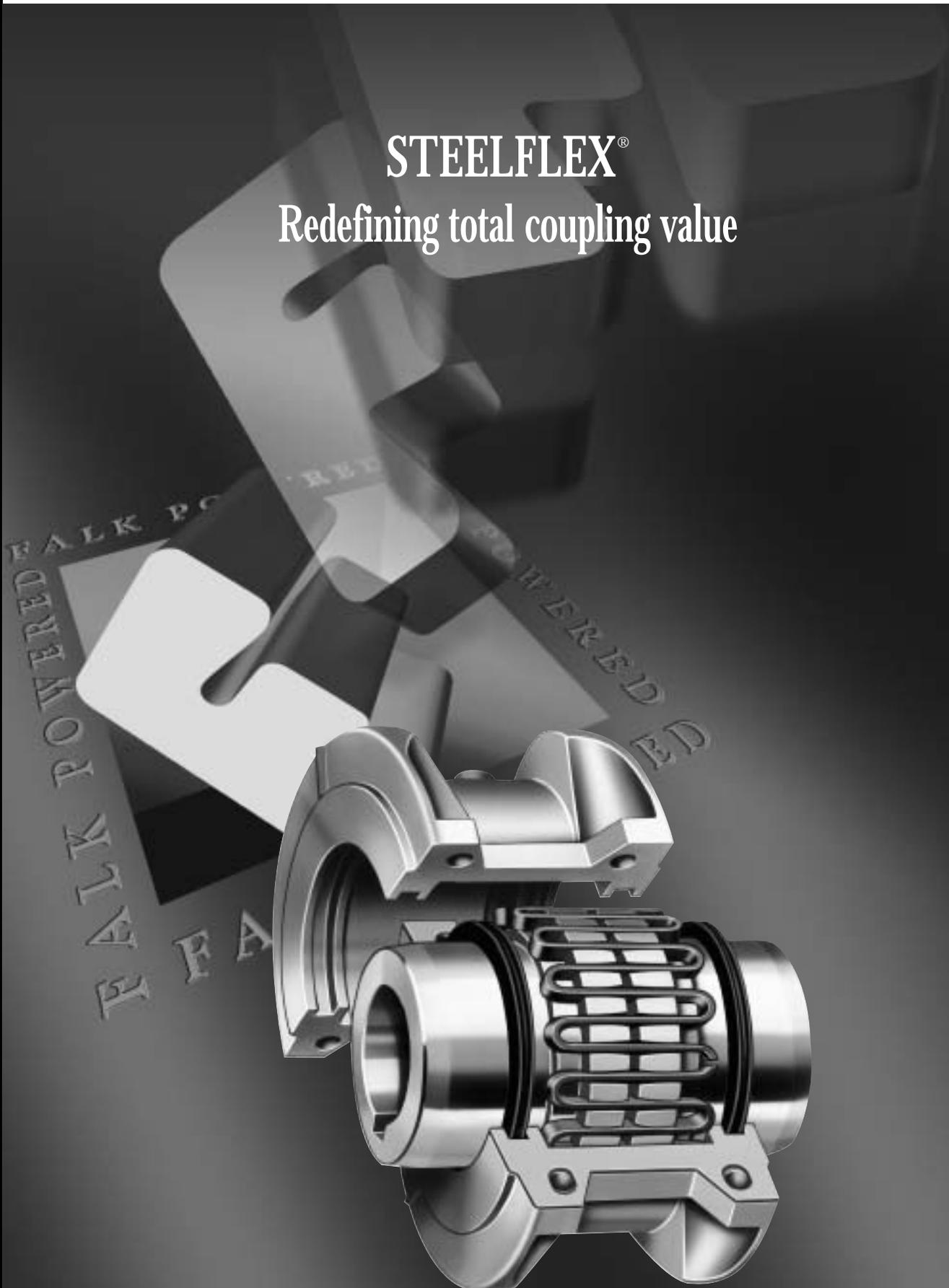


T H E F A L K C O R P O R A T I O N

# STEELFLEX®

Redefining total coupling value



**FALK®**  
a good name in industry

# FALK STEELFLEX®

## The simplest, most cost-effective coupling

Falk originated the tapered grid design as well as shot peening to increase fatigue strength and torque ratings. Falk Steelflex redefines total coupling value up to 7.5 million in-lb, 932 000 Nm torque. Steelflex offers simpler initial installation than gear couplings. The unique "replace in place" design eliminates the need to move hubs or re-align shafts, reducing element change-out time. When you look at the overall savings in initial costs, spare parts costs, and labor costs for installation, alignment and replacement - plus improved ratings and a 5 Year Heavy-Duty Warranty - it's easy to see what Falk's Steelflex Grid Couplings have over the competition. No other coupling in the torque range can touch Steelflex for cost-effective performance and reliability.

### Features that give Steelflex the lowest lifetime operating cost

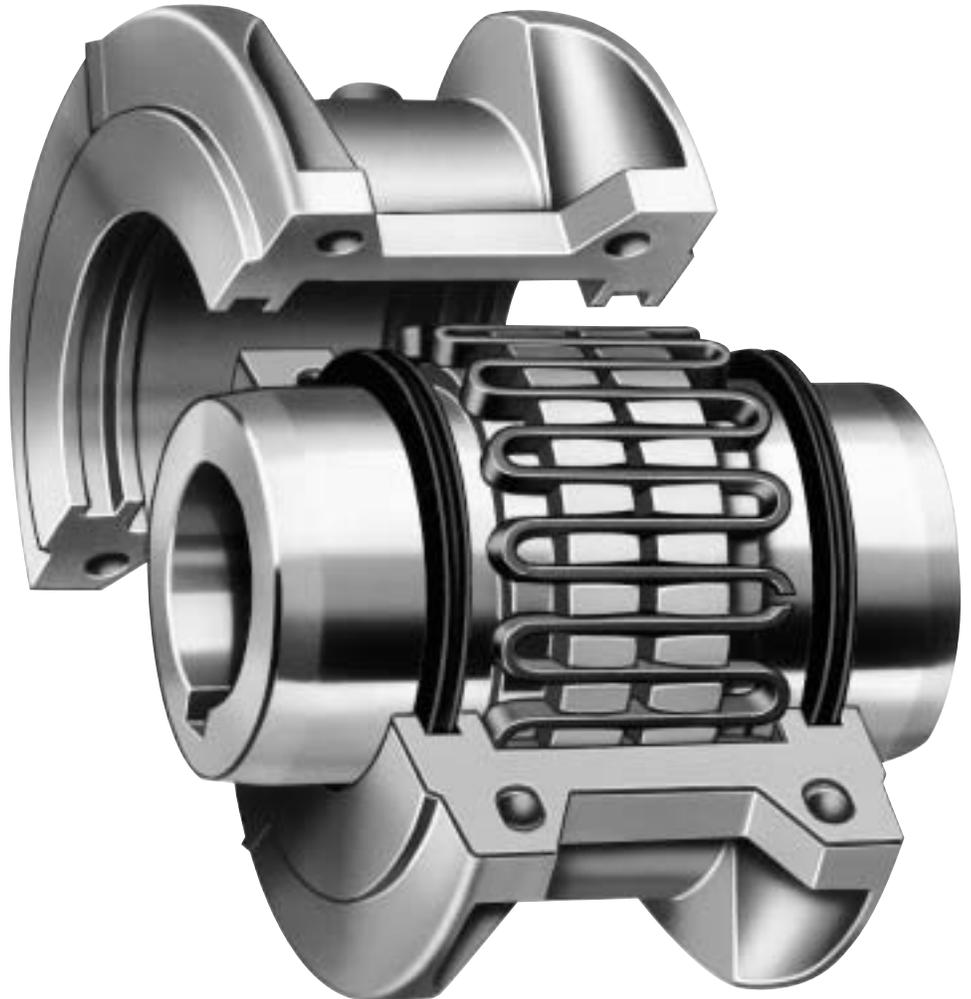
#### Longer Life

Tapered grids, made of high strength alloy steel, are quenched and tempered to spring hardness. The grid surface is then precision shot peened to compress the surface molecules.

The effect is a dramatic increase in rating, providing reserve strength for longer life or allowing a smaller size coupling to be selected. This precision technology was originally used in the production of sophisticated aircraft components.

#### Extended Maintenance Periods

Now you can install Steelflex and lubricate it with Falk Long Term Grease (LTG) and forget periodic, routine maintenance for **five** years. Falk LTG grease was developed specifically for couplings. It resists the separation of the oil and thickening agent that occurs in typical greases. The initial use of Falk LTG coupling grease will eliminate routine lubrication cycles while still providing the necessary lubrication to the tapered grid. With LTG, Steelflex combines the high torque performance of a gear coupling and the low maintenance of a disc or elastomer coupling.



## Quick, Easy Installation... Replace-In-Place Design

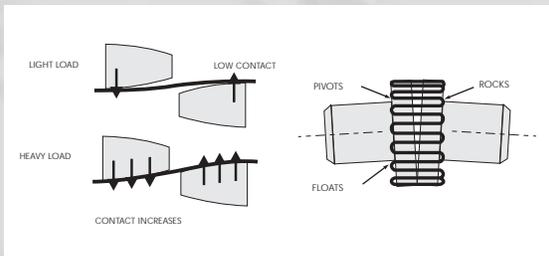
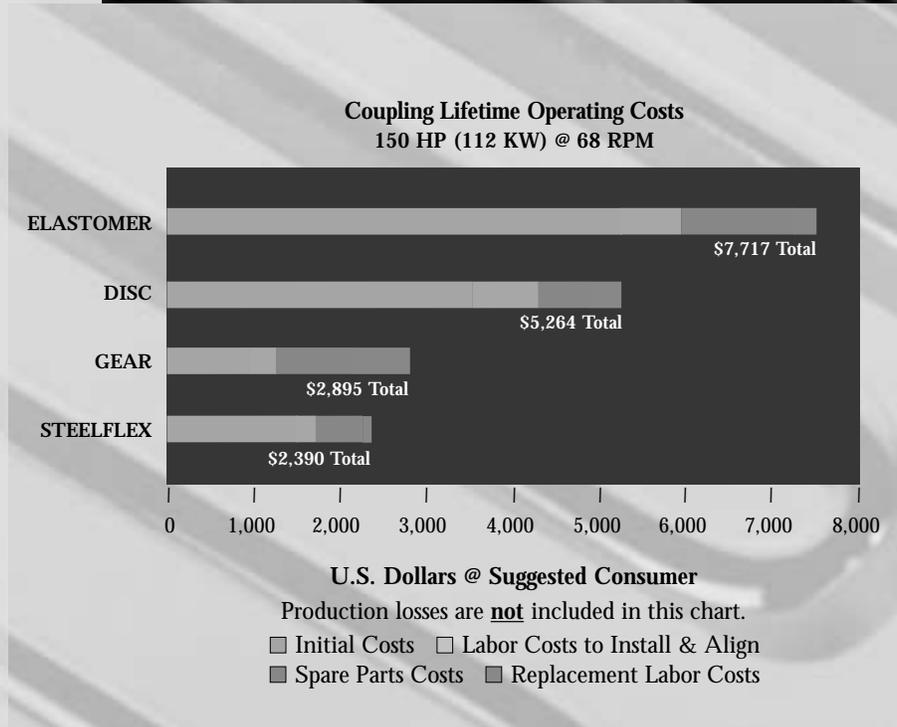
The grid is the wearing member of a Steelflex coupling and it is a fraction of the complete coupling cost. Tapered grids are accessible through the quickly removable cover. The replace-in-place design of the replacement grids allows them to be dropped in without the need to remove or reposition hubs or realign shafts as required with gear couplings and many elastomer designs. When coupling-connected equipment must be moved, the job takes longer and costs a lot more.

### Equipment Protection Against Shaft Misalignment

The grid is free to rock, pivot and float within the hub teeth. Generous misalignment capacity is provided without producing detrimental bearing side loads created by other couplings.

### Equipment Protection Against Shock/ Vibratory Loads

Torsional flexibility is the ability of Falk Steelflex couplings to torsionally deflect when subjected to normal shock or vibratory loads, providing flexible accommodation to changing load conditions. Consequently, Steelflex tunes the drive system. It absorbs impact energy by spreading it over an



increment of time. It damps vibration and reduces peak or shock loads by as much as 30%. It is a true shock absorber for rotary motion, relying on the predictable resilience of the steel grid for torsional flexibility.

### Versatile Designs

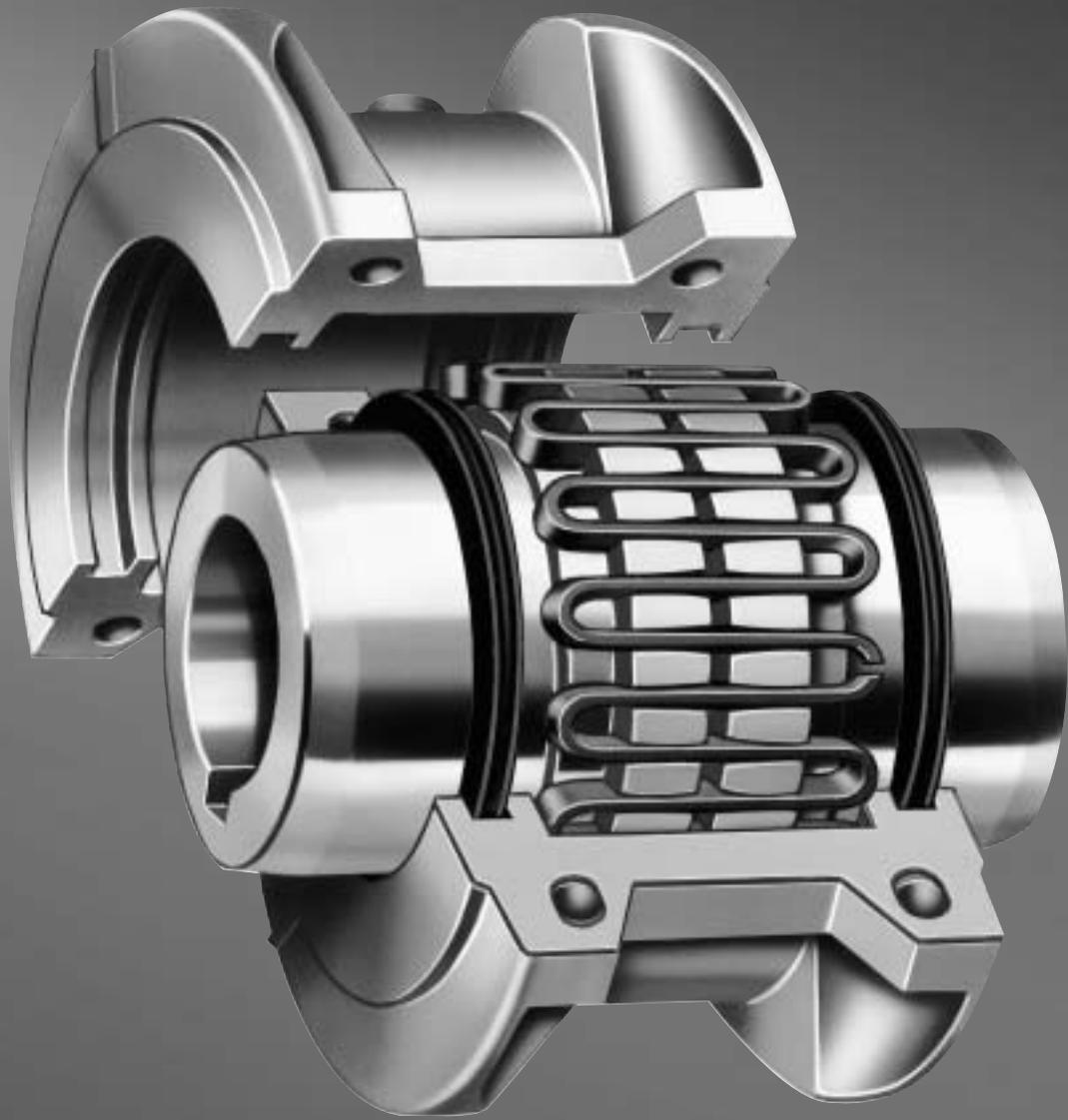
Two cover designs are available in the popular sizes. Standard spacer, piloted, high speed, brakewheel or disc, and controlled torque designs are also available.

### Worldwide Availability

Steelflex couplings and component parts, are available in popular sizes and types, in both inch or metric. Our distribution centers and worldwide distribution network offer the largest stock of rough bore, finish straight bore and Taper-lock bushed hubs of any shaft coupling on the market. Plus, Steelflex grid couplings are warranted for 5 Years when lubricated with Falk LTG Long Term Grease.



# STEELFLEX Selection Guide



# Selection Guide M421-110, August 2003

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**Falk Factory Warranty** We're so confident in the performance and reliability of our latest generation of Falk heavy-duty products that we're backing this comprehensive offering with the best standard warranty in the business. Our full, 3-year Heavy-Duty Warranty provides "shaft-to-shaft" protection on all Falk components – including bearings and seals. It's an industry first... and one more powerful reason why Falk is your ultimate bottom-line drive and coupling value.\* Steelflex grid couplings are warranted for 5 Years when lubricated with Falk LTG Long Term Grease.

\* Warranty extends for 3 years from date of shipment. Does not apply to Falk Omnibox, Ultramite, Fluid Couplings, Renew and spare parts. Warranty applies to Steelflex and Lifelign couplings with the use of Falk Long Term grease.

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FALK, STEELFLEX, and "a good name in industry" are registered trademarks.  
Dodge is a registered trademark.

Taper-Lock is a registered trademark of a bushing under license.

The contents of this selection guide are subject to change without notice or obligation.  
Information contained herein should be confirmed before placing orders.

## All Falk Steelflex Couplings Possess the Following Benefits

- High Ratings
- Extended Maintenance Periods
- Quick Installation
- Easy Maintenance
- Versatile Design
- Availability
- Protection Against Shaft Misalignment
- Protection Against Shock Loads, Vibration and Thrust Loads

## General Information

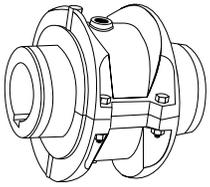
- Falk standards apply unless otherwise specified.
- All Dimensions are for reference only and are subject to change without notice unless certified.
- Unless otherwise specified, Falk coupling hubs will be bored for CLEARANCE FIT with a setscrew OVER the keyway or INTERFERENCE FIT without a setscrew.
- Torque ratings of couplings utilizing Taper-Lock bushings can differ from those that do not. Refer to Falk for details.
- If Falk is to supply coupling hubs bored for Taper-Lock bushings, the bushing manufacturer MUST be noted on the order.
- Consult Falk when limited end float is required.

## Reference Notes

- † Peak torque capacity is two times the published rating. Torque ratings for hubs with bushings differ from those shown, refer to Table 17, Page 36.
- ‡ Consult Falk for higher speeds.
- Maximum bores are reduced for hubs furnished with an INTERFERENCE FIT and a setscrew OVER the keyway. Refer to Falk for details. Recommended key sizes for the listed maximum bores are shown in Table 11 on Page 33.
- Minimum bore is the smallest bore to which a RSB hub (rough stock bore) hub can be bored. Depending upon coupling size, rough stock bore hubs may have only a blind centering hole or a through hole that will permit remachining of the hubs to the minimum bores specified.

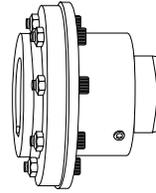
# Falk Steelflex Grid Couplings

A general purpose, lubricated design that combines the economy and high torque capacity of a gear coupling with the torsional flexibility of an elastomer coupling. Backed by a 5-year lubrication warranty, Falk Steelflex couplings require no periodic maintenance when lubricated with Falk LTG (Long Term Grease) at installation. Featuring 25 sizes, Steelflex couplings can accommodate torque loads of 932 000 (Nm) and shaft diameters of 508 millimeters.



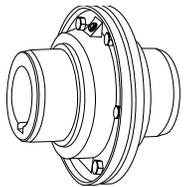
A double flexing, close-coupled design for use in four bearing systems. Features a horizontally split cover which allows for grid replacement without the movement of the connected equipment. (See Page 12.)

Type T10 Close Coupled



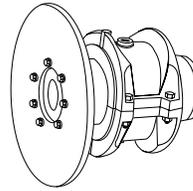
For use on line shaft applications. Can be used in place of single engagement gear couplings to provide torsional resiliency and lower overall operating cost. (See Pages 26 & 27.)

Type T50 Piloted



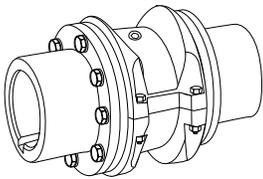
A double flexing design featuring a vertically split steel cover. Ideal for higher running speeds. (See Page 13.)

Type T20 Close Coupled



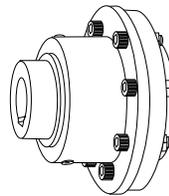
Proven to be far superior to drum-type brakes in cost, construction and performance. (See Pages 28 & 29.)

Type T63 Disc Brake



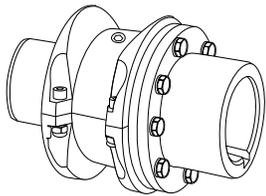
Complete center section drops out for easy service of connected equipment bearings and seals. Ideal for pump applications. (See Pages 14 & 15.)

Type T31 Full Spacer



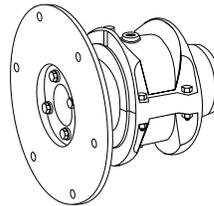
Designed for operating speeds beyond those of the T10 and T20 designs. Features a one-piece cover and balanced components. (See Page 30.)

Type T70 High Speed



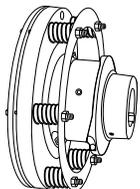
An economical spacer design for easy service of connected equipment bearings and seals. Ideal for pump applications. (See Pages 16 & 17.)

Type T35 Half Spacer



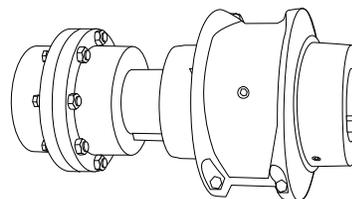
Used primarily to connect the flywheel of an engine to the driven machinery. It provides for higher torque ratings with resulting smaller sizes and lower costs than elastomer couplings. (See Page 31.)

Type T90 Flywheel



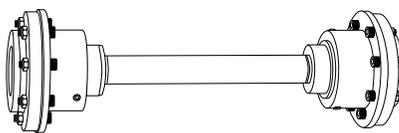
Provides adjustable slipping action to protect connected equipment from shock, jams, or temporary overloads. (See Pages 18 thru 25.)

Type T41, T42, T44 & T45 Controlled Torque



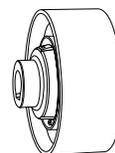
A combination of two standard Falk couplings. Utilizes readily available components for an economical price and shorter lead time than T31/T35 couplings. (See Page 32.)

Type T10/G82 Spacer



Type T50 Floating Shaft

Double piloted design for connecting equipment where the distance between shafts is too large for a spacer type coupling. (See Pages 26 & 27.)



Type BW Brakewheel

Provides a built-in braking surface right at or near the centerline of the coupling . . . saves space and dollars. (See Selection Guide 431-310.)

**WARNING! Mixing grid coupling components from *different manufacturers* may cause premature failure and possible personal injury or property damage from flying debris.**

# How to Select

## Standard Selection Method (except T41/T44 & T63)

The standard selection method can be used for most motor, turbine, or engine driven applications. The following information is required to select a flexible coupling:

- Kilowatt (kW) or torque
- Running rpm
- Application or type of equipment to be connected (motor to pump, gear drive to conveyor, etc.)
- Shaft diameters
- Shaft gaps
- Physical space limitations
- Special bore or finish information and type of fit

Exceptions are High Peak Loads and Brake Applications. For these conditions use the Formula Selection Method in the next column, or consult your local Falk Representative for assistance.

1. **RATING:** Determine system torque. If torque is not given, calculate as shown below:

$$\text{System Torque (Nm)} = \frac{\text{kW} \times 9549}{\text{rpm}}$$

Where kilowatt (kW) is the actual or transmitted power required by the application (if unknown, use the motor or turbine nameplate rating) and rpm is the actual speed the coupling is rotating. Applications that require rapid changes in direction or torque reversals should be referred to Falk Engineering.

2. **SERVICE FACTOR:** Determine appropriate service factor from Table 2, Page 10.
3. **REQUIRED MINIMUM COUPLING RATING:** Determine the required minimum coupling rating as shown below:  
Minimum Coupling Rating = S.F. (Service Factor) x Torque (Nm)
4. **TYPE:** Refer to Page 6 and select the appropriate coupling type.
5. **SIZE:** Turn to appropriate pages for the coupling type chosen and trace down the torque column to a value that is equal or greater than that determined in Step 3 above. The coupling size is shown in the first column.
6. **CHECK:** Check speed (rpm), bore, gap, and dimensions.

### STANDARD SELECTION EXAMPLE:

Select a coupling to connect a 55 kW, 1500 rpm electric motor driving a lobe type blower. Motor shaft diameter is 60 mm, blower shaft diameter is 45 mm. Shaft extensions are 140 mm and 110 mm. Selection is replacing a gear type coupling with a 3 mm gap.

1. **DETERMINE REQUIRED RATING:**

$$\text{System Torque (Nm)} = \frac{55 \text{ kW} \times 9549}{1500 \text{ rpm}} = 350 \text{ Nm}$$

2. **SERVICE FACTOR:** From Table 2 = 1.25
3. **REQUIRED MINIMUM COUPLING RATING:**  
 $1.25 \times 350 \text{ Nm} = 438 \text{ Nm}$
4. **SIZE:** From Page 12 a Size 1070T is the proper selection based on a torque rating of 904 Nm exceeding the required minimum coupling rating of 438 Nm.
5. **CHECK:** Allowable speed capacity of 4125 (1070T10) exceeds the required speed of 1500 rpm. Maximum bore capacity of 67 mm exceeds the actual shaft diameters.

## Type T63 Static (holding) Brake Applications

1. **SIZE:** The brake rating must equal or exceed the application requirements. Determine the required coupling size by comparing the application loads (from Steps A and B below) to the coupling brake rating listed on Page 28. Use the highest torque value calculated to determine the coupling size.

- A. For normal service applications, use the application torque in Nm.

$$\text{System Torque (Nm)} = \frac{\text{Transmitted kW} \times 9549}{\text{rpm}}$$

- B. For repetitive high peak load applications, use the system peak torque in Nm. (Repetitive is defined as more than 1000 times during the expected coupling life.)

2. **CALIPER TORQUE BRAKE RATING:** For the coupling size selected, compare the caliper brake torque rating on Page 29 to the holding torque requirement of the application. Falk recommends that the caliper torque rating (min.) be at least two times the holding torque requirement for static applications to compensate for the possibility of foreign matter on the disc surfaces, loss of condition of the brake pad surfaces, or other conditions that may affect the holding ability of the caliper brake.

Caliper brakes and brake discs listed are designed primarily for static and/or emergency brake applications. **NOTE:** Check brake system and lining wear after emergency stops. They can, however, also be used for dynamic stopping if only used occasionally, such as shutting down the equipment for the day or between shift changes. For stopping high inertia systems or for applications that require more frequent stopping, consult your local Falk Representative.

3. **CHECK:** Check maximum bores, speeds, and dimensions.

## Type T63 Stopping Or Service Brake Applications

1. **SIZE:** The coupling brake rating must equal or exceed the application requirements. Determine the required coupling size by comparing the application loads (from Steps A, B and C below) to the coupling brake rating listed on Page 28. Use the highest torque value calculated to determine the coupling size.

- A. For the selected caliper brake and disc diameter, use the maximum brake torque in Nm.

- B. For normal service applications, use the application torque in Nm.

$$\text{System Torque (Nm)} = \frac{\text{Transmitted kW} \times 9549}{\text{rpm}}$$

- C. For repetitive high peak load applications, use the system peak torque in Nm (Repetitive is defined as more than 1000 times during the expected coupling life.)

2. **CHECK:** Check maximum bores, speeds, and dimensions.

# How to Select

## Formula Selection Method (except T41/T44 & T63)

The Standard Selection Method can be used for most coupling selections. The procedures below should be used for:

- High Peak Loads.
- Brake Applications (where the brake disc or brake wheel is to be an integral part of the coupling, consult Falk for design options).

Providing system peak torque and frequency, duty cycle, and brake torque rating will allow for a more refined selection using the Formula Selection Method.

**1. HIGH PEAK LOADS:** Use one of the following formulas for applications using motors with torque characteristics that are higher than normal; applications with intermittent operations, shock loading, inertia effects due to starting and stopping and or system induced repetitive high peak torques. System Peak Torque is the maximum torque that can exist in the system. Select a coupling with a torque rating equal to or greater than selection torque calculated below.

