

# 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.

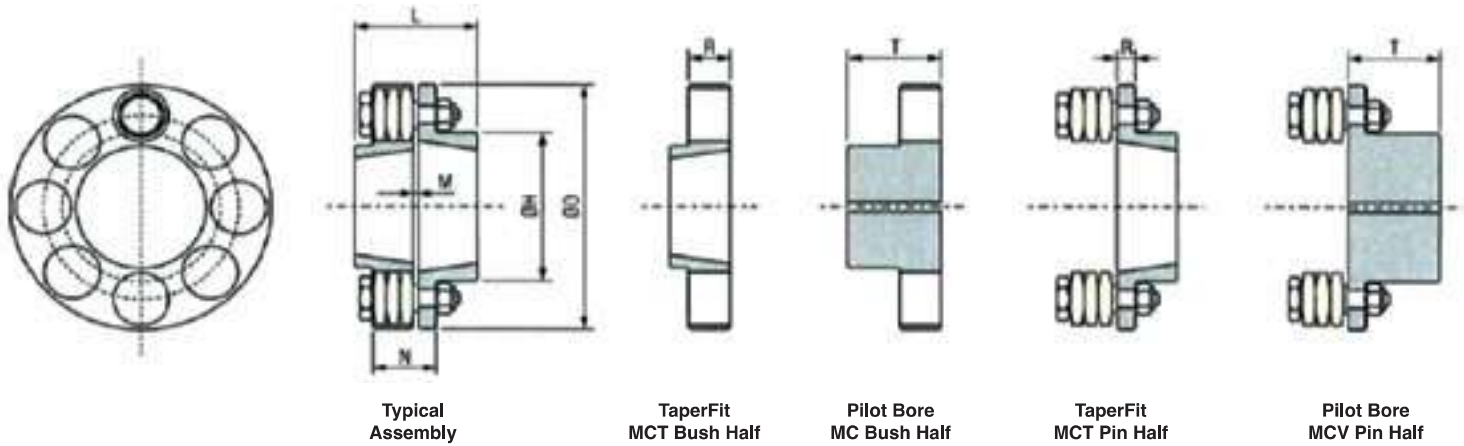
NOTE 2: By convention the pin half is mounted on the driven shaft,



## 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

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## 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

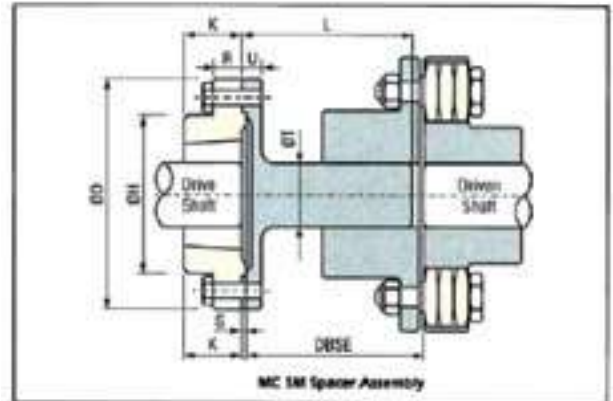
# Cone Ring Spacer

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.