

## Wey Knife Gate Valve VN

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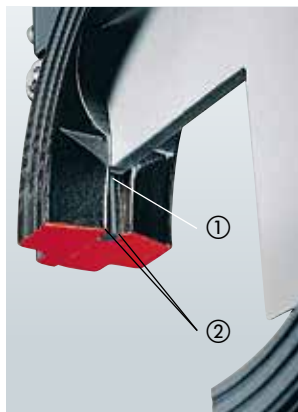
PN 10



## Wey Knife Gate Valve VN

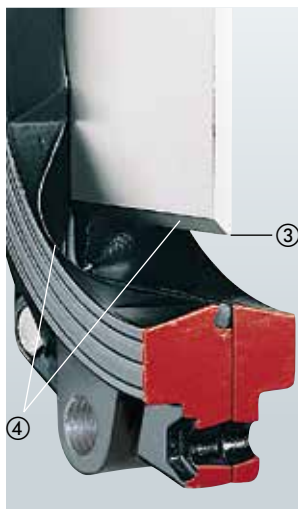
### The unique Wey sealing system for high performance duties:

The Wey Knife Gate Valve VN is built to high quality manufacturing standards and combines rugged construction with time-tested design refinements found in no other knife gate valve. This unique valve design assures long-life reliability and bubble-tight shut-off due to the joint action of various factors during the closing stage.



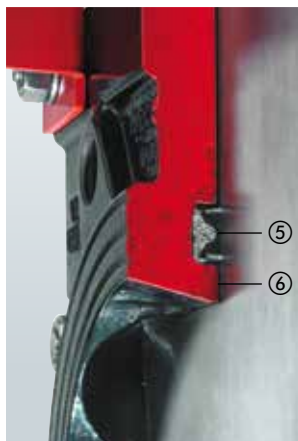
① Tight shut-off due to the **sealing function on the lateral gate side**. Fine surface ground finish of the gate ensures smooth operation and long-life seal performance. Mechanically retained seal prevents «pull-out».

② **Gate guides on full stroke length** ensure flutter and noise-free operation and bi-directional bubble-tight shut-off at full design pressure in combination with above sealing features.



③ During final closing stage, remaining solids are sheared off by **knife-like gate** and body cutting edge.

④ Special gate geometry prevents jamming during closure because deposits are pushed ahead by the gate into **enlarged flushing corners** of the body. Contoured body interior initiates flushing action to prevent build-up and jamming of deposits in seat area.



⑤ Unique Wey **transverse seal** eliminates stuffing box. A special lip-seal profile ensures for no leakage to atmosphere. Diamond shaped, compressed sealing compound provides necessary sealing pressure, compensates for wear and stands for outstanding service life performance under normal conditions.

⑥ **Minimized chest area** between port and transverse seal leaves no space for solid build-up or jamming.

⑦ By tightening **packing screws** or inserting sealing compound pellets, repacking under full pressure and without system shut-down is always possible. Considerable time/cost savings in maintenance work persuaded customers for decades to install Wey Knife Gate Valves.

## Additional features



- Ⓐ Solid steel topwork provides maximum strength, partial disassembly of support for easy access to mechanical parts, and facilitates mounting of:
  - mechanical or proximity limit switches
  - solenoid valves
- Ⓑ Non-rising stem design (VNA) saves space and offers shielded stem, stem nut operation.
- Ⓒ The cushioned (shut) pneumatic cylinder (VNC) prevents pressure shocks and initiates flushing action.
- Ⓓ As an option pneumatic cylinder can be supplied with magnet piston design, together with proximity-magnet end-switches directly mounted on cylinder.
- Ⓔ Topwork is designed in accordance to latest European Human Safety Regulations.
- Ⓕ Epoxy powder coating EKB for body and topwork with stainless steel screws provide excellent corrosion protection.
- Ⓖ Semi-lug type design provides for ease of installation and permits dead-end service.
- Ⓗ Full bore opening effects low pressure drop and permits the use of all known pigging devices (e.g. spherical, cylindrical, brush pigs, etc.)

## Service

### Municipal

Raw Sewage, Sewer Sludge, Waste Water with solids, etc.

### Pulp and Paper

Paper stock thru all consistencies, Pulp/Water mixtures, Black Liquor, Waste Paper, Rags, Wood Pulp

### Sugar

Beet and Cane Sugar, Syrup, Juice

### Process

Viscous Paste, Colloids, Granulates, Chemical Waste, Textile Slurry, Pellets, Powders

### Food and Beverage

Fruit Pulps, Grain Mash and Spent Grain Mash, Corn Slurry

### Power Generation and Mining

Mill Scale, Coal Dust and Slurry, Mine Slurry, Lime Slurry, Cement Dust

## Construction details

### Application

Size DN	Nominal pressure PN	Flange drilling	Test acc.	Face-to-face
50–150	10 bar	PN 16	EN 12266-1 rate A	EN 558 / ISO 5752 part 20
200	10 bar	PN 10		
250–300	6 bar	PN 10		
350–400	4 bar	PN 10		
500–1400**	4 bar	PN 10		

\*\* from size DN 500 pillar topwork according to type MF EN-GJL-250 only available up to size DN 400

## Temperature

–40°C to 400°C with adequate material- and construction adaption.

## Material construction

Description	Cast Iron – Construction		Stainless steel – Construction		Accessories
	Standard	Option	Standard	Option	
Body	EN-GJL-250		316SS		Limit switches mechanical and proximity, Solenoid valves, Vee-notch, Positioner
Gate	304SS	316L, 304L	316L*	316Ti*	
Seal	NBR	FPM, EPDM, PTFE	NBR	FPM, EPDM, PTFE	
Topwork	Steel	316L	Steel	316L	
Stem/Piston rod	Cr-Steel AISI430F	316L	Cr-Steel AISI430F	316L	

\* hard chromed

### Other materials upon request

## Corrosion protection

### Standard

Body	EKB coating (Epoxy powder), black RAL 9005
Topwork	EKB coating (Epoxy powder), red similar RAL 3020
Handwheel	EKB coating (Epoxy powder), black RAL 9005
Screws	Screws in stainless steel

Remark      Stainless steel parts without coating

## Actuator options

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**Wey Knife Gate Valve VNA**  
with handwheel



**Wey Knife Gate Valve VNB**  
with quick action lever



**Wey Knife Gate Valve VNC**  
with pneumatic cylinder



**Wey Knife Gate Valve VNE**  
with electric actuator

### Stem extension

All VN Knife Gate Valves can be supplied with stem/piston rod extension to suit site construction.





Assembling Wey Knife Gate Valves

## Further products



Wey Sluice Gates



Wey Check Valves  
(dirty water)



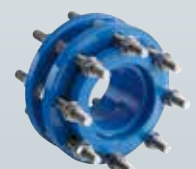
Wey Off-center  
Butterfly Valves



Wey Check Valves  
(clean water)



Centric Butterfly  
Valves



Wey Dismantling  
pieces

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