### A. NON-REVERSING HIGH PEAK TORQUE

Selection Torque (Nm) = System Peak Torque  
or

$$\text{Selection Torque (Nm)} = \frac{\text{System Peak kW} \times 9549}{\text{rpm}}$$

### B. REVERSING HIGH PEAK TORQUE

Selection Torque (Nm) = 2 x System Peak Torque  
or

$$\text{Selection Torque (Nm)} = \frac{2 \times \text{Peak kW} \times 9549}{\text{rpm}}$$

**C. OCCASIONAL PEAK TORQUES (Non-Reversing)** If a system peak torque occurs less than 1000 times during the expected coupling life, use the following formula:

Selection Torque (Nm) = 0,5 x System Peak Torque  
or

$$\text{Selection Torque (Nm)} = \frac{0,5 \times \text{Peak kW} \times 9549}{\text{rpm}}$$

For reversing service select per step B.

**2. BRAKE APPLICATIONS:** If the torque rating of the brake exceeds the motor torque use the brake rating as follows:

Selection Torque (Nm) = Brake Torque Rating x S.F.

## FORMULA SELECTION EXAMPLE — High Peak Load:

Select a coupling for reversing service to connect a gear drive low speed shaft to a runout mill table roll. The electric motor rating is 37 kW at the base speed and the system peak torque at the coupling is estimated to be 17 000 Nm. Coupling speed is 77 rpm at the motor base speed. The drive shaft diameter is 100 mm with a keyway of 28 mm x 16 mm. The runout table roll diameter is 135 mm with a keyway of 36 mm x 20 mm. Maximum shaft gap (BE) is 180 mm long.

**1. TYPE:** Refer to Page 6 and select the appropriate coupling type.

### 2. REQUIRED MINIMUM COUPLING RATING:

Use the Reversing High Peak Torque formula in Step 1B.

$$2 \times 17\,000 = 34\,000 = \text{Selection Torque}$$

**3. SIZE:** From Page 17, Size 1150T35 with a torque rating of 39 800 exceeds the selection torque of 34 000 Nm.

**4. CHECK:** The 1150T35 has a maximum BE dimension of 187,5 mm; the shaft hub has a maximum bore of 270 mm with one rectangular key, (Table 14, Page 34 ); the T hub has a maximum bore of 215 mm (Table 13, Page 34); and the allowable speed of 1500 rpm and the dimensions on Page 17 meet the requirements.

**TABLE 1 — Coupling Ratings & Allowable Speeds**

Coupling Size ★	kW/RPM ♦	Torque Rating (Nm) †	Allowable Speeds —rpm ‡			
			T10	T20 & T50 *	T31, T35 & T10/G82	T70
1020T	0,005	52	4500	6000	3600	...
1030T	0,016	149	4500	6000	3600	10000
1040T	0,026	249	4500	6000	3600	...
1050T	0,046	435	4500	6000	3600	9000
1060T	0,072	684	4350	6000	3600	...
1070T	0,104	994	4125	5500	3600	8200
1080T	0,215	2 050	3600	4750	3600	7100
1090T	0,39	3 730	3600	4000	3600	6000
1100T	0,657	6 280	2440	3250	2440	4900
1110T	0,976	9 320	2250	3000	2250	4500
1120T	1,43	13 700	2025	2700	2025	4000
1130T	2,08	19 900	1800	2400	1800	3600
1140T	2,99	28 600	1650	2200	1650	3300
1150T	4,16	39 800	1500	2000	1500	...
1160T	5,86	55 900	1350	1750	1350	...
1170T	7,81	74 600	1225	1600	1225	...
1180T	10,8	103 000	1100	1400	1100	...
1190T	14,3	137 000	1050	1300	1050	...
1200T	19,5	186 000	900	1200	900	...
1210T	26	249 000	820	...	...	...
1220T	35,1	336 000	730	...	...	...
1230T	45,6	435 000	680	...	...	...
1240T	58,6	559 000	630	...	...	...
1250T	78,1	746 000	580	...	...	...
1260T	97,6	932 000	540	...	...	...

★ Refer to Page 5 for General Information and Reference notes.

♦ kW/RPM and torque rating values for hubs with Taper Lock ® bushings differ from those shown above. Refer to Table 17, Page 36.

\* Speeds shown above are for single Type T50 couplings; speeds for Type T50 Floating Shaft couplings are shown in Table 10, Page 27.

# How to Select

## Type T41 Controlled Torque Couplings & T44 Controlled Torque Clutches

### Type T41 Controlled Torque Couplings

1. **RUNNING TORQUE:** Calculate normal running torque

$$\text{Running Torque (Nm)} = \frac{\text{Required kW} \times 9549}{\text{rpm}}$$

2. **SLIP TORQUE:** Slip torque = Running Torque x 150% (Overload Setting.) Falk recommends a minimum 150% overload setting for steady or moderate shock load applications. For heavy shock load applications, a 200% or greater overload setting may be required.

3. **COUPLING SIZE:** Refer to Table 6, Page 18 — Trace down the Slip Torque column to a figure equal to or in excess of the calculated slip torque determined in Step 2. Read the coupling size in the next column.

4. **CHECK:**

- A. Check shaft diameters against coupling maximum bores shown in Table 6, Page 18. If selection does not have adequate bore capacity, refer to Table 13, Page 34 or Table 15, Page 35 for maximum bores with square or rectangular keys, or select the next larger size coupling.
- B. Check the required speed against the allowable speed shown in Table 6, Page 18. If a higher speed is required, refer application details to the local Falk representative.
- C. Check allowable slip torque times from Slip Torque Performance Charts on Pages 22 through 25. The length of time a coupling can slip without exceeding its thermal capacity is a function of the slip torque setting and the operating speed. An automatic cutout switch, Page 21, can be provided when damaging thermal conditions exist.
- D. Check application dimension requirements against selected coupling dimensions shown on Page 18.
- E. Check usable shaft length to the coupling hub lengths on Page 18. If necessary, overhang hubs within the limits specified on Page 21.

**SELECTION EXAMPLE:**

Select a controlled torque coupling to connect a 15,0 kW, 1500 rpm, 160L frame motor to the high speed shaft of a gear drive driving a screw feeder. Motor shaft diameter is 42 mm with a usable shaft length of 110 mm. Drive high speed shaft diameter is 35 mm with usable shaft length of 65 mm.

1. **RUNNING TORQUE:** From Step 1 above:

$$\text{Running Torque (Nm)} = \frac{15,0 \text{ kW} \times 9549}{1500 \text{ RPM}} = 95,5 \text{ Nm}$$

2. **SLIP TORQUE:** From Step 2 above: Slip Torque = 95,5 Nm x 150% = 143,2 Nm.

3. **SIZE:** From Table 6, Page 18, the minimum size coupling is the Size 40T41, which has a maximum slip torque of 167 Nm.

4. **CHECK:**

- A. From Table 6, Page 18, the Size 40T41, T41 hub has a maximum bore capacity of only 35 mm and the T hub maximum bore capacity is 43 mm. The preferred mounting arrangement is to have the T41 hub on the motor (for optimum cooling during slippage). Therefore, select the size 50T41 with a T41 hub maximum bore capacity of 45 mm, as compared to the motor shaft diameter of 42mm, and the slip torque required is within its range.
- B. Allowable Speed of 3600 rpm exceeds required 1500 rpm.
- C. From Page 22, the Size 50T41 with slip torque setting of 143,2 Nm and running speed of 1500 rpm will permit 27 seconds slip if followed by 9 minutes of non-slip.
- D. See Page 18 for dimensions.
- E. Usable shaft length of motor is 110 mm and “W” dimension for T41 hub is 87,4 mm, therefore no overhang required. Usable shaft length of drive is 65 mm and “C” dimension of “T” hub is 60,5 mm, therefore no overhang required.

### Type T44 Controlled Torque Clutches

1. **RUNNING TORQUE**

$$\text{Running Torque (Nm)} = \frac{\text{Required kW} \times 9549}{\text{rpm}} =$$

- 2. **SLIP TORQUE:** Slip Torque = Running Torque x 150% (Overload Setting.) Falk recommends a minimum 150% overload setting for steady or moderate shock load applications. For heavy shock load applications a 200% or greater overload setting may be required.
- 3. **CLUTCH SIZE:** Refer to Table 7, Page 19 — Trace down the Slip Torque column to a figure equal to or in excess of the calculated slip torque determined in Step 2. Read clutch size in the next column.
  - A. Check shaft diameters against clutch maximum bores shown in Table 7. If selection does not have adequate bore capacity refer to Table 15, Page 35 for maximum bores with square or rectangular keys, or select the next larger size clutch.
  - B. Check the required speed against the allowable speed shown in Table 7. If a higher speed is required, refer application details to the local Falk representative.
  - C. Check allowable slip torque times from Slip Torque Performance Charts on Pages 22 through 25. The length of time a clutch can slip without exceeding its thermal capacity is a function of the slip torque setting and the operating speed. An automatic cutout switch, Page 21, can be provided when damaging thermal conditions exist.
  - D. Check application dimension requirements against selected clutch dimensions shown on Page 19.
  - E. Check usable shaft length to the clutch hub length on Page 19. If necessary, overhang hub within the limits specified on Page 21.

# Service Factors

**TABLE 2 — Flexible Coupling Service Factors for Motor ♦ and Turbine Drives**

Service factors listed are typical values based on normal operation of the drive systems.

**Alphabetical listing of applications**

	Service Factor
<b>AERATOR</b> .....	2.0
<b>AGITATORS</b> Vertical and Horizontal Screw, Propeller, Paddle.....	1.0
<b>BARGE HAUL PULLER</b> .....	1.5
<b>BLOWERS</b> Centrifugal.....	1.0
Lobe or Vane.....	1.25
<b>CAR DUMPERS</b> .....	2.5
<b>CAR PULLERS</b> .....	1.5
<b>CLARIFIER OR CLASSIFIER</b> .....	1.0
<b>COMPRESSORS</b> Centrifugal.....	1.0
Rotary, Lobe or Vane.....	1.25
Rotary, Screw.....	1.0
Reciprocating Direct Connected.....	Refer to Falk
Without Flywheel.....	Refer to Falk
*With Flywheel and Gear between Compressor and Prime Mover	
1 cylinder, single acting.....	3.0
1 cylinder, double acting.....	3.0
2 cylinders, single acting.....	3.0
2 cylinders, double acting.....	3.0
3 cylinders, single acting.....	3.0
3 cylinders, double acting.....	2.0
4 or more cyl., single act.....	1.75
4 or more cyl., double act.....	1.75
▲ <b>CONVEYORS</b> Apron, Assembly, Belt, Chain, Flight, Screw.....	1.0
Bucket.....	1.25
Live Roll, Shaker and Reciprocating.....	3.0
▲♣ <b>CRANES AND HOIST</b> Main Hoist.....	1.75▲
Skip Hoist.....	1.75▲
Slope.....	1.5
Bridge, Travel or Trolley.....	1.75
<b>DYNAMOMETER</b> .....	1.0
<b>ELEVATORS</b> Bucket, Centrifugal Discharge.....	1.25
Freight or Passenger.....	Not Approved
Gravity Discharge.....	1.25
<b>ESCALATORS</b> .....	Not Approved
<b>EXCITER, GENERATOR</b> .....	1.0
<b>EXTRUDER, PLASTIC</b> .....	1.5
<b>FANS</b> Centrifugal.....	1.0
Cooling Tower.....	2.0
Forced Draft — Across the Line start.....	1.5
Forced Draft Motor Driven thru fluid or electric slip clutch.....	1.0
Gas Recirculating.....	1.5
Induced Draft with damper control or blade cleaner.....	1.25
Induced Draft without controls.....	2.0
<b>FEEDERS</b> Apron, Belt, Disc, Screw.....	1.0
Reciprocating.....	2.5
<b>GENERATORS</b> Even Load.....	1.0
Hoist or Railway Service.....	1.5

	Service Factor
Welder Load.....	2.0
<b>HAMMERMILL</b> .....	1.75
<b>LAUNDRY WASHER OR TUMBLER</b> .....	2.0
<b>LINE SHAFTS</b> Any Processing Machinery.....	1.5
<b>MACHINE TOOLS</b> Auxiliary and Traverse Drive.....	1.0
Bending Roll, Notching Press, Punch Press, Planer, Plate Reversing.....	1.75
Main Drive.....	1.5
<b>MAN LIFTS</b> .....	Not Approved
<b>METAL FORMING MACHINES</b> Continuous Caster.....	1.75
Draw Bench Carriage and Main Drive.....	2.0
Extruder.....	2.0
Farming Machine and Forming Mills.....	2.0
Slitters.....	1.0
Wire Drawing or Flattening.....	1.75
Wire Winder.....	1.5
Coilers and Uncoilers.....	1.5
<b>MIXERS</b> (see Agitators) Concrete.....	1.75
Muller.....	1.5
<b>PRESS, PRINTING</b> PUG MILL.....	1.5
<b>PULVERIZERS</b> Hammermill and Hog.....	1.75
Roller.....	1.5
<b>PUMPS</b> Boiler Feed.....	1.5
Centrifugal — Constant Speed.....	1.0
Frequent Speed Changes under Load.....	1.25
Descaling, with accumulators.....	1.25
Gear, Rotary, or Vane.....	1.25
Reciprocating, Plunger Piston 1 cyl., single or double act.....	3.0
2 cyl., single acting.....	2.0
2 cyl., double acting.....	1.75
3 or more cylinders.....	1.5
Screw Pump, Progressing Cavity.....	1.25
Vacuum Pump.....	1.25
<b>SCREENS</b> Air Washing.....	1.0
Grizzly.....	2.0
Rotary Coal or Sand.....	1.5
Vibrating.....	2.5
Water.....	1.0
<b>SKI TOWS &amp; LIFTS</b> .....	Not Approved
<b>STEERING GEAR</b> .....	1.0
<b>STOKER</b> .....	1.0
<b>TIRE SHREDDER</b> .....	1.50
<b>TUMBLING BARREL</b> .....	1.75
<b>WINCH, MANEUVERING</b> Dredge, Marine.....	1.5
<b>WINDLASS</b> .....	1.5
<b>WOODWORKING MACHINERY</b> .....	1.0
<b>WORK LIFT PLATFORMS</b> .....	Not Approved

**Alphabetical listing of industries**

	Service Factor
<b>AGGREGATE PROCESSING, CEMENT, MINING KILNS; TUBE, ROD AND BALL MILLS</b> Direct or on L.S. shaft of Reducer, with final drive Machined Spur Gears.....	2.0
Single Helical or Herringbone Gears.....	1.75
Conveyors, Feeders, Screens, Elevators.....	See General Listing
Crushers, Ore or Stone.....	2.5
Dryer, Rotary.....	1.75
Grizzly.....	2.0
Hammermill or Hog.....	1.75
Tumbling Mill or Barrel.....	1.75
<b>BREWING AND DISTILLING</b> Bottle and Can Filling Machines.....	1.0
Brew Kettle.....	1.0
Cookers, Continuous Duty.....	1.25
Lauter Tub.....	1.5
Mash Tub.....	1.25
Scale Hopper, Frequent Peaks.....	1.75
<b>CLAY WORKING INDUSTRY</b> Brick Press, Briquette Machine, Clay Working Machine, Pug Mill.....	1.75
<b>DREDGES</b> Cable Reel.....	1.75
Conveyors.....	1.25
Cutter head, Jig Drive Maneuvering Winch.....	1.5
Pumps (uniform load).....	1.5
Screen Drive, Stacker.....	1.75
Utility Winch.....	1.5
<b>FOOD INDUSTRY</b> Beet Slicer.....	1.75
Bottling, Can Filling Machine.....	1.0
Cereal Cooker.....	1.25
Dough Mixer, Meat Grinder.....	1.75
<b>LUMBER</b> Band Resaw.....	1.5
Circular Resaw, Cut-off.....	1.75
Edger, Head Rig, Hog.....	2.0
Gang Saw (Reciprocating).....	Refer to Falk
Log Haul.....	2.0
Planer.....	1.75
Rolls, Non-Reversing.....	1.25
Rolls, Reversing.....	2.0
Sawdust Conveyor.....	1.25
Slab Conveyor.....	1.75
Sorting Table.....	1.5
Trimmer.....	1.75
♣ <b>METAL ROLLING MILLS</b> Coilers (Up or Down) Cold Mills only.....	1.5
Coilers (Up or Down) Hot Mills only.....	2.0
Coke Plants Pusher Ram Drive.....	2.5
Door Opener.....	2.0
Pusher or Larry Car Traction Drive.....	3.0
Continuous Caster.....	1.75
Cold Mills — Strip Mills.....	Refer to Falk
Temper Mills.....	Refer to Falk
Cooling Beds.....	1.5
Drawbench.....	2.0
Feed Rolls - Blooming Mills.....	3.0
Furnace Pushers.....	2.0
Hot and Cold Saws.....	2.0
Hot Mills — Strip or Sheet Mills.....	Refer to Falk
Reversing Blooming.....	Refer to Falk
or Slabbing Mills.....	Refer to Falk
Edger Drives.....	Refer to Falk
Ingot Cars.....	2.0
Manipulators.....	3.0
Merchant Mills.....	Refer to Falk
Mill Tables Roughing Breakdown Mills.....	3.0
Hot Bed or Transfer, non-reversing.....	1.5
Runout, reversing.....	3.0
Runout, non-reversing, non-plugging.....	2.0
Reel Drives.....	1.75
Rod Mills.....	Refer to Falk
Screwdown.....	2.0
Seamless Tube Mills Piercer.....	3.0
Thrust Block.....	2.0
Tube Conveyor Rolls.....	2.0
Reeler.....	2.0
Kick Out.....	2.0
Shear, Croppers.....	Refer to Falk
Sideguards.....	3.0
Skelp Mills.....	Refer to Falk

	Service Factor
Slitters, Steel Mill only.....	1.75
Soaking Pit Cover Drives — Lift.....	1.0
Travel.....	2.0
Straighteners.....	2.0
Unscramblers (Billet Bundle Busters).....	2.0
Wire Drawing Machinery.....	1.75
<b>OIL INDUSTRY</b> Chiller.....	1.25
Oil well Pumping (not over 150% peak torque).....	2.0
Paraffin Filter Press.....	1.5
Rotary Kiln.....	2.0
<b>PAPER MILLS</b> Barker Auxiliary, Hydraulic.....	2.0
Barker, Mechanical.....	2.0
Barking Drum L.S. shaft of reducer with final drive - Helical or Herringbone Gear.....	2.0
Machined Spur Gear.....	2.5
Cast Tooth Spur Gear.....	3.0
Beater & Pulper.....	1.75
Bleachers, Coaters.....	1.0
Calender & Super Calender.....	1.75
Chipper.....	2.5
Converting Machine.....	1.25
Couch.....	1.75
Cutter, Felt Whipper.....	2.0
Cylinder.....	1.75
Dryer.....	1.75
Felt Stretcher.....	1.25
Fourdrinier.....	1.75
Jordan.....	2.0
Log Haul.....	2.0
Line Shaft.....	1.5
Press.....	1.75
Pulp Grinder.....	1.75
Reel, Rewinder, Winder.....	1.5
Stock Chest, Washer, Thickener.....	1.5
Stock Pumps, Centrifugal Constant Speed.....	1.0
Frequent Speed Changes Under Load.....	1.25
Suction Roll.....	1.75
Vacuum Pumps 1.25	
<b>RUBBER INDUSTRY</b> Calender.....	2.0
Cracker, Plasticator.....	2.5
Extruder.....	1.75
Intensive or Banbury Mixer.....	2.5
Mixing Mill, Refiner or Sheeter One or two in line.....	2.5
Three or four in line.....	2.0
Five or more in line.....	1.75
Tire Building Machine.....	2.5
Tire & Tube Press Opener (Peak Torque).....	1.0
Tuber, Strainer, Pellitizer.....	1.75
Warming Mill One or two Mills in line.....	2.0
Three or more Mills in line.....	1.75
Washer.....	2.5
<b>SEWAGE DISPOSAL EQUIPMENT</b> Bar Screen, Chemical Feeders, Collectors, Dewatering Screen, Grit Collector.....	1.0
<b>SUGAR INDUSTRY</b> Cane Carrier & Leveler.....	1.75
Cane Knife & Crusher.....	2.0
Mill Stands, Turbine Driver With all helical or Herringbone gears.....	1.5
Electric Drive or Steam Engine Drive with Helical, Herringbone, or Spur Gears with any Prime Mover.....	1.75
<b>TEXTILE INDUSTRY</b> Batcher.....	1.25
Calender, Card Machine.....	1.5
Cloth Finishing Machine.....	1.5
Dry Can, Loom.....	1.5
Dyeing Machinery.....	1.25
Knitting Machine.....	Refer to Falk
Mangle, Napper, Soaper.....	1.25
Spinner, Tenter Frame, Winder.....	1.5

♦ For engine drives, refer to Table 3. Electric motors, generators, engines, compressors and other machines fitted with sleeves or straight roller bearings usually require limited end float couplings. If in doubt, provide axial clearances and centering forces to Falk for a recommendation.

- \* For balanced opposed design, refer to Falk.
- ▲ If people are occasionally transported, refer to Falk for the selection of the proper size coupling.
- ♣ For high peak load applications (such as Metal Rolling Mills) refer to Falk.

**TABLE 3 — Engine Drive Service Factors ♡**

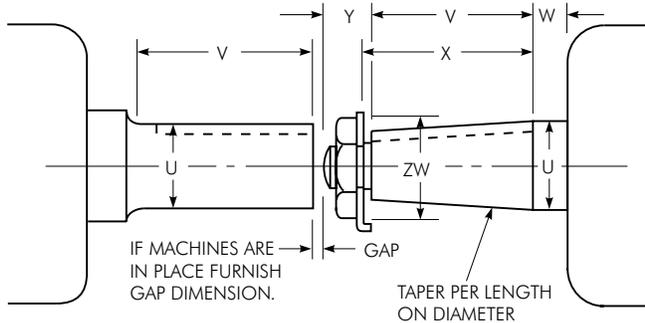
Service Factors for engine drives are those required for applications where good flywheel regulation prevents torque fluctuations greater than ±20%. For drives where torque fluctuations are greater or where the operation is near a serious critical or torsional vibration, a mass elastic study is necessary.

No. of Cylinders	4 or 5 ♡				6 or more ♡					
<b>Table 2 S.F.</b>	1.0	1.25	1.5	1.75	2.0	1.0	1.25	1.5	1.75	2.0
<b>Engine S.F.</b>	2.0	2.25	2.5	2.75	3.0	1.5	1.75	2.0	2.25	2.5

♡ To use Table 3, first determine application service factor from Table 2. Use that factor to determine ENGINE Service Factor from Table 3. When service factor from Table 2 is greater than 2.0, or where 1, 2, or 3 cylinder engines are involved, refer complete application details to Falk Engineering.

**SERVICE FACTORS** are a guide, based on experience, of the ratio between coupling catalog rating and system characteristics. The system characteristics are best measured with a torque meter.

Torque Demands Driven Machine	Typical applications for electric motor or turbine driven equipment	Typical Service Factor
	Constant Torque such as Centrifugal Pumps, Blowers, and Compressors.	1.0
	Continuous duty with some torque variations including Plastic Extruders, Forced Draft Fans.	1.5
	Light shock loads from Metal Extruders, Cooling Towers, Cane Knife, Log Haul.	2.0
	Moderate shock loading as expected from a Car Dumper, Stone Crusher, Vibrating Screen.	2.5
	Heavy shock load with some negative torques from Roughing Mills, Reciprocating Pumps, Compressors, Reversing Runout Tables,	3.0
	Applications like Reciprocating Compressors with frequent torque reversals, which do not necessarily cause reverse rotations.	Consult Falk Engineering



# How to Order

The following information is necessary to quote or ship to your exact requirements. Prompt service is assured if this information is given on your inquiry or order.

- Application: Driver & Driven
- Power: Normal kW, Maximum kW or Torque (Nm)
- Speed (RPM)
- For Type T63 Disc Brake Couplings, furnish brake requirements.
  - Holding torque requirement.
  - $WR^2$  of rotating parts (at brake location.)
  - Frequency of stops.
  - Rate of deceleration required — desired stop time and stopping rpm.
- Quantity
- Coupling Size and Type e.g., 110T41 or 1070T10
- Shaft Gap or distance between shaft ends (BE Dimension)
- Bore Sizes: Must Specify clearance or interference fit, or fit will be furnished per Table 24, Page 40. Bore sizes will be furnished as per Tables 26 or 27 on Pages 40-42 unless specified differently.
- Shaft Dimensions as follows:

### For Straight Shafts:

Driving Shaft	Driven Shaft
Diameter U _____	Diameter U _____
Tolerance _____	Tolerance _____
Length V _____	Length V _____
Keyway _____	Keyway _____

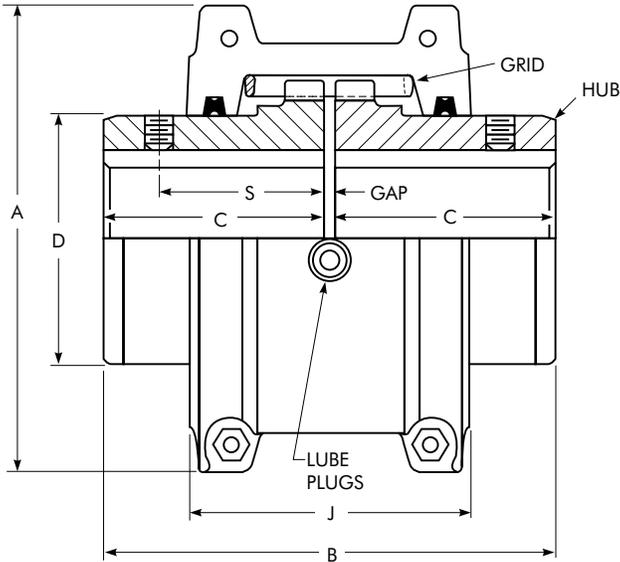
**NOTE:** Provide shaft tolerances if different than those shown in Tables 25 & 26, Pages 40-42. Unless otherwise specified, metric keyways will be furnished per ISO/R773-1969 and J<sub>s</sub>9 width tolerances. Keyway sizes in inch shafts will be furnished based on key sizes listed in Table 11, Page 33, to Falk tolerances. For other shaft/bore requirements, consult Falk.

### For Taper Shafts: keyway is assumed to be parallel to the bore.

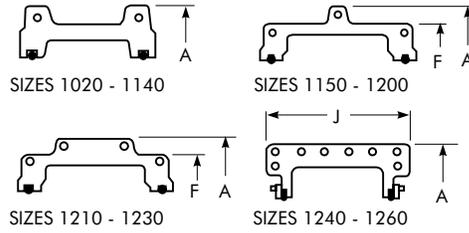
Diameter U _____	Across Flats _____
Length V _____	Corners ZW _____
Length W _____	Taper _____
Length X _____	Keyway _____
Length Y _____	

# Type T10

## Close Coupled/Dimensions — Millimeters



COVER PROFILES – HORIZONTAL SPLIT



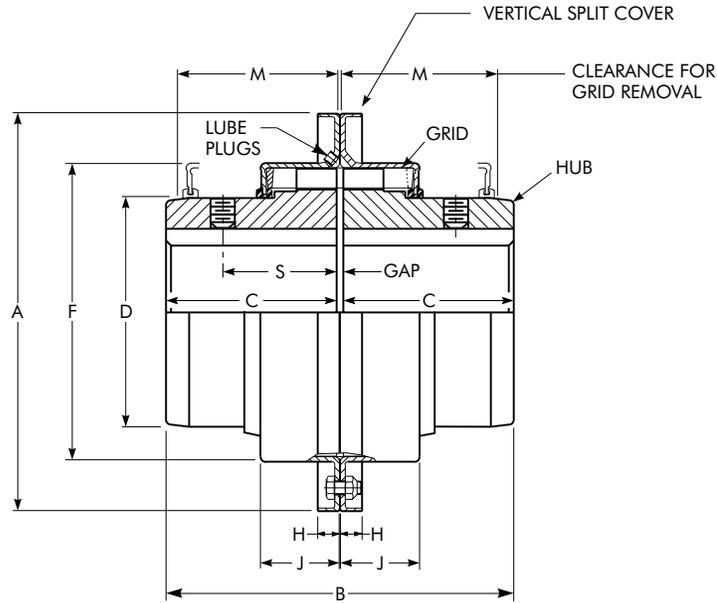
Sizes 1020 thru 1230T10 covers are cast aluminum alloy;  
 Sizes 1240 thru 1260T10 are fabricated steel.

SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm ●	Min Bore mm ■	Cplg Wt With No Bore-kg	Lube Wt kg	DIMENSIONS — MILLIMETERS							
							A	B	C	D	F	J	S	Gap
1020T	52	4500	28	13	1,92	0,0272	97,0	98,2	47,6	39,7	....	66,7	39,1	3
1030T	149	4500	35	13	2,58	0,0408	105,7	98,2	47,6	49,2	....	68,3	39,1	3
1040T	249	4500	43	13	3,34	0,0544	114,3	104,6	50,8	57,2	....	69,9	40,1	3
1050T	435	4500	50	13	5,44	0,0680	135,1	123,6	60,3	66,7	....	80,9	44,7	3
1060T	684	4350	56	20	7,44	0,0862	147,8	130,0	63,5	76,2	....	93,5	52,3	3
1070T	994	4125	67	20	10,4	0,113	158,8	155,4	76,2	87,3	....	96,8	53,8	3
1080T	2 050	3600	80	27	17,9	0,172	190,5	180,8	88,9	104,8	....	115,6	64,5	3
1090T	3 730	3600	95	27	25,6	0,254	211,1	199,8	98,4	123,8	....	122,2	71,6	3
1100T	6 280	2440	110	42	42,0	0,426	251,0	246,2	120,6	142,1	....	155,4	....	5
1110T	9 320	2250	120	42	54,3	0,508	269,7	259,0	127,0	160,3	....	161,5	....	5
1120T	13 700	2025	140	61	81,2	0,735	307,8	304,4	149,2	179,4	....	191,5	....	6
1130T	19 900	1800	170	67	121	0,907	345,9	329,8	161,9	217,5	....	195,1	....	6
1140T	28 600	1650	200	67	178	1,13	384,0	374,4	184,2	254,0	....	201,2	....	6
1150T	39 800	1500	215	108	234	1,95	453,1	371,8	182,9	269,2	391,2	271,5	....	6
1160T	55 900	1350	240	121	317	2,81	501,9	402,2	198,1	304,8	436,9	278,4	....	6
1170T	74 600	1225	280	134	448	3,49	566,9	437,8	215,9	355,6	487,2	307,3	....	6
1180T	103 000	1100	300	153	619	3,76	629,9	483,6	238,8	393,7	554,7	321,1	....	6
1190T	137 000	1050	335	153	776	4,40	675,6	524,2	259,1	436,9	607,8	325,1	....	6
1200T	186 000	900	360	178	1 058	5,62	756,9	564,8	279,4	497,8	660,4	355,6	....	6
1210T	249 000	820	390	178	1 424	10,5	844,6	622,6	304,8	533,4	750,8	431,8	....	13
1220T	336 000	730	420	203	1 785	16,1	920,8	663,2	325,1	571,5	822,2	490,2	....	13
1230T	435 000	680	450	203	2 267	24,0	1 003,3	703,8	345,4	609,6	904,7	546,1	....	13
1240T	559 000	630	480	254	2 950	33,8	1 087,1	749,6	368,3	647,7	....	647,7	....	13
1250T	746 000	580	◆	254	3 833	50,1	1 181,1	815,6	401,3	711,2	....	698,5	....	13
1260T	932 000	540	◆	254	4 682	67,2	1 260,9	876,6	431,8	762,0	....	762,0	....	13

★ Refer to Page 5 for General Information and Reference Notes.  
 ◆ Refer to Falk.

# Type T20

## Close Coupled/Dimensions — Millimeters



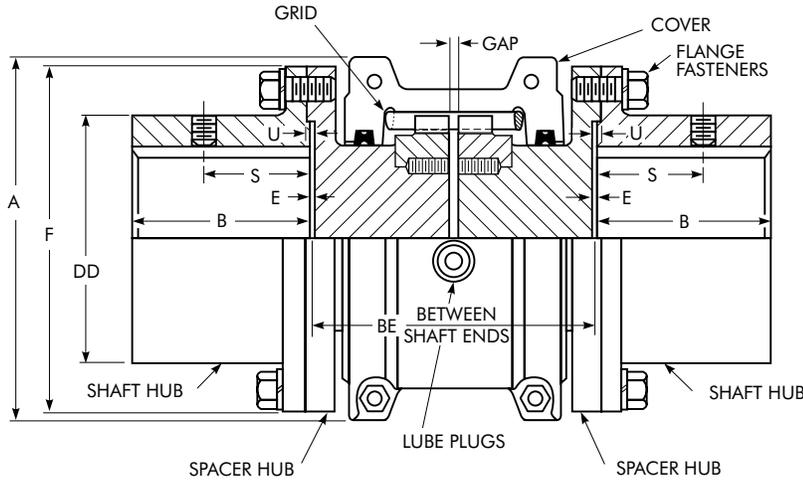
SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm •	Min Bore mm ■	Cplg Wt Without Bore-kg	Lube Wt kg	DIMENSIONS — MILLIMETERS									
							A	B	C	D	F	H	J	M	S	Gap
1020T	52	6000	28	13	1,94	0,0272	112,3	98,2	46,7	39,7	64,3	9,7	23,9	47,8	39,1	3
1030T	149	6000	35	13	2,58	0,0408	121,8	98,2	46,7	49,2	73,8	9,7	24,9	47,8	39,1	3
1040T	249	6000	43	13	3,35	0,0544	129,8	104,6	50,8	57,2	81,8	9,7	25,9	50,8	40,1	3
1050T	435	6000	50	13	5,32	0,0680	148,8	123,6	60,3	66,7	97,6	11,9	30,5	60,5	44,7	3
1060T	684	6000	56	20	7,01	0,0862	163,1	130,0	63,5	76,2	111,1	12,7	31,8	63,5	52,3	3
1070T	994	5500	67	20	10,2	0,113	174,2	155,4	76,2	87,3	122,3	12,7	33,5	66,5	53,8	3
1080T	2 050	4750	80	27	17,6	0,172	201,2	180,8	88,9	104,8	149,2	12,7	43,7	88,9	64,5	3
1090T	3 730	4000	95	27	25,4	0,254	232,9	199,8	98,4	123,8	168,3	12,7	47,0	95,2	71,6	3
1100T	6 280	3250	110	42	42,0	0,426	267,9	246,2	120,6	142,1	198,0	15,7	59,7	120,7	....	5
1110T	9 320	3000	120	42	54,4	0,508	286,9	259,0	127,0	160,3	216,3	16,0	62,7	124,0	....	5
1120T	13 700	2700	140	61	81,8	0,735	320,2	304,4	149,2	179,4	245,5	17,5	73,7	142,7	....	6
1130T	19 900	2400	170	67	122	0,907	379,0	329,8	161,9	217,5	283,8	20,6	74,9	146,0	....	6
1140T	28 600	2200	200	67	180	1,13	417,1	374,4	184,2	254,0	321,9	20,6	78,2	155,4	....	6
1150T	39 800	2000	215	108	230	1,95	476,2	371,8	182,9	269,2	374,4	19,3 ♦	107,3	203,2	....	6
1160T	55 900	1750	240	121	321	2,81	533,4	402,2	198,1	304,8	423,9	30,0 ♦	115,3	215,9	....	6
1170T	74 600	1600	280	134	448	3,49	584,2	437,8	215,9	355,6	474,7	30,0 ♦	120,1	226,1	....	6

★ Refer to Page 5 for General Information and Reference Notes.

♦ Dimension "H" is to the end of the bolt on Sizes 1150 thru 1170. Bolts are not shrouded.

# Type T31

## Full Spacer/Dimensions — Millimeters



SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm •	Min Bore mm ■	Cplg Wt With No Bore & Min BE kg	Wt Added Per mm of BE Over Minimum	Lube Wt kg	DIMENSIONS — MILLIMETERS											Flange Fasteners	
								A	B	BE		DD	E	F	S	U	Gap	No. per Flange & SAE Grade	Dia Inches	
										Min	Max									
1020T	52	3600	35	13	3,85	0,010	0,0272	97,0	34,9	88,9	203	52,4	0,8	85,7	27,4	1,8	5	4 — Gr 8	.250	
1030T	149	3600	43	13	5,21	0,016	0,0408	105,7	41,3	88,9	216	59,5	0,8	93,7	31,5	1,8	5	8 — Gr 8	.250	
1040T	249	3600	56	13	8,43	0,021	0,0544	114,3	54,0	88,9	216	78,6	0,8	112,7	27,4	1,8	5	8 — Gr 8	.250	
1050T	435	3600	67	13	12,8	0,028	0,0680	135,1	60,3	111,1	216	87,3	0,8	125,4	40,6	1,8	5	8 — Gr 8	.312	
1060T	684	3600	80	20	20,5	0,037	0,0862	147,8	73,0	122,2	330	103,2	1,8	144,5	43,2	2,8	5	8 — Gr 8	.375	
1070T	994	3600	85	20	24,8	0,048	0,113	158,8	79,4	127,0	330	109,5	1,8	152,4	46,7	2,8	5	12 — Gr 8	.375	
1080T	2 050	3600	95	27	40,0	0,069	0,172	190,5	88,9	155,5	406	122,2	1,8	177,8	49,8	2,8	5	12 — Gr 5	.500	
1090T	3 730	3600	110	27	60,1	0,10	0,254	211,1	101,6	163,5	406	142,9	1,8	209,6	56,9	2,8	5	12 — Gr 5	.625	
1100T	6 280	2440	130	39	90,2	0,12	0,426	251,0	90,4	203,2	406	171,4	1,6	250,8	.....	3,2	6	12 — Gr 5	.750	
1110T	9 320	2250	150	51	119	0,16	0,508	269,7	104,1	209,6	406	196,8	1,6	276,2	.....	3,2	6	12 — Gr 5	.750	
1120T	13 700	2025	170	64	178	0,20	0,735	307,8	119,4	246,1	406	225,4	1,6	319,1	.....	4,0	10	12 — Gr 5	.875	
1130T	19 900	1800	190	77	237	0,29	0,907	345,9	134,6	257,1	406	238,1	1,6	346,1	.....	4,0	10	12 — Gr 5	1.000	
1140T	28 600	1650	210	89	327	0,40	1,13	384,0	152,4	266,7	406	266,7	1,6	385,8	.....	4,0	10	12 — Gr 5	1.125	

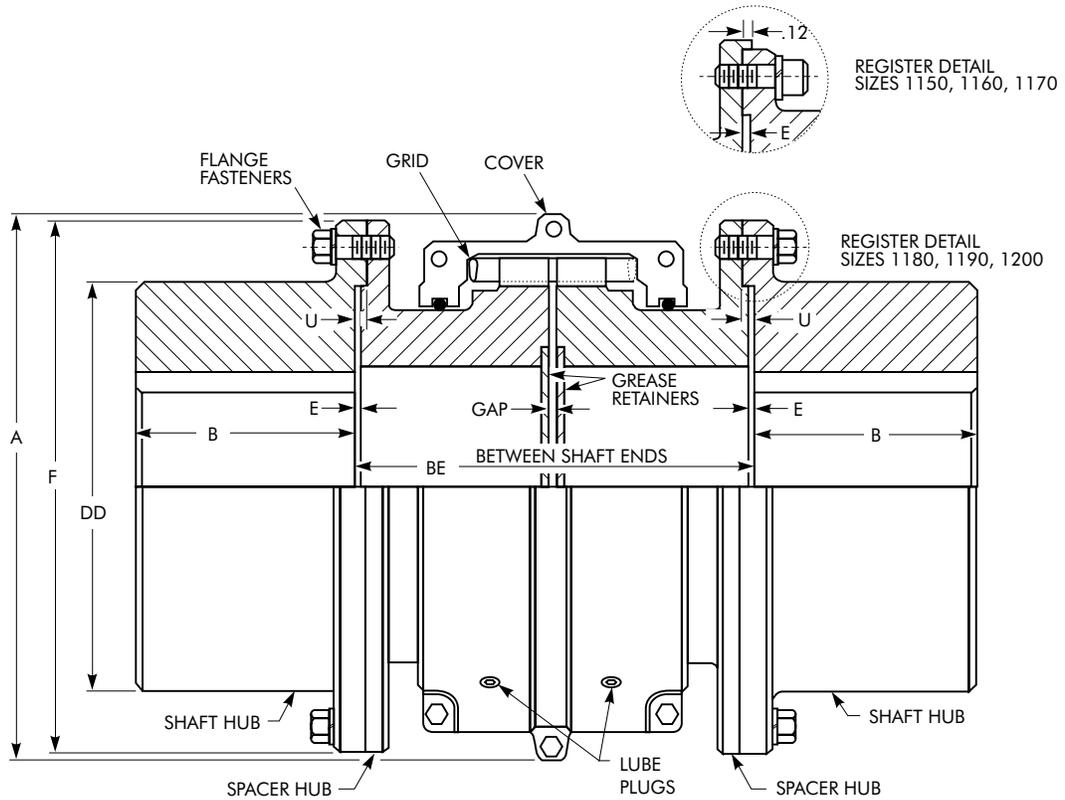
★ Refer to Page 5 for General Information and Reference Notes.

**TABLE 4 — Type T31 Standard Stock Spacer Lengths (BE=Distance Between Shaft Ends)**

Between Shaft Ends		Pump Std	COUPLING SIZE									
Millimeters	Inch		1020T	1030T	1040T	1050T	1060T	1070T	1080T	1090T	1100T	1110T
89	3.5	ANSI	X	X	X							
100	3.94	ISO	X	X	X							
108	4.25	MISC	X	X	X							
111	4.38	ANSI	X	X	X	X						
119	4.69	MISC	X	X	X	X						
127	5.00	ANSI	X	X	X	X	X	X				
133	5.22	MISC	...	...	X							
137	5.38	MISC	...	X	X							
140	5.51	ISO	X	X	X	X	X	X				
144	5.66	MISC	...	X	X	X						
148	5.81	MISC	...	X	X	X	X					
152	5.97	MISC	...	...	X	X						
155	6.12	MISC	...	X	X	X	X	X				
176	6.94	MISC	X	X	X	X	X					
180	7.09	ISO	...	...	X	X	...	X	X			
184	7.25	ANSI	...	X	X	X	X	X	X			
203	8.00	MISC	...	...	...	...	...	...	...	X		
218	8.59	MISC	...	...	...	...	...	...	X			
219	8.62	MISC	...	...	...	...	X	X				
226	8.88	MISC	...	...	...	...	...	...	...		X	
248	9.75	ANSI	...	...	...	...	X	X	X	X	X	X
250	9.84	ISO	...	...	...	...	...	...	...	...	X	X
252	9.94	MISC	...	...	...	...	...	...	X			
282	11.09	MISC	...	...	...	...	...	...	X			
311	12.25	ANSI	...	...	...	...	X	X	X	X		

# Type T31

## Full Spacer/Dimensions — Millimeters



SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm ●	Min Bore mm ■	Cplg Wt With No Bore & Min BE kg	Wt Added Per mm of BE Over Minimum	Lube Wt kg	DIMENSIONS — MILLIMETERS										Flange Fasteners	
								A	B	BE		DD ♦	E	F	U	Gap	No. per Flange & SAE Grade	Dia Inches	
										Min	Max								
1150T	39 800	1500	270	102	462	0,19	1,95	453,1	172,7	344,5	371,3	334,3	5,1	425,4	...	10	14 – Gr 8	.875	
1160T	55 900	1350	290	115	566	0,25	2,81	501,4	186,4	355,6	406,4	366,0	6,6	457,2	...	10	14 – Gr 8	.875	
1170T	74 600	1225	340	127	856	0,38	3,49	566,4	220,2	384,2	444,5	424,9	8,4	527,0	...	10	16 – Gr 8	1.000	
1180T	103 000	1100	340	102	1 135	0,47	3,76	629,9	248,9	400,1	490,5	450,8	5,1	590,6	8,1	10	16 – Gr 5	1.125	
1190T	137 000	1050	380	115	1 525	0,60	4,40	675,6	275,8	411,2	530,4	508,0	5,1	660,4	8,1	10	18 – Gr 5	1.250	
1200T	186 000	900	400	127	1 910	0,85	5,62	756,9	305,3	444,5	574,5	530,4	6,1	711,2	9,1	10	18 – Gr 5	1.250	

★ Refer to Page 5 for General Information and Reference Notes.

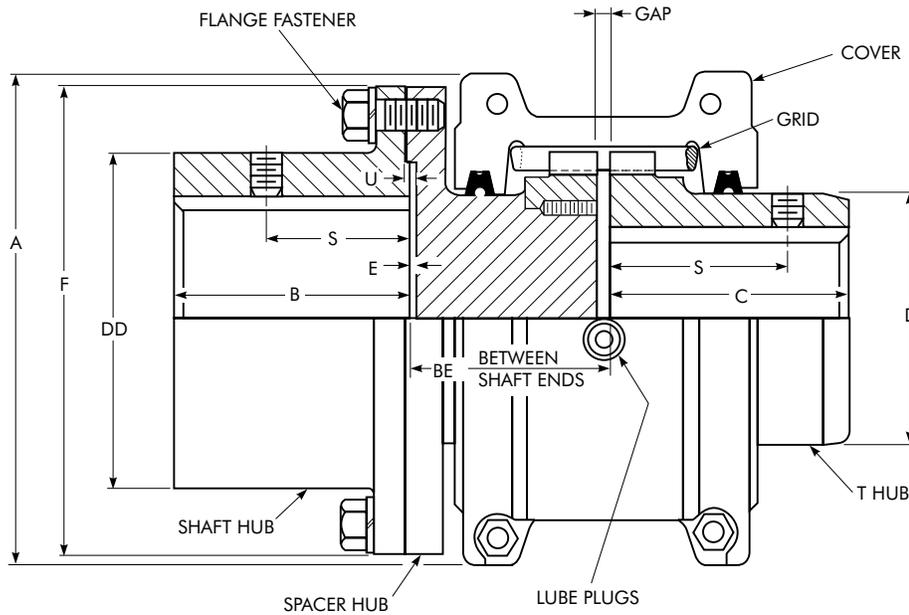
♦ Dimension DD is for an as-cast, unmachined surface for Sizes 1180, 1190 and 1200T.

COUPLING SIZE	RIGID HUB SIZE
1150T	1055G
1160T	1060G
1170T	1070G
1180T	1080G
1190T	1090G
1200T	1100G

Type T31 couplings sizes shown above use Type G52 gear coupling rigid hubs as the shaft hubs. The table at left indicates sizes used.

# Type T35

## Half Spacer/Dimensions — Millimeters



SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm •		Min Bore mm ■	Cplg Wt With No Bore & Min BE kg	Wt Added Per mm of BE Over Minimum	Lube Wt kg	DIMENSIONS — MILLIMETERS														Flange Fasteners	
			Shaft Hub	T Hub					A	B	BE		C	D	DD	E	F	S		U	Gap	No. Per Flange & Grade	Dia	
											Min	Max						Shaft Hub	T Hub					
1020T	52	3600	35	28	13	2,89	0,010	0,0272	97,0	34,9	45,2	102	47,6	39,7	52,4	0,8	85,7	27,4	39,1	1,8	3	4 — Gr 8	.250	
1030T	149	3600	43	35	13	3,89	0,016	0,0408	105,7	41,3	45,2	109	47,6	49,2	59,5	0,8	93,7	31,5	39,1	1,8	3	8 — Gr 8	.250	
1040T	249	3600	56	43	13	5,88	0,021	0,0544	114,3	54,0	45,2	109	50,8	57,2	78,6	0,8	112,7	27,4	40,1	1,8	3	8 — Gr 8	.250	
1050T	435	3600	67	50	13	9,12	0,028	0,0680	135,1	60,3	56,3	109	60,3	66,7	87,3	0,8	125,4	40,6	44,7	1,8	3	8 — Gr 8	.312	
1060T	684	3600	80	56	20	13,9	0,037	0,0862	147,8	73,0	61,9	166	63,5	76,2	103,2	1,8	144,5	43,2	52,3	2,8	3	8 — Gr 8	.375	
1070T	994	3600	85	67	20	17,6	0,048	0,113	158,8	79,4	64,3	166	76,2	87,3	109,5	1,8	152,4	46,7	53,8	2,8	3	12 — Gr 8	.375	
1080T	2 050	3600	95	80	27	28,9	0,069	0,172	190,5	88,9	78,6	204	88,9	104,8	122,2	1,8	177,8	49,8	64,5	2,8	3	12 — Gr 5	.500	
1090T	3 730	3600	110	95	27	42,8	0,10	0,254	211,1	101,6	82,6	204	98,4	123,8	142,9	1,8	209,6	56,9	71,6	2,8	3	12 — Gr 5	.625	
1100T	6 280	2440	130	110	42 ♦	66,1	0,12	0,426	251,0	90,4	103,2	205	120,6	142,1	171,4	1,6	250,8	.....	.....	3,0	5	12 — Gr 5	.750	
1110T	9 320	2250	150	120	42 ♦	84,6	0,16	0,508	269,7	104,1	106,4	205	127,0	160,3	196,8	1,6	276,2	.....	.....	3,0	5	12 — Gr 5	.750	
1120T	13 700	2025	170	140	61 ♦	129	0,20	0,735	307,8	119,4	124,6	205	149,2	179,4	225,4	1,6	319,1	.....	.....	4,0	6	12 — Gr 5	.875	
1130T	19 900	1800	190	170	67 ♦	179	0,29	0,907	345,9	134,6	130,1	205	161,9	217,5	238,1	1,6	346,1	.....	.....	4,0	6	12 — Gr 5	1.000	
1140T	28 600	1650	210	200	67 ♦	252	0,40	1,130	384,0	152,4	134,9	205	184,2	254,0	266,7	1,6	358,8	.....	.....	4,0	6	12 — Gr 5	1.125	

★ Refer to Page 5 for General Information and Reference Notes.  
 ♦ Minimum bores are for the T Hub. Shaft hub bores are 39, 51, 64, 77, and 89 respectively.

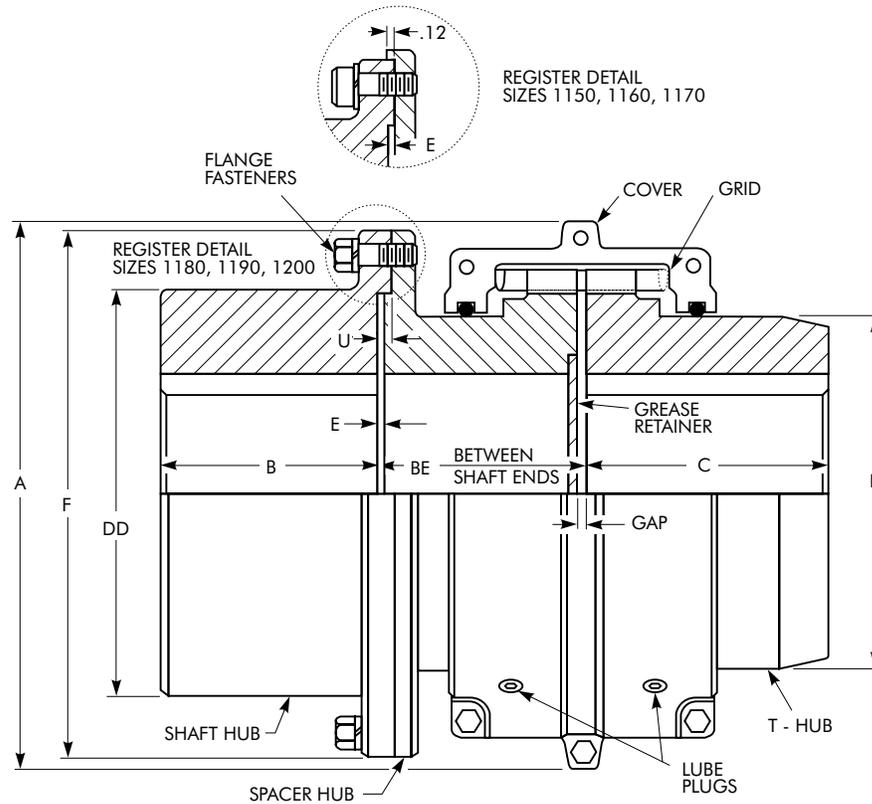
TABLE 5 — Type T35 Half Spacer Coupling Standard Stock Spacer Lengths

Between Shaft Ends		Pump Std	COUPLING SIZE *									
Millimeter	Inch		1020T	1030T	1040T	1050T	1060T	1070T	1080T	1090T	1100T	1110T
45	1.78	MISC	X	X	X							
56	2.22	MISC	X	X	X	X						
64	2.53	MISC	X	X	X	X	X					
74	2.91	MISC	X	X	X	X						
75	2.95	MISC	...	...	...	...	X	X				
89	3.50	ANSI	X	X	X	X	X					
90	3.53	MISC	...	...	...	...	X	X	X			
93	3.66	MISC	...	X	X	X	X	X	X	X		
95	3.73	MISC	...	...	...	...	...	X	X	X		
103	4.06	MISC	...	...	...	...	...	...	...	...	X	
125	4.94	MISC	...	...	...	...	...	...	...	...	X	
127	5.00	ANSI	...	...	...	...	...	...	...	...	X	
131	5.17	MISC	...	...	...	...	...	...	...	...	X	
140	5.51	ISO	...	...	...	...	...	...	X	X	X	
156	6.16	MISC	...	...	...	...	...	X	X	X	X	
157	6.19	MISC	...	...	...	...	...	...	...	...	X	
180	7.09	ISO	...	...	...	...	...	...	X	...	X	

\* CAUTION: To permit removal of T35 shaft hub without moving connected equipment, select a half spacer with dimension BE (in Table 5) greater than dimension B (in uppermost table) or overhanging the shaft hub. Refer to Falk for maximum overhang allowed.

# Type T35

## Half Spacer/Dimensions — Millimeters



SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Hub Bores				Cplg Wt With No Bore & Min BE kg	Wt Added Per mm of BE Over Minimum	Lube Wt kg	DIMENSIONS — MILLIMETERS												Flange Fasteners	
			Shaft Hub		T Hub					A	B	BE		C	D	DD ♦	E	F	U	Gap	No. Per Flange & Grade	Dia	
			Max mm ●	Min Bore mm ■	Max mm ●	Min Bore mm ■						Min	Max										
1150T	39 800	1500	270	102	215	108	348	0,19	1,95	453,1	172,7	174,5	187,5	182,9	269,2	334,3	5,1	425,4	...	6	14 — Gr 8	.875	
1160T	55 900	1350	290	115	240	121	441	0,25	2,81	501,4	186,4	179,6	204,7	198,1	304,8	366,0	6,6	457,2	...	6	14 — Gr 8	.875	
1170T	74 600	1225	340	127	280	134	652	0,38	3,49	566,4	220,2	194,1	223,8	215,9	355,6	424,9	8,4	527,0	...	6	16 — Gr 8	1.000	
1180T	103 000	1100	340	102	300	153	877	0,47	3,76	629,9	248,9	201,7	246,9	238,8	393,7	450,8	5,1	590,6	8,1	6	16 — Gr 5	1.125	
1190T	137 000	1050	380	115	335	153	1 150	0,60	4,40	675,6	275,8	207,3	266,7	259,1	436,9	508,0	5,1	660,4	8,1	6	18 — Gr 5	1.250	
1200T	186 000	900	400	127	360	178	1 484	0,85	5,62	756,9	305,3	223,8	289,1	279,4	497,8	530,4	6,1	711,2	9,1	6	18 — Gr 5	1.250	

★ Refer to Page 5 for General Information and Reference Notes.

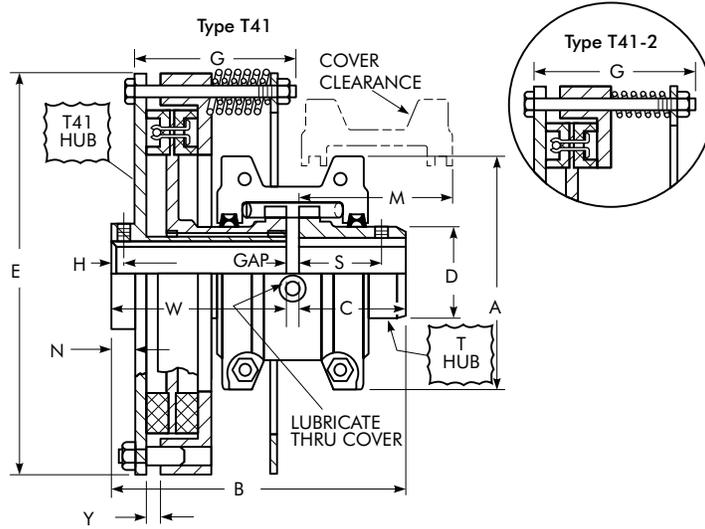
♦ Dimension DD is for an as-cast, unmachined surface for Sizes 1180, 1190 and 1200T.

