

# 4-STATION PITTSBURGH LOCK ROOF SEAMER FIELD GUIDE

*Part# 50911*

9.14.23



Contact us at 1-888-343-0456 or online at [www.diroofseamers.com](http://www.diroofseamers.com)

D.I. Roof Seamers  
915 Highway 45  
Corinth, MS 38834

***\*READ COMPLETELY BEFORE OPERATION OF MACHINE OR TOOLS\****

Safety Regulations set forth by the Occupational Safety and Health Act, local, state, and/or federal agencies should always be adhered to.

# IMPORTANT INFORMATION

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- This Roof Seamer has been set up for your specific panel profile. Never use this machine on any other panel or profile.
- Do not attempt to alter or modify the machine in any way.
- Follow all safety suggestions and warnings in this guide as well as those posted on the machine itself.
- It is recommended to “seam as you go”. In other words, seam the panels as they are being installed. This helps ensure that each panel is kept within module and installed correctly.
- Use only D.I. Roof Seamers hand crimpers.
- Use heightened attention when seaming the first few seams, until a pattern of properly seamed ribs is established. Then, follow the same process on similar seams. Again, use heightened attention if conditions change, such as different support types, clip spacing, or roof slope.
- Panels that have not been completely seamed can collapse or slide out from under you.
- Panels and clip tabs must be properly engaged and remain in position during the seaming process. Use locking pliers to hold the panels in position when necessary.
- For additional information, visit [www.diroofseamers.com](http://www.diroofseamers.com)

## **IMPORTANT**

### ***Required extension cord size:***

Distance (FT)	0-100	100-200	200-300
Wire Gauge (AWG)	10	8	6

## SCAN OUR QR CODES FOR FURTHER INFORMATION



### **Operational Videos**



### **D.I. Roof Seamers App**

This is a single-direction Pittsburgh Lock (180<sup>0</sup>) Roof Seamer. It will complete the seam in a single pass. It is important to remember to use extreme caution when reaching the edge of the roof. Stop and disengage the locking handles of the seamer while the wheels remain on the roof panel.

“Single Direction Seamer” means that the seamer must run from eave-to-ridge or ridge-to-eave, depending on the direction of panel installation. When this type of seamer reaches the end of the panel, it must be removed and transported back to the starting end to seam the next rib.

Do not run the seamer within 6” of the end of a panel without using extreme caution. Hand crimping in this area may be necessary if there are safety concerns or risks. Use your hand crimpers to finish any area that the seamer may not be able to complete such as the ridge cap area, or pitch change in the roof. Hand crimpers can be rented from D.I. Roof Seamers.

Your 4-Station Roof Seamer motor requires a 20-amp, 120-volt AC power supply. Poor performance and motor damage can result from the use of an improper power supply.

