

Sure-Flex Plus® Elastomeric Couplings (Metric)



Sure-Flex Plus® couplings are a TB Wood's original!

Sure-Flex Plus couplings utilize EPDM, Neoprene, and Hytrel™ flexible elastomer sleeves to transmit torque and accommodate shaft misalignment. Sure-Flex Plus couplings have exceptional torsional flexibility, with the 4-way flexing action absorbing virtually all types of shock, vibration, misalignment and end float. Sure-Flex Plus couplings are an excellent choice when low cost, high flexibility, low vibration and easy installation are important.



Easy, Quick Installation

Sure-Flex Plus can be installed quickly and easily, thanks to its simple design with no bolts, gaskets, covers or seals. Alignment can be checked on the precision machined flanges using only a straightedge and calipers. No special tools are needed for installation, alignment or removal.

No Lubrication, Trouble-Free Operation

The teeth of the sleeve lock into the teeth of the flanges without clamps or screws, tightening under torque to provide smooth transmission of power. Couplings are not affected by abrasives, dirt or moisture, eliminating the need for lubrication or maintenance and providing clean, dependable, quiet performance.

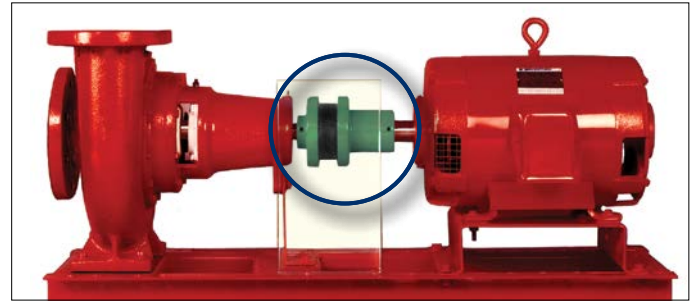


Sure-Flex Plus couplings last over 3X longer

Fatigue Test to Failure results reveal that Sure-Flex Plus sleeves last over three times as long as the nearest competitive sleeve. See brochure P-7819-TBW.

Features (Metric)

- Up to 8.20 kNm; 72,480 in.lbs.
- Quick and easy installation
- Spacer, bushed hub and clamping hub designs in stock
- Flexible design accommodates misalignment and protects equipment
- 7° to 21° torsional wind up
- Needs no lubrication, no maintenance



Applications

Sure-Flex Plus couplings can be found hard at work in many industries such as power generation and material handling. These couplings are ideal for a wide variety of applications including:

- Pumps
- Fans/Blowers
- Compressors
- Mixers
- Electric Motors
- Conveyors



New! Sure-Flex® PLUS+

For over 50 years, TB Wood's has led the coupling industry with the original TB Wood's Sure-Flex design. And we haven't stopped innovating: this industry favorite just got even better. Our new Sure-Flex Plus EPDM and Neoprene sleeves are best-in-class for coupling performance and value. Here's why:

High Torque Rating

• 30% Increased Torque Rating

Sure-Flex Plus sleeves provide longer service life in demanding applications, reducing required maintenance and associated replacement cost.

Longer Life

• Sure-Flex Plus Lasts Over 3X Longer than the Competition

Extensive testing shows our sleeves outlast the imitators. More uptime means less costly downtime.

Better Value

• Save Money Using a Smaller Coupling

Over 50% of common applications can now use a smaller coupling, lowering the cost of both coupling purchase and sleeve replacement.

Interchangeable

• Retrofits to Existing Flanges

No need to replace the full coupling – the Sure-Flex Plus sleeve design is 100% compatible with the current industry standard created by TB Wood's over 50 years ago.

**Sure-Flex Plus 4-Way flexing action
absorbs all types of shock, vibration and
misalignment**



Torsional

Sure-Flex Plus coupling sleeves have an exceptional ability to absorb torsional shock and dampen torsional vibrations. The EPDM and Neoprene sleeves wind up approximately 21° torsionally at their rated torque. Hytrel sleeves wind up approximately 7°.



Angular

The unique design of the Sure-Flex Plus coupling's teeth allows for the absorption of angular misalignment without wear. Refer to page 17 for misalignment limits. Angular alignment can be achieved using only a scale and calipers.



Parallel

Parallel misalignment is absorbed without wear or appreciable energy loss. The lateral flexibility of the coupling sleeve minimizes radial bearing loads normally associated with parallel misalignment. This feature also allows for easier installation by the use of components bored for slip fits without fretting corrosion occurring at the shaft. Refer to page 17 for parallel misalignment limits. Only a straight-edge and feeler gage are required for parallel alignment.



Axial

Sure-Flex Plus couplings may be used in applications with limited axial shaft movements. The axial compressibility of the EPDM and Neoprene sleeves allows for shaft end-float without the absolute transfer of thrust loads.

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Metric Version Catalog

For Imperial information
see Catalog P-1690-TBW

Sure-Flex Plus Selection Guide

Use the Coupling Selector Program on www.TBWoods.com/Select
Or follow these steps:

Sure-Flex Plus couplings are selected as component parts.

1. Determine SLEEVE material and type.
Refer to pages 4 & 5
2. Determine coupling SIZE.
Refer to pages 6 & 7
3. Determine FLANGES to be used.
Refer to pages 8 thru 16

Specify coupling components.

- Example #1 - Close coupled
Size 6, Type S flange w 35 mm bore
Size 6, Type S flange w 25 mm bore
Size 6, Split EPDM sleeve
- Example #2 - 5" Between shaft spacer
Size 9, Type SC flange for #11 hub
Size 9, Type SC flange for #9 hub
Size 11 Hub w 2-3/8" bore
Size 9 Short hub w 1-1/8" bore
Size 9 Solid Hytrel sleeve

| Product Number | Product Description |
|----------------|---------------------|
| 6S35MM | 6S x 35 mm |
| 6S25MM | 6S x 25 mm |
| 6JS | 6JES |
| 9SC5011 | 9SC50-11 |
| 9SC50 | 9SC50 |
| 11SCH238 | 11SCH x 2-3/8 |
| 9SCHS118 | 9SCHS x 1-1/8 |
| 9H | 9H |

Selection Guide

Sleeve Selection

Sure-Flex Plus Sleeves are available in three materials or compounds and various shape configurations.

New Sure-Flex Plus EPDM and Neoprene sleeves have 30% higher torque capacity. See page 2 for details.

| | EPDM | Neoprene | Hytrel |
|-------------------------|-----------------|-------------------------|-----------------|
| Constructions Available | | | |
| 1 pc, unsplit | JE | JN | H |
| 1 pc, split | JES | JNS | — |
| 2 piece, E/N with ring | E | N | HS |
| Typical Use | General Purpose | Oil Resistant Non-Flame | General Purpose |
| Relative Rating | 1X | 1X | 3X |
| Wind-Up Angular | 21° | 21° | 7° |
| Misalign | 1° | 1° | 1/4° |
| Temperature (C) | | | |
| maximum | +135° C | +93° C | +121° C |
| minimum | -34° C | -18° C | -54° C |

Sure-Flex Plus Sleeves

| Part Number | Description | Part Number | Description | Part Number | Description |
|-------------|---------------------|-------------|--------------|-------------|-------------------|
| 3J | 3JE EPDM | 4 | 4E EPDM | 6H | 6H Hytrel |
| 4J | 4JE EPDM | 5 | 5E EPDM | 7H | 7H Hytrel |
| 5J | 5JE EPDM | 6 | 6E EPDM | 8H | 8H Hytrel |
| 6J | 6JE EPDM | 7 | 7E EPDM | 9H | 9H Hytrel |
| 7J | 7JE EPDM | 8 | 8E EPDM | 10H | 10H Hytrel |
| 8J | 8JE EPDM | 9 | 9E EPDM | 11H | 11H Hytrel |
| 9J | 9JE EPDM | 10 | 10E EPDM | 12H | 12H Hytrel |
| 10J | 10JE EPDM | 11 | 11E EPDM | 6HS | 6HS Split Hytrel |
| 3JS | 3JES EPDM Split | 12 | 12E EPDM | 7HS | 7HS Split Hytrel |
| 4JS | 4JES EPDM Split | 13 | 13E EPDM | 8HS | 8HS Split Hytrel |
| 5JS | 5JES EPDM Split | 14 | 14E EPDM | 9HS | 9HS Split Hytrel |
| 6JS | 6JES EPDM Split | 16 | 16E EPDM | 10HS | 10HS Split Hytrel |
| 7JS | 7JES EPDM Split | 4N | 4N Neoprene | 11HS | 11HS Split Hytrel |
| 8JS | 8JES EPDM Split | 5N | 5N Neoprene | 12HS | 12HS Split Hytrel |
| 9JS | 9JES EPDM Split | 6N | 6N Neoprene | 13HS | 13HS Split Hytrel |
| 10JS | 10JES EPDM Split | 7N | 7N Neoprene | 14HS | 14HS Split Hytrel |
| 3JN | 3JN Neoprene | 8N | 8N Neoprene | | |
| 4JN | 4JN Neoprene | 9N | 9N Neoprene | | |
| 5JN | 5JN Neoprene | 10N | 10N Neoprene | | |
| 6JN | 6JN Neoprene | 11N | 11N Neoprene | | |
| 7JN | 7JN Neoprene | 12N | 12N Neoprene | | |
| 8JN | 8JN Neoprene | 13N | 13N Neoprene | | |
| 3JNS | 3JNS Neoprene Split | 14N | 14N Neoprene | | |
| 4JNS | 4JNS Neoprene Split | | | | |
| 5JNS | 5JNS Neoprene Split | | | | |
| 6JNS | 6JNS Neoprene Split | | | | |
| 7JNS | 7JNS Neoprene Split | | | | |
| 8JNS | 8JNS Neoprene Split | | | | |

Selection Guide

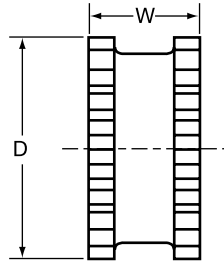
Assembly Dimensions

All dimensions in mm

Flexible sleeves for Wood's Sure-Flex Plus couplings are available in three materials (EPDM, Neoprene, and Hytrel) and in three basic constructions. Characteristics of the materials are given on page 4 and the various types are shown and described here.



