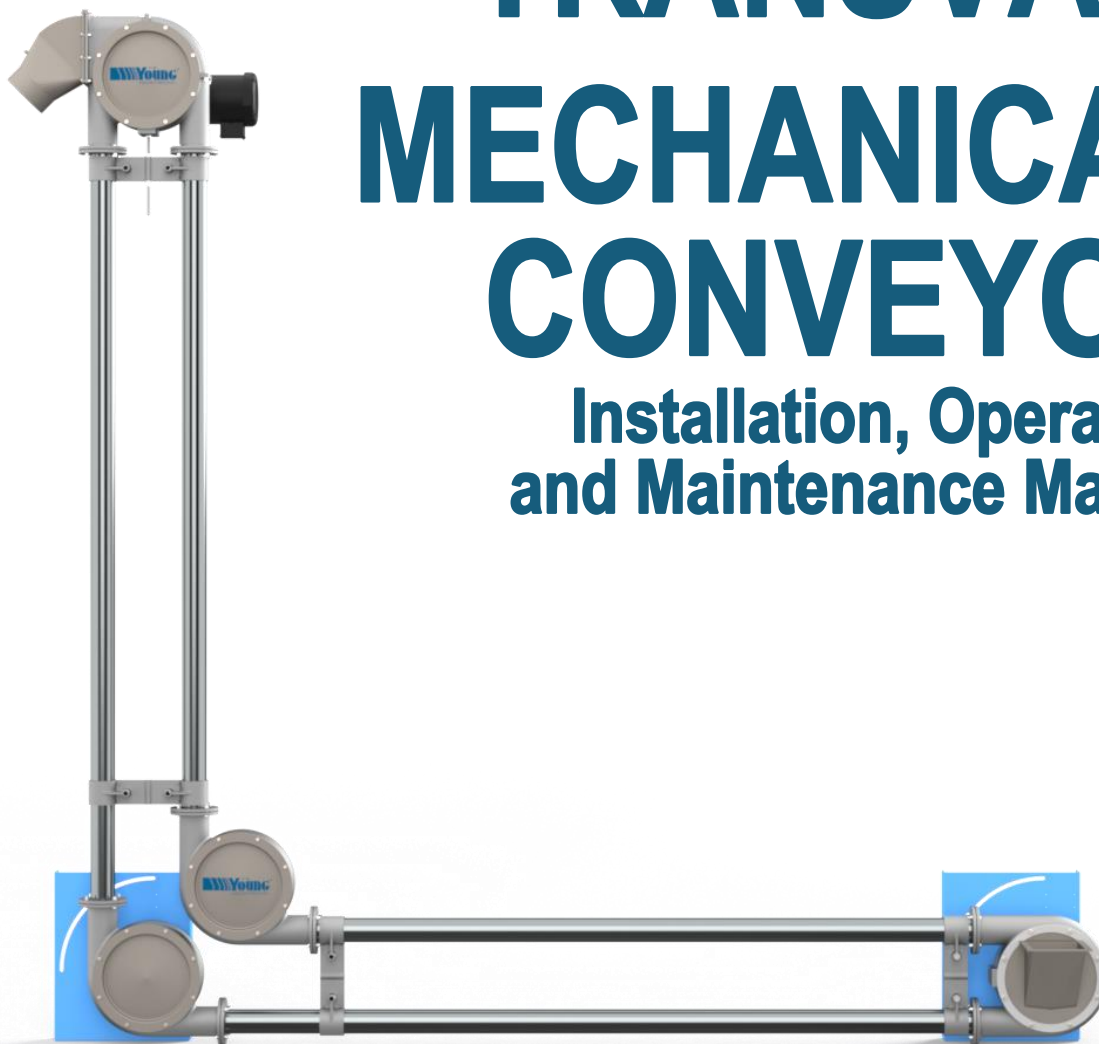


TRANSVAIR MECHANICAL CONVEYOR

Installation, Operation,
and Maintenance Manual



INDUSTRIES, INC.
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FOREWORD

Young Industries *TransVair Mechanical Conveyors* are furnished in 3" and 4" tube size. The length and configuration of each unit is dependent on the application. Units are available in the straight line, right angle or Z-type configurations. Each unit is driven by a **shaft mounted gearbox** which is located at either the top or bottom of the unit, dependent on the application. Conveyors up to 20' in length are normally shipped fully assembled, with longer conveyors shipped disassembled, requiring assembly in the field. Properly installed and maintained, the *TransVair Mechanical Conveyor* is guaranteed against defects in material and workmanship for a period of one year from the date of shipment.

This manual contains instructions for installation, operation and maintenance of Young Industries *TransVair Mechanical Conveyors*. The care taken during receiving, storage, installation, operation and continued maintenance will add to the reliable operation and long service life of this equipment.

This manual should be read and understood in its entirety by the operator and the Plant Safety Director prior to performing any work on the conveyor. Copies of this manual are being supplied with each *TransVair Mechanical Conveyor* order. Contact Young Industries if additional copies of the manual are required to ensure that the equipment is operated safely and according to the recommended procedures.

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SAFETY

READ AND FULLY UNDERSTAND THIS MANUAL PRIOR TO PERFORMING ANY WORK ON OR OPERATING A YOUNG INDUSTRIES *TRANSVAIR* MECHANICAL CONVEYOR.

If you have previously received delivery of a *TransVair mechanical conveyor* and have just received this latest (updated) manual, insist that the conveyor operator and the plant safety director read and fully understand this manual prior to continued use of the conveyor or dismantling for maintenance.

Notify Young Industries if your *TransVair mechanical conveyor* does not include safety warning labels or devices recommended within this manual which you believe may be important to improve the safe operation or maintenance of your conveyor installation. Contact the Engineering Manager at (570) 546-1861, prior to continued use or maintenance, for assistance.

Notify Young Industries if you have sold, leased, rented or given any Young Industries *TransVair mechanical conveyor* to another user. Your assistance will allow Young Industries to contact the new user with updated safety and/or operational recommendations.

