

JAW Couplings





The GB Wrap N Snap (WNS) coupling eliminates the need for dismantling connected equipment while replacing or inspecting the element because of it's wrap around rubber connecting element. This eleminates excessive downtime on machinery which dramatically improves productivity.

The GB Jaw coupling has a modular hub design and a spacer option with a range of prebored hubs, the Wrap N Snap (WNS) coupling is perfect for quick installation, maintenance free, and is unsurpassed for quality, and flexibility.

WNS Coupling features:

The WNS coupling allows inspection and replacement within minutes. Modular hub design allow the same hubs to be used for different models. Hubs are fully machined which guarantees a smooth contact surface, ease of alignment and excellent balance. Hubs come prebored and keyed to standard IEC motor shaft sizes. Taper Fit hubs are also available to accommodate to non-standard shaft sizes. Spacer couplings are available for pump applications. Water, dust, oil and greases do not affect performance.

SELECTION

- (a) Service Factor
 - Determine appropriate SERVICE FACTOR from table 1, (table 1-7).
- (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 to 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, (table 2 page 1-8).

- (d) Bore Size
 - Refer respective coupling dimensional table to check that the required bores can be accommodated, (table 2 page 1-8).

EXAMPLE

A coupling is required to transmit 15kW from an electric motor which runs at 1500 rev./min to a centrifugal pump for 12 hours a day. The motor shaft diameter is 42 mm and the pump shaft diameter is 38mm.

- (a) Service Factor
 - From Table 1 the service factor is 1.0
- (b) Design Power
 - Design Power $15 \times 1.0 = 15 \text{kW}$
- (c) Coupling Size

Reading from 1500 rev./min in the speed column of Table 2, 22.35 kW is the first power to exceed the DESIGN POWER of 15 kW. The size of the coupling specified in the first column is WNS150.

- (d) Bore Size
 - Table 2 shows that both shaft diameters are within the range available.



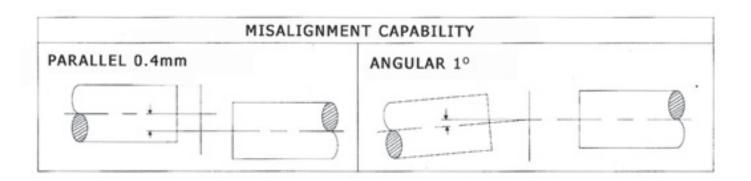
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TABLE 1: SERVICE FACTORS

SPECIAL CLASSES	Type of Driving Unit									
For applications where substantial shock, vibration and torque fluctuations occure and for reciprocating machines e.g. internal combustion engines, piston	Ele	ectric Motors		Internal Combustion Engines Steam Engines Water Turbines						
pumps and compressiors, refer to GB Power with full machine details	Hour	s per day dı	ıty	Hours per day duty						
Driven Machine Class	8 and under	Over 8 to 16 inclusive	II IVAR I K	Over 8 to 16 inclusive	to 16 inclusive	over 16.				
Agitators, Brewing machinery, Centrifugal Blowers, Conveyors, Centrifugal Fans and Pumps, generators, Sewage disposal Equipments. Evaporators Feeders, Textile mahcines, 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 Compressiors. 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				
Reciprocating Conveyors, Crushers, Shakers, Metal Mills, Rubber machinery (Banbury Mixers and Mills) Receiprocating Compressor, Welding Sers. Freight & passenger elevators, Cooling tower fans, Hammer mills, Receiprocating 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.





