

**Service Factors:**

- a. Light, even load — 1
- b. Irregular load without shock, rare reversals of direction - - 1.5
- c. Shock loads, frequent reversals — 2

**Unflex Selection Procedure:**

- a. Select the service factor according to the application.
- b. Multiply the horsepower or torque to be transmitted by the service factor to obtain rating.
- c. Select the coupling With an equivalent or slightly greater horsepower or torque than shown in the table.

**3.4 Miscellaneous Couplings**

This group of couplings incorporate design features which are frequently unique, approximations or combinations of universal, Oldham and flexible shaft couplings.

Two widely used couplings in this category are the Jaw and Sleeve types, both of which are available in the Product Section of our catalog.



Jaw type couplings consist of two metal hubs which are fastened to the input and output shafts. Trapped between the hubs is a Urethane spider whose legs are confined between alternating metal projections from the adjacent hubs. The spider is the wearing member and can be readily replaced without dismantling adjacent equipment. The coupling is capable of operating without lubrication and is unaffected by oil, grease, dirt or moisture. Select the proper size for your application from the table in Figure 10 and the selection instructions.

**Figure 9 Jaw Type Coupling**

**Figure 9 Jaw Type Coupling**

Coupling Series No.	Rated Torque in Lbs.	Service Factor	Horsepower capacity at Varying Speeds (R.P.M.)									
			100	300	400	900	1200	1500	1800	2400	3000	3600
035	3.5	1.0	.0056	.017	.034	.05	.067	.084	.13	.10	.17	2
		1.5	.0037	.011	.023	.033	.045	.056	.087	.067	.113	.13
		2.0	.0028	.009	.017	.25	.033	.043	.065	.05	.025	.10
050	25.2	1.0	.04	.12	.24	.36	.48	.60	.72	.96	1.2	1.44
		1.5	.03	.08	.16	.24	.32	.40	.48	.64	.80	.96
		2.0	.02	.06	.12	.18	.24	.30	.36	.42	.60	.70
070	37.8 37.8	1.0	.06	.18	.36	.54	.72	.90	1.08	1.44	1.8	2.16
		1.5	.04	.12	.24	.36	.48	.60	.72	.96	1.2	1.44
		2.0	.03	.09	.12	.27	.36	.45	.54	.72	.90	1.08
075	75.6	1.0	.12	.36	.72	1.08	1.44	1.80	2.16	2.88	3.6	4.34
		1.5	.08	.24	.48	.72	.96	1.20	1.44	1.92	2.4	2.88
		2.0	.06	.18	.36	.54	.72	.90	1.08	1.44	1.8	2.10
090	126	1.0	.20	.60	1.2	1.8	2.4	3.0	3.6	4.8	6.0	7.2
		1.5	.13	.40	.60	1.2	1.6	2.0	2.4	3.2	4.0	4.8
		2.0	.10	.30	.60	.90	1.2	1.5	1.8	2.4	3.0	3.6

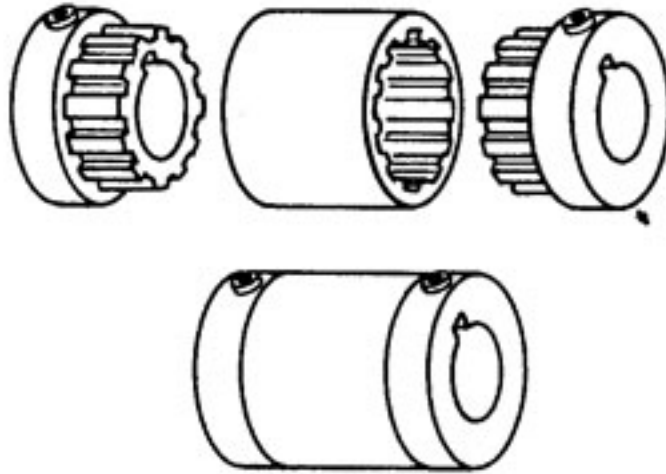
**Service Factors**

- 1.0 \_\_\_\_\_ Even Load No Shock infrequent Reversing with Low Starting Torque
- 1.5 \_\_\_\_\_ Uneven Load Moderate Shock Frequent Reversing with LOW Start Torque
- 2.0 \_\_\_\_\_ Uneven Load Heavy Shock Hi Peak Loads Frequent Reversals with High Start Torque

