



# OPERATION and MAINTENANCE MANUAL



U.S. PATENT NO. 6,772,616  
U.S. PATENT(S) PENDING

## SSR MultiPro Jr.™

Quick Change – Light Commercial/Residential Roof Panel Machine

*Original Instructions*

[www.NewTechMachinery.com](http://www.NewTechMachinery.com)

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CHAPTER 1  
**MACHINE INTRODUCTION**

## **CHAPTER 1 – MACHINE INTRODUCTION**

### **SSR MultiPro Jr.™ ROOF PANEL MACHINE**

Manufactured & Distributed by: New Tech Machinery  
1300 40<sup>th</sup> St  
Denver, CO 80205  
USA  
Phone: 1-303-294-0538

### ***Machine Summary***

This machine is designed to take in flat coil stock and roll-form it into finished roofing panels of any desired length. It is a portable machine and as such will be mounted on a trailer or a truck bed (or other suitable support) and be transported to the jobsite. On site it will produce all the panels that are needed to complete the job.

Training for operation and maintenance of this machine is conducted through a video that is provided with each machine. Additional copies of this video may be obtained by request at the contact shown above.

### ***Lifting the Machine***

The machine ships on a custom designed skid that allows it to be picked up from either the side or the end with a fork truck. Important: If it is to be picked up from the end it should only be picked up from the exit (shear) end since that is the heavier side, and with forks that are at least 72" (1.8 m) long. To lift the machine off the skid insert the forks on the side of the machine between the bottom of the frame and the skid, drive the fork truck forward until the forks are completely under the machine, remove the nuts holding it to the skid, then lift the machine.

### ***Mounting the Machine***

This machine is meant to be mounted onto a solid surface such as a trailer or truck bed. To prevent injury it is necessary that the mounting surface does not allow access to the moving parts of the machine through the open underside. If the machine is to be operated in an indoor setting it should be mounted on a cart to bring it up to a comfortable working height. The cart must not allow access to the moving parts of the machine through the open underside.

The machine must be bolted to a support structure such as the trailer, truck, etc. while being operated and transported.



## CHAPTER 2

# SSR SPECIFICATIONS

## CHAPTER 2 - SSR SPECIFICATIONS

SSR Dimensions:	Length	12' 6"	(3.8m)
	Width	3' 10"	(1.2m)
	Height	4' 3"	(1.3m) w/Over Head Rack
		1' 10"	(.6m) w/o Over Head Rack
SSR on Trailer:	Length	18' 11"	(5.8m)
	Width	7' 2½"	(2.2m)
	Height	6' 3"	(1.9m) with reel
SSR Weights:	1715 lbs. (780 kg)	Base Machine with Roller Set, Power Pack, and Rib Rollers	
	2260 lbs. (1020 kg)	Trailer	
	316 lbs. (143 kg)	Overhead Reel Rack	
	80 lbs. (36 kg)	Expandable Arbor, each	
	29 lbs. (13 kg)	10-foot Runout Table, each	
	60 lbs. (27 kg)	PVC Strippable Film Applicator	
Speed:	30 ft./min. Approx.	(9m/min.) Approx.	
Noise Level:	<70 dB(A)		
Drive:	Electric via chain, sprocket and gears using 8 polyurethane drive rollers		
Shear:	Forward pulling manual rack and gear w/ hardened tool steel dies		
Coil Width	15" to 20"	(381mm to 508mm)	
Materials Formed	Steel	28 Ga to 24 Ga (.4mm to .6mm)	
		Painted, Galvanized, Aluminized	
	Note: -50 ksi maximum for 24ga.		
	-50 ksi recommended, 80 ksi acceptable with adjustments for 28ga. to 26ga.		
	Aluminum, painted	.027" to .040" (.7mm to 1.0mm)	
	Copper	16 oz. to 20 oz. ¾ Hard (.5mm to .7mm)	
	Terne-Coat Stainless Steel	26 Ga (.5mm)	
Controls	Push button entry and exit end manual controls with "JOG" feature and power interruption safety wiring.		

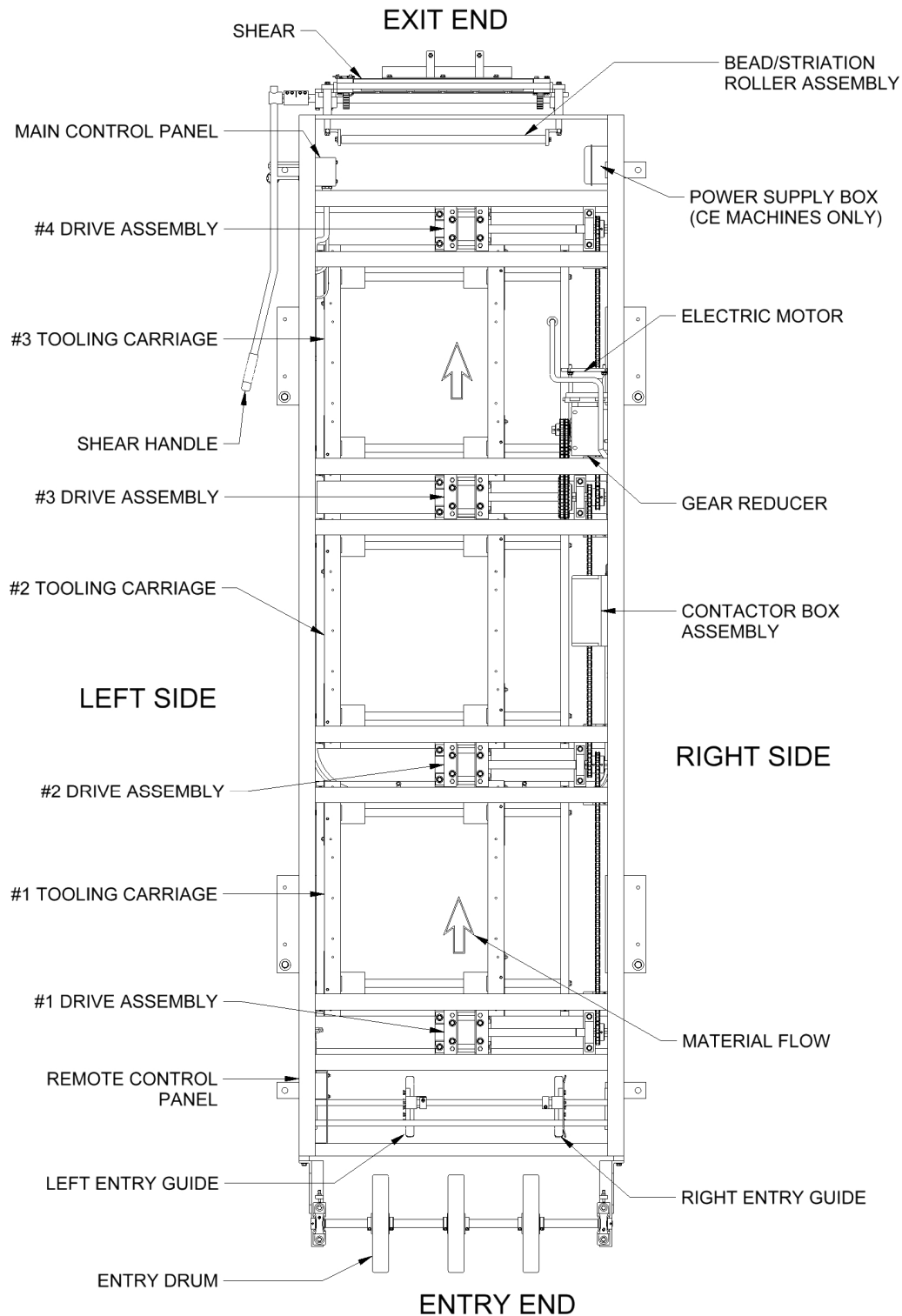
CHAPTER 3  
**PRECAUTIONS**

## **CHAPTER 3 - PRECAUTIONS**

1. **Make sure the operator of the machine as well as maintenance personnel have read and understand this manual in its entirety before attempting to operate or perform maintenance on this equipment.**
2. **ALWAYS** keep covers, guards and lids mounted to machine during operation
3. **OBSERVE and OBEY** all safety and warning signs affixed to the machine.
4. **ALWAYS** adhere to and follow all local, national and regional safety codes concerning the loading and un-loading of reeled coils.
5. **USE ONLY** properly rated devices for lifting reeled coils into or out of the reel stand.
6. **DO NOT** wear loose clothing, jewelry etc. that could become entangled in the moving parts of the machine when operating.
7. **ALWAYS** wear cut and abrasion resistant gloves to protect the hands and lower forearms. Sharp edges are an inherent danger in handling of sheet metal.
8. **STOP THE MACHINE** and disconnect the power before attempting to make any adjustments, perform any maintenance or changeover procedures.
9. The machine must be attended at all times while in operation.
10. The machine must be bolted to a support structure such as a trailer, truck, etc. while being operated and transported.
11. Follow the safe handling instructions of the lubricants according to the SDS.
12. It is the responsibility of the end user to take into consideration safe instructions for loading the material, safe access to lubricating parts, changing the roller sets and maintaining the machinery.
13. Machinery is to be operated and maintained by qualified personnel.
14. Machinery is to be operated in a properly lit environment.
15. **AVOID** storing the machine outdoors for long periods of time. Cover with a tarp but provide good ventilation to prevent condensation and rust.
16. **DO NOT USE SOLVENTS TO CLEAN DRIVE ROLLERS!**
17. **ALWAYS EMPTY MACHINE OF MATERIAL BEFORE TRANSPORT AND STORAGE.**

CHAPTER 4  
**MACHINE ORIENTATION**

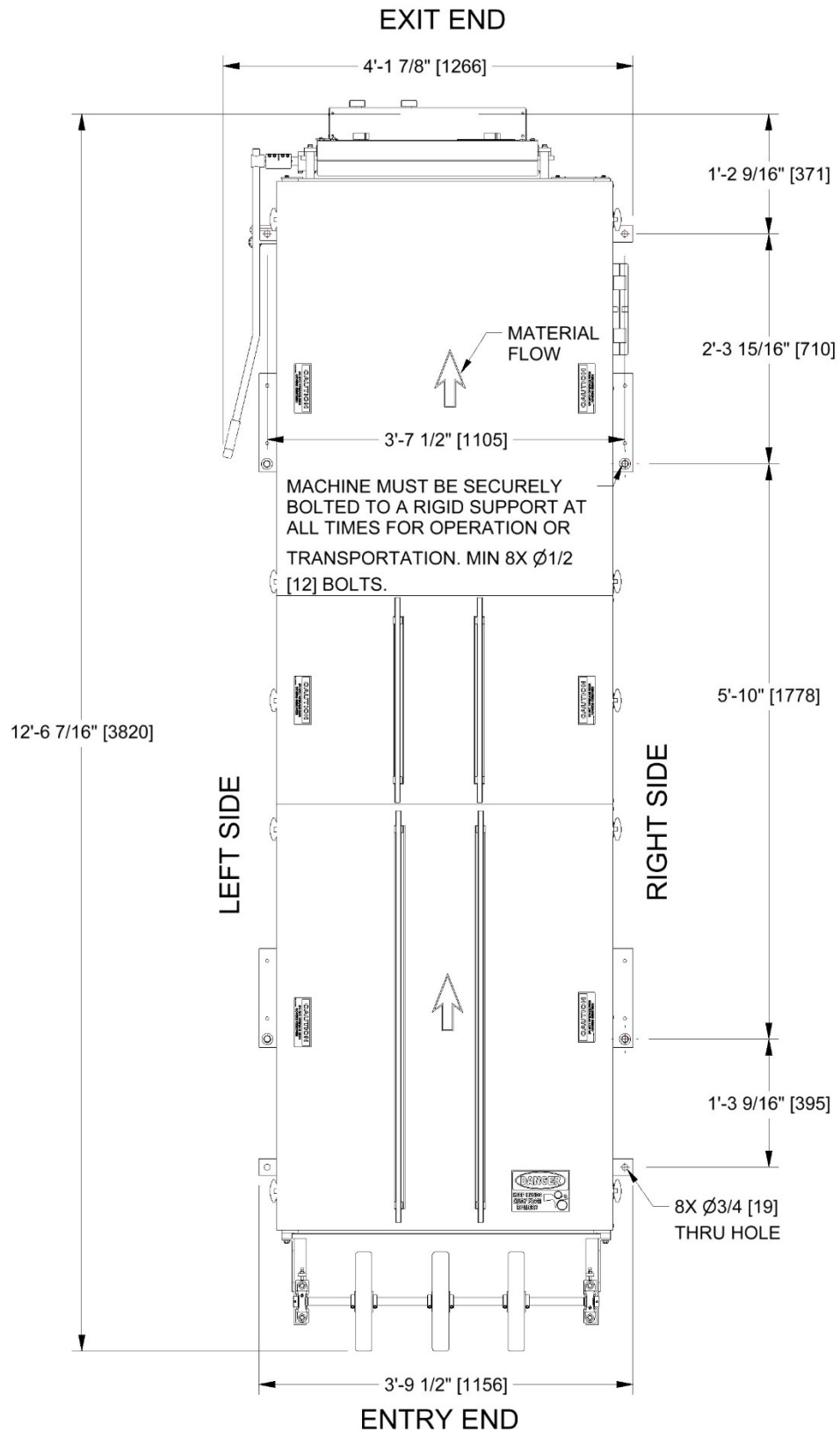
**CHAPTER 4 - MACHINE ORIENTATION**



**Figure 1: Machine Orientation**

# CHAPTER 4

## **MACHINE ORIENTATION**



**Figure 2: Mounting Foot Detail**



CHAPTER 5  
**GENERAL MAINTENANCE**

## **CHAPTER 5 - GENERAL MAINTENANCE**

1. Always keep covers on during operation and storage. The covers are for operator safety, but also protect the internal components of the machine from the environment.
2. Avoid storage of the machine outdoors for long periods of time. Cover the machine with a tarp to protect it but provide good ventilation to prevent condensation and rust.
3. Keep the machine clean. This will increase the life of the machine and make maintenance easier. A clean machine will provide a clean product.
4. Before operating the machine visually inspect for foreign objects, debris or anything unusual. If something doesn't seem correct, inspect and remedy prior to operation.
5. Keep chains properly tensioned. This will add to the life of the chains and sprockets. The chains should be just snug. An over-tightened chain is just as bad for the machine as a loose chain. Idler sprockets are provided on each chain for this purpose.
6. Lubricate the chains a minimum of every 40 hours of operation. It is preferable to use a dry motorcycle chain lube or equivalent.
7. Keep Entry Guide Carriage clean and lubricate as needed with Spray Lube.
8. Keep Bead Roller Carriage Shafts (Figure 16 on page 29) clean and lubricate with Spray Lube.
9. Keep Arbor Cradles (Figure 7 on page 14) lubricated with Clear Grease.
10. Lubricate Arbor Nut (Figure 6 on page 12) using a grease gun with EP Grease when threads begin to look dry.
11. Clean Forming Rollers as needed with a Scotch Brite Pad dampened with a small amount of solvent. Take care that solvent does not contact the Drive Rolls.
12. Clean Drive Rollers with soap and water or mild solvent free spray cleaner. **CAUTION: Do not use harsh chemicals or solvents or damage will occur.**
13. Lubricate both faces of the Shear Blades and Dies (Figure 11 on page 22) a minimum of once daily with Spray Lube. More should be added as needed before the cut edges begin to deteriorate.

CHAPTER 5  
**GENERAL MAINTENANCE**

***Recommended Lubricants and Fluids***

The following lubricants will preserve proper function of your machine and are available from New Tech Machinery:

**Spray Lube for:**

Shear Blades, Shear Dies, Entry Guide, Bead Roller Carriage Shafts and Carriage Rails  
Super Lube - Multi-Purpose Synthetic Dri Film Lubricant with Syncolon (PTFE)

**NTM PN: LUBE-SPRAY** - 11oz Aerosol Can

**Clear Grease for:**

Arbor Cradles

Synthetic Extreme Pressure, High Temperature Grease with Syncolon (PTFE)

**NTM PN: LUBE-GEL** - 400-gram container

**EP Grease for:**

Arbor Nuts and Pillow Blocks

Grease - Lubricants Type: Moly Ep Grease

**NTM PN: LUBE-GREASE** - 14 oz Container

**Lubricant for Roller Chains:**

Any lubricant for industrial or motorcycle roller chains will suffice.

***Tools Needed for Routine Maintenance:***

5/16" wrench or socket

3/8" wrench or socket

7/16" wrench or socket

1/2" wrench or socket

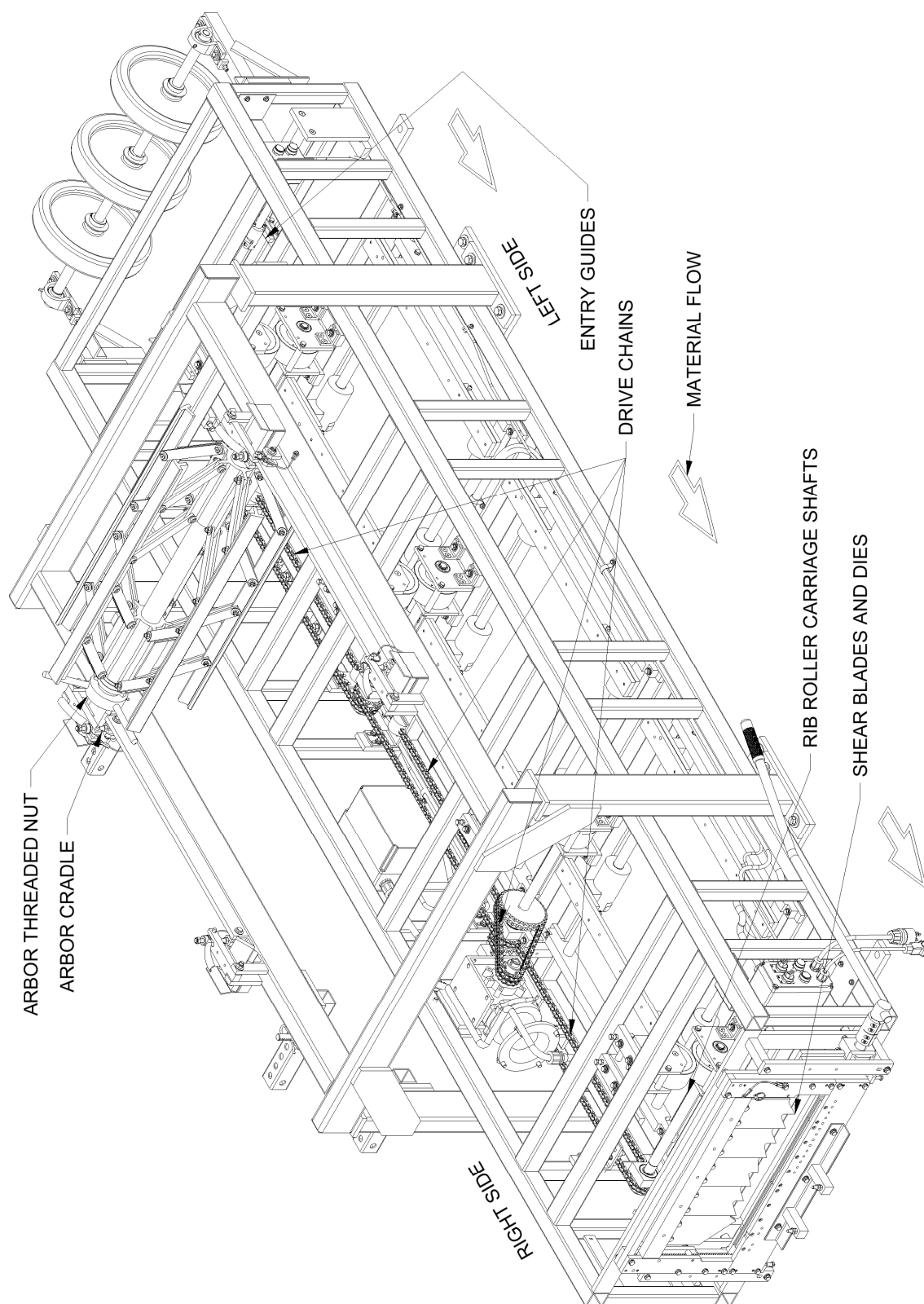
9/16" wrench or socket

Phillips screwdriver

5/32" hex key

3/16" hex key

CHAPTER 5  
**GENERAL MAINTENANCE**



**Figure 3: Lubrication Points**

CHAPTER 6  
**ELECTRICAL CONTROLS AND OPERATION**

## **CHAPTER 6 - ELECTRICAL CONTROLS AND OPERATION**

### **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 being used is marked properly. Do not assume that because an extension cord looks heavy enough that it is the right gauge. **Use of the wrong gauge extension cord will void the warranty on motor and electrical controls.**

### **GENERATOR USE FOR ELECTRIC MOTOR MACHINES**

If a generator will be used to power the machine it must be large enough to handle the amp draw requirements of the motor. A **4500-5000 watt** generator is recommended. **Use of an improperly sized generator will cause a low voltage situation of the electric motor and controls which will void the warranty.**

The minimum extension cord wire size for the 1½ HP electric motor are as follows:

Up to 25 ft (7.6 m).	12 AWG (4mm <sup>2</sup> )
25 ft. to 100 ft. (7.6 m to 30.5m)	10 AWG (6mm <sup>2</sup> )

In addition to the minimum wire sizes shown above, the user shall confirm the selected cord and wire meets all applicable local and regional regulations.

### **CONTROL PANEL OPERATION:**

(Figure 4 on page 10)

The Main Control Panel is located at the exit end of the machine, on the left side. The Remote Control Panel is located at the entry end of the machine, on the left side.

A. **FORWARD-REVERSE Switch**

This selector switch controls the direction of movement of the material through the machine. Select forward to feed material and run panels through the machine.

**NOTE: For operator safety, the machine will not run continuously in reverse.** Located at the Main Control Panel.

B. **JOG-RUN Switch**

This selector switch allows the machine to run continuously, or jog material through the machine. Select JOG to load coil into machine and to move material through the machine in small increments until it clears the shear. Select RUN after material has cleared the shear and the machine is ready to run panels.

Located at the Main Control Panel.

C. **START FEED (Green button, Black on CE machines)**

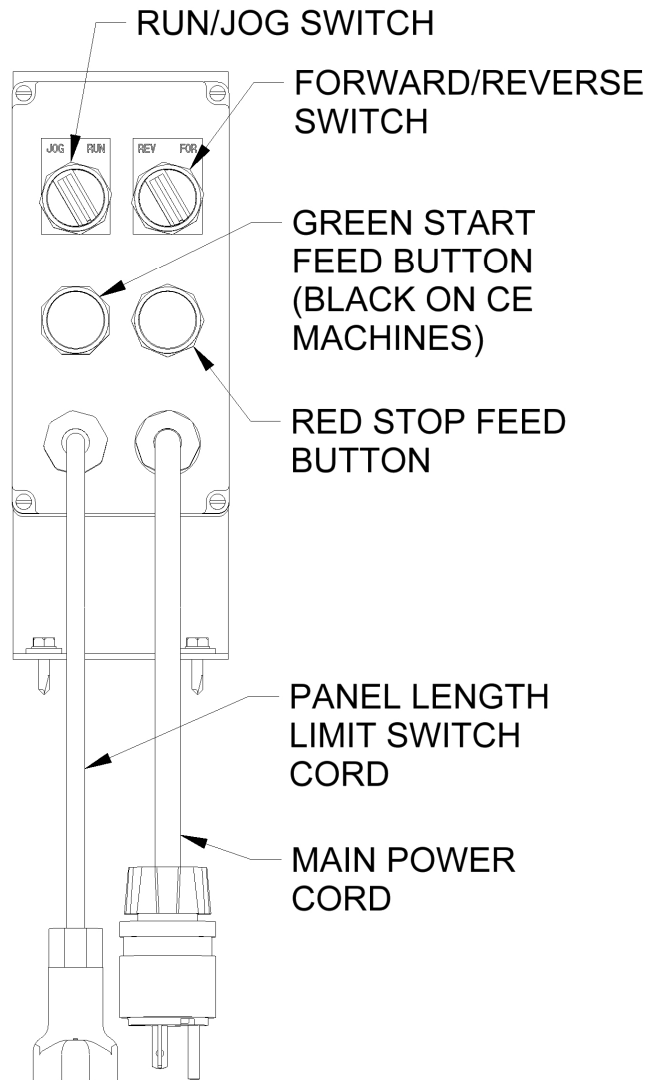
Activates the drive system of the machine. Located at both the Main and Remote Control Panels

D. **STOP FEED (Red button)**

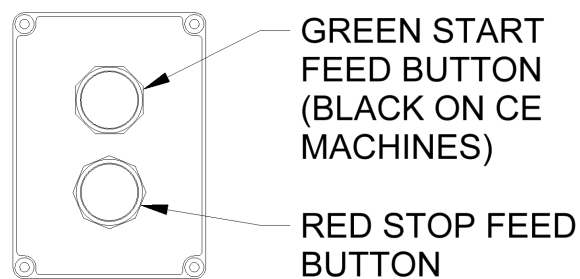


**ELECTRICAL CONTROLS AND OPERATION**

Stops the drive system of the machine. Located at both the Main and Remote Control Panels.



