

where the world turns for couplings

Lovejoy[®]

S-Flex

SF

In This Section:

- J Type
- S Type
- B Type
- SC Type – Spacer
- T Type



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Safety Warning

When using Lovejoy products, you must follow these instructions and take the following precautions. Failure to do so may cause the power transmission product to break and parts to be thrown with sufficient force to cause severe injury or death.

Refer to this Lovejoy Catalog for proper selection, sizing, horsepower, torque range, and speed range of power transmission products, including elastomeric elements for couplings. Follow the installation instructions included with the product, and in the individual product catalogs for proper installation of power transmission products. Do not exceed catalog ratings.

During start up and operation of power transmission product, avoid sudden shock loads. Coupling assembly should operate quietly and smoothly. If coupling assembly vibrates or makes beating sound, shut down immediately, and recheck alignment. Shortly after initial operation and periodically thereafter, where applicable, inspect coupling assembly for: alignment, wear of elastomeric element, bolt torques, and flexing elements for signs of fatigue. Do not operate coupling assembly if alignment is improper, or where applicable, if elastomeric element is damaged, or worn to less than 75% of its original thickness.

Do not use any of these power transmission products for elevators, man lifts, or other devices that carry people. If the power transmission product fails, the lift device could fall resulting in severe injury or death.

For all power transmission products, you must install suitable guards in accordance with OSHA and American Society of Mechanical Engineers Standards. Do not start power transmission product before suitable guards are in place. Failure to properly guard these products may result in severe injury or death from personnel contacting moving parts or from parts being thrown from assembly in the event the power transmission product fails.

If you have any questions, contact the Lovejoy Engineering Department at 1-630-852-0500.

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Elastomer In Shear Type Couplings

The simple design of the S-Flex coupling ensures ease of assembly and reliable performance. No special tools are needed for installation or removal. S-Flex couplings can be used in a wide variety of applications.

Features

- Easy to Install
- Maintenance Free
- No Lubrication
- Dampens Vibration and Controls Shock
- Torsionally Soft
- Double Engagement

Characteristics and Performance Facts

- The S-Flex coupling design is comprised of three parts: two flanges with internal teeth engage an elastomeric flexible sleeve with external teeth
- Torque is transmitted through the flanges mounted on both the driver and driven shafts via the sleeve
- Misalignment and torsional shock loads are absorbed by shear deflection in the sleeve
- The shear characteristic of the S-Flex coupling is very well suited to absorb impact loads
- The S-Flex coupling from Lovejoy offers combinations of flanges and sleeves which can be assembled to suit your specific application
- Thirteen sizes are available with torque capabilities that range from 60 in-lbs to 72,480 in-lbs
- The S-Flex flanges are offered in five models which are made from zinc or cast iron
- Sleeves are available in EPDM rubber, Neoprene, or Hytre[®] to address a wide variety of application requirements

Flange Types:

- J Type — Zinc Die Cast and Cast Iron, Bore Range ... 3/8 inch – 1-7/16 inch
- S Type — Cast Iron, Bore Range ... 1/2 inch – 5-1/2 inch
- B Type — Cast Iron with bushing
- SC Type — Cast Iron Spacer
- T Type — Cast Iron w/Taper-lock bushing

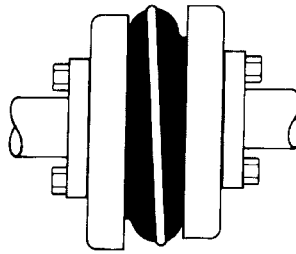
Hubs for SC Type Spacer Coupling:

- SCH Type — Powdered Metal or Cast Iron, Standard Length
- SCHS Type — Powdered Metal or Cast Iron, Short Length

Sleeve Types:

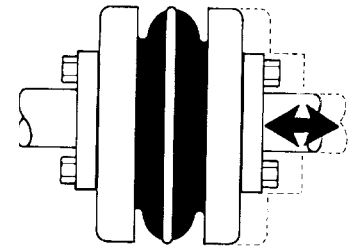
- JE – (EPDM) 1–piece solid
- JES – (EPDM) 1–piece split
- JN – (Neoprene) 1–piece solid
- JNS – (Neoprene) 1–piece split
- E – (EPDM) 2–piece with retaining ring
- N – (Neoprene) 2–piece with retaining ring
- H – (Hytre) 1–piece
- HS – (Hytre) 2–piece split

Protection from misalignment, shock, and vibration:



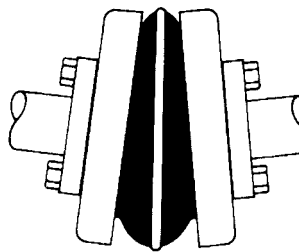
PARALLEL:

The S-Flex coupling accepts up to .062 in of parallel misalignment without wear. The flexible coupling sleeve minimizes the radial loads imposed on equipment bearings, a problem commonly associated with parallel misalignment.



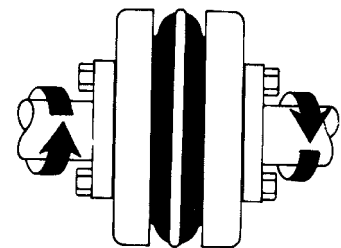
AXIAL:

The S-Flex couplings can be used in applications which require a limited amount of shaft end-float without transferring thrust loads to equipment bearings. Axial movement of approximately 1/8 inch accepted.



ANGULAR:

The flexing action of the elastomeric sleeve and the locking feature of the mating teeth allows the S-Flex coupling to effectively handle angular misalignment up to 1°.



TORSIONAL:

S-Flex couplings effectively dampen torsional shock and vibration to protect connected equipment. The EPDM and Neoprene sleeves have torsional wind-up flexibility of 15° at their rated torque. Hytre provides 7° wind-up.



WARNING

You must refer to page SF-2 (Page 72) for Important Safety Instructions and Precautions for the selection and use of these products. Failure to follow the instructions and precautions can result in severe injury or death.

Elastomer Designs

- Lovejoy offers flexible sleeve for S-Flex coupling in three designs: one-piece solid, one-piece split, and two-piece with retaining ring
- The one-piece split design provides solutions for applications with unique requirements where small shaft separations inhibit the installation of a one-piece solid sleeve
- Pre-molded teeth along the diameter of the sleeve engage with teeth of the coupling flanges
- No clamps or screws are needed to connect the flanges with the flexible sleeve which securely lock together under torque for smooth transmission of power
- Torque is transmitted through shear loading of the sleeve
- All three sleeve materials are highly elastic which permits the S-Flex coupling to protect connected equipment from harmful shock loading, vibration, and shaft misalignment

JE, JN, JES, JNS Sleeve Types

These sleeves feature a one-piece design molded in EPDM & Neoprene rubber. In the case of JES & JNS Types, the one-piece design is split to provide for ease of installation and removal.

E, N Sleeve Types

These sleeves feature a two-piece design with retaining ring. The E Type is molded in EPDM rubber and the N Type is molded in Neoprene. The two-piece design is ideal for applications where there is difficulty in separating the shafts of the driver and driven.

H, HS Sleeve Types

These sleeves feature both a one-piece solid (H) and two-piece split (HS) design and are molded of Hytrel. The sleeves in Hytrel material are designed to transmit power for high torque applications. Because of the design and the properties of the Hytrel molded sleeve, the H and HS sleeves should not be used as direct replacements for EPDM or Neoprene sleeves, and can only be used with S, TF, or SC flanges.

Sleeve Materials

EPDM – Unless otherwise specified, S-Flex couplings are supplied with EPDM flexible sleeves. EPDM has good resistance to commonly used chemicals and is generally not affected by dirt or moisture. Color is black.

NEOPRENE – Neoprene provides very good performance characteristics for most applications and offers a very good resistance to chemical and oil conditions. Color is black with a green dot.

HYTREL® – Hytrel is a polyester elastomer designed for high torque and high temperature applications and offers excellent resistance to chemical and oil conditions. Color is orange.



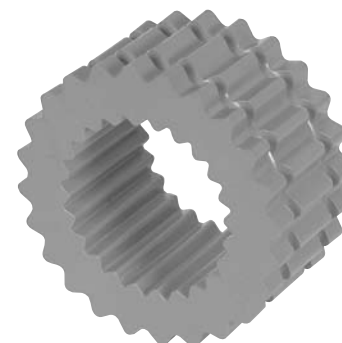
JE and JN Type



JES and JNS Type



E and N Type



H Type

Notes: ■ See page ED-9 for sleeve chemical resistance chart.
 ■ Hytrel is a registered trademarks of E.I. DuPont Nemours & Co.





S-Flex Coupling Selection Process

The selection process for determining the proper S-Flex coupling requires using the charts shown on the following pages. There are three components to be selected, two flanges and one sleeve.

Information necessary before a coupling can be selected:

- HP and RPM of Driver or running torque
- Shaft size of Driver and Driven equipment and corresponding keyways
- Application or equipment description
- Environmental conditions (i.e. extreme temperature, corrosive conditions, space limitations)

List of Charts provided for Selection:

- Chart 1 - Application Service Factors (page SF-7)
- Chart 2 - Sleeve Performance Data (page SF-8)
- Chart 3 - S-Flex Nominal Rated Torque Data (page SF-8)

Formulas:

$$\text{Nominal Torque} = \frac{\text{in-lb} \times (\frac{\text{HP} \times 63025}{\text{RPM}})}{\text{Nm} = \frac{(\frac{\text{KW} \times 9550}{\text{RPM}})}$$

Design Torque = Nominal Torque x Application Service Factor

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Steps In Selecting An S-Flex Coupling

Step 1: Determine the Nominal Torque in in-lb of your application by using the following formula:

$$\text{Nominal Torque} = \frac{(\text{HP} \times 63025)}{\text{RPM}}$$

Step 2: Using the Application Service Factor Chart 1 (page SF-7) select the service factor which best corresponds to your application.

Step 3: Calculate the Design Torque of your application by multiplying the Nominal Torque calculated in Step 1 by the Application Service Factor determined in Step 2.

Design Torque = Nominal Torque x Application Service Factor

Step 4: Using the Sleeve Performance Data Chart 2 (page SF-8) select the sleeve material which best corresponds to your application.

Step 5: Using the S-Flex Nominal Rated Torque Chart 3 (page SF-8) locate the appropriate sleeve material column for the sleeve selected in Step 4.

Step 6: Scan down this column to the first entry where the Torque Value in the column is greater than or equal to the Design Torque calculated in Step 3.

Refer to the maximum RPM value of the coupling size to ensure that the application requirements are met. If the maximum RPM value is less than the application requirement, S-Flex couplings are not recommended for the application.

Note: ■ If Nominal Torque is less than 1/4 of the coupling's nominal rated torque, misalignment capacities are reduced by 1/2. Once torque value is located, refer to the corresponding coupling size in the first column of the S-Flex Nominal Rated Torque Data Chart 3 (page SF-8).

Step 7: Compare the application driver/driven shaft sizes to the maximum bore size available on the coupling selected. If coupling max bore is not large enough for the shaft diameter, select the next largest coupling that will accommodate the driver/driven shaft diameters.

Step 8: Using the Item Selection tables, find the appropriate Keyway and Bore size required and locate the Lovejoy UPC number.



