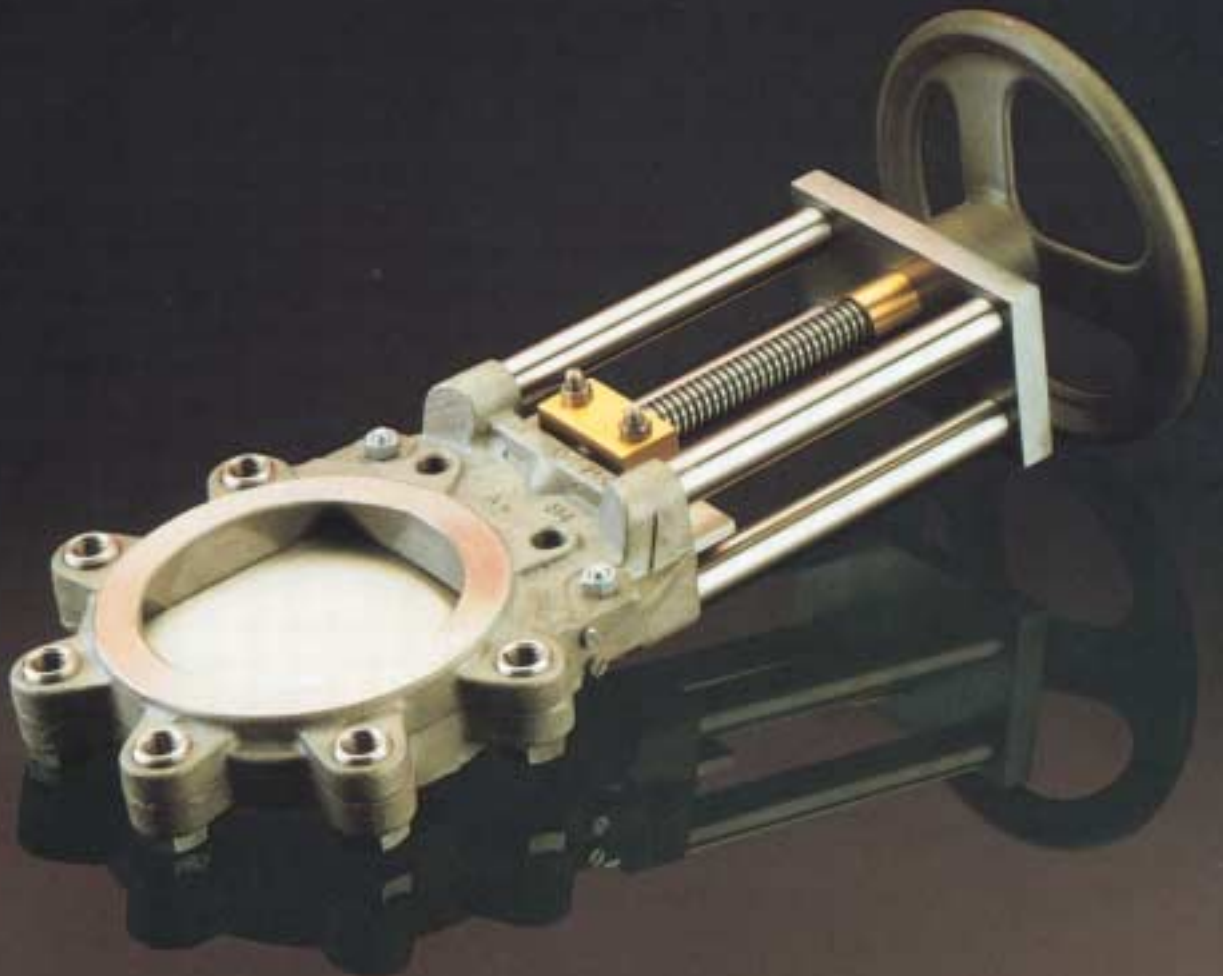


WAY®

Solid cast stainless steel
KNIFE GATE VALVES



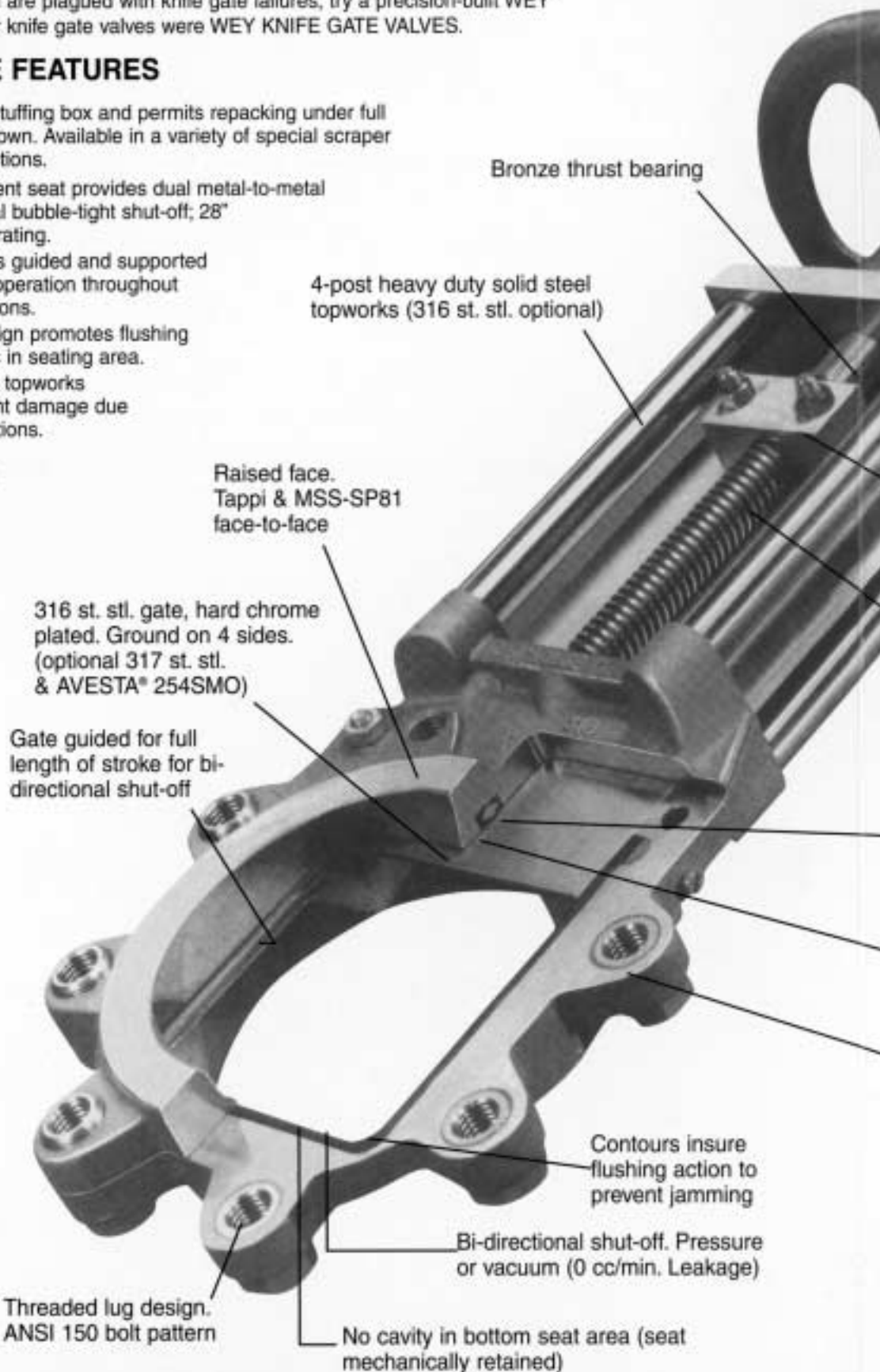
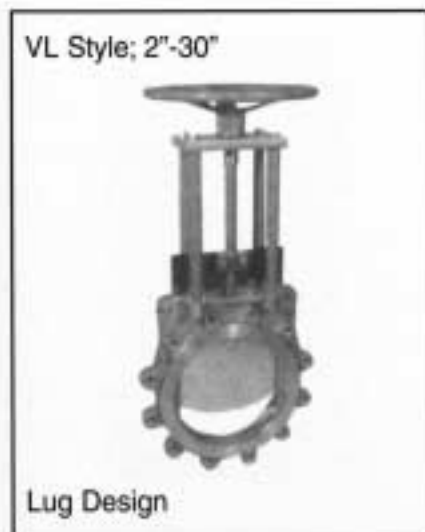
WEY® KNIFE GATE VALVE • VL SERIES

WHEN YOU CAN'T AFFORD LESS THAN THE BEST

The WEY KNIFE GATE VALVE combines rugged construction with time tested design refinements found in no other knife gate valve. If you are plagued with knife gate failures, try a precision-built WEY KNIFE GATE VALVE. You'll wish all your knife gate valves were WEY KNIFE GATE VALVES.

