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HydraFiber®
ADVANCED SUBSTRATE

HydraFiber® Processing Unit: User's Manual

AGRINOMIX®
MACHINE TOOLS FOR GROWERS

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customer: ..... date of order: / /

order no.: ..... delivery date: / /

milling / shredding: **A53040-600-000-001** serial number: ……..

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AGRINOMIX®
MACHINE TOOLS FOR GROWERS

MACHINE SPECIFICATIONS

Type : Milling / Shredding- HydraFiber Processing Unit

Machine no. : ..... Year: .....

Machine weight :	3800 pounds
Power supply:	208-240 VAC Phases: 3 + E 60 Hz. 100Amp
Control circuit voltage:	24 DC
Fiber infeed motor:	0.5HP 208-240V 1.8 Amp
Peat infeed motor:	1.0HP 208-240V 1.7 Amp
Coarse shredder motor:	7.5HP 208-240V 21.6 Amp
Fine shredder motor:	7.5HP 208-240V 21.6 Amp
Soil mixer motor:	5.0HP 208-240V 12.6 Amp

A. CONDITIONS OF USE

1. This machine must only be operated by trained personnel, who have familiarized themselves with the information in this user's manual.
2. The operator must be positioned as indicated in chapter D. Work Positions of this manual, with the processor set up to operate properly and safely as described in chapter E. Instructions - 3.Settings.
3. The operator needs to be aware that some moving parts cannot be covered for technical reasons and that they are a potential danger during operation (see Chapter D. Work Positions).
4. Never wear loose clothing or jewelry when operating and/or setting up the machine and any attached optional equipment.
5. The machine is intended for the shredding of compressed HydraFiber™ bales and processing/blending with soil of typical components that are free of foreign objects. Attempting to process a bale or soil which is not approved by the manufacturer may damage the machine, and be unsafe, and as such, no responsibility will be borne by the manufacturer.
6. Moving of the machine may only take place as described in (see Chapter C. Moving The Machine).
7. The machine may only be connected to the electrical power supply as indicated, using electrical plug and socket components intended for that purpose.
8. Turn off the machine and observe proper electrical lockout/tagout procedures before initiating maintenance or repair work.
9. Setting or making adjustments must only take place when the machine is stopped.
10. All protective covers must be left in place, and no safety devices/switches whatsoever may be switched off or removed during operation.
11. Never try to remove bale jams or foriegn objects while the machine is still running. When removing such objects ensure that the machine CANNOT be re-started.
12. Install the machine in a well illuminated workspace in order to enable safe operation and prevent accidents.
13. The machine must not be set up in a dangerous area, such as near explosive or poisonous chemicals or sprays, or in the pathway of heavy machinery traffic, so that the health and safety of the operator is not endangered.
14. The noise of the machine (at the appropriate work position) can exceed 85 dB (A). In this case ear protection is required for the operator.
15. Only replacement parts supplied or approved by the manufacturer may be used. All responsibility of the manufacturer is discharged and all risks to the user are borne by the user if non-approved parts are installed.

B. WARNINGS AND SAFETY GUIDELINES

WARNING:
THIS MACHINE UTILIZES SHARP ROTATING ROLLERS WHICH OPERATE AT HIGH SPEEDS. ROLLER FUNCTION IS TO SHRED, SEPARATE, AND BLEND SOIL.

WARNING:
IT IS POSSIBLE TO RUN MACHINE WITH DOORS AND GUARDS OPENED OR LOOSE. THERE ARE NO SAFETY STOPS ON ANY DOORS OR GUARDS.

WARNING:
PRIOR TO OPERATION OF THIS MACHINE, ENSURE ALL PERSONS ARE LOCATED CLEAR OF ALL MOVING PARTS.

WARNING:
THIS MACHNE UTILIZES CHAIN AND BELT DRIVEN ASSEMBLIES.

WARNING:
THIS MACHINE MAY START AT ANY TIME WHEN IN AUTO MODE.

WARNING:
THIS MACHINE OPERATES ON HIGH VOLTAGE, 3 PHASE POWER.

WARNING:
BOTH THE RAW MATERIAL AND FINISHED PRODUCT ARE HIGHLY FLAMABLE.

WARNING:
THIS PROCESS MAY PRODUCE DUST AND FINISHED GOODS WHICH ARE A POTENTIAL SLIP HAZZARD.

WARNING:
THIS MACHINE MAY PRODUCE DUST AND AIRBORNE MATERIALS.

WARNING:
THE NOISE LEVEL OF THIS MACHINE CAN EXCEED 85 dB.

ENSURE ALL OPERATORS ARE FAMILIAR WITH LOCATION AND PROPER OPERATION OF E-STOP.

E-STOP IS LOCATED ON THE PROCESSOR MAIN CONTROL PANEL.

DEPRESSING E-STOP WILL IMMEDIATLY REMOVE POWER FROM THE MACHINE. ASSOCIATED CONVEYORS WILL STOP IMMEDIATELY. SHREDDER AND MIXER ROTATING ASSEMBLIES WILL BEGIN TO DECELERATE AND STOP SOON, THEREAFTER.

DURING OPERATION, ALL DOORS AND GUARDS SHOULD REMAIN SECURELY FASTENED. REMOVE POWER BEFORE ALL MAINTENANCE AND REPAIRS (LOCKOUT/TAGOUT). AFTER MAINTENANCE IS COMPLETE, INSTALL GUARDS AND FASTEN DOORS COMPLETELY. **AGRINOMIX** IS NOT RESPONSIBLE FOR DAMAGE AND/OR PERSONAL INJURY ATTRIBUTED TO NEGLIGENCE, REGARDING MACHINE SAFETY.

C. MOVING THE MACHINE

1. Loading and unloading

The HydraFiber™ Processing Unit is delivered uncrated.

Unloading the machine must be done as follows:

- At a loading dock, the processor and components can be removed from the semi-trailer bed using an appropriately sized forklift. Make sure that the forks of the forklift are properly positioned, that they support the bearing area, that no wires or hoses are being crimped by the forks, and that the machine is adequately balanced.

- Machine may be lifted from either end, infeed or outfeed. Lift only from the lower-frame structure, as provisions have been made to accommodate a forklift. While positioning forks, closely observe to ensure clearing the chute and control panel.

ATTENTION :

- Loading and/or unloading the machine must only be done by personnel qualified to operate the above mentioned equipment.

- The machine has a high center of gravity – as such, it poses a tipping hazard.

- During loading and/or unloading, ensure ample clearance to move the machine without contacting obstructions (wires, door jambs, pipes). These types of obstructions can cause damage to the machine or can cause the machine to become unbalanced and tip over.

2. Moving to / from the work area

The HydraFiber™ Processing Unit is designed to be installed in a fixed work position.

If the machine needs to be moved, it must be done as follows:

- Moving by means of a forklift truck: the machine may be lifted from either end, infeed or outfeed. Lift only from the lower-frame structure, as provisions have been made to accommodate a forklift. While positioning forks, closely observe to ensure clearing the chute and control panel. Make certain that the forks support the bearing area, that no wires or hoses are being crimped by the forks, and that the machine is adequately balanced.

    - Machine weight: see page 3

CAUTION:

Moving the machine by means of a forklift truck must only be carried out by personnel qualified to operate this equipment.

The machine has a high center of gravity – as such, it poses a tipping hazard.

When moving the machine, ensure ample clearance to move the machine without contacting obstructions (wires, door jambs, pipes). These types of obstructions can cause damage to the machine or cause it to become unbalanced and tip over!

3. Stationing (for storage or installation at the work place)

The HydraFiber™ Processing Unit is equipped with anchoring flanges on the feet of each leg of the machine. Make sure that all legs are securely tightened. The feet should retain obvious contact with the floor while being used or while sitting idle. Ensure that the machine is positioned so that the overall weight is properly balanced on a horizontal and level surface. The machine should be anchored to the floor before initiating duty.

C. ASSEMBLY

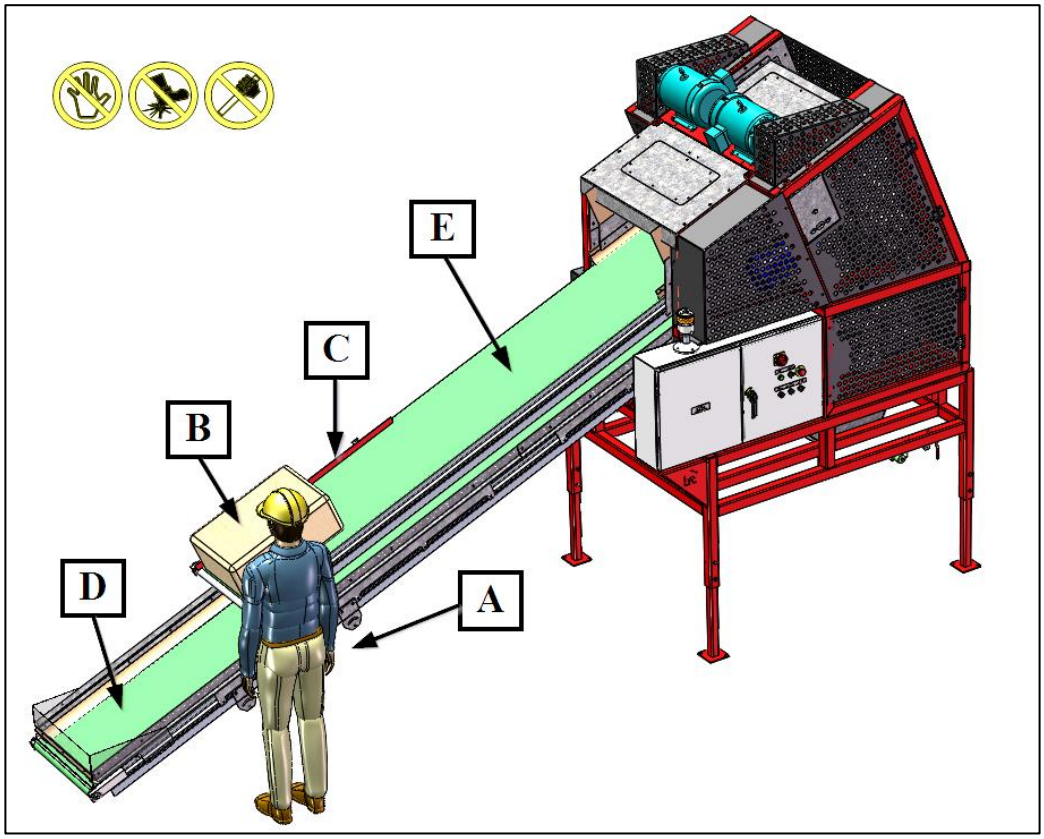
⇨ The HydraFiber™ Processing Unit is fully assembled and tested in our facility. After testing, it is partially disassembled, packed, and shipped. Some assembly and set-up is required prior to operation.

Assembling the machine must be done as follows:

1. Evaluate location and ensure adequate space for the machine and ancillary components. Ensure installation location is a flat and level (if possible).
2. Position and assemble the incline (outfeed) conveyor.
3. Utilizing a forklift, lift the HydraFiber™ Processing Unit main body. Remove shipping legs, and install permanent legs. Legs are labeled “A”, “B”, “C”…according to their position on the main body frame. Do NOT fully tighten.
4. Position the HydraFiber™ Processing Unit over the incline conveyor, per engineering drawing. Lower machine onto legs. Level machine if necessary.
5. Install fiber bale and soil conveyor belts and components. Refer to supplemental conveyor installation guide regarding this installation.
6. Install soil supply components per engineering drawing.
7. Wire all components per engineering drawing.
8. If utilizing water mister, connect to proper water supply.
9. Review the installation- inspect the main assembly, wiring, ancillary component installation, and placement. Make any necessary adjustments. Anchor feet to floor. Fully tighten legs to main frame.

D. WORK POSITONS

The processor machine should only be operated by trained personnel located at the appropriate work position as indicated below.



Loading Fiber Bale Position

The upper incline conveyor (E) is the infeed supply for the HydraFiber™ bales while, the lower conveyor (D) is the infeed supply for the peat. The peat to be blended is typically provided by a hopper. In most cases, the HydraFiber™ bale will be supplied by hand-loading the conveyor. The operator should be in position (A) while loading bales onto the conveyor at position (B). Loading should not be performed from the bale guide (C) side of the conveyor.

