



STANDARDS

- Environmental and emission compliant
- ISA-S75.04
- ANSI 150-600 B16.34
- ISO-15848 Compliant
- Patent Pending

J Flow Controls DM9100 Series Rotary Globe Valve

FEATURES & BENEFITS

- Size Range: 1-1/2" - 4"
- Live loaded packing
- Temperature range: -320°F - 750°F
- Two seat design
- Patent Pending
- Tight shutoff
- Extremely low torque
- WCB, 316SS, 317SS and other alloy materials
- Environmental and emission compliant
- High temperature/low temperature
- Wafer & ANSI 150 versions available
- MTR Reports available

APPLICATIONS & INDUSTRIES

- Oil & gas
- Paper Mill
- Gas
- High temperature
- Ammonia
- HCL
- Brine water
- Dry chlorine

PRINCIPLES OF OPERATION

Rotating the plug of the valve in and out of the path of the flow determines the flow coefficient (C_v) of the valve, which is a function of the flow rate and pressure loss through the valve. This principle is used to control either flow rate or differential pressure, as desired.

The offset between the plug face and shaft center and the offset between the shaft center and valve centerline give the rotary plug valve its double eccentric (double offset) design. When opening and closing the valve, this double eccentric design allows the plug to lift smoothly off the seat without any friction, eliminating any breakaway torque. This smooth opening also allows for stable control, even at small opening angles.

Fail Safe Action

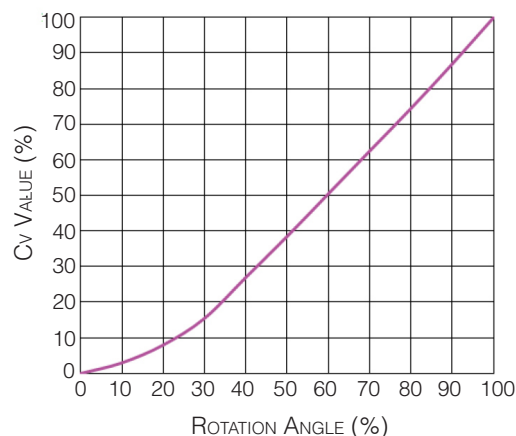
When combined with an actuator, the control valve may exhibit one of two fail-safe functions upon failure of supply air pressure.

Fail Close - the rotary plug valve will close upon loss of supply air

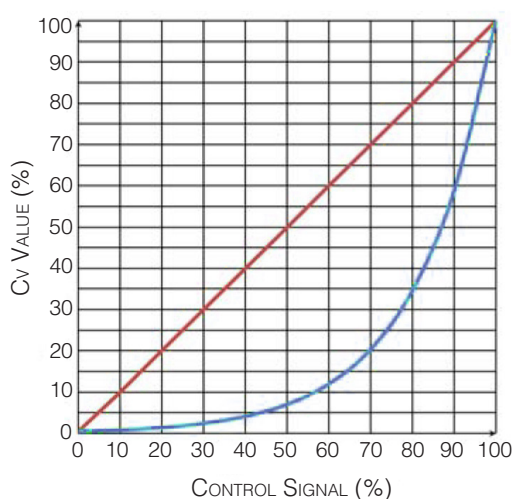
Fail Open - the rotary plug valve will open upon loss of supply air

FLOW CHARACTERISTICS

Inherent Characteristic



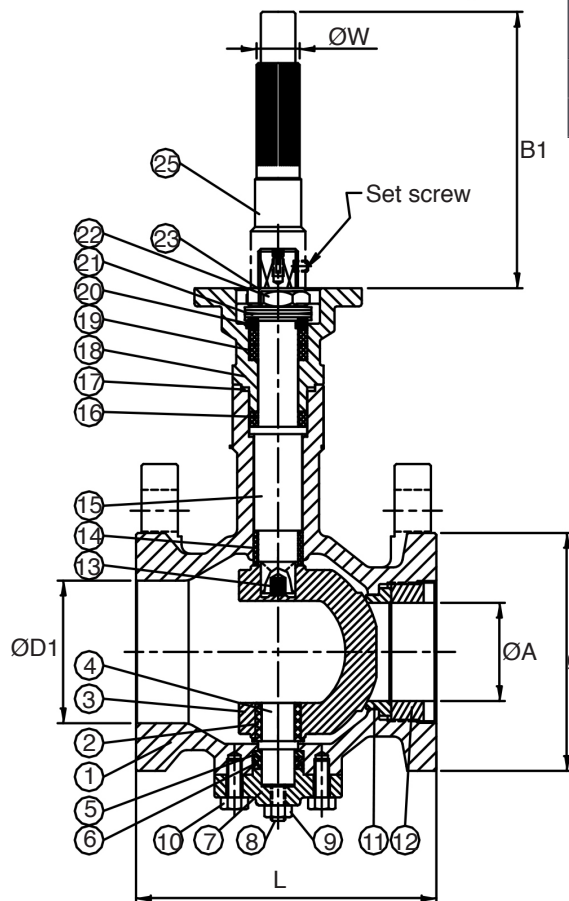
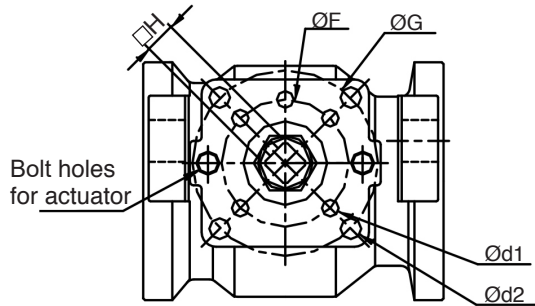
Equal Percentage & Linear Characteristic



