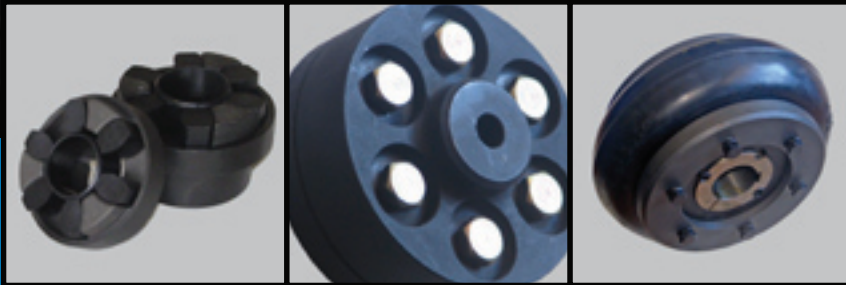


Couplings

Technical Catalogue



Quality Guaranteed

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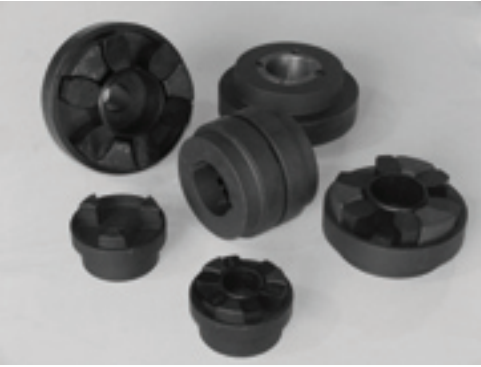
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The GB range of Chains, Sprockets, Couplings and Pulleys has evolved from 20 years expertise in the importation and sale of the products locally in the Australia. The GB range is proudly imported from China from a group of individually selected manufactures producing a quality of product that exceeds local expectation and standards. China, like other nations have before them, is fast developing into a quality manufacture of products for the industrial power transmission industry. Amongst the many manufactures are a small group that continues to strive to better the finished product and reach their goal of equaling the quality and reputation of today's market leaders.

The best of these products will carry the GB brand and are backed by the local importers vast product experience and expertise. The GB product will be supported by detailed technical and promotional material and like the other leading brands will be warranted to be free from faulty workmanship and materials for a 12 month period. Products now carrying the GB brand are procured from factories using modern, state of the art machines and manufacturing processes. They have all been visited by GB Power and will continue to be on an ongoing basis to ensure their level of quality continues to grow over time. All have quality systems in place and all conform to the standards required by international markets. The **GB** brand name is your **Quality Guaranteed**.





Economy

Design of the GBC coupling has been optimised so that power capacities are balanced to the appropriate shaft diameters.

Resilience

Transient peak loads are reduced by a flexible element, deflection of which is a prime design consideration.

Misalignment

Incidental parallel angular and axial displacement of the connected shafts can be accommodated.

Taper Bushes

Are fitted to the complete standard coupling range. Bored to size flanges are also available.

Installation

Is quick and easy without special tools, only a hexagon wrench is required.

Maintenance

Is virtually eliminated and no lubricant required.

Environment

The elastomeric element makes it suitable for use in most conditions. An option of urethane element is also available.

Positive

In the unlikely event of the flexible element being destroyed, drive will be maintained by inner-action of the integrally cast driving dogs.

Selection

Couplings may be selected in either of two ways

- Where the prime mover is an electric motor and demand power or demand torque unknown, select the coupling using table 2 opposite. This selection will give a minimum service factor of 1.6.
- Where the driven machine demand power (or torque) and operating duty are known, select the coupling using the following procedure.

(a) service factor

Determine appropriate service factor from table 1.

(b) Design Power

Multiply running of driven machine by the service factor. This gives the Design Power which is used as a basis for coupling selection.

(c) Coupling Size

Refer to table 3 and read across from the appropriate speed until an power equal to or greater than the design power is found. The size of the coupling required is given at the head of that column.

(d) Bore Size

From dimension table 4 check that the required bores can be accommodated

EXAMPLE

A shaft coupling is required to transmit 70kW between a 1200 rev/min DC electric motor and a Banbury Mixer running 8Hrs/ day. Motor shaft is 70mm and the mixer shaft is 75mm.

(a) service factor

From table 1 the service factor is 2,5.

(b) Design Power

Design Power is $70 \times 2,5 = 175\text{kW}$

(c) Coupling size

Reading across from 1200 rev/min in the speed column of Table 3; 251kW is the first power to exceed the required 175kW (Design Power). The size of the coupling at the head of this column is 230.

(d) Bore Size

Table 4 shows that both shaft diameters are within the bore range available.

TABLE 1 : SERVICE FACTORS

SPECIAL CASES For applications where substantial shock, vibration and torque fluctuation occur, and for reciprocating machines, e.g. internal combustion engines, piston type pumps and compressors, refer to GB Power Transmission with full machine details for torsional analysis.	Type of Driving Unit					
	Electric Motors Steam Turbines			Internal Combustion Engines Steam Engines Water Tubines		
	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 Compressors ~ , Conveyors, Centrifugal Fans and pumps, Generators, Sewage Disposal Equipment.	1,00	1,12	1,25	1,25	1,40	1,60
MODERATE SHOCK* Clay working machinery, Crane Hoists, Laundry machinery, Wood working machinery, Machine Tools, Rotary Mills, Paper Mill machinery, Textile machinery.	1,60	1,80	2,00	2,00	2,24	2,50
HEAVY SHOCK* Reciprocating conveyors, Crushers, Shakers, Metal Mills, Rubber machinery. (Banbury Mixers and Mills, Reciprocating Compressors.)	2,50	2,80	3,12	3,12	3,55	4,00

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

~ For Centrifugal Compressor multiply Service Factor by an additional 1,15.

TABLE 2 : SELECTION - from power to I.E.C Motors.

(1) Opposite motor frame size under the applicable speed find motor power.

(2) Selection of Taper Bush (H or F) or Bored to size (B) is shown in column headed.

Motor		3000 rev/min			1500 rev/min			1000 rev/min			750 rev/min		
Frame Size	Shaft Dia	Motor Power (kW)	Size		Motor Power (kW)	Size		Motor Power (kW)	Size		Motor Power (kW)	Size	
			Flange Type			Flange Type			Flange Type			Flange Type	
			H or F	B		H or F	B		H or F	B		H or F	B
63	11	0,18	70	70	0,12	70	70	-	-	-	-	-	-
		0,25	70	70	0,18	70	70	-	-	-	-	-	-
71	14	0,37	70	70	0,25	70	70	-	-	-	-	-	-
		0,55	70	70	0,37	70	70	-	-	-	-	-	-
80	19	0,75	70	70	0,55	70	70	0,37	70	70	-	-	-
		1,1	70	70	0,75	70	70	0,55	70	70	-	-	-
90S	24	1,5	70	70	1,1	70	70	0,75	70	70	-	-	-
90L	24	2,2	70	70	1,5	70	70	1,1	70	70	-	-	-
100L	28	3	90	70	2,2	90	70	1,5	90	70	0,75	90	70
					3	90	70				1,1	90	70
112M	28	4	90	70	4	90	90	2,2	90	90	1,5	90	70
132S	38	5,5	130	90	5,5	130	90	3	130	90	2,2	130	90
		7,5	130	90									
132M	38	-	-	-	7,5	130	90	4	130	90	3	130	90
								5,5	130	110			
160M	42	11	130	90	11	130	90	7,5	130	110	4	130	110
		15	130	90							5,5	130	110
160L	42	18,5	130	110	15	130	110	11	130	130	7,5	130	110
180M	48	22	150	110	18,5	150	130	-	-	-	-	-	-
180L	48	-	-	-	22	150	130	15	150	130	11	150	130
200L	55	30	180	110	30	180	130	18,5	180	130	15	180	130
		37	180	130				22	180	130			
225S	60	-	-	-	37	180	150	-	-	-	18,5	180	150
225M	55*	45	180	130	45	180	150	30	180	150	22	180	150
	60												
250M	60*	55	180	130	55	230	150	37	230	150	30	230	180
	70												
280S	65*	75	-	150	75	280	180	45	280	180	37	280	180
	80												
280M	65*	90	-	180	90	280	180	55	280	180	45	280	180
	80												
315S	65*	110	-	180	110	280	230	75	280	230	55	280	230
	85												
315	65*	132	-	180	132	280	230	90	280	230	75	280	230
	85												

* 3000 rev/min only.

TABLE 3: POWER RATINGS (Kw)

Speed rev/min	Coupling Size							
	70	90	110	130	150	180	230	280
100	0,33	0,84	1,68	3,30	6,28	9,95	20,9	33,0
200	0,66	1,68	3,35	6,6	12,6	19,9	11,9	65,0
400	1,32	3,35	6,70	13,2	25,1	39,8	83,8	132
600	1,98	5,03	10,1	19,8	37,7	59,7	126	198
720	2,37	6,03	12,1	23,8	45,2	71,6	151	238
800	2,64	6,70	13,4	26,4	50,3	79,6	168	264
960	3,17	8,04	16,1	31,7	60,3	95,5	201	317
1200	3,96	10,1	20,1	39,6	75,4	119	251	396
1440	4,75	12,1	24,1	47,5	90,5	143	302	475
1600	5,28	13,4	26,8	52,8	101	159	335	528
1800	5,94	15,1	30,2	59,4	113	179	377	594
2000	6,60	16,8	33,5	66,0	126	199	419	660
2200	7,26	18,4	36,9	72,6	138	219	461	726
2400	7,92	20,1	40,2	79,2	151	239	503	-
2600	8,58	21,8	43,6	85,8	163	259	545	-
2880	9,50	24,1	48,3	95	181	286	-	-
3000	9,90	25,1	50,3	99	188	298	-	-
3600	11,9	30,1	60,3	118	226	-	-	-

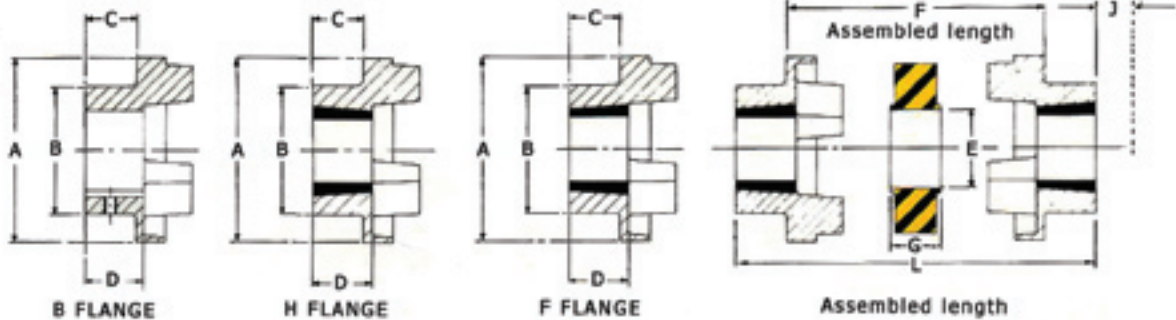


TABLE 4: DIMENSIONS

Size	Bush	Bore		C	D	Bored to Size				DIA A	DIA B	DIA C	F	G	L 1	L 2	L 3	J t
		Max	Min			Bore+		C	D									
						Max	Min											
70	1008	25	9	19.0	23.5	32	8	21	25	69	60	31	27	18	65	66.5	68	29
90	1108	28	9	18.5	23.5	38	8	26	30	85	65	32	32.5	22.5	69.5	75	82.5	29
110	1610	42	11	18.5	26.5	55	8	37	45	112	100	45	45	29	82	100.5	119	38
130	1610	42	14	17.5	26.5	60	36	47	55	130	105	50	54	36	89	117.5	145	38
150	2012	50	14	23.0	33.5	65	40	50	60	150	115	62	61	40	107	133.5	160	42
180	2517	60	16	34.0	46.5	80	46	58	70	180	125	77	74	49	142	165.5	189	48
230	3020	75	25	39.5	52.5	100	52	77	90	225	155	99	85.5	59.4	164.5	202	239.5	55
280	3535	90	35	74.0	90.5	115	62	90	105	275	185	119	107.5	74.5	255.5	270	284.5	67

L 1 is the length with assembly combinations F.F - H.H F.H.

