

General Operation

1. Run the motor which drives the reducer and check the direction of reducer output rotation. Consult motor nameplate for instructions to reverse the direction of rotation.
2. Attaching the load: On direct coupled installations, check shaft and coupling alignment between speed reducer and loading mechanism. On chain/sprocket and belt/pulley installation, locate the sprocket or pulley as close to the oil seal as possible to minimize overhung load. Check to verify that the overhung load does not exceed specifications published in the catalog.
3. High momentum loads: If coasting to a stop is undesirable, a braking mechanism should be provided to the speed reducer output or the driven mechanism.

CAUTION The system of connected rotating parts must be free from critical speed, torsional or other type vibration, no matter how induced. The responsibility for this system analysis lies with the purchaser of the speed reducer.

Installation Instructions

The following instructions apply to standard Leeson Bravo® type reducers with base or flange mounting in motorized and non-motorized single and double reduction options.

1. Mount the unit to a rigid flat surface using grade 5 or higher fasteners. The mounting fasteners should be the largest standard size that will fit in the base mounting hole. Shim as required under flange or base feet which do not lie flat against the mounting surface.
2. Carefully follow lubrication instructions and installation manual furnished with the gear reducer. All standard Bravo® reducers are properly filled at LEESON with sufficient lubricant quantity for nearly any mounting position.

Series 512-525: Series 512-525 utilize a vent-free design and are Factory filled with synthetic semi-fluid grease formulated for lifetime lubrication & wide operating temperature range (+5F to +220F). It is not necessary to change the lubricant in reducer series 512-525 unless the reducer is used in a severe environment. If these reducers will be used in severe environment or if lubricant must be replaced, contact LEESON.

Series 534: Series 534 utilizes a vent and is Factory filled with Mobil SHC-634 oil, a synthesized hydrocarbon formulated for long life & wide operating temperature range (-25F to +220F).

Do not confuse Mobil SHC-634 with Mobilgear 634. Mobilgear 634 is an EP type gear oil not suitable for use in the Bravo® worm reducers.

3. Connect motor to speed reducer.

CAUTION DO NOT CHANGE MOUNTING POSITIONS WITHOUT CONTACTING FACTORY. Altering the mounting position may require special lubrication provisions which must be factory installed.

CAUTION Do not operate the reducer without making sure it contains the correct amount of oil. Confirm that mounting position on nameplate matches application requirement per Figure 1. Do not overfill or underfill with oil, or injury to personnel, reducer or other equipment may result.

CAUTION A unit cannot be used as an integral part of a machine superstructure which would impose additional loads on the unit other than those imposed by the torque being transmitted either through a shaft-mounted arrangement, and any shaft mounted power transmitting device. (e.g. sprockets, pulleys, couplings)

CAUTION For safe operation and to maintain the unit warranty, when changing a factory installed fastener for any reason it becomes the responsibility of the person making the change to properly account for fastener grade, thread engagement, load, tightening torque and the means of torque retention.

Lubrication

Carefully follow lubrication instructions and installation manual furnished with the gear reducer. All standard Bravo® reducers are properly filled at LEESON with sufficient lubricant quantity for nearly any mounting position.

Change oil only when performing maintenance that requires gearbox disassembly or if the reducer is operated in a severe environment. If oil must be replaced in Series 534 reducers, use only Mobil SHC-634.

CAUTION Lubricant should be changed more often if gear reducer is used in a severe environment. (ie: humid, wet, caustic, etc)

CAUTION In the Food and Drug industry (including animal food), consult the lubrication supplier for recommendation of lubricants which are acceptable to the Food and Drug Administration and/or other authoritative bodies having jurisdiction.

CAUTION Do not mix different lubricants in the reducer.

SPECIAL LUBRICATION REQUIREMENTS — Sizes 518-534

- Reducer is mounted with input worm shaft vertical
- Input speed is sustained less than 900 RPM

NOTE: The reducer may require modifications to assure proper lubrication in these applications. Contact LEESON for more detail.

For lubrication requirements of helical reducers (primaries of helical worm reducers and ratio multipliers), contact LEESON.

Lubrication type	Series				
	512	518	520	525	534
Grease (lbs)	0.14	0.2	0.35	0.84	--
Oil (ounces)	--	--	--	--	41

16 oz. = 1 pint	1 quart = .9463 liter
2 pints = 1 quart	1 gallon = 3.785 liter
4 quarts = 1 gallon	1 lb = .4535 kg.
1 gallon = 128 oz.	