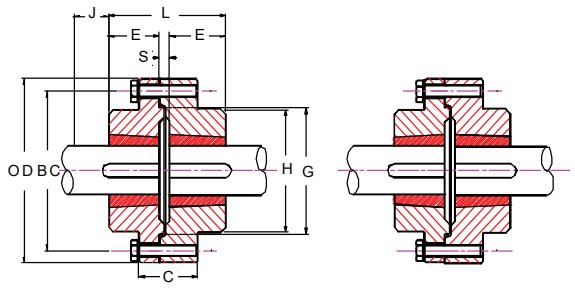
Rigid Couplings

Taper Bush Rigid Couplings provide a convenient method of rigidly connecting ends of shafts. Taper Bushes permit easier and quicker fixing to the shafts with the firmness of a shrunk-on-fit.

These couplings have a male and female flange fully machined. The male flange can have the bush fitted from the Hub side **H** or from the Flange side **F**, the female flange always has the bush fitting **F**. This gives two possible coupling assemblies horizontal shafts, the most convenient assembly should be chosen. **When connecting vertical shafts use assembly FF only.**

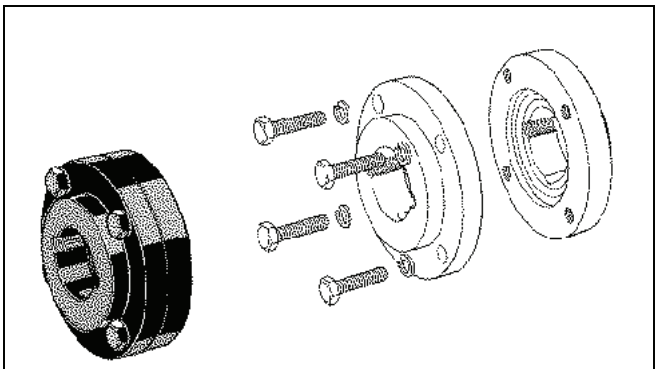
SELECTION

For all applications using standard mild steel shafting it is sufficiently accurate to select the coupling by consideration of bore size alone.



Coupling Assembly HF

Coupling Assembly FF



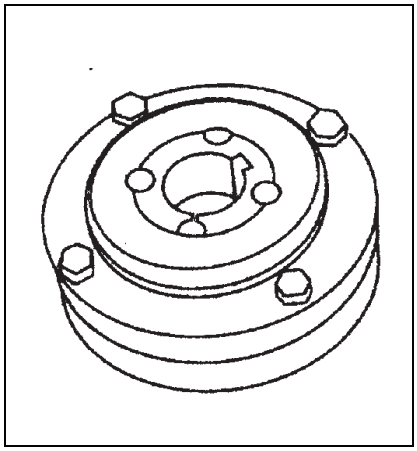
DIMENSIONS

Size	Bush No.	Max. Bore Metric	OD	C	H	E	G nominal	BC nominal	S+	J*	L	Mass++ (kg)
RM12	1210	32	118	35	83	25	76	102	7	38	57	3,5
RM16	1615	42	127	43	80	38	89	105	7	38	83	4,5
RM25	2517	60	178	51	123	45	127	149	7	48	97	11
RM30	3020	75	216	65	146	51	152	181	7	54	109	20
RM35	3525	100	248	75	178	65	178	213	7	67	137	34
RM40	4030	110	298	76	210	76	216	257	7	79	159	59
RM45	4535	125	330	86	230	89	241	286	7	89	185	80
RM50	5040	125	362	92	266	102	267	314	7	92	211	135

Dimensions in millimeters unless otherwise specified.
* J is the wrench clearance to allow for tightening and loosening the bushing on the shaft. The use of a shortened wrench will permit this dimension to be reduced
\+ H is the distance between shaft ends.
++ Masses given are for couplings with mid-range Taper Bushes.

