



Falk® Lifelign® Double & Single Engagement Gear Couplings, Sizes 1010 thru 1070G & GP, & 1 thru 7GF, Installation & Maintenance

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FORM
458-110E
Revised
September 2022

⚠ DANGER Indicates a hazard which, if not avoided, will result in serious injury or death.

⚠ WARNING Indicates a hazard which, if not avoided, could result in serious injury or death.

⚠ CAUTION Indicates a hazard which, if not avoided, could result in minor or moderate personal injury.

NOTICE Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

GENERAL SAFETY INSTRUCTIONS

⚠ WARNING

- Read and understand the information in this section and in this manual completely before installing, operating or maintaining this equipment. Failure to follow this instruction could result in severe injury or death.
- Disconnect and lock out power before installation and maintenance. Working on or near energized equipment can result in severe injury.
- Do not operate equipment without guards in place. Exposed equipment can result in severe injury or death.

⚠ CAUTION

- Perform periodic inspections. Equipment may fail prematurely and could become unsafe if not properly inspected and maintained. Failure to follow this instruction could result in mild or moderate personal injury.

HOW TO USE THIS MANUAL

This manual provides detailed instructions on installation, maintenance, and parts identification for Falk Lifelign gear couplings, Types G & GF10, 20, 31, 32, 51, 52, & GP20 & GP52. Use the table of contents below to locate required information.

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CAUTION! Carefully follow the instructions in this manual for optimum performance and trouble free service.

INTRODUCTION

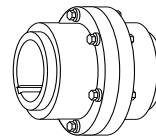
This manual applies to standard coupling Types G & GF10, 31 and 51 with shrouded bolts, and G & GF20, 32, 52, and GP20 & GP52 with exposed bolts. For couplings furnished with special features, refer to assembly drawing furnished with coupling for proper assembly arrangement and any additional installation or maintenance requirements. Refer to the specific manuals for GV vertical gear couplings installation and maintenance.

IMPORTANT: Use G/GF51 & 52 couplings for floating shaft assemblies or as the fourth bearing in three bearing systems. When gear couplings are mounted on a horizontal floating shaft, use a gap disc in each coupling. Where limited end float is required or where sleeve bearing motors are used, consult the Factory. Type GP52 couplings are recommended for horizontal application only. Refer Type GP52 floating shaft applications to the Factory.

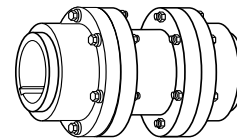
WARNING! Lockout starting switch of prime mover and remove all external loads from drive before installing or servicing couplings.

CAUTION! Consult applicable local and national safety codes for proper guarding of rotating members. Observe all safety rules when installing or servicing couplings.

Type G/GP/GF20



Type G/GF32



Type G/GP/GF52

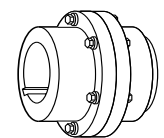


Figure 1 — 1000G Series

LUBE FITTINGS

Sleeves have 1/8" NPT lube holes for sizes 1010G20 - 1035G20, 1GF20 - 7GF20, 1025G10 - 1035G10, and 2 1/2 GF10 - 5 GF10. (Sizes 1010G10 - 1020G10 and 1GF10 - 2GF10 use 1/4"-28 SAE LT automotive plugs and fittings. Sizes 1040G thru 1070G have 1/4" NPT holes. Use a standard grease gun and lube fittings.

LIMITED END FLOAT

Where limited end float is required or where sleeve bearing motors are used, consult the Factory.

LUBRICATION

Adequate lubrication is essential for satisfactory operation. Because of its superior lubricating characteristics and low centrifuge properties, Falk Long Term Grease (LTG) is highly recommended.

Gear couplings initially lubricated with Falk Long Term Grease (LTG) will not require re-lubrication for up to three years.

The use of general purpose grease requires re-lubrication of the coupling at least once every six months. If coupling leaks grease, is exposed to extreme temperatures, excessive moisture, experiences frequent reversals or axial movements; more frequent lubrication may be required.

USDA Approval

LTG has the United States Department of Agriculture Food Safety & Inspection Service approval for applications where there is no possibility of contact with edible products. (H-2 ratings.)

Long Term Grease (LTG)

The high centrifugal forces encountered in couplings separate the base oil and thickener of general purpose greases. Heavy thickener, which has no lubrication qualities, accumulates in the tooth mesh area of gear couplings resulting in premature mesh failure unless periodic lubrication cycles are maintained.

Falk® Long Term Grease (LTG) was developed specifically for couplings. It resists separation of the oil and thickener. The consistency of Falk LTG changes with operating conditions. As manufactured, it is an NLGI #1/2 grade. Working of the lubricant under actual service conditions causes it to become semifluid, while the grease near the seals will set to a heavier grade, helping to prevent leakage.

LTG is highly resistant to separation, easily out performing all other lubricants tested. The resistance to separation allows the lubricant to be used for relatively long periods of time.

Although LTG grease is compatible with most other coupling greases, the mixing of greases may dilute the benefits of LTG.

NOTICE: Do not use LTG in bearings. Do not use LTG for low speed applications. Refer to **Table 4**, Page 6 for coupling speed range of LTG grease.

Packaging

14 oz. (0.4 Kg) CARTRIDGES — Individual or case lots of 10 or 30.
35 lb. (16 Kg) PAILS, 120 lb. (54 Kg) KEG & 400 lb. DRUMS.

Specifications — Falk LTG (Long Term Grease)

TEMPERATURE RANGE — -20°F (-29°C) to 250°F (121°C). Minimum pump = 20°F (-7°C).

MINIMUM BASE OIL VISCOSITY — 3300SSU (715cSt) @ 100°F (38°C).