Safety is a fundamental factor that must be considered at all times in the operation and maintenance of mechanical equipment. Use of proper tools and methods can prevent serious accidents that may result in injury to you and your fellow workers.

A number of safety precautions are listed throughout this manual. Study them carefully and follow them; insist that those working with you do the same. Remember, an accident can easily be caused by

someone's carelessness or negligence.

The various precautions and recommendations detailed within this manual are not necessarily all inclusive. Young Industries has attempted to provide SAFETY AND OPERATIONAL GUIDANCE relating to typical installation for which we are familiar. We urge you to review your particular installation to determine whether there are potential hazards beyond the warnings of this manual.

If you have a safety or operational questions pertaining to the design or application of a Young Industries *TransVair mechanical conveyor* as it relates to your particular installation, contact The Young Industries Engineering Manager.

Most employers are subject to the Federal Occupational Safety and Health Act of 1970, as amended. This act requires an employer to keep abreast of the regulations which will continue to be issued under its authority.

Failure to observe and follow the safety precautions may result in serious personal injury or property damage.

Young Industries looks to our customer to achieve a cooperative effort for the purpose of making our mechanical conveyor installations as safe for the operator as is reasonably possible and to ensure proper maintenance and operating procedures are followed. Many times, we do not have access to the installation. Therefore, your participation in the safe installation, operation and maintenance of our conveyor is critical.

RECEIVING AND INSPECTION

A. RECEIVING AND INSPECTION

1. Upon receipt of equipment and material from Young Industries, the following basic steps should be taken.:
 - a. Use the packing list to determine that all the items shipped have been received. Your equipment order was carefully crated or packaged, for safe shipment when given to the carrier. Check for damage.
 - (1) Damage in transit is the responsibility of the carrier. Be sure to have the drive

sign a copy of the freight bill with a notation about any damage.

- (2) Concealed Damage: If equipment or goods are discovered to be damaged by shipment at a later date, contact the carrier and Young Industries immediately.
- (3) In all cases of damage transit, contact The Young Industries Engineering Manager for assistance in determining whether or not this damage in any way may affect safety or proper conveyor operation.

INSTALLATION AND INLETS AND DISCHARGES

NOTE:

YOUNG INDUSTRIES CANNOT ASSUME LIABILITY FOR SHORTAGES OR DAMAGED GOODS. CLAIMS MUST BE NEGOTIATED WITH THE CARRIER. CONTACT THE YOUNG INDUSTRIES ENGINEERING MANAGER AT 570/546-3165 FOR ASSISTANCE IN RECTIFYING ANY SHORTAGE OR DAMAGE AS MAY AFFECT SAFE AND PROPER CONVEYOR OPERATION.

2. Moving the *TransVair Mechanical Conveyor*

- a. Moving and installation should always be performed by trained, experienced personnel, using safe and accepted rigging practices.
- b. Care and caution should be exercised to prevent damaging the conveyor tubes, housings and drive components.

CAUTION:

WHEN MOVING A MECHANICAL CONVEYOR OR COMPONENT PARTS, BE SURE THAT MOVING PRACTICES USED ARE FOR BOTH PERSONNEL AND EQUIPMENT. CONTACT THE YOUNG INDUSTRIES ENGINEERING MANAGER IF THERE ARE ANY QUESTIONS RELATING TO WHAT CONSTITUTES SAFE AND ACCEPTED RIGGING

PRACTICES FOR MOVEMENT AND/OR INSTALLATION OF A TRANSVAIR MECHANICAL CONVEYOR.

2. Storing the *TransVair Mechanical Conveyor*

- a. If moved to storage, the equipment should be located in a dry area, preferably inside. Outside storage will require adequate protection from weather.
- b. The conveyor has been shipped with temporary guards or covers for both the inlet and outlet flange. Do not remove these guards or covers while the unit is in storage.
- c. Refer to the maintenance section of this manual for specific recommendations prior to beginning any servicing in preparation for storage. Contact the Young Industries Engineering Manager if you are unsure of any detail of lubrication and/or servicing.
- d. After prolonged storage and prior to start-up, the conveyor and drive shall be inspected by qualified personnel. Contact the Young Industries Engineering Manager if assistance is required.

INSTALLATION

A. Stationary Conveyors

1. *TransVair Mechanical Conveyors* less than 20' in length will be shipped assembled, in one piece with inlet and discharge bolted in place. Installation of the conveyor is a matter of placing it in the proper position, bolting it to the floor, supporting the top end by using the tube clamps positioned at the discharge end.
2. Conveyors longer than 20' in length will be supplied in two or more sections. This is done for transportation purposes and the unit must be reassembled at the job site. These conveyors will have the joints staggered and marked to ensure a simple assembly in the field. The tube support clamps will be supplied and pre-assembled to the tubes. Compression couplings will be used at the tube joint to create dust tight seal.

3. Units which arrive pre-assembled will have the rope assembly installed. The rope tension should be checked as outlined on Page 7.
4. The conveyors which are sent disassembled will have the rope assembly in a separate container which must be opened and inspected. The rope assembly should then be installed in the conveyor as outlined on page 11 and tensioned as outlined on page 7.

B. Supports

1. It is recommended that all conveyors be supported at the tube clamp which is located at the top of the unit. The tube clamp has two lugs with thru holes which make it quite simple to support the conveyor. The supporting system must be structurally adequate to support the operating *TransVair Mechanical Conveyor*. For conveyors that

INSTALLATION AND INLETS AND DISCHARGES

are longer than 20 ft., it may be necessary to support the tubes mid-span to eliminate sagging. Tubes must be straight.

2. Each machine is supplied with a bottom support base. The support base for a unit is the same for both a bottom drive and top drive. Bases have support lugs which should be bolted to the floor prior to equipment start-up.

