RATHI Standard-Couplings
Elastomer-Couplings

RATHI standard couplings, solutions for nearly all industrial applications

Coupling with:
- One piece flexible elements (Spider or Sleeve)
- One piece radial split elements (Snap Wrap)
- Pin und Bush
- With spacer for longer DBSE
- ATEX certified
- Tyre couplings

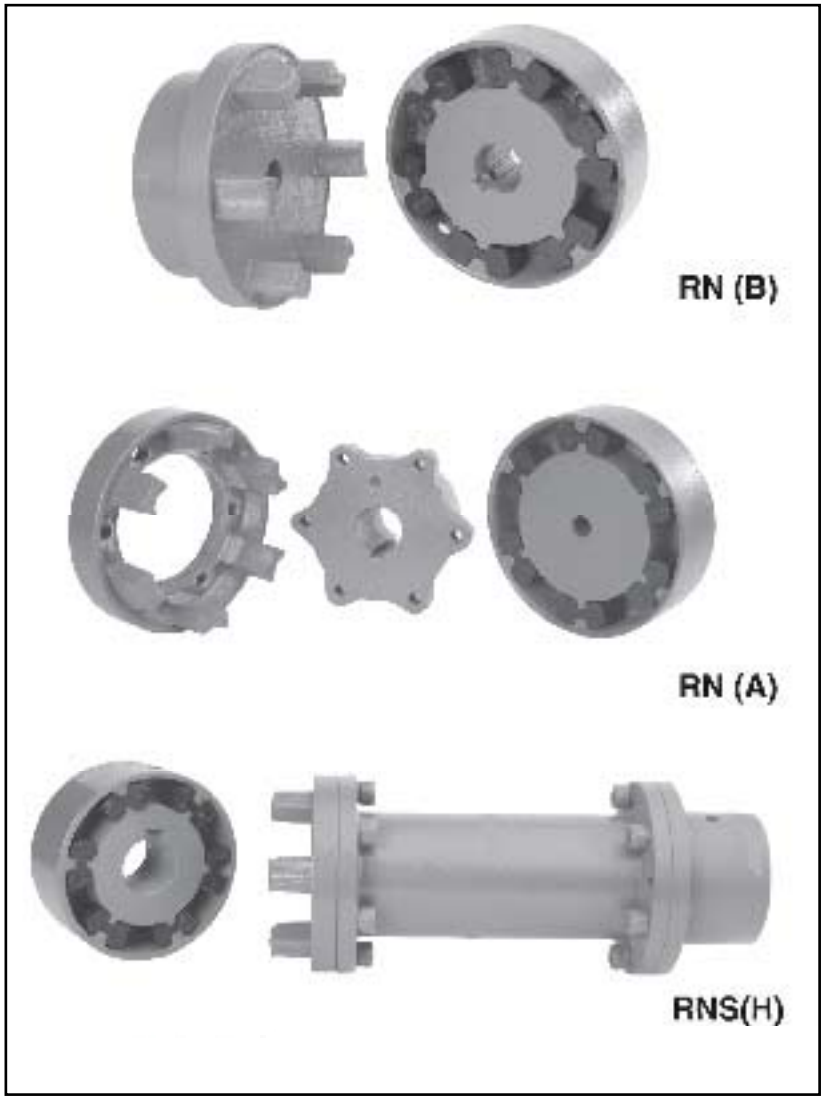
Typical application:

- Pumps, water, oil, gas, sludge, etc
- Fans
- Compressors
- Material handling equipment
- Watertreatment
- Cement
- Mining
- Steel
- Chemical Industry
- u.v.a.

Rathi Europe GmbH
Im Wied 2
D-326583 Barntrup
Tel.: +49 (0)5263 9561 840
Fax.: +49 (0) 5263 9561849
Mail: sales@rathi-europe.com
Web: www.rathi-europe.com

RATHI N-Flex Jaw Couplings

RATHI N-Flex couplings are widely used in industrial applications. The N-Flex Jaw couplings are made from cast iron with rubber elements hold in pockets for providing the flexibility and dampening of vibrations and shock loads. The torque is transmitted in a fail safe way, because even in case the elements are worn, the jaws have steel to steel contact in the hub.



N-Flex are available in 3 basic versions and 11 sizes.

Version RN B consist of the hub Part 1 with the elastic elements hold in pockets, and the hub part 4 with the jaws. Rathi supplies the hubs with pilot bores or final bores with keyway.

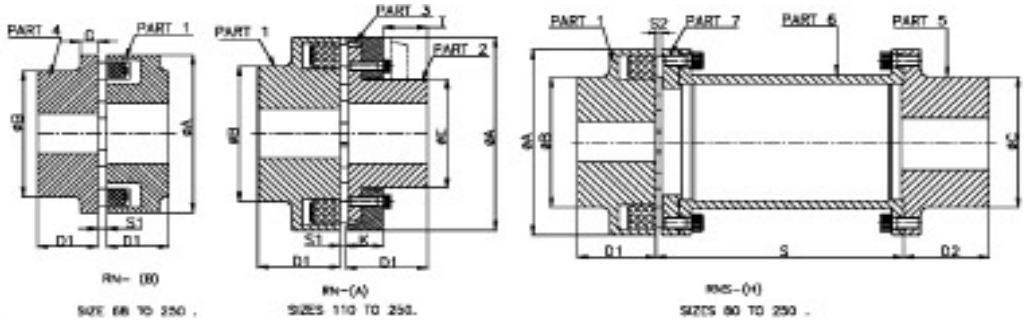
Version RN A consist of:
Hub Part 1, the same as in version B.
Part 3, as bolted Jaw element, which is connected to:
Part 2, the hub with the bore and key.
Because Part 3 and 2 are separate items, it is possible to lose Part 3 and replace the elements without moving the hubs.

Version RN S (H) is like the A version with additional spacer to allow the bridging of longer distance between the shaft ends (DBSE). The spacer are available for each size in different length.

RATHI N-Flex couplings dampen shock loads, compensate for misalignment and transmit the torque in a fail safe way. The residual forces in the coupling are small, which reduces the load in the bearings of the connected elements. The flexible elements are available in different hardness to be able to react on the demand from the application. The modular design, makes it easy to select the right parts.

N-Flex couplings are certified for the usage in potential explosion proof areas. (ATEX)
N-Flex couplings are ideal for the usage with Fluid couplings.
They are used at all kind of pumps, in conveying application and for lifts and hoists.
For the usage at a Diesel engine, please consult the RATHI sales team for helping with the selection.
Special designs are available like: combination with torque limiter, brake discs or drums, special low temperature steel for the usage in areas below -20 degrees C.

RATHI N-Flex technical Data



Cplg.	Nominal Torque			MAX. Speed	MAX. BORE (mm)			Dimensions mm									
Size	Nm			rpm	Part No.												
	NITRILE	PU	HYTREL		1	4	2	ØA	ØB	ØC	ØE	D1	D2	G	K	T	S
68 B	34	52.	86	5000	24	28	-	68	46	-	-	20	-	8	-	-	-
80 B,H	60	91	150	5000	30 *	38	-	80	68	55	-	30	45	10	-	-	100 140
95 B,H	100	158	263	5000	42	42	-	95	76	70	-	35	45	12	-	-	100 140
110 A,B,H	160	243	406	5000	48	48	38	110	86	80	62	40	50	14	20	33	100 140 180
125 A,B,H	240	358	597	5000	55	55	45	125	100	90	75	50	50	18	23	38	100 140 180
140 A,B,H	360	544	907	4900	60	60	50	140	100	100	82	55	65	20	28	43	140 180
160 A,B,H	560	845	1409	4250	65	65	58	160	108	108	95	60	70	20	28	47	140 180
180 A,B,H	880	1318	2197	3800	75	75	65	180	125	125	108	70	80	20	30	50	140 180
200 A,B,H	1340	2006	3342	3400	85	85	75	200	140	140	122	80	90	24	32	53	180 200 250
225 A,B,H	2000	3008	5014	3000	90	90	85	225	150	150	138	90	100	18	38	61	180 200 250
250 A,B,H	2800	4154	6924	2750	100	100	95	250	165	165	155	100	110	18	42	69	200 250

All dimensions are in mm
* = Bore32 mm in Part 5
S1 = 2- 4 mm for Sizes: 68 to 140; 2-6 mm for sizes 160 - 225, 3-8 mm for size: 250
S2 = 5 mm for Size 80 - 140 ; 6 mm for sizes 160 - 225 and 8 mm for Size 250
Max. Bores are for bores with keyway to DIN 6885 1

With the material of the elastic elements the load limits, the dampening and the temperature resistance changes. Check the tables for details. Harder material like PU or Hytrel allow higher load, but the dampening of vibrations and misalignment compensation is reduced.

RATHI N-Flex Flexible Elements

N-FLEX COUPLING

FLEXIBLE ELEMENTS

- Shelf life (Storage) of flexible elements up to 5 years.
- Protect Flexible elements against direct sunlight, artificial light with a high ultraviolet content, oil , grease & extreme temperature.
- Flexible element must not come in to contact with aggressive media.
- Flexible element must not be heated up to temperature given in the Table below, during installation.
- Replace Flexible elements in set only.
- Use only identical elements in one coupling.

SR. NO.	MATERIAL	HARDNESS	REMARK	# MARK	TEMPERATURE RANGE
1	NBR	80 Shore A	Standard	Black flexible elements with blue dot	-30°C to +80°C
2	NBR	65 Shore A	Special, soft, shift of rotary resonance speed, nominal torque reduced	Black flexible elements with white dot	-30°C to +80°C
3	NBR	90 Shore A	Special, hard, shift of rotary resonance speed	Black flexible elements with magenta dot	-30°C to +80°C
4	NR	80 Shore A	Special use at low temperature	Black flexible elements with orange dot	-50°C to +50°C
5	HNBR	80 Shore A	Special use at high temperature	Black flexible elements with red dot	-10°C to +100°C
6	NBR	80 Shore A	Special Electrically insulating	Black flexible elements with green dot	-30°C to +80°C
7	PU	92 Shore A	Nominal torque capacity increased	Orange flexible elements	-30°C to +80°C
8	HY	55 Shore D	Nominal torque capacity increased, low speed	White flexible elements	-40°C to +90°C

Note:-
Mark- colour dots on the face of flexible elements (Except sr. no. 7& 8)

Caution!

Electrically insulation elements (Green dot) are approved for explosion groups IIA & IIB

High temperature flexible elements (Red dot) are not approved for use in potentially explosive areas.

