

The image shows several components of a Lovejoy Jaw In-Shear Coupling. There are two orange hubs with the 'Lovejoy' logo, a white spider, and a blue spider. The components are arranged on a light-colored wooden surface against a blue background. The 'Lovejoy' logo is prominently displayed on the orange hubs.

Lovejoy

New Jaw In-Shear Coupling

KEY FEATURES

| Split spider for faster
change out

| No Lubrication or serv
ice

| No tools required

| Standard hubs

Hubs available
in
Bored to size - T/Bush
Spline - P/bore
in
sintered iron, aluminium,
stainless steel



BSC

Motion Technology

formerly Bearing Service Centre

A Whole New Way To Use Lovejoy Jaw Couplings!



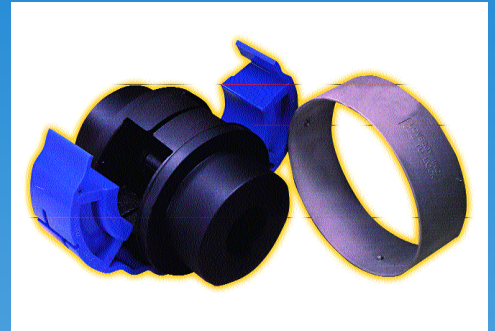
Lovejoy has developed an entirely new elastomer version which can be used with our standard Jaw Coupling hubs.

The Jaw In-Shear Coupling is non-fail safe and thus the coupling acts as a fuse to prevent equipment damage in the event of torque overloads. Instead of the spider being compressed in between the interlocked jaws of each hub, our In-Shear coupling has the hubs drawn apart with the jaws aligned axially. The split spider is then in a shear-plane.

Common applications for the Lovejoy Jaw In-Shear Coupling include; Electric motors to centrifugal pumps, fans, blowers, gear boxes, and plastic extruding machinery. It solves many maintenance problems in industries like pulp & paper, petrochemical, mining and

THIS NEW IN-SHEAR COUPLING PRODUCT PROVIDES SEVERAL FEATURES AND BENEFITS TO THE USER

The Jaw In-Shear Split Spider is radially removeable, meaning that neither hub (or driver/driven equipment) has to be moved to make replacements of the Split Spider. This saves time and money in maintenance costs.



The retaining ring which encloses the In-Shear Spider has small nubs which simply slide into J-shaped grooves in the perimeter of the Spider and twist-lock into place. This feature has a Patent Pending. It will not work its way loose and since there are no fasteners involved, maintenance/removal of the Split Spider takes only a few minutes.

Lovejoy's new In-Shear Spider is used with our industry-standard L-Type and C-Type Jaw Coupling hubs which provides another added convenience – no need to stock different hubs just for this new design of elastomer. Existing applications using in-compression split spiders can simply be retrofitted with the new In-Shear split spider if the features are beneficial.

The Jaw In-Shear Split Spider is made from a tough Urethane formula which provides the best combination of durability, chemical resistance temperature range, and torsional softness. The hubs it is used with go up to a maximum bore of 102 mm (4.00”).

General specifications of the Lovejoy Jaw In-Shear Coupling are;

- I Split Spider
- I 2° angular misalignment capability
- I 0.76-1.19mm parallel misalignment capability
- I 50D shore Urethane Material – max. temperature of 93°C (200°F)
- I Torsional wind-up of 5° at full load
- I Retaining ring is made from #347 cast stainless steel
- I Can be used with AL-type aluminium Jaw coupling hubs for sizes AL090/095, AL099/100 and AL110 (Stainless steel hubs can be made-to-order as well)

$$\text{Torque Nm} = \frac{9550 \times \text{kw} \times \text{S.F.}}{\text{R.P.M}}$$

