

IWISS ASTM F1960 Expansion Tools Kit

Installing Instruction

American Society for Testing and Materials (ASTM)
Standard Specification for **Cold-Expansion Fittings**
With PEX Reinforcing Rings for Use with Cross-linked
Polyethylene (PEX) Tubing.

- F1960 fittings can be made from various certified, listed and approved materials. See ASTM standard for acceptable brass alloys. Assure your fitting is made from a listed material.
- F1960 compression rings are PEX.
- Compression is made by placing a compression ring onto tube, expanding PEX 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 Installation



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 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.

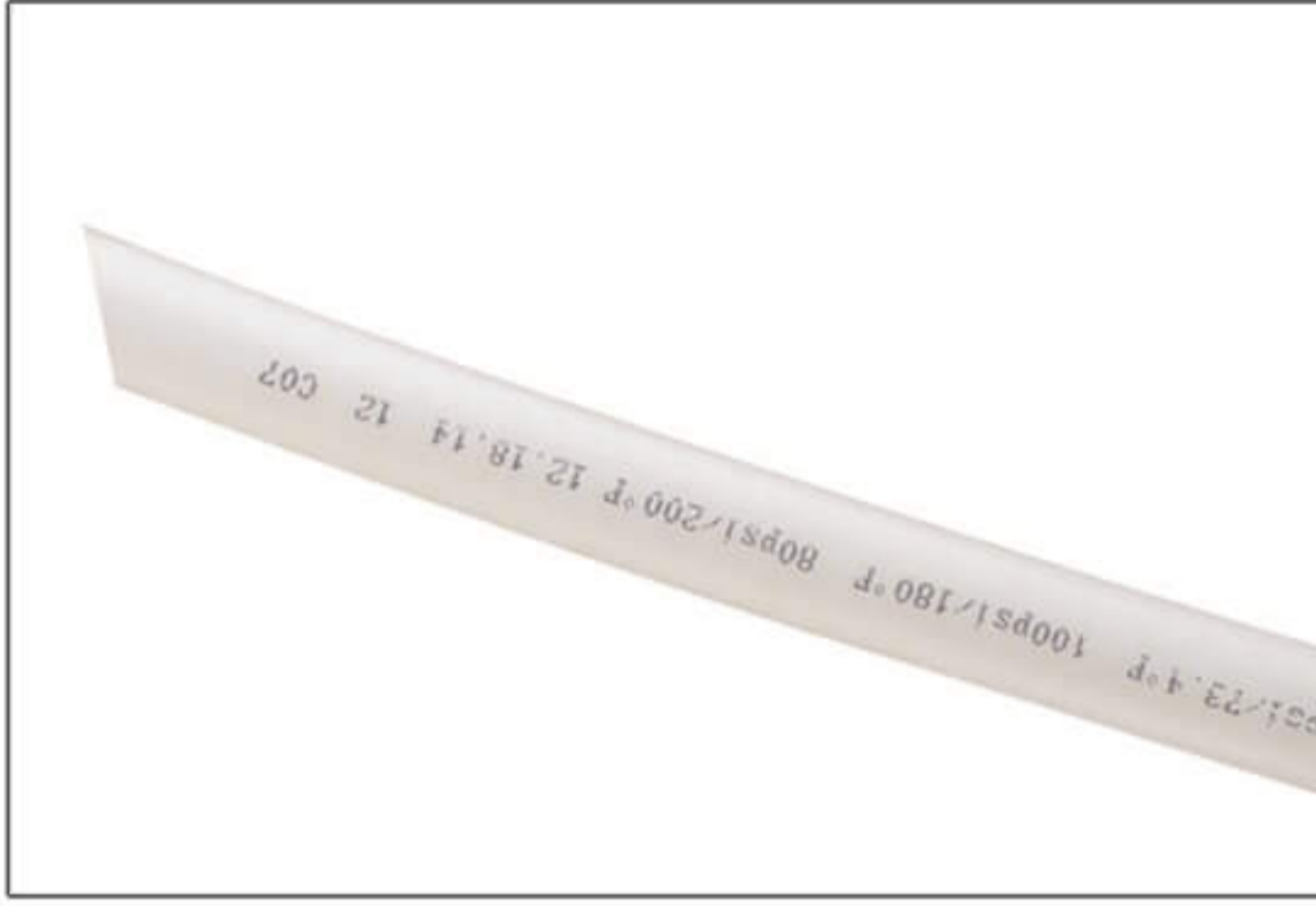


4. Insert fitting into expanded tube and sleeve. Assure proper expansion so that fitting is touching tube and sleeve. Hold fitting in place until tube/sleeve memory constrict annularly around the fitting.

