Gas Sweetening Package

OVERVIEW
The Gas Sweetening Package is a hydrogen sulfide (H₂S) removal system ideal for applications where H₂S is present in natural gas or carbon dioxide (CO₂). H₂S needs to be removed from natural gas streams in order to meet process or pipeline specifications. The removal of H₂S from sour gas is called “gas sweetening.” Special chemicals are designed and utilized for selectively removing H₂S and/or CO₂ in natural gas or acid gas treatment systems.

OPERATING PRINCIPLE
The sour gas enters the process tower, where it reacts with the special scrubbing chemical removing the H₂S from the gas stream. The gas enters the tower; once in the tower, the sour gas directly interacts with the chemical and is freed of H₂S and other sulfur components. Sweetened gas exits the top of the process tower and is sent to the process or pipeline.

Halliburton offers the complete package of equipment, chemicals, field service, and delivery.

FEATURES
» Process tower chemicals specifically designed to have a high H₂S working capacity, eliminating solids formation and process upsets
» Modular “plug and play” unit that can be used either onshore or offshore
» H₂S is removed externally from the process fluid
» Ideal for high H₂S concentrations, H₂S variations, and fluctuating process changes
» Packaged in DNV 2.7-1 20-foot (6-meter) ISO profile open frame

BENEFITS
» No chemical byproducts remain in process fluid, thus reducing scaling and plugging that can be associated with overspent scavenger
» Chemical consumption varies based on feed gas H₂S concentration
» Mitigates chemical waste and improves process efficiencies
» Simple equipment packages enable field operations with minimal operational support
» Modular equipment packages with small footprints
» Halliburton offers complete onsite chemical changeout service
» Cost-effective solution

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

<table>
<thead>
<tr>
<th>Package</th>
<th>Gas Process Tower</th>
<th>Chemical Circulation Pumps</th>
<th>Chemical Storage Tank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Package Tag No.</strong></td>
<td>V-100</td>
<td>P-100 A/B</td>
<td>T-100</td>
</tr>
<tr>
<td><strong>Process Flow Rate</strong></td>
<td>0 to 64 MMscf/d</td>
<td>29.1 Imp. GPM</td>
<td>3740 Imp. Gal Nominal</td>
</tr>
<tr>
<td></td>
<td>0 to 1810 e³m³/d</td>
<td>7950 LPH</td>
<td>17000 L Nominal</td>
</tr>
<tr>
<td><strong>Working Pressure psi (bar)</strong></td>
<td>1440 (99.3)</td>
<td>1440 (99.3)</td>
<td>25 (1.7)</td>
</tr>
<tr>
<td><strong>Service Temperature °F (°C)</strong></td>
<td>-40 to 167 (-40 to 75)</td>
<td>-40 to 167 (-40 to 75)</td>
<td>-40 to 167 (-40 to 75)</td>
</tr>
<tr>
<td><strong>End Connections</strong></td>
<td>6 in. – 600# Inlet</td>
<td>2 in. – 600# Inlet</td>
<td>4-in. Hammer Union</td>
</tr>
<tr>
<td></td>
<td>6 in. – 600# Outlet</td>
<td>1.5 in. – 600# Outlet</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions in. (m) (l x w x h)</strong></td>
<td>118 x 96 x 114 (3.0 x 2.4 x 2.9)</td>
<td>92 x 54 x 56 (2.3 x 1.4 x 1.4)</td>
<td>20 x 8 x 8.5 ft 6096 x 2438 x 2591 mm</td>
</tr>
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<tr>
<td><strong>Design Code</strong></td>
<td>ASME Section VIII Div 1, ASME B31.3</td>
<td>EXP, Class 1 Div 1 (or Equivalent)</td>
<td>ASME Sec. VIII Div 1, ISO 1496-1</td>
</tr>
<tr>
<td><strong>Utility</strong></td>
<td>N/A</td>
<td>25 hp, 1200 rpm, 400V/3ph/50Hz</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Notes:**

- Meets NACE MR0175 requirements for all temperatures.
- Equipment is designed/certified to ASME Section VIII Div 1, 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. Refer to the equipment data book for individual equipment specifications.

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

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