JE, JN



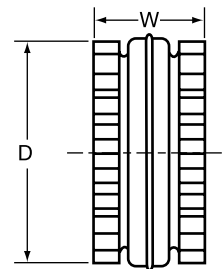
Types JES, JNS

JE-JES-JN-JNS

J sleeves are molded EPDM rubber (E) or Neoprene (N). They are available in one-piece solid construction (JE, JN) or one-piece split construction (JES, JNS). These sleeves may be used in any Sure-Flex Plus flange within a given size.



E and N
(Assembled)



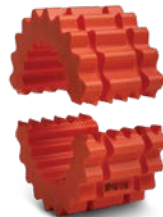
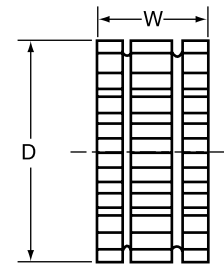
Types E and N
(Disassembled)

E-N

These sleeves are of two-piece design with a retaining ring. They are available in either EPDM (E) or Neoprene (N). They may be used with any flange within a given size. Sleeves are shown here assembled and disassembled.



H



HS

H-HS

H (Hytrel) sleeves, designed for high-torque applications, transmit four times as much power as an equivalent EPDM or Neoprene sleeve. Available in one-piece solid construction (H) or two-piece split construction (HS), these can be used only with S, C and SC flanges. They cannot be used with J or B flanges or as direct replacements for EPDM or Neoprene sleeves.

Dimensions (mm)

| Coupling Size | JE, JES, JN & JNS Sleeves EPDM & Neoprene | | | E and N Sleeves EPDM & Neoprene | | | H, U & HS Sleeves Hytrel | | |
|---------------|--|-----|--------|------------------------------------|-----|--------|-----------------------------|-----|--------|
| | D | W | Wt. kg | D | W | Wt. kg | D | W | Wt. kg |
| 3 | 48 | 25 | 0.03 | ... | ... | ... | ... | ... | ... |
| 4 | 59 | 32 | 0.05 | 59 | 32 | 0.05 | ... | ... | ... |
| 5 | 75 | 40 | 0.09 | 75 | 40 | 0.11 | ... | ... | ... |
| 6 | 95 | 48 | 0.18 | 95 | 48 | 0.22 | 95 | 47 | 0.20 |
| 7 | 110 | 55 | 0.28 | 110 | 55 | 0.35 | 110 | 55 | 0.31 |
| 8 | 129 | 64 | 0.51 | 129 | 64 | 0.64 | 129 | 64 | 0.64 |
| 9* | 152 | 76 | 0.66 | 152 | 76 | 0.95 | 152 | 76 | 0.82 |
| 10* | 179 | 87 | 1.0 | 179 | 87 | 1.4 | 179 | 87 | 1.3 |
| 11 | ... | ... | ... | 208 | 102 | 2.3 | 208 | 102 | 2.0 |
| 12 | ... | ... | ... | 243 | 119 | 3.7 | 243 | 119 | 3.3 |
| 13 | ... | ... | ... | 284 | 138 | 5.9 | 284 | 138 | 5.4 |
| 14 | ... | ... | ... | 333 | 165 | 9.6 | 333 | 165 | 19 |
| 16 | ... | ... | ... | 455 | 222 | 21 | ... | ... | ... |

Size 13 and 14 Hytrel available as HS sleeves only.

*All 9J and 10J sleeves available in EPDM only.

Selection Guide

1. Select Load Symbol based on your driven machine.

| Application | Load Symbol | Application | Load Symbol | Application | Load Symbol |
|--|-------------|---|-------------|---|-------------|
| AGITATORS—Paddle, Propeller, Screw | L | DEWATERING SCREEN (sewage) | M | MILLS | |
| BAND RESAW (lumber) | M | DISC FEEDER | L | Ball, Pebble, Rod, Tube, Rubber Tumbling .H | |
| BARGE HAUL PULLER | H | DOUGH MIXER | M | Dryer and Cooler | M |
| BARKING (lumber) | H | DRAW BENCH CONVEYOR and | | MIXERS | |
| BAR SCREEN (sewage) | L | MAIN DRIVE | H | Concrete, Muller | M |
| BATCHES (textile) | L | DREDGES | | Banbury | H |
| BEATER AND PULPER (paper) | M | Cable Reel, Pumps | M | ORE CRUSHER | H |
| BENDING ROLL (metal) | M | Cutter Head Drive, Jig Drive, Screen Drive .H | | OVEN CONVEYOR | L |
| BLEACHER (paper) | L | Maneuvering and Utility Winch, Stacker . .M | | PLANER (metal or wood) | M |
| BLOWERS | | DYNAMOMETER | L | PRESSES | |
| Centrifugal, Vane | L | DRYERS (rotary) | M | Brick, Briquette Machine | H |
| Lobe | M | EDGER (lumber) | H | Notching, Paper, Punch, Printing | M |
| BOTTLING MACHINERY | L | ELEVATOR | | PUG MILL | M |
| BREW KETTLES (distilling) | L | Bucket | M | PULP GRINDER (paper) | H |
| BUCKET ELEVATOR OR CONVEYOR | M | Escalator | L | PULVERIZERS | |
| CALENDERS | | Freight, Passenger, Service, Man LiftH | | Hammermill—light duty, Roller | M |
| Calender (paper) | M | ESCALATORS | L | Hammermill—heavy duty, Hog | H |
| Calender-super (paper), Calender (rubber) .H | | EXTRUDER (metal) | H | PUMPS | |
| CANE KNIVES (sugar) | M | FANS | | Centrifugal, Axial | L |
| CARD MACHINE (textile) | H | Centrifugal | L | Gear, Lobe, Screw, Vane | M |
| CAR DUMPERS | H | Cooling Tower | H | Reciprocating—sgl. or dbl. acting, | |
| CAR PULLERS | M | Forced Draft, Large Industrial or MineM | | cylinder | * |
| CEMENT KILN | H | FEEDERS | | REEL, REWINDER (paper) CABLE | M |
| CENTRIFUGAL EQUIPMENT | | Apron, Belt, Disc | L | ROD MILL | H |
| Blowers, Compressors, Fans, Pumps | L | Reciprocating | H | SAWDUST CONVEYOR | L |
| CHEMICAL FEEDERS (sewage) | L | Screw | M | SCREENS | |
| CHILLER (oil) | M | FILTER, PRESS-OIL | M | Air Washing, Water | L |
| CHIPPER (paper) | H | GENERATORS | | Rotary for coal or sand | M |
| CIRCULAR RESAW (lumber) | M | Uniform load | L | Vibrating | H |
| CLARIFIER or CLASSIFIER | L | Varying load, Hoist | M | SCREW CONVEYOR | L |
| CLAY WORKING MACHINERY | M | Welders | H | SLAB CONVEYOR (lumber) | M |
| COLLECTORS (sewage) | L | GRIT COLLECTOR (sewage) | L | SLITTERS (metal) | M |
| COMPRESSORS | | GRIZZLY | H | SOAPERS (textile) | L |
| Centrifugal, Gear, Lobe, Screw | L | HAMMERMILL | | SORTING TABLE (lumber) | M |
| Reciprocating | * | Light Duty, Intermittent | M | SPINNER (textile) | M |
| CONCRETE MIXERS | M | Heavy Duty, Continuous | H | STOKER | L |
| CONVERTING MACHINE (paper) | M | HOISTS | | SUCTION ROLL (paper) | M |
| CONVEYORS | | Heavy Duty | H | TENTER FRAMES (textile) | M |
| Apron, Assembly Belt, Flight, Oven, Screw .L | | Medium Duty | M | TIRE BUILDING MACHINES | H |
| Bucket | M | JORDAN (paper) | H | TIRE & TUBE PRESS OPENER | L |
| COOKERS—Brewing, Distilling, Food | L | KILN, ROTARY | H | TUMBLING BARRELS | H |
| COOLING TOWER FANS | H | LAUNDRY WASHER or TUMBLER | H | WASHER and THICKENER (paper) | M |
| COUCH (paper) | M | LINE SHAFTS | L | WINCHES | M |
| CRANES and HOISTS | M | LOG HAUL (lumber) | H | WINDERS, Paper, Textile, Wire | M |
| Heavy Duty Mine | H | LOOM (textile) | M | WINDLASS | M |
| CRUSHERS—Cane (sugar), Stone or OreH | | MACHINE TOOLS, MAIN DRIVE | M | WIRE | |
| CUTTER—Paper | H | MANGLE (textile) | L | Drawing | H |
| CYLINDER (paper) | H | MASH TUBS (distilling) | L | Winding | M |
| | | MEAT GRINDER | M | WOODWORKING MACHINERY | L |
| | | METAL FORMING MACHINES | M | | |

*Consult Factory

2. Determine Service Factor using Load Symbol and Driver

| Load Symbol | L Light | M Medium | H Heavy |
|------------------------------|------------|-------------|------------|
| Standard AC Motor | | | |
| DC Shunt Motor | 1.25 | 1.5 | 2.0 |
| *Engine, 8 or more cylinders | | | |
| High Torque AC Motor | | | |
| DC Series & Comp. | 1.5 | 2.0 | 2.5 |
| *Engine, 4-6 cylinders | | | |
| *Engine, 3 cylinders or less | 2.0 | 2.5 | 3.0 |
| Turbine | 1.0 | 1.25 | 1.5 |

* On applications involving varying torque loads, design around the maximum load. Then determine the resulting service factor at minimum load. If this value is greater than 5.2 for EPDM or Neoprene sleeves, or 4.0 for Hytrel sleeves, special coupling alignment will be required (see page 17).

