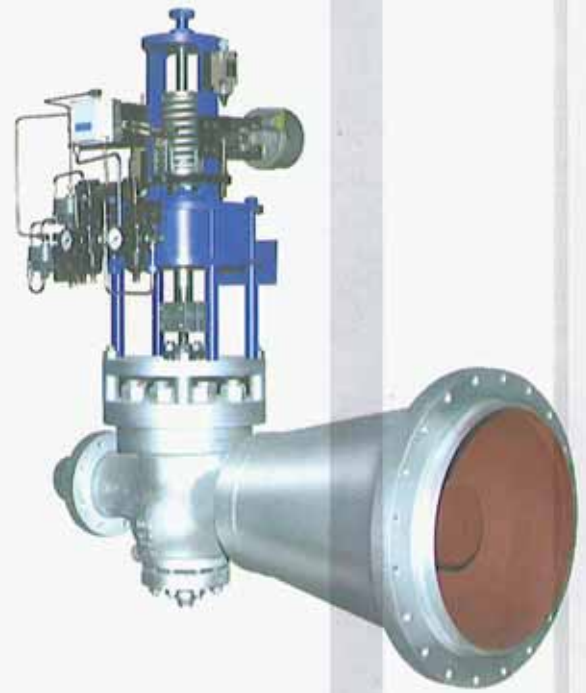




# Smart Solution for High Pressure Flow Control

**300 S Series Heavy Guided  
Control Globe Valve 1" to 8"  
in Class 150 through 600**



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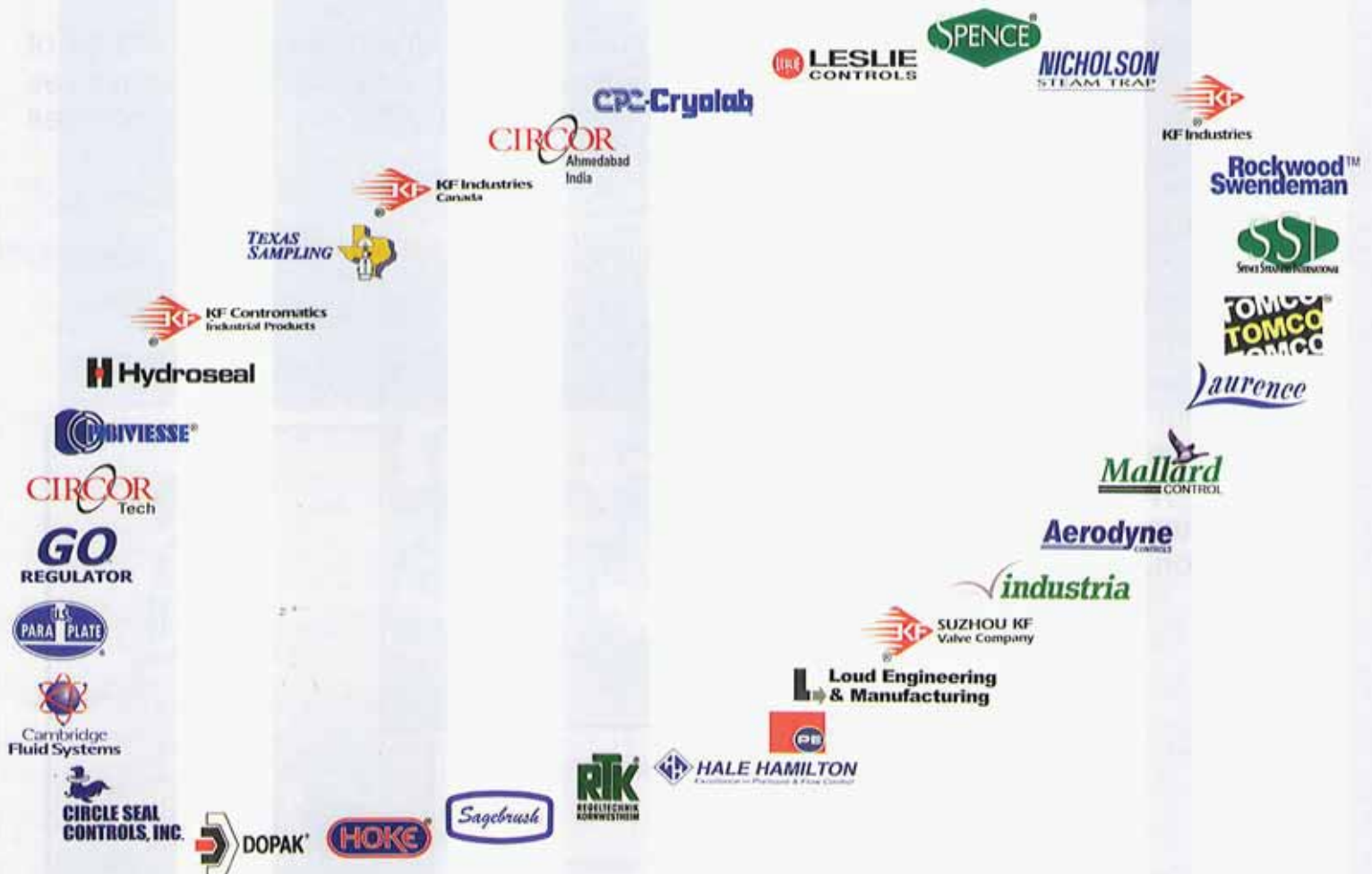
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## **QUALITY POLICY**

CIRCOR FLOW TECHNOLOGIES INDIA PRIVATE LIMITED is committed to 100% customer satisfaction by providing consistent, reliable and cost effective products in the field of Severe service Control Valves, HP & LP Turbine Bypass valves, Pressure reducing stations, Pressure Reducing & De-superheating Stations, De-superheaters & other Steam & Process Control Equipments.

## About Circor

CIRCOR International, Inc. (CIRCOR), is a leading provider of valves and fluid control products for the Power, Oil & Gas, Industrial, Thermal fluid control, and Petrochemical markets. In a highly fragmented industry, we provide a complete array of fluid-control products and technologies. In most cases, we have the broadest product line, compared to those of our competitors, in terms of design, size, and configuration enabling us to furnish outstanding solutions for our customers' application challenges.



CIRCOR Flow Technologies India Pvt. Ltd. is a wholly owned subsidiary of CIRCOR International Inc.; Boston, USA.

Our success stems from a two-pronged strategy: acquisitions (over 30 transactions since 1984) and internal product development. The two work in tandem: Our strategic acquisitions bring significant cost savings and broader distribution, and enable us to expand our presence in key domestic and international markets. In addition, our engineers collaborate to develop new products and technologies to solve customer-specific application problems related to fluid control.

## Product Overview

Series 300S pneumatically operated globe valves are designed for process control of high/low pressure steam, water, corrosive liquids and gases. They are available in sizes ranging from 1" to 8" in pressure classes 150 through 600. Higher ratings and sizes available on request.

