

How to Use This Manual

This manual provides detailed instructions on installation and maintenance of gear drives and couplings. Use the table of contents below to locate required information.

CAREFULLY FOLLOW THE INSTRUCTIONS IN THIS MANUAL FOR OPTIMUM PERFORMANCE AND TROUBLE FREE SERVICE.

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Introduction

Credit for long service and dependable operation of a drive is often given to the engineers who designed it, or the craftsmen who constructed it, or the sales engineer who recommended the type and size. Ultimate credit belongs to the mechanic on the job who worked to make the foundation rigid and level, who accurately aligned the shafts and carefully installed the accessories, and who made sure that the drive received lubrication at prescribed intervals. The details of this important job are the subject of this manual.

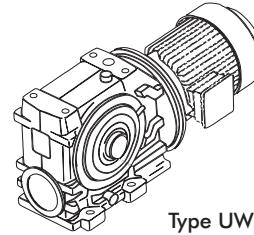
NAMEPLATE — Operate gear drives only at horsepower, speed and ratio shown on nameplate and in the mounting position for which it was ordered. Before changing any one of these, submit complete nameplate data and new application conditions to the Factory for correct oil level, parts and application approval.

WARNING: Consult applicable local and national safety codes for proper guarding of rotating members. Lock out power source and remove all external loads from drive before servicing drive or accessories.

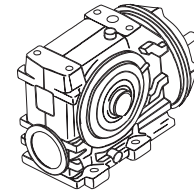
Warranty

Rexnord Industries, LLC (the "Company") warrants that Ultramite gear drives (I) conform to Company's published specifications, and (II) are free from defects of material for three years from the date of shipment.

Company does not warrant any non-Company branded products or components (manufacturer's warranty applies) or any defects in, damage to, or failure of products caused by: (I) dynamic vibrations imposed by the drive system in which such products are installed unless the nature of such vibrations has been defined and accepted in writing by Company as a condition of operation; (II) failure to provide suitable installation environment; (III) use for purposes other than those for which designed, or other abuse or misuse; (IV) unauthorized attachments, modifications or disassembly, or (V) mishandling during shipping.



Type UWBQA



Type UWBQN

General Information

The following instructions apply to standard Falk Type UW drives shown above. If a drive is furnished with special features, refer to the supplementary instructions shipped with the drive.

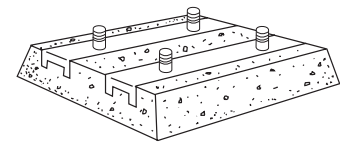
WELDING — Do not weld on the gear drive or accessories without prior approval from the Factory. Welding on the drive may cause distortion of the housing or damage to the bearings and gear teeth. Welding without prior approval could void the warranty.

EFFECTS OF SOLAR ENERGY — If the gear drive operates in the sun at ambient temperatures over 100°F (38°C), then special measures should be taken to protect the drive from solar energy. This protection can consist of a canopy over the drive or reflective paint on the drive. If neither is possible, consult the Factory.

FOUNDATION GENERAL — To facilitate oil drainage, elevate the gear drive foundation above the surrounding floor level. If desired, replace the drive oil drain plug with a valve, but provide a guard to protect the valve from accidental opening or breakage.

FOUNDATION, STEEL — When mounting the gear drive on structural steel, it is recommended that an engineered design be utilized for a pedestal, adapter base or bed to provide sufficient rigidity, to prevent induced loads from distorting the housing and causing gear misalignment. In the absence of an engineered design, it is recommended that a base plate, with thickness equal to or greater than the thickness of the drive feet, be securely bolted to steel supports and extend under the entire drive.

FOUNDATION, CONCRETE — If a concrete foundation is used, allow the concrete to set firmly before bolting down the gear drive. For the best type of mounting, grout structural steel mounting pads into the mounting base, as illustrated, rather than grouting the drive directly into the concrete.



Motors and other components mounted on motor plates may become misaligned during shipment. ALWAYS check alignment after installation.

GEAR DRIVE ALIGNMENT — Align drive with driven equipment by placing broad, flat shims under all mounting pads. Start at the low speed shaft end and level across the length and then the width of the drive. Check with a feeler gauge to make certain that all pads are supported to prevent distortion of housing when drive is bolted down. After drive is aligned with driven equipment and bolted down, align prime mover to drive input shaft. Refer to Page 9 for coupling alignment.

Check high speed shaft coupling alignment. If the coupling is misaligned, the drive is shimmed incorrectly. Re-shim drive and recheck high speed coupling alignment. If necessary, realign motor.

Drive Assembly Instructions

Refer to Table 1 for the appropriate assembly procedure (A, G, G & R, G & H, or M) for the type of drive/motor combination being assembled. This procedure is dependent on motor frame size and type of flange facing (C or D flange) and will determine whether the high speed motor adapter is attached first to the basic housing or to the motor.

CAUTION: The high speed motor adapters for drives requiring assembly procedure G, G & H or G & R (All NEMA/ Some IEC motors) will initially be assembled and sealed with Loctite® at the Factory, unless otherwise specified. During assembly, Do Not break Loctite Seal.

Assembly of high speed motor adapters requiring procedure A or M (Some IEC motors), will not be performed at the Factory if the motor is to be fitted to basic housing in the field. The drives of this type will be supplied with the high speed motor adapter fastened to the basic housing without Loctite adhesive applied to housing flange. These motor adapters need to be removed in the field for assembly of motor to drive assembly.

When IEC motors are to be used on Sizes 03 thru 06 gearmotors, and the motor adapter is to be mounted first to the motor, using assembly procedure A or M, the drive will be furnished to customer without oil. This applies to those gearmotors not furnished with motors from Rexnord and where the customer is to fit motor to the drive. The customer will be

responsible for filling the drive with the proper amount of lubricant as listed in Table 9, Page 11.

PROCEDURE G — Figure 1

CAUTION: The high speed motor adapters for drives requiring assembly procedure G, G & H or G & R will initially be assembled and sealed with Loctite at the Factory, unless otherwise specified. During assembly, DO NOT break Loctite Seal.

1. Place basic housing on a workbench so that high speed end is facing up as illustrated in Figure 1 below. If necessary, block housing so that it is stable and level.
2. Remove high speed motor adapter from basic housing ONLY if replacing.
3. Clean mating surfaces of basic housing, high speed motor adapter, and electric motor (use Loctite 7070 Super Clean or equivalent). Check for and remove any burrs from mating surfaces.
4. Fill basic housing with quantity of oil specified in Table 9, Page 11 — Approximate Oil Quantities.
5. Apply Anti-fretting compound (Dow Corning® G-n or equivalent) to bore of high speed motor adapter.
6. Depending upon motor shaft diameter, either a plastic key or motor bushing will be furnished. Refer to the appropriate instructions following:

Plastic Key — If installed, remove the metal key from the motor shaft; this key will not be used.

TABLE 1 — Motor Adapter Fitting Procedures

NEMA MOTORS									
PROCEDURE G, G & R OR G & H ARE USED FOR ALL DRIVE SIZES									
IEC MOTORS									
DRIVE SIZE	03UW2, 04UW2, 05UW2, 03UW3, 04UW3, 05UW3, 06UW3		06UW2 & 07UW3		07UW2	08UW2	09UW2	10UW2	
	Motor Flange / Motor Frame	C (B14)	D (B5)	C (B14)	D (B5)	C (B14)	D (B5)	D (B5)	D (B5)
63	N/A	A	N/A	G	N/A	N/A	N/A	N/A	N/A
71	M	G	M	G	N/A	N/A	N/A	N/A	N/A
80	M	G	M	G	M	G	G	G	G
90	G	G	M	G	M	G	G	G	G
100/112	G	G	M	G	M	G	G & R	G & R	G & R
132	N/A	N/A	G	G	M	G	G	G	G
160	N/A	N/A	N/A	N/A	N/A	G	G & H	G	G
180/200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	G	G
225	N/A	N/A	N/A	N/A	N/A	N/A	N/A	G & H	G & H

SUMMARY OF MOTOR ADAPTER FITTING SEQUENCES

- A — Motor adapter and motor attached to basic housing at same time.
- M — Fit motor adapter to motor and then attach assembly to basic housing.
- G — Fit motor adapter to basic housing and then attach motor.
- G&R — Attach motor adapter to basic housing, then fit adapter ring to motor before attaching motor to assembly.
- G&H — Attach motor adapter to basic housing, then fit adapter extension to motor before attaching motor to assembly.

