



## Model **DF2000** Control Valve



**Figure 1** Dyna-Flo Model DF2000 with DFC Actuator

The Model DF2000 Control Valves are heavy duty globe style control valves used in all kinds of demanding oil and gas applications, from well head to gas plant and beyond.

The Model DF2000 control valves are post guided, single port valves that can be used for either throttling or on-off control of either liquids or gasses.

The actuator for the Model DF2000 valve is typically a Dyna-Flo model DFC or DFO linear actuator. These heavy duty actuators are spring return diaphragm style, and can be used with or without a valve positioner.

The Model DF2000 control valves are manufactured to a high level of quality specifications to ensure superior performance and customer satisfaction.

## Features

### Configuration

Globe valve with screwed-on bonnet, unbalanced, post-guided valve plug, screwed-in metal seat ring construction, and push-down-to close valve plug action.

### Low Temperature Construction Standard

Grade LCC low temperature steel, rated to -50F (-45C), is standard for the valve body and bonnet.

### Severe Service Capable

Constructions are available for service in very erosive applications using a valve plug with a tungsten carbide tip and a seat ring with a full-bore tungsten carbide insert.

### Valve Sizes and Flange Ratings

The Model DF2000 is available in a 1" and 2" body size, with NPT, RF, or RTJ end connections, in ASME Class 150-2500.

### Easy Maintenance

The screwed bonnet/body joint, and seat ring allow repair or maintenance with a minimum of tools.

### Shut Off Capability

The standard shut off classification is ASME/ FCI Class IV. Class V is a readily available option.

### Superior Construction

The latest in CNC manufacturing and the heavy duty design positively align the valve plug in the seat ring for high pressure drop applications.

### NACE Service Capability is Standard

The standard construction materials comply with the recommendations of the National Association of Corrosion Engineers (NACE) MR0175, 2002.



# Model DF2000 Control Valve

**Table 1**

## Rated Inlet Pressure and Temperature

Valve Size	Body Type	Class <sup>◇</sup>	Temperature		Maximum Pressure	
			°F	°C	Psi	kPa
1 and 2 Inch	NPT	3750* (1500 ANSI)	100	38	3,750	25,855
			450	232	3,425	23,615
		6250* (2500 ANSI)	100	38	6,250	43,092
			450	232	5,710	39,369
	Flanged	600 ANSI	100	38	1,500	10,342
			450	232	1,370	9,446
		1500 ANSI	100	38	3,750	25,855
			450	232	3,425	23,615
2500 ANSI	100	38	6,250	43,092		
	450	232	5,710	39,369		

\* Indicates Working Class Pressure (Psig)

◇ Indicates Class or Cold Working Pressure Limit

## Specifications

### Valve Size, Flange Ratings, and Connections

Size: 1" and 2"  
 Rating: ASME 150/300/600/900/1500/2500  
 Connections: RF / RTJ / NPT

### Rated Inlet Pressure and Temperature

Per ASME B16.34 - 1996  
 Also see Table 1

### Maximum Allowable Pressure Drops

Flow-to-open: Capable of full rated pressure drops  
 Flow-to-close: For more information contact your Dyna-Flo Sales Office

(See Tables 6 & 7)

### Material Temperature Capabilities

-50 to 450°F (-45 to 232°C) for standard LCC body.

### Construction Materials

See Figure 2 for valve diagram and keys  
 See Table 2 for construction materials

### Dimensions

Valve and Actuator assembly diagram - See figure 3  
 Valve and Actuator assembly dimensions - See tables 9 and 10

### Flow Direction

Up through seat ring and out past valve plug

### Flow Characteristic

Equal Percentage, others available upon request.

### Port, Yoke Boss Diameter, Stem Diameters, and Rated Travel

See Table 5

### Valve Sizing Coefficients

Maximums by port size (Cv)

1/4"	1.64
3/8"	4.03
1/2"	6.82
3/4"	14.00
1"	23.70
1-1/4"	34.50

Detailed - See Table 3

### Sizing Coefficients

Fail Close Actuator - See Table 7  
 Fail Open Actuator - See Table 8

Valve Body and Actuator Approximate Weights - See Table 6

### Options

- Trim in Tungsten Carbide
- Anti-corrosion coating of internal body passage
- Live loaded low emission packing

For more information and other options contact your Dyna-Flo sales office.



