

# INFEED & OUTFEED CONVEYORS

USER GUIDE v1.3



INTRODUCTION	2
DISCLAIMER	2
SERVICE & REPAIRS	3
SAFETY	4
SAFETY INSTRUCTIONS	4
WARNING LABELS	5
GENERAL SAFETY PRECAUTIONS	6
INITIAL SETUP	8
GET TO KNOW YOUR CONVEYORS	8
WHAT'S IN THE CRATE	9
INITIAL ASSEMBLY & INSPECTION	10
OPERATIONS	14
INSTALLING AND TENSIONING THE CONVEYOR BELT	14
HEIGHT ADJUSTMENT	14
CONTROL PANEL ADJUSTMENT	15
CONTROL PANEL OVERVIEW	15
MACHINE START UP SEQUENCE	16
CLEANING & MAINTENANCE	17
CLEANING THE CONVEYORS	17
PREVENTATIVE MAINTENANCE	18
BEARING REPLACEMENT – INFEED	18
BEARING REPLACEMENT – OUTFEED	23
SPECIFICATIONS	27

# INTRODUCTION

This User Guide is a comprehensive manual covering the operation and maintenance of the Infeed and Outfeed Conveyor machines as of the date of publication. ETEROS TECHNOLOGIES reserves the right to make updates to the machine from time to time. In the event of an update, this User Guide will remain appropriate for the safe operation and maintenance of your unit. This User Guide, as well as any documentation supplied by component manufacturers, are to be considered the information package associated with this device. Every operator must read and understand the User Guide. The manual should be located within easy access for periodic review.

## **DISCLAIMER**

ETEROS TECHNOLOGIES recognizes that the Infeed and Outfeed Conveyors are purpose-built machines for processing cannabis by licensed producers. Please check all municipal, provincial/state, and federal laws and regulations before using the Infeed and Outfeed Conveyors. ETEROS TECHNOLOGIES does not promote or condone the use of processing equipment in any way that may be deemed illegal.

ETEROS TECHNOLOGIES recognizes that our equipment can be used for processing herbs, hops, flowers and many other products. It is not the responsibility of ETEROS TECHNOLOGIES to confirm alternative applications for our equipment.

# **SERVICE & REPAIRS**

Repairs may only be carried out by Eteros Technologies or a designated authorized agent (service technician).

Should the need arise, please notify us:

**ETEROS TECHNOLOGIES** 26 Industrial Ave. Carleton Place, Ontario, Canada K7C 3T2

www.eteros.com

Improper interfacing, improper repair, or unauthorized modification could result in void warranty claims.

# WARRANTY

Thank you for purchasing Mobius Conveyor equipment from Eteros Technologies Inc.

The Mobius Infeed & Outfeed Conveyor is covered by our manufacturer's warranty as follows:

- No warranty on consumable parts, including conveyor belts;
- Warranty coverage for one (1) year or 1,000 operating hours, whichever occurs first, on motors, electrical components, and remainder of machine components.

The warranty period begins on the date the equipment is received by the customer. Any damage that occurs during shipping will be the responsibility of Eteros Technologies.

The above terms are valid if Mobius equipment is used and maintained as directed. If the equipment is modified in any way, all terms of this warranty are void. This warranty does not apply to cosmetic damage, such as scratches or general wear and tear.

Should you experience a technical problem with your equipment, please contact Eteros Technologies at the email or phone number outlined in the Services & Repairs section.

# SAFETY

## WARNING LABELS



#### **DANGER:**

Indicates a hazardous situation that, if not avoided, will result in serious injury and / or death. This signal word is to be limited to the most extreme situations; typically for machine components that, for functional purposes, cannot be guarded.



#### **WARNING:**

Indicates a potentially hazardous situation that, if not avoided, could result in serious injury and / or death. It includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



#### **CAUTION:**

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## SAFETY INSTRUCTIONS

To ensure operator safety while in use, this device includes decaling, guarding, and other safety features. Operators are encouraged to use caution and best judgment when using equipment. Equipment should be serviced when required.

To avoid possible damage to the machine and risk of injury to the operator, consult with an ETEROS TECHNOLOGIES representative to answer any questions.

