

DV600-Series

Eccentric Rotating Plug Control Valve



DV600-Series / Eccentric Rotating Plug Valve

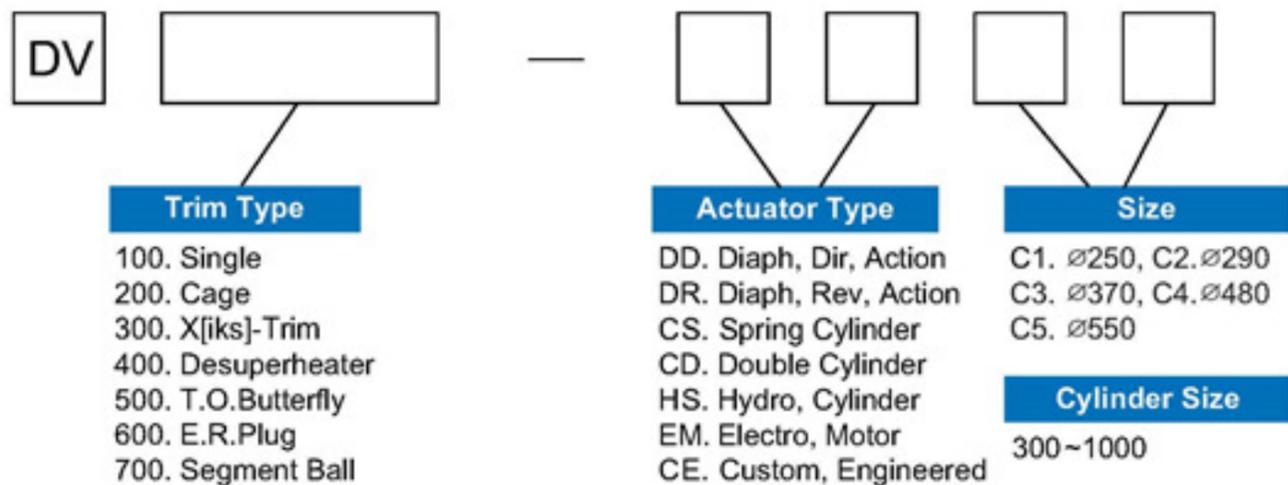
The DV600 Series is a heavy-duty automatic throttling control valve which incorporates into its design the following;

- Heavy-duty guide lugs assure quick positive alignment during installation.
- Large capacity : Because of stream lined body no bottleneck inside, DV600 has a large capacity approximately same as conventional butterfly valve.
- DV600 operated very smoothly even at low opening because of the unique eccentrically rotating mechanism so that control capability is widened remarkably through wide range of flow road.
- DV600 has good dynamic stability due to the unique plug design and cross.
- Sectional view of body which are developed under the long time hydrodynamic investigation.
- Flange of Flangeless type connection.

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Model Numbering System

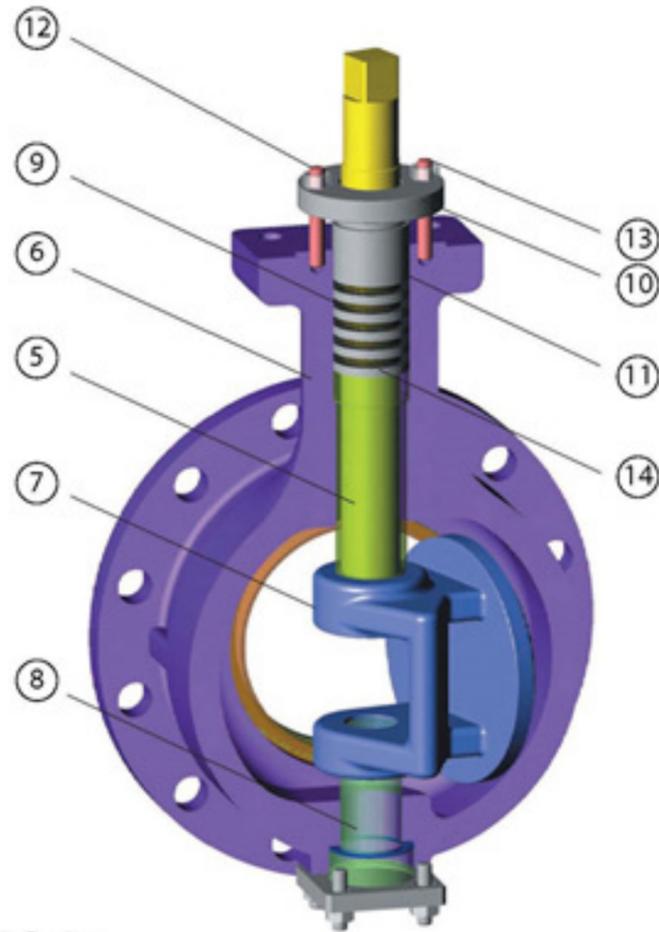
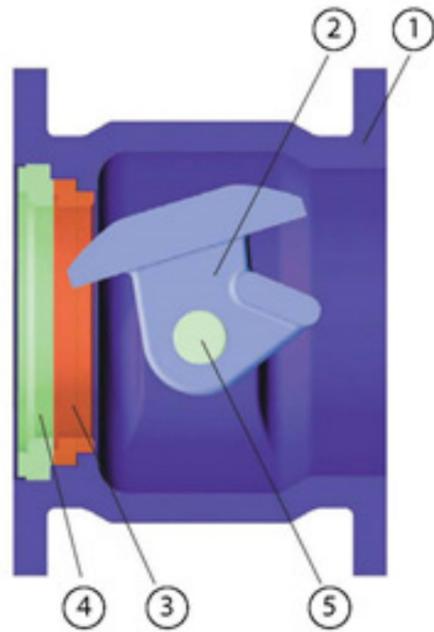




