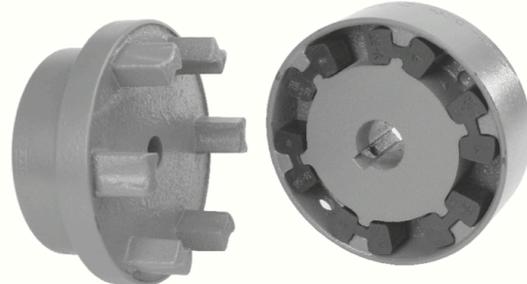


N-FLEX RN COUPLINGS TYPE RN / RNS



Rathi N-Flex couplings consists of graded cast iron hubs and a set of 'H' shaped highly resilient blocks which accommodates parallel, angular and axial misalignments & absorbs torsional vibrations. Rathi N-Flex spacer couplings (Type - RNS) are suitable for 'Back Pull out Pumps' in which the impeller can be disassembled without disturbing motor and pump from the base frame.



RN (B)



RN (A)

H Insert
(Nitrile / PU / H-Trans)

RNS(H)

FEATURES

Simplicity Of Construction

Easy to assemble & disassemble.
Suitable for reversing operation.

Varying Stiffness Characteristics

Special H shaped inserts provide progressively increasing stiffness characteristics, hence ensure effective shocks & vibration absorption.
Special elastomer can be supplied to suit specific application needs.

No Lubrication

RN/RNS couplings do not require lubrication of any kind.

Application :

Mainly for pump applications such as :

Water Pumps, Slurry Pumps, Sewage Pumps, Back Pull out Pumps, Multistage Pumps, Split Case Pumps, API Pumps, Chemical Process Pumps, Metering/Dosing Pumps, Gear Pumps, Paper Stock Pumps, Screw Pumps, Vacuum Pumps, Fire Pumps, High Pressure Pumps.

Simple / Easy Maintenance

No complicated mechanism to demand adjustment or maintenance. Inspection and replacement of inserts is easy.

Low Operational Cost

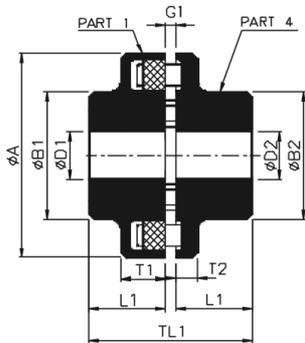
Only wear part is low cost inserts which make coupling economical in long run.

Smooth & Quiet Operation

Reduces vibration & noise arising from severe torque fluctuations. Operating temp. is -30°C to $+100^{\circ}\text{C}$.

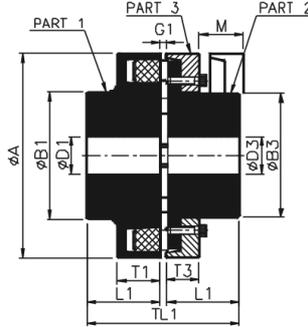
N-FLEX RN COUPLINGS

TYPE RN / RNS



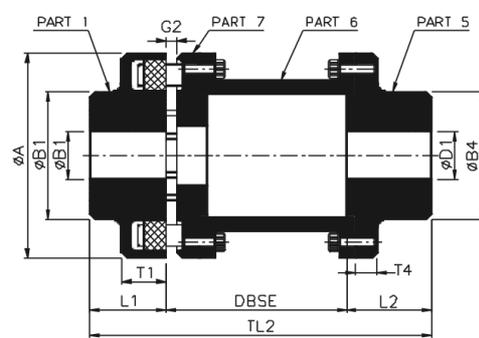
RN(B)

SIZES - 68 TO 250



RN(A)

SIZES - 110 TO 250



RNS(H)

