

**Nut**

The tensioning component of a compression fitting. As the threaded nut is tightened into the fitting detail, it pushes the ferrule forward into the tapered ferrule seat, causing it to make up on the tube.

**O****OD**

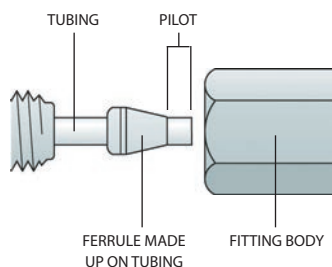
Outside diameter.

**One-piece fingertight**

A one-piece fingertight fitting is a knurled or winged nut with integrated ferrule. It is convenient to use since the ferrule is retrieved from the port with the nut. Note: Polymer type ferrules rely on surface compression to form a seal and hold the tube by friction.

**P****Pilot**

The tubing which extends beyond the ferrule in a made-up fitting, or the integral portion of a ZRF internal reducing ferrule which extends beyond the ferrule. See also pilot depth, below.

**Pilot depth**

The length of the tubing diameter cavity beyond the tapered ferrule seat within a fitting detail. Valco fitting pilot depths are tightly controlled to facilitate the interchangeability of components without the risk of leaks or dead volume.

**Pipe thread**

The external or internal threads of a fitting designed to effect a metal-to-metal seal on the conical thread faces. This type of fitting does not "bottom out" in the detail. Typically used with PTFE tape or other compound to lubricate the threads; however, since the diffusion rate of air components through the PTFE tape is considerable, pipe fittings should not be used in systems where leakage rates are critical.

**Plug**

A plug is used to block a fitting detail in a union, tee, cross, or valve.

**R****Reducing ferrule**

A ferrule which allows a smaller tube to be used in a fitting detail designed for a larger tube. Caution should be taken if standard reducing ferrules without integral pilots are used, since dead volume may be created in the fitting pilot depth.

**Reducing union**

A fitting which joins two tubes of different ODs. The bore of the fitting should typically match the ID of the smaller tube.

**S****SFE**

Supercritical Fluid Extraction. An extraction technique using a fluid in its supercritical state as the extraction medium. Some liquids and mixtures maintained above a critical temperature and pressure exhibit properties of both the liquid and gas phases of the element. These are defined as supercritical. CO<sub>2</sub> is a common supercritical fluid. Extreme caution must be used with supercritical CO<sub>2</sub>, since uncontrolled expansion (leaks) can be very hazardous due to the substantial stored energy.

**SFC**

Supercritical Fluid Chromatography. An analytical technique using a supercritical fluid (see SFE) as the mobile phase/carrier.

**Standard bore**

A bore which was chosen as the standard for a particular fitting, typically based on the most common tubing ID used with that fitting.