

# Section III. Assembly & Installation Instructions Tensioning Belt for Extruded Aluminum Conveyors

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Failure to connect the proper voltages to the equipment may result in personal injury and/or equipment damage! (Voltage information may be found on the conveyor Serial Plate).

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If for any reason, the electrical work can not be completed and the machine must be left unattended, always leave the main disconnect service locked. NEVER bypass or route around safety limit switches. Failure to heed this warning may result in personal and/or equipment damage.

### **A** CAUTION

Turn off all electrical power to the circuit before making any electrical connections. Failure to follow this instruction may result in fatal injury! Unplug the conveyor, or turn off the main circuit.

#### ON THE DRIVE END OF THE CONVEYOR NO ADJUSTMENT SHOULD BE MADE ON THE MOTOR / GEARBOX SIDE. ONLY SLIGHT ADJUSTMENTS SHOULD BE MADE TO THE OPPOSITE SIDE. ON SOME MODEL TYPES THE DRIVE END ADJUSTMENT ALSO EFFECTS THE INTERNAL DRIVE BELT TENSION.



(Fig. C1)



1. Proceed to step 6 if belt travel direction is already set.

Before turning the conveyor on, remove the end rail flapper (Fig. C1) or support it to prevent contact with the belt (Fig. C2). This will prevent damage if the conveyor does not run in the proper direction.

2. Now, quickly turn the switch on and then off, paying close attention to belt direction. If the conveyor is running in the proper direction, replace the end rail flapper.



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(Fig. C3)



(Fig. C4)

- 3. If, however, the conveyor runs in the opposite (wrong) direction, remove the motor box cover and follow steps 4 and 5 below for reversing the motor.
- After power is connected to the conveyor, check the belt direction and/or direction of motor rotation. On single-phase conveyors, the direction of motor rotation is set at the factory. For three-phase motors, the direction of motor rotation is determined by the power source supply.
- 5. Once the motor is reversed and the conveyor has been checked for proper direction, replace the end flapper.
- After the lacing pin is installed in the belt, make sure the belt is centered on pulleys. Start tensioning the belt at the take-up or tail end of the conveyor. (Fig. C3)
- 7. The EA conveyors are designed with a self tensioning system as well as a manual override. Adjust the take-up bolt out until the head of the bolt is in the middle of the window. (Fig. C4)

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(Fig. C5)



(Fig. C6)



(Fig. C7)

- 8. Operate the conveyor and check for belt slippage. If slippage occurs the manual setting will be required. This can be accomplished by adjusting the bolt further out until the head of the bolt contacts the opposite side of the window and starts to extend the take-up bracket. USE CAUTION NOT TO OVER-TIGHTEN THE BELT AS CONVEYOR DAMAGE WILL OCCUR. (Fig. C5)
- 9. Adjust the belt to accommodate the designed weight capacity as found on page 17. Use the 'auto' setting initially, and if required override to the manual setting. A general guideline to follow is with the belt tension properly adjusted the motion of the belt can be stopped by pinching the belt at the tail pulley while the drive pulley should continue to rotate inside the belt. NOTE: USE CAUTION WHEN GRASPING BELT AND PULLEY BY HAND. (Fig. C6)
- After the belt is adjusted to the proper tension, measure to make sure the pulley is square in the frame before start-up. This can be accomplished by measuring the distance between the machined surfaces on the frame end and take-up bracket. (Fig. C7)