S-Flex

Application Service Factors

Selection Data

Application Service Factors

Chart 1

| | Service Factors | | | | Service Factors | | | | Service Factors | | |
|---|-----------------------------------|-------------------------------|----------------------------------|---|-----------------------------------|-------------------------------|----------------------------------|---|-----------------------------------|-------------------------------|----------------------------------|
| | Electric Motor w/ Standard Torque | Electric Motor w/ High Torque | Turbines, Air & Hydraulic Motors | | Electric Motor w/ Standard Torque | Electric Motor w/ High Torque | Turbines, Air & Hydraulic Motors | | Electric Motor w/ Standard Torque | Electric Motor w/ High Torque | Turbines, Air & Hydraulic Motors |
| Agitators | 1.25 | 1.50 | 1.00 | Disc Feeder | 1.25 | 1.50 | 1.00 | Pressers | | | |
| Band Resaw (lumber)..... | 1.50 | 2.00 | 1.25 | Dough Mixer | 1.50 | 2.00 | 1.25 | Brick, Briquette Machine..... | 2.00 | 2.50 | 1.50 |
| Barge Haul Puller | 2.00 | 2.50 | 1.50 | Draw Bench Conveyor & Main Drive | 2.00 | 2.50 | 1.50 | Notching, Paper, Punch | | | |
| Barking (lumber)..... | 2.00 | 2.50 | 1.50 | Dredges | | | | Printing..... | 1.50 | 2.00 | 1.25 |
| Bar Screen (sewage)..... | 2.00 | 2.50 | 1.50 | Cable reef, Pumps..... | 1.50 | 2.00 | 1.25 | Pug Mill | 1.50 | 2.00 | 1.25 |
| Batches (textile)..... | 1.25 | 1.50 | 1.00 | Cutter head, Jig, & Screen Drives..... | 2.00 | 2.50 | 1.50 | Pulp Grinder (paper)..... | 2.00 | 2.50 | 1.50 |
| Beater and Pulper (paper)..... | 1.50 | 2.00 | 1.25 | Maneuvering & Utility Winch, Stackers..... | 1.50 | 2.00 | 1.25 | Pulverizers | | | |
| Bending Roll (metal)..... | 1.50 | 2.00 | 1.25 | Dynamometer | 1.25 | 1.50 | 1.00 | Hammermill—Light Duty, Roller..... | 1.50 | 2.50 | 1.25 |
| Bleacher (paper)..... | 1.25 | 1.50 | 1.00 | Dryers (rotary)..... | 1.50 | 2.00 | 1.25 | Hammermill—Heavy Duty Hog..... | 2.00 | 2.50 | 1.50 |
| Blowers | | | | Edger (lumber)..... | 2.00 | 2.50 | 1.50 | Pumps | | | |
| Centrifugal, Vane..... | 1.25 | 1.50 | 1.00 | Escalators ¹ | 1.25 | 1.50 | 1.00 | Centrifugal, Axial..... | 1.25 | 1.50 | 1.00 |
| Lobe..... | 1.50 | 2.00 | 1.25 | Extruders (metal)..... | 2.00 | 2.50 | 1.50 | Gear, Lobe, Vane..... | 1.50 | 2.00 | 1.25 |
| Bottling Machinery | 1.25 | 1.50 | 1.00 | Fans | | | | Reciprocating—Sgl. or Dbl. Acting Cylinder..... | 2.00 | 2.50 | 2.00 |
| Brew Kettles (distilling)..... | 1.25 | 1.50 | 1.00 | Centrifugal..... | 1.25 | 1.50 | 1.00 | Reel, Rewinder (paper) | | | |
| Bucket Elevator or Conveyor | 1.50 | 2.00 | 1.25 | Cooling Towers..... | 2.00 | 2.50 | 1.50 | Cable..... | 1.50 | 2.00 | 1.25 |
| Calenders | | | | Forced Draft, Large Industrial..... | 1.50 | 2.00 | 1.25 | Rod Mill | 2.00 | 2.50 | 1.50 |
| Calender (paper)..... | 1.50 | 2.00 | 1.25 | Feeders | | | | Saw Dust Conveyor | 1.25 | 1.50 | 1.00 |
| Calender (rubber), Calender-super (paper)..... | 2.00 | 2.50 | 1.50 | Apron, Belt, Disc..... | 1.25 | 1.50 | 1.00 | Screens | | | |
| Cane Knives (sugar)..... | 1.50 | 2.00 | 1.25 | Reciprocating..... | 2.00 | 2.50 | 1.50 | Air Washing, Water..... | 1.25 | 1.50 | 1.00 |
| Card Machine (textile)..... | 2.00 | 2.50 | 1.50 | Screw..... | 1.50 | 2.00 | 1.25 | Rotary—Coal or Sand..... | 1.50 | 2.00 | 1.25 |
| Car Dumpers | 2.00 | 2.50 | 1.50 | Filter, Press-Oil | 1.50 | 2.00 | 1.25 | Vibrating..... | 2.00 | 2.50 | 2.00 |
| Car Pullers | 1.50 | 2.00 | 1.25 | Generators | | | | Screw Conveyor | 1.25 | 1.50 | 1.00 |
| Cement Kiln | 2.00 | 2.50 | 1.50 | Uniform Load..... | 1.25 | 1.50 | 1.00 | Slab Conveyor (lumber)..... | 1.50 | 2.00 | 1.25 |
| Centrifugal, Blower, Fans, Compressors, or Pumps | 1.25 | 1.50 | 1.00 | Varying Load, Hoist..... | 1.50 | 2.00 | 1.25 | Slitters (metal)..... | 1.50 | 2.00 | 1.25 |
| Chemical Feeders (sewage)..... | 1.25 | 1.50 | 1.00 | Welders..... | 2.00 | 2.50 | 1.50 | Soapers (textile)..... | 1.25 | 1.50 | 1.00 |
| Chiller (oil)..... | 1.50 | 2.00 | 1.25 | Grit Collector (sewage)..... | 1.25 | 1.50 | 1.00 | Sorting Table (lumber)..... | 1.50 | 2.00 | 1.25 |
| Chipper (paper)..... | 2.00 | 2.50 | 1.50 | Grizzly | 2.00 | 2.50 | 1.50 | Spinner (textile)..... | 1.50 | 2.00 | 1.25 |
| Circular Resaw (lumber)..... | 1.50 | 2.00 | 1.25 | Hammermills | | | | Stoker | 1.25 | 1.50 | 1.00 |
| Clarifier or Classifier | 1.25 | 1.50 | 1.00 | Light Duty, Intermittent..... | 1.50 | 2.00 | 1.25 | Suction Roll (paper)..... | 1.50 | 2.00 | 1.25 |
| Clay Working Machinery | 1.50 | 2.00 | 1.25 | Heavy Duty, Continuous..... | 2.00 | 2.50 | 1.50 | Tenter Frames (textile)..... | 1.50 | 2.00 | 1.25 |
| Collectors (sewage)..... | 1.25 | 1.50 | 1.00 | Hoists | | | | Tire Building Machines | 2.00 | 2.50 | 1.50 |
| Compressors | | | | Heavy Duty..... | 2.00 | 2.50 | 1.50 | Tire & Tube Press Opener | 1.25 | 1.50 | 1.00 |
| Centrifugal, Screw, Lobe..... | 1.25 | 1.50 | 1.00 | Medium Duty..... | 1.50 | 2.00 | 1.25 | Tumbling Barrels | 2.00 | 2.50 | 1.50 |
| Reciprocating..... | See Note | | | Jordan (paper)..... | 2.00 | 2.50 | 1.50 | Washer & Thickener (paper)..... | 1.50 | 2.00 | 1.25 |
| Concrete Mixers | 1.50 | 2.00 | 1.25 | Kiln, Rotary | 2.00 | 2.50 | 1.50 | Winches | 1.50 | 2.00 | 1.25 |
| Converting Machine (paper)..... | 1.50 | 2.00 | 1.25 | Laundry Washer or Tumbler | 2.00 | 2.50 | 1.50 | Winders—Paper, Textile, Wire | 1.50 | 2.00 | 1.25 |
| Conveyors | | | | Line Shafts | 1.25 | 1.50 | 1.00 | Windlass | 1.50 | 2.00 | 1.25 |
| Apron, Assembly, Belt, Flight, Oven, Screw..... | 1.25 | 1.50 | 1.00 | Log Hall (lumber)..... | 2.00 | 2.50 | 1.50 | Wire | | | |
| Bucket..... | 1.50 | 2.00 | 1.25 | Loom (textile)..... | 1.50 | 2.00 | 1.25 | Drawing..... | 2.00 | 2.50 | 1.50 |
| Cookers—Brewing, Distilling, Food | 1.25 | 1.50 | 1.00 | Machine Tools, Main Drives | 1.50 | 2.00 | 1.25 | Winding..... | 1.50 | 2.00 | 1.25 |
| Cooling Tower Fans | 2.00 | 2.50 | 1.50 | Mangle (textile)..... | 1.25 | 1.50 | 1.00 | Woodworking Machinery | 1.25 | 1.50 | 1.00 |
| Couch (paper)..... | 1.50 | 2.00 | 1.25 | Mash Tubs (distilling)..... | 1.25 | 1.50 | 1.00 | | | | |
| Cranes & Hoists ¹ | | | | Meat Grinder | 1.50 | 2.00 | 1.25 | | | | |
| Heavy duty mine..... | 2.00 | 2.50 | 1.50 | Metal Forming Machines | 1.50 | 2.00 | 1.25 | | | | |
| Crushers—Cane (sugar), Stone, Ore..... | 2.00 | 2.50 | 1.50 | Mills | | | | | | | |
| Cutter-Paper | 2.00 | 2.50 | 1.50 | Ball, Pebble, Rod, Tube, Rubber, Tumbling..... | 2.00 | 2.50 | 1.50 | | | | |
| Cylinder (paper)..... | 2.00 | 2.50 | 1.50 | Dryers, Coolers..... | 1.50 | 2.00 | 1.25 | | | | |
| Dewatering Screen (sewage)..... | 1.50 | 2.00 | 1.25 | Mixers | | | | | | | |
| | | | | Concrete, Muller..... | 1.50 | 2.00 | 1.25 | | | | |
| | | | | Banbury..... | 2.00 | 2.50 | 1.50 | | | | |
| | | | | Ore Crusher | 2.00 | 2.50 | 1.50 | | | | |
| | | | | Oven Conveyor | 1.25 | 1.50 | 1.00 | | | | |
| | | | | Planer (metal or wood)..... | 1.50 | 2.00 | 1.25 | | | | |

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Note: ■ 1 indicates: If people are transported, Lovejoy does not recommend and will not warranty the use of the coupling.



Sleeve Performance Data

Chart 2

| Characteristics | Temperature Range | | Misalignment Capabilities | | | Torsional Wind-Up |
|---|-------------------|----------------|---------------------------|---------------|------------|-------------------|
| | F° | C° | Angular (in) | Parallel (in) | Axial (in) | in |
| EDPM – Unless otherwise specified, S-Flex couplings are supplied with EPDM flexible sleeves. EPDM has good resistance to commonly used chemicals and is generally not affected by dirt or moisture. Color is black. | -30° to 375° F | -34° to 135° C | 1° | up to .062 | .125 | up to 15° |
| NEOPRENE – Neoprene provides very good performance characteristics for most applications and offers a very good resistance to chemical and oil conditions. Color is black with a green dot. | 0° to 200° F | -18° to 93° C | 1° | up to .062 | .125 | up to 15° |
| HYTREL® – Hytrel is a polyester elastomer designed for high torque and high temperature applications and offers excellent resistance to chemical and oil conditions. Color is orange. | -65° to 250° F | -54° to 121° C | .25° | up to .035 | .125 | up to 7° |

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S-Flex Nominal Rated Torque Data

Chart 3

| Size | ID1 - ID2 | | EPDM | | | Neoprene | | | Hytrel ¹ | | |
|------|-----------|----------|--------|----------|-------|----------|----------|-------|---------------------|----------|-------|
| | Min Bore | Max Bore | Torque | | Max | Torque | | Max | Torque | | Max |
| | in | in | in-lb | Nm | RPM | in-lb | Nm | RPM | in-lb | Nm | RPM |
| 3 | 0.375 | 0.875 | 60 | 6.78 | 9,200 | 60 | 6.78 | 9,200 | N/A | N/A | N/A |
| 4 | 0.500 | 1.000 | 120 | 13.56 | 7,600 | 120 | 13.56 | 7,600 | N/A | N/A | N/A |
| 5 | 0.500 | 1.188 | 240 | 27.12 | 7,600 | 240 | 27.12 | 7,600 | N/A | N/A | N/A |
| 6 | 0.625 | 1.438 | 450 | 50.84 | 6,000 | 450 | 50.84 | 6,000 | 1,800 | 203.37 | 6,000 |
| 7 | 0.625 | 1.625 | 725 | 81.91 | 5,250 | 725 | 81.91 | 5,250 | 2,875 | 324.83 | 5,250 |
| 8 | 0.750 | 1.938 | 1,135 | 128.24 | 4,500 | 1,135 | 128.24 | 4,500 | 4,530 | 511.82 | 4,500 |
| 9 | 0.875 | 2.375 | 1,800 | 203.37 | 3,750 | 1,800 | 203.37 | 3,750 | 7,200 | 813.49 | 3,750 |
| 10 | 1.125 | 2.750 | 2,875 | 324.83 | 3,600 | 2,875 | 324.83 | 3,600 | 11,350 | 1 282.38 | 3,600 |
| 11 | 1.250 | 3.375 | 4,530 | 511.82 | 3,600 | 4,530 | 511.82 | 3,600 | 18,000 | 2 033.73 | 3,600 |
| 12 | 1.500 | 3.875 | 7,200 | 813.49 | 2,800 | 7,200 | 813.49 | 2,800 | 31,500 | 3 559.03 | 2,800 |
| 13 | 2.000 | 4.500 | 11,350 | 1 282.38 | 2,400 | 11,350 | 1 282.38 | 2,400 | 47,268 | 5 340.57 | 2,400 |
| 14 | 2.000 | 5.000 | 18,000 | 2 033.73 | 2,200 | 18,000 | 2 033.73 | 2,200 | 72,480 | 8 189.15 | 2,200 |
| 16 | 2.000 | 5.500 | 47,250 | 5 338.54 | 1,500 | N/A | N/A | N/A | N/A | N/A | N/A |

Note: ■ 1 indicates: Operating Hytrel within a high service factor application is not recommended.



S-Flex

S Type Inch Bore / Keyway

Item Selection

The S Type coupling consists of two flanges and one sleeve.

