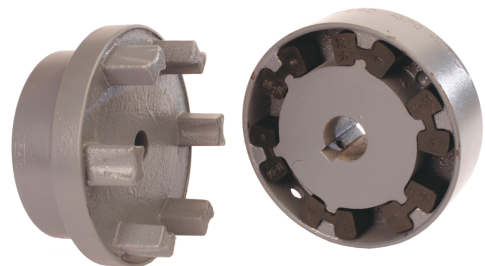


ELASTOMERIC COUPLINGS





INTRODUCTION



A COMPANY WITH PEDIGREE  HAS BEEN A MARKET LEADER IN MECHANICAL POWER TRANSMISSION PRODUCT AND ENGINEERING SOLUTIONS FOR ROTATING EQUIPMENT FOR OVER 45 YEARS

WHY  ?.....

When you buy a  Product you also receive.....

- 1) **Impartial choice** - Wide range of elastomeric, metallic with & without lubrication couplings are available to suit your application needs.
- 2) **Proven Service Excellence** - 45 years experience in the design, manufacturing, application engineering and servicing of shaft coupling.
- 3) **Ready to Install Product** - Factory finish bored, broached keyway coupling as per international standards.
- 4) **Network** :- Zonal representatives, distributors, dealers, stockists all supported by an extensive application engineering department to offer you service and engineered products.
- 5) **Protection** :In-house black phosphating surface treatment gives protection against corrosion.
- 6) **Rubber Technology** :-  are probably the only manufacturer, to produce the rubber elements which go into their couplings, in-house.

COUPLINGS :

You've made the right choice, when you choose Rathi. The leading source for flexible Jaw Couplings. Rathi offers you much more – the widest range of power transmission products under one roof. From the smallest to the largest, be it jaw, gear, grid, disc or other special couplings. When it comes to size and selection you'll find them all in our range.

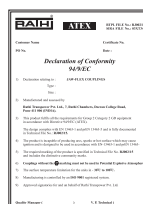
For more than 45 years, Rathi has been supplying Power Transmission Products to a World wide market. We follow world quality standards in our manufacturing. Rathi's uncompromising dedication to the interests of it's global customer base has earned Rathi an International reputation for Engineering Integrity, Production Superiority, and Service Responsibility and has brought the coveted ISO 9001 Certification for manufacturing quality. Today, Rathi products are found all over the world.

**YOU NAME
THE TYPE OF PUMP
& COMPRESSOR,
WE HAVE
A COUPLING
FOR IT**

**Water Pumps, Slurry Pumps, Sewage Pumps,
Submersible Pumps, Back Pull out Pumps,
Multistage Pumps, Split Case Pumps, API Pumps,
Chemical Process Pumps, Hydraulic Pumps,
Metering/Dosing Pumps, Gear Pumps,
Paper Stock Pumps, Screw Pumps, Mono Pumps,
Vacuum Pumps, Fire Pumps, High Pressure Pumps,
Stationary Screw Compressors, Piston
Compressors,
Turbo Compressors and many more....**



ISO 9001:2015



ATEX Certification



CUTR Certification

www.rathipolybond.com

(a) Service Factor

Determine appropriate SERVICE FACTOR from table A.

(b) Design Power

Multiply running power of driven machinery by the service factor. This gives DESIGN POWER which is used as a basis for coupling selection.

(c) Coupling Size

Refer respective table for your required coupling type and read from the appropriate speed column until a power equal to or greater than the DESIGN POWER is found.

(d) Bore Size

Refer respective coupling 'TECHNICAL DATA' table to check that the required bores can be accommodated.

EXAMPLE

A coupling is required to transmit 5 kW from an electric motor which runs at 100 rpm to a centrifugal pump for 12 hours a day. The motor shaft diameter is 60 mm. and the pump shaft diameter is 55 mm.

Select SW Type Coupling

(a) Service Factor

From Table A the service factor is 1.0

(b) Design Power

Design Power $5 \times 1.0 = 5 \text{ kW}$

(c) Coupling Size

Read from 100 rpm in the speed column of 'TECHNICAL DATA' table. The first power to exceed the DESIGN POWER of 5 kW is 5.6 kW. The size of the coupling specified in the first column corresponding to 5.6 kW is SW-276 for Synthetic Rubber.

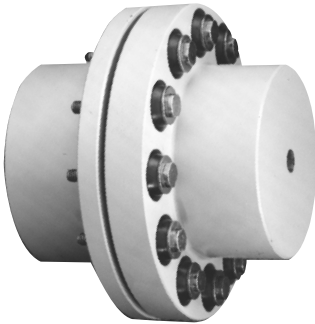
(d) Bore Size

Max. Bore for coupling size SW-276 is 75 mm. This shows that both the shaft diameters are within the range.

A. SERVICE FACTORS

SPECIAL CLASSES For applications where substantial shock, vibration and torque fluctuations occur and for reciprocating machines e.g. internal combustion engines, piston pumps and compressors, refer to Rathi Transpower with full machine details	Type of Driving Unit					
	Electric Motors			Internal Combustion Engines Steam Engines Water Turbines		
	Hours per day duty			Hours per day duty		
Driven Machine Class	8 and under	over 8 to 16 inclusive	over 16	8 and under	over 8 to 16 inclusive	over 16
UNIFORM Agitators, Brewing machinery, Centrifugal Blowers, Conveyors, Centrifugal Fans and Pumps, Generators, Sewage disposal Equipments. Evaporators, Feeders, Textile machines, Wood working machines.	1.00	1.00	1.00	1.00	1.10	1.10
MODERATE SHOCK* Clay working machinery, Crane Hoists, Laundry machinery, Machine Tools, Rotary Mills, Paper Mill machinery, Non-uniformly loaded centrifugal pumps, Rotary Screens, Centrifugal Compressors. Shredders, Printing presses, Oil industry, Mixers, Food industry, Beaters, Bucket elevators, Gear pumps, Wood working machinery, Textile machinery	1.10	1.10	1.20	1.20	1.25	1.25
HEAVY SHOCK* Reciprocating Conveyors, Crushers, Shakers, Metal Mills, Rubber machinery (Banbury Mixers and Mills) Reciprocating Compressors, Welding Sets, Freight & passenger elevators, Cooling tower fans, Hammer mills, Reciprocating pumps, Vibrating screens, Winches, Wire drawing machines.	1.25	1.40	1.60	1.60	1.80	2.00

* It is recommended that keys with top clearance are fitted for applications where load fluctuation is expected.



Rathi B-FLEX couplings consist of a set of resilient BARREL shaped bushes with pins & nuts and two flanged hubs of graded cast iron.

These special BARREL shaped bushes permit the MISALIGNMENT IN ALL DIRECTIONS and give extra torsional flexibility as compared to plain bushes. These couplings are suitable for general engineering application requiring reliable power transmission even under conditions of shaft misalignments which are often unavoidable.



Pin-Bush Assembly



*Bush
(Natural Rubber/PU/H-Trans)*

F E A T U R E S

Simplicity Of Construction

Easy to assemble & disassemble.
Suitable independent running of the drive.

Varying Stiffness Characteristics

Special barrel shaped bushes provide progressively increasing stiffness characteristics, hence ensure effective shocks & vibration absorption.

No Lubrication

B-FLEX couplings never require lubrication of any kind.

Simple / Easy Maintenance

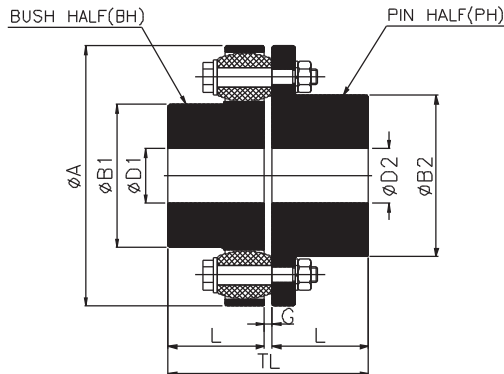
No complicated mechanism to demand adjustment or maintenance. Inspection and replacement of bushes is easy and bushes can be quickly fitted without dismantling or moving either of coupled shafts.

Low Operational Cost

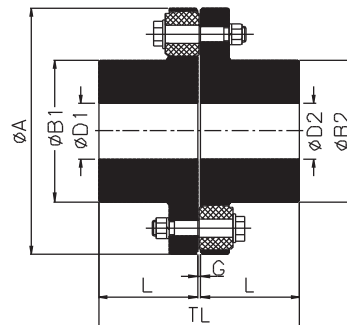
Only wearing part is low cost bushes which make coupling economical in long run.

Smooth & Quiet Operation

Reduces vibration & noise arising from severe torque fluctuations.