## Model **DF2000** Control Valve

**Table 2**

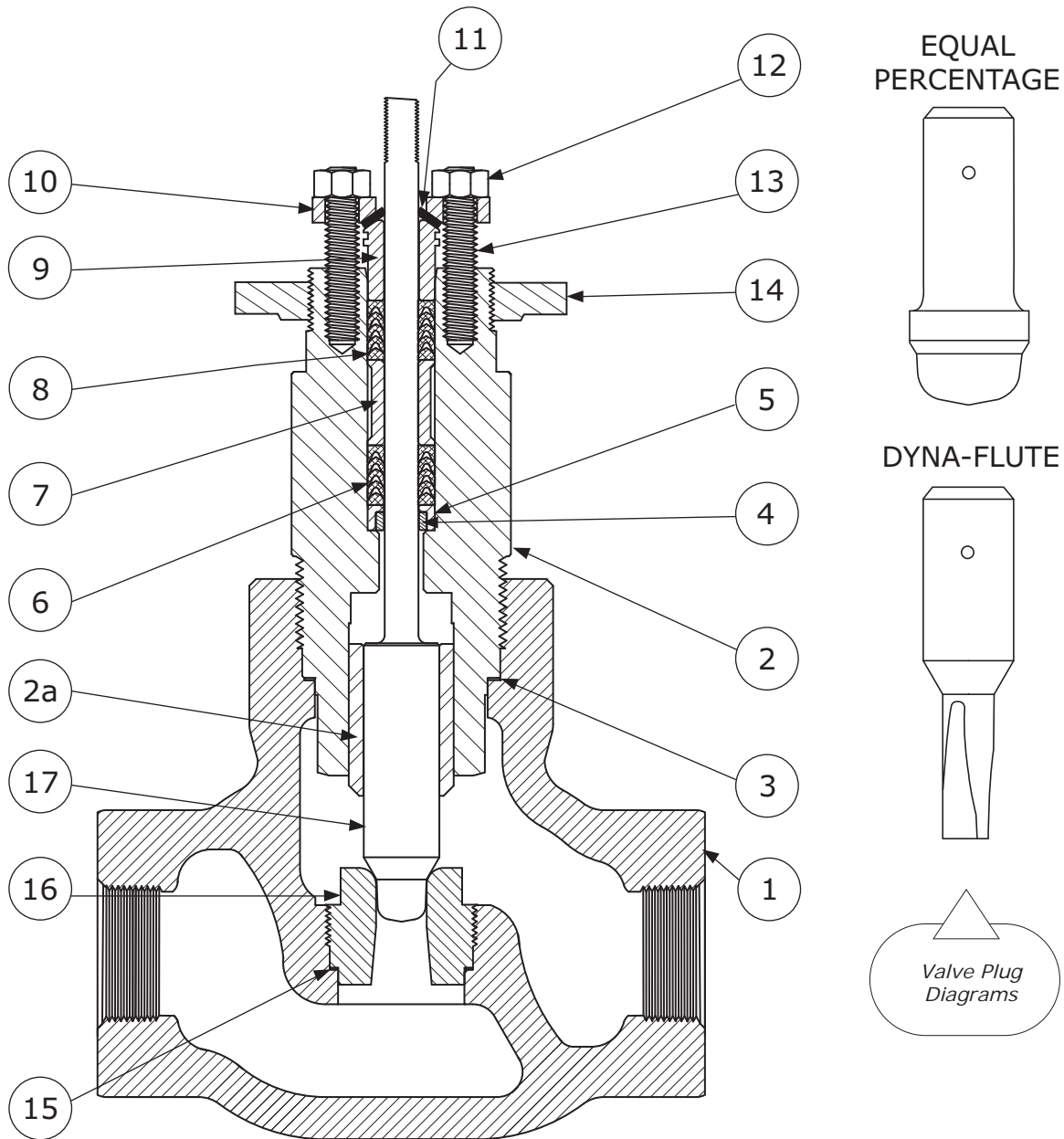
### Model DF2000 Standard Construction Materials

<b>Key</b>	<b>Description</b>	<b>Material</b>
1	Body	A352LCC
2	Bonnet & Bushing Assembly	A352LCC
2a	Bushing	S17400 PH DH1150
3	Bonnet Gasket	S30400
4	Lower Wiper	PTFE
5	Packing Box Ring	S31600
6, 8	Packing Set (2 Req'd)	PTFE
7	Packing Spacer	S31600
9	Packing Follower	S31600
10	Packing Flange	Plated Steel
11	Stem Wiper	Felt
12	Packing Nut (2 Req'd)	SA-194-2H
13	Packing Stud (2 Req'd)	SA-193-B7
14	Yoke Nut	Zinc Plated Steel
15	Seat Ring Gasket	S30400
16*	Seat Ring	S31600 / CoCr-A
17*	Plug / Stem Assembly	S31600 / CoCr-A & S20910