Caution: Applications involving reciprocating engines and reciprocating driven devices are subject to rotational vibrational critical speeds which may destroy the coupling. Consult factory.

3. Determine Size using Coupling Rating Tables

Use the following formula to calculate the required coupling kilowatt rating @ 100 RPM.
 $KW @ 100 \text{ RPM} = KW \times \text{Service Factor} \times 100 / \text{coupling RPM}$

Use the chart below to find a coupling with a KW @ 100 RPM rating which is greater than calculated above.

Example: For 4 KW @ 55 RPM, 1.25 Service Factor:
 $KW @ 100 = 4 \times 1.25 \times 100 / 55 = 9.09$
 Use #12 EPDM or Neoprene, or #10 Hytrel.

Note: Do not exceed a 5.2 Service Factor for EPDM or Neoprene sleeves, or 4.0 for Hytrel sleeves.

Online Selection Tools

Coupling selection program, 3-D CAD models, e-catalog and interchange guide make selecting the right coupling simple!
www.TBWoods.com/Couplings

New! Sure-Flex Plus EPDM and Neoprene sleeves have a 30% higher torque capacity.

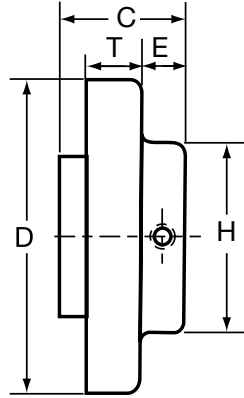
Coupling Ratings (Metric)

| Size | EPDM Sleeve | Neoprene Sleeve | KW @ RPM | | | | Torque (Nm) | Stiffness (Nm/rad) | Max RPM |
|------|-------------|-----------------|----------|------|------|------|-------------|--------------------|---------|
| | | | 100 | 970 | 1450 | 3000 | | | |
| 3 | JE,JES | JN,JNS | 0.09 | 0.90 | 1.3 | 2.8 | 8.8 | 26 | 9200 |
| 4 | E,JE,JES | N,JN,JNS | 0.18 | 1.8 | 2.7 | 5.5 | 18 | 52 | 7600 |
| 5 | E,JE,JES | N,JN,JNS | 0.37 | 3.6 | 5.4 | 11 | 35 | 104 | 7600 |
| 6 | E,JE,JES | N,JN,JNS | 0.69 | 6.7 | 10 | 21 | 66 | 194 | 6000 |
| 7 | E,JE,JES | N,JN,JNS | 1.1 | 11 | 16 | 33 | 107 | 313 | 5250 |
| 8 | E,JE,JES | N,JN,JNS | 1.8 | 17 | 25 | 52 | 167 | 490 | 4500 |
| 9 | E,JE,JES | N | 2.8 | 27 | 40 | 83 | 264 | 777 | 3750 |
| 10 | E,JE,JES | N | 4.4 | 43 | 64 | 133 | 422 | 1241 | 3600 |
| 11 | E | N | 7.0 | 68 | 101 | 209 | 666 | 1955 | 3600 |
| 12 | E | N | 11 | 107 | 161 | 332 | 1058 | 3107 | 2800 |
| 13 | E | N | 17 | 169 | 253 | 524 | 1667 | 4898 | 2400 |
| 14 | E | N | 28 | 269 | 402 | 831 | 2644 | 7768 | 2200 |
| 16 | E | - | 56 | 542 | 811 | 1677 | 5338 | 20392 | 1500 |

| Size | Hytrel Sleeve | KW @ RPM | | | | Torque (Nm) | Stiffness (Nm/rad) | Max RPM |
|------|---------------|----------|-----|------|------|-------------|--------------------|---------|
| | | 100 | 970 | 1450 | 3000 | | | |
| 6 | H, HS | 2.1 | 21 | 31 | 64 | 203 | 1130 | 6000 |
| 7 | H, HS | 3.4 | 33 | 49 | 102 | 325 | 2260 | 5250 |
| 8 | H, HS | 5.4 | 52 | 78 | 161 | 512 | 3390 | 4500 |
| 9 | H, HS | 8.5 | 83 | 124 | 256 | 814 | 5367 | 3750 |
| 10 | H, HS | 13 | 130 | 195 | 403 | 1282 | 11299* | 3600 |
| 11 | H, HS | 21 | 207 | 309 | 639 | 2034 | 14123* | 3600 |
| 12 | H, HS | 37 | 362 | 540 | 1118 | 3559 | 25422* | 2800 |
| 13 | HS | 56 | 542 | 811 | 1678 | 5341 | 41680 | 2400 |
| 14 | HS | 86 | 832 | 1243 | 2573 | 8189 | 67028 | 2200 |

Type S Sure-Flex Plus[®]

BTS - Close Coupled Applications



Flanges

Type S flanges sizes 6 through 16 are manufactured of high strength cast iron then bored-to-size for slip fit on standard shafts. Size 5 is made of sintered carbon steel. Flanges are easy to install and remove, and are stocked in a wide range of bore sizes. All sleeve materials may be used with Type S flanges.

Bore Tolerances for Types J and S Flanges, SC Hubs

| Bore (in.) | Tolerance (in.) |
|------------------------|--------------------|
| Up to and including 2" | + .0005 to + .0015 |
| Over 2" | + .0005 to +.0020 |

These bores provide a slip fit.
Metric bore tolerance meets F7 clearance fit (ISO/R775:1969,mm)

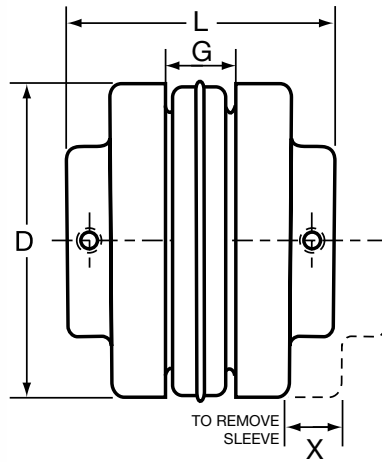
Dimensions

| Coupling Size | Dimensions (mm) | | | | | | | | Wt. (kg.) | Stock Bores (in.) ^① | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|-----------------|-----|----|-----|-----|-----|----|-----|-----------|--------------------------------|-----|-----|-------|-----|-------|---|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|---------|-------|-------|---------|---|--------|-------|--------|-------|-------|--------|-------|-------|-------|-------|---|-------|--------|-------|-------|---------|--|--|--|
| | C | D | E | G | H | L | T | X | | 1/2 | 5/8 | 3/4 | 13/16 | 7/8 | 15/16 | 1 | 1-1/16 | 1-1/8 | 1-3/16 | 1-1/4 | 1-5/16 | 1-3/8 | 1-7/16 | 1-1/2 | 1-9/16 | 1-5/8 | 1-11/16 | 1-3/4 | 1-7/8 | 1-15/16 | 2 | 2-1/16 | 2-1/8 | 2-3/16 | 2-1/4 | 2-3/8 | 2-7/16 | 2-1/2 | 2-5/8 | 2-3/4 | 2-7/8 | 3 | 3-3/8 | 3-7/16 | 3-5/8 | 3-7/8 | 3-15/16 | | | |
| 5S | 34 | 83 | 12 | 18 | 48 | 71 | 15 | 25 | 1 | 0 | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 41 | 102 | 13 | 22 | 64 | 89 | 20 | 28 | 1 | 0 | X | | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6S | 33 | 102 | 13 | 22 | 64 | 89 | 20 | 28 | 1 | | | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | | | |
| | 40 | 102 | 20 | 22 | 71 | 102 | 20 | 28 | 1 | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| 7S | 47 | 117 | 17 | 25 | 71 | 100 | 20 | 33 | 1 | 0 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | | | | | |
| 8S | 53 | 138 | 19 | 29 | 83 | 113 | 23 | 38 | 2 | 0 | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| | 49 | 138 | 26 | 29 | 83 | 127 | 23 | 38 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9S | 61 | 161 | 20 | 36 | 98 | 129 | 26 | 44 | 3 | | | | 0 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | | |
| | 58 | 161 | 32 | 36 | 105 | 152 | 26 | 44 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10S | 69 | 191 | 21 | 33 | 111 | 144 | 31 | 51 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 68 | 191 | 37 | 33 | 121 | 178 | 31 | 51 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11S | 87 | 219 | 29 | 48 | 133 | 181 | 38 | 60 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 87 | 219 | 40 | 48 | 143 | 203 | 38 | 60 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12S | 102 | 255 | 40 | 59 | 146 | 210 | 43 | 68 | 12 | | | | | | | | | | | | | | | | | | 0 | X | X | X | | | | | | | | | | | | | | | | | | | | |
| 13S | 111 | 298 | 33 | 68 | 171 | 235 | 50 | 78 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14S | 114 | 352 | 30 | 83 | 191 | 251 | 57 | 89 | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16S | 152 | 479 | 51 | 121 | 203 | 362 | 70 | 108 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

^① See charts on page 11.
 X in the chart denotes finished bore with keyseat and 2 setscrews; 0 is plain bore suitable for reborng.
 ■ Approximate weight for each flange.

Type S Sure-Flex Plus®

BTS - Close Coupled Applications



Couplings

Spacing between shafts should be greater than 1/8 in. and less than L minus .85 times the sum of the two bore diameters. Spacing between internal flange hubs equals $L - 2^*C$. To order couplings, refer to the part number examples on page 3.