UPTO SIZE RB-360



FROM SIZE RB-400 ONWARDS

TECHNICAL DATA

Coupling Size	Coupling Rating @100RPM						Max. Speed rpm	Min. Bore	Max. Bore		ØA	ØB1	ØB2	L	G	TL	Wt. in kg	M.J.(WR ²) in kg-m ²	Max. Misalignment		
	Synthetic Rubber		Polyurethane		H - Trans				ØD1	ØD2									Axial (mm)	Radial (mm)	Angular
	HP	KW	HP	KW	HP	KW															
RB-105-3	1.34	1	2	1.5	3.35	3	7200	11	30	32	105	48	50	45	2-6	94	2	0.0030	2	0.3	1°
RB-116-4	2.01	1.5	3	2.3	5.03	4	6100	12	39	42	116	60	68	45	2-6	94	2.6	0.0050	2	0.3	1°
RB-125-4	2.28	1.7	3.4	2.6	5.7	4	5500	14	45	50	125	68	78	50	2-6	104	3.1	0.0070	2	0.4	1°
RB-144-6	4.42	3.3	6.6	5	11.06	8	4900	18	50	60	144	82	91	55	2-6	114	4.3	0.012	2	0.4	1°
RB-162-6	7.37	5.5	11.1	8.3	18.43	14	4500	22	60	65	162	89	100	60	2-6	124	7.5	0.030	2	0.4	1°
RB-178-6	8.98	6.7	13.5	10.1	22.45	17	3800	24	70	75	178	105	115	70	2-6	144	10	0.040	2	0.5	1°
RB-198-10	17.42	13	26.1	19.5	43.55	33	3400	28	80	90	198	124	135	80	2-6	164	13	0.062	2	0.5	1°
RB-228-11	28.14	21	42.2	31.5	70.35	53	3000	28	90	100	228	133	146	90	4-10	187	18	0.100	3	0.6	1°
RB-252-12	42.88	32	64.3	48	107.2	80	2700	38	105	115	252	156	167	100	4-10	207	24	0.17	3	0.6	1°
RB-285-11	64.32	48	96.5	72	160.8	120	2400	48	115	125	285	170	186	110	4-10	227	35	0.31	3	0.7	1°
RB-320-12	85.76	64	128.6	96	214.4	160	2100	55	125	135	320	196	212	125	4-10	257	51	0.53	3	0.7	1°
RB-360-11	124.62	93	186.9	139.5	312	233	1900	65	135	150	360	212	232	140	4-12	288	73	1.02	4	0.9	1°
RB400-10	168.84	126	253.3	189	-	-	1700	75	160	170	410	230	250	160	4-12	328	101	1.70	4	1.1	1°
RB-450-12	261.30	195	392	292.5	-	-	1500	85	180	190	450	260	280	180	4-12	368	137	2.90	4	1.1	0.5°
RB-500-14	361.80	270	542.7	405	-	-	1350	95	200	210	500	290	310	200	4-12	408	180	4.70	4	1.1	0.4°
RB-560-10	435.50	325	653.3	487.5	-	-	1200	95	225	235	560	320	340	220	4-8	446	278	10.70	2	1.5	0.3°
RB-630-12	589.60	440	884.4	660	-	-	1050	100	250	260	630	355	375	240	4-8	486	365	17.4	2	1.5	0.3°
RB-710-12	1051.90	785	1577.9	1177.5	-	-	950	100	260	270	710	385	405	260	5-9	527	516	33	2	1.8	0.3°
RB-800-14	1402.98	1047	2104.5	1570.5	-	-	850	100	280	290	800	420	440	290	5-9	587	691	53	2	1.8	0.3°
RB-900-16	2174.82	1623	3262.2	2434.5	-	-	750	100	305	315	900	465	485	320	5-9	647	927	86	2	1.8	0.3°
RB-1000-18	2736.28	2042	4104.4	3063	-	-	680	125	320	330	1000	515	535	350	5-10	708	1224	142.8	2	2.0	0.1°
RB-1120-18	3788.18	2827	-	-	-	-	600	135	350	360	1120	560	580	380	6-11	769	1584	231	2	2.2	0.1°
RB-1250-20	4841.42	3613	-	-	-	-	550	150	380	390	1250	610	630	420	6-11	849	2070	367.5	2	2.4	0.1°
RB-1400-20	7437.00	5550	-	-	-	-	490	175	440	450	1400	700	720	480	6-12	969	3060	693	2	2.7	0.1°
RB-1600-24	10524.36	7854	-	-	-	-	430	200	480	490	1600	770	790	540	6-12	1089	3960	1155	2	3.0	0.1°
RB-1800-22	13681.40	10210	-	-	-	-	380	225	540	550	1800	870	890	600	8-16	1212	5760	2205	2	3.4	0.1°
RB-2000-26	18242.76	13614	-	-	-	-	340	250	600	610	2000	960	980	660	8-16	1332	7020	3255	2	3.8	0.1°

● PH = Pin Half (Drive) upto size 360

● BH = Bush Half (Driven) upto size 360

SPARE PARTS

Coupling SIZE	Pin Half Part No.	Bush Half Part No.	Pin + Washer Part No.	Bush Part No.	No. Of Pin-Bush Assy./Coupling	Nut Size
RB-105-3	RB-105-3/1	RB-105-3/2	RB/P-2	RB/B-2	3	M8
RB-116-4	RB-116-4/1	RB-116-4/2	RB/P-2	RB/B-2	4	M8
RB-125-4	RB-125-4/1	RB-125-4/2	RB/P-2	RB/B-2	4	M8
RB-144-6	RB-144-6/1	RB-144-6/2	RB/P-2	RB/B-2	6	M8
RB-162-6	RB-162-6/1	RB-162-6/2	RB/P-3	RB/B-3	6	M10
RB-178-6	RB-178-6/1	RB-178-6/2	RB/P-3	RB/B-3	6	M10
RB-198-10	RB-198-10/1	RB-198-10/2	RB/P-3	RB/B-3	10	M10
RB-228-11	RB-228-11/1	RB-228-11/2	RB/P-4	RB/B-4	11	M14
RB-252-12	RB-252-12/1	RB-252-12/2	RB/P-4	RB/B-4	12	M14
RB-285-11	RB-285-11/1	RB-285-11/2	RB/P-5	RB/B-5	11	M16
RB-320-12	RB-320-12/1	RB-320-12/2	RB/P-5	RB/B-5	12	M16
RB-360-11	RB-360-11/1	RB-360-11/2	RB/P-6	RB/B-6	11	M20
RB-400-10	RB-400-10		RB/P-7	RB/B-7	10	M20
RB-450-12	RB-450-12		RB/P-7	RB/B-7	12	M20
RB-500-14	RB-500-14		RB/P-7	RB/B-7	14	M20
RB-560-10	RB-560-10		RB/P-8	RB/B-8	10	M36
RB-630-12	RB-630-12		RB/P-8	RB/B-8	12	M36
RB-710-12	RB-710-12		RB/P-9	RB/B-9	12	M42
RB-800-14	RB-800-14		RB/P-9	RB/B-9	14	M42
RB-900-16	RB-900-16		RB/P-9	RB/B-9	16	M42
RB-1000-18	RB-1000-18		RB/P-9	RB/B-9	18	M42

NOTES -

* All dimensions are in mm. Unless otherwise specified.

* Weight & inertia figures are at maximum bores.

* Each coupling is capable of withstanding maximum torque of 3 times of nominal torque for short durations such as during start up.

* For vertical installation contact RATHI.



The flexible capabilities of the Tyreflex Coupling help to accommodate angular, parallel and axial misalignments.

Parallel Misalignment upto 6 mm. Angular Misalignment upto 4°. End Float upto 8 mm. Suitable in ambient temp. upto 70°C.

CUSHIONING SHOCK LOADS

Tyreflex being a torsionally soft coupling protects against vibration, impact loads and heavy shocks in the event of sudden load changes.

EASE OF ASSEMBLY / DISASSEMBLY

Alignment is quickly checked by placing a straight edge across the outside diameters of the flanges.

Installation or replacement of new tyre is achieved without disturbing driver or driven shafts, simply by loosening the clamping screws, placing a new tyre between the flanges and clamping rings and then tightening the clamping screws.

TYRE-FLEX COUPLING - RST

Tyre-flex Spacer Couplings RST are specifically designed for motor-pump installations, where it is desirable not to disturb drive/driven equipment while servicing impellers, packing glands, etc.

The maintenance time-reduction feature is valuable on pumps, compressors and many other applications.

SELECTION PROCEDURE - T/TO

(a) Service Factor

Determine the required service factor from table 1.

(b) Design Power

Multiply the normal running power by the service factor. This gives **Design Power** which is used as a basis for selecting the coupling.

(c) Coupling Size

Refer table 2 and from the appropriate speed read across until a power greater than that required is found. The size of Tyre-flex coupling required is given in that column..

(d) Bore Size

Check from table 3 that selected coupling can accommodate required bores.

SELECTION PROCEDURE - RST

1. Select a suitable size of Tyre-flex coupling using the procedure.
2. Refer size column in table A and locate the size of coupling selected.
3. Read across this size until required DBSE can be accommodated.
4. The size of the spacer coupling is given in the first column of table A.
5. Refer coupling dimensional table A to check that the required bores can be accommodated.



TYRE-FLEX COUPLINGS

TYPE T / TO / RST



TABLE 1 : SERVICE FACTORS

SPECIAL CLASSES For applications where substantial shock, vibration and torque fluctuations occur and for reciprocating machines e.g. internal combustion engines, piston pumps and compressors, refer to Rathi Transpower Pvt. Ltd. with full application details for analysis.	Type of Driving Unit					
	Electric Motors Steam Turbines			Internal Combustion Engines Steam Engines Water Engines		
	Hours per day duty			Hours per day duty		
Type of Driven Machine	upto 10	over 10 to 16 incl.	Over 16	upto 10	over 10 to 16 incl.	Over 16
CLASS 1 Agitators, Brewing machinery, Centrifugal compressors and pumps, Belt Conveyors, Dynamometers, Lineshafts, Fans upto 7.5 kW, Blower and exhausters (except positive displacement), Generators.	0.8	0.9	1.0	1.3	1.4	1.5
CLASS 2 Clay working machinery, General machine tools, Paper mill beaters and winders, Rotary pumps, Rubber extruders, Rotary Screens, Textile Machinery, Marine Propellers, and Fans over 7.5 kW.	1.3	1.4	1.5	1.8	1.9	2.0
CLASS 3 Bucket elevators, Cooling tower fans, Piston compressors & pumps, Foundry machinery, Metal presses, Paper mill Calenders, Hammer mills, Presses and pulp grinders, Rubber Calenders, Pulverisers and Positive displacement blowers.	1.8	1.9	2.0	2.3	2.4	2.5
CLASS 4 Reciprocating conveyors, Gyrotory crushers, Mills (ball, pebble and rod). Rubber Machinery (Banbury Mixers and Mills) and Vibratory screens.	2.3	2.4	2.5	2.8	2.9	3.0

TABLE 2 : POWER RATING (kW)

Speed rpm	Size T / TO														
	4	5	6	7	8	9	10	11	12	14	16	18	20	22	25
100	0.25	0.69	1.33	2.62	3.93	5.24	7.07	9.16	13.9	24.3	39.5	65.7	97.6	121	154
750	1.87	5.17	9.97	19.65	29.47	39.30	53.02	68.70	104.25	182.25	296.25	492.75	732	907.5	1155
1000	2.50	6.90	13.30	26.20	39.30	52.40	70.70	91.60	139.0	243.0	395.0	657.0	976	1215	1537
1500	3.75	10.35	19.95	39.30	58.95	78.60	106.05	137.40	208.50	364.50	592.50*	986.5*	-	-	-
1800	4.50	12.42	23.94	47.16	70.74	94.32	127.26	164.88	250.20	437.40*	-	-	-	-	-
3000	7.50	20.70	39.90	78.60	117.90*	157.20*	-	-	-	-	-	-	-	-	-
3600	9.00	24.84	47.98	94.32	-	-	-	-	-	-	-	-	-	-	-

- All these power ratings are calculated at constant torque.
- For speeds below 100 rpm and intermediate speeds use normal torque ratings.
- * Dynamic balancing preferred at these speeds.

