

# Jaw Type Elastomeric Couplings









#### **Straight Jaw**

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

## **C-JAW**





- Uses individual cushions
- For higher torque loads
- Cushions easily replaced



#### **Determine the Prime Mover Classification**

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

#### **Determine the Load Characteristicsand the Service Factor**

Typical Applications	Load	Characteristics	Prime Mover Class				
			Α	В	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 the generally accepted conditions encountered in industry. Conditions subject to extreme temperatures, abrasive dusts, corrosive liquids and 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.

#### Jaw Couplings are sold by component

Below is an ordering example for each Jaw style coupling. All listed components must be ordered to receive a complete coupling.

Componente	L.	JAW	C-JAW				
Components	Product No.	Description	Product No.	Description			
Driver Hub	L09958	L099 x 5/8	C280178	C280 x 1-7/8			
Driven Hub	L09912NK no keyseat	L099 x 1/2	C280158	C280 x 1-5/8			
Insert	L099N	L099 Buna-N	C280N (contains 6 cushions)	C280 Buna-N			
Cover	none	none	C280CH w/ hardware	C280 Cover			

## **TORQUE - HORSEPOWER RATINGS**



#### L-JAW TYPE

				BUN	IA-N SPIDER	R (N)			НҮТ	<b>REL SPIDER</b>	(H)	
PRODUCT	MAX	MAX	TORQUE	HP PER	HP	/SPEEDS (R	PM)	TORQUE	HP PER	HF	P/SPEED (RP	M)
NO.	BORE	RPM	IN. LBS	100 RPM	1200	1800	3600	IN. LBS.	100 RPM	1200	1800	3600
L035	3/8	31000	3.5	0.006	0.07	0.10	0.20					
L050	5/8	18000	26.3	0.042	0.50	0.75	1.50	50.0	0.079	0.95	1.43	2.86
L070	3/4	14000	43.2	0.069	0.82	1.23	2.47	114	0.181	2.17	3.26	6.51
L075	7/8	11000	90.0	0.143	1.71	2.57	5.14	227	0.360	4.32	6.48	12.97
L090	1	9000	144.0	0.228	2.74	4.11	8.23	401	0.636	7.64	11.45	22.91
1. L095	1-1/8	9000	194.0	0.308	3.69	5.54	11.08	561	0.890	10.68	16.02	32.04
L099	1-3/16	7000	318.0	0.505	6.05	9.08	18.16	792	1.257	15.08	22.62	45.24
2. L100	1-7/16	7000	417.0	0.662	7.94	11.91	23.82	1134	1.799	21.59	32.39	64.77
L110	1-5/8	5000	792.0	1.257	15.08	22.62	45.24	2268	3.599	43.18	64.77	129.55
L150	1-7/8	5000	1240.0	1.967	23.61	35.41	70.83	3708	5.883	70.60	105.90	211.80
L190	2-1/8	5000	1726.0	2.739	32.86	49.29	98.59	4680	7.426	89.11	133.66	267.32
L225	2-5/8	4600	2340.0	3.713	44.55	66.83	133.66	6228	9.882	118.58	177.87	355.74
L276	2-7/8	4200	4716.0	7.483	89.79	134.69	269.38					

BRONZE INSERTS HAVE SAME RATING AS HYTREL INSERTS. URETHANE INSERTS RATINGS MULTIPLY BUNA-N INSERT BY 1.5.

1. USES L090 SPIDERS 2. USES L099 SPIDERS

**C-JAW TYPE** 

			BUNA-N CUSHION SET (N)									
PRODUCT	MAX	MAX	TORQUE	HP PER	HP	SPEEDS (R	PM)					
NO.	BORE	RPM	IN. LBS	100 RPM	1200	1800	3600					
C226 C276 C280 C285 C295 C2955	2-1/2 2-7/8 3 4 3-1/2 4	4800 4200 3500 3200 2300 2300	2988.0 4716.0 7560.0 9182.0 11340.0 18900.0	4.700 7.500 12.000 14.600 18.000 30.000	56.40 90.00 144.00 175.20 216.00 360.00	84.60 135.00 216.00 262.80 324.00 540.00	169.20 270.00 432.00 525.60 648.00 1080.00					

#### **SPIDER CHARACTERISTICS**

CHARACTERISTICS	BUNA-N (N)	LIBETHANE (II)	HYTREL (H)	BRONZE (B)
OIL RESISTANCE	GOOD	GOOD	EXCELLENT	EXCELLENT
CHEMICAL RESISTANCE	POOR	GOOD	EXCELLENT	EXCELLENT
FLEXIBILITY	EXCELLENT	GOOD	FAIR	POOR
TEMPERATURE F	-40 TO +212	-30 TO +160	-60 TO +250	-40 TO +450
RANGE C	-40 TO +100	–35 TO +71	–51 TO +121	-40 TO +232
TORSIONAL STIFFNESS	FULL SOFT	MEDIUM SOFT	HARD	HARD
AVERAGE HARDNESS				
(SHORE NUMBER)	80A	90A	55D	—
MAX. MISALIGNMENT				
<ul> <li>ANGULAR</li> </ul>	1°	1°	1/2°	1/2°
PARALLEL	.015"	.015"	.015"	.010"
AVAILABILITY <b>L-JAW</b>	Х	Х	Х	Х
C-JAW	Х			
COLOR	BLACK	BLUE	WHITE	BRONZE

WARNING: DO NOT USE BRONZE INSERT OVER 250 RPM.

TO ORDER SPIDER	
OR CUSHION SET	
SPECIFY THE	
COUPLING SIZE WITH	Η
THE MATERIAL	
SUFFIX.	

#### EXAMPLE: L150H = HYTREL SPIDER FOR L150 COUPLING



	STOCK L-JAW INCH HUBS													
BORE (IN.)	PRODUCT NO.	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	Х	Х	Х	X								
5/16	5/16	0	0	Х	0	Х								
3/8	38	X	Х	Х	Х	Х								
7/16	7/16		Х	Х	Х	Х	Х	Х	Х					
1/2	12		Х	Х	Х	Х	Х	Х	Х					
9/16	9/16		1	1	Х	1	1	1	Х					
5/8	58		Х	Х	1	1	1	1	1	Х	Х			
11/16	11/16			1	1	1	1	1	1					
3/4	34			1	1	X	1	1	1	1	1	Х	Х	
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 1/16	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
17/16	1716								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 3/4	134											1	1	
1 13/16	11310											4	4	
<u> </u>	1/8						-						1	
1 15/16	11510											1	1	4
	<u> </u>													
2 1/10	2110											4	1	1
2 1/0	210												1	
2 3/10	2310												1	1
2 1/4	214												1	
2 3/0	200												1	1
2 1/2	212												1	
<u>2 3/0</u>	200													1
21/0	210													

0 NO KEYSEAT 1 STANDARD KEYSEAT X NO KEYSEAT OR STANDARD KEYSEAT

Product Number Example  $\rightarrow$  L09012 for L090 x 1/2 HUB

NOTE: L-JAW Hubs also available in aluminum – contact factory.

<b>BORE TOLERANCES</b>								
BORE SIZE	TOLERANCE							
UP TO AND INCLUDING 2"	+.0005 +.0015							
OVER 2"	+.0005 +.0020							

## **Standard Keyseat Dimensions**

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

## **STOCK BORES**



STOCK L-JAW METRIC BORE HUBS													C	-JAW	HUBS	5						
RE M)	PRODUCT No.	L035	L050	L070	L075	L090	L095	L099	L100	L110	L150	L190	L225	L276	BORE Size	PRODUCT No.	C226	C276	C280	C285	C295	C295
	5	0													SOLID	S						
	6	1													1/8	18						
	7		0												3/16	3/16						
	8	0	0	0											1/4	14						
	9														5/16	5/16						
	10		X												3/8	38						
	11		1		1										7/16	7/16						
	12		1	1	1	1	1								1/2	12						
	14		X	1	1	1	1	1	1						9/16	9/16						
	15		1	1	1	1	1								5/8	58						
	16			1	1	1	1		1						11/16	11/16						
	17				1		1								3/4	34						
	18				1	1	1		1	1					7/8	78	0	0				
	19			1	1	1	1		1						15/16	15/16						
	20				1	1	1	1	1	1	1				1	1						
	22				1		1	1	1	1					1 1/16	1116						
	24					1	1	1	1	1					1 1/8	118						
	25					1	1	1	1	1	1	1			1 3/16	1316						
	28						1	1	1	1					1 1/4	114			X	Х		
	30							1	1	1	1	1			1 5/16	1516						
	32								1	1	1		1		1 3/8	138	1					
	35								1	1	1	1			1 7/16	1716						
	38									1	1	1	1		1 1/2	112	1				0	0
	40									1	1	1	1		1 9/16	1916						
	42									1	1	1	1		1 5/8	158	1					
	45										1				1 11/16	11116						
	48										1	1			1 3/4	134	1	1				
	50											1			1 7/8	178	1	1				
	55														1 15/16	11516						
	60												1		2	2	1	1				
	65												1		2 1/8	218	1	1	1			
										-					2 1/4	214						
1	o Keyse	eat	<b>1</b> S	tanda	rd Ke	yseat	X	No Ke	eyseat	or St	tanda	rd Key	/seat		2 3/8	238	1	1	1			
															2 1/2	212			1			
l	aw Pro	duct	Numb	er Ex	ampl	e:									2 5/8	258		1	1			
r	1		Par	t No.	-		De	escrip	tion						2 7/8	278						
	-							- P							2	2			I –	1		

Item	Part No.
Hub	C226212
Cushion	C226N

C226CH

<b>Description</b>						
C226x21/2						
Cushion Kit						
Cover Kit						

2 1/8	218	1	1	1		
2 1/4	214					
2 3/8	238	1	1	1		1
2 1/2	212			1		
2 5/8	258		1	1		1
2 7/8	278					1
3	3					
3 3/8	338					
3 1/2	312					
3 5/8	358					
3 3/4	334					
3 7/8	378					

BORE TO	ERANCES
BORE SIZE	TOLERANCE
UP TO AND INCLUDING 2"	+.0005 +.0015
OVER 2"	+.0005

+.0020

#### **Standard Keyseat Dimensions**

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

Cover



## **COUPLING DIMENSIONS**

#### **L-JAW DIMENSIONS**

Coupling	Hub		Weight				
Size	Mat'l	OD	HD	LTB	В	C	Lbs*
L035	S.I.	0.63	0.63	0.27	0.81	0.28	0.10
L050	S.I.	1.08	1.08	0.63	1.72	0.47	0.30
L070	S.I.	1.36	1.36	0.75	2.00	0.50	0.60
L075	S.I.	1.75	1.75	0.81	2.13	0.50	1.00
L090	S.I.	2.11	2.11	0.81	2.13	0.50	1.50
L095	S.I.	2.11	2.11	1.00	2.50	0.50	1.80
L099	S.I.	2.53	2.53	1.06	2.88	0.75	2.50
L100	S.I.	2.53	2.53	1.38	3.50	0.75	3.50
L110	S.I.	3.33	3.33	1.69	4.23	0.85	6.60
L150	S.I.	3.75	3.75	1.75	4.50	1.00	9.10
L190	C.I.	4.50	4.00	1.94	4.88	1.00	17.00
L225	C.I.	5.00	4.25	2.19	5.38	1.00	23.00
L276	C.I.	6.19	5.00	3.13	7.88	1.63	47.00



## **C-JAW DIMENSIONS**

Coupling	Hub		Weight				
Size	Mat'l	OD	HD	LTB	В	C	Lbs*
C226	C.I.	5.15	4.12	2.75	7.00	1.50	29.00
C276	C.I.	6.18	5.00	3.12	7.87	1.63	47.00
C280	C.I.	7.50	5.50	3.12	7.87	1.63	61.00
C285	C.I.	8.50	6.50	3.75	9.13	1.63	87.00
C295	C.I.	9.12	6.31	3.75	9.38	1.88	97.00
C2955	C.I.	9.12	7.12	4.25	10.38	1.88	117.00

S.I. = Powdered metal • C.I. = Cast Iron

\*Weight of coupling assembly with minimum bores.

NOTE: L-JAW Hubs also available in aluminum – contact factory.