\*Other Options Available



# Model DF2000 Control Valve



**Figure 2**  
Valve Diagram With Keys



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**Table 3**

**Model DF2000 Valve Sizing Coefficients, for Equal Percentage Trim**  
Flow Up

**1 Inch Valve**

Port Size		Percentage of Valve Travel									
		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1/4 Inch	C <sub>V</sub>	0.08	0.115	0.164	0.224	0.315	0.45	0.641	0.921	1.28	1.64
	X <sub>T</sub>	0.783	0.783	0.744	0.691	0.625	0.614	0.608	0.611	0.61	0.61
	F <sub>L</sub>	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
3/8 Inch	C <sub>V</sub>	0.155	0.260	0.407	0.596	0.858	1.21	1.65	2.22	3.00	4.03
	X <sub>T</sub>	0.625	0.535	0.534	0.539	0.535	0.535	0.538	0.534	0.537	0.536
	F <sub>L</sub>	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
1/2 Inch	C <sub>V</sub>	0.272	0.435	0.63	0.91	1.29	1.83	2.56	3.64	5.07	6.50
	X <sub>T</sub>	0.613	0.627	0.585	0.576	0.565	0.553	0.535	0.509	0.49	0.501
	F <sub>L</sub>	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
3/4 Inch	C <sub>V</sub>	0.482	0.774	1.24	1.96	2.90	4.12	5.87	8.15	10.8	12.2
	X <sub>T</sub>	0.581	0.616	0.581	0.586	0.581	0.573	0.549	0.541	0.529	0.528
	F <sub>L</sub>	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80

**2 Inch Valve**

Port Size		Percentage of Valve Travel									
		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1/4 Inch	C <sub>V</sub>	0.08	0.115	0.164	0.224	0.315	0.45	0.641	0.921	1.28	1.64
	X <sub>T</sub>	0.783	0.783	0.744	0.691	0.625	0.614	0.608	0.611	0.61	0.610
	F <sub>L</sub>	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
3/8 Inch	C <sub>V</sub>	0.155	0.26	0.407	0.596	0.858	1.21	1.65	2.22	3.00	4.03
	X <sub>T</sub>	0.625	0.535	0.534	0.539	0.535	0.535	0.538	0.534	0.537	0.536
	F <sub>L</sub>	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
1/2 Inch	C <sub>V</sub>	0.348	0.505	0.709	0.996	1.38	1.92	2.69	3.82	5.25	6.82
	X <sub>T</sub>	0.613	0.627	0.585	0.576	0.565	0.553	0.535	0.509	0.49	0.501
	F <sub>L</sub>	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
3/4 Inch	C <sub>V</sub>	0.613	0.952	1.44	2.06	2.92	4.13	5.86	8.16	11.1	14.0
	X <sub>T</sub>	0.581	0.616	0.581	0.586	0.581	0.573	5.49	0.541	0.529	0.528
	F <sub>L</sub>	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
1 Inch	C <sub>V</sub>	1.20	1.68	2.44	3.53	5.05	7.28	10.5	14.0	18.4	23.7
	X <sub>T</sub>	0.517	0.569	0.559	0.542	0.544	0.54	0.507	0.508	0.507	0.508
	F <sub>L</sub>	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
1-1/4 Inch	C <sub>V</sub>	1.32	1.76	2.49	3.66	5.42	8.23	12.7	20.6	28.9	34.5
	X <sub>T</sub>	0.521	0.563	0.548	0.534	0.498	0.503	0.553	0.528	0.524	0.579
	F <sub>L</sub>	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85

Relationships of Note:  $C_1 = 39.76 \sqrt{X_T}$

$C_G = C_V C_1$

$K_M = F_L^2$



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**Table 4**

**Model DF2000 Valve Sizing Coefficients, for Dyna-Flute Trim (Flow Up)**

**1 and 2 Inch Valves - Total Travel 3/4 Inch (19 mm)**

Port Size	Percentage of Valve Travel										
		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1/4 Inch 6.4 mm 1 Flute	$C_v$	0.0385	0.0454	0.0560	0.0717	0.0941	0.124	0.160	0.212	0.277	0.354
	$X_T$	0.778	0.734	0.690	0.651	0.640	0.635	0.637	0.634	0.632	0.656
	$F_L$	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870
1/4 Inch 6.4 mm 3 Flute	$C_v$	0.0562	0.0725	0.100	0.146	0.216	0.312	0.433	0.588	0.802	1.07
	$X_T$	0.692	0.648	0.639	0.625	0.600	0.586	0.597	0.613	0.620	0.624
	$F_L$	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900

