

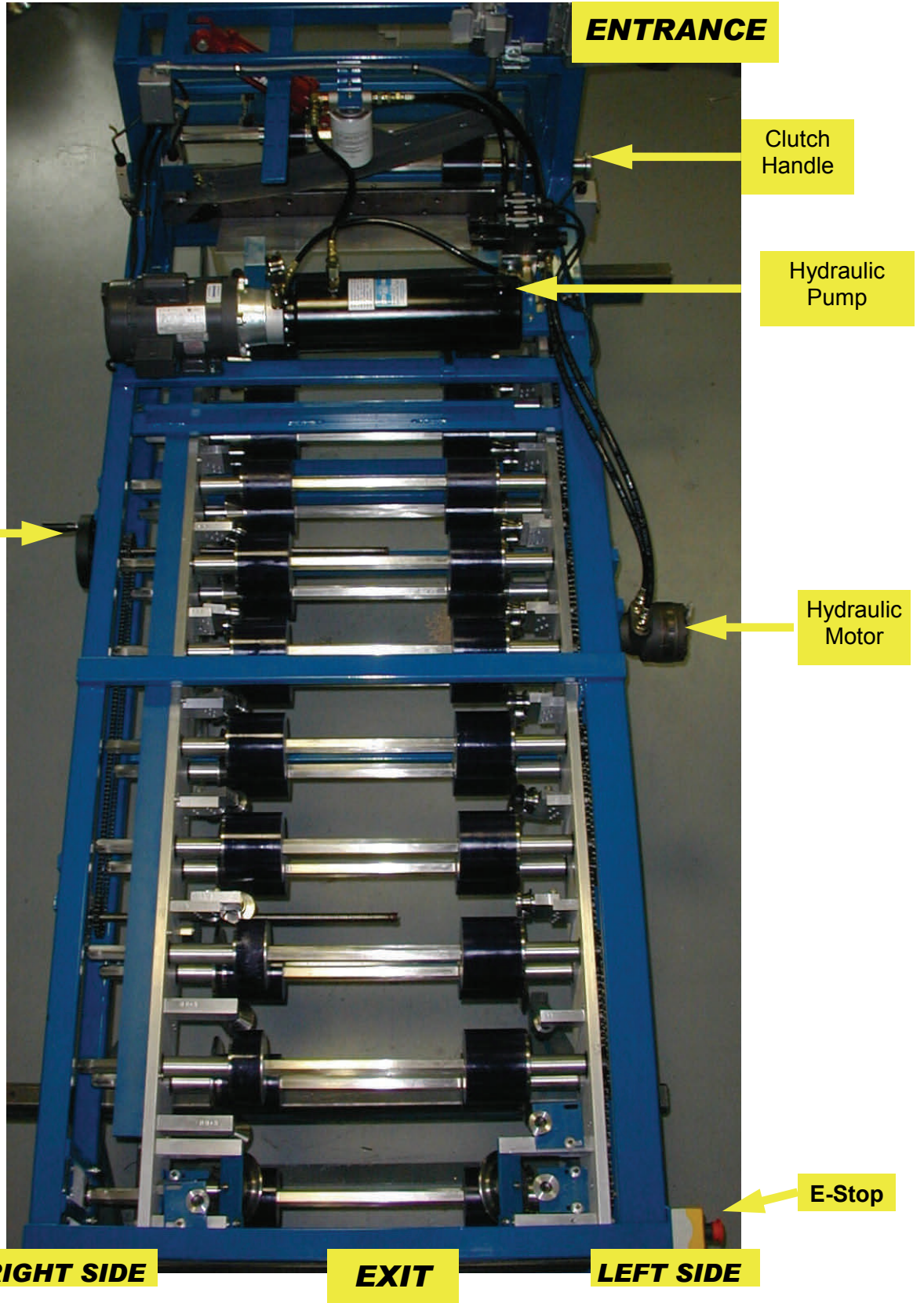


VS-150 MACHINE

OWNERS MANUAL

ROLL FORMER CORP.
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TOP VIEW



OPERATING INSTRUCTIONS

ROLL FORMER PANFORMER MODEL VS-150

ELECTRIC - HYDRAULIC DRIVE

This machine operates on 110 volt/60HZ. Be sure that the proper power supply and cable are used to deliver maximum power to the unit. Use only a three wire extension cord which has a three prong grounding plug and a three prong receptacle. Recommended wire sizes for extension cords; 25' - 16 gauge, 50' - 14 gauge and 100' - 12 gauge.

