

FLANGES

Flanges provide a simple means of mounting Cooper split roller bearings against a vertical or horizontal face or bulkhead.

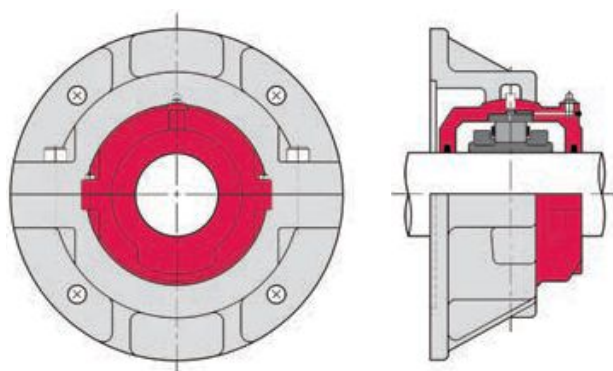
The most common types of flange are the round flange as shown on pages 56 to 60 and the more compact square flange as shown on page 61. Standard round flanges and square flanges are made from grey iron and ductile iron respectively. Alternative materials and designs are available.

Flanges are common between expansion (EX) and fixed (GR) units.

Maximum radial loads for standard units are 26% of static rating (Cor) when used with 01 or 02

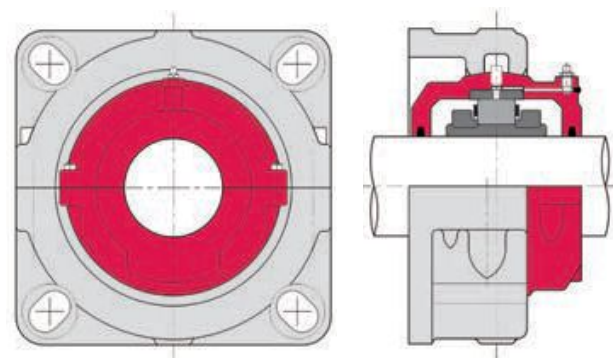
Series bearings, and 20% of static rating when used with 01E, 02E and 100 Series bearings. Maximum axial loads are 25% of the axial rating (Ca) of 01 or 02 Series bearings, 18% for 100 Series and 13% for 01E or 02E Series bearings. These loadings can be exceeded considerably with modified construction or materials, and depending on loading direction.

The bulkhead or support plate on which the flange is mounted must be of adequate strength and rigidity to support the imposed load with little distortion of the flange mounting area. Square flanges are more appropriate for steel frames or skid mounted units. The flatness of the mounting surface should be to tolerance IT7 according to ISO 1101 and the surface roughness not more than 12.5µm Ra.