**Note:** Images used in this guide are for representation purposes only and may not be exact to your job.

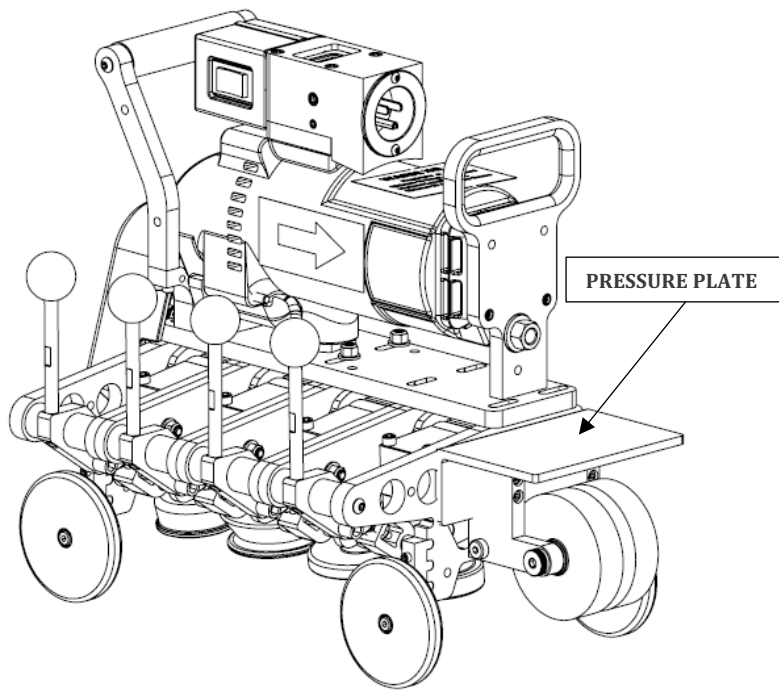
## STEP 1

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Before beginning, ensure that the panels are installed correctly and are free of all debris and contaminants such as sand, snow, excessive fluids, sealant/mastic, tools, extensions cords, etc. Keep a safety tether attached to the seamer anytime it is on the roof to prevent it from falling off. Failure to do so could result in machine damage, serious injury, and/or death.

**Note: The machines tether point is not intended to arrest the machine during a free fall from the roof.**

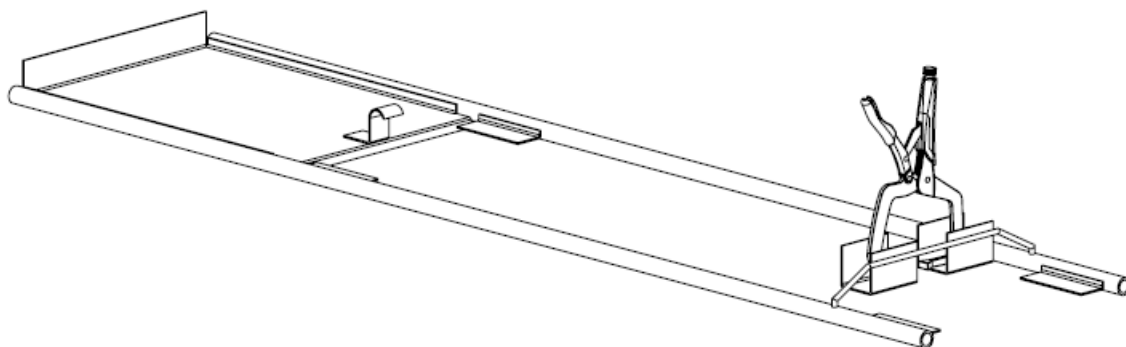
**Note:** There are two different methods for starting the seamer onto the seam. One method requires the use of a loading ramp (available for purchase from D.I. Roof Seamers), clamps, and a folding tool. This method eliminates the use of the hand crimper and places the seamer in a position to be fed onto the roof panel from the eave. The second method requires the use of a hand crimper and allows the user to completely engage all four stations of the machine on the roof panel at startup. This method is detailed at the back of this guide. All tools are available through *diroofseamers.com*.



## **PITTSBURGH LOCK SEAMER FEED RAMP ENGAGEMENT PROCESS**

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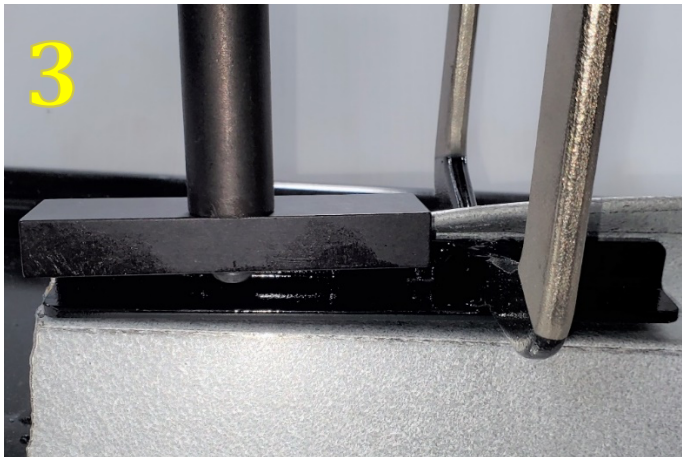
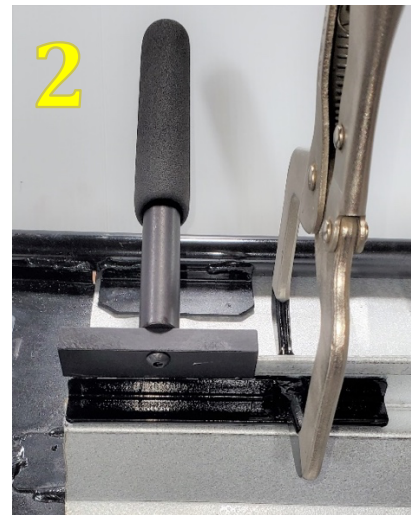
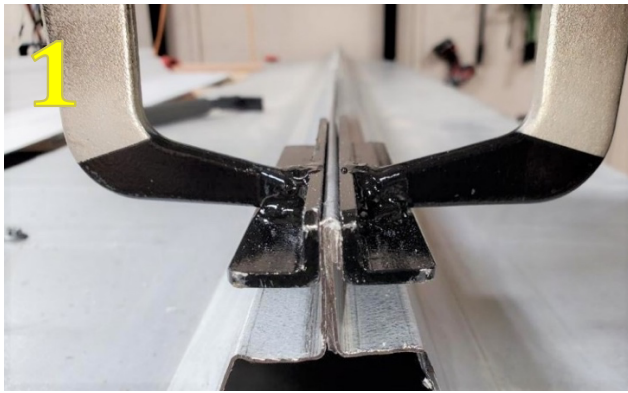
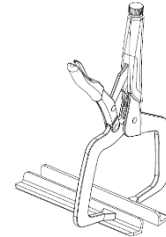
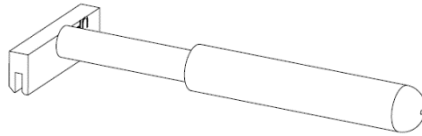
This section details the use of the feed ramp to start the seamer onto the roof panel.