COMPARE THESE UNIQUE FEATURES

- **Unique** transverse seal eliminates stuffing box and permits repacking under full pressure and without system shut-down. Available in a variety of special scraper seal configurations for tough applications.
- **Unique** mechanically retained resilient seat provides dual metal-to-metal and resilient seating for bi-directional bubble-tight shut-off; 28" vacuum, to full differential pressure rating.
- **Unique** bi-directional design. Gate is guided and supported for smooth full pressure differential operation throughout entire stroke with flow in both directions.
- **Unique** contoured interior body design promotes flushing action to prevent buildup of deposits in seating area.
- **Unique** solid steel or stainless steel topworks provide maximum strength to prevent damage due to operator abuse or vibrating conditions.
- **Unique** non-rising stem design saves space and reduces stem nut repair problems.





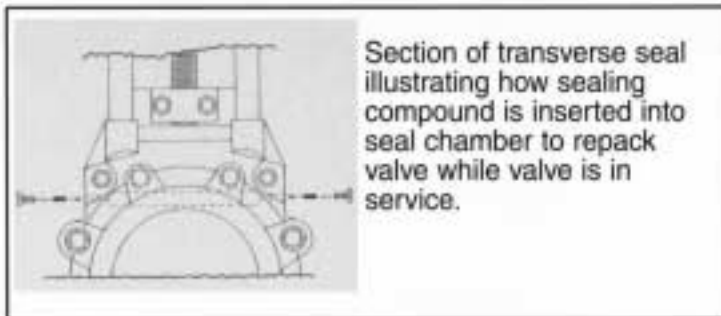
High-strength bronze stem connector for long life & operating ease

Precision machined chrome steel stem

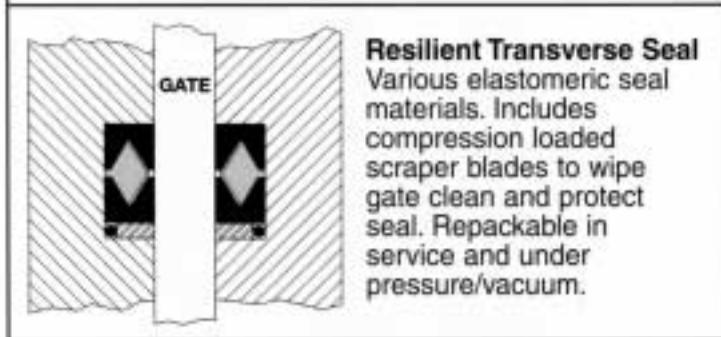
Unique transverse seal eliminates stuffing box and compensates for wear. Repackable under pressure & without valve disassembly.

Reduced chest cavity helps prevent solids build-up in chest area.

Solid cast 316 st. stl. body (optional 317 st. stl. & AVESTA® 24SMO)

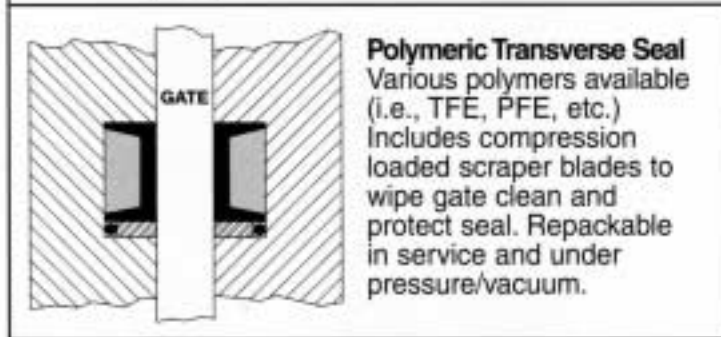


Section of transverse seal illustrating how sealing compound is inserted into seal chamber to repack valve while valve is in service.



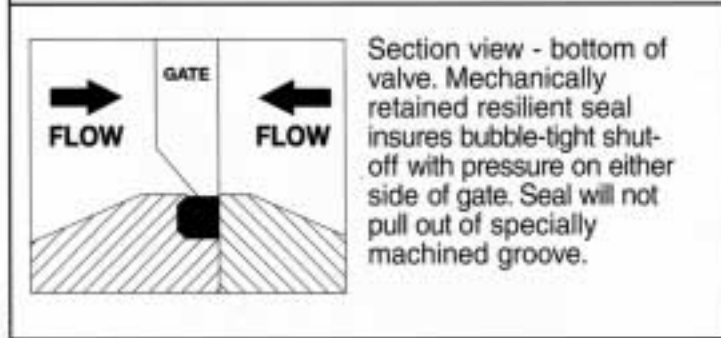
Resilient Transverse Seal

Various elastomeric seal materials. Includes compression loaded scraper blades to wipe gate clean and protect seal. Repackable in service and under pressure/vacuum.

