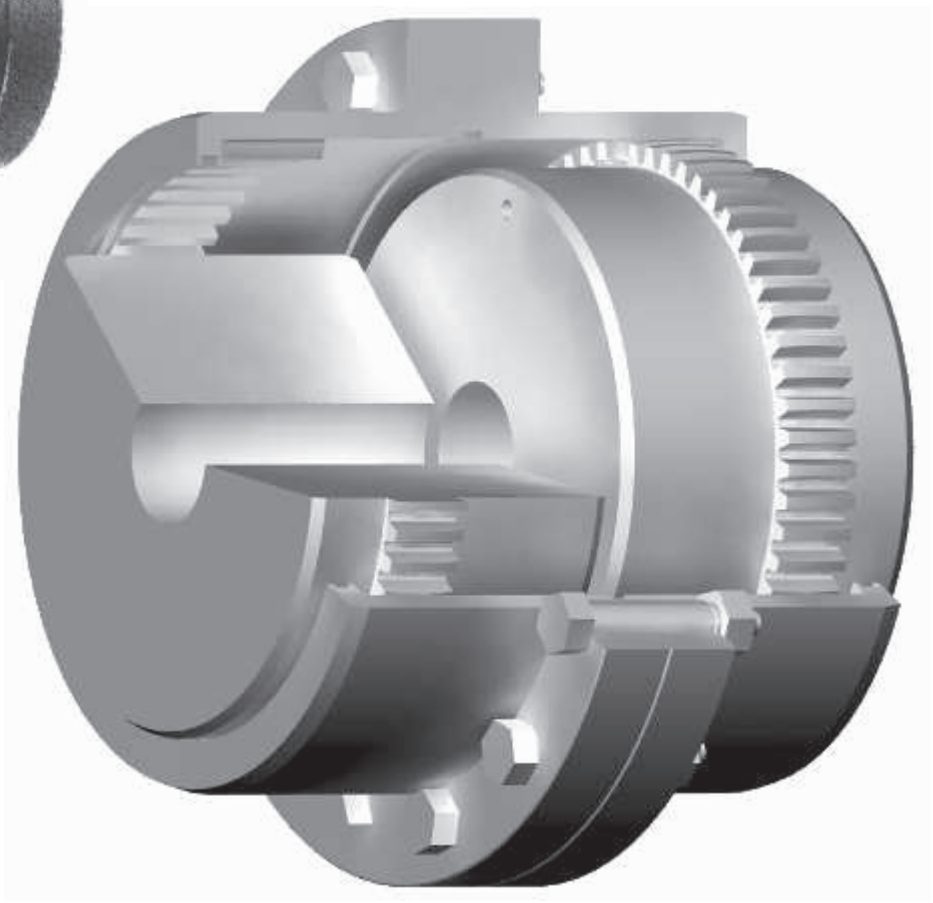
RATH®

GEAR-*Flex* COUPLINGS

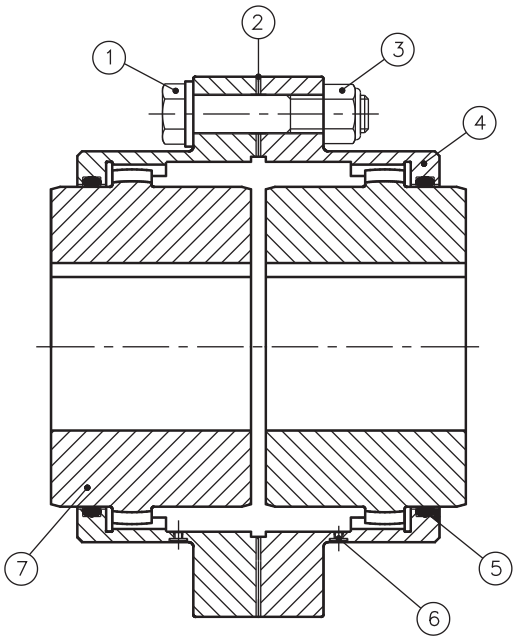
TYPE
RGD / RGS



FEATURES

- High Torque Ratings
- Large Bore Capacity
- Interchangeability
- Better Fastener Design
- High Misalignment Capacity
- Improved Lubrication System

CONFORMS TO AGMA STANDARD



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

High Torque Ratings
Rathi RGD & RGS Series Gear coupling; 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 $1\frac{1}{2}^0$ per gear mesh. The recommended operating misalignment is limited to $3/4^0$ 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 must fully moulded seals positively lubricant and seal interior against foreign matter

