

# Single nut with flange FEM-E-S

## Rexroth connection dimensions

With seals  
Left-hand version in some cases  
Preload class: C0, C00, C1, C2, C3  
Tolerance grade: T3<sup>2)</sup>, T5, T7, T9

**Note:** The front lube unit is only available for the right-hand version.

**⚠** When setting up applications, do not allow components to collide with the front lube unit.



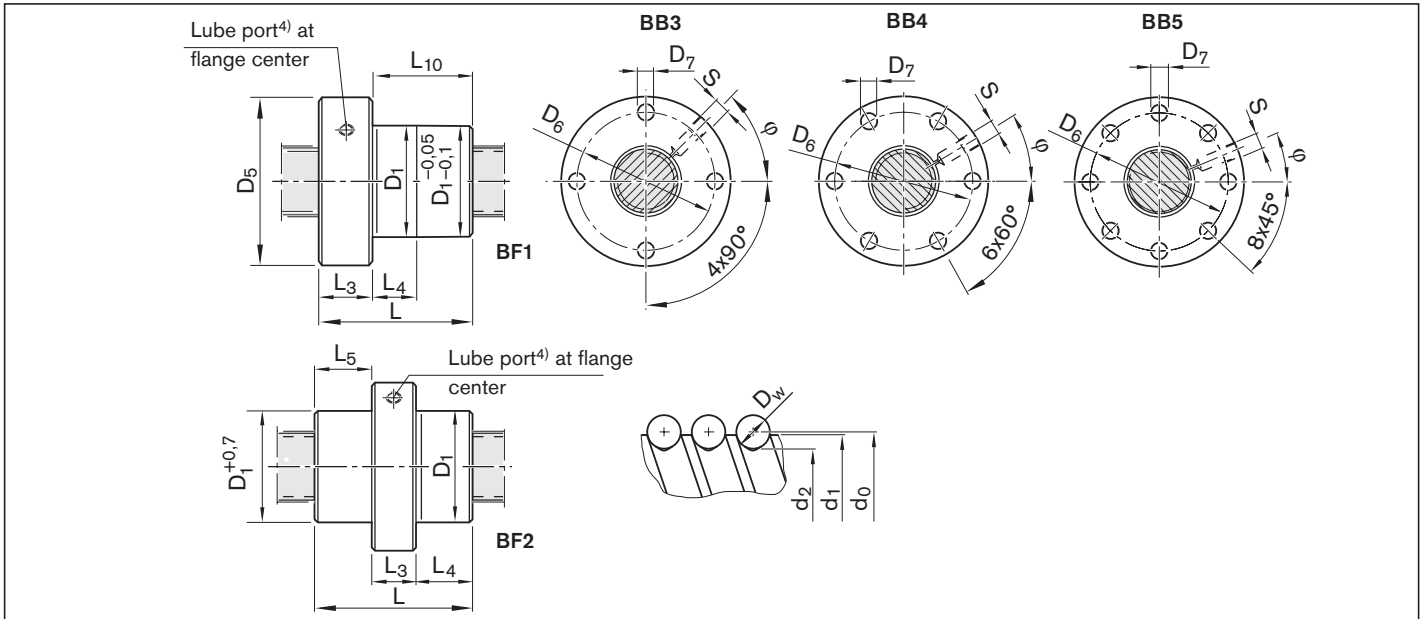
Ordering data:

BASA	20 x 5R x 3	FEM-E-S - 4	00	1	2	T7	R	82Z120	41Z120	1250	0	1
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$d_0$  = nominal diameter  
 $P$  = lead (R = right-hand, L = left-hand)  
 $D_w$  = ball diameter  
 $i$  = number of ball track turns

