



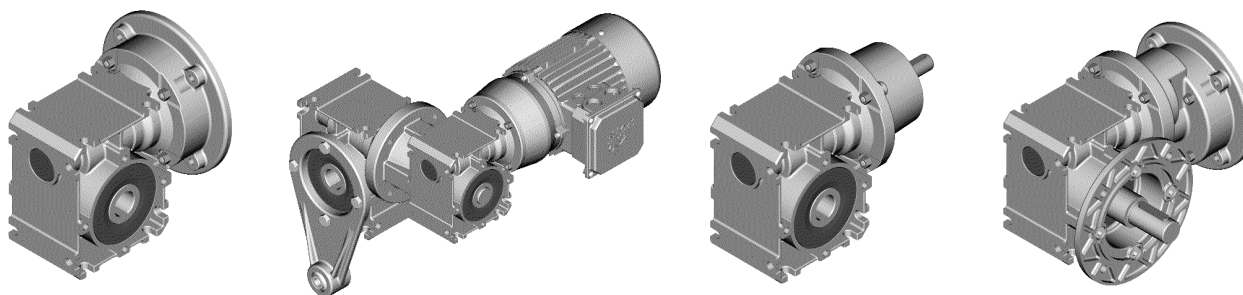
# SI Design FLEXBLOC™ Worm Gearboxes Installation and Maintenance Instructions

BIM 1033

USA

CDN

Retain These Safety Instructions For Future Use



## **WARNING:**

**LOCK OUT POWER** before any maintenance is performed. Make absolutely sure that no voltage is applied while work is being done on the gearbox.

It is presumed that system design, as well as all work with regard to transport, assembly, installation, starting-up, maintenance and repair, is performed by qualified personnel or supervised by skilled labor taking overall responsibility.

## Preparing and performing installation

- lifting devices on the drive are designed to carry the drive weight
- foundation (base) should be of adequate size and vibration-proof
- install gear unit or geared motor rigid and braceless
- ensure sufficient ventilation for cooling
- make use of tapped hole for fastening to the shaft end
- when installing shaft connections, avoid shocks on shafts which can cause bearing damage
- preferably use flexible coupling between output shaft and driven machine
- fit output elements to shaft end or secure feather key before starting the motor
- it is the owner's responsibility to properly guard all moving parts of the machine

## Efficiencies

A new wormgear reducer will have slightly lower efficiency than when the gear set is broken in. This effect increases with higher ratios. Efficiencies shown in the catalog are after a break in period of 25 hours at full load.



## **WARNING:**

**Exposed moving parts can cause severe injury. It is the responsibility of the system designer to install adequate guards.**

## Maintenance

**NORD Gear FLEXBLOC™ drives are maintenance free.** The FLEXBLOC™ series of worm gear reducers are filled with Polyglycol (PG) synthetic lubricant/bearing-grease. This ensures proper operation throughout the *full lifetime* of the units. No breather plugs are required because of synthetic lubricant used. The FLEXBLOC™ drives are completely sealed.

## Lubrication

The units are filled with two different types of lubricants to meet different market needs. The English Inch shaft version of the FLEXBLOC™ is supplied with a food grade PG oil. The metric version is a general duty PG oil. The lubrication ratings are shown in the table below.

	Oil Formulation	Viscosity	Temp Range
INCH	PG (Food Grade)	ISO VG 220	-13°F to +104°F (-25°C to +40°C)
METRIC	PG	ISO VG 220	

## Parts Package

If the unit was specified with any of the available options (shown on back page), the modular parts will come in a plastic bag with picture instructions for assembly.



## **CAUTION:**

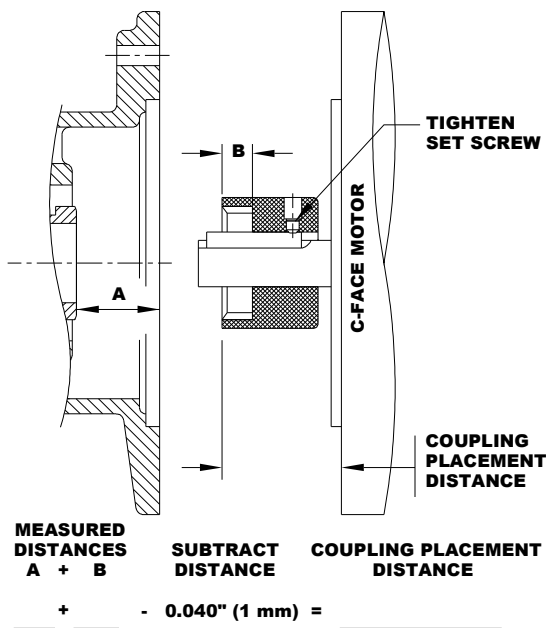
**Any change in normal operation (excessive noise, increased temperature or power consumption) may indicate a problem with the application.**

**Notify qualified maintenance personnel to inspect equipment; otherwise physical injury or damage to the machine may occur.**

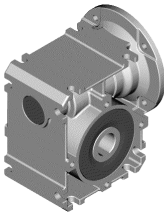

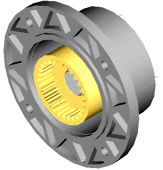
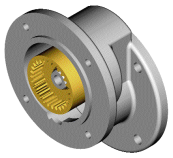
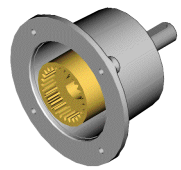

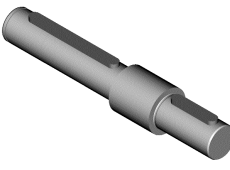
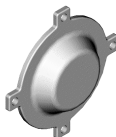
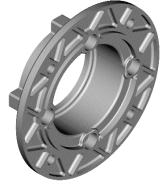

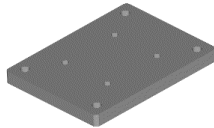
**IN CASE OF DOUBT,  
DISCONNECT THE MACHINE IMMEDIATELY!**

### NEMA C-face Motor Installation Instructions

1. Measure the distance from the face of the input adapter to the face of the splined shaft and record measurement "A".
2. Measure the depth of coupling engagement zone and record measurement "B".
3. Add "A" + "B" and subtract 0.040" (~1mm) and record this value as the coupling placement distance. *This needs to be done so that the coupling will not be preloaded after installation!*
4. Use the coupling placement distance to locate the coupling from the face of the motor onto the motor shaft.
5. Once in place, tighten the set screw to lock the coupling in place. *It is also recommended that the motor key is staked or bonded (Loctite) in place to prohibit the key from vibrating out.*
6. Mount the motor onto the input adapter, making sure the coupling and the spline shaft properly engage. Once flush secure the motor mounting bolts to the proper torque. *Use lock washers or Loctite to prohibit bolts from becoming loose from vibration.*



### Available Bolt-on Modules

 Standard Worm Reducer	 NEMA C-Face Coupling Adapter	 Double Worm Adapter	 2 <sup>nd</sup> Helical Reduction
 Solid Input Shaft	 NORD C-Face Motors	 Solid Output Shaft	 Shaft Protection Cover
 B5 Output Flange	 Torque Reaction Arm	 Foot Plate	

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