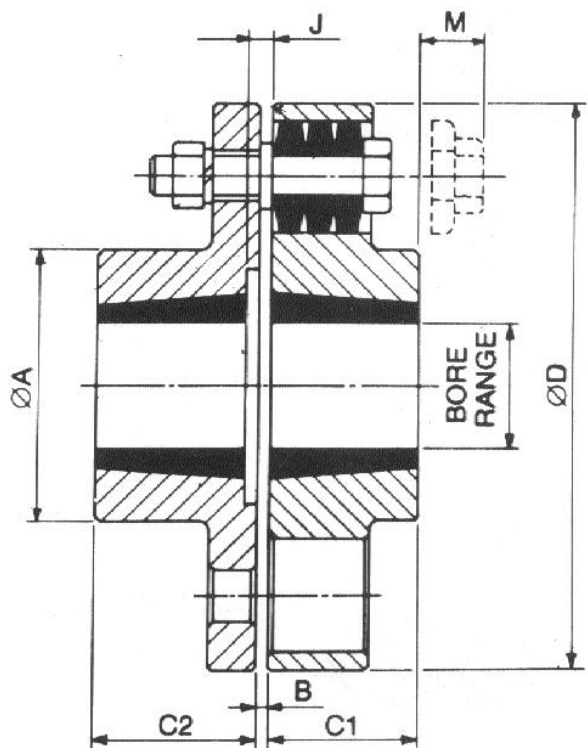


Cone Ring High Torque Couplings



TYPE - RCT

Cone ring high torque couplings consist of pairs of cast iron flanged discs, one half fitted with a number of steel studs upon which are mounted cone shaped synthetic rubber discs, which engage in clearance bored holes in the opposite half. Both halves are bored to accept standard taperlock bushes.

Cone ring couplings will allow for slight shaft misalignment, expansion and end float of shafts and will absorb impulses and vibrations, thus completely insulating the driving and driven machine. The pins and cone rings are replaceable.

Size	K/W 100rpm	Torque N/M	Max RPM	Bush Size	Bore Range	D	A	C1	C2	M	J	Weight Kgs	Inertia Kg/m ²
042	2.84	269	4000	1215	12-32	146	70	38	41	23	6	5.5	.013
048	4.93	467	3400	1615	16-42	171	81	38	41	28	6	9	.032
058	7.54	721	3020	2017	18-50	193	97	45	47	9	6	13	.053
070	14.40	1024	2700	2525	19-60	216	117	64	68	2	7	18.1	.088

Check Shaft Sizes

Compare the shaft sizes of driving and driven equipment with listed maximum bores for the type of coupling required, and note the standard Catalogue Rating for one of adequate bore size to fit the maximum diameter.

Compute the Minimum Coupling Rating Required

(a) Select a Coupling Service Factor (Fs) from the table.

(b) Determine the equivalent Coupling Kilowatts Rating as follows:

$$\text{kW per 100 r.p.m.} = \frac{\text{Actual kW Load} \times 100 \times F_s}{\text{r.p.m. of Coupling}}$$

or alternatively:-

(c) Determine equivalent Coupling Torque Rating as follows:

$$\text{Torque (kNm)} = \frac{\text{Actual kW Load} \times 9.54 \times F_s}{\text{r.p.m. of Coupling}}$$

(d) Confirm that a Coupling of suitable minimum bore size for the application has a Catalogue Rating equaling or exceeding the equivalent rating, or else increase the selection to a size that has such a rating.

NOTE: Standard Couplings can withstand occasional momentary Peak Loads up to twice their normal rated capacity. This usually caters for starting conditions etc.

(e) Maximum Speed - The Coupling particulars given, list the maximum permissible rpm. for its material and/or state of balance. Where the application speed exceeds this, refer to our Sales Department.

(f) Service Factors - To Offset the effect of dynamic torque fluctuations associated with various types of drive, select from the table - Coupling Service Factor (Fs). Examples given are for general guidance, and for cases not mentioned, the characteristics of the drive being considered should be compared with those listed. When a choice is doubtful between two classifications of loading, use the higher of the two service factors.

For very unusual or high loads not readily comparable to the table, obtain advice from our Sales Department.

The Standard Catalogue Rating of the Coupling at its operating speed must not be less than the normal load imposed by the driven machine multiplied by the value of Coupling Service Factor (Fs) appropriate for the driven equipment and its associated prime-mover.

Service Factor (Fs) for Electric Motor or Turbine Prime-movers

LOAD RATING	APPLICATION Drive Machine		SERVICE FACTOR (Fs)
UNIFORM	Centrifugal Pumps (even loading) Rotary Compressors (even loading) Conveyors & Elevators (even loading) Exciters	Fans & Blowers - light duty Generators (even loading) Mixers Liquid (constant density)	1.0
LIGHT SHOCK	Screens Textile Machines Agitators Centrifugal Pumps (fluctuating load) Rotary Compressors (fluctuating load) Conveyors & Elevators (unevenly fed) Cranes - Light/medium duty Fans & Blowers (heavy duty) Feeders - conveyor or rotary	Generators (pulsating load) Kilns (small to medium) Line Shafts Machine Tools Mixers (variable density) Pumps (geared & vane) Pumps (hydraulic) Woodworking Machinery	1.5
MODERATE SHOCK	Air Compressors (multi-cylinder) Ball & Rod Mills Cement Mills Copper & Brass Rolling Mills Cranes (heavy duty) Hoists & Haulage (medium duty) Kilns (large & heavy duty) Paper Mill Equipment	Punch & Forming Presses Plunger Pumps (multi-cylinder) Reciprocating Pumps Shears & Guillotines Ship Propulsion Sugar Crushing Rolls Shuttle Conveyor Welding Generators	2.0
HEAVY SHOCK	Cane Shredders Hammer Mills Hoists & Haulage (heavy duty) Mining Machinery Rubber Industry Equipment -Rubber Mixers & Crackers -Rubber Mills	Saw Mill Equipment Air Compressors (single drive) Dredge Drives Drilling Rigs Plunger Drives (single cylinder) Rolling Mills Tube Mills	2.5
EXTREME	Conveyors & Feeders (reciprocating, shaking, vibrating) Crushers - ore & stone	Steels Shears & Croppers, Bar Stock Steel Making, Heavy Duty Cranes & Hoists	3.0