COUPLING SIZE	RIGID HUB SIZE
1150T	1055G
1160T	1060G
1170T	1070G
1180T	1080G
1190T	1090G
1200T	1100G

Type T35 couplings sizes shown above use Type G52 gear coupling rigid hubs as the shaft hubs. The table at left indicates sizes used.

# Types T41, T41-2

## Controlled Torque/Dimensions — Millimeters



**TABLE 6 — T41 Slip Torques, Bores & Speeds**

SIZE ★	Cplg Wt ♦ w/o Bore-kg		Lube Wt kg	DIMENSIONS—MILLIMETERS													
	T41	T41-2		A	B	C	D	E	G	H	M ▲	N	S	W	Y ♣	Gap	
20T	6,17	...	0,027	101,6	130,0	47,8	39,6	177,8	63,5	5,6	47,8	10,7	39,1	79,2	5,1	3	
30T	8,16	8,16	0,041	111,3	130,0	47,8	49,3	201,7	69,6	5,6	50,8	10,7	39,1	79,2	5,1	3	
40T	11,5	11,3	0,054	117,3	133,1	50,8	56,9	231,6	82,3	5,6	63,5	12,2	40,1	79,2	5,1	3	
50T	16,4	16,0	0,068	138,2	150,9	60,5	66,5	270,3	82,3*	5,6	63,5	10,7	44,7	87,4	5,1	3	
60T	22,0	21,3	0,086	150,9	163,1	63,5	76,2	301,2	88,9	8,1	76,2	15,2	52,3	96,5	5,1	3	
70T	28,2	27,3	0,113	162,1	182,9	76,2	87,4	323,6	101,6	8,1	82,8	14,7	53,8	103,6	5,1	3	
80T	41,0	40,3	0,172	193,5	206,2	88,9	104,6	361,7	101,6	8,1	91,9	14,7	64,5	114,3	5,1	3	
90T	62,6	60,3	0,254	212,9	230,1	98,6	124,0	413,5	127,0	8,1	109,2	16,3	71,1	128,5	5,1	3	
100T	101	91,6	0,426	251,0	269,2	120,7	142,2	491,2	139,7	...	147,3	20,8	...	143,8	5,3	5	
110T	128	121	0,499	269,7	288,3	127,0	160,5	543,1	152,4	...	152,4	21,8	...	156,5	9,1	5	
120T	183	174	0,726	307,8	341,1	149,4	179,3	590,3	177,8	...	177,8	26,9	...	185,4	9,1	6	
130T	260	249	0,907	345,9	360,9	162,1	217,4	683,8	190,5	...	185,4	26,9	...	192,5	9,1	6	
140T	376	360	1,13	384,0	389,1	184,2	254,0	766,6	203,2	...	213,4	27,2	...	198,6	8,9	6	
150T	502	...	1,91	453,1	434,6	182,9	269,2	863,6	215,9	...	254,0	31,8	...	245,4	9,1	6	
160T	652	...	2,81	501,4	454,9	198,1	304,8	988,6	215,9	...	254,0	32,3	...	250,4	9,1	6	
170T	869	...	3,49	566,4	490,0	215,9	355,6	1 065,8	241,3	...	266,7	32,3	...	267,7	9,1	6	
180T	1 161	...	3,76	629,9	536,7	238,8	393,7	1 160,8	241,3	...	266,7	42,7	...	291,6	9,1	6	
190T	1 426	...	4,40	673,1	562,6	259,1	436,9	1 263,9	254,0	...	279,4	42,7	...	297,2	9,1	6	
200T	1 805	...	5,62	756,9	601,2	279,4	497,8	1 377,2	254,0	...	279,4	42,7	...	315,5	9,1	6	

★ Refer to Page 5 for General Information and Reference Notes. Use a coupling guard that will permit air to circulate and cool the coupling. Gap is 3 mm for Sizes 1020T thru 1090T; 5 mm for Sizes 1100T & 1110T and 6 mm for Sizes 1120T thru 1200T.

♦ Weights are for couplings with Dimension C and W length hubs.

▲ Dimension shown is for Type T41. Type T41-2=88,9 mm.

♣ To remove cover without disturbing torque setting, allow M clearance.

♣ With new friction segments.

Slip Torque Nm		CPLG SIZE	Maximum Bore with Recommended Keys ▼		Allow Speed rpm
Min	Max		T41 Hub mm	T Hub mm	
4,75	38,0	20T41	24	28	3600
5,65	15,8	30T41-2	32	35	3600
12,4	99,4	30T41			
6,78	26,0	40T41-2	35	43	3600
20,9	167	40T41			
9,04	41,8	50T41-2	45	50	3600
33,9	271	50T41			
11,3	73,4	60T41-2	50	56	3600
58,8	470	60T41			
13,6	108	70T41-2	60	67	3600
87,0	696	70T41			
44,1	192	80T41-2	70	80	2800
153	1 220	80T41			
74,6	316	90T41-2	85	95	2500
254	2 034	90T41			
136	576	100T41-2	100	110	2100
463	3 706	100T41			
203	859	110T41-2	110	120	1850
689	5 514	110T41			
294	1 288	120T41-2	120	140	1750
1 028	8 225	120T41			
429	1 830	130T41-2	145	170	1450
1 469	11 750	130T41			
610	2 599	140T41-2	180	200	1300
2 079	16 631	140T41			
2 938	23 501	150T41	190	215	1100
4 067	32 540	160T41	225	240	950
5 536	44 290	170T41	250	280	870
7 570	60 560	180T41	290	300	760
10 168	81 349	190T41	320	335	720
13 558	108 466	200T41	340	360	670

▼ Refer to Tables 13 & 15 for maximum bores with square or rectangular keys.

# Types T44 & T44-2 Controlled Torque Clutches/Dimensions — Millimeters

Figure 1 — Sprocket Mounted (not included) — See Sprocket Selections Table 8, Page 20

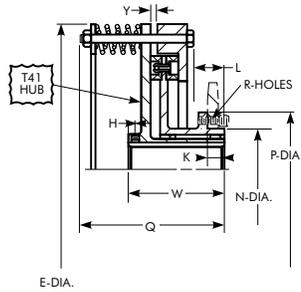
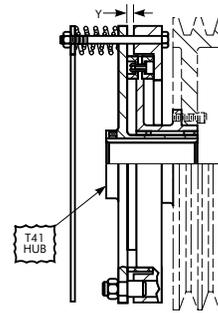


Figure 2 — Sheave Mounted (not included) — See Minimum Sheave Selections Table 9, Page 20.



SIZE ★	Cplg Wt ♦ w/o Bore-kg		DIMENSIONS—MILLIMETERS											Max Chain Size	
			E	H	K	L	N +0,000 -0,025	P	Q	R			W		Y ▼
	Size (UNC - in)	No.								Bolt Circle Dia					
20T	5,26	...	177,8	5,6	19,8	25,4	44,4	61,0	97,5	10-24	4	53,3	79,2	5,1	40
30T	6,49	6,49	201,7	5,6	18,5	25,4	57,2	76,2	104,1	10-24	6	66,0	79,2	5,1	50
40T	8,57	8,35	231,6	5,6	13,5	22,4	66,7	91,4	113,3	.250-20	6	78,7	79,2	5,1	60
50T	13,3	12,9	270,3	5,6	19,0	30,5	76,2	106,7	121,4	.312-18	6	91,4	87,4	5,1	80
60T	16,0	15,3	301,2	8,1	20,1	34,5	88,9	124,5	131,6	.375-16	6	106,7	96,5	5,1	100
70T	20,5	19,6	323,6	8,1	24,6	39,1	101,6	137,2	150,4	.375-16	8	119,4	103,6	5,1	100
80T	28,6	27,4	361,7	8,1	30,7	49,8	120,6	160,0	161,0	.438-14	8	139,7	114,3	5,1	140
90T	44,2	42,0	413,5	8,1	34,3	56,4	139,7	185,4	194,6	.500-13	8	162,6	128,5	5,1	160
100T	75,7	71,2	491,2	...	32,3	58,9	158,8	215,9	213,4	.625-11	8	185,4	143,8	5,3	180
110T	105	98,4	543,1	...	37,6	64,0	171,4	238,8	231,1	.750-10	8	203,2	156,5	9,1	180
120T	131	122	590,3	...	54,9	89,9	193,7	261,6	278,9	.750-10	10	226,1	185,4	9,1	200
130T	205	194	683,8	...	54,9	85,9	235,0	302,3	292,6	.750-10	12	266,7	192,5	9,1	200
140T	289	273	766,6	...	54,9	82,3	279,4	348,0	301,8	.750-10	14	312,4	198,6	8,9	200

★ Refer to Page 5 for General Information and Reference Notes.  
♦ Weights are for couplings with Dimension W length hubs.  
▼ With new friction segments.

TABLE 7 — T44 Slip Torques, Bores & Speeds

Slip Torque Nm		CLUTCH SIZE	Max Bore with Recommended Keys *	Allow Speed rpm
Min	Max			
4,75	38,0	20T44	24	3600
5,65	15,8	30T44-2 30T44	32	3600
12,4	99,4			
6,78	26,0	40T44-2 40T44	35	3600
20,9	167			
9,04	41,8	50T44-2 50T44	45	3600
33,9	271			
11,3	73,4	60T44-2 60T44	50	3600
58,8	470			
13,6	108	70T44-2 70T44	60	3600
87,0	696			
44,1	192	80T44-2 80T44	70	2800
153	1 220			
74,6	316	90T44-2 90T44	85	2500
254	2 034			
136	576	100T44-2 100T44	100	2100
463	3 706			
203	859	110T44-2 110T44	110	1850
689	5 514			
294	1 288	120T44-2 120T44	120	1750
1 028	8 225			
429	1 830	130T44-2 130T44	145	1450
1 469	11 750			
610	2 599	140T44-2 140T44	180	1300
2 079	16 631			

\* Refer to Table 15 for maximum bores with square or rectangular keys.

TABLE 8 — Sprocket Selections ▲ (Minimum Number of Teeth) — (See Fig. 1)

CHAIN SIZE	CLUTCH SIZE												
	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120	1130	1140
35	24	29	...	...	...	...	...	...	...	...	...	...	...
40	19	23	27	30	...	...	...	...	...	...	...	...	...
50	...	19	22	25	29	31	...	...	...	...	...	...	...
60	...	...	19	22	24	26	30	...	...	...	...	...	...
80	...	...	...	17	19	21	24	27	31	...	...	...	...
100	...	...	...	...	16	17	20	22	25	27	30	...	...
120	...	...	...	...	...	...	17	19	22	24	25	29	...
140	...	...	...	...	...	...	15	17	19	21	22	25	28
160	...	...	...	...	...	...	...	15	17	19	20	23	25
180	...	...	...	...	...	...	...	...	16	17	18	20	23
200	...	...	...	...	...	...	...	...	...	...	17	19	21

▲ Based on minimum clearance for sprocket chain over "P" diameter.

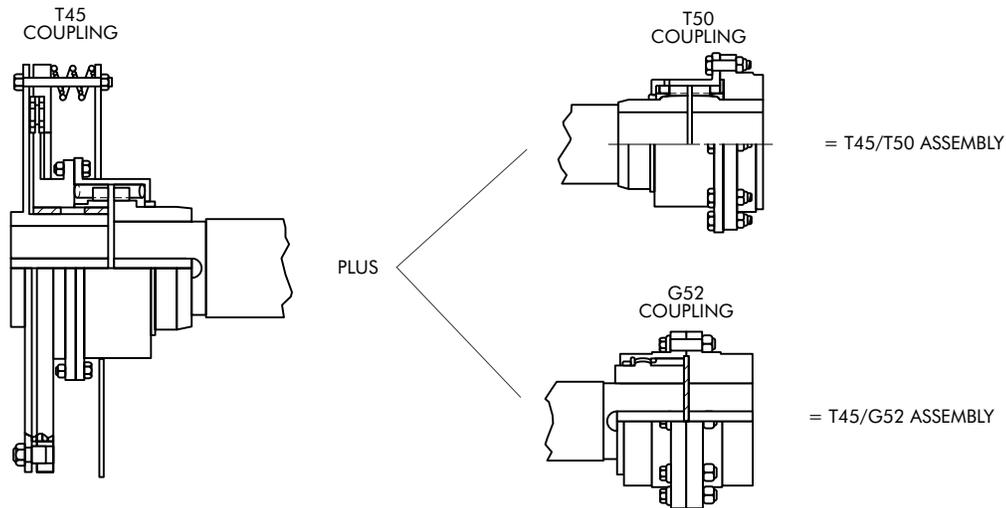
TABLE 9 — Minimum Sheave Selections ♣ (See Fig. 2)

CPLG SIZE	BELT TYPE							
	Outside Diameter — mm			Pitch Diameter — mm				
	3V	5V	8V	A	B	C	D	E
20T	78,7	180,3	317,5	79,5	137,2	228,6	330,2	533,4
30T	94,0	180,3	317,5	94,7	137,2	228,6	330,2	533,4
40T	109,2	180,3	317,5	110,0	137,2	228,6	330,2	533,4
50T	124,5	180,3	317,5	125,2	137,2	228,6	330,2	533,4
60T	142,2	180,3	317,5	143,0	145,0	228,6	330,2	533,4
70T	154,9	180,3	317,5	155,7	157,7	228,6	330,2	533,4
80T	177,8	190,5	317,5	178,6	180,6	228,6	330,2	533,4
90T	203,2	215,9	317,5	204,0	206,0	228,6	330,2	533,4
100T	233,7	246,4	317,5	234,4	236,5	228,6	330,2	533,4
110T	256,5	269,2	317,5	257,3	259,3	268,2	330,2	533,4
120T	279,4	292,1	317,5	280,2	282,2	291,1	330,2	533,4
130T	320,0	332,7	353,1	320,8	322,8	331,7	340,4	533,4
140T	365,8	378,5	398,8	366,5	368,6	377,4	386,1	533,4

♣ Based on mounting flange restrictions.

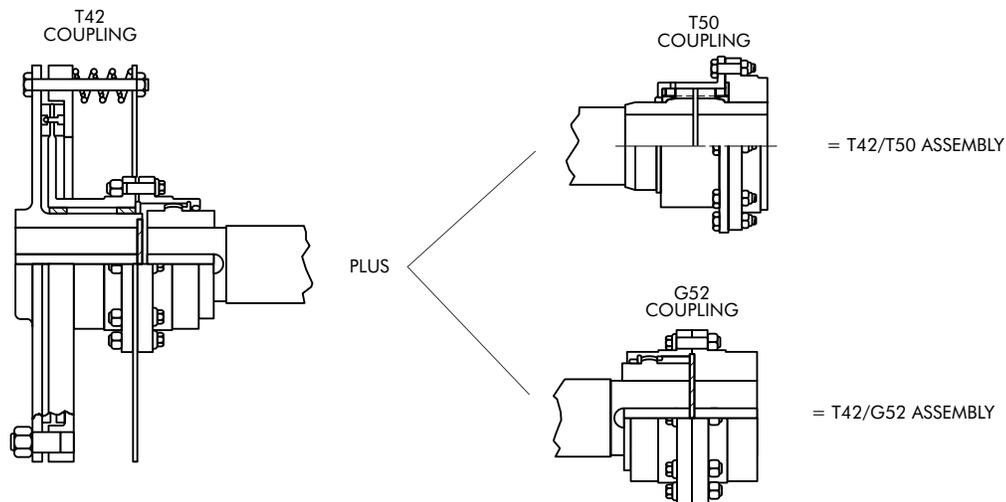
## Types T45 Piloted Controlled Torque Assemblies

A **T45** coupling is a hybrid T41/T50 assembly. It provides the shock dampening of a Steelflex grid coupling in a piloted design for floating shafts with a controlled torque feature for overload protection.



## Types T42 Piloted Controlled Torque Assemblies

A **T42** coupling is also a hybrid. It is a T41 controlled torque assembly mated to a standard flex half gear coupling. This arrangement provides for high torques and a torsionally stiffer assembly with overload protection.



Either the **T45** or **T42** coupling can be used with a T50 or G52 coupling on the opposite end of the floating shaft to achieve different operational characteristics or preferences for grid or gear couplings.

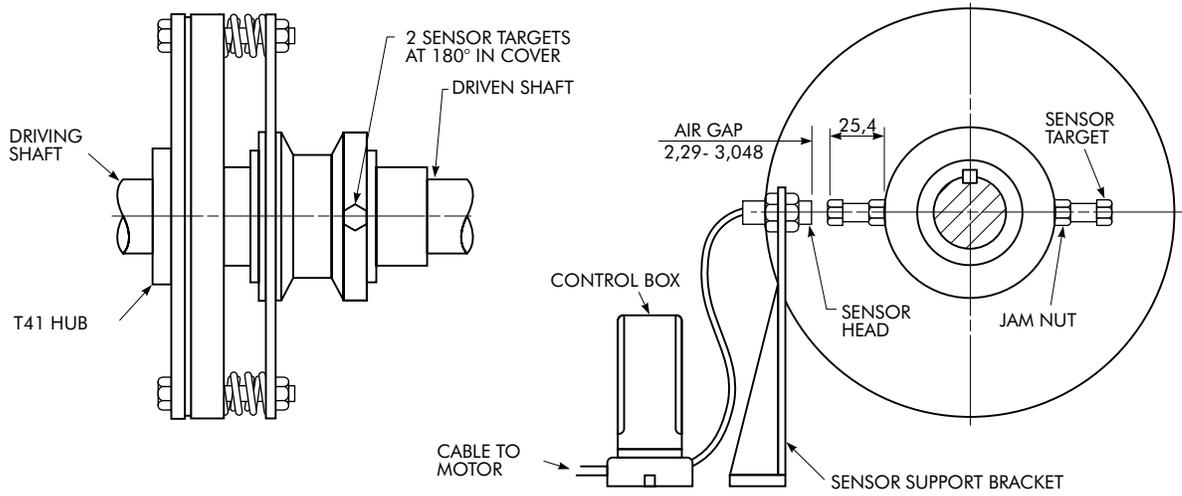
### T42 Flex Half Selection

T42 Control Coupling Size	G52 Flex Half Coupling Size
1030T42	1010G
1040T42	1010G
1050T42	1010G
1060T42	1015G
1070T42	1015G
1080T42	1020G
1090T42	1025G
1100T42	1030G

### T42 Flex Half Selection

T42 Control Coupling Size	G52 Flex Half Coupling Size
1110T42	1030G
1120T42	1035G
1130T42	1040G
1140T42	1050G
1150T42	1050G
1160T42	1060G
1170T42	1070G

# Optional Automatic Proximity Sensor Cutout Switch



An automatic proximity cutout switch in the motor starter control circuit of controlled torque coupling or clutch application is recommended for protection of connected equipment and coupling or clutch where damaging thermal buildup could develop. Refer to Slip Torque Performance Charts on Pages 22 through 25 to determine if an automatic proximity sensor cutout switch is required.

The proximity cutout switch speed control is adjustable at the control box. It is set at a required cutout speed and continually compares the actual speed of the driven shaft with the set cutout speed. The control box can be mounted in an approximate space of 76,2 millimeters wide by 76,2 millimeters deep by 127,0 millimeters high.

During overload, the coupling or clutch slips at a predetermined speed. When the driven shaft speed drops below the cutout switch speed setting, it opens the motor circuit and the drag load stops the motor shaft.

When the underspeed cutout switch is wired for automatic reset, the drive is immediately ready for service (after overload is removed) without resetting the circuit at any point. To restart the drive, just press either the main or remote control start button. The motor will not maintain normal operation if the overload has not been removed because the motor contractor circuit will reopen as soon as the start button is released.

The customer may incorporate a warning light or an alarm to the circuit to signal the operator of an overload or shutdown condition.

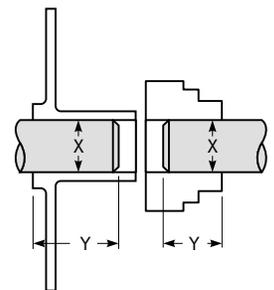
Refer to Service Manual 428-440 for complete details.

## Overhanging Hubs

When the distance between shaft ends is greater than the Coupling gap or when the coupling or clutch hub length is greater than the usable shaft length, overhang one or both hubs. For Type T41, if this results in less than one shaft diameter of hub engagement, check key stresses or use a semi-standard long T hub listed in Table 21, Page 39 or submit application details to Falk.

**CAUTION:** The effect of open keyways on coupling or clutch balance should always be considered.

Dimension Y must be equal to or greater than dimension X for clearance fits, or greater than Dimension X times .75 for interference fits.



# Slip Torque Performance Charts

The following charts are for LT, T41, T41-2, T44 and T44-2 couplings or clutches. The coupling or clutch slip torque setting and operating speed determine the length of time a coupling or clutch can slip without exceeding its thermal capacity. An automatic cutout switch (see Page 21) is REQUIRED on applications as indicated in the upper right of the charts (Footnote 1) and is recommended on applications where "minutes of slip and non-slip" are exceeded.

**CAUTION:** Thermal conditions in the slip torque performance charts apply only when the controlled torque hub is mounted on the driving shaft. When the controlled torque hub is mounted on the driven shaft reduce the slip time by 50%.

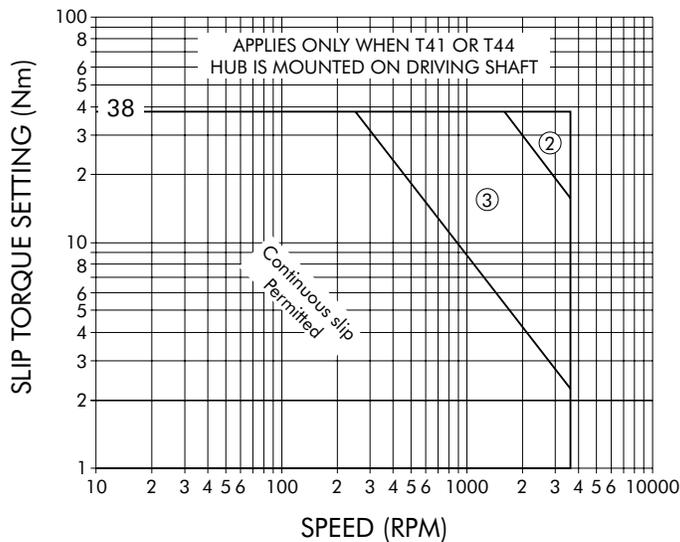
During slip, heat is generated at the friction lining surfaces. The following charts specify the thermal capacities. When the torque (slip torque at the slip speed — not motor horsepower) being

dissipated during a slip period exceeds the thermal capacity of the coupling or clutch, the following conditions will result:

1. Lining wear will change the coefficient of friction and slip torque setting.
2. Excessive sleeve bearing wear.
3. Warping of controlled torque hub flange and drive plate flange.
4. Heavy smoke and possibly fire.
5. Complete coupling or clutch failure.

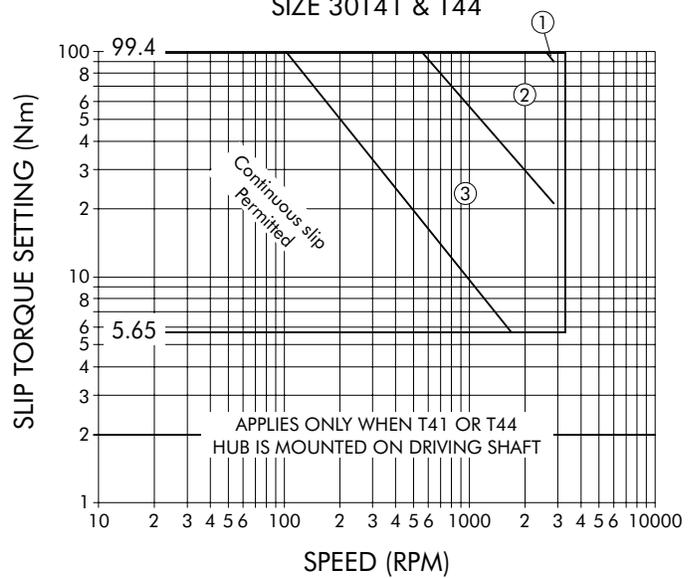
The limits specified in these charts must be adhered to for proper operation of controlled torque couplings or clutches in overload systems. Refer to Falk all applications requiring operation beyond the coupling or clutch thermal capacity.

