HYDROFIRE ΕΠΕ
Buildings - Industry - Marine – Waterworks
END OF AG. PANTELEIMONOS Str. (ELEONAS)
GR-12241 EGALEO,
Tel.: +30 210 3412 749-750 Fax: +30 210 3412 406
www.hydrofire.gr, email: info@hydrofire.gr

Super Duplex Stainless Steel Vic-Ball Valve
Series 726D

17.28

1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 6"/DN50 – DN150 Full Port

Pressure Rating

- 1200 psi/8273 kPa/83 bar

Application

- Designed for high pressure applications Intended for use in on-off service.

2.0 CERTIFICATION/LISTINGS

Not applicable – contact Victaulic with any questions.

3.0 SPECIFICATIONS – MATERIAL

Body and End Cap: Super duplex stainless steel, ASTM A890-5A (CE3MN).
Ball: Super duplex stainless steel, ASTM A182-F53 or ASTM A890-5A (CE3MN).
Seats: (PTFE) Polytetrafluoroethylene, (HDPE) High-density polyethylene.
Seals: EPDM.
Stem: Super duplex stainless steel, ASTM A890-5A (CE3MN) or Zeron 100.
Optional handle kits: (For 2"/50mm and 3"/80mm valves only) 300 Series stainless steel.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

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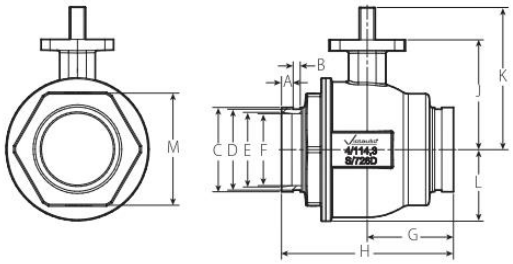
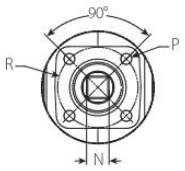
4.0 DIMENSIONS

Series 726D Bare Valve
2 – 6"/DN60 – DN150





*ISO 5211 mounting pattern

Valve Size		Dimensions															Weight
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	F inches mm	G inches mm	H inches mm	J inches mm	K inches mm	L inches mm	M inches mm	N inches mm	P inches mm	R inches mm	Approximate (Each) lb kg
2	2.38	.562	.313	2.38	2.25	2.00	1.90	3.03	6.07	3.32	3.95	2.13	3.38	0.55	0.27	1.97	8.9
DN50	60.3	14.3	7.95	60.3	57.2	50.8	48.3	77.0	154.2	84.3	100.3	54.0	85.9	13.97	6.80	50.0	4.0
3	3.50	.562	.313	3.50	3.34	3.07	2.92	4.01	8.00	4.69	5.38	3.13	4.75	0.67	0.33	2.76	26.8
DN80	88.9	14.3	7.95	88.9	84.9	78.0	74.2	101.8	203.2	119.1	136.7	79.4	120.6	16.99	8.33	70.0	12.2
4	4.50	.625	.375	4.52	4.33	4.00	3.85	4.62	9.21	5.88	6.68	3.82	6.00	0.87	0.43	4.02	46.9
DN100	114.3	15.9	9.52	114.7	110.1	101.6	97.8	117.3	233.9	149.4	169.7	97.2	152.4	22.00	10.80	102.0	21.3
6	6.63	.625	.375	6.64	6.46	6.00	5.90	6.15	12.31	7.63	8.78	5.63	8.25	1.06	0.50	4.92	126.5
DN150	168.3	15.9	9.52	168.7	164.0	152.4	149.9	156.3	312.6	193.8	233.0	142.9	205.7	27.00	12.80	125.0	57.4