S.F. Service Factor



Jaw In-Shear Coupling Dimensional Data – mm

Size	Style	Outer Diameter OD	Overall Length OAL	Gap G	Length thru bore LTB	Hub Diameter HD	Setscrew Location SL	Ring Diameter RD	Ring Width W	Setscrew Size T
LS090	1	53.6	67.0	25.4	20.8	53.6	11.2	69.8	21.1	¼ - 20
LS095	1	53.6	76.2	25.4	25.4	53.6	11.2	69.8	21.1	⅝ ₁₆ - 18
LS099	1	64.5	89.4	35.5	27.0	64.5	11.2	81.0	30.7	⅝ ₁₆ - 18
LS100	1	64.5	105.6	35.5	35.0	64.5	11.2	81.0	30.7	⅝ ₁₆ - 18
LS110	1	84.3	127.0	41.6	42.6	84.3	19.0	101.6	36.8	⅜ - 16
LS150	1	95.2	138.1	49.2	44.4	95.2	19.0	119.1	43.4	⅜ - 16
LS190	2	114.3	147.8	49.2	49.3	101.6	22.3	139.7	43.4	½ - 13
LS225	2	156.2	239.5	81.0	55.4	107.9	25.4	155.7	43.4	½ - 13
LS276	2	157.0	239.5	81.0	79.2	127.0	39.6	188.2	75.4	½ - 13
CS280	2	190.5	239.5	81.0	79.2	199.7	39.6	227.0	75.4	½ - 13
CS285	2	215.9	271.5	81.0	95.2	165.1	44.4	254.0	75.4	⅝ - 11

JAW IN SHEAR INTERCHANGE by BORE Note: check the torque Convert to LS (Jaw in Shear) up to 50% low

Max. Bore (in.)	Lovejoy In-Shear	Max Torque Nm	Cplg. O.D. mm	Cplg. OAL mm	Lovejoy L Size	SOX Standard Torque Nm	Cplg. OD. mm	Cplg. OAL mm	S-Flex Size	EPDM Standard Torque Nm	Cplg. O.D. mm	Cplg. OAL mm	Curved Jaw HRC(TB)	80 shore (B) Torque Nm	Cplg. O.D. mm
0.375					L035	0.4	16.0	20.6							
0.625					L050	3.0	27.4	43.4					CJ14	4	30
0.750					L070	4.9	34.5	50.2							
0.875					L075	10.2	44.4	54.1	3J	6.8	52.3	50.8			
0.938													CJ19/24	4.9	40.0
1.000	LS090	76	69.8	67.1	L090	16.3	53.6	54.6	4J	13.5	62.4	60.4	HRC70	31.5	69.0
1.125	LS095	76	69.8	76.2	L095	21.9	53.6	63.7	5J	27.1	82.5	73.1	HRC90	80.0	85.0
1.188	LS099	125	81.0	89.4	L099	35.9	64.5	72.1	5S	27.1	82.5	71.3			
1.250													CJ24/32	17.0	54.6
1.375	LS100	125	81.0	105.6	L100	47.1	64.5	88.4	6J	50.8	101.6	88.9			
1.438									6S	50.8	101.6	88.9			
1.500													CJ28/38	46.0	65.0
1.625	LS110	246	101.6	127.0	L110	89.5	84.3	107.2	7S	82.0	117.5	100.0	HRC110	160.0	112.0
1.750													HRC130	315.0	130.0
1.875	LS150	409	119.1	138.1	L150	140.0	95.2	114.3					CJ38/45	93.0	80.0
1.938									8S	128.2	138.4	111.5	HRC150	600.0	150.0
2.125	LS190	659	139.7	147.8	L190	195.0	114.3	123.4					CJ42/55	130.0	95.0
2.188															
2.25															
2.313													CJ48/60	150.0	105.0
2.375									9S	203.3	161.3	128.5	HRC180	950.0	180.0
2.500					C226	338.0	130.8	177.8							
2.625	LS225	949	155.7	160.0	L225	264.0	127.0	135.6							
2.750									10S	324.8	190.5	144.5	CJ55/70	180.0	120.0
2.875	LS276	1686	188.2	239.5	L276	533.0	157.0	198.6							
2.938					C276	533.0	157.0	199.8					CJ65/75	205.0	135.0
3.000	CS280	3006	227.0	239.5	C280	854.0	190.5	199.8					HRC230	2000.0	225
3.375															
3.500					C295	1281.0	231.6	238.2	11S	511.8	219.1	181.1	CJ75/90	475.0	160.0
3.875															
3.938	CS285	4237	254.0	271.5	C285	1038.0	215.9	231.9	12S	813.4	254.0	209.5	CJ90/100	1175.0	200.0
4.000					C2955	2136.0	231.6	263.6					HRC280	3150.0	275.0
4.125															
4.313													CJ100/1103300 (Y)		225.0
4.500					H3067	3774.0	254.0	295.1	13S	1282.3	298.4	234.9			
4.750															
4.875													CJ110/1254000 (Y)		255.0
5.000					H3567	5269.0	279.4	314.4	14S	2033.7	352.5	250.9			
5.125															
5.500					H3667	7322.4	304.8	352.5	16S	5338.5	479.4	368.3	CJ125/1455000 (Y)		290.0
6.000					H4067	9969.0	336.5	390.6							
7.000					H4567	13525.0	368.3	434.8							



