

Making Onix™ Connections with SelfTite™ Clamps

For Radiant Manifolds and Other Hydronic Heating Equipment

1. Choose the Tee Branch. Watts Radiant brass barbed fittings for 3/8", 1/2", and 5/8" Onix can be soldered into standard 1/2" copper plumbing couplings. Fittings for 3/4" Onix solder into 3/4" fittings. Fittings for 1" Onix solder into 1" fittings. Solder the appropriate Watts Radiant fitting into the copper supply piping, radiant manifold, or fan coil.

Never use copper, brass, or plastic fittings designed for plastic pipe, as they are not engineered for use with Onix.

2. Measure the Correct Length of Onix. Cut the Onix to the desired length, leaving some slack whenever possible. Slack is desirable because if the equipment ever requires servicing, the Onix will have to be cut off the barbed fitting and several inches of slack may be needed for a new connection. NEVER stretch Onix to make splices or any other type of connection.

CAUTION: Do not permanently bend Onix more than the recommended bend radius. You can visualize this amount of bend by taking a short length of Onix and coiling it up in a small circle. Use a circle diameter of six inches for 3/8" Onix, eight inches for 1/2" Onix, ten inches for 5/8" Onix, twelve inches for 3/4" Onix. Overlap Onix where necessary to avoid exceeding this bend radius.

3. Use the Correct Clamp. Make sure to use the correct SelfTite clamp for making Onix connections. Identify the clamps by the size markings on the clamps. Use 19 mm for 3/8" Onix, 22 mm for 1/2" Onix, 24 mm for 5/8" Onix, and 29 mm for 3/4" Onix. Using a pair of SqueezeTite™ Pliers, open the SelfTite clamp and slide one clamp about 3" onto the length of Onix. SelfTite clamps are designed to compensate for the expansion and contraction of metal fittings associated with the temperature cycling of hydronic equipment.

4. Make the Connection. Slide the Onix onto the barbed fitting. Using the SqueezeTite Pliers, slide the clamp back over the barb. The clamp should be applied to the middle of the barbed area.

CAUTIONS:

- a. Do not solder near, or overheat, any Onix connections. Extreme temperatures associated with soldering may seriously damage the Onix and will void any warranty.
- b. All Onix and brass fitting surfaces must be clean and dry before making the connection.
- c. Whenever possible, avoid making connections or splices in inaccessible locations.
- d. Repairing Onix that has been in service requires special attention, particularly when glycol has been used. Any residual amounts of glycol or any other coating inside the tube must be removed. An alcohol swab or pad must be used to remove the residue(s), then the tube should be allowed to dry prior to connection.

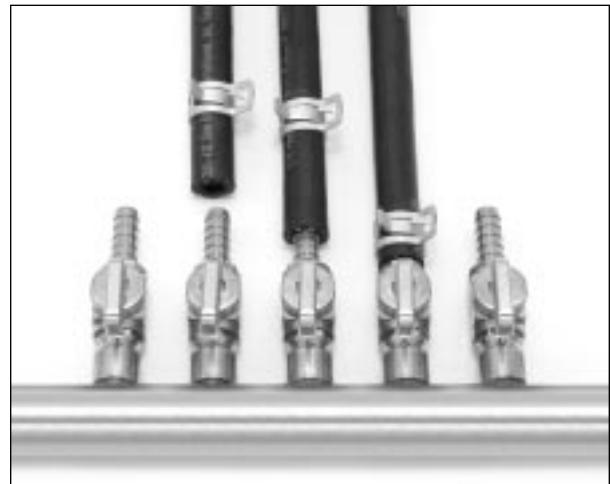
WARNING: When installing SelfTites, the installer and any bystanders within twenty feet should wear approved safety glasses with side shields. A compressed SelfTite clamp contains enough kinetic energy to propel itself several feet into the air. While compressed, the clamp could slip off the pliers or installation tool and cause severe eye damage.

