AS-3 Series Sliding Sleeves

Reliable operation in challenging environments

APPLICATIONS
- Interventionless fluid displacement in heavyweight mud environment
- Tubing drainage (permits opening the sliding sleeve without mechanical intervention).

ADVANTAGES
- Offers cost-effectiveness and reliability with long operating life
- Permits gradual equalization between tubing and casing to avoid damaging seals
- Allows landing, locking, and sealing of blanking plugs, packoffs, and separation tools
- Allows circulating heavier fluid from annulus to tubing without a wireline trip

The Schlumberger AS-3 series sliding sleeve is a communication device with a ported inner sleeve and a movable external shroud. The AS-3 is a nonelastomeric sliding sleeve that combines all the features and benefits of the Schlumberger CS-3 series.

The external shroud is hydraulically activated with annular pressure. The shroud is run in the closed position, while the inner sleeve is run in the open position. When desired, the shroud is sheared hydraulically to open communication between the tubing bore and the casing annulus, which saves a slickline trip to open the sleeve. If the shroud function is not required, the shroud is run in open position.

The AS-3 sliding sleeve is made up to and forms part of the tubing string. The simplicity of the sliding sleeve design provides long operating life, and a fully open bore allows maximum production through the sleeve.

The AS-3 series sliding sleeve is available in shift-up or shift-down models. Equalizing slots in the inner sleeve permit gradual equalization between the tubing and casing annulus pressures when used in the standard sliding sleeve mode (after the shroud has been hydraulically activated).

This sleeve may be ordered with various landing nipple profiles to allow landing, locking, and sealing of blanking plugs, packoffs, and separation tools. A polished bore in the lower body receives either separation tool packoffs or a packoff assembly.

OPERATION

AS-3 series sliding sleeves are opened with annulus pressure and closed using standard slickline or coiled tubing methods. For all AS-3 series sliding sleeves, separation tools and packoffs are available.

Equalizing pressure between the tubing and casing annulus is normally accomplished by applying pressure or filling the tubing or casing with fluid. The sliding sleeve can also be opened even if facilities for equalizing pressures are not available beforehand. This requires careful monitoring of tubing and annulus pressures while slowly opening the sleeve until equalization.

The sleeves are available in a variety of nipple profiles.
# AS-3 Series Sliding Sleeves

## Engineering Data for AS-3 Series Sliding Sleeve

<table>
<thead>
<tr>
<th>Type</th>
<th>Tubing Size</th>
<th>Max. OD</th>
<th>Min. ID</th>
<th>Max. Working Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS-3</td>
<td>2.875 in</td>
<td>na(^1)</td>
<td>as(^2)</td>
<td>7,500 psi [51,710 kPa]</td>
</tr>
<tr>
<td>AS-3</td>
<td>3.500 in</td>
<td>5.500 in</td>
<td>as</td>
<td>7,500 psi [51,710 kPa]</td>
</tr>
<tr>
<td>AS-3</td>
<td>4.500 in</td>
<td>na</td>
<td>as</td>
<td>7,500 psi [51,710 kPa]</td>
</tr>
</tbody>
</table>

\(^1\)Data not available  
\(^2\)As requested