

ROD ENDS

Cooper split roller bearings in rod end housings provide a simple way of mounting roller bearings on cranks. As the complete bearing and housing unit is split radially, cranks can be made solid rather than being built-up or overhung. Typical applications include shaker screens and classifiers. Rod ends are available to suit 100, 01/01E and 02 Series bearings as shown on pages 30 to 32 and 38 to 40.

Each rod end consists of a split outer casing, which encloses a fixed (GR) bearing in a swivel cartridge. Two basic configurations are available – the 'T' type and the 'shoe' type. These can be modified to suit various rods and attachments.

Standard rod ends are of grey iron. Spheroidal graphite iron or steel versions are available. Rod ends are supplied with matched cartridge to

reduce the clearance between the cartridge and rod-end (S1 fit).

Except for very slow speed applications, bearings with C2 clearance should be specified.

Dimensions and load capacities of housings should be confirmed before finalising designs.

SHAFT DIMENSIONS

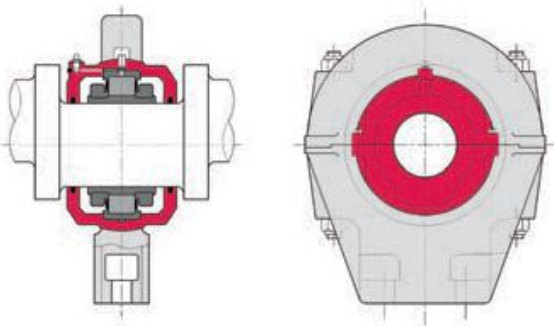
Journals should be machined to h6 tolerance.

Close tolerance machining to the sides of the journal is not required. These are clearance only

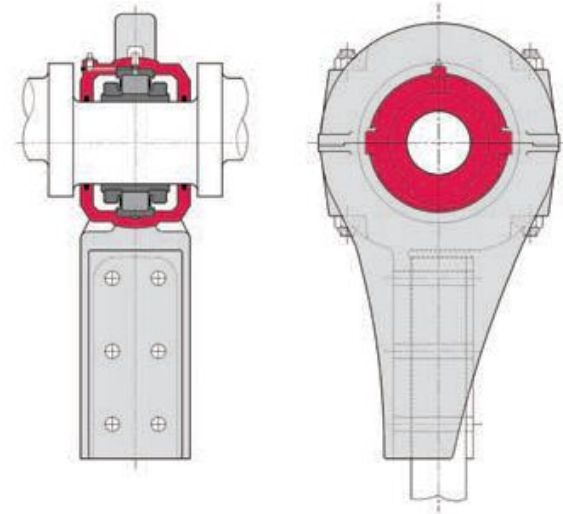
(i.e. not locating) as the bearing is positioned by the inner race being clamped onto the shaft.

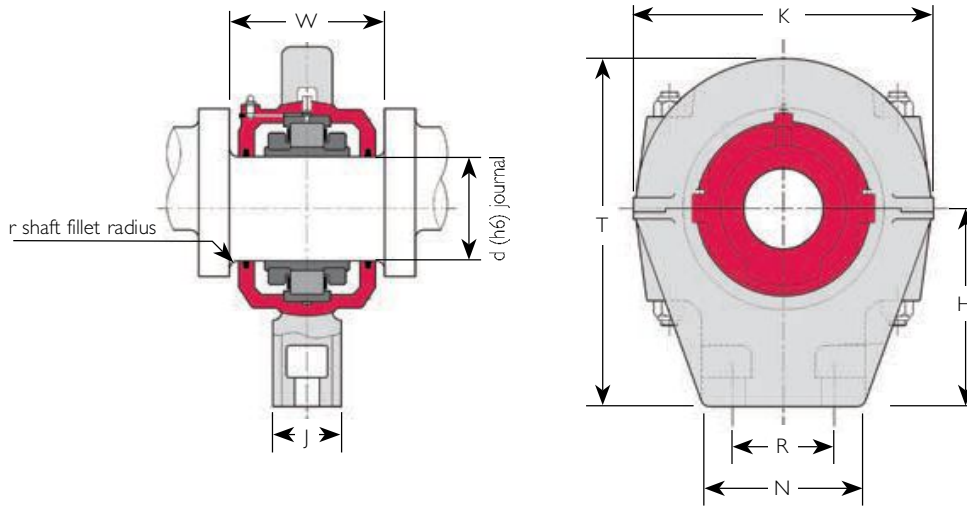
The journal widths and fillet radii listed in the tables are suggested dimensions to clear standard Cooper cartridges. Other combinations of journal width and fillet radius may be used. Special cartridges may be supplied if narrower journals are required.