L 2 is the length with assembly combinations F.B - H.B

L 3 is the length with assembly combinations B.B

J t is the wrench clearance required for tightening and loosening the bush on the shaft. the use of a shortened key will allow this dimension to be reduced.

+ Bore limit H8 unless specified otherwise.

TABLE 5 : PHYSICAL CHARACTERISTICS

Size	Power Rating per 100 rev/min	Maximum speed* (rev/min)	Torque Rating (Nm)		Moment of Inertia MR2 (kgm ²)	Torsional Stiffness (Nm/o)	Maximum Misalignment		Mass (kg)
			Normal	Maximum			Parallel	Axial	
70	0,33	9100	31.5	72	0,00085	10,2	0,3	+0,20	1,00
90	0,84	7400	80	180	0,00115	25,5	0,3	+0,49	1,17
110	1,168	5630	160	360	0,00400	48,0	0,3	+0,61	5,00
130	3,30	4850	315	720	0,00780	84,0	0,4	+0,79	5,46
150	6,28	4200	600	1500	0,01810	176	0,4	+0,92	7,11
180	9,95	350	950	2350	0,04340	240	0,4	+1,09	16,60
230	20,9	2800	2000	5000	0,12068	336	0,5	+1,32	26,00
280	33,0	230	3150	7200	0,44653	960	0,5	+1,70	50,00

* Maximum Coupling speeds are calculated using an allowable periperal speed for hub material. For selection of smaller sizes with speeds in excess of 3600 rev/min - GB Power Transmission.

Mass is for Coupling with mid range bore Taper Bushes.
For speeds below 100rpm or inntermediate speeds use normal torque rating.





The GB Wrap N Snap (WNS) coupling eliminates the need for dismantling connected equipment while replacing or inspecting the element because of its wrap around rubber connecting element. This eliminates 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

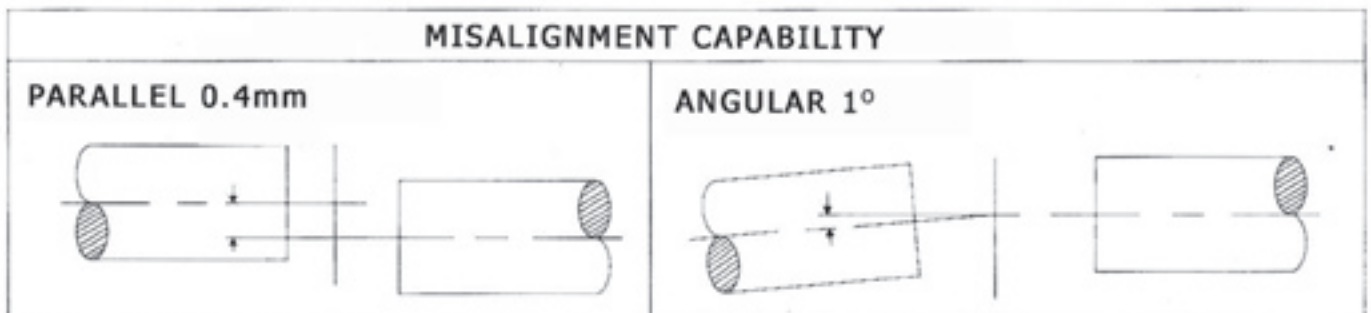
A coupling is required to transmit 15kW from an electric motor which runs at 1500 rev./min to a centrifugal pump for 12 hours a day. The motor shaft diameter is 42 mm and the pump shaft diameter is 38mm.

- (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.

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 GB Power 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	Over 8 to 16 inclusive	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 Compressor, Welding Sers. 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.



JAW – Type L/WNS/SPA

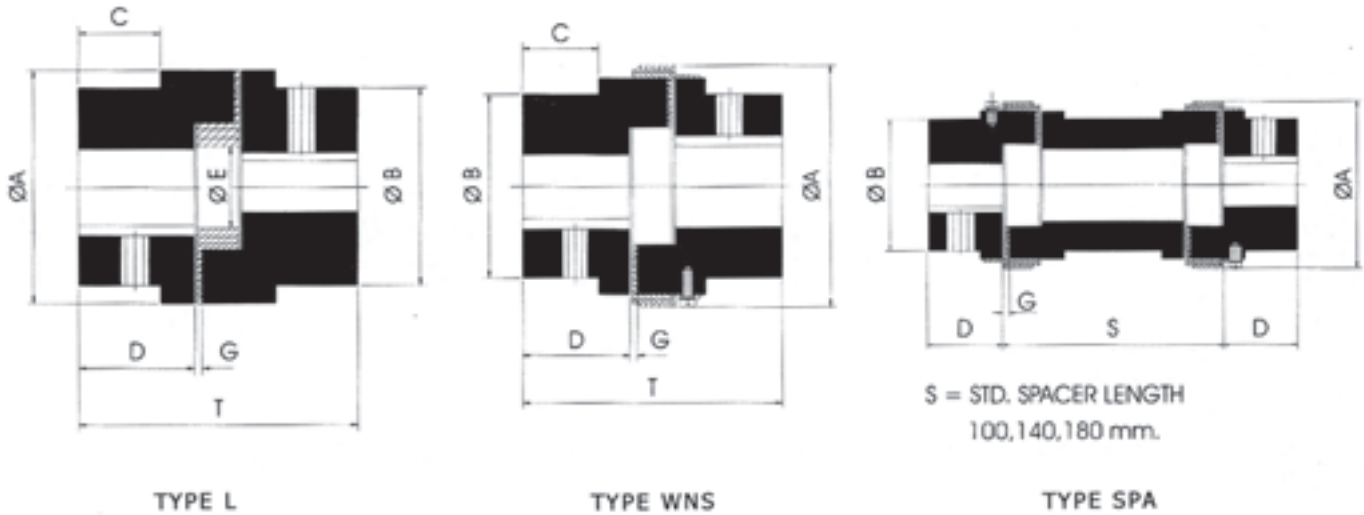


TABLE 2: L/WNS/SPA DIMENSIONAL DATA

Coupling Type	Size	Rated Torque Nm	kW Capacity			Bore		Ø A		Length thru Bore D	Ø B	Gap G	Ø E	C	# Overall Length T (WNS/L)
			100 rpm	1440 rpm	2880 rpm	Min.	Max	WNS /SPA	L						
L	050	3.51	0.037	0.53	1.05	3	16	-	27	15	27	1	-	-	42
	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
L	095	25.8	0.27	3.89	7.78	9	28	64	54	25	54	2	19	13	65
	100	55.4	0.58	8.36	16.73	12	35	77	65	35	65	2	27	-	86
	110	105	1.10	15.88	31.77	15	42	97	84	43	84	3	35	30	110
WNS	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.

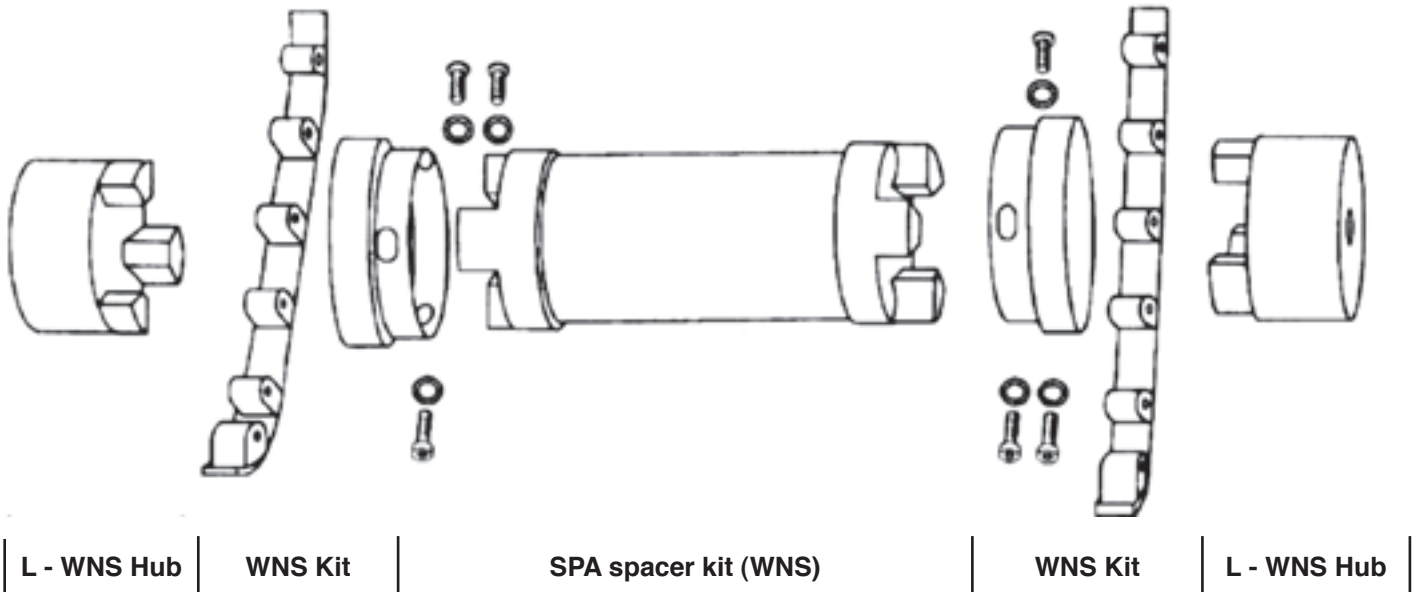
Above ratings are based on shore 80° elements.

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.

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



JAW – Type TF/WNS/Taper Fit

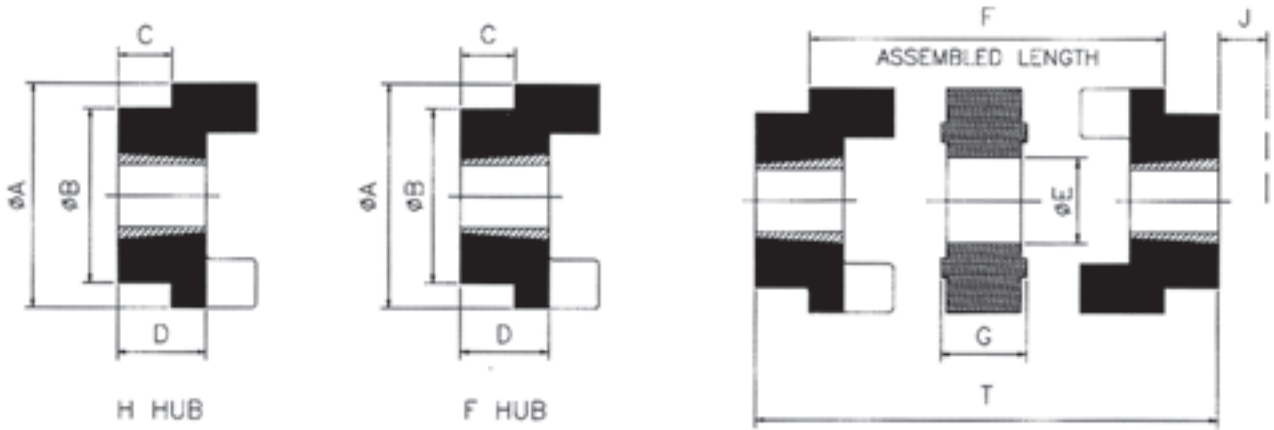


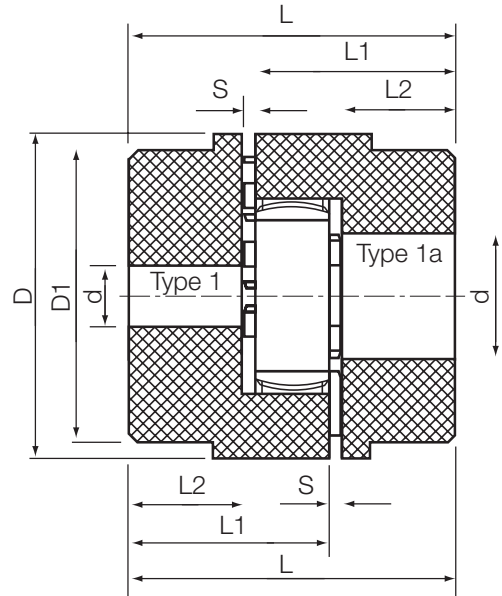
TABLE 3: TF/TWNS DIMENSIONAL DATA

Size TF/TWNS	Bush			ØA		Ø B	Ø E	F	G	C	D	J	T
	Size	Max. Bore		TF	TWNS								
		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.
 JAW couplings are supplied with taper bore suitable to the bush size specified in this column.