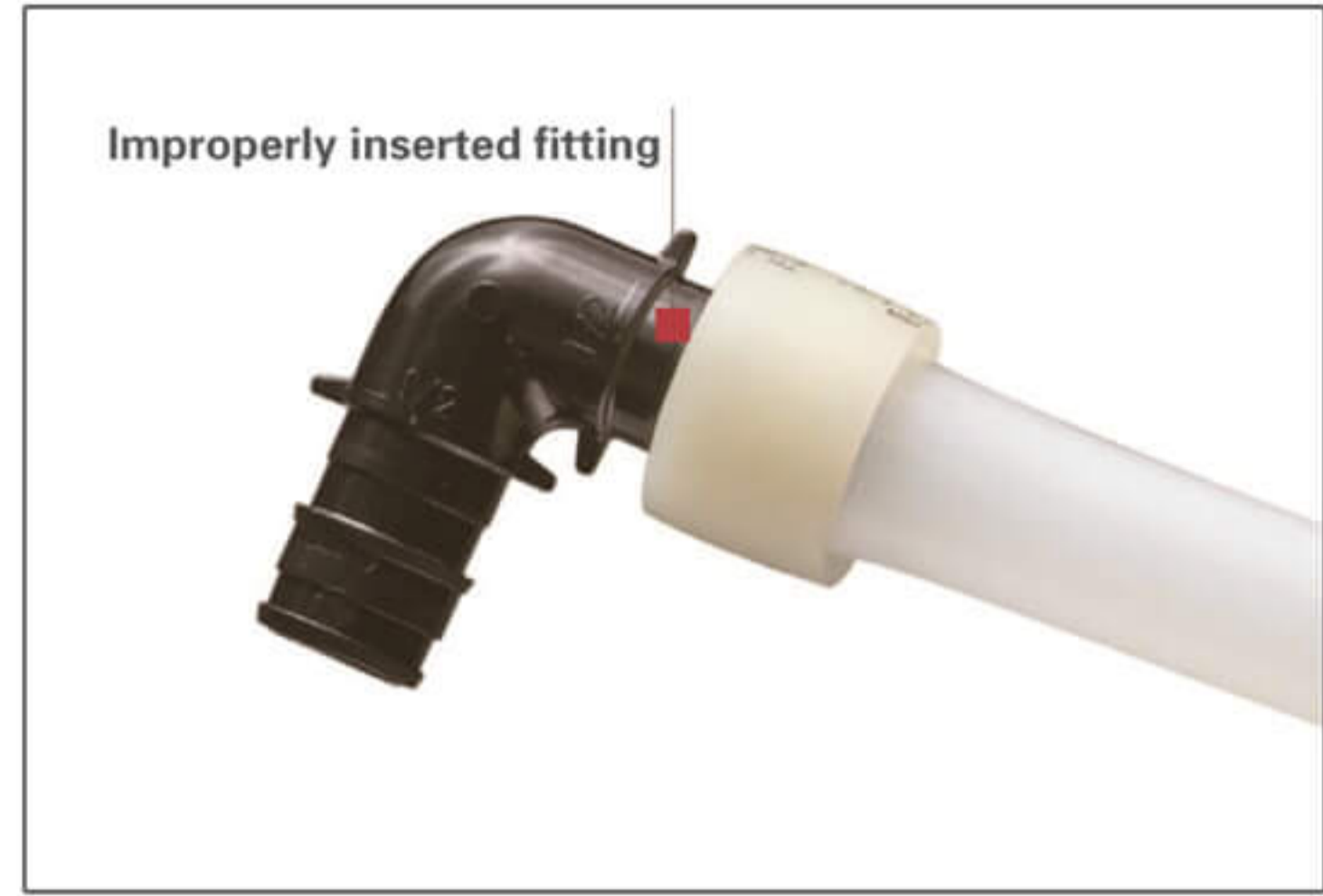


5. The installation is complete with a visibly secure connection. Remove defective connections.
Test completed joint.

F1960 Application Problems

