Degassing Unit

PROVIDES HYDROCARBON DETECTION SYSTEM FOR MONITORING CONDENSATE RETURNS

OVERVIEW
The Halliburton Testing and Subsea degassing unit provides a hydrocarbon detection system for monitoring the condensate returns from the Steam Heat Exchanger.

The system is comprised of both electrical and mechanical components that provide automated flow control and monitoring of the condensate. The hydrocarbon detection system gives both audible and visual alarms. The alarm system located on the unit consists of a pneumatic horn and flashing light. The system also contains a port for connection to the Halliburton Process Shutdown system. This provides both local and external safety functions.

The condensate enters a tank where the level is maintained by using electronic liquid level detection sensors. When a high level is detected, fluid is automatically pumped out until the level drops below the high-level sensor.

Steam or gas that escapes from the condensate enters into a loop where it is cooled and filtered to minimize moisture content before reaching the gas sensor. The gas sensor will trigger an alarm when a lower explosive limit (LEL) ≥ 20% is detected. A vacuum pump pulls the gas through the loop and out through the enclosure. A rotameter is used to regulate flow through the loop at a rate of 1 to 2 L/min.

When gas is detected, the sensor activates the pneumatic horn and flashing light. If connected to the Production Shut Down (PSD) system, the sensor will also trigger an alarm in the Data Acquisition System laboratory container.

APPLICATIONS
» Exploration and appraisal well testing
» Cleanup and flowback
» Production, in-line testing (including multiphase flow metering)
» Extended well testing
» Early production facilities

FEATURES AND BENEFITS
» Provides reliable hydrocarbon detection in liquid returns from the Steam Heat Exchanger
» Protects against hydrocarbon discharge to sea when steam returns are flowed overboard
» When used in conjunction with the Halliburton PSD system, it provides an additional level of protection with options for both alarms and automatic shut down
» Assists in the flow of steam condensate returns
» Designed and operated in accordance with industry standards and to meet safety objectives
### Equipment Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>102304816</th>
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</thead>
<tbody>
<tr>
<td>Working Pressure</td>
<td>Atmospheric</td>
</tr>
<tr>
<td>Tank Capacity bbl (L)</td>
<td>3.77 (600)</td>
</tr>
<tr>
<td>Maximum Water Pump Rate</td>
<td>140 L/min @ 100 psi</td>
</tr>
<tr>
<td>Electrical Supply (Max)</td>
<td>230 V, 50/60 Hz, 2A, 0.12 kW, 30 kA</td>
</tr>
<tr>
<td>Air Supply psi (bar)</td>
<td>20 to 100 (1.4 to 7)</td>
</tr>
<tr>
<td>Working Zone</td>
<td>Zone II</td>
</tr>
<tr>
<td>Connections</td>
<td>2-in. Class 150 Flanges</td>
</tr>
<tr>
<td>Dimensions in. (mm)</td>
<td>71 (1800) x 56 (1414) x 43 (1100)</td>
</tr>
<tr>
<td>Weight lb (kg)</td>
<td>2205 (1000)</td>
</tr>
</tbody>
</table>

Notes:
- Refer to the equipment databook for individual equipment specifications.
- Equipment is designed/certified to DNV 2.7-1, 2.7-3, CE / PED, NORSOK standards as applicable and documented on the individual Equipment Specification Data Sheets (ESDS).
- These ratings are guidelines only.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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