

ZIP-RIB®

ZIPPER TOOL

SEAMING GUIDE



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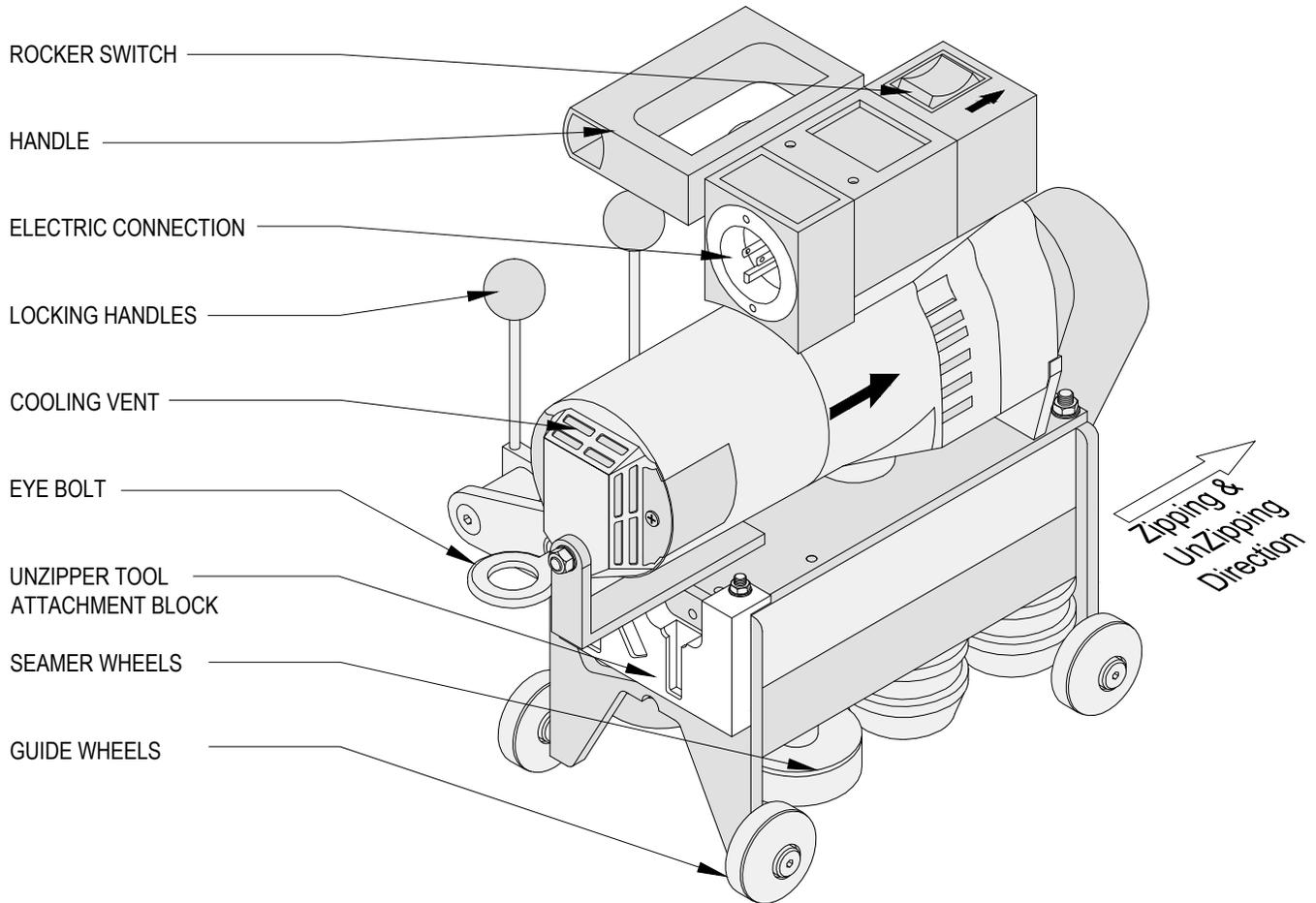
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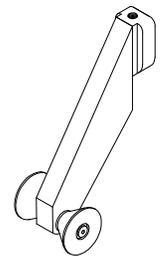
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Zipper Tool Identification

