

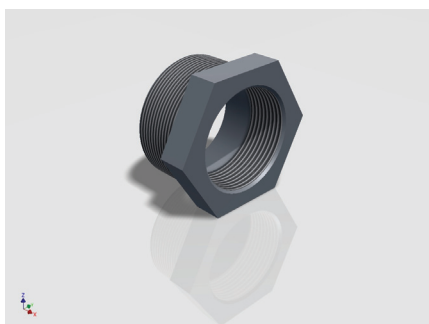
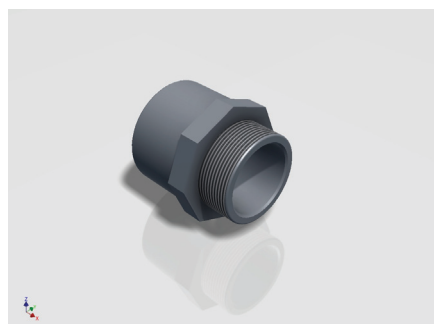
## Effast Threaded Fittings

Today there are tens of thousands of miles of plastic piping in the UK that utilise threaded fittings which provide reliable leak free connections. However if these connections are not made correctly there is a risk of leakage. This bulletin will provide a useful reference on the different types of threaded fittings in the Effast range and how these should be installed.

### Pipe threads used in plastic pressure piping systems can be divided into two types:

- **Jointing Threads**

Are pipe threads for joints made pressure tight by sealing on the threads and are taper external and parallel or taper internal threads. The sealing effect is improved by using a jointing compound. In the Effast range this would include products such as: Adaptor fittings or threaded fittings.



- **Fastening threads**

Are pipe threads where pressure tight joints are not made on the threads. Both threads are parallel and sealing is affected by compression of a soft material onto the external thread, or a flat gasket. In the Effast range this would include products such as: Unions or Valve Nuts.



## Connections made with Jointing Threads:

For Jointing Threads the male and female fittings are tapered which ensure a leak proof seal. This occurs because the tapered thread form of the male fitting matches the form of the female fitting. It is also important to use either thread tape or an appropriate sealant to fill any void between the 2 threads. The most common form of sealant is PTFE tape wrapped 2 to 3 turns around the male thread before assembly. Liquid PTFE based sealants are also used successfully to ensure a pressure tight seal.

Because of the taper, a pipe thread can only screw into a fitting a certain distance before it jams. A simple rule of thumb for installing plastic pipe threads is finger tight plus one to two turns with a wrench. Because the threads are tapered, additional turns cause the female part to stretch or undergo "strain", this could split the female fitting.

## Connections made with Fastening Threads:

For Fastening Threads both male and female fittings utilize a parallel thread. The parallel thread in these fittings does not create a seal directly but forces two parts together which compress a soft material. This material will either be a rubber o-ring or rubber gasket and it is these which create the leak proof seal.

A simple rule of thumb for installing Fastening Threads is to hand tighten and a maximum ¼ turn thereafter by mechanical means (i.e. strap wrench). It is essential not to over tighten as you could deform the sealing ring and create a potential leak path.

## Other Jointing Methods:

Effast pressure plastic systems can be joined in a number of other ways including solvent weld, the use of flanges (a future bulletin regarding flanged connections will be published) and from May 2012 fusion welding following the introduction of PP and PE100 to the Effast range.

