

Lovejoy / Sier-Bath

RA & RAHS Type Couplings

Size 1125 through 10500

Introduction

Carefully follow the instructions in this manual for optimum performance and trouble free service.

This manual applies to standard RA/RAHS type couplings. The RA/RAHS couplings are recommended for vertical applications only. For other applications please consult with Lovejoy application Engineering.

Installation & Alignment Instructions

All parts must be clean and free of any foreign materials before attempting assembly, use a non-flammable solvent. All Parts should be examined for any damage during shipping and handling. Measurements should be taken to verify correctness of parts to meet application requirements, such as, hub and shaft fits, shaft separation, etc. Check hubs, shafts and keyways for burrs. Remove all burrs and burrs from mating components.

- 1)** Check split thrust ring for proper fit with circular keyway and motor half hub. The split thrust ring should fit freely.
- 2)** Determine the mounting arrangement of the proper mating rigid hub as illustrated in figure 1. Lubricate motor stub shaft and motor half bore with light oil or anti-seize compound. Align motor hub keyway with

Caution: Consult applicable local and national safety codes for proper guarding of rotating coupling. Observe all safety rules when installing or servicing coupling.

Warning: Lockout starting switch of prime mover and remove all external loads from drive before installing or servicing coupling.

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keyway in shaft and push onto the stub shaft until coupling flange face is slightly higher than circular keyway. Insert square keyway into shaft and motor hub beyond circular keyway. Install the split thrust ring into the circular keyway and pull the motor hub down until it seats on the thrust ring. The motor hub flange should be below the face of the stub shaft.

3) Lubricate pump shaft and pump half bore with light oil or anti-seize compound. Align pump hub keyway with keyway in shaft and push onto the pump shaft until coupling flange face is slightly lower than threads on shaft. Insert square keyway into pump shaft and pump hub beyond threads on shaft. Install adjusting nut onto pump shaft leaving room between adjusting nut and pump flange face for next step.

4) Although the shafts may be perfectly aligned at installation they should be realigned after mounting of coupling. Position equipment in the approximate alignment with the approximate "F" dimension, which is equal to the distance the impeller must be raised. Align coupling using the instrument method as described below.

5) Angular Alignment – Using an inside micrometer, **take readings at four points 90° apart.** Adjust machines until all four readings are identical. The difference in maximum and minimum measurements must not exceed the **installation angular** limits specified in chart 1.

6) Parallel Offset Alignment – The dial indicator method is recommended for this procedure. Attach the dial indicator base to one hub and set the dial indicator needle in contact with the outside diameter of opposite hub. Rotate hub on which the indicator is mounted 360°, **taking indicator readings at four points 90° apart.** Adjust machines until all four readings are identical. The difference in maximum and minimum measurements must not exceed the **installation-offset** limits specified in chart 1. Relocate the indicator dial base to the opposite hub and repeat the procedure. Tighten all foundation bolts and repeat step 5 and 6.

