

SS4E PRO OPERATORS MANUAL

RED RIVER MACHINERY
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<https://www.redrivermachinery.com>

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Specifications

Size: Length 5' 4" (1.6m); Width 3' 5" (1.1m); Height 1' 9" (0.5m).

Weight: 1000* lbs. (455 kg)

Operational Speed: 36 ft/min (11 m/min) Approx.

Drive: Polyurethane central drive rollers

Shear: Exit shear – Manually or electrical powered (optional)

PLC: Touch screen length and batch controller (optional)

Coil Width: Width adjust with side crank in range of 15" to 28" (380mm to 711mm)

Materials Formed:

Steel 28 gauge to 24 gauge (0.4mm to 0.6mm) (GI, PPGI)

Aluminum .019" to .032" (0.5mm to 0.8 mm)

Copper 16 oz. to 20 oz. 3/4 Hard (0.5mm to 0.7mm)

Length Control: limit switch or Delta PLC with 7" touch screen (optional)

POWER: 1½ hp, 120v, 60hz, single phase electric motor

FORMING ROLLERS: Chrome plated steel

CONTROLS: Wireless remote control with manual and automatic mode, with "JOG" feature, and power interruption safety wiring. Optional touch screen operator panel.

PRECAUTIONS

1. READ THIS ENTIRE MANUAL BEFORE ATTEMPTING TO OPERATE THIS PIECE OF EQUIPMENT.
2. ALWAYS keep covers, and guards on during machine operation and storage.
3. OBSERVE and obey all safety and warning signs affixed to machine.
4. STOP the machine and disconnect the power supply before attempting to make any adjustments, any maintenance and / or perform any changeover procedures.
5. ALWAYS have a trained person operating the machine that has read this manual in its entirety prior to operating this equipment.
6. DO NOT wear loose clothing, jewelry, etc. that could become entangled in the moving parts of the machine while in operation.
7. When SS4EPRO is machine mounted there must be at least 1" clearance under the machine for the correct operation of the Exit Shear.

7. ALWAYS adhere to and follow all local and national safety codes concerning the operation of loading and unloading of reeled coils. Always use a properly rated device for lifting reeled coils into or out of the reel rack.

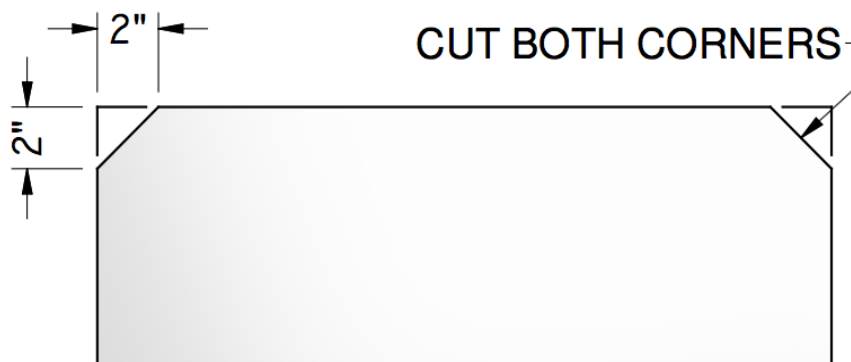
GENERAL MAINTENANCE

DO'S

1. DO keep your machine clean and free of debris and foreign matter. A clean machine will provide a clean end product.
2. DO visually inspect machine each day prior to operating.
3. DO lubricate shear daily with waterproof lube.
4. DO clean and lubricate tooling Carriage Rods monthly with waterproof lube
5. DO re-tension and lubricate chains at least twice a year with waterproof lube.
6. DO store machine indoors whenever possible.

DON'TS

1. DO NOT store or transport your machine with material loaded in the drive and forming tools. This only collects water, dirt, and debris that can cause damage.
2. DO NOT over tighten the chains. Keep chains tensioned correctly, and lubed with dry type chain lube for long life. Chains should be just snug.
3. DO NOT store machine uncovered and exposed to the elements outdoors for long periods of time. Cover over with a tarp, and provide good ventilation to help prevent condensation and rust.
4. Always cut edges when you feeding new coil into the machine.



MACHINE ORIENTATION

1. MACHINE ORIENTATION (Fig. 1, Pg. 5)

The SS4E-PRO machine components are identified according to which side of the machine they are on and where they are relative to the entry end of the machine. The left and right sides of the machine are identified when looking from the entry end of the machine toward the exit end of the machine. The rails, drives, tooling stations, etc. are numbered beginning from the entry end of the machine.

2. MOUNTING FOOT DETAIL (Fig. 2, Pg. 6)

The SS4E-PRO can be ordered with an optional trailer that is configured to locate the machine for proper hitch/axle loading.

Liberty assumes no responsibility for proper trailer/hitch loading for a non-Liberty supplied trailer.

Past experience has shown that the SS4E-PRO and the Liberty supplied trailer can be towed with most 1-Ton pickup trucks on trailer. It is the responsibility of the machine owner to consult with the motor vehicle manufacture to insure the proper trailer/vehicle combination.

3. PROFILE DRAWINGS (Fig. 3, Pg. 7)

You should refer to APPENDIX A for the finished panel dimensions on the profiles that can be installed in the SS4E-PRO. MORE will be developed, so please contact us if you need a new profile

A. SL175 - Snap Lock 1.75" Profile

B. SS150 - MECHANICAL SEAM 1.5"

C. SS200 - MECHANICAL SEAM 2.0"

D. SF100 - SLOTTED FLANGE 1"

E. SF150 - SLOTTED FLANGE 1.5"

Driving system

Machine propelled by single phase 1.5 Hp electrical motor with 1:40 ratio gear box. Propelled force turns to driving urethane rollers by chains.

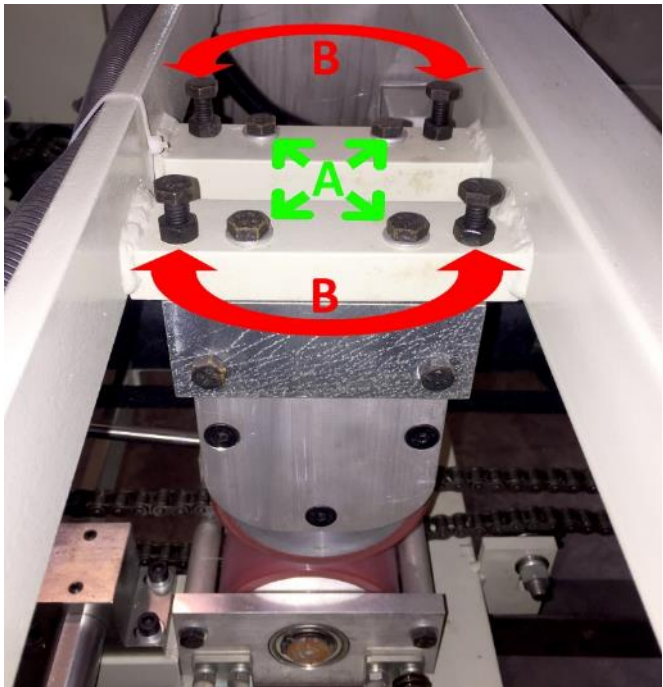
To adjust tension of between driving urethane rollers:

1. Loosen bolts **A** on the driving station.
2. Tighten **B** bolts down to get good enough tension and grip between top and bottom urethane rollers to drive the material.
3. Tighten **A** bolts to fix the position of the top roller.

Drive System Cleaning and Lubrication

1. DO NOT use solvents such as paint thinners, acetone etc. to clean urethane drive rollers. Use of a cleaner such as 409 or mild soap and water is recommended.
2. Check tension of chain lubricate at least twice a year. Chains should have a minimum of 1/16" of play, but not too sloppy. As your chains wear, you can replace the chains as necessary.
3. Lubricate chains at least twice a year or whenever they appear dry. It is recommended that a dry lubricant be used to avoid sand, dirt, and foreign matter build up. See Shear Maintenance lubrication on Pg.22 for details.

