

## High Performance Semi-Lugged Knife Gate Valve



The WEY Model VS is truly a high performance Knife Gate Valve design. This valve provides ZERO leakage bi-directional shutoff, 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 top “transverse” seal is re-packable while in service under full pressure. The valve is tested and rated for ZERO leakage (liquid or gas) downstream and to atmosphere.

### Model VS Characteristics

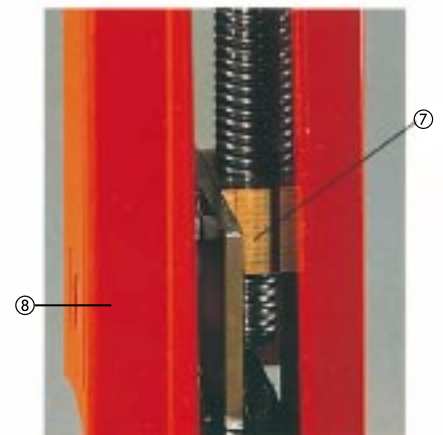
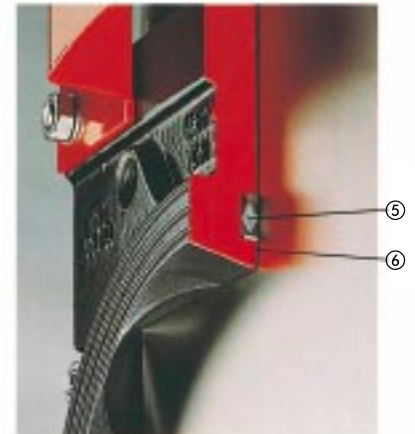
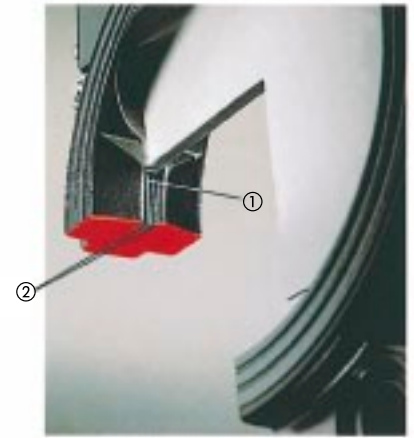
- Solid 316 SS cast semi-lugged body
- 316 SS hard chrome finished gate
- Atlas seals standard
- Phenolic Scraper Blades standard
- 2"-24" size (larger sizes available on request)
- TAPPI & MSS-SP81 Face-to-Face
- 150 psi CWP design
- 2"-12" 150 psi shut-off
- 14"-24" 60 psi shut-off
- Other body, gate, scraper and seal materials available
- All styles of actuators available

The WEY 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 and Chemical industries. There are applications for the VS product in virtually all industries.

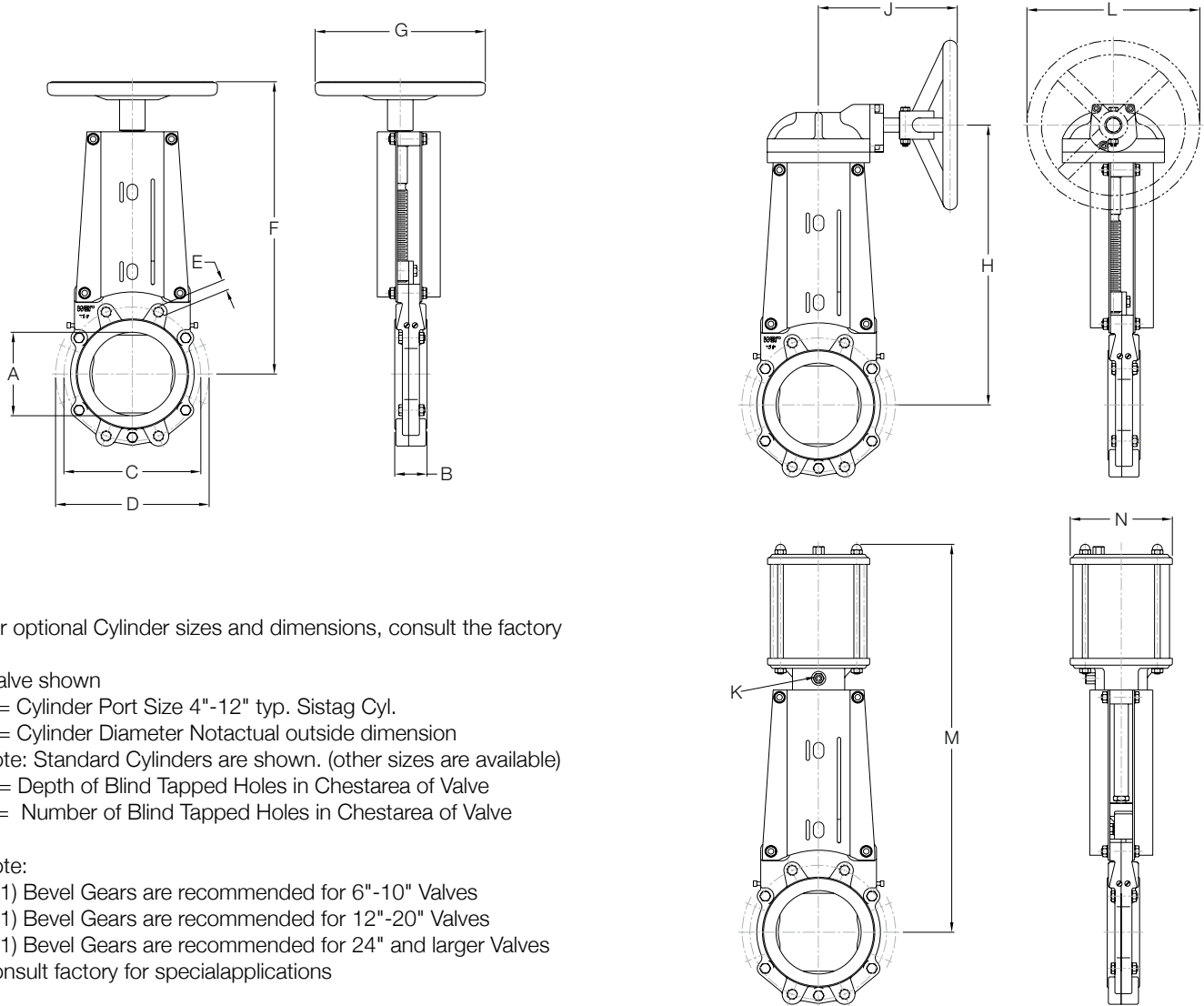
The WEY Model VS High Performance Knife Gate Valve combines rugged construction with time-tested design features found in no other knife gate valve. If you are experiencing knife gate valve failures, try a precision-built WEY Knife Gate Valve. You will wish all of your knife gate valves were WEY High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