THICKENER — Lithium soap/polymer.

CENTRIFUGE SEPARATION CHARACTERISTICS — ASTM #D4425-84 (Centrifuge Test) — K36 = 2/24 max., very high resistance to centrifuging.

NLGI GRADE (ASTM D-217) — 1/2

CONSISTENCY (ASTM D-217) — 60 stroke worked penetration value in the range of 315 to 360 measured @ 77°F (25°C).

DROPPING POINT — 350°F (177°C) minimum.

MINIMUM TIMKEN EP O.K. LOAD — 40 lb. (18 kg).

ADDITIVES — Rust and oxidation inhibitors that do not corrode steel or swell or deteriorate synthetic seals.

GENERAL PURPOSE GREASE

Bi-annual Lubrication — The following specifications and lubricants for general purpose grease apply to gear couplings that are lubricated bi-annually and operate within ambient temperatures of -30°F (-34°C) to 200°F (93°C). For temperatures beyond this range, consult the Factory. For normal service, use a NLGI #1 extreme pressure (EP) grease EXCEPT when the coupling speed is less than the minimum specified in **Table 4**. At these lower speeds, use a NLGI #0 extreme pressure (EP) grease. When one or more gear couplings in an application require NLGI #0 grease, the same grease may be used in all of the couplings.

NOTICE: DO NOT use cup grease.

If coupling leaks grease, is exposed to extreme temperatures, excessive moisture or experiences frequent reversals or axial movements; more frequent lubrication may be required.

Lubricants listed in **Tables 1, 2 & 3** are typical products only and should not be construed as exclusive recommendations.

Specifications — General Purpose Coupling Lubricants

COUPLING SPEED RANGE — See **Table 4**.

TEMPERATURE RANGE — -30°F to +200°F (-34°C to +93°C)

WORKED PENETRATION AT 77°F (25°C) —

NLGI #1 310-340 (**See Table 1**)
NLGI #0 355-385 (**See Table 2**)

DROPPING POINT — 300°F (149°C) or higher

TEXTURE — Smooth or fibrous

MINIMUM TIMKEN O.K. LOAD — 30 lb.

SEPARATION AND RESISTANCE — Low oil separation rate and high resistance to separation from centrifuging.

LIQUID CONSTITUENT — Possess good lubricating properties . . . equivalent to a high quality, well refined petroleum oil with EP additives.

INACTIVE — Must not corrode steel or cause swelling or deterioration of synthetic seals.

Oil Lubrication

TABLE 1 — NLGI #1 Grease

Manufacturer	Lubricant ★
Amoco® Oil Co.	Rykon® Grease #1 EP
BP® Oil Co.	Energrease LS-EP1
Chevron® U.S.A., Inc.	Dura-Lith EP1
Citgo® Petroleum Corp	Premium Lithium Grease EP1
Conoco® Inc.	EP Conolith Grease #1
Exxon® Company, U.S.A..	Lidok EP1
Imperial Oil Ltd.	Ronex® EP1
Kendall® Refining Co.	Lithium Grease L-416
Keystone Div., Pennwalt Corp.	Zeniplex®-1
Lyondell Lubricants	Litholine Complex EP1
Mobil® Oil Corp.	Mobilux® EP1
Petro-Canada® Products	Multipurpose EP1
Phillips 66® Co.	Philube® Blue EP
Shell® Oil Co.	Alvania® EP Grease 1
Shell Canada Ltd.	Alvania Grease EP1
Sun Oil® Co.	Sun Prestige 741 EP
Texaco® Lubricants	Multifak® EP1
Unocal 76® (East & West)	Unoba® EP1

TABLE 2 — NLGI #0 EP Grease

Manufacturer	Lubricant ★
Amoco Oil Co.	Rykon Premium Grease 0 EP
BP Oil Co.	Energrease LS-EP 0
Chevron U.S.A., Inc.	Dura-Lith EP 0
Citgo Petroleum Corp	Premium Lithium Grease EP 0
Conoco Inc.	EP Conolith Grease #0
Imperial Oil Ltd.	Unirex® EPO
Exxon Company, U.S.A..	Lidok EP 0
Kendall Refining Co.	Lithium Grease L-406
Keystone Div., Pennwalt Corp.	Zeniplex-0
Mobil Oil Corp..	Mobilux EP 0
Petro-Canada Products	Multipurpose Lotemp EP Grease
Phillips 66 Co.	Philube Blue EP
Shell Oil Co.	Alvania EP Grease RO
Shell Canada Ltd.	Alvania Grease EPW
Sun Oil Co.	Sun Prestige 740 EP
Texaco Lubricants	Multifak EP 0
Unocal 76 (East & West)	Unoba EP 0

TABLE 3 — Oil Lubricants

Manufacturer	Lubricant ★
Amoco	Permagear EP 160
Chevron, U.S.A.	NL Gear Compound 680
Exxon Co., U.S.A.	Spartan® EP680
Gulf Oil Co.	EP Lubricant HD 680
Mobil Oil Co.	Mobilgear® 636
Shell Oil Co.	Omala® Oil 680
Texaco Inc.	Meropa® 680
Union Oil Co. of Calif.	Extra Duty NL Gear Lube 8EP

★ Lubricants listed may not be suitable for use in the food processing industry; check with lube manufacturer for approved lubricants.

* This trademark or trade name is owned or controlled by a third party and is not owned or controlled by Regal Rexnord Corporation or its affiliates.