Recommended lubricant: Super Lube- A Loctite™ product 11 oz. Aerosol Can

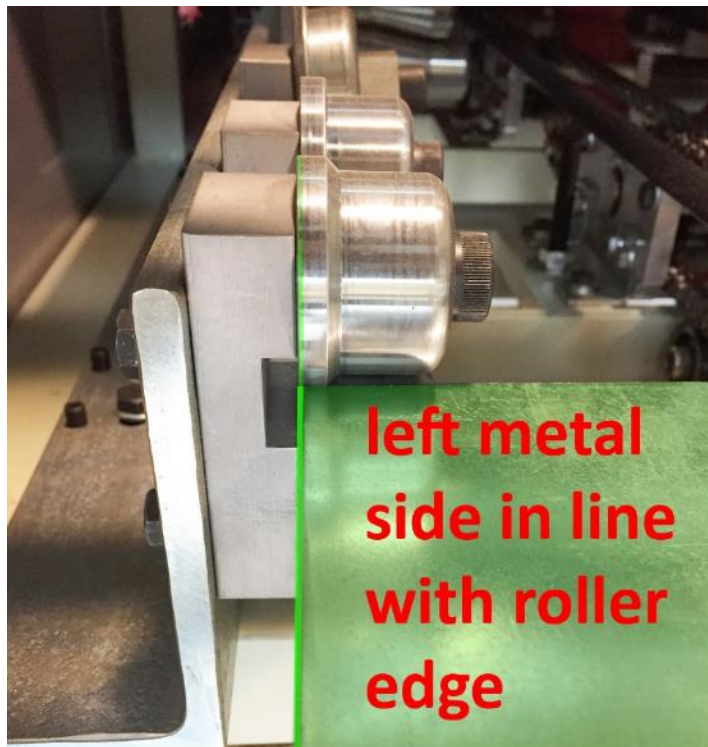


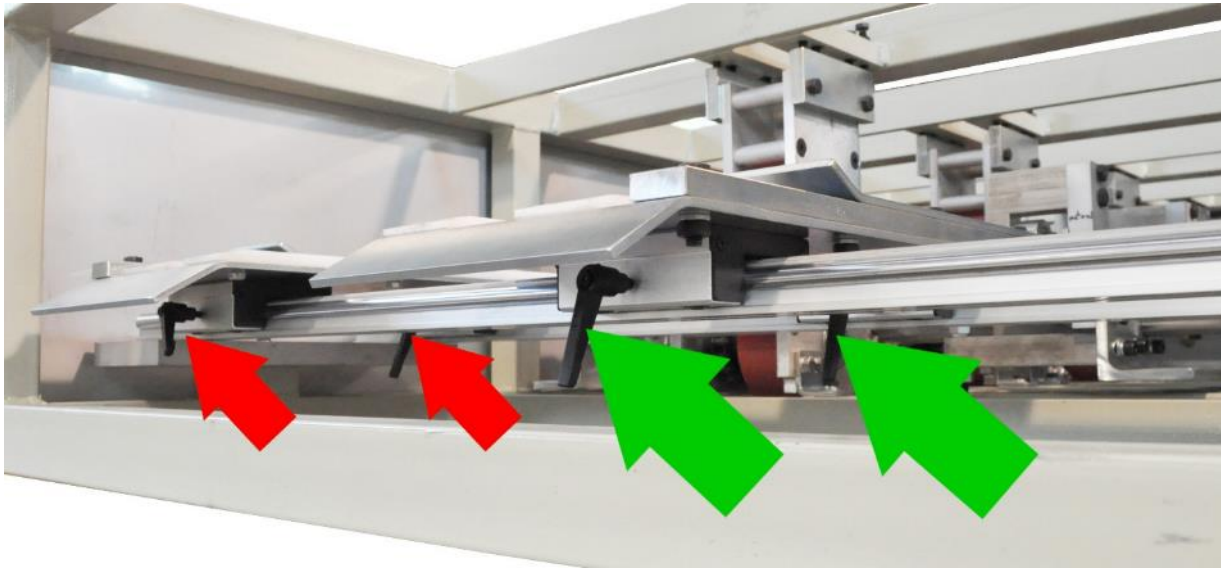
To adjust the machine for operation with different material width

1. Check the Left side of the material: it should be in one line with left edge of the first forming roller
(Roller set SL175 shown below).

If your material does not line up with left age of the left forming roller – loosen left side handles on the left side of the feeding intake – marked with red arrows, adjust left side of the feeding intake to match left side of the material with left age of the left forming roller. Tighten bottom handles back.

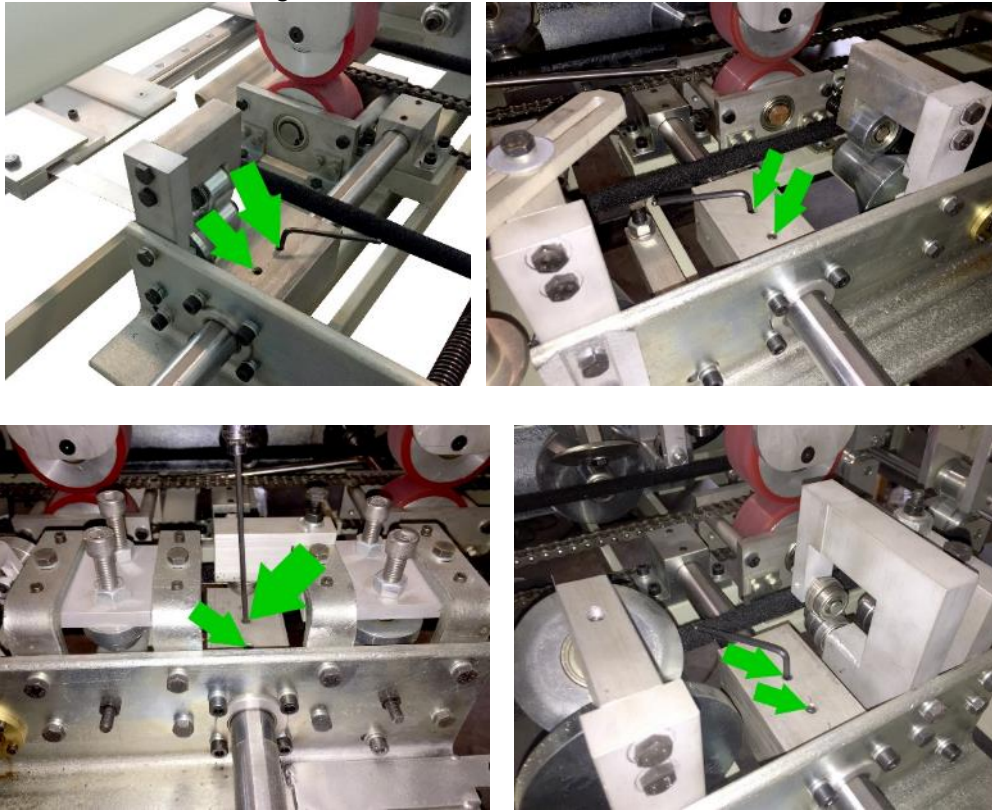
2. Loosen two left handles on the right side of the feeding intake (marked with green color arrows). Slide right side feeding intake to the right side to have wide enough space for your material. Feed in your material and slide right





side of the feeding intake back to fit your material or measure distance between right and left sides of the feeding intake up to your material. Tighten back bottom green handles to fix right side of the feeding intake in correct position.

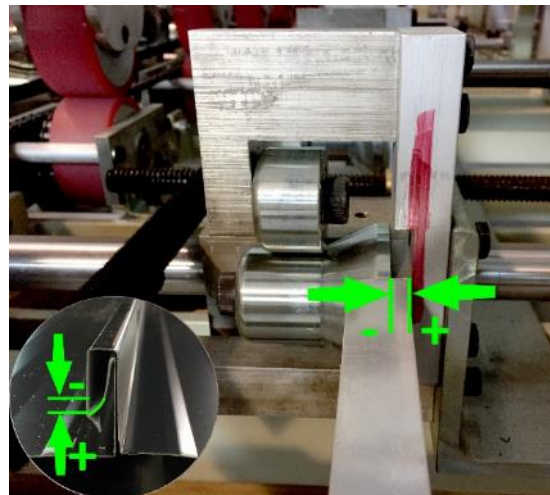
3. Loosen setscrews on all 4 sliding bars with alien wrench.



4. Feed in material to the first forming rollers. Feed first using the entrance handle crank to set the right side of the material about $3/8$ " over the right side of the first forming roller (up to the mark as on photo below for SL175). This overlap would be your snapping age length.



You can increase or decrease length of the male snapping edge by feeding the material more or less over the first forming roller. Longer overlap leads to longer male flange.



4. The offset from the first mounting ANGLE to the second mounting angle is 15mm (.60 inch). The second mounting angle is closer to center than the first mounting angle. This is set at the factory and is not to be user modified. Both rails move together with one handle on outside of the machine.

5. Adjust shear to new width see next page.

6. Run test panel by feeding 5` long sheet of material. Tighten setscrews on the sliding bars when you like your adjustment.

7. Adjust entrance reverse rollers to have side rollers close to the age and medium close to the middle of the material by moving locking washers. Each washer has two set screws.

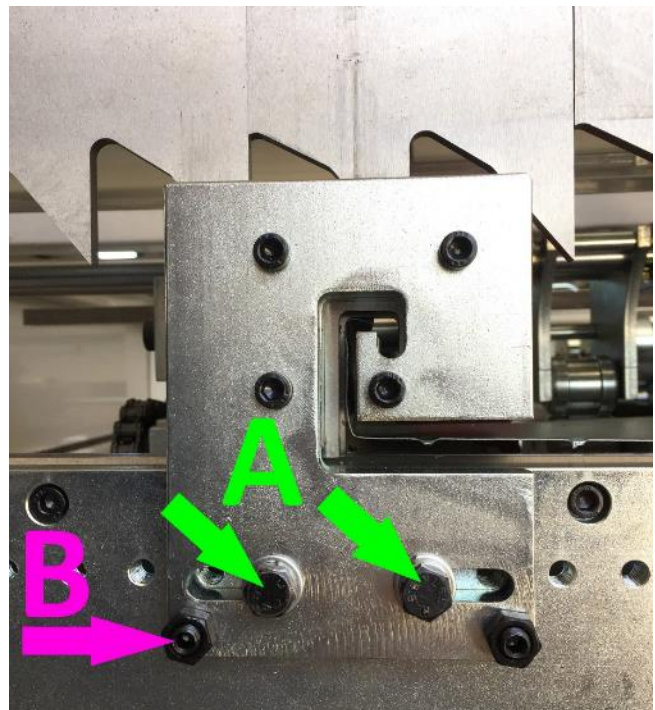


Shear adjustments

Use shear locking pin for safety purpose while transportation and storage of the machine. Cutting blade must go all the way up for it.

