THE FALK CORPORATION

WRAPFLEX®

Talk About Simple!

FALK®

a good name in industry

M491-110

WRAPFLEX®
Now there's a simple way to increase productivity

- 9 sizes
- Torque range: 133,000 lb.in. (15 028 Nm)
- Bore capacity: 7¼" (186 mm)
- "Replace in place"
- Non-lubricated/low maintenance
- 3-Year Heavy-Duty Warranty

Ever think that keeping your production lines running more profitably could be as simple as replacing a light bulb or opening a can with a pop-top?

Quick, easy installation and replacement set new standards for reduced downtime. Because motors or drives don't need to be moved, our **"replace in place"** elements even eliminate the need for time-consuming realignment, further reducing downtime. Available in close-coupled and spacer designs, Wrapflex couplings accommodate up to 7¼" (186 mm) shafts and torque loads up to 133,000 lb.in. (15 028 Nm). For simplicity and cost-effectiveness over the life of your coupling, it just doesn't get any easier than this – Wrapflex couplings from Falk.

Low initial cost

- Advanced manufacturing methods and innovative material allow us to offer you higher capacity ratings at a more competitive price than ever before possible.
- Initial investment protected by the industry's first, standard 3-Year Heavy-Duty Warranty.

Easy to install

- The compound root radius in the element teeth (patent applied for) increases flexibility for easier and quicker assembly.
- Can be blind assembled from either direction.

R10 Close-Coupled

R35 Half Spacer

Replace in place

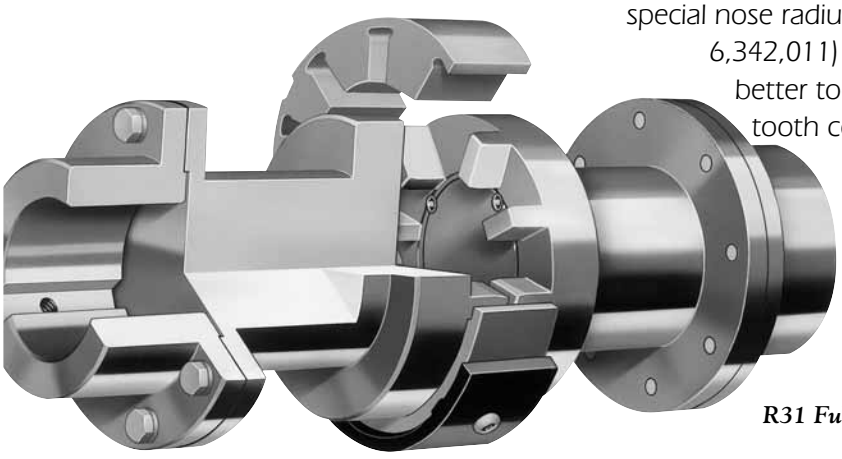
- Design allows quick and easy element replacement.
- There's no need to remove hubs or realign motors or drives, reducing downtime.

No maintenance needed

- Non-lubricated design of the tough, flexible polyurethane element reduces periodic maintenance costs.

Protects equipment

- Patent applied for design of the flexible element minimizes effects of misalignment for improved performance and life.
- Hub teeth machined with special nose radius (patent No. 6,342,011) for better tooth-to-tooth contact.



R31 Full Spacer

Tough, long-lasting

- Polyurethane element has excellent wear and chemical resistance, and a operating temperature of -40° C (-40° F) to 95° C (200° F).
- Hubs made from carbon steel for maximum strength. Optional stainless steel hubs also available.
- Weather-resistant, high-grade nylon cover is standard.
- Optional carbon steel covers with black epoxy coating for highly corrosive, severe-duty applications. (Standard for sizes 60-80.)
- Optional Stainless steel hubs are available for Type R10 when required iin Food or corrosive envinroments.

Safety first

- Two stainless steel button-head cap screws, positioned 180° apart, prevent relative motion between cover and element and provide a positive means of retaining the cover to the element.
- Flexible element is retained after failure, helping minimize the potential for damage or personal injury.

Quick and easy retrofits

- Compact design eliminates the need for coupling guard redesign on existing applications.
- Stock finished bores in popular sizes and taper bores, which accept Q.D. and TaperLock bushings, are available from our worldwide distribution network for off-the-shelf availability.

WRAPFLEX® Selection Guide

Selection Guide M491-110, July 2004

Wrapflex Quick Selection Method — Close Coupled R10

1. Determine Service Factor — Refer to Table 1 or 4 for motor or turbine driven applications. See Table 5 for Engine Drives.
2. Determine Equivalent Power.
   Refer to Table 2 — Under the actual kW required and opposite the service factor, read the Equivalent Power.
3. Determine Coupling Size.

A. Refer to Table 3 — Trace horizontally from the required speed to a kW value equal to or larger than the Equivalent Power determined in Step 2. Read the coupling size at the top of the column.

B. Check shaft diameters against coupling maximum bores shown in Table 3 and on Page 6 for the correct coupling size selected.

C. In Table 3, check the required speed against the allowable speed shown below the correct coupling size selected.

4. Determine application/design shaft spacing and check application dimension requirements against selected coupling type dimensions shown on Pages 8 thru 12. Confirm sufficient clearances for coupling.
5. Confirm that application ambient operating temperatures are between -40°C (-40°F) to 95°C (200°F). For applications requiring Service Factor above 1.5 and temperatures above 79°C (175°F), consult Falk Engineering for selection assistance or optional high temperature elements.

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.

TABLE 1 — Service Factors

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 Extuders, 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.	Refer to Falk

TABLE 2 — Equivalent Power = (Actual kW x Service Factor)

Service Factor ‡	Actual kW																														
	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	9.2	11	15	18.5	22	30	37	45	55	75	90	110	132	150	185	200	220	250	300	330
1.00	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	9.2	11	15	18.5	22	30	37	45	55	75	90	110	132	150	185	200	220	250	300	330
1.25	0.31	0.46	0.69	0.9	1.4	1.9	2.8	3.8	5	6.9	9.4	11.5	13.8	18.8	23.1	27.5	37.5	46.3	56.3	68.8	93.8	113	138	165	188	231	250	275	313	375	413
1.50	0.38	0.56	0.83	1.1	1.7	2.3	3.3	4.5	6.0	8.3	11.3	13.8	16.5	22.5	27.8	33.0	45.0	55.5	67.5	82.5	113	135	165	198	225	278	300	330	375	450	495
1.75	0.44	0.65	0.96	1.3	1.9	2.6	3.9	5.3	7.0	9.6	13.1	16.1	19.3	26.3	32.4	38.5	52.5	64.8	78.8	96.3	131	158	193	231	263	324	350	385	438	525	578
2.00	0.50	0.74	1.1	1.5	2.2	3.0	4.4	6.0	8.0	11.0	15.0	18.4	22.0	30.0	37.0	44.0	60.0	74.0	90.0	110	150	180	220	264	300	370	400	440	500	600	660
2.50	0.63	0.93	1.4	1.9	2.8	3.8	5.5	7.5	10	13.8	18.8	23.0	27.5	37.5	46.3	55.0	75.0	92.5	113	138	188	225	275	330	375	463	500	550	625	750	825
3.00	0.75	1.1	1.7	2.3	3.3	4.5	6.6	9.0	12	16.5	22.5	27.6	33.0	45.0	55.5	66.0	90.0	111	135	165	225	270	330	396	450	555	600	660	750	900	990
3.50	0.88	1.3	1.9	2.6	3.9	5.3	7.7	10.5	14	19.3	26.3	32.2	38.5	52.5	64.8	77.0	105	130	158	193	263	315	385	462	525	648	700	770	875	1 050	1 155

‡ For service factors not listed. Equivalent Power = Actual kW x Service Factor.