! Only HydraFiber™ bales and typical growing soil components can be processed by the machine. Other components such as sand, rocks, concrete and etc. can cause serious damage to the processor components and potential bodily harm. The manufacturer cannot accept any responsibility in this case, and any machine warranty will be nullified.

! The operator loading the fiber conveyor must not under any circumstances put his hands, feet, tools, or work aids on any of the conveyors while the machine is in operation.

E. INSTRUCTIONS

1. Installation and checks before use

A. Work place inspection

The installer must confirm that the processor be positioned in a flat and safe area. The work place must have sufficient lighting to help prevent accidents and to make operation relatively easy.

B. Installation of the machine

The machine must be moved in the manner described in chapter B. The machine must be installed on a surface which is stable and flat. If this is not the case, the result may lower performance and/or the risk of the machine toppling over. A water supply should be available for connection to the mister valve.

C. Inspection of peat supply

The operator must ensure that the peat supply is free of foreign bodies (stones, pieces of iron, plastic items, etc.) and that it does not contain non-standard components such as sand, flint, concrete, and etc., as they can cause damage to the machine and potential bodily harm.

D. Inspection of fiber bales

The HydraFiber Processing Unit™ is designed to shred/separate compressed fiber bales and blend the separated fiber with typical peat. Only genuine HydraFiber™ bales (or manufacturer approved bales) can be processed by the machine. The use of any other bale can cause serious damage to the processor components and potential bodily harm. The manufacturer cannot accept any responsibility in this case and any machine warranty will be nullified.

E. Electrical inspection

The installer may only connect the machine to main power after confirming the correct power requirements and that the appropriate power supply drop is available.

F. Checks before use

1. General inspection of the machine

Before using the machine, check to make sure that it is in good working condition. If this is not the case, faulty parts should first be replaced and all foreign bodies removed. Ensure that all doors and guards are in place and securely fastened. See also chapter E. Instructions - 4. Maintenance and repair.

2. Inspect motor rotation

The motor rotation is tested and fixed during assembly by the manufacturer. When preparing to run the machine at initial start-up or after any repair, the motor rotation must be retested and confirmed.

- Motor rotation direction and belt routing drawings are located inside the guarded area of the machine, near the belts and pulleys. See also chapter E. Instructions - 4. Maintenance and repair.

The motor rotation can be tested by powering the machine and briefly starting it. If the shredder or mixer belts run in the correct direction, the motor rotation is correct.

- Immediately, at initial start-up or after any soil call during automatic operation, the bale conveyor belt will run in reverse direction. After 1-2 seconds, it will change direction and feed the machine.

If the motor rotation is incorrect, the phases of the incoming power supply must be changed. This must be done by one of the manufacturer's technicians or an authorized professional only.

Caution!!! **If the motor rotation is not correct, this may cause severe damage to the machine!!!!**

2. Machine usage

CAUTION: ***Before using the machine, read chapters "A. Conditions of use" and "D. Work Positions" carefully.***

Ensure the blend of the output soil is properly set, as described under E. Instructions - 3. Settings. Machine is ready for initial start-up procedure.

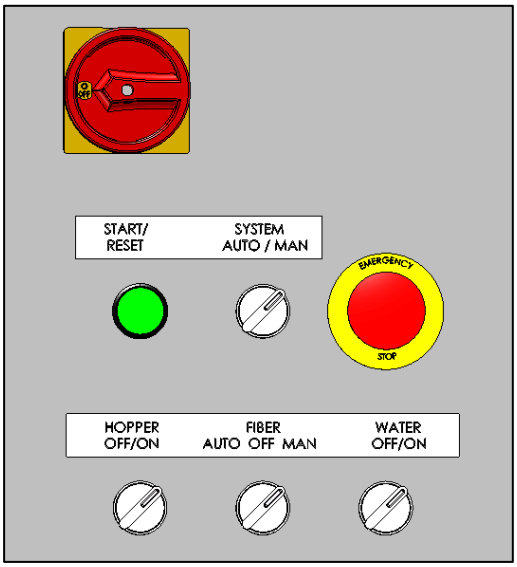
Start the machine as follows:

1. Select “OFF” position for HOPPER, FIBER, and WATER.
2. Select “MAN” position for SYSTEM.
3. Check that all emergency stop switches are released.
4. Turn on the main power switch.
5. Open the mister valve, located on the lower frame rail of the machine.
6. Press the “START/RESET” button.
7. Load bales, end-to-end, arrow toward machine, placed at position (B) on the upper conveyor.
8. Twist and hold FIBER switch to “MAN” position to advance bales up conveyor. Continue to load bales, while advancing, until leading bale makes contact with the shredder roller. Stop advancing bales.
9. Select “ON” position for HOPPER and WATER.
10. Select “AUTO” position for FIBER and SYSTEM, respectively.

- Both fiber and peat conveyors will remain inactive until receiving a soil call. When a soil call is received, both conveyors will be activated. Conveyors will remain active until surge hopper is satisfied and soil call is discontinued.

Stop the machine as follows:

11. After usage, close the mister valve.
12. Press the “EMERGENCY STOP” button.
13. After machine has stopped, turn off main power switch.

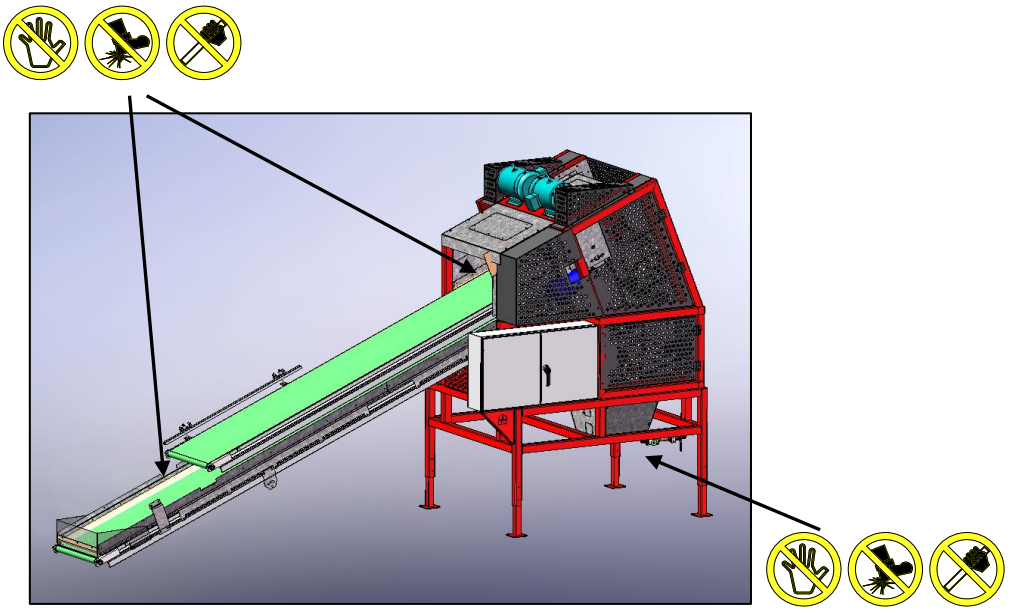


Restart the machine:

1. Release “EMERGENCY STOP” button.
2. Turn on the main power switch.
3. Ensure the mister valve is open.
4. Press the “START/RESET” button. Process should resume.

If power has been interrupted, press the “START/RESET” button to restart the machine.

When the machine is in use, observe the conditions of use and maintain the proper work position. NEVER enter the danger areas, as displayed below.

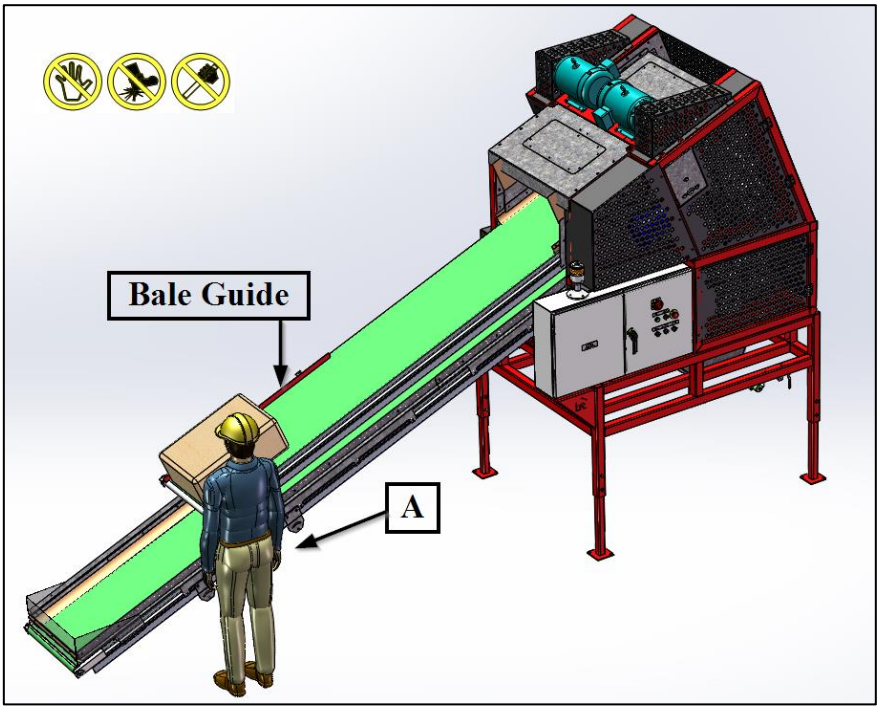


3. Settings

These settings can not be carried out when the machine is running- it may be powered off or powered on with no motors active!!!

- When unsure, toggling the main power into the on position will set machine in correct mode.

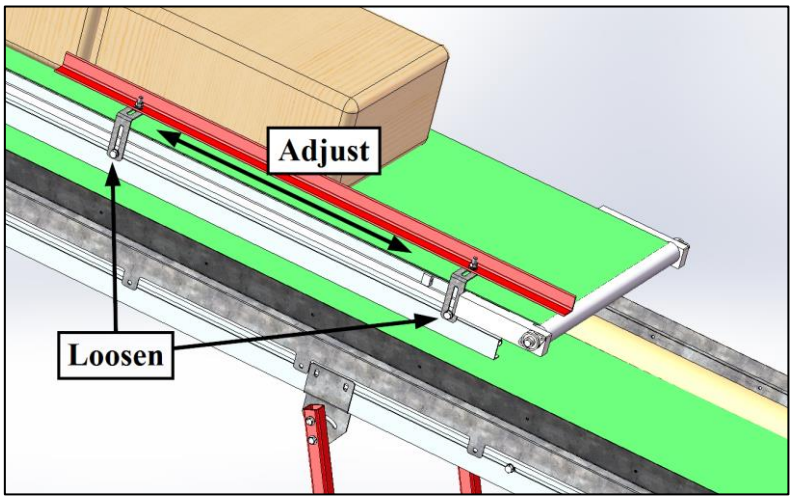
A. Setting the bale guide



The purpose of the bale guide is to assist in loading fiber bales. It allows the operator to easily place each bale on the infeed conveyor and to keep it square. With the guide in position, the operator should easily avoid placing a bale crooked or partially onto the conveyor. The guide is easily adjustable alongside the belt path for optimal placement. The guide should be positioned directly opposite position A, where the operator will be loading the bales.

To set bale guide position:

1. Loosen the conveyor rail brackets; do not loosen the brackets at the guide.
2. Slide the guide into desired position.
3. Tighten fasteners.



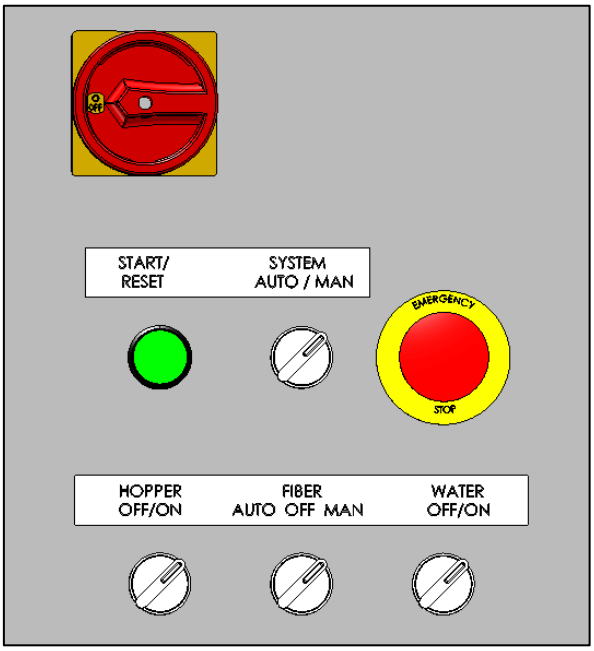
B. Setting the mix and soil output rate

These settings can not be carried out when the machine is running- it must be powered on with no motors active!!!