## Details

1. Resilient seat, seals on edges of the gate to provide bidirectional bubbletight shut-off. Unlike ordinary knife gate valves, the seat is not "sheared off" during gate closure. Fine surface ground gate edges insure smooth operation and long seal life. The seat is mechanically retained and available in a wide range of materials.
2. The gate is guided on both sides of the body for the full stroke length to provide "flutter-free" bidirectional bubble-tight shut-off at full design pressure.
3. When the gate closes, remaining solids are "sheared off" by the cutting action of the gate and metal seat edges.
4. 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.
5. The unique Transverse Seal eliminates the need for a stuffing 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 insure a long seal life. A live loaded scraper blade wipes the gate clean to prevent process media from contacting the seal to increase seal performance and life. The Transverse Seal is re-packable in service under pressure. When packing material is added and the packing screws are retightened, the seal is "energized" and stops leakage to atmosphere.
6. Close tolerance machining of the body halves 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.
7. The high strength permanently lubricated "jack-screw" design stem nut provides easy operation and reduces the overall valve height by creating a non-rising stem design. The heavy duty stem nut, or clevis, provides long lasting performance.
8. The enclosed heavy duty yoke provides for personal safety and allows accessories to be mounted easily with a modular design. The standard yoke is a powder epoxy coated steel with 316 stainless steel available as an option.



## Model VS Semi-Lugged Knife Gate Valve



For optional Cylinder sizes and dimensions, consult the factory

\*Valve shown

D = Cylinder Port Size 4"-12" typ. Sistag Cyl.

N = Cylinder Diameter Notactual outside dimension

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

O = Depth of Blind Tapped Holes in Chestarea of Valve

P = Number of Blind Tapped Holes in Chestarea of Valve

Note:

(3:1) Bevel Gears are recommended for 6"-10" Valves

(4:1) Bevel Gears are recommended for 12"-20" Valves

(6:1) Bevel Gears are recommended for 24" and larger Valves

Consult factory for specialapplications

Valve Size	A	B	C	D	E	F	G	H	J	K <sub>NPT</sub>	L	M	N	O	P
2"	2	1.87	4.75	6.00	5/8"	12.91	5.90	—	—	1/4"	—	16.18	3"	—	—
3"	3	2.00	6.00	7.50	5/8"	14.09	7.87	—	—	1/4"	—	17.95	3"	—	—
4"	4	2.00	7.50	9.00	5/8"	16.18	7.87	—	—	1/4"	—	21.06	4"	0.78	4
6"	6	2.25	9.50	11.0	3/4"	20.70	11.81	19.80	11.50	1/4"	12	27.48	6"	0.87	4
8"	8	2.75	11.75	13.5	3/4"	23.85	11.81	22.96	11.50	1/4"	12	32.59	6"	1.12	4
10"	10	2.75	14.25	16.0	7/8"	27.40	11.81	26.52	11.50	1/4"	16	39.56	8"	0.75	8
12"	12	3.00	17.00	19.0	7/8"	31.18	15.75	31.20	14.75	3/8"	16	44.76	8"	0.83	8
14"	14	3.50	18.75	21.0	1"	35.55	15.75	34.18	14.75	3/8"	18	52.28	10"	0.78	8
16"	16	3.50	21.25	23.5	1"	38.77	15.75	38.86	14.75	3/8"	18	57.48	10"	0.90	8
18"	18	4.50	22.75	25.0	1-1/8"	—	—	44.33	14.75	3/8"	18	62.90	12"	0.78	12
20"	20	4.50	25.00	27.5	1-1/8"	—	—	44.27	16.75	3/4"	24	72.37	14"	1.18	12
24"	24	4.50	29.50	32.0	1-1/4"	—	—	56.42	23.50	3/4"	24	84.50	16"	1.02	12

## Other Wey Valve Products



**Model VL**  
(Lugged Design)



**Model DB**  
(Lugged Design)



**Model NA1**  
(Full Flange Design)



**Model SG**  
(Shear Gate)



**Model T13**  
(Transmitter Isolation)



**Model A3**  
(Full Flange 300 psi Design)

## Other Specialty Wey Valves



**Model VK**  
Square and Rectangle Valves



**Model HD**  
High Pressure Knife Gate Valve  
(to 1440 psi)



**Model HSI**  
High Speed  
Isolation Valve

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