C. Motor and Drive

1. The *TransVair Mechanical Conveyor* is shaft driven by utilizing an 1800 RPM motor with gearbox. The motor and drive may be located at the bottom or top end depending on the application and length of machine.
2. The motor and gearbox on a TMC can be mounted either in the horizontal position or the vertical position with the motor over the gearbox. It is not recommended to mount the motor in the vertical position with the motor UNDER the gearbox due to the possibility of oil leaking into the motor.
3. If the motor and gearbox are mounted on the top housing, it is recommended that the connection to the motor be flexible or have a service loop to allow the top housing to move. This will allow proper rope tensioning. If unit is a bottom drive, a rigid electrical connection may be used.
4. Gearboxes will come pre filled with oil (ISO VG 320 GRADE) The manufacture states that "SF1.0, i.e. 8-10 running hours per day, uniform load, 10,000 working hours, less than 6 start/stops per hour and room temperature ranging from 60 to 95 °F (15 to 35 °C)" The capacity of oil required is .37qt or .35 liters.

DANGER:
DISCONNECT POWER BEFORE SERVICING
MOTOR OR DRIVE COMPONENTS.

INLETS AND DISCHARGES

A. Conveyor Inlet

1. Each conveyor is equipped with an inlet transition which is rectangular flanged, transitioned to the circular opening of the inlet housing. The inlet transition may be a standard gravity type or may utilize a vibrator or

CAUTION:
BE SURE TO REPLACE GUARDS AND SAFETY
EQUIPMENT PRIOR TO EQUIPMENT START-UP.

D. Portable Conveyors

1. *TransVair Mechanical Conveyors* are available with portable bases. Normally the conveyors are less than 20 ft. in length. The conveyor itself would normally be shipped fully assembled and crated. The portable base and support legs will be shipped in the same crate but may not be assembled to the conveyor.
2. The support legs will be bolted to the portable frame. To support the conveyor, support legs will be bolted to the tube clamp located at the upper section of the conveyor.
3. The inlet of the *TransVair Mechanical Conveyor* will be supported on the portable base. The bottom support base of the conveyor will be bolted directly to the portable frame.
4. The portable base is equipped with four lockable swivel casters. It is recommended that when the unit is in operation that these swivel casters be locked in position.
5. The motor and drive adjustment for the portable *TransVair Mechanical Conveyor* will be the same as the stationary conveyors, listed on Page 12.

E. Grounding

1. It is recommended that ALL CONVEYORS BE GROUNDED. Certain materials may cause the build-up of static electricity in the conveyor. Proper grounding is necessary. If there are any questions about proper grounding methods, contact Young Industries Engineering Manager.

TransFlow® air slide to assist product flow into the conveyor.

- a. Gravity Inlet – The gravity inlet is attached to the conveyor housing by a slip flange. Normally the gravity inlet is set in the correct position at Young Industries prior to shipment.

- b. Vibratory Inlet – The vibratory inlet has the front slope fitted with a belted neoprene material having a pneumatic vibrator attached. The vibratory inlet is attached to the inlet housing with a slip flange. An air pressure regulator is used on the supply to the vibrator, regulated to 80psi
- c. TransFlow® Air Slide Inlet – The air slide inlet has the front slope fitted with TransFlow® fluidizing media. It is recommended that a maximum of 10 PSIG air pressure be used for the air slide inlet supply. In some cases, the conveyor inlet is supplied complete with a pressure regulator to adjust the air pressure. Fluidizing air must be clean and dry. If a regulator is not supplied with the conveyor, one must be installed to control fluidizing pressure.

CAUTION:
COMPRESSED AIR – SHUT OFF AND BLEED
COMPRESSED AIR SYSTEM PRIOR TO
SERVICING.

B. Inlet Connections

1. The *TransVair Mechanical Conveyor* may be fitted with a hopper or adapter which connects to the conveyor inlet. The hopper and adapter are both equipped with vent connections. The 3" machine will require 10 CFM in the conveyor to be vented, while the 4" machine will require approximately 20 CFM. The hopper or adapter will normally be mounted to the conveyor for shipment. Be sure to remove the plastic cover over the vent connection prior to operating.

- a. Charge Hopper – The charge hopper is designed for manually dumping material into the inlet of the conveyor. It is equipped with a safety grating which is bolted to the hopper opening. The hopper is normally equipped with a manually operated slide gate valve. The slide gate directs material into the bottom of the sprocket assembly. It is not recommended that the slide gate is not set more than half open. If the slide gate is opened fully, material may feed into the upper area of the sprocket causing potential damage to the rope and sprocket assembly or completely stall the conveyor.
- b. Inlet Adapter – An inlet adapter will normally have vent connection. The inlet connection of the adapter is fabricated to match the customer's process.

C. Outlet Requirements

1. Each *TransVair Mechanical Conveyor* is supplied with an 8" O.D. discharge connection, unless specified otherwise by customer. It is imperative that a flexible connection be supplied between the discharge of the conveyor and the receiving vessel so that when rope tensioning is required, the discharge end assembly is free to move. See rope tensioning instructions, page 8.
2. For proper operation of the *TransVair Mechanical Conveyor*, the discharge should not be reduced in size. If possible, the receiving vessel should be vented and have a matching inlet opening dia or larger so that material flowing from the discharge will not be obstructed. Also, avoid all dog legs and tight bends which may cause problems with material flow from the discharge spout.

OPERATION

A. Start-Up

1. Prior to actual operation, the operator should familiarize themselves with the method of starting and stopping the *TransVair Mechanical Conveyor*. It should be verified that the unit is installed as oriented on Young Industries assembly drawing which is digitally provided with each order.
2. Before operating the *TransVair Mechanical Conveyor*, the following items should be checked:
 - a. The direction of rotation is correct. Directions arrows are placed on the tubes near the housings on both sides of the conveyor.
 - b. The outlet of the conveyor should not restrict the free fall of material from the discharge point. Avoid dog legs or

OPERATION AND MAINTENANCE

- transitioning to smaller diameter openings.
- c. The discharge connection between the *TransVair Mechanical Conveyor* and the receiving vessel should be flexible to allow rope tensioning in the conveyor.
 - d. If safety switches have been supplied for an inlet hopper, top or corner access doors, or any other safety purpose, these switches should be interlocked with the electric motor.

