**Dual Port Injection Quill**

These dual port chemical injection quills are specially designed to ensure a more uniform and rapid dispersal of two chemical injects into one port. This allows the chemicals to be injected near the center of the process stream pipe and minimizes any chance of chemicals clinging/damaging of the pipe inner surface.

The dual injection quills are primarily made of Type 316 SSTL, they are designed to allow two chemicals to be injected into one port simultaneously.

**Standard P/N design options:**
- Process Connection Size: 1/2", 3/4", or 1" mnpt (-050, -075, & -100, respectively).
- High Pressure Check Valve Kits: (-CVK)
- Shutoff Ball Valves: (-BV)

**Features:**
- Check valve kits are option on the pump side connection for easy installation and come assembled ready for use.
- Insertion length of the inner tube is adjustable, based on where the compression fitting is secured.
- Hex shaped body allows a wrench to be used during installation.
- This product includes two 1/4" or 1/2" pump connectors for quick connection of your 1/4" or 1/2" chemical tubes.

**Special Options:**
Specific quill lengths and materials of Alloy 20 and Hastelloy are available upon special request. Please email your requirements to quotes@chemworld.com.

**Quick Ordering Breakdown:**
- QD316-050: 1/2" mnpt Process Connection
- QD316-075: 3/4" mnpt Process Connection
- QD316-100: 1" mnpt Process Connection
- QD316-050CVK: 1/2" mnpt Process Connection includes 2 Check Valve Kits
- QD316-075CVK: 3/4" mnpt Process Connection includes 2 Check Valve Kits
- QD316-100CVK: 1" mnpt Process Connection includes 2 Check Valve Kits
- QD316-050BV-CVK: 1/2" mnpt Process Connection w/ 2 Ball Valves & 2 Check Valve Kits
- QD316-075BV-CVK: 3/4" mnpt Process Connection w/ 2 Ball Valves & 2 Check Valve Kits
- QD316-100BV-CVK: 1" mnpt Process Connection w/ 2 Ball Valves & 2 Check Valve Kits

**Standard Types:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Process Connection</th>
<th>Pump Connection</th>
<th>Inner Quill Size (Tubing)</th>
<th>Outer Quill Size (Pipe)</th>
<th>Inner Quill Length</th>
<th>Outer Quill Length</th>
<th>Pressure (Max)</th>
<th>Temperature (Max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QD316-050</td>
<td>1/2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>1000 psi</td>
<td>500F (260C)</td>
<td></td>
</tr>
<tr>
<td>QD316-050-CVK</td>
<td>1/2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
<td></td>
</tr>
<tr>
<td>QD316-75</td>
<td>3/4&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>3/8&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>0 psi</td>
<td>500F (260C)</td>
<td></td>
</tr>
<tr>
<td>QD316-075-CVK</td>
<td>3/4&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>3/8&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
<td></td>
</tr>
<tr>
<td>QD316-100</td>
<td>1&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>3/8&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
<td></td>
</tr>
<tr>
<td>QD316-100-CVK</td>
<td>1&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>3/8&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
<td></td>
</tr>
<tr>
<td>QD316-100BV-CVK</td>
<td>1&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>3/8&quot;</td>
<td>2 3/4&quot;</td>
<td>Up to 7&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
<td></td>
</tr>
</tbody>
</table>

*Max temperature rating is based on units provided with check valves.

Order Directly online at www.ChemWorld.com
**3 & 4 Ports Injection Quill**

These 3 and 4 port chemical injection quills are specially designed to ensure a more uniform and rapid dispersal of three or four chemicals into one port. This allows the chemicals to be injected near the center of the process stream tank or deaerator.

This standard product is made of 316 SST. Alloy 20 and Hastelloy materials are also available upon request, please email us at quotes@chemworld.com.

**Features:**
- Manufactured with 1", 1 1/2", and 2" npt process connect threads.
- Hex body shape allows for a wrench to be used during installation.
- Made in the USA.
- Each quill is welded to two rings to prevent quills from unscrewing.
- The product may be ordered with 3 or 4 inject ports.
- Optional shut off ball valves and check valve kits (-cvk) may be added to your order. (as seen in photo).

**Part Number Breakdown:**
- QT-316-100: 1" SSTL process connection 3 port chemical injection quill
- QT-316-150: 1 1/2" SSTL process connection 3 port chemical injection quill
- QT-316-200: 2" SSTL process connection 3 port chemical injection quill
- QT-316-100-CVK: 1" SSTL process connection 3 port injection quill, includes 3 ball valves & check valve kits.
- QT-316-150-CVK: 1 1/2" SSTL process connection 3 port injection quill, includes 3 ball & check valve kits.
- QT-316-200-CVK: 2" SSTL process connection 3 port injection quill, includes 3 ball & check valve kits.
- Q4-316-200-CVK: 2" SSTL process connection 4 port injection quill, includes 3 ball & check valve kits.