SIZES 2LT and 20T41 & T44



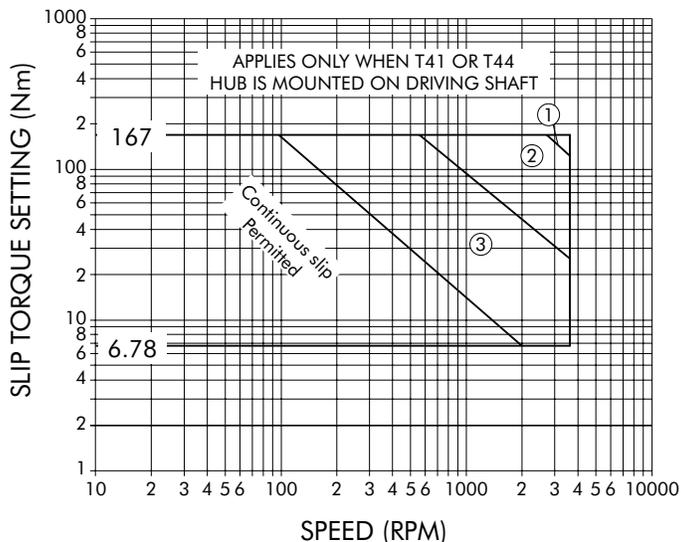
- ② - 17 seconds slip permitted if followed by 6 minutes non-slip
- ③ - 34 seconds slip permitted if followed by 6 minutes non-slip

SIZE 30T41 & T44



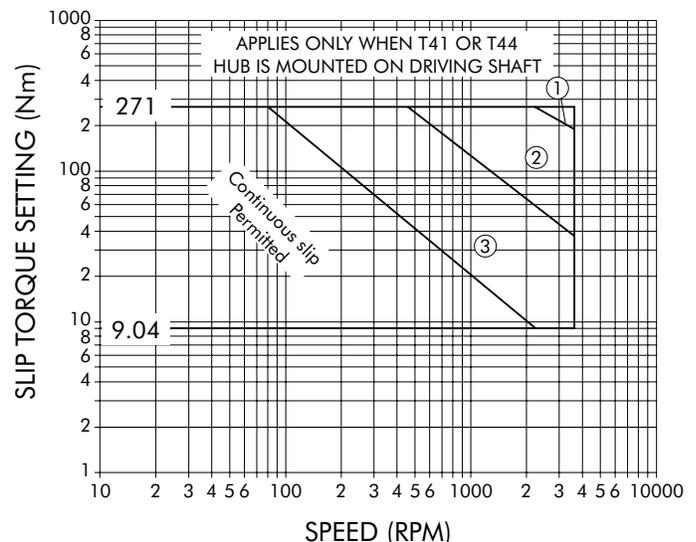
- ① - Automatic cutout switch required
- ② - 20 seconds slip permitted if followed by 7 minutes non-slip
- ③ - 40 seconds slip permitted if followed by 7 minutes non-slip

SIZE 40T41 & T44

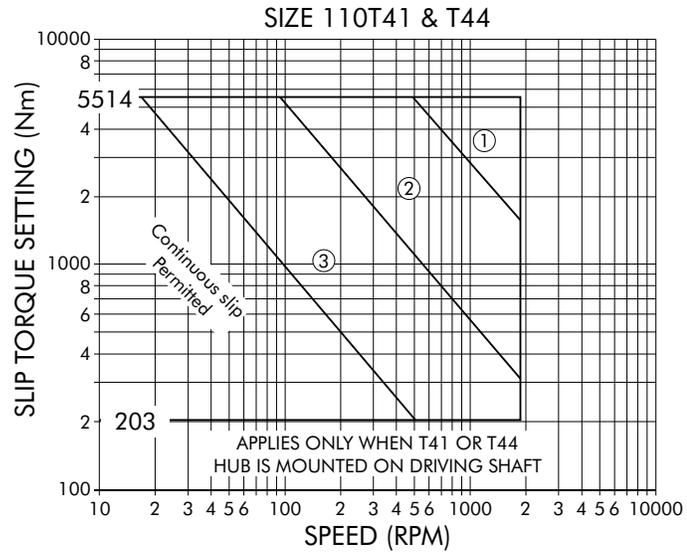
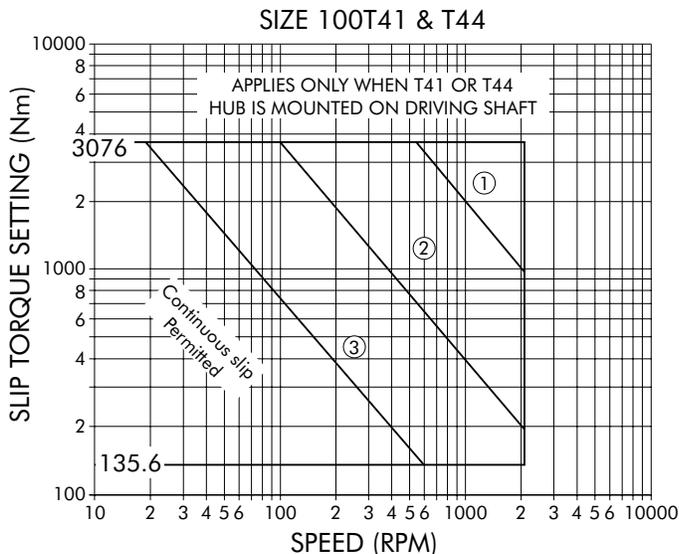
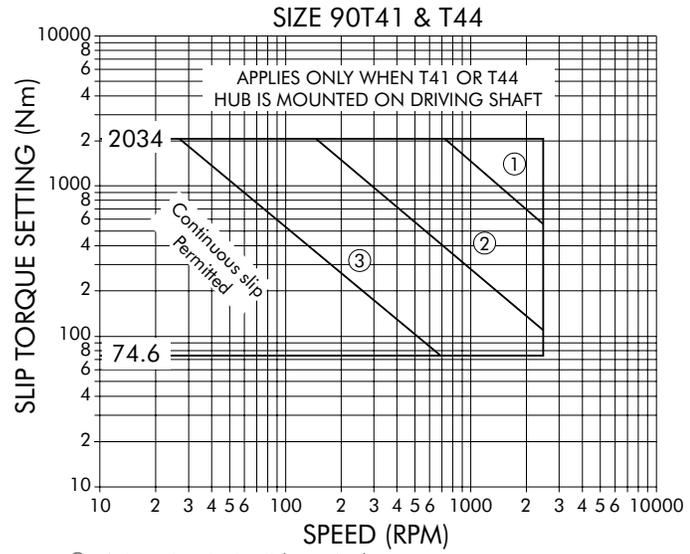
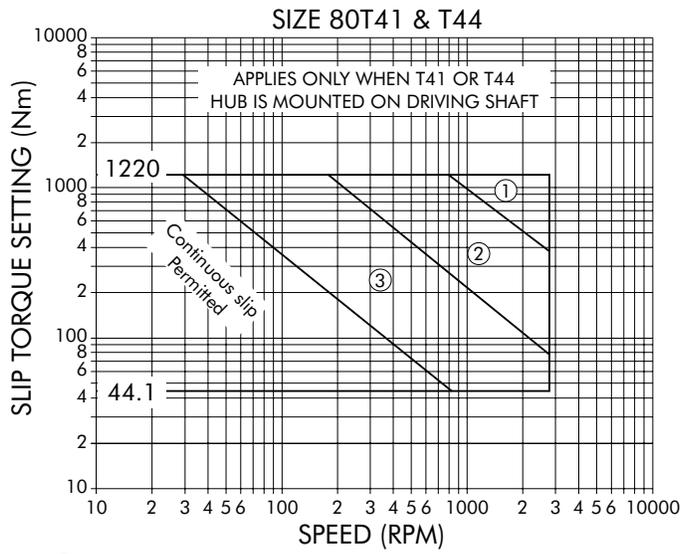
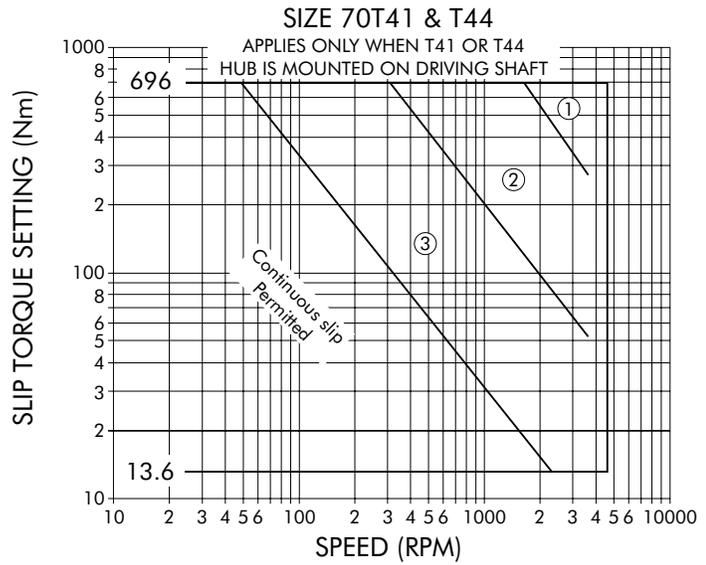
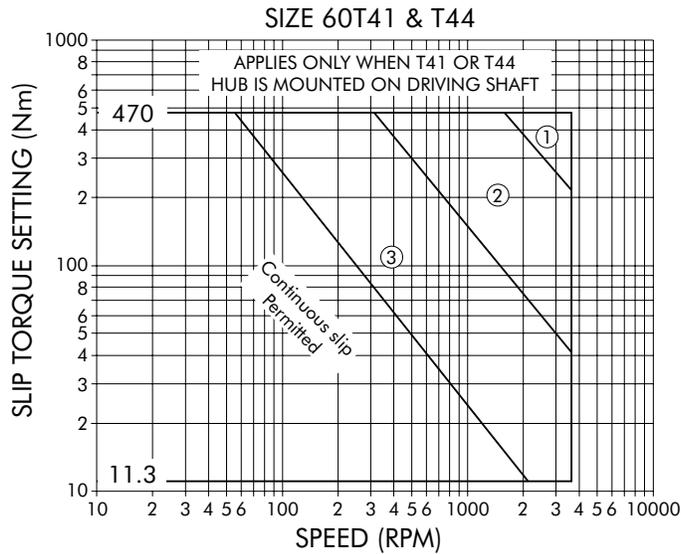


- ① - Automatic cutout switch required
- ② - 23 seconds slip permitted if followed by 7.5 minutes non-slip
- ③ - 45 seconds slip permitted if followed by 7.5 minutes non-slip

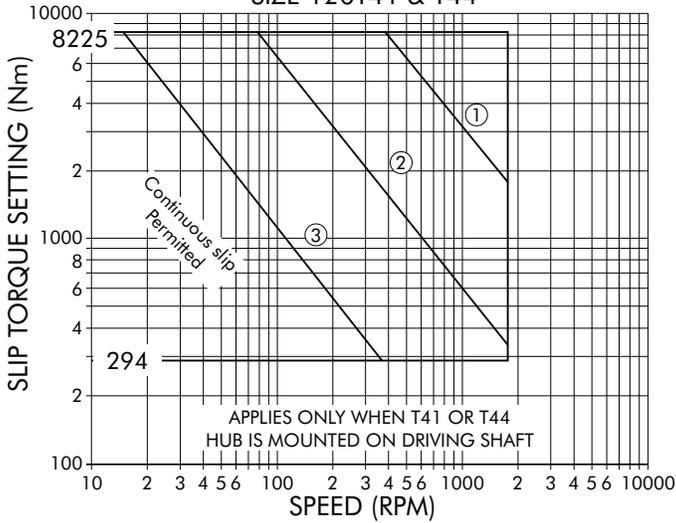
SIZE 50T41 & T44



- ① - Automatic cutout switch required
- ② - 27 seconds slip permitted if followed by 9 minutes non-slip
- ③ - 54 seconds slip permitted if followed by 9 minutes non-slip

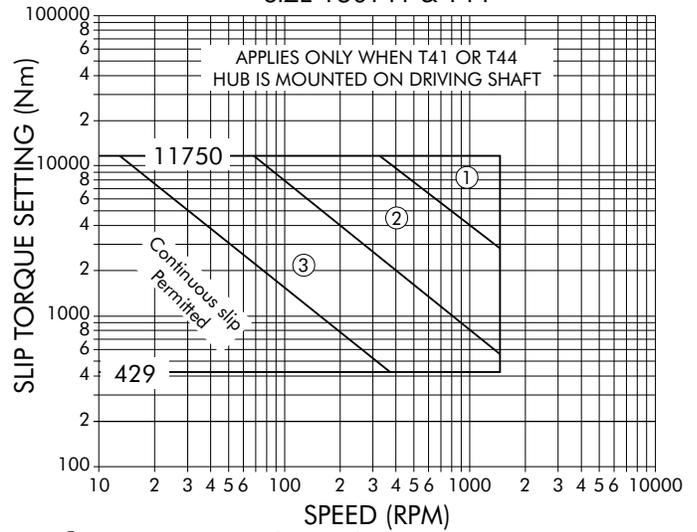


SIZE 120T41 & T44



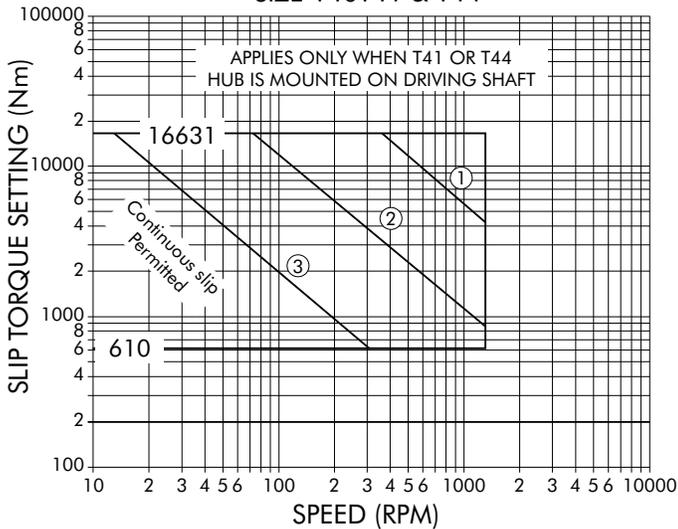
- ① - Automatic cutout switch required
- ② - 60 seconds slip permitted if followed by 20 minutes non-slip
- ③ - 120 seconds slip permitted if followed by 20 minutes non-slip

SIZE 130T41 & T44



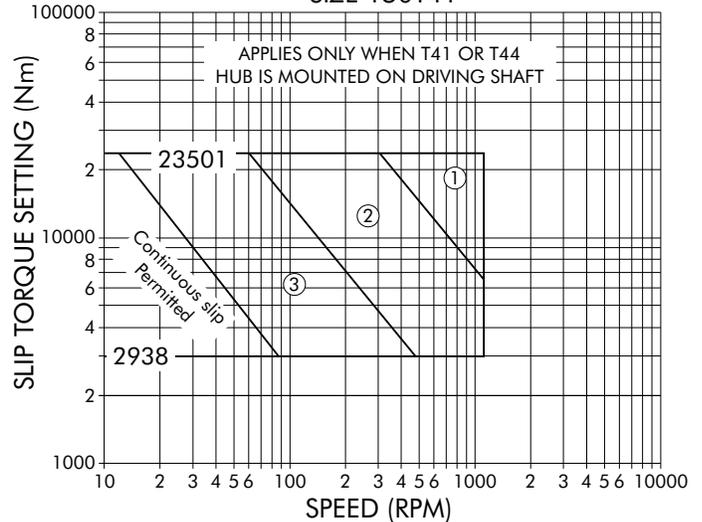
- ① - Automatic cutout switch required
- ② - 70 seconds slip permitted if followed by 23 minutes non-slip
- ③ - 140 seconds slip permitted if followed by 23 minutes non-slip

SIZE 140T41 & T44



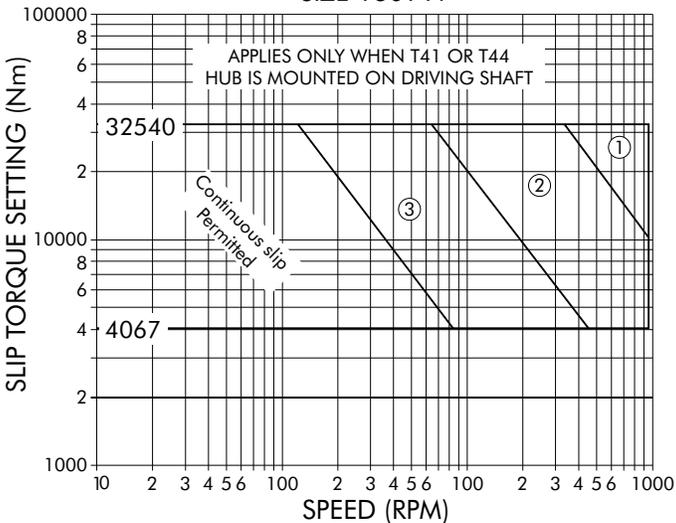
- ① - Automatic cutout switch required
- ② - 80 seconds slip permitted if followed by 26 minutes non-slip
- ③ - 160 seconds slip permitted if followed by 26 minutes non-slip

SIZE 150T41



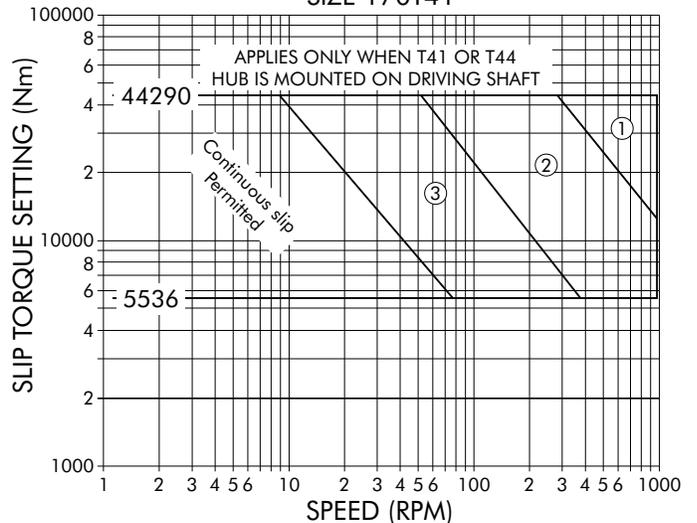
- ① - Automatic cutout switch required
- ② - 92 seconds slip permitted if followed by 31 minutes non-slip
- ③ - 184 seconds slip permitted if followed by 31 minutes non-slip

SIZE 160T41



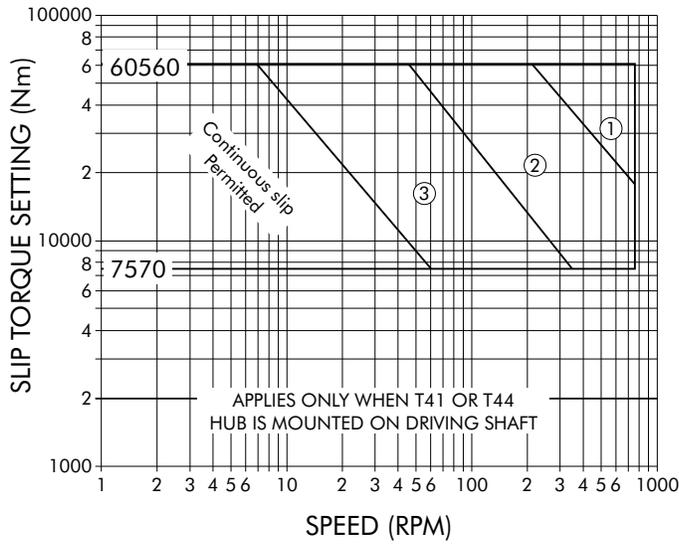
- ① - Automatic cutout switch required
- ② - 106 seconds slip permitted if followed by 35 minutes non-slip
- ③ - 212 seconds slip permitted if followed by 35 minutes non-slip

SIZE 170T41



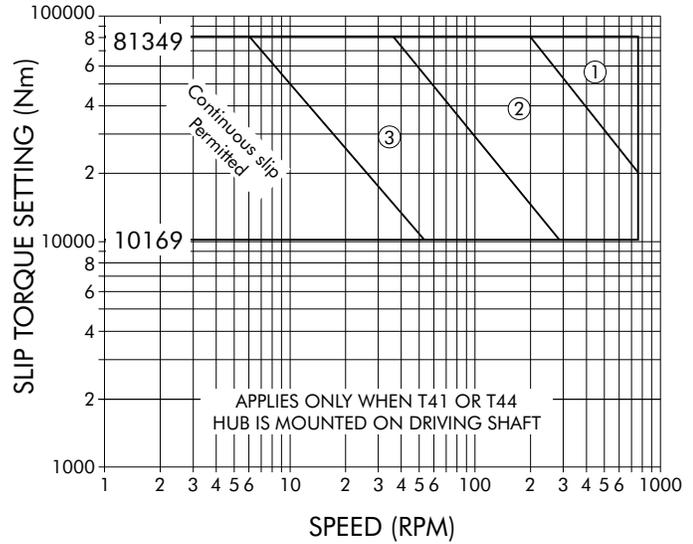
- ① - Automatic cutout switch required
- ② - 110 seconds slip permitted if followed by 37 minutes non-slip
- ③ - 220 seconds slip permitted if followed by 37 minutes non-slip

SIZE 180T41



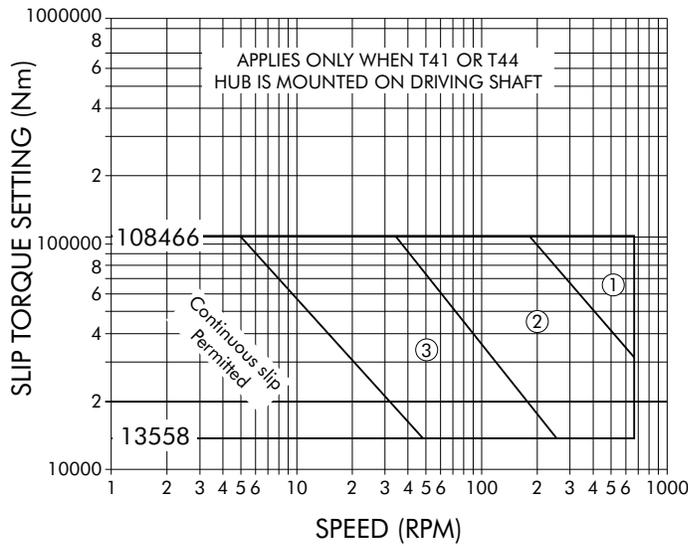
- ① - Automatic cutout switch required
- ② - 122 seconds slip permitted if followed by 40 minutes non-slip
- ③ - 224 seconds slip permitted if followed by 40 minutes non-slip

SIZE 190T41



- ① - Automatic cutout switch required
- ② - 133 seconds slip permitted if followed by 44 minutes non-slip
- ③ - 266 seconds slip permitted if followed by 44 minutes non-slip

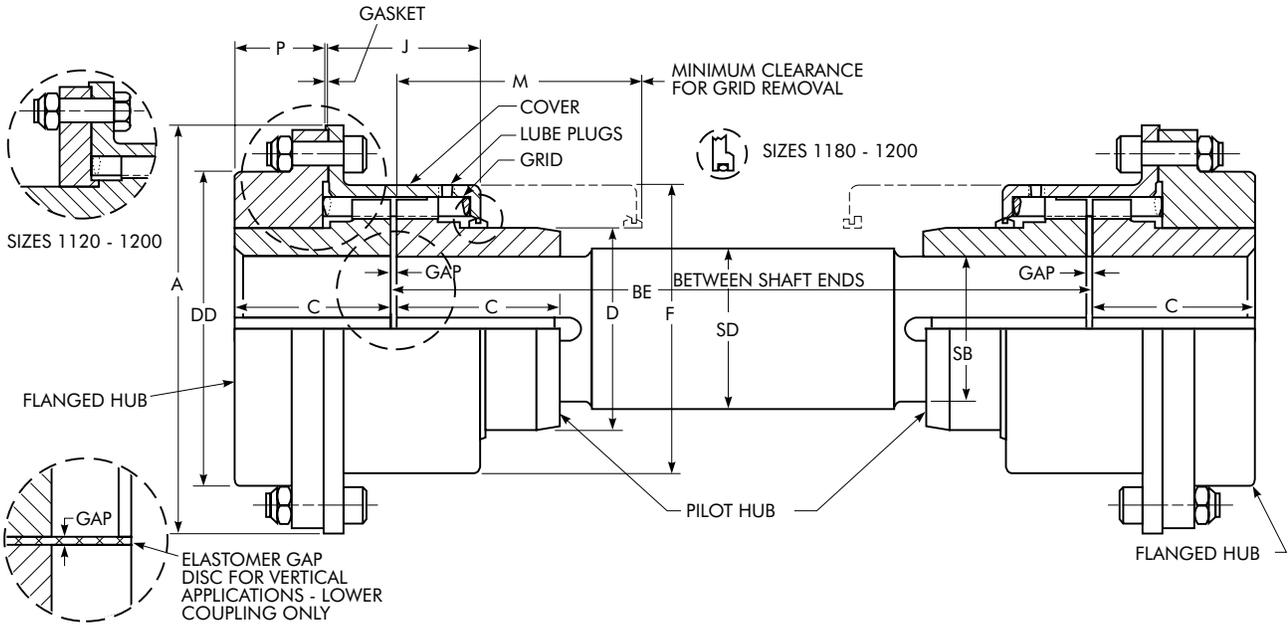
SIZE 200T41



- ① - Automatic cutout switch required
- ② - 150 seconds slip permitted if followed by 50 minutes non-slip
- ③ - 300 seconds slip permitted if followed by 50 minutes non-slip

# Type T50

## Floating Shaft/Dimensions — Millimeters



SIZE ★	Torque Rating Nm †	Max Bore (Flanged Hub) mm ●	Min Bore mm ■	Pilot Hub Bore mm	Wt Per Cplg No Bore-kg	Wt Added Per mm of length of "SD" Diameter Between Hubs	Lube Wt Per Cplg-kg	DIMENSIONS — MILLIMETERS											
								A	BE Min	C	D	DD	F	J	M	P	SB	SD	Gap
1030T	149	35	13	27,0	3,90	0,00498	0,0408	115,9	162	47,6	49,2	83,7	80,8	50,3	77,7	26,8	27,0	28,6	3
1050T	435	50	13	36,5	8,84	0,00893	0,0680	157,5	195	60,3	66,7	105,2	104,8	59,2	94,0	36,2	36,5	38,1	3
1070T	994	67	20	49,2	15,6	0,016	0,113	182,9	213	76,2	87,3	126,5	129,0	65,9	103,1	49,8	49,2	50,8	3
1080T	2 050	80	27	61,9	26,4	0,025	0,172	218,4	275	88,9	104,8	154,9	156,2	85,9	134,1	52,1	61,9	63,5	3
1090T	3 730	95	27	74,6	37,2	0,036	0,254	244,9	294	98,4	123,8	180,3	175,8	92,2	143,8	58,5	74,6	76,2	3
1100T	6 280	110	42	92,1	62,8	0,056	0,426	286,0	372	120,6	142,1	211,3	208,3	117,3	181,4	69,3	92,1	95,2	5
1110T	9 320	120	42	101,6	83,6	0,067	0,508	324,1	391	127,0	160,3	245,4	228,6	122,2	190,5	73,9	101,6	104,8	5
1120T	13 700	140	61	117,5	97,9	0,090	0,735	327,2	453	149,2	179,4	179,3	257,0	146,3	220,0	83,6	117,5	120,6	6
1130T	19 900	170	67	133,4	140	0,115	0,907	365,3	463	161,9	217,5	217,4	295,1	149,5	225,0	94,8	133,4	136,5	6
1140T	28 600	200	67	142,9	210	0,131	1,13	419,1	482	184,2	254,0	254,0	335,8	155,8	234,7	113,8	142,9	146,0	6
1150T	39 800	215	108	161,9	277	0,168	1,95	477,5	549	182,9	271,4	269,2	391,2	177,4	268,2	101,7	161,9	165,1	6
1160T	55 900	240	121	200,0	381	0,254	2,81	548,6	587	198,1	304,8	304,8	442,0	189,4	287,0	111,9	200,0	203,2	6
1170T	74 600	280	134	200,0	519	0,254	3,49	604,5	622	215,9	355,6	355,6	494,3	201,0	304,8	124,6	200,0	203,2	6
1180T	103 000	300	153	225,4	718	0,322	3,76	665,5	673	238,8	393,7	393,7	556,3	226,9	330,2	141,4	225,4	228,6	6
1190T	137 000	335	153	250,8	898	0,397	4,40	708,7	711	259,1	436,9	436,9	599,4	241,7	349,5	157,6	250,8	254,0	6
1200T	186 000	360	178	276,2	1 205	0,480	5,62	782,3	744	279,4	497,8	497,8	622,9	251,8	365,8	172,8	276,2	279,4	6

★ Refer to Page 5 for General Information and Reference Note.

# Type T50

## Floating Shaft/Selections

**Introduction** — Floating shaft diameters have been preselected to transmit the coupling torque and need only to be checked for allowable speed.

**Construction** — Standard shafts are solid, AISI 1018 or 1020 cold rolled steel. Also available is an optional solid, AISI 1018, fully turned, hot rolled steel shaft.

### Determine the Allowable Shaft Length

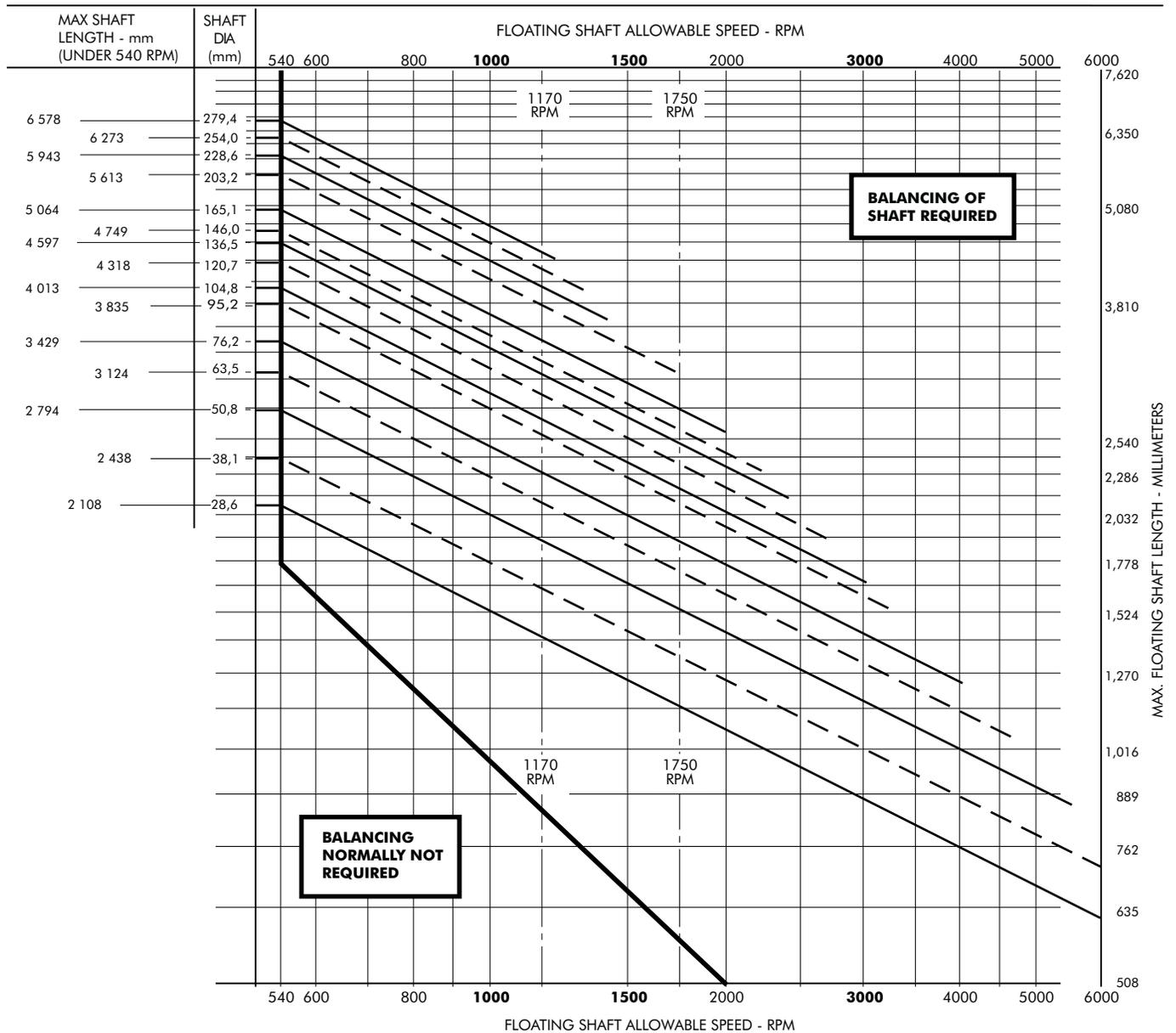
- Select the coupling size per Pages 7 and 26.
- From Page 26, determine shaft diameter (Dimension SD) for the coupling selected.
- From the table below, locate the floating shaft diameter (Dimension SD) determined in Step B.
- Determine the allowable shaft length for the required operating speed.