S Type Flange - Inch Bore and Keyway UPC Number Selection Table

| Bore | Keyway | 5S | 6S | 7S | 8S | 9S | 10S | 11S | 12S | 13S | 14S | 16S |
|---------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1/2 | No Keyway | 36349 | — | — | — | — | — | — | — | — | — | — |
| 1/2 | 7/8 x 1/16 | 36067 | — | — | — | — | — | — | — | — | — | — |
| 5/8 | No Keyway | — | 36353 | 36355 | — | — | — | — | — | — | — | — |
| 5/8 | 3/16 x 3/32 | 36068 | 36093 | 36116 | — | — | — | — | — | — | — | — |
| 3/4 | No Keyway | — | — | — | 36357 | — | — | — | — | — | — | — |
| 3/4 | 3/16 x 3/32 | 36069 | 36094 | 36117 | 36132 | — | — | — | — | — | — | — |
| 13/16 | 3/16 x 3/32 | 36070 | — | — | — | — | — | — | — | — | — | — |
| 7/8 | No Keyway | — | — | — | — | 36359 | — | — | — | — | — | — |
| 7/8 | 3/16 x 3/32 | 36071 | 36095 | 36118 | 36133 | 36151 | — | — | — | — | — | — |
| 15/16 | 1/4 x 1/8 | 36072 | 36096 | 36119 | 36134 | 44363 | — | — | — | — | — | — |
| 1 | 1/4 x 1/8 | 36073 | 36097 | 36120 | 36135 | 36152 | — | — | — | — | — | — |
| 1-1/16 | 1/4 x 1/8 | 36074 | 36098 | 36121 | 44364 | 45742 | 46612 | — | — | — | — | — |
| 1-1/8 | No Keyway | — | — | — | — | — | 36361 | — | — | — | — | — |
| 1-1/8 | 1/4 x 1/8 | 36075 | 36099 | 36122 | 36136 | 36153 | 36363 | — | — | — | — | — |
| 1-3/16 | 1/4 x 1/8 | 36076 | 36100 | 36123 | 36137 | — | 46613 | — | — | — | — | — |
| 1-1/4 | No Keyway | — | — | — | — | — | — | 36365 | — | — | — | — |
| 1-1/4 | 1/4 x 1/16 | 36077 | — | — | — | — | — | — | — | — | — | — |
| 1-1/4 | 1/4 x 1/8 | — | 36101 | 36124 | 36138 | 36154 | 36171 | 36189 | — | — | — | — |
| 1-5/16 | 5/16 x 5/32 | — | 36102 | 36125 | 36139 | — | — | — | — | — | — | — |
| 1-3/8 | 5/16 x 5/32 | — | 36103 | 36126 | 36140 | 36155 | 36172 | 36190 | — | — | — | — |
| 1-7/16 | 3/8 x 3/16 | — | 36104 | 36127 | 36141 | 36156 | 36173 | — | — | — | — | — |
| 1-1/2 | No Keyway | — | — | — | — | — | — | — | 36367 | — | — | — |
| 1-1/2 | 3/8 x 1/8 | — | 36105 | — | — | — | — | — | — | — | — | — |
| 1-1/2 | 3/8 x 3/16 | — | — | 36128 | 36142 | 36157 | 36174 | 36191 | 36200 | — | — | — |
| 1-9/16 | 3/8 x 3/16 | — | — | — | — | 36158 | 36980 | 55291 | — | — | — | — |
| 1-5/8 | 3/8 x 3/16 | — | 36106 | — | — | — | — | — | — | — | — | — |
| 1-5/8 | 3/8 x 3/16 | — | — | 36129 | 36143 | 36159 | 36175 | 36192 | 55059 | — | — | — |
| 1-11/16 | 3/8 x 3/16 | — | — | — | 36144 | 36160 | 36176 | 49451 | — | — | — | — |
| 1-3/4 | 3/8 x 1/8 | — | 36107 | 36130 | — | — | — | — | — | — | — | — |
| 1-3/4 | 3/8 x 3/16 | — | — | — | 36145 | 36161 | 36177 | 36193 | 41773 | — | — | — |
| 1-7/8 | 1/2 x 1/8 | — | — | 36131 | — | — | — | — | — | — | — | — |
| 1-7/8 | 1/2 x 1/4 | — | — | — | 36146 | 36162 | 36178 | 36194 | 36201 | — | — | — |
| 1-15/16 | 1/2 x 1/4 | — | — | — | 36147 | 36163 | 36179 | 49816 | 56796 | — | — | — |
| 2 RSB | No Keyway | — | — | — | — | — | — | — | — | 35441 | 35445 | 35448 |
| 2 | 1/2 x 1/4 | — | — | — | — | 36164 | 36180 | 45158 | 45672 | — | — | — |
| 2 | 1/2 x 3/16 | — | — | — | 36148 | — | — | — | — | — | — | — |
| 2-1/8 | 1/2 x 3/16 | — | — | — | 36149 | — | — | — | — | — | — | — |
| 2-1/8 | 1/2 x 1/4 | — | — | — | — | 36165 | 36181 | 36195 | 36202 | 55060 | 55062 | — |
| 2-3/16 | 1/2 x 1/4 | — | — | — | — | 36166 | 36182 | — | — | — | — | — |
| 2-1/4 | 1/2 x 1/4 | — | — | — | — | 36167 | 36183 | 45544 | 55560 | — | — | — |
| 2-3/8 | 5/8 x 1/8 | — | — | — | 36150 | — | — | — | — | — | — | — |
| 2-3/8 | 5/8 x 5/16 | — | — | — | — | 36168 | 36184 | 36196 | 36203 | 35442 | 55063 | — |
| 2-7/16 | 5/8 x 5/16 | — | — | — | — | — | 36185 | 55229 | 56808 | — | — | — |
| 2-1/2 | 5/8 x 5/16 | — | — | — | — | 36169 | — | — | — | — | — | — |
| 2-1/2 | 5/8 x 5/16 | — | — | — | — | — | 36186 | 56581 | 47895 | — | — | — |
| 2-3/4 | 5/8 x 5/16 | — | — | — | — | 46349 | 46585 | 45543 | 54940 | — | — | — |
| 2-7/8 | 3/4 x 1/8 | — | — | — | — | 36170 | 36187 | — | — | — | — | — |
| 2-7/8 | 3/4 x 3/8 | — | — | — | — | — | — | 36197 | 36204 | 35443 | 35446 | — |
| 3-3/8 | 7/8 x 3/16 | — | — | — | — | — | 36188 | — | — | — | — | — |
| 3-3/8 | 7/8 x 7/16 | — | — | — | — | — | — | 36198 | 36205 | 55061 | 55064 | — |
| 3-7/8 | 1 x 1/4 | — | — | — | — | — | — | 36199 | — | — | — | — |
| 3-7/8 | 1 x 1/2 | — | — | — | — | — | — | — | 36206 | — | — | — |

Notes: ■ All standard finished bore keyway flanges have 2 set screws @ 90°. Sizes 13,14 and 16 RSB flanges are suitable for reboring and have two set screws @ 90°. Sizes 5-12 RSB flanges have no set screws.
 ■ When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.



S-Flex

Standard Sleeve, J and S Type Metric Bore / Keyway Item Selection

The J and S Type coupling consists of two flanges and one sleeve.

S-Flex Standard Sleeve UPC Number Selection Table

| Size | JE | Bulk Pack JE ¹ | JES | Bulk Pack JES ¹ | JN | JNS | E | Bulk Pack E ¹ | N | H | HS |
|------|-------|------------------------------|-------|-------------------------------|-------|-------|-------|-----------------------------|-------|-------|-------|
| 3 | 36384 | 52712 | 36692 | 52713 | 35356 | 36866 | — | — | — | — | — |
| 4 | 35359 | 52714 | 36695 | 52715 | 35360 | 36869 | — | — | — | — | — |
| 5 | 35350 | 52716 | 36698 | 52717 | 35366 | 36872 | 35368 | 52718 | 35369 | — | — |
| 6 | 35569 | 52719 | 36701 | 52720 | 35394 | 36875 | 35600 | 52721 | 36411 | 40738 | 40741 |
| 7 | 35570 | 52722 | 36707 | 52723 | 36398 | 36878 | 36414 | 52724 | 36416 | 36848 | 41704 |
| 8 | 35572 | 52725 | 36864 | 52726 | 36402 | 36881 | 36419 | 52727 | 36421 | 36514 | 40072 |
| 9 | 36405 | — | 35451 | — | — | — | 36424 | — | 36426 | 40744 | 40747 |
| 10 | 35450 | — | — | — | — | — | 36429 | — | 35453 | 35454 | 35455 |
| 11 | — | — | — | — | — | — | 36433 | — | 35457 | 35458 | 35459 |
| 12 | — | — | — | — | — | — | 36437 | — | 35461 | 35462 | 35463 |
| 13 | — | — | — | — | — | — | 35464 | — | 35465 | — | 35466 |
| 14 | — | — | — | — | — | — | 35467 | — | 35468 | — | 35469 |
| 16 | — | — | — | — | — | — | 35470 | — | — | — | — |

Note: ■ 1 indicates: Bulk pack sizes 3-6 contain ten pieces, sizes 7-8 contain five pieces.

J and S Type - Metric Bore and Keyway UPC Number Selection Table

| Bore | Keyway | 3J | 4J | 5S | 6S | 7S | 8S | 9S | 10S | 11S | 12S |
|------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9 | No Keyway | 41485 | — | — | — | — | — | — | — | — | — |
| 11 | 4 x 1.8 | 41486 | — | — | — | — | — | — | — | — | — |
| 12 | No Keyway | — | 41499 | — | — | — | — | — | — | — | — |
| 12 | 4 x 1.8 | 41487 | — | — | — | — | — | — | — | — | — |
| 14 | No Keyway | — | — | 41514 | — | — | — | — | — | — | — |
| 14 | 5 x 2.3 | 41488 | 41500 | 41515 | — | — | — | — | — | — | — |
| 15 | No Keyway | — | — | — | 41531 | — | — | — | — | — | — |
| 15 | 5 x 2.3 | 41489 | 41501 | — | — | — | — | — | — | — | — |
| 16 | 5 x 2.3 | 41490 | 41502 | 41516 | — | — | — | — | — | — | — |
| 19 | No Keyway | — | — | — | — | 41547 | — | — | — | — | — |
| 19 | 6 x 2.8 | 41491 | 41503 | 41517 | 41532 | 56571 | — | — | — | — | — |
| 20 | 6 x 2.8 | — | 41504 | 41518 | 41533 | — | — | — | — | — | — |
| 24 | No Keyway | — | — | — | — | — | 41561 | 41575 | — | — | — |
| 24 | 8 x 3.3 | — | 41505 | 41519 | 41534 | 51257 | 55746 | — | — | — | — |
| 25 | 8 x 3.3 | — | — | 41520 | 41535 | 41548 | — | — | — | — | — |
| 28 | 8 x 3.3 | — | — | 41521 | 41536 | 41549 | 41562 | — | — | — | — |
| 30 | 8 x 3.3 | — | — | — | 41537 | 41550 | 41563 | 41576 | 52258 | — | — |
| 32 | 10 x 3.3 | — | — | — | 41538 | 41551 | 41564 | 41577 | 59839 | — | — |
| 35 | 10 x 3.3 | — | — | — | 41539 | 49552 | — | — | 59721 | — | — |
| 38 | 10 x 3.3 | — | — | — | 55323 | 41552 | 41565 | 41578 | 45222 | 59889 | — |
| 42 | 12 x 3.3 | — | — | — | — | 41553 | 41566 | 41579 | 45883 | 59888 | — |
| 45 | 14 x 3.8 | — | — | — | — | — | 41567 | 46034 | 48389 | — | — |
| 48 | 14 x 3.8 | — | — | — | — | — | 41568 | 41580 | 59838 | 59887 | — |
| 50 | 14 x 3.8 | — | — | — | — | — | — | — | 44380 | — | 59855 |
| 52 | 16 x 4.3 | — | — | — | — | — | — | — | 58450 | 59720 | — |
| 55 | 16 x 4.3 | — | — | — | — | — | — | — | 45956 | 64136 | — |
| 60 | 18 x 4.4 | — | — | — | — | — | — | — | 52009 | 52711 | 54955 |
| 65 | 18 x 4.4 | — | — | — | — | — | — | — | — | — | 54941 |
| 70 | 20 x 4.9 | — | — | — | — | — | — | — | — | 59886 | 58725 |
| 80 | 22 x 5.4 | — | — | — | — | — | — | — | — | 59885 | 59856 |
| 90 | 25 x 5.4 | — | — | — | — | — | — | — | — | — | 59857 |

Notes: ■ Metric Bore / Keyway per DIN specifications. See engineering section for tolerances (page ED-17 and ED-19).
 ■ When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

The J Type coupling consists of two J flanges and one sleeve.

