



Machine Model	PF-10 PREFEEDER	Owners Manual		
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SAFETY WARNINGS



- **Do not operate the PF-10 with out all guards and electrical safety devices in place and functioning properly.**
- **Do not attempt to lift heavy reels of material on to the PF-10. Use the power lift feature to avoid injury.**
- **Avoid contact with material as it transfers to the cutting machine.**
- **Insure the guard support system is working properly before stepping under the guard.**

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PF-10 SPECIFICATIONS

Spool Specifications for standard PF-10

Maximum spool weight 2500 Lbs (1134Kg)

Maximum spool flange diameter 48 inches (1220mm)

Maximum spool width 38 inches (965mm)

Electrical Specifications

220VAC 50/60hz 3 Phase 25 amps per circuit.

Wire Diameter

Wire diameter up to approximately 1.6 inches (40.7mm)

Payout Rate

Adjustable up to 2M/Sec (394Ft./Min)

Mechanical

Guard closed

Height 58" (1473mm)

Length 126" (3200mm)

Depth 57" (1448mm)

Guard open

Height 96" (2438mm)

Length 136" (3454mm)

Depth 57" (1448mm)

Guard opening Height 74" (1905mm)

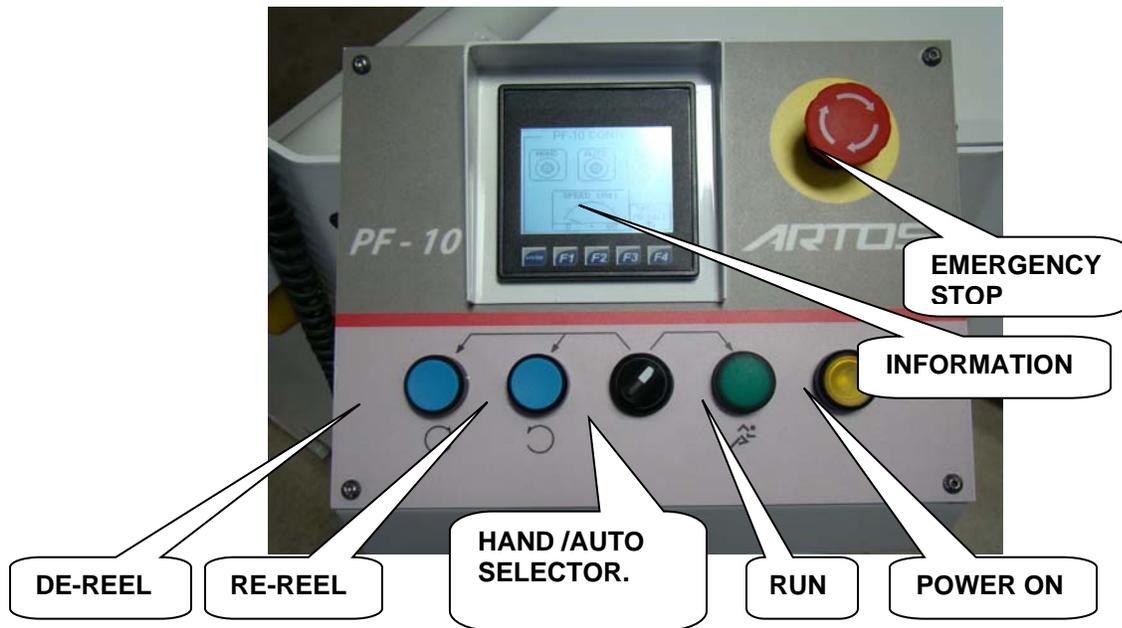
OPERATIONAL PUSH BUTTON CONTROLS

The operation controls of the **PF-10** are simple and convenient. No heavy lifting or pulling is required. The **PF-10** has a power lift to raise the reels off the floor for loading and setting it down to unload.

After the material is loaded, the **PF-10** has a power out feed feature to slowly de-reel material to allow you to route it thru the **PF-10** and into the cutting machine.

When the production run is complete, the **PF-10** can re-reel the material, after which you can lower it to the floor and exchange reels.

OPERATORS CONTROL PANEL



PUSH BUTTONS

POWER ON: Depressing this button will energize the controls. The button will be lighted when power is on

EMERGENCY STOP: Depressing this button will remove all power from the machine controls. It will latch off when depressed. Rotate CCW to release. **DO NOT PULL.**

AUTO; When this pilot light is illuminated the **PF-10** is ready to respond to the Cutting machines demand for material.

RUN: When the green "RUN light is on, this indicates the **PF-10** Is ready to run and has been enabled by the cutting machine.