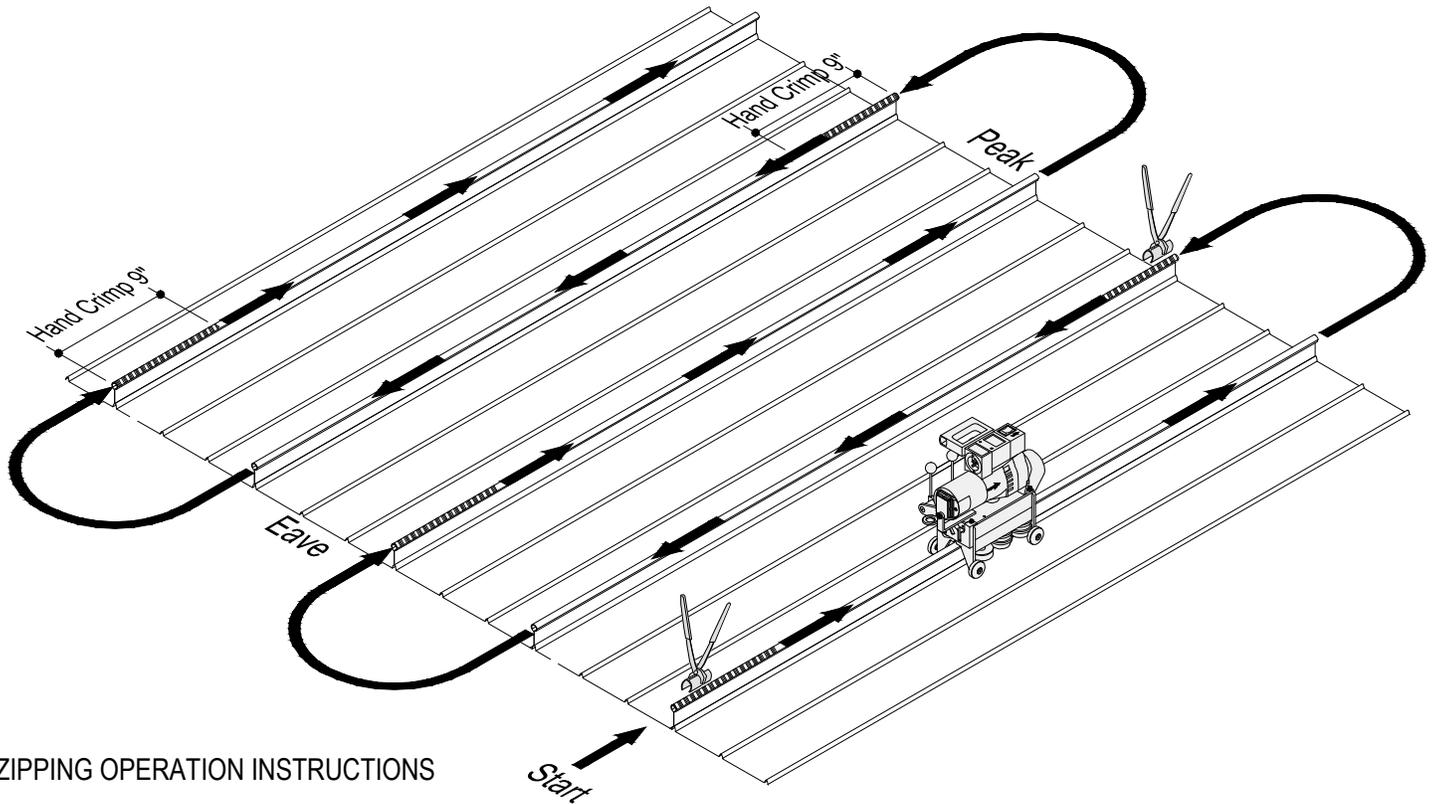


PANELS MUST BE ZIPPED AND UNZIPPED IN THE FORWARD DIRECTION ONLY.



