



Dodge® Solidlube Bearings

700, 1000 and 800 Series

These instructions must be read thoroughly before installation or operation. This instruction manual was accurate at the time of printing. Please see baldor.com for updated instruction manuals.

Note! The manufacturer of these products, Baldor Electric Company, became ABB Motors and Mechanical Inc. on March 1, 2018. Nameplates, Declaration of Conformity and other collateral material may contain the company name of Baldor Electric Company and the brand names of Baldor-Dodge and Baldor-Reliance until such time as all materials have been updated to reflect our new corporate identity.

WARNING: To ensure the drive is not unexpectedly started, turn off and lock-out or tag power source before proceeding. Failure to observe these precautions could result in bodily injury.

WARNING: All products over 25 kg (55 lbs) are noted on the shipping package. Proper lifting practices are required for these products.

Installation and Operation:

Solid Film Lubrication:

Solid film lubricating bearing material will transfer a film or coating of lubricant to the shaft as the shaft rotates. This film or coating prevents metal to metal contact between the shaft and bearing material, as the shaft actually rides upon the lubricant and not upon the bearing itself. Because it is a solid, the lubricant will not squeeze out when the shaft is not rotating. The bearing will not need additional lubrication since the solid lubricant is impregnated into the bushing material and is transferred or “worn” onto the rotating shaft at a rate determined by the rubbing speed of one material to the other and the imposed load. Since this is a “wear type” bushing, wear will be experienced under normal operating conditions.

NOTE: SOLIDLUBE bearings are not designed for rotating housing applications.

WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by ABB nor are the responsibility of ABB. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risk to persons or property may be involved, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

Installation of MM Pillow Block Assemblies:

1. Loosen the cap bolts being careful not to lose housing shims.
2. Slide the assembled pillow block on the shaft and position for mounting.
3. Insert hold-down bolts but do not tighten.
4. Align the bearing with the shaft using shims when necessary and tighten hold-down bolts.
5. Rotate shaft to allow the inner unit to align itself in the outer housing and tighten the bearing cap bolts.

NOTE: Inner unit assemblies are installed properly at the factory. For added service, the bearing inner unit may be rotated 180° while on the shaft to utilize a new bearing surface.

CAUTION: Units should not be rotated 180° with the stop-pin in place as this may restrict self-aligning capabilities.

Thrust Loads:

Shaft locating collars may be used for slight amounts of thrust loads only. Total collar to bearing clearance should be .010 to .020 inches or .005 to .010 inches per collar.

Installation:

Shaft preparation: The bearing journal should not be exposed to grease, oils or dirt to insure good life of the bearing.

CAUTION: No oil or grease should be used on the bushing or shaft when assembling this bearing.

The shaft should be clean and free of burrs and nicks. The shaft should be held to a minimum amount of taper and as little eccentricity as possible so a uniformly distributed rubbing surface can be maintained. For best results, the shaft finish should be held to 10 to 20 micro-inches (0.25 to 0.50 micro-meters) and hardness should be 35 Rockwell "C" or higher. Shaft tolerance should be +0.000/-0.002 inches (+0.000/-0.051 millimeters) for commercial steel shafting.

NOTE: The SOLIDLUBE bearing has a high coefficient of friction which can result in stalling when many bearings run off the same drive system. Please contact ABB for further information.

Installation of LT, LTB and LM Pillow Block Assembly:

NOTE: The 1000 Series bushings may have a white film in the bore which should be wiped off with a clean cloth before assembly.

1. Slide the assembled pillow block on the shaft.
2. Align the pillow block on the shaft and tighten the hold-down bolts. Shim the pillow block base, if necessary.

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Running In:

To improve life expectancy from this type of bearing, a brief run-in or break-in can be performed. This may not be possible, but to obtain optimal service, it is advisable to break in this type of bearing. The break-in should be run with a bearing mounted on its mating shaft, as in service, with all possible loading removed. The break-in period will build up the solid film of lubricant on the shaft to reduce potential start-up damage to the bushing.

Shaft Corrosion:

When commercial steel shafting is exposed to corrosive media, the shaft will oxidize, (rust), pit, etc. The Solidlube bushing is chemically inert but a rusty shaft will grow into the Solidlube bushing, thus eliminating clearances and restricting movement. Corrective action is to use corrosive resistant shafting such as stainless steel and/or to provide for regularly scheduled movement of the shaft.

Special Operating Conditions:

Consult ABB, Mechanical Power Transmission Support, Greenville, SC for application assistance, acid, chemical, extreme or other special conditions.



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