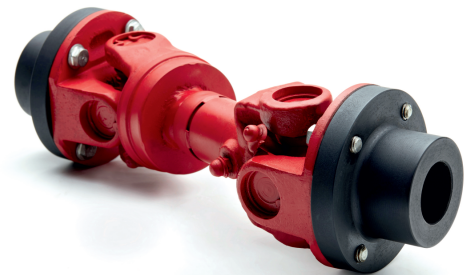
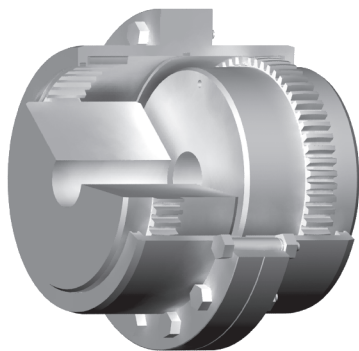
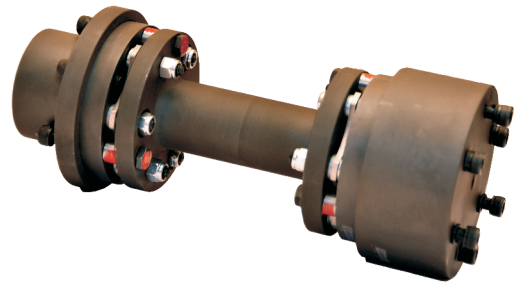


METALLIC COUPLINGS





DISC-O-FLEX COUPLINGS



Disc-O-Flex couplings are fully metallic couplings, consisting of two hubs, one centre spacer member, two sets of stainless steel rivetted element blades bolted together with high tensile bolts. Replacement of rivetted discpack is easy, simple and is possible without disturbing drive or driven equipment.

FEATURES

- High power - to - weight ratio.
- No wearing parts, no lubrication required.
- Easy installation with 'Drop Out' spacer.
- Accommodates angular, parallel and axial misalignments.
- Non stainless steel parts coated with a durable anticorrosive coating.
- High temperature application.
- Visual inspection possible without disassembling equipment from foundation.
- Inherently balanced.
- High torsional rigidity with low axial stiffness.
- Special options including spacer lengths, modified hubs, special materials are available.
- Floating shaft/cooling tower couplings are available.
- Backlash free.
- High speed capability.
- Dynamic balancing to customer specifications.
- Machined to high precision standards.
- Lightweight couplings.

Disc-O-Flex couplings are available in RLM, REM series.

TYPE - RLM

- Rivetted discpack for better performance
- Suitable for power transmission in drives in hazardous areas.

TYPE - REM

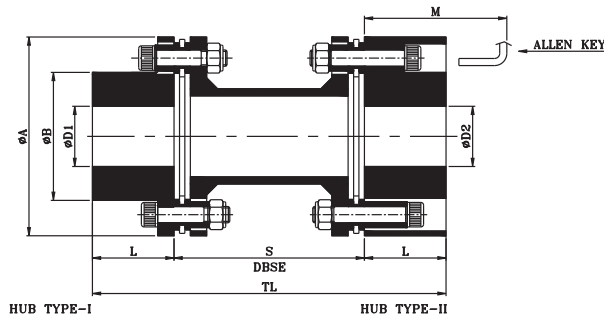
- Rivetted discpack for better performance
- Suitable for power transmission in drives in hazardous areas.
- Specially suitable for petrochemical & fertilizer industries.
- API-610 / API-671 compliance available on request.
- Coupling with anti-flail spacer.

SELECTION PROCEDURE

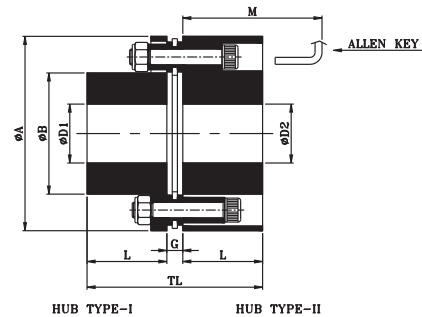
- 1) Select an appropriate **SERVICE FACTOR** from table given below.
- 2) Multiply the rated running power by the service factor. This gives **DESIGN POWER** at rated speed (rpm). Now convert this to design power at 100 rpm. This is used as a basis for coupling selection.
- 3) Refer to the rating column and read until the power greater than or equal to the design power at 100 rpm is found. The size of the Disc-O-Flex coupling is given in the corresponding first column.
- 4) Select either standard type I or type II hubs to suit shaft sizes.
Select either Type III or Type IV hub in type REM for larger bore sizes.
- 5) Specify the distance between shaft ends (DBSE).

SERVICE FACTORS

Duty	Prime Mover		
	Electric Motor Steam or Gas Turbine	Steam Engine or Water Turbine	Gas or Oil Engine
Constant Torque e.g. centrifugal pumps, compressor, light conveyors, alternators & light fans.	1.0	1.5	3.0
Slight Torque Fluctuations e.g. machine tools, screw compressors, screw pumps, liquid ring compressors & rotary dryers.	1.5	2.0	3.0
Substantial Torque Fluctuations e.g. reciprocating pumps, low viscosity mixers, cranes & winches.	2.0	2.5	4.0
Exceptionally High Torque Fluctuations e.g. rotary presses, reciprocating compressors, high viscosity mixers & marine propellers.	3.0	3.5	5.0



TYPE - RLM



TYPE - RLMK

TECHNICAL DATA RLM

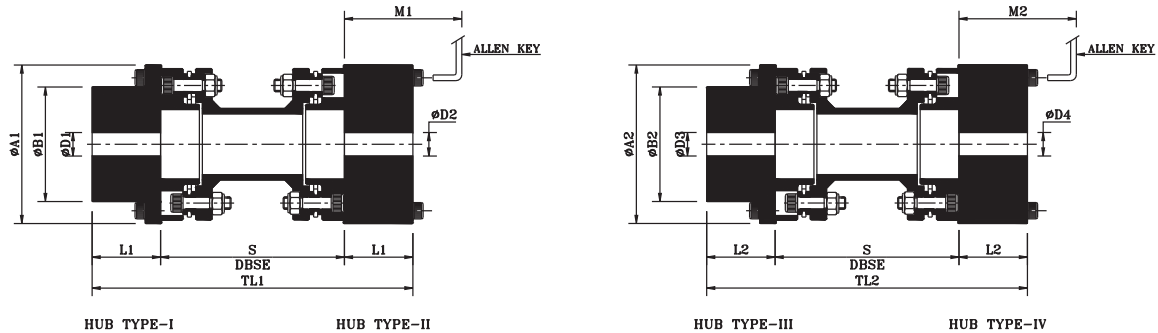
Coup. Size	kW at 100 rpm	Torque Nm	Max. Speed RPM	Bore			Min. DBSE 'S'	ØA	ØB	L	STD DBSE 'S'	TL (STD DBSE)	M	Weight in Kg Approx.		M.I. (MR2) in Kg. m2 Approx		Tors. Stiff. MNm/rad Approx.
				Min. ØD1 & ØD2	Max. ØD1 Type I	Max. ØD2 Type II								Min. DBSE 'S'	Per Mtr. Extra 'S'	Min. DBSE 'S'	Per Mtr. Extra 'S'	
10	1.0	96	7500	10	22	25	54	63	35	30	100, 140	160, 200	75	1.3	2.3	0.0006	0.0004	0.021
35	2.4	232	7000	12	30	38	54	82	45	40	100	180, 220, 260	85	2.3	3.2	0.0021	0.0011	0.047
95	6.5	618	6000	17	40	50	66	102	57	45	140,	190, 230, 270	95	4.7	6.0	0.0062	0.0017	0.100
170	12.6	1204	5200	17	52	70	78	128	77	55	180	210, 250, 290	110	8.0	7.0	0.0180	0.0047	0.222
220	20	1912	4800	22	65	80	88	146	94	60		220, 260, 300	120	11.4	8.4	0.0350	0.0088	0.381
400	36.3	3463	4400	27	80	100	102	176	115	70	140, 180	280, 320	140	19.5	13.1	0.0850	0.021	0.773
520	58.5	5583	4200	32	90	115	114	197	132	90	140, 180,	320, 360, 430	175	29.3	21.7	0.1678	0.056	0.962
1000	74.2	7084	4000	42	105	130	132	225	147	95	250	330, 370, 440	185	42.1	21.7	0.3098	0.056	1.529
1300	108.7	10383	3800	47	115	140	144	250	162	105	180,	390, 460, 510	195	61.0	27.1	0.5328	0.067	1.892
2000	152.2	14536	3700	52	120	155	168	275	178	115	250	410, 480, 530	215	81.7	42.8	0.8610	0.167	2.454
2500	196	18714	3600	62	135	165	170	300	190	130	300	440, 510, 560	235	106.9	42.8	1.3580	0.167	3.783