After readjustment of the material width you have to reset exit shear. To reset side mold of the shear – take off **A** bolts (marked with green arrows) from the inside and outside molds of the shear. Feed panel few inches out of the shear to see panel position in shear. Put on outside mold of the shear above the panel, and set it to have at least 1/16" space from each side. Tighten **A** bolts back. Feed the material back to get space to set inside mold of the shear. Set the inside mold to match outside mold very precisely. Tighten **A** bolts of the inside mold.

B bolts marked with purple serves to tighten side molds close to shear blade for clean cut.

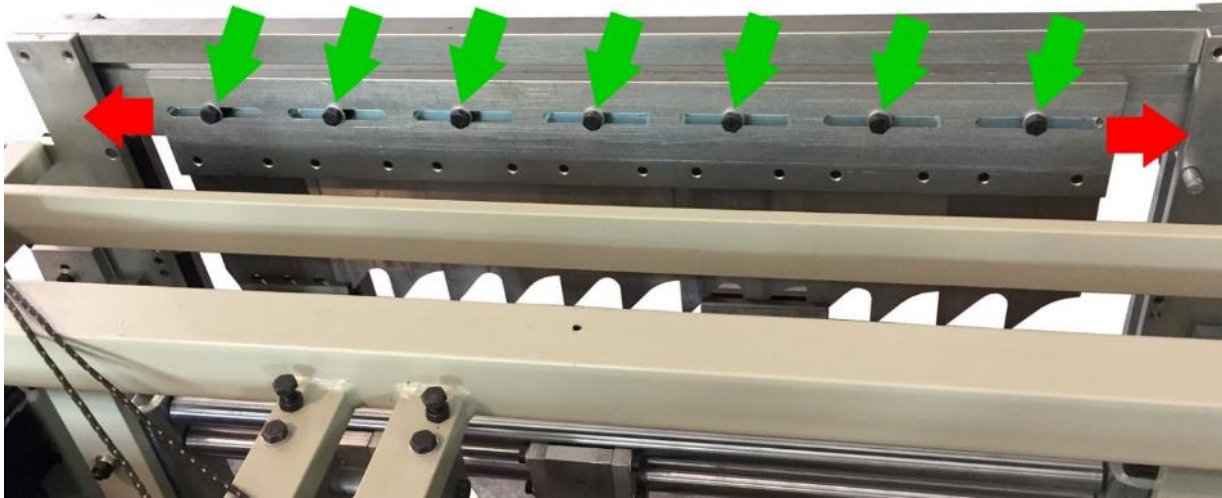


To get clean cut of the seam you can slide shear blade right or left side in range of 2”.

Loosen all bolts marked with green arrows.

Slide shear to get sharp edge of the blade nearby center of the seam.

Tighten few bolts, and make a test cut. Tighten all bolts if you like the result.



Proper lubrication is essential to clean cuts, rust prevention and longevity.

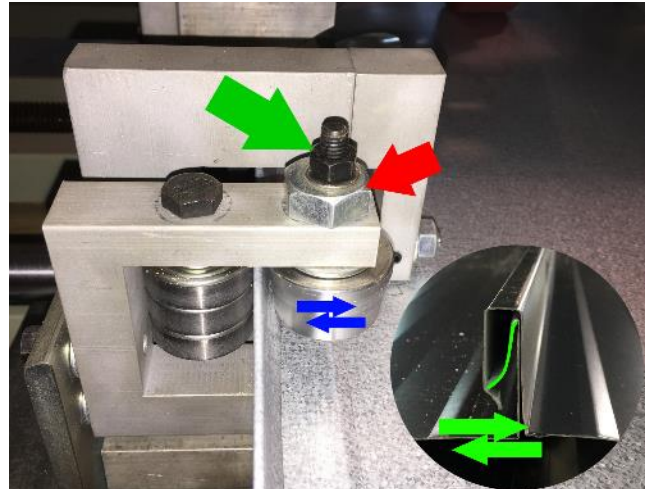
Super Lube - Multi-Purpose Synthetic Dri Film Aerosol Lubricant with Synolon (PTFE) Catalog No. 11016

11 oz. Aerosol Can

Available from: MSC Supply at 1-800-645-7270

Male seam edge adjustment. (SL175)

You can adjust angle of the male seam edge to get tighter or lighter snapping and holding force. To set up required angle - loosen top black nut marked with green arrow and turn bottom galvanized nut marked with red arrow. Bottom nut made with cam – to increase male edge angle for tighter snap you have to increase distance between side stack of bearings and cone roller, to reduce male edge angle you have to decrease distance between side stack of bearings and cone roller. Tighten all back.



Clip relief adjustment.

1. Clip Relief Rollers are optional and can be engaged or disengaged as required.

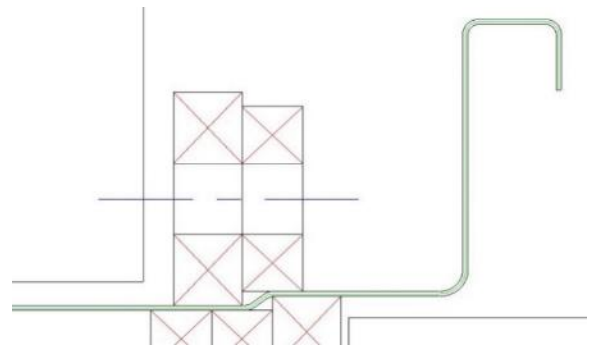
2. To engage Clip Relief Rollers.

A. Refer to tooling rail setup sheet that corresponds to the profile you are forming.

B. Note the location of clip relief assemblies on left and right rail, and locate them on your tooling set.

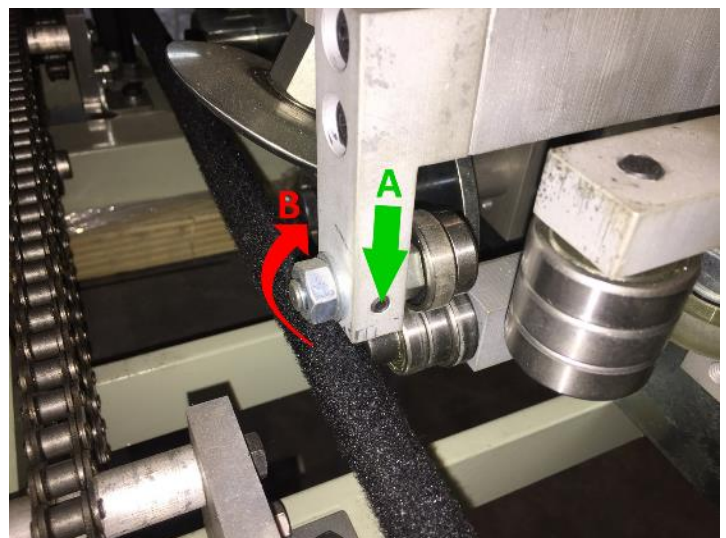
3. To engage the clip relief rollers loosen lock down screw "A" and insert a 3/16" allen wrench.

4. Loosen side nut marked with red arrow B Rotate the eccentric shaft to engage or disengage the top roller assembly from the bottom roller assembly. Adjust both left and right bead assemblies to the desired depth. If you do not need clip relief on your panel – you can take off bottom stack of bearings by taking off bottom bolt holding bottom stack of bearings.



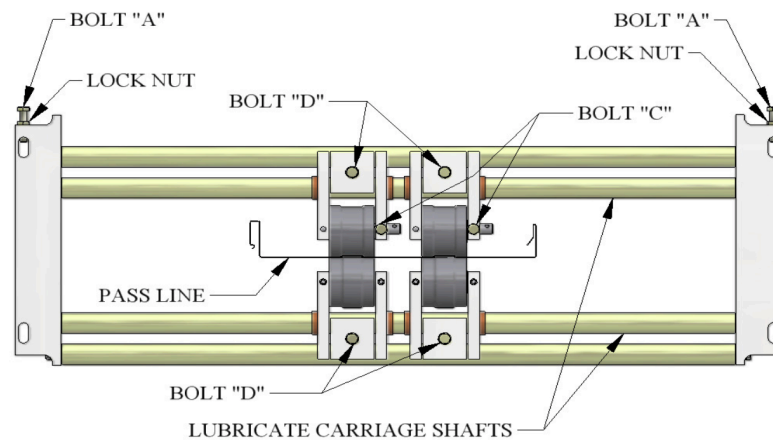
SHUT OFF THE MACHINE AND DISCONNECT THE POWER BEFORE CONTINUING.

Adjust tension of the top rollers with bolts that apply pressure. These are at the right and the left side of the machines, shown by arrow at top picture.



