

Application Service Factors for L, AL, C, H, LC, SW, RRS, RRC, Jaw Couplings

	Service Factors				
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & En- gines w/4 or more cyl.	Reciprocating Engines	
				1 cyl	2 cyl
Agitators	1.00	1.00	1.00	1.7	1.3
Band Resaw (lumber)	1.50	1.50	1.50	2.2	1.8
Barge Haul Puller	2.00	2.00	2.00	2.7	2.3
Beaters	1.50	1.50	1.50	2.2	1.8
Blowers					
Centrifugal	1.00	1.00	1.00	1.7	1.3
Lobe, Vane	1.25	1.25	1.25	2.0	1.6
Bottling Machinery	1.25	1.25	1.25	2.0	1.6
Brew Kettles (distilling)	1.25	1.25	1.25	2.0	1.6
Can Filling Machinery	1.00	1.00	1.00	1.7	1.3
Car Dumpers	2.50	2.50	2.50	3.2	2.8
Car Pullers	1.50	1.50	1.50	2.2	1.8
Card Machine	1.75	1.75	1.75	2.5	2.0
Chiller (oil)	1.50	2.00	1.25	2.0	2.0
Compressors					
Centrifugal	1.00	1.00	1.00	1.7	1.3
Screw, Lobe	1.25	1.25	1.25	2.0	1.6
Reciprocating	see note				
Conveyors, Uniformly Fed					
Assembly, Belt, Screw	1.00	1.00	1.00	1.7	1.3
Bucket, Sawdust	1.25	1.25	1.25	2.0	1.6
Live Roll, Shaker,					
Reciprocating	3.00	3.00	3.00	3.7	3.3
Conveyors, Not Uniformly Fed					
Assembly, Belt,					
Oven, Screw	1.20	1.20	1.20	1.9	1.5
Reciprocating	2.50	2.50	2.50	3.2	2.8
Shaker	3.00	3.00	3.00	3.7	3.3
Cookers-Brewing, Distilling,					
Food	1.25	1.25	1.25	2.0	1.6
Cranes & Hoist	2.00	2.00	2.00	2.7	2.3
Crushers-Cane (sugar), Stone or Ore	3.00	3.00	3.00	3.7	3.3
Dredges					
Cable reels	2.00	2.00	2.00	2.7	2.3
Conveyors, Pumps,					
Manouevering Winches	1.50	1.50	1.50	2.2	1.8
Cutter Head Drives	2.50	2.50	2.50	3.2	2.8
Dynamometer	1.50	1.50	1.50	2.2	1.8
Elevators					
Bucket	1.50	1.50	1.50	2.2	1.8
Escalators	1.00	1.00	1.00	1.7	1.3
Evaporators	1.00	1.00	1.00	1.7	1.3
Fans					
Centrifugal	1.00	1.00	1.00	1.7	1.3
Cooling Towers	2.00	2.00	2.00	2.7	2.3

	Service Factors				
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & En- gines w/4 or more cyl.	Reciprocating Engines	
				1 cyl	2 cyl
Forced Draft,					
Propeller	1.50	1.50	1.50	2.2	1.8
Induced Draft					
w/Damper control	2.00	2.00	2.00	2.7	2.3
Induced Draft w/o					
Damper cotrol	1.25	1.25	1.25	2.0	1.6
Feeders					
Belt, Screw	1.00	1.00	1.00	1.7	1.3
Reciprocating	2.50	2.50	2.50	3.2	2.8
Filter, Press-oil	1.50	1.50	1.50	2.2	1.8
Generators					
Not Welding	1.00	1.00	1.00	1.7	1.3
Welding	2.00	2.00	2.00	2.7	2.3
Hoist	1.50	1.50	1.50	2.2	1.8
Hammermills	2.00	2.00	2.00	2.7	2.3
Kilns	1.50	1.50	1.50	2.2	1.8
Laundry Washers,					
Reversing	2.00	2.00	2.00	2.0	1.6
Lumber Machinery					
Barkers, Edger Feeder,					
Live Roll	2.00	2.00	2.00	2.7	2.3
Planer, Slab Conveyor	2.00	2.00	2.00	2.7	2.3
Machine Tools					
Punch Press-gear Driven,					
Plate Planer	2.00	2.00	2.00	2.7	2.3
Tapping Machinery,					
Bending Roll	2.00	2.00	2.00	2.7	2.3
Main Drive	1.50	1.50	1.50	2.2	1.8
Auxiliary Drives	1.00	1.00	1.00	1.7	1.3
Metal Forming Machines					
Draw Bench-carriage					
& Main Drive	2.00	2.00	2.00	2.7	2.3
Extruder, Forming, Machine,	2.00	2.00	2.00	2.7	2.3
Wire Drawing	2.00	2.00	2.00	2.7	2.3
Table Conveyors	2.50	2.50	2.50	3.2	2.8
Wire Winding, Coilers,					
Slitters	1.50	1.50	1.50	2.2	1.8
Mills, Rotary Type					
Ball, Kilns, Pebble,					
Rolling, Tube	2.00	2.00	2.00	2.7	2.3
Cement Kilns,					
Dryers, Coolers	2.00	2.00	2.00	2.7	2.3
Tumbling	1.50	1.50	1.50	2.2	1.8
Mixers					
Concrete, continuous	1.75	1.75	1.75	2.5	2.0
Muller	1.50	1.50	1.50	2.2	1.8

	Service Factors				
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Steam Turbines & En- gines w/4 or more cyl.	Reciprocating Engines	
				1 cyl	2 cyl
Paper Mills					
Agitator (mixers),					
Reel, Winder	1.20	1.20	1.20	1.9	1.5
Winder	1.20	1.20	1.20	1.9	1.5
Barker (mechanical),					
Log Haul, Chipper	2.00	2.00	2.00	2.7	2.3
Barking Drum					
(spur gear)	2.50	2.50	2.50	3.2	2.8
Beater, Pulper,					
Jordans, Dresses	2.00	2.00	2.00	2.7	2.3
Calenders, Dryers, Washers,					
Thickener	1.50	1.50	1.50	2.2	1.8
Converting Machines,					
Conveyors	1.20	1.20	1.20	1.9	1.5
Printing Presses	1.50	1.50	1.50	1.7	1.3
Pug Mill	1.75	1.75	1.75	2.0	1.6
Pumps					
Centrifugal	1.00	1.00	1.00	1.7	1.3
Gear, Rotary, Vane	1.25	1.50	1.25	2.0	1.6
Reciprocating:					
1-Cyl. Single or					
Double Acting	2.00	2.00	2.00	2.7	2.3
2-Cyl. Single Acting	2.00	2.00	2.00	2.7	2.3
2-Cyl. Double Acting	1.75	1.75	1.75	2.5	2.0
3 or more Cyl	1.50	1.50	1.50	2.2	1.8
Rubber Machinery					
Mixers	2.50	2.50	2.50	3.2	2.8
Rubber Calender	2.00	2.00	2.00	2.7	2.3
Screens					
Air washing, Water	1.00	1.00	1.00	1.7	1.3
Rotary-stone or gravel,					
Dewatering	1.50	1.50	1.50	2.2	1.8
Vibrating	2.50	2.50	2.50	3.2	2.8
Grizzly	2.00	2.00	2.00	2.7	2.3
Shredders	1.50	1.50	1.50	2.2	1.8
Steering Gears	1.00	1.00	1.00	1.7	1.3
Stokers	1.00	1.00	1.00	1.7	1.3
Suction Roll (paper)	1.50	1.50	1.50	2.2	1.8
Textile Machinery					
Dryers, Dyeing Machinery,					
Mangle	1.20	1.20	1.20	2.0	1.6
Loom, Spinner,					
Tenter frames	1.50	1.50	1.50	2.2	1.8
Tumbling Barrels	1.75	1.75	1.75	2.5	2.0
Windlass	2.00	2.00	2.00	2.7	2.3
Woodworking Mach.	1.00	1.00	1.00	1.7	1.3

Note:

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

Spider Performance Data

Characteristics	Misalignment				Dampening Capacity	Chemical Resistance	Colour
	Temperature Range	Angular Degree	Parallel Inch	Shore Hardness ¹			
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 +100°C. Good resistance to oil. Standard elastomer.(Also applies to SXB Cushions.)	-40° to +100°C	1°	.015	80A	HIGH	GOOD	BLACK
URETHANE LS Jaw-in-Shear (Split) is radially removable meaning that neither hub (or driver/driven equipment) has to be moved to make replacements of spider. This saves time and money in maintenance cost.	-34° to 93°C	2°	.030 to .047	55D	LOW	GOOD	BLUE
URETHANE-Urethane has greater torque capability than NBR (1.5 times), provides less dampening effect, and operates at a temperature range of -34° to +71°C. Good resistance to oil and chemicals.	-34° to +71°C	1°	.015	55D L050-L095 40D L099-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 -51°to+121°C and has an excellent resistance to oil and chemicals. Not recommended for cyclic or start/stop applications.	-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 +232°C	1/2°	.010	NONE	EXCELLENT	BRONZE

Note 1: NBR standard shore hardness is 80A+5A - Except L035=60A. Other softer or harder designs are available in NBR material.

