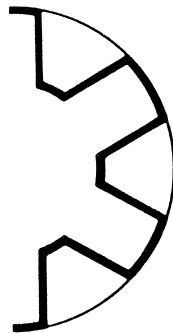


# L-Jaw Elastomeric Couplings

**F3**



- 100% interchangeable with industry standard
- 3 Insert materials available
- 3 Hub materials available
- Large selection of sizes

# Jaw Couplings

## Selection

### Determine the Prime Mover Classification

Prime Mover	Class
• Electric Motors (Standard duty), Hydraulic Motors, Turbines	A
• Gasoline or Steam Engines (4 or more cylinders)	B
• Diesel or Gas Engines, High Torque Electric Motors	C

### Determine the Load Characteristics and the Service Factor

Typical Applications	Load	Characteristics	Prime Mover Class		
			A	B	C
Agitators (pure liquids), Blowers (centrifugal), Can and Bottle Filling Machines, Conveyors - uniformly loaded or fed (belt, chain, screw), Fans (centrifugal), Generators (uniform load), Pumps (centrifugal), Screens (air washing, water), Stokers (uniform load), Woodworking Machines (planers, routers, saws)	Uniform	Even loads – no shock – non reversing – infrequent starts (up to 10 per hour) – low starting torques – Up to 8 hours per day – Over 8 hours per day	1.0 1.5	1.5 2.0	2.0 2.5
Beaters, Blowers (lobe, vane), Compressors (centrifugal, rotary), Conveyors - non uniformly loaded or fed (belt, bucket, chain, screw), Dredge Pumps, Fans (forced draft, propeller), Kilns, Paper Mills (calendars, converting machines, conveyors, dryers, mixers, winders), Printing Presses, Pumps (gear, rotary), Shredders, Textile Machinery (dryers, dyers)	Moderate shock	Uneven loads – moderate shock – Infrequent reversing – moderate torques – Up to 8 hours per day – Over 8 hours per day	1.5 2.0	2.0 2.5	2.5 3.0
Cranes (bridge, hoist, trolley), Fans (cooling tower), Generators (welding), Hammer Mills, Mills (ball, pebble, rolling, tube, tumbling), Pumps (oil well), Wire Drawing Machines	Heavy shock	Uneven loads – heavy shock – frequent starts and stops – high starting torques – high inertia peak loads – Up to 8 hours per day – Over 8 hours per day	2.0 2.5	2.5 3.0	3.0 3.5

**Note:** The above applications depict generally accepted conditions encountered in industry. Extreme temperatures, abrasive dusts, corrosive liquids/dusts, excessively high starting torques, etc., must be considered as extra heavy shock loads. These conditions will increase service factors. Consult factory for these selections.

### Calculate Design Horsepower or Design Torque

- If Prime Mover is a 1200, 1800, or 3600 RPM motor  
Design HP = Prime Mover HP x Service Factor  
Go to page F3—3 and reference the corresponding motor RPM column
- If Prime Mover is not one of the three speeds listed above  
Design Hp @ 100 RPM = (Prime Mover HP x Service Factor x 100) / Coupling RPM  
Go to page F3—3 and reference HP @ 100 RPM column
- If Using Prime Mover Torque  
Design Torque = Prime Mover Torque x Service Factor  
Go to page F3—3 and reference Torque column

### Coupling Ratings

Hub	Max Bore	Max RPM	Buna-N Spider			Urethane Spider			Hytrek Spider		
			Spider	Torque (in. lbs)	HP @ 100 RPM	Spider	Torque (in. lbs)	HP @ 100 RPM	Spider	Torque (in. lbs)	HP @ 100 RPM
L035	3/8	31000	L035N	3.5	0.006						
L050, AL050	5/8	18000	L050N	26	0.042	L050U	39	0.06	L050H	50	0.08
L070, AL070	3/4	14000	L070N	43	0.069	L070U	65	0.10	L070H	114	0.18
L075, AL075, SS075	7/8	11000	L075N	90	0.14	L075U	135	0.21	L075H	227	0.36
L090, AL090	1	9000	L090N	144	0.23	L090U	216	0.35	L090H	401	0.64
L095, AL095, SS095 ①	1-1/8	9000	L090N	194	0.31	L090U	291	0.47	L090H	561	0.89
L099	1-3/16	7000	L099N	318	0.51	L099U	477	0.77	L099H	792	1.3
L100, AL100, SS100 ②	1-7/16 ④	7000	L099N	417	0.66	L099U	626	1.0	L099H	1134	1.8
L110, AL110, SS110	1-5/8	5000	L110N	792	1.3	L110U	1188	2.0	L110H	2268	3.6
L150, AL150, SS150 ③	1-7/8	5000	L150N	1240	2.0	L150U	1860	3.0	L150H	3708	5.9
L190	2-1/8	5000	L190N	1726	2.7	L190U	2589	4.1	L190H	4680	7.4
L225	2-5/8	4600	L225N	2340	3.7	L225U	3510	5.6	L225H	6228	9.9
L276	2-7/8	4200	L276N	4716	7.5						