# STEP 1

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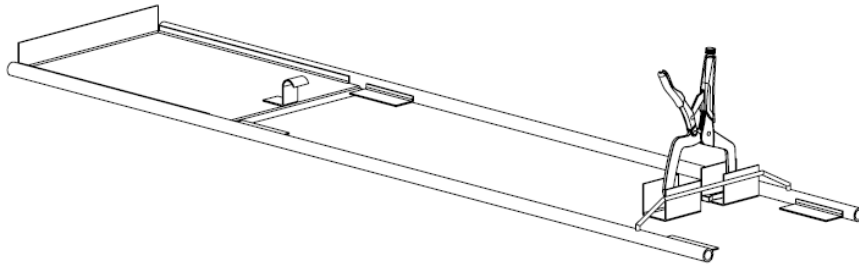
**1** Before beginning the seaming process, crimp the ends of the panels together using the starter hand clamp. **2** Then place the clamp on the horizontal legs flush with the starting end of the panel. **3** With the starter tool, fold the seam over the clamp to a 90° position as shown **4** below.



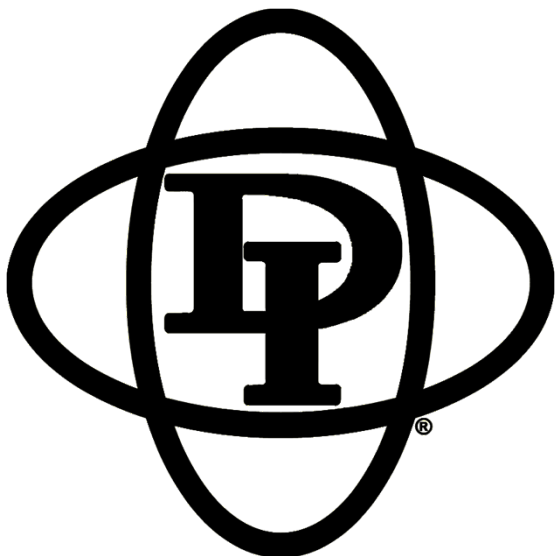
## STEP 2

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A seamer starting platform is available for purchase from D.I. Roof Sealers. This can be used to hold the machine in the correct starting position beyond the eave of the building. This platform should **NEVER** be stood on or straddled.



Insert the corrugation support of the platform into the panel corrugation at the eave and rotate the platform down onto the pan.