All above couplings and elements available from BSC



Jaw In-Shear Coupling Ratings

Size	Maximum Bore		Nominal Torque		Maximum Torque HP/100		(lbs) @ max. bore	Cplg wgt speed RPM	Max.		Maximum RPM
	Inch	mm	in-lbs	Nm	in-lbs	Nm			Misalignment inch parallel	axial	
LS090	1.000	25	335	38	670	76	1.5	9,200	0.030	0.031	.53
LS095	1.125	28	335	38	670	76	1.5	9,200	0.030	0.031	.53
LS099	1.188	30	560	63	1,110	125	2.6	7,700	0.030	0.031	.89
LS100	1.375	35	560	63	1,110	125	2.9	7,700	0.030	0.031	.89
LS110	1.625	42	1,090	123	2,180	246	5.9	5,900	0.030	0.031	1.73
LS150	1.875	48	1,810	205	3,620	409	8.6	5,200	0.030	0.047	2.87
LS190	2.125	55	2,920	330	5,830	659	14.6	4,300	0.047	0.047	4.63
LS225	2.625	65	4,200	475	8,400	949	17.0	3,900	0.047	0.047	6.66
LS276	2.875	73	7,460	843	14,920	1,686	37.7	3,100	0.047	0.063	11.84
CS280	3.000	76	13,300	1,503	26,600	3,006	53.5	2,600	0.047	0.063	21.10

KW = h.p. x 0.746

h.p. = KW x 1.34

mm = inch x 25.4

Inch = mm x 0.0394

Torque Nm = $\frac{9550 \times KW \times S.F.}{RPM}$

(S.F. Service Factor contact BSC)

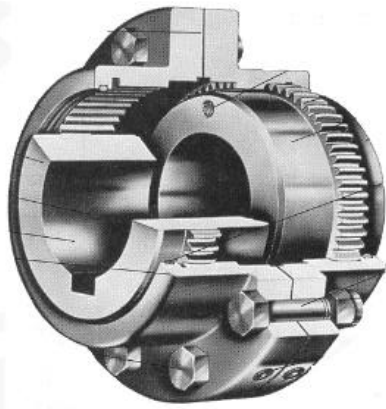
each application.

cost, better misalignment, higher torque, smaller O.D., better element life in most comparisons.

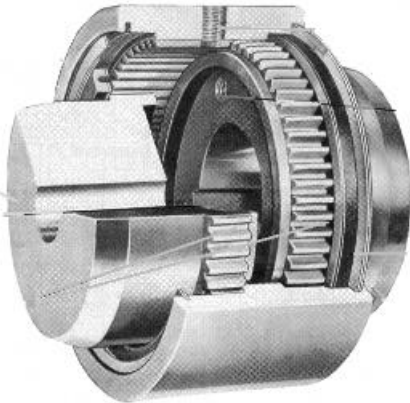
m	Tyre Poly T/bush Size	Max Torque Nm	Cplg. O.D. mm	Cplg. OAL mm	Tyre T/bush Size	Torque Nm	Cplg. O.D. mm	Cplg. OAL mm	GRID Size	Max Torque Nm	Cplg.(H) O.D. mm	Cplg.(H) OAL mm	Flex Cone Size	Max Torque Nm	Cplg. O.D. mm	Cplg. OAL mm
.0													MC020	53	89	69
.0	E3-M	41.2	102	87									MC025	82	100	79
.5	E4-M	62.1	116	87	F40F/H	24	104	66	G2020	48	101.6	98.6	MC030	111	127	85
.0	E5-M	104.5	137	102	F50F/H	66	133	76	G2030	136	111.2	98.6				
.0													MC038	190	132	99
.0	E10-M	163.8	162	102	F60F/H	127	165	84	G2040	226	117.6	104.9	MC042	290	146	115
.0	E20-M	259.8	184	114	F70FH	250	187	84/88	G2050	395	138.2	124.0	MC048	480	171.5	125
.0	E30-M	412.3	210	129	F80FH	375	211	116/90	G2060	621	150.8	130.3				
.0	E40-M	621.4	241	150									MC058	760	193	139
.0	E50-M	864.3	279	166	F90FH	500	235	119	G2070	904	162.0	155.7				
.0					F100FH	675	254	131/119					MC070	1000	216	155
.0					F110FH	875	279	127								
.0	E60-M	1412.2	318	186	F120FH	1330	314	159/131	G2080	1864	193.8	181.1	MC075	2600	254	179
.0	E70-M	2499.7	356	238	F140F/H	2325	359	163	G2090	3390	212.8	200.1	MC085	3500	279	203
.0	E80-M	4462.7	406	299	F160F/H	3770	402	184	G2100	5706	250.9	246.1	MC105	5300	330	237
.0	E100-M	9550	533	267/381					G2110	8474	270.0	258.8				
.0	E120-M	19100	635	304/435	F180F/H	6270	470	224	G2120	12428	308.0	304.8	MC120	9000	370	270
.0					F200F/H	9325	508	226					MC135	12000	419	300
.0					F220F/H	11600	562	259	G2130	18078	346.2	330.2	MC150	16000	457	336
.0					F250B	14675	628	323	G2140	25987	384.3	374.7				

