RunRight® by Lovejoy

Installation Guide

RCM C50 Motor Base

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 form 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.

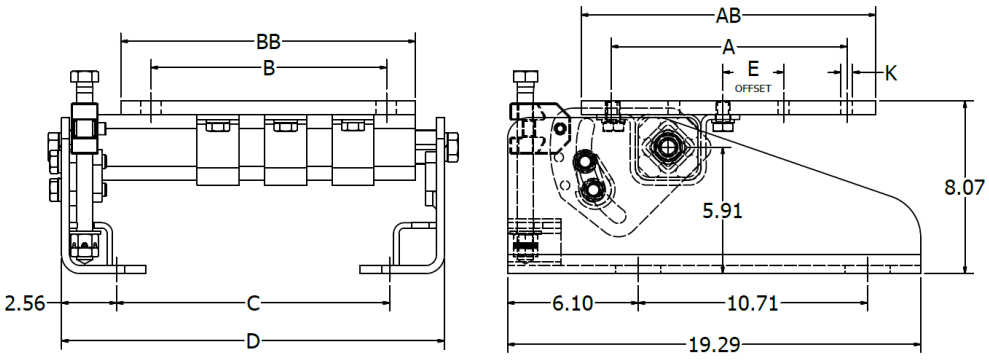
MATERIALS REQUIRED: While only standard hand tools are required to install and service this equipment, the additional use of a Torque Indicating Wrench is strongly recommended to ensure all bolts are properly tightened.

Recommended Tools:

1x—Torque Wrench capable of 300 ft/lbs of torque
1**x**—15/16” Box End Wrenches or Hex Socket
1x—1-1/8” Box End Wrenches or Hex Socket
1x—5/16” Hex Allen Key

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 C50 Motor Bases are ideal for electric motors from 3 to 75 HP. They are used on 132S to 225M IEC frame sizes and 213T to 365T 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℉ (-40˚to 80℃) temperature range.



Lovejoy, Inc.
2655 Wisconsin Avenue
Downers Grove, IL 60515
630-852-0500
info@lovejoy-inc.com

www.lovejoy-inc.com

ISO 9001 Certified
Item No: 685144 87275 REV-B

RunRight by Lovejoy

Installation Guide

RCM C50 Motor Base

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.

1. Determine proper mounting positions. See Fig. 1
2. Bases are assembled and shipped with the motor top plate (5) located in the ***"Offset Mounted"*** position. If necessary remove the top plate and relocate into the alternate ***"Center Mounted"*** holes provided in the top plate. The clamp bolts (3) must be re-torqued to 148 ft/lbs.
3. Bolt (DO NOT WELD) side supports to the machine frame using four (4) 3/4" Grade 5 or greater HHCS. (see catalog for dimensions).
4. Bolt motor onto the Top Plate (5) of the Motor base using the motor manufacturers recommended bolt size.
5. Align the pulleys using a straight edge. The Top Plate can easily be moved by loosing the clamp bolts (3).
6. Loosen only, DO NOT REMOVE, the 2 pivot bolts (1) and the Rotary Plate Locking Bolts (2). These bolts must be loosened to properly adjust belt tension.
7. Turn the Adjusting Bolt(s) (4) clockwise, tilting the Top Plate/ Motor toward the driven pulley allowing easy installation of the belts. Place the belts on the pulley.
8. With the belts in place, turn the Adjusting Bolt(s) (4) counter-clockwise, tilting the Top Plate/Motor away from the driven pulley until the belts begin to see tension.
9. Double check setup and configuration for proper alignment.
10. Continue turning Adjusting Bolt(s) (4) until proper belt tension as recommended by the belt manufacturer has been achieved.
11. Tighten and Torque the pivot bolts (1) to 260 ft/lbs and the Rotary Plate Locking Bolts (2) to 158 ft/lbs.
12. Make a test run for at least 2 minutes to ensure all is operating properly.
13. 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.
14. 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

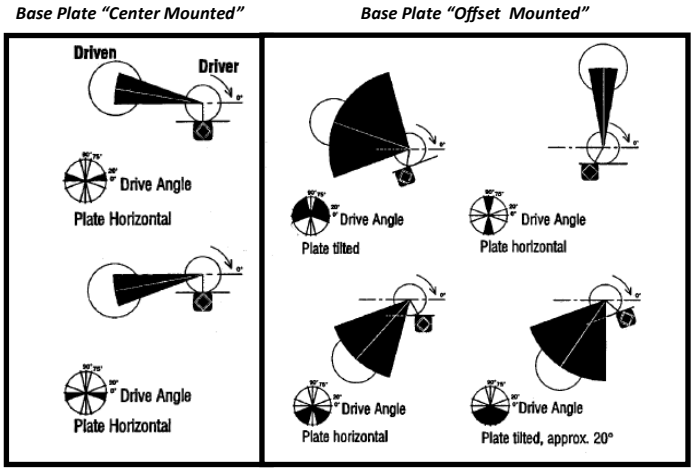
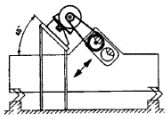
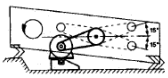