'T' TYPE



SHOE TYPE





I00 SERIES

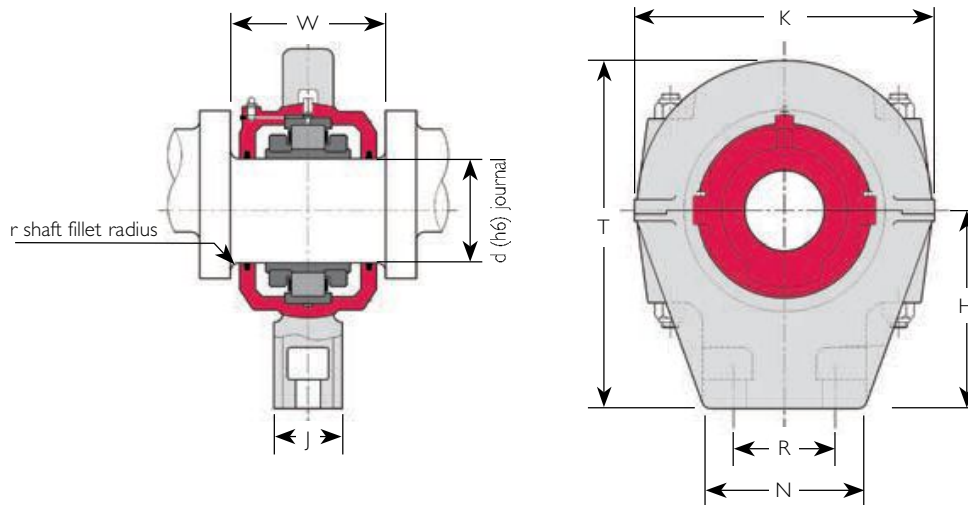
Group Reference	Shaft Diameter d	Bearing Reference (1)	Housing Reference (2)	W (max) (mm)	r (mm)	N (mm)	J (mm)	H (mm)	K (mm)	T (mm)	R (mm)	Bolts	Mass (Complete unit) (kg)
I00 300	75mm 2 15/16" 3"	I00 B 75M GR C2 I00 B 300 GR C2	I00 CRET 75M I00 CRET 215 I00 CRET 300	113	4.5	115	38	95	197	194	76(3)	M16	9
I00 307	85mm 3 7/16"	I00 B 85M GR C2 I00 B 307 GR C2	I00 CRET 85M I00 CRET 307	126	6	128	44	108	216	220	89(3)	M16	13
I00 400	100mm 3 15/16" 4"	I00 B 100M GR C2 I00 B 400 GR C2	I00 CRET 100M I00 CRET 315 I00 CRET 400	148	6	146	48	127	248	256	102(3)	M20	19
I00 408	110mm 4 7/16" 4 1/2"	I00 B 110M GR C2 I00 B 115M GR C2	I00 CRET 110M I00 CRET 115M I00 CRET 407 I00 CRET 408	146	6	170	76	200	308	356	124	M24	35
I00 500	120mm 125mm 130mm 4 15/16" 5"	I00 B 120M GR C2 I00 B 125M GR C2 I00 B 130M GR C2	I00 CRET 120M I00 CRET 125M I00 CRET 130M I00 CRET 415 I00 CRET 500	154	6	190	86	222	334	390	136	M30	48
I00 508	140mm 5 7/16" 5 1/2"	I00 B 140M GR C2 I00 B 508 GR C2	I00 CRET 140M I00 CRET 507 I00 CRET 508	168	6	190	86	222	375	425	136	M30	60
I00 600	150mm 5 15/16" 6"	I00 B 150M GR C2 I00 B 515 GR C2 I00 B 600 GR C2	I00 CRET 150M I00 CRET 515 I00 CRET 600	187	9.5	204	102	279	442	502	140	M30	82

