

# Elastomeric Couplings

Baldor offers the following **Baldor•Maska®** Flexible Couplings for a wide variety of applications that require elastomeric materials due to shaft misalignment.



**Jaw Type**










**Gear Type**



**Tire Type**

- Interchangeable by Part # and Size with Corresponding Elements
- Variety of Insert Elements for different Applications
- On-line Drive Selection Program and CAD Drawings for StarFlex & MaskaFlex types
- Made from High Strength Cast Iron
- Coupling Selection Process, Service Factors and Ratings in Baldor•Maska® catalog

## GENERAL CHARACTERISTICS

	Starflex 	4-Flex 	Maskaflex 
Torque (in.-lbs)	3.5 - 6,228	60 - 47,268	900 - 82,500
Max. HP/100 RPM	9.9	18	130.9
Torsional wind-up (deg.)	-	7° - 15°	3° - 7°
Angular misalignment (deg.)	1/2° - 1°	1/4° - 1°	4°
Parallel misalignment (inch.)	0.010 - 0.015	0.010 - 0.040	0.047 - 0.203
Axial permissiveness	-	limited compressibility	0.063" - 0.266"
Sizes available	35 - 225	3 - 13	50 - 200
Elements available	Nitrile Rubber (NBR) *	EPDM 	Natural Rubber (NR) 
	Urethane *		
	Hytre 	Hytre 	
	Bronze *		

### Important Reminder:

Selecting the proper type and size of coupling & element material, based on the application, service factor, temperature and environment, will result in efficient, long-lasting operations.

## Inches and Metric Bores; Special bores in stock

Commonly used coupling for a wide variety of light-duty and medium applications

- All parts completely machined in cast iron
- Simple design results in easy installation, removal & inspection
- Four types of insert elements

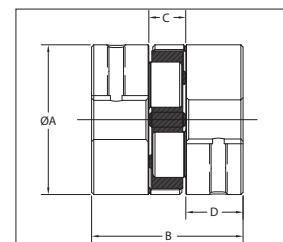


### Coupling Hub and Elements

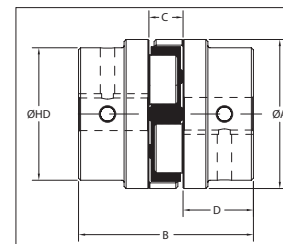


#### Dimensions

Hub No.	Type	Outside Diameter A	Hub Diameter HD	Overall Length B	Distance between flanges C	Length thru bore D	Bore		Assy Wt. Lbs. (Avg)	Approx. WR2 lbs-in <sup>2</sup>
							Min.	Max.		
L035 *	1	5/8	-	13/16	9/32	17/64	1/8 (4mm)	3/8 (8mm)	0.10	0.003
L050 *	1	1 1/16	-	1 23/32	15/32	5/8	3/16 (5mm)	5/8 (16mm)	0.25	0.054
L070	1	1 3/8	-	2	1/2	3/4	3/16 (7mm)	3/4 (19mm)	0.50	0.115
L075	1	1 3/4	-	2 1/8	1/2	13/16	3/16 (9mm)	7/8 (22mm)	0.90	0.388
L090	1	2 1/8	-	2 9/64	33/64	13/16	3/16 (8mm)	1 (25mm)	1.35	0.772
L095	1	2 1/8	-	2 33/64	33/64	1	7/16 (11mm)	1 1/8 (28mm)	1.55	0.890
L099	1	2 17/32	-	2 27/32	23/32	1 1/16	7/16 (14mm)	1 3/16 (30mm)	2.25	2.048
L100	1	2 17/32	-	3 15/32	23/32	1 3/8	7/16 (12mm)	1 3/8 (35mm)	2.80	2.783
L110	1	3 5/16	-	4 1/4	7/8	1 11/16	5/8 (16mm)	1 5/8 (42mm)	5.95	8.993
L150	1	3 3/4	-	4 1/2	1	1 3/4	5/8 (16mm)	1 7/8 (48mm)	7.90	11.477
L190	2	4 1/2	4	5	1	2	3/4 (19mm)	2 1/8 (55mm)	13.80	39.256
L225	2	5	4 1/4	5 3/8	1	2 3/16	3/4 (30mm)	2 5/8 (65mm)	17.30	65.000







TYPE 1



TYPE 2

\*Important: NOT SOLD INDIVIDUALLY. These parts are packaged 4 to a box.

### Element Characteristics

Properties	Temperature Range	Misalignment		Shore Hardness	Dampening Capacity	Chemical Resistance	Color
		Angular Degree	Parallel Inch				
<b>NBR (Rubber)</b> Nitrile Butadiene Rubber is an elastomeric element that is oil resistant with the resilience and elasticity of natural rubber. Most economical and widely-used element.	-40° to +212° F -40° to +100° C	1°	.015	80A	HIGH	GOOD	BLACK 
<b>Urethane</b> -- Urethane has 1.5 more torque capability than NBR, provides less dampening effect and has good resistance to oil and chemicals. Not recommended for cyclic or start-stop applications.	-30° to +160° F -34° to +71° C	1°	.015	55D L050-L110 90-95A L150-L225	LOW	VERY GOOD	ORANGE 
<b>Hytrel</b> -- Hytrel is a pliant elastomer suited to high torque / temperature operations. Notable resistance to oil and chemicals. Not recommended for cyclic or start-stop applications.	-60° to +250° F -51° to 121° C	1/2°	.015	55D	LOW	EXCELLENT	BEIGE 
<b>Bronze</b> -- Bronze is a metal insert designed exclusively for slow speed operations that require high torque. (Maximum 250 RPM) Resistant to extreme environments (temperature, water, oil, dirt).	-40° to +450° F -40° to +232° C	1/2°	.010	--	NIL	EXCELLENT	GOLD 

#### Important Reminder:

Selecting the proper insert material is just as important as selecting the correct type and size of jaw coupling because of the role it plays in the performance and maintenance of the product.

# 4-Flex Gear Type

## Fixed Bore (J & S) & QD Bushing (B) Flanges; “SC” Spacer Series

Flexible and versatile coupling with a 4-way flexing action that absorbs all types of shock and vibration and accommodates axial, angular and parallel misalignment.

- Precise concentric product to avoid run-out and unbalance
- EPDM & Hytrel sleeve elements; 1-2 piece and split formats
- J & S flanges have 2 set screws



### Flange Sizes

Fixed Bore		QD Style	“SC” Spacer Series	Ratings
				
“J”* Flanges	“S” Flanges	“B”* Flanges	“SC” Flanges	Max. RPM
3J				9200
4J				7600
5J	5S		5SC	7600
6J	6S – Types 1, 2 & 3	6B	6SC	6000
	7S	7B	7SC	5250
	8S – Types 1 & 2	8B	8SC	4500
	9S – Types 1 & 2	9B	9SC	3750
	10S – Types 1 & 2	10B	10SC	3600
	11S	11B	11SC	3600
	12S	12B	12SC	2800
	13S	13B	13SC	2400
			14SC	2200

\* Do not use with hytrel sleeves

### Element Characteristics Sleeve Types

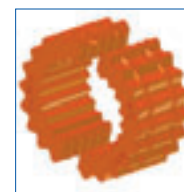
SHAPES AVAILABLE	EPDM	HYTREL
1 pc, unsplit	JE	H
1 pc, split	JES	-
2 pieces	E	HS
TYPICAL USE	General Purpose	General Purpose
REL. RATING	1X	4X
WIND-UP ANGULAR	15°	7°
MISALIGNMENT	1°	1/4°
TEMPERATURE		
maximum	+275° F.	+250° F.
minimum	-30° F.	-65° F.



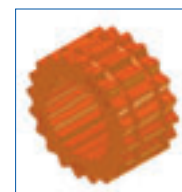
JE



JES



HS



H



E



E (exploded)

## QD Bushing Style

Coupling most suitable for applications with shock loads; QD style makes for easier installation & dismounting and greater versatility than the fixed bore style without damaging the shaft.

- Revolutionary reinforced “X-Tork” tire element
- Complete line available from 50 to 200



### Important Reminder:

- Applications that exceed 5000 ft/min may require more accurate balancing.
- Shaft ends can project beyond the bushing; if the case, allow space between shaft ends for endfloat and misalignment.

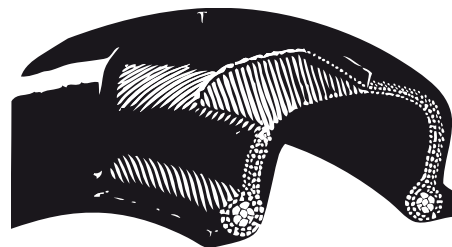
## Coupling Ratings & Misalignment

Coupling No.	Bush. Size	Max. Bore	Max RPM	HP per 100 RPM Service factors					Torque* @ 1.0 S.F. (LB in)	Average static torsional stiffness coefficient (H)		Approx. WR2 (LB-FT2)	Max. parallel misalignment	Max. axial misalignment
				1.0	1.5	2.0	2.5	3.0		LB-IN/ DEG.	LB-IN/ RAD.			
<b>MX 50</b>	JA	1 1/4	4500	1.43	.95	.72	.57	.48	900	224	12,850	.08	3/64	1/16
<b>MX 60</b>	SH	1 5/8	4000	2.86	1.91	1.43	1.14	.95	1,800	414	23,700	.24	1/16	5/64
<b>MX 70</b>	SDS	1 15/16	3600	3.49	2.33	1.75	1.40	1.16	2,200	544	31,200	.45	5/64	3/32
<b>MX 80</b>	SK	2 1/2	3100	5.71	3.81	2.86	2.28	1.90	3,600	876	50,200	.88	5/64	7/64
<b>MX 90</b>	SK	2 1/2	2800	6.90	4.60	3.45	2.76	2.30	4,350	1,088	62,400	1.60	3/32	1/8
<b>MX 100</b>	SF	2 3/4	2600	8.33	5.55	4.17	3.33	2.78	5,250	1,530	87,700	2.90	7/64	1/8
<b>MX 110</b>	SF	2 3/4	2300	12.30	8.20	6.15	4.92	4.10	7,750	2,420	138,700	4.30	7/64	9/64
<b>MX 120</b>	E	3 7/16	2100	19.90	13.27	9.95	7.96	6.63	12,540	4,014	217,000	6.70	1/8	5/32
<b>MX 140</b>	F	3 15/16	1840	43.78	29.19	21.89	17.51	14.59	27,590	8,296	476,000	19.50	9/64	3/16
<b>MX 160</b>	J	4	1560	59.98	39.99	29.99	23.99	19.99	37,800	12,000	688,000	34.60	11/64	13/64
<b>MX 200</b>	J	4	1300	130.90	87.27	65.45	52.36	43.63	82,500	29,000	1,662,000	103.00	13/64	17/64

\* To obtain the maximal torque, multiply by 2.5 the nominal torque. (X-Tork tire)

## Tire Element Characteristics

- Thermally stabilized natural rubber bonded together with double-woven textile cords
- Multiple cables in toe reinforce stability and flange grip for greater torque capacity (see photo insert)
- Ridged extremity and inner sidewalls designed for enhanced grip of the flanges



## Mounting

Installation sheet and gages included with every part to properly install and obtain the correct space between flanges.

# BALDOR

**Baldor Electric Company**

P.O. Box 2400 • Fort Smith, AR 72902-2400 U.S.A.

Phone (479) 646-4711 • Fax (479) 648-5792 • International Fax (479) 648-5895

www.baldor.com • www.maskapulleys.com