TABLE 3 — Falk "Wrapflex" Coupling Quick Selection Chart

	5R	10R	20R	30R	40R	50R	60R	70R	80R
Max Bore (mm)	**38.00**	**48.00**	**60.00**	**65.00**	**85.00**	**105.00**	**133.00**	**156.00**	**186,00**
Max Speed	**4500 rpm**	**4500 rpm**	**4500 rpm**	**4500 rpm**	**3600 rpm**	**3000 rpm**	**2500 rpm**	**2100 rpm**	**1800 rpm**
Torque (Nm)	**62**	**130**	**315**	**520**	**1020**	**2500**	**4000**	**8000**	**15000**
kW/rpm	**0.0065**	**0.0136**	**0.0331**	**0.0544**	**0.1077**	**0.2628**	**0.420**	**0.839**	**1.574**
RPM	**kW Ratings**								
4500	29.3	61.3	149	245					
3600	23.4	49.0	119	196	388				
3000	19.5	40.8	99.4	163	323	788			
2500	16.3	34.0	82.9	136	269	657	1050		
2100	13.7	28.6	69.6	114	226	552	882	1762	
1800	11.7	24.5	59.7	98	194	473	756	1511	2834
1750	11.4	23.8	58.0	95.3	188	460	735	1469	2755
1450	9.4	19.7	48.1	78.9	156	381	609	1217	2283
1170	7.6	15.9	38.8	63.7	126	307	492	982	1842
1000	6.5	13.6	33.1	54.4	108	263	420	839	1574
870	5.7	11.8	28.8	47.4	93.7	229	366	730	1370
720	4.7	9.8	23.9	39.2	77.6	189	303	604	1133
650	4.2	8.8	21.5	35.4	70.0	171	273	545	1023
580	3.8	7.9	19.2	31.6	62.5	152	244	487	913
520	3.4	7.1	17.2	28.3	56.0	137	219	436	819
420	2.7	5.7	13.9	22.9	45.2	110	176	352	661
350	2.3	4.8	11.6	19.1	37.7	92.0	147	294	551
280	1.8	3.8	9.3	15.2	30.2	73.6	118	235	441
230	1.5	3.1	7.6	12.5	24.8	60.4	96.6	193	362
190	1.2	2.6	6.3	10.3	20.5	49.9	79.8	159	299
155	1.0	2.1	5.1	8.4	16.7	40.7	65.1	130	244
125	0.81	1.7	4.1	6.8	13.5	32.8	52.5	105	197
100	0.65	1.4	3.3	5.4	10.8	26.3	42.0	83.9	157
84	0.55	1.1	2.8	4.6	9.0	22.1	35.3	70.5	132
68	0.44	0.93	2.3	3.7	7.3	17.9	28.6	57.1	107
56	0.36	0.76	1.9	3.0	6.0	14.7	23.5	47.0	88.2
45	0.29	0.61	1.5	2.5	4.8	11.8	18.9	37.8	70.8
37	. . .	0.50	1.2	2.0	4.0	9.7	15.5	31.1	58.2
30	. . .	0.41	1.0	1.6	3.2	7.9	12.6	25.2	47.2
25	. . .	. . .	0.83	1.4	2.7	6.6	10.5	21.0	39.4
20	. . .	. . .	0.66	1.1	2.2	5.3	8.4	16.8	31.5
16.5	. . .	. . .	0.55	0.90	1.8	4.3	6.9	13.8	26.0
13	. . .	. . .	0.43	0.71	1.4	3.4	5.5	10.9	20.5

Service Factors

TABLE 4 — 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
AERATOR	2.0
AGITATORS	
Vertical and Horizontal Screw, Propeller, Paddle	1.0
BARGE HAUL PULLER	1.5
BLOWERS	
Centrifugal	1.0
Lobe or Vane	1.25
CAR DUMPERS	2.5
CAR PULLERS	1.5
CLARIFIER OR CLASSIFIER	1.0
COMPRESSORS	
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 cly., single act.	1.75
4 or more cyl., double act.	1.75
▲CONVEYORS	
Apron, Assembly, Belt, Chain, Flight, Screw	1.0
Bucket	1.25
Live Roll, Shaker and Reciprocating	3.0
▲♣CRANES AND HOIST	
Main Hoist	1.75▲
Skip Hoist	1.75▲
Slope	1.5
Bridge, Travel or Trolley	1.75
DYNAMOMETER	1.0
ELEVATORS	
Bucket, Centrifugal Discharge	1.25
Freight or Passenger	**Not Approved**
Gravity Discharge	1.25
ESCALATORS	**Not Approved**
EXCITER, GENERATOR	1.0
EXTRUDER, PLASTIC	1.5
FANS	
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
FEEDERS	
Apron, Belt, Disc, Screw	1.0
Reciprocating	2.5
GENERATORS	
Even Load	1.0
Hoist or Railway Service	1.5
Welder Load	2.0
HAMMERMILL	1.75
LAUNDRY WASHER OR TUMBLER	2.0
LINE SHAFTS	
Any Processing Machinery	1.5
MACHINE TOOLS	
Auxiliary and Traverse Drive	1.0
Bending Roll, Notching Press, Punch Press, Planer, Plate Reversing	1.75
Main Drive	1.5
MAN LIFTS	**Not Approved**
METAL FORMING MACHINES	
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
MIXERS (see Agitators)	
Concrete	1.75
Muller	1.5
PRESS, PRINTING	1.5
PUG MILL	1.75
PULVERIZERS	
Hammermill and Hog	1.75
Roller	1.5
PUMPS	
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
SCREENS	
Air Washing	1.0
Grizzly	2.0
Rotary Coal or Sand	1.5
Vibrating	2.5
Water	1.0
SKI TOWS & LIFTS	**Not Approved**
STEERING GEAR	1.0
STOKER	1.0
TIRE SHREDDER	1.50
TUMBLING BARREL	1.75
WINCH, MANEUVERING	
Dredge, Marine	1.5
WINDLASS	1.5
WOODWORKING MACHINERY	1.0
WORK LIFT PLATFORMS	**Not Approved**

♦ For engine drives, refer to Table 5. 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.