# STEP 3

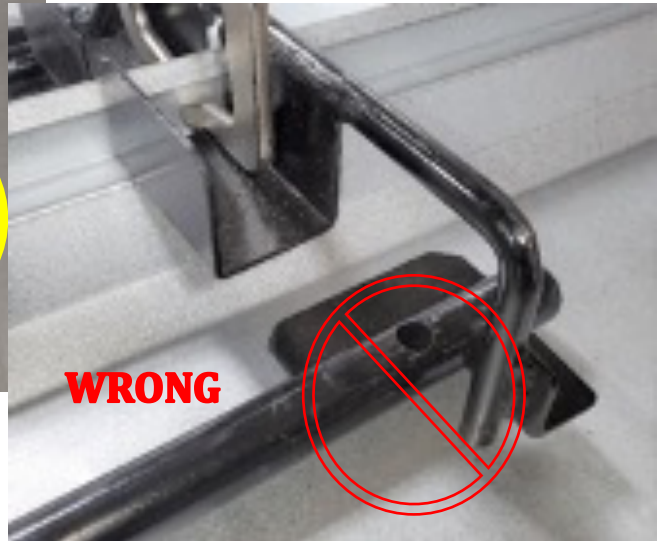
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Ensure that the gate leg is engaged in the hole in the support tube as highlighted in the picture to the left. Lock clamps onto the panel as



shown. Clamps should be placed firmly down against the gate brackets.

**WARNING:** Locking clamps must be in good working condition and adjusted to require 60lbs of pressure to engage.

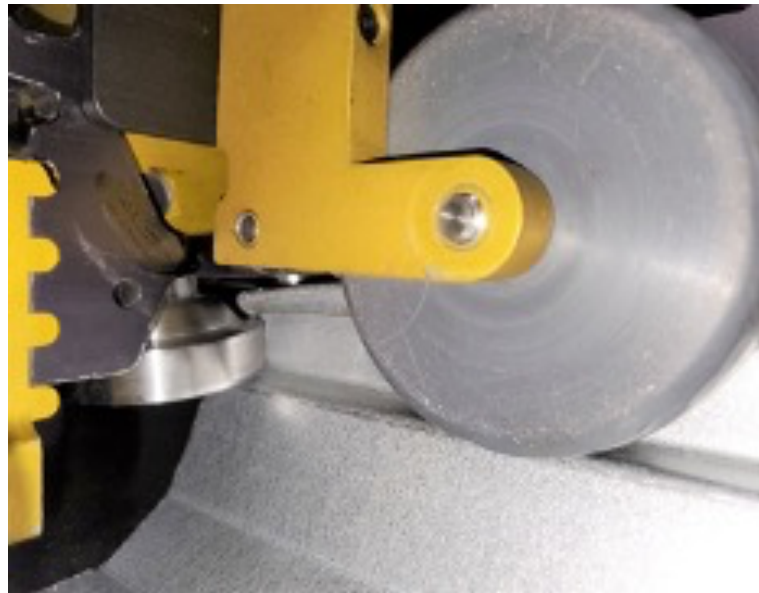




## STEP 4

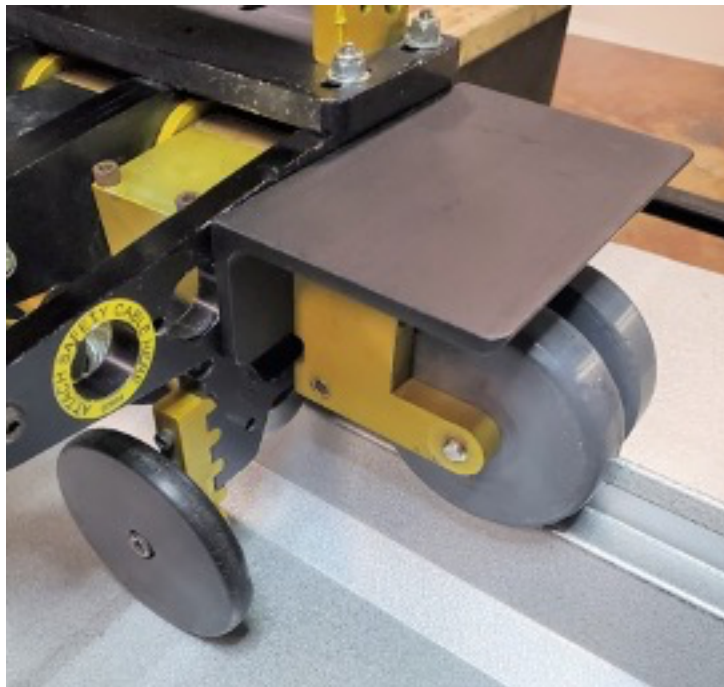
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While placing one foot on the panel directly over the eave structural and the opposite on the platform leg, place the seamer gently onto the platform. Position the front guide wheels onto the top horizontal legs with the seam centered between the wheels. Carefully engage all four locking handles and power on the machine. Pull the seamer onto the panel to engage the rollers. Once the first roller is engaged the seamer will pull itself. Apply downward pressure to the pressure plate until all rollers are engaged and the seamer is forming properly. Then, quickly remove the locking clamps and open the starting platform gate so that the seamer can pass through. It may be necessary to power the seamer off to safely open the gate before the seamer gets to it.



