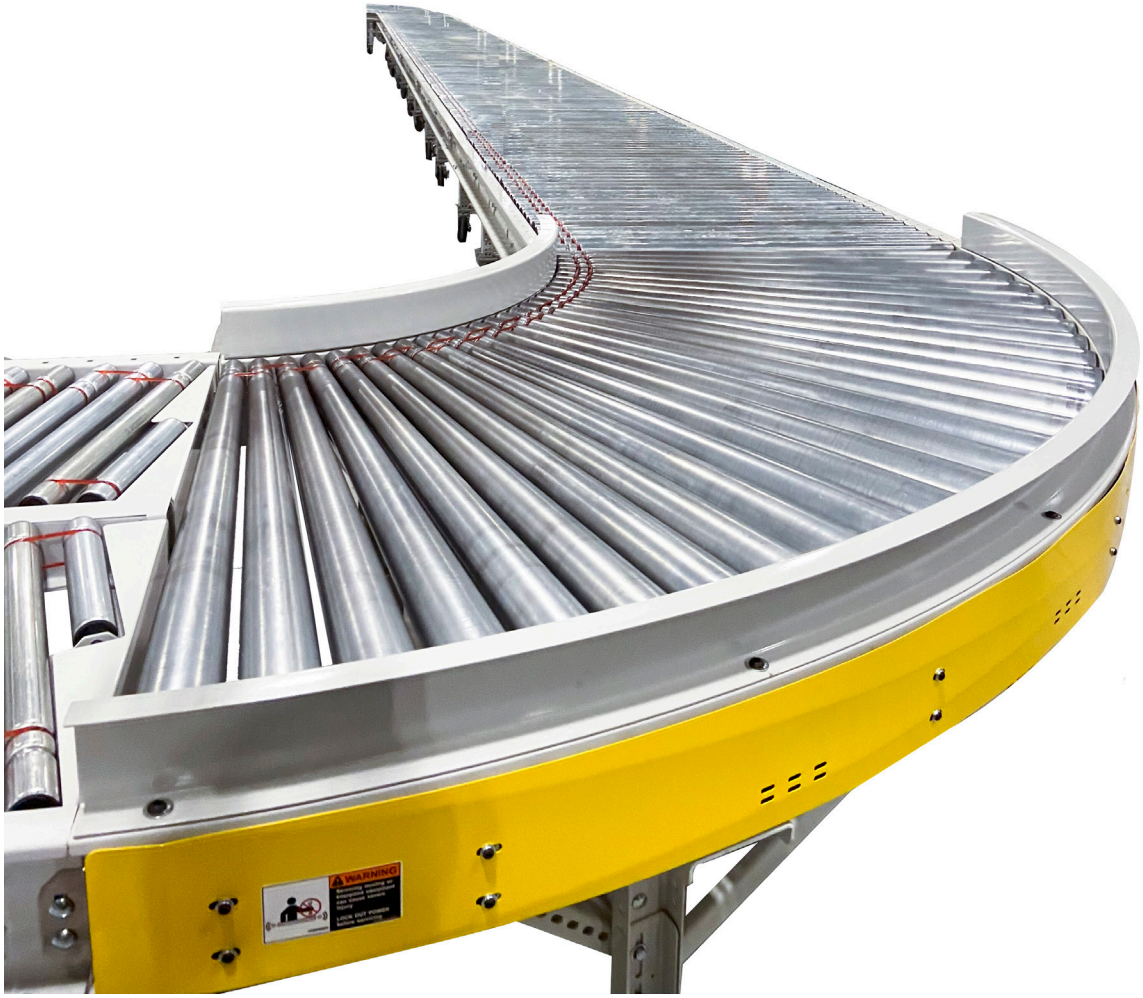
MOD-LINX

INSTALLATION, OPERATION & MAINTENANCE MANUAL

PLEASE REVIEW MANUAL BEFORE OPERATING EQUIPMENT



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CXC_Mod-LinX_100518_IOM_Rev1

CONVEYX

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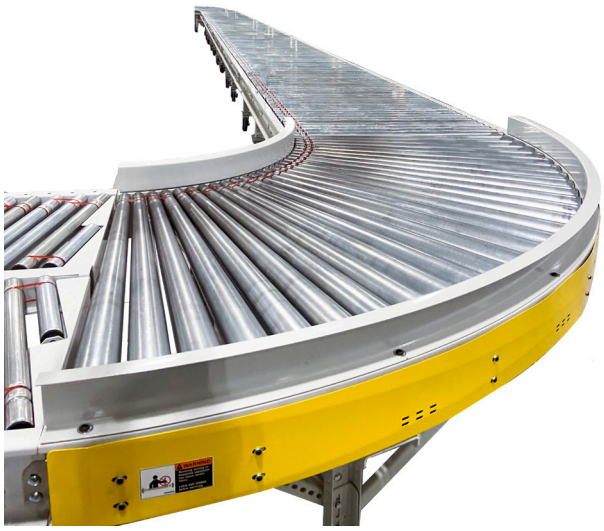
GENERAL OVERVIEW

The Mod-LinX rigid re-configurable conveyor product line is an innovative conveyor system that is modular and can be easily re-configured to meet current operational demands and requirements. The system is adaptable and provides options to rapidly assemble, disassemble and re-assemble in a new configuration to meet the needs of the specific application. The Mod-LinX system can also incorporate other flex conveyors and Mod-LinX and can be easily customized with accessories for the ultimate load and unload dock door solution. This conveyor line offers the proven, energy efficient 24 VDC drive technology that ConveyX is known for.



PRODUCT SPECIFICATIONS

GENERAL	
Conveyor Bed Width (BF)	36", 48"
Conveyor Length	Varies
Conveyor Height	32" top of roller; bolt adjustable
Speed	40-150 feet per minute (FPM)
Capacity	50 pounds per linear foot (PLF)
Noise Level	70dB at conveyor bed c/l (32" TOR), 60dB at ear level (approximately 5'– 6" height from ground level)
MDR Torque	11 pounds/inch

POWER	
AMPS	4 AMPS per roller
Watts	35W
Supply	30 AMP with a maximum of (7) section per power supply for typical configurations
Maximum	Maximum of (100) sections per master power supply

MATERIALS	
Casters	6" swivel casters
Frame	12 gauge formed and powder coated steel
Leg Supports	Bolt together, H style
Belts	Belts 3/16" diameter Cyclothane-B
Rollers	1.9" motorized drive rollers 30" center to center; 1.9" bed rollers 3" center to center

SHIPPING	
36" BF	535 pounds, 10 foot section
48" BF	610 pounds, 10 foot section
90" curve	850 pounds

WARNINGS AND SAFETY INSTRUCTIONS

Failure to follow the instructions and cautions throughout this manual and warning labels on the conveyor, may result in injury to personnel or damage to the equipment.

ConveyX Corp.'s Mod-LinX is motor-powered and this motor can be stopped by turning off the motor's electrical power. As with all powered machinery, the drive-related components can be dangerous so safety guards and other optional devices have been installed to prevent accidental contact with these parts along with warning labels to identify potential hazards.

Special attention must be paid to the following areas of this manual:

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a situation which, if not avoided, could result in property damage.

NOTE

Indicates helpful hints and information

ENVIRONMENTAL STANDARDS

ConveyX Corp.'s equipment is designed to be installed in a clean, dry environment. Exposure to extreme humidity, direct sunlight, blowing dirt or rain can permanently damage some components and equipment. Concrete curing agents are also known to attack and degrade the urethane conveyor components. Be sure that the concrete is properly cured at new sites before setting the conveyor on it and that proper ventilation is used to prevent curing agent fumes from impacting the conveyor. Equipment should be stored under cover to protect it from exposure to the weather and other adverse conditions from the dock door to the truck entrance. Failure to comply with these guidelines will void the warranty on any failed components that result from these environmental issues.

ANSI STANDARDS FOR CONVEYORS

It is essential for safe and efficient system operation that the safety information and guidelines presented here are properly understood and implemented. The American National Standard Institute (ANSI) booklet entitled Safety Standards for Conveyors and Related Equipment, for more information contact https://webstore.ansi.org.

With any piece of industrial equipment, conditions exist that might cause injury to workers. Because it is not possible to describe each potentially hazardous situation that might develop, workers must be alert at all times for unsafe conditions. To avoid injury, use maximum possible care and common sense and adhere to all safety standards.

Take special care while maintaining and inspecting electrical equipment and devices. All personnel working on or around the system should be aware of, and adhere to all CAUTION, DANGER and WARNING signs.

Labels or signs are posted to reduce the risk of injury to all personnel. Never assume that the signs and notices are applicable only to inexperienced personnel. Maintain signs in a legible condition. Contact a supervisor to post additional safety signs if necessary.