TF couplings are supplied with spider.
 TWNS couplings are supplied with Wrap N Snap

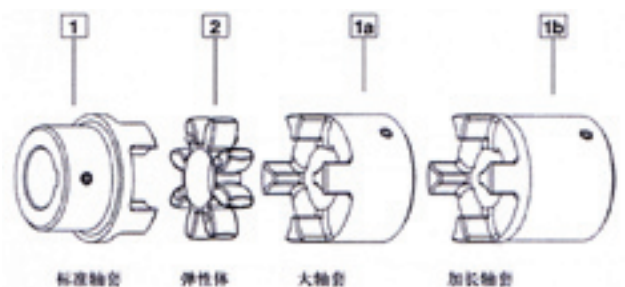
GE – Curved Jaw Couplings



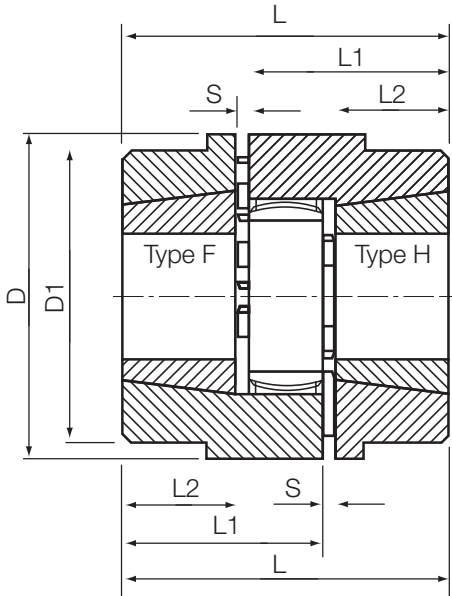
TYPE	Hub Type	Max Speed RPM	Rated Torque (Nm)			D	D1	d-min	d-max	S	L1	L2	L	Mass kg/hub
			92 Sh A YELLOW	98 Sh A RED	64 Sh D WHITE									
14	1	17000	7.5	12.5	16	30	22	6	16	1	32	20	51	0.12
	1a													
19	1	19000	10	17	21	40	32	6	19	1	39	25	65	0.19
	1a							19	24					
24	1	14000	35	60	75	56	40	9	24	1	46	30	77	0.38
	1a							22	28					
28	1	11800	95	160	200	65	48	10	28	1.5	52.5	35	89	0.62
	1a							28	38					
38	1	9500	190	325	405	80	66	12	38	1	66	45	112	1.36
	1a							38	45					
42	1	8000	265	450	560	95	75	14	42	1	73	50	124	2.03
	1a							42	55					
48	1	7100	310	525	655	105	85	15	48	1.5	80.5	56	138	2.85
	1a							48	60					
55	1	6300	410	685	825	120	98	20	55	2	91	65	158	4.32
	1a							55	70					
65	1	5600	625	940	1175	135	115	22	65	1.5	105.5	75	182	6.66
	1a							22	65					
75	1	4750	1280	1920	2400	160	135	30	75	1	120	85	206	10.48
	1a							30	75					
90	1	3750	2400	3600	4500	200	160	90	1.5	139.5	100	241	17.89	
	1a						180	90						

Features & Benefits

- High Torque, High Speed capable Coupling
- High Quality Cast construction - lightweight design
- Shock Absorption - vibration dampening.
- Maximum power with choice of 3 Urethane element designs
- Compact design with huge bore capacities



GE – Curved Jaw Couplings



GE-T - TAPER BORED COUPLINGS

Model	Max Speed rev/min	Rated Torque (Nm)			Bush Size	Max Bore	D	D1	S	L1	L2	L	Mass Kg/hub
		92 Sh A YELLOW	98 Sh A RED	64 Sh D WHITE									
24 F	14000	35	60	75	1008	25	56	–	1.0	39.0	23.0	63.0	0.31
24 H					1008	25	56	–	1.0	39.0	23.0	63.0	0.31
28 F	11800	95	160	200	1108	28	65	–	1.5	40.5	23.0	65.0	0.46
28 H					1108	28	65	–	1.5	40.5	23.0	65.0	0.46
38 F	9500	190	325	405	1108	28	80	78	1.0	44.0	23.0	68.0	0.79
38 H					1108	28	80	78	1.0	44.0	23.0	68.0	0.79
42 F	8000	265	450	560	1610	42	95	94	1.0	49.0	26.0	76.0	1.10
42 H					1610	42	95	94	1.0	49.0	26.0	76.0	1.10
48 F	7100	310	525	655	1615	42	105	104	1.5	63.5	39.0	104.0	2.07
48 H					1615	42	105	104	1.5	63.5	39.0	104.0	2.07
55 F	6300	410	685	825	2012	50	120	118	2.0	59.0	33.0	94.0	2.22
55 H					2012	50	120	118	2.0	59.0	33.0	94.0	2.22
65 F	5600	625	940	1175	2012	50	135	133	1.5	63.5	33.0	98.0	3.14
65 H					2517	65	135	133	1.5	75.5	45.0	122.0	4.03
75 F	4750	1280	1920	2400	2517	65	160	135	1.0	81.0	46.0	128.0	4.69
75 H					3020	75	160	135	1.0	87.0	52.0	140.0	4.99
90 F	3750	2400	3600	4500	3020	75	200	160	1.5	91.5	52.0	145.0	7.74
90 H					3525	100	200	160	1.5	103.5	64.0	169.0	8.74

SELECTION

1- Service Factor

Determine the Service factor using table 1 below

2- Design Power

Multiply the power of the driven machine by the service factor obtained from table 1. This is the design power and is used to select the coupling providing maximising the service life.

3- GE Coupling Model Selection

Refer to the Power Rating tables as shown on the next page, 15. Select the Yellow 92 Shore, Red 98 shore or heavy duty White 64 Shore. Read down the left column to the required speed then read across horizontally until the design power is exceeded to select the coupling model. If the exact speed is not shown calculate based on power rating per/100 RPM shown in the first column.

4- Bore Dimensions

Check maximum bore dimensions and select from pilot bore model to be machined to required bore and key or taper fit option in available metric and imperial bore sizes.

Selection via Torque Calculation Method

1. Torque

Calculate torque applied to the coupling by using the formula below

$$\text{Torque (Nm)} = \frac{9550 \times \text{Power kW}}{\text{Speed (RPM)}}$$

2. Service Factor

Apply the service factor to the torque figure in Nm, this is the design torque rating

3. Coupling Torque ratings

Check the torque ratings for the Yellow 92 Shore, Red 98 shore or heavy duty White 64 Shore as shown in the dimensions tables on the previous pages. Select a suitable coupling that exceeds the design torque rating.

4. Bore Dimensions

Check maximum bore dimensions and select from pilot bore model to be machined to required bore and key or taper fit option in available metric and imperial bore sizes.

Features & Benefits

- High Torque capacity for size
- Compact design
- Low weight for reduced inertia
- Machined surfaces for extended life
- Absorbs shock loads
- Vibration dampening





Quality Guaranteed

GE – Curved Jaw Couplings



Quality Guaranteed

POWER RATINGS

Table 1: Power Ratings (kw) for 92 shore elements (YELLOW)

RPM	14	19	24	28	38	42	48	55	65	75	90
100	0.07	0.1	0.37	1	1.99	2.78	3.25	4.29	6.55	13.4	25.1
500	0.38	0.52	1.83	4.98	9.95	13.9	16.2	21.5	32.7	67	126
700	0.54	0.73	2.56	6.97	13.9	19.4	22.7	30.1	45.8	93.8	176
720	0.56	0.75	2.64	7.16	14.3	20	23.4	30.9	47.1	96.5	181
800	0.62	0.84	2.93	7.96	15.9	22.2	26	34.3	52.4	107	201
900	0.7	0.94	3.29	8.96	17.9	25	29.2	38.6	58.9	121	226
960	0.75	1.01	3.51	9.55	19.1	26.6	31.2	41.2	62.8	129	241
1000	0.78	1.05	3.66	9.95	19.9	27.8	32.5	42.9	65.5	134	251
1200	0.93	1.26	4.39	11.9	23.9	33.3	39	51.5	78.5	161	302
1400	1.09	1.47	5.12	13.9	27.9	38.9	45.4	60.1	91.6	188	352
1440	1.12	1.51	5.27	14.3	28.7	40	46.7	61.8	94.2	193	362
1500	1.16	1.57	5.49	14.9	29.9	41.6	48.7	64.4	98.2	201	377
1800	1.39	1.88	6.59	17.9	35.8	50	58.4	77.3	118	241	452
2000	1.55	2.09	7.32	19.9	39.8	55.5	64.9	85.9	131	268	503
2880	2.23	3.02	10.5	28.7	57.3	79.9	93.5	124	188	386	724
3000	2.32	3.14	11	29.9	59.7	83.3	97.4	129	196	402	754
4000	3.1	4.19	14.6	39.8	79.6	111	130	172	262	536	–

Table 2: Power Ratings (kw) for 98 shore elements (RED)

RPM	14	19	24	28	38	42	48	55	65	75	90
100	0.13	0.18	0.63	1.68	3.4	4.71	5.5	7.17	9.84	20.1	37.7
500	0.66	0.89	3.14	8.38	17	23.6	27.5	35.9	49.2	101	189
700	0.93	1.25	4.4	11.7	23.8	33	38.5	50.2	68.9	141	264
720	0.95	1.28	4.52	12.1	24.5	33.9	39.6	51.6	70.9	145	271
800	1.05	1.42	5.02	13.4	27.2	37.7	44	57.4	78.7	161	302
900	1.18	1.6	5.65	15.1	30.6	42.4	49.5	64.6	88.6	181	339
960	1.27	1.71	6.03	16.1	32.7	45.2	52.8	68.9	94.5	193	362
1000	1.32	1.78	6.28	16.8	34	47.1	55	71.7	98.4	201	377
1200	1.58	2.14	7.54	20.1	40.8	56.5	66	86.1	118	241	452
1400	1.84	2.49	8.79	23.5	47.6	66	77	100	138	281	528
1440	1.89	2.56	9.04	24.1	49	67.9	79.2	103	142	290	543
2880	3.83	5.2	18.1	48.4	97.9	135.7	158.4	206.5	283.4	578.9	1085.8

Table 3: Power Rating (kw) for shore 64 elements (WHITE)

RPM	14	19	24	28	38	42	48	55	65	75	90
100	0.16	0.2	0.8	2.1	4.2	5.8	6.8	8.8	12.1	24.7	46.4
500	0.81	1.1	3.9	10.3	20.9	29.0	33.8	44.2	60.5	124.2	232.5
700	1.14	1.5	5.4	14.4	29.3	40.6	47.4	61.8	84.8	173.4	324.7
720	1.16	1.6	5.6	14.9	30.1	41.7	48.7	63.5	87.2	178.4	333.3
800	1.3	1.8	6.2	16.5	33.5	46.4	54.1	70.6	96.8	198.0	371.5
900	1.46	2.0	7.0	18.6	37.6	52.2	60.9	79.5	109.0	222.6	417.0
960	1.55	2.1	7.4	19.8	40.2	55.6	64.9	84.8	116.2	237.4	445.3
1000	1.62	2.2	7.7	20.7	41.8	57.9	67.7	88.2	121.0	247.2	463.7
1200	1.95	2.6	9.3	24.7	50.2	69.5	81.2	105.9	145.1	296.4	556.0
1400	2.26	3.1	10.8	28.9	58.6	81.2	94.7	123.0	169.7	345.6	649.4
1440	2.33	3.2	11.1	29.6	60.3	83.5	97.4	126.7	174.7	356.7	667.9
2800	4.69	6.3	22.2	59.6	120.4	166.8	195.0	254.0	348.5	711.9	1335.5

Chain Couplings

The chain coupling is composed of double-strand roller chain and two sprockets, featuring a simple and compact structure that offers a high flexibility and greater transmission capacity compared to similar sized coupling. The chain coupling allows simple connection and disconnection, and use of the housing enhances safety and durability.

