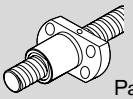
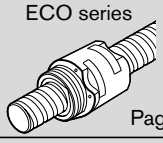
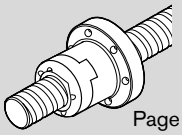
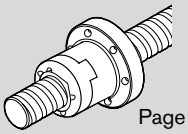
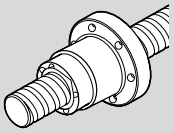
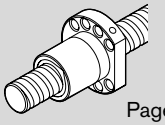
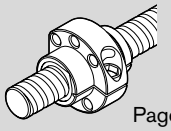
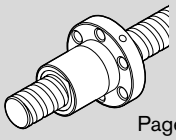
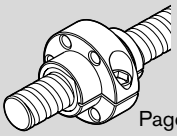
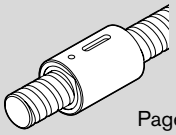
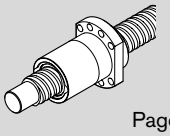
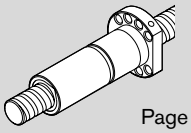
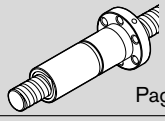
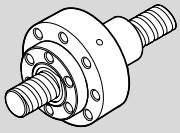
Inquiries and Orders

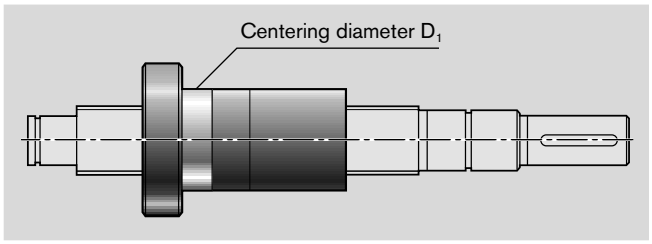
Nut type

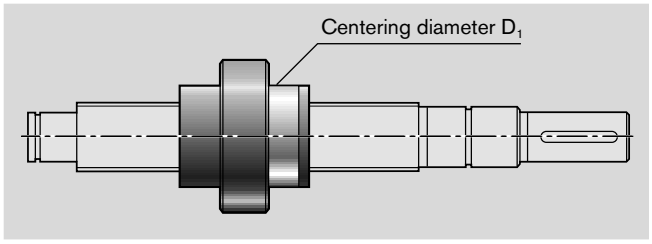
The various series versions and forms are shown below.

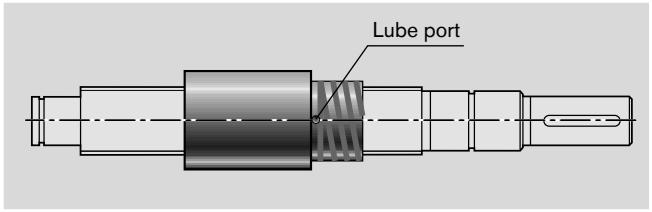
FEM-E-B Single nut with flange Miniature series  Page 22	ZEV-E-S Screw-in nut ECO series  Page 24
FBZ-E-S Single nut with flange ECO series  Page 26	FSZ-E-S Single nut with flange ECOplus series  Page 28
FEP-E-S Single nut with flange Speed series  Page 30	FEM-E-C Single nut with flange DIN 69 051, Part 5 Standard series  Page 32
SEM-E-C Adjustable-preload single nut, DIN 69 051, Part 5 Standard series  Page 34	FEM-E-S Single nut with flange Standard series  Page 36
SEM-E-S Adjustable-preload single nut, Standard series  Page 38	ZEM-E-S Cylindrical single nut Standard series  Page 40
2-start FED-E-B single nut with flange  Page 42	FDM-E-C Double nut with flange DIN 69 051, Part 5 Standard series  Page 44
FDM-E-S Double nut with flange Standard series  Page 46	
FAR-B-S For driven nuts, please refer to catalog R310EN 3304	

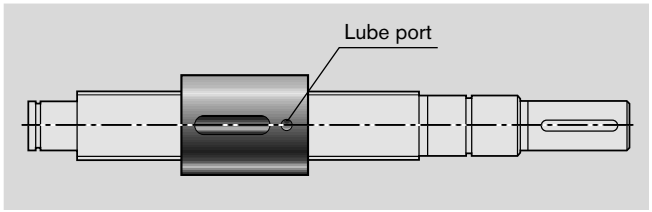
Mounting direction of nut types

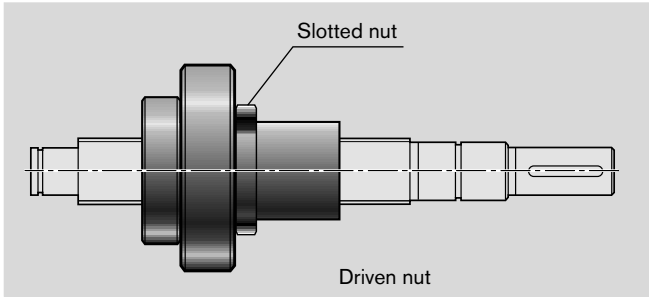
Definition: The centering diameter on a nut with flange, the slotted nut on a driven nut and the lube bore on a cylindrical nut points to the right end of the screw.



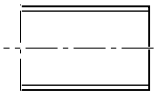
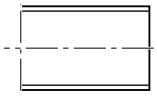
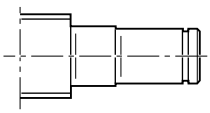
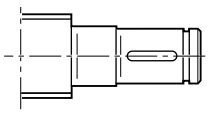
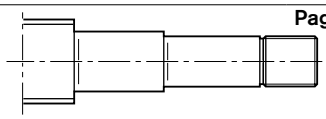
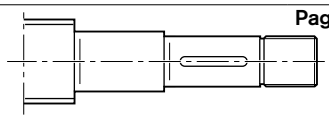
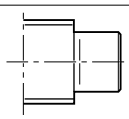
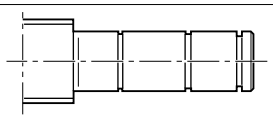
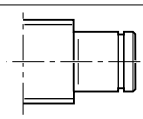
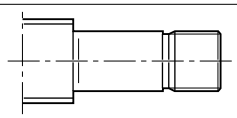
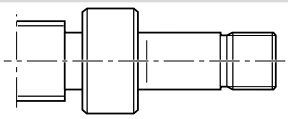
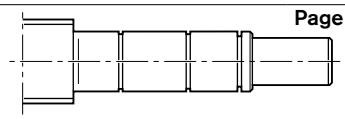
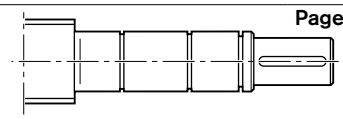
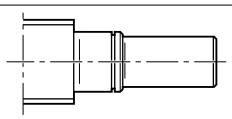
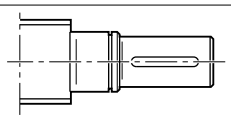
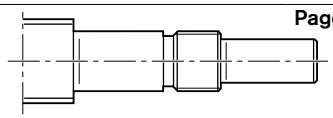
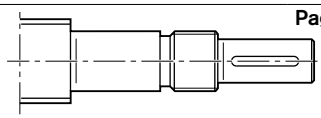
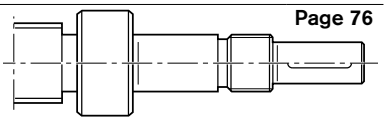
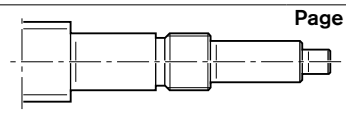
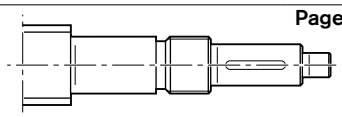
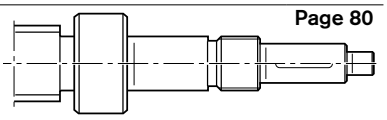




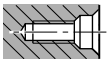
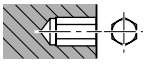




Screw ends, forms for a left or right screw end

Basic version	With keyway	Cut to size only “T”
00  Page 56		00  Page 56
01  Page 58	02  Page 58	
11  Page 60	12  Page 60	
21  Page 62		
31  Page 64		
41  Page 66		
		End mechanically connected with/without keyway
51  Page 68		53  Page 68
61  Page 70	62  Page 70	
71  Page 72	72  Page 72	
81  Page 74	82  Page 74	83 84  Page 76
91  Page 78	92  Page 78	93 94  Page 80

Machining of end face

Z Centering hole DIN 332-D	S Hex socket
	

Inquiries and Orders

Ordering Code

Complete ball screw assembly with screw and nut

Precision Ball Screw Assembly	SEM-E-S	20 x 5R x 3-4	1	2	T7	R	81Z120	41Z120	1250	1	1

Nut type

FEM-E-B	Single nut with flange Miniature series
ZEV-E-S	Screw-in nut ECO series
FBZ-E-S	Single nut with flange ECO series
FSZ-E-S	Single nut with flange ECOplus series
FEP-E-S	Single nut with flange Speed series
FEM-E-C	Single nut with flange per DIN 69 051, Part 5
FEM-E-S	Single nut with flange, Rexroth mounting dimensions
SEM-E-C	Adjustable-preload single nut per DIN 69 051, Part 5
SEM-E-S	Adjustable-preload single nut, Rexroth mounting dim.
ZEM-E-S	Cylindrical single nut, Rexroth mounting dimensions
FED-E-B	2-start single nut with flange
FDM-E-C	Double nut with flange per DIN 69 051, Part 5
FDM-E-S	Double nut with flange, Rexroth mounting dimensions

Size
- Nominal diameter (mm)
- Lead (mm)
- Direction of lead **R** … right, **L** … left
- Ball diameter (mm)
- Number of ball track turns in the nut

Seal
0 … none
1 … standard seal
2[1] … reinforced seal

Preload
0 … standard backlash
1 … reduced backlash
2[2] … 5% (single nut)
3 … 2% (single nut) standard
4 … 10% (double nut)
5 … 7% (double nut)
6 … 3% (single nut)

Precision
T5, T7, T9 (T3 available upon request)

Screw
R … precision-rolled screw

Left screw end
- Form
- Option: **Z** … centering per DIN 332-D; **S** … hex socket; **K** … none
- Version

Right screw end
see left screw end

Overall length L_{tot} (mm)

Documentation
0 … standard (acceptance test report) – is always supplied
1 … lead test report
2 … torque test report
3 … lead and torque test report

Lubrication
0 … preserved
1 … preserved and nut with basic greasing

1) only for d_0 25 to 40; note higher frictional torque!
2) only for d_0 16 to 80

Order form: see page 131.

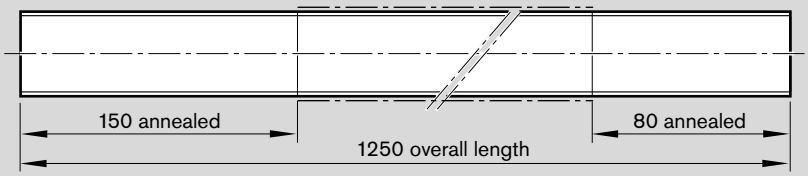
Note: It is also possible to process inquiries based on a customer's drawings.

For screws supplied separately; cut to size only “T”

Screw	SN	20 x 5R x 3	X	X	T7	R	00T200	00T200	1250	0	0
Screw designation											
Size	Nominal diameter (mm)										
	Lead (mm)										
	Direction of lead **R** … right, **L** … left										
	Ball diameter (mm)										
Seal	**X** … not possible										
Preload	**X** … not possible										
Precision	**T5, T7, T9**										
Screw	**R** … precision-rolled screw										
Left screw end	Form										
	Option	**T** … cut to size only									
	Version										
Right screw end	see left screw end										
Overall length L_{tot} (mm)											
Documentation	**0** … standard (acceptance test report)										
	1 … lead test report										
Lubrication	**0** … preserved										

For separately supplied screws with annealed ends (special servicing cases)

For special servicing cases involved precision-rolled screw SN-R with annealed ends, please consult us.



Order form: see page 131.
Note: It is also possible to process inquiries based on a customer’s drawings.

Nuts

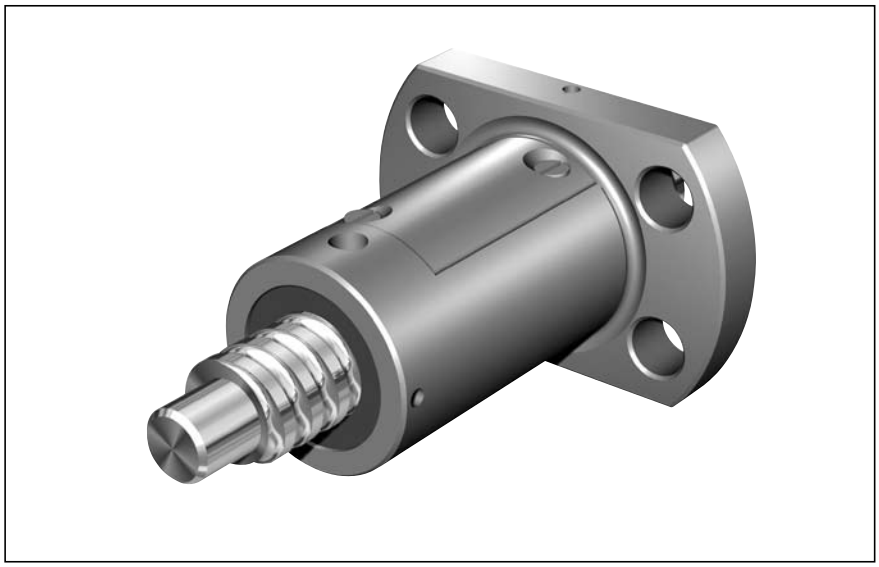
Miniature Single Nut with Flange FEM-E-B

Miniature series

Rexroth mounting dimensions
Flange type B

With seals
With backlash or reduced backlash
For precision-rolled screws SN-R
of tolerance grade T5, T7

Supplied only as complete ball screw assembly.

