

SCH, HX type

Structure:

Drying station is produced as internal installation into insulated container or on the frame for assembly inside technical room/ building (individual realization on site is also possible). All elements for biogas leading are made of stainless steel.

Process:

Biogas drying is realized by 2 step operation: cooling to temperatures about 5 - 10°C and next heating to temperatures about 35 - 45°C. Condensing water is collected and ready for removal from installation. Cooling process is realized thanks to cold water cooler with glycol solution set. Heating can be realized by: heat recovery from biogas, heat recovery from cooling process or by electric heaters. Lower drying efficiency can be received by biogas heating only with proper network conditions. Relative humidity decreasing is effect of drying: from 100% - to below 30%. If only heating or heat recovery from biogas is used - relative humidity can be decreased to max 40-60%.

Basic equipment:

- container housing or assembly frame;
- insulated multifold heat exchangers with pipelines;
- cut-off valves set;
- safety system for installation in container: (cut-off flow, leakage detection, air Ex fan);
- drying system by-pass;
- condensate removal and collection elements;
- temperature sensors after cooling and heating;
- biogas flow indicator;
- glycole installation set;
- heating system;
- local electrical switch box.

Stations realized as separated modules: cooling or heating or as ready sets of full drying.

Options:

- pressure measurement;
- additional siloxanes removal module.

- compact installation inside container or as a skid version;
- drying as 2 step process: cooling or/ and heating of biogas;
- relative humidity decreasing from 100% down to < 30%;
- safety set with leakage detection, emergency biogas stop and mechanical Ex ventilation.



Cooling modules:

Model	Gasflow [Nm³/h]	Cooling power kW	Connector pipe	Heat exchanger type
SCH-50	50	4.9	DN65	WCmr-150
SCH-150	150	13.0	DN100	WCmr-250
SCH-300	300	15.5	DN150	WCmr-300
SCH-500	500	27.0	DN200	WCmr-400
SCH-700	700	32.0	2x DN150	2 x WCmr-300

Heating modules:

Model	Gasflow [Nm³/h]	Heating power kW	Connector pipe	Heat exchanger type
HX-50	50	1.5	DN65	0.5 WCmr-150
HX-150	150	4.5	DN100	0.5 WCmr-250
HX-300	300	9.0	DN150	0.5 WCmr-300
HX-500	500	15.0	DN200	0.5 WCmr-400
HX-700	700	21.0	DN250	0.5 WCmr-400

BIOGAS DRYING STATIONS

More options are available on request