

PIN & BUSH COUPLING

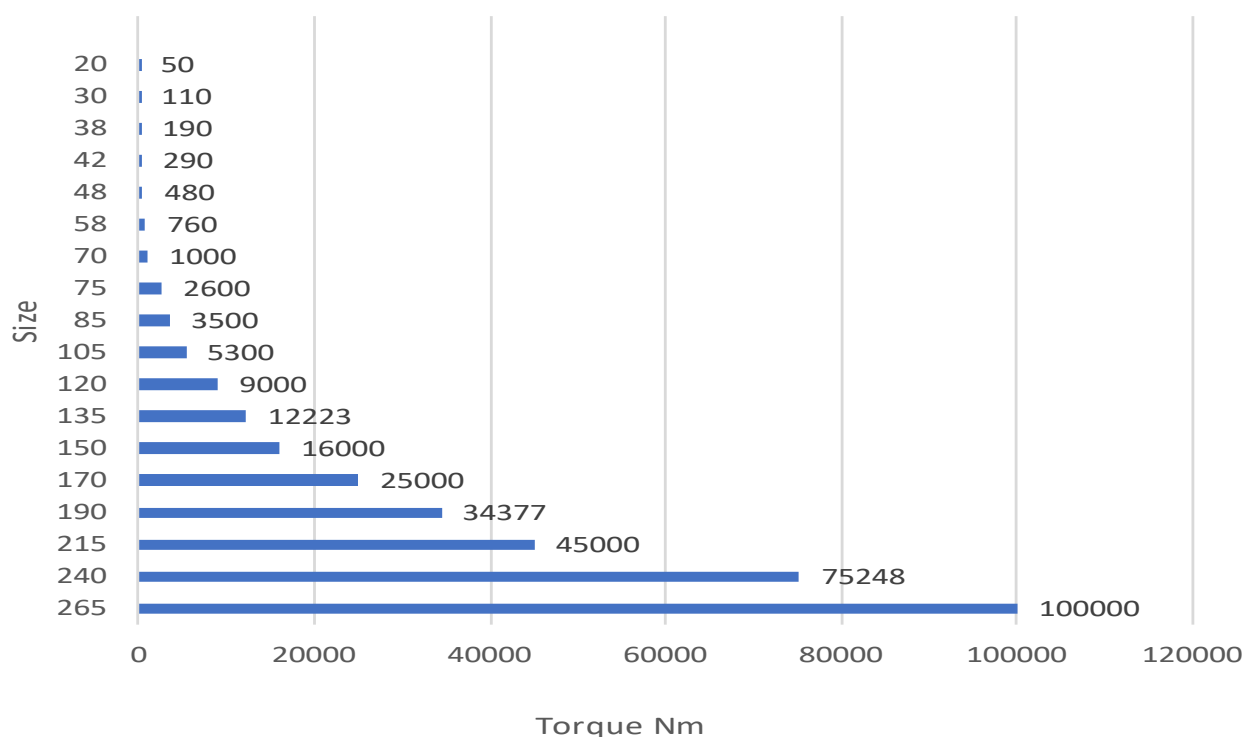
Cone Ring Couplings are based on a time proven design. The coupling consists of two flanges interlocked with a number of elements, depending on the coupling size.

The Cone Ring Couplings unique flexible element comprises tapered rubber rings mounted on steel pins. The rubber rings absorb commonly encountered misalignment, shock and vibration.

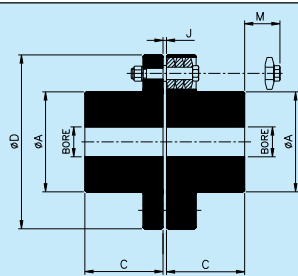
The Cone Ring Couplings is as popular as ever for its ease of maintenance. No Lubrication is required. The Pin and Rubber design ensures trouble free maintenance, as they can be removed and changed without the need to take the coupling off the shafts. The flanges are high-grade cast iron; the pins are hexagonal steel bar; the rings are synthetic rubber.



