

ERICO CU-BOND Round Conductor Powered Straightening Tool CBSCSSM, CBSCSSMT



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WARNING:

1. Pentair products shall be installed and used only as indicated in Pentair product instruction sheets and training materials. Instruction sheets are available at www.erico.pentair.com and from your Pentair customer service representative.
2. Pentair products must never be used for a purpose other than the purpose for which they were designed or in a manner that exceeds specified load ratings.
3. All instructions must be completely followed to ensure proper and safe installation and performance.
4. Improper installation, misuse, misapplication or other failure to completely follow Pentair's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.

SAFETY INSTRUCTIONS: All governing codes and regulations and those required by the job site must be observed. Always use appropriate safety equipment such as eye protection, hard hat, and gloves as appropriate to the application.

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General Information

The CBSCSSM straightener operates on a 220-240V power supply. The CBSCSSMT version of the machine also includes an additional transformer that allows for operation on 110-120V.

The machine is designed to straighten the following ERICO CU-BOND Round Conductor products:

- CBSC8 (8mm diameter)
- CBSC10 (10mm diameter)
- CBSC13 (13mm diameter)

For each ERICO CU-BOND Round Conductor size, there are interchangeable drive rollers.

The system is divided into 4 main components:

- Uncoiler
- Drive rollers
- Horizontal plane straightener
- Vertical plane straightener



Uncoiler

Drive rollers

Horizontal plane
straightener

Vertical plane
straightener

INSTRUCTION SHEET

Both the uncoiler and straightening machine have handles which can be raised and pinned in place as shown. Equipment can then be moved manually:



Note: It is recommended that the handles be pinned in place to avoid tipping while moving.

If a forklift or other similar equipment is available, the straightening machine can be securely lifted by sliding the forks between the crossbars as shown:

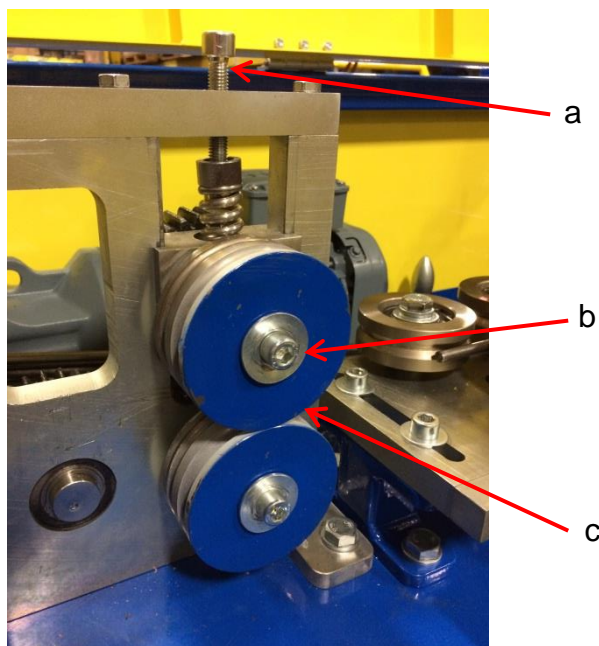


Additionally, the straightening machine can be lifted with a crane by using a crane pallet lifter and chains to secure it in place.