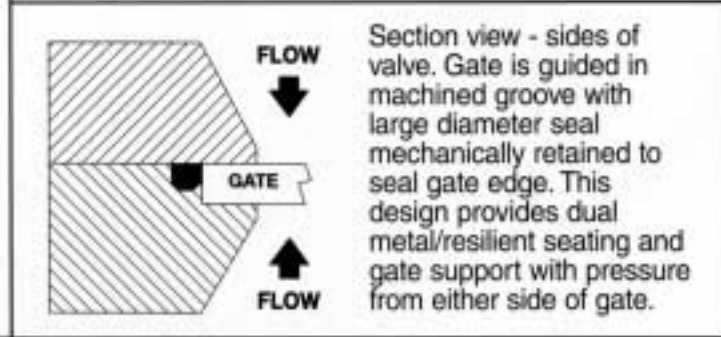


Polymeric Transverse Seal

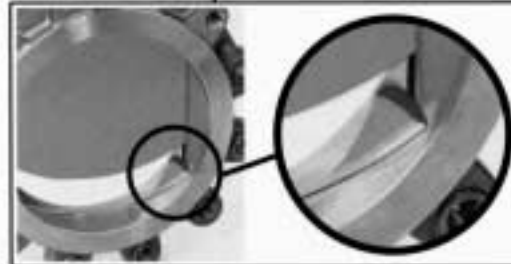
Various polymers available (i.e., TFE, PFE, etc.) Includes compression loaded scraper blades to wipe gate clean and protect seal. Repackable in service and under pressure/vacuum.



Section view - bottom of valve. Mechanically retained resilient seal insures bubble-tight shut-off with pressure on either side of gate. Seal will not pull out of specially machined groove.



Section view - sides of valve. Gate is guided in machined groove with large diameter seal mechanically retained to seal gate edge. This design provides dual metal/resilient seating and gate support with pressure from either side of gate.



Contoured seat flushes out solids which are pushed ahead of the gate in the seat groove during closing cycle.

Accessories



Limit Switches

- Totally enclosed (SPDT)
- NEMA 4 or NEMA 7
- Optional proximity switches available.



Solenoid Valve

- NEMA 4 or NEMA 7 (single coil, 120V)
- 3-Way or 4-Way
- Rigid copper tubing (standard)
- Rigid st. stl. tubing (optional)
- Note: Specify valve to open or valve to close when solenoid is energized.



Positioner

- 3-15 p.s.i. or 4-20 MA
- Note: Specify valve to open or valve to close on increasing signal.
- Note: Valve shown with optional V-Port insert.



Position Indicator Scale

Valve furnished with graduated indicator scale and "safety orange" pointer.



OSHA Guard

Protects plant personnel from moving parts on valve.



Unique Safety Gate Lock-Down

Provides gate lock-out in any position from fully closed to open. Assures bubble-tight shut-off in handwheel closed position for personnel safety. Neither yoke nor handwheel can be removed when lock-out is in place.

Note: For additional options and accessories contact factory.

Actuator Options



Cylinder Actuator

Double acting or spring-return cylinders. Specify shut-off pressure differential, air cylinder supply pressure and flowing media. (optional protective piston rod boot.)



Bevel Gear Actuator

Recommended for valve sizes 16" and larger. Standard gear ratio is 4:1. Optional gear ratios available depending on valve size and application.



Chainwheel Actuator

Available in various diameters and attaches to standard handwheel. Furnished with 20' chain as standard. Specify longer chain lengths if required.



Motor Actuator

Various brands, sizes and electrical specs available. Request WEY Valve Electric Motor Application Data Sheet for actuator sizing and price quotation.