Metric bore tolerance meets F7 clearance fit (ISO/R775:1969,mm)

Dimensions

| Stock Bores (mm) | | | | | | | | | | | | | | | | Max Bore in. (mm) | | Shallow Keyseat Dimensions ② (in.) | | | | | | | | | | | | | | | | | | | |
|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------------|----|------------------------------------|----|----|----|----|--------------------|-------------------|---------------|---------------|------------|--------------------|-------|------------|--------------------|------|-----|-----|-------|------------|---------------------|
| 14 | 15 | 16 | 19 | 20 | 24 | 25 | 28 | 30 | 32 | 35 | 38 | 42 | 45 | 48 | 50 | 52 | 55 | 60 | 65 | 70 | 80 | 90 | ① Standard Keyseat | ② Shallow Keyseat | Bore | K.S. | Key | Bore | K.S. | Key | Bore | K.S. | Key | | | | |
| X | X | X | X | X | X | X | X | | | | | | | | | | | | | | | | | 1-3/16 (30) | 1-1/4 (32) | 1-1/4 | 1/4 X 1/16 | 1/4 X 3/16 X 1-3/8 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | X | | X | X | X | X | X | X | X | X | | | | | | | | | | | | | | 1-7/16 (37) | 1-1/2 (38) ④ | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | X | | | | | | | | | | | | | | ... | 1-3/4 | 1-1/2 & 1-5/8 | 3/8 X 1/8 | 3/8 x 5/16 X ④ | 1-3/4 | 3/8 X 1/16 | 3/8 X 1/4 X 1-1/4 | ... | ... | ... | 1-7/8 | 1/2 X 1/16 | 1/2 X 5/16 X 1-9/16 |
| | | | | | | | | | | | | | | | | | | | | | | | | ... | 1-7/8 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | | | X | X | X | X | X | X | X | X | X | | | | | | | | | | | | | 1-5/8 (41) | 1-7/8 (48) | 1-7/8 | 1/2 X 1/8 | 1/2 X 3/8 X 1-7/8 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | X | X | X | X | X | X | X | X | | | | | | | | | | | | | 1-15/16 (49) | 2-1/4 (57) ④ | 2-1/8 | 1/2 X 3/16 | 1/2 X 7/16 X 2-1/8 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | | | | | | | | | | | | | | | ... | 2-3/8 | ... | ... | ... | 2-3/8 | 5/8 X 1/8 | 5/8 X 7/16 X 1-7/8 | ... | ... | ... | ... | | |
| | | | | X | X | X | X | X | X | X | X | | | | | | | | | | | | | 2-1/2 (64) | 2-3/4 (70) ④ | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | | | | | | | | | | | | | | | ... | 2-7/8 | 2-7/8 | 3/4 X 1/8 | 3/4 X 1/2 X 2-1/4 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | X | X | X | X | X | X | X | X | X | | | | | | | | 2-3/4 (70) | 3-1/8 (79) ④ | 2-7/8 | 3/4 X 1/4 | 3/4 X 5/8 X 2-3/4 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | | | | | | | | | | | | | | | ... | 3-3/8 | ... | ... | ... | 3-3/8 | 7/8 X 3/16 | 7/8 X 5/8 X 2-5/8 | ... | ... | ... | ... | | |
| | | | | | | | | | | X | X | X | X | | X | X | X | X | | | | | | 3-3/8 (86) | 3-7/16 (87) ④ | 3-7/16 | 7/8 X 3/16 | 7/8 X 5/8 X 3-7/16 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | | | | | | | | | | | | | | | ... | 3-7/8 | 3-7/8 | 1 X 1/4 | 1 X 3/4 X 3 | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | | | | | X | | X | X | X | X | | | | | 3-7/8 (98) | 3-15/16 (100) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| | | | | | | | | | | | | | | | | | | | | | | | | 4-1/2 (114) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 5 (127) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 5-1/2 (140) | 6 (152) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | |

① See charts on page 11.

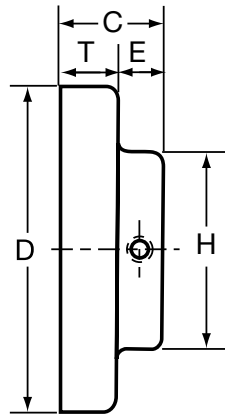
② Some large bore Type S flanges are supplied with shallow keyseats. In these cases, a rectangular key is furnished. The bores involved are listed above.

③ 1-5/8 for 1-1/2 bore, 1-5/16 for 1-5/8 bore.

④ Altered bores available only up to this diameter.

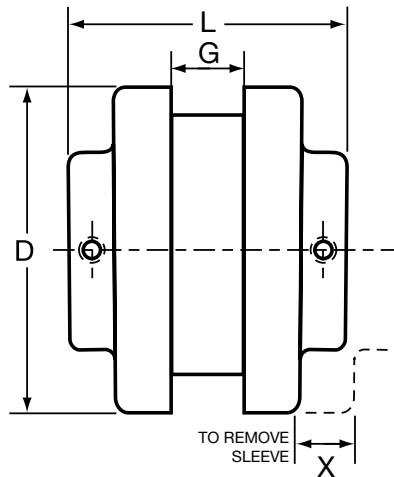
Type J Sure-Flex Plus®

BTS - Close Coupled Applications



Flanges

Type J flanges sizes 3, 4 and 5 are manufactured of sintered carbon steel. The powdered metal manufacturing process provides high dimensional accuracy and uniform material properties for high strength. Size 6 is made of high strength cast iron. Flanges are bored-to-size for a slip fit on standard shafts. The outside face of the flange is precision machined, allowing the surface to be used to align the coupling without special tools. Type J flanges can be used with EPDM and Neoprene sleeves. Each flange has a standard keyway, one setscrew over the keyway and one setscrew at 90° from the keyway.



Couplings

Spacing between internal flange hubs equals G. Spacing between shafts should be greater than 3.2mm and less than L minus .85 times the sum of the two bore diameters.

To order couplings, refer to the part number examples on page 3. When specifying Type J flanges, the coupling and bore sizes accompany the flange symbol "J". For example, 3J x 1/2 is 3J12.

Dimensions

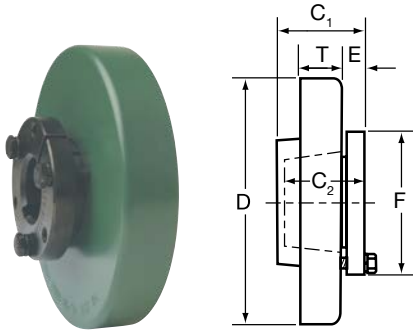
| Size | Dimensions (mm) | | | | | | | | Wt. (kg) | STOCK BORES* | | | | | | | | | | | | | | | | | | | | | | | | |
|------|-----------------|-----|----|----|----|----|----|----|-------------|--------------|-----|-----|-----|-----|-------|---------------------|---------------|-------|--------|-------|------------|---|----|----|----|----|----|----|----|----|----|--|--|--|
| | C | D | E | G | H | L | T | X | | (Inches) | | | | | | Max Bore (mm) | (Millimeters) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 3/8 | 1/2 | 5/8 | 3/4 | 7/8 | 15/16 | | 1 | 1-1/8 | 1-3/16 | 1-1/4 | 1-3/8 | 9 | 11 | 12 | 14 | 15 | 16 | 19 | 20 | 24 | 25 | | | |
| 3J | 20 | 52 | 10 | 10 | 38 | 50 | 10 | 16 | 0.14 | X | X | X | X | X | | | | | | | 7/8 (22) | X | X | X | X | X | X | | | | | | | |
| 4J | 22 | 63 | 11 | 16 | 41 | 60 | 11 | 16 | 0.18 | | X | X | X | X | X | X | | | | | 1 (25) | | | X | X | X | X | X | X | X | X | | | |
| 5J | 27 | 83 | 12 | 19 | 48 | 72 | 15 | 23 | 0.41 | | X | X | X | X | X | X | X | | | | 1-1/8 (29) | | | | | | | | | | | | | |
| 6J | 33 | 102 | 14 | 22 | 64 | 89 | 19 | 28 | 0.54 | | | X | X | X | X | X | X | X | X | X | 1-3/8 (35) | | | | | | | | | | | | | |

* See page 11 for standard keyseat dimensions and page 8 for bore tolerances.

■ Approximate weight for each flange.

Type B Sure-Flex Plus®

QD - Closed Coupled Applications



Flanges

Type B flanges are made of high-strength cast iron and are designed to accommodate Wood's Sure-Grip Bushings for easy installation and removal.

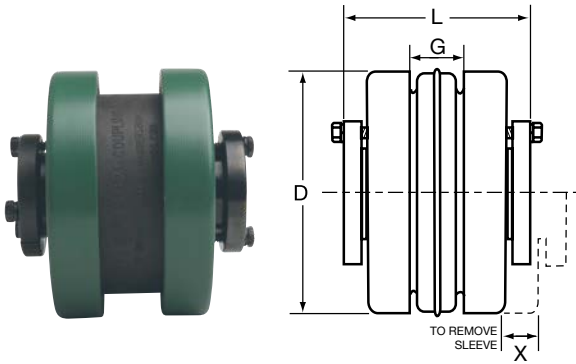
Bushings

Sure-Grip Bushings offer convenient mounting of the flange to the shaft securely without setscrews. They are tapered and are split through both the bushing flange and taper to provide a clamp fit, eliminating wobble, vibration and fretting corrosion. This is the same bushing used in Wood's sheaves and pulleys and is readily available everywhere.