Setup

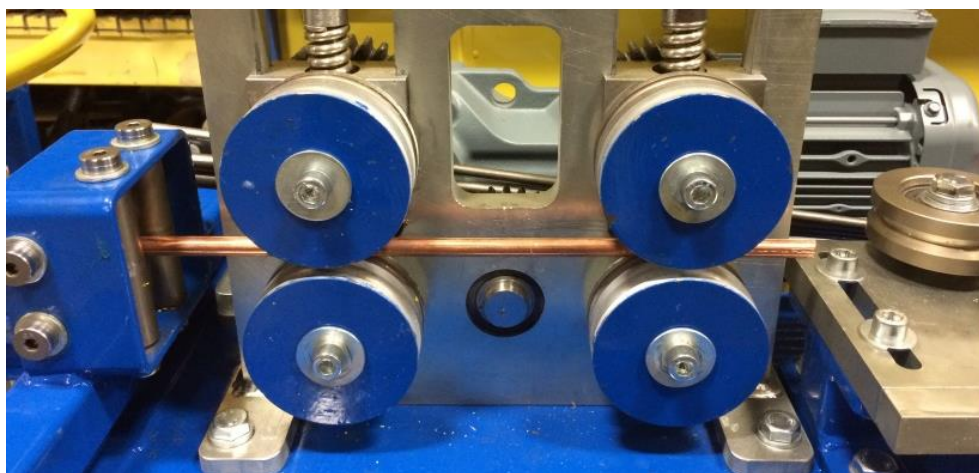
Drive Rollers

1. Depending on the ERICO CU-BOND Round Conductor size, select the correct drive rollers by color:
 - CBSC8 → Blue
 - CBSC10 → White
 - CBSC13 → Red
2. Loosen the 2 pressure screws (a) using the included hex wrench
3. Loosen and remove the 4 drive roll screws (b)
4. Mount the 4 correct drive rolls (c)
5. Tighten the 4 drive roll screws (b)



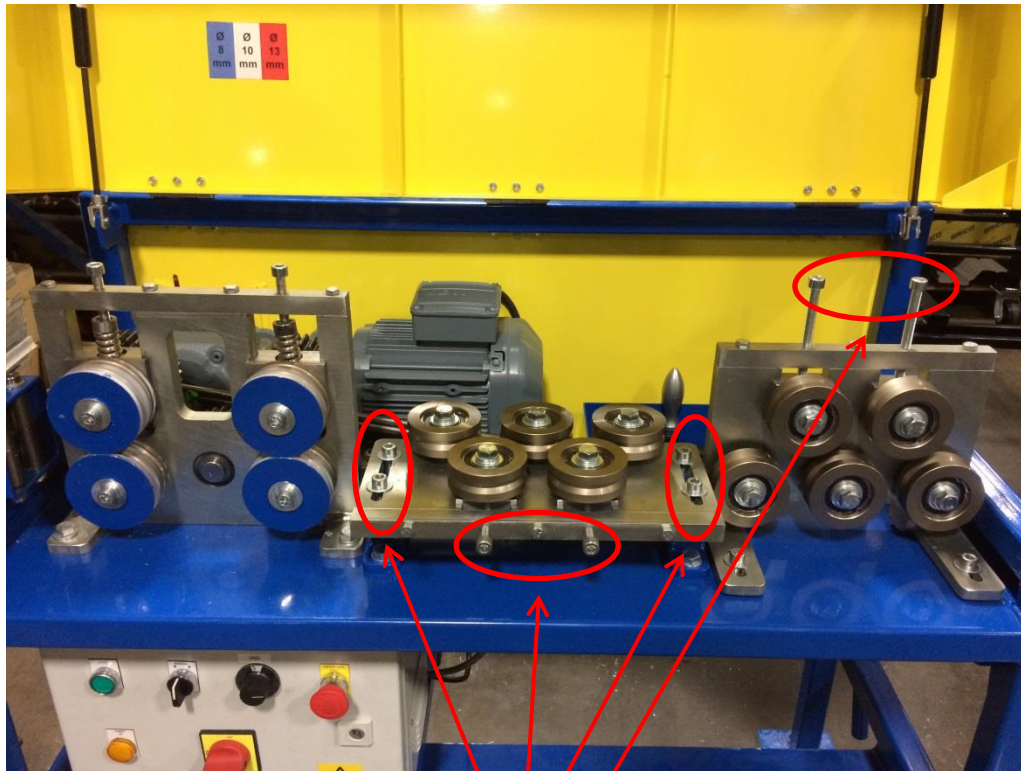
Note:

On the multi-grooved drive rollers, material passes through the groove closest to the back of the machine as shown:



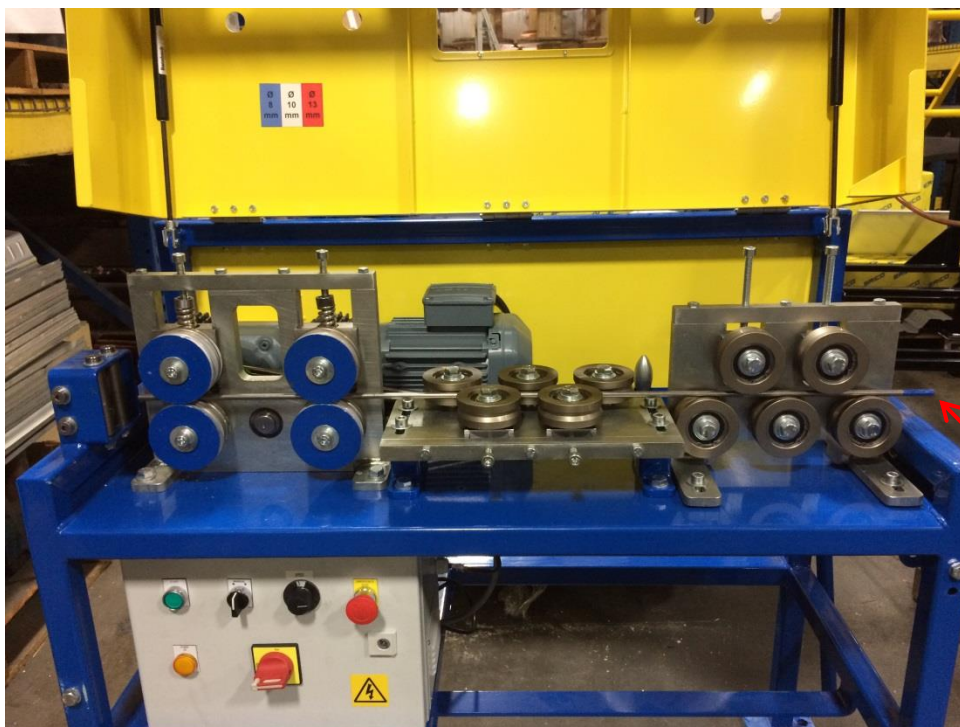
Plane Straighteners

1. Loosen the 8 screws shown below:



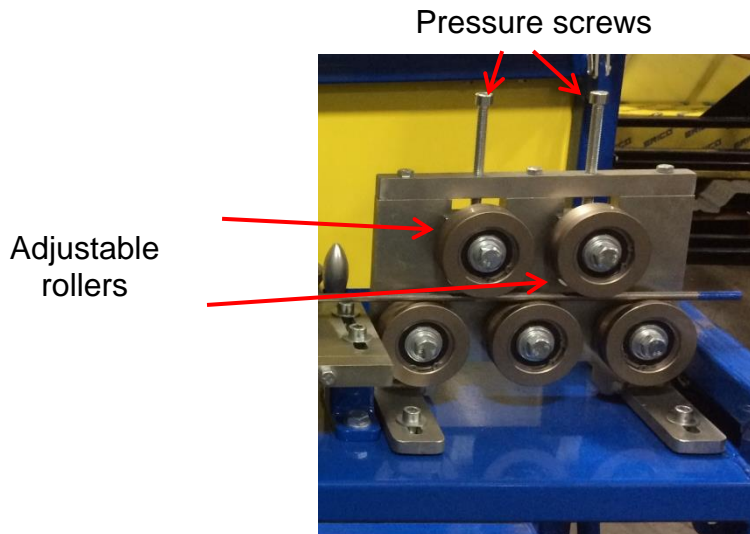
Screws

2. Insert the correct color-coded adjustment bar through the plane straighteners and align with the groove of the drive rollers as shown below. **Note: Adjustment bars have the same color code as the drive rollers.**