Relationships of Note:  $C_1 = 39.76 \sqrt{X_T}$        $C_g = C_v C_1$        $K_M = F_L^2$

**Table 5**

**Model DF2000**

**Port Size, Yoke Boss Diameter, Stem Diameters, and Rated Travel In. (mm)**

Valve Size	Port Diameter	Standard (inch / mm)			Optional (inch / mm)		
		Yoke Boss Diameter	Stem Diameter	Rated Travel	Yoke Boss Diameters	Stem Diameter	Rated Travel
1 Inch	1/4 (6.4)	2-1/8 (54)	3/8 (9.5)	3/4 (9.5)	2-13/16 (71)	1/2 (12.7)	3/4 (19)
	3/8 (9.5)						
	1/2 (12.7)						
	3/4 (19.1)						
2 Inch	1/4 (6.4)	2-13/16 (71)	1/2 (12.7)	3/4 (19)	3-9/16 (90)	3/4 (19)	3/4 (19)
	3/8 (9.5)						
	1/2 (12.7)						
	3/4 (19.1)						
	1 (25.4)						
1-1/4 (31.8)							

**Table 6**

**Approximate Valve Body and Valve Assembly Weights Pounds (Kilograms)**

DF2000	Valve Only	DFC/DFO 1069	DFC/DFO 2069	DFC/DFO 2105	DFC/DFO 2156
1" NPT	25 (11)	69 (31)	N/A	N/A	N/A
1" 150 to 600	45 (20)	89 (40)	N/A	N/A	N/A
1" 900/1500	75 (34)	119 (54)	N/A	N/A	N/A
2" NPT	75 (34)	N/A	150 (68)	186 (84)	214 (97)
2" 150 to 600	95 (43)	N/A	170 (77)	206 (94)	234 (106)
2" 900/1500	115 (52)	N/A	190 (86)	226 (115)	254 (115)



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**Table 7**

**Model DF2000 Fail Closed Actuator Maximum Shut-off Capabilities with DF2000 Valves 6 to 30 psig Signal, 35 Psig Supply**

**1 Inch Valve**

<b>Port Size</b>	<b>DFC Size 1069</b>
Inches (mm)	Psig (kPag)
1/4 (6.4)	6250 (43,092) <sup>2</sup>
3/8 (9.5)	6250 (43,092) <sup>2</sup>
1/2 (12.7)	5750 (39,644) <sup>4</sup>
3/4 (19.1)	2485 (17,133) <sup>4</sup>

**2 Inch Valve**

<b>Port Size</b>	<b>DFC Size 2069</b>	<b>DFC Size 2105</b>	<b>DFC Size 2156</b>	<b>DFC Size 3220</b>
Inches (mm)	Psig (kPag)	Psig (kPag)	Psig (kPag)	Psig (kPag)
1/4 (6.4)	6250 (43,092) <sup>2</sup>	6250 (43,092) <sup>1</sup>	6250 (43,092) <sup>1</sup>	-
3/8 (9.5)	6250 (43,092) <sup>2</sup>	6250 (43,092) <sup>1</sup>	6250 (43,092) <sup>1</sup>	-
1/2 (12.7)	5750 (39,644) <sup>4</sup>	6250 (43,092) <sup>3</sup>	6250 (43,092) <sup>3</sup>	-
3/4 (19.1)	2400 (16,547) <sup>4</sup>	4100 (28,268) <sup>5</sup>	6250 (43,092) <sup>6</sup>	-
1 (25.4)	1325 (9,135) <sup>4</sup>	2685 (18,512) <sup>7</sup>	3900 (26,889) <sup>6</sup>	5850 (40,334) <sup>7</sup>
1-1/4 (31.8)	820 (5,653) <sup>4</sup>	1689 (11,645) <sup>7</sup>	2474 (17,057) <sup>6</sup>	3655 (25,200) <sup>7</sup>

**Bench Set: Psi (kPa)**

- 1 10-30 (68-207)
- 2 14-30 (97-207)
- 3 17-30 (117-207)
- 4 18-30 (124-207)
- 5 19-30 (131-207)
- 6 21-30 (145-207)
- 7 22-30 (152-207)

**Note**

All the above actuator fail closed shut-off capabilities are Class IV. A higher shut-off may be achieved by using a higher bench set, contact your Dyna-Flo sales office for additional information.



