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 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" 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.

PEX Staple Intervals:

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.

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New Staple Gun
Extension Arm

Works with Both
Onix™ and RadiantPEX™
Staple Guns
Staple Gun Extension Arm
Installation Instructions

This Extension Arm (part # 668515) for staple guns is designed to fit many of the typical staple guns and perhaps other similar tools used today. Any pneumatic or power tool should be disconnected from its power source before beginning installation and before making any adjustments.

You will need at least one 7/16” wrench or similar tool, two can make the process easier. You will also need a standard screwdriver. Using the RadiantPEX™ Staple Gun with Extension Arm (part # 668505) or the Onix™ Staple Gun with Extension Arm (part # 668500) and other tools with a similar 1.25” width handle, no handle shim piece should be required. For staple guns with a thinner handle, a shim could make the side plates fit the handle better without excessively bending them. The Extension Arm (part # 668515) is also available without the purchase of the staple gun for $265.00.

Step 1: Remove the lower bolt from the handle and set the extension on the handle of the staple gun to determine how high you want the handle. The handle comes pre-assembled at its lowest position. If you prefer the extension handle to be positioned higher remove the remaining bolts and reinstall the bolts and side plates through the holes provided to set the handle at the height you prefer. It can be set 1” or 2” higher. Do not discard any of the bolts, reinstall all of them.

Step 2: After determining the preferred height for the extension, the bolts are tightened uniformly by hand to hold the extension loosely on the handle of the staple gun. It generally should not be all the way forward or all the way back on the staple gun handle. The extension must be properly located to allow the steel cable to be positioned near the middle of the staple gun trigger. Be sure the base plate of the extension handle is in full contact with the handle of the staple gun and tighten the bolts securely. The steel cable goes on top of the trigger of the staple gun and then inserted through the eye of the set screw. Insert the loose end of the cable into the same hole it comes out of. Please note picture on the bottom right for improper arrangement for the cable. Without the air line attached to the tool, the trigger of the staple gun should depress easily to its firing position. You may have to apply pressure to a trigger safety devise on the base of the staple gun to get the trigger to depress fully. It is recommended the installer not use a hand to do this especially if there are any staples in the tool. Now squeeze the trigger on the extension arm, pull any excess cable through the eye of the set screw and initially tighten the set screw at this position.

A short length of hose or plastic tubing is necessary for testing the Watts Radiant staple guns. Attach the air line to the staple gun. Press the staple gun against a suitable test material and squeeze and release the extension arm trigger to see if the trigger has its full range of motion and actuates the staple gun. The gun should fire one staple and continue to work in a normal fashion. If it did not work an adjustment of the location of the extension arm or the tension on the cable should fix it. Disconnect the air line BEFORE making any adjustments.

New from Watts Radiant:

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<thead>
<tr>
<th>Staple Gun Extension Arm only</th>
<th>#668515</th>
<th>$255.00 ea.</th>
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<tbody>
<tr>
<td>3/8” Onix Staple Gun w/extension Arm</td>
<td>#668500</td>
<td>$1380.00 ea.</td>
</tr>
<tr>
<td>1/2” RadiantPEX Staple Gun w/extension Arm</td>
<td>#668505</td>
<td>$1380.00 ea.</td>
</tr>
</tbody>
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How to Assemble Extension Arm to the Gun

**Step 1**
Attach handle to staple gun

**Step 2**
Place steel cable on trigger of staple gun. Then insert through eye of set screw. Finally insert loose cable through original hole.