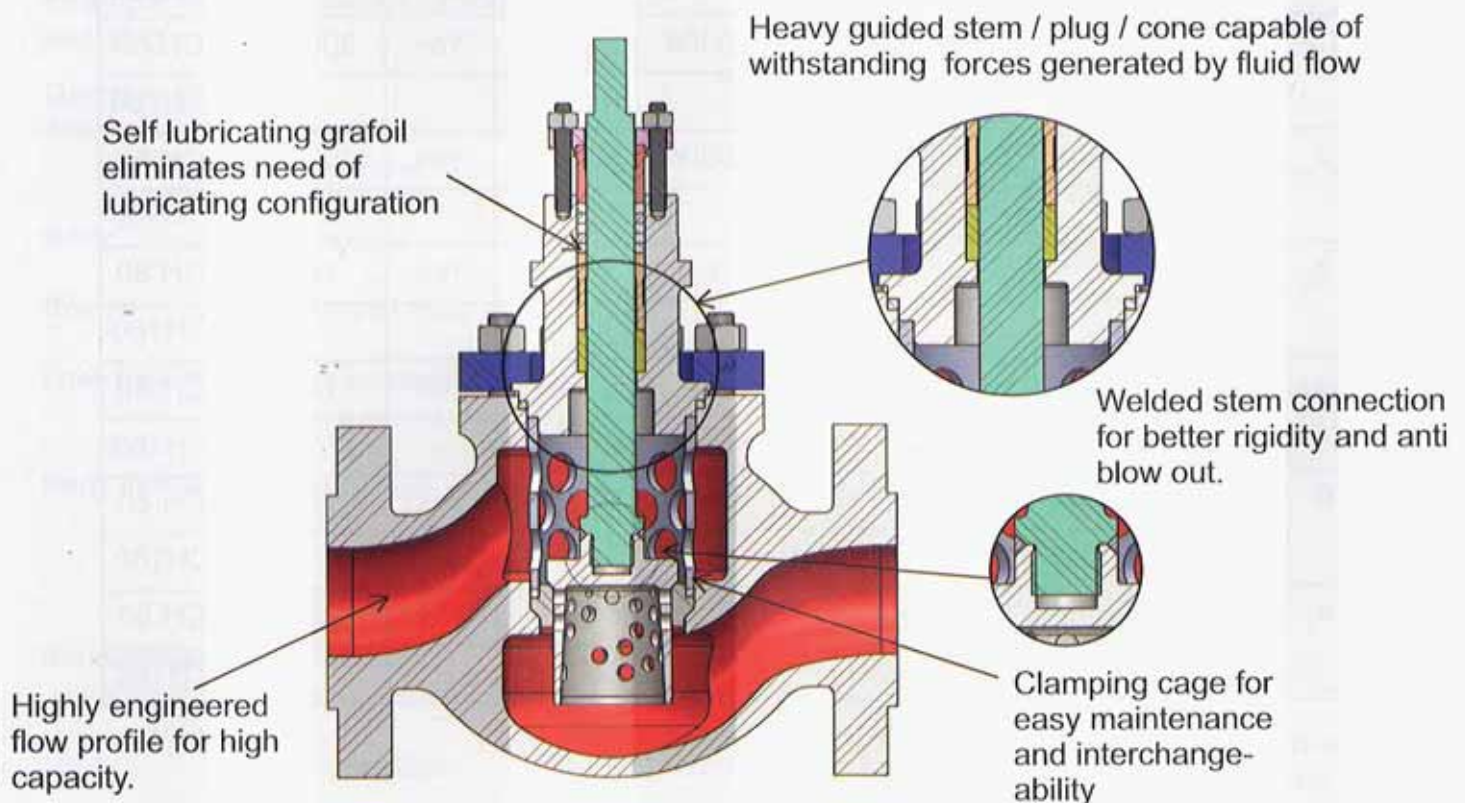
Series 300S control valves are supplied with standard piston cylinder actuator (direct or reverse acting) and a number of optional accessories to suit the duty requirement. These valves permit field interchangeability of actuator and trim types, thus proving to be economical in case of field conversion.



## Features

300 S Series is a single ported heavy top (plug for smaller size), heavy top & seat (cone) or heavy top & bottom guided (plug larger sizes) control valve designed specifically for high pressure flow control, which has un-parallel performance and rugged in construction.

- Heavy guided rugged and heavy guiding provides high stability for the plug.
- Welded stem for better rigidity and anti blow.
- Tight shut off Class IV & V leakage as per ANSI FCI 70.2 , special leakage rates available on request.
- Hardened trim. This provides better performance against abrasive service with better sealing ability. Provides longer seat tightness at high pressure drop. Excellent against galling.
- Threaded clamp and bolted construction for easy online servicing & maintenance.
- Rugged, modular, optimized body for higher flow capacities with ISA end to end and flanges as per ANSI B16.5, BW as per ANSIB16.25, SW dimensions as per B16.11
- Wide range of Cv values to cater all kinds of flow requirements



## Temperature Range / Seat Leakage

Contoured Plug  
Drilled Cone

Valve size		Body Rating	Seat Type	Packing Material	Temperature Range		Seat Leakage FCI -70-2 Class	
mm	inch				min 20' F thru plus 1049'F	min 29' C thru plus 565 ' C	IV	V
25 thru 200	1 thru 8	150# thru 600#	Quick change	Grafoil	min 20' F thru plus 1049'F	min 29' C thru plus 565 ' C	IV	V

See material of construction tables for part construction availability.  
Grafoil packing is standard for all pressure & temperature limits

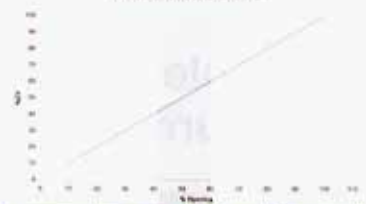
## Ratings/ Connections

Valve size		Rating								
		150# ( PN 20 )			300# ( PN 50)			600# ( PN 100 )		
mm	inch	RF	SW	BW	RF	SW	BW	RF	SW	BW
25	1	Yes	3000#	SCH40	Yes	3000#	SCH 40	Yes	3000#	SCH 80
							SCH 80			SCH160
40	1.5	Yes	3000#	SCH40	Yes	3000#	SCH 40	Yes	3000#	SCH 80
							SCH 80			SCH160
50	2	Yes	3000#	SCH40	Yes	3000#	SCH 40	Yes	3000#	SCH 80
							SCH 80			SCH160
80	3	Yes	No	SCH40	Yes	No	SCH 40	Yes	No	SCH 80
							SCH 80			SCH160
100	4	Yes	No	SCH40	Yes	No	SCH 40	Yes	No	SCH 80
							SCH 80			SCH160
150	6	Yes	No	SCH40	Yes	No	SCH 40	Yes	No	SCH 80
							SCH 80			SCH160
200	8	Yes	No	SCH40	Yes	No	SCH 40	Yes	No	SCH 80
							SCH 80			SCH160

Schedules shown are the standard schedules available.  
Other schedules available on request.  
Flange finish for the RF shall be 125 - 250 AARH finish  
Other flange finishes available on request

