DYNAMIC CONVEYOR CORPORATION

Assembly Instructions

Revision 7: 2021

DYNAMIC CONVEYOR CORPORATION
5980 Grand Haven Road
Norton Shores, MI USA 49441
www.dynamicconveyor.com
main: 231.798.1483
fax: 231.798.9583

TABLE OF CONTENTS

IMPORTANT INFORMATION

The information contained in this manual is provided only as an aid and service to our customers. Dynamic Conveyor Corporation does not warrant the accuracy or applicability of such information and is not specifically responsible for property damage and/or personal injury inflicted directly or indirectly, or for damages and/or failures caused by improper application, installation, operation, abuse and/or misuse of its products whether or not based on information contained herein.

WARRANTY

Dynamic Conveyor Corporation warrantees products of its own manufacture for a period of five (5) years on the DynaCon® product line. Dynamic Conveyor Corporation will repair or replace any products that have failed under normal use due to faulty material or defective workmanship. Components, products and conveyors not manufactured by Dynamic Conveyor will be covered by the manufacturer's warranty. No other warranty is expressed or implied unless otherwise set forth in writing and approved by representative duly authorized to extend such approval by Dynamic Conveyor Corporation.

Additional note: Any Dynamic Conveyor Corporation equipment/systems that are physically altered without direct authorization from Dynamic Conveyor Corporation shall be termed "Product altered without authorization: no warranty or liability applies to that altered equipment/system".

LIMIT OF LIABILITY

In no event shall Dynamic Conveyor Corporation be liable for any special, indirect, incidental, or consequential damages of any character, including but not limited to loss of production facilities or equipment, lost profits, property damage, lost production, or any consequential downtime, whether suffered by distributor or third party, irrespective of whether claims or actions for such damages are based upon contract, warranty, tort (including negligence), strict liability, or otherwise.

FOR YOUR RECORDS

Thank you for your investment in a DynaCon Conveyor. We believe our product will become a vital step in your production process and it will grow with your changing needs.

Please take the time to complete the following information as thoroughly as possible. It will prove helpful when you contact customer service in the event you have any questions about assembly, installation or operation.

Date of Shipment: _____

Serial Number: _____

Model Number: _____

DYNAMIC CONVEYOR CORPORATION
5980 Grand Haven Road
Norton Shores, Michigan 49441
231.798.1483
Service@DynamicConveyor.com

SUPPORT

Find additional support on our website at https://www.dynamicconveyor.com/products/parts-conveyor/parts-service/

OPERATION

DynaCon Conveyors are designed to operate continuously in a forward direction, i.e., product is conveyed toward and discharged off of the motorized module (Drive Module), with capability for occasional reversing. If your conveyor requires continuous operation in a reverse direction, please contact Dynamic Conveyor for recommendations.

MAINTENANCE

DynaCon Conveyors are designed to be easy to maintain and repair. To ensure proper operation, we recommend periodically inspecting the frame, motor, and belt paths for wear and damage.

Belt tensioning may be needed shortly after initial installation as the belt can stretch.

Under ordinary operating conditions, the belt and conveyor frame should be checked for any abnormal wear or stress (i.e. continuous grooves, cracks, etc.). No lubrication of the belt or belt paths is necessary.

Under high speed or continuous use conditions, more frequent inspection is encouraged.

Under dirty or greasy operating conditions, a daily inspection along with periodic cleaning of the belt, belt paths, and belt supports is recommended. This will require removal of the belt in most cases.

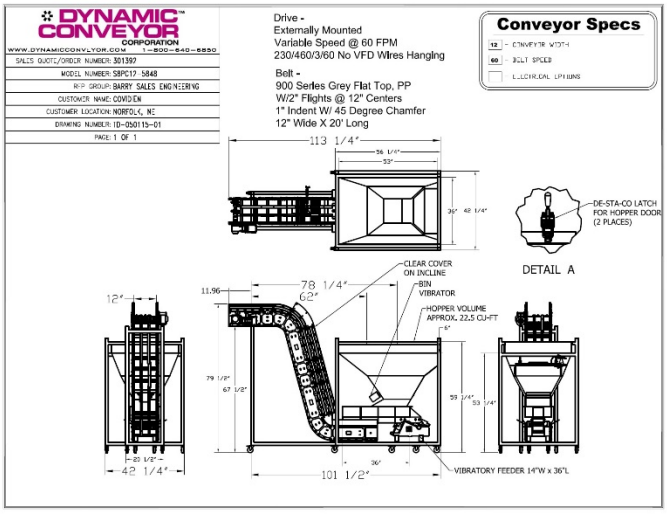
(Note: DynaCon Conveyors are not intended for use in abrasive environments.)

Necessary steps should be taken to correct any problems as soon as they are discovered. Any questions or concerns may be directed to your local sales representative and/or our customer service department.

WHEN YOUR SHIPMENT ARRIVES

The packing slip will be accompanied with a drawing of your conveyor configuration. The drawing will prove helpful when assembling your conveyor.

The drawing will look something like the picture below.



TOOLS & PERSONNEL REQUIRED

Accompanying this Assembly Instructions booklet is a 7/32” Bondhus Bit for button-head cap screws.

Every DynaCon Conveyor requires a minimum of two assemblers.

Locate an area where you will have ample space to lay out the conveyor.

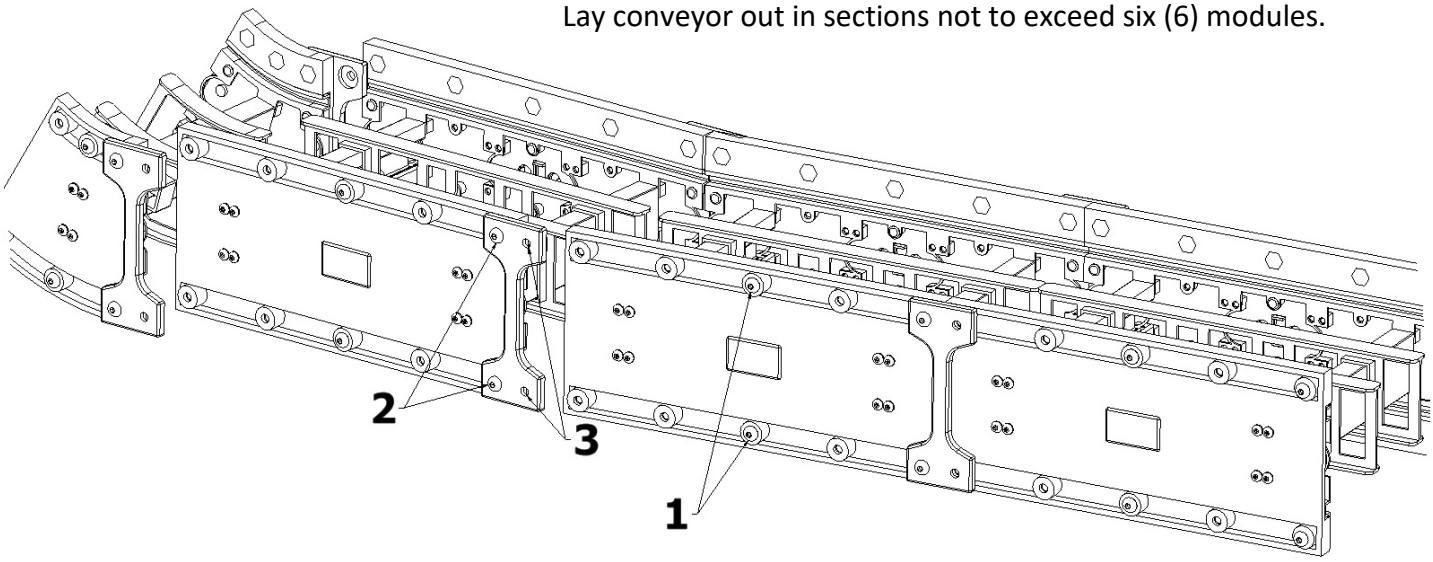
Your DynaCon Conveyor configuration may differ from the following examples shown.

If you have multiple conveyors shipped to you, colored dots on the inside of the modules will indicate each conveyor.

Follow the step-by-step directions on the proceeding pages.

CONVEYOR ASSEMBLY

Lay conveyor out in sections not to exceed six (6) modules.

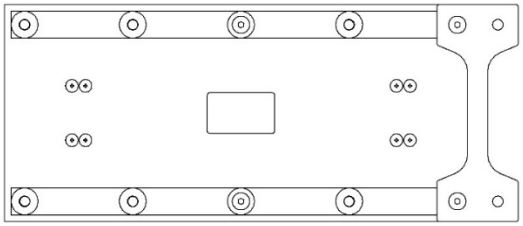


1 – Remove extra screws (SCA381) for later use.
2 – Loosen screws so connecting plate is free to move out slightly.
3 – Align bosses on modules with connecting plate holes, and use screws from step 1 to attach.

