KEystone FIGURE 951 KNIFE GATE VALVE
50 - 300MM

Wafer style, uni-directional knife gate valves.

**General Application**

The Keystone K-Nife is designed for a wide range of applications such as:

- Pulp & paper
- Mining
- Effluent handling plants
- Chemical plants
- Food and beverage
- Fly ash handling plants
- Bulk conveying
- Corrosive environments

**Technical Data**

- **Size range:** 50 - 300mm
- **Temperature rating:**
  - 150°C RTFE seated
  - 150°C Viton seated
- **Pressure rating:**
  - 1000 kPa [10 bar]
  - Ø cold working pressure (non-shock)

**Features**

- Compact design.
- Self-aligning gland box.
- One piece integral cast body and chest.
- Integral cast in gate wedges minimise flow obstructions.
- High quality gate finish for optimum sealing.
- Gate guides to support gate.
- Integral RTFE gate scraper.
- Complies with MSS SP-81 face-to-face dimensions.
- High flow rates with low pressure drops.
- All valves are pressure tested to MSS SP-81
- Maintenance friendly.
**KEYSTONE**  
**FIGURE 951 KNIFE GATE VALVE**  
**50 - 300MM**

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### PARTS LIST

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>S.G. Iron</td>
</tr>
<tr>
<td>2</td>
<td>Gate*</td>
<td>316 S/5*, SAF 2205</td>
</tr>
<tr>
<td>3</td>
<td>Gland box</td>
<td>S.G. Iron</td>
</tr>
<tr>
<td>4</td>
<td>Seat</td>
<td>RTFE, Metal or Viton</td>
</tr>
<tr>
<td>5</td>
<td>Spindle</td>
<td>304 S/5</td>
</tr>
<tr>
<td>6</td>
<td>Gland packing</td>
<td>K-LDN*</td>
</tr>
<tr>
<td>7</td>
<td>Bridge (50 - 200mm)</td>
<td>304 S/5, Painted mild steel</td>
</tr>
<tr>
<td></td>
<td>Upstand (250 - 300mm)</td>
<td>Painted mild steel</td>
</tr>
<tr>
<td>8</td>
<td>Pillar</td>
<td>Painted mild steel</td>
</tr>
<tr>
<td>9</td>
<td>Glandbox washer</td>
<td>Nylon</td>
</tr>
<tr>
<td>10</td>
<td>Gate guide</td>
<td>S/5 RTFE tipped</td>
</tr>
<tr>
<td>11</td>
<td>Gate scraper</td>
<td>RTFE</td>
</tr>
<tr>
<td>12</td>
<td>Handwheel nut</td>
<td>Leaded gunmetal</td>
</tr>
<tr>
<td>13</td>
<td>Thrust washer</td>
<td>Nylon</td>
</tr>
<tr>
<td>14</td>
<td>Handwheel</td>
<td>S/5 (non-rising 250 - 300mm) or S.G. Iron (rising 50 - 300mm)</td>
</tr>
<tr>
<td>15</td>
<td>Clevis pin (50 - 200mm)</td>
<td>304 S/5</td>
</tr>
<tr>
<td>16</td>
<td>Split pin (50 - 200mm)</td>
<td>304 S/5</td>
</tr>
<tr>
<td>17</td>
<td>Clevis (250 - 300mm)</td>
<td>304 S/5</td>
</tr>
<tr>
<td>18</td>
<td>All fasteners</td>
<td>304 S/5</td>
</tr>
</tbody>
</table>

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### OPTIONS

- F738 Pneumatic actuators
- Electric actuators
- Bevel gear operators
- Chainwheels
- F459 Quick acting levers (50 - 200mm)
- F791 Solenoid valves
- Limit switches
- F793 Positioners
- F493 Pneumatic failsafe
- Deflection cones
  - Chrome Iron
  - Polyurethane in sizes 50 - 300mm.
- Safety guards and shrouds

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**NOTE:**  
50 - 200mm valve illustrated.  
250 - 300mm valve illustrated.

