

4.2 INSTRUCTIONS

The UFLEX ACR system should only be used in applications that are designed to operate within specified temperature and pressure parameters.

Tools: For correct installation, only UFLEX ACR tools should be used. Failure to use the correct tools can lead to system failure and damage.

Visual Inspection of Pipe and Connector: As a good practice, it is always recommended to inspect the material prior to installation and after the initial loading and operating procedure. This to detect possible defects, abrasion marks, deformations, cuts etc. Damaged UFLEX ACR Pipes will need to be replaced. Corroded, cracked, or damaged O-ring connectors will also need to be replaced.

Bends: Even though UFLEX ACR pipe is much more flexible than conventional pipe, it should not be bent to bends less than 5 times the diameter of the pipe using the UFLEX ACR pipe bender as it may damage the integrity of the pipe (check 4.1.3 Radius of Curvature). If it becomes too bent, leaving a deformation, the section must be cut and repaired with a UFLEX ACR joint. Bends should not be made within 30 cm of the connector to avoid affecting the connection or causing deformations that restrict flow.

Tension: The tube installation should not be too tight. Always allow enough play so that the pipe can expand and contract since with variations in temperature and pressure the pipe can change in length.

Flare Connections: During operation, vibrations and sudden changes in temperature can cause flare connections to loosen. To prevent this, the use of a few drops of a thread locker such as Loctite 242 or Loctite 243 is recommended.

4.2.1 Installation Steps:

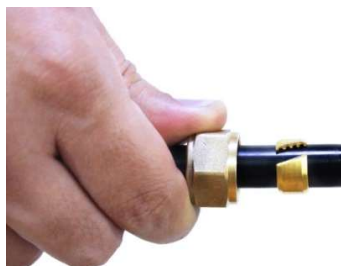
1. Cut the pipe perpendicularly with the UFLEX pipe cutter.¹



2. Lay the UFLEX® pipe on the desired installation paths. To bend the pipe, we recommend using the Uflex external bending springs while observing the minimum bending radius ².



3. Select the appropriate size of the connector according to the pipe dimension. Place the union nut on the pipe first, then the clamping ring (can be used on both sides).



¹ The pipe is marked with a metre number, making it easy to cut the required sections without a tape measure.

² Important: Do not bend in with a bending radius of less than 5 times the pipe diameter (see table, page 10).

4. Work the pipe end to be assembled with the original UFLEX® pipe clammer and deburrer (2 to 3 full turns). Make sure that no chips fall into the pipe.



5. Screw the UFLEX® adapter fitting onto the unit valve of the air conditioner (condensor / compressor). We recommend the use of an appropriate copper seal and threadlocker (Loctite 242 or Loctite 243).



6. Use a spanner to tighten the UFLEX® adapter while observing the recommended torques ³.



³ Important: For the screw connections (adapters, transitions and couplings) the torques according to the table on page 11 apply.

7. Push the tube into the shoulder of the fitting. Take care not to damage the O-rings.



8. Screw on the connector nut by hand, again using a torque spanner to tighten the connector nut to the recommended torque³. Remember to hold the union in place. It is recommended to fix the union with a threadlocker. (Loctite 242 or Loctite 243).



9. Finally, cover the pipe and the connection with insulation to prevent condensation.



³ Important: For the screw connections (adapters, transitions and couplings) the torques according to the table on page 11 apply.

It is extremely important to create a vacuum of less than 500 microns in the system until you are sure that all moisture has been removed.

A pressure test with at least 42 bar / 600 PSI must be carried out to check for leaks. The current rules and regulations for the use of refrigerants must always be observed. As with all systems containing refrigerant gas, the ingress of air, water or other contaminants can damage the device and/or the UFLEX ACR pipes.

IMPORTANT: Failure to follow these instructions can void the guarantee.