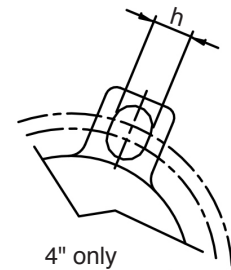
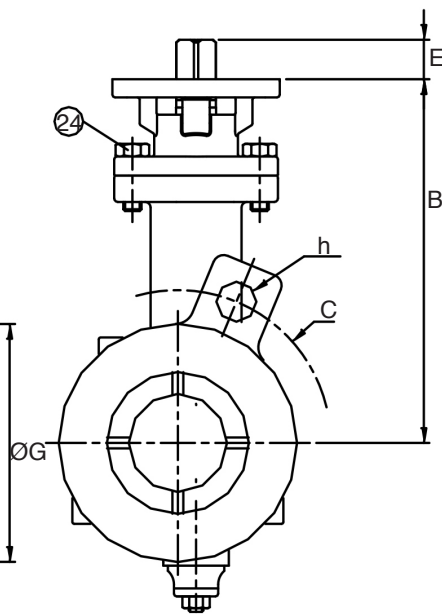
The rotary plug valve has an inherent characteristic; however, a cam disc or positioner may be used to achieve an equal percentage or linear characteristic.

DM9100 Series Rotary Globe Valve

J-FLEX DIMENSIONS & BILL OF MATERIALS



No.	Part Name	Materials	No.	Part Name	Materials
1	Body	A351 Gr. CF8M	13	Spring	Inconel 750
2	Bearing	SUS 630	14	Bearing	SUS630
3	Ball Segment	CF8M + Hard Chrome Plate	15	Stem	17-4PH+Hard Chrome Plate
4	Bottom Stem	17-4PH+Hard Chrome Plate	16	Bearing	Graphite
5	Thrust Back	SS316	17	Bonnet Gasket	Graphite
6	Stem Packing	Graphite	18	Bonnet	A351 Gr. CF8M
7	Bottom Cap	A351 Gr. CF8M	19	Stem Packing	Graphite
8	Adjust Bolt	SS304	20	Gland	SS304
9	Nut	SS304	21	Belleville Washer	17-7PH
10	Bottom Bolts	SS304	22	Stem Nut	SS304
11	Seat	SS316+Stellite Hardfacing	23	Nut Stop	SS301
12	Insert Cap	A351 Gr. CF8M	24	Bonnet Bolts	SS304
			25	Adapter	SUS630