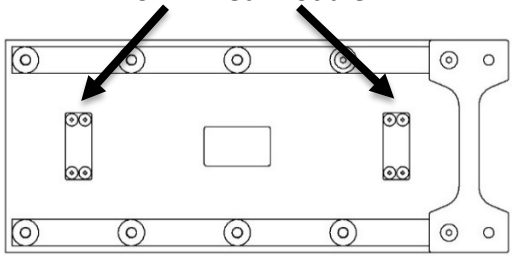
All modules will connect in this manner.

Do not over-tighten connecting screws.

Non-Shimmed Module



Shimmed Module



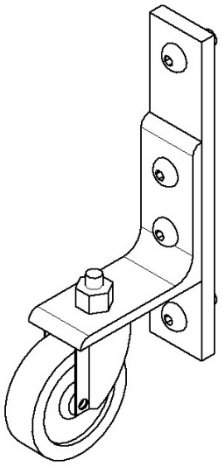
Some belt styles will require shimmed modules.

Never connect a shimmed module to a non-shimmed module.

LEG SUPPORTS

There should be one (1) leg support for every five (5) modules

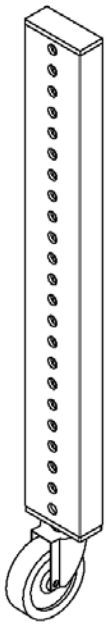
LOW RIDER CASTER LEG SUPPORTS



Use two provided screws to attach bracket to top and bottom bosses.

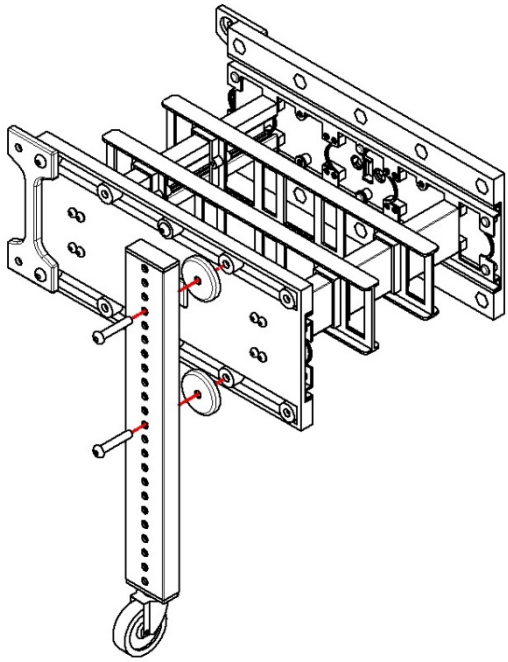
Refer to configuration drawing on placement of low rider supports

PEG LEG SUPPORTS



Peg legs come with a HRD200 (Hardware Kit)

Installation of Peg Leg Supports



Place washers between leg and sidewall.

Choose holes on leg based on height required.

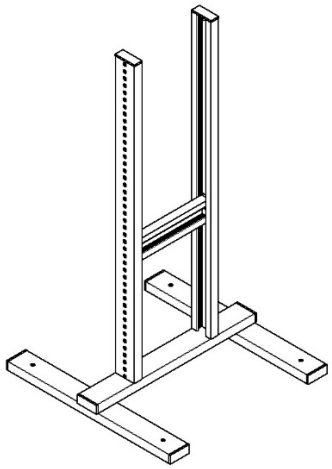
Use provided screws to attach legs to sidewall.

UPRIGHT LEG SUPPORTS

Crossbar Requirement by Conveyor Width & Height

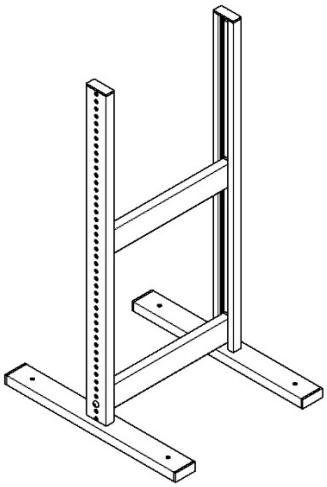
"H" Base Supports for 4-10" Wide Conveyors

- 24" to 60" leg supports require 1 cross bar (Below)
- 72" to 96" leg supports require 2 cross bars
- 108" and taller leg supports require 3 cross bars and must be permanently secured to the floor

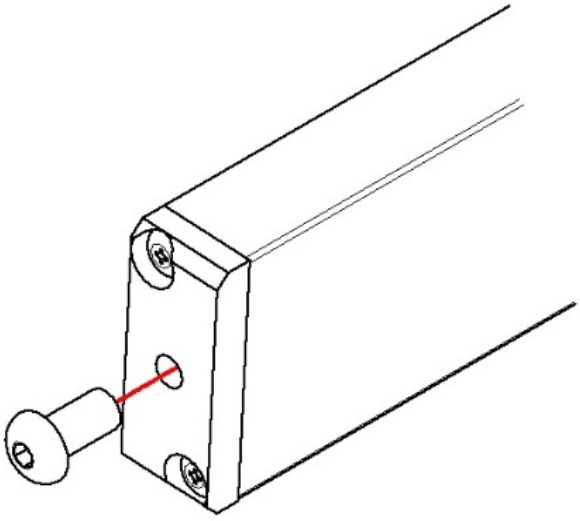


"T" Base Supports for 12-72" Wide Conveyors

- 24" to 60" leg supports require 2 cross bars (Below)
- 72" to 96" leg supports require 3 cross bars
- 108" and taller leg supports require 4 cross bars and must be permanently secured to the floor

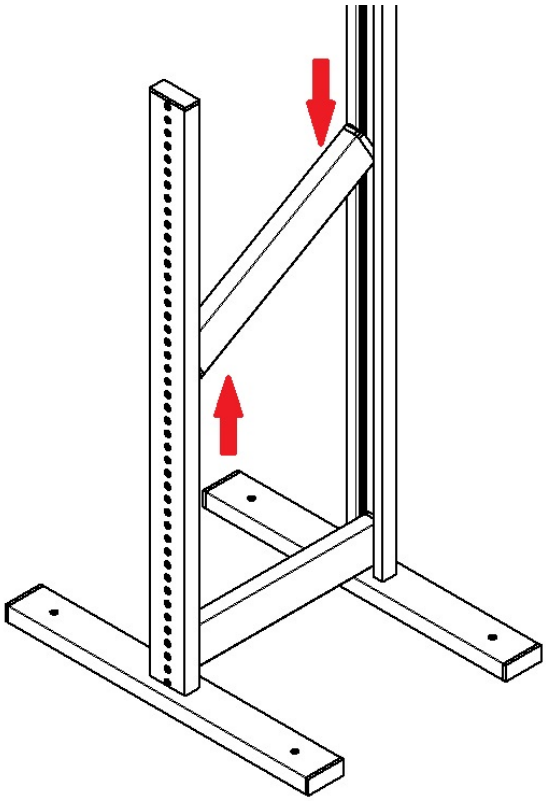


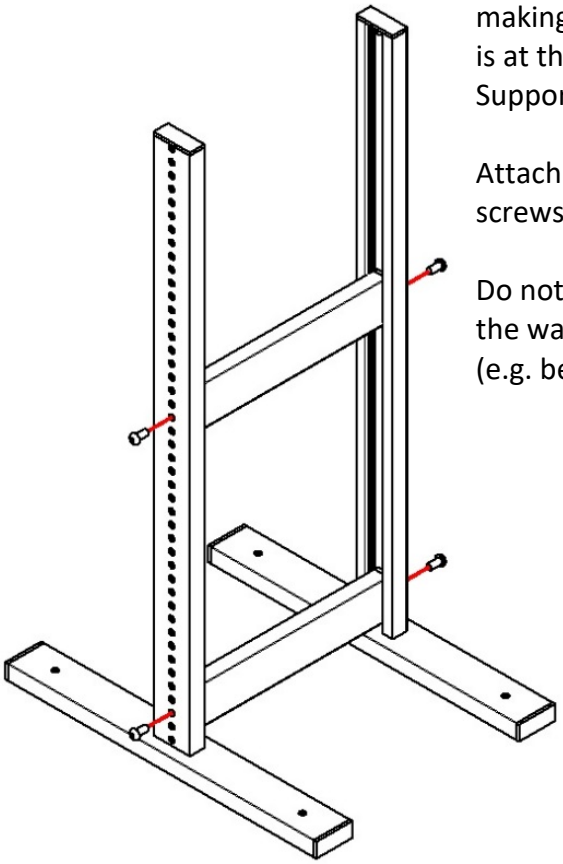
Installation of Upright Leg Supports



Remove center screws from all crossbar(s)

Slide crossbar(s) into track and straighten so they are perpendicular to uprights.

