

Jaw

In This Section:

- L Type
- LC Type
- AI Type - Aluminum
- SS Type - Stainless
- RRS and RRSC Types - Spacer
- C and H Type - Medium / Heavy Duty
- RRC Type - Spacer





Jaw



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.



Jaw

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Jaw Type Couplings

The Jaw Type couplings from Lovejoy are offered in the industry's largest variety of stock bore/keyway combinations. These couplings require no lubrication and provide highly reliable service for light, medium, and heavy duty electrical motor and internal combustion power transmission applications.

Features

- Fail-safe – will still perform if elastomer fails
- No metal to metal contact
- Resistant to oil, dirt, sand, moisture and grease
- More than 850,000 combinations of bore sizes
- Most types available from stock in 24 hours



L Type

LC Type

Applications include power transmission to industrial equipment such as pumps, gear boxes, compressors, blowers, mixers, and conveyors. Lovejoy's Jaw Type couplings are available in 24 sizes from a minimum torque rating of 3.5 in-lbs to a maximum torque rating of 170,004 in-lbs and a bore range of .125 inches to 7 inches. Lovejoy's standard bore program covers AGMA, SAE, and DIN bore/keyway and spline bore combinations.

The Lovejoy Jaw Type coupling is available in a variety of metal hub and insert materials. Hubs are offered in sintered metal, aluminum, bronze, steel, stainless steel, and ductile iron.

L Type

- Coupling offers standard shaft-to-shaft connection for general industrial duty applications
- Standard L Type coupling hub materials are either sintered iron (L035-L190) or cast iron (L225-L276)



AL Type Jaw



SS Type

LC Type

- Uses the standard L Type hubs with a snap wrap and collar
- Suited for applications up to 3,600 RPM



RRS Type

AL Type

- Aluminum hubs offer light weight with low overhung load and low inertia
- Excellent resistance to atmospheric conditions, perfect for corrosive environment applications



SW Type

C & H Types

SS Type

- The SS Type coupling provides maximum protection against harsh environmental conditions
- Sizes SS075-SS150 available from stock, other sizes available on request

RRS Type

- Center "drop out" section of this coupling provides proper shaft separation, while also allowing easy elastomer installation without disturbing the hubs or requiring the realignment of shafts
- Accommodates American and European industry standard pump/motor shaft separations
- The spacer is made of glass reinforced plastic, cast iron, or aluminum

SW Type

- Standard L Type coupling with a snap wrap elastomer with retaining ring
- Well suited for standard shaft to shaft connection in general industrial purpose applications under 1,750 RPM

C & H Types

- Couplings provide standard shaft-to-shaft connection for medium (C) and Heavy (H) duty range applications
- Standard C coupling hub is made of cast iron, while the H is constructed of ductile iron

Elastomers In Compression

Lovejoy offers four types of elastomer designs to allow for additional flexibility in addressing specific application requirements. One piece designs are used in the "L" and "AL" models (referred to as spiders) and multiple part "load cushions" are used in the "C" and "H" model couplings. The load cushions are in sets of 6 to 14 pieces depending on coupling size.

Solid Center Spider

- The solid center design is commonly used design when shafts of the driver and driven equipment can be kept separate by a standard gap

Open Center Spider

- The open center design allows for the shafts of the driver and driven to be positioned within a short distance
- Open center spiders offer shaft positioning flexibility but have a lower RPM capacity (1,750 RPM maximum for NBR, 3,600 maximum for Urethane/Hytrel®)

Cushions

- Used exclusively for the C and H Type couplings
- Load cushions are held in place radially by a steel collar which is attached to one of the hubs

Snap Wrap Flexible Spider

- Design allows for easy removal of the spider without moving the hubs
- Allows for close shaft separation all the way up to the hubs maximum bore
- Maximum RPM is 1,750 RPM with the retaining ring, but if used with the LC Type (with collar) a 3,600 RPM rating of the coupling applies
- Style is available in NBR and Urethane only, and in limited sizes

Note: ■ Complete technical data for the new Jaw In-Shear elastomer is contained in the next section of this catalog, labeled "JIS" on the page tabs.



Spider Materials

SOX (NBR) Rubber

- The standard material that is highly flexible material that is oil resistant
- Resembles natural rubber in resilience and elasticity, and operates effectively in temperature ranges of -40° to 212° F (-40° to 100° C)

Urethane

- Has 1.5 times greater torque capacity than NBR
- Good resistance to oil and chemicals
- Material provides less dampening effect and operates at a temperature range of -30° to 160° F

Hytrel

- Flexible elastomer designed for high torque and high temperature operations
- Operates in temperatures of -60° to 250° F (-51° to 121° C)

Bronze

- Rigid, porous, oil-impregnated metal insert exclusively for low speed (max 250 RPM) applications requiring high torque capabilities
- Not affected by water, oil, dirt, or extreme temperatures – operates in temperatures of -40° to 450° F (-40° to 232° C)



WARNING

You must refer to page JW-2 (Page 14) 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.

Jaw Type Coupling Selection Process

The selection process for determining the proper jaw coupling size and elastomer requires using the charts shown on the following pages. There are three components to be selected, two hubs and one elastomer. When the shaft size of the driver and driven of the application are of the same diameter, the hubs selected will be the same. When shaft diameters differ, hubs selected will differ accordingly.

Information necessary before a coupling can be selected:

- HP (or KW) and RPM or Torque of driver
- Shaft sizes of driver and driven equipment and corresponding keyways
- Application description
- Environmental conditions (i.e. extreme temperature, corrosive conditions, space limitations)

List of Charts provided for Selection:

- Chart 1 – Application Service Factors (page JW-8)
- Chart 2 – Spider Performance Data (page JW-9)
- Chart 3 – Jaw Nominal Rated Torque (page JW-9)
- Jaw Type Performance Ratings (page JW-22)

Formulas:

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

$$\text{Nm} = \frac{(\text{KW} \times 9550)}{\text{RPM}}$$

$$\text{Design Torque} = \text{Nominal Torque} \times \text{Application Service Factor}$$

Steps In Selecting A Jaw Coupling

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

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

$$\text{Nm} = \frac{(\text{KW} \times 9550)}{\text{RPM}}$$

Step 2: Using the Application Service Factors Chart 1 (page JW-8) 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.

$$\text{Design Torque} = \text{Nominal Torque} \times \text{Application Service Factor}$$

Step 4: Using the Spider Performance Data Chart 2 (page JW-9), select the elastomer material which best corresponds to your application.

Step 5: Using the Jaw Nominal Rated Torque Chart 3 (page JW-9), locate the appropriate elastomer material column for the elastomer selected in Step 4.

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

Once this value is located, refer to the corresponding coupling size in the first column of the Jaw Nominal Rated Torque Chart 3 (page JW-9).

Refer to the maximum RPM value (page JW-22) for this elastomer torque capability to ensure that the application requirements are met. If the requirement is not satisfied at this point, another type of coupling may be required for the application. Please consult Lovejoy engineering for assistance.

Step 6: Compare the application driver/driven shaft sizes to the maximum bore size available on the coupling selected. If coupling bore size is not large enough for the shaft diameter, select the next largest coupling that will accommodate the driver/driven shaft diameters. Refer to Chart 3 (page JW-9).

Step 7: Using the UPC number selection table (pages JW-11 or JW-12), find the appropriate Bore and Keyway sizes required and locate the Lovejoy UPC number.

Selection Example

A coupling is needed to connect a 20 HP standard electric motor rated at 1,800 RPM to a rotary pump. The shaft size of the electric motor (driver) is 2.0 inches and the pump (driven) is 1.75 inches. There are no special environmental conditions and the general operating temperature is normal room temperature of 72° F. Less than 1° of misalignment is expected.

Step 1: Determine the Nominal Torque:

$$\begin{aligned} \text{Nominal Torque} &= \frac{(\text{HP} \times 63025)}{\text{RPM}} \\ &= \frac{(20 \times 63025)}{1800} \\ &= 700.28 \text{ in-lb} \end{aligned}$$

Step 2: Using the Application Service Factors Chart 1 (page JW-8), select the service factor which best corresponds to your application.

The Application Service Factor for an electric motor with standard torque driving a rotary pump is 1.25. The value of 1.25 is found under the application category Pumps, Rotary, column: Electric Motor w/Standard Torque in Chart 1.

Step 3: Calculate the Design Torque of your application:

$$\begin{aligned} \text{Design Torque} &= \text{Nominal Torque} \times \text{Application Service Factor} \\ &= 700.28 \times 1.25 \\ &= 875.35 \text{ in-lb} \end{aligned}$$

Step 4: Using the Spider Performance Data Chart 2 (page JW-9), select the elastomer material which best corresponds to your application. Since there are no special environmental conditions, the operating temperature is 72° F and less than 1° of angular misalignment is required, the NBR elastomer material is selected.

Step 5: Using the Jaw Nominal Rated Torque Chart 3 (page JW-9), the NBR elastomer column is used to determine the proper coupling size. Scanning down the NBR column, the first entry to accommodate the Design Torque value of 875.35 in-lb is the size L150 with a nominal torque rating of 1,240 in-lb. Referring to page JW-20, the maximum RPM of 1,800 on the electric motor of the application does not exceed the 5,000 RPM maximum allowed for the L150 size coupling with an NBR elastomer.

Step 6: Compare the application driver/driven shaft size to the maximum bore available in the coupling selected (page JW-9). The electric motor (driver) of this application has a shaft size of 2.0 inches and the pump (driven) has a shaft size of 1.75 inches. The L150 coupling has a maximum bore less than the driver shaft size. Continuing down the Maximum Bore column, in Chart 3 (page JW-9), the L190 size is found to have a maximum bore size of 2.125 and is able to accommodate the driver/driven shaft sizes. Therefore, the proper coupling size for this application is a Lovejoy L190 with an NBR elastomer.

Step 7: Using the UPC number Selection table, locate the appropriate Lovejoy UPC numbers. The L Type Spider Table (page JW-10), and the L Type hub table (page JW-11), provides easy reference to the Lovejoy UPC numbers.

Locate the L Type Spider Table (page JW-10).

The spider is selected by scanning down the type column and locating the NBR (Solid) entry. Read across to the L190 column and locate the Lovejoy UPC number of 12274. This number should be prefixed with the Lovejoy UPC number of 685144.

Locate the L Type Hub Table (page JW-11).

The first bore size to be located is for the 2 inch shaft on the electric motor. Scan down the Bore/Keyway column to the 2 inch bore entry. Read across to the L190 column to locate the Lovejoy UPC number of 12303. This number should be prefixed with the Lovejoy UPC number of 685144.

The second bore size to be located is for the 1.75 inch shaft on the pump. Scan down the Bore/Keyway column to the 1-3/4 inch bore entry. Read across to the L190 column to locate the Lovejoy UPC number of 12299. This number should be prefixed with the Lovejoy UPC number of 685144.

Application Service Factors

Chart 1

	Service Factors						Service Factors						Service Factors						
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & En- gines w/ or more cyl*		Reciprocating Engines*		Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & En- gines w/ or more cyl*		Reciprocating Engines*		Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & En- gines w/ or more cyl*		Reciprocating Engines*		
			1-Cyl	2-Cyl					1-Cyl	2-Cyl					1-Cyl	2-Cyl			
Agitators	1.00	1.25	1.00	1.7	1.3	Feeders													
Band Resaw (lumber)....	1.50	1.75	1.50	2.2	1.8	Belt, Screw	1.00	1.25	1.00	1.7	1.3	Beater, Pulper, Jordans, Dresses	2.00	2.25	2.00	2.7	2.3		
Barge Haul Puller	2.00	2.25	2.00	2.7	2.3	Reciprocating	2.50	2.75	2.50	3.2	2.8	Calenders, Dryers, Washers, Thickener.....	1.50	1.75	1.50	2.2	1.8		
Beaters	1.50	1.75	1.50	2.2	1.8	Filter, Press-oil	1.50	1.75	1.50	2.2	1.8	Converting Machines, Conveyors	1.20	1.45	1.20	1.9	1.5		
Blowers						Generators						Printing Presses	1.50	1.75	1.50	1.7	1.3		
Centrifugal.....	1.00	1.25	1.00	1.7	1.3	Not Welding.....	1.00	1.25	1.00	1.7	1.3	Pug Mill.....	1.75	2.00	1.75	2.0	1.6		
Lobe, Vane	1.25	1.50	1.25	2.0	1.6	Welding.....	2.00	2.25	2.00	2.7	2.3	Pumps							
Bottling Machinery	1.25	1.50	1.25	2.0	1.6	Hoist	1.50	1.75	1.50	2.2	1.8	Centrifugal	1.00	1.25	1.00	1.7	1.3		
Brew Kettles (distilling).....	1.25	1.50	1.25	2.0	1.6	Hammermills	2.00	2.25	2.00	2.7	2.3	Gear, Rotary, Vane	1.25	1.50	1.25	2.0	1.6		
Can Filling Machinery	1.00	1.25	1.00	1.7	1.3	Kilns	1.50	1.75	1.50	2.2	1.8	Reciprocating:							
Car Dumpers.....	2.50	2.75	2.50	3.2	2.8	Laundry Washers —						1-Cyl. Single or							
Car Pullers	1.50	1.75	1.50	2.2	1.8	Reversing	2.00	2.25	2.00	2.7	2.3	Double Acting	2.00	2.25	2.00	2.7	2.3		
Card Machine	1.75	2.00	1.75	2.5	2.0	Lumber Machinery						2-Cyl. Single Acting ...	2.00	2.25	2.00	2.7	2.3		
Chiller (oil)	1.50	2.00	1.25	2.0	2.0	Barkers, Edger Feeder,						2-Cyl. Double Acting ...	1.75	2.00	1.75	2.5	2.0		
Compressors						Live Roll.....	2.00	2.25	2.00	2.7	2.3	3 or more Cyl.	1.50	1.75	1.50	2.2	1.8		
Centrifugal.....	1.00	1.25	1.00	1.7	1.3	Planer, Slab Conveyor	2.00	2.25	2.00	2.7	2.3	Rubber Machinery							
Screw, Lobe.....	1.25	1.50	1.25	2.0	1.6	Machine Tools						Mixers.....	2.50	2.75	2.50	3.2	2.8		
Reciprocating	See Note					Punch Press-gear Driven,						Rubber Calender	2.00	2.25	2.00	2.7	2.3		
Conveyors, Uniformly Fed						Plate Planer.....	2.00	2.25	2.00	2.7	2.3	Screens							
Assembly, Belt, Screw	1.00	1.25	1.00	1.7	1.3	Tapping Machinery,						Air washing, Water.....	1.00	1.25	1.00	1.7	1.3		
Bucket, Sawdust.....	1.25	1.50	1.25	2.0	1.6	Bending Roll.....	2.00	2.25	2.00	2.7	2.3	Rotary—stone or gravel,							
Live Roll, Shaker,						Main Drive	1.50	1.75	1.50	2.2	1.8	Dewatering	1.50	1.75	1.50	2.2	1.8		
Reciprocating	3.00	3.25	3.00	3.7	3.3	Auxiliary Drives.....	1.00	1.25	1.00	1.7	1.3	Vibrating	2.50	2.75	2.50	3.2	2.8		
Conveyors, Not Uniformly Fed						Metal Forming Machines						Grizzly.....	2.00	2.25	2.00	2.7	2.3		
Assembly, Belt,						Draw Bench-carriage						Shredders.....	1.50	1.75	1.50	2.2	1.8		
Oven, Screw.....	1.20	1.45	1.20	1.9	1.5	& Main Drive	2.00	2.25	2.00	2.7	2.3	Steering Gears.....	1.00	1.25	1.00	1.7	1.3		
Reciprocating	2.50	2.75	2.50	3.2	2.8	Extruder, Forming Machine,						Stokers	1.00	1.25	1.00	1.7	1.3		
Shaker	3.00	3.25	3.00	3.7	3.3	Wire Drawing	2.00	2.25	2.00	2.7	2.3	Suction Roll (paper).....	1.50	1.75	1.50	2.2	1.8		
Cookers —Brewing, Distilling,						Table Conveyors.....	2.50	2.75	2.50	3.2	2.8	Textile Machinery							
Food	1.25	1.50	1.25	2.0	1.6	Wire Winding, Coilers,						Dryers, Dyeing Machinery,							
Cranes & Hoist¹	2.00	2.25	2.00	2.7	2.3	Slitters.....	1.50	1.75	1.50	2.2	1.8	Mangle.....	1.20	1.45	1.20	2.0	1.6		
Crushers —Cane (sugar), Stone, or Ore						Mills, Rotary Type						Loom, Spinner,							
.....	3.00	3.25	3.00	3.7	3.3	Ball, Kilns, Pebble,						Tenter frames.....	1.50	1.75	1.50	2.2	1.8		
Dredges						Rolling, Tube	2.00	2.25	2.00	2.7	2.3	Tumbling Barrels	1.75	2.00	1.75	2.5	2.0		
Cable reels	2.00	2.25	2.00	2.7	2.3	Cement Kilns,						Windlass.....	2.00	2.25	2.00	2.7	2.3		
Conveyors, Pumps,						Dryers, Coolers	2.00	2.25	2.00	2.7	2.3	Woodworking Mach.	1.00	1.25	1.00	1.7	1.3		
Maneuvering Winches.	1.50	1.75	1.50	2.2	1.8	Tumbling.....	1.50	1.75	1.50	2.2	1.8								
Cutter Head Drives.....	2.50	2.75	2.50	3.2	2.8														
Dynamometer	1.50	1.75	1.50	2.2	1.8														
Evaporators	1.00	1.25	1.00	1.7	1.3														
Fans																			
Centrifugal.....	1.00	1.25	1.00	1.7	1.3														
Cooling Towers.....	2.00	2.25	2.00	2.7	2.3														
Forced Draft,																			
Propeller	1.50	1.75	1.50	2.2	1.8														
Induced draft																			
w/damper control.....	2.00	2.25	2.00	2.7	2.3														
Induced draft w/o																			
damper control	1.25	1.50	1.25	2.0	1.6														

Caution: Applications involving reciprocating engines and reciprocating driven devices are subject to critical rotational speeds which may damage the coupling and/or connected equipment. Contact Lovejoy Engineering with specific requirements.

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

Spider Performance Data

Chart 2

JW

Characteristics	Temperature Range	Misalignment		Shore Hardness ¹	Dampening Capacity	Chemical Resistance ²	Color
		Angular Degree	Parallel Inch				
SOX (NBR) Rubber – Nitrile Butadiene (Buna N) Rubber is a flexible elastomer material that is oil resistant, resembles natural rubber in resilience and elasticity and operates effectively in temperature range of -40° to 212° F (-40° to 100° C). Good resistance to oil. Standard elastomer. (Also applies to SXB Cushions.)	-40° to 212° F -40° to 100° C	1°	.015	80A	HIGH	GOOD	BLACK
URETHANE – Urethane has greater torque capability than NBR (1.5 times), provides less dampening effect, and operates at a temperature range of -30° to 160° F (-34° to 71° C). Good resistance to oil and chemicals. Not recommended for cyclic or start/stop applications.	-30° to 160° F -34° to 71° C	1°	.015	55D L050-L110 90-95A L150-L225	LOW	VERY GOOD	BLUE
HYTREL® – Hytrel is a flexible elastomer designed for high torque and high temperature operations. Hytrel can operate in temperatures of -60° to 250° F (-51° to 121° C) and has an excellent resistance to oil and chemicals. Not recommended for cyclic or start/stop applications.	-60° to 250° F -51° to 121° C	1/2°	.015	55D	LOW	EXCELLENT	TAN
BRONZE – Bronze is a rigid, porous oil-impregnated metal insert exclusively for slow speed (maximum 250 RPM) applications requiring high torque capabilities. Bronze operations are not affected by extreme temperatures, water, oil, or dirt.	-40° to 450° F -40° to 232° C	1/2°	.010	—	NONE	EXCELLENT	BRONZE

Notes: ■ 1 indicates: NBR standard shore hardness is 80A±5A – Except L035=60A. Other softer or harder designs are available in NBR material; consult Lovejoy.

■ 2 indicates: Chemical Resistance chart shown in Engineering Data Section (page ED-9).

Jaw Nominal Rated Torque Data

Chart 3

Size	Max Bore		Spider Material							
			SOX (NBR) Torque		Urethane Torque		Hytrel Torque		Bronze Torque	
	in	mm	in-lbs	Nm	in-lbs	Nm	in-lbs	Nm	in-lbs	Nm
L035	0.375	9	3.5	0.4	—	—	—	—	—	—
L/AL050	0.625	16	26.3	3.0	39	4.5	50	5.60	50	5.60
L/AL070	0.750	19	43.2	4.9	65	7.3	114	12.90	114	12.90
L/AL075	0.875	22	90.0	10.2	135	15.3	227	25.60	227	25.60
L/AL090	1.000	25	144.0	16.3	216	24.4	401	45.30	401	45.30
L/AL095	1.125	28	194.0	21.9	291	32.9	561	63.40	561	63.40
L/AL099	1.188	30	318.0	35.9	477	53.9	792	89.50	792	89.50
L/AL100	1.375	35	417.0	47.1	626	70.7	1,134	128.00	1,134	128.00
L/AL110	1.625	42	792.0	89.5	1,188	134.0	2,268	256.00	2,268	256.00
L150	1.875	48	1,240.0	140.0	1,860	210.0	3,708	419.00	3,706	419.00
AL150	1.875	48	1,450.0	163.8	—	—	—	—	—	—
L190	2.125	55	1,728.0	195.0	2,592	293.0	4,680	529.00	4,680	529.00
L225	2.625	65	2,340.0	264.0	3,510	397.0	6,228	704.00	6,228	704.00
L276	2.875	73	4,716.0	533.0	—	—	—	—	12,500	1 412.00
C226	2.500	64	2,988.0	338.0	—	—	5,940	671.00	5,940	671.00
C276	2.875	73	4,716.0	533.0	—	—	9,432	1 066.00	—	—
C280	3.000	76	7,560.0	854.0	—	—	13,866	1 567.00	—	—
C285	4.000	102	9,182.0	1 038.0	—	—	16,680	1 882.00	—	—
C295	3.500	89	11,340.0	1 281.0	—	—	22,680	2 563.00	22,680	2 563.00
C2955	4.000	102	18,900.0	2 136.0	—	—	37,800	4 271.00	37,800	4 271.00
H3067	4.500	114	33,395.0	3 774.0	—	—	47,196	5 333.00	47,196	5 333.00
H3567	5.000	127	46,632.0	5 269.0	—	—	63,000	7 119.00	63,000	7 119.00
H3667	5.629	143	64,812.0	7 323.0	—	—	88,200	9 966.00	88,200	9 966.00
H4067	6.250	159	88,224.0	9 969.0	—	—	126,000	14 237.00	126,000	14 237.00
H4567	7.000	178	119,700.0	13 525.0	—	—	170,000	19 209.00	170,000	19 209.00

Note: ■ Bronze has a maximum RPM capability of 250 RPM.

L Type Coupling

- Sizes range from L035 to L276
- Ordering requires selecting UPC numbers for two standard L hubs and one standard open or solid center elastomer (spider)



SW Type Coupling

- Sizes range from L090 to L190
- Ordering requires selecting UPC numbers for two standard L hubs and one snap wrap spider with snap ring
- Both L and SW Type couplings, select hubs from the standard bore and keyway chart (pages JW-11 and JW-12) maximum RPM for SW + Ring is 1,750 RPM
- LC coupling uses a snap wrap spider with a collar instead of a retaining ring

Jaw In-Shear Coupling

- Ordering requires selecting item numbers for two standard hubs, one In-Shear elastomer and one In-Shear ring. See pages JIS-1 through JIS-4

L Type Spider UPC Number Selection Table

Spider Type	Coupling Size										
	L035	L050	L070	L075	L090/095	L099/100	L110	L150	L190	L225	L276
SOX (NBR) (Solid)	10118	10194	10406	10621	11070	11494	11724	12001	12274	12409	—
SOX (NBR) (open center)	—	—	10393	10620	10968	11492	11711	37880	37881	12406	12612
Urethane (Solid)	—	37786	10395	—	—	—	—	—	—	12417	—
Urethane (open center)	—	—	10411	10626	11075	11499	11729	12006	12280	—	—
Hytrel® (Solid)	—	25307	—	—	—	—	11717	11993	12265	12401	—
Hytrel® (open center)	—	—	25308	25309	25310	11486	38097	38098	38099	12400	—
Bronze (open center)	—	10198	10409	10624	11073	11497	11727	12004	12277	34517	25767
Snap Wrap (NBR) w/ring	—	—	—	—	24669	24670	24671	24672	24673	—	—
Snap Wrap (NBR) w/o ring	—	—	—	—	11071	11495	11725	12002	12275	—	—
SOX (NBR) Bulk - pk 25	50115	50116	50117	50118	50119	—	—	—	—	—	—
SOX (NBR) Bulk - pk 10	—	—	—	—	—	50120	50121	50122	—	—	—
Snap Wrap Urethane - solid ring	—	—	—	—	—	41170	41171	—	28284	26093	—
In-Shear Elastomer	—	—	—	—	71706	71707	71708	71709	71710	71711	71712
In-Shear Ring	—	—	—	—	71679	71680	71681	71682	71683	71684	71685

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

L Type Hub - Spline Bore UPC Number Selection Table

Teeth	Pitch	SAE	Spline Bore Diameters		Major Dia	Coupling Size								
			Major	Minor		L090	L095	L099	L100	L110	L150	L190	L225	L276
9	16/32	A	0.651	0.509	0.625	38568	37900	38571	37904	—	—	—	—	—
11	16/32		0.776	0.631	0.750	38569	37901	38572	37905	37909	37917	37925	—	—
13	16/32	B	0.901	0.754	0.875	38570	37902	38573	37906	37910	37918	37926	37935	—
13	8/16	D, E	1.798	1.506	1.750	—	—	—	—	37915	37923	37931	37940	38576
14	12/24	C	1.289	1.087	1.250	—	—	—	—	37912	37920	37928	37937	38577
15	16/32	BB	1.026	0.877	1.000	—	—	38574	37907	37911	37919	37927	37936	38578
21	16/32		1.401	1.250	1.375	—	—	—	—	37913	37921	37929	37938	—
23	16/32		1.526	1.375	1.500	—	—	—	—	37914	37922	37930	37939	—
27	16/32		1.776	1.625	1.750	—	—	—	—	37916	37924	37932	37941	38579
15	8/16	F	2.048	1.753	2.000	—	—	—	—	—	37933	37942	—	—

Notes: ■ All pressure angles on above splines = 30°. Class 5 fit is standard, unless otherwise specified.

■ All stock spline bore hubs are supplied standard with Lovejoy's exclusive L-LOC Clamping Feature. See page T-7 for description.

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

The L Type coupling consists of two standard L Type hubs and one spider. Refer to pages JW-11, JW-12, and JW-10.



Bore	Keyway	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
1/8	No Keyway	10124	—	—	—	—	—	—	—	—	—	—	—	—
3/16	No Keyway	10126	—	—	—	—	—	—	—	—	—	—	—	—
1/4	No Keyway	10127	10206	10416	10680	10766	—	—	—	—	—	—	—	—
1/4	1/8 x 1/16	—	—	—	35744	—	—	—	—	—	—	—	—	—
5/16	No Keyway	10128	10207	10417	10681	26209	—	—	—	—	—	—	—	—
3/8	No Keyway	24687	10208	10418	10682	10767	—	—	—	—	—	—	—	—
3/8	3/32 x 3/64	—	46121	41985	37234	37235	—	—	—	—	—	—	—	—
3/8	1/8 x 1/16	—	44136	48829	35745	37236	—	—	—	—	—	—	—	—
7/16	No Keyway	—	10209	10419	10683	10768	11082	31297	11505	—	—	—	—	—
7/16	3/32 x 3/64	—	44713	44007	28089	28877	27613	38198	37237	—	—	—	—	—
7/16	1/8 x 1/16	—	—	44066	28875	28878	28879	38199	37238	—	—	—	—	—
1/2	No Keyway	—	10210	10420	10684	10769	11083	11333	11506	—	—	—	—	—
1/2	1/8 x 1/16	—	10211	10421	10685	26087	26088	11334	26089	—	—	—	—	—
9/16	No Keyway	—	10212	52338	10686	24976	37239	11335	11508	—	—	—	—	—
9/16	1/8 x 1/16	—	10213	10423	10687	28876	11084	38200	11509	—	—	—	—	—
5/8	No Keyway	—	10214	24771	44322	46052	41911	44174	44291	11733	12101	—	—	—
5/8	5/32 x 5/64	—	—	51104	37240	37241	37242	38201	37243	37244	37245	—	—	—
5/8	3/16 x 3/32	—	—	10424	10688	10771	11085	11336	11510	26211	26212	—	—	—
11/16	3/16 x 3/32	—	—	10425	10689	10772	11086	11337	11511	11734	12102	—	—	—
3/4	No Keyway	—	—	46116	56140	54282	56887	49705	45212	—	—	12285	12422	—
3/4	1/8 x 1/16	—	—	51719	35881	37246	37074	38202	37247	37248	37249	37250	—	—
3/4	3/16 x 3/32	—	—	10426	10690	10773	11087	11338	11512	11735	12103	38468	35882	—
13/16	3/16 x 3/32	—	—	—	10691	10774	11088	11339	11513	11736	12104	37252	37255	—
7/8	No Keyway	—	—	—	56941	—	—	59063	—	—	—	—	—	12582
7/8	3/16 x 3/32	—	—	—	10692	10775	11089	11340	11514	11737	12105	12286	12423	12585
7/8	1/4 x 1/8	—	—	—	—	38188	35747	38203	35686	35749	35750	37256	35753	54883
15/16	1/4 x 1/8	—	—	—	—	32332	11090	11341	11515	11738	12160	12287	12424	—
1	1/4 x 1/8	—	—	—	—	31296	11091	11342	11516	11739	12107	12288	12425	12586
1	3/16 x 3/32	—	—	—	—	37257	37258	38204	37259	37260	37261	37262	37263	—
1-1/16	1/4 x 1/8	—	—	—	—	11092	11343	11517	11740	12108	12289	12426	—	—
1-1/8	1/4 x 1/8	—	—	—	—	11093	11344	11518	11741	12109	12290	12427	12587	—
1-3/16	1/4 x 1/8	—	—	—	—	—	11345	11519	11742	12110	12291	12428	—	—
1-1/4	1/4 x 1/8	—	—	—	—	—	—	11520	11743	12111	12292	12429	12588	—
1-1/4	5/16 x 5/32	—	—	—	—	—	—	35748	35752	35751	37294	35754	12589	—
1-5/16	5/16 x 5/32	—	—	—	—	—	—	—	11521	11744	12112	12293	26090	—
1-3/8	5/16 x 5/32	—	—	—	—	—	—	—	11522	11745	12113	12294	12430	12590
1-3/8	3/8 x 3/16	—	—	—	—	—	—	—	44348	37265	37266	37267	37568	46758
1-7/16	3/8 x 3/16	—	—	—	—	—	—	—	—	11746	12114	12295	12431	12591
1-1/2	5/16 x 5/32	—	—	—	—	—	—	—	—	37269	37270	37271	37272	—
1-1/2	3/8 x 3/16	—	—	—	—	—	—	—	—	11747	12115	12296	12432	12592
1-9/16	3/8 x 3/16	—	—	—	—	—	—	—	—	11748	12116	37273	12433	45689
1-5/8	3/8 x 3/16	—	—	—	—	—	—	—	—	11749	12117	12297	12434	12593
1-11/16	3/8 x 3/16	—	—	—	—	—	—	—	—	—	12118	12298	12435	60057
1-3/4	3/8 x 3/16	—	—	—	—	—	—	—	—	—	12119	12299	12436	12594
1-3/4	7/16 x 7/32	—	—	—	—	—	—	—	—	—	37274	37275	37276	48250
1-13/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	12120	12300	26091	—
1-7/8	1/2 x 1/4	—	—	—	—	—	—	—	—	—	12121	12301	12437	12595
1-15/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	12302	12438	49762
2	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	12303	12439	12596
2-1/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	12304	26092	—
2-1/8	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	12305	12440	12597
2-3/16	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	—	12441	12598
2-1/4	1/2 x 1/4	—	—	—	—	—	—	—	—	—	—	—	12442	12599
2-3/8	5/8 x 5/16	—	—	—	—	—	—	—	—	—	—	—	12443	12602
2-5/8	5/8 x 5/16	—	—	—	—	—	—	—	—	—	—	—	41809	12605
2-7/8	3/4 x 3/8	—	—	—	—	—	—	—	—	—	—	—	—	12607

Notes: ■ Tolerances for bore and keyways are found in Engineering Data section (pages ED-10 and ED-11). All hubs supplied standard with one set screw.
 ■ Non-standard bores available – consult Lovejoy Engineering.
 ■ When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

The L Type coupling consists of two standard L Type hubs and one spider. Refer to pages JW-10, JW-12, and JW-10.