RATHI N-Flex max.permissible Misalign-ment

N-FLEX COUPLING

● RN/RNS COUPLINGS MAXIMUM PERMISIBLE MISALIGNMENT CAPACITIES IN OPERATION

RN TYPE A/B

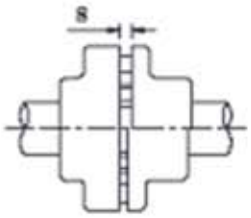


FIG.-1

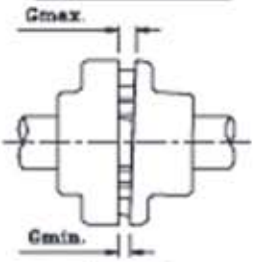


FIG.-2

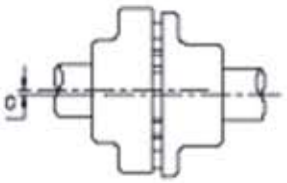


FIG.-3

RNS TYPE E

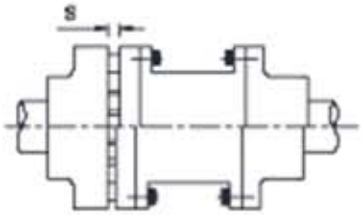


FIG.-4

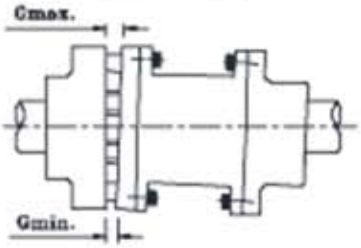


FIG.-5

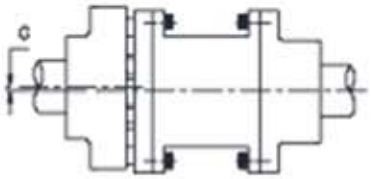


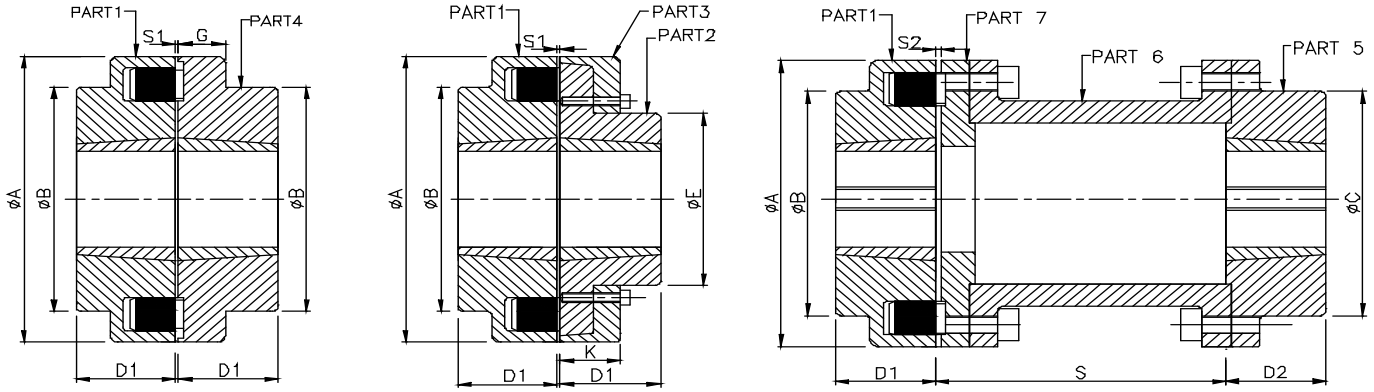
FIG.-6

SR. NO.	COUPLING SIZE	RADIAL & ANGULAR MISALIGNMENT 'G' mm G=Gmax.-Gmin. COUPLING SPEED RPM			
		750	1000	1500	3000
1	068	0.25	0.20	0.20	0.15
2	080	0.25	0.20	0.20	0.15
3	095	0.25	0.25	0.20	0.15
4	110	0.30	0.25	0.20	0.15
5	125	0.30	0.25	0.25	0.15
6	140	0.35	0.30	0.30	0.20
7	160	0.40	0.35	0.30	0.20
8	180	0.40	0.35	0.30	0.20
9	200	0.45	0.40	0.30	0.20
10	225	0.50	0.40	0.35	0.20
11	250	0.50	0.40	0.35	-

NOTES:-

- IT IS RECOMMENDED TO KEEP THE INTIAL (INSTALLATION) MISALIGNMENT LESS THAN 25% OF THE ABOVE VALUES.
- AXIAL MISALIGNMENT 'S' IS POSSIBLE WITHIN THE LIMIT DEPENDING ON THE INSTALLATION MEASUREMENT OF GAP 'S1' (FOR RN) & 'S2' (FOR RNS) AS SHOWN IN PRODUCT LEAFLET

RATHI N-Flex with Taperbush



TYPE F

RNT Size	Torque Nm	kW at 100 rpm	MAX speed rpm	useable Taper lock bush per Part				Dimensions in mm								
				1	2	4	5	ØA	ØB	ØC	ØE	D1	D2	G	K	S
68 B	34	0,36	5000	1008	NA	1008	NA	68	46	NA	NA	20	NA	8	NA	NA
80 B,H	60	0,63	5000	1108	NA	1108	1008	80	68	55	NA	23	23	10	NA	100 140
95 B,H	100	1,1	5000	1210	NA	1210	1108	95	76	70	NA	26	23	12	NA	100 140
110 A,B,H	160	1,7	5000	1615	1108	1615	1615	110	86	80	62	39	39	14	20	100 140 180
125 A,B,H	240	2,5	5000	1615	1615	1615	1615	125	100	90	75	39	39	18	23	100 140 180
140 A,B,H	360	3,8	4900	2012	1615	2012	1615	140	100	100	82	32	32	20	28	140 180
160 A,B,H	560	5,9	4250	2517	2012	2517	2517	160	108	108	95	45	45	20	28	140 180
180 A,B,H	880	9,2	3800	2517	2517	2517	2517	180	125	125	108	45	45	20	30	140 180
200 A,B,H	1340	14	3400	3020	2517	3020	3020	200	140	140	122	51	51	24	32	180 200 250
225 A,B,H	2000	21	3000	3020	3020	3020	3020	225	150	150	138	51	51	18	38	180 200 250
250 A,B,H	2800	29	2750	3535	3020	3535	3535	250	165	165	155	90	90	18	42	200 250

TAPER BUSH								
TAPER BUSH Size	1008	1108	1210	1615	2012	2517	3020	3535
MIN. BORE	10	10	12	14	14	16	24	35
MAX. BORE	25	28	32	42	50	60	75	90
Part No.	1,4, 5	1,4, 5	1,4	1,2,4,5	1,4	1,2,4,5	1,2,4,5	1,4

NOTES

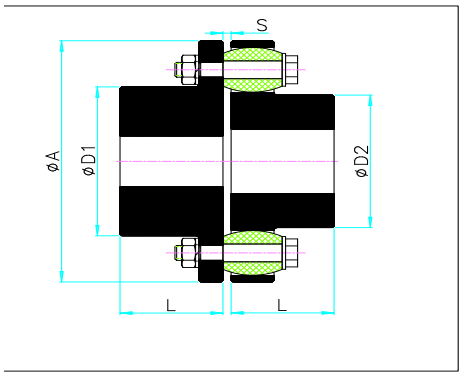
1) All dimensions in mm
2) S1= 2-4 mm at sizes 68 - 140, 2-6 mm at sizes 160 - 225 & 3-8 mm at size 250.
3) S2= 5 mm at size 80 - 140, 6 mm at sizes 160 to 225 & 8 mm at size 250.

RATHI B-Flex, Pin and Bush Coupling

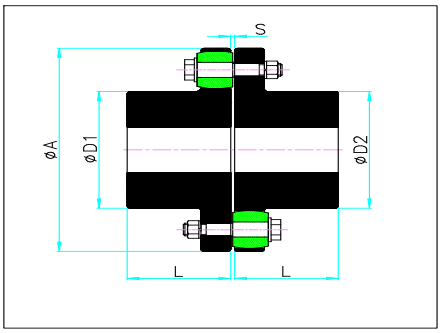
RATHI RB Pin and Bush couplings are sold in 27 sizes.
The barrel shaped flexible elements are ideal for compensation of misalignment, because they provide max. possible contact and due to the barrel shape, they dampen shock loads optimal.
The RATHI RB couplings are designed for rough conditions, like in heavy industry, in mining or steel application, at compressors, fans, extruders, etc. They work in both directions.
The hubs are made from cast iron. Optional steel hubs are available.
By taking the pins and buffers out, the drive train can be disconnected.

Features and Benefits:
- Easy to understand.
- Easy to install.
- Robust
- Easy exchange of flexible Elements
- No lubrication needed
- Easy to inspect for wear
- Parable shaped spring line, due to the barrel shaped flexible elements. Ideal for dampening of shock loads.
- Fail safe, useable for load holding applications, like cranes.
- Reversing is no problem
- With steel hubs, the coupling is useable at low temperatures.
- Polyurethane or Hytrel buffers are optional available, to increase the temperature range and change the torsional stiffness. In combination with steel hubs the temperature range could be -50 to + 100 degress C.
- ATEX certifified
- Horizontal and vertical mounting possible. Vertical mounting should be specified with the order.
- Options like Brakedrums, Spacer, Torque limiter etc. avaiable.

RATHI RB Pin and Bush coupling



Buffer only on one side up to size RB 360



Buffer on both side from size RB 400

Technical Data RATHI RB couplings

Size	kW at 100 rpm	Nominal torque Nm	Max. rpm	Min. Bore mm	Max. Bore		ø A	ø D1	ø D2	L	S	Weight kg	WR² in kgm²	Max. permissible misalignment		
					ø B1	ø B2								Axial in mm	Radial in mm	Angular
RB 105-3	1,00	95	7200	11	30	32	105	48	50	45	2-6	2	0,003	2	0,3	1°
RB 116-4	1,50	146	6100	12	39	42	116	60	68	45	2-6	2,6	0,005	2	0,3	1°
RB 125-4	1,70	166	5500	14	45	50	125	68	78	50	2-6	3,1	0,007	2	0,4	1°
RB 144-6	3,30	318	4900	18	50	60	144	82	91	55	2-6	4,3	0,012	2	0,4	1°
RB 162-6	5,50	525	4500	22	60	65	162	89	100	60	2-6	7,5	0,03	2	0,4	1°
RB 178-6	6,70	643	3800	24	70	75	178	105	115	70	2-6	10	0,04	2	0,5	1°
RB 198-10	13	1248	3400	28	80	90	198	124	135	80	2-6	13	0,062	2	0,5	1°
RB 228-11	21	2050	3000	28	90	100	228	133	146	90	4-10	18	0,1	3	0,6	1°
RB 252-12	32	3069	2700	38	105	115	252	156	167	100	4-10	24	0,17	3	0,6	1°
RB 285-11	48	4552	2400	48	115	125	285	170	186	110	4-10	35	0,31	3	0,7	1°
RB 320-12	64	6099	2100	55	125	135	320	196	212	125	4-10	51	0,53	3	0,7	1°
RB 360-11	93	8900	1900	65	135	150	360	212	232	140	4-12	73	1,02	4	0,9	1°
RB 400-11	126	12051	1700	75	160	160	410	230	230	160	4-12	101	1,7	4	1,1	1°
RB 450-12	195	18602	1500	85	180	180	450	260	260	180	4-12	137	2,9	4	1,1	0,5°
RB 500-14	270	25802	1350	95	200	200	500	290	290	200	4-12	180	4,7	4	1,1	0,4°
RB 560-10	325	31003	1200	95	225	225	560	320	320	220	4-8	278	10,7	2	1,5	0,3°
RB 630-12	440	41998	1050	100	250	250	630	355	355	240	4-8	365	17,4	2	1,5	0,3°
RB 710-12	785	75000	950	100	260	260	710	385	385	260	5-9	516	33	2	1,8	0,3°
RB 800-14	1047	100000	850	100	280	280	800	420	420	290	5-9	691	53	2	1,8	0,3°
RB 900-16	1623	154998	750	100	305	305	900	465	465	320	5-9	927	86	2	1,8	0,3°
RB 1000-18	2042	194997	680	125	320	320	1000	515	515	350	5-10	1224	142,8	2	2	0,1°
RB 1120-18	2827	269997	600	135	350	350	1120	560	560	380	6-11	1584	231	2	2,2	0,1°
RB 1250-20	3613	344997	550	150	380	380	1250	610	610	420	6-11	2070	367,5	2	2,4	0,1°
RB 1400-20	5550	529999	490	175	440	440	1400	700	700	480	6-12	3060	693	2	2,7	0,1°
RB 1600-24	7854	749995	430	200	480	480	1600	770	770	540	6-12	3960	1155	2	3	0,1°
RB 1800-22	10210	974996	380	225	540	540	1800	870	870	600	8-16	5750	2205	2	3,4	0,1°
RB 2000-26	13614	1299997	340	250	600	600	2000	960	960	660	8-16	7020	3255	2	3,8	0,1°

All dimensions are in mm

Weight and Moment of Inertia is for hubs with max. bore

Each coupling has an overload capacity of 3 times nominal load for a short time

Vertical mounting is possible, please consult RATHI for details

RATHI RC Pin and Bush Coupling

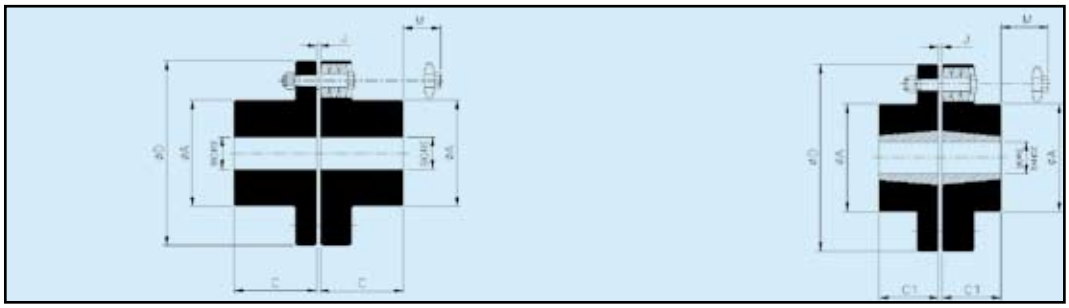
With conical shaped flexible elements

RATHI RC couplings are designed for rough application.
Close tolerances in the manufacturing process, high quality steel bolts, and high quality elastic elements make it possible to transmit high torque values per size.
The RATHI RC couplings have a long life time. The conical shaped buffers are stacket to provide a linear damping line.
Easy to assemble, no lubrication and easy inspection for wear makes this coupling a universal useable coupling for conveying, cement, mining, and other rough applications.