When unsure, toggling the main power to the on position will set machine in the correct mode.

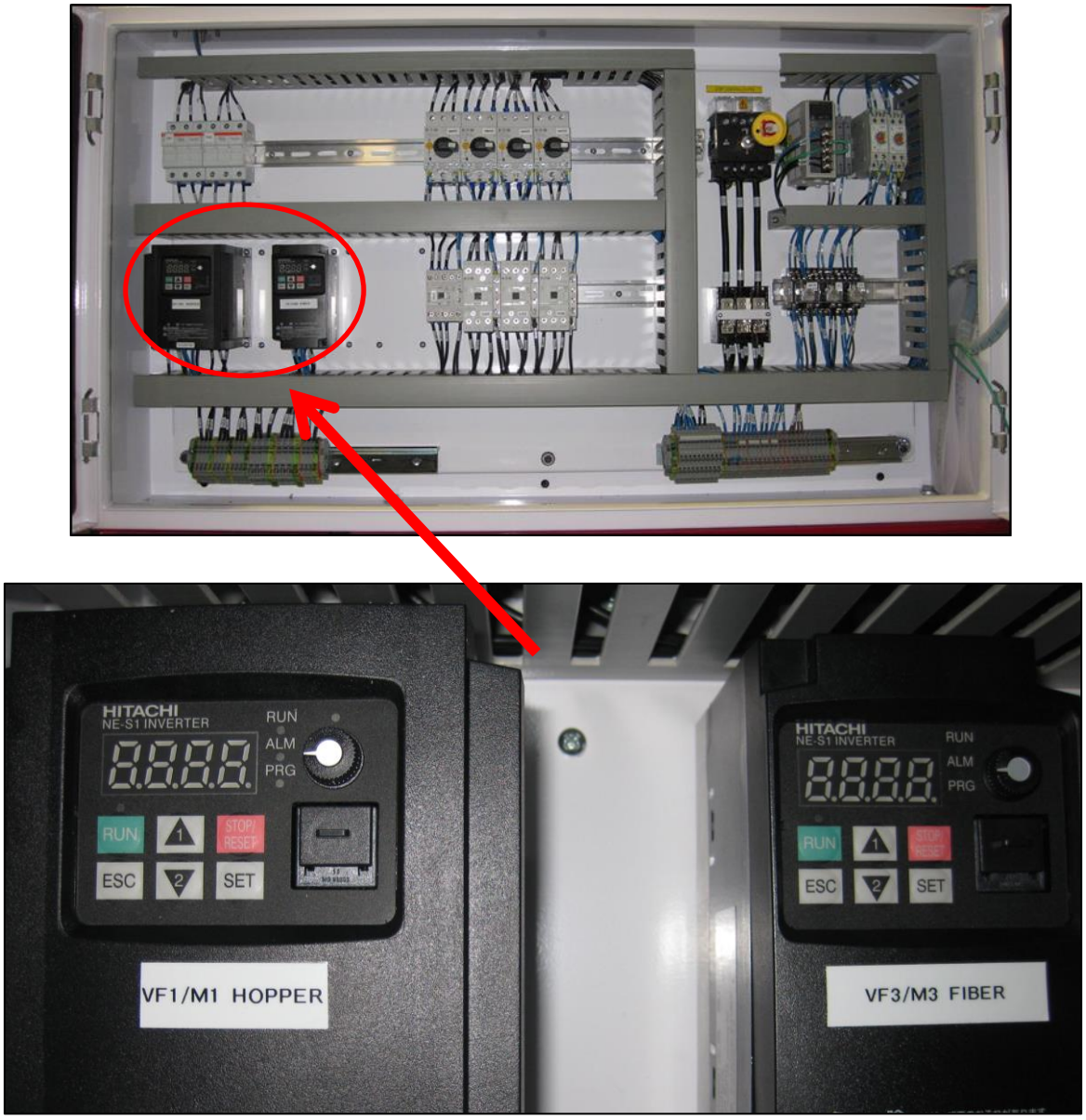
The blended soil output of the machine is rated in HydraFiber™ percentage @ blended yards/hour, e.g. 35% @ 60 yd/hr. The desired output must be determined prior to making any adjustments. To obtain a proper mix and output, adjusting the fiber bale and peat hopper settings is necessary. Both the fiber conveyor and peat infeed are controlled by variable frequency drives (VFD).

Attention: Changing hopper and/or fiber bale conveyor speeds can affect the mix and soil output rate.



Setting soil mix output is done as follows:

1. On the control panel, ensure the main power switch is “OFF”.
2. Set SYSTEM switch to “MAN“. Set HOPPER to “OFF“. Set FIBER to “OFF“. Set WATER to “OFF“.
3. Open doors to access control.
4. Utilizing a Cresent® wrench, turn main power switch “ON“.



A. Setting the hopper conveyor speed (bulk peat hopper)

1. Locate VF1/M1 HOPPER control.
2. Scroll ∧ / ∨ to access F001 setting (frequency).
3. When F001 is found, select it by pressing “SET“.
4. Press ∧ / ∨ to adjust frequency for proper % mix according to supplied chart.
5. Press “SET” to save setting.

B. Setting the HydraFiber™ bale conveyor speed

1. Locate VF3/M3 FIBER control.
2. Scroll ∧ / ∨ to access F001 setting (frequency).
3. When F001 is found, select it by pressing “SET“.
4. Press ∧ / ∨ to adjust frequency for proper % mix according to supplied chart.
5. Press “SET” to save setting.
6. Utilizing a Cresent® wrench, turn main power switch “OFF“.
7. Close doors and latch.

C. Setting the peat supply

The peat supply is set by means of the HOPPER control in the HydraFiber™ processor control panel and a slide gate at the exit side of the bulk peat hopper.

1. Adjust the slide gate to setting according to supplied chart.

Attention: changing gate setting will affect the mix and rate of the output soil.

4. Maintenance and repair

Machine maintenance must only be carried out by qualified personnel and only when the machine is switched off.

Repair work must only be carried out by authorized, trained personnel employed by the manufacturer or the customer. Faulty maintenance or repair work by third parties can be dangerous and can cause serious injury. The manufacturer cannot accept any responsibility whatsoever for faulty work carried out by third parties.

A regular, periodic inspection and preventative maintenance program is recommended to avoid major issues and downtime. Refer to supplemental document, “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

Attention: Inspection, repair, and cleaning may only be done with machine completely switched off and locked. Observe proper electrical lockout/tagout procedures.

A. General maintenance

- The machine may need to be cleaned after use (access the cleaning openings only after disconnecting the machine).
- The machine requires scheduled preventative maintenance. Refer to supplemental document for details.
- The machine should be stored in a dry place when it is not in use.
- The machine should be lubricated after use.

B. Cleaning the machine

Cleaning the machine must only be done with the machine completely switched off and locked. Observe proper electrical lockout/tagout procedures.

Utilizing an air gun, clean material and dust from:

- The infeed and outfeed conveyor belts.
- The infeed and outfeed conveyor drive motor cooling fans.
- The shredder motor cooling fans.
- The mixer motor cooling fan.

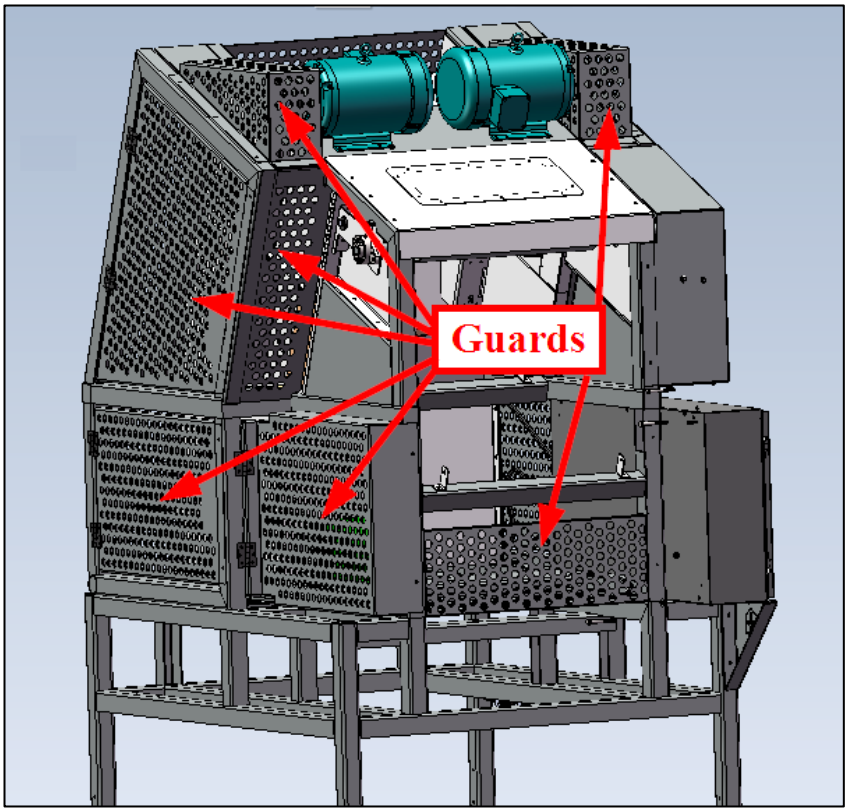
If the machine is cleaned with water:

- Make sure that no water remains in the machine.
- Lubricate the machine immediately after cleaning; shredder rollers are likely to rust immediately.
- Make sure that the control panel is completely free of liquid.

C. Inspection of guards and protective panels around belts

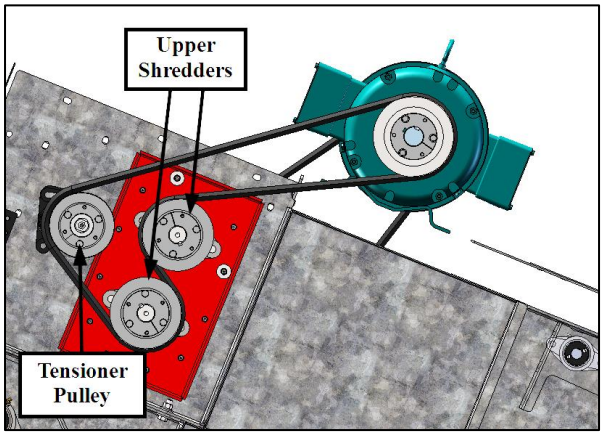
Attention: Inspection, repair, and cleaning may only be done with machine completely switched off and locked. Observe proper electrical lockout/tagout procedures.

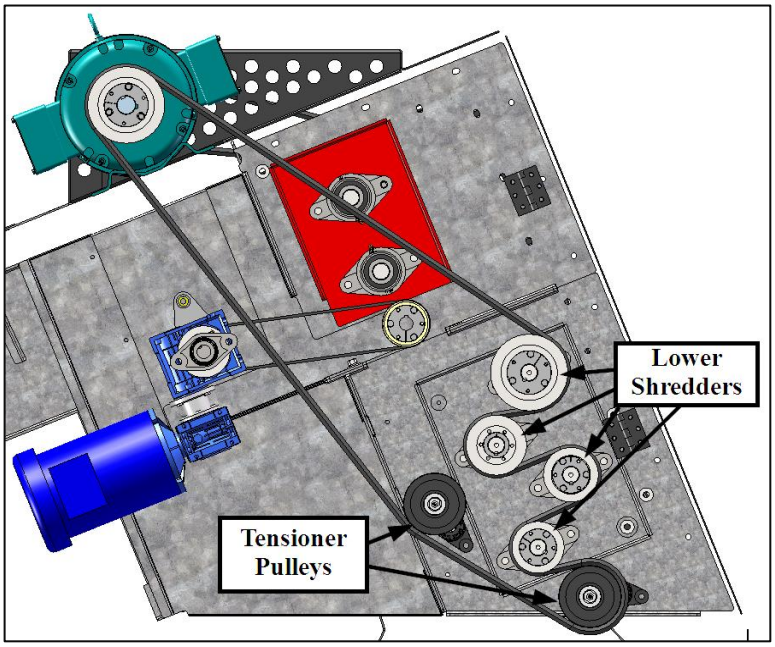
- Regularly inspect the overall structural condition and proper mounting of ALL guards, including doors, hinges, clamps, hardware, and fasteners.
- Look for damage including: holes, punctures, openings, or cracks.
- Ensure that ALL of the guards are safe and will prohibit injury.
- If damaged, contact the manufacturer or distributor as soon as possible and have them repaired or replaced.