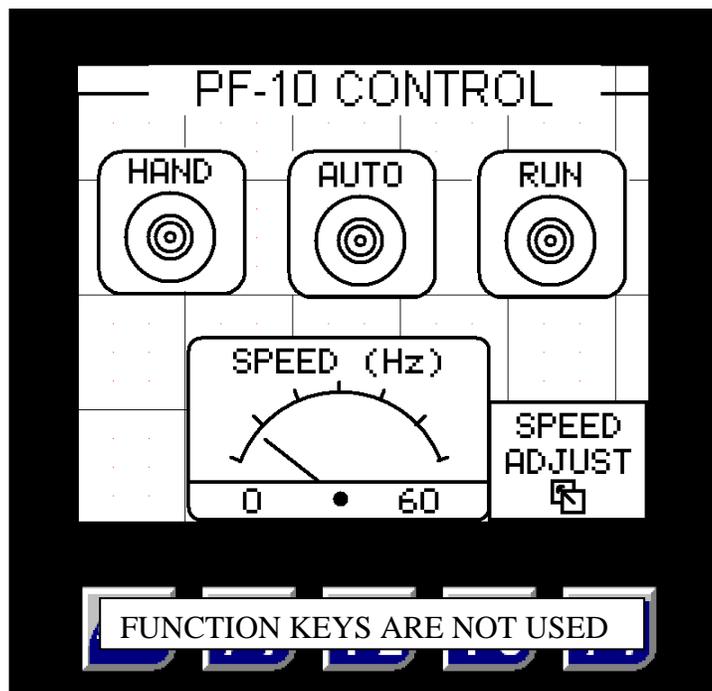
HAND (LOAD, UNLOAD), AUTO SELECTOR: Selects between the Load/Unload functions and Auto Run function.

DE-REEL: Rotates the reel to pay off wire allowing it to be feed in to the cutting machine.

RE-REEL: After the run is complete, this rotates the reel backward to wind un-needed wire back on the reel.

INFORMATION

The information screen displays machine operation functions and warnings.



The Mode indicators will be highlighted dependent on the Mode selected.

- HAND will highlight if the selector is in the HAND position for loading and unloading.
- AUTO will highlight if the selector is in the AUTO position and ready to run.
- RUN will highlight when the selector is in the AUTO position and the cutting machine as enabled the **PF-10**
- SPEED indicates the relative max speed setting. This can be adjusted by touching **SPEED ADJUST**. (this will be explained in “Speed Settings”)

CUTTING MACHINE INTERFACE.

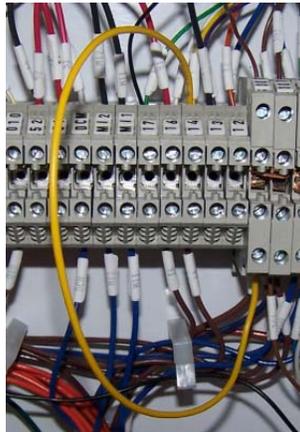
When using the **PF-10** with an Artos CS 326 or CS 327 the two machines are interfaced.

If the E-stop is set on either machine neither will run. Therefore anything causing an Emergency stop condition on either machine will stop both machine immediately.

When the CS 326 or CS 327 is ready to run, in Power On/ Master Start, they will provide an enable circuit to the **PF-10**. This will allow the PF-10 to deliver material upon command. This is indicated by the illuminated **RUN** light..

An additional feature on the CS 327 is the end of reel slow down. When the wire run out on the **PF-10** is deactivated it will signal the CS 327 to go into a slow feed rate allowing it to use up the remaining wire. When that is gone, the CS 327 will shut down along with the **PF-10**.

On older Artos and Non Artos machine, the **PF-10** will run in a stand-alone mode and supply wire when the cutting machine demands it by virtue of the feed. A jumper in the control panel between I 14 and 311 is required.



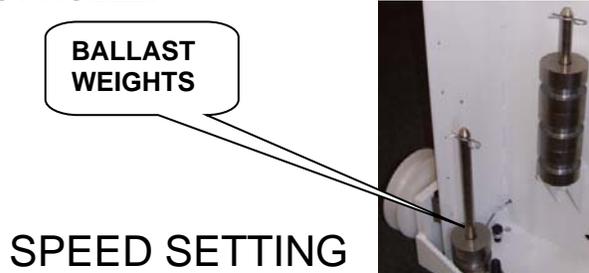
OPERATION (FEEDING)

The **PF-10** pays out material based on the demand of the cutting machine. As the cutting machine demands material, the **OUTPUT ROLLER** of the **PF-10** will rise. As this rises the pay out will begin. As it get higher the pay out gets faster. The ultimate speed is determined by the “**SPEED SETTING**”. See below.

To get the optimum performance from your PF-10 and cutting machine combination it is best to star with both machines set to a slow speed with a minimum acceleration / deceleration factor. Increase these setting until your desired results are reached..

Ideally, settings that produce a smooth feed without the **OUTPUT ROLLER** reaching either the top or bottom extremes is desirable. If the **OUTPUT ROLLER** reaches the extreme top of its travel, the **PF-10** will stop and display “**WIRE JAM**” on the screen. If it drops to the bottom, the pay out will stop until the cutting machine demands more material.

