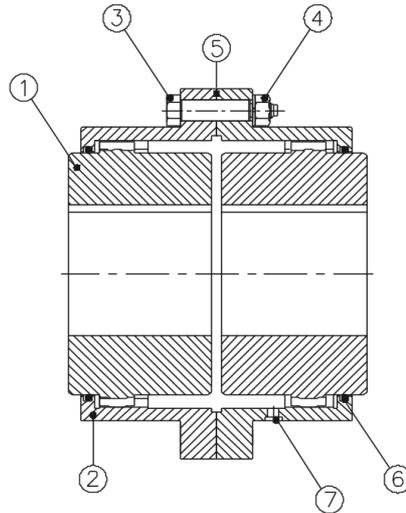


GEAR-FLEX COUPLINGS

TYPE RGD/RGS



- 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)

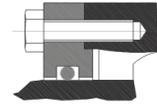
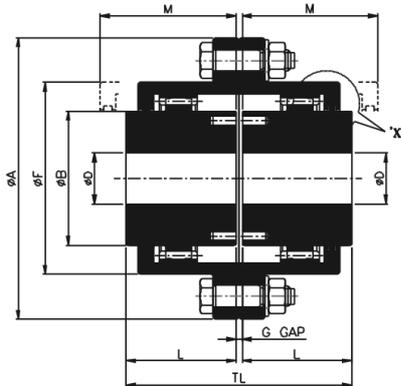
$$T = \frac{Nm \times P \times S.F.}{N}$$

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.

GEAR-FLEX COUPLINGS TYPE RGD



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.

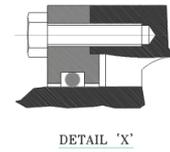
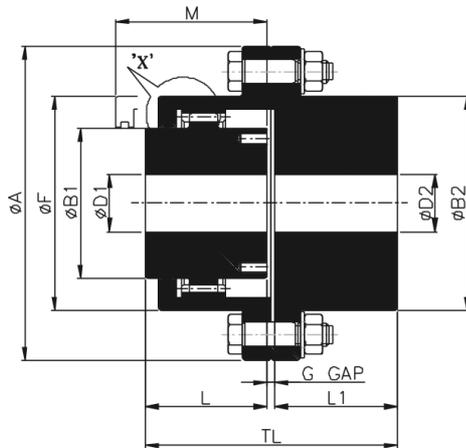
Ideal for all standard applications including fans, overhead cranes, conveyors, steel and paper mill equipments.

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

GEAR-FLEX COUPLINGS TYPE RGS



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.

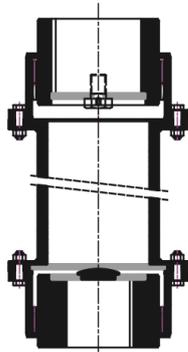
Used primarily with floating shaft assemblies to cover longer distance between shaft ends. Consult **RATHI** for vertical applications.

TECHNICAL DATA

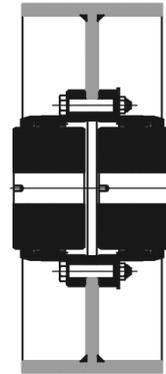
Size	Coupling Rating		Max. Speed rpm	Min Bore Dia mm		Max Bore Dia mm		Dimensions mm								Solid Hub		
	kW at 100 rpm	Rated Torque Nm		Flex Hub	Rigid Hub	Flex Hub	Rigid Hub	ØA	ØB1	ØB2	ØF	G	L	L1	M	TL	Mass kg	M.I. (WR ²) kg-m ²
RGS-10	14	1337	8000	15	18	52	60	116	69	84	84	4	43	40	51	87	4.5	0.0055
RGS-15	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.

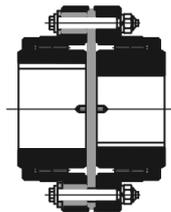
SPECIAL DESIGN VARIANTS GEAR COUPLING



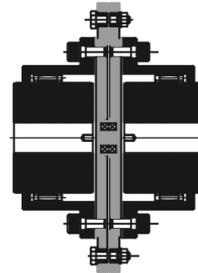
RGD with Vertical Spacer



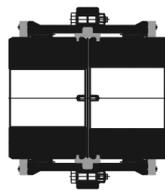
RGD with Brake Drum



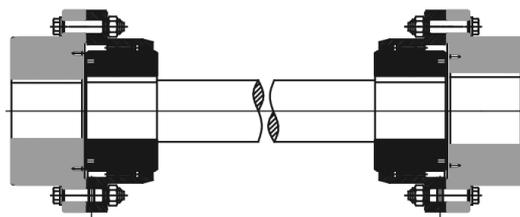
RGD with Electrical Insulation



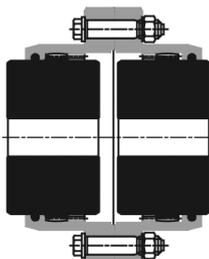
RGD with Shear Pin



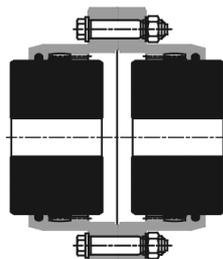
RGD with Limited End Float



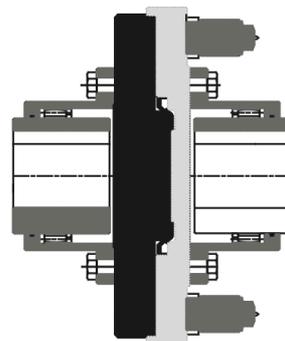
RGD with Floating Shaft



One Hub Reverse



Both Hubs Reverse



Gear coupling with Torque Limiter