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**Table 8**

**Model DF2000 Fail Open Actuator Maximum Shut-off Capabilities with DF2000 Valves 6 to 30 psig Signal, 35 Psig Supply**

**1 Inch Valve**

Port Size	DFO Size 1069
Inches (mm)	Psig (kPag)
1/4 (6.4)	6250 (43,092) <sup>2</sup>
3/8 (9.5)	5500 (37,921) <sup>2</sup>
1/2 (12.7)	4600 (37,716) <sup>3</sup>
3/4 (19.1)	2000 (13,790) <sup>3</sup>

**2 Inch Valve**

Port Size	DFO Size 2069	DFO Size 2105	DFO Size 2156	DFO Size 3220
Inches (mm)	Psig (kPag)	Psig (kPag)	Psig (kPag)	Psig (kPag)
1/4 (6.4)	6250 (43,092) <sup>2</sup>	6250 (43,092) <sup>2</sup>	6250 (43,092) <sup>3</sup>	—
3/8 (9.5)	6250 (43,092) <sup>4</sup>	6250 (43,092) <sup>3</sup>	6250 (43,092) <sup>3</sup>	—
1/2 (12.7)	3750 (25,855) <sup>4</sup>	6250 (43,092) <sup>3</sup>	6250 (43,092) <sup>3</sup>	—
3/4 (19.1)	1950 (13,444) <sup>4</sup>	4100 (25,268) <sup>6</sup>	5700 (39,300) <sup>5</sup>	6250 (43,092) <sup>6</sup>
1 (25.4)	1050 (7,239) <sup>4</sup>	2285 (15,754) <sup>6</sup>	3300 (22,752) <sup>5</sup>	5020 (34,611) <sup>6</sup>
1-1/4 (31.8)	650 (4,481) <sup>4</sup>	1425 (9,825) <sup>6</sup>	2090 (14,410) <sup>5</sup>	3175 (21,890) <sup>6</sup>

**Bench Set: Psi (kPa)**

- 1 6-26 (41-179)
- 2 6-22 (41-152)
- 3 6-19 (41-131)
- 4 6-18 (41-124)
- 5 6-15 (41-103)
- 6 6-14 (41-97)

**Note**

All the above actuator fail open shut-off capabilities are Class IV. A higher shut-off may be achieved by using a higher bench set, contact your Dyna-Flo sales office for additional information.



