**General Product Sheet**

**Product Description:**
The PosiFrac Toe Sleeve™ (PTS) assembly is designed for cemented or un-cemented completions where a casing pressure test is desired to confirm casing integrity prior to opening the toe sleeve. One or multiple PTS tools can be installed at the toe of the well to allow pressure testing cycles to be performed up to the full casing rating. Each PTS will cycle open independently during the final casing pressure bleed off cycle. Using multiple toe sleeves allows multiple entry points to the reservoir so the first stage can be fractured immediately and then followed by additional plug and perforating operations. The PosiFrac Toe Sleeve is a revolutionary design with simple operating features which increase reliability when compared to other toe sleeves available on the market.

**Provide Solutions For:**
- Horizontal Cemented or Uncemented Multi-Stage Frac Completions

**Features:**
- Opens Upon Bleed Down After Casing Test
- Rated up to 20,000 psi (combined Hydrostatic plus Test Pressure)
- Rated up to 350°F
- Debris Tolerant Actuation System
- Compatible with Standard Cement Wiper Plugs
- Large Flow Area for High Rate Frac Treatments
- Integral Ball Seat in Top Sub for Contingency Pressure Tests

**Benefits:**
- Does Not Require Pressuring Above Test Pressure to Open
- Multiple Toe Sleeves can be Opened Concurrently
- Eliminates First Wireline Trip to Perforate the First Stage
- Eliminates Coiled Tubing Run to Open First Stage for Plug & Perf
- Simple Tool Function (No Fluid Metering or Indexing Devices)
- Opens Easily and Reliably in Cemented Environment

**Tool Specifications:**

<table>
<thead>
<tr>
<th>Casing Size</th>
<th>OD</th>
<th>ID</th>
<th>Length</th>
<th>Absolute Pressure</th>
<th>Temp Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50 in.</td>
<td>5.63 in.</td>
<td>3.00 in.</td>
<td>60.48 in.</td>
<td>20,000 psi</td>
<td>350°F</td>
</tr>
<tr>
<td>(114.30 mm)</td>
<td>(143.00 mm)</td>
<td>(76.20 mm)</td>
<td>(1536.19 mm)</td>
<td>(137.895 Mpa)</td>
<td>(176.7°C)</td>
</tr>
<tr>
<td>5.00 in.</td>
<td>6.38 in.</td>
<td>3.53 in.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(127.00 mm)</td>
<td>(162.05 mm)</td>
<td>(89.66 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.50 in.</td>
<td>7.10 in.</td>
<td>4.25 in.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(139.70 mm)</td>
<td>(180.34 mm)</td>
<td>(107.95 mm)</td>
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<td></td>
</tr>
</tbody>
</table>

**Note:** Non-testable ‘Zero-Cycle’ configurations available for flow path initiation applications that do not prohibit the operator from exceeding validated test pressures in order to actuate/open the tool.