



"K" Series Reducer

"WFB" Double Wobble Free Bushing

Preparation and Installation Instructions



Thank you for purchasing a STOBER drive. In order to obtain long life and trouble-free operation from your speed reducer, it is essential that the installation and operating procedures outlined in this instruction be followed.

This procedure includes directions for mounting and start-up of the unit. Failure to follow these instructions will void the drive's warranty.

The torque required by the application must not exceed the reducer torque capacity shown on the nameplate. For safety purposes a safety coupling should be installed between the reducer and the driven load. Otherwise, overload may cause damage to the interior parts of the reducer which may result in breaking the reducer housing. As a result, persons could be injured by flying parts or splashing hot oil.

If you have questions about the installation, operation or maintenance of your reducer, please contact your local STOBER distributor for assistance.

WARNING: Safety is the most important consideration when operating any type of drive. Through proper application, safe handling methods, and wearing appropriate clothing, you can prevent accidents and injury to yourself and fellow workers.

The shafts of speed reducers rotate at very high speeds and can cut off or severely injure hands, fingers, and arms. Use appropriate guards for shafts and other rotating parts at all times. These guards and safety devices are for your protection and should be installed and maintained according to safety codes. Guards, covers, and other safety devices for components used with this speed reducer are not provided by or the responsibility of STOBER Drives. Obey all federal, state and local safety regulations when operating the drive. Follow all directions in the installation instruction.

- Always be sure electrical power is off while making electrical connections and during installation and maintenance of the unit.
- Keep clothing, hands, and tools away from ventilation openings on motors and from all rotating parts during operation.
- Lift drive with a double rope sling or other proper lifting equipment of adequate strength. Make sure load is secured and balanced to prevent shifting when unit is being moved. Lifting drives by hand may be dangerous and should be avoided.
- The intended use of lifting lugs is to handle the weight of the unit only. Never use a lifting lug to lift attached assemblies.
- Never operate the drive at speeds higher than those shown on the nameplate, or personal injury may result. Contact STOBER Drives Inc., if there is any change of operating conditions from those for which the unit was originally sold (as stamped on the nameplate). Failure to comply could result in personal injury and or machinery damage.
- Always follow good safety practices at all times.

Each drive is tested before delivery. Before installation, however, it is advisable to examine the unit for possible damage which might have occurred during transit. If damage is discovered, it should be immediately reported to the transport agent.

If installation is delayed after receipt of the speed reducer, the drive should be stored in a clean, dry place until put into service. Long term storage requires special procedures. If not kept in a heated, dry area, consult STOBER Drives, Inc. for storage instructions.

NOTE: If it is necessary to clean drive shafts or bores, take care to protect the oil seals.

IMPORTANT: Do not use any device to hammer the unit onto the output shaft during installation since the bearing races could be damaged.

Some motor manufacturers provide a drain hole in the mounting face of washdown motors. Be sure this hole is covered during washing or when the unit is used in a wet environment.

STOBER Drives Inc.

1781 Downing Drive • Maysville, KY 41056
 Phone: 606 759-5090 • FAX: 606 759-5045
 www.stober.com • E-mail: sales@stober.com

Shaft and Reducer Preparation



The gearbox is shipped with Pressure Rings installed as shown.

The Bushing kit includes:

- Support Side Split Cover with bolts;
- Support Side Flanged Cone Assembly;
- Clamp Side Flanged Cone Assembly;
- Clamp Side Closed Cover;
- Bushing Capscrews.



Support Side Bushing Components

The Support Side is the bushing with the coating on the cone. **DO NOT** use cleaner on the coated cone.



Clamp Side Bushing Components

The support side bushing is mounted on the machine side.



Be sure the inside of the quill is free of grease and oil before installing the tapered cones.



WARNING: Shaft must be free of grease for bushing to clamp properly.



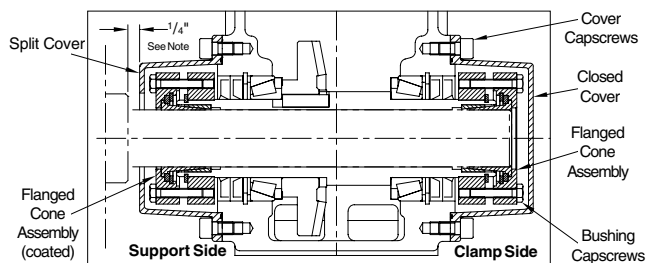
For ease of installation, a chamfer ($1/32 \times 45^\circ$) should be machined onto the end of the shaft.



VERY IMPORTANT
 Do NOT Remove Spacer Bolts until directed to do so.

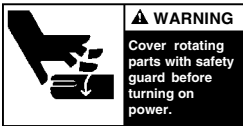


The "U" distance (between the rings) determined by the spacer bolts (see Table 1) must be maintained throughout assembly of the bushing and mounting onto the shaft. Therefore, DO NOT tighten the capscrews or remove the spacer bolts until the unit is mounted on the shaft.