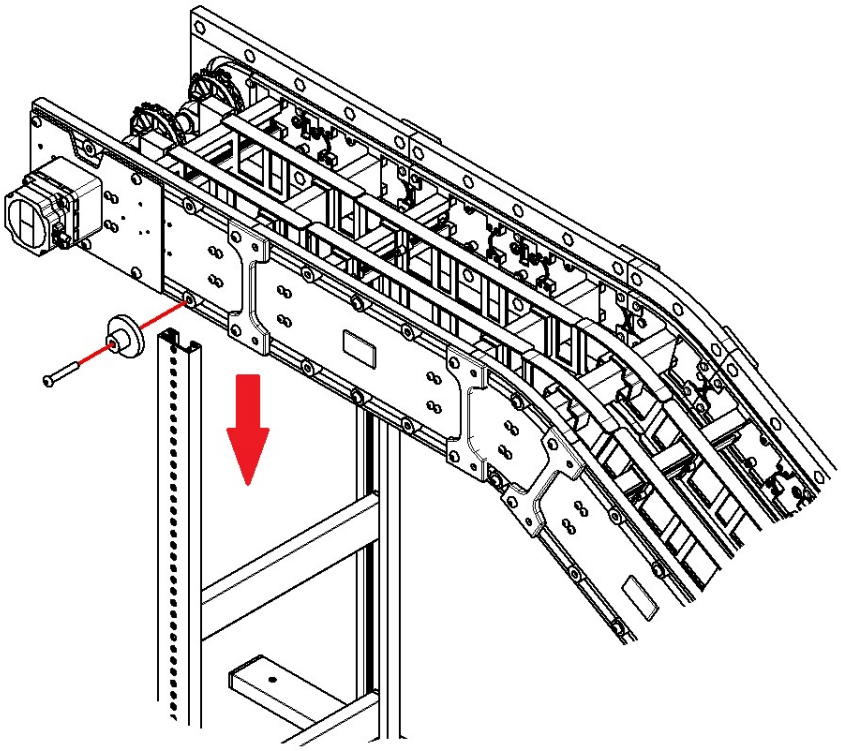




Evenly space all crossbars making sure one (1) crossbar is at the bottom on T Base Supports.

Attach all crossbars with screws from previous step.

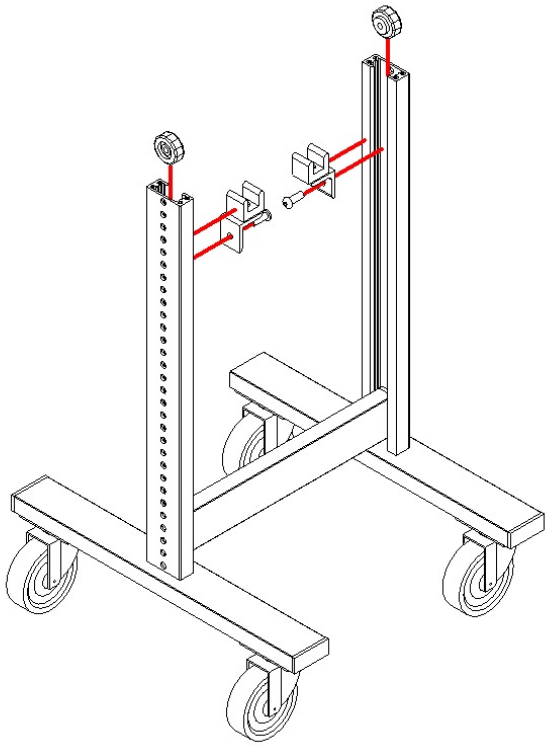
Do not attach crossbar in the way of any moving parts (e.g. belt flights)



Attach black plastic spacer to designated boss. (One per Side)

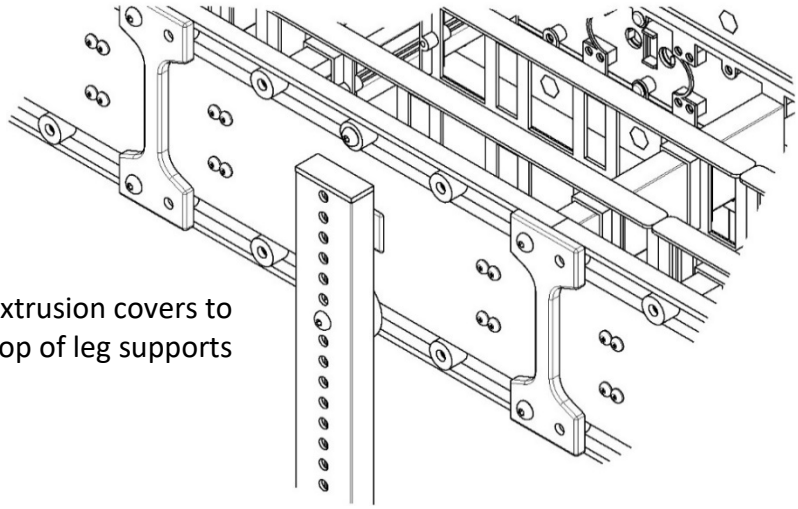
Slide spacer into track of leg. Make sure to keep flanged portion between conveyor and leg support upright.

Use provided screws to secure leg to sidewall through spacer.



Radius Turn Legs

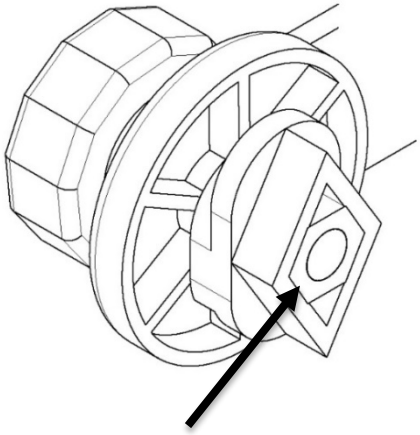
If your conveyor has a radius turn module, attach provided brackets with provided screws. Set the module onto the holding brackets.



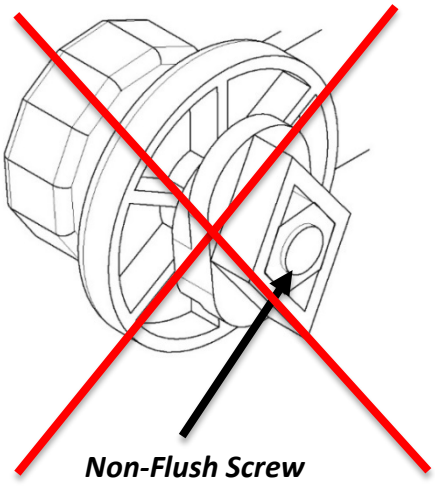
Attach extrusion covers to top of leg supports

Installation of Leg Straps

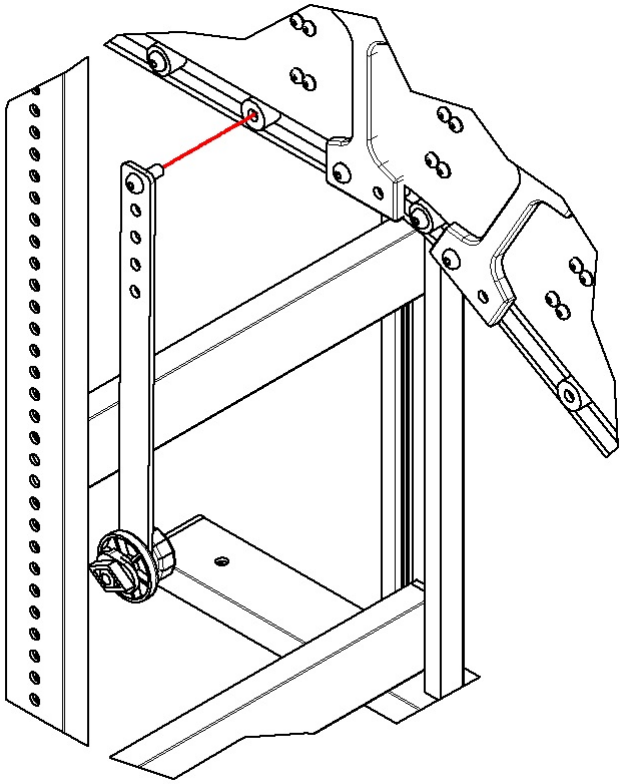
Make sure that screw in tightening knob is flush with nut and threads are not exposed.