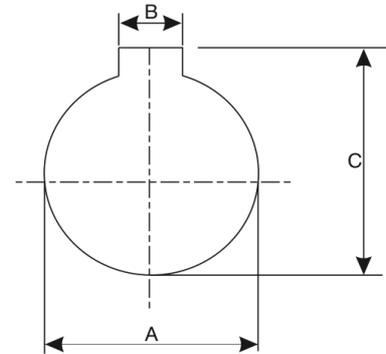
SIZES - 80 TO 250

SIZE	RATED TORQUE Nm.	KW @ 100 RPM	RATED TORQUE Nm.	KW @ 100 RPM	RATED TORQUE Nm.	KW @ 100 RPM	MAX. SPEED (RPM)	MAX. BORE (mm)			DIMENSIONS (mm)														WEIGHT Kg			M.I. (WR ²) Kg-m ²				
								D1	D2	D3	ØA	ØB1	ØB2	ØB3	ØB4	L1	L2	T1	T2	T3	T4	M	DBSE	RN(B)	RN(A)	RNS(H)	RN(B)	RN(A)	RNS(H)			
68 B	34	0.36	51	0.54	85	0.9	7000	24	28	-	68	68	45	-	-	20	-	21	8	-	-	-	-	-	-	-	0.54	-	-	0.0002	-	-
80 B, H	60	0.63	90	0.95	150	1.6	6000	30*	38	-	80	68	68	-	55	30	45	31	10	-	7	-	-	-	-	100 140	1.3	-	2.6 2.7	0.0006	-	0.001 0.001
95 B, H	100	1.1	150	1.65	250	2.8	5500	42	42	-	95	76	76	-	70	35	45	30	12	-	9	-	-	-	100 140	2.2	-	3.5 3.8	0.0013	-	0.003 0.003	
110 A, B, H	160	1.7	240	2.55	400	4.3	5300	48	48	38	110	86	86	62	85	40	50	34	14	20	11	33	-	100 140 180	3.3	3	5.2 5.4 6.0	0.0030	0.003	0.005 0.006 0.006		
125 A, B, H	240	2.5	360	3.75	600	6.3	5100	55	55	45	125	100	100	75	90	50	50	36	18	23	11	38	-	100 140 180	5.2	4.8	7.2 7.7 8.2	0.0060	0.005	0.010 0.010 0.011		
140 A, B, H	360	3.8	540	5.70	900	9.5	4900	60	60	50	140	100	100	82	100	55	65	34	20	28	15	43	-	100 140 180	5.6	6	10.0 10.5 11.0	0.0070	0.0080	0.018 0.019 0.020		
160 A, B, H	560	5.9	840	8.85	1400	14.8	4250	65	65	58	160	108	108	95	108	60	70	39	20	28	15	47	-	100 140 180	7.8	8.4	13.0 13.7 14.5	0.0100	0.0140	0.030 0.032 0.034		
180 A, B, H	880	9.2	1320	13.80	2200	23.0	3800	75	75	65	180	125	125	108	125	70	80	42	20	30	15	50	-	140 180	11.5	12	18.5 19.4	0.0200	0.025	0.054 0.058		
200 A, B, H	1340	14	2010	21.00	3350	35.0	3400	85	85	75	200	140	140	122	140	80	90	47	24	32	18	53	-	140 180 200 250	16	17	25.6 26.5 27.2 28.5	0.0400	0.040	0.095 0.100 0.105 0.110		
225 A, B, H	2000	21	3000	31.50	5000	52.5	3000	90	90	85	225	150	150	138	150	90	100	52	18	38	18	61	-	140 180 200 250	20	23	34.0 35.0 36.0 38.0	0.0700	0.080	0.158 0.160 0.170 0.180		
250 A, B, H	2800	29	4200	43.50	7000	72.5	2750	100	100	95	250	165	165	155	165	100	110	60	18	42	21	69	-	180 200 250	29	31	48.0 50.0 52.0	0.1200	0.130	0.270 0.280 0.300		

- All dimensions are in mm.
- * = Bore 32 mm for part 5.
- G1 = 2-4mm for sizes 68 to 140, 2-6 mm for sizes 160 to 225 & 3-8 mm for size 250.
- G2 = 5 mm for sizes 80 to 140, 6 mm for sizes 160 to 225 & 8 mm for size 250.
- Part No. 5 is available with different length through Bores L2.
- Max. bore for coupling with or equivalent to DIN 6885 keys.
- For vertical installation contact RATHI.
- Weight & Inertia at Max Bore.