NOTE: Assembly procedures G, G & R and G & H are initially performed at Factory unless otherwise specified.

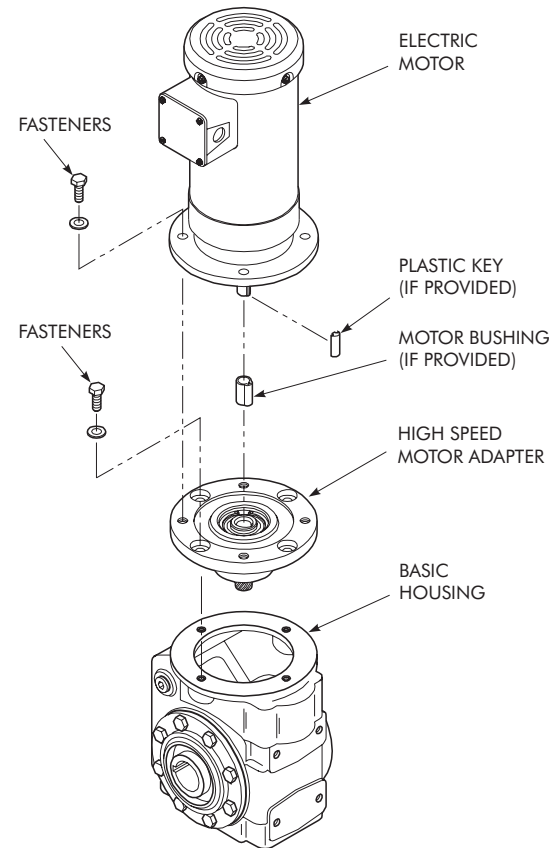


Figure 1

For motor shafts with a closed ended full depth keyway (IEC motors), shorten plastic key to fit keyway. Note: plastic key should be the same length as the metal key just removed.

Motor Bushing — Install motor bushing into bore of high speed motor adapter. Fit metal key into keyway of motor shaft. This will assemble into the motor bushing and drive through it. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to motor shaft.

7. Apply liquid gasket material (Loctite® 518, Falk Part # 2918376) furnished to flange face of basic housing as illustrated in Figure 6, Page 5.
Caution: *This step must be followed to prevent leakage.*
8. Align mounting holes of high speed motor adapter with threaded holes of basic housing while assembling motor adapter to basic housing. Secure high speed motor adapter to basic housing using fasteners with copper washers (when provided). Torque fasteners to value specified in Table 4, Page 7 — Tightening Torques.
9. Determine appropriate position that motor conduit box must be in once motor is assembled to basic housing. Refer to Figure 7, Page 6. Slide motor shaft into high speed motor adapter, aligning key of shaft with keyway in motor adapter bore.
10. Align threaded mounting holes of high speed motor adapter with holes of electric motor. Secure motor to basic housing using fasteners with copper washers (when provided). Torque fasteners to the value specified in Table 4, Page 7 — Tightening Torques.

PROCEDURE G & H — Figure 2

Important — The high speed motor adapters for drives requiring assembly procedure G, G & H or G & R will initially be assembled and sealed with Loctite at the Factory, unless otherwise specified. During assembly, **DO NOT** break Loctite Seal.

1. Place basic housing on a workbench so that high speed end is facing up as illustrated in Figure 2. If necessary, block housing so that it is stable and level.
2. Remove high speed motor adapter from basic housing **ONLY** if replacing.
3. Clean mating surfaces of basic housing, high speed motor adapter, and electric motor (use Loctite 7070 Super Clean or equivalent). Check for and remove any burrs from mating surfaces.
4. Fill basic housing with quantity of oil specified in Table 9, Page 11 — Approximate Oil Quantities.
5. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to bore of high speed motor adapter.
6. Depending upon motor shaft diameter, either a plastic key or motor bushing will be furnished. Refer to the appropriate instructions following:

Plastic Key — If installed, remove the metal key from the motor shaft; this key will not be used.

For motor shafts with a closed ended full depth keyway (IEC motors), shorten plastic key to fit keyway. Note: plastic key should be the same length as the metal key just removed.

Motor Bushing — Install motor bushing into bore of high speed motor adapter. Fit metal key into keyway of motor

shaft. This will assemble into the motor bushing and drive through it. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to motor shaft.

7. Apply liquid gasket material (Loctite® 518, Falk Part # 2918376) furnished to flange face of basic housing as illustrated in Figure 6, Page 5.
CAUTION: *This step must be followed to prevent leakage.*
8. Align mounting holes of high speed motor adapter with threaded holes of basic housing while assembling motor adapter to basic housing. Secure high speed motor adapter to basic housing using fasteners with copper washers (when provided). Torque fasteners to value specified in Table 4, Page 7 — Tightening Torques.
9. Install studs provided into motor flange face.
10. Attach adapter extension to motor, aligning holes in adapter extension with studs mounted in motor.
11. Determine appropriate position that motor conduit box must be in once motor is assembled to basic housing. Refer to Figure 7, Page 6. Slide motor shaft into high speed motor adapter, aligning key of shaft with keyway in motor adapter bore.
12. Align mounting holes of high speed motor adapter with studs of motor. Secure motor to the basic housing assembly using fasteners with copper washers (when provided). Torque fasteners to the value specified in Table 4, Page 7 — Tightening Torques.

PROCEDURE G & R — Figure 2

CAUTION: *The high speed motor adapters for drives requiring assembly procedure G, G & H or G & R will initially be assembled and sealed with Loctite at the Factory, unless otherwise specified. During assembly, DO NOT break Loctite Seal.*

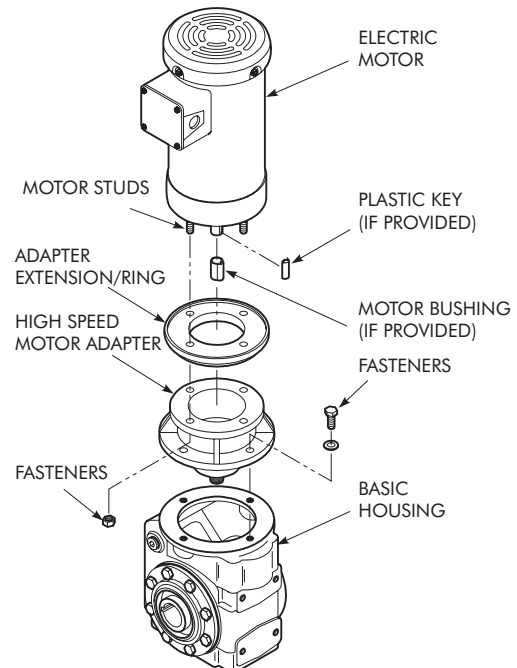


Figure 2

1. Place basic housing on a workbench so that high speed end is facing up as illustrated in Figure 3 at right. If necessary, block housing so that it is stable and level.
2. Remove high speed motor adapter from basic housing *ONLY* if replacing.
3. Clean mating surfaces of basic housing, high speed motor adapter, and electric motor (use Loctite 7070 Super Clean or equivalent). Check for and remove any burrs from mating surfaces.
4. Fill basic housing with quantity of oil specified in Table 9, Page 11 — Approximate Oil Quantities.
5. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to bore of high speed motor adapter.
6. Depending upon motor shaft diameter, either a plastic key or motor bushing will be furnished. Refer to the appropriate instructions following:
Plastic Key — If installed, remove the metal key from the motor shaft; this key will not be used.
 For motor shafts with a closed ended full depth keyway (IEC motors), shorten plastic key to fit keyway. Note: plastic key should be the same length as the metal key just removed.
Motor Bushing — Install motor bushing into bore of high speed motor adapter. Fit metal key into keyway of motor shaft. This will assemble into the motor bushing and drive through it. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to motor shaft.
7. Apply liquid gasket material (Loctite 518, Falk Part # 2918376) furnished to flange face of basic housing as illustrated in Figure 6, Page 5. **Caution** — This step must be followed to prevent leakage.
8. Align mounting holes of high speed motor adapter with threaded holes of basic housing while assembling motor adapter to basic housing. Secure high speed motor adapter to basic housing using fasteners with copper washers (when provided). Torque fasteners to value specified in Table 4, Page 7 — Tightening Torques.
9. Install studs provided into motor flange face.
10. Attach adapter ring to motor, aligning holes in adapter ring with studs mounted in motor.
11. Determine appropriate position that motor conduit box must be in once motor is assembled to basic housing. Refer to Figure 7, Page 6. Slide motor shaft into high speed motor adapter, aligning key of shaft with keyway in motor adapter bore.
12. Align mounting holes of high speed motor adapter with studs of motor. Secure motor to the basic housing assembly using fasteners with copper washers (when provided). Torque fasteners to the value specified in Table 4, Page 7 — Tightening Torques.