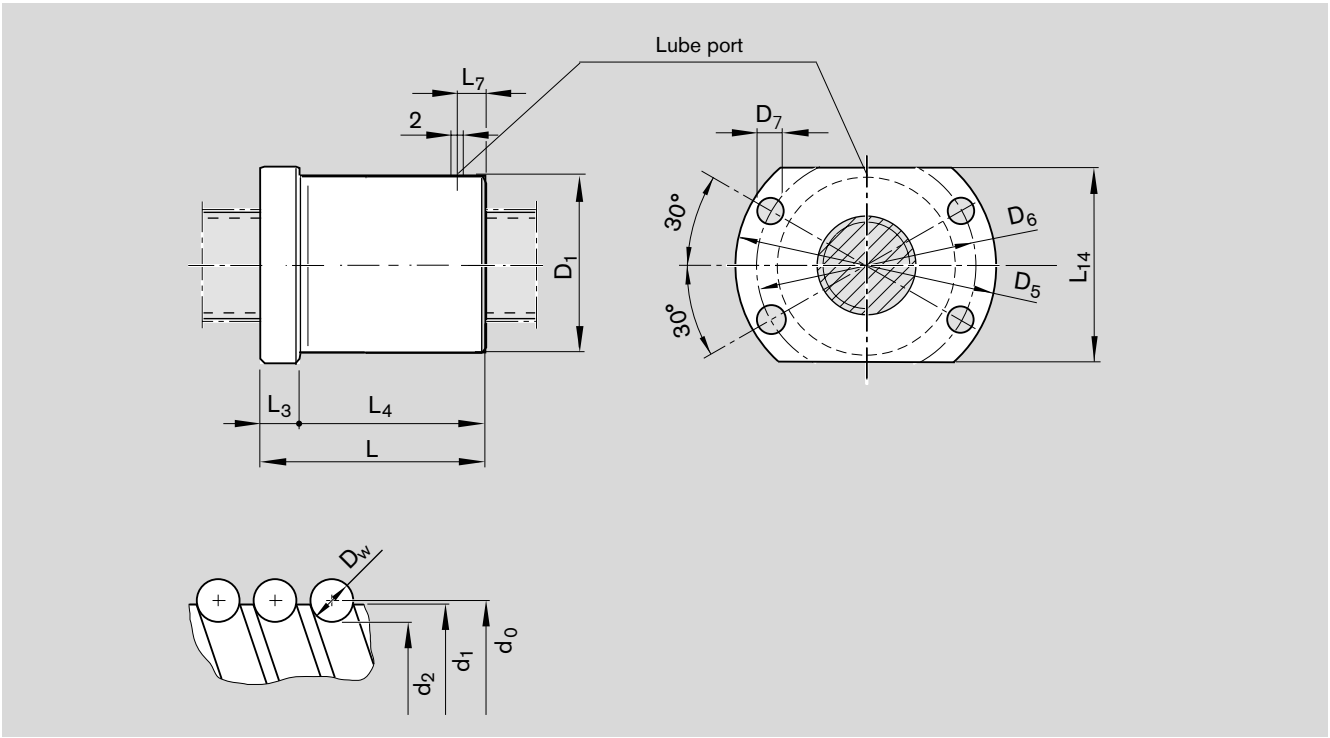


Ordering code: **FEM-E-B** **6 x 2R x 0.8-4** **1** **1** **T7** **R** **83K060** **41K050** **250** **0** **1**

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 x P x D_W - i	Part number	Load ratings dyn. C (N)	stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	**6 x 1R x 0.8 - 4**	R1532 100 06	900	1290	3
A	**6 x 2R x 0.8 - 4**	R1532 120 06	890	1280	6
A	**8 x 1R x 0.8 - 4**	R1532 200 06	1020	1740	3
A	**8 x 2R x 1.2 - 4**	R1532 220 06	1870	2760	6
A	**8 x 2.5R x 1.588 - 3**	R1532 230 06	2200	2800	15
A	**12 x 2R x 1.2 - 4**	R1532 420 06	2240	4160	12
A	**12 x 5R x 2 - 3**	R1532 460 06	3800	5800	30
A	**12 x 10R x 2 - 2**	R1532 490 06	2500	3600	60

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}



Size	Dimensions (mm)											Weight
	d_1	d_2	D_1	D_5	D_6	D_7	L	L_3	L_4	L_7	L_{14}	m
d_0 x P x D_w - i			g6									(kg)
6 x 1R x 0.8 - 4	6.0	5.3	12	24	18	3.4	19.5	3.5	16	3.5	16	0.020
6 x 2R x 0.8 - 4	6.0	5.3	12	24	18	3.4	22.5	3.5	19	3.0	16	0.020
8 x 1R x 0.8 - 4	8.0	7.3	16	28	22	3.4	22.0	6.0	16	3.5	19	0.035
8 x 2R x 1.2 - 4	8.0	7.0	16	28	22	3.4	25.0	6.0	19	3.0	19	0.050
8 x 2.5R x 1.588 - 3	7.5	6.3	16	28	22	3.4	16.0	6.0	10	3.0	19	0.030
12 x 2R x 1.2 - 4	11.7	10.8	20	37	29	4.5	19.0	8.0	11	2.5	24	0.055
12 x 5R x 2 - 3	11.4	9.9	22	37	29	4.5	28.0	8.0	20	6.0	24	0.075
12 x 10R x 2 - 2	11.4	9.9	22	37	29	4.5	33.0	8.0	25	8.0	24	0.085

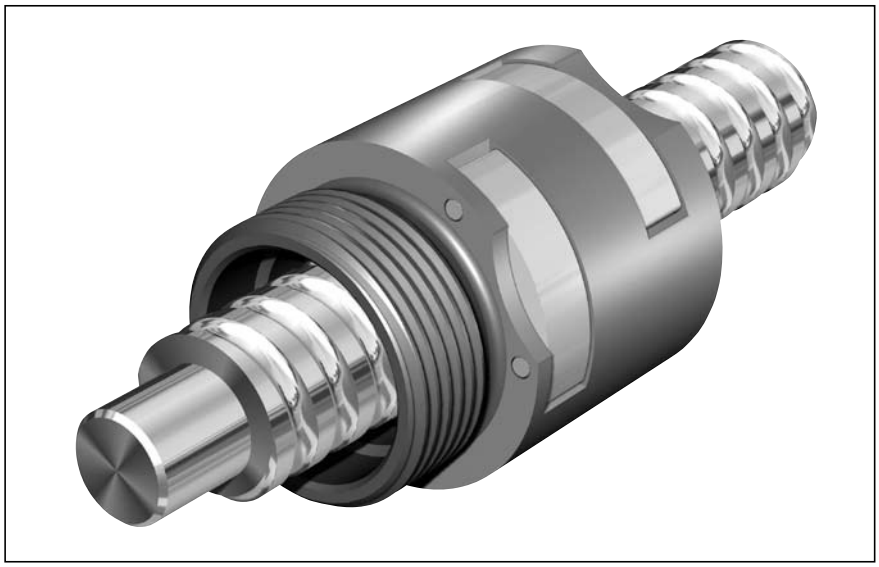
Nuts

Screw-in Nut ZEV-E-S

ECO series
Rexroth mounting dimensions

Without seals (no initial greasing)
Seals available on request
With backlash
For precision-rolled screws SN-R
of tolerance grade T7, T9

Supplied only as complete ball screw assembly.

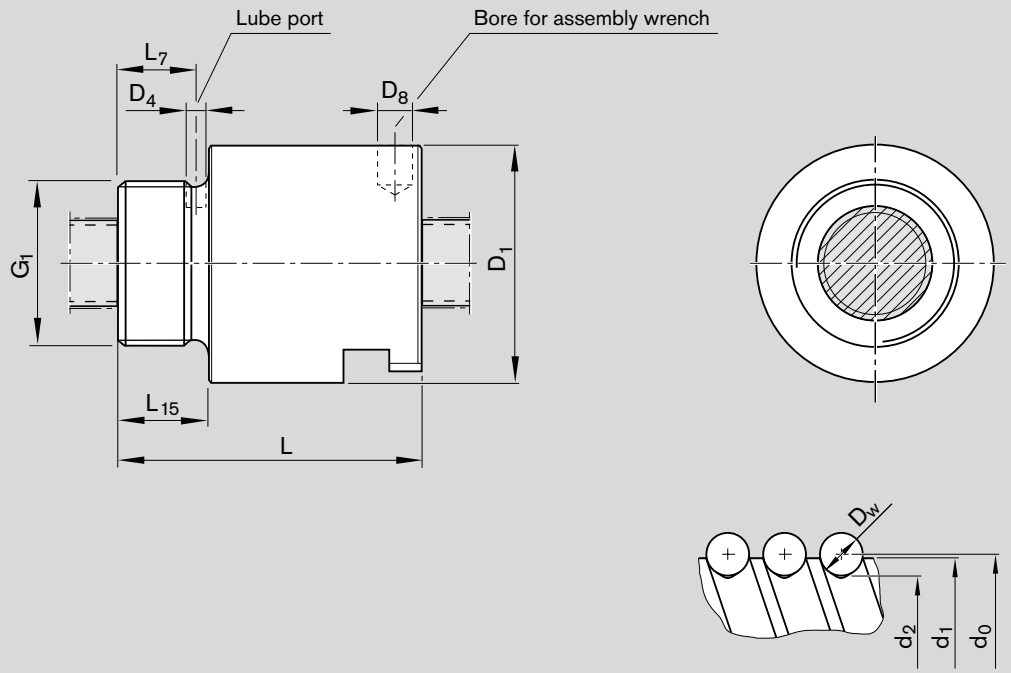


d_0 = nominal diameter
P = lead
(R = right-hand, L = left-hand)
D_W = ball diameter
i = number of ball track turns

Ordering code: **ZEV-E-S | 20 x 5R x 3-4 | 0 | 0 | T7 | R | 81K120 | 41K120 | 550 | 0 | 0**

Category	Size d_0 x P x D_W - i	Part number	Load ratings dyn. C (N)	stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	**12 x 5R x 2 - 3**	R2542 430 01	2300	3500	30.0
A	**12 x 10R x 2 - 2**	R2542 430 11	1500	2200	60.0
A	**16 x 5R x 3 - 3**	R2542 000 01	5600	7100	25.0
A	**16 x 10R x 3 - 3**	R2542 000 11	5800	7400	50.0
A	**20 x 5R x 3 - 4**	R2542 100 01	8600	12900	20.0
A	**25 x 5R x 3 - 7**	R2542 200 01	15700	29200	16.0
A	**25 x 10R x 3 - 5**	R2542 200 11	11500	20500	32.0
A	**32 x 5R x 3.5 - 5**	R2542 300 01	15800	30400	12.5
A	**32 x 10R x 3.969 - 5**	R2542 300 11	19000	34700	25.0

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}



Size	Dimensions (mm)									Max.	Weight
	d_1	d_2	D_1	D_4	D_8	G_1	L	L_7	L_{15}	backlash	m
d_0 x P x D_W - i			h10				±0.3			(mm)	(kg)
12 x 5R x 2 - 3	11.4	9.9	25.5	2.7	3.2	M20 x 1.0	36	8.5	10	0.1	0.09
12 x 10R x 2 - 2	11.4	9.9	25.5	2.7	3.2	M20 x 1.0	40	8.5	10	0.1	0.10
16 x 5R x 3 - 3	15.0	12.9	32.5	2.7	4.2	M26 x 1.5	40	10.5	12	0.1	0.14
16 x 10R x 3 - 3	15.0	12.9	32.5	2.7	4.2	M26 x 1.5	54	10.5	12	0.1	0.21
20 x 5R x 3 - 4	19.0	16.9	38.0	2.7	8.0	M35 x 1.5	50	12.5	14	0.1	0.25
25 x 5R x 3 - 7	24.0	21.9	43.0	1.5	8.0	M40 x 1.5	60	17.5	19	0.1	0.36
25 x 10R x 3 - 5	24.0	21.9	43.0	2.0	8.0	M40 x 1.5	74	17.7	19	0.1	0.45
32 x 5R x 3.5 - 5	31.0	28.4	54.0	2.7	8.0	M48 x 1.5	69	17.5	19	0.1	0.58
32 x 10R x 3.969 - 5	31.0	27.9	54.0	2.7	8.0	M48 x 1.5	95	17.5	19	0.1	0.88

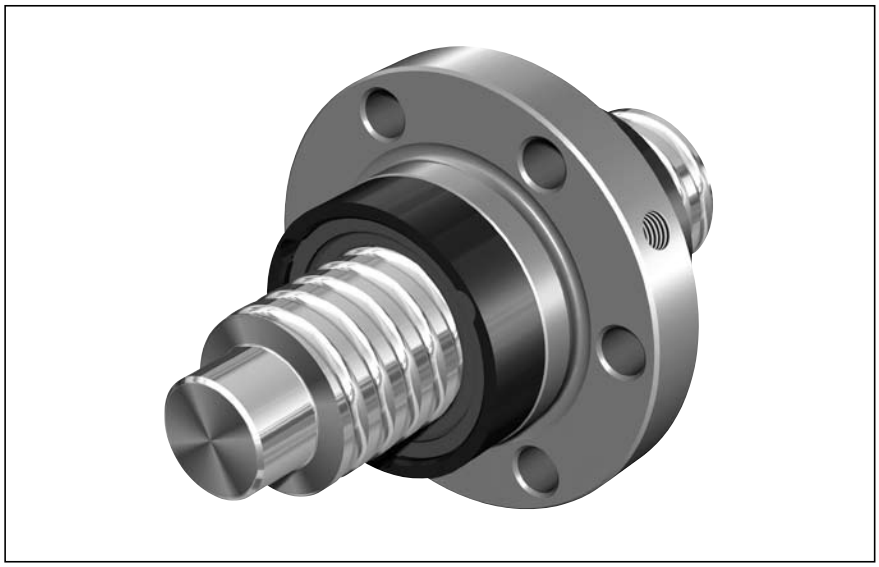
Nuts

Single Nut with Flange and Recirculation Caps FBZ-E-S

ECO series

Rexroth mounting dimensions

With seals
With backlash
For precision-rolled screws SN-R
of tolerance grade T7, T9



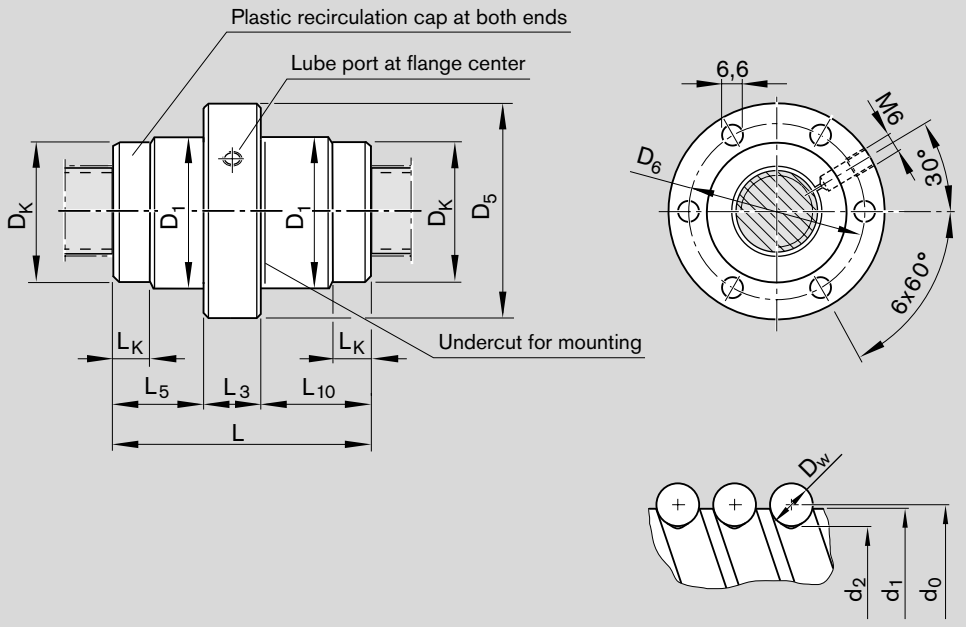
Ordering code:

FBZ-E-S	20 x 5R x 3-4	1	0	T9	R	81K120	41K120	550	0	1

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 x P x D_W - i	Part number	Load ratings dyn. C (N)	stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
B	**20 x 5R x 3 - 4**	R2542 100 02	8600	12900	20
B	**25 x 5R x 3 - 4**	R2542 200 02	9500	16300	16
B	**25 x 10R x 3 - 4**	R2542 200 12	9400	16200	32
B	**32 x 5R x 3.5 - 4**	R2542 300 02	13000	24000	13
B	**32 x 10R x 3.969 - 5**	R2542 300 12	19000	35000	25

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}



Size	Dimensions (mm)											Max.	Weight
	d_1	d_2	D_1	D_5	D_6	D_K	L	L_3	L_5	L_{10}	L_K	backlash	m
d_0 x P x D_W - i			−0.2						±0.5			(mm)	(kg)
20 x 5R x 3 - 4	19	16.9	33	58	45	32.5	40	10	15.0	15.0	8.5	0.1	0.22
25 x 5R x 3 - 4	24	21.9	38	63	50	37.5	43	10	16.5	16.5	10.0	0.1	0.25
25 x 10R x 3 - 4	24	21.9	38	63	50	37.5	62	10	16.0	36.0	10.0	0.1	0.34
32 x 5R x 3.5 - 4	31	28.4	48	73	60	47.5	46	12	17.0	17.0	11.0	0.1	0.41
32 x 10R x 3.969 - 5	31	27.9	48	73	60	47.5	77	12	20.0	45.0	11.0	0.1	0.63

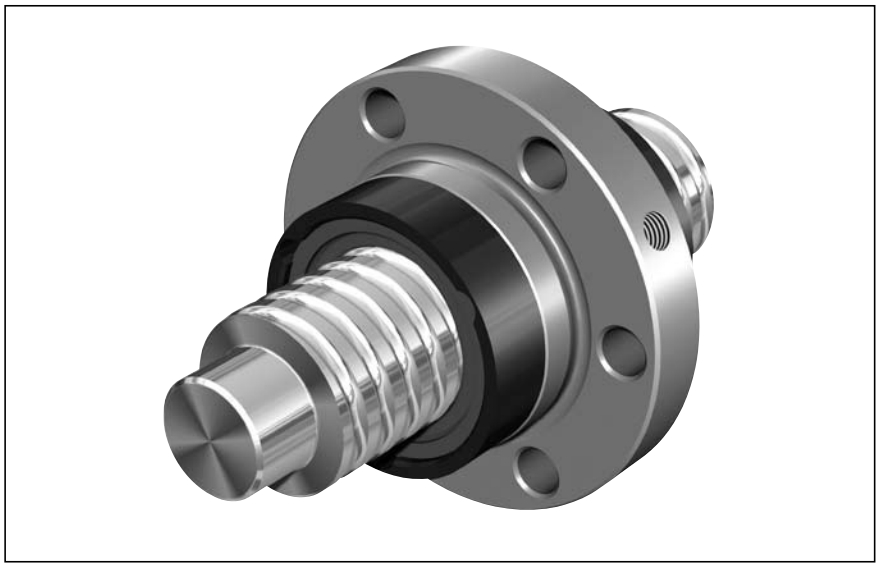
Nuts

Single Nut with Flange and Recirculation Caps FSZ-E-S

ECOplus series

Rexroth mounting dimensions

ECOplus load ratings in accordance with Standard series (see page 36)
With seals
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9



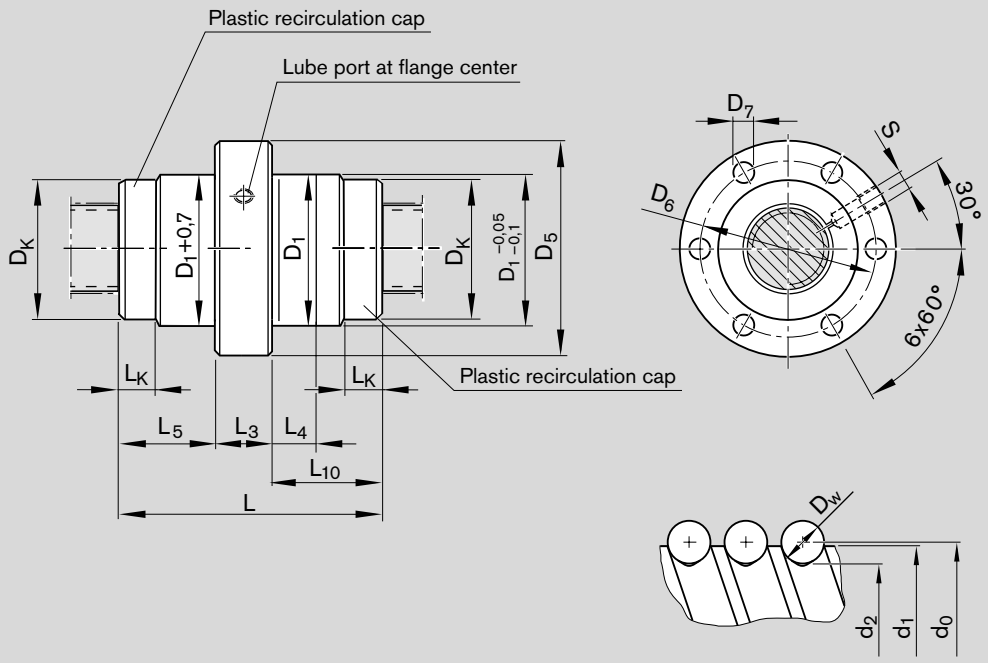
d_0 = nominal diameter
P = lead (R = right-hand, L = left-hand)
D_W = ball diameter
i = number of ball track turns

Ordering code:

FSZ-E-S	20 x 5R x 3-4	1	0	T7	R	81K120	41K120	550	0	1

Category	Size d_0 x P x D_W - i	Part number	Load ratings dyn. C (N)	Load ratings stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	20 x 5R x 3 - 4	R1502 110 41	14300	21500	30
A	25 x 5R x 3 - 4	R1502 210 41	15900	27200	30
A	25 x 10R x 3 - 4	R1502 240 41	15700	27000	60
A	32 x 5R x 3.5 - 4	R1502 310 41	21600	40000	23
A	32 x 10R x 3.969 - 5	R1502 340 41	31700	58300	47
A	32 x 20R x 3.969 - 2	R1502 370 41	13500	21800	94
A	40 x 5R x 3.5 - 5	R1502 410 41	29100	64100	19
A	40 x 10R x 6 - 4	R1502 440 41	50000	86400	38
A	40 x 20R x 6 - 3	R1502 470 41	37900	62800	75

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}



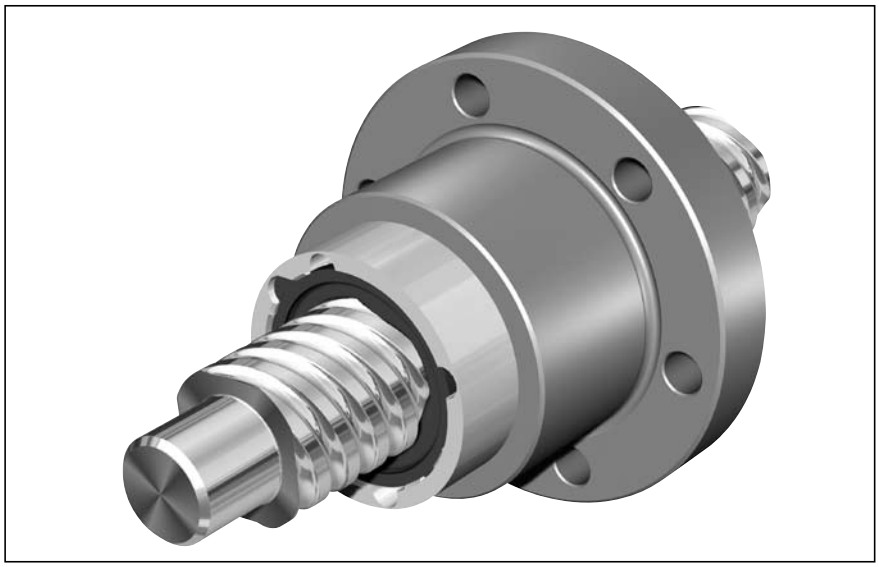
Size	Dimensions (mm)														Weight
	d_1	d_2	D_1	D_5	D_6	D_7	D_K	L	L_3	L_4	L_5	L_{10}	L_K	S	m
d_0 x P x D_W - i			g6					±0.5							(kg)
20 x 5R x 3 - 4	19	16.9	33	58	45	6.6	32.5	40	10	6	15.0	15.0	8.5	M6	0.22
25 x 5R x 3 - 4	24	21.9	38	63	50	6.6	37.5	43	10	6	16.5	16.5	10.0	M6	0.25
25 x 10R x 3 - 4	24	21.9	38	63	50	6.6	37.5	62	10	16	16.0	36.0	10.0	M6	0.34
32 x 5R x 3.5 - 4	31	28.4	48	73	60	6.6	47.5	46	12	6	17.0	17.0	11.0	M6	0.41
32 x 10R x 3.969 - 5	31	27.9	48	73	60	6.6	47.5	77	12	16	20.0	45.0	11.0	M6	0.63
32 x 20R x 3.969 - 2	31	27.9	56	80	68	6.6	47.5	65	12	10	19.0	34.0	11.0	M6	0.69
40 x 5R x 3.5 - 5	39	36.4	56	80	68	6.6	55.5	52	14	8	18.5	19.5	11.5	M8x1	0.54
40 x 10R x 6 - 4	38	33.8	63	95	78	9.0	62.5	71	14	16	22.0	35.0	12.5	M8x1	1.06
40 x 20R x 6 - 3	38	33.8	63	95	78	9.0	62.5	89	14	25	22.0	53.0	12.5	M8x1	1.30

Nuts

Single Nut with Flange and Recirculation Caps FEP-E-S

Speed series
Rexroth mounting dimensions

With seals
With backlash, reduced backlash or preload 2%
For precision-rolled screws SN-R (4-start) of tolerance grade T5, T7, T9

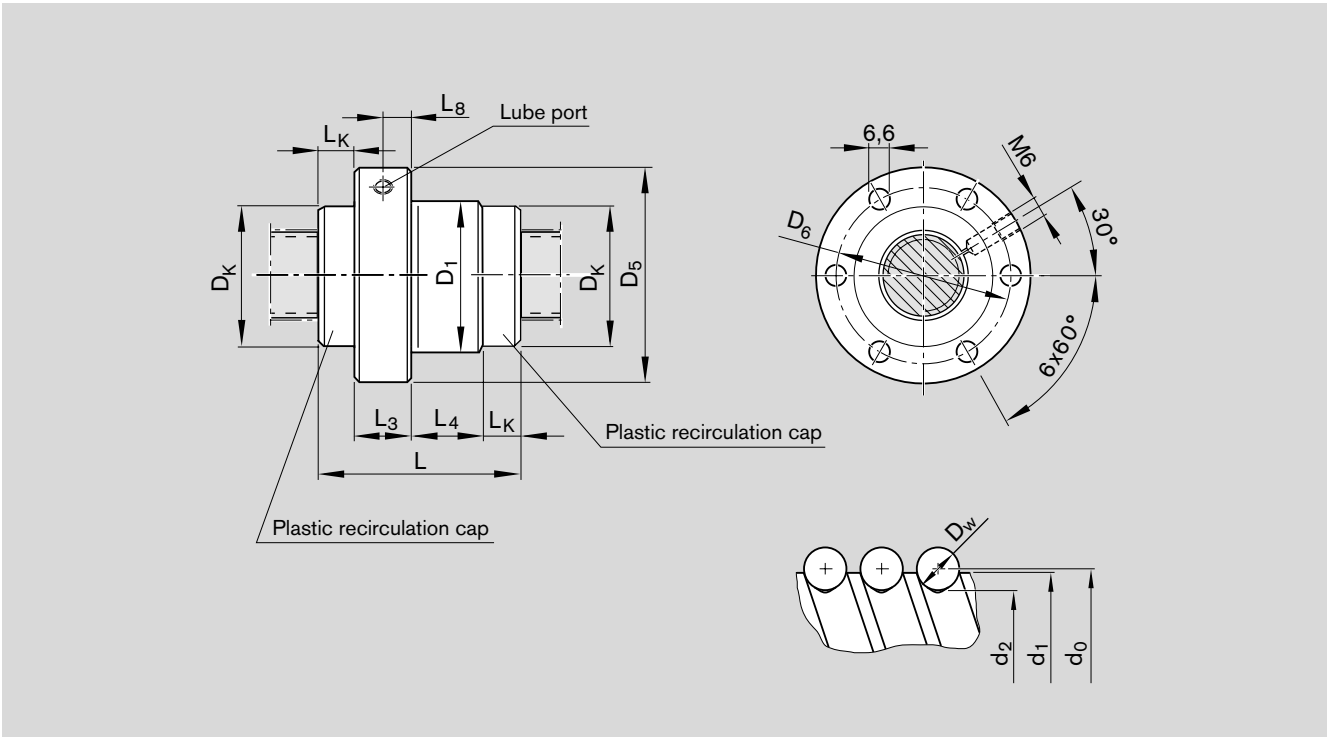


Ordering code: **FEP-E-S** | **25 x 25R x 3.5-1.2x4** | **1** | **0** | **T5** | **R** | **81K120** | **41K120** | **1100** | **0** | **1**

d_0 = nominal diameter
P = lead
(R = right-hand, L = left-hand)
D_W = ball diameter
i = a x b
"a" Bearing turns per thread
"b" Number of bearing threads on the screw

Category	Size d_0 x P x D_W - i	Part number	Load ratings dyn. C (N)	 stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	**20 x 40R x 3.5 - 1 x 4**	R2522 100 11	14000	26200	240
A	**25 x 25R x 3.5 - 1.2 x 4**	R2522 200 01	19700	39400	120
A	**32 x 32R x 3.969 - 1.2 x 4**	R2522 300 01	26300	57600	120

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}



Size	Dimensions (mm)											Weight
	d_1	d_2	D_1	D_5	D_6	D_K	L	L_3	L_4	L_8	L_K	m
d_0 x P x D_W - i			g6				±0.5					(kg)
20 x 40R x 3.5 - 1 x 4	19	16.4	38	63	50	37.5	57	12	23	8.0	11	0.51
25 x 25R x 3.5 - 1.2 x 4	24	21.4	48	73	60	40.0	52	12	14	5.0	13	0.51
32 x 32R x 3.969 - 1.2 x 4	31	27.9	56	80	68	50.0	68	15	21	7.7	16	0.78