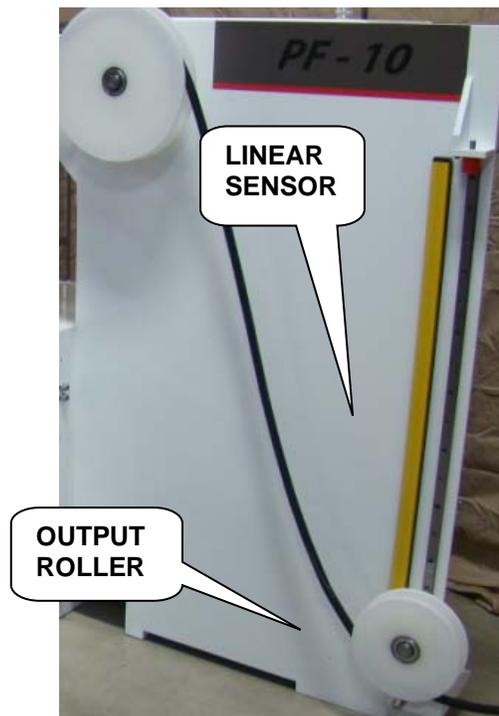
Ballast weights can be added to the **OUTPUT ROLLER** to help overcome stiffer material that does not conform to the **OUTPUT ROLLER**



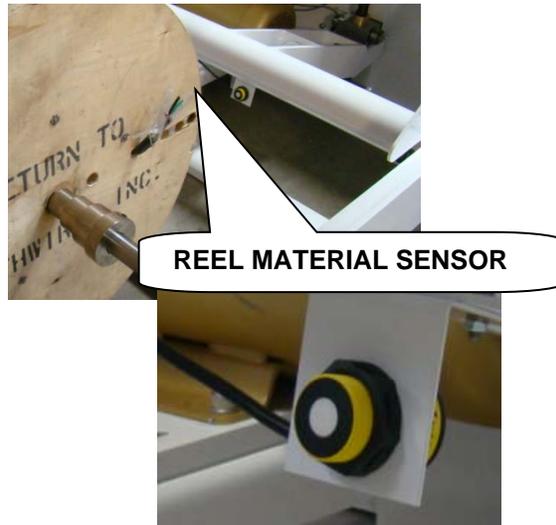
The Pay-out speed of the **PF-10** is a variable based on several characteristics. The first is the base max speed setting.

The base feed rate is controlled by several factors.

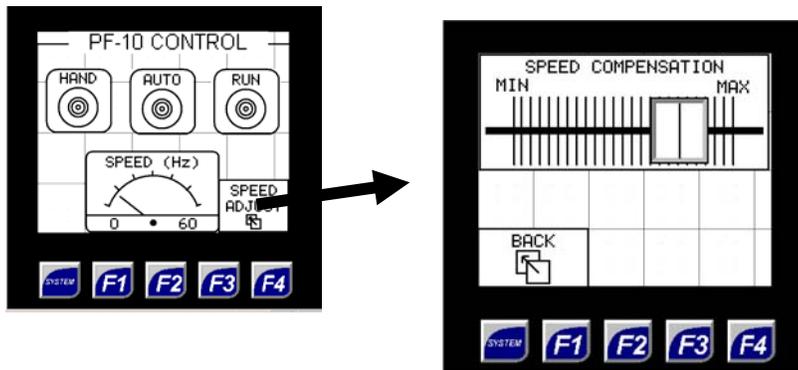
- First is the rate at which the cutting machine demands cable. As material is pulled from the **PF-10** the linear sensor will monitor the rise of the output roller. As the roller rises the reel of cable will turn faster. The ideal position for this roller is about 50 to 80% of the maximum vertical travel.



- Second is the reel diameter. A sensor will speed up the reel rotation as the material on the reel decreases.



- The third is the setting of the base speed itself.



When “Speed Adjust” is touched on the Information screen the “Speed Compensation” Screen will appear. This will allow the adjustment of the base speed down from or back up to the “Max”.speed by dragging the cursor with your finger. This will help you acquire the optimum speed for your application. Touch “Back” to return to the main screen.

MESSAGES AND ERRORS

- **GUARD OPEN!**



Reel guard is open. Close to proceed.

- **PREFEEDER TIMEOUT!**



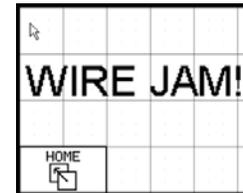
Prefeeder has set idle for more than 10 min. Press **Power On** to proceed.

- **E-STOP!**



E-Stop switch is depressed. Rotate clockwise to proceed

- **WIRE JAM!**



Material from the reel has been obstructed. Correct problem to proceed.

- **WIRE RUN OUT!**



Material has run out. Reload new supply to proceed.

- **SAFETY RELAY FAULT!**



The control has detected a safety fault. Contact your maintenance dept. or call Artos Service.Dept.



LOADING THE REEL ON THE PF-10

Caution: Do not try to lift the reel into the PF-10. Personal injury may occur.

The reel of material; is mounted on a reel shaft. The shaft has stepped collars to help match the hole size in the reel. It also has a drive pin to engage the reel for turning. If the reel does not have a hole, or proper size hole to accept the drive pin one will have to be drilled. Location of the hole is not important as long as it is within the radius of the pins reach.

Open the guard.

Caution: When lifting the guard there will be a point where it will lift itself (approx. 12' /300mm). Do not get your fingers caught in the guard mesh.

Positioned the reel about center of the reel shaft so the diameter sensor will work properly.



