

Staple Gun Product Usage Guidelines

Important Instructions and Precautions Regarding Watts Radiant's Onix™/RadiantPEX®/WaterPEX® Staple Gun.

The Watts Radiant Staple Gun is a pneumatic (air-powered) tool. To operate correctly, the staple gun requires an air compressor capable of delivering 100 psi. Each tool is designed and sold only for the purpose of installing Watts Radiant's Onix, RadiantPEX, or WaterPEX radiant tubing, and must not be used for any other purpose.

If you experience more than one or two punctures, then either the gun or your installation procedures may be faulty. Please call Watts Radiant for assistance before proceeding.

Watts Radiant recommends replacing radiant tubing that has been punctured. However, if you choose to repair the puncture, always use a Watts Radiant repair kit. This kit has been carefully selected to give you a trouble-free splice joint if used as directed. Refer to the appropriate Watts Radiant manuals and guidelines for technical assistance to this procedure. Watts Radiant cannot warrantee field splices, as the installation is not under our supervision. This kit has been carefully selected to give you a trouble-free splice joint if used as directed.

Note: Please refer to Watts Radiant's product warranties.

GENERAL CAUTIONS

Do not operate this tool before reading the following cautions and instructions on the front and back of this Guideline. Misuse of this tool can cause serious injury or death. If you are unclear about its proper use, please call your supplier or call Watts Radiant at 800-276-2419 for further instructions before using. Return this tool directly to your supplier if it appears to be in need of repairs.

1. This tool may fire when you first connect or disconnect the air hose. Be sure that the tool is unloaded or pointed in a safe direction before connecting/disconnecting an air hose to it.

2. Remember that any pneumatic staple gun is exactly that — a gun. It shoots staples at a velocity sufficient to kill or permanently injure you or anyone else within range. Never point this tool at anything except a piece of tubing you want to permanently fasten down. Never squeeze the trigger when your finger, hand, or any part of your body is in front of or close to the firing head.

3. Always wear safety glasses with side shields while operating this tool. Other workers or visitors to the jobsite must wear adequate eye protection if they are within range of the tool. There is always a possibility that a staple may ricochet off a nail or knot in the subfloor and injure you or a bystander.

The staples are capable of ricocheting off any wood surface unless the gun is correctly positioned over the tubing.

Do not attempt to staple into knots, even if you must extend the staple spacing. Never attempt to staple into concrete, metal, or any nonwooden surface.

4. Use the correct staple gun and quality Watts Radiant staples to prevent tool jamming and tubing punctures.

Watts Radiant uses a specially-modified Senco gun for stapling Onix, RadiantPEX, and WaterPEX. Guns are clearly labeled as are all boxes of Watts Radiant staples. Use of the non-Watts Radiant staples can cause accidental punctures during the installation. Please call Watts Radiant or your distributor, if you are not sure how to proceed.

Occasionally a staple will misfire and puncture the tubing when the staple clip is down to the last 5 to 10 staples. Always check to see if the clip is getting low, and insert a new clip to avoid this potential problem.

5. Before beginning the installation, please refer to the plans supplied by Watts Radiant or its representatives with all associated design information. We recommend you read all appropriate Watts Radiant Installation Manuals and Guidelines before beginning.



Senco Staple Gun for stapling Onix, RadiantPEX, and WaterPEX.

USING THE ONIX STAPLE GUN

The Onix staple gun is a Senco® staple gun, specially modified by Watts Radiant both internally and externally. The Onix staple gun is fitted with a stainless steel guide plate (Order Number 81005498) that is bolted to the underside of the gun. If stapling 3/8" Onix, make sure the smaller 3/8" opening is at the front of the gun. You should see "3/8" Onix" stamped on the guide plate at the front of the gun. If stapling 1/2" Onix, unbolt the guide plate and turn it around so the larger 1/2" opening is at the front of the staple gun. You should see "1/2" Onix" stamped on the guide plate at the front of the gun.

When stapling Onix, position the guide plate over the Onix. Make sure the guide plate, at both front and back, is placed firmly against the surface. Before pulling the trigger, make sure that the tail end of the guide plate is also centered over the Onix. If the tail of the guide plate is not centered over the tubing, some of the staples may puncture the Onix. When the guide plate has completely contacted the plywood and is centered over the Onix tubing, pull the trigger and fire the staple.