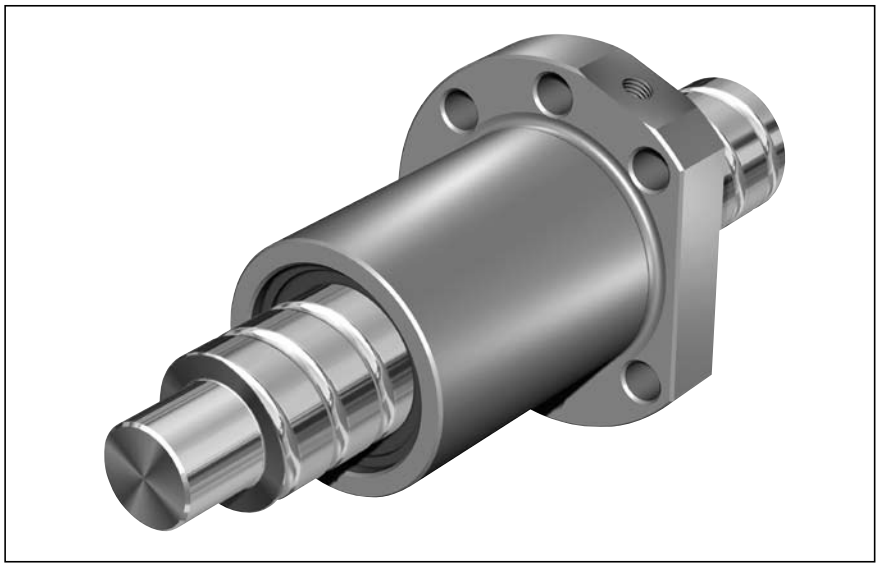
Nuts

Single Nut with Flange FEM-E-C

Standard series

Mounting dimensions per DIN 69 051, Part 5
Flange type C

With standard seals
Reinforced seals, see page 112
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9

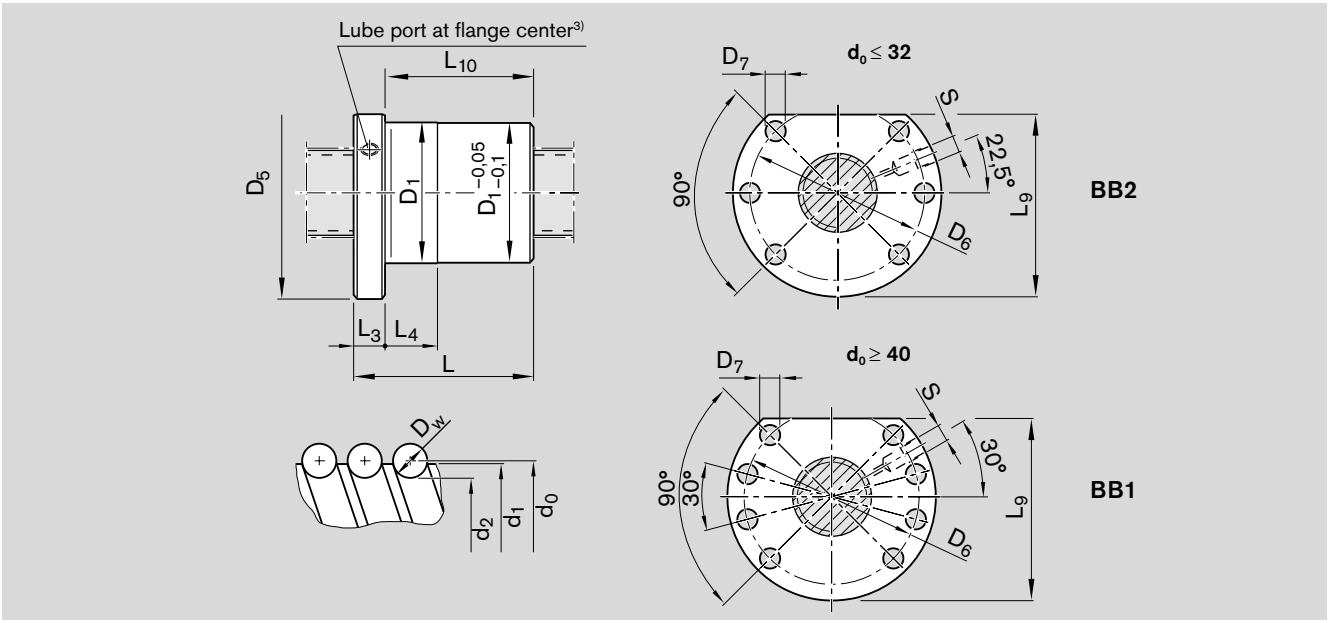


Ordering code: **FEM-E-C | 20 x 5R x 3-4 | 1 | 2 | T7 | R | 82Z120 | 41Z120 | 1250 | 0 | 1**

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 x P x D_W - i	Part number	Load ratings dyn. C (N)	Load ratings stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	**16 x 5R x 3 - 4**	R1502 010 65	12300	16100	30
A	**16 x 10R x 3 - 3**	R1502 040 85	9600	12300	60
A	**16 x 16R x 3 - 3**	R1502 060 65	9300	12000	96
A	**20 x 5R x 3 - 4**	R1502 110 85	14300	21500	30
A	**20 x 20R x 3.5 - 3**	R1502 170 65	13300	18800	120
A	**25 x 5R x 3 - 4**	R1502 210 85	15900	27200	30
A	**25 x 10R x 3 - 4**	R1502 240 85	15700	27000	60
A	**25 x 25R x 3.5 - 3**	R1502 280 65	14700	23300	150
A	**32 x 5R x 3.5 - 4**	R1502 310 85	21600	40000	23
A	**32 x 10R x 3.969 - 5**	R1502 340 86	31700	58300	47
A	**32 x 20R x 3.969 - 3**	R1502 370 65	19700	33700	94
A	**32 x 32R x 3.969 - 3**	R1502 390 65	19500	34000	150
B	**40 x 5R x 3.5 - 5**	R1502 410 86	29100	64100	19
A	**40 x 10R x 6 - 4**	R1502 440 85	50000	86400	38
C	**40 x 12R x 6 - 4**	R1502 450 65	49900	86200	45
A	**40 x 16R x 6 - 4**	R1502 460 65	49700	85900	60
A	**40 x 20R x 6 - 3**	R1502 470 85	37900	62800	75
A	**40 x 40R x 6 - 3**	R1502 490 65	37000	62300	150
B	**50 x 5R x 3.5 - 5**	R1502 510 86	32000	81300	15
A	**50 x 10R x 6 - 6**	R1502 540 86	79700	166500	30
C	**50 x 12R x 6 - 6**	R1502 550 66	79600	166400	36
B	**50 x 16R x 6 - 6**	R1502 560 66	79400	166000	48
A	**50 x 20R x 6.5 - 5**	R1502 570 86	75700	149700	60
B	**50 x 40R x 6.5 - 3**	R1502 590 65	46500	85900	120
B	**63 x 10R x 6 - 6**	R1502 640 86	88800	214300	24
B	**63 x 20R x 6.5 - 5**	R1502 670 86	83900	190300	48
C	**63 x 40R x 6.5 - 3**	R1502 690 65	53400	114100	95
C	**80 x 10R x 6.5 - 6**	R1502 740 86	108400	291700	19
B	**80 x 20R x 12.7 - 6[2]**	R1502 770 96	262700	534200	30

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}
2) Nuts 80 x 20R x 12.7 - 6 available up to a thread length of 2500 mm, with preload



Size	Dimensions (mm)													Weight
	d_1	d_2	D_1	D_5	Hole	D_6	D_7	L	L_3	L_4	L_9	L_{10}	$S^{3)}$	m
d_0 x P x D_W - i			g6		pattern									(kg)
16 x 5R x 3 - 4	15.0	12.9	28	48	BB2	38	5.5	38	12	10	44.0	26	M6	0.19
16 x 10R x 3 - 3	15.0	12.9	28	48	BB2	38	5.5	45	12	16	44.0	33	M6	0.21
16 x 16R x 3 - 3	15.0	12.9	28	48	BB2	38	5.5	61	12	20	44.0	49	M6	0.26
20 x 5R x 3 - 4	19.0	16.9	36	58	BB2	47	6.6	40	12	10	51.0	28	M6	0.31
20 x 20R x 3.5 - 3	19.3	16.7	36	58	BB2	47	6.6	77	12	25	51.0	65	M6	0.49
25 x 5R x 3 - 4	24.0	21.9	40	62	BB2	51	6.6	45	12	10	55.0	33	M6	0.36
25 x 10R x 3 - 4	24.0	21.9	40	62	BB2	51	6.6	64	12	16	55.0	52	M6	0.47
25 x 25R x 3.5 - 3	24.0	21.4	40	62	BB2	51	6.6	95	12	30	55.0	83	M6	0.63
32 x 5R x 3.5 - 4	31.0	28.4	50	80	BB2	65	9.0	48	13	10	71.0	35	M6	0.62
32 x 10R x 3.969 - 5	31.0	27.9	50	80	BB2	65	9.0	77	13	16	71.0	64	M6	0.84
32 x 20R x 3.969 - 3	31.0	27.9	50	80	BB2	65	9.0	84	13	25	71.0	71	M6	0.90
32 x 32R x 3.969 - 3	31.0	27.9	50	80	BB2	65	9.0	120	13	40	71.0	107	M6	1.21
40 x 5R x 3.5 - 5	39.0	36.4	63	93	BB1	78	9.0	54	15	10	81.5	39	M8x1	1.03
40 x 10R x 6 - 4	38.0	33.8	63	93	BB1	78	9.0	70	15	16	81.5	55	M8x1	1.19
40 x 12R x 6 - 4	38.0	33.8	63	93	BB1	78	9.0	75	15	25	81.5	60	M8x1	1.27
40 x 16R x 6 - 4	38.0	33.8	63	93	BB1	78	9.0	90	15	25	81.5	75	M8x1	1.51
40 x 20R x 6 - 3	38.0	33.8	63	93	BB1	78	9.0	88	15	25	81.5	73	M8x1	1.44
40 x 40R x 6 - 3	38.0	33.8	63	93	BB1	78	9.0	142	15	45	81.5	127	M8x1	2.16
50 x 5R x 3.5 - 5	49.0	46.4	75	110	BB1	93	11.0	54	15	10	97.5	39	M8x1	1.39
50 x 10R x 6 - 6	48.0	43.8	75	110	BB1	93	11.0	90	18	16	97.5	72	M8x1	2.14
50 x 12R x 6 - 6	48.0	43.8	75	110	BB1	93	11.0	105	18	25	97.5	87	M8x1	2.38
50 x 16R x 6 - 6	48.0	43.8	75	110	BB1	93	11.0	128	18	25	97.5	110	M8x1	2.75
50 x 20R x 6.5 - 5	48.0	43.4	75	110	BB1	93	11.0	132	18	25	97.5	114	M8x1	2.73
50 x 40R x 6.5 - 3	48.0	43.4	75	110	BB1	93	11.0	149	18	45	97.5	131	M8x1	3.04
63 x 10R x 6 - 6	61.0	56.8	90	125	BB1	108	11.0	90	22	16	110.0	68	M8x1	2.56
63 x 20R x 6.5 - 5	61.0	56.4	95	135	BB1	115	13.5	132	22	25	117.5	110	M8x1	4.51
63 x 40R x 6.5 - 3	61.0	56.4	95	135	BB1	115	13.5	149	22	45	117.5	127	M8x1	5.04
80 x 10R x 6.5 - 6	78.0	73.3	105	145	BB1	125	13.5	95	22	16	127.5	73	M8x1	3.40
80 x 20R x 12.7 - 6	76.0	67.0	125	165	BB1	145	13.5	170	25	25	147.5	145	M8x1	10.20

3) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm

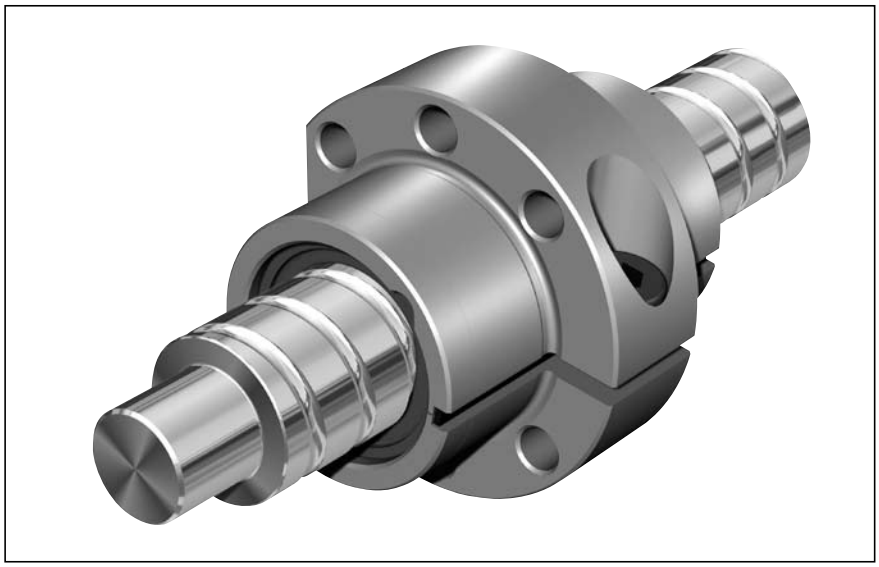
Nuts

Adjustable-Preload Single Nut SEM-E-C

Standard series

Mounting dimensions per DIN 69 051, Part 5
Flange type C

With standard seals
Reinforced seals, see page 112
Adjustable preload
For precision-rolled screws SN-R of tolerance grade T5, T7



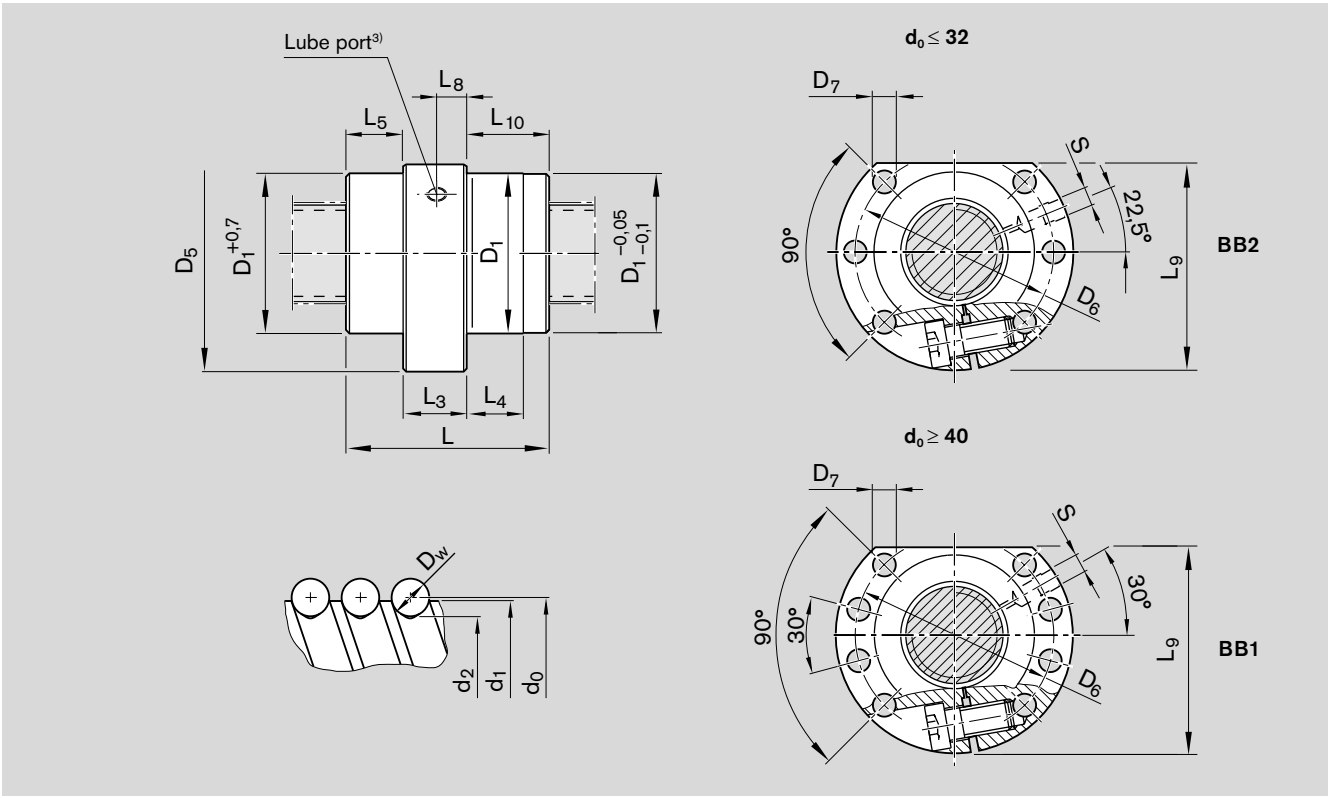
d_0 = nominal diameter
P = lead
(R = right-hand, L = left-hand)
D_W = ball diameter
i = number of ball track turns