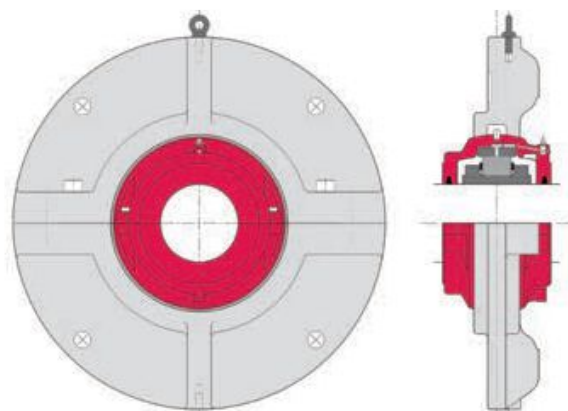


ROUND FLANGE

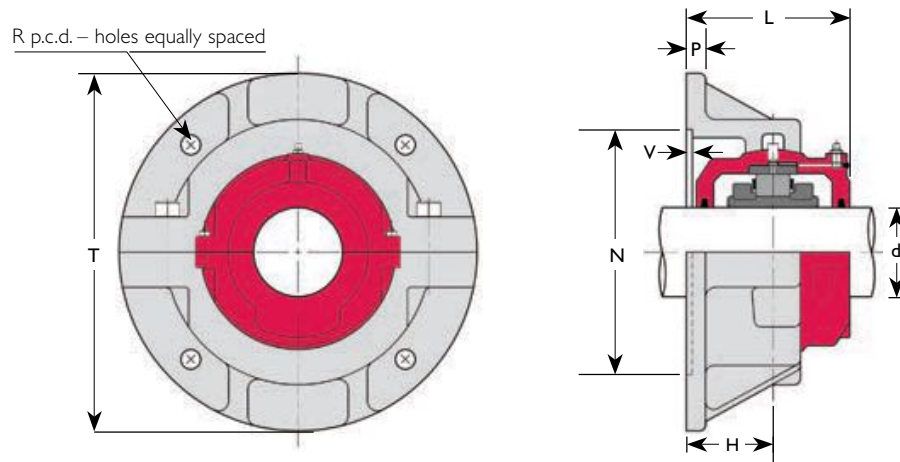
FLAT FLANGE



SQUARE (DF) FLANGE



Round flanges 100 series

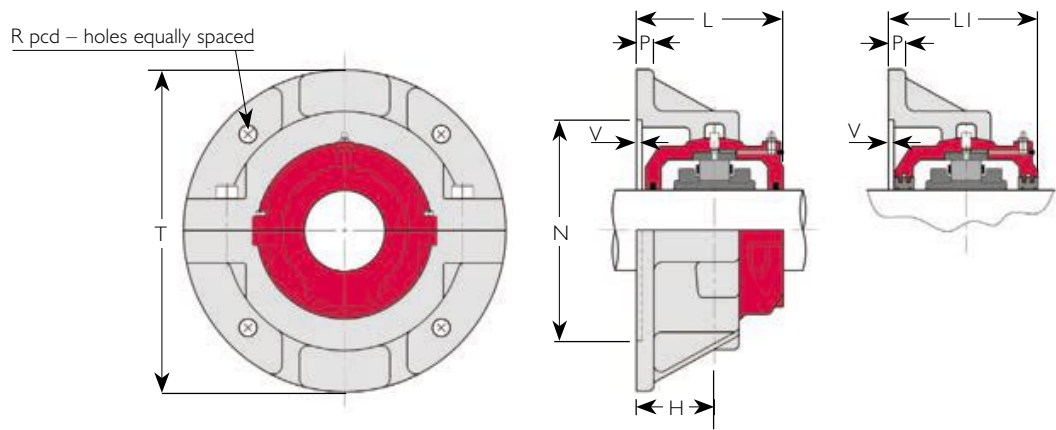


100 SERIES

Group Reference	Shaft Diameter d		Bearing Reference (1)		Flange Reference	T(2) (mm)	Bolts	R (mm)	P (mm)	H (mm)	N(3) (mm)	V(3) (mm)	L (mm)	LI (mm)	Mass (flange only) (kg)
100 300	75mm	2 15/16" 3"	100 B 75M	100 B 215 100 B 300	F03	260	4-off M12 or 1/2"	218	16	67	166.69	3	119	119	9.1
100 307	85mm	3 7/16"	100 B 85M	100 B 307	F04	286	4-off M12 or 1/2"	242	16	73	192.09	3	130	130	12.4
100 400	100mm	3 15/16" 4"	100 B 100M	100 B 315 100 B 400	F05	330	4-off M16 or 5/8"	274	19	79	215.9	3	147	147	19.4
100 408	110mm 115mm	4 7/16" 4 1/2"	100 B 110M 100 B 115M	100 B 407 100 B 408	F06	356	4-off M16 or 5/8"	302	19	86	244.48	3	153	153	22
100 500	120mm 125mm 130mm	4 15/16" 5"	100 B 120M 100 B 125M 100 B 130M	100 B 415 100 B 500	F07	382	4-off M16 or 5/8"	334	22	92	276.23	3	163	163	26.6
100 508	140mm	5 7/16" 5 1/2"	100 B 140M	100 B 507 100 B 508	F08	432	4-off M24 or 1"	374	22	98	314.33	3	176	176	34.9
100 600	150mm	5 15/16" 6"	100 B 150M	100 B 515 100 B 600	F09	444	4-off M24 or 1"	384	25	98	317.5	3	182	182	40.8
100 800	200mm	7-15/16" 8"	100 B 200M	100 B 715 100 B 800	F12	508	4-off M24 or 1"	438	29	108	365.13	3	194	(4)	62
100 808	220mm	-	100 B 220M	-	F13	534	4-off M24 or 1"	474	32	108	400.05	3	194	(4)	71

