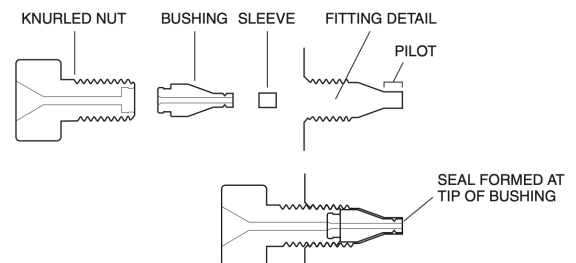


# ZERO DEAD VOLUME FILL PORT FITTINGS

## Technical Note 510

The VICI Valco ZVISF-1 is a unique fill port fitting designed so that the required leak tight seal is formed against the face of the bottom of the fitting detail instead of at the end of an angular ferrule, resulting in a true zero dead volume connection with no carry over or sample loss.

The polymer bushing snaps into the knurled PEEK nut, providing the convenience of a one-piece fitting. An ultra thin metal sleeve surrounds and supports the portion of the bushing which extends into the pilot of the fitting detail, preventing the bushing from mushrooming and getting stuck in the pilot as the fitting is tightened. The sleeve also facilitates the collapse of the tiny hidden groove which surrounds and grips the 22 gauge injection needle (not included).



### INSTALLATION

1. Screw the fitting in until the tip of the bushing lightly contacts the bottom of the fitting detail.
2. Insert the syringe through the nut and bushing until it bottoms out. You may feel a slight resistance as the end of the needle passes through the grooved part of the bushing.
3. Tighten the nut in 45° increments. Between increments, pull the syringe needle off the bottom of the detail slightly and return it to the bottom, noting the resistance. When the bushing exerts the desired resistance on the needle, the fitting is ready for use. Different materials require varying amounts of tightening.

**CAUTION: Tightening the fitting when there is not a fully-inserted needle will cause excessive collapse of the through bore, making it difficult or impossible to reinsert the needle.**

The fillport will tolerate several withdrawals and reinsertions of the needle without additional tightening, but will eventually need to be tightened another 45° to maintain a proper seal around the needle.