JAW - Type L/WNS/SPA



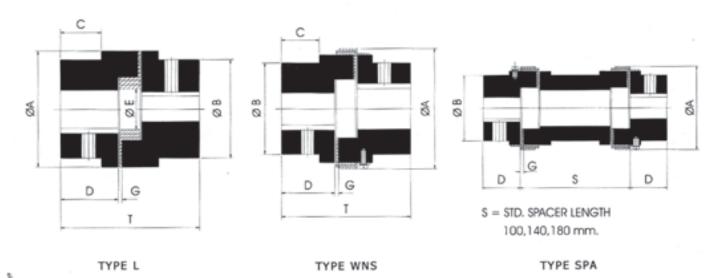


TABLE 2: L/WNS/SPA DIMENSIONAL DATA

			kW Capacity		Bore O A		Length								
Coupling Type	Size	Rated Torque Nm	100 rpm	1440 rpm	2880 rpm	Min.	Max	WNS /SPA	L	thru Bore D	θВ	Gap G	θE	С	# Overall Length T (WNS/L)
	050	3.51	0.037	0.53	1.05	3	16	-	27	15	27	1	-	-	42
L	070	5.77	0.06	0.87	1.73	6	20	-	35	19	35	2	-	-	53
	075	11.9	0.12	1.80	3.61	9	22	_	44.5	21	44.5	2	-	-	53
	095	25.8	0.27	3.89	7.78	9	28	64	54	25	54	2	19	13	65
L	100	55.4	0.58	8.36	16.73	12	35	77	65	35	65	2	27	-	86
WNS	110	105	1.10	15.88	31.77	15	42	97	84	43	84	3	35	30	110
VVIVS	150	150	1.56	22.46	44.93	15	48	112	96	45	96	3	35	30	113
SPA	190	200	2.09	30.14	60.28	19	55	130	115	54	102	3	45	35	133
	225	280	2.93	42.40	84.40	19	60	143	127	64	108	3	45	45	155

All dimensions are in mm.

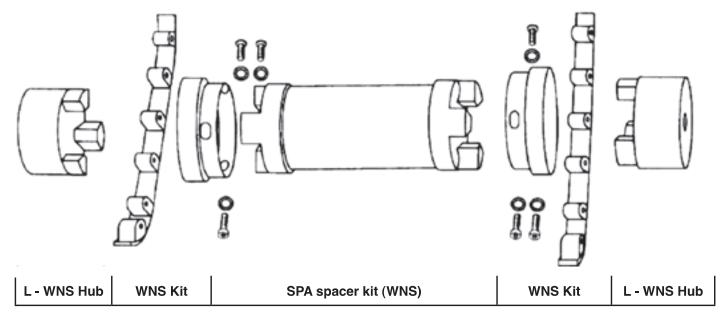
Above ratings are based on shore 80° elements.

Shore 92° elements are recommended for low rpm applications

For power rating of elements with shore 80° & 92° , refer to table 4 on page 1-10

For SPA/WNS maintain gap 'G' at the time of assembly.

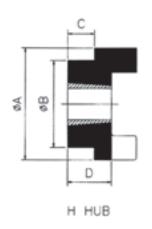
 $\label{thm:maximum bores} \mbox{ An be increased in case of steel hubs. Consult manufacturer}$

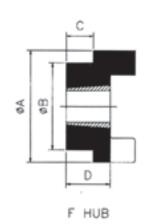




JAW - Type TF/WNS/Taper Fit







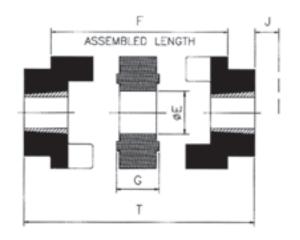


TABLE 3: TF/TWNS DIMENSIONAL DATA

	Bush			0.4									
Size TF/TWNS	Size	Max. Bore		ΘΑ TF TWNS		θВ	θЕ	F	G	С	D	J	Т
		mm	Inch										
100	1108	28	1 1/8	65	78	65	27	44	18	10.5	23.5	29	65
110	1210	32	1 1/4	84	96	84	35	48	22	13.5	26.5	38	75
150	1210	32	1 1/4	96	111	96	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	108	45	63	25	14.5	33.5	42	92

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 asrequired. Weight is for flange without Bore.

TF couplings are supplied with spider.

TWNS couplings are supplied with Wrap N Snap

JAW couplings are supplied with taper bore suitable to the bush size specificed in this column.