NOTE: The distance shown is the maximum allowable shaft exposure that will meet safety standards. To disengage the bushing from the shaft with the back off bolts may require a distance of $1/4"$.





"K" Series Reducer "WFB" Double Wobble Free Bushing Installation Instructions



Insert Tapered Cone



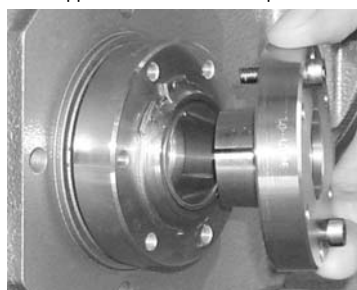
Install the Flanged Cone Assembly with it's slot opposite the slot in the tapered cone.



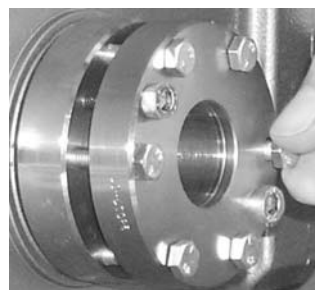
Hand Tighten Capscrews



Insert Tapered Cone



Install the Flanged Cone Assembly with it's slot opposite the slot in the tapered cone.



Hand Tighten Capscrews



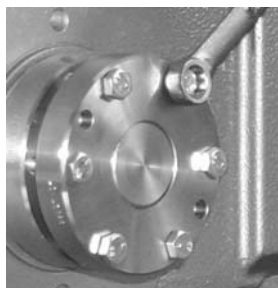
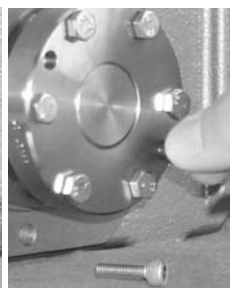
Guide Unit onto Shaft



Clamp Side – Shaft Does Not Protrude



Remove the Spacer Bolts from both sides.



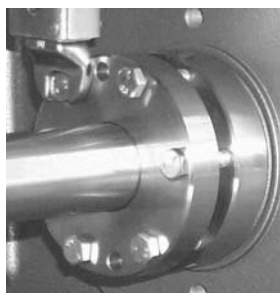
Tighten Clamp Side First – More Than One Rotating Sequence



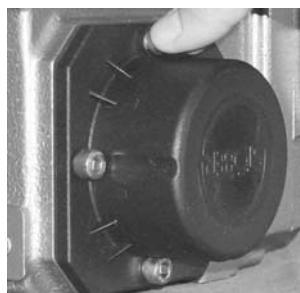
Use a Torque Wrench – see Table 1 for Tightening Torque



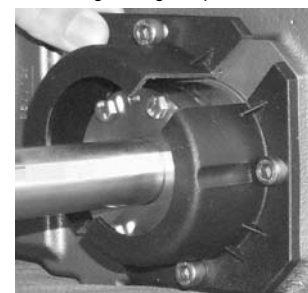
Tighten Capscrews – More Than One Rotating Sequence



Use a Torque Wrench (See Table 1) for Tightening Torque



Install Closed Cover with the weep hole located at the lowest point.



Install Split Cover

Tighten all capscrews to the torque shown in Table 1. Use a torque wrench. The tightening should be done gradually in a rotating sequence and will require more than one rotation.

After two hours (minimum) running time, check capscrews and retighten, if necessary.

Removal of Reducer with a "WFB" Bushing

1. Remove cover caps on support and clamp side.
2. Loosen all clamp and support side bushing capscrews.
3. Mount two (2) capscrews into the two tapped holes of the clamp ring on both bushings to back off the clamp ring assembly and release pressure between the flanged cone and the tapered cone.
4. Remove the gearbox from the machine shaft using a crane or hoist.

Table No. 1 Recommended Tightening Torque

Base Module	Qty.	Capscrews Size x Lgth	Tight. Torque		U		Spacer Bolts
			Nm.	in. lbs.	mm	ins.	
K102	6	M6x25 mm	10	89	5	.20	M6x20mm
K202/K203	6	M6x30 mm	10	89	5	.20	M6x20mm
K302/F303	8	M6x30 mm	10	89	5	.20	M6x20mm
K402/K403	8	M8x30 mm	25	221	6	.24	M8x20mm
K513/K514	8	M8x30 mm	25	221	7	.28	M8x25mm
K613/K614	8	M10x35 mm	49	434	8.5	.33	M10x25mm
K713/K714	8	M10x40 mm	49	434	5.5	.22	M10x25mm
K813/K814	8	M12x40 mm	85	752	7	.28	M12x45mm



MEX (55) 53 63 23 31 MTY (81) 83 54 10 18
QRO (442) 1 95 72 60 ventas@industrialmagza.com