Dimensions (mm)

| Part Number | Bushing Required | Dimensions | | | | | | | | | | Max Bore* | Weight (kg) ■ | |
|-------------|------------------|----------------|----------------|-----|----|-----|-----|-----|----|-----|--------|-----------|---------------|--|
| | | C ₁ | C ₂ | D | E | F | G | L | T | X | Flange | | Bushing | |
| 6B | JA | 31 | 25 | 102 | 12 | 51 | 22 | 86 | 20 | 28 | 32 | 0.64 | 0.36 | |
| 7B | JA | 41 | 25 | 117 | 12 | 51 | 25 | 89 | 20 | 33 | 32 | 0.86 | 0.36 | |
| 8B | SH | 48 | 32 | 138 | 14 | 68 | 29 | 103 | 23 | 28 | 41 | 1.3 | 0.45 | |
| 9B | SD | 57 | 46 | 161 | 16 | 97 | 37 | 121 | 27 | 45 | 49 | 2.2 | 0.68 | |
| 10B | SK | 49 | 48 | 191 | 18 | 98 | 41 | 140 | 31 | 51 | 64 | 3.5 | 0.91 | |
| 11B | SF | 56 | 51 | 219 | 17 | 117 | 48 | 159 | 38 | 60 | 75 | 5.4 | 1.6 | |
| 12B | E | 69 | 67 | 254 | 23 | 152 | 54 | 191 | 43 | 65 | 89 | 8.2 | 4.1 | |
| 13B | F | 95 | 92 | 298 | 27 | 168 | 68 | 222 | 50 | 76 | 100 | 14 | 6.4 | |
| 14B | F | 95 | 92 | 352 | 27 | 168 | 83 | 251 | 57 | 89 | 100 | 23 | 6.4 | |
| 16B | J | 122 | 114 | 479 | 32 | 184 | 121 | 324 | 70 | 108 | 114 | 54 | 10 | |

*Maximum bore with keyseat. ■ Approximate weight for each flange.



Couplings

Type B Sure-Flex Plus couplings can use any EPDM and Neoprene sleeves. Do not use Hytrel sleeves with Type B couplings.

Spacing between internal flange hubs equals L minus 2 times C₂. Spacing between shafts should be greater than 3.2 mm and less than G.

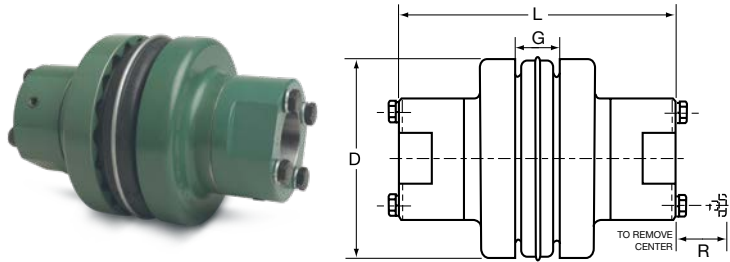
To order complete couplings, specify coupling size with flange symbol (B) and bushing. Refer to page 3 to order the required coupling. Refer to charts below for bushings.

Sure-Grip® Bushing Keyseat Dimensions (mm)

| Bushing | Bore | Keyseat | Bushing | Bore | Keyseat | Bushing | Bore | Keyseat | Shaft Dia. | Width | Depth | |
|---------|-------|---------|---------|----------|----------------|------------------------|-----------------|---------|----------------|-------|-------|--|
| JA | 15-16 | 5 x 5 | SF | 28-30 | 8 x 7 | J | 50 | 14 x 9 | 1/2 - 9/16 | 1/8 | 1/16 | |
| | 19-20 | 6 x 6 | | 32-38 | 10 x 8 | | 55 | 16 x 10 | 5/8 - 7/8 | 3/16 | 3/32 | |
| | 24-25 | 8 x 6* | | 40-42 | 12 x 8 | | 60-65 | 18 x 11 | 15/16 - 1-1/4 | 1/4 | 1/8 | |
| | 28 | 8 x 5* | | 45-50 | 14 x 9 | | 70-75 | 20 x 12 | 1-5/16 - 1-3/8 | 5/16 | 5/32 | |
| SH | 24-30 | 8 x 7 | E | 55 | 16 x 10 | *Shallow key furnished | 80-85 | 22 x 14 | 1-7/16 - 1-3/4 | 3/8 | 3/16 | |
| | 32-35 | 10 x 8 | | 60 | 18 x 11 | | 1-13/16 - 2-1/4 | 1/2 | 1/4 | | | |
| | 40-42 | 12 x 8 | | 65 | 18 x 8* | | 2-5/16 - 2-3/4 | 5/8 | 5/16 | | | |
| SDS | 24-30 | 8 x 7 | F | 45-50 | 14 x 9 | | 2-13/16 - 3-1/4 | 3/4 | 3/8 | | | |
| | 32-38 | 10 x 8 | | 55 | 16 x 10 | | 3-5/16 - 3-3/4 | 7/8 | 7/16 | | | |
| | 40-42 | 12 x 8 | | 60-65 | 18 x 11 | | 3-13/16 - 4-1/2 | 1 | 1/2 | | | |
| SD | 24-30 | 8 x 7 | 70-75 | 20 x 12 | 4-9/16 - 5-1/2 | | 1-1/4 | 5/8 | | | | |
| | 32-38 | 10 x 8 | 80 | 22 x 11* | 5-9/16 - 6-1/2 | | 1-1/2 | 3/4 | | | | |
| | 40-42 | 12 x 8 | | | | | | | | | | |
| SK | 24-30 | 8 x 7 | | | | | | | | | | |
| | 32-38 | 10 x 8 | | | | | | | | | | |
| | 40-42 | 12 x 8 | | | | | | | | | | |
| | 45-50 | 14 x 9 | | | | | | | | | | |
| | 55 | 16 x 10 | | | | | | | | | | |

Type SC Spacer Couplings

BTS - Conventional Spacer Design



For other distances between shaft ends not shown here, please see page F1-16 of P-1690-TBW or use the Coupling Selection Program at www.TBWoods.com/Select

For dimensions of separate Type SC Spacer components, refer to page 13.

Flanges (mm)

| Coupling Size | Required Distance Between Shafts | Use Flange Number | Use Hub Number | Maximum Bore | | Dimensions (mm) | | | | Weight (kg) |
|---------------|----------------------------------|-------------------|----------------|--------------|----|-----------------|-----|-----|-----|-------------|
| | | | | in. | mm | D | L ☒ | G | R | |
| ☒ 89 | 4JSC35 | ... | 1-1/8 | 29 | 62 | 143 | 16 | ... | 1.2 | |
| 5SC | 89 | 5SC35 | 5SCH | 1-1/8 | 29 | 83 | 143 | 19 | 15 | 2.0 |
| | 89 | 6SC35 | 6SCH-6SCHS | 1-3/8 | 35 | 102 | 149 | 22 | 19 | 3.3 |
| 6SC | 112 | 6SC44 | 6SCH-6SCHS | 1-3/8 | 35 | 102 | 171 | 22 | 19 | 3.7 |
| | 127 | 6SC50 | 6SCH-6SCHS | 1-3/8 | 35 | 102 | 187 | 22 | 19 | 4.0 |
| 7SC | 89 | 7SC35 | 7SCH-7SCHS | 1-5/8 | 42 | 117 | 162 | 25 | 16 | 4.5 |
| | 112 | 7SC44 | 7SCH-7SCHS | 1-5/8 | 42 | 117 | 184 | 25 | 16 | 4.9 |
| 8SC | 127 | 7SC50 | 7SCH-7SCHS | 1-5/8 | 42 | 117 | 200 | 25 | 16 | 5.2 |
| | 89 | 8SC35 | 8SCH-8SCHS | 1-7/8 | 48 | 138 | 175 | 29 | 21 | 6.9 |
| | 89 | 8SC35-10 | 10SCH-10SCHS | 2-3/8 | 60 | 138 | 206 | 29 | 21 | 11 |
| | 112 | 8SC44 | 8SCH-8SCHS | 1-7/8 | 48 | 138 | 197 | 29 | 21 | 7.4 |
| 9SC | 127 | 8SC50 | 8SCH-8SCHS | 1-7/8 | 48 | 138 | 213 | 29 | 30 | 7.9 |
| | 127 | 8SC50-10 | 10SCH-10SCHS | 2-3/8 | 60 | 138 | 244 | 29 | 30 | 12 |
| | 89 | 9SC35 | 9SCH-9SCHS | 2-1/8 | 54 | 161 | 191 | 37 | 27 | 8.4 |
| | 112 | 9SC44 | 9SCH-9SCHS | 2-1/8 | 54 | 161 | 210 | 37 | 27 | 10 |
| 10SC | 127 | 9SC50 | 9SCH-9SCHS | 2-1/8 | 54 | 161 | 225 | 37 | 27 | 11 |
| | 127 | 9SC50-11 | 11SCH-11SCHS | 2-7/8 | 73 | 161 | 264 | 37 | 30 | 18 |
| | 178 | 9SC70-11 | 11SCH-11SCHS | 2-7/8 | 73 | 161 | 314 | 37 | 30 | 22 |
| | 197 | 9SC78-11 | 11SCH-11SCHS | 2-7/8 | 73 | 161 | 333 | 37 | 30 | 23 |
| | 112 | 10SC48 | 10SCH-10SCHS | 2-3/8 | 60 | 191 | 238 | 41 | 30 | 17 |
| 11SC | 127 | 10SC50 | 10SCH-10SCHS | 2-3/8 | 60 | 191 | 244 | 41 | 48 | 17 |
| | 178 | 10SC70-13 | 13SCH-13SCHS | 3-3/8 | 86 | 191 | 346 | 41 | 48 | 33 |
| | 197 | 10SC78-13 | 13SCH-13SCHS | 3-3/8 | 86 | 191 | 365 | 41 | 48 | 34 |
| | 254 | 10SC100-13 | 13SCH-13SCHS | 3-3/8 | 86 | 191 | 422 | 41 | 48 | 40 |
| 12SC | 112 | 11SC48 | 11SCH-11SCHS | 2-7/8 | 73 | 219 | 262 | 48 | 30 | 25 |
| | 127 | 11SC50 | 11SCH-11SCHS | 2-7/8 | 73 | 219 | 264 | 18 | 30 | 25 |
| | 178 | 11SC70-14 | 14SCH | 3-7/8 | 98 | 219 | 371 | 18 | 51 | 39 |
| | 197 | 11SC78-14 | 14SCH | 3-7/8 | 98 | 219 | 391 | 18 | 51 | 41 |
| 13SC | 254 | 11SC100-14 | 14SCH | 3-7/8 | 98 | 219 | 448 | 18 | 51 | 47 |
| | 178 | 12SC70 | 12SCH-12SCHS | 2-7/8 | 73 | 254 | 327 | 59 | 38 | 40 |
| | 178 | 12SC70-14 | 14SCH | 3-7/8 | 98 | 254 | 371 | 59 | 51 | 45 |
| | 197 | 12SC78 | 12SCH-12SCHS | 2-7/8 | 73 | 254 | 346 | 59 | 38 | 42 |
| 14SC | 197 | 12SC78-14 | 14SCH | 3-7/8 | 98 | 254 | 391 | 59 | 51 | 47 |
| | 254 | 12SC100-14 | 14SCH | 3-7/8 | 98 | 254 | 448 | 59 | 51 | 52 |
| 13SC | 197 | 13SC78 | 13SCH-13SCHS | 3-3/8 | 86 | 248 | 365 | 68 | 48 | 59 |
| 14SC | 197 | 14SC78 | 14SCH | 3-7/8 | 98 | 352 | 391 | 83 | 51 | 82 |