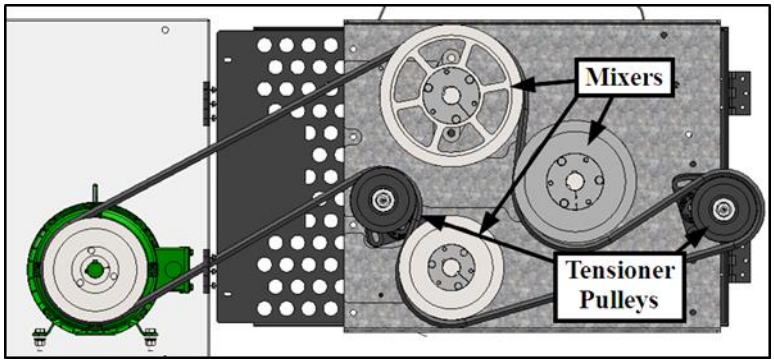


D. Inspection of drive belts and pulleys

Attention: Inspection, repair, and cleaning may only be done with machine completely switched off and locked. Observe proper electrical lockout/tagout procedures.







1. Inspect all drive belts for proper alignment, tensioning, and wear.
2. Inspect condition of tensioner pulleys and shaft pulleys.
3. Ensure that all pulley bushing bolts are in place and tight.

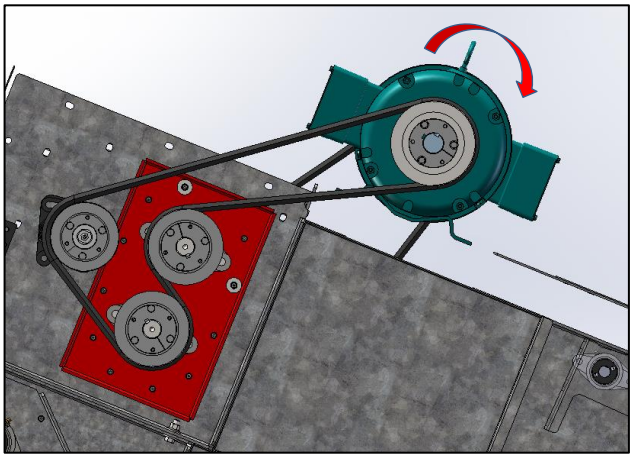
   - If any adjustments are made to bushings, tighten accordingly.
   - In an alternating pattern, tighten bushing hardware in two steps.
   - For 7/16” head: First step- 54 in./lbs. and the second step- 108 in./lbs.
   - For 1/2” head: First step- 90 in./lbs. and the second step- 180 in./lbs.

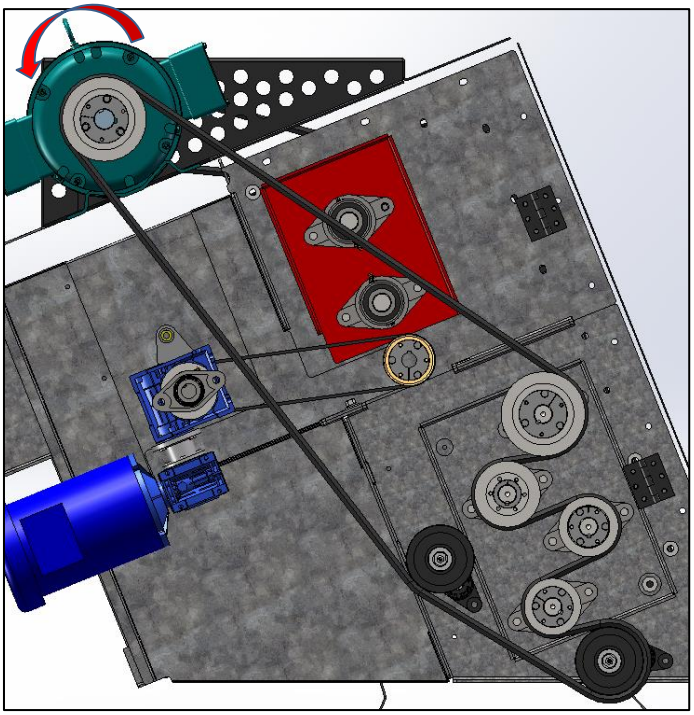
4. Ensure that all collar set-screws are tight.

   - If collars are found loose or need adjustment, ensure they are seated firmly against pulley hub.
   - Apply threadlock compund to threads.
   - Tighten to 90 in./lbs.

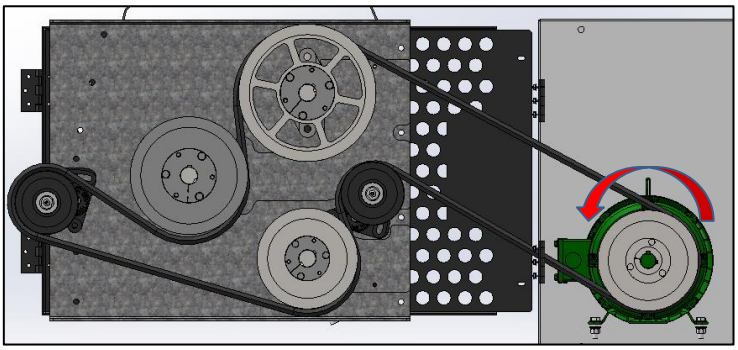
E. Inspection of drive belt rotation

Ensure the belts are running in the proper direction.

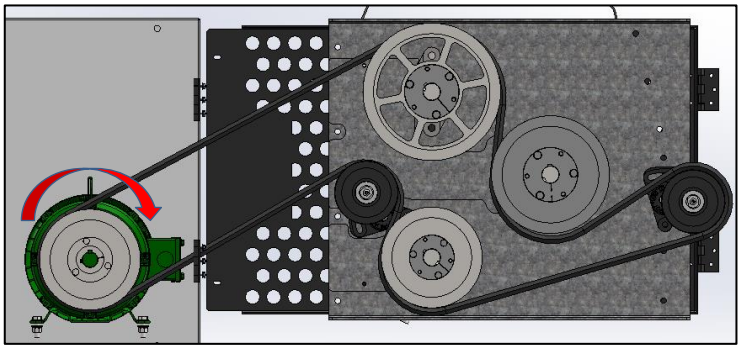




Right-hand Machine



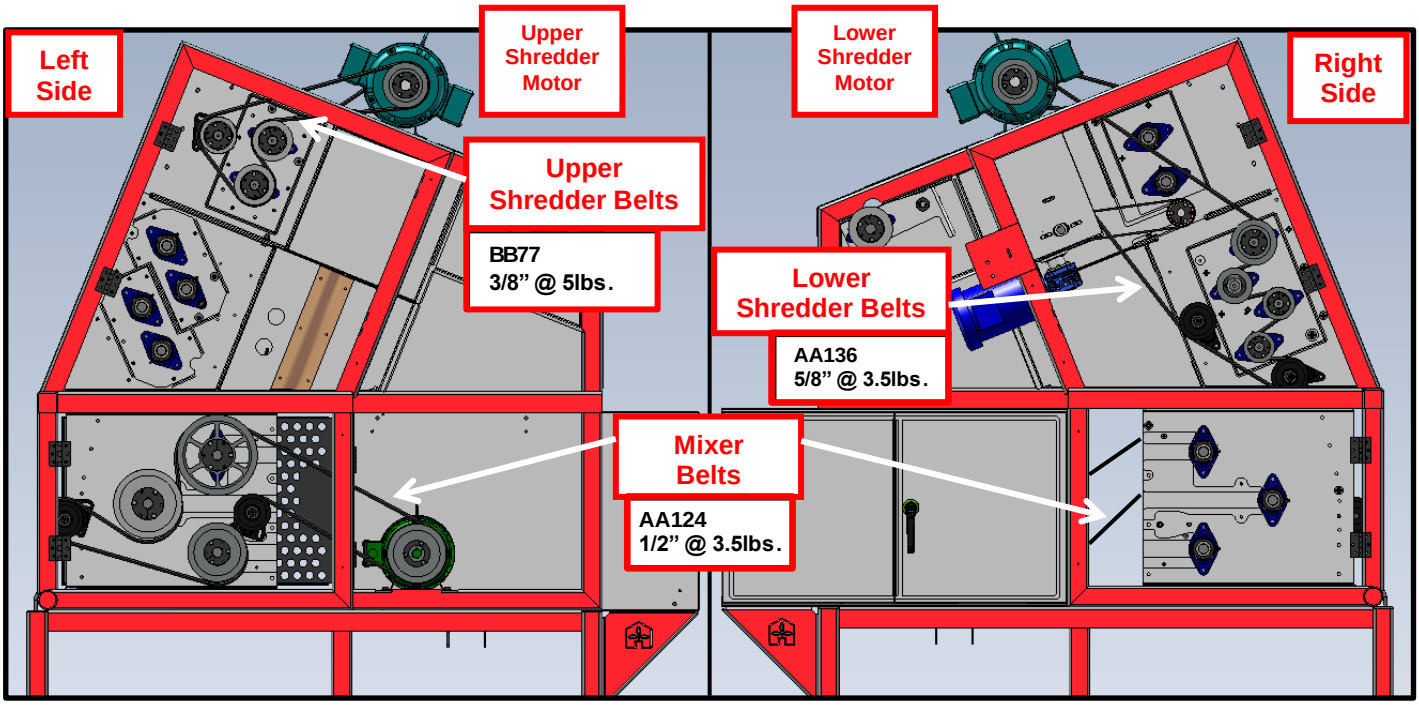
Left–hand Machine

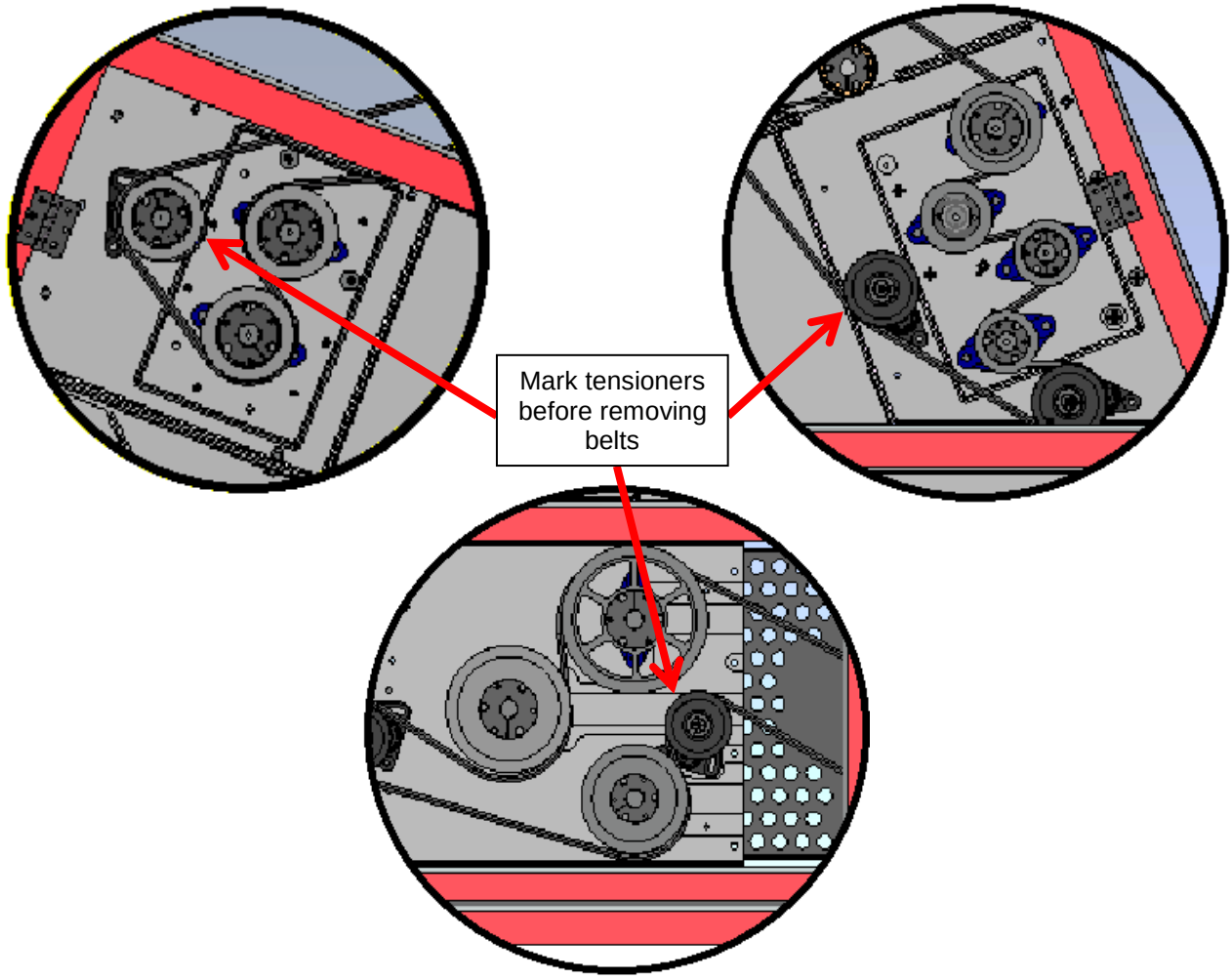


Note: When belt rides on outside of pulley, shaft rotates in the same direction as the motor. When the belt rides on inside of pulley, shaft counter-rotates with respect to the motor direction.

