Replacement of Condenser Coil

- GSE3400 Cooling Module

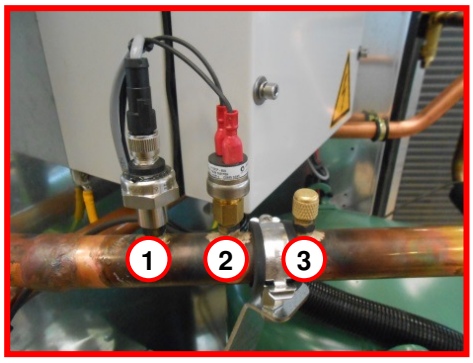
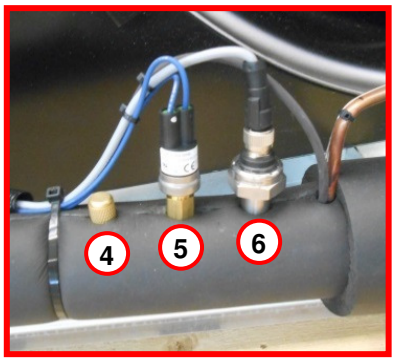
- **This instruction does not in any way suspend local rules and regulation**

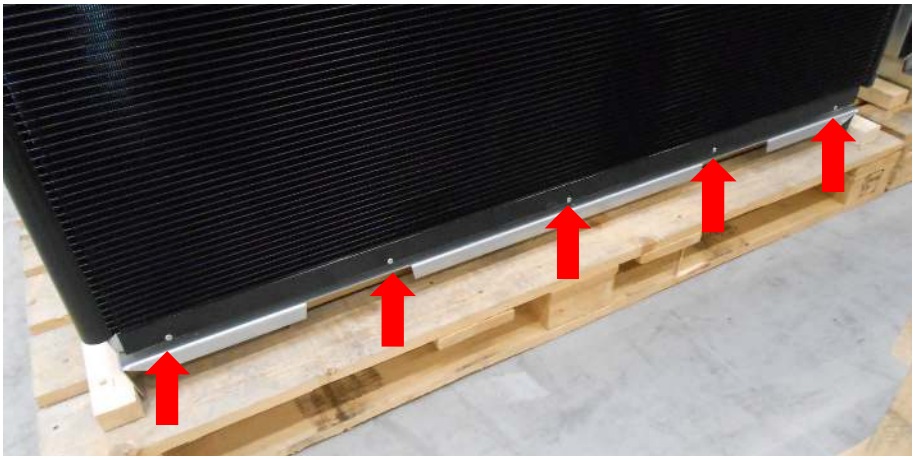
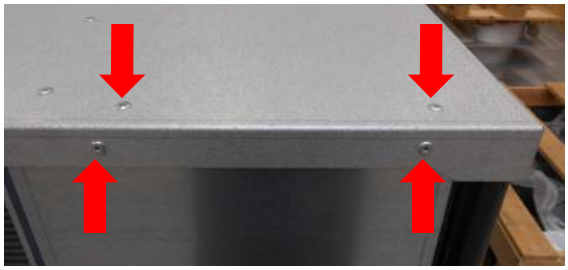
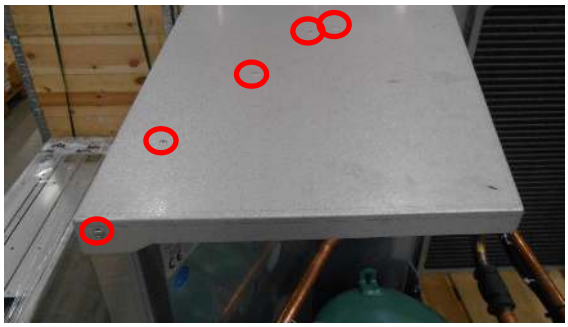
Refrigerant: R410A – 9,9 Kg

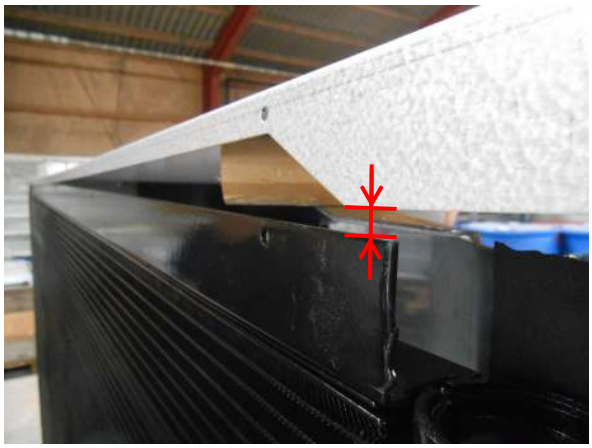
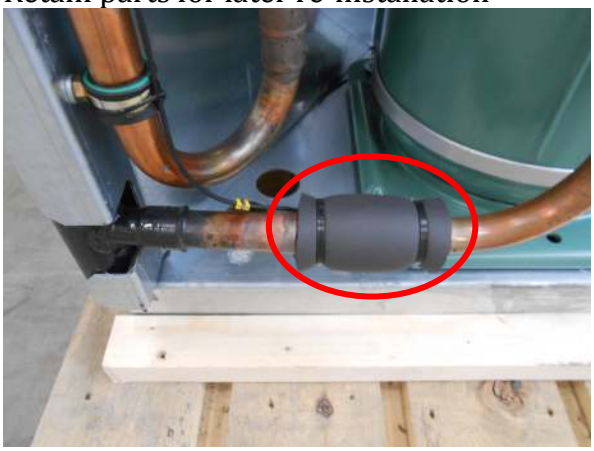
Net weight: 500 kg.