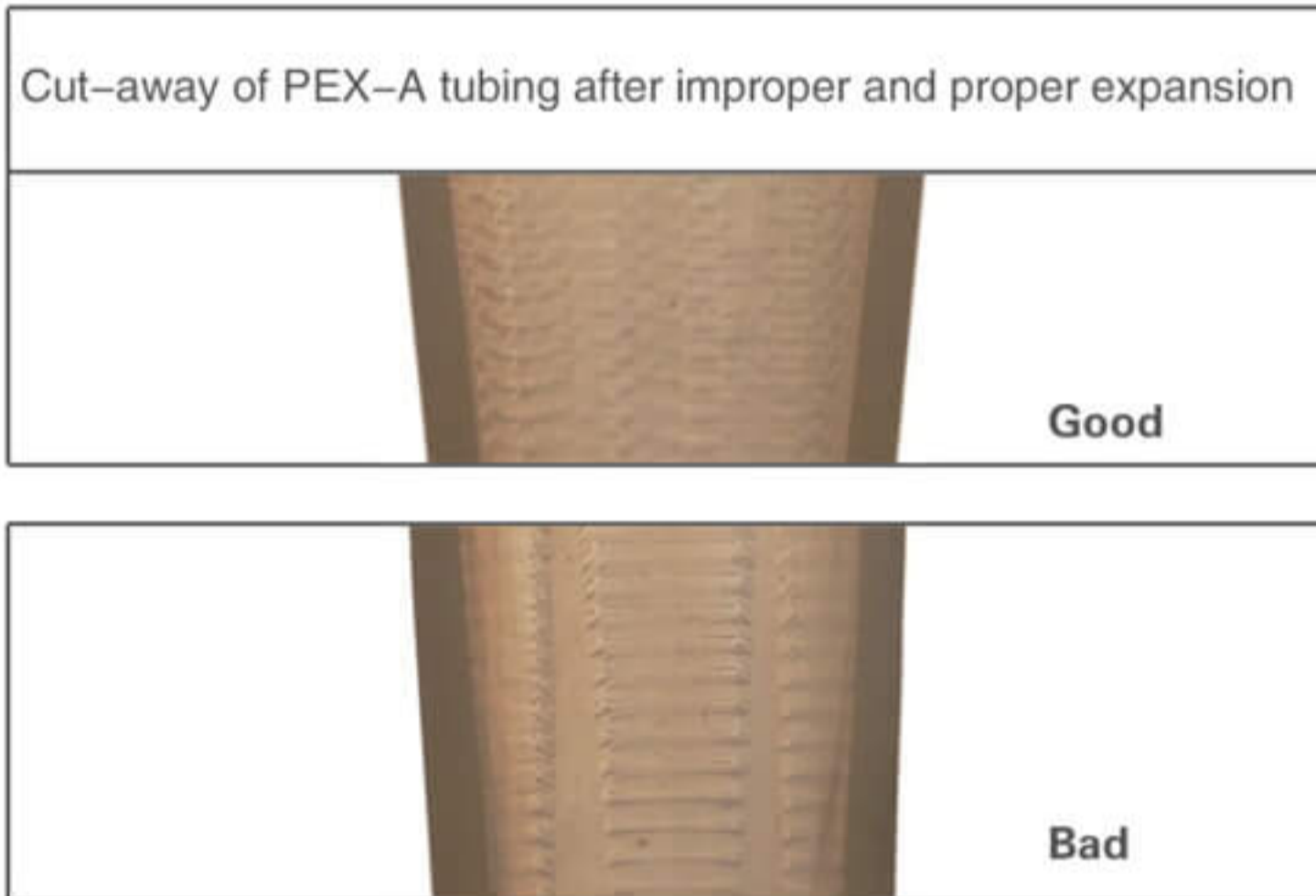


Tube not cut squarely—ring and tube need to be mated perfectly and installed fully over F1960 barb for a viable seal.



Fitting not inserted completely into expanded tube and ring.