① Uses L090 spiders ② Uses L099 spiders ③ AL150 - Use Buna-N spiders only ④ 1-3/8 for AL and SS hubs

### Coupling HP @ RPM

Hub	Spider	Buna-N Spider			Spider	Urethane Spider			Spider	Hytrek Spider		
		HP @ RPM				HP @ RPM				HP @ RPM		
		1200	1800	3600		1200	1800	3600		1200	1800	3600
L035	L035N	0.07	0.10	0.20								
L050, AL050	L050N	0.50	0.75	1.5	L050U	0.75	1.1	2.3	L050H	0.95	1.4	2.9
L070, AL070	L070N	0.8	1.2	2.5	L070U	1.2	1.8	3.8	L070H	2.2	3.3	6.5
L075, AL075, SS075	L075N	1.7	2.6	5.1	L075U	2.6	3.9	7.7	L075H	4.3	6.5	13
L090, AL090	L090N	2.7	4.1	8.2	L090U	4.0	6.2	12	L090H	7.6	11	23
L095, AL095, SS095 ①	L090N	3.7	5.5	11	L090U	5.6	8.3	17	L090H	11	16	32
L099	L099N	6.0	9.1	18	L099U	9.0	14	27	L099H	15	23	45
L100, AL100, SS100 ②	L099N	7.9	12	24	L099U	12	18	36	L099H	22	32	65
L110, AL110, SS110	L110N	15	23	45	L110U	23	35	68	L110H	43	65	130
L150, AL150, SS150 ③	L150N	24	35	71	L150U	36	53	107	L150H	71	106	212
L190	L190N	33	49	99	L190U	50	74	149	L190H	89	134	267
L225	L225N	45	67	134	L225U	68	101	201	L225H	119	178	356
L276	L276N	90	135	269								

### Spider Characteristics

Characteristics	Buna-N	Urethane	Hytrek
Oil Resistance	Good	Good	Excellent
Chemical Resistance	Poor	Good	Excellent
Flexibility	Excellent	Good	Fair
Temperature Range	<b>F</b> -40 to +212 <b>C</b> -40 to +100	-30 to +160 -35 to +71	-60 to +250 -51 to +121
Torsional Stiffness	Full Soft	Medium Soft	Hard
Avg Shore Hardness	<b>80A</b>	<b>90A</b>	<b>55D</b>
Max. Misalignment			
• Angular	1°	1°	1/2°
• Parallel	.015"	.015"	.015"
Color	Black	Blue	White

### Order By Component – Example

	Part Number	Description
<b>Driver Hub</b>	<b>L09958</b>	L099 x 5/8
<b>Driven Hub</b>	<b>L09912NK</b>	L099 x 1/2 No Keyseat
<b>Spider</b>	<b>L099N</b>	L099 Buna-N