**Figure 10 Jaw Type Couplings Selection Data**

**Jaw Type Coupling Selection Procedure:**

- a. Select the service factor according to the application.
- b. Multiply the horsepower or torque to be transmitted by the service factor to obtain rating.
- c. Select the coupling with an equivalent or slightly greater horsepower or torque than shown in the table.
- d. Turn to the Product Section page illustrating the same coupling and make your specific selection in that number series.



**Figure 11 Sleeve Type Coupling (Powergrip)**

A sleeve type Coupling consists of two splined hubs with a mating intermediate member of molded neoprene. Because of its construction features, it is capable of normal operation with angular shaft misalignments up to 7.112.

Lubrication is not required. All parts are replaceable without disturbing adjacent equipment provided sufficient shaft length is allowed by slide coupling hubs clear of the sleeve member during disassembly. Select the proper size for your application from table In Figure 12 and follow the selection instructions.

**Sleeve Type Coupling Selection Procedure:**

- a. Determine motor characteristic.
- b. Determine service conditions.
- c. Select the series coupling with an equivalent or slightly greater horsepower than shown in the table.
- d. Turn to Powergrip couplings in the Product Section and select the specific assembly or individual components in that number series.

Other types of couplings are also available and are fully described along with technical specifications in this catalog.

Motor Torque	Motor: Normal Torque								Motor: High Torque							
Service	Normal Duty				Severe Duty				Normal Duty				Severe Duty			
Speed, RPM	3500	1750	1160	870	3500	1750	1160	870	3500	1750	1160	870	3500	1750	1160	870
1/12	11	11	21	21	11	21	21	21	11	21	21	21	11	21	21	21
1/8	11	21	21	21	11	21	21	21	11	21	21	21	21	21	21	31
1/6	11	21	21	21	21	21	21	31	21	21	21	31	21	21	31	
H.P. 1/4	21	21	21	31	21	21	31		21	21	31		21	31		
1/3	21	21	31		21	31			21	31			21			
1/2	21	31			21				21				31			
3/4	21				31				31							
1	31															

Figure 12 Sleeve Type Couplings Selection Data

**SERVICE CONDITIONS**

**Normal Duty**

- speed not exceeding 3600 rpm
- operation less than 10 hours per day
- infrequent stops and starts
- no heavy, pulsating load
- no mechanical or electric clutch

**Severe Duty**

- speeds from 3600 to 5000 rpm
- operation more than 10 hours per day
- frequent starts and stops
- heavy, pulsating load
- mechanical or electric clutch

**DID YOU KNOW?** ...That Sterling and SDP offer the widest selection of off-the-shelf drive components?

<ul style="list-style-type: none"> <li>Bearings</li> <li>Belt Drives</li> <li>Breadboarding Kits</li> <li>Chain Drives</li> <li>Clamps</li> <li>Clutches and Brakes</li> <li>Constant Force Springs</li> <li>Couplings</li> <li>Dials</li> <li>Differentials</li> <li>Fasteners</li> <li>Gearheads</li> </ul>	<ul style="list-style-type: none"> <li>Gear Motors</li> <li>Gears</li> <li>Linear Motion Devices</li> <li>Miniature D.C. Motors</li> <li>Miscellaneous Hardware</li> <li>Motion Control Products</li> <li>Pulleys</li> <li>Right Angle Drives</li> <li>Robotic End Effectors</li> <li>Shafts</li> <li>Speed Reducers</li> <li>Vibration Mounts</li> </ul>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------