L Type Hub - Metric Bore and Keyway UPC Number Selection Table

Bore	Keyway	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
4	No Keyway	41850	—	—	—	—	—	—	—	—	—	—	—	—
5	No Keyway	47419	46214	—	—	—	—	—	—	—	—	—	—	—
6	No Keyway	45872	50351	—	—	—	—	—	—	—	—	—	—	—
7	No Keyway	60679	10215	58803	—	—	—	—	—	—	—	—	—	—
8	No Keyway	55169	41460	46151	—	60945	—	—	—	—	—	—	—	—
9	3 x 1.4	—	41313	56177	44298	—	—	—	—	—	—	—	—	—
10	No Keyway	—	10216	41452	41456	—	—	—	—	—	—	—	—	—
10	3 x 1.4	—	41450	49870	41457	52828	—	—	—	—	—	—	—	—
11	4 x 1.8	—	41314	41453	50811	—	49424	—	—	—	—	—	—	—
12	No Keyway	—	48510	51562	—	48276	—	—	—	—	—	—	—	—
12	4 x 1.8	—	41315	41454	44153	44329	44832	—	55195	—	—	—	—	—
14	No Keyway	—	58036	47505	—	41461	41465	—	—	—	—	—	—	—
14	5 x 2.3	—	41316	41317	41321	51231	41466	60094	45101	—	—	—	—	—
15	No Keyway	—	60708	—	10693	—	46561	52697	41469	—	—	—	—	—
15	5 x 2.3	—	41451	41455	41454	52096	45778	46972	47123	—	—	—	—	—
16	5 x 2.3	—	56176	41318	41322	49198	41325	52098	55534	52092	52471	—	—	—
17	5 x 2.3	—	—	45333	49398	—	49704	—	56178	60067	60156	—	—	—
18	6 x 2.8	—	—	59724	41884	46433	46626	44647	41926	44288	—	—	—	—
19	No Keyway	—	—	—	—	10777	—	—	—	41471	—	—	—	—
19	6 x 2.8	—	—	41319	41323	41462	41326	44157	41329	49700	48821	46717	—	—
20	6 x 2.8	—	—	—	41459	41925	41467	47122	52093	41804	61218	61497	—	—
22	6 x 2.8	—	—	—	58246	41968	44827	41959	44467	45214	44720	—	—	—
24	8 x 3.3	—	—	—	—	41463	41327	41990	41330	48301	48182	59109	—	—
25	8 x 3.3	—	—	—	—	41464	41468	45055	41470	41906	46751	52153	—	—
28	No Keyway	—	—	—	—	—	—	—	—	56179	56182	—	—	—
28	8 x 3.3	—	—	—	—	—	41328	50103	41331	41333	45679	52976	—	—
30	8 x 3.3	—	—	—	—	—	47132	48317	45681	41738	44471	48982	—	—
32	No Keyway	—	—	—	—	—	—	—	—	41472	41473	48319	56232	—
32	10 x 3.3	—	—	—	—	—	—	—	41334	41873	45562	41849	41885	—
35	No Keyway	—	—	—	—	—	—	41332	—	56180	56183	56184	—	—
35	10 x 3.3	—	—	—	—	—	—	49925	45682	46562	58035	52197	—	—
38	10 x 3.3	—	—	—	—	—	—	—	41335	41337	41474	49664	52961	—
40	12 x 3.3	—	—	—	—	—	—	—	45683	48318	48320	49605	59308	—
42	12 x 3.3	—	—	—	—	—	—	—	41336	41338	41475	47492	45609	—
45	14 x 3.8	—	—	—	—	—	—	—	—	45102	56017	52674	50292	—
48	No Keyway	—	—	—	—	—	—	—	—	56181	—	—	—	—
48	14 x 3.8	—	—	—	—	—	—	—	—	56227	48322	47569	61202	—
50	No Keyway	—	—	—	—	—	—	—	—	—	56228	56230	56233	—
50	14 x 3.8	—	—	—	—	—	—	—	—	—	44392	48797	45062	—
55	No Keyway	—	—	—	—	—	—	—	—	—	56229	56231	56234	—
55	16 x 4.3	—	—	—	—	—	—	—	—	—	47006	44089	56067	—
60	No Keyway	—	—	—	—	—	—	—	—	—	—	56185	56235	—
60	18 x 4.4	—	—	—	—	—	—	—	—	—	—	44598	56236	—
65	No Keyway	—	—	—	—	—	—	—	—	—	—	—	56237	—
65	18 x 4.4	—	—	—	—	—	—	—	—	—	—	56544	50102	—
70	20 x 4.9	—	—	—	—	—	—	—	—	—	—	—	58268	—

Notes:

- Tolerances for bore and keyways are found in Engineering Data section (page ED-17 and ED-18). All hubs supplied standard with one set screw.
- Non-standard bores available – consult Lovejoy Engineering.
- When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

LC Type Couplings

The LC Type coupling consists of one standard L Type hub (without collar attachment), one LC Type hub (provides collar attachment), one standard snap wrap center and one collar with screws. Refer to pages JW-11, JW-12 and JW-13 for details.

Features

- Radially removable insert
- Collar allows for maximum speed of 3,600 RPM
- Collar manufactured from 1018 Steel



LC Type Hub - Inch Bore and Keyway UPC Number Selection Table

Bore	Keyway	LC090	LC095	LC099	LC100	LC110	LC150	LC190	LC225
1/4	No Keyway	45321	—	—	—	—	—	—	—
3/8	No Keyway	45322	—	—	—	—	—	—	—
1/2	No Keyway	45323	11133	—	11575	—	—	—	—
1/2	1/8 x 1/16	—	—	—	48768	—	—	—	—
5/8	No Keyway	—	—	—	—	11828	45412	—	—
5/8	3/16 x 3/32	45324	11134	48886	11577	—	—	—	—
3/4	No Keyway	—	—	—	—	—	—	12322	12456
3/4	1/8 x 1/16	—	—	—	55466	—	—	—	—
3/4	3/16 x 3/32	45325	11135	—	41920	11829	—	12323	—
13/16	3/16 x 3/32	—	11136	—	—	11830	—	—	—
7/8	3/16 x 3/32	45326	11137	—	11578	11832	—	—	—
7/8	1/4 x 1/8	—	—	56567	49553	56566	60343	—	—
15/16	1/4 x 1/8	—	11138	—	—	11834	—	—	—
1	1/4 x 1/8	45327	11139	52825	11579	11836	12069	44161	50125
1	3/16 x 3/32	—	—	—	—	55552	—	—	—
1-1/8	1/4 x 1/8	—	44156	—	11580	11838	12071	44160	50126
1-3/16	1/4 x 1/8	—	11140	—	—	11840	—	—	—
1-1/4	1/4 x 1/8	—	—	—	11581	11841	12073	12327	12462
1-1/4	5/16 x 5/32	—	—	—	59046	—	48273	—	—
1-3/8	5/16 x 5/32	—	—	—	45257	11842	12075	12329	50127
1-7/16	3/8 x 3/16	—	—	—	—	11844	—	—	12465
1-1/2	5/16 x 5/32	—	—	—	—	—	12077	—	—
1-1/2	3/8 x 3/16	—	—	—	—	11846	—	12332	12466
1-9/16	3/8 x 3/16	—	—	—	—	11848	—	12332	—
1-5/8	3/8 x 3/16	—	—	—	—	11849	12079	12334	12468
1-3/4	3/8 x 3/16	—	—	—	—	—	44159	12336	46818
1-7/8	1/2 x 1/4	—	—	—	—	—	12082	12337	12472
1-15/16	1/2 x 1/4	—	—	—	—	—	—	12339	—
2	1/2 x 1/4	—	—	—	—	—	—	12341	14276
2-1/8	1/2 x 1/4	—	—	—	—	—	—	44064	12477
2-1/4	1/2 x 1/4	—	—	—	—	—	—	—	12480
2-3/8	5/8 x 5/16	—	—	—	—	—	—	—	12482

- Notes:
- These "LC" hubs are drilled and tapped to accept collar mounting screws but the collar and hardware are not included.
 - See L Type (inch or metric) coupling chart for standard hub.
 - Tolerances for bore and keyways are found in Engineering Data section (pages ED-10 and ED-11).
 - All hubs are supplied standard with one set screw.
 - When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

LC Type Couplings

The LC Type coupling consists of one standard L Type hub (without collar attachment), one LC Type hub (provides collar attachment), one standard snap wrap center and one collar with screws. Refer to pages JW-11, JW-12 and JW-13 for details.

Features

- Radially removable insert
- Collar allows for maximum speed of 3,600 RPM
- Collar manufactured from 1018 Steel



LC Type Wrap Spider / Collar UPC Number Selection Table

	LC090	LC095	LC099	LC100	LC110	LC150	LC190	LC225
Snap Wrap Spider/No Ring	11071	11071	11495	11495	11725	12002	12275	26093 ¹
Collar Only w/Screws	48340	48340	45258	45258	47932	47933	47934	47935

Notes:

- 1 indicates: L225 snap wrap spider is urethane, solid ring.
- When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

LC Type Hub - Metric Bore and Keyway UPC Number Selection Table

Bore	Keyway	LC090	LC095	LC099	LC100	LC110	LC150	LC190	LC225
12	No Keyway	58596	—	—	—	—	—	—	—
12	4 x 1.8	58597	—	—	—	—	—	—	—
14	No Keyway	58598	58592	—	—	—	—	—	—
14	5 x 2.3	58556	58559	—	—	—	—	—	—
15	5 x 2.3	58599	—	—	—	—	—	—	—
16	5 x 2.3	—	58593	—	—	—	—	—	—
19	6 x 2.8	58557	58560	56197	58563	58566	—	—	—
20	6 x 2.8	—	58594	—	—	—	—	—	—
24	8 x 3.3	58558	58561	58588	58564	58567	—	—	—
25	8 x 3.3	58600	58595	58589	—	—	—	—	—
28	8 x 3.3	—	58562	58590	58565	58568	58571	58575	—
32	10 x 3.3	—	—	—	52806	58587	58585	58586	—
38	10 x 3.3	—	—	—	—	58569	58572	58576	58580
42	12 x 3.3	—	—	—	—	58570	58573	58577	58581
48	14 x 3.8	—	—	—	—	—	58574	58578	58582
55	16 x 4.3	—	—	—	—	—	—	58579	58583
65	No Keyway	—	—	—	—	—	—	—	58584

Notes:

- These "LC" hubs are drilled and tapped to accept collar mounting screws but the collar and hardware are not included.
- See L Type (inch or metric) UPC Number Selection Table for standard hub (pages JW-11 or JW-10).
- Tolerances for bore and keyways are found in Engineering Data section (pages ED-17 and ED-18).
- All hubs are supplied with one set screw.
- When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

AL and SS Type Couplings

The AL Type coupling consists of two hubs and one spider.



Features

- Interchangeable with all hub sizes standard for the L-Line and AL-Line products
- Available in a variety of different finished bore and keyway combinations
- Finished bores passivated for additional rust protection

AL Type Hub - Inch Bore and Keyway UPC Number Selection Table

Bore	Keyway	AL050	AL070	AL075	AL090	AL095	AL099	AL100	AL110	AL150
1/4	No Keyway	10252	10463	10630	10791	—	—	—	—	—
5/16	No Keyway	10253	10464	10631	10792	—	—	—	—	—
3/8	No Keyway	10254	10466	10632	10793	—	—	—	—	—
7/16	No Keyway	10256	10469	10633	10794	—	—	—	—	—
1/2	No Keyway	10257	10471	10634	10795	17847	17880	17914	—	—
1/2	1/8 x 1/16	49706	10473	10635	10796	17848	17881	17915	—	—
9/16	No Keyway	—	—	10637	10797	—	—	56473	—	—
9/16	1/8 x 1/16	—	—	10638	4412	37994	44323	17917	—	—
5/8	No Keyway	10259	10480	61817	44004	—	—	—	17977	18035
5/8	3/16 x 3/32	—	10482	10639	10798	17855	17882	17918	38888	44828
11/16	3/16 x 3/32	—	—	45227	10799	17851	45494	17919	44059	46642
3/4	1/8 x 1/16	—	—	47835	47725	46295	—	—	—	—
3/4	3/16 x 3/32	—	10491	10640	10800	17852	17883	17920	17978	18036
13/16	3/16 x 3/32	—	—	10641	10801	17853	17884	17921	—	—
7/8	3/16 x 3/32	—	—	10642	10802	17854	17885	17922	17979	18037
15/16	1/4 x 1/8	—	—	—	—	17855	17886	17923	17980	18038
1	1/4 x 1/8	—	—	—	—	17856	17887	17924	17981	18039
1-1/16	1/4 x 1/8	—	—	—	—	17857	17888	17925	26094	18040
1-1/8	1/4 x 1/8	—	—	—	—	17858	17889	17926	17982	18041
1-3/16	1/4 x 1/8	—	—	—	—	—	17890	17927	17983	18042
1-1/4	1/4 x 1/8	—	—	—	—	—	—	17928	17984	18043
1-5/16	5/16 x 5/32	—	—	—	—	—	—	17929	17985	18044
1-3/8	5/16 x 5/32	—	—	—	—	—	—	17930	17986	18045
1-7/16	3/8 x 3/16	—	—	—	—	—	—	45508	17987	18046
1-1/2	3/8 x 3/16	—	—	—	—	—	—	—	17988	18047
1-9/16	3/8 x 3/16	—	—	—	—	—	—	—	17989	18048
1-5/8	3/8 x 3/16	—	—	—	—	—	—	—	17990	18049
1-11/16	3/8 x 3/16	—	—	—	—	—	—	—	—	18050
1-3/4	3/8 x 3/16	—	—	—	—	—	—	—	—	18051
1-13/16	1/2 x 1/4	—	—	—	—	—	—	—	—	18052
1-7/8	1/2 x 1/4	—	—	—	—	—	—	—	—	18053

Notes:

- Tolerances for bore and keyways are found in Engineering Data section (page ED-10).

- Lovejoy does not recommend reborning AL hubs.
- All hubs are supplied standard with one set screw, except the AL150 which is provided with two set screws.
- When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

SS Type Hub - Inch Bore and Keyway UPC Number Selection Table

Size	RSB	1/4	1/2	5/8	3/4	7/8	1	1-1/8	1-3/8	1-1/2
SS075	70001	70006	70007	70008	70009	70010	—	—	—	—
SS095	70002	70011	70011	70012	70013	70014	70015	70016	—	—
SS100	70003	—	—	—	70017	70018	70019	70020	70022	—
SS110	70004	—	—	—	—	—	70023	70024	70026	70027
SS150	70005	—	—	—	—	—	70029	70030	70032	70033

Note:

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



AL Type Couplings

The AL Type coupling consists of two hubs and one spider. Refer to page JW-10 for spider details.

Features

- Aluminum material is corrosion resistant
- Lightweight
- Hubs compatible with standard Lovejoy hub design (except AL150)



AL Type Spider UPC Number Selection Table

Spider Type	AL050	AL070	AL075	AL090/095	AL099/100	AL110	AL150
SOX (NBR) (solid)	10194	10406	10621	11070	11494	11724	18027
SOX (NBR) (open center)	—	10393	10620	10968	11492	11711	—
Urethane (solid)	37786	10395	—	—	—	—	—
Urethane (open center)	—	10411	10626	11075	11499	11729	—
Hytrel (solid)	25307	—	—	—	—	11717	—
Hytrel (open center)	—	25308	25309	25310	11486	38097	—
Bronze (open center)	10198	10409	10624	11073	11497	11727	—
Snap Wrap w/ring	—	—	—	24669	24670	24671	—
Snap Wrap no ring	—	—	—	11071	11495	11725	—

Notes: ■ AL Type couplings use the same spiders as L Type couplings, except AL150 which has four jaws instead of three.

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

AL Type Hub - Metric Bore and Keyway UPC Number Selection Table

Bore	Keyway	AL050	AL070	AL075	AL090	AL095	AL099	AL100	AL110	AL150
8	No Keyway	—	—	48973	—	—	—	—	—	—
10	3 x 1.4	—	—	41924	56514	—	—	—	—	—
11	4 x 1.8	—	65694	51098	58620	—	—	—	—	—
12	4 x 1.8	—	56487	64655	60429	—	—	—	—	—
14	5 x 2.3	—	65696	47302	58621	56800	58624	—	—	—
15	5 x 2.3	—	62906	49633	58622	56801	—	49629	—	—
16	5 x 2.3	—	—	52221	—	47014	—	45012	—	—
17	5 x 2.3	—	—	—	60887	44712	—	59164	—	—
19	6 x 2.8	—	65698	47427	44679	47012	58625	47253	59064	—
20	No Keyway	—	—	56137	—	—	—	—	—	—
20	6 x 2.8	—	—	59394	61478	48347	49634	49630	49631	60878
22	6 x 2.8	—	—	—	—	47013	—	—	—	—
24	8 x 3.3	—	—	—	—	45736	58626	44058	45690	64634
25	8 x 3.3	—	—	—	—	65469	49709	55687	45933	64633
28	8 x 3.3	—	—	—	—	47015	58627	47393	45463	—
30	8 x 3.3	—	—	—	—	—	52048	58266	49632	45063
32	10 x 3.3	—	—	—	—	—	—	—	54417	44347
35	10 x 3.3	—	—	—	—	—	—	—	46215	64803
36	10 x 3.3	—	—	—	—	—	—	—	—	51737
38	10 x 3.3	—	—	—	—	—	—	—	52692	58215
42	12 x 3.3	—	—	—	—	—	—	—	—	45404
46	14 x 3.8	—	—	—	—	—	—	—	—	64119

Notes: ■ Tolerances for bore and keyways are found in Engineering Data section (page ED-17).

■ Lovejoy does not recommend reboring AL hubs.

■ All hubs are supplied standard with one set screw, except the AL150 which is provided with two set screws.

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

RRS and RRSC Type Radially Removable Spacer Couplings

RRS Type couplings range from sizes RRS090 to RRS225. The RRS Type coupling consists of:

RRS090 – RRS110:

2 Standard RRS Hubs

1 Spacer Assembly consisting of:

- 2 snap wrap spiders w/o ring
- 2 collars with screws
- 1 spacer

RRS150 – RRS225:

1 Standard RRS Hub

1 Standard RRSC Hub – Drilled for collar

1 Spacer Assembly consisting of:

- 2 snap wrap spiders w/o ring
- 2 collars with screws
- 1 spacer



RRS Type Hub - Inch Bore and Keyway UPC Number Selection Table

Bore	Keyway	RRS090	RRS095	RRS099	RRS100	RRS110	RRS150	RRS190	RRS225
7/16	No Keyway	—	41229	52184	41231	—	—	—	—
1/2	No Keyway	41227	50357	41230	52199	—	—	—	—
1/2	1/8 x 1/16	56512	38145	—	38151	—	—	—	—
9/16	3/16 x 3/32	—	44474	—	—	—	—	—	—
5/8	No Keyway	—	—	—	—	38159	45265	—	—
5/8	3/16 x 3/32	38143	38146	38168	38152	—	50163	—	—
3/4	No Keyway	—	—	—	—	—	—	45273	45290
3/4	3/16 x 3/32	38144	38147	38169	38153	38160	45266	—	45292
7/8	1/4 x 1/8	—	—	—	52966	—	—	—	—
7/8	3/16 x 3/32	41228	38148	38170	38154	38161	45267	45274	45291
1	1/4 x 1/8	51672	38149	38171	38155	38162	45268	45275	45294
1-1/8	1/4 x 1/8	—	38150	38172	38156	38163	45153	45276	45295
1-1/8	5/16 x 5/32	—	—	—	—	—	48104	—	—
1-1/4	1/4 x 1/8	—	—	—	38157	38164	45392	48503	50743
1-3/8	5/16 x 5/32	—	—	—	38158	38165	44002	44725	45296
1-7/16	3/8 x 3/16	—	—	—	—	51579	49659	48933	49658
1-1/2	3/8 x 3/16	—	—	—	—	40816	49638	46628	45297
1-5/8	3/8 x 3/16	—	—	—	—	38166	41880	45277	45298
1-3/4	3/8 x 3/16	—	—	—	—	—	45162	45278	45299
1-7/8	1/2 x 1/4	—	—	—	—	—	44214	45279	41953
2	1/2 x 1/4	—	—	—	—	—	—	45280	45300
2-1/8	1/2 x 1/4	—	—	—	—	—	—	44724	—
2-3/8	5/8 x 5/16	—	—	—	—	—	—	—	45106

Notes: ■ RRS inch hubs are standard with two set screws, including those with no keyway.

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

RRS / RRSC Type Hub - Metric Bore and Keyway UPC Number Selection Table

Bore	Keyway	RRSC150	RRSC190	RRSC225
32	No Keyway	55675	55679	55683
38	10 x 3.3	55676	55680	—
40	12 x 3.3	55677	55681	—
42	12 x 3.3	55678	55682	—

Notes: ■ RRS inch hubs are standard with two set screws and are drilled to accept retaining collar. Collars are supplied with spacers.

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

RRS / RRSC Type Hub - Inch Bore and Keyway UPC Number Selection Table

Bore	Keyway	RRSC150	RRSC190	RRSC225
5/8	No Keyway	45269	—	—
3/4	No Keyway	—	45281	45301
3/4	3/16 x 3/32	45312	—	45303
7/8	3/16 x 3/32	45270	45282	45293
1	1/4 x 1/8	45271	45283	45305
1-1/8	1/4 x 1/8	44779	45284	45105
1-3/8	5/16 x 5/32	44006	45285	45306
1-1/2	3/8 x 3/16	46939	—	45307
1-5/8	3/8 x 3/16	14881	45286	45308
1-3/4	3/8 x 3/16	—	45287	45309
1-7/8	1/2 x 1/4	45272	45288	41954
2	1/2 x 1/4	—	45289	45310
2-1/8	1/2 x 1/4	—	—	45311

Notes: ■ RRS inch hubs are standard with two set screws and are drilled to accept retaining collar. Collars are supplied with spacers.

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

RRS Type Radially Removable Spacer Couplings

RRS Type couplings range from sizes RRS090 to RRS225.

The RRS Type coupling consists of:

RRS090 – RRS110:

2 Standard RRS Hubs

1 Spacer Assembly consisting of:

- 2 snap wrap spiders w/o ring
- 2 collars with screws
- 1 spacer

RRS150 – RRS225:

1 Standard RRS Hub

1 Standard RRSC Hub – Drilled for collar

1 Spacer Assembly consisting of:

- 2 snap wrap spiders w/o ring
- 2 collars with screws
- 1 spacer



Note: ■ RRS Type Inch Hubs provided standard with two set screws at 90°.

Features

■ Standard API based spacers available

■ Radially removable inserts

■ Standard Lovejoy hub design with additional set screw at 90°

RRS Type Spacer UPC Number Selection Table

Description		RRS090	RRS095	RRS099	RRS100	RRS110	RRS150	RRS190	RRS225
3-1/2 in	Spacer Assembly	12620	12620	12630	12630	12644	12660	12676	12685
5 in	Spacer Assembly	26119	26119	26123	26123	26128	26770	27046	27041
7 in	Spacer Assembly	26120	26120	26124	26124	26129	27044	27043	27039
100mm	Spacer Assembly	55563	55563	55567	55567	55570	61056	61057	61058
140mm	Spacer Assembly	55281	55281	55569	55569	55571	55572	55573	55574
180mm	Spacer Assembly	61055	61055	55575	55575	55576	55577	55578	55579

Notes: ■ Spacer length denotes separation between shaft ends. Assembly includes spacer, two snap wrap spiders w/o ring, and two collars with screws. See page JW-10 for ordering information on spiders.

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

RRS Type Hub - Metric Bore and Keyway UPC Number Selection Table

Bore	Keyway	RRS090	RRS095	RRS099	RRS100	RRS110	RRS150	RRS190	RRS225
12	No Keyway	48276	—	—	—	—	—	—	—
14	No Keyway	41461	41465	—	—	—	—	—	—
14	5 x 2.3	51231	41466	60094	45101	—	—	—	—
15	No Keyway	—	46561	52697	41469	—	—	—	—
15	5 x 2.3	52096	45778	46972	47123	—	—	—	—
16	5 x 2.3	49198	41325	52098	55534	52092	52471	—	—
19	No Keyway	10777	—	—	—	41471	—	—	—
19	6 x 2.8	41462	41326	44157	41329	49700	48821	46717	—
20	6 x 2.8	41925	41467	47122	52093	41804	—	61497	—
23	8 x 3.3	50135	—	—	—	—	—	—	—
24	8 x 3.3	41463	41327	41990	41330	48301	48182	59109	—
25	8 x 3.3	41464	41468	45055	41470	41906	46751	52153	—
28	8 x 3.3	—	41328	50103	41331	41333	45679	52976	—
30	8 x 3.3	—	—	47132	48317	45681	41738	44471	48982
32	No Keyway	—	—	—	—	—	41472	41473	48319
32	10 x 3.3	—	—	—	41332	41334	41873	45562	41849
35	10 x 3.3	—	—	—	49925	45682	46562	58035	52197
38	10 x 3.3	—	—	—	—	41335	41337	41474	49664
40	12 x 3.3	—	—	—	—	45683	48318	48320	49605
42	12 x 3.3	—	—	—	—	41336	41338	41475	47492

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

C Type Couplings

The C Type coupling consists of two standard hubs, one cushion set and collar with hardware.



Features

- Greater torque and bore capacity than the L-Line series jaw coupling
- Elastomeric cushions are radially removable
- Cushions available in SXB rubber and Hytrel

C Type Cushions / Collar UPC Number Selection Table

Size	C226	C276	C280	C285	C295	C2955
Number of Cushions	6	6	6	6	6	10
SXB (NBR) cushion set	14547	14633	14712	14771	14805	14856
Hytrel® cushion set	27529	14637	14716	14774	14808	14859
Bronze cushion set	14545	—	—	—	51914	51915
Collar with hardware	40122	40123	40124	40292	40293	40293

Notes:

- Chemical resistance and compatibility for cushions is described in Engineering Data section (page ED-9).
- When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

C Type Hub - Inch Bore and Keyway UPC Number Selection Table

Bore	Keyway	C226	C276	C280	C285	C295	C2955
7/8 RSB	No Keyway	40125	40126	—	—	—	—
1-1/8	1/4 x 1/8	26036	26050	—	—	—	—
1-1/4 RSB	No Keyway	—	—	20607	41036	—	—
1-1/4	1/4 x 1/8	26037	26051	48988	47173	—	—
1-3/8	5/16 x 5/32	26038	26052	46278	55546	—	—
1-7/16	3/8 x 3/16	26039	—	—	—	—	—
1-1/2 RSB	No Keyway	—	—	—	—	41037	—
1-1/2	3/8 x 3/16	26040	26053	46277	48366	44824	—
1-5/8	3/8 x 3/16	26041	26054	46194	41892	56078	—
1-3/4 RSB	No Keyway	—	—	—	—	—	41038
1-3/4	3/8 x 3/16	26042	26055	44011	52311	45780	—
1-7/8	1/2 x 1/4	26043	26056	44012	51533	47080	49075
2	1/2 x 1/4	26044	26057	48194	—	—	—
2-1/8	1/2 x 1/4	26045	26058	44370	49809	44711	—
2-1/4	1/2 x 1/4	26046	44547	—	—	—	—
2-3/8	5/8 x 5/16	26047	26060	44014	47288	44825	52703
2-1/2	5/8 x 5/16	26048	46120	51998	56779	45249	48454
2-5/8	5/8 x 5/16	—	46755	44013	—	50145	54549
2-7/8	3/4 x 3/8	—	26064	51525	49456	52702	48108
3	3/4 x 3/8	—	—	48193	—	—	—
3-3/8	7/8 x 7/16	—	—	—	47171	45402	49077
3-1/2	7/8 x 7/16	—	—	—	46844	52988	44545
3-5/8	7/8 x 7/16	—	—	—	—	—	50106
3-3/4	7/8 x 7/16	—	—	—	—	—	58378
3-7/8	1 x 1/2	—	—	—	48247	—	49351
4	1 x 1/2	—	—	—	—	—	55016

C Type Hub - Metric Bore and Keyway UPC Number Selection Table

Bore	Keyway	C226	C276	C280	C285	C295	C2955
30	8 x 3.3	62792	—	—	—	—	—
35	10 x 3.3	60243	47386	—	—	—	—
38	10 x 3.3	45348	62160	—	—	—	—
40	12 x 3.3	49379	54037	—	—	—	—
42	12 x 3.3	—	45219	—	—	—	—
45	14 x 3.8	52550	44723	58265	—	—	—
48	14 x 3.8	54288	—	52205	—	—	—
55	16 x 4.3	58011	58444	49012	—	—	—
60	18 x 4.4	—	47265	49378	—	—	—
65	18 x 4.4	—	52008	—	—	—	58676
70	20 x 4.9	—	59032	—	56794	54355	58677
75	22 x 5.4	—	—	—	—	47813	58678
80	22 x 5.4	—	—	—	44487	58675	58679
90	25 x 5.4	—	—	—	54363	—	—
95	25 x 5.4	—	—	—	—	—	62695

Notes:

- RSB (Rough Stock Bore) hub has no keyway or set screw hole, it is not useable as shown and must be machined to proper bore tolerances. Hub includes inside sleeve and is drilled and tapped for collar bolts. Non-standard bores available – consult Lovejoy Engineering.

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

Notes:

- RSB (Rough Stock Bore) hub has no keyway or set screw hole, it is not useable as shown and must be machined to proper bore tolerances. Hub includes inside sleeve and is drilled and tapped for collar bolts. Non-standard bores available – consult Lovejoy Engineering. For RSB hub part numbers see the C Type Inch Hub table.

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

H Type Couplings

The H Type coupling consists of two hubs, two inside sleeves, one cushion set and one collar with hardware. H Type coupling hubs are supplied with an inside sleeve. For technical assistance, please contact Lovejoy Engineering.

