

... the coupling that pays for itself



Type L Coupling



Type TSW Coupling



Spiders - Synthetic Rubber, Polyurethane, H-Trans, Bronze



SW Elements - Synthetic Rubber, Polyurethane, H-Trans



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.

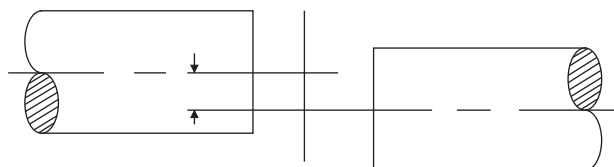
A : SERVICE FACTORS

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

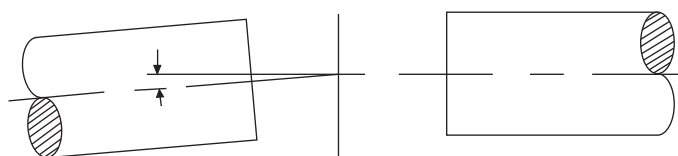
* It is recommended that keys with top clearance are fitted for applications where load fluctuation is expected.

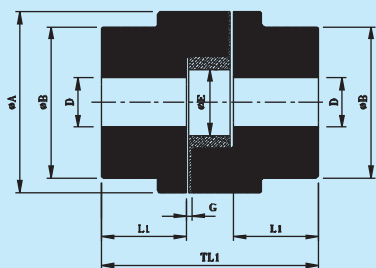
MISALIGNMENT CAPABILITY

PARALLEL 0.4 mm

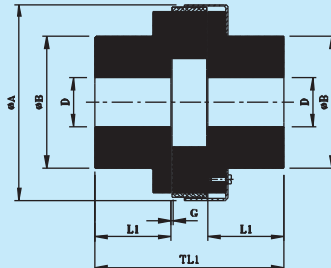


ANGULAR - 1°

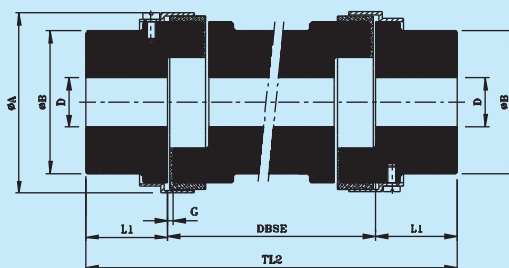




TYPE L



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 + 2L1
	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.

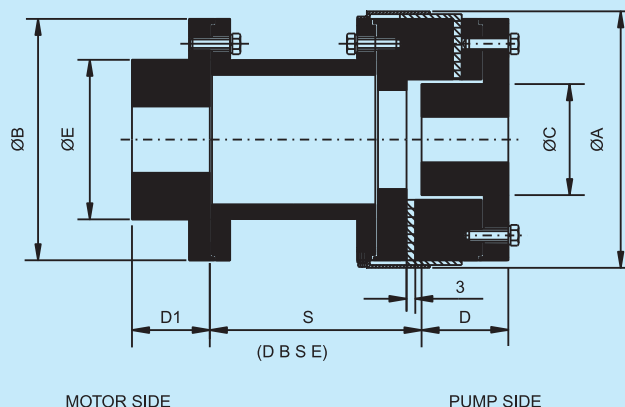
■ 075 - Aluminium

⊙ 075 - Sintered Iron

For RRS, L = S + 2C

L Type Spider : Polyurethane - for Sizes 50 to 295

H-Trans - for Sizes 50 to 225



TYPE SWS

SWS TECHNICAL DATA

Coupling Size	Power Rating						Motor Side Bore		Pump Side Bore		O.D.		Hub Dia.		Length thru' Bore	
	Synthetic Rubber		Polyurethane		H-Trans											
	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm	Rated Torque (Nm)	kW@ 100 rpm	Min.	Max.	Min.	Max.	ØA	ØB	ØC	ØE	D	D1
SWS 276	535	5.6	802	8.4	1337	14	25	75	24	42	173	154	70	130	60	60
SWS 280	783	8.2	1175	12.3	1958	20.5	30	80	28	55	208	189	90	130	65	60
SWS 295	1280	13.4	1920	20.1	3199	33.5	30	95	28	65	253	234	106	160	80	70
SWS 2955	2139	22.4	3209	33.6	5348	56	30	105	28	70	253	234	106	160	80	75
SWS 300	3046	31.9	4570	47.9	7616	79.75	30	105	28	75	272	251	122	180	88	80
SWS 350	4298	45.0	6446	67.5	10744	112.5	30	115	30	80	323	302	130	200	90	90

Note : Std. Spacer length 140, 180mm available. Non std. Spacer available on request.

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	H-Trans	H-Trans 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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