- 1) For full references of bearings and cartridges see page 30
 2) Dimension shown is as-cast dimension. Depending upon manufacturing method used, flanges supplied may be machined 5mm smaller

- 3) Dimensions shown are for locating spigot for mounting flange on to. Diameter tolerance of locating spigot: f8
 4) Refer to Cooper

**01/01E SERIES**

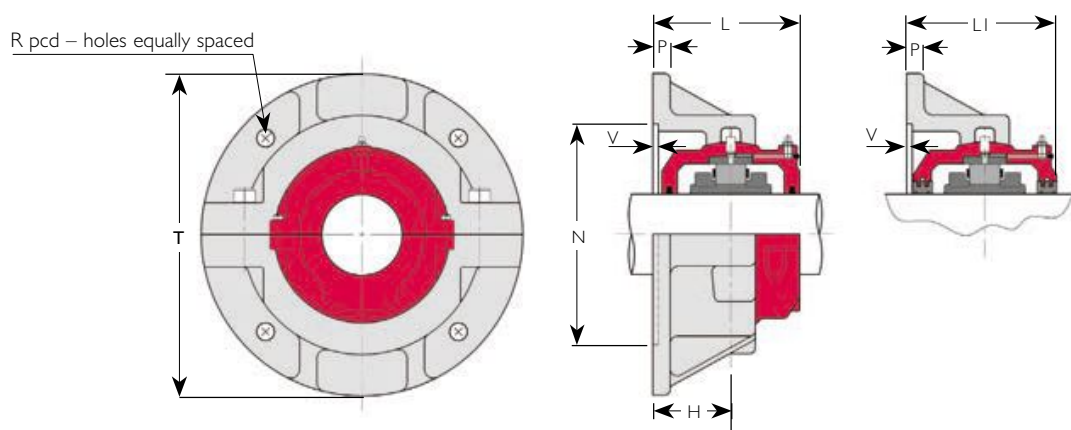
Group Reference	Shaft Diameter d	Bearing Reference (1)	Flange Reference	T(2) (mm)	Bolts	R (mm)	P (mm)	H (mm)	N(3) (mm)	V(3) (mm)	L (mm)	LI (mm)	Mass (flange only) (kg)
01 108	35mm	1 3/16"	F01	204	4-off M12 or 1/2"	164	13	51	119.06	3	94	94	4.2
	40mm	1 1/4"											
		1 7/16"											
		1 1/2"											
01E 200	45mm	1 11/16"	F02	216	4-off M12 or 1/2"	180	13	57	136.53	3	106	106	5.1
	50mm	1 3/4"											
		1 15/16"											
		2"											
01E 208	55mm	2 3/16"	F03	260	4-off M12 or 1/2"	218	16	67	166.69	3	119	119	9.1
	60mm	2 1/4"											
	65mm	2 7/16"											
		2 1/2"											
01E 300	70mm	2 11/16"	F04	286	4-off M12 or 1/2"	242	16	73	192.09	3	130	130	12.4
	75mm	2 3/4"											
		2 15/16"											
		3"											
01E 308	80mm	3 3/16"	F05	330	4-off M16 or 5/8"	274	19	79	215.9	3	147	147	19.4
	85mm	3 1/4"											
	90mm	3 7/16"											
		3 1/2"											
01E 400	95mm	3 11/16"	F06	356	4-off M16 or 5/8"	302	19	86	244.48	3	153	153	22.0
	100mm	3 3/4"											
	105mm	3 15/16"											
		4"											
01 408	110mm	4 3/16"	F07	382	4-off M16 or 5/8"	334	22	92	276.23	3	163	163	26.6
	115mm	4 7/16"											
		4 1/2"											
01 500	120mm	4 15/16"	F08	432	4-off M24 or 1"	374	22	98	314.33	3	176	176	34.9
	125mm	5"											
	130mm												
01 508	135mm	5 3/16"	F09	444	4-off M24 or 1"	384	25	98	317.5	3	182	182	40.8
	140mm	5 7/16"											
		5 1/2"											