Poles	2	4	6	8
rpm	3000	1500	1000	750

TECHNICAL DATA - FLEXIBLE TYRES

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/Deg.	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
Normal 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

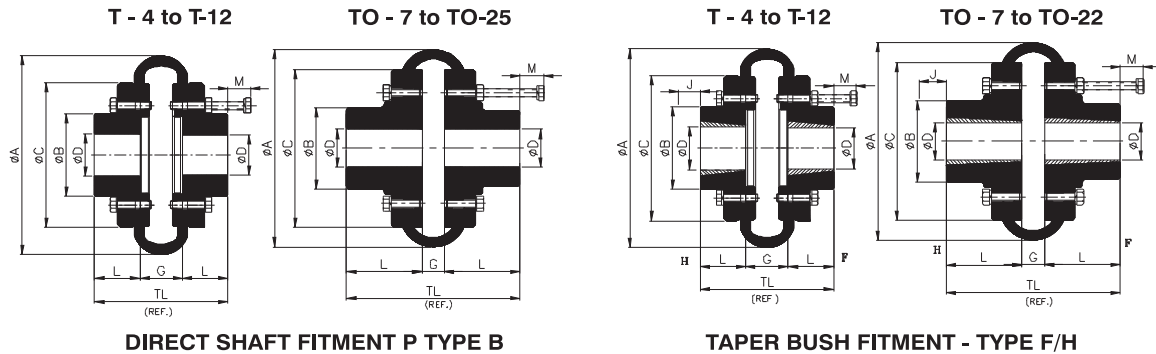


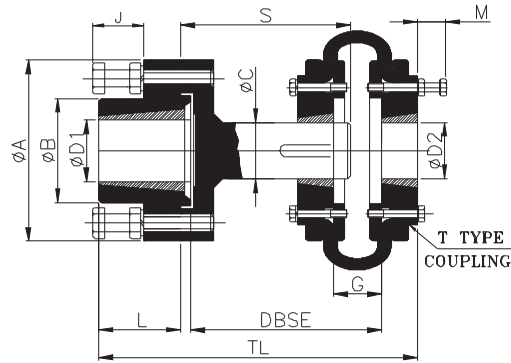
TABLE 3 : DIMENSIONS OF TYRE-FLEX HUB TYPES B, F & H

SIZE	KW @ 100 RPM	MAX. SPEED (RPM)	TYPE	# BUSH SIZE	BORE ØD		TYPE F/H			TYPE B		ØA	ØC	ØB	M	G	WT.(Kg)	M.I. (WR ²) Kg-m ²
					PB	MAX.	TL	L	J	TL	L							
T-4	0.25	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	4500	B	-	10	38	-	-	-	93	32	133	100	79	17	29	3.5	0.00358
			F/H	1210	-	32	79	25	38	-	-						2.7	0.00349
T-6	1.33	4000	B	-	15	45	-	-	-	111	38	165	125	73	8	35	5	0.0105
			F/H	1610	-	42	85	25	38	-	-						3.6	0.0103
TO-7	2.62	3600	B	-	19	50	-	-	-	106	45	197	144	82	-	16	8.4	0.0177
			F	2012	-	50	80	32	38	-	-						6.35	0.0192
			H	1610	-	42	66	25	-	-	-						6.2	0.0157
TO-8	3.93	3100	B	-	25	63	-	-	-	124	51	210	167	96	10	22	11.5	0.0329
			F	2517	-	60	112	45	42	-	-						8.53	0.0303
			H	2012	-	50	86	32	-	-	-						8.5	0.0293
TO-9	5.24	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	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	-	-	-						18.1	0.1058
TO-11	9.16	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	2050	B	-	38	100	-	-	-	177	76	314	264	152	-	24.5	40.1	0.2902
			F	3525	-	90	154.5	65	55	-	-						30.33	0.2627
			H	3020	-	75	126.5	51	-	-	-						30.3	0.2622
TO-14	24.3	1800	B	-	58	127	-	-	-	201	89	359	311	195	26	23	60.6	0.6045
			F/H	3525	-	90	153	65	67	-	-						42.6	0.4922
TO-16	39.5	1600	B	-	65	140	-	-	-	212	102	395	345	216	-	8	86.4	1.2755
			F/H	4030	-	100	162	77	80	-	-						72.6	1.1134
TO-18	65.7	1500	B	-	70	150	-	-	-	254	116	470	398	220	-	22	133.3	2.1525
			F/H	4535	-	115	200	89	89	-	-						123	1.9514
TO-20	97.6	1300	B	-	70	150	-	-	-	258	114	508	429	220	-	30	144.6	3.1765
			F/H	4535	-	115	208	89	89	-	-						158.3	3.0129
TO-22	121	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	1000	B	-	85	190	-	-	-	294	132	628	532	275	-	30	281.1	8.129

NOTES:

- 1) All Dimensions are in mm .
- 2) M is amount by which clamping screw need to be withdrawn to release tyre .
- 3) J is wrench clearance to allow for tightening and loosening of the bush on the shaft.
- 4) Shaft ends, although normally located G apart can project beyond flanges.
- 5) Weight & Moment of inertia specified for solid bores.
- 6) # For detailed information about Taper Bore, Please refer Taper Bush catalog.
- 7) FRAS Tyres are available on request.

T-4 to T-6



TO-7 to TO-14

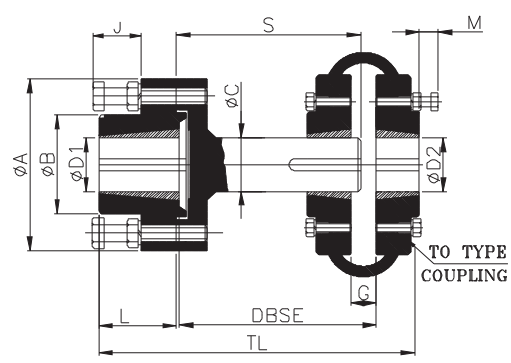


TABLE A - DIMENSIONAL DATA

SPACER SIZE	TYPE	NOM. DBSE	BORE ØD1		ØA	ØB	TL		L	J	S		ØC	TYRE FLEX SIZE T/TO	BORE ØD2		G		M
			PB	MAX.			T	TO			T	TO			PB	MAX.	T	TO	
RST-12	B	80 100	12	42	118	83	127 147	-	25	22	57 77	-	25	4	10	32	24	-	17
RST-16	B	100	18	48	127	80	160	-	38	24	94	-	32	4	10	32	24	-	17
		140					200				134			4	10	32	24		17
		100					170				94			5	10	38	29		17
		140					210				134			5	10	38	29		17
		100					176				94			6	15	45	35		8
		140					216				134			6	15	45	35		8
RST-25	B	100	38	80	178	127	-	190	45	27	94	-	48	7	19	50	16	-	-
		140									134			7	19	50	16		-
		180									174			7	19	50	16		-
		100						196			94			8	25	63	22		10
		140						236			134			8	25	63	22		10
		180						276			174			8	25	63	22		10
		140						242			134			9	30	75	24		-
		180						282			174			9	30	75	24		-
RST-30	B	140	40	90	216	146	-	276	76	33	134	-	60	10	32	80	24	-	-
		180						316			174			10	32	80	24		-
		140						281			134			11	32	90	22		-
		180						321			134			11	32	90	22		-
RST-35	B	140	66	110	248	178	-	305	89	33	134	-	80	12	38	100	25	-	-
		180						345			174			12	38	100	25		-
		180						358			174			14	58	125	32		26

* T4 'B' flange must be used to fit spacer shaft.

For detailed information about Taper Bush bore, please refer Taper Bush catalogue.

• All dimensions are in mm unless otherwise specified.

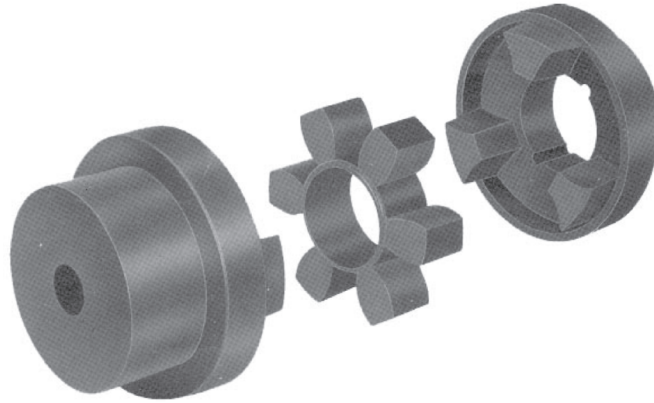
M is amount by which clamping screw need to be withdrawn to release tyre.

TABLE B: DISTANCE BETWEEN SHAFT ENDS (DBSE)

Tyre-flex Size T/TO	RST12		RST 16				RST 25						RST 30				RST 35			
	80		100		140		100		140		180		140		180		140		180	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
4	80	100	100	113	140	153														
5			100	116	140	156														
6			100	124	140	164														
7 F							100	107	140	147	180	187								
8 F							100	112	140	152	180	192								
9									140	155	180	195								
10 F													140	151	180	191				
11													140	151	180	192				
12 F																	140	156	180	196
14																	140	153	180	193

NOTES :-

- 1) Non STD Spacers are available on request .
- 2) Refer Installation Instructions for Mounting and Dismounting. .
- 3) Available only with taper bore, without taper bush.



The RFC coupling is a general purpose flexible coupling available in eight different sizes in taper bore, pilot bore or finished bore.

Easy installation

Alignment is quickly achieved by simply placing a straight edge across the outside diameter of the hubs. No special tools are needed, only a hexagon wrench for the locking of the taper bush.

Accommodates Misalignment

The RFC coupling compensates for axial, parallel & angular misalignments.

Extra protection Against Failure

The Inter-linking hubs act as an additional safeguard, though the flexible element fails, the drive will be maintained by the interaction of the jaws which are an integral part of the coupling hubs. The hubs are made of C. I.. Jaws are unmachined.

Interchangeable

The RFC coupling is compatible with leading makes of couplings.

Elastomeric spider is of Nitrile rubber having shore hardness of 80°, suitable for temperatures from -40° C to +100° C.

TABLE 2. POWER RATING (kW)

Speed rpm	Coupling Size							
	RFC 7	RFC 9	RFC 11	RFC 13	RFC 15	RFC 18	RFC 23	RFC 28
100	0.33	0.84	1.68	3.30	6.28	9.95	20.90	33.00
1500	4.95	12.55	25.15	49.50	94.00	149.00	313.50	495.00
3000	9.90	25.10	50.30	99.00	188.00	298.00	—	—

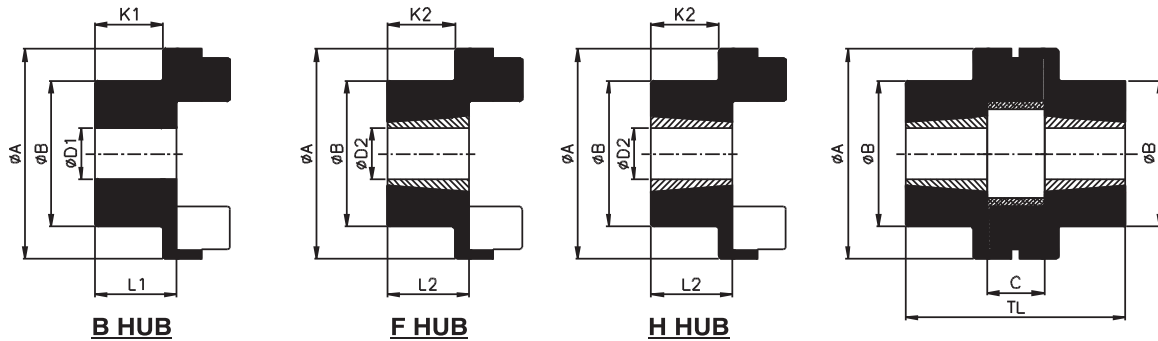


TABLE 3. DIMENSIONS DATA (mm)

Size	B Hub				F / H Hub					ØA	ØB	C	TL		
	Bore ØD1		K1	L1	#Bush Size	Bore ØD2		K2	L2				TL1	TL2	TL3
	Max.	Min.				Max.	Min.								
7	32	10	21	26	1008	25	10	19	24	69	60	17.5	66	68	70.0
9	42	10	26	32	1108	28	10	18	24	85	65	22.5	70.5	78.5	86.5
11	55	10	37	45	1610	42	14	19	27	112	100	29	83	101	119.0
13	60	20	46	55	1610	42	14	17.5	26.5	130	105	36	89	117.5	146.0
15	70	20	50	60	2012	50	14	24	34	150	115	40	108	134	160.0
18	80	30	58	70	2517	60	16	35	47	180	125	49	143	166	189.0
23	100	40	77	90	3020	75	24	39.5	52.5	225	155	58.5	163.5	201	238.5
28	115	50	88.5	105	3535	90	35	74.0	90.5	275	185	74.5	255.5	270	284.5

TABLE 4. TECHNICAL DATA

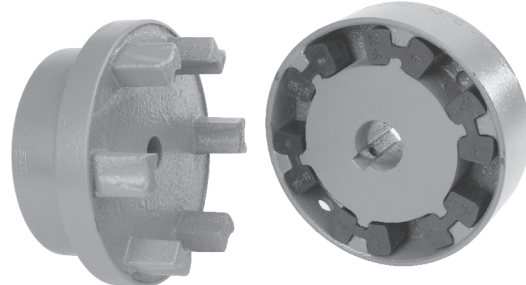
Size	Maximum Speed rpm	Torque Rating (Nm)		Moment of Inertia WR ² (kgm ²)	Torsional Stiffness (Nm / degree)	Maximum Misalignment		\$ Weight (kg)
		Normal	Maximum			Parallel	Axial	
RFC 7	8300	31.5	72	0.0003	10.2	0.3	+0.20	1.1
RFC 9	6740	80	180	0.001	25.5	0.3	+0.49	1.0
RFC 11	5110	160	360	0.003	48.0	0.3	+0.61	5.0
RFC 13	4400	315	720	0.006	84.0	0.4	+0.79	8.0
RFC 15	3820	600	1500	0.010	176.0	0.4	+0.92	11.7
RFC 18	3180	950	2350	0.022	240.0	0.4	+1.09	18.2
RFC 23	2540	2000	5000	0.065	336.0	0.5	+1.32	35.0
RFC 28	2080	3150	7200	0.191	960.0	0.5	+1.70	66.5

Available only with taper bore, without taper bush.

\$ Weight and M.I. are at max bores with one type-B hub combination.

NOTES : TL1 = Combination of F-F / H-H / F-H hub
TL2 = Combination of B-F / B-H hub
TL3 = Combination of B-B hub

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.

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.

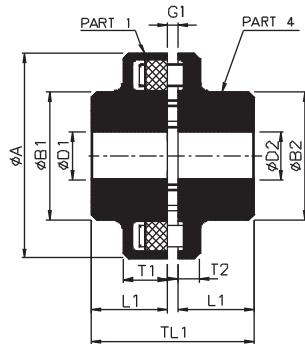
Smooth & Quiet Operation

Reduces vibration & noise arising from severe torque fluctuations. Operating temp. is -30°C to +100°C.

Application :

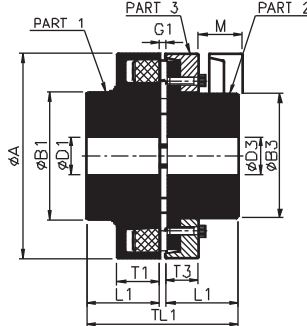
Mainly for pump applications such as :

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



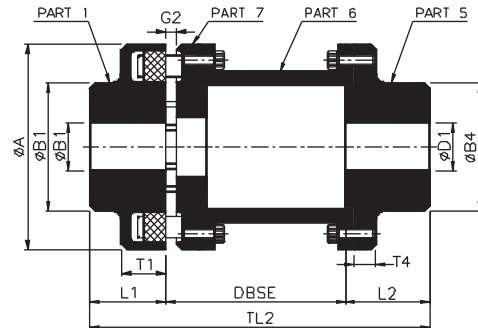
RN(B)

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)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Synthetic Rubber		Polyurethane				H-Trans																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

- 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.

... the coupling that pays for itself



Type L Coupling



Type TSW Coupling



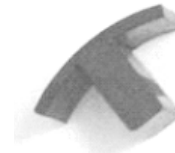
Type RRS Spacer Coupling



Spider
Synthetic Rubber,
Polyurethane, H-Trans



SW Spider
Synthetic Rubber,
Polyurethane, H-Trans



SW Element
(Nitrile / Urathane / H-Trans)

6 ways the "Snap Wrap" coupling can help pay for itself:

With its unique wrap around Synthetic rubber connecting element, the Snap Wrap coupling eliminates the need for dismantling the connected equipment while inspecting or replacing the element - a major benefit when down-time on machinery can run into huge amounts. Combined with a range of prebored hubs, a modular hub design and a spacer option, the Snap Wrap coupling is unsurpassed for quality, flexibility, speed of installation and maintenance.

1. Prebored hubs

Hubs bored and keyed to standard IEC motor shaft sizes at no extra cost.

2. Snap Wrap element

Ease of inspection and replacement within 5 minutes.

3. Modular hub design

Both Models , SW & RRS use the same hubs.

4. Spacer coupling

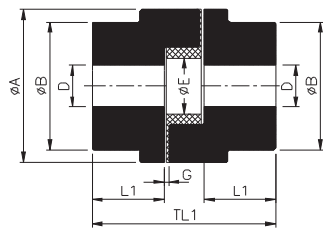
RRS spacer model is available for pump applications.

5. Fully machined hubs

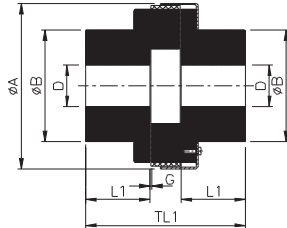
Balance, ease of alignment and smooth contact surface for elements are assured.

6. Any environment

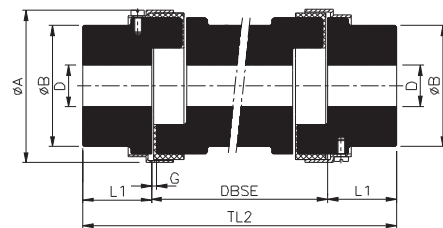
Water, oil, greases & dust do not affect performance.



TYPE L



TYPE SW



TYPE RRS

TECHNICAL DATA

Coupling		Power Rating						Pilot Drill Size	Max. Bore D	ØA		Length thru' Bore L1	ØB	Gap G	ØE	DBSE	TL1	TL2
		Synthetic Rubber		Polyurethane		H-Trans												
Type	Size	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm			SW/ RRS	L							
L	35	0.38	0.004	0.6	0.01	1.0	0.01	-	10	-	16	6.5	16	1	-	-	21	-
	50	2.80	0.03	4.2	0.04	7.0	0.07	-	16	-	27	15	27	1	-	-	42	-
	70	4.90	0.05	7.4	0.08	12.3	0.13	-	20	-	35	19	35	2	-	-	51	-
	⊙ 75	9.80	0.1	14.7	0.15	24.5	0.26	-	22	-	45	21	45	2	-	-	55	-
	■ 75	9.80	0.1	14.7	0.15	24.5	0.26	-	22	-	45	21	39	2	-	-	55	-
L SW RRS	95	21.10	0.22	31.7	0.33	52.8	0.55	-	28	65	54	25	49	2	19	90,100,140	63	TL2 = DBSE
	99	46.40	0.49	69.6	0.73	116	1.2	-	30	78	65	27	51	2	27		72	
	100	46.40	0.49	69.6	0.73	116	1.2	-	35	78	65	35	57	2	27		88	
	110	89	0.93	133.5	1.4	222.5	2.3	-	42	96	85	43	76	3	35	90	108	
	150	141	1.5	211.5	2.2	352.5	3.7	-	48	111	96	45	80	3	35	100	115	
	190	190	2.0	285	3.0	475	5.0	-	60	129	115	54	102	3	45	140	133	
	225	265	2.8	397.5	4.2	662.5	6.9	-	65	142	127	64	111	3	45	180	153	
	226	327	3.4	490.5	5.1	817.5	8.6	25	70	153	137	70	119	3	51		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	1918.5	20.1	3197.5	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	4570.5	47.9	7617.5	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.

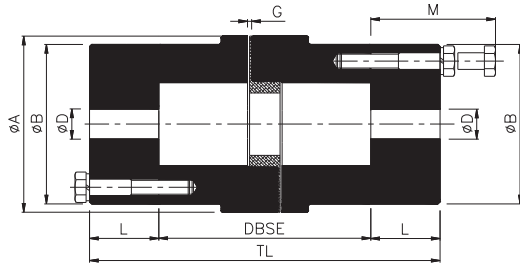
■ 075 - Aluminium

⊙ 075 - Sintered Iron

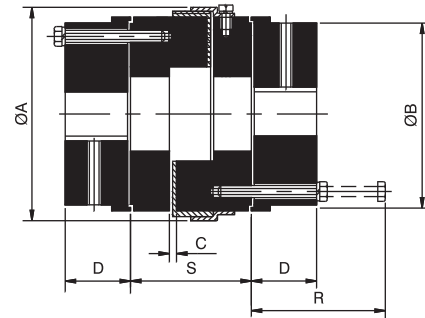
For RRS, TL2 = DBSE + 2L 1

L Type Spider : Polyurethane - for Sizes 50 to 295

H-Trans - for Sizes 50 to 225



TYPE RRL



TYPE SWQ

TECHNICAL DATA

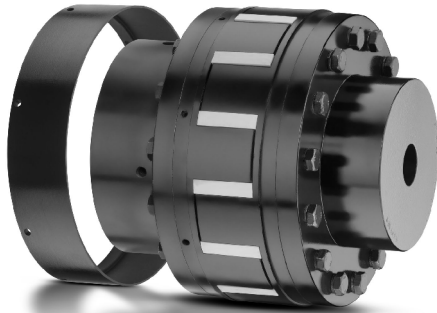
Size	Synthetic Rubber		DBSE		Bore Ø D			Outside Dia. Ø A	Adapter Hub Dia. Ø B	Length thru' Bore L		Min. bolt clearance * M		Total Length 'TL'
	kW at 100 rpm	Rated Torque Nm			Min.	Std.	Min.			Max.		▲	Std.	
			▲	Std.										
RRL-095	0.22	21.1	75	90,100,140	10	—	28	54	54	—	25	—	45	140, 150, 190
RRL-100	0.49	46.4	75	90,100, 140,180	10	—	38	65	65	—	30	—	50	150, 160, 200
RRL-110	0.93	89.0	75		15	24	42	85	76	35	35	36	60	160, 170, 210, 250
RRL-150	1.48	141.0	75		15	32	48	96	90	40	40	48	70	170, 180, 220, 260
RRL-190	1.99	190.0	75		15	38	55	115	102	45	45	48	75	180, 190, 230, 270
RRL-225	2.78	265.0	90		15	42	65	127	115	50	50	54	90	190, 200, 240, 280

▲ Triangular Adapter Body.

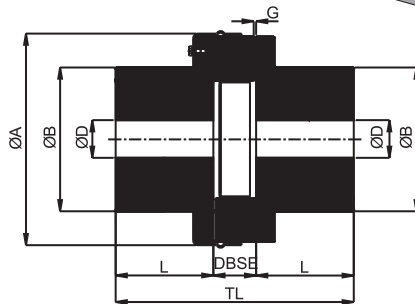
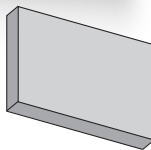
TECHNICAL DATA

Coupling size	kW @100 RPM	DBSE S	Bore		Outside Diameter ØA	Length Thru Bore D	Adapter Diameter ØB	Minimum Bolt Clearance R
			Min.	Max.				
SWQ 095	0.22	100, 140 180	10	28	65	25	54	45
SWQ 100	0.49		10	38	78	30	65	50
SWQ 110	0.93		15	42	96	35	76	60
SWQ 150	1.49		15	48	111	40	90	70
SWQ 190	2.01		20	55	129	45	102	75
SWQ 225	2.76		20	65	142	50	115	90
SWQ 226	3.43	140, 180	25	70	153	50	134	92
SWQ 276	5.60		25	80	173	60	130	107
SWQ 280	8.20		30	80	208	60	130	70
SWQ 295	13.40		30	105	253	70	160	75
SWQ 2955	22.40		30	105	253	75	160	85
SWQ 300	31.90		30	115	272	80	180	95
SWQ 350	45.00		30	125	323	90	200	85

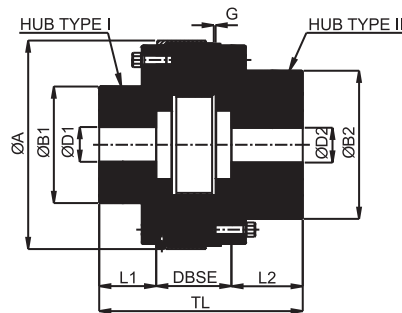
- Maintain gap C at the time of assembly where C = 2 mm. for SWQ - 095 to 100
= 3 mm. SWQ - 110 to SWQ - 350
- Pilot bores other than specified are available on request.
- Non std. spacer length available on request.
- For vertical installation contact RATHI.



Load Cushion -
(Nitrile / Urathane /
H - Trans for H,HR)



TYPE H



TYPE HR

'H' TECHNICAL DATA

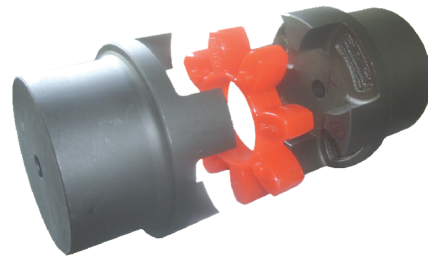
Size	kW at 100 rpm			Gap G	Bore (ØD)		Outside Dia. ØA	Hub Dia. ØB	Length thru' Bore L	DBSE	Overall Length TL	Approx. weight in kg	
	Synthetic Rubber	PU	H-Trans		Min.	Max.						Min. Bore	Max. Bore
H-307	56	84	140	3	60	105	262	180	121	53	295	58	55
H-357	75	112	187	3	60	115	288	197	127	60	314	73	67
H-367	104	156	260	3	70	130	313	222	143	67	353	105	99

'HR' TECHNICAL DATA

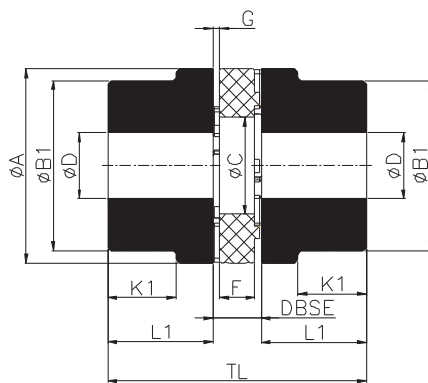
Size	KW at 100 rpm			Gap G	Type I Bore (ØD1)		Type II Bore (ØD2)		Outside Dia. ØA	Hub Diameter		Length thru Bore		DBSE	Overall Length TL
	Synthetic Rubber	PU	H-Trans		Min.	Max.	Min.	Max.		ØB1	ØB2	L1	L2		
HR-307	56	84	140	3	30	80	60	105	266	131	170	68	85	100	253
HR-357	75	112	187	3	35	85	60	115	292	138	180	76	95	110	281
HR-367	104	156	260	3	40	100	70	130	317	162	210	84	105	117	306
HR-407	-	223	372	3	50	120	85	155	349	195	248	95	120	126	341
HR-457	-	302	502	3	60	140	85	185	400	220	294	100	130	134	364
HR-509	-	358	597	6	70	145	90	190	412	230	305	110	140	133	383
HR-609	-	527	877	6	85	170	100	225	461	275	360	130	170	142	442
HR-709	-	738	1230	6	90	190	100	265	524	300	425	140	195	162	497
HR-809	-	-	1530	6	100	215	120	295	592	345	470	155	210	196	561
HR-911	-	-	1770	6	100	265	170	340	661	420	545	190	240	216	646
HR-1013	-	-	2644	6	195	360	-	-	800	540	-	340	-	218	-
HR-1015	-	-	3665	6	215	420	-	-	910	630	-	340	-	235	-

- Maintain Gap 'G' = at the time of assembly.
- Please specify hub type required.
- Non std. DBSE spacer available on request.
- For vertical installation contact RATHI.

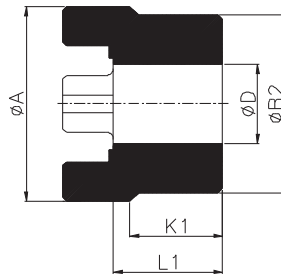
- All over machining - Inherently balanced
- No Lubrication, Maintenance free - Long life
- Compact design, High power to weight ratio
- Fail safe - Will perform even if spider fails
- Vibrations Damping, torsionally flexible
- Axial plug-in, easy to assemble



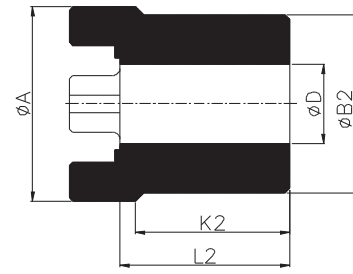
RRJ Coupling



HUB TYPE I



HUB TYPE II



HUB TYPE III

TECHNICAL DATA

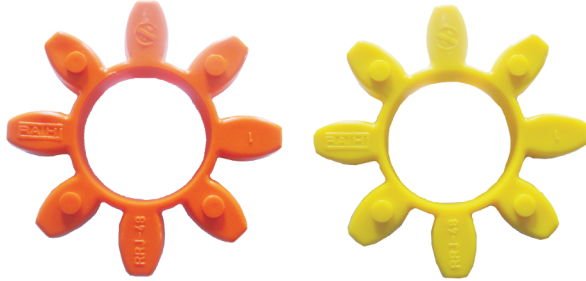
RRJ - ALUMINUM (AL)*

Coupling Size	Hub Type	kW @ 100 rpm		Torque Nm	Max. Speed RPM	Bore - Ø D			DIMENSIONS (mm)														# Assembly	
		Red	Yellow			Red	PB	Min.	Max.	ØA	ØB1	ØB2	ØC	DBSE min.	F	L1	L2	G	TL	K1	K2	Weight (Kg.)	M.I. (Kg.m ²)	
19	I	0.18	0.1	18	14000	0	6	19	41	32	-	18	16	12	25	-	2	66	20	-	0.11	2.3 X 10 ⁻⁶		
	19						24	-		41	0.14										4.3 X 10 ⁻⁵			
24	I	0.65	0.35	62	10600		9	28	56	40	-	27	18	14	30	-	2	78	24	-	0.24	9 X 10 ⁻⁵		
	22						-			56	0.34										19 X 10 ⁻⁵			
28	I	1.75	0.95	167	8500		10	38	66	48	-	30	20	15	35	-	2.5	90	28	-	0.39	20X 10 ⁻⁵		
	28						-			66	0.54										42 X 10 ⁻⁵			
RRJ- CAST IRON (CI)*																								
38	I	3.47	1.9	332	7100	10	40	12	80	66	-	38	24	18	45	-	3	114	37	-	2.00	1.85 X 10 ⁻³		
	48						-			78	-				70	164					-	62	2.40	2.45 X 10 ⁻³
	III						45			75	-				-	70					164	-	62	3.60
42	I	4.99	2.65	477	6000	12	45	14	95	75	-	46	26	20	50	-	3	126	40	-	3.20	4.1 X 10 ⁻³		
	55						-			94	-				75	176					-	65	3.80	5.9 X 10 ⁻³
	III						52			85	-				-	75					176	-	65	5.50
48	I	5.49	3.1	524	5600	13	52	15	105	85	-	51	28	21	56	-	3.5	140	45	-	4.96	7.4 X 10 ⁻³		
	62						-			104	-				80	188					-	69	5.45	9.9 X 10 ⁻³
	III						60			98	-				-	90					210	-	77	6.60
55	I	7.27	4.1	694	4750	18	60	20	120	98	-	60	30	22	65	-	4	160	52	-	7.50	17.3 X 10 ⁻³		
	74						-			118	-				90	210					-	77	10.20	23.7X 10 ⁻³
	III						70			115	-				-	100					235	-	86	10.10
65	I	10.19	6.25	973	4250	20	70	22	135	115	-	68	35	26	75	-	4.5	185	61	-	11.50	27.8 X 10 ⁻³		
	80						-			133	-				100	235					-	86	15.00	36.3 X 10 ⁻³
	III						80			-	133				-	100					235	-	86	15.00
75	I	20.73	12.8	1980	3550	28	95	30	160	135	-	80	40	30	85	-	5	210	69	-	16.00	54 X 10 ⁻³		
	95						-			158	-				110	260					-	84	18.20	61.4 X 10 ⁻³
	III						97			160	-				-	110					260	-	84	21.20
90	I	36.89	24	3523	2800	38	97	40	200	160	-	100	45	34	100	-	5.5	245	81	-	27.50	138 X 10 ⁻³		
	110						-			198	-				125	295					-	106	36.30	182 X 10 ⁻³
	III						110			-	198				-	125					295	-	106	44.80

Weight & Moment of Inertia (M.I.) of coupling assembly refer to maximum finish bore without keyway.

* Alternative hub material available on request - Steel (Sizes 19 to 90) , S. G. Iron (Sizes 38 to 90).

SPIDER



TECHNICAL DATA - Polyurethane Spiders

Spider Size	Red (Std.)		Yellow	
	T _{nom} (Nm)	T _{max} (Nm)	T _{nom} (Nm)	T _{max} (Nm)
19	17	34	10	20
24	60	120	35	70
28	160	320	95	190
38	325	650	190	380
42	450	900	265	530
48	525	1050	310	620
55	685	1370	410	820
65	940	1880	625	1250
75	1920	3840	1280	2560
90	3600	7200	2400	4800
Hardness	95 Shore A		92 Shore A	
Temperature	- 40°C to 90°C			

Selection Procedure:

- Determine Application Nominal Torque (Nm)
 $T_{nom} (Nm) = (kw \times 9550 / rpm)$
- Calculate application service factor using following charts - Total service factor (SF) will be
 $SF = SF1 \times SF2 \times SF3$
- Calculate Application Maximum Torque (T_{max})
 $T_{max} = T_{nom} \times SF (Nm)$
- Select the proper spider showing T_{nom} greater than application nominal torque. Then select spider showing T_{max} greater than application maximum torque. Select the higher of two.
- Ensure that application rpm and max. bore requirements are less than or equal to selected coupling max. rpm and max. bore size otherwise select next size coupling.

For SF1, SF2, SF3 refer chart.

SF1 - Application Service Factor

Driven Machine / Example	Electric Motors	Prime Motor	
		4 Cylinder or more	Less than 4 Cylinder
a. Uniform operation, no shocks.	1.5	2.0	2.5
b. Irregular operation, light shocks.	2.0	2.5	3.0
c. Irregular operation, medium shocks.	2.5	3.0	3.5
d. Irregular operation, heavy shocks.	3.0	3.5	4.0

SF2 - Application Service Factor for Temperature

Temperature Range °C	< 30°C	30°C - 70°C	> 70°C
SF2	1.0	1.5	2.0

SF3 - Application Service Factor for starting frequency

Starting frequency cycles / hour	< 100	100 - 500	> 500
SF3	1.0	1.5	2.0

MISALIGNMENT DATA

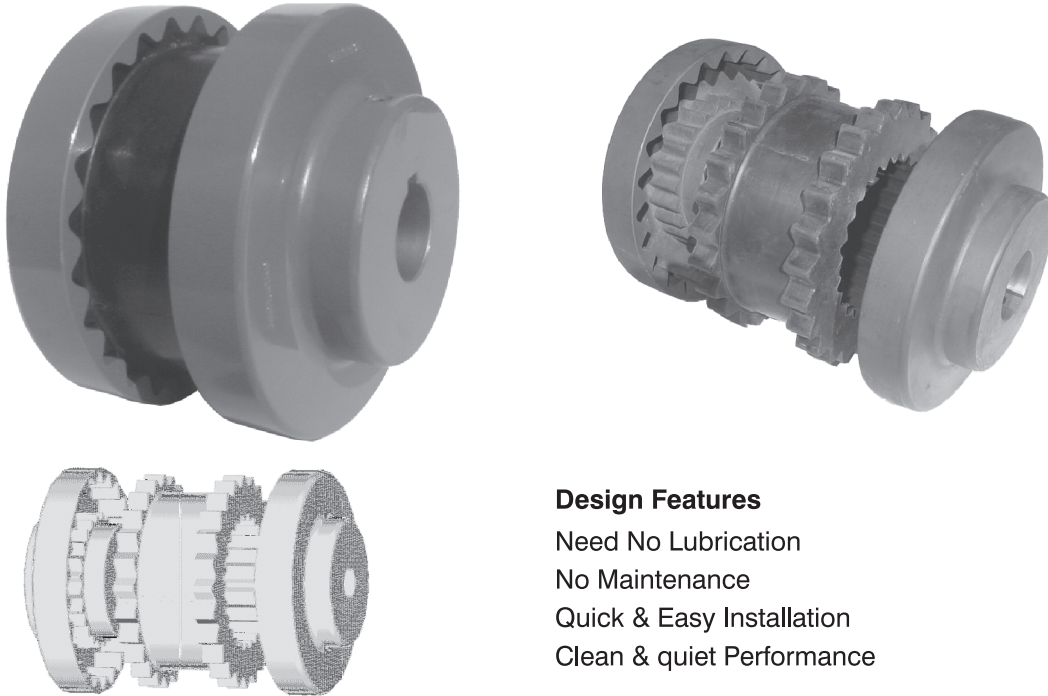
Size	19	24	28	38	42	48	55	65	75	90
Maximum axial displacement (mm)	1.6	1.8	2.0	2.2	2.3	3.0	3.0	3.5	3.5	4.5
Maximum radial misalignment (mm)	0.15	0.20	0.20	0.25	0.30	0.35	0.35	0.40	0.45	0.50
Maximum angular misalignment (Deg.)	0.80	0.80	0.80	0.90	0.90	1.0	1.0	1.0	1.1	1.1

ORDER SEQUENCE	Coupling Size	Hub Type (Driver / Driven)	Finish Bore (Driver / Driven)	Spider Type	Hub Material
Example	RRJ-55	I / II	40 / 60	Red	CI

- Coupling with std. Spider is supplied if not specified.

- All dimensions are in mm unless otherwise specified.
- For vertical installation contact RATHI.

Sleeve-Flex Elastomeric Couplings



Design Features

Need No Lubrication

No Maintenance

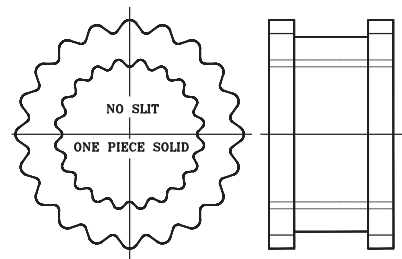
Quick & Easy Installation

Clean & quiet Performance

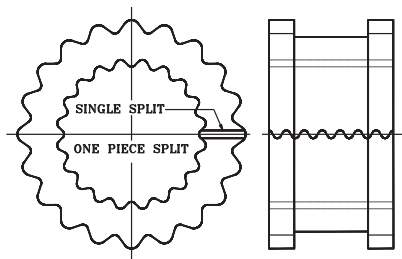
Sleeve-Flex can be installed quickly and easily, because there are no bolts, gaskets, covers or seals. Alignment can be checked with a straight edge placed across the outside of the precision machined flanges. No special tools are needed for installation, alignment or removal.

The teeth of sleeve lock into the teeth of the flanges without clamps or screws, tightening under torque to provide smooth transmission of power. There is no rubbing action of metal against rubber to cause wear. Couplings are not affected by abrasives, dirt or moisture.

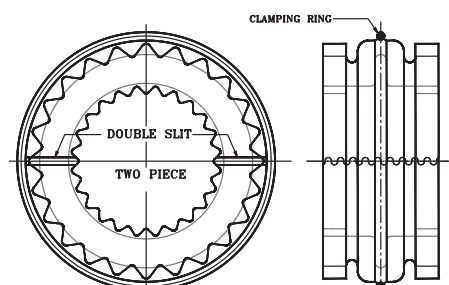
This eliminates the need for lubrication or maintenance, provides clean, dependable, quiet performance.



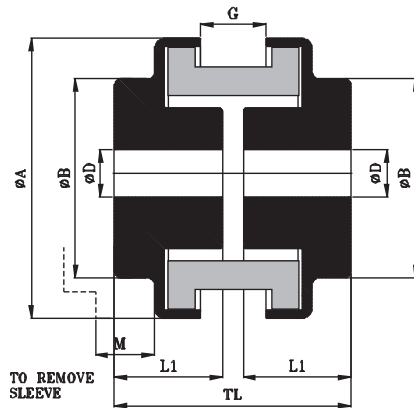
JE SLEEVES (FOR SIZE 3 TO 10)



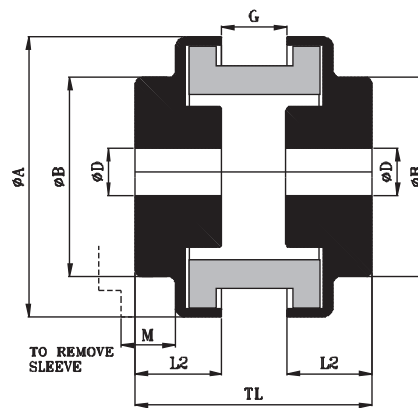
JES SLEEVES (FOR SIZE 3 TO 10).



E SLEEVES (FOR SIZE 11 TO 13).



**FLANGE
TYPE - 'S'**



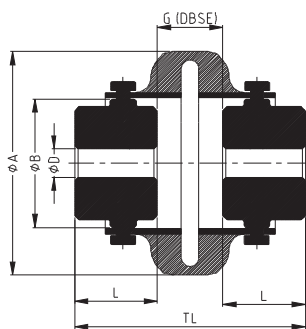
**FLANGE
TYPE - 'J'**

TECHNICAL DATA

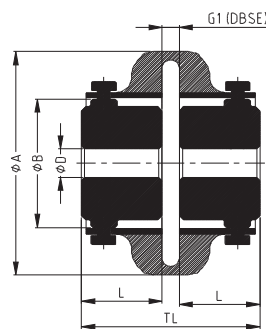
Coupling Size	Flange Type	Sleeve Type	kW @ 100 rpm	Rated Torque	Max. Speed	Bore (mm) ØD		Dimensions (mm)							Weight Kg
				N-m	rpm	P.B.	MAX.	A	B	L1	L2	G	TL	M	
3	J	JE, JES	0.08	7.64	9200	10	22	52	38	-	20	9	49	16	0.3
4	J		0.15	14.32	7600	13	25	63	41	-	22	16	60	16	0.5
5	J		0.30	28.65	7600	13	29	83	48	-	26	18	70	23	1.1
	S									34	-	19	71	30	
6	J		0.52	49.66	6000	16	35	102	63	-	33	21	87	28	2
	S									41	-	21	87	36	
7	S		0.90	85.94	5250	16	48	118	71	47	-	25	100	34	2.8
8	S		1.34	127.96	4500	19	54	138	98	53	-	28	112	38	4.8
9	S		2.16	206.26	3750	22	64	161	98	61	-	36	128	45	7.2
10	S		3.43	327.54	3600	29	73	191	111	69	-	41	144	51	11.2
11	S	E	5.37	512.80	3600	32	87	219	133	87	-	48	181	61	18
12	S		8.50	811.69	2800	38	98	254	146	102	-	60	211	68	28
13	S		13.43	1282.47	2400	51	100	299	171	111	-	68	236	78	48

- Flange size 3 & 4 are available in aluminium while 5 to 13 are in cast iron.
- The weight is approximate with solid flange.

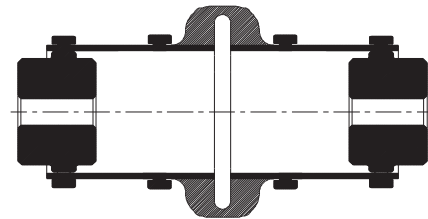
- All dimensions are in mm unless otherwise specified.
- For vertical installation contact RATHI.



Standard Type



Hub reversed Type



**Spacer Type
(Available on request)**

Features

- Torque transmission is by shear
- Tyre is split into two halves, each bonded to a metal bracket
- Each tyre is bolted radially to hubs mounted on shafts
- Special material with high durability, strength & fatigue resistance

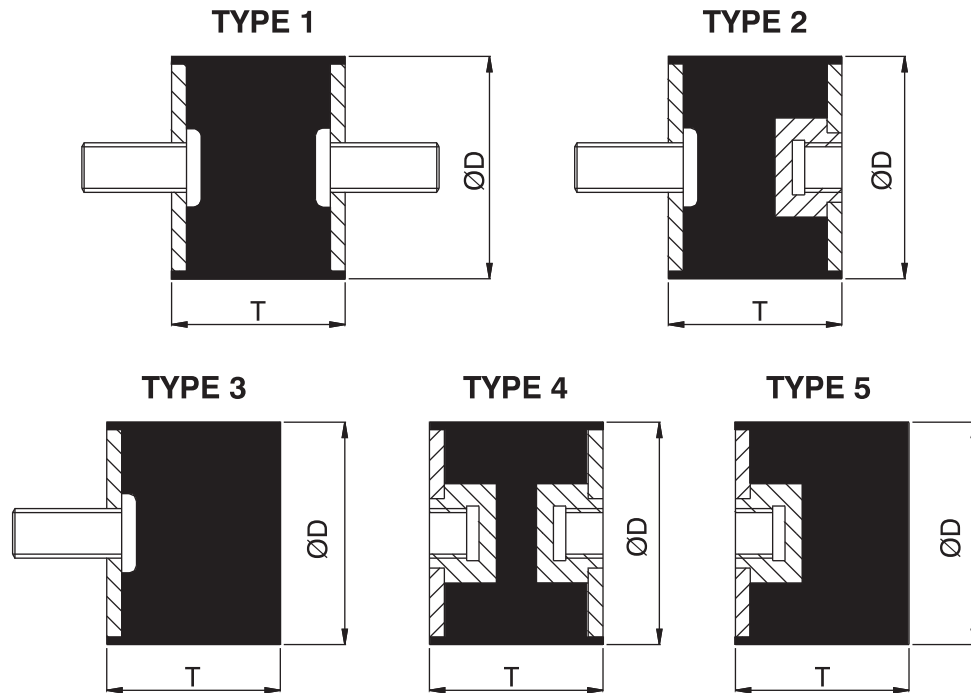
Benefits

- Easy maintenance, as assembly & disassembly does not require any special skills
- Hubs may be fitted with different orientations to achieve different gaps
- Suitable for applications with low stiffness
- Higher misalignment capability
- Taper lock bushes may be fitted if required

Applications

- General Applications - Agitators, Blowers, Conveyors, Cranes, Pumps etc.
- Industry Applications - Cement, Food, Lumber, Rubber, Steel, Paper, Power Plants etc.

Size	Power Kw (@100rpm)	Torque Nm (TK)	Speed rpm (Max)	Bore		Dimensions							Weight Kg (Max Bore)
				D (Pilot)	D (Max)	A	B	L	DBSE		Total Length		
									Std Hub	Reverse Hub	Std Hub	Reverse Hub	
									G	G1	TL	TL1	
RTP-103	0.45	43	7500	13	36	103	59	38	46	8	122	84	1.2
RTP-117	0.66	63	7500	13	42	117	66	38	46	8	122	84	1.5
RTP-138	1.15	110	7500	13	48	138	80	44	59	8	147	96	2.6
RTP-163	1.89	181	7500	13	55	163	93	44	59	8	147	96	3.6
RTP-211	4.34	414	5800	21	78	211	138	58	69	12	185	128	9.8
RTP-319	14.99	1432	3800	31	115	319	222	82	97	8	261	172	32.4
RTP-357	26.50	2531	3600	31	123	357	235	85	109	18	279	188	39.5

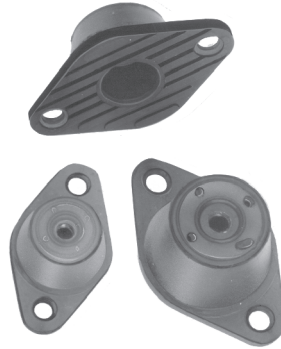


SIZE/PART No. (DXT) (mm)		MAX COMPRESSIVE LOAD (kg)	STATIC DEFL (mm)	THREAD SIZE	
				BOLT	NUT
PO 13x13	A	4.5	1.0	M6X1Px13L	M6X1Px4 DEEP
PO 16X15	A	5.6	1.0	M5X0.8Px12L	M5X0.8Px5 DEEP
PO 19X19	A	18	3.0	M6X1Px19L	M6X1Px4 DEEP
	B	25	3.0		
	C	35	3.0		
PO 20x20	C	29	4.0	M6x1Px17L	M6x1Px6 DEEP
PO 20x25	A	6.0	3.0	M6x1Px17L	M6x1Px6 DEEP
	B	8.0	3.0		
	C	11	3.0		
	D	18	4.0		
	E	21	3.0		
PO 25x20	A	30	3.5	M6x1Px13L	M6x1Px6 DEEP
	B	45	3.5		
	C	60	3.5		
PO 25x22	A	50	3.5	M8x1.25Px20L	M8x1.25Px6 DEEP
PO 25x30	A	37	3.0	M8x1.25Px20L	M8x1.25Px6 DEEP
	B	52	3.0		
	C	73	3.0		
PO 30x22	A	64	3.5	M8x1.25Px25L	M8x1.25Px6 DEEP
PO 30X30	A	22	3.0	M8x1.25PX21L	M8x1.25Px6 DEEP
PO 35x25	A	16	1.5	M8x1.25PX38L	M8x1.25Px6 DEEP
	B	21	1.5		
	C	40	1.5		
	D	65	1.5		

SIZE/PART No. (DXT) (mm)		MAX COMPRESSIVE LOAD (kg)	STATIC DEFL (mm)	THREAD SIZE	
				BOLT	NUT
PO 38x25	A	70	4.0	M8x1.25Px17L	M8x1.25PX6 DEEP
	B	110	4.0		
	C	175	4.0		
PO40x28	B	146	4.5	M10x1.5Px25L	M10x1.5Px6 DEEP
PO40x30	B	60	5.0	M8x1.25Px25L	M8x1.25Px6 DEEP
PO40x40	A	43	6.0	M10x1.5Px38L	M10x1.5Px10 DEEP
	B	59	6.0		
	C	82	6.0		
PO50x40	A	65	5.0	M10x1.5Px22L	M10x1.5Px12 DEEP
	B	110	5.0		
	C	150	5.0		
PO50x45	B	106	7.0	M10x1.5Px25L	M10x1.5Px12 DEEP
	A	76	7.0		
	C	120	7.0		
PO60X60	A	110	8.0	M12X1.75PX27L	M12X1.75PX15 DEEP
	B	150	8.0		
	C	200	8.0		
PO63X36	A	115	5.0	1/2"BSWX33L	1/2"BSWX10 DEEP
PO75X55	A	158	6.0	M12X1.75PX37L	M12X1.75PX15 DEEP
	B	180	6.0		
	C	290	6.0		

METHOD OF ORDERING

PO 38 25 A 2
D T STIFFNESS TYPE

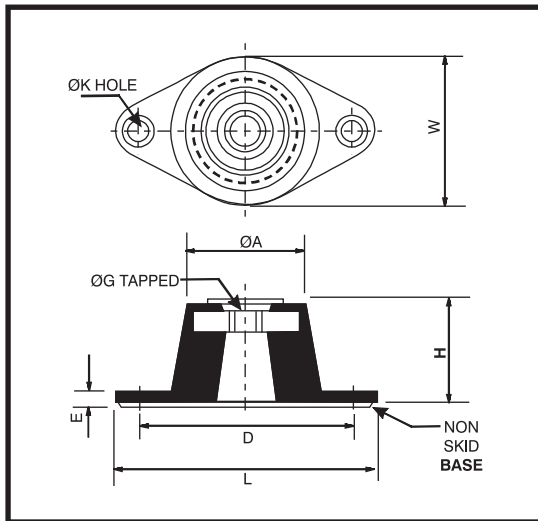


APPLICATION

- For effective isolation of noise and vibration from rotating equipment with speeds of 1000 RPM and above.
- Typically used to isolate fans, pumps, generators, air-conditioning units and general machinery.

FEATURES

- Static deflection ranges from 5 to 12 mm.
- Colour coded load range.
- Threaded top.
- Non-skid ribbed base.

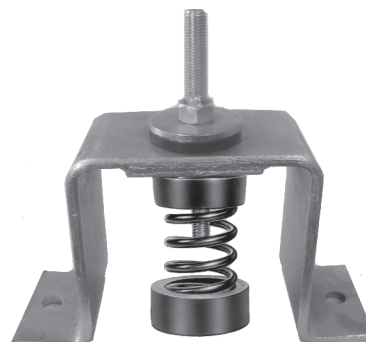
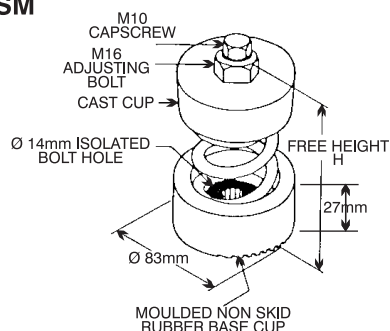


TYPE	DIMENSIONS (mm)							
	H	L	W	D	ØA	ØG	ØK	E
P-1	28	80	45	60	32	M10	8.5	5
P-2	32	98	60	76	45	M10	8.5	6
P-3	44	140	85	104	64	M12	14	6
P-4	45	165	110	127	100	M16	14	6
PD-1	33	80	45	60	32	M10	8.5	5
PD-2	44	98	60	76	45	M10	8.5	6
PD-3	72	140	85	104	64	M12	14	6
PD-4	75	165	110	127	100	M16	14	6

PART NO.	COLOUR CODE	MAX LOAD (kg)	STATIC DEFL. (mm)
P-1A	BLUE	15	5
P-1B	WHITE	25	
P-1C	GREEN	40	
P-1D	YELLOW	60	
P-1E	RED	80	
PD-1A	BLUE	15	8
PD-1B	WHITE	25	
PD-1C	GREEN	40	
PD-1D	YELLOW	60	
PD-1E	RED	80	
P-2A	BLUE	70	6
P-2B	WHITE	100	
P-2C	GREEN	175	
P-2D	YELLOW	250	
PD-2A	BLUE	70	10
PD-2B	WHITE	100	
PD-2C	GREEN	175	
PD-2D	YELLOW	250	
P-3B	WHITE	145	6
P-3C	GREEN	240	
P-3D	YELLOW	340	
P-3E	RED	500	
PD-3B	WHITE	145	12
PD-3C	GREEN	240	
PD-3D	YELLOW	340	
PD-3E	RED	500	
P-4B	WHITE	680	6
P-4C	GREEN	1020	
P-4D	YELLOW	1360	
P-4E	RED	1800	
PD-4B	WHITE	680	12
PD-4C	GREEN	1020	
PD-4D	YELLOW	1360	
PD-4E	RED	1800	



PSM



Seismic Spring Mounting Light Duty RLM 91-100

APPLICATION

- Where an inexpensive spring hanger element is required for effective vibration isolation.
- Typically used to support fans, pumps, compressors and packaged air-conditioners.

FEATURES

- Colour coded springs for visual identification of load range.
- Heavy duty stable steel spring.
- Bolt hole in base rubber isolated.
- Bonded acoustic rubber pad on base, type (PSX)
- Spring located by moulded rubber cup. type (PSM)
- Built in leveling bolt and locking cap screw supplied with type PSM
- Fully weatherproofed.

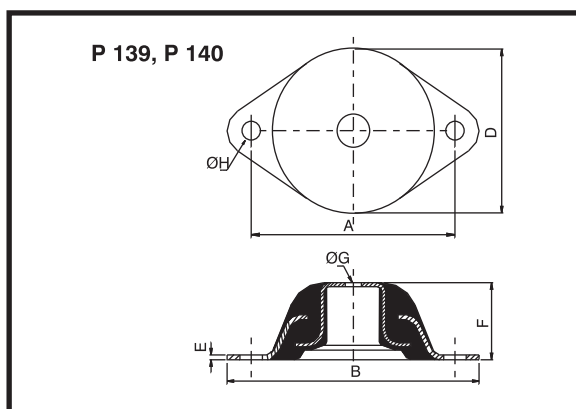
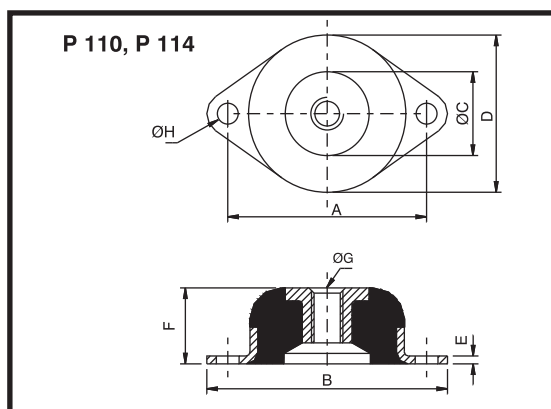
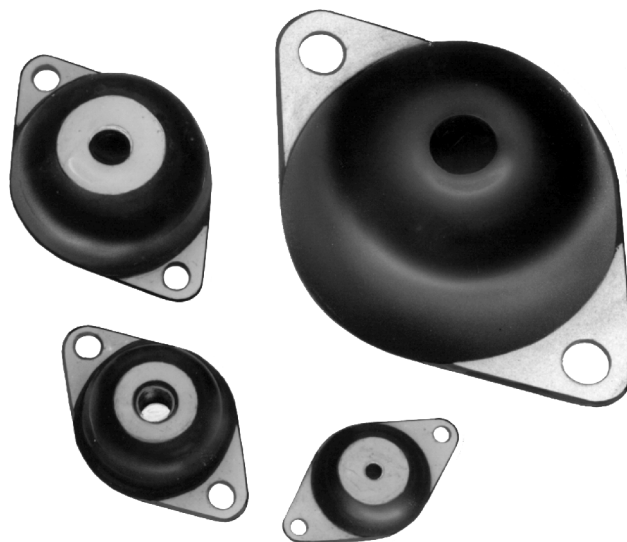
TYPE		MAX LOAD (kg)	STATIC DEFLECTION (mm)	SPRING CONST. (kg/mm)	SPRING COLOUR CODE		H (mm)
					SPRING	STRIPE	
PSM	89	10	40	0.25	WHITE	-	122
	90	20	38	0.53	DARK GREY	-	122
	91	35	35	1.0	DARK GREY	WHITE	122
	92	50	33	1.5	YELLOW	-	122
	93	100	33	3.0	BROWN	-	122
	94	150	30	5.0	BLUE	-	122
	95	200	30	6.7	BLACK	-	122
	96	250	28	8.9	RED	-	127
	97	300	28	10.7	GREEN	-	127
	98	400	25	16.0	GREY	-	127
	99	550	23	23.9	ORANGE	-	133
	100						



MACHINERY PAD

POLYBOND MACHINERY PADS can be used as a low-cost mounting material to eliminate vibrations, impact, shock and noise in machinery. These pads are available in a standard sizes and can be then cut to desired size using knife or scissors.

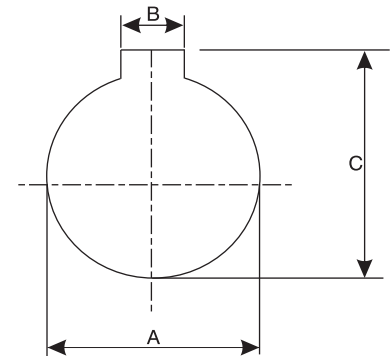
PART NO.	STANDARD SIZE
PMP 1	500 mm x 500 mm x 10 mm
PMP 2	450 mm x 450 mm x 7 mm



PART NO.	DIMENSIONS (mm)								MAX LOAD IN COMP (kg)	DEFLECTION (mm)
	A	B	ØC	D	E	F	ØG	ØH		
P110 A P110 B P110 C	60	76	41	48	3	22	7/16" UNF	8.7	40 55 85	3.7 3.5 3.5
P114 A P114 B P114 C	76	92	59	60	3	29	1/2" UNF	8.7	60 90 130	3.6 3.6 3.5
P139 A P139 B P139 C	127	157	-	102	3	48	Ø 20	14.2	550 725 900	4.6 4.5 4.4
P140 A P140 B P140 C P 140 D	110	141	-	82	2.5	41	Ø 13	13.5	280 350 500 880	4.7 4.4 4.7 4.6

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 -0.000	4	±0.015	12.8	+0.1 -0.0	M5 X 0.8P
2	14		5		16.3		
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		M10 X 1.5P
7	38		10		41.3		
8	42		12		45.3		
9	48	+0.030 -0.000	14		51.8		M12 X 1.75P
10	55		16		59.3		
11	60		18		64.4		
12	65		18		69.4		
13	75	+0.035 -0.000	20	74.9	+0.3 -0.0	M16 X 2P	
14	80		22	85.4			
15	85		22	90.4			
16	100		28	106.4			
17	110	28	116.4	M20 X 2.5P			
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

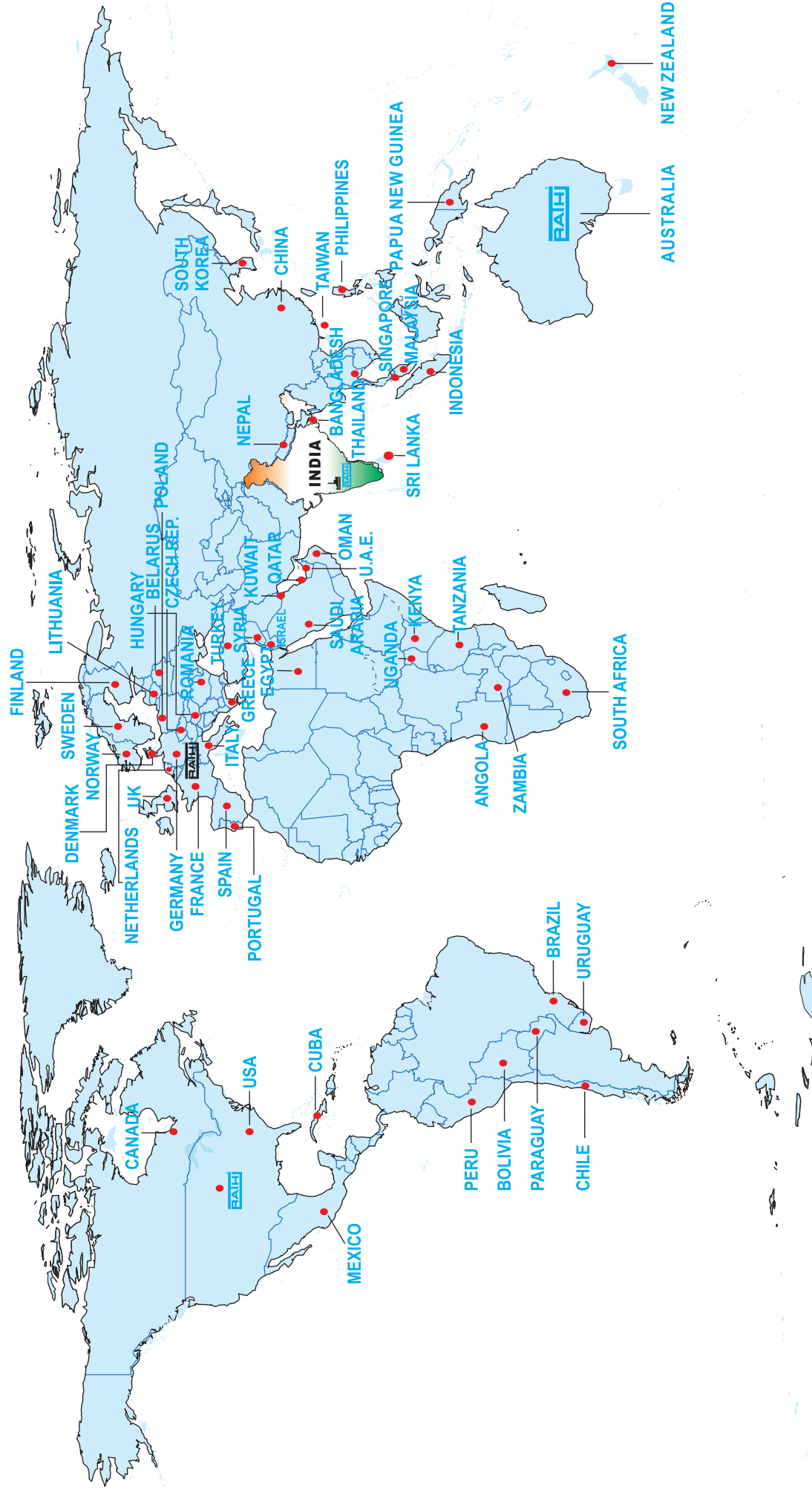
The investigation procedure is somewhat tougher here. There are many types of elastomers used in various elastomeric couplings. A guideline of failure mode & causes are given below :-

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 wallos.	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



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