# CV Tables

## Contoured Plug Linear



		Opening in Percent				10	20	30	40	50	60	70	80	90	100
		Recovery Factor FL				0.93	0.93	0.93	0.92	0.92	0.91	0.91	0.9	0.9	0.9
Valve Size:		Orifice Diameter		Travel		Rated Cv									
inch	mm	inch	mm	inch	mm										
1	25	0.11	3	0.748	19	0.01	0.02	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.12
		0.23	6	0.748	19	0.03	0.05	0.08	0.10	0.13	0.15	0.18	0.20	0.23	0.25
		0.236	6	0.748	19	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.5
		0.236	6	0.748	19	0.08	0.15	0.23	0.30	0.38	0.45	0.53	0.60	0.68	0.75
		0.236	6	0.748	19	0.13	0.25	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.25
		0.492	12.5	0.748	19	0.35	0.70	1.05	1.40	1.75	2.10	2.45	2.80	3.15	3.5
		0.492	12.5	0.748	19	0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80	5.40	6
		0.688	17.5	0.748	19	0.91	1.82	2.73	3.60	4.50	5.43	6.30	7.23	8.11	9
		0.984	25	0.748	19	1.08	2.16	3.30	4.42	5.50	6.64	7.71	8.82	9.90	11
1.5	40	0.236	6	0.748	19	0.02	0.05	0.07	0.10	0.12	0.15	0.17	0.19	0.22	0.25
		0.236	6	0.748	19	0.05	0.10	0.15	0.20	0.25	0.29	0.34	0.39	0.44	0.5
		0.236	6	0.748	19	0.07	0.15	0.22	0.29	0.37	0.44	0.51	0.58	0.65	0.75
		0.236	6	0.748	19	0.12	0.25	0.37	0.49	0.61	0.73	0.85	0.97	1.09	1.25
		0.492	12.5	0.748	19	0.34	0.69	1.03	1.37	1.72	2.04	2.38	2.72	3.06	3.5
		0.492	12.5	0.748	19	0.59	1.18	1.76	2.35	2.94	3.49	4.07	4.66	5.24	6
		0.984	25	1.102	28	1.37	2.74	4.12	5.49	6.86	8.15	9.51	10.86	12.22	14
		1.102	28	1.102	28	2.25	4.51	6.76	9.02	11.27	13.39	15.62	17.85	20.08	23
		1.377	35	1.102	28	3.14	6.27	9.41	12.54	15.68	18.62	21.73	24.83	27.94	32
2	50	0.492	12.5	0.748	19	0.34	0.69	1.03	1.37	1.72	2.04	2.38	2.72	3.06	3.5
		0.492	12.5	0.748	19	0.59	1.18	1.76	2.35	2.94	3.49	4.07	4.66	5.24	6
		0.688	17.5	0.748	19	0.88	1.76	2.65	3.53	4.41	5.24	6.11	6.98	7.86	9
		0.984	25	1.102	28	1.37	2.74	4.12	5.49	6.86	8.15	9.51	10.86	12.22	14
		1.102	28	1.102	28	2.25	4.51	6.76	9.02	11.27	13.39	15.62	17.85	20.08	23
		1.377	35	1.102	28	3.43	6.86	10.29	13.72	17.15	20.37	23.77	27.16	30.56	35
		1.771	45	1.496	38	4.41	8.82	13.23	17.64	22.05	26.19	30.56	34.92	39.29	45
		1.968	50	1.496	38	4.80	9.60	14.41	19.21	24.01	28.52	33.27	38.02	42.78	49
		3	80	1.377	35	1.102	28	3.43	6.86	10.29	13.72	17.15	20.37	23.77	27.16
1.968	50			1.496	38	4.80	9.60	14.41	19.21	24.01	28.52	33.27	38.02	42.78	49
2.24	57			1.496	38	7.35	14.70	22.05	29.40	36.75	43.65	50.93	58.20	65.48	75
2.75	70			1.496	38	9.31	18.62	27.93	37.24	46.55	55.29	64.51	73.72	82.94	95
4	100			1.968	50	1.496	38	4.80	9.60	14.41	19.21	24.01	28.52	33.27	38.02
		2.24	57	1.496	38	7.35	14.70	22.05	29.40	36.75	43.65	50.93	58.20	65.48	75
		2.755	70	1.968	50	10.78	21.56	32.34	43.12	53.90	64.02	74.69	85.36	96.03	110
		3.543	90	1.968	50	17.15	34.30	51.45	68.60	85.75	101.85	118.83	135.80	152.78	175
6	150	2.755	70	1.968	50	10.78	21.56	32.34	43.12	53.90	64.02	74.69	85.36	96.03	110
		3.543	90	2.55	65	19.60	39.20	58.80	78.40	98.00	116.40	135.80	155.20	174.60	200
		4.921	125	2.55	65	35.28	70.56	105.84	141.12	176.40	209.52	244.44	279.36	314.28	360
8	200	4.921	125	3.93	100	35.77	71.54	107.31	143.08	178.85	212.43	247.84	283.24	318.65	365
		6.693	170	3.93	100	57.33	114.61	171.9	229.3	286.6	340.4	397.2	453.9	510.71	585

\* Intermediate CV available on special request



# CV Tables

## Contoured Plug Equal %

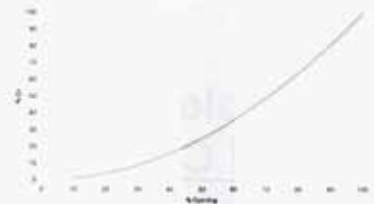
Valve Size:		Orifice Diameter		Travel		Opening in Percent									
						10	20	30	40	50	60	70	80	90	100
						Recovery Factor Fl									
						0.93	0.93	0.93	0.93	0.93	0.92	0.91	0.91	0.91	0.9
inch	mm	inch	mm	inch	mm	Rated Cv									
1	25	0.492	12.5	0.748	19	0.11	0.16	0.24	0.35	0.51	0.75	1.10	1.62	2.38	3.5
		0.492	12.5	0.748	19	0.18	0.28	0.40	0.59	0.88	1.28	1.89	2.78	4.08	6
		0.688	17.5	0.748	19	0.28	0.41	0.61	0.89	1.31	1.92	2.83	4.16	6.12	9
		0.984	25	0.748	19	0.34	0.51	0.74	1.09	1.61	2.35	3.47	5.09	7.48	11
1.5	40	0.492	12.5	0.748	19	0.09	0.13	0.21	0.31	0.46	0.67	0.99	1.46	2.14	3.5
		0.492	12.5	0.748	19	0.15	0.22	0.36	0.54	0.79	1.16	1.70	2.50	3.67	6
		0.984	25	1.102	28	0.35	0.58	0.85	1.25	1.84	2.70	3.97	5.83	8.57	14
		1.102	28	1.102	28	0.57	0.95	1.40	2.05	3.02	4.43	6.52	9.58	14.08	23
2	50	1.377	35	1.102	28	0.80	1.32	1.94	2.85	4.20	6.17	9.07	13.33	19.59	32
		0.492	12.5	0.748	19	0.09	0.13	0.21	0.31	0.46	0.67	0.99	1.46	2.14	3.5
		0.492	12.5	0.748	19	0.15	0.22	0.35	0.54	0.79	1.16	1.70	2.50	3.67	6
		0.984	25	1.102	28	0.35	0.58	0.85	1.25	1.84	2.70	3.97	5.83	8.57	14
3	80	1.102	28	1.102	28	0.57	0.95	1.40	2.05	3.02	4.43	6.52	9.58	14.08	23
		1.377	35	1.102	28	0.87	1.44	2.12	3.12	4.59	6.75	9.92	14.58	21.43	35
		1.771	45	1.496	38	1.12	1.86	2.73	4.01	5.90	8.67	12.75	18.74	27.55	45
		1.968	50	1.496	38	1.22	2.02	2.97	4.37	6.42	9.44	13.88	20.41	30.00	49
4	100	1.377	35	1.102	28	0.87	1.44	2.12	3.12	4.69	6.75	9.92	14.58	21.43	35
		1.968	50	1.496	38	1.22	2.02	2.97	4.37	6.42	9.44	13.88	20.41	30.00	49
		2.24	57	1.496	38	1.87	3.10	4.55	6.69	9.83	14.46	21.25	31.24	45.92	75
		2.75	70	1.496	38	2.37	3.92	5.76	8.47	12.46	18.31	26.92	39.57	58.16	95
6	150	1.968	50	1.496	38	1.22	2.02	2.97	4.37	6.42	9.44	13.88	20.41	30.00	49
		2.24	57	1.496	38	1.87	3.10	4.55	6.69	9.83	14.46	21.25	31.24	45.92	75
		2.755	70	1.968	50	2.75	4.54	6.67	9.81	14.42	21.20	31.17	45.81	67.35	110
		3.543	90	1.968	50	4.37	7.22	10.62	15.61	22.95	33.73	49.58	72.89	107.14	175
8	200	2.755	70	1.968	50	2.75	4.54	6.67	9.81	14.42	21.20	31.17	45.81	67.35	110
		3.543	90	2.55	65	4.99	8.26	12.14	17.84	26.22	38.55	56.67	83.30	122.45	200
		4.921	125	2.55	65	8.99	14.86	21.84	32.11	47.20	69.39	102.00	149.94	220.41	360
8	200	4.921	125	3.93	100	9.11	15.07	22.15	32.56	47.86	70.35	103.41	152.02	223.47	365
		6.693	170	3.93	100	14.6	24.13	35.51	52.18	76.7	112.7	165.7	243.6	358.16	585

