Three-Phase Horizontal Test Separator

The Halliburton Testing and Subsea Three-Phase Horizontal Test Separator helps provide safe and efficient separation for the measurement of the oil, gas, and water phases being produced from the reservoir. The separator can be used in well-testing applications as well as cleanup operations for newly completed or stimulated wells.

The test separator is a self-contained modular unit containing the valves and pneumatic controllers needed to regulate the vessel pressure and fluid levels during a well test. The redundant safety design incorporates preset safety relief valves and a rupture disc assembly. The unit can be deployed both offshore and on land, either as a standalone item or part of a package. For land operations, it can be retrofitted to purpose-designed trailers.

Features

- Horizontal vessel design incorporates industry standards and best practices.
- Standardized box beam frame design utilizes ISO corner blocks and DNV compliant lift points.
- Environmental containment area is integral to skid frame and reduces spillage.
- Standardized 42-in. × 15-ft (1-m × 4.6-m) vessel design incorporates GeoBalance™ patented inlet diverter.
- High-efficiency mist-extractor vanes to prevent liquid carryover via gas line.
- Designed for safety: all thread outlets, excluding those associated with the Daniel meter, are of 1-in. flange-nozzle design tapped with 1/2-in. NPT.
- Redundant safety design incorporates preset safety relief valves and rupture disc assembly.
- Conforms to all industry standards related to vessel, piping, valves, and service.
- Available in skid design and as part of the surface well test trailer-mounted unit.

Benefits

- Separates produced well fluids, allowing for accurate gas, oil, and water metering and sampling.
- Accurately determines oil, gas, and water volumes using orifice meter measurements for gas and Cameron EZ-IN® Series turbine flow meters for liquid measurement.
- Adequate vessel diameter and length to allow liquid to separate from gas without carryover.
- Can be used in a wide range of applications, such as low- or high-volume wells and corrosive, sour, or sweet environments.
- The frame and lifting system is designed to meet ISO and DNV 2.7-1 standards.

Cameron EZ-IN® Series is a trademark of Cameron
## Technical Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>10177523; 101915426 (CE marked); 101912141 (dual-temperature); 101999794 (high temperature)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel Size</td>
<td>42 ID x 15 (107 x 4.6) seam to seam</td>
</tr>
</tbody>
</table>

### Maximum Working Parameters

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Maximum Gas Capacity (MMscf/D (std m³/d))</th>
<th>Maximum Liquid Capacity (B/D (m³/d))</th>
<th>Service</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>101776523</td>
<td>1,440 psig @ 100°F</td>
<td>90 (2.549)</td>
<td>H₂S</td>
<td>NACE MR-175</td>
</tr>
<tr>
<td>101915426</td>
<td>1,440 psig @ 100°F</td>
<td>16,500 (2,623)</td>
<td></td>
<td>ASME Section VIII, Division II</td>
</tr>
<tr>
<td>101912141</td>
<td>1,440 psig @ 122°F</td>
<td>1,332 psig @ 250°F</td>
<td></td>
<td>ASME Section VIII, Division II</td>
</tr>
<tr>
<td>101999794</td>
<td>1,440 psig @ 122°F</td>
<td>1,308 psig @ 300°F</td>
<td></td>
<td>ASME Section VIII, Division II</td>
</tr>
</tbody>
</table>

### Maximum Gas Capacity (MMscf/D (std m³/d))

<table>
<thead>
<tr>
<th>Part Number</th>
<th>9.93 MPa @ 38°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>101776523</td>
<td>1,350 psig @ 200°F</td>
</tr>
<tr>
<td>101915426</td>
<td>9.31 MPa @ 93°C</td>
</tr>
<tr>
<td>101912141</td>
<td>9.31 MPa @ 93°C</td>
</tr>
<tr>
<td>101999794</td>
<td>9.31 MPa @ 93°C</td>
</tr>
</tbody>
</table>

### Maximum Liquid Capacity (B/D (m³/d))

<table>
<thead>
<tr>
<th>Part Number</th>
<th>1,440 psig @ 122°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>101776523</td>
<td>9.93 MPa @ 38°C</td>
</tr>
<tr>
<td>101915426</td>
<td>9.31 MPa @ 93°C</td>
</tr>
<tr>
<td>101912141</td>
<td>9.31 MPa @ 93°C</td>
</tr>
<tr>
<td>101999794</td>
<td>9.31 MPa @ 93°C</td>
</tr>
</tbody>
</table>

### Service

- H₂S

### Code

- NACE MR-175
- ASME Section VIII, Division II

### Inlet

- 4-in. figure 206 hammer union

### Gas Outlet

- 4-in. figure 206 hammer union

### Oil Outlet

- 3-in. figure 206 hammer union

### Water Outlet

- 2-in. figure 206 hammer union

### Man Way

- 18-in. ANSI 600# RF Flange

### Relief PSV

- 3-in. ANSI 600# RF Flange

### Rupture Disk Assembly

- 2-in. ANSI 600# RF Flange

### Drains

- 2-in. ANSI 600# RF Flange

### Gas Meter

- Daniels Senior Orifice Meter 6-in. (5.761-in. ID) ANSI 600# RF Flange

### Fluid Meters

- Cameron EZ-IN® Series turbine flowmeter equipped with magnetic pickup
  - Oil: 3-in.
  - Water: 2-in.

### Skid Dimensions

<table>
<thead>
<tr>
<th>ft (m) (L x W x H)</th>
<th>20 x 8 x 9.5 (6.1 x 2.4 x 2.9)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SS bottom within 20-ft ISO Skid</td>
</tr>
</tbody>
</table>

### Weight Dry lb (kg)

- 35,000 (15,876)

### Weight Wet lb (kg)

- 44,850 (20,344)

---

For more information about Halliburton’s 3 Phase Horizontal Test Separator, please call your local Halliburton representative or e-mail us at welltesting@halliburton.com.