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**Table 9**

**Model DF2000 with Fail Open Actuator Envelope Dimensions - Inches (mm)**

Valve Size	End Conneciton	Actuator Size	A	B	C	D	E	F
1 Inch	NPT	DFO-1069	6.62 (168)	3.31 (84)	1.81 (46)	26.40 (671)	13.13 (333)	5.00 (127)
	150# RF	DFO-1069	8.12 (206)	4.06 (103)	1.81 (46)	26.40 (671)	13.13 (333)	5.00 (127)
	300# RF	DFO-1069	8.62 (219)	4.31 (109)	1.81 (46)	26.40 (671)	13.13 (333)	5.00 (127)
	600# RF	DFO-1069	9.12 (232)	4.56 (116)	1.81 (46)	26.40 (671)	13.13 (333)	5.00 (127)
	900# and 1500# RF and RTJ	DFO-1069	10.0 (254)	5.00 (127)	1.81 (46)	26.40 (671)	13.13 (333)	5.00 (127)
2 Inch	NPT	DFO-2069	9.00 (229)	4.50 (114)	2.75 (70)	30.06 (765)	13.13 (333)	6.88 (175)
		DFO-2105	9.00 (229)	4.50 (114)	2.75 (70)	34.44 (876)	16.00 (407)	6.88 (175)
		DFO-2156	9.00 (229)	4.50 (114)	2.75 (70)	34.44 (876)	18.62 (473)	6.88 (175)
	150# RF	DFO-2069	10.50 (267)	5.25 (133)	2.75 (70)	30.06 (764)	13.13 (333)	6.88 (175)
		DFO-2105	10.50 (267)	5.25 (133)	2.75 (70)	34.44 (875)	16.00 (407)	6.88 (175)
		DFO-2156	10.50 (267)	5.25 (133)	2.75 (70)	34.50 (876)	18.62 (473)	6.88 (175)
	300# RF	DFO-2069	10.50 (267)	5.25 (133)	2.75 (70)	30.06 (764)	13.13 (333)	6.88 (175)
		DFO-2105	10.50 (267)	5.25 (133)	2.75 (70)	34.44 (875)	16.00 (407)	6.88 (175)
		DFO-2156	10.50 (267)	5.25 (133)	2.75 (70)	34.44 (875)	18.62 (473)	6.88 (175)
	600# RF	DFO-2069	11.25 (286)	5.62 (143)	2.75 (70)	30.06 (764)	13.13 (333)	6.88 (175)
		DFO-2105	11.25 (286)	5.62 (143)	2.75 (70)	34.44 (875)	16.00 (407)	6.88 (175)
		DFO-2156	11.25 (286)	5.62 (143)	2.75 (70)	34.44 (875)	18.62 (473)	6.88 (175)
	900# and 1500# RF	DFO-2069	12.12 (308)	6.06 (154)	2.75 (70)	30.06 (764)	13.13 (333)	6.88 (175)
		DFO-2105	12.12 (308)	6.06 (154)	2.75 (70)	34.44 (875)	16.00 (407)	6.88 (175)
		DFO-2156	12.12 (308)	6.06 (154)	2.75 (70)	34.44 (875)	18.62 (473)	6.88 (175)
		DFO-3220	12.12 (308)	6.12 (155)	2.75 (70)	41.40 (1052)	21.10 (536)	9.12 (232)
	900# and 1500# RTJ	DFO-2069	12.25 (311)	6.12 (156)	2.75 (70)	30.06 (764)	13.12 (333)	6.88 (175)
		DFO-2105	12.25 (311)	6.12 (156)	2.75 (70)	34.44 (875)	16.00 (407)	6.88 (175)
		DFO-2156	12.25 (311)	6.12 (156)	2.75 (70)	34.44 (875)	18.62 (473)	6.88 (175)
		DFO-3220	12.25 (311)	6.12 (156)	2.75 (70)	41.37 (1051)	21.10 (536)	9.12 (232)
2500# RF	DFO-2156	15.38 (391)	7.69 (195)	3.25 (83)	34.31 (871)	18.62 (473)	6.88 (175)	
	DFO-3220	15.38 (391)	7.69 (195)	3.25 (83)	41.37 (1051)	21.10 (536)	9.12 (232)	
2500# RTJ	DFO-2156	15.50 (394)	7.75 (197)	3.25 (83)	34.31 (871)	18.62 (473)	6.88 (175)	
	DFO-3220	15.50 (394)	7.75 (197)	3.25 (38)	41.37 (1051)	21.10 (536)	9.12 (232)	

Refer to Figure 3 *Valve Actuator Schematic*



## Model DF2000 Control Valve

**Table 10**

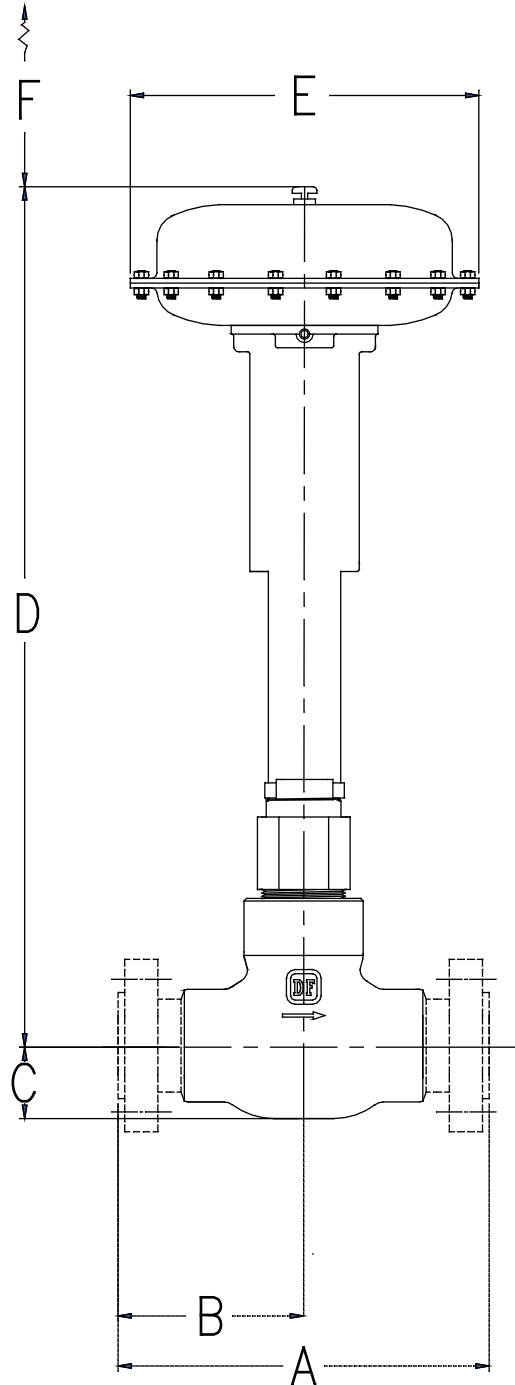
**Model DF2000 with Fail Close Actuator Envelope Dimensions - Inches (mm)**