Features

- Greater torque and bore capacity than the C-Line series jaw coupling
- Elastomeric cushions are radially removable
- Cushions available in SXB rubber and Hytrel



H Type Cushions / Collar UPC Number Selection Table

Size	H3067	H3567	H3667	H4067	H4567
Number of Cushions	14	14	14	14	14
SXB cushion set	15365	15386	15419	15457	15473
Hytrel® cushion set	15367	15388	45223	15459	55475
Collar with hardware	15361	15381	15411	55472	55476

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

H Type Hubs - Rough Stock Inch Bore UPC Number Selection Table

Bore	H3067	H3567	H3667	H4067	H4567
2-1/8 RSB	48070	—	—	—	—
2-5/8 RSB	—	50883	—	—	—
3 RSB	—	—	47878	—	—
3-1/4 RSB	—	—	—	55473	—
3-1/2 RSB	—	—	—	—	55477

Notes: ■ RSB (Rough Stock Bore) hub has no keyway or set screw hole.
 ■ RSB bores should not be used as shown and may need additional machining to reach proper tolerances.
 ■ When referencing the Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.

RRC Type Radially Removable Spacer Coupling

RRC Type couplings range from sizes RRC226 to RRC295. The RRC Type coupling consists of:

2 RRC Hub Adapters (includes bolts)

1 Spacer assembly consisting of:

- 2 RRC Jaw rings
- 1 collar with hardware
- 1 set of SXB (NBR) cushions

RRC Type Spacer UPC Number Selection Table

Description		RRC226	RRC276	RRC280	RRC285	RRC295	RRC2955
3-1/2 in	Spacer Assembly	55709	55712	55715	55718	—	—
4 in	Spacer Assembly	—	—	—	—	55721	55724
5 in	Spacer Assembly	55710	55713	55716	55719	55722	55751
7 in	Spacer Assembly	55711	55174	55717	55720	55723	55752

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

RRC Type Adapter Hubs - Rough Stock Inch Bore UPC Number Selection Table

Bore	RRC226	RRC276	RRC280	RRC285	RRC295	RRC2955
7/8 RSB	55770	55771	—	—	—	—
1-1/4 RSB	—	—	52030	55772	—	—
1-1/2 RSB	—	—	—	—	55773	—
1-3/4 RSB	—	—	—	—	—	55774

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

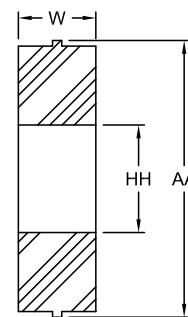
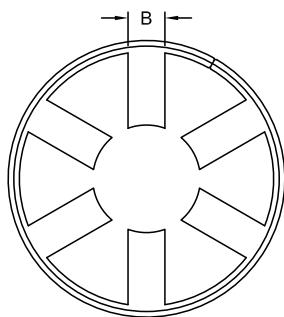
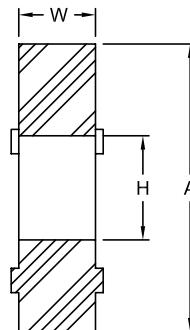
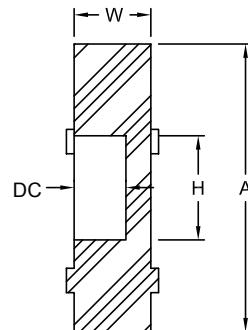
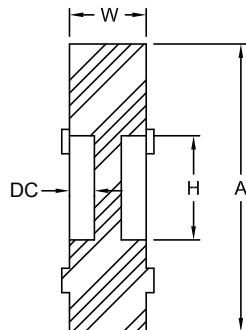
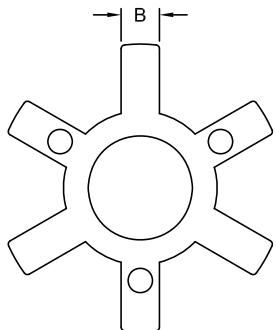
Jaw Type Performance Ratings

Size	Elastomeric Member	Number of Jaws	Basic HP Ratings @ Varying RPM				Torque Rating		Max Bore	Max x1000
			100	1200	1800	3600	in-lbs	Nm		
L, AL & LC Type										
L035	SOX (NBR)	2	0.006	0.07	0.10	0.22	3.5	0.40	0.375	9
L050/AL050	SOX (NBR)	2	0.042	0.50	0.75	1.51	26.3	2.97	0.625	16
L050/AL050	Hytrel®	2	0.080	0.96	1.43	2.88	50.0	5.65	0.625	16
L070/AL070	SOX (NBR)	2	0.070	0.84	1.23	2.52	43.2	4.88	0.750	19
L070/AL070	Hytrel	2	0.180	2.16	3.26	6.48	114.0	12.88	0.750	19
L075/AL075	SOX (NBR)	3	0.140	1.68	2.57	5.04	90.0	10.17	0.875	22
L075/AL075	Hytrel	3	0.360	4.32	6.48	12.96	227.0	25.65	0.875	22
L090/AL090/LC090	SOX (NBR)	3	0.230	2.76	4.11	8.28	144.0	16.27	1.000	25
L090/AL090	Hytrel	3	0.640	7.68	11.50	23.04	401.0	42.31	1.000	25
L095/AL095/LC095	SOX (NBR)	3	0.310	3.72	5.50	11.16	194.0	21.92	1.125	32
L095/AL095	Hytrel	3	0.890	10.68	16.00	32.04	561.0	63.38	1.125	32
L099/AL099/LC099	SOX (NBR)	3	0.500	6.00	9.10	18.00	318.0	35.93	1.180	30
L099/AL099	Hytrel	3	1.260	15.12	22.60	45.36	792.0	89.48	1.180	30
L100/AL100/LC100	SOX (NBR)	3	0.660	7.92	11.90	23.76	417.0	47.11	1.380	35
L100/AL100	Hytrel	3	1.800	21.60	32.40	64.80	1,134.0	128.12	1.380	35
L110/AL110/LC110	SOX (NBR)	3	1.260	15.12	23.00	45.36	792.0	89.48	1.620	42
L110/AL110	Hytrel	3	3.600	43.20	65.00	129.60	2,268.0	256.25	1.620	42
L150/LC150	SOX (NBR)	3	2.000	24.00	35.00	72.00	1,240.0	140.10	1.880	48
L150	Hytrel	3	5.900	70.80	106.00	212.40	3,708.0	418.95	1.880	48
AL-150	SOX (NBR)	4	2.300	27.60	41.40	82.80	1,450.0	163.83	1.880	48
L190/LC190	SOX (NBR)	3	2.700	32.40	49.00	97.20	1,728.0	195.24	2.120	55
L190	Hytrel	3	7.400	88.80	134.00	266.40	4,680.0	528.77	2.120	55
L225/LC225	SOX (NBR)	3	3.700	44.40	67.00	133.20	2,340.0	264.38	2.620	65
L225	Hytrel	3	9.900	118.80	178.00	356.40	6,228.0	703.67	2.620	65
L276	SOX (NBR)	3	7.500	90.00	135.00	+	4,716.0	532.84	2.880	73
C Type										
C226	SXB (NBR)	3	4.700	56.40	85.00	169.20	2,988.0	337.60	2.500	64
C226	Hytrel	3	9.400	112.80	170.00	338.40	5,940.0	671.13	2.500	64
C276	SXB (NBR)	3	7.500	90.00	135.00	270.00	4,716.0	532.84	2.880	73
C276	Hytrel	3	15.000	180.00	269.00	540.00	9,432.0	1065.67	2.880	73
C280	SXB (NBR)	3	12.000	114.00	216.00	+	7,560.0	854.17	3.000	76
C280	Hytrel	3	22.000	264.00	396.00	+	13,866.0	1 566.65	3.000	76
C285	SXB (NBR)	3	14.600	175.20	262.00	+	9,182.0	1 037.43	4.000	102
C285	Hytrel	3	26.000	312.00	476.00	+	16,680.0	1 882.33	4.000	102
C295	SXB (NBR)	3	18.000	216.00	324.00	+	11,340.0	1 281.25	3.500	89
C295	Hytrel	3	36.000	432.00	648.00	+	22,680.0	2 562.50	3.500	89
C2955	SXB (NBR)	5	30.000	360.00	540.00	+	18,900.0	2 135.42	4.000	102
C2955	Hytrel	5	60.000	720.00	1,080.00	+	37,800.0	4 270.83	4.000	102
H Type										
H3067	SXB (NBR)	7	53.000	639.00	954.00	+	33,396.0	3 773.25	4.500	114
H3067	Hytrel	7	75.000	900.00	1,348.00	+	47,196.0	5 332.44	4.000	102
H3567	SXB (NBR)	7	74.000	888.00	1,332.00	+	46,632.0	5 268.72	5.000	127
H3567	Hytrel	7	100.000	1,200.00	1,799.00	+	63,000.0	7 118.06	4.500	114
H3667	SXB (NBR)	7	103.000	1,236.00	1,851.00	+	64,812.0	7 322.78	5.620	146
H3667	Hytrel	7	140.000	1,680.00	2,519.00	+	88,200.0	9 965.28	5.000	127
H4067	SXB (NBR)	7	140.000	1,680.00	2,520.00	+	88,224.0	9 967.99	6.250	159
H4067	Hytrel	7	200.000	2,400.00	3,600.00	+	126,000.0	14 236.11	5.500	140
H4567	SXB (NBR)	7	190.000	2,280.00	+	+	119,700.0	13 524.30	7.000	178
H4567	Hytrel	7	270.000	3,240.00	+	+	170,000.0	19 207.45	6.000	152
RRS Type										
RRS090	SOX (NBR)	3	0.230	2.76	4.11	8.28	144.0	16.27	1.000	25
RRS095	SOX (NBR)	3	0.310	3.72	5.50	11.16	194.0	21.92	1.120	28
RRS099	SOX (NBR)	3	0.500	6.00	9.10	18.00	318.0	35.93	1.180	30
RRS100	SOX (NBR)	3	0.660	7.92	11.90	23.76	417.0	47.11	1.380	35
RRS110	SOX (NBR)	3	1.260	15.12	23.00	45.36	792.0	89.48	1.620	42
RRS150	SOX (NBR)	3	2.000	24.00	35.00	72.00	1,240.0	140.10	1.880	48
RRS190	SOX (NBR)	3	2.700	32.40	49.00	97.20	1,728.0	195.24	2.120	55

Notes: ■ + indicates: exceeds RPM capacity.

■ See Chart on page JW-9 for Bronze and Urethane ratings.

Elastomers In Compression (Spiders)



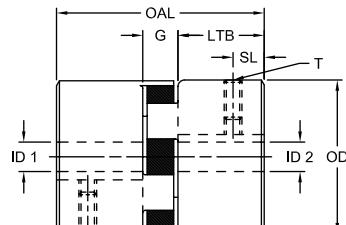
Elastomers In Compression (Spiders) Dimensional Data

Size					A	DC	H					A	H	AA		HH	W	B				
	Solid Center Spiders				Open Center Spiders								Snap Wrap Spiders		All							
	Material Available				Material Available								Material									
	NBR	Urethane	Hytre [®]	Bronze	in	in	in	NBR	Urethane	Hytre [®]	Bronze	in	NBR	URE	HYT	BRZ	in	in				
L035	X	—	—	—	0.62	—	—	—	—	—	—	—	—	—	—	—	0.28	0.21				
L050	X	X	X	—	1.07	—	—	—	—	—	X	1.07	—	0.31	—	0.31	N/A	—	0.42	0.27		
L070	X	X	—	—	1.38	—	—	X	X	X	X	1.38	—	0.50	—	0.50	N/A	—	—	0.42	0.27	
L075	X	—	—	—	1.75	—	—	X	X	X	X	1.75	—	0.75	—	0.75	N/A	—	—	0.44	0.27	
L090/L095	X	—	—	—	2.12	0.18	0.88	X	X	X	X	2.12	—	0.88	—	0.75	X	2.56	1.06	0.44	0.36	
L099/L100	X	—	—	—	2.54	0.25	1.03	X	X	X	X	2.54	—	1.03	—	1.03	X	3.08	1.37	0.61	0.43	
L110	X	—	X	—	3.31	NBR .25 HYT .18	1.19	X	X	X	X	3.31	—	1.18	—	1.38	X	3.87	1.50	0.75	0.45	
L150	X	—	X	—	3.75	NBR .31 HYT .21	1.25	X	X	X	X	3.75	—	1.25	—	1.125	X	4.56	1.75	0.88	0.59	
L190	X	—	X	—	4.50	NBR .31 HYT .18	1.38	X	X	X	X	4.50	—	1.38	—	1.38	X	5.18	2.25	0.88	0.60	
L225	X	—	X	—	4.98	NBR .38 HYT .18	1.75	X	X	X	X	4.98	—	1.75	—	1.75	URE	5.44	2.75	0.88	0.73	
L276	—	—	—	—	—	—	—	X	—	—	X	6.19	—	1.75	—	1.75	N/A	—	—	1.45	0.75	

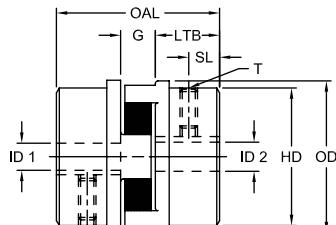
Notes: ■ X indicates: Applicable.

■ See pages JW-5 and JW-9 for more information on spiders.

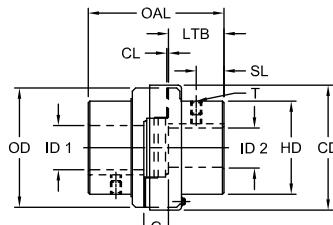
L, C and H Type Couplings



Style 1



Style 2



Style 3

L Type, C Type & H Type Dimensional Data

Size	Style No	OAL	G	LTB	SL	CL	T	ID1 - ID2		OD	CD	HD	Weight		Moment of Inertia (Solid) WR ² lb-in ²			
								Min Bore					Min Bore	Max Bore				
								in	mm				in	in	lb-in ²			
L Type																		
L035	1	0.81	0.28	0.27	0.13	N/A	#6-32	0.125	3	0.375	9	0.63	N/A	0.63	0.10	0.10	0.003	
L050	1	1.71	0.48	0.62	0.31	N/A	1/4-20	0.250	6	0.625*	16	1.08	N/A	1.08	0.30	0.20	0.054	
L070	1	1.98	0.48	0.75	0.38	N/A	1/4-20	0.250	6	0.750	19	1.36	N/A	1.36	0.60	0.40	0.115	
L075	1	2.13	0.50	0.82	0.31	N/A	1/4-20	0.250	6	0.875	22	1.75	N/A	1.75	1.00	0.80	0.388	
L090	1	2.15	0.52	0.82	0.44	N/A	1/4-20	0.250	6	1.000	25	2.11	N/A	2.11	1.50	1.20	0.772	
L095	1	2.51	0.52	1.00	0.44	N/A	5/16-18	0.438	12	1.125	29	2.11	N/A	2.11	1.80	1.30	0.890	
L099	1	2.84	0.71	1.06	0.44	N/A	5/16-18	0.438	12	1.188	30	2.54	N/A	2.54	2.50	2.00	2.048	
L100	1	3.48	0.71	1.38	0.44	N/A	5/16-18	0.438	12	1.375	35	2.54	N/A	2.54	3.20	2.40	2.783	
L110	1	4.22	0.88	1.68	0.75	N/A	3/8-16	0.625	16	1.625	42	3.32	N/A	3.32	6.60	5.30	8.993	
L150	1	4.50	1.00	1.75	0.75	N/A	3/8-16	0.625	16	1.875	48	3.75	N/A	3.75	8.80	7.00	11.477	
L190	2	4.86	1.00	1.94	0.88	N/A	1/2-13	0.750	19	2.125	55	4.50	N/A	4.00	15.30	12.30	39.256	
L225	2	5.34	1.00	2.18	1.00	N/A	1/2-13	0.750	19	2.625	67	5.00	N/A	4.25	19.60	15.00	65.000	
L276	2	7.82	1.58	3.12	1.56	N/A	1/2-13	0.875	22	2.875	73	6.18	N/A	5.00	40.00	30.50	188.000	
C Type																		
C226	3	7.00	1.50	2.75	1.38	0.12	1/2-13	0.875	22	2.500	64	5.15	5.50	4.12	29.00	22.00	74.000	
C276	3	7.87	1.63	3.12	1.56	0.12	1/2-13	0.875	22	2.875	73	6.18	6.53	5.00	47.00	36.00	188.000	
C280	3	7.87	1.63	3.12	1.56	0.12	1/2-13	1.250	32	3.000	76	7.50	7.81	5.50	61.00	49.00	362.000	
C285	3	9.13	1.63	3.75	1.75	0.12	5/8-11	1.250	32	4.000	102	8.50	8.88	6.50	87.00	68.00	642.000	
C295	3	9.38	1.88	3.75	1.88	0.12	5/8-11	1.500	38	3.500	89	9.12	9.62	6.25	97.00	78.00	862.000	
C2955	3	10.38	1.88	4.25	2.12	0.12	5/8-11	1.750	44	4.000	102	9.12	9.62	7.12	117.00	90.00	932.000	
H Type																		
H3067																		
SXB(NBR)	3	11.62	2.12	4.75	2.37	0.12	5/8-11	2.125	54	4.500	114	10.00	10.68	7.00	162.00	123.00	1,485.000	
HYTREL®		11.62	2.12	4.75	2.37	0.12	5/8-11	2.125	54	4.000	102	10.00	10.68	7.00	162.00	123.00	1,485.000	
H3567																		
SXB(NBR)	3	12.38	2.38	5.00	2.50	0.12	5/8-11	2.625	67	5.000	127	11.00	11.68	7.75	246.00	195.00	2,174.000	
HYTREL		12.38	2.38	5.00	2.50	0.12	5/8-11	2.625	67	4.500	114	11.00	11.68	7.75	246.00	195.00	2,174.000	
H3667																		
SXB(NBR)	3	13.88	2.62	5.63	2.81	0.12	3/4-10	3.000	76	5.625	143	12.00	12.45	8.75	262.00	190.00	3,591.000	
HYTREL		13.88	2.62	5.63	2.81	0.12	3/4-10	3.000	76	5.000	127	12.00	12.45	8.75	262.00	190.00	3,591.000	
H4067																		
SXB(NBR)	3	15.38	2.88	6.25	3.12	0.12	3/4-10	3.250	83	6.250	159	13.25	14.00	9.75	390.00	291.00	6,287.000	
HYTREL		15.38	2.88	6.25	3.12	0.12	3/4-10	3.250	83	5.500	140	13.25	14.00	9.75	390.00	291.00	6,287.000	
H4567																		
SXB(NBR)	3	17.12	3.12	7.00	3.50	0.12	3/4-10	3.500	89	7.000	178	14.50	15.75	10.75	575.00	435.00	10,565.000	
HYTREL		17.12	3.12	7.00	3.50	0.12	3/4-10	3.500	89	6.000	152	14.50	15.75	10.75	575.00	435.00	10,565.000	

Notes: ■ * indicates: Without keyway.

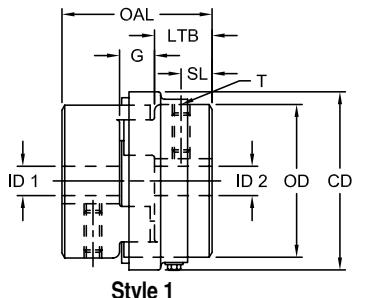
■ 2 indicates: Maximum bore is less for H Type couplings with Hytrel due to increased torque capacity.

■ N/A indicates: Not Applicable.

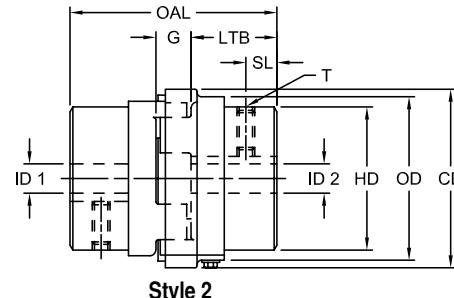
■ Jaw coupling hubs are standard with one set screw, for two set screws see RRS & RRC sections.

■ See pages JW-9 and JW-22 for Performance Data.

LC and AL Type Couplings



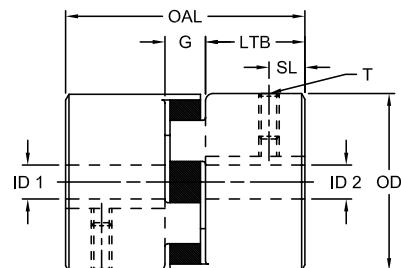
Style 1



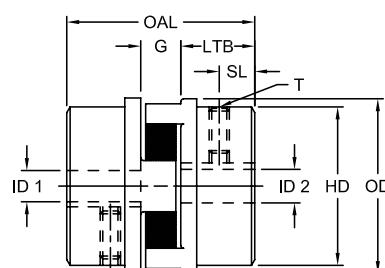
Style 2

LC Type Dimensional Data

Size	Style No	OAL	G	LTB	SL	T	ID1 - ID2		CD	OD	HD	Weight		Moment of Inertia (Solid) WR ² lb-in ²			
							Min Bore					Solid	Max Bore				
							in	mm				lbs	lbs				
LC090	1	2.12	0.50	0.81	0.44	1/4-20	0.250	6	1.00	25	2.54	2.11	2.11	1.2	0.772		
LC095	1	2.50	0.50	1.00	0.44	5/16-18	0.437	11	1.12	29	2.54	2.11	2.11	1.8	0.890		
LC099	1	2.87	0.75	1.06	0.44	5/16-18	0.437	11	1.18	30	3.11	2.53	2.53	2.5	2.048		
LC100	1	3.50	0.75	1.38	0.44	5/16-18	0.437	11	1.37	35	3.11	2.53	2.53	3.5	2.5	2.783	
LC110	1	4.25	0.87	1.69	0.75	3/8-16	0.625	16	1.62	41	3.81	3.31	3.31	6.6	5.0	8.993	
LC150	1	4.50	1.00	1.75	0.75	3/8-16	0.625	16	1.88	48	4.41	3.75	3.75	9.1	7.0	11.477	
LC190	2	4.88	1.00	1.94	0.88	1/2-13	0.750	19	2.12	54	5.01	4.50	4.00	17.0	13.0	39.256	
LC225	2	5.38	1.00	2.19	1.00	1/2-13	0.875	22	2.62	67	5.61	5.00	4.25	23.0	18.0	62.003	



Style 1



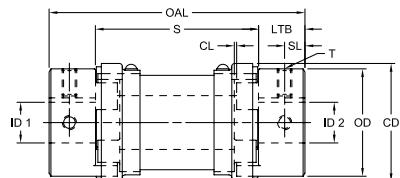
Style 2

AL Type Dimensional Data

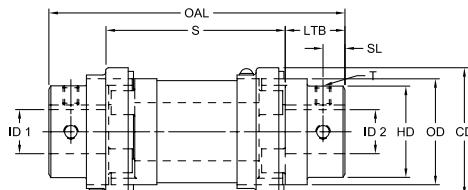
Size	Style No	OAL	G	LTB	SL	T	ID1 - ID2				CD	OD	HD	Weight		Moment of Inertia (Solid) WR ² lb-in ²			
							Min Bore		Max Bore					Solid	Max Bore				
							in	mm	in	mm				lbs	lbs				
AL050	1	1.71	0.48	0.62	0.31	1/4-20	0.250	6	0.625	16	N/A	1.08	1.08	0.2	0.2	0.020			
AL070	1	2.00	0.50	0.75	0.38	1/4-20	0.250	6	0.750	19	N/A	1.36	1.36	0.3	0.2	0.040			
AL075	2	2.12	0.50	0.81	0.31	1/4-20	0.250	6	0.875	22	N/A	1.75	1.53	0.4	0.3	0.121			
AL090	2	2.34	0.52	0.91	0.34	1/4-20	0.250	13	0.875	22	N/A	2.12	1.53	0.5	0.4	0.271			
AL095	1	2.50	0.50	1.00	0.44	5/16-18	0.500	13	1.125	29	N/A	2.12	2.12	0.8	0.6	0.336			
AL099	2	2.81	0.75	1.03	0.44	5/16-18	0.500	13	1.187	30	N/A	2.53	2.06	1.0	0.8	0.644			
AL100	1	3.50	0.75	1.37	0.44	5/16-18	0.500	13	1.375	35	N/A	2.53	2.53	1.5	1.1	1.207			
AL110	1	4.25	0.87	1.69	0.75	5/16-18	0.625	16	1.625	41	N/A	3.31	3.31	2.7	2.1	3.531			
AL150	2	4.50	1.00	1.75	0.63	5/16-18	0.625	16	1.875	48	N/A	4.25	3.19	3.7	2.8	7.002			

Notes: ■ N/A indicates: Not Applicable.

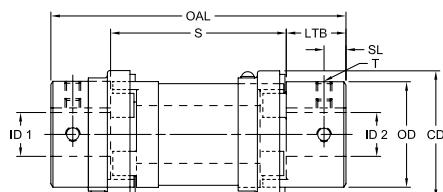
■ See pages JW-9 and JW-22 for Performance Data.



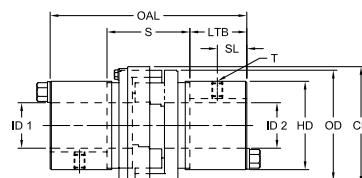
Style 1



Style 2



Style 3



Style 4

RRS & RRC Type Dimensional Data

Size	Style No	OAL in	S in	LTB in	SL in	CL in	T in	ID1 - ID2				CD in	OD in	HD in	Weight lbs
								Min Bore		Max Bore					
								in	mm	in	mm				
RRS090	1	5.12	3.5	0.81	0.43	0.09	1/4-20	0.250	6	1.000	25	2.50	2.11	—	1.7
		6.62	5.0												1.8
		8.62	7.0												1.9
RRS095	1	5.50	3.5	1.00	0.43	0.09	5/16-18	0.437	11	1.125	29	2.50	2.11	—	1.9
		7.00	5.0												2.0
		9.00	7.0												2.1
RRS099	1	5.62	3.5	1.06	0.44	0.12	5/16-18	0.437	11	1.187	30	3.12	2.53	—	2.2
		7.12	5.0												2.5
		9.12	7.0												2.8
RRS100	1	6.25	3.5	1.38	0.44	0.12	5/16-18	0.437	11	1.375	35	3.12	2.53	—	3.2
		7.75	5.0												3.5
		9.75	7.0												3.8
RRS110	1	6.88	3.5	1.68	0.75	0.12	5/16-18	0.625	16	1.625	41	3.81	3.31	—	6.2
		8.36	5.0												6.6
		10.36	7.0												7.2
RRS150	2	7.00	3.5	1.75	0.62	0.12	3/8-16	0.625	16	1.875	48	4.44	3.75	—	12.2
		8.50	5.0												15.7
		10.50	7.0												20.3
RRS190	3	7.38	3.5	1.94	0.88	0.12	1/2-13	0.750	19	2.125	55	5.00	4.50	4.00	23.0
		8.88	5.0												28.2
		10.88	7.0												35.0
RRS225	3	7.88	3.5	2.18	1.00	0.12	1/2-13	0.750	19	2.625	67	5.62	5.00	4.25	26.5
		9.38	5.0												33.0
		11.38	7.0												41.4
RRC226	4	9.19	3.5	2.84	1.38	N/A	1/2-13	0.875	22	2.125	54	5.50	5.16	4.12	37.0
		10.68	5.0												43.0
		12.68	7.0												49.0
RRC276	4	8.60	3.5	2.47	1.00	N/A	1/2-13	0.875	22	2.875	73	6.50	6.18	5.00	52.0
		9.94	5.0												59.0
		11.94	7.0												69.0
RRC280	4	5.50	3.5	2.47	1.00	N/A	1/2-13	1.250	32	3.375	86	7.81	7.50	5.50	66.0
		9.94	5.0												75.0
		11.94	7.0												87.0
RRC285	4	9.31	3.5	2.87	1.00	N/A	1/2-13	1.250	32	4.125	105	8.88	8.50	6.50	92.0
		10.75	5.0												104.0
		12.75	7.0												121.0
RRC295	4	9.50	4.0	2.75	1.38	N/A	1/2-13	1.500	38	4.125	105	9.56	9.12	6.50	100.0
		10.50	5.0												112.0
		12.50	7.0												128.0
RRC2955	4	9.50	4.0	2.75	1.88	N/A	5/8-11	1.750	44	4.125	105	9.56	9.12	6.50	96.0
		10.50	5.0												111.0
		12.50	7.0												132.0

Notes: ■ N/A indicates: Not Applicable.
 ■ See pages JW-9 and JW-22 for Performance Data.



Jaw

RRS Type Metric Spacer, L Type / Special Lengths Dimensional Data

JW

RRS Type - Metric Spacer Dimensional Data

Size	Style No	ID1 - ID2				S mm	OAL mm	Spacer Weight			
		Min Bore		Max Bore				lbs	Kg		
		in	mm	in	mm						
RRS090	1	0.250	11	1.000	25	100	141	0.83	0.38		
						140	181	1.21	0.55		
						180	221	1.59	0.79		
RRS095	1	0.437	11	1.125	28	100	151	0.83	0.38		
						140	191	1.21	0.55		
						180	231	1.59	0.79		
RRS099	1	0.437	11	1.188	30	100	154	1.08	0.49		
						140	194	1.63	0.74		
						180	234	2.17	0.98		
RRS100	1	0.437	11	1.375	35	100	170	1.08	0.49		
						140	210	1.63	0.74		
						180	250	2.17	0.98		
RRS110	1	0.625	16	1.625	41	100	186	1.64	0.74		
						140	226	2.55	1.16		
						180	266	3.48	1.58		
RRS150	2	0.625	16	1.875	48	100	189	5.92	2.69		
						140	229	9.54	4.33		
						180	269	13.19	5.98		
RRS190	2	0.750	19	2.125	54	100	199	8.75	3.97		
						140	239	14.00	6.35		
						180	277	19.26	8.74		
RRS225	2	0.750	19	2.625	67	100	221	10.83	4.91		
						140	261	17.49	7.93		
						180	291	24.18	10.97		

Note: ■ See pages JW-9 and JW-22 for Performance Data.

L Type Hubs - Special Lengths

Size	OAL		LTB		OAL	LTB		
	Standard Dimensions		Special Dimensions					
	Complete Couplings Overall Length in		Hub Length Thru Bore in			Complete Couplings Overall Length in		
L050	1.720		0.620			1.10	0.31	
						1.34	0.43	
						2.24	0.88	
L070	2.000		0.750			1.23	0.38	
						3.00	1.25	
L095	2.500		1.000			3.86	1.68	
L100	3.500		1.375			7.99	3.62	
L110	4.250		1.690			2.37	0.75	
						2.47	0.80	
						6.63	2.88	

Notes: ■ For ordering information on any special length jaw hub, please contact Lovejoy Customer Service.

■ The Overall Length is calculated using two hubs with the same length thru bore.



JIS

Jaw In-Shear

In This Section:

- Jaw In-Shear 6 Pin
- Jaw In-Shear 6 Pin Spacer





JIS

Jaw In-Shear



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.



JIS

Jaw In-Shear

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6 Pin Spacer > Dimensional Data	48	JIS-8

Jaw In-Shear (JIS) 6 Pin Saves Time, Maintenance, and Inventory Costs

JIS

- Created through Lovejoy's commitment to continual product improvement
- Unique 6 pin locking system
- Utilizes the standard Lovejoy L and C Type hub design
- The spider is radially removable, so neither hub needs to be removed from their shaft and no tools are needed

Choose from 16 Jaw In-Shear 6 Pin Sizes and New Spacer design

- Available in bore sizes up to 9 inches
- Spacer version designed as a non-lubricates drop-in replacement for a grid spacer coupling
- The JIS 6 Pin spacer coupling is available in sizes LS090-CS350
- Spacer sizes cover BSE (between shaft end measurement) of 3.5, 5, 7, and 9 inches, depending on coupling size



Jaw In-Shear 6 Pin Assembled

Jaw In-Shear 6 Pin Stainless Steel Option

For highly corrosive, heavy washdown environments, the JIS 6 Pin design combined with Lovejoy's stainless steel jaw hubs creates a totally stainless steel coupling.