BEAD AND STRIATION ROLLER ASSEMBLY

1. The Bead / Striation Roller assembly) is located behind the shear and is accessed by removing the exit end top cover . These rollers can be engaged or disengaged as needed and can also be moved left or right to accommodate different panel widths.
2. The bottom bead or striation forming roller should be set approx. 1 /32” above the drive roller to ensure proper entry into the shear. If adjustment is necessary, loosen the four frame mount bolts “B”, and lock nuts on the two vertical adjustment screws “A”. Raise or lower the roller assembly by using the vertical adjustment screws “A” to obtain the proper height. Then re-tighten the mount bolts and lock nuts on the two adjustment



EXIT VIEW

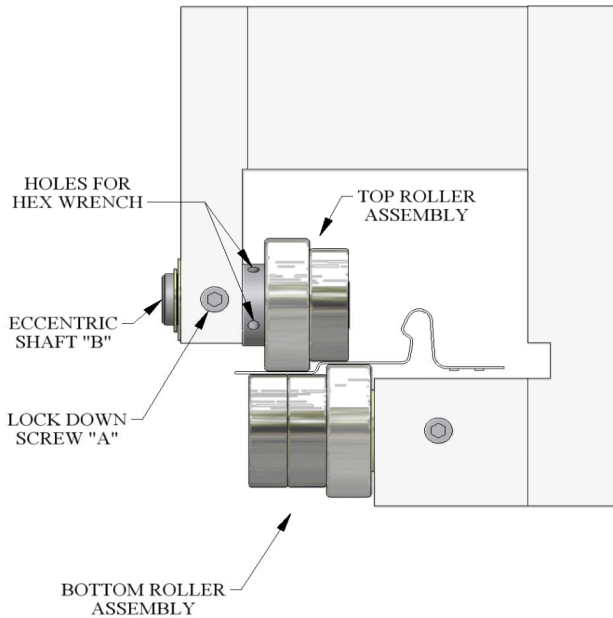
screws “A”.

3. Next loosen the eccentric shaft lock down screw “C”. Place a 4mm Allen Wrench in the small hole at the end of the eccentric shaft, and rotate the top roller up until it clears the bottom roller. Loosen the two top and two bottom slide lock down screws “D”. Bring the panel material up to the rollers but not past them. **SHUT OFF THE MACHINE AND DISCONNECT THE POWER BEFORE CONTINUING.** Locate the bottom rollers to the desired position by sliding the assembly on the bottom slide bars. Tighten the bottom slide lock-down screws “D”. Restart the machine and back up the panel until you gain access to the top slide lock-down screws, **AGAIN SHUT OFF THE MACHINE AND DISCONNECT THE POWER.** Loosen the top slide lock-down screws, and slide them into position so the top roller is directly over the bottom roller. Tighten the top slide lock-down screws “D”. Next rotate the eccentric shaft down to the desired bead depth. **DO NOT** go below .045” minimum clearance; excessive bead depth will distort your panel. Re-tighten screws “C”.

4. Keep slide bars lightly greased to allow bead or striation assemblies to slide smoothly.

CLIP RELIEF ROLLER ASSEMBLY

1. Clip Relief Rollers (Fig. 14-1, Pg. 58) provide a raised area next to the male and female legs of the panel. This helps hide the clip and screws used in installation. They rollers can be engaged or disengaged as needed.



2. To engage the clip relief rollers loosen lock down screw "A" and insert a 4mm allen wrench into the small hole on the top eccentric shaft "B".
3. Rotate the eccentric shaft to engage or disengage the top roller assembly from the bottom roller assembly. Adjust both left and right bead assemblies to the desired depth using a feeler gage. Recommend factory setting is 0.080 inches (2mm) gap between top and bottom rollers.

NOTE: The SF100 and SF150 profiles must always be engaged for proper male/female lock to occur.

ENTRY END REVERSE ROLLER SET

The Entry End Reverse Roller Set is necessary when feeding coil off of the optional Dual Overhead Reel Rack. It allows us to route the material around the rollers to get the painted side of the coil on the top as it enters the machine. Without this assembly, you could only feed

coil from a remote decoiler lined up behind the machine. The Entry End Reverse Roller Set should be be adjusted whenever a width change is made.

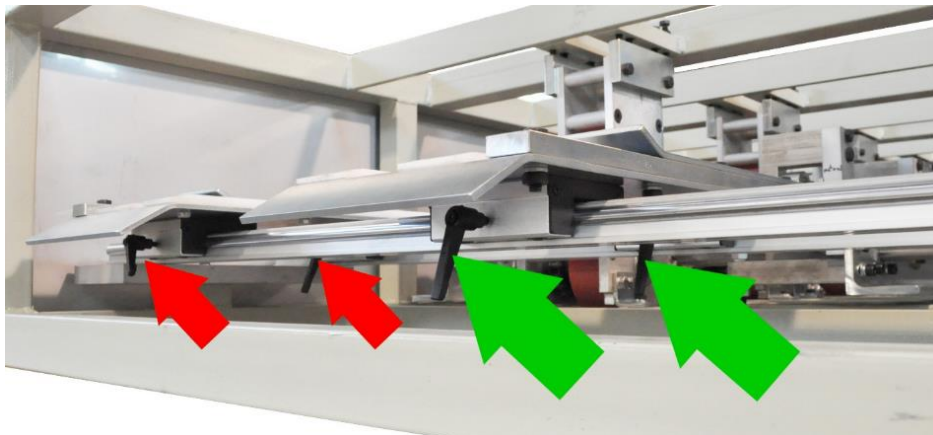
To adjust the entry drums:

1. Using a 5mm allen wrench, loosen the on either side of Left Entry Drum and Center Entry Roller.
2. Slide the Left Entry Drum over until it is lined up with left edge of the new coil and align the Center Entry Drum equally spaced from the Left and Right Entry Drums.
3. Slide the four Shaft Collars against the sides of the drums and lock them into place.
4. If you are making a Roller System Change, you may have to move all three drums using the same procedure described above.

WIDTH CHANGE PROCEDURE

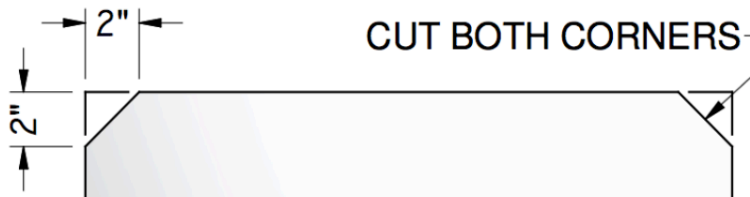
CAUTION: Always make sure you machine is shut down prior to making any adjustments. DO NOT reach through the opening of the shear while the machine is running. EVER! To do so could result in serious injury.

1. Loosen two left handles on the right side of the feeding intake (marked with green color arrows). Slide right side feeding intake to the right side to have wide enough space for your material.
2. Feed in your material between the slots and slide right guide to fit material comfortably and



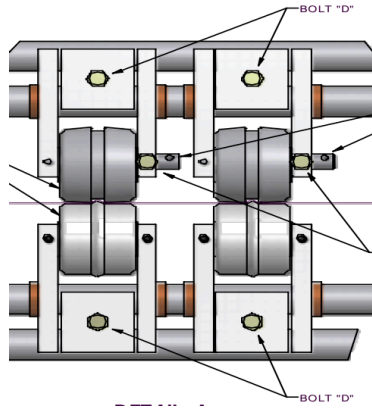
accept new coil width.

3. Make sure the coil is captured snugly between entry guide and retighten the handles to secure the entry guide in new position.
4. Align the material for your profile according to Appendix .
5. Load material onto the expandable arbor and align it in the correct position so that it feeds smoothly around the reverse entrance rollers into the new positions on the entry guide. With a test material in machine, measure from edge of the material to edge of the expandable arbor. Duplicate that distance on overhead expandable arbor, or if you use a separate entrance end decoiler, align material accurately into the feed guides.
6. Cut a 2" 45 degree notch of each leading corner and feed it into the entry guides.



7. Start the machine and use the jog button on the dongle or on the touch screen PLC to jog material through the machine 6 - 8 inches at a time until it exits the last forming station and is about 1" from the bead roller assembly.
UNPLUG YOUR MACHINE BEFORE PROCEEDING.
8. If you require beads in the panel, determine the spacing needed . For Example: a 12" wide panel with 2 beads centered on the panel would give you 3 equal spaces or 12" divided by 3 equals 4" from center to center of each bead. Hook the end of you tape measure on the outside bottom corner of the female leg. Use a magic marker or grease pencil to mark the 4" and 8" locations on the panel. You now have 3 equal spaces.
9. Loosen the slide lock bolts on the top and bottom bead assemblies and slide each bottom and top roll assembly left or right to center them on the 4" and 8" marks on the panel.
10. Lock the two top bead assemblies in the correct position by tightening the slide lock bolt "D" on each assembly. Next align the bottom bead rollers to the tops so that the ends of the top and bottom rollers are flush with each other and tighten the bottom slide lock bolts on

these 2 assemblies.



11. Check the gap between the top and bottom bead rollers using a feeler gauge. An approximate setting of $1\frac{1}{2}$ times the material thickness is recommended. This setting can be adjusted slightly in either direction according to preference.
12. To set or change the gap between top and bottom beads, loosen the "C" bolt on both top rollers (Fig. 16-6, Pg. 64).
13. Insert the correct feeler gage between one of the top and bottom rollers. Locate the feeler gage on the flat of the roller next to the side plate of the assembly. Rotate the top shaft from the 12:00 position toward the shear to decrease the gap, or away from the shear to increase the gap until the feeler gage is captured.
14. Tighten the "C" bolt to lock the position of the shaft. REPEAT process for other bead rollers
15. Power up the machine, jog the material through the bead assemblies and stop 2 to 3 inches from the entry shear dies. Inspect and re-adjust as necessary by reversing machine to clear bead rollers and re-adjust.
UNPLUG YOUR MACHINE BEFORE PROCEEDING.
16. Remove the two "C" bolts that hold shear cutting dies and visually site through the male entry die and rough align it to the forming tool "line of fire" by sliding it left or right. Re-install

the two “C” bolts into holes that correspond to the slots. Do not tighten the bolts at this time, just snug them up. Install the male exit die in same manner, aligning it to the entry die again and hand snug the bolts.

