Sand Control Sliding Sleeve

APPLICATIONS
Sliding Sleeves may be used to establish tubing to annulus communication for such operations as:

- Displacing the tubing or annulus fluid.
- Selective testing, treating and production of individual zones in a multi-zone selective well.
- Using the tubing to “kick-off” the annulus in a tubing/annulus dual completion.
- Producing more than one zone through a single tubing string.
- Killing a well by circulation.
- Gas Lifting.
- Landing a blanking plug in nipple profile to shut in well or when testing tubing.
- Landing commingling chokes in nipple profile.
- Circulating inhibitors for corrosion control.

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OPERATOR CONCERNS ADDRESSED

Through working with operators in areas where sand in-flow causes expensive removal cost and lost production, Quinn Well Control identified two primary areas to improve on existing sleeves.

SLXB-E Sleeve was developed for use in wells, where there is a need to provide full isolation of the section tubing between the upper and lower zones in a dually completed well. This isolation is desirable for clean up and flow back operations, following sand fracturing of upper zones. Before flow-back operations, a plug is set in the lower built-in landing nipple keeping sand accumulations to a minimum.

Conventional sleeves were not designed to work in a sand environment. The Quinn SLXB-E Sleeve has evolved through years of continued design improvement. All aspects of the SLXB-E have been designed to successfully function in a sand environment.

SPECIFICATION GUIDE FOR THE SAND CONTROL SLIDING SLEEVE

<table>
<thead>
<tr>
<th>Tubing OD (inches)</th>
<th>Tubing OD (mm)</th>
<th>Seal Bore (inches)</th>
<th>Seal Bore (mm)</th>
<th>Sleeve OD (inches)</th>
<th>Sleeve OD (mm)</th>
<th>Length (inches) Pin to Pin</th>
<th>Length (mm) Pin to Pin</th>
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</thead>
<tbody>
<tr>
<td>2-3/8</td>
<td>60.33</td>
<td>1.875</td>
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<td>114.30</td>
<td>Available on Request</td>
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<td>3-1/2</td>
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<td>2.812</td>
<td>71.42</td>
<td>4.500</td>
<td>114.30</td>
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</tbody>
</table>

Note: Special Sizes on Request (4 1/2” and 5 1/2”)

DESIGNED IN ONE STANDARD MATERIAL AND AVAILABLE IN TWO SPECIALTY MATERIALS

The Sand Control Sliding Sleeves are manufactured out of 4130 18-22 Rockwell C, L-80. Compression, burst, and tensile properties are compatible with L-80 tubing. 17-4 PH Stainless Steel and Inconel 718 are available on request.

The “Standard” seal configuration on all SLXB-E Sand Sleeves consists of carbon graphite filled PTFE Vee Seals. These Vee Seals are inert to most oilfield corrosive environments. Chemically inert seal systems composed of thermoplastic compounds are available on request.

BUILT-IN LANDING NIPPLE

All Quinn Well Control Sliding Sleeves come complete with a QX profile.

If the well has been flowed, Quinn Well Control strongly recommends that all SLXB-E Sleeves be brushed with a 1 metre wire brush prior to setting the QPX plug in the sleeve profile.

Isolation of the lower producing zone is obtained by setting a QPX plug immediately below the shifting mechanism in a QX profile. When setting the QPX plug, it is recommended that a 22”-26” prong is used.

When the QPX plug is in place, the Sand Control Sliding Sleeve can still be opened and closed.

To open the Sand Control Sliding Sleeve, jar up with the slickline toolstring and shifting tool. To close, jar down with toolstring and shifting tool.

With minimal dead flow area for frac and produced sand to settle in, your clean out costs are dramatically reduced. 1,200 successful installations have proved that production turbulence actually keeps sand from accumulating on the top of the plug.