FALK®

TABLE 4 — Installation & Alignment Data For Types G/GF10, 20, 31, 32, 51, 52 & GP20 & GP52★ — Dimensions – Inches (Metric – mm)

COUPLING SIZE			1010G 1GF	1015G 1-½GF	1020G 2GF	1025G 2-½GF	1030G 3GF	1035G 3-½GF	1040G 4GF	1045G 4-½GF	1050G 5GF	1055G 5-½GF	1060G 6GF	1070G 7GF	
Gap	G/GF10 & 20		.125 (3)	.125 (3)	.125 (3)	.188 (5)	.188 (5)	.250 (6)	.250 (6)	.312 (8)	.312 (8)	.312 (8)	.312 (8)	.375 (10)	
	GP20		...	...	...	.325 (8)	.325 (8)	.385 (10)	.385 (10)	.450 (11)	.450 (11)	.450 (11)	.450 (11)	.510 (13)
	G/GF51 & 52		.156 (4)	.156 (4)	.156 (4)	.188 (5)	.188 (5)	.218 (6)	.281 (7)	.312 (8)	.344 (9)	.344 (9)	.344 (9)	.406 (10)	.500 (13)
	GP52	325 (8)	.325 (8)	.350 (9)	.420 (11)	.450 (11)	.480 (12)	.480 (12)	.480 (12)	.540 (14)	.635 (16)
"X" Dimension	G/GF51 & 52		.056 (1)	.056 (1)	.056 (1)	.088 (2)	.088 (2)	.118 (3)	.121 (3)	.152 (4)	.144 (4)	.144 (4)	.146 (4)	.170 (4)	
	GP52		...	...	...	.215 (5)	.215 (5)	.245 (6)	.246 (6)	.280 (7)	.270 (7)	.270 (7)	.270 (7)	.295 (8)
Installation Limits	G/GF10, 20, 31, 32, 51 & 52 & GP20 & GP52		Angular	.006 (0,15)	.007 (0,19)	.009 (0,23)	.011 (0,28)	.013 (0,33)	.015 (0,39)	.018 (0,46)	.020 (0,51)	.022 (0,55)	.024 (0,61)	.026 (0,66)	.031 (0,78)
	G/GF10 & 20 & GP20		Offset	.002 (0,05)	.003 (0,07)	.003 (0,8)	.004 (0,10)	.005 (0,13)	.006 (0,15)	.007 (0,18)	.008 (0,20)	.009 (0,23)	.010 (0,26)	.011 (0,28)	.013 (0,33)
	G/GF51 & 52 & GP52		Offset	.001 (0,03)	.001 (0,03)	.001 (0,03)	.002 (0,04)	.002 (0,05)	.002 (0,05)	.003 (0,06)	.003 (0,08)	.003 (0,08)	.003 (0,08)	.004 (0,10)	.005 (0,11)
	G/GF31 & 32		Offset	.006 (0,14)	.006 (0,16)	.007 (0,17)	.008 (0,20)	.009 (0,23)	.011 (0,28)	.012 (0,30)	.013 (0,32)	.015 (0,38)	.016 (0,41)	.017 (0,43)	.017 (0,44)
"W"	Installation Check		All Types	.006 (0,15)	.007 (0,19)	.009 (0,23)	.011 (0,28)	.013 (0,33)	.015 (0,39)	.018 (0,46)	.020 (0,51)	.022 (0,55)	.024 (0,61)	.026 (0,66)	.031 (0,78)
	Operating Limit Check		All Types	.035 (0,90)	.045 (1,13)	.054 (1,38)	.067 (1,71)	.079 (2,00)	.092 (2,33)	.108 (2,74)	.121 (3,08)	.131 (3,33)	.144 (3,66)	.157 (3,99)	.183 (4,66)
Coupling Speed Range (rpm)	G10, 20, 51, 52 & GP20 & GP52	NLGI #0 Grease-Max †		7000	6000	5000	4750	4400	3900	3600	3200	2900	2650	2450	2150
		Falk® LTG or NLGI #1 Grease	Min	1030	700	550	460	380	330	290	250	230	210	190	160
			Allow.	8000	6500	5600	5000	4400	3900	3600	3200	2900	2650	2450	2150
	G31 & 32	NLGI #0 Grease-Max †		7000	5500	4600	4000	3600	3100	2800	2600	2400	2200	2100	1800
		Falk LTG NLGI #1 Grease	Min	1030	700	550	460	380	330	290	250	230	210	190	160
			Allow.	7000	5500	4600	4000	3600	3100	2800	2600	2400	2200	2100	1800
Grease pounds(kg)	G10 & 20		.09 (0,041)	.16 (0,073)	.25 (0,11)	.50 (0,23)	.80 (0,36)	1.20 (0,54)	2.00 (0,91)	2.30 (1,0)	3.90 (1,8)	4.90 (2,2)	7.00 (3,2)	9.60 (4,4)	
	G51 & 52		.05 (0,023)	.09 (0,041)	.15 (0,068)	.26 (0,12)	.40 (0,18)	.60 (0,27)	1.03 (0,47)	1.25 (0,57)	2.00 (0,91)	2.50 (1,1)	3.75 (1,7)	5.00 (2,3)	
	G31 & 32 per in. Spacer Length		...	...	.03 (0,014)	.06 (0,027)	.06 (0,027)	.12 (0,054)	.20 (0,091)	.20 (0,091)	.20 (0,091)	.20 (0,091)	.20 (0,091)	.20 (0,091)
	G31 & 32 Less Spacer		.09 (0,041)	.16 (0,073)	.25 (0,11)	.50 (0,23)	.80 (0,36)	1.20 (0,54)	2.00 (0,91)	2.30 (1,0)	3.90 (1,8)	4.90 (2,2)	7.00 (3,2)	9.60 (4,4)	
	GF10 & 20		.09 (0,039)	.15 (0,068)	.27 (0,12)	.47 (0,21)	.74 (0,33)	.88 (0,40)	1.48 (0,67)	2.62 (1,2)	2.87 (1,3)	4.44 (2,0)	4.95 (2,2)	6.79 (3,1)	
	GP20		...	...	...	.50 (0,227)	.80 (0,363)	1.20 (0,544)	2.00 (0,907)	2.30 (1,04)	3.90 (1,77)	4.90 (2,22)	7.00 (3,18)	9.60 (4,35)
	GF51 & 52		.06 (0,025)	.09 (0,042)	.15 (0,070)	.27 (0,12)	.41 (0,19)	.50 (0,23)	.87 (0,40)	1.46 (0,66)	1.66 (0,75)	2.47 (1,1)	2.93 (1,3)	4.27 (1,9)	
	GP52		...	...	...	.26 (0,118)	.40 (0,181)	.60 (0,272)	1.03 (0,467)	1.25 (0,567)	2.00 (0,907)	2.50 (1,13)	3.75 (1,70)	5.00 (2,27)
	GF31 & 32 per in. Spacer Length		.06 (0,027)	.07 (0,032)	.07 (0,032)	.08 (0,037)	.02 (0,009)	.16 (0,072)	.21 (0,095)	.12 (0,053)	.13 (0,059)	.14 (0,065)	.14 (0,065)	.71 (0,322)	.91 (0,413)
	GF31 & 32 Less Spacer		.09 (0,039)	.15 (0,068)	.27 (0,12)	.47 (0,21)	.74 (0,33)	.88 (0,40)	1.48 (0,67)	2.62 (10,2)	2.87 (1,3)	4.44 (2,0)	4.95 (2,2)	6.97 (3,2)	
Flange Bolt Torque lb-in (Nm)	G/GF10, 31 & 51		108 (12)	372 (42)	372 (42)	900 (102)	900 (102)	1800 (203)	1800 (203)	1800 (203)	3000 (339)	3000 (339)	...	...
	G/GF20, 32 & 52		108 (12)	372 (42)	900 (102)	1800 (203)	1800 (203)	3000 (339)	3000 (339)	3000 (339)	3000 (339)	3000 (339)	3000 (339)	3000 (339)	
	GP20 & GP52		...	...	...	420 (47,5)	420 (47,5)	840 (94,9)	840 (94,9)	840 (94,9)	1440 (162,7)	1440 (162,7)	1440 (162,7)	1800 (203,4)