17. Power up the machine and carefully jog the panel up to the shear. Check to see if the panel will pass through the entry shear die. If not, **FIRST SHUT THE MACHINE OFF**, then move the entry die so that the panel will pass through it. Adjust the entry die so that it is as close to the outside vertical portion of the leg as possible without touching it. Once this is done, tighten the two “C” bolts on the entry male shear die assembly. Check the exit shear die to ensure that the material will pass through it. If not adjust as necessary.
18. Start the machine again and slowly jog the panel approximately 6” past the exit male shear die assembly and stop. Again, **TURN THE MACHINE OFF**.
19. Adjust the exit male shear die assembly so that it is offset to the outside of the entry die by approximately 1/64” and lock down the two “C” bolts (Fig. 16-8, Pg. 66) *This offset is necessary so that after a cut is made, the leading edge of the panel does not hang up on the exit die.*
20. Look down the leg of the panel and make sure that the entry and exit male shear die assemblies are not touching the panel as it passes through them.
21. Make sure that one of the points of the top shear blade is inline with the vertical portion of the male leg. This part of the leg should be cut with the angle or rake of the blade to cut in a scissor action against the vertical die. Adjust if necessary.
22. Start the machine and shear down to cut off the panel, then jog the material through the shear again and stop.
23. Inspect the two cuts and adjust the dies as necessary until an acceptable cut is made. Again, **TURN THE MACHINE OFF BEFORE MAKING ANY ADJUSTMENTS**. You are now ready to run your new width panel.

PROFILE CHANGEOVER PROCEDURE

CAUTION: *Always make sure your machine is shut down prior to making any adjustments. DO NOT reach through the opening of the shear while the machine is running. EVER! To do so could result in serious injury.*

1. Remove Top Covers and set aside.
2. Using a 13mm wrench, remove the bolts holding the right and left Tooling Stations to the LARGE ANGLE TOOLING MOUNT. Store the tooling in order and set the hardware near the machine for use when installing the next profile. Note: the **SF100**, **SF150**, share the same left-side rollers, so if you are changing from one of these profiles to another you will only need to remove the right-side Tooling Rails.
3. Layout you new tooling starting with R1, R2 ... and if necessary L1, L2... to organize your tooling .
4. Remove bolts holding R1 and replace with your new R1. Set aside making sure all stations are marked properly . Repeat for all R stations and all L stations one by one.
5. Slide entry guide to the left or right to accept the new coil width. Make sure the coil is captured snugly between entry guides and align for your new profile
6. Feed material into machine and follow instructions for width change procedure.

Bead rollers adjustment

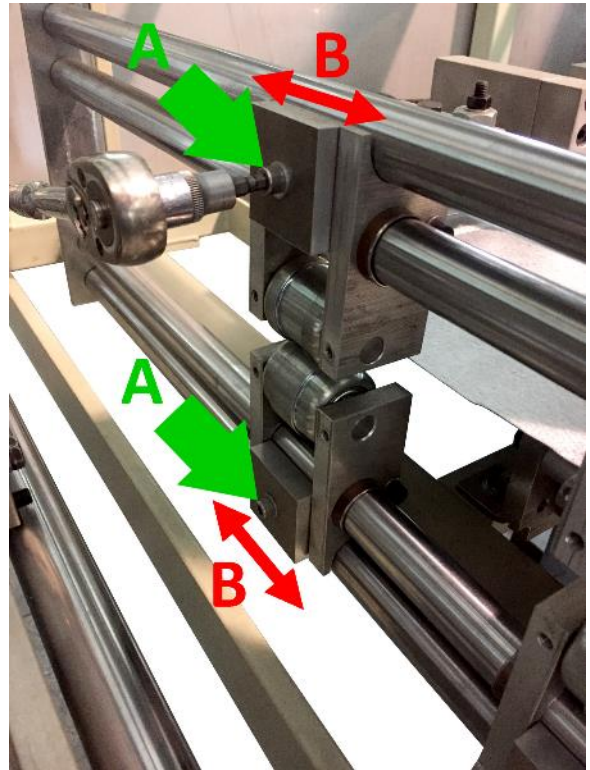
To set preferable position of the beads on the panel loosen front bolts marked with red arrows **A** for the top and bottom assembly. Slide top and bottom assembly of the bead rollers altogether. Check gap between upper and bottom rollers – gap should be same size for right and left sides. Tighten A bolts back. If you do not need beads on your panel – you can slide all beading rollers assembly all the way left from, out of the panel, or take top rollers if you don't have enough room due to width of the panel.

SHUT OFF THE MACHINE AND DISCONNECT THE POWER BEFORE CONTINUING.

Adjust tension of the top rollers with bolts that apply pressure. These are at the right and the left side of the machines, shown by arrow at top picture.

DO NOT go below .045" minimum clearance; excessive bead depth will distort your panel. Re-tighten screws "C".

Keep slide bars lightly greased to allow bead or striation assemblies to slide smoothly.



ELECTRICAL CONTROLS AND OPERATION

2. POWER CORD REQUIREMENTS

It is very important to follow the power cord requirement prescribed by the motor and electrical control manufacturers to maintain their respective warranties. Make sure the cord you are using is marked properly. Do not assume that because an extension cord looks heavy enough that it is the right gauge. Always make sure the cord has a factory mark of 10/3. The use of the wrong gauge extension cord will void the warranty on motor and electrical controls.

Your SS4E-PRO machine should be connected to the power source with a 10 gauge 3 wire 20 amp cord (not supplied). The power cord should be plugged into a 20-amp circuit to avoid tripping breakers. Replacement cords should be of the same gauge and rating as the one supplied with your machine.

2. CONTROL PANEL OPERATION:



A. Start Button. Start button engage machine in Manual or Automatic operation modes. After you press Start button first time (green light will flash once nearby Stop button) machine will be set in manual mode. In Manual mode you can use Forward and Reverse buttons to jog material back and forward. Material will move back or forward as long as you will hold the button. Select forward to feed material and run panel through the machine. NOTE: For operator safety, your machine will not run continuously in reverse. If you press Start button one more time (green light will flash once nearby Stop button second time) machine will turn in to automated mode. Jog Reverse button will remain same operation as in Manual mode. Button Forward will start continuous machine operation and material will go forward until panel hit the limit switch or you press Stop button.

NOTE: Limit switch must be plugged in to run continuously.

D. Red Stop Button (Entry and Exit End) This button acts as an emergency stop, and pressing either the entry or exit button will stop the drive system of the machine in case of an emergency.

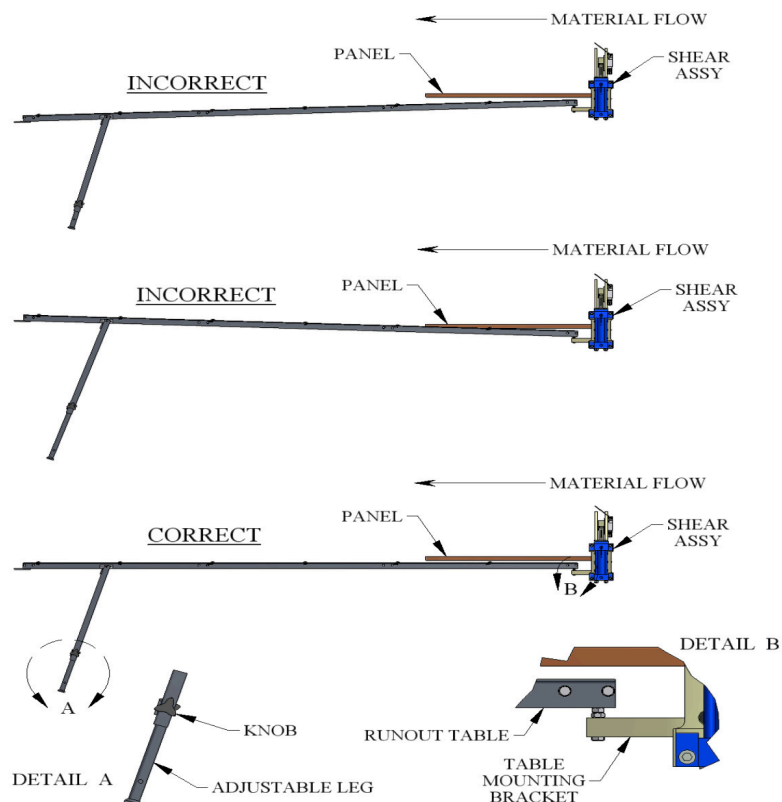
NOTE: For operator safety the machine is designed to JOG only in reverse regardless of the position of the RUN- JOG switch



RUN OUT TABLES AND REMOTE LIMIT SWITCH

The Run-Out Table attaches to the Exit End of the Shear assembly, and is used to support the panel as it exits the machine. It is available in 10 ft. long sections that fasten together, and have adjustable legs so they can be set to the correct height. The Remote Limit Switch is designed to be used with the run out tables for controlling panel length.

