

PRIME MOVER	OPERATIONAL HOURS PER DAY	SERVICE FACTORS RELATED TO NATURE OF LOAD AND PRIME MOVER		
		UNIFORM	MODERATE SHOCK	HEAVY SHOCK
Electric Motor	24	1.2	1.5	2.0
	12	1.0	1.2	1.7
	8	0.9	1.1	1.6
	Less than 8	0.8	1.0	1.3
Multi-Cylinder Int. Combustion Engine	24	1.5	1.7	2.2
	12	1.2	1.5	2.0
	8	1.1	1.3	1.9
	Less than 8	0.9	1.2	1.6
Single Cylinder Int. Combustion Engine	24	1.7	2.0	2.5
	12	1.5	1.7	2.2
	8	1.3	1.6	2.1
	Less than 8	1.2	1.4	1.8

APPLICATION	NATURE OF LOAD			APPLICATION	NATURE OF LOAD		
	UNIFORM	MODERATE SHOCK	HEAVY SHOCK		UNIFORM	MODERATE SHOCK	HEAVY SHOCK
<b>AGITATORS</b>				<b>HOISTS</b>			
Pure Liquids	●			Heavy Duty			●
Liquids And Solids		●		Medium Duty		●	
Liquid - Variable Density		●		Skip		●	
<b>BLOWERS</b>				<b>LAUNDRY MACHINES</b>			
Centrifugal	●			Reversing Washers		●	
Roots		●		Tumblers		●	
<b>BREWING &amp; DISTILLING</b>				<b>MILLS</b>			
Bottling Machinery	●			Hammer			●
Can Filling Machines	●			Tumblers			●
<b>CLAY WORKING MACHINERY</b>				<b>PAPER MILLS</b>			
Brick Press			●	Bleachers	●		
Briquette Machines			●	Beater & Pulper		●	
<b>CONVEYORS</b>				Loghaul			●
Belt, Bucket or Chain	●			<b>PUMPS</b>			
Reciprocating		●		Centrifugal	●		
<b>CRANES</b>				Gear	●		
Main Hoists	●			Reciprocating (3 or more cyl.)		●	
<b>CRUSHERS</b>				Reciprocating (1 or 2 cyl.)			●
Ore and Stone			●	<b>RUBBER &amp; PLASTICS</b>			
<b>ELEVATORS</b>				Mixing Mills			●
Escalators	●			Laboratory Equipment		●	
Freight		●		Masticator			●
<b>FEEDERS</b>				<b>SCREENS</b>			
Reciprocating			●	Rotary - Stone or Gravel		●	
Screw		●		Vibrating			●
<b>FOOD INDUSTRY</b>				<b>TEXTILES</b>			
Dough Mixer		●		Cards, Dryers, Looms		●	
Grinder		●					

NOTE : Certain applications outside those listed above may necessitate special consideration. In such cases refer to, Utkarsh. For higher speeds, couplings are required in Cast-steel only. Any couplings with Steel construction are also available on request.

### USEFUL EQUATIONS

$\text{TORQUE Nm} = \frac{3000 \times \text{KW}}{3.1416 (\pi) \times \text{RPM}}$	MULTIPLY	BY	TO OBTAIN
	FOOT-LBS	1.3558	NEWTON-METER (Nm)
	KILOGRAM-METER (Kg-m)	9.8066	NEWTON-METER (Nm)
	HORSEPOWER (UK)	0.746	KILOWATTS (KW)
	HORSEPOWER (METRIC)	0.7355	KILOWATTS (KW)

### Guide lines for selection

1. Service Factor :- Determine service factor from application table.
2. Design Power :- Multiply running power of driven Machinery by the service factor.
3. Coupling Size :- Refer selection chart for your required coupling so that rating is equal or greater than design power.
4. If RPM is different than available in the charts then, torque should be calculated from the equation above and coupling should be selected with rated torque exceeding the calculated torque.
5. Bore size : Refer related coupling dimensional table to check that the required bores can be accommodated. If not select the higher size which will accommodate the shaft sizes.