★ Refer to Selection Guide for maximum bores and **Manual 427-108** for re boring instructions.

† Flexible couplings are designed to accommodate changes in operating conditions. Coupling life expectancy between initial alignment and maximum operating limits is a function of load, speed and lubrication. Application requirements in excess of 3/4° misalignment per flex half coupling should be referred to the Factory for review.

‡ Couplings with NLGI #0 grease may be operated at any speed between zero and the maximum shown.



EP oils may be a more effective lubricant than grease when the required coupling speed is one half of the minimum speed range of NLGI #1 grease listed in **Table 4**, Page 3 (Minimum rpm ≥ 2). Oil lubricated couplings must be sealed to prevent leakage, i.e. keyways, etc. Couplings must be drained and refilled with new oil every six months for operating temperatures up to 160°F (71°C) and every three months for couplings operating at temperatures of 160°F (71°C) up to 200°F (93°C).

For temperatures beyond this range, consult Factory. The minimum operating temperature must not be lower than the pour point of the oil. The specified amount of grease listed in **Table 4**, is in pounds and also applies to the volume of oil in pints.

Specifications

Type: Mild EP gear oil that meets AGMA Specifications 250.04.

Grade: AGMA #8EP (ISO VG 680).

Viscosity: 612-748 cSt @ 104°F (40°C).

Pour Point: 20°F (-7°C) Maximum.

Must not corrode steel or swell or deteriorate synthetic seals.

HORIZONTAL COUPLING INSTALLATION, ALL TYPES

Only standard mechanics tools, torque wrenches, inside micrometer, dial indicator, straight edge, spacer bar, and feeler gauges are required to install gear couplings. Clean all parts using a non-flammable solvent. Check hubs, shafts, and keyways for burrs. DO NOT heat clearance fit hubs. Use a lubricant that meets the specifications on Page 2. Pack sleeve teeth with grease and lightly coat seals with grease BEFORE assembly. The required amount of grease is listed in **Table 4**. Make certain flange fasteners are tightened to the required torque listed in **Table 4**.

Interference Fit Hubs — Unless otherwise specified, gear couplings are furnished for an interference fit without setscrews. Heat hubs to 275°F(135°C) using an oven, torch, induction heater, or an oil bath.

NOTICE: To prevent seal damage DO NOT heat hubs beyond a maximum temperature of 400°F (205°C) for Type G and 500°F (260°C) for Type GF.

When an oxy-acetylene or blow torch is used, use an excess acetylene mixture. Mark hubs near the center of their length in several places on hub body with a temperature sensitive crayon, 275°F (135°C) melt temperature. Direct flame towards hub bore using constant motion to avoid overheating an area.

WARNING! If an oil bath is used, the oil must have a flash point of 350°F (177°C) or higher. Do not rest hubs on the bottom of the container. Do not use an open flame in a combustible atmosphere or near combustible materials.

Maximize Performance & Life

The performance and life of couplings depend largely upon how you install and maintain them. Before installing couplings, make certain that foundations of equipment to be connected meet manufacturers' requirements. Check for soft foot. The use of stainless steel shims is recommended. Measuring misalignment and positioning equipment within alignment tolerances is simplified with an alignment computer. These calculations can also be done graphically or mathematically, and allow the incorporation of "cold offsets," which will compensate for shaft position changes due to thermal growth.