1) These are reduced clearance bearings which are standard specification for rod ends

2) Reference refers to matched rod-end housing and cartridge together

3) Holes tapped in end face

Rod - ends 'T' type 01/01E Series



01/01E SERIES

Group Reference	Shaft Diameter d	Bearing Reference (1)	Housing Reference (2)	W (mm)	r (mm)	N (mm)	J (mm)	H (mm)	K (mm)	T (mm)	R (mm)	Bolts	Mass (Complete unit) (kg)
01 108	1 3/16"	01 B 103 GR C2	01 B 103 GR C2	01 CRET 103	92	3	86	30	76	140	152	57(3) M12	6
	35mm	01 B 104 GR C2	01 B 104 GR C2	01 CRET 104									
	40mm	01 B 107 GR C2	01 B 107 GR C2	01 CRET 107									
	1 1/2"	01 B 108 GR C2	01 B 108 GR C2	01 CRET 108									
01E 200	1 11/16"	01E B 111 GR C2	01E B 111 GR C2	01 CRET 111	104	3	102	32	102	166	190	70(3) M10	8
	45mm	01E B 112 GR C2	01E B 112 GR C2	01 CRET 112									
	50mm	01E B 115 GR C2	01E B 115 GR C2	01 CRET 115									
	2"	01E B 200 GR C2	01E B 200 GR C2	01 CRET 200									
01E 208	2 3/16"	01E B 203 GR C2	01E B 203 GR C2	01 CRET 203	113	4.5	115	38	95	197	194	76(3) M16	9
	2 1/4"	01E B 204 GR C2	01E B 204 GR C2	01 CRET 204									
	2 7/16"	01E B 207 GR C2	01E B 207 GR C2	01 CRET 207									
	2 1/2"	01E B 208 GR C2	01E B 208 GR C2	01 CRET 208									
01E 300	2 11/16"	01E B 211 GR C2	01E B 211 GR C2	01 CRET 211	126	6	128	44	108	216	220	89(3) M16	13
	2 3/4"	01E B 212 GR C2	01E B 212 GR C2	01 CRET 212									
	75mm	01E B 215 GR C2	01E B 215 GR C2	01 CRET 215									
	3"	01E B 300 GR C2	01E B 300 GR C2	01 CRET 300									
01E 308	3 3/16"	01E B 303 GR C2	01E B 303 GR C2	01 CRET 303	148	6	146	48	127	248	256	102(3) M20	20
	3 1/4"	01E B 304 GR C2	01E B 304 GR C2	01 CRET 304									
	3 7/16"	01E B 307 GR C2	01E B 307 GR C2	01 CRET 307									
	3 1/2"	01E B 308 GR C2	01E B 308 GR C2	01 CRET 308									
01E 400	3 11/16"	01E B 311 GR C2	01E B 311 GR C2	01 CRET 311	146	6	170	76	200	308	356	124 M24	36
	3 3/4"	01E B 312 GR C2	01E B 312 GR C2	01 CRET 312									
	3 15/16"	01E B 315 GR C2	01E B 315 GR C2	01 CRET 315									
	4"	01E B 400 GR C2	01E B 400 GR C2	01 CRET 400									
01 408	4 3/16"	01 B 403 GR C2	01 B 403 GR C2	01 CRET 403	154	6	190	86	222	334	390	136 M30	52
	4 7/16"	01 B 407 GR C2	01 B 407 GR C2	01 CRET 407									
	4 1/2"	01 B 408 GR C2	01 B 408 GR C2	01 CRET 408									
01 500	4 15/16"	01 B 415 GR C2	01 B 415 GR C2	01 CRET 415	168	6	190	86	222	375	425	136 M30	65
	5"	01 B 500 GR C2	01 B 500 GR C2	01 CRET 500									
01 508	5 3/16"	01 B 503 GR C2	01 B 503 GR C2	01 CRET 503	187	9.5	204	102	279	442	502	140 M30	89
	5 7/16"	01 B 507 GR C2	01 B 507 GR C2	01 CRET 507									
	5 1/2"	01 B 508 GR C2	01 B 508 GR C2	01 CRET 508									
01 600	5 15/16"	01 B 515 GR C2	01 B 515 GR C2	01 CRET 515	193	9.5	204	102	279	442	502	140 M30	99
	155mm	01 B 600 GR C2	01 B 600 GR C2	01 CRET 600									
	160mm												