SqueezeTite Pliers are locking caliper pliers that allow worry-free handling of all sizes of our SelfTite clamps. This uniquely-designed tool prevents the SelfTite clamp from accidentally sliding free, as could happen with a standard pair of pliers or channel locks. With SqueezeTite Pliers, SelfTite clamps can be locked in the open position, freeing both hands to secure the Onix to the barb. SqueezeTite Pliers also open the clamp with no chance of deforming it, as is possible with ordinary pliers.



Watts Radiant SelfTite Clamps.

MAKING A NEW ONIX CONNECTION WITH SELFTITE CLAMPS.



Using the SqueezeTite Pliers, slide the SelfTite clamp about 3" onto the length of Onix. Slide the Onix onto the barbed fitting. Using the SqueezeTite Pliers, slide the SelfTite back over the middle of the barbed area and release the pliers.



Using the SqueezeTite pliers to position a SelfTite clamp.



SqueezeTite™ Pliers
Model No. 669100
Order No. 81000600

Making Onix™ Field Repairs with SelfTite™ Clamps

WARNING: Use this Field Repair Kit only for the repair of Onix damaged in the field. Read complete instructions before beginning repairs. Do not splice together multiple lengths of Onix. See Onix manual for recommended circuit lengths.

Purchase Onix barb-x-barb splices and clamps individually, or purchase field repair kits that contain all the necessary parts in one small package.

CAUTION: Use of materials not supplied by Watts Radiant to make a splice or manifold connection may eventually result in leaks. Watts Radiant's Onix and fittings are engineered to work together. Watts Radiant extends no warranty — expressed or implied — to any failure or damage of any kind resulting from use of materials not supplied by Watts Radiant (see Onix warranty for specifics).

1. Cut the Onix. Make a straight cut-off on both pieces of Onix to be spliced together.

2. Select the Correct Brass Splice. Use only Watts Radiant brass splices and clamps to repair Onix.

NOTE: Our research shows that Watts Radiant brass fittings make the best connections to Onix. Off-the-shelf brass fittings are made to different dimensions and tolerances — do not use them.

3. Choose the Correct Clamp. Make sure to use the correct SelfTite clamp for making Onix connections. Identify the clamps by the size markings on the clamps. Use 19 mm for 3/8" Onix, 22 mm for 1/2" Onix, 24 mm for 5/8" Onix, and 29 mm for 3/4" Onix. Using a pair of SqueezeTite™ Pliers, open the SelfTite clamp and slide one clamp about 3" onto the length of Onix. SelfTite clamps are designed to compensate for the expansion and contraction of metal fittings associated with the temperature cycling of hydronic equipment.

4. Make the Connection. Slide the Onix onto the barbed fitting. Using the SqueezeTite Pliers, slide the clamp back over the barb. The clamp should be applied to the *middle* of the barbed area. When making a buried slab repair, protect the final splice assembly with a double wrap of PVC electrician's tape or shrink wrap.

CAUTIONS:

- a. Do not solder near, or overheat, any Onix connection. Extreme temperatures associated with soldering may seriously damage the Onix and will void any warranty.
- b. All Onix and brass branch surfaces must be clean and dry before making the connection.
- c. Whenever possible, avoid making splices in inaccessible locations.
- d. Repairing Onix that has been in service requires special attention, particularly when glycol has been used. Any residual amounts of glycol or any other coating inside the tube must be removed. An alcohol swab or pad must be used to remove the residue(s), then the tube should be allowed to dry prior to connection.

NOTE: Field repairs are not covered by any warranty either expressed or implied. See Onix warranty statement.

WARNING: When installing SelfTites, the installer and any bystanders within twenty feet should wear approved safety glasses with side shields. A compressed SelfTite clamp contains enough kinetic energy to propel itself several feet into the air. While compressed, the clamp could slip off the pliers or installation tool and cause severe eye damage.



SelfTite Clamps and Onix splice.



Making a splice using SelfTite clamps.



Final assembly.



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