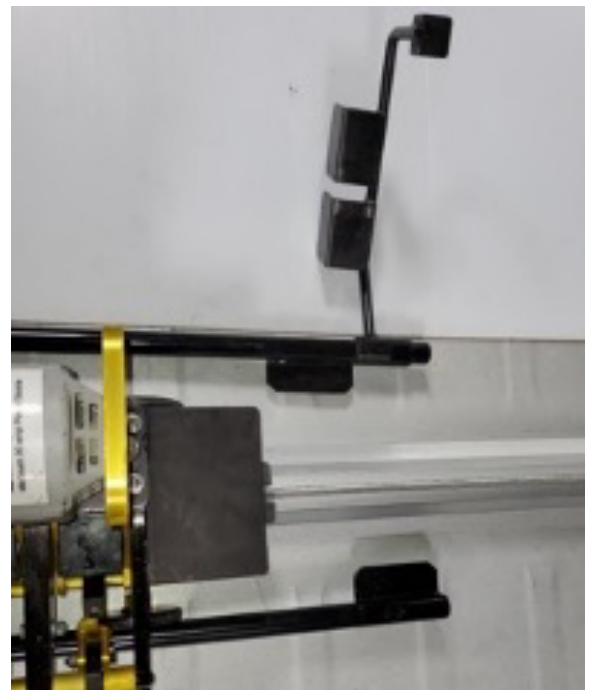


Again, **NEVER** straddle or stand on the platform and always wear proper fall protection. Be sure to attach a tether to the seamer any time it is on the roof to prevent it from falling off. Failure to do so could result in machine damage, serious injury, and/or death.



Apply downward pressure to the pressure plate as needed. This is typically at startup, end laps, and areas where there may be panel separation.