Alphabetical listing of industries

	Service Factor
AGGREGATE PROCESSING, CEMENT, MINING KILNS; TUBE, ROD AND BALL MILLS	
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
BREWING AND DISTILLING	
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
CLAY WORKING INDUSTRY	
Brick Press, Briquette Machine, Clay Working Machine, Pug Mill	1.75
DREDGES	
Cable Reel	1.75
Conveyors	1.25
Cutter head, Jig Drive	2.0
Maneuvering Winch	1.5
Pumps (uniform load)	1.5
Screen Drive, Stacker	1.75
Utility Winch	1.5
FOOD INDUSTRY	
Beet Slicer	1.75
Bottling, Can Filling Machine	1.0
Cereal Cooker	1.25
Dough Mixer, Meat Grinder	1.75
LUMBER	
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
♣METAL ROLLING MILLS	
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
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
OIL INDUSTRY	
Chiller	1.25
Oilwell Pumping (not over 150% peak torque)	2.0
Paraffin Filter Press	1.5
Rotary Kiln	2.0
PAPER MILLS	
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
RUBBER INDUSTRY	
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, Pelletizer	1.75
Warming Mill	
One or two Mills in line	2.0
Three or more Mills in line	1.75
Washer	2.5
SEWAGE DISPOSAL EQUIPMENT	
Bar Screen, Chemical Feeders, Collectors, Dewatering Screen, Grit Collector	1.0
SUGAR INDUSTRY	
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
TEXTILE INDUSTRY	
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

TABLE 5 — Engine Drive Service Factors ♥

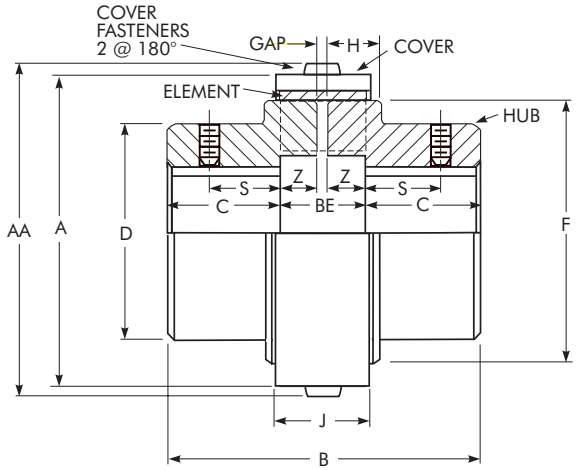
Service Factors for engine drives are those required for applications where good flywheel regulation prevents torque fluctuations greater than ±20%. For drives where torque fluctuations are greater or where the operation is near a serious critical or torsional vibration, a mass elastic study is necessary.

No. of Cylinders	4 or 5 ♥					6 or more ♥				
Table 4 S.F.	1.0	1.25	1.5	1.75	2.0	1.0	1.25	1.5	1.75	2.0
Engine S.F.	2.0	2.25	2.5	2.75	3.0	1.5	1.75	2.0	2.25	2.5

♥ To use Table 5, first determine application service factor from Table 4. Use that factor to determine ENGINE Service Factor from Table 5. When service factor from Table 4 is greater than 2.0, or where 1, 2, or 3 cylinder engines are involved, refer complete application details to Falk Engineering.

Type R10

Close Coupled Coupling/Dimensions — Millimeters



SIZE ★	DIMENSIONS — MILLIMETERS †																						
	Torque Rating Nm	Allow Speed rpm	Max Bore Std Hub Mount ♦	Max Bore Protruded Shaft ▲	Cplg Wt No Bore - kg		A		AA		B	BE	C	D	F	H	J		S ▲	Z	Gap	Cover Fasteners ■	
					Nylon Cover	Steel Cover ●	Nylon Cover	Steel Cover ●	Nylon Cover	Steel Cover ●							Nylon Cover	Steel Cover ●				Size	Allen Wrench Tool
5R	62	4 500	38	38	1.34	1.48	76.5	76.5	80.5	80.5	72.0	20.0	26	60	64	15.0	23.0	23.0	15.9	9.0	2.00	M4	M2.5
10R	130	4 500	48	45	2.48	2.70	90.5	90.5	94.5	94.5	92.0	24.0	34	72	76	19.0	28.0	28.0	22.2	11.0	2.00	M4	M2.5
20R	315	4 500	60	58	5.59	6.07	126.0	124.0	132.1	130.1	122.0	32.0	45	92	102	25.0	37.1	37.1	25.4	15.0	2.00	M6	M4
30R	520	4 500	65	64	9.37	10.0	146.5	143.0	152.6	149.1	152.0	36.0	58	105	118	29.0	42.0	41.6	31.8	17.0	2.00	M6	M4
40R	1 020	3 600	85	80	17.1	18.1	182.4	177.0	190.0	185.0	181.0	47.0	67	130	150	34.0	54.5	53.0	41.3	21.0	5.00	M8	M5
50R	2 500	3 000	105	105	33.7	35.6	231.0	224.0	239.0	232.0	215.0	61.0	77	170	190	46.0	69.5	67.2	44.5	28.0	5.00	M8	M5
60R	4 000	2 500	133	133	. . .	62.4	. . .	267.0	. . .	278.0	275.4	75.4	100	200	228	60.2	. .	67.0	. . .	35.2	5.00	M10	M6
70R	8 000	2 100	156	156	. . .	98.2	. . .	310.0	. . .	321.0	324.4	84.4	120	227	270	69.7	. . .	75.0	. . .	39.7	5.00	M10	M6
80R	15 000	1 800	186	186	. . .	165	. . .	370.0	. . .	381.0	376.8	96.8	140	270	328	83.4	. . .	85.0	. . .	45.4	6.00	M10	M6

★ Standard urethane element operating temperature: -40°C (-40°F) to 95°C (200°F). Dimensions are for reference only and are subject to change without notice unless certified.

† Inch/metric conversions may not be direct conversions.

● 5R-50R nylon cover is standard & epoxy coated steel cover is optional. 60R-80R epoxy coated steel cover is standard (nylon cover not available).

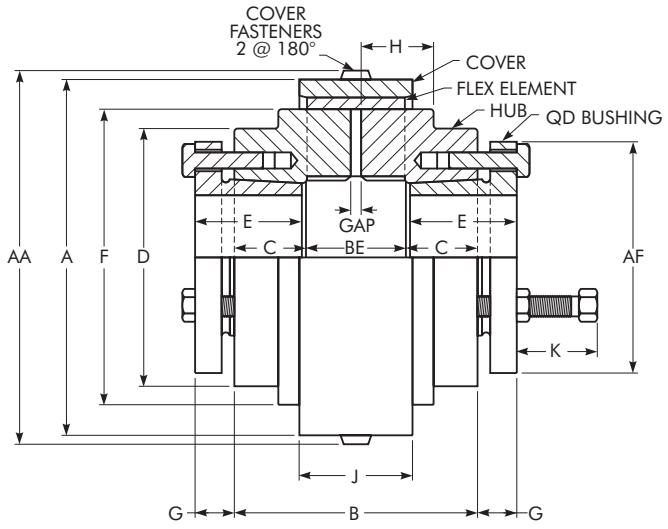
■ Cover Fasteners are ISO 7380 Stainless Steel Socket Button Head Cap screws. Two cover fasteners per coupling.

▲ A protruded shaft is defined as the shaft penetrating into the area shown above as Dimension "Z". Sizes 5R-50R are standard "clearance" fit with keyway and setscrews (one over keyway one at 90° from keyway). 60R-80R are standard "interference" fit with keyway & no setscrew.

