

IMPORTANT PRE-INSTALLATION INFORMATION

WARNING

Failure to observe the following warnings could create a risk of death or serious injury.

Installation and Service should only be performed by qualified personnel.

All owner/employer safety rules must be strictly followed when working on this equipment. Please read and become familiar to this entire installation guide before beginning any work. Before working on equipment, turn off and lock out/tag out energy source and bleed off all stored energy sources.

If equipment will be installed in an enclosed area, gas levels and/or dust content must be tested before using a cutting torch or welding equipment. The use of a cutting torch or welding equipment in an area with gas or dust may cause an explosion.

Attempting to lift equipment alone could result in serious injury. Components are heavy and require multiple persons or a hoist to lift.

Failure to remove tools from the installation area before turning on the energy source can cause serious injury to personnel.

LOVEJOY, INC. hereby disclaims any liability for injuries or damage resulting from use or application of this product contrary to the instructions and specifications contained herein. The instructions that appear in this installation guide cannot cover every condition or situation that may occur in the field. Please consult Lovejoy for conditions or situations not addressed in this manual.

MATERIALS REQUIRED: While only standard hand tools are required to install and service this equipment, the additional use of a Torque Indicating Wrench is strongly recommended to ensure all bolts are properly tightened.

Recommended Tools:

- 1x—Torque Wrench capable of 30 ft/lbs of torque
- 1x—13mm Box End Wrenches or Hex Socket (for RCM C20 pivot bolt)
- 1x— 13mm Open End Wrench (for RCM C20 Turnbuckle)
- 1x—16mm Box End Wrenches or Hex Socket (for RCM C30 pivot bolt)
- 1x—19mm Open End Wrench (for RCM C30 Turnbuckle)

Please note, Lovejoy, Inc. recommends bolting, rather than welding, for easier accessibility and maintenance. Excessive heat will affect or destroy the rubber or polymer elements.

RunRight RCM C20 and RCM C30 Motor Bases are designed for smaller belt drives using an electric motor with 1/2 to 5 HP. They are used on 90S to 112M IEC frame sizes and 143T to 184T NEMA frame sizes. They are manufactured with all steel components and Tensys™ 30 rubber inserts, and can be used for applications operating within a -40° to 180°F (-40° to 80°C) temperature range.

Mounting Instructions

⚠ WARNING

Failure to observe the following warnings could create a risk of death or serious injury.

Follow all appropriate Lock-Out/Tag-Out procedures.
It is recommended that the belt guards be installed before making the test run.

- Determine proper mounting positions using the "Base Plate Offset Mounted" positions shown. See Fig. 1
- Bases are assembled and shipped with the motor top plate (5) located in an "Offset Mounted" position. There are NO alternate "Center Mounted" holes provided in the top plate.
- Bolt (DO NOT WELD) Motor Base frame to the machine frame using four (4) 8mm (RCM C20), 10mm (RCM C30) Grade 8.8 or greater HHCS. (see catalog for dimensions).
- Bolt motor onto the Top Plate (5) of the Motor base using the motor manufacturers recommended bolt size.
- Align the pulleys using a straight edge. The Top Plate can easily be moved by loosening the clamp bolts (3).
- Loosen only, **DO NOT REMOVE**, the 2 pivot bolts (1). These bolts must be loosened to properly adjust belt tension.
- Loosen the Adjusting Turnbuckle Lock Nut (2) and Turn the Turnbuckle (4), tilting the Top Plate/Motor toward the driven pulley allowing easy installation of the belts. Place the belts on the pulley.
- With the belts in place, turn the Turnbuckle (4), tilting the Top Plate/Motor away from the driven pulley until the belts begin to see tension.
- Double check setup and configuration for proper alignment.
- Continue turning Adjusting Turnbuckle until proper belt tension as recommended by the belt manufacturer has been achieved.
- Tighten and Torque the pivot bolts (1) to 18 ft/lbs (RCM C20) or 37 ft/lbs (RCM C30). Also tighten the Adjusting Turnbuckle Lock Nut (2).
- Make a test run for at least 2 minutes to ensure all is operating properly.
- Remove power from the drive and re-install any and all belt and/or machine guards that were not previously installed before the test run.
- Installation is now complete.

NOTE: The re-tensioning of the belt(s) after a period of time as stipulated by the belt manufacturers should be unnecessary. RunRight Motor bases will automatically tension the belts through out their service life.

Typical Mounting Positions

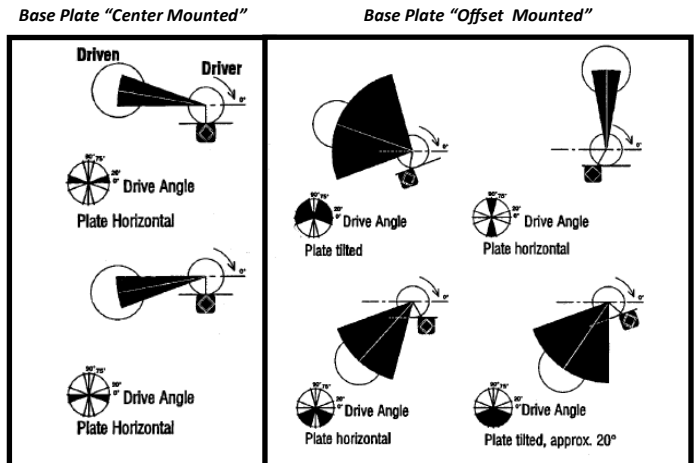
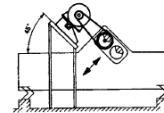
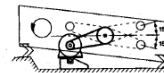