**Figure 4: Main Control Panel**



**Figure 5: Remote Control Panel**

CHAPTER 7

**REEL STANDS, REELS AND EXPANDABLE ARBORS**

## **CHAPTER 7 - REEL STANDS, REELS AND EXPANDABLE ARBORS**

### **EXPANDABLE ARBOR**

(Figure 6 on page 12)

The Expandable Arbor adjusts to accommodate coils with 16" (406 mm) or 20" (508 mm) inside diameters by expanding into the ID of the coil.

### **THREADED NUT**

The threaded nut should always be on the right side of the machine and the tail of the coil should always be routed over the top and pointing toward the entry end of the machine.

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. There is a grease zerk in the collar of the threaded nut that should be lubricated at least twice a year, or whenever grease is not visible on the threads of the shaft.

### **END COLLAR**

The End Collar has two positions.

Position "A" is used for coils with inside diameters of 16" (406 mm).

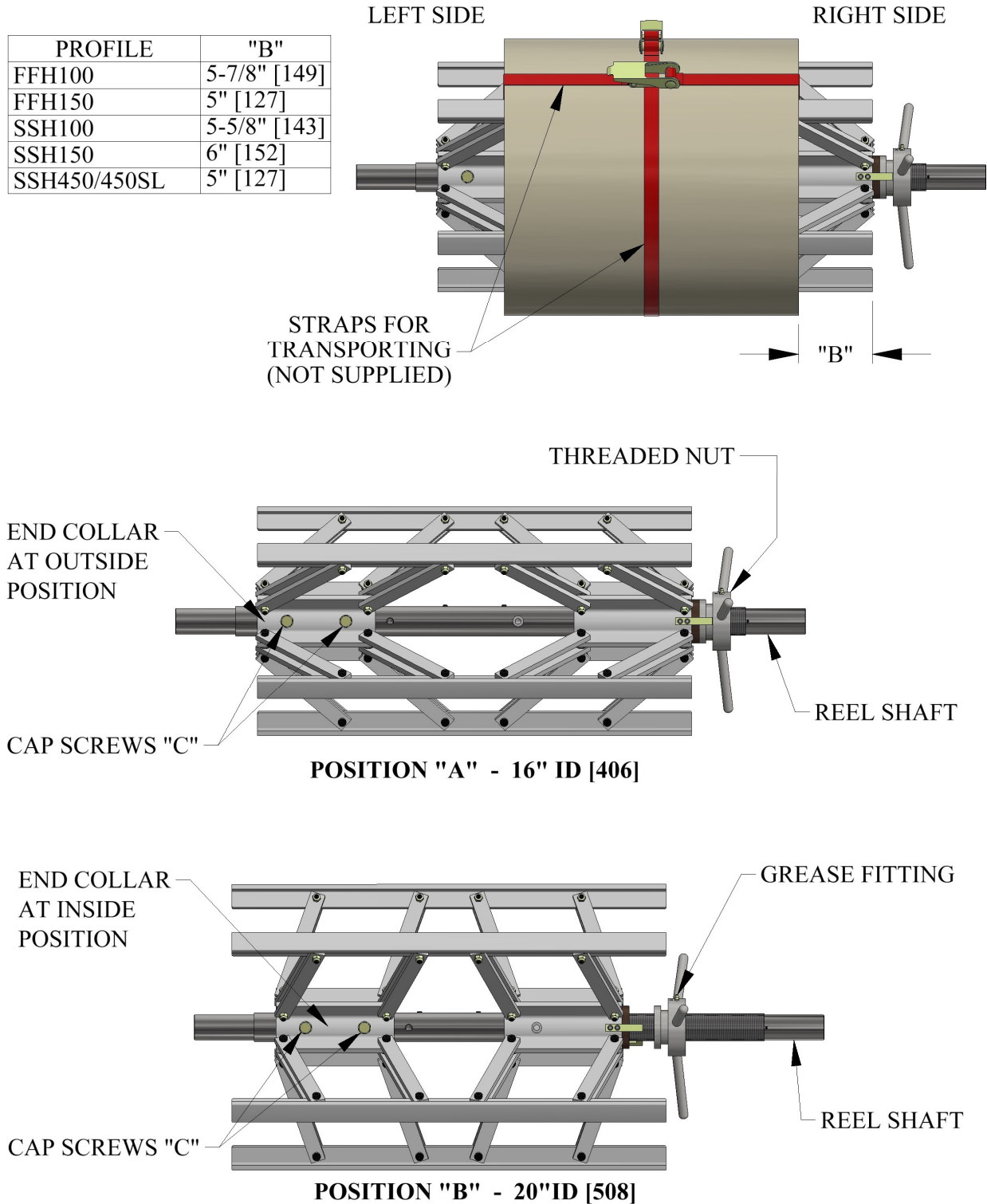
Position "B" is used for coils with inside diameters of 20" (508 mm).

To adjust from one position to the other, remove 2 cap screws "C" until end collar is free to slide. Slide it to the inside position for 20" ID or outside position for 16" ID coil. Align it to the respective threaded holes in the reel shaft. Re-insert and tighten "C" cap screws to lock the end collar to the shaft.

### **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 making sure the threaded nut is on the right and the tail of the coil is over the top and pointed toward the entry end of the machine.
3. Turn the Threaded Nut clockwise until the Support Bars on the arbor are just snug against the inside of the coil.
4. Using the Reel Set Up Chart, (Figure 6 on page 12), find the "B" dimension that corresponds to the profile being used.
5. Slide the arbor left or right to get the correct "B" dimension measuring from the edge of the coil to the end of the Support Bar on the Threaded Nut side.
6. Finish by rotating the Threaded Nut clockwise until the Support Bars are very tight against the inside of the coil. Verify that dimension B" is correct and re-adjust if necessary. The Coil and Arbor are now ready for loading. (see LOADING REELED COIL on page 15)

# REEL STANDS, REELS AND EXPANDABLE ARBORS



**Figure 6: Expandable Arbor Set-Up**

## **REEL STANDS, REELS AND EXPANDABLE ARBORS**

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

Maximum Capacity / Reel: **3,000 lbs. (1360 kg)**

Total Capacity for Reel Stand: **6,000 lbs. (2720 kg)**

1. The reel shafts must rest in the arbor cradles on the reel stand. Keep the arbor cradles lubricated with clear grease to minimize wear. (Figure 7 on page 14)
2. Use the Hold Down Bars on each cradle to secure the coil and reel to the reel stand during both operation and transport of the machine. The Hold Down Bar should be used to keep the coil from uncoiling too fast during the fabrication of panels. Apply just enough drag to keep coil tensioned.

**Caution: Do not over tighten Hold Down Bars during machine operation.** This will cause excessive load on the drive and electrical systems and premature failure will result.

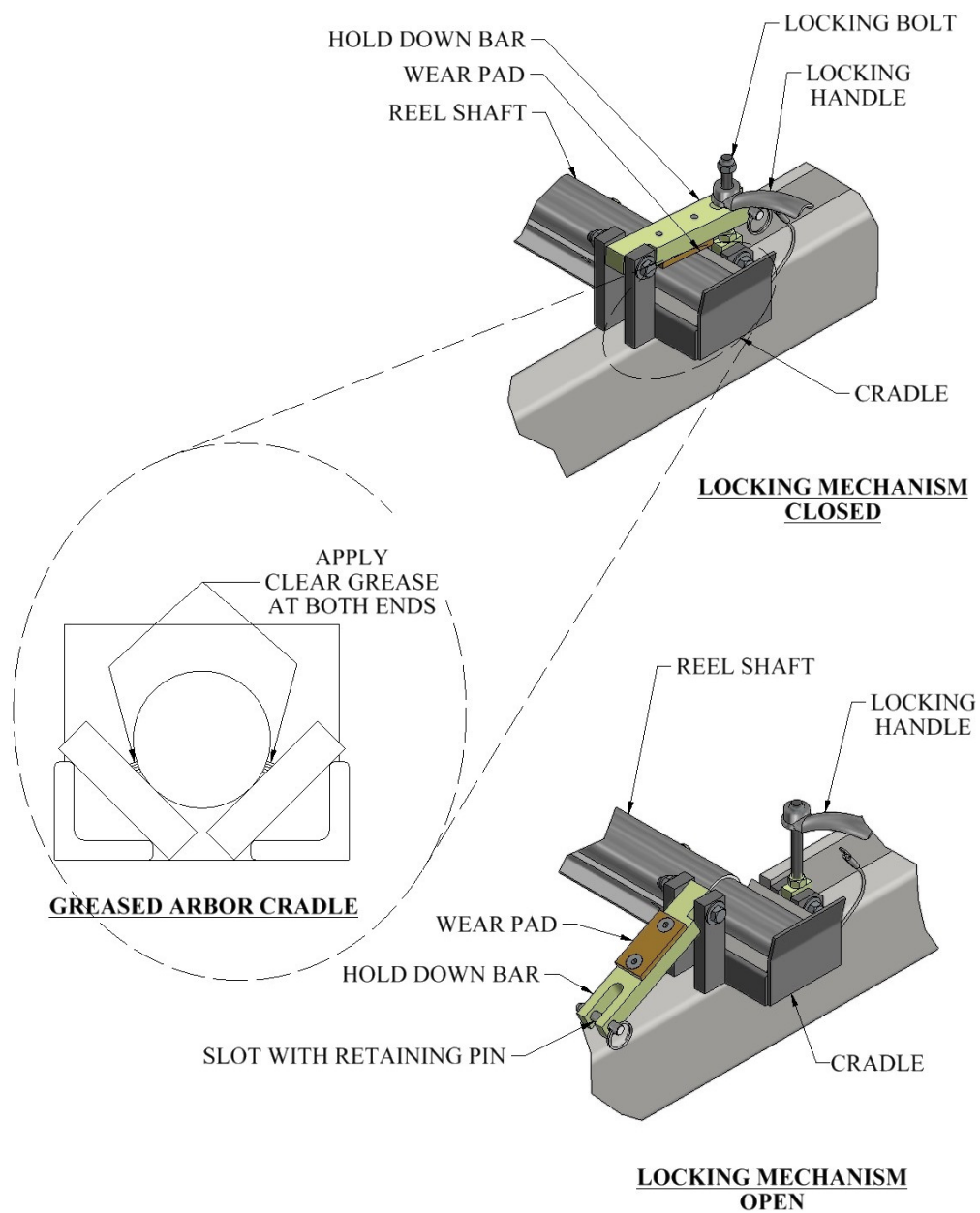
**DO tighten Hold Down Bars** tightly prior to transport of the machine.

3. If a Remote Decoiler is used it should be placed 8 to 10 feet behind the machine. Align it as close as possible to the Right-Side Entry Guide line of fire, making the side of the coil and reel parallel to the machine. NOTE: The closer the Decoiler and reel are set to the machine, the more critical this alignment becomes.



CHAPTER 7

## **REEL STANDS, REELS AND EXPANDABLE ARBORS**



**Figure 7: Expandable Reel Support and Locking**

## **REEL STANDS, REELS AND EXPANDABLE ARBORS**

### **LOADING REELED COIL**

**Caution:**

**Always use a forklift or other approved lifting device to load or unload Fixed Reels or Expandable Arbors loaded with coil.**

**The Lifting Holes in the Fixed Reel sides are provided to make loading safer and easier.**

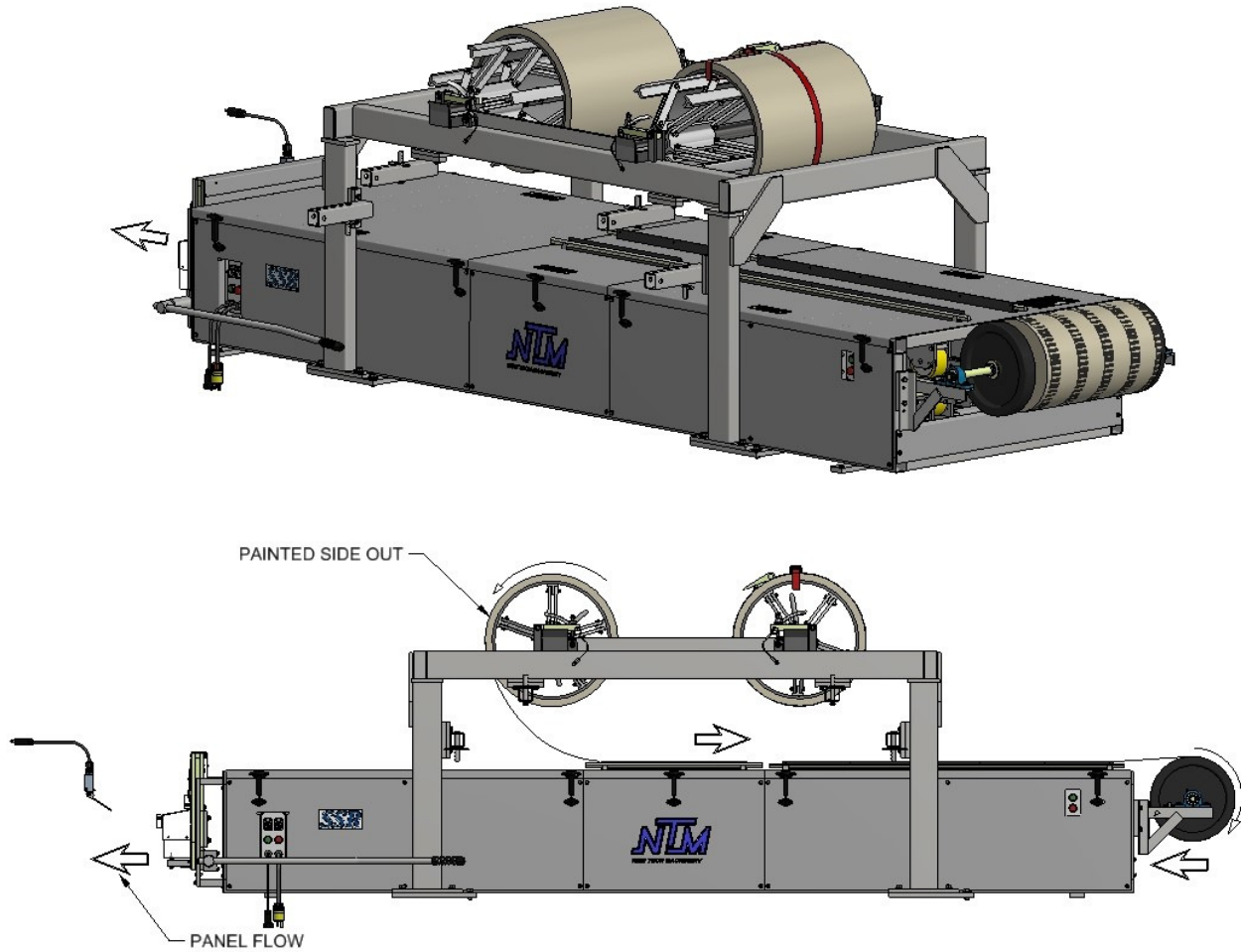
**DO NOT use lifting straps through the lifting holes as the sharp edges may cut the straps.**

1. Prepare the reel stand by making sure the Hold Down Bars are in the unlocked and open position (Figure 7 on page 14).
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 to route the material as shown in Figure 8, then remove the lifting device.
3. Rotate the Hold Down Bars to the closed position and thread the locking bolt into the slot in the end of the hold down bar and secure with the retaining pin. If the coil is going to run panels, tighten the left and right handles just snug. The wear pads pressing against the reel shaft control the coil tension. Final adjustment of tension should be made while running a panel to keep reel from unwinding material too fast. As the coil becomes smaller, re-adjustment will be necessary. **Caution: Do Not Over-tighten Hold Down Bars. Drive and/or electrical system failure may occur.**
4. If material is loaded onto the Expandable Arbor, tighten the Hold Down Bars securely to keep coil from unwinding during transport and secure the loose end of the material to the coil.
5. Before transporting the loaded Reel, using two straps or ropes, secure the coil around the outside and through the inside diameter to prevent the coil from telescoping (Figure 6 on page 12).

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

CHAPTER 7

**REEL STANDS, REELS AND EXPANDABLE ARBORS**



***Figure 8: Material Routing***

## CHAPTER 8

# DRIVE SYSTEM

## CHAPTER 8 - DRIVE SYSTEM

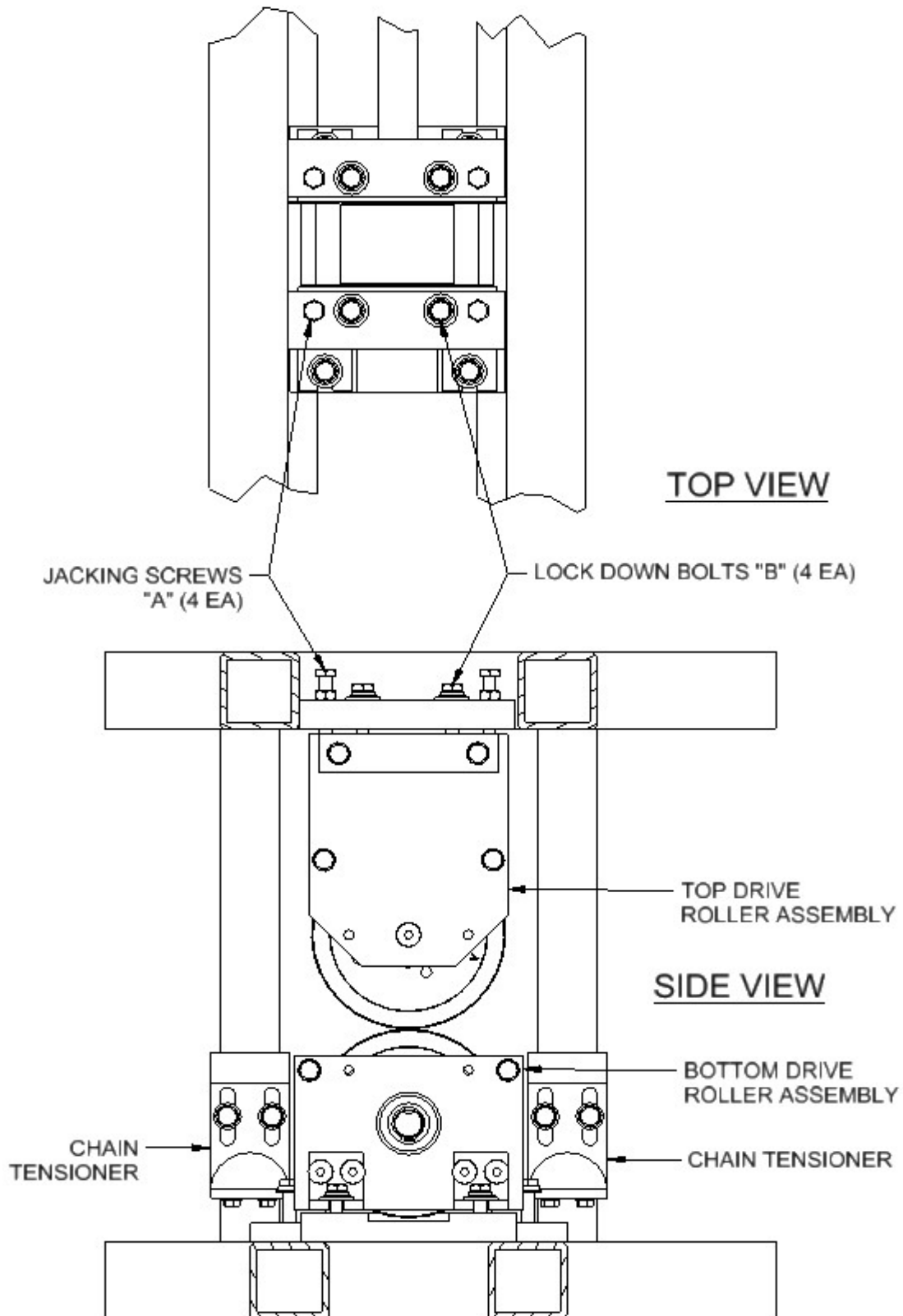
(Figure 9 on page 18)

The drive system in the machine consists of four top and four bottom polyurethane drive rollers. They are connected via chain and sprocket. There are chain tensioners on each assembly.

1. Clearance between the top and bottom drive rollers is factory set at 1 ¾ turns past the point of contact. This will drive material up to 24ga. (0.61 mm) though the machine without the need for adjustment. If adjustment becomes necessary due to slippage, add pressure. **NOTE:** Do not add more than ½ turn beyond the factory setting. It is important to adjust only one end of each assembly at a time to maintain side to side alignments.  
**To add pressure:** Loosen two Lock-Down Bolts “B” 1/8 of a turn. Loosen lock nuts on two corresponding Jack Bolts “A”. Tighten Bolts “A” 1/8 of a turn. Re-tighten 2 lock nuts on Jack Bolts “A” and re-tighten Lock-Down Bolts “B” to lock in adjustment. Repeat this procedure on the other end of the Drive Assembly and repeat for the other 3 drive assemblies. Test for results and repeat procedure if necessary.  
**To remove pressure:** Loosen two lock nuts on Jack Bolts “A”. Loosen two Jack Bolts “A” 1/8 of a turn. Tighten two corresponding Lock-Down Bolts “B” 1/8 of a turn. Tighten two lock nuts on Jack Bolts “A” to lock in adjustment. Repeat this procedure on the other end of the Drive assembly. Test for results and repeat procedure if necessary.
2. The chain tensioners used on this machine are located near the shafts of each Drive Roll Assembly. To adjust, slightly loosen the bolts holding the tensioner in place. Using a dead blow hammer or pry bar adjust the tensioner until the chain is snug. Lock into position by tightening the bolts on the tensioner assembly.
3. The chains used in this system are #40 Roller Chains. See Figure 10 on page 19 for chain locations and lengths if chain replacement is necessary.
4. The polyurethane drive rollers require occasional cleaning. The need for cleaning will become evident when the drive rolls start leaving a stripe the width of the drive roller on the formed panels that is not easily removed. Avoid cleaning the drive rollers with harsh chemicals or solvent. These products will attack the polyurethane and cause irreversible damage. **Use of any of these products will void the warranty on the drive rollers.**  
Clean the drive rollers only with mild soap and water and a rag. **Caution must be taken around the moving parts of the machine during the cleaning process.**
5. Covers should be kept on the machine during operation and storage. Ultraviolet light will attack the polyurethane drive rollers and cause deterioration. Again, this type of damage is not covered under the warranty.

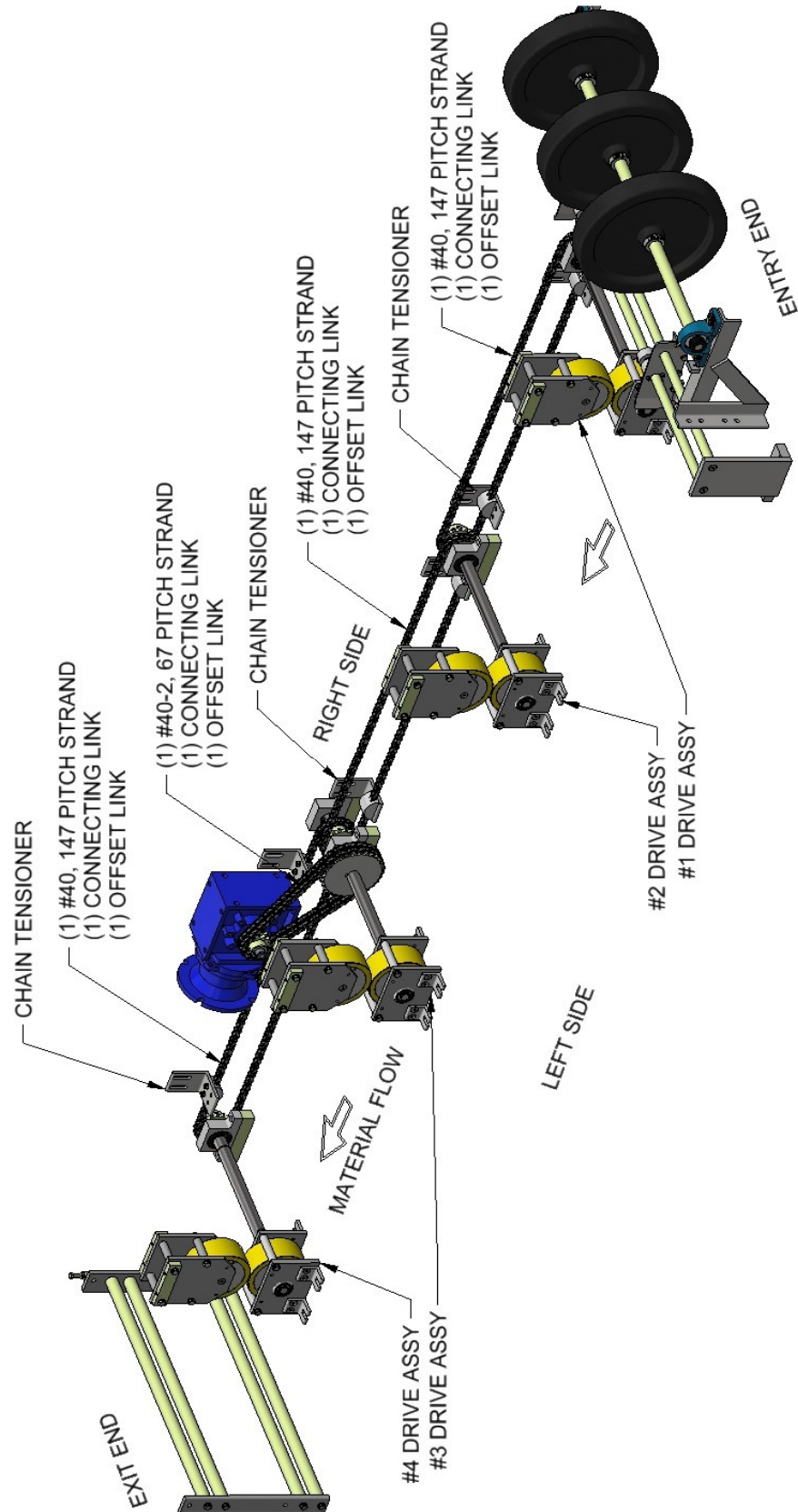


CHAPTER 8  
**DRIVE SYSTEM**



**Figure 9: Drive System**

CHAPTER 8  
**DRIVE SYSTEM**



**Figure 10: Drive Chains**

CHAPTER 9  
**SHEAR ASSEMBLY**

## **CHAPTER 9 - SHEAR ASSEMBLY**

The shear uses a unique rack and pinion design. This design requires less force to operate than the pulling action associated with the guillotine dies. The shear is designed to cut up to 24-gauge steel.