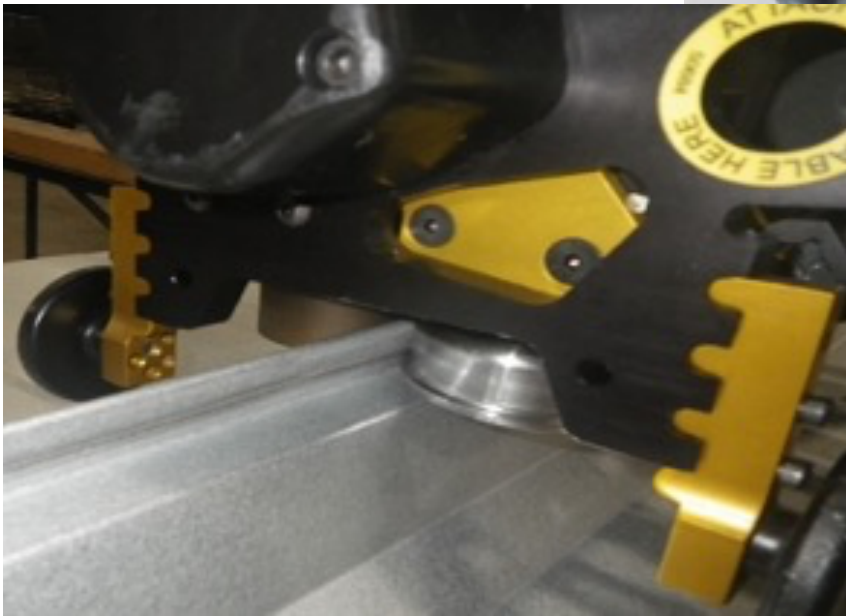
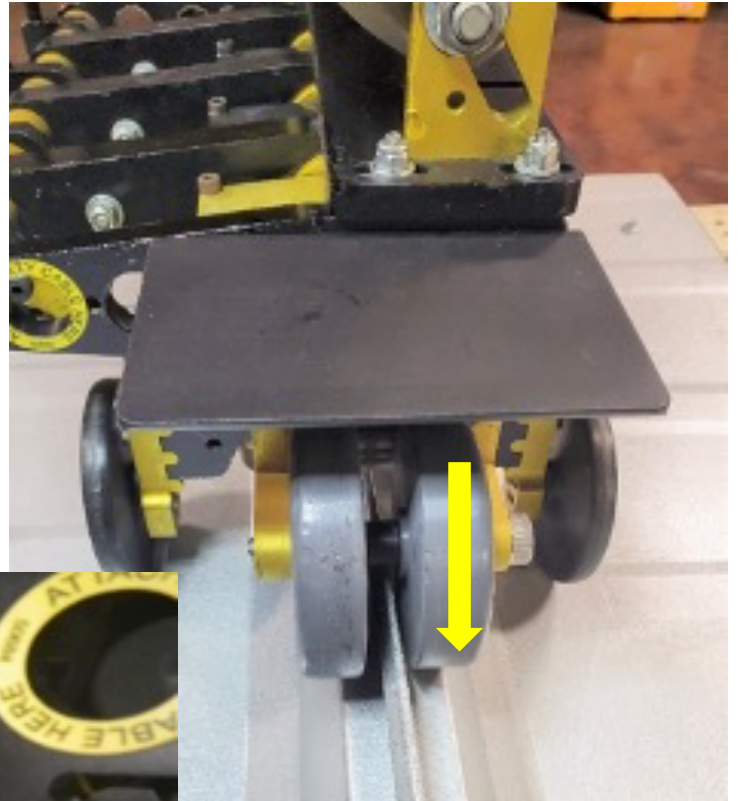
Open the platform gate once all four guide wheels of the seamer are on the roof. This will allow the seamer to continue up the panel.



## STEP 5

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Run the seamer approximately 12” to ensure that you are receiving the desired seaming operation. If there are any issues, stop immediately and **contact D.I. Technical Support at 1-888-343-0456.**



The pictures above detail how the seam should look when entering and exiting the machine. While seaming the female side guide wheel (indicated by the yellow arrow) should always be turning. If it stops turning, apply downward pressure to the pressure plate until it resumes. If this does not work, stop the machine and inspect the area for issues. Restart once the problem has been identified and corrected.

## STEP 6

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At all panel end laps, press down on the machine's pressure plate to help ensure it does not ride off the seam. This also needs to be done in any area where there is panel separation.

## STEP 7

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As the seamer runs off the panels at the ridge, hold it by the front handle to keep it parallel with the roof as it completes the seam. Turn off the seamer and place it safely on the roof pan at a 90° position to prevent it from rolling.

## STEP 8

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Return the seamer and repeat the process.

**Note:** On buildings with single slope roofs, it may be necessary to move the starting platform to the upslope end to catch the seamer safely.

**Note:** The roof seamer may leave dark forming marks on light-colored panels. This is acceptable as long as the paint finish is not damaged. Marks can be rubbed off by hand – DO NOT use solvents that will soften or remove paint.

# TIPS FOR SUCCESSFUL SEAMING

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- Keeping panels engaged ahead of the seamer is critical
- Watch the seamer and the seam as it exits the machine
- Monitor front guide wheels and ensure that they remain in contact with the top female horizontal leg of the panel
- Stop the machine as necessary
- Hold down the front of the machine across laps and potential problem areas
- Always tie off and work from a safe position

# MAINTENANCE REQUIREMENTS

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- This machine requires daily cleaning. Additional cleaning may be required based on job site conditions. It is imperative that tooling is kept clean and free of debris.
- When not in use, always store your roof seamer in a dry place to prevent damage to the machine. **NEVER** operate it in inclement weather, such as rain, thunder, lightning, or snow.
- Each day that the seamer is to be used, ensure tooling bolts are tight to 25 ft-lbs. before the beginning of any seaming.
- If you need D.I. Technical Support, please **contact us at 1-888-343-0456.**