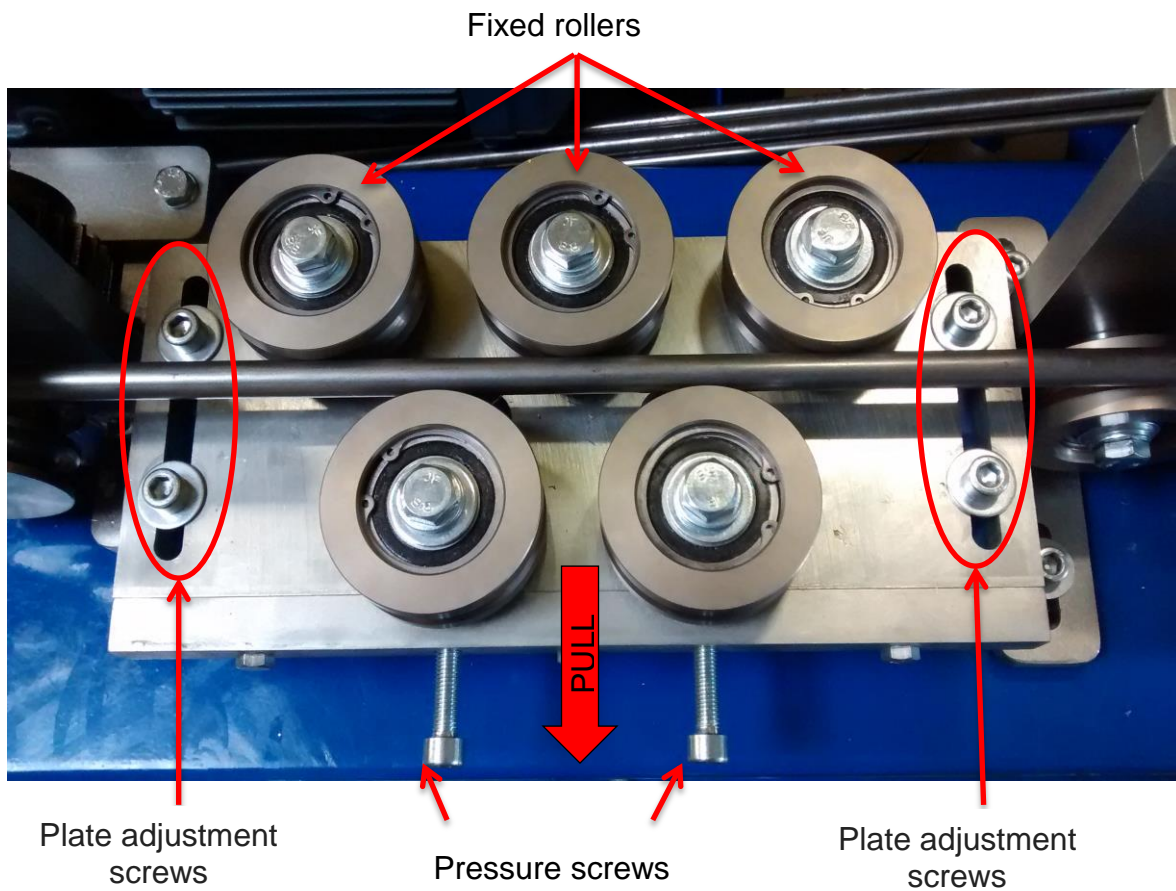


Adjustment bar

3. Tighten the 2 pressure screws on the vertical plane straightener to tighten the adjustable rollers down on the adjustment bar



4. Pull the horizontal plane straightener so that all 3 fixed rollers are in contact with the adjustment bar. Tighten down on the 2 pressure screws so that both adjustable rollers are also in contact with the adjustment bar.
5. Tighten down the 4 plate adjustment screws and remove the adjustment bar.



Uncoiler

In order to achieve consistent and precise straightening results, the machine comes with a horizontal uncoiler. Before using the uncoiler, fix it to the straightening machine by securing the 2 fixing arms as shown:



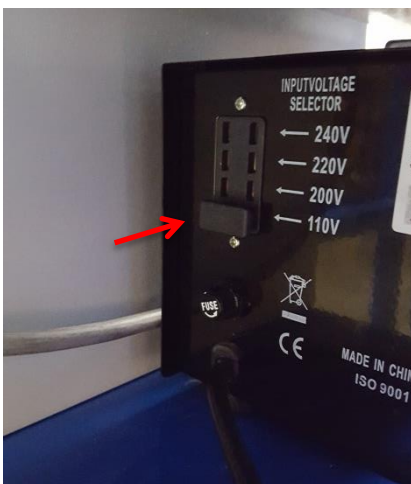
Note:

Ensure that the machine and uncoiler are stable on the ground. If this is not the case, use the holes in the feet to fix them to the ground.

User Guide

The CBSCSSM straightener operates on a 220-240V power supply.