1. Set the first Run-Out Table on its side and in front of the machine with the leg assembly away from the shear.
2. Open the leg assembly and set it upright on the ground.
3. Lift the attachment end of the table and drop it over the 2 threaded bolts on the Shear Run-Out Table Bracket.
4. Loosen the 2 handles on the leg assembly and allow the legs to fall free. Sight the height of the table on the left and right side adjusting it



level to the machine using the t-handles to lock the legs in place. See illustration correct and incorrect set up and details.

5. Repeat the above procedures for each succeeding table and attach it to the bracket on the end of the previous table.

6.



The Remote Limit Switch is used for panel length control if you have no PLC touchscreen. It is designed to attach to the right side of the optional RUN OUT TABLES available for your machine. Plug the female end of a 3-wire 14-gage extension cord into the limit switch, and the male end into the female plug of the machine. The length of the panel you intend to run determines length of the extension cord needed. Run out a panel to the desired length and stop the machine. Slide the Remote Limit Switch onto the tube on the right side of the run out table so that the ARM of the switch is against the end of the panel. Pull the limit switch back toward the shear until you hear a click in the Limit Switch Head and secure the limit switch at this location. Cut and remove the set up panel from the table. Push the start button and run the next panel allowing the limit switch to stop the machine. Measure this second panel, and make any necessary adjustment to the limit switch to obtain the desired length. Repeat as necessary.

REEL ASSEMBLY

CAUTION: Always use properly rated lifting devices to load and unload coils.

Maximum Capacity / Reel: 3,000 lbs.

1. The reel axles must rest in the cradles on the reel rack. Keep the cradles lubricated with synthetic lube to minimize wear.
2. Use the Hold Down Brackets on each cradle to secure the coil and reel to the reel stand during both operation and transit of the machine. The Hold Down Bracket can be used to keep the coil from uncoiling to fast during the fabrication of panels. Apply just enough drag to keep coil tensioned. Caution: Do not over tighten Hold Down Brackets during machine operation. This will cause excessive load on the drive and electrical systems and premature failure will result. Do tighten Hold Down Brackets tightly prior to transport of the machine.

EXPANDABLE ARBOR

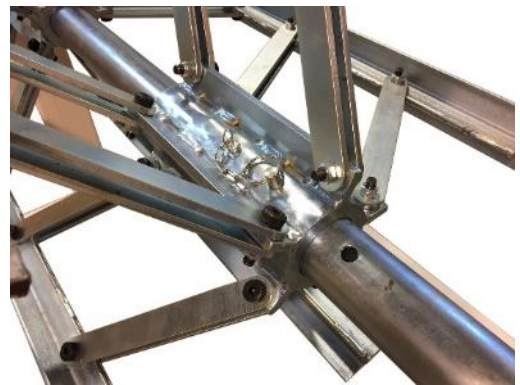
The Expandable Arbor adjusts to accommodate coil with 16" to 20" inside diameters by expanding into the ID of the coil.



THREADED NUT



The threaded nut is used to increase or decrease the outside diameter of the arbor. Turning the nut clockwise will increase the outside diameter of the arbor, and counter-clockwise rotation will decrease the arbor size.



LOADING EXPANDABLE ARBORS WITH COIL

1. Using the Threaded Nut, collapse the arbor small enough to fit into the inside diameter of the coil.
2. Slide the Expandable Arbor into the center of the coil.
3. Turn the Threaded Nut clockwise until the Support Bars on the arbor are just snug against the inside of the coil.
4. Finish by rotating the Threaded Nut clockwise until the Support Bars are very tight against the inside of the coil. Verify that material is in proper alignment with machine. The Coil and Arbor are now ready for loading.

LOADING REELED COIL

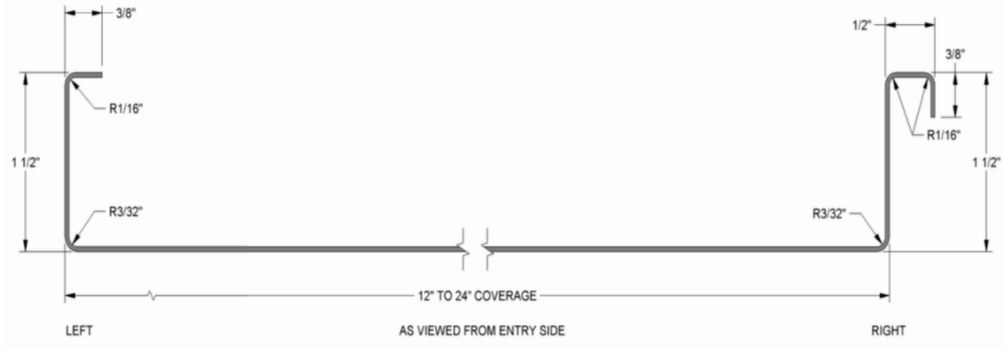
Caution: Always use a forklift or other approved lifting device to load or unload reels and coils.

1. Prepare the reel stand by making sure the Hold Down Brackets are in the unlocked and open Position.
2. Using an approved lifting device, lift the reeled coil into the cradles on the reel stand making sure that the tail of the coil is in the correct position for the profile you are running, then remove the lifting device.
3. Rotate the Hold Down Brackets to the closed position and thread the handle onto the hold down bolt. If you are going to run panel from this coil, tighten the left and right handle just snug. Final adjustment of tension should be made while running a panel to keep reel from unwinding material to fast. As the coil becomes smaller, re-adjustment may need to be made. Caution: DO NOT over tighten Hold Down Brackets. Drive and/ or Electrical System Failure may occur.
4. If you are going to transport the machine after loading coil, tighten the Hold Down Brackets securely to keep coil from unwinding during transport, and secure the loose end of the material to the coil.
5. Before transporting the loaded Expandable Arbor, you should also secure the coil around the outside edges through the inside diameter using a strap, rope, etc to prevent the coil from telescoping.

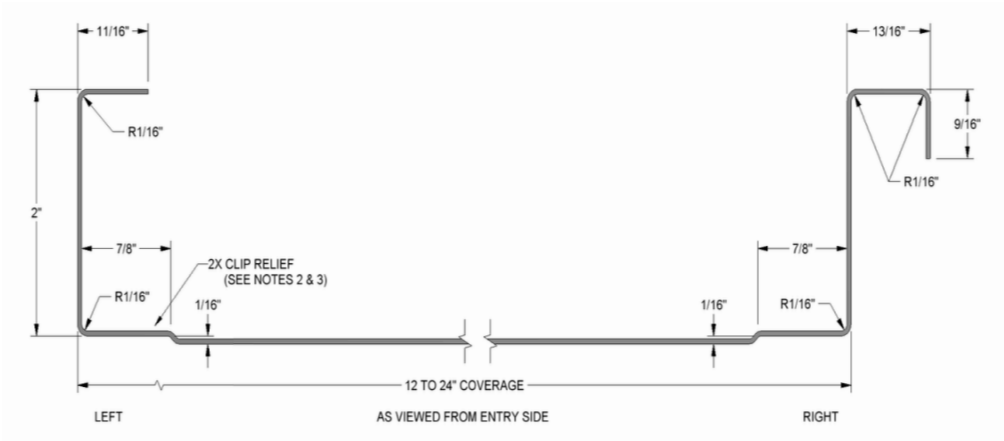
NOTE: Make sure Hold Down Brackets are tightened securely and coil is properly tied off before transporting machine.