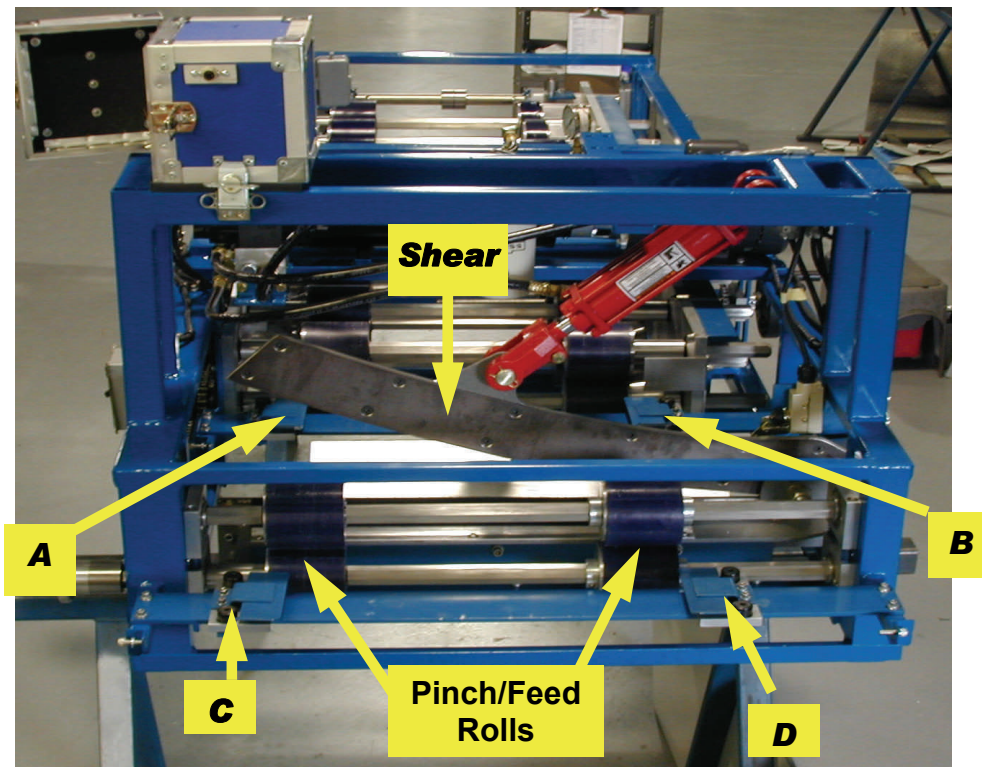
If motor stops under load, check voltage level under load at the motor terminals for 110V min. **KEEP THE GUARDS ON WHENEVER THE MACHINE IS IN OPERATION TO AVOID INJURY!**

The unit is hydraulically powered and the electric motor turns on but the forming rolls will not turn until forward/reverse is activated. It may be necessary to adjust the pressure at the hydraulic pump. Please refer to the hydraulic pump manual for this operation.

ENTRANCE GUIDES

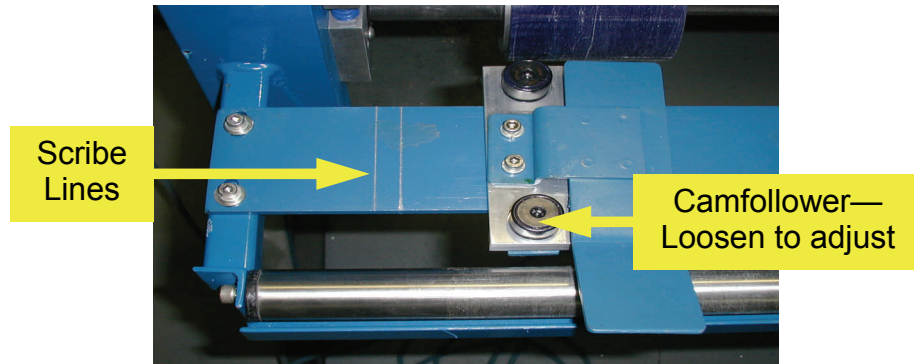
The entrance guides determine the amount of material that is fed into the forming rolls and keeps the material straight when entering the machine. The location of these guides dictate the physical dimensions of the panel profile.