\* Intermediate CV available on special request



# CV Tables

## Contoured Plug Modified



		Opening in Percent				10	20	30	40	50	60	70	80	90	100
		Recovery Factor FI				0.93	0.93	0.93	0.93	0.93	0.92	0.91	0.91	0.91	0.9
Valve Size:		Orifice Diameter		Travel											
inch	mm	inch	mm	inch	mm	Rated Cv									
1	25	0.492	12.5	0.748	19	0.04	0.14	0.32	0.56	0.88	1.26	1.72	2.24	2.83	3.5
		0.492	12.5	0.748	19	0.06	0.24	0.54	0.96	1.50	2.16	2.94	3.84	4.86	6
		0.688	17.5	0.748	19	0.09	0.36	0.81	1.44	2.25	3.24	4.41	5.76	7.29	9
		0.984	25	0.748	19	0.11	0.44	0.99	1.76	2.75	3.96	5.39	7.04	8.91	11
1.5	40	0.492	12.5	0.748	19	0.03	0.11	0.28	0.50	0.70	1.13	1.54	2.02	2.55	3.5
		0.492	12.5	0.748	19	0.05	0.19	0.49	0.86	1.35	1.94	2.65	3.46	4.37	6
		0.984	25	1.102	28	0.11	0.50	1.13	2.02	3.15	4.64	6.17	8.06	10.21	14
		1.102	28	1.102	28	0.18	0.83	1.86	3.31	5.18	7.45	10.14	13.25	16.77	23
		1.377	35	1.102	28	0.26	1.15	2.59	4.61	7.20	10.37	14.11	18.43	23.33	32
2	50	0.492	12.5	0.748	19	0.03	0.11	0.28	0.50	0.79	1.13	1.54	2.02	2.55	3.5
		0.492	12.5	0.748	19	0.05	0.19	0.44	0.86	1.35	1.94	2.65	3.46	4.37	6
		0.984	25	1.102	28	0.11	0.50	1.13	2.02	3.15	4.54	6.17	8.06	10.21	14
		1.102	28	1.102	28	0.18	0.83	1.86	3.31	5.18	7.45	10.14	13.25	16.77	23
		1.377	35	1.102	28	0.28	1.26	2.84	5.04	7.88	11.34	15.44	20.16	25.52	35
		1.771	45	1.496	38	0.36	1.62	3.65	6.48	10.13	14.58	19.85	25.92	32.81	45
3	80	1.968	50	1.496	38	0.39	1.76	3.97	7.06	11.03	15.88	21.61	28.22	35.72	49
		1.377	35	1.102	28	0.26	1.26	2.84	5.04	7.88	11.34	15.44	20.16	25.52	35
		2.24	57	1.496	38	0.60	2.70	6.08	10.81	16.88	24.30	33.08	43.20	54.68	75
		2.75	70	1.496	38	0.76	3.42	7.70	13.68	21.38	30.78	41.90	54.72	69.26	95
4	100	1.968	50	1.496	38	0.39	1.76	3.97	7.06	11.03	15.88	21.61	28.22	35.72	49
		2.24	57	1.496	38	0.60	2.70	6.08	10.81	16.88	24.30	33.08	43.20	54.68	75
		2.755	70	1.968	50	0.88	3.96	8.91	15.84	24.75	35.64	48.51	63.36	80.19	110
		3.543	90	1.968	50	1.40	6.30	14.18	25.20	39.38	56.70	77.81	100.80	127.58	175
6	150	2.755	70	1.968	50	0.88	3.96	8.91	15.84	24.75	35.64	48.51	63.36	80.19	110
		3.543	90	2.55	65	1.60	7.20	16.20	28.80	45.00	64.80	88.20	115.20	145.80	200
		4.921	125	2.55	65	2.88	12.96	29.16	51.84	81.00	116.64	158.76	207.36	262.44	360
8	200	4.921	125	3.93	100	2.92	13.14	29.57	52.56	82.13	118.26	160.97	210.24	266.09	365
		6.693	170	3.93	100	4.68	21.06	47.39	84.24	131.63	189.51	257.99	336.91	426.47	585

\* Intermediate CV available on special request



# CV Tables

## Drilled Cone Linear

		Opening in Percent				10	20	30	40	50	60	70	80	90	100
		Recovery Factor FI				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Valve Size:		Orifice Diameter		Travel											
inch	mm	inch	mm	inch	mm	Rated Cv									
1	25	0.984	25	0.748	19	0.34	0.71	1.07	1.44	1.81	2.18	2.54	2.82	3.10	3.5
		0.984	25	0.748	19	0.59	1.20	1.88	2.40	2.95	3.68	4.23	4.78	5.37	6
		0.984	25	1.102	28	0.91	1.73	2.63	3.56	4.50	5.44	6.38	7.16	8.07	9
		0.984	25	1.102	28	1.11	2.19	3.28	4.37	5.49	6.61	7.69	8.80	9.91	11
1.5	40	0.984	25	0.748	19	0.34	0.71	1.07	1.44	1.81	2.18	2.54	2.82	3.10	3.5
		0.984	25	0.748	19	0.59	1.20	1.88	2.40	2.95	3.68	4.23	4.78	5.37	6
		1.377	35	1.102	28	1.26	2.68	4.10	5.52	6.94	8.37	9.79	11.21	12.63	14
		1.377	35	1.102	28	2.26	4.59	6.93	9.26	11.59	13.93	16.26	18.60	20.93	23
		1.377	35	1.102	28	2.83	6.30	9.77	13.24	16.03	19.25	22.52	25.79	29.05	32
2	50	0.984	25	0.748	19	0.34	0.71	1.07	1.44	1.81	2.18	2.54	2.82	3.10	3.5
		0.984	25	0.748	19	0.59	1.20	1.88	2.40	2.95	3.68	4.23	4.78	5.37	6
		1.377	35	1.102	28	1.26	2.68	4.10	5.52	6.94	8.37	9.79	11.21	12.63	14
		1.377	35	1.102	28	2.26	4.59	6.93	9.26	11.59	13.93	16.26	18.60	20.93	23
		1.377	35	1.102	28	2.83	6.30	9.77	13.24	16.03	19.25	22.52	25.79	29.05	32
		1.968	50	1.496	38	4.51	9.50	13.25	17.44	23.31	27.71	32.11	36.51	40.91	45
		1.968	50	1.496	38	4.94	10.81	15.21	19.61	24.01	28.41	34.28	38.68	43.55	49
3	80	1.377	35	1.102	28	2.83	6.30	9.77	13.24	16.03	19.25	22.52	25.79	29.05	32
		1.968	50	1.496	38	4.94	10.81	15.21	19.61	24.01	28.41	34.28	38.68	43.55	49
		2.75	70	1.496	38	6.87	13.68	21.53	30.41	37.08	43.74	50.41	57.08	64.65	75
		2.75	70	1.968	50	8.49	18.52	29.81	39.21	48.61	58.01	64.27	73.67	83.07	95
4	100	1.968	50	1.496	38	4.94	10.81	15.21	19.61	24.01	28.41	34.28	38.68	43.55	49
		2.75	70	1.968	50	8.49	18.52	29.81	39.21	48.61	58.01	64.27	73.67	83.07	95
		3.543	90	2.952	75	11.72	20.07	30.14	42.03	54.56	67.09	79.63	92.16	104.69	110
		3.543	90	2.952	75	15.47	31.52	49.92	70.77	94.28	113.26	125.91	144.89	163.88	175
6	150	3.543	90	2.952	75	11.72	20.07	30.14	42.03	54.56	67.09	79.63	92.16	104.69	110
		3.543	90	2.952	75	17.81	37.81	57.81	78.65	102.16	121.14	140.12	165.43	184.41	200
		4.921	125	2.952	75	35.19	76.26	117.33	164.27	199.47	234.67	275.74	316.82	357.89	400
8	200	4.921	125	2.952	75	31.28	72.35	113.42	154.49	183.83	219.03	260.10	301.18	342.25	365
		6.692	170	2.952	75	42.84	90.48	138.11	192.54	233.37	274.20	321.83	369.46	417.10	455

