



Sioux Chief SIO615W216 PEX Expansion Ring Connection Guide Installation Guide

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Sioux Chief SIO615W216 PEX Expansion Ring Connection



Product PEX Expansion Ring Connection

This guide is for use with ASTM F1960 fittings. Follow the instructions below for a secure connection:

Cut tube at 90-degrees

- Use cutters to cut the tube at a 90-degree angle. Make sure not to crush the outside diameter (OD) of the tubing with the cutters.
- Rotate the cutter slightly during blade engagement for best results.

Install an approved PEX expansion sleeve onto OD of tubing

- Slide an approved PEX expansion sleeve onto the OD of the tubing.

Using expander tool, expand sleeve fully

Using an expander tool, expand the sleeve fully. If using a manual tool, expand slowly and repeat expansions, rotating the expander 1/8-turn between expansions. Do not force the tube onto the expansion head and/or expand too quickly as this can damage the tubing and sleeve and require rework.

Note: Sioux Chief recommends using a self-rotating, power expansion tool for all ASTM F1960 expansion joints using PowerPEX Type-B tubing to avoid improper expansion.

Insert fitting into expanded tube and sleeve

- Insert the fitting into the expanded tube and sleeve.
- Hold the fitting in place until the tube/sleeve constricts annularly around the fitting.

The installation is complete with a visibly secure connection

Once the fitting is secure, the installation is complete. Remove any defective connections and test all completed joints to ensure proper function.

Product Special Considerations

Special Considerations for Making Large-Diameter or Low-Temperature F1960 PEX Expansion Joints

Take care to avoid the following issues when making joints with PEX expansion rings

- Improperly inserted fitting
- Damaged sealing barb will not seal properly
- Damaged, cut or grooved barb on fitting
- Failure to rotate tool inside tubing may cause unequal expansion. Remove any rings with unequal expansion.
- Be sure tubing is cut squarely, tube is inserted into sleeve completely and there is no rotation between expansions, or leaving a fitting inserted fully into tube/sleeve groove as a potential leak path.

Instructions



1. Cut tube at 90-degrees. Do not crush OD of tubing with cutters. Hint: Slightly rotate cutter during blade engagement.
2. Install an approved PEX expansion sleeve onto OD of tubing.



3. Using expander tool, expand sleeve fully. If using a manual tool, expand slowly and repeat expansions, rotating expander 1/8-turn between expansions. Forcing the tube onto the expansion head and/or expanding too quickly can damage the tubing and sleeve, and require rework.



- **Note:** Sioux Chief recommends all ASTM F1960 expansion joints using PowerPEX Type-B tubing be made with a self-rotating, power expansion tool to avoid improper expansion.



4. Insert fitting into expanded tube and sleeve. Hold fitting in place until tube/sleeve constricts annularly around the fitting.
5. The installation is complete with a visibly secure connection. Remove defective connections. Test all completed joints.

Special Considerations

Special Considerations for Making Large-Diameter, or Low-Temperature F1960 PEX Expansion Joints

When expanding large diameter tubing or in temperatures below 55°F, Do Not force the tubing onto the expansion head. Expand slowly and evenly at the prescribed rate of expansion. When using a manual tool, always rotate the tool. Keep tube/sleeves warm (**Tip:** store sleeves in pockets) to ensure uniform expansion and decrease the time needed to fully constrict around fitting. In colder temperatures, fewer expansions are needed. Use only enough tool expansions/rotations to allow full insertion of the fitting.

Both lower temperatures and over-expansion of the tube/sleeve will increase the time needed to fully constrict and complete the joint. Do Not make connections in temperatures below 5°F. Do Not apply heat with a heat gun – Excessive heat may damage tube/sleeves/fittings.

Installation Problems

Take care to avoid the below issues when making joints with PEX expansion rings



- Be sure tubing is cut squarely, tube is inserted into sleeve completely and fitting is inserted fully into tube/sleeve.



Cut-away view of PEX tubing



- No rotation between expansions, or defective expansion head leaving a groove as a potential leak path.



- Damaged, cut or grooved barb on fitting.
- Failure to rotate tool inside tubing may cause unequal expansion. Remove any rings with unequal expansion.

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Documents / Resources