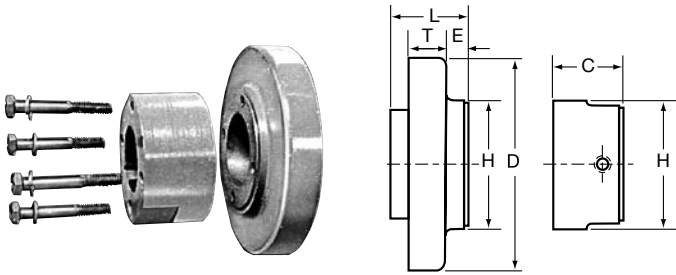
■ Approximate weight for each flange.

☒ 4JSC35 x 1-1/8 has shallow keyseat. ☒ "L" dimension and weight will change if one or two short (HS) hubs used.

Note: Refer to pages 13-14 to order — specify components separately

Type SC Couplings and Flanges and Hubs

Type SC Flanges and Hubs



Tables on pages 13-14 provide dimensional information for flanges and hubs used for Spacer Couplings. For assembled dimensions, see table on page 12. Any of the sleeves shown on page 5 may be used.

Flanges (mm)

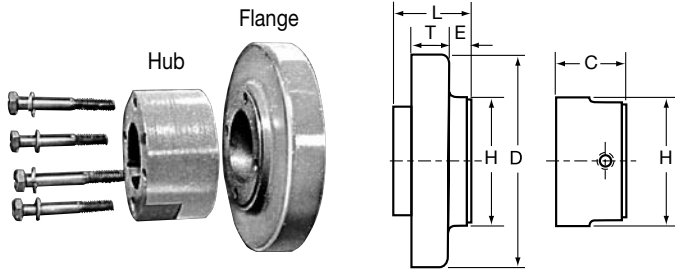
| Coupling Size | Flange Number | For Distance Between Shafts* | For Hub | Dimensions (mm) | | | | | Weight (kg) |
|---------------|---------------|------------------------------|--------------|-----------------|----|-----|-----|----|-------------|
| | | | | D | E | H | L | T | |
| 4JSC | 4JSC35 | 79 | | 62 | 52 | 51 | 64 | 11 | .59 |
| 5SC | 5SC35 | 89 | 5SCH | 83 | 20 | 51 | 43 | 15 | .59 |
| | 6SC35 | 89 | 6SCH-6SCHS | 102 | 15 | 64 | 41 | 18 | .91 |
| 6SC | 6SC44 | 112 | 6SCH-6SCHS | 102 | 26 | 64 | 52 | 18 | 1.9 |
| | 6SC50 | 127 | 6SCH-6SCHS | 102 | 34 | 64 | 60 | 18 | 1.2 |
| 7SC | 7SC35 | 89 | 7SCH-7SCHS | 117 | 12 | 71 | 41 | 20 | 1.1 |
| | 7SC44 | 112 | 7SCH-7SCHS | 117 | 23 | 71 | 52 | 20 | 1.4 |
| | 7SC50 | 127 | 7SCH-7SCHS | 117 | 31 | 71 | 60 | 20 | 1.5 |
| 8SC | 8SC35 | 89 | 8SCH-8SCHS | 138 | 7 | 83 | 41 | 23 | 1.7 |
| | 8SC35-10 | 89 | 10SCH-10SCHS | 138 | 7 | 111 | 41 | 23 | 1.6 |
| | 8SC44 | 112 | 8SCH-8SCHS | 138 | 18 | 83 | 52 | 23 | 2.0 |
| | 8SC50 | 127 | 8SCH-8SCHS | 138 | 26 | 83 | 60 | 23 | 2.2 |
| 9SC | 8SC50-10 | 127 | 10SCH-10SCHS | 138 | 26 | 111 | 60 | 23 | 2.5 |
| | 9SC35 | 89 | 9SCH-9SCHS | 161 | 2 | 92 | 43 | 26 | 1.9 |
| | 9SC44 | 112 | 9SCH-9SCHS | 161 | 11 | 92 | 52 | 26 | 2.7 |
| | 9SC50 | 127 | 9SCH-9SCHS | 161 | 19 | 92 | 60 | 26 | 2.9 |
| | 9SC50-11 | 127 | 11SCH-11SCHS | 161 | 19 | 133 | 60 | 26 | 3.2 |
| 10SC | 9SC70-11 | 178 | 11SCH-11SCHS | 161 | 44 | 133 | 86 | 26 | 4.9 |
| | 9SC78-11 | 197 | 11SCH-11SCHS | 161 | 54 | 133 | 95 | 26 | 5.6 |
| | 10SC48 | 112 | 10SCH-10SCHS | 191 | 9 | 111 | 57 | 31 | 4.5 |
| | 10SC50 | 127 | 10SCH-10SCHS | 191 | 12 | 111 | 60 | 31 | 4.6 |
| | 10SC70-13 | 178 | 13SCH-13SCHS | 191 | 37 | 156 | 86 | 31 | 6.6 |
| 11SC | 10SC78-13 | 197 | 13SCH-13SCHS | 191 | 47 | 156 | 95 | 31 | 7.5 |
| | 10SC100-13 | 254 | 13SCH-13SCHS | 191 | 50 | 156 | 124 | 31 | 10 |
| | 11SC48 | 112 | 11SCH-11SCHS | 219 | 1 | 133 | 38 | 38 | 5.7 |
| | 11SC50 | 127 | 11SCH-11SCHS | 219 | 2 | 133 | 40 | 38 | 5.7 |
| | 11SC70-14 | 178 | 14SCH | 219 | 27 | 165 | 65 | 38 | 7.4 |
| 12SC | 11SC78-14 | 197 | 14SCH | 219 | 37 | 165 | 75 | 38 | 8.4 |
| | 11SC100-14 | 254 | 14SCH | 219 | 65 | 165 | 103 | 38 | 11 |
| | 12SC70 | 178 | 12SCH-12SCHS | 254 | 17 | 146 | 63 | 43 | 11 |
| | 12SC70-14 | 178 | 14SCH | 254 | 17 | 165 | 63 | 43 | 9.7 |
| | 12SC78 | 197 | 12SCH-12SCHS | 254 | 26 | 146 | 72 | 43 | 11 |
| 13SC | 12SC78-14 | 197 | 14SCH | 254 | 26 | 165 | 72 | 43 | 11 |
| | 12SC100-14 | 254 | 14SCH | 254 | 55 | 165 | 101 | 43 | 13 |
| 14SC | 13SC78 | 197 | 13SCH-13SCHS | 298 | 14 | 156 | 83 | 50 | 17 |
| | 14SC78 | 197 | 14SCH | 352 | 1 | 165 | 69 | 57 | 25 |

*Flanges can be mixed to form different Between-Shaft Dimensions. See chart page 15. ■ Approximate weight for each flange.

▲ If using 10HS hub, 7/16-14NC x 2-1/4 long capscrew needed (not furnished).

Type SC Couplings Flanges and Hubs

Type SC Flanges and Hubs



Tables on pages 13-14 provide dimensional information for flanges and hubs used for Spacer Couplings. For assembled dimensions, see table on page 12. Any of the sleeves shown on page 5 may be used.