For Speeds under 540 rpm — Read the maximum allowable shaft length to the left of the required shaft diameter.

For Speeds over 540 rpm — Trace right from the shaft diameter determined along the diagonal line to the point of intersection with the required vertical operating speed line. Trace right along the horizontal line to the right and read the maximum allowable shaft length.

- Determine if shaft requires balancing. Locate point where operating speed and floating shaft length cross. Balance is required when point is located to the right of bold line.
- If a longer shaft is required, reduce the operating speed if practical, or select the next larger size coupling.  
Note: For such conditions, the use of a tubular shaft design should be considered, refer application details to the local Falk Representative.

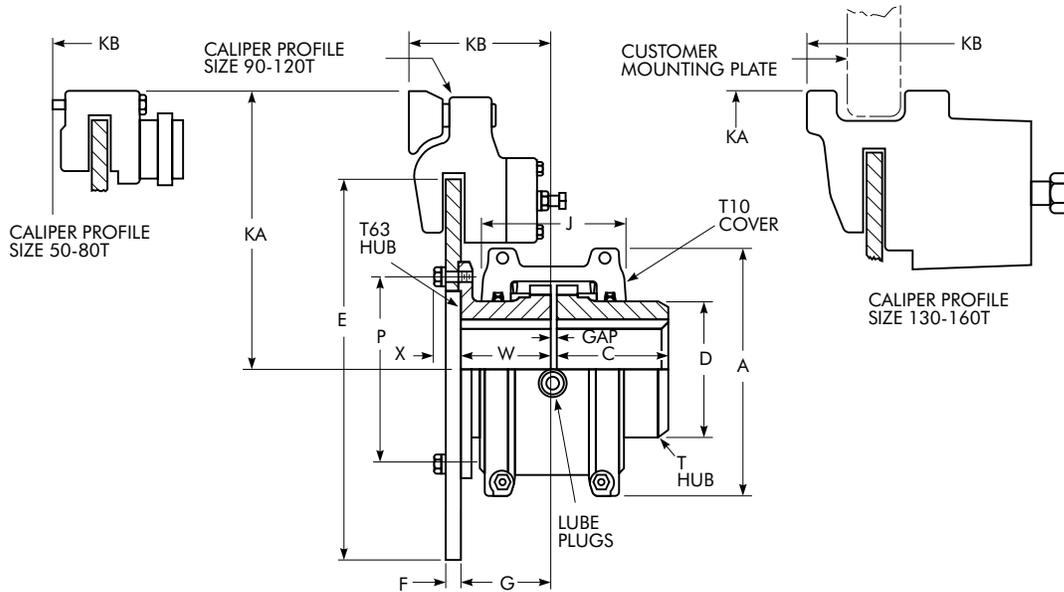
**TABLE 10 — Floating Shaft Selections**



# Type T63

## Disc Brake/Dimensions — Millimeters

**NOTE:** Falk Type T63 couplings or brake assemblies are not approved as a primary brake for applications used to lift or transport people such as elevators, escalators, hoists, lifts, etc.



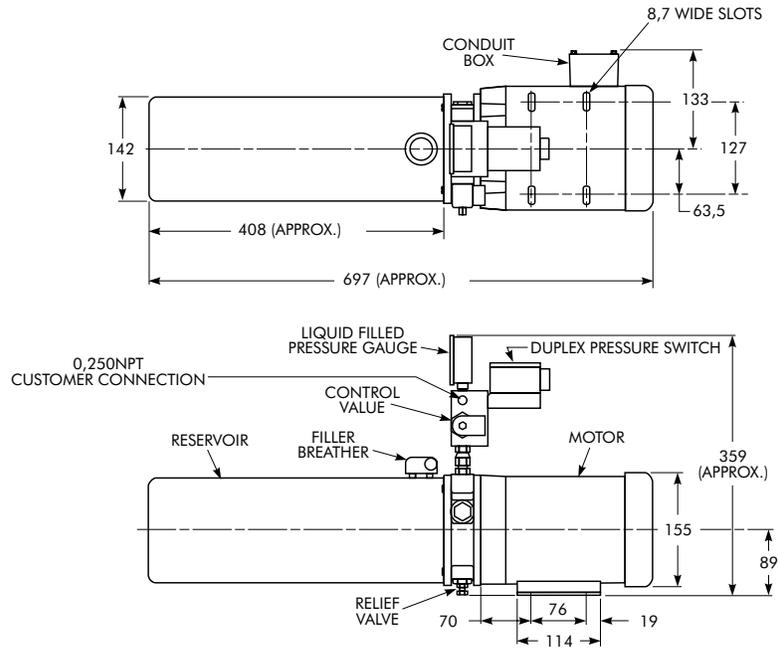
SIZE ★	Cplg Brake Rating Nm	Allow Speed rpm ‡	Max Bore mm ◆	Min Bore mm ■	Cplg Wt With No Bore & No Disc-kg	Lube Wt kg	DIMENSIONS — MILLIMETERS									SIZE ★
							A	C	D	G	J	P	W	X	Gap	
20T	11	4500	28	13	2,55	0,03	101,6	47,8	39,6	59,9	66,5	71,4	60,5	11,7	3	20T
30T	35	4500	35	13	3,31	0,04	111,3	47,8	49,3	59,9	68,3	79,4	60,5	11,7	3	30T
40T	65	4500	43	13	4,26	0,05	117,3	50,8	57,2	59,9	69,9	98,4	60,5	11,7	3	40T
50T	118	4150	50	13	6,35	0,07	138,2	60,5	66,5	59,9	79,2	108,0	60,5	13,2	3	50T
60T	209	3800	56	20	9,57	0,09	150,9	63,5	76,2	88,6	91,9	125,4	88,1	15,2	3	60T
70T	331	3250	67	20	12,3	0,11	162,1	76,2	87,4	88,6	95,3	133,4	88,1	15,2	3	70T
80T	637	2850	80	27	19,8	0,17	193,5	88,9	104,6	88,6	115,8	152,4	88,1	18,0	3	80T
90T	1 084	2700	95	27	28,4	0,25	212,9	98,6	124,0	87,9	122,2	179,4	88,1	26,9	3	90T
100T	1 897	2400	110	42	47,7	0,43	251,0	120,6	142,0	119,1	155,4	215,9	119,1	29,5	5	100T
110T	2 846	2250	120	42	64,9	0,51	269,7	127,0	160,3	146,0	161,5	241,3	146,0	29,5	5	110T
120T	4 336	2025	140	61	92,1	0,73	307,8	149,4	179,3	150,1	191,5	276,2	149,4	33,0	6	120T
130T	6 098	1800	170	67	132	0,91	345,9	162,1	217,4	153,4	195,1	295,3	152,4	35,6	6	130T
140T	8 808	1650	200	67	185	1,13	384,0	184,2	254,0	159,8	201,2	330,2	158,8	38,1	6	140T
150T	12 195	1500	215	108	253	1,91	453,1	182,9	269,2	179,8	271,3	368,3	182,9	31,5	6	150T
160T	16 938	1350	240	121	336	2,81	501,4	198,1	304,8	195,1	278,9	400,0	198,1	31,5	6	160T

★ Refer to Page 5 for General Information and Reference Notes.

◆ Couplings will be furnished for INTERFERENCE FIT without a set screw. Clearance fit and/or hubs with set screws are not recommended. Falk standards apply unless other wise specified. Maximum bores listed are based on recommended keys shown in Table 11, Page 33. For other maximum bore-key combinations that can be manufactured to order, refer to Table 13 on Page 34.

# Type T63

## Disc Brake Caliper System/Dimensions — Millimeters



Brake Disc Dia x Thk (E x F) *	CPLG SIZE	Caliper Brake ▲		DIMENSIONS — MILLIMETERS		
		Model No. ♦	Torque—Nm		KA	KB ♣
			Min	Max		
203 x 6,4 254 x 6,4 254 x 6,4	<b>20T</b> <b>30T</b> <b>40T</b>	These sizes are best activated by Electromagnetic or Pneumatic Caliper Systems				
254 x 6,4	<b>50T</b>	02-515-002	62,3	122	158,0	96,5
305 x 6,4	<b>60T</b>	02-515-004	157	244	183,4	125,2
305 x 6,4	<b>70T</b>	02-515-008	474	556	183,4	125,2
305 x 6,4	<b>80T</b>	02-515-006	631	701	183,4	125,2
407 x 12,7	<b>90T</b>	02-530-306	772	1,460	292,1	138,7
407 x 12,7	<b>100T</b>	02-530-628	724	2,480	292,1	169,9
458 x 12,7	<b>110T</b>	02-530-628	829	2,850	342,9	196,8
509 x 12,7	<b>120T</b>	02-530-600	1,880	4,460	336,6	200,9
559 x 12,7	<b>130T</b>	PD1591	2,200	8,260	336,6	216,9
610 x 12,7	<b>140T</b>	PD1591	2,430	9,100	362,0	223,3
763 x 12,7	<b>150T</b>	SCL25	4,660	23,300	461,8	245,9
915 x 12,7	<b>160T</b>	SCL25	5,670	28,400	539,0	260,3

\* Refer to Falk for discs with dimensions other than shown.

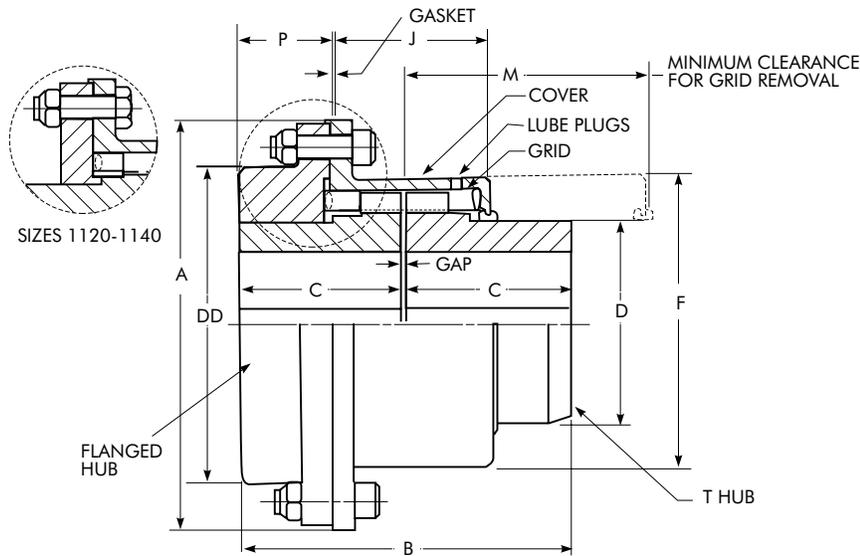
♦ These brakes use hydraulic oil (NOT brake fluid). Any high grade hydraulic oil with viscosities of 150 SSU-350 SSU@ 38°C is suitable.

▲ Coupling Sizes 50T thru 120T use caliper brakes supplied by Mico Inc. Maximum torque shown is rating with new pads. Minimum torque shown is rating at point when caliper requires adjustment for pad wear.

♣ Dimension KB is to caliper mounting surface for Coupling Sizes 50T thru 120T, and to caliper edge for Coupling Sizes 130T and larger.

# Type T70

## High Speed/Dimensions — Millimeters



SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm ●	Min Bore mm ■	Cplg Wt With No Bore-kg	Lube Wt kg	DIMENSIONS — MILLIMETERS									
							A	B	C	D	DD	F	J	M	P	Gap
1030T	149	10,000	35	13	3,90	0,041	115,8	98,6	47,8	49,3	83,8	80,8	50,3	77,7	26,9	3
1050T	435	9,000	50	13	8,84	0,068	157,5	124,0	60,5	66,5	105,2	104,6	59,2	94,0	36,1	3
1070T	994	8,200	67	20	15,6	0,113	182,9	155,4	76,2	87,4	126,5	129,0	65,0	103,1	49,8	3
1080T	2 050	7,100	80	27	26,4	0,172	218,4	180,8	88,9	104,6	154,9	156,2	85,9	134,1	52,1	3
1090T	3 730	6,000	95	27	37,2	0,254	244,9	200,2	98,6	124,0	180,3	175,8	92,2	143,8	58,4	3
1100T	6 280	4,900	110	42	62,8	0,426	286,0	246,1	120,6	116,6	211,3	208,3	117,3	181,4	69,3	5
1110T	9 320	4,500	120	42	83,6	0,508	324,1	258,8	127,0	160,3	245,4	228,6	122,2	190,5	73,9	5
1120T	13 700	4,000	140	61	97,9	0,735	327,2	304,8	149,4	179,3	179,3	257,0	146,3	220,0	83,6	6
1130T	19 900	3,600	170	67	140	0,907	365,3	330,2	162,1	217,4	217,4	295,1	149,4	225,0	94,7	6
1140T	28 600	3,300	200	67	210	1,13	419,1	374,6	184,2	254,0	254,0	335,8	156,0	234,7	113,8	6

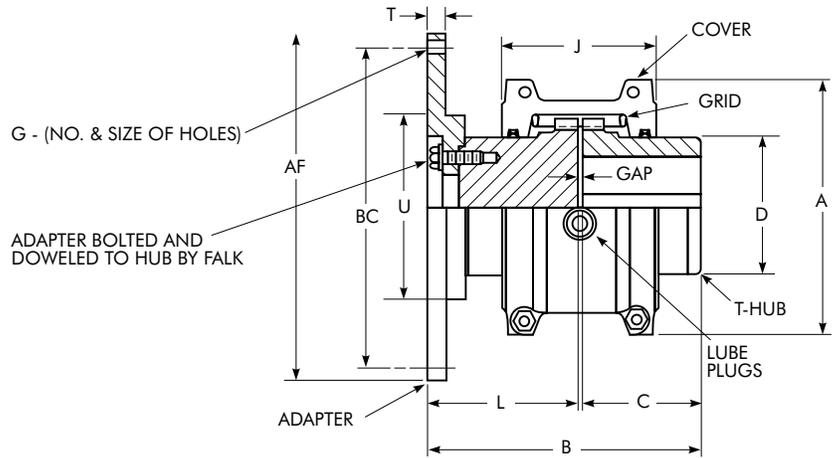
★ Refer to Page 5 for General Information and Reference Notes.

# Type T90

## Engine Flywheel Adapter/Dimensions — Millimeters

Used primarily to connect the flywheel of an engine to the driven machinery. Adapter plates are designed to accommodate standard SAE J620 bolt patterns. The T90 design provides for higher torque ratings with resulting smaller sizes and lower costs than elastomer coupling designs. The flexible gridmember provides torsional damping in addition to accepting misalignment. Adapter plates are bolted and doweled to the hub to provide a secure joint.

**Selection** — Determine the proper Steelflex coupling size using the selection method. Check size selected against those shown in table below for the clutch size used on the engine flywheel. If the coupling size is not shown, refer all details to Falk.

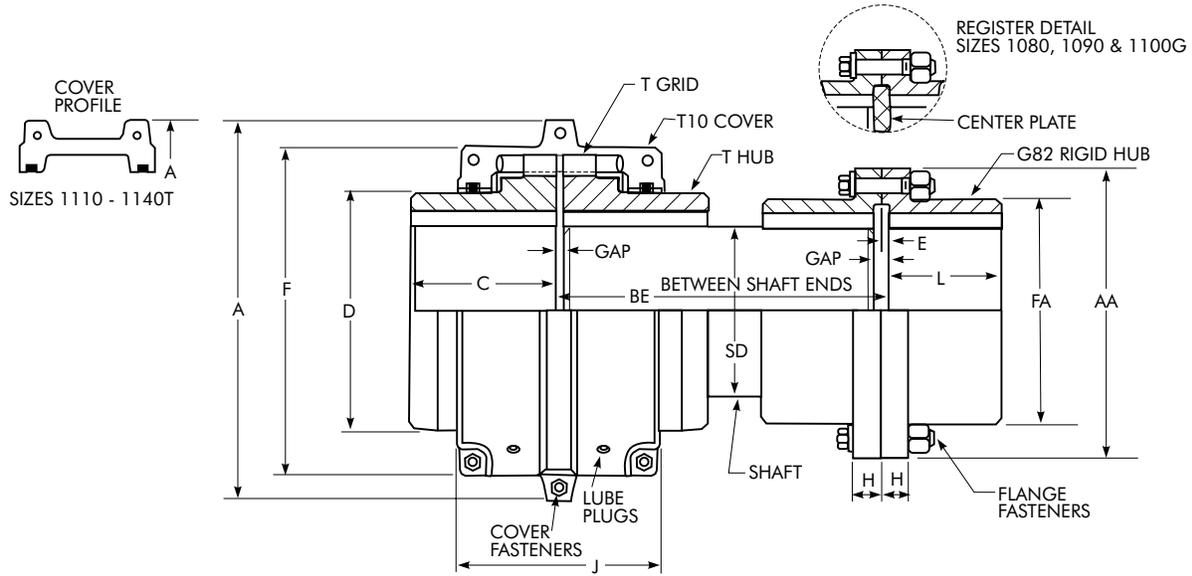


Clutch Dia	Adapter—Inches				CPLG SIZE ★	Assembly Torque Rating † Nm	Allow Speed rpm ‡	Max Bore mm •	Min Bore mm ■	Cplg Wt No Bore in T Hub kg	WR <sup>2</sup>	DIMENSIONS — MILLIMETERS							
	AF +.000 - .005	BC	G	T								A	B	C	D	J	L	U	Gap
6.5	8.500	7.875	6-.344	.375	<b>1050T</b>	395	3600	50	13	8,16	0,025	138,2	141,7	60,5	66,5	79,2	78,0	127,0	3
				.375	<b>1060T</b>	621	3600	56	20	10,4	0,031	150,9	150,9	63,5	76,2	91,9	84,1	139,7	3
				.375	<b>1070T</b>	904	3600	67	20	13,2	0,038	162,1	176,3	76,2	87,4	95,2	96,8	149,4	3
7.5	9.500	8.750	8-.344	.375	<b>1050T</b>	395	3600	50	13	9,07	0,034	138,2	141,7	60,5	66,5	79,2	78,0	127,0	3
				.375	<b>1060T</b>	621	3600	56	20	10,9	0,040	150,9	150,9	63,5	76,2	91,9	84,1	139,7	3
				.375	<b>1070T</b>	904	3600	67	20	13,6	0,047	162,1	176,3	76,2	87,4	95,2	96,8	149,4	3
8	10.375	9.625	6-.406	.375	<b>1050T</b>	395	3600	50	13	9,53	0,044	138,2	141,7	60,5	66,5	79,2	78,0	127,0	3
				.375	<b>1060T</b>	621	3600	56	20	11,8	0,050	150,9	150,9	63,5	76,2	91,9	84,1	139,7	3
				.375	<b>1070T</b>	904	3600	67	20	14,5	0,057	162,1	176,3	76,2	87,4	95,2	96,8	149,4	3
				.500	<b>1080T</b>	1 860	3600	80	27	21,8	0,097	193,5	205,0	88,9	104,6	115,8	112,8	165,1	3
10	12.375	11.625	8-.406	.500	<b>1080T</b>	1 860	3600	80	27	24,0	0,145	193,5	205,0	88,9	104,6	115,8	112,8	165,1	3
11.5	13.875	13.125	8-.406	.500	<b>1090T</b>	3 390	3600	95	27	33,6	0,240	212,9	227,3	98,6	124,0	122,2	125,5	190,5	3
14	18.375	17.250	8-.531	.650	<b>1100T</b>	5 710	2440	110	42	60,3	0,791	251,0	276,9	120,6	142,0	155,4	151,4	212,9	5
				.750	<b>1110T</b>	8 470	2250	120	42	73,5	0,965	269,7	292,1	127,0	160,3	161,5	160,3	231,9	5
16	20.375	19.250	8-.531	.650	<b>1100T</b>	5 710	2440	110	42	65,8	1,097	251,0	276,9	120,6	142,0	155,4	151,4	212,9	5
				.750	<b>1110T</b>	8 470	2250	120	42	79,4	1,319	269,7	292,1	127,0	160,3	161,5	160,3	231,9	5
18	22.500	21.375	6-.656	.750	<b>1110T</b>	5 710	2250	120	42	86,2	1,827	269,7	292,1	127,0	160,3	161,5	160,3	231,9	5
				.750	<b>1120T</b>	12 400	2025	140	61	110	2,096	307,8	341,1	149,4	179,3	191,5	185,4	254,0	6
				.900	<b>1130T</b>	10 100	1800	170	67	150	2,849	345,9	373,1	162,1	217,4	195,1	204,7	292,1	6
21	26.500	27.250	12-.656	.900	<b>1130T</b>	10 100	1800	170	67	168	4,553	345,9	373,1	162,1	217,4	195,1	204,7	298,5	6
				1.000	<b>1140T</b>	26 000	1650	200	67	217	5,738	384,0	419,9	184,2	254,0	201,2	229,4	336,6	6
				1.000	<b>1150T</b>	36 200	1500	215	108	276	7,572	453,1	420,6	182,9	269,2	271,3	231,4	349,3	6
24	28.875	27.250	12-.812	.900	<b>1130T</b>	10 100	1800	170	67	180	5,987	345,9	373,1	162,1	217,4	195,1	204,7	298,5	6
				1.000	<b>1140T</b>	26 000	1650	200	67	230	7,332	384,0	419,9	184,2	254,0	201,2	229,4	336,6	6
				1.000	<b>1150T</b>	36 200	1500	215	108	289	9,174	453,1	420,6	182,9	269,2	271,5	231,4	349,3	6
<b>Machined as Required</b>				1.000	<b>1160T</b>	50 800	1350	240	121	298 ▲	...	501,9	453,4	198,1	304,8	278,4	248,9	393,7	6
				1.250	<b>1170T</b>	67 800	1225	280	134	409 ▲	...	566,9	495,3	215,9	355,6	307,3	273,0	438,2	6

★ See Page 5 for General Information and Reference Notes.  
 ▲ For total coupling weight add [ 0,101 x (AF<sup>2</sup> - U<sup>2</sup>) x T ] to value shown.

# Type T10/G82

## Floating Shaft/Dimensions — Millimeters



T10 SIZE ★	G82 SIZE ★	Torque Rating Nm †	Allow Speed rpm ‡	Max Bore mm ●		Min Bore mm ■		Cplg Wt With No Bore & No Shaft kg	Wt Added Per mm of Length of "SD" Diameter Between Hubs	Lube Wt kg	DIMENSIONS — MILLIMETERS														Flange Fasteners		
				T10 Hub	G82 Hub	T10 Hub	G82 Hub				A	BE		C	D	E	F	H	J	L	AA	FA ♦	SD	Gap		No Per Flange & Grade	Dia In
												Min	Max											T Hub	G82 Hub		
1110T	1035G	9 320	2250	120	164	42	51	125	0,0804	0,508	269,7	239,0	304,8	127,0	160,3	2,5	...	28,4	161,5	102,1	279,4	211,3	114,3	5	5	8-Gr 8	.750
1120T	1040G	13 700	2025	140	196	61	64	183	0,0992	0,735	307,8	279,1	355,6	149,4	179,3	4,1	...	28,4	191,5	115,3	317,5	245,4	127,0	6	8	8-Gr 8	.750
1130T	1045G	19 900	1800	170	216	67	76	261	0,143	0,907	345,9	307,1	381,0	162,1	217,4	4,1	...	28,4	195,1	130,6	345,9	274,1	152,4	6	8	10-Gr 8	.750
1140T	1050G	28 600	1650	200	242	67	89	382	0,209	1,13	384,0	348,0	406,4	184,2	254,0	5,1	...	38,1	201,2	147,3	388,9	305,8	184,2	6	10	8-Gr 8	.875
1150T	1055G	39 800	1500	215	267	108	102	508	0,254	1,95	453,1	372,1	406,4	182,9	269,2	5,1	390,4	38,1	271,3	172,7	425,4	334,3	203,2	6	10	14-Gr 8	.875
1160T	1060G	55 900	1350	240	293	121	115	645	0,322	2,81	501,4	404,1	457,2	198,1	304,8	6,6	436,4	25,4	278,9	186,4	457,2	366,0	228,6	6	13	14-Gr 8	.875
1170T	1070G	74 600	1225	280	341	134	127	983	0,397	3,49	566,4	459,2	508,0	215,9	355,6	8,4	487,2	28,4	304,3	220,2	527,0	424,9	254,0	6	17	16-Gr 8	1.000
1180T	1080G	103 000	1100	300	341	153	102	1313	0,480	3,76	629,9	510,3	660,4	238,8	393,7	8,1	554,7	31,5	321,1	248,9	590,6	450,8	279,4	6	16	16-Gr 5	1.125
1190T	1090G	137 000	1050	335	380	153	115	1 756	0,572	4,40	675,6	557,5	711,2	259,1	436,9	8,1	607,8	38,1	325,1	275,8	660,4	508,0	304,8	6	16	18-Gr 5	1.250
1200T	1100G	186 000	900	360	405	178	127	2 254	0,671	5,62	756,9	609,3	762,0	279,4	497,8	9,1	660,4	44,5	355,6	305,3	711,2	530,4	330,2	6	16	18-Gr 5	1.250

★ Refer to Page 5 for General Information and Reference Notes.

♦ Dimension FA is for an as-cast, unmachined surface for Sizes 1080, 1090 & 1100.

# Engineering Data

**TABLE 11 — Recommended Commercial Keys for Bores with One Key — Millimeters & Inches**

MILLIMETERS (Per ISO R773 Standard)											
Shaft Dia		Key	Shaft Dia		Key	Shaft Dia		Key	Shaft Dia		Key
Over	Through		Over	Through		Over	Through		Over	Through	
6	8	2 x 2	38	44	12 x 8	95	110	28 x 16	260	290	63 x 32
8	10	3 x 3	44	50	14 x 9	110	130	32 x 18	290	330	70 x 36
10	12	4 x 4	50	58	16 x 10	130	150	36 x 20	330	380	80 x 40
12	17	5 x 5	58	65	18 x 11	150	170	40 x 22	380	440	90 x 45
17	22	6 x 6	65	75	20 x 12	170	200	45 x 25	440	500	100 x 50
22	30	8 x 7	75	85	22 x 14	200	230	50 x 28	...	...	...
30	38	10 x 8	85	95	25 x 14	230	260	56 x 32	...	...	...

INCHES (Per ANSI B17.1 Standard)											
.438	.562	.125 x .125	1.750	2.250	.500 x .500	4.500	5.500	1.250 x 1.250	11.000	13.000	3.000 x 2.000
.562	.875	.188 x .188	2.250	2.750	.625 x .625	5.500	6.500	1.500 x 1.500	13.000	15.000	3.500 x 2.500
.875	1.250	.250 x .250	2.750	3.250	.750 x .750	6.500	7.500	1.750 x 1.500	15.000	18.000	4.000 x 3.000
1.250	1.375	.312 x .312	3.250	3.750	.875 x .875	7.500	9.000	2.000 x 1.500	18.000	20.000	5.000 x 3.500
1.375	1.750	.375 x .375	3.750	4.500	1.000 x 1.000	9.000	11.000	2.500 x 1.750	...	...	...