All operators must read and understand this User Guide and be trained in safe operation and use of the Infeed and Outfeed Conveyors. We recommend the owner of this equipment develop a standard operating procedure specific to each worksite to address any local hazards or other conditions not outlined in this User Guide. The conveyors must be inspected regularly for damage, component failure, and wear. Results of inspection activity should be documented.

ETEROS TECHNOLOGIES makes every effort to ensure the Infeed and Outfeed Conveyors are compliant with all current safety standards. It is the responsibility of the owner to ensure all municipal, provincial, state, county, territorial, and federal codes, regulations, and standards have been met in each working location.

Do not lend or rent your machine without providing the User Guide. A first-time operator should receive practical instruction before using the machine.

This machine is not to be used for any purpose other than those expressly stated in the User Guide, advertising literature, or other ETEROS TECHNOLOGIES written material pertaining to the conveyors.

#### **GENERAL SAFETY PRECAUTIONS**

#### KNOW THE SAFETY INFORMATION

Read and become familiar with the entire User Guide. Learn the equipment applications, limitations, and possible hazards.

#### KEEP GUARDS AND SHIELDS IN PLACE

Keep all guarding in place and in working order to protect both the device and the operator.

#### **WORK IN A SAFE ENVIRONMENT**

Do not use equipment in a dangerous environment or damp/wet locations. Never expose the control panel directly to rain or water. Keep the work area well-illuminated.

#### WORK AWAY FROM FLAMMABLE LIQUIDS OR GASES

Do not use the device in the presence of flammable liquids or gases.

#### KEEP THE WORK AREA CLEAN

Cluttered areas and workspaces invite accidents.

#### TRAINED OPERATORS ONLY

Keep children and bystanders away from the device. visitors should be kept at a safe distance from the work area.

#### DON'T FORCE THE EQUIPMENT

It will operate optimally and safely at the rate for which it was designed.

#### USE THE RIGHT TOOL

Don't force the device to do a job for which it was not designed.

#### WEAR PROPER APPAREL

Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear a protective hair covering to contain long hair.

#### ALWAYS OPERATE DEVICE IN A WELL-VENTILATED AREA

Dust generated from certain materials can be a health hazard. Use a dust collection system whenever possible.

#### WEAR A FACE MASK OR DUST MASK

This device may produce dust or operate near other dust-producing machines. If dust extraction is not considered, a dust mask must be worn.

#### POWER DOWN AND DISCONNECT

Power down and disconnect equipment before servicing and when changing any accessories, consumables, or other components.

#### CHECK FOR DAMAGED PARTS BEFORE OPERATION

The equipment should be inspected prior to use to ensure proper operation in performing its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Any damaged part including guards should be properly repaired or replaced.

#### ALWAYS WEAR EYE PROTECTION

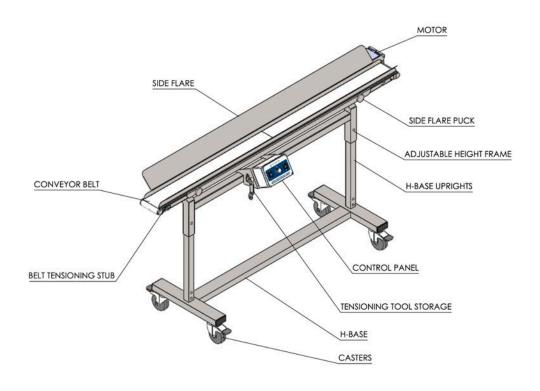
Safety goggles can protect your eyes from fast-moving debris.

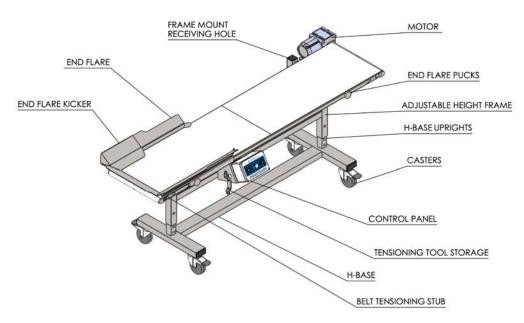
#### ALWAYS WEAR EAR PROTECTION

Wear ear muffs or earplugs when operating loud machinery.