Valve Size	End Connecton	Actuator Size	A	B	C	D	E	F
1 Inch	NPT	DFC-1069	6.62 (168)	3.31 (84)	1.81 (46)	29.38 (746)	13.13 (333)	5.00 (127)
	150# RF	DFC-1069	8.12 (206)	4.06 (103)	1.81 (46)	29.38 (746)	13.13 (333)	5.00 (127)
	300# RF	DFC-1069	8.62 (219)	4.31 (109)	1.81 (46)	29.38 (746)	13.13 (333)	5.00 (127)
	600# RF	DFC-1069	9.12 (232)	4.56 (116)	1.81 (46)	29.38 (746)	13.13 (333)	5.00 (127)
	900# and 1500# RF and RTJ	DFC-1069	10.0 (254)	5.00 (127)	1.81 (46)	29.38 (746)	13.13 (333)	5.00 (127)
2 Inch	NPT	DFC-2069	9.00 (229)	4.50 (114)	2.75 (70)	31.88 (810)	13.13 (333)	6.88 (175)
		DFC-2105	9.00 (229)	4.50 (114)	2.75 (70)	38.75 (984)	16.00 (407)	6.88 (175)
		DFC-2156	9.00 (229)	4.50 (114)	2.75 (70)	38.75 (984)	18.62 (473)	6.88 (175)
	150# RF	DFC-2069	10.50 (267)	5.25 (133)	2.75 (70)	31.88 (810)	13.13 (333)	6.88 (175)
		DFC-2105	10.50 (267)	5.25 (133)	2.75 (70)	38.75 (984)	16.00 (407)	6.88 (175)
		DFC-2156	10.50 (267)	5.25 (133)	2.75 (70)	38.75 (984)	18.62 (473)	6.88 (175)
	300# RF	DFC-2069	10.50 (267)	5.25 (133)	2.75 (70)	31.88 (810)	13.13 (333)	6.88 (175)
		DFC-2105	10.50 (267)	5.25 (133)	2.75 (70)	38.75 (984)	16.00 (407)	6.88 (175)
		DFC-2156	10.50 (267)	5.25 (133)	2.75 (70)	38.75 (984)	18.62 (473)	6.88 (175)
	600# RF	DFC-2069	11.25 (286)	5.63 (143)	2.75 (70)	31.88 (810)	13.13 (333)	6.88 (175)
		DFC-2105	11.25 (286)	5.63 (143)	2.75 (70)	38.75 (984)	16.00 (407)	6.88 (175)
		DFC-2156	11.25 (286)	5.63 (143)	2.75 (70)	38.75 (984)	18.62 (473)	6.88 (175)
	900# and 1500# RF	DFC-2069	12.12 (308)	6.06 (154)	2.75 (70)	31.88 (810)	13.13 (333)	6.88 (175)
		DFC-2105	12.12 (308)	6.06 (154)	2.75 (70)	38.75 (984)	16.00 (407)	6.88 (175)
		DFC-2156	12.12 (308)	6.06 (154)	2.75 (70)	38.75 (984)	18.62 (473)	6.88 (175)
		DFC-3220	12.12 (308)	6.12 (156)	2.75 (70)	45.06 (1145)	21.10 (536)	9.12 (232)
		DFC-2069	12.25 (311)	6.12 (156)	2.75 (70)	31.88 (810)	13.13 (333)	6.88 (175)
		DFC-2105	12.25 (311)	6.12 (156)	2.75 (70)	38.75 (984)	16.00 (407)	6.88 (175)
DFC-2156		12.25 (311)	6.12 (156)	2.75 (70)	38.75 (984)	18.62 (473)	6.88 (175)	
DFC-3220		12.25 (311)	6.12 (156)	2.75 (70)	45.06 (1145)	21.10 (536)	9.12 (232)	
DFC-2156		15.38 (391)	7.69 (195)	3.25 (83)	37.94 (964)	18.62 (473)	6.88 (175)	
2500# RF	DFC-3220	15.38 (391)	7.69 (195)	3.25 (38)	45.06 (1145)	21.10 (536)	9.12 (232)	
	DFC-2156	15.50 (394)	7.75 (197)	3.25 (38)	37.94 (964)	18.62 (473)	6.88 (175)	
	DFC-3220	15.50 (394)	7.75 (197)	3.25 (38)	45.06 (1145)	21.10 (536)	9.12 (232)	
2500# RTJ	DFC-2156	15.50 (394)	7.75 (197)	3.25 (38)	37.94 (964)	18.62 (473)	6.88 (175)	
	DFC-3220	15.50 (394)	7.75 (197)	3.25 (38)	45.06 (1145)	21.10 (536)	9.12 (232)	