Features

- 2° angular misalignment capability
- .030 -.094 of an inch parallel misalignment capability
- Torsional wind-up of 5° at full load
- 50D shore Urethane material – maximum temperature of 200° F (93° C)
- The retaining ring is made from #347 cast stainless steel
- Stainless steel hubs are available for sizes SS075-SS150 from stock. All other stainless steel hub sizes are available as made to order
- Can be used with AL Type aluminum jaw coupling hubs for AL090/095, AL099, 100 and AL110
- The Original JIS locking ring is interchangeable with the new JIS 6 Pin elastomer



Jaw In-Shear 6 Pin Element
50D Shore Urethane Material



Jaw In-Shear 6 Pin Ring
Stainless Steel



WARNING

You must refer to page JIS-2 (Page 42) 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.

Jaw In-Shear Coupling Selection Process

The selection process for determining the proper Jaw In-Shear coupling size requires using the charts shown in this section. There are four components to be selected, two hubs, one elastomer spider, and one ring.

Information necessary before a coupling can be selected:

- HP (or KW) and RPM or Torque of Driver
- Shaft sizes of Driver and Driven equipment and
- Corresponding keyways
- Application description, including operation details
- Environmental conditions (temperature, space limitations, or corrosive/chemicals)

List of Charts provided for Selection:

- Chart 1 – Application Service Factor K1 (page JIS-5)
- Chart 2 – Service Factor for Operational Period K2 (page JIS-5)
- Chart 3 – Service Factor for Starts per Hour K3 (page JIS-5)
- Jaw In-Shear Torque Rating Data (page JIS-6)

Steps In Selecting A Jaw In-Shear Coupling

Step 1: Determine the Nominal/Torque (Tkn) of your application:

$$\text{in-lbs} = \frac{\text{Tkn}}{\text{RPM}} = (\text{HP} \times 63025)$$

$$\text{Nm} = \frac{\text{Tkn}}{\text{RPM}} = (\text{KW} \times 9550)$$

Step 2: Calculate your Application Service Factor using charts on this page.

The total Service Factor (K) will be:

$$K = K1 \times K2 \times K3$$

Step 3: Calculate the Design Torque (Tkmax) of your application.

Design Torque = Nominal Torque x Service Factor:

$$\text{Tkmax} = \text{Tkn} \times K$$

Step 4: Use the Jaw In-Shear Torque Rating table on page JIS-6. Scan down this chart to the first entry where both the Tkn and Tkmax torque values for the coupling size are greater than your application. Once this coupling size is determined, ensure that your application does not exceed the maximum RPM or maximum Bore Size for that hub.

Step 5: Once the coupling size, maximum RPM and maximum Bore has been verified, refer to pages JIS-7 and JIS-8 for dimensional data.

Application Service Factor (K1)

Chart 1

Driven Machine Examples	Prime Mover Electric Motor	
	Standard Torque	High Torque
(a) Uniform operation, with small masses to be accelerated. Hydraulic and centrifugal pumps, light generators, blowers, fans, ventilators, belt/screw conveyors	1.0	1.4
(b) Uniform operation, with medium masses to be accelerated. Sheet metal bending machines, wood working machines, mills, textile machines, mixers	1.4	1.8
(c) Medium masses to be accelerated & irregular operation. Rotating ovens, printing presses, generators, shredders, winders, spinning machines, pumps for viscous fluids	1.7	2.0
(d) Medium masses to be accelerated, irregular operation & shocks. Concrete mixers, drop hammers, cable cars, paper mills, compression pumps, propeller pumps, rope winders, centrifuges	2.0	2.2
(e) Large masses to be accelerated, irregular operation & heavy shocks. Excavators, hammer mills, piston pumps, presses, rotary boring machines, shears, forge presses, stamping presses	2.2	2.4
(f) Very large masses to be accelerated, irregular operation & heavy shocks. Piston type compressors and pumps without speed variations, heavy roll sets, welding machines, brick presses, stone crushers	2.3	2.8

Service Factor for Operation Period (K2)

Chart 2

Uninterrupted Time of Operation	Factor
Up to 8 hours per day	1.00
More than 8 hours, up to 16 hours/day	1.10
More than 16, up to 24 hours/day	1.15

Service Factor for Starts per Hour (K3)

Chart 3

	Operation, Per Table K1:	
	a-c	d-f
Up to 10 starts/stops per hour	1.0	1.0
More than 10, up to 40 per hour	1.4	1.5
More than 40, up to 125 per hour	1.8	2.0
More than 125, up to 250 per hour	2.2	2.5



Slide off locking ring



Remove and replace element



**Slide on locking ring -
 twist to secure**

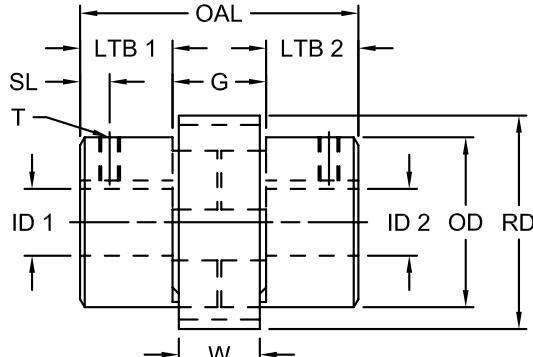
You're Done!

Jaw In-Shear Torque Rating Data

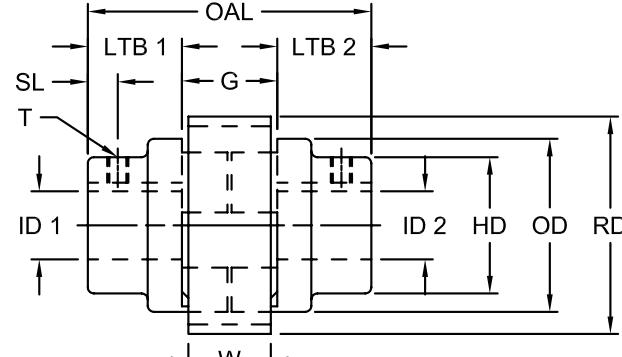
Size	Max Bore		Nominal Torque		Max Torque		Weight	Max Speed RPM
	in	mm	in-lbs	Nm	in-lbs	Nm		
LS090	1.000	25	335	38	670	76	1.50	9,200
LS095	1.125	28	335	38	670	76	1.50	9,200
LS099	1.188	30	560	63	1,110	125	2.60	7,700
LS100	1.375	35	560	63	1,110	125	2.90	7,700
LS110	1.625	42	1,090	123	2,180	246	5.90	5,900
LS150	1.875	48	1,810	205	3,620	409	8.60	5,200
LS190	2.125	55	2,920	330	5,830	659	14.60	4,300
LS225	2.625	65	4,200	475	8,400	949	17.00	3,900
LS276	2.875	73	7,460	843	14,920	1,686	37.70	3,100
CS280	3.000	76	13,300	1,503	26,600	3,006	53.50	2,600
CS285	4.000	102	18,760	2,120	37,500	4,237	80.60	2,300
CS300	4.875	109	33,000	3,728	66,000	7,457	106.80	2,300
CS310	5.625	143	50,000	5,649	100,000	11,298	139.30	2,100
CS350	6.375	162	83,333	9,415	166,666	18,831	228.20	1,900
CS400	7.375	187	126,667	14,311	256,334	28,623	345.10	1,800
CS500	9.000	229	183,333	20,714	366,666	41,428	589.60	1,500

The Jaw In-Shear Coupling, sizes LS090 – CS285 consists of two hubs, one Jaw In-Shear spider, and one Jaw In-Shear ring.

The Jaw In-Shear Coupling, sizes CS300 – CS500 consists of two hubs, one Jaw In-Shear cushion (set of six) and one Jaw In-Shear ring.



Style 1



Style 2

Jaw In-Shear 6 Pin Dimensional Data

Size	Style	OAL in	LTB1 - LTB2 in	SL in	G in	T 1/4-20	ID1 - ID2				W in	RD in	OD in	HD in
							Min Bore		Max Bore					
							in	mm	in	mm	in	in	in	in
LS090	1	2.64	0.82	0.44	1.00	1/4-20	0.25	6	1.00	25	0.83	2.75	2.11	2.11
LS095	1	3.00	1.00	0.44	1.00	5/16-18	0.44	11	1.13	29	0.83	2.75	2.11	2.11
LS099	1	3.52	1.06	0.44	1.40	5/16-18	0.44	11	1.19	30	1.21	3.19	2.54	2.54
LS100	1	4.16	1.38	0.44	1.40	5/16-18	0.44	11	1.38	35	1.21	3.19	2.54	2.54
LS110	1	5.00	1.68	0.75	1.64	3/8-16	0.63	16	1.63	41	1.45	4.00	3.32	3.32
LS150	1	5.44	1.75	0.75	1.94	3/8-16	0.63	16	1.88	48	1.71	4.69	3.75	3.75
LS190	2	5.82	1.94	0.88	1.94	1/2-13	0.75	19	2.13	54	1.71	5.50	4.50	4.00
LS225	2	6.30	2.18	1.00	1.94	1/2-13	0.75	19	2.63	67	1.71	6.13	5.00	4.25
LS276	2	9.43	3.12	1.56	3.19	1/2-13	0.88	22	2.88	73	2.97	7.41	6.18	5.00
CS280	2	9.43	3.12	1.56	3.19	1/2-13	1.25	32	3.00	76	2.97	8.94	7.50	5.50
CS285	2	10.69	3.75	1.75	3.19	5/8-11	1.25	32	4.00	102	2.97	10.00	8.50	6.50
CS300	2	12.25	4.00	2.00	4.25	CSL	1.50	38	4.88	124	5.10	11.07	10.00	7.25
CS310	2	13.25	4.50	2.25	4.25	CSL	1.50	38	5.63	143	5.10	12.07	11.00	8.25
CS350	2	17.64	6.38	3.19	4.88	CSL	1.50	38	6.38	162	5.70	13.57	12.50	9.25
CS400	2	20.14	7.38	3.69	5.38	CSL	1.75	44	7.38	187	6.20	15.33	14.25	10.75
CS500	2	24.38	9.00	4.50	6.38	CSL	1.75	44	9.00	229	7.20	17.57	16.50	13.25

The Jaw In-Shear Spacer Coupling, sizes LS090 – CS285 consists of:

2 Grid shaft hubs

1 Jaw In-Shear spacer subassembly:

- 2 Jaw In-Shear spacer hubs
- 1 Jaw In-Shear spider
- 1 Jaw In-Shear ring

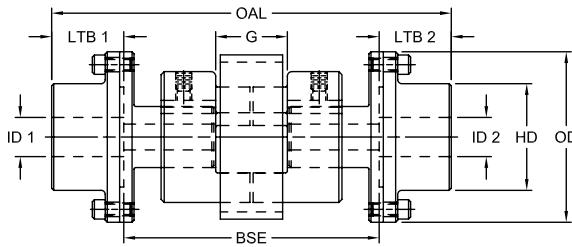
JIS

The Jaw In-Shear Spacer Coupling, sizes CS300 – CS350 consists of:

2 Grid shaft hubs

1 Jaw In-Shear spacer subassembly:

- 2 Jaw In-Shear spacer hubs
- 1 Jaw In-Shear cushion (set of six)
- 1 Jaw In-Shear ring



Jaw In-Shear 6 Pin Spacer Dimensional Data

Size	OAL in	LTB1 - LTB2 in	G in	ID1 - ID2				BSE in	OD in	HD in	Grid Hub Size
				Min Bore		Max Bore					
				in	mm	in	mm				
LS090	6.26	1.375	1.000	0.50	12.7	1.375	35	3.5	3.38	2.06	1020
	7.76	1.375	1.000	0.50	12.7	1.375	35	5.0	3.38	2.06	1020
	9.76	1.375	1.000	0.50	12.7	1.375	35	7.0	3.38	2.06	1020
	11.76	1.375	1.000	0.50	12.7	1.375	35	9.0	3.38	2.06	1020
LS095	6.26	1.375	1.000	0.50	12.7	1.375	35	3.5	3.38	2.06	1020
	7.76	1.375	1.000	0.50	12.7	1.375	35	5.0	3.38	2.06	1020
	9.76	1.375	1.000	0.50	12.7	1.375	35	7.0	3.38	2.06	1020
	11.76	1.375	1.000	0.50	12.7	1.375	35	9.0	3.38	2.06	1020
LS099	6.26	1.375	1.400	0.50	12.7	1.375	35	3.5	3.38	2.06	1020
	7.76	1.375	1.400	0.50	12.7	1.375	35	5.0	3.38	2.06	1020
	9.76	1.375	1.400	0.50	12.7	1.375	35	7.0	3.38	2.06	1020
	11.76	1.375	1.400	0.50	12.7	1.375	35	9.0	3.38	2.06	1020
LS100	6.25	1.375	1.400	0.50	12.7	1.375	35	3.5	3.38	2.06	1020
	7.75	1.375	1.400	0.50	12.7	1.375	35	5.0	3.38	2.06	1020
	9.75	1.375	1.400	0.50	12.7	1.375	35	7.0	3.38	2.06	1020
	11.75	1.375	1.400	0.50	12.7	1.375	35	9.0	3.38	2.06	1020
LS110	8.25	1.625	1.640	0.50	12.7	1.625	41	5.0	3.69	2.34	1030
	10.25	1.625	1.640	0.50	12.7	1.625	41	7.0	3.69	2.34	1030
	12.24	1.625	1.640	0.50	12.7	1.625	41	9.0	3.69	2.34	1030
LS150	9.26	2.125	1.940	0.50	12.7	2.125	54	5.0	4.44	3.09	1040
	11.25	2.125	1.940	0.50	12.7	2.125	54	7.0	4.44	3.09	1040
	13.25	2.125	1.940	0.50	12.7	2.125	54	9.0	4.44	3.09	1040
LS190	11.75	2.375	1.940	0.50	12.7	2.375	60	7.0	4.94	3.44	1050
	13.75	2.375	1.940	0.50	12.7	2.375	60	9.0	4.94	3.44	1050
LS225	12.75	2.875	1.940	0.75	19.05	2.875	73	7.0	5.69	4.06	1060
	14.75	2.875	1.940	0.75	19.05	2.875	73	9.0	5.69	4.06	1060
LS276	21.76	3.125	3.190	0.75	19.05	3.125	79	9.0	6.00	4.31	1070
CS280	24.24	3.500	3.190	1.06	26.97	3.500	89	9.0	7.00	4.81	1080
CS285	16.00	3.500	3.190	1.06	26.97	3.500	89	9.0	7.00	4.81	1080
CS300	17.00	4.000	4.250	1.06	26.97	4.000	102	9.0	8.25	5.62	1090
CS310	16.12	3.560	4.898	1.50	38.10	4.750	121	9.0	9.88	6.75	1100
CS350	17.20	4.100	5.380	2.00	50.80	5.500	140	9.0	10.88	7.75	1110



Curved Jaw

2

In This Section:

- CJ Series
- GS Series





3

Curved Jaw



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.



Curved Jaw

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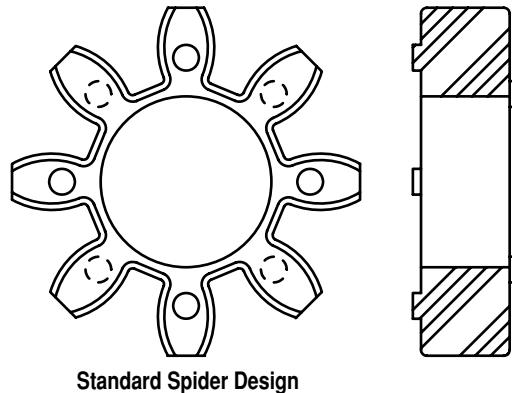
The Curved Jaw Design

- Three piece design that is easy to assemble
- The curved jaw design incorporates both radial and axial curvature (crowning) to the elastomer (spider)
- Hubs are offered in sintered iron, steel, aluminum, cast iron and nodular iron materials
- Three different urethane elastomers available
- No metal to metal contact and no lubrication required
- Fail safe design due to the jaw in compression design (continues to function after the elastomer fails)
- The CJ series covers a torque range of 67 to 247,800 in-lbs

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Elastomers

- Four types of spiders are available for the CJ Series of couplings
- Urethane spiders provide high abrasion resistance and elasticity, along with good damping characteristics
- The spiders are offered in a variety of shore hardesses, each providing a different level of torque capacity, damping, and chemical resistance
- The 92A shore insert (yellow in color) is the standard, offering excellent torque carrying capacity
- The 80A shore insert (blue) offers the best damping characteristics
- The 95/98A shore spider (red) offers higher torque than the standard 92 shore, but retains greater damping capacity compared to the 64D shore insert (green)
- The 64D shore insert is offered for high humidity environments, higher temperatures, and offers the highest torque capacity
- The standard curved jaw spider design has a hole in the center to accommodate small between shaft end measurements
- The 80A, 92A, and 95/98A shore spiders have a temperature capacity of 212° F
- The 64D shore spider has a temperature capacity of 230° F
- The curved jaw spider's urethane material also resists oil, dirt, sand, grease, moisture, many solvents, as well as atmospheric effects of ozone



Standard Spider Design

CJ Series Elastomer Recommendation Chart

Spider Type	Application types requiring:
80 shore A (Blue)	Good dampening properties
92 shore A (Yellow)	General & hydraulic applications
95/98 shore A (Red)	High torque requirements
64 shore (Green)	High humidity environments

CJ Series Elastomer Performance Data

Spider Type	Color	Material	Temperature Range		Stock Sizes	Misalignment (inches)			Typical Applications
			Normal	Maximum		Angular	Parallel	Axial	
80 Shore A	Blue	Polyurethane	-40° to 212° F	-40° to 248° F	14-180	.9 - 1.3 deg	.008 - .027	.039 - .252	Good dampening properties
92 Shore A	Yellow	Polyurethane	-40° to 212° F	-50° to 248° F	14-180	.9 - 1.3 deg	.008 - .027	.039 - .252	General & hydraulic
95/98 Shore A	Red	Polyurethane	-40° to 212° F	-40° to 248° F	14-180	.9 - 1.3 deg	.008 - .027	.039 - .252	High torque requirements

CJ Series Special Elastomer Data

Spider Type	Color	Material	Temperature Range		Stock Sizes	Misalignment (inches)			Typical Applications
			Normal	Maximum		Angular	Parallel	Axial	
64 Shore D	Green	Polyurethane	-30° to 230° F	-30° to 266° F	14-180	.9 - 1.3 deg	.008 - .027	.039 - .252	High humidity environments

Steps In Selecting A Curved Jaw Coupling

Step 1: Determine the nominal torque of your application:

$$\text{in-lbs} = \frac{\text{Tkn}}{\text{RPM}} = \frac{\text{HP} \times 63025}{\text{RPM}}$$

Step 2: Calculate your Application Service Factor using the charts below. The total Service Factor (K) will be:

$$K = K_1 \times K_2 \times K_3$$

Step 3: Calculate the design torque (DTkmax) of your application.

Design Torque (DTkmax) =
Nominal Torque x service factor.

Step 4: Using the Elastomer Torque Ratings Tables on pages CJ-6 and CJ-7 select the urethane shore hardness which best corresponds to your relative damping needs in the application.

Step 5: Next find the columns listing Tkn and Tkmax values listed in Nm and compare them against the DTkmax figure for your application. Make sure that the spider/coupling size values are larger than the application values.

Step 6: Once the size is selected using the torque values, check the table on page CJ-9 to make sure the bore size needed will fit in the coupling.

Step 7: Double check the overall dimensions of the coupling to ensure that it will fit in the space allowed for the coupling in the application.

*This selection process is based on application factors only. A selection process is also available using DIN 740 part 2 standard. Consult with Lovejoy Engineering for details.

Application Service Factor (K1)

Application Service Factor	Service Factor (K1)
Uniform operation with small masses to be accelerated. Hydraulic and centrifugal pumps, light generators, blowers, fans, ventilators, belt/screw conveyors.	1.0
Uniform operation with medium masses to be accelerated. Sheet metal bending machines, wood working machines, mills, textile machines, mixers.	1.2
Irregular operation, with medium masses to be accelerated. Rotating ovens, printing presses, generators, shredders, winders, spinning machines, pumps for viscous fluids.	1.3
Irregular operation and shocks, with medium masses to be accelerated concrete mixers, drop hammers, cable cars, paper mills, compression pumps, propeller pumps, rope winders, centrifuges.	1.4
Irregular operation and very heavy shocks, with large masses to be accelerated. Excavators, hammer mills, piston pumps, presses, rotary boring machines, shears, forge presses, stone crushers.	1.6
Irregular operation and very heavy shocks, with very large masses to be accelerated. Piston type compressors and pumps without speed variations, heavy roll sets, welding machines, brick presses, stone crushers.	1.8

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

Application Service Factor for Starts per Hour (K2)

Starts Per Hour	100	200	400	800
Service Factor (K2)	1.0	1.2	1.4	1.6

Application Service Factor for Ambient Temperature (K3)

Ambient Temperature	-30° to 30° C	40° C	60° C	80° C
Service Factor (K3)	1.0	1.2	1.4	1.6

Definition of Terms

Tkn	Rated coupling torque
Tkmax	Maximum torque of the coupling
P[kW]	Power in kilowatts
RPM[1/min]	Revolutions per minute
Nm	Newton meters
DTkmax	Maximum torque of the application
Tkw	Varying load of an application in kilowatts
Pkw	Allowable power loss
BX Hub	Extended length hub



WARNING

You must refer to page CJ-2 (Page 50) 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.



Curved Jaw

CJ Series Elastomer Torque Rating Performance Data

CJ Series Elastomer Torque Ratings

Size	Maximum Speed RPM	Wind-Up Angle @		Torque		Torque		Rated HP @	
		Nominal Torque	Maximum Torque	Nominal in-lbs	Maximum in-lbs	Nominal Nm	Maximum Nm	1200 RPM	1800 RPM
Urethane Spider - 92 Shore A (Yellow)									
14	19,000	6, 4°	10°	66	133	7	15	1.2	1.9
19/24	14,000	3, 2°	5°	88	177	10	20	1.7	2.5
24/32	10,600			310	620	35	70	5.9	8.9
28/38	8,500			840	1,680	95	190	16.0	24.0
38/45	7,100			1,680	3,360	190	380	32.0	45.0
42/55	6,000			2,345	4,690	265	530	45.0	65.0
48/60	5,600			2,740	5,480	310	619	52.0	75.0
55/70	4,750			3,625	7,250	410	819	69.0	100.0
65/75	4,250			5,530	11,060	625	1,250	105.0	150.0
75/90	3,550			11,320	22,650	1,279	2,559	215.0	320.0
90/100	2,800			21,240	42,480	2,400	4,799	400.0	600.0
100/110	2,500			29,200	58,400	3,299	6,598	550.0	825.0
110/125	2,240			42,480	84,960	4,799	9,599	800.0	1,210.0
125/145	2,000			58,850	117,700	6,649	13,298	1,120.0	1,680.0
140	1,800			75,670	151,340	8,549	17,098	1,440.0	2,160.0
160	1,500			113,280	226,560	12,798	25,597	2,150.0	3,230.0
180	1,400			165,050	330,100	18,647	37,295	3,140.0	4,715.0
Urethane Spider - 98/95 Shore A (Red)									
14	19,000	6, 4°	10°	111	221	13	25	2.1	3.2
19/24	14,000	3, 2°	5°	150	300	17	34	2.5	4.0
24/32	10,600			530	1,000	60	113	10.0	15.0
28/38	8,500			1,415	2,830	160	320	25.0	40.0
38/45	7,100			2,875	5,750	325	650	55.0	80.0
42/55	6,000			3,980	7,960	450	899	75.0	110.0
48/60	5,600			4,645	9,290	525	1,050	85.0	125.0
55/70	4,750			6,060	12,120	685	1,369	115.0	170.0
65/75	4,250			8,320	16,640	940	1,880	150.0	225.0
75/90	3,550			16,990	33,980	1,920	3,869	320.0	480.0
90/100	2,800			31,860	63,720	3,600	7,199	600.0	900.0
100/110	2,500			43,805	87,610	4,949	9,898	800.0	1,250.0
110/125	2,240			63,720	127,440	7,199	14,398	1,280.0	1,820.0
125/145	2,000			88,500	177,000	9,999	19,997	1,685.0	2,525.0
140	1,800			113,280	226,560	12,798	25,597	2,150.0	3,235.0
160	1,500			169,920	339,840	19,198	38,395	3,235.0	4,850.0
180	1,400			247,800	495,600	27,996	55,993	4,720.0	7,080.0
Urethane Spider - 80 Shore A Sizes 14 - 38 (Blue)									
14	19,000	6, 4°	10°	35	71	4	8	1.0	2.0
19/24	14,000	3, 2°	5°	43	86	5	10	1.0	3.0
24/32	10,600			151	301	17	34	3.0	9.0
28/38	8,500			407	814	46	92	8.0	12.0
38/45	7,100			823	1,637	93	185	16.0	47.0



Curved Jaw

CJ Series Elastomer Torque Rating Performance Data

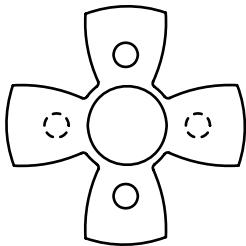
CJ Series Elastomer Torque Ratings

Continued

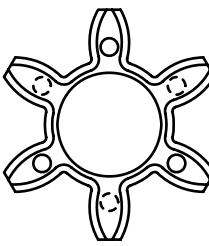
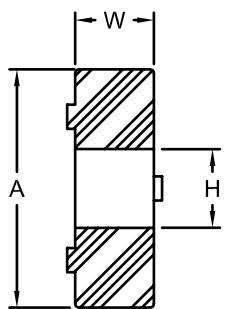
Size	Maximum Speed RPM	Wind-Up Angle @ Nominal Torque	Wind-Up Angle @ Maximum Torque	Torque Nominal in-lbs	Torque Maximum in-lbs	Torque Nominal Nm	Torque Maximum Nm	Rated HP @ 1200 RPM	Rated HP @ 1800 RPM
Urethane Spider 64 Shore D (Green)									
19/24	14,000	2, 5°	3, 6°	185	370	21	42	3.5	5.0
24/32	10,600			660	1,320	75	149	12.5	18.0
28/38	8,500			1,770	3,540	200	400	30.0	50.0
38/45	7,100			3,585	7,170	405	810	65.0	100.0
42/55	6,000			4,955	9,910	560	1 120	90.0	140.0
48/60	5,600			5,795	11,590	655	1 309	110.0	165.0
55/70	4,750			7,300	14,600	825	1 650	125.0	200.0
65/75	4,250			10,395	20,790	1 174	2 349	190.0	290.0
75/90	3,550			21,240	42,480	2 400	4 799	400.0	600.0
90/100	2,800			39,825	79,650	4 499	8 999	750.0	1 125.0
100/110	2,500			54,735	109,470	6 184	12 368	1 040.0	1 550.0
110/125	2,240			79,650	159,300	8 999	17 998	1 515.0	2 275.0
125/145	2,000			110,630	221,260	12 499	24 998	2 100.0	3 160.0
140	1,800			141,600	283,200	15 998	31 996	2 690.0	4 045.0
160	1,500			212,400	424,800	23 997	47 994	4 045.0	6 060.0
180	1,400			309,750	619,500	34 996	69 991	5 900.0	8 850.0

Curved Jaw Coupling Spiders Dimensional Data

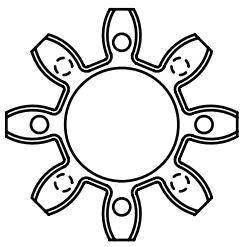
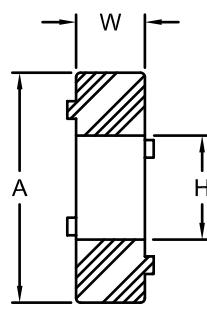
Size	A		H		W	
	in	mm	in	mm	in	mm
14	1.18	30	0.39	10	0.39	10
19/24	1.57	40	0.71	18	0.47	12
24/32	2.16	55	1.06	27	0.55	14
28/38	2.56	65	1.15	29	0.59	15
38/45	3.15	80	1.50	38	0.71	18
42/55	3.74	95	1.81	46	0.79	20
48/60	4.13	105	2.01	51	0.83	21
55/70	4.72	120	2.36	60	0.87	22
65/75	5.31	135	2.68	68	1.02	26
75/90	6.30	160	3.15	80	1.18	30
90/100	7.87	200	3.94	100	1.34	34
100/110	8.86	225	4.45	113	1.50	38
110/125	10.04	255	5.00	127	1.65	42
125/145	11.42	290	5.79	147	1.81	46
140	12.60	320	6.50	165	1.97	50
160	14.57	370	7.48	190	2.24	57
180	16.54	420	8.66	220	2.52	64



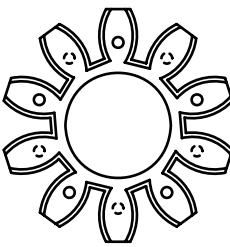
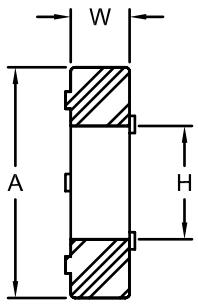
CJ 14



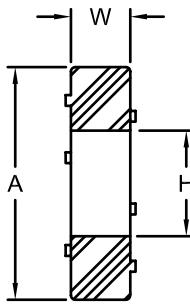
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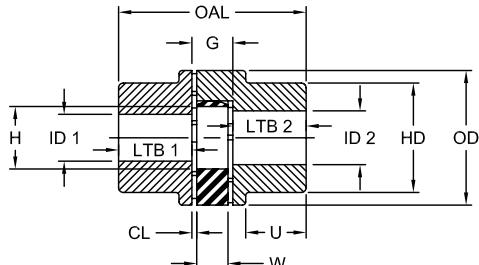
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CJ 75/90 - 125/145



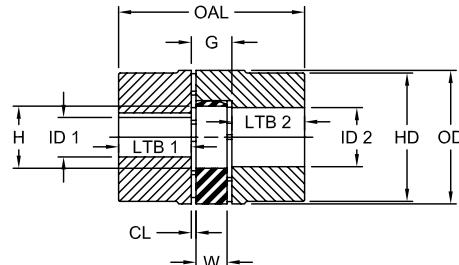
The Curved Jaw coupling consists of two standard hubs and one spider.