Flush Screw

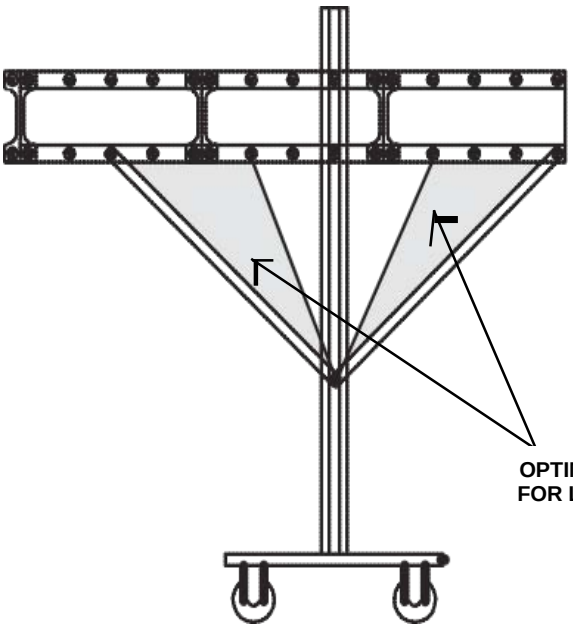


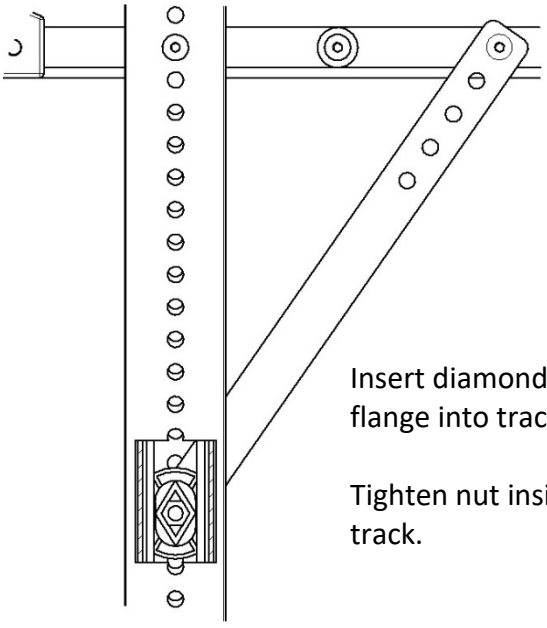
Non-Flush Screw



Loosely screw the leg strap to conveyor. The strap should be able to swivel around the screw.

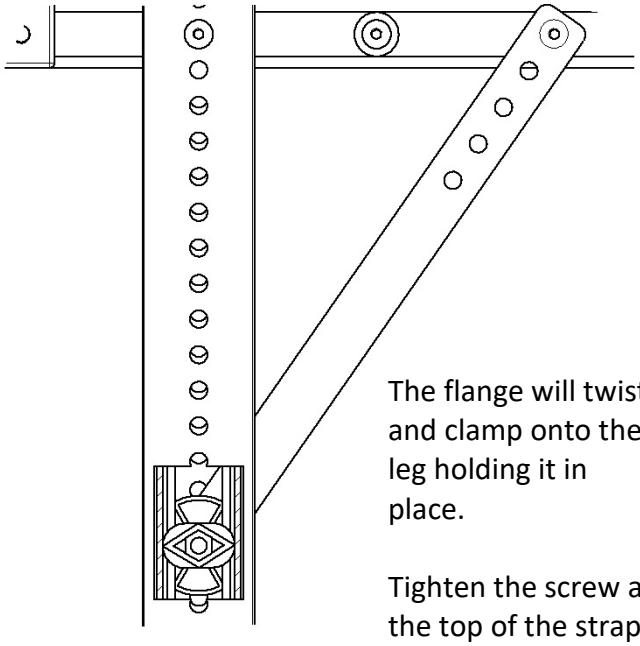
Refer to the optimum range for leg strap placement to guide you on where to place leg strap on module.





Insert diamond flange into track.

Tighten nut inside track.



The flange will twist and clamp onto the leg holding it in place.

Tighten the screw at the top of the strap.

Cut-away views for instructional purposes

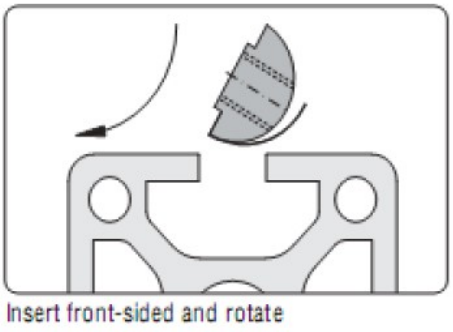
MAYTEC SUPPORTS

MayTec Supports are typically pre-assembled with brackets in approximate locations. Slight bracket adjustments may be required.

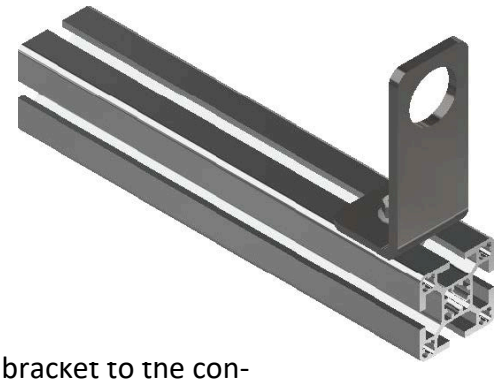
Perpendicular Brackets

If brackets are pre-installed on MayTec Supports then skip to Attaching Conveyor the to the MayTec Support

Cross Bar Bracket Assembly



Insert the universal connector into the MayTec cross bar

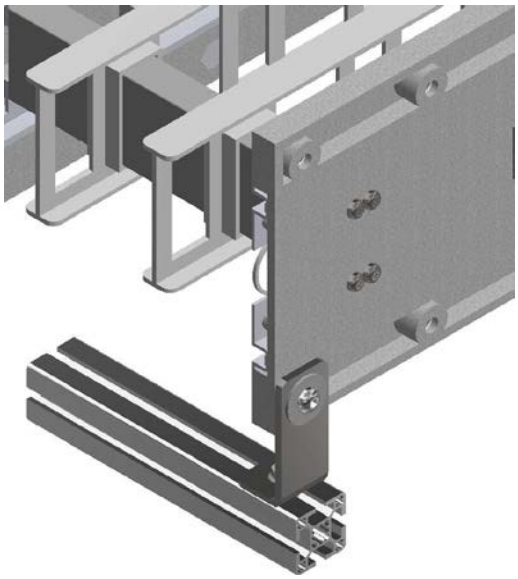


Attach the bracket to the connector using the mounting screw. *Do not fully tighten.*

Attaching the Conveyor to the MayTec Supports

If needed, slightly loosen the mounting screw that attaches the bracket to the cros bar

Attach the conveyor module to the bracket using the flat washers and screws.

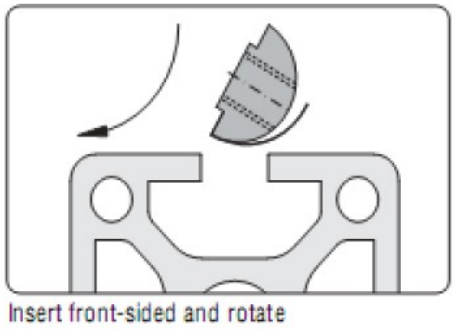


Final Step: Tighten all mounting screws that attach to the brackets to the cross bars when final positioning of the conveyor system is established

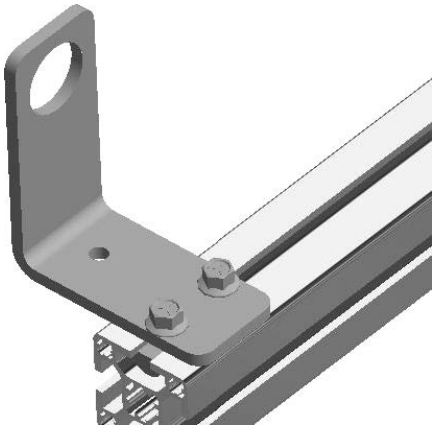
Parallel Brackets

If brackets are pre-installed on MayTec Supports then skip to Attaching the Conveyor to the MayTec Supports