CAUTION:

THE SAFETY SWITCHES SHALL NOT BE BYPASSED OR TAMPERED WITH.

- e. All nuts and bolts have been tightened and safety guards or access covers are in place.
- f. The rope tension is adjusted as outlined on page 9.
- ~~g. The V-belt drive must be correctly tensioned as outlined on page 12.~~

B. Shut Down.

1. When shutting down the *TransVair Mechanical Conveyor*, shut off supporting utilities in accordance with the plant operating procedures.

2. When cleaning or servicing is required on the conveyor, proper lock out of electric, compressed air and mechanical equipment should be completed before the work is started.

DANGER:

DISCONNECT POWER BEFORE SERVICING.

CAUTION:

ROTATING MACHINERY – DO NOT OPERATE WITH GUARD OR COVER REMOVED.

C. Conveying Cycle

1. The *TransVair Mechanical Conveyor* is designed to operate at a fixed speed. Capacity of the conveyor is varied by adjusting the flow of material at the inlet of the conveyor utilizing the inlet baffle or slide gate.
2. The conveying cycle should be started without material in the convey tube. The conveyor should be stopped after the material is conveyed through the system and the tubes are clear. It is recommended that the unit not be started and stopped with material in the tubes.
3. Running the *TransVair Mechanical Conveyor* empty for long periods of time can cause premature wear of the rope and disc assembly. Running the conveyor empty for long periods of time should be avoided whenever possible.
Average service life of a rope assembly is 2,000 - 3,000 operating hours.

MAINTENANCE

A. Rope Tensioning

To ensure maximum life of the rope assembly it is necessary to schedule regular inspections of the conveyor. The inspection and adjustment of the rope assembly is the most significant factor which will affect the life of the *TransVair Mechanical Conveyor*. It is important to note that it is quite probable that during the regular inspections of the unit, the rope assembly will not need to be adjusted. The rope assembly should only be tensioned when additional tensioning is needed. In general, it is better to have the rope assembly slightly under tension than over tensioned.

1. Over tensioned rope assembly – An over tensioned rope assembly can cause the wire rope to fray, resulting in rope breakage. Also, a telltale sign of the over tensioned rope is excessive wear of the trailing boss of the disc

assembly. Over tensioning may also result in the premature wear of the outside diameter of the sprocket rim. See Figure #3 for examples of a grooved rim assembly.

2. Under tensioned rope assembly – When a rope assembly becomes under tensioned, the rope will lose contact with the lower sprocket rim which may result in the rope assembly derailing from the rim. Also, under tensioning may cause the outside diameter of the discs to wear prematurely due to the scraping of the discs along the bottom housing assembly. If, when inspecting the bottom rim assembly, the rope is hanging loose from the bottom rim, it is necessary to tension the rope assembly as instructed below.
3. During normal operation, the rope assembly will stretch. In many cases, the rope will stretch

MAINTENANCE

more during the first eight hours of operation than during the remainder of its service life. Check the rope tension after the initial eight hours of service and schedule regular inspections of the rope to check for proper tension.

B. Tension Adjustment

DANGER:

DISCONNECT POWER BEFORE INSPECTING OR ADJUSTING ROPE TENSIONING.

CAUTION:

BE SURE TO REPLACE GUARDS AND SAFETY EQUIPMENT PRIOR TO EQUIPMENT START-UP.

1. Remove the cover plate at the top housing to inspect the rope tension.
- ~~2. If the unit is equipped with a top drive assembly, remove the drive guard and loosen the v-belt drive. It is not necessary to loosen the V-belt drive when it is located at the bottom end.~~
3. The sprocket of the conveyor has U-shaped cut-outs. Grasp these cut-outs with two hands and turn the sprocket rim sharply, back and forth, approximately 1/8 of a turn. The disc assembly should move to each end of the profiled notch with each sharp turn of the sprocket rim. This indicates that the rope assembly is not over tensioned. It is now necessary to ensure that the rope assembly is not under tensioned by using the following guidelines.
4. The top housing is equipped with two **flanges** which **secure** the housing to the tubes. The **securing hardware should be loosed to allow for the top housing to move freely.**
5. Each unit is equipped with a tensioning **rod and hex nuts**. Screw out the tensioning bolt by approximately 1/2 turn and move the rim by hand sharply approximately 1/8 turn, checking to see slippage of the discs within the sprocket notch. **When increasing rope tension, ensure that the tube clamps are maintaining their position on the tubes and only the top housing is moving, tensioning the rope.** Repeat this procedure until the disc and sprocket rim move together.
6. When the point is reached where the sprocket rim and disc move together, loosen the tensioning bolt 1/2 turn. The rope assembly is now correctly adjusted. As a final check move the sprocket assembly sharply to determine that the disc will slip in the notch.

7. Tighten the housing **flanges to secure the housings to the tubes.**

~~8. If the unit is equipped with a top drive assembly, tighten the V-belt drive and install the V-belt drive guard.~~

9. Attach the top cover plate to the top housing assembly.

NOTES:

1. If at initial inspection the disc assembly does not move in the notches of the sprocket, the rope assembly is over tensioned. Follow steps 1, 2 and 4. Loosen the tensioning bolt. Until the disc slips in the notch when the sprocket rim is turned sharply.

Adjust to the correct tension by carrying out steps 4 thru 7.

2. To properly tension the *TransVair Mechanical Conveyor*, it is important that a flexible connection be installed between the discharge of the conveyor and the inlet of the receiving equipment. This will allow for the top housing assembly to move as it is being tensioned. If the top housing assembly is not free to move, correct tensioning cannot be achieved.