# PITTSBURGH LOCK SEAMER FEED RAMP ENGAGEMENT PROCESS

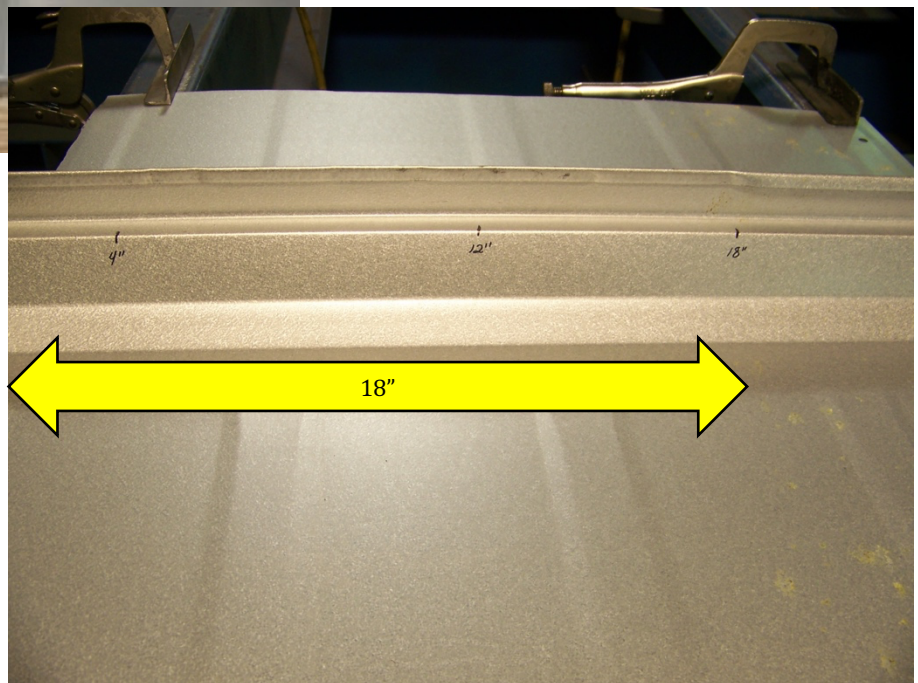
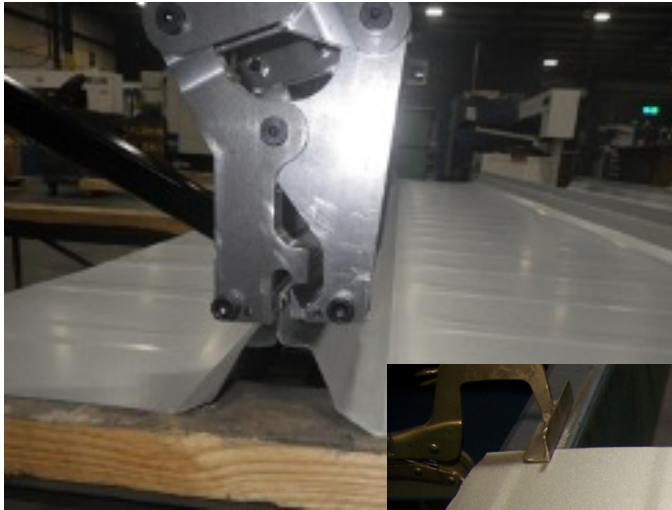
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This section details how to engage the roof seamer on the panel by using the Pittsburgh Lock Crimper. (Note: This method does not require the use of the feed.)

## STEP 1

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Hold crimper up from horizontal panel legs and align bottom crimper blades over the female leg. Crimp the female leg onto male for 18". The crimper handles should lock during each crimp.



## STEP 2

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Below, is how the crimper should be aligned to start step 2 of the crimping process. During this step, you will push the release button on the back lever and pull it through the vertical arms until it bottoms out. This should only be done on the first 4" of the panel. Return the lever to the locked position. Do not remove crimpers from the seam at this time.



## STEP 3

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After releasing pressure on the lever, the crimper should be slid up the panel to the point where the panel has not been folded over from step 2. Press the release button on the back lever and pull the lever through the vertical arms to form a 90° bend on this portion of the seam. Return the lever to the locked position, open the vertical arms, and remove the crimpers being careful to not unfold the seam with the blade.

