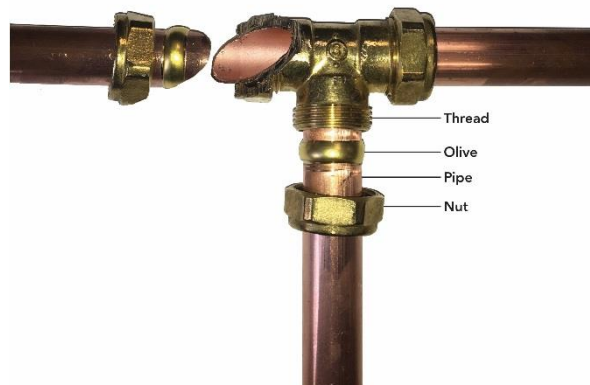




Instantor®



Sanbra Fyffe **Irish Instantor®** compression fittings are available as standard in sizes from ½” to 2” and 10mm to 54mm. Compression larger size fittings from 2 ½” to 4” are also available on request, prices on application. Instantor® fittings are WRAS approved and NSAI certified to IS EN 1254-2 Copper and copper alloys, Plumbing fittings – Part 2: fittings with compression ends for use with copper tubes. The fittings described in IS EN 1254-2 are for use in conjunction with copper pipe specified in IS EN 1057:1996 ‘Copper and Copper Alloys’ – Seamless round copper tubes for water and gas in sanitary and heating applications.



The simple principle of the Irish Instantor® joint is shown above. The olive is compressed between two differing tapers, the one in the body having a sharper angle than that in the nut, and by virtue of these differing angles, the olive is gripped on a larger area in the body removing any tendency for the pipe to turn when tightening the nut. When tightening, the ring changes form and makes a perfect two-point seal, at the same time causing two slight indentations in the pipe, giving a grip capable of withstanding pressures far greater than experienced in normal use.

Note: Compression fittings (Type A) below 18mm, may require internal support when used with annealed tube (i.e. copper) and the manufacturers/distributors advice should be sought. Internal pipe support should always be used with Instantor Pex pipe ½”, ¾”, and 1”.

To form a compression joint:

Tighten the nut first by hand until it is too difficult to continue and then tighten the nut to a minimum of one half-turn more with the aid of a wrench. The fitting should then be tested: if slight weeping is observed, tighten the fitting gradually to a maximum of one full turn until the weeping stops. NOTE: In the case of larger sized fittings, e.g. 2”, to achieve full compression a minimum of one full turn of wrench to a maximum of 1.5 turns will be required.

In cases where installation in a high pressure system i.e. 10 bar and above is required, additional sealing elements may be used such as jointing compound or PTFE tape. In the case of 10mm copper pipe, an internal tube support may be required. However, it is important to note, that Sanbra Fyffe does not recommend the use of PTFE under normal operating pressures, i.e. 0 bar – 10 bar. See table 1 below for guidelines on allowable pressure/temperatures.

Table 1: Maximum temperatures and pressures

Maximum temperature °C	Maximum pressure from nominal diameters bar	
	From 6mm up to and including 54mm	Over 54mm up to and including 108mm
30	16	10
65	10	6
110	6	4
120	5	3

NOTE 1: Intermediate pressure ratings shall be determined by interpolation.

NOTE 2: Certain designs of compression fittings are suitable for use at temperature/pressure ratings outside those given in this table. For such applications the advice of the manufacturer should be sought.

The integrity of the compression fitting is determined by the olive, which is easily prone to damage. Thus care should be taken when handling and tightening the fitting, although if the olive is damaged it is easily replaced.

Below is the Maximum recommended Torque values – slight variation will occur due to pipe wall tolerances and torque wrench tolerances. For larger diameter fittings (>35mm) Oil may be used on the threads to assist with achieving compression.

Table 2: Recommended Maximum torque values

<i>Dimension</i>	<i>Torque Value in Nm</i>
½" & 15mm	40
¾" & 22mm	60
1" & 28mm	110
1 ¼" & 35mm	250
1 ½" & 42mm	350
2" & 54mm	350

NB: PRODUCTS PRODUCED FROM BRASS ARE NOT SUITABLE FOR USE UNDERGROUND. ONLY GUNMETAL FITTINGS SHOULD BE USED FOR THIS PURPOSE.