1) For full references of bearings and cartridges see pages 32 to 36

2) Dimension shown is as-cast dimension. Depending upon manufacturing method used, flanges supplied may be machined 5mm smaller.

3) Dimensions shown are for locating spigot for mounting flange on to. Diameter tolerance of locating spigot: f8

Round flanges 01/01E Series



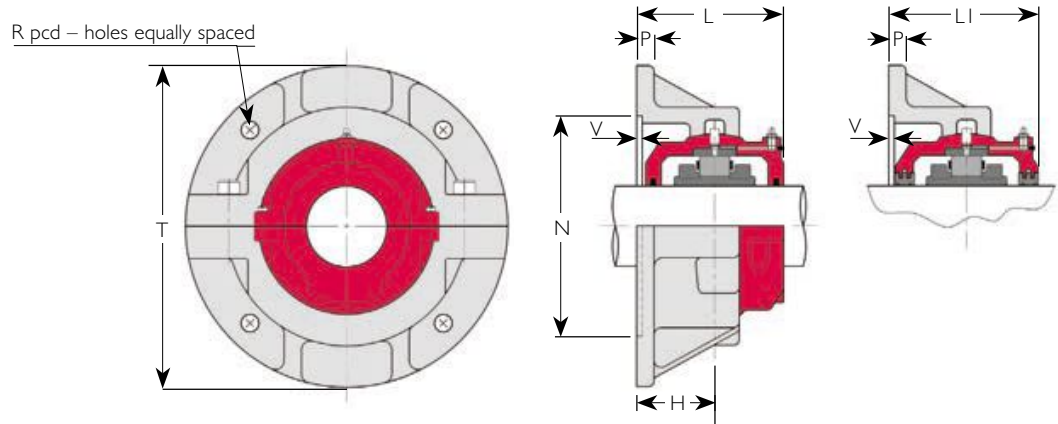
01/01E SERIES

Group Reference	Shaft Diameter		Bearing Reference (1)		Flange Reference	T(2) (mm)	Bolts	R (mm)	P (mm)	H (mm)	N(3) (mm)	V(3) (mm)	L (mm)	LI (mm)	Mass (flange only) (kg)
01 600	150mm 160mm	5 15/16" 6"	01 B 150M 01 B 600-160M	01 B 515 01 B 600	F10	470	4-off M24 or 1"	412	25	114	346.07	3	201	201	50.2
01E 608	160mm 170mm	6 7/16" 6 1/2"	01E B 160M 01E B 608-170M	01E B 607 01E B 608	F11	496	4-off M24 or 1"	426	25	105	352.43	3	191	201	58
01E 700	170mm 175mm 180mm	6 15/16" 7"	01E B 170M 01E B 175M 01E B 180M	01E B 615 01E B 700	F12	508	4-off M24 or 1"	438	29	108	365.13	3	194	208	62
01E 800	190mm 200mm	7 15/16" 8"	01E B 190M 01E B 200M	01E B 715 01E B 800	F13	534	4-off M24 or 1"	474	32	108	400.05	3	194	208	71
01E 900	220mm 230mm	9"	01E B 220M 01E B 230M	01E B 900	F14	584	4-off M30 or 1 1/4"	512	35	117	431.8	3	206	225	85
01E 1000	240mm 250mm 260mm	10"	01E B 240M 01E B 250M 01E B 1000-260M	01E B 1000	F15	610	4-off M30 or 1 1/4"	542	35	117	463.55	3	211	228	100
01E 1100	260mm 270mm 275mm 280mm	11"	01E B 260M 01E B 270M 01E B 275M 01E B 280M	01E B 1100	F16	660	4-off M30 or 1 1/4"	584	38	124	504.83	3	226	240	116
01E 1200	290mm 300mm	12"	01E B 290M 01E B 300M	01E B 1200	F17	712	4-off M30 or 1 1/4"	626	38	133	539.75	3	241	257	119
01 1300	320mm 330mm 340mm	13"	01 B 320M 01 B 330M 01 B 1300-340M	01 B 1300	F18	812	4-off M36 or 1 1/2"	698	38	152	584.2	5	282	288	184
01 1400	340mm 350mm 360mm	14"	01 B 340M 01 B 350M 01 B 1400-360M	01 B 1400	F19	850	4-off M36 or 1 1/2"	738	40	140	610	7	270	276	207
01 1500	360mm 380mm	15"	01 B 360M 01 B 380M	01 B 1500	F20	914	8-off M30 or 1 1/4"	800	44	165	673.1	5	295	305	276
01 1600	390mm 400mm	16"	01 B 390M 01 B 400M	01 B 1600	F21	914	8-off M30 or 1 1/4"	800	44	165	673.1	5	305	308	273.0