5.0 PERFORMANCE

C_v/K_v values for flow of water at +60°F/+16°C with various disc positions are shown in the table below.
Formulas for C_v/K_v values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where:
Q = Flow (GPM)
ΔP = Pressure Drop (psi)
C_v = Flow Coefficient

$$\Delta P = \frac{Q^2}{K_v^2}$$

$$Q = K_v \times \sqrt{\Delta P}$$

Where:
Q = Flow (m^3/hr)
ΔP = Pressure Drop (Bar)
K_v = Flow Coefficient

Valve Size		Maximum Working Pressure	Flow Coefficient
Nominal Diameter inches DN	Actual Outside Diameter inches mm	psi kPa	(Fully Open) C_v K_v
2	2.38	1200	600
DN50	60.3	8273	519
3	3.50	1200	1350
DN80	88.9	8273	1168
4	4.50	1200	2500
DN100	114.6	8273	2163
6	6.63	1200	6000
DN150	168.3	8273	5190

5.0 PERFORMANCE (Continued)

Valve Torque Requirements

Source:

These torque values were derived from test data in water at ambient temperature.

Torque Factors:

All torque values are for normal service conditions where corrosion is expected to be minor, and the media is clean and nonabrasive. The torque shown should be multiplied by the appropriate factor listed below.

Typical fluid torque factors commonly used in the industry are:

Water and other liquids: 1.0; Dry gases: 1.5 to 2.0

Breakaway Factor:

Ball valves will require additional torque if they are fully closed under pressure for a few hours. A breakaway factor of 2:1 should be applied or decrease the system pressure to break the ball loose.

Actuator Factor:

A minimum factor of 1.2 is recommended for direct actuated valves. Apply the actuator factor to the higher of the breakaway or service factor.

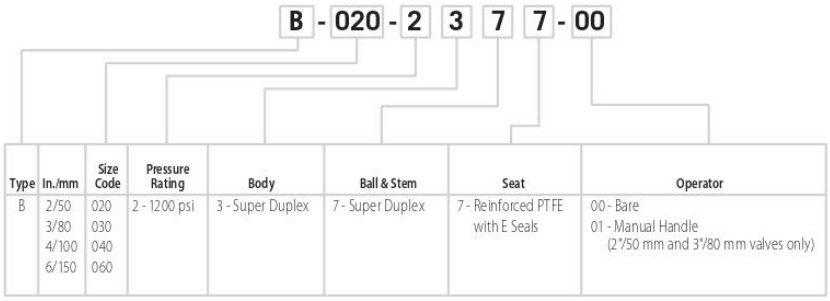
Combining Torque Factors:

When multiple torque factors apply, they are combined by multiplying them. Example: A 4-inch/114.3mm direct actuated ball valve is used in water service at 800 psi/55Bar. The minimum torque output from the actuator would be 634 ft-lbs/850 N.m 264 (torque from the table) x 1.0 (service factor for water) x2.0 (breakaway factor) X 1.2 (actuator factor) = 634 ft-lbs.

Size		Torque – Foot Pounds/Newton Meters						
		Differential Pressure						
Nominal inches DN	Actual Outside Diameter inches mm	0/0 psi Bar	200/14 psi Bar	400/28 psi Bar	600/41 psi Bar	800/55 psi Bar	1000/69 psi Bar	1200/83 psi Bar
2	2.375	4	14	18	30	40	55	62
50	60.3	5	19	24	41	54	75	84
3	3.500	5	20	29	42	54	68	87
80	88.9	7	27	39	57	73	92	118
4	4.500	10	71	101	204	264	294	333
100	114.3	14	96	137	277	358	399	451
6	6.625	35	223	351	448	509	682	811
150	168.3	47	302	476	607	690	925	1100

Ball Valve Numbering System

Series 726D



Type	In./mm	Size Code	Pressure Rating	Body	Ball & Stem	Seat	Operator
B	2/50 3/80 4/100 6/150	020 030 040 060	2 - 1200 psi	3 - Super Duplex	7 - Super Duplex	7 - Reinforced PTFE with E Seals	00 - Bare 01 - Manual Handle (2"/50 mm and 3"/80 mm valves only)