Ordering code:

SEM-E-C	20 x 5R x 3-4	1	2	T7	R	82Z120	41Z120	1250	0	1

Category	Size	Part number	Load ratings		Linear speed[1]	Centering diameter D_1 after adjustment	
			dyn. C	stat. C_0	v_{max}		
	d_0 x P x D_W - i		(N)	(N)	(m/min)	**min.** (mm)	**max.** (mm)
B	**16 x 5R x 3 - 4**	R1512 010 55	12300	16100	30	27.940	27.975
C	**16 x 10R x 3 - 3**	R1512 040 75	9600	12300	60	27.940	27.975
C	**16 x 16R x 3 - 3**	R1512 060 55	9300	12000	96	27.950	27.978
B	**20 x 5R x 3 - 4**	R1512 110 75	14300	21500	30	35.935	35.970
B	**20 x 20R x 3.5 - 3**	R1512 170 55	13300	18800	120	35.945	35.973
B	**25 x 5R x 3 - 4**	R1512 210 75	15900	27200	30	39.935	39.970
B	**25 x 10R x 3 - 4**	R1512 240 75	15700	27000	60	39.935	39.970
C	**25 x 25R x 3.5 - 3**	R1512 280 55	14700	23300	150	39.945	39.973
B	**32 x 5R x 3.5 - 4**	R1512 310 75	21600	40000	23	49.935	49.970
B	**32 x 10R x 3.969 - 5**	R1512 340 75	31700	58300	47	49.935	49.970
C	**32 x 20R x 3.969 - 3**	R1512 370 55	19700	33700	94	49.945	49.973
B	**32 x 32R x 3.969 - 3**	R1512 390 55	19500	34000	150	49.945	49.973
B	**40 x 5R x 3.5 - 5**	R1512 410 75	29100	64100	19	62.931	62.966
B	**40 x 10R x 6 - 4**	R1512 440 75	50000	86400	38	62.931	62.966
C	**40 x 12R x 6 - 4**	R1512 450 55	49900	86200	45	62.931	62.966
B	**40 x 20R x 6 - 3**	R1512 470 75	37900	62800	75	62.941	62.969
B	**40 x 40R x 6 - 3**	R1512 490 55	37000	62300	150	62.941	62.969
C	**50 x 5R x 3.5 - 5**	R1512 510 75	32000	81300	15	74.931	74.966
B	**50 x 10R x 6 - 6**	R1512 540 75	79700	166500	30	74.931	74.966
C	**50 x 12R x 6 - 6**	R1512 550 55	79600	166400	36	74.931	74.966
B	**50 x 20R x 6.5 - 5**	R1512 570 76	75700	149700	60	74.941	74.969
B	**50 x 40R x 6.5 - 3**	R1512 590 55	46500	85900	120	74.941	74.969
B	**63 x 10R x 6 - 6**	R1512 640 75	88800	214300	24	89.926	89.961
B	**63 x 20R x 6.5 - 5**	R1512 670 76	83900	190300	48	94.936	94.964
C	**63 x 40R x 6.5 - 3**	R1512 690 55	53400	114100	95	94.936	94.964
C	**80 x 10R x 6.5 - 6**	R1512 740 75	108400	291700	19	104.926	104.961
C	**80 x 20R x 12.7 - 6[2]**	R1512 770 56	262700	534200	30	124.931	124.959

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}
2) Nuts 80 x 20R x 12.7 - 6 available up to a thread length of 2500 mm, with preload



Size	Dimensions (mm)															Weight
d_0 x P x D_W - i	d_1	d_2	D_1 f9	D_5	Hole pattern	D_6	D_7	L	L_3	L_4	L_5	L_8	L_9	L_{10}	$S^{3)}$	m (kg)
16 x 5R x 3 - 4	15.0	12.9	28	48	BB2	38	5.5	38	15	10	11.5	7.1	44.0	11.5	M6	0.20
16 x 10R x 3 - 3	15.0	12.9	28	48	BB2	38	5.5	45	15	15	15.0	11.0	44.0	15.0	M6	0.22
16 x 16R x 3 - 3	15.0	12.9	28	48	BB2	38	5.5	61	15	20	23.0	10.0	44.0	23.0	M6	0.29
20 x 5R x 3 - 4	19.0	16.9	36	58	BB2	47	6.6	40	15	10	12.5	7.1	51.0	12.5	M6	0.33
20 x 20R x 3.5 - 3	19.3	16.7	36	58	BB2	47	6.6	77	20	25	28.5	12.5	51.0	28.5	M6	0.56
25 x 5R x 3 - 4	24.0	21.9	40	62	BB2	51	6.6	45	20	10	12.5	9.5	55.0	12.5	M6	0.43
25 x 10R x 3 - 4	24.0	21.9	40	62	BB2	51	6.6	64	20	16	22.0	10.0	55.0	22.0	M6	0.54
25 x 25R x 3.5 - 3	24.0	21.4	40	62	BB2	51	6.6	95	25	30	35.0	14.0	55.0	35.0	M6	0.77
32 x 5R x 3.5 - 4	31.0	28.4	50	80	BB2	65	9.0	48	20	10	14.0	9.7	71.0	14.0	M6	0.74
32 x 10R x 3.969 - 5	31.0	27.9	50	80	BB2	65	9.0	77	20	16	28.5	12.5	71.0	28.5	M6	0.97
32 x 20R x 3.969 - 3	31.0	27.9	50	80	BB2	65	9.0	84	20	25	32.0	12.5	71.0	32.0	M6	1.04
32 x 32R x 3.969 - 3	31.0	27.9	50	80	BB2	65	9.0	120	20	40	50.0	12.5	71.0	50.0	M6	1.34
40 x 5R x 3.5 - 5	39.0	36.4	63	93	BB1	78	9.0	54	25	10	14.5	12.0	81.5	14.5	M8x1	1.25
40 x 10R x 6 - 4	38.0	33.8	63	93	BB1	78	9.0	70	25	16	22.5	11.8	81.5	22.5	M8x1	1.39
40 x 12R x 6 - 4	38.0	33.8	63	93	BB1	78	9.0	75	25	25	25.0	12.5	81.5	25.0	M8x1	1.47
40 x 20R x 6 - 3	38.0	33.8	63	93	BB1	78	9.0	88	25	25	31.5	16.5	81.5	31.5	M8x1	1.55
40 x 40R x 6 - 3	38.0	33.8	63	93	BB1	78	9.0	142	40	45	51.0	25.0	81.5	51.0	M8x1	2.69
50 x 5R x 3.5 - 5	49.0	46.4	75	110	BB1	93	11.0	54	25	10	14.5	12.0	97.5	14.5	M8x1	1.67
50 x 10R x 6 - 6	48.0	43.8	75	110	BB1	93	11.0	90	30	16	30.0	14.1	97.5	30.0	M8x1	2.46
50 x 12R x 6 - 6	48.0	43.8	75	110	BB1	93	11.0	105	30	25	37.5	15.0	97.5	37.5	M8x1	2.69
50 x 20R x 6.5 - 5	48.0	43.4	75	110	BB1	93	11.0	132	30	25	51.0	20.0	97.5	51.0	M8x1	3.08
50 x 40R x 6.5 - 3	48.0	43.4	75	110	BB1	93	11.0	149	30	45	59.5	18.0	97.5	59.5	M8x1	3.39
63 x 10R x 6 - 6	61.0	56.8	90	125	BB1	108	11.0	90	30	16	30.0	14.0	110.0	30.0	M8x1	2.83
63 x 20R x 6.5 - 5	61.0	56.4	95	135	BB1	115	13.5	132	30	25	51.0	20.0	117.5	51.0	M8x1	4.86
63 x 40R x 6.5 - 3	61.0	56.4	95	135	BB1	115	13.5	149	30	45	59.5	18.0	117.5	59.5	M8x1	5.36
80 x 10R x 6.5 - 6	78.0	73.3	105	145	BB1	125	13.5	95	30	16	32.5	14.0	127.5	32.5	M8x1	3.73
80 x 20R x 12.7 - 6	76.0	67.0	125	165	BB1	145	13.5	170	50	25	60.0	24.0	147.5	60.0	M8x1	13.50

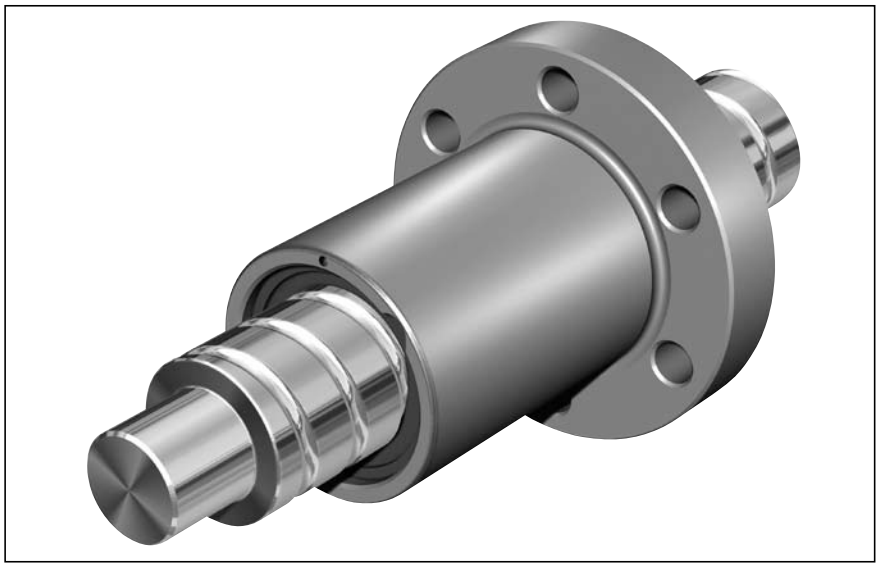
3) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm

Nuts

Single Nut with Flange FEM-E-S

Standard series
Rexroth mounting dimensions

With standard seals
With left-hand thread in some versions
Reinforced seals, see page 112
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9

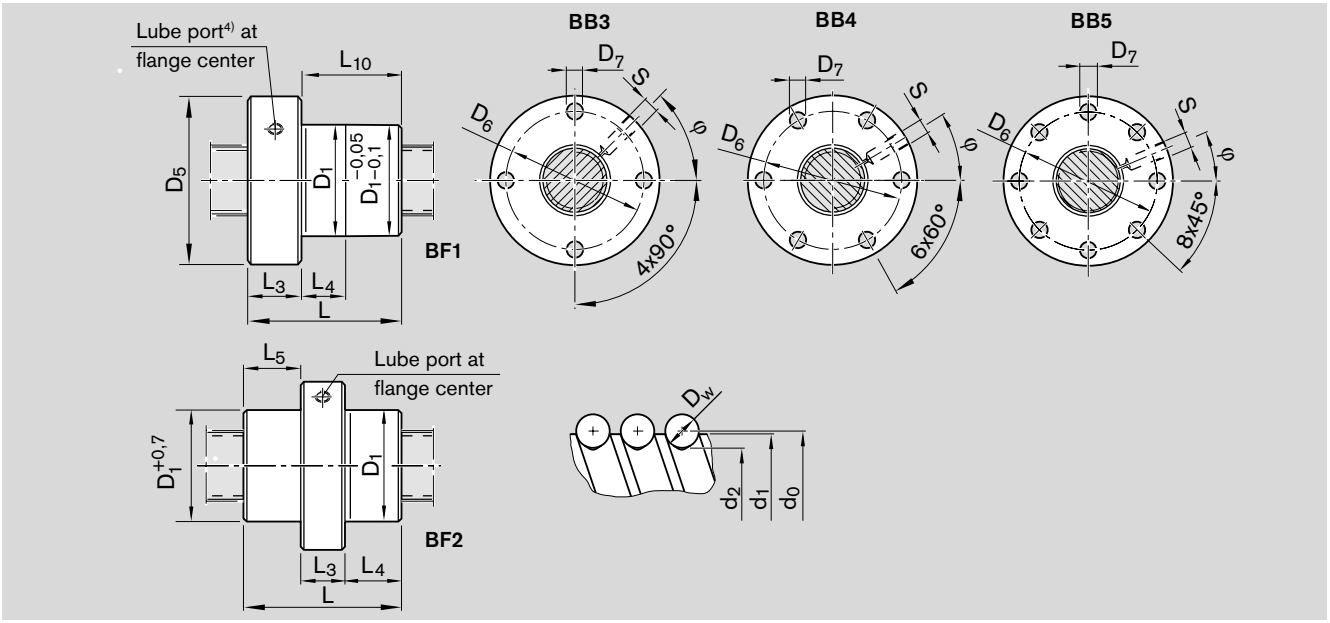


Ordering code: **FEM-E-S | 20 x 5R x 3-4 | 1 | 2 | T7 | R | 82Z120 | 41Z120 | 1250 | 0 | 1**

