Injection Quill for Oil & Gas, Refinery And Petrochemical Industry
OVERVIEW:

Injection Quills are Special Purpose Products, used widely in the Petroleum Industry for Treatment, Mixing, and Neutralizing of Process Products in
- Petrochemical
- Chemical
- Petroleum
- Power and allied industry

Primary purpose of employing injection quills in the process system is to ensure the complete mixing between the two process fluid- between the fluid in the main header pipe and the other being introduced through the quill.

APPLICATION:

Injection quills provide an easy solution for uniform and complete mixing of process fluids. The quill injects / introduces process fluid at the center of the main header - in the form of solid jet or spray - thus ensuring the mixing of process fluids and preventing any channeling effect at the main header pipe side walls.

This method of injection of liquid finds wide applications with a wide range of process fluid- corrosive, flammable, acids etc- easily introduced in the system with out the need of consideration of special equipments for handling and mixing.
Crystal offers superior and reliable injection quills such as:
- Retrievable Injection Quills
- Non Retrievable Injection Quills
- Forged Injection Quills
- Injection Quill with Double Block and Bleed Valve
- Corrosion Coupons and Access Fittings

Today’s process industry demands more and more equipment in exotic materials like Duplex Stainless Steels, Monel, Inconel, Hastelloy, Titanium, Clad Materials etc.

Crystal harnesses its expertise in manufacture of high quality Injection Quills in these materials. Quills supplied by Crystal are designed, engineered and tested in compliance with international Codes and standards.

<table>
<thead>
<tr>
<th>PRODUCT RANGE</th>
<th>RETRIEVABLE</th>
<th>NON RETRIEVABLE</th>
<th>FORGED</th>
<th>QUILL WITH DBB VALVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEADER SIZE</td>
<td>12” TO 36”</td>
<td>Upto 60”</td>
<td>6” to 36”</td>
<td>Upto 30”</td>
</tr>
<tr>
<td>QUILLS SIZE</td>
<td>¾” TO 2”</td>
<td>¾” to 6”</td>
<td>6” to 36”</td>
<td>½” to 3”</td>
</tr>
<tr>
<td>MOC</td>
<td>CS, SS304, SS316L, UNS N0 4400, UNS N0 6625, UNS N0 8825, HASTELLO&quot; C276, DUPLEX STEEL</td>
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<td></td>
</tr>
<tr>
<td>DESIGN PRESSURE (kg/cm²)</td>
<td>10 to 100</td>
<td>10 to 200</td>
<td>50 TO 300</td>
<td>Upto 200</td>
</tr>
<tr>
<td>DESIGN TEMPERATURE (°C)</td>
<td>150 to 500</td>
<td>150 to 500</td>
<td>100 TO 500</td>
<td>Upto 350</td>
</tr>
</tbody>
</table>
**Retractable Injection Quill** consist of following components:

- Branch Fitting used for insertion of injection tube from flange facing of nozzle on header to C/L of header
- Injection Nozzle
- Integral Bleed valve or Isolation Valve
- Integral Check Valve
- Coupling
- Retrieval tool and Service Valve (optional)

**Non-Retractable Injection Quills** consist of following components:

- Body
- Cover
- Disc / Piston / Ball
- Disc Seat
- Body Seat Ring
- Trim

**Features**

- Injection Nozzle allows proper injection of chemicals into the liquid gas or mixed phase system
- Uninterrupted Normal Operations During Insertion and Retraction of Injection Quill
- Positioning of quill in fluid flow is precise due to its adjustable feature

**Features**

- Tip designed for different injection spray patterns and flow rate.
- Even distribution of injection chemical in header.
- Ideal for high pressure applications.
- Available in Flanged & Threaded Connection
INJECTION QUILL - TYPES

Forged Injection Quill consist of following components:

- Forged Body
- Spray Nozzle
- Flange

Features

- Single piece forged construction
- Corrosion Properties can be retained after forging as well.
- Forging parameters are maintained within the established limits.
- Forging in High Alloys materials can be carried out maintaining physical, chemical and corrosion resistance properties.

Injection Quills Double Block & Bleed Valve consist of following components:

- Probe
- Integral Check Valve
- Double Block and Bleed Valve
- Outlet Flange

Features

- Can be used to take sample of the process fluid.
- At full operating pressure and temperature chemical can be directly injected into the process fluid.
- Double Block and Bleed Valve allows chemical injection directly into the process stream.
- Check Valve prevents back flow of process stream.
QUALITY CONTROL SYSTEM

Crystal follows stringent quality control system so that all the parameters are complied and customers get high-quality products:
CERTIFICATIONS

- ISO 9001 : 2008 Certificate
- ISO 14001:2004 Certificate
- OHSAS 18001 : 2007 Certificate
- Stamp Certificate
- National Board Registration
- IBR Approved

CLIENTS

- ONGC
- CAIRN
- RECHTEL
- Dr. Reddy’s
- Essar
- GVK
- INTEGRATED EQUIPMENT
- Indian Oil
- Eni
- Saipem
- Technip
- HP
- OLAER
- NAGARJUNA
- Pfizer
- Aker Kværner
- Indorama Corporation
- Reliance Industries Limited
- Uhde
- Nicholas Piramal India Limited
- 3M
- Je
- Jacobs Engineering
- Finolex Industries Limited
- Saint-Gobain
- TATA
- Toyo Engineering India Ltd
- Oswal
- CBI
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