Cross Bar Bracket Assembly

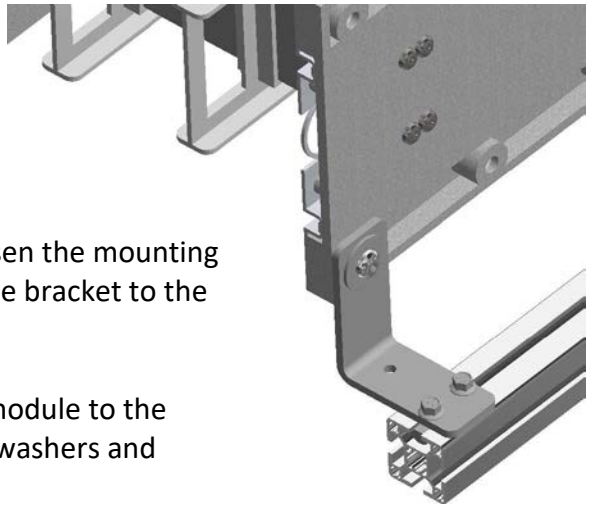


Insert the universal connector into the MayTec cross bar



Attach the bracket to the connector using the mounting screw. *Do not fully tighten.*

Attaching the Conveyor to the MayTec Supports



If needed, slightly loosen the mounting screw that attaches the bracket to the cross bar

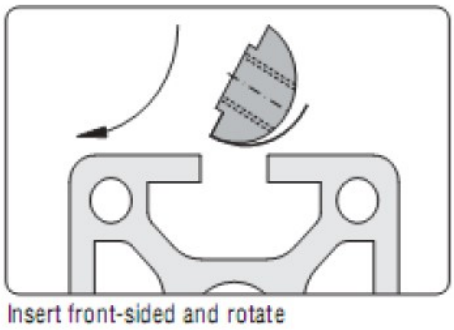
Attach the conveyor module to the bracket using the flat washers and screws.

Final Step: Tighten all mounting screws that attach to the brackets to the cross bars when final positioning of the conveyor system is established

Horizontal or Vertical Brackets

If brackets are pre-installed on MayTec Supports then skip to Attaching the Conveyor to the MayTec Supports

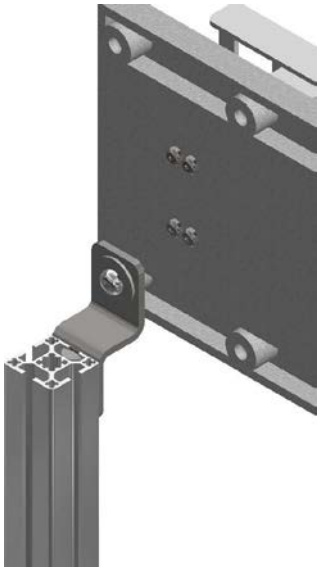
Cross Bar Bracket Assembly



Insert the universal connector into the MayTec cross bar

Attach the bracket to the connector using the mounting screw. *Do not fully tighten.*

Attaching the Conveyor to the MayTec Supports



If needed, slightly loosen the mounting screw that attaches the bracket to the cross bar

Attach the conveyor module to the bracket using the flat washers and screws.

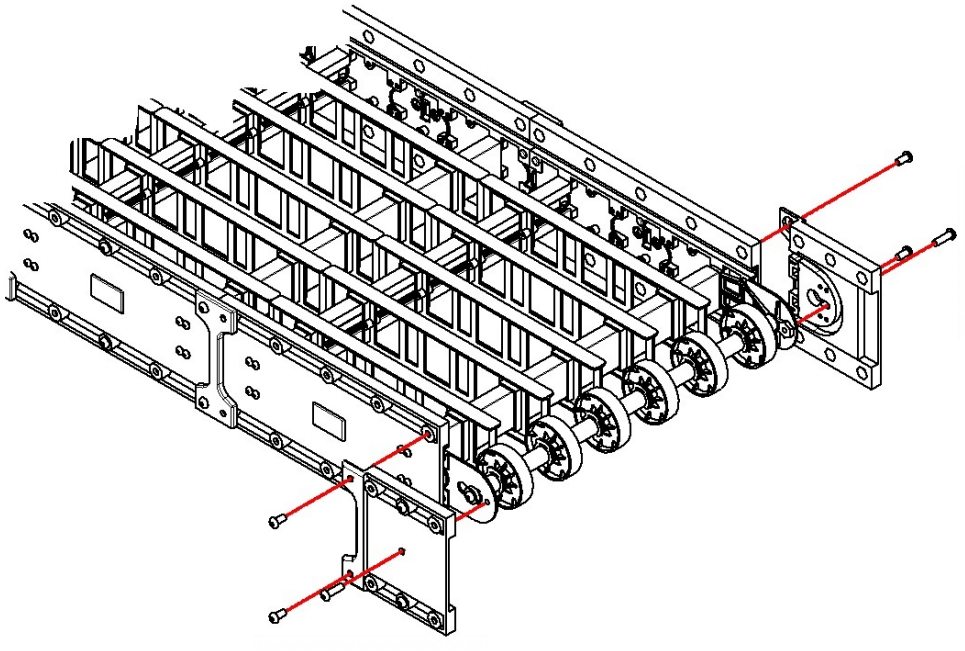
Final Step: Tighten all mounting screws that attach to the brackets to the cross bars when final positioning of the conveyor system is established

BELT INSTALLATION

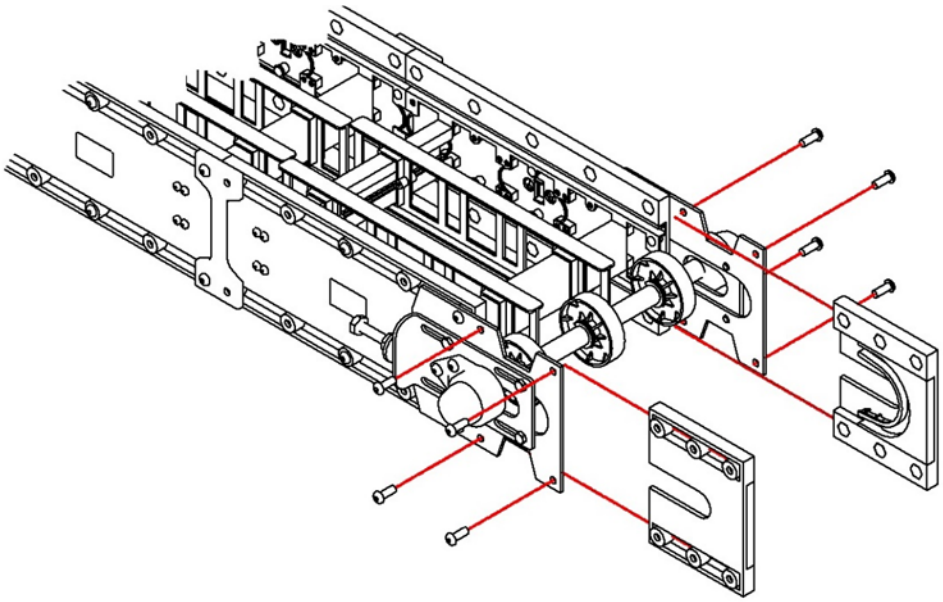
REMOVING THE FEED END

Standard Feed End

Remove the end side (REP956) of the feed module by removing the (3) three screws connecting the end side on each side.



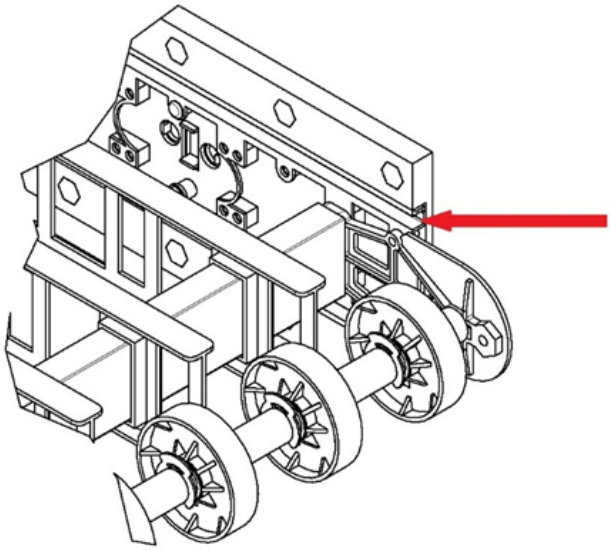
Heavy Duty Feed End



Remove the end side (SUA956-THD) of the HD feed module by removing the last (4) four screws on the plate.

