



Standard Style

Spacer Style

Inserts

Rings

Jaw In-Shear



Reduces Downtime, Maintenance, and Inventory Costs

Total Service Factor = (K1) x (K2) x (K3)

The torque ratings and service factors are unique for Jaw In-Shear.

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	1.0	1.4
(b) Uniform operation, with medium masses to be accelerated. Sheet metal bending machines, woodworking 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, paper mills, compression pumps, propeller pumps, rope winders, centrifuges	2.0	2.2
(e) Large masses to be accelerated, irregular operation & heavy shocks. Excavators, hammermills, 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

Application Service Factor (K2)

For Operation Period

Uninterrupted Time of Operation	Factor
Up to 8 hours per day	1.0
More than 8 hours, up to 1 hour/day	1.1
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 Coupling Ratings

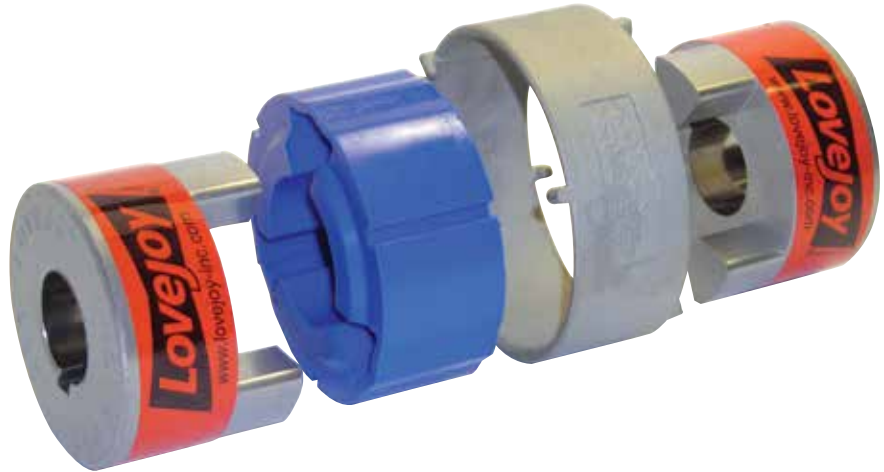
Size	Max Bore		Nom Torque		Max torque		Coupling Weight	Max Speed	Max Misalignment		HP/100
	in	mm	in-lbs	Nm	in-lbs	Nm			Parallel	Axial	
LS090	1.000	25	335	38	670	76	1.50	9,200	0.03	0.031	0.53
LS095	1.125	28	335	38	670	76	1.50	9,200	0.03	0.031	0.53
LS099	1.188	30	560	63	1,110	125	2.60	7,700	0.03	0.031	0.89
LS100	1.375	35	560	63	1,110	125	2.90	7,700	0.03	0.031	0.89
LS110	1.625	42	1,090	123	2,180	246	5.90	5,900	0.03	0.031	1.73
LS150	1.875	48	1,810	205	3,620	409	8.60	5,200	0.03	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	1 686	37.70	3,100	0.047	0.063	11.84
CS280	3.000	76	13,300	1 503	26,600	3 006	53.50	2,600	0.047	0.063	21.10
CS285	4.000	102	18,760	2 120	37,500	4 237	80.60	2,300	0.047	0.063	29.77
CS300	4.875	109	33,000	3 728	66,000	7 457	106.80	2,300	0.063	0.094	52.00
CS310	5.625	143	50,000	5 649	100,000	11 298	139.30	2,100	0.063	0.094	79.00
CS350	6.375	162	83,333	9 415	166,666	18 831	228.20	1,900	0.063	0.125	132.00
CS400	7.375	187	126,667	14 311	253,334	28 623	345.10	1,800	0.094	0.125	201.00
CS500	9.000	229	183,333	20 714	366,666	41 428	589.60	1,500	0.094	0.125	291.00

Jaw In-Shear Couplings

Overview

Jaw In-Shear Reduces Downtime, Maintenance, And Inventory Costs

The Jaw In-Shear (JIS) design features a unique 6 pin locking system that allows for even easier locking of the insert. Lovejoy's industry standard L-Type and C-Type Jaw hubs are utilized with this design. No tools are needed, because the insert is radially removable, neither hub for the driver or driven equipment has to be moved to replace the insert.



Choose From 16 Jaw In-Shear Sizes and New Spacer Design

The Jaw In-Shear coupling is available in bore sizes up to 9 inches. The Jaw In-Shear 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 Jaw In-Shear and Spacer coupling. The Jaw In-Shear 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.

Jaw In-Shear Stainless Steel Option

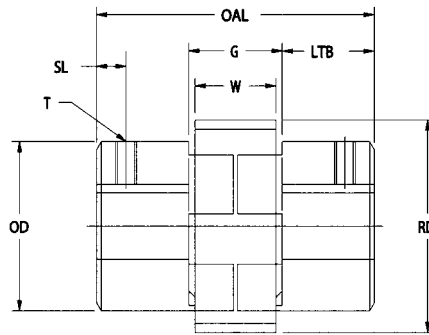
For highly corrosive, heavy washdown environments, the Jaw In-Shear design combined with Lovejoy's stainless steel jaw hubs creates a totally stainless steel coupling.