STEP COLLARS



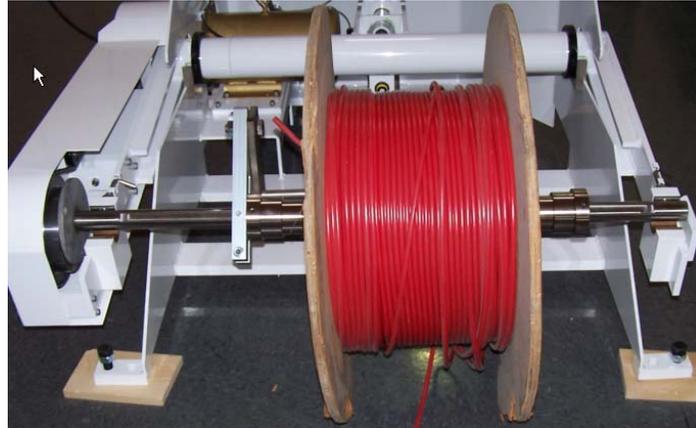
DRIVE PIN

With the reel shaft drive hub on the left, the wire must come off the top of the reel to feed into the **PF-10**

Position the reel at the arms of the **PF-10**. Take note of the drive hub of the shaft. The hub must go in between the bearing and the hub drive.

Lower or raise the arms as needed so the reel shaft can roll in over the bearings with a minimum of clearance.

When rolling the reel and shaft into place, take note of the drive hub of the shaft. The hub must go in between the bearing and the hub drive.

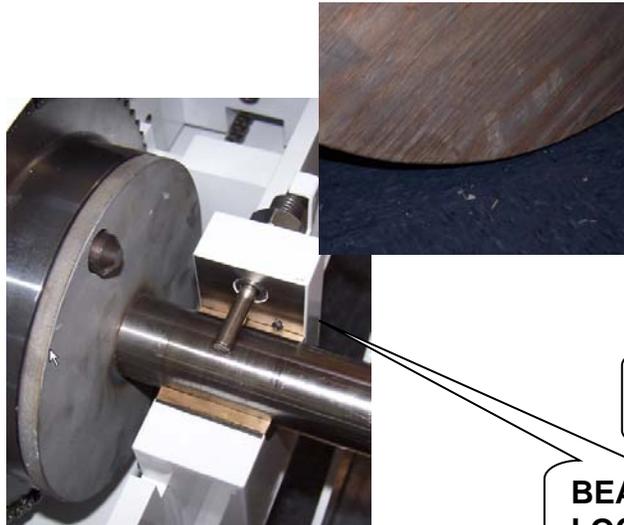


Raise the arm until the shaft drops into the bearings and the reel lifts off the floor.



REEL ARM UP

Insert and latch the bearing lock pins. Rotate the reel to make sure it is clear of the floor all the way around.



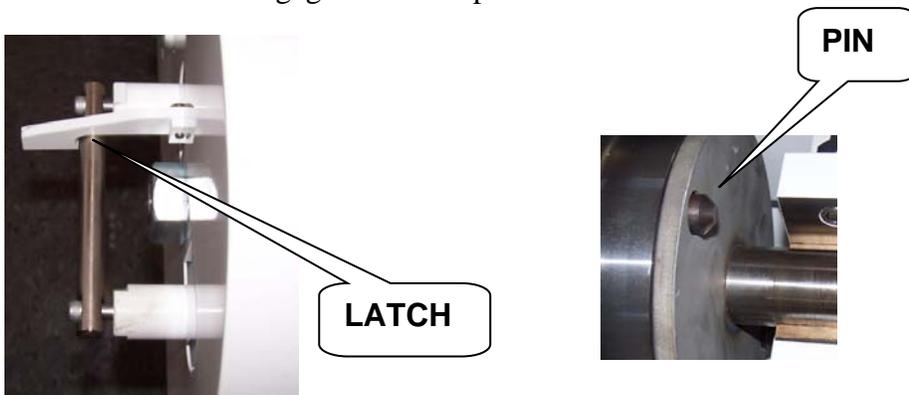
OFF FLOOR

BEARING LOCK PIN

Reel off 6-8ft. of wire. Pass it over the reel and lay it next to the control.

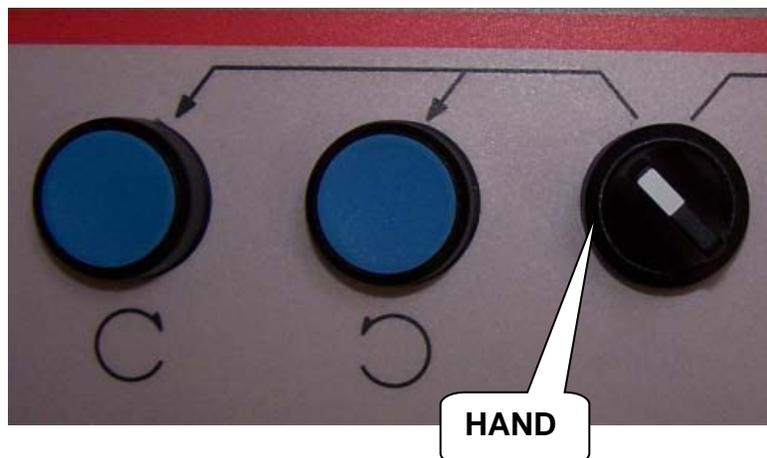


Engage drive hub pins and latch.



Close the guard.

Switch the selector switch to the Hand position (CCW) release the E-Stop. Press Power On button.