PROCEDURE M — Figure 3

1. Place basic housing on a workbench so that high speed end is facing up as illustrated in Figure 3. If necessary, block housing so that it is stable and level.
2. Remove high speed motor adapter from basic housing.
3. Clean mating surfaces of basic housing, high speed motor adapter, and electric motor (use Loctite 7070 Super Clean or equivalent). Check for and remove any burrs from

mating surfaces.

4. Fill basic housing with quantity of oil specified in Table 9, Page 11 — Approximate Oil Quantities.
5. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to bore of high speed motor adapter.
6. Depending upon motor shaft diameter, either a plastic key or motor bushing will be furnished. Refer to the appropriate instructions following:
Plastic Key — If installed, remove the metal key from the motor shaft; this key will not be used.
 For motor shafts with a closed ended full depth keyway (IEC motors), shorten plastic key to fit keyway. **Note:** plastic key should be the same length as the metal key just removed.
Motor Bushing — Install motor bushing into bore of high speed motor adapter. Fit metal key into keyway of motor shaft. This will assemble into the motor bushing and drive through it. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to motor shaft.
7. Slide high speed motor adapter onto motor shaft aligning key of shaft with keyway of motor adapter bore.

Caution: Prior to fastening high speed motor adapter to electric motor, check whether clearance is available to insert motor adapter to basic housing fasteners into motor adapter mounting holes. If not, slide motor adapter away from motor and install motor adapter to basic housing fasteners and copper washers at this time. Slide motor adapter back against motor.

Align mounting holes of high speed motor adapter with threaded holes of electric motor. Secure high speed motor adapter to electric motor using fasteners with copper

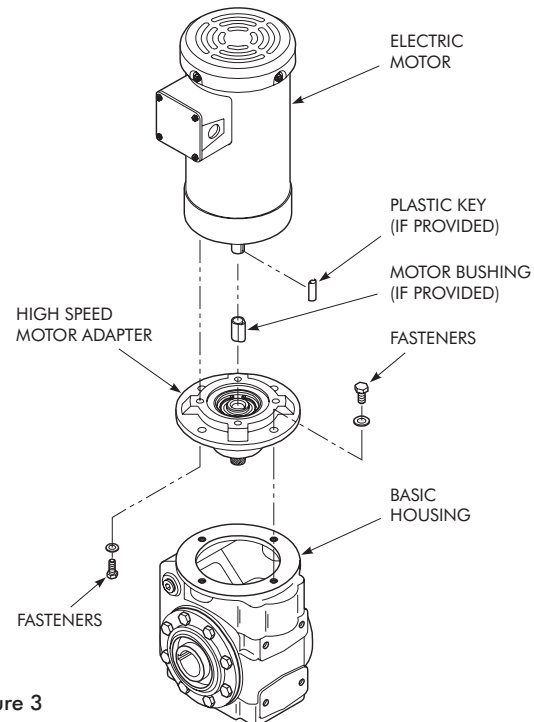


Figure 3

washers (when provided). Torque fasteners to the value specified in Table 4, Page 7 — Tightening Torques.

8. Apply liquid gasket material (Loctite 518, Falk Part # 2918376) furnished to flange face of basic housing as illustrated in Figure 6, Page 5.
- Caution:** This step must be followed to prevent leakage.
9. Determine the appropriate position that motor conduit box must be in once motor is assembled to basic housing. Refer to Figure 7, Page 6. Align mounting holes of high speed motor adapter with threaded holes of basic housing while assembling motor/adaptor assembly to basic housing.
10. Secure motor/adaptor assembly to basic housing using fasteners with copper washers (when provided). Torque fasteners to the value specified in Table 4, Page 7 — Tightening Torques.

PROCEDURE A — Figure 4

1. Place basic housing on a workbench so that high speed end is facing up as illustrated in Figure 5. If necessary, block housing so that it is stable and level.
2. Remove high speed motor adapter from basic housing.
3. Clean mating surfaces of basic housing, high speed motor adapter, and electric motor (use Loctite 7070 Super Clean or equivalent). Check for and remove any burrs from mating surfaces.

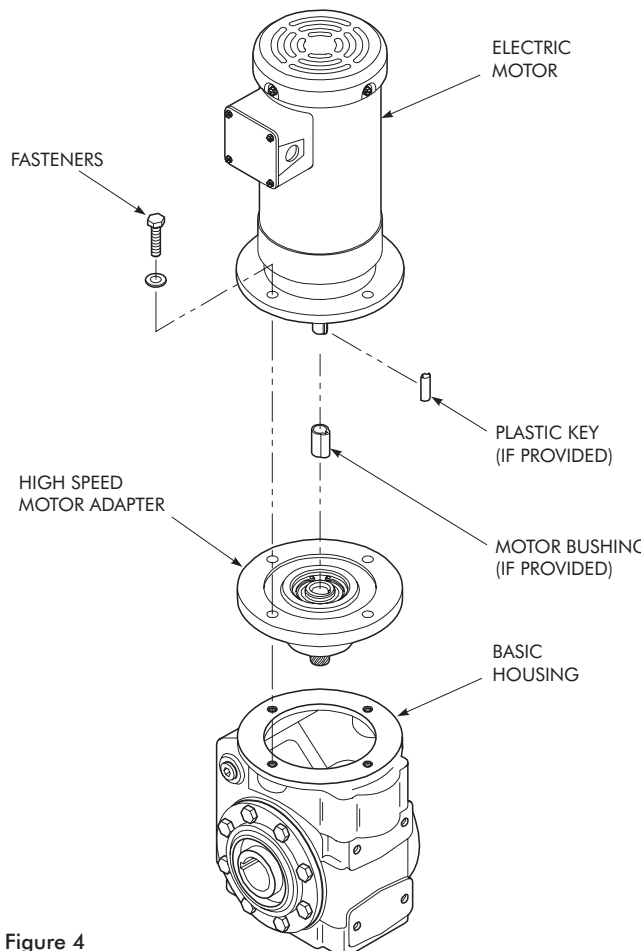


Figure 4

4. Fill basic housing with quantity of oil specified in Table 9, Page 11 — Approximate Oil Quantities.
5. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to bore of high speed motor adapter.
6. Depending upon motor shaft diameter, either a plastic key or motor bushing will be furnished. Refer to the appropriate instructions following:
Plastic Key — If installed, remove the metal key from the motor shaft; this key will not be used.
For motor shafts with a closed ended full depth keyway (IEC motors), shorten plastic key to fit keyway. Note: plastic key should be the same length as the metal key just removed.
Motor Bushing — Install motor bushing into bore of high speed motor adapter. Fit metal key into keyway of motor shaft. This will assemble into the motor bushing and drive through it. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to motor shaft.
7. Slide high speed motor adapter onto motor shaft aligning key of shaft with keyway of motor adapter bore.
8. Apply liquid gasket material (Loctite 518, Falk Part # 2918376) furnished to flange face of basic housing as illustrated in Figure 6, Page 5.
Caution: This step must be followed to prevent leakage.
9. Determine the appropriate position that motor conduit box must be in once motor is assembled to basic housing. Refer to Figure 7, Page 6. Align mounting holes of electric motor, high speed motor adapter and basic housing while assembling motor/adaptor assembly to basic housing.
10. Secure motor/adaptor assembly to basic housing using fasteners with copper washers (when provided). Torque fasteners to the value specified in Table 4, Page 7 — Tightening Torques.

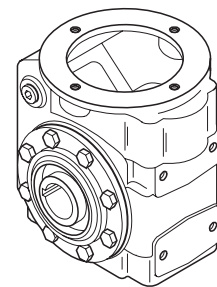


Figure 5

IMPORTANT: CIRCLE EACH FASTENER HOLE WITH A CONTINUOUS AND UNBROKEN BEAD OF LOCTITE 518 OR EQUIVALENT. THEN CONNECT EACH ADJACENT FASTENER HOLE WITH A CONTINUOUS AND UNBROKEN BEAD OF LOCTITE 518 OR EQUIVALENT.

