

Enclosure: 2

DELIVERY SPECIFICATION

A. -25°C system

1. One screw compressor package

The technical data for the screw compressor package are:

Refrigerant	:	R507
Make	:	GEA/Grasso
Type	:	R
Refrigeration capacity	:	306 kW
Power consumption	:	207 kW
Evaporating temperature	:	-35 °C
Condensing temperature	:	+40 °C
Speed of compressor	:	2.940 rpm
Drive	:	direct

The Grasso screw compressor package will be completely assembled on a base frame and will be delivered with the following accessories :

- Grasso screw compressor with a fixed internal volume ratio and continuous capacity control from approx. 10 to 100 %, modern asymmetric rotor profile with better than average COP values in full and part load operation.
- Electric drive motor 250 kW, 2.940 rpm, 3x400V, 50 Hz, IP65 with thermistors.
- Vertical oil separator with integrated fine separation stage, safety valve, oil return to compressor with restriction orifice
- Oil cooler, cooled by a direct expansion system
- Oil circuit components
- Combined suction stop/check valve
- Combined discharge stop/check valve
- Oil pressure regulating valve / oil filter
- Wear-free laminated steel coupling with coupling guard
- Pressure and temperature measuring instruments
- Transducer for suction-, discharge and oil pressure
- Resistance thermometer for suction-, discharge- and oil temperature

2. One air-cooled condenser

The technical data of this condenser are:

Refrigerant	:	R507
Heat rejection capacity	:	524 kW
Condensing temperature	:	41 °C
Entering air temperature	:	30 °C
Number of fans	:	8
Motor power of each fan	:	2500 Watt

The air cooled condenser consists of:

- A reinforced sheet metal casing with supports

- Fans with electric motor
- A condensing battery built-up out of tubes with fins, a distributing header on the inlet side for the vapours, and a collecting header on the outlet side.

3. One liquid receiver

The receiver is provided with a level glass, stop valves, an oil drain hose connection, a spring loaded safety valve and a rust resistant paint finishing.

4. One horizontal closed Shell & Tube evaporators

The evaporator has a capacity of 300 kW at an evaporating temperature of -34°C of the R507 an entry temperature of -5°C and an outlet temperature of -25°C of the coolant.

Rough dimensions and general details:

Shell diameter approx.	:	313 mm.
Cooled length	:	3500 mm.
Total cooling surface, measured on the refrigerant side approx.	:	33.4 m ²
Secondary refrigerant quantity approx.	:	28555 kgs. /h.
Pressure drop	:	28 kPa.

The evaporator is provided with:

- The R507 supply and discharge connections
- The liquid supply is regulated by means of an electric expansion system consisting of:
 - two solenoid valves in Eex d IIC T4 execution
 - two temperature sensors
 - one pressure sensor
- Removable end covers provided with lifting eyes
- The HTF supply and discharge connections with flanges
- Drain stop valves and purging cocks on each removable end cover
- A tandem spring loaded safety valve, with change-over valve, make Herl, type T24
- Two hard polyurethane blocks, thickness 90 mm compressive strength 4.905 kPa (50 kg/cm²).

Remark: The innerpipes are welded into the pipe plates.

Before shipment, the evaporator will be dried and filled with nitrogen, and all nozzles shall be closed with flanges or welding caps.