ANSI CONVEYOR SAFETY RULES

Below are the conveyor safety rules, as well as specific regulations and guidelines listed in this publication:

- DO NOT touch moving Conveyor parts.
- DO NOT walk, ride or climb on the Conveyor.
- DO NOT operate the Conveyor with chain guards or other protective guards removed.
- Keep jewelry, clothing, hair, etc., away from the Conveyor.
- Know the location and function of all start/stop devices and keep those devices free from obstruction.
- Clear all personnel from the equipment before starting the Conveyor.
- DO NOT attempt to clear product jams while the Conveyor is running.
- Allow only trained and authorized personnel to maintain or repair Conveyor equipment.
- DO NOT load the Conveyor beyond specified design limits.
- DO NOT attempt to make repairs to the Conveyor while it is running.
- DO NOT modify equipment without checking with the manufacturer.
- DO NOT operate or perform maintenance on equipment when taking any type of drug or sedative, when under the influence of alcohol or when over-fatigued.
- Report any unsafe condition to your supervisor or maintenance staff.

CEMA STANDARDS FOR CONVEYOR

The Conveyor Equipment Manufacturers Association (CEMA) provides safety information related to conveyor systems. To learn more about CEMA visit website, www.cemanet.org.

CEMA produces various Conveyor safety videos and posters, and it is recommended that the videos be made available for training and education purposes as part of a safe working environment around conveyor equipment. The videos introduce awareness of operations, personnel, maintenance technicians and safety hazard management commonly associated with the automated material-handling conveyor equipment.

The safety posters review important safety labels and are intended to be posted in public places as a day-to-day reinforcement of good safety practices. These posters can be downloaded from the CEMA website at: http://www.cemanet.org/safety-label-posters.

SAFETY INSTRUCTIONS

⚠ WARNING

- **Do not exceed the conveyor load capacity, as it may result in possible operator injury or conveyor damage.**
- **Avoid wearing excessively loose clothing when working with moving equipment.**
- **Keep long hair pulled up to prevent it from becoming caught in moving parts.**
- **Broken or worn parts must be replaced immediately.**
- **Mod-LinXs must only be serviced by properly trained and qualified technicians.**
- **Conveyor's power cord must be connected to a grounded receptacle that is protected by an overcurrent device rated at no more than 30 Amps, unless otherwise specified.**
- **Never service a conveyor with the power applied. Always disconnect power before servicing equipment and use the company's machine specific lockout/tag out procedures.**
- **Never operate conveyor with an electrical enclosure open or any guards removed.**

PRE-INSTALLATION INSPECTION

⚠ WARNING

Follow all proper safety precautions and plant installation procedures.

If you find any damage to the conveyor upon inspection or any loose wires, contact the factory BEFORE applying power to the conveyor.

1. Prior to unpacking and de-stacking the Mod-Linx conveyors, perform a visual inspection for any wiring or mechanical components that may be improperly connected or attached to the shipping pallet or banding.
2. Unpack the Mod-LinX and inspect for any possible damage that may have occurred during shipping. Pay particular attention to the wiring to ensure that no wires are pulled loose or damaged. If you find any physical or electrical damage to the conveyor upon inspection, contact the factory BEFORE applying power to the conveyor.
3. Inspect all electrical cables, communication cables and connectors to ensure they did not loosen during transportation. If a connection or wire is loose, inspect for damage. If no damage is found, reconnect and contact the factory as needed.
4. Inspect the rollers to ensure the rollers were not damaged during shipping. If the rollers are bent, the conveyor will not move products or operate properly resulting in poor performance. The conveyor rollers will need to be replaced. Contact the factory for parts and further instruction.
5. Inspect the casters and legs to ensure no damage has occurred during shipping. If any damage has occurred, then the conveyor will need to be repaired. Contact the factory for parts and further instruction.
6. Inspect each leg assembly for physical damage, loose and/or missing parts. Verify that the height is correct and that the adjustment fasteners are in place and secure. If the conveyor bed is not at the correct height, adjust the leg to the proper height and secure the fasteners.
7. Inspect all frame work to ensure that no damage occurred during shipping. If frames are damaged or bent, the conveyor will need repairs. Contact the factory for parts and further instructions.
8. Inspect the conveyor to ensure all yellow driver card covers are secured in the proper location and have the proper identification tag visible.

INSTALLATION INSPECTION

1. After the conveyor has been placed in the proper position, apply power and check the following:

- Communication cables are properly connected
- START/STOP buttons work properly
- Rollers are spinning in the correct direction

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

- Roller speed is set to the proper specification. (The direction and roller speed can be set within the power supply panel.)

⚠ WARNING

Follow all lock out and tag out procedures.

2. While under power, visually inspect that driver card indicator lights are functioning properly and are showing a green light. If a red light is indicated, refer to the TROUBLESHOOTING section. If the warning indicator cannot be cleared, contact the factory for further instructions.
3. Check that all splice plates are property installed and secure. Check that all accessories are installed correctly and secure. Verify that all conveyor bed heights are consistent with each other to ensure proper conveyance.
4. Ensure all power drops are secure within the power masts, all power and communication cables are properly secured underneath the conveyor and not contacting the roller bed.
5. ADDITIONAL GATE INSPECTION; The Mod-LinX gates should be inspected for proper lift and operation by manually lifting and lowering the gates. Check for proper START/STOP function and that the “Gate Closed” proximity sensor is in place, secure and functioning properly.

FINAL INSPECTION

1. Using a sample package, verify that the entire conveyor system conveys without interruption or hesitation, all roller speeds are set to the proper specification and that all directions are set for proper conveyance.
2. At random, test multiple START/STOP buttons for proper function.
3. Test all gate conveyors for proper lift, function and stop and re-start operations.
4. Ensure that all power supply panels are properly closed and secured.

INSTALLATION

MECHANICAL INSTALLATION

1. Prior to equipment arrival, perform a site inspection with the necessary personnel which would include but not limited to; confirmation of site layout and that all dimensions are correct, all power supplies have been properly installed and that all site electrical processes are complete, debris and hazards are removed from installation areas, necessary dock doors are open and operational for unloading, that a staging area is available if needed and confirm that delivery areas are clear.

NOTE

Before starting any installation verify that the pre-installation inspection process has been completed.

2. Upon completion of the Pre-Installation Inspection has been completed, unload the equipment, unstack and depalletize. If necessary, restack the pallets in a staging area in order to load to return truck.
3. Attach all START/STOP button cabling. The cables will be zip-tied to the underside of the spreader for shipping purposes and will have enough slack to be able to attach to the appropriate START/STOP button.

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

4. If conveyors were shipped in a stacked position on pallets then there will be additional rollers zip tied to the conveyor bed. If so, the zip tied rollers need to be installed prior to moving the conveyor into place.
5. Find the Master paneled conveyors and move them into place according to the tag on the conveyor and the site layout. It is best to start building the conveyance system at the Master paneled conveyors at the infeed end.
6. Attaching conveyors

- Locate the (2) splice plates on the conveyor that are zip-tied to the spreader.
- Cut them loose and align the conveyor sections together end to end and at a matched height
- Use (4) carriage bolts and nuts per splice plate for securement, (1) splice plate is used per side.
- Attach (3) or (4) appropriate sections of conveyor to the master conveyor and once they are in the exact position, lock all the casters and use this as an anchor point to continue the building system.

7. Continue to attach conveyor sections together according to the site layout and conveyor tags.
8. Check to see if there are any accessories included that require attachment or adjustment such as Transition Plates prior to locking the conveyor system in place, otherwise these items may be difficult to reach.
9. If applicable, move Gate sections of conveyor into place according to the site layout and attach. Pay particular attention to the Gate tags as the “A” gate will be attached upstream section and the “B” Gate will attach to the downstream section. Also pay attention to the Gate numbers as they are a matched set from the factory. (1A with 1B and 2A with 2B). The final position of the Gates will have a ½” gap between the frames when in the down or closed position.

NOTE

Cable routing process must be followed to ensure that cabling is not damaged by rollers or would cause any interference with the conveyor operation.

10. Install any remaining accessories such as Side Guides, Backstops, Power Masts, Retainer Brackets, Infeed Connection Brackets, End Stops, etc.
11. Once all the equipment is in place and the dimensions of the site layout have been met, lock all casters into place and make sure that the casters are parallel with the conveyor frame.

