



## TECTITE Slip Coupling Installation and Specifications Manual



### Materials and Material Compatibility

TECTITE slip couplings are designed and manufactured to strict specifications and quality systems. TECTITE slip couplings are manufactured from Copper or Copper Alloys and utilize EPDM o-ring seals, Nylon and Acetal plastic components, and a 316 Stainless Steel retaining ring. An ANSI/NSF 61 listed silicone grease is used to lubricate TECTITE slip couplings.

TECTITE slip couplings are designed for use with ASTM B88 hard drawn and annealed Copper tube, Type K, L, or M, in the ½" through 1" size range.

All TECTITE slip couplings are designed to operate at temperatures from 0° to 250° F at a maximum working pressure of 200 psi.

TECTITE slip couplings must not come into contact with household cleaning products, paints, greases, flux, mineral oils, adhesives, ammonia, nitrates, or other solvent base materials that may be used during or after installation.

The exterior surface of TECTITE slip couplings should not be painted.

The use of proprietary chemicals to flush pipes during plumbing system startup should be reviewed with an EPC representative.

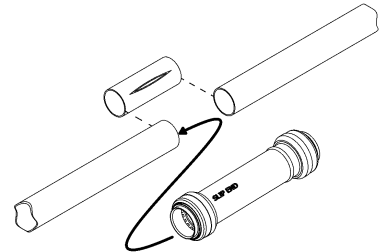
### Installation

The TECTITE joining system is designed with easy installation in mind. Basic joining and removal procedures are identical for every type and size of TECTITE fitting.

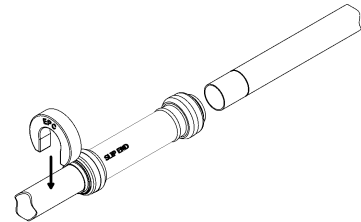


### TECTITE Slip Coupling Assembly for Copper Tube

1. Remove a 2" section of the copper tube to be repaired (Figure 1). Cut the tube using a tube cutter, the cut should be perpendicular to the centerline of the tube.
2. Remove burrs by chamfering the tube at the inside and outside diameters.
3. Install the Slip Coupling by holding the fitting tightly while inserting the tube straight into the fitting end marked "SLIP END" with a twisting motion until the opposite end of the fitting can be aligned with the other tube end (Figure 2).
4. Mark the insertion depth on the other tube. Insertion depths are printed on the product packaging or can be referenced from the table below.



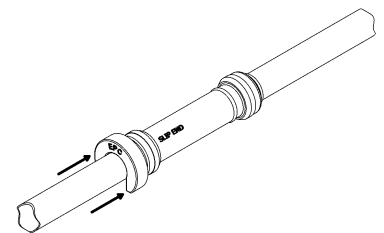
**Figure 1**



**Figure 2**

<u>Tube</u>	<u>Depth</u>
1/2	15/16"
3/4	1-1/8"
1	1-5/16"

5. On the tube already inserted into the coupling, place a TECTITE Removal Tool around the tube with the flat side placed in contact with the fitting.
6. Push the removal tool toward the fitting firmly until the grab ring is compressed. With the removal tool firmly held in place, use a twisting, and pulling motion to slide the tube from the fitting, moving the coupling toward the other tube end (Figure 3).



**Figure 3**



7. Guide fitting end onto tube end and push fitting until tube contacts the tube stop. The mark on the tube from step 4 should be visible at the end of the fitting. If the mark is not near the end of the fitting the tube must be inserted further until it contacts the tube stop.
8. Allow at least 1" of clearance from each end of a TECTITE fitting to allow adequate room for fitting removal.

### **Guide to Tube Removal From TECTITE fittings**

1. Select the correct size removal tool for the job. Place the removal tool around the tube next to the fitting assembly. The flat side of the tool should be placed in contact with the fitting.



