COUPLING SELECTION (APPLICATION CLASSIFICATION TABLES)

DELTA ROTATING SOLUTIONS

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

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

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

$$\text{TORQUE Nm} = \frac{30000 \times \text{kW}}{3.1416\ (\text{TT}) \times \text{rpm}}$$

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

Service Factor : Determine service factor from application table. ● Design Power : Multiply running power of driven machinery by the service factor. ● Coupling Size : Refer selection chart for your required coupling so that rating is equal or greater than design power. ● If speed 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. ● 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 size.

DRS couplings have a wide range of working temperature applications
Following are the guidelines for choosing the suitable elastomer material for your machine

Sr. No.	Elastomer Material	Temperature Range	Chemical Resistance	Hardiness available
1	Natural Rubber (NR)	-50° to 70° C	Water, moisture, alkalis	80° & 92° Shore A
2	NBR (Syn. Rubber Heat Resistant)	-40° to 100° C	Water, petro oils, Aromatic oils, dilute acids, alcohol	92° & 98° Shore A
3	EPDM (Syn. Rubber)	-50° to 125° C	Water, acids, caustics, ketones, alcohol, esters	80° Shore A
4	Polyurethane	-30° to 70° C	Dilute acids, halogenated hydrocarbons, oils	92° & 98° Shore A
5	Stainless steel	up to 500° C	Acids, petrochemicals	n. a.