- A) The VS-150, which has the shear attachment, will have two sets of guide plate assemblies, each mounted to a guide plate slat. One set located in front of the shear (C & D) and the other behind it (A & B). The guides should always be parallel to the first stage and parallel to one another.



THE MOST IMPORTANT FACTOR IN THE OPERATION OF THE MACHINE IS THAT THE MATERIAL ENTER THE MACHINE STRAIGHT. When using a coil, the decoiler should be located with the left side of the material being exactly in line with the left side guides. If possible, try to have at least 4' of distance from Decoiler to the front entrance guides of the machine.

- B) All of the entrance guides are movable by simply loosening the cam follower (Allen Head) and sliding to desired setting. These guides are factory set and scribed with lines which indicate proper dimensions for a standard 1" and 1 1/2" standing seam.



- C) To form "U-panels" in either 1" OR 1½" heights, adjust front and middle, left side guide plates to the right of the standing seam scribe line approximately 3/4" to 13/16" to "cheat the machine of material". On the right side of the panel move the moveable rail approximately 5/16" - 3/8" out away from the moveable rail scribe line to "cheat" the machine of material on the male leg.
- D) To set the width of your panel, loosen the "D" entrance guide and slide it out of the way so that the material will clear and pass through to the feed rolls.
- E) The feed rolls are located in front of the shear. These rolls help pull the material into the machine, hold and feed after the shear has cut. The feed rolls have a clutch which allows them to spin freely or be driven. When the clutch is pulled out, the feed rolls will idle or can be rotated by hand. When the clutch is engaged, the feed rolls are driven when the machine is operated .
- F) Using the crank on the right side of the machine, adjust the movable rail until the material clears guide "B" and rests against guide "A". When the material is resting against the guides "A and C", slide guide "D" over until it touches the r/s edge of the material and tighten camfollowers slide guide B over until it touches the r/s edge of material and tighten camfollower.

The material should now be in the machine with all four of the entrance guides touching the edges of the material. Move material in and out between entrance guides to be sure of this. Material should glide smoothly between these four guide plate assemblies. Adjust r/s guides B&D if necessary.

Now crank the adjustable rail back in until the appropriate scribe line for either 1" or 1 1/2" matches the edge of the material.

SMALL ROLL BLOCK ADJUSTMENT

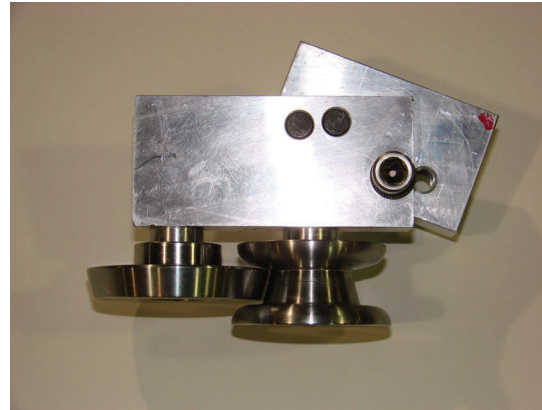
The VS-150 is designed to change quickly and easily with a minimum of adjustment. This machine is equipped with roll mounting blocks that locating pins for easy and precise alignment. On both sides of the machine the powered forming rolls are non-powered idling forming rolls. The powered rolls are sequentially numbered, starting in the front of the machine (where the material enters) R1-R10 (right) and L1-L10, (left). The non-powered stages are located between the powered stages and are numbered R1.5, R2.5 etc.

Changing the panel leg height is very simple as shown in the drawings. Simply remove the locking bolt from the main block, and remove the block with the forming rolls from the locating pins. When changing sizes it is not necessary to remove the stationary block from the rail.

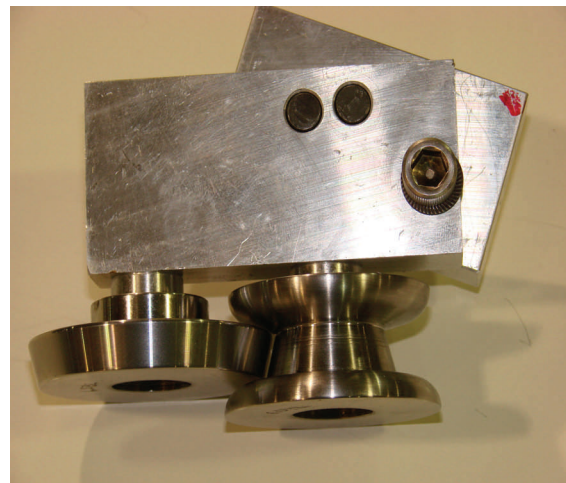
Reinstall the block onto the locating pins either one hole up or down depending on the height change required and replace the locking bolt.