3. When increasing rope tension, ensure that the tube clamps are maintaining their position on the tubes and the top housing is moving, creating tension in the rope. If tube clamps are not maintaining their position on the tubes when tensioning, tighten four bolts to create more clamp load acting on the tubes.

4. When tensioning the rope assembly in a long straight line, right angle, or Z-type conveyor it is best to inspect the tensioning of the rope at both the top and bottom sprocket assemblies. The actual tensioning should be performed at the top sprocket assembly as outlined on Page 10 and 11.

After tensioning as outlined, on Pages 10 and 11, inspect the bottom sprocket to make sure the wire rope is snug against the bottom sprocket. If there is a gap between the sprocket and rope, tension the top end until the rope is snug against the bottom sprocket.

C. Rope Assembly Replacement

DANGER:

DISCONNECT BEFORE INSPECTING OR ADJUSTING ROPE TENSIONING.

CAUTION:

BE SURE TO REPLACE GUARDS AND SAFETY EQUIPMENT PRIOR TO EQUIPMENT START-UP.

Replacing Rope When Old Rope Assembly is in Conveyor:

1. Remove the cover plate from the top end assembly.
2. Remove the upper half of the top end assembly. This will require that the bolts be removed which attach the upper section to the lower section. Also, the bolts which attach the upper section to the bearing housing must be removed.
- ~~3. If the unit is equipped with a drive assembly at the top, loosen the V-belt drive. If the drive assembly is at the bottom of unit it will not be necessary to loosen the V-belts.~~
4. Turn the top rim assembly until the rope joint is found. The rope joint will be indicated by the disc assembly which is bolted together.
5. The top housing assembly is equipped with flanges which attach the housing to the tubes. Loosen the bolts that secure the flanges.
6. Loosen the tensioning bolt at the top housing assembly. Using a rubber coated mallet or piece of wood and hammer, tap down the top housing assembly until it bottoms out in the tubes.
7. Remove the four bolts which hold the rope splice together.
8. Using the same screws and nuts, attach the end of the new rope unto the end of the old rope assembly. Be sure to install the new rope assembly so that the rivet heads are in the same direction as the old rope assembly.
9. With two rope assemblies joined together, rotate the sprocket by hand so that the rope assemblies will be fed through the conveyor.
10. When the new rope joint appears, remove the nuts and bolts which were used to attach the old rope and join ends of the new rope assembly.
11. Adjust the rope tension in accordance with the rope tension adjustment instructions listed on page 10 of this manual.

~~12. If the unit has a top drive assembly, adjust the V-belt drive per instructions listed on page 13 of this manual.~~

Installing Rope in Conveyor when there is No Existing Rope in Conveyor

1. Remove product inlet from bottom end assembly and cover plates from top and corner assemblies. Remove upper corner section of top end assembly.
2. Loosen rope tensioning rod and slide top end assembly down the tubes as far as possible.
3. After sliding top end assembly down the tubes, the sprocket assembly should rotate relatively free. If the sprocket does not rotate the belts from the drive must be loosened. This is done by adjusting the motor base.
4. Insert one end of rope, through the opening of the upper corner section of the top end assembly, over the top of the sprocket assembly. After a few discs have fed through the sprocket, simply turn the sprocket counterclockwise by hand to feed the rope to the bottom end assembly.
5. At the bottom end assembly, start by inserting the first disc into the sprocket assembly. While holding the first disc in sprocket assembly, gently rotate the sprocket assembly until the first disc wraps around the sprocket assembly and starts up the bottom tube. After the disc starts up the bottom tube, rotate the sprocket on the bottom end assembly until it reaches the top end assembly.
6. At the top end assembly, start the disc that came up the bottom tube into the sprocket assembly. While holding the disc in place gently rotate the sprocket assembly until the disc is approximately halfway around this sprocket.
7. Join the two ends of the rope with the hardware that is supplied with the rope.
8. Refer to pages 8 and 9 of the IOM manual for tensioning and adjusting tension of rope.
9. Replace items which were removed in Step 4.

D. Rope Repairs

On occasion, the plastic discs of the rope assembly will become damaged and may need replaced.

MAINTENANCE

When several discs have been damaged in the same area of the rope, we recommend that a small section of rope be supplied and spliced onto the existing rope assembly. The old section of rope will be cut at the rope ferrule on both sides of the damaged piece. The new rope will be spliced onto the old rope assembly at two joints. Instructions for rope splicing will be supplied with the short section of rope.

MAINTENANCE

When a rope assembly has been over tensioned or under tensioned, it is possible that the rope will wear out at the same point at each disc assembly. In this case, we recommend that a complete new rope assembly be installed in the conveyor. To evaluate the rope, send the rope assembly to Young Industries for evaluation. Call Young Industries Mechanical Systems Division to receive return authorization prior to sending rope assembly, Phone 570/546-3165.

E. Bearings and Seals

The ball bearings used in The Young Industries *TransVair Mechanical Conveyor* require no lubrication. Two bearings and one seal are located in each sprocket assembly as shown in Figure #2. On occasion, these bearings and seals may need to be replaced. When replacement is necessary, first the rope assembly must be slack. This may be accomplished by finding the rope joint and removing the bolts and nuts. Remove the retaining ring from the shaft. Remove the sprocket from the shaft by use of a hub puller. Next, press out the shaft and remove the seal and/or bearings as required. The bearings are pressed in and maybe either pressed out by using a hammer and brass bar, gently tap the inner rings of the bearings to remove them from the end plate.

To replace the bearings and seal of the drive shaft, it will be necessary to remove the gearbox off the shaft assembly. When this is done the procedure for replacing the bearings and seal is the same as outlined above.