UNZIPPER ATTACHMENT

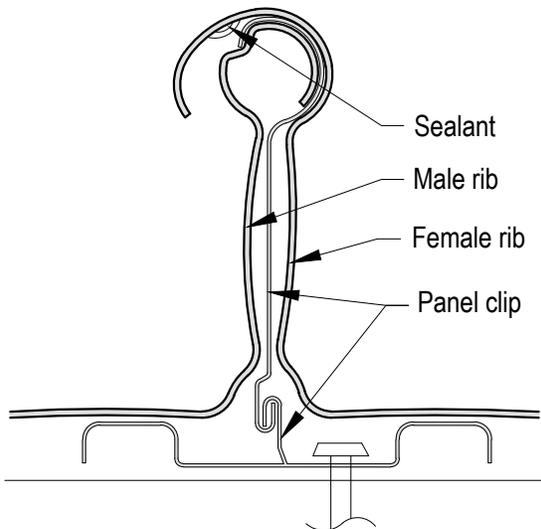
Zipper Tool Operation



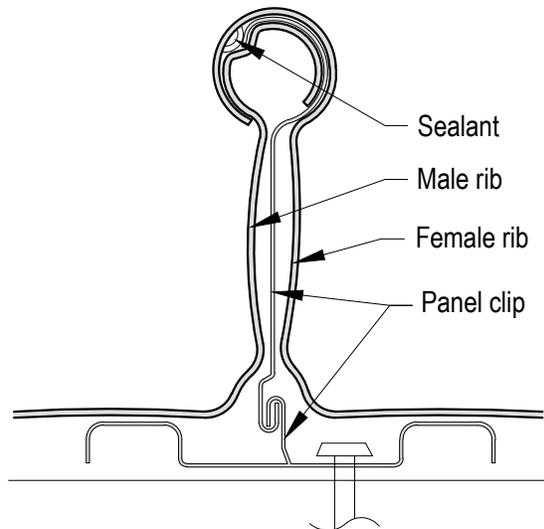
ZIPPING OPERATION INSTRUCTIONS

1. Hand crimp the first 9" of the panel ribs from the eave.
2. Set the Zipper Tool on the hand crimped area in the horizontal open position.
3. Close the locking handles to the vertical position until they click into place & run FORWARD from the eave to the peak.
4. The Zipper Tool may run completely off the peak edge and caught by an installer provided there is clearance.
Otherwise, stop the tool with the switch and open the locking handles to remove the tool.
5. Repeat the procedure from the peak to the eave.