Configuration One – 2 A Hubs



Curved Jaw Coupling



Configuration One – 2 B Hubs

CJ Series Powder Metal / Steel Dimensional Data

Size	Hub Style	OAL in	G in	ID1 - ID2				LTB1 - LTB2 in	H in	CL in	U in	W in	OD in	HD in
				Min Bore		Max Bore*								
				in	mm	in	mm							
14	B Style	1.38	0.51	S	S	0.63	16	0.43	0.39	0.06	—	0.39	1.18	—
	BX Style	1.97	0.51	S	S	0.63	16	0.73	0.39	0.06	—	0.39	1.18	—
19/24	A Style	2.60	0.63	S	S	0.75	19	0.98	0.71	0.08	0.79	0.47	1.57	1.26
	B Style	2.60	0.63	0.71	18	0.94	24	0.98	0.71	0.08	—	0.47	1.57	—
	BX Style	3.54	0.63	S	S	0.94	24	1.46	0.71	0.08	—	0.47	1.57	—
24/32	A Style	3.07	0.70	0.47	12	0.95	24	1.18	1.06	0.08	0.94	0.55	2.20	1.57
	B Style	3.07	0.70	0.87	18	1.25	32	1.18	1.06	0.08	—	0.55	2.20	—
	BX Style	4.65	0.70	0.47	12	1.25	32	1.97	1.06	0.08	—	0.55	2.20	—
28/38	A Style	3.54	0.79	0.47	12	1.10	28	1.38	1.18	0.10	1.10	0.59	2.56	1.89
	B Style	3.54	0.79	0.87	22	1.50	38	1.38	1.18	0.10	—	0.59	2.56	—
	BX Style	5.51	0.79	0.47	12	1.50	38	2.36	1.18	0.10	—	0.59	2.56	—
38/45	A Style	4.49	0.94	0.47	12	1.50	38	1.77	1.50	0.12	1.46	0.71	3.15	2.60
	B Style	4.49	0.94	1.38	35	1.75	45	1.77	1.50	0.12	—	0.71	3.15	—
	BX Style	6.46	0.94	0.47	12	1.75	45	2.76	1.50	0.12	—	0.71	3.15	—
42/55	A Style	4.96	1.02	0.47	12	1.65	42	1.97	1.81	0.12	1.57	0.79	3.74	2.95
	B Style	4.96	1.02	1.02	26	2.13	55	1.97	1.81	0.12	—	0.79	3.74	—
	BX Style	6.93	1.02	0.47	12	2.13	55	2.95	1.81	0.12	—	0.79	3.74	—
48/60	A Style	5.51	1.10	0.47	12	1.88	48	2.20	2.01	0.14	1.77	0.83	4.13	3.35
	B Style	5.51	1.10	1.02	26	2.31	60	2.20	2.01	0.14	—	0.83	4.13	—
	BX Style	7.40	1.10	0.47	12	2.31	60	3.15	2.01	0.14	—	0.83	4.13	—
55/70	A Style	6.30	1.18	0.47	12	2.13	55	2.56	2.36	0.16	2.05	0.87	4.72	3.86
	B Style	6.30	1.18	1.89	48	2.75	70	2.56	2.36	0.16	—	0.87	4.72	—
	BX Style	8.27	1.18	0.47	12	2.75	70	3.54	2.36	0.16	—	0.87	4.72	—
65/75	A Style	7.28	1.38	0.47	12	2.50	65	2.95	2.68	0.18	1.85	1.02	5.31	4.53
	B Style	7.28	1.38	2.28	58	2.94	75	2.95	2.68	0.18	—	1.02	5.31	—
	BX Style	9.25	1.38	0.47	12	2.94	75	3.94	2.68	0.18	—	1.02	5.31	—
75/90	A Style	8.27	1.57	0.47	12	2.94	75	3.35	3.15	0.20	2.09	1.18	6.30	5.31
	B Style	8.27	1.57	1.97	50	3.50	90	3.35	3.15	0.20	—	1.18	6.30	—
	BX Style	10.24	1.57	1.97	50	3.50	90	4.33	3.15	0.20	—	1.18	6.30	—
90/100	A Style	9.65	1.77	0.47	12	3.50	90	3.94	3.94	0.22	2.44	1.34	7.87	6.30
	B Style	9.65	1.77	3.11	79	3.94	100	3.94	3.94	0.22	—	1.34	7.87	—
	BX Style	11.61	1.77	3.11	79	3.94	100	4.92	3.94	0.22	—	1.34	7.87	—
140	B Style	14.76	2.56	2.00	51	6.25	160	6.10	6.50	0.30	—	2.56	12.60	10.04
160	B Style	16.73	2.95	2.00	51	7.25	185	6.89	7.48	0.35	—	2.95	14.57	11.42
180	B Style	18.70	3.35	2.00	51	7.63	200	7.68	8.66	0.41	—	3.35	16.54	12.80

Notes: ■ * indicates: Maximum bore may be achieved through the use of a shallow keyway.

■ W = Spider thickness.

■ Outside diameter of spider equal to OD.

■ H = Inside diameter of spider.

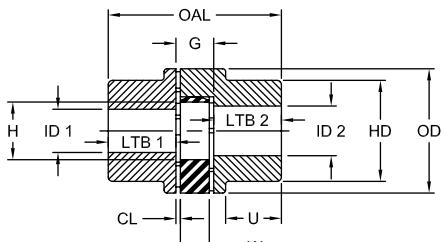
■ CL = Distance between spider and hub face.

■ Max Bore refers to maximum straight bore with keyway allowed in hub.

■ S = Solid hub with no bore.

■ OD is equal to HD for B style aluminum sizes: 19, 24, and 28.

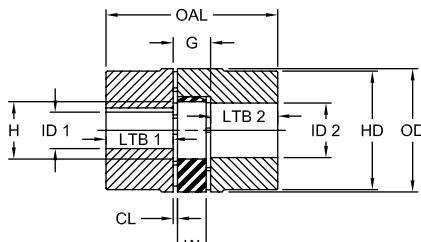
The Curved Jaw coupling consists of two standard hubs and one spider.



Configuration One – 2 A Hubs



Curved Jaw Coupling



Configuration One – 2 B Hubs

CJ Series Aluminum Dimensional Data

Size	Hub Style	OAL	G	ID1 - ID2				LTB1 - LTB2	H	CL	U	W	OD	HD
				Min Bore	Max Bore*	in	mm							
14	B Style	1.38	0.51	S	S	0.63	16	0.43	0.39	0.06	—	0.39	1.18	—
	BX Style	1.97	0.51	S	S	0.63	16	0.73	0.39	0.06	—	0.39	1.18	—
19/24	A Style	2.60	0.63	S	S	0.75	19	0.98	0.71	0.08	0.79	0.47	1.57	1.26
	B Style	2.60	0.63	S	S	0.94	24	0.98	0.71	0.08	—	0.47	1.57	—
	BX Style	3.54	0.63	S	S	0.94	24	1.46	0.71	0.08	—	0.47	1.57	—
24/32	A Style	3.07	0.70	0.47	12	0.95	24	1.18	1.06	0.08	0.94	0.55	2.20	1.57
	B Style	3.07	0.70	0.87	18	1.25	32	1.18	1.06	0.08	—	0.55	2.20	—
	BX Style	4.65	0.70	0.47	12	1.25	32	1.97	1.06	0.08	—	0.55	2.20	—
28/38	A Style	3.54	0.79	0.47	12	1.10	28	1.38	1.18	0.10	1.10	0.59	2.56	1.89
	B Style	3.54	0.79	0.87	22	1.50	38	1.38	1.18	0.10	—	0.59	2.56	—
	BX Style	5.51	0.79	0.47	12	1.50	38	2.36	1.18	0.10	—	0.59	2.56	—
38/45	A Style	4.49	0.94	0.47	12	1.50	38	1.77	1.50	0.12	1.46	0.71	3.15	2.60
	B Style	4.49	0.94	1.38	35	1.75	45	1.77	1.50	0.12	—	0.71	3.15	—
	BX Style	6.46	0.94	0.47	12	1.75	45	2.76	1.50	0.12	—	0.71	3.15	—
42/55	A Style	4.96	1.02	0.47	12	1.65	42	1.97	1.81	0.12	1.57	0.79	3.74	2.95
	B Style	4.96	1.02	1.02	26	2.13	55	1.97	1.81	0.12	—	0.79	3.74	—
	BX Style	6.93	1.02	0.47	12	2.13	55	2.95	1.81	0.12	—	0.79	3.74	—
48/60	A Style	5.51	1.10	0.47	12	1.88	48	2.20	2.01	0.14	1.77	0.83	4.13	3.35
	B Style	5.51	1.10	1.02	26	2.31	60	2.20	2.01	0.14	—	0.83	4.13	—

CJ Series Cast Iron / Nodular Iron Dimensional Data

Size	Hub Style	OAL	G	ID1 - ID2				LTB1 - LTB2	H	CL	U	W	OD	HD
				Min Bore	Max Bore*	in	mm							
42/55	A Style**	4.96	1.02	0.47	12	1.65	42	1.97	1.81	0.12	1.57	0.79	3.74	2.95
	B Style	4.96	1.02	1.44	36	2.13	55	1.97	1.81	0.12	—	0.79	3.74	—
48/60	A Style	5.51	1.10	0.47	12	1.89	48	2.20	2.01	0.14	1.77	0.83	4.13	3.35
	B Style	5.51	1.10	1.02	26	2.36	60	2.20	2.01	0.14	—	0.83	4.13	—
55/70	A Style	6.30	1.18	0.47	12	2.17	55	2.56	2.36	0.16	2.05	0.87	4.72	3.86
	B Style	6.30	1.18	1.89	48	2.76	70	2.56	2.36	0.16	—	0.87	4.72	—
65/75	A Style	7.28	1.38	0.47	12	2.56	65	2.95	2.68	0.18	1.85	1.02	5.31	4.53
	B Style	7.28	1.38	2.28	58	2.95	75	2.95	2.68	0.18	—	1.02	5.31	—
75/90	A Style	8.27	1.57	0.47	12	2.95	75	3.35	3.15	0.20	2.09	1.18	6.30	5.31
	B Style	8.27	1.57	1.97	50	3.54	90	3.35	3.15	0.20	—	1.18	6.30	—
90/100	A Style	9.65	1.77	0.47	12	3.54	90	3.94	3.94	0.22	2.44	1.34	7.87	6.30
	B Style	9.65	1.77	3.11	79	3.94	100	3.94	3.94	0.22	—	1.34	7.87	—
100	B Style	10.63	1.97	1.57	40	4.33	110	4.33	4.45	0.24	—	1.50	8.86	7.87
110	B Style	11.61	2.17	2.36	60	4.92	125	4.72	5.00	0.26	—	1.65	10.04	9.06
125	B Style	13.39	2.36	2.36	60	5.71	145	5.51	5.79	0.28	—	1.81	11.42	10.43

Notes: ■ * indicates: Maximum bore may be achieved through the use of a shallow keyway.

■ W = Spider thickness.

■ Outside diameter of spider equal to OD.

■ H = Inside diameter of spider.

■ ** = Powder Metal



Curved Jaw

CJ Series Powder Metal / Cast Iron

Item Selection

The Curved Jaw coupling consists of two standard hubs and one spider.

CJ Series – Metric Powder Metal and Cast Iron UPC Number Selection Table

Size	Keyway Size	Powder Metal (PM)						Cast Iron (CI)											
		14		19/24		24/32		28/38		38/45		42/55		48/60		55/70		65/75	
		B Hub	B Hub	B Hub	B Hub	B Hub	B Hub	A Hub	B Hub	A Hub	B Hub	B Hub	A Hub						
RSB*		61150	61154	60880	60881	60882	62414	62048	62415	62059	62416	62060	62417	62061	62418	62062			
8mm	2 x 1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9mm	3 x 1.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10mm	3 x 1.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11mm	4 x 1.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12mm	4 x 1.8	61151	—	—	70186	—	69805	—	—	—	—	—	—	—	—	—	—	—	—
14mm	5 x 2.3	61152	—	—	69376	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15mm	5 x 2.3	—	—	—	71983	—	—	—	—	—	—	—	—	—	—	—	—	—	—
16mm	5 x 2.3	—	—	—	68549	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18mm	6 x 2.8	—	—	—	71984	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19mm	6 x 2.8	—	61156	—	61109	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20mm	6 x 2.8	—	65080	—	61164	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22mm	6 x 2.8	—	—	67509	66855	—	—	—	—	—	—	—	—	—	—	—	—	—	—
24mm	8 x 3.3	—	61157	61104	61110	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25mm	8 x 3.3	—	—	61105	61165	—	66257	—	—	—	—	—	—	—	—	—	—	—	—
26mm	8 x 3.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
28mm	8 x 3.3	—	—	61106	61111	—	62049	—	—	—	—	—	—	—	—	—	—	—	—
30mm	8 x 3.3	—	—	68739	61112	—	62050	—	72031	—	—	—	—	—	—	—	—	—	—
32mm	10 x 3.3	—	—	—	65320	—	62051	—	66897	—	—	—	—	—	—	—	—	—	—
34mm	10 x 3.3	—	—	—	—	—	67238	—	—	—	—	—	—	—	—	—	—	—	—
35mm	10 x 3.3	—	—	—	67223	—	62052	—	72032	—	72040	—	69563	—	—	—	—	—	—
38mm	10 x 3.3	—	—	—	61113	—	62053	—	68037	—	71385	—	70240	—	—	—	—	—	—
40mm	12 x 3.3	—	—	—	—	69493	66824	70922	69280	—	70056	—	69293	—	—	—	—	—	—
42mm	12 x 3.3	—	—	—	—	60906	69800	62054	72033	—	72041	—	70376	—	—	—	—	—	—
45mm	14 x 3.8	—	—	—	—	66765	—	62055	69326	—	—	—	68074	—	—	—	—	—	—
48mm	14 x 3.8	—	—	—	—	—	—	62056	72034	71933	—	—	70344	—	—	—	—	—	—
50mm	14 x 3.8	—	—	—	—	—	—	62057	72035	66826	72043	—	69481	—	64121	—	—	—	—
55mm	16 x 4.3	—	—	—	—	—	—	62058	—	72036	72044	67513	71739	—	72051	—	—	—	—
60mm	18 x 4.4	—	—	—	—	—	—	—	—	69787	—	69219	68170	—	64744	—	—	—	—
65mm	18 x 4.4	—	—	—	—	—	—	—	—	—	—	66195	72050	67335	72052	—	—	—	—
70mm	20 x 4.9	—	—	—	—	—	—	—	—	—	—	72047	—	70231	65816	—	—	—	—
75mm	20 x 4.9	—	—	—	—	—	—	—	—	—	—	—	—	—	72058	—	—	—	—
80mm	22 x 5.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68826	—	—
90mm	25 x 5.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77760	—

Notes: ■ * indicates: RSB maybe supplied as a solid hub or rough stock bore.
 ■ When referencing a Lovejoy UPC number in this table, include 685144 as a prefix to the number shown.



Curved Jaw

CJ Series Aluminum / Steel BX

Item Selection

The Curved Jaw coupling consists of two standard hubs and one spider.

CJ Series – Metric Aluminum UPC Number Selection Table

Size	Keyway Size	Aluminum											
		14		19/24		24/32		28/38		38/45		42/55	
		B Hub	A Hub	B Hub	A Hub	B Hub	A Hub	B Hub	A Hub	B Hub	A Hub	B Hub	A Hub
RSB*	No Keyway	71577	71441	71442	71443	71444	71445	71446	71447	71448	71449	71450	71451
6mm	2 x 1	71942	—	—	—	—	—	—	—	—	—	—	—
8mm	2 x 1	71943	—	—	—	—	—	—	—	—	—	—	—
9mm	3 x 1.4	71944	—	—	—	—	—	—	—	—	—	—	—
10mm	3 x 1.4	71945	71951	—	—	—	—	—	—	—	—	—	—
11mm	4 x 1.8	71946	71952	—	—	—	—	—	—	—	—	—	—
12mm	4 x 1.8	71947	71953	—	—	—	—	—	—	—	—	—	—
14mm	5 x 2.3	71948	71954	—	71961	—	71971	—	—	—	—	—	—
15mm	5 x 2.3	71949	71950	—	71962	—	—	—	—	—	—	—	—
16mm	5 x 2.3	—	71956	—	71963	—	71972	—	—	—	—	—	—
18mm	6 x 2.8	—	—	—	71964	—	71973	—	—	—	—	—	—
19mm	6 x 2.8	—	71957	—	91765	—	71974	—	—	—	—	—	—
20mm	6 x 2.8	—	—	71958	71966	—	71975	—	71986	—	—	—	—
24mm	8 x 3.3	—	—	—	71967	—	71976	—	71987	—	—	—	—
25mm	8 x 3.3	—	—	71959	—	71968	71977	—	71988	—	—	—	—
28mm	8 x 3.3	—	—	—	—	71969	71978	—	71989	—	—	—	—
30mm	8 x 3.3	—	—	—	—	—	71979	—	71990	—	—	—	—
32mm	10 x 3.3	—	—	—	—	—	—	71980	71991	—	72009	—	—
35mm	10 x 3.3	—	—	—	—	—	—	—	71992	—	72010	—	72021
38mm	10 x 3.3	—	—	—	—	—	—	71981	71993	—	72011	—	72022
40mm	12 x 3.3	—	—	—	—	—	—	71982	—	71994	72012	—	72023
42mm	12 x 3.3	—	—	—	—	—	—	—	—	71995	72013	—	72024
45mm	14 x 3.8	—	—	—	—	—	—	—	—	—	72014	72025	—
48mm	14 x 3.8	—	—	—	—	—	—	—	—	—	72015	—	—
50mm	14 x 3.8	—	—	—	—	—	—	—	—	—	72016	72026	—
55mm	16 x 4.3	—	—	—	—	—	—	—	—	—	72017	72027	72028
60mm	18 x 4.4	—	—	—	—	—	—	—	—	—	72019	—	72029
65mm	18 x 4.4	—	—	—	—	—	—	—	—	—	72020	—	72030

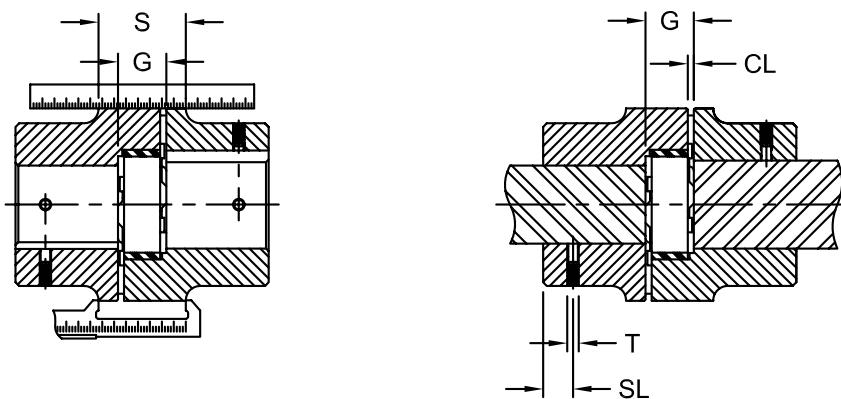
Notes: ■ * indicates: RSB maybe supplied as a solid hub or rough stock bore.

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

CJ Series – Metric Steel BX Style UPC Number Selection Table

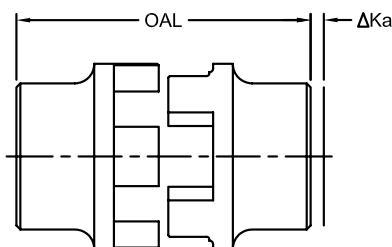
Size	Keyway Size	Steel BX Style							
		14	19/24	24/32	28/38	38/45	42/55	48/60	55/70
Solid	No Keyway	72062	72066	72067	72070	72073	72076	72080	72082
14mm	5 x 2.3	72063	—	—	—	—	—	—	—
19mm	6 x 2.8	—	72064	—	—	—	—	—	—
24mm	8 x 3.3	—	72065	72068	—	—	—	—	—
28mm	8 x 3.3	—	—	72069	—	—	—	—	—
30mm	8 x 3.3	—	—	—	72071	—	—	—	—
40mm	12 x 3.3	—	—	—	72072	72074	—	—	—
45mm	14 x 3.8	—	—	—	—	72075	—	—	—
55mm	16 x 4.3	—	—	—	—	—	72078	—	—

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

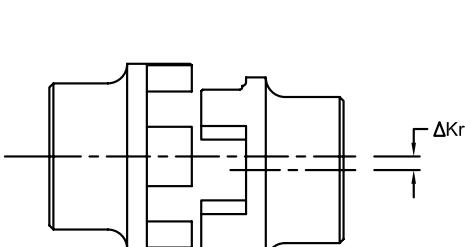


CJ Series Installation and Misalignment Capabilities

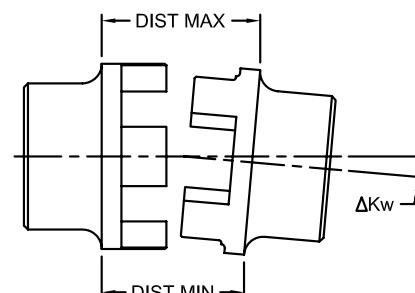
Size: Dimensions	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
G	0.51	0.63	0.70	0.79	0.94	1.02	1.10	1.18	1.38	1.57	1.77	1.97	2.17	2.36	2.56	2.95	3.35
CL	0.06	0.08	0.08	0.1	0.12	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.35	0.41
H	0.39	0.71	1.06	1.18	1.50	1.81	2.01	2.36	2.68	3.15	3.94	4.45	5.00	5.79	6.50	7.48	8.66
S	—	1.02	1.18	1.34	1.57	1.81	1.97	2.20	2.48	2.83	3.27	3.62	4.06	4.57	5.00	5.71	6.42



Axial Displacement



Radial Displacement



Angular Displacement

CJ Series Displacement For Displacement / Misalignment (inches)

Size:	14	19	24	28	38	42	48	55	65	75	90	100	110	125	140	160	180
Max Axial Displacemet (Ka)	0.04	0.047	0.055	0.06	0.07	0.079	0.082	0.087	0.102	0.12	0.133	0.15	0.165	0.18	0.19	0.22	0.25
Max Radial Displacement (Kr)	0.007	0.008	0.009	0.01	0.011	0.012	0.014	0.014	0.016	0.018	0.019	0.02	0.021	0.024	0.024	0.025	0.027
Kw Max angular displacement n=1500 [1/min] in deg (Kw)	1, 2	1, 2	0, 9	0, 9	1, 0	1, 0	1, 1	1, 1	1, 2	1, 2	1, 2	1, 2	1, 3	1, 3	1, 2	1, 2	1, 2
Angular Displacement	0.03	0.03	0.04	0.05	0.07	0.07	0.08	0.09	0.11	0.13	0.17	0.19	0.22	0.25	0.26	0.3	0.35
Set Screw Information																	
Set Screw Size (T)	8-32	10-24	10-24	5/16-18	5/16-18	5/16-18	5/16-18	3/8-16	3/8-16	3/8-16	3/8-16	1/2-13	5/8-11	5/8-11	—	—	—
Set Screw Location (SL)	0.2	0.39	0.39	0.59	0.59	0.79	0.79	0.79	0.79	0.98	1.18	1.18	1.38	1.57	1.77	1.97	1.97

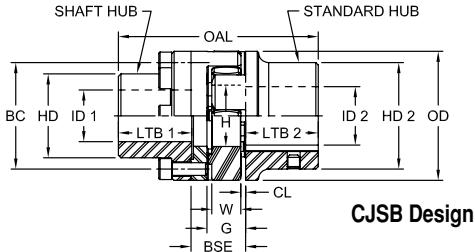
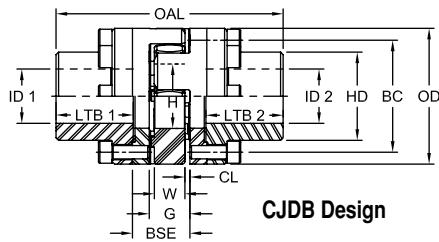
The values regarding displacement are provided assuming normal operating conditions (i.e. temperature, torque with nominal rating of the coupling, speed/RPM rating of the coupling, and misalignment). Careful installation (i.e. alignment) and periodic inspection should be provided to provide the optimum life of the coupling. Special consideration should be given as to the position of the shafts and the amount of axial movement the coupling will be exposed to. The more accurate the alignment of the coupling, will result in greater life of the elastomer. A coupling guard and rotating equipment safety procedures should always be followed. Please consult the Lovejoy web site at www.lovejoy-inc.com for assembly instructions of the curved jaw coupling.

The Curved Jaw Double Bolt (CJDB) coupling consists of two shaft hubs, two Jaw rings and one spider.

The Curved Jaw Single Bolt (CJSB) coupling consists of one shaft hub, one Jaw ring, one standard hub and one spider.

Features

- Both curved jaw double bolt (CJDB) and single bolt (CJSB)
- Flange is available in steel only



CJ Series CJDB and CJSB Dimensional Data

Size	OAL		LTB 1	LTB 2	ID1		ID2		CL	W	G				
	CJDB	CJSB			in	in	Shaft Hub	Standard Hub							
	in	mm	in	in	in	mm	in	mm							
24	3.70	3.39	1.18	1.20	S	S	0.94	24	0.47	12	1.10	28	0.08	0.55	0.71
28	4.33	3.94	1.38	1.40	S	S	1.10	28	0.47	12	1.50	38	0.10	0.60	0.79
38	5.28	4.88	1.77	1.79	S	S	1.50	38	0.47	12	1.77	45	0.12	0.71	0.94
42	5.91	5.43	1.97	2.01	S	S	1.65	42	0.47	12	2.17	55	0.12	0.79	1.02
48	6.46	5.98	2.20	2.24	S	S	1.89	48	0.47	12	2.36	60	0.10	0.83	1.10
55	7.56	6.93	2.56	2.60	S	S	2.17	55	0.47	12	2.76	70	0.16	0.87	1.18
65	8.54	7.91	2.95	2.99	S	S	2.56	65	0.47	12	2.95	75	0.18	1.02	1.38
75	9.76	9.02	3.35	3.41	S	S	2.95	75	0.47	12	3.54	90	0.20	1.18	1.57
90	15.16	10.43	3.94	4.00	S	S	3.94	100	0.47	12	3.94	100	0.22	1.34	1.77
100	12.60	11.61	4.33	4.39	S	S	4.33	110	1.58	40	4.33	110	0.24	1.50	1.97
110	13.66	12.64	4.72	4.80	S	S	4.92	125	2.36	60	4.92	125	0.26	1.65	2.17
125	15.75	14.57	5.51	5.59	S	S	5.71	145	2.36	60	5.71	145	0.28	1.81	2.36
140	17.44	16.10	6.10	6.20	S	S	6.50	165	2.01	51	6.30	160	0.30	1.97	2.56
160	19.72	18.23	6.89	6.99	S	S	7.48	190	2.01	51	7.28	185	0.35	2.24	2.95
180	21.85	20.28	7.68	7.80	S	S	8.66	220	2.01	51	7.87	200	0.41	2.56	3.35

Note: ■ S = Solid hub with no bore.

CJ Series CJDB and CJSB Dimensional Data

Continued

Size	BSE		OD	H	HD	HD2 (A Hub)	BC	Capscrew Size mm	# of Capscrews	Pitch	Capscrew Torque in-lbs Nm	
	CJDB	CJSB										
in	in	in	in	in	in	in	in	mm			in-lbs	Nm
24	1.30	1.02	2.17	1.06	1.42	1.57	1.77	M5 x 16	8	8 x 45°	89	10
28	1.54	1.18	2.56	1.18	1.65	1.89	2.13	M6 x 20	8		150	17
38	1.69	1.34	3.15	1.50	2.05	2.60	2.60	M8 x 22	8		363	41
42	1.89	1.50	3.74	1.81	2.44	2.95	3.15	M8 x 25	12		363	41
48	1.97	1.57	4.13	2.01	2.76	3.35	3.54	M8 x 25	12	16 x 22.5°	363	41
55	2.36	1.81	4.72	2.36	3.15	3.86	4.02	M10 x 30	8		735	83
65	2.56	2.01	5.31	2.44	3.70	4.53	4.57	M12 x 40	12		735	83
75	2.95	2.32	6.30	3.15	4.25	5.31	5.35	M16 x 40	15		1,062	120
90	3.35	2.56	7.87	3.94	5.59	6.30	6.77	M16 x 50	15	20 x 18°	2,611	295
100	3.82	2.95	8.86	4.45	6.22	—	7.68	M20 x 50	15		2,611	295
110	4.06	3.19	10.04	5.00	7.01	—	8.58	M20 x 60	15		5,133	580
125	4.57	3.54	11.42	5.79	8.11	—	9.92	M20 x 60	15		5,133	580
140	5.04	3.90	12.60	6.50	9.25	10.04	11.10	M20 x 60	15		5,133	580
160	5.75	4.45	14.57	7.48	10.63	11.42	12.80	M24 x 70	15		8,850	1,000
180	6.26	4.92	16.54	8.66	12.40	12.80	14.76	M24 x 80	18		8,850	1,000

The Curved Jaw Large Flange to Hub (CJLFH) coupling consists of one standard hub, one large flange and one spider.

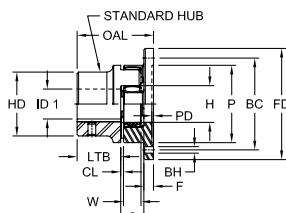
The Curved Jaw Double Large Flange (CJDLF) coupling consists of two large flanges and one spider.

The Curved Jaw Small Flange to Hub (CJSFH) coupling consists of one standard hub, one Jaw ring and one spider.

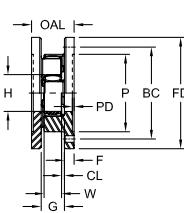
The Curved Jaw Double Small Flange (CJDSF) coupling consists of two Jaw rings and one spider.