**Standard Types:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Number of Ports</th>
<th>Process Connection</th>
<th>Chemical Inlet</th>
<th>Quill Size</th>
<th>Quill Length</th>
<th>Pressure (max)</th>
<th>Temperature (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QT-316-100</td>
<td>3</td>
<td>1&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>0 psi</td>
<td>500F (260C)</td>
</tr>
<tr>
<td>QT-316-100-CVK</td>
<td>3</td>
<td>1&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
</tr>
<tr>
<td>QT-316-150</td>
<td>3</td>
<td>1 1/2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>0 psi</td>
<td>500F (260C)</td>
</tr>
<tr>
<td>QT-316-150-CVK</td>
<td>3</td>
<td>1 1/2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
</tr>
<tr>
<td>QT-316-200</td>
<td>3</td>
<td>2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>0 psi</td>
<td>500F (260C)</td>
</tr>
<tr>
<td>QT-316-200-CVK</td>
<td>3</td>
<td>2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
</tr>
<tr>
<td>Q4-316-200</td>
<td>4</td>
<td>2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>0 psi</td>
<td>500F (260C)</td>
</tr>
<tr>
<td>Q4-316-200-CVK</td>
<td>4</td>
<td>2&quot; MNPT</td>
<td>1/4&quot; FNPT</td>
<td>1/4&quot;</td>
<td>18&quot;</td>
<td>1000 psi</td>
<td>375F (190C)*</td>
</tr>
</tbody>
</table>

*Max temperature rating is based on units provided with check valves.
Retractable 3 Port Quill

Application includes:
- Injection Quills are designed to ensure a more uniform and rapid dispersal of injection chemicals into the center of the process pipe of tank.
- Deaerator and boiler feed water tank applications are suited well for this product.
- This product is primarily made of type 316 stainless steel.

Features:
- Three shut off ball valves are included with this product.
- Alloy 20 and Hastelloy materials are also available.
- Special quill lengths may also be order upon request. Please email us at quotes@chemworld.com.
- Hex body shape allows for a wrench to be used during installation.
- Made in the USA.
- Each quill is welded to two rings to prevent quills from unscrewing.
- Optional: Check valves (-CV) are optional with this unit. If ordered they come installed. (As seen in the photo).

Standard Types:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Process Connection (standard)</th>
<th>Chemical Inlet Connection (3 ports)</th>
<th>Quill Size</th>
<th>Quill Length (Standard)</th>
<th>Pressure (max)</th>
<th>Temperature (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QR3-250-316SS-Q12S</td>
<td>2 1/2&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>1/2&quot;</td>
<td>12&quot;</td>
<td>150 psi</td>
<td>250F (121C)</td>
</tr>
<tr>
<td>QR3-250-316SS-Q12S-CV</td>
<td>2 1/2&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>1/2&quot;</td>
<td>12&quot;</td>
<td>150 psi</td>
<td>250F (121C)</td>
</tr>
<tr>
<td>QR3-300-316SS-Q12S</td>
<td>3&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>1/2&quot;</td>
<td>12&quot;</td>
<td>150 psi</td>
<td>250F (121C)</td>
</tr>
<tr>
<td>QR3-300-316SS-Q12S-CV</td>
<td>3&quot; MNPT</td>
<td>1/2&quot; FNPT</td>
<td>1/2&quot;</td>
<td>12&quot;</td>
<td>150 psi</td>
<td>250F (121C)</td>
</tr>
</tbody>
</table>

Order Directly online at www.ChemWorld.com
This retractable chemical injection quill allows for proper injection into liquid, gas or mixed phase system.

- Nozzles can be removed for inspection without system shutdown.
- Adjustable quill permits precise positioning of quill in fluid flow.
- Restrains stinger during insertion/removal.
- Other available in larger sizes, up to 3" MNPT connection. (please email quotes@chemworld.com for a quote).
- Welded safety collar.
- Other available CPVC, Alloy 20 Hastelloy (please email us for a quote).
- Made in the USA.
- Quill internal diameter is 1/4”.
- Pressure rating: 300 psi.
- Wetted Parts: 316 stainless steel.
- Packing: Graphite (maximum temperature 700 F).
- Rated to 500 F.
- Includes one 316 SSTL shut off ball valve.

ChemWorld also stocks PVC, Kynar, and C-20 injection quills. For chemical applications that never shut down, consider using a stainless steel corporation stop valves.