Balanced Couplings

The fasteners provided are matched sets and must not be mixed or substituted. Assembly balanced couplings are match marked and must be assembled with mating match marks aligned. In some sizes, the flanges are not match marked. Coupling flanges must be assembled with O.D.'s aligned to within .002" (0,05 mm). Component parts of assembly balanced couplings must not be replaced without re-balancing the complete assembly.

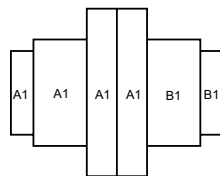


Figure 2

BI-ANNUAL MAINTENANCE

Re-lubricate coupling if using general purpose grease. If coupling leaks grease, is exposed to extreme temperatures, excessive moisture or frequent reversals; more frequent lubrication may be required.

ANNUAL MAINTENANCE

For extreme or unusual operating conditions, check coupling more frequently.

1. Check alignment per **Step 7**, Page 6. If the maximum operating misalignment values are exceeded, realign the coupling to the recommended installation values. See **Table 4**, for installation and maximum operating misalignment values.
2. Check tightening torques of all fasteners.
3. Inspect seal ring and gasket to determine if replacement is required.
4. Re-lubricate coupling if using general purpose grease.

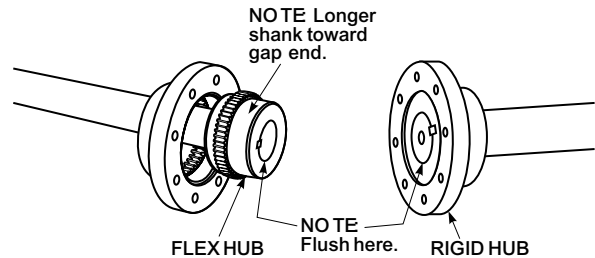


Figure 3

ALL TYPES G/GF/GP HORIZONTAL COUPLING INSTALLATION

1.0 Mount Flanged Sleeves, Seals & Hubs

Place the flanged sleeves WITH seal rings on shafts BEFORE mounting flex hubs. Mount flex or rigid hubs on their respective shafts, as shown above, so that each face is flush with the end of its shaft. Allow hubs to cool before proceeding. Seal keyways to prevent leakage. Insert setscrews (if required) and tighten. Position equipment in approximate alignment with approximate hub gap.

For Type G/GF10 & 20 and GP20, position equipment in approximate alignment with gap equal to that given in **Table 4**.

For Type G/GF31 & 32 spacer and G/GF/GP51 & 52 floating shaft, with rigid hubs on floating shaft, position equipment in approximate alignment with approximate distance between shafts per **Step 4.1**, **Figure 11** on Page 5.

For G/GF/GP51 & 52 with flex hubs on the floating shaft, refer to **Step 4.1**, **Figure 10** on Page 5, to determine distance between shafts.

2.0 Gap & Angular Alignment for Close Coupled, Spacer, Short Floating Shaft, and Insulated Couplings

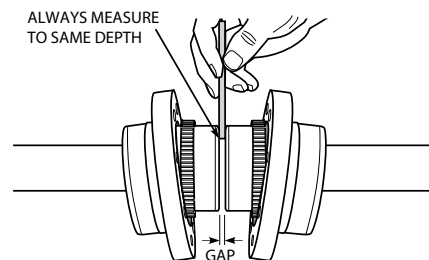


Figure 4

2.1 Type G/GF10 & 20 & GP20

Use a spacer bar equal in thickness to gap specified in **Table 4**. Insert bar, as shown above, to same depth at 90° intervals and measure clearance between bar and hub face with feelers. The difference in minimum and maximum measurements must not exceed the INSTALLATION ANGULAR limit specified in **Table 4**.

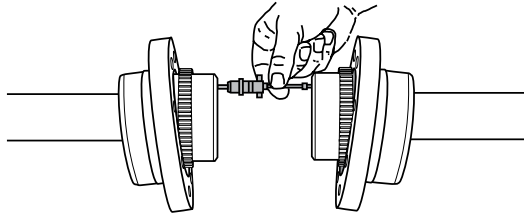


Figure 5

2.2 G/GF31 & 32 (Spacer), and Type G/GF51 & 52 (Short Floating Shaft, See Step 4 for Long Floating Shaft)

Use an inside micrometer as shown above and at 90° intervals to measure the distance between hubs. The difference in minimum and maximum measurements should not exceed the INSTALLATION ANGULAR limit specified in **Table 4**.

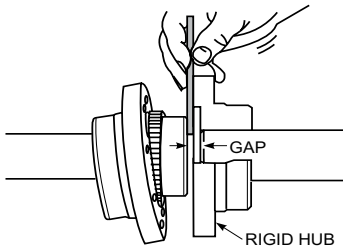


Figure 6

2.3 G/GF51 & 52 & GP52 (As Fourth Bearing in Three Bearing System)

Use a spacer bar equal in thickness to the "X" dimension specified in **Table 4**. Insert bar, as shown above to same depth at 90° intervals and measure clearance between bar and hub face with feelers. The difference in minimum and maximum measurements must not exceed the INSTALLATION ANGULAR limit specified in **Table 4**.