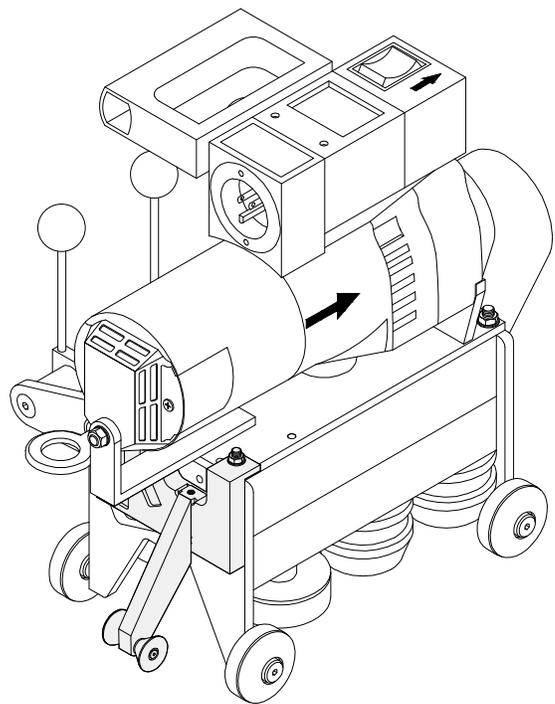
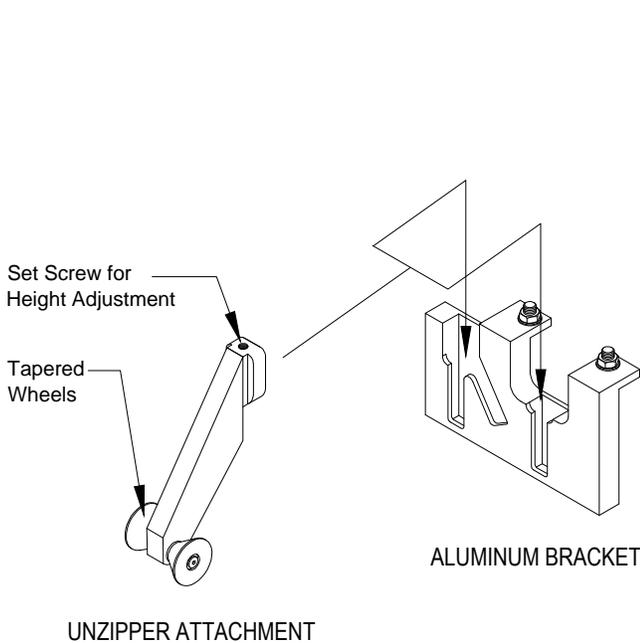
BEFORE SEAMING



AFTER SEAMING



UnZipper Tool Operation



UNZIPPING OPERATION INSTRUCTIONS

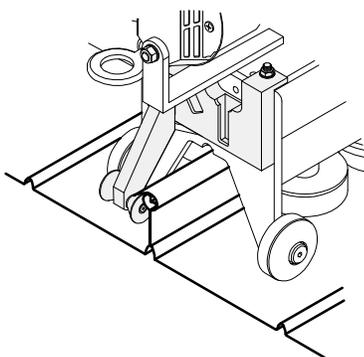
1. Starting at the most convenient end of the panel, pry open the seam slightly with a screw driver or claw hammer.
2. Insert the UnZipper Attachment supplied in the seamer kit into Machined Aluminum Block on the Zipper Tool.
3. Lock the Zipper Tool at the point on the panel seam where the UnZipper Attachment engages with the pried open seam.
4. Operate the Zipper Tool in the FORWARD DIRECTION ONLY. As the tool travels, the UnZipper Attachment will pry open the panel seam.

The last few feet of panel may require hand prying of the seam since the Zipper Tool may be obstructed from running off the end of the panel. Stop the tool with the switch prior obstacles such as transitions and flashings.

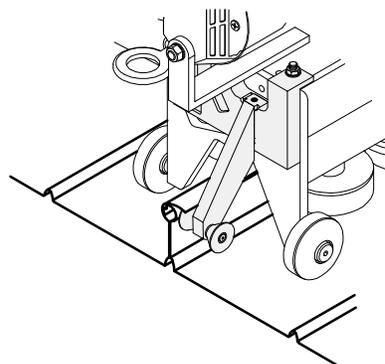
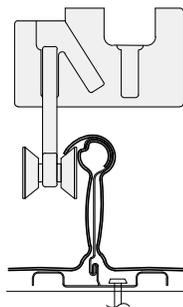
When working with mill finish materials and/or unzipping large areas of roof, application of light oil to the tapered wheel may reduce scuffing, scratching, and abrasions.

Vertical height adjustment of the Tapered Wheel is accomplished by moving the set-screw in the UnZipper Attachment up or down which in turn changes the location of the UnZipper Attachment in the Machined Aluminum Block.

