

VAAS™



Series 700 *Bi-D* SLURRY VALVE



Vaas Series 700 *Bi-D* Slurry Valves

Series 700 is a range of valves designed to offer bi-directional shut-off with the capacity to handle difficult media such as abrasive slurries, sludges and dry powders

Unlike uni-directional knife gate valves which employ face sealing on a raised seat, the Series 700 uses an elastomer seal around the periphery of the gate to effect fluid sealing. As the peripheral seal is symmetrical, the sealing remains identical from either direction of the valve, thus offering fully bi-directional shut-off. The valve uses a special elastomer quad-seal in the gland packing for effective sealing to atmosphere.

Series 700, with no raised seat in the flow path as in the case of conventional knife gate valves, offers a straight, unrestricted flow path to the media being handled. The flow bore of the valve is equal to schedule 40 pipe diameter, and combined with the minimum face-to-face dimension of the wafer design offers the minimum feasible pressure drop across the valve.

Standard range is designed for 10 bar CWP; other versions available for 16bar, 20 bar; special designs for higher pressures are also available.

Superstructure is designed for easy interchangeability between manual and VAAS pneumatic actuation as for other knife gate valves from the VAAS range.

Design Highlights

Two piece bolt-on body

- Easy to dismantle for seal replacement; unique design with identical body halves
- Version with 10 bar CWP rating comes with face-to-face dimension complying with MSS SP-81 for easy interchangeability with conventional knife gate valves
- Wide choice of international flange drilling option such as ANSI, BS, DIN, AS, JIS etc.
- Full port design minimizes turbulence, abrasive wear and premature failure of valve
- Optional body insert (polyurethane as standard material) to handle extremely abrasive media

Reinforced peripheral seal

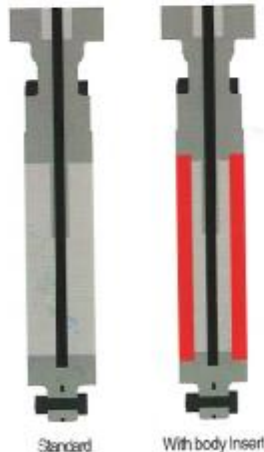
- Offers bi-directional zero leakage shut-off
- Steel reinforcement of the elastomer seal increases strength of seal and provides long lasting resilience in tough slurry applications
- Peripheral seal also doubles as body gasket; no additional gasket is used between body halves
- Wide material options to suit media being handled – nitrile rubber, polyurethane, viton and others

Gate

- Stainless steel gate with ground finish reduces packing stress and operating force thereby increasing packing life.
- Thick gate, well supported by body halves resists distortion or deflection

Packing

- Multi-layered square braided packing provides efficient gland sealing at full rated pressure of valve
- Valve provides with a central layer of elastomer "quad" seal for perfect gland sealing
- Wiper seal options available to increase packing life for tough slurry services





Non-rising stem option

- Available for tight spaces and to provide increased operator safety

Typical Applications

- Isolation of interconnected slurry pumping lines
- Dry powder hopper isolation & pneumatic conveying applications
- Vacuum applications such as for use as vacuum dryer discharge valves
- Air/gas tight applications involving powders
- High pressure slurry handling
- General bi-directional isolation duties for wide range of media

