

Tapered Thread Assembly Guide

The following assembly procedure should be used when assembling components using tapered threads to reduce the potential risk of leakage and/or damaging the components. As a general rule tapered threads should not be assembled to a torque setting due to the fact that the required torque will vary depending on such factors as thread quality, materials and sealant used.

To correctly assemble tapered threads the components must first be assembled finger tight and then wrench tightened to the specified number of turns from finger tight shown in **Table 1**.

- 1** Before beginning the assembly process ensure the threads are free of burrs, nicks, scratches or any other foreign material.

- 2** Apply 1-1/2 to 2 turns of PTFE tape in a clock wise direction (*anti-clockwise for left handed thread*), when viewed from the thread end, to the male component. The application of more than two turns of PTFE tape may cause distortion or cracking of the components. **WARNING:** If the components are being used in an oxygen application ensure the PTFE tape is oxygen compatible.

- 3** Screw together the male and female components to the finger tight position.

- 4** Wrench tighten the joint to the specified 'turns from finger tight' shown in **Table 1**.

- 5** If a leakage is detected after following the above assembly procedure check the total number of engaged threads and examine the threads for damage. The total number of engaged threads should be between 3-1/2 and 6, a number outside this range indicates the components maybe under/over tightened. If the threads are found to be damaged it may be possible to repair using the correct die/tap but the threads should be thoroughly cleaned and checked with a calibrated gauge after the repair.

Tapered Thread Size		Turns From Finger Tight
BSPT	NPT	
1/8-28	1/8-27	2-3
1/4-19	1/4-18	2-3
3/8-19	3/8-18	2-3
1/2-14	1/2-14	2-3
3/4-14	3/4-14	2-3
1-11	1-11 1/2	1.5-2.5
1 1/4-11	1 1/4-11 1/2	1.5-2.5
1 1/2-11	1 1/2-11 1/2	1.5-2.5
2-11	2-11 1/2	1.5-2.5

Table 1: Assembly Turns From
Finger Tight Values For
Steel, Stainless Steel and Brass Pipe
Fittings