1) For full references of bearings and cartridges see pages 32 to 36

2) Dimension shown is as-cast dimension. Depending upon manufacturing method used, flanges supplied may be machined 5mm smaller.

3) Dimensions shown are for locating spigot for mounting flange on to. Diameter tolerance of locating spigot: f8

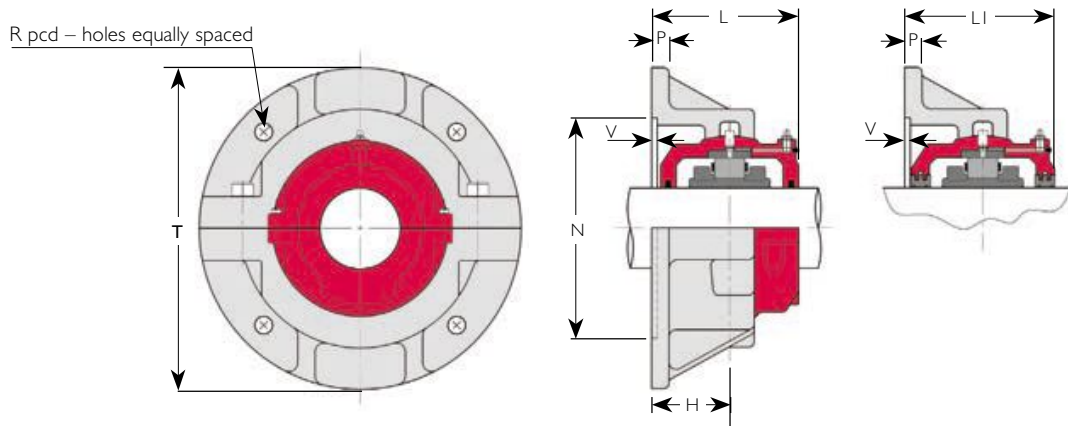
**02/02E SERIES**

Group Reference	Shaft Diameter d	Bearing Reference (1)	Flange Reference	T(2) (mm)	Bolts	R (mm)	P (mm)	H (mm)	N(3) (mm)	V(3) (mm)	L (mm)	LI (mm)	Mass (flange only) (kg)		
02 200	50mm	1 15/16" 2"	02 B 50M	02 B 115 02 B 200	F03	260	4-off M12 or 1/2"	218	16	67	166.69	3	124	124	9.1
02 208	60mm	2 3/16" 2 1/4"	02 B 60M	02 B 203 02 B 204	F04	286	4-off M12 or 1/2"	242	16	73	192.09	3	136	136	12.4
	65mm	2 7/16" 2 1/2"	02 B 65M	02 B 207 02 B 208											
02 300	70mm	2 11/16" 2 3/4"	02 B 70M	02 B 211 02 B 212	F05	330	4-off M16 or 5/8"	274	19	79	215.9	3	149	149	19.4
	75mm	2 15/16" 3"	02 B 75M	02 B 215 02 B 300											
02 308	80mm	3 3/16" 3 1/4"	02 B 80M	02 B 303 02 B 304	F06	356	4-off M16 or 5/8"	302	19	86	244.48	3	163	163	22.0
	85mm	3 7/16" 3 1/2"	02 B 85M	02 B 307 02 B 308											
	90mm		02 B 90M												
02 400	100mm	3 11/16" 3 3/4"	02 B 100M	02 B 311 02 B 312	F07	382	4-off M16 or 5/8"	334	22	92	276.23	3	165	165	26.6
	105mm	3 15/16" 4"	02 B 105M	02 B 315 02 B 400											
02 408	110mm 115mm	4 3/16" 4 7/16" 4 1/2"	02 B 110M 02 B 115M	02 B 403 02 B 407 02 B 408	F08	432	4-off M24 or 1"	374	22	98	314.33	3	179	179	34.9
02 500	120mm 125mm 130mm	4 15/16" 5"	02 B 120M 02 B 125M 02 B 130M	02 B 415 02 B 500	F10	470	4-off M24 or 1"	412	25	114	346.07	3	206	206	50

1) For full references of bearings and cartridges see pages 38 to 42