INSERTING THE BELT

Standard Belting

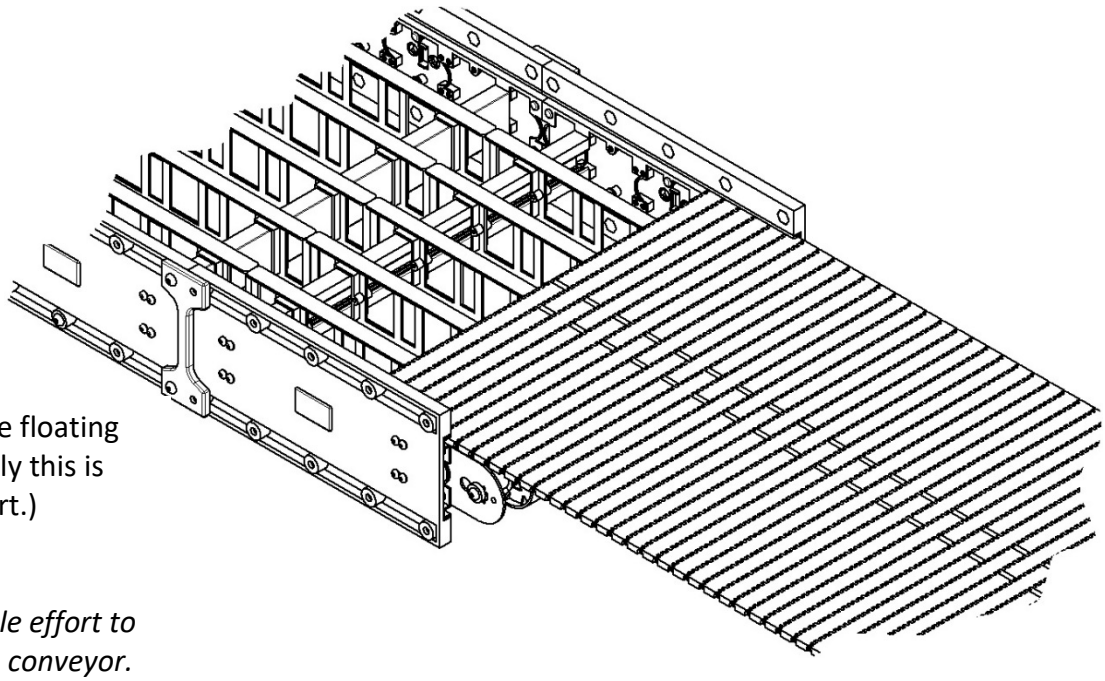


Guide belt into the top belt path.

Slide belt all the way down to drive sprockets.

It should take very little effort to slide the belt onto the conveyor.

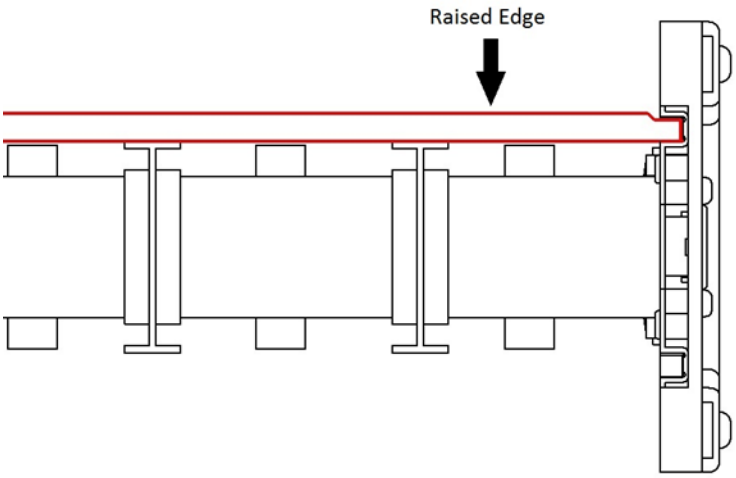
Belting with Hold Down Tabs



Slide the tabs onto the floating belt support. (Typically this is the center belt support.)

It should take very little effort to slide the belt onto the conveyor.

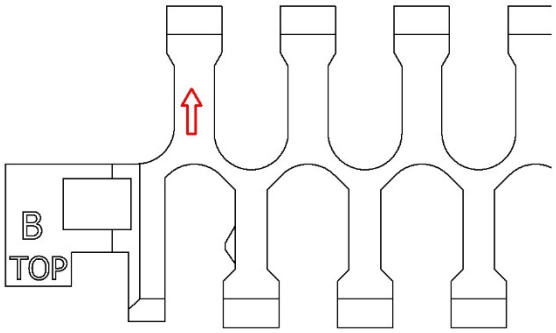
Radius Turn Belting



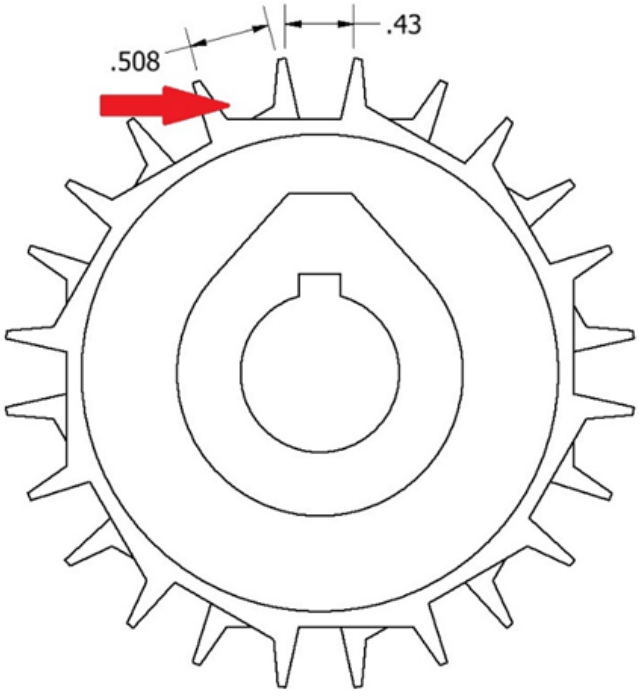
Guide belt into the top belt path.

The belt will only fit with the raised edge on top.

When inserting the belt, make sure the arrows located on the ends of the belt are facing towards the motor.



Slide belt to the drive sprockets at the end by pulling from the outside radius of the belt.



Determine the larger of two tooth spaces on the radius sprockets(s).

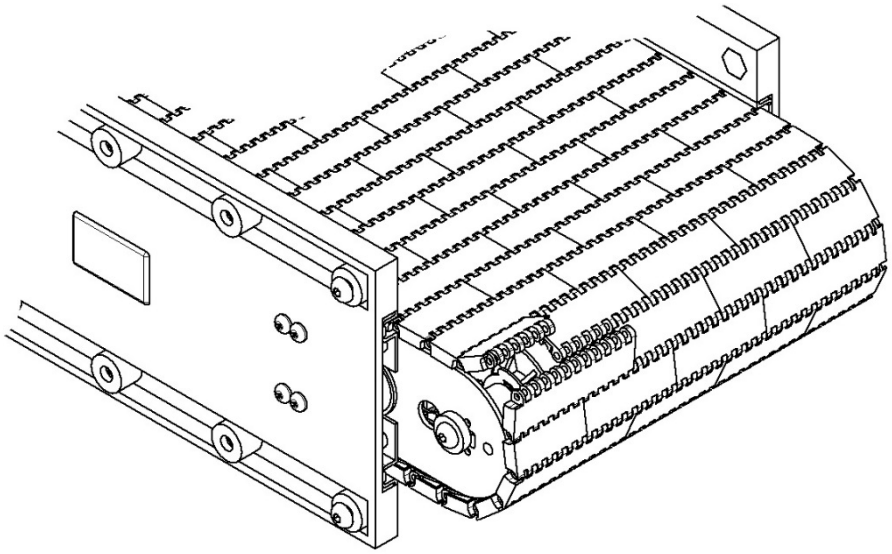
Fit the lacing rod into the larger tooth on sprocket(s).

Turn the motor on once the belt has been seated correctly to the sprocket(s). Turn the motor off once it has reached the feed end. If the ends overlap, remove the necessary number of links by pulling out a lacing rod.

If belt is too long, remove sections of links as needed to make belt fit snug. To do this, remove one lacing rod.

Reattach removed hardware.

LACING THE BELT



Once belt is at drive end, make sure the drive sprockets are properly seated in the belt.

Turn on motor.

If your belt has Hold Down Tabs, make sure the tabs are centered on the bottom support as well.