ELECTRICAL AND CONTROLS INSTALLATION

1. All cabling should be routed over top of the spreaders and beneath the rollers. Once the cable is running in the proper upstream or downstream direction and it is connected to its device, secure the cabling to the spreaders with multiple zip ties to ensure that the cabling does not contact the rollers in any way.
2. All yellow Interface discharge cables will run in the downstream direction to the next power supply panel. The Interface discharge cable will connect to the Infeed Interface bulkhead on the side of the power supply panel.

3. The black power in cables will be routed in the upstream direction and connected to the appropriate female twist lock receptacle. That receptacle could be a power drop or the upstream power out cable. If it's the upstream power out receptacle, it will also need to be properly routed to make the twist lock connection.
4. Begin at the Master paneled conveyors and cut the zip-ties holding the black power cables and the yellow Interface cables. Start with the power in cable and route it to the upstream power supply. Then route the power out and the yellow Interface cables in the downstream direction and make the proper connections. Continue this process until you come to the next Master panel or the system is complete.
5. At no time will a yellow Interface cable be connected into a downstream Master panel. If a downstream Master panel is next in line on the layout, simply coil up the Interface cable and secure it underneath the conveyor away from the rollers.
6. No more than (7) units can be powered by a single (1) 30AMP power supply or (6) units in the case where a herringbone, skew, or urethane roller include conveyor is included. When routing the power cabling the power out cable on the last conveyor will not be needed and can be coiled up and secured to the underside of the conveyor, away from rollers.
7. Once all of the power interface cabling has been routed and secured, the BY-PASS switch on the last powered conveyor in the line needs to be set to the ON position to complete the power circuit.
8. All power supplies and the Master power supply panel need to be in the ON position.
9. Once all power supplies are ON, then all START/STOP buttons should illuminate RED and when pressed, they should illuminate GREEN. Once all START/STOP buttons on the conveyor line are GREEN, the conveyor will begin to run. Continue this process for all conveyors starting at the Master panel until the entire system is running.

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

10. All direction settings can be changed within the power supply panel by setting the Directional switch. Modify direction if needed.
11. All BY-PASS settings can be changed within the power supply panel by setting the BY-PASS switch. Modify Parent/Child relation if needed.
12. All roller speed settings can be changed within the power supply panel by adjusting the Speed pot. Modify speed if needed.
13. Perform the INSTALLATION INSPECTION on the entire system. If issues arise, refer to the TROUBLESHOOTING section of the manual. If needed, contact the factory for further assistance.
14. Perform the FINAL INSPECTION section of the manual.

OPERATING INSTRUCTIONS

NOTE

Prior to operation any equipment, confirm that all safety, inspection and installation processes have been completed and that conveyance system is ready for operation.

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

1. Designate a central START/ STOP button or buttons to be used for initial start-up or shift change shut down according to the site layout to assist all operational personnel.

- Complete the PRE-INSTALLATION INSPECTION
- Make sure that all conveyor lines are clear and free from debris and hazards. This applies to the roller bed and underneath the conveyors.
- Make sure that all persons are clear and away from the conveyor lines prior to Start-up.
- Make sure that all Gates are in the down/closed position and that the START/STOP buttons are illuminated GREEN.
- Verify that all necessary START/STOP buttons are illuminated GREEN. If they are RED, then apply slight hand pressure to the gate and they will change to GREEN.

NOTE

Depending on the site layout and the equipment provided, the start-up procedure may happen in more than (1) location.

1. Once the PRE-INSTALLATION INSPECTION is complete, press the designated START/STOP button and it should illuminate GREEN. The conveyor will start.
2. If a conveyor section needs to be shut down, any of the START/STOP buttons can be pressed and it will illuminate RED and stop the conveyor. To restart the conveyor, make sure the line and/or hazards are clear then slightly press the same red START/STOP button and illuminate to green. The roller bed reverse then and will begin to move.
3. If issues arise, refer to the TROUBLESHOOTING section. If needed, contact the factory for further assistance.

GATE OPERATION

1. When the gate or gates are in the up/open position, the connecting conveyors will NOT operate. There will also be (1) START/STOP button that has NO illumination at all and will look clear.
2. To close the gate, find the LIFT HERE handle and squeeze the orange bar towards the handle. This will allow the gate to move up or down as long as the orange bar is depressed. Lower the gate so it makes complete contact to the ground and release the orange bar.
3. Once the gate or gates are in the down/closed position the non-illuminated START/STOP button will turn RED. Apply slight hand pressure and it will illuminate GREEN.

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

4. When both gates are completely closed the conveyor line can be restarted by making sure that all START/ STOP buttons are illuminated green. There will be up to a (5) second delay for the downstream conveyor sections rollers begin to move after the initial start-up.
5. To open the gate(s), simply squeeze the orange bar simultaneously while using the LIFT HERE handle. The rollers will automatically stop when either side of the gate is lifted.
6. If issues arise, refer to the TROUBLESHOOTING section. If needed, contact the factory for further assistance.

⚠ WARNING

Operating the LIFT HERE handle without the use of the orange bar will lock the bar in place. Forcing up or down will result in damage.

OPERATING INSTRUCTIONS

Package Jam Clearance

1. Mod-LinX conveyor drives are designed to shut down if temperature exceeds a specified limit. When a package becomes jammed on a conveyor, the zone drive will shut itself down to avoid damaging the drive roller or driver card due to overheating.
2. To restart the system if a jam occurs, clear the product jam, and the conveyor drive will restart itself after the temperature has returned to normal operating temperature. If the system has not cycled within 2 minutes of clearing the jam then turn the START/STOP button to OFF and then back to the ON position. The system should begin to operate normally.
3. If the system has not returned to normal operating conditions, please refer to TROUBLESHOOTING section to check for other system alarms.

GENERAL PREVENTATIVE MAINTENANCE

Periodic maintenance intervals shown may vary with load, speed, hours of daily operation, ambient temperature, humidity, etc. Intervals can be established by fairly frequent maintenance at first; then lengthen the intervals as justified by observation of need based on history. The following is based on 5 days per week, 8 hours per day under normal conditions.

⚠ WARNING

- Prohibit riding on conveyor by anyone.
- Think before making any adjustments. It may prevent an injury. Remember, all moving components are potentially dangerous.
- Protect yourself from unexpected starts when working on a stopped unit by locking the control panel or disconnect switch that supplies power to the unit.
- Lockout/Tagout procedures must be followed for every energy source of the conveyor.

Follow general maintenance safety procedures and review safety material prior to performing maintenance on any equipment.

Regular inspections are recommended by the manufacturer to ensure proper operation of mechanical, electrical and safety systems.

DAILY MAINTENANCE

Walk all lines of the Mod-Linx system;

- Listen for any unusual noises, squealing or rattling sounds.
- Visually check Driver card indicator lights by looking through the access slots.
- Visually inspect to see that Conveyor sections are clear and free of debris.
- Inspect belts for wear, debris interference and proper placement.
- Inspect wiring and cables for damage and proper securement.
- Inspect casters, bracing and legs for damaged, missing or loose parts.
- Inspect all side guides, backstops and end stops for loose or missing fasteners and securement.
- Visually inspect for loose fasteners or missing parts.
- Inspect in and around the conveyor system for loose or fallen packages and remove.
- Verify that all START/STOP push buttons operate and light up properly.

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

- Run a test package across the entire length of the system looking for proper operation.
- Verify all gates open, close and function properly to include re-start of the system.

WEEKLY MAINTENANCE

- Check that all warning labels are still legible and properly placed.
- Check for unrestrained/pinched wiring, loose wire connectors, nip points and other hazards.
- Check that the MDR bracket screws are tight and in place, if not secure the bracket screws ensuring maximum torque is not exceeded.
- Verify all guard covers are in place and secure.
- Check all power drops and the plugs to ensure proper connection and securement.
- Remove excess cardboard dust and/or debris from polyurethane rollers and o-ring belt.
- Visually inspect rollers for excessive run-out, damage or rubbing.

MONTHLY MAINTENANCE

- Check for consistent belt tension between rollers.
- Check splice plates for proper connection, placement or missing/loose fasteners.
- Inspect that all roller axles are properly seated through the frame hex hole and that MDR axles are properly installed in the mounting brackets.

MONTHLY MAINTENANCE

- Check MDR to ensure that motor is operating within proper heat and noise range
- Verify that driver cards and the connectors are in place and secure.
- Verify that power cycles on and off properly on power supply panels.
- Check all indicator lights, connections and cabling on power supply panels.

GENERAL TROUBLESHOOTING

⚠ WARNING

Please be aware of capacitive touch when using the START/STOP buttons. Gloves are not sufficient grounding.