**DANGER:**

**THE SHEAR IS A VERY DANGEROUS APPARATUS. THE SAFETY PIN MUST BE IN PLACE WHEN REMOVING THE SHEAR FROM THE MACHINE. FAILURE TO DO SO WILL ALLOW THE BLADE TO PROTRUDE THROUGH THE BOTTOM OF THE SHEAR AND CAN CAUSE SEVERE INJURY.**

### **SHEAR ADJUSTMENTS**

Bottom Shear Dies (**Figure 11**)

1. Bottom dies should be adjusted 1/32" (about 1 mm) below the bottom corners of the panel. Loosen the (4) "B" bolts on the left and right Front Vertical Plates. Loosen the (2) lock nuts on the (2) Height Adjustment Jacking Screws "A".
2. Tightening bolts "A" will lower the shear, and loosening them will raise the shear. Adjust each side as needed to properly set the bottom dies to the correct spacing from the bottom corners of the panel.
3. After adjustments have been made, tighten (4) "B" bolts and (2) Lock Nuts on Height Adjustment Bolts "A".

### **CHANGING AND ADJUSTING SHEAR DIES AND BLADES**

The Entry and Exit Shear Dies are specific to each roller set and they may need to be changed when changing profiles. The Dies must be adjusted to the proper distance from the vertical legs of the panel. The outside vertical leg of the male and female Entry Dies should be approximately 1/32" (about 1 mm) away from the outside of the vertical legs of the panel. The Exit Dies should be slightly to the outside of the male and female Entry Dies so that after a cut is made, the panel does not hang up on the Exit Dies. Follow the procedure below to make the adjustments.

### **ADJUSTING THE ENTRY AND EXIT SHEAR DIES**

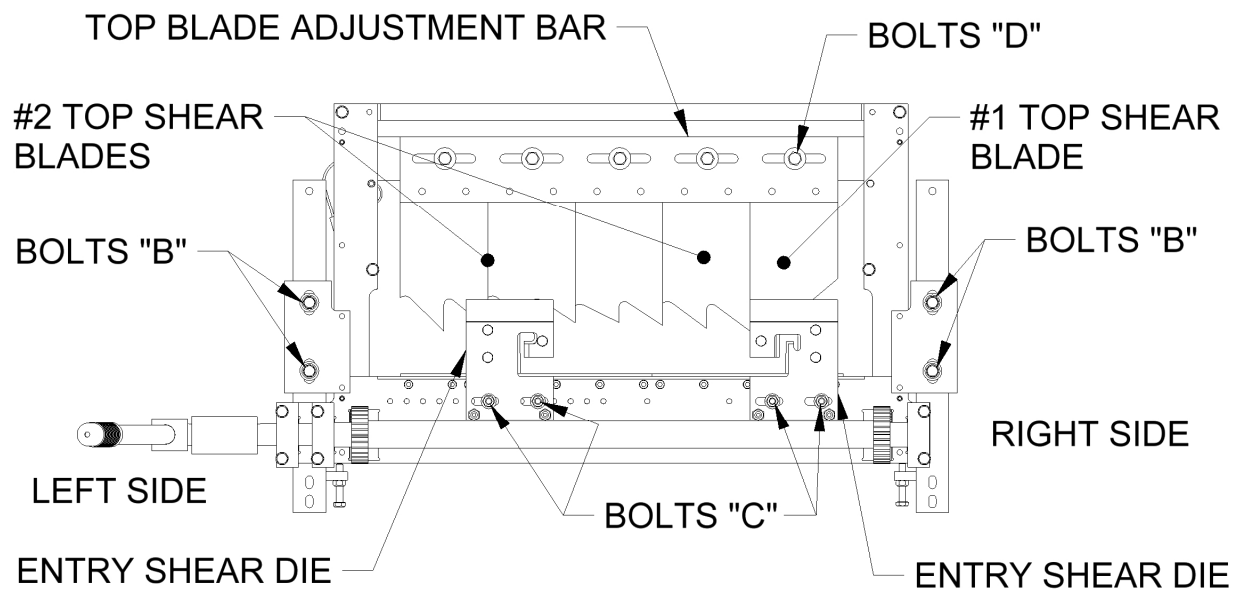
(Figure 11)

1. Run material through the machine until it is about 6 inches (15 cm) away from the shear, then shut off the machine and disconnect the power.
2. Sight down the legs of the panel to find the approximate location to install the **ENTRY SHEAR DIES**. Hold them in place with the "C" bolts but do not tighten them yet.
3. Plug in the machine and carefully jog the material forward while looking through the dies. If it looks like the panel will hit the dies, disconnect the power, then adjust the dies as necessary so the panel goes through cleanly.
4. Continue jogging the panel forward until it is about an inch or two past the shear dies, then unplug the machine.

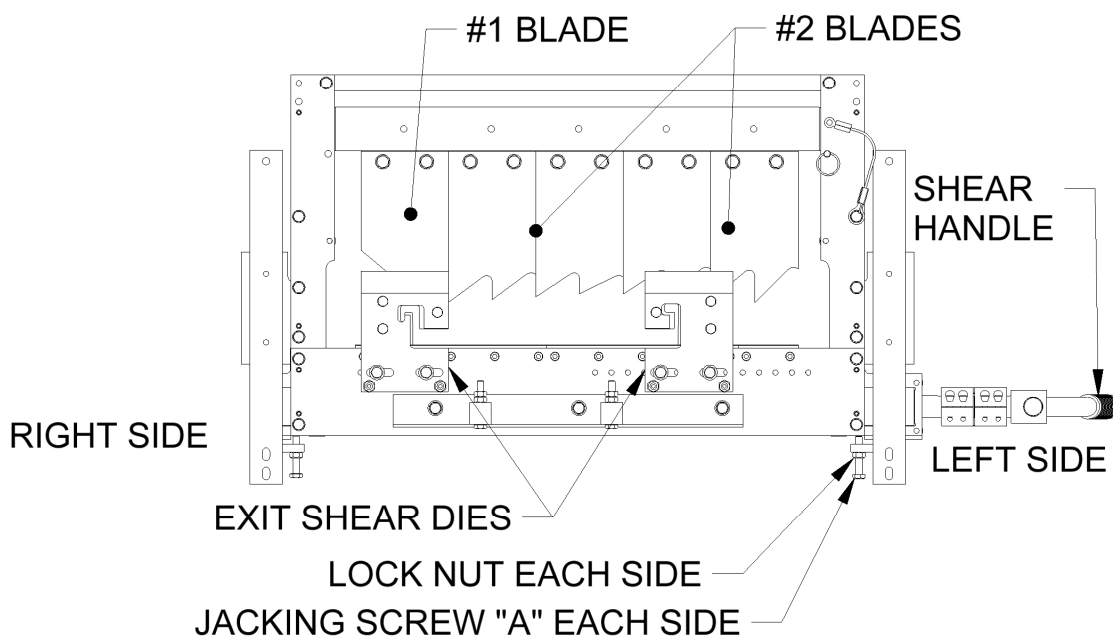
CHAPTER 9  
**SHEAR ASSEMBLY**

5. Adjust the **Entry Shear Dies** until they are about 1/32" (about 1 mm) away from the outside of the vertical leg of the panel, as shown in the figure for your panel found on pages 22 through 26. Tighten the "C" bolts.
6. If the Entry Shear Die has a **Mandrel**, it should be positioned as shown in the figure for your panel on page 24. If necessary loosen the "E" bolts and adjust the Mandrels. Retighten the "E" bolts.
7. Install the **Exit Shear Dies** and adjust them so they are about 1/32" (about 1 mm) to the outboard of the Entry Shear Dies, as shown in the figure for your panel found on pages 22 through 26. Tighten the "C" bolts.
8. Adjust the **Mandrel** on the Exit Shear Die as needed, if it has one.
9. In order to cut properly, the **Top Blades** need to be positioned so that one of the #2 Blade tips is just to the inside of the male leg, and the tip of the #1 blade is positioned to the inside of the female leg as shown in the figure for your panel found on pages 22 through 26. The rake or angle of the blades should cut in a scissor action outward against the legs. If necessary, loosen the 5 "D" bolts and move the Top Blades left or right to get them in the correct position. Retighten the bolts.
10. Plug in the machine and shear off a piece of panel about 12 inches (30 cm) long, then jog the material forward a few inches (about 10 cm). Make sure the panel is not scraping on the shear dies, and inspect the quality of the cut on both sides. If any corrections need to be made disconnect the power then adjust the shear dies as needed.

CHAPTER 9  
**SHEAR ASSEMBLY**



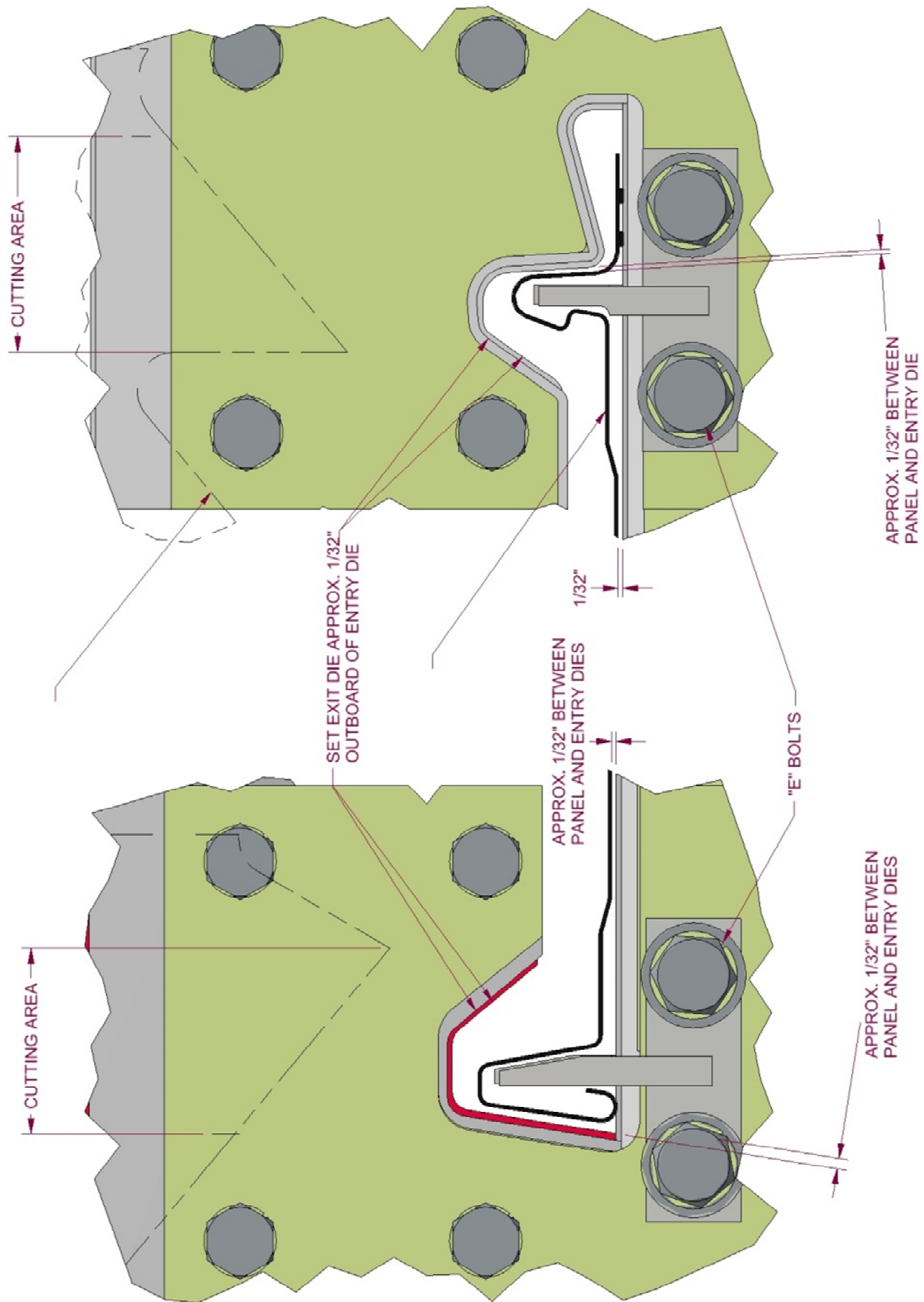
**ENTRY VIEW**



**EXIT VIEW**

**Figure 11: Shear Entry/Exit Views**

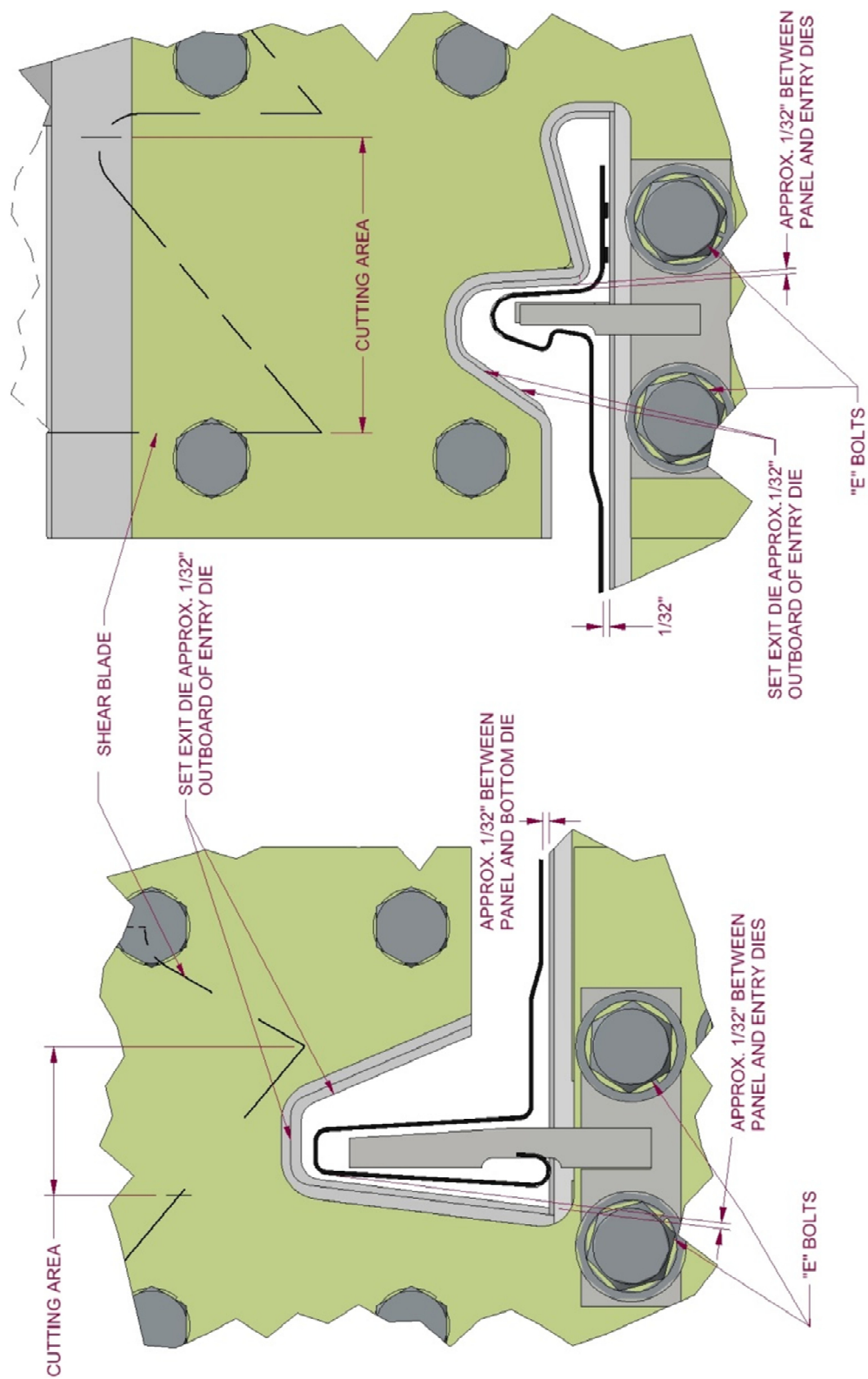
CHAPTER 9  
**SHEAR ASSEMBLY**



**Figure 12: FF100 Shear Dies**

# CHAPTER 9

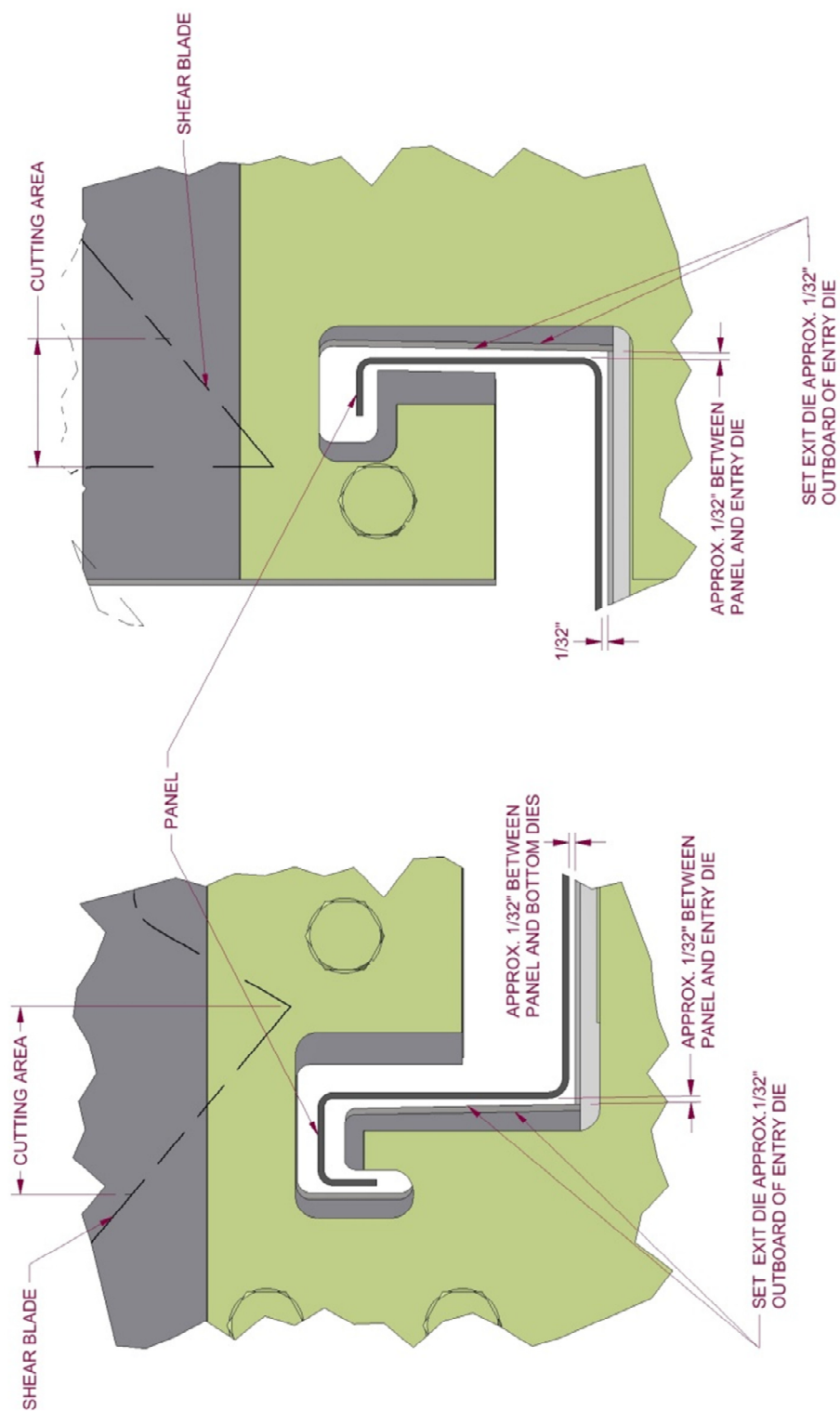
## SHEAR ASSEMBLY



**Figure 13: FF150 Shear Dies**

# CHAPTER 9

## SHEAR ASSEMBLY

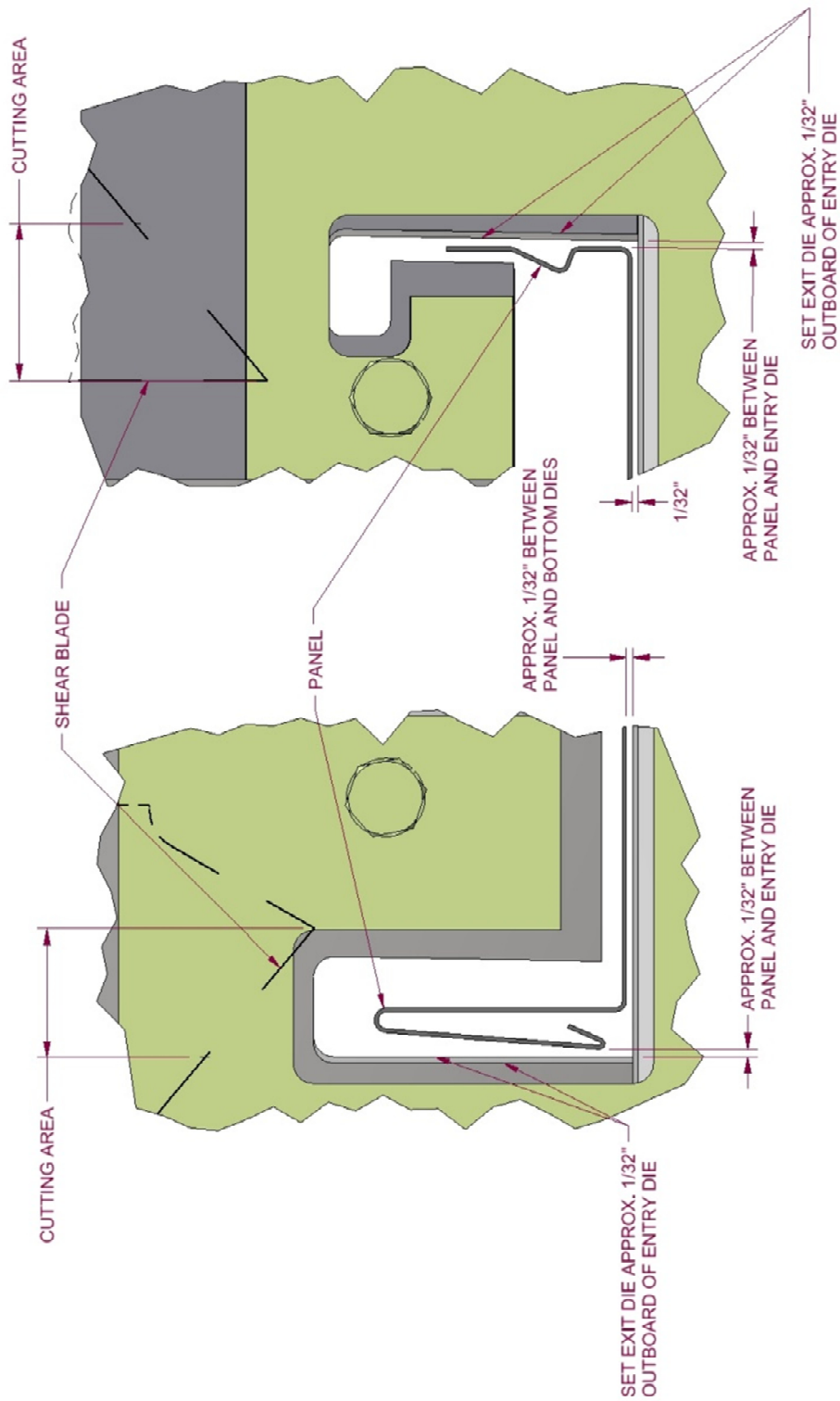


**Figure 14: SS100 / 150 Shear Dies**



# CHAPTER 9

## SHEAR ASSEMBLY



**Figure 15: SS450 Shear Dies**

CHAPTER 9  
**SHEAR ASSEMBLY**

**MAINTENANCE**

1. Clean and lubricate the Top Blades, Bottom Dies, and Male/ Female dies at least once a day during normal use, or whenever cutting surfaces look dry. Proper lubrication is essential to clean cuts, rust prevention and longevity.