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 x P x D_w - i	Part number	Load ratings dyn. C (N)	Load ratings stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	8 x 2.5R x 1.588 - 3	R1532 230 03	2200	2800	15
A	12 x 5R x 2 - 3	R1532 460 23	3800	5800	30
B	12 x 10R x 2 - 2	R1532 490 13	2500	3600	60
A	16 x 5R x 3 - 4	R1512 010 23	12300	16100	30
A	16 x 10R x 3 - 3	R1512 040 13	9600	12300	60
B	16 x 16R x 3 - 2	R1512 060 13	6300	7600	96
A[2]	20 x 5R x 3 - 4	R1512 110 13	14300	21500	30
B	20 x 5L x 3 - 4	R1552 110 13	14300	21500	30
A	20 x 10R x 3 - 4	R1512 140 13	14100	21300	60
A	20 x 20R x 3.5 - 2	R1512 170 13	9100	12100	120
B	20 x 20L x 3.5 - 2	R1552 170 13	9100	12100	120
A[2]	25 x 5R x 3 - 4	R1512 210 13	15900	27200	30
B	25 x 5 L x 3 - 4	R1552 210 13	15900	27200	30
A[2]	25 x 10R x 3 - 4	R1512 240 13	15700	27000	60
A	25 x 25R x 3.5 - 2	R1512 280 13	10100	15100	150
B	25 x 25 L x 3.5 - 2	R1552 280 13	10100	15100	150
A[2]	32 x 5R x 3.5 - 4	R1512 310 13	21600	40000	23
A[2]	32 x 10R x 3.969 - 5	R1512 340 13	31700	58300	47
A[2]	32 x 20R x 3.969 - 2	R1512 370 13	13500	21800	94
A	32 x 32R x 3.969 - 2	R1512 390 13	13400	22000	150
A	40 x 5R x 3.5 - 5	R1512 410 13	29100	64100	19
A[2]	40 x 10R x 6 - 4	R1512 440 13	50000	86400	38
A[2]	40 x 20R x 6 - 3	R1512 470 13	37900	62800	75
A	40 x 40R x 6 - 2	R1512 490 13	25500	40300	150
B	50 x 5R x 3.5 - 5	R1512 510 13	32000	81300	15
A	50 x 10R x 6 - 6	R1512 540 13	79700	166500	30
C	50 x 16R x 6 - 6	R1512 560 13	79400	166000	48
B	50 x 20R x 6.5 - 3	R1512 570 13	47900	87900	60
B	50 x 40R x 6.5 - 2	R1512 590 13	32100	55800	120
A	63 x 10R x 6 - 6	R1512 640 13	88800	214300	24
B	63 x 20R x 6.5 - 3	R1512 670 13	53200	112100	48
C	63 x 40R x 6.5 - 2	R1512 690 13	36900	74300	95
B	80 x 10R x 6.5 - 6	R1512 740 13	108400	291700	19
B	80 x 20R x 12.7 - 6[3]	R1512 770 23	262700	534200	30

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}
2) Can be replaced in these sizes by FSZ-E-S
3) Nuts 80 x 20R x 12.7 - 6 available up to a thread length of 2500 mm, with preload



Size	Dimensions (mm)															Weight
d_0 x P x D_w - i	d_1	d_2	D_1 g6	D_5	Hole pattern	D_6	D_7	Type	L	L_3	L_4	L_5	L_{10}	S4)	φ (°)	m (kg)
8 x 2.5R x 1.588 - 3	7.5	6.3	16	30	BB4	23	3.4	BF1	16	8	8.0	–	8	M4	30.0	0.05
12 x 5R x 2 - 3	11.4	9.9	24	40	BB4	32	4.5	BF1	28	12	10.0	–	16	M6	330.0	0.12
12 x 10R x 2 - 2	11.4	9.9	24	40	BB4	32	4.5	BF1	33	12	16.0	–	21	M6	330.0	0.14
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 5L 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	19.3	16.7	38	63	BB4	50	6.6	BF2	57	20	18.5	18.5	–	M6	30.0	0.60
20 x 20L x 3.5 - 2	19.3	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 5 L 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
25 x 25 L 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 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

4) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm. For size 8 x 2.5, a funnel-type lube nipple DIN 3405 is provided.

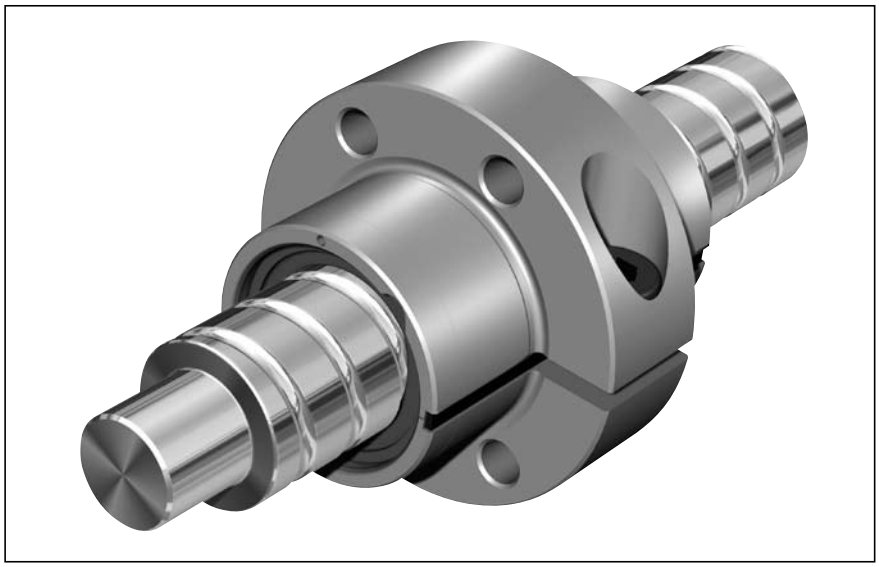
Nuts

Adjustable-Preload Single Nut SEM-E-S

Standard series

Rexroth mounting dimensions

With standard seals
Reinforced seals, see page 112
Adjustable preload
For precision-rolled screws SN-R
of tolerance grade T5, T7
With left-hand thread in some versions



d_0 = nominal diameter
P = lead
(R = right-hand, L = left-hand)
D_W = ball diameter
i = number of ball track turns

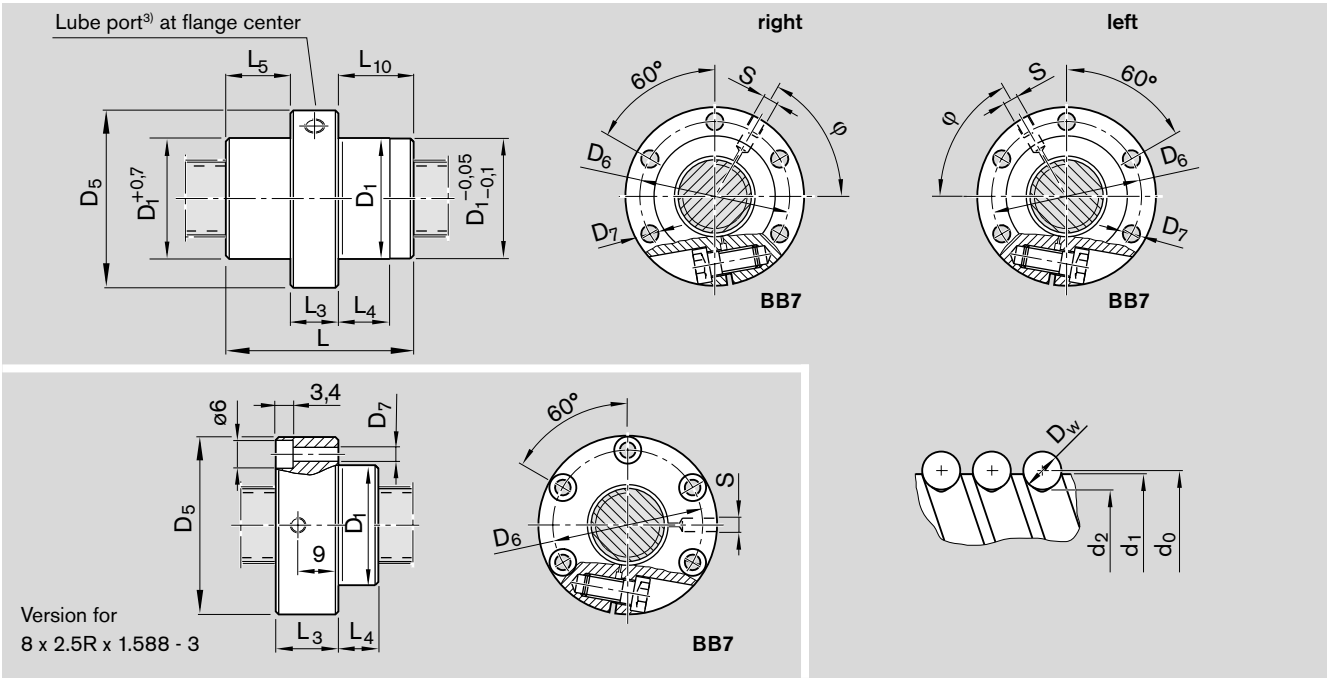
Ordering code:

SEM-E-S	20 x 5R x 3-4	1	2	T7	R	82Z120	41Z120	1250	0	1

Category	Size	Part number	Load ratings		Linear speed[1]	Centering diameter D_1 after adjustment	
			dyn. C	stat. C_0	v_{max}		
	d_0 x P x D_W - i		(N)	(N)	(m/min)	**min.** (mm)	**max.** (mm)
B	**8 x 2.5R x 1.588 - 3**	R1532 230 04	2200	2800	15	15.953	15.987
B	**12 x 5R x 2 - 3**	R1532 460 24	3800	5800	30	23.940	23.975
C	**12 x 10R x 2 - 2**	R1532 490 14	2500	3600	60	23.940	23.975
B	**16 x 5R x 3 - 4**	R1512 010 24	12300	16100	30	27.940	27.975
C	**16 x 10R x 3 - 3**	R1512 040 14	9600	12300	60	27.940	27.975
B	**16 x 16R x 3 - 2**	R1512 060 14	6300	7600	96	32.945	32.973
A	**20 x 5R x 3 - 4**	R1512 110 14	14300	21500	30	32.935	32.970
B	**20 x 20R x 3.5 - 2**	R1512 170 14	9100	12100	120	37.945	37.973
A	**25 x 5R x 3 - 4**	R1512 210 14	15900	27200	30	37.935	37.970
A	**25 x 10R x 3 - 4**	R1512 240 14	15700	27000	60	37.935	37.970
B	**25 x 25R x 3.5 - 2**	R1512 280 14	10100	15100	150	47.945	47.973
A	**32 x 5R x 3.5 - 4**	R1512 310 14	21600	40000	23	47.935	47.970
A	**32 x 5L x 3.5 - 4**	R1552 310 04	21600	40000	23	47.935	47.970
A	**32 x 10R x 3.969 - 5**	R1512 340 14	31700	58300	47	47.935	47.970
B	**32 x 20R x 3.969 - 2**	R1512 370 14	13500	21800	94	55.941	55.969
B	**32 x 32R x 3.969 - 2**	R1512 390 14	13400	22000	150	55.941	55.969
A	**40 x 5R x 3.5 - 5**	R1512 410 14	29100	64100	19	55.931	55.966
B	**40 x 5L x 3.5 - 5**	R1552 410 04	29100	64100	19	55.931	55.966
A	**40 x 10R x 6 - 4**	R1512 440 14	50000	86400	38	62.931	62.966
B	**40 x 10L x 6 - 4**	R1552 440 04	50000	86400	38	62.931	62.966
A	**40 x 20R x 6 - 3**	R1512 470 14	37900	62800	75	62.941	62.969
A	**40 x 40R x 6 - 2**	R1512 490 14	25500	40300	150	71.941	71.969
B	**50 x 5R x 3.5 - 5**	R1512 510 14	32000	81300	15	67.931	67.966
B	**50 x 10R x 6 - 6**	R1512 540 14	79700	166500	30	71.931	71.966
B	**50 x 20R x 6.5 - 3**	R1512 570 14	47900	87900	60	84.936	84.964
B	**50 x 40R x 6.5 - 2**	R1512 590 14	32100	55800	120	84.936	84.964
B	**63 x 10R x 6 - 6**	R1512 640 14	88800	214300	24	84.926	84.961
C	**63 x 20R x 6.5 - 3**	R1512 670 14	53200	112100	48	94.936	94.964
C	**63 x 40R x 6.5 - 2**	R1512 690 14	36900	74300	95	94.936	94.964
C	**80 x 10R x 6.5 - 6**	R1512 740 14	108400	291700	19	104.926	104.961
B	**80 x 20R x 12.7 - 6[2]**	R1512 770 24	262700	534200	30	124.931	124.959

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}

2) Nuts 80 x 20R x 12.7 - 6 available up to a thread length of 2500 mm, with preload



Size	Dimensions (mm)														Weight
d_0 x P x D_W - i	d_1	d_2	D_1 f9	D_5	Hole pattern	D_6	D_7	L	L_3	L_4	L_5	L_{10}	S3)	φ (°)	m (kg)
8 x 2.5R x 1.588 - 3	7.5	6.3	16	30	BB7	23	3.4	16	13	3.0	-	3.0	M4	0	0.06
12 x 5R x 2 - 3	11.4	9.9	24	40	BB7	32	4.5	28	12	8.0	8.0	8.0	M6	55	0.12
12 x 10R x 2 - 2	11.4	9.9	24	40	BB7	32	4.5	33	12	10.5	10.5	10.5	M6	55	0.13
16 x 5R x 3 - 4	15.0	12.9	28	53	BB7	40	6.6	38	15	10.0	11.5	11.5	M6	53	0.24
16 x 10R x 3 - 3	15.0	12.9	28	53	BB7	40	6.6	45	15	15.0	15.0	15.0	M6	180	0.25
16 x 16R x 3 - 2	15.0	12.9	33	58	BB7	45	6.6	45	15	15.0	15.0	15.0	M6	50	0.42
20 x 5R x 3 - 4	19.0	16.9	33	58	BB7	45	6.6	40	15	10.0	12.5	12.5	M6	56	0.31
20 x 20R x 3.5 - 2	19.3	16.7	38	63	BB7	50	6.6	57	20	18.5	18.5	18.5	M6	60	0.63
25 x 5R x 3 - 4	24.0	21.9	38	63	BB7	50	6.6	45	20	10.0	12.5	12.5	M6	60	0.44
25 x 10R x 3 - 4	24.0	21.9	38	63	BB7	50	6.6	64	20	16.0	22.0	22.0	M6	60	0.53
25 x 25R x 3.5 - 2	24.0	21.4	48	73	BB7	60	6.6	70	25	22.5	22.5	22.5	M6	48	1.13
32 x 5R x 3.5 - 4	31.0	28.4	48	73	BB7	60	6.6	48	20	10.0	14.0	14.0	M6	60	0.64
32 x 5L x 3.5 - 4	31.0	28.4	48	73	BB7	60	6.6	48	20	10.0	14.0	14.0	M6	59	0.64
32 x 10R x 3.969 - 5	31.0	27.9	48	73	BB7	60	6.6	77	20	16.0	28.5	28.5	M6	168	0.87
32 x 20R x 3.969 - 2	31.0	27.9	56	80	BB7	68	6.6	64	20	22.0	22.0	22.0	M6	60	1.14
32 x 32R x 3.969 - 2	31.0	27.9	56	80	BB7	68	6.6	88	20	34.0	34.0	34.0	M6	60	1.44
40 x 5R x 3.5 - 5	39.0	36.4	56	80	BB7	68	6.6	54	20	10.0	17.0	17.0	M8x1	65	0.87
40 x 5L x 3.5 - 5	39.0	36.4	56	80	BB7	68	6.6	54	20	10.0	17.0	17.0	M8x1	65	0.87
40 x 10R x 6 - 4	38.0	33.8	63	95	BB7	78	9.0	70	25	16.0	22.5	22.5	M8x1	57	1.53
40 x 10L x 6 - 4	38.0	33.8	63	95	BB7	78	9.0	70	25	16.0	22.5	22.5	M8x1	57	1.53
40 x 20R x 6 - 3	38.0	33.8	63	95	BB7	78	9.0	88	25	25.0	31.5	31.5	M8x1	180	1.77
40 x 40R x 6 - 2	38.0	33.8	72	110	BB7	90	11.0	102	40	31.0	31.0	31.0	M8x1	49	3.77
50 x 5R x 3.5 - 5	49.0	46.4	68	98	BB7	82	9.0	54	25	10.0	14.5	14.5	M8x1	67	1.23
50 x 10R x 6 - 6	48.0	43.8	72	110	BB7	90	11.0	90	30	16.0	30.0	30.0	M8x1	61	2.44
50 x 20R x 6.5 - 3	48.0	43.4	85	125	BB7	105	11.0	92	30	25.0	31.0	31.0	M8x1	180	3.94
50 x 40R x 6.5 - 2	48.0	43.4	85	125	BB7	105	11.0	109	30	39.5	39.5	39.5	M8x1	60	4.42
63 x 10R x 6 - 6	61.0	56.8	85	125	BB7	105	11.0	90	30	16.0	30.0	30.0	M8x1	65	2.94
63 x 20R x 6.5 - 3	61.0	56.4	95	140	BB7	118	14.0	92	30	25.0	31.0	31.0	M8x1	190	4.45
63 x 40R x 6.5 - 2	61.0	56.4	95	140	BB7	118	14.0	109	30	39.5	39.5	39.5	M8x1	70	4.95
80 x 10R x 6.5 - 6	78.0	73.3	105	150	BB7	125	14.0	95	30	16.0	32.5	32.5	M8x1	67	4.20
80 x 20R x 12.7 - 6	76.0	67.0	125	180	BB7	152	18.0	170	50	25.0	60.0	60.0	M8x1	60	13.30

3) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm. For size 8 x 2.5, a funnel-type lube nipple DIN 3405 is provided.