2) Dimension shown is as-cast dimension. Depending upon manufacturing method used, flanges supplied may be machined 5mm smaller

3) Dimensions shown are for locating spigot for mounting flange on to. Diameter tolerance of locating spigot: f8



02/02E SERIES

Group Reference	Shaft Diameter		Bearing Reference (1)		Flange Reference	T(2) (mm)	Bolts	R (mm)	P (mm)	H (mm)	N(3) (mm)	V(3) (mm)	L (mm)	LI (mm)	Mass (flange only) (kg)
02 508	140mm 145mm	5 3/16" 5 7/16" 5 1/2"	02 B 140M 02 B 145M	02 B 503 02 B 507 02 B 508	F30	508	4-off M24 or 1"	444	25	114	377.82	3	208	208	67
02 600	150mm 155mm 160mm	5 15/16" 6"	02 B 150M 02 B 155M 02 B 600-160M	02 B 515 02 B 600	F31	534	4-off M24 or 1"	466	25	124	393.7	3	226	226	81
02E 608	160mm 170mm	6 7/16" 6 1/2"	02E B 160M 02E B 170M	02E B 607 02E B 608	F32	584	4-off M30 or 1 1/4"	508	29	124	428.63	5	227	240	95
02E 700	175mm 180mm	6 15/16" 7"	02E B 175M 02E B 180M	02E B 615 02E B 700	F33	596	4-off M30 or 1 1/4"	524	32	130	444.5	5	241	251	100
02E 800	190mm 200mm	7 15/16" 8"	02E B 190M 02E B 200M	02E B 715 02E B 800	F34	648	4-off M30 or 1 1/4"	572	32	137	492.13	5	254.5	266	138
02E 900	220mm 230mm	9"	02E B 220M 02E B 230M	02E B 900	F35	712	4-off M36 or 1 1/2"	620	35	146	527.05	5	267	283	145
02E 1000	240mm 250mm 260mm	10"	02E B 240M 02E B 250M 02E B 260M	02E B 1000	F36	736	4-off M36 or 1 1/2"	660	38	149	568.33	5	273	289	178
02E 1100	280mm	11"	02E B 280M	02E B 1100	F37	762	8-off M30 or 1 1/4"	682	38	159	603.25	5	291	309	195
02E 1200	300mm	12"	02E B 300M	02E B 1200	F38	788	8-off M30 or 1 1/4"	708	41	162	628.65	5	296	315	195
02 1300	320mm 330mm	13"	02 B 320M 02 B 330M	02 B 1300	F39	914	8-off M30 or 1 1/4"	800	45	190	680	7	339	355	309

1) For full references of bearings and cartridges see pages 38 to 42

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