PART NUMBERS

Size	Catalogue Code HF	Catalogue Code FF
RM12	RM12HF	RM12FF
RM16	RM16HF	RM16FF
RM25	RM25HF	RM25FF
RM30	RM30HF	RM30FF
RM35	RM35HF	RM35FF
RM40	RM40HF	RM40FF
RM45	RM45HF	RM45FF
RM50	RM50HF	RM50FF



Lindis
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Coupling Installation

SHAFT ALIGNMENT

Appropriate alignment of the coupled shafts (or driven shaft to flywheel) is a fundamental requirement for any coupling installation.

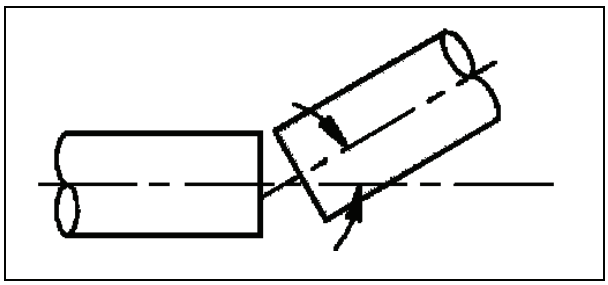
The three basic modes of shaft misalignment are shown right.

Composite i.e. more than one mode, misalignment is available for some couplings (detailed elsewhere in this catalog).

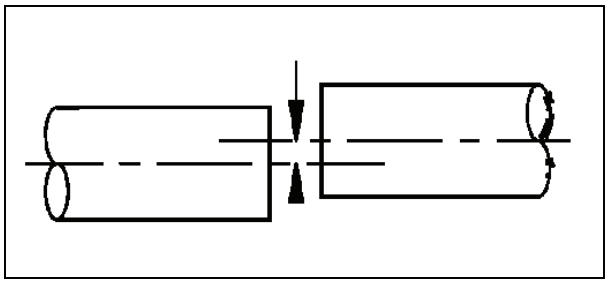
Details of the degrees of misalignment that can be accommodated by different types and sizes of coupling which are given throughout this catalog.

With some couplings, axial shaft orientation (DBSE) is not critical, whereupon coupling component orientation (given as an 'assembled length' or 'distance between faces') becomes crucial.

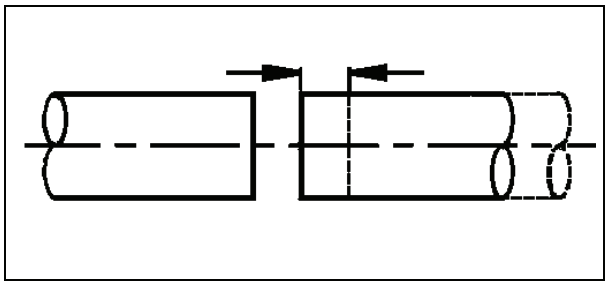
Excepting Universal Joints under angular misalignment, it should be remembered that misalignment can cause extra loading on coupled shaft support bearings and can reduce the operational life of some couplings. Best practical alignment is therefore desirable. Taper Bush Rigid Couplings cannot accommodate misalignment.



ANGULAR MISALIGNMENT - Shafts are at an angle to one another



PARALLEL MISALIGNMENT - Shafts are in line angularly and parallel to each other, but are off-set.



AXIAL MISALIGNMENT - includes applicable 'end float' - shafts move axially increasing or decreasing the distance between shaft ends.

OTHER CRITERIA

Martin - tyre gap and seating. Tyre/element clamping bolt torque.
HRC - do not use to couple resiliently mounted machinery.
All Elastomeric Couplings- consider ambient conditions (FRAS or other alternative element material required?)
All Taper Bush Couplings - bush grips the shaft first and draws hub on to taper. This may affect axial alignment.
All applications - ensure shaft diameter tolerances are correct.

NOTE Martin tyres, elements are accompanied by detailed installation data.

TAPER BUSH

Most of the Martin-**Flex** and HRC couplings, and all Rigid couplings featured in this section use Taper Bushes. For detailed instructions on the fitting and dismounting of Taper Bush products see Bushing Installation on page B-15.

Note: When fitting Taper Bush coupling flanges it should be noted that the bush grips the shaft initially and draws the flange up the tapered surface.
This may have a small effect on the final axial positioning of flanges on machine shafts, and the resultant distance between coupling flanges, where this is important to the fit and function of flexible coupling elements.