J Type Flange - Inch Bore and Keyway UPC Number Selection Table

| Bore | Keyway | 3J | 4J | 5J | 6J |
|--------|-------------|-------|-------|-------|-------|
| 3/8 | No Keyway | 36046 | — | — | — |
| 1/2 | No Keyway | 36114 | 36115 | 36347 | — |
| 1/2 | 1/8 x 1/16 | 36047 | 36051 | 36057 | — |
| 5/8 | No Keyway | — | — | — | 36351 |
| 5/8 | 3/16 x 3/32 | 36048 | 36052 | 36058 | 36078 |
| 3/4 | 3/16 x 3/32 | 36049 | 36053 | 36059 | 36079 |
| 7/8 | 3/16 x 3/32 | 36050 | 36054 | 36060 | 36080 |
| 15/16 | 1/4 x 1/8 | — | 36055 | 36061 | 36081 |
| 1 | 1/4 x 1/8 | — | 36056 | 36062 | 36082 |
| 1-1/16 | 1/4 x 1/8 | — | — | 36063 | 36083 |
| 1-1/8 | 1/4 x 1/8 | — | — | 36064 | 36084 |
| 1-3/16 | 1/4 x 1/8 | — | — | — | 36085 |
| 1-1/4 | 1/4 x 1/8 | — | — | — | 36086 |
| 1-5/16 | 5/16 x 5/32 | — | — | — | 36087 |
| 1-3/8 | 5/16 x 5/32 | — | — | — | 36088 |

Notes:

- We do not recommend reboring 3J or 4J Flanges.
- See page ED-8 for standard keyway dimensions.



J Type

SF

The SC Type coupling consists of two SCH or SCHS hubs, two SC spacer flanges, and one sleeve.

SC Type Spacer Flanges

| For Required Shaft Separation ¹ | SC Flange Size | Coupling Size | | | | | | | | | | | | | | |
|--|----------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 5 | 6 | 7 | 8 | 8-10 | 9 | 9-11 | 10 | 10-13 | 11 | 11-14 | 12 | 12-14 | 13 | 14 |
| 3-1/2 | 35 | 36524 | 36526 | 36532 | 36538 | 36540 | 36548 | — | — | — | — | — | — | — | — | — |
| 4-3/8 | 44 | — | 36528 | 36534 | 36542 | — | 36550 | — | — | — | — | — | — | — | — | — |
| 4-3/4 | 48 | — | — | — | — | — | — | — | 36560 | — | 36570 | — | — | — | — | — |
| 5 | 50 | — | 36530 | 36536 | 36544 | 36546 | 36552 | 36554 | 36562 | — | 36572 | — | — | — | — | — |
| 7 | 70 | — | — | — | — | — | — | 36556 | — | 36564 | — | 36574 | 36580 | 38582 | — | — |
| 7-3/4 | 78 | — | — | — | — | — | — | 36558 | — | 36566 | — | 36576 | 36584 | 36586 | 54200 | 54202 |
| 10 | 100 | — | — | — | — | — | — | — | — | 36568 | — | 36578 | — | 36588 | — | — |

Note: ■ 1 indicates: See page SF-22 for other lengths possible thru various combinations.

SCH and SCHS Type - Inch Bore and Keyway UPC Number Selection Table

| Bore | Keyway | 5SCH | 6SCH | 7SCH | 8SCH | 9SCH | 9SCHS | 10SCH | 10SCHS | 11SCH | 11SCHS | 12SCH | 12SCHS | 13SCH | 13SCHS | 14SCH |
|-------|-------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| 1/2 | No Keyway | 36710 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 1/2 | 1/8 x 1/16 | 36711 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 5/8 | No Keyway | — | 36712 | — | 36714 | — | — | — | — | — | — | — | — | — | — | — |
| 5/8 | 3/16 x 3/32 | 36590 | 36713 | 36715 | — | — | — | — | — | — | — | — | — | — | — | — |
| 3/4 | No Keyway | — | — | — | 36718 | — | — | — | — | — | — | — | — | — | — | — |
| 3/4 | 3/16 x 3/32 | 36591 | 36600 | 36716 | 36719 | — | — | — | — | — | — | — | — | — | — | — |
| 7/8 | No Keyway | — | — | — | — | 36721 | 36910 | — | — | — | — | — | — | — | — | — |
| 7/8 | 3/16 x 3/32 | 36592 | 36601 | 36612 | 36624 | 36722 | — | — | — | — | — | — | — | — | — | — |
| 1 | 1/4 x 1/8 | 36593 | 36602 | 36613 | 36625 | 36640 | — | — | — | — | — | — | — | — | — | — |
| 1-1/8 | No Keyway | — | — | — | — | — | — | 36729 | 36912 | 36737 | 36914 | — | — | — | — | — |
| 1-1/8 | 1/4 x 1/8 | 36594 | 36603 | 36614 | 36626 | 36641 | 36682 | 36728 | 36684 | 36738 | 36686 | — | — | — | — | — |
| 1-1/4 | 1/4 x 1/8 | — | 36604 | 36717 | 36720 | 36723 | 36725 | 59905 | 36733 | — | 36741 | — | — | — | — | — |
| 1-3/8 | 5/16 x 5/32 | — | 36605 | 36615 | 36627 | 36642 | 36726 | 56486 | 36734 | — | 36742 | — | — | — | — | — |
| 1-1/2 | 3/8 x 3/16 | — | — | 36616 | 36628 | 36643 | 36727 | 59906 | 36735 | 59908 | 36743 | — | — | — | — | — |
| 1-5/8 | 3/8 x 3/16 | — | — | 36617 | 36629 | 36644 | — | 36656 | 36736 | 54909 | 36687 | — | — | — | — | — |
| 1-3/4 | 3/8 x 3/16 | — | — | — | 36630 | 36645 | — | 36730 | — | 59909 | — | — | — | — | — | — |
| 1-7/8 | 1/2 x 1/4 | — | — | — | 36631 | 36646 | — | 36657 | — | 36664 | — | 36745 | 36747 | — | — | — |
| 2 | 1/2 x 1/4 | — | — | — | — | 36724 | — | 36731 | — | 36739 | — | — | 36748 | — | — | — |
| 2-1/8 | 1/2 x 1/4 | — | — | — | — | 36647 | — | 36658 | — | 36665 | — | 36672 | 36749 | — | 36756 | — |
| 2-1/4 | 1/2 x 1/4 | — | — | — | — | — | — | 36732 | — | 36740 | — | 36746 | 36750 | — | — | — |
| 2-3/8 | 5/8 x 5/16 | — | — | — | — | — | — | 36659 | — | 36666 | — | 36673 | — | 36752 | 36757 | 36759 |
| 2-7/8 | 3/4 x 3/8 | — | — | — | — | — | — | — | — | 36667 | — | 36674 | — | 36753 | — | 36760 |
| 3-3/8 | 7/8 x 7/16 | — | — | — | — | — | — | — | — | — | — | — | — | 36754 | — | 36761 |
| 3-7/8 | 1 x 1/2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 36762 |

Note: ■ When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.



S-Flex Ratings Performance Data

S-Flex Performance Ratings

| Size | Sleeve Material | Basic HP Ratings @ Varying RPM | | | | Torque Rating | | Torsional ¹ Stiffness in-lb/rad | Max Bore | | Max RPM |
|------|-----------------|-----------------------------------|---------|---------|---------|---------------|----------|--|----------|-----|------------|
| | | 100 | 1200 | 1800 | 3600 | in-lbs | Nm | | in | mm | |
| 3 | EPDM & Neoprene | 0.1 | 1.1 | 1.7 | 3.4 | 60 | 6.78 | 229 | 0.875 | 22 | 9,200 |
| 4 | EPDM & Neoprene | 0.2 | 2.3 | 3.4 | 6.9 | 120 | 13.56 | 458 | 1.000 | 25 | 7,600 |
| 5 | EPDM & Neoprene | 0.4 | 4.6 | 6.9 | 13.7 | 240 | 27.12 | 916 | 1.188 | 30 | 7,600 |
| 6 | EPDM & Neoprene | 0.7 | 8.6 | 12.9 | 25.7 | 450 | 50.84 | 1,718 | 1.438 | 38 | 6,000 |
| 6H | Hytrel® | 2.9 | 34.0 | 51.0 | 103.0 | 1,800 | 203.37 | 10,000 | 1.438 | 38 | 6,000 |
| 7 | EPDM & Neoprene | 1.2 | 14.0 | 21.0 | 41.0 | 725 | 81.91 | 2,769 | 1.625 | 42 | 5,250 |
| 7H | Hytrel | 4.6 | 55.0 | 82.0 | 164.0 | 2,875 | 324.83 | 20,000 | 1.625 | 42 | 5,250 |
| 8 | EPDM & Neoprene | 1.8 | 22.0 | 32.0 | 65.0 | 1,135 | 128.24 | 4,335 | 1.938 | 49 | 4,500 |
| 8H | Hytrel | 7.2 | 86.0 | 129.0 | 259.0 | 4,530 | 511.82 | 30,000 | 1.938 | 49 | 4,500 |
| 9 | EPDM & Neoprene | 2.9 | 34.0 | 51.0 | 103.0 | 1,800 | 203.37 | 6,875 | 2.375 | 60 | 3,750 |
| 9H | Hytrel | 11.4 | 137.0 | 206.0 | 411.0 | 7,200 | 813.49 | 47,500 | 2.375 | 60 | 3,750 |
| 10 | EPDM & Neoprene | 4.6 | 55.0 | 82.0 | 164.0 | 2,875 | 324.83 | 10,980 | 2.750 | 70 | 3,600 |
| 10H | Hytrel | 18.0 | 216.0 | 324.0 | 648.0 | 11,350 | 1 282.38 | 100,000 | 2.750 | 70 | 3,600 |
| 11 | EPDM & Neoprene | 7.2 | 86.0 | 129.0 | 259.0 | 4,530 | 511.82 | 17,300 | 3.375 | 86 | 3,600 |
| 11H | Hytrel | 28.6 | 343.0 | 514.0 | 1,028.0 | 18,000 | 2 033.73 | 12,500 | 3.375 | 86 | 3,600 |
| 12 | EPDM & Neoprene | 11.4 | 137.0 | 206.0 | — | 7,200 | 813.49 | 27,500 | 3.875 | 99 | 2,800 |
| 12H | Hytrel | 50.0 | 600.0 | 900.0 | — | 31,500 | 3 559.03 | 225,000 | 3.875 | 99 | 2,800 |
| 13 | EPDM & Neoprene | 18.0 | 216.0 | 324.0 | — | 11,350 | 1 282.38 | 43,350 | 4.500 | 114 | 2,400 |
| 13H | Hytrel | 75.0 | 900.0 | 1,350.0 | — | 47,268 | 5 340.57 | 368,900 | 4.500 | 114 | 2,400 |
| 14 | EPDM & Neoprene | 28.6 | 343.0 | 514.0 | — | 18,000 | 2 033.73 | 68,755 | 5.000 | 127 | 2,200 |
| 14H | Hytrel | 115.0 | 1,380.0 | 2,070.0 | — | 72,480 | 8 189.15 | 593,250 | 5.000 | 127 | 2,200 |
| 16 | EPDM | 75.0 | 900.0 | — | — | 47,250 | 5 338.54 | 180,480 | 5.500 | 140 | 1,500 |

Notes: ■ 1 indicates: Values shown are for an ambient temperature of 75° F (24° C).
 ■ Coupling ratings are based on sleeve material regardless of flange design.

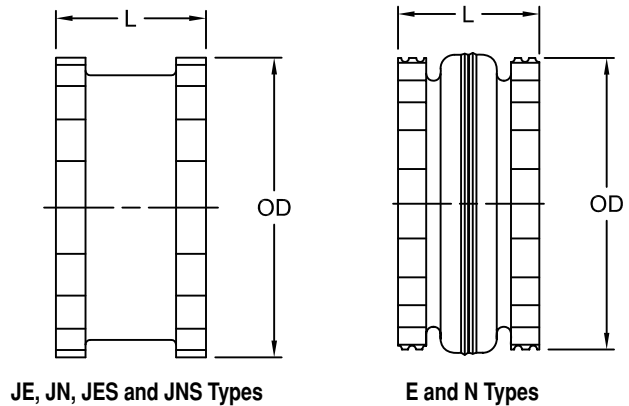
S-Flex Sleeve Types

S-Flex Sleeves

- Flexible sleeves for Lovejoy S-Flex couplings are available in three materials (EPDM, Neoprene, and Hytrel®) and in three basic designs: one piece solid, one-piece split, or two piece

JE, JN, JES and JNS Types

- JE and JN Type sleeves feature a one-piece solid design
- JES and JNS Type sleeves feature a one-piece split design
- JE and JES Type sleeves are molded in EPDM material
- JN and JNS Type sleeves are molded in Neoprene material

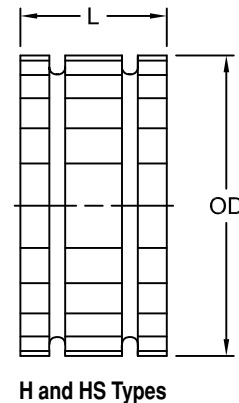


E and N Types

- E and N Type sleeves feature a two-piece design with retaining ring
- E Type sleeves are made from EPDM material and are available in sizes 5-16
- N Type sleeves are made from Neoprene material and are available in sizes 5-14
- Two piece sleeves are ideal for applications where small shaft separations inhibit the installation of a one piece sleeve