* After completion of the change-over remember that you will have to reset the entrance guides to give proper dimensions to the legs.

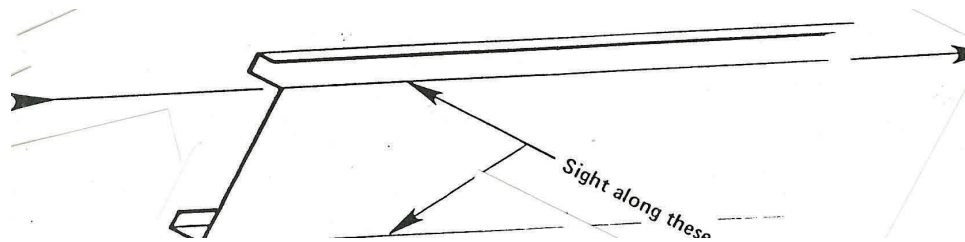
Block set to form 1"



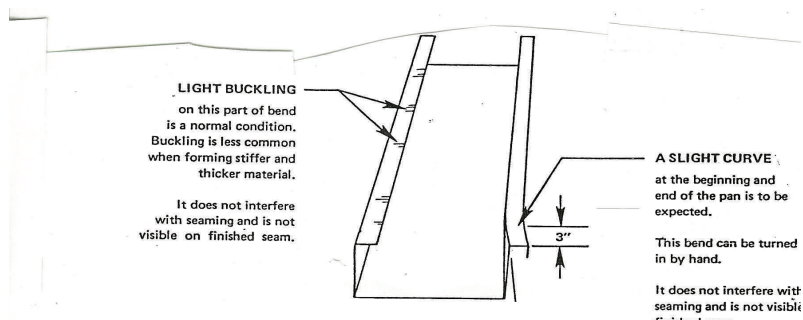
Block set to form 1½"



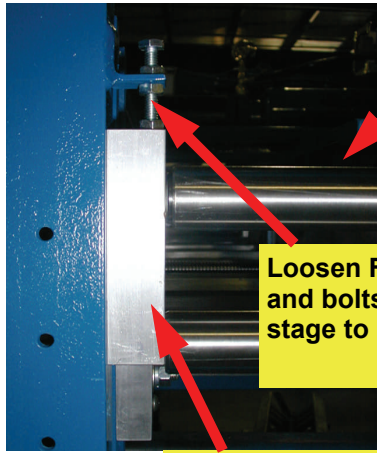
CAMBER ADJUSTMENT



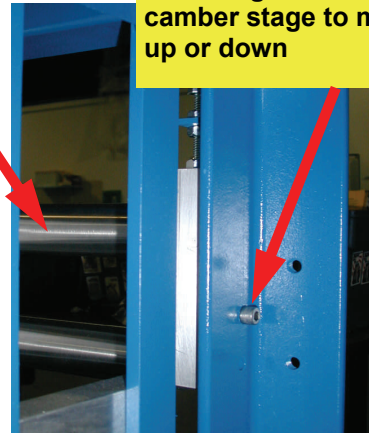
- A) Run the machine until the panel clears the rear about 5 feet. With panel still extending from rear of the machine, sight along bottom of panel and check to see if the panel is straight. **THIS IS KNOWN AS CAMBER AND MAY BE THE SINGLE MOST IMPORTANT ADJUSTMENT ON THE MACHINE.**
- B) **Adjust Camber Rolls (long tubes that span width of machine):** Due to the differences in the material yield strength, this adjustment may be necessary. Start by determining how much you wish to move the rolls, **If the panel curves down**, adjust the Camber Rolls up to compensate. **If the panel curves up**, adjust the Camber Rolls down.
1. Loosen or tighten the hex head bolt located on top of each Camber Block, the desired amount of the adjustment.
 2. Using an Allen wrench, loosen the locking screw to the Camber Block on the appropriate side of the machine located through the side rear guard. Note that each side can be adjusted independently. Tighten the locking screw and jam nuts on Camber Blocks after adjustment is made.
 3. Now check to make sure that the bottom of your panel is straight on both sides.