The CBSCSSMT version of the machine also includes an additional transformer that allows for operation on 110-120V as shown:



1. Select 110V input using the selector
2. Plug straightener into the 240V output plug
3. Use 110V plug on the other side of the transformer

The straightener has 2 operating modes:

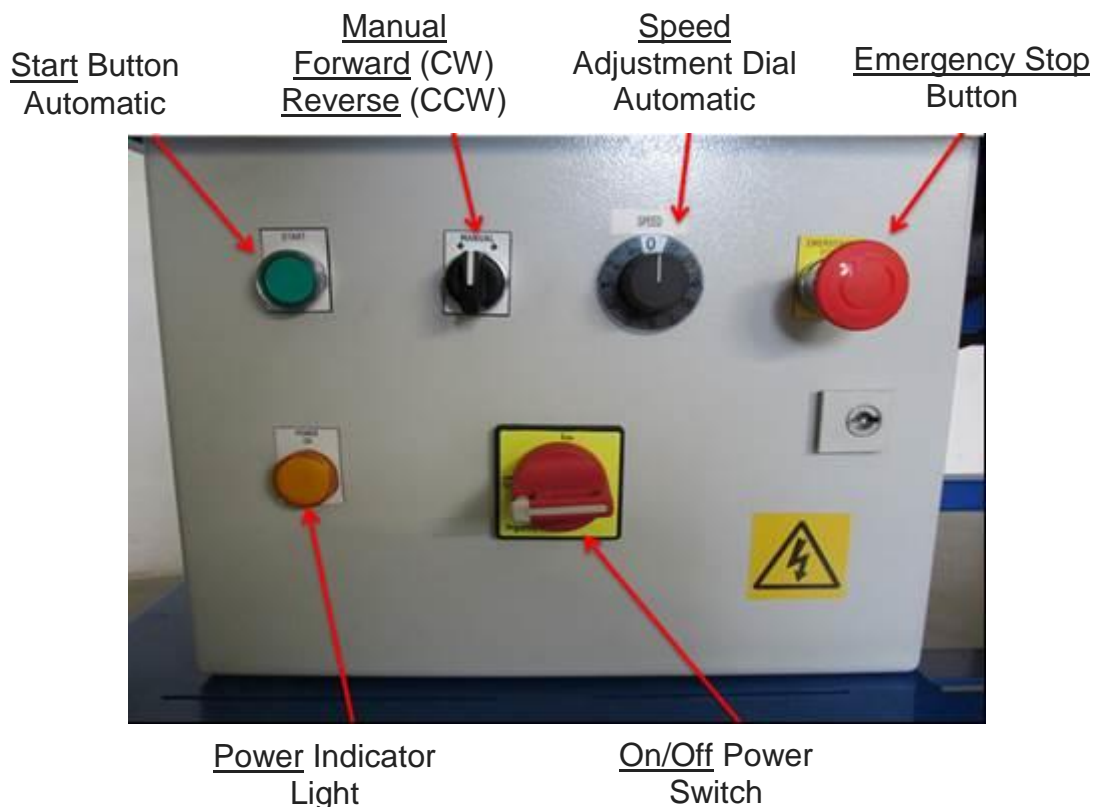
- Automatic: Only when the safety enclosure is closed
 - Plug straightener into power supply
 - Set the power switch to On (Power indicator light will turn on)
 - Set the Speed adjustment dial anywhere between 1-10 (will not move at 0)
 - Press the Start button to begin automatic operation. Speed can be adjusted at any time by turning the Speed adjustment dial.
 - Turn Speed adjustment dial to 0 to stop operation.

Note: If machine will not start, turn speed dial all the way to 10 and press Start

- Manual: Only when the enclosure is open
 - Plug straightener into power supply
 - Set the power switch to On (Power indicator light will turn on)
 - Turn and hold the Manual switch clockwise for manual Forward operation and counterclockwise for manual Reverse operation

Note: Manual mode is useful for setting up ERICO CU-BOND Round Conductor in the drive rollers and for passing it through the plane straighteners the first time through the machine.