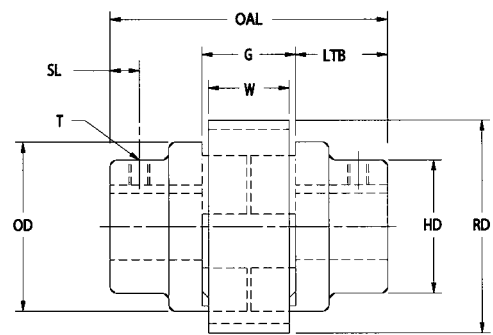
The Jaw In-Shear Coupling Advantage:

- 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 200° F (93° C), minimum temperature of -60° F (-50° 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, AL100 and AL110

JIS Coupling Standard Style



Style 1



Style 2

Jaw In-Shear Coupling Dimensional Data

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

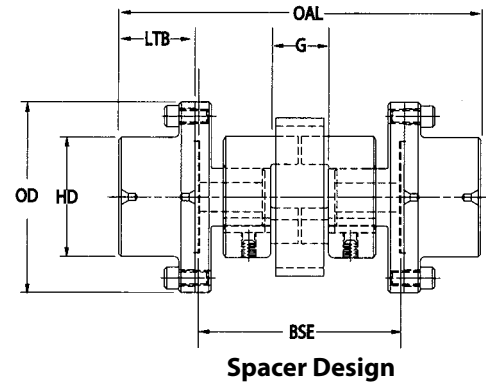
Note: ■ CSL - Consult Lovejoy.

Jaw In-Shear Insert/Ring UPC Number Selection Table

Size	Insert UPC Number	Ring UPC Number
LS090/095	68514471706	68514471679
LS099/100	68514471707	68514471680
LS110	68514471708	68514471681
LS150	68514471709	68514471682
LS190	68514471710	68514471683
LS225	68514471711	68514471684
LS276	68514471712	68514471685
CS280	68514471713	68514471686
CS285	68514471714	68514471687
CS300*	68514472170	68514472175
CS310*	68514472171	68514472176
CS350*	68514472172	68514472177
CS400*	68514472173	68514472178
CS500*	68514472174	68514472179



JIS Coupling Spacer Style



Jaw In-Shear Spacer Coupling Dimensional Data

Spacer Coupling Size	OD	OAL	G	BSE	Grid Hub Size	LTB	HD	Max Bore Size
LS090	3.38	6.26	1.00	3.50	1020	1.380	2.06	1.375
	3.38	7.76	1.00	5.00	1020	1.380	2.06	1.375
	3.38	9.76	1.00	7.00	1020	1.380	2.06	1.375
	3.38	11.76	1.00	9.00	1020	1.380	2.06	1.375
LS095	3.38	6.26	1.00	3.50	1020	1.380	2.06	1.375
	3.38	7.76	1.00	5.00	1020	1.380	2.06	1.375
	3.38	9.76	1.00	7.00	1020	1.380	2.06	1.375
	3.38	11.76	1.00	9.00	1020	1.380	2.06	1.375
LS099	3.38	6.26	1.40	3.50	1020	1.380	2.06	1.375
	3.38	7.76	1.40	5.00	1020	1.380	2.06	1.375
	3.38	9.76	1.40	7.00	1020	1.380	2.06	1.375
	3.38	11.76	1.40	9.00	1020	1.380	2.06	1.375
LS100	3.38	6.25	1.40	3.50	1020	1.375	2.06	1.375
	3.38	7.75	1.40	5.00	1020	1.375	2.06	1.375
	3.38	9.75	1.40	7.00	1020	1.375	2.06	1.375
	3.38	11.75	1.40	9.00	1020	1.375	2.06	1.375
LS110	3.69	8.25	1.64	5.00	1030	1.625	2.34	1.625
	3.69	10.25	1.64	7.00	1030	1.625	2.34	1.625
	3.69	12.24	1.64	9.00	1030	1.620	2.34	1.625
LS150	4.44	11.25	1.94	7.00	1040	2.125	3.09	2.120
	4.44	13.25	1.94	9.00	1040	2.125	3.09	2.120
	4.94	9.75	1.94	5.00	1050	2.375	3.44	2.380
LS190	4.94	11.75	1.94	7.00	1050	2.375	3.44	2.380
	4.94	13.75	1.94	9.00	1050	2.375	3.44	2.380
LS225	5.69	12.75	1.94	7.00	1060	2.875	4.06	2.880
	5.69	14.75	1.94	9.00	1060	2.875	4.06	2.880
LS276	6.00	21.76	3.19	9.00	1070	3.120	4.31	3.120
CS280	7.00	24.24	3.19	9.00	1080	3.500	4.81	3.500
CS285	7.00	16.00	3.19	9.00	1080	3.500	4.81	3.500
CS300	8.25	17.00	4.25	9.00	1090	4.000	5.62	4.000
CS310	9.88	16.12	4.88	9.00	1100	3.560	6.75	4.750
CS350	10.88	17.20	5.38	9.00	1110	4.100	7.75	5.500

The Next Evolution of the World's Most Popular Jaw Coupling

Lovejoy's Jaw In-Shear design utilizes existing Lovejoy Jaw Coupling hubs to create a quick change insert option.

Lovejoy Jaw Size	JIS Insert & Ring Conversion Kit Lovejoy UPC Number	Replacement Insert Only Lovejoy UPC Number
LS090/095	68514478388	68514471706
LS099/100	68514478389	68514471707
LS110	68514478390	68514471708
LS150	68514478391	68514471709
LS190	68514478392	68514471710
LS225	68514478393	68514471711
LS276	68514478394	68514471712
CS280	68514484710	68514471713
CS285	68514484711	68514471714

Fast Insert Replacement

