

Assembly instructions for adjustable shaped connectors with hexagonal nut



Fig. 1: Elbow connector with hexagonal nut

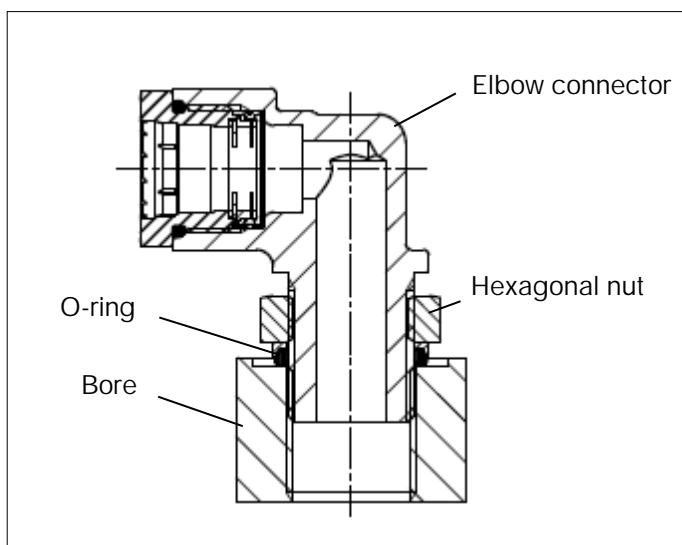


Fig. 2: Individual parts

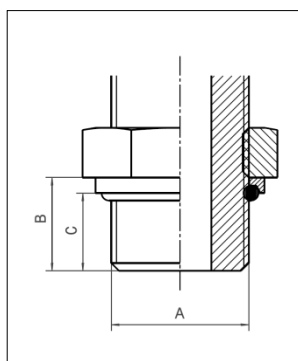


Fig. 3: Male thread

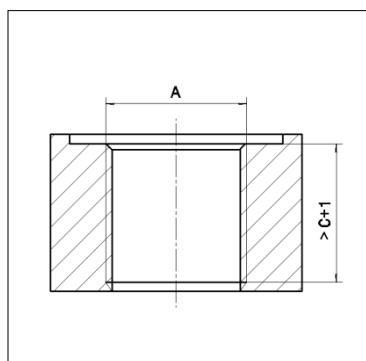


Fig. 4: Bore in equipment

These assembly instructions are intended for skilled technicians in the automotive industry.

1. Shaped connectors with hexagonal nut

With various shaped connectors the orientation can be adjusted and fixed using a hexagonal nut. Fig. 1 shows an example of an elbow connector.

2. Preparing for installation

The shaped connector must be undamaged, clean and complete (Fig. 2). The connection port must be clean and undamaged.

Before assembling the connector, check that male thread A on the connector (Fig. 3) and thread A in the bore (Fig. 4) correspond to each other. You must also check that clearance B (Fig. 3) corresponds to the parameter in Table 1 and that thread length C of the connector is smaller than the usable thread depth $C+1$ of the bore (Figs. 3 and 4).

3. Assembling the connector

The connector is attached in line with the thread of the bore (Fig. 5). The connector is then screwed in manually (Fig. 6) until the O-ring reaches the contact surface (Fig. 7).

Then the orientation of the connector is adjusted (Fig. 8).

The hexagonal nut is now tightened using a torque wrench, while the orientation is fixed with an open-ended wrench (Fig. 9). The torque is shown in Table 1.

The connector is now fixed in the desired direction (Fig. 10).

The O-ring must always be replaced following any disassembly.

Thread A	Thread length $B \pm 1$	Torque
M22x1.5	14 mm	55 ± 5 Nm

Table 1; dimensions for other thread sizes available on request



Fig. 5: Elbow connector attached in line with the bore

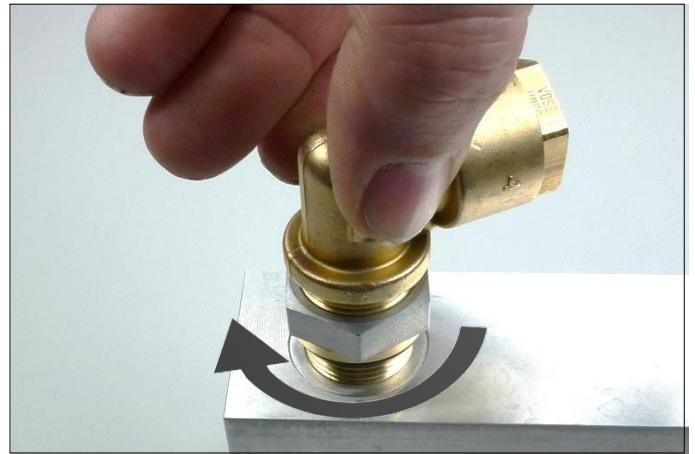


Fig. 6: Screw in the elbow connector

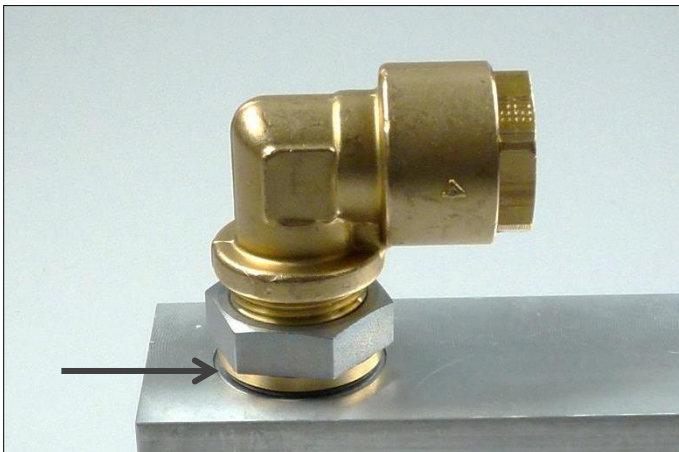


Fig. 7: Screw in the elbow connector until the O-ring reaches the contact surface

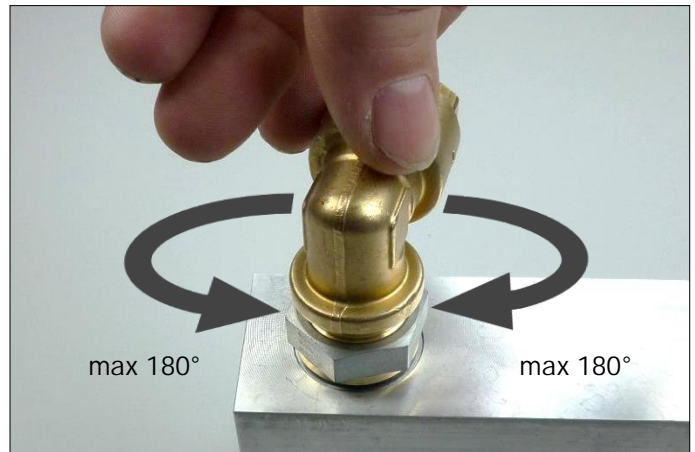


Fig. 8: Adjust the orientation



Fig. 9: Tighten the hexagonal nut using a torque wrench



Fig. 10: Elbow connector fixed in position