Coupling Nominal Rated Torque

Size	Maximum Bore		Spider Material				
	Inch	mm	LS Split Urethane Torque (Nm)	SOX(NBR) Torque (Nm)	Urethane Torque (Nm)	Hytrel Torque (Nm)	Bronze Torque (Nm)
L035	0.375	9	N/A	0.4	N/A	N/A	N/A
L/AL050	0.625	16	N/A	3.0	4.5	5.6	5.6
L/AL070	0.750	19	N/A	4.9	7.3	12.9	12.9
L/AL075	0.875	22	N/A	10.2	15.3	25.6	25.6
L/AL090	1.000	25	38.0	16.3	24.4	45.3	45.3
L/AL095	1.125	28	38.0	21.9	32.9	63.4	63.4
L/AL099	1.188	30	63.0	35.9	53.9	89.5	89.5
L/AL100	1.375	35	63.0	47.1	70.7	128.0	128.0
L/AL110	1.625	42	123.0	89.5	134.0	256.0	256.0
L150	1.875	48	205.0	140.0	210.0	419.0	419.0
AL150	1.875	48	N/A	163.8	N/A	N/A	N/A
L190	2.125	55	330.0	195.0	293.0	529.0	529.0
L225	2.625	65	475.0	264.0	397.0	704.0	704.0
L276	2.875	73	843.0	533.0	N/A	N/A	1412.0
C226	2.500	64	TBA	338.0	N/A	671.0	671.0
C276	2.875	73	843.0	533.0	N/A	1066.0	N/A
C280	3.000	76	1503.0	854.0	N/A	1567.0	N/A
C285	4.000	102	2120.0	1038.0	N/A	1882.0	N/A
C295	3.500	89	N/A	1281.0	N/A	2563.0	2563.0
C2955	4.000	102	N/A	2136.0	N/A	4271.0	4271.0
H3067	4.500	114	N/A	3774.0	N/A	5333.0	5333.0
H3567	5.000	127	N/A	5269.0	N/A	7119.0	7119.0
H3667	5.629	143	N/A	7323.0	N/A	9966.0	9966.0
H4067	6.250	159	N/A	9969.0	N/A	14237.0	14237.0
H4567	7.000	178	N/A	13525.0	N/A	19209.0	19209.0

Sleeve and Flexible Element Chemical Resistance Chart

Resistance To:	NBR ("SOX")	Urethane	Hytrel	EPDM	Neoprene
Acetone	C	C	B	A	B
Ammonia Anhydrous	-	-	-	A	A
Ammonium Hydroxide Solutions	C	C	A	A	A (158F)
ASTM oil No. 1	A	A	A	C	A
ASTM oil No. 3	A	B	A	C	B-C (158F)
ASTM reference fuel A	A	A	A	C	B
ASTM reference fuel B	A	B	A	C	C
ASTM reference fuel C	B	C	B	C	C
Benzene	C	C	B	C	C
Butane	A	A	A	C	A
Carbon Tetrachloride	C	C	C	C	C
Chlorobenzene	C	C	C	C	C
Chloroform	C	C	C	C	C
Chromic Acid 10 - 50%	C	C	-	C	C
Dowtherm A or E Solvent	-	-	-	C	C
Ethyl Alcohol	C	C	A	A	A (158F)
Ethylene Glycol	A	B	A	A	A (158F)
Fuel Oil	A	C	-	C	A
Gasoline	A	B	A	C	B
Glycerin	A	C	A	A	A
Hydraulic Oils (Petroleum based)	A	A	A	C	A-B
Hydrochloric Acid, 37% (cold)	C	C	C	A	A-B
Hydrogen Peroxide, 90%	C	-	-	C	C
Isopropyl Alcohol	B	C	A	A	A-B
Kerosene	A	B	A	C	B-C
Lacquer Solvents (MEK)	C	C	C	C	C
Lubricating Oils	B	-	A	C	B
Methyl Alcohol	C	C	A	A	A
Mineral Oil	A	A	A	C	B
Naphtha	C	C	A	C	C
Nitric Acid, 10%	C	C	B	B	B
Nitrobenzene	C	C	C	C	C
Phenol	C	C	B	C	C
Phosphoric Acid, 20%	C	A	-	A	B
Phosphate Esters	-	-	A	C	C
Pickling Solution (20% Nitric Acid, 4% HP)	C	C	C	C	C
Soap Solutions	A	A	A	A	A (185F)
Sodium Hydroxide, 20%	B	B	A	A	B
Stearic Acid	B	A	A	B	B (158F)
Sulfuric Acid, up to 50%	C	C	A	B	A-B (158F)
Sulfuric Acid, 50% to 80%	C	C	C	B	B-C
Tannic Acid, 10%	A	-	A	A	A-B
Toluene	C	C	A	C	C
Trichloroethylene	C	C	B	C	C
Turpentine	A	C	-	C	C
Water	A	-	B (158F)	A (158F)	A (212F)
Xylene	C	C	B	C	C

A = Fluid has little or no effect
 B = Fluid has minor to moderate effect
 C = Fluid has severe effect
 - = No data available

COUPLINGS

Jaw Couplings Part Numbers

L Series Jaw Couplings are the most popular in the world.



L Series & Spider



LS Series (Split Spider)

- ◆ 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.

Shaft Couplings - L Series (Fail Safe) & LS Series (Split Shear)

Size	OD (mm)	Torque SOX (Nm)	Pilot Bore	H U B Max Bore	Bored to size Inch	MM	(Standard) Spider SOX	SW KIT Split Circlip	LS (ShearSplit) Spider (URE)	Spider Hytrel (HYT)	Spider Bronze (BRO)	LC KIT Split Cover
L035	16.0	0.4	PB1/4 PB1/8 PB3/8	9mm or 3/8			L035SPIDERSOX					
L050	27.4	3.0	PB1/4 PB3/8	16mm or 5/8	-1/2	-8MM -9MM -11MM -14MM -15MM	L050SPIDERSOX		L050SPIDERURE	L050SPIDERHYT	L050SPIDERBRO	
L070	34.5	4.9	PB1/4 PB3/8	19mm or 3/4	-1/2 -5/8 -3/4	-9MM -11MM -14MM	L070SPIDERSOX		L070SPIDERURE	L070SPIDERHYT	L070SPIDERBRO	
L075	44.5	10.2	PB1/4 PB3/8	22mm or 7/8	-1/2 -5/8	-11MM -14MM -16MM -19MM	L075SPIDERSOX		L075SPIDERURE	L075SPIDERHYT	L075SPIDERBRO	
L090	53.6	16.3 76.0	PB1/4 or 1	25mm or 1	-3/8	-14MM -19MM -24MM	L090SPIDERSOX	SW090/095KIT	L090SPIDERURE LS090/095SPIDER LS090/095RING	L090SPIDERHYT	L090SPIDERBRO	LC090/095KIT
L095	53.6	21.9 76.0	PB7/16 or 1-1/8	28mm or 1-1/8	-3/4 -7/8 -1 -1-1/8	-14MM -19MM -20MM -22MM -24MM -28MM	L095SPIDERSOX	SW090/095KIT	L095SPIDERURE LS090/095SPIDER LS090/095RING	L095SPIDERHYT	L095SPIDERBRO	LC090/095KIT
L099	64.3	35.9 125.0	PB7/16 or 1-3/16	30mm or 1-3/16	-1/2 -5/8 -3/4 -7/8	-19MM -24MM -28MM	L099SPIDERSOX	SW099/100KIT	L099SPIDERURE LS099/100SPIDER LS099/100RING	L099SPIDERHYT	L099SPIDERBRO	LC099/100KIT
L100	64.3	47.1 125.0	PB7/16 or 1-3/8	35mm or 1-3/8	-1/2 -5/8 -3/4 -7/8 -1 -1-1/4	-19MM -24MM -28MM -32MM	L100SPIDERSOX	SW099/100KIT	L100SPIDERURE LS099/100SPIDER LS099/100RING	L100SPIDERHYT	L100SPIDERBRO	LC099/100KIT
L110	84.1	89.5 246.0	PB7/16 or 1-5/8	42mm or 1-5/8	-5/8 -3/4 -7/8 -1 -1-1/4 -1-3/8 -1-1/2 -1-5/8	-19MM -24MM -28MM -32MM -38MM -42MM	L110SPIDERSOX	SW110KIT	L110SPIDERURE LS110SPIDER LS110RING	L110SPIDERHYT	L110SPIDERBRO	LC110KIT

$$\text{Nm (Torque)} = \frac{(\text{Kw} \times 9550 \times \text{S.F.})}{\text{RPM}}$$

SW Kit Max RPM 1750
 URE Spider 1.5 standard torque
 LC KIT Max RPM 3600
 BRZ Spider Max RPM 250 3 times torque
 HYT Spider 3 times standard torque

S.F. is the service factor which is in all Lovejoy Catalogues or available from any BSC Centre.