Category	Size $d_0 \times P \times D_w - i$	Part number	Load ratings <sup>3)</sup>		Linear speed <sup>1)</sup> $v_{max}$ (m/min)
			dyn. C (N)	stat. C <sub>0</sub> (N)	
A	16 x 5R x 3 - 4	R1512 010 23	14,800	16,100	30
A	16 x 10R x 3 - 3	R1512 040 13	11,500	12,300	60
A	16 x 16R x 3 - 2	R1512 060 13	7,560	7,600	96
A	20 x 5R x 3 - 4	R1512 110 13	17,200	21,500	30
A	20 x 10R x 3 - 4	R1512 140 13	16,900	21,300	60
A	20 x 20R x 3.5 - 2	R1512 170 13	10,900	12,100	120
A	25 x 5R x 3 - 4	R1512 210 13	19,100	27,200	30
A	25 x 10R x 3 - 4	R1512 240 13	18,800	27,000	60
A	25 x 25R x 3.5 - 2	R1512 280 13	12,100	15,100	150
A	32 x 5R x 3.5 - 4	R1512 310 13	25,900	40,000	23
A	32 x 10R x 3.969 - 5	R1512 340 13	38,000	58,300	47
A	32 x 20R x 3.969 - 2	R1512 370 13	16,200	21,800	94
A	32 x 32R x 3.969 - 2	R1512 390 13	16,100	22,000	150
A	40 x 5R x 3.5 - 5	R1512 410 13	34,900	64,100	19
A	40 x 10R x 6 - 4	R1512 440 13	60,000	86,400	38
B	40 x 10R x 6 - 6	R1512 440 23	86,500	132,200	38
A	40 x 20R x 6 - 3	R1512 470 13	45,500	62,800	75
A	40 x 40R x 6 - 2	R1512 490 13	30,600	40,300	150
B	50 x 5R x 3.5 - 5	R1512 510 13	38,400	81,300	15
B	50 x 10R x 6 - 6	R1512 540 13	95,600	166,500	30
C	50 x 16R x 6 - 6	R1512 560 13	95,300	166,000	48
B	50 x 20R x 6.5 - 3	R1512 570 13	57,500	87,900	60
B	50 x 40R x 6.5 - 2	R1512 590 13	38,500	55,800	120
B	63 x 10R x 6 - 6	R1512 640 13	106,600	214,300	24
B	63 x 20R x 6.5 - 3	R1512 670 13	63,800	112,100	48
B	63 x 40R x 6.5 - 2	R1512 690 13	44,300	74,300	95
C	80 x 10R x 6.5 - 6	R1512 740 13	130,100	291,700	19
C	80 x 20R x 12.7 - 6	R1512 770 23	315,200	534,200	30
<b>Versions with left-hand lead</b>					
B	16 x 5L x 3 - 4	R1552 010 03	14,800	16,100	30
B	20 x 5L x 3 - 4	R1552 110 13	17,200	21,500	30
B	25 x 5L x 3 - 4	R1552 210 13	19,100	27,200	30
B	32 x 5L x 3.5 - 4	R1552 310 03	25,900	40,000	23
B	40 x 5L x 3.5 - 5	R1552 410 03	34,900	64,100	19
B	40 x 10L x 6 - 4	R1552 440 03	60,000	86,400	38

1) See "Characteristic speed  $d_0 \cdot n$ " on page 141 and "Critical speed  $n_{cr}$ " on page 176  
2) Tolerance grade T3 for sizes shown in table page 12  
3) The load ratings are valid for tolerance grade T3 and T5 only.  
For other tolerance grades, please take into account the correction factor  $f_{ac}$  on page 141.



4) Lube port machining: flat surface  $L_3 \leq 15$  mm, countersink  $L_3 > 15$  mm;