Features

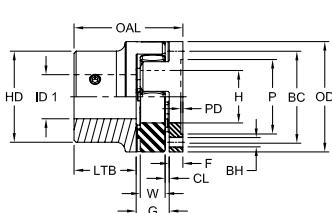
- Flange to Flange design available for applications requiring space saving, compact connections
- Shaft to Flange design is also available for special application situations requiring an alternative connection



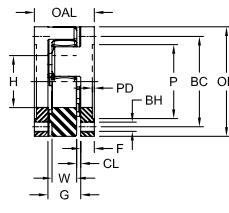
CJLFH Design



CJDLF Design



CJSFH Design



CJDSF Design

CJ Series CJLFH, CJDLF, CJSFH and CJDSF Dimensional Data

Size	ID1				OD	H	LTB	G	CL	W	PD	F
	Standard Hub		General Dimensions									
	Min Bore	Max Bore	in	mm	in	in	in	in	in	in	in	in
24	0.472	12	1.102	28	2.17	1.06	1.18	0.71	0.08	0.55	0.06	0.31
28	0.472	12	1.496	38	2.56	1.18	1.38	0.79	0.01	0.59	0.06	0.39
38	0.472	12	1.772	45	3.15	1.50	1.77	0.94	0.12	0.71	0.06	0.39
42	0.472	12	2.165	55	3.74	1.81	1.97	1.02	0.12	0.79	0.08	0.47
48	0.472	12	2.362	60	4.13	2.01	2.20	1.10	0.14	0.83	0.08	0.47
55	0.472	12	2.756	70	4.72	2.36	2.56	1.18	0.16	0.87	0.08	0.63
65	0.472	12	2.953	75	5.31	2.68	2.95	1.38	0.18	1.02	0.08	0.63
75	0.472	12	3.543	90	6.30	3.15	3.35	1.57	0.20	1.18	0.10	0.75
90	0.472	12	3.937	100	7.87	3.94	3.94	1.77	0.22	1.34	0.12	0.79
100	1.575	40	4.331	110	8.86	4.45	4.33	1.97	0.24	1.50	0.16	0.98
110	2.362	60	4.921	125	10.04	5.00	4.72	2.17	0.26	1.65	0.16	1.02
125	2.362	60	5.709	145	11.42	5.79	5.51	2.36	0.28	1.81	0.20	1.18
140	2.008	51	6.299	160	12.60	6.50	6.10	2.56	0.30	1.97	0.20	1.34
160	2.008	51	7.283	185	14.57	7.48	6.89	2.95	0.35	2.24	0.20	1.50
180	2.008	51	7.874	200	16.54	8.66	7.68	3.35	0.41	2.52	0.22	1.57

CJ Series CJLFH, CJDLF, CJSFH and CJDSF Dimensional Data

Continued

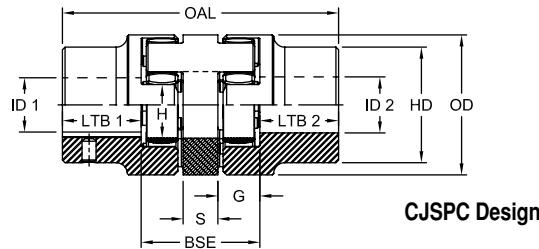
Size	FD	P	BC	OAL				P	BC	BH	OAL		
				CJLFH and CJDLF							CJSFH and CJDSF		
	in	in	in	# of Bolts	BH to DIN 69	CJLFH	CJDLF	in	in	in	# of Bolts	Pitch Z x a	CJSFH in CJDSF in
24	3.15	2.17	2.56	5	0.22	2.20	1.34	1.42	1.77	M5	8		2.20 1.34
28	3.94	2.56	3.15	6	0.26	2.56	1.57	1.73	2.13	M6	8	8 x 45°	2.56 1.57
38	4.53	3.15	3.74	6	0.26	3.11	1.73	2.13	2.60	M8	8		3.11 1.73
42	5.51	3.74	4.53	6	0.35	3.46	1.97	2.56	3.15	M8	12	16 x 22.5°	3.46 1.97
48	5.91	4.13	4.92	8	0.35	3.78	2.05	2.95	3.54	M8	12		3.78 2.05
55	6.89	4.72	5.71	8	0.43	4.37	2.44	3.31	4.02	M10	8	8 x 45°	4.37 2.44
65	7.48	5.31	6.30	10	0.43	4.96	2.64	3.78	4.57	M10	12	16 x 22.5°	4.96 2.64
75	8.46	6.30	7.28	10	0.53	5.67	3.07	4.41	5.35	M12	15		5.67 3.07
90	10.24	7.87	8.86	12	0.69	6.50	3.35	5.71	6.77	M16	15		6.50 3.35
100	11.22	8.86	9.84	12	0.69	7.28	3.94	6.50	7.68	M16	15		7.28 3.94
110	12.99	10.04	11.42	12	0.87	7.91	4.21	7.09	8.58	M20	15	20 x 18°	7.91 4.21
125	14.57	11.42	12.80	16	0.87	9.06	4.72	8.46	9.92	M20	15		9.06 4.72
140	16.14	12.60	14.17	16	0.87	10.00	5.24	9.65	11.10	M20	15		10.00 5.24
160	18.11	14.57	16.14	16	1.02	11.34	5.94	11.02	12.80	M24	15		11.34 5.94
180	20.47	16.54	18.31	16	1.02	12.60	6.50	12.99	14.76	M24	18	24 x 15°	12.60 6.50

The Curved Spacer (CJSPC) coupling consists of two standard hubs, one spacer and two spiders.

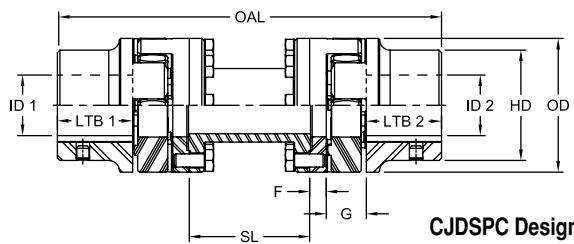
The Curved Drop-out Spacer (CJDSPC) coupling consists of two standard hubs, two Jaw rings, one spacer and two spiders.

Features

- Hubs available in aluminum, sintered iron, cast iron, and steel
- Spacer style features an aluminum spacer piece
- Drop-out style features two inserts for increased damping and parallel misalignment capability
- Center drop-out design provides easy element replacement
- Designed to accommodate a larger shaft separation



CJSPC Design



CJDSPC Design

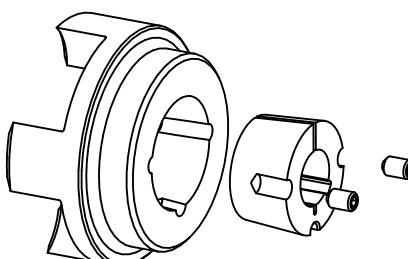
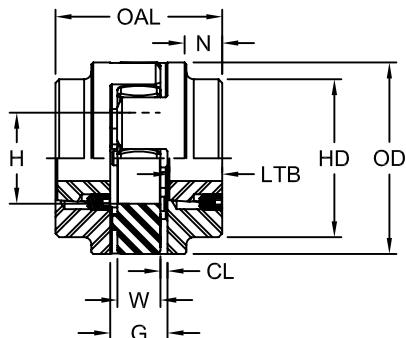
CJ Series CJSPC and CJDSPC Dimensional Data

Size	OAL CJSPC		OAL CJDSPC		ID1 - ID2 Standard Hub				LTB1 - LTB2 in	H in	G in	S in	BSE in	OD in	HD (A Hub) in	F in	SL in
					Min Bore in	Max Bore mm	Min Bore mm	Max Bore in									
	in	in	in	in	mm	mm	in	mm									
19	3.62	—	S	S	0.94	24	0.98	0.71	0.63	0.39	1.65	1.57	1.26	—	—	—	
24	4.41	BSE+2.36	0.472	12	1.10	28	1.18	1.06	0.71	0.63	2.05	2.17	1.57	0.31	2.05		
28	5.04	BSE+2.76	0.472	12	1.50	38	1.38	1.18	0.79	0.71	2.28	2.56	1.89	0.39	2.36		
38	6.22	BSE+3.54	0.472	12	1.77	45	1.77	1.50	0.94	0.79	2.68	3.15	2.60	0.39	2.68		
42	6.85	BSE+3.94	0.472	12	2.17	55	1.97	1.81	1.02	0.87	2.91	3.74	2.95	0.47	2.99		
48	7.56	BSE+4.41	0.472	12	2.36	60	2.20	2.40	1.10	0.94	3.15	4.13	3.35	0.47	3.15		
55	8.58	BSE+5.12	0.472	12	2.76	70	2.56	2.36	1.18	1.10	3.46	4.72	3.86	0.63	3.62		
65	9.92	BSE+5.91	0.472	12	2.95	75	2.95	2.68	1.38	1.26	4.02	5.31	4.53	0.63	4.02		
75	11.26	BSE+6.69	0.472	12	3.54	90	3.35	3.15	1.57	1.42	4.57	6.30	5.31	0.75	4.65		
90	12.99	BSE+7.87	0.472	12	3.94	100	3.94	3.94	1.77	1.57	5.12	7.87	6.30	0.79	5.12		

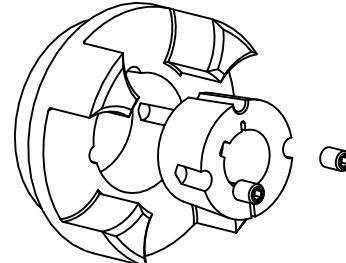
CJ Series CJSPC and CJDSPC Dimensional Data

Continued

Size	Max radial displacement or max angular displacement I [°] with n = 1500 1/min	Tk _n in-lbs	Tk _{max} in-lbs	Max radial displacement with 1° angular displacement and n = 1500 1/min				Max axial displacement	Hexagon screws DIN 933 8.8 or 10.9				
				100	140	180	250		Bolt Size mm	# of Bolts	TA in-lbs	TA Nm	
19	0.03	1° 30' each hub	—	—	—	—	—	—	—	—	—	—	
24	0.04		310	620	0.06	—	—	0.06	M5	16	53	6	
28	0.04		841	1,682	0.06	—	—	0.06	M6	16	124	14	
38	0.05		1,682	3,363	0.05	0.08	—	0.07	M8	16	310	35	
42	0.05		2,345	4,691	—	0.08	—	0.08	M8	16	310	35	
48	0.05		2,744	5,487	—	0.08	—	0.08	M8	16	310	35	
55	0.06		3,629	7,257	—	0.07	0.10	0.15	M10	8	611	69	
65	0.07		5,531	11,063	—	—	0.15	0.10	M10	12	611	69	
75	0.08		11,328	22,656	—	—	0.09	0.15	M12	15	1,062	120	
90	0.01		21,240	42,480	—	—	—	0.14	M16	15	2,611	295	



Reverse Mount



Front Mount

C

Taper Loc Dimensional Data

Size	Taper Clamping Bushing	OAL	N	H	LTB	CL	W	G	OD	HD	Fixing screw for taper bushing			
											Diameter	Length	# of Screws	Tightening Torque
											in	in	in-lbs	Nm
28	1108	2.60	—	1.18	0.91	0.01	0.59	0.79	2.56	2.56	0.25	1/2	2	50 6
38	1108	2.76	0.59	1.50	0.91	0.12	0.71	0.94	3.15	3.07	0.25	1/2	2	50 6
42	1610	3.07	0.63	1.81	1.02	0.12	0.79	1.02	3.74	3.70	0.38	5/8	2	177 20
48	1615	4.17	1.10	2.01	1.54	0.14	0.83	1.10	0.59	4.09	0.38	5/8	2	177 20
55	2012	3.78	0.79	2.36	1.30	0.16	0.87	1.18	4.72	4.65	0.44	7/8	2	274 31
75	2517	5.67	1.42	3.15	2.05	0.20	1.18	1.57	6.30	5.31	0.50	1	2	434 49
	3020										0.63	1-1/4		814 92

Taper Bushing Bore Reference Chart (Taper Loc Bushings Not Provided by Lovejoy)

Size of Taper Bushes	Available Bore Sizes															
	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	—	—	—	—	—		
1108	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	—	—	—	—	—		
1610	1/2	9/16	5/8	11/16	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
1615	1/2	9/16	5/8	11/16	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
2012	1/2	9/16	5/8	11/16	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
2517	1/2	5/8	11/16	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	
3020	7/8	1-3/16	1	1-1/8	1-3/16	1-1/4	1-5/16	1-5/8	1-7/16	1-1/2	1-9/16	1-5/8	1-11/16	1-3/4	1-13/16	1-7/8

Taper Bushing Bore Reference Chart (Taper Loc Bushings Not Provided by Lovejoy)

Continued

Size of Taper Bushes	Available Bore Sizes														
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1610	1-1/2	—	—	—	—	—	—	—	—	—	—	—	—	—	
1615	1-1/2	—	—	—	—	—	—	—	—	—	—	—	—	—	
2012	1-1/2	1-9/16	1-5/8	1-11/16	1-3/4	1-13/16	1-7/8	—	—	—	—	—	—	—	
2517	1-9/16	1-5/8	1-11/16	1-3/4	1-13/16	1-7/8	1-15/16	2	2-1/16	2-1/8	2-3/16	2-1/4	2-5/8	2-3/8	—
3020	1-15/16	2	2-1/16	2-1/8	2-3/16	2-1/4	2-15/16	2-3/8	2-7/16	2-1/2	2-5/8	2-11/16	2-3/4	2-13/16	2-7/8

Typical Applications

Measurement And Control Systems

The torsional stiffness of the GS Series coupling provides zero backlash needed for the accuracy for measurement and control systems. The low torques of these applications gives the GS Series the ability to provide zero backlash due to the elastomer pre-stress.

Servo And Positioning Drives

The GS Series provides a zero backlash, flexible connection for servo and positioning drives. An added benefit of the GS Series is its damping capabilities. For applications that have vibrations at critical speeds, the GS Series coupling can provide a zero backlash solution for vibration problems.

Main Spindle Drives

The GS Series coupling is used in main spindle drives for machine tools. Torque spikes and cyclical loading are handled by the GS Series by damping or by shifting the vibratory frequency range to a non-critical speed range.

GS Series Service Factors

Temperature Factor

	-30° to 30° C	40° C	60° C	80° C
K3	1	1,2	1,4	1,8

Torsional Stiffness Factor

	Main Spindle Drive Of Machine	Positioning Drive	Shaft Encoders, Angle Encoders
K4	2-5	3-8	10

Shock Load Factors

	K5
Light Shock Loads	1,0
Medium Shock Loads	1,4
Heavy Shock Loads	1,8

Calculation Formula

Rated nominal torque $T_{kn} \text{ [in-lbs]} = \frac{\text{HP} \times 63025}{\text{RPM}}$

Rotational inertia coefficient (driver) = $\frac{\text{Moment of inertia (driver)}}{\text{Moment of inertia (driver)} + \text{Moment of inertia (driven)}}$

Rotational inertia coefficient (driven) = $\frac{\text{Moment of inertia (driven)}}{\text{Moment of inertia (driver)} + \text{Moment of inertia (driven)}}$

Check the nominal torque for the application against the rating for the coupling:

$T_{kn} > \text{Rated torque of machine} \times K3 \times K4$

Peak Torque

Shock load (driver side) = Peak torque (driver) x rotational inertia coefficient (driver) x K5

Shock load (driven side) = Peak torque (driven) x rotational inertia coefficient (driven) x K5

Check the peak torque for the application against the rating for the coupling (page CJ-20), checking both driver and driven sides:

$T_{kmax} > \text{Peak Torque (driver or driven side)} \times K3 \times K4$

The GS Series Curved Jaw coupling offers zero backlash capability in a 3-piece design. The coupling is provided assembled under prestress. The GS Series can be used in a variety of different applications requiring precision and accuracy.

The GS Series spider features a straight center of the spider tooth, providing higher stiffness due to coupling prestress. The crowning of the ends of the spider legs allows for misalignment, while the curved jaws and solid spider center provide high-speed capability.

The jaws of the hubs and the spider legs are chamfered to provide easy assembly. The GS Series coupling design also allows the blind assembly in tight spaces. Raised spider dots on the legs of the spider ensure proper spacing of hubs and spider.

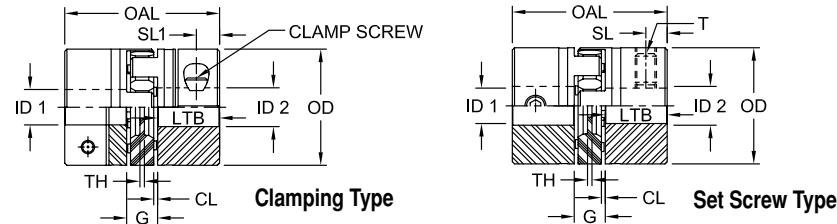
Proper installation of the coupling can provide isolation of electrical currents. Check the CL dimension listed on this page to ensure the proper spacing between spiders and hubs.

The GS Series coupling has spiders available in four different shore hardresses. Each spider offers benefits for different vibratory, environmental, and torque transmission requirements.

The GS Curved Jaw coupling consists of two hubs and one spider.

Features

- Simple 3 piece jaw design
- Aluminum and steel material hubs
- Clamping and locking device hubs available
- Four different types of urethane shores to choose from



GS Series Elastomer Performance Data

Spider Type	Color	Material	Temperature Range		Sizes Available	Typical Applications
			Normal	Maximum		
80 Shore A GS	Blue	Urethane	-50° to 176° F	-80° to 248° F	14-24	Electric measuring systems
92 Shore A GS	Yellow	Urethane	-40° to 194° F	-50° to 248° F	14-55	Electric measuring systems and control systems
95/98 Shore A GS	Red	Urethane	-30° to 194° F	-40° to 248° F	14-55	Positioning drives, main spindle drives, high load applications
64 Shore D GS	Green	Urethane	-20° to 230° F	-30° to 248° F	14-55	High load applications torsionally stiff spider material

GS Series Dimensional Data

Size	Material	OAL	G	ID1 - ID2				LTB	CL	TH	OD	T	SL		SL1					
				Min Bore		Max Bore														
				in	mm	in	mm					in	in	in	in	in				
14	Aluminum	1.38	0.51	S	S	0.625*	16*	0.433	0.06	0.08	1.18	8-32	0.20	M3	0.20	11.39				
19/24	Aluminum	2.60	0.63	S	S	0.938	24	0.984	0.08	0.12	1.57	10-24	0.39	M6	0.47	92.93				
24/32	Aluminum	3.07	0.71	S	S	1.250	32	1.180	0.08	0.12	2.17	10-24	0.39	M6	0.55	92.93				
28/38	Aluminum	3.54	0.79	S	S	1.500	38	1.380	0.10	0.16	2.56	5/16-18	0.59	M8	0.59	221.25				
38/45	Aluminum	4.49	0.94	S	S	1.750	44	1.770	0.12	0.16	3.15	5/16-18	0.59	M8	0.79	221.25				
42/55	Steel	4.96	1.02	S	S	2.125	54	1.970	0.12	0.16	3.74	5/16-18	0.79	M8	0.79	221.25				
48/60	Steel	5.51	1.10	S	S	2.312	59	2.200	0.14	0.16	4.13	5/16-18	0.79	M10	0.87	610.65				
55/70	Steel	6.30	1.18	S	S	2.750	70	2.560	0.16	0.18	4.72	5/8-16	0.79	M12	0.98	1062.00				
65/75	Steel	5.31	1.38	S	S	2.938	75	2.950	0.18	0.18	5.31	5/8-16	0.19	M16	1.26	2610.75				

Notes: ■ S = Solid hub with no bore.

■ *indicates: Without keyway.

■ Specify Bore size ID1 and ID2 when ordering.

■ Specify keyway size if needed when ordering.



Curved Jaw

GS Series Performance / Torque Ratings

Performance Data

GS Series Performance Data

Size	Spider Durometer	Maximum Speed for Clamping Styles			Torque		Static Torsional Stiffness [lb in /rad]	Dynamic Torsional Stiffness [lb in /rad]	Radial Stiffness [b/in]	Complete Coupling Max Bore w/o Keyway	
		Clamping Hub RPM	Set Screw Hub RPM	Locking Device Hub RPM	Tkn in-lbs	Tkmax in-lbs				Weight lbs	Polar Moment of Inertia J (lb-in ²)(x10 ⁻⁶)
14	80 Sh A	12,700	15,900	25,400	35.4	70.8	532.8	1,593	874	0.098	57
	92 Sh A				66.4	132.8	1,014.0	3,044	1,920		
	98 Sh A				110.6	221.3	1,521.0	4,540	3,452		
	64 Sh D				141.6	283.2	2,072.0	6,212	4,892		
19/24	80 Sh A	9,550	11,900	19,000	43.4	86.7	3,042.0	6,115	3,326	0.306	374
	92 Sh A				88.5	177.0	5,071.0	15,222	6,401		
	98 Sh A				150.5	300.9	7,606.0	22,833	11,487		
	64 Sh D				185.9	371.7	70,976.0	32,922	16,745		
24/32	92 Sh A	6,950	8,850	13,800	309.8	619.5	12,673.0	38,019	8,458	0.621	965
	98 Sh A				531.0	1,062.0	18,257.0	54,772	14,630		
	64 Sh D				663.8	1,327.0	26,355.0	79,065	21,123		
28/38	92 Sh A	5,850	7,350	11,700	840.8	1,681.0	20,284.0	60,852	10,173	1.178	3,691
	98 Sh A				1,416.0	2,832.0	30,426.0	91,278	18,288		
	64 Sh D				1,770.0	3,540.0	38,497.0	115,492	24,849		
38/45	92 Sh A	4,750	5,950	9,550	1,681.0	3,363.0	40,568.0	121,705	12,430	2.112	7,485
	98 Sh A				2,876.0	5,752.0	63,366.0	190,151	25,146		
	64 Sh D				3,584.0	7,168.0	93,279.0	279,837	36,999		
42/55	92 Sh A	4,000	5,000	8,050	2,345.0	4,690.0	55,755.0	128,236	13,887	8.324	40,639
	98 Sh A				3,982.0	7,965.0	169,920.0	424,800	31,833		
	64 Sh D				4,956.0	9,912.0	244,083.0	610,207	41,548		
48/60	92 Sh A	3,600	4,550	7,200	2,743.0	5,487.0	69,472.0	159,786	14,745	11.317	68,782
	98 Sh A				4,646.0	9,292.0	197,974.0	494,936	33,890		
	64 Sh D				5,798.0	11,593.0	320,370.0	800,925	47,286		
55/70	92 Sh A	3,150	3,950	6,350	3,628.0	7,257.0	84,075.0	193,372	17,031	16.993	135,334
	98 Sh A				6,062.0	12,124.0	210,630.0	52,675	38,210		
	64 Sh D				7,301.0	14,602.0	366,921.0	917,302	52,852		

Torque Ratings for Clamp Style GS Series Hubs (C and DSC)

Size	5/16 in-lbs	3/8 in-lbs	7/16 in-lbs	1/2 in-lbs	9/16 in-lbs	5/8 in-lbs	11/16 in-lbs	3/4 in-lbs	7/8 in-lbs	15/16 in-lbs	1 in-lbs	1-3/32 in-lbs
19	221	239	239	257	266	274	283	283	310	—	—	—
24	—	301	310	319	336	345	345	345	363	381	398	407
28	—	—	—	708	717	717	743	752	770	805	814	859
38	—	—	—	—	814	832	859	867	876	920	929	965
42	—	—	—	—	—	—	—	—	2,053	2,159	2,177	2,257
48	—	—	—	—	—	—	—	—	—	—	3,478	3,584
55	—	—	—	—	—	—	—	—	—	—	—	—

Torque Ratings for Clamp Style GS Series Hubs (C and DSC)

Continued

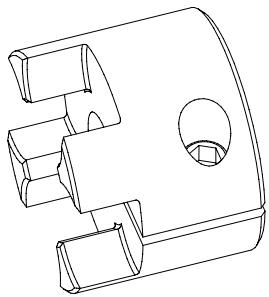
Size	1-3/16 in-lbs	1-1/4 in-lbs	1-3/8 in-lbs	1-1/2 in-lbs	1-9/16 in-lbs	1-5/8 in-lbs	1-3/4 in-lbs	1-7/8 in-lbs	1-15/16 in-lbs	2-1/8 in-lbs	2-5/16 in-lbs	2-1/2 in-lbs
19	—	—	—	—	—	—	—	—	—	—	—	—
24	—	—	—	—	—	—	—	—	—	—	—	—
28	876	903	929	965	—	—	—	—	—	—	—	—
38	991	1,000	1,044	1,080	1,089	1,115	1,151	—	—	—	—	—
42	2,301	2,354	2,425	2,505	2,549	2,602	2,664	2,735	—	—	—	—
48	3,655	3,726	3,841	3,938	4,018	4,089	4,186	4,301	4,372	4,549	—	—
55	—	4,186	4,301	4,407	4,487	4,549	4,655	4,770	4,841	5,018	5,195	5,381

GS Series Hub Design (Descriptions)

The GS Series coupling features different hub designs for different application situations. Each type offers specific benefits for different types of applications. The clamping styles offer the benefit of minimal to zero backlash.

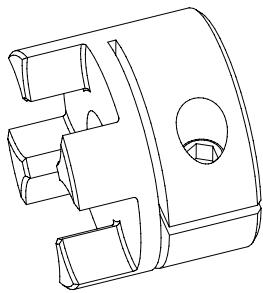
Clamping Hub With Single Slot Without Keyway (C)

Zero backlash, clamping style for torque transmission. Torque capacity of hub depends on bore size. Available standard for sizes GS 14-19.



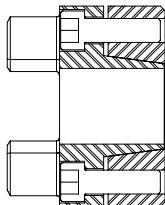
Clamping Hub With Double Slot Without Keyway (DSC)

Transmits torque utilizing a double split clamp to attach hub to shaft. Zero or minimum backlash. Torque capacity of coupling determined by bore size. Available standard for sizes GS 24-55.



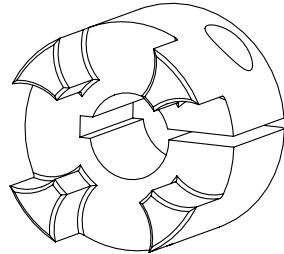
Hub With Frictional Locking (LD)

This hub utilizes a shaft locking device to allow for shaft engagement. This design features bolts tightened on the jaw side of the hub. Available for sizes GS 14-55.



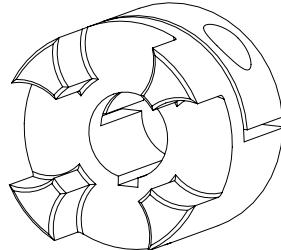
Clamping Hub With Single Slot With Keyway (CWK)

Zero backlash, clamping style with keyway for torque transmission. Usable in applications featuring reversing loads. Available standard for sizes GS 14-19.



Clamping Hub With Double Slot With Keyway (DSCK)

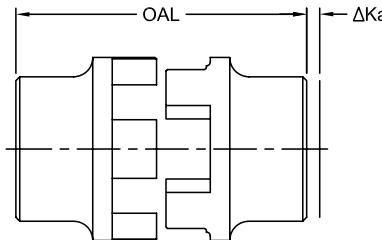
Transmits torque utilizing a double split clamp to attach hub to shaft. Zero or minimum backlash. Available standard for sizes GS 24-55.



GS Series Misalignment Information

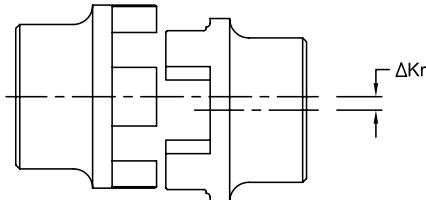
The GS Series coupling handles the following types of misalignment: axial, angular, and radial. The coupling retains its zero backlash properties due to its spider design.

C



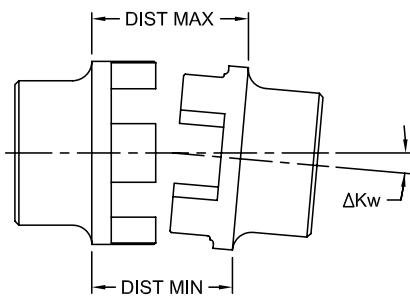
Axial Misalignment

Axial misalignment can be caused by different shaft tolerances or by thermal expansion of shafts. The GS Series coupling handles axial misalignment while keeping reactionary forces low.



Radial Misalignment

Radial misalignment can be defined as a measure of the offset distance between the centerlines of the driving and driven shafts. This type of misalignment, due to the forces involved, causes the highest stress.



Angular Misalignment

Angular misalignment can be defined as a measure of the angle between the centerlines of the driving and driven shafts, where those centerlines would intersect approximately halfway between shaft ends. The GS Series coupling can handle a specific amount of angular misalignment for each given size (refer to chart on right).

GS Series Misalignment Data

Size	Spider Shore	Misalignment		
		Axial	Radial	Angular
14	80	+0.039 -0.019	0.008	1,1
	92		0.006	1,0
	98		0.003	0,9
	64		0.002	0,8
19	80	+0.047 -0.019	0.006	1,1
	92		0.004	1,0
	98		0.002	0,9
	64		0.001	0,8
24	92	+0.055 -0.019	0.005	1,0
	98		0.004	0,9
	64		0.003	0,8
28	92	+0.059 -0.027	0.006	1,0
	98		0.004	0,9
	64		0.003	0,8
38	92	+0.070 -0.027	0.007	1,0
	98		0.005	0,9
	64		0.003	0,8
42	92	+0.078 -0.039	0.007	1,0
	98		0.005	0,9
	64		0.004	0,8
48	92	+0.082 -0.039	0.009	1,0
	98		0.006	0,9
	64		0.004	0,8
55	92	+0.086 -0.039	0.009	1,0
	98		0.007	0,9
	64		0.005	0,8

S-Flex

SF

In This Section:

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





S-Flex

SF



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.



S-Flex

SF

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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

SF

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 Hytrel® 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

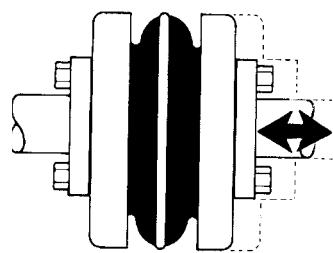
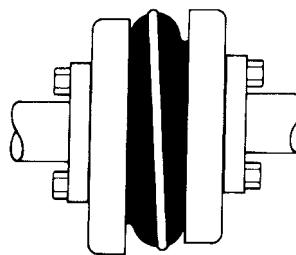
Hubs for SC Type Spacer Coupling:

- 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 –	(Hytrel)	1-piece
HS –	(Hytrel)	2-piece split

Protection from misalignment, shock, and vibration:

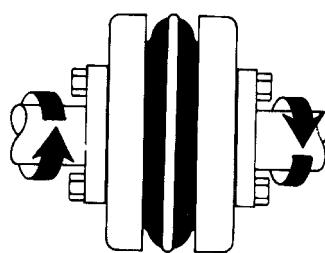
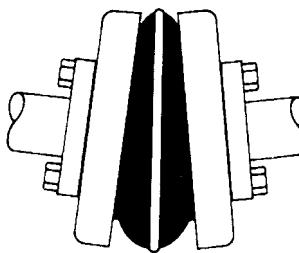


PARALLEL:

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. Hytrel 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 trademark 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)

SF

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:

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

$$\text{Nm} = \frac{(\text{KW} \times 9550)}{\text{RPM}}$$

$$\text{Design Torque} = \text{Nominal Torque} \times \text{Application Service Factor}$$

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.

$$\text{Design Torque} = \text{Nominal Torque} \times \text{Application Service Factor}$$

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.