# **INITIAL SETUP**

# **GET TO KNOW YOUR CONVEYORS**





## WHAT'S IN THE CRATE

#### INFEED CONVEYOR

- 1x CONVEYOR H-BASE
- 2 x CONVEYOR UPRIGHTS
- 2 x THROUGH SUPPORT BARS
- 2 x FRAME MOUNT CAPS
- 2 x THROUGH STOPS
- 1 x VERTICAL SLIDER ASSEMBLY
- 1 x CONVEYOR BELT
- 1 x CONTROL PANEL
- 1 x MOTOR
- 2 x SIDE FLARE
- 2 x 2" HEX BOLTS
- 4 x 1-5/8" HEX BOLTS
- 4 x 1" BUTTON HEAD CAP SCREWS 6 x 5/16" HEX NUTS
- 6 x 5/16" WASHERS
- 1x INFEED GUIDE PLATE
- 1 x TENSIONING HANDLE

#### **OUTFEED CONVEYOR**

- 1x CONVEYOR H-BASE
- 2 x CONVEYOR UPRIGHTS
- 2 x THROUGH SUPPORT BARS
- 2 x FRAME MOUNT CAPS
- 2 x THROUGH STOPS
- 1 x VERTICAL SLIDER ASSEMBLY
- 1 x CONVEYOR BELT
- 1 x CONTROL BOX
- 1 x MOTOR
- 1 x SIDE PANEL ASSEMBLY
- 1x DEFLECTOR PLATE
- 2 x 2" HEX BOLTS
- 4 x 1-5/8" HEX BOLTS
- 4 x 1" BUTTON HEAD CAP SCREWS 6 x 5/16" HEX NUTS
- 6 x 5/16" WASHERS
- 1 x TENSIONING HANDLE

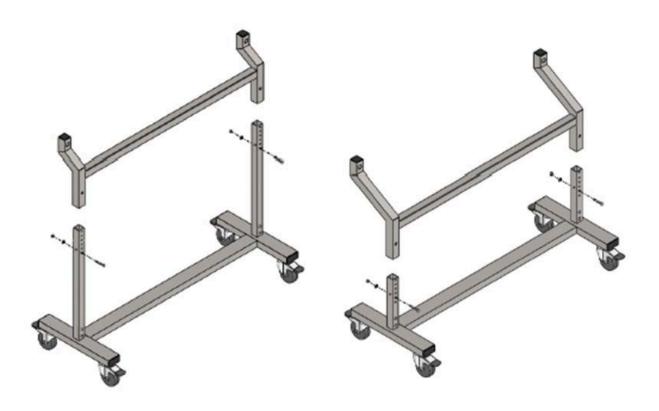
## **INITIAL ASSEMBLY & INSPECTION**

# THE SETUP PROCESS IS NEARLY IDENTICAL FOR BOTH THE INFEED AND OUTFEED CONVEYORS

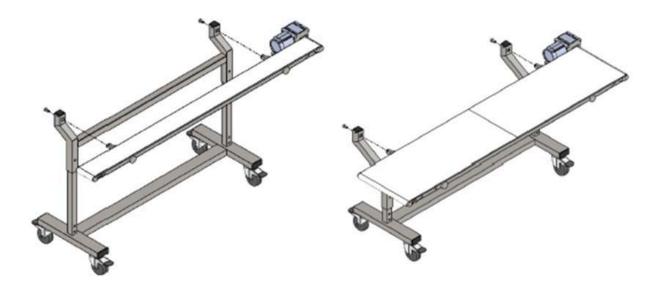
- 1. Inspect the crate and crate contents to ensure no damage occurred during shipping.
- 2. Remove components from the crate.
- 3. Using 4 x 1-5/8" HEX BOLTS, 4 x 5/16" HEX NUTS, and 4 x 5/16" WASHERS, attach H-BASE UPRIGHTS to H-BASE. The head of the bolts should sit within the hexagonal cutouts on the H-BASE UPRIGHTS. Ensure that both pieces are installed facing the same direction.