COUPLINGS

Jaw Couplings Part Numbers



LC Coupling

Torque	
Nm =	$\frac{Kw \times 9550 \times SF}{RPM}$



**AL Couplings
Aluminium**

AL 050, AL 070, AL 075
AL 090/095, AL 099/100,
AL 150

Shaft Couplings - L Series & C Series (Fail Safe) & LS (Split Shear)

Size (mm)	OD (mm)	Torque SOX (Nm)	Pilot Bore	H Max Bore	U Bored to size Inch	B Bored to size MM	Spider SOX	SW KIT Split Circlip	LS (Split Shear) & Spider (URE)	Spider Hytrel (HYT)	Spider Bronze (BRO)	LC KIT Split Cover
L150	95.3	140 490	PB5/8	48 or 1-7/8	-3/4 -7/8 -1 -1-1/8 -1-1/4 -1-3/8 -1-5/8 -1-3/4 -1-7/8	-28MM -32MM -38MM -42MM -48MM	L150SPIDERSOX	SW150KIT	L150SPIDERURE LS150SPIDER LS150RING	L150SPIDERHYT	L150SPIDERBRO	LC150KIT
L190	114.3	195 659	PB3/4	55 or 2-1/8	-7/8 -1-1/4 -1-3/8 -1-1/2 -1-3/4 -1-7/8 -55MM	-28MM -32MM -38MM -42MM -45MM -48MM	L190SPIDERSOX	SW190KIT	L190SPIDERURE LS190SPIDER LS190RING	L190SPIDERHYT	L190SPIDERBRO	LC190KIT
L225	127.0	264 949	PB3/4 PB7/8	65 or 2-5/8	-7/8 -1-1/4 -1-3/8 -1-1/2 -1-5/8 -1-7/8 -60MM	-32MM -38MM -42MM -48MM -55MM	L225SPIDERSOX	SW225KIT	L225SPIDERURE LS225SPIDER LS225RING	L225SPIDERHYT	L225SPIDERBRO	LC225KIT
L276	157.2	533 1686	PB7/8	73 or 2-7/8			L276SPIDERSOX		LS276SPIDER LS276RING			

Shaft Couplings - C Series

Size	O.D.(mm)	SOX Max Nm	LS (Split Shear)	SXB & HYT	SXB Cushion	HYT Cushion
C226	130.8	338	COUPLING	C226COLLAR&BOLTS	C226SXB CUSHION	C226HYT CUSHION
C276	157	533	COUPLING	C276COLLAR&BOLTS	C276SXB CUSHION	C276HYT CUSHION
C280	191	854	COUPLING	C280COLLAR&BOLTS	C280SXB CUSHION	C280HYT CUSHION
		3006	LS280SPIDER&LS280RING			
C285	216	1038	COUPLING	C285COLLAR&BOLTS	C285SXB CUSHION	C285HYT CUSHION
		4237	LS285SPIDER&LS285RING			
C295	232	1281	COUPLING	C295COLLAR&BOLTS	C295SXB CUSHION	C295HYT CUSHION
C2955	232	2136	COUPLING	C2955COLLAR&BOLTS	C2955SXB CUSHION	C2955HYT CUSHION

Spacer Couplings - RRS Series

Spacer PN	Coupling PN	Max Nm	Spacer Length
RRS095	L095	21.92	-100MM
RRS095	L095	21.92	-140MM
RRS100	L100	47.11	-100MM
RRS100	L100	47.11	-140MM
RRS100	L100	47.11	-180MM
RRS110	L110	89.48	-100MM
RRS110	L110	89.48	-140MM
RRS110	L110	89.48	-180MM
RRS150	L150	140.10	-140MM
RRS150	L150	140.10	-180MM
RRS190	L190	195.20	-140MM
RRS190	L190	195.20	-180MM

RRS095 TO RRS110: SPACER COMPLETE - 1 SPACER, 2-SW-KITS

RRS150 TO RRS225: SPACER COMPLETE - 1 SPACER, 2-SW-KITS(1 SW-KIT LOOSE)

COUPLINGS

Jaw Couplings Part Numbers

L Series Hub Spline Bore

Teeth	Pitch	SAE	Spline Bore Diameter		Spline Shaft Diameter Major	STOCKED HUB SIZES								
			Major	Minor		L090	L095	L099	L100	L110	L150	L190	L225	L276
9	16/32	A	0.651	0.509	0.625	L090	L095	L099	L100	–	–	–	–	–
11	16/32		0.776	0.631	0.750	L090	L095	L099	L100	L110	L150	L190	–	–
13	16/32	B	0.901	0.754	0.875	L090	L095	L099	L100	L110	L150	L190	L225	–
13	8/16	D,E	1.798	1.506	1.750	–	–	–	–	L110	L150	L190	L225	L276
14	12/24	C	1.289	1.087	1.250	–	–	–	–	L110	L150	L190	L225	L276
15	16/32	BB	1.026	0.877	1.000	–	–	L099	L100	L110	L150	L190	L225	L276
21	16/32		1.401	1.250	1.375	–	–	–	–	L110	L150	L190	L225	–
23	16/32		1.526	1.375	1.500	–	–	–	–	L110	L150	L190	L225	–
27	16/32		1.776	1.625	1.750	–	–	–	–	L110	L150	L190	L225	L276
15	8/16	F	2.048	1.753	2.000	–	–	–	–	–	–	L190	L225	–

Notes: 1. All pressure angles on above splines = 30°. Class 5 fit is standard, unless otherwise specified.
2. All stock spline bore hubs are supplied standard with Lovejoy's exclusive Centaloc Spline Locking Feature.

PART NUMBER EXAMPLE

L100 - 9T 16/32

Hub Size

Teeth

Pitch

L Series Tapered Bush Entry Hubs

FRONT MOUNT (TBF)

This refers to hubs machined to allow insertion of the bushing from the "jaw" side of the hub.

Hub Part No	OD	Jaw ID	LTB	Bushing	Min Hub OD	Large OD	Small OD	Width
L099TBF	2.540	1.391	1.060	1108	2.500	1.511	1.363	0.87
L100TBF	2.540	1.391	1.380	1108	2.500	1.511	1.318	0.87
L110TBF	3.320	1.860	1.680	1215/1210	3.125	1.875	1.640	1.50
L150TBF	3.750	1.890	1.750	1310	3.750	2.000	1.755	1.00
L190TBF	4.500	2.410	1.940	1615/1610	3.250	22.50	1.979	1.50
L225TBF	5.000	2.700	2.180	2012	4.375	2.750	2.445	1.25
L276TBF	6.180	3.150	3.120	2517	4.875	3.375	2.939	1.75

REAR MOUNT (TBH)

This refers to hubs machined to allow insertion of the bushing from the "non-jaw" side of the hub.

Hub Part No	OD	Jaw ID	LTB	Bushing	Min Hub OD	Large OD	Small OD	Width
L099TBH	2.540	1.391	1.060	1008	2.375	1.386	1.238	0.87
L100TBH	2.540	1.391	1.380	1008	2.375	1.386	1.193	0.87
L110TBH	3.320	1.860	1.680	1108	2.500	1.511	1.276	0.87
L150TBH	3.750	1.890	1.750	1215/1210	3.125	1.875	1.630	1.50
L190TBH	4.500	2.410	1.940	1615/1610	3.250	2.250	1.979	1.50
L225TBH	5.000	2.700	2.180	1615/1610	3.250	2.250	1.945	1.50
L276TBH	6.180	3.150	3.120	2012	4.375	2.750	2.314	1.25

Note: "Min Hub OD" refers to the minimum hub Outside Diameter required for the given bushing assuming a 20,000 psi hub material.