Hubs

| Coupling Size | Hub Number | Maximum Bore | | Stock Bores* (in) | | Dimensions (mm) | | | Weight (kg) |
|---------------|------------|--------------|----|-------------------|---|-----------------|-----|----------------------------|-------------|
| | | in | mm | Plain Bore | Bore with Standard Keyway & SetScrew | C | H | Cap Screws Furnished (in.) | |
| 4JSC | † | 1-1/8 | 29 | ... | 5/8 - 7/8 - 1 - 1-1/8* | 27 | 51 | ... | ... |
| 5SC | 5SCH | 1-1/8 | 29 | 1/2 | 5/8 - 3/4 - 7/8 - 1 - 1-1/8 | 28 | 51 | 4-10 x 1-1/2 | .36 |
| 6SC | 6SCH | 1-3/8 | 35 | 5/8 | 3/4 - 7/8 - 1 - 1-1/8 - 1-1/4 - 1-3/8 | 31 | 64 | 4-1/4 x 1-3/4 | .64 |
| | 6SCHS | 7/8 | 22 | ... | 7/8 | 25 | 64 | 4-1/4 x 1-1/2 | .50 |
| 7SC | 7SCH | 1-5/8 | 41 | 5/8 | 7/8 - 1 - 1-1/8 - 1-3/8 - 1-1/2 - 1-5/8 | 37 | 71 | 4-1/4 x 1-7/8 | .91 |
| | 7SCHS | 7/8 | 22 | ... | 7/8 | 28 | 71 | 4-1/4 x 1-1/2 | .68 |
| 8SC | 8SCH | 1-7/8 | 48 | 3/4 | 7/8 - 1 - 1-1/8 - 1-3/8 | 44 | 83 | 4-5/16 x 2-1/4 | 1.5 |
| | 8SCHS | 7/8 | 22 | ... | 1-1/2 - 1-5/8 - 1-3/4 - 1-7/8 | 31 | 83 | 4-5/16 x 1-3/4 | .91 |
| 9SC | 9SCH | 2-1/8 | 54 | 7/8 | 1 - 1-1/8 - 1-3/8 - 1-1/2 | 50 | 92 | 4-3/8 x 2-3/4 | 1.9 |
| | 9SCHS | 1-1/2 | 38 | ... | 1-5/8 - 1-3/4 - 1-7/8 - 2-1/8 | 39 | 92 | 4-3/8 x 2-1/4 | 1.7 |
| 10SC | 10SCH | 2-3/8 | 60 | 1-1/8 | 1-5/8 - 1-7/8 - 2-1/8 - 2-3/8 | 60 | 111 | 4-7/16 x 3-1/4 | 3.4 |
| | 10SCHS | 1-5/8 | 41 | ... | 1-1/8 | 42 | 111 | 4-7/16 x 2-1/2 | 2.5 |
| 11SC | 11SCH | 2-7/8 | 73 | 1-1/8 | 1-7/8 - 2-1/8 - 2-3/8 - 2-7/8 | 69 | 133 | 4-1/2 x 3-1/2 | 5.5 |
| | 11SCHS | 1-7/8 | 48 | ... | 1-1/8 - 1-5/8 | 48 | 133 | 4-1/2 x 2-3/4 | 4.2 |
| 12SC | 12SCH | 2-7/8 | 73 | 1-3/8 | 2-1/8 - 2-3/8 - 2-7/8 | 75 | 146 | 4-5/8 x 4 | 7.5 |
| | 12SCHS | 2-1/2 | 64 | ... | 2-3/8 | 64 | 146 | 4-5/8 x 3-1/2 | 6.4 |
| 13SC | 13SCH | 3-3/8 | 86 | 1-3/8 | 2-3/8 - 2-7/8 - 3-3/8 | 85 | 156 | 4-5/8 x 4-1/2 | 9.0 |
| | 13SCHS | 2-1/2 | 64 | ... | 2-1/8 - 2-3/8 | 63 | 156 | 4-5/8 x 3-1/2 | 7.3 |
| 14SC | 142SCH | 3-7/8 | 98 | 1-5/8 | 2-3/8 - 2-7/8 - 3-3/8 - 3-7/8 | 98 | 165 | 4-5/8 x 5 | 11 |

† For 4JSC the hub is an integral part of the flange. 4JSC x 1-1/8 has 1/4 x 1/16 shallow keyseat. ■ Approximate weight for each hub.

* See page 8 for bore tolerances, page 11 for standard keyseat dimensions.

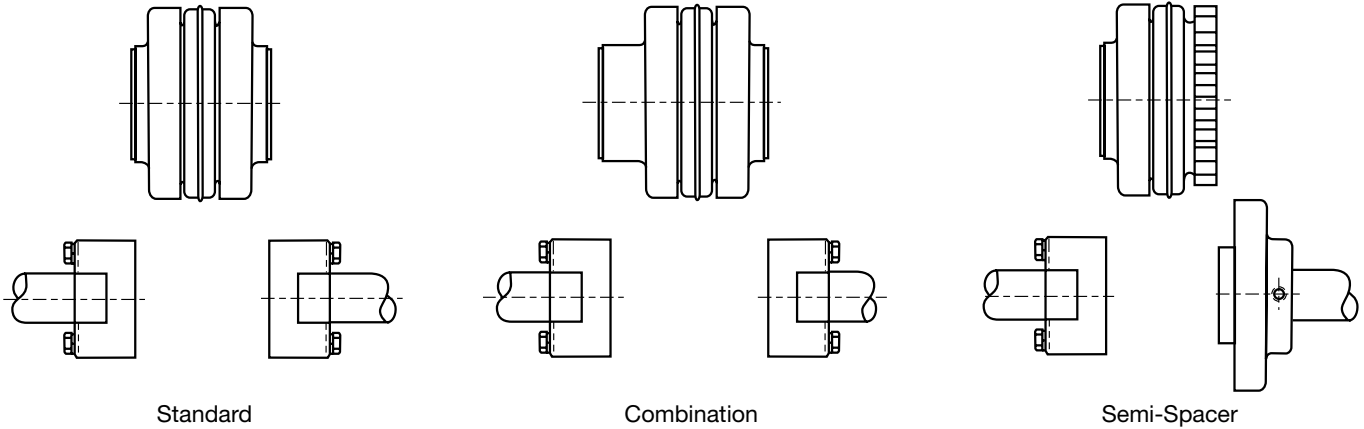
Type SC Spacer Couplings

Between Shaft Spacing

Spacer couplings are available for most popular between-shaft dimensions. Other spacings can be achieved by mixing flanges.

The “Standard” column provides spacings using identical flanges; the “Combination” column mixes flanges; the column headed “Semi-Spacer” uses one flange that is not made for spacer coupling applications and thus does not have a detachable hub.

To select couplings for various DBSEs, please see our Coupling Selector Program at www.TBWoods.com/Select



| Standard (mm) | |
|---------------|---------------|
| Spacing | Uses Flanges* |
| 80 | 2-()SC35 |
| 111 | 2-()SC44 |
| 127 | 2-()SC50 |
| 178 | 2-()SC70 |
| 197 | 2-()SC78 |
| 254 | 2-()SC100 |

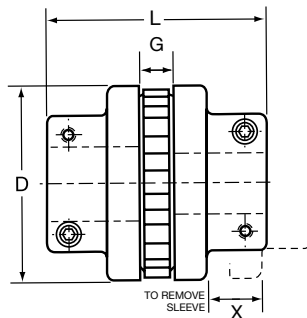
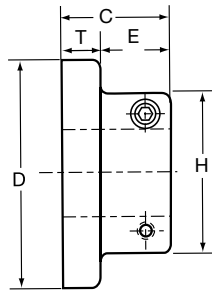
| Combination (mm) | |
|------------------|---------------|
| Spacing | Uses Flanges* |
| 100 | SC35 & SC44 |
| 108 | SC35 & SC50 |
| 119 | SC44 & SC50 |
| 133 | SC35 & SC70 |
| 143 | SC35 & SC78 |
| 144 | SC44 & SC70 |
| 152 | SC50 & SC70 |
| 154 | SC44 & SC78 |
| 162 | SC50 & SC78 |
| 171 | SC35 & SC100 |
| 183 | SC44 & SC100 |
| 187 | SC70 & SC78 |
| 191 | SC50 & SC100 |
| 216 | SC70 & SC100 |
| 225 | SC78 & SC100 |

| Semi-Spacer (mm) | |
|------------------|---------------|
| Spacing | Uses Flanges* |
| 48 | S & SC35 |
| 58 | S & SC44 |
| 67 | S & SC50 |
| 92 | S & SC70 |
| 102 | S & SC78 |
| 130 | S & SC100 |

* Check individual coupling size for flange availability.
Note: Other Combinations available — consult factory.

Type C Sure-Flex Plus®

Clamp Hub Spacer and Design



Flanges

Sure-Flex Plus® Type C Clamp Hub flanges employ integral locking collars and screws to assure a clamp fit on the shaft. One setscrew is furnished over the key. They are designed primarily for applications where flanges must be removed from one or both shafts without moving either the driver or driven units. A typical application is a screw compressor which uses a replaceable face seal around the input shaft.

Couplings

Type C Clamp Hub Couplings normally use Hytrel sleeves. However, any of the sleeves shown on page 5 can be used. Type C couplings may often be used where spacer couplings are required.

Spacing between internal flange hubs equals G. To order complete couplings, specify coupling size with flange symbol (C), giving bore required. Refer to page 3 to order the required coupling.

Dimensions (mm)

| Product Number | Stock Bores | Min Bore | | Maximum Bore | | | | Distance Between Shafts | | Dimensions (mm) | | | | | | | | Approx. Weight (kg.)* |
|----------------|---|----------|----|--------------|----|------------|-----|-------------------------|---------------|-----------------|-----|----|----|-----|-----|----|-----|-----------------------|
| | | in. | mm | Standard KS | | Shallow KS | | Min | Max | C | D | E | G | H | L | X | | |
| | | | | in. | mm | in. | mm | | | | | | | | | | | |
| 6C | 1-1/8, 1-7/8, 40mm | 7/8 | 22 | 1-5/8 | 41 | 1-7/8 | 48 | 2 (51mm) | 2-3/4 (70mm) | 49 | 102 | 29 | 22 | 76 | 121 | 25 | 1.6 | |
| 7C | 1-3/8, 1-7/8, 35mm, 40mm | 1-1/8 | 29 | 1-7/8 | 48 | ... | ... | 2-5/16 (59mm) | 3-7/16 (87mm) | 71 | 117 | 36 | 27 | 83 | 138 | 30 | 2.0 | |
| 8C | 1/3/8, 1-5/8, 1-3/4, 1-7/8 2-1/8, 2-1/4, 2-3/8, 40mm | 1-3/8 | 35 | 2-1/4 | 57 | 2-3/8 | 60 | 2-9/16 (65mm) | 4 (102mm) | 64 | 138 | 40 | 29 | 98 | 156 | 35 | 3.0 | |
| 9C | 1-5/8, 1-3/4, 1-7/8, 2, 2-1/8, 2-1/4, 2-3/8, 2-1/2 | 1-5/8 | 41 | 2-1/2 | 64 | 2-5/8 | 68 | 3-1/16 (78mm) | 4-5/8 (117mm) | 76 | 161 | 50 | 37 | 108 | 189 | 40 | 4.5 | |
| 10C | 1-5/8, 1-7/8, 2-1/4, 2-3/8, 2-1/2 | 1-5/8 | 41 | 2-7/8 | 73 | ... | ... | 3-9/16 (90mm) | 5-1/4 (133mm) | 89 | 191 | 58 | 43 | 127 | 221 | 46 | 7.5 | |
| 11C | 2-1/8, 2-3/8, 2-1/2 | 1-7/8 | 48 | 3-3/8 | 86 | ... | ... | 4-1/8 (105mm) | 5-7/8 (149mm) | 102 | 219 | 63 | 48 | 137 | 251 | 54 | 12 | |
| 12C | 2-1/8 | 1-7/8 | 48 | 3-3/8 | 86 | ... | ... | 4-7/8 (124mm) | 6-1/2 (165mm) | 111 | 254 | 68 | 60 | 152 | 283 | 60 | 17 | |

For Standard Keyseat dimensions, see chart page 11. *Weight of one flange.