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**NOTE:**  
* 316 S/5 gate is standard with S.G. Iron bodied valves.  
# Gate is PTFE coated when used with Viton seat.  
• Other packing materials available on request.
**KEYSTONE FIGURE 951 KNIFE GATE VALVE**  
50 - 300MM

**DIMENSIONS [MM]**

<table>
<thead>
<tr>
<th>Valve size</th>
<th>A bore (downstream)</th>
<th>B</th>
<th>C</th>
<th>C1</th>
<th>Non-rising C</th>
<th>D</th>
<th>E</th>
<th>ØF</th>
<th>Nom. mass manual (kg)</th>
<th>Kv @ full open*</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>50</td>
<td>92</td>
<td>284</td>
<td>295</td>
<td>N/A</td>
<td>49</td>
<td>159</td>
<td>200</td>
<td>7</td>
<td>223</td>
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<tr>
<td>65</td>
<td>65</td>
<td>108</td>
<td>284</td>
<td>316</td>
<td>N/A</td>
<td>49</td>
<td>172</td>
<td>200</td>
<td>8</td>
<td>368</td>
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<td>80</td>
<td>80</td>
<td>127</td>
<td>331</td>
<td>391</td>
<td>N/A</td>
<td>52</td>
<td>190</td>
<td>200</td>
<td>10</td>
<td>557</td>
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<tr>
<td>100</td>
<td>100</td>
<td>157</td>
<td>358</td>
<td>425</td>
<td>N/A</td>
<td>52</td>
<td>210</td>
<td>200</td>
<td>11</td>
<td>909</td>
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<td>125</td>
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<td>186</td>
<td>450</td>
<td>579</td>
<td>N/A</td>
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<td>254</td>
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<td>270</td>
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<td>746</td>
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<td>338</td>
<td>300</td>
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<td>4065</td>
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<td>250</td>
<td>248</td>
<td>326</td>
<td>726</td>
<td>908</td>
<td>693</td>
<td>71</td>
<td>326</td>
<td>400</td>
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<tr>
<td>300</td>
<td>298</td>
<td>380</td>
<td>825</td>
<td>1057</td>
<td>792</td>
<td>76</td>
<td>418</td>
<td>400</td>
<td>71</td>
<td>9863</td>
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</tbody>
</table>

*NOTE: 50 - 200mm valve illustrated.  
NOTE: 250 - 300mm valve illustrated.*

**STANDARD SEAT DETAIL**

- RTFE seat
- Metal seat
- Viton seat

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www.dmvalves.ru  
Тел.: +7 (499) 990-05-50
KEYSTONE **FIGURE 951 KNIFE GATE VALVE**  
50 - 300MM

**PRESSURE/TEMPERATURE GRAPH**

**PRESSURE/TEMPERATURE RATINGS**

- **RTFE seated**
  - 1000 kPa/(10 bar) @ 20°C
  - 770 kPa/(7.7 bar) @ 150°C

- **Metal seated**
  - 1000 kPa/(10 bar) @ 20°C
  - 700 kPa/(7 bar) @ 230°C

- **Viton seated**
  - 1000 kPa/(10 bar) @ 20°C
  - 770 kPa/(7 bar) @ 150°C

1. RTFE seated valve trim code numbers is 182.
   - Viton seated valve trim code number is 179
2. S.G. Iron seated valve trim code number is 172.

**TYPICAL SPECIFYING SEQUENCE**

<table>
<thead>
<tr>
<th>Trim code</th>
<th>Body</th>
<th>Gate</th>
<th>Seat</th>
<th>Gland box</th>
<th>Bridge</th>
<th>Spindle</th>
<th>Packing</th>
</tr>
</thead>
</table>

**NOTE:**

* Gates are 316 S/S, coated with PTFE.

Subject to material availability and delivery obligations, Pentair reserves the right to supply higher grade materials for any component, eg. 316 S/S in lieu of 304 S/S.

Non-rising spindle design is available upon request.

* 50 - 200mm bridge 304 S/S.

End connections

- AS 2129, Table C,D,E metric threads
- ASME B16.5, Class 125 & 150 UNC threads
- JIS B2210, Table 5, 10
- DIN 2501, Table 10, 16
- BS 4504, PN 10 and 16
- ASME B16.5, Class 125 and 150 metric threads [for N.Z.]

**NOTE:**

To minimise risk to personnel, Pentair recommend the use of purpose built guards and shrouds.

Refer to the Pentair data sheet or consult factory for details.

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