Gear Couplings F & C Series

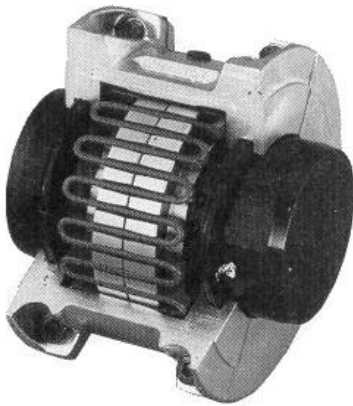
- AGMA standard and interchangeable with most other manufacturers.
- Available in Flex-Flex, (double engagement), Flex-Rigid (single engagement) and Rigid-Rigid hub arrangements.
- Vari-Crown gear tooth for longer life in poor alignment conditions.
- **STOCKED SIZES** F1, F1-1/2, F2, F2-1/2, F3, F3-1/2, F4, F4-1/2, F5, F5-1/2, F6 and F7
C 7/8, C1-1/2, C2, C2-1/2, C3, C3-1/2, C4, C4-1/2, C5.
Other sizes have a three week lead time.
- Also available in heavy duty, floating shaft, mill motor, sliding hub, spacer, cutout, shear pin and nylon sleeve versions.



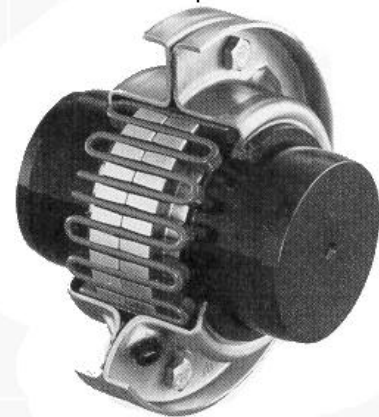
(C) Continuous sleeve



Horizontal split cover



Vertical split cover



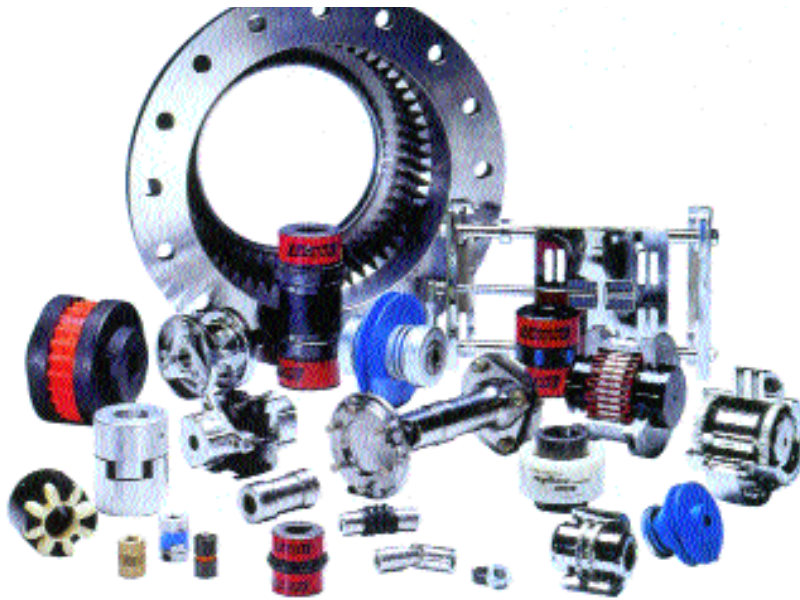
Grid Couplings

- Completely interchangeable with industry standard.
- Available with horizontal covers, vertically split covers and spacers.
- Horizontally split cover
 - Ideal for limited space
 - Allows easy access to grid
 - Well suited for reversing service
 - Manufactured from die-cast aluminium
- Vertically split cover
 - Ideal for higher operating speed
 - Manufactured from stamped steel
- **STOCKED SIZES** G2020, G2030, G2040, G2050, G2060, G2070, G2080, G2090, G2100, G2110, G2120, G2130 & G2140