Super Lube - Multi-Purpose Synthetic Dri Film Aerosol Lubricant with Syncolon (PTFE)

Catalog No. 11016

11 oz. Aerosol Can

Available from:

MSC Supply at 1-800-645-7270

CHAPTER 10  
**BEAD, RIB AND STRIATION ROLLER ASSEMBLY**

## **CHAPTER 10 - BEAD, RIB AND STRIATION ROLLER ASSEMBLY**

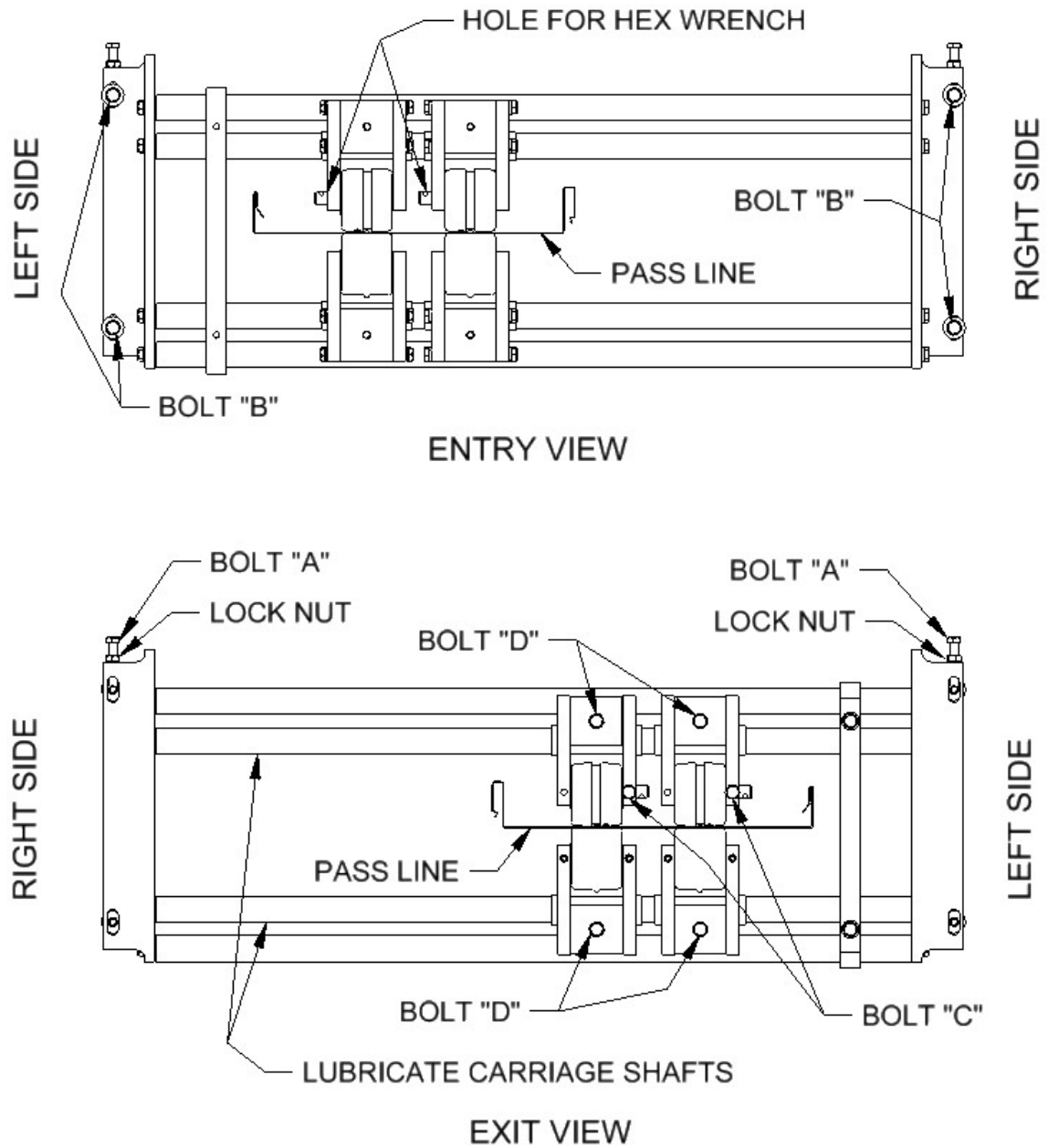
(Figure 16 on page 29)

1. The Bead / Striation Roller assembly is located behind the shear and is accessed by removing the 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 1/32" (about 1 mm) above the drive roller to ensure proper panel entry into the shear. If adjustment is necessary, loosen the four frame mount bolts "B", and lock nuts on the two vertical adjustment bolts "A". Raise or lower the roller assembly by using the vertical adjustment bolts "A" to obtain the proper height. Then re-tighten the mount bolts and lock nuts on the two adjustment screws "A".
3. Next loosen the eccentric shaft lock down screw "C". Place a 5/32" 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.**

4. 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 access is gained to the top slide lock-down screws,
5. 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" (1.1 mm) minimum clearance; excessive bead depth will distort the panel. Re-tighten screws "C".
6. Keep slide bars lightly greased to allow bead or striation assemblies to slide smoothly.

# **BEAD, RIB AND STRIATION ROLLER ASSEMBLY**



**Figure 16: Bead Roller Assembly**

# CHAPTER 11

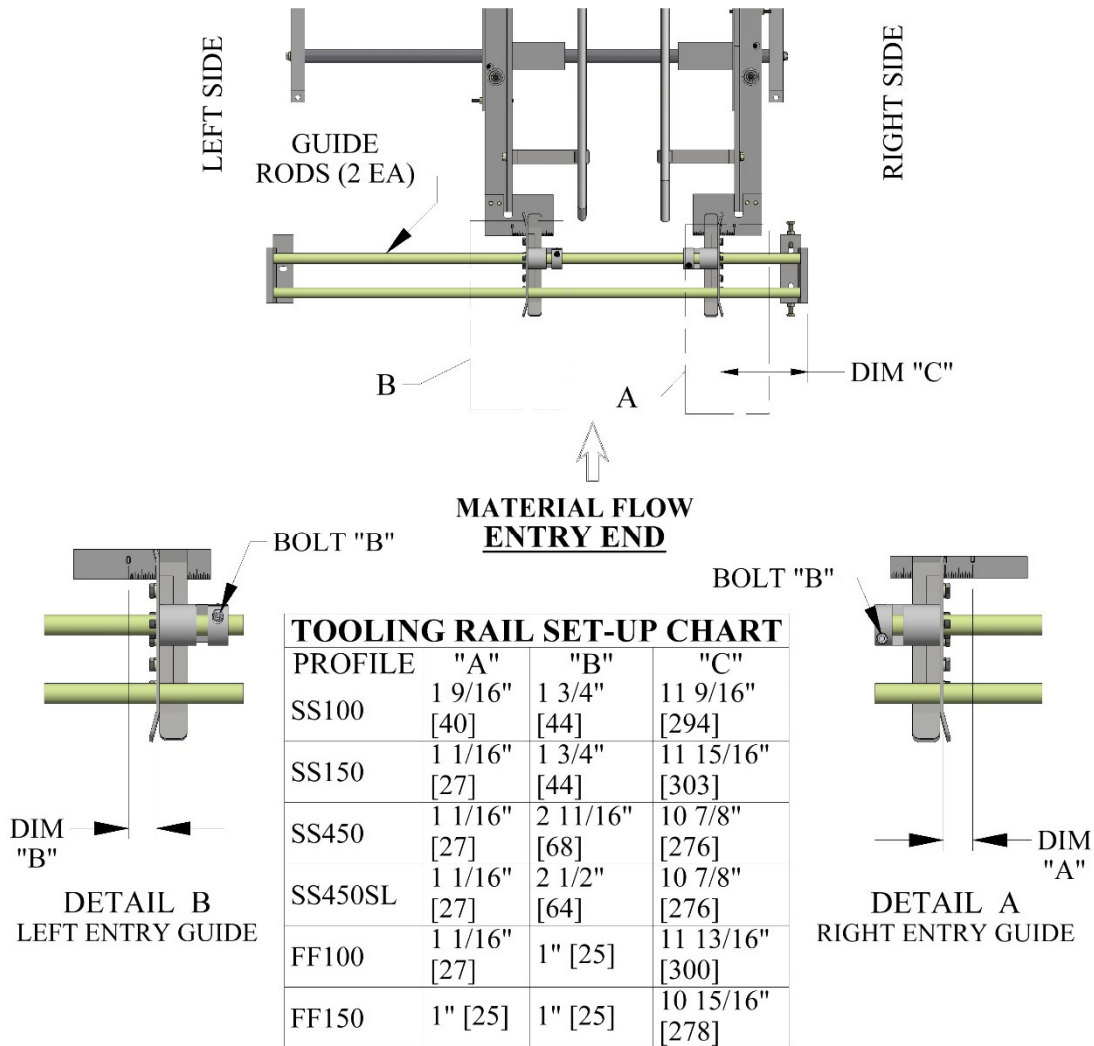
## ENTRY GUIDE ADJUSTMENT

### CHAPTER 11 - ENTRY GUIDE ADJUSTMENT

(Figure 17 on page 30)

The entry guides are used to set the material to the correct position in relation to the forming rollers of the machine. They also hold the material and feed it straight into the machine. If the entry guides are not set correctly the material will not feed into the machine properly.

1. To align, loosen the "B" Bolt on the Right Entry Guide. Slide the entry guide to the left or right until DIM "C" is in the correct position that corresponds to the desired leg configuration as noted on Figure 17.
2. Retighten the "B" bolt.
3. Loosen bolt "B" on the Left Entry Guide.
4. Cut a 12" long piece of gage material from the coil that will be used.
5. Slide gage material between the left and right entry guides.
6. Slide the Left Entry Guide to the left or right to accept the new coil width. Make sure that the coil is captured snugly between the entry guides and re-tighten the "B" bolt.



**Figure 17: Entry Guide Adjustment**

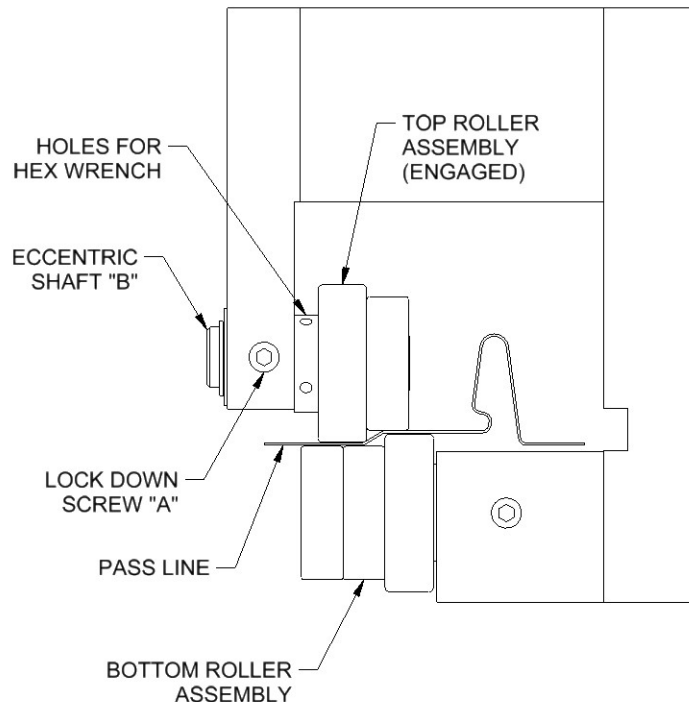
CHAPTER 12  
**CLIP RELIEF ROLLER ASSEMBLY**

## CHAPTER 12 - CLIP RELIEF ROLLER ASSEMBLY

(Figure 18 on page 31)

1. Clip Relief Rollers provide a raised area next to the male and female legs of the panel. This helps hide the clip and screws used in installation. The rollers can be engaged or disengaged as needed.
2. Find the Tooling Rail Sheet corresponding to the profile installed in the machine (Figure 33 to Figure 42 on pages 49 to 58).  
**Note** the location of clip relief assemblies on left and right tooling rails, and locate them on the tooling set in the machine.
3. To engage the clip relief rollers, loosen lock down screw “A” and insert a 5/32” Allen wrench into the small hole on the top eccentric shaft “B”.
4. 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 gap between top and bottom rollers.

**NOTE:** The clip relief rollers must always be engaged with the FF100 and FF150 profiles for a proper male/female lock to occur.



**Figure 18: Clip Relief Roller Assembly**

CHAPTER 13  
**ENTRY DRUM ASSEMBLY**

## **CHAPTER 13 - ENTRY DRUM ASSEMBLY**

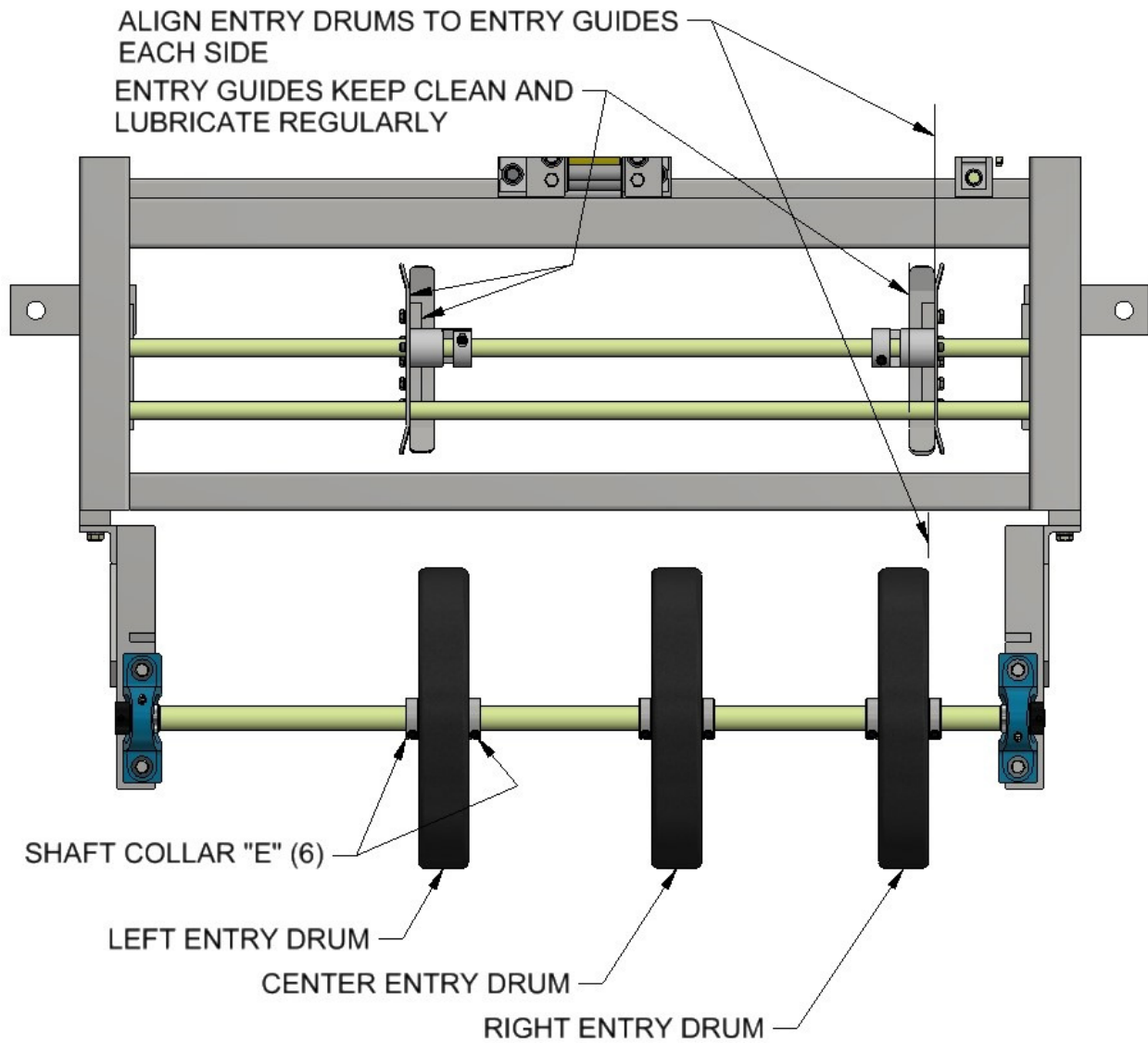
(Figure 19 on page 33)

The Entry Drum Assembly is necessary when feeding coil off the optional DR1/ Dual Overhead Reel Stand. It allows the material to be routed around the drums to get the painted side of the coil on the top as it enters the machine. The Entry Drums need to be adjusted whenever a width change is made.

To adjust the entry drums:

1. Using a 3/16" Allen wrench, loosen the four Shaft Collars "E", on either side of Left Entry Drum and Center Entry Drum.
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 "E" against the sides of the drums and tighten to lock them into place.
4. If changing profiles, it may be necessary to move all three drums using the same procedure described above.

CHAPTER 13  
**ENTRY DRUM ASSEMBLY**



**Figure 19: Entry Drum**



CHAPTER 14  
**WIDTH AND PROFILE CHANGE PROCEDURE**

## **CHAPTER 14 - WIDTH AND PROFILE CHANGE PROCEDURE**

The profile changeover procedure consists of removing the tooling assemblies and shear dies from the machine, replacing them with another set and realigning the rails and shear dies. A change in coil width can also be done at this time. The following procedure will be a guide through this process.

**CAUTION:** Always make sure the machine is shut down and unplugged 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.

### ***Tooling Changeover***

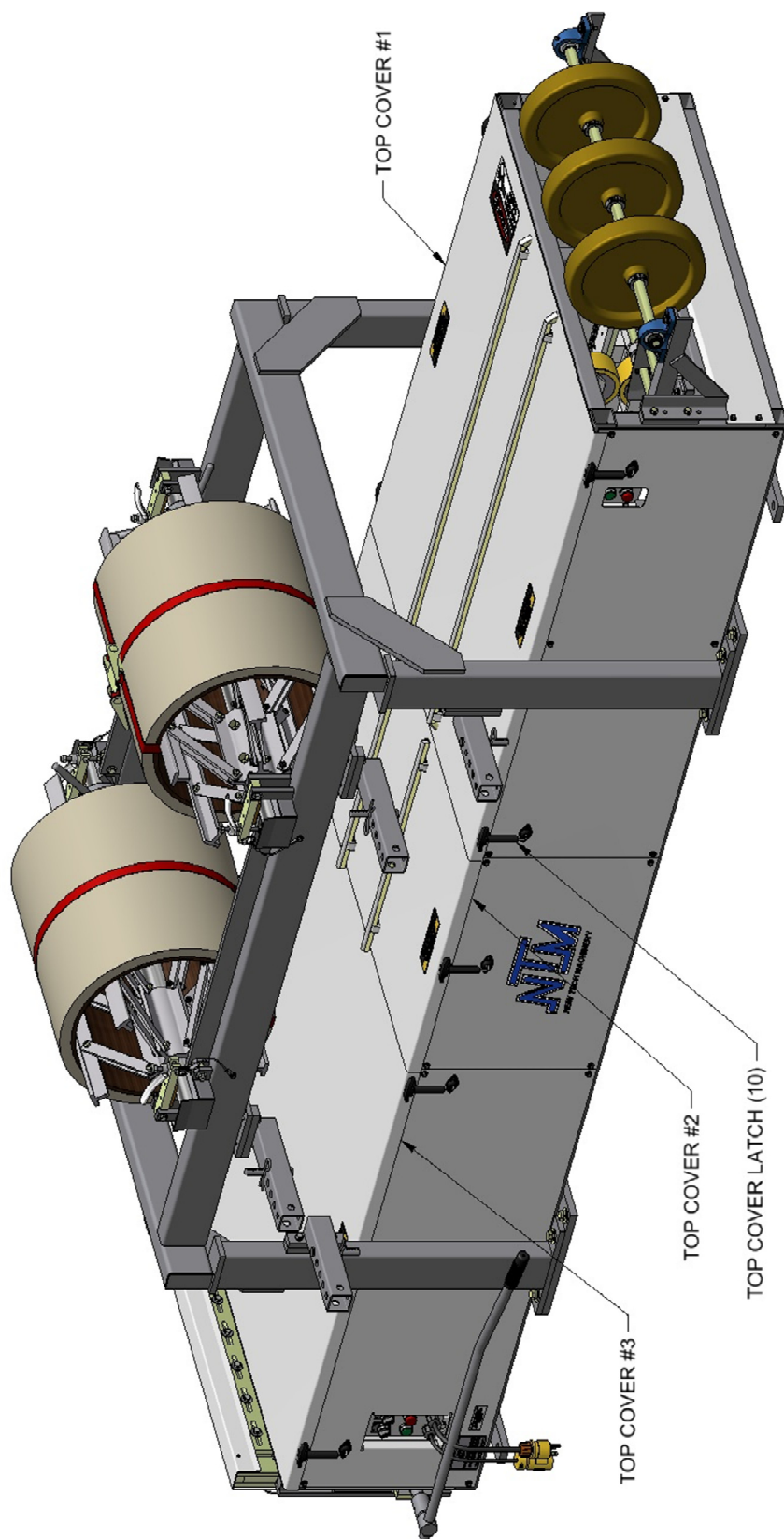
(Figure 20 and Figure 21 on pages 35 and 36)

Tooling rails are stamped with an "L" or "R" for installation on the left or right side respectively, and with a profile number and sequence number. For example, a rail stamped SS4-#1 R would be the number one right tooling rail for the SS450 profile.

1. Disengage top cover latches on #1, #2, and #3 top covers. Remove and set aside.
2. Remove Shear Cover and set aside.
3. Locate and remove the "A" bolts on the right tooling rail #1. Remove rail and set it aside.
4. Using the same procedure as above remove the remaining tooling rails and set them aside for storage.
5. Locate #1 right tooling rail of the profile to be installed.
6. Carefully lower it into the machine and set it on the right carriage slide #1.
7. Align the tooling mounting holes "A" and start one "A" bolt into threaded hole beneath. Snug this bolt enough to hold tooling in place but **DO NOT TIGHTEN**. Align second hole and start bolt into threaded hole beneath.
8. Tighten "A" bolts.
9. Locate remaining right tooling rails #2, #3 etc. and install in the same manner as above.
10. Repeat the above procedures on the left side of the machine until all tooling rails are installed.