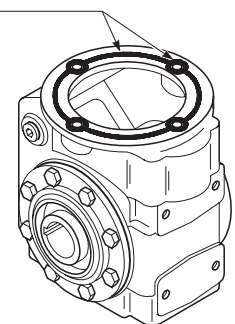


Figure 6

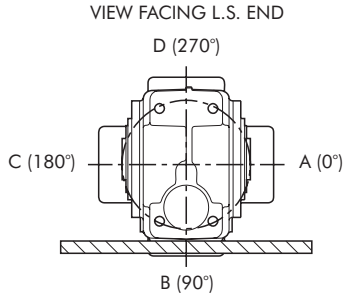
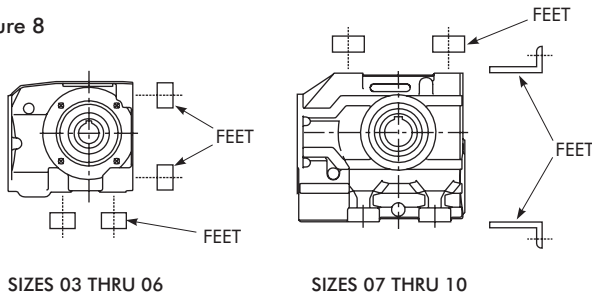


Figure 7

ASSEMBLE MOUNTING FEET TO DRIVE

1. Scrape paint from mating surfaces of drive and mounting feet; clean these surfaces thoroughly using Loctite 7070 Super Clean or equivalent. Check for and remove any burrs from mating surfaces.
2. Assemble mounting feet to drive and secure using appropriate fasteners. Torque fasteners to the value shown in Table 4, Page 7 — Fastener Tightening Torques.

Figure 8



ASSEMBLE OUTPUT FLANGE TO DRIVE

1. Place drive on a workbench so that the side to which the output flange will be installed is facing up. If necessary, block drive so that it is stable and level.
2. Remove low speed bearing housing fasteners (Size 03 - 06 ONLY) taking care not to split gasket joint. Note: It is not necessary to remove bearing housing fasteners for Drive Sizes 07 - 10.
3. Clean mating surfaces of drive and output flange thoroughly using Loctite 7070 Super Clean or equivalent. Check for and remove any burrs from mating surfaces.
4. Assemble output flange to drive and secure using the fasteners furnished. Torque fasteners to the value shown in Table 4, Page 7 — Fastener Tightening Torques.

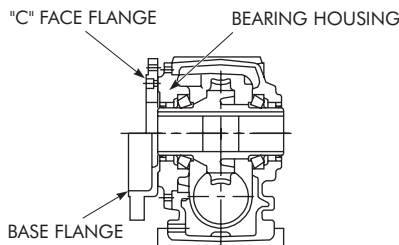


Figure 9

ASSEMBLE BANJO TORQUE ARM TO DRIVE

When possible, fit torque arm to side of drive adjacent to the driven equipment. The standard position of the torque arm, unless otherwise stated on the order, will be with the bushing vertically down (6:00 clock position) as illustrated in Figure 10.

1. Place drive on a workbench so that the side to which the torque arm will be installed is facing up. If necessary, block drive so that it is stable and level.
2. Remove low speed bearing housing fasteners (Size 03 - 06 ONLY) taking care not to split gasket joint. **Note:** It is not necessary to remove bearing housing fasteners for drive sizes 07 - 10.
3. Clean mating surfaces of drive unit and torque arm thoroughly using Loctite 7070 Super Clean or equivalent. Check for and remove any burrs from mating surfaces.
4. Assemble torque arm to drive in the required position and secure using the fasteners furnished. Torque fasteners to the value shown in Table 4, Page 7 — Fastener Tightening Torques.

The support to which the banjo torque arm is to be fastened must sustain the torque reaction listed in Table 2 — Torque Arm Maximum Loads. Use SAE grade 5 minimum fasteners for anchoring torque arm to support structure. Refer to Table 3, Torque Arm Anchoring Fasteners, for recommended fastener diameter. Fastener length is dependent of support structure. Fastener threads must never be evident under banjo torque arm bushing.

Anchor the banjo torque arm to supporting structure and tighten fasteners (provided by others) until it is seated against brackets. Do not bend the support clevis bracket. Clearance between the clevis bracket and torque arm is required.

SIZES 03 THRU 06

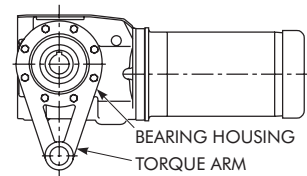
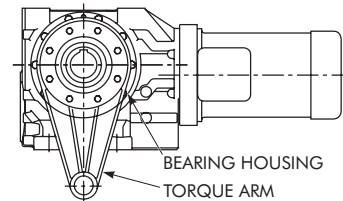


Figure 10



SIZES 07 THRU 10

TABLE 2 — Torque Arm Maximum Load – lb(kg)★

DRIVE SIZE	Double Reduction	Triple Reduction	Quadruple Reduction	Quintuple Reduction
03UW	628 (285)	628 (285)	...	...
04UW	926 (420)	1090 (494)	...	...
05UW	1530 (694)	1670 (757)	...	...
06UW	1911 (867)	1911 (867)	2810 (1275)	2810 (1275)
07UW	2134 (968)	2459 (1115)	3475 (1576)	3475 (1576)
08UW	3820 (1733)	...	4670 (2118)	4670 (2118)
09UW	6858 (3111)	...	6970 (3162)	6970 (3162)
10UW	8588 (3895)	...	11039 (5007)	11039 (5007)

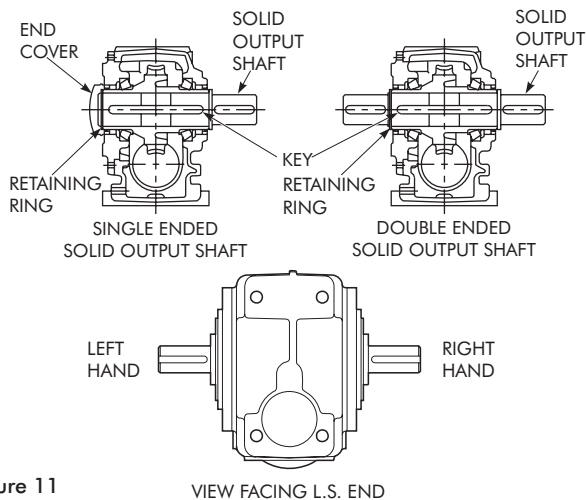
★ Based on input speed of 1750 RPM.

TABLE 3 — Torque Arm Anchoring Fasteners

DRIVE SIZE	Metric Fastener	Inch Fastener
03UW	M10	.375-16 UNC
04UW	M10	.375-16 UNC
05UW	M10	.375-16 UNC
06UW	M16	.625-11 UNC
07UW	M16	.625-11 UNC
08UW	M16	.625-11 UNC
09UW	M24	.875-9 UNC
10UW	M24	.875-9 UNC

INSTALL SOLID OUTPUT SHAFT

- Place drive on a workbench so that the hollow shaft is horizontal. If necessary, block drive so that it is stable and level.
- Clean surfaces of hollow shaft and solid output shaft thoroughly using Loctite 7070 Super Clean or equivalent. Check for and remove any burrs from mating surfaces.
- Install key into keyway of solid output shaft. Apply Anti-fretting compound (Dow Corning G-n or equivalent) to bore of low speed shaft.
- Slide solid output shaft into bore of low speed shaft, aligning key with keyway in bore of low speed shaft. Note: For single extension solid output shaft (viewing from low speed end of drive), confirm right or left hand extension. Refer to Figure 11.
- Install retaining ring into groove of solid output shaft. Install end cover (single ended solid output shaft applications only).
- Install extension key into extension keyway in solid output shaft.


Figure 11 VIEW FACING L.S. END

Fastener Tightening Torques

Use the tightening torque values specified in Table 4, for fastening drives, motors, and accessories to their mounting surfaces with non-lubricated fasteners. **DO NOT** use these values for "torque locking" fasteners or for fastening components with aluminum feet or with soft gaskets or vibration dampers on the mounting surface. If the tightening torque exceeds the capacity of the torque wrench, use a torque

multiplier. Use Grade 5 fasteners for diameters through 1.50".

For assembling motors, high speed adapters, feet, output flanges or torque arms to drives, refer to the tightening torque values listed in Table 4 for inch/metric fasteners. Use ISO grade 8.8 minimum fasteners for securing feet, output flanges or torque arms to drives.