Dimensions are in inches.



Installation Instructions

A. L, AL, C and H Types

Jaw hubs and elastomers come in many sizes and types. First, determine the size and type of components being used. Remove all components from their boxes and loosely assemble the coupling on any convenient surface. Also check maximum RPM values in Table 2 against operating speed.

1. Inspect all coupling components and remove any protective coatings or lubricants from bores, mating surfaces, and fasteners. Remove any existing burrs, etc., from the shafts.
2. Slide one coupling hub onto each shaft, using keys where required. Keys should fit snugly.
3. Position the hubs on the shafts to approximately achieve the "G" dimension shown in Table 2. It is usually best to have any equal length of shaft extending into each hub. Tighten one hub in its final position.

For style 1 or style 2, if possible, slide the other hub far enough away to install elastomer. If hub cannot be slid back, or if "blind" assembly, tighten second hub on shaft and bring equipment together.

For style 3, tighten hubs on shafts, do not install cushions and collars at this time. Tighten setscrews to the appropriate value shown in Table 1.

4. Check parallel alignment by placing a straight edge across the two coupling hubs, and measuring the maximum offset at various points around the periphery of the coupling without rotating the coupling. If the maximum offset exceeds the figure shown under "Parallel" in Table 2, realign the shafts.
5. Check angular alignment with a micrometer, vernier, or caliper. Measure "X" from one hub to the other at intervals around the coupling. Determine the maximum and minimum dimensions without rotating the coupling, the difference of these two measurements must be less than the Angular value in Table 2. If a correction is necessary, be sure to recheck the parallel alignment.

B. RRS,RC, and LC Types

Determine the size and type of coupling being used. Also check maximum RPM values in Tables 2 and 3, against the operating speed. Remove all components from their boxes and loosely assemble the coupling on any convenient surface.

Step1.

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

Step 2.

Use appropriate section for the type of coupling assembly.

2a. For RRS Type - Styles 1, 2 and 3

1. Slide one hub onto each shaft, using keys where required. Position the hubs on the shafts to achieve spacer gap as in Figures 3 and 4. It is usually best to have an equal length of shaft extending into each hub. Line up the jaws of both hubs and tighten them with set screw torque from Table 1 in their final positions.
2. Check parallel alignment by placing a straight edge across the two hubs and measuring the maximum offset at various points around the periphery of the hubs without rotating the coupling. If the maximum offset exceeds the parallel value in Table 3, realign the shafts.
3. Check angular alignment with a micrometer or caliper. Measure the "X" dimension from one hub to the other at intervals around the hubs. Determine the maximum and the minimum dimensions without rotating the coupling. The difference of these two measurements must be less than the angular value in Table 3. If a correction is necessary, recheck the parallel alignment.
4. Position the spacer between the two hubs with collars loose on the hub or spacer. Install the snap-wrap spiders and fasten collars with cap screws. Proceed to Step 3.

2b. For RRC Type - Style 4.

1. Slide one adaptor hub onto each shaft, using keys where required. Position the hubs on the shafts to achieve a spacer gap as in Figure 5. It is usually best to have an equal length of shaft extending into each hub. Tighten both hubs with the set screw torque from Table 1.
2. Install the spacer section between the two hubs. The spacer section includes two jaw rings, the cushions, and a collar. Fasten the spacer section to the adaptor hubs with the axial mounting screws and torque them to 68-76 ft-lbs.
3. Slide collar off jaw ring and set on the adaptor hub. Some cushions at the bottom side of the coupling can fall out and may be set aside while checking shaft alignment.
4. Check parallel alignment by placing a straight edge across the two hubs and measuring the maximum offset at various points around the periphery of the hubs without rotating the coupling. If the maximum offset exceeds the parallel value in Table 3, realign the shafts.
5. Check angular alignment with a micrometer or caliper. Measure the "X" dimension from one hub to the other at intervals around the hubs. Determine the maximum and the minimum dimensions without rotating the coupling.

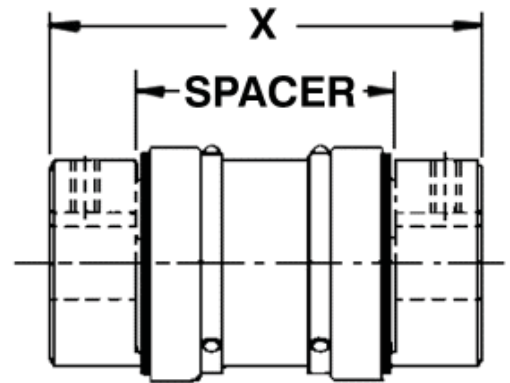
The difference of these two measurements must be less than the angular value in Table 3. If a correction is necessary, recheck the parallel alignment.
6. Reinstall the cushions and fasten the collar with cap screws. Proceed to Step 3.

Installation Instructions

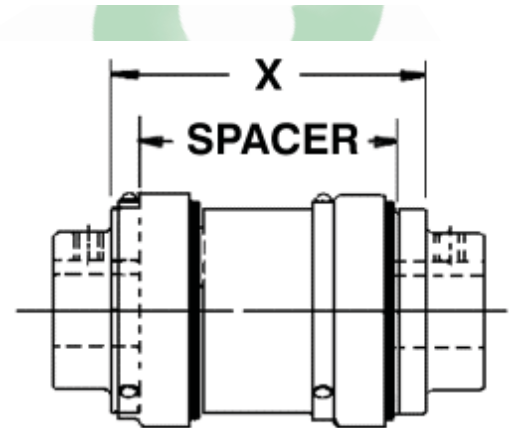
C. LC Type

1. Slide one hub onto each shaft, using the keys where required. Keys should fit snugly. Position the hubs on the shafts to approximately achieve the "G" dimension. It is usually best to have an equal length of shaft extending into each hub. Tighten both hubs in their final positions using the set screw torque. Slide the collar to the edge of the hub and do not install the snap-wrap spider at this time.
2. Check Parallel alignment by placing a straight edge across the two hubs and measuring the maximum offset at various points around the periphery of the hubs without rotating the coupling. If the maximum offset exceeds the parallel value under NBR in Table 2, realign the shafts.
3. Check angular alignment with a micrometer or caliper. Measure the "X" dimension from one hub to the other at intervals around the hubs. Refer to Figures 1 and 2 for Styles 1 and 2, respectively. Determine the maximum and the minimum dimensions without rotating the coupling. The difference of these two measurements must be less than the angular value under NBR in Table 2. If a correction is necessary, recheck the parallel alignment.
4. Install the snap-wrap spider and fasten the collar with cap screws. Proceed to Step 3.

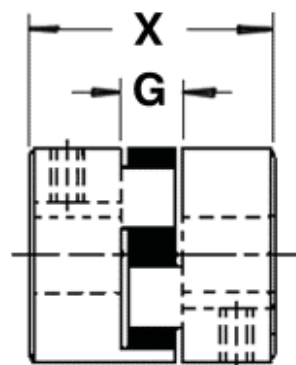
Note: Install coupling guards per OSHA or ASME 815.1 requirements.