PROFILE DRAWINGS

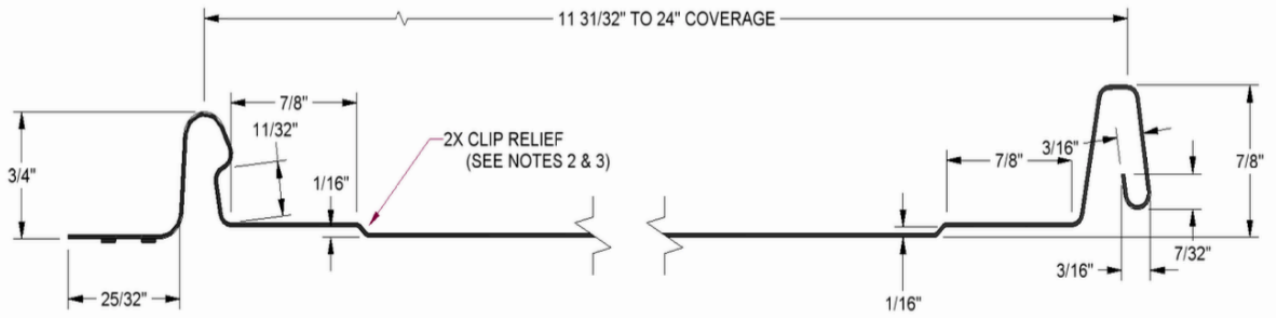
SS150



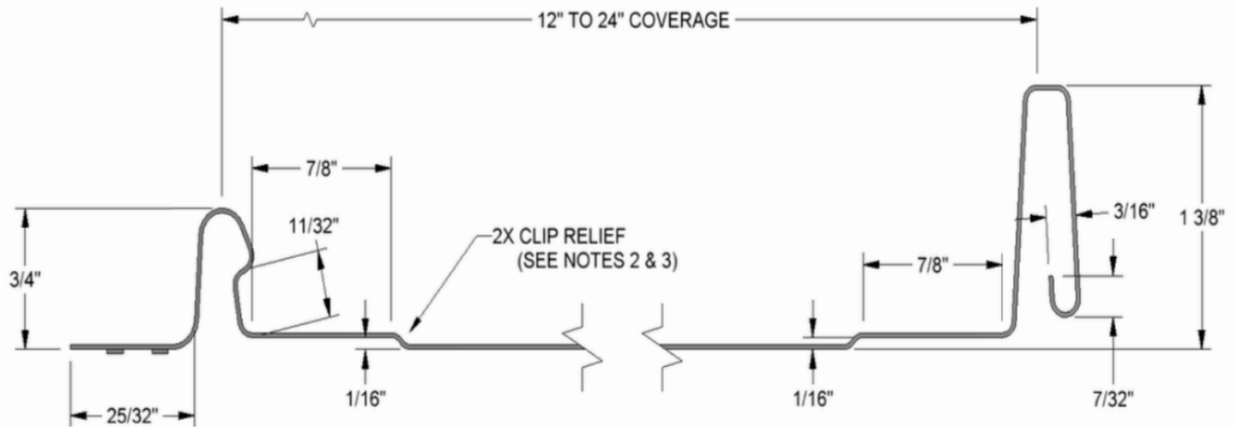
SS200



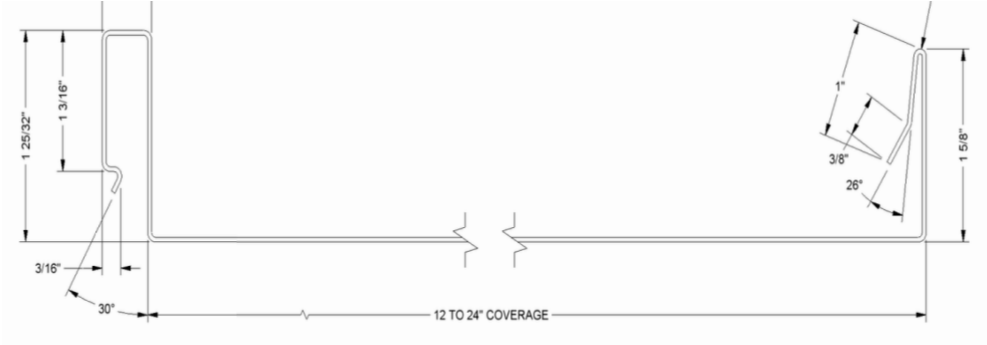
SF100



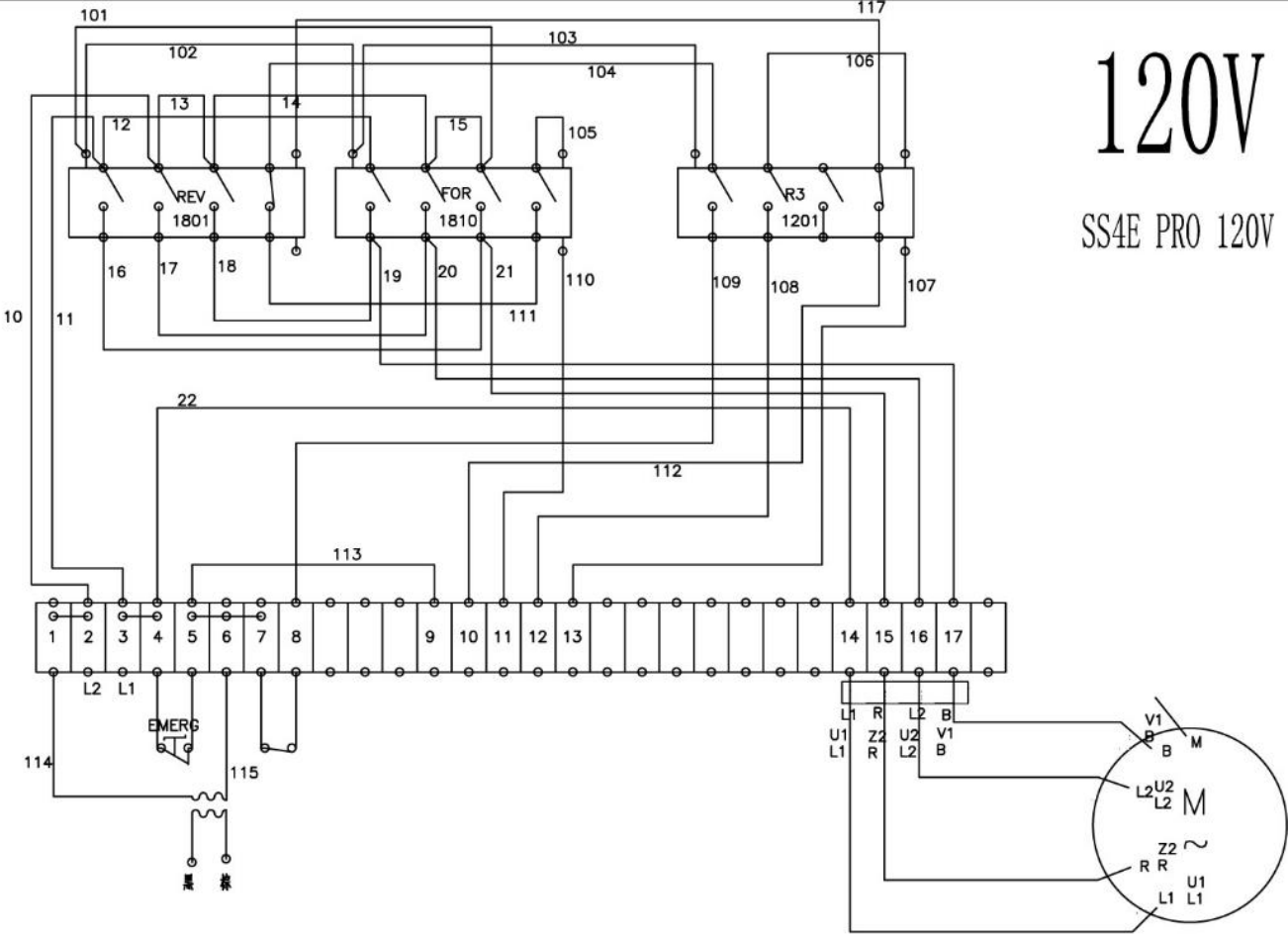
SF150



SL175



ELECTRICAL DRAWINGS



PLC touch screen

The Liberty PLC controller is designed for automatic shear and length and batch control. It uses an encoder to measure length control.

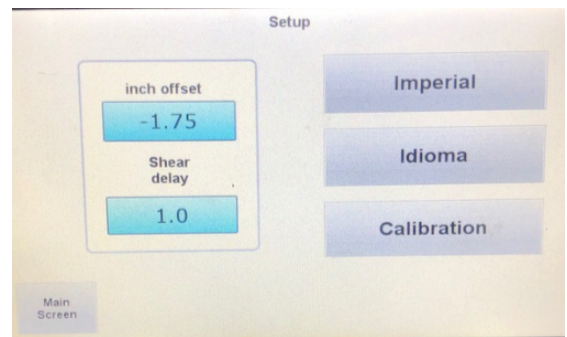
Home Screen will allow you one of three functions:

1. Auto - for automatic control setup
2. Manual
3. Setup

SETUP:

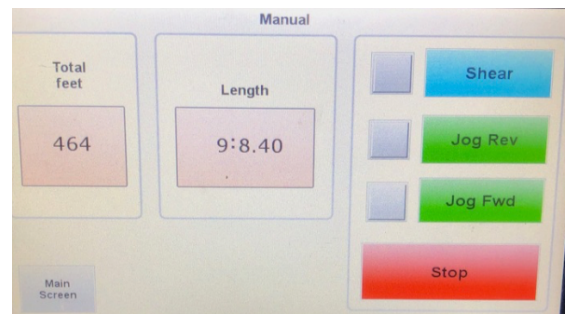
This will allow you to delay the time from the shear to start. We recommend 1.0 as the setting. The inch offset is the distance for the motor power off until it coasts to a stop. This is normally 1.75.

You can also change from Metric to Imperial (feet and inches), Language, or Calibration.



MANUAL:

This is where you can manually activate the electric shear, and jog your machine forward and reverse as you feed your machine. It gives you a total feet and length of your panel .

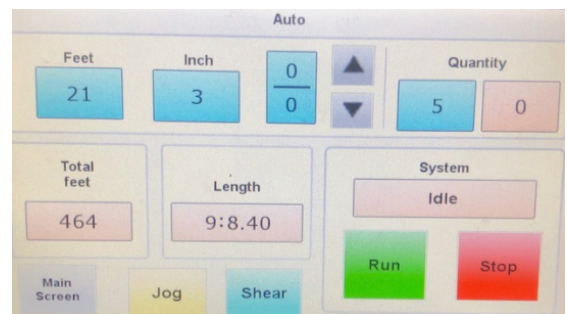


AUTO:

Automatic allows you to input length in feet and inches or in metric If you select that under SETUP. Quantity - allows you to designate how many pieces of that length you want.