Bore Tolerances for Type C Flanges

These bores provide a slip fit.

| Bore (in.) | Tolerance (in.) |
|------------------------|--------------------|
| Up to and including 2" | + .0005 to + .0015 |
| Over 2" | + .0005 to + .0020 |

Shallow Keyseat Dimensions

Some large bore Type C flanges are supplied with shallow keyseats. In these cases, a rectangular key is furnished. The flanges and bores involved are as follows:

| Size | Bore Range | KS | Key Furnished |
|------|-------------------|------------|----------------------|
| 6C | 1-11/16 to 1-7/8 | 1/2 x 1/16 | 1/2 x 5/16 x 1-15/16 |
| 8C | 2-5/16 to 2-3/8 | 5/8 x 1/16 | 5/8 x 3/8 x 2-1/2 |
| 9C | 2-7/16 to 2-11/16 | 5/8 x 3/16 | 5/8 x 1/2 x 3 |

Metric bore tolerance meets F7 clearance fit (ISO/R775:1969, mm)

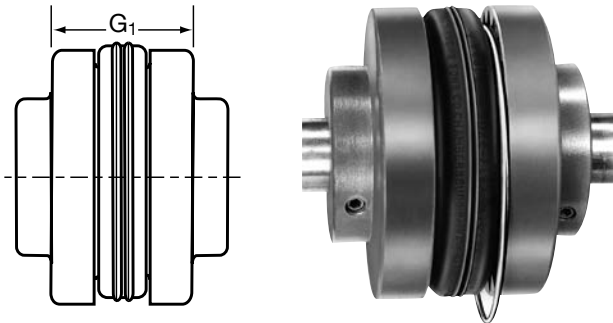
Installation Instructions

Sure-Flex Plus flanges (outer metallic parts) and sleeves (inner elastomeric elements) come in many sizes and types. First, determine the size and type of components being used. Check maximum RPM values in the table below against operating speed. Remove all components from their boxes, and loosely assemble the coupling on any convenient surface. (If using a two-piece E or N sleeve, do not install the wire ring at this time.)

1. Inspect all coupling components and remove any protective coatings or lubricants from bores, mating surfaces and fasteners. Remove any existing burrs, etc. from the shafts.

2. Slide one coupling flange onto each shaft using keys where required. When using Type B flanges, follow the instructions furnished with the Sure-Grip bushings.

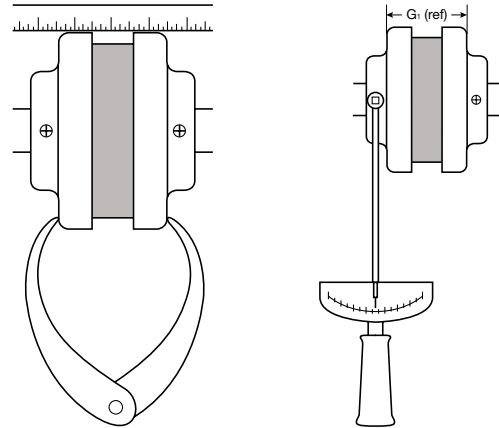
3. Position the flanges on the shafts to approximately achieve the G_1 dimension shown in the table. It is usually best to have an equal length of shaft extending into each flange. Move one flange to its final position. Torque fasteners to proper values. Slide the other flange far enough away to install the sleeve. With a two-piece sleeve, do not move the wire ring to its final position; allow it to hang loosely in the groove adjacent to the teeth.



4. Slide the loose flange on the shaft until the sleeve is completely seated in the teeth of each flange. (The “ G_1 ” dimension is for reference and not critical.) Secure the flange to the shaft. Different coupling sleeves require different degrees of alignment precision. Locate the alignment values for your sleeve size and type in the table.

5. Check parallel alignment by placing a straight-edge across the two coupling flanges and measuring the maximum offset at various points around the periphery of the coupling without rotating the coupling. If the maximum offset exceeds the figure shown under “Parallel” in the table, realign the shafts.

6. Check angular alignment with a caliper. Measure from the outside of one flange to the outside of the other at intervals around the periphery of the coupling. Determine the maximum and minimum dimensions without rotating the coupling. The difference between the maximum and minimum must not exceed the figure given under “Angular” in the table. If a correction is necessary, be sure to recheck the parallel alignment.



Maximum RPM and Allowable Misalignment

| Sleeve Size | Max RPM | G_1 | Types JE, JN, JES, JNS, E & N (mm) | | *Type H & HS (mm) | |
|-------------|---------|-------|------------------------------------|---------|-------------------|---------|
| | | | Parallel | Angular | Parallel | Angular |
| 3 | 9200 | 30 | .25 | .89 | ... | ... |
| 4 | 7600 | 38 | .25 | 1.1 | ... | ... |
| 5 | 7600 | 49 | .38 | 1.4 | ... | ... |
| 6 | 6000 | 60 | .38 | 1.8 | .25 | .41 |
| 7 | 5250 | 65 | .51 | 2.1 | .31 | .51 |
| 8 | 4500 | 75 | .51 | 2.4 | .38 | .64 |
| 9 | 3750 | 89 | .64 | 2.8 | .43 | .71 |
| 10 | 3600 | 103 | .64 | 3.2 | .51 | .81 |
| 11 | 3600 | 124 | .81 | 3.9 | .56 | .94 |
| 12 | 2800 | 145 | .81 | 4.4 | .64 | 1.1 |
| 13 | 2400 | 170 | 1.0 | 5.0 | .76 | 1.3 |
| 14 | 2200 | 200 | 1.1 | 6.2 | .89 | 1.5 |
| 16 | 1500 | 260 | 1.6 | 7.4 | ... | ... |

Note: When using a VFD with a centrifugal pump or fan, reduce the above values by 1/2.

*Type H and HS sleeves should never be used as direct replacements for EPDM or Neoprene sleeves.

7. If the coupling employs the two-piece sleeve with wire ring, move the ring into its groove in the center of the sleeve. If necessary, use soapy water and lever the ring with a blunt tool.

8. Install coupling guards.

CAUTION: Coupling sleeves may be thrown from the coupling assembly with substantial force if subjected to a severe shock load.

Notes

TB Wood's offers a wide range of couplings for industrial applications

For over 70 years, TB Wood's has been designing and manufacturing innovative coupling solutions to meet the requirements for a broad variety of applications spanning many industries. TB Wood's couplings represent the latest in technology, featuring superior design and exceptional quality to ensure long-lasting performance in all types of industrial applications including printing presses, machine tools, cooling tower fans, food processing equipment, pumps, blowers, electric motors, compressors, mixers, and conveyors.



L-JAW ELASTOMERIC COUPLINGS

Jaw-type elastomeric couplings are an economical, proven solution for general purpose applications. Jaw couplings are easy to install and require no lubrication or maintenance. Four different flexible insert types are available: Buna-N rubber, Urethane, Hytrel™ and Bronze. Jaw couplings are an excellent choice for all light and medium duty general purpose industrial applications. Models available with torque capacities up to 0.70 kNm; 6,228 in.lbs.

See Catalog P-1686-TBW



DURA-FLEX ELASTOMERIC COUPLINGS

Dura-Flex couplings are designed from the ground up using finite element analysis to maximize flex life. Dura-Flex couplings employ a lightweight element that absorbs shock loading and torsional vibration. A flexible polyurethane material offers superior chemical, dynamic and weathering properties. The specially designed "split-in-half flex element" moves stress away from the bond, extending flex life. Dura-Flex couplings are directly interchangeable with similar couplings for fast and easy replacement. Models available with torque capacities up to 4.5 kNm; 39,500 in.lbs.

See Catalog P-1686-TBW



G-FLEX GRID COUPLINGS

State-of-the-art design from Bibby Turboflex, the original grid coupling manufacturer. G-Flex is an all-metal coupling that provides positive protection against the damaging effects of shock loads and vibration. Aluminum horizontal cover (T10), and all-steel vertical cover (T20) designs are available. G-Flex tapered grid couplings are an excellent choice where torsional flexibility and vibration damping are primary concerns. Models available with torque capacities up to 169 kNm; 1,500,000 in.lbs.

See Catalog P-1686-TBW



FORM-FLEX DISC COUPLINGS

Form-Flex metal disc couplings consist of two hubs, a spacer and two high strength carbon or stainless steel flexible discs. Modified and special designs are commonly supplied to meet specific application conditions. Available in carbon steel, stainless steel or with corrosion resistant coatings. Models available with torque capacities up to 270 kNm; 2,400,000 in.lbs.

See Catalog P-1686-TBW

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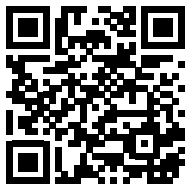
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Elastomeric Couplings



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