CAMBER TUBES T/B

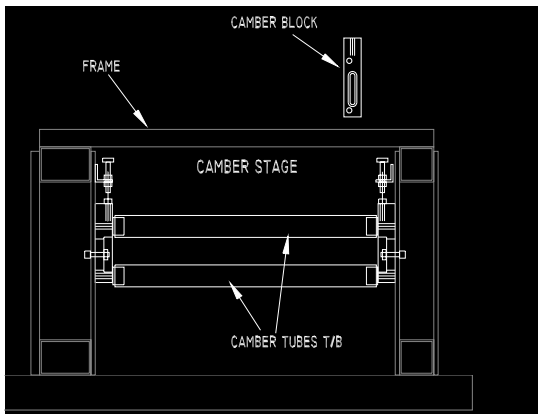


Loosen Fine Adjustment nut and bolts to allow camber stage to move up or down

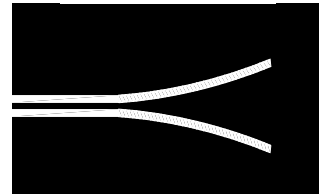


Loosen Corner post mounting bolt to allow camber stage to move up or down

Camber Block R/L



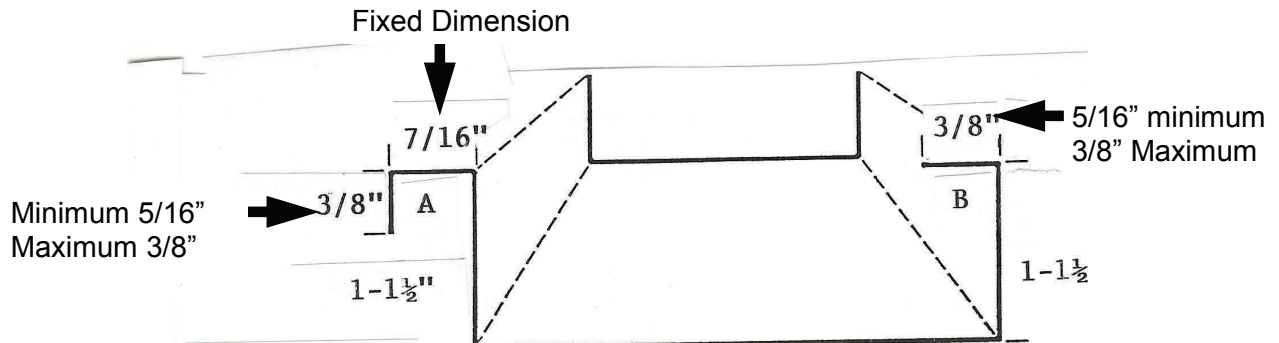
CAMBER UP



CAMBER DOWN

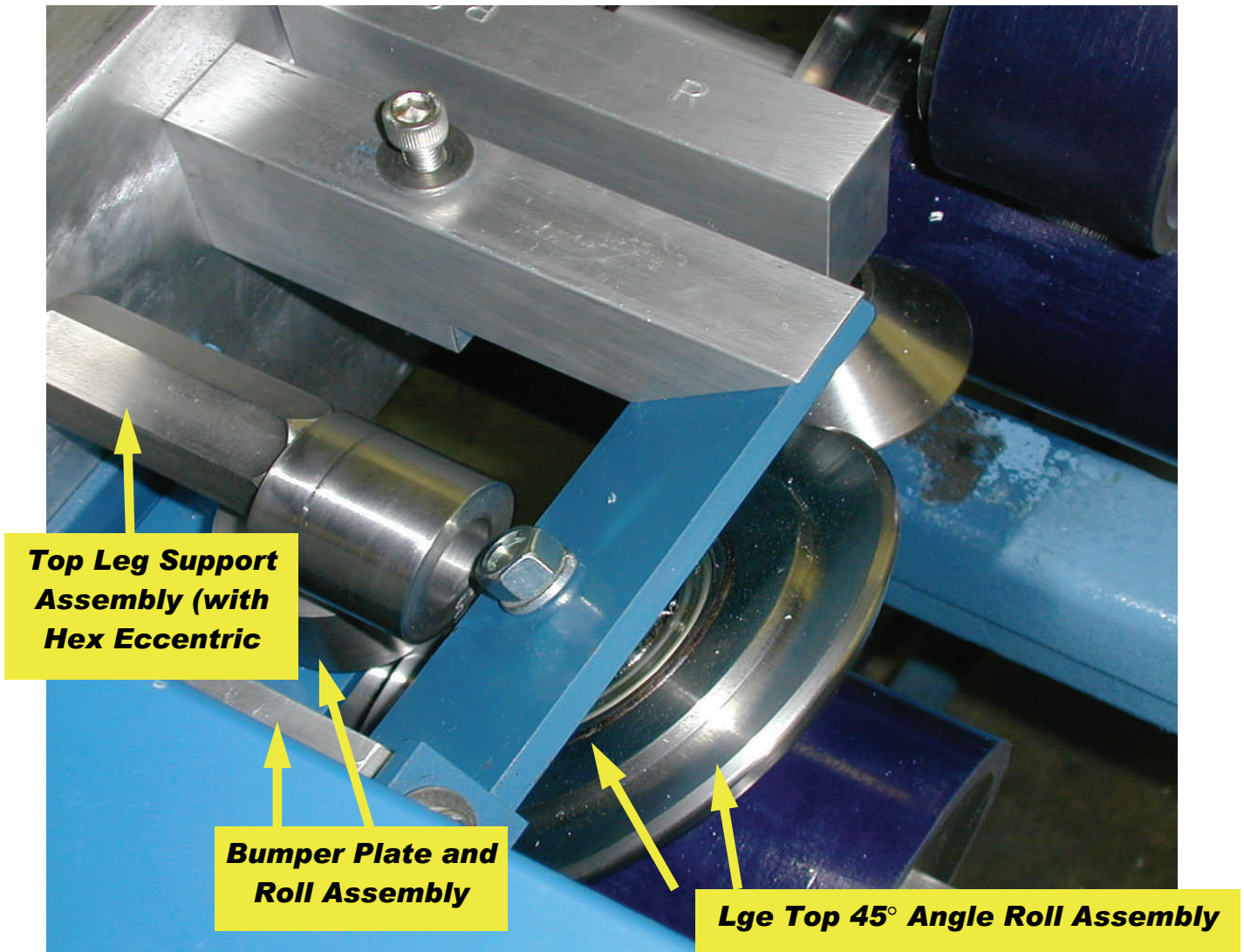
- C) It is very important that the panel is supported as it exits the machine so that it is not bowed by its own weight. Any type of smooth table that is level with the machine will work well.

- D) After the first panel is produced, check the panel dimensions to be sure that the panels will interlock and have the proper dimensions.
- E) To ensure that you obtain the best possible results, by either making two panels and interlocking or by slitting the panel down the middle and then interlocking to check for proper nesting. If edge "B" is too narrow it will possibly cause the seamer to not give the best results.



- F) If the length of any of the panel edges are not satisfactory, lengthening or reducing the legs can be easily accomplished by adjusting the entrance guides. The entrance guides determine how much material is fed into the forming rolls. For example: if the panel leg "A" is too short, then you would move the entrance guides "A" and "C" out as much as you would like that dimension