TECHNICAL DATA

Size	10	15	20	25	30	35	40	45	50	55	60	70
Outer Dia.	115.8	152.4	177.8	212.9	239.8	279.4	317.5	345.9	388.9	425.5	457.2	527.1
PCD	95.2	122.2	149.2	181	206.4	241.3	279.4	304.8	342.9	368.3	400.1	463.6
No of Holes	6	8	6	6	8	8	8	10	8	14	14	16
Hole Dia	1/4”	3/8”	1/2”	5/8"	5/8"	3/4"	3/4"	3/4"	7/8"	7/8"	7/8"	1"

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

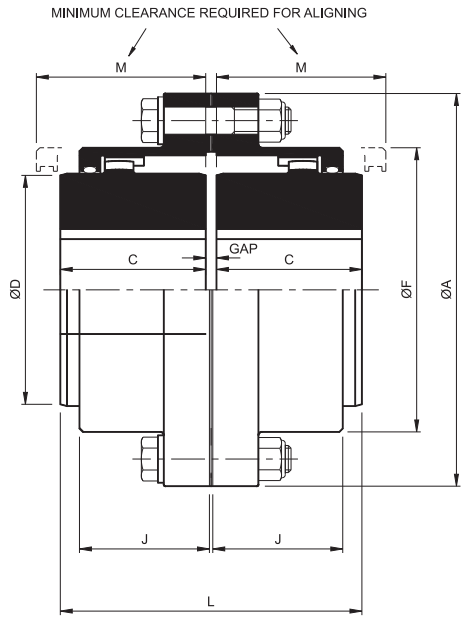
SELECTION :

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

$$T = \frac{9.55 \times P \times S.F.}{N}$$

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.



TYPE RGD

Double Engagement Couplings : TYPE - RGD

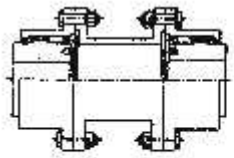
Standard Double engagement couplings accommodate both angular and parallel misalignment or combination of both, as well as end float without imposing appreciable axial loads on adjacent bearings.

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

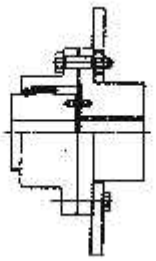
Ideal for all standard applications including fans, overhead cranes, conveyors, steel and paper mill equipments.

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

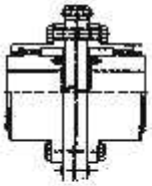
Size	Coupling Rating		Maximum Speed rpm	Bore Dia mm		Dimensions mm								Solid Hub	
	kW at 100 rpm	Rated Torque kNm.		Min. Bore	Max. Bore	ØA	L	C	ØD	ØF	J	M	Gap	Mass kg	MR^2 Intertia kg m^2
10	12.5	1.2	8000	14	52	116	89	43	69	84	39	51	3	4.4	0.0052
15	26.1	2.5	6500	22	65	152	103	50	86	105	48	61	3	9	0.0192
20	52.1	5	5600	27	80	178	127	62	105	127	60	76	3	15	0.041
25	90.7	8.7	5000	32	98	213	159	77	131	155	72	92	5	27	0.105
30	134.4	12.9	4400	42	115	240	187	91	152	181	84	106	5	40	0.195
35	202.2	19.4	3900	47	135	279	220	107	178	211	98	130	6	65	0.454
40	317.9	30.5	3600	47	160	318	248	121	210	250	111	145	6	96	0.86
45	435.6	41.8	3200	52	180	346	278	135	235	274	123	165	8	131	1.39
50	594	57	2900	72	195	389	314	153	254	306	141	183	8	186	2.53
55	844.1	81	2650	72	215	425	344	168	279	334	158	203	8	247	3.83
60	990	95	2450	77	235	457	384	188	305	366	169	228	8	299	5.21
70	1531	147	2150	92	280	527	451	221	356	425	196	266	9	473	11