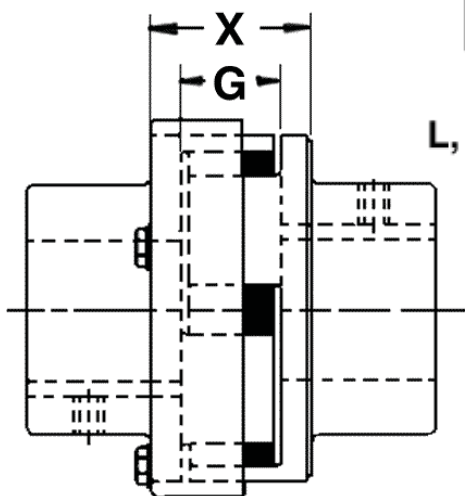
RRS - type in Styles 1 & 2



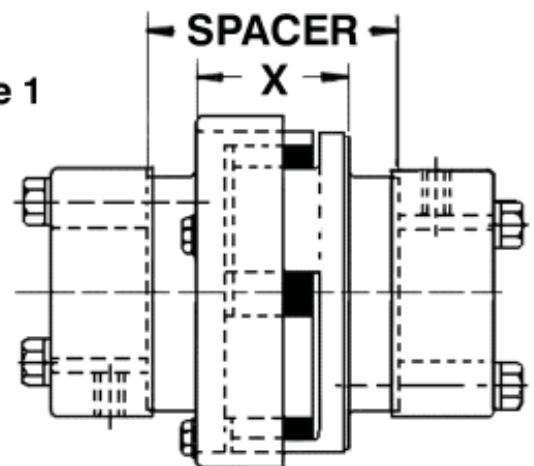
RRS - type in Style 3



L, AL & LC in Style 1



L, LC, C & H in Styles 2 & 3



RRC - type in Style 4

COUPLINGS

Jaw Couplings
L, AL, LC, C & H types

Chart 1. Tightening Torque for Set Screws

Coupling Size	INCH SET SCREWS				METRIC SET SCREWS			
	Set Screw		Tightening Torque		Set Screw		Tightening Torque	
	Size	Length INCH			Size	Length MM		
L035	6-32	3/32	3-4	0.34-0.45	M3	3	4.4	0.5
		1/8	7-8	0.8-0.9		4 & up	5.3	0.6
		3/16 & up	9-10	1.0-1.1				
L050	1/4-20	3/16	45-50	5-5.6	M4	3 & up	18	2.0
L070		1/4 & up	78-87	9-10	M6	4-6	44	5.0
L075						8 & up	58-62	6.6-7
L090								
L095	5/16-18	1/4	80-90	9-10	M8	5-8	84-88	9.5-10
L099		5/16 & up	150-165	17-19		10 & up	142-150	16-17
L100								
AL110								
AL150								
L110	3/6-16	1/4	135-150	15-17	M10	6-10	166-177	19-20
L150		5/16	225-250	25-28		12 & up	283-300	32-34
		3/8 & up	260-290	29-32				
L190	1/2-13	1/2 & up	540-600	61-68	M12	8-12	372-396	42-45
L225						14 & up	504-528	57-60
L276								
C226								
C276								
C280								
C285	5/8-11	5/8 & up	1100-1200	124-136	M16	16	756-792	86-90
C295						18 & up	1260-1320	142-150
C2955								
H3067								
H3567								
H3667	3/4-10	3/4 & up	1800-2000	203-226	M20	20	98-103	133-140
H4067						25 & up	210-221	285-300
H4567								

COUPLINGS

Jaw Couplings Allowable Misalignment Charts

Chart 2. Maximum RPM and Allowable Misalignment

Size	Style	RPM*	G*** Dim.	Allowable Misalignment, inch (at 3600 RPM or lower)					
				w/NBR or Urethane		w/Hytrel		w/Bronze	
				Parallel	Angular**	Parallel	Angular**	Parallel	Angular**
L035	1	31000	0.281	0.015	0.010				
L050	1	18000	0.469	0.015	0.018	0.015	0.012	0.010	0.012
L070	1	14000	0.500	0.015	0.022	0.015	0.012	0.010	0.012
L075	1	10000	0.500	0.015	0.030	0.015	0.015	0.010	0.015
L090	1	9000	0.500	0.015	0.035	0.015	0.018	0.010	0.018
L095	1	9000	0.500	0.015	0.035	0.015	0.018	0.010	0.018
L099	1	7000	0.750	0.015	0.040	0.015	0.022	0.010	0.022
L100	1	7000	0.750	0.015	0.040	0.015	0.022	0.010	0.022
L110	1	5000	0.875	0.015	0.055	0.015	0.030	0.010	0.030
L150	1	5000	1.000	0.015	0.065	0.015	0.033	0.010	0.033
L190	2	5000	1.000	0.015	0.075	0.015	0.040	0.010	0.040
L225	2	4200	1.000	0.015	0.085	0.015	0.044	0.010	0.044
L276	2	4200	1.625	0.015	0.100				
C226	3	4800	1.500	0.015	0.090	0.015	0.046	0.010	0.046
C276	3	4200	1.625	0.015	0.100	0.015	0.054	0.010	0.054
C280	3	3500	1.625	0.015	0.130	0.015	0.065	0.010	0.065
C285	3	3200	1.625	0.015	0.145	0.015	0.075	0.010	0.075
C295	3	2300	1.875	0.015	0.160	0.015	0.080	0.010	0.080
C2955	3	2300	1.875	0.015	0.160	0.015	0.080	0.010	0.080
H3067	3	2300	2.125	0.015	0.180	0.015	0.090	0.010	0.090
H3567	3	2100	2.375	0.015	0.195	0.015	0.100	0.010	0.100
H3667	3	1900	2.625	0.015	0.210	0.015	0.105	0.010	0.105
H4067	3	1800	2.875	0.015	0.235	0.015	0.120	0.010	0.120
H4567	3	1500	3.125	0.015	0.265	0.015	0.135	0.010	0.135

* Maximum RPM for bronze spiders and cushions is 250 RPM regardless of size.

** Angular misalignment is the difference between X and X(max).

*** For RRS type couplings, see Table below.

Chart 3. Maximum RPM & Allowable Misalignment for RRS & RRC Types

Size	Style	Max. RPM*	G Dim.	Allowable Misalignment, inch (at 3600 RPM or lower)					
				Combined		Parallel with zero angular			
				Parallel	Angular*	3.5"spcr	5"spcr	7"spcr	
RRS090	1	3600	0.50	0.030	0.070	0.050	0.080	0.110	
RRS095	1	3600	0.50	0.030	0.070	0.050	0.080	0.110	
RRS099	1	3600	0.75	0.030	0.080	0.050	0.075	0.110	
RRS100	1	3600	0.75	0.030	0.080	0.050	0.075	0.110	
RRS110	1	3600	0.88	0.030	0.110	0.045	0.070	0.105	
RRS150	2	3600	1.00	0.030	0.130	0.045	0.070	0.105	
RRS190	3	3600	1.00	0.030	0.150	0.045	0.070	0.105	
RRS225	3	3600	1.00	0.030	0.170	0.045	0.070	0.105	
RRC226	4	3600	1.50	0.015	0.090	0.015	0.015	0.015	
RRC276	4	3600	1.63	0.015	0.100	0.015	0.015	0.015	
RRC280	4	3500	1.63	0.015	0.130	0.015	0.015	0.015	
RRC285	4	3200	1.62	0.015	0.145	0.015	0.015	0.015	
RRC295	4	2300	1.88	0.015	0.160	0.015	0.015	0.015	
RRC2955	4	2300	1.88	0.015	0.160	0.015	0.015	0.015	

* Angular misalignment is the difference between X and X(max).

RRC295 and RRC2955 are standard with minimum 4 inch spacers.

JIS 6 Pin Saves Great Amounts Of Time, Maintenance, And Inventory Costs

Lovejoy's commitment to continual product improvement is demonstrated in the next generation of the Jaw In-Shear (JIS) coupling—the new Jaw In-Shear 6 Pin. This new design features a unique 6 pin locking system that allows for even easier locking of the element. Lovejoy's L-Type and C-Type Jaw hubs are utilized with this design. No tools are needed, because the element is radially removable, neither hub (for the driver or driven equipment) has to be moved to replace the element.

Choose From 16 JIS 6 Pin Sizes and New Spacer Design

The Jaw In-Shear 6 Pin coupling is available in bore sizes up to 9 inches. The JIS 6 Pin Spacer coupling is designed specifically as a drop-in replacement for a grid spacer coupling. The adapter hubs allow a grid spacer design to be replaced with a non-lubricated JIS 6 Pin Spacer coupling. The JIS 6 Pin Spacer coupling is available in sizes LS090-CS350. These sizes cover B.S.E. (between shaft end measurement) of 3.5, 5, 7, and 9 inches, depending on coupling size.

JIS 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.