The standard elastic material is NBR rubber. Optional material is Polyurethane and Hytrel. The standard temperature range is -30 to + 70 degrees C. With PU or Hytrel the range is extended to -50 to + 100 degrees C ambient temperature at the coupling. For usage in low temperature areas below -25 C consult Rathi to make the selection of the right hub material. Cast Iron becomes at low temperatures briddle and the application data need to be checked to be sure that everything is okay.

RATHI RCT couplings are as the RC but with bores to take Taperlock Bushes. This gives etra flexibility for stock holding of spares.
The Taperlock Bushes are available through RATHI, please ask for the separate catalog.

RATHI RC Pin and Bush Coupling
Technical Data and Dimension



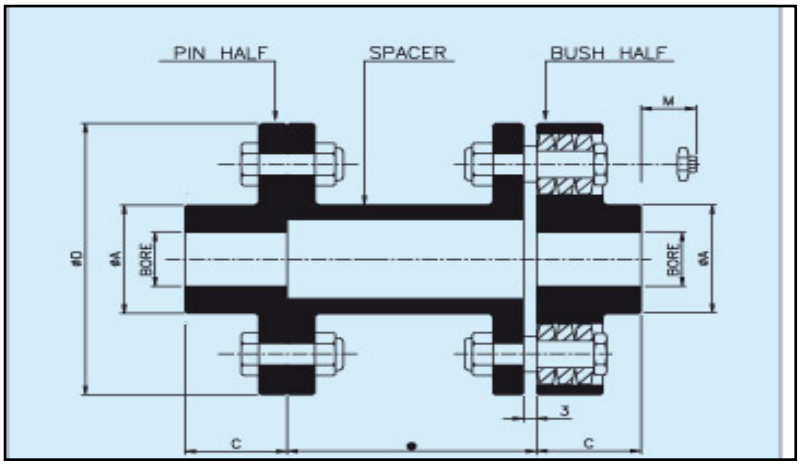
RC RCT

Technical Data and Dimensions

Type	Size	Nominal torque NR	Nominal torque PU	kW at 100 rpm NR	kW at 100 rpm PU	Max. speed rpm	RC		RCT			Dimensions							weight kg (min. Bore)		Inertia WR² kgm² (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	75	0,56	0,84	6500	12	22				89	35	33		30		3	1,8		0,002	
	030	110	165	1,2	1,8	5470	12	32				127	51	41		28		3	3,5		0,007	
	038	190	285	2	3	5260	15	40				132	64	48		22		3	4,9		0,009	
RC / RCT	042	290	435	3	4,5	4750	15	44	12	32	1215	146	70	56	38	14	32	3	6,3	5,42	0,013	0,012
	048	480	720	5	7,5	4050	21	52	16	42	1615	171	81	61	38	28	52	3	10,4	8,88	0,034	0,031
	058	760	1140	8	12	3600	21	62	14	50	2017	193	97	68	45	24	52	3	14,2	13	0,055	0,053
	070	1000	1500	11	16,5	3220	21	74	19	60	2525	216	117	76	63,5	23	28	3	19,8	17,78	0,092	0,086
	075	2600	3900	27	40,5	2730	28	80	16	60	2525	254	127	88	64	50	28	3	36,9	35,2	0,269	0,27
	085	3500	5250	37	55,5	2480	28	92	35	75	3030	279	147	100	76	38	60	3	48,5	43,6	0,408	0,38
	105	5300	7950	56	84	2100	34	114	35	90	3535	330	180	117	89	25	54	3	76,4	71,4	0,832	0,76
	120	9000	13500	94	141	1880	61	130	40	100	4040	370	206	132	102	48	78	6	121	107	1,811	1,7
	135	12223	18334,5	128	192	1660	67	144	55	110	4545	419	230	147	114,3	35	68	6	163	142,8	2,998	2,84
	150	16000	24000	167	250,5	1520	82	160	70	125	5050	457	256	165	127	16	55	6	209	179,1	4,397	4,02
RC	170	25000	37500	262	393	1300	96	184				533	292	188		48		6	305		9,998	
	190	34377	51565,5	360	540	1170	122	206				597	330	211		28		6	397		15,9	
	215	45000	67500	471	706,5	1050	135	230				660	368	237		10		6	508		24,95	
	240	75248	112872	788	1182	800	152	254				737	407	264		43		6	736		45,4	
	265	100000	150000	1047	1570,5	700	165	286				826	457	292		15		6	976		76,85	

All dimensions in mm
The gap J has to be kept during installation.
Details about Taper Bush are available in a separate catalog. Contact RATHI to get a copy
Standard mounting is horizontal, for vertical mounting consult RATHI.

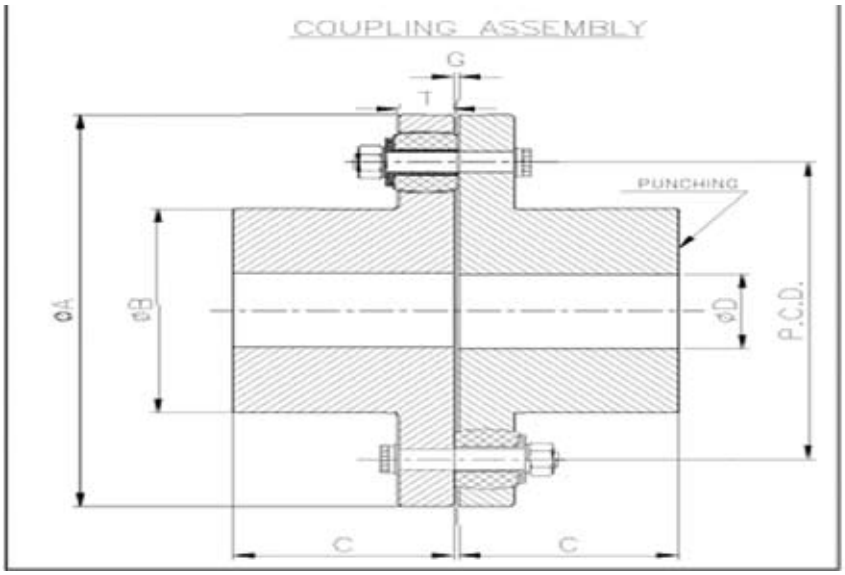
RATHI RCS Pin and Bush Spacer coupling



RCS Spacer coupling technical data										
Coupling size	Torque Nm	kW at 100 rpm	Max. speed RPM	Min Bore	Max. Bore	ø A	C	ø D	M	DBSE
RCS- 020	50	0,56	6500	12	20	35	33	89	30	100, 140 , 180
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	81	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	
RCS - 075	2600	27	2730	28	75	127	88	254	50	
RCS - 085	3500	37	2480	285	85	147	100	279	38	on request
RCS - 105	5300	56	2100	34	105	180	117	330	25	
RCS - 120	9000	94	1880	61	120	206	132	370	48	
RCS - 135	12223	128	1660	67	135	230	147	419	35	
RCS - 150	16000	167	1520	82	150	256	1665	457	16	
RCS - 170	25000	262	1300	96	170	292	188	533	48	
RCS - 190	34377	360	1170	122	190	330	211	597	28	
RCS - 215	45000	471	1050	135	215	368	237	660	10	
RCS - 240	75248	788	800	152	240	407	264	737	43	
RCS - 265	100000	1047	700	165	265	457	292	826	15	

All dimension are in mm
Please consult RATHI for other DBSE as listed.

RATHI RP Pin and Bush coupling
Steel hubs, barrel shaped buffers



Technical Data and dimension

Size	Polyurethane Buffer		Hytrel Buffer		Max. rpm	Dimension							weight in kg	WR² in kgm²	Amount of Bolts	Bolt size
	Nominal Torque Nm	Power kW/ 1 rpm	Nominal Torque Nm	Power kW / 1 rpm		A	B	C	D (Min-Max)	G	T	PCT				
RP 7.2	50	0,0052	65	0,00676	5000	72	35	29	12 - 20	2	15		1,16	0,00065	4	
RP 9.0	325	0,034	422,5	0,0442	6000	90	48	40	16 - 35	3	17		2,53	0,002	8	
RP 12.5	900	0,094	1170	0,1222	5800	125	70	50	16 - 50	3	20	95	6	0,009	12	M8
RP 14.5	1500	0,157	1950	0,2041	5500	145	80	65	16 - 58	5	25	112	10,1	0,02	12	M10
RP 16.5	2100	0,22	2730	0,286	4800	165	100	70	22 - 75	5	25	130	14,7	0,037	12	M10
RP 19.5	4200	0,44	5460	0,572	4400	195	120	90	32 - 90	5	30	155	27,13	0,09	12	M12
RP 24	9000	0,942	11700	1,2246	3600	240	150	105	42 - 110	5	35	190	46,6	0,246	16	M16
RP 29	17000	1,779	22100	2,3127	3000	290	180	125	60 - 130	6	50	230	86,2	0,7	16	M20
RP 32	22000	2,302	28600	2,9926	2600	320	210	151	70 - 150	6	50	260	124,3	1,17	16	M20
RP 35	30000	3,14	39000	4,082	2400	350	225	161	76 - 160	6	60	285	161,7	1,88	16	M24
RP 38	37500	3,925	48750	5,1025	2200	380	245	181	80 - 180	6	60	310	206,4	2,73	16	M24

PU Buffers have a hardness of 90 Share A

All dimensions in mm.

Consult RATHI for optional features, like brake drums, spacer, torque limiter etc.

Hubs are made from steel

All bores in tolerance H7 with keyway in JS9

The RATHI RP couplings are made from steel hubs, which allows the usage in temperature range of -50 to + 100 degrees C. The buffers are from PU or Hytrel which provide the necessary temperature resistance and stiffness.
This coupling is ideal for high load and high speed. Because of the steel hubs the coupling is lighter as a compareable cast iron Pin and Bush coupling. If lower load is required the amount of pins and buffers can be reduced to save on weight and cost. For options like spacer, brake disc etc. consult RATHI.