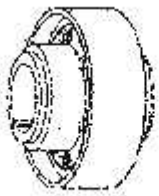
Restricted End Float



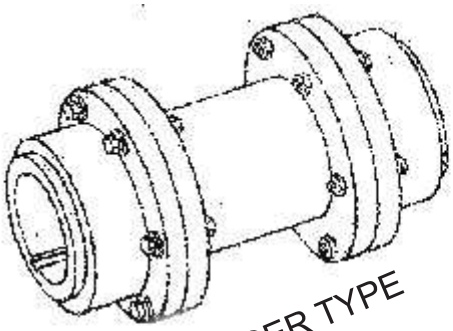
Brake Disc



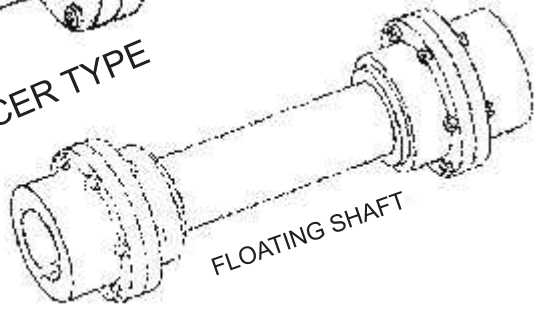
Shear Pin



Brake Drum



SPACER TYPE



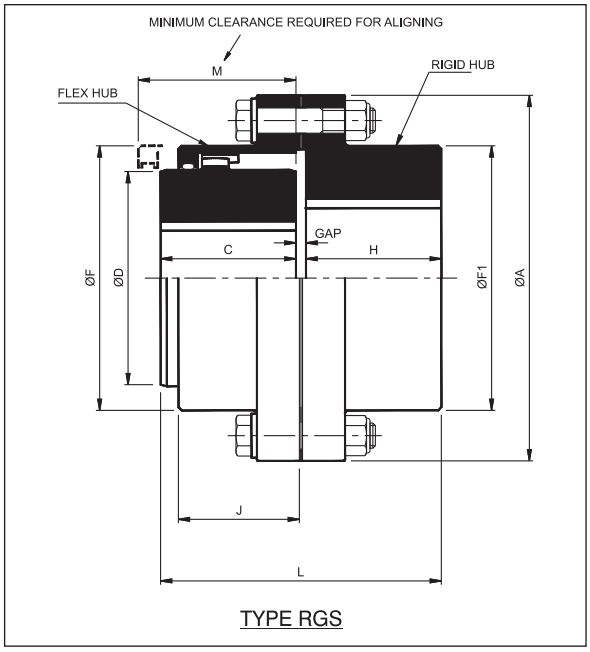
FLOATING SHAFT

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.



TYPE RGS

Size	Coupling Rating		Max.	Min Bore Dia mm		Max Bore Dia mm		Dimensions mm										Solid Hub	
	kW at 100 rpm	Rated Torque kNm.	Speed rpm	Flex Hub	Rigid Hub	Flex Hub	Rigid Hub	ØA	L	C	ØD	ØF	ØF1	J	H	M	Gap	Mass kg	WR² Intertia kg m²
10	12.5	1.2	8000	14	18	52	60	116	87	43	69	84	84	39	40	51	4	4.5	0.0055
15	26.1	2.5	6500	22	26	65	80	152	101	50	86	105	107	48	47	61	4	9.5	0.0204
20	52.1	5	5600	27	30	80	90	178	125	62	105	127	130	60	59	76	4	15.5	0.0436
25	90.7	8.7	5000	32	37	98	110	213	156	77	131	155	157	72	74	92	5	27.5	0.111
30	134.4	12.9	4400	42	44	115	130	240	184	91	152	181	182	84	88	106	5	41.5	0.21
35	202.2	19.4	3900	47	52	135	150	279	215	107	178	211	212	98	102	130	6	67	0.477
40	317.9	30.5	3600	47	52	160	180	318	245	121	210	246	250	111	116	145	8	100	0.92
45	435.6	41.8	3200	52	57	180	200	346	274	135	235	274	276	123	131	165	8	135	1.468
50	594	57	2900	72	77	195	220	389	310	153	254	306	309	141	148	183	9	195	2.73
55	844.1	81	2650	72	77	215	240	425	350	168	279	334	334	158	173	203	9	261	4.2
60	990	95	2450	77	82	235	260	457	385	188	305	366	366	169	187	228	9.5	316	5.7
70	1531	147	2150	92	102	280	300	527	452	221	356	425	425	196	220	266	11	500	12.05

- The outer dimensions of flanges are rounded up to nearest figure in above tables.
- Contact RATHI for couplings operating at higher torques upto 8100 kNm and higher speeds than specified.
- To attend the max. Speed specified above Dynamic balancing is required please Consultant RATHI.
- Max. bores specified above are for uniformly loaded drives only.
- Max. bore for coupling with or equivalent to DIN 6885 keys.
- Min. bore is nothing but a rough stock bore, to which the couplings are manufactured.
- Higher sizes & Spacer type couplings are available (Max. Bore 535 mm & Max. Rating 13400 kW @ 100 RPM), Contact to RATHI.

ISO 9001 BUREAU VERITAS Certification

UKAS QUALITY MANAGEMENT 008

Rathi Transpower Pvt Ltd
Rathi Chambers, 7, Deccan College Road,
Pune 411 006.(INDIA)
Phone : 91-20-30517201
Fax : 91-20-30517212
E-mail : enquiry@rathigroup.com
Website : www.rathicouplings.com

Distributor