

CIRRUS™ tank module TM100. VOC collection equipment.



CIRRUS™ tank module TM100 equipped with all available options

Convenient VOC collection

The CIRRUS™ tank module TM100 is a pre-engineered solution for safe, flexible and convenient collection of condensed volatile organic compounds (VOCs) from a CIRRUS Vapour Emission Control (VEC) system. The condensate discharge is controlled by a level indicator. The tank and outlet piping are traced with electrical heating cable to prevent freezing of the condensate.

Pressure vessel approval

The CIRRUS TM100 unit complies with the Pressure Equipment Directive (PED) 97/23/EC.

Materials of construction

All materials wetted by condensate are stainless steel 1.4404 or equal (corresponding to Type 316L), PTFE, titanium, fluorsilicon and santoprene. The tank module is mounted in a skid made from stainless steel 1.4301 (corresponding to Type 304) and fully insulated.

Electrical safety

The CIRRUS tank module TM100 complies with the ATEX Directive 94/9/EEC, for installation in an area classified as Ex-Zone 1, IIC, T4. This is achieved by using intrinsically safe signal loops (EEx ia), and an junction box (EEx d) for the power supply to the defrost system. The instrument cabinet with operator panel shall be installed in a non-classified area. The CIRRUS TM100 unit also complies with the Low Voltage Directive (LVD) 73/23/EEC and the Electromagnetic Compatibility Directive (EMC) 89/336/EEC.

Control system

The CIRRUS tank module TM100 utilises the control system of the CIRRUS VEC unit, which is based on a Siemens PLC Simatic S7 with CPU314 and a Siemens OP177B operator panel.

Installation

The unit can be installed outdoors, but the control cabinet needs to be installed with weather protection and at temperatures of 0 to +50 °C.

Documentation

Each CIRRUS TM100 unit is delivered with complete documentation. This includes instructions for installation, maintenance, safety and operation. There are also component datasheets, electrical and dimensional drawings, and manufacturing control documentation, such as welding documents, material certificates and test protocols.

Technical data

CIRRUS TM100

Process data

Volume [l]	100
Nominal pump capacity [l/h] ¹	1,800
Pressure range [bar (g)]	-1 to +5
Temperature range [°C]	-37 to +100 ²

Dimensions

Width [mm]	1,600
Depth [mm]	1,200
Height [mm]	1,300
Weight [kg]	300

Connections

Condensate, inlet flange ³	2x DN 50
Condensate, outlet flange	DN15
Tank breathing	3/4" ISO ⁴

Utilities

Electricity (50/60 Hz)	400 V, 16 A, 3P+N
Compressed air	
Pressure [bar (g)]	5-7
Dew point [°C]	< -20

¹ Valid at 2 bar(g) head pressure (water being pumped), with 3 bar(g) air inlet pressure.

² For system including standard pump. Without pump, temperature rating is -100 to +150 °C.

³ Can be connected to up to 2 CIRRUS® M50/M150 units or 1 CIRRUS® M500 unit.

⁴ Internal threaded fitting.

Linde AG

Linde Gases Division, Seitnerstrasse 70, 82049 Pullach, Germany

Phone +49.89.74 46-0, Fax +49.89.74 46-12 30, www.linde-gas.com