4. Using 2 x 2" HEX BOLTS, 2 x 5/16" HEX NUTS and 2 x 5/16" WASHERS, attach ADJUSTABLE HEIGHT FRAME to H-BASE UPRIGHTS. The ADJUSTABLE HEIGHT FRAME can be installed at the desired height. To function best with the Mobius M108S Trimmer, it is recommended that the ADJUSTABLE HEIGHT FRAME on the INFEED CONVEYOR be installed at the bottom hole.



5. Remove 2 x 1" BUTTON HEAD CAP SCREWS from the TROUGH SUPPORT BARS, and slide the entire CONVEYOR BELT with TROUGH SUPPORT BARS into the ADJUSTABLE HEIGHT FRAME. Align the holes on the TROUGH SUPPORT BARS with the holes in the frame, and fasten using previously removed 2 x 1" BUTTON HEAD CAP SCREWS. NOTE: Ensure that the motor is on the same side as the BUTTON HEAD CAP SCREWS, otherwise belt removal will be difficult.



6. Mount CONTROL PANEL on ADJUSTABLE HEIGHT FRAME, and place TENSIONING TOOL in the tool storage cutout.



7. Install 2 x SIDE FLARES (INFEED CONVEYOR) or the END FLARES (OUTFEED CONVEYOR) by setting them on the SIDE FLARE PUCKS and TROUGH STOPS. Ensure that the SIDE FLARES are bent outward, away from the conveyor belt. If the OUTFEED CONVEYOR is oriented 90 degrees to the trimmer, place the END FLARE KICKER on the END FLARE directly below the trimmer outfeed to direct product to the middle of the conveyor belt. Once initial assembly is complete, inspect the conveyors to confirm that they are ready to operate:

- Confirm the power cord is in good condition
- Ensure the belt is properly aligned on the rollers on each end
- Ensure the belt is properly tensioned
- Ensure all fasteners are tight and that there is no wobble in the frame



# **OPERATIONS**

# INSTALLING AND TENSIONING THE CONVEYOR **BELT**

- 1. Slide the conveyor belt onto the metal body from the side of the machine.
- 2. Ensure the groove on the underside of the belt is positioned in the slots of the rollers at each end.
- 3. Using the TENSIONING TOOL, turn the BELT TENSIONING STUB clockwise until the belt is tensioned. When the belt is adequately tensioned, the BELT TENSIONING STUB will provide significant resistance against further turning. DO NOT TENSION THE BELT PAST THIS POINT. DO NOT USE A POWER TOOL TO TENSION THE BELT. PERMANENT DAMAGE WILL RESULT.

# **HEIGHT ADJUSTMENT**

Both the Infeed and Outfeed conveyors are designed to accommodate 6" of height adjustment. The height of each conveyor can be set at 1" increments. To adjust the height of either conveyor:

- 1. Remove the nut and washer from each H-BASE UPRIGHT, to ADJUSTABLE HEIGHT FRAME connection.
- 2. Remove the hex bolt from each ADJUSTABLE HEIGHT FRAME.
- 3. With the help of another person, slide the ADJUSTABLE HEIGHT FRAME to the desired height by aligning the holes with the H-BASE UPRIGHTS.
- 4. Reinstall the hex bolt through the VERTICAL SLIDE ASSEMBLY and H-BASE UPRIGHTS.
- 5. Reinstall the nuts and washers.

## CONTROL PANEL ADJUSTMENT

For ease of use with other Mobius equipment, the orientation of the control panel can be reversed so that it can be accessed from either side of the equipment. To switch the control panel:

- 1. Lift the CONTROL PANEL off the ADJUSTABLE HEIGHT FRAME. No tools or fastener removal is required.
- 2. Rotate the CONTROL PANEL so that it is facing the other side of the equipment, and place it down on the ADJUSTABLE HEIGHT FRAME.

## CONTROL PANEL OVERVIEW

#### LEFT:

#### ON/OFF

Turns the conveyor on or off. In the on position, the conveyor will immediately begin running at the set speed and direction. In the off position, no power is delivered to the machine.