TECHNICAL DATA - RLMK

Coup. Size	kW at 100 rpm	Torque Nm	Max. Speed RPM	Bore			ØA	ØB	L	DBSE 'G'	TL (STD DBSE)	M	Weight in Kg Approx.	M.I. (MR2) in Kg. m2 Approx	Tors. Stiff. MNm/rad Approx.	Max. Mis-alignment	
				Min. ØD1 & ØD2	Max. ØD1 Type I	Max. ØD2 Type II										Axial (mm)	Angular / disc pack (Deg)
10	1.00	96	7500	10	22	25	63	35	30	6.5	66.5	75	0.9	0.00047	0.041	±1	0.75°
35	2.40	232	7000	12	30	38	82	45	40	6.5	86.5	85	1.8	0.0017	0.093		
95	6.5	618	6000	17	40	50	102	57	45	8	98	95	3.2	0.0082	0.248		
170	12.6	1204	5200	17	52	70	128	77	55	9.5	119.5	110	5.8	0.0143	0.529		
220	20	1912	4800	22	65	80	146	94	60	12	132	120	8.5	0.0263	0.895		
400	36.3	3463	4400	27	80	100	176	115	70	13	153	140	14.0	0.0640	1.665		
520	58.5	5583	4200	32	90	115	197	132	90	14.4	194.5	175	22.2	0.1320	2.393	±2	ON REQUEST
1000	74.2	7084	4000	42	105	130	225	147	95	16.2	206.1	185	30.5	0.2311	3.490		
1300	108.7	10383	3800	47	115	140	250	162	105	19.5	229.4	195	42.7	0.3945			
2000	152.2	14536	3700	52	120	155	275	178	115	21.5	251.5	215	57.3	0.6350			
2500	196	18714	3600	62	135	165	300	190	130	23.5	283.6	235	76.1	1.0050			

Notes

- All dimensions are in mm, unless otherwise specified.
- For vertical installation contact RATHI.
- Special DBSE available on request.
- Please specify type of hubs (I, II combination)
- Weight, M.I. & stiffness are at max. bores with min. std DBSE & with I/II hub combination.
- Available for non-sparking applications on request.
- Coupling with sizes higher than 2500 available on request.
- 'M' is for hub type II only.
- MAX. MIS-ALIGNMENTS ARE AS FOLLOWS.
AXIAL : FOR SIZE 10 TO 400 : ±1MM & FOR SIZE 520 TO 2500 : ±2MM
ANGULAR / DISC PACK : 0.75°
RADIAL / PARALLEL : 0.013 MM X DBSE
- For RLMK series, hub combinations of I/I & I/II are only available.
- For RLMK couplings, parallel misalignment is zero.



TECHNICAL DATA

Coup. Size	kW at 100 rpm	Tor- que Nm	Max. Speed RPM	Bore								Min. DBSE 'S'	A1	A2	B1	B2	L1	L2	STD DBSE	TL1 (STD DBSE)	TL2 (STD DBSE)	M1	M2	Weight in Kg Approx.		M.I. (MR2) in Kg. m2 Approx		Tors. Stiff. MNm/rad Approx.
				Min.				Max.																Min. DBSE 'S'	Per Mtr. Extra 'S'	Min. DBSE 'S'	Per Mtr. Extra 'S'	
				D1 & D2 (Type I/II)	D3 & D4 (Type I/II)	D1 (Type I)	D2 (Type II)	D3 (Type III)	D4 (Type IV)																			
8	1.00	96	7500	8	10	24	42	38	48	80	69	90	40	55	30	40	100	160, 200, 240	180, 220, 260	80	90	2	1.32	0.0012	0.0002	0.018		
25	2.40	232	7000	10	15	38	48	48	72	89	90	108	55	70	40	45	140, 180	180, 220, 260	190, 230, 270	90	105	4	2.29	0.0039	0.0006	0.043		
65	6.5	618	6000	15	20	48	72	65	92	103	108	135	70	86	45	55	140	230, 270, 340	250, 290, 360	105	120	9	3.19	0.0094	0.0011	0.100		
125	12.6	1204	5200	20	25	65	92	80	102	128	135	152	86	108	55	60	180, 250	250, 290, 360	260, 300, 370	120	125	16	4.74	0.0283	0.0034	0.232		
165	20.0	1912	4800	25	30	80	102	90	120	148	152	182	108	130	60	70	180	300, 370	320, 390	125	135	22	8.38	0.0604	0.0088	0.395		
370	36.3	3463	4400	30	45	90	120	108	140	161	182	197	130	158	70	90		320, 390	360, 430	135	155	33	13.08	0.1410	0.0213	0.749		
390	58.5	5583	4200	45	55	108	140	127	155	175	197	225	158	181	90	95	250	360, 430	370, 440	155	160	49	21.72	0.3650	0.0561	1.239		
790	74.2	7084	4000	55	65	127	155	140	178	180	225	250	181	206	95	105		370, 440	390, 460	160	170	61	21.72	0.4181	0.0561	1.649		
1025	108.7	10383	3800	65	70	140	178	155	192	194	250	275	206	223	105	115	250	460	480	170	190	83	27.06	0.7067	0.0670	2.179		
1425	152.2	14536	3700	70	75	155	192	170	212	213	275	300	223	248	115	130		480	510	190	215	105	42.79	1.1340	0.1666	3.350		
1880	196.0	18714	3600	75	80	170	212	190	255	225	300	375	248	280	130	145	250	510	540	215	245	136	42.79	1.7740	0.1666	4.271		

Notes

- * All dimensions are in mm. Unless otherwise specified.
- * For vertical installation contact RATHI.
- * Non Standard DBSE available on request.
- * Please specify type of hubs (I, II, III, IV combination)
- * Weight, M.I. & stiffness are at max. bores with min. std DBSE with one I/II hub combination.
- * Available for non-sparking applications on request.
- * Min. Bores specified are for hub type I/II, for hub type III/IV consult Rathi.
- * Coupling with taper bush also available on request.
- * Coupling with sizes higher than 1880 available on request.
- * M1 is applicable for hub type II. M2 is applicable for hub type IV.
- * MAX. MIS-ALIGNMENTS ARE AS FOLLOWS
AXIAL : FOR SIZE 8 TO 370 : ±1MM & FOR SIZE 390 TO 1880 : ±2MM
ANGULAR / DISC PACK : 0.75°
RADIAL / PARALLEL : 0.013 MM X DBSE

Selection Procedure:

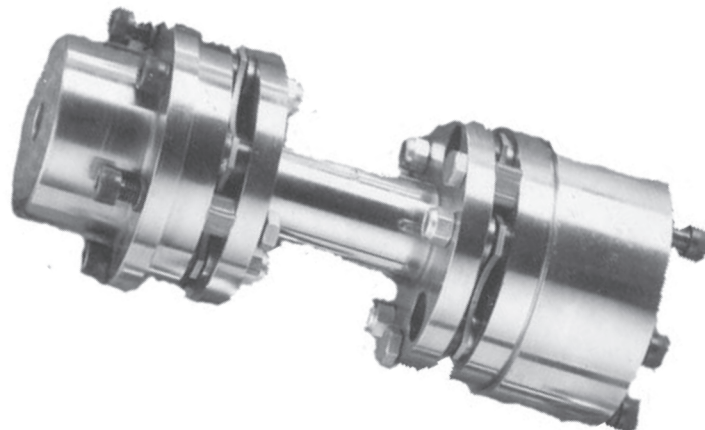
- 1 Select an appropriate SERVICE FACTOR from table given below.
- 2 Multiply the rated running power by the service factor. This gives DESIGN POWER at rated speed (rpm).
- 3 Now convert this to design power at 1000 rpm. This is used as a basis for coupling selection.
- 4 Refer to the rating column and read until the power greater than or equal to the design power at 1000 rpm is found. The size of the coupling is given in the corresponding first column.
- 5 Select either standard type I or type II hubs to suit shaft sizes.
- 6 Specify the distance between shaft ends (DBSE)

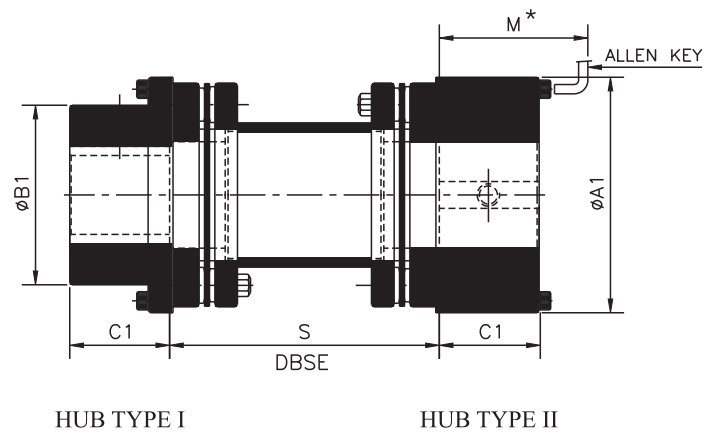
Service Factor :

Suggested service factors for electric motor, steam turbine, and gas turbine drivers are given below:

Duty		Service Factor
Constant Torque	Centrifugal Pump, Centrifugal Compressor Axial Compressor Centrifugal Blower	1.0*
Slight Torque Fluctuation	Screw Compressor Gear, Lobe and Vane Pumps Forced Draft Fan Medium Duty Mixer Lobe Blower	1.5
Substantial Torque Fluctuation	Reciprocating Pumps, Heavy Duty Mixers Induced Draft Fans	2.0

* Use a minimum service factor of 1.25 on electric motor drives through a gearbox.





