ORBINOX was founded in Tolosa (northern Spain) during the late 60’s as a manufacturer of knife gate valves servicing the local pulp and paper industry. Recognizing that success is built on understanding customers’ processes and by finding innovative solutions for difficult applications, we focused on increasing our engineering capabilities and developed many engineered valves for diverse industrial sectors. In the late 70’s the company introduced the knife gate valve line in North America and other parts of the world. Today we have manufacturing plants in Spain, UK, Canada, India and China, complimented by sales distribution centres in the USA, UK, Germany, Spain, France, China, Canada, India, Indonesia and Brazil with agents worldwide.

ORBINOX offers a wide range of knife gate valves for handling diverse applications in the water, wastewater, bulk handling, pulp & paper and other process industries. With more than 45 years experience in the industrial market worldwide, we have become a well-known innovative knife gate manufacturer responding to new industrial developments.

Our dedicated engineering staff continues to respond to our customers’ needs with new and competitive products including custom engineered valves that effectively solve problems in many industrial sectors.

Our state-of-the-art manufacturing facilities and advanced technology assures accuracy, durability, and reliability of our products, which enhances customer profitability and satisfaction. With representation covering the five continents, we are committed to the demanding critical needs of our customers who keep us in the forefront of technology. ORBINOX ensures high standards of process capability and quality endorsed by the ISO 9001 Quality Management System certification.
Quality Management System For Superior Performance:
ORBINOX’S ISO 9001 certification ensures high standards of design and process capability. Thanks to our experienced and dedicated employees’ participation in all fields of the organization, we continue to provide a superior quality product and a high performance service.

Our engineering department uses the latest technology of CAD software in the design stage of the product and also analyzes critical components with Finite Element Analysis software.

ORBINOX production plants utilize modern machining centers and automation technology enabling us to handle large production runs and customized orders. Our international manufacturing and distribution network offers quick access to our products worldwide.

Company Philosophy:
Our mission is to meet the needs of our customers and to continue improving our products and services through teamwork, training and performance. The company’s growth is balanced on years of experience from research, design, production and marketing with a firm determination to maintain recognition of its quality and service on the market and to remain competitive in the knife gate valve industry.
**KNIFE GATE VALVES**

**EX/EK**  
Wafer knife gate valve

**ET**  
Knife gate valve acc. to MSS SP-81

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>EX/EK</th>
<th>ET</th>
</tr>
</thead>
<tbody>
<tr>
<td>General service (solid loaded fluids): pulp &amp; paper, waste water, solids…</td>
<td>General service (solid loaded fluids): pulp &amp; paper, waste water, solids…</td>
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</table>

<table>
<thead>
<tr>
<th>SIZES</th>
<th>EX/EK</th>
<th>ET</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN 50 to DN 1200 (2” to 48”)</td>
<td>DN 50 to DN 900 (2” to 36”)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WORKING PRESSURE</th>
<th>EX/EK</th>
<th>ET</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN 50 - 250 (2”-10”)</td>
<td>10 bar</td>
<td>DN 50 - DN 600 (2”-24”)</td>
</tr>
<tr>
<td>DN 300 - 400 (12”-16”)</td>
<td>6 bar</td>
<td>DN 750 (30”)</td>
</tr>
<tr>
<td>DN 450 (18”)</td>
<td>5 bar</td>
<td>DN 900 (36”)</td>
</tr>
<tr>
<td>DN 500 - 600 (20”-24”)</td>
<td>4 bar</td>
<td>7 bar (100 psi)</td>
</tr>
<tr>
<td>DN 700 - 1200 (28”-48”)</td>
<td>2 bar</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>FLANGE DRILLING</th>
<th>EX/EK</th>
<th>ET</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN10</td>
<td>ANSI 150; BST “D”</td>
<td>PN10</td>
</tr>
<tr>
<td>Other on request</td>
<td></td>
<td>Other on request</td>
</tr>
</tbody>
</table>
### TL/TK

**APPLICATION**
Solid loaded fluids (concentration > 5%): pulp, rejects, solids...

**sizes**
- DN 50 to DN 1000 (2” to 40”)

**working pressure**
- DN 50-125 (2”-1”)
- DN 150-250 (6”-10”)
- DN 300-400 (12”-16”)
- DN 450 (18”)
- DN 500-600 (20”-24”)
- DN 700-1000 (28”-40”)