♦ The number of application start/stop cycles should be limited to 10 per hour at the maximum bore condition unless long hubs are utilized. For applications with a Service Factor requirement of 2.0 or more, refer to Falk for possible use of long hubs for additional shaft engagement or utilization of Interference Fits.

Type R10

QD Bushings/Dimensions — Millimeters



COUPLING SIZE	Bushing Size	Torque Rating Nm	kW per rpm	Max RPM RPM	Max Bore ‡ mm	Min Bore ‡ mm	Coupling weight without Bushing Nylon Cover kg	Coupling weight without Bushing Steel Cover kg	GAP mm	BE mm
5R	JA	62	0.0065	4 500	30.00	15.00	0.965	1.10	2.00	20.0
10R	JA ★	130	0.0136	4 500	30.00	15.00	1.58	1.81	2.00	24.0
20R	SD	315	0.0331	4 500	43.00	24.00	3.05	3.53	2.00	32.0
30R	SD	520	0.0544	4 500	43.00	24.00	4.61	5.27	2.00	36.0
40R	SF	1 020	0.108	3 600	63.00	28.00	7.70	8.73	5.00	47.0
50R	E ★	2 500	0.263	3 000	89.00	35.00	16.7	18.6	5.00	61.0
60R	J	4 000	0.42	2 500	114.00	50.00	NA	37.6	5.00	75.4
70R	J ★	8 000	0.84	2 100	114.00	50.00	NA	57.0	5.00	84.4
80R	M ★ †	15 000	1.57	1 800	139.00	80.00	NA	115	6.00	96.8

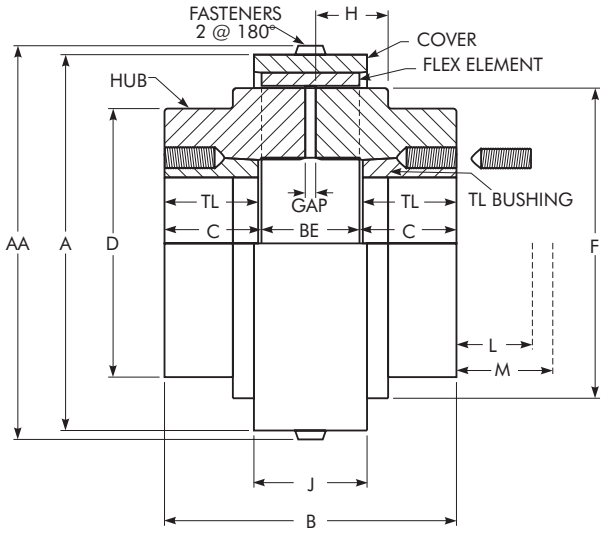
COUPLING SIZE	Cover Fasteners ● Size	Cover Fasteners ● Hex Tool	Bushing Fasteners ● Metric Hardware	AA - Nylon Cover	AA - Steel Cover	A - Nylon Cover	A - Steel Cover	AF ■	B
5R	M4	M2.5	M5 x 0.8 x 25	80.5	80.4	76.5	76.5	50.8	72.0
10R	M4	M2.5	M5 x 0.8 x 25	94.5	94.4	90.5	90.5	50.8	76.0
20R	M6	M4	M6 x 1.0 x 25	132.1	130.1	126.0	124.0	81.0	96.0
30R	M6	M4	M6 x 1.0 x 25	152.6	149.1	146.5	143.0	81.0	100.0
40R	M8	M5	M10 x 1.5 x 35	190.0	185.0	182.0	177.0	117.5	115.0
50R	M8	M5	M12 x 1.75 x 45	239.0	232.0	231.0	224.0	152.4	145.0
60R	M10	M6	M16 x 2.0 x 65	. . .	278.0	. . .	267.0	184.2	237.4
70R	M10	M6	M16 x 2.0 x 65	. . .	321.0	. . .	310.0	184.2	246.4
80R	M10	M6	M20 x 2.0 x 75	. . .	381.0	. . .	370.0	231.8	360.8

Coupling	C	D	E ■	F	G ■	H	J - Nylon Cover	J - Steel Cover	K - Clearance
	mm								
5R	26.0	60.0	25.4	64.00	11.1	15.0	23.0	23.0	29.5
10R	26.0	72.0	25.4	76.00	11.1	19.0	28.0	28.0	29.5
20R	32.0	92.0	46.0	102.00	14.3	25.0	37.1	37.1	30.2
30R	32.0	105.0	46.0	118.00	14.3	29.0	42.0	41.6	30.2
40R	34.0	130.0	50.8	150.00	21.4	34.0	54.5	53.0	38.1
50R	42.0	170.0	66.7	190.00	28.6	46.0	69.5	67.2	54.0
60R	81.0	204.0	114.3	228.00	38.1	60.2	. . .	67.0	74.6
70R	81.0	227.0	114.3	270.00	38.1	69.7	. . .	75.0	74.6
80R	132.0	270.0	171.5	328.00	42.1	83.4	. . .	85.0	88.9

★ Refer to specific bushing manufacturer for actual torque ratings and bore capacities.
† 80 R requires a special "M" bushing, manufactured for "reverse" mounting. Consult bushing manufacturer.
‡ Typical – refer to bushing manufacturer for exceptions.
● Cover Fasteners are ISO 7380, Stainless Steel, Socket button Head Cap Screws. Bushing fasteners are SAE Grade 5 (inch) or ISO 8.8 (metric), Hex Head Cap Screws.
■ May vary depending on bushing manufacturer. Consult bushing manufacturer.

Type R10

Taper-Lock (BSW ♦) Bushings/Dimensions — Millimeters



COUPLING SIZE	Bushing Size	Assembly Torque Rating ★	kW per rpm	Max RPM	Max Bore ★	Min Bore ★	Coupling Weight without Bushing		Gap
							Nylon Cover	Steel Cover	
		Nm			mm	mm	kg	kg	mm
5R	1108	62	0.0065	4 500	26.00	9.00	0.807	0.943	2.00
10R	1210	130	0.0136	4 500	32.00	11.00	1.56	1.78	2.00
20R	1610	315	0.0331	4 500	40.00	14.00	3.11	3.59	2.00
30R	2012	520	0.0544	4 500	48.00	14.00	4.85	5.49	2.00
40R	2517 ♦	1 020	0.108	3 600	63.00	16.00	8.80	9.84	5.00
50R	3020	2 500	0.263	3 000	75.00	24.00	18.6	20.4	5.00
60R	4040	4 000	0.420	2 500	100.00	40.00	. . .	39.0	5.00
70R	4545	8 000	0.839	2 100	110.00	55.00	. . .	60.8	5.00
80R	5050	14 200	1.49	1 800	125.00	70.00	. . .	108	6.00