PROBLEM	CAUSE	SOLUTION
Conveyor is not running	Package Jam	Clear package jam and system will reset itself
	START/STOP switch turned off	Press button to turn green
	Power supply is off	Turn on power supply
	Power supply not receiving power	Check AC power and check for loose power cable connections
	Power supply breaker is tripped	Check AC and DC power supply breakers
	Driver Card Fault/Failure	See driver card troubleshooting chart
	Drive Band broken or stretched	Replace belt with original equipment manufacturer belt
	Roll to Roll band broken or stretched	Replace belt with original equipment manufacturer belt
	MDR Failure	Check Mounting Bracket Check Motor Cable Check Extension Cable Check Card for Error Code
Drive belt slipping	Worn belt or insufficient belt type/ tension	Replace belt with original equipment manufacturer belt
	Mechanical	Check for proper mounting of drive roller and Mtg Bracket, misalignment can cause extra load on roller
Drive roller running excessively hot or repeatedly stalling	Electrical	Check wiring and circuits for damage or loose components, take ampere reading, replace drive roller if necessary
	Zone overloaded	Check conveyor for excessive load, reduce if design specifications are exceeded

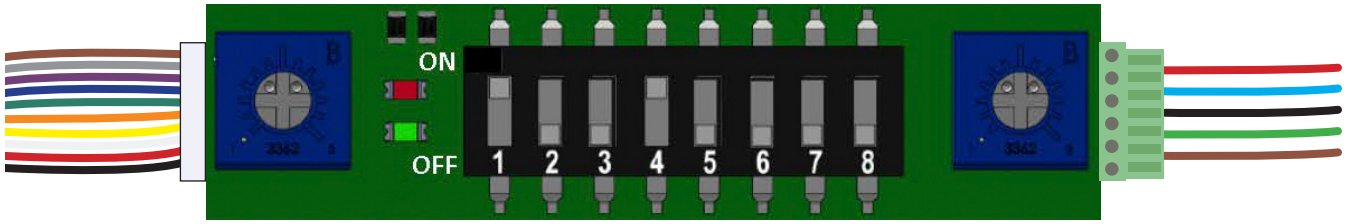
DRIVER CARD - C100B TROUBLESHOOTING

INDICATION

There are two LEDs (red and green) on the C100B driver card. Whenever 24VDC power is applied and the driver is functioning normally, the STATUS LED will display solid green. If 24VDC is present and the STATUS LED is not on then the driver needs to be replaced.

Solid red or flashing red indicates a Fault.

Close up view of dip switches demonstrating that dip switch 1 and 4 should be set to the up or ON position. All other switches should be set to the down or OFF position.



Drive controller connectors JST-10 pin connector

Accel/ Decel

LED

DIP Switch Bank

Speed Control

5 wire, 6 pin green connector, card connector cable from control panel

DRIVER CARD - C100B TROUBLESHOOTING

FAULTS

Two types of faults are displayed on the C100B: Application and Critical Faults cause the motor to stop running, and may require intervention.

Application Faults result in Red Flashes as indicated by Table B3.

If the motor thermistor or the driver card thermistor senses that the motor is overheating, the driver card will restrict power to the motor. If the **Reset Mode** (DIP Switch 4) is set to OFF then the power to the motor must be cycled to reset. If the **Reset Mode** is set to ON and the motor is in an overtemp condition, then the driver will automatically attempt to reset the motor after the motor cools to below the acceptable temperature. If the **Reset Mode** is set to ON, in the event of a stall, the C100B will attempt to restart the EcoSmart™ powered roller every 10 seconds.

Critical Faults are indicated by a solid red LED. Critical Faults typically cannot be cleared and usually require changing either the EcoSmart™ powered roller or the C100B driver card. The solid red light indicates that a critical fault has occured, however, it does not distinguish which fault has occurred. In the case of a Low Supply Voltage Fault, the fault can be cleared by correcting the low voltage condition and cycling the power.

Table B3 Application Faults

Flashing Red LED Status Indication
Motor stall - the C100B is trying to run the motor, yet it hasn't moved for a full second. The motor will attempt to restart after 10 seconds.
Motor Thermistor Fault - The motor has reached its temperature limit (90C) and has stopped. The motor will attempt restart every 10 seconds after it cools below the over-temp limit.
Driver Thermistor Fault - The C100B circuitry has reached its temperature limit (100C) and has cut off power to the roller motor. The C100B will attempt to restart the motor every 10 seconds after it cools below the over-temp limit.

NOTE

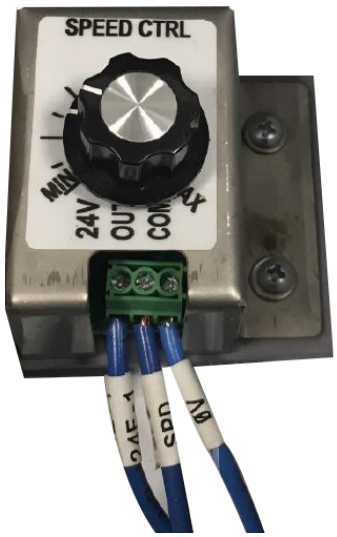
DIP Switch 4 must be set to ON for the auto-resets listed above to occur.

Table B4 Critical Faults

Solid Red LED Status Indication — Critical Faults
Commutation Fault - The circuit that controls the motor commutation has failed, or the motor connection is not fully inserted. If the connection is fully inserted then either the EcoSmart™ powered roller or the C100B driver card must be replaced.
Low Current - The C100B driver card is reading a current that is below the normal No-Load value. This typically occurs when the internal mechanical link to the EcoSmart™ powered roller has been broken. The roller must be replaced.
Low Supply Voltage Fault - The fault activates if the supply voltage to the C100B driver card falls below 18VDC.

ADJUSTING SPEED

Open the power supply control panel and locate the SPEED CTRL knob. Adjust speed of conveyor by turning knob clockwise to speed up, and counter-clockwise to reduce speed.



WARRANTY STATEMENT

The Seller warrants that the Equipment will be free of defects in workmanship and material (if properly installed, operated and maintained) for a period of one year or 2080 hours of use, whichever is sooner, from date of shipment to Customer, subject to the limitations hereunder set forth. If within the one year warranty period, the Seller receives from the Customer written notice of any alleged defects in the Equipment and if the Equipment is not found to be in conformity with this warranty (the Customer having provided the Seller a reasonable opportunity to perform any appropriate tests thereon) Seller will, at its option, either repair the Equipment or supply a replacement therefore.

The Seller under either option shall have the right to require Customer to deliver the Equipment to Seller's designated service center and the Customer shall pay all charges for in-bound and out-bound transportation and for services of any kind, diagnostic or otherwise, excepting only the direct and actual costs of repairing or replacing the Equipment. If after reasonable effort the Seller cannot correct said deficiencies, the Seller will make an equitable price adjustment based on actual performance, provided that such adjustment shall under no circumstances exceed the purchase price. The Seller further warrants that the parts, and components supplied by the Seller and forming a part of the Equipment will be free from defects in material and workmanship for a period of one year or 2080 hours of use, whichever is sooner, from date of shipment to the Customer. The Seller's liability shall be solely limited to the supplying of replacement parts and materials.

For a copy our full warranty included in our Terms and Conditions of Sale, contact ConveyX Corp.

RETURN AUTHORIZATION PROCEDURES

If the component in question is included in the replacement parts package, the following procedure will apply:

- Identify the part number from the manual
- If part is indicated as wear part
    - Replace the damaged or defective part from parts inventory
    - Order additional parts as required
- If the part is indicated as a warranty part
    - Replace the damaged or defective part from parts inventory
    - Contact CXC for a Return Merchandise Authorization (RMA) number
        - Have conveyor serial number available when contacting CXC.
    - Send the part to the following address

      ConveyX Corp.
      2355 US 23 South
      Alpena, MI 49707
    - Include the conveyor serial number and RMA number on the packaging and the packing slip
    - CXC will inspect the part and make a warranty determination
    - If the part is under warranty, CXC will…
        - Ship a replacement to Customer to replenish parts stock
        - Issue a credit for the freight

If the component in question is not included in the replacement parts package, the following procedure will apply:

- Identify the part number from the manual
- Contact CXC for an initial review to establish if part is covered under warranty and to provide a quote if needed.
    - Have conveyor serial number available when contacting CXC
- Issue a purchase order for a replacement part
- CXC will issue a Return Merchandise Authorization (RMA) number for the part to be returned.
- Send the part to the following address

  ConveyX Corp.
  2355 US 23 South
  Alpena, MI 49707
- Include the conveyor serial number and RMA number on the packaging and the packing slip
- CXC will inspect the part and make a warranty determination
- If the part is under warranty, CXC will Issue a credit to Customer for the purchased part and associated freight charges