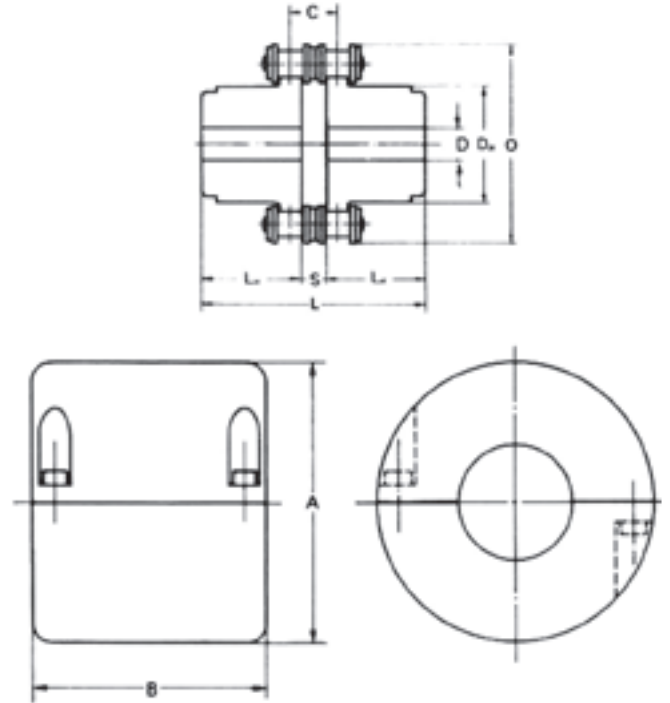


TABLE 1: DIMENSIONAL DATA

Chain Coupling Number	Chain Pitch	Coupling										Casing		
		Drill hole	Shaft diam.		O	L	D _H	L _H	S	C	Approx. weight (kg/m)	A	B	Approx. weight (kg/m)
			Min.	Max.										
3012	9.525	12	13.5	16	45	65	27.2	29.5	6	10.1	0.31	69	63	0.22
4012	12.70	12	14	22	62	79.4	36	36	7.4	14.4	0.73	77	72	0.30
4014		12	14	28	69	79.4	45	36			1.12	84	75	0.31
4016		13.5	16	32	77	87.4	51.5	40			1.50	92	72	0.35
5014	15.875	14.5	17	35	86	99.7	56	45	9.7	18.1	2.15	101	85	0.47
5016		14.5	18	40	96	99.7	64	45			2.75	110	87	0.50
5018		16	18	45	106	99.7	73.5	45			3.60	122	85	0.60
6018	19.05	20	22	56	127	123.5	89.5	56	11.5	22.8	6.55	147	105	1.2
6020		20	24	60	139	123.5	102.5	56			8.38	158	105	1.2
6022		20	28	71	151	123.5	115	56			10.4	168	117	1.2
8018	20.40	20	32	80	169	141.2	115	63	15.2	29.3	13.2	190	129	1.9
8020		20	36	90	185	145.2	125	65			16.2	210	137	2.5
8022		20	40	100	202	157.2	142	71			21.8	226	137	2.7
10020	31.75	25	45	110	233	178.8	162	80	18.8	35.8	32.4	281	153	4.1
12018	38.10	35	50	125	256	202.7	173	90	22.7	45.4	43.2	307	181	5.2
12022		35	56	140	304	222.7	213	100			69.1	357	181	6.7

NOTE: The first two or three digits of the chain coupling No. imply chain No. and the two succeeding digits imply the No. of teeth

Selection

1. Operating conditions

- a) Operating hours/day
- b) Types of load and prime mover
- c) Transmission power (kW) and speed (rpm) of coupling
- d) Diameters of both shafts

2. Selection Method

- a) Find service factor from the service factor table according to operating conditions a) and b)
- b) Determine the compensated power (kW) by multiplying the transmission power kW by the service factor above
- c) Find a proper coupling, which meets the compensated power, from the power transmission capacity table across according to the operating speed of the coupling.
- d) If maximum allowable shaft diameter specified for the selected coupling is smaller than the actual shaft diameter, reselect the larger coupling with proper allowable shaft diameter
- e) When using standard key at a low speed, the pressure acting on the key surface will be increased excessively in some cases, therefore it is required to calculate the pressure acting on the key surface to find whether the use of special key or spline is necessary.

Service Factors

Operating Conditions	Operating hours/day			
	8h	8-16h	8h	8-16h
Small load variations, small impact, light road, no reversing	1.0	1.5	2	2.5
Medium load variations, medium impact, no reversing (normally)	1.5	2	2.5	3
Large load variations, large impact, reversing while loaded	2.0	2.5	3	3.5
Type of prime mover	Motor, turbine		Combustion engine	

NOTE: In case of 16 operating hours/day or longer, add 1.0 to service factor in the case of 8 operating hours/day, provided that service factor for 8 operating hours/day is applicable when speed is 50rpm or less.

Power Transmission Capacity

Chain coupling No.	Max shaft diam. (mm)	Allowable transmission torque at 50rpm or less (kgf . m)	Coupling speed (rpm)																							
			1	5	10	25	50	100	200	300	400	500	600	800	1000	1200	1500	1800	2000	2500	3000	3600	4000	4800	5200	6000
3012	16	10.2	0.01	0.05	0.11	0.26	0.52	0.79	1.21	1.58	1.89	2.26	2.58	3.19	3.88	4.41	5.35	6.25	6.73	8.12	9.44	11.0	12.0	14.0	14.8	16.7
4012	22	22.2	0.02	0.11	0.22	0.58	1.15	1.73	2.63	3.46	4.15	4.96	5.67	7.01	8.53	9.68	11.6	13.7	14.8	17.9	20.7	24.1	26.3	30.8		
4014	28	30.2	0.03	0.16	0.32	0.79	1.58	2.36	3.59	4.72	5.66	6.77	7.72	9.56	11.6	13.2	15.8	18.7	20.2	24.4	28.3	32.9	35.9	42.1		
4016	32	39.4	0.04	0.21	0.41	1.03	2.06	3.09	4.69	6.17	7.41	8.85	10.1	12.5	15.3	17.3	21.0	24.4	26.3	31.9	37.0	43.0	46.9	54.9		
5014	35	57.4	0.06	0.30	0.60	1.50	3.00	4.48	6.80	8.95	10.7	12.8	14.7	18.1	22.1	25.1	30.0	35.4	38.3	46.2	53.6	62.4				
5016	40	75.0	0.08	0.39	0.78	1.95	3.91	5.86	8.92	11.7	14.1	16.8	19.2	23.8	28.9	32.9	39.9	46.4	50.0	60.6	70.4	81.6				
5018	45	95.0	0.10	0.50	0.99	2.48	4.95	7.43	11.3	14.9	17.8	21.3	24.4	30.1	36.6	41.6	50.5	58.8	63.4	76.8	89.2					
6018	56	179	0.18	0.93	1.87	4.67	9.33	14.0	21.3	28.0	33.6	40.1	45.9	56.8	69.1	78.4	95.2	111	120	145						
6022	71	242	0.25	1.25	2.51	6.31	12.5	18.8	28.6	37.7	45.3	54.1	61.9	76.5	93.1	105	128	149	161	195						
8018	80	396	0.41	2.07	4.14	10.3	20.7	31.0	47.2	62.1	74.5	89.0	101	126	153	174	211	246	265							
8022	100	570	0.59	2.96	5.93	14.8	29.6	44.5	67.2	89.0	106	127	146	180	219	249	302	352	379							
10020	110	896	0.93	4.66	9.33	23.3	46.6	70.0	106	140	168	200	229	283	345	392	476	554								
12018	125	1,350	1.40	7.02	14.0	35.1	70.2	105	160	210	252	302	345	426	519	590	716									
12022	140	1,750	1.81	9.07	1.81	45.3	90.7	136	206	272	326	390	446	551	671	762										
Lubricated method			A						B						C											

NOTE: Be sure to use the casing with the coupling in the case of lubricant type C. for details of lubrication types A and B, refer to "lubrication" section

Lubrication

There are three methods to lubricate chain couplings, according to operating speed (see power transmission Capacity table):

Lubrication Method A:Greasing Monthly

Lubrication Method B:Greasing Weekly or fill grease in the attached casing.

Lubrication Method C:Fill grease in the attached casing.

NOTE: When attaching the casing, use high-quality grease because the grease is pressed to the inside wall of the casing due to centrifugal force, deteriorating lubricating ability of the grease. It is recommended to change the grease periodically to maintain high performance and durability of the coupling.

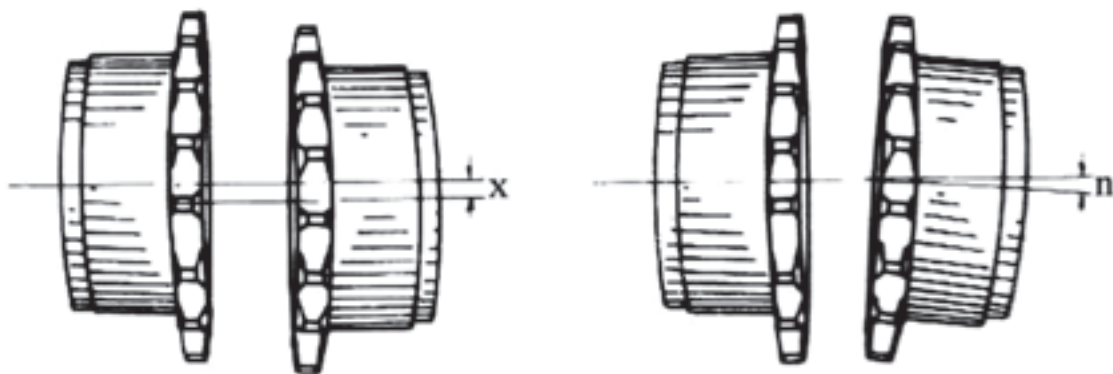
Grease change intervals (with casing attached)

Operating conditions	Grease change intervals	
	First change	2nd and later changes
Operating at 1/2 max, speed or higher	1000 hours	2000 hours
Operation at 1/2 max, speed or lower	2000 hours	4000 hours

Grease filling quantity

Chain coupling No.	Filling quantity (kg)	Chain coupling No.	Filling quantity (kg)
3012	0.08	6020	0.44
4012	0.12	6022	0.48
4014	0.16	8018	0.79
4016	0.17	8020	0.86
5014	0.24	8022	1.00
5016	0.25	10020	1.70
5018	0.26	12018	3.50
6018	0.42	12022	4.50

Coupling allowance (shaft deviation and misalignment)



Allowable errors

$x = 2\%$ or less of pitch of roller chain used

$n = 1$ or less

In case of high speed operation, shaft deviation and misalignment must be 1/2 allowable errors.

Tyre Couplings



The extreme elastic design of GB (GB) Tyre couplings are interchangeable with leading European and American brands. The flexible tyre possesses tremendous vibration and shock absorbing qualities and allows compensation for significant parallel and angular misalignment. GB Tyre couplings have shock and vibration dampening characteristics creating significant load reduction on machinery and bearings thereby reducing costs and prolonging life. When used in conjunction with a GB series Spacer (see page 1-15) a GB Tyre coupling easily accomodates standard 100, 140, and 180mm spacers. TaperFit bushes, Spacer coupling, and a generous allowance for misalignment ensures GB Tyre couplings are extremely easy to install.