**TABLE 12 — Shaft Diameters & Ratings for 50 Hertz Metric & 60 Hertz NEMA Motors**

50 HERTZ METRIC MOTORS (kW)																	
Frame Size	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L	200M/L	225S	225M	250S	250M	280M
Shaft Dia-mm	19	24	24	28	28	38	38	42	42	48	48	55	55	55	60, 65	60, 65	65, 75
3000 RPM	0,75 1,10	1,5	2,2	3,0	4	5,5 7,5		11 15	18,5	22		30 37	45	45	55	55	75 90
1500 RPM	0,55 0,75	1,1	1,5	2,2 3,0	4	5,5	7,5	11	15	18,5	22	30	37 45	45	55	55	75 90
1000 RPM	0,37 0,55	0,75	1,1	1,5	2,2	3	4 5,5	7,5	11		15	18,5 22	30	30	37	37	45 50
750 RPM	0,18 0,25	0,37	0,55	0,75 1,1	1,5	2,2	3	4 5,5	7,5		11	15	18,5	22	30	30	37 45

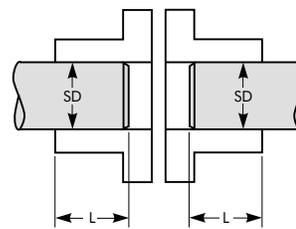
NEMA 60 HERTZ MOTORS (hp)																													
Frame Size	T Frames																TS Frames												
	143	145	182	184	213	215	254	256	284	286	324	326	364	365	404	405	444	445	284	286	324	326	364	365	404	405	444	445	
Shaft Dia - Inch	.88	.88	1.13	1.13	1.38	1.38	1.63	1.63	1.88	1.88	2.13	2.13	2.38	2.38	2.88	2.88	3.38	3.38	1.63	1.63	1.88	1.88	1.88	1.88	2.13	2.13	2.38	2.38	
3600 RPM	Drip Proof	1 1/2	2-3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	150	200	250	30	40	50	60	75	100	125	150	200	250
	Enclosed	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	...	100	125	150	25	30	40	50	60	75	...	100	125	150
1800 RPM	Drip Proof	1	1 1/2-2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	150	200	25	30	40	50	60	75	100	125	150	200
	Enclosed	1	1 1/2-2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	...	100	125	150	25	30	40	50	60	75	...	100	125	150
1200 RPM	Drip Proof & Enclosed	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125	15	20	25	30	40	50	60	75	100	125
900 RPM	Drip Proof & Enclosed	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	10	15	20	25	30	40	50	60	75	100

**OVERHANGING HUBS** — Hubs may be overhung on the shafting provided there is more than one shaft diameter of hub/shaft engagement for clearance fits, or more than 3/4 times shaft diameter hub/shaft engagement for interference fits. If hub engagement is less than what is required, use a standard long hub listed in Table 21 on Page 39, or submit application details to Falk.

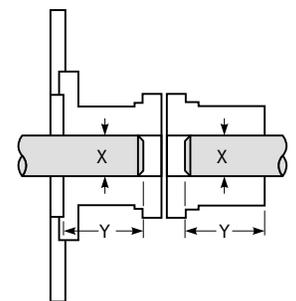
Dimension L must be equal to or greater than Dimension SD for clearance fits, or greater than Dimension SD times .75 for interference fits. For Type T63, Dimension Y must be equal to or greater than Dimension X.

**Example:** SD = 100 mm; then L must be 100 mm or more for clearance fits or 75 mm or more for interference fits.

**CAUTION:** The effect of open keyways on coupling balance should always be considered.



Example – Type T, Other than T63



Example – Type T63

# Engineering Data

**TABLE 13 — Type T Hub & Flanged Hub Bore Ranges with Square & Rectangular Keys ◆**

SIZE ★	Millimeters ▲				Inches														
	Min Bore	Max Bore		Min Bore ■	For One Square Key			For One Rectangular Key				For Two Square Keys			For Two Rectangular Keys				
		Std Bore Fits per Table 25 ♣	Int Fit per Table 25 w/Setscrew Over Keyway		Max Bore •	Y=X		Max Bore •	Y=X		Y=W/2 *		Max Bore •	Y=X		Max Bore •	Y=X		
						W	X		W	X	W	X		W	X				
20/1020T	13	28	24	.500	1.125	.250	.125	1.187	.250	.093	1.250	.250	.062	...	...	...	...	...	...
30/1030T	13	35	30	.500	1.375	.312	.156	1.437	.375	.125	1.562	.375	.062	...	...	...	...	...	...
40/1040T	13	43	38	.500	1.625	.375	.187	1.750	.375	.125	1.750	.375	.062	...	...	...	...	...	...
50/1050T	13	50	45	.500	1.875	.500	.250	2.000	.500	.187	2.125	.500	.125	...	...	...	...	...	...
60/1060T	20	56	50	.750	2.125	.500	.250	2.250	.500	.187	2.375	.625	.125	...	...	...	...	...	...
70/1070T	20	67	60	.750	2.500	.625	.312	2.687	.625	.218	2.875	.750	.125	...	...	...	...	...	...
80/1080T	27	80	75	1.062	3.000	.750	.375	3.250	.750	.250	3.375	.875	.187	...	...	...	...	...	...
90/1090T	27	95	90	1.062	3.500	.875	.437	3.750	.875	.312	3.875	1.000	.250	...	...	...	...	...	...
100/1100T	42	110	100	1.625	4.000	1.000	.500	4.250	1.000	.375	4.500	1.000	.250	...	...	...	...	...	...
110/1110T	42	120	110	1.625	4.500	1.000	.500	4.625	1.250	.437	5.000	1.250	.250	...	...	...	...	...	...
120/1120T	61	140	120	2.375	5.000	1.250	.625	5.375	1.250	.437	5.750	1.500	.250	...	...	...	...	...	...
130/1130T	67	170	150	2.625	6.000	1.500	.750	6.500	1.500	.500	6.500	1.500	.250	...	...	...	...	...	...
140/1140T	67	200	180	2.625	7.000	1.750	.875	7.250	1.750	.750	7.750	2.000	.500	...	...	...	...	...	...
150/1150T	108	215	190	4.250	7.500	1.750	.875	8.000	2.000	.750	...	...	...	...	...	...	...	...	...
160/1160T	121	240	215	4.750	8.500	2.000	1.000	9.000	2.000	.750	...	...	...	...	...	...	...	...	...
1170T	134	280	240	5.250	9.750	2.500	1.250	10.000	2.500	.875	...	...	...	10.750	1.750	.875	11.000	1.750	.750
1180T	153	300	260	6.000	10.750	2.500	1.250	11.000	2.500	.875	...	...	...	12.000	1.750	.875	12.250	2.000	.750
1190T	153	335	290	6.000	11.750	3.000	1.500	12.000	3.000	1.000	...	...	...	13.000	2.000	1.000	13.250	2.000	.750
1200T	178	360	320	7.000	12.750	3.000	1.500	13.000	3.000	1.000	...	...	...	14.000	2.500	1.250	14.250	2.500	.875
1210T	178	390	350	7.000	13.750	3.500	1.750	14.000	3.500	1.250	...	...	...	15.000	2.500	1.250	15.250	2.500	.875
1220T	178	420	380	8.000	14.750	3.500	1.750	15.000	3.500	1.250	...	...	...	16.000	2.500	1.250	16.250	3.000	1.000
1230T	254	450	410	8.000	15.750	4.000	2.000	16.000	4.000	1.500	...	...	...	17.000	3.000	1.500	17.250	3.000	1.000
1240T	254	480	440	10.000	16.750	4.000	2.000	17.000	4.000	1.500	...	...	...	18.000	3.000	1.500	18.250	3.000	1.000
1250T	▼	▼	▼	10.000	18.000	4.000	2.000	18.500	5.000	1.750	...	...	...	19.250	3.500	1.750	19.750	3.500	1.250
1260T	▼	▼	▼	10.000	19.500	5.000	2.500	20.000	5.000	1.750	...	...	...	20.750	3.500	1.750	21.250	3.500	1.250

★ Refer to Page 5 for general information and Reference Notes.

Metric keyways and keyway radii will be furnished per ISO/R773 (DIN 6885/1) and Js9 width tolerances unless otherwise specified. P9 and D10 width tolerance can be furnished on request. Refer to 427-140 for tolerances.

□ Shaded areas indicate maximum bores using standard recommended keys shown on Table 11.

◆ Unless otherwise specified, Sizes 1020 thru 1090 will be furnished for CLEARANCE FIT with a setscrew OVER the keyway and Sizes 1100 and larger will be furnished for INTERFERENCE FIT without a setscrew. EXCEPTION: for Types T50 and T70, coupling hubs are normally furnished with an average INTERFERENCE FIT of 0,0005 mm per millimeter of shaft diameter. Clearance fit and/or hubs with setscrews are not recommended.

\* Shaft keyway depth Y equals one-half of square key W. CHECK KEY STRESSES.

▲ Also applies to Hub Type T61, T63, T50 pilot hub and flanged hub of T50 and T70 type couplings.

♣ With standard puller bolt holes per Tables 22 and 23.

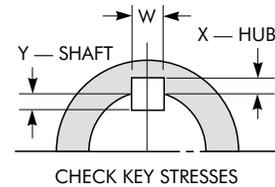
▼ Consult Falk.

**TABLE 14 — T31 & T35 Shaft Hub Bore Ranges with Square & Rectangular Keys ◆**

SIZE ★	Millimeters				Inches										SIZE ★
	Min Bore	Max Bore			Min Bore ■	For One Square Key			For One Rectangular Key						
		Std Bore Fits Per Table 25	Int Fit per Table 25 w/Setscrew Over Keyway	With Puller Holes Per Tables 22 or 23		Max Bore •	Y=X		Max Bore •	Y=X		Y=W/2 *			
							W	X		W	X	W	X		
1020T	13	35	30	35	.500	1.375	.312	.156	1.437	.375	.125	1.562	.375	.062	1020T
1030T	13	43	38	43	.500	1.625	.375	.188	1.750	.375	.125	...	...	...	1030T
1040T	13	56	50	56	.500	2.125	.500	.250	2.250	.500	.188	2.375	.625	.125	1040T
1050T	13	67	60	67	.500	2.375	.625	.312	2.500	.625	.218	2.625	.625	.125	1050T
1060T	20	80	75	80	.750	2.875	.750	.375	3.125	.750	.250	3.250	.750	.125	1060T
1070T	20	85	80	85	.750	3.125	.750	.375	3.250	.750	.250	3.375	.875	.188	1070T
1080T	27	95	90	88	1.062	3.500	.875	.438	3.750	.875	.312	3.875	1.000	.250	1080T
1090T	27	110	100	100	1.062	4.000	1.000	.500	4.250	1.000	.375	4.500	1.000	.250	1090T
1100T	39	130	120	120	1.500	4.750	1.250	.625	5.000	1.250	.438	5.250	1.250	.250	1100T
1110T	51	150	140	140	2.000	5.500	1.250	.625	5.875	1.500	.500	6.250	1.500	.250	1110T
1120T	64	170	165	160	2.500	6.250	1.500	.750	6.500	1.500	.500	6.750	1.750	.625	1120T
1130T	77	190	180	175	3.000	6.750	1.750	.875	7.000	1.750	.750	7.250	1.750	.625	1130T
1140T	89	210	200	200	3.500	7.500	2.000	1.000	8.000	2.000	.750	8.500	2.000	.500	1140T
1150T	102	270	230	250	4.000	9.750	2.000	1.000	10.000	2.500	.875	...	...	...	1150T
1160T	115	290	260	280	4.500	10.500	2.500	1.250	11.000	2.500	.875	...	...	...	1160T
1170T	127	340	290	330	5.000	12.000	3.000	1.500	13.000	3.000	1.000	...	...	...	1170T
1180T	102	340	310	340	4.000	12.000	3.000	1.500	13.000	3.000	1.000	...	...	...	1180T
1190T	116	380	340	380	4.500	13.250	3.500	1.750	14.250	3.500	1.250	...	...	...	1190T
1200T	127	400	365	400	5.000	14.250	3.500	1.750	15.000	3.500	1.250	...	...	...	1200T

(Refer to footnotes from Table 13 above.)

# Engineering Data



**TABLE 15 — T41 Hub Bore Ranges with Square and Rectangular Keys**

SIZE ★	Millimeters			Inches							
	Min Bore	Max Bore		For One Square Key				For One Rectangular Key			
		Std Bore Fits Per Table 25	Int Fit per Table 25 w/Setscrew Over Keyway	Min Bore ■	Max Bore •	Y=X		Max Bore •	W	X	Y
						W	X				
20T41	13	24 §	§	.500	1.000	.250	.125	1.125	.250	.062	.125
30T41	13	32	§	.500	1.250	.250	.125	1.375	.312	.093	.156
40T41	13	35	32	.500	1.375	.312	.156	1.625	.375	.062	.187
50T41	13	45	40	.500	1.750	.375	.187	1.875	.500	.125	.250
60T41	20	50	45	.750	1.875	.500	.250	2.125	.500	.125	.250
70T41	20	60	50	.750	2.250	.500	.250	2.500	.625	.125	.312
80T41	27	70	65	1.062	2.625	.625	.312	2.750 3.000	.625 .750	.125 .125	.312 .375
90T41	27	85	80	1.062	3.125	.750	.375	3.250 3.500	.750 .875	.125 .187	.375 .437
100T41	42	100	90	1.625	3.625	.875	.437	3.750 4.000	.875 1.000	.187 .250	.437 .500
110T41	42	110	100	1.625	4.000	1.000	.500	4.500	1.000	.250	.500
120T41	61	120	110	2.375	4.500	1.000	.500	5.000	1.250	.250	.625
130T41	67	145	135	2.625	5.250	1.250	.625	5.500 6.000	1.250 1.500	.250 .250	.625 .750
140T41	67	180	165	2.625	6.500	1.500	.750	7.250 *	1.750	.500	.750
150T41	108	190	180	4.250	6.750 ♦	1.750	.875	7.000 7.500 * 8.000 *	1.750 1.750 2.000	.750 .500 .375	.750 .750 .750
160T41	121	225	200	4.750	7.750 ♦	2.000	1.000	8.500 9.000 *	2.000 2.000	.750 .500	.750 .750
170T41	134	250	230	5.250	9.000 ♦	2.000	1.000	9.500 10.000 *	2.500 2.500	.875 .500	.875 .875
180T41	153	290	260	6.000	10.250 ♦	2.500	1.250	11.000	2.500	.875	.875
190T41	153	320	285	6.000	11.000 ♦	2.500	1.250	12.000	3.000	1.000	1.000
200T41	178	340	310	7.000	12.125 ♦	3.000	1.500	13.000	3.000	1.000	1.000

★ Refer to footnotes from Table 13 and to Page 5 for General Information and Reference Notes. Unless otherwise specified, Sizes 1020 thru 1090 will be furnished for CLEARANCE Fit with a setscrew OVER the keyway and sizes 1100 and larger will be furnished for INTERFERENCE FIT without a setscrew.

♦ Maximum bore with optional square key

\* A special rectangular key is required.

■ Shaded areas indicate maximum bores using standard recommended keys shown on Table 11.

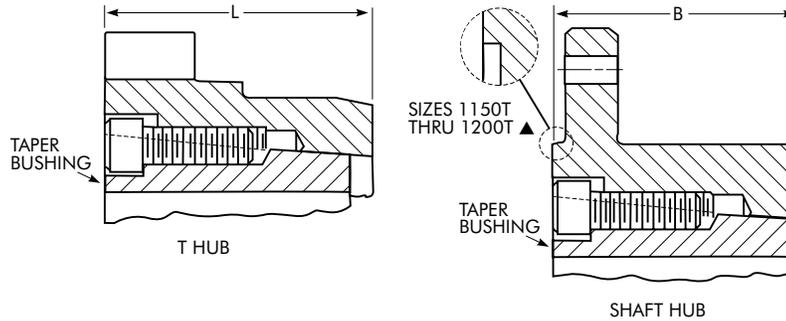
§ Interference fit is not recommended.

**TABLE 16 — Type G82 Hub (used on T10/G82 assemblies) Bore Ranges with Square & Rectangular Keys**

SIZE ★	Millimeters				Inches							
	Min Bore	Max Bore			Min Bore ■	For One Square Key			For One Rectangular Key			
		Std Bore Fits Per Table 25	Int Fit per Table 25 w/Setscrew Over Keyway	With Puller Holes Per Tables 22 or 23		Max Bore •	Y=X		Max Bore •	Y=X		
							W	X		W	X	
1035G	51	163	150	150	2.000	5.875	1.500	.750	6.500	1.500	.500	
1040G	64	196	167	185	2.500	6.750	1.750	.875	7.250	1.750	.750	
1045G	77	216	190	205	3.000	7.625	1.750	.875	8.125	2.000	.750	
1050G	89	235	220	228	3.500	8.750	2.000	1.000	9.000	2.000	.750	
1055G	102	266	230	250	4.000	9.750	2.000	1.000	10.000	2.500	.875	
1060G	115	290	260	280	4.500	10.500	2.500	1.250	11.000	2.500	.875	
1070G	127	340	290	330	5.000	12.000	3.000	1.500	13.000	3.000	1.000	
1080G	102	340	310	340	4.000	13.000	3.000	1.500	13.250	3.000	1.000	
1090G	115	380	340	380	4.500	14.250	3.500	1.750	15.000	3.500	1.250	
1100G	127	400	365	400	5.000	15.000	3.500	1.750	15.500	3.500	1.250	

(Refer to footnotes from Table 13.)

# Engineering Data



**TABLE 17 — Taper-Lock Bushings for Type T Hubs & Shaft Hubs ♦**

CPLG SIZE	T Hub				Shaft Hub				Gear Cplg Rigid Hub Size
	Taper-Lock Bushing			L (mm)	Taper Lock Bushing			B (mm)	
	Bushing Number	Bore * Range (mm)	Torque Nm		Bushing Number	Bore * Range (mm)	Torque Nm		
<b>1020T</b>	...	...	...	...	1108	13 to 25	52	35,1	...
<b>1030T</b>	1108	13 to 25	147	41,1	1108	13 to 25	147	41,1	...
<b>1040T</b>	1108	13 to 25	147	41,1	1310	13 to 35	249	53,8	...
<b>1050T</b>	1215	13 to 32	407	47,8	1615	13 to 42	435	60,4	...
<b>1060T</b>	1615	13 to 42	486	53,8	2012	13 to 50	684	73,2	...
<b>1070T</b>	2012	13 to 50	808	53,8	2525	20 to 65	994	79,2	...
<b>1080T</b>	2525	20 to 65	1 277	66,5	2525	20 to 65	1 277	88,9	...
<b>1090T</b>	3030	24 to 80	2 712	79,2	3030	24 to 80	2 712	101,6	...
<b>1100T</b>	3030	24 to 80	2 712	88,9	3535	31 to 91	5 062	90,4	...
<b>1110T</b>	3535	31 to 91	5 062	91,9	4040	37 to 103	8 734	104,1	...
<b>1120T</b>	4040	37 to 103	8 734	111,3	4545	50 to 114	12 428	119,4	...
<b>1130T</b>	4545	50 to 114	12 428	117,3	5050	61 to 127	14 236	134,6	...
<b>1140T</b>	5050	61 to 127	14 236	130,0	5050	61 to 127	14 236	152,4	...
<b>1150T</b>	5050	61 to 127	14 236	182,9	6050	88 to 152	31 862	172,7 ▲	1055
<b>1160T</b>	5050	61 to 127	14 236	198,1	7060	100 to 177	47 002	186,4 ▲	1060
<b>1170T</b>	7060	100 to 177	47 002	215,9	8065	117 to 203	51 521	220,2 ▲	1070
<b>1180T</b>	8065	117 to 203	51 521	238,8	8065	117 to 203	51 521	248,9 ▲	1080
<b>1190T</b>	8065	117 to 203	51 521	259,1	10085	178 to 254	98 184	275,8 ▲	1090
<b>1200T</b>	10085	178 to 254	98 184	279,4	10085	178 to 254	98 184	304,8 ▲	1100

♦ Use straight bored hubs for shock load or reversing load applications or applications that require 1.75 or higher coupling service factors or refer to Falk for selection, price and delivery of special bushings. Refer to Falk for selection of taper-lock bushings for Type T50 and T70 couplings.

\* Bushings require shaft keyways per ISO R773.

▲ For Sizes 1150T thru 1200T, dimension "B" is to the hub counterbore.

# Engineering Data

**TABLE 18 — WR2 Values – kg-m2**  
(WR2 values are based on hubs with no bore; seals, lube plugs, and gaskets are not considered)

COUPLING SIZE	Coupling Type											T70
	T10	T20	T31		T35		T10/G82 ♦			T50		
			WR 2 (Min BE)	WR2 Added Per mm of BE Over Minimum	WR 2 (Min BE)	WR2 Added Per mm of BE Over Minimum	Rigid Hub Size	WR 2 (Without Shaft)	WR2 Added Per mm of Length of "SD" Diameter Between Hubs	WR 2 (Each Coupling)	WR2 Added Per mm of Length of "SD" Diameter Between Hubs	
1020T	0,0014	0,0016	0,00286	0,0000207	0,00214	0,0000207	...	...	...	...	...	...
1030T	0,0022	0,0023	0,00449	0,0000484	0,00336	0,0000484	...	...	...	0,00434	0,00000500	0,00434
1040T	0,0033	0,0035	0,00930	0,0000876	0,00629	0,0000876	...	...	...	...	...	...
1050T	0,0073	0,0075	0,0181	0,000161	0,0127	0,000161	...	...	...	0,0181	0,00000161	0,0181
1060T	0,012	0,012	0,0387	0,0000274	0,0253	0,0000274	...	...	...	...	...	...
1070T	0,019	0,018	0,0513	0,0000468	0,0349	0,0000468	...	...	...	0,0422	0,00000509	0,0420
1080T	0,045	0,043	0,116	0,0000964	0,0804	0,0000964	...	...	...	0,101	0,0000124	0,101
1090T	0,079	0,080	0,236	0,000187	0,157	0,000187	...	...	...	0,177	0,0000258	0,176
1100T	0,178	0,178	0,514	0,000313	0,346	0,000313	...	...	...	0,417	0,0000629	0,417
1110T	0,270	0,272	0,798	0,000523	0,534	0,000523	1035G	0,787	0,000130	0,699	0,0000916	0,697
1120T	0,514	0,472	1,56	0,000817	1,04	0,000817	1040G	1,51	0,000199	0,801	0,000162	0,800
1130T	0,990	1,05	2,51	0,00176	1,75	0,00176	1045G	2,56	0,000412	1,42	0,000266	1,42
1140T	1,85	1,88	4,35	0,00326	3,10	0,00326	1050G	4,78	0,000879	2,81	0,000348	2,80
1150T	3,49	3,29	9,00	0,00276	6,24	0,00276	1055G	8,23	0,00130	3,04	0,000559	...
1160T	5,82	6,03	12,8	0,00454	9,90	0,00454	1060G	12,1	0,00209	9,13	0,00130	...
1170T	10,4	10,4	24,8	0,00909	17,6	0,00909	1070G	23,7	0,00318	15,0	0,00130	...
1180T	18,3	...	39,7	0,0138	29,0	0,0138	1080G	38,3	0,00466	25,8	0,00209	...
1190T	26,2	...	65,0	0,0214	45,6	0,0214	1090G	62,2	0,00659	36,9	0,00318	...
1200T	43,6	...	93,5	0,0381	68,5	0,0381	1100G	92,7	0,00908	59,8	0,00466	...
1210T	75,6	...	...	...	...	...	...	...	...	...	...	...
1220T	113	...	...	...	...	...	...	...	...	...	...	...
1230T	175	...	...	...	...	...	...	...	...	...	...	...
1240T	339	...	...	...	...	...	...	...	...	...	...	...
1250T	525	...	...	...	...	...	...	...	...	...	...	...
1260T	712	...	...	...	...	...	...	...	...	...	...	...

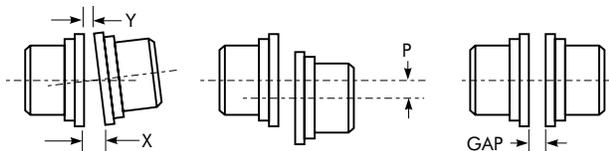
♦ Values shown are for standard hub lengths.

## Coupling Misalignment

Maximum life and minimum maintenance for the coupling and connected machinery will result if couplings are accurately aligned. Coupling life expectancy between initial alignment and maximum operating limits is a function of load, speed and lubrication. For applications requiring greater misalignment, refer application details to Falk.

**Angular misalignment** is expressed in degrees and as the difference between the value of X minus Y, as illustrated.

**Parallel misalignment** is the distance P between shaft center lines as shown.



**TABLE 19 — Type T Steelflex Coupling Misalignment Capacity — Millimeters ★**

CPLG SIZE	Recommended Installation Maximum				Maximum Operating			Normal Gap ±10%	
	Parallel Offset – P			Angular (1/16 °) X minus Y	Parallel Offset – P ▲		Angular (1/4 °) X minus Y	All Types Except T31	Type T31
	Types T10, T20, T31, T35, T41, T63	Type T50	Type T70		Types T10, T20, T31, T35, T41, T63	Type T70			
20/1020T	0,15	...	...	0,08	0,30	...	0,25	3	5
30/1030T	0,15	0,05	0,08	0,08	0,30	0,15	0,30	3	5
40/1040T	0,15	...	...	0,08	0,30	...	0,33	3	5
50/1050T	0,20	0,05	0,10	0,10	0,41	0,20	0,41	3	5
60/1060T	0,20	...	...	0,13	0,41	...	0,46	3	5
70/1070T	0,20	0,05	0,10	0,13	0,41	0,20	0,51	3	5
80/1080T	0,20	0,05	0,10	0,15	0,41	0,20	0,61	3	5
90/1090T	0,20	0,078	0,10	0,18	0,41	0,20	0,71	3	5
100/1100T	0,25	0,078	0,13	0,20	0,51	0,25	0,84	5	6
110/1110T	0,25	0,078	0,13	0,23	0,51	0,25	0,91	5	6
120/1120T	0,28	0,078	0,15	0,25	0,56	0,28	1,02	6	10
130/1130T	0,28	0,10	0,15	0,30	0,56	0,28	1,19	6	10
140/1140T	0,28	0,10	0,15	0,33	0,56	0,28	1,35	6	10
150/1150T	0,30	0,10	0,15	0,41	0,61	0,30	1,57	6	10
160/1160T	0,30	0,13	0,15	0,46	0,61	0,30	1,78	6	10
170/1170T	0,30	0,13	0,15	0,51	0,61	0,30	2,01	6	10
180/1180T	0,38	0,13	0,20	0,56	0,76	0,38	2,26	6	10
190/1190T	0,38	0,15	0,20	0,61	0,76	0,38	2,46	6	10
200/1200T	0,38	0,15	0,20	0,69	0,76	0,38	2,72	6	10
1210T	0,456	...	...	0,74	0,91	...	3,00	13	...
1220T	0,456	...	...	0,81	0,91	...	3,28	13	...
1230T	0,456	...	...	0,89	0,97	...	3,61	13	...
1240T	0,48	...	...	0,97	0,97	...	3,91	13	...
1250T	0,501	...	...	1,07	1,02	...	4,29	13	...
1260T	0,501	...	...	1,17	1,02	...	4,65	13	...

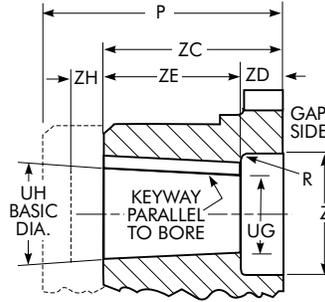
★ Values may be combined for an installation or an operating condition.

▲ Operating offset limits between Type T50 Floating Shaft Assembly is a function of 1/4 ° and distance between shaft ends.

# Engineering Data

## Mill Motor and Taper Bore Dimensions — Metric Equivalent Dimensions – mm

Standardized for AISE mill motors. Also Available for use on other tapered shaft applications such as large pumps, compressors, and turbines.



Type T Hub or T31/T35 Shaft Hubs Only.