# Stock Bores

## Dimensions

### Stock L-Jaw Inch Hubs

Bore Size	Bore Designation	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276
1/8	<b>18</b>	0												
3/16	<b>3/16</b>	0												
1/4	<b>14</b>	X	X	X	X	X								
5/16	<b>5/16</b>	0	0	X	0	X								
3/8	<b>38</b>	X	X	X	X	X								
7/16	<b>7/16</b>		X	X	X	X	X	X	X					
1/2	<b>12</b>		X	X	X	X	X	X	X					
9/16	<b>9/16</b>		1	1	X	1	1	1	X					
5/8	<b>58</b>		X	X	1	1	1	1	1	X	X			
11/16	<b>11/16</b>			1	1	1	1	1	1					
3/4	<b>34</b>			1	1	X	1	1	1	1	1	X	X	
7/8	<b>78</b>				1	1	1	1	1	1	1	1	1	0
15/16	<b>15/16</b>					1	1	1	1	1	1	1	1	
1	<b>1</b>					1	1	1	1	1	1	1	1	
1-1/16	<b>1116</b>						1		1	1	1		1	
1-1/8	<b>118</b>						1	1	1	1	1	1	1	1
1-3/16	<b>1316</b>							1	1	1	1	1	1	
1-1/4	<b>114</b>								1	1	1	1	1	1
1-5/16	<b>1516</b>								1	1				
1-3/8	<b>138</b>								1	1	1	1	1	1
1-7/16	<b>1716</b>								1	1	1	1	1	
1-1/2	<b>112</b>									1	1	1	1	
1-9/16	<b>1916</b>									1	1		1	
1-5/8	<b>158</b>									1	1	1	1	1
1-11/16	<b>11116</b>										1	1	1	
1-3/4	<b>134</b>										1	1	1	1
1-13/16	<b>11316</b>										1			
1-7/8	<b>178</b>										1	1	1	
1-15/16	<b>11516</b>											1	1	
2	<b>2</b>											1	1	1
2-1/8	<b>218</b>											1	1	1
2-3/16	<b>2316</b>												1	
2-1/4	<b>214</b>												1	1
2-3/8	<b>238</b>												1	
2-1/2	<b>212</b>												1	1
2-5/8	<b>258</b>												1	
2-7/8	<b>278</b>													1

0 No Keyseat      1 Standard Keyseat      X No Keyseat or Standard Keyseat

#### Part Number Examples

L095118      L095 x 1-1/8" Hub  
 L07512NK      L075 x 1/2" No Keyseat Hub  
 L09515/16      L095 x 15/16" Hub

#### Bore Tolerances

Bore Size	Tolerance
Up to and including 2"	+ .0005"
	+ .0015"
Over 2"	+ .0005"
	+ .0020"

#### Standard Keyseat Dimensions

Shaft Diameter	Width	Depth
1/2 to 9/16	1/8	1/16
5/8 to 7/8	3/16	3/32
15/16 to 1-1/4	1/4	1/8
1-5/16 to 1-3/8	5/16	5/32
1-7/16 to 1-3/4	3/8	3/16
1-13/16 to 2-1/4	1/2	1/4
2-5/16 to 2-3/4	5/8	5/16
2-13/16 to 3-1/4	3/4	3/8
3-5/16 to 3-3/4	7/8	7/16
3-13/16 to 4-1/2	1	1/2
4-9/16 to 5-1/2	1-1/4	5/8
5-9/16 to 6-1/2	1-1/2	3/4

## Dimensions

### Stock L-Jaw Metric Bore Hubs

Bore (mm)	Bore Designation	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225
5	5MM	0											
6	6MM	0											
7	7MM		0										
8	8MM	0	0	0									
9	9MM		1										
10	10MM		X	1									
11	11MM		1		1								
12	12MM		1	1	1	1	1						
14	14MM		X	1	1	1	1	1	1				
15	15MM		1	1	1	1	1	1	1				
16	16MM		1	1	1	1	1	1	1				
17	17MM				1		1						
18	18MM				1	1	1	1	1	1			
19	19MM			1	1	1	1	1	1	1			
20	20MM				1	1	1	1	1	1	1		
22	22MM				1	1	1	1	1	1			
24	24MM					1	1	1	1	1	1		
25	25MM					1	1	1	1	1	1	1	
28	28MM						1	1	1	1	1	1	
30	30MM							1	1	1	1	1	
32	32MM								1	1	1	1	1
35	35MM								1	1	1	1	
38	38MM									1	1	1	1
40	40MM									1	1	1	1
42	42MM									1	1	1	1
45	45MM										1	1	1
48	48MM										1	1	1
50	50MM											1	1
55	55MM												1
60	60MM												1
65	65MM												1

0 No Keyseat    1 Standard Keyseat    X No Keyseat or Standard Keyseat

### Metric Bore Tolerances

Bore Size	Tolerance (mm)
5 to 6mm	+0.010 +0.022
7 to 10mm	+0.013 +0.028
11 to 18mm	0.016 +0.034
19 to 30mm	+0.020 +0.041
32 to 50mm	+0.025 +0.050
55 to 65mm	+0.030 +0.060

### Metric Keyseat Dimensions

Shaft Diameter	Width (mm)	Depth (mm)
6mm	2	1.0
9 to 10mm	3	1.4
11 to 12mm	4	1.8
13 to 17mm	5	2.3
18 to 22mm	6	2.8
23 to 30mm	8	3.3
31 to 38mm	10	3.3
39 to 44mm	12	3.3
45 to 50mm	14	3.8
51 to 58mm	16	4.3
59 to 65mm	18	4.4