Specification

Body Size	1" to 14"
Pressure Rating	ANSI Class 150~1500 LBS
End Connection	Threaded Flanged Flangeless
Bonnet Type	Integral, Bolted Extension(Optional)
Seat Leakage	ANSI B16.104 /ANSI FCI 70.2 Class IV, V, VI(Soft seat)
Characteristic	EQ% Linear
Rangeability	(Cv Ratio) 100:1
Flow direction	Flow to open (From the seat-ring)
Flow coefficients	See page 5.
Materials	
Body	Carbon steel, stainless steel Hastelloy, Titanium, Other Alloys
Trim	316SS, Stellite Facing, Hastelloy Titanium, Other Alloys
Actuator	Spring Diaphragm Pneumatic cylinder
Handwheel	Diaphragm(Top mounted) Cylinder(Decluth)
Accessories	E/P & P/P Positioner, Smart Positioner Air Set, Solenoid Valve, Volume Booster Limit Switch, Position Transmitter Manual Handwheel

General Application



DV600 Series
[Eccentric Rotating Plug]

No.	Parts Name	Materials	
2	Body	A216-WCB	
		A351-CF8M / 304SS, A351-CF8M / 316SS, A351-CF3M / 316LS	
		Hastelloy-C	
2	Plug	Solid Stellite, 316SS+Stellite Hard Facing	
		Hastelloy-C	
3	Seat-Ring	316SS+Stellite Hard Facing	
		316SS+PTFE	
		Hastelloy-C	
4	Seat Ring Retainer	A351-CF8M / 316SS, Hastelloy-C	
5	Steam	316SS, Hastelloy-C	
6	Spacer	316SS, Hastelloy-C	
7	Upper Guide	440C or Stellite 6	
8	Lower Guide	440C or Stellite 6	
9	Gland Packing	PTFE, PTFE+Free Asbestos.	Graphite
10	Packing Flange	304SS	
11	Packing Follower	304SS	
12	Packing Stud	304SS A193 Gr. B8	
13	Packing Stud Nut	304SS A193 Gr. 8	
14	Packing Box Ring	316SS	
15	Seat Ring spring	316SS	

* Titanium, Zirconium, Monel, Other Alloys : Option.

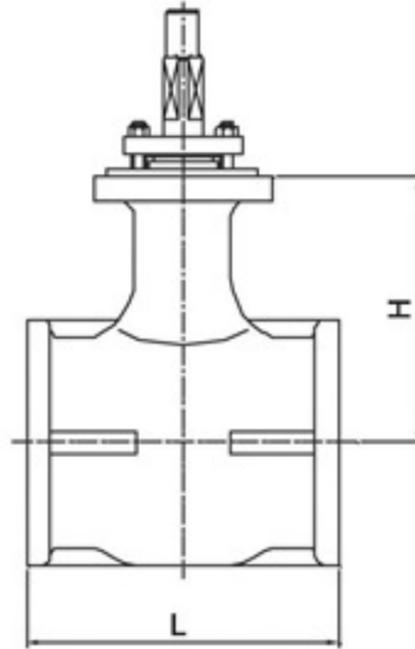


Flow Coefficients

Percent of Plug Rotation		10	20	30	40	50	60	70	80	90	100
FL	Flow to Open	0.96	0.93	0.91	0.89	0.88	0.87	0.87	0.86	0.86	0.85
	Flow to Close	0.94	0.91	0.88	0.83	0.80	0.77	0.74	0.72	0.70	0.68
Valve Size	Orifice dia	Rated Cv									
1	Reduced	0.4	0.9	1.4	2.0	2.7	3.5	4.2	4.8	5.3	5.6
	Full	0.8	2.1	3.6	5.8	7.7	9.5	11.0	12.0	13.0	14
2	Reduced	1.0	1.9	3.0	4.3	5.9	7.6	9.0	10.0	11.0	12
	Full	1.8	4.5	7.8	12.0	17.0	20.0	24.0	26.0	29.0	30
3	Reduced	1.6	3.2	5.0	7.2	9.8	13	15	17	19	20
	Full	3.0	7.5	13.0	21	28	34	40	44	48	50
4	Reduced	4.9	9.2	14.0	20	26	33	40	45	50	54
	Full	8.2	18	31	45	61	78	96	113	126	135
5	Reduced	8.4	17	25	35	46	58	69	78	87	93
	Full	15	31	54	77	105	134	164	193	215	231
6	Reduced	19	35	53	75	99	125	148	169	187	200
	Full	31	66	116	166	226	291	356	419	466	500
8	Reduced	25	45	72	108	149	198	242	280	317	341
	Full	44	112	201	320	435	545	639	724	796	852
10	Reduced	37	69	110	165	227	303	340	427	481	521
	Full	73	170	307	489	664	833	976	1111	1221	1300
12	Reduced	50	91	148	222	306	407	498	575	649	703
	Full	100	229	412	657	894	1121	1311	1491	1641	1751
14	Reduced	68	123	198	298	411	546	668	772	871	941
	Full	133	305	551	880	1198	1503	1758	2000	2201	2349
16	Reduced	103	191	308	462	637	848	1038	1197	1352	1460
	Full	209	477	858	1368	1864	2337	2733	3109	3422	3650

* Flow Characteristic : The essentially linear flow characteristics of DV600' s are fixed by the basic design of the spherically shaped, eccentric rotating plug.

Dimension of Valve Body - DV600 Series (ANSI Class 150, 300)



Valve Size	1	1-1/2	2	3	4	6	8	10	12	14
A	102	114	124	165	194	229	243	297	338	475
B	150	150	160	162	166	237	227	328	374	508

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