



BALDOR ELECTRIC COMPANY

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RATIO MULTIPLIER INSTALLATION, LUBRICATION AND OPERATION INSTRUCTION

These instructions must be read thoroughly before installing or operating speed reducers. File instructions for future reference.

CAUTION

- For safe operation of any gear drive, all rotating shafts and auxiliary components must be shielded to conform with applicable safety standards. You must consider overall operational system safety at all times.
- When using a speed reducer to raise or lower a load, such as in hoisting applications, provision must be made for external braking. Under no conditions should a speed reducer be considered self-locking.
- Mounting of speed reducers in overhead positions may be hazardous. Use of external guides or supports is strongly recommended for overhead mounting.

GENERAL INSTRUCTIONS

Align all shafts accurately. Improper alignment can result in failure. Use of flexible coupling is recommended to compensate for slight misalignment.

Auxiliary drive components (such as sprockets, gears and pulleys) should be mounted on the shafts as close as possible to the housing to minimize effects of overhung loads. Avoid force fits that might damage bearings or gears.

Gear drives are nameplated for 1750 RPM Input Speed and Class I Service. For lower Input Speeds and other Service Classes, consult the factory.

INSTALLATION

Baldor Ratio Multipliers are ready for installation as removed from the carton. They incorporate an internal expansion chamber (Bladder), which eliminates the traditional requirement for a breather. Each Ratio Multiplier has been filled with mobil SHC634 Synthetic lubricant at the factory, the oil quality is sufficient for any mounting position.

MOUNTING POSITION

For maximum seal life, the Ratio Multiplier should be mounted with the input shaft as high as possible. **Mounting the Ratio Multiplier with the input seal vertically down is not recommended.** If a vertically down input shaft position is required, consult the factory.

LUBRICATION

Oil changes are not required. Oil should only be replaced when maintenance is preformed that requires disassembly. If the oil is replaced, use Mobil SHC634.

Recommender* Lubricant	Ambient Temperature	ISO Viscosity Grade No.
*Mobil SHC634	-30° to 225°F	230/460
Mobil 600W cylinder oil	40° to 90°F	460
Mobil Extra helical super cylinder oil	80° to 125°F	680

Satisfactory performance may be obtained with non-synthetic oils and will require more frequent changes.

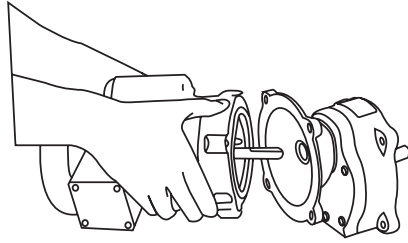
A packet of Fel-Pro C5-A Anti-Seize Lubricant is supplied with the Ratio Multiplier. Lubricate the motor shaft and key with the anti-seize lubricant before installing the motor onto the Ratio Multiplier. (Oil capacity in fluid ounces **RM1** 4 oz, **RM2** 8 oz.)

OPERATING ENVIRONMENT

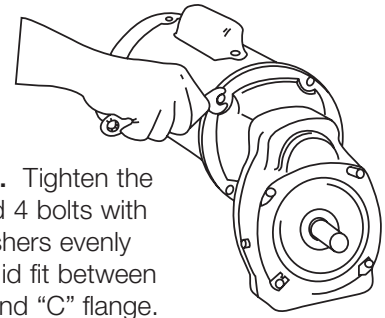
Baldor Ratio Multipliers are designed to operate in ambient temperatures of -10°F to 100°F. The oil sump temperatures of the Ratio Multiplier must not exceed 200°F Consult the factory for applications requiring ambient operating temperature outside this range.

“C” FLANGE – HOLLOW BORE WORM STYLE:

STEP #1. Position key in Ratio Multiplier Input Bore. Apply anti-seize compound to the motor shaft. Line up the key with the keyslot and slip the motor shaft into the Ratio Multiplier Input Bore.

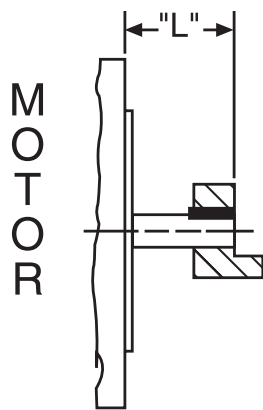


STEP 2. Tighten the supplied 4 bolts with lockwashers evenly for a solid fit between motor and “C” flange.

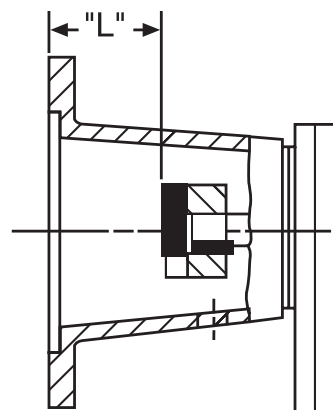


EXTENDED “C” FLANGE WITH FLEXIBLE COUPLING STYLE:

- STEP #1:** Mount one coupling half on motor shaft so that the coupling half and end of key are flush with end of motor shaft. (See Drawing A)
- STEP #2:** Tighten coupling setscrews. Thread locking compound is recommended on all coupling setscrews. Measure distance from inner face of coupling to motor mounting surface. (See Drawing A)
- STEP #3:** Mount other coupling half on the reducer input shaft so the coupling end measures the same distance to the mounting surface of the “C” flange. (See Drawing B) Tighten setscrews. Key should be flush with shaft end. Use pipe plug opening in side of “C” flange to loosen, tighten or make any adjustments in coupling position.
- STEP #4:** Align coupling halves and install motor.
- STEP #5:** Rotate motor to required position and tighten the supplied four bolts and lockwashers evenly for a solid fit between motor and “C” flange. Re-install and tighten the pipe plug in the flange access hole.



Drawing A



Drawing B