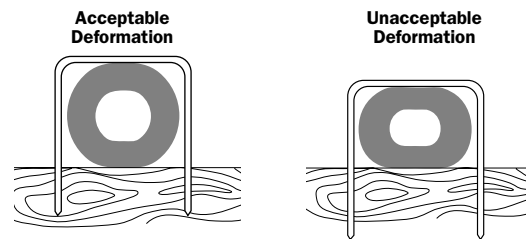
Onix Staple Intervals: You must use one staple every 6" when the Onix is installed under a wood frame floor. This ensures good thermal contact between the Onix and the floor, which is essential for the Onix to deliver its specified heat output. Spacing the staples too far apart can cause as much as a 20% loss of peak heat output. For initial Onix placement, or where there is insufficient clearance for the gun to be used, we suggest the use of Watts Radiant NailTites to hold the Onix in place. Although not essential, it can be very helpful for an assistant to hold the Onix in place

while the installer is stapling. This assistant must wear all appropriate safety equipment. When stapling Onix on top of a floor, in preparation for installing an elevated thin slab, you may increase the staple intervals to 12" or 18". Always maintain the Onix spacing as indicated on the plans or in associated design information.

ONIX CAUTIONS

1. Examine each Onix circuit after it has been stapled in place. If you see that the Onix has been partially compressed by a staple, you must remove that staple and put in a new one. The staple can acceptably deform the Onix slightly, 1/16" or less, without causing any difficulties. See the illustration for deformation tolerances when stapling hose.

2. Do not install Onix under floors containing an asphalt paper "slip joint" between the subfloor and finish floor, as an unpleasant smell may result. Rosin paper (pink colored) is generally acceptable.



Note: For best performance, 3 or 4 drops of pneumatic oil (5-weight, non-detergent machine oil) should be installed once daily into the air inlet of the staple gun. (More oil drops may be used if the gun sees continuous heavy service, i.e., more than 3–4 hours at a time.)

USING THE PEX STAPLE GUN

The PEX staple gun is a Senco staple gun, specially modified by Watts Radiant both internally and externally for use with Watts Radiant's RadiantPEX and WaterPEX. This staple gun is fitted with a stainless steel guide plate (Order Number 81005497) that is bolted to the underside of the gun. It is designed for both 3/8" and 1/2" PEX. If stapling 3/8" PEX, make sure the smaller 3/8" opening is at the front of the gun. You should see "3/8" PEX" stamped on the guide plate at the front of the gun. If stapling 1/2" PEX, unbolt the guide plate and turn it around so the larger 1/2" opening is at the front of the staple gun. You should see "1/2" PEX" stamped on the plate at the front of the gun.

When stapling PEX, position the guide plate over the tubing. Make sure the guide plate, at both front and back, is placed firmly against the plywood. Before pulling the trigger, make sure that the tail end of the guide plate is also centered over the PEX. If the tail of the guide plate is not centered over the tubing, some of the staples may puncture the PEX. When the guide plate has completely contacted the plywood and is centered over the PEX tubing, pull the trigger and fire the staple.

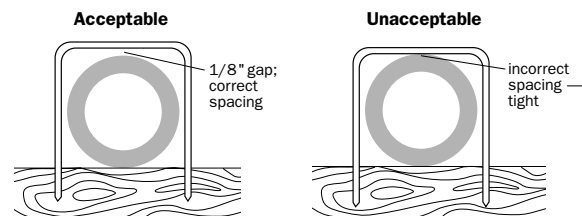
PEX Staple Intervals: The PEX staple gun should only be used for thin-slab applications and not "staple-up" or "sandwich" applications. For thin-slab applications, staples should be placed every 12" to 15" along the length of the tubing. Stapling the PEX at wider intervals can result in the tubing being too close to the surface of the thin slab. (Watts

Radiant recommends a minimum 3/4" between the top of the tubing and the surface of the concrete.)

PEX CAUTIONS:

1. Examine each circuit after it has been stapled in place. The PEX staple gun is designed to leave a 1/8" gap between the top of the tubing and the staple. This is to make sure that the tubing is not fractured by the impact of the staple and to assure that no abrasion is possible between the staple and the tubing. If the staple is closer than 1/16" of the tubing, then it should be removed and replaced with a new staple. Please see the illustration for tolerances.

2. As with any floor heating application, do not install PEX over floors with asphalt paper "slip joint" in the flooring, as an unpleasant odor may result. Rosin paper (pink colored) is generally acceptable.



Note: For best performance, 3 or 4 drops of pneumatic oil (5-weight, non-detergent machine oil) should be installed once daily into the air inlet of the staple gun. (More oil drops may be used if the gun sees continuous heavy service, i.e., more than 3–4 hours at a time.)