3.0 Offset Alignment for Close Coupled, Spacer, Short Floating Shaft, and Insulated Coupling

3.1 Type G/GF10 & 20 & GP20

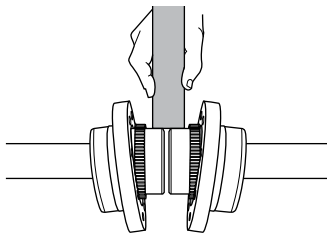


Figure 7

Align so that a straight edge rests squarely on both hubs as shown above and also at 90° intervals. Check with feelers. The clearance should not exceed the INSTALLATION OFFSET limit specified in **Table 4**. Tighten foundation bolts and repeat Steps 2.1 and 3.1. Realign coupling if necessary. Use a dial indicator if hub extension is too short for accurate use of a straight edge.

3.2 Type G/GF31 & 32 (Spacer), and Type G/GF51 & 52 (Short Floating Shaft, See Step 4 for Long Floating Shaft)

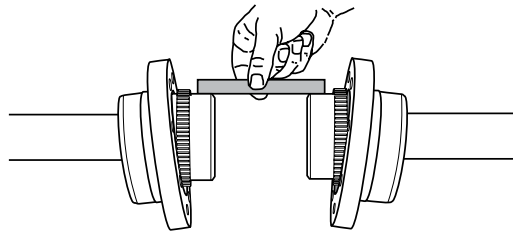


Figure 8

Align so that a straight edge rests squarely (or within the limits specified in **Table 4**) on both hubs as shown above and also at 90° intervals. Check with feelers. The clearance should not exceed the INSTALLATION OFFSET limit specified. Tighten all foundation bolts and repeat Steps 2.2 and 3.2. Realign coupling if necessary.

3.3 Type G/GF51 & 52 & GP52 (As Fourth Bearing in Three Bearing System)

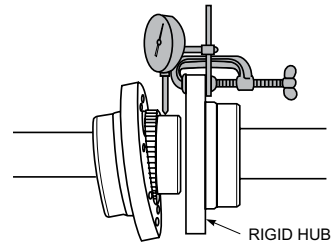


Figure 9

Clamp a dial indicator to the rigid hub as shown and rotate the rigid hub one complete turn. The total indicator reading DIVIDED by two must not exceed the INSTALLATION OFFSET limit specified in **Table 4**. Tighten all foundation bolts and repeat Steps 2.3 and 3.3. Realign coupling if necessary.

4.0 Type G/GF/GP51 & 52 With Long Floating Shaft

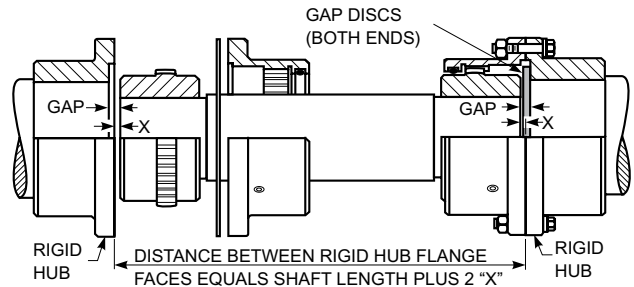


Figure 10

4.1 Determine Distance Between Shafts

For Figure 10, measure the length of the floating shaft and add 2 times the gap dimension from **Table 4** to get the distance between the shafts to be coupled.

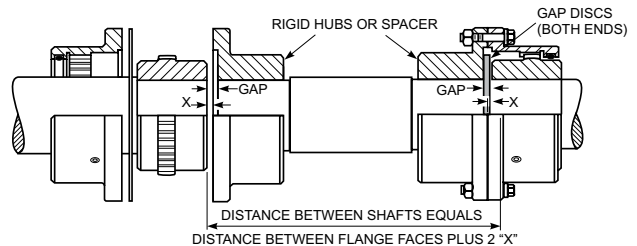


Figure 11

For Figure 11 above, measure the overall floating shaft or spacer assembly length from flange to flange and add 2 times the "X" dimension from **Table 4** to get the distance between the shafts to be coupled.

4.2 Position First Drive & Floating Shaft

Set the drive most difficult to move to true level and bolt it in place. Set the floating shaft on V-blocks. Then align coupling on fixed drive as follows:

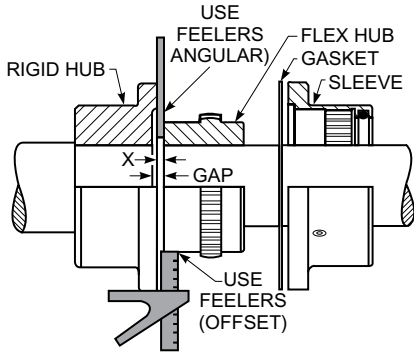


Figure 12

4.2.1 Refer to Figure 12

Use a spacer bar equal in thickness to the “X” dimension specified in **Table 4**. Insert the bar to the same depth at 90° intervals and measure the clearance between the bar and hub face with feelers as shown. The difference in minimum and maximum measurements should not exceed the INSTALLATION ANGULAR limit specified in **Table 4**.

4.2.2 Refer to Figure 12

Align coupling & floating shaft so that, with the square head (or depth micrometer) resting squarely on the flange, equal clearance measurements are obtained between flange and the hub O.D. in four places 90° apart. The difference between minimum and maximum feeler readings should not exceed the INSTALLATION OFFSET limit in **Table 4** divided by 2. The above measurement is TIR.

4.3 Position Second Drive

Position second drive for the correct “X” dimension and align per Steps 4B1 & 4B2. DO NOT move the floating shaft. Bolt drive in place and recheck alignment and gap. Realign if necessary. For greater accuracy, check alignment with a depth micrometer or dial indicator.

