

Instructions for Installing ASTM F1960 Expansion fittings for Watts PERT Tubing

⚠ WARNING



Read this Manual BEFORE using this equipment.

Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment.

Keep this Manual for future reference.

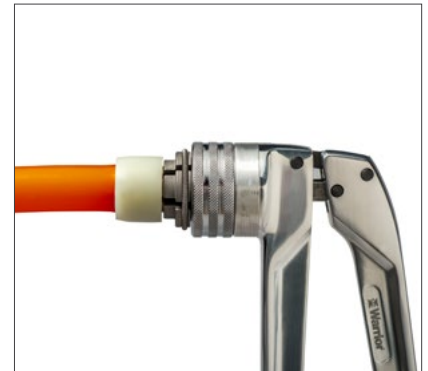
- F1960 compression rings are PEX.
- Compression is made by placing a compression ring onto tube, expanding PERT tube and ring, inserting a full-flow fitting, and holding in place until tube/ring memory secures the connection.
- Handling requirements are included within the Fitting/Ring Limitation Section.
- Fittings are reusable if barb is undamaged.
- F1960 Expansion Fittings are not suitable for RadiantPEX or RadiantPEX+ tubing.



1. Cut tube at 90-degrees. Do not crush OD of tubing with cutters.
Hint: Slightly rotate cutter during blade engagement.



2. Install PEX sleeve onto OD of tubing.



3. Using an ASTM F1960 tube expander, expand sleeve fully. Repeat expansions, rotating expander 1/8-turn between expansions. Note: To limit the amount of time for tube compression onto fitting in cold environments, expand the tube/sleeve slowly and only enough to fully insert the fitting. Keeping sleeves warm will speed retraction and inhibit unequal expansion. Use Milwaukee Tools M12 or M18 Cordless ProPex® Expansion Tool for expanding tubing. Milwaukee tools are sold through Milwaukee distributors.



4. Insert fitting into expanded tube and sleeve. Assure proper expansion so that fitting is touching tube and sleeve. Hold fitting in place until tube/sleeve memory constrict annularly around the fitting.



5. The installation is complete with a visibly secure connection. Remove defective connections. Test completed joint.

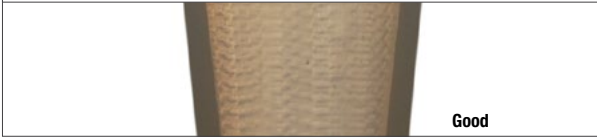
CAUTION

F1960 Application Cautions

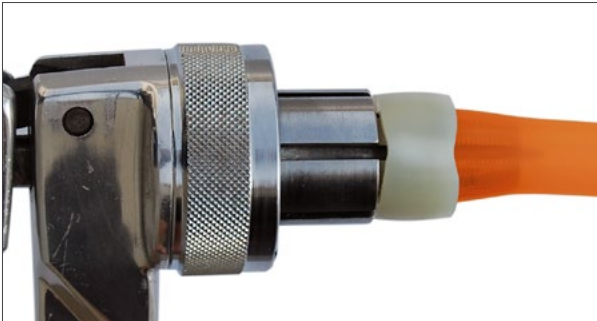


Tube not cut squarely – ring and tube need to be mated perfectly and installed fully over F1960 barb for a viable seal.

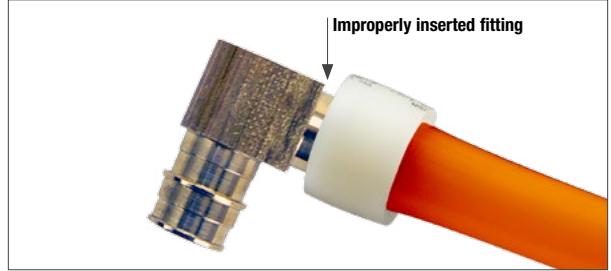
Cut-away of tubing after improper and proper expansion



Leak path. Expansion did not rotate between multiple expansions, leaving a groove or leak path past the fitting barb. Expansion made with a defective expansion head.



Ring must be kept around 55°F or greater to assure expansion is uniform. Remove any expanded ring that displays unequal expansion.



Fitting not inserted completely into expanded tube and ring.
Ring not fully covering PERT tubing.



Damaged, cut or grooved sealing barb.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information: Watts.com/prop65

Limited Warranty: Watts Radiant (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**

WattsRadiant™
Floor Heating & Snow Melting

A Watts Water Technologies Company

USA: Tel: (800) 276-2419 • Fax: (417) 864-8161 • WattsRadiant.com

Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • Watts.ca

Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • WattsRadiant.com