F. V-Belt Drive Adjustment

~~—When installing or replacing the V-drive shaft pulleys, it is important to check that the shieves are properly aligned. In the case where the shieves are not replaced but the V-belts are, alignments should also be rechecked to establish that the V-belts are properly aligned.~~

~~To tension the V-belt in the top or bottom drive assembly, simply adjust the tensioning bolt on the adjustable motor base. The belt drive configuration is shown in Figure #4. As a general rule, the maximum deflection at the center of the V-belt span is 3/8"~~

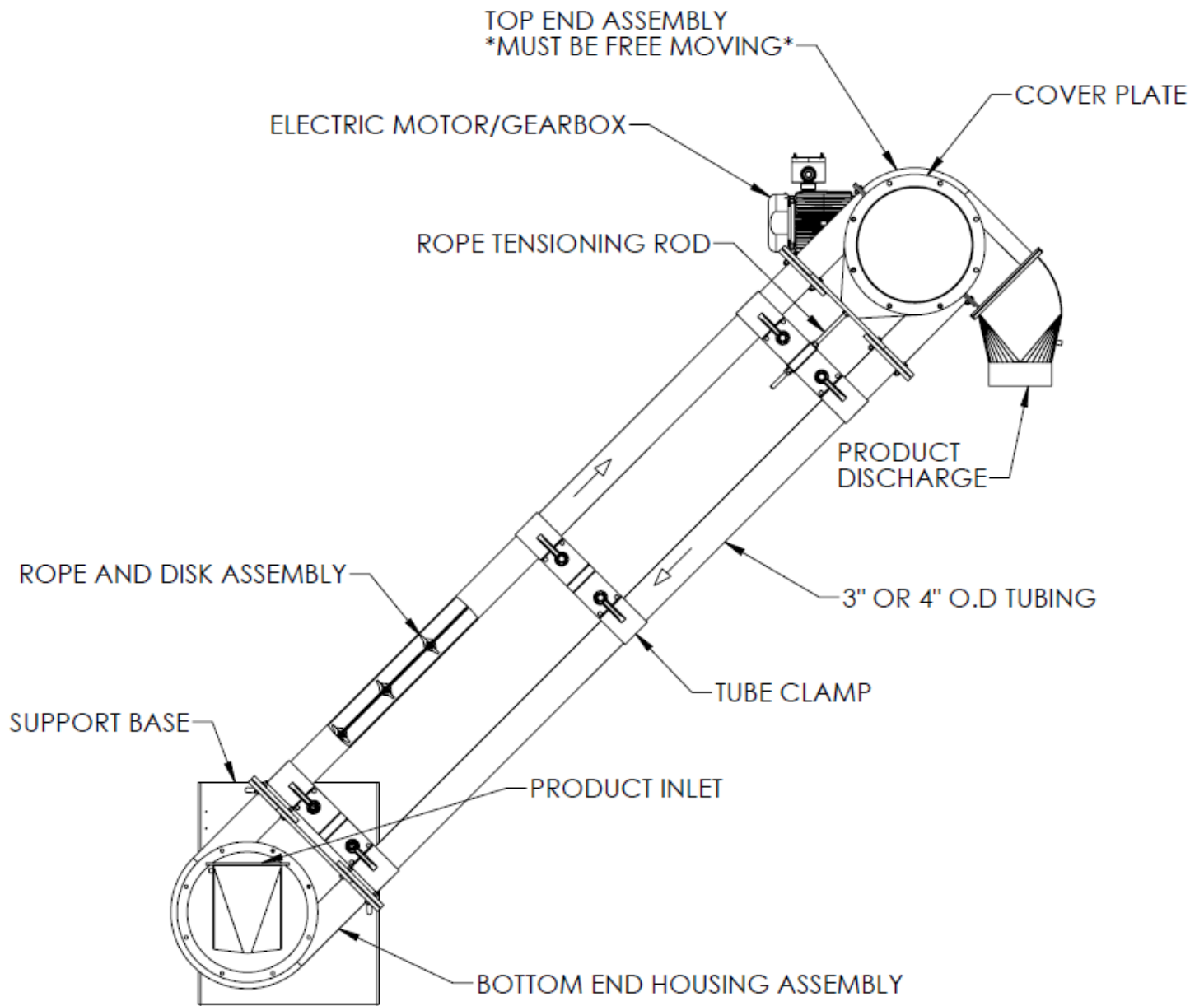
G. General Maintenance

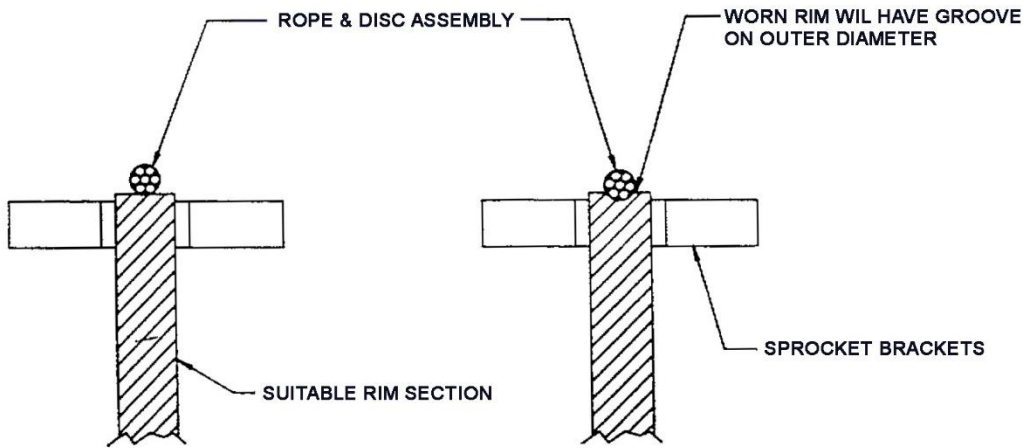
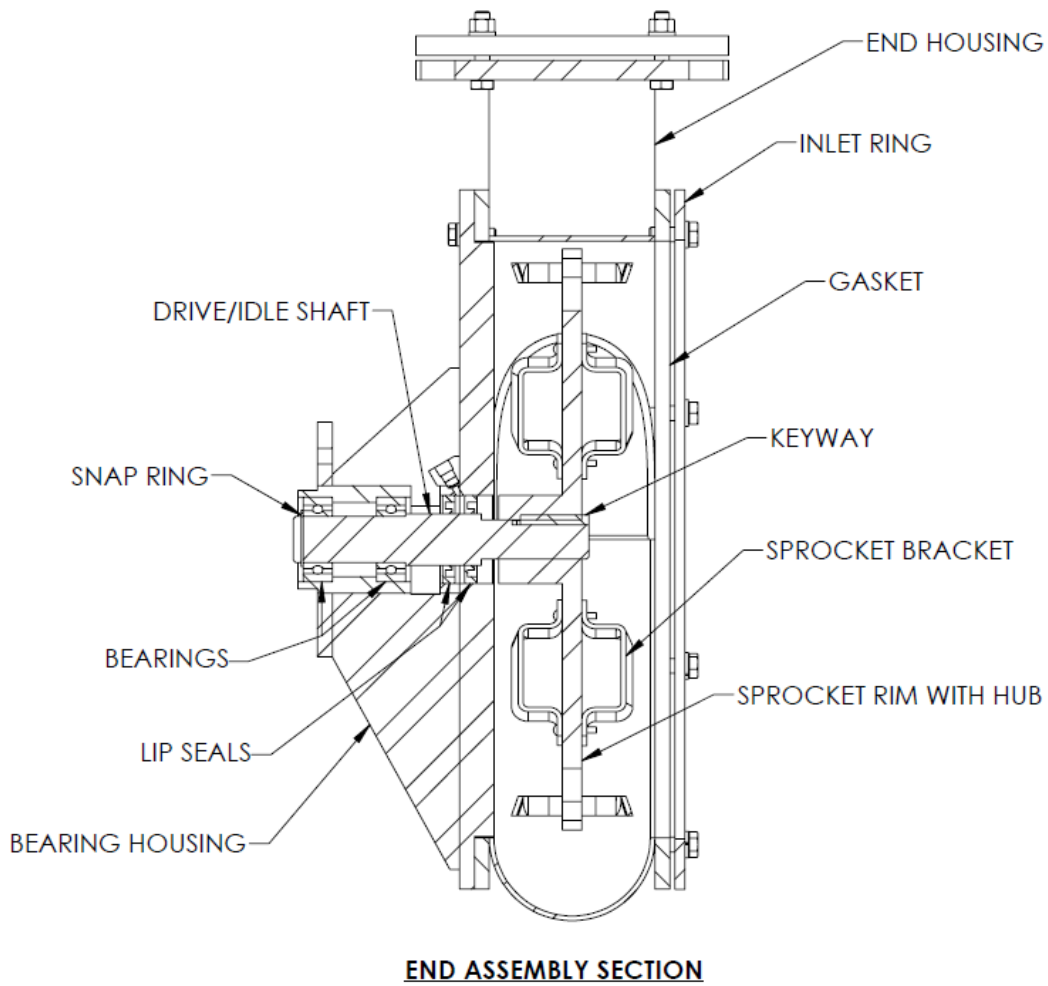
The Young Industries *TransVair Mechanical Conveyor* as the name implies is a mechanical conveyor. Therefore, a regularly scheduled maintenance program should be put into operation for this conveyor. The following general points of

inspection should be included.

1. At each inspection, the rim assembly should be checked for wear. The outside diameter of the rim should be a flat surface. If a groove any larger than 1/32" deep appears in the rim assembly, it is worn out and should be replaced. Please see Figure #3 for identification of a worn rim assembly.
2. Inspect the rope assembly of the *TransVair Mechanical Conveyor* on a regular basis. Inspect the rope for fraying or excessive rope strand breakage. In the case where excessive rope fraying or flattening of the rope strands is evident, excessive rope tensioning is probably the cause. In this case, the rope should be re-tensioned in accordance with the rope tensioning instructions on pages 8 and 9.
3. Examine the discs and bosses of the rope assembly. Excessive wear of the boss and disc can be caused by a number of different factors. If wear is evident on any surface of the boss or disc, please contact Young Industries for recommendations.

