

Overview

IronHorse fixed position pivot bases set belt tension with jack-screws rather than a sliding rail. The motor mounts on a top plate that is raised or lowered by a hex nut on each jack-screw, then locked in place with a second nut. Because the top plate is positioned by the jack-screws themselves, no rails or springs are required.

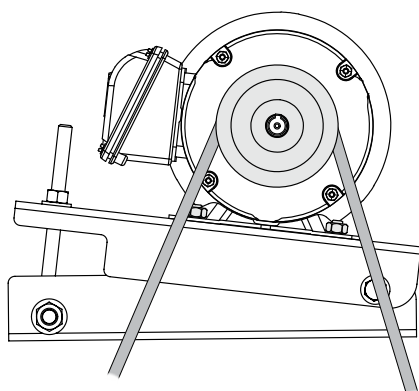
These bases suit installations where the motor sits directly above or below the driven equipment, and where a sliding base would be awkward to package. Pivot bases are available for NEMA frame sizes 56 through 286T.



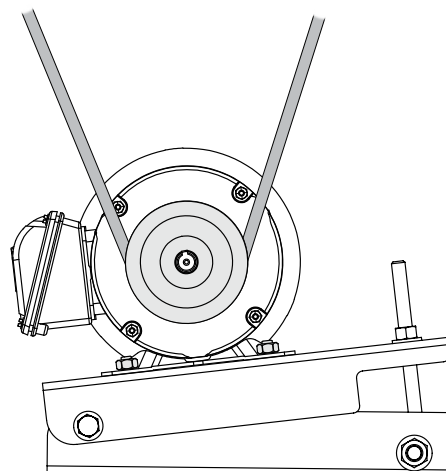
1 Adjustment Direction by Motor Position

The direction in which the top plate must be driven to increase belt tension depends on whether the motor is mounted above or below the driven unit.

IronHorse Pivot Base Adjustment Direction	
Motor Above Driven Unit	Motor Below Driven Unit
• Belt runs downward to the driven pulley. • To tension, push the top plate UP. • Turn the hex nut below the plate up the jack-screw so it lifts the plate.	• Belt runs upward to the driven pulley. • To tension, push the top plate DOWN. • Turn the hex nut above the plate down the jack-screw so it pushes the plate down.



Motor above
driven unit



Motor below
driven unit



NOTE: Belt tension increases when the motor pulley is moved away from the driven pulley. Push the top plate up when the motor is above the driven unit; push it down when the motor is below.

2 Installation

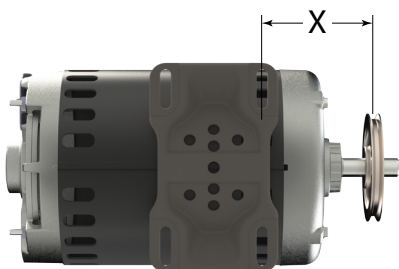


CAUTION – ADJUSTMENT DIRECTION

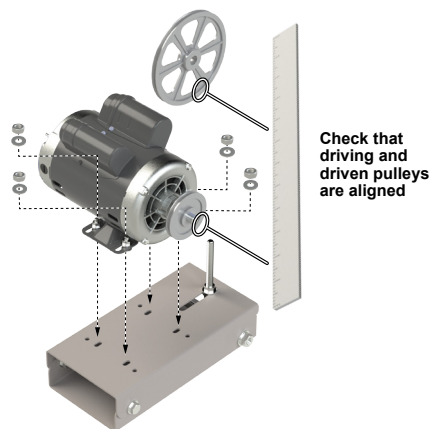
CONFIRM WHETHER THE MOTOR IS ABOVE OR BELOW THE DRIVEN UNIT BEFORE TENSIONING. DRIVING THE TOP PLATE THE WRONG WAY SLACKENS THE BELT AND CAN OVER-TRAVEL THE PLATE, DAMAGING THE BASE OR MOTOR.

Pivot Motor Bases CAD

Part Number	Drawing Link
MBS-PBASE-56.140	PDF
MBS-PBASE-180.210	PDF
MBS-PBASE-250.280	PDF



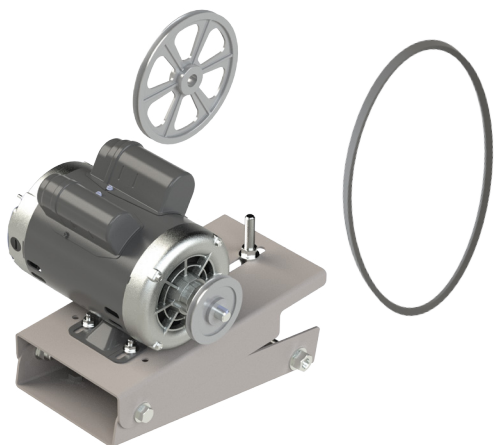
1. Click on the Drawing Link in the above table to download the CAD drawing for the specific motor base. Refer to the CAD Drawing and the motor footprint to pulley groove dimension to locate the base mounting holes. Use the appropriate hardware for your application to mount the pivot base.



2. Attach the motor to the top plate with the appropriate hardware. Use a straightedge to precisely align both pulleys. Tighten the motor mounting hardware to the recommended torque.

Installation continued on the next page

2 Installation Continued



3. Back off the jack-screw hex nut(s) until the motor pulley is closest to the driven pulley, then slip the belt over both pulleys by hand.

4. Turn the hex nut on each jack-screw to drive the top plate away from the driven unit until the belt reaches the manufacturer's recommended tension.

5. Lock the top plate by tightening the opposing hex nut on each jack-screw. Both nuts must bear firmly against the plate to prevent loosening under vibration. Run the system briefly under load, then re-check belt tension and alignment. Perform a tension check after the initial run-in period.



CAUTION – TOOL SELECTION

USE ONLY HAND TOOLS FOR ADJUSTMENT AND FINAL TIGHTENING. HIGH TORQUE AND IMPACT LOADING FROM POWER TOOLS CAN DAMAGE THE MOTOR BASE.



CAUTION – BELT INSTALLATION

DO NOT PRY OR ROLL A BELT ONTO A PULLEY. ALWAYS LOOSEN THE ADJUSTING SCREW FULLY AND BRING THE MOTOR CLOSE TO THE DRIVEN UNIT SO THAT THE BELT CAN BE EASILY INSTALLED BY HAND. FORCING A BELT OVER THE PULLEY FACE CAN BREAK INTERNAL CORDS AND SHORTEN BELT LIFE.



IMPORTANT – APPLY THE MINIMUM TENSION

The proper amount of belt tension is the minimum necessary to transmit the required power without slippage. Applying more tension than necessary shortens the life of the belt and bearings.