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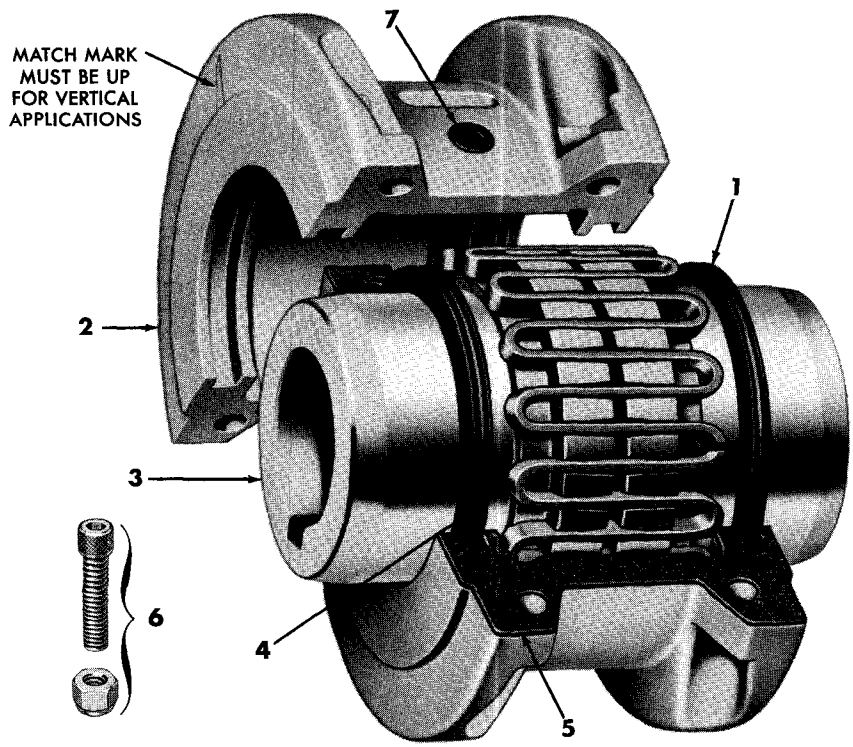
MILWAUKEE

TYPE T10 STEELFLEX COUPLING PARTS



PART NUMBERS

1. Seal (T10)
2. Cover (T10)
3. Hub (Specify bore and keyway)
4. Grid
5. Gasket (T10)
6. Fasteners (T10)
7. Lube Plug

WHEN ORDERING SPARE PARTS, SPECIFY COUPLING **SIZE** AND **TYPE** AS SHOWN ON COUPLING COVER

INTRODUCTION— This manual applies to Sizes 20 thru 140 T10 Falk Steelflex Tapered Grid Couplings. They are designed to operate in either the horizontal or vertical position without modification. However, for vertical applications, the match mark shown above, must be up. The performance and life of the couplings depend largely upon how you install and service them. Carefully follow the instructions in this manual for optimum performance and trouble free service.

PARTS IDENTIFICATION — All coupling parts have identifying part numbers as shown above. Parts 3 and 4 (Hubs and Grids), are the same for both T10 and T20 couplings; all other coupling parts are NOT INTERCHANGEABLE. Therefore, when ordering parts, always SPECIFY SIZE and TYPE shown on the COVER. Sizes 80 and 90T10 covers have been manufactured with two and three ribs; DO NOT mix these cover halves. Gaskets fit both designs, but remove the center tab when gaskets are used with two-rib covers.

LUBE FITTINGS — Cover halves have ⅛ NPT lube holes. Use a standard grease gun and lube fitting as instructed in Step 6 on Page 2.

LIMITED END FLOAT— When electric motors are fitted with sleeve bearings, limited axial end float couplings should normally be employed to protect motor bearings. Falk Steelflex couplings are easily modified to limit end float; refer to Manual 428-820 for instructions.

LUBRICATION — Adequate lubrication is essential for proper operation of the coupling. Refer to Table 1 on Page 2 for the amount of lubricant required. It is recommended that the coupling be checked once a year and lubricant added if required. For extreme or unusual operating conditions, check more frequently.

CAUTION: Consult applicable local and national safety codes for proper guarding of rotating shafts and couplings.

LUBRICANT SPECIFICATIONS — Refer to Manual 428-010 for recommended lubricants. The following specifications apply to lubricants for Falk couplings which are lubricated annually and operate within ambient temperatures of 0° to 150°F (−18° to +66°C). For temperatures beyond this range, consult the Factory.