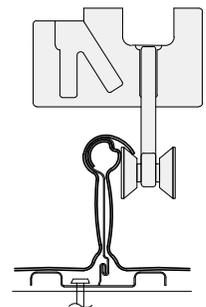
If panels are to be re-used, the seam should be opened just enough to allow disengagement of the big hook from the small hook of the panel. Too low of a setting will not open the seam sufficiently while too high of a setting will severely deform the big hook and make re-use difficult.



LEFT SIDE CONFIGURATION



RIGHT SIDE CONFIGURATION



ZIP-RIB Zipper General Instructions

GENERAL This seaming guide is provided by Developmental Industries, Inc./D.I. Roof Seamers and Merchant & Evans, Inc. as the recommended procedure for seaming of your ZIP-RIB Standing Seam roof system. This guide is intended to be used with the ZIP-RIB Contractor / Erector Manual and your project's shop drawings. You are responsible for proper seaming of the roof in accordance with the shop drawings and this seaming guide, and in accordance with good engineering and construction practices.

SEAMING KIT

The seaming equipment will normally be provided as a seaming kit. The seaming kit will consist of the following:

- (1) **Seaming Kit Shipping/Storage Container** - Contains and protects the seaming tools during shipment and daily storage.
- (2) **Zipper Tool** - Electric Roof Seamer for field seaming your roof panel. The machine is specially equipped and setup for your particular roof panel.
- (3) **Shipping Documents** - Copies of your shipping information and certifications for each piece of equipment in the kit.
- (4) **Seaming Guide** - A Guide for basic use, operation and troubleshooting.
- (5) **Hand Crimper(s)** - These ARE NOT automatically included when you order your machine because some installers own their hand crimper(s).
- (6) **UnZipper Attachment** - Used to open a previously seamed panel.
- (7) **Field Repair Kit** - This kit contains some perishable items that may wear during your use of the machine and the tools to replace them with, if needed. Anything used from this kit must be replaced with the used part. Failure to do so will result in a charge for the missing items

RECEIVING & SHIPPING Upon receipt of the seaming kit, and before signing the shipping receipt, verify that the seaming kit is received in good condition without damage or loss of contents. If there is damage or loss, immediately file the claim with the shipper and notify D.I. Roof Seamers at 1-888-343-0456. Upon completion of roof seaming, promptly return the seaming kit to the D.I. Roof Seamers facility that your equipment was shipped from.

HANDLING & STORAGE Always provide safe and secure handling of the seaming tools when in use. The machine and other parts can cause severe damage and injury if they fall, the machine should be tethered at all times while on the roof. The machine may be too heavy to carry up a ladder. Always hoist the machine onto the roof with proper lifting equipment or with a proper sized rope/tether attached securely to the machine. When starting and finishing the seaming machine at the edges of the roof, the operator and machine must be securely positioned and tethered so the that they can safely lift the machines on and off the seam. When running the machine in the down-slope direction, the machine will have greater inertia and coasting distance. When not locked on the seam, the machine can freely roll on its wheels. Always secure the machine to prevent its rolling or sliding off the roof. At the end of use or when the seaming tools are not in use, the machine must be stored in the seaming kit container, in a safe and dry area. The seaming tools must be cleaned and dried before storing.

ELECTRICAL REQUIREMENTS & SAFETY The seaming machine motor requires a minimum electrical power supply of 20 amp @ 120 Volts @ 60 Hz AC. The electrical service and cords to the seaming machine must be of sufficient capacity to provide the full 20 amp @ 120 Volts *at the seaming machine*. If other tools or equipment are being used on the same service, the service and cord capacity must be increased accordingly. Low voltage due to insufficient cord size or excessive cord length will cause overheating and burnout of the seaming machine's motor.