CHAPTER 14

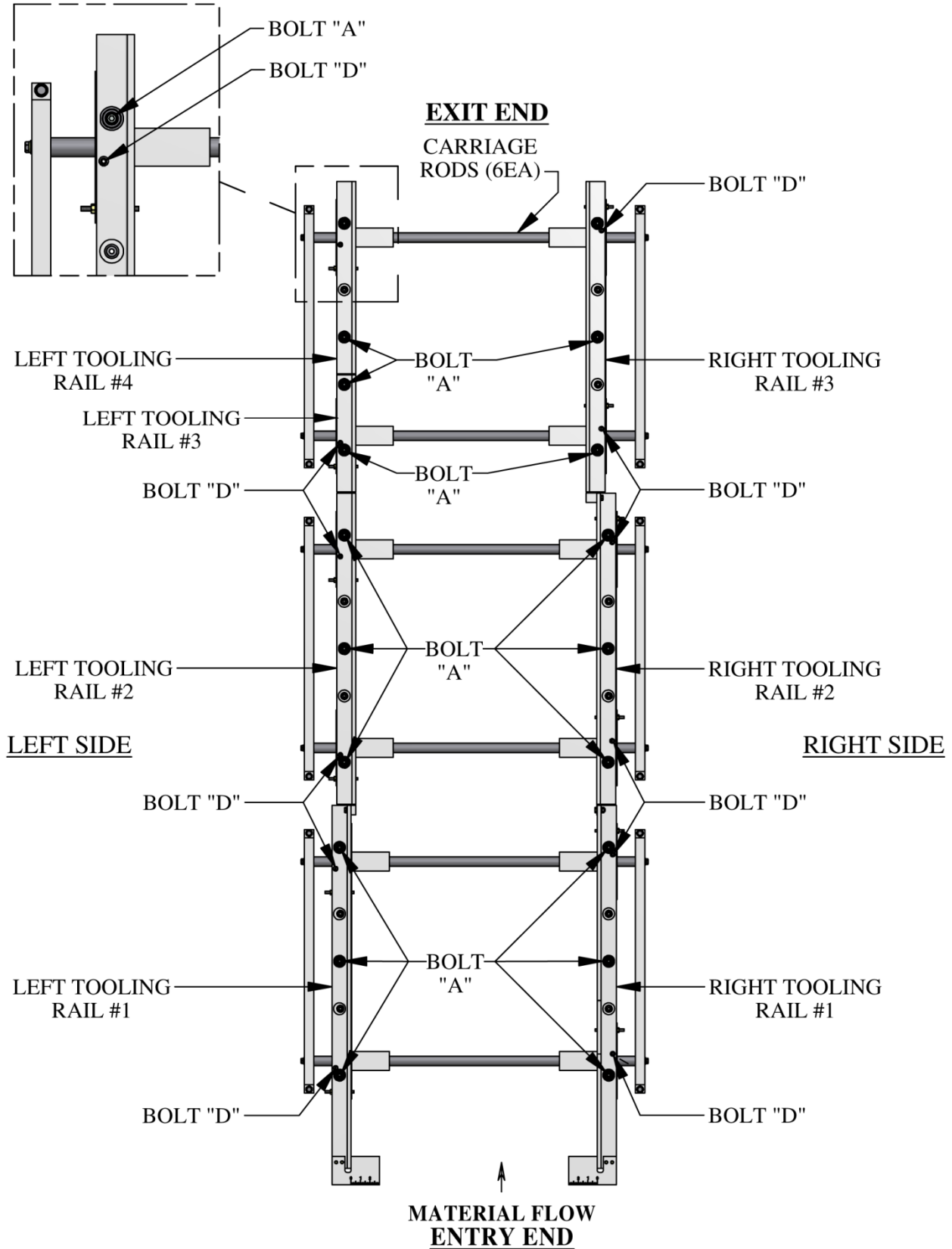
## WIDTH AND PROFILE CHANGE PROCEDURE



**Figure 20: Remove Covers**

CHAPTER 14

## WIDTH AND PROFILE CHANGE PROCEDURE



*Figure 21: Tooling Rail Detail*

## CHAPTER 14

# **WIDTH AND PROFILE CHANGE PROCEDURE**

### ***Entry Guide Adjustment***

(Figure 17 on page 30)

The entry guides are used to set the material to the correct position in relation to the forming rollers of the machine. They also hold the material and feed it straight into the machine. If the entry guides are not set correctly the material will not feed into the machine properly.

7. To align, loosen the “B” Bolt on the Right Entry Guide. Slide the entry guide to the left or right until DIM “C” is in the correct position that corresponds to the desired leg configuration as noted on Figure 17.
8. Retighten the “B” bolt.
9. Loosen bolt “B” on the Left Entry Guide.
10. Cut a 12” long piece of gage material from the coil that will be used.
11. Slide gage material between the left and right entry guides.
12. Slide the Left Entry Guide to the left or right to accept the new coil width. Make sure that the coil is captured snugly between the entry guides and re-tighten the “B” bolt.

### ***Tooling Rail to Entry Guide Alignment***

(Figure 17 on page 30 and Figure 21 on page 36)

The #1 tooling rails are adjusted in and out on the slide carriages to line up to the entry guides. The #2 tooling rails are adjusted in and out to line up with the #1 tooling rails. Finally, the #3 tooling rails are adjusted in and out to line up with the #2 tooling rails. If the tooling is not adjusted correctly the material will not be fed into the forming rollers properly.

1. Loosen the two slide lock bolts “D” on right carriage slide # 1.
2. Move Right Carriage Slide # 1 into position using the side of the right entry guide and the scale on the marker plate to set the correct “A” dimension as shown on corresponding tooling rail set up chart. Tighten the “D” bolts.
3. Repeat the above procedure for the left carriage slide # 1 using the correct “B” dimension on tooling rail set up chart.
4. Align the # 2 and #3 Left and Right Carriage Slides by loosening the two “D” slide lock bolts on each rail. If there is a spacer bolted to the side of the previous rail, align the carriage rail flush to the spacer. If not, align the rails flush with each other. Tighten the “D” bolts.
5. Proceed with each rail in succession from #1 to # 2 to #3, right and left as stated above.

### ***Shear Changeover***

(Figure 11 on page 22)

There are four shear die holders (female entry and exit and male entry and exit). The dies must be removed, replaced and re-aligned utilizing the shear dies for the new profile.

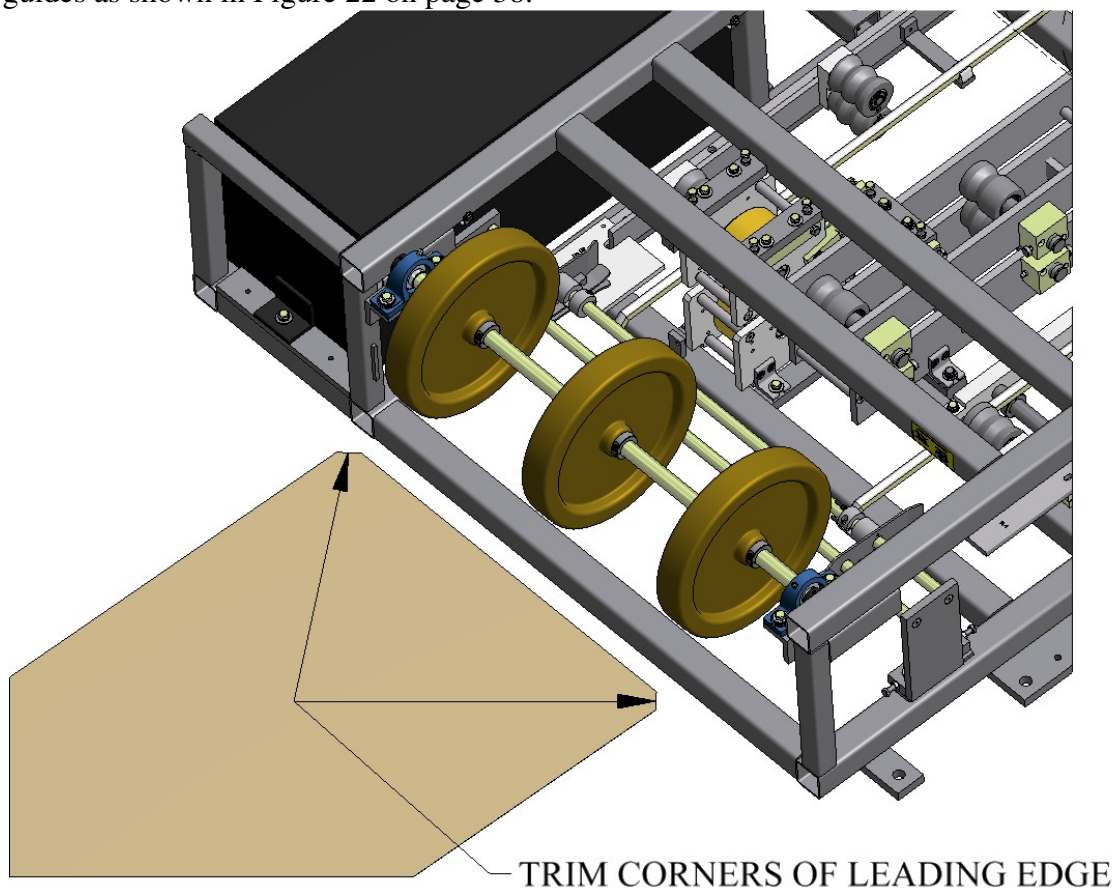
1. Locate and remove two “C” bolts on exit female die holder. Set die holder aside.
2. Repeat the above procedure for entry female die holder and male exit/ entry die holders. Set all four die holders aside to storage.
3. Locate the four die holders corresponding to the profile that was just installed into the machine. Install the new die holders with the “C” bolts but do not tighten as the shear should be adjusted with material fed into the machine.

## CHAPTER 14

# **WIDTH AND PROFILE CHANGE PROCEDURE**

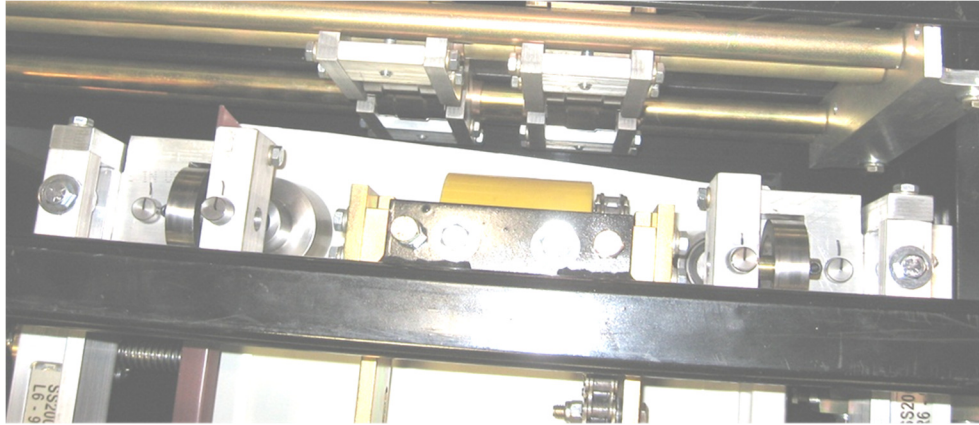
### ***Loading Machine with Material***

1. Load material onto the Expandable Arbor and align it to the correct position using the chart on Figure 6 on page 12.  
Note: Also see CHAPTER 7 - REEL STANDS, REELS AND EXPANDABLE ARBORS on page 11 for more information.
2. Load the reeled coil onto the machine using a fork lift or other rated lifting device. Making sure the tail of the coil goes over the top and points toward the shear end of the machine. See coil routing diagram on Figure 8 on page 16.
3. Cut a 1" (2.5 cm) triangle off the 2 leading corners of the coil and feed it into the entry guides as shown in Figure 22 on page 38.



***Figure 22: Feeding Material into Entry Guides***

4. Start the machine and use the Jog button on the manual control box or computer controller to jog the material through the machine 6 to 8 inches (15 to 20 cm) at a time until it exits the last forming stations and the leading edge is about 1" (2.5 cm) from the Bead Roller Assembly (if equipped).

**WIDTH AND PROFILE CHANGE PROCEDURE*****SHUT THE MACHINE DOWN BEFORE PROCEEDING.*****Figure 23: Material Entering Bead Rollers*****Bead Rollers (if equipped)***

(Figure 16 on page 29)

If the machine is equipped with a bead roller option and the panel requires beads to be on the panel, use the following procedure to adjust the bead rollers.

1. Determine the spacing needed. For Example: a 12" (30 cm) wide panel with 2 beads centered on the panel would need 3 equal spaces or 12" (30 cm) divided by 3 equals 4" (10 cm) from center to center of each bead. Hook the end of the tape measure on the outside bottom corner of the female leg. Use a magic marker or grease pencil to mark the 4" and 8" (10 cm and 20 cm) locations on the panel. There are now 3 equal spaces.
2. Loosen Bolts "D" on the top and bottom bead assemblies and slide each bottom and top roll assembly left or right to center them on the marks on the panel made in the previous step.
3. Lock the 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.
4. Check the gap between the top and bottom bead rollers using a feeler gauge. An approximate setting of 1½ times the material thickness is recommended. This setting can be adjusted slightly in either direction according to preference.
5. To set or change the gap between top and bottom beads, loosen the "C" bolt on both top rollers.
6. 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.
7. 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 lightly captured.
8. Tighten the "C" bolt to lock the position of the shaft.
9. Start the machine, jog the material through the bead assemblies and stop 2 to 3 inches (5 to 8 cm) from the entry shear dies.
10. Inspect the beads for depth and re-adjust as necessary.

## **WIDTH AND PROFILE CHANGE PROCEDURE**

11. Start the machine and jog the material through the bead assemblies and stop 2 to 3 inches (5 to 8 cm) from the entry shear dies.

***SHUT THE MACHINE OFF AGAIN BEFORE PROCEEDING.***

### ***Shear Alignment***

With material loaded in the machine and stopped before it gets to the shear, use the procedure detailed in the Shear Adjustment Section starting on page 20 to adjust the shear dies to cut the material.

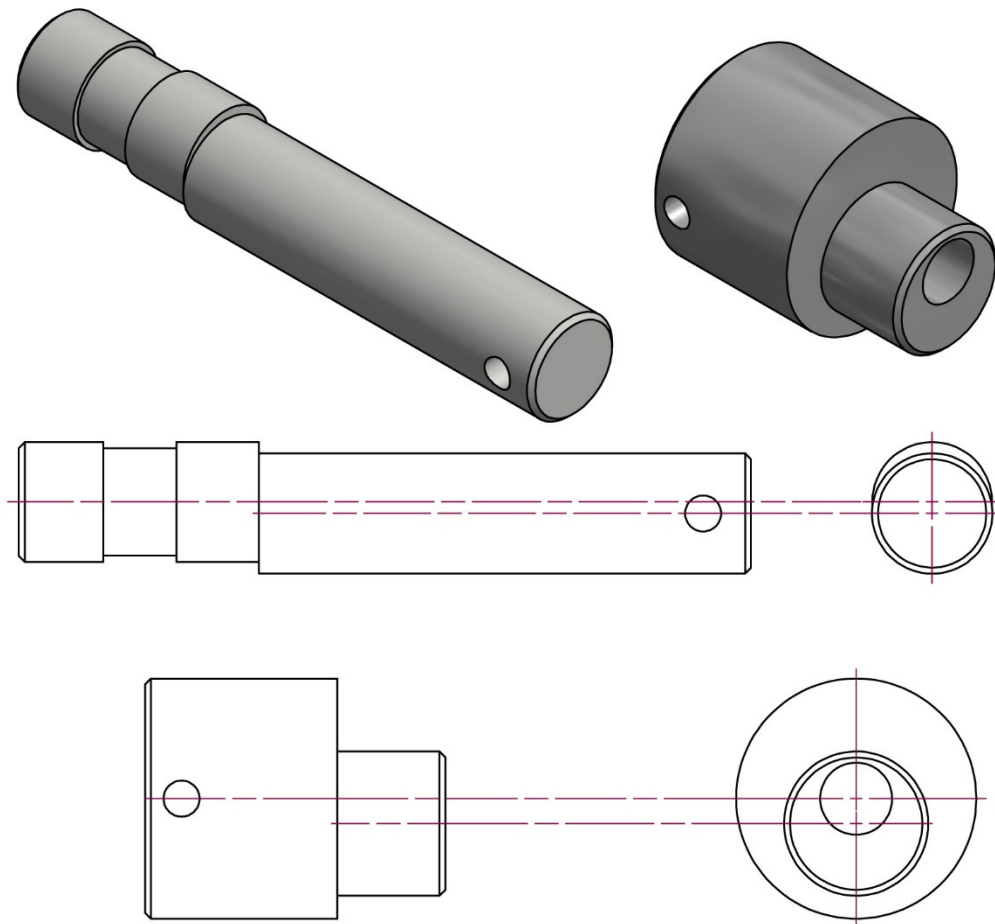
CHAPTER 15  
**PROFILE ADJUSTMENTS**

## CHAPTER 15 - PROFILE ADJUSTMENTS

Care must be taken when making any adjustments to the roller systems. A slight change can have dramatic effects.

### ECCENTRIC SHAFTS

Every roller set is equipped with eccentric shafts on selected sub stations for adjusting the angles and gaps in the panel.



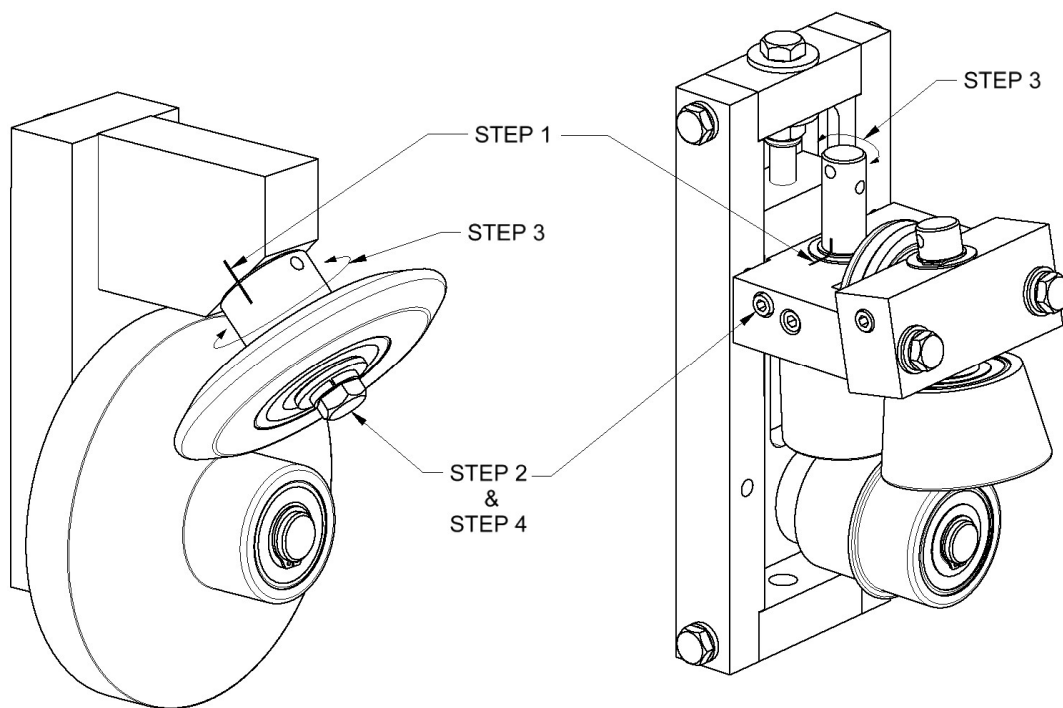
**Figure 24: Eccentric Shafts**

To adjust an eccentric shaft, use the following procedure:

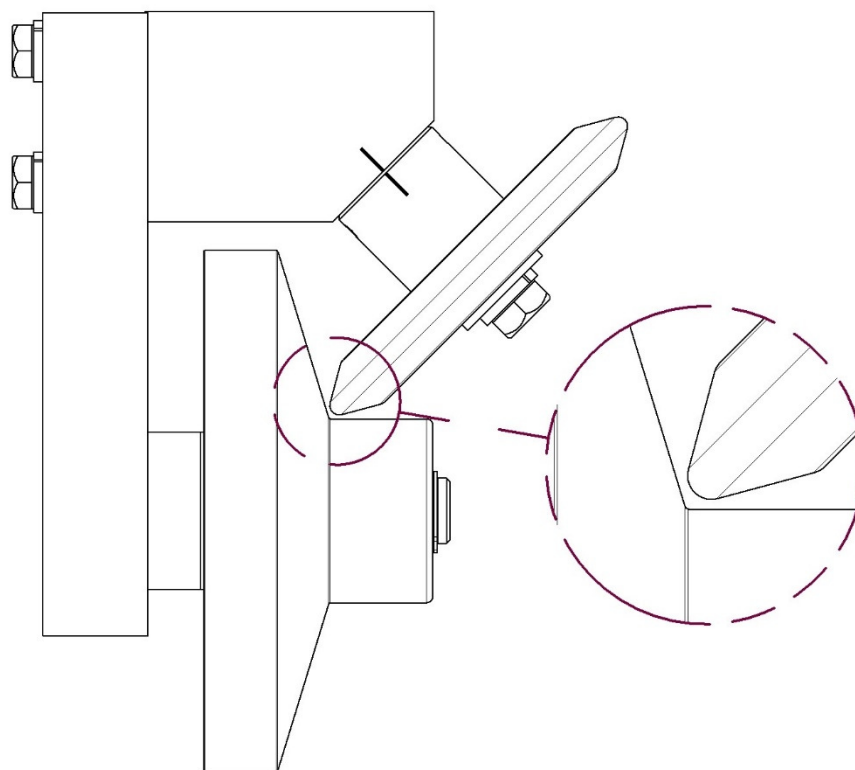
1. Mark the current orientation of the shaft to serve as a starting point of reference and a point to return to if the adjustment yields negative results.
2. Loosen the set screw and/or bolt that holds the shaft in place.
3. Rotate the shaft to the desired angle. (See Figure 26 - Figure 28).
4. Re-tighten the set screw and/or bolt.



CHAPTER 15  
**PROFILE ADJUSTMENTS**



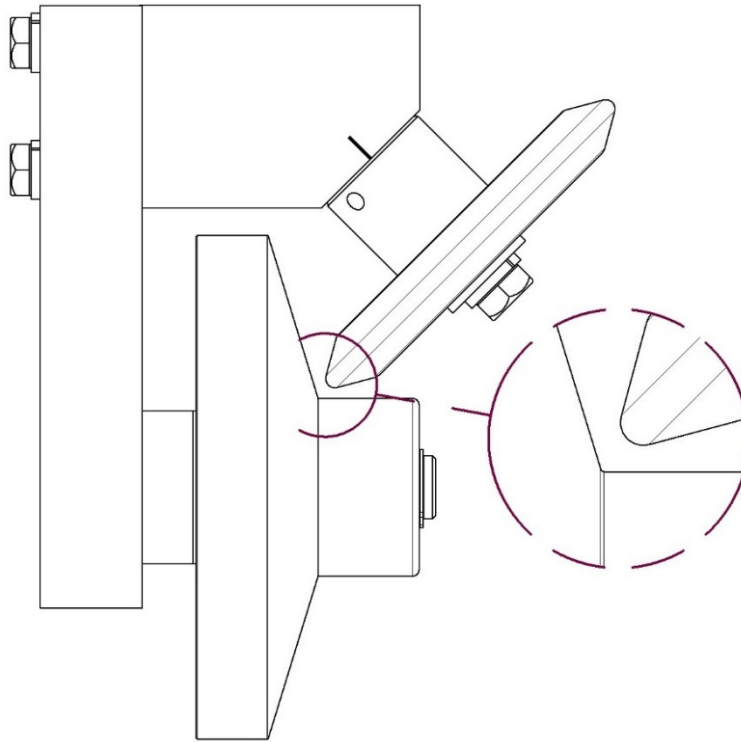
**Figure 25: Adjusting Eccentric Shafts**



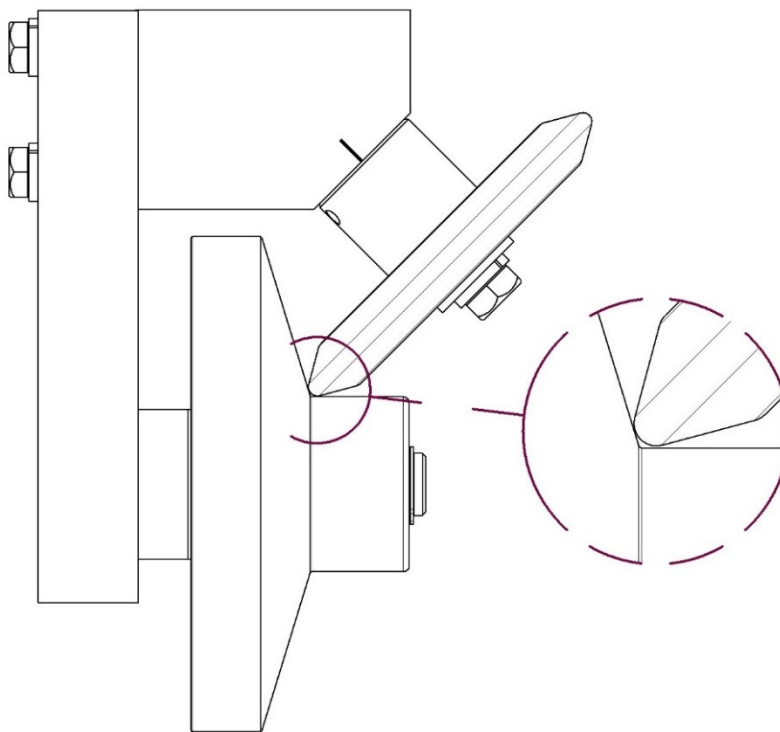
**Figure 26: Eccentric Shaft Proper Adjustment**

CHAPTER 15

## **PROFILE ADJUSTMENTS**



**Figure 27: Eccentric Shaft Too Loose**



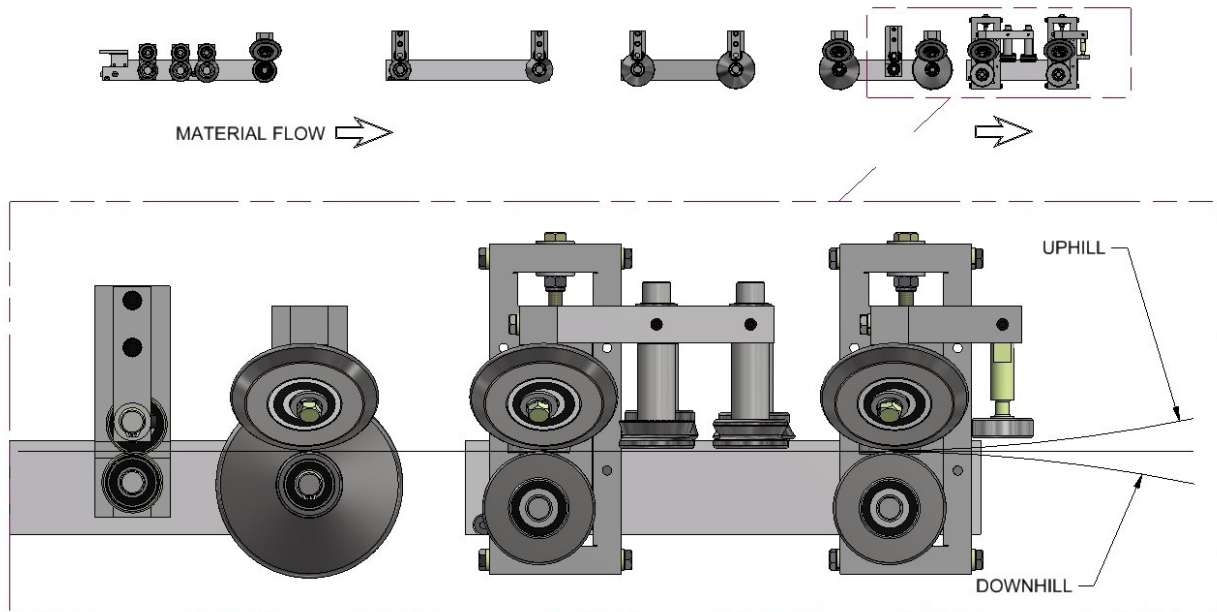
**Figure 28: Eccentric Shaft Too Tight**

## CHAPTER 15

# **PROFILE ADJUSTMENTS**

### **CAMBER STATIONS**

Every roller set is equipped with one or more camber stations toward the exit end of the machine. The camber station adjustment can be used to make the panel run straight if it is going uphill or downhill.