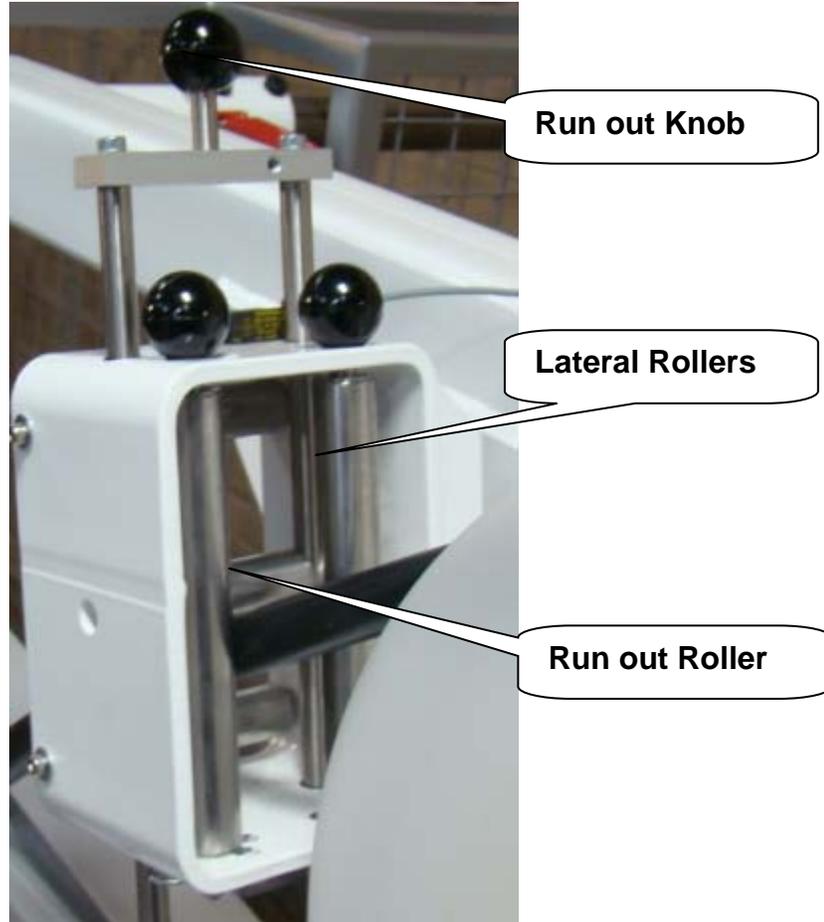
THREADING THE WIRE.

Pass the end of the wire through the wire run out sensor and over the upper guide roller.

When loading the wire, lift the wire run-out knob so the wire passes under the wire run-out roller.

DO NOT run the wire over the top of the roller.
The **PF-10** will not run.

The vertical rollers can be adjusted to minimize the lateral motion of the wire as it enters the upper guide roller.



Using the De-reel button, de-reel enough material to get to and thread the cutting machine.



De-reel

Pass the wire under the output roller and into the cutting machine. De-reel more wire if needed. The output roller should stay at the bottom of its travel until the **PF-10** is ready to run.

Re-reel the wire as needed to take up slack.



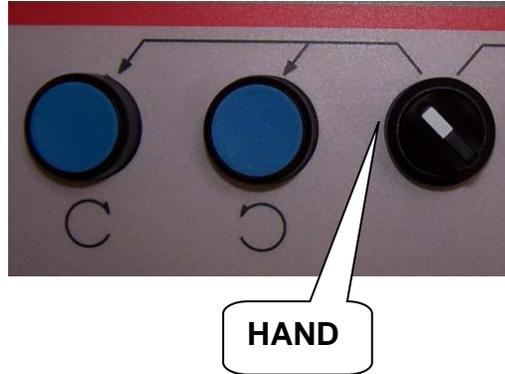
Re-reel



UNLOADING THE REEL

CAUTION: Failure to follow these steps may result in damage to the PF-10

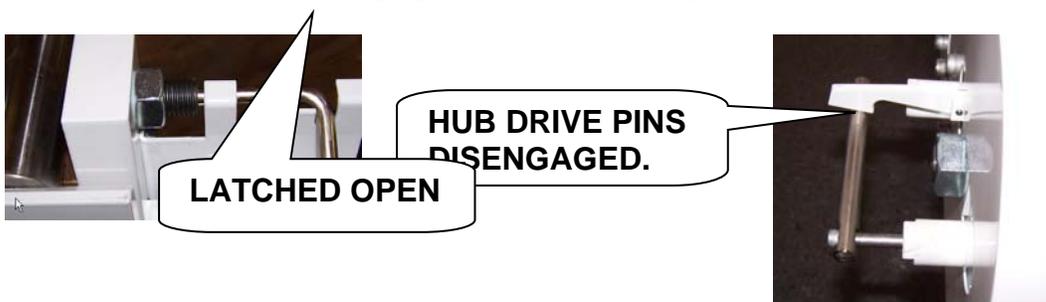
1. Release the material from the cutting machine.
2. Switch the selector to "HAND"