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, Stacker	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) Cable	1.50	2.00	1.25
Bucket Elevator or Conveyor.....	1.50	2.00	1.25	Cooling Towers	2.00	2.50	1.50	Rod Mill	2.00	2.50	1.50
Calenders				Forced Draft, Large Industrial	1.50	2.00	1.25	Saw Dust Conveyor	1.25	1.50	1.00
Calender (paper)	1.50	2.00	1.25	Feeders				Screens			
Calender (rubber),				Apron, Belt, Disc	1.25	1.50	1.00	Air Washing, Water.....	1.25	1.50	1.00
Calender-super (paper)	2.00	2.50	1.50	Reciprocating.....	2.00	2.50	1.50	Rotary—Coal or Sand	1.50	2.00	1.25
Cane Knives (sugar).....	1.50	2.00	1.25	Screw	1.50	2.00	1.25	Vibrating	2.00	2.50	2.00
Card Machine (textile).....	2.00	2.50	1.50	Filter, Press-Oil	1.50	2.00	1.25	Screw Conveyor	1.25	1.50	1.00
Car Dumpers.....	2.00	2.50	1.50	Generators				Slab Conveyor (lumber)	1.50	2.00	1.25
Car Pullers.....	1.50	2.00	1.25	Uniform Load	1.25	1.50	1.00	Slitters (metal)	1.50	2.00	1.25
Cement Kiln	2.00	2.50	1.50	Varying Load, Hoist	1.50	2.00	1.25	Soapers (textile)	1.25	1.50	1.00
Centrifugal, Blower, Fans, Compressors, or Pumps.....	1.25	1.50	1.00	Welders	2.00	2.50	1.50	Sorting Table (lumber)	1.50	2.00	1.25
Chemical Feeders (sewage).....	1.25	1.50	1.00	Grit Collector (sewage)	1.25	1.50	1.00	Spinner (textile)	1.50	2.00	1.25
Chiller (oil).....	1.50	2.00	1.25	Grizzly	2.00	2.50	1.50	Stoker	1.25	1.50	1.00
Chipper (paper).....	2.00	2.50	1.50	Hammermills				Suction Roll (paper)	1.50	2.00	1.25
Circular Resaw (lumber).....	1.50	2.00	1.25	Light Duty, Intermittent.....	1.50	2.00	1.25	Tenter Frames (textile)	1.50	2.00	1.25
Clarifier or Classifier.....	1.25	1.50	1.00	Heavy Duty, Continuous	2.00	2.50	1.50	Tire Building Machines	2.00	2.50	1.50
Clay Working M'c'ery	1.50	2.00	1.25	Hoists				Tire & Tube Press Opener	1.25	1.50	1.00
Collectors (sewage).....	1.25	1.50	1.00	Heavy Duty	2.00	2.50	1.50	Tumbling Barrels	2.00	2.50	1.50
Compressors				Medium Duty	1.50	2.00	1.25	Washer & Thickener (paper)	1.50	2.00	1.25
Centrifugal, Screw, Lobe	1.25	1.50	1.00	Jordan (paper)	2.00	2.50	1.50	Winches	1.50	2.00	1.25
Reciprocating.....		See Note		Kiln, Rotary	2.00	2.50	1.50	Winders—Paper, Textile, Wire	1.50	2.00	1.25
Concrete Mixers	1.50	2.00	1.25	Laundry Washer or Tumbler	2.00	2.50	1.50	Windlass	1.50	2.00	1.25
Converting Machine (paper).....	1.50	2.00	1.25	Line Shafts	1.25	1.50	1.00	Wire			
Conveyors				Log Hall (lumber)	2.00	2.50	1.50	Drawing	2.00	2.50	1.50
Apron, Assembly, Belt, Flight, Oven, Screw	1.25	1.50	1.00	Winding	1.50	2.00	1.25	Winding	1.50	2.00	1.25
Bucket.....	1.50	2.00	1.25	Loom (textile)	1.50	2.00	1.25	Woodworking Machinery	1.25	1.50	1.00
Cookers—Brewing, Distilling, Food.....	1.25	1.50	1.00	Machine Tools, Main Drives	1.50	2.00	1.25				
Cooling Tower Fans	2.00	2.50	1.50	Mangle (textile)	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				

Caution: Applications involving reciprocating engines and reciprocating driven devices are subject to critical rotational speeds which may damage the coupling and/or connected equipment. Contact Lovejoy Engineering with specific requirements.

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 275° 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°

SF

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-lb	Nm	RPM	in-lb	Nm	RPM	in-lb	Nm	RPM
3	0.375	0.875	78	8.81	9,200	60	6.78	9,200	N/A	N/A	N/A
4	0.500	1.000	156	17.63	7,600	120	13.56	7,600	N/A	N/A	N/A
5	0.500	1.188	312	35.26	7,600	240	27.12	7,600	N/A	N/A	N/A
6	0.625	1.438	585	66.09	6,000	450	50.84	6,000	1,800	203.37	6,000
7	0.625	1.625	940	106.20	5,250	725	81.91	5,250	2,875	324.83	5,250
8	0.750	1.938	1,475	166.66	4,500	1,135	128.24	4,500	4,530	511.82	4,500
9	0.875	2.375	2,340	264.38	3,750	1,800	203.37	3,750	7,200	813.49	3,750
10	1.125	2.750	3,735	422.00	3,600	2,875	324.83	3,600	11,350	1 282.38	3,600
11	1.250	3.375	5,889	665.37	3,600	4,530	511.82	3,600	18,000	2 033.73	3,600
12	1.500	3.875	9,360	1057.54	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	3.000	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	—
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 RSB	No Keyway	—	—	—	—	—	—	—	—	—	—	35448
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	36704	52723	36398	36878	36414	52724	36416	36848	41704
8	35572	52725	36707	52726	36402	36881	36419	52727	36421	36514	40072
9	36405	—	36864	—	—	—	36424	—	36426	40744	40747
10	35450	—	35451	—	—	—	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 reborning 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
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
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 9/32	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 Performance Ratings

SF

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	0.1	1.4	2.2	4.4	78	8.81	298	0.875	22	9,200
	Neoprene	0.1	1.1	1.7	3.4	60	6.78	229	0.875	22	9,200
4	EPDM	0.2	3.0	4.4	9.0	156	17.63	595	1.000	25	7,600
	Neoprene	0.2	2.3	3.4	6.9	120	13.56	458	1.000	25	7,600
5	EPDM	0.5	6.0	9.0	17.8	312	35.26	1,191	1.188	30	7,600
	Neoprene	0.4	4.6	6.9	13.7	240	27.12	916	1.188	30	7,600
6	EPDM	0.9	11.2	16.8	33.4	585	66.09	2,233	1.438	38	6,000
	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	1.6	18.2	27.3	53.3	940	106.20	3,600	1.625	42	5,250
	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	2.3	28.6	41.6	84.5	1,475	166.66	5,636	1.938	49	4,500
	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	3.8	44.2	66.3	133.9	2,340	264.38	8,938	2.375	60	3,750
	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	6.0	71.5	106.6	213.2	3,735	422.00	14,274	2.750	70	3,600
	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	Neoprene	7.2	86.0	129.0	259.0	4,530	511.82	17,300	3.375	86	3,600
	EPDM	9.4	111.8	167.7	336.7	5,889	665.37	22,490	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	Neoprene	11.4	137.0	206.0	—	7,200	813.49	27,500	3.875	99	2,800
	EPDM	14.8	178.1	267.8	—	9,360	1057.54	35,750	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.

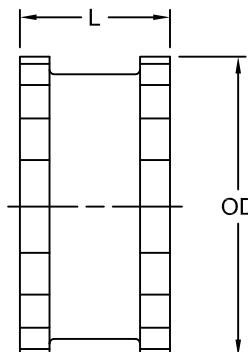
S-Flex Sleeve Types

S-Flex Sleeves

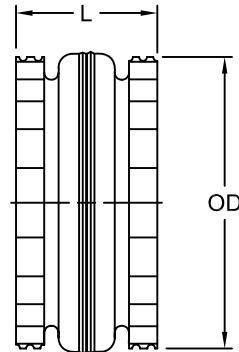
- Flexible sleeves for Lovejoy S-Flex couplings are available in three materials (EPDM, Neoprene, and Hytrel®) and in three basic designs: one piece solid, one-piece split, or two piece

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



JE, JN, JES and JNS Types

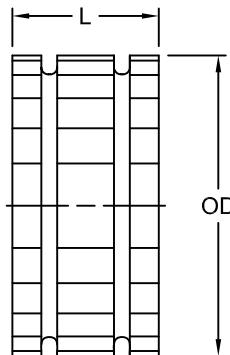


E and N Types

S-F

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 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 in	OD in	Weight lbs	L in	OD in	Weight lbs	L in	OD in	Weight 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

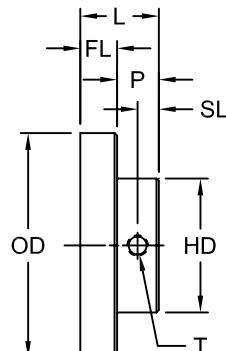
J Type Flanges

- 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)

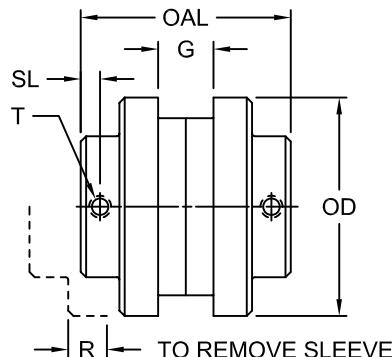
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J Type Coupling

- 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 Flange



J Type Coupling

J Type Dimensional Data

Size	Max Bore with Standard Keyway	L	FL	P	SL	OD	T	HD	OAL	G ¹	R	Weight	
		in	in	in	in	in	in	in	in	in	in	lbs	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.

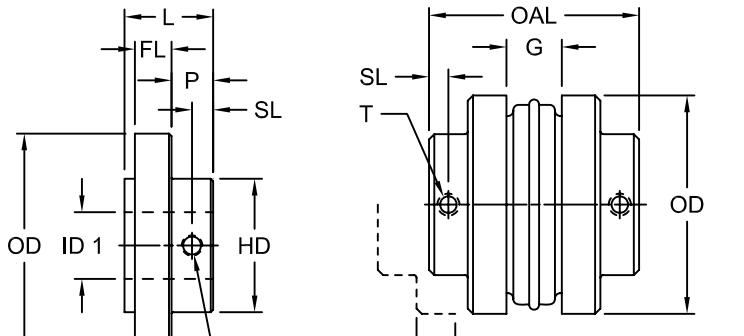
S Type Flanges and S Type Couplings

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

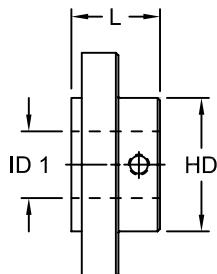
- S Type couplings, normally supplied with the two-piece E sleeve, can be used with any JE, JN, N, H, or HS sleeves



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	0.80	0.67	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.
 - To determine shaft separation (BSE), use the formula $BSE = OAL - (2 \times L)$.



S Type



S Type with E Sleeve

SF

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	
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	
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	
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 keystone 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 Hytrel® 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 and Coupling Dimensional Data

Size	Flange UPC Number	Bushing Required	L1	L2	FL	P	OD	HD	OAL	G	R Max	Approx Bore in	Flange Weight lbs
			in	in	in	in	in	in	in	in	in	in	
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	P	FL	T	HD	D	ID1 - ID2			Number & Size of Cap Screws Req	Cap Screw Torque	Weight
							Min Bore	Max Bore Std Keyway	Max Bore Shallow Keyway2			
JA	1.00	0.69	0.31	0.56	2.00	1.375	0.50	1.00	1.19	3	#10 - 1	5
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
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
SK	1.87	1.38	0.50	1.25	3.88	2.812	0.50	2.13	2.50	3	5/16 - 2	15
SF	2.00	1.50	0.50	1.25	4.63	3.125	0.50	2.31	2.81	3	3/8 - 2	30
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	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
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

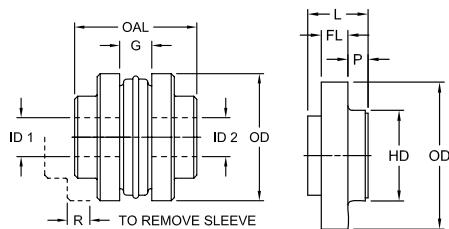
Notes: ■ F and J bushings are not available from Lovejoy. F bushings are available commercially in a bore range of 1 inch to 4 inches, J bushings in a range of 1-7/8 inches to 4-1/2 inches.

- 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

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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

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 Dimensional Data (Front Mount)

Size	UNC Flange UPC Number	BSW Flange UPC Number	OAL	G	ID1 - ID2		R	OD	L	FL	P	HD	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	G	ID1 - ID2		R	OD	L	FL	P	HD	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.

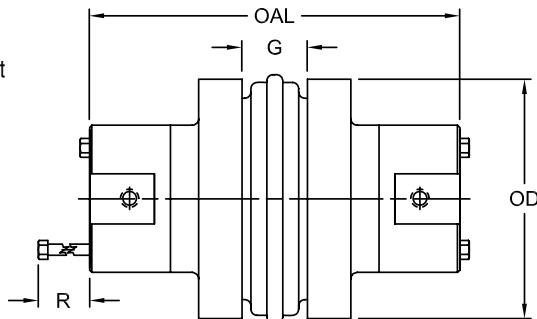
SC Type Spacer Couplings

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



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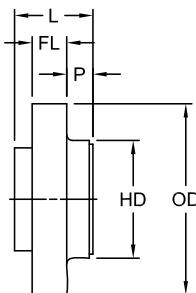
SC Type (Spacer) Dimensional Data

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
	5.00	6SC50	6SCH	7.38	0.88	0.75	4.000	8.7
7SC	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
	5.00	7SC50	7SCH	7.88	1.00	0.63	4.625	11.4
8SC	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
	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
9SC	3.50	9SC35	9SCH ¹	7.50	1.44	1.06	6.350	18.6
	5.00	9SC50	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
	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
10SC	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
	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
11SC	4.75	11SC48	11SCH ¹	10.31	1.88	1.19	8.625	54.5
	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
12SC	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
13SC	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.

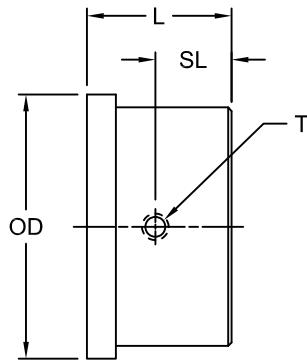


SC Type (Spacer) Flange Dimensional Data

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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	2.00	1.3
6SC	6SC35	3.50	6SCH	1.63	0.72	0.59	4.000	2.50	2.0
	6SC44	4.38	6SCH	2.06	0.72	1.03	4.000	2.50	2.4
7SC	6SC50	5.00	6SCH	2.38	0.72	1.34	4.000	2.50	2.7
	7SC35	3.50	7SCH	1.63	0.78	0.47	4.625	2.81	2.5
	7SC44	4.38	7SCH	2.06	0.78	0.91	4.625	2.81	3.0
8SC	7SC50	5.00	7SCH	2.38	0.78	1.22	4.625	2.81	3.3
	8SC35	3.50	8SCH	1.63	0.91	0.28	5.450	3.25	3.7
	8SC35-10	3.50	10SCH(HS)	1.63	0.91	0.28	5.450	4.38	3.5
	8SC44	4.38	8SCH	2.06	0.91	0.72	5.450	3.25	4.3
	8SC50	5.00	8SCH	2.38	0.91	1.03	5.450	3.25	4.8
9SC	8SC50-10	5.00	10SCH(HS)	2.38	0.91	1.03	5.450	4.38	5.5
	9SC35	3.50	9SCH(HS)	1.69	1.03	0.06	6.350	3.63	4.1
	9SC44	4.38	9SCH(HS)	2.06	1.03	0.44	6.350	3.63	5.9
	9SC450	5.00	9SCH(HS)	2.38	1.03	0.75	6.350	3.63	6.4
	9SC50-11	5.00	11SCH(HS)	2.38	1.03	0.75	6.350	5.25	7.0
	9SC70-11	7.00	11SCH(HS)	2.38	1.03	1.75	6.350	5.25	10.9
10SC	9SC78-11	7.75	11SCH(HS)	3.75	1.03	2.13	6.350	5.25	12.3
	10SC48	4.75	10SCH(HS)	2.25	1.22	0.34	7.500	4.38	9.8
	10SC50	5.00	10SCH(HS)	2.38	1.22	0.47	7.500	4.38	10.2
	10SC70-13	7.00	13SCH(HS)	3.38	1.22	1.47	7.500	6.13	14.5
	10SC78-13	7.75	13SCH(HS)	3.75	1.22	1.84	7.500	6.13	16.5
	10SC100-13	10.00	13SCH(HS)	4.88	1.22	2.97	7.500	6.13	22.5
11SC	11SC48	4.75	11SCH(HS)	1.50	1.50	0.03	8.625	5.25	12.5
	11SC50	5.00	11SCH(HS)	1.56	1.50	0.06	8.625	5.25	12.6
	11SC70-14	7.00	14SCH	2.56	1.50	1.06	8.625	6.50	16.3
	11SC78-14	7.75	14SCH	2.94	1.50	1.44	8.625	6.50	18.4
	11SC100-14	10.00	14SCH	4.06	1.50	2.56	8.625	6.50	24.6
12SC	12SC70	7.00	12SCH(HS)	2.47	1.69	0.66	10.000	5.75	23.4
	12SC70-14	7.00	14SCH	2.47	1.69	0.66	10.000	6.50	21.3
	12SC78	7.75	12SCH(HS)	2.84	1.69	1.03	10.000	5.75	25.3
	12SC78-14	7.75	14SCH	2.84	1.69	1.03	10.000	6.50	23.4
	12SC100-14	10.00	14SCH	3.97	1.69	2.16	10.000	6.50	29.6
13SC	13SC78	7.75	13SCH(HS)	3.25	1.97	0.56	11.750	6.13	38.4
14SC	14SC78	7.75	14SCH	2.72	2.25	0.03	13.875	6.50	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.



S

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	3.84	1.92	6.50	3/4 - 10	4	5/8 - 5	24.2

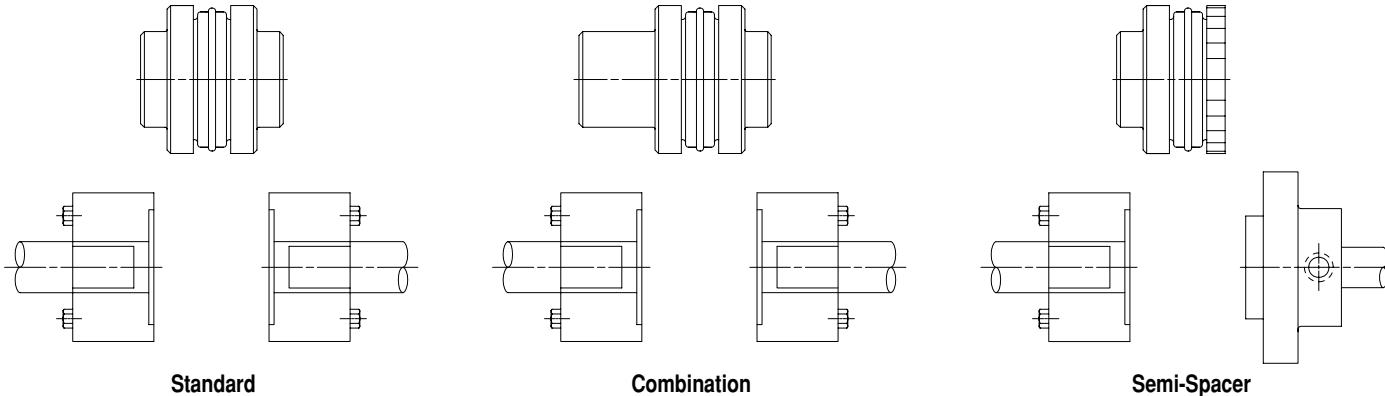
Notes: ■ 1 indicates: SCH = Standard length SCHS = Short length.
■ See page SF-12 for Performance Data.

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



Standard

Combination

Semi-Spacer

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



Motion Control

In This Section:

- Beam Style
- Bellows Style
- Mini Disc Style
- Oldham Style
- Mini Soft Style
- Curved Jaw Style
- Miniature Jaw Style



MC



Motion Control

MC



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.



Motion Control

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Motion Control Coupling Selection Process

- | | | |
|------------|-------------|--------------|
| ■ Beam | ■ Bellows | ■ Mini-Disc |
| ■ Oldham | ■ Mini-Soft | ■ Curved Jaw |
| ■ Mini-Jaw | | |



The selection process for determining the proper Motion Control coupling starts with selecting the coupling design that best addresses the application requirements. The Lovejoy Motion Control Coupling Quick Reference Chart (pages MC-12 and MC-13) provides a method of weighing performance characteristics of the Beam, Bellows, Mini-Disc, Oldham, Mini-Soft, Curved Jaw, and Mini-Jaw couplings.

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Each coupling is compared side by side in critical categories such as: material, torque, torsional stiffness, bore capacity, maximum RPM, misalignment capacity, maximum temperature and moment of inertia. Once a design is selected, the proper size must be determined based on the capabilities of the particular design.

The Beam, Bellows and Mini Disc designs all have a single piece construction, so only one part needs to be selected. The GS Curved Jaw, Oldham, Mini Soft, and Mini Jaw designs have a three piece constructions, consisting of two hubs and an insert. When the shaft size of the driver and driven are the same diameter, the hubs will be the same. When the shaft diameters differ, the hubs selected will differ accordingly.

The following information is necessary before a coupling can be selected:

1. HP and RPM of the driver
2. Shaft size of the driver and driven
3. Application requirements
4. Environmental conditions (i.e. extreme temperature, corrosive conditions, space limitations)
5. Space Limitations (i.e. maximum outside diameter and overall length for the coupling)

Steps In Selecting A Motion Control Coupling

Step 1: Determine the nominal torque of your application by using formula in Chart 1.

Step 2: Select a coupling design from the Lovejoy Motion Control Quick Reference Chart (pages MC-12 and MC-13). Proceed to the proper coupling section based on the coupling selected.

Beam Coupling Selection Process

For the Beam coupling, determine if the coupling should be mounted with set screws or by the split/clamp method. The split clamp hub option is recommended for accurate positioning. The Bellows and Mini Disc are available with the clamp style only.

The nominal torque should be treated as the design torque for the Beam coupling design. If the Beam coupling application is non-reversing, the listed torque rating can be used for comparison. If the application is reversing, reduce the nominal torque figure by half. Scan the appropriate column to the first entry where the rated torque value in the column is greater than or equal to the Nominal Torque calculated in Step 1. Over sizing the beam coupling can reduce the amount windup. This can be useful in applications that require close positioning in start/stop/reverse drives.

Formulas

Chart 1

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

$$\text{Nm} = \frac{(\text{KW} \times 9550)}{\text{RPM}}$$

$$\text{Design Torque} = \text{Nominal Torque} \times \text{Application Service Factor}$$



WARNING

You must refer to page MC-2 (Page 94) 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.

Bellows Coupling Selection Process

For the BWC and BWLC series Bellows coupling, use the following formulas:

$$\text{Nominal Torque} = \text{in-lbs.} = \text{HP} \times 63025 / \text{RPM}$$

$$\text{Design Torque} = \text{SF} \times \text{Nominal Torque (Motor)} \times \frac{\text{Inertia (Driven)}}{\text{Inertia (Driver) + Inertia (Driven)}}$$

The Service Factors for the BWC and BWLC series should be: 1.5 for uniform movements, 2.0 for non-uniform movements, and 2.5 (maximum) non-uniform/shock loading movements. The design torque should always be equal to or lower than the nominal rated torque of the coupling. Please consult the allowable misalignment figures on pages MC-9 and MC-10. These figures represent the maximum amount of allowable misalignment.

Mini-Disc Coupling Selection Process

Sizing the Mini-disc coupling, ensure that the maximum torque for the application is under the allowable torque for the particular mini-disc coupling size. Check the maximum bore, misalignment, and torsional stiffness ratings against the requirements of the application.

Oldham, Min-Soft, or Mini-Jaw Coupling Selection Process

When selecting an Oldham style coupling, it should be determined whether a clamp or setscrew style is appropriate. For the Oldham, Mini Soft, or Jaw couplings, refer to the service factor chart below to select the correct service factor for the application. Calculate the design torque by multiplying the nominal torque by the application service factor. Then, select the correct Oldham, Mini Soft, or Jaw size coupling by choosing the size that has a torque rating larger than the calculated design torque.

Oldham, Mini-Soft, and Mini-Jaw Coupling Service Factors

	Constant Torque 0-10 Hrs/Day	Varying Torque 11-24 Hrs/Day	Constant Torque 0-10 Hrs/Day	Varying Torque 11-24 Hrs/Day
Start/Stop = 0-120/Hr Temperature = 50° to 85° F	1.2	1.7	1.7	2.2
Start/Stop=0-120/Hr Temperature = 86° to 104° F	1.4	2.0	2.0	2.6
Start/Stop = 0-120/Hr Temperature = 105° to 140° F	1.7	2.5	2.5	3.2
Start/Stop = 121-240/Hr Temperature = 50° to 85° F	1.5	2.2	2.2	2.8
Start/Stop = 121-240/Hr Temperature = 86° to 104° F	1.8	2.5	2.5	3.3
Start/Stop = 121-240/Hr Temperature = 105° to 140° F	2.2	3.1	3.1	4.1

GS Curved Jaw Coupling Service Factors

Temperature Factor

	-30° to 30° C	40° C	60° C	80° C
K3	1	1,2	1,4	1,8

Torsional Stiffness Factor

	Main Spindle Drive of Machine	Positioning Drive	Shaft Encoders, Angle Encoders
K4	2-5	3-8	10

Shock Load Factors

	K5
Light Shock Loads	1,0
Medium Shock Loads	1,4
Heavy Shock Loads	1,8

GS Curved Jaw Selection Process

$$\text{Rotational inertia coefficient (driver)} = \frac{\text{Moment of inertia (driver)}}{\text{Moment of inertia (driver) + Moment of inertia (driven)}}$$

$$\text{Rotational inertia coefficient (driven)} = \frac{\text{Moment of inertia (driven)}}{\text{Moment of inertia (driver) + Moment of inertia (driven)}}$$

Check the nominal torque for the application against the rating for the coupling:

$T_{kn} > \text{Rated torque of machine} \times K3 \times K4$

Peak Torque

Shock load (driver side) = Peak torque (driver) x rotational inertia coefficient (driver) x K5

Shock load (driven side) = Peak torque (driven) x rotational inertia coefficient (driven) x K5

Check the peak torque for the application against the rating for the coupling (page MC-19), checking both driver and driven sides:

$T_{kmax} > \text{Peak Torque (driver or driven side)} \times K3 \times K4$

ASB Series - Aluminum Single Beam Clamp Style Coupling

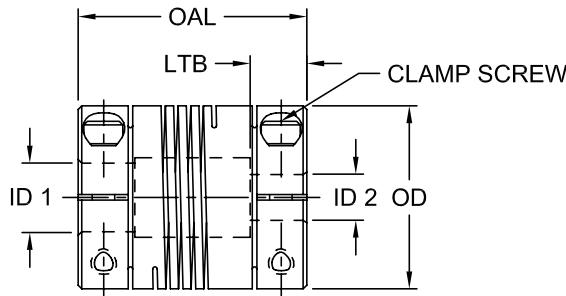
The ASB (Aluminum Single Beam) Series offers additional outside diameter and overall length dimensions to the EC Series of Beam couplings. These options are extremely helpful in applications where the space available for a coupling is limited. The ASB series also offers slightly larger bore capacities than their equivalent size in the EC Series. The 5 sizes of the ASB Series along with the 3 clamping sizes in the EC Series give designers more options for applications with limited coupling space.



Features

- Zero backlash design
- Anodized aluminum material
- Higher torque than the EC/ES series

MC



ASB Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
ASB 3	2.0	318.6	10,000	0.2	5.4	0.000	5°	0.005	± 0.010
ASB 3.5	3.4	557.6	10,000	0.3	8.3	0.001	5°	0.005	± 0.010
ASB 4	5.0	442.5	10,000	0.5	15.1	0.002	5°	0.005	± 0.010
ASB 5	10.0	920.4	10,000	1.4	40.6	0.011	5°	0.005	± 0.010
ASB 6	15.0	1,770.0	10,000	3.0	86.2	0.037	5°	0.005	± 0.010

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

ASB Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		Clamp Screw Size
	in	mm	in	mm	Min Bore	in	mm	Max Bore	in	mm	
ASB 3	0.752	19.1	0.236	6	0.118	3	0.197	5.00	0.500	12.7	M2
ASB 3.5	0.799	20.3	0.236	6	0.157	4	0.250	6.35	0.626	15.9	M2.5
ASB 4	0.902	22.9	0.256	7	0.157	4	0.315	8.00	0.752	19.1	M2.5
ASB 5	1.252	31.8	0.354	9	0.236	6	0.433	11.00	1.000	25.4	M3
ASB 6	1.752	44.5	0.472	12	0.236	6	0.551	14.00	1.252	31.8	M4

ES and EC Series - Single Beam Style Coupling

The Beam flexible coupling is formed from one piece of aluminum rod. A spiral slot is cut through the length of the aluminum tube forming a "spring" center section referred to as a helical coil or beam. The flexure allowed by the beam portion of the coupling is capable of accommodating angular, parallel and axial misalignment while continuing to convey power between the attached shafts. This results in a single piece, true flexible coupling.

The Miniature Beam coupling is designed for very light power transmission applications where accurate positioning of shafts is an essential requirement. It also has a very high tolerance to heat, chemicals, and corrosion that would be harmful to conventional elastomeric flexible couplings. The Miniature Beam coupling design is very well suited for small shaft applications and the inherent requirements of start/stop/reverse applications where zero backlash and extreme positioning accuracy are important. This coupling operates either clockwise or counter clockwise without sacrificing windup or torque capabilities.

Features

- All-metal coupling
- Easy to install – one piece
- High angular misalignment capability to 5°
- Anodized aluminum finish
- Zero backlash design

ES and EC Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in2	Misalignment		
				oz	g		Angular	Parallel in	Axial in
ES 050	1.8	42.8	10,000	0.1	3.6	2.73	5°	0.005	± 0.010
EC 050	1.8	42.8	10,000	0.2	5.8	4.10	5°	0.005	± 0.010
ES 075	5.0	119.4	10,000	0.4	12.0	20.16	5°	0.005	± 0.010
EC 075	5.0	119.4	10,000	0.5	15.0	24.95	5°	0.005	± 0.010
ES 100	11.0	286.5	10,000	1.1	30.0	86.80	5°	0.005	± 0.010
EC 100	11.0	286.5	10,000	1.3	38.0	111.74	5°	0.005	± 0.010
ES 112	17.0	409.3	10,000	1.4	39.0	148.99	5°	0.005	± 0.010
EC 112	17.0	409.3	10,000	1.9	54.0	207.08	5°	0.005	± 0.010

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

ES and EC Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		Set Screw or Clamp Screw Size	
	in	mm	in	mm	Min Bore		Max Bore		in	mm	in	mm
ES050	0.512	13	0.118	3	0.118	3	0.188	4	0.512	13	4-40	M2.5
EC050	0.748	19	0.197	5	0.118	3	0.188	4	0.512	13	1-72	M1.6
ES075	0.748	19	0.197	5	0.157	4	0.236	6	0.748	19	8-32	M4
EC075	0.906	23	0.236	6	0.157	4	0.236	6	0.748	19	4-40	M2.5
ES100	0.984	25	0.276	7	0.236	6	0.394	10	0.984	25	10-24	M5
EC100	1.260	32	0.315	8	0.236	6	0.394	10	0.984	25	6-32	M3
ES112	1.102	28	0.276	7	0.315	8	0.472	12	1.102	28	1/4-20	M6
EC112	1.496	38	0.433	11	0.315	8	0.472	12	1.102	28	6-32	M3

ADB Series - Aluminum Double Beam Clamp Style Coupling

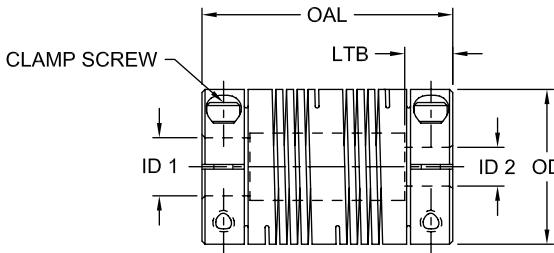
The ADB (Aluminum Double Beam) Series coupling enhances the beam coupling options available from Lovejoy Inc. The longer overall length allows the ADB series to span longer BSE (between shaft end) measurements. The aluminum material used in its construction keeps the coupling's weight low. The ADB design offers two flex points allowing for greater angular misalignment, up to 7°. This design also allows for up to .024 inches of parallel misalignment. The torque capacity ADB series is more than double the range of the single beam designs, with the largest size having a torque capacity of 88 in-lbs.