TABLE 4 — Tightening Torques – lb-in(Nm)
 ± 5% DO NOT Lubricate Fasteners

Inch Fasteners	Metal to Metal	Metal to Concrete
.250-20UNC	90 (10)	70 (7)
.3125-18UNC	185 (20)	145 (16)
.375-16UNC	330 (37)	255 (28)
.500-13UNC	825 (93)	640 (72)
.625-11UNC	1640 (185)	1280 (144)
.750-10UNC	2940 (332)	2290 (258)
Metric Fasteners	Feet, Output Flange, Torque Arm	High Speed Motor Adapter
M6	88 (9)	88 (9)
M8	220 (24)	160 (18)
M10	450 (50)	330 (37)
M12	750 (84)	570 (64)
M16	1770 (199)	1330 (150)
M20	3100 (350)	2300 (259)
M24	5400 (610)	...

Table 5 lists the minimum fastener diameter requirements for securing drive to the support structure using mounting feet accessory kit. Fastener length is dependent of mounting structure and is to be determined by installation personnel.

TABLE 5 — Foot Mounted Foundation Fasteners

DRIVE SIZE	Metric Fastener	Inch Fastener
03UW	M8	.312-18 UNC
04UW	M10	.375-16 UNC
05UW	M10	.375-16 UNC
06UW	M12	.500-13 UNC
07UW	M16	.625-11 UNC
08UW	M20	.750-10 UNC
09UW	M24	1.000-8 UNC
10UW	M24	1.000-8 UNC

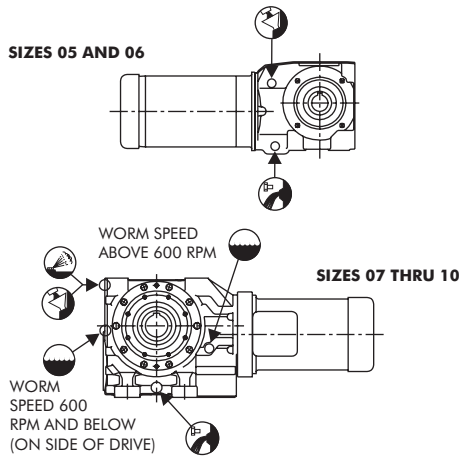
Shaft Connections

WARNING: Provide suitable guards in accordance with OSHA standards.

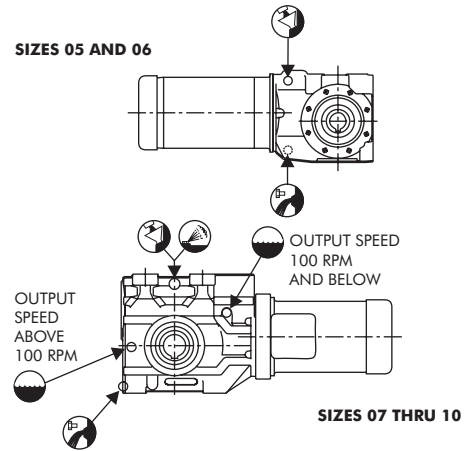
Input and output shaft extension diameter tolerance is +.0000"; -.0005" for shafts up to 1.750" diameter and +.0000"; -.0010" for shafts larger than 1.750" diameter. The fitted component must be machined to ensure proper fit.

DO NOT drive coupling hub, pinion, sprocket or pulley on the shaft. An endwise blow on the shaft may damage gears and bearings. Coupling hubs, pinions, sprockets or pulleys must be installed onto the shaft using a screw jack device fitted into the threaded hole provided in the end of the shaft; Refer to Table 6, Page 9 — Shaft End Threaded Holes.

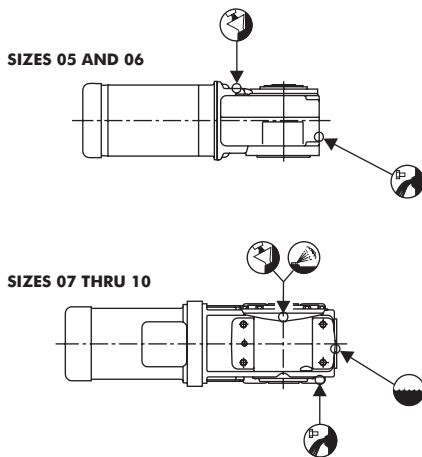
Mounting 1



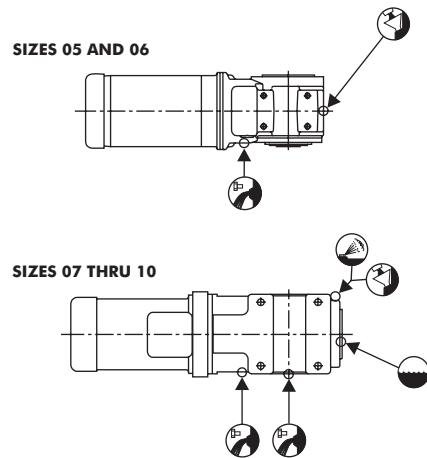
Mounting 2



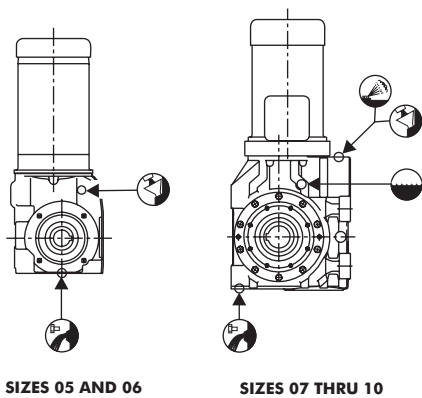
Mounting 3



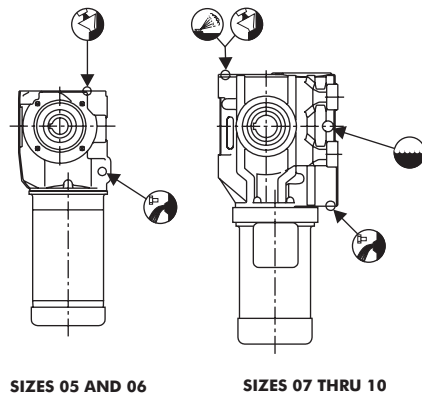
Mounting 4



Mounting 5



Mounting 6 I

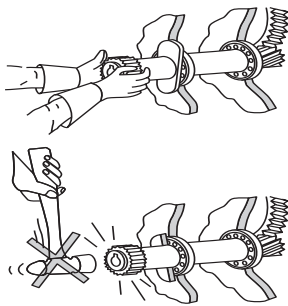


‡ Use motor fitted with a seal.

TABLE 6 — Shaft End Threaded Holes – Inch (Metric)

DRIVE SIZE	Input Shaft	Output Shaft
03UW	.250 x .490 UNF (M5 x 0.8 x 12.5)	.250 x .630 UNF (M6 x 1.0 x 16)
04UW	.250 x .490 UNF (M5 x 0.8 x 12.5)	.250 x .630 UNF (M10 x 1.5 x 22)
05UW	.250 x .490 UNF (M5 x 0.8 x 12.5)	.375 x .870 UNF (M10 x 1.5 x 22)
06UW2	.250 x .630 UNF (M6 x 1.0 x 16)	.500 x 1.12 UNF (M12 x 1.75 x 22)
06UW3	.250 x .490 UNF (M5 x 0.8 x 12.5)	.500 x 1.12 UNF (M12 x 1.75 x 22)
07UW2	.312 x .630 UNF (M8 x 1.25 x 19)	.625 x 1.44 UNF (M16 x 2.0 x 36)
07UW3	.250 x .630 UNF (M6 x 1.0 x 16)	.625 x 1.44 UNF (M16 x 2.0 x 36)
08UW	.375 x .870 UNF (M10 x 1.5 x 22)	.750 x 1.75 UNF (M20 x 2.5 x 42)
09UW	.500 x 1.10 UNF (M12 x 1.75 x 28)	.750 x 1.75 UNF (M20 x 2.5 x 42)
10UW	.625 x 1.42 UNF (M16 x 2.0 x 36)	1.00 x 2.25 UNF (M24 x 3.0 x 50)

COUPLING CONNECTIONS — The performance and life of any coupling depends largely upon how well the coupling is installed and serviced. Refer to the coupling manufacturer's manual for specific instructions.