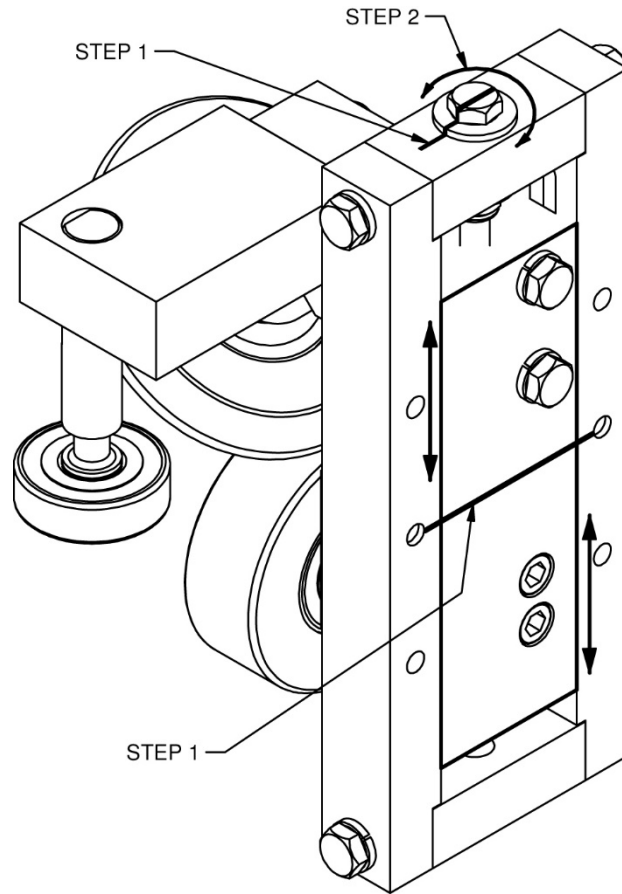
**Figure 29: Camber Adjustment - Uphill/Downhill**

If the panel is going uphill or downhill, ensure that the run-out stands are properly adjusted for height and that the panel is able to run straight out of the machine. If the run-out stands are in the correct alignment, adjust the camber stations as necessary using the following procedure: (See Figure 30)

1. Create a base point to start from by marking the top camber bolt as well as scribing a line across the center block and the two uprights.
2. If the panel is running downhill, adjust the 2<sup>nd</sup> to last station down by turning the top bolt counter-clockwise. If the panel is running uphill, adjust the 2<sup>nd</sup> to last station up by turning the top bolt clockwise.

Note: It is recommended to make small adjustments such as a 1/8 turn. Then run a panel to see the results after each adjustment. Over adjusting the stations can have unpredictable results.

CHAPTER 15  
**PROFILE ADJUSTMENTS**



***Figure 30: Camber Adjustment***

CHAPTER 16

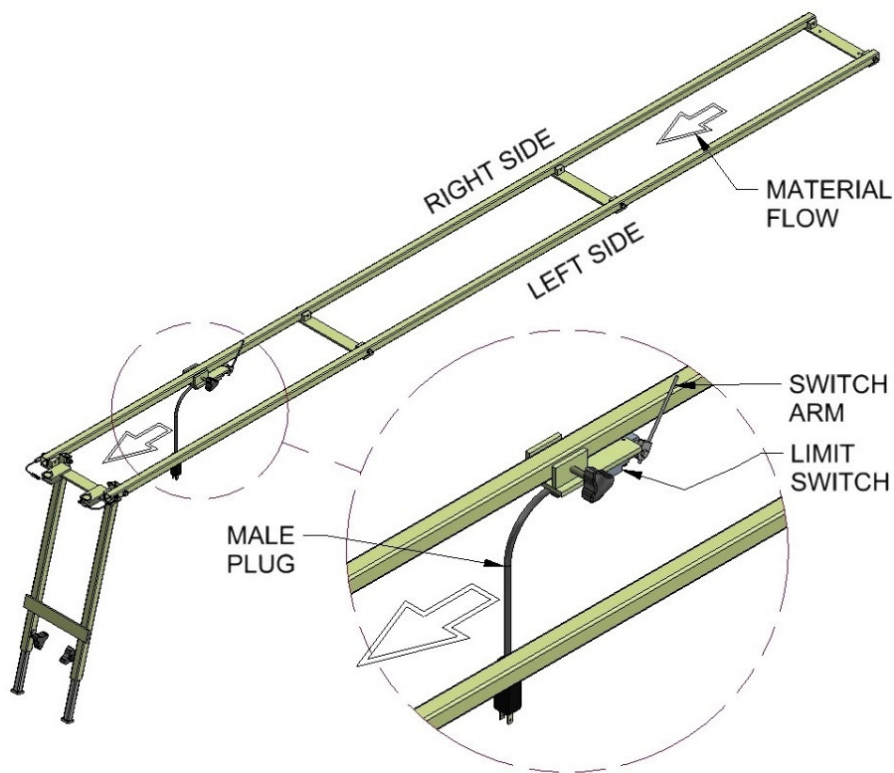
**RUN OUT TABLES AND REMOTE LIMIT SWITCH**

## CHAPTER 16 - RUN OUT TABLES AND REMOTE LIMIT SWITCH

(Figure 31 and Figure 32 on pages 46 and 47)

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. (3.05 m) 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.

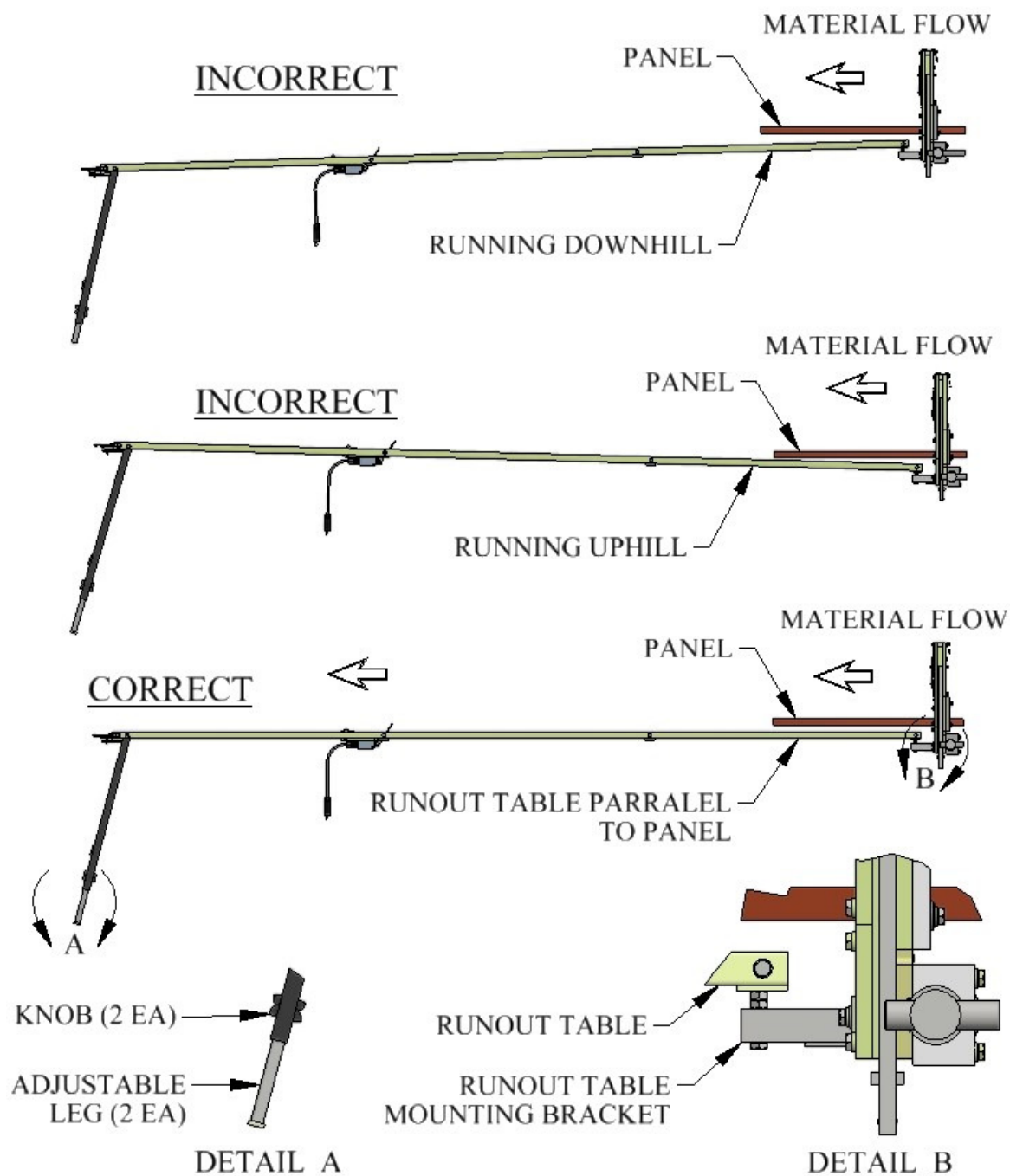
1. Set the first Run-Out Table on its side and in front of the machine with the leg assembly away from the shear.
2. Open the leg assembly and set it upright on the ground.
3. Lift the attachment end of the table and drop it over the 2 threaded bolts on the Shear Run-Out Table Bracket. Lift the other end of the table to be about level with the attachment end.
4. Loosen the 2 knobs on the leg assembly and allow the feet to fall free to rest on the ground. Sight the height of the table on the left and right sides, adjusting it level to the machine using the knobs to lock the legs in place. See Figure 32 on page 47 for 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.



**Figure 31: Runout Table and Limit Switch**

CHAPTER 16

## RUN OUT TABLES AND REMOTE LIMIT SWITCH



*Figure 32: Run Out Table Setup*

CHAPTER 17  
**TROUBLESHOOTING**

## **CHAPTER 17 - TROUBLESHOOTING**

Some of the common problems that occur with the manual shear, and their solutions follow below.

1. After making a cut, the male or female leg of the next panel gets caught on the exit shear die and damages the panel.

**SOLUTION:** This problem normally shows up after making a roller system/shear die change. The entry dies (both male and female) should be as close to the vertical leg of the panel as possible without touching. Once this is achieved, the exit die should be set just outside the vertical leg of the entry die so that as the fresh cut edge of the panel passes by the exit die it doesn't get caught. See the Shear Adjustment Section starting on page 20 for more information.

2. The male and or female leg gets crushed when shearing.

**SOLUTION #1:** Check the Shear Blades directly over the male and female legs to make sure that the points of the blades are in the correct position (Figure 11 and

**SOLUTION #2:** Make sure that the shear blades and dies are well lubricated on both sides with the proper lubricant (See CHAPTER 5 - GENERAL MAINTENANCE on page 6).

3. Manual Control Panel buttons do not work.

**SOLUTION:** Check the fuse on the outside of the Contactor Box Assembly (Figure 1 on Page 4). Replace if blown with a 10-amp fuse. For CE machines, check the circuit breaker and fuses in the Power Supply Box (Figure 1 on Page 4) and reset/replace if necessary.

# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS

### CHAPTER 18 - ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS

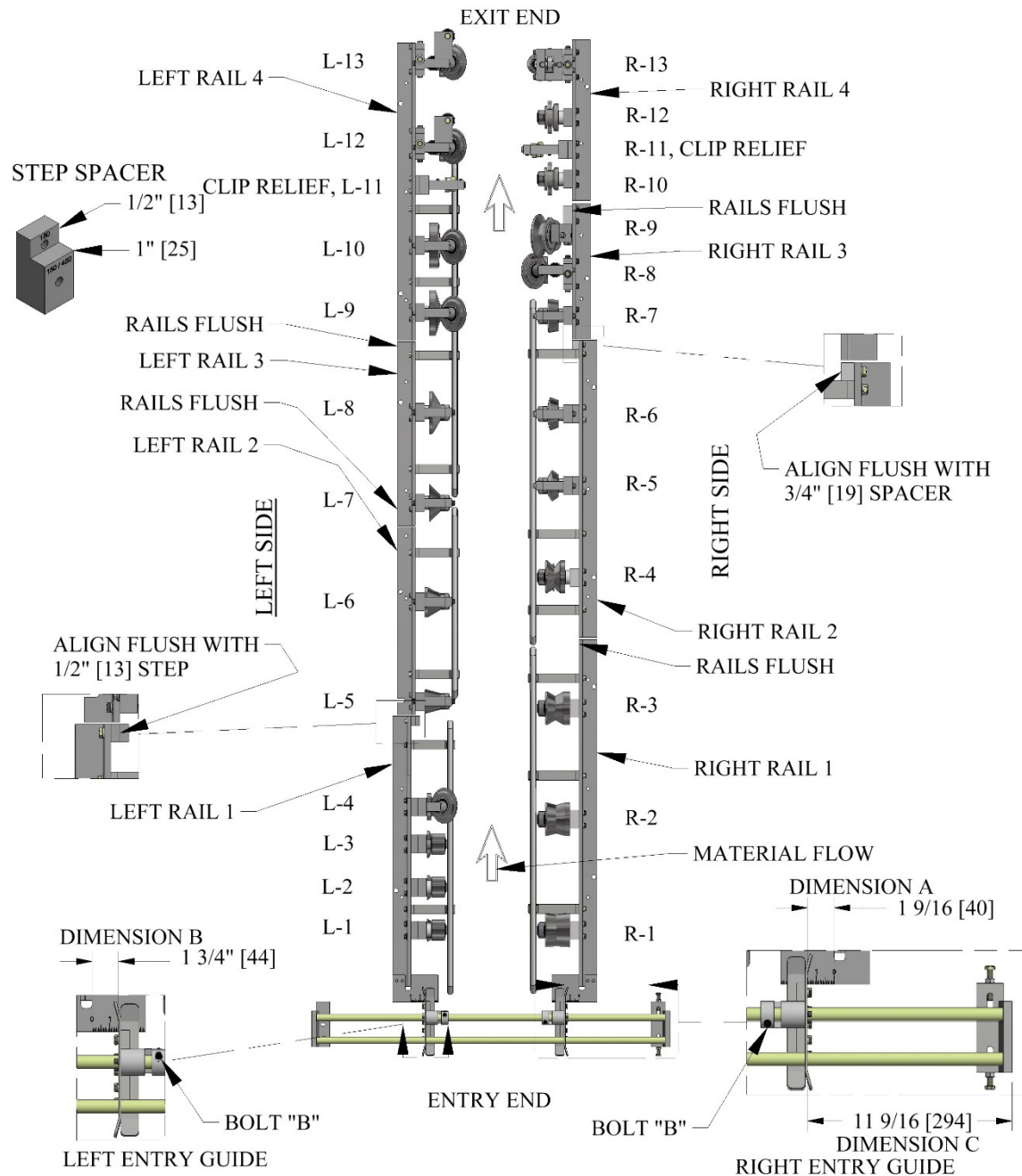


Figure 33: SSR100 Roller System



# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS

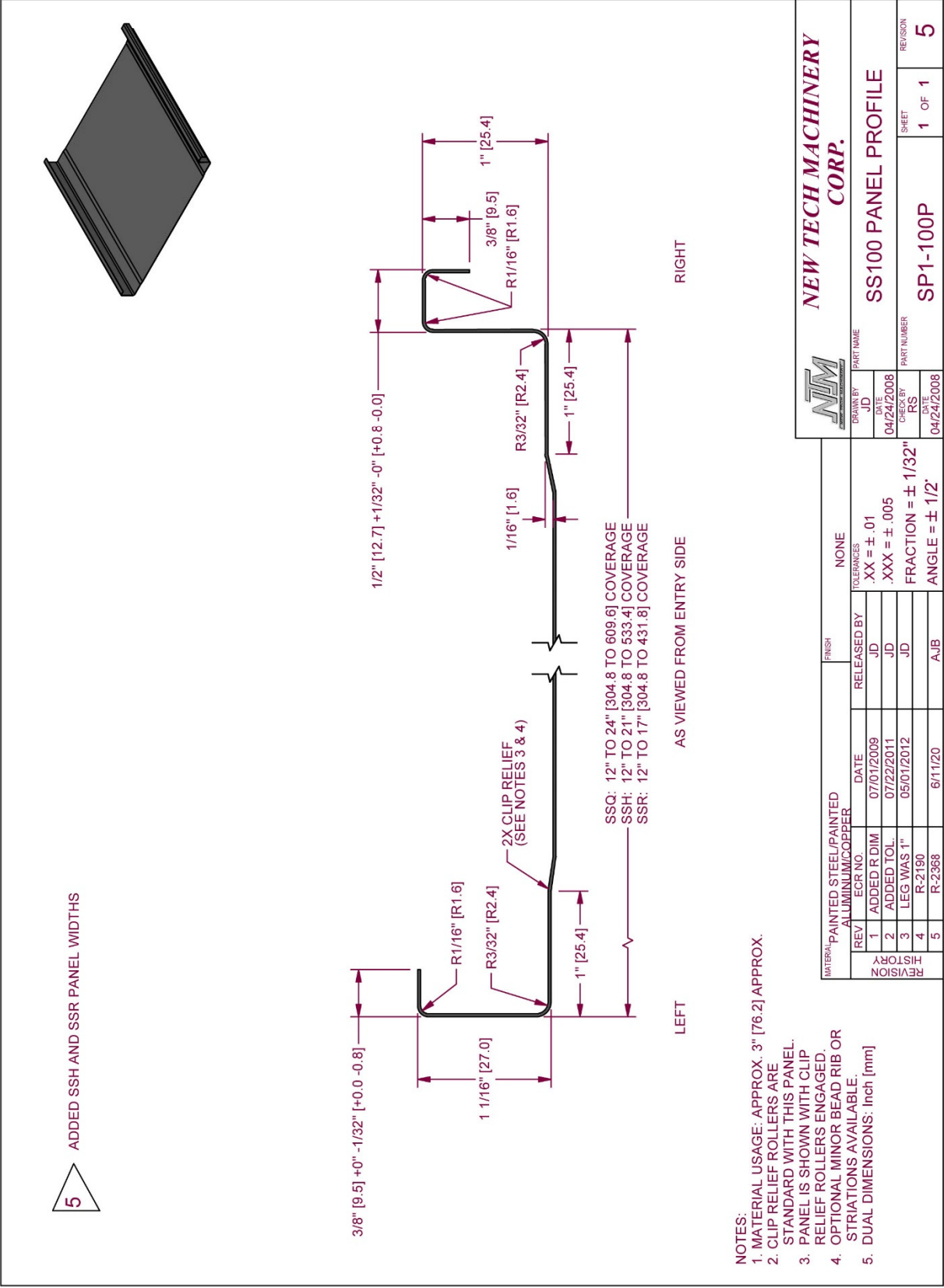
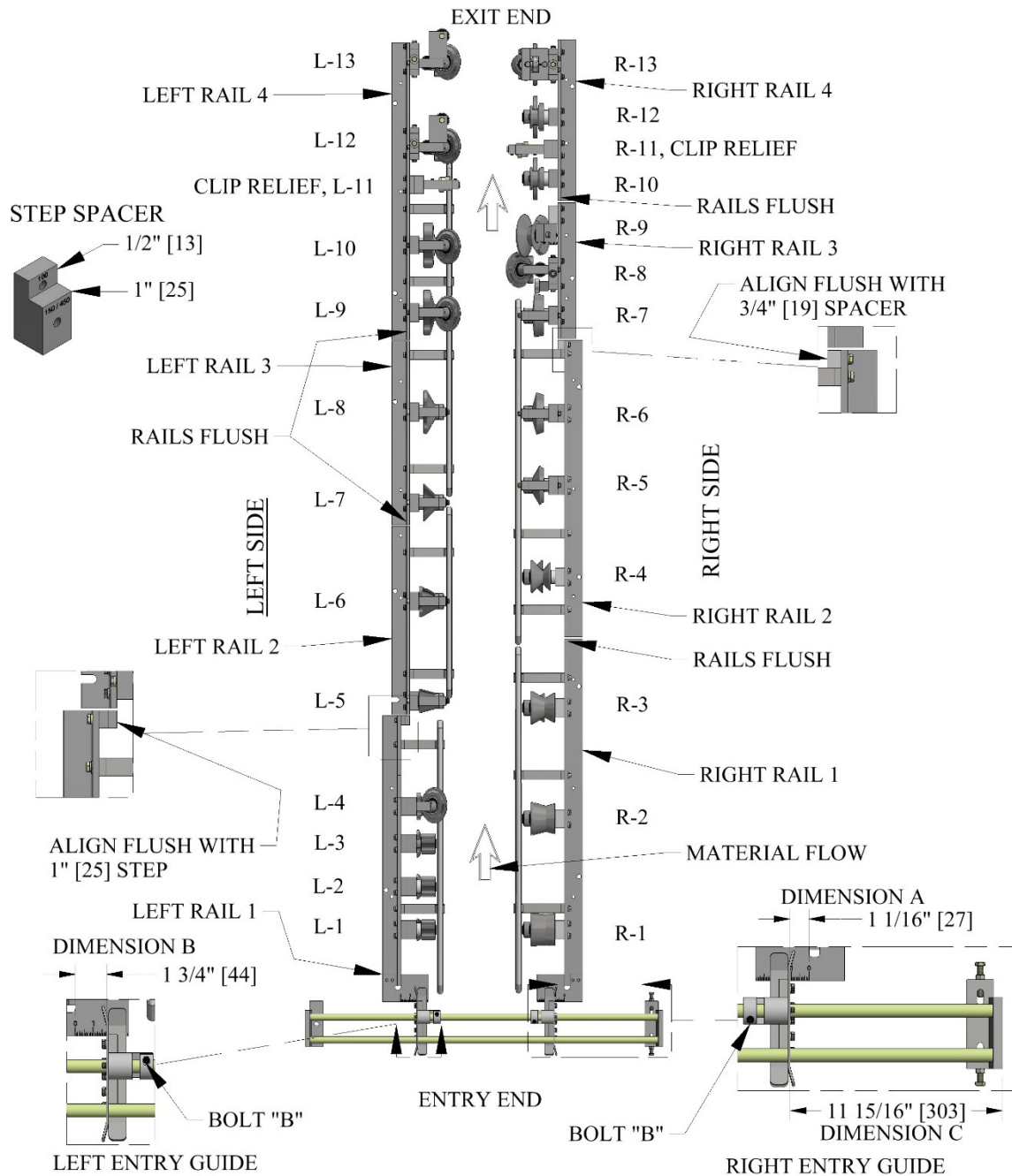


