'L' Series Jaw Couplings

Simple, economical design - fully interchangeable with industry standards.

Cross has expanded its comprehensive family of quality industrial couplings to include the Type 'C' Jaw...offering a uniquely simple design combined with misalignment capability and maximum economy.

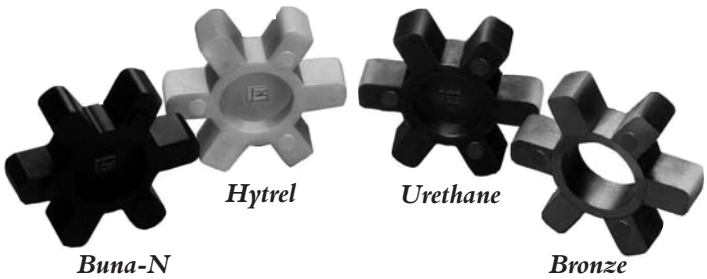
'L' coupling contain only three components...two jaws and one 'spider' insert. Power is transmitted between the jaw halves by the insert, which is offered in a choice of four materials to suit all the application characteristics and horsepower requirements. All sizes are dimensionally interchangeable with industry standards, making replacement in existing installations easy and economical.

Type 'L' Jaw Couplings are designed for light to medium duty applications up to 112 Kw at 1500 rpm, and are available for shaft sizes from ⅛" (3.2mm) to 60mm.

'L' Series Couplings offer a choice of 4 insert types for maximum versatility.

Insert Selection

Morse Type 'L' Jaw Couplings are designed for applications in the light-to-medium duty range, with capacities and performance characteristics depending on the type of insert used. For maximum versatility in selection, Morse offers four different insert materials to suit the application.



Buna-N

This is the standard flexible insert material in Type 'L' Jaw Couplings, serving the majority of applications. The materials is an oil resistant rubber compound with excellent flexibility and shock absorption; temperature range is –40°C to +100°C.

Urethane

The urethane insert offers approximately 50% greater torque capacity, than standard Buna-N, and in addition provides good chemical resistance. Temperature is –35°C to 70°C.

Hytrel®

This tough flexible plastic material provides still greater torque capacity, approximately three times that of standard Buna-N, and superior temperature resistance with a range of –50°C to +120°C. Oil and chemical resistance are excellent.

Bronze (Only used in 'L' Series)

This insert is intended exclusively for high torque, low speed applications, up to 250 rpm only. Capacities are three times those of standard Buna-N. The material offers excellent resistance to oils, chemicals and extreme temperatures –40°C to +230°C.

Performance Characteristics of Inserts

Material	Flexibility	Shock Absorption	Oil Resistance	Chemical Resistance	Temperature Range (°C)	Angular Misalignment	Parallel Misalignment
Buna-N	Excellent	Excellent	Good	–	–40 to 100	1°	0.4mm
Urethane	Good	Good	Good	Good	–35 to 70	1°	0.4mm
Hytrel®	Fair	Fair	Excellent	Excellent	–50 to 120	½°	0.4mm
Bronze	–	–	Excellent	Excellent	–40 to 230	½°	0.25mm

Misalignment Capability - Simplified Installation and Maintenance

Since power is transmitted between the two halves of the Type 'L' Jaw coupling by the resilient insert, it is not necessary to have perfect alignment between shafts. The elastomeric design permits angular misalignments up to 1° (½° for Hytrel and Bronze) and parallel misalignment up to 0.4mm, greatly simplifying installation in all types of industrial applications. Maintenance is minimal; the insert can be visually inspected, never needs lubrication, and in fact, the coupling can continue to transmit power even if the elastomeric insert becomes severely damaged or destroyed - minimising downtime and increasing reliability.

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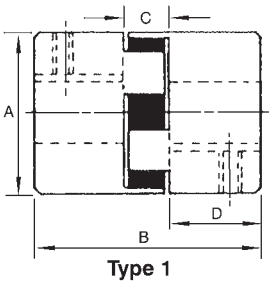
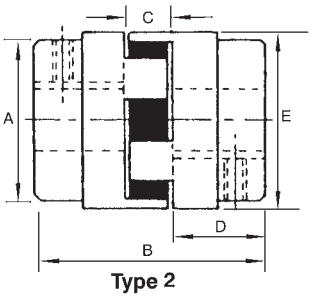
'L' Series Jaw Couplings

'L' Series Couplings use Sintered Iron Jaws for maximum strength & flexibility of bore size.



Type 1



Type 2

Dimensions (mm)

Coupling Size	Type	Coupling Half									Insert Part Nos.					
		Min Bore	Max Bore	Setscrews	A	B	C	D	E	Weight kg	Buna-N	Urethane	Hytrel	Weight kg	Bronze	Weight kg
L035	1	-	9.5	-	15.9	20.6	7.2	6.7	–	.010	L035N	N/A	N/A	.002	N/A	–
L050	1	6	15.0	M5	27.4	43.7	11.9	15.9	–	.065	L050N	N/A	L050H	.007	L050B	.022
L070	1	9	19.0	M6	34.5	50.8	12.7	19.1	–	.135	L070N	L070U	L070H	.008	L070B	.028
L075	1	9	22.2	M6	44.5	54.0	12.7	20.6	–	.23	L075N	L075U	L075H	.012	L075B	.065
L090	1	9	25.4	M6	53.6	54.0	12.7	20.6	–	.36	L090N	L090U	L090H	.015	L090B	.100
L095	1	9	28.6	2xM6	53.6	63.5	12.7	25.4	–	.40	L090N	L090U	L090H	.015	L090B	.100
L099	1	12	30.2	2xM8	64.3	73.0	19.1	27.0	–	.61	L099N	L099U	L099H	.033	L099B	.150
L100	1	12	35.0	2xM8	64.3	89.0	19.1	34.9	–	.81	L099N	L099U	L099H	.033	L099B	.150
L110	1	15	41.3	2xM10	84.2	108.0	22.2	42.9	–	1.71	L110N	L110U	L110H	.065	L110B	.30
L150	1	15	47.6	2xM10	95.0	114.5	25.4	44.5	–	2.28	L150N	L150U	L150H	.095	L150B	.63
L190	2	20	54.0	2xM12	102.0	133.5	25.4	54.0	114.5	3.72	L190N	L190U	L190H	.145	L190B	.90
L225	2	20	60.0	2xM12	108.0	152.0	25.4	63.5	127.0	5.20	L225N	L225U	L225H	.190	L225B	1.12

Hytrel is a registered trademark of E.I. Dupont Nermours & Co.

kW Power Ratings 'L' Series Couplings

Refer to page 2 for standard selection procedure.

Insert Material	Coupling Size	Max Bore	Max rpm	Max Torque Nm	kW Power Capacities								
					50	100	300	600	900	1200	1500	1800	3600
BUNA-N	L035	9.5	31000	0.4	.002	.004	.013	.026	.037	.05	.06	.07	.15
	L050	16.0	18000	2.9	.015	.030	.092	.186	.276	.36	.45	.55	1.10
	L070	19.0	14000	5.0	.026	.052	.157	.313	.470	.63	.78	.94	1.88
	L075	22.2	11000	10.0	.052	.104	.285	.565	.940	1.24	1.56	1.88	3.76
	L090	25.4	9000	16.4	.086	.172	.515	1.03	1.54	2.06	2.57	3.09	6.18
	L095	28.6	9000	21.4	.112	.224	.670	1.35	2.02	2.68	3.35	4.03	8.05
	L099	30.2	7000	35.6	.190	.373	1.12	2.24	3.35	4.50	5.6	6.70	13.4
	L100	35.0	7000	47.0	.250	.500	1.48	2.95	4.40	5.90	7.4	8.90	17.7
	L110	41.3	5000	89.0	.470	.930	2.80	5.60	8.40	11.2	14.0	16.8	33.6
	L150	47.6	5000	142.4	.750	1.45	4.45	8.95	13.4	17.9	22.4	26.9	53.7
	L190	54.0	5000	192.3	1.00	2.01	6.05	12.1	18.1	24.2	30.2	36.2	72.5
	L225	60.0	4200	263.5	1.38	2.76	8.30	16.5	24.8	33.0	41.3	49.6	99.0
URETHANE	L050	16.0	18000	4.8	.03	.06	.16	.31	.48	.61	0.73	0.91	1.9
	L070	19.0	14000	7.5	.04	.08	.24	.47	.71	.94	1.17	1.41	2.8
	L075	22.2	11000	15.0	.08	.16	.47	.94	1.41	1.88	2.35	2.82	5.6
	L090	25.4	9000	24.5	.13	.26	.78	1.55	2.32	3.09	3.86	4.63	9.2
	L095	28.6	9000	32.0	.17	.34	1.01	2.01	3.02	4.03	5.03	6.04	12.1
	L099	30.2	7000	53.5	.28	.56	1.68	3.36	5.04	6.70	8.35	10.0	20.1
	L100	35.0	7000	70.5	.37	.74	2.21	4.42	6.65	8.87	11.1	13.3	26.5
	L110	41.3	5000	133.5	.70	1.40	4.20	8.40	12.6	16.8	21.0	25.2	50.0
	L150	47.6	5000	214.0	1.12	2.24	6.71	13.4	20.1	26.8	33.5	40.2	80.5
	L190	54.0	5000	288.5	1.51	3.02	9.10	18.1	27.2	36.2	45.3	54.4	108.8
	L225	60.0	4200	395.0	2.07	4.14	12.40	24.8	37.3	49.7	62.1	74.5	149.0
HYTREL® & BRONZE*	L050	16.0	18000*	5.7	.03	.06	.18	.36	.54	.72	.90	1.08	2.1
	L070	19.0	14000*	12.8	.07	.13	.40	.80	1.32	1.61	2.02	2.42	4.8
	L075	22.2	11000*	25.6	.14	.28	.80	1.60	2.40	3.20	4.00	4.80	9.7
	L090	25.4	9000*	44.2	.23	.46	1.39	2.77	4.16	5.55	6.95	8.35	16.6
	L095	28.6	9000*	64.0	.33	.67	2.00	4.00	6.05	8.05	10.1	12.1	24.1
	L099	30.2	7000*	89.0	.47	.93	2.80	5.60	8.40	11.2	14.0	16.8	33.5
	L100	35.0	7000*	128.1	.67	1.34	4.03	8.05	12.0	16.1	20.1	24.2	48.3
	L110	41.3	5000*	256.0	1.34	2.68	8.05	16.1	24.1	32.2	40.2	48.3	96.6
	L150	47.6	5000*	419.0	2.19	4.38	13.10	26.3	39.5	52.6	65.7	78.9	158.0
	L190	54.0	5000*	529.0	2.78	5.54	16.60	33.2	49.9	66.5	83.1	99.7	200.0
	L225	60.0	4200*	712.0	3.75	7.50	22.50	45.0	67.5	90.0	112.5	135.0	270.0

*Note couplings with bronze inserts are limited to 250 rpm.

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