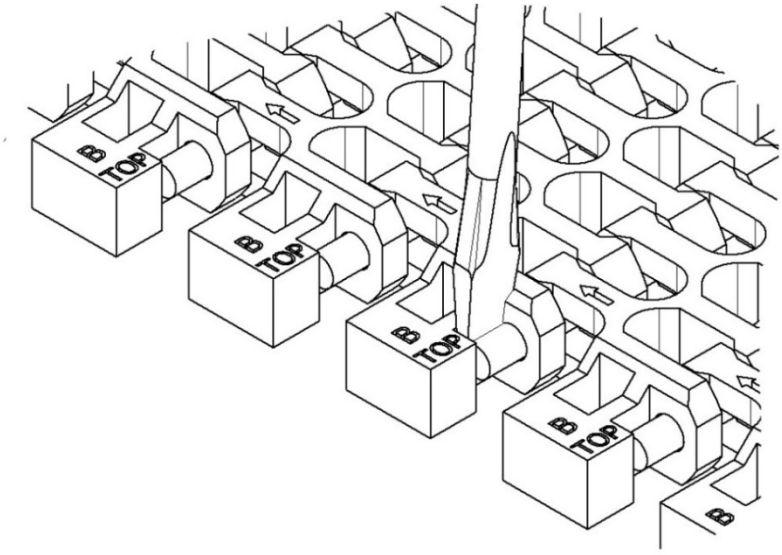
Turn motor off once belt is near the feed end.

If belt is too long, remove rows of links as needed to make belt fit snug by removing one lacing rod.

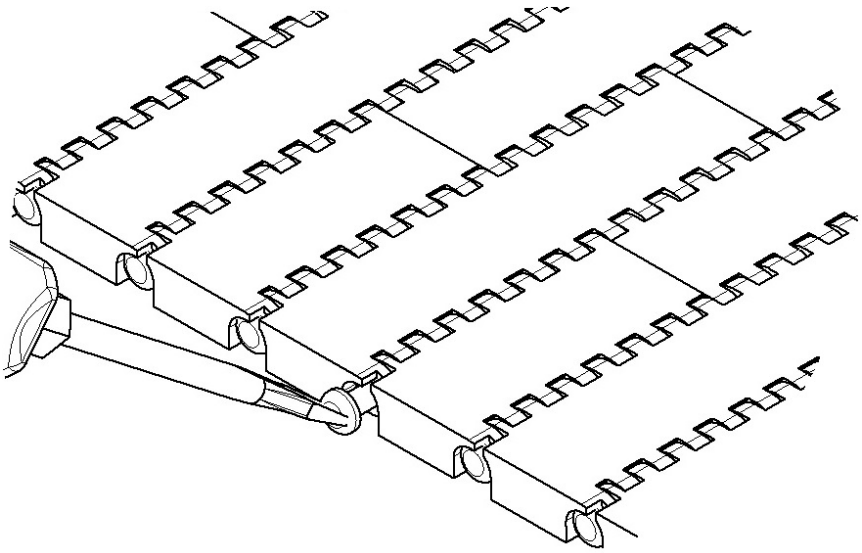
Removing the Lacing Rod

Standard Belting & Abrasion Resistant Lacing Rod
To remove lacing rods cut off the head of lacing rod and push rod out.

Radius Turn Lacing Rod
Insert screwdriver on top of the belt and twist. Push rod through the hole until you can grab it and pull it the rest of the way.



Re-Installing the Lacing Rod

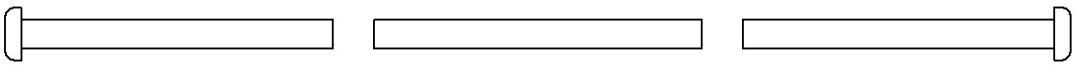


Standard Belting Lacing Rod
Join belt ends together so the hinges are aligned.

Insert the rod through the hinges, leaving only the rod head protruding.

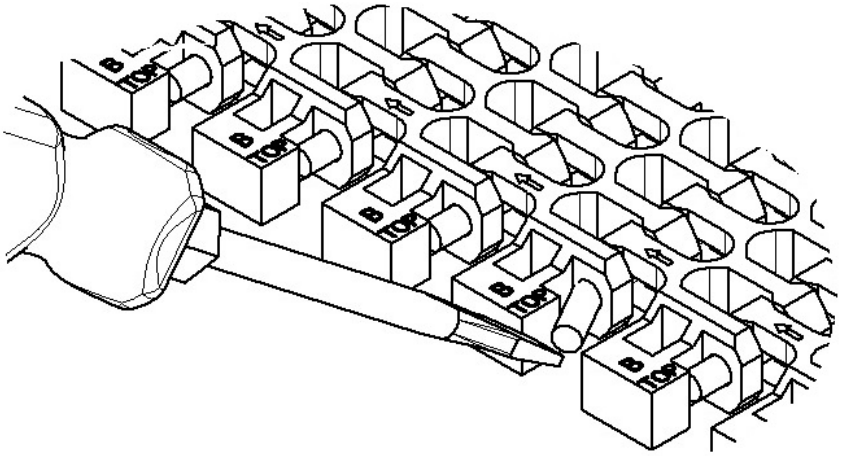
Use a screwdriver to push the rod head into the belt while applying pressure down and away from the Snap-Lock.

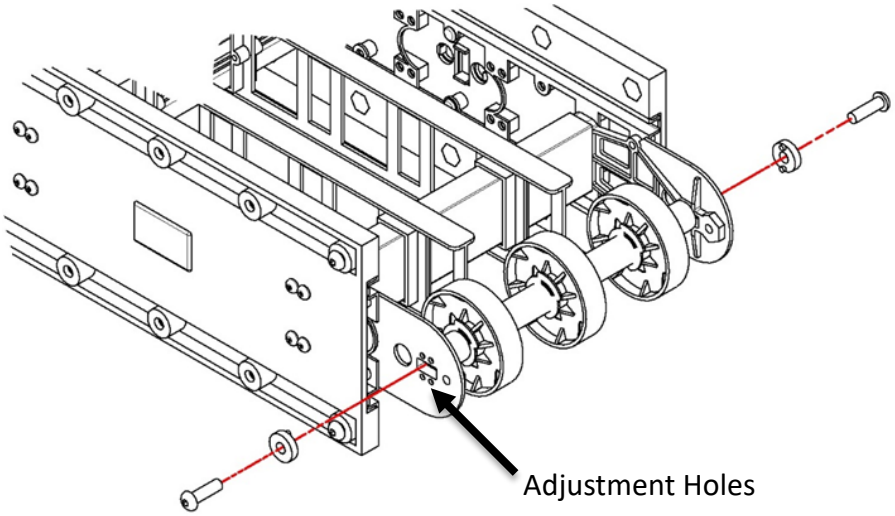
Abrasion Resistant Lacing Rod
Insert white lacing rod where belt ends join. Then insert lacing rod ends by applying pressure down and away with a screwdriver.



Radius Turn Lacing Rod
Cut lacing rods 0.6 in (15mm) shorter than overall length.

Insert rod as far as possible when belt ends join. Use a screw driver to ensure rod is fully inserted.





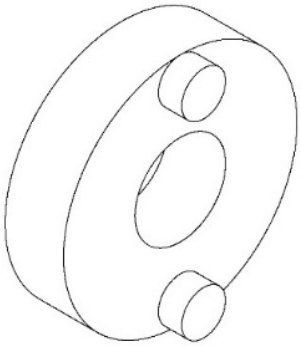
BELT BREAK IN

The belt can lengthen after the break-in period.

To adjust for the change in belt length, remove feed end.

Loosen (do not remove) screws that connect the shaft to module. Move shaft back to take up extra belt length.

Reattach removed hardware.



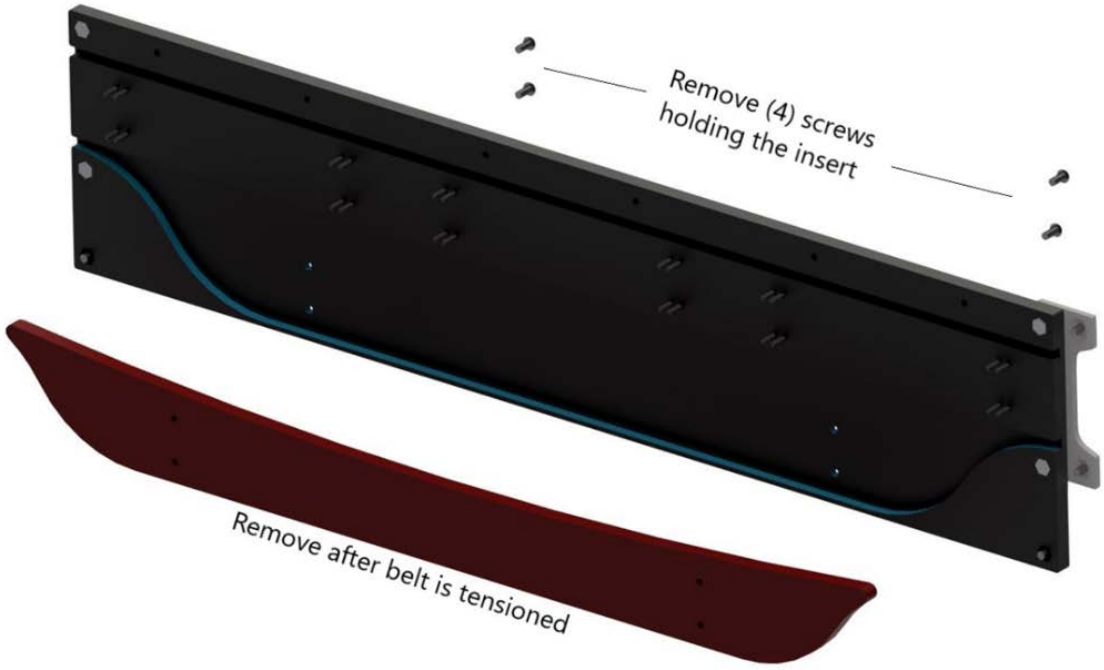
Enlarged for clarity

On the spacer (PLD702) there are two posts that maintain the tailstock position. Make sure they are fitted into the adjustment holes on the tailstock bracket (PLD701).