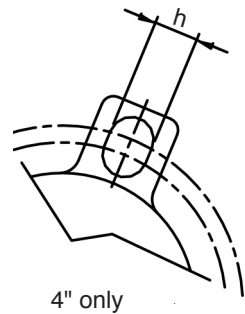
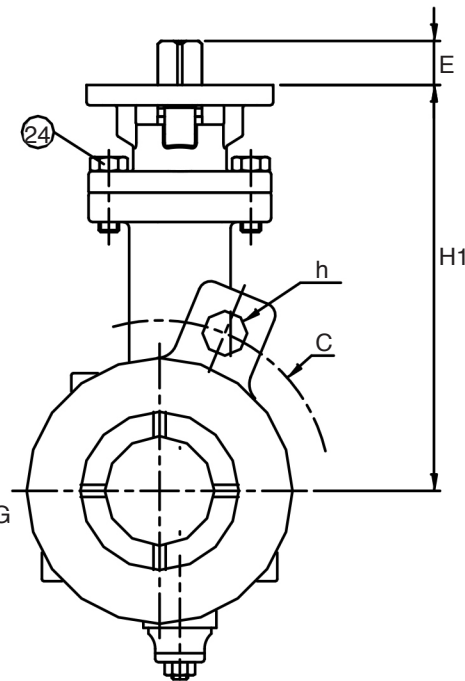
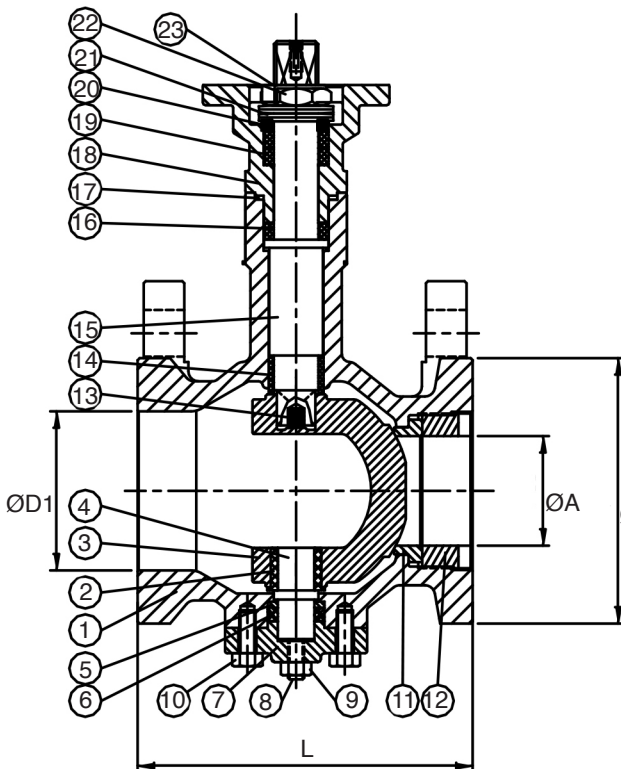
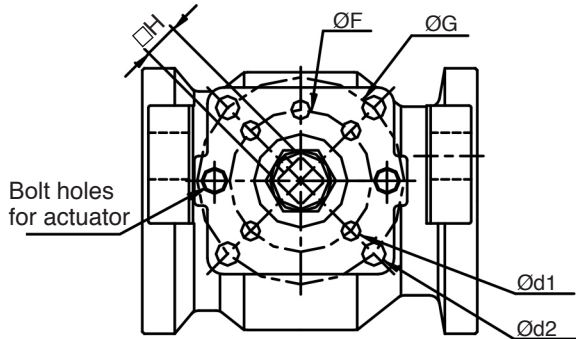


Size	Dimensions													
	A*	B	D1	H	E	F	G	d1	d2	L	C	h	B1	W
1-1/2"	1.02	5.39	1.50	0.55	0.55	1.97	2.76	0.28	0.36	4.49	-	-	4.76	0.62
2"	1.42	5.79	2.00	0.55	0.55	1.97	2.76	0.28	0.45	4.88	5.00	0.75	4.76	0.62
3"	2.36	7.76	3.25	0.67	0.83	2.76	4.02	0.36	0.45	6.50	6.61	0.87	5.98	0.93
4"	2.99	8.50	3.84	0.67	0.83	2.76	4.02	0.36	0.45	7.62	7.48	0.94	5.98	1.21

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5	Thrust Back	SS316	17	Bonnet Gasket	Graphite
6	Stem Packing	Graphite	18	Bonnet	A351 Gr. CF8M
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9	Nut	SS304	21	Belleville Washer	17-7PH
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3"	2.36	7.76	3.25	0.67	0.83	2.76	4.02	0.36	0.45	6.50	6.61	0.87
4"	2.99	8.50	3.84	0.67	0.83	2.76	4.02	0.36	0.45	7.62	7.48/8.50	0.94

J-FLEX Cv CHART**Metal Seated / Flow Direction - Flow to Open (FTO)**

Seat Size	NPS	1	1½	2	3	4	6
1	Cv	18	42	81	254	416	832
0.6	Cv	14	25	50	168	243	497
0.4	Cv	12	18	36	121	173	318
0.20	Cv	4	13	20	77	110	214

Metal Seated / Flow Direction - Flow to Close (FTC)

Seat Size	NPS	1	1½	2	3	4	6
1	Cv	18	42	81	243	393	763
0.6	Cv	14	25	50	156	231	370
0.4	Cv	12	18	36	110	139	214
0.20	Cv	4	13	20	61	99	145

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HOW TO ORDER

Sizes		Series	Body ¹ , Ball & Stem	Port	Seal	Packing	Seat
6	1-1/2"	DM91	00 CF8	F Full	G Graphoil	G Graphoil	M Metal
7	2"		0L CF3	R Reduced	T TFM 1600	T TFM 1600	T TFM 1600
9	3"		23 WCB, CF8M Ball & Stem	60% Reduced	C TFM 4215	C TFM 4215	C TFM 4215
A	4"		33 CF8M	40% Reduced			
			44 Alloy 20	20% Reduced			
			55 Monel				
			6L CF3M				
			77 Hastelloy C				
			88 LF2/LCB 17-4 Stem				
			83 LCB, CF8M Ball & Stem				
		99 Duplex					
		AA A105 with Chrome					

End Connections		Options	
F1	ANSI 150	LD	Locking Handle
F3	ANSI 300	GO	Gear Operator
F6	ANSI 600	SE	Stem Extension
W	ANSI 150- 600 Wafer / Flangeless	BS	Bare Stem **

** Spline Adaption Available - Contact J Flow for details.