Figure 34: SS100 Panel Profile

# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS



**Figure 35: SSR150 Roller System**

CHAPTER 18

**ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS**

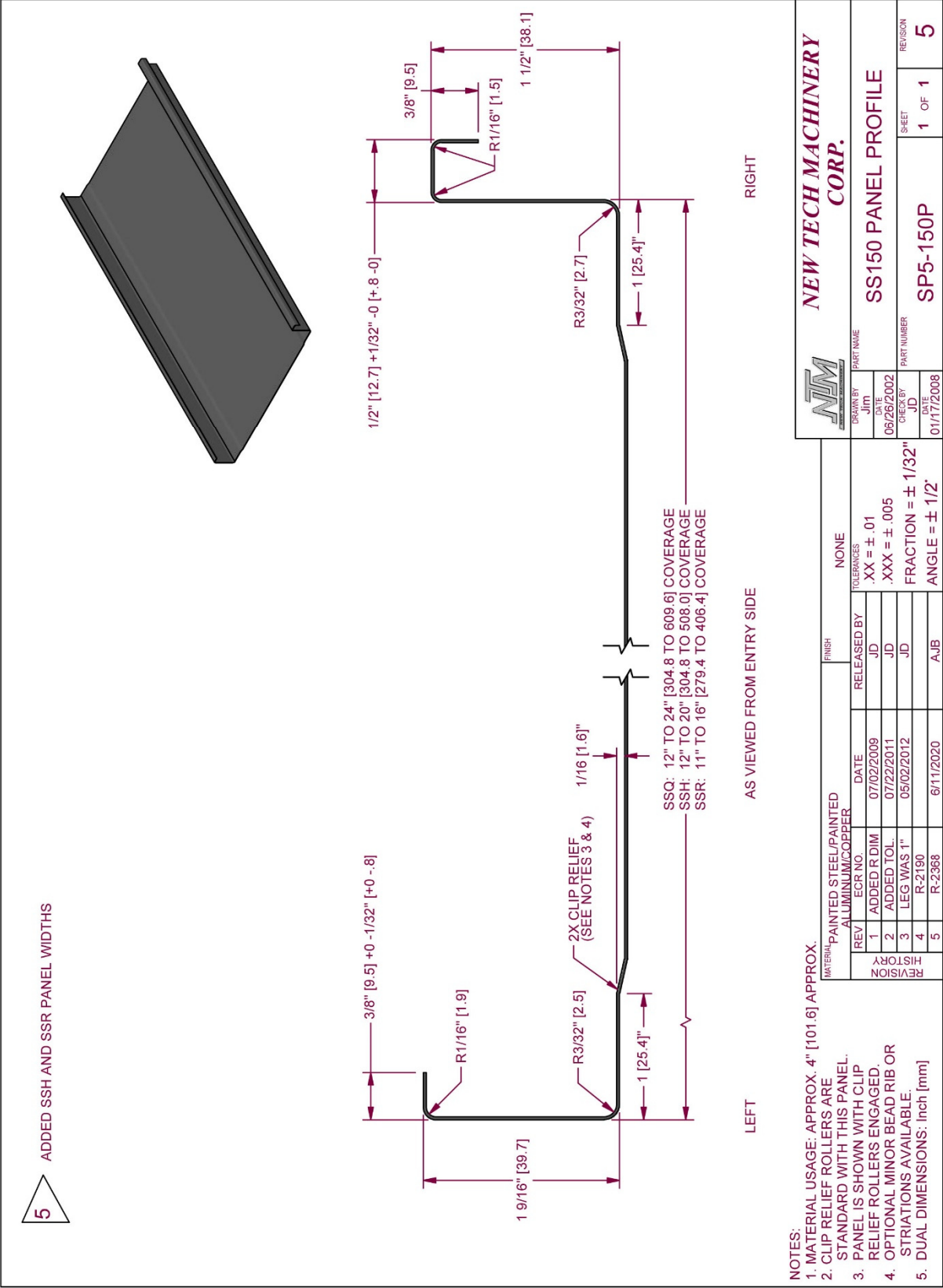
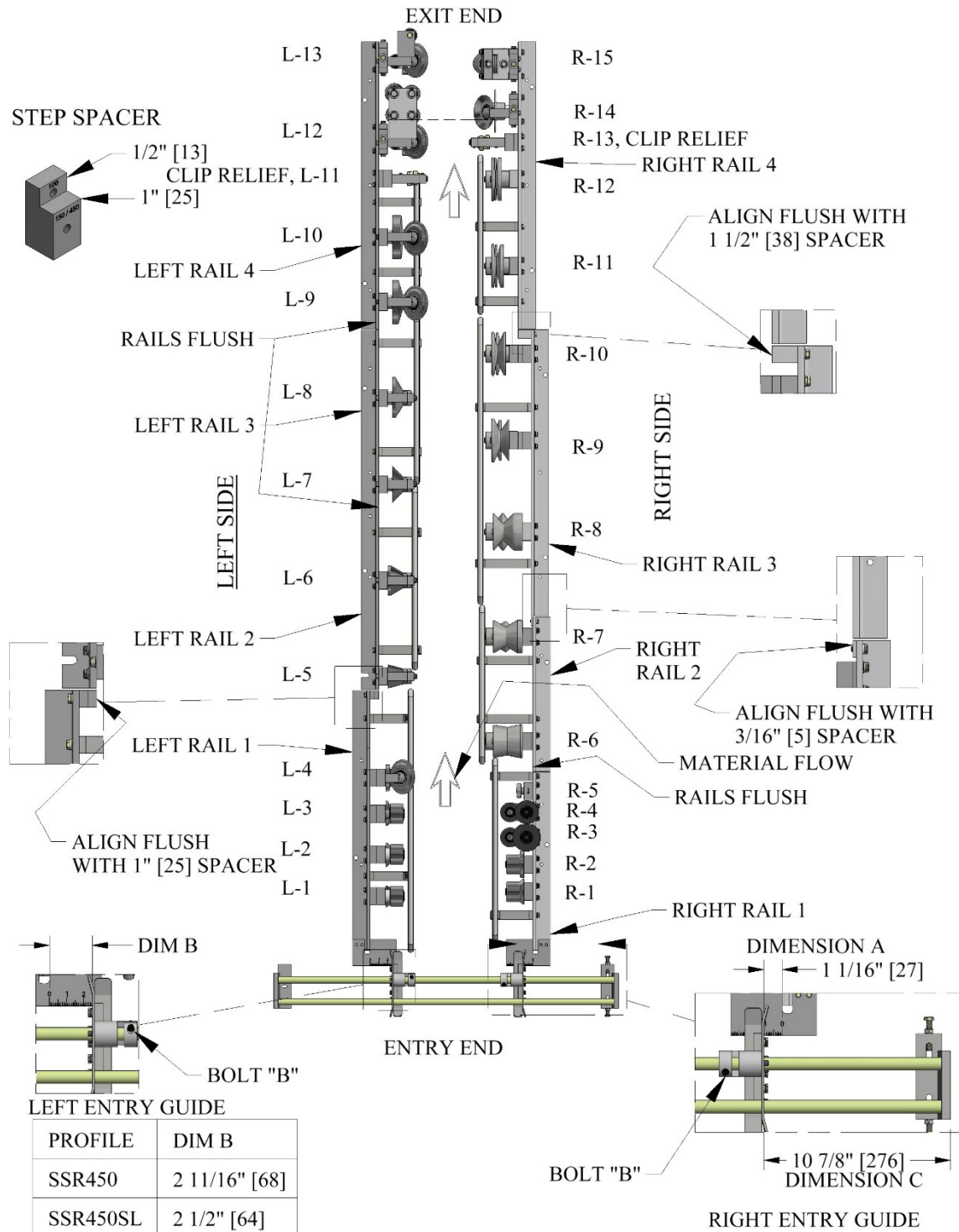


Figure 36: SS150 Panel Profile

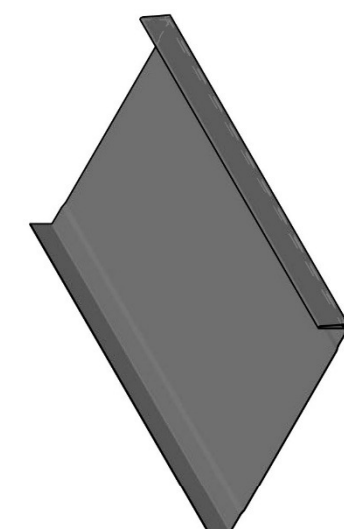
# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS



**Figure 37: SSR450/450SL Roller System**

## CHAPTER 18



**Figure 38: SS450 Panel Profile**





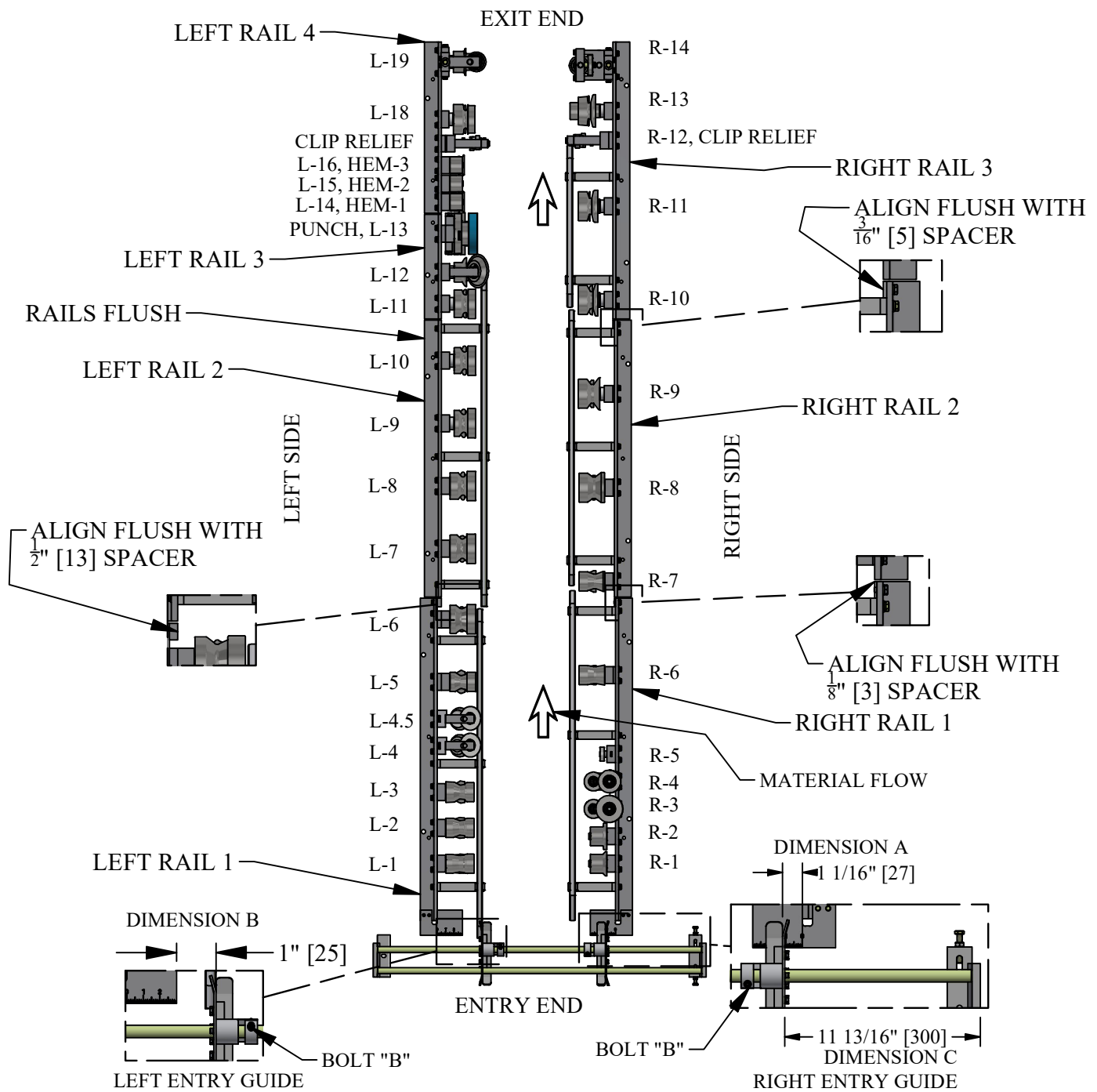


Figure 40: FFR100 Roller System

# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS

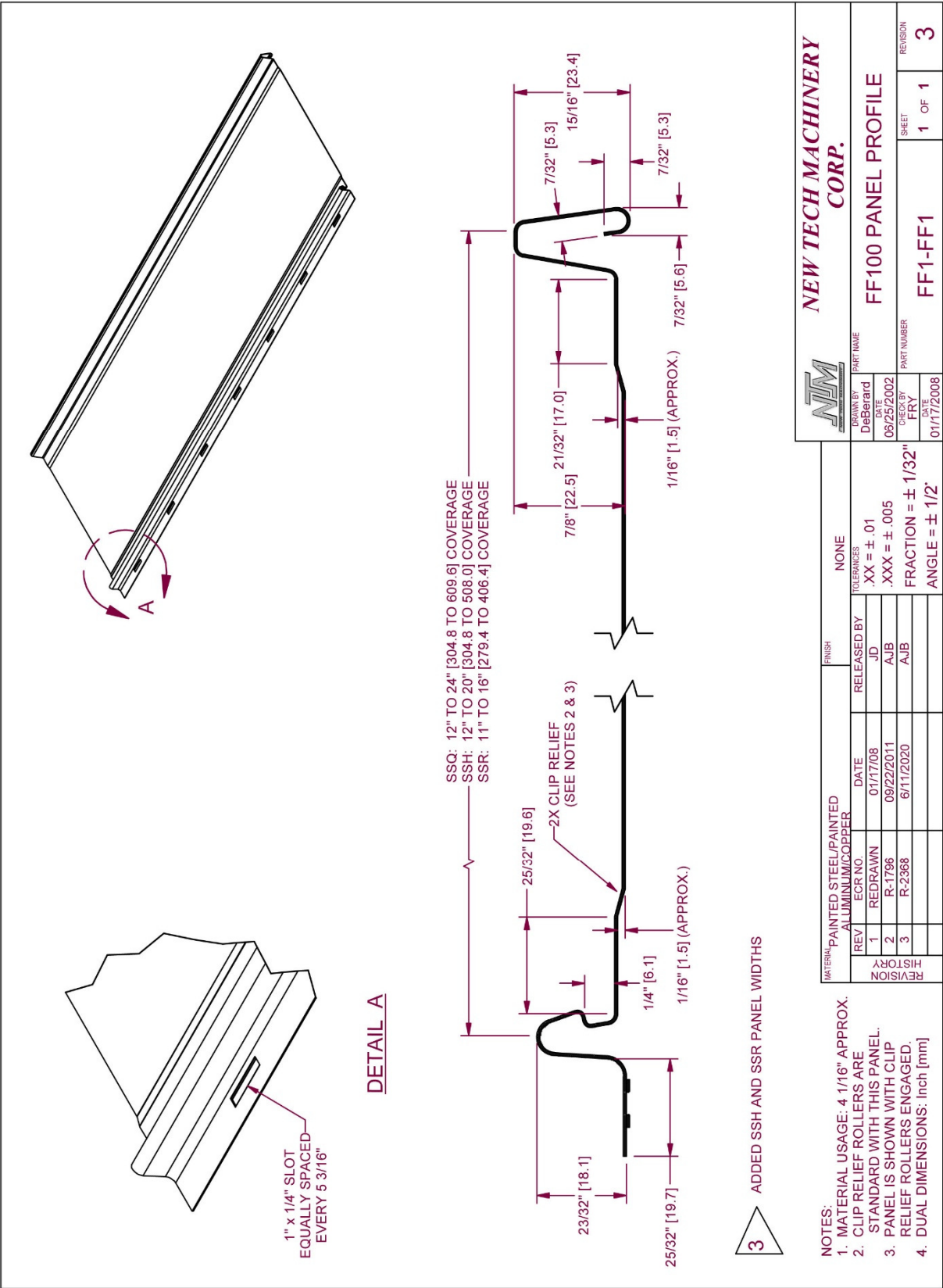
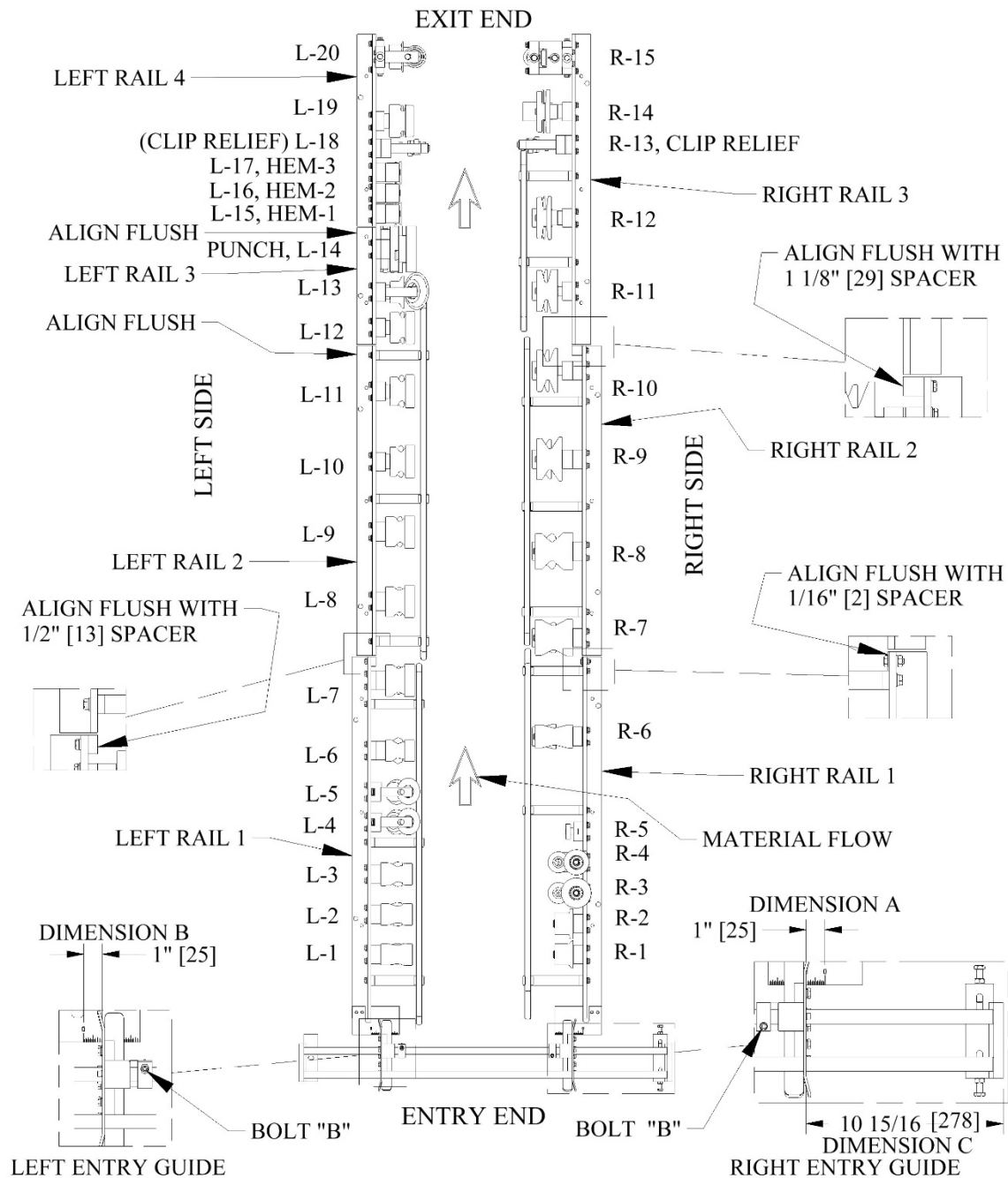


Figure 41: FF100 Panel Profile



# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS



**Figure 42: FFR150 Roller System**

# CHAPTER 18

## ROLLER SYSTEMS AND PANEL PROFILE DRAWINGS

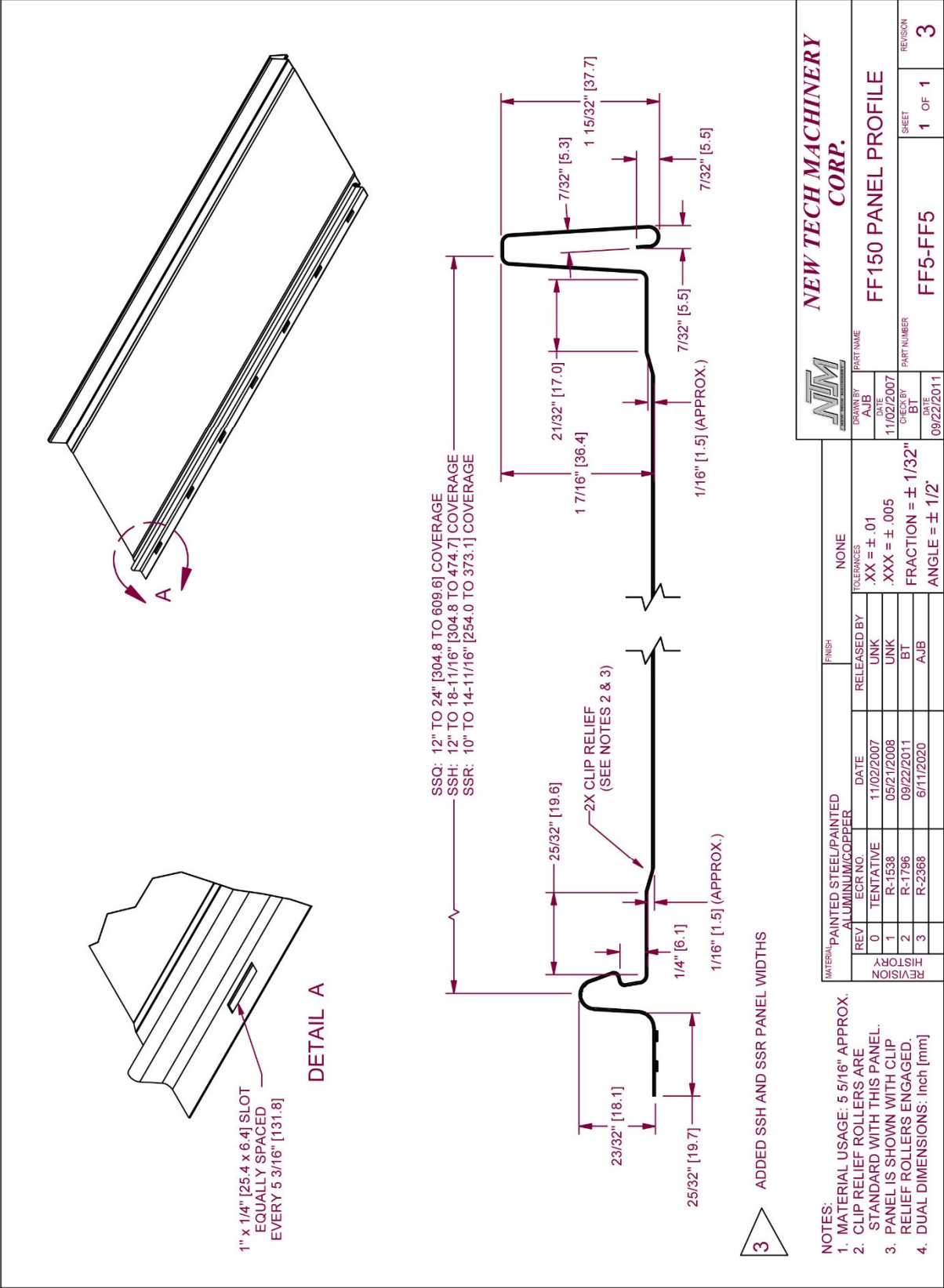


Figure 43: FF150 Panel Profile

## APPENDIX A

# CE INFORMATION

## APPENDIX A – CE INFORMATION

For our customers in the European Union these additional regulations and instructions also apply:

- The machine must be mounted at a height such that the control panel is between 0.6m and 1.9m above the ground.
- The power supply socket-outlet must be in the vicinity of the machinery and in view of the operator.
- The machine must be attended at all times while in operation.
- Electrical ratings: 230V~ 10A~, 50Hz, 1Ø

### *Warning and Informational Labels*



Voltages above 30Vac or 60Vdc



Two persons required to lift (18kg to 36kg)



Sharp Cutting Edge



Read manual before operating machine



Safety Gloves required (cut and abrasion resistant)



Machine jog



Machine run

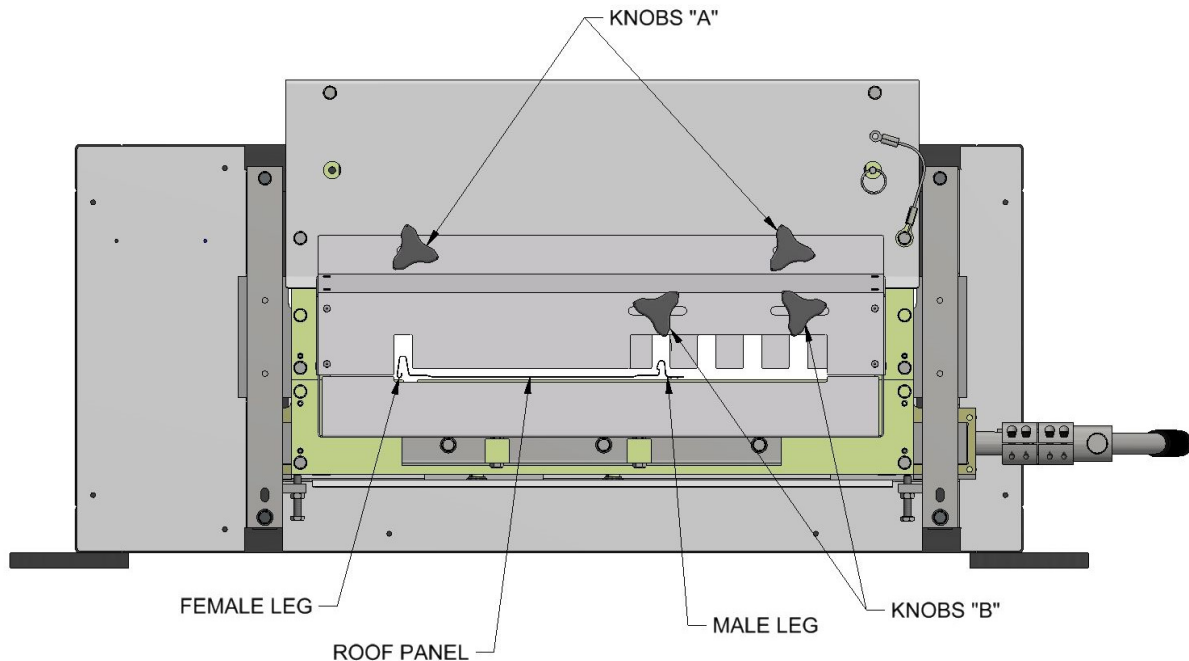
## APPENDIX A

# **CE INFORMATION**

### ***Shear Guard***

When changing the profile width or changing the roller set, the Shear Guard may need to be adjusted so that the panel does not come into contact with it. To adjust it follow the instructions below and refer to Figure 44 below.