TABLE 20 — Standard AISE AC & DC Mill Motor Coupling Selections — mm

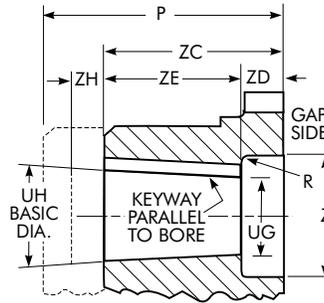
Motor Frame Sizes			CPLG SIZE ◆	R	Z	UG	UH	Keyway	ZC	ZD	ZE	ZH +0.003 -0.000
2 602	802 A,B & C	AC 1,2 & 4	1060T	3,0	66,68	36,50	44,46	12,70 x 6,35	100,1	23,9	76,2	0,61
			1070T	3,0	66,68							
			1080T	7,9	88,90							
			1090T	7,9	88,90							
			1100T	7,9	88,90							
603 604	803 804	...	1070T	3,0	76,20	41,53	50,80	12,70 x 6,35	114,3	25,4	88,9	0,74
			1080T	9,7	101,60							
			1090T	9,7	101,60							
			1100T	9,7	101,60							
606	806	AC 8 & 12	1080T	3,0	88,90	52,91	63,50	12,70 x 6,35	130,0	28,4	101,6	0,74
			1090T	9,7	114,30							
			1100T	9,7	114,30							
			1110T	9,7	114,30							
608	808	...	1090T	3,0	111,13	64,29	76,20	19,05 x 6,35	146,0	31,8	114,3	0,74
			1100T	12,7	136,53							
			1110T	12,7	136,53							
			1120T	12,7	136,53							
610	810	AC18	1100T	3,0	127,00	70,64	82,55	19,05 x 6,35	149,4	35,1	114,3	0,86
			1110T	12,7	152,40							
			1120T	12,7	152,40							
			1130T	12,7	152,40							
612	812	AC 25 & 30	1100T	3,0	133,35	78,84	92,08	19,05 x 6,35	165,1	38,1	127,0	0,86
			1110T	3,0	133,35							
			1120T	3,0	158,75							
			1130T	3,0	158,75							
			1140T	3,0	158,75							
614	814	AC 40 & 50	1110T	3,0	149,23	94,72	107,95	25,40 x 9,53	168,1	41,1	127,0	0,86
			1120T	3,0	149,23							
			1130T	12,7	171,45							
			1140T	12,7	171,45							
616	816	...	1120T	3,0	165,10	102,92	117,48	31,75 x 9,53	184,2	44,4	139,7	0,86
			1130T	15,7	203,20							
			1140T	15,7	203,20							
618	818	...	1130T	3,0	177,80	111,13	127,00	31,75 x 12,70	185,7	33,3	152,4	0,97
			1140T	15,7	215,90							
			1150T	15,7	215,90							
620	...	...	1140T	6,4	222,25	131,37	147,98	38,10 x 19,05	204,0	44,4	159,5	0,97
			1150T	19,0	247,65							
			1160T	19,0	247,65							
622	...	...	1140T	6,4	222,25	139,57	154,51	38,10 x 19,05	204,0	60,5	143,5	0,97
			1150T	19,0	247,65							
			1160T	19,0	247,65							
			1170T	19,0	247,65							
624	...	...	1140T	6,4	222,25	153,34	168,28	38,05 x 19,05	204,0	60,5	143,5	0,97
			1150T	19,0	247,65							
			1160T	19,0	247,65							
			1170T	19,0	247,65							
			1180T	19,0	247,65							
			1190T	19,0	247,65							

◆ Coupling selections are based on coupling bore capacity and standard available hub lengths. Check coupling rating for all selections, and hub key stress for mill motor selections 620 and larger.

# Engineering Data

Standardized for AISE mill motors. Also available for use on other tapered shaft applications such as large pumps, compressors and turbines.

Table 21 specifies the taper and counter bore limitations for the usual requirements. Refer applications for counter bore diameters or depths which exceed any of these limitations, and requirements for hubs longer than those listed, to Falk with full particulars for review.



Type T Hub or T31/T35 Shaft Hubs Only. ♦

TABLE 21 — Taper & Counter Bore Limitations — Millimeters ♦

SIZE	Std Long Hub Length P Max *	R	Z Max	UG Min	UH Max	ZD Max	Keyway ▲
20/1020T	98,6	3,0	36,53	13	28	15,7	8 x 7
30/1030T	104,6	3,0	46,02	13	35	15,7	10 x 8
40/1040T	104,6	3,0	53,98	13	45	15,7	12 x 8
50/1050T	165,1	6,4	65,07	13	50	20,6	14 x 9
60/1060T	167,4	6,4	73,03	20	56	20,6	16 x 10
70/1070T	167,4	6,4	84,12	20	67	22,4	20 x 12
80/1080T	205,5	9,7	103,17	27	80	31,8	22 x 14
90/1090T	205,5	9,7	117,48	27	95	35,1	25 x 14
100/1100T	204,7	12,7	136,53	42	110	42,9	28 x 16
110/1110T	204,7	12,7	152,40	42	120	44,5	32 x 18
120/1120T	204,0	15,7	165,10	61	140	50,8	36 x 20
130/1130T	204,0	15,7	203,20	67	170	52,3	40 x 22
140/1140T	204,0	19,1	234,95	67	200	57,2	45 x 25
150/1150T	182,9	19,1	266,70	108	215	63,5	50 x 28
160/1160T	198,1	19,1	304,80	121	240	69,9	56 x 32
1170T	215,9	19,1	355,60	134	280	76,2	63 x 32

\* Standard long hub length available for Type T Hubs and T31/T35 shaft hubs; consult Falk for other hubs or longer lengths.

▲ Keyway shown is for maximum bore.

♦ Refer to Falk for other hubs.

TABLE 22 — Type T Steelflex Coupling Puller Bolt Holes – Millimeters

SIZE	T-Hub		Shaft Hub	
	B.C.	Tap Size – 6H	B.C. ♣	Tap Size – 6H
1020T	39	M4 x 0,7 x 10	71	M10 x 1,5 x ♥
1030T	47	M4 x 0,7 x 10	79	M10 x 1,5 x ♥
1040T	54	M4 x 0,7 x 10	98	M10 x 1,5 x ♥
1050T	63	M5 x 0,8 x 10	108	M10 x 1,5 x ♥
1060T	73	M6 x 1,0 x 10	125	M10 x 1,5 x ♥
1070T	84	M6 x 1,0 x 10	133	M10 x 1,5 x ♥
1080T	100	M6 x 1,0 x 10	103	M10 x 1,5 x 13
1090T	116	M8 x 1,25 x 11	117	M10 x 1,5 x 13
1100T	133	M8 x 1,25 x 13	146	M16 x 2,0 x 21
1110T	149	M10 x 1,5 x 16	166	M16 x 2,0 x 21
1120T	168	M10 x 1,5 x 16	190	M20 x 2,5 x 24
1130T	197	M16 x 2,0 x 21	208	M20 x 2,5 x 24
1140T	236	M16 x 2,0 x 21	235	M20 x 2,5 x 24
1150T	263	M16 x 2,0 x 24		
1160T	298	M22 x 2,5 x 27		
1170T	338	M30 x 3,5 x 32		
1180T	378	M30 x 3,5 x 38		
1190T	413	M36 x 4,0 x 45		
1200T	456	M36 x 4,0 x 45		
1210T	497	M36 x 4,0 x 45		
1220T	541	M36 x 4,0 x 45		
1230T	586	M36 x 4,0 x 45		
1240T	633	M36 x 4,0 x 45		
1250T	690	M36 x 4,0 x 45		
1260T	749	M36 x 4,0 x 45		

♣ Locate puller bolt holes 90° from keyway except as noted by Footnote ♥.

♥ Drill and tap thru flange between existing holes. Relation to keyway may vary freely.

TABLE 23 — Type G Gear Coupling Rigid Hub Puller Bolt Holes – Millimeters

SIZE ★	B.C. Rigid Hub	Tap Size 6H
1035G	182,37	M12 x 1,75 x 16
1040G	209,80	M16 x 2,0 x 20
1045G	233,17	M16 x 2,0 x 20
1050G	259,08	M20 x 2,5 x 22
1055G	284,48	M20 x 2,5 x 22
1060G	316,48	M20 x 2,5 x 22
1070G	368,30	M24 x 3,0 x 30
1080G	400,05	M24 x 3,0 x 30
1090G	457,20	M30 x 3,5 x 38
1100G	471,47	M36 x 4,0 x 45
1110G	520,70	M36 x 4,0 x 45

★ See Page 5 for General Information and Reference Notes.

# Engineering Data

**Table 25 — Recommended Bore Tolerances  
Falk Steel Coupling Hubs — mm**

Shaft Diameter (ISO/R775-1969)	Bore Diameter Tolerance				
	Nominal	Tolerance	Clearance	Transitional	Interference
6 to 30		$j6 / k6 \blacklozenge$	F7	H7	M6
Over 30 to 50		k6	F7	H7	K6
Over 50 to 80		m6	F7	H7	K7
Over 80 to 100		m6	F7	H7	M7
Over 100 to 200		m6	F7	H7	P7
Over 200 to 355		m6	F7	H7	R7
Over 355 to 500		m6	F7	H7	R8

◆ Per DIN 748 — Differs from ISO/R775

**Table 24 — Standard Bore Fits —  
Unless Otherwise Specified, Falk  
Coupling Hubs Will Be Bored  
With The Following Bore Fits:**

Model	Coupling Size	Coupling Type	Bore Fit
Steefflex Grid Couplings	1020 - 1090	T10, T20, T31, T35, T41	Clearance
	1100 and Larger	All Types	Interference
	All Sizes	T50, T63, T70, T90	Interference

**TABLE 26— Recommended Bores for Metric Shafts per ISO/R775-1969 (Millimeters)**

Shaft Diameter	Clearance Fit		Transitional Fit		Interference Fit	
	Hub Bore	Fit *	Hub Bore	Fit *	Hub Bore	Fit *
<b>MM</b> i6 0,008 / - 0,003	<b>F7</b> 0,016 / 0,034	<b>0.008</b> 0,037	<b>H7</b> 0,000 / 0,018	<b>- 0.008</b> 0,021	<b>M6</b> - 0,015 / - 0,064	<b>- 0.023</b> - 0,001
12 14 16 18	12,008 / 11,997 14,008 / 13,997 16,008 / 15,997 18,008 / 17,997	12,016 / 12,034 14,016 / 14,034 16,016 / 16,034 18,016 / 18,034	12,000 / 12,018 14,000 / 14,018 16,000 / 16,018 18,000 / 18,018		11,985 / 11,996 13,985 / 13,996 15,985 / 15,996 17,985 / 17,996	
<b>MM</b> j6 0,009 / - 0,004	<b>F7</b> 0,020 / 0,041	<b>0.011</b> 0,045	<b>H7</b> 0,000 / 0,021	<b>- 0.009</b> 0,025	<b>M6</b> - 0,017 / - 0,004	<b>- 0.026</b> 0,000
19 20 22 24 25 28 30	19,009 / 18,996 20,009 / 19,996 22,009 / 21,996 24,009 / 23,996 25,009 / 24,996 28,009 / 27,996 30,009 / 29,996	19,020 / 19,041 20,020 / 20,041 22,020 / 22,041 24,020 / 24,041 25,020 / 25,041 28,020 / 28,041 30,020 / 30,041	19,000 / 19,021 20,000 / 20,021 22,000 / 22,021 24,000 / 24,021 25,000 / 25,021 28,000 / 28,021 30,000 / 30,021		18,983 / 18,996 19,983 / 19,996 21,983 / 21,996 23,983 / 23,996 24,983 / 24,996 27,983 / 27,996 29,983 / 29,996	
<b>&gt;30</b> <b>MM</b> k6 0,018 / 0,002	<b>F7</b> 0,025 / 0,050	<b>0.007</b> 0,048	<b>H7</b> 0,000 / 0,025	<b>- 0.018</b> 0,023	<b>K6</b> - 0,013 / 0,003	<b>- 0.031</b> 0,001
32 35 38 40 42 45 48 50	32,018 / 32,000 35,018 / 35,002 38,018 / 38,002 40,018 / 40,002 42,018 / 42,002 45,018 / 45,002 48,018 / 48,002 50,018 / 50,002	32,025 / 32,050 35,025 / 35,050 38,025 / 38,050 40,025 / 40,050 42,025 / 42,050 45,025 / 45,050 48,025 / 48,050 50,025 / 50,050	32,000 / 32,025 35,000 / 35,025 38,000 / 38,025 40,000 / 40,025 42,000 / 42,025 45,000 / 45,025 48,000 / 48,025 50,000 / 50,025		31,987 / 32,003 34,987 / 35,003 37,987 / 38,003 39,987 / 40,003 41,987 / 42,003 44,987 / 45,003 47,987 / 48,003 49,987 / 50,003	
<b>&gt;50</b> <b>MM</b> m6 0,030 / 0,011	<b>F7</b> 0,030 / 0,060	<b>0.000</b> 0,049	<b>H7</b> 0,000 / 0,030	<b>- 0.030</b> 0,019	<b>K7</b> - 0,021 / 0,009	<b>- 0.051</b> - 0,002
55 56 60 63 65 70 71 75 80	55,030 / 55,011 56,030 / 56,011 60,030 / 60,011 63,030 / 63,011 65,030 / 65,011 70,030 / 70,011 71,030 / 71,011 75,030 / 75,011 80,030 / 80,011	55,030 / 55,060 56,030 / 56,060 60,030 / 60,060 63,030 / 63,060 65,030 / 65,060 70,030 / 70,060 71,030 / 71,060 75,030 / 75,060 80,030 / 80,060	55,000 / 55,030 56,000 / 56,030 60,000 / 60,030 63,000 / 63,030 65,000 / 65,030 70,000 / 70,030 71,000 / 71,030 75,000 / 75,030 80,000 / 80,030		54,979 / 55,009 55,979 / 56,009 59,979 / 60,009 62,979 / 63,009 64,979 / 65,009 69,979 / 70,009 70,979 / 71,009 74,979 / 75,009 79,979 / 80,009	
<b>&gt;80</b> <b>MM</b> m6 0,035 / 0,013	<b>F7</b> 0,036 / 0,071	<b>0.001</b> 0,058	<b>H7</b> 0,000 / 0,035	<b>- 0.035</b> 0,022	<b>M7</b> - 0,035 / 0,000	<b>- 0.070</b> - 0,013
85 90 95 100	85,035 / 85,013 90,035 / 90,013 95,035 / 95,013 100,035 / 100,013	85,036 / 85,074 90,036 / 90,071 95,036 / 95,071 100,036 / 100,071	85,000 / 85,035 90,000 / 90,035 95,000 / 95,035 100,000 / 100,035		84,965 / 85,000 89,965 / 90,000 94,965 / 95,000 99,965 / 100,000	
<b>&gt;100</b> <b>MM</b> m6 0,035 / 0,013	<b>F7</b> 0,036 / 0,071		<b>H7</b> 0,000 / 0,035		<b>P7</b> - 0,059 / - 0,024	<b>- 0.094</b> - 0,037
110 120	110,035 / 110,013 120,035 / 120,013	110,036 / 110,071 120,036 / 120,071	110,000 / 110,035 120,000 / 120,035		109,941 / 109,976 119,941 / 119,976	
<b>&gt;120</b> <b>MM</b> m6 0,040 / 0,015	<b>F7</b> 0,043 / 0,083	<b>0.003</b> 0,068	<b>H7</b> 0,000 / ,040	<b>- 0.040</b> 0,025	<b>P7</b> - 0,068 / - 0,028	<b>- 0.108</b> - 0,043
125 130 140 150 160 170 180	125,040 / 125,015 130,040 / 130,015 140,040 / 140,015 150,040 / 150,015 160,040 / 160,015 170,040 / 170,015 180,040 / 180,015	125,043 / 125,083 130,043 / 130,083 140,043 / 140,083 150,043 / 150,083 160,043 / 160,083 170,043 / 170,083 180,043 / 180,083	125,000 / 125,040 130,000 / 130,040 140,000 / 140,040 150,000 / 150,040 160,000 / 160,040 170,000 / 170,040 180,000 / 180,040		124,932 / 124,972 129,932 / 129,972 139,932 / 139,972 149,932 / 149,972 159,932 / 159,972 169,932 / 169,972 179,932 / 179,972	

\* Positive values are clearance, negative values are interference.

# Engineering Data

**Table 26— Recommended Bores for Metric Shafts per ISO/R775–1969 (Continued)**

	Shaft Diameter	Clearance Fit		Transitional Fit		Interference Fit	
		Hub Bore	Fit *	Hub Bore	Fit *	Hub Bore	Fit *
> 180 MM	<b>m6</b> <b>0,046 / 0,017</b>	<b>F7</b> <b>0,050 / 0,096</b>	<b>0,004</b> <b>0,079</b>	<b>H7</b> <b>0,000 / 0,046</b>	<b>- 0,046</b> <b>0,029</b>	<b>P7</b> <b>- 0,079 / - 0,033</b>	<b>0,125</b> <b>- 0,050</b>
<b>190</b> <b>200</b>	190,046 / 190,017 200,046 / 190,017	190,050 / 190,096 200,050 / 200,096		190,000 / 190,046 200,000 / 200,046		189,921 / 189,967 199,921 / 199,967	
> 200 MM	<b>m6</b> <b>0,046 / 0,017</b>	<b>F7</b> <b>0,050 / 0,096</b>		<b>H7</b> <b>0,000 / 0,046</b>		<b>R7</b> <b>- 0,109 / - 0,063</b>	<b>- 0,155</b> <b>- 0,080</b>
<b>210</b> <b>220</b> <b>225</b>	210,046 / 210,017 220,046 / 220,017 225,046 / 225,017	210,050 / 210,096 220,050 / 220,096 225,050 / 225,096		210,000 / 210,046 220,000 / 220,046 225,000 / 225,046		209,891 / 209,937 219,891 / 219,937 224,891 / 224,937	
> 225 MM	<b>m6</b> <b>0,046 / 0,017</b>	<b>F7</b> <b>0,050 / 0,096</b>		<b>H7</b> <b>0,000 / 0,046</b>		<b>R7</b> <b>- 0,113 / - 0,067</b>	<b>- 0,159</b> <b>- 0,084</b>
<b>230</b> <b>240</b> <b>250</b>	230,046 / 230,017 240,046 / 240,017 250,046 / 250,017	230,050 / 230,096 240,050 / 240,096 250,050 / 250,096		230,000 / 230,046 240,000 / 240,046 250,000 / 250,046		229,887 / 229,933 239,887 / 239,933 249,887 / 249,933	
> 250 MM	<b>m6</b> <b>0,052 / 0,020</b>	<b>F7</b> <b>0,056 / 0,108</b>	<b>0,004</b> <b>0,088</b>	<b>H7</b> <b>0,000 / 0,052</b>	<b>- 0,052</b> <b>0,032</b>	<b>R7</b> <b>- 0,126 / - 0,074</b>	<b>- 0,178</b> <b>- 0,094</b>
<b>260</b> <b>270</b> <b>280</b>	260,052 / 260,020 270,052 / 270,020 280,052 / 280,020	260,056 / 260,108 270,056 / 270,108 280,056 / 280,108		260,000 / 260,052 270,000 / 270,052 280,000 / 280,052		259,874 / 259,926 269,874 / 269,926 279,874 / 279,926	
> 280 MM	<b>m6</b> <b>0,052 / 0,020</b>	<b>F7</b> <b>0,056 / 0,108</b>		<b>H7</b> <b>0,000 / 0,052</b>		<b>R7</b> <b>- 0,130 / - 0,078</b>	<b>- 0,182</b> <b>- 0,098</b>
<b>290</b> <b>300</b> <b>310</b> <b>315</b>	290,052 / 290,020 300,052 / 300,020 310,052 / 310,020 315,052 / 315,020	290,056 / 290,108 300,056 / 300,108 310,056 / 310,108 315,056 / 315,108		290,000 / 290,052 300,000 / 300,052 310,000 / 310,052 315,000 / 315,052		289,870 / 289,922 299,870 / 299,922 309,870 / 309,922 314,870 / 314,922	
> 315 MM	<b>m6</b> <b>0,057 / 0,021</b>	<b>F7</b> <b>0,062 / 0,119</b>	<b>0,005</b> <b>0,098</b>	<b>H7</b> <b>0,000 / 0,057</b>	<b>- 0,057</b> <b>0,036</b>	<b>R7</b> <b>- 0,144 / - 0,187</b>	<b>- 0,201</b> <b>- 0,108</b>
<b>320</b> <b>330</b> <b>340</b> <b>350</b> <b>355</b>	320,057 / 320,021 330,057 / 330,021 340,057 / 340,021 350,057 / 350,021 355,057 / 355,021	320,062 / 320,119 330,062 / 330,119 340,062 / 340,119 350,062 / 350,119 355,062 / 355,119		320,000 / 320,057 330,000 / 330,057 340,000 / 340,057 350,000 / 350,057 355,000 / 355,057		319,856 / 319,913 329,856 / 329,913 339,856 / 339,913 349,856 / 349,913 354,856 / 354,913	
> 355 MM	<b>m6</b> <b>0,057 / 0,021</b>	<b>F7</b> <b>0,062 / 0,119</b>		<b>H7</b> <b>0,000 / 0,057</b>		<b>R8</b> <b>- 0,203 / - 0,114</b>	<b>- 0,260</b> <b>- 0,135</b>
<b>360</b> <b>370</b> <b>380</b> <b>390</b> <b>400</b>	360,057 / 360,021 370,057 / 370,021 380,057 / 380,021 390,057 / 390,021 400,057 / 400,021	360,062 / 360,119 370,062 / 370,119 380,062 / 380,119 390,062 / 390,119 400,062 / 400,119		360,000 / 360,057 370,000 / 370,057 380,000 / 380,057 390,000 / 390,057 400,000 / 400,057		359,797 / 359,886 369,797 / 369,886 379,797 / 379,886 389,797 / 389,886 399,797 / 399,886	
> 400 MM	<b>m6</b> <b>0,063 / 0,023</b>	<b>F7</b> <b>0,068 / 0,131</b>	<b>0,005</b> <b>0,108</b>	<b>H7</b> <b>0,000 / 0,063</b>	<b>- 0,063</b> <b>0,040</b>	<b>R8</b> <b>- 0,223 / - 0,126</b>	<b>- 0,286</b> <b>- 0,149</b>
<b>410</b> <b>420</b> <b>430</b> <b>440</b> <b>450</b>	410,063 / 410,023 420,063 / 420,023 430,063 / 430,023 440,063 / 440,023 450,063 / 450,023	410,068 / 410,131 420,068 / 420,131 430,068 / 430,131 440,068 / 440,131 450,068 / 450,131		410,000 / 410,063 420,000 / 420,063 430,000 / 430,063 440,000 / 440,063 450,000 / 450,063		409,777 / 409,874 419,777 / 419,874 429,777 / 429,874 439,777 / 439,874 449,777 / 449,874	
> 450 MM	<b>m6</b> <b>0,063 / 0,023</b>	<b>F7</b> <b>0,068 / 0,131</b>		<b>H7</b> <b>0,000 / 0,063</b>		<b>R8</b> <b>- 0,229 / - 0,132</b>	<b>- 0,292</b> <b>- 0,155</b>
<b>460</b> <b>470</b> <b>480</b> <b>490</b> <b>500</b>	460,063 / 460,023 470,063 / 470,023 480,063 / 480,023 490,063 / 490,023 500,063 / 500,023	460,068 / 460,131 470,068 / 470,131 480,068 / 480,131 490,068 / 490,131 500,068 / 500,131		460,000 / 460,063 470,000 / 470,063 480,000 / 480,063 490,000 / 490,063 500,000 / 500,063		459,771 / 459,868 469,771 / 469,868 479,771 / 479,868 489,771 / 489,868 499,771 / 499,868	

\* Positive values are clearance, negative values are interference.

# Engineering Data

TABLE 27 — Recommended Bores for Falk Steel Coupling Hubs — Inches

Shaft Dia.	Clearance Fit		Interference Fit		Shaft Dia.	Clearance Fit		Interference Fit		Shaft Dia.	Clearance Fit		Interference Fit		Shaft Dia.	Interference Fit	
	Hub Bore	Clearance	Hub Bore	Interference		Hub Bore	Clearance	Hub Bore	Interference		Hub Bore	Clearance	Hub Bore	Interference		Hub Bore	Interference
+ .0000 - .0005	+ .0010 - .0000	.0000 .0015	+ .0005 - .0000	.0000 .0010	+ .0000 - .0010	+ .0015 - .0000	.0000 .0025	+ .0010 - .0000	.0000 .0020	+ .0000 - .0010	+ .0015 - .0000	.0000 .0025	+ .0015 - .0000	.0010 .0035	+ .0000 - .0010	+ .0015 - .0000	.0015 .0040
.5000	.5000		.4990		2.2500	2.2500		2.2480		4.0625	4.0625		4.0590		6.7500	6.7460	
.5625	.5625		.5615		2.3125	2.3125		2.3105		4.1250	4.1250		4.1215		7.0000	6.9960	
.6250	.6250		.6240		2.3750	2.3750		2.3730		4.1875	4.1875		4.1840		+ .0000 - .0010	+ .0020 - .0000	.0020 .0050
.6875	.6875		.6865		2.4375	2.4375		2.4355		4.2500	4.2500		4.2465		7.2500	7.2450	
.7500	.7500		.7490		2.5000	2.5000		2.4980		4.3125	4.3125		4.3090		7.5000	7.4950	
.8125	.8125		.8115		2.5625	2.5625		2.5605		4.3750	4.3750		4.3715		7.7500	7.7450	
.8750	.8750		.8740		2.6250	2.6250		2.6230		4.4375	4.4375		4.4340		8.0000	7.9950	
.9375	.9375		.9365		2.6875	2.6875		2.6855		4.5000	4.5000		4.4965		8.2500	8.2445	.0025
1.0000	1.0000		.9990		2.7500	2.7500		2.7480		4.5625	4.5625		4.5590		8.5000	8.4945	.0055
1.0625	1.0625		1.0615		2.8125	2.8125		2.8105		4.6250	4.6250		4.6215		8.7500	8.7445	
1.1250	1.1250		1.1240		2.8750	2.8750		2.8730		4.6875	4.6875		4.6840		9.0000	8.9945	
1.1875	1.1875		1.1865		2.9375	2.9375		2.9355		4.7500	4.7500		4.7465		9.2500	9.2440	.0030
1.2500	1.2500		1.2490		3.0000	3.0000		2.9980		4.8125	4.8125		4.8090		9.5000	9.4940	.0060
1.3125	1.3125		1.3115		+ .0000 - .0010	+ .0015 - .0000	.0000 .0025	+ .0010 - .0000	.0005 .0025	5.0000	5.0000		4.9965		9.7500	9.7440	
1.3750	1.3750		1.3740		3.0625	3.0625		3.0600		5.0625	5.0625		5.0585		10.0000	9.9940	
1.4375	1.4375		1.4365		3.1250	3.1250		3.1225		5.1250	5.1250		5.1210		10.2500	10.2435	.0035
1.5000	1.5000		1.4990		3.1875	3.1875		3.1850		5.1875	5.1875		5.1835		10.5000	10.4935	.0065
+ .0000 - .0010	+ .0010 - .0000	.0000 .0020	+ .0005 - .0000	.0000 .0015	3.2500	3.2500		3.2475		5.2500	5.2500		5.2460		10.7500	10.7435	
1.5625	1.5625		1.5610		3.3125	3.3125		3.3100		5.3125	5.3125		5.3085		11.0000	10.9935	
1.6250	1.6250		1.6235		3.3750	3.3750		3.3725		5.3750	5.3750		5.3710		11.2500	11.2430	.0040
1.6875	1.6875		1.6860		3.4375	3.4375		3.4350		5.4375	5.4375		5.4335		11.5000	11.4930	.0070
1.7500	1.7500		1.7485		3.5000	3.5000		3.4975		5.5000	5.5000		5.4960		11.7500	11.7430	
1.8125	1.8125		1.8110		3.5625	3.5625		3.5600		5.5625	5.5625		5.5585		12.0000	11.9930	
1.8750	1.8750		1.8735		3.6250	3.6250		3.6225		5.6250	5.6250		5.6210		12.5000	12.4925	.0045
1.9375	1.9375		1.9360		3.6875	3.6875		3.6850		5.6875	5.6875		5.6835		13.0000	12.9925	.0075
2.0000	2.0000		1.9985		3.7500	3.7500		3.7475		5.7500	5.7500		5.7460		13.5000	13.4920	.0050
+ .0000 - .0010	+ .0015 - .0000	.0000 .0025	+ .0005 - .0000	.0000 .0015	3.8125	3.8125		3.8100		5.8125	5.8125		5.8085		14.0000	13.9920	.0080
2.0625	2.0625		2.0610		3.8750	3.8750		3.8725		5.8750	5.8750		5.8710		14.5000	14.4915	.0055
2.1250	2.1250		2.1235		3.9375	3.9375		3.9350		5.9375	5.9375		5.9335		15.0000	14.9915	.0085
2.1875	2.1875		2.1860		4.0000	4.0000		3.9975		6.0000	6.0000		5.9960		+ .000 - .001	+ .0025 - .0000	.0055 .0090
										6.2500	6.2500		6.2460		15.5000	15.4910	
										6.5000	6.5000		6.4960		16.0000	15.9910	
															16.5000	16.4905	.0060
															17.0000	16.9905	.0095
															17.5000	17.4895	.0070
															18.0000	17.9895	.0105
															18.5000	18.4890	.0075
															19.0000	18.9890	.0110
															19.5000	19.4880	.0085
															20.0000	19.9880	.0120

♦ For shaft diameters larger than 20.000, use an average interference fit of .0005" per inch of shaft diameter with the following bore tolerances:  
 + .003, - .000 for over 20 to 30 dia. incl.  
 + .004, - .000 for over 30 to 40 dia. incl.  
 Tolerances and fits comply with, or are within, AGMA 9002-A86 standard (class 1 clearance fit).



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