Required parts:

1 pcs. Microchannel Condenser, part no.: 272.452

No.	Description
01.	Ensure that remaining refrigerant has been recovered from the cooling module, see pictures for service access valve details.   1 Discharge Pressure Sensor 2 High Pressure switch 3 ¼" SAE Male Access Schräder valve 4 ¼" SAE Male Access Schräder valve 5 Low Pressure switch 6 Suction Pressure Sensor
02.	Support the evaporator with a piece of styrofoam or wood, as shown below. 

03.	**Procedure for dismounting of condenser** Rivets in the top/bottom of the condenser are drilled out with a 5mm drill.  
04.	In the side furthest away from the compressor, drill out 4 pcs. rivets with a 5mm drill. 
05.	In the side closest to the compressor, drill out 5 pcs. rivets with a 5mm drill. 

06.	Lift the module roof plate and place pieces of wood between the back plate and roof plate. Ensure that the roof plate is clear from the condenser in both sides.  
07.	Remove discharge pressure sensors, switch and schräder valves from the condenser inlet tube. Remove tube support. Retain parts for re-installation.   Remove insulation from condenser temperature sensor by cutting with a stanley knife. **Use caution not to cut in the wiring.** Remove temperature sensor. Retain parts for later re-installation 

08.

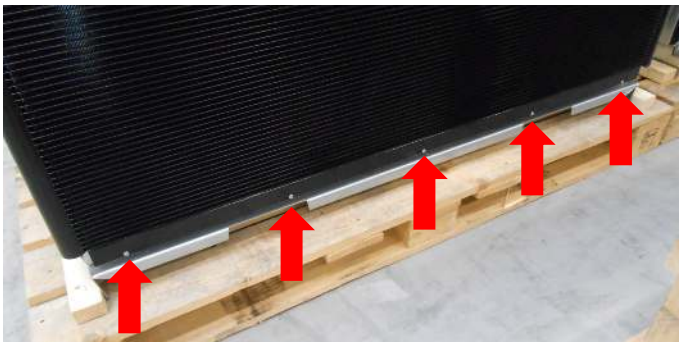
Condenser removal and mounting:

Remove the condenser by cutting the inlet and discharge tubes with a tube cutter between the condenser and existing brazing.

Install the new condenser and rivet in the bottom. Prepare copper fitting for brazing the new condenser.

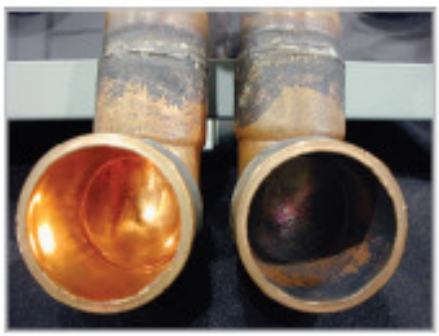
Brazing procedure:

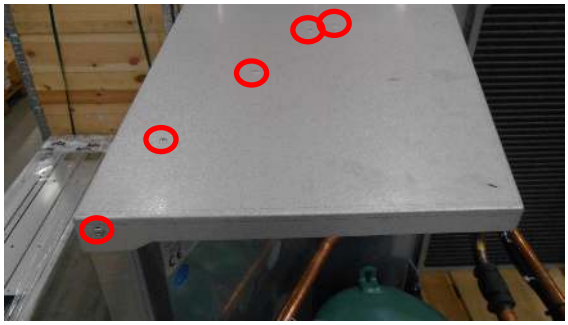
- Connect nitrogen at the pressure side (top) and set purge gas to approx. 3l/min.
- Wrap wet rags on the in- and discharge tube
- Brazing is carried out, with **nitrogen purging.**
- **CAUTION: there might be oil in the lower tube.**



Why purging with dry nitrogen?

Using dry nitrogen purge gas correctly during the brazing process, copper oxidation (dark discoloration) inside the tubes can be avoided. Copper oxide formation can reduce the lifetime of the drier filter and compressor oil significantly. The photo to the right shows examples of tubes, where purge gas was used correct and incorrect.



09.	After the brazing: • Mount cartridges in schräder valves • Mount pressure sensors, switches, temperature sensor and tube support. • Evacuate the module until the moisture is out • Fill with nitrogen to 10 bars and search for leakages at brazing's and valves. Wait for some hours. • If no leaks, empty the module from nitrogen and evacuate to below 6 mbar (at 20°C). • After this fill the module with 9,9 kg. of R410A.
10.	Mount the roof plate with rivets   
11.	Re-install the cooling module in the PCA.