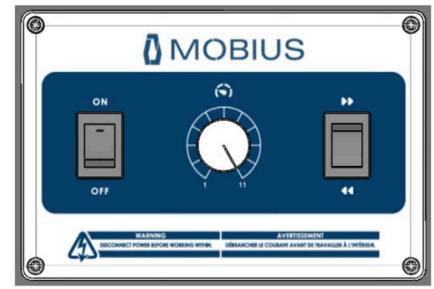
## **MIDDLE: SPEED CONTROL**

Rotate the knob clockwise to increase the belt speed, and rotate the knob counterclockwise to reduce belt speed.

#### **RIGHT:**

#### **DIRECTION CONTROL**

Flipping the direction switch will flip the travel direction of the belt.



# MACHINE START UP SEQUENCE

- 1. Plug the power cord into a 110V outlet.
- 2. Ensure belt is tensioned.
- 3. Ensure side panels are installed.
- 4. Flip the power switch to the ON position.
- 5. Flip the direction switch to set the conveyor to the correct travel direction.
- 6. Turn the speed adjustment knob clockwise to increase the belt speed, or counterclockwise to reduce the belt speed.

# **CLEANING & MAINTENANCE**

## **CLEANING THE CONVEYORS**

Eteros conveyors are washdown-rated and feature easily removable conveyor belts.

To clean each conveyor, proceed as follows:

- 1. Flip the power switch to the OFF position and disconnect the power cord.
- 2. Remove side panels by simply lifting them off the conveyor.
- 3. Using the TENSIONING TOOL, while standing at the end of the conveyor, turn the BELT TENSIONING STUB away from where the operator is standing. Continue turning until the BELT TENSIONING STUB bottoms out. A clear increase in turning resistance will be felt at this point. DO NOT FORCE THE BELT TENSION ADJUSTER PAST THE BOTTOMING OUT POINT, DO NOT USE ANY POWER TOOLS TO TURN THE STUB. DOING SO WILL RESULT IN PERMANENT DAMAGE.
- 4. Grip the belt at each side, and slide it sideways off the metal body of the conveyor.
- 5. Spray down or soak the belt in diluted degreaser for 5 10 minutes. If necessary, use a cloth or soft-bristled brush to remove stubborn soils. Rinse thoroughly (pressure washer ok) with warm or hot water (maximum 55°C/130°F) and allow to dry. Apply a sanitizer if necessary as part of your sanitation SOP.
- 6. Spritz metal body and frame with degreaser, allowing time for the degreaser to sit on surfaces and penetrate any soils. Use a cloth to remove any stubborn soils. Rinse thoroughly (pressure washer ok) with warm or hot water (maximum 55°C/130°F) and allow to dry. Take care to wash the underside of the conveyor where internal components are housed.
- 7. Avoid pressure washing the CONTROL PANEL. Use a damp cloth with warm water to remove any residue or buildup on the buttons and dial.
- 8. Reinstall the belt on to the machine.

# PREVENTATIVE MAINTENANCE

Eteros recommends removing the side panels and belt to clean the machine daily as outlined in the CLEANING THE CONVEYORS section of this user guide. The side panels are designed to prevent plant matter from accumulating in unwanted areas if installed correctly, but some material may still enter these areas. Regularly inspect the machine to ensure unintended dirt buildup is not occurring.

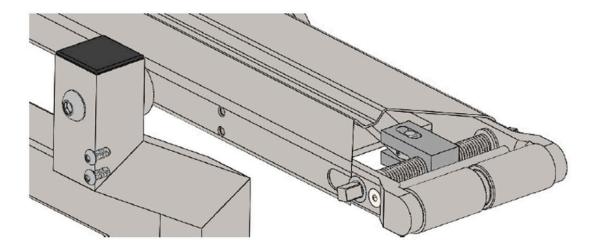
Bearings should be inspected annually. Ensure that they turn smoothly with no signs of clicking, grinding or metal shavings. Refer to the Bearing Replacement instructions to see how to access the bearings. Failure to assess the bearing as recommended may result in failure and/or damage to the bearings and associated parts.