Fig. 1

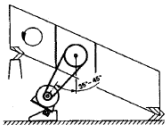
Usual Positioning in Screen



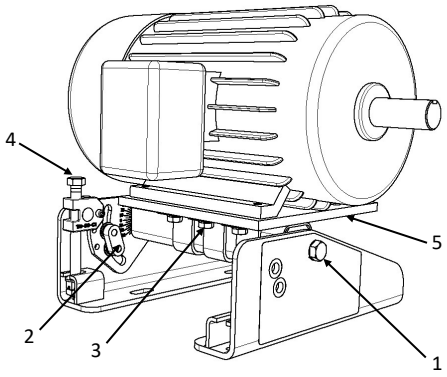
Linear Motion Screen
"Low Head" type
"Center Mounted"



Circular Motion Screen
"Ripple Flow" type
"Center Mounted"



Circular Motion Screen
"Ripple Flow" type
"Offset Mounted"



Lovejoy, Inc.
2655 Wisconsin Avenue
Downers Grove, IL 60515
630-852-0500
info@lovejoy-inc.com

www.lovejoy-inc.com

ISO 9001 Certified
Item No: 685144 87275 REV-B

RCM C50 Motor Base

Changing Belts

⚠ 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.

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) and the Rotary Plate Locking Bolts (2). These bolts must be loosened to allow motor base top plate (5) to tilt forward.
3. Turn the Adjusting Bolt(s) (4) clockwise, 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 Bolt(s) (4) counter-clockwise, 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 Bolt(s) (4) until proper belt tension as recommended by the belt manufacturer has been achieved.
8. Tighten and Torque the pivot bolts (1) to 260 ft/lbs and the Rotary Plate Locking Bolts (2) to 158 ft/lbs.
9. Make a test run for at least 2 minutes to ensure all is operating properly.
10. 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.
11. 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 motor base 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 indicator located on the end of the motor base element. The ideal indicated 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 Motor base is improperly sized for the application. Consult factory for proper sizing
Broken Pivot Bolt(s)	Pivot Bolt(s) were not properly tightened during installation.	Replace pivot bolt and torque to 260 ft/lbs. Use a torque indicating wrench if at all possible.
Broken Top Plate Clamp(s)	Clamp bolts were not properly tightened during installation	Replace clamp(s) and bolt(s). Torque bolts to 158 ft/lbs. Use a torque indicating wrench if at all possible
Rattling Noise	Pivot Bolts and/or Rotary Plate locking bolts not properly tightened during installation	Tighten all bolts to recommended torque specified in the INSTALLATION GUIDE of the motor base.
Entire Motor base is Moving (bouncing)	Machine frame not sufficient for the mounting of the Motor base.	Add material and/or fabricate proper mount using a minimum of 3/8" thick steel plate.

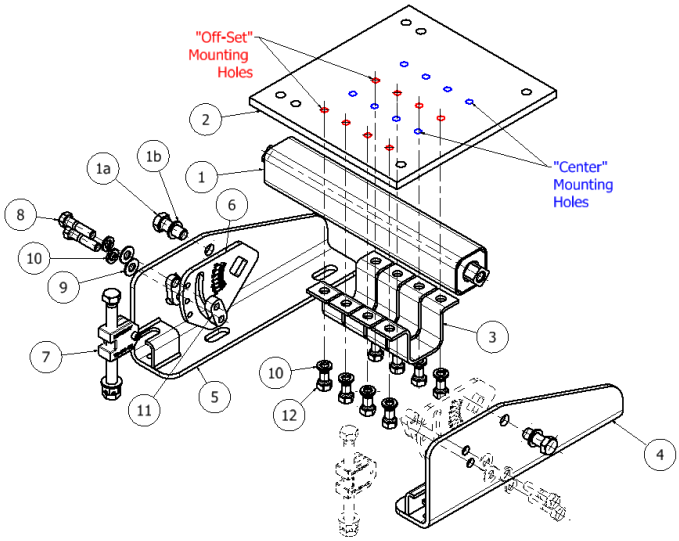
Lovejoy, Inc.
2655 Wisconsin Avenue
Downers Grove, IL 60515
630-852-0500
info@lovejoy-inc.com

www.lovejoy-inc.com

ISO 9001 Certified
Item No: 685144 87275 REV-B

RCM C50 Motor Base

Replacement Parts



For replacement parts, please contact your Lovejoy Distributor or the Factory Direct at:

630-852-0500

Please have your Motor base Model and the UPC # that is stamped onto the aluminum nameplate attached to one of the side supports to ensure we get you the correct parts for your model.

ITEM	DESCRIPTION	QUANTITY	UPC #
1	RCM C50 ELEMENT W/BOLTS	1	*varies
1a	M20X50 PIVOT BOLTS **	2	68514478686
1b	M20 SPLIT LOCK WASHER **	2	68514457299
2	RCM C50 MOTOR PLATE	1	*varies
3	RBS 50 CLAMP	*varies	68514463479
4	RCM C50 RIGHT SIDE SUPPORT	1	68514457711
5	RCM C50 LEFT SIDE SUPPORT	1	68514457712
6	RCM C50 ROTARY PLATE	*varies	68514484837
7	TD 50/70 TENSIONING DEVICE	*varies	68514479352
8	5/8-11X2-3/8 HHCS ZINC	*varies	68514463316
9	5/8 PLAIN WASHER,TYPE A, ZN	*varies	68514463323
10	5/8 SPLIT LOCK WASHER ZN	*varies	68514424107
11	RCM C50 ROTARY NUT	*varies	68514481969
12	5/8-11X1 HHCS GR5 ZINC	*varies	68514463318

* Varies with specific model.

** Included with Item #1.