The HRS BDS Series is an efficient solution to cool and dehumidify biogas for combustion with two standard options. The system condenses up to 90% of the water contained in the gas, which is continuously separated before the lean biogas is ready for use. This is a necessary process for all bio-energy plants that use biogas as fuel in CHP engines.

A heat recovery step can be included as a standard option thus reducing energy costs up to 20%. Cold gas at 41°F is used to precool the incoming gas at 104°F, whilst raising the temperature of the dehumidified gas to approximately 97°F before use. A chiller is included to provide the energy required for the process.

The BDS comes complete with controls in a packaged ‘plug and play’ skid.

**APPLICATIONS**
- Biogas Dehumidification
- Biogas Cooling

**MATERIALS OF CONSTRUCTION**
- Service Side: AISI 304 Stainless Steel
- Biogas Side: AISI 316L Stainless Steel

**STANDARD CONNECTIONS**
- Service Side: Flange
- Product Side: Flange
- All flange types available

**SURFACE FINISH**
- External: Matt
- Internal: Matt

**STANDARD DESIGN CONDITIONS**
- Service Side: 87 PSI/176°F
- Product Side: 29 PSI/176°F

**FEATURES**
- Condenses >90% of the water present in biogas
- Up to 20% energy recovery available, reducing energy costs
- Skid-mounted for easy access and freedom of movement
- Automatic control panel
- ATEX-compliant version available
- Unit insulated with Armaflex

**RANGE**

<table>
<thead>
<tr>
<th>MODELS</th>
<th>GAS FLOW (lb/hr)</th>
<th>T GAS IN (°F)</th>
<th>T GAS MIN (°F)</th>
<th>T GAS OUT (°F)</th>
<th>T SERVICE IN (°F)</th>
<th>T SERVICE OUT (°F)</th>
<th>THERMAL DUTY CHILLER (kW)</th>
<th>ELECTRICITY CONS. (kW)</th>
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<tr>
<td>BDS 13</td>
<td>355 - 440</td>
<td>104</td>
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<td>45</td>
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**TECHNICAL DATA**

**DESIGN CODE AND COMPLIANCE**
- PD 5500, PED 2014/68/EU, ASME
- TR CU 032, DOSH Compliant
BIOGAS DEHUMIDIFICATION SYSTEM

HRS BDS SERIES

STANDARD OPTION

HEAT RECOVERY OPTION