# BEARING REPLACEMENT - INFEED

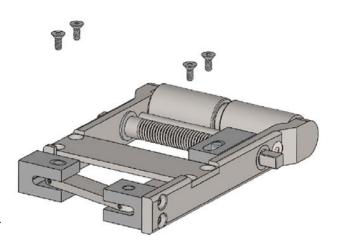
Should the need arise to replace the bearings in either your infeed or outfeed conveyor, the process is straightforward and involves little more than removing some screws. Follow along with the steps below and you'll have your conveyor back up and running in no time!

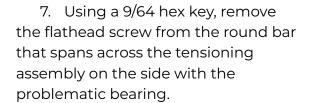
#### TENSIONING-SIDE BEARING REPLACEMENT - INFEED

- 1. Start by removing the side flares.
- 2. Use the conveyor tensioning tool to remove tension from the belt, then slide the belt off and set aside.
- 3. Using a 9/64" Allen key, undo the two screws that secure the tensioning assembly to the body of the conveyor.

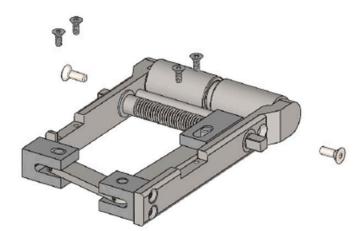


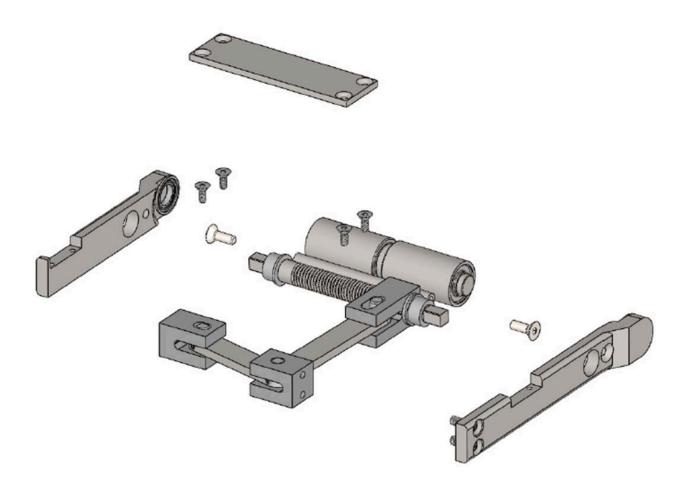
- 4. With the screws removed, grab onto the roller and slide the whole assembly right out of the conveyor. You may need to wiggle the assembly a little bit as you are pulling it out.
- 5. Set the tensioning assembly upside down on a table or workbench.
- 6. Using a 5/32 hex key, remove the 4 screws securing the plate to the two side arms.







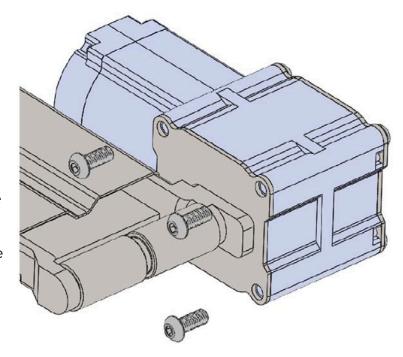


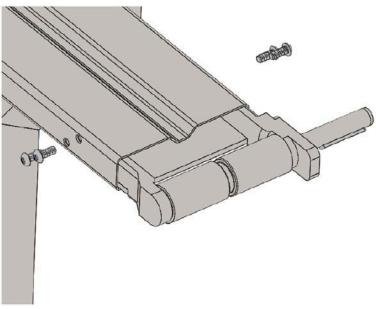


- 8. With the plate removed, separate the side arm with the problematic bearing. Remove the bearing, and install your new bearing in the bore. Then, reinstall the plate you removed in the previous step. NOTE: if the problematic bearing is in the arm on the right (pictured below), there are two additional screws that need to be removed.
- 9. Slide the tensioning assembly back into the conveyor body, and secure it with the 2 screws that were removed earlier.
- 10. Finish your replacement by reinstalling the belt and side panels.