**Figure 4**  
**TECTITE Removal Tool**

2. Push the removal tool toward the fitting firmly until the grab ring is compressed. With the removal tool firmly held in place, use a twisting, and pulling motion to remove the tube from the fitting. Release the removal tool after the tube is removed.
3. If the tube is to be re-used, check the tube for score marks, and any other defects such as dirt, or chips. If any defects exist, the tube must be repaired as needed to meet the installation requirements detailed previously in this installation manual.
4. Check the internal parts of the fitting. The grab ring, protection ring, and o-ring must be in the housing and aligned with the fitting opening. If all of the parts are in good condition, and aligned, then the fitting is ready to be assembled with a properly prepared pipe or tube.
5. TECTITE Removal Tools are packaged with TECTITE Slip Couplings and are also available from EPC to fit 1/2", 3/4", and 1" nominal sizes.



## General Installation Guidelines

### Health and Safety Warning!

- **Do not insert anything into the TECTITE grab ring mechanism other than water tube, it may not release! This warning includes human body parts and is critical to your health and personal safety. Seek emergency medical service if you become entangled in the grab ring mechanism.**

To ensure that the fittings stay clean, and the o-ring is protected from damage, never remove the fitting from its package until immediately prior installation.

Heat should not be applied to TECTITE fittings, either directly or indirectly.

TECTITE fittings should not be installed in soldered or brazed piping systems until after the components have been allowed to cool. The plumbing system should be cool to the touch at the time of installation.

### **CAUTION, BE PATIENT, BURN HAZARD!**

Soldering or brazing should not be done within 12" of a TECTITE fitting.

DO NOT USE ANY ADDITIONAL LUBRICANTS, OR SEALING COMPOUNDS WITH TECTITE FITTINGS. Clean water may be used as a lubricant, when permitted by local plumbing codes.

EPC recommends the use of a good quality tube cutter with a sharp wheel. This will create a tube end that is ideal for chamfering. A consistent chamfer width, free of burrs, is required to produce a proper TECTITE fitting to tube joint. Failure to do so voids any and all warranties.

EPC does not recommend the use of a saw to cut tube. If you do use a saw, select a fine toothed blade. Take care to ensure that the tube end is cut square, de-burred, and then carefully chamfered per installation instructions at the ID and OD of the tube.

Failure to chamfer the tube end at the inside diameter creates a situation that generates flow turbulence in plumbing systems. Turbulence, in turn, creates flow noise and the possibility for corrosion of the TECTITE fitting, plumbing tube, or both. Failure to chamfer the tube end at the inside diameter voids any and all warranties.

Wipe the tube end to remove all dirt and debris. This prevents damage to the o-ring when inserting the tube.

TECTITE fittings may be removed and re-used with tube ends prepared as described in this installation manual.

TECTITE fittings may be closely spaced without affecting joint performance provided tube insertion depth requirements are met.



TECTITE fittings are intended to be used with tube that is free of paint or other foreign matter, heavy scratches, or dents on the exterior surface. Joints made using tube exhibiting these problems voids any and all warranties. These conditions create leak paths.

### **Installation Do's and Don'ts Summary**

#### **Do's:**

- Do use tube that has a clean and undamaged exterior surface.
- Do cut the tube square (perpendicular) to the tube centerline.
- Do chamfer the tube OD and ID so that a smooth surface and a consistent chamfer width are achieved.
- Do inspect for and repair any sharp edges on the tube end after chamfering.
- Do insert the tube straight into the fitting opening.
- Do rotate the tube during insertion.

#### **Don'ts:**

- Don't make a crooked tube cut.
- Don't forget to chamfer tube ID and OD.
- Don't solder or braze within 12" of a TECTITE fitting.
- Don't lubricate with anything but clean water (check local plumbing codes).
- Don't insert the tube at an angle (This is poor assembly practice and may dislodge, cut, or nip the o-ring).
- Don't try to repair a TECTITE fitting.
- **Do not insert anything into the TECTITE grab ring mechanism other than water tube, it may not release! This warning includes human body parts and is critical to your health and personal safety. Seek emergency medical service if you become entangled in the grab ring mechanism.**