METRIC BORE & KEYWAYS : IS:2048-1983 / BS 4235-1:1972 (Dimensions comply with DIN 6885/1)

SR. NO.	BORE SIZE (A)		KEYWAY				SET SCREW SIZE
			WIDTH (B)		DEPTH (C)		
	H7		Js9				
1	11	+0.018	4	±0.015	12.8	+0.1	M5 X 0.8P
2	14	-0.000	5		16.3	-0.0	
3	19	+0.021 -0.000	6	±0.018	21.8	±0.2 -0.0	M6 X 1P
4	24		8	±0.022	27.3		
5	28	8	31.3				
6	34	+0.025 -0.000	10	±0.027	37.3	±0.2 -0.0	M10 X 1.5P
7	38		10		41.3		
8	42	12	45.3				
9	48	+0.030 -0.000	14	±	51.8	±0.2 -0.0	M12 X 1.75P
10	55		16		59.3		
11	60	+0.035 -0.000	18	0.033	64.4	±0.3 -0.0	M16 X 2P
12	65		18		69.4		
13	75	20	74.9				
14	80	22	85.4				
15	85	+0.040 -0.000	22	0.033	90.4	±0.3 -0.0	M20 X 2.5P
16	100		28		106.4		
17	110	28	116.4				
18	115	32	122.4				
19	120	32	127.4				
20	125	32	132.4				
21	130	32	137.4				
22	135	36	143.4				
23	140	36	148.4				
24	145	36	153.4				
25	150	36	158.4				



Imperial Bores
Data available on request.

ELASTOMERIC FLEXIBLE MEMBERS FAILURE MODE CAUSES

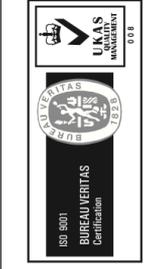
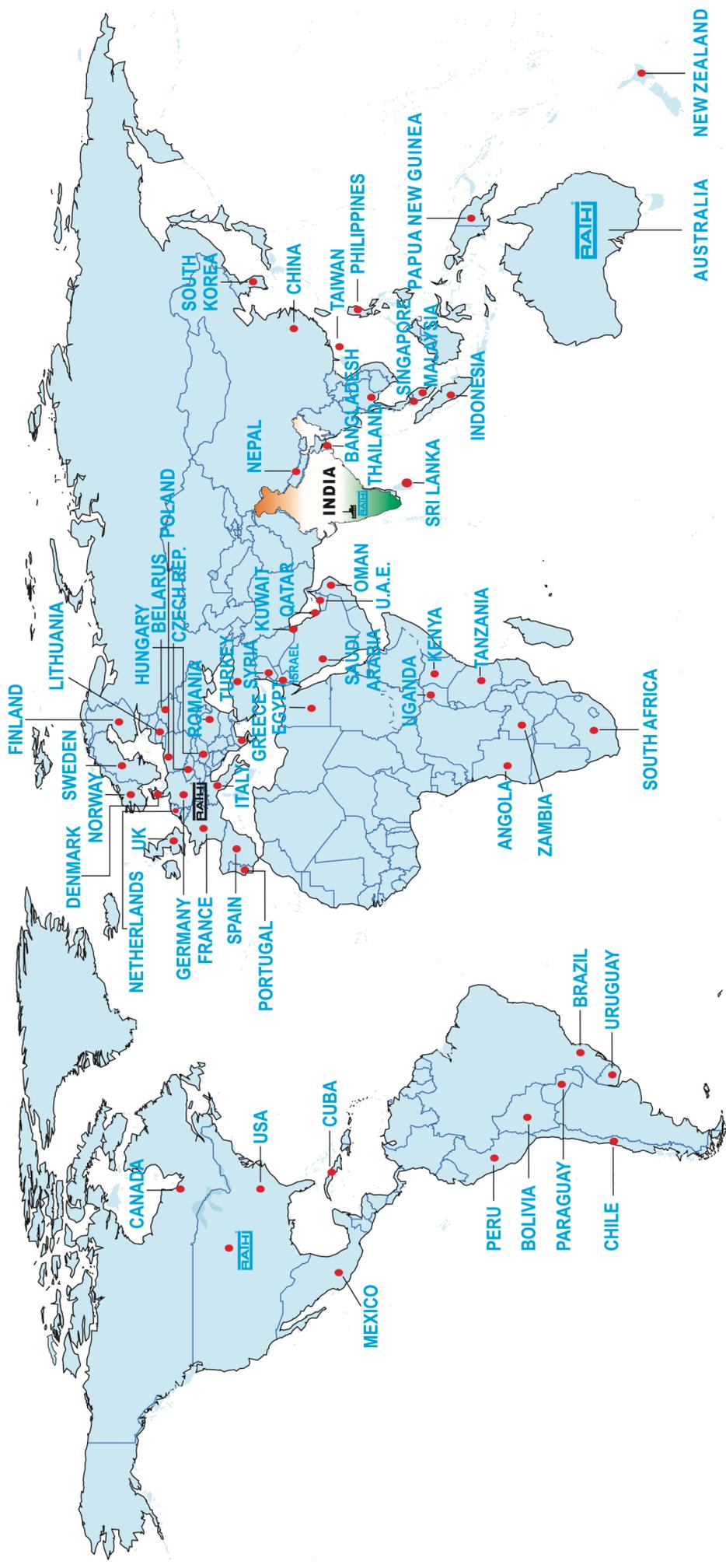
The investigation procedure is somewhat tougher here. There are many types of elastomers used in various elastomeric couplings. A guideline of failure mode & causes are given below :-