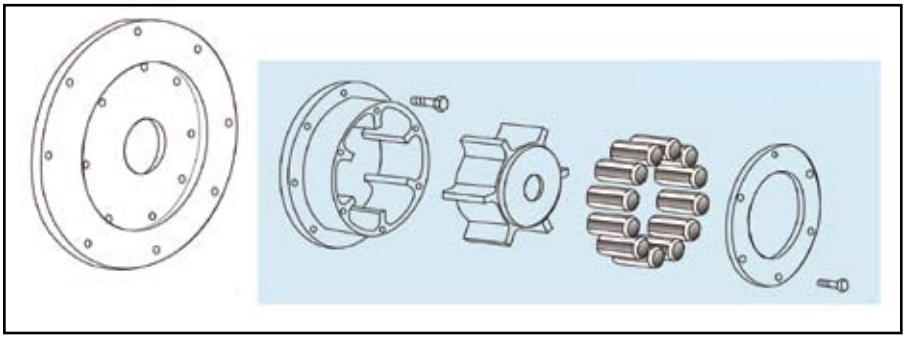
RATHI Hyflex

High elastic couplings incl. SAE Flangeversion

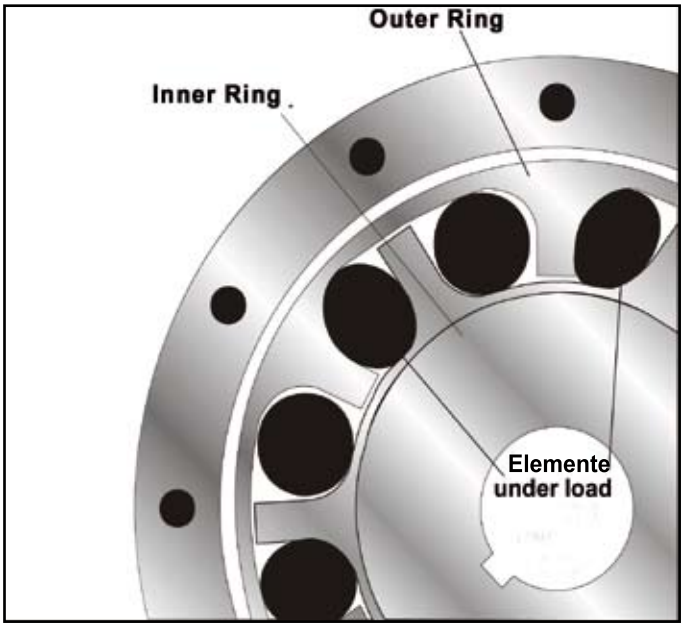
RATHI Hyflex couplings are designed for the usage at heavy load machines, which need excellent dampening and flexibility.
Often the Hyflex coupling are used in connection with Diesel Engines. For those RATHI offers the SAE Flange version for direct mounting.

Features and Benefits:

- High dampening values
- Flange and Hub-Versions are supplied
- Compact, good diameter to torque ratio
- Excellent start - stop performance
- For reversing sense of rotation useable



By selection of the appropriate elastic material, the coupling is adaptable for different applications. RATHI offers different hardness and temperature resistance.



RATHI Hyflex
Size selection

For selecting the right size it is important to have the data of the driving and the driven machine. Those are needed to select the Service Factor and the Nominal Torque. After the Torque is known, select the size with the calculated or higher torque rating from the table.

To calculate the torque at the coupling you may use the following formular:

Mn = 9550 x P (motor in kW) / rpm at the coupling x SF1 x SF2 (Nm)

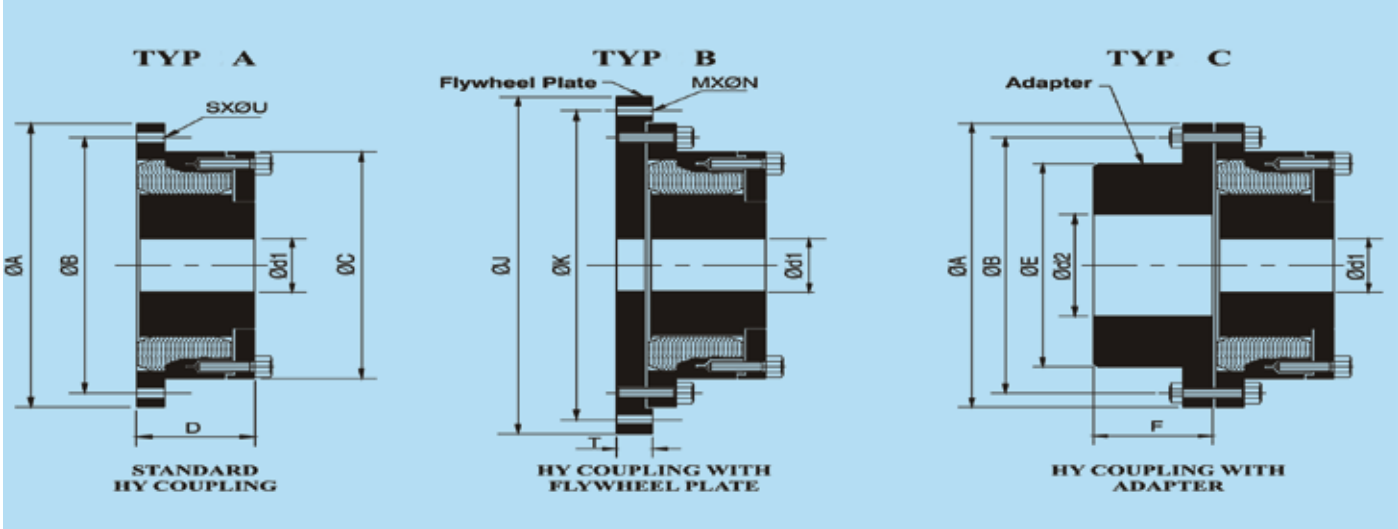
SF 1 = Service Factor based on driving machine used
SF 2 = Service Factor based on application

Service Factor SF 1: Input	
Diesel Motor 1 cylinder:	3,5
Diesel Motor 2 cylinder	3,0
Diesel Motor 3 cylinder	2,5
Diesel Motor 4 cylinder	2,0
Diesel Motor 5 cylinder	1,8
Diesel Motor 6 cylinder	1,7
More as 6 cylinder	1,5
Gas or Gasolinemotor	1,5
Electric motor	1,0

Service Factor SF 2: Application	
Centrifugal Blower:	1,5
Lobe or Vane Blower	2,0
Axial screw compressor	1,5
Centrifugal compressor	1,5
Reciprocating compressor	3,0
Rotary compressor	2,0
Band, chain or screw conveyor,	1,5
Bucket conveyor	2,0
Centrifugal pump	1,25
Gear pump	2,0
Reversing pump	3,0
Marine, propulsion drive	2,0
Cement mill	2,2

When you have calculated the theoretical value, compare the value with the table and select the next size up coupling.
Compare now all dimensions whether the coupling will fit into the application. (Bores, Diameters, Length, DBSE, SAE Flange dimension, etc.)

RATHI Hyflex



Dimension Hyflex coupling

Size	Rating		Max rpm	Min. Bore	Max. Bore		ø A	ø B	ø C	D	ø E	F	SXøU	No of rubber elements
	kW / 100 rpm	Nm			ø d1	ø d2								
HY 50	4,7	449	5650	15	40	65	158,7	138,1	122	47	111	55	6X9,2	10
HY 120	10	955	4350	30	55	75	200	177,8	158	51	127	65	6X9,2	10
HY 200	15,5	1480	3950	35	70	90	222,2	200	180	54	155	75	6X9,2	12
HY 240	18,5	1767	3700	40	75	100	238,1	212,7	188	60	175	85	6X11,2	12
HY 370	28,5	2722	3400	40	85	110	260,3	235	212	68	190	95	8X11,2	12
HY 730	57,2	5463	3000	55	95	120	308	279,4	255	90	205	102	8X13,2	12
HY 1150	87,5	8356	2600	55	115	130	358,8	323,8	298	99	220	110	10X13,2	12
HY 2150	163,5	15614	2400	70	140	175	425,4	390,5	365	120	298	150	16X13,2	12
HY 3860	295,6	28230	2250	80	170	200	508	469,9	440	134	340	170	12X17,25	14
HY 5500	438	41829	1950	90	210	250	577,8	536,6	506	147	425	210	12X17,25	16

Weight and Inertia

Size	Standard Hyflex	
	Weight kg	M.I. kgm²
HY 50	3,7	0,0095
HY 120	6,8	0,0275
HY 200	9,5	0,049
HY 240	12,1	0,0704
HY 370	16,1	0,1224
HY 730	28	0,2954
HY 1150	42,9	0,566
HY 2150	69,3	1,308
HY 3860	116,5	3,16
HY 5500	172,1	5,81

Adapter	
Weight kg	M.I. kgm²
4,7	0,0103
7,8	0,0262
12,2	0,05
17	0,08
22,5	0,13
30	0,23
39	0,38
82	1,2
124	2,5
228	6,3

Flange	
SAE Gr. (inch)	Weight kg
6,5	2
8	3
10	6,5
11,5	8,2
14	19,5
18	29,2
21	50,6
24	74

Weight and Moment of Inertia (M.I.) are related to hubs with min. bores

RATHI Hyflex

Rated Torque, Misalignment and Stiffness Details											
Coupling size	Rated Torque Nm	Allowable vibratory torque Nm	Allowable misalignment			Radial Stiffness N/mm	Axial Stiffness N/mm	Torsional Stiffness with HSZ 70 kNm/rad			
			Axial mm	Radial mm	Angular Degr.			1/4 Torque	1/2 Torque	3/4 Torque	1/1 Torque
HY-50	449	55	0.75	0.75	0.5	1522	531	3.5	4.746	6.545	9.123
HY-120	955	125	1.5	0.75	0.5	1811	648	8.12	11.08	15.21	21.21
HY-200	1480	190	1.5	0.75	0.5	2264	786	13.45	18.24	25.12	35.01
HY-240	1767	225	1.5	0.75	0.5	2552	883	17.79	23.84	32.54	44.95
HY-370	2722	347	1.5	0.75	0.5	2867	1003	24.62	33.54	46.16	64.42
HY-730	5462	673	1.5	1.0	0.5	3771	1311	46.78	63.57	87.75	121.02
HY-1150	8356	1066	1.5	1.5	0.5	4142	1452	71.37	96.97	134.03	187.01
HY-2150	15613	1990	2.0	1.5	0.5	5123	1792	132.04	180.07	248.02	346.02
HY-3860	28226	3565	3.0	1.5	0.5	6677	2323	265.07	360.05	498.01	695.07
HY-5500	41826	5080	3.0	1.5	0.5	8443	2945	465.05	622	846.3	1150.3

Stiffness values are for rubber elements HSZ

Elastomer Information				
Elastomer Grade	HSZ	HRZ	HCZ	HNZ
Identification mark	GREEN	RED	YELLOW	WHITE
Resistance to Compression	Good	Good	Fair	Good
Resistance to Flexing	Good	Excellent	Good	Good
Resistance to Cutting	Fair	Excellent	Good	Good
Resistance to Abrasion	Good	Excellent	Good	Good
Resistance to Oxidation	Fair	Fair	Very Good	Good
Resistance to Oil & Gasoline	Poor	Poor	Excellent	Excellent
Resistance to Acids	Good	Good	Fair	Fair
Resistance to water swelling	Good	Good	Good	Good
Service Temp. Max.	100 ° C	80 °C	100 ° C	120 ° C
Service Temp. Min.	- 40 ° C	- 50 °C	- 30 ° C	-40 ° C

Flywheel plate details

Flywheel Plate SAE Size (inch)	6.5	8	10	11.5	14	18	21	24
Suitable coupling size	HY 50	HY-50 HY-120 HY-200	HY-120 HY-200 HY-240	HY-240 HY-370 HY-730	HY-370 HY-730 HY-1150	HY-1150 HY-2150 HY-3860	HY-2150 HY-3860 HY-5500	HY-3860 HY-5500

Flywheel Plate SAE dimension	6.5	8	10	11.5	14	18	21	24
ø J	215.9	263.53	314.3	352.4	466.7	571.5	673.1	733.4
ø K	200.03	244.48	295.27	333.38	438.15	542.92	641.35	692.15
M X ø N	6 x 8.33	6 x 10.5	8 x 10.5	8 x 10.5	8 x 13.5	6 x 16.7	12 x 16.7	12 x 22
T	8	8	12	12	16	16	20	24

Dimensions are in mm if not stated different.