F. Replacing drive belts

To replace the fiber shredder and/or soil mixer drive belts, refer to the images below:

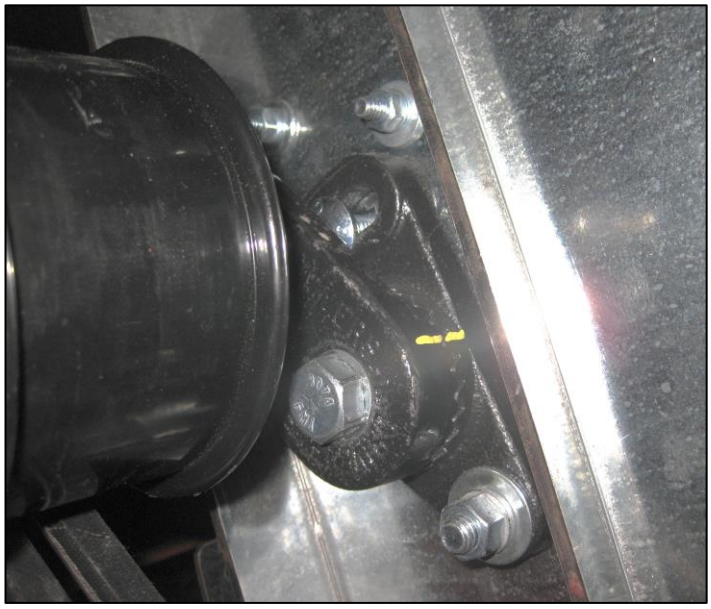




i. Open doors or remove guards to gain access to belts.

ii. Mark all tensioner positions before removing belts.

Note: In some cases, no adjustment of tensioner is necessary to replace belts.



iii. Remove worn/old belts.

1. Roll the outermost belt off the tensioner/pulley with least belt wrap.
2. Completely remove belt. Note removal order.
3. Work the innermost belt off the inner groove and into the outer groove, spinning assembly as necessary, to move belt to outer groove.
4. Remove belt in the same manner as first.

iv. Install innermost belt into outer groove on each pulley, working in reverse order to that of removal, spinning assembly as necessary, to install belt onto outer groove.

v. Work belt to inner groove position.

vi. Install outermost belt in the same manner.

vii. Spin rotating assembly a few full turns.

viii. Check and adjust belt tension, if necessary.

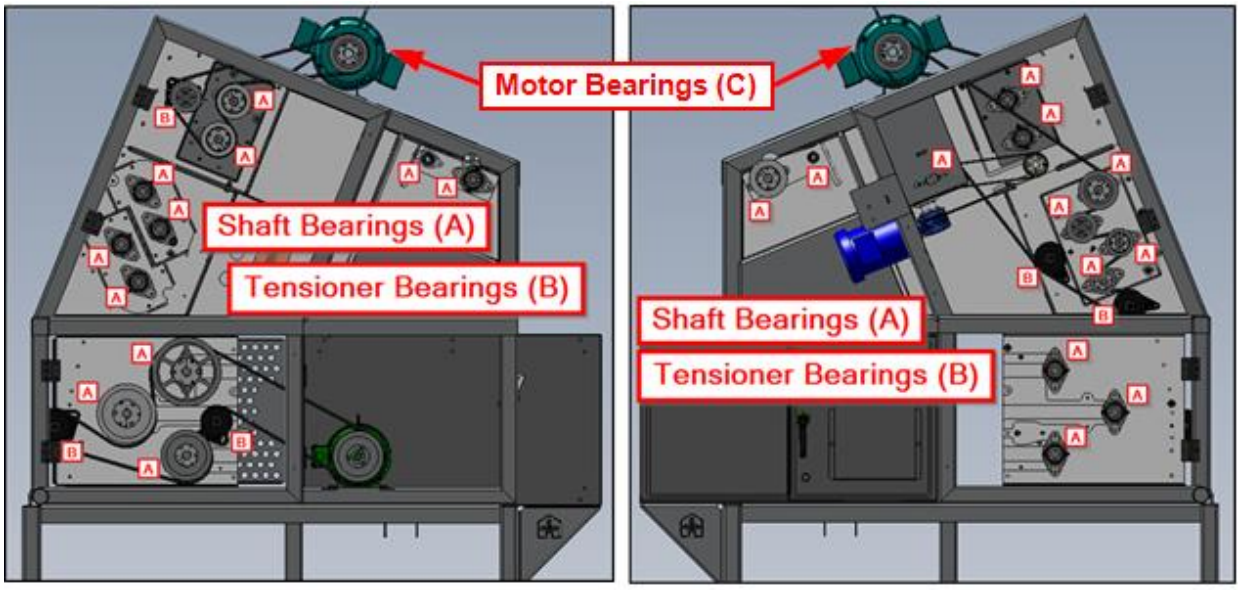
ix. If tension adjustment was made, tighten hardware.

x. Close doors and install guards.

xi. Securely fasten doors and guards.

xii. After 8-12 hours of service, check and retension belts if necessary.

G. Inspection of bearings



1. Shaft bearings

   - Regularly check the shaft bearings (A) for damage. If damaged, contact the manufacturer as soon as possible. Removing the belts to free-wheel the shaft should assist in examination.
   - Take notice of noise when rotating shaft.
   - Inspect shaft for both radial play and end play.
   - For grease type and specifications, refer to supplemental document “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

2. Belt tensioner bearings

   - Regularly check the belt tensioner bearings (B) for damage. If damaged, contact the manufacturer as soon as possible. Removing the belts to free-wheel the tensioner should assist in examination.
   - Take notice of noise when rotating tensioner.
   - Inspect tensioner pulley for both radial play and thrust play.
   - For grease type and specifications, refer to supplemental document “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

3. Motor bearings

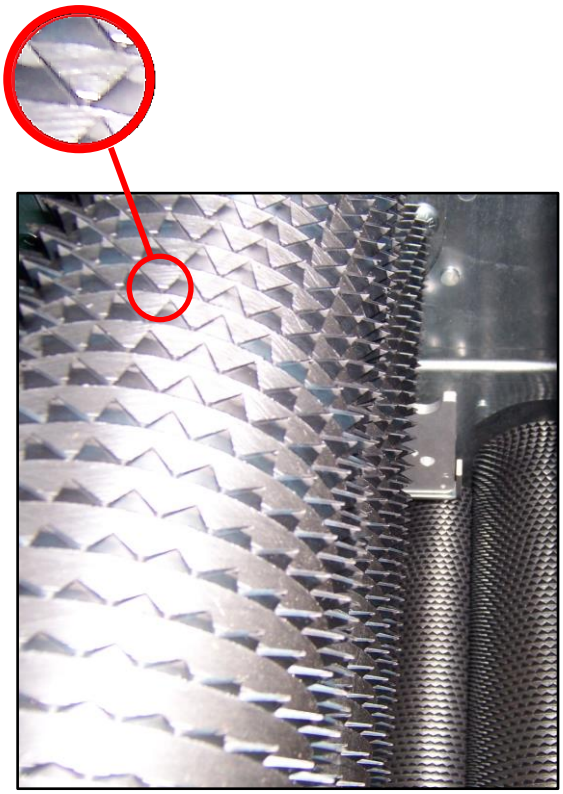
   - Regularly check the motor bearings (C) for damage. If damaged, contact the manufacturer as soon as possible. Removing the belts to free-wheel the motor should assist in examination.
   - Take notice of noise when rotating motor shaft.

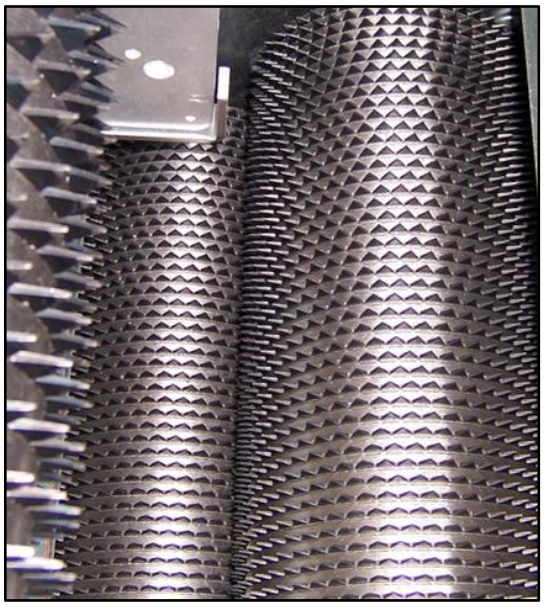
- Inspect motor shaft for both radial play and end play.
- For grease type and specifications, refer to supplemental document “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

H. Inspection of shredder rollers

1. Ensure shredder rollers are free of lodged foriegn materials.
2. Inspect shafts and bearing collars.
   a. Bearing should a snug fit,be free of play, and without wear.
3. Inspect shredder teeth.
   a. All teeth should be present.
   b. Teeth should be sharp and undamaged.
   c. Teeth should be straight.
   d. Teeth should be FULLY seated into roller, with valley tanget to roller outside diameter. *Refer to circled area.*

Should there be any damage to shredder rollers, contact the manufacturer as soon as possible.





I. Inspection conveyor belts

- Regularly check the conveyor belts for damage.
  If damaged, contact the manufacturer as soon as possible.

- Regularly check the tension and the tracking of the belt. If tension is insufficient, the belt will slip or veer to a side. In this case the belt needs tigtened and adjusted.

- Regularly check the shaft alignment side to side and the set screws that hold the shaft in the bearings. Also, check the pulley to the shaft for alignment and tightness. If damaged, contact the manufacturer as soon as possible.

1. Adjusting the conveyor belts

A. adjustment of conveyor belt tension (both fiber belt and peat supply belt)

The conveyor belt tension can be adjusted by means of the take-up end utilizing the adjustment nut on the tensioning rods (B). The bolt on the bearing plate (A) locks the bearing plate into position after adjustment. Refer to images on page 26.

