Gas Separator
Packer-style gas separator

APPLICATIONS
- Wells with high gas and fluid levels

BENEFITS
- Separates free and entrained gas from production fluid
- Improves pump efficiency
- Reduces gas interference in pump
- Decreases rod lift system wear
- Increases daily run time with automation

FEATURES
- Patented ported coupling design
- Repairable

The gas separator is a packer-style separator that is most effective in wells with high fluid levels. Its patented ported coupling improves separation of entrained gas from production fluid and minimizes gas interference and gas breakout in the downhole rod pump.

The gas separator must be run above the perforations in the well with a packer below it. The set packer directs the fluid through the separator by sealing off the annulus between the tubing and the casing. The gas separator improves pump efficiency, equipment life, and run time.

Operation
The production fluid first flows through the ported coupling then up the annulus between the inner and outer tube of the gas separator, and exits the slots at the top of the outer tube. The separated gas then travels up the annulus between the tubing and the casing, while the liquid falls and accumulates on top of the packer.

The separated production fluid is drawn into the inner tube of the gas separator through the external intake port of the patented ported coupling, and then travels up the inner tube to the pump intake.

Gas Separator Specifications

<table>
<thead>
<tr>
<th>Separator size, in [mm]</th>
<th>2.375 (60.325)</th>
<th>2.875 (73.025)</th>
<th>3.5 (88.9)</th>
<th>4 (101.6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing OD, in [mm]</td>
<td>4.5 (114.3)</td>
<td>5.5 (139.7)</td>
<td>7 (177.8)</td>
<td>8.625 (219.075)</td>
</tr>
<tr>
<td>Max. capacity, bbl/d [m³/d]</td>
<td>382 (60.7)</td>
<td>261 (41.5)</td>
<td>438 (69.6)</td>
<td>1,366 (217.2)</td>
</tr>
<tr>
<td>80% capacity, bbl/d [m³/d]</td>
<td>302 (48)</td>
<td>208 (33)</td>
<td>350 (55.6)</td>
<td>1,092 (173.6)</td>
</tr>
</tbody>
</table>

Inner Tube Specifications

<table>
<thead>
<tr>
<th>ID, in [mm]</th>
<th>1 (25.4)</th>
<th>1.25 (31.75)</th>
<th>1.5 (38.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity, bbl/d [m³/d]</td>
<td>630 (100.1)</td>
<td>1,350 (214.6)</td>
<td>1,930 (306.8)</td>
</tr>
</tbody>
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