CATENARY SAG MODULE

Long Conveyors

Once the belt is installed, remove the assembly insert and allow the belt to relax into the designated catenary sag areas.



Belt sag will increase over time and continue to fill in until the belt has reached its maximum length.

Do NOT discard the assembly insert or screws. It may be needed for belt maintenance or conveyor reconfiguration.

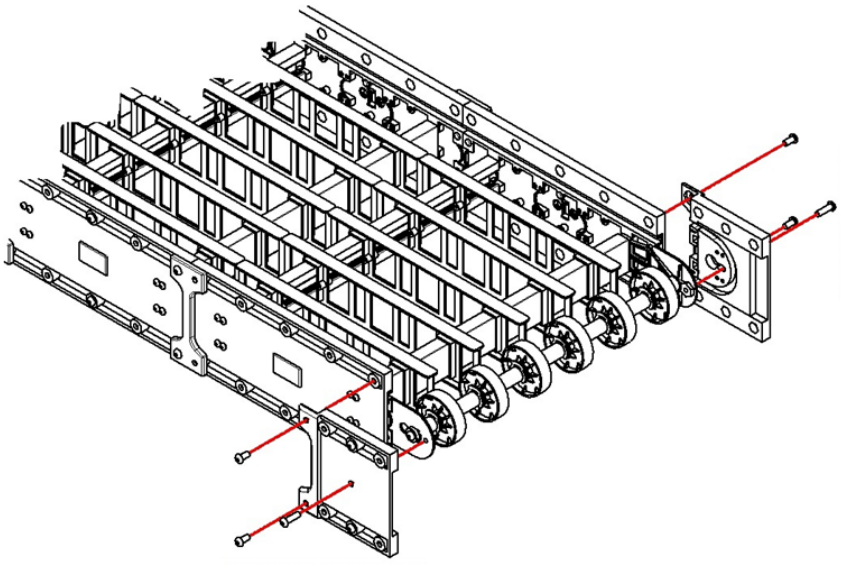
Click on the QR Code for Catenary Module Assembly Video Instructions

REPLACING THE FEED END

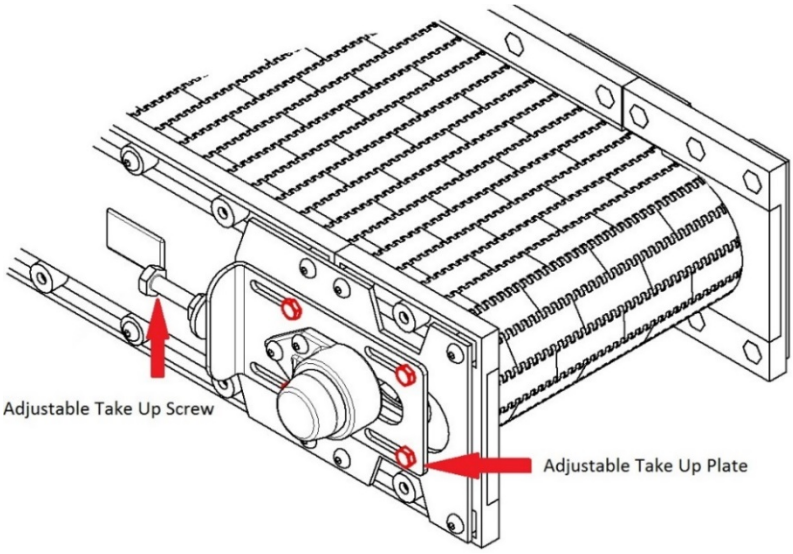
Standard Feed End

Reattach belt paths and feed end.

The belt does not have to be excessively tight.



Heavy Duty Feed End



Reattach take-up sidewall & hardware.

To adjust the feed end, loosen the four (4) screws on the adjustable take up plate.

Either loosen or tighten the adjustable take up screw on both sides of the conveyor.

Make sure each side is tightened equally. It may help to measure the adjustable take up screws.

The belt does not need to be excessively tight.

REPLACEMENT PARTS

GREY SIDE PANELS

REP952 – 17.5” Straight Connector Wall w/Belt Path
REP956 – 6.5” Feed End (Belt Access Panel) Connector Wall w/Belt Path
REP960 – 6.5” Straight Connector Wall w/Belt Path
REP963 – 30 Degree Connector Wall w/Belt Path
REP966 – 45 Degree Connector Wall w/Belt Path

SUI952-E – Non Motorized Side & Drive End w/Belt Path
SUI952-EE – External Motor Drive Side Connector Wall w/Belt Path
SUI952-OR – Internal Variable Speed Drive Side Connector Wall w/Belt Path
SUR952-E – Non Motorized Side Connector Wall w/Belt Path (Radius Turn)
SUR952-EE – External Motor Drive Side Connector Wall w/Belt Path (Radius Turn only)

KIT970 – 17.5” Retaining Flange Kits (2pcs)
KIT971 – 6.5” Retaining Flange Kits (2pcs)
KIT972 – 30 Degree Outside Flange Kits (2pcs)
KIT929 – 30 Degree Inside Flange Kits (2pcs)
KIT973 – 45 Degree Outside Flange Kits (2pcs)
KIT925 – 45 Degree Inside Flange Kits (2pcs)
KIT3_ _ – Feed End Retaining Kit w/Feed Shield *(_ _ dictates conveyor width)*

BELT SUPPORTS & BELT PATHS

PLC954 – 17.5” Straight Connector Belt Support
PLC957 – 10 ¾” Drive Module Belt Support
PLC958 – Drive Module Belt Support –End Turn
PLC962 – 6.5” Straight Connector Belt Support
PLC965 – 30 Degree Connector Belt Support
PLC968 – 45 Degree Connector Belt Support
PLD953 – 17.5” Straight Connector Belt Path
PLD953-C – 12 ¾” Drive Module Beth Path
PLD955 – 6.5” Feed End (Belt Access Panel) Side Wall Belt Path
PLD955-D – Drive End Belt Path
PLD961 – 6.5” Straight Connector Belt Path
PLD964 – 30 Degree Connector Belt Path
PLD967 – 45 Degree Connector Belt Path
PLR955 – 6.5” Feed End Side Wall (Belt Access Panel) Radius Turn Belt Path
KIT955-HDT – Heavy Duty Feed End Belt Path (Pair)

MISCELLANEOUS PARTS

GPA191 – 1” Bore Drive Sprocket – Standard – 4.1” pitch diameter
GPA192 – 1” Bore Drive Sprocket – Radius Turn – 3.9” pitch diameter
GPC911 – Threaded Hex Plug 3/8-16
PLC906 – Plastic Rivet
PLD703 – 1” Bore Idler Wheel
REP916 – 2 Hole Connector
REP930 – 4 Hole Connector
KIT616 – 15” Leg Straps (2pcs)
KIT231 – 30” Leg Straps (2pcs)
KIT945 – Leg Connector Kit – used with “LH Series” Leg Set
HRD200 – Leg Connector Kit – used with “Peg Leg” Leg Set
PLD711 – Black E-Clip
PLD712 – Plastic Key used with Drive Sprockets
GPA211 – 1” Bore Wood Bearing
GPA224 – Internal Drive Belt
GPA283 – Spider
KIT947 – Wire Management Clip w/ Hardware
KIT940 – Clear Cover Clip w/Hardware (pair)

DYNAMIC™ CONVEYOR CORPORATION
5980 Grand Haven Road
Norton Shores, MI USA 49441
www.dynamicconveyor.com
main: 231.798.1483
fax: 231.798.9583