

Metric Tube Fitting Assembly Instructions

ASSEMBLY INSTRUCTIONS ACCORDING TO DIN 3859-2

1. Before pre-assembly, make sure that all the tools to be used are in perfect working order. Replace any non-complying tool.
2. The segment of the tube to be pre-assembled must have a straight section at least twice the length of the nut (length H). Roundness must comply with DIN 2391.
3. Cut the tube square by using an appropriate hack-saw (do not use roller type tube cutters). Check that the cut is properly made at 90°. Remove any internal and external burrs.
4. Oil the 24° cone, the thread of the body, the cutting ring and the nut with suitable products.
5. Fit the nut and the cutting ring on the tube as shown. The larger diameter of the cutting ring must face the nut.
6. Insert the tube on the 24° cone until it comes into contact with the stop. Tighten the nut by hand until the cutting ring rests firmly on the nut. Then tighten the nut with a wrench until the cutting edge of the ring is in contact with the tube and prevents rotation of this.
7. Holding the tube against its stop and making sure it does not rotate, tighten the nut by 3/4 of a turn. This way, the cutting edge of the ring cuts into the outer part of the tube for the necessary depth and raises an edge in front of its cutting edge while the second cutting edge clinches the tube at the same time.
8. Loosen the nut and check that there is a clearly raised edge all round the tube. The edge must cover 80% of the front of the cutting ring according to DIN 3859 part II. This check is peremptory for the safety of all concerned!!! If the raised edge is not satisfactory, pre-assembly must be repeated.
9. If pre-assembly has been carried out correctly, fit the tube on the machine, close with a wrench until a certain resistance is encountered and then tighten for a further 1/4 turn with wrench to wrench contrast.
10. ISO 19879 envisages a maximum of six couplings to be made on the same connection opening. Increase the blocking by 15° at every closure.
11. All the pre-assembly of stainless steel fittings must be performed with hardened tools (blocks or machines).