02 SERIES

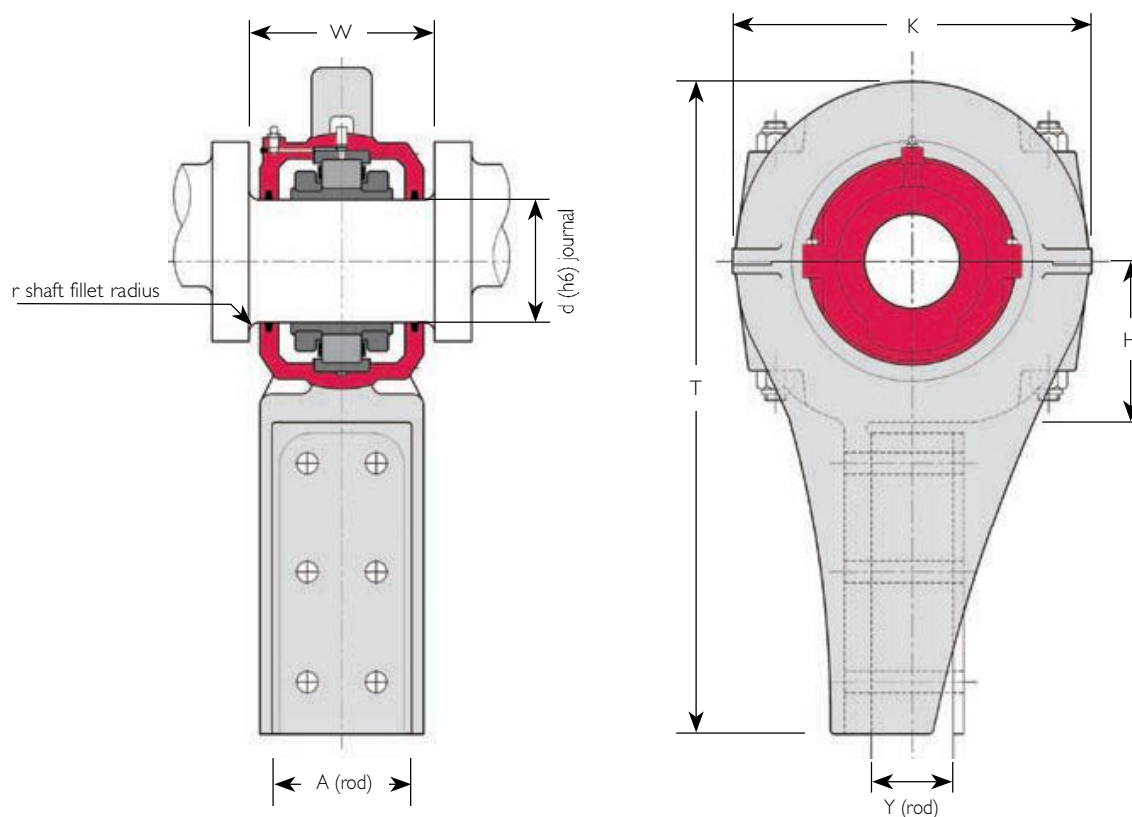
Group Reference	Shaft Diameter	Diameter	Bearing Reference (1)		Housing Reference (2)		W (mm)	r (mm)	N (mm)	J (mm)	H (mm)	K (mm)	T (mm)	R (mm)	Bolts	Mass (Complete unit) (kg)
02 200	50mm	1 15/16" 2"	02 B 50M GR C2	02 B 115 GR C2 02 B 200 GR C2	02 CRET 50M	02 CRET 115 02 CRET 200	123	4.5	115	38	95	197	194	76(3)	M16	9
02 208	60mm 65mm	2 3/16" 2 1/4" 2 7/16" 2 1/2"	02 B 60M GR C2 02 B 65M GR C2	02 B 203 GR C2 02 B 204 GR C2 02 B 207 GR C2 02 B 208 GR C2	02 CRET 60M 02 CRET 65M	02 CRET 203 02 CRET 204 02 CRET 207 02 CRET 208	138	6	128	44	108	216	220	89(3)	M16	13
02 300	70mm 75mm	2 11/16" 2 3/4" 2 15/16" 3"	02 B 70M GR C2 02 B 75M GR C2	02 B 211 GR C2 02 B 212 GR C2 02 B 215 GR C2 02 B 300 GR C2	02 CRET 70M 02 CRET 75M	02 CRET 211 02 CRET 212 02 CRET 215 02 CRET 300	152	6	146	48	127	248	256	102(3)	M20	20
02 308	80mm 85mm 90mm	3 3/16" 3 1/4" 3 7/16" 3 1/2"	02 B 80M GR C2 02 B 85M GR C2 02 B 90M GR C2	02 B 303 GR C2 02 B 304 GR C2 02 B 307 GR C2 02 B 308 GR C2	02 CRET 80M 02 CRET 85M 02 CRET 90M	02 CRET 303 02 CRET 304 02 CRET 307 02 CRET 308	173	9.5	170	76	200	308	356	124	M24	36
