Wey Knife Gate Valve Model T13

Transmitter Isolation Valve
Wey Knife Gate Valve Model TI3

The Wey Knife Gate Valve Model TI3 provides for shut-off isolation to permit removal and repair of differential pressure level sensing transmitters. The thin face-to-face profile of the valve when mounted to a short-stub tank flange connection minimizes “dead space” in which solids near the bottom of a slurry storage tank can collect, thereby preventing signal errors. The knife blade in this valve cuts through heavy solids to ensure reliable operation and tight shut-off. The Model TI3 is available in a 3” size to adapt to most popular level sensor transmitters.

The Model TI3 is truly a unique design. Unlike other transmitter isolation valves that are mere adaptations of a standard knife gate valve, the Model TI3 has been designed for the sole purpose of transmitter isolation.

Features

- Compact design with non-rising stem. Valve fits in standard 18” diameter insulation well.
- No chest cavity in valve. No area for process media to build up causing gate jamming in chest.
- Unique top transverse seal is re-packable while in service and under pressure. Eliminates need to drain storage tank when new packing is required.
- Combination metal and resilient seat provides bubble-tight shut-off.
- Open and closed OSHA safety lock-out as standard.
- Solid st. stl. or alloy body with integral yoke.
- No special ratchet wrench required for operation. Uses standard 1/2” socket drive.

Fig. 1

See live demonstration

Fig. 2
Close-coupled tank flange with special flange bolt pattern.

Fig. 3
Model TI3 transmitter valve mounted on tank flange.

Fig. 4
Differential pressure transmitter mounted to model TI3 isolation valve.
Options

<table>
<thead>
<tr>
<th>Model</th>
<th>Body/Yoke</th>
<th>Gate</th>
<th>Seals**</th>
<th>Packing</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI3*</td>
<td>316 st. stl.*</td>
<td>316 st. stl.*</td>
<td>S2 = FKM*</td>
<td>P2 = PTFE</td>
<td>UC - Urethane</td>
</tr>
<tr>
<td></td>
<td>317 st. stl.*</td>
<td>317 st. stl.*</td>
<td>S3 = PTFE</td>
<td>P4 = Food Grade</td>
<td>Purge Ports:</td>
</tr>
<tr>
<td></td>
<td>Hastelloy-C*</td>
<td>Hastelloy-C*</td>
<td>S5 = AFLAS</td>
<td>P5 = PTFE for</td>
<td>PPU1 = One Purge Port, Upstream Side</td>
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<tr>
<td>(Note: Only 3&quot; size is available)</td>
<td>(other alloys optional)</td>
<td>(other alloys optional)</td>
<td>(other seal materials optional)</td>
<td>Chlorine</td>
<td>PPU2 = Two Purge Ports, Upstream Side</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>PPD1 = One Purge Port, Downstream Side</td>
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<td></td>
<td></td>
<td>PPD2 = Two Purge Ports, Downstream Side</td>
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</tbody>
</table>

*Denotes stock items.
**Note: All Model TI3 valves furnished with glass-filled phenolic scraper blades unless otherwise specified.

Ordering example: TI3, 316, 316, S2, P2, UC, PPU1, PPD1

**Fig. 5** Optional removable heavy duty urethane cover protects yoke assembly from splashing and spills.

**Fig. 6** Hole in protective urethane cover permits tie-down of cover. (Chain or cable tie-down by customer.)

**Fig. 7** Optional flushing ports in any of four locations. Permits cleaning of seat area to ensure tight shut-off.

**Fig. 8** Actuation by standard mechanic’s 1/2" socket drive wrench. Socket drive on valve is 316 or 317 st. stl.

**Fig. 9** Provision for OSHA lock-out in closed position furnished as standard.

**Fig. 10** Provision for OSHA lock-out in open position furnished as standard.
Close Couple Installation

Fig. 11
Close couple installation of 3" valve when using special flange adaptor (item 5) to mount on standard 3" ANSI 150 tank flange (item 3). See below.

1. 3" transmitter isolation valve.
2. Differential pressure level sensor transmitter.
4. Special 3" tank flange.
   (See Fig. 13 below.)
5. 3" flange adaptor.
   (See Fig. 14 below.)

Fig. 12
Close couple installation of 3" valve when mounting direct to special tank flange (item 4). Note: This special 3" tank flange (item 4) has unique bolt pattern to permit very close mounting of valve to tank wall. (See Fig. 13 below.)

Fig. 13
Special 3" tank flange with optional 3" ANSI 150 flange bolt pattern. Welds direct to tank wall for close installation of 3" valve. (Contact factory for more details.)

Fig. 14
Special 3" flange adaptor used to close couple mount 3" valve when existing tank flange has standard 3" ANSI 150 bolt pattern. (Contact factory for more details.)