\* Intermediate CV available on special request

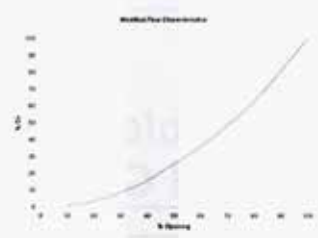
# CV Tables

## Drilled Cone Equal %



		Opening in Percent				10	20	30	40	50	60	70	80	90	100
		Recovery Factor FI				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Valve Size:		Orifice Diameter		Travel		Rated Cv									
inch	mm	inch	mm	inch	mm										
1	25	0.984	25	0.492	19	0.09	0.18	0.26	0.35	0.51	0.72	1.16	1.59	2.41	3.5
		0.984	25	0.492	19	0.15	0.31	0.46	0.61	0.81	1.21	1.84	2.69	4.03	6
1.5	40	0.984	25	0.492	19	0.09	0.18	0.26	0.35	0.51	0.72	1.16	1.59	2.41	3.5
		0.984	25	0.492	19	0.15	0.31	0.46	0.61	0.81	1.21	1.84	2.69	4.03	6
		1.377	35	1.102	28	0.31	0.47	0.69	1.00	1.43	2.28	3.13	4.60	6.80	10
2	50	0.984	25	0.492	19	0.15	0.31	0.46	0.61	0.81	1.21	1.84	2.69	4.03	6
		1.377	35	1.102	28	0.31	0.47	0.69	1.00	1.43	2.28	3.13	4.60	6.80	10
		1.968	50	1.496	38	0.50	1.00	1.50	2.01	3.23	4.64	6.37	9.58	14.69	20
		1.968	50	1.496	38	0.83	1.39	2.00	2.70	4.11	5.78	9.25	13.45	19.68	27
3	80	1.968	50	1.496	38	0.83	1.39	2.00	2.70	4.11	5.78	9.25	13.45	19.68	27
		2.75	70	1.968	50	1.13	2.26	3.51	4.76	7.26	9.76	14.76	20.62	31.87	45
		2.75	70	2.55	65	1.70	3.40	5.10	7.33	10.01	15.39	22.34	31.52	50.85	70
4	100	2.75	70	1.968	50	1.13	2.26	3.51	4.76	7.26	9.76	14.76	20.62	31.87	45
		3.543	90	2.952	75	2.93	4.88	6.84	9.34	14.36	19.99	30.40	45.40	65.81	90
		3.543	90	2.952	75	3.91	5.86	8.08	12.53	17.54	25.49	38.09	55.70	79.13	110
6	150	3.543	90	2.952	75	2.93	4.88	6.84	9.34	14.36	19.99	30.40	45.40	65.81	90
		4.921	125	2.952	75	3.91	5.86	9.77	14.21	19.23	30.47	41.72	62.55	97.76	135
		4.921	125	2.952	75	4.78	6.73	10.63	17.30	22.92	34.17	51.07	78.82	116.78	160
8	200	4.921	125	2.952	75	4.78	6.73	10.63	17.30	22.92	34.17	51.07	78.82	116.78	160
		6.692	170	3.93	100	6.95	11.15	16.15	26.14	36.14	56.14	79.61	120.44	173.76	235