Features

- Zero backlash design
- Simple one piece assembly
- Aluminum material
- Largest amount of angular misalignment capacity

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ADB Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
ADB 3	3.5	1,097	10,000	0.2	6.5	0.001	5°	0.007	± 0.010
ADB 3.5	6.2	2,584	10,000	0.4	11.5	0.001	7°	0.008	± 0.010
ADB 4	12.0	4,460	10,000	0.6	16.7	0.003	7°	0.010	± 0.010
ADB 5	20.0	6,266	10,000	1.6	44.3	0.013	7°	0.015	± 0.010
ADB 6	38.0	15,266	10,000	3.7	105.8	0.049	7°	0.020	± 0.010
ADB 7	88.0	20,514	10,000	6.2	175.1	0.118	7°	0.024	± 0.010

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

ADB Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		Set Screw or Clamp Screw Size	
					Min Bore		Max Bore					
Size	in	mm	in	mm	in	mm	in	mm	in	mm	mm	
ADB 3	0.902	22.9	0.209	5.3	0.118	3.0	0.250	6.35	0.500	12.7	12.7	M2
ADB 3.5	1.000	25.4	0.256	6.5	0.197	5.0	0.315	8.00	0.626	15.9	15.9	M2.5
ADB 4	1.043	26.5	0.256	6.5	0.236	6.0	0.394	10.00	0.752	19.1	19.1	M2.5
ADB 5	1.500	38.1	0.433	11.0	0.295	7.5	0.500	12.70	1.000	25.4	25.4	M3
ADB 6	2.252	57.2	0.630	16.0	0.394	10.0	0.630	16.00	1.252	31.8	31.8	M4
ADB 7	2.626	66.7	0.709	18.0	0.394	10.0	0.748	19.00	1.500	38.1	38.1	M5

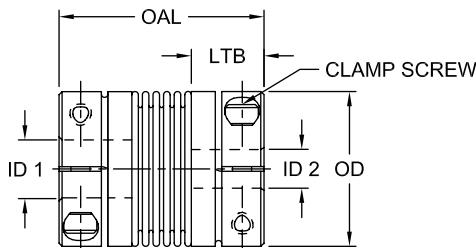
BWC Series - Bellows Clamp Style Coupling

The BWC (Bellows Clamp) Series coupling provides a new range of coupling options with the high torsional stiffness. The higher torsional stiffness provides the benefit of accuracy and repeatability in motion control applications. The BWC series coupling features aluminum hubs and corrosion resistant steel bellow. The compact design also offers the benefit of low inertia. The BWC Series also has a torque capacity of up to 89 in-lbs, with a maximum bore capacity of .748 inches in diameter. The BWC utilizes clamping style hubs that provide easy installation and removal of the coupling. The bellows design also offers up to .016 inches of axial misalignment, with low reactionary loading on bearings.



Features

- High torsional stiffness
- Low reactionary loading
- No maintenance required
- Low inertia



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BWC Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
BWC-21	3.54	2,248	15,000	0.3	9	0.009	1.2°	0.004	0.009
BWC-23	7.97	4,487	15,000	0.3	9	0.009	1.2°	0.004	0.008
BWC-26	13.28	6,620	15,000	0.8	22	0.038	1.2°	0.004	0.010
BWC-32	17.70	13,541	15,000	1.3	36	0.085	1.2°	0.004	0.012
BWC-41	39.83	57,083	15,000	2.6	74	0.335	1.2°	0.004	0.012
BWC-47	88.50	71,420	15,000	4.2	120	0.789	1.2°	0.006	0.016

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

BWC Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		Clamp Screw Size mm
	in	mm	in	mm	in	mm	in	mm	in	mm	
BWC-21	0.827	21	0.276	7.0	0.118	3	0.256	6.5	0.591	15	M2
BWC-23	0.906	23	0.276	7.0	0.118	3	0.256	6.5	0.591	15	M2
BWC-26	1.024	26	0.354	9.0	0.118	3	0.394	10.0	0.748	19	M2.5
BWC-32	1.260	32	0.472	12.0	0.118	3	0.472	12.0	0.945	24	M3
BWC-41	1.614	41	0.551	14.0	0.236	6	0.630	16.0	1.260	32	M4
BWC-47	1.850	47	0.571	14.5	0.315	8	0.748	19.0	1.575	40	M4

BWLC Series - Bellows Clamp Style Coupling

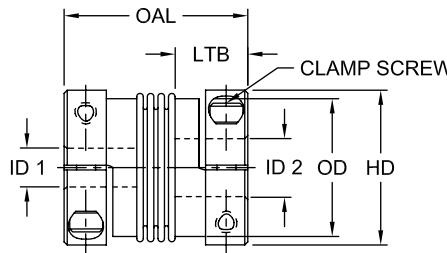
The BWLC (Bellows Clamp) Series coupling specifically addresses higher torque and bore capacities in the area of motion control. The BWLC Series offers the highest amount of torsional stiffness for accuracy and repeatability. The BWLC Series coupling features a corrosion resistant steel bellow and aluminum or steel hubs. The BWLC Series also has a torque capacity of up to 1,328 in-lbs, with a maximum bore capacity of 1.574 inches in diameter. The larger size of the BWLC allows for a greater amount of axial misalignment of .020 inches, with low reactionary loading on bearings.



Features

- Highest torsional stiffness
- Low reactionary loading
- No maintenance required
- Low inertia

MC



BWLC Series Performance Data

Size	Torque Nominal in-lbs*		Torsional Stiffness in-lb/rad*		Max RPM		Weight* oz g		Moment of Inertia* lb-in2	Misalignment		
	in-lbs*	mm	in-lb/rad*	mm	RPM	oz	g	Angular		Parallel in	Axial in	
BWLC-63	159	70,800	12,700	7.05	200	0.273	1.5°	0.008	0.020			
BWLC-65	266	318,600	10,200	10.58	300	0.547	1.0°	0.004	0.016			
BWLC-78	531	646,050	8,600	21.16	600	1.709	1.0°	0.004	0.016			
BWLC-91	1,328	1,336,350	6,800	81.13	2,300	9.561	1.0°	0.008	0.016			

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

BWLC Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				HD**		OD	Clamp Screw Size mm
	in	mm	in	mm	Min Bore	Max Bore	in	mm				
BWLC-63	2.480	63	0.472	12.0	0.394	10	0.984	25	1.772	45	1.772	45
BWLC-65	2.559	65	0.591	15.0	0.394	10	0.984	25	1.850 / 2.205	47 / 56	2.205	56
BWLC-78	3.071	78	0.768	19.5	0.551	14	1.378	35	2.244 / 2.598	57 / 66	2.598	66
BWLC-91	3.583	91	0.846	21.5	0.787	20	1.575	40	2.677 / 3.150	68 / 80	3.228	M10
									3.307	84		

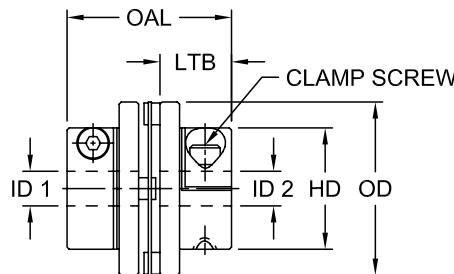
Note: ■ ** indicates: Various hub diameters available to accommodate different size bore diameters.

MDSD Series - Mini Disc Single Disc Clamp Style Coupling

The compact design of the MDSD (Mini Disc Single Disc) Series accommodates applications that allow for a minimum amount of space for the coupling. The MDSD Series coupling also features a high torsional stiffness over the MD and MDS Series. The MDSD Series also has the lowest inertia of the mini disc designs.

Features

- Zero backlash design
- Highest torsional stiffness
- Aluminum hubs with stainless steel discs
- Moderate-high torque capabilities
- Low Inertia



MC

MDSD Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
MDSD-32C	18	11,505	4,800	1.34	38	0.015377	1°	N/A	± 0.20
MDSD-40C	35	24,780	3,800	2.33	66	0.041006	1°	N/A	± 0.20
MDSD-50C	66	32,745	3,100	4.23	120	0.126435	1°	N/A	± 0.20
MDSD-63C	89	44,250	2,400	6.70	190	0.287042	1°	N/A	± 0.20

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ N/A indicates: Not Applicable.

■ Specify Bore sizes ID1 and ID2 when ordering.

MDSD Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		HD		Clamp Screw Size
	in	mm	in	mm	Min Bore	Max Bore	in	mm	in	mm	in	mm	
MDSD-32C	1.260	32	0.539	13.7	0.118	4	0.394	10	1.260	32	0.866	22	M3
MDSD-40C	1.496	38	0.650	16.5	0.236	6	0.551	14	1.575	40	1.102	28	M4
MDSD-50C	1.732	44	0.764	19.4	0.394	10	0.787	20	1.969	50	1.535	39	M5
MDSD-63C	1.969	50	0.878	22.3	0.472	12	0.984	25	2.480	63	1.772	45	M6

Coupling Types	Beam			Bellows	
Summary of Design	ES/EC Series	ASB Series	ADB Series	BWC Series	BWLC Series
	Single beam with setscrew or clamping options	Single beam with clamping style for higher torque applications	Double Beam clamping style coupling	Standard Bellows style coupling	Bellows style coupling
Material Type	Anodized Aluminum	Anodized Aluminum	Aluminum	Aluminum hubs with stainless steel bellows	Aluminum hubs with stainless steel bellows
Torque Capacity (Nominal)	up to 17 in-lbs	up to 15 in-lbs	up to 88 in-lbs	up to 88.5 in-lbs	up to 1,328 in-lbs
Torsional Stiffness	up to 409 in-lb/rad	up to 1,770 in-lb/rad	up to 20,514 in-lb/rad	up to 71,420 in-lb/rad	up to 1,33,350 in-lb/rad
Bore Capacity	up to .500 inches	up to .551 inches	up to .748 inches	up to .748 inches	up to 1.574 inches
Maximum RPM	up to 10,000 RPM	up to 10,000 RPM	up to 10,000 RPM	up to 15,000 RPM	up to 12,700 RPM
Angular Misalignment	up to 5°	up to 5°	up to 7°	up to 1.2°	up to 1.5°
Parallel Misalignment	.005 inches	.005 inches	.024 inches	.006 inches	.008 inches
Axial Misalignment	+/- .010 inches	+/- .010 inches	+/- .010 inches	up to +/- .016 inches	up to +/- .020 inches
Maximum Temperature	200° F	200° F	200° F	212° F	212° F
Moment of Inertia	Up to 207 [lb-in ²]	Up to 0.037 [lb-in ²]	Up to 118 [lb-in ²]	Up to .78937 [lb-in ²]	Up to 9.561 [lb-in ²]

Mini-Disc			Oldham	Mini Soft	GS Curved Jaw	Mini Jaw
MD Series	MDS Series	MDSD Series	MOL Series	MSF Series	GS Series	L Series
Standard mini disc configuration utilizing two disc packs	Spacer version of the minidisc style coupling	Single disc pack version of the mini disc coupling	Three piece coupling design with Polyacetel insert	Three piece design with Polyurethane sleeve insert	Three piece jaw coupling design with Urethane or Hytrel® insert	Three piece jaw design with buna-N Urethane, or Hytrel® Spider
Aluminum Hubs with stainless steel disc	Aluminum Hubs with stainless steel disc	Aluminum Hubs with stainless steel disc	Aluminum Hubs, Polyacetel insert	Zinc Alloy/ sintered iron hubs, polyurethane	Aluminum or steel hubs, urethane or Hytrel® insert	Sintered iron hubs, Buna-N, Urethane, or Hytrel® Spider
up to 111 in-lbs	up to 89 in-lbs	up to 89 in-lbs	up to 40 in-lbs	up to 27 in-lbs	up to 7301 in-lbs	up to 50 in-lbs
up to 26,550 in-lb/rad	up to 22,125 in-lb/rad	up to 44,250 in-lb/rad	up to 7,877 in-lb/rad	up to 266 in-lb/rad	up to 366,921 in-lb/rad	N/A
up to 1.18 inches	up to 1.00 inches	up to 1.00 inches	up to .500 inches	up to .500 inches	up to 2.75 inches	up to .625 inches
up to 10,000 RPM	up to 4,800 RPM	up to 4,800 RPM	up to 24,000 RPM	up to 24,000 RPM	up to 25,400 RPM	up to 31,000 RPM
up to 1.5°	up to 2°	up to 1°	up to 3°	up to 2°	up to 1.3°	up to 1°
.006 inches	.010 inches	N/A	.100 inches	.010 inches	.027 inches	.015 inches
+/- .020 inches	+/- .031 inches	+/- .008 inches	+/- .008 inches	N/A	N/A	N/A
300° F	300° F	300° F	176° F	140° F	up to 248° F	up to 250° F
Up to .72 [lb-in²]	Up to .376 [lb-in²]	Up to .287 [lb-in²]	Up to .304 [lb-in²]	Up to .092 [lb-in²]	Up to .135 [lb-in²]	Up to .070 [lb-in²]

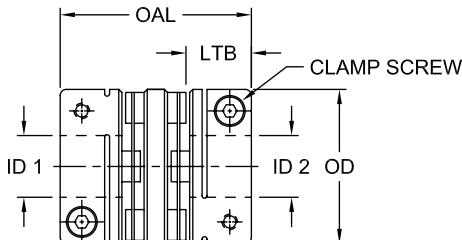
MD Series - Mini Disc Clamp Style Coupling

The MD (mini disc) Series coupling features a higher torque capacity over elastomeric coupling types. The MD Series one piece clamping design allows for easy removal and assembly. The Aluminum hubs and stainless steel disc materials allow for excellent resistance to oil and other chemicals. The MD Series design offers moderate torsional stiffness for applications requiring repeatability. The MD Series also offers up to .020 inches of axial misalignment.

Features

- Zero backlash design
- Moderate torsional stiffness
- Aluminum hubs with stainless steel discs
- Moderate-high torque capabilities

MC



MD Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
MD-19C	6	1,770	10,000	0.635	18	0.003	1.5°	0.005	± 0.20
MD-25C	9	3,983	8,000	0.882	25	0.009	1.5°	0.005	± 0.20
MD-32C	22	9,735	6,000	2.116	60	0.033	1.5°	0.006	± 0.20
MD-40C	31	12,390	5,000	3.527	100	0.065	1.5°	0.006	± 0.20
MD-50C	80	19,470	4,000	7.408	210	0.028	1.5°	0.006	± 0.20
MD-63C	111	26,550	3,000	11.993	340	0.718	1.5°	0.006	± 0.20

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

MD Series Dimensional Data

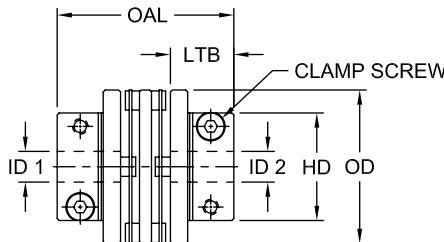
Size	OAL		LTB		ID1 - ID2				OD		Clamp Screw Size mm
					Min Bore		Max Bore				
Size	in	mm	in	mm	in	mm	in	mm	in	mm	
MD-19C	1.063	27	0.315	8	0.157	4	0.315	8	0.748	19	M2
MD-25C	1.220	31	0.394	10	0.236	6	0.472	12	0.984	25	M2.5
MD-32C	1.575	40	0.472	12	0.315	8	0.591	15	1.260	32	M3
MD-40C	1.732	44	0.551	14	0.315	8	0.787	20	1.575	40	M4
MD-50C	2.244	57	0.709	18	0.551	14	0.984	25	1.969	50	M5
MD-63C	2.402	61	0.787	20	0.591	15	1.181	30	2.480	63	M6

MDS Series – Mini Disc Spacer Clamp Style Coupling

The MDS (mini disc spacer) Series coupling features a higher parallel misalignment capacity over standard MD Series at .006 inches. The MDS Series also has the highest parallel misalignment at .012 inches and angular misalignment at 2° of any of the mini disc couplings.

Features

- Zero backlash design
- High torsional stiffness
- Aluminum hubs with stainless steel discs
- Moderate-high torque capabilities
- Low Inertia



MC

MDS Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
MDS-32C	18	8,850	4,800	1.69	48	0.212	2°	0.006	± 0.016
MDS-40C	35	13,275	3,800	2.86	81	0.055	2°	0.007	± 0.016
MDS-50C	66	17,700	3,100	5.29	150	0.157	2°	0.007	± 0.024
MDS-63C	89	22,125	2,400	8.11	230	0.376	2°	0.012	± 0.031

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ Specify Bore sizes ID1 and ID2 when ordering.

MDS Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		HD		Clamp Screw Size mm
	in	mm	in	mm	Min Bore	Max Bore	in	mm	in	mm	in	mm	
MDS-32C	1.575	40	0.539	13.7	0.236	6	0.394	10	1.260	32	0.866	22	M3
MDS-40C	1.811	46	0.650	16.5	0.315	8	0.551	14	1.575	40	1.102	28	M4
MDS-50C	2.047	52	0.764	19.4	0.472	12	0.787	20	1.969	50	1.535	39	M5
MDS-63C	2.283	58	0.878	22.3	0.591	15	0.984	25	2.480	63	1.772	45	M6

MOL Series - Oldham Style Coupling

The Lovejoy Oldham coupling is a precision engineered, torsionally stiff, three-piece coupling suitable for a great many applications ranging from incremental control of fluid valves to highly dynamic drives in closed loop servo systems. It accommodates misalignment mechanically through a floating disc that engages tenons machined out of the hubs. As the coupling rotates, the floating disc aligns with each hub alternately to an extent demanded by the alignment error.

Because parallel misalignment is accommodated by lateral displacement, the Lovejoy Oldham coupling can handle severe alignment errors within a short space envelope. This is a valuable feature in densely packaged and blind assemblies, or where misalignment can accelerate the erosion of shaft bearings.

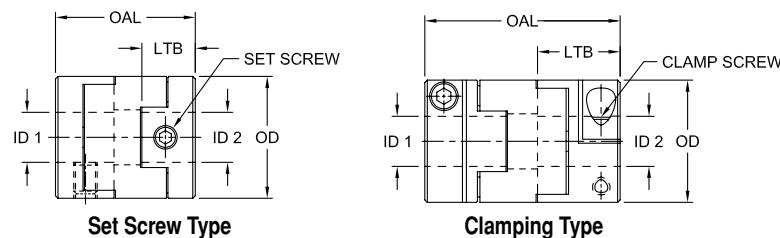
The Lovejoy Oldham coupling features raised dots on both sides of the floating disc which act as an effective spacer. The dots keep the face of the tenon from contacting the bottom of the floating disc and allows the coupling greater angular misalignment capability. A very important effect is that the spacer dots will greatly reduce the bending load on the shafts because of the freedom of the floating disc.

MC

The MOL Coupling consists of two hubs and one center member.

Features

- High torsional stiffness
- Maximum temperature 176° F (80° C)
- Aluminum hubs with a Polyacetal insert
- Available in setscrew or clamping style hubs



MOL Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
MOL-16	6.2	620	24,000	0.2	7	0.001	3°	0.04	N/A
MOL-16C	6.2	620	9,500	0.4	11	0.001	3°	0.04	N/A
MOL-20	10.6	974	19,000	0.5	15	0.003	3°	0.06	N/A
MOL-20C	10.6	974	7,600	0.8	22	0.004	3°	0.06	N/A
MOL-25	17.7	1,770	15,000	1.0	28	0.008	3°	0.08	N/A
MOL-25C	17.7	1,770	6,100	1.4	40	0.011	3°	0.08	N/A
MOL-32	39.8	7,877	12,000	1.9	55	0.025	3°	0.10	N/A
MOL-32C	39.8	7,877	4,800	2.6	75	0.034	3°	0.10	N/A

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ N/A indicates: Not Applicable.

■ Specify Bore sizes ID1 and ID2 when ordering.

MOL Series Dimensional Data

Size	Attachment	OAL		LTB		ID1 - ID2				OD		Set Screw/ Clamp Screw Size
		in	mm	in	mm	in	mm	in	mm	in	mm	
MOL-16	Set Screw	0.709	18	0.276	7.0	0.118	3	0.236	6	0.630	16	M3
MOL-16C	Clamp	1.142	29	0.492	12.5	0.118	3	0.236	6	0.630	16	M2.6
MOL-20	Set Screw	0.906	23	0.354	9.0	0.118	3	0.315	8	0.787	20	M4
MOL-20C	Clamp	1.299	33	0.551	14.0	0.118	3	0.315	8	0.787	20	M2.6
MOL-25	Set Screw	1.102	28	0.433	11.0	0.197	5	0.394	10	0.984	25	M5
MOL-25C	Clamp	1.535	39	0.650	16.5	0.197	5	0.394	10	0.984	25	M3
MOL-32	Set Screw	1.299	33	0.512	13.0	0.315	8	0.551	14	1.260	32	M6
MOL-32C	Clamp	1.772	45	0.748	19.0	0.315	8	0.551	14	1.260	32	M4

MSF Series - Mini Soft Style Coupling

The Lovejoy Mini Soft coupling provides protection from misalignment, vibration and shock loads. The simple design of the coupling ensures ease of assembly, installation and reliable performance. No special tools are needed for installation or removal. No lubrication is needed, and once installed and aligned correctly, no maintenance is required.

The Mini Soft coupling design is comprised of three parts. Two hubs with internal teeth engage an elastomeric flexible center, or sleeve, with external teeth. Misalignment and torsional shock loads are absorbed by shear deflection in the center sleeve element.

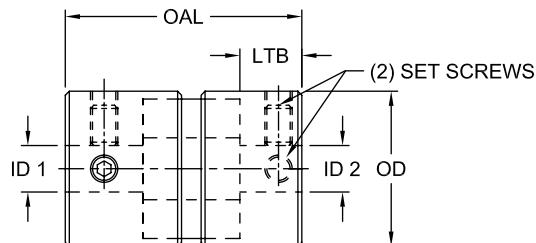
The shear characteristic of the coupling is very well suited to absorb impact. The Lovejoy Mini Soft coupling is designed with tooth contact which provides more surfaces carrying the load resulting in less wear at any one point, and torque that flows more smoothly. Additionally, the coupling allows for axial freedom which results in easier assembly and spacing of shafts. This feature is particularly useful in reducing thrust loads on bearings.

When operating within its rating, the coupling is torsionally stiff and will not react with twist during operation. The Polyurethane center member sleeve is known for its toughness and resistance to abrasion, and also provides for good damping and shock load capabilities.

The MSF coupling consists of two hubs and one center member.

Features

- Easy blind assembly
- Good shock load absorption
- Good abrasion resistance
- Zinc alloy hubs
- Polyurethane insert



MC

MSF Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
MSF-16	4.4	27	24,000	0.8	22	0.003	2°	0.01	N/A
MSF-20	8.9	80	19,000	1.5	43	0.010	2°	0.01	N/A
MSF-25	13.3	106	15,000	3.0	84	0.028	2°	0.01	N/A
MSF-32	26.6	266	12,000	5.6	160	0.092	2°	0.01	N/A

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.

■ N/A indicates: Not Applicable.

■ Specify Bore sizes ID1 and ID2 when ordering.

MSF Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		Set Screw Size
	in	mm	in	mm	in	mm	in	mm			
MSF-16	1.063	27	0.315	8	0.118	3	0.315	8	0.630	16	M3
MSF-20	1.339	34	0.394	10	0.197	5	0.394	10	0.787	20	M3
MSF-25	1.614	41	0.472	12	0.197	5	0.472	12	0.984	25	M4
MSF-32	1.890	48	0.551	14	0.315	8	0.551	14	1.260	32	M4

GS Series - Curved Jaw Style Coupling

The GS Series curved jaw coupling offers zero backlash capability in a 3-piece design. The coupling is provided assembled under prestress. The GS Series can be used in a variety of different applications requiring precision and accuracy.

The GS Series spider features a straight center of the spider tooth, providing higher stiffness due to coupling prestress. The crowning of the ends of the spider legs allows for misalignment, while the curved jaws and solid spider center provide high-speed capability.

The jaws of the hubs and the spider legs are chamfered to provide easy assembly. The GS Series coupling design also allows the blind assembly in tight spaces. Raised spider dots on the legs of the spider ensure proper spacing of hubs and spider.

The GS Series coupling has spiders available in four different shore hardesses. Each spider offers benefits for different vibratory, environmental, and torque transmission requirements.

MC

The GS Curved Jaw coupling consists of two hubs and one spider.



Features

- Simple 3 piece jaw design
- Aluminum and steel material hubs
- Clamping and locking device hubs available
- Four different types of urethane shores to chose from

Typical Applications

Measurement And Control Systems

The torsional stiffness of the GS Series coupling provides zero backlash needed for the accuracy for measurement and control systems. The low torques of these applications gives the GS Series the ability to provide zero backlash due to the elastomer pre-stress.

Servo And Positioning Drives

The GS Series provides a zero backlash, flexible connection for servo and positioning drives. An added benefit of the GS Series is its damping capabilities. For applications that have vibrations at critical speeds, the GS Series coupling can provide a zero backlash solution for vibration problems.

Main Spindle Drives

The GS Series coupling is used in main spindle drives for machine tools. Torque spikes and cyclical loading are handled by the GS Series by damping or by shifting the vibratory frequency range to a non-critical speed range.

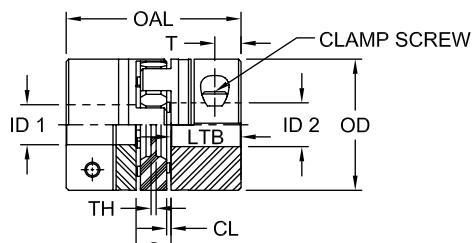
Elastomer Performance Data

Spider Type	Color	Metal	Temperature Range		Sizes Available	Typical Applications
			Normal	Maximum		
80 Shore A GS	Blue	Urethane	-50° to 176° F	-80° to 248° F	14 - 24	Electric measuring systems
92 Shore A GS	Yellow	Urethane	-40° to 194° F	-50° to 248° F	14 - 55	Electric measuring systems and control systems
95/98 Shore A GS	Red	Urethane	-30° to 194° F	-40° to 248° F	14 - 55	Positioning drives, main spindle drives, high load applications
64 Shore D GS	Green	Urethane	-20° to 230° F	-30° to 248° F	14 - 55	High load applications torsionally stiff spider material

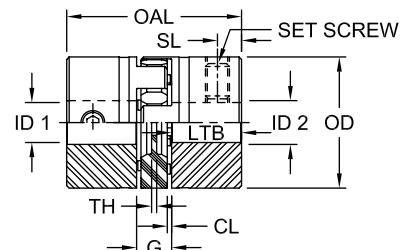
GS Series Performance Data

Size	Spider Durometer	Maximum Speed for Clamping Styles			Torque		Static Torsional Stiffness	Dynamic Torsional Stiffness	Radial Stiffness	Complete Coupling	
		Clamping Hub	Set Screw Hub	Locking Device Hub	Tkn	Tkmax				Max Bore w/o Keyway	Weight
RPM	RPM	RPM	in-lbs	in-lbs	lb-in/rad	lb-in/rad	b/in	lb		(lb-in ²) (x10 ⁻⁶)	
14	80 Sh A	12,700	15,900	25,400	35.4	70.8	532.8	1,593	874	0.098	57
	92 Sh A				66.4	132.8	1,014.0	3,044	1,920		
	98 Sh A				110.6	221.3	1,521.0	4,540	3,452		
	64 Sh D				141.6	283.2	2,072.0	6,212	4,892		
19/24	80 Sh A	9,550	11,900	19,000	43.4	86.7	3,042.0	9,115	3,326	0.306	374
	92 Sh A				88.5	177.0	5,071.0	15,222	6,401		
	98 Sh A				150.5	300.9	7,606.0	22,833	11,487		
	64 Sh D				185.9	371.7	10,976.0	32,922	16,745		
24/32	92 Sh A	6,950	8,850	13,800	309.8	619.5	12,673.0	38,019	8,458	0.621	965
	98 Sh A				531.0	1,062.0	18,257.0	54,772	14,630		
	64 Sh D				663.8	1,327.0	26,355.0	79,065	21,123		
28/38	92 Sh A	5,850	7,350	11,700	840.8	1,681.0	20,284.0	60,852	10,173	1.178	3,691
	98 Sh A				1,415.0	2,832.0	30,426.0	91,278	18,288		
	64 Sh D				1,770.0	3,540.0	38,497.0	115,492	24,849		
38/45	92 Sh A	4,750	5,950	9,550	1,681.0	3,363.0	40,586.0	121,705	12,430	2.112	7,485
	98 Sh A				2,876.0	5,752.0	63,366.0	190,151	25,146		
	64 Sh D				3,584.0	7,168.0	93,279.0	279,837	36,999		
42/55	92 Sh A	4,000	5,000	8,050	2,345.0	4,690.0	55,755.0	128,236	13,887	8.324	40,639
	98 Sh A				3,982.0	7,965.0	169,920.0	424,800	31,833		
	64 Sh D				4,956.0	9,912.0	244,083.0	610,207	41,548		
48/60	92 Sh A	3,600	4,550	7,200	2,743.0	5,487.0	69,472.0	159,786	14,745	11.317	68,782
	98 Sh A				4,646.0	9,292.0	197,974.0	494,936	33,890		
	64 Sh D				5,796.0	11,593.0	320,370.0	800,925	47,286		
55/70	92 Sh A	3,150	3,950	6,350	3,628.0	7,257.0	84,075.0	193,372	17,031	16.993	135,334
	98 Sh A				6,062.0	12,124.0	210,630.0	526,575	38,210		
	64 Sh D				7,301.0	14,602.0	366,921.0	917,302	52,852		

MC



Clamping Type



Set Screw Type

GS Series Dimensional Data

MC

Size	Material	OAL		LTB		ID1 - ID2				OD		Set Screw / Clamp Screw Size
		in	mm	in	mm	Min Bore	Max Bore	in	mm	in	mm	
14	Aluminum	1.378	35	0.433	11	0.197	5	0.625*	16*	1.181	30	M3
19/24	Aluminum	2.598	66	0.984	25	0.315	8	0.945	24	1.575	40	M2.6
24/32	Aluminum	3.071	78	1.181	30	0.472	12	1.260	32	2.165	55	M4
28/38	Aluminum	3.543	90	1.378	35	0.709	18	1.496	38	2.559	65	M2.6
38/45	Aluminum	4.488	114	1.772	45	0.709	18	1.772	45	3.150	80	M5
42/55	Steel	4.961	126	1.969	50	0.709	18	2.165	55	3.740	95	M3
48/60	Steel	5.512	140	2.205	56	0.709	18	2.362	60	4.134	105	M6
55/70	Steel	6.299	160	2.559	65	1.024	26	2.756	70	4.724	120	M4

Notes: ■ *indicates: Without keyway.

- Specify keyway size if needed when ordering.
- Specify bore sizes ID1 and ID2 when ordering.

GS Series Dimensional Data

Continued

Size	Material	T	Clamp Screw Size		SL	Set Screw Size		TH		CL		G
			in	mm		in	mm	in	mm	in	mm	
14	Aluminum	0.20	M3	0.20	0.20	8-32	0.079	2.0	0.039	1.0	0.512	13
19/24	Aluminum	0.47	M2.6	0.39	0.39	10-24	0.118	3.0	0.079	2.0	0.630	16
24/32	Aluminum	0.55	M4	0.39	0.39	10-24	0.118	3.0	0.079	2.0	0.709	18
28/38	Aluminum	0.59	M2.6	0.59	0.59	5/16-18	0.157	4.0	0.098	2.5	0.787	20
38/45	Aluminum	0.79	M5	0.59	0.59	5/16-8	0.157	4.0	0.118	3.0	0.945	24
42/55	Steel	0.79	M3	0.79	0.79	5/16-8	0.157	4.0	0.118	3.0	1.024	26
48/60	Steel	0.87	M6	0.79	0.79	5/16-8	0.157	4.0	0.138	3.5	1.102	28
55/70	Steel	0.98	M4	0.79	0.79	3/8-16	0.177	4.5	0.157	4.0	1.181	30