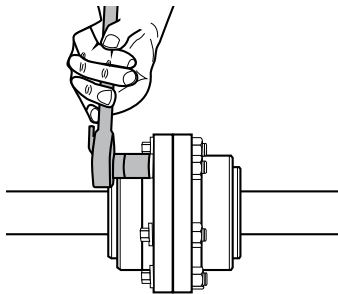


Figure 13

5.0 Assemble Coupling — G and GF Only

Insert gasket between flanges and gap disc into counterbore of each rigid hub for floating shaft assemblies and bolt flanges together. Use only the fasteners furnished with the coupling.

NOTICE: Tighten fasteners to torque specified in **Table 4**.

5.1 Assemble Coupling – Insert Insulator Parts and Join Flanged Sleeves (GP20 & GP52)

Clean flange faces and coat with Permatex #2 or equivalent. DO NOT install gaskets. Insert insulator bushings into flanged holes. Draw one sleeve onto hub and position insulator center plate on flange face. Draw other sleeve onto hub and assemble fasteners with insulator washers. Use only fasteners furnished with coupling.

NOTICE: Tighten fasteners to torque specified in **Table 4**.

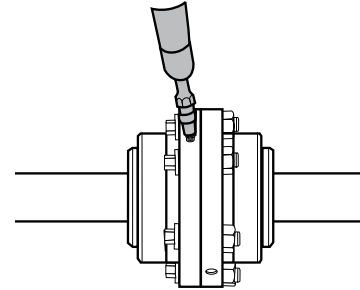


Figure 14

6.0 Lubricate

Remove all grease plugs and fill with recommended grease until an excess appears at an open hole; then insert plug. Continue procedure until all plugs have been inserted.

NOTICE: Remove grease fitting and make certain all plugs are inserted after lubricating.

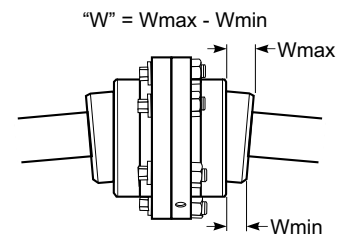
7.0 Assembled Coupling Alignment Check – All Styles

The alignment can be checked without disassembling the coupling as shown at left. Determine “W” by measuring distances “W” max. and “W” min. between flex hub and sleeve using a depth micrometer or feeler gauges. The difference between “W” max. and “W” min. must not exceed the “W” value given in Table 4. Check “W” at each coupling end.

PARTS IDENTIFICATION AND PART NUMBER LOCATION

Coupling parts have identifying size and part numbers as illustrated below. When ordering parts, always SPECIFY SIZE, TYPE, HUB BORE, KEYWAY, and PART NUMBER found on each item.

Contact your Regal Rexnord™ Distributor or Regal Rexnord for price and availability.



Check “W” at each flexible hub.

Figure 15

EXAMPLE:

Complete 1050G20 Gear Coupling

Consisting of:

2 – 1050G20 Sleeves (Includes: Gasket & Seal)