\* Intermediate CV available on special request

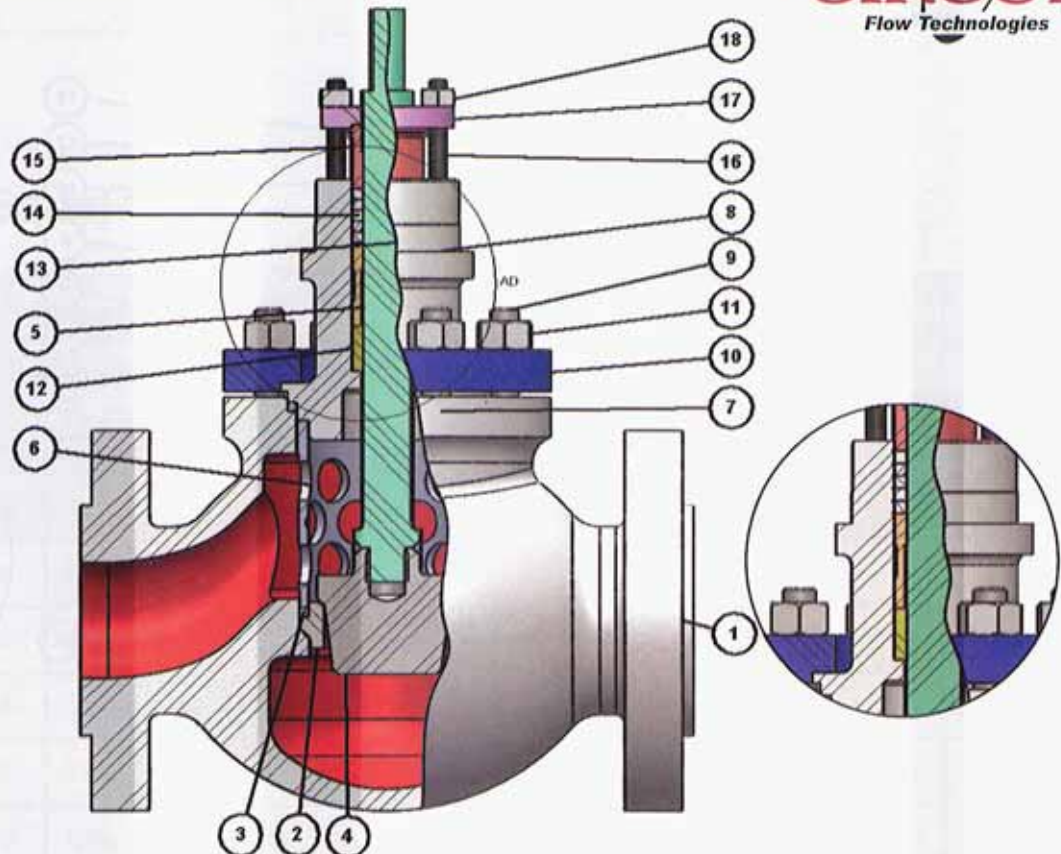


# CV Tables

## Drilled Cone Modified

		Opening in Percent				10	20	30	40	50	60	70	80	90	100
		Recovery Factor FI				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Valve Size:		Orifice Diameter		Travel											
inch	mm	inch	mm	inch	mm	Rated Cv									
1	25	0.984	25	0.492	19	0.04	0.13	0.31	0.56	0.90	1.26	1.70	2.20	2.83	3.5
		0.984	25	0.492	19	0.06	0.24	0.54	0.98	1.48	2.11	2.96	3.81	4.81	6
1.5	40	0.984	25	0.492	19	0.04	0.13	0.31	0.56	0.90	1.26	1.70	2.20	2.83	3.5
		0.984	25	0.492	19	0.06	0.24	0.54	0.98	1.48	2.11	2.96	3.81	4.81	6
		1.377	35	1.102	28	0.12	0.47	1.18	1.90	3.01	4.35	5.88	7.62	9.72	12
2	50	0.984	25	0.492	19	0.06	0.24	0.54	0.98	1.48	2.11	2.96	3.81	4.81	6
		1.377	35	1.102	28	0.12	0.47	1.18	1.90	3.01	4.35	5.88	7.62	9.72	12
		1.968	50	1.496	38	0.25	0.75	1.86	3.27	5.01	7.26	9.76	12.79	16.19	20
		1.968	50	1.496	38	0.25	1.19	2.66	4.36	7.76	11.16	14.56	19.67	24.77	30
3	80	1.968	50	1.496	38	0.25	1.19	2.66	4.36	7.76	11.16	14.56	19.67	24.77	30
		2.75	70	1.968	50	0.53	2.13	5.34	8.55	14.18	20.44	26.71	33.65	47.54	55
		2.75	70	2.55	65	0.73	3.67	7.07	13.87	20.68	29.57	40.82	54.70	68.59	80
		2.75	70	2.55	65	0.80	3.31	8.33	14.60	22.25	30.65	47.46	59.19	70.92	90
4	100	2.75	70	1.968	50	0.53	2.13	5.34	8.55	14.18	20.44	26.71	33.65	47.54	55
		2.75	70	2.55	65	0.80	3.31	8.33	14.60	22.25	30.65	47.46	59.19	70.92	90
		3.543	90	2.952	75	1.11	5.56	12.22	21.11	33.64	48.95	67.32	89.02	116.24	135
6	150	3.543	90	2.952	75	1.11	5.56	12.22	21.11	33.64	48.95	67.32	89.02	116.24	135
		4.921	125	2.952	75	1.98	8.65	17.53	31.42	49.79	73.26	96.72	131.93	167.13	200
8	200	4.921	125	2.952	75	1.98	8.65	17.53	31.42	49.79	73.26	96.72	131.93	167.13	200
		6.692	170	3.93	100	3.47	15.21	32.81	56.28	97.11	137.93	198.13	258.33	325.82	375

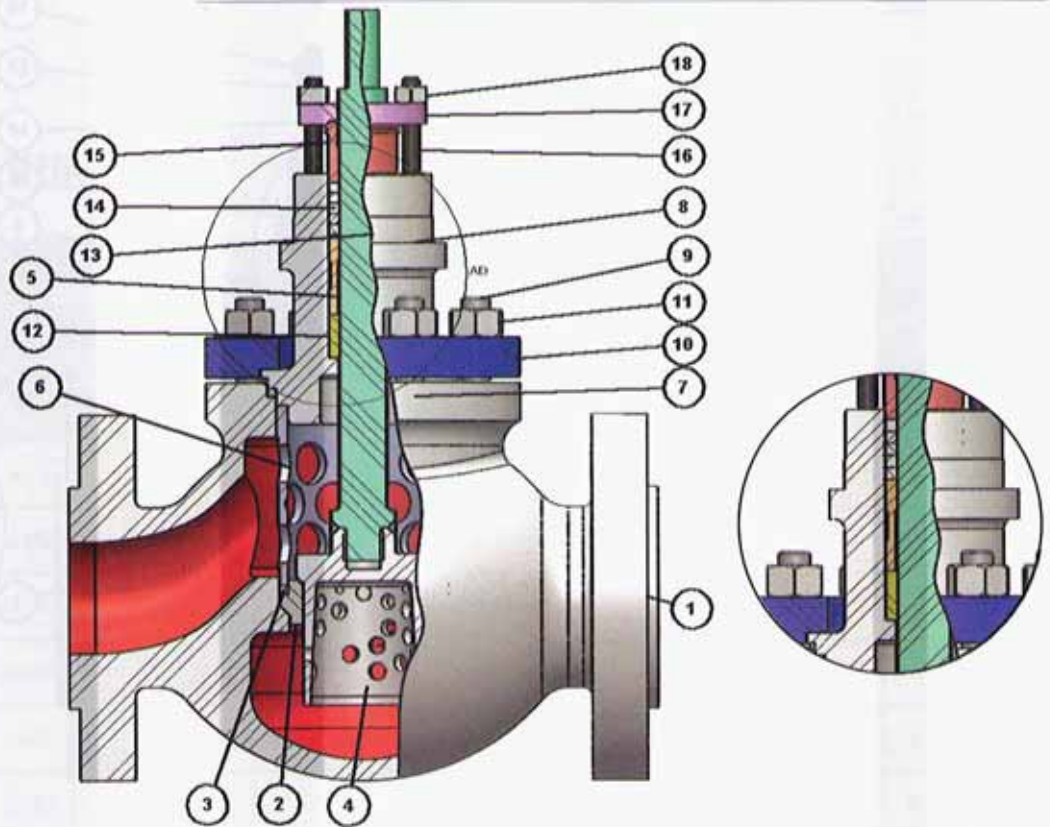
\* Intermediate CV available on special request



## Material Of Construction Carbon Steel

Temperature Range		min 20°F ( min 29°C) up to 788°F ( 420°C)
Sr	Description	Standard Materials
1	Body	ASTMA 216 Gr WCB
2	Seat	SA 479 TP 316 Hd / SS 410 Hd / DIN 1.4122 PL Ni .
3	Seat Packing	Grafoil
4	Plug / Drilled Cone	SA 479 TP 316 Hd / SS 410 Hd / DIN 1.4122 PL Ni .
5	Stem	SA 479 TP 316 Hd / SS 410 Hd / DIN 1.4122 PL Ni .
6	Cage	SS 410 PL Ni / ASTMA 106 Gr B PL Ni / SA 105 PL Ni
7	Bonnet Packing	Grafoil
8	Bonnet	ASTMA 216 Gr WCB / SA 105
9	Body Studs	SA 193 Gr B7
10	Bonnet Flange	ASTMA 216 Gr WCB / SA 105
11	Nuts	SA 194 Gr 2H
12	Lower Guide	SA 479 TP 316 Hd / SS 410 Hd / DIN 1.4122 PL Ni .
13	Spacer	SA 479 TP 316 Hd / SS 410 Hd / DIN 1.4122 PL Ni .
14	Gland Packing	Grafoil
15	Upper Guide	SA 479 TP 316 Hd / SS 410 Hd / DIN 1.4122 PL Ni .
16	Gland stud	SA 193 Gr B8
17	Packing flange	SA 479 TP 316 / ASTMA 351 Gr CF8M
18	Gland Nut	SA 194 Gr 8

- 1.) \* Hd : Hardened - Plasma Nitrided (PL Ni ) / Stellite
- 2.) Stellite trim available above seat diameter 6mm for contoured plug
- 3.) Stellite trim not available for drilled Cone.
- 4.) Bonnet flange integral for sizes 2" & smaller / 6" & 8"  
SS 410 i.e. SA 479 TP 410 / ASTMA 217 Gr CA 15