TECHNICAL DATA

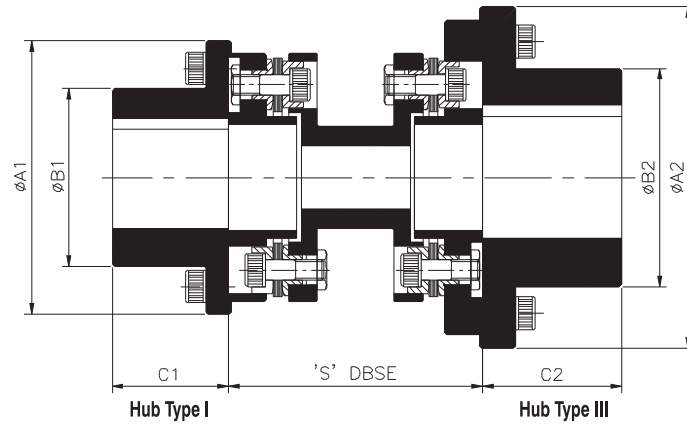
Coupling Size	Rating kW at 1000 rpm	Max. Continuous Torque Nm	Peak Overload Torque Nm	Max. rpm	Weight Transmission Unit		Weight Unbored Hubs - Kg	
					Std.	Extra DBSE kg/m	Hub I	Hub II
13	13	124	310	25500	1.5	3.1	1.0	1.9
33	33	315	790	20000	3.0	5.0	1.4	3.1
75	75	716	1790	16500	5.6	6.5	3.6	5.8
135	135	1289	3220	14400	9.3	10.5	5.9	8.7
230	230	2196	5490	12000	14.0	13.0	9.0	14.0
350	350	3342	8360	10500	18.7	22.0	16.4	-
500	500	4775	11940	9500	25.6	22.0	21.0	-
740	740	7066	17670	8000	34.2	27.5	30.0	-
930	930	8881	22200	7000	44.0	40.0	38.0	-
1400	1400	13369	33400	6000	54.0	40.0	52.1	-

- Note that for the complete coupling, weights of two appropriate hubs plus a transmission unit are required.

TECHNICAL DATA

Coupling Size	Max. Bore		DBSE 'S min'	Std. DBSE 'S'	C1	ØA1	ØB1	M *
	Type I	Type II						
13	36	51	75	100	40	86	54	90
33	46	70	90	140	45	105	69	105
75	65	90	107	180	55	130	90	120
135	80	102	127	140	62	152	112	127
230	90	121	133	180	70	179	131	135
350	115	-	139	250	90	197	163	-
500	127	-	141	180 250	95	222	181	-
740	140	-	143		107	247	206	-
930	155	-	155		115	272	223	-
1400	172	-	175		130	297	248	-

- Notes:-**
- Non Standard DBSE available on request.
 - Available for non-sparking application on request.
 - Please specify type of Hub.
 - * 'M' is only for hub type II.
 - For vertical installation contact RATHI.



TECHNICAL DATA

Coupling Size	Rating kW at 1000 rpm	Max. Continuous Torque Nm	Peak Overload Torque Nm	Max. rpm	Max. Bore		Min. DBSE 'S'	ØA1	ØA2	ØB1	ØB2	C1	C2	Std. DBSE	Wt. Transmission Unit Kg.		Wt. Unbored Hubs Kg.	
					Type I	Type III									STD.	Extra DBSE kg/m	Hub I	Hub III
13	13	124	310	25500	36	46	75	86	105	54	69	40	45	100	1.5	3.1	1.0	1.4
33	33	315	790	20000	46	65	90	105	130	69	90	45	55	140				
75	75	716	1790	16500	65	80	107	130	152	90	112	55	62	180				
135	135	1289	3220	14400	80	90	127	152	179	112	131	62	70	140	5.6	6.5	3.6	5.9
230	230	2196	5490	12000	90	115	133	179	197	131	163	70	90	180	9.3	10.5	5.9	9.0
350	350	3342	8360	10500	115	127	139	197	222	163	181	90	95	250	14.0	13.0	9.0	16.4
500	500	4775	11940	9500	127	140	141	222	247	181	206	95	107	180	18.7	22.0	16.4	21.0
740	740	7066	17670	8000	140	155	143	247	272	206	223	107	115		25.6	22.0	21.0	30.0
930	930	8881	22200	7000	155	172	155	272	297	223	248	115	130		34.2	27.5	30.0	38.0
1400	1400	13369	33400	6000	172	190	175	297	375	248	280	130	145		44.0	40.0	38.0	52.1
															54.0	40.0	52.1	80.5

Coupling Alignment

Correct installation and alignment of couplings is essential for reliable machinery performance.

RSK MISALIGNMENT

Coupling Size	Max. Axial Misalignment *		Max. Parallel Misalignment **	
	+/- mm.	Equivalent Thrust kN	mm	Restoring Moment Nm
13	1.00	210	0.30	4.1
33	1.25	280	0.36	6.1
75	1.50	360	0.45	8.8
135	2.00	560	0.55	11.8
230	2.50	740	0.60	14.7
350	2.75	780	0.64	34.3
500	3.25	1080	0.65	40.7
740	3.75	1270	0.68	47.6
930	4.25	1470	0.72	53.9
1400	5.00	2700	0.83	61.3

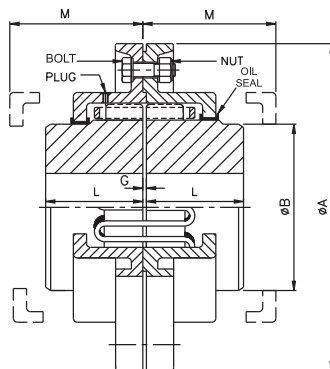
NOTES:

* Meets NEMA end float specification without modification.

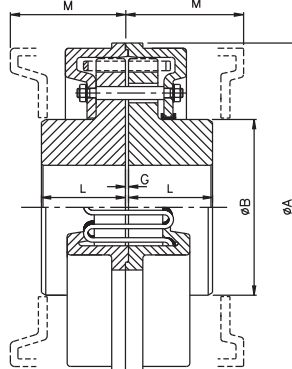
** Values based on angular deflection of ½° per end and minimum DBSE. Greater misalignment accommodation is possible by increasing dimension S.

- All dimensions are in mm unless otherwise specified.
- In view of our constant endeavour to improve quality of our products, we reserve the right to alter or change specifications without prior notice.
- This document is the intellectual property of Rathi Transpower Pvt. Ltd. and subject to copyright.

VERTICAL SPLIT COVERS

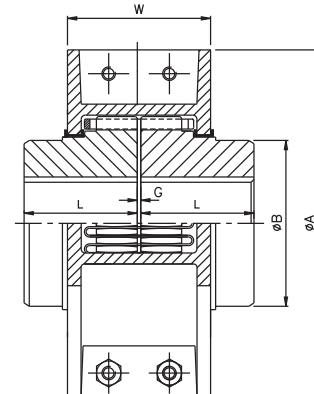


(SIZE 105 TO 425)



(SIZE 432 & 492)

HORIZONTAL SPLIT COVERS



(SIZE 105 TO 492)

TYPE V

TYPE H

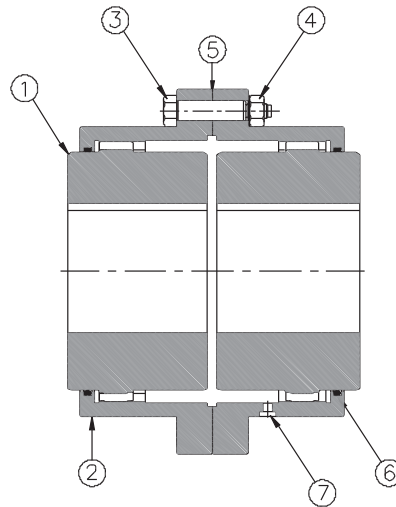
TECHNICAL DATA

Size	kW at 100 rpm	Max. Speed rpm		Bore		Dimensions							Weight kg	
						ØA		ØB	G	L	W	M		
		V	H	Pilot ±5	Max.	V	H						V	H
LGF-105	0.45	5800	3600	10	29	105	104	45	0.80	38.0	57	53	3	3
LGF-120	0.70	5000	3350	12	38	120	120	58	0.80	38.0	65	53	4	4
LGF-144	1.50	4500	3350	16	42	144	127	62	0.80	44.5	65	60	5	5
LGF-172	2.20	3500	2600	16	58	172	159	87	0.80	51.0	66	60	9	8
LGF-190	3.40	3300	2400	16	58	190	178	85	0.80	51.0	85	80	11	13
LGF-197	4.90	3100	2200	16	65	197	190	100	0.80	57.0	85	80	16	17
LGF-222	7.00	2600	1900	25	80	222	222	120	0.80	63.5	87	80	20	19
LGF-254	9.40	2300	1700	25	95	254	245	143	0.80	70.0	87	81	27	27
LGF-276	13.80	2000	1600	25	110	276	267	165	0.80	89.0	87	81	43	39
LGF-295	26.50	1900	1500	38	104	295	276	155	1.60	102.0	138	129	54	47
LGF-324	33.90	1800	1300	50	124	324	324	187	1.60	101.5	157	148	63	67
LGF-336	48.90	1600	1300	50	124	336	336	184	1.60	101.5	157	148	72	74
LGF-375	67.50	1400	1100	50	148	375	381	222	1.60	114.0	159	148	104	108
LGF-425	93.60	1200	1000	50	170	425	425	254	1.60	127.0	160	148	149	149
LGF-432	179.00	1200	800	75	* 157	432	501	#239	3.20	140.0	180	180	180	234
LGF-492	261.00	1100	700	85	* 173	492	552	#267	3.20	152.5	180	180	216	318

Note :-

- * Max. Bore for 'H' Type LGF - 432 = 202 mm & for LGF - 492 = 234 mm.
- # Dimension B for H type LGF - 432 = 302 mm & for LGF - 492 = 349 mm.
- All dimensions are in mm unless otherwise specified.
- For vertical installation contact RATHI.
- Speeds specified are with standard material of construction, consult manufacturer for higher speeds.
- Weights specified are with max. bore.
- For Inertia, torsional stiffness and for higher sizes consult manufacturer.
- In view of our constant endeavour to improve quality of our products, we reserve the right to alter or change specification without prior notice.
- This document is the intellectual property of Rathi Transpower Pvt. Ltd. and subject to copyright.