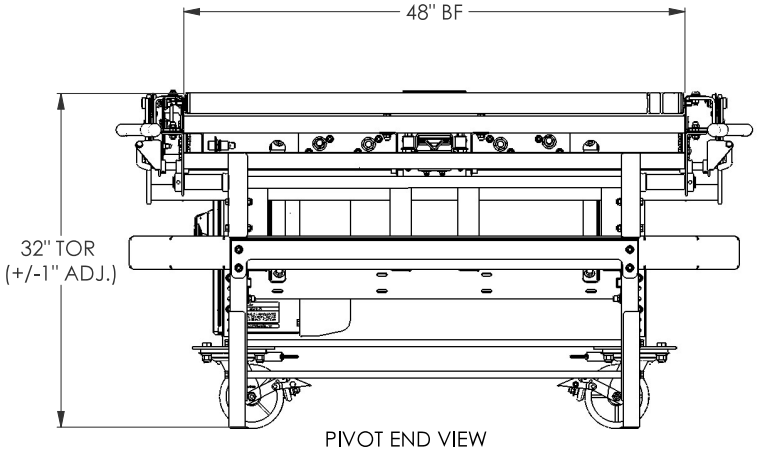
PARTS REFERENCE CHART AND DRAWINGS

Mod-LinX WEAR/REPLACEMENT PARTS		
A	BANK30ALBT2RGHQ	SWITCH (TOUCH BUTTON): BANNER #K30ALBT2RGHQ, 96552, 12-30VDC, 22MM MOUNTING HOLE, 30MM ILLUMINATED, RED NOT ACTIVATED, GREEN ACTIVATED, 2N.O. LATCHING, M12
B	LEV2611	PLUG: LEVITON #2611, 30 AMP, 125 VOLT, NEMA L5-30P, 2P, 3W, LOCKING PLUG, GROUNDING, BLACK-WHITE, MALE
C	LEV2613	PLUG: LEVITON #2613, 30 AMP, 125 VOLT, NEMA L5-30R, 2P, 3W, LOCKING CONNECTOR, GROUNDING, BLACK-WHITE, FEMALE
D	LUMRKT46335M	CORDSET: LUMBERG #RKT 4-633/5M, M12 STRAIT FEMALE CONNECTOR, 4-PIN, 22AWG, PVC, 5M PIG-TAIL
E	MENMIN6MPM5M	CORDSET: MENCOM #MIN-6MPM-5M, 7/8-16UN 6 PIN SINGLE CORDSET, MINIFAST HD MALE CONNEC-TOR, PVC, 6-C 16AWG, 5M PIGTAIL
F	MERHR45	HANDLE: MERSEN # HR45, RED, YELLOW RING, 45 MM, IP65, NEMA 3R (HH BARNUM)
G	MXBE-11116	ROUND BELT: .210" DIA. X 11-1/16" LONG, CYCLOTHANE-B 85A DUROMETER, HIGH-TENSION RED, WELD-ED LOOP
H	MXBE-758	ROUND BELT: .210" DIA. X 7-5/8" LONG, CYCLOTHANE-B 85A DUROMETER, HIGH-TENSION RED, WELDED LOOP
J	MXBE-9	ROUND BELT: .210" DIA. X 9" LONG, CYCLOTHANE-B 85A DUROMETER, HIGH-TENSION RED, WELDED LOOP
K	MXBE-938	ROUND BELT: .210" DIA. X 9-3/8" LONG, CYCLOTHANE-B 85A DUROMETER, HIGH-TENSION RED, WELDED LOOP
L	CXC-100056B	CASTER (SWIVEL W/BRAKE): 6" X 2" BLACK POLYOLEFIN WHEEL, 4" X 4-1/2" PLATE MOUNT, 700# CAPAC-ITY
M	MXDC-M	DRIVER CARD: ECOSMART #C100B
N	MXEX-M1	EXTENSION CABLE: JST 10 PIN, 1.2 METER LONG
P	MXEX-M2	EXTENSION CABLE: JST 10 PIN, 2 METER LONG
Q	MXRO-G119-1175	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 11 3/4" BF, 7/16" SPRING RETAINED HEX AXLE, #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARINGS, (1) NARROW GROOVE, 1/4" DEEP, GROOVE LOCATION 1 7/8" BF/C
R	MXRO-G219-23	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 23" BF, 7/16" SPRING RETAINED HEX AXLE, #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARINGS, (2) NARROW GROOVE, 1/4" DEEP, GROOVE LOCATION 2 1/4" BF/C AND 1 1/4" C/C
S	MXRO-G219-235S	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 23 1/2" BF 7/16" SPRING RETAINED HEX AXLE #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARING, (2) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 2 17/32" BF/C AND 1 1/4" C/C
T	MXRO-G219-235S2	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 23 1/2" BF 7/16" SPRING RETAINED HEX AXLE #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARING, (2) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 3 9/32" BF/C AND 1 1/4" C/C
U	MXRO-G219-36	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE , 36" BF, 7/16" SPRING RETAINED HEX AXLE, #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARINGS, (2) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 2 1/4" BF/C AND 1 1/4" C/C
V	MXRO-G219-48	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE , 48" BF, 7/16" SPRING RETAINED HEX AXLE, #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARINGS, (2) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 2 1/4" BF/C AND 1 1/4" C/C

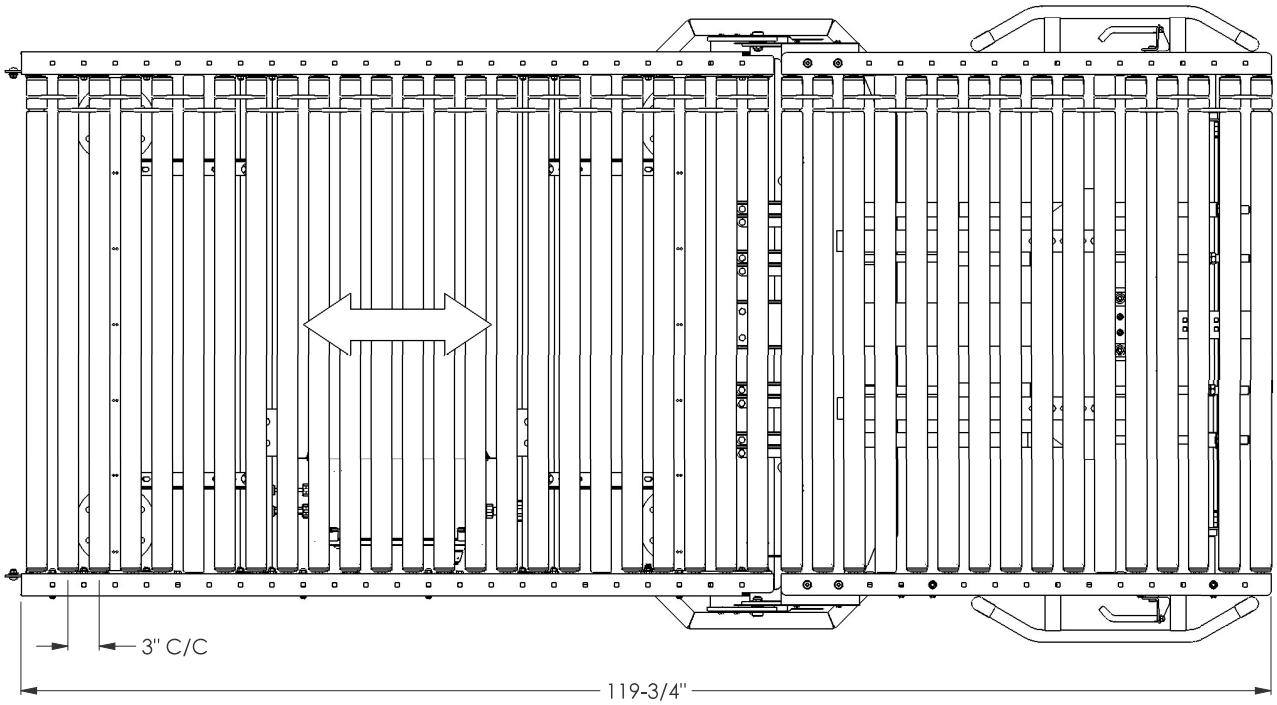
Mod-LinX WEAR/REPLACEMENT PARTS		
W	MXRO-G319-235A	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 23 1/2" BF 7/16" SPRING RETAINED HEX AXLE #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARING, (3) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 3 9/32" BF/C AND 1 1/4" C/C, AND 2 1/2" BF/C ON OTHER END OF ROLLER
X	MXRO-G319-235B	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 23 1/2" BF 7/16" SPRING RETAINED HEX AXLE #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARING, (3) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 1 13/16" BF/C, 2 3/16 C/C, AND 1 1/4" C/C
Y	MXRO-PM19-18	MOTORIZED ROLLER (24VDC): MICROROLLER #RCAD042H457HNS12A0X, 1.9" DIA X 18" BF, 35W MOTOR, 12:1 GEAR REDUCER, (2) 1/4" DEEP GROOVES, 7/16" NON-THREADED HEX AXLE, MOTOR END 300MM STANDARD LEAD, JST-10 PIN CONNECTOR
Z	MXRO-PM19-23	MOTORIZED ROLLER (24VDC): MICROROLLER #RCAD042H584HNS12A0X, 1.9" DIA X 23" BF, 35W MOTOR, 12:1 GEAR REDUCER, (2) 1/4" DEEP GROOVES, 7/16" NON-THREADED HEX AXLE, MOTOR END 300MM STANDARD LEAD, JST-10 PIN CONNECTOR
AA	MXRO-PM19-36	MOTORIZED ROLLER (24VDC): MOL ECOSMART #RCAD042K914HNS12A0X, 1.9" DIA X 36" BF, 35W MOTOR, 12:1 GEAR REDUCER, (2) 1/4" DEEP GROOVES, 7/16" NON-THREADED HEX AXLE, MOTOR END 300MM STANDARD LEAD, JST-10 PIN CONNECTOR
BB	MXRO-PM19-48	MOTORIZED ROLLER (24VDC): MOL ECOSMART #RCAD042K1219HNS12A0X, 1.9" DIA X 48" BF, 35W MOTOR, 12:1 GEAR REDUCER, (2) 1/4" DEEP GROOVES, 7/16" NON-THREADED HEX AXLE, MOTOR END 300MM STANDARD LEAD, JST-10 PIN CONNECTOR
CC	MXRO-G319-235A	GROOVED ROLLER: 1.9" X 16 GA. GALVANIZED FLO-COAT TUBE, 23 1/2" BF 7/16" SPRING RETAINED HEX AXLE #114135-GP PRECISION, PLASTIC HOUSED, SHIELDED BEARING, (3) NARROW GROOVES, 1/4" DEEP, GROOVE LOCATIONS 3 9/32" BF/C AND 1 1/4" C/C, AND 2 1/2" BF/C ON OTHER END OF ROLLER
DD	WEI1469510000	POWER SUPPLY (24VDC) : WEIDMULLER # 1469510000, PRO ECO SERIES, SINGLE PHASE, 115/230VAC, 20 AMP OUTPUT

