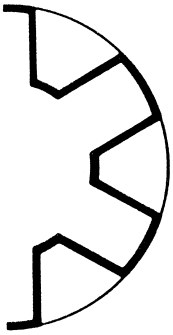
L-Jaw Elastomeric Couplings

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	1.0	1.5	2.0
		— Over 8 hours per day	1.5	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	1.5	2.0	2.5
		— Over 8 hours per day	2.0	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	2.0	2.5	3.0
		— Over 8 hours per day	2.5	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 = (Primer 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

Ratings

Coupling Ratings

Hub	Max Bore	Max RPM	Buna-N Spider			Urethane Spider			Hytrel 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	Buna-N Spider				Urethane Spider				Hytrel Spider			
	Spider	HP @ RPM			Spider	HP @ RPM			Spider	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	Hytrel
Oil Resistance		Good	Good	Excellent
Chemical Resistance		Poor	Good	Excellent
Flexibility		Excellent	Good	Fair
Temperature Range	F	−40 to +212	−30 to +160	−60 to +250
	C	−40 to +100	−35 to +71	−51 to +121
Torsional Stiffness		Full Soft	Medium Soft	Hard
Avg Shore Hardness		**80A**	**90A**	**55D**
Max. Misalignment				
• Angular		1°	1°	1/2°
• Parallel		.015”	.015”	.015”
Color		Black	Blue	White

Order By Component – Example

	Part Number	Description
Driver Hub	**L09958**	L099 x 5/8
Driven Hub	**L09912NK**	L099 x 1/2 No Keyseat
Spider	**L099N**	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	**18**	0												
3/16	**3/16**	0												
1/4	**14**	X	X	X	X	X								
5/16	**5/16**	0	0	X	0	X								
3/8	**38**	X	X	X	X	X								
7/16	**7/16**		X	X	X	X	X	X	X					
1/2	**12**		X	X	X	X	X	X	X					
9/16	**9/16**		1	1	X	1	1	1	X					
5/8	**58**		X	X	1	1	1	1	1	X	X			
11/16	**11/16**			1	1	1	1	1	1					
3/4	**34**			1	1	X	1	1	1	1	1	X	X	
7/8	**78**				1	1	1	1	1	1	1	1	1	0
15/16	**15/16**					1	1	1	1	1	1	1	1	
1	**1**					1	1	1	1	1	1	1	1	
1-1/16	**1116**						1		1	1	1		1	
1-1/8	**118**						1	1	1	1	1	1	1	1
1-3/16	**1316**							1	1	1	1	1	1	
1-1/4	**114**								1	1	1	1	1	1
1-5/16	**1516**								1	1				
1-3/8	**138**								1	1	1	1	1	1
1-7/16	**1716**								1	1	1	1	1	
1-1/2	**112**									1	1	1	1	
1-9/16	**1916**									1	1		1	
1-5/8	**158**									1	1	1	1	
1-11/16	**11116**										1	1	1	
1-3/4	**134**										1	1	1	1
1-13/16	**11316**										1			
1-7/8	**178**										1	1	1	
1-15/16	**11516**											1	1	
2	**2**											1	1	1
2-1/8	**218**											1	1	1
2-3/16	**2316**												1	
2-1/4	**214**												1	1
2-3/8	**238**												1	
2-1/2	**212**												1	1
2-5/8	**258**												1	
2-7/8	**278**													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

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

0 No Keyseat
1 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

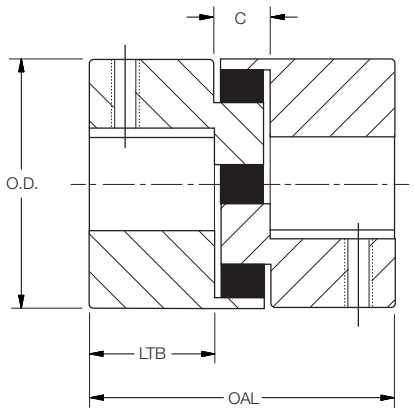
Part Number Examples

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

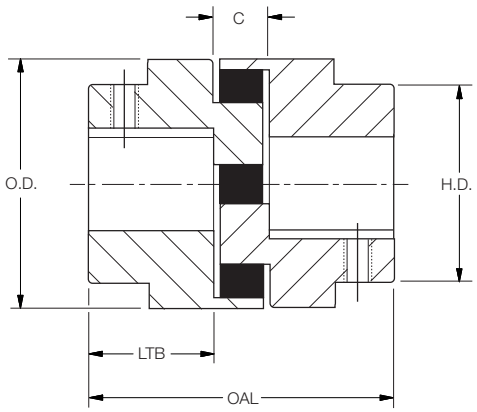
L-Jaw Couplings

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