**flange drilling**
- PN10
- ANSI 150
- Other on request

### CR

**APPLICATION**
Contaminated pulp and difficult conditions (junk traps, cleaners…)

**sizes**
- DN 100 to DN 600 (4” to 24”)

**working pressure**
- DN 100 - 400 (4”-16”)
- DN 500 - 600 (20”-24”)

**flange drilling**
- PN10
- ANSI 150
- Other on request

### DT

**APPLICATION**
Contaminated pulp or very high concentration (pulp, rejects…)

**sizes**
- DN 100 to DN 600 (4” to 24”)

**working pressure**
- DN 100 - 250 (4”-10”)
- DN 300 - 400 (12”-16”)
- DN 450 (18”)
- DN 500 - 600 (20”-24”)

**flange drilling**
- PN10
- ANSI 150
- Other on request
## KNIFE GATE VALVES

<table>
<thead>
<tr>
<th></th>
<th>EB (Bi-directional knife gate valve)</th>
<th>HB (Bi-directional high pressure knife gate valve)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPLICATION</strong></td>
<td>General service (solid loaded fluids) waste water, sludges…</td>
<td>General service (solid loaded fluids) waste water, sludges…</td>
</tr>
<tr>
<td><strong>SIZES</strong></td>
<td>DN 50 to DN 1200 (2&quot; to 48&quot;)</td>
<td>DN 50 to DN 300 (2&quot; to 12&quot;)</td>
</tr>
<tr>
<td><strong>WORKING PRESSURE</strong></td>
<td>Monoblock</td>
<td>DN 50 - DN 300 (2&quot;-12&quot;) 16 bar</td>
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<tr>
<td></td>
<td>DN 50 - 250 (2&quot;-10&quot;)</td>
<td>10 bar</td>
</tr>
<tr>
<td></td>
<td>DN 300 - 400 (12&quot;-16&quot;)</td>
<td>6 bar</td>
</tr>
<tr>
<td></td>
<td>DN 450 (18&quot;)</td>
<td>5 bar</td>
</tr>
<tr>
<td></td>
<td>DN 500 (20&quot;)</td>
<td>4 bar</td>
</tr>
<tr>
<td></td>
<td>Split body</td>
<td>4 bar</td>
</tr>
<tr>
<td></td>
<td>DN 600 (24&quot;)</td>
<td>2 bar</td>
</tr>
<tr>
<td></td>
<td>DN 700-1200 (28&quot;-48&quot;)</td>
<td>Other on request</td>
</tr>
<tr>
<td><strong>FLANGE DRILLING</strong></td>
<td>PN10; ANSI 150</td>
<td>PN16</td>
</tr>
<tr>
<td></td>
<td>Other on request</td>
<td>Other on request</td>
</tr>
</tbody>
</table>
### VG Rubber sleeve knife gate valve

#### APPLICATION
Abrasive slurries (mining, petrochemical…)

#### SIZES
DN 50 to DN 900 (2” to 36”)

#### WORKING PRESSURE
- DN 50-400: 2”-16” (10 bar, 150 psi)
- DN 450-600: 18”-24” (6 bar or 10 bar, 90 psi or 150 psi)
- DN 700-900: 28”-36” (2 bar, 75 psi)

#### FLANGE DRILLING
- PN10; ANSI 150
- Other on request

### XC Hopper shape knife gate valve

#### APPLICATION
Bulk handling (powder, pellets…)
Silo outlet applications

#### SIZES
DN 50 to DN 600 (2” to 24”)

#### WORKING PRESSURE
- Off seat pressure 3 bar
- DN 50-400 (2”-10”)
- DN 300-400 (12”-16”)
- DN 450 (18”)
- DN 500-600 (20”-24”)

#### FLANGE DRILLING
- PN10; ANSI 150
- Other on request

### BC Square port knife gate valve

#### APPLICATION
General service (solid loaded fluids)
Bulk handling

#### SIZES
150x150 to 600x600 (6” x 6” to 24” x 24”)

#### WORKING PRESSURE
- Off seat pressure 1 bar
- 150x150 (6” x 6”)
- 200x200 (8” x 8”)
- 200x250 (8” x 10”)
- 250x300 (10” x 12”)

#### FLANGE DRILLING
- ORBINOX Standard
ACTUATORS

MANUALS
Handwheel (rising stem)  Handwheel (non-rising stem)  Lever

AUTOMATICS
Pneumatic double-acting  Electric

MORE ACTUATORS
Stem extension  Bevel gear  Chainwheel  Pneumatic single acting  Handwheel emergency actuator  Pneum. emergency actuator

ACCESSORIES
Solenoid valve  Mechanical limit switches
DESIGN & MATERIALS

### EX/ET/TL

**BODY**
- Cast Iron EN-GJL250
- Stainless Steel CF8M

**GATE**
- Stainless Steel AISI 304
- Stainless Steel AISI 316

**A/B/C RINGS**
- CF8M Stainless
- CA15
- NIHard

**SEATING OPTIONS**
- Metal to metal
- Resilient A type (standard)
- Resilient B type (reinforced)
- Deflection cone C type

**Other materials on request**

### EB

**BODY**
- Cast Iron EN-GJL250
- Stainless Steel CF8M

**GATE**
- Stainless Steel AISI 304
- Stainless Steel AISI 316

**SEAT**
- Resilient seat (EB)

**Other materials on request**

### EK/TK/CR

**BODY**
- Stainless Steel CF8M

**GATE**
- Stainless Steel AISI 316

**K RINGS**
- CF8M Stainless

**SEATING OPTIONS**
- Metal to metal
- Resilient K type
- Resilient seat (KT) type
- Poliurethane seat K type
- PTFE K type