RECOMMENDED EXTENSION CORD SIZE

Distance (Ft)	0-50	50-100	100-200	200+
Wire Gauge	12	10	8	6

Verify the power cords are fitted with the correct plug for safe and secure electrical connection to the seaming machine. Insure that the power cords are properly grounded and that the service has a ground fault circuit breaker. Insure that the electrical cord is sufficient length to extend the full length of the area to be seamed without stress on the cord or its connections. Insure that the path for the cord is clear and that the cord is clear of snagging on the panel edges or entanglement into the seaming machine rollers. Insure that the cord is seated completely into the machine's power port to prevent a faulty connection and damage to the motor.

INSURANCE You should provide adequate insurance coverage on the seaming tools while they are in your possession and use. No credit will be issued if you lose the machine and you will be fully responsible for any and all rental charges plus the retail value of the Roof Seamer and the Seaming Kit including the case.

ROOF PERFORMANCE The roof panels must be correctly seamed before the roof system can provide its designed wind load and weather resistance capability. This means that an un-seamed or improperly seamed roof is subject to wind load failure and/or weather resistance failure. D.I. recommends that you "seam as you go". This means that the roof panels should be seamed as they are installed. This minimizes the opportunity for modulation issues and other common installation problems.

PANEL INSTALLATION Insure proper installation of your roof panels according to the panel manufacturer's instruction. Poor installation practices can result in faulty seaming. Such faulty seaming can result in seaming difficulty and objectionable seam appearance and in severe cases reduction in roof performance specification. You may use D.I.'s Panel Clamps to assist you in the installation of you panels. Contact us at 1-888-343-0456 or online at www.diroofseamers.com to order.

HAND CRIMPING AT END OF PANEL, ENDLAPS, CLIPS Bulb style Hand Crimping is required for the first 9 inches at the start of a panel eave or peak. Hand crimp all panel seams where the Zipper Tool cannot reach or is blocked by a penetration or curb structure.

ROOF SEAMER DIRECTION The direction of the seaming machine will be noted near the power switch or on the motor. Note the seaming direction BEFORE attempting to use the tool.

MACHINE POSITION ON THE ROOF PANEL With the locking handle held up in the open position, set the seaming machine onto the starting end of the roof panel's seam over the hand crimped portion of the seam. Roll the seaming machine forward to align the front tooling over the un-seamed portion of the seam. When the machine is in the correct position on the seam, pull the locking handle out to the locked position. The locking handle should lock with minimal resistance when force is applied. If the locking handle will not readily lock, roll the machine forward or backward slightly until a position is found where the locking handle will readily lock. If the locking handle still does not lock, check the hand crimping to be sure it is in proper form. Once the locking handle is locked, check that the machine's tooling is properly engaged.

CLEAN THE SEAMS The roof panel must be thoroughly cleaned of abrasive dirt or dust that can cause scuffing of scratching of the seam surface. The roof panel seams must be cleaned of grease or other contaminants which can cause seaming machine slippage and marking of the seam surface.

ZIPPING OPERATION Check that the machine's path is clear of power cords, tools, debris, tether lines, etc. Start the machine by turning on the machine's rocker switch. Watch the machine and finished seam carefully for any indications of machine malfunction or faulty seaming. **Caution:** The seaming machine must always be in the vertical position while seaming. Do not allow the machine to tilt sideways when locking the machine onto the seam or while the machine is running. On roofs with high stand-off clips, walking or standing on the panel next to the machine can deflect the panel and cause the machine to tilt. Do not walk or stand on the panel next to the machine while it is running.

STOPPING THE MACHINE Stop the machine by turning off the machine's rocker switch. Always allow sufficient space for the machine to coast after turning the machine off. Do not run the machine into previously installed end dams or other obstructions. The Zipper Tool may run off the end of a panel to allow it to be fully seamed without unlocking provided that the panels have not been pan ended and there is no obstruction beyond the panels. **Caution:** Stop the machine immediately and investigate any indication of machine malfunction or faulty seaming. If the machine does not correctly form the seam, DO NOT continue seaming and contact D.I. Roof Seamers Technical Support at 1-888-343-0456.