RATHI RRJ Curveflex

RATHI RRJ Curveflex Jaw Couplings
- 10 different sizes.
- Hubs from Steel, Cast Iron or Aluminum.
- Fail safe, will perform even with failed spider.
- Elastic Elements are in two hardness Shore 95 A (red) and 92 (yellow).
- 3 different hub types
- ATEX certified
- Options: stainless steel hubs, spacers, clamping hubs, brake disc etc.

The RATHI RRJ Curveflex is a universal usage, low cost, high quality jaw coupling. Typical application are:

- Pump drives
- Hoists, Cranes
- Crane drives
- Machinetools
- Wood working machines
- Conveyor
- Fans
- Mixer,
- Crusher

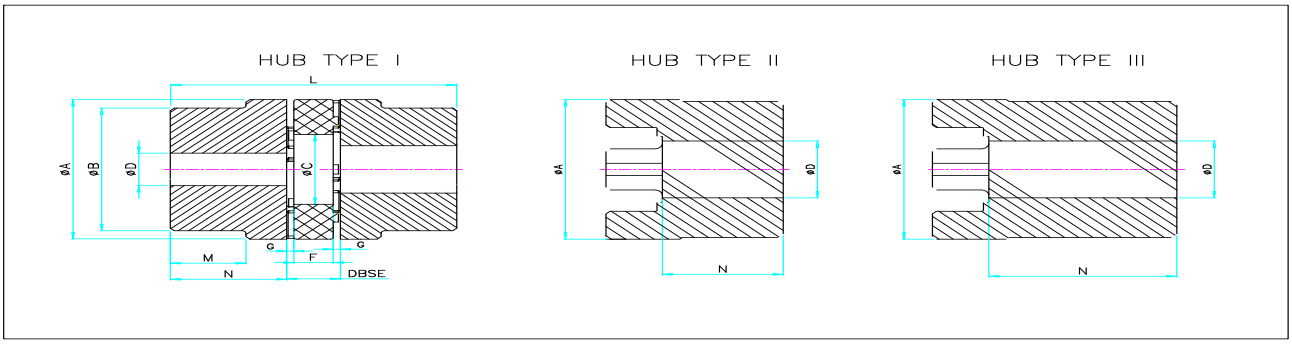
and many more.

RATHI RRJ Jawcouplings are easy to install and very robust. The connection is stackable and fail safe. If the elastic element fails the metall arms will still transmit torque.
Besides the catalog versions, we supply tailor made solution for our customers. RATHI sales will help you with the selection.

RATHI RRJ allowable misalign

Size	19	24	28	38	42	48	55	65	75	90
Max. axial misalignment (mm)	1,60	1,80	2,00	2,20	2,30	3,00	3,00	3,50	3,50	4,50
Max. radial misalignment (mm)	0,15	0,20	0,20	0,25	0,30	0,35	0,35	0,40	0,45	0,50
Max. angular misalignment (degree)	0,80	0,80	0,80	0,90	0,90	1,00	1,00	1,00	1,10	1,10

RATHI RRJ Curveflex



Technical data RRJ Aluminum

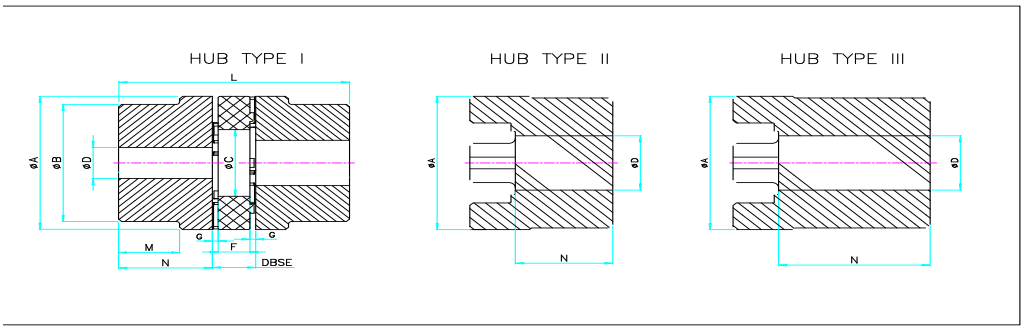
Size	Hub Type	kW /100 rpm and torque				Max rpm	Bores (mm)		A	B	C	DBSE min.	F	G	L	M	N	Weight (kg)	WR² in kgm²
		Red	Nm	Yellow	Nm		Min.	Max											
19	I	0,17	16	0,1	10	14000	6	19	41	32	18	16	12	2	66	20	25	0,11	0,0000023
	II						19	24		41								0,14	0,0000043
24	I	0,6	57	0,35	33	10600	9	24	56	40	27	18	14	2	78	24	30	0,24	0,000009
	II						22	28		56								0,34	0,000019
28	I	1,6	153	0,95	91	8500	10	28	66	48	30	20	15	2,5	90	28	35	0,39	0,00002
	II						28	38		66								0,54	0,000042
RRJ hubs in Cast Iron GG 25																			
38	I	3,25	310	1,9	181	7100	12	40	80	66	38	24	18	3	114	37	45	2	0,00185
	II						38	48		78								2,4	0,00245
	III						12	48							164	62	70	3,6	0,00372
42	I	4,5	430	2,65	253	6000	14	45	95	75	46	26	20	3	126	40	50	3,2	0,0041
	II						42	55		94								3,8	0,0059
	III						14	55							176	65	75	5,5	0,00854
48	I	5,25	501	3,1	296	5600	15	52	105	85	51	28	21	3,5	140	45	56	4,4	0,0062
	II						48	62		104								5,2	0,0096
	III						15	62							188	69	80	7,3	0,0134
55	I	6,85	654	4,1	392	4750	20	60	120	98	60	30	22	4	160	52	65	6,6	0,0123
	II						55	74		118								7,5	0,0173
	III						20	74							210	77	90	10,2	0,0237
65	I	9,4	898	6,25	597	4250	22	70	135	115	68	35	26	4,5	185	61	75	10,1	0,0245
	II						65	80		133								11,5	0,0278
	III						22	80							235	86	100	15	0,0363
75	I	19,2	1834	12,8	1222	3550	30	80	160	135	80	40	30	5	210	69	85	16	0,054
	II						75	95		158								18,2	0,0614
	III						30	95							260	84	110	21,2	0,0715
90	I	36	3438	24	2292	2800	40	97	200	160	100	45	34	5,5	245	81	100	27,5	0,138
	II						90	110		198								36,3	0,182
	III						40	110							295	106	125	44,8	0,225

All Dimension in mm

Weight and Moment of Inertia (WR^2) are for max. bore without keyway

Steel hubs are available for sizes 19 to 90

RATHI RRJ Curveflex



Technical data RRJ hubs in steel

Size	Hub Type	kW / 100 rpm and torque				Max RPM	Bore (mm)		A	B	C	DBSE min.	F	G	L	M	N	Weight (kg)	WR² in kgm²
		Red	Nm	Yellow	Nm		Min.	Max											
19	I	0,17	16	0,1	10	14000	6	21	41	32	18	16	12	2	66	20	25	0,14	0,000039
	II						6	25		41								0,18	0,00005
	III														90		37	0,26	0,000072
24	I	0,6	57	0,35	33	10600	9	26	56	40	27	18	14	2	78	24	30	0,29	0,000164
	II						9	35		56								0,37	0,00021
	III														118		50	0,61	0,000346
28	I	1,6	153	0,95	91	8500	10	32	66	48	30	20	15	2,5	90	28	35	0,45	0,000337
	II						10	40		66								0,64	0,00048
	III														140		60	1,07	0,000803
38	I	3,25	310	1,9	181	7100	12	48	80	70	38	24	18	3	114	27	45	1	0,00098
	II									78								1,27	0,0014
	III														164	52	70	1,9	0,00209
42	I	4,5	430	2,65	253	6000	14	55	95	85	46	26	20	3	126	28	50	1,81	0,0025
	II									94								1,84	0,00255
	III														176	53	75	2,76	0,00382
48	I	5,25	501	3,1	296	5600	15	52	105	85	51	28	21	3,5	140	32	56	2,43	0,0041
	II						48	62		104								2,74	0,0052
	III						15	62							188	56	80	3,8	0,00721
55	I	6,85	654	4,1	392	4750	20	60	120	98	60	30	22	4	160	37	65	3,7	0,0082
	II						55	74		118								3,93	0,01
	III						20	74							210	62	90	5,23	0,013
65	I	9,4	898	6,25	597	4250	22	70	135	115	68	35	26	4,5	185	47	75	4,5	0,012
	II						65	80		133								5,85	0,019
	III						22	80							235	72	100	7,58	0,03
75	I	19,2	1834	12,8	1222	3550	30	80	160	135	80	40	30	5	210	53	85	7,18	0,026
	II						75	95		158								9,06	0,04
	III						30	95							260	78	110	11,5	0,05
90	I	36	3438	24	2292	2800	40	97	200	160	100	45	34	5,5	245	62	100	12,5	0,067
	II						90	110		198								17	0,117
	III						40	110							295	87	125	21,16	0,16

All dimensions in mm

Weight and Moment of Inertia are for hubs with max. bore no keyway

RATHI Tyreflex Tyrecoupling

RATHI Tyreflex couplings consist of two flange-hubs, with clamping of the Tyre made from NBR or FRAS.
NBR is a natural rubber material which allows usage in a temperature range of -30 C to + 70 C.
FRAS is a special rubber material for the usage where Fire Resistance and Anti Static is needed. The temperature range is with FRAS -15 C to + 70 C.
RATHI Tyrecouplings are high torsionalsoft and backlash free. Large misalignment values can be compensated. Parellel misalignment up to 6 mm, Angular up to 4 degree. Shock loads are absorbed and for reversing drives the coupling offers ideal damping performance.

The Tyreflex coupling is availabel with standard bore and key (B version), with taper bush bores(F and H versions) and with spacer (TS models). Other options are available on request.

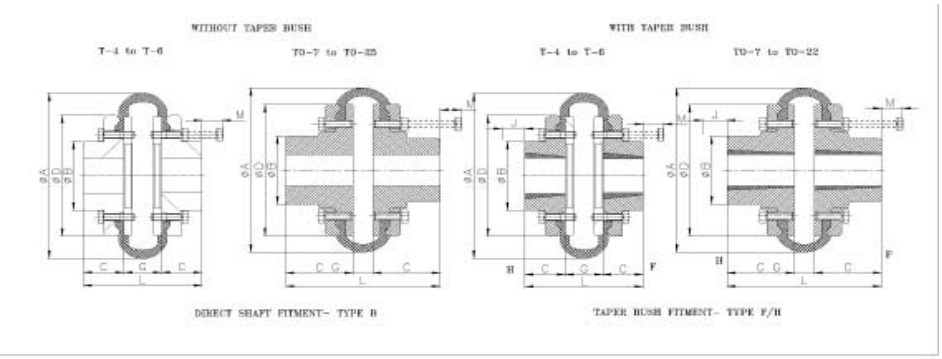
RATHI Tyreflex couplings are supplied in 15 sizes.
The covered torque range is from 24 Nm to 14700 Nm

The technical data in the catalog are for the standard NBR tyre.
The tyres are clamped from inside on sizes T 4 to T 6 and from outside on sizes TO 7 to TO 25.