H and HS Types

- H and HS Type sleeves are designed for high torque applications, transmitting about 4 times as much power as an equivalent EPDM or Neoprene sleeve
- Hytrel sleeves are available in a one-piece solid (H) or two-piece split (HS) construction
- Hytrel sleeves can be used only with S or SC flanges and can not be used with J or B flanges
- Hytrel sleeves should not be used as direct replacements for EPDM or Neoprene applications
- H and HS Type sleeves are available for sizes 6-14 (sizes 13 and 14 are available in HS only)



Sleeve Dimensional Data

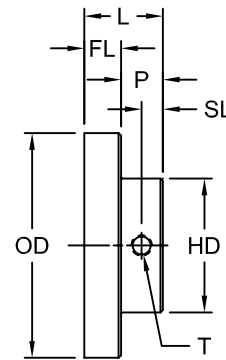
| Size | Types JE, JES, JN & JNS | | | Types E & N | | | Types H & HS | | |
|------|-------------------------|------|--------|-----------------|-------|--------|--------------|-------|--------|
| | EPDM & Neoprene | | | EPDM & Neoprene | | | Hytrel | | |
| | L | OD | Weight | L | OD | Weight | L | OD | Weight |
| | in | in | lbs | in | in | lbs | in | in | lbs |
| 3 | 1.00 | 1.88 | 0.06 | — | — | — | — | — | — |
| 4 | 1.25 | 2.31 | 0.10 | — | — | — | — | — | — |
| 5 | 1.56 | 2.94 | 0.20 | 1.56 | 2.94 | 0.25 | — | — | — |
| 6 | 1.88 | 3.75 | 0.40 | 1.88 | 3.75 | 0.49 | 1.88 | 3.75 | 0.44 |
| 7 | 2.19 | 4.34 | 0.62 | 2.19 | 4.34 | 0.77 | 2.19 | 4.34 | 0.69 |
| 8 | 2.50 | 5.06 | 1.13 | 2.50 | 5.06 | 1.40 | 2.50 | 5.06 | 1.40 |
| 9 | 3.00 | 6.00 | 1.46 | 3.00 | 6.00 | 2.00 | 3.00 | 6.00 | 1.80 |
| 10 | 3.44 | 7.06 | 2.32 | 3.44 | 7.06 | 3.20 | 3.44 | 7.06 | 2.90 |
| 11 | — | — | — | 4.00 | 8.19 | 5.10 | 4.00 | 8.19 | 4.50 |
| 12 | — | — | — | 4.69 | 9.56 | 8.10 | 4.69 | 8.56 | 7.30 |
| 13 | — | — | — | 5.50 | 11.19 | 13.00 | 5.50 | 11.19 | 11.80 |
| 14 | — | — | — | 6.50 | 13.09 | 21.10 | 6.50 | 13.09 | 19.30 |
| 16 | — | — | — | 8.75 | 17.91 | 45.30 | — | — | — |

Note: ■ See page SF-12 for Performance Data.

J Type Flanges and J Type Couplings

J Type Flanges

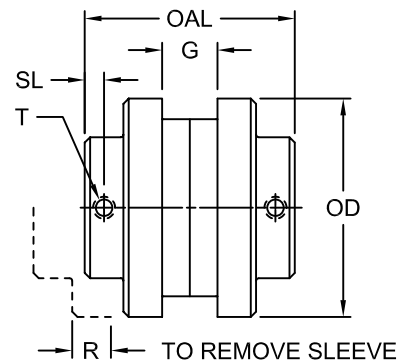
- The J Type flanges in sizes 3J and 4J are made from die cast of high strength zinc alloy (tensile strength of 41,000 psi) and are furnished bore-to-size
- Size 5J is provided in either zinc alloy or cast iron depending on the bore size
- Size 6J is made from cast iron
- J flanges are compatible with EPDM or Neoprene sleeves
- Each flange has a keyway and two set screws (one set screw over the key and one at 90° to the keyway)



J Type Flange

J Type Coupling

- Complete S-Flex couplings, with J Type flanges described above, are normally supplied with the one-piece JE sleeve or the one-piece split JES sleeve. An optional JN (Neoprene, one-piece) sleeve or the one-piece split JNS sleeve
- Sizes 5J and 6J couplings are also available with E and N two piece sleeves



J Type Coupling

J Type Dimensional Data

| Size | Max Bore with Standard Keyway | L in | FL in | P in | SL in | OD in | T in | HD in | OAL in | G ¹ in | R in | Weight | |
|------|-------------------------------------|---------|----------|---------|----------|----------|---------|----------|-----------|----------------------|---------|---------------|-----------------|
| | | | | | | | | | | | | Flange lbs | Coupling lbs |
| 3J | 0.875 | 0.81 | 0.38 | 0.44 | 0.25 | 2.062 | 1/4-20 | 1.50 | 2.00 | 0.44 | 0.56 | 0.30 | 0.68 |
| 4J | 1.000 | 0.88 | 0.44 | 0.44 | 0.25 | 2.460 | 1/4-20 | 1.63 | 2.38 | 0.63 | 0.75 | 0.40 | 0.89 |
| 5J | 1.125 | 1.06 | 0.59 | 0.47 | 0.29 | 3.250 | 1/4-20 | 1.88 | 2.88 | 0.75 | 0.97 | 1.10 | 2.40 |
| 6J | 1.375 | 1.31 | 0.78 | 0.53 | 0.29 | 4.000 | 5/16-18 | 2.50 | 3.50 | 0.88 | 1.09 | 1.90 | 4.36 |

- Notes: ■ 1 indicates: Spacing between shafts should be greater than 1/8 inch and less than OAL minus the sum of the two bore dimensions.
 ■ See page SF-12 for Performance Data.

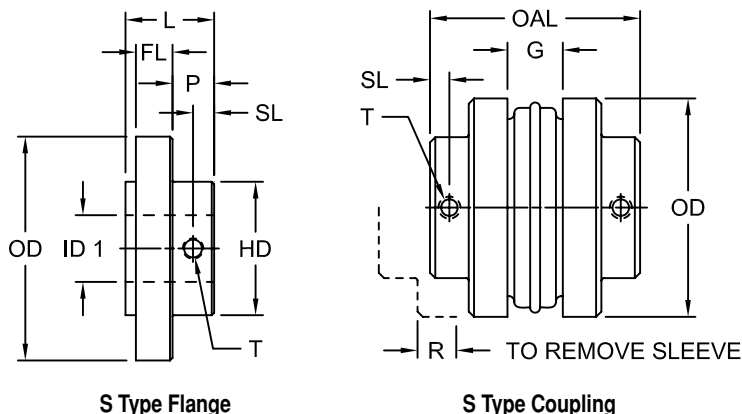
S Type Flanges and S Type Couplings

S Type Flanges

- S flanges are made of high strength cast iron and are bored-to-size for a slip fit on standard shafts
- S flanges are easy to install, are readily available from stock in a wide range of popular bore sizes, and are supplied with two set screws at 90°

S Type Couplings

- S Type couplings, normally supplied with the two-piece E sleeve, can be used with any JE, JN, N, H, or HS sleeves

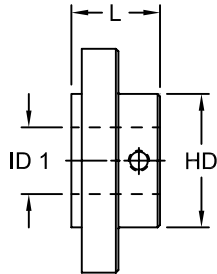


SF

S Type Dimensional Data

| Size | ID1 | | L | FL | P | SL | OD | T | HD | OAL | G | R | Weight Flange lbs |
|------|-----------------------------|----------------------------|------|------|------|------|--------|---------|------|-------|------|------|-------------------|
| | Max Bore Standard Keyway in | Max Bore Shallow Keyway in | | | | | | | | | | | |
| 5S | 1.188 | 1.250 | 1.34 | 0.59 | 0.45 | 0.29 | 3.250 | 1/4-20 | 1.88 | 2.81 | 0.75 | 0.97 | 1.1 |
| 6S | 1.438 | 1.500 | 1.64 | 0.78 | 0.53 | 0.29 | 4.000 | 5/16-18 | 2.50 | 3.50 | 0.88 | 1.09 | 1.9 |
| | — | 1.750 | 1.64 | 0.78 | 0.53 | — | 4.000 | — | 2.50 | 3.50 | 0.88 | 1.09 | 1.8 |
| 7S | 1.625 | 1.875 | 1.84 | 0.78 | 0.69 | 0.35 | 4.625 | 3/8-16 | 2.81 | 3.94 | 1.00 | 1.31 | 2.6 |
| 8S | 1.938 | 2.250 | 2.10 | 0.88 | 0.75 | 0.38 | 5.450 | 3/8-16 | 3.25 | 4.39 | 1.13 | 1.50 | 4.4 |
| | — | 2.375 | 1.94 | 0.88 | 1.03 | — | 5.450 | — | 3.25 | 4.95 | 1.13 | 1.50 | 3.7 |
| 9S | 2.375 | 2.500 | 2.41 | 1.03 | 0.78 | 0.41 | 6.350 | 1/2-13 | 3.63 | 5.06 | 1.44 | 1.75 | 6.5 |
| | — | 2.875 | 2.28 | 1.03 | 1.25 | — | 6.350 | — | 4.13 | 6.00 | 1.44 | 1.75 | 6.2 |
| 10S | 2.750 | 3.125 | 2.70 | 1.22 | 0.81 | 0.41 | 7.500 | 1/2-13 | 4.38 | 5.69 | 1.63 | 2.00 | 10.5 |
| | — | 3.375 | 2.70 | 1.22 | 0.81 | — | 7.500 | — | 4.75 | 5.69 | 1.63 | 2.00 | 9.8 |
| 11S | 3.375 | 3.625 | 3.44 | 1.50 | 1.13 | 0.56 | 8.625 | 1/2-13 | 5.25 | 7.13 | 1.88 | 2.38 | 16.6 |
| | — | 3.875 | 3.06 | 1.50 | 1.56 | — | 8.625 | — | 5.63 | 8.00 | 1.88 | 2.38 | 16.4 |
| 12S | 2.875 | — | 4.00 | 1.69 | 1.28 | 0.63 | 10.000 | 1/2-13 | 4.88 | 8.25 | 2.31 | 2.69 | 27.5 |
| | 3.875 | 3.938 | 4.00 | 1.69 | 1.28 | — | 10.000 | — | 5.75 | 8.25 | 2.31 | 2.69 | 26.6 |
| 13S | 4.500 | — | 4.38 | 1.97 | 1.31 | 0.81 | 11.750 | 5/8-11 | 6.75 | 9.25 | 2.69 | 3.06 | 45.0 |
| 14S | 5.000 | — | 4.50 | 2.25 | 1.06 | 0.62 | 13.875 | 5/8-11 | 7.50 | 9.88 | 3.25 | 3.50 | 69.0 |
| 16S | 5.500 | 6.000 | 6.00 | 2.75 | 2.00 | 1.00 | 18.875 | 5/8-11 | 8.00 | 14.50 | 4.75 | 4.25 | 125.0 |

- Notes: ■ Spacing between shafts should be greater than 1/8 inch and less than OAL minus the sum of the two bore dimensions.
 ■ See page SF-12 for Performance Data.
 ■ The sizes with two dimensions listed indicate measurements for standard flanges (1st Line) and modified spacer flanges (2nd Line). See page SF-20.