COUPLING SIZE	BE	Cover Fasteners †		A - Nylon Cover	A - Steel Cover	AA - Nylon Cover	AA - Steel Cover	B	C
	mm	Size	Hex Tool	mm	mm	mm	mm	mm	mm
5R	20.0	M4	M2.5	76.5	76.5	80.5	80.4	65.0	22.5
10R	24.0	M4	M2.5	90.5	90.5	94.5	94.4	90.0	33.0
20R	32.0	M6	M4	126.0	124.0	132.1	130.1	98.0	33.0
30R	36.0	M6	M4	146.5	143.0	152.6	149.1	120.0	42.0
40R	47.0	M8	M5	182.0	177.0	190.0	185.0	139.0	46.0
50R	61.0	M8	M5	231.0	224.0	239.0	232.0	171.0	55.0
60R	75.4	M10	M6	. . .	267.0	. . .	278.0	281.4	103.0
70R	84.4	M10	M6	. . .	310.0	. . .	321.0	314.4	115.0
80R	96.8	M10	M6	. . .	370.0	. . .	381.0	352.8	128.0

COUPLING SIZE	D	F	H	J - Nylon Cover	J - Steel Cover	L ‡ mm		M ● mm		TL
						Standard Hex Key	Short ■ Hex Key	Standard Hex Key	Short ■ Hex Key	
	mm	mm	mm	mm	mm					mm
5R	60.0	64.00	15.0	23.0	23.0	29	16	32	19	22
10R	72.0	76.00	19.0	28.0	28.0	35	21	42	27	25
20R	92.0	102.00	25.0	37.1	37.1	35	21	42	27	25
30R	105.0	118.00	29.0	42.0	41.6	40	24	51	35	32
40R	130.0	150.00	34.0	54.5	53.0	42	26	58	42	45
50R	170.0	190.00	46.0	69.5	67.2	46	31	69	53	51
60R	200.0	228.00	60.2	-	67.0	61	42	105	86	102
70R	227.0	270.00	69.7	-	75.0	67	50	121	104	114
80R	270.0	328.00	83.4	-	85.0	72	59	134	123	127

★ Typical – refer to bushing manufacturer for exceptions and Service Factor limitations

† Cover Fasteners are ISO 7380, Stainless Steel, Socket Button Head Cap Screws.

‡ Space required to tighten bushing. Also, space required to loosen screws to permit removal of hub by puller.

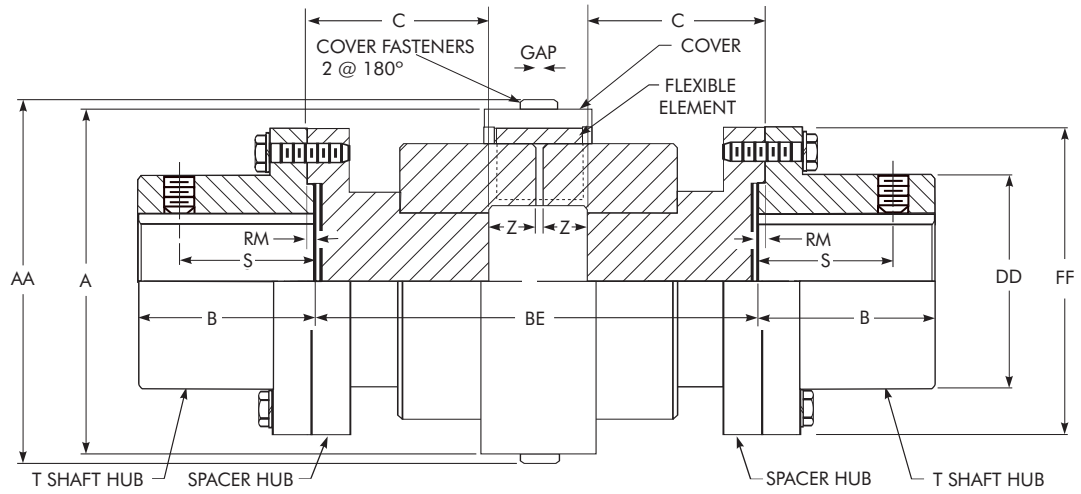
● Space required to remove bushing using jackscrews – no puller required.

■ Standard hex key cut to minimum useable length.

♦ BSW (British Standard Whitworth) threads (55° Pressure Angle) are common outside USA (UNC thread with 60° PA). BSW are considered by some manufacturers to be interchangeable with UNC threads except for ½" x 12 TPI (Threads Per Inch) on 2517 BSW bushings.

Type R31

Full Spacer Coupling/Dimensions — Millimeters



NOTE: Distance Between Shaft Ends (BE) = 2(C) + 2(Z) + Gap – 2(RM)

SPACER DIMENSIONS — MILLIMETERS

SIZE ★	Torque Rating Nm	Allow Speed rpm	Max Bore ♦	Coupling Wt No Bore – kg		BE		A		AA		B	DD	FF	RM	S	Z	Gap	Cover Fasteners ●		Flange Fasteners ■		T Shaft Hub
				At Min BE kg	Per Added BE kg/mm	Min	Max	Nylon Cover	Steel Cover †	Nylon Cover	Steel Cover †								Size	Allen Wrench Tool	Size	No. Per Flange	
5R	62	4 500	35	3.63	0.014	80.9	235	76.5	76.5	80.5	80.4	34.9	52.4	86	1.27	27.4	9.0	2.00	M4	M2.5	M6	4	**1020T**
10R	130	4 500	43	4.99	0.015	88.9	254	90.5	90.5	94.5	94.4	41.3	59.5	94	1.27	31.5	11.0	2.00	M4	M2.5	M6	8	**1030T**
20R	315	4 500	56	9.53	0.027	88.9	254	126	124	132	130	54.0	78.6	113	1.27	27.4	15.0	2.00	M6	M4	M6	8	**1040T**
30R	520	4 500	67	14.1	0.034	111	254	147	143	153	149	60.3	87.3	126	1.27	40.6	17.0	2.00	M6	M4	M8	8	**1050T**
40R	1 020	3 600	85	25.9	0.040	127	311	182	177	190	185	79.4	109.5	153	1.27	46.7	21.0	5.00	M8	M5	M10	12	**1070T**
50R	2 500	3 000	95	45.4	0.059	165	311	231	224	239	232	88.9	122.2	178	1.27	49.8	28.0	5.00	M8	M5	M12	12	**1080T**
60R	4 000	2 500	110	72.6	0.082	200	311	. . .	267	. . .	278	101.6	142.9	210	1.27	. . .	35.2	5.00	M10	M6	M16	12	**1090T**
70R	8 000	2 100	130	102	0.117	224	373	. . .	310	. . .	321	90.4	171.4	251	1.52	. . .	39.7	5.00	M10	M6	M20	12	**1100T**
70R	8 000	2 100	150	120	0.117	224	373	. . .	310	. . .	321	104.1	196.8	276	1.52	. . .	39.7	5.00	M10	M6	M20	12	**1110T**
80R	15 000	1 800	170	188	0.144	250	424	. . .	370	. . .	381	119.4	225.4	320	2.39	. . .	45.4	6.00	M10	M6	M24	12	**1120T**
80R	15 000	1 800	190	230	0.240	256	424	. . .	370	. . .	381	134.6	238.1	347	2.39	. . .	45,4	6,00	M10	M6	M27	12	**1130T**

★ Standard urethane element operating temperature: -40°C (-40°F) to 95°C (200°F). Dimensions are for reference ,only and are subject to change without notice unless certified.