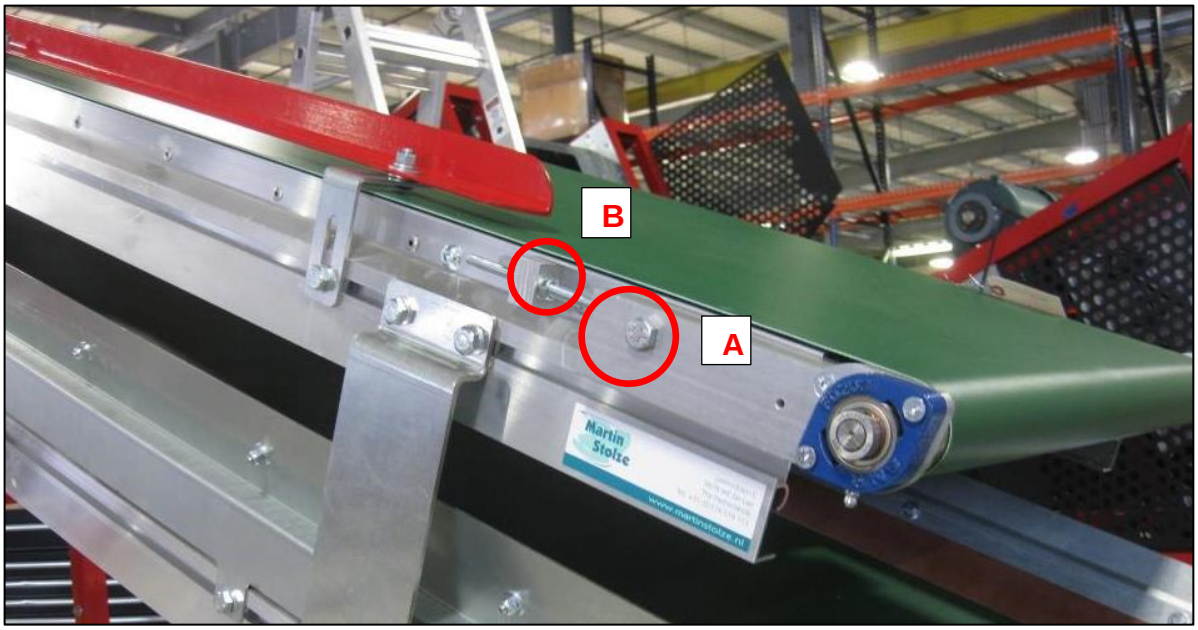
i. Loosen bolt A. It may be necessary to lift the belt and retain the threaded spanner rod.
ii. Tighten nut B to minimize belt slack.
iii. Repeat on the opposite side.
iv. Both sides should be equally tightened.

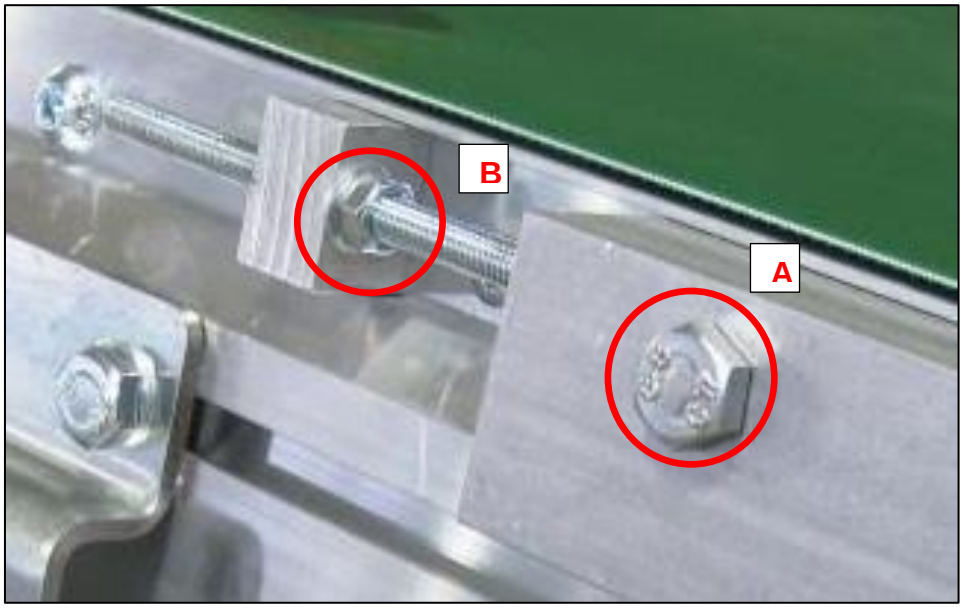
After any adjustment, run the belt to ensure that the conveyor belt tracks properly. If it does not, further adjustment is necessary (see below).

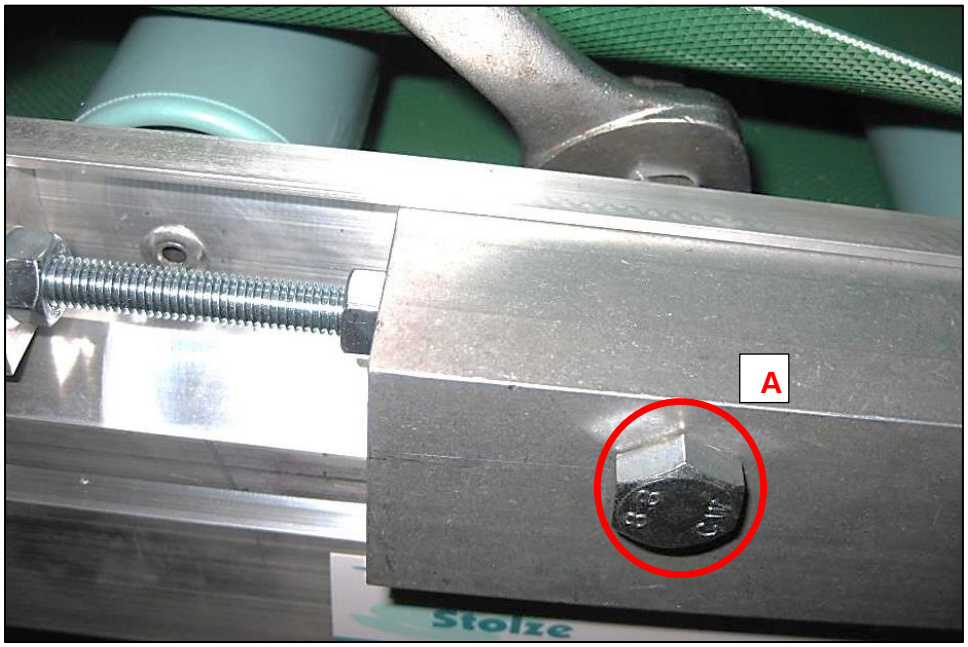
B. conveyor belt alignment (tracking)

On a regular basis, ensure that the conveyor belts track properly. If they do not, it is necessary to adjust the conveyor(s) for proper tracking.

i. Employing nut B. tighten the tensioning rod on the side to which the belt has veered.
ii. Allow the belt to run a short time to permit the adjustment to reveal its effect.
iii. If adjustment proves to be insufficient, repeat the process.
iv. It is recommended to pull per 1/8 revolution from the rod so that the adjustment is carried out evenly and uniformly.

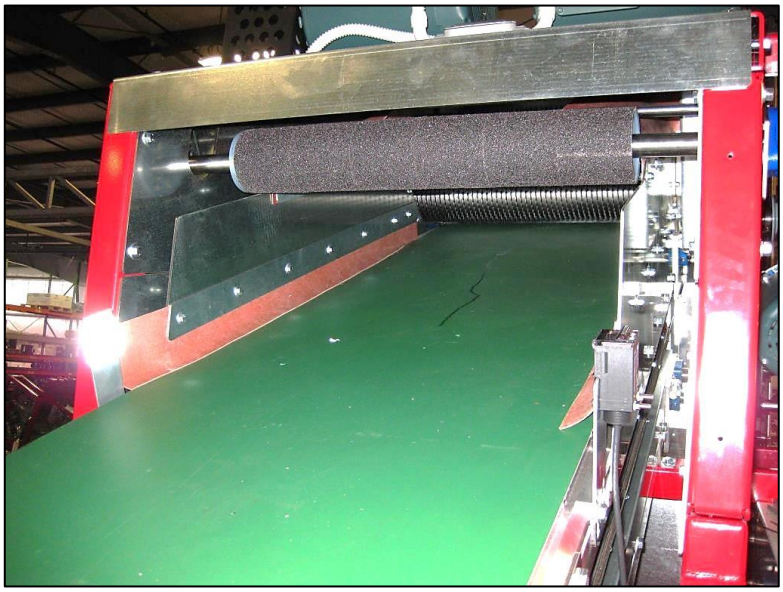

B
A
Martin Stolze

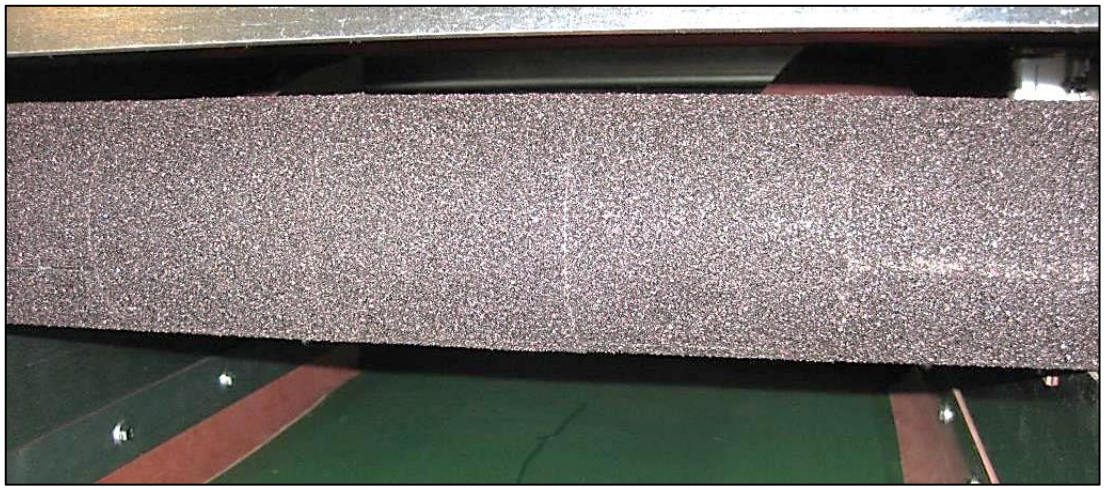

B
A


A
Stolze

J. Inspection of fiber bale pinch roller assembly

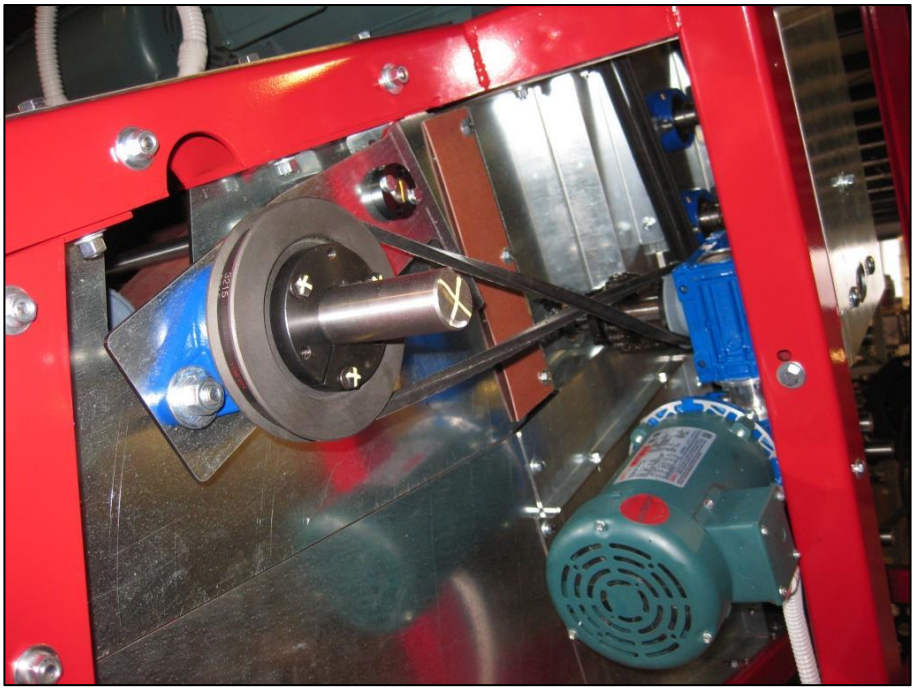
1. inspection of pinch roller





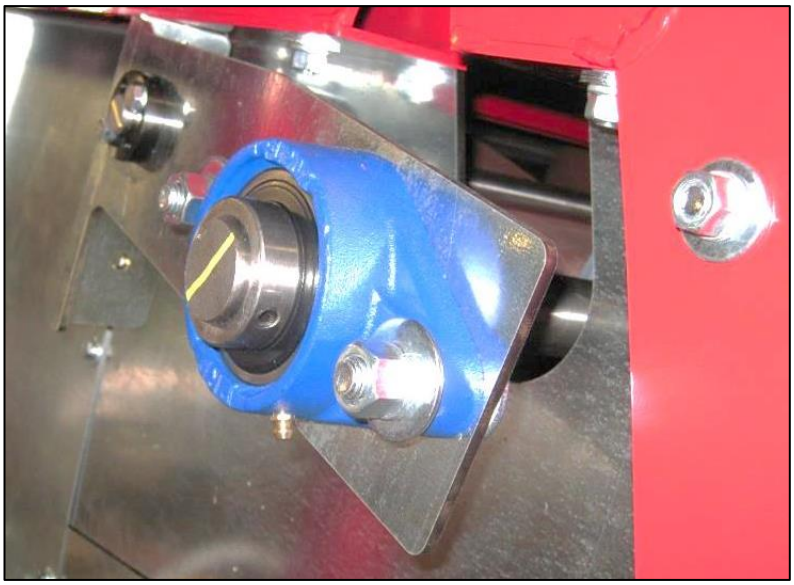
Regularly check the fiber bale pinch roller for damage. A damaged pinch roller can cause an improperly mixed soil. If the non-slip, abrasive adhesive sleeve is damaged or missing, replace it immediately. Contact the manufacturer for the replacement part.