Size $d_0 \times P \times D_w - i$	(mm)															Mass m (kg)
	$d_1$	$d_2$	$D_1$ g6	$D_5$	Hole pattern	$D_6$	$D_7$	Design style	L	$L_3$	$L_4$	$L_5$	$L_{10}$	$S^4)$	$\varphi$ (°)	
16 x 5R x 3 - 4	15.0	12.9	28	53	BB3	40	6.6	BF1	38	12	10.0	-	26	M6	315.0	0.24
16 x 10R x 3 - 3	15.0	12.9	28	53	BB3	40	6.6	BF1	45	12	16.0	-	33	M6	315.0	0.25
16 x 16R x 3 - 2	15.0	12.9	33	58	BB4	45	6.6	BF2	45	15	15.0	15.0	-	M6	30.0	0.39
20 x 5R x 3 - 4	19.0	16.9	33	58	BB4	45	6.6	BF1	40	12	10.0	-	28	M6	30.0	0.28
20 x 10R x 3 - 4	19.0	16.9	33	58	BB4	45	6.6	BF1	60	12	16.0	-	48	M6	30.0	0.36
20 x 20R x 3.5 - 2	19.0	16.7	38	63	BB4	50	6.6	BF2	57	20	18.5	18.5	-	M6	30.0	0.60
25 x 5R x 3 - 4	24.0	21.9	38	63	BB4	50	6.6	BF1	45	12	10.0	-	33	M6	30.0	0.35
25 x 10R x 3 - 4	24.0	21.9	38	63	BB4	50	6.6	BF1	64	12	16.0	-	52	M6	30.0	0.44
25 x 25R x 3.5 - 2	24.0	21.4	48	73	BB4	60	6.6	BF2	70	25	22.5	22.5	-	M6	18.0	1.09
32 x 5R x 3.5 - 4	31.0	28.4	48	73	BB4	60	6.6	BF1	48	13	10.0	-	35	M6	30.0	0.54
32 x 10R x 3.969 - 5	31.0	27.9	48	73	BB4	60	6.6	BF1	77	13	16.0	-	64	M6	30.0	0.72
32 x 20R x 3.969 - 2	31.0	27.9	56	80	BB4	68	6.6	BF1	64	15	25.0	-	49	M6	30.0	1.02
32 x 32R x 3.969 - 2	31.0	27.9	56	80	BB4	68	6.6	BF2	88	20	34.0	34.0	-	M6	30.0	1.40
40 x 5R x 3.5 - 5	39.0	36.4	56	80	BB4	68	6.6	BF1	54	15	10.0	-	39	M8x1	30.0	0.71
40 x 10R x 6 - 4	38.0	33.8	63	95	BB4	78	9.0	BF1	70	15	16.0	-	55	M8x1	30.0	1.29
40 x 10R x 6 - 6	38.0	33.8	63	95	BB4	78	9.0	BF1	90	15	16.0	-	75	M8x1	30.0	1.59
40 x 20R x 6 - 3	38.0	33.8	63	95	BB4	78	9.0	BF1	88	15	25.0	-	73	M8x1	30.0	1.54
40 x 40R x 6 - 2	38.0	33.8	72	110	BB4	90	11.0	BF2	102	40	31.0	31.0	-	M8x1	19.0	3.59
50 x 5R x 3.5 - 5	49.0	46.4	68	98	BB4	82	9.0	BF1	54	15	10.0	-	39	M8x1	30.0	1.02
50 x 10R x 6 - 6	48.0	43.8	72	110	BB4	90	11.0	BF1	90	18	16.0	-	72	M8x1	30.0	2.02
50 x 16R x 6 - 6	48.0	43.8	72	110	BB4	90	11.0	BF1	128	18	25.0	-	110	M8x1	30.0	2.58
50 x 20R x 6.5 - 3	48.0	43.4	85	125	BB4	105	11.0	BF1	92	22	25.0	-	70	M8x1	30.0	3.40
50 x 40R x 6.5 - 2	48.0	43.4	85	125	BB4	105	11.0	BF1	109	22	45.0	-	87	M8x1	30.0	3.87
63 x 10R x 6 - 6	61.0	56.8	85	125	BB4	105	11.0	BF1	90	22	16.0	-	68	M8x1	30.0	2.62
63 x 20R x 6.5 - 3	61.0	56.4	95	140	BB4	118	14.0	BF1	92	22	25.0	-	70	M8x1	30.0	3.71
63 x 40R x 6.5 - 2	61.0	56.4	95	140	BB4	118	14.0	BF1	109	22	45.0	-	87	M8x1	30.0	4.21
80 x 10R x 6.5 - 6	78.0	73.3	105	150	BB4	125	14.0	BF1	95	22	16.0	-	73	M8x1	30.0	3.78
80 x 20R x 12.7 - 6	76.0	67.0	125	180	BB5	152	18.0	BF1	170	25	25.0	-	145	M8x1	22.5	11.00
<b>Versions with left-hand lead</b>																
16 x 5L x 3 - 4	15.0	12.9	28	53	BB3	40	6.6	BF1	38	12	10.0	-	26	M6	45	0.24
20 x 5L x 3 - 4	19.0	16.9	33	58	BB4	45	6.6	BF1	40	12	10.0	-	28	M6	30	0.28
25 x 5L x 3 - 4	24.0	21.9	38	63	BB4	50	6.6	BF1	45	12	10.0	-	33	M6	30	0.35
32 x 5L x 3.5 - 4	31.0	28.4	48	73	BB4	60	6.6	BF1	48	13	10.0	-	35	M6	30	0.54
40 x 5L x 3.5 - 5	39.0	36.4	56	80	BB4	68	6.6	BF1	54	15	10.0	-	39	M8x1	30	0.71
40 x 10L x 6 - 4	38.0	33.8	63	95	BB4	78	9.0	BF1	70	15	16.0	-	55	M8x1	30	1.29