

4.2 INSTRUCTION

The UFLEX ACR system should only be used in applications designed for operation within the specified temperature and pressure parameters.

Tools: Only UFLEX ACR tools should be used for correct installation. Using the wrong tools can lead to system failures and damage.

Visual inspection of pipe and connection: As a proven practice, it is always recommended to check the material before installation and after initial filling and commissioning. This is to detect any possible damage and defects caused by abrasion marks, deformation, cuts, etc. Damaged UFLEX ACR pipes must be replaced. Torn or damaged O-rings on Uflex fittings must also be replaced.

Bends: Although UFLEX ACR pipes are much more flexible than conventional pipes, they should not be bent to a bend radius less than 3 times the tube diameter using the UFLEX ACR tube bender, as this may damage the condition of the tube (see 4.1.3 Bending radius). If the tube has kinked, the section must be removed, replaced and, if necessary, repaired with a UFLEX ACR coupling. A maximum of one tube-to-tube coupling should be used per device connection. A straight tube run is required in the area downstream of air conditioning units. The first tube bend may be installed at the earliest 30 cm behind the Uflex transition.

Tension: The pipe installation should be laid with sufficient clearance to allow the pipe to expand and contract. Please note that the pipe may change in length due to temperature and pressure fluctuations. The pipes must not be twisted when unrolling.

Flare Connections: During operation, vibrations and sudden temperature changes can cause conical clamp connections to loosen. To prevent this, we recommend using a few drops of threadlocker such as Loctite 242 or Loctite 243.

IMPORTANT: Failure to follow these instructions may void the warranty.

4.2.1 Installation Steps:

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



2. Lay the UFLEX pipe along the desired installation route. To bend the pipe, we recommend using Uflex external bending springs, observing the minimum bending radii. ²



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



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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 12).

5. Process the pipe end to be assembled using the original UFLEX pipe calibrator and deburrer (2 to 3 full turns to the right). Make sure that no chips fall into the pipe.



6. Screw the UFLEX adapter fitting onto the device valve of the air conditioning system (evaporator/compressor). We recommend using a suitable copper seal and threadlocker (Loctite 242 or Loctite 243).

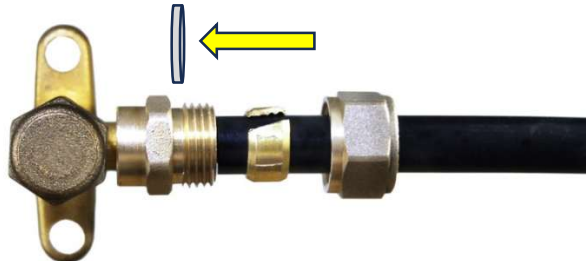


7. Use a wrench to tighten the UFLEX adapter, observing the recommended torques.³



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

8. Slide the pipe end with the union nut and clamping ring onto the support body of the UFLEX adapter. Make sure that the pipe end is pushed all the way to the material separation ring at the end of the support body and that the O-rings are not damaged.



9. Tighten the union nut by hand and use a torque wrench to tighten the union nut to the recommended torque³. Remember to hold the transition piece in place while doing so. We recommend securing the union nut with threadlocker (Loctite 242 or Loctite 243).



10. Finally, protect the pipe and connection with insulation to prevent condensation and heat loss.



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