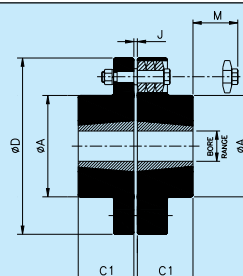
Maximum Output Torque



Pin & Bush Coupling



TYPE - RC



TYPE - RCT

TECHNICAL DATA

Coupling Type	Size	Torque Nm	"kW at 100 RPM"	Max. Speed RPM	RC		RCT			Dimensions							Wt. in Kg. (Min. Bore)		M.I. (WR ²) Kg.m ² (Min. Bore)	
					Min. Bore	Max. Bore	Min. Bore	Max. Bore	Bush Size	ØD	ØA	C	C1	RC M	RCT M	J	RC	RCT	RC	RCT
RC	020	50	0.56	6500	12	22	-	-	-	89	35	33	-	30	-	3	1.8	-	0.0020	-
	030	110	1.2	5470	12	32	-	-	-	127	51	41	-	28	-	3	3.5	-	0.0070	-
	038	190	2	5260	15	40	-	-	-	132	64	48	-	22	-	3	4.9	-	0.009	-
RC/ RCT	042	290	3	4750	15	44	12	32	1215	146	70	56	38	14	32	3	6.3	5.42	0.013	0.012
	048	480	5	4050	21	52	16	42	1615	171	81	61	38	28	52	3	10.4	8.88	0.034	0.031
	058	760	8	3600	21	62	14	50	2017	193	97	68	45	24	52	3	14.2	13	0.055	0.053
	070	1000	11	3220	21	74	19	60	2525	216	117	76	63.5	23	28	3	19.8	17.78	0.092	0.086
	075	2600	27	2730	28	80	16	60	2525	254	127	88	64	50	28	3	36.9	35.2	0.269	0.27
	085	3500	37	2480	28	92	35	75	3030	279	147	100	76	38	60	3	48.5	43.6	0.408	0.380
	105	5300	56	2100	34	114	35	90	3535	330	180	117	89	25	54	3	76.4	71.4	0.832	0.76
	120	9000	94	1880	61	130	40	100	4040	370	206	132	102	48	78	6	121	107	1.811	1.7
	135	12223	128	1660	67	144	55	110	4545	419	230	147	114.3	35	68	6	163	142.8	2.998	2.84
	150	16000	167	1520	82	160	70	125	5050	457	256	165	127	16	55	6	209	179.1	4.397	4.02
RC	170	25000	262	1300	96	184	-	-	-	533	292	188	-	48	-	6	305	-	9.998	-
	190	34377	360	1170	122	206	-	-	-	597	330	211	-	28	-	6	397	-	15.90	-
	215	45000	471	1050	135	230	-	-	-	660	368	237	-	10	-	6	508	-	24.950	-
	240	75248	788	800	152	254	-	-	-	737	407	264	-	43	-	6	736	-	45.40	-
	265	100000	1047	700	165	286	-	-	-	826	457	292	-	15	-	6	976	-	76.850	-

Notes : ● Maintain gap B at the time of assembly

- B = 3 mm for size 020 to 105
- = 6 mm for size 120 to 265

For detail information about Taper Bush bore, please refer Taper Bush catalogue.

- For vertical installation contact RATHI.

