	9.8 (250)	40.6 (1030)	59.8 (1520)	15 (380)	330 (150)	515 (234)
SC/V 300	Piston	12 (300)	2a & 2b	14.8 (375)	11.8 (300)	49 (1244)	68.5 (1739)	14.2 (360)	1852 (842)	2352 (1069)
SC/V 400	Piston	6 (150)	2a & 2b	18.7 (475)	11.8 (300)	37 (940)	50.5 (1282)	14.2 (360)	1329 (604)	1635 (743)
SC/V 400	Piston	8 (200)	2a & 2b	18.7 (475)	11.8 (300)	44.6 (1134)	60.1 (1527)	14.2 (360)	1441 (655)	1804 (820)
SC/V 400	Piston	10 (250)	2a & 2b	18.7 (475)	11.8 (300)	46.6 (1184)	64.1 (1628)	14.2 (360)	1470 (668)	1839 (836)
SC/V 400	Piston	12 (300)	2a & 2b	18.7 (475)	11.8 (300)	49 (1244)	68.5 (1739)	14.2 (360)	1503 (683)	1868 (849)
SC/V 500	Piston	8 (200)	2a & 2b	23.1 (588)	11.8 (300)	45 (1144)	60.5 (1537)	14.2 (360)	1855 (843)	2270 (1032)
SC/V 500	Piston	10 (250)	2a & 2b	23.1 (588)	11.8 (300)	47 (1194)	64.5 (1638)	14.2 (360)	1731 (787)	2314 (1052)
SC/V 500	Piston	12 (300)	2a & 2b	23.1 (588)	11.8 (300)	49 (1244)	68.5 (1739)	14.2 (360)	1852 (842)	2352 (1069)



All dimensions are for reference only. Please consult the factory for certified dimensions.



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