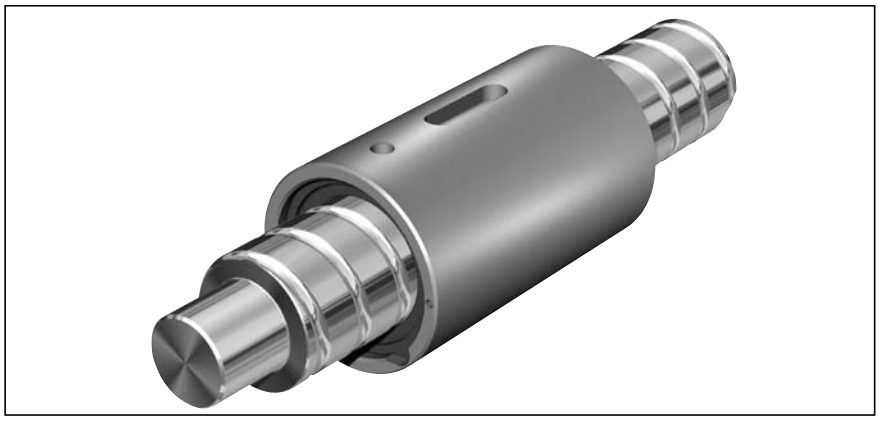
Nuts

Cylindrical Single Nut ZEM-E-S

Standard series

Rexroth mounting dimensions

With standard seals
Reinforced seals, see page 112
With backlash, reduced backlash, preload 2%; 3%; 5%
For precision-rolled screws SN-R of tolerance grade T5, T7, T9
With left-hand thread in some versions



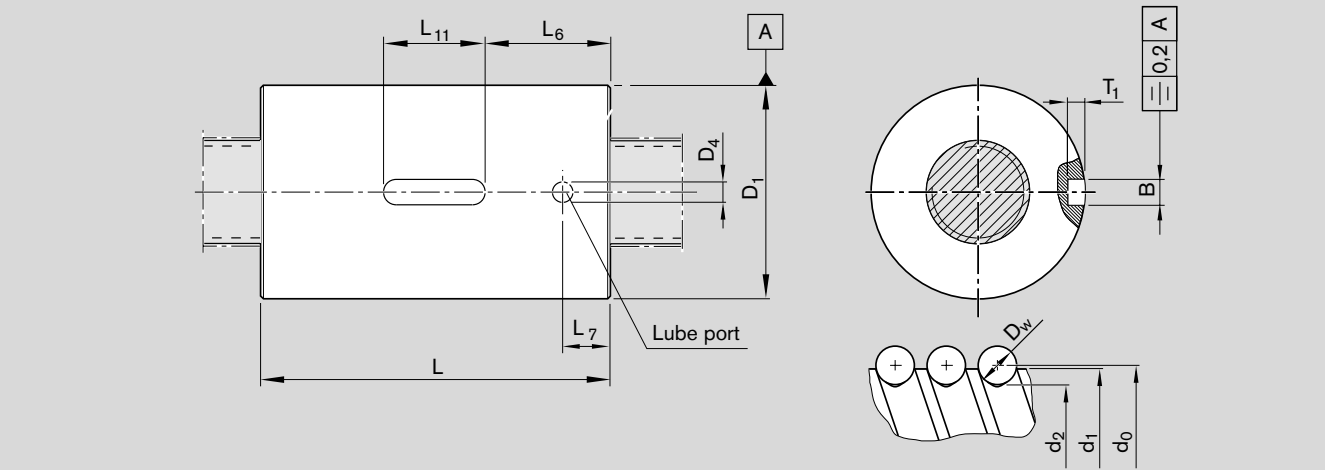
Ordering code:

ZEM-E-S	20 x 5R x 3-5	1	2	T7	R	82Z120	41Z120	1250	0	1

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 x P x D_w - i	Part number	Load ratings dyn. C (N)	Load ratings stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
A	**8 x 2.5R x 1.588 - 3**	R1532 230 02	2200	2800	15
B[2]	**12 x 2R x 1.2 - 4**	R1532 422 01	2240	4160	12
A	**12 x 5R x 2 - 3**	R1532 460 32	3800	5800	30
B[2]	**12 x 5R x 2 - 3**	R1532 462 25	3800	5800	30
B	**12 x 10R x 2 - 2**	R1532 490 22	2500	3600	60
B[2]	**12 x 10R x 2 - 2**	R1532 492 00	2500	3600	60
A	**16 x 5R x 3 - 4**	R1512 010 22	12300	16100	30
C	**16 x 5L x 3 - 4**	R1552 010 02	12300	16100	30
B[2]	**16 x 5R x 3 - 4**	R1512 012 67	12300	16100	30
A	**16 x 10R x 3 - 3**	R1512 040 12	9600	12300	60
B[2]	**16 x 10R x 3 - 3**	R1512 042 08	9600	12300	60
B[2]	**16 x 10R x 3 - 3**	R1512 042 09	9600	12300	60
A	**16 x 16R x 3 - 2**	R1512 060 12	6300	7600	96
B[2]	**16 x 16R x 3 - 2**	R1512 062 10	6300	7600	96
B[2]	**16 x 16R x 3 - 3**	R1512 062 11	9600	12300	96
A	**20 x 5R x 3 - 5**	R1512 110 12	17500	27300	30
B[2]	**20 x 5R x 3 - 4**	R1512 112 43	14300	21500	30
A	**20 x 20R x 3.5 - 2**	R1512 170 12	9100	12100	120
B[2]	**20 x 20R x 3.5 - 3**	R1512 172 07	13300	18800	120
A	**25 x 5R x 3 - 4**	R1512 210 12	15900	27200	30
A	**25 x 10R x 3 - 4**	R1512 240 12	15700	27000	60
B	**25 x 25R x 3.5 - 2**	R1512 280 12	10100	15100	150
B	**25 x 25R x 3.5 - 3**	R1512 280 52	14700	23300	150
B	**32 x 5R x 3.5 - 4**	R1512 310 12	21600	40000	23
A	**32 x 10R x 3.969 - 5**	R1512 340 12	31700	58300	47
C	**32 x 20R x 3.969 - 2**	R1512 370 12	13500	21800	94
B	**32 x 20R x 3.969 - 3**	R1512 370 52	19700	33700	94
B	**32 x 32R x 3.969 - 2**	R1512 390 12	13400	22000	150
B	**32 x 32R x 3.969 - 3**	R1512 390 52	19500	34000	150
C	**40 x 5R x 3.5 - 5**	R1512 410 12	29100	64100	19
B[2]	**40 x 5R x 3.5 - 5**	R1512 412 21	29100	64100	19
B	**40 x 10R x 6 - 4**	R1512 440 12	50000	86400	38
B	**40 x 20R x 6 - 3**	R1512 470 12	37900	62800	75
B	**40 x 40R x 6 - 2**	R1512 490 12	25500	40300	150
B	**40 x 40R x 6 - 3**	R1512 490 52	37000	62300	150
B	**50 x 5R x 3.5 - 5**	R1512 510 12	32000	81300	15
C	**50 x 10R x 6 - 6**	R1512 540 12	79700	166500	30
C	**50 x 20R x 6.5 - 3**	R1512 570 12	47900	87900	60
C	**63 x 10R x 6 - 6**	R1512 640 12	88800	214300	24

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}
2) Special nuts for Rexroth modules and drive units



Size	Dimensions (mm)										Weight
	d_1	d_2	D_1	D_4	L	L_6	L_7	L_{11}	B	T_1	m
d_0 x P x D_W - i			g6		±0.1			+0.2	P9	+0.1	(kg)
8 x 2.5R x 1.588 - 3	7.5	6.3	16	2	16	5.0	3.5	6	3	1.8	0.02
12 x 2R x 1.2 - 4	11.7	10.8	21	2	19	5.5	3.5	8	3	1.8	0.03
12 x 5R x 2 - 3	11.4	9.9	24	2	28	8.0	3.5	12	5	3.0	0.06
12 x 5R x 2 - 3	11.4	9.9	21	2	28	8.0	3.5	12	3	1.8	0.04
12 x 10R x 2 - 2	11.4	9.9	24	2	33	10.5	3.5	12	5	3.0	0.07
12 x 10R x 2 - 2	11.4	9.9	21	2	33	10.5	3.5	12	3	1.8	0.05
16 x 5R x 3 - 4	15.0	12.9	28	4	35	14.5	9.5	12	5	3.0	0.09
16 x 5L x 3 - 4	15.0	12.9	28	4	35	14.5	9.5	12	5	3.0	0.09
16 x 5R x 3 - 4	15.0	12.9	33	4	45	14.5	9.5	16	5	3.0	0.17
16 x 10R x 3 - 3	15.0	12.9	28	4	45	14.5	9.5	16	5	3.0	0.12
16 x 10R x 3 - 3	15.0	12.9	38	4	54	19.0	9.5	16	5	3.0	0.35
16 x 10R x 3 - 3	15.0	12.9	33	4	45	14.5	9.5	16	5	3.0	0.20
16 x 16R x 3 - 2	15.0	12.9	33	4	45	14.5	9.5	16	5	3.0	0.20
16 x 16R x 3 - 2	15.0	12.9	28	4	45	14.5	9.5	16	5	3.0	0.12
16 x 16R x 3 - 3	15.0	12.9	38	4	61	22.5	9.5	16	5	3.0	0.42
20 x 5R x 3 - 5	19.0	16.9	33	4	45	14.5	9.5	16	5	3.0	0.16
20 x 5R x 3 - 4	19.0	16.9	38	4	40	21.0	9.5	12	5	3.0	0.21
20 x 20R x 3.5 - 2	19.3	16.7	38	4	64	22.0	9.5	20	5	3.0	0.34
20 x 20R x 3.5 - 3	19.3	16.7	38	4	77	28.5	9.5	20	5	3.0	0.44
25 x 5R x 3 - 4	24.0	21.9	38	4	45	14.5	9.5	16	5	3.0	0.19
25 x 10R x 3 - 4	24.0	21.9	38	4	64	22.0	9.5	20	5	3.0	0.28
25 x 25R x 3.5 - 2	24.0	21.4	48	4	80	30.0	10.5	20	5	3.0	0.73
25 x 25R x 3.5 - 3	24.0	21.4	40	4	95	37.5	10.5	20	5	3.0	0.50
32 x 5R x 3.5 - 4	31.0	28.4	48	4	48	14.0	9.5	20	5	3.0	0.32
32 x 10R x 3.969 - 5	31.0	27.9	48	4	77	28.5	9.5	20	5	3.0	0.50
32 x 20R x 3.969 - 2	31.0	27.9	56	4	64	22.0	9.5	20	5	3.0	0.74
32 x 20R x 3.969 - 3	31.0	27.9	50	4	84	32.0	9.5	20	5	3.0	0.66
32 x 32R x 3.969 - 2	31.0	27.9	56	4	88	34.0	9.5	20	5	3.0	1.03
32 x 32R x 3.969 - 3	31.0	27.9	50	4	120	50.0	9.5	20	5	3.0	0.97
40 x 5R x 3.5 - 5	39.0	36.4	56	4	54	17.0	9.5	20	5	3.0	0.44
40 x 5R x 3.5 - 5	39.0	36.4	63	4	70	25.0	14.0	20	5	3.0	0.82
40 x 10R x 6 - 4	38.0	33.8	63	4	70	25.0	14.0	20	5	3.0	0.88
40 x 20R x 6 - 3	38.0	33.8	63	4	88	34.0	14.0	20	5	3.0	1.13
40 x 40R x 6 - 2	38.0	33.8	72	4	113	46.5	14.0	20	5	3.0	2.23
40 x 40R x 6 - 3	38.0	33.8	63	4	142	61.0	14.0	20	5	3.0	1.85
50 x 5R x 3.5 - 5	49.0	46.4	68	4	54	17.0	9.5	20	5	3.0	0.62
50 x 10R x 6 - 6	48.0	43.8	72	5	90	35.0	14.0	20	5	3.0	1.34
50 x 20R x 6.5 - 3	48.0	43.4	85	5	92	30.0	14.0	32	6	3.5	2.39
63 x 10R x 6 - 6	61.0	56.8	85	5	90	29.0	14.0	32	6	3.5	1.59

Nuts

2-start Single Nut with Flange FED-E-B

Standard series

Mounting dimensions similar to DIN 69 051, Part 5
Flange type B

2-start nuts to distinctly increase the dynamic and static load rating
Mounting dimensions correspond to those of the Rexroth standard series

With standard seals
With backlash, reduced backlash, preload 3%
For precision-rolled screws SN-R of tolerance grade T5, T7

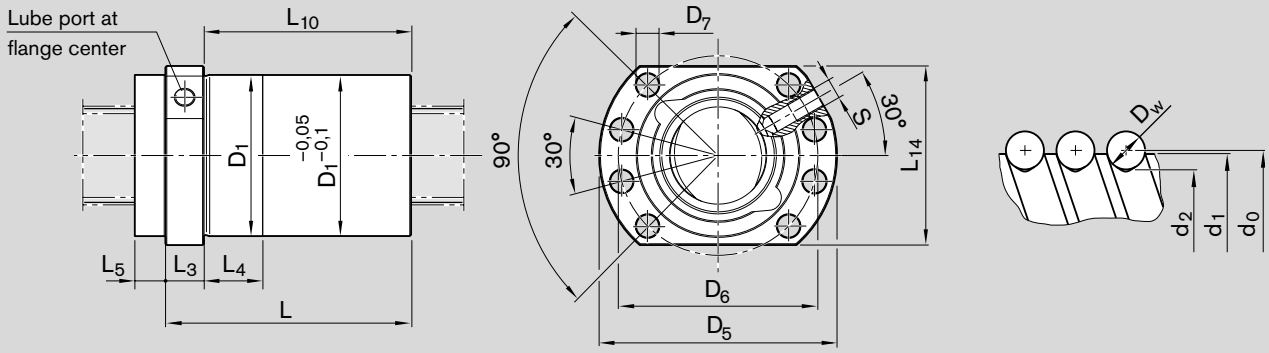
Ordering code:

FED-E-B	40 x 20R x 6 - 8 x 2	1	6	T5	R	13Z400	41K300	0	1

Size d_0 x P x D_W - i x b	Part number	Load ratings dyn. C (kN)	stat. C_0 (kN)	Max. static load[1] (kN)	Linear speed v_{max} (m/min)
40 x 20 R x 6 - 8 x 2	R1512 470 32	76.4	171.1	87	75
40 x 40 R x 6 - 6 x 2	R1512 490 32	57.2	124.5	83	150
50 x 20 R x 6.5 - 8 x 2	R1512 570 32	93.2	228.0	120	60
50 x 25 R x 6.5 - 6 x 2	R1512 580 32[2]	74.1	175.1	117	75
50 x 40 R x 6.5 - 6 x 2	R1512 590 32	71.4	171.5	119	120
63 x 20 R x 6.5 - 8 x 2	R1512 670 32	104.6	292.0	142	48
63 x 40 R x 6.5 - 6 x 2	R1512 690 32	80.0	217.0	148	95

1) The load-bearing capability of the rolling contact is greater than the mechanical strength of the nut body, therefore, maximum static load data has been included.
2) In preparation

d_0 = nominal diameter
P = lead (R = right-hand, L = left-hand)
D_W = ball diameter
i = a x b
a = load-carrying turns
b = number of load-carrying threads on the screw



Size	Dimensions (mm)													Weight
d_0 x P x D_w - i	d_1	d_2	D_1 g6	D_5	D_6	D_7	L	L_3	L_4	L_5	L_{10}	L_{14}	S	m (kg)
40 x 20 R x 6 - 8x2	38.0	33.8	63	93	78	9.0	108	15	25	13.0	80.0	70	M8x1	1.85
40 x 40 R x 6 - 6x2	38.0	33.8	63	93	78	9.0	142	15	45	11.5	115.5	70	M8x1	2.35
50 x 20 R x 6.5 - 8x2	48.0	43.4	75	110	93	11.0	112	18	25	13.0	81.0	85	M8x1	2.50
50 x 25 R x 6.5 - 6x2	48.0	43.4	75	110	93	11.0	107	18	25	13.5	75.5	85	M8x1	2.45
50 x 40 R x 6.5 - 6x2	48.0	43.4	75	110	93	11.0	149	18	45	15.0	116.0	85	M8x1	3.40
63 x 20 R x 6.5 - 8x2	61.0	56.4	95	135	115	13.5	112	22	25	11.0	79.0	100	M8x1	3.90
63 x 40 R x 6.5 - 6x2	61.0	56.4	95	135	115	13.5	149	22	45	12.0	115.0	100	M8x1	5.05

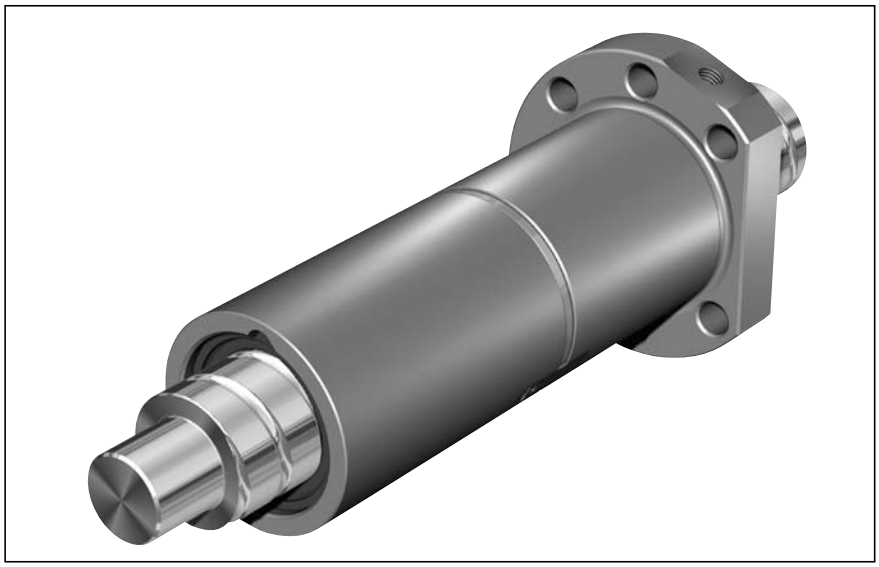
Nuts

Double Nut with Flange FDM-E-C

Standard series

Mounting dimensions per DIN 69 051, Part 5
Flange type C

With standard seals
Reinforced seals, see page 112
With preload 7% or 10%
For precision-rolled screws SN-R of tolerance grade T5, T7

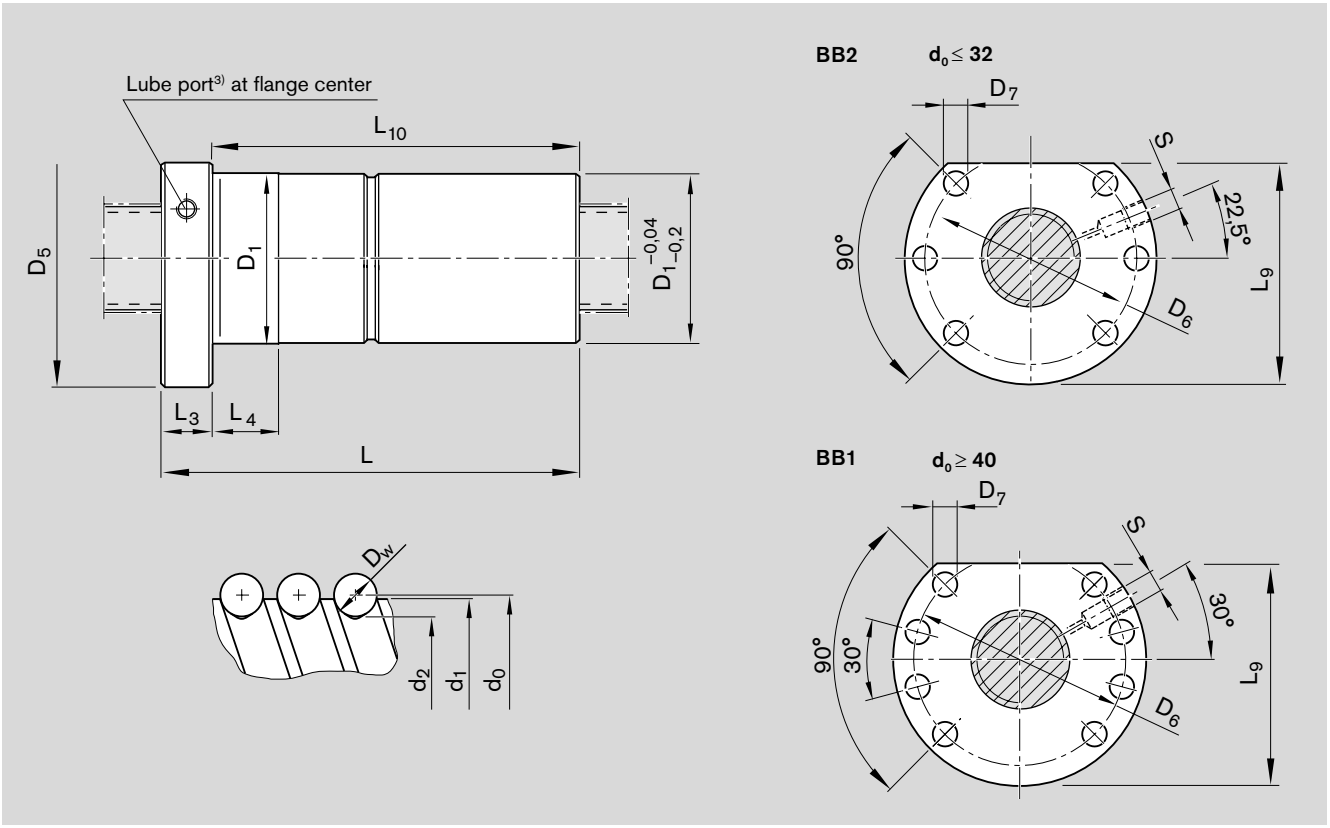


d_0 = nominal diameter
P = lead (R = right-hand, L = left-hand)
D_W = ball diameter
i = number of ball track turns

Ordering code: **FDM-E-C 20 x 5R x 3-4 1 2 T7 R 82Z120 41Z120 1250 0 1**

Category	Size d_0 x P x D_W - i	Part number	Load ratings dyn. C (N)	stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
C	**16 x 5R x 3 - 4**	R1502 010 55	12300	16100	30
C	**20 x 5R x 3 - 4**	R1502 110 75	14300	21500	30
C	**25 x 5R x 3 - 4**	R1502 210 75	15900	27200	30
C	**25 x 10R x 3 - 4**	R1502 240 75	15700	27000	60
C	**32 x 5R x 3.5 - 4**	R1502 310 75	21600	40000	23
C	**32 x 10R x 3.969 - 5**	R1502 340 76	31700	58300	47
C	**40 x 5R x 3.5 - 5**	R1502 410 76	29100	64100	19
C	**40 x 10R x 6 - 4**	R1502 440 75	50000	86400	38
C	**40 x 10R x 6 - 6**	R1502 440 76	72100	132200	38
C	**40 x 20R x 6 - 3**	R1502 470 75	37900	62800	75
C	**50 x 5R x 3.5 - 5**	R1502 510 76	32000	81300	15
C	**50 x 10R x 6 - 4**	R1502 540 75	55400	109000	30
C	**50 x 10R x 6 - 6**	R1502 540 76	79700	166500	30
C	**50 x 20R x 6.5 - 5**	R1502 570 76	75700	149700	60
C	**63 x 10R x 6 - 4**	R1502 640 75	61800	140500	24
C	**63 x 10R x 6 - 6**	R1502 640 76	88800	214300	24
C	**63 x 20R x 6.5 - 5**	R1502 670 76	83900	190300	48
C	**80 x 10R x 6.5 - 6**	R1502 740 76	108400	291700	19
C	**80 x 20R x 12.7 - 6**[2]	R1502 770 46	262700	534200	30

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}
2) Nuts 80 x 20R x 12.7 - 6 available up to a thread length of 2500 mm, with preload



Size	Dimensions (mm)													Weight
d_0 x P x D_W - i	d_1	d_2	D_1 g6	D_5	Hole pattern	D_6	D_7	L	L_3	L_4	L_9	L_{10}	S[3]	m (kg)
16 x 5R x 3 - 4	15.0	12.9	28	48	BB2	38	5.5	72	12	10	44.0	60	M6	0.29
20 x 5R x 3 - 4	19.0	16.9	36	58	BB2	47	6.6	82	12	10	51.0	70	M6	0.53
25 x 5R x 3 - 4	24.0	21.9	40	62	BB2	51	6.6	82	12	10	55.0	70	M6	0.57
25 x 10R x 3 - 4	24.0	21.9	40	62	BB2	51	6.6	120	12	16	55.0	108	M6	0.77
32 x 5R x 3.5 - 4	31.0	28.4	50	80	BB2	65	9.0	88	13	10	71.0	75	M6	0.96
32 x 10R x 3.969 - 5	31.0	27.9	50	80	BB2	65	9.0	146	13	16	71.0	133	M6	1.34
40 x 5R x 3.5 - 5	39.0	36.4	63	93	BB1	78	9.0	100	15	10	81.5	85	M8x1	1.68
40 x 10R x 6 - 4	38.0	33.8	63	93	BB1	78	9.0	140	15	16	81.5	125	M8x1	2.15
40 x 10R x 6 - 6	38.0	33.8	63	93	BB1	78	9.0	180	15	16	81.5	165	M8x1	2.73
40 x 20R x 6 - 3	38.0	33.8	63	93	BB1	78	9.0	175	15	25	81.5	160	M8x1	2.56
50 x 5R x 3.5 - 5	49.0	46.4	75	110	BB1	93	11.0	100	15	10	97.5	85	M8x1	2.25
50 x 10R x 6 - 4	48.0	43.8	75	110	BB1	93	11.0	140	18	16	97.5	122	M8x1	2.97
50 x 10R x 6 - 6	48.0	43.8	75	110	BB1	93	11.0	180	18	16	97.5	162	M8x1	3.73
50 x 20R x 6.5 - 5	48.0	43.4	75	110	BB1	93	11.0	255	18	25	97.5	237	M8x1	4.93
63 x 10R x 6 - 4	61.0	56.8	90	125	BB1	108	11.0	140	22	16	110.0	118	M8x1	4.00
63 x 10R x 6 - 6	61.0	56.8	90	125	BB1	108	11.0	180	22	16	110.0	158	M8x1	4.45
63 x 20R x 6.5 - 5	61.0	56.4	95	135	BB1	115	13.5	255	22	25	117.5	233	M8x1	8.21
80 x 10R x 6.5 - 6	78.0	73.3	105	145	BB1	125	13.5	190	22	16	127.5	168	M8x1	5.93
80 x 20R x 12.7 - 6	76.0	67.0	125	165	BB1	145	13.5	340	25	25	147.5	315	M8x1	19.40

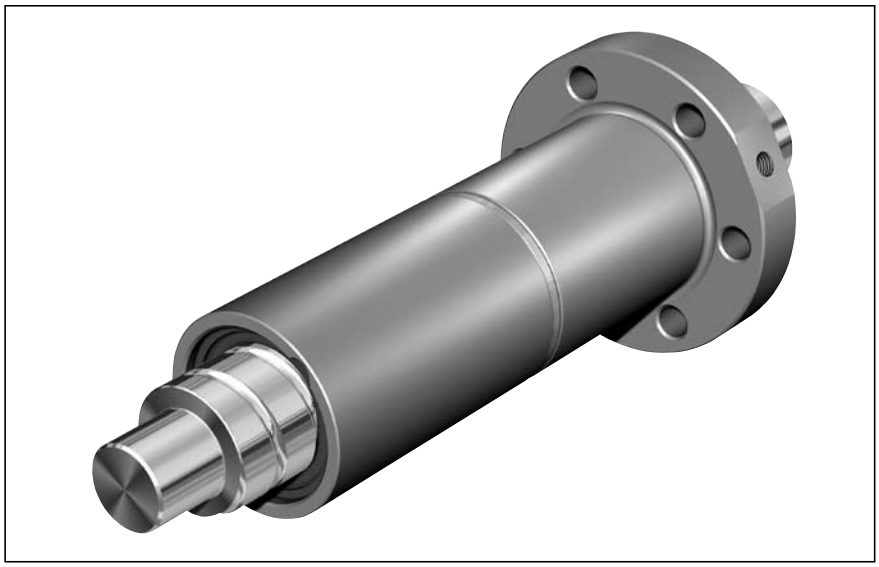
3) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm

Nuts

Double Nut with Flange FDM-E-S

Standard series
Rexroth mounting dimensions

With standard seals
Reinