

Parts List and Engineering Data

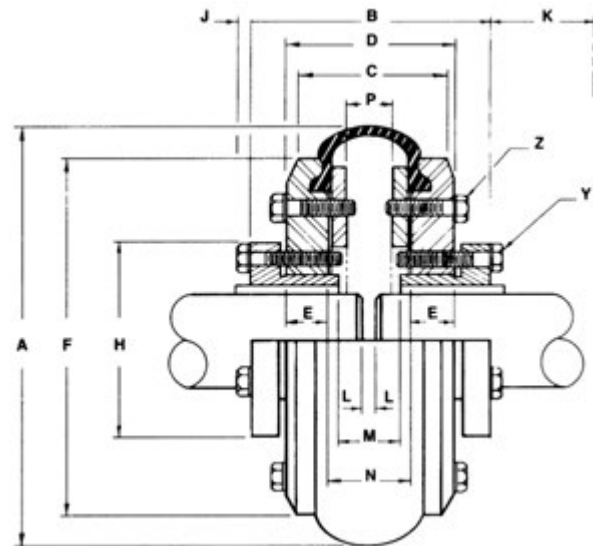
Coupling Size	QD Bushing (2 Required Per Coupling)*	Steel Flange Assembly (2 Required Per Coupling)		Rubber Element (1 Required Per Coupling)		Max RPM	Horsepower @ 100 RPM (1.0 Factor)	Torque (1.0 Service Factor)		Average Static Torsional Stiffness Coefficient (K)		Approx. WR** (LB - Ft)
		Flange No.	Weight Each	Element No.	Weight			LB - In	LB - Ft	LB - In/DEG	LB - In/RAD	
5	JA	F5JA	3.0	E5	.6	4500	1.03	649	54.1	244	12,850	.08
6	JA	F6JA	4.0	E6	.9	4000	1.80	1134	94.5	414	23,700	.22
7	SH	F7SH	7.0	E7	1.3	3600	3.12	1966	163.8	544	31,200	.40
8	SDS	F8SDS	8.0	E8	1.7	3100	4.68	2950	245.8	876	50,200	.70
9	SK	F9SK	13.0	E9	2.0	2800	6.90	4349	362.4	1088	62,400	1.33
10	SF	F10SF	17.0	E10	2.0	2600	8.33	5250	437.5	1530	87,700	2.10
11	SF	F11SF	18.0	E11	3.0	2300	9.92	6252	521.0	2420	138,700	2.90
12	E	F12E	31.0	E12	3.8	2100	14.40	9076	756.3	4014	217,000	5.80

* See page B5 for QD bushing bore sizes and dimensions.

** Coupling plus QD bushing.

Weight in pounds.

Rubber tire element also available in Neoprene.



Dimensions

Coupling Size	A	B	C	D	E	F	H	J	K*	L	M	N	P	Z Clamp Ring Bolts			
														Y B.C. Dia.	B.C. Dia.	No. and Size**** Capscrews	Torque In Lbs.
5	5½	3⅞	2⅞	2⅞	⅝	4	2	⅝	1¼	..	1⅞	1⅞	¾	1.66	2⅞	(5) ¼ - 20x1⅞	125
6	6½	3⅞	2⅞	2⅞	⅝	4⅞	2	⅝	1¼	..	1⅞	1⅞	½	1.66	3⅞	(5) ⅝ - 18x1⅞	200
7	7½	4⅞	2⅞	3⅞	⅞	5½	2⅞	⅞	1	..	1⅞	1⅞	¾	2¼	3⅞	(5) ⅞ - 18x1¼	300
8	8½	4⅞	2⅞	3⅞	⅞	6½	3⅞	⅞	1	..	1⅞	1⅞	⅞	2⅞	4⅞	(6) ⅞ - 18x1½	300
9	9½	5⅞	3⅞	3⅞	1⅞	7½	3⅞	⅞	2¼	..	1⅞	1⅞	⅞	3⅞	5⅞	(6) ⅞ - 16x1¾	400
10	10	5⅞	3⅞	4⅞	1⅞	8⅞	4⅞	⅞	2¼	..	1⅞	1⅞	1	3⅞	6	(6) ⅞ - 16x1¾	400
11	11	5⅞	3⅞	3⅞	1⅞	9	4⅞	⅞	2¼	..	1⅞	1⅞	⅞	3⅞	6½	(6) ⅞ - 16x1¾	400
12	12½	7⅞	4	4⅞	1⅞	10⅞	6	⅞	3¼	..	1⅞	1¼	¾	5	7⅞	(6) ½ - 13x2¼	900

Shaft ends are normally M or N apart; they may project beyond the bushings. In this case allow space for end float and misalignment.

* Clearance required to remove bushing using pull-up capscrews as jackscrews.

** Grade 8.

Dimensions in inches.

Other Sizes Available as Made-to-Order

Martin Flex® flexible couplings smoothly transmit power while compensating for shaft misalignment to 4°, parallel misalignment to 1/8" and end float to 5/16". The two piece flange design provides quick and easy installation and the elastomeric element absorbs shock and torsional vibration through a wide temperature range.

Selection Procedure

1. Select the proper service factor from Chart 1.
2. Determine **Design Horsepower** by multiplying the **Service Factor** and the **Drive Horsepower**.
3. Locate the intercept of **Shaft Speed** and **Design Horsepower** from Chart 2.
4. Order per coupling: (2) bushings, (2) flange assemblies, (1) flexible tire element.

Chart 1 Service Factors

Application	Factor	Application	Factor	Application	Factor	Application	Factor	Application	Factor
AGITATORS		Pump, Screen Drive, Stackler, Utility Winch	1.5	METAL FORMING MACHINES		Hog	2.0	Water	1.0
Paddle or Propeller (Vert. or Horiz.), Screw	1.0	DYNAMOMETER	1.0	Draw Bench Carriage, Main Drive, Extruder, Wire Drawing, Flattening Machine	2.0	Roller	1.5	SEWAGE DISPOSAL EQUIPMENT	1.0
BREWING AND DISTILLING		ELEVATORS		Exciter	1.0	PUMPS		SHOVEL	2.0
Bottling Machinery, Brew Kettle, Cooker (Cont. Duty), Mash Tub	1.0	Bucket, Freight	2.0	Oil Well Pumping (not over 150% peak torque)	2.0	Centrifugal	1.0	SHREDDER	1.5
Scale Hopper	1.0	FANS		Rotary — other than gear	1.5	Oil Well Pumping (not over 150% peak torque)	2.0	STEEL INDUSTRY	
Frequent Starting Peaks	1.5	Centrifugal	1.0	Reciprocating — 1 cyl. — single acting	2.5	on LS Shaft Gear Reducer	2.5	Cold Mills	
CAN FILLING MACHINE	1.0	Cooling Tower	2.0	1 cyl. — double acting	2.0	on HS Shaft Gear Reducer	2.5	Coiler (up or down)	1.5
CAR DUMPER	1.5	Large (Mine, etc.)	1.5	2 cyl. — single acting	2.0	Dryer and Cooler	1.5	Strip, Temper	2.0
CAR PULLER	1.5	Light	1.0	2 cyl. — double acting	1.5	Rod or Tube Direct or on LS Shaft Gear Reducer	2.5	Hot Mills	
CLARIFIER	1.0	Propeller (indoor)	1.5	3 cyl. — or more	1.5	on HS Shaft Gear Reducer	2.0	Coiler (up or down), Edger Drive	1.5
CLASSIFIER	1.0	FOOD INDUSTRY		Tumbling Barrel	1.5	2 cyl. — double acting	1.5	Feed Roll (Bloom), Roughing Mill Delivery (non-reversing)	
CLAY-WORKING MACHINES		Beet Slicer	1.5	MIXERS		3 cyl. — or more	1.5	RUBBER INDUSTRY	
Brick Press, Briquette Machine, Clay Working Machine, Pug Mill	1.5	Cereal Cooker	1.0	Concrete (Continuous or intermittent), Muller-Simpson type	1.5	Banbury Mixer	2.5	Sheet, Strip	3.0
COMPRESSORS		GENERATORS		Oil Industry		Calender	2.0	Rod Mill	2.5
Lobe, Rotary	2.0	Even Load	1.0	Chiller	1.0	Cracker, Mixing Mill, Plasticator	2.5	Soaking Pit Cover Drive	3.0
Reciprocating* — 1 cyl. — single acting	3.5	Hoist or Railway Service	1.5	Oil Well Pumping (not over 150% peak torque)	2.0	Refiner, Sheeter, Tire Building Machine	2.0	STEERING GEAR	1.0
1 cyl. — double acting	3.0	Welder Load	2.0	Paraffin Filter Press	1.5	Tire and Tube Press Opener (Based on Peak Torque)	1.0	STOKER	1.0
2 cyl. — single acting	3.0	GRIZZLY	2.0	PAPER MILLS		Washer	2.5	TEXTILE MILLS	
2 cyl. — double acting	2.5	KILN	2.0	Agitator	1.0	Batcher	1.0	Calender, Card	1.0
3 cyl. or more — single acting	2.5	LAUNDRY MACHINES		Barking Drum	2.5	Machine, Dry Can	1.5	Dyeing Machinery	1.0
3 cyl. or more — double acting	2.0	Tumbler, Washer	2.0	Beater and Pulper	1.5	Mangel, Napper, Soaper	1.0	Loom	1.5
CONVEYORS		LINE SHAFTS		Bleacher	1.0	Air Washing	1.0	Spinner, Tenter Frame	1.5
Apron, Assembly, Belt, Chain, Flight, Oven	1.0	Driving Processing Machinery	1.0	Calender	2.0	Coal and Sand (Rotary)	1.5	WINDLASS	1.5
Reciprocating	2.5	Light	1.0	Chipper	3.0	Vibrating	2.5	WOODWORKING MACHINES	1.0
Screw	1.0	LUMBER INDUSTRY		Couch, Cylinder, Dryer	1.5				
CRANES AND HOISTS		Band Resaw, Circular Resaw	1.5	Felt Stretcher	1.0				
Main Hoist — Medium Duty	1.5	Edger, Head Rig, Hog, Log Haul	2.0	Fourdrinier	1.0				
Main Hoist — Heavy Duty	2.0	Planer	1.5	Jordan	2.0				
Skip Hoist, Travel Motion, Trolley Motion, Slope	1.5	Hog, Log Haul	2.0	Press	2.0				
CRUSHERS		Rolls Non-Reversing	1.5	Pulp Grinder	2.0				
Cane	2.0	Rolls Reversing	2.0	Stock Chest	1.5				
Gyratory	2.5	Sawdust Conveyor	1.0	Reciprocating	2.0				
DREDGES		Slab Conveyor, Sorting Table	1.5	Rotary	1.5				
Cable Reel, Conveyor	1.5	MACHINE TOOLS		Suction Roll	2.0				
Cutter Head Drive, Jog Drive	2.5	Auxiliary	1.0	Winder	1.5				
		Main Drive, Notching Press, Planer (Reversing), Plate Planer, Punch Press	1.5	PARAFFIN FILTER PRESS	1.5				
		Traverse	1.0	PRINTING PRESS	1.5				
				PROPELLER (Marine)	1.5				
				PULVERIZERS					
				Hammermill — Light Duty	1.5				
				Hammermill — Heavy Duty	2.0				

The service factors listed are intended only as a general guide for smooth power sources such as electric motors and steam turbines. Add 0.5 to factor for somewhat rougher power sources such as internal combustion engines of four or more cylinders, steam engines and water turbines. Where substantial shock occurs or starting or stopping is frequent as on some "inching" drives and on some reversing drives or where the power source is an internal combustion engine with less than four cylinders — consult factory. Where torsional vibrations occur as in, for example, internal combustion engines or reciprocating compressors or pump applications, check the coupling for possible development of damaging large amplitude vibrations.

** Add 0.5 to factor if without flywheel.

Chart 2 Size Selection