02 400	100mm 105mm	3 11/16" 3 3/4" 3 15/16" 4"	02 B 100M GR C2 02 B 105M GR C2	02 B 311 GR C2 02 B 312 GR C2 02 B 315 GR C2 02 B 400 GR C2	02 CRET 100M 02 CRET 105M	02 CRET 311 02 CRET 312 02 CRET 315 02 CRET 400	171	12.5	190	86	222	334	390	136	M30	52
02 408	110mm 115mm	4 3/16" 4 7/16" 4 1/2"	02 B 110M GR C2 02 B 115M GR C2	02 B 403 GR C2 02 B 407 GR C2 02 B 408 GR C2	02 CRET 110M 02 CRET 115M	02 CRET 403 02 CRET 407 02 CRET 408	187	12.5	190	86	222	375	425	136	M30	65
02 500	120mm 125mm 130mm	4 15/16" 5"	02 B 120M GR C2 02 B 125M GR C2 02 B 130M GR C2	02 B 415 GR C2 02 B 500 GR C2	02 CRET 120M 02 CRET 125M 02 CRET 130M	02 CRET 415 02 CRET 500	209	12.5	204	102	279	442	502	140	M30	99
02 508	140mm 145mm	5 3/16" 5 7/16" 5 1/2"	02 B 140M GR C2 02 B 145M GR C2	02 B 503 GR C2 02 B 507 GR C2 02 B 508 GR C2	02 CRET 140M 02 CRET 145M	02 CRET 503 02 CRET 507 02 CRET 508	213	12.5	204	102	279	445	558	140	M30	119
02 600	150mm 155mm 160mm	5 15/16" 6"	02 B 150M GR C2 02 B 155M GR C2 02 B 600-160M GR C2	02 B 515 GR C2 02 B 600 GR C2	02 CRET 150M 02 CRET 155M 02 CRET 600-160M	02 CRET 515 02 CRET 600	229	12.5	204	102	279	445	558	140	M30	131

