

3h. Vacuum suction / Vacuum check

A vacuum is made on two locations on the system, one on the process tube and one on the pipe branch used for testing located on the pressure tube with an explosion-proof 2-stage vacuum pump.



- The pressure should be 2 mBar or lower for at least 12 hours.
- The system is now ready for the filling of the refrigerant.

3i. Refrigerant filling with EP88

Before filling the refrigerant, a vacuum must be sucked. See section 3h.

Note that EP88 is to be supplied from a bottle containing a specific amount of refrigerant.

Common procedures for other refrigerants can not be used.

Further it is important that the entire contents of the bottle is introduced into system to ensure optimal performance.

The contents of the bottle must be mixed before use by shaking the bottle for at least 1 minute before the filling.

In order to perform the filling operation properly, it is necessary to use a capillary tube with the valve before the filling site, instead of a conventional feeding tube. The reason is that the capillary tube ensures that the entire quantity of refrigerant is introduced to the system. If an ordinary filler hose is used, it must be as short as possible.



WARNING! EP88 is flammable!

The refrigerant cylinder is weighed before use.

The cylinder must be shaken for 1 min. before use.

During the filling procedure the cylinder must be upside down.

Cylinder with manometer



Vacuum suction of the filling hose



Loading procedure

Make vacuum. See section 3h.

The cylinder with manometer is connected to the coupler of the process piping.

Remember to first make vacuum in the filling hose to empty it.

Fill the refrigerant into the system until the pressure gauge on the pressure tube shows approx. 5 bar.

Start the compressor and let it run for 2-3 min. Open to the cylinder again to get out the remaining refrigerant.

When the pressure in the bottle shows 1 bar, the bottle is empty.

It is important that the valve is closed immediately, in order to avoid that the refrigerant runs back into the cylinder.

Now the cooling system is filled with refrigerant and only needs to be closed.

Disconnect the filling hose with pressure gauge from the process piping.

Push the process piping and pressure pipes together with a special tongs.

Cut off valve with a pipe cutter.



Closing the process tube on systems with flammable refrigerants must be performed by professionals with a Lok Ring end sleeve. It is recommended NOT to solder system.

Clean the pipe with steel wool or emery cloth. Use rotational movement in order to avoid scratching the length of the tube.

Apply LokPreb to the end of the tube.

Turn the end sleeve 360° so that the LokPreb is placed around the tube.

Squeeze the end sleeve together with the special tool as shown in the illustration.

Start the freezer and control the function of the unit.