● BH = BUSH HALF (DRIVEN)

● PH = PIN HALF (DRIVE)

SPARE PARTS

Type RC			Type RCT				Pins and Nuts			Cone Rings	
Size	Pin Half Part No.	Bush Half Part No.	Size	Bush Size	Pin Half Part No.	Bush Half Part No.	Pin Part No.	Nut Size	No/per Coupling	Part No.	No/per Coupling
RC - 020	RC - 020 / 1	RC - 020/2	—	—	—	—	GC 3/4" /3/5	M 8	6	GC 3/4" /4	18
RC - 030	RC - 030 / 1	RC - 030/2	—	—	—	—	GC 1" /3/5	M 10	4	GC 1" /4	12
RC - 038	RC - 038 / 1	RC - 038/2	—	—	—	—			6		18
RC - 042	RC - 042 / 1	RC - 042/2	RCT - 042	1215	RCT - 042/ 1	RCT - 042/2			8		24
RC - 048	RC - 048 / 1	RC - 048/2	RCT - 048	1615	RCT - 048/ 1	RCT - 048/2	GC 1 3/4" /3/5	M 12	6	GC 1 3/4" /4	18
RC - 058	RC - 058 / 1	RC - 058/2	RCT - 058	2017	RCT - 058/ 1	RCT - 058/2			8		24
RC - 070	RC - 070 / 1	RC - 070/2	RCT - 070	2525	RCT - 070/ 1	RCT - 070/2			10		30
RC - 075	RC - 075 / 1	RC - 075/2	—	—	—	—	GC 2 3/4" /3/5	M 20	8	GC 2 3/4" /4	32
RC - 085	RC - 085 / 1	RC - 085/2	RCT - 085	3030	RCT - 085/ 1	RCT - 085/2			10		40
RC - 105	RC - 105 / 1	RC - 105/2	RCT - 105	3535	RCT - 105/ 1	RCT - 105/2			12		48
RC - 120	RC - 120 / 1	RC - 120/2	RCT - 120	4040	RCT - 120/ 1	RCT - 120/2	GC 4 1/4" /3/5	M 24	10	GC 4 1/4" /4	40
RC - 135	RC - 135 / 1	RC - 135/2	RCT - 135	4545	RCT - 135/ 1	RCT - 135/2			12		48
RC - 150	RC - 150 / 1	RC - 150/2	RCT - 150	5050	RCT - 150/ 1	RCT - 150/2			14		56
RC - 170	RC - 170 / 1	RC - 170/2	—	—	—	—	GC 6 1/4" /3/5	M 36	10	GC 6 1/4" /4	40
RC - 190	RC - 190 / 1	RC - 190/2	—	—	—	—			12		48
RC - 215	RC - 215 / 1	RC - 215/2	—	—	—	—			14		56
RC - 240	RC - 240 / 1	RC - 240/2	—	—	—	—	GC 9" /3/5	M 48	12	GC 9" /4	48
RC - 265	RC - 265 / 1	RC - 265/2	—	—	—	—			14		56

Pin & Bush Coupling

SIMPLE & EASY MAINTENANCE:

No complicated mechanism to demand adjustment or maintenance. Inspection and replacement of "Cone-Flex" rings are easy and can be quickly fitted without dismantling or moving either of coupled shafts.

LOW OPERATIONAL COST:

Only wear part is low cost "Cone-Flex" rings make the coupling economical in long run.

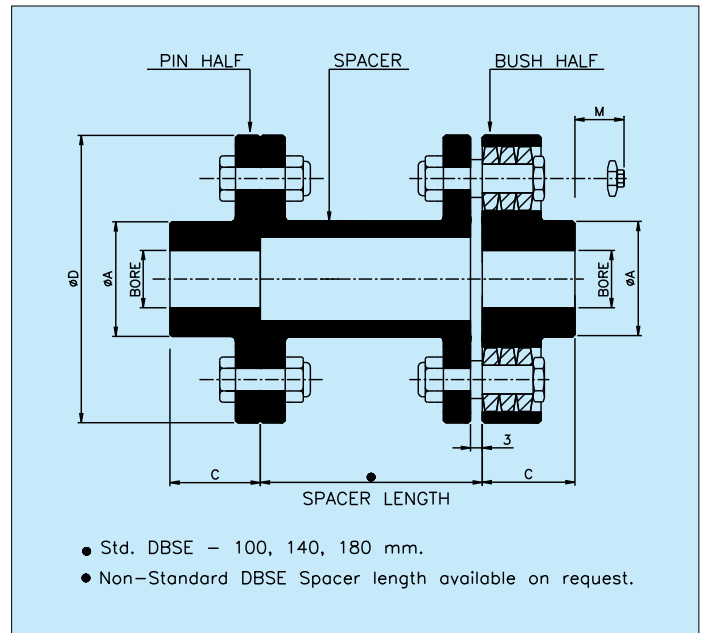
SMOOTH & QUIET OPERATION:

Reduces vibrations and noise arising from severe torque fluctuations.

"Cone-Flex" couplings are suitable in ambient temperature up to 70° C.

UNMATCHED SIMPLICITY :

Easy to assemble & disassemble. With pins removed, the equipment can run independently for no load. Flanged hub can be withdrawn upwards without disturbing original alignment.



NO LUBRICATION :

"Cone-Flex" couplings do not require lubrication of any kind whatsoever.

SIZE AND COST :

High torque capacity for compact size and low weight.

TECHNICAL DATA

Coupling Size	Torque Nm	kW at 100 rpm	Max. Speed rpm	Bore		Dimensions			
				Min.	Max.	ϕA	C	ϕD	M
RCS – 020	50	0.56	6500	12	20	35	33	89	30
RCS – 030	110	1.2	5470	12	30	51	41	127	28
RCS – 038	190	2	5260	15	38	64	48	132	22
RCS – 042	290	3	4750	15	42	70	56	146	14
RCS – 048	480	5	4050	21	48	82	61	171	28
RCS – 058	760	8	3600	21	58	97	68	193	24
RCS – 070	1000	11	3220	21	70	117	76	216	23

- All dimensions are in mm unless otherwise specified.
- For vertical installation contact RATHI.

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Pin & Bush Coupling

SELECTION

1. From the Service Factors table (see below) determine the Service Factor.
2. Calculate the Design Power by multiplying the Absorbed Power of the driven machine by the Service Factor.
3. Determine the size of coupling required by matching the design power to a power rating that matches or exceeds the Design Power.

Pilot Bore Flanges accommodate larger shaft sizes than Taper Bore Flanges.

The pin half is normally mounted on the drive shaft.



Application	Service Factor				
DRIVEN MACHINE	Electric Motor Steam Turbine Shafting	Steam Engine Water Turbine	IC Engine MultiCylinder	IC Engine Single Cylinder Diesel MultiCylinder	Diesel Engine Single Cylinder
Heavy Rolling Mill Drives; Continuous, Prolonged & Reversing Drives; Severe Traction and Haulage Loads.	2.25	2.50	2.75	3.50	3.75
Single Crank Compressors & Pumps; Hammers; Ball & Tube Mill; Rolling Mills (light) ; Shearing Machines; Punches; Rock & Stone Crushers; Brick Making and similar Machines; Printing Presses (large); Grinders; Pulverizes; Cranes & Winches; Mechanical Shovels & Dredges; Winding Gears and Drums.	2.00	2.25	2.50	3.25	3.50
Wire Mills; Cement Mills; Small Printing Presses.	1.75	2.00	2.25	3.00	3.25
Multi-Crank Compressors and Pumps; Generators (fluctuating loads); Rotary Dryers & Screens; Rotary Compressors; Planers; Wood – Working Machines (heavy); Pulp Grinders; Shakers; Mine Fans	1.50	1.75	2.00	2.75	3.00
Machine Tools (light); Beaters; Exhausters; Wood – Working Machines (light); Alternators; Welding Generators; Textile Machines.	1.25	1.50	1.75	2.25	2.75
Even Torque Machines; Smooth Loads, Generators; Centrifugal Pumps; Blower; Small Fans; Line Shafting.	1.00	1.25	1.50	2.00	2.50