### Stock Aluminum L-Jaw Hubs

Bore Size	Bore Designation	AL050	AL070	AL075	AL090	AL095	AL100	AL110	AL150
1/4	14	0							
5/16	5/16	0							
3/8	38	0							
7/16	7/16	0	0						
1/2	12	0	0	X	0	0			
5/8	58	0	1	1	1	1			
3/4	34		1	1	1	1	1		
7/8	78			1	1	1	1		
1	1				1	1	1	1	
1-1/8	118					1	1	1	1
1-1/4	114						1	1	1
1-3/8	138						1	1	1
1-1/2	112							1	1
1-5/8	158							1	1
1-3/4	134								1
1-7/8	178								1

0 No Keyseat    1 Standard Keyseat    X No Keyseat or Standard Keyseat

### Stock Stainless Steel L-Jaw Hubs

Bore Size	Bore Designation	SS075	SS095	SS100	SS110	SS150
1/4	14	0				
1/2	12	1	1			
5/8	58	1	1			
3/4	34	1	1	1		
7/8	78	1	1	1		
1	1		1	1	1	1
1-1/8	118		1	1	1	1
1-3/8	138			1	1	1
1-1/2	112				1	1
1-5/8	158				1	1
1-3/4	134					1
1-7/8	178					1

### Part Number Examples

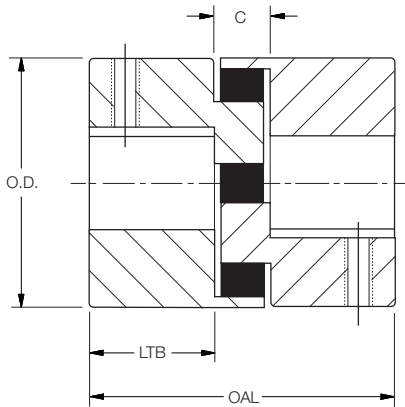
L09924MM    L099 x 24mm Hub  
 AL09512NK    AL095 x 1/2" No Keyseat Hub  
 SS150178    SS150 x 1-7/8" Hub

0 No Keyseat  
 1 Standard Keyseat

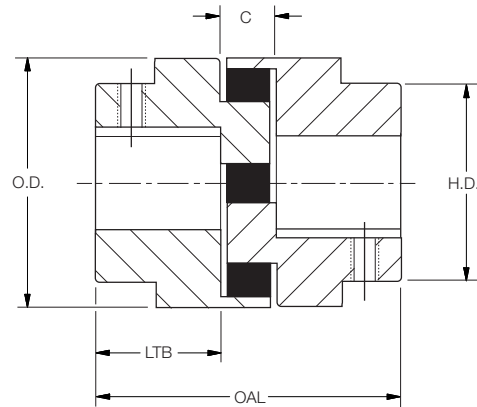
# L-Jaw Couplings

## Dimensions

AL, SS, L035 - L150



L190 - L276



## L-Jaw Dimensions

Coupling Size	Hub Material	Dimensions					Weight (Lbs)*		
		OD	HD	LTB	OAL	C	S.I.	AL	S.S.
L035	S.I.	0.63		0.27	0.81	0.28	0.1		
L050, AL050	S.I., AL	1.08		0.63	1.72	0.47	0.3	0.1	
L070, AL070	S.I., AL	1.36		0.75	2.00	0.50	0.6	0.2	
L075, AL075, SS075	S.I., AL, S.S.	1.75		0.81	2.13	0.50	1.0	0.4	1.2
L090, AL090	S.I., AL	2.11		0.81	2.13	0.50	1.5	0.6	
L095, AL095, SS095	S.I., AL, S.S.	2.11		1.00	2.50	0.50	1.8	0.7	2.2
L099	S.I.	2.53		1.06	2.88	0.75	2.5		
L100, AL100, SS100	S.I., AL, S.S.	2.53		1.38	3.50	0.75	3.5	1.4	4.1
L110, AL110, SS110	S.I., AL, S.S.	3.33		1.69	4.23	0.85	6.6	3.0	8.6
L150, AL150, SS150	S.I., AL, S.S.	3.75		1.75	4.50	1.00	9.1	4.2	12
L190	C.I.	4.50	4.00	1.94	4.88	1.00	17		
L225	C.I.	5.00	4.25	2.19	5.38	1.00	23		
L276	C.I.	6.19	5.00	3.13	7.88	1.63	47		

S.I. = Powdered metal • C.I. = Cast Iron • AL = Aluminum • S.S. = Stainless Steel

\*Weight of coupling with minimum bore hubs