1) These are reduced clearance bearings which are standard specification for rod ends

2) Reference refers to matched rod-end housing and cartridge together

3) Holes tapped in end face

Rod ends shoe type 100 series



100 SERIES

Group Reference	Shaft Diameter		Bearing Reference (1)		Housing Reference (2)		W (mm)	r (max) (mm)	A(3) (rod) (mm)	Y(3) (rod) (mm)	H (mm)	K (mm)	T (mm)	Mass (Complete unit) (kg)
100 300	75mm	2 15/16" 3"	100 B 75M GR C2	100 B 215 GR C2 100 B 300 GR C2	100 CRES 75M	100 CRES 215 100 CRES 300	113	4.5	62	10	79	190	330	13
100 307	85mm	3 7/16"	100 B 85M GR C2	100 B 307 GR C2	100 CRES 85M	100 CRES 307	126	6	88	50	108	248	432	23
100 400	100mm	3 15/16" 4"	100 B 100M GR C2	100 B 315 GR C2 100 B 400 GR C2	100 CRES 100M	100 CRES 315 100 CRES 400	148	6	114	38	130	248	540	36
100 408	110mm	4 7/16"	100 B 110M GR C2	100 B 407 GR C2	100 CRES 110M	100 CRES 407	146	6	100	58	125	308	572	43
	115mm	4 1/2"	100 B 115M GR C2	100 B 408 GR C2	100 CRES 115M	100 CRES 408								
100 500	120mm	4 15/16" 5"	100 B 120M GR C2	100 B 415 GR C2 100 B 500 GR C2	100 CRES 120M	100 CRES 415 100 CRES 500	154	6	126	58	149	354	618	59
	125mm		100 B 125M GR C2		100 CRES 125M									
	130mm		100 B 130M GR C2		100 CRES 130M									
100 508	140mm	5 7/16" 5 1/2"	100 B 140M GR C2	100 B 507 GR C2 100 B 508 GR C2	100 CRES 140M	100 CRES 507 100 CRES 508	168	6	126	64	158	400	654	78
100 600	150mm	5 15/16" 6"	100 B 150M GR C2	100 B 515 GR C2 100 B 600 GR C2	100 CRES 150M	100 CRES 515 100 CRES 600	187	9.5	152	76	177	442	696	91