† 5R-50R nylon cover is standard & epoxy coated steel cover is optional. 60R-80R epoxy coated steel cover is standard (nylon cover not available).

● Cover Fasteners are ISO 7380 Stainless Steel Socket Button Head Cap screws. Two cover fasteners per coupling.

■ Flange Fasteners are ISO Grade 10.9 hex head cap screws for 5R-50R and ISO Grade 8.8 hex head cap screws for 60R.

♦ Maximum Inch Bore listed is for a standard square key. Larger bores, with a rectangular key, are available. Sizes 5R-50R are standard clearance fit with setscrew over keyway. Size 60R is standard interference fit with keyway, but no setscrew. For interference fit with setscrew over keyway, refer to 427-105.

TABLE 6 — Taper-Lock® Bushings for T Shaft Hubs

COUPLING SIZE	T Shaft Hub	Torque Rating Nm	kW per rpm	Allow Speed	Bore Range mm	Bushing Size
5R	**1020T**	62	0.0065	4 500	9-26	1108
10R	**1030T**	130	0.0136	4 500	9-26	1108
20R	**1040T**	315	0.0331	4 500	13-35	1310
30R	**1050T**	485	0.0509	4 500	13-42	1615
40R	**1070T**	994	0.104	3 600	20-63	2525
50R	**1080T**	1 276	0.134	3 000	20-63	2525
60R	**1090T**	2 710	0.284	2 500	24-75	3030
70R	**1100T**	5 062	0.531	2 100	31-91	3535
70R	**1110T**	8 000	0.839	2 100	37-103	4040
80R	**1120T**	12 428	1.304	1 800	50-114	4545
80R	**1130T**	14 226	1.493	1 800	61-127	5050

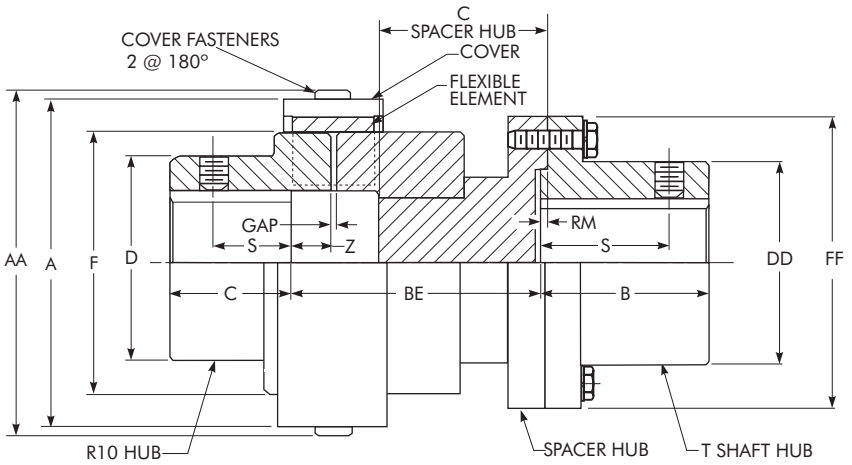
TABLE 7 — Type R31 Standard Spacer Lengths

COUPLING SIZE	BE Lengths (Distance Between Shaft Ends)		
	100 mm 3.94″	140 mm 5.51″	180 mm 7.09″
5R	X	. . .	. . .
10R	X	X	. . .
20R	X	X	. . .
30R	. . .	X	. . .
40R	. . .	X	X
50R	. . .	. . .	X
60R	. . .	. . .	. . .

Other BE lengths available. Refer to Falk.

Type R35

Half Spacer Coupling/Dimensions — Millimeters



NOTE: Distance Between Shaft Ends (BE) = $(C)_{Spacer\ Hub} + 2(Z) + Gap - RM$

SPACER DIMENSIONS — MILLIMETERS

SIZE ★	Torque Rating Nm	Allow Speed rpm	Max Bore ♦		Cplg Wt No Bore – kg		BE		A		AA		B	C R10 Hub	D	DD	F	FF	RM	S		Z	Gap	Cover Fasteners ●		Flange Fasteners ■		T Shaft Hub
			T Shaft Hub	R10 Hub	At Min BE kg	Per Added BE kg/mm	Min	Max	Nylon Cover	Steel Cover †	Nylon Cover	Steel Cover †								Shaft Hub *	R10 Hub *			Size	Allen Wrench Tool	Size	No. Per Flange	
5R	62	4 500	35	38	2.54	0.014	50.5	127.0	76.5	76.5	80.5	80.4	34.9	26	60	52.4	64	86	1.27	27.4	15.9	9.0	2.00	M4	M2.5	M6	4	**1020T**
10R	130	4 500	43	48	3.96	0.015	59.6	140.0	90.5	90.5	94.5	94.4	41.3	34	72	59.5	76	94	1.27	31.5	22.2	11.0	2.00	M4	M2.5	M6	8	**1030T**
20R	315	4 500	56	60	8.44	0.027	76.5	140.0	126	124	132	130	54.0	45	92	78.6	102	113	1.27	27.4	25.4	15.0	2.00	M6	M4	M6	8	**1040T**
30R	520	4 500	67	65	12.9	0.034	87.6	146.1	147	143	153	149	60.3	58	105	87.3	118	126	1.27	40.6	31.8	17.0	2.00	M6	M4	M8	8	**1050T**
40R	1 020	3 600	85	85	22.4	0.040	88.6	184.2	182	177	190	185	79.4	67	130	109.5	150	153	1.27	46.7	41.3	21.0	5.00	M8	M5	M10	12	**1070T**
50R	2 500	3 000	95	105	40.3	0.059	113.1	184.2	231	224	239	232	88.9	77	170	122.2	190	178	1.27	49.8	44.5	28.0	5.00	M8	M5	M12	12	**1080T**
60R	4 000	2 500	110	133	67.1	0.082	137.6	203.2	. . .	267	. . .	278	101.6	100	200	142.9	228	210	1.27	. . .	. . .	35.2	5.00	M10	M6	M16	12	**1090T**
70R	8 000	2 100	130	156	100	0.117	153.9	228.9	. . .	310	. . .	321	90.4	120	227	171.4	270	251	1.52	. . .	. . .	39.7	5.00	M10	M6	M20	12	**1100T**
70R	8 000	2 100	150	156	110	0.117	153.9	228.9	. . .	310	. . .	321	104.1	120	227	196.8	270	276	1.52	. . .	. . .	39.7	5.00	M10	M6	M20	12	**1110T**
80R	15 000	1 800	170	186	180	0.144	172.7	259.6	. . .	370	. . .	381	119.4	140	270	225.4	328	320	2.39	. . .	. . .	45.4	6.00	M10	M6	M24	12	**1120T**
80R	15 000	1 800	190	186	193	0.240	175.5	259.6	. . .	370	. . .	381	134.6	140	270	238.1	328	347	2.39	. . .	. . .	45.4	6.00	M10	M6	M27	12	**1130T**

★ *IMPORTANT: Upon removal of spacer hub, working clearance available for equipment removal = "BE" – "Z".*
Standard urethane element operating temperature: -40°C (-40°F) to 95°C (200°F). Dimensions are for reference only and are subject to change without notice unless certified.