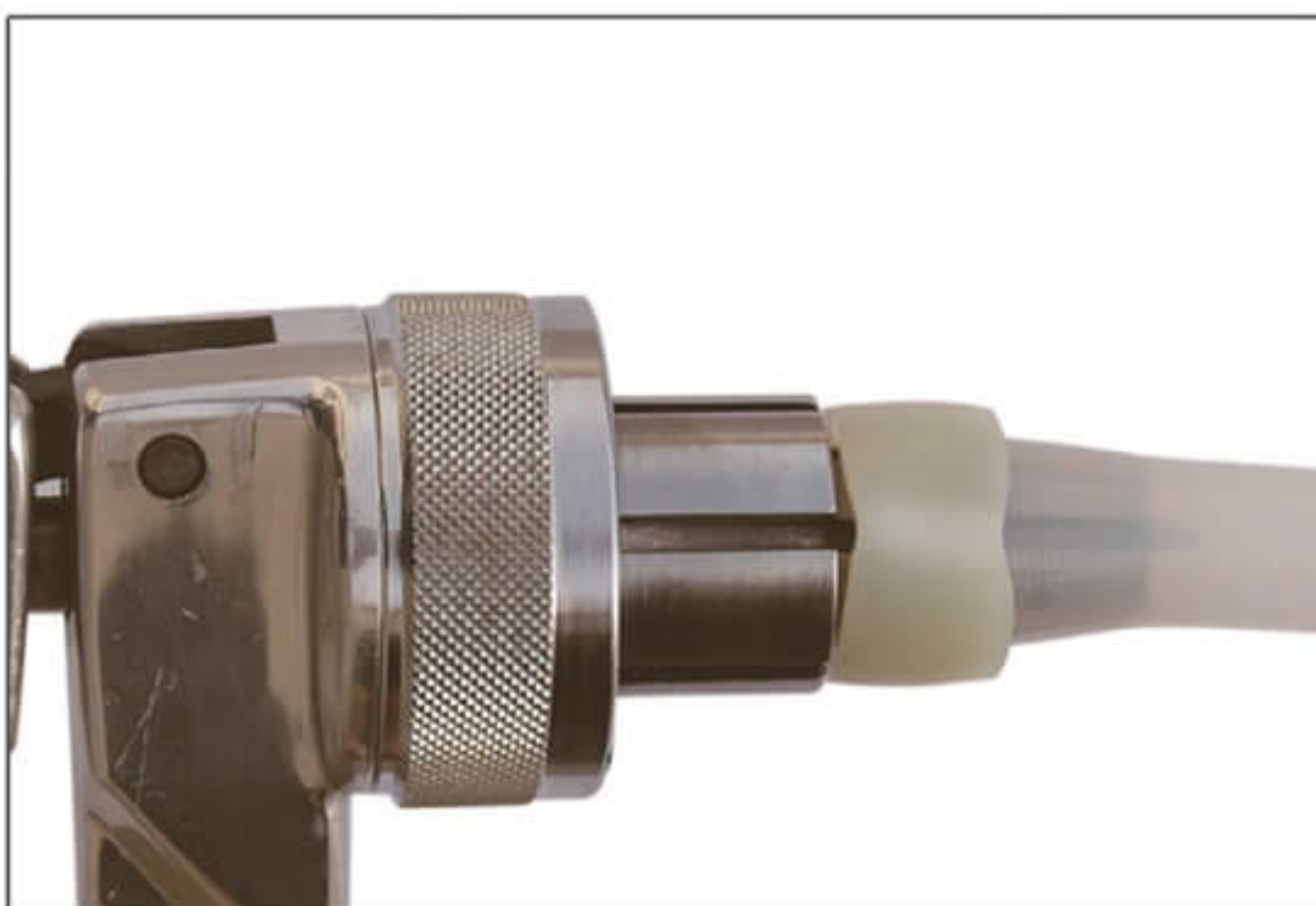
Ring not fully covering PEX tubing.



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.



Damaged, cut or grooved sealing barb.



Ring must be kept around 55° F or greater to assure expansion is uniform. Remove any expanded ring that displays unequal expansion. Failure to rotate tool inside tubing may cause unequal expansion.



Sunlight: PPSU and Polymer fittings and plastic tube should be protected from UV exposure.



Glue/Primers/Chemicals: PPSU and Polymer fittings should be protected from harmful chemical exposure. See CAUTION for harmful chemical exposure in ASTM F2159 (pg 16 & pg. 40).



Flame: PPSU and Polymer fittings should not be soldered to or near (min. of 18" separation when soldering). Flame or heating sources beyond material tolerances must be avoided.