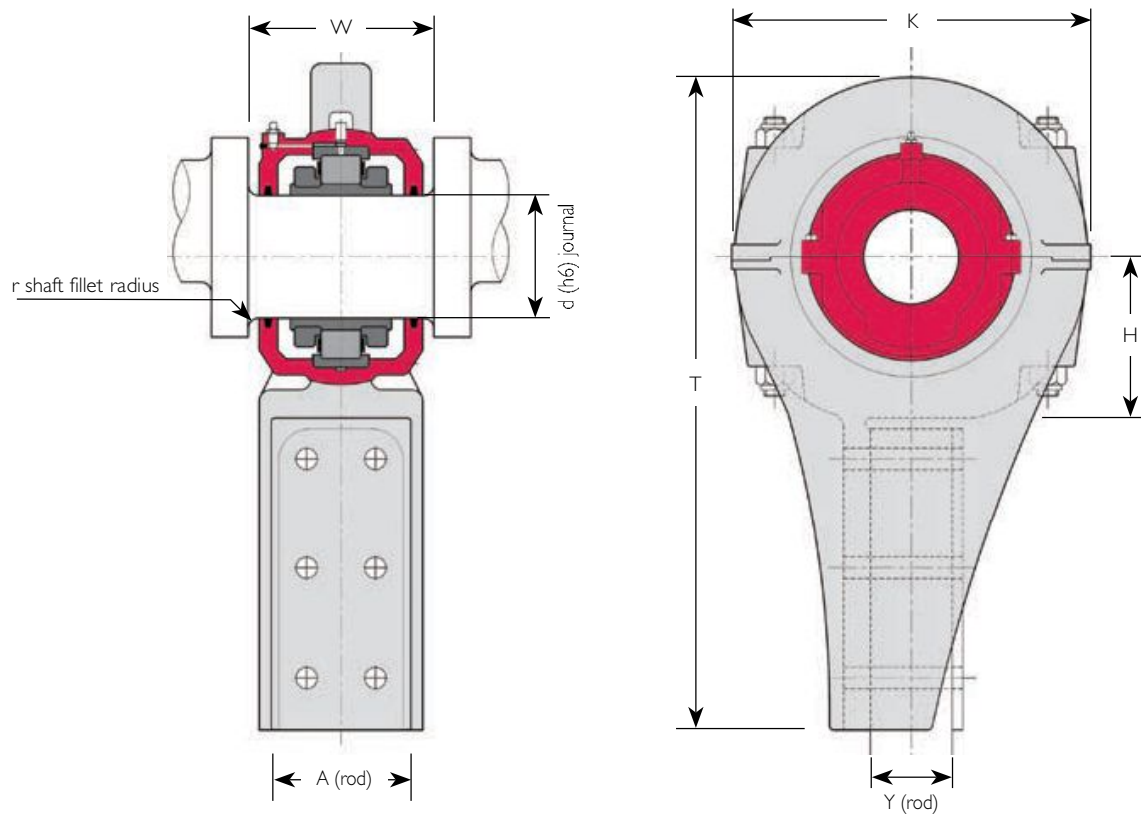
01/01E SERIES

Group Reference	Shaft Diameter d		Bearing Reference (1)	Bearing Reference (2)	W (mm)	r (mm)	A(3) (mm)	Y(3) (mm)	H (mm)	K (mm)	T (mm)	Mass (Complete unit) (kg)
01 108	35mm 40mm	1 3-16"		01 B 103 GR C2								
		1 1/4"	01 B 35M GR C2	01 B 104 GR C2	01 CRES 35M							
		1 7/16"	01 B 40M GR C2	01 B 107 GR C2	01 CRES 40M							
		1 1/2"		01 B 108 GR C2								5
01E 200	45mm 50mm	1 11/16"		01E B 111 GR C2								
		1 3/4"	01E B 45M GR C2	01E B 112 GR C2	01 CRES 45M							
		1 5/16"	01E B 50M GR C2	01E B 115 GR C2	01 CRES 50M							
		2"		01E B 200 GR C2								7
01E 208	55mm 60mm 65mm	2 3/16"	01E B 55M GR C2	01E B 203 GR C2	01 CRES 55M							
		2 1/4"	01E B 60M GR C2	01E B 204 GR C2	01 CRES 60M							
		2 7/16"	01E B 65M GR C2	01E B 207 GR C2	01 CRES 65M							
		2 1/2"		01E B 208 GR C2								13
01E 300	70mm 75mm	2 11/16"		01E B 211 GR C2								
		2 3/4"	01E B 70M GR C2	01E B 212 GR C2	01 CRES 70M							
		2 15/16"	01E B 75M GR C2	01E B 215 GR C2	01 CRES 75M							
		3"		01E B 300 GR C2								22
01E 308	80mm 85mm 90mm	3 3/16"	01E B 80M GR C2	01E B 303 GR C2	01 CRES 80M							
		3 1/4"	01E B 85M GR C2	01E B 304 GR C2	01 CRES 85M							
		3 7/16"	01E B 90M GR C2	01E B 307 GR C2	01 CRES 90M							
		3 1/2"		01E B 308 GR C2								43
01E 400	95mm 100mm 105mm	3 11/16"	01E B 95M GR C2	01E B 311 GR C2	01 CRES 95M							
		3 3/4"	01E B 100M GR C2	01E B 312 GR C2	01 CRES 100M							
		3 15/16"	01E B 105M GR C2	01E B 315 GR C2	01 CRES 105M							
		4"		01E B 400 GR C2								44
01 408	110mm 115mm	4 3/16"	01 B 110M GR C2	01 B 403 GR C2	01 CRES 110M							
		4 7/16"	01 B 115M GR C2	01 B 407 GR C2	01 CRES 115M							
		4 1/2"		01 B 408 GR C2								63
01 500	120mm 125mm 130mm	4 15/16"	01 B 120M GR C2	01 B 415 GR C2	01 CRES 120M							
		5"	01 B 125M GR C2	01 B 500 GR C2	01 CRES 125M							
			01 B 130M GR C2		01 CRES 130M							83
01 508	135mm 140mm	5 3/16"	01 B 135M GR C2	01 B 503 GR C2	01 CRES 135M							
		5 7/16"	01 B 140M GR C2	01 B 507 GR C2	01 CRES 140M							
		5 1/2"		01 B 508 GR C2								98
01 600	150mm 155mm 160mm	5 15/16"	01 B 150M GR C2	01 B 515 GR C2	01 CRES 150M							
		6"	01 B 155M GR C2	01 B 600 GR C2	01 CRES 155M							
			01 B 600-160M GR C2		01 CRES 600-160M							107

1) These are reduced clearance bearings which are standard specification for rod ends

2) Reference refers to matched rod-end housing and cartridge together

3) Rod fixing varies from 2 to 6 bolts according to size, and can be adapted to requirements