FIGURE #1

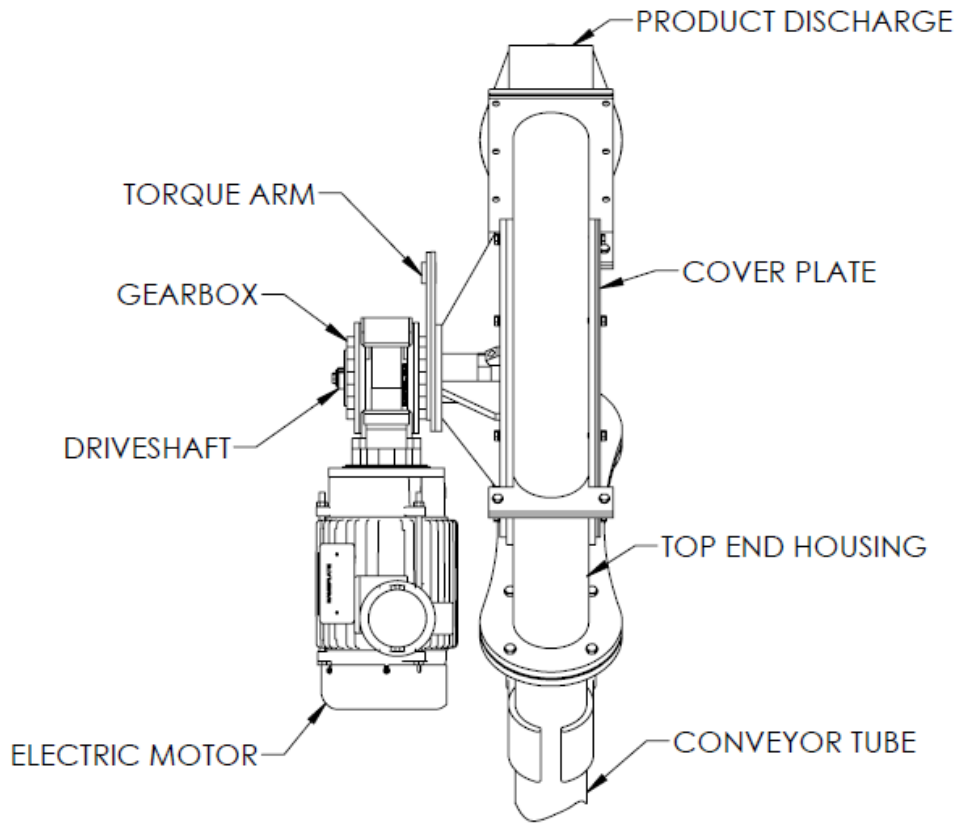




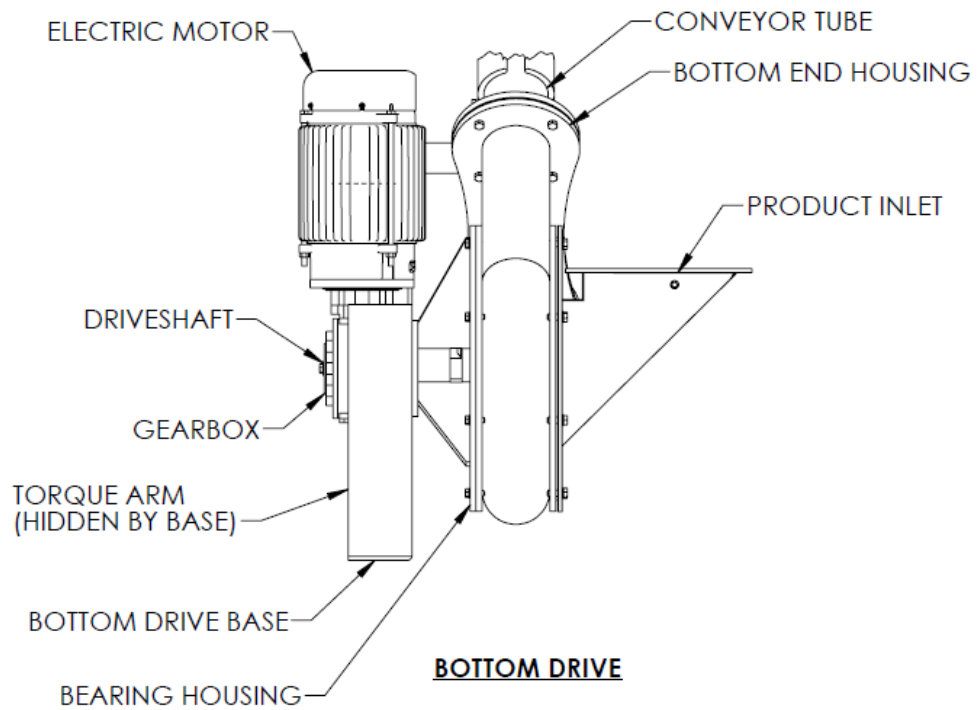
RIM WEAR

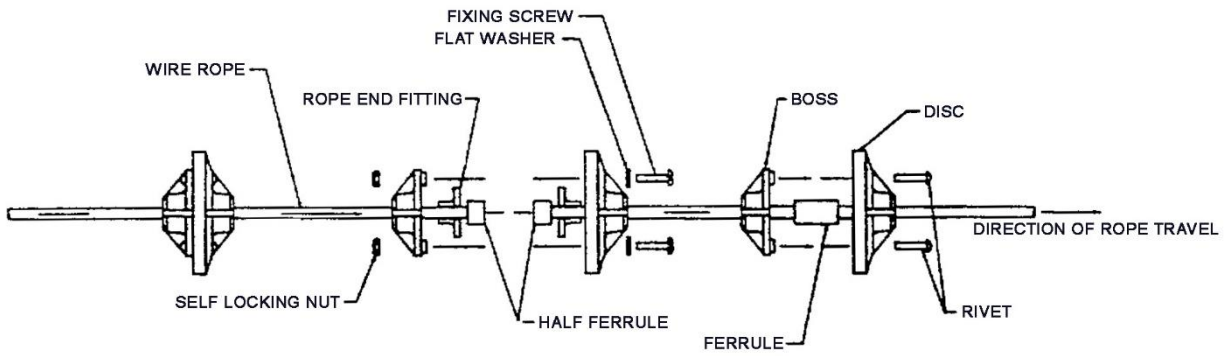
FIGURE #3

FIGURE #4

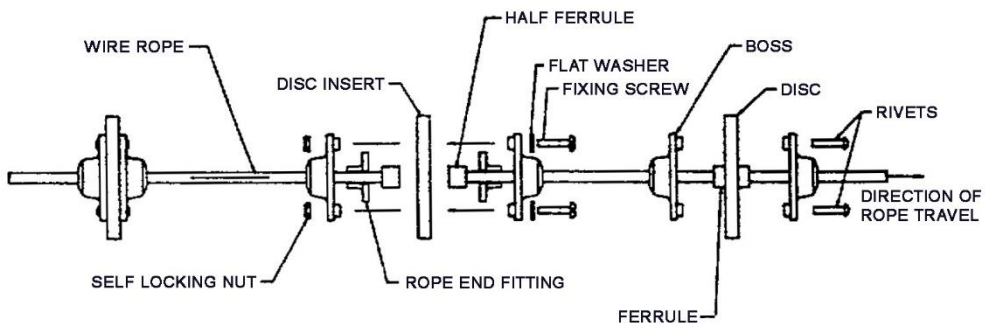


TOP DRIVE





2 PIECE ROPE ASSEMBLY



3 PIECE ROPE ASSEMBLY

ROPE & DISC ASSEMBLIES

FIGURE #5