**AGMA Standard
Size RGD 10 - 90**



- 1) HUB
- 2) SLEEVE
- 3) BOLT
- 4) NUT
- 5) GASKET
- 6) O-RING
- 7) OIL PLUG

High Torque Ratings

Rathi RGD & RGS Series Gear couplings torque capacity exceeds the competition, and it allows smaller coupling size of increased service factor.

Large Bore Capacity

Rathi RGD & RGS Series Gear couplings can accommodate large shaft diameters for given particular size of coupling compared to the competition, in most instances. That mean you can buy a smaller less expensive coupling and still get the proper rating for the equipment.

Interchangeability

Complete half coupling assemblies are interchangeable with any other half gear coupling with exposed bolt flange manufactured to AGMA standard. Rathi replacement half couplings provide additional hub strength and lower gear mesh loads.

High Misalignment Capacity

Rathi RGD & RGS Gear couplings are designed to accommodate a static misalignment of $1\frac{1}{2}^{\circ}$ per gear mesh. The recommended operating misalignment is limited to $3/4^{\circ}$ per gear mesh. Axial moment of connected shafts is also accommodated in these couplings.

Lubrication System

Rathi Special Grease (RSG) properties are designed/developed to resist separation of Base oil & thickner due to centrifugal forces encountered in Gear coupling. This benefits for the application -

- Significantly extended relubrication intervals
- Reduced maintenance cost
- Superior lubrication
- Increased coupling life

The location & size lubrication holes in the sleeve ensures that adequate grease is available at the gear mesh, where it is needed AGMA std. upto size 90. 'O' Ring retain Lubricant, during misaligned condition.

SERVICE FACTOR - S. F.

Torque Variation	Electric motor gas or steam turbine	Steam engine or Water turbine	Gas or oil Recip. Engine
Consultant Torque e.g. centrifugal pumps and compressors, light fans and light duty agitators	1.0	1.25	3.0
Slight Fluctuations e.g. screw compressors & pumps, liquid ring compressors, medium duty mixer & fans	1.5	2.0	3.0
Substantial Fluctuations e.g. reciprocating pumps, heavy duty mixer & fans	2.0	2.5	4.0

SELECTION :

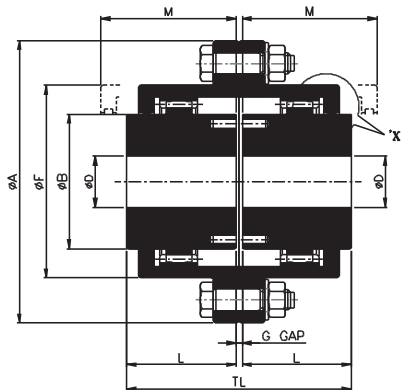
1. Select appropriate service factor S.F.
2. Calculate coupling Torque T (kNm)

$$T = \frac{Nm \times P \times S.F.}{N}$$

Where P = Drive rated power (kW)

N = Speed (rev./min)

3. Select coupling with the same or higher Torque.
4. Check hub bore capacity.
5. Check allowable speed.



DETAIL 'X'

THIS COVERPLATE CONSTRUCTION FOR
SIZES RGD-80 ONWARDS.

FULL FLEXIBLE TYPE RGD

Double Engagement Couplings : TYPE - RGD

Standard Double engagement couplings accommodate both angular and parallel misalignment or combination of both, as well as end float without imposing appreciable axial loads on adjacent bearings.

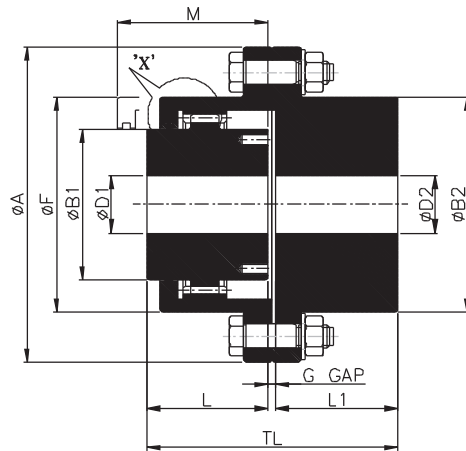
The exposed bolt design allows use of either open end or socket wrenches, which makes it the preferred design for most industrial applications.

Ideal for all standard applications including fans, overhead cranes, conveyors, steel and paper mill equipments.

Special requirements like limited end float, electrical insulation, Mill motor, Slide, Spacer, Brake drum, Shear pin, Shrouded bolt designs are supplied. Many designs can be created for "Unique" applications as well, contact **RATHI**.

TECHNICAL DATA

Size	Coupling Rating		Maximum Speed rpm	Bore Dia ØD mm		Dimensions mm							Solid Hub	
	kW at 100 rpm	Rated Torque Nm		Min. Bore	Max. Bore	ØA	ØB	ØF	G	M	L	TL	Mass kg	M.I. (WR ²) kg-m ²
RGD-10	14	1337	8000	15	52	116	69	84	3	51	43	89	4.4	0.0052
RGD-15	30	2865	6500	21	65	152	86	107	3	61	50	103	9	0.0192
RGD-20	53	5061	5600	28	80	178	105	127	3	76	62	127	15	0.041
RGD-25	105	10027	5000	32	98	213	131	156	5	92	77	159	27	0.105
RGD-30	168	16043	4400	38	115	240	152	182	5	106	91	187	40	0.195
RGD-35	231	22059	3900	38	135	279	178	212	6	130	107	220	65	0.454
RGD-40	336	32086	3600	38	160	318	210	250	6	145	121	248	96	0.86
RGD-45	472	45073	3200	52	180	346	235	275	8	165	135	278	131	1.39
RGD-50	650	62070	2900	71	195	389	254	309	8	183	153	314	186	2.53
RGD-55	880	84034	2650	70	215	425	279	334	8	203	168	344	247	3.83
RGD-60	1205	115069	2450	110	235	457	305	366	8	228	188	384	299	5.21
RGD-70	1823	174084	2150	110	280	527	356	425	9	266	221	451	473	11
RGD-80	2639	252006	1750	110	285	590	385	485	10	300	249	508	682	20.72
RGD-90	3037	290012	1550	150	300	660	420	535	13	325	276	565	898	34.95
RGD-100	4100	391521	1450	160	330	711	470	595	13	355	305	623	1242	55.95
RGD-110	5300	506113	1395	200	381	775	533	648	13	387	334	681	1621	84.81
RGD-120	7200	687549	1300	230	432	838	572	715	13	415	356	725	2014	124.2
RGD-130	8100	773493	1075	260	482	911	630	812	19	463	410	839	2803	207.07
RGD-140	10400	993127	940	260	515	980	670	860	19	486	430	879	3316	277.64
RGD-150	12100	1155465	900	300	559	1029	725	908	19	518	450	919	3951	371.28



DETAIL 'X'

THIS COVERPLATE CONSTRUCTION FOR
SIZES RGS-80 ONWARDS.

Single Engagement Couplings : TYPE - RGS

Standard Single engagement couplings accommodate angular misalignment and end float without imposing appreciable axial loads on adjacent bearings.

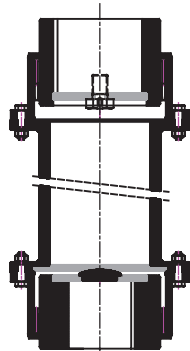
Exposed bolt design allows the use of either open end or socket wrenches which makes it the preferred design for most industrial applications.

Used primarily with floating shaft assemblies to cover longer distance between shaft ends. Consult **RATHI** for vertical applications.