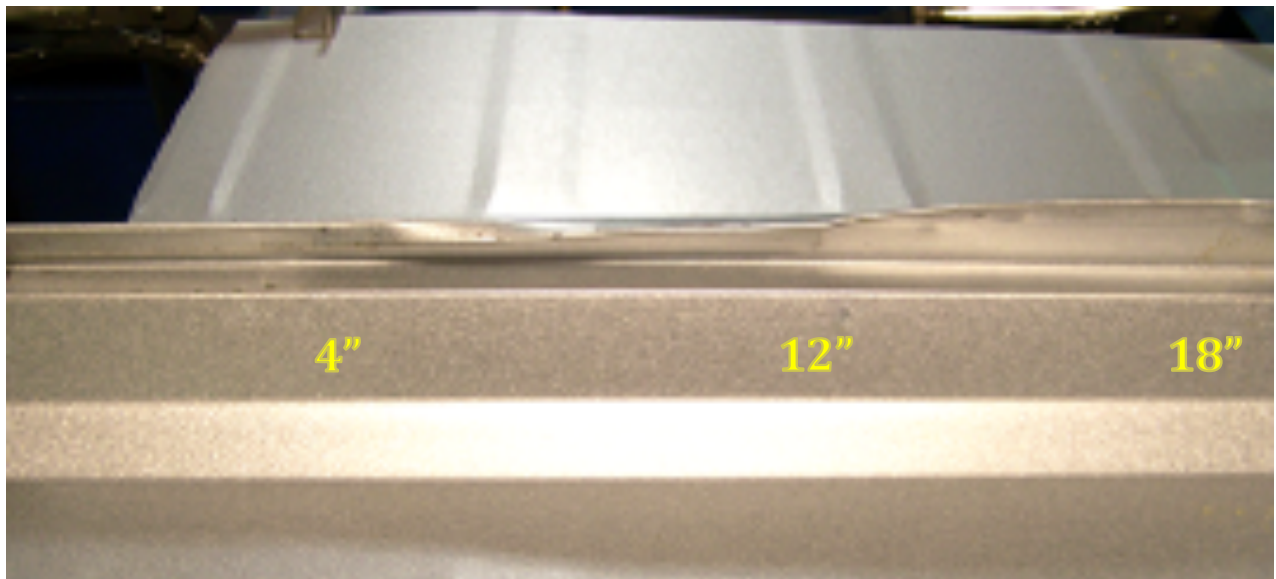
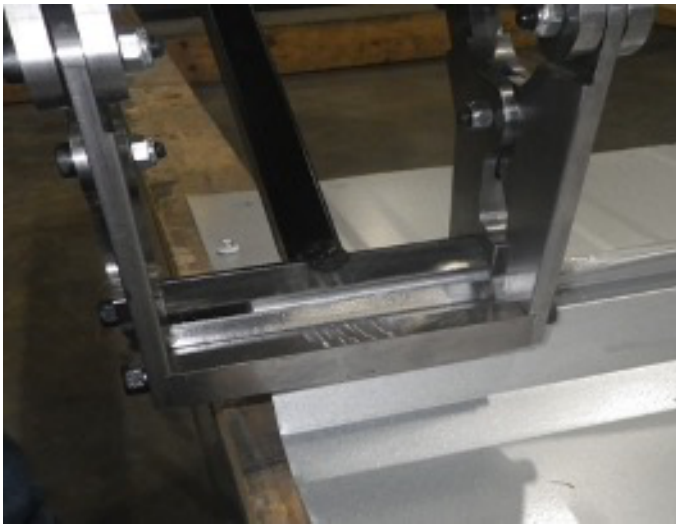




## STEP 4

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Once the crimpers have been removed place them back on the first 3 inches of the panel. Pull the vertical arms to the locked position to complete the 180° crimp and then remove the crimpers. This completes the crimping process for seamer engagement. The bottom photo shows how the completed hand crimp should look. Please note the measurements on the panel.



# PITTSBURGH LOCK SEAMER ALIGNMENT

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This is how your seamer should be aligned on the hand-crimped portion of the panel. Tool alignment is critical in achieving an acceptable seam.



**The seamer must be engaged in this manner. Failure to do so will result in panel damage.**