Specifications & Ordercodes

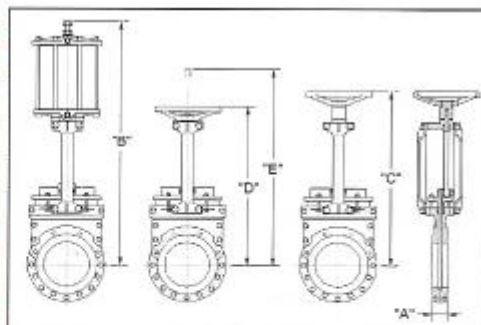
Description	Example	Options	
Size	0600	0200 50mm (2 inch) 0300 80mm (3 inch) 0400 100mm (4 inch) 0500 125mm (5 inch) 0600 150mm (6 inch) 0800 200mm (8 inch) 1000 250mm (10 inch) 1200 300mm (12 inch) 1400 350mm (14 inch) 1600 400mm (16 inch) 1800 450mm (18 inch) 2000 500mm (20 inch) 2400 600mm (24 inch)	
Model	FIG 752	FIG 752	Bi-directional valve, wafer style, mid-flange two piece split body design
Endstyle	WTM	WT Blind holes in chest area and others as through holes WTM Metric blind holes in chest area and others as through holes	
Drilling	F	F Suitable for mounting between ANSI 150lb flanges G1 Suitable for mounting between DIN PN10 flanges G2 Suitable for mounting between DIN PN16 flanges HD Suitable for mounting between BS4504 Table D flanges HE Suitable for mounting between BS4504 Table E flanges F8 Suitable for mounting between JIS 10K flanges F10 Suitable for mounting between AS 2129 Table D flanges F11 Suitable for mounting between AS 2129 Table E flanges Fx Special drilling	
Body	CI	CI Cast iron DI Ductile iron S1 SS 304 S2 SS 316 Bx Special	
Gate	S1	S1 SS 304 S2 SS 316 Gx Special Options - HC Hard chrome plating	

Seal	RS80	RS 80 RS 85 RSx	NITRILE seal with steel reinforcement; max temp 90 deg C VITON seal with steel reinforcement; max temp 200 deg C Special
Packing	CQ	CQ C Mx Option -S	PTFE impregnated syntax fibre with a middle layer of nitrile quad seal; max temp. 90 deg C PTEE impregnated syntax; max. temp. 232 deg. C Special Scrapper layer of polyurethane; max temp 80 deg C
Rating	CWP-10	CWP-10 CWP-16 CWP-20 CWPx	10 bar CWP(I hydrostatic test for body at 15 bar and seat at 11 bar with no visible leakage permitted) 16 bar CWP – On Application 20 bar CWP – On Application Special
Specials	BI1	BI1 BP1 PI SPC	Polyurethane body insert; max temp 80 deg C Body purges, ½" NPT, 2 nos. per side; available on 200mm (8") and above Mechanical gate position indicator Stem protection cover; steel, epoxy painted
Actuator	CHG	CHG CRG RCGCx MAx PAx	Rising stem direct mounted handwheel Non-rising stem direct mounted handwheel Pneumatic double acting cylinder actuator; "x" inch diameter FRP cylinder Special manual actuator Special pneumatic actuator Hydraulic and electric actuators – On Application
Painting	PS	PS Px	Standard painting; two pack blue epoxy on all non stainless steel parts Special painting
Testing	TS	TS TC	STANDARD tests as per VAAS QC norms after final assembly Customer inspection
Special construction	SPx		Other special constructions

Dimensions mm (inch) & pneumatic actuator selection table

Valve size	A	B	C	D	E	Actuator
50 (2")	On application					RCGC4
80 (3")	51 (2.01)	59 (2.32)	48 (1.93)	54 (2.13)	48 (1.93)	RCGC4
100 (4")	51 (2.01)	70 (2.75)	62 (2.44)	70 (2.75)	54 (2.13)	RCGC6
125 (5")	On application					RCGC8
150 (6")	57 (2.25)	80 (3.15)	61 (2.40)	67 (2.64)	71 (2.79)	RCGC8
200 (8")	71 (2.79)	100 (3.94)	75 (2.95)	78 (3.07)	87 (3.43)	RCGC10
250 (10")	71 (2.79)	120 (4.72)	84 (3.31)	75 (2.95)	140 (5.51)	RCGC12
300 (12")	76 (3.00)	132 (5.20)	94 (3.70)	86 (3.39)	140 (5.51)	RCGC12
350 (14")	76 (3.00)	150 (5.91)	106 (4.17)	94 (3.70)	153 (6.02)	RCGC12
400 (16")	80 (3.15)	175 (6.89)	113 (4.45)	110 (4.33)	188 (7.40)	RCGC16
450 (18")	88 (3.47)	194 (7.64)	130 (5.12)	120 (4.72)	204 (8.03)	RCGC16
500 (20")	On application					RCGC20
600 (24")	On application					RCGC20

Note : Dimension "A" complies with MSS SP-81 for the 10 bar CWP version
Pneumatic actuator selection for 10 bar CWP version at 5 bar air supply



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