3. Using the Re-reel button, rewind the unused material on to the reel.



4. Raise the guard and retract the bearing lock pins. Latch them in the open position. Disengage the hub drive pins.

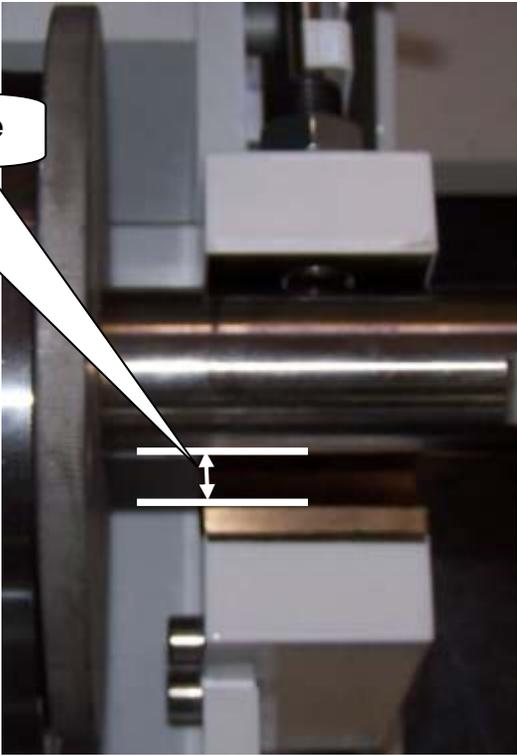


5. Lower the Reel arm until the reel is on the floor and the reel shaft clears the bearings. Roll the reel out.



Removal Clearance

REEL ARM DOWN



Caution: Do not try to lift the reel out of the PF-10. Personal injury may occur.

MAINTENANCE

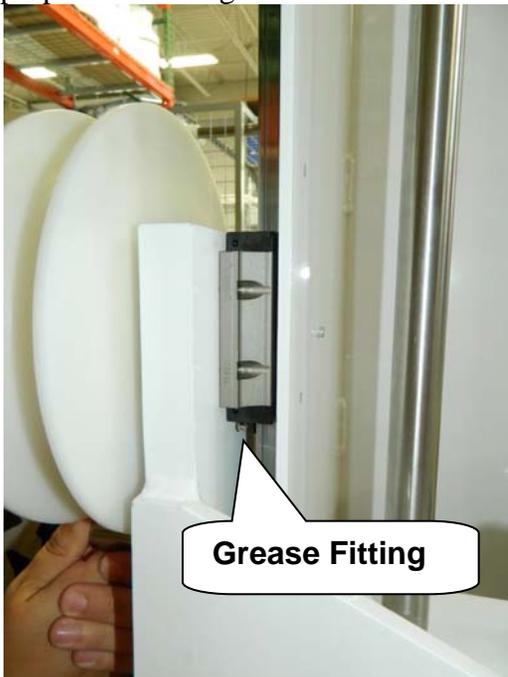
Lubrication

Maintenance of the PF-10 consists of a few points of lubrication. The grease required is a multi purpose chassis lubricant.

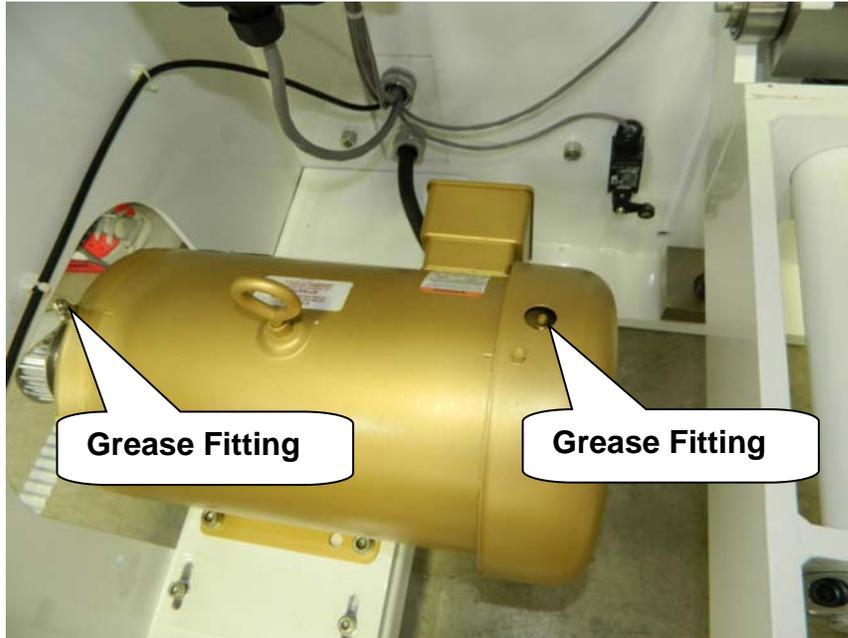
- Lube the shaft half bearings monthly or as needed based on usage. Wipe clean and apply a coating of oil SAE30, 10W-30, or 10W-40. Do not use grease, using grease will cause excessive bearing wear.