S Type



S Type with E Sleeve

S Type Shallow Keyway Dimensional Data

| Size | L in | ID1 | | HD in | Shallow Keyway Dimensions | | | | | | | | | |
|------|---------|--------------------------------------|-------------------------------------|----------|---------------------------|--------------|------------------|------------|--------------|------------------|------------|--------------|------------------|---|
| | | Max Bore Standard Keyway in | Max Bore Shallow Keyway in | | Bore in | Keyway in | Key in | Bore in | Keyway in | Key in | Bore in | Keyway in | Key in | |
| | | 5S | 1.34 | | 1.188 | 1.250 | 1.88 | 1.25 | .25 x .06 | .25 x .19 x 1.38 | — | — | — | — |
| 6S | 1.63 | 1.438 | 1.500 | 2.50 | 1.50 | .38 x .13 | .38 x .31 x 1.5 | — | — | — | — | — | — | — |
| | 1.31 | — | 1.750 | 2.50 | 1.56-1.63 | .38 x .13 | .38 x .31 x 1.31 | 1.69-1.75 | .38 x .06 | .38 x .25 x 1.25 | — | — | — | |
| 7S | 1.84 | 1.625 | 1.875 | 2.81 | 1.69-1.75 | .38 x .13 | .38 x .31 x 1.81 | 1.81-1.88 | .5 x .13 | .5 x .38 x 1.81 | — | — | — | |
| 8S | 2.09 | 1.938 | 2.250 | 3.25 | 2-2.25 | .5 x .19 | .5 x .44 x 2.06 | — | — | — | — | — | — | |
| | 1.94 | — | 2.375 | 3.25 | — | — | — | 2.31-2.38 | .63 x .13 | .63 x .44 x 1.88 | — | — | — | |
| 9S | 2.41 | 2.375 | 2.500 | 3.63 | 2.44-2.5 | .63 x .19 | .63 x .5 x 2.38 | — | — | — | — | — | — | |
| | 2.28 | — | 2.875 | 4.13 | — | — | — | 2.56-2.75 | .63 x .19 | .63 x .5 x 2.25 | 2.81-2.88 | .75 x .13 | .75 x .5 x 2.25 | |
| 10S | 2.72 | 2.750 | 3.125 | 4.38 | 2.81-3.13 | .75 x .13 | .75 x .5 x 2.75 | — | — | — | — | — | — | |
| | 2.69 | — | 3.375 | 4.75 | — | — | — | 3.18-3.25 | .75 x .13 | .75 x .5 x 2.63 | 3.31-3.38 | .88 x .19 | .88 x .63 x 2.63 | |
| 11S | 3.44 | 3.375 | 3.625 | 5.25 | 3.44-3.63 | .88 x .19 | .88 x .63 x 3.44 | — | — | — | — | — | — | |
| | 3.06 | — | 3.875 | 5.63 | — | — | — | 3.69-3.75 | .88 x .19 | .88 x .63 x .3 | 3.88 | 1 x .25 | 1 x .75 x 3 | |
| 12S | 4.00 | 2.875 | — | 4.88 | — | — | — | — | — | — | — | — | — | |
| | 4.00 | 3.875 | 3.938 | 5.75 | 3.94 | 1 x .13 | 1 x .63 x 4 | — | — | — | — | — | — | |
| 13S | 4.38 | 4.500 | — | 6.75 | — | — | — | — | — | — | — | — | — | |
| 14S | 4.50 | 5.000 | — | 7.50 | — | — | — | — | — | — | — | — | — | |
| 16S | 6.00 | 5.500 | 6.000 | 8.00 | 5.56-6 | 1.5 x .25 | 1.5 x 1 x 6 | — | — | — | — | — | — | |

Notes: ■ Some large bore S Type flanges are supplied with shallow keyways as standard. Rectangular keystock is provided for stock bores only.
 ■ See page SF-12 for Performance Data.

B Type Flanges For Use With Bushings

B Type Flange

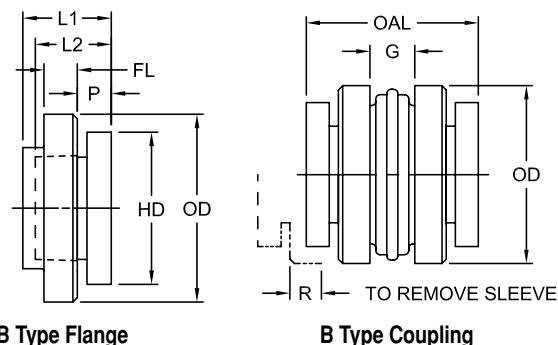
- Model B (bushed) flanges are made of the same high-strength cast iron as the S flanges
- B flanges are designed to accommodate the industry standard bushing for easy installation and removal
- B flanges are available in sizes 6 through 16

Couplings

- S-Flex couplings with B flanges (for use with bushings) are normally supplied with the two-piece E sleeve
- The B style flanges can be used with any of the sleeves pictured on SF-5, with the exception of the Hytre[®] sleeve
- B flanges can be used in combination with S Type flanges

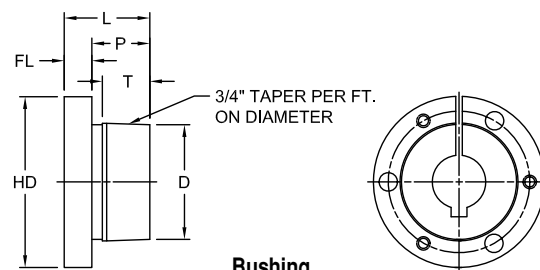
Bushings

- Bushings have a split design that allow for a compression fit for secure mounting of the flange to the shaft without set screws
- The bushing's clamp like fit creates a one-piece assembly to eliminate wobble, vibration, and fretting corrosion
- Slightly oversized or undersized shafts can be accommodated with the same secure grip
- The design prevents potentially hazardous key drift on applications subject to pulsation or vibration
- B flanges are bored to accept a bushing accommodating many bore sizes, thus reducing inventory and increasing coupling versatility
- Bushing bore availability can be found in current Lovejoy list price books or from your Customer Service Representative



B Type Flange

B Type Coupling



Bushing

B Type Flange and Coupling Dimensional Data

| Size | Flange UPC Number | Bushing Required | L1 in | L2 in | FL in | P in | OD in | HD in | OAL in | G in | R Max in | Approx Bore in | Flange Weight lbs |
|------|----------------------|---------------------|----------|----------|----------|---------|----------|----------|-----------|---------|----------------|----------------------|-------------------------|
| 6B | 36369 | JA | 1.53 | 1.00 | 0.78 | 0.44 | 4.000 | 2.00 | 3.31 | 0.88 | 1.09 | 1.19 | 1.3 |
| 7B | 36371 | JA | 1.59 | 1.00 | 0.78 | 0.44 | 4.625 | 2.00 | 3.44 | 1.00 | 1.31 | 1.19 | 1.9 |
| 8B | 36373 | SH | 1.84 | 1.25 | 0.91 | 0.50 | 5.450 | 2.69 | 3.94 | 1.13 | 1.50 | 1.63 | 2.9 |
| 9B | 36375 | SD | 2.19 | 1.81 | 1.03 | 0.56 | 6.350 | 3.19 | 4.63 | 1.44 | 1.75 | 1.94 | 4.8 |
| 10B | 35421 | SK | 1.84 | 1.88 | 1.22 | 0.63 | 7.500 | 3.88 | 5.31 | 1.63 | 2.00 | 2.50 | 7.8 |
| 11B | 35432 | SF | 2.13 | 2.00 | 1.50 | 0.63 | 8.625 | 4.63 | 6.13 | 1.88 | 2.38 | 2.75 | 12.0 |
| 12B | 36408 | E | 2.69 | 2.63 | 1.69 | 0.88 | 10.000 | 6.00 | 7.44 | 2.31 | 2.69 | 3.44 | 18.0 |
| 13B | 35444 | F | 3.69 | 3.63 | 1.97 | 1.00 | 11.750 | 6.63 | 8.63 | 2.69 | 3.00 | 3.94 | 31.2 |
| 14B | 35447 | F | 3.69 | 3.63 | 2.25 | 1.00 | 13.875 | 6.63 | 9.75 | 3.25 | 3.50 | 3.94 | 51.4 |
| 16B | 35449 | J | 4.75 | 4.50 | 2.75 | 1.19 | 18.875 | 7.25 | 12.63 | 4.75 | 4.25 | 4.50 | 120.0 |

Note: ■ 1 indicates: Spacing between shafts should be greater than 1/8 inch and less than G. Spacing between internal face of flange should be OAL - (2 x L1).

Bushing Dimensional Data

| Size | L in | P in | FL in | T in | HD in | D in | ID1 - ID2 | | | Number & Size of Cap Screws Req Qty | Cap Screw Torque ft-lb | Weight lbs | |
|------|---------|---------|----------|---------|----------|---------|----------------|---------------------------------|--------------------------------------|--|------------------------------|---------------|------|
| | | | | | | | Min Bore in | Max Bore Std Keyway in | Max Bore Shallow Keyway2 in | | | | |
| JA | 1.00 | 0.69 | 0.31 | 0.56 | 2.00 | 1.375 | 0.50 | 1.00 | 1.19 | 3 | #10 - 1 | 5 | 0.8 |
| SH | 1.25 | 0.88 | 0.38 | 0.81 | 2.68 | 1.871 | 0.50 | 1.38 | 1.63 | 3 | 1/4 - 1-3/8 | 9 | 0.9 |
| SD | 1.81 | 1.38 | 0.44 | 1.25 | 3.18 | 2.187 | 0.50 | 1.63 | 1.94 | 3 | 1/4 - 1-13/16 | 9 | 1.6 |
| SK | 1.87 | 1.38 | 0.50 | 1.25 | 3.88 | 2.812 | 0.50 | 2.13 | 2.50 | 3 | 5/16 - 2 | 15 | 2.8 |
| SF | 2.00 | 1.50 | 0.50 | 1.25 | 4.63 | 3.125 | 0.50 | 2.31 | 2.81 | 3 | 3/8 - 2 | 30 | 3.9 |
| E | 2.63 | 1.88 | 0.75 | 1.63 | 6.00 | 3.834 | 0.88 | 2.88 | 3.50 | 3 | 1/2 - 2-3/4 | 60 | 8.5 |
| F | 3.63 | 2.81 | 0.81 | 2.50 | 6.63 | 4.438 | 1.00 | 3.25 | 3.94 | 3 | 9/16 - 3-5/8 | 75 | 13.9 |
| J | 4.50 | 3.50 | 1.00 | 3.19 | 7.25 | 5.148 | 1.44 | 3.75 | 4.50 | 3 | 5/8 - 4-1/2 | 135 | 21.6 |

Notes: ■ F and J bushings are not available from Lovejoy. F bushings are available commercially in a bore range of 1 inch to 4 inches, J bushings in a range of 1-7/8 inches to 4-1/2 inches.

- Rectangular keys are furnished at no charge when shallow keyway is necessary.
- See page SF-12 for Performance Data.

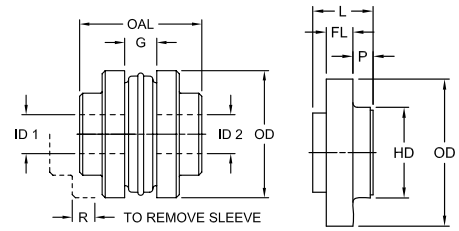
T Type Flanges For Use With Taper-Lock® Bushings

TF Type Flanges

- Model TF flanges are made from the same high-strength cast iron as the S flanges, but are designed to accommodate the international standard Taper Lock bushing for easy installation and removal
- TF Type flanges allow for mounting the bushing on the front (hub) side of the flange
- TF flanges are available in sizes 6 through 16 and can be used with any style of sleeve as pictured on page SF-5

TR Type Flanges

- TR flanges are similar to the TF style, but allow for the Taper Lock Bushing to be mounted and removed from the reverse or serration side of the flange
- The limited torque ratings of the Taper Lock Bushings allow TR flanges to only be used with EPDM or Neoprene sleeves
- Different bushing sizes are used, so they have different maximum bores than the TF flanges
- Sizes 6 through 16 are available



Note: ■ Be sure to determine if the bushing being used has either UNC threads (60°) or British Standard Whitworth B.S.W. threads (55°). In the U.S.A. the UNC type is predominant for both inch and metric bores. Outside of the U.S.A. it is most common to see B.S.W., especially on metric bores.

Taper-Lock Bushings

- The industry standard taper lock bushing is a split design allowing a compression fit of the flange to the shaft without set screws
- The simple design makes the installation and removal easy while the 8° taper grips tight and provides excellent concentricity
- A Reduced level of inventory can be achieved due to the many other power transmission components that use Taper Lock Bushings such as: sheaves, sprockets, and pulleys
- Lovejoy does not offer the Taper-Lock Bushings themselves as these are widely available from other manufacturers

Taper Dimensional Data (Front Mount)

| Size | UNC Flange UPC Number | BSW Flange UPC Number | OAL in | G in | ID1 - ID2 Max Bore | | R in | OD in | L in | FL in | P in | HD in | Bushing Screw Size in | Flange Weight lbs | Bushing Required* |
|------|--------------------------|--------------------------|-----------|---------|-----------------------|-----|---------|----------|---------|----------|---------|----------|-----------------------------|-------------------------|----------------------|
| | | | | | in | mm | | | | | | | | | |
| 6TF | 62265 | 62263 | 4.00 | 0.88 | 1.25 | 31 | 1.09 | 4.00 | 1.56 | 0.78 | 0.78 | 2.81 | 3/8 - 16 | 1.8 | 1215/1210 |
| 7TF | 62269 | 62267 | 3.94 | 1.00 | 1.25 | 31 | 1.31 | 4.62 | 1.84 | 0.78 | 0.69 | 2.81 | 3/8 - 16 | 2.6 | 1215/1210 |
| 8TF | 62273 | 62271 | 5.00 | 1.13 | 1.62 | 42 | 1.50 | 5.45 | 1.94 | 0.91 | 1.03 | 3.25 | 3/8 - 16 | 3.7 | 1615/1610 |
| 9TF | 62277 | 62275 | 6.00 | 1.44 | 2.00 | 50 | 1.75 | 6.35 | 2.28 | 1.03 | 1.25 | 4.13 | 7/16 - 14 | 6.2 | 2012 |
| 10TF | 62281 | 62279 | 7.00 | 1.63 | 2.50 | 64 | 2.00 | 7.50 | 2.69 | 1.22 | 1.47 | 4.75 | 1/2 - 13 | 9.8 | 2517 |
| 11TF | 62285 | 62283 | 8.00 | 1.88 | 2.50 | 64 | 2.38 | 8.63 | 3.06 | 1.50 | 1.56 | 5.63 | 1/2 - 13 | 16.4 | 2517 |
| 12TF | 62289 | 62287 | 8.25 | 2.31 | 3.00 | 76 | 2.69 | 10.00 | 4.00 | 1.69 | 1.28 | 5.75 | 5/8 - 11 | 26.6 | 3030 |
| 13TF | 62293 | 62294 | 9.25 | 2.69 | 3.00 | 76 | 3.06 | 11.75 | 4.38 | 1.97 | 1.31 | 6.75 | 5/8 - 11 | 45.0 | 3030 |
| 14TF | 62297 | 62295 | 9.88 | 3.25 | 3.94 | 100 | 3.50 | 13.88 | 4.50 | 2.25 | 1.06 | 7.50 | 1/2 - 13 | 69.0 | 3535 |
| 16TF | 62301 | 62299 | 14.50 | 4.75 | 4.44 | 112 | 4.25 | 18.88 | 6.00 | 2.75 | 2.00 | 8.00 | 5/8 - 11 | 125.0 | 4040 |