† 5R-50R nylon cover is standard & epoxy coated steel cover is optional. 60R-80R epoxy coated steel cover is standard (nylon cover not available).

● Cover Fasteners are ISO 7380 Stainless Steel Socket Button Head Cap screws. Two cover fasteners per coupling.

■ Flange Fasteners are ISO Grade 10.9 hex head cap screws for 5R-50R and ISO Grade 8.8 hex head cap screws for 60R.

♦ Maximum Inch Bore listed is for a standard square key. For T shaft hubs only, larger inch bores with a rectangular key are available. Sizes 5R-50R are standard clearance fit with setscrew(s) over keyway. Size 60R is standard interference fit with keyway, but no setscrew. For interference fit with setscrew over keyway, refer to 427-105.

✱ Standard for T shaft hub is one setscrew over keyway. Standard for R10 hub is two setscrews (one over keyway and one at 90° from keyway).

TABLE 8 — R35 Spacer Lengths

Size	BE (mm)	Z (mm)	Usable Clearance Gap (mm)
5R	54.44	9.0	45.44
	60.00	9.0	51.00
	65.57	9.0	56.57
	73.49	9.0	64.49
	90.00	9.0	81.00
10R	50.90	11.0	39.90
	62.00	11.0	51.00
	67.56	11.0	56.56
	75.51	11.0	64.51
	81.99	11.0	70.99
	90.00	11.0	79.00
	100.00	11.0	89.00
	104.09	11.0	93.09
20R	45.08	15.0	30.08
	52.57	15.0	37.57
	63.75	15.0	48.75
	75.84	15.0	60.84
	79.50	15.0	64.50
	86.00	15.0	71.00
	90.00	15.0	75.00
	100.00	15.0	85.00
	108.07	15.0	93.07

TABLE 8 — R35 Spacer Lengths

Size	BE (mm)	Z (mm)	Usable Clearance Gap (mm)
30R	59.24	17.0	42.24
	74.99	17.0	57.99
	87.99	17.0	70.99
	110.07	17.0	93.07
	127.00	17.0	110.00
40R	87.01	21.0	66.01
	93.51	21.0	72.51
	113.50	21.0	92.50
	115.58	21.0	94.58
	127.00	21.0	106.00
	147.33	21.0	126.33
50R	120.51	28.0	92.51
	122.57	28.0	94.57
	154.32	28.0	126.32
	157.50	28.0	129.50
60R	161.53	35.2	126.33

Other BE lengths available. Refer to Falk.

Taper-Lock bushing for R10 hub, see Page 10.
QD bushing for R10 hub, see Page 9.
Taper-Lock bushing for T shaft hub, see Table 6, Page 11.

Engineering Data

TABLE 9 — Type R10 Mill Motor Hubs

Mill Motor Frame Size			R10 Flex Hubs								
			5R	10R	20R	30R	40R	50R	60R	70R	80R
602	802 A, B, C	AC 1, 2 & 4	. . .	. . .	. . .	. . .	X	X	. . .	. . .	. . .
603 604	803 804		. . .	. . .	. . .	. . .	Consult Falk	X	X	. . .	. . .
606	806	AC 8 & 12	. . .	. . .	. . .	. . .	. . .	X	X	X	. . .
608	808		. . .	. . .	. . .	. . .	. . .	. . .	X	X	X
610	810	AC 18	. . .	. . .	. . .	. . .	. . .	. . .	Consult Falk	X	X
612	812	AC 25 & 50	. . .	. . .	. . .	. . .	. . .	. . .	. . .	X	X
614	814	AC 40 & 50	. . .	. . .	. . .	. . .	. . .	. . .	. . .	X	X

TABLE 10 — Recommended Bore Tolerances Falk Steel Coupling Hubs — Millimeters

Shaft Diameter (ISO/R775-1969)		Bore Diameter Tolerance		
Nominal	Tolerance	Clearance	Transitional	Interference
6 to 30	j6 / k6 †	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