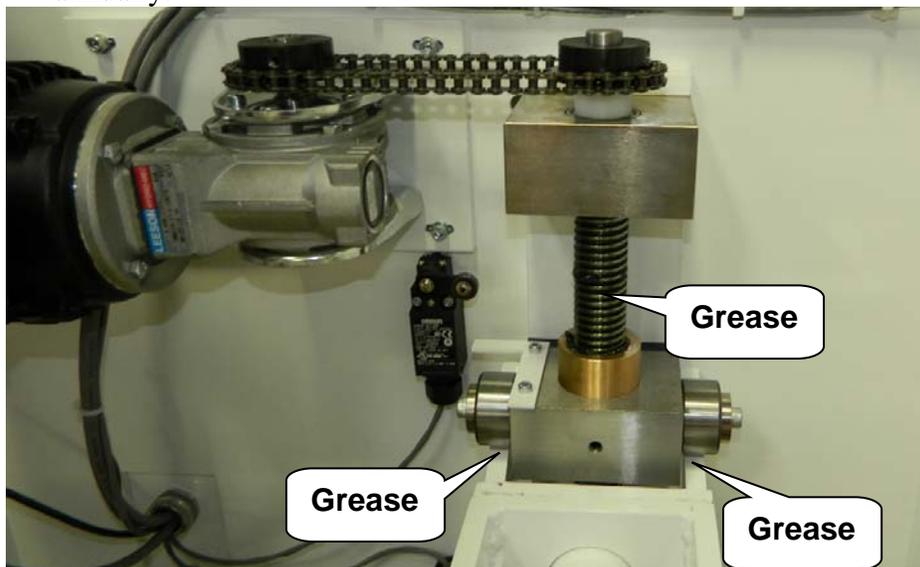
- Grease the fitting on the roller assembly semi-annually. Use part number 903-350 multi-purpose Lithium grease. Lubricate annually.



- Grease the motor every 12,000 hours of motor run time.
For an 8 hour day considering 70% duty cycle this would be every 8 years.
The recommended grease from the motor manufacturer is Polyrex EM (Exxon Mobil).
It is very critical not to use too much grease, the excess will damage the motor.
Grease to add to each grease fitting by weight - 0.19ounces (5.0) grams.
Grease to add to each grease fitting by volume - 0.3cubic inches 1.0 teaspoons.



- Grease lightly the outside of bearings on the lift assembly. Lubricate annually. Use part number 903-350 multi-purpose Lithium grease.
- Clean and replace with ball screw grease Artos part number 917-319 on the lift assembly annually.



- Verify that the drive chain is in good condition annually and repair if needed. Lubricate the chain with Aerosol type chain lubricant. Lubricate annually.

Examples:

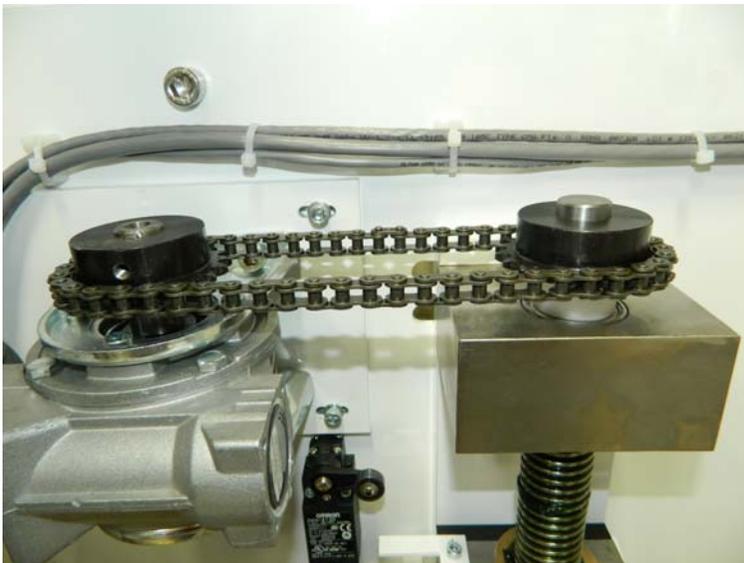
LPS – Chainmate chain and wire rope moly lubricant

Sprayon – Moly chain lubricant

CRC – TAC 2 adhesive chain lubricant



- Verify that the lift chain is in good condition and repair if needed. Use the same chain lubricant as used on the drive chain in the last step.



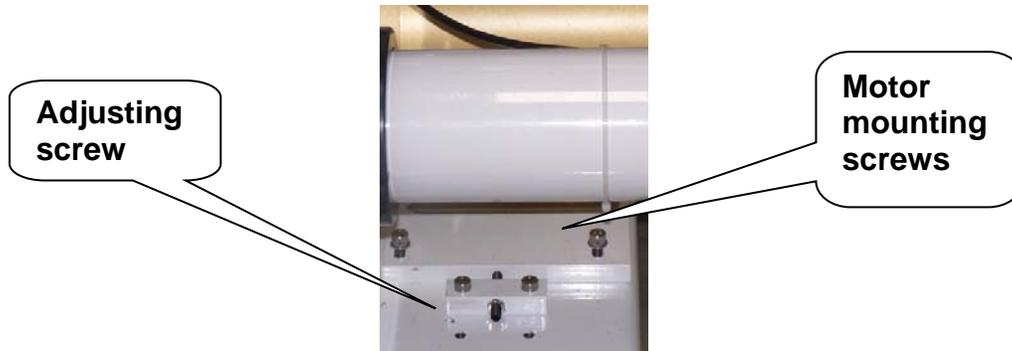
- Replace any guards or covers removed to gain access to areas to be checked and lubricated.