2. inspection of pinch roller belt



Regularly check the pinch roller belt. A damaged pinch roller belt can cause an improperly mixed soil. If found to be slipping, damaged or missing, replace it immediately. Contact the manufacturer for the replacement part.

3. inspection of bearings and shafts



Regularly check the shaft bearings and shaft for damage. If damaged, contact the manufacturer as soon as possible. Bearing should be a snug fit on shaft, free of play and without wear.

K. Lubricating the machine

CAUTION: **Service and repair may only be done with machine completely switched off and locked. Observe proper electrical lockout/tagout procedures. Carelessness during lubrication can cause serious injuries!**

1. Lubrication

The HydraFiber™ Processing Unit is delivered pre-lubricated. No lubrication is necessary before use. After initial use, it is advised that specified lubrication intervals be closely observed. Schedule and procedure can be found in supplemental document “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

2. Post-use lubrication

Remove the grease which has been pressed out by post-use lubrication. Do this when the machine is at rest. Make sure that the machine is correctly turned off after use and that the machine cannot be switched on unexpectedly. Observe proper electrical lockout/tagout procedures.

The bearings which need to be lubricated are provided with a nipple.

Guidelines:

- ⇨ Use a grease gun to lubricate bearings. Occasionally when post-lubricating, you will see the old and dirty grease emerge from the bearing seal. This should not cause alarm.
- ⇨ Pump the grease slowly into the bearing; about ½ to 2 pumps is usually sufficient.
- ⇨ If during lubrication carbonized grease emerges from the seal, continue pumping until new grease emerges.
- ⇨ The machine must be lubricated after cleaning or after assembly of new parts.

Lubricants: Refer to supplemental document “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

M. Inspection of drive motors

- Inspection of motors

It is necessary to make sure that the motor cooling fins are free of dust and soil remains so that the motor is sufficiently ventilated. Also, inspect motor bearings. Refer to section G. Inspection of bearings.

- Inspection of gearboxes

The gearboxes are lubricated for life. Do not remove or add any lubricant to these gearboxes.

If it is necessary to replace or add grease or oil to the gearboxes, service must be done by one of the manufacturer's or the distributor's technicians.

N. Inspection of electrical components

- Regularly check that the switch box is free of dust and soil remains so that sufficient cooling is provided.

- Regularly check all control switches on the machine for damage. Damaged or badly working parts need to be replaced immediately by an authorized person.

O. Maintenance frequency

- Refer to supplemental document, "HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide".

- Major service: an annual inspection and service by the manufacturer is recommended.

F. TROUBLESHOOTING GUIDE

SYSTEM STATUS BEACON STEADY = FAULT FLASHING = NO FIBER	
PROBLEM - ERROR	**SOLUTION**
machine does not start	• check emergency stop • check voltage supply • check overload protection devices
machine stops during use	• machine is waiting for soil call • gap in supply of fiber bales • machine jammed • check overload(s)
fiber bale is veering up infeed belt	• check bale guide • check bale conveyor belt tracking • check bale placement
bale is jammed in machine	• check pinch roller assembly • check shredder rollers for proper rotation • check v-belts and adjustment • check conveyor belt operation
machine jammed or plugged-up	• check setting bale / soil supply speed • check drive belts for wear and tension • check belts for proper rotation direction • verify that shredder / mixer rollers rotate • check motors and overloads • check soil for foreign objects • check soil for excessive moisture content
exagerated machine noise level and / or vibration	• check drive motors • check shaft bearings • check pulleys and bushings • check rollers and shafts • sheet metal panels • check guards and doors
exagerated dust	• check skirting • check seals and wipers • check moisture content
conveyor belt not tracking properly	• adjust belt tracking / take ups • check for accumulated soil in conveyor • check for accumulated soil on pulleys
conveyor belt slipping	• adjust belt tracking / take ups • check for accumulated soil in conveyor • check for accumulated soil on pulleys
conveyor belt stops / stopped	• adjust belt tracking / take ups • check for accumulated soil in conveyor • check for accumulated soil on pulleys • check overload(s)
drive belts slipping or burning	• check drive belts for wear and tension • check skirting • check moisture content

G. TECHNICAL DATA

1. Dimensions

Shipping height:	102”
Overall width:	57”
Assembled length:	214” (min.) - 360” (max.)
Assembled height:	102” (min.) – subject to Assembled Length and layout
Weight:	3800 pounds

2. Lubricants

-To maintain the machine, comercially available “HI-TEMP” (500° F min.) grease may be used for all shaft bearings.

-The greasable shredder motors require specialized lubrication. Both lubrication type and service intervals are defined in the supplemental document “HydraFiber™ Processing Unit Preventative Maintenance Schedule and Quick Guide”.

3. Electrical details

- Electrical details: see page 4.

4. Spare parts

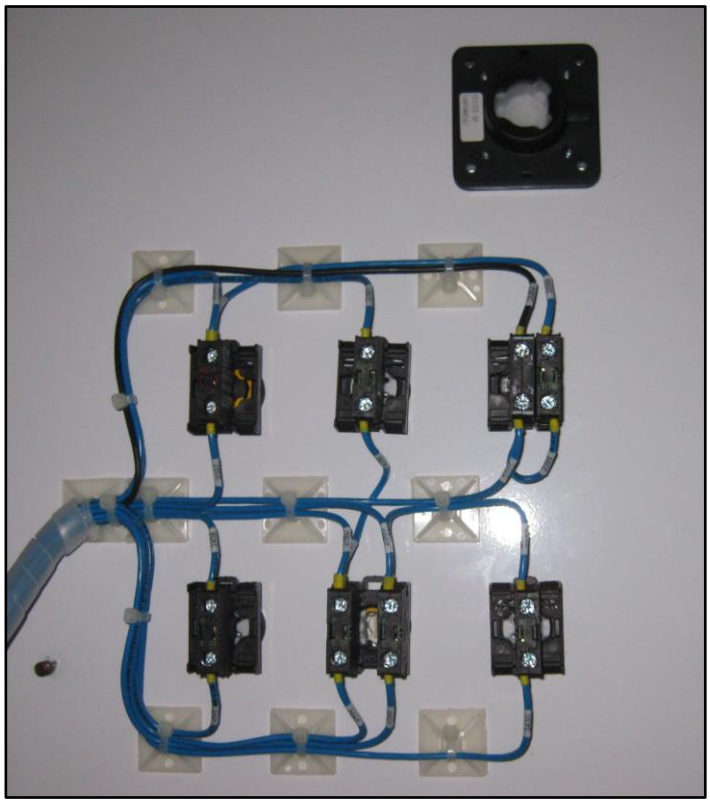
Only spare parts supplied or approved by the manufacturer may be assembled.

If alternative spare parts are fitted, this is done entirely at the user's own risk and the manufacturer can accept no responsibility.

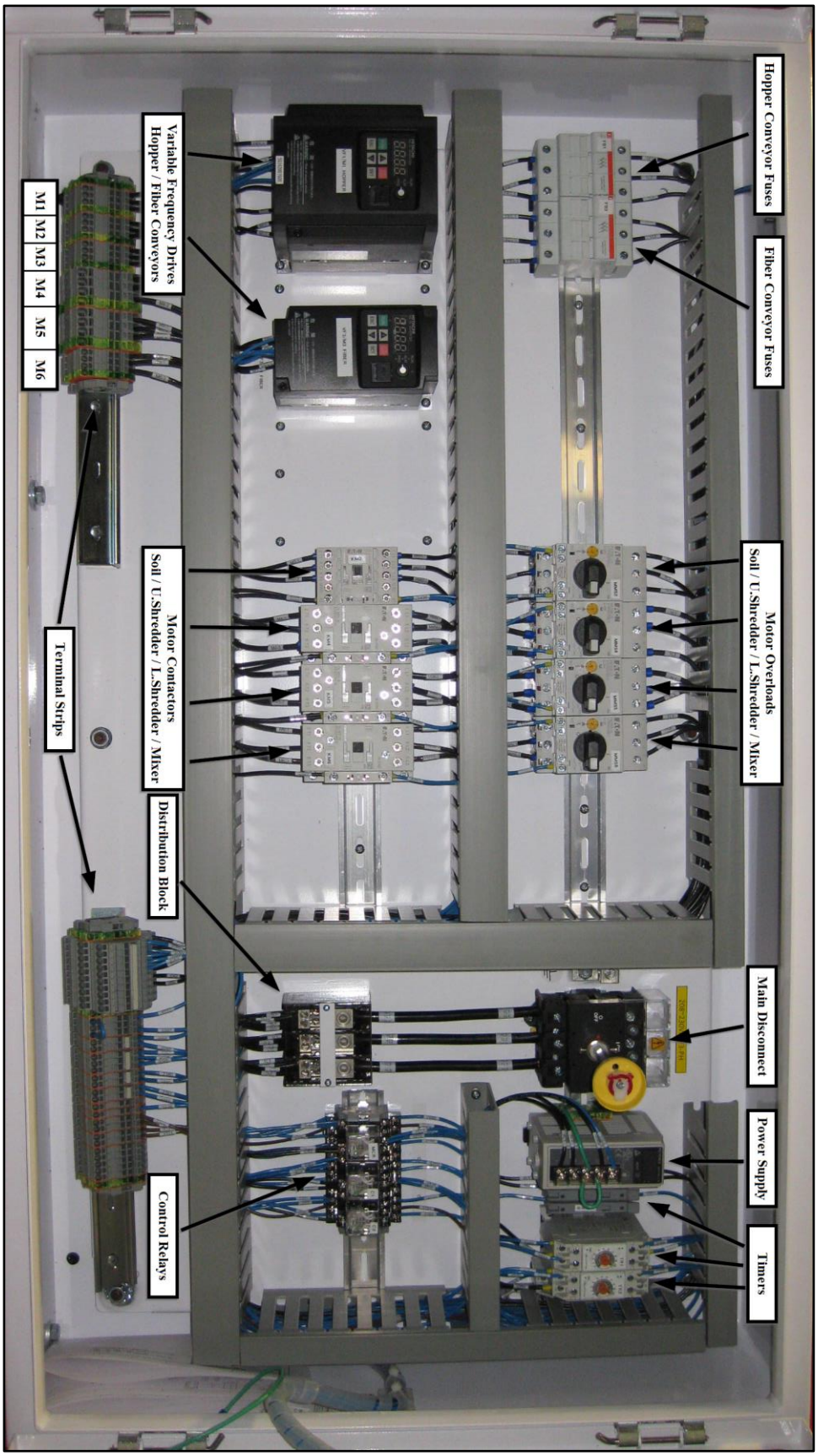
Parts list and accompanying drawings: see pp. 35-37.

