

KNIFE GATE VALVE SOLUTIONS















## THE AVK GROUP

The AVK Group is a privately owned group currently comprising +100 companies worldwide. We develop and produce valves, hydrants and accessories for water supply and wastewater treatment, sewage treatment, mining and industrial applications.

Over its years of operation, AVK has acquired a number of internationally recognised product brands, that are now part of the AVK Group. These brands contribute to our product package and solution capabilities to the market.

When dealing with the AVK Group expect quality, reliability, functionality and a long lifetime in service.

## **OUR PRODUCT BRANDS**



Orbinox have +50 years of experience within designing and manufacturing knife gate valves, penstocks, dampers, and valves for hydraulic work. They think globally, whilst applying their expertise locally in +70 countries. Offering technical expert advice and guidance is one of their important strengths.



Founded in 1990, CYL Knife Valves is today a well-known company with 25 years of experience designing, manufacturing and selling knife gate valves. Thanks to a global network of agents and distributors, CYL products are present in over 50 countries.

## THE MARKETS WE SERVE

AVK knife gate valves are designed to meet international standards and are sold worldwide for various applications including:



Wastewater and Sewage Treatment

Mining

Pulp and Paper



Power Plants

Petrochemical

Chemical Production and Distribution

# KNIFE GATE VALVES: DESIGNED FOR DEMANDING APPLICATIONS



- The reinforced actuator support, manufactured in a single piece, is easily interchangeable and includes open/closed lock-outs as a standard feature for maintenance operations. It is finished with an electrostatically applied EPOXY coating.
- The piston rods of pneumatically or hydraulically actuated valves include bellows (rod boots) as a standard feature to protect against outside contamination and dirt.

#### **PACKING**

 Standard braided PTFE impregnated synthetic fibre with EPDM o-ring for better shut off, with an easy access packing gland ensuring a tight seal.

#### **STEM**

 The standard stainless-steel stem offers a long corrosion resistant life.

#### **ACTUATORS**

 A complete range of actuator solutions, including manual, pneumatic and electric hydraulic actuators

#### **BODY**

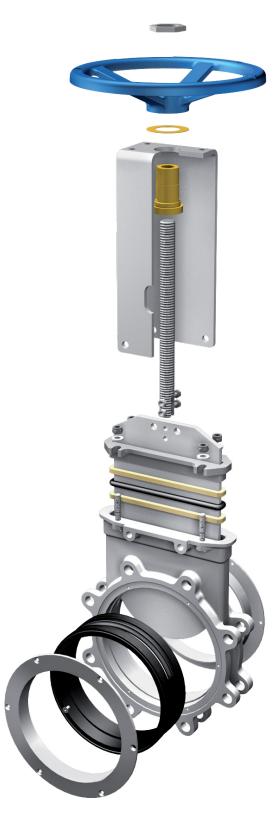
- One piece integrally cast stainless steel body with reinforced ribs in larger diameters for extra body strength.
- Port design according to MSS-SP-81 and Tappi TIS 405-8.
- Internal design avoids any build-up of solids that could prevent valve from closing

#### **SEAT (RESILIENT)**

- The patented, resilient seat is an elastomer sleeve, available in different materials.
- The sleeve which supports, protects and also guides the gate is slotted in the top half to allow gate travel and guarantees full tightness with low friction.
- The sleeve is held by means of two seat rings which support it and also guide the gate

#### **GATE**

- AISI 316 stainless steel gate as standard.
- Gate polished and lapped for a greater seal between the gland packing and reslient seat.



# KNIFE GATE VALVES



## Uni-directional ET Model

DN50-900, PN10 up to DN600 MSS-SP-81, 316 Stainless Steel body & yoke, SS316L blade Options:

- Resilient or metal seat
- Various materials, bonnets and v-ports available
- · All types of operations available



## Bi-directional BT Model

DN50-900, PN10 up to DN600 MSS-SP-81, 316 Stainless Steel body & yoke, SS316L blade, Fully encapsulated seat sleeve, no cavities Options:

- Various bonnets and v-ports available
- · All types of operations available



#### Square Port <u>BC Mo</u>del

From 150mm x 150mm to 600mm x 600mm

- PN 1 (higher pressures available)
- · Carbon Steel body
- · 304 Stainless Steel gate
- Optional body and gate materials



#### Slurry Wafer VG Model

DN50-900, PN5-10, Ductile Iron body, FBE coating, 316 Stainless Steel gate, Natural rubber seat, Wafer or flanged, Table D/E or ANSI 150#

#### Option:

· Electric or Pneumatic Actuation



#### Slurry Bi-directional WG Model

DN50-900, Up to PN10, Full flanged, Two metal reinforced rubber sleeves Option:

 Larger diameters with high pressures available



#### Slurry Bi-directional HG Model

DN80-600, PN20, Heavy duty slurry, Metal reinforced, Rubber sleeves, Lock outs

#### Options:

- · Various gate materials available
- Bottom splash guards
- Flush ports
- · All types of operations available



#### Special Engineered Single Wedge

DN80-2400, Up to PN64, Rugged cast body and bonnet, High performance in terms of seals and working pressures

- Handwheel, Pneumatic, Electric or Hydraulic Actuators
- · Flanges available



#### O-Port TL Model

DN50-1000, PN2-10, Stainless Steel body, 316 Stainless Steel gate, Metal seat

#### Options:

- Flush ports
- Square port
- · Special alloys
- · Diamond port for control
- Bonneted design

# KNIFE GATE VALVES



#### Double Gate DT Model

DN100-600, Up to PN10, Stainless Steel body, Cast or fabricated two-part bolted body

· Larger diameters available



## Round and Square Port CR Model

DN100-600, Up to PN10, Stainless Steel body, Heavy duty design Option:

· Larger diameters available



### Hopper Shape XC Model

DN50-600, Up to PN10 Options:

- · Larger diameters available
- Various flange connections available



#### Bi-directional XD-PRE Series 702

DN50-600, Ductile Iron Body, PN10 to DN300, Reduced pressure in, larger sizes from DN350-600, Protected reinforced, seat with no cavities

#### Options:

- Various gate materials available
- Over DN600
- EPDM or NBR seat
- · All types of operations available



#### Lineal Electric Actuated Knife Gate Valves

DN50 - DN400

- 24volt Lineal Electric Actuators
- · 12v,24v or 36v DC
- · IP66/ IP69k ingression rating
- · End stop signal
- 4-20mA control and feedback or on/off Profibus and Hart Override and Built in feedback
- compatible to PLC systems, or remote control unit.
- Easy to instal, plug and play, safe and low operating costs.



#### HB Bi-directional High Pressure Shear Knife Gate Valve

Ductile Iron body, full bore. Optional Tungsten carbide coating and wear rings. Gate stainless steel.

#### Options:

- · Size: DN80 to DN600
- Pressure: 20 Bar (DN600)
- Temperature: -20° C to +200°C



# EP Bi-directional Polyurethane-lined Knife Gate Valve

Ductile iron monoblock body with polyurethane lining, stainless steel gate and various actuation solutions (manual, pneumatic, electric).

#### Options:

- Size: Up to DN600
- Pressure: 10 Bar (DN600)
- Temperature: -10° C to +100°C



## PA Heavy Duty Slurry Pinch Valve

Ductile iron cast split body, full bore rubber sleeve with single and double pinch operating design and various actuation solutions (manual and pneumatic).

#### Options:

- Size: From DN25 to DN300
- Pressure:
   10 Bar (DN150) / 8, 5 (DN200)
   / 7 Bar (DN250) / 6 Bar (DN300)
- Temperature: -10° C to +150°C



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