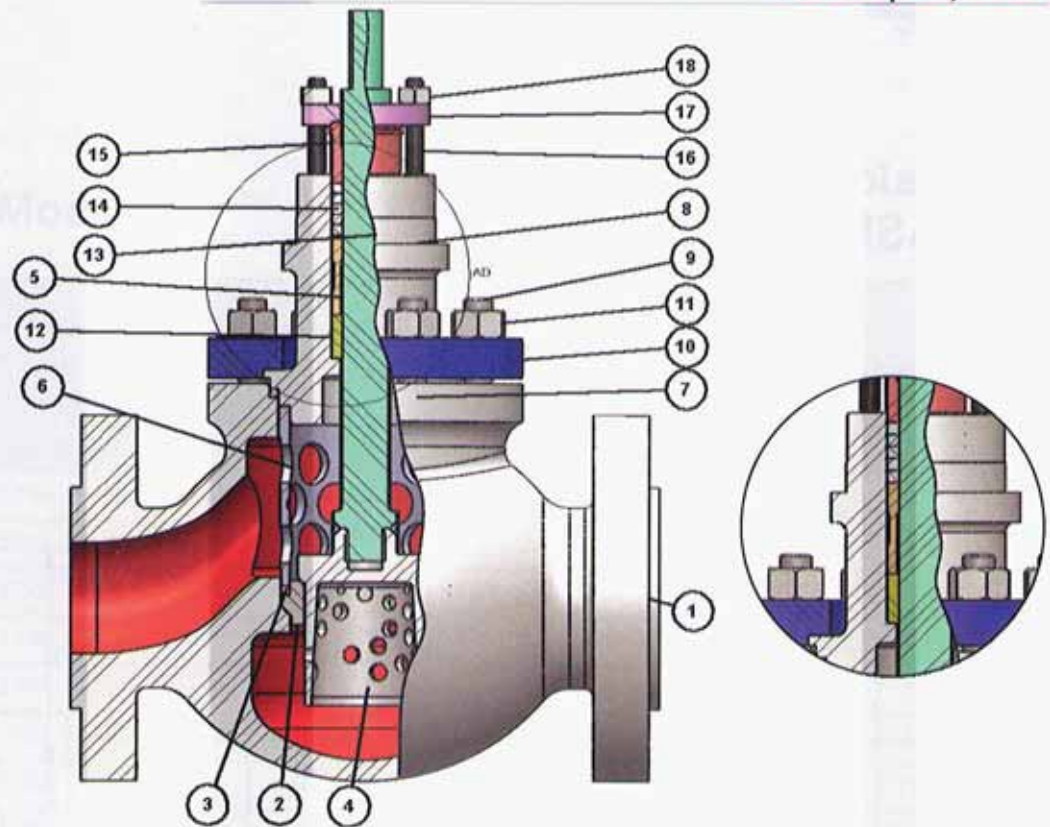


## Material Of Construction Carbon-Molybdenum Steel

Temperature Range		Above 788°F (420°C)
Sr	Description	Standard Materials
1	Body	ASTMA 217 Gr WC6 / ASTMA 217 Gr WC9
2	Seat	DIN 1.4122 PL Ni
3	Seat Packing	Grafoil
4	Plug / Drilled Cone	DIN 1.4122 PL Ni
5	Stem	DIN 1.4122 PL Ni
6	Cage	SA 182 F11 & F22 PL Ni / ASTMA 335 Gr P11 & P22 PL Ni
7	Bonnet Packing	Grafoil
8	Bonnet	ASTMA 217 Gr WC6 & WC9 / SA 182 F11 & F22
9	Body Studs	SA 193 Gr B7
10	Bonnet Flange	ASTMA 217 Gr WC6 & WC9 / SA 182 F11 & F22
11	Nuts	SA 194 Gr 2H
12	Lower Guide	DIN 1.4122 PL Ni
13	Spacer	DIN 1.4122 PL Ni
14	Gland Packing	Grafoil
15	Upper Guide	DIN 1.4122 PL Ni
16	Gland stud	SA 193 Gr B8
17	Packing flange	SA 479 TP 316 / ASTMA 351 Gr CF8MA 479 TP 304
18	Gland Nut	SA 194 Gr 8

1.) PL Ni : Plasma Nitrided

2.) Bonnet flange integral for sizes 2" & smaller / 6" & 8"



### Material Of Construction Stainless Steel

Temperature Range		min 20°F ( min 29°C) upto 788°F ( 420°C)
Sr	Description	Standard Materials
1	Body	ASTMA 351 Gr CF8M
2	Seat	SA 479 TP 316 Hd
3	Seat Packing	Grafoil
4	Plug / Drilled Cone	SA 479 TP 316 Hd
5	Stem	SA 479 TP 316 Hd
6	Cage	SA 479 TP 316 PL Nt / SA 182 F 316 PL Nt
7	Bonnet Packing	Grafoil
8	Bonnet	ASTMA 351 Gr CF8M / SA 182 F316
9	Body Studs	SA 193 Gr B8M
10	Bonnet Flange	ASTMA 351 Gr CF8M / SA 182 F316
11	Nuts	SA 194 Gr 8M
12	Lower Guide	SA 479 TP 316 Hd
13	Spacer	SA 479 TP 316 Hd
14	Gland Packing	Grafoil
15	Upper Guide	SA 479 TP 316 Hd
16	Gland stud	SA 193 Gr B8M
17	Packing flange	SA 479 TP 316 / ASTMA 351 Gr CF8M
18	Gland Nut	SA 194 Gr 8M

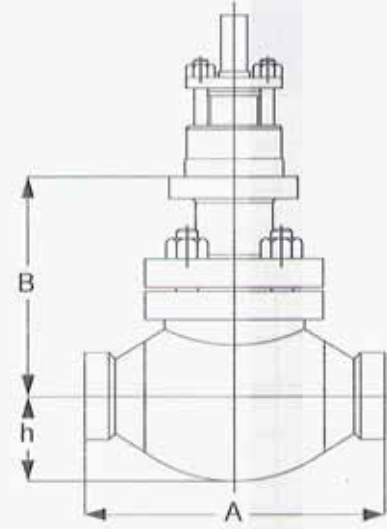
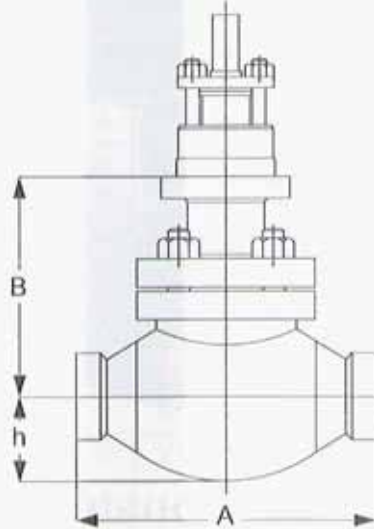
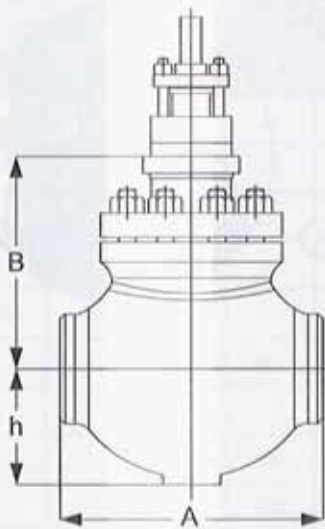
1.) \* Hd : Hardened - Plasma Nitrided (PL Nt ) / Stellite

2.) Stellite trim available above seat diameter 6mm for contoured plug

3.) Stellite trim not available for drilled Cone.

