



Model 2400 V



Doc: CH-2400V/02

June 2007

Pneumatic V-control ball valve with heavy duty stainless steel ball valve

General data sheet:

This combination offers excellent modulating control by utilizing a ball with a 'V' shaped leading edge. The V ball offers significantly better and more consistent control than traditional round ported ball valves.

The control port is cast and then machined into the ball, as opposed to the V notch being in the seat. This allows for superior flow characteristics and dramatically lengthens the time interval between seat replacements.

The control ball is available with 30°, 60° and 90° V ports which provide differing characteristics as shown later in this document.

The valve is supplied with 50% stainless powder filled PTFE seats which provides a superior combination of strength and sealing properties.

Valve specifications:

Body	CF8M Cast 316SS
Ball	CF8M Cast 316SS
Seats	50/50 Stainless filled PTFE
Pressure rating	UT1 2" 64 bar, rest 50 bar
Valve temp limits	-20 to +200°C
Actuator temp limits	-20 to + 70°C



Automation is simple as the V control ball valve is designed for actuation with an integrally cast actuator mounting platform.

Combining the benefits of the V control ball valve with the CH-air and YT pneumatic positioner (E/P or P/P), a fine degree of control is achievable, far surpassing the control achievable with a standard round ported ball valve.

The resulting control package compares favourably in comparison with the more traditional globe type control valve, particularly in package size, weight, and cost.

Quick guide to the CH-air A Type actuator standard features :

Robust rack and pinion construction

High accuracy machining of components

ATEX Ex II 2 GD approved for use in hazardous areas

CE Approved

Guaranteed for 1,000,000 cycles

Balanced air & spring strokes in spring return version

Safe to dismantle for routine maintenance

Compliant with all actuator standards

Accessories are easy to mount

Hard anodised aluminium body

*ENP coated option
(Extra cost)*

*Teflon® coated option
(Extra cost)*

*Stainless steel version
(Extra cost)*



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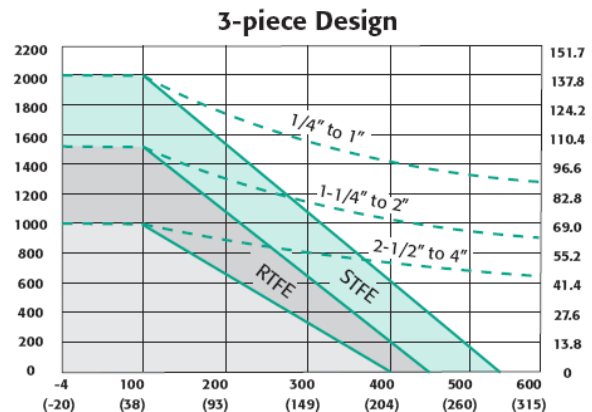
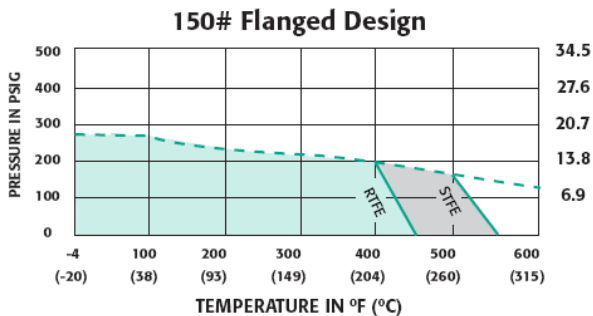
"V" Series Flow Coefficients- Cv Chart

CV = Flow of water in USGPM at 1psi pressure drop

Valve Size	Ball Angle	0%	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1/2"	30	0	0.1	0.1	0.2	0.3	0.5	0.8	1.1	1.6	2.2	2.6
	60	0	0.1	0.1	0.3	0.5	0.9	1.4	2	3.3	4.4	6
	90	0	0.1	0.2	0.4	0.6	0.9	1.5	2.2	3.8	5.4	6.9
3/4"	30	0	0.1	0.2	0.5	0.7	1.1	1.8	2.4	3.3	4.5	5.4
	60	0	0.1	0.2	0.7	1	1.7	2.8	4	6.5	9	12
	90	0	0.2	0.4	0.8	1.2	2	3.1	4.6	8	11.3	14
1"	30	0	0.1	0.3	0.8	1.3	2.3	3.5	5.1	9.8	8.5	10
	60	0	0.2	0.4	1.1	1.8	3.4	5.3	7.9	12.3	15.3	21
	90	0	0.2	0.6	1.8	3.4	5.1	8.1	11.4	16	21	29
1 1/4"	30	0	0.2	0.4	1.1	2	3.7	5.5	8	10	13	15
	60	0	0.2	0.6	1.8	3	5.5	9.5	12.8	19	26	39
	90	0	0.3	0.8	2	5	8	14	19	28	39	55
1 1/2"	30	0	0.3	0.6	1.6	3	5	7.5	11	14	17	20
	60	0	0.4	0.8	2.5	4	8	13	19	27	40	52
	90	0	0.4	0.9	3.5	7	13	20	31	42	63	78
2"	30	0	0.4	1.2	3.8	6	10	15	23	31	43	60
	60	0	0.4	1.5	4.6	9	16.5	27	39	55	83	110
	90	0	0.5	2	6	12	22	35	45	70	105	135
2 1/2"	30	0	0.4	1	4	8	12	18	28	37	62	75
	60	0	0.4	1.5	5	10	21	34	53	75	103	150
	90	0	0.5	1.7	7	14	28	48	70	106	160	218
3"	30	0	0.5	1.2	4	8	14	23	33	46	65	82
	60	0	0.5	2.5	6	14	25	40	65	91	128	165
	90	0	0.7	3.5	8	18	35	60	90	135	205	310
4"	30	0	0.6	2	6	15	29	48	71	100	130	159
	60	0	0.7	3	11	25	40	59	90	141	212	356
	90	0	1	3.5	16	40	75	125	190	295	442	670
6"	30	0	0.9	3.2	14	33	60	103	155	220	280	350
	60	0	2	5	22	60	110	190	285	416	586	800
	90	0	3	8	35	90	160	280	425	650	970	1480

FL	0	0.96	0.95	0.94	0.93	0.92	0.9	0.88	0.86	0.82	0.75
Xt	0	0.98	0.77	0.71	0.67	0.64	0.63	0.62	0.55	0.43	0.4

Pressure vs. Temperature Charts 1" - 6"



NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be consulted when determining the limitation of the valve for specific application. Consult factory for other seat material.