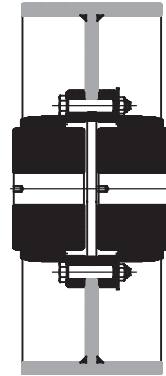
TECHNICAL DATA

Size	Coupling Rating		Max. Speed rpm	Min Bore Dia mm		Max Bore Dia mm		Dimensions mm									Solid Hub	
				D1	D2	D1	D2											
	kW at 100 rpm	Rated Torque Nm		Flex Hub	Rigid Hub	Flex Hub	Rigid Hub	ØA	ØB1	ØB2	ØF	G	L	L1	M	TL	Mass kg	M.I. (WR ²) kg-m ²
RGS-10	14	1337	8000	15	18	52	60	116	69	84	84	4	43	40	51	87	4.5	0.0055
RGS-15	30	2865	6500	21	26	65	80	152	86	107	107	4	50	47	61	101	9.5	0.0204
RGS-20	53	5061	5600	28	30	80	90	178	105	130	127	4	62	59	76	125	15.5	0.0436
RGS-25	105	10027	5000	32	37	98	110	213	131	157	156	5	77	74	92	156	27.5	0.111
RGS-30	168	16043	4400	38	44	115	130	240	152	182	182	5	91	88	106	184	41.5	0.210
RGS-35	231	22059	3900	38	52	135	150	279	178	212	212	6	107	102	130	215	67	0.477
RGS-40	336	32086	3600	38	52	160	180	318	210	250	250	8	121	116	145	245	100	0.92
RGS-45	472	45073	3200	52	57	180	200	346	235	276	275	8	135	131	165	274	135	1.468
RGS-50	650	62070	2900	71	77	195	220	389	254	309	309	9	153	148	183	310	195	2.73
RGS-55	880	84034	2650	70	77	215	240	425	279	334	334	9	168	173	203	350	261	4.20
RGS-60	1205	115069	2450	110	82	235	260	457	305	366	366	10	188	186	228	384	316	5.70
RGS-70	1823	174084	2150	110	102	280	300	527	356	425	425	13	221	218	266	452	500	12.05
RGS-80	2639	252006	1750	110	105	285	335	590	385	470	485	13	249	249	300	511	715	21.77
RGS-90	3037	290012	1550	150	-	300	370	660	420	518	535	15	276	276	325	567	969	36.60
RGS-100	4100	391521	1450	160	-	330	405	711	470	572	595	16	305	305	355	626	1259	56.27
RGS-110	5300	506113	1395	200	-	381	440	775	533	620	648	16	334	335	386	685	1677	90.06

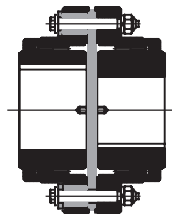
- The outer dimensions of flanges are rounded up to nearest figure in above tables.
- To attend the max. Speed specified above Dynamic balancing is required please contact RATHI.
- Max. bores specified above are for uniformly loaded drives only with single keyway
- Max. bore for coupling with or equivalent to DIN 6885 keys.
- Min. bore is stock bore, to which the couplings are manufactured.
- For vertical installation, higher sizes & spacer type couplings contact to RATHI.



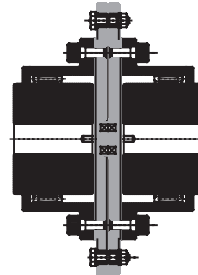
RGD with Vertical Spacer



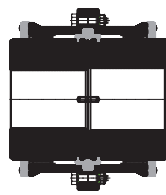
RGD with Brake Drum



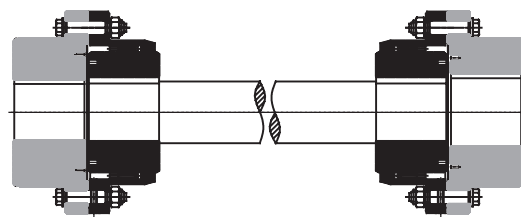
RGD with Electrical Insulation



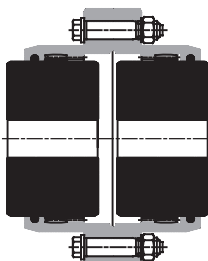
RGD with Shear Pin



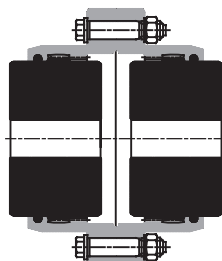
RGD with Limited End Float



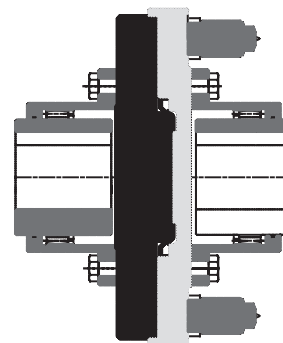
RGD with Floating Shaft



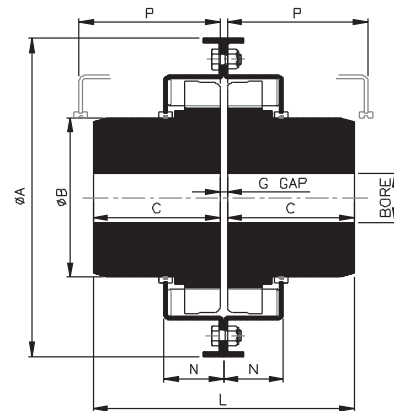
One Hub Reverse



Both Hubs Reverse



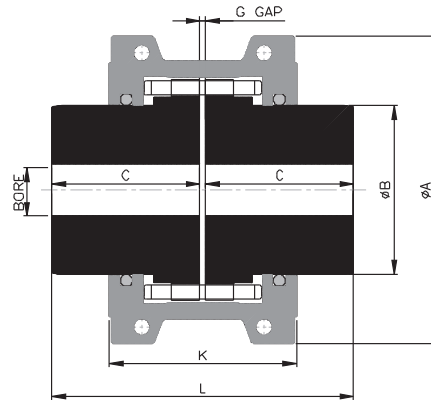
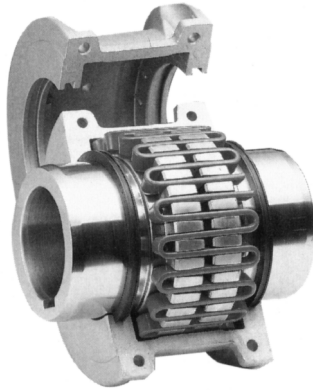
Gear coupling with Torque Limiter



- Vertical split cover: Ideal for higher running speeds and general purpose applications.
- Lubrication fittings: One or more lube holes in each half cover makes for easier lubrication. Fill through one and remove other plug for venting.
- Seals: Durable synthetic material prevents loss of lubricant & entrance of water, dust or other foreign materials.
- Hubs: Made of steel for maximum strength.
- Taper Grid: Made of high strength steel, quenched and tempered to spring hardness.

TECHNICAL DATA

Coupling Size	KW at 100 RPM	Basic Torque (Nm)	Max. Speed (rpm)	PB	Bore Dia (mm)		Dimensions (mm)						Gap (mm)	Lube weight (Kg)	Weight In (kg)
					Min.	Max.	ØA	ØB	C	L	N	P			
1020	0.54	52	6000	16	18	30	111.0	39.7	47.5	98.0	24.0	47.5	3.0	0.030	2.0
1030	1.56	149	6000	16	18	36	121.0	49.2	47.5	98.0	25.0	47.5	3.0	0.030	2.6
1040	2.61	249	6000	16	18	44	128.5	57.1	51.0	104.5	25.5	51.0	3.0	0.050	3.4
1050	4.56	435	6000	16	18	51	147.5	66.7	60.5	123.5	31.0	60.5	3.0	0.050	5.4
1060	7.16	684	6000	18	20	56	162.0	76.2	63.5	130.0	32.0	63.5	3.0	0.090	7.3
1070	10.41	994	5500	18	20	67	173.0	87.3	76.0	155.5	33.5	76.0	3.0	0.110	10.4
1080	21.47	2050	4750	25	27	80	200.0	104.8	89.0	181.0	44.0	89.0	3.0	0.170	17.7
1090	39.06	3730	4000	25	27	95	232.0	123.8	98.5	200.0	47.5	98.5	3.0	0.250	25.4
1100	65.76	6280	3250	39	42	110	267.0	142.0	120.5	245.5	60.0	120.5	4.5	0.430	42.2
1110	97.60	9320	3000	39	42	120	286.0	160.3	127.0	258.5	64.0	127.0	4.5	0.510	54.4
1120	143.47	13700	2700	58	61	140	319.0	179.4	149.0	304.5	73.5	149.0	6.0	0.730	81.6
1130	208.39	19900	2400	64	67	170	378.0	217.5	162.0	330.0	75.0	162.0	6.0	0.910	122.5
1140	299.50	28600	2200	64	67	200	416.0	254.0	184.0	371.5	78.0	184.0	6.0	1.130	180.1
1150	416.78	39800	2000	104	108	215	476.5	269.2	183.0	372.0	107.0	183.0	6.0	1.950	230.0
1160	585.38	55900	1750	117	121	240	533.5	304.8	198.0	402.0	114.5	198.0	6.0	2.810	321.1
1170	781.21	74600	1600	130	134	280	584.0	355.6	216.0	438.0	120.0	216.0	6.0	3.490	448.2
1180	1078.61	103000	1400	149	153	300	630.0	393.7	239.0	483.5	130.0	239.0	6.0	3.760	591.0
1190	1434.66	137000	1300	149	153	335	685.0	436.9	260.0	524.5	135.0	259.0	6.0	4.400	761.0
1200	1947.79	186000	1100	174	178	360	737.0	497.8	279.5	565.0	145.0	279.5	6.0	5.620	1021.0



Features

- Torsionally Flexible.
- Vibration dampening - reduced peak / shock loads.
- Accommodates angular, parallel & axial misalignments.
- Low operating cost.
- Smooth & quiet operation.
- Low & easy maintenance.
- Overload conditions cause the grid element to shear, like a mechanical fuse.
- Quick & easy installation.

