KEystone Figure 952 Knife Gate Valve
50 - 600mm

Lugged 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 & beverage
• Fly ash handling plants
• Bulk conveying
• Corrosive environments

Technical Data
Size range: 50 - 600mm
Temperature rating:
- 150°C RTFE seated
- 150°C Viton seated
- 230°C 316 S/S seated
- 230°C S.G. Iron seated
Pressure rating:
- 1000 kPa [10 bar]
  @ cold working pressure [non-shock rating]

Features
• Compact design.
• Self-aligning gland box.
• Both S.G. Iron and 316 S/S valves available (depending on valve size).
• One piece integral cast body, chest and lugs.
• Integral cast in gate wedges minimise flow obstructions.
• High quality gate finish for optimum sealing.
• High flow rates with low pressure drops.
• Integral RTFE gate scraper.
• Gate guides to support gate.
• A range of seat options available.
• Complies with MSS SP-81 face-to-face dimensions.
• All valves are pressure tested to MSS SP-81.
• Maintenance friendly.
**KEYSTONE FIGURE 952 KNIFE GATE VALVE**

**50 - 600MM**

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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>316 S/S or S.G. Iron</td>
</tr>
<tr>
<td>2</td>
<td>Gate*</td>
<td>316 S/S, SAF 2205 or SAF2507</td>
</tr>
<tr>
<td>3</td>
<td>Gland box</td>
<td>304 S/S or 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/S</td>
</tr>
<tr>
<td>6</td>
<td>Gland packing</td>
<td>K-LON•</td>
</tr>
<tr>
<td>7</td>
<td>Bridge (50 - 200mm)</td>
<td>304 S/S</td>
</tr>
<tr>
<td></td>
<td>Upstand (250 - 600mm)</td>
<td>Painted mild steel</td>
</tr>
<tr>
<td>8</td>
<td>Pillar</td>
<td>304 S/S or 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>5/5 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>
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<tr>
<td>14</td>
<td>Handwheel</td>
<td>5/5 [non-rising] or S.G Iron [rising]</td>
</tr>
<tr>
<td>15</td>
<td>Clevis pin</td>
<td>304 S/S</td>
</tr>
<tr>
<td>16</td>
<td>Split pin</td>
<td>304 S/S</td>
</tr>
<tr>
<td>17</td>
<td>All fasteners</td>
<td>304 S/S</td>
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</tbody>
</table>

**OPTIONS**

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

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**NOTE:**

- Gate is PTFE coated when used with Viton seat.
- Other packing materials available on request.

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**NOTE:**

- 50 - 200mm valve illustrated.
- 250 - 600mm valve illustrated.
**KEYSTONE FIGURE 952 KNIFE GATE VALVE**

**50 - 600MM**

![Diagram of the valve](image)

**NOTE:** 50 - 200mm valve illustrated. Number of lugs is dependent upon flange drilling.

**NOTE:** 250 - 600mm valve illustrated. Number of lugs is dependent upon flange drilling.

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**DIMENSIONS (MM)**

<table>
<thead>
<tr>
<th>Valve size</th>
<th>A bore (downstream)</th>
<th>B</th>
<th>C Rising spindle (closed)</th>
<th>C1 Non-rising</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>264</td>
<td>295</td>
<td>N/A</td>
<td>49</td>
<td>159</td>
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<td>65</td>
<td>65</td>
<td>108</td>
<td>284</td>
<td>316</td>
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<td>49</td>
<td>177</td>
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<td>127</td>
<td>324</td>
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<td>157</td>
<td>358</td>
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<td>450</td>
<td>519</td>
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<td>256</td>
<td>300</td>
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<td>212</td>
<td>487</td>
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<td>474</td>
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<td>1881</td>
<td>1369</td>
<td>114</td>
<td>822</td>
<td>600</td>
<td>312</td>
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</tbody>
</table>

**NOTE:**

- **Dimension D** = The face to face dimension
- **Dimension E** = The maximum valve or upstand clearance dimension for installation.
- *Kv* = The flow rate of water in m³/hr that will pass through a valve with a differential pressure of 1 bar [100 kPa] @ 20°C
- *Cv = 1.155 Kv*
- Dimensions are nominal.
- Larger sizes are available upon request.

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KEYSTONE FIGURE 952 KNIFE GATE VALVE
50 - 600MM

STANDARD SEAT DETAIL

RTFE seat
Metal seat
Viton seat

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

TYPICAL SPECIFYING SEQUENCE

<table>
<thead>
<tr>
<th>Valve size</th>
<th>Figure number</th>
<th>Trim code</th>
<th>End connections</th>
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<tbody>
<tr>
<td>50 - 600mm</td>
<td>F952</td>
<td>170</td>
<td>AS 2129 E</td>
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</tbody>
</table>

Size range: 50 - 600mm

Figure No: F952 - Lugged style rising and non rising spindle uni-directional valve.

Trim code | Body | Gate | Seat | Gland box | Bridge | Spindle | Packing |
---|---|---|---|---|---|---|---|

End connections (to suit):
- AS 2129, Table C,D,E metric threads
- ASME B16.5, Class 125 & 150 UNC threads
- BS 4504, PN 10 and 16
- JIS B2210, Table 5, 10
- DIN 2501, Table 10, 16
- ASME B16.5, Class 125 and 150 metric threads (for N.Z.)

NOTE:
* Gates are 316 S/S, coated with PTFE.
  • Available in sizes 350 - 600mm only.
  • Non-rising spindle design available upon request.

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.