Note: Machine can be stopped at any time by hitting the Emergency Stop button



Operation Instructions

1. Place an ERICO CU-BOND Round Conductor coil on the uncoiler. Extend the 4 retractable stops to ensure the material stays on the uncoiler during operation:



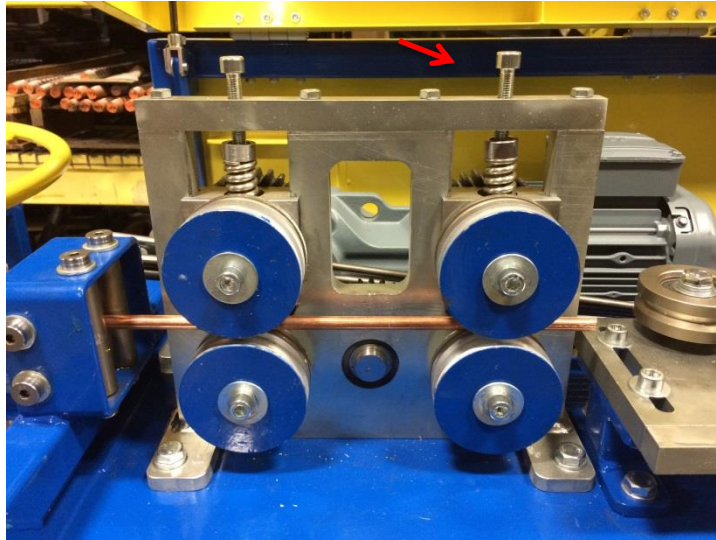
2. Straighten the first 2-3 ft. (0.6-0.9 m) of material using the manual straightening bar:



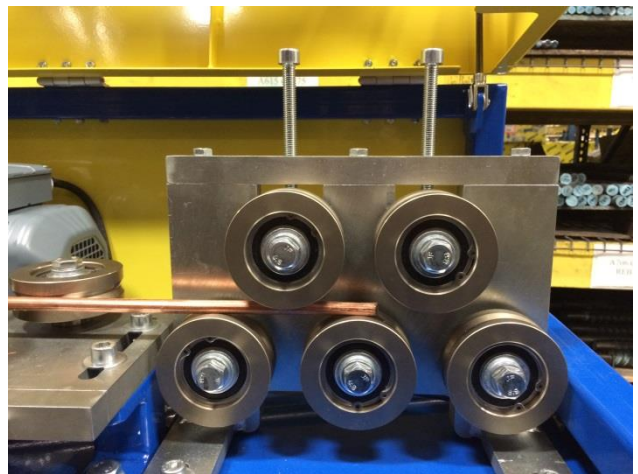
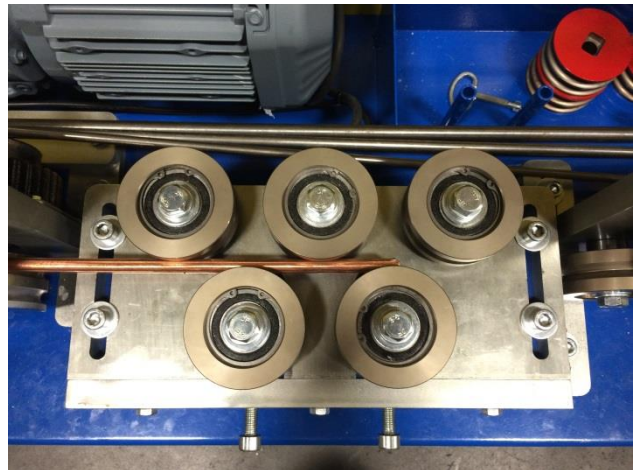
3. Insert the manually straightened end of the coil into the first set of drive rollers and tighten down on the first pressure screw:



4. Use the Manual operation mode to feed the material Forward into the second set of drive rollers and then tighten down on the second pressure screw:

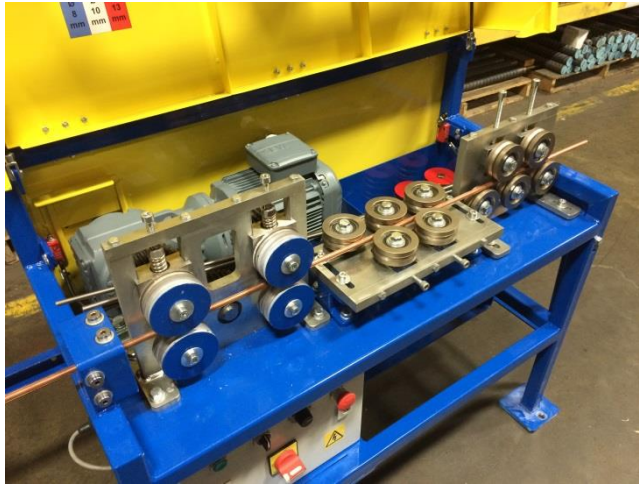


5. Continue using the Manual operation mode to feed the material through the plane straighteners:



Note: If the motor begins to stall, stop operation and loosen the pressure screw for the adjustable roller that is too tight on the material. Resume operation.