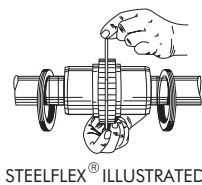
CORRECT METHOD
Heat interference fitted coupling hubs, pinions, sprockets or pulleys to a maximum of 275°F (135°C) and slide onto gear drive shaft.

INCORRECT METHOD
DO NOT drive coupling hub, pinion, sprocket or pulley onto the shaft. An endwise blow on the shaft/coupling may damage gears and bearings.

– CAUTION –
DO NOT HAMMER

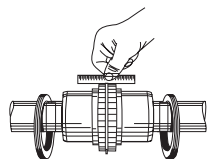
FALK COUPLINGS — (Except fluid type) Detailed installation manuals are available from the Factory, your local Rexnord Representative or Distributor; just provide size and type designations stamped on the coupling. For lubricant requirements and a list of typical lubricants meeting Rexnord specifications, refer to appropriate coupling service manual.

GAP AND ANGULAR ALIGNMENT — If possible, after mounting coupling hubs, position the driving and driven equipment so that the distance between shaft ends is equal to the coupling gap. Align the shafts by placing a spacer block, equal in thickness to required gap, between hub faces, as shown, and also at 90° intervals around the hub. Check with feelers.



STEELFLEX® ILLUSTRATED

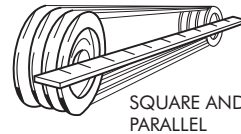
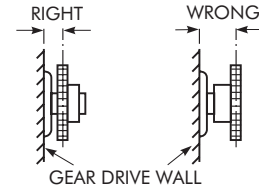
OFFSET ALIGNMENT — Align driving and driven shafts so that a straight edge will rest squarely on both coupling hubs as shown to the right and also at 90° intervals. Tighten foundation bolts of the connected equipment and recheck alignment and gap.



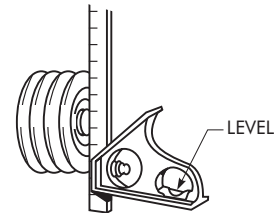
STEELFLEX ILLUSTRATED

SPROCKETS, PULLEYS OR SHEAVES — Mount power take-offs as close to the gear drive housing as possible to avoid undue bearing load and shaft deflection.

Align the output shaft of the gear drive square and parallel with the driven shaft by placing a straightedge across the face of the sprockets or sheaves as illustrated.



SQUARE AND PARALLEL



LEVEL

Check horizontal shaft alignment by placing one leg of a square against the face of the sheave or sprocket with the spirit level on the horizontal leg of the square.

DO NOT over tighten belts or chains. Adjust chains to manufacturers' specifications. Adjust belts as follows:

The ideal tension is the lowest tension at which the belt will not slip under peak load conditions. Check the belt tension frequently during the first 24 to 48 hours of run-in operation. Over tightening belts shortens belt and bearing life. Keep belts free from foreign material which may cause slippage. Inspect the V-belts periodically; tighten the belts if they are slipping.

PINION MOUNTING — Mount pinion as close to the drive as possible to avoid undue bearing load and shaft deflection. Refer to the Factory for pinion alignment instructions.

Retaining Methods for Hollow Output Drives

The following illustrates methods for retaining shaft mounted drives.

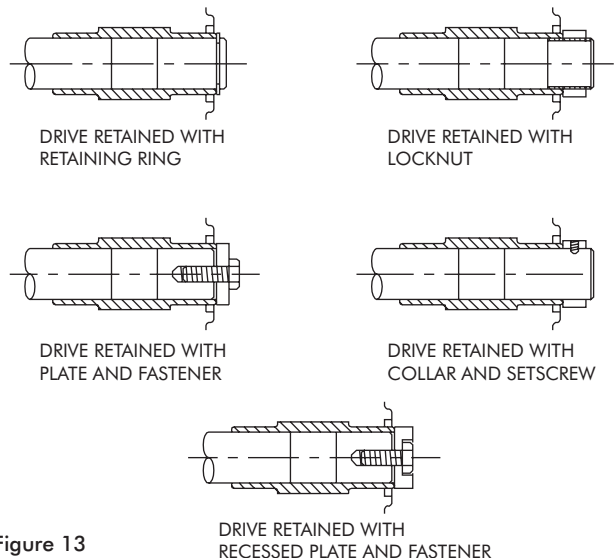


Figure 13

INSTALLATION AND REMOVAL OF TYPE TA TAPER® BUSHING

Installation

1. The tapered bore hollow output shaft is designed for use with a tapered bushing for mounting on a driven shaft with a straight outside diameter. Refer to Table 7 for driven shaft tolerances.

TABLE 7 — Driven Shaft Tolerances ★

Shaft Diameter — Inches	Maximum Undersize — Inches
Up to 1.500	.004
1.500 - 2.500 incl.	.005
2.500 - 3.000 incl.	.006

★ Millimeters = h 10 tolerance.

2. Rotate driven shaft so that keyway is in the 12 o'clock position.

THIN WALL BUSHING (with keyway slot through bushing wall) — With driven shaft keyway at the 12 o'clock position, slide bushing assembly onto driven shaft, nut end first, and position keyway slot over shaft keyway (bushing may have to be pried open slightly). Insert drive key furnished with bushing into shaft keyway. Proceed to Step 3.

THICK WALL BUSHING (with separate internal and external keyways) — Insert driven shaft key into driven shaft keyway. If driven shaft has an open-ended keyway, stake keyway as illustrated in Figure 13 to prevent axial dislocation of shaft key under operating conditions. Slide bushing assembly onto driven shaft (bushing may have to be pried open slightly). Rotate shaft so that external keyway in bushing is at the 12 o'clock position. Insert drive key furnished with bushing into bushing keyway. Proceed to Step 3.

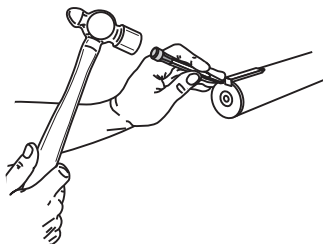


Figure 13

3. Using a sling, safely lift gear drive so that hollow output shaft is in the horizontal position. Rotate hollow shaft so that keyway is aligned with driven shaft/bushing key. Position and slide drive onto driven shaft taking care that driven shaft key seats into hollow shaft keyway. **DO NOT** hammer or use excessive force.
4. Thread bushing nut onto hollow shaft one to two turns. Note: The bushing nut threads have been coated with an anti-seize compound at the Factory. This compound should not be removed. Before re-installing a previously used nut, recoat the nut threads (only) with an anti-seize compound. **KEEP TAPERED SURFACE OF BUSHING AND**

HOLLOW SHAFT BORE FREE FROM ALL ANTI-SEIZE OR LUBRICATING COMPOUNDS.

5. Tighten nut as instructed in one of the following methods.

PREFERRED METHOD — Using a spanner (Table 8) chain or pipe wrench, tighten bushing nut to the torque value specified in Table 8. Note: For applications where external vibratory or transient loads may act on drive and cause setscrews to become loose, apply Loctite 243 or equivalent to threads of setscrew. Tighten setscrew on bushing nut.

ALTERNATE METHOD — (Use this method when torque cannot be measured.) Using a spanner (Table 8), chain or pipe wrench, tighten bushing nut just until drive can no longer be moved by hand axially on the driven shaft. Loosen nut **ONLY** until it can be turned by hand but do not unseat the taper. Retighten nut hand tight. Mark a spot on top of driven shaft. Mark a spot on bushing nut 180° from the driven shaft mark (90° CCW for Sizes 05UW & 06UW). Using a spanner wrench, tighten nut CW one half turn until the two marks are aligned (one quarter turn for Sizes 05UW & 06UW). Note: For applications where external vibratory or transient loads may act on drive and cause setscrew to become loose, apply Loctite 243 or equivalent to threads of setscrew. Tighten setscrew on bushing nut.

TABLE 8 — Spanner Wrench Type & Spanner Nut Tightening Torque

DRIVE SIZE	Adjustable Hook Spanner Wrench		Spanner Nut Tightening Torque lb-ft (Nm)
	Armstrong Tools	Williams	
05UW	34-307 (2.00" - 4.75")	474	83 (113)
06UW	34-307 (2.00" - 4.75")	474	83 (113)
07UW	34-307 (2.00" - 4.75")	474	167 (226)
08UW	34-310 (4.50" - 6.25")	474A	167 (226)
09UW	34-310 (4.50" - 6.25")	474A	250 (339)
10UW	34-310 (4.50" - 6.25")	474A	250 (339)

Removal

WARNING: Drive must be supported during removal process. Use a sling around the gear drive and take up slack before proceeding.