Dropping Point — 300°F (149°C) or higher.

Consistency — NLGI No. 2 with worked penetration value in the range of 250 to 300.

Separation and Resistance — Low oil separation rate and high resistance to separation from centrifuging.

Liquid Constituent — To possess good lubrication properties . . . equivalent to a high quality, well refined petroleum oil.

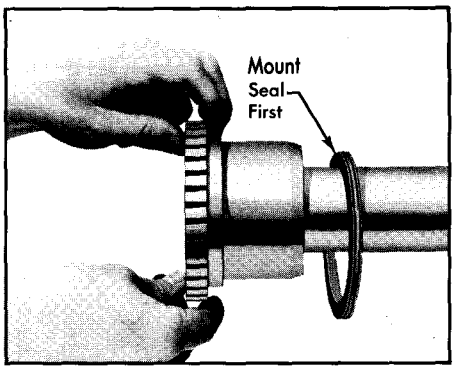
Inactive — Must not corrode steel or cause swelling or deterioration of synthetic seals.

Clean — Free from foreign inclusions.

SEMI-PERMANENT LUBRICATION—Refer to Service Manual 428-012 for details.

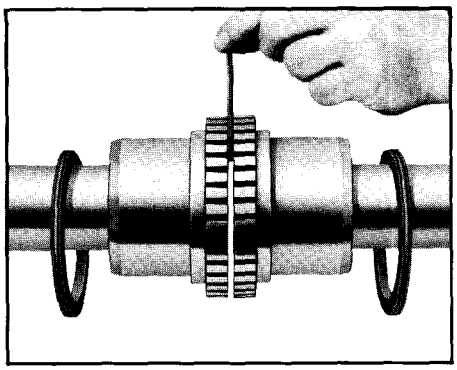
INSTALLATION — Only standard mechanics tools, wrenches, a straight edge and feeler gauges are required to install Falk Steelflex couplings. Coupling Sizes 20 thru 90 are generally furnished for CLEARANCE FIT with set screws. Sizes 100 and larger are furnished for an INTERFERENCE FIT without set screws. Heat hubs with interference fit in an oil bath to a maximum of 275°F (135°C) to mount. The oil flashpoint must be 350°F (177°C) or higher. Refer to Page 2 for detailed mounting instructions.

INSTALLATION OF TYPE T10 STEELFLEX TAPERED GRID COUPLINGS



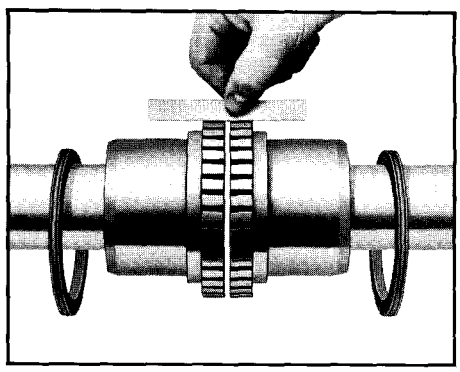
1 MOUNT SEALS AND HUBS

Lock out starting switch of prime mover. Clean all metal parts using a non-flammable solvent. Lightly coat seals with grease and place on shafts BEFORE mounting hubs. Mount hubs on their respective shafts so the hub face is flush with the end of its shaft. Tighten set screws when furnished. Heat interference fit hubs as instructed on Page 1.



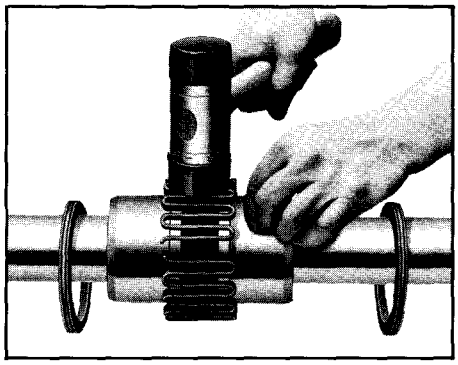
2 GAP & ANGULAR ALIGNMENT

Use a spacer bar equal in thickness to the normal gap specified in Table 1. 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 ANGULAR limit specified in Table 1.