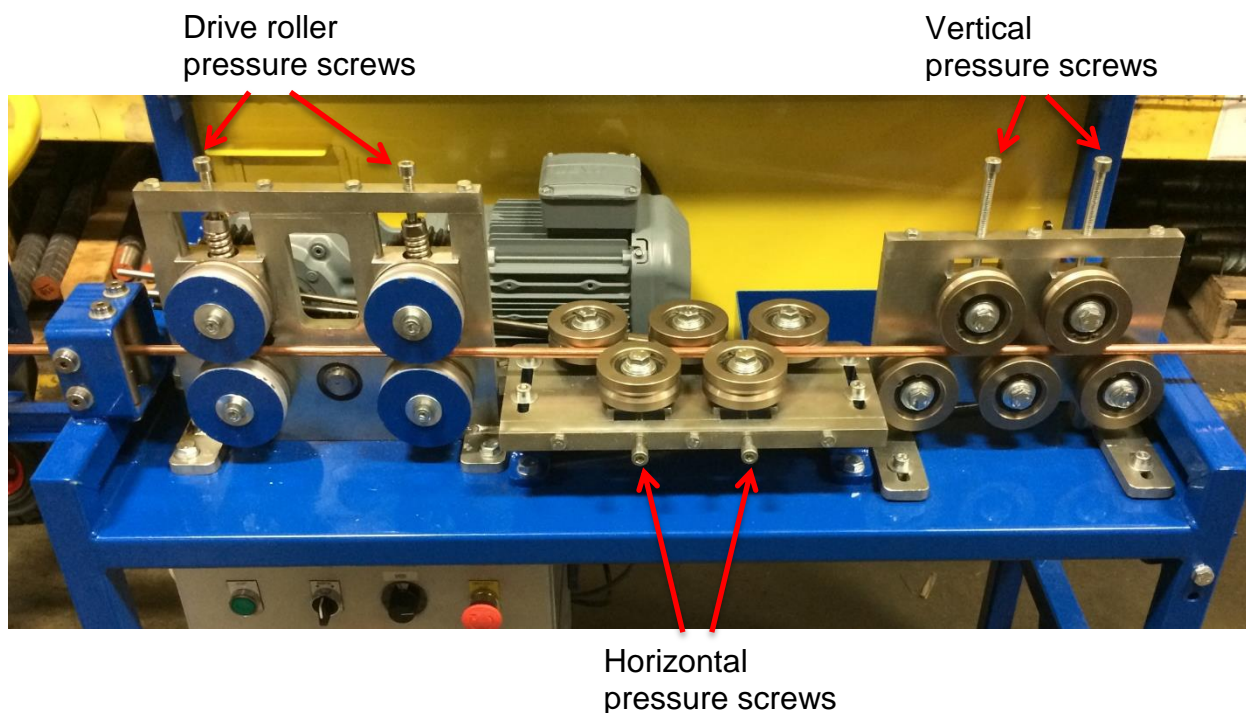
6. Once material has been passed through all of the rollers, close the safety cover and press Start to begin automatic operation:



Note: If the safety enclosure is opened at any time during automatic operation, the machine will stop.

Straightening Guidelines

If the current settings are not giving desirable straightness results, follow the general guidelines outlined in the table below:



Problem	Solution
Material is <i>curling upwards</i> when it comes out of the machine.	Loosen the vertical pressure screws.
Material is <i>curling downwards</i> when it comes out of the machine.	Tighten the vertical pressure screws.
Material is <i>curling towards the operator</i> when it comes out of the machine.	Loosen the horizontal pressure screws.
Material is <i>curling away from the operator</i> when it comes out of the machine.	Tighten the horizontal pressure screws.
Material comes out of the machine with <i>damage to the copper coating</i> .	Loosen up slightly on the drive roller pressure screws. Note: Loosening them excessively will cause the rollers to slip on the material.