Model 2405 V

Doc: J3-2405V/02

June 2007

Motorised 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	UTI 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 **J3** modulating actuator, a fine degree of control is achievable, far surpassing the control achievable with a standard round ported ball valve. The DPS (Digital Positioning System) used in the **J3** electric actuator is self calibrating and auto adjusting, making setting up of the assembly quick and easy.

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 J3 electric actuator standard features :

Highly visible LED light gives continuous actuator status indication.

***J3** L - 12-24V AC/DC*

***J3** H - 80-240V AC/DC*

Multi-voltage capable with auto-voltage sensing:

Torque output: range:
25~95Nm Break
20~80Nm Reseat

Electronic torque limiter
Protects against valve jams

Anti-condensation heater

Manual override

All connections via external DIN plugs ~ no need to remove cover to connect

Volt free end of travel confirmation switches

IP65 weatherproof housing

CE marked

Traceable sequential serial numbering system

Optional failsafe kit (Battery Back-up) - actuator fails to safe position on power failure

Model 2405 V

Doc: J3-2405V/02

June 2007

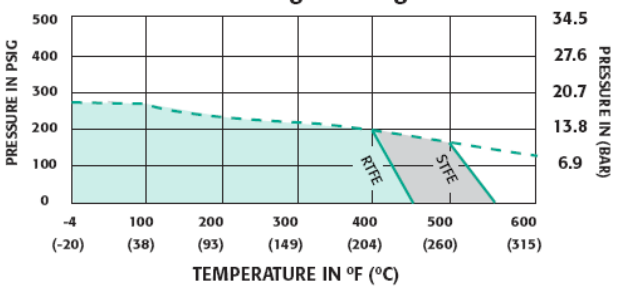
"V" Series Flow Coefficients- Cv Chart

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
F_L		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"

150# Flanged Design



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.

3-piece Design