1. Loosen setscrew on bushing nut located at output end of hollow shaft.
2. Use a spanner (Table 8) pipe or chain wrench to loosen bushing nut. Initially, bushing nut will freely rotate counter clockwise approximately 180° as the nut moves from the locked position to the removal position. At this point anticipate resistance which indicates unseating of the bushing. Continue to turn bushing nut until it is free from the hollow shaft.
3. Prepare drive for lifting by disconnecting torque arm at drive end. Slide drive from bushing. **Note:** Bushing can be left in place or removed, as required. If bushing will not slide off of shaft, insert a small pry bar into split of bushing and pry split open slightly to loosen bushing and remove from shaft.

Lubrication Recommendations

Carefully follow lubrication instructions on warning tags and installation manuals furnished with the gear drive. Nameplates are stamped with a designation for recommended lubricant; standard is 7H.

For selection of oil grade based on actual operating conditions, refer to Table 12, Page 12 — Series UW Oil Grades.

Lubricants listed in this manual are typical ONLY and should not be construed as exclusive recommendations. Refer to your lubricant supplier for additional lubricants meeting the indicated specifications.

Industrial type, **Non EP**, polyalphaolefin based synthetic lubricants are required for all applications of Series UW drives as specified in Table 10, Page 12 — Typical Lubricants.

OTHER LUBRICANTS — The use of other lubricants will cause a mechanical and thermal derating of the drive. Use of a straight mineral lubricant will derate the drive by 15%.

WARNING: SYNTHETIC LUBRICANTS IN FOOD PROCESSING INDUSTRY — Synthetic lubricants may contain toxic substances and should not be used in the food processing industry without the lubricant manufacturers' approval. Lubricants which meet USDA "H1" classification are suitable for food processing applications.

VISCOSITY (IMPORTANT) — The proper grades of polyalphaolefin based synthetic lubricants are found in Table 10, Page 12 — Typical Lubricants. Select a lubricant which has a pour point at least 10°F (5.5°C) below the expected minimum ambient starting temperature.

Extreme Pressure (EP) Lubricants

Industrial type polyalphaolefin based synthetic lubricants are preferred; **EP lubricants are not recommended.**

WARNING: EP LUBRICANTS IN FOOD PROCESSING INDUSTRY — EP lubricants may contain toxic substances and should not be used in the food processing industry without the lubricant manufacturers' approval. Lubricants which meet USDA "H1" classification are suitable for food processing applications.

Oil Levels

Sizes 03 thru 06 are furnished filled with a polyalphaolefin based synthetic lubricant to the approximate level determined by the mounting position ordered. **Sizes 07 thru 10** are furnished without oil. Refer to Table 10, Page 12 for a list of typical lubricants meeting Rexnord specifications. Refer to Table 9 for appropriate quantities of oil based on mounting position.

NOTE: When IEC motors are to be used on **Size 03 thru 06** gearmotors, and the motor adapter is to be mounted first to the motor, the drive will be furnished to customer without oil. This applies to those gearmotors not furnished with motors from Falk and where the customer is to fit motor to drive unit. The customer will be responsible for filling the drive with the proper amount of lubricant as listed in Table 9.

MOUNTING (CAUTION) — Mount drive only in the position for which it was ordered. Refer to Page 8 for the placement of the vent, drain and oil level plugs based on drive size and mounting position. If it is necessary to mount the drive in a special orientation not shown on Page 8, including rotated and tilted drives, consult the Factory for changes necessary to provide proper lubrication. Refer to Table 9 for approximate quantities of oil by the drive mounting position.

Lubricant Changes

Sizes 03 and 04 do not require lubricant changes. All other drive sizes require regular oil changes as instructed in this manual. **Sizes 05 and 06** do not utilize a level plug; therefore, the drive must be drained completely and filled with appropriate amount of oil as specified in Table 9.

TABLE 9— Approximate Oil Quantities — Liters ★

Mounting Position	DRIVE SIZE													
	Double Reduction								Triple Reduction					
	03UW2	04UW2	05UW2	06UW2	07UW2	08UW2	09UW2	10UW2	03UW3	04UW3	05UW3	06UW3	07UW3	
1	.3	.4	.7	1.5	4.1	6.0	12.1	17.8	.4	.5	.9	1.6	4.6	
2	.8	1.0	1.6	3.3	4.8	8.7	15.4	27.0	1.3	1.7	2.1	4.2	5.6	
3	.6	.8	1.1	2.5	4.2	6.0	12.8	21.2	.9	1.0	1.3	2.6	5.5	
4	.6	.7	1.1	2.3	4.2	6.0	12.8	21.2	.8	.9	1.5	2.6	5.5	
5	.6	.9	1.4	3.0	6.5	9.3	20.4	34.6	1.0	1.3	2.0	4.6	10.3	
6 (Gearmotor)	.8	1.1	1.7	4.2	4.4	7.0	14.8	24.9	1.3	1.6	2.2	5.0	6.6	
6 (Drive)	1.0	1.3	1.9	4.4	4.8	7.4	15.2	25.3	1.5	1.8	2.4	5.2	7.0	

OBTAIN OIL QUANTITIES FOR PRIMARY STAGE OF QUADRUPLE AND QUINTUPLE REDUCTION DRIVES (Separate Oil Sumps)

DRIVE SIZE	Quadruple Reduction					Quintuple Reduction				
	06UW4	07UW4	08UW4	09UW4	10UW4	06UW5	07UW5	08UW5	09UW5	10UW5
Primary †	04UC2	04UC2	06UC2	06UC2	07UC2	04UC3	04UC3	04UC3	06UC3	06UC3
Secondary	06UW2	07UW2	08UW2	09UW2	10UC2	06UW2	07UW2	08UW2	09UW2	10UW2
Primary Drive Approximate Oil Quantity										
Vertical	1.6	1.6	3.6	3.6	6.8	2.1	2.1	2.1	5.0	9.0
Horizontal	0.6	0.6	1.7	1.7	4.6	0.9	0.9	0.9	2.2	2.6

★ Convert quantities using the following: Liters to US Gallons = Liters x 0.26, Liters to Imperial Gallons = Liters x 0.22, Liters to US Quarts = Liters x 1.057.

† Primary drive unit to be filled with 6E polyalphaolefin EP based synthetic lubricant for application of quadruple and quintuple drive ratios.



TABLE 10 — Typical Lubricant Recommendations & Specifications
Type H — Non EP Polyalphaolefin Based Synthetic Lubricants

AGMA Viscosity Grade	0S	1S	2S	3S	4S
ISO Viscosity Grade	32	46	68	100	150
Nameplate Designation	0H	1H	2H	3H	4H
Manufacturer	Lubricant	Lubricant	Lubricant	Lubricant	Lubricant
Chevron U.S.A., Inc. Conoco Inc. Dryden Oil Company Exxon Company, U.S.A. Mobil Oil Corp.	Syncon R&O 32 Drydene SHL Lubricant 32 Teresstic SHP 32 SHC 624	Syncon R&O 46 Drydene SHL Lubricant 46 Teresstic SHP 46 ...	Syncon R&O 68 Drydene SHL Lubricant 68 Teresstic SHP 68 SHC 626	Syncon R&O 100 Drydene SHL Lubricant 100 Teresstic SHP 100 SHC 627	... Drydene SHL Lubricant 150 Teresstic SHP 150 SHC 629
Pennzoil Products Co. Phillips 66 Company Shell Oil Co. Sun Co. Texaco Lubricants Co.	Pennzgear SHD 32 Syndustrial P Oil 32 Pinnacle 32	Pennzgear SHD 46 Syndustrial P Oil 46	Pennzgear SHD 68 Pinnacle 68	Pennzgear SHD 100 Pinnacle 100	Pennzgear SHD 150 Pinnacle 150

AGMA Viscosity Grade	5S	6S	7S	8S	9S
ISO Viscosity Grade	220	320	460	680	1000
Nameplate Designation	5H	6H	7H	8H	9H
Manufacturer	Lubricant	Lubricant	Lubricant	Lubricant	Lubricant
Chevron U.S.A., Inc. Conoco Inc. Dryden Oil Company Exxon Company, U.S.A. Mobil Oil Corp.	Clarity Synthetic PM Oil 220 Syncon R&O 220 ★ Drydene SHL Lubricant 220 Teresstic SHP 220 SHC 630	... ... Drydene SHL Lubricant 320 Teresstic SHP 320 SHC 632	Syncon R&O 460 ★ ... Drydene SHL Lubricant 460 Teresstic SHP 460 SHC634	... ... Drydene SHL Lubricant 680 Teresstic SHP 680 SHC 636	... ... ... SHC 639
Pennzoil Products Co. Phillips 66 Company Shell Oil Co. Sun Co. Texaco Lubricants Co.	Pennzgear SHD 220 ... Hyperia 220 Sunoco Challenge 220 Pinnacle 220	Pennzgear SHD 320 ... Hyperia 320 Sunoco Challenge 320 Pinnacle 320	Pennzgear SHD 460 ... Hyperia 460 ... Pinnacle 460	Pennzgear SHD 680 Pinnacle 680	... ... ... ... Pinnacle 1000

★ Minimum viscosity index of 120.

