

# BIOGAS DEHUMIDIFIER



*Professional Specialist in Biogas Dehumidification*



**HIGH EN**  
STANDARD COMPANY.

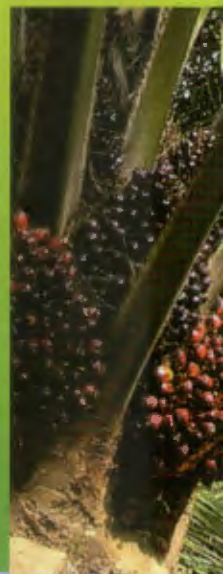
**HIGH EN STANDARD CO., LTD.**

# BIOGAS DEHUMIDIFIER

Professional Specialist in Biogas Dehumidification

Biogas, sewage gas and landfill gas contain a lot of impurities ( $H_2S$ ,  $NH_3$ ) and a large amount of water vapor . These impurities not only reduce energy efficiency but also damage the systems.

High En Standard designs and manufactures a wide range of biogas dehumidifier systems which can be integrated with heat exchanger, water separator and water chiller. The systems can also be easily mounted on skid frames. Advantages of the systems are outstanding in quality, easy installation, low maintenance and affordable prices.



## Features

- Available for biogas flow up to 3,000 Nm<sup>3</sup>/hr
- Compact mounted-frame design
- High quality, operational reliability and low maintenance
- Available for both positive pressure (1 barg) and negative pressure (50 mbar)
- High performance Shell & Tube heat exchanger are made from Stainless Steel 304
- Water separator are made from Stainless Steel 304
- High efficient air cooled chiller with ozone –friendly R410A
- Rubber insulation covered with Stainless Steel sheet
- Low pressure drop
- Automatic condensate drainage, no gas loss.

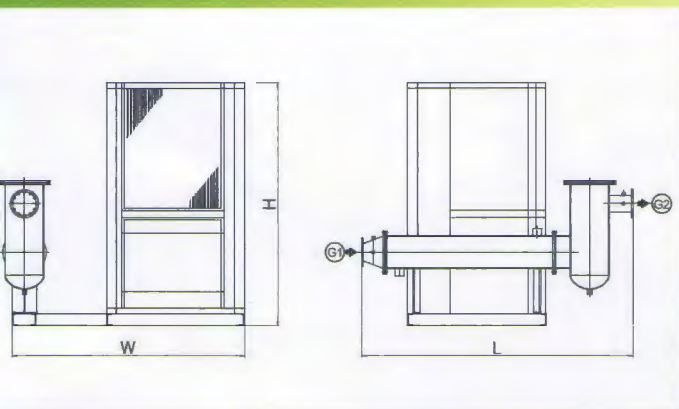




## Energy Saving

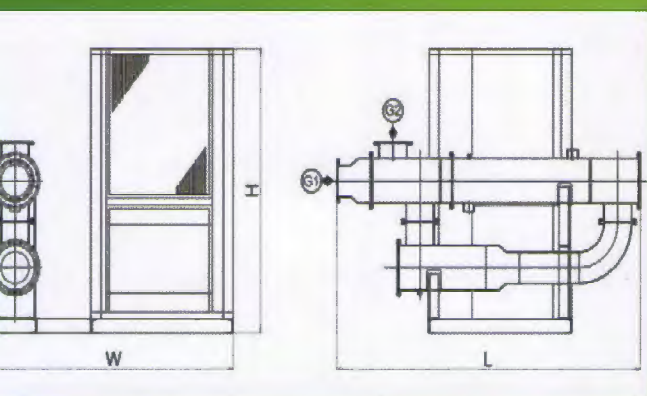
With precool model, a biogas dehumidifier is able to significantly reduce the operating cost.

## Biogas Dehumidifier Standard Model



Model	Flow Nm <sup>3</sup> /hr.	Cooling Capacity kW(Ton)	Power Supply	Power Consumption kW	Dimension				
					W	L	H	G1	G2
HE-60	60	5.28 (1.5)	380V/3Ph/50Hz	4.0	1500	2000	1500	2"	2"
HE-150	150	10.55 (3.0)		5.5	1800	2200	1800	4"	4"
HE-250	250	17.58 (5.0)		7.0	1800	2200	1800	4"	4"
HE-500	500	28.72 (8.0)		11.0	2000	2400	2200	6"	6"
HE-1000	1,000	52.75 (15.0)		18.0	2500	2800	2200	8"	8"
HE-1500	1,500	117.23 (33.0)		38.0	2500	2800	2200	10"	10"
HE-2000	2,000	146.54 (40.0)		46.0	2500	3000	2200	10"	10"
HE-2500	2,500	175.84 (50.0)		51.0	2500	3000	2200	12"	12"
HE-3000	3,000	234.46 (65.0)		69.0	2500	3200	2200	12"	12"

## Biogas Dehumidifier with Precool Model



Model	Flow Nm <sup>3</sup> /hr.	Cooling Capacity kW(Ton)	Power Supply	Power Consumption kW	Dimension				
					W	L	H	G1	G2
HES-60	60	5.28 (1.5)	380V/3Ph/50Hz	4.0	1500	2200	1500	2"	2"
HES-150	150	10.55 (3.0)		5.5	1800	2300	1800	4"	4"
HES-250	250	17.58 (5.0)		7.0	1800	2600	1800	4"	4"
HES-500	500	28.72 (8.0)		11.0	2000	2600	2200	6"	6"
HES-1000	1,000	52.75 (15.0)		18.0	2500	3500	2200	8"	8"
HES-1500	1,500	87.92 (25.0)		30.0	2500	3700	2200	10"	10"
HES-2000	2,000	117.23 (33.0)		38.0	2500	3700	2200	10"	10"
HES-2500	2,500	146.54 (40.0)		46.0	2500	3700	2200	12"	12"
HES-3000	3,000	175.84 (50.0)		51.0	2500	3700	2200	12"	12"

Max Inlet Biogas Temperature inlet 50 C  
 Biogas inlet Moisture saturation (100% Relative Humidity)  
 Max Pressure drop 10 mbar  
 Inlet Pressure -50 mbar to 1 bar



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