Features and Benefits:
- Easy to install and to maintain
- Low investment
- Torsional soft
- Backlash free
- Large misalignment compensation
- With variable hub design, low stock costs for spares
- FRAS and NBR tyres available
- Torque transmission in shear, provides overload protection
- For reversing application useable
- Excellent shock absorbion
- With spacer and other options available

Typical application:
- Pumps
- Compressors
- Fans
- Conveyor
- Mixer
- Centrifuges

RATHI Tyreflex Reifenkupplung



RATHI Tyreflex Technical Data and Dimension

Size	kW / 100 rpm	Nom. Torque Nm	max. rpm	Hub Type	Taperbush	Bore		Type F/H			Type B		A	D	B	M	G	Weight kg	MI kgm²
						PB	Max. mm	L	C	J	L	C							
T-4	0,25	24	4500	B		10	32				68	22	104	82		17	24	1,9	0,00161
				F/H	1008		25	68	22	29								1,7	0,00148
T-5	0,69	66	4500	B		10	38				93	32	133	100	79	17	29	3,5	0,00358
				F/H	1210		32	79	25	38						19		2,7	0,00349
T-6	1,33	127	4000	B		15	45				111	38	165	125	73	8	35	5	0,0105
				F/H	1610		42	85	25	38					103	19		3,6	0,0103
TO-7	2,62	250	3600	B		19	50				106	45	197	144	82		16	8,4	0,0177
				F	2012		50	80	32	38						9		6,35	0,0192
				H	1610		42	66	25	38								6,2	0,0157
TO-8	3,93	375	3100	B		25	63				124	51	210	167	96	10	22	11,5	0,0329
				F	2517		60	112	45	42						9		8,53	0,0303
				H	2012		50	86	32	42								8,5	0,0293
TO-9	5,24	500	3000	B		30	75				138	57	235	188	110		24	16	0,0599
				F/H	2517		60	114	45	48								12	0,0538
TO-10	7,07	675	2600	B		32	80				144	60	254	216	125		24	22,7	0,1148
				F	3020		75	126	51	48								18,2	0,1062
				H	2517		60	114	45	48								18,1	0,1058
TO-11	9,16	875	2300	B		32	90				152	65	279	233	140		22	28,3	0,1631
				F/H	3020		75	124	51	55								21,1	0,1461
TO-12	13,9	1327	2050	B		38	100				176,5	76	314	264	152		24,5	40,1	0,2902
				F	3525		*100	154,5	65	55								30,33	0,2627
				H	3020		75	126,5	51	55								30,3	0,2622
TO-14	24,3	2321	1800	B		58	127				201	89	359	311	195	26	23	60,6	0,6045
				F/H	3525		*100	153	65	67								42,6	0,4922
TO-16	39,5	3772	1600	B		65	140				212	102	395	345	216		8	86,4	1,2755
				F/H	4030		*115	162	77	80								72,6	1,1134
TO-18	65,7	6274	1500	B		70	150				254	116	470	398	220		22	133,3	2,1525
				F/H	4535		*125	200	89	89								123	1,9514
TO-20	97,6	9321	1300	B		70	150				258	114	508	429	220		30	144,6	3,1765
				F/H	4535		*125	208	89	89								158,3	3,0129
TO-22	121	11556	1100	B		75	160				281	127	562	470	240		27	181,63	4,7861
				F/H	5040		125	231	102	92								195,1	4,8954
TO-25	154	14707	1000	B		85	190				294	132	628	532	275		30	281,1	8,129

All dimension in mm

* Standard Bores 90, 100 and 115 mm & Max. Bohrung with reduced height of keyway. Also 100, 115 and 125 mm with Taperbush 3525, 4030 and 4535

M is the dimension which is necessary to withdraw the clamping hubs, if the tyre has to be changed.

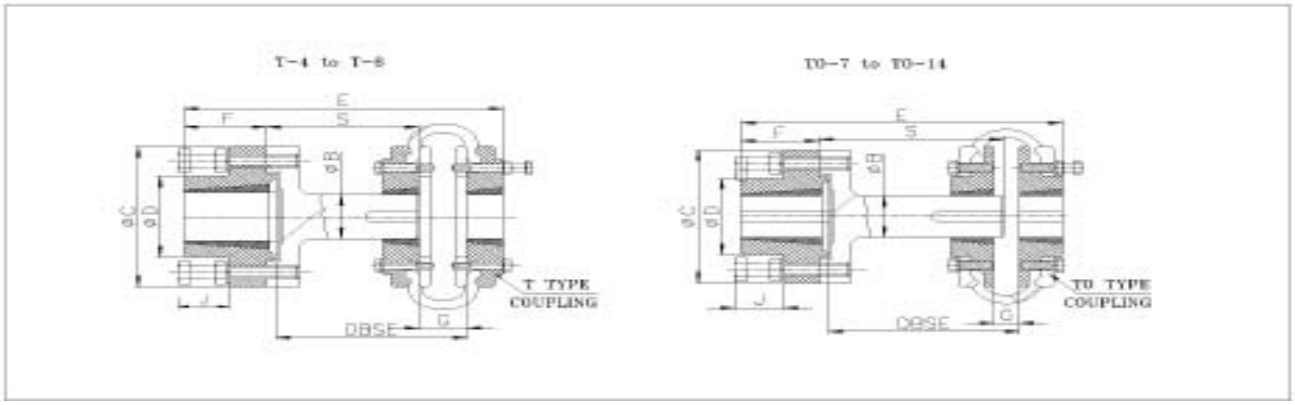
J is the dimension needed to lose the Taperbush bolts

If the shafts are sticking into the gap between the flanges, there shall be enough space left to allow the axial float.

Weight and Moment of Inertia (MI) is related to pilot bored hubs

Information about Taper Bush are available in a separate catalog.

RATHI Tyreflex RTS with spacer



Technical Date of the RATHI RST Spacer coupling

Spacer	DBSE		Taperbush		øC	øD	E		F	J	S		øB	coupling	Taperbush		G	
	Nom.	max	Size	max.			T	TO			T	TO		size	Size	max.	T	TO
RST 12	80	100	1210	32	118	83	130		25	22	57		25	4	1008	25	24	
	100						150				77			4	1008	25	24	
RST 16	100	113	1615	42	127	80	163		38	24	94		32	4*	1008	25	24	
	140	153					203				134			4*	1008	25	24	
	100	116					166				94			5	1210	32	29	
	140	156					206				134			5	1210	32	29	
	100	124					166				94			6	1610	42	35	
	140	165					206				134			6	1610	42	35	
RST 25	100	107	2517	60	178	127		180	45	27		94	48	7F	2012	50		16
	140	147						220				134		7F	2012	50		16
	180	187						260				174		7F	2012	50		16
	100	112						193				94		8F	2517	60		22
	140	152						233				134		8F	2517	60		22
	180	192						273				174		8F	2517	60		22
	140	155						233				134		9	2517	60		24
	180	195						273				174		9	2517	60		24
RST 30	140	151	3030	75	216	146		270	76	33		134	60	10F	3020	75		24
	180	191						310				174		10F	3020	75		24
	140	151						270				134		11	3020	75		22
	180	192						310				174		11	3020	75		22
RST 35	140	156	3535	90	248	178		297	89	33		134	80	12F	3525	100		24,5
	180	196						337				174		12F	3525	100		24,5
	140	153						297				134		14	3525	100		23
	180	193						337				174		14	3525	100		23

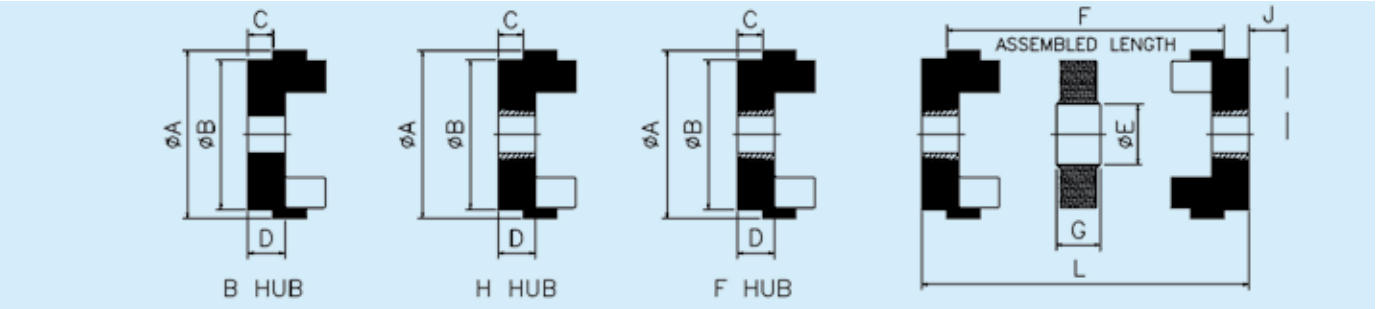
* T4B Flange has to be used to mount the connection shaft.
All dimension in mm

Technical Data Flexible Elements

Size	4	5	6	7	8	9	10	11	12	14	16	18	20	22	25
Max. Speed (rpm)	4500	4500	4000	3600	3100	3000	2600	2300	2050	1800	1600	1500	1300	1100	1000
Torsional stiffness (Nm/ Degree)	5	13	26	41	63	91	126	178	296	470	778	1371	1959	2760	3562
Parallel Misalignment (mm)	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.7	4.2	4.8	5.3	5.8	6.6
End Float (mm)	1.3	1.7	2.0	2.3	2.6	3.0	3.3	3.7	4.0	4.6	5.3	6.0	6.6	7.3	8.2
Nominal Torque (Nm)	24	66	127	250	375	500	675	875	1330	2325	3730	6270	9325	11600	14675
Max. Torque (Nm)	64	160	318	487	759	1096	1517	2137	3547	5642	9339	16455	23508	33125	42740

The technical data of NBR and FRAS are nearly identical
The torsional stiffness is depending on the ambient temperature
Max Misalignment values are depending on load conditions and speed. With higher speed the values need to be reduced. Please use the correction factors: 500 rpm = 1.2; 1000 rpm = 1.1; 1500 rpm = 1; 3000 rpm = 0.7
During installation the max. values shall never be reached. Best possible alignment will increase the lifetime of the couplings.

RATHI RFC Jaw Coupling



Technical Data and Dimension RATHI RFC Jaw Coupling

Size	F / H Hub					B Hub				ø A	ø B	ø E	F	G	L			J
	TL Bush	Bore		C	D	Bore		C	D						L1	L2	L3	
		Max	Min			Max	Min											
RFC 7	1008	25	10	19	24	32	10	21	26	69	60	31	28	17,5	66	68	70	29
RFC 9	1108	28	10	18	24	42	10	26	32	85	65	32	34,5	22,5	70,5	78,5	86,5	29
RFC 11	1610	42	14	19	27	55	10	37	45	112	100	45	45	29	83	101	119	38
RFC 13	1610	42	14	17,5	26,5	60	20	46	55	130	105	50	54	36	89	117,5	146	38
RFC 15	2012	50	14	24	34	70	20	50	60	150	115	62	60	40	108	134	160	42
RFC 18	2517	60	16	35	47	80	30	58	70	180	125	77	73	49	143	166	189	48
RFC 23	3020	75	24	39,5	52,5	100	40	77	90	225	155	99	84,5	58,5	163,5	201	238,5	55
RFC 28	3535	90	35	74	90,5	115	50	88,5	105	275	185	118	107,5	74,5	255,5	270	284,5	67
RFC 28A	3525	100*	35	50	66,5	125	50	88,5	105	275	206	118	107,5	74,5	207,5	246	284,5	67

All dimension in mm

More information about taper lock bushes in separate catalog

* Std. max. Bore is 90 mm with normal keyway, with reduced height 100 mm possible.