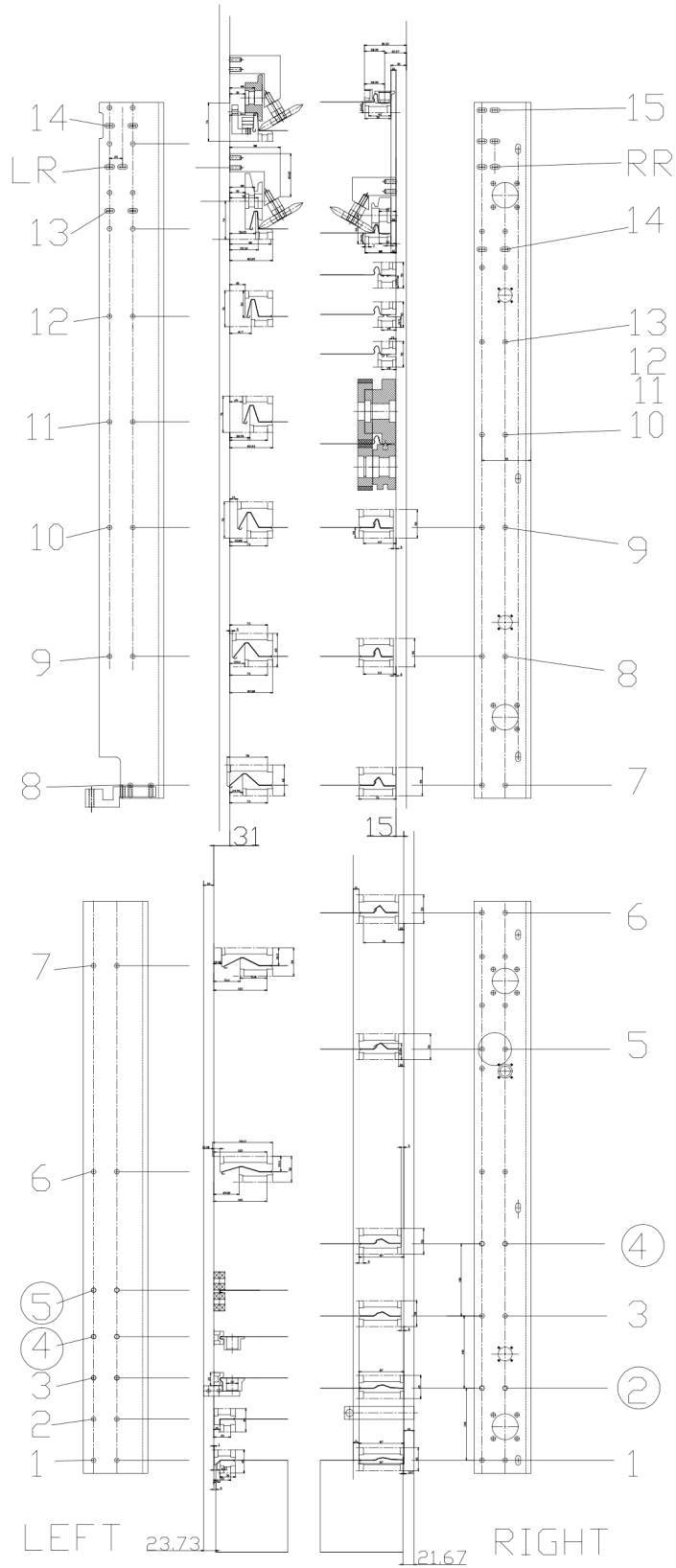
You can also JOG and SHEAR in this screen.

When you press RUN, the machine will run, stop, shear you pieces that you have selected.

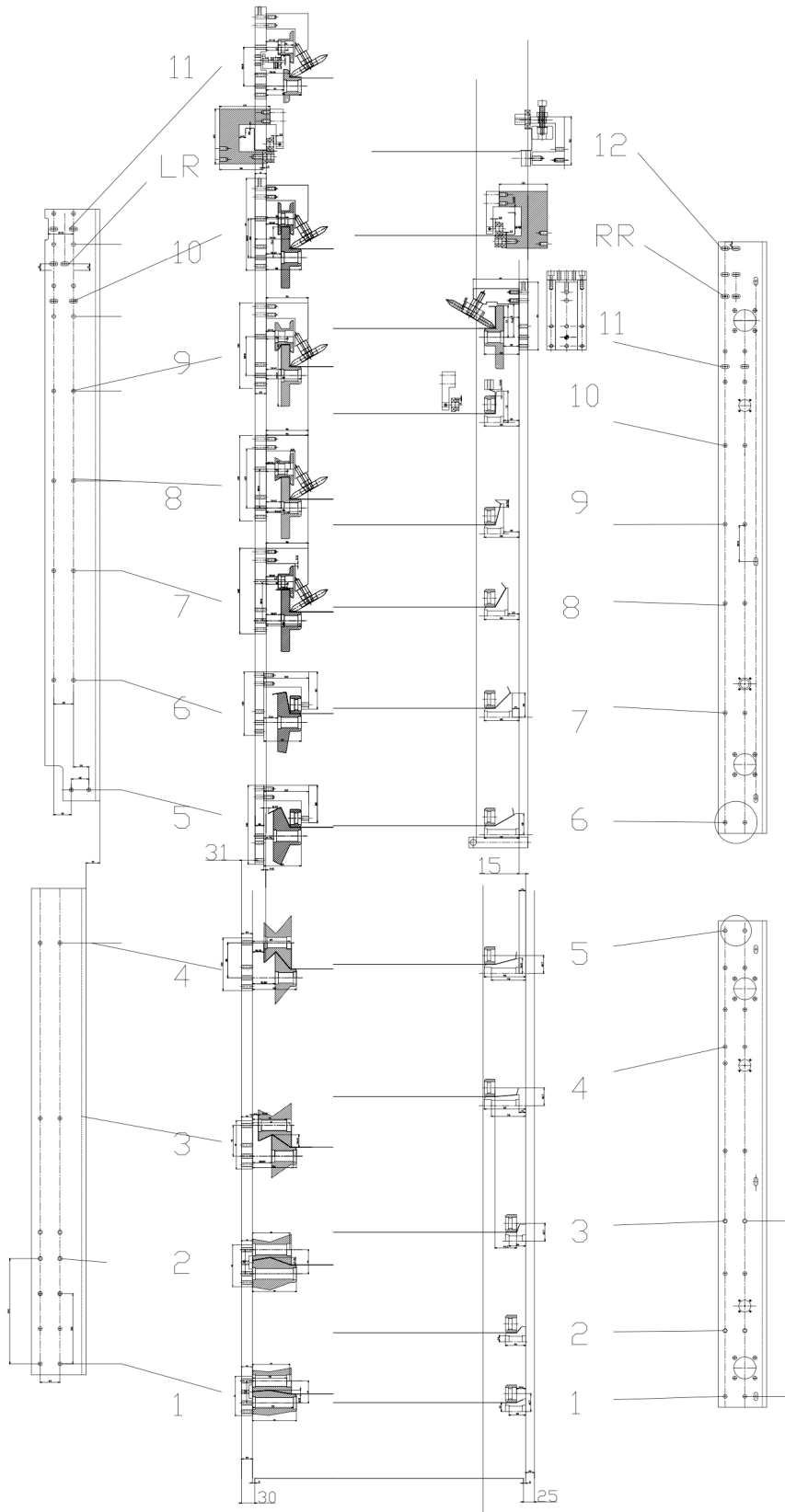


ROLLER POSITIONS

SF100 / SF150 1.0" or 1.5" Slotted Flange Rollers



SS200 - 2" Mechanical Seam Rollers



Warranty

Our company warrants to its customers that the machine made under control of the company are free from defects in design, material, and workmanship when operated under required operating conditions and in accordance with manual for machine, for a period of one year from date of shipment. During this period company obligates to repair or replace any part or assembly of the machine, which is considered defective by company or its representative or independent expertise, or refund purchase price thereof the part or assembly of the machine at company option and expense, but not thereafter. The Warranty is limited to a maximum of 5 replacements on any given order. The defective parts or assembly must be returned to manufacturer. Shipping not include under this warranty.

Subject to the above warranty, in the event that your machine fails to operate satisfactorily, please call us so that we can troubleshoot the issue and authorize your item for warranty replacement if necessary. Please provide our representative with your order number and a detailed explanation of the difficulty you are experiencing with the machine and/or its parts or components.

Do not send any product to us unless you have spoken to a one of our highly trained representative first. This can lead to confusion and may result in the loss of your item, and therefore the forfeiture of your replacement. Freight must be prepaid.

Liberty will not responsible for labor cost incurred by purchaser during the warranty time period. This is a limited parts warranty only, and there is no warranty or reimbursement for labor costs of removing or installing parts, or any other kind of costs incurred for labor. Liberty is not carry on warranty to following: parts manufactured not by Liberty, labor for the machine or parts adjustment, any anticipated lost profit, wear parts (like cutting blades, friction, chains & belts).

Liberty reserves the right to make changes and improvements to their machines at any time without notice. Liberty shall not be obligated to incorporate such changes or improvements in machines previously sold or supplied to any purchaser, not be obligated to replace previously sold machines with machines incorporating such changes or improvements.

Defects or damage caused by any of the following will void this warranty:

- Modification or alteration of machine by any persons or company without written agreement with Liberty Seamless Enterprises, Inc.
- Physical abuse to, or misuse of the product or operation thereof in a manner inconsistent with the use indicated in the machine instruction manual; or
- Any use of the product other than that for which it was originally intended.

Any express warranty not provided herein, and any remedy other than the warranty contained herein that might arise by interference or operation of law, is hereby excluded and disclaimed including the implied warranties of merchantability and of the fitness for a particular purpose. Replacement or repair of product is your exclusive remedy under this warranty.

Please note that Liberty does not cover shipping or any other costs incurred during the replacement process.