UN-LOCKING THE MACHINE After the machine is turned off and has fully stopped, lift up the locking handle to the open position to un-lock the machine from the seam. Using the lift handle, the machine can be lifted from the seam. If the machine must be stopped and removed before completing the seam, use a felt marker to mark the position of the machine's front wheel on the panel. The machine can later be repositioned on the mark to complete the seaming.

CHECKING THE FINISHED SEAM At the completion of each seam, check the full length of the seam for any indications of faulty seaming. The seaming operation exerts high pressure bending forces on the seam. Under such conditions, minor burnishing, pressure marks and dark marking of the seam surface is normal and acceptable. Many markings may be removed with mild cleaning solutions or solvents.

UNZIPPING OPERATION Starting at the most convenient end of the panel, pry open the seam slightly with a screw driver or claw hammer. Insert the UnZipper Attachment supplied in the seamer kit into Machined Aluminum Block on the Zipper Tool. Lock the Zipper Tool at the point on the panel seam where the UnZipper Attachment engages with the pried open seam. Operate the Zipper Tool in the FORWARD DIRECTION ONLY. As the tool travels, the UnZipper Attachment will pry open the panel seam. The last few feet of panel may require hand prying of the seam since the Zipper Tool may be obstructed from running off the end of the panel. Stop the tool with the switch prior obstacles such as transitions and flashings. When working with mill finish materials and/or unzipping large areas of roof, application of light oil to the tapered wheel may reduce scuffing, scratching, and abrasions. Vertical height adjustment of the Tapered Wheel is accomplished by moving the set-screw in the Unzipper Attachment up or down which in turn changes the location of the UnZipper Attachment in the Machined Aluminum Block. If panels are to be re-used, the seam should be opened just enough to allow disengagement of the big hook from the small hook of the panel. Too low of a setting will not open the seam sufficiently while too high of a setting will severely deform the big hook and make re-use difficult.

ZIPPER TOOL MAINTENANCE The seaming machine is a precision fabricated, high performance, portable roll forming machine. This relatively lightweight machine does the tough job of forming the finished seam under often rugged field conditions. Although designed for tough industrial use, the seaming machine requires proper maintenance to assure proper seaming and efficient, trouble free operation. **Caution:** Failure to properly maintain the seaming machine as instructed below can result in faulty or damaged seams and costly break-down of the seaming machine.

FORMING ROLLERS The forming rollers require the following regular maintenance: **(A)** Assure that the forming rollers are free of dirt, grease, sealant/mastic, etc. **(B)** Spray the forming rollers with WD-40 (or equal). **(C)** Assure that the forming rollers are tight on their shafts. Check and tighten the roller's retainer screws as necessary. **(D)** On painted roofs, especially during very hot or abrasive conditions, spraying or misting the seams with water, or a light lubricant such as WD-40, ahead of the seaming machine may significantly reduce burnishing and forming marking of the seam surface. **(E)** On very dry Galvalume roofs, spraying or misting the seams with water, or a light lubricant such as WD-40, ahead of the seaming machine may significantly reduce seaming friction and Galvalume build-up on the forming rollers.

COOLING VENTS To prevent motor overheating, the motor has vents and an internal fan to provide cooling air flow over the internal motor parts. Check frequently to assure that these vents are kept clean and clear of debris, etc. While the machine is running, never cover the machine or place it in a position where the cooling air flow to the vents will be restricted.

HOUR METER Your roof seamer may be equipped with an hour meter near the machine's power port. This is used by D.I. Roof Seamers to track the maintenance of the machine. This meter will only run when the power switch is in the "ON" position. DO NOT attempt to alter or otherwise tamper with this meter. Evidence of this will result in additional charges. If the meter displays anything other than normal numeric values, please refer to the ELECTRICAL REQUIREMENTS & SAFETY section of this guide to insure proper power supply and contact D.I. Roof Seamers Technical Support at 1-888-343-0456 for instructions.

For more information, instructional videos and much more, visit www.diroofseamers.com or call 1-888-343-0456.