TECHNICAL DATA

Coupling Size	KW at 100 rpm	Basic Torque (Nm)	Max. Speed (rpm)	PB	Bore Dia (mm)		Dimensions (mm)					Gap (mm)	Lube weight (Kg)	Weight In (kg)
					Min.	Max.	ØA	ØB	C	K	L			
1020	0.54	52	4500	16	18	30	101.5	39.7	47.5	66.5	98.0	3.0	0.03	1.9
1030	1.56	149	4500	16	18	36	110.0	49.2	47.5	68.0	98.0	3.0	0.03	2.6
1040	2.61	249	4500	16	18	44	117.5	57.1	51.0	70.0	104.5	3.0	0.05	3.4
1050	4.56	435	4500	16	18	51	138.0	66.7	60.0	79.5	123.5	3.0	0.05	5.4
1060	7.16	684	4350	18	20	56	150.5	76.2	63.5	92.0	130.0	3.0	0.09	7.3
1070	10.41	994	4125	18	20	67	162.0	87.3	76.0	95.0	155.5	3.0	0.11	10.0
1080	21.47	2050	3600	25	27	80	194.0	104.8	89.0	116.0	181.0	3.0	0.17	18.0
1090	39.06	3730	3600	25	27	95	213.0	123.8	98.5	122.0	200.0	3.0	0.25	25.0
1100	65.76	6280	2400	39	42	110	250.0	142.0	120.5	155.5	245.5	4.5	0.43	42.0
1110	97.60	9320	2250	39	42	120	270.0	160.3	127.0	161.5	258.5	4.5	0.51	54.0
1120	143.47	13700	2025	58	61	140	308.0	179.4	149.5	191.5	304.5	6.0	0.73	81.0
1130	208.39	19900	1800	64	67	170	346.0	217.5	162.0	195.0	330.0	6.0	0.91	121.0
1140	299.50	28600	1650	64	67	200	384.0	254.0	184.0	201.0	371.5	6.0	1.13	178.0
1150	416.78	39800	1500	104	108	215	453.0	269.2	183.0	271.0	372.0	6.0	1.95	234.0
1160	585.38	55900	1350	117	121	240	501.5	304.8	198.0	279.0	402.0	6.0	2.81	317.0
1170	781.21	74600	1225	130	134	280	566.5	355.6	216.0	304.0	438.0	6.0	3.49	448.0
1180	1078.61	103000	1100	149	153	300	630.0	393.7	239.0	321.0	483.5	6.0	3.76	619.0
1190	1434.66	137000	1050	149	153	335	675.5	436.9	259.0	325.0	524.5	6.0	4.40	776.0
1200	1947.79	186000	900	174	178	360	757.0	497.8	279.5	355.5	565.0	6.0	5.62	1058.0
1210	2607.52	249000	820	174	178	390	844.5	533.4	305.0	432.0	622.5	12.7	10.50	1424.0
1220	3518.58	336000	730	199	203	420	920.5	571.5	325.1	490.0	663.0	12.7	16.10	1785.0

Lubrication:

For quality lubrication to get good performance and long life, Rathi Special Grease (RSG) is highly recommended. After every three months or every 240 ~ 250 operating hours, required to add grease. Every 6 months or every 4000 operating hours required to replace all deteriorated grease.

SELECTION DATA & APPLICATION GUIDELINES

Power Source	F _p
Electric Motor	1
Gasoline Engine	1.25
Diesel Engine	1.5

OPERATING ANGLES For Two Joints Shafts With Equal or Intersecting Angles	Drive Shaft RPM	Max. Operating Angle	Drive Shaft RPM	Max. Operating Angle
	5000	3° 15'	3000	5° 50'
	4500	3° 40'	2500	7° 0'
	4000	4° 15'	2000	8° 40'
	3500	5° 0'	1500	11° 30'

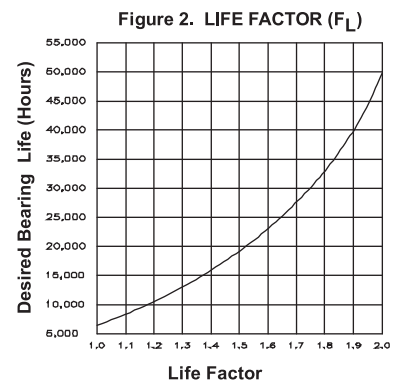
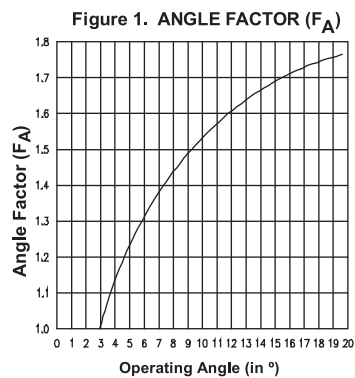
Selection of DRIVE SHAFT is different from other type of couplings

- 1) Select the appropriate **SERVICE FACTOR** from the table and graphs
 - a) Power Source : F_p
 - b) Operating Angle : F_A
 - c) Life : F_L
- 2) Calculate **Application (Operating) Torque** : T Nm

$$T = \frac{\text{Power kW} \times 1.34 \times 7123}{\text{RPM}} \text{ Nm}$$

- 3) Calculate Design Torque = $T \times F_p \times F_A \times F_L$ Nm
- 4) Refer **short duration torque** from Technical data. Select the drive shaft size based on **Short Duration Torque** = / > Design Torque
- 5) Select required **Mounting Options** : SAE Plate or Hubs.
- 6) Check for **bore** sizes.

While ordering, place order for individual part as RDT/RDS, RDH/RDJ, RDP.



SIZE	SHORT DURATION TORQUE Nm	* MAX. RPM	TUBE DIA MM (INCH)	# TUBE LENGTH C-C INSTALLED @ MAX. RPM MM (INCH)
1130	550	2500	63.5 (2.5)	1778 (70)
1310	1085	6000	63.5 (2.5)	1092 (43)
1410	2034	5000	76.2 (3)	1295 (51)
1480	2712	5000	76.2 (3)	1295 (51)
1550	3255	5000	76.2 (3)	1295 (51)
1550	3255	5000	88.9 (3.5)	1397 (55)
1610	4950	4500	88.9 (3.5)	1473 (58)
1710	6511	4500	103.80 (4.08)	1505 (59)
1720	6511	4500	103.80 (4.08)	1505 (59)

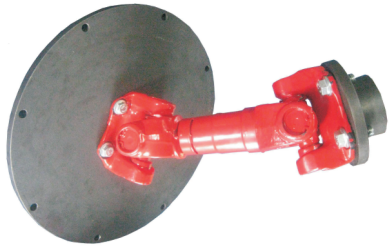
* Rating applies to universal joint

Lengths shown are based on 0.66 of the calculated critical speed at max. rate RPM (as applied to industrial applications)

* Model RDT:- Rathi Drive Shaft Assembly (Tube), Variable length can be supplied as per order.

* Model RDS:- Rathi Drive Shaft Short Coupled, fixed length.

- All Dimensions in mm unless specified.
- ■ Rectangle flange.
- Drive shaft balanced to Gr. G-16 as per ISO 1940 at 1500 rpm.
- Fully compressed length of drive shafts to be specified by customer.

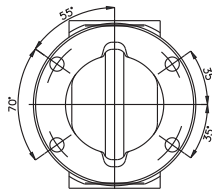


FEATURES:

- High torsional strength
- Polyamide coated spline shafts for longer life
- Ground fillet radii to avoid stress concentration
- Vibration free performance
- Low Maintenance

APPLICATIONS :-

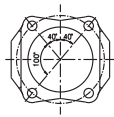
Steel Plants & Rolling Mills, Textile, Paper & Printing Machinery, Cranes & Fire Fighting Pump drive, Vibrating screens, Cement Industries, Earth Moving Equipments, etc.



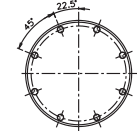
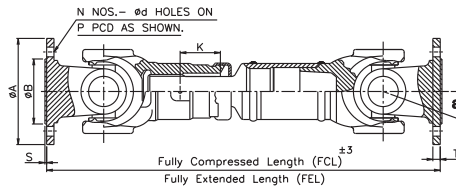
Model 1720 Flange



4-Hole Flange



4-Hole
RECT Flange



8-Hole Flange

TECHNICAL DATA

Drive Shaft Series	Short Duration Torque Nm	Flange Dia ØA	Spigot Dia. ØB	Spigot Height S	Flange THK T+0.5	No. of Flange Holes N	Bolt Hole Dia. ØD (+0.2, 0)	Flange PCD P	Angle A° Max.	* Model - RDT Slip Movement K	* Model - RDT Length FCL-FEL	* Model - RDS Slip Movement K	* Model - RDS Length FCL-FEL
1130	550	87.3	+0.050 0 57.1	2.60	5.20	4	8.20	69.95/69.80	17	42.8	315-358	23.5	208-232
1310 ■	1085	Rect Flange	+0.050 0 60.27	1.52	7.10	4	10.50	79.45/79.30	25	50.8	335-385	41	258-299
1410 ■	2034	Rect Flange	+0.050 0 69.8	1.50	7.25	4	12.50	95.35/95.20	20	58	471-529	25	250-275
1480 ■	2712	Rect Flange	+0.050 0 95.2	1.80	10.30	4	12.85	120.75/120.60	20	63.5	418-481	49.2	281-330
1550 ■	3255	Rect Flange	+0.050 0 95.2	1.60	10.30	4	12.75	120.75/120.60	20	63.5	445-508	30	250-280
1610	4950	174.5	+0.050 0 168.2	1.59	8.00	8	10.50	155.60/155.45	20	70	500-570	40	264-304
1710	6511	203.0	+0.050 0 196.77	2.00	7.60	8	10.50	184.10/184.22	20	133	638-771	52	290-342
1720	6511	150	+0.1 0 146	3	11.00	4	13.00	130.00/130.2	15	133	650-783	33	308-341
												40	340-380
												45	377-422
												98	485-583
												98	480-578
												104	618-722