TABLE 11 — Oil Change Intervals Based on Operating Temperature

Operating Temperature	Oil Change Intervals (Synthetic Oil)
158°F (70°C) or less	26000 Hours or 3 Years
167°F (75°C)	22000 Hours or 3 Years
176°F (80°C)	15000 Hours or 3 Years
185°F (85°C)	10500 Hours or 3 Years
194°F (90°C)	7500 Hours or 2-1/2 Years
203°F (95°C)	6000 Hours or 2 Years
212°F (100°C)	4500 Hours or 18 Months

OIL ANALYSIS REPORT — Checking oil condition at regular intervals is recommended. In the absence of more specific limits, the guidelines listed below may be used to indicate when to change oil:

1. Water content is greater than 0.05% (500 ppm).
2. Iron content exceeds 150 ppm.
3. Silicon (dust/dirt) exceeds 25 ppm.
4. Calcium content 50PPM above normal lubricant amount.
5. Viscosity changes more than 15%.
6. Oil temperature; drive operating under load.
7. Lubricant type.
8. Operating conditions; shock, loading, etc.
9. Mineral oil content exceeds 10% of oil fill quantity.

TABLE 12—Series UW Oil Grades

DRIVE TYPE	Ratio Range	Input Speed (RPM)	Ambient Temperature Range ‡		
			-22°F to 50°F -30°C to 10°C	14°F to 86°F -10°C to 30°C	68°F to 122°F 20°C to 50°C
Double	8 - 18	0 - 750	6H	6H	8H
		751 - 2000	5H	7H •	7H
		2001 - 3000	4H	6H	6H
Double	20 - 36	0 - 2000	6H	7H •	8H
		2001 - 3000	5H	6H	7H
Triple	All Ratios	0 - 3000	6H	7H •	8H
		630 - 2800	6H	7H	9H
Quadruple	3200 - 16000	0 - 750	6H	7H •	8H
		751 - 3000	6H	7H •	8H
Quintuple	All Ratios	0 - 3000	6H	7H •	9H
		3200 - 16000	6H	7H •	9H

‡ Consult Rexnord representative for other ambient temperatures.

• Indicates standard lubricant and assumed operating conditions unless otherwise specified.

The effective life of an oil is greatly reduced at elevated temperatures. This is most pronounced with oils containing fatty and EP additives. To prevent damage to the drive through lubricant breakdown, the oil should be changed at the intervals shown in Table 11 — Oil Change Intervals. Intervals shown are for oil temperatures when the drive has attained normal running temperature when operating under load. These intervals are based on normal running. Where conditions are

particularly severe, it may be necessary to change the oil more frequently. When changing oil, if the same oil is not used, flush drive and fill with only one type of oil.

The initial oil should be changed in a new drive after 1000 hours of operation or one year or half the above life, whichever occurs first.

Preventive Maintenance

AFTER FIRST WEEK — Check alignment of the total system and realign where necessary. Also, tighten all external bolts and plugs where necessary.

DO NOT readjust the internal gear or bearing settings in the drive, these were permanently set at the Factory.

PERIODICALLY — **Sizes 07 thru 10** Carefully check the oil level of the drive when it is stopped and at ambient temperature, add oil if needed. If the oil level is ABOVE the oil level plug, have the oil analyzed for water content. If moisture content exceeds 500 ppm, change the oil. DO NOT fill above the oil level plug as leakage or undue heating may result. Grease drives with grease lubricated bearings monthly; refer to Table 13 — Typical Greases Recommendations & Specifications. **Sizes 03 thru 10** Check coupling alignment to make certain that foundation settling has not caused excessive misalignment.

Bearing Greases

Some Ultramite drives have one or more grease lubricated bearings. Whenever changing oil in the drive, grease the bearings with one of the greases listed in Table 13 — Typical Greases Recommendations & Specifications. Regrease these bearings as part of the standard maintenance program. Before installing a drive, note the location of all of the bearing grease fittings and grease labels for future maintenance reference. Note that some fittings may be above the oil level line and others below. If a grease fitting will become inaccessible after drive is installed, replace the fitting with a pipe extension (and the fitting) so that the grease fitting will be in an accessible location after the drive is installed.

Always remove the purge plug (when provided) when greasing bearings so that the old grease can escape. Wipe off purged grease and replace the plug after greasing bearings.

Some of the greases listed in Table 13 may contain toxic substances and should not be used in the food processing industry without the grease manufacturers' approval. A grease that meets the USDA "H1" classification is suitable for food processing applications.

Table 13 — Typical Greases Recommendations & Specifications

Manufacturer	Grease ★ †	Allowable Operating Temperature Range	
		Above	To
Applied Chemicals LTD	4020-220-2	32°F (0°C)	248°F (120°C)
BP Oil LTD	LS EP2	-22°F (-30°C)	266°F (130°C)
Chevron/Gulf	Crown EP	-22°F (-30°C)	248°F (120°C)
Century Oils LTD	Lupus A3	-22°F (-30°C)	257°F (125°C)
Esso Petroleum Co. LTD/Exxon	Beacon EP2	-13°F (-25°C)	257°F (125°C)
Kluber Lubrication	Centoplex 2	-4°F (-20°C)	266°F (130°C)
Mobil Oil Co. LTD	Mobilux EP2	-4°F (-20°C)	266°F (130°C)
Shell Oils	Albida R2	-4°F (-20°C)	302°F (150°C)
Texaco LTD	Multifax EP2	32°F (0°C)	248°F (120°C)

★ Greases are suitable for use with lubricant oil Types M, A and H. Type G lubricant is also suitable, however, the oil must be changed when the amount of grease re-lubrication exceeds 10% of the drives oil fill quantity.

† Consult Rexnord Application Engineering Department if:

1. Drive has grease lubricated bearings and Type G oil is to be used.
2. Drive operates in ambient temperatures outside of range -22°F to 122°F (-30°C to 50°C).

Stored & Inactive Drives

Each drive is protected with rust preventive that will protect parts against rust for a period of 6 months in an indoor dry shelter.

Sizes 05 thru 10— If a drive is to be stored, or is inactive after installation beyond the above periods, drain oil from housing and spray all internal parts with a rust preventive oil that is soluble in lubricating oil or add "Motorstor™" vapor phase rust inhibitor at the rate of one ounce per cubic foot of internal drive space (or 5% of sump capacity) and rotate the shafts several times by hand. Before operating, drives which have been stored or inactive must be filled to the proper level with oil meeting the specifications given in this manual. Refer to Manual 128-014 for "Start-up after Storage" instructions.

Periodically inspect stored or inactive drives and spray or add rust inhibitor every six months, or more often if necessary. Indoor dry storage is recommended.

Drives ordered for extended storage can be treated at the Factory with a special preservative and sealed to rust-proof parts for periods longer than those cited previously.

Material Safety Data

Drives with nameplate designation 7H are filled with Mobil SHC 634. Material safety data sheets for this product are available directly from Mobil Oil Corporation at:

Products & Technology Department
 3225 Gallows Road
 Fairfax, VA 22037
 Phone: (800) 662-4525 or
 Phone: (703) 849-3265

For material safety data sheets pertaining to other products used in the manufacture of the Falk Ultramite, contact:

Rexnord Industries, LLC
 Customer Service Department
 3001 W. Canal Street
 Milwaukee, WI 53208-4200
 Phone: (414) 342-3131