

# Jaw In-Shear 6pin

## Jaw In-Shear 6 Pin Reduces Downtime, 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 Jaw In-Shear 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.

## Jaw In-Shear 6 Pin Stainless Steel Option

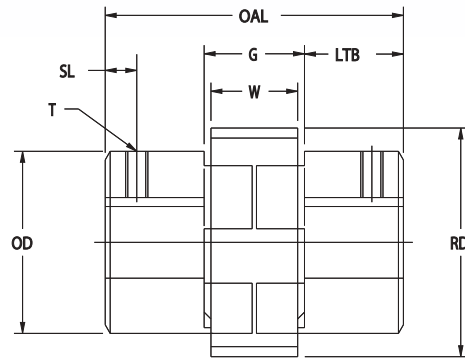
For highly corrosive, heavy washdown environments, the JIS 6 Pin design combined with Lovejoy's stainless steel jaw hubs creates a totally stainless steel coupling.



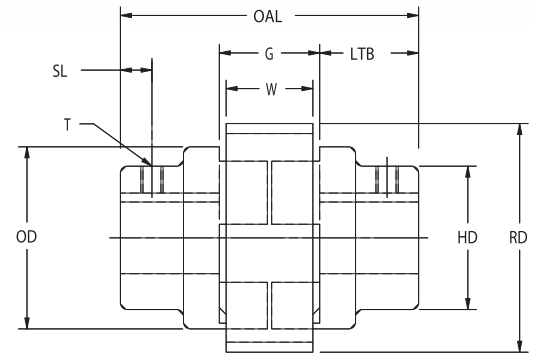
### **The JIS 6 Pin Coupling Advantage:**

- 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)
- 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
- The Original JIS locking ring is interchangeable with the new JIS 6 Pin elastomer

# JIS 6 Pin Coupling Standard Style



Style 1



Style 2

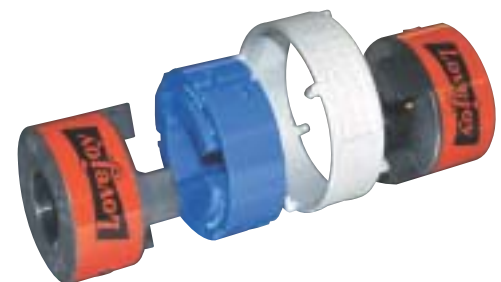
## JIS 6 Pin Coupling — Dimensional Chart — Inch

CSL - Consult Lovejoy

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

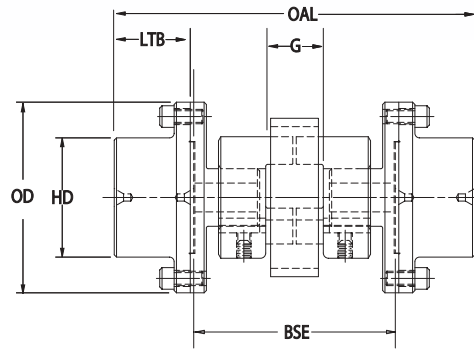
## JIS 6 Pin Part Numbers And List Prices

Size	Spider		Ring	
	UPC#	List Price	UPC#	List Price
LS090/095	71706	\$31.75	71679	\$26.50
LS099/100	71707	\$39.75	71680	\$33.00
LS110	71708	\$51.00	71681	\$45.00
LS150	71709	\$67.00	71682	\$75.50
LS190	71710	\$102.00	71683	\$83.00
LS225	71711	\$160.00	71684	\$175.00
LS276	71712	\$222.00	71685	\$210.00
CS280	71713	\$282.50	71686	\$230.00
CS285	71714	\$418.65	71687	\$284.00
CS300	72170	\$481.45*	72175	\$326.60
CS310	72171	\$577.74*	72176	\$391.92
CS350	72172	\$664.40*	72177	\$450.71
CS400	72173	\$764.06*	72178	\$518.32
CS500	72174	\$878.60*	72179	\$596.06



\* 6 Piece Cushion Set

# JIS 6 Pin Coupling Spacer Style



Spacer Design

## 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	1.40	3.500	1020	1.38	2.06	1.375
	4.00	7.76	1.40	5.000	1020	1.38	2.06	1.375
	4.00	9.76	1.40	7.000	1020	1.38	2.06	1.375
	4.00	11.76	1.40	9.000	1020	1.38	2.06	1.375
LS100	4.00	6.25	1.40	3.500	1020	1.375	2.06	1.375
	4.00	7.75	1.40	5.000	1020	1.375	2.06	1.375
	4.00	9.75	1.40	7.000	1020	1.375	2.06	1.375
	4.00	11.75	1.40	9.000	1020	1.375	2.06	1.375
LS110	4.38	8.25	1.64	5.000	1030	1.625	2.34	1.625
	4.38	10.25	1.64	7.000	1030	1.625	2.34	1.625
	4.38	12.24	1.64	9.000	1030	1.62	2.34	1.625
LS150	4.62	11.25	1.94	7.000	1040	2.125	3.09	2.12
	4.62	13.25	1.94	9.000	1040	2.125	3.09	2.12
	5.44	9.75	1.94	5.000	1050	2.375	2.38	2.38
LS190	5.44	11.75	1.94	7.000	1050	2.375	2.38	2.38
	5.44	13.75	1.94	9.000	1050	2.375	2.38	2.38
LS225	5.94	12.75	1.94	7.000	1060	2.875	2.88	2.88
	5.94	14.75	1.94	9.000	1060	2.875	2.88	2.88
LS276	6.38	21.76	3.19	9.000	1070	3.120	4.31	3.12
CS280	7.62	24.24	3.19	9.000	1080	3.500	4.81	3.50
CS285	7.62	16.00	3.19	9.000	1080	3.500	4.81	3.50
CS300	11.070	17.00	4.25	9.000	1090	4.000	5.62	4.00
CS310	12.070	16.12	4.88	9.000	1100	3.560	6.75	4.75
CS350	13.570	17.20	5.38	9.000	1110	4.100	7.75	5.50

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

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

## Application Service Factor (K1)

Driven Machine Examples	Prime Mover: Electric Motor	
	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, 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

## 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 16 hours/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 6 Pin Coupling Ratings

Size	Max. Bore		Nom. Torque		Max Torque		Coupling Weight lbs	Max. Speed RPM	Max. Misalignment		HP/100 RPM
	Inch	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

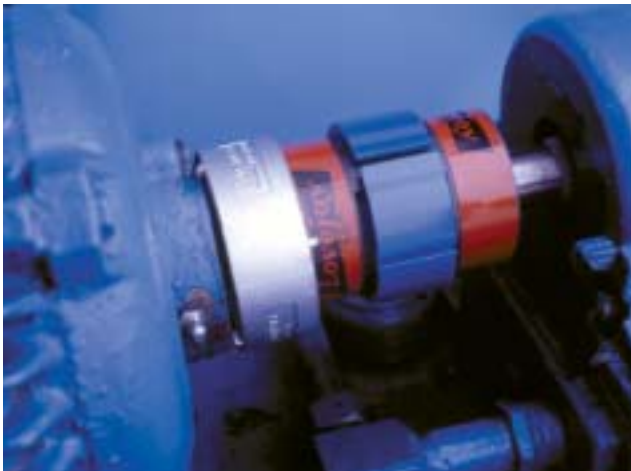
# Fast Element Replacement



**Step 1**  
Remove element and align hubs.



**Step 2**  
Insert new element.



**Step 3**  
Slide locking ring over elements.



**Step 4**  
Twist locking ring to secure.

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