■ Rectangular Flange

RATHI DRIVE SHAFT HUB (RDH)#

RDH Size	ØA	ØB	Max. Bore ØC	ØE	F	L
1130	86	51	32	57.2	2.8	40
1310	102	57	40	60.4	1.7	45
1410	128	72	48	69.9	1.7	45
1480	146	94	65	95.3	2	60
1550	146	94	65	95.3	1.8	60
1610	176	115	80	168.3	1.8	70
1710	210	142	90	196.9	2.2	90
1720	150	100	66	146.1	3.0	90

RATHI DRIVE SHAFT JUMBO HUB (RDJ)#

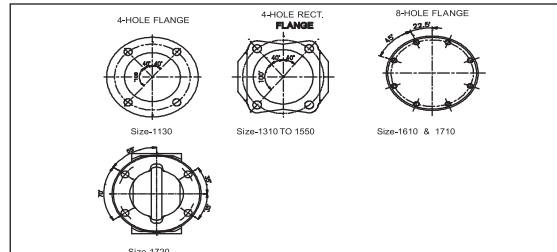
RDJ Size	ØA	Max. Bore ØC	ØE	F	L
1130	86	50	57.2	2.8	40
1310	102	58	60.4	1.7	45
1410	128	68	69.9	1.7	45
1480	146	92	95.3	2	60
1550	146	92	95.3	1.8	60
1610	176	115	168.3	1.8	70
1710	210	135	196.9	2.2	90
1720	150	100	146.1	3.0	90

RATHI DRIVE SHAFT SAE PLATE (RDP)#

RDP Size	ØJ	No. of Holes	ØL	PCD
6 1/2"	8 1/2"	6	21/64"	7 7/8"
7 1/2"	9 1/2"	8	21/64"	8 3/4"
8"	10 3/8"	6	13/32"	9 5/8"
10"	12 3/8"	8	13/32"	11 5/8"
11 1/2"	13 7/8"	8	13/32"	13 1/8"
14"	18 3/8"	8	17/32"	17 1/4"

* Dimensions to suit respective Drive Shaft

Special high tensile self locking bolts will be supplied with Hub & SAE Plate.



• All Dimensions are in mm otherwise specified

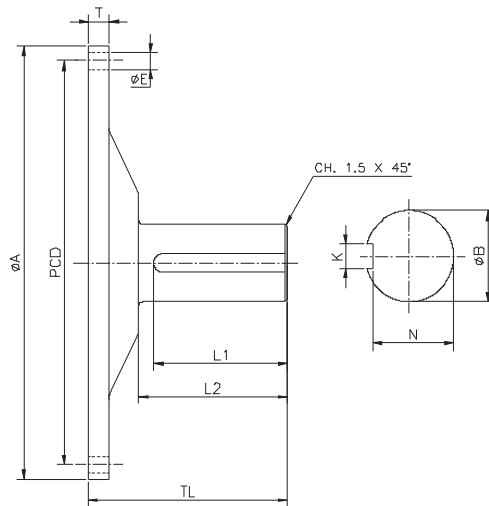


FIG. 'A'

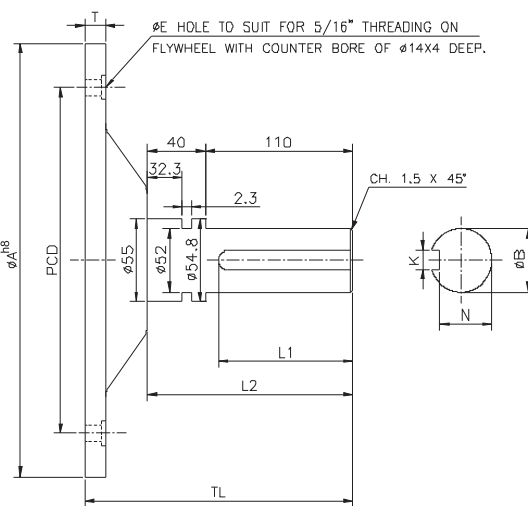


FIG. 'B'

TECHNICAL DATA

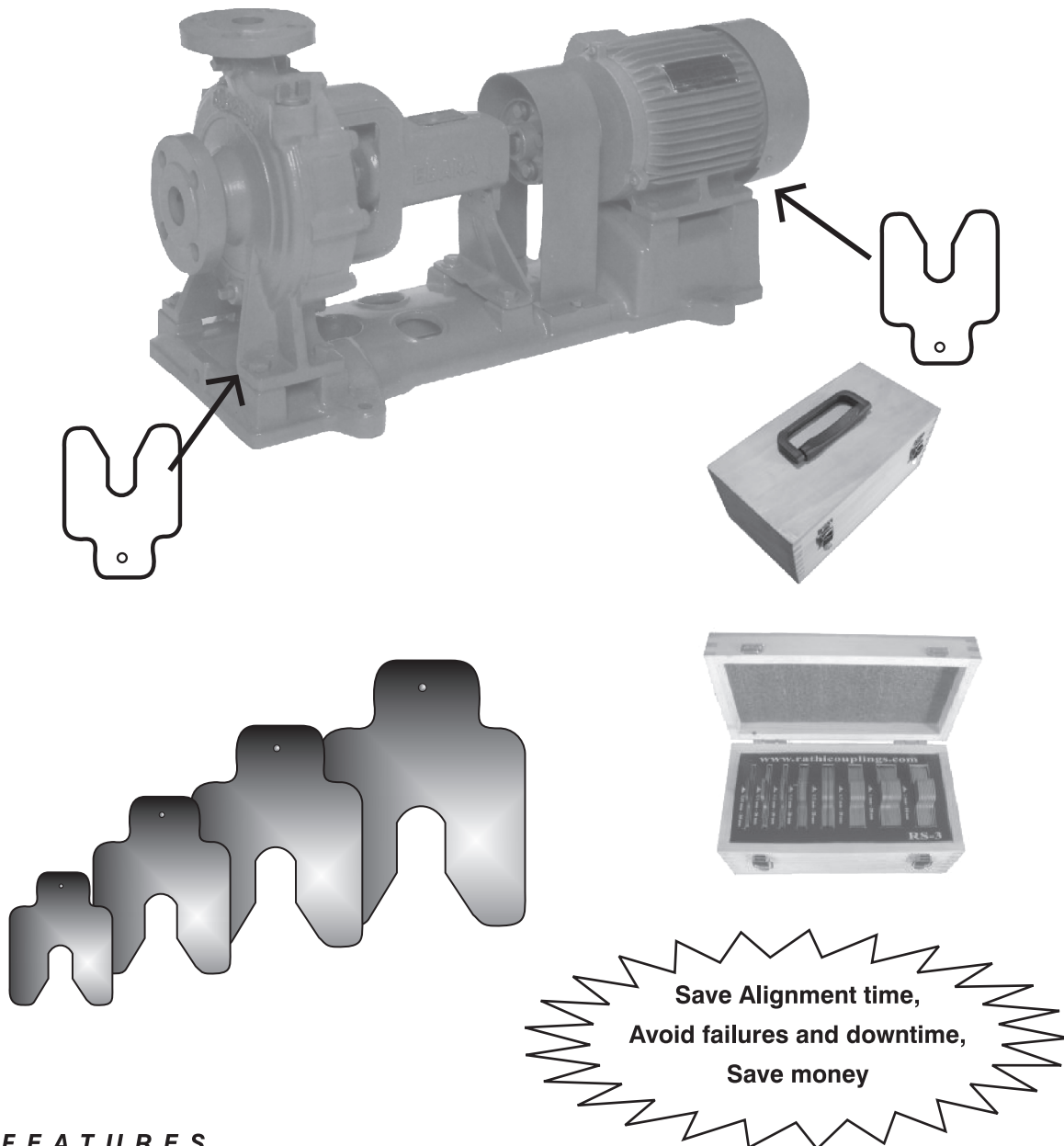
SAE Model	SAE Flange (Inch)					TL	Ø P	L 1	L 2	Ref. Fig.
	Ø A	T	P.C.D.	No. of Holes	Ø E					
SSI 6.5" X 1 5/8"	8 1/2"	14	7 7/8"	6	21/64"	134	1.625"	90	105	Fig. A
SSI 7.5" X 1 5/8"	9 1/2"		8 3/4"	8	13/32"		2.0"			
SSI 10" X 1.625"	12 3/8"		11 5/8"							
SSI 10" X 2"										
SSI 10" X 2" / MF										
SSI 11.5" X 2"	13 7/8"		13 1/8"		220	176	191			
SSI 11.5" X 2" / MF					134	90	105			
				220	176	191				
SSI 14" X 3.5"	18 3/8"	18	17 1/4"	17/32"	228	3.5"	170	195		
SAE 6.5" X 42 mm	8 1/2"	14	7 7/8"	6	8.4	180	42	100	150	Fig. B
SAE 6.5" X 48 mm							48			
SAE 6.5" X 1 5/8"(B)							1 5/8"			
SAE 7.5" X 48 mm			9 1/2"	8 3/4"			8			

SHAFT DIMENSIONS For Fig. 'A'		
Ø B	K	N
1.625" +0.0007" -0.0001"	0.437"	1.433"
2.00" +0.0008" -0.0001"	0.499"	1.804"
3.50" +0.0014" -0.0005"	0.874"	3.124"

SHAFT DIMENSIONS For Fig. 'B'		
Ø B	K	N
48" +0.018" -0.002"	14.0	42.5
42" +0.018" -0.002"	12.0	37
1 5/8" +0.001" -0.000"	7/16"	1.439" -0.000"

All dimensions are in mm unless otherwise specified.