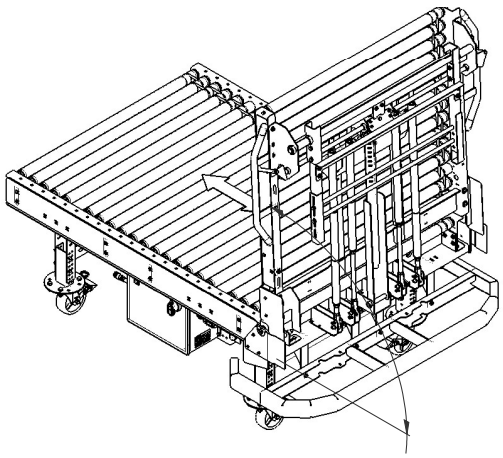
***SEE SALES REP FOR AVAILABLE PARTS PACKAGES.**

GATE CONVEYOR

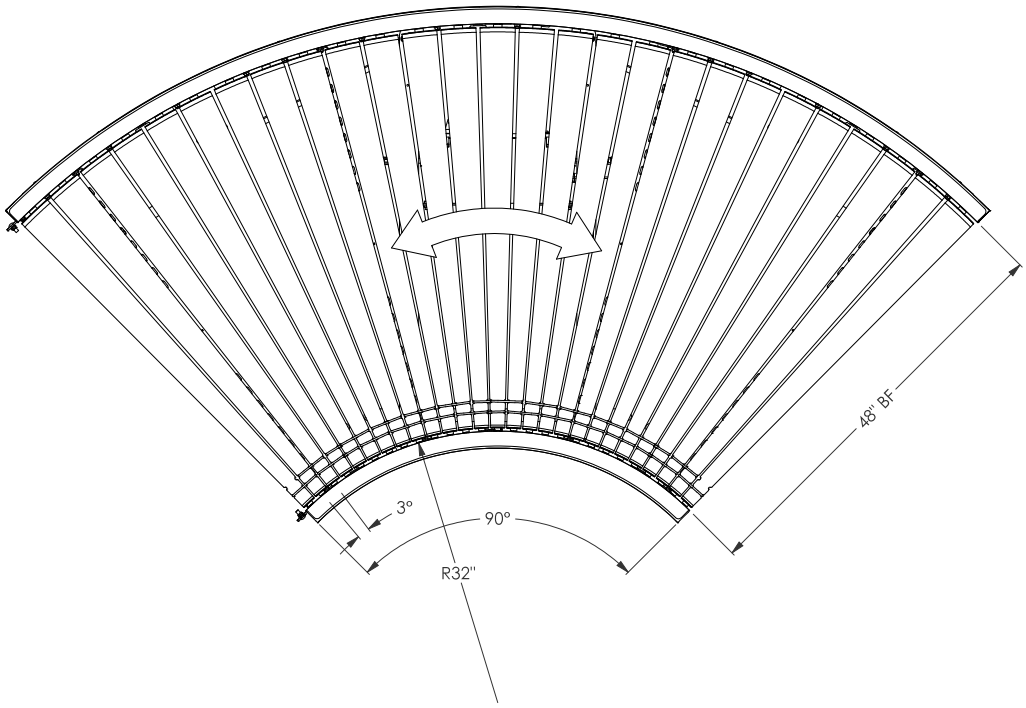


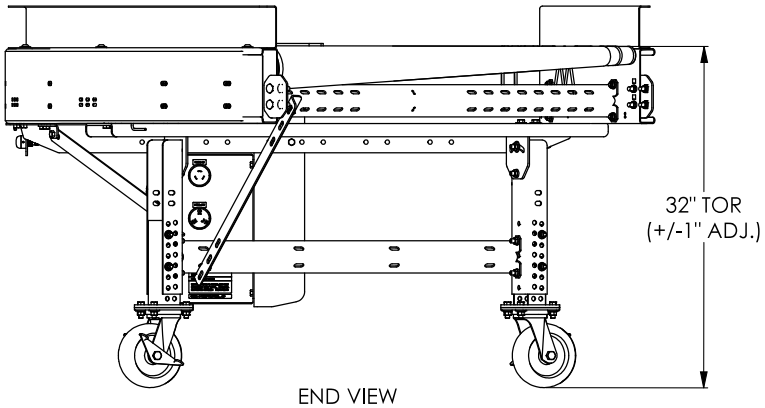
PIVOT END VIEW





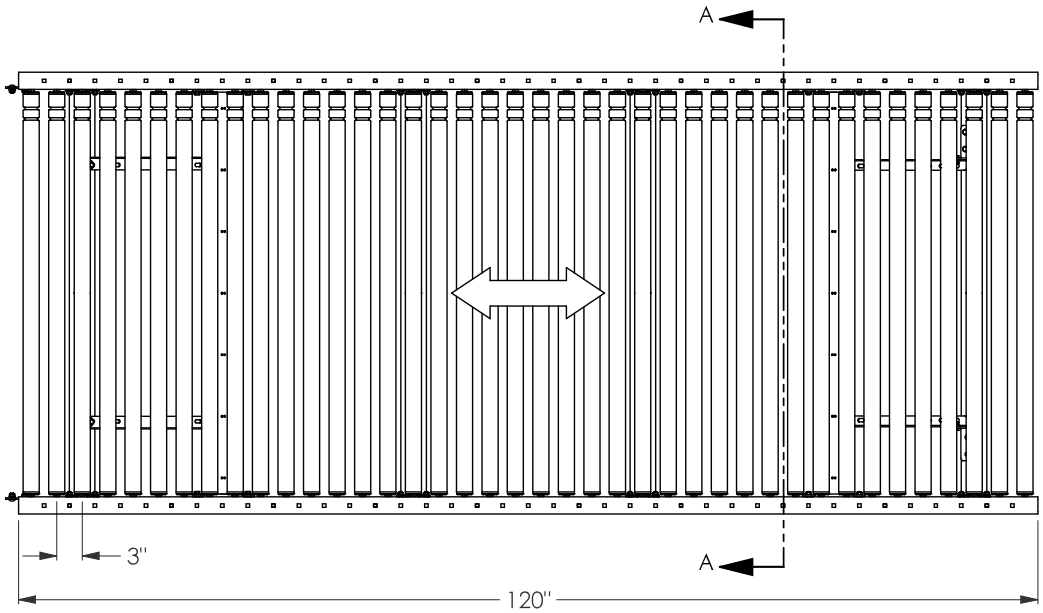
CURVED CONVEYOR

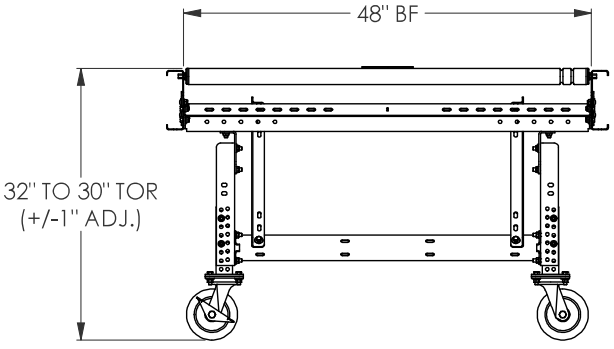




END VIEW

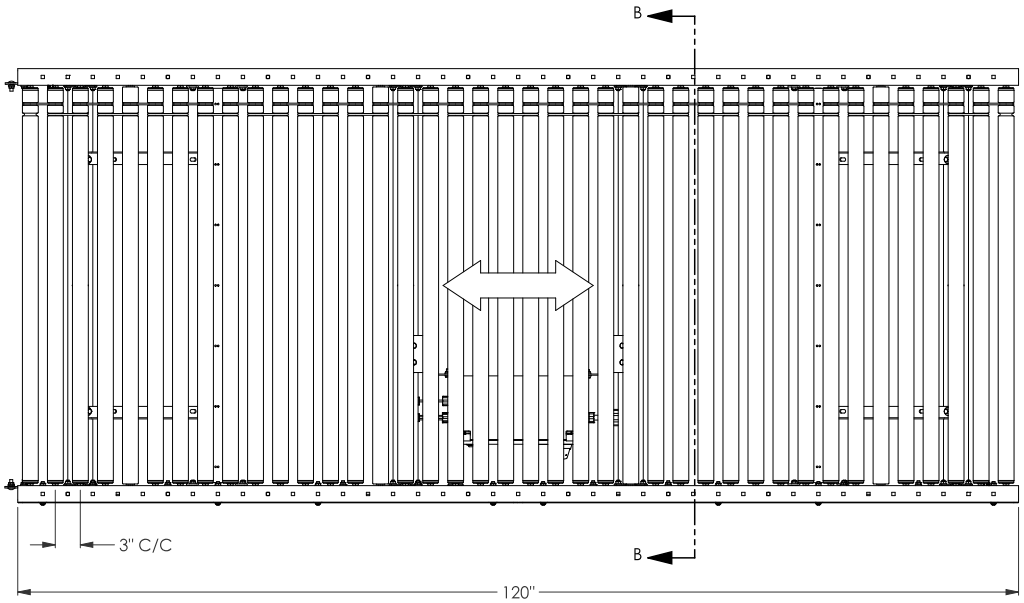
GRAVITY STRAIGHT CONVEYOR

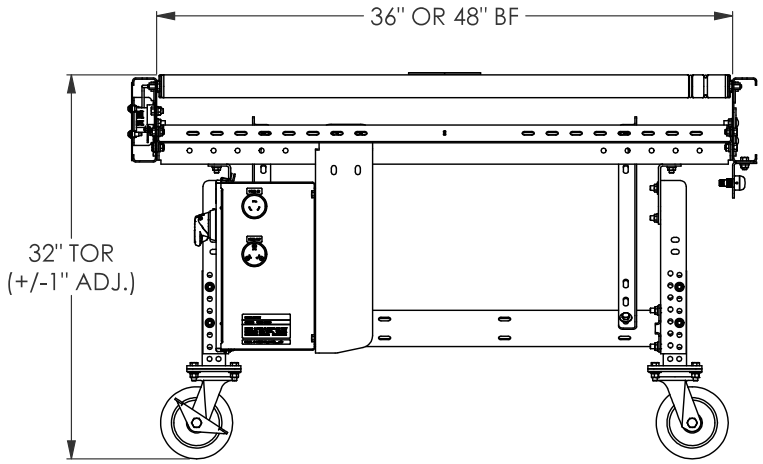




SECTION A-A

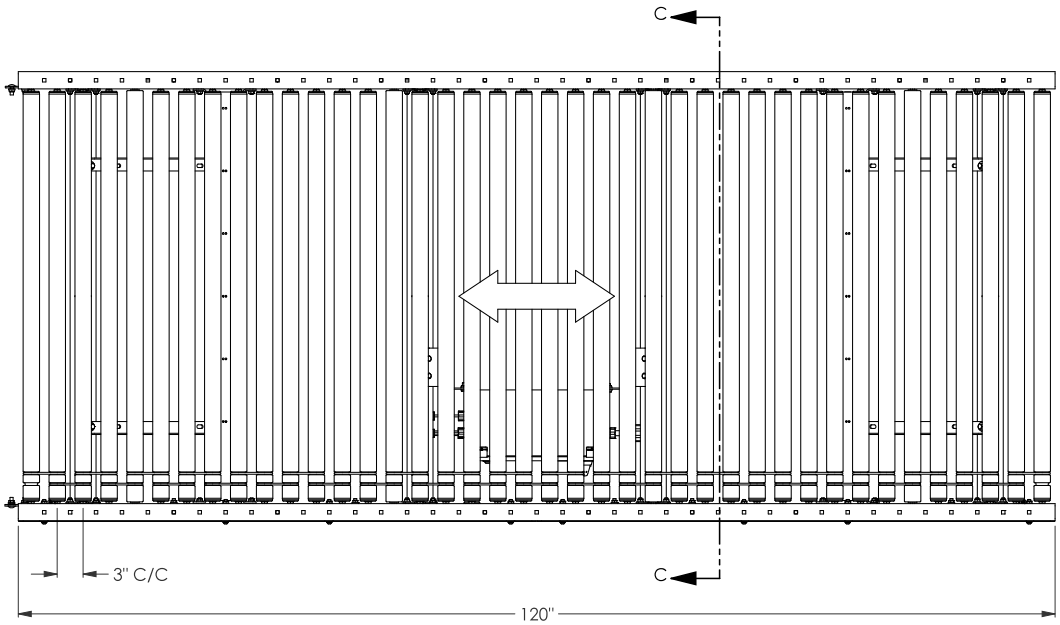