02 SERIES

Group Reference	Shaft Diameter d	Bearing Reference (1)		Housing Reference (2)		W (mm)	r (mm)	A(3) (mm)	Y(3) (mm)	H (mm)	K (mm)	T (mm)	Mass (Complete unit) (kg)
02 200	50mm	1 15/16" 2"	02 B 50M GR C2	02 B 115 GR C2 02 B 200 GR C2	02 CRES 50M 02 CRES 115 02 CRES 200	123	4.5	62	32	76	190	330	10
02 208	60mm	2 3/16"	02 B 60M GR C2	02 B 203 GR C2	02 CRES 203	138	6	88	50	108	248	432	20
	2 1/4"	02 B 60M GR C2	02 B 204 GR C2	02 CRES 60M	02 CRES 204								
	65mm	2 7/16"	02 B 65M GR C2	02 B 207 GR C2	02 CRES 65M								
	2 1/2"		02 B 208 GR C2	02 CRES 207 02 CRES 208									
02 300	70mm	2 11/16"	02 B 70M GR C2	02 B 211 GR C2	02 CRES 211	152	6	114	38	130	248	540	40
	2 3/4"	02 B 70M GR C2	02 B 212 GR C2	02 CRES 70M	02 CRES 212								
	75mm	2 15/16"	02 B 75M GR C2	02 B 215 GR C2	02 CRES 75M								
	3"		02 B 300 GR C2	02 CRES 215 02 CRES 300									
02 308	80mm	3 3/16"	02 B 80M GR C2	02 B 303 GR C2	02 CRES 303	173	9.5	126	76	149	334	610	62
	3 1/4"	02 B 80M GR C2	02 B 304 GR C2	02 CRES 80M	02 CRES 304								
	85mm	3 7/16"	02 B 85M GR C2	02 B 307 GR C2	02 CRES 85M								
	90mm	3 1/2"	02 B 90M GR C2	02 B 308 GR C2	02 CRES 90M								
02 400	100mm	3 11/16"	02 B 100M GR C2	02 B 311 GR C2	02 CRES 311	171	12.5	126	76	149	354	618	71
	3 3/4"	02 B 100M GR C2	02 B 312 GR C2	02 CRES 100M	02 CRES 312								
	105mm	3 15/16"	02 B 105M GR C2	02 B 315 GR C2	02 CRES 105M								
	4"		02 B 400 GR C2	02 CRES 315 02 CRES 400									
02 408	110mm	4 3/16"	02 B 110M GR C2	02 B 403 GR C2	02 CRES 403	187	12.5	126	76	162	400	654	91
	4 7/16"	02 B 110M GR C2	02 B 407 GR C2	02 CRES 110M	02 CRES 407								
	115mm	4 1/2"	02 B 115M GR C2	02 B 408 GR C2	02 CRES 115M								
02 500	120mm	4 15/16"	02 B 120M GR C2	02 B 415 GR C2	02 CRES 415	209	12.5	152	76	177	442	696	124
	125mm	5"	02 B 125M GR C2	02 B 500 GR C2	02 CRES 500								
	130mm		02 B 130M GR C2		02 CRES 130M								
02 508	140mm	5 3/16"	02 B 140M GR C2	02 B 503 GR C2	02 CRES 503	213	12.5	152	76	177	442	696	145
	5 7/16"	02 B 140M GR C2	02 B 507 GR C2	02 CRES 140M	02 CRES 507								
	145mm	5 1/2"	02 B 145M GR C2	02 B 508 GR C2	02 CRES 145M								
02 600	150mm	5 15/16"	02 B 150M GR C2	02 B 515 GR C2	02 CRES 515	229	12.5	152	64	203	444	736	166
	155mm	6"	02 B 155M GR C2	02 B 600 GR C2	02 CRES 600								
	160mm		02 B 600-160M GR C2	02 CRES 600-160M									

1) These are reduced clearance bearings which are standard specification for rod ends

2) Reference refers to matched rod-end housing and cartridge together

3) Rod fixing varies from 2 to 6 bolts according to size, and can be adapted to requirements