Lenght L1 = Lenght with combination of hubs: FF,HH, FH

Lenght L2 = Length with hub combination: FB HB

Length L3 = Length with hub combination: BB

J = space enned for losing the taper lock bush bolts

All bores are with tolerance H7

Size	Max. rpm	Torque in Nm		Moment of Inertia in kgm²	Torsional Stiffness (Nm/Grad)	Max. Misalignment		Weight kg
		Normal	Max			Parallel	Axial	
RFC 7	9100	31,5	72	0,00085	10,2	0,3	+ 0,2	1
RFC 9	7400	80	180	0,00115	25,5	0,3	+0,49	1,17
RFC 11	5630	160	360	0,004	48	0,3	+0,61	5
RFC 13	4850	315	720	0,0078	84	0,4	+0,79	5,46
RFC 15	4200	600	1500	0,0181	176	0,4	+0,92	7,11
RFC 18	3500	950	2350	0,0434	240	0,4	+1,09	16,6
RFC 23	2800	2000	5000	0,12068	336	0,5	+1,32	26
RFC 28 /28A	2300	3150	7200	0,44653	960	0,5	+1,70	50

Weight and Moment of Inertia is related to medium size bores

The max. Angular Misalignment is 1 degreee

Couplings are for horizontal mounting. For vertical mounting please contact Rathi

RATHI Sleeveflex High Flexible Coupling

The RATHI Sleeveflex High Fexible coupling consist out of 2 flanges and one elastic element. The elastic element has on the out and the inside splines, which grip in the counter-splines of the flanges. The elastic element is from size 3 to 10 with one radial split and from size 11 to 13 with two splits to allow the easy installation and exchang of the insert.

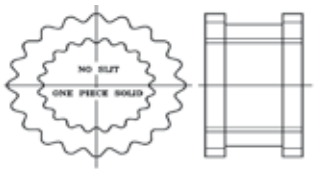
The flange size 3 and 4 are made from Alumium The other sizes are from Cast Iron.

RATHI Sleeveflex is a very simple to install coupling with high misalignment capicity. No bolts, gaskets, covers etc. are needed. The Sleeveflex compensate shock loads and damp vibration.

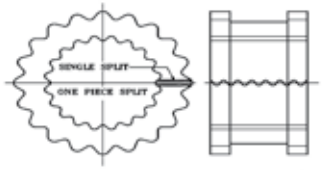
Features and Benefits:

- Easy to understand.
- Easy to install
- No lubrication
- Low wear
- Quite running
- Easy exchange of rubber material.
- Inserts are available in Rubber, PU and Hytrel
- High speed

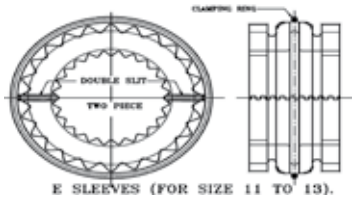
Typical application:
- Industrial usage
- Mining
- Chemical Industry
- Oil and Gas
- Water treatment
- Cement
- Mixers



JE SLEEVES (FOR SIZE 3 TO 10)

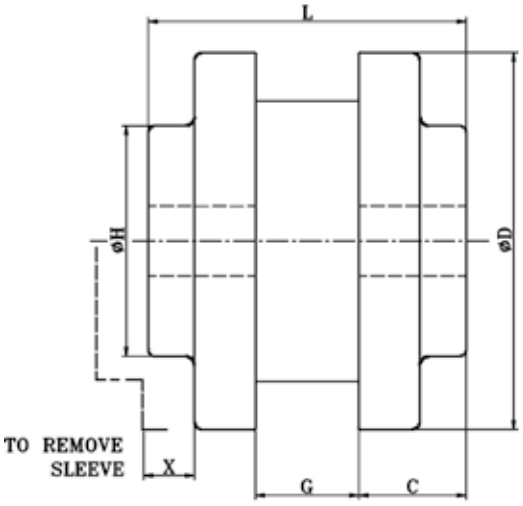


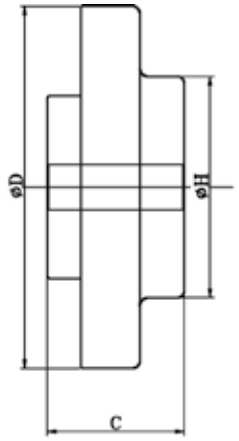
JES SLEEVES (FOR SIZE 3 TO 10).



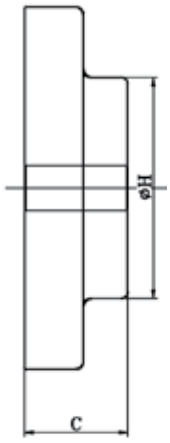
E SLEEVES (FOR SIZE 11 TO 13).

RATHI Sleeveflex





FLANGE
TYPE 'S'



FLANGE
TYPE 'J'

Technical data and dimension RATHI Sleeve Flex

Size	Flange Type	Sleeve Type	Rating kW / 100 rpm	Torque Nm	Max. rpm	Bore		Dimensions (mm)						Weight (kg)
						Pilot	Max	C	D	G	H	L	X	
3	J	JE, JES	0,08	8	9200	10	22	20	52	9	38	49	16	0,3
4	J		0,15	14	7600	13	25	22	63	16	41	60	16	0,5
5	J		0,3	21	7600	13	29	26	83	18	48	70	23	1,1
	S							34		19		71	30	1,1
6	J		0,52	50	6000	16	35	33	102	22	63	88	28	2
	S							44		21		88	36	2
7	S		0,9	86	5250	16	48	47	118	25	71	100	34	2,8
8	S		1,34	128	4500	19	54	53	138	28	98	112	38	4,8
9	S		2,16	206	3750	22	64	61	161	36	98	128	45	7,2
10	S		3,43	327	3600	29	73	69	191	41	111	144	51	11,2
11	S	E	5,37	513	3600	32	87	87	219	48	133	180	61	18
12	S		8,5	812	2800	38	98	104	254	60	146	210	68	28
13	S		13,43	1282	2400	51	100	111	299	68	171	235	78	48

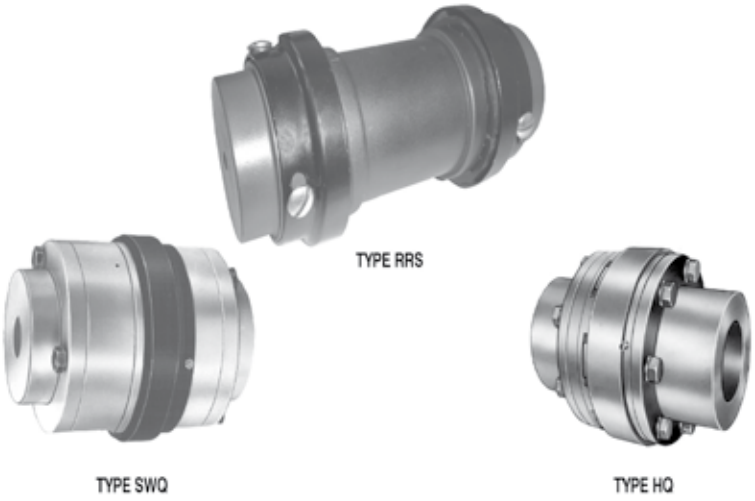
Flange size 3 and 4 in Aluminum
Flange size4 to 13 in Cast Iron GG 25
Weight is related to unbored hubs
All dimension in mm
The couplings are for horizontal mounting. For vertical mounting option, please contact Rathi.

RATHI L/SW/RRS
Jaw couplings with spider or Snap Wrap

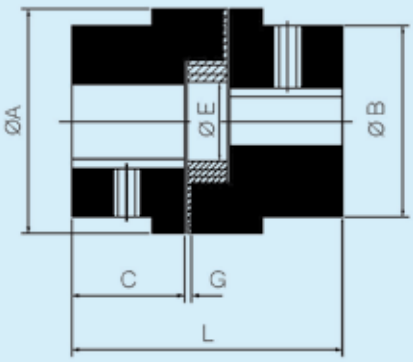
RATHI Jaw Couplings Types L / SW / RRS are sharing the same hubs. By using different elastic elements this coupling series is highly flexible to adapt for the application.
With Snap Wrap elements, the replacement is easy due to the cut. The element can be taken off without moving the hubs. It is hold in place with a retaining ring. The spacer version has two elements for easy take off the spacer if needed.

Features and Benefits
- Hub design is the same for L (spider) or SW (Snap Wrap)
- Elements are available in Rubber, Polyurethane or Hytrel
- With light weight Aluminum Spacer the drive train has a low inertia.
- Hubs are fully machined to allow easy alignment.
- Resistance to most environmental influences
- Low investment
- High quality
- Long life

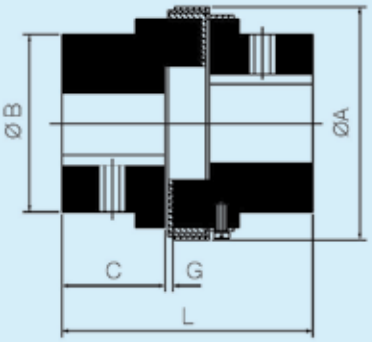
Typical application:
- Pumps
- Fans
- Chemical industry
- Oil and Gas
- Conveyor
- Mixers



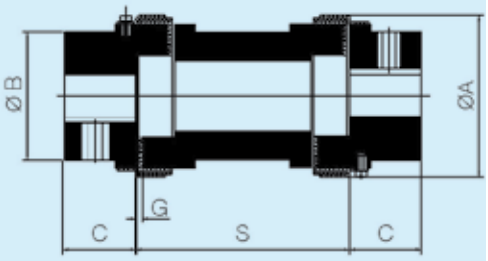
RATHI L/SW/RRS Jaw Coupling



TYPE L



TYPE SW



S = STD. SPACER LENGTH

TYPE RRS

Coupling		Power Rating						Pilot Drill Size	Max. Bore	ØA		Length thru' Bore "C"	ØB	Gap G	ØE	S	#Overall Length "L" for (SW/L)
		Synthetic Rubber		Polyurethane		Hytrel											
Type	Size	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm			SW/ RRS	L						
L	035	0.38	0.004	0.6	0.01	1.0	0.01	-	10	-	16	6.5	16	1	-	-	21
	050	2.80	0.03	4.2	0.04	7.0	0.07	5	16	-	27	15	27	1	-	-	42
	070	4.90	0.05	7.4	0.08	12.3	0.13	9	20	-	34.5	19	34.5	2	-	-	51
	⊛ 075	9.80	0.1	14.7	0.15	24.5	0.26	9	22	-	44.5	21	44.5	2	-	-	55
	■ 075	9.80	0.1	14.7	0.15	24.5	0.26	-	22	-	44.5	21	39	2	-	-	55
L SW RRS	095	21.10	0.22	31.7	0.33	52.8	0.55	-	28	65	54	25	49	2	19	90,100,140	63
	099	46.40	0.49	69	0.73	116	1.2	-	30	78	65	27	51	2	27	90, 100, 140, 180	72
	100	46.40	0.49	69	0.73	116	1.2	-	35	78	65	35	57	2	27		88
	110	89	0.93	133	1.4	222	2.3	-	42	96	85	43	76	3	35		108
	150	141	1.5	211	2.2	352	3.7	-	48	111	96	45	80	3	35		115
	190	190	2.0	285	3.0	475	5.0	-	60	129	115	54	102	3	45		133
	225	265	2.8	397	4.2	662	6.9	-	65	142	127	64	111	3	45		153
	226	327	3.4	490	5.1	817	8.6	25	70	153	137	70	119	3	51	100,140,180	178
L SW	276	532	5.6	798	8.4	1330	13.9	25	75	173	157	80	127	3	60	-	200
	280	782	8.2	1173	12.3	1955	20.5	30	80	208	192	80	140	3	70	-	200
	295	1279	13.4	1918	20.1	3197	33.5	30	95	253	237	95	162	3	80	-	238
	2955	2132	22.3	3198	33.5	5330	55.8	30	105	253	237	108	180	3	80	-	264
SW	300	3047	31.9	4570	47.9	7617	79.8	30	105	272	-	115	180	3	-	-	283
	350	4308	45.1	6462	67.7	10770	112.8	30	115	323	-	128	200	3	-	-	309

All dimensions are in mm.
For vertical installation contact RATHI.
For RRS/SW maintain gap 'G' at the time of assembly.
Maximum bores can be increased in case of steel hubs. Consult manufacturer

Material : Sintered iron for sizes 035 to 075
Aluminum for sizes 050 to 110 & for all RRS spacers.
Cast Iron for sizes 095 to 350.