POWERED STRAIGHT CONVEYOR

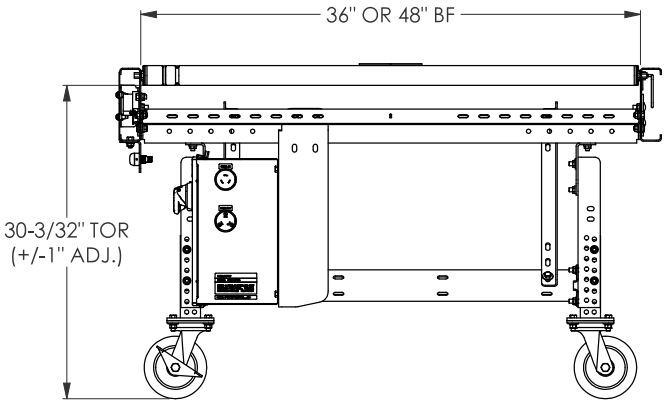




SECTION B-B

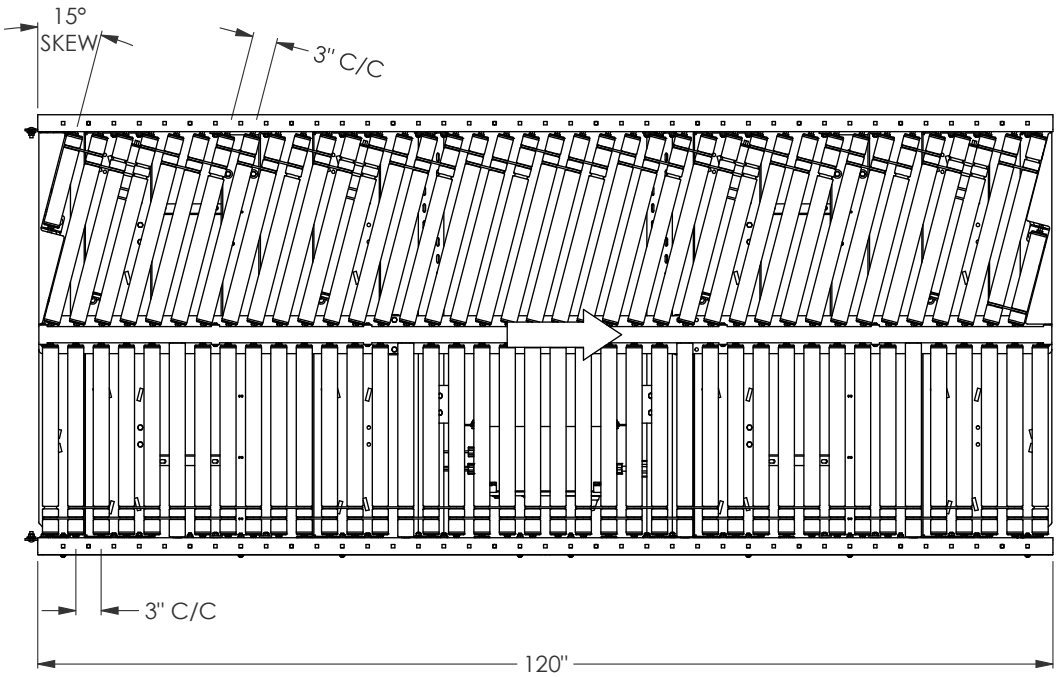
POWERED STRAIGHT CONVEYOR

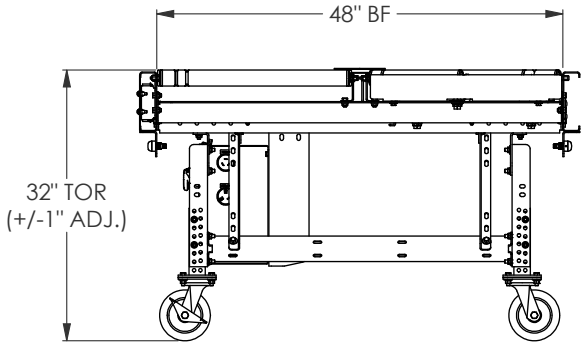




SECTION C-C

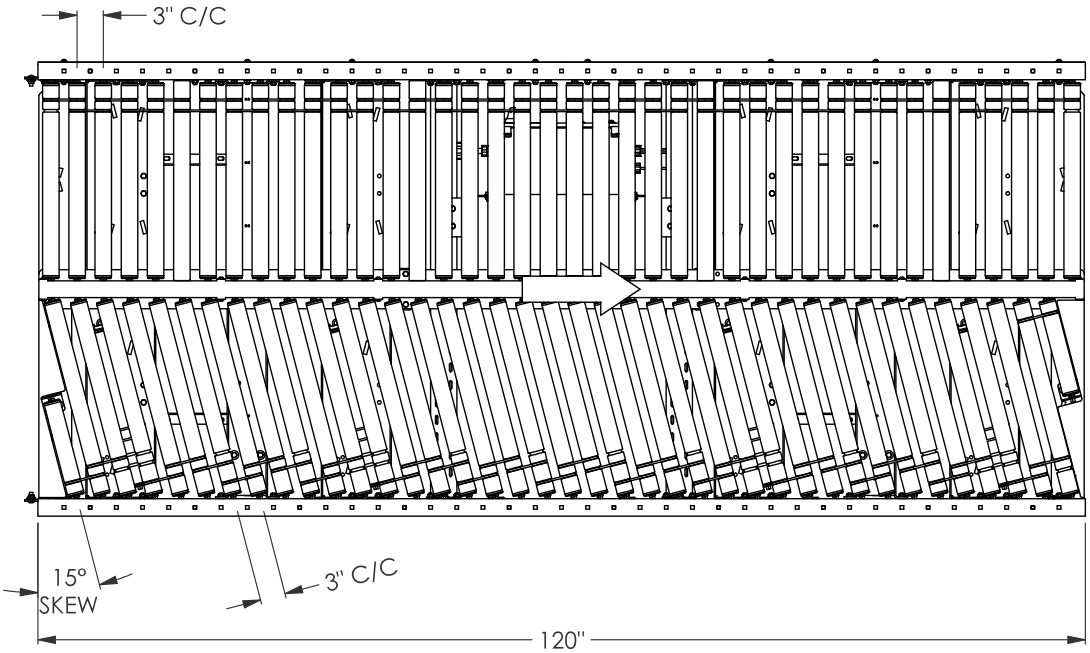
SKEW RIGHT CONVEYOR

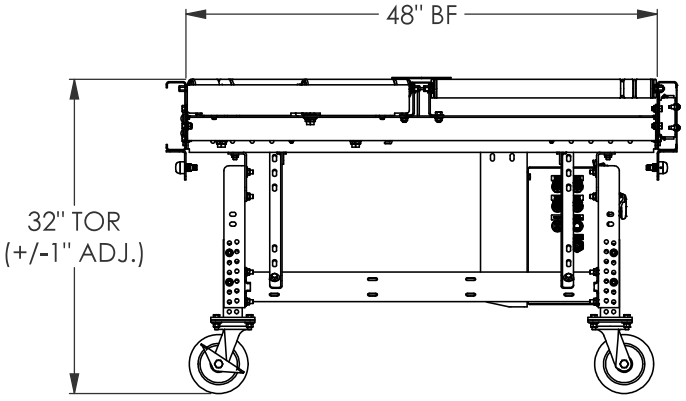




DISCHARGE END VIEW

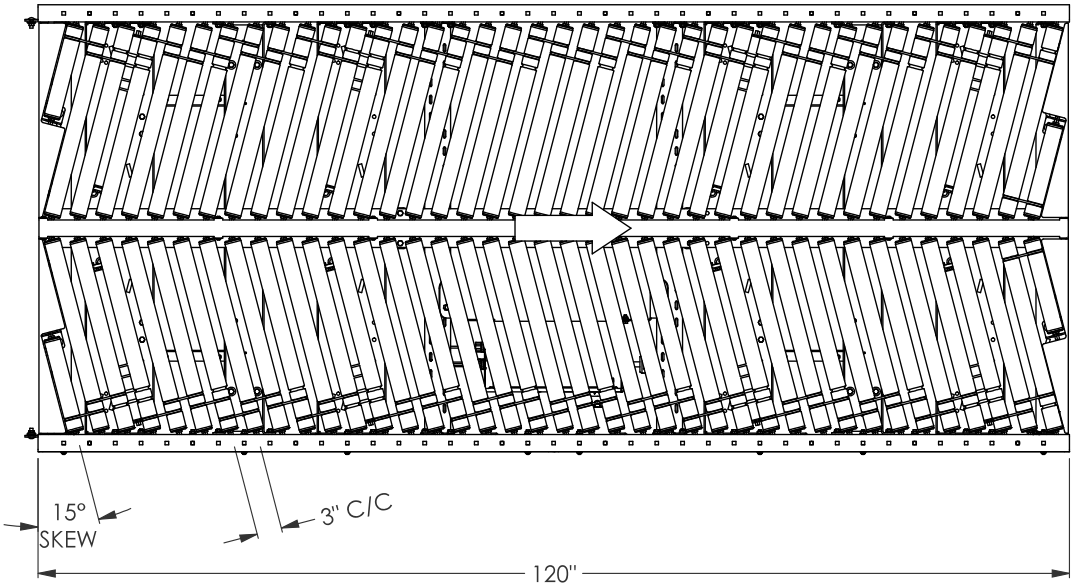
SKEW LEFT CONVEYOR

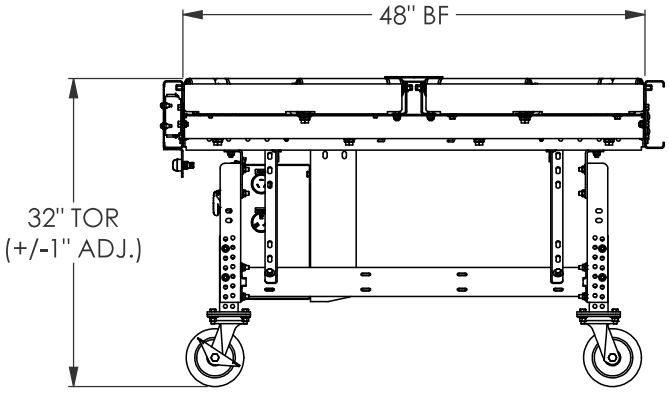




DISCHARGE END VIEW

HERRINGBONE CONVEYOR





END VIEW

ConveyX Corp. strives to be the leading dock door conveyor solutions manufacturer in North America. Our load and unload material handling equipment is designed for unit handling applications delivering operational improvements and energy efficiency.

We build to our customers' specifications to enhance their processes with quality equipment and components. We specialize in rapid product development to exceed lead time and volume requirements.