Taper Dimensional Data (Rear Mount)

| Size | UNC Flange UPC Number | BSW Flange UPC Number | OAL in | G in | ID1 - ID2 Max Bore | | R in | OD in | L in | FL in | P in | HD in | Bushing Screw Size in | Flange Weight lbs | Bushing Required* |
|------|--------------------------|--------------------------|-----------|---------|-----------------------|-----|---------|----------|---------|----------|---------|----------|-----------------------------|-------------------------|----------------------|
| | | | | | in | mm | | | | | | | | | |
| 6TR | 62266 | 62264 | 4.00 | 0.88 | 1.00 | 25 | 1.09 | 4.00 | 1.56 | 0.78 | 0.78 | 2.81 | 1/4 - 20 | 1.8 | 1008 |
| 7TR | 62270 | 62268 | 3.94 | 1.00 | 1.12 | 28 | 1.31 | 4.62 | 1.84 | 0.78 | 0.69 | 2.81 | 1/4 - 20 | 2.6 | 1108 |
| 8TR | 62274 | 62272 | 5.00 | 1.13 | 1.25 | 31 | 1.50 | 5.45 | 1.94 | 0.91 | 1.03 | 3.25 | 3/8 - 16 | 3.7 | 1215/1210 |
| 9TR | 62278 | 62276 | 6.00 | 1.44 | 1.62 | 42 | 1.75 | 6.35 | 2.28 | 1.03 | 1.25 | 4.13 | 3/8 - 16 | 6.2 | 1615/1610 |
| 10TR | 62282 | 62280 | 7.00 | 1.63 | 1.62 | 42 | 2.00 | 7.50 | 2.69 | 1.22 | 1.47 | 4.75 | 3/8 - 16 | 9.8 | 1615/1610 |
| 11TR | 62286 | 62284 | 8.00 | 1.88 | 2.50 | 64 | 2.38 | 8.63 | 3.06 | 1.50 | 1.56 | 5.63 | 1/2 - 13 | 16.4 | 2525 |
| 12TR | 62290 | 62288 | 8.25 | 2.31 | 2.50 | 64 | 2.69 | 10.00 | 4.00 | 1.69 | 1.28 | 5.75 | 1/2 - 13 | 26.6 | 2517 |
| 13TR | 62294 | 62292 | 9.25 | 2.69 | 3.00 | 76 | 3.06 | 11.75 | 4.38 | 1.97 | 1.31 | 6.75 | 5/8 - 11 | 45.0 | 3030 |
| 14TR | 62298 | 62296 | 9.88 | 3.25 | 3.00 | 76 | 3.50 | 13.88 | 4.50 | 2.25 | 1.06 | 7.50 | 5/8 - 11 | 69.0 | 3030 |
| 16TR | 62302 | 62300 | 14.50 | 4.75 | 4.44 | 112 | 4.25 | 18.88 | 6.00 | 2.75 | 2.00 | 8.00 | 5/8 - 11 | 125.0 | 4040 |

- Notes: ■ All above data refers to both standard UNC and British Standard Whitworth B.S.W. threads. Flanges are not supplied with screws.
 ■ * indicates that use of a 1210 or 1610 bushing reduces the reserve factor between bushing torque rating and that of the coupling.
 ■ Taper-Lock® is a registered trademark of Reliance Electric Industrial Company in the United States and Canada. It is a registered trademark of JH Fenner and Co. in the United Kingdom.
 ■ See page SF-12 for Performance Data.

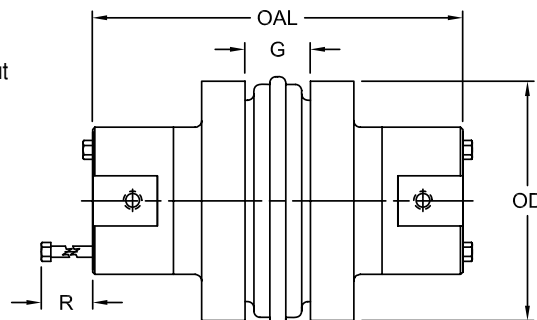
SC Type Spacer Couplings

SC Type Spacer Couplings

- Specifically designed for the pump industry, this coupling accommodates industry standard as well as special pump/motor separation
- This shaft separation facilitates easy pump repair of pump packing, bearings, and seals without disturbing pump or motor mounting and alignment
- The SC Type coupling consists of two flanges, a sleeve and two shaft hubs

Quick Coupling Removal

- The center drop out section consists of two flanges and the flexible sleeve
- The flange is bolted to the shaft hub with four hex head cap screws
- The center drop out section can be removed by removing the hex head cap screws
- Flats on each hub provides a convenient grip for a wrench in order to facilitate loosening of the screws and, if desired, turning of the pump/motor shafts
- Once the hub is removed from the pump shaft, maintenance on the pump can be done without disturbing equipment alignment

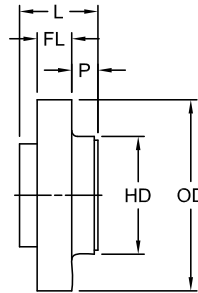


SF

SC Type (Spacer) Dimensional Data

| Size | For Required Shaft Separation in | Use Flange Number | Use Hub Number | OAL ² in | G in | R in | OD in | Weight Complete Coupling ² lbs |
|------|-------------------------------------|-------------------|--------------------|------------------------|---------|---------|----------|--|
| 5SC | 3.50 | 5SC35 | 5SCH | 5.63 | 0.75 | 0.56 | 3.250 | 4.5 |
| 6SC | 3.50 | 6SC35 | 6SCH | 5.88 | 0.88 | 0.75 | 4.000 | 7.3 |
| | 4.38 | 6SC44 | 6SCH | 6.75 | 0.88 | 0.75 | 4.000 | 8.1 |
| 7SC | 5.00 | 6SC50 | 6SCH | 7.38 | 0.88 | 0.75 | 4.000 | 8.7 |
| | 3.50 | 7SC35 | 7SCH | 6.38 | 1.00 | 0.63 | 4.625 | 9.9 |
| | 4.38 | 7SC44 | 7SCH | 7.25 | 1.00 | 0.63 | 4.625 | 10.8 |
| 8SC | 5.00 | 7SC50 | 7SCH | 7.88 | 1.00 | 0.63 | 4.625 | 11.4 |
| | 3.50 | 8SC35 | 8SCH | 6.88 | 1.13 | 0.81 | 5.450 | 15.2 |
| | 3.50 | 8SC35-10 | 10SCH ¹ | 8.13 | 1.13 | 0.81 | 5.450 | 23.2 |
| | 4.38 | 8SC44 | 8SCH | 7.75 | 1.13 | 0.81 | 5.450 | 16.4 |
| 9SC | 5.00 | 8SC50 | 8SCH | 8.38 | 1.13 | 0.81 | 5.450 | 17.4 |
| | 5.00 | 8SC50-10 | 10SCH ¹ | 9.63 | 1.13 | 1.19 | 5.450 | 27.2 |
| | 3.50 | 9SC35 | 9SCH ¹ | 7.50 | 1.44 | 1.06 | 6.350 | 18.6 |
| | 5.00 | 9SC450 | 9SCH ¹ | 8.88 | 1.44 | 1.06 | 6.350 | 23.2 |
| | 5.00 | 9SC50-11 | 11SCH ¹ | 10.38 | 1.44 | 1.19 | 6.350 | 40.4 |
| 10SC | 7.00 | 9SC70-11 | 11SCH ¹ | 12.38 | 1.44 | 1.19 | 6.350 | 48.2 |
| | 7.75 | 9SC78-11 | 11SCH ¹ | 13.13 | 1.44 | 1.19 | 6.350 | 51.0 |
| | 4.75 | 10SC48 | 10SCH ¹ | 9.38 | 1.63 | 1.19 | 7.500 | 37.6 |
| | 5.00 | 10SC50 | 10SCH ¹ | 9.63 | 1.63 | 1.19 | 7.500 | 38.4 |
| 11SC | 7.00 | 10SC70-13 | 13SCH ¹ | 13.63 | 1.63 | 1.88 | 7.500 | 72.0 |
| | 7.75 | 10SC78-13 | 13SCH ¹ | 14.38 | 1.63 | 1.88 | 7.500 | 76.0 |
| | 10.00 | 10SC100-13 | 13SCH ¹ | 16.63 | 1.63 | 1.88 | 7.500 | 88.0 |
| | 4.75 | 11SC48 | 11SCH ¹ | 10.31 | 1.88 | 1.19 | 8.625 | 54.5 |
| 12SC | 5.00 | 11SC50 | 11SCH ¹ | 10.38 | 1.88 | 1.19 | 8.625 | 54.7 |
| | 7.00 | 11SC70-14 | 14SCH | 14.63 | 1.88 | 2.00 | 8.625 | 86.1 |
| | 7.75 | 11SC78-14 | 14SCH | 15.38 | 1.88 | 2.00 | 8.625 | 90.3 |
| | 10.00 | 11SC100-14 | 14SCH | 17.63 | 1.88 | 2.00 | 8.625 | 102.7 |
| 13SC | 7.00 | 12SC70 | 12SCH ¹ | 12.88 | 2.31 | 1.50 | 10.000 | 88.1 |
| | 7.00 | 12SC70-14 | 14SCH | 14.63 | 2.31 | 2.00 | 10.000 | 99.1 |
| | 7.75 | 12SC78 | 12SCH ¹ | 13.63 | 2.31 | 1.50 | 10.000 | 91.9 |
| | 7.75 | 12SC78-14 | 14SCH | 15.38 | 2.31 | 2.00 | 10.000 | 103.3 |
| 14SC | 7.75 | 13SC78 | 13SCH ¹ | 14.38 | 2.69 | 1.88 | 11.750 | 129.6 |
| 14SC | 7.75 | 14SC78 | 14SCH | 15.38 | 3.25 | 2.00 | 13.875 | 179.9 |

Notes : ■ 1 indicates: SC Hubs are available in: SC= Standard Length SCHS= Short Length.
 ■ 2 indicates: OAL dimension and weight will vary if one or two short (HS) hubs are used.
 ■ See page SF-12 for Performance Data.

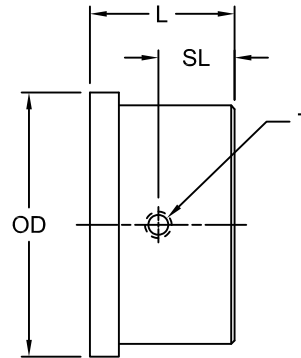
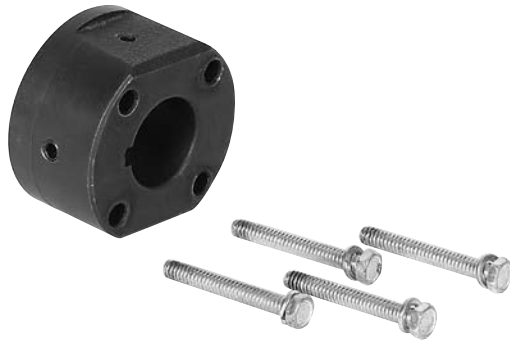