to be increased. IT IS VERY IMPORTANT THAT THE ENTRANCE GUIDES "A" AND "C" ARE ALWAYS MOVED IN EXACTLY THE SAME INCREMENTS OR ELSE THE MATERIAL WILL NOT FEED STRAIGHT. If you are moving the left guides out, you will have to adjust the movable rail in, to compensate for the amount that you moved "A" and "C" out. This may sound complicated, however, once a few minutes are spent operating the machine you will how simple it really is. The same adjustment can be made to the other side of the panel if necessary.

VS-150 FINE TUNING



FINE TUNING

- A) Set Top Leg Support Assembly to desired height (1" or 1.5") by screwing assembly into proper hole in right side rail at stage 10. Then adjust Eccentric by turning hex portion of assembly that causes the roll to rest on top of male leg of the panel. (See photo).

The next two steps allow you to manipulate the upright legs of the panel to achieve a 90° angle:

- B) Adjust the Bumper Plate and Roll Assembly towards the side rail at Stage 10, and then use the slots in the plate to position the roll so it just touches the outside edge of the upright leg. (See photo).
- C) Set Large Top 45° Angle Roll Assembly by loosening the hex head bolts in the ends of the T10 angle blocks, then positioning the roll by adjusting the spring screw so that the roll rests in the inside corner of the male leg. Then tighten hex head bolts. (see photo).