H. IMAGES, DRAWINGS, PARTS

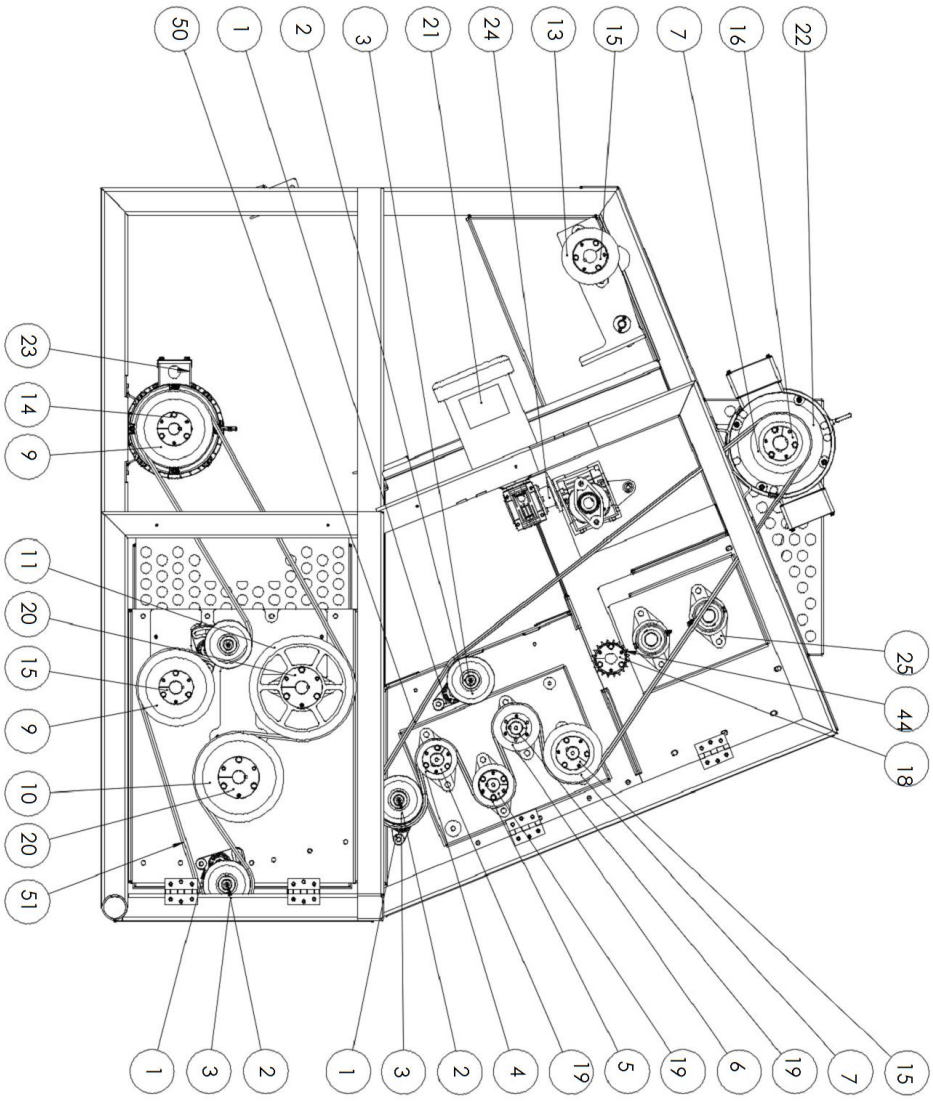
Main controls, electrical control panel door, exterior



Electrical control panel door, interior



Electrical control panel components (230Vac, 3 Phase model)



ITEM NO.	DESCRIPTION	QTY.
1	TENSIONER SHAFT, TENSIONER 3 1/2" BEARING SURFACE	5
2	PULLEY, IDLER Ø4.00"	5
3	SHEAVE, 2 GROOVE, 3.75 O.D.	1
4	SHEAVE, 2 GROOVE, 3.95" O.D.	1
5	SHEAVE, 2 GROOVE, 4.35" O.D.	1
6	SHEAVE, 2 GROOVE, 5.55" O.D.	3
7	SHEAVE, 2 GROOVE, 4.95" O.D.	2
8	SHEAVE, 2 GROOVE, 7.15" O.D.	2
9	SHEAVE, 2 GROOVE Ø8.35" O.D.	1
10	SHEAVE, 2 GROOVE 9.75" O.D.	1
11	SHEAVE, 1 GROOVE, 3.75" O.D.	1
12	SHEAVE, 1 GROOVE, 5.35" O.D.	1
13	QD BUSHING, SDS 1 1/8"	1
14	QD BUSHING, SDS 1 1/4"	5
15	QD BUSHING, SDS 1 3/8"	2
16	QD BUSHING, SH 1"	2
17	QD BUSHING, SH 25MM	1
18	QD BUSHING, SH 1 1/4"	3
19	QD BUSHING, SK 1 1/4"	2
20	MOTOR, 1 HP 1800 RPM, 60HZ	1
21	7.5 HP LEESON MOTOR 213T FRAME	2
22	5HP MOTOR 1800 RPM 230V 60HZ	1
23	GEARBOX, 1200:1	1
24	2-BOLT FLANGE BEARING, 1 1/4" ID	20
25	BEARING-FLANGE 2 BOLT 1"ID	2
26	BEARING 2-BOLT 3/4"B	2
27	ROLLER, FINE WIRE Ø1 1/4" SHAFT	4
28	ROLLER, COARSE WIRE Ø1 1/4" SHAFT	2
29	ROLLER, MIXER 1 1/4" SHAFT	2
30	SURFACE MOUNT HINGE STEEL, DULL LBLACK, REMOVABLE PIN	3
31	TORQUE ARM - NMRV 50	8
32	BELT WIPER, DRV, BR315-FBS	1
33	WIPER MOUNT, CVR PLT	2
34	SHAFT COLLAR W/MOUNTING HOLES	2
35	Ø7.75" D-SHAFT	2
36	PULLEY,4"OD,24.375L,1.25"B,KEYED TL,UNJAGGED,CROWNED	1
37	1 1/4" KEYED SHAFT 72"	1
38	SHAFT, PULLEY KEYED, .25 KEYWAY, 1.0 OD X 24.0 L	1
39	SHAFT COLLAR 1.0ID X 1 1/2OD	8
40	BEARING, NEEDLE THRUST Ø1" OD	16
41	WASHER, THRUST 1/32"	32
42	KEY 1/4" SQ X 8-1/2"L ZINC	1
43	20 TOOTH #40 CHAIN SPROCKET	2
44	MASTER LINK	1
45	#40 CHAIN LINK	79
46	KEY .31 SQ FOR USE WITH 7.5 HP MOTORS	1
47	60" A STYLE V-BELT	1
48	V BELT, 75" ID DOUBLE A	2
49	V BELT, 136" ID DOUBLE A	2
50	V BELT, 124" ID DOUBLE A	2
51		

AGRINOMIX
MACHINE TOOLS FOR GROWERS
300 CREEKSIDE DR. OBERLIN, OHIO 44074

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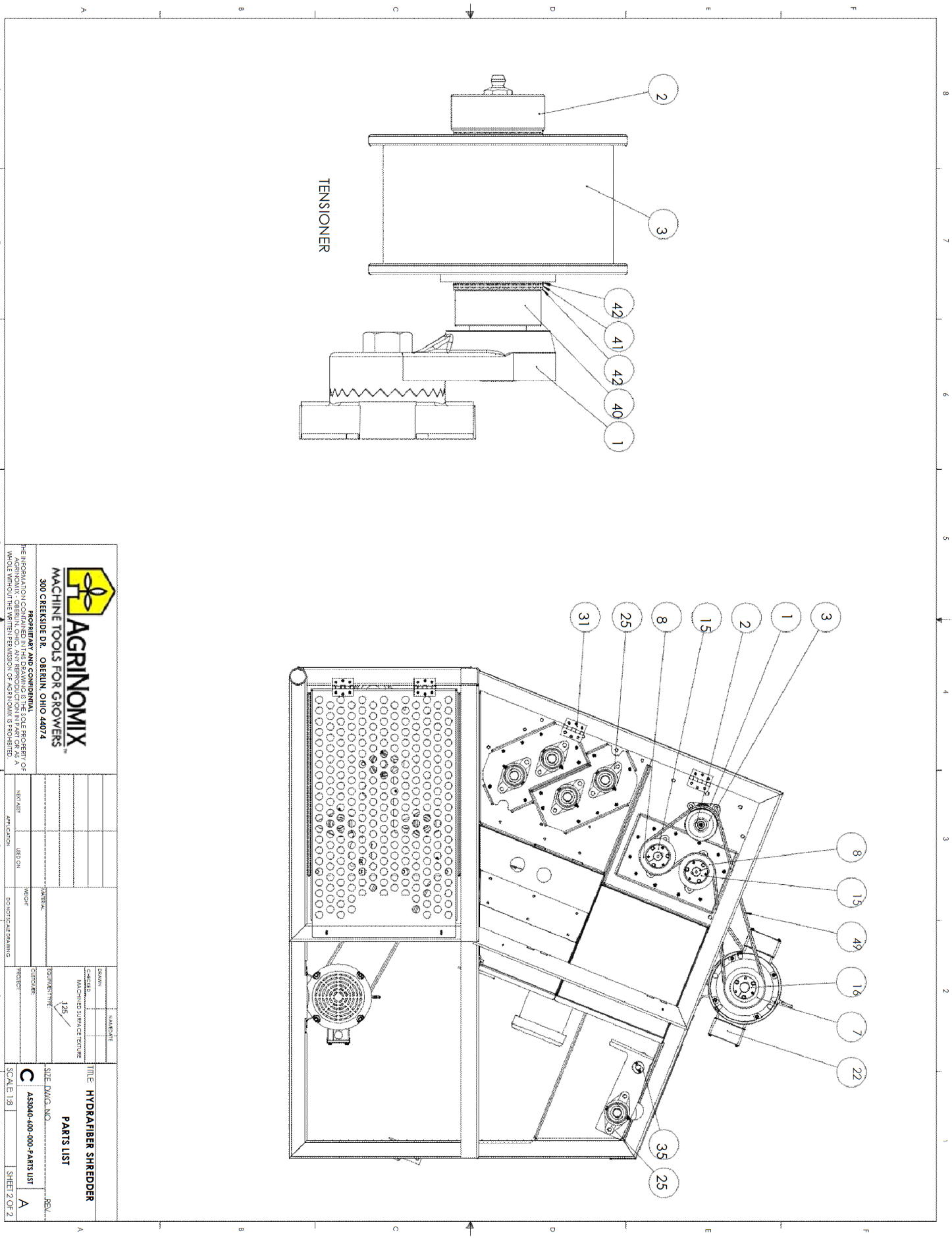
DRAWN
CHECKED
MACHINED SURFACE TEXTURE
125
EQUIPMENT TYPE
PROCESSOR
MATERIAL
WEIGHT
lbs.
CUSTOMER:
PROJECT:
A53040
NEXT ASSY
USED ON
APPLICATION
DO NOT SCALE DRAWING
NAME
DATE

TITLE: HYDRAFIBER SHREDDER
PARTS LIST
SIZE C
DWG. NO. A53040-600-000-PARTS LIST
REV B
SCALE: 1:8
SHEET 1 OF 2

Mechanical drawing, right side



Mechanical drawing, left side

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11	SHEAVE, 2 GROOVE 9.75" O.D.	1
12	SHEAVE, 1 GROOVE 3.75" O.D.	1
13	SHEAVE, 1 GROOVE 5.35" O.D.	1
14	QD BUSHING, SDS 1 1/8"	1
15	QD BUSHING, SDS 1 1/4	5
16	QD BUSHING, SDS 1 3/8"	2
17	QD BUSHING, SH 1"	2
18	QD BUSHING, SH 25MM	1
19	QD BUSHING, SH 1 1/4"	3
20	QD BUSHING, SK 1 1/4"	2
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39	SHAFT, FULLEY KEYED, .25 KEYWAY, 1.0 OD X 24.0 L	1
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42	WASHER, THRUST 1/32"	32
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44	20 TOOTH #40 CHAIN SPROCKET	2
45	MASTER LINK	1
46	#40 CHAIN LINK	79
47	KEY .31 SQ FOR USE WITH 7.5 HP MOTORS	1
48	60" A STYLE V-BELT	1
49	V BELT, 77" ID DOUBLE B	2
50	V BELT, 136" ID DOUBLE A	2
51	V BELT, 124" ID DOUBLE A	2
S-600-X-RB	CONVEYOR BELT, REPLACEMENT, LACED- "X" LENGTH IN METERS	

Parts list