Selection Procedure

1. From Table 1 Service factors, page 1-2 of GBC couplings, determine the Service Factor.
2. Calculate the Design Power by multiplying the Absorbed Power of the driven machine by the Service Factor.
3. Determine the size GB Tyre coupling by matching the Design Power to a Power Rating, (table below) that matches or exceeds the Design Power.
4. Confirm the dimensions of the selected coupling fit your design requirements and, accomodate, shaft sizes.

NOTE:

B Flanges accomodate larger shaft sizes than F or H Flanges.
H Flanges require end wrench clearance while F and B Flanges do not,

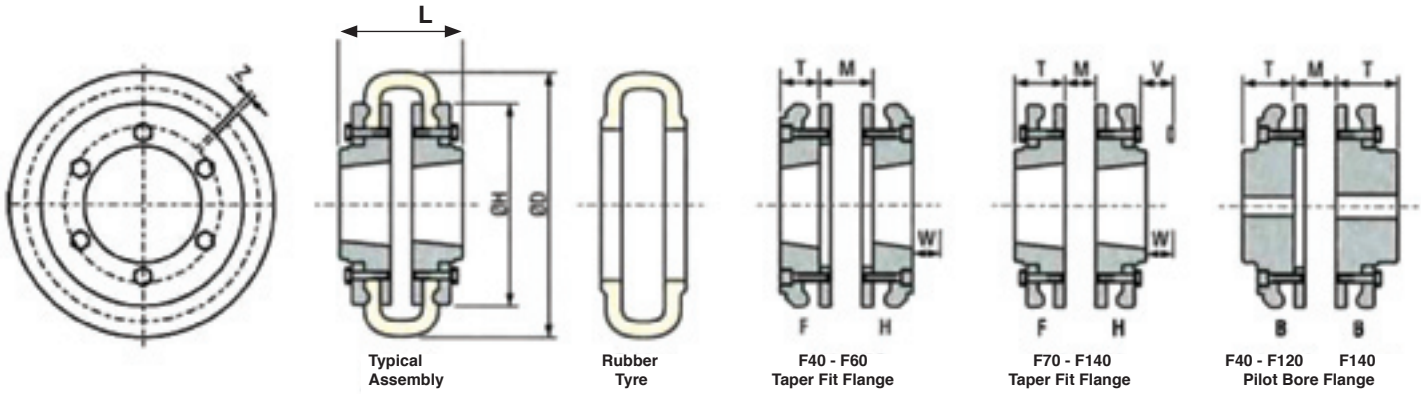
Couplings



Power Ratings

RATINGS	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180
Power kW per 100 rpm	0.251	0.691	1.33	2.62	3.93	5.24	7.07	9.16	13.9	24.3	39.5	65.7
Power kW @ 720 rpm	1.81	4.98	9.57	18.8	28.3	37.7	50.9	66.0	100	175	284	473
Power kW @ 960 rpm	2.41	6.63	12.8	25.1	37.7	50.3	67.9	88.0	134	234	379	630
Power kW @ 1440 rpm	3.62	9.95	19.1	37.7	56.5	75.4	102	132	201	351	568	945
Power kW @ 2880 rpm	7.24	19.9	38.3	75.4	113	151	-	-	-	-	-	-
Speed Maximum (rpm)	4.500	4.500	4,000	3,600	3,100	3,000	2,600	2,300	2,050	1,800	1600	1500
Torque Nominal (Nm)	24	66	127	250	375	500	675	875	1,330	2,325	3770	6270
Torque Maximum (Nm)	64	160	318	487	759	1,096	1,517	2,137	3,547	5,642	9339	16455

Tyre Couplings



DIMENSIONS

Bore	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180
GB Bush Size: F Range	1008	1210	1610	2012	2517	2517	3020	3020	3525	3525	4030	4535
GB Bush Size: H Flange	1008	1210	1610	1610	2012	2517	2517	3020	3020	3525	4030	4535
Maximum Bore: F Flange	25	32	42	50	60	60	75	75	100	100	115	125
Maximum Bore: H Flange	25	32	42	42	50	60	60	75	75	100	115	125
Maximum Bore: B Flange	32	38	45	50	60	75	80	90	100	130	140	150

Dimensions	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180
OD - Outside Diameter	104	133	165	187	211	235	254	279	314	359	402	470
OH - Hub Diameter	82	100	125	144	167	188	216	233	264	311	345	398
L- Length: FF	66	76	84	88	116	119	131	127	159	163	184	224
L- Length: HH	66	76	84	84	90	119	119	127	131	163	184	224
L- Length: FH	66	76	84	86	103	119	125	127	145	163	184	224
L - Length: BB	67	89	110	129	144	160	168	175	202	221	234	274
L- Length: FB	66.5	82.5	97	108.5	130	139.5	149.5	151	180.5	192	209	249
L- Length: HB	66.5	82.5	97	106.5	117	139.5	143.5	151	166.5	192	209	249
M-Gap:FFHHFH	22	25	33	23	25	27	27	25	29	32	30	46
M - Gap: BB	22	25	33	40	43	46	48	44	49	32	30	46
M - Gap: FB HB	22	25	33	31.5	34	36.5	37.5	34.5	39	32	30	46
T- Length Through Bore: F Flange	22	25	25	32	45	45	51	51	65	65	77	93
T- Length Through Bore: H Flange	22	25	25	25	32	45	45	51	51	65	77	93
T - Length Through Bore: B Range	22	32	38	44	51	57	60	65	76	94	102	118
V - Clamping Screw Installation*	-	-	-	13	16	16	16	16	16	17	17	17
W - Wrench Clearance (H Range only)*	29	38	38	42	48	48	55	55	67	67	76	89
Z - Tyre End Gap	2	2	2	3	3	3	3	3	3	5	5	5
Tyre Screw Tightening Torque (Nm)	15	15	15	24	24	40	40	40	50	55	55	55

Alignment	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180
Max Parallel	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.7	4.2	4.8
Max Axial	±1.3	±1.7	±2.0	±2.3	±2.6	±3.0	±3.3	±3.7	±4.0	±4.6	±5.3	±6.0
Max Angular f)	4	4	4	4	4	4	4	4	4	4	4	4

Mass	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180
F Flange (kg)	0.8	1.1	1.8	2.4	3.5	5.8	7.0	9.0	12.0	26.5	32.5	42.2
H Flange (kg)	0.8	1.1	1.8	2.6	3.8	5.8	7.0	9.0	13.0	26.5	32.5	42.2
B Flange (kg)	1.0	1.7	2.7	3.4	5.2	7.4	10.7	13.7	17.2	22.2	35.8	49.1
Tyre (kg)	0.1	0.3	0.5	0.7	0.8	1.0	1.1	1.5	2.0	2.9	3.5	4.2

All values are in mm unless otherwise stated.

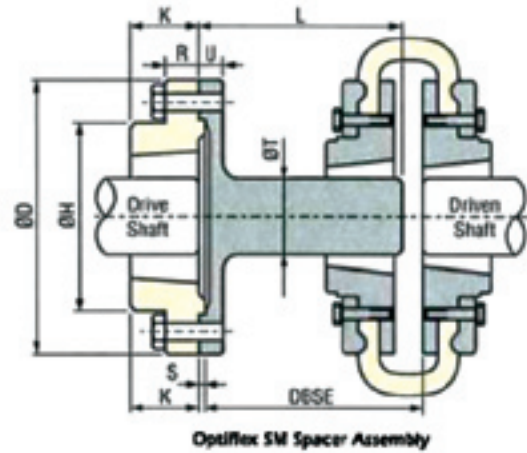
Tyre Spacer

GB SM series Spacers combined with an GB Tyre coupling (refer to page 1-15) to provide a Spacer design where maintenance is more efficient by being able to move the driving or driven shafts without disturbing the mounting of the driving or driven machine.

Standard Distance Between Shaft Ends [DBSE] lengths of 100, 140 and 180mm are available.

Selection Procedure

1. Select a suitable size of GB Tyre coupling using the selection procedure found on page 1-13.
2. Select a suitable size SM Spacer taking into consideration the required shaft spacing.



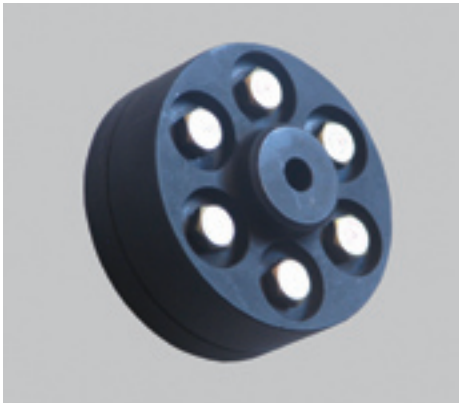
Dimensions	SM16	SM25	SM30	SM35
Use with GB Tyre Coupling	F50-F60	F70 F80 F90	F100 F110	F120 F140
GB Bush Size (Spacer Flange)	1615	2517	3030	3535
GB Taper Fit Bush Max. Bore	42	65	75	90
OD - Outside Diameter	127	178	216	248
OH - Hub Diameter	80	123	146	178
K*	38	46	76	89
L - Length: 100mm DBSE*	94	94	-	-
L - Length: 140mm DBSE*	134	134	134	134
L - Length: 180mm DBSE*	-	174	174	174
R	18	22	51	63
S	6	6	6	6
OT	32	48	60	80
U	15	16	20	20
Mass	SM16	SM25	SM30	SM35
100mm DBSE (kg)	3.55	8.05	-	-
140mm DBSE (kg)	3.8	8.65	16.4	25.4
180mm DBSE (kg)	-	9.25	17.3	26.9

*NOTE: All values are in mm unless otherwise stated

ORDERING INSTRUCTIONS

- SM Spacers are specified by the size end DBSE (eg. A SM35 spacer with a 140mm DBSE length is specified as a SM35-140)
- SM Spacers require a Taper Fit bush which must be ordered as a separate item (specifying bush size and required bore).
- To order a complete Spacer coupling list the individual components of the coupling and spacer including required Taper Fit bushes.

Cone Ring Couplings



GB Cone Ring couplings transmit the load from one member to the other by means of a number of steel pins fitted with multiple, conical section Flexirings.

- Simple uncomplicated construction
- Requires no lubrication or maintenance
- Reduce starting shock
- Help absorb vibration and provide torsional flexibility
- Operate in either direction
- Coupling halves manufactured from high-grade cast-iron. They can be supplied in cast-steel on application.
- Each flexiring and pin assembly can be removed by withdrawing them through the bush half of the coupling for ease of replacement of the flexirings after long service.
- Available in standard, Taperbush, and Rigid coupling models.

Selection Procedure

1. From Table 1 Service Factors page 1-2 of GBC Couplings determine the Service Factor.
2. Calculate the Design Power by multiplying the Absorbed Power of the driven machine by the Service Factor.
3. Determine the size MC coupling required by matching the design power to a power rating that matches or exceeds the Design Power.
4. Ensure the dimensions of the selected coupling fit your design requirements and shaft sizes can be accommodated.

NOTE 1: MC Flanges accommodate larger shaft sizes than MCT Flanges.