Belt and Chain Adjustments

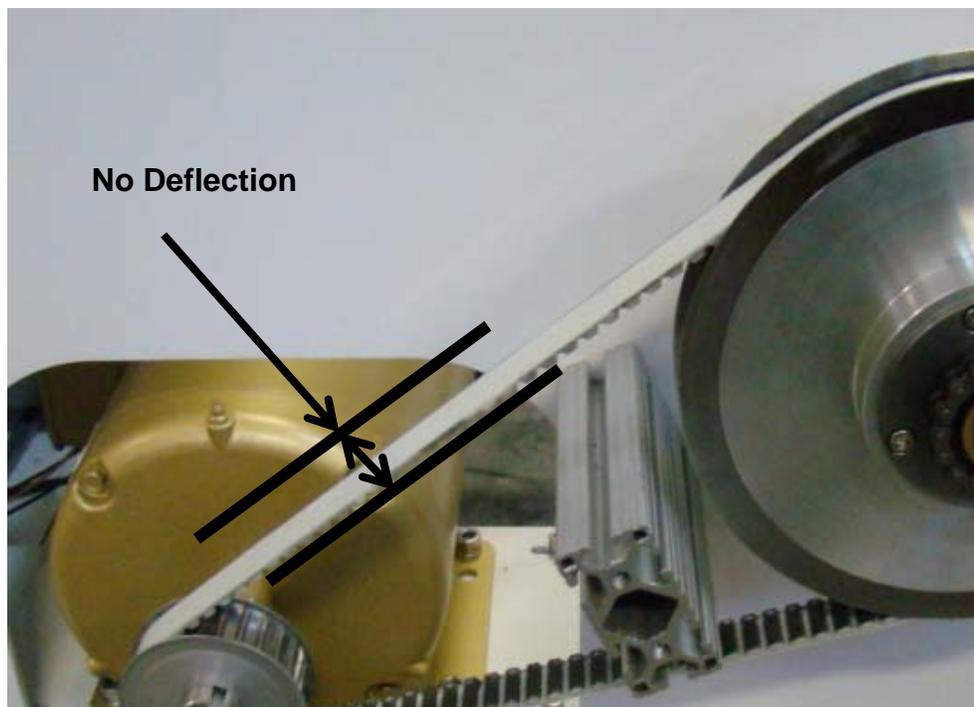
The de-reeler chain and belt should be checked every 6 months and adjusted as needed.

Belt adjustment

- Remove belt guard.
- To adjust the belt, loosen slightly the four motor mounting screws.



- Loosen the lock nut on the adjusting screw. Adjust the motor until the belt has no deflection and no preload (Stretching force).



- Tighten mounting screws and adjustment screw lock nut.
- Replace the guard.

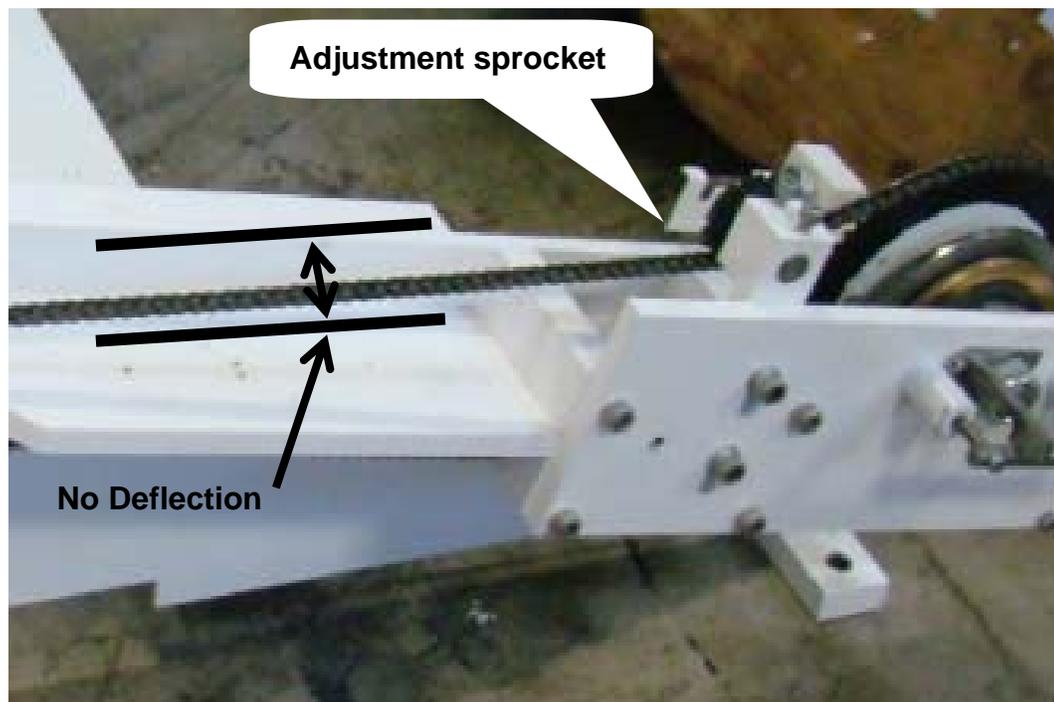
Chain Adjustment

- Remove chain guard.
- To adjust the chain, loosen slightly the adjustment sprocket mounting screws.



Adjustment sprocket screws

- Adjust the sprocket until the chain has no deflection and no preload (Stretching force).



- Tighten adjustment screw.
- Replace the guard.