Engineering Data

TABLE 11 — 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 *
mm	**j6** **0.008 / – 0 .003**	**F7** **0.016 / 0.034**	**0.008** **0.037**	**H7** **0.000 / 0.018**	**– 0.008** **0.021**	**M6** **– 0.015 / – 0.064**	**– 0.023** **– 0.001**
12	12.008 / 11.997	12.016 / 12.034		12.000 / 12.018		11.985 / 11.996	
14	14.008 / 13.997	14.016 / 14.034		14.000 / 14.018		13.985 / 13.996	
16	16.008 / 15.997	16.016 / 16.034		16.000 / 16.018		15.985 / 15.996	
18	18.008 / 17.997	18.016 / 18.034		18.000 / 18.018		17.985 / 17.996	
mm	**j6** **0.009 / – 0.004**	**F7** **0.020 / 0.041**	**0.011** **0.045**	**H7** **0.000 / 0.021**	**– 0.009** **0.025**	**M6** **– 0.017 / – 0.004**	**– 0.026** **0.000**
19	19.009 / 18.996	19.020 / 19.041		19.000 / 19.021		18.983 / 18.996	
20	20.009 / 19.996	20.020 / 20.041		20.000 / 20.021		19.983 / 19.996	
22	22.009 / 21.996	22.020 / 22.041		22.000 / 22.021		21.983 / 21.996	
24	24.009 / 23.996	24.020 / 24.041		24.000 / 24.021		23.983 / 23.996	
25	25.009 / 24.996	25.020 / 25.041		25.000 / 25.021		24.983 / 24.996	
28	28.009 / 27.996	28.020 / 28.041		28.000 / 28.021		27.983 / 27.996	
30	30.009 / 29.996	30.020 / 30.041		30.000 / 30.021		29.983 / 29.996	
>30 mm	**k6** **0.018 / 0.002**	**F7** **0.025 / 0.050**	**0.007** **0.048**	**H7** **0.000 / 0.025**	**– 0.018** **0.023**	**K6** **– 0.013 / 0.003**	**– 0.031** **0.001**
32	32.018 / 32.000	32.025 / 32.050		32.000 / 32.025		31.987 / 32.003	
35	35.018 / 35.002	35.025 / 35.050		35.000 / 35.025		34.987 / 35.003	
38	38.018 / 38.002	38.025 / 38.050		38.000 / 38.025		37.987 / 38.003	
40	40.018 / 40.002	40.025 / 40.050		40.000 / 40.025		39.987 / 40.003	
42	42.018 / 42.002	42.025 / 42.050		42.000 / 42.025		41.987 / 42.003	
45	45.018 / 45.002	45.025 / 45.050		45.000 / 45.025		44.987 / 45.003	
48	48.018 / 48.002	48.025 / 48.050		48.000 / 48.025		47.987 / 48.003	
50	50.018 / 50.002	50.025 / 50.050		50.000 / 50.025		49.987 / 50.003	
>50 mm	**m6** **0.030 / 0.011**	**F7** **0.030 / 0.060**	**0.000** **0.049**	**H7** **0.000 / 0.030**	**– 0.030** **0.019**	**K7** **– 0.021 / 0.009**	**– 0.051** **– 0.002**
55	55.030 / 55.011	55.030 / 55.060		55.000 / 55.030		54.979 / 55.009	
56	56.030 / 56.011	56.030 / 56.060		56.000 / 56.030		55.979 / 56.009	
60	60.030 / 60.011	60.030 / 60.060		60.000 / 60.030		59.979 / 60.009	
63	63.030 / 63.011	63.030 / 63.060		63.000 / 63.030		62.979 / 63.009	
65	65.030 / 65.011	65.030 / 65.060		65.000 / 65.030		64.979 / 65.009	
70	70.030 / 70.011	70.030 / 70.060		70.000 / 70.030		69.979 / 70.009	
71	71.030 / 71.011	71.030 / 71.060		71.000 / 71.030		70.979 / 71.009	
75	75.030 / 75.011	75.030 / 75.060		75.000 / 75.030		74.979 / 75.009	
80	80.030 / 80.011	80.030 / 80.060		80.000 / 80.030		79.979 / 80.009	
>80 mm	**m6** **0.035 / 0.013**	**F7** **0.036 / 0.071**	**0.001** **0.058**	**H7** **0.000 / 0.035**	**– 0.035** **0.022**	**M7** **– 0.035 / 0.000**	**– 0.070** **– 0.013**
85	85.035 / 85.013	85.036 / 85.074		85.000 / 85.035		84.965 / 85.000	
90	90.035 / 90.013	90.036 / 90.071		90.000 / 90.035		89.965 / 90.000	
95	95.035 / 95.013	95.036 / 95.071		95.000 / 95.035		94.965 / 95.000	
100	100.035 / 100.013	100.036 / 100.071		100.000 / 100.035		99.965 / 100.000	
>100 mm	**m6** **0.035 / 0.013**	**F7** **0.036 / 0.071**		**H7** **0.000 / 0.035**		**P7** **– 0.059 / – 0.024**	**– 0.094** **– 0.037**
110	110.035 / 110.013	110.036 / 110.071		110.000 / 110.035		109.941 / 109.976	
120	120.035 / 120.013	120.036 / 120.071		120.000 / 120.035		119.941 / 119.976	
>120 mm	**m6** **0.040 / 0.015**	**F7** **0.043 / 0.083**	**0.003** **0.068**	**H7** **0.000 / .040**	**– 0.040** **0.025**	**P7** **– 0.068 / – 0.028**	**– 0.108** **– 0.043**
125	125.040 / 125.015	125.043 / 125.083		125.000 / 125.040		124.932 / 124.972	
130	130.040 / 130.015	130.043 / 130.083		130.000 / 130.040		129.932 / 129.972	
140	140.040 / 140.015	140.043 / 140.083		140.000 / 140.040		139.932 / 139.972	
150	150.040 / 150.015	150.043 / 150.083		150.000 / 150.040		149.932 / 149.972	
160	160.040 / 160.015	160.043 / 160.083		160.000 / 160.040		159.932 / 159.972	
170	170.040 / 170.015	170.043 / 170.083		170.000 / 170.040		169.932 / 169.972	
180	180.040 / 180.015	180.043 / 180.083		180.000 / 180.040		179.932 / 179.972	

***** Positive values are clearance. Negative values are interference.

TABLE 14 — Operating Misalignment Capacity

COUPLING SIZE	Parallel Offset (mm)	Angular (Degrees)
5R	1.0	1°
10R	2.0	1°
20R	2.0	1°
30R	2.0	1°
40R	3.0	1°
50R	3.0	1°
60R	3.0	1°
70R	3.0	1°
80R	3.0	1°

TABLE 15 — Mass and WR²

R10 Mass

COUPLING SIZE	Element	Nylon Cover	Steel Cover	R10 Hub (No Bore)	Total w/Nylon Cover	Total w/Steel Cover
	kg	kg	kg	kg	kg	kg
5R	0.0334	0.0320	0.168	0.638	1.34	1.48
10R	0.0597	0.0450	0.268	1.19	2.48	2.70
20R	0.185	0.109	0.585	2.65	5.59	6.07
30R	0.284	0.168	0.825	4.46	9.37	10.0
40R	0.587	0.392	1.42	8.05	17.1	18.1
50R	1.23	0.770	2.64	15.9	33.7	35.6
60R	1.85	NA	3.31	28.6	NA	62.4
70R	2.80	NA	4.61	45.4	NA	98.2
80R	4.63	NA	6.64	76.9	NA	165

R10 WR²

COUPLING SIZE	Element	Nylon Cover	Steel Cover	R10 Hub (No Bore)	Total w/Nylon Cover	Total w/Steel Cover
	kg-m²	kg-m²	kg-m²	kg-m²	kg-m²	kg-m²
5R	2.66E-05	0.000040	0.000222	0.00031	0.000687	0.000869
10R	6.71E-05	0.000088	0.00050	0.00082	0.00180	0.00221
20R	3.94E-04	0.00038	0.00205	0.0031	0.00693	0.00860
30R	8.04E-04	0.00082	0.00386	0.0068	0.0152	0.0182
40R	2.59E-03	0.0029	0.0103	0.019	0.0438	0.0512
50R	8.90E-03	0.0093	0.031	0.064	0.146	0.168
60R	1.99E-02	NA	0.055	0.17	NA	0.405
70R	4.12E-02	NA	0.105	0.35	NA	0.852
80R	9.76E-02	NA	0.217	0.87	NA	2.06

R31/R35 WR² ★

COUPLING SIZE	T Shaft Hub	R31 Assembly †				R35 Assembly ‡			
		Min BE	WR² at Min BE (kg-m²)		WR² (kg-m²) per mm	Min BE	WR² at Min BE (kg-m²)		WR² (kg-m²) per mm
		(mm)	Nylon Cover	Steel Cover		(mm)	Nylon Cover	Steel Cover	
5R	1020T	80.9	0.0022	0.0024	0.000004	50.5	0.0014	0.0016	0.000004
10R	1030T	88.9	0.0040	0.0044	0.000005	59.7	0.0028	0.0032	0.000005
20R	1040T	88.9	0.0114	0.0131	0.000014	76.5	0.0096	0.0112	0.000014
30R	1050T	111.1	0.0210	0.0241	0.000023	87.6	0.0191	0.0222	0.000023
40R	1070T	127.0	0.0636	0.0710	0.000048	88.6	0.0538	0.0612	0.000048
50R	1080T	165.2	0.1696	0.1913	0.000124	113.0	0.1577	0.1795	0.000124
60R	1090T	199.9	NA	0.4270	0.000234	137.7	NA	0.41397	0.000234
70R	1100T	223.6	NA	0.8683	0.000467	153.9	NA	0.85509	0.000467
70R	1110T	223.6	NA	1.0585	0.000467	153.9	NA	0.95020	0.000467
80R	1120T	248.5	NA	2.2442	0.000714	172.6	NA	2.11109	0.000714
80R	1130T	254.1	NA	2.8125	0.001669	175.4	NA	2.39524	0.001669

★ WR² values are based on hubs with no bore.

† For R31 Mass, refer to Page 11.

‡ For R35 Mass, refer to Page 12.

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