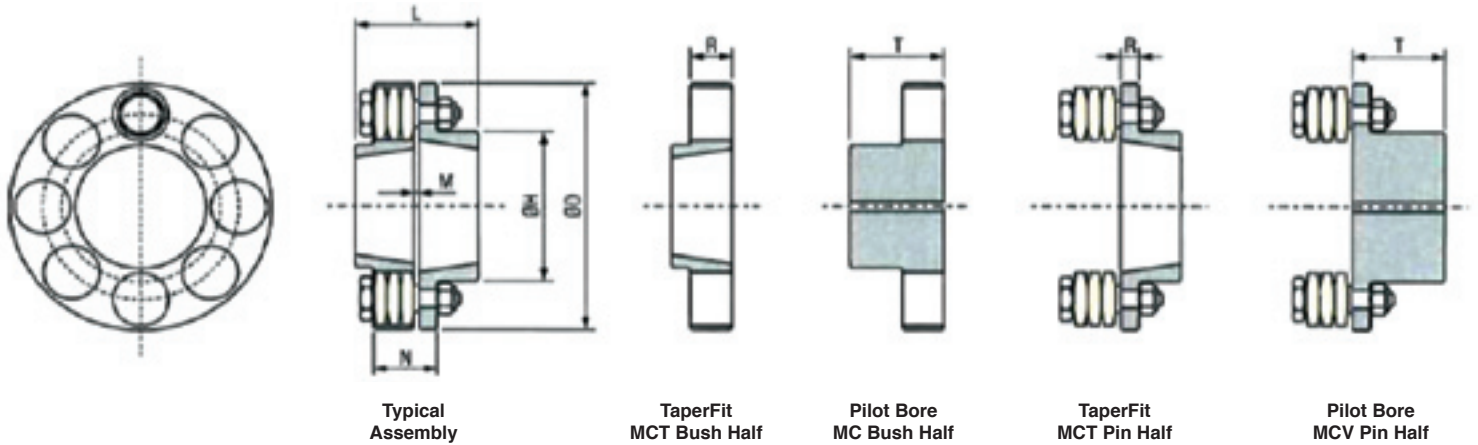
NOTE 2: By convention the pin half is mounted on the driven shaft,



Service Factors

Ratings	MC030	MC038	MC042	MC048	MC058	MC070	MC075	MC085	MC105	MC120	MC135	MC150
Power kW per 100 rpm	1.16	1.87	2.84	4.93	7.54	10.7	25.7	35.5	53.0	90	122	160
Power kW per 720 rpm	8.4	13.5	20.4	35.5	54.3	77.0	185	255	381	648	878	1152
Power kW per 960 rpm	11.1	18.0	27.3	47.3	72.4	102	246	340	508	864	1171	1536
Power kW per 1440 rpm	16.7	26.9	40.9	71.0	108	154	370	511	763	1026	1756	2304
Power kW per 2880 rpm	33.4	53.9	81.8	142	217	-	-	-	-	2592	3513	4608
Speed Maximum (rpm)	4,600	4,400	4,000	3,400	3,000	2,700	2,300	2,090	1,750	1570	1390	1290
Torque Nominal (Nm)	110	175	265	465	720	1,020	2,450	3,390	5,080	8500	11500	15300
Torque Maximum (Nm)	220	350	530	930	1,420	2,040	4,900	6,780	10,160	17000	23000	30400

Cone Ring Couplings



DIMENSIONS

Bore	MC030	MC038	MC042	MC048	MC058	MC070	MC075	MC085	MC105	MC120	MC135	MC150
Taperfit Bush Size: Pin Half MCT	-	-	1610	2012	2517	3020	-	3535	4040	4040	4545	5050
Taperfit Bush Size: Pin Half MCT	-	-	1210	1610	2012	2517	-	3030	3535	4040	4545	5050
Maximum Bore: TF Pin Half MCT	-	-	42	50	65	75	-	90	100	100	110	125
Max. Bore: TF Bush Half MCT	-	-	32	42	50	65	-	75	90	100	110	125
Max. Bore: Pilot Bore Pin Half MC	38	42	48	55	65	80	85	90	115	120	135	150
Max. Bore: Pilot Bore Bush Half MC	30	38	42	48	58	70	75	85	105	110	125	135

Dimension	MC030	MC038	MC042	MC048	MC058	MC070	MC075	MC085	MC105	MC120	MC135	MC150
OD - Outside Diameter	127	132	146	171	193	216	254	279	330	370	419	457
OH - Hub Diameter: Pin Halves	64	70	82	94	110	132	142	162	200	206	230	256
OH - Hub Diameter: Bush Halves	51	64	70	82	97	117	127	147	180	206	230	256
L - Length: MC	88	102	118	128	142	159	183	207	241	270	300	336
L - Length: MCT	-	-	56	63	82	102	-	172	198	209	235	260
M - Gap	6	6	6	6	6	7	7	7	7	7	7	7
R - Flange Length: Pin Halves	12	12	12	17	17	17	30	30	30	46	46	46
T - Flange Length: Bush Halves	26	26	26	33	33	33	56	56	56	76	76	76
T - LTB: MC Pin & Bush Halves	41	48	56	61	68	76	88	100	117	132	147	117
T - LTB: MCT Pin Halves	-	-	25	32	44	51	-	89	102	102	115	102
T - LTB: MCT Bush Halves	-	-	25	25	32	44	-	76	89	102	115	89

Spares	MC030	MC038	MC042	MC048	MC058	MC070	MC075	MC085	MC105	MC120	MC135	MC150
No. of Pins per coupling	4	6	8	6	8	10	8	10	12	10	12	14
No. of Rubbers per coupling	12	18	24	18	24	30	32	40	48	40	48	56
Pin Size	GC1-3	GC1-3	GC1-3	GC1.3/4-3	GC1.3/4-3	GC1.3/4-3	GC2.3/4-3	GC2.3/4-3	GC2.3/4-3	GC4.1/4-3	GC4.1/4-3	GC4.1/4-3
Ring Size: Rubber	GC1-4	GC1-4	GC1-4	GC1.3/4-4	GC1.3/4-4	GC1.3/4-4	GC2.3/4-4	GC2.3/4-4	GC2.3/4-4	GC4.1/4-4	GC4.1/4-4	GC4.1/4-4

Mass	MC030	MC038	MC042	MC048	MC058	MC070	MC075	MC085	MC105	MC120	MC135	MC150
MC Coupling (kg)	3.5	5.0	6.3	4.0	14	20	37	49	77	120	163	210
MCT Coupling (kg)	-	-	5.5	9.0	11	-	44	14.2	72	108	144	181

Notes: LTB is Length Through Bore

TF is Taper Fit Bush to suit MCT Coupling

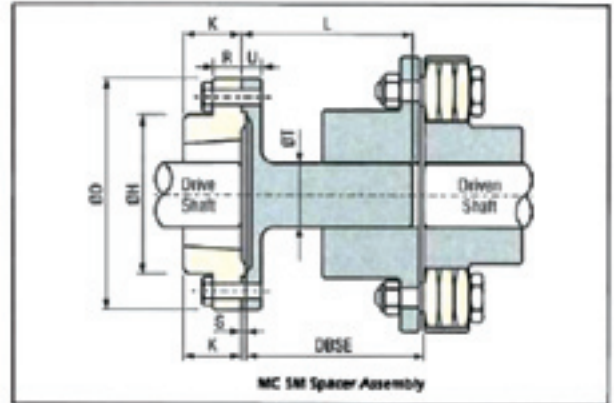
Cone Ring Spacer

GB SM series Spacers combined with an MC coupling (refer to page 1-16) provide a Spacer design where maintenance is more efficient by being able to move the driving or driven shafts without disturbing the mounting of the driving or driven machine.

Standard Distance Between Shaft Ends (DBSE) lengths of 100, 140 and 180mm are available.

Selection Procedure

1. Select a suitable size of MC coupling using the selection procedure found on page 1-16.
2. Select a suitable size SM Spacer taking into consideration the required shaft spacing.



Dimensions	SM16	SM25	SM30	SM35
Use with GB Tyre Coupling	MC038	MC042 MC048	MC058	MC070 MC075
TF Bush Size (Spacer Flange)	1615	2517	3030	3535
TF Bush Maximum Bore	42	65	75	90
OD - Outside Diameter	127	178	216	248
OH - Hub Diameter	80	123	146	178
K*	38	46	76	89
L - Length: 100mm DBSE*	94	94	-	-
L - Length: 140mm DBSE*	134	134	134	134
L - Length: 180mm DBSE*	-	174	174	174
R	18	22	51	63
S	6	6	6	6
OT	32	48	60	80
U	15	16	20	20
Mass	SM16	SM25	SM30	SM35
100mm DBSE (kg)	3.55	8.05	-	-
140mm DBSE (kg)	3.8	8.65	16.4	25.4
180mm DBSE (kg)	-	9.25	17.3	26.9

*NOTE: TF is Taper Fit Bushing. All values are in mm unless otherwise stated.

ORDERING INSTRUCTIONS

- SM Spacers are specified by the size end DBSE (eg. A SM35 spacer with a 140mm DBSE length is specified as a SM35-140)
- SM Spacers require a Taper Fit bush which must be ordered as a separate item (specifying bush size end the required bore).
- To order a complete Spacer coupling list the individual components of the coupling and spacer including required Taper Fit bushes.

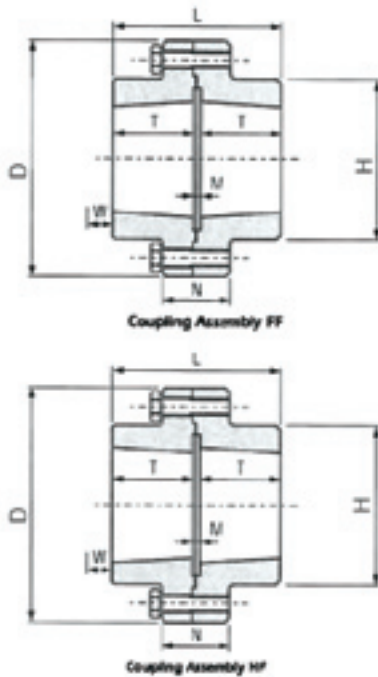
GB RM Rigid couplings are used to rigidly connect two shafts. Rigid couplings are often used to facilitate ease-of-maintenance or simply to aid machine assembly. TaperFit bushes provide a secure fit on the driving and driven shafts, ensuring installation and removal is simple.

Selection Procedure

1. Select a size of RM coupling to fit the larger of the driving or driven shafts.
2. For severe applications, select the next size up RM coupling.

NOTE:

HF or FF assemblies can be used on horizontal shafts, only FF assemblies are to be used on vertical shafts.



DIMENSIONS

Dimensions	RM12	RM16	RM25	RM30	RM35	RM40	RM50
TF Bush Size: F & H Flanges	1210*	1615*	2517	3030	3535	4040	5050
Maximum Bore: F & H Flanges	32	42	65	75	90	100	125
D - Outside Diameter	118	127	178	216	248	298	362
H - Hub Diameter	83	80	123	146	178	210	266
L - Assembled Length	57	83	97	159	185	210	260
M - Gap	7	7	7	7	7	7	7
N - Outer Length	35	43	51	65	75	76	92
W - Wrench Clearance (H Flange only)	38	38	48	54	67	79	92
Total Weight (kg)	2.9	3.8	8.8	18.2	28.8	47.3	89.1

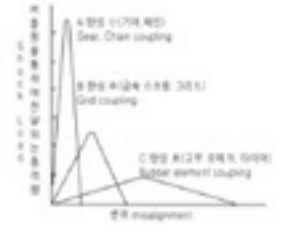
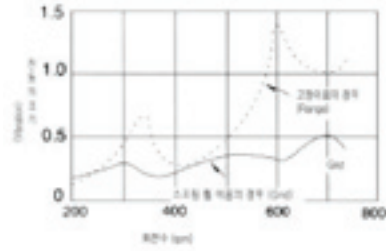
*NOTE: All values are in mm unless otherwise stated

Ordering instructions

- GB Couplings are supplied as complete assemblies in either HF or FF Configuration (e.g a RM25 configured as a HF is specified RM25HF)
- GB Couplings require GB Bushes which must be ordered as separate items (specifying bush size and the required bores)

FEATURES AND BENEFITS

1. In the event of severe overload, grid breaks and prevents damage to high capital cost connected equipment.
2. GS10 comes with optional Horizontal Split case in steel with certification for use in underground mining
3. When the parallel misalignment is too severe, the relating machine is protected by the virtue of shearing Grid or Tooth.
4. Service life of connected equipment including bearings and seals are extended due to Grid Coupling smooth high torque capabilities.
5. Quick installation and easy maintenance reduce labor cost and downtime costs.
6. GS Grid coupling is interchangeable with international industry standard brands.
7. 100% transmission of power at low noise emission.