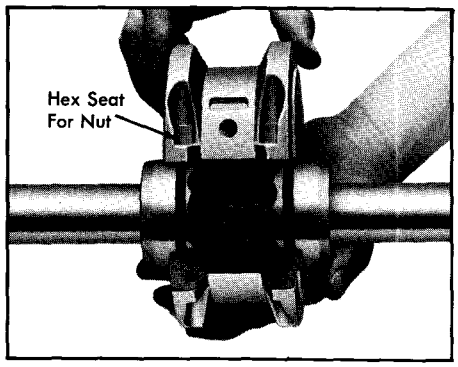
3 OFFSET ALIGNMENT

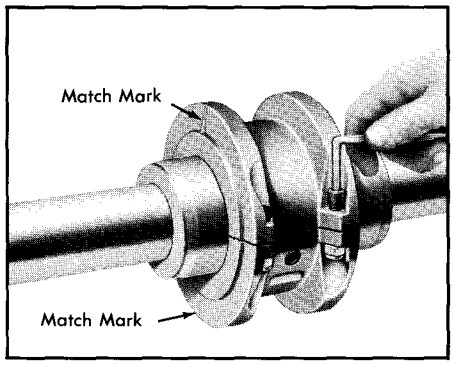
Align so that a straight edge rests squarely (or within the limits specified in Table 1) on both hubs as shown above and also at 90° intervals. Check with feelers. The clearance must not exceed the OFFSET limit specified in Table 1. Tighten all foundation bolts and repeat Steps 2 and 3. Realign coupling if necessary. NOTE: Use a dial indicator for more accurate alignment.



4 INSERT GRID

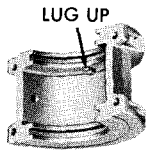
Pack gap and grooves with specified lubricant before inserting grid. When grids are furnished in two or more segments, install them so that all cut ends extend in the same direction; this will permit cover installation. Spread the grid slightly to pass it over the coupling teeth and seat with a soft mallet.





5 PACK WITH GREASE AND ASSEMBLE COVERS

Pack the spaces between and around the grid with as much lubricant as possible and wipe off excess flush with top of grid. Position seals on hubs to line up with grooves in cover. Position gaskets on flange of lower cover half and assemble covers so that the match marks are on the same side (see above). If shafts are not level (horizontal) or coupling is to be used vertically, assemble cover halves with the lug and match mark UP, or on the high side. Secure cover halves with fasteners and tighten to torque specified in Table 1. (Note that Sizes 20 thru 70 have a self-locking feature for the stop nuts.) CAUTION: Make certain lube plugs are installed before operating.



VERTICAL COUPLINGS

TABLE 1 INSTALLATION DATA* (Dimensions-Inches)

SIZE	Gap			Operating■ Alignment Limits		Cover Bolt Torque (lb-in)	Max Speed (rpm)	Lube Wt (lb)
	Min	Normal	Max	Offset (Max)	Angular (Max)			
20TD	.062	.125	.188	.005	.005	100	4500	.06
20T	.062	.125	.188	.005	.005	100	4500	.06
30T	.062	.125	.188	.005	.005	100	4500	.06
40T	.062	.125	.188	.005	.005	100	4500	.12
50T	.062	.125	.188	.005	.005	200	4500	.12
60T	.062	.125	.188	.010	.010	200	4350	.19
70T	.062	.125	.188	.010	.010	200	4125	.19
80T	.062	.125	.250	.010	.010	200	3600	.38
90T	.062	.125	.250	.012	.012	200	3600	.56
100T	.062	.188	.375	.012	.012	260	2440	.94
110T	.062	.188	.375	.012	.012	260	2250	1.1
120T	.062	.250	.500	.012	.012	650	2025	1.6
130T	.062	.250	.500	.012	.012	650	1800	2
140T	.062	.250	.500	.015	.015	650	1650	2.5

*Refer to Bulletin 421-110 for maximum bores and Engineering 427-108 for reboring instructions.

■ Align couplings within "Operating Alignment Limits" specified above. Exceeding these limits reduces coupling life.

6 PERIODIC LUBRICATION — Remove both lube plugs and insert lube fitting. Fill with recommended lubricant until an excess appears at the opposite hole. CAUTION: Make certain all plugs have been inserted after lubricating.

COUPLING DISASSEMBLY AND GRID REMOVAL

Whenever it is necessary to disconnect the coupling, remove the cover halves and grid. A round rod or screw driver that will conveniently fit into the open loop ends of the grid is required. Begin at the open end of the grid section and insert the rod or screw driver into the loop ends. Use the teeth adjacent to each loop as a fulcrum and pry the grid out radially in even, gradual stages, proceeding alternately from side to side.