

BIOGAS DEHUMIDIFICATION SYSTEM

HRS BDS SERIES



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.

TECHNICAL DATA

APPLICATIONS

Biogas Dehumidification
Biogas Cooling

SURFACE FINISH

External: Matt
Internal: Matt

MATERIALS OF CONSTRUCTION

Service Side: AISI 304 Stainless Steel
Biogas Side: AISI 316L Stainless Steel

STANDARD DESIGN CONDITIONS

Service Side: 87 PSI/176°F
Product Side: 29 PSI/176°F

STANDARD CONNECTIONS

Service Side: Flange
Product Side: Flange
All flange types available

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

MODELS	GAS FLOW (lb/hr)	T GAS IN (°F)	T GAS MIN (°F)	T GAS OUT (°F)	T SERVICE IN (°F)	T SERVICE OUT (°F)	THERMAL DUTY CHILLER (kW)	ELECTRICITY CONS. (kW)
BDS 13	355 - 440	104	45	88	33	42	10.8	4.5
BDS 21	440 - 770	104	45	90	33	42	15.3	6.6
BDS 37	770 - 1190	104	45	93	33	42	26.1	11.4
BDS 55	1190 - 1540	104	45	93	33	42	30.2	12.6
BDS 73	1540 - 2315	104	45	97	33	42	45	20.7
BDS 121	2315 - 3750	104	45	97	33	42	72.5	30.4

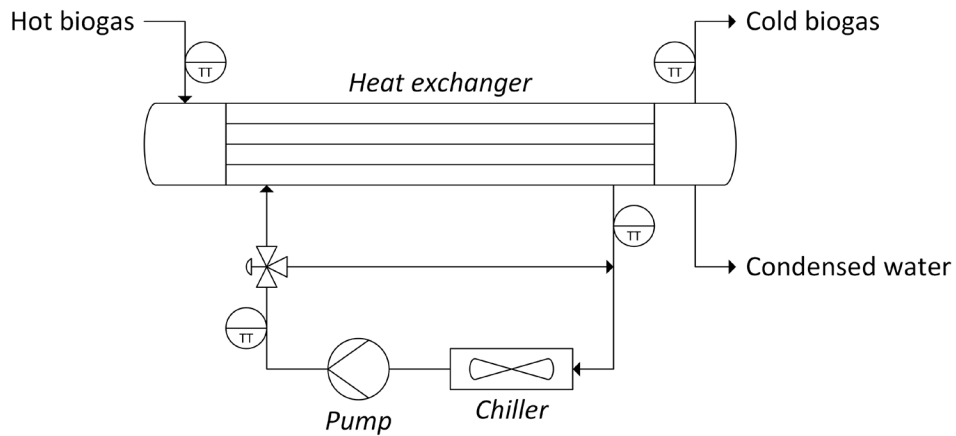
DESIGN CODE AND COMPLIANCE

PD 5500, PED 2014/68/EU, ASME | TR CU 032, DOSH Compliant

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STANDARD OPTION



HEAT RECOVERY OPTION