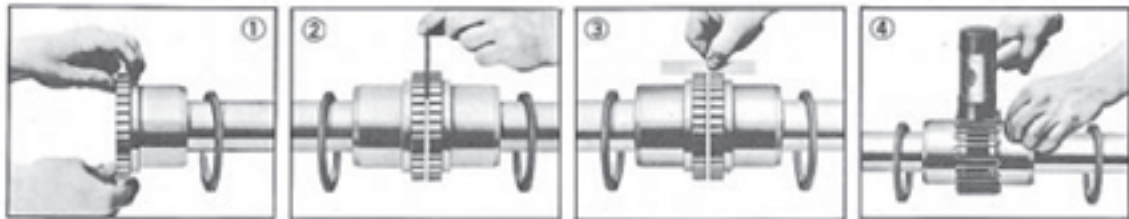


INSTALLATION

The performance and the life of the coupling depends on correct installation and future servicing of the product. This page explains assembly of the coupling for the best performance and for the trouble free operation.

GS10 Taper Grid Coupling is designed to be operating in either the horizontal or vertical position without modification.

- Simple standard mechanical tools such as wrenches, a straight edge and rubber feeler gauge or dial gauge are required to install the Taper Grid Coupling.

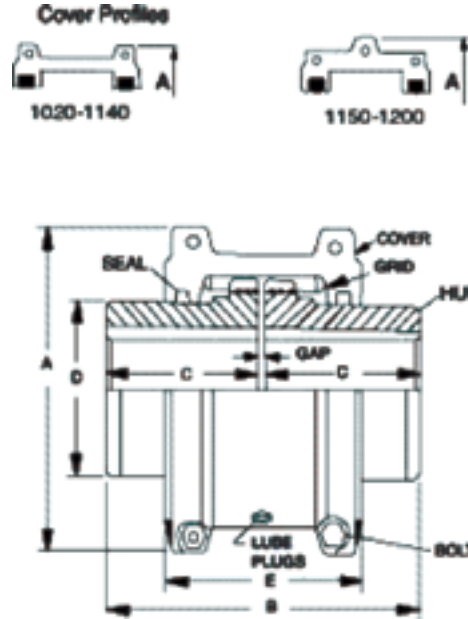


1) In case of GS10 Horizontally Mounted Type

1. Clean all metal parts using nonflammable solvent. Lightly coat seals with grease and place on shaft, before mounting hub. Mounting hubs on the shafts.
2. Using a spacer bar, equal in thickness to the normal gap. The difference in maximum measurements must be not exceeding the angular limit.
3. Align so that a straight edge rests squarely on both hubs as shown fig. And also at 90° interval. The clearance must not exceed the limit specified in table 3.
4. After greasing the tooth of groove hub, fix the Grid in the same direction.



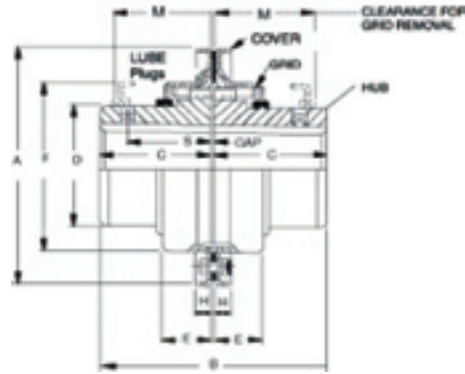
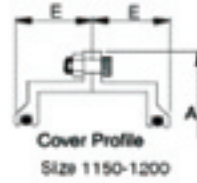
GS Grid Coupling



GS 10 Horizontal Split Housing

Model	Kw per 100 rpm	Max Speed (rpm)	Torque (Nm)	Bore		Dimensions (mm)					Gap			CPL (kg)	Lube Weight (kg)
				Max	Min	A	B	C	D	E	Min	Nor	Max		
1020	0.5	4500	52	30	12	101.6	98.0	47.5	39.7	66.5	1.5	3	4.5	1.9	0.03
1030	1.4	4500	149	35	12	110.0	98.0	47.5	49.2	68.3	1.5	3	4.5	2.6	0.03
1040	2.4	4500	249	43	12	117.5	104.6	50.8	57.1	70.0	1.5	3	4.5	3.4	0.05
1050	4.2	4500	435	50	12	138.0	123.6	60.3	66.7	79.5	1.5	3	4.5	5.4	0.05
1060	6.6	4350	684	55	19	150.5	130.0	63.5	76.2	92.0	1.5	3	4.5	7.3	0.09
1070	9.7	4125	994	65	19	161.9	155.4	76.2	87.3	95.0	1.5	3	4.5	10	0.11
1080	20.1	3600	2050	78	27.0	194.0	180.8	88.9	104.8	116.0	1.5	3	4.5	18	0.17
1090	35.8	3600	3730	95	27.0	213.0	199.8	98.4	123.8	122.0	1.5	3	6	25	0.25
1100	60.4	2400	6280	107	41	250.0	245.7	120.6	142.0	155.5	1.5	3	6	42	0.43
1110	90.3	2250	9320	117	41	270.0	258.5	127.0	160.3	161.5	1.5	4.5	9.5	54	0.51
1120	132.0	2025	13700	136	60	308.0	304.4	149.2	179.4	191.5	1.5	4.5	9.5	81	0.73
1130	191.7	1800	19400	165	67	346.0	329.8	161.9	217.5	195.0	1.5	6	12.5	121	0.91
1140	276.0	1650	28600	184	67	384.0	371.6	182.8	254.0	201.0	1.5	6	12.5	178	1.13
1150	384.2	1500	34800	203	108	453.1	371.8	182.9	269.2	271.3	1.5	6	12.5	234	1.95
1160	540.1	1350	55900	228	120.7	501.4	402.2	198.1	304.8	278.9	1.5	6	12.5	317	2.81
1170	719.9	1225	74600	279	133.4	566.4	437.8	215.9	355.6	304.3	1.5	6	12.5	448	3.49
1180	998.1	1100	103000	311	152.4	629.9	483.6	238.8	393.7	321.1	1.5	6	12.5	619	3.76
1190	1320.4	1050	137000	339	152.4	675.6	524.2	259.1	436.9	325.1	1.5	6	12.5	776	4.40
1200	1800.1	900t	186000	361	177.8	756.9	564.8	279.4	497.8	355.6	1.5	6	12.5	1.057	5.62

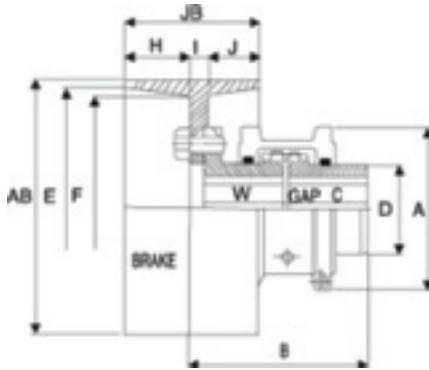
GS Grid Coupling



GS 20 Vertical Split Cover

Model	Kw per 100 rpm	Max Speed (rpm)	Torque (Nm)	Bore		Dimensions (mm)					Gap			CPL (kg)	Lube Weight (kg)
				Max	Min	A	B	C	D	E	Min	Nor	Max		
1020	0.5	6000	52	30	12.7	111.1	98.0	47.5	39.7	24.2	1.5	3	4.5	2.0	0.03
1030	1.4	6000	149	36	12.7	120.0	98.0	47.5	49.2	25.0	1.5	3	4.5	2.6	0.03
1040	2.4	6000	249	44	12.7	128.5	104.6	50.8	57.1	25.7	1.5	3	4.5	3.4	0.05
1050	4.2	6000	435	50	12.7	147.6	123.6	60.3	66.7	31.2	1.5	3	4.5	5.4	0.05
1060	6.6	6000	684	57	19.1	162.0	130.0	63.5	76.2	32.2	1.5	3	4.5	7.3	0.09
1070	9.7	5500	994	65	19.1	173.0	155.4	76.2	87.3	33.7	1.5	3	4.5	10.4	0.11
1080	20.1	4750	2050	79	27.0	200.0	180.8	88.9	104.8	44.2	1.5	3	4.5	17.7	0.17
1090	35.8	4000	3730	95	27.0	231.8	199.8	98.4	123.8	47.7	1.5	3	6	25.4	0.25
1100	60.4	3250	6280	107	41.3	266.7	245.7	120.6	142.0	60.0	1.5	3	6	42.2	0.43
1110	90.3	3000	9320	117	41.3	285.8	258.5	127.0	160.3	64.2	1.5	4.5	9.5	54.4	0.51
1120	132.0	2700	13700	136	60.3	319.0	304.4	149.2	179.4	73.4	1.5	4.5	9.5	81.6	0.73
1130	191.7	2400	19400	165	66.7	377.8	329.8	161.9	217.5	75.1	1.5	6	12.5	122.5	0.91
1140	276.0	2200	28600	184	66.7	416.0	371.6	182.8	254.0	78.2	1.5	6	12.5	180.1	1.13
1150	384.2	2000	34800	203	108.0	476.3	371.8	182.9	269.2	106.9	1.5	6	12.5	230.0	1.95
1160	540.1	1750	55900	228	120.7	533.4	402.2	198.1	304.8	114.3	1.5	6	12.5	321.1	2.81
1170	719.9	1600	74600	279	133.4	584.2	437.8	215.9	355.6	119.4	1.5	6	12.5	448.2	3.49
1180	998.1	1400	103000	311	152.4	630.0	483.6	238.8	393.7	130.0	1.5	6	12.5	591.0	3.76
1190	1320.4	1300	137000	339	152.4	685.0	524.2	259.1	436.9	135.0	1.5	6	12.5	761.0	4.40
1200	1800.1	1100	186000	361	177.8	737.0		279.4	497.8	145.0	1.5	6	12.5	1021	5.62

GS 61 Coupling with Brake

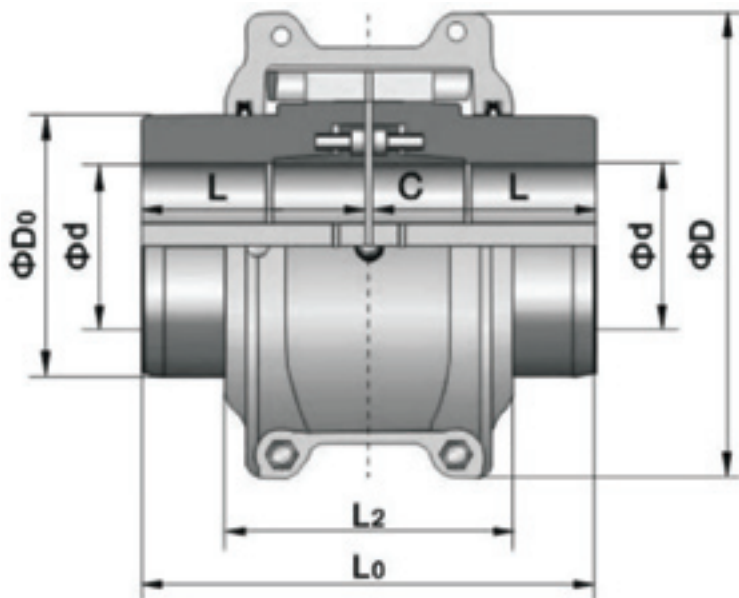


Model	Standard Brake Wheel	
	Motor Power (40% ED Kw)	Brake Torque (Kg)
1020	–	–
1030	–	–
1040	2.2	5
1050	5.5	10
1060	5.5 7.5 11	10 14 21.2
1070	15	30
1080	30	53
1090	75 90	63 80
1100	45	132
1110	75 90	180
1020	110 132	335
1130	160 200	400 475
1140	160 200	400 475