FAILURE MODE	PROBABLE CAUSE	CORRECTIVE ACTION
Worn flexing element or shaft bushings. Shaft bearing failure. High-pitched or staccato noise.	Excessive shaft misalignment.	Realign coupling and shaft to meet specified tolerances.
Ruptured elastomeric flexing element. Sheared hub, pins or teeth. Loose hubs on shaft, sheared keys.	torsional shock overload.	Find and eliminate cause of overload. Use larger coupling.
Fatigue of flexible element. Overheated elastomeric tyre or sleeve. Fatigue or hub pins or discs. Worn gear teeth. Staccato or clacking noise. Loose hub on shaft, keyseat walls.	1. Torsional vibration. 2. Excessive starts and stops. 3. High peak-to-peak torsional overloads.	1 & 2 Use larger coupling. 3 Add flywheel to hub.
Shaft bearing failures. High-pitched whine. Motor thrust bearing failure.	Lubricant failure.	Replace or rebuild coupling.
Swollen or cracked elastomeric flexible member. Lubricant failure. Severe hub corrosion.	Chemical attack.	Use more chemically resistant flexing member or hub. Coat hubs.
Distorted or deteriorated elastomeric flexing member. Lubricant failure.	Excessive heat.	Use special high-temperature rubber compounds and lubricants.
Shattered flexing member. Lubricant failure.	Low temperature. (below - 18°C)	Use special low-temperature rubber compounds and lubricants.

COMPREHENSIVE PERFORMANCE HISTORY

In reality, the flexible coupling is a mechanical fuse. The failure of this fuse, which is usually the cheapest component in the driveline, should be welcomed. For it thus indicates trouble in the system and a major component failure is avoided. However, if the coupling failure presents a hazard, as it could on a manned lift or an overload crane, point out this hazard vividly to the manufacturer.

Distribution throughout the world



Manufacturer
Rathhi 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
Rathhi Europe GmbH
 Im Wied 2, D-32683,
 Barntrup, Germany
 Phone : +49 (0) 5263 9561 840
 Fax : +49 (0) 5263 9561 849
 E-mail : sales@rathhi-europe.com
 Website : www.rathicouplings.com

Australian Operation
Rathhi Polybond Pty Ltd
 Unit 9/56, Smith Road,
 Springvale,
 Victoria 3171
 Tel. : 03-9558 6922
 E-mail : sales@rathhipolybond.com
 Website : www.rathipolybond.com

North America
Rathhi North America
 P.o. Box 42, N56 W13855
 Silver Spring DR,
 Menomonee Falls,
 WI 53051 United States USA
 E-mail :
 Website : www.rathicouplings.com

Distributor
Rathhi Couplings France
 www.rathicouplings.fr
 sales@3t-rathhi.eu
 Tél : 033 188 321 885