■ 075 - Aluminium
⊛ 075 - Sintered Iron
For RRS, L = S + 2C

L Type Spider : Polyurethane - for Sizes 50 to 295
Hytrel - for Sizes 50 to 225

RATHI H / HR Jaw Coupling

RATHI H / HR couplings are following the same idea as the Snap Wrap couplings. Easy replacement of the elastic elements to reduce down times and allow quick installation.
The cushions are easy pulled out and replaced. A steel ring hold the elastic cushions in place during operation.

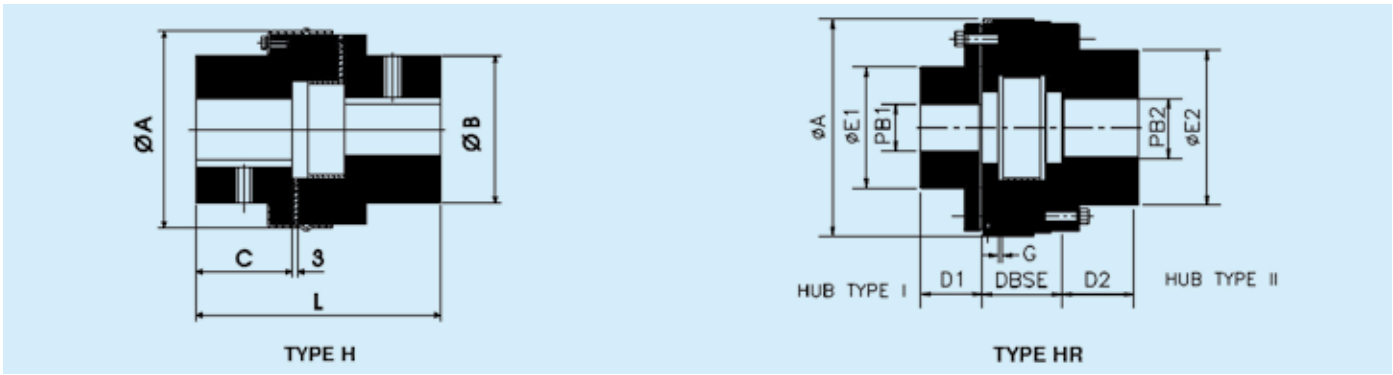
The hubs are made from complete machine casted iron up to size 367 and from 407 to 1117 from casted steel.

Features and Benefits:
- Easy to install
- Easy to align
- Very high torque rating up to 650 000 Nm
- Excellent dampening
- Non standard DBSE possible
- Elastic elements are from PU, NBR or Hytrel
- Temperature range of -30 C to 120 C

Typical Application

- Pumps
- Reciprocating units
- Fans
- Compressors
- Diesel or Gas Engines
- Generators
- Conveyors
- Mixers
- Mining
- Steel industry

RATHI H/HR Jaw Coupling



Technical Data of RATHI H Jaw Coupling

Size	Rated Torque	kW at 100 rpm	Bore		Outside Dia ø A	Hub Dia. Ø B	Length of Bore C	Overall length L	Appr. Weight	
			Min	Max					Min. Bore	Max. Bore
H-307	5307	56	60	105	252	160	121	295	58	55
H-357	7214	75	60	115	288	197	127	314	73	67
H-367	9903	104	70	130	313	222	143	353	105	99

Technical Data and dimension RATHI HR Jaw coupling

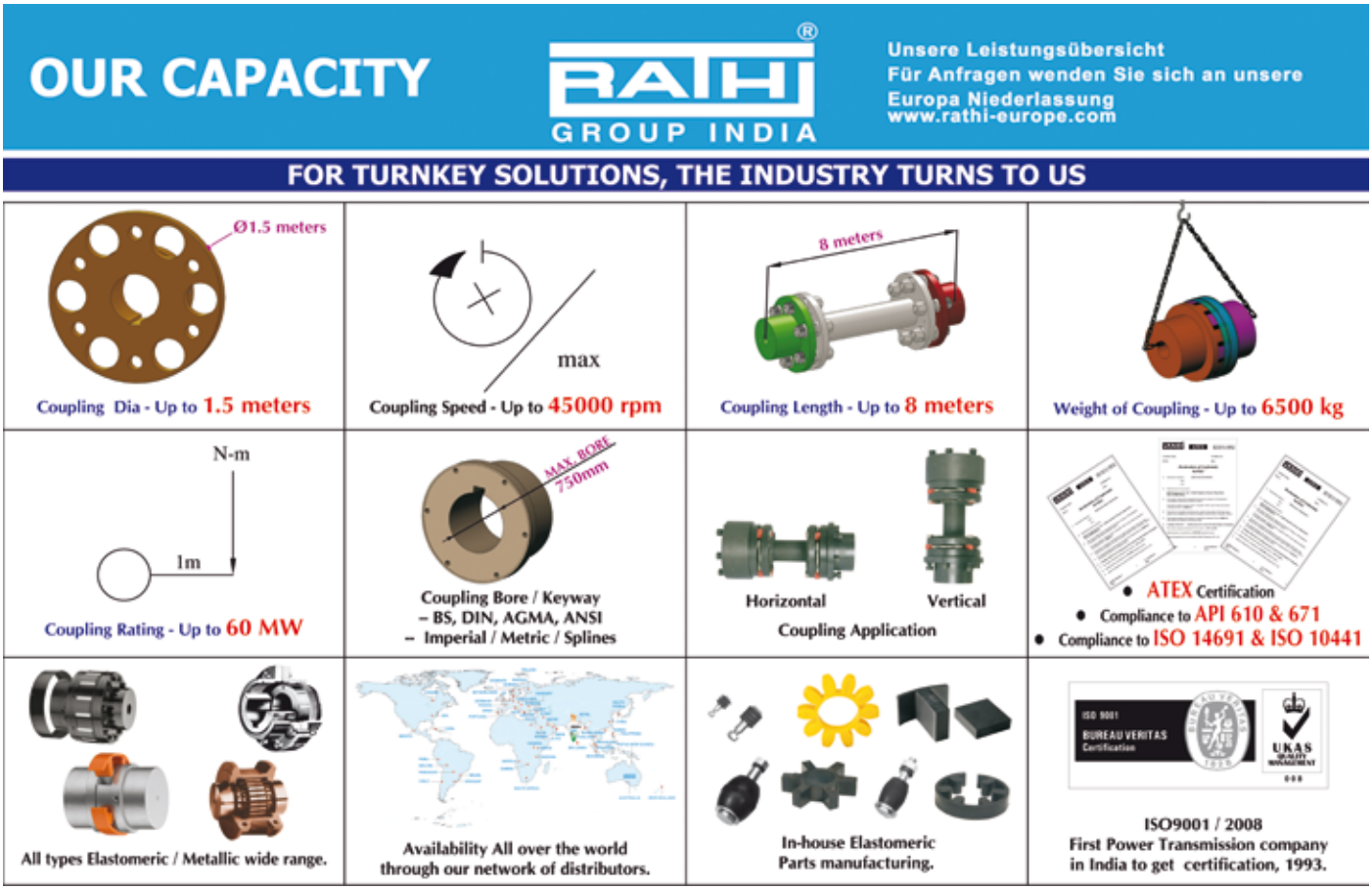
Size	Nominal torque Nm			DBSE	Min. Bore		Max. Bore		ø A	Hub Diameter		Length Through Bore	
	NBR	PU	Hytrel		Hub Type I	Hub Type II	Hub Type I	Hub Type II		Hub Type I ø E1	Hub Type II ø E2	Hub Type I D1	Hub Type II D2
HR-307	5307	8022	13370	100	30	60	80	105	266	131	170	68	85
HR-357	7124	10696	17859	110	35	60	85	115	292	138	180	76	95
HR-367	9903	14989	24830	117	40	70	100	130	317	162	210	84	105
HR-407		21296	35526	126	50	85	120	155	349	195	248	95	120
HR-457		28841	47941	134	60	85	140	185	40	220	294	100	130
HR-509		34189	57015	133	70	90	145	190	412	230	305	110	140
HR-609		50329	83754	142	85	100	170	225	461	275	360	130	170
HR-709		70288	117465	162	90	100	190	265	524	300	425	140	195
HR-809			146115	196	100	120	215	295	600	345	470	155	210
HR-911			169035	216	110	170	265	340	667	420	545	190	240
HR-1013			252502	218	195		360		805	540		340	
HR-1015			350007	235	215		420		910	630		340	
HR-1115			424975	245	240		500		960	750		375	
HR-1117			650069	276	290		600		1170	900		400	

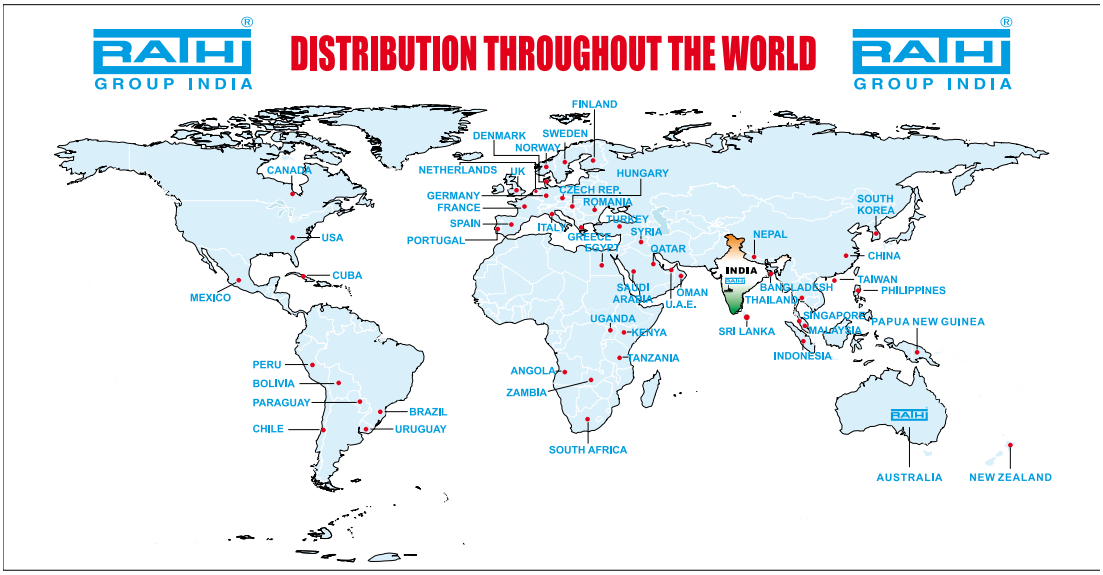
All dimensions in mm
Maintain Gap G = 3 mm for size HR 457 and 6 mm for higher sizes at time of assembly
Please specify hub with the order
Non standard DBSE is available on request. Contact RATHI for details
For vertical installation contact RATHI

Individual free floating load cushion held in place by outside steel collar.
Completely machines castings
Easy to assemble and disassemble
Cushions easily to inspect
Material of construction: CI for size 307 to 367
S.G. Iron for Size 407 to 1117
Typical applications: Pumps, reciprocating machines, Diesel or Gas Motors, Generators, Heavy Duty machines

No lubrication, no maintenance.

RATHI Europe GmbH





Rathi Europe GmbH
Im Wied 2
D-32683 Barntrup
Tel.: +49 (0) 5263 956184 0
Fax.:+49 (0) 5263 956184 9
Mail: sales@rathi-europe.com
Web: www.rathi-europe.com

Your local contact: