

... the coupling that pays for itself



Type L Coupling



Type SW Coupling



Spiders - Synthetic Rubber, Polyurethane, Hytrel, Bronze



SW Elements - Synthetic Rubber, Polyurethane, Hytrel



Type RRS Spacer Coupling

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.

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

- | | |
|-------------------------------|---|
| 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. |

SELECTION PROCEDURE

(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.

(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.

(d) Bore Size

Max. Bore for coupling size SW-276 is 75 mm.

This shows that both the shaft diameters are within the range.

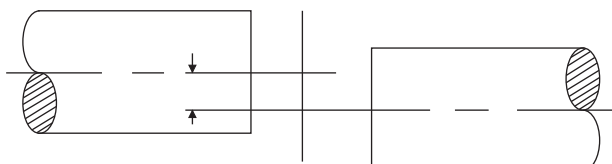
A : SERVICE FACTORS

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

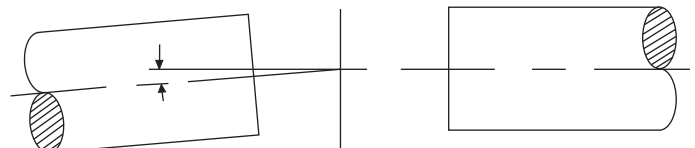
* It is recommended that keys with top clearance are fitted for applications where load fluctuation is expected.

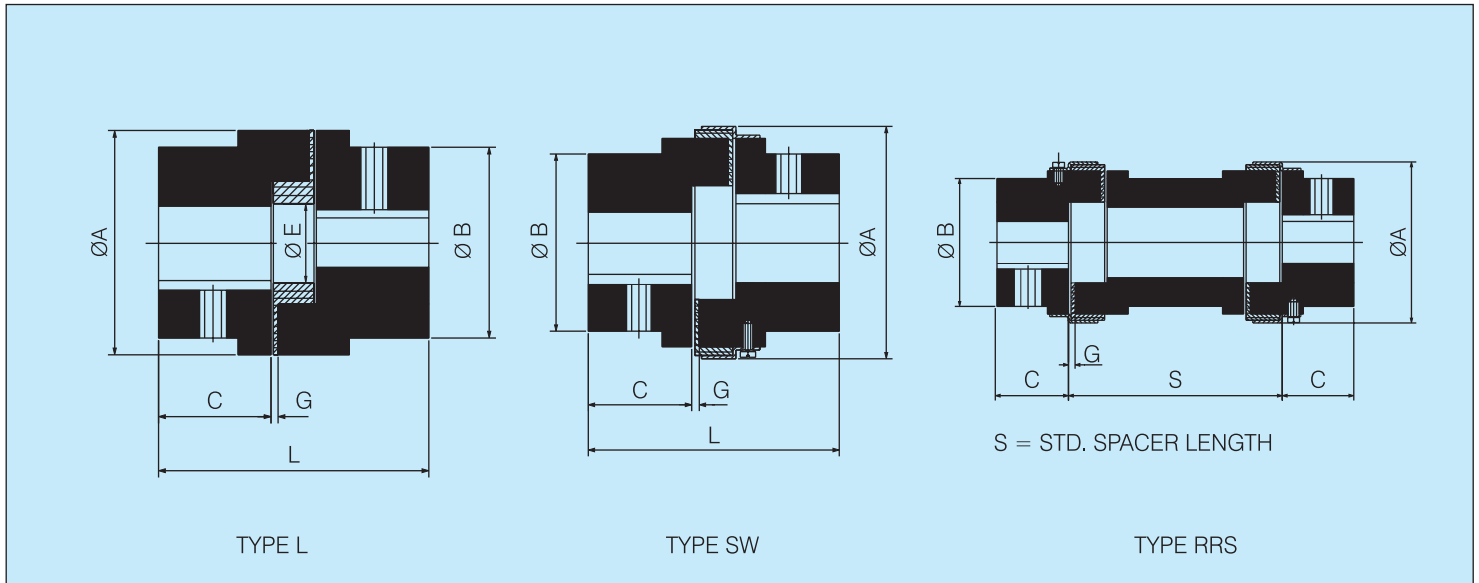
MISALIGNMENT CAPABILITY

PARALLEL 0.4 mm



ANGULAR - 1°





TECHNICAL DATA

Coupling		Power Rating						Pilot Drill Size	Max. Bore	ØA		Length thru' Bore "C"	ØB	ØE	#Overall Length "L" for (SW/L)
		Synthetic Rubber		Polyurethane		Hytrel				SW/RRS	L				
Type	Size	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm								
L	035	0.38	0.004	-	-	-	-	-	10	-	16	6.5	16	-	21
	050	2.80	0.03	4.28	0.05	7.00	0.08	5	16	-	27	15	27	-	42
	070	4.90	0.05	7.50	0.08	12.25	0.13	9	20	-	34.5	19	34.5	-	51
	⊙ 075	9.80	0.10	14.99	0.15	24.50	0.25	9	22	-	44.5	21	44.5	-	55
	■ 075	9.80	0.10	14.99	0.15	24.50	0.25	-	22	-	44.5	21	39	-	55
L SW RRS	095	21.1	0.22	32.28	0.33	52.75	0.55	-	28	65	54	25	49	19	63
	099	35.1	0.37	53.70	0.56	87.75	0.93	-	30	78	65	27	51	27	72
	100	46.4	0.49	70.99	0.74	116.00	1.23	-	35	78	65	35	57	27	88
	110	89.0	0.93	136.17	1.40	222.50	2.33	-	42	96	85	43	76	35	108
	150	141	1.49	215.73	2.24	352.50	3.73	-	48	111	96	45	80	35	115
	190	190	2.01	290.70	3.02	475.00	5.03	-	60	129	115	54	102	45	133
	225	265	2.76	405.45	4.14	662.00	6.90	-	65	142	127	64	111	45	153
L SW	226	327	3.43	500.31	5.15	817.50	8.58	25	70	153	137	70	119	51	178
	276	532	5.60	813.96	8.40	1330.00	14.00	25	75	173	157	80	127	60	200
	280	782	8.20	1196.46	12.30	1955.00	20.50	30	80	208	192	80	140	70	200
	295	1279	13.40	1956.87	20.10	3197.50	33.50	30	95	253	237	95	162	80	238
	2955	2132	22.40	3261.96	33.60	5330.00	56.00	30	105	253	237	108	180	80	264
SW	300	3047	31.90	4661.91	47.85	7617.50	79.75	30	105	272	-	115	180	-	283
	350	4308	45.00	6591.24	67.50	10770.00	112.50	30	115	323	-	128	200	-	309

All dimensions are in mm.

Above ratings are based on shore 80° elements.

Shore 92° elements are recommended for low rpm applications.

For power rating of elements with shore 80° & 92°, refer table B on page 4.

For RRS/SW maintain gap 'G' at the time of assembly.

Maximum bores can be increased in case of steel hubs. Consult manufacturer

Std. Spacer Length 'S' : for RRS - 095 & 100 - 90, 100, 140 mm

RRS - 110 to 226 - 90, 100, 140, 180 mm

Material : Sintered iron for sizes 035 to 075

Aluminum for sizes 050 to 110 & for all RRS spacers. # For RRS, L = S + 2C

Cast Iron for sizes 095 to 350.

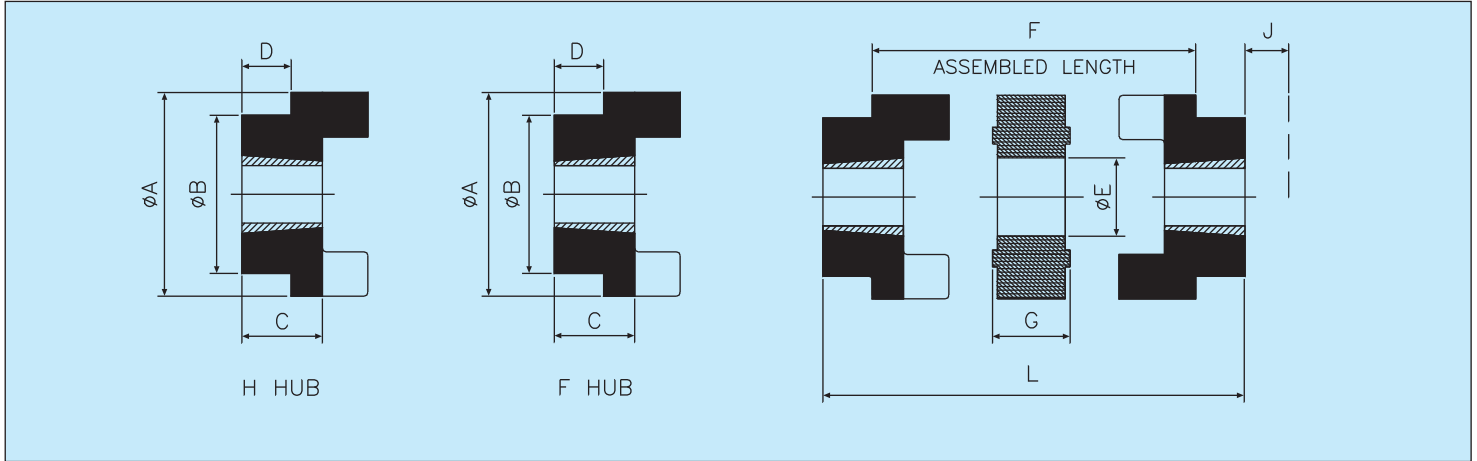
Gap 'G' : for L035 to L050 - 1 mm

L070 to L/SW/RRS-099 - 2 mm

L/SW/RRS-110 to SW-350 - 3 mm

L Type Spider : Polyurethane - for Sizes 50 to 295

Hytrel - for Sizes 50 to 225



A : DIMENSIONAL DATA

Size TL/TSW	Bush ■			Ø A		Ø B	Ø E	F	G	D	C	J	L
	Size	● Max. Bore		TL	TSW								
		mm	Inch										
099	1008	25	1	65	78	55	27	34	18	15.5	23.5	29	65
100	1108	28	1 1/8	65	78	60	27	44	18	10.5	23.5	29	65
110	1210	32	1 1/4	85	96	83	35	48	22	13.5	26.5	38	75
150	1210	32	1 1/4	96	111	92	35	55	25	11.5	26.5	38	78
190	1610	42	1 5/8	115	129	102	45	63	25	7.5	26.5	38	78
225	2012	50	2	127	142	115	45	63	25	14.5	33.5	42	92
226	2012	50	2	137	153	115	51	70	38	17.5	33.5	42	105
276	2517	60	2 1/2	157	173	124	60	78	40	27.5	46.5	48	133
280	2517	60	2 1/2	192	208	124	70	78	40	27.5	46.5	48	133
295	3020	75	3	237	253	159	80	98	48	27.5	52.5	55	153
2955	3020	75	3	237	253	159	80	98	48	27.5	52.5	55	153
* 300	3020	75	3	-	272	180	-	103	-	27.5	52.5	55	158
* 350A	3525	100	4	-	323	200	-	103	-	41.5	66.5	67	186
* 350	3535	90	3 1/2	-	323	200	-	103	-	64.0	89.0	67	231

* 300, 350A & 350 sizes are available in TSW design only.

B : TECHNICAL DATA

J is the wrench clearance required for tightening and loosening the bush on the shaft. The use of shortened key will allow this dimension to be reduced. Couplings can be supplied with F/F or H/H or F/H flange as required.

Weight is for flange without Bore.

■ Rathi couplings are supplied with taper bore suitable to the bush size specified in this column.

● For detailed information about taper bush bore, please refer Taper Bush Catalogue.

TL couplings are supplied with spider.

TSW couplings are supplied with snap-wrap.

C : SPIDER / SW ELEMENT MATERIAL

Codes	Materials	Features	Properties		
			Colour	Hardness	Temperature
N	Synthetic Rubber	Synthetic Rubber, a highly flexible insert material that is oil resistant, is our standard elastomer. It resembles natural rubber in resilience and elasticity.	Black	80 SHA	-40°C to 100°C
U	Polyurethane	Urethane has greater torque capability than Synthetic Rubber and offers good resistance to oil and chemicals. However, this material provides less dampening effect.	Orange	90 SHA	-34°C to 71°C
H	Hytrel	Hytrel is a flexible elastomer designed for high torque and high temperature operations. Has an excellent Resistance to oil and chemicals. It is best used in continuous load applications rather than cyclic or on/off service.	Natural White	98 SHA	-51°C to 121°C
B	Bronze	Bronze is a rigid, porous, oil-impregnated metal insert exclusively for low speed (max. 250 RPM) applications requiring high torque capabilities. Bronze performance is not affected by water, oil, dirt. (Only L Type spiders sizes 50 to 225)	Bronze	65 HRB	-40°C to 232°C

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