Brake Coupling

Brake Wheel Size		Model	Max Brake Force (Nm)	Brake Dia		Dimensions (mm)									Lube Weight
AB	JB			Max	Min	A	C	D	E	F	H	I	J	Gap	
–	–	1020	110	30	12.7	102	48	39.6	–	–	–	–	–	3	0.03
–	–	1030	359	36	12.7	111	48	49	–	–	–	–	–	3	0.03
160	80	1040	663	44	12.7	117	51	57	145	140	40	12	28	3	0.05
200	100	1050	1202	50	12.7	138	60	66	184	178	50	17	33	3	0.05
200	100	1060	2129	57	19.1	151	63	76	184	178	50	17	33	3	0.09
250	125	1070	3373	68	19.1	162	76	87	230	224	62.5	22	40.5	3	0.11
315	160	1080	6497	82	27.0	194	89	105	292	285	80	23	57	3	0.17
355	180	1090	11060	95	27.0	213	98	124	330	320	90	26	64	3	0.25
400	200	1100	19355	107	41.3	251	121	142	374	362	100	28	72	5	0.43
450	224	1110	29032	117	41.3	270	127	160	422	410	112	32	80	5	0.51
500	250	1120	44240	136	60.3	308	149	179	462	445	125	35	90	6	0.73
560	280	1130	66212	165	66.7	346	162	218	516	495	140	45	95	6	0.91
560	280	1140	89862	184	66.7	384	184	253	516	495	140	45	95	6	1.13

GS 05 GRID COUPLING WITH SHAFT LOCKING DEVICE



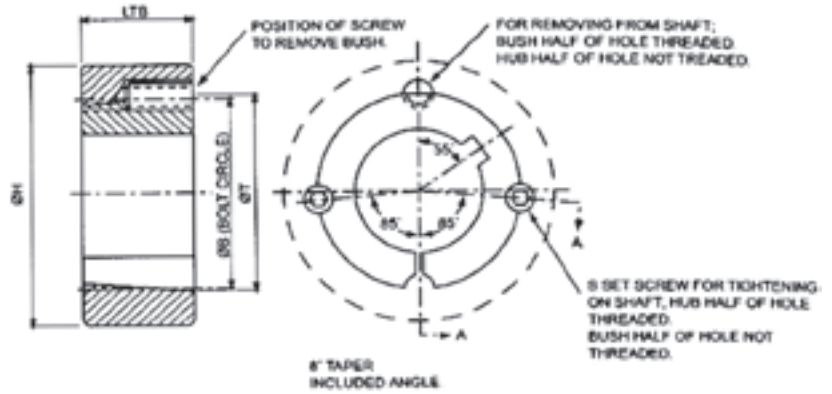
Brake Coupling

Model	Basic Torque (Nm)	Max Speed (rpm)	Moment of Inertia (kg.m)	Bore (mm)		Dimensions (mm)					Gap (mm)	CPL Weight (kg)	Lube Weight (kg)
				Max	Min	L	LD	L2	D	D0			
1120	13700	2025	0.51	125	110	155	318	200	310	179.4	8	84	0.7
1130	19900	1800	0.96	140	120	175	358	200	350	217.5	8	131	0.9
1140	28600	1650	1.85	165	140	190	388	200	390	254.0	8	256	1.1
1150	39800	1500	3.49	180	155	200	408	280	450	269.2	8	344	2.0
1160	55900	1350	5.82	205	165	215	468	280	500	304.8	8	477	2.8
1170	74600	1225	10.40	240	175	230	548	310	570	355.0	8	701	3.5
1180	103000	1100	18.30	260	200	270	588	325	630	394.0	8	869	3.8
1190	137000	1050	26.10	300	240	290	650	325	680	437.0	8	1212	4.4
1200	186000	900	43.50	330	280	320	715	360	760	497.8	10	1637	5.7
1210	249000	820	75.50	360	300	350	795	440	850	533.4	15	2143	10.5
1220	336000	730	113	390	320	390	855	500	930	571.5	15	2757	16.1
1230	435000	680	175	420	340	420	915	550	1000	609.6	15	3643	24.1
1240	559000	630	339	450	360	450	975	650	1100	647.7	15	4352	33.8
1250	746000	580	524	460	400	480	1015	700	1180	711.2	15	5123	50.2
1260	932000	540	711	500	420	500	1100	760	1260	762.0	15	5833	67.2
1270	1130000	460	932	520	430	540	1200	800	1350	-	20	6635	82.4
1280	1320000	339	1142	550	450	550	4836	850	1450	-	20	591.0	101.4

Taper Fit Bushes

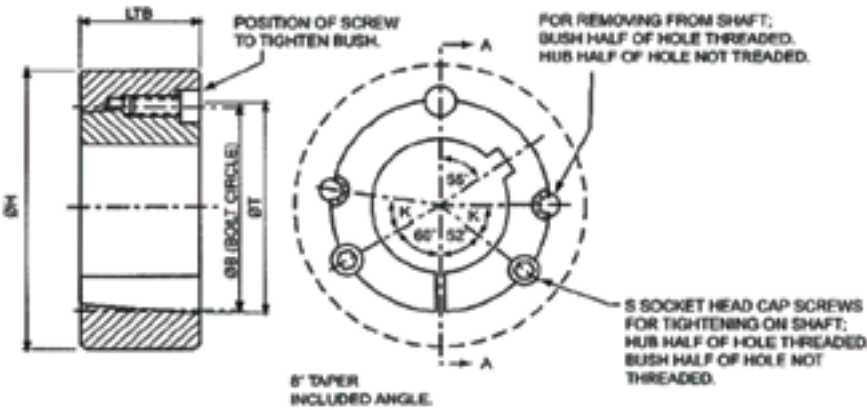
Range and Material Specifications:

The Taper bushes are manufactured i to the highest quality standards using GG22-25 cast iron depending on size. Thin wall bushes are produced from 45 steel. All surfaces are carefully machined to provide maximum contact area and transmission of torque.



Taper Bush 1008 to 3030

BUSH Size	Minimum HUB Dia. H					S Cap Screws			
	ØT	LTB	UTS 200 N/mm ² Gray Iron	UTS 250 N/mm ² Gray Iron	UTS 420 N/mm ² Steel	ØB	QTY Screws	Size (inches)	Max Bore
1008	35.20	22.3	59	54	51	33.73	2	1/4 x 1/2	25
1108	38.38	22.3	61	57	54	36.92	2	1/4 x 1/2	28
1210	47.62	25.4	99	86	78	44.44	2	3/8 x 5/8	32
1215	47.62	38.1	79	73	68	44.44	2	3/8 x 5/8	32
1310	50.80	25.4	100	88	80	47.63	2	3/8 x 5/8	35
1610	57.15	25.4	102	92	85	53.97	2	3/8 x 5/8	42
1615	57.15	38.1	86	81	77	53.97	2	3/8 x 5/8	42
2012	69.85	31.8	115	106	99	66.68	2	7/16 x 7/8	50
2517	85.73	44.5	125	119	113	82.55	2	1/2 x 1	65
2525	85.73	63.5	115	111	108	82.56	2	1/2 x 1	60
3020	107.96	50.8	154	146	140	101.60	2	5/8 x 1.1/4	75
3030	107.96	76.2	141	136	132	101.60	2	5/8 x 1.1/4	75



Taper Bush 3525 to 5050

BUSH Size	Minimum HUB Dia. H					S Cap Screws				
	ØT	LTB	UTS 200 N/mm ² Gray Iron	UTS 250 N/mm ² Gray Iron	UTS 420 N/mm ² Steel	ØB	QTY Cap Screws	Size (inches)	K	Max Bore
3525	127.00	63.5	206	191	178	122.68	3	1/2 x 1.1/2	40°	100
3535	127.00	89.0	185	176	168	122.68	3	1/2 x 1.1/2	40°	90
4030	146.05	76.2	220	207	197	140.72	3	5/8 x 1.3/4	40°	115
4040	146.05	101.5	203	195	188	140.72	3	5/8 x 1.3/4	40°	100
4535	161.93	89.0	221	212	205	155.70	3	3/4 x 2	40°	125
4545	161.93	114.3	211	205	200	155.70	3	3/4 x 2	40°	110
5040	177.80	101.6	236	229	223	170.69	3	7/8 x 2.1/4	37°	125
5050	177.80	127.0	230	223	219	170.69	3	7/8 x 2.1/4	37°	125

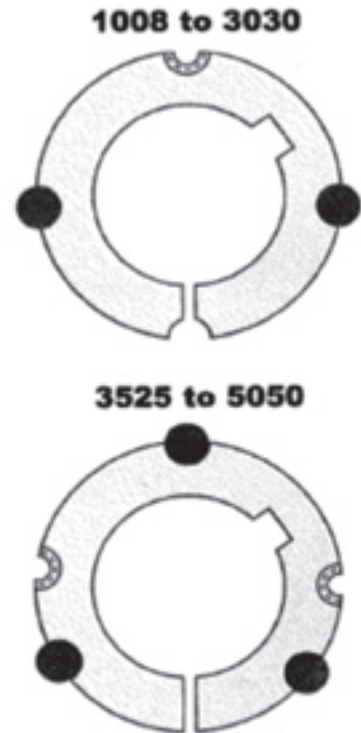
Taper Fit Bushes

Installation Procedure

1. Clean shaft, bore and outside bush, and bore of hub. Remove any oil, laquer or dirt. Place bush in hub and match half holes to make complete holes (each complete hole will be threaded on one side only).
2. Lightly oil thread and point of set screws, or thread and under head of cap screws. Place screws loosely in holes that are threaded in hub side.
3. Make sure bush is free in hub. Slip assembly onto shaft and locate in the desired position.
4. Tighten screws alternately and evenly until all are pulled up tightly. (see table for torque settings).
5. Hammer against a large end of bush using hammer and block or sleeve to avoid damage. Screws can now be turned a little more to the specified torque setting. Repeat this alternate hammering and screw re-tightening until the specified torque is reached. Fill all holes with grease to exclude dirt.

Removal Procedure

1. Remove all screws, lightly oil thread and point of set screws, or thread and under head of cap screws.
2. Insert screws into removal holes that are treaded on the bush side. In sizes where washers are found under screw heads, be sure to use these washers.
3. Tighten screws alternately until bush is loosened in hub and then remove the complete assembly. If bush does not loosen immediately, tap on hub.



Recommended Wrench Torque

Bush Size	Screws	Tightening Torque (Nm)	Bush Size	Screws	Tightening Torque (Nm)	Bush Size	Screws	Tightening Torque (Nm)
1008	1/4" Set Screws	6	2012	7/16" Set Screws	30	4030	5/8" Set Screws	170
1108	1/4" Set Screws	6	2517	1/2" Set Screws	50	4040	5/8" Set Screws	170
1210	3/8" Set Screws	20	2525	1/2" Set Screws	50	4535	3/4" Set Screws	190
1215	3/8" Set Screws	20	3020	5/8" Set Screws	90	4545	3/4" Set Screws	190
1310	3/8" Set Screws	20	3030	5/8" Set Screws	90	5040	7/8" Set Screws	270
1610	3/8" Set Screws	20	3525	1/2" Set Screws	113	5050	7/8" Set Screws	270
1615	3/8" Set Screws	20	3535	1/2" Set Screws	113			

OTHER QUALITY PRODUCTS

Hitachi SBR-Prime Roller Chain



AS & BS Roller Chain - Leaf Chain - Crank Link Chain

Hitachi CR Roller Chain



AS & BS Roller Chain - Conveyor Chain - Chain Attachments

GB Sprockets



Quality Guaranteed



Pilot Bore - Taper Fit - Weld Fit

GB Taper Fit



Quality Guaranteed

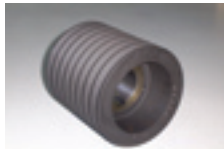


Imperial & Metric Bushes - Weld on Hubs

Pulleys



Quality Guaranteed



Cast Iron Taper Fit - Cast Iron Pilot Bore

Chain and Belt Tensioner



Quality Guaranteed



Classical Belts - Wedge Belts

GB Couplings



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HRC, Jaw & Chain - Tyre, Cone Ring & Rigid - Standard Spacers

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GB Conveyor Chain



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2 to 12" Pitch Conveyor Chain