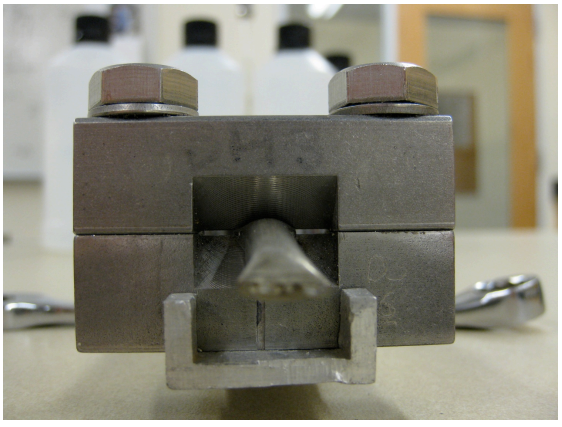
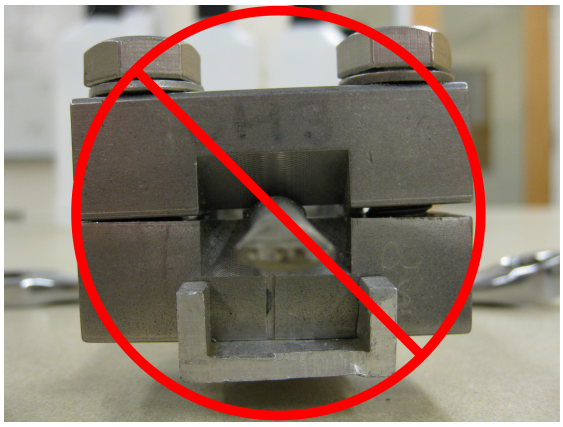
Using Pinch-off Clamps

When installed correctly clamping metal tubing will provide a very leak tight seal. Samples collected in this manner have a very long shelve life, on the order of years. However, in order to assure a leak tight seal, the following instructions should be followed.

- Pinch-off clamps work best with soft metal tubing. Generally refrigeration grade copper tubing is used. Our lab also uses nickel tubing for some applications.
- Clamps should be placed on the tubing about 1½" to 2" from the tubing end. (**IMPORTANT**: This is needed to avoid complications when attaching the sample tube to the vacuum line for gas extraction. Care should also be taken to avoid marring or de-forming the tube ends.) Or in the "pre-crimp" area of the sampler
- To aid in clamp positioning, a sampling jig should be used. (See "Using Sampling Jigs" below)
- The tubing should be centered in the clamp such that when the tubing is collapsed during clamping, all of the sealing surface of the sample tube is in contact with the "knife" edge of the pinch-off clamp.
- Tighten the clamp by alternating between the two hex nuts. The two halves of the clamp should come together squarely. This will help ensure a proper seal in the sample tube (see figures below).
- The clamp should be tightened as tight as possible. The clamp has been designed with a precision gap in the sealing surface which prevents the user from over tightening the clamp. For a proper seal the two shoulders of the clamp halves should come together with out a gap (see figures below) .





Using Sampling Jig

Jigs are designed to aid in the placement of the clamps and provide support during the clamping process. We use two types of jigs depending on the sampling type. Sampling jigs are sent out with the sampling equipment and should be used for every sample to insure proper clamp placement.