Fig. 1

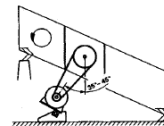
Usual Positioning in Screen



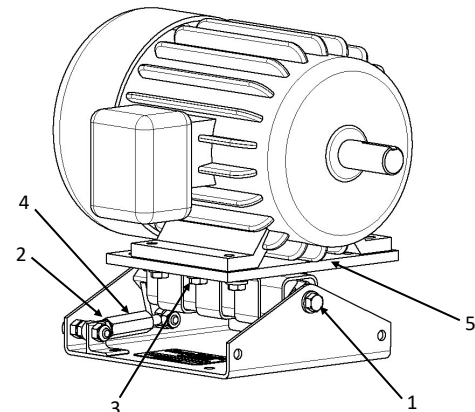
Linear Motion Screen
"Low Head" type



Circular Motion Screen
"Ripple Flow" type



Circular Motion Screen
"Ripple Flow" type



Changing Belts

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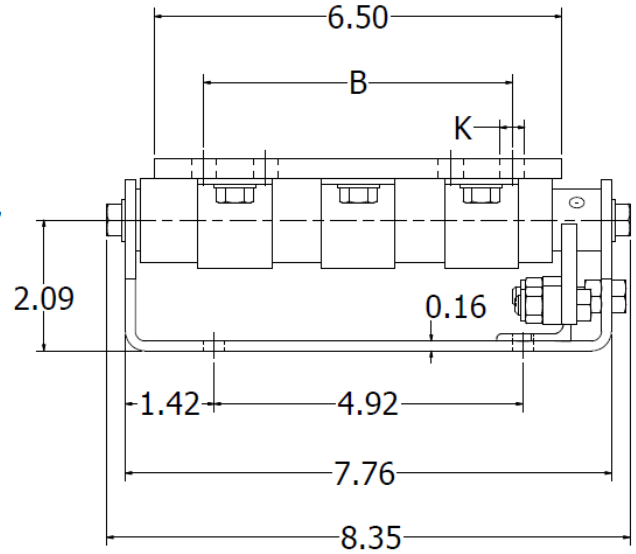
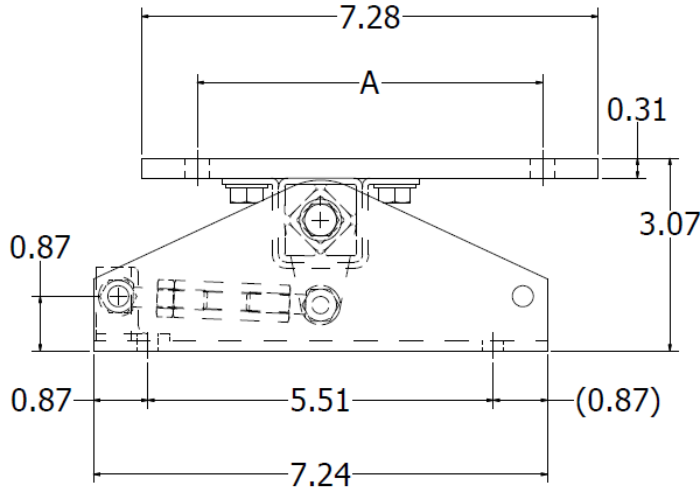
It is recommended that the belt guards be installed before making the test run.

1. Remove power from the drive and remove the belt and/or machine guards
2. Crack Loose only, DO NOT REMOVE, the 2 pivot bolts (1). These bolts must be loosened to allow motor base top plate (5) to tilt forward.
3. Loosen the Adjusting Turnbuckle Lock Nut (2) and Turn the Adjusting Turnbuckle (4) , tilting the Top Plate/Motor toward the driven pulley allowing easy removal of the worn belts.
4. Remove the worn belts and install new belts.
5. With new the belts in place, turn the Adjusting Turnbuckle (4), tilting the Top Plate/Motor away from the driven pulley until the belts begin to see tension.
6. Double check setup and configuration for proper alignment.
7. Continue turning Adjusting Turnbuckle (4) until proper belt tension as recommended by the belt manufacturer has been achieved.
8. Tighten and Torque the pivot bolts (1) to 18 ft/lbs (RCM C20) or 37 ft/lbs (RCM C30).
9. Tighten the Turn Buckle Lock Nut (2).
10. Make a test run for at least 2 minutes to ensure all is operating properly.
11. Remove power from the drive and re-install any and all belt and/or machine guards that were not previously installed before the test run.
12. Installation is now complete.

Troubleshooting Guide

TROUBLE	PROBABLE CAUSE	RECOMMENDATION
Excessive Belt Slippage	Belts not tensioned properly during installation	Re-Check belt tension and Re-Adjust motorbase if necessary. Consult the belt manufacturer for proper tensioning method and tension.
Excessive motor movement at startup or under heavy load	Motorbase element does NOT have sufficient pre-load applied to it.	Check the Deflection Angle of the motorbase element. The ideal deflection angle should be between 10° and 30°. If the belt tension is properly set and the deflection angle is less than 10° or more than 30°, the Motorbase is improperly sized for the application. Consult factory for proper sizing requirements.
Broken Pivot Bolt(s)	Pivot Bolt(s) were not properly tightened during installation.	Replace pivot bolt.
Broken Top Plate Clamp(s)	Clamp bolts were not properly tightened during installation	Replace clamp(s) and bolt(s).
Rattling Noise	Pivot Bolts not properly tightened during installation	Tighten all bolts to recommended torque specified in the INSTALLATION GUIDE of the motorbase.
Entire Motorbase is Moving (bouncing)	Machine frame not sufficient for the mounting of the Motorbase.	Add material and/or fabricate proper mount using a minimum of 1/4" thick steel plate.

RCM C20 Dimensions



RCM C30 Dimensions