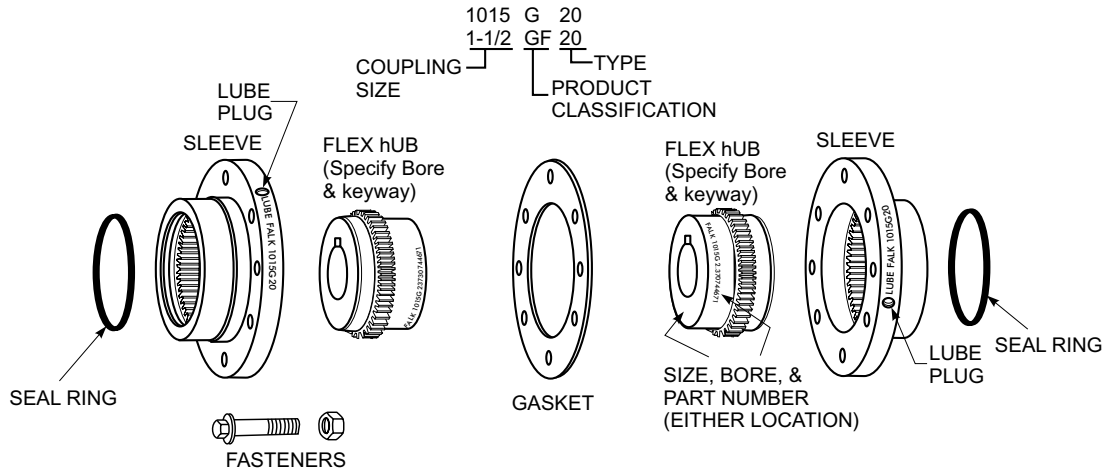
2 – 1050G Flex Hubs

Bore: 6.750 Keyway: 1.750 x .750

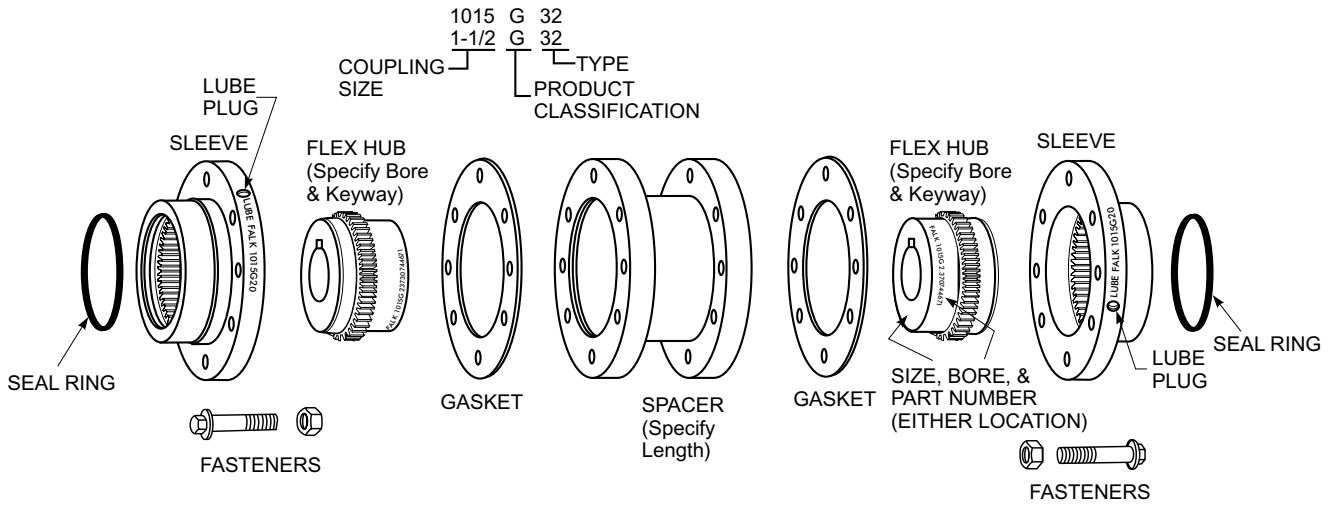
Bore: 7.375 Keyway: 1.750 x .750

1 – Fastener Set

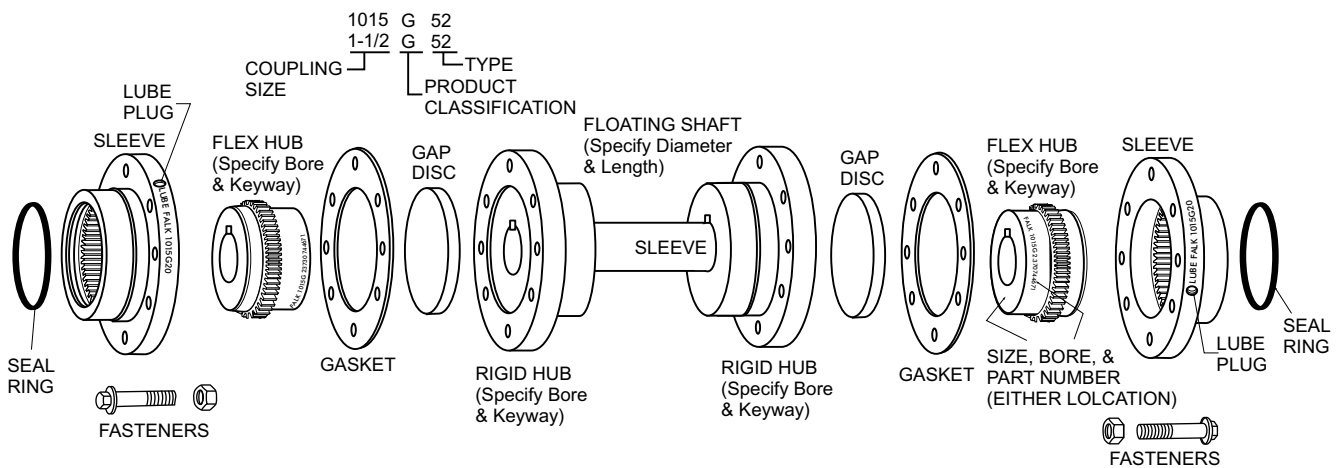
TYPE G/GF10 & 20



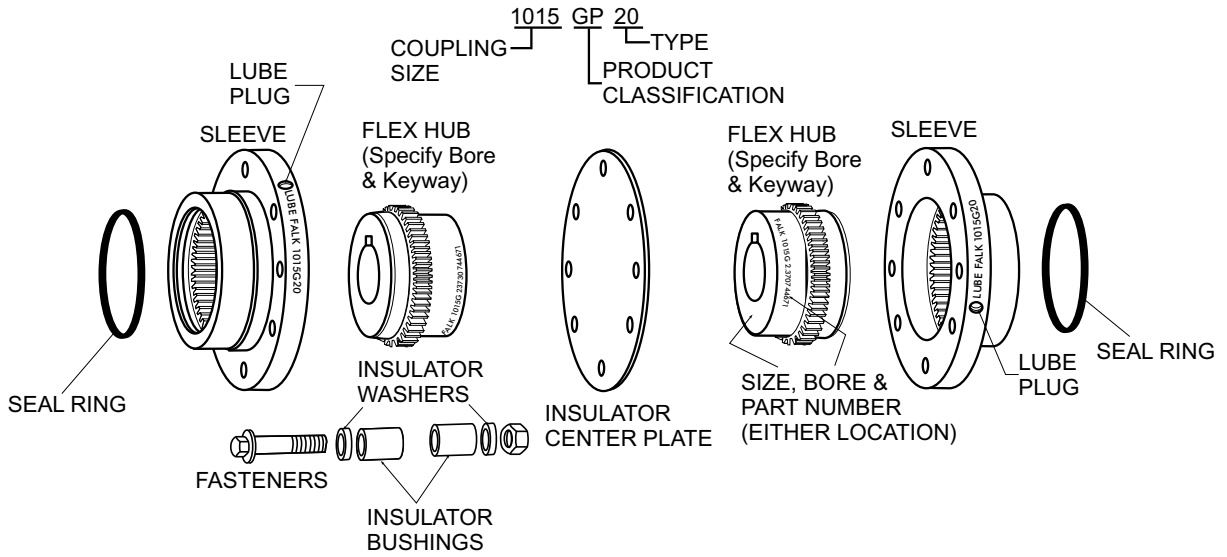
TYPE G/GF31 & 32



TYPE G/GF51 & 52



TYPE GP20



TYPE GP52