During installation of rotating equipment shaft alignment is important. Shims play a crucial role in positioning accuracy of the equipment. Lack of shim of proper size and thickness during installation may lead to less than optimal support for the equipment feet during operation. This can lead to vibration and ultimately, to unplanned breakdowns and enormous downtime expenses.



FEATURES

- Seven different sizes in nine different thickness
- Perfectly flat for stable, consistent machine support.
- Fully deburred to avoid cuts.
- Permanent marking provides easy identification at glance.
- Corrosion resistant stainless steel material withstands acids and alkali.
- Saves a lot of time, labour & money which are wasted by hand cut shims.
- Accurate alignment improves equipment performance & hence it's reliability.



PRECUT ALIGNMENT SHIMS TYPE RS/RSC

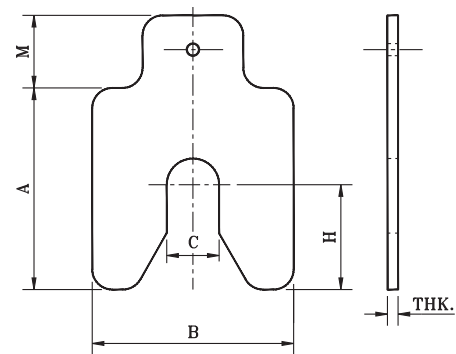


ADVANTAGE OF PRECUT SHIMS OVER HAND CUT SHIMS:

HAND CUT SHIMS	PRECUT SHIMS
Sheets are to be stored-inventory	Sheets are not required
Process : Locate material, mark it, cut, deburr & flatten it	Ready to use
Improper Processing -Inaccurate alignment	Accurate alignment
Danger of injury when cutting & inserting sharp edged shims	Safe as these are deburred
No hole in Shim tab	Hole in Shim tab makes insertion & removal easier

DIMENSIONAL DATA:

TYPE	SIZE			C	H	M	STD. THICKNESSES 0.05, 0.1, 0.2, 0.4, 0.5, 0.7, 1.0, 2.0, 3.0
	A	X	B				
RS 1	40	X	40	13	20	16	
RS 2	50	X	50	17	25	18	
RS 3	75	X	75	21	37.5	18	
RS 4	100	X	100	27	50	25	
RS 5	125	X	125	45	62.5	30	
RS 5.5	150	X	150	55	75	30	
RS 6	200	X	200	55	100	30	



PACKING :

A. INDIVIDUAL PACKING (Shim Kit):

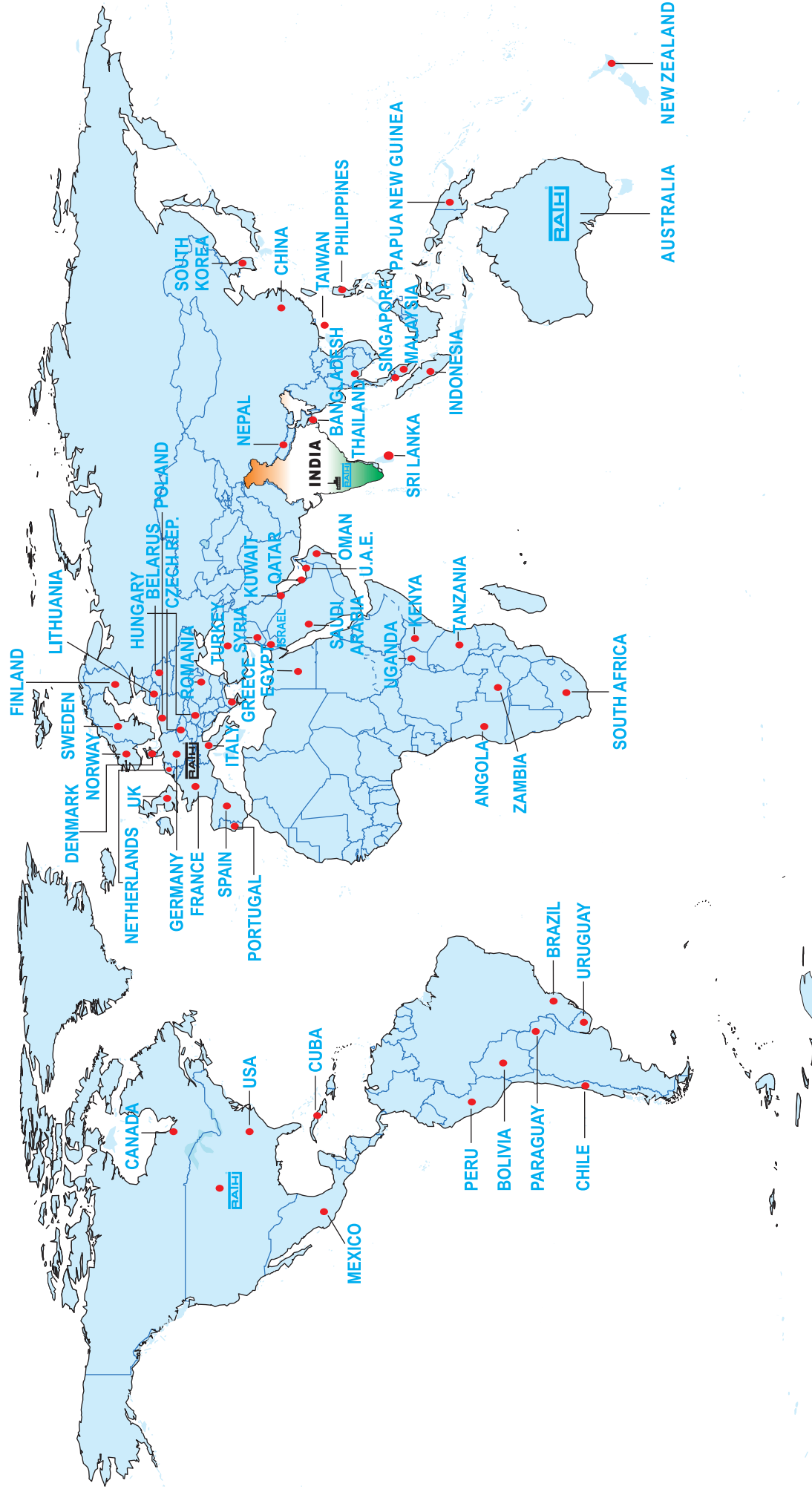
TYPE / SIZE	0.05	0.1	0.2	0.4	0.5	0.7	1	2	3
All	10	10	10	10	10	10	10	10	10

B. RATHI SHIM CASE (RSC):

SIZE	THICKNESS									TOTAL/ BOX
	0.05	0.1	0.2	0.4	0.5	0.7	1	2	3	
RSC-1	20	20	20	20	20	20	20	10	0	150
RSC-2	20	20	20	20	20	20	20	10	0	150
RSC-3	20	20	20	20	20	20	20	10	0	150
RSC-4	20	20	20	20	20	20	20	10	0	150
RSC-5	10	10	10	10	10	10	10	10	0	80
RSC-5.5	10	10	10	10	10	10	10	10	0	80
RSC-6	10	10	10	10	10	10	10	10	0	80

All dimensions are in mm.

Distribution throughout the world



 UKAS MANUFACTURING 018	Manufacturer Rathip Transpower Pvt Ltd Gaia Apex, S. No. 33/2D, Viman Nagar Pune 411 014, (INDIA) Phone : 91-20-30517201 Fax : 91-20-30517212 E-mail : export.inquiry@rathigroup.com Website : www.rathicouplings.com	European Operation Rathip Europe GmbH Im Wied 2, D-32683, Barntrop, Germany Phone : +49 (0) 5263 9561 840 Fax : +49 (0) 5263 9561 849 E-mail : sales@rathip-europe.com Website : www.rathicouplings.com	Australian Operation Rathip Polybond Pty Ltd Unit 9/56, Smith Road, Springvale, Victoria 3171 Tel : 03-9558 6922 E-mail : sales@rathipolybond.com Website : www.rathipolybond.com	North America Rathip North America P.O. Box 42, N56 W13855 Silver Spring DR, Menomonee Falls, WI 53051 United States USA E-mail : sales@rathicouplings.com Website : www.rathicouplings.com	Distributor
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