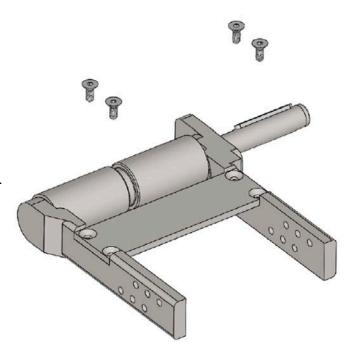
## MOTOR SIDE BEARING **REPLACEMENT - INFEED**

- 1. Remove the side panels and belt as per steps 1 and 2 of the previous section.
- 2. Remove the 4 bolts securing the motor to the conveyor using a 6mm hex key, then slide the entire motor off the drive shaft and set aside.
- 3. Using a 9/64 hex key, remove the 4 bolts securing the motor assembly to the conveyor body. Set these aside in a safe place.
- 4. Grab the roller and slide the entire motor assembly out of the conveyor body. You may have to wiggle the assembly back and forth slightly as you pull it out.
- 5. Set the assembly upside down on a table or workbench.
- 6. Using a 5/32 hex key, remove the 4 screws securing the plate to the two side arms.
- 7. With the plate removed, separate the arm with the problematic bearing. Remove the old bearing, and replace it with your new one. Then reinstall the plate you removed in the previous step.
- 8. Slide the motor assembly back into the conveyor body, and secure it with the 4 screws that were removed earlier. Note that there are 3 sets of holes on the side arms. We recommend that you install the screws through the middle set of holes.





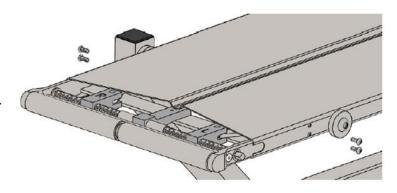
- 9. Re-install the motor by sliding it onto the drive shaft. Ensure that the motor is in the orientation as shown, and that the keyway bore on the motor aligns with the key in the shaft. Secure the motor with the 4 bolts removed earlier.
- 10. Finish your replacement by reinstalling the belt and side panels.



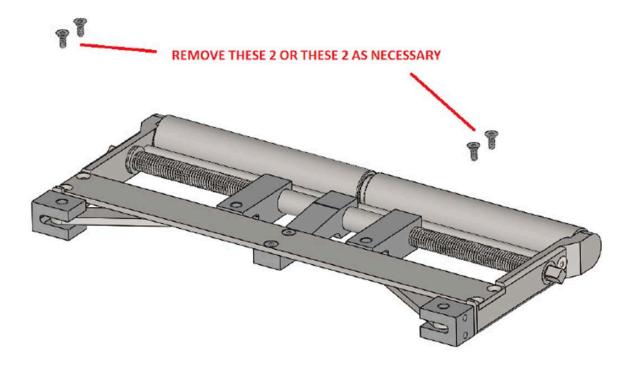
## BEARING REPLACEMENT - OUTFEED

### TENSIONING-SIDE BEARING REPLACEMENT - OUTFEED

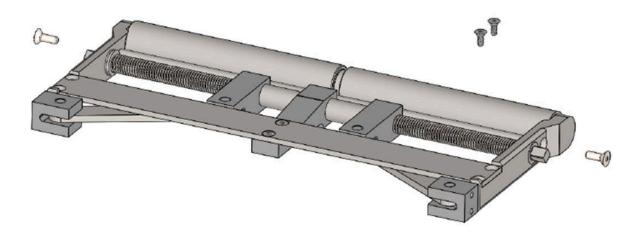
- 1. Remove the side panels as previously outlined.
- 2. Remove the 4 bolts securing the tensioning assembly to the conveyor body using a 9/64 hex key.
- 3. With the screws removed, grab onto the roller and slide the whole assembly right out of the conveyor.



- 4. Set the tensioning assembly upside down on a table or workbench.
- 5. Using a 5/32 hex key, remove only the screws securing the side arm with the problematic bearing to the plate.