Disk Couplings

Now Available



Shaft Couplings

Locations

NEW SOUTH WALES

SYDNEY (MOOREBANK)
 Phone: (02) 9824 2099 Fax: (02) 9824 2143
ALEXANDRIA
 Phone: (02) 9698 1188 Fax: (02) 9698 1077
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 Phone: (02) 6772 5511 Fax: (02) 6772 8881
BALLINA
 Phone: (02) 6686 4455 Fax: (02) 6686 4687
BROKEN HILL
 Phone: (02) 8088 3333 Fax: (02) 8088 5821
CONDOBOLIN
 Phone: (02) 6895 2137 Fax: (02) 6895 3859
COOTAMUNDRA
 Phone: (02) 6942 4255 Fax: (02) 6942 1214
COWRA
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DUBBO
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EDEN
 Phone: (02) 6496 3500 Fax: (02) 6496 3275
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GILGANDRA
 Phone: (02) 6847 2075 Fax: (02) 6847 1295
GRAFTON
 Phone: (02) 6642 2666 Fax: (02) 6643 1281
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GUNNEDAH
 Phone: (02) 6742 2855 Fax: (02) 6742 3453
LEETON
 Phone: (02) 6953 4233 Fax: (02) 6953 3807
LISMORE
 Phone: (02) 6621 2337 Fax: (02) 6621 9141
NARRABRI
 Phone: (02) 6792 1988 Fax: (02) 6792 2629
NARROMINE
 Phone: (02) 6889 1588 Fax: (02) 6889 1253
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NOWRA
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TAREE
 Phone: (02) 6552 3699 Fax: (02) 6551 0474
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WALGET
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WEE WAA
 Phone: (02) 6795 3050 Fax: (02) 6795 4358
WOLLONGONG
 Phone: (02) 4229 8411 Fax: (02) 4229 3772
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WARRNAMBOOL
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WODONGA
 Phone: (02) 6024 3722 Fax: (02) 6056 1863

TASMANIA

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BURNIE
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LAUNCESTON
 Phone: (03) 6326 6011 Fax: (03) 6326 6496
QUEENSLAND
BRISBANE (NORTHGATE)
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ARCHERFIELD
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CABOOLTURE
 Phone: (07) 5495 6266 Fax: (07) 5495 6634
CAIRNS
 Phone: (07) 4051 2566 Fax: (07) 4031 1335
DALBY
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EMERALD
 Phone: (07) 4982 0200 Fax: (07) 4982 0201

GATTON
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KINGAROY
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MACKAY
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MT ISA
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 Phone: (07) 4168 1411 Fax: (07) 4168 1029
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ROMA
 Phone: (07) 4622 1722 Fax: (07) 4622 2639
SOUTHPORT
 Phone: (07) 5532 4888 Fax: (07) 5532 5078
ST GEORGE
 Phone: (07) 4625 5755 Fax: (07) 4625 3751
TINGALPA
 Phone: (07) 3390 7099 Fax: (07) 3390 8615
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 Phone: (07) 4634 4133 Fax: (07) 4634 4329
TOWNSVILLE
 Phone: (07) 4779 0500 Fax: (07) 4775 3758
WACOL
 Phone: (07) 3271 3444 Fax: (07) 3271 3783

WESTERN AUSTRALIA

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OSBORNE PARK
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WELSHPOOL
 Phone: (08) 9356 9266 Fax: (08) 9356 9715

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 Phone: (08) 8349 8388 Fax: (08) 8349 8480
COOPER PEDY
 Phone: (08) 8672 5830 Fax: (08) 8672 5830
KADINA
 Phone: (08) 8821 3922 Fax: (08) 8821 2820
KIMBA
 Phone: (08) 8627 2071 Fax: (08) 8627 2334
MILLICENT
 Phone: (08) 8733 3555 Fax: (08) 8733 3554
MT GAMBIER
 Phone: (08) 8721 2450 Fax: (08) 8723 0175
PORT LINCOLN
 Phone: (08) 8682 1266 Fax: (08) 8682 4042
SADDLEWORTH
 Phone: (08) 8848 4282 Fax: (08) 8848 4292
WUDINNA
 Phone: (08) 8680 2236 Fax: (08) 8680 2391

Web Site <http://bsc.com.au>

L-CU-4

email: bsc@bsc.com.au

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