Benefits

- 2 degree angular misalignment capability.
- 0.030" - 0.094" parallel misalignment capability.
- Torsional wind-up of 5 degrees at full load.
- 50D shore Urethane material—maximum temperature of 93°C (200°F).
- 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 110.
- The Original JIS locking ring is interchangeable with the new JIS 6 Pin



Jaw In-Shear 6 Pin Assembled
Shown With L-095 Straight Jaw Hubs



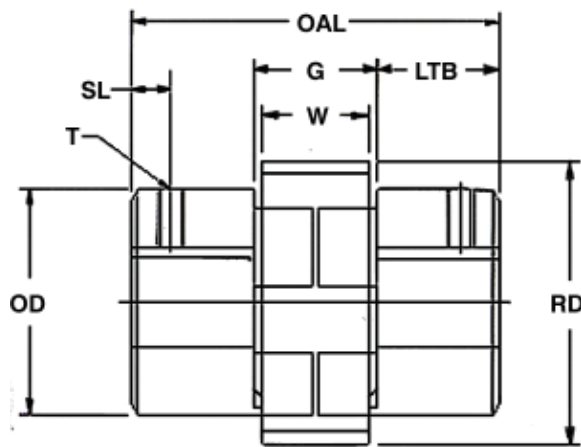
Jaw In-Shear 6 Pin Ring
Stainless Steel



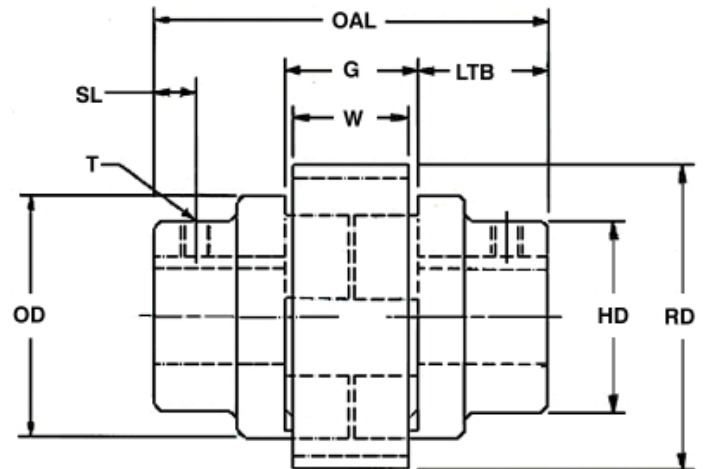
COUPLINGS

Jaw In-Shear Couplings JIS 6 Pin

Style 1

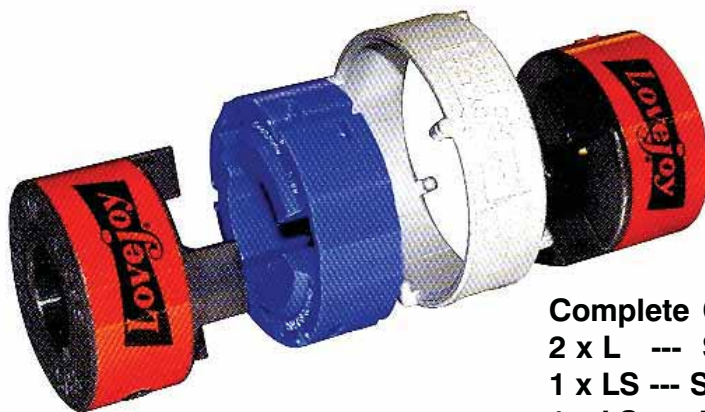


Style 2



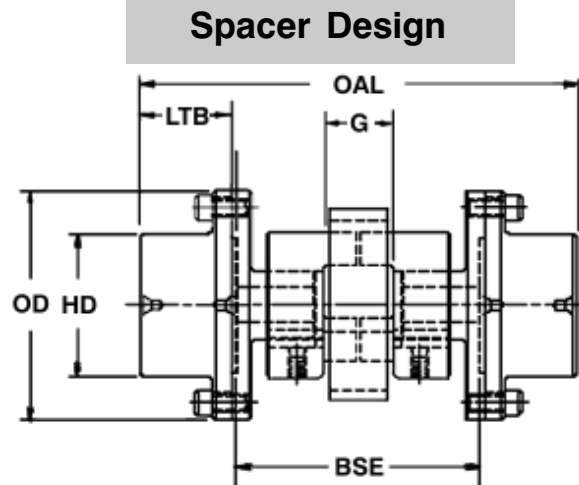
JIS 6 Pin Coupling - Dimensional Chart - Inch

Size	Style	OD	OAL	G	LTB	HD	SL	RD	W	T
LS090	1	2.11	2.64	1.00	0.82	2.11	0.44	2.75	0.83	1/4-20
LS095	1	2.11	3.00	1.00	1.00	2.11	0.44	2.75	0.83	5/16-18
LS099	1	2.54	3.52	1.40	1.06	2.54	0.44	3.19	1.21	5/16-18
LS100	1	2.54	4.16	1.40	1.38	2.54	0.44	3.19	1.21	5/16-18
LS110	1	3.32	5.00	1.64	1.68	3.32	0.75	4.00	1.45	3/8-16
LS150	1	3.75	5.44	1.94	1.75	3.75	0.75	4.69	1.71	3/8-16
LS190	2	4.50	5.82	1.94	1.94	4.00	0.88	5.50	1.71	1/2-13
LS225	2	5.00	6.30	1.94	2.18	4.25	1.00	6.13	1.71	1/2-13
LS276	2	6.18	9.43	3.19	3.19	5.00	1.56	7.41	2.97	1/2-13
CS280	2	7.50	9.43	3.19	3.12	5.50	1.56	8.94	2.97	1/2-13
CS285	2	8.50	10.69	3.19	3.75	6.50	1.75	10.00	2.97	5/8-11
CS300	2	10.00	12.25	4.25	4.00	7.25	2.00	11.07	5.10	CSL
CS310	2	11.00	13.25	4.25	4.50	8.25	2.25	12.07	5.10	CSL
CS350	2	12.50	17.64	4.88	6.38	9.25	3.19	13.57	5.70	CSL
CS400	2	14.25	20.14	5.38	7.38	10.75	3.69	15.33	6.20	CSL
CS500	2	16.50	24.38	6.38	9.00	13.25	4.50	17.57	7.20	CSL



Complete Coupling uses:
2 x L --- Standard hubs
1 x LS --- Spider
1 x LS --- Ring





JIS 6 Pin Spacer Coupling - Dimensional Data Chart - Inch

Spacer Coupling Size	OD	OAL	G	BSE	Grid Hub Size	LTB	HD	Max Bore Size
LS090	4.00	6.26	1.00	3.500	1020	1.38	2.06	1.375
	4.00	7.76	1.00	5.000	1020	1.38	2.06	1.375
	4.00	9.76	1.00	7.000	1020	1.38	2.06	1.375
	4.00	11.76	1.00	9.000	1020	1.38	2.06	1.375
LS095	4.00	6.26	1.00	3.500	1020	1.38	2.06	1.375
	4.00	7.76	1.00	5.000	1020	1.38	2.06	1.375
	4.00	9.76	1.00	7.000	1020	1.38	2.06	1.375
	4.00	11.76	1.00	9.000	1020	1.38	2.06	1.375
LS099	4.00	6.26	1.00	3.500	1020	1.38	2.06	1.375
	4.00	7.76	1.00	5.000	1020	1.38	2.06	1.375
	4.00	9.76	1.00	7.000	1020	1.38	2.06	1.375
	4.00	11.76	1.00	9.000	1020	1.38	2.06	1.375
LS100	4.00	6.25	1.40	3.500	1020	1.38	2.06	1.375
	4.00	7.75	1.40	5.000	1020	1.38	2.06	1.375
	4.00	9.75	1.40	7.000	1020	1.38	2.06	1.375
	4.00	11.75	1.40	9.000	1020	1.38	2.06	1.375
LS110	4.38	8.25	1.64	5.000	1030	1.63	2.34	1.625
	4.38	10.25	1.64	7.000	1030	1.63	2.34	1.625
	4.38	12.24	1.64	9.000	1030	1.63	2.34	1.625
LS150	4.62	11.25	1.94	7.000	1040	2.13	3.09	2.120
	4.62	13.25	1.94	9.000	1040	2.13	3.09	2.120
	5.44	9.75	1.94	5.000	1050	2.38	2.38	2.380
LS190	5.44	11.75	1.94	7.000	1050	2.38	2.38	2.380
	5.44	13.75	1.94	9.000	1050	2.38	2.38	2.380
LS225	5.94	12.75	1.94	7.000	1060	2.88	2.88	2.880
	5.94	14.75	1.94	9.000	1060	2.88	2.88	2.880
LS276	6.38	21.76	3.19	9.000	1070	3.12	4.31	3.120
CS280	7.62	24.24	3.19	9.000	1080	3.50	4.81	3.500
CS285	7.62	16.00	3.19	9.000	1080	3.50	4.81	3.500
CS300	11.07	17.00	4.25	9.000	1090	4.00	5.62	4.000
CS310	12.07	16.12	4.88	9.000	1100	3.56	6.75	4.750
CS350	13.57	17.20	5.38	9.000	1110	4.10	7.75	5.500

COUPLINGS

Jaw In-Shear Couplings Application Service Factors

Application Service Factor (K1)