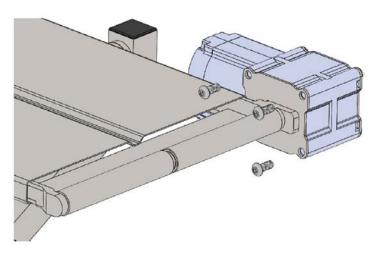


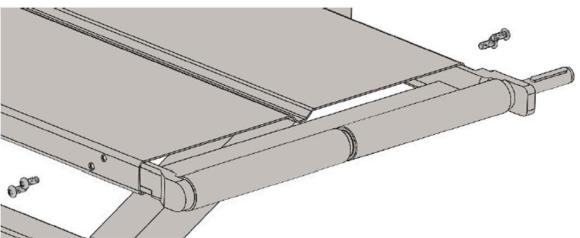
- 6. Using a 9/64 hex key, remove the flathead screw from the round bar that spans across the tensioning assembly on the side with the problematic bearing.
- 7. At this point, the side arm should freely separate from the assembly. Replace the bearing in this arm, and proceed.
- 8. Align the screw holes on the bottom of the arm with the replacement bearing with the holes on the metal plate, and re-install the 2 screws removed earlier. Ensure that the tensioning shaft is inserted through the clearance hole on the arm, and that the roller is inserted into the new bearing.
- 9. Align the round metal bar with the screw hole on the replacement bearing arm, and re-install the screw removed in step 6.
- 10. With the tensioning shaft, round bar, and roller all secured between the two arms, the tensioning assembly is ready to be re-installed into the conveyor body.
- 11. Ensure the screw holes on the plastic blocks are facing outward (aligned with the screw holes on the conveyor body) and slide the assembly into the opening until the screw holes are aligned. Secure with the fasteners removed in step 2.

- 12. Check that the tensioning assembly is functioning properly by rotating the tensioning shaft using the conveyor tensioning tool. If the turning is smooth without hiccups, the assembly is working properly.
- 13. Re-install the belt and side panels.

#### MOTOR-SIDE BEARING REPLACEMENT - OUTFEED

- 1. Remove the belt and side panels.
- 2. Remove the 4 bolts securing the motor to the conveyor using a 6mm hex key, then slide the entire motor off the drive shaft and set aside.





3. Using a 9/64 hex key, remove the 4 bolts securing the motor assembly to the conveyor body. Set these aside in a safe place.

4. Grab the roller and slide the entire motor assembly out of the conveyor body. You may have to wiggle the assembly back and forth slightly as you pull it out.



- 5. Set the assembly upside down on a table or workbench.
- 6. Using a 5/32 hex key, remove the 4 screws securing the plate to the two side arms.
- 7. With the plate removed, separate the side arm with the problematic bearing, and install your replacement bearing, then reinstall the plate you removed in the previous step. Ensure that the roller is inserted into the new bearing.
- 8. Slide the motor assembly back into the conveyor body, and secure it with the 4 screws that were removed earlier. Note that there are 3 sets of holes on the side arms. We recommend that you install the screws through the middle set of holes.
- 9. Re-install the motor by sliding it onto the drive shaft. Ensure that the motor is in the orientation as shown, and that the keyway bore on the motor aligns with the key in the shaft. Secure the motor with the 4 bolts removed earlier.
- 10. Finish your replacement by reinstalling the belt and side panels.

# **SPECIFICATIONS**

	INFEED	OUTFEED
CONSTRUCTION	304 Stainless Steel	304 Stainless Steel
BELT MATERIAL	Fully-encased anti-microbial polyurethane	Fully-encased anti-microbial polyurethane
MOTOR	1/10 HP	1/10 HP
SPEED RANGE	6 – 35 FT / MIN	6 – 35 FT / MIN
TOOL-LESS DISASSEMBLY	YES	YES
BELT DIMENSION	5" W X 72" L	16" W X 72" L
OVERALL DIMENSIONS	18" W x 72" L x 45" H	27" W x 72" L x 31" H
WEIGHT	87 LBS	120 LBS
POWER REQUIREMENT	120 V, 1.5 AMPS	120 V, 1.5 AMPS
INTERNATIONALPOWER REQUIREMENT	240 V, 0.7 AMPS	240 V, 0.7 AMPS
RECOMMENDED PPE	EAR PROTECTION EYE PROTECTION DUST MASK	EAR PROTECTION EYE PROTECTION DUST MASK
WARRANTY	1 YEAR or 1,000 Hours	1 YEAR or 1,000 Hours
MOTOR MARKINGS	UL, CSA, CCC, EN, CE	UL, CSA, CCC, EN, CE