Specifications

Materials:	VL/SL Styles	Options:
Body	Cast 316 st. stl.	Cast 317 st. stl. AVESTA® 254 SMO
Gate	316 st. stl. (hard chrome plated)	371 st. stl. (hard chrome plated) AVESTA® 254 SMO, hardened st. stl.
Stem	Chrome Steel	
Stem/Gate Connector	High Strength Brass	Cast Iron, 316 st. stl.
Resilient Seat	(See Options)	See note at right
Top Transverse Seal	(See Options)	See note at right
Packing Compound	KEVLAR® Fiber	TFE Fiber Compound
Scraper Blades	UHMW Polyethylene	Glass-Filled Phenolic, Brass, 316 st. stl.
Top Thrust Bearing	Bronze	
Topworks	Carbon Steel	316 st. stl.
Bolts/Nuts	Galv. Steel	St. stl.
Handwheel	Formed Steel	Nickel or Chrome Plated
Cylinder	Aluminum (Closing Stroke Cushioned)	Steel (Non-Cushioned)
Paint (Topworks Only)	Vinyl Chloride	Per Customer Specification

Design:

Flange Bolt Pattern (ANSI 150)		
VL Style (2"-30")	Lug Body (Chrome Steel Inserts)	
Handwheel	Non-Rising Stem	High strength rising stem

Performance:

Working Pressure	150 psig	200 psig
Shut-off Pressure	2"-12" (150 psig)	2"-12" (200 psig)
	14"-16" (90 psig)	200 psig
	18"-30" (90 psig)	200 psig
Vacuum Shut-off	28" Hg (24 Hg with TFE Seals)	
Seat leakage	Zero cc/min. (see leakage statement at right)	

Seat Material Options

Standard, FPM ¹ (Optional) Nitrile (Buna-N), EPDM, TFE, AFLAS ³, HYPALON ³, Polyurethane, Food-Grade EPDM, White NBR, FEP, TEFZEL ³

Top transverse seal options:

Standard, FPM ¹ (Optional) Nitrile NBR, EPDM, AFLAS ³, TFE, FEP

Leakage Statement

WEY Knife Gate Valves provide better shut-off than called for by ANSI Class VI. All valves are shut-off pressure tested at the factory to **zero cc/min.** leakage at the shut-off differential ratings noted at left per valve size.

Notes:

- All WEY model VL valves are to TAPPI (SS-SP81) face-to-face.
- Bevel gear actuators are recommended for manually actuated valve sizes 16" and larger.
- AFLAS is a product of the 3M Company.
- AVESTA® is a product of Avesta Sheffield Ab, Avesta, Sweden

Dimensions

Consult drawings noted at right	VL Style (2"-30")	
	Actuator	Drawing
	Handwheel	VL-98-1
	Cylinder	VL-98-2
	Bevel Gear	VL-98-4

Port Areas & Flow Coefficients

Valve Size	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"
Port Area (Sq. In)	2.8	7.2	11.7	29.5	53.5	72.1	105.3	149.4	188.8	241.6	299.5	433.7	668.0
Flow Coefficient (Cv)	257	748	1250	3610	6414	10012	14428	19626	22547	28860	35163	53972	82215

OTHER SPECIALTY WEY VALVES



Model VS
High Performance Semi-Lug
Body Design



Model NAI
Full Flange Knife Gate Valve



Model SG
Shear Gate Valve



Model VK
Square and Rectangular Valves



Model TI3
Transmitter Isolation Valve



Model DBB
Double Block & Bleed Valve



Model SLX
High Speed Explosion Isolation Valve



Model HD
High Pressure Knife Gate Valve
(To 1440 psi)

UNIQUE APPLICATION VALVES

- **Cyclone Valves** for waste paper trash separation. Provided with special bore configuration to prevent pulp stock from jamming in seat area. Provides bubble-tight shut-off. Special hardened stainless steel gate and hardened inlet bore wear ring prevent "trash" damage to valve and extends life.
- **Scavenger Valves** for waste paper deinking systems. Includes DELRIN or TFE chest liners and special gate guides to prevent stock from jamming in valve. No flushing ports required.
- **Dry Solids Valve Design** for bubble-tight shut-off (pressure or vacuum) when used in powders, pellets, chips, etc. Valve bore is specially machined to "self-clean" and prevent material from jamming in seat as valve is closing. Inquire about "**Powder-Pac**" modification.
- **Scale Service Valves** for applications where scale can build up in valve. Special coatings and gate edge configuration helps prevent build-up and cuts through scale.
- **Bonneted Valves** for fugitive emission applications.
- **Enclosed Yoke Design** for service conditions where atmospheric conditions can effect valve actuation.

Contact WEY Valve, Inc., for more information about these unique applications or other special problems we can solve for you.

All information in this publication presented for reference only and subject to change.

visit our website @ www.weyvalve.com

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