SC Type (Spacer) Flange Dimensional Data

SF

| Size | Flange Number | For Required Shaft Separation ¹ | SC Hub Number | L in | FL in | P in | OD in | HD in | Weight Each Flange lbs |
|------|---------------|--|---------------|---------|----------|---------|----------|----------|------------------------------|
| 5SC | 5SC35 | 3.50 | 5SCH | 1.69 | 0.59 | 0.80 | 3.250 | 0.80 | 1.3 |
| 6SC | 6SC35 | 3.50 | 6SCH | 1.63 | 0.72 | 0.59 | 4.000 | 0.59 | 2.0 |
| | 6SC44 | 4.38 | 6SCH | 2.06 | 0.72 | 1.03 | 4.000 | 1.03 | 2.4 |
| | 6SC50 | 5.00 | 6SCH | 2.38 | 0.72 | 1.34 | 4.000 | 1.34 | 2.7 |
| 7SC | 7SC35 | 3.50 | 7SCH | 1.63 | 0.78 | 0.47 | 4.625 | 0.47 | 2.5 |
| | 7SC44 | 4.38 | 7SCH | 2.06 | 0.78 | 0.91 | 4.625 | 0.91 | 3.0 |
| | 7SC50 | 5.00 | 7SCH | 2.38 | 0.78 | 1.22 | 4.625 | 1.22 | 3.3 |
| 8SC | 8SC35 | 3.50 | 8SCH | 1.63 | 0.91 | 0.28 | 5.450 | 0.28 | 3.7 |
| | 8SC35-10 | 3.50 | 10SCH(HS) | 1.63 | 0.91 | 0.28 | 5.450 | 0.28 | 3.5 |
| | 8SC44 | 4.38 | 8SCH | 2.06 | 0.91 | 0.72 | 5.450 | 0.72 | 4.3 |
| | 8SC50 | 5.00 | 8SCH | 2.38 | 0.91 | 1.03 | 5.450 | 1.03 | 4.8 |
| | 8SC50-10 | 5.00 | 10SCH(HS) | 2.38 | 0.91 | 1.03 | 5.450 | 1.03 | 5.5 |
| 9SC | 9SC35 | 3.50 | 9SCH(HS) | 1.69 | 1.03 | 0.06 | 6.350 | 0.06 | 4.1 |
| | 9SC44 | 4.38 | 9SCH(HS) | 2.06 | 1.03 | 0.44 | 6.350 | 0.44 | 5.9 |
| | 9SC450 | 5.00 | 9SCH(HS) | 2.38 | 1.03 | 0.75 | 6.350 | 0.75 | 6.4 |
| | 9SC50-11 | 5.00 | 11SCH(HS) | 2.38 | 1.03 | 0.75 | 6.350 | 0.75 | 7.0 |
| | 9SC70-11 | 7.00 | 11SCH(HS) | 2.38 | 1.03 | 0.75 | 6.350 | 1.75 | 10.9 |
| | 9SC78-11 | 7.75 | 11SCH(HS) | 3.75 | 1.03 | 1.75 | 6.350 | 2.13 | 12.3 |
| 10SC | 10SC48 | 4.75 | 10SCH(HS) | 2.25 | 1.22 | 2.13 | 7.500 | 0.34 | 9.8 |
| | 10SC50 | 5.00 | 10SCH(HS) | 2.38 | 1.22 | 0.34 | 7.500 | 0.47 | 10.2 |
| | 10SC70-13 | 7.00 | 13SCH(HS) | 3.38 | 1.22 | 0.47 | 7.500 | 1.47 | 14.5 |
| | 10SC78-13 | 7.75 | 13SCH(HS) | 3.75 | 1.22 | 1.47 | 7.500 | 1.84 | 16.5 |
| | 10SC100-13 | 10.00 | 13SCH(HS) | 4.88 | 1.22 | 1.84 | 7.500 | 2.97 | 22.5 |
| 11SC | 11SC48 | 4.75 | 11SCH(HS) | 1.50 | 1.50 | 2.97 | 8.625 | 0.03 | 12.5 |
| | 11SC50 | 5.00 | 11SCH(HS) | 1.56 | 1.50 | 0.03 | 8.625 | 0.06 | 12.6 |
| | 11SC70-14 | 7.00 | 14SCH | 2.56 | 1.50 | 0.06 | 8.625 | 1.06 | 16.3 |
| | 11SC78-14 | 7.75 | 14SCH | 2.94 | 1.50 | 1.44 | 8.625 | 1.44 | 18.4 |
| | 11SC100-14 | 10.00 | 14SCH | 4.06 | 1.50 | 2.56 | 8.625 | 2.56 | 24.6 |
| 12SC | 12SC70 | 7.00 | 12SCH(HS) | 2.47 | 1.69 | 0.66 | 10.000 | 0.66 | 23.4 |
| | 12SC70-14 | 7.00 | 14SCH | 2.47 | 1.69 | 0.66 | 10.000 | 0.66 | 21.3 |
| | 12SC78 | 7.75 | 12SCH(HS) | 2.84 | 1.69 | 1.03 | 10.000 | 1.03 | 25.3 |
| | 12SC78-14 | 7.75 | 14SCH | 2.84 | 1.69 | 1.03 | 10.000 | 1.03 | 23.4 |
| | 12SC100-14 | 10.00 | 14SCH | 3.97 | 1.69 | 2.16 | 10.000 | 2.16 | 29.6 |
| 13SC | 13SC78 | 7.75 | 13SCH(HS) | 3.25 | 1.97 | 0.56 | 11.750 | 0.56 | 38.4 |
| 14SC | 14SC78 | 7.75 | 14SCH | 2.72 | 2.25 | 0.03 | 13.875 | 0.03 | 55.2 |

Notes: ■ 1 indicates: Flanges can be mixed to form different shaft separations.
 ■ Metric Flanges and hubs are also available. Consult Lovejoy Engineering for specific information.
 ■ See page SF-12 for Performance Data.



SF

SC Type (Spacer) Hub Dimensional Data

| Size | Hub Number ¹ | ID1 - ID2 | L | SL | OD | T | Number & Size of Cap Screws Req | | Weight Hub lbs |
|------|-------------------------|-----------------------------|------|------|------|-----------|---------------------------------|--------------|----------------|
| | | Max Bore Standard Keyway in | | | | | Qty | Size | |
| 5SC | 5SCH | 1.125 | 1.09 | 0.54 | 2.00 | 5/16 - 18 | 4 | #10 - 1-1/2 | 0.8 |
| 6SC | 6SCH | 1.375 | 1.22 | 0.61 | 2.50 | 5/16 - 18 | 4 | 1/4 - 1-3/4 | 1.4 |
| 7SC | 7SCH | 1.625 | 1.47 | 0.71 | 2.81 | 5/16 - 18 | 4 | 1/4 - 1-7/8 | 2.0 |
| 8SC | 8SCH | 1.875 | 1.72 | 0.66 | 3.25 | 3/8 - 16 | 4 | 5/16 - 2-1/4 | 3.2 |
| | 10SCH | 2.375 | 2.34 | 0.63 | 4.38 | 1/2 - 13 | 4 | 7/16 - 3-1/4 | 7.4 |
| | 10SCHS | 1.625 | 1.66 | 0.63 | 4.38 | 1/2 - 13 | 4 | 7/16 - 2-1/2 | 5.5 |
| 9SC | 9SCH | 2.125 | 1.97 | 1.17 | 3.63 | 3/8 - 16 | 4 | 3/8 - 2-3/4 | 4.2 |
| | 9SCHS | 1.500 | 1.53 | 0.63 | 3.63 | 3/8 - 16 | 4 | 5/8 - 4-1/2 | 3.7 |
| | 11SCH | 2.875 | 2.72 | 1.36 | 5.25 | 1/2 - 13 | 4 | 1/2 - 3-1/2 | 12.2 |
| | 11SCHS | 1.875 | 1.91 | 0.75 | 5.25 | 1/2 - 13 | 4 | 1/2 - 2-3/4 | 9.3 |
| 10SC | 10SCH | 2.375 | 2.34 | 1.17 | 4.38 | 1/2 - 13 | 4 | 7/16 - 3-1/4 | 7.4 |
| | 10SCHS | 1.625 | 1.66 | 0.63 | 4.38 | 1/2 - 13 | 4 | 7/16 - 2-1/2 | 5.5 |
| | 13SCH | 3.375 | 3.34 | 1.65 | 6.13 | 3/4 - 10 | 4 | 5/8 - 4-3/4 | 19.9 |
| | 13SCHS | 2.500 | 2.47 | 1.24 | 6.13 | 3/4 - 10 | 4 | 5/8 - 3-1/2 | 16.0 |
| 11SC | 11SCH | 2.875 | 2.72 | 1.36 | 5.25 | 1/2 - 13 | 4 | 1/2 - 3-1/2 | 12.2 |
| | 11SCHS | 1.875 | 1.91 | 0.75 | 5.25 | 1/2 - 13 | 4 | 1/2 - 2-3/4 | 9.3 |
| | 14SCH | 3.875 | 3.84 | 1.92 | 6.50 | 3/4 - 10 | 4 | 5/8 - 5 | 24.2 |
| 12SC | 12SCH | 2.875 | 2.97 | 1.44 | 5.75 | 5/8 - 11 | 4 | 5/8 - 4 | 16.6 |
| | 12SCHS | 2.500 | 2.53 | 1.12 | 5.75 | 5/8 - 11 | 4 | 5/8 - 3-1/2 | 14.1 |
| | 14SCH | 3.875 | 3.84 | 1.92 | 6.50 | 3/4 - 10 | 4 | 5/8 - 5 | 24.2 |
| 13SC | 13SCH | 3.375 | 3.34 | 1.65 | 6.13 | 3/4 - 10 | 4 | 5/8 - 4-3/4 | 19.9 |
| | 13SCHS | 2.500 | 2.47 | 1.24 | 6.13 | 3/4 - 10 | 4 | 5/8 - 3-1/2 | 16.0 |
| 14SC | 14SCH | 3.875 | 3.38 | 1.92 | 6.50 | 3/4 - 10 | 4 | 5/8 - 5 | 24.2 |

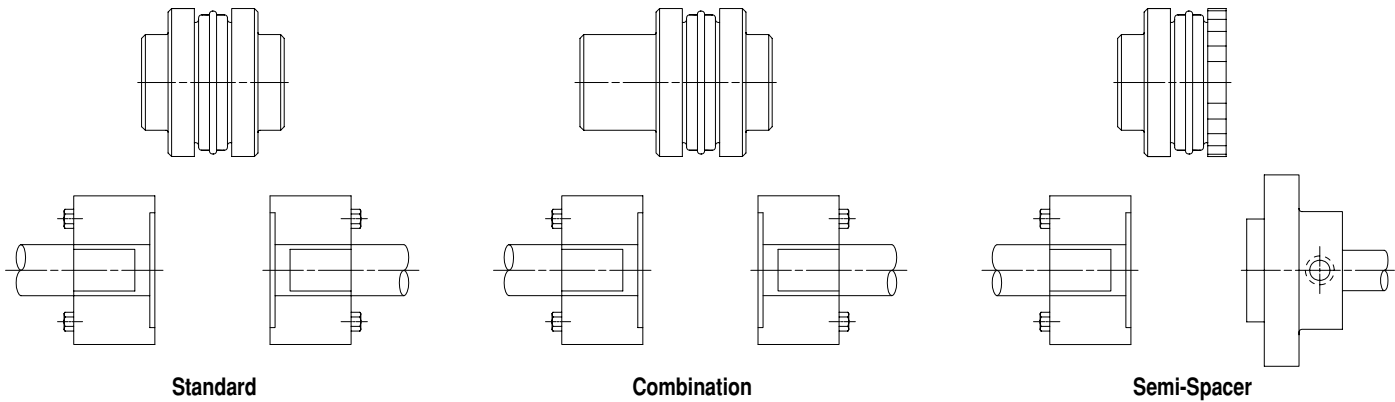
Notes: ■ 1 indicates: SCH = Standard length SCHS = Short length.
 ■ See page SF-12 for Performance Data.

SC Type (Spacer)

- SC (Spacer) Type couplings are available with the most popular shaft separation distances
- Non standard shaft separations can be achieved by combining different spacer flanges
- The "Standard" column illustrates separations available using identical lengths
- The "Combination" column illustrates combined flanges of different separations
- The "Semi-Spacer" column illustrates combinations of SC (Spacer) flanges and standard S flanges



SF



Type SC (Spacer) Dimensional Data

Standard

| Spacing | Use Flanges |
|---------|-------------|
| 3-1/2 | (2)-SC35 |
| 4-3/8 | (2)-SC44 |
| 5 | (2)-SC50 |
| 7 | (2)-SC70 |
| 7-3/4 | (2)-SC78 |
| 10 | (2)-SC100 |

Combination

| Spacing | Use Flanges ¹ |
|---------|---------------------------|
| 3-15/16 | SC35 & SC44 |
| 4-1/4 | SC44 & SC50 |
| 5-1/4 | SC35 & SC70 |
| 5-5/8 | SC35 & SC78 |
| 5-11/16 | SC44 & SC70 |
| 6 | SC50 & SC70 |
| 6-1/16 | SC44 & SC78 |
| 6-3/8 | SC50 & SC78 |
| 6-3/4 | SC35 & SC100 ² |
| 7-3/16 | SC44 & SC100 ² |
| 7-3/8 | SC70 & SC78 |
| 7-1/2 | SC50 & SC100 |
| 8-1/2 | SC70 & SC100 |
| 8-7/8 | SC78 & SC100 |

Semi-Spacer

| Spacing | Use Flanges ¹ |
|---------|--------------------------|
| 1-7/8 | S & SC35 |
| 2-5/16 | S & SC44 |
| 2-5/8 | S & SC50 |
| 3-5/8 | S & SC70 |
| 4 | S & SC78 |
| 5-1/8 | S & SC100 |

- Notes: ■ 1 indicates: Check for flange availability of coupling size.
 ■ 2 indicates: Non stock.
 ■ See page SF-12 for Performance Data.