SHEAR

- A) The shear should be kept lubricated to prevent rust. If in the event that the shear does not make a clean cut or does not cut across the entire sheet, simply tighten the pivot locking bolt. The shear should give thousands of clean cuts and if necessary can be sharpened locally for short down time.

GENERAL SPECIFICATIONS AND MAINTENANCE

Material capacities - 24 gauge steel (painted or not) A-B-C grade
.024 - .032 aluminum (20,000 KSI)
12 - 20 oz. copper (half hard)

Material with flat stock 12 - 28 1/2.

(A seam height of 1" uses 3" of width and a seam of 1.5" uses 4" of material).

Hexagonal shafts must be kept clean. **DO NOT** use **OIL OR GREASE** on these shafts. This will attract dust and grit which will stick and cause wear. Simply wipe the shafts clean and apply a **SILICONE SPRAY LUBRICANT**.

Galvanized steel and some other coated sheet may leave a deposit on the stainless steel forming rolls. If this is a problem, it may be prevented by applying a light coating of "GALV-OFF" (a product of the Lock former Corp.) on the **STEEL PORTION OF THE FORMING ROLLS ONLY**. should a deposit build up it can be removed using a fine abrasive cloth, such as "SCOTCHBRITE" made by the 3M Company.

To clean the **RUBBER ROLLS** use a **DEGREASING SOLVENT** and a clean cloth. Do not attempt to clean rolls while the machine is plugged in. The material chosen to roll form is very important to the quality of the finished panel.

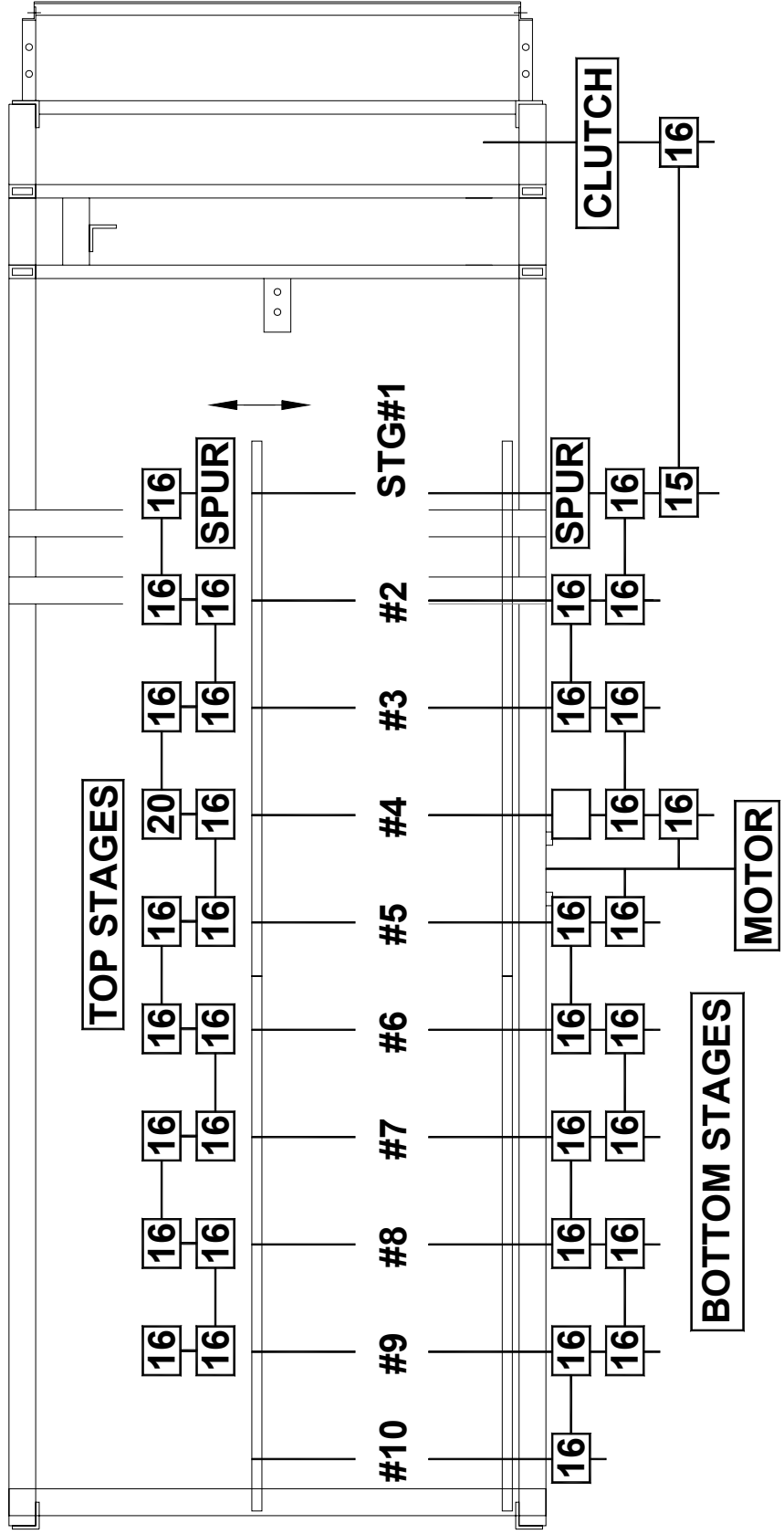
It is very important that your material has a constant width, if it is not even, you will get uneven edges on your panels.