Refer to Figure 3 *Valve Actuator Schematic*



Model  
**DF2000** Control Valve



**Figure 3**  
*Valve Actuator Schematic*  
(Refer to Tables 8 and 9)

**Note:** Valve with or without flanges. Model DFC Actuator Shown



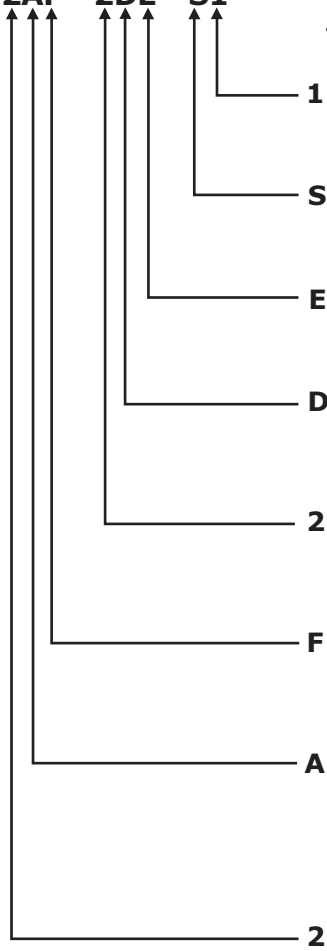
# Model DF2000 Control Valve

Ordering Guide

## Dyna-Flo DF2000 Control Valve | Model Numbering System

Sample Part Number

**DF2000 - 2AF - 2DE - S1**



Code	Description
<b>Shut Off Classification</b>	
<b>1</b>	Class IV (Standard)
<b>2</b>	Class V (Optional)
<b>Valve Trim Material</b>	
<b>S</b>	S31600 / CoCr-A (standard) <b>H</b> S17400 DH 1150
<b>T</b>	Tungsten Carbide
<b>Characteristic</b>	
<b>E</b>	Equal Percent <b>F</b> Dyna-Flute (1 Flute)
<b>T</b>	Dyna-Flute (3 Flute)
<b>Packing Style</b>	
<b>D</b>	Double (standard) <b>G</b> Single Graphite
<b>L</b>	Live Loaded PTFE
<b>Orifice Size</b>	
<b>2</b>	1/4 Inch Port <b>6</b> 3/4 Inch Port
<b>3</b>	3/8 Inch Port <b>8</b> 1 Inch Port (2 Inch Body Only)
<b>4</b>	1/2 Inch Port <b>1</b> 1-1/4 Inch Port (2 Inch Body Only)
<b>Connection Style</b>	
<b>F</b>	RF <b>N</b> NPT
<b>J</b>	RTJ
<b>ASME Class / CWP</b>	
<b>A</b>	150 Flanged <b>D</b> 900 / 1500
<b>B</b>	300 <b>E</b> CWP 3750 (ASME 1500)
<b>C</b>	600 <b>F</b> 2500 Flanged
<b>N</b>	CWP 6250 (NPT) (ASME 2500)
<b>Body Size (Mounting Connection / Stem Size)</b>	
<b>1</b>	1 Inch Body (2-1/8" / 3/8")
<b>2</b>	2 Inch Body (2-13/16" / 1/2")
<b>3</b>	2 Inch Body (3-9/16" / 3/4")

**Note**

Refer to Dyna-Flo's Sales Bulletin on type DFC and DFO diaphragm actuators for actuator sizing. Please contact your Dyna-Flo sales office for further information on any item.

### Our Commitment of Quality

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