Prime Mover: Electric Motor

Driven Machine Examples	Std. Torque	High Torque
(a) Uniform operation, with small masses to be accelerated. Hydraulic and centrifugal pumps, light generators, blowers, fans, ventilators, belt/screw conveyors	1.00	1.40
(b) Uniform operation, with medium masses to be accelerated. Sheet metal bending machines, wood working machines, mills, textile machines, mixers	1.40	1.80
(c) Medium masses to be accelerated & irregular operation. Rotating ovens, printing presses, generators shredders, winders, spinning machines, pumps for viscous fluids	1.70	2.00
(d) Medium masses to be accelerated, irregular operation & shocks. Concrete mixers, drop hammers, cable cars, paper mills, compression pumps, propeller pumps, rope winders, centrifuges	2.00	2.20
(e) Large masses to be accelerated, irregular operation & heavy shocks. Excavators, hammer mills, piston pumps, presses, rotary boring machines, shears, forge presses, stamping presses	2.20	2.40
(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	2.30	2.80

Application Service Factor (K2) For Operation Period

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

Application Service Factor (K3) For Starts per hour

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	1.5	1.4
More than 40, up to 125 per hour	1.8	2.0
More than 125, up to 250 per hour	2.2	2.5

Jaw in Shear 6 Pin Coupling Ratings

Size	Max. Bore		Nom. Torque		Max. Torque		Coupling Weight	Max. Speed	Max. Misalignment		HP/100
	Inch	mm	in-lbs	Nm	in-lbs	Nm	lbs	RPM	Parallel	Axial	RPM
LS090	1.000	25	335	38	670	76	1.50	9,200	0.030	0.031	0.53
LS095	1.125	28	335	38	670	76	1.50	9,200	0.030	0.031	0.53
LS099	1.188	30	560	63	1,110	125	2.60	7,700	0.030	0.031	0.89
LS100	1.375	35	560	63	1,110	125	2.90	7,700	0.030	0.031	0.89
LS110	1.625	42	1,090	123	2,180	246	5.90	5,900	0.030	0.031	1.73
LS150	1.875	48	1,810	205	3,620	409	8.60	5,200	0.030	0.031	2.87
LS190	2.125	55	2,920	330	5,830	659	14.60	4,300	0.047	0.047	4.63
LS225	2.625	65	4,200	475	8,400	949	17.00	3,900	0.047	0.047	6.66
LS276	2.875	73	7,460	843	14,920	1686	37.70	3,100	0.047	0.063	11.84
CS280	3.000	76	13,300	1,503	26,600	3006	53.50	2,600	0.047	0.063	21.10
CS285	4.000	102	18,760	2,120	37,500	4237	80.60	2,300	0.047	0.063	29.77
CS300	4.875	109	33,000	3,728	66,000	7457	106.80	2,300	0.063	0.094	52.00
CS310	5.625	143	50,000	5,649	100,000	11298	139.30	2,100	0.063	0.094	79.00
CS350	6.375	162	83,333	9,415	166,666	18831	228.20	1,900	0.063	0.125	132.00
CS400	7.375	187	126,667	14,311	253,334	28623	345.10	1,800	0.094	0.125	201.00
CS500	9.000	229	183,333	20,714	366,666	41428	589.60	1,500	0.094	0.125	291.00

COUPLINGS

S-Flex Couplings Application Service Factors

	Service Factors		
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Turbines, Air & Hydraulic Motors
Agitators	1.25	1.50	1.00
Band Resaw (lumber)	1.50	2.0	1.25
Barge Haul Puller	2.00	2.50	1.50
Barking (lumber)	2.00	2.50	1.50
Bar Screen (sewage)	2.00	2.50	1.50
Batches (textile)	1.25	1.50	1.00
Beater and Pulper (paper)	1.50	2.00	1.25
Bending Roll (metal)	1.50	2.00	1.25
Bleacher (paper)	1.25	1.50	1.00
Blowers			
Centrifugal, Vane	1.25	1.50	1.00
Lobe	1.50	2.00	1.25
Bottling Machinery	1.25	1.50	1.00
Brew Kettles (distilling)	1.25	1.50	1.00
Bucket Elevator or Conveyor	1.50	2.00	1.25
Calenders			
Calender (paper)	1.50	2.00	1.25
Calender (rubber)			
Calender-super (paper)	2.00	2.50	1.50
Cane Knives (sugar)	1.50	2.00	1.25
Card Machine (textile)	2.00	2.50	1.50
Car Dumpers	2.00	2.50	1.50
Car Pullers	1.50	2.00	1.25
Cement Kiln	2.00	2.50	1.50
Centrifugal, Blower, Fans, Compressors, or Pumps	1.25	1.50	1.00
Chemical Feeders (sewage)	1.25	1.50	1.00
Chiller (oil)	1.50	2.00	1.25
Chipper (paper)	2.00	2.50	1.50
Circular Resaw (lumber)	1.50	2.00	1.25
Clarifier or Classifier	1.25	1.50	1.00
Clay Working Machinery	1.50	2.00	1.25
Collectors (sewage)	1.25	1.50	1.00
Compressors			
Centrifugal, Screw, Lobe	1.25	1.50	1.00
Reciprocating	SEE NOTE		
Concrete Mixers	1.50	2.00	1.25
Converting Machine (paper)	1.50	2.00	1.25
Conveyors			
Apron, Assembly, Belt, Flight			
Oven, Screw	1.25	1.50	1.00
Bucket	1.50	2.00	1.25
Cookers-Brewing, Distilling, Food	1.25	1.50	1.00
Cooling Tower Fans	2.00	2.50	1.50
Couch (paper)	1.50	2.00	1.25
Cranes & Hoists			
Heavy duty mine	2.00	2.50	1.50
Crushers-Cane (sugar), Stone, Ore	2.00	2.50	1.50
Cutter-Paper	2.00	2.50	1.50

	Service Factors		
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Turbines, Air & Hydraulic Motors
Cylinder (paper)	2.00	2.50	1.50
Dewatering Screen (sewage)	1.50	2.00	1.25
Disc Feeder	1.25	1.50	1.00
Dough Mixer	1.50	2.00	1.25
Draw Bench Conveyor & Main Drive	2.00	2.50	1.50
Dredges			
Cable reef, Pumps	1.50	2.00	1.25
Cutter head, Jig & Screen Drives	2.00	2.50	1.50
Maneuvering & Utility Winch Stacker	1.50	2.00	1.25
Dynamometer	1.25	1.50	1.00
Dryers (rotary)	1.50	2.00	1.25
Edger (lumber)	2.00	2.50	1.50
Elevators			
Bucket	1.50	2.00	1.25
Escalators	1.25	1.50	1.00
Escalators	1.25	1.50	1.00
Extruders (metal)	2.00	2.50	1.50
Fans			
Centrifugal	1.25	1.50	1.00
Cooling Towers	2.00	2.50	1.50
Forced Draft, Large Industrial	1.50	2.00	1.25
Feeders			
Apron, Belt, Disc Reciprocating	1.25	1.50	1.00
Screw	2.00	2.50	1.50
Filter, Press-Oil	1.50	2.00	1.25
Generators			
Uniform Load	1.25	1.50	1.00
Varying Load, Hoist Welders	1.50	2.00	1.25
2.00	2.50	1.50	
Grit Collector (sewage)	1.25	1.50	1.00
Grizzly	2.00	2.50	1.50
Hammermills			
Light Duty, Intermittent	1.50	2.00	1.25
Heavy Duty, Continuous	2.00	2.50	1.50
Hoists			
Heavy Duty	2.00	2.50	1.50
Medium Duty	1.50	2.00	1.25
Jordan (paper)	2.00	2.50	1.50
Kiln, Rotary	2.00	2.50	1.50
Laundry Washer or Tumbler	2.00	2.50	1.50
Line Shafts	1.25	1.50	1.00
Log Hall (lumber)	2.00	2.50	1.50
Loom (textile)	1.50	2.00	1.25
Machine Tools, Main Drives	1.50	2.00	1.25
Mangle (textile)	1.25	1.50	1.00
Mash Tubs (distilling)	1.25	1.50	1.00
Meat Grinder	1.50	2.00	1.25
Metal Forming Machines	1.50	2.00	1.25