It is normal to get a small amount of edge flair at the beginning and end of the panel. This is normal and does not affect the seaming or appearance of the finished job.

The installation of your panels is the most important aspect of your job. The underlayment and overall flatness of the roof deck will be the greatest factor in determining the overall flatness of the metal roof.

If your edges gradually gain or lose material over the length of the sheet, your entrance guides may not be set parallel to the forming rolls. What you lose on one edge, you will gain on the other. To compensate, move the left rear guide "C" toward the side that loses the material, about .050. Adjust the guide back over the edge of the material. Run another panel and check the legs again. More or less adjustment may be needed.

VS-150 SPUR GEAR AND SPROCKET LAYOUT
30 MARCH 00



When transporting the machine, transport with a piece of material in the machine and put the shear in the down position.

Keep machine out of rain and dampness if possible.

Lubricate any area of the machine that shows any signs of rust.

VERY IMPORTANT

Disconnect all power before removing any covers on the machine.

Disconnect all power before servicing and adjusting the machinery.

Do not operate the machine at any time with the covers removed.

STANDARD EQUIPMENT WARRANTY

Roll Former Corporation warrants to the original purchaser that the equipment is free from defects in material and workmanship in normal use and service. Normal use and service does not extend to defects from mishandling, tampering or modifying the equipment.

The term of this warranty is for a period of ***ninety (90) days for the Seamer and three hundred and sixty five (365) days/one year (1) for all other Roll Forming Equipment from the date of the receipt of the equipment to the original purchaser.*** Roll Former Corporation shall repair or replace the defective parts at their place of business without charge to the original purchaser of the equipment.

The equipment subject to this warranty must first be returned to Roll Former Corporation with freight charges prepaid, which after examination by Roll Former Corporation shall disclose to its satisfaction to have been defective. Roll Former Corporation shall correct the defect and ship the prepaid equipment to the location of the purchaser's facility within the continental United States.

The foregoing warranties are in lieu of all other warranties expressed or implied, and of all obligation or liabilities on the part of Roll Former Corporation for breach of warranty.

Roll Former Corporation's sole liability for any breach of warranty shall be limited to the repair or replacement of any defective parts in the accordance with the above.

Roll Former Corporation's warranty does not extend to equipment that has been used under a lease or rental agreement from the original purchaser.

CUSTOM EQUIPMENT - WARRANTY AND LIABILITY

Roll Former Corporation's liability for custom equipment prior to acceptance, is the amount of deposit from the customer. Roll Former warrants, after acceptance, all custom equipment for a period of three hundred and sixty five (365) days/one year (1) from the date of the receipt of the equipment to the original purchaser that the equipment is free from defects in material and workmanship in normal use and service.

The equipment subject to this warranty must first be returned to Roll Former Corporation with freight charges prepaid, which after examination by Roll Former Corporation shall disclose to its satisfaction to have been defective. Roll Former Corporation shall correct the defect and ship the prepaid equipment to the location of the purchaser's facility within the continental United States.

The foregoing warranties are in lieu of all other warranties expressed or implied, and of all obligation or liabilities on the part of Roll Former Corporation for breach of warranty.

Roll Former Corporation's sole liability for any breach of warranty shall be limited to the repair or replacement of any defective parts in the accordance with the above.

Warranty will not be available if any of the following occurs:

1. Mishandling - tampering or modifying equipment.
2. Leasing or renting equipment.