**Other materials on request**

### VG

**BODY**
- Ductile iron (60-40-18)
- EN-GJS400-18

**GATE**
- Stainless Steel AISI 304
- Stainless Steel AISI 630
- Duplex

**SEAT**
- Rubber sleeves (VG)

**Other materials on request**
OTHER STANDARD VALVES

<table>
<thead>
<tr>
<th></th>
<th>RM</th>
<th>3/4V</th>
<th>VP</th>
<th>TP</th>
<th>KP</th>
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</thead>
<tbody>
<tr>
<td><strong>APPLICATION</strong></td>
<td>Solid loaded fluids pulp &amp; paper, waste water</td>
<td>Pulp &amp; paper</td>
<td>Demanding applications bi-directional</td>
<td>Pulp &amp; paper</td>
<td>Transmitter isolation valve</td>
</tr>
<tr>
<td><strong>SIZES</strong></td>
<td>DN 40 to DN 900 (1 1/2” to 36”)</td>
<td>DN 80 to DN 300 (3” to 12”)</td>
<td>DN 50 to DN 600 (2” to 24”)</td>
<td>DN 25/40 (1”/1” 1/2)</td>
<td>DN 80 (3”)</td>
</tr>
<tr>
<td><strong>WORKING PRESSURE</strong></td>
<td>Up to 40 bar depending on size</td>
<td>10 bar</td>
<td>Up to 10 bar depending on size</td>
<td>10 bar</td>
<td>10 bar</td>
</tr>
</tbody>
</table>

BONNETED VALVES

Solid loaded / hazardous fluids available for EX, ET, TL, XC

- Up to DN 600 (24”)
- Up to 10 bar depending on size
## SPECIAL ENGINEERED VALVES

**CW** Single wedge knife gate valve  
**WS** Fabricated single wedge knife gate valve

<table>
<thead>
<tr>
<th>CW</th>
<th>WS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPLICATION</strong></td>
<td>Solid loaded / hazardous fluids high pressure</td>
</tr>
<tr>
<td><strong>SIZES</strong></td>
<td>DN 80 to DN 900 (3” to 36”)</td>
</tr>
<tr>
<td><strong>WORKING PRESSURE</strong></td>
<td>Up to 100 bar depending on size</td>
</tr>
</tbody>
</table>
SPECIAL ENGINEERED VALVES

3VY
3-way diverter valve

SD
Swing disc valve

BX
Coal burner isolation (ATEX Cat.1) acc. DIN EN 14460

CX
Burner shut-off acc. NFPA-85

<table>
<thead>
<tr>
<th>Application</th>
<th>3VY</th>
<th>BX</th>
<th>CX</th>
</tr>
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<tbody>
<tr>
<td>Bulk handling</td>
<td>Bulk handling</td>
<td>Coal feeding systems</td>
<td>Burner shut-off</td>
</tr>
<tr>
<td>SIZES</td>
<td>DN 100 to DN 300 (4” to 12”)</td>
<td>DN 700 to DN 1000 (28” to 40”)</td>
<td>DN 50 to DN 1200 (2” to 48”)</td>
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<tr>
<td>Working Pressure</td>
<td>Up to 3 bar</td>
<td>Up to 3 bar</td>
<td>DN 700 - 1000 (28”-40”) 3 bar</td>
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<tr>
<td></td>
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<td></td>
<td>DN 50 - 250 (2”-10”) 10 bar</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>DN 300 - 400 (12”-16”) 6 bar</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>DN 450 (18”) 5 bar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DN 500 - 600 (20”-24”) 4 bar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DN 700 - 1200 (28”-48”) 2 bar</td>
</tr>
</tbody>
</table>
MU Wall Penstocks (4-side sealing), CC Channel Gates (3-side sealing), RB Weir Gates (4-side and 3-side sealing), RR Round and RC Square Flap Gates, AG Stop Gates, SL Stainless Steel Stop Logs and SA Aluminum Stop Logs. Mainly used in waste water treatment plants, irrigation, hydro power stations, …

Fabricated in stainless steel construction, with an elastomer sealing for tight shut-off. Available in a wide range of dimensions and design pressures with either handwheel, pneumatic, electric or hydraulic actuators.
SPECIAL FABRICATED VALVES AND DAMPERS

Special fabricated valves such as the three-lever MP valve with pneumatic actuator used in air separation plants and the GF Goggle Valve with hydraulic actuator used in the exhaust and gas systems of steel plants.

Light-construction fabricated dampers for low pressure and high temperature gas/air flow diverting, isolation or regulation. Wide variety of different designs (ML butterfly damper, PE louver damper, DI/DV diverter dampers, DG guillotine damper, ST stack damper, etc.), with multiple construction materials and for various applications such as power generation systems, gas cleaning systems, cement plants, stack isolation, etc.

Available with pneumatic, electric, hydraulic or manual actuators.
ORBINOX designs and manufactures special valves and gates for regulating and closing flow through the outlet works of dams, and ducts in pumping and hydro power stations.

Rugged fabricated construction, available in a wide range of sizes and special materials to match specific requirements and depending on the head under which the valve will operate.

Available with hydraulic, electric or manual actuators.