

Wey Knife Gate Valve Model VS



Stainless Steel Semi Lugged Design

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The Wey Knife Gate Valve Model VS is truly a high performance knife gate valve design. This valve provides zero leakage bi-directional shut-off, has mechanically retained seals, has a compact non-rising stem design, and can be repacked in service under full pressure. The chest and seating areas of the valve are self-cleaning. The reduced chest area, minimal gate arc, and contoured flushing corners in the body prevent jamming by eliminating material build-up in the chest, body and seating area. The gate seals against a combination metal and resilient seat and is guided for the full stroke length of the valve. The valve is tested and rated for zero leakage (liquid or gas) downstream and to atmosphere.



Characteristics

- Solid 316 SS cast semi-lugged body
- 316 SS hard chrome finished gate
- Aflas[®] seals standard
- Phenolic Scraper Blades standard
- 2"-24" size (larger sizes available on request)
- TAPPI & MSS-SP81 Face-to-Face
- 150 psi CWP design
- 2"-12" 150 psi shut-off
- 14"-24" 60 psi shut-off
- The enclosed heavy duty yoke provides for personal safety and allows accessories to be mounted easily with modular design. The standard yoke is a powder epoxy coated steel with 316 stainless steel available as an option.

Other body, gate, scraper and seal materials available. All styles of actuators available.

The Model VS is specifically designed to meet the requirements of tough slurry, chemical and dry material handling applications. Typical applications include, but are not limited to, Pulp Stock, Air Conveyed Fly Ash and Cement, Waste Water, Abrasive Slurry and Sludge. These valves are successfully applied in the Pulp & Paper, Mining, Power, Steel, Municipal, Automotive, Chemical and Bulk Handling Industries. There are applications for the VS product in virtually all industries.

The Model VS combines rugged construction with time-tested design features found in no other knife gate valve. If you are experiencing knife gate valve failures, try a precision-built Wey Knife Gate Valve. You will wish all of your knife gate valves were Wey High Performance Knife Gate Valves.

ISO 9001:2008/PED Annex III (Mod H)

Design Details

- The gate is guided on both sides of the body for the full stroke length to provide "flutter-free" bi-directional bubble-tight shut-off at full design pressure.
- Image: Resilient seat, seals on edges of the gate to provide bi-directional bubble-tight shut-off. Unlike ordinary knife gate valves, the seat is not "sheared off" during gate closure. Fine surface ground gate edges ensure smooth operation and long seal life. The seat is mechanically retained and available in a wide range of materials.
- © When gate closes, remaining solids are "sheared off" by the cutting action of the gate and metal seat edges.
- Solids that collect in the gate guides are pushed ahead by the gate into the enlarged flushing corners of the body bore. The contoured body interior allows the solids to be swept away downstream, preventing any jamming in the seat area.
- In the unique Transverse Seal eliminates the need for a stuffing box and packing gland. The diamond-shaped compressed packing compound creates the necessary pressure to provide a bubble-tight seal to atmosphere and compensate for wear to ensure a long seal life. A live loaded scraper blade wipes the gate clean to prevent process media from contacting the seal, increasing seal performance and life. The Transverse Seal is repackable in service under pressure. When packing material is added and the packing screws are retightened, the seal is "energized" and stops leakage to atmosphere.



- ① Close tolerance machining of the body halves in combination with optimized gate geometry design allows the chest area to be minimized. The smaller chest area reduces the amount of solids that collect. The reduced solids, along with the minimal gate arc and high performance Transverse Seal, prevent de-watering, effectively eliminating jamming of the valve.
- In the high strength permanently lubricated "jack-screw" design stem nut provides easy operation and reduces the overall valve height due to non-rising stem design. The heavy duty stem nut, or clevis, provides long-lasting performance.









Actuator Options

Handwheel Chainwheel Square drive nut Manual bevel gear Pneumatic cylinder Hydraulic cylinder Electric actuator

Accessories

Solenoid Mechanical limit switches Proximity switches Wear ring Pneumatic positioner Electronic positioner V-Port insert Lock-out Position indication scale OSHA yoke guard Scale cutter Weyotine shear cutter Powder-Pac option

Note: Consult factory for details

Sizes and Dimensions

For optional Cylinder sizes and dimensions, consult the factory.

- K = Cylinder Port Size 4"-12" typ. Sistag Cyl.
- N = Cylinder Diameter not actual outside dimension

Note: Standard Cylinders are shown (other sizes are available).

- O = Depth of Blind Tapped Holes in Valve
- P = Number of Blind Tapped Holes in Valve





Handwheel

Bevel Gear

Pneumatic Cylinder

Valve	А	В	С	D	Е	F	G	Н	J	KNPT	L	М	N	0	Р
2"	1.97	1.87	4.75	6.00	5/8"	12.91	5.90	-	-	1/4"	-	16.18	4"	-	-
3"	3.15	2.00	6.00	7.50	5/8"	14.09	7.87	-	-	1/4"	-	17.95	4"	-	-
4"	3.94	2.00	7.50	9.00	5/8"	16.18	7.87	-	-	1/4"	-	21.06	4"	0.78	4
6"	5.90	2.25	9.50	11.00	3/4"	20.70	11.81	19.80	11.50	1/4"	12	27.48	6"	0.87	4
8"	7.84	2.75	11.75	13.50	3/4"	23.85	11.81	22.96	11.50	1/4"	12	32.59	8"	1.12	4
10"	9.87	2.75	14.25	16.00	7/8"	27.40	11.81	26.52	11.50	1/4"	16	39.56	10"	0.75	8
12"	11.81	3.00	17.00	19.00	7/8"	31.18	15.75	31.20	14.75	3/8"	16	44.76	10"	0.83	8
14"	13.78	3.00	18.75	21.00	1"	35.55	15.75	34.18	14.75	3/8"	18	52.28	10"	0.78	8
16"	15.75	3.50	21.25	23.50	1"	38.77	15.75	38.86	14.75	3/8"	18	57.48	12"	0.90	8
18"	17.72	3.50	22.75	25.00	1-1/8"	-	-	44.33	14.75	3/8"	18	62.90	12"	0.78	12
20"	19.68	4.50	25.00	27.50	1-1/8"	-	-	44.27	16.75	3/4"	24	72.37	14"	1.18	12
24"	23.62	4.50	29.50	32.00	1-1/4"	-	-	56.42	23.50	3/4"	24	84.50	16"	1.02	12

Your contact

Note:

Bevel Gears (3:1) are recommended for 6"-16" Valves Bevel Gears (4:1) are recommended for 18"-24" Valves

Consult factory for special applications.