	Service Factors		
	Electric Motor w/ Standard Torque	Electric Motor w/ High Torque	Turbines, Air & Hydraulic Motors
Mills			
Ball, Pebble, Rod, Tube, Rubber, Tumbling	2.00	2.50	1.50
Dryers, Coolers	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
Pressers			
Brick, Briquette Machine	2.00	2.50	1.50
Notching, Paper, Punch Printing	1.50	2.00	1.25
Pug Mill	1.50	2.00	1.25
Pulp Grinder (paper)	2.00	2.50	1.50
Pulverizers			
Hammermill-Light Duty, Roller	1.50	2.50	1.25
Hammermill-Heavy Duty, Hog	2.00	2.50	1.50
Pumps			
Centrifugal, Axial	1.25	1.50	1.00
Gear, Lobe, Vane	1.50	2.00	1.25
Reciprocating-Sgl. or Dbl Acting Cylinder	2.00	2.50	2.00
Reel, Rewinder (paper)			
Cable	1.50	2.00	1.25
Rod Mill	2.00	2.50	1.50
Saw Dust Conveyor	1.25	1.50	1.00
Screens			
Air Washing, Water	1.25	1.50	1.00
Rotary-Coal or Sand	1.50	2.00	1.25
Vibrating	2.00	2.50	2.00
Screw Conveyor	1.25	1.50	1.00
Slab Conveyor (lumber)	1.50	2.00	1.25
Slitters (metal)	1.50	2.00	1.25
Soapers (textile)	1.25	1.50	1.00
Sorting Table (lumber)	14.50	2.00	1.25
Spinner (textile)	1.50	2.00	1.25
Stoker	1.25	1.50	1.00
Suction Roll (paper)	1.50	2.00	1.25
Tenter Frames (textile)	1.50	2.00	1.25
Tire Building Machines	2.00	2.50	1.50
Tire & Tube Press Opener	1.25	1.50	1.00
Tumbling Barrels	2.00	2.50	1.50
Washer & Thickener (paper)	1.50	2.00	1.25
Winches	1.50	2.00	1.25
Winders-Paper, Textile, Wire	1.50	2.00	1.25
Windlass	1.50	2.00	1.25
Wire			
Drawing	2.00	2.50	1.50
Winding	1.50	2.00	1.25
Woodworking Machinery	1.25	1.50	1.00

Note:

Caution: Applications involving reciprocating engines and reciprocating driven devices are subject to critical rotational speeds which may damage the coupling and/or connected equipment

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 and Benefits:

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

The S-Flex coupling design is comprised of three parts. Two flanges with internal teeth engage an elastomeric flexible sleeve with external teeth. Each flange is attached to the respective shaft of the driver and driven and torque is transmitted across the flanges through 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-lb to 72,480 in-lb.

The S-Flex flanges are offered in four models which are made from zinc die cast or cast iron. Sleeves are available in EPDM rubber, Neoprene, or Hytrel to address a wide variety of application requirements.

Flange Types:

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

Hubs for Type SC Spacer Coupling:

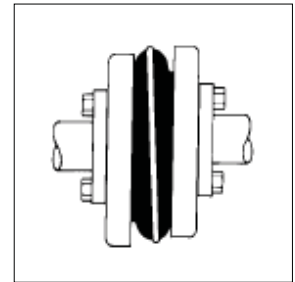
- Type H - Powdered Metal or Cast Iron, Standard Length
 Type HS - Powdered Metal or Cast Iron, Short Length

Sleeves 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 |

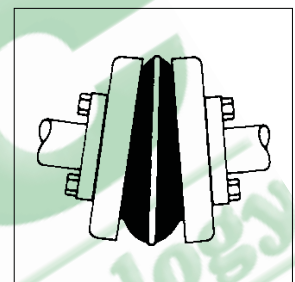
Protection from misalignment, shock, and vibration:

PARALLEL:



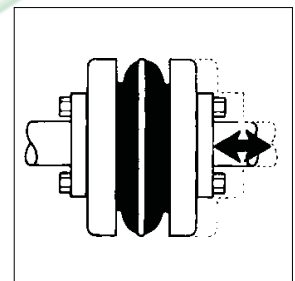
The S-Flex coupling accepts up to 0.813mm of parallel misalignment without wear. The flexible coupling sleeve minimizes the radial loads imposed on equipment bearings, a problem commonly associated with parallel misalignment.

ANGULAR:



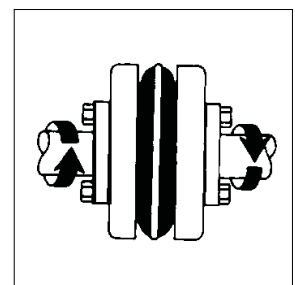
The flexing action of the elastomeric sleeve and the locking feature of the mating teeth allows the S-Flex coupling to effectively handle angular misalignment up to 1°.

AXIAL:



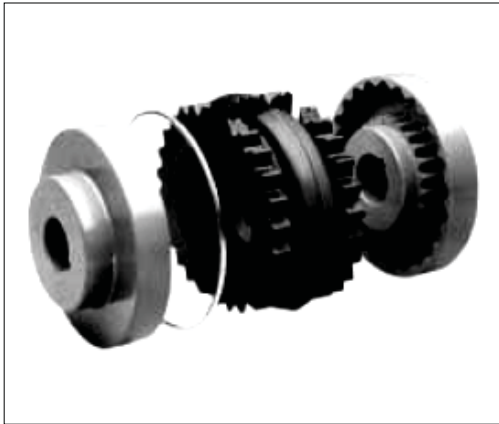
The S-Flex couplings can be used in applications which require a limited amount of shaft end-float without transferring thrust loads to equipment bearings. Axial movement of approximately 3.175mm accepted.

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.

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 & Benefits

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

Complete Coupling uses:
2 x J, S or T Flanges (Hubs)
1 x JE, JES, E, H or HS Sleeve

S Flex Couplings (shear at 4 times rated torque)

OD (mm)	Hub Part No.	Max Torque Nm EPDM	Pilot Bore	Max Bore	Bore & Keyway Sizes		EDPM 1 piece	EDPM 1 piece split	EDPM 2 piece split	Hytrel 1 piece	Hytrel 2 piece split
					Inch	Metric					
52.430	3JFLNG	6.8	3/8 N/KW	22	1/2,5/8	11,14,19	3JE SLEEVE	3JES SLEEVE			
62.540	4JFLNG	13.6	1/2 N/KW	25	1/2,5/8,3/4,1	14,19,24	4JE SLEEVE	4JES SLEEVE			
82.550	5SFLNG	27.1	1/2 N/KW	30	5/8,3/4,7/8,1,1-1/4	14,19,24,28	5JES SLEEVE	5JES SLEEVE	5E SLEEVE		
101.660	6SFLNG	50.8	5/8 N/KW	38	3/4,7/8,1,1-1/4, 1-3/8,1-1/2,1-5/8	19,24,28,32	6JE SLEEVE	6JES SLEEVE	6E SLEEVE	6H SLEEVE	6HS SLEEVE
117.570	7SFLNG	81.9	5/8 N/KW	42	3/4,1,1-1/4,1-3/8, 1-1/2,1-5/8,1-3/4	19,28,32,38,42	7JE SLEEVE	7JES SLEEVE	7E SLEEVE	7H SLEEVE	7HS SLEEVE
138.480	8SFLNG	128.2	3/4 N/KW	49		24,32,38,42,48	8JE SLEEVE	8JES SLEEVE	8E SLEEVE	8H SLEEVE	8HS SLEEVE
161.390	9SFLNG	203.4	7/8 N/KW	60		24,32,38,42,48	9JE SLEEVE	9JES SLEEVE	9E SLEEVE	9H SLEEVE	9HS SLEEVE
190.510	10SFLNG	324.8	1-1/8 N/KW	70			10JE SLEEVE	10JES SLEEVE	10E SLEEVE	10H SLEEVE	10HS SLEEVE
218.111	11SFLNG	511.8	1-1/4 N/KW	86					11E SLEEVE	11H SLEEVE	11HS SLEEVE
254.012	12SFLNG	813.5	1-1/2 N/KW	99					12E SLEEVE	12H SLEEVE	12HS SLEEVE
298.013	13SFLNG	1282.4	2 N/KW	114					13E SLEEVE	13H SLEEVE	13HS SLEEVE
352.014	14SFLNG	2034.0	2 N/KW	127					14E SLEEVE	14H SLEEVE	14HS SLEEVE
497.016	16SFLNG	5339.0	2 N/KW	140					16E SLEEVE		
ALL SLEEVE TYPES AVAILABLE IN NEOPRENE											

S.F. is the service factor listed on all Lovejoy Catalogues and available from any BSC branch.

Made in U.S.A.