1. Jog the panel forward until it is just past the shear but not up to the shear guard.
2. Look through the shear guard and see if the female leg of the panel will clear it. If not, loosen Knobs "A" and adjust the shear guard left or right as needed.
3. Again look through the shear guard and see if the male leg will clear it. If not, loosen Knobs "B" and adjust the slotted plate left or right until one of the slots lines up with the male leg.



***Figure 44: Shear Guard***

APPENDIX A  
**CE INFORMATION**

***Declaration of Conformity***

**EC Declaration of Conformity**

Manufacturer  
New Tech Machinery  
1300 40<sup>th</sup> Street  
Denver, Colorado 80205-3311  
United States of America

**declares that the machinery described:**

1. Type: Roof Panel Forming Machine
2. Model: SSR

**conforms to the following Directive:**

1. Machinery Directive 2006/42/EC

**uses the following primary standards:**

EN ISO 12100: 2010 – Safety of machinery – General principles for design – Risk assessment and risk reduction.  
EN 60204-1:2006 + A1:2009 – Safety of machinery - Electrical equipment of machines.  
EN ISO 13857:2008 - Safety of machinery – Safety distances – upper / lower limbs.  
EN 1037:1995+A1:2008 - Safety of machinery – Prevention of unexpected start up.  
EN 349:1993+A1:2008 - Safety of machinery – Minimum crush gaps.  
EN ISO 13850:2015 – Safety of machinery – Emergency stops.  
EN ISO 14120: 2015 – Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards.  
EN ISO 13849-1:2015 - Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design

**and complies with the relevant Essential Health and Safety Requirements.**

  
\_\_\_\_\_  
(Signature)

Clark Neft  
\_\_\_\_\_  
(name)

Vice President  
\_\_\_\_\_  
(Position)

Signed at Denver, Colorado  
(place)

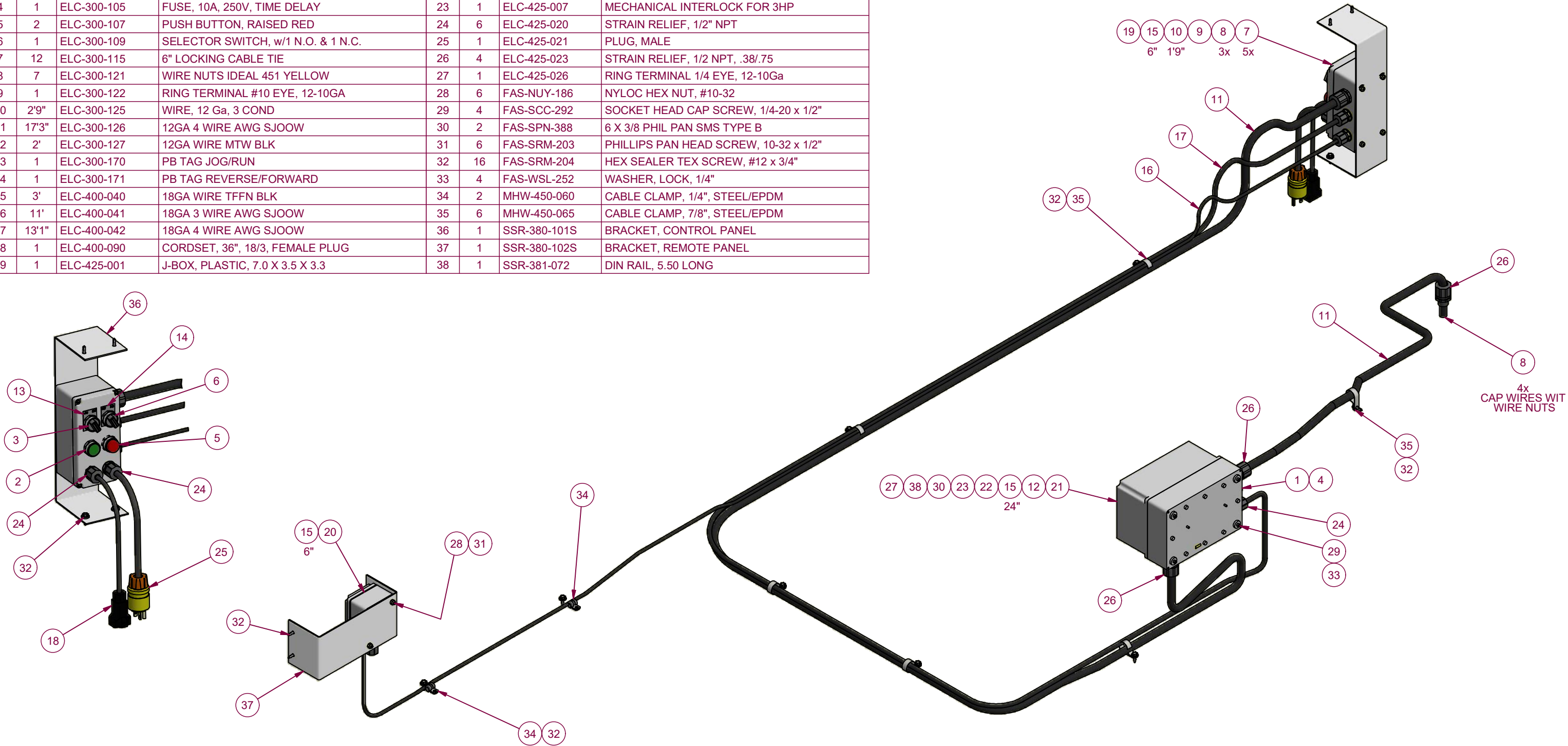
on November 28, 2018  
(date)

APPENDIX B  
**ELECTRICAL SCHEMATICS**

## **APPENDIX B - ELECTRICAL SCHEMATICS**

<u>Drawing Number</u>	<u>Sheet Number</u>	<u>Description</u>
SSR-380-000A	1	110V 60 Hz Electrical Assembly – Parts List
SSR-380-000A	2	110V 60 Hz Electrical Assembly – Wiring Details
SSR-380-000A	3	110V 60 Hz Electrical Assembly – Ladder Logic
SSR-380-000CE	1	230V 50 Hz CE Electrical Assembly – Wiring Details

Parts List				Parts List			
ITEM	QTY	PART NUMBER	TITLE	ITEM	QTY	PART NUMBER	TITLE
1	1	ELC-300-101	FUSEHOLDER BUS HKP	20	1	ELC-425-002	ELECTRICAL BOX MODIFIED, REMOTE PANEL
2	2	ELC-300-103	PUSH BUTTON, GREEN	21	1	ELC-425-003	J-BOX - PLASTIC, 8.6 x 5.9 x 5.9
3	1	ELC-300-104	SELECTOR SWITCH, W/1 N.O.	22	2	ELC-425-006	CONTACTOR, 1PH, 110V, 3HP
4	1	ELC-300-105	FUSE, 10A, 250V, TIME DELAY	23	1	ELC-425-007	MECHANICAL INTERLOCK FOR 3HP
5	2	ELC-300-107	PUSH BUTTON, RAISED RED	24	6	ELC-425-020	STRAIN RELIEF, 1/2" NPT
6	1	ELC-300-109	SELECTOR SWITCH, w/1 N.O. & 1 N.C.	25	1	ELC-425-021	PLUG, MALE
7	12	ELC-300-115	6" LOCKING CABLE TIE	26	4	ELC-425-023	STRAIN RELIEF, 1/2 NPT, .38/.75
8	7	ELC-300-121	WIRE NUTS IDEAL 451 YELLOW	27	1	ELC-425-026	RING TERMINAL 1/4 EYE, 12-10Ga
9	1	ELC-300-122	RING TERMINAL #10 EYE, 12-10GA	28	6	FAS-NUY-186	NYLOC HEX NUT, #10-32
10	2'9"	ELC-300-125	WIRE, 12 Ga, 3 COND	29	4	FAS-SCC-292	SOCKET HEAD CAP SCREW, 1/4-20 x 1/2"
11	17'3"	ELC-300-126	12GA 4 WIRE AWG SJOOW	30	2	FAS-SPN-388	6 X 3/8 PHIL PAN SMS TYPE B
12	2'	ELC-300-127	12GA WIRE MTW BLK	31	6	FAS-SRM-203	PHILLIPS PAN HEAD SCREW, 10-32 x 1/2"
13	1	ELC-300-170	PB TAG JOG/RUN	32	16	FAS-SRM-204	HEX SEALER TEX SCREW, #12 x 3/4"
14	1	ELC-300-171	PB TAG REVERSE/FORWARD	33	4	FAS-WSL-252	WASHER, LOCK, 1/4"
15	3'	ELC-400-040	18GA WIRE TFFN BLK	34	2	MHW-450-060	CABLE CLAMP, 1/4", STEEL/EPDM
16	11'	ELC-400-041	18GA 3 WIRE AWG SJOOW	35	6	MHW-450-065	CABLE CLAMP, 7/8", STEEL/EPDM
17	13'1"	ELC-400-042	18GA 4 WIRE AWG SJOOW	36	1	SSR-380-101S	BRACKET, CONTROL PANEL
18	1	ELC-400-090	CORDSET, 36", 18/3, FEMALE PLUG	37	1	SSR-380-102S	BRACKET, REMOTE PANEL
19	1	ELC-425-001	J-BOX, PLASTIC, 7.0 X 3.5 X 3.3	38	1	SSR-381-072	DIN RAIL, 5.50 LONG



8

PROMOTED MOTOR (ELC-425-022) TO MPJ-E-110  
SSR-381,2,3,4-000 TO PHANTOM  
PARTS SHOW ON THIS BOM

(03/24/2016) NO ECR  
MODIFIED LENGTH OF ELC-300-126

MATERIAL					FINISH	NONE
REVISION HISTORY	REV	ECR NO.	DATE	RELEASED BY	TOLERANCES	
	4	R-1738	07/06/2010	AJB	.XX = ± .01	
	5	R-1856	06/12/2012	BT	.XXX = ± .005	
	6	R-2042	06/05/2015	JD	FRACTION = ± 1/32"	
	7	R-2034	07/07/2015	JD	ANGLE = ± 1/2'	
	8	R-2034	11/06/2015	AJB		



**NEW TECH MACHINERY  
CORP.**

DRAWN BY  
S.KELLY  
DATE  
02-22-2007

PART NAME  
ELECTRIC ASSEMBLY, 110V 60Hz

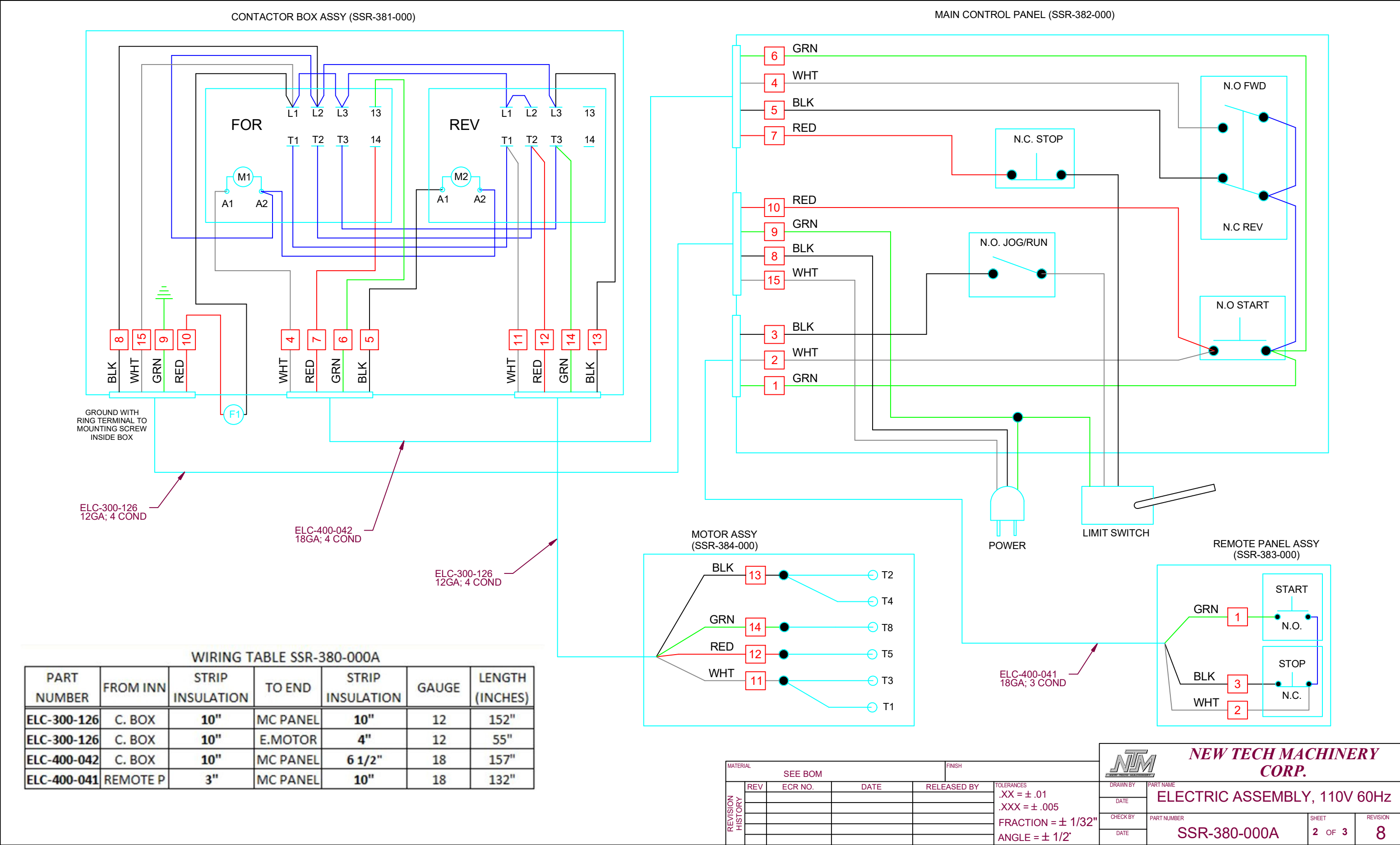
CHECK BY  
JD  
DATE  
01-17-2008

PART NUMBER  
SSR-380-000A

SHEET  
1 OF 3

REVISION  
8





REMOTE PANEL ASSY (SSR-383-000)

GRN

BLK

WHT

1

3

2

START

N.O.

STOP

N.C.

ELC-300-126 12GA; 4 COND

ELC-400-042 18GA; 4 COND

ELC-300-126 12GA; 4 COND

ELC-400-041 18GA; 3 COND

WIRING TABLE SSR-380-000A

PART NUMBER	FROM INN	STRIP INSULATION	TO END	STRIP INSULATION	GAUGE	LENGTH (INCHES)
ELC-300-126	C. BOX	10"	MC PANEL	10"	12	152"
ELC-300-126	C. BOX	10"	E.MOTOR	4"	12	55"
ELC-400-042	C. BOX	10"	MC PANEL	6 1/2"	18	157"
ELC-400-041	REMOTE P	3"	MC PANEL	10"	18	132"

NEW TECH MACHINERY CORP.

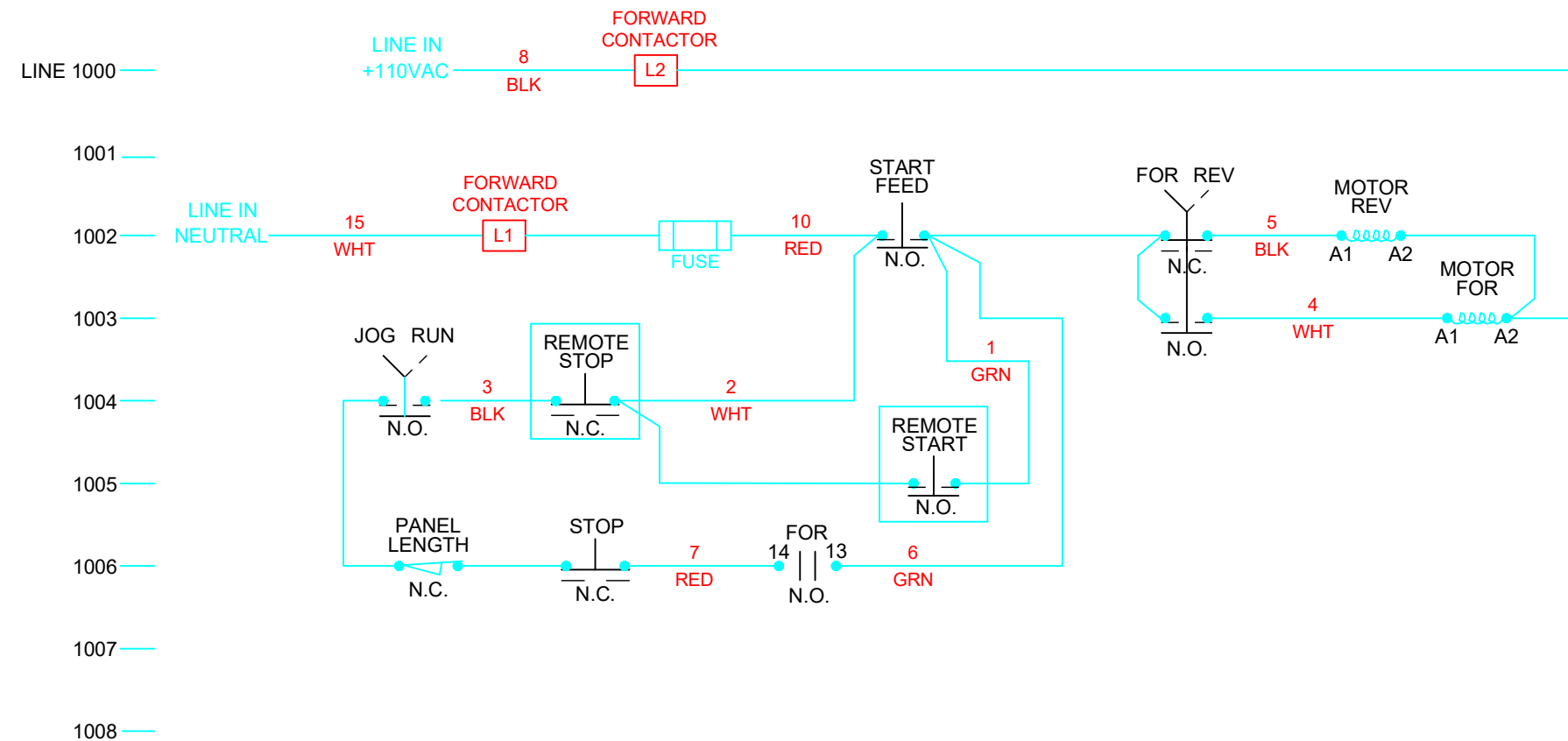
ELECTRIC ASSEMBLY, 110V 60Hz


SSR-380-000A

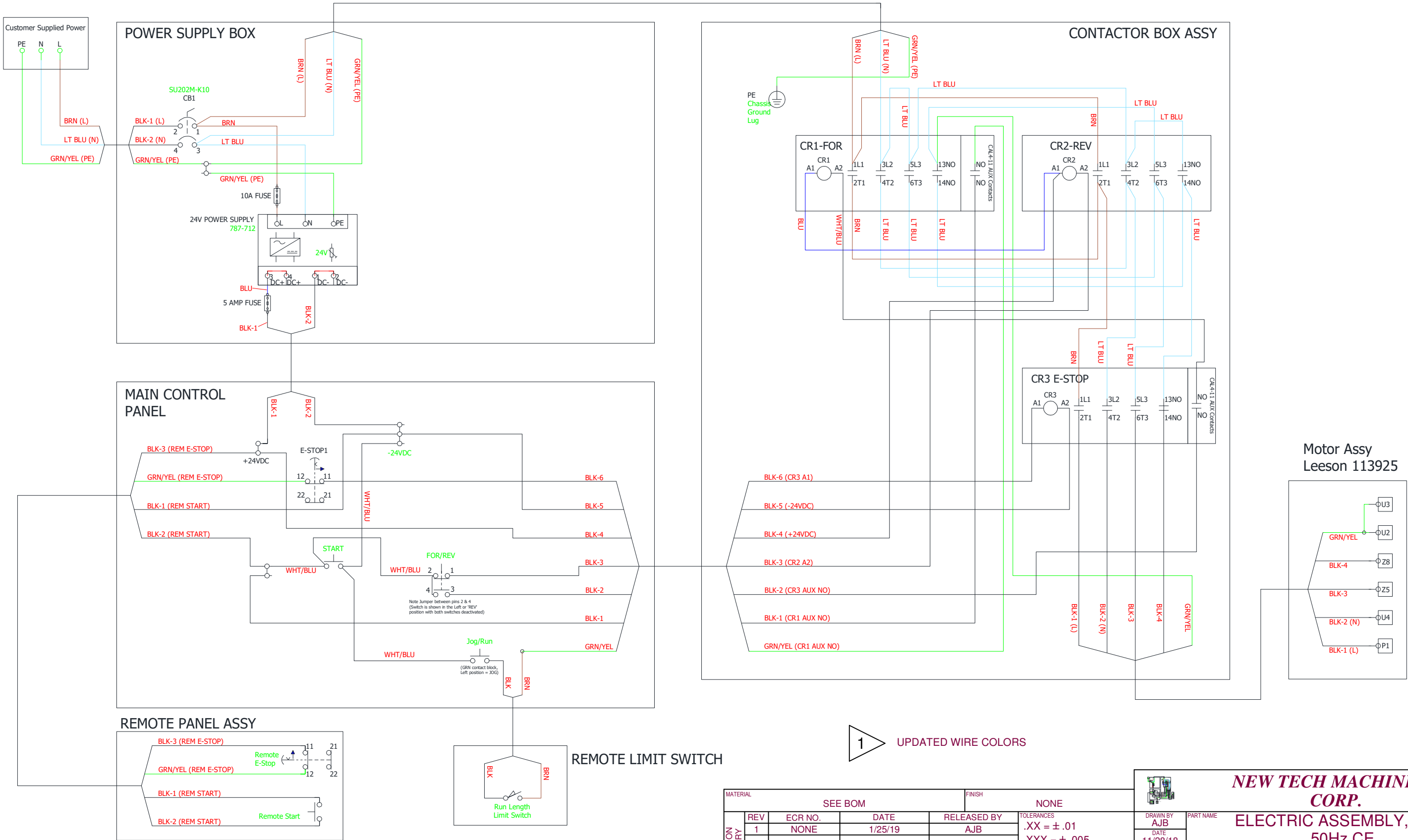
2 OF 3

8






MATERIAL					FINISH					<div><div>NEW TECH MACHINERY CORP.</div></div>																																							
SEE BOM										DRAWN BY					PART NAME																																		
REVISION HISTORY					REV					DATE					RELEASED BY					TOLERANCES					DATE					ELECTRIC ASSEMBLY, 110V 60Hz																			
																				.XX = ± .01																													
																				.XXX = ± .005																													
																				FRACTION = ± 1/32"																													
																				ANGLE = ± 1/2°										CHECK BY					PART NUMBER					SHEET					REVISION				
																														DATE					SSR-380-000A					3 OF 3					8				



MATERIAL					FINISH
SEE BOM					NONE
REVISION HISTORY	REV	ECR NO.	DATE	RELEASED BY	TOLERANCES
	1	NONE	1/25/19	AJB	.XX = ± .01 .XXX = ± .005
					FRACTION = ± 1/32"
					ANGLE = ± 1/2°



**NEW TECH MACHINERY  
CORP.**  
**ELECTRIC ASSEMBLY, 230V  
50Hz CE**

DRAWN BY AJB	PART NAME	SSR-380-000CE	SHEET 1 OF 1	REVISION 1
DATE 11/28/18				
ECR NO. NONE	PART NUMBER			





**New Tech Machinery**  
A MAZZELLA COMPANY

16265 E. 33rd Dr. Ste 40 | Aurora, CO 80011

303-294-0538 | 800-574-1717 | Fax: 303-294-9407

[www.NewTechMachinery.com](http://www.NewTechMachinery.com)

SSR-MAN | Revision 12 | 04-07-2022