4.) Bonnet flange integral for sizes 2" & smaller / 6" & 8"

## Dimensional Details 300S ASME #150

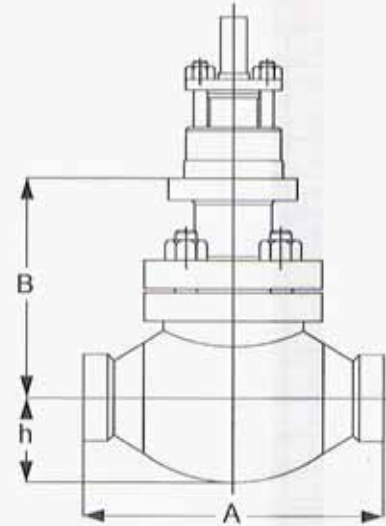
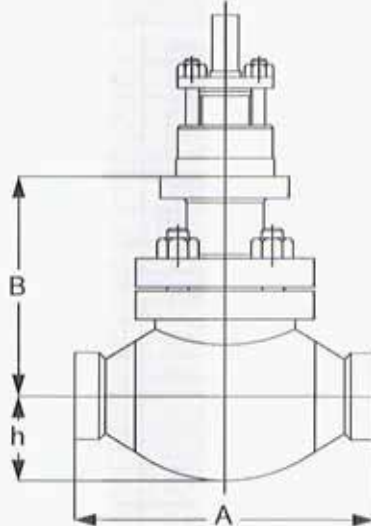
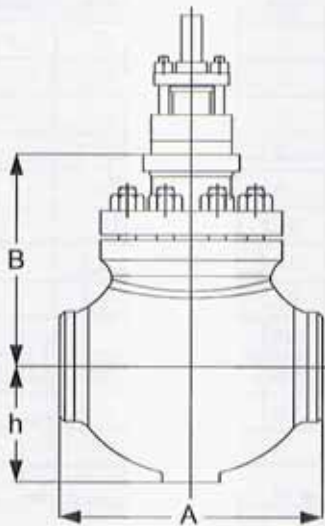


Valve size mm	Valve size inch	Dimension - A				Dimension - h				Dimension - B			
		RF		SW / BW		RF		SW / BW		RF		SW / BW	
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
25	1	190.00	7.48	190.00	7.48	47.50	1.87	47.50	1.87	102.50	4.03	102.50	4.03
40	1.5	222.00	8.75	222.00	8.75	66.00	2.60	66.00	2.60	167.50	6.59	167.50	6.59
50	2	254.00	10.00	254.00	10.00	78.00	3.07	78.00	3.07	185.00	7.27	185.00	7.27
80	3	298.00	11.73	337.00	13.27	100.50	3.96	100.50	3.96	200.00	7.87	200.00	7.87
100	4	352.00	13.87	393.70	15.50	135.00	5.31	130.50	5.14	255.00	10.04	255.00	10.04
150	6	451.00	17.76	508.00	20.00	193.00	7.59	193.00	7.59	289.00	11.37	289.00	11.37
200	8	543.00	21.38	610.00	24.02	253	9.96	253	9.96	423.50	16.67	423.50	16.67

\* SW End connection available up to 2 inch/50 mm only



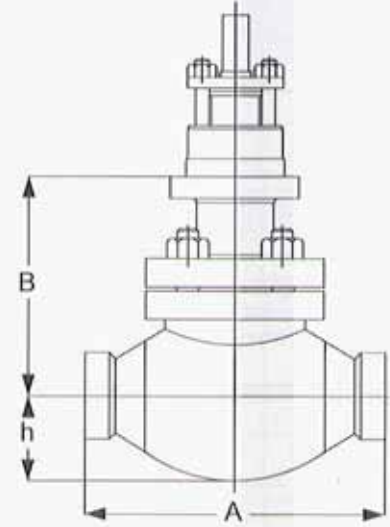
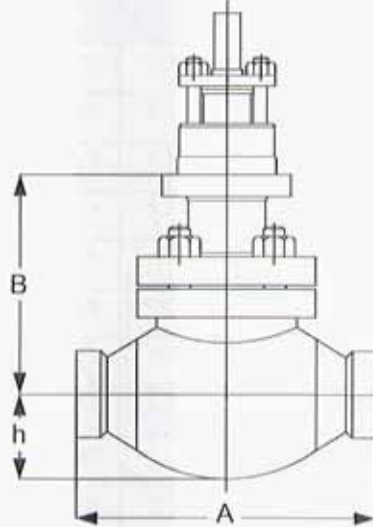
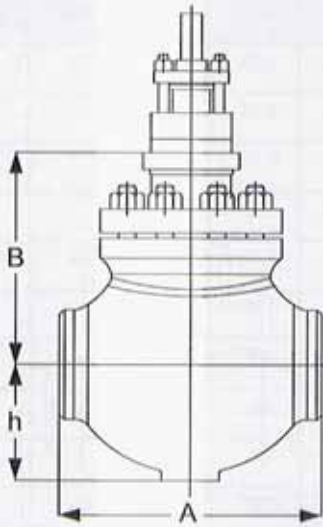
## Dimensional Details 300S ASME #300



Valve size	Valve size	Dimension - A				Dimension - h				Dimension - B			
		RF		SW / BW		RF		SW / BW		RF		SW / BW	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
25	1	197.00	7.76	197.00	7.76	48.50	1.91	48.50	1.91	102.50	4.03	102.50	4.03
40	1.5	235.00	9.25	235.00	9.25	66.00	2.60	66.00	2.60	167.50	6.59	167.50	6.59
50	2	267.00	10.50	267/ 285	10.5/ 11.25	79.00	3.11	79.00	3.11	184.90	7.27	184.90	7.27
80	3	318.00	12.52	337.00	13.27	102.50	4.04	102.50	4.04	200.00	7.88	200.00	7.88
100	4	368.00	14.50	394.00	15.51	137.50	5.41	137.50	5.41	255.00	10.04	255.00	10.04
150	6	473.00	18.62	508.00	20.00	193.00	7.59	193.00	7.59	289.00	11.37	289.00	11.37
200	8	568.00	22.36	610.00	24.00	253.00	9.96	253.00	9.96	423.60	16.67	423.60	16.67

\* SW End connection available up to 2 inch/50 mm only

## Dimensional Details 300S ASME #600



Valve size	Valve size	Dimension - A				Dimension - h				Dimension - B			
		RF		SW / BW		RF		SW / BW		RF		SW / BW	
		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
25	1	210.00	8.25	210.00	8.25	48.50	1.91	48.50	1.91	102.50	4.03	102.50	4.03
40	1.5	251.00	9.88	251.00	9.88	66.00	2.60	66.00	2.60	167.50	6.59	167.50	6.59
50	2	286.00	11.25	286.00	11.25	81.50	3.21	81.50	3.21	184.90	7.27	184.90	7.27
80	3	337.00	13.27	337.00	13.27	105.50	4.15	105.50	4.15	200.00	7.88	200.00	7.88
100	4	394.00	15.50	394.00	15.50	143.00	5.63	143.00	5.63	255.00	10.04	255.00	10.04
150	6	508.00	20.00	508.00	20.00	193.00	7.59	193.00	7.59	289.00	11.37	289.00	11.37
200	8	610.00	24.00	610.00	24.00	256.00	9.93	256.00	9.93	423.60	16.67	423.60	16.67

\* SW End connection available up to 2 inch/50 mm only

## OPTIONAL EXTRAS

300S Series control valves can be fitted with a wide range of accessories and also customized to provide flow solutions.

- 300S Series can be fitted with spring and diaphragm actuators.
- Positioners ( pneumatic, E/P Smart with Hart Protocol / FF ) as per customer's requirement.
- Rapid stroking time requirements are achieved using a Volume Booster or Quick Exhaust Valve.
- Manual Override option incase of emergency operation. Top / Side mounted options available.
- Valves according to DIN industry standards available.
- Customized end connections available : Inlet BW and other end flanged.
- Fittings like Companion flanges, nuts, bolts etc available on request.
- Welded seat option for 6inch & 8inch.
- Special intermediate C's available upon customer request.



CNC vertical milling centre



Plant engineering office



QC department



HP & LP Bypass valves for Atomic power plant



Valves ready for shipment for BHEL - BINA REFINERY



CNC turning centre



QC NRV undergoing testing

## Photographs depicting



Ongoing welding on forged body



HP Bypass valve alongwith Dump Tube



Dump tube ready for inspection



Bypass valves ready for inspection



Packing of QC NRV under process



Bypass valve with dump tube



Assembly shop



Plant layout



Battery of Turbine bypass, steam conditioning and spray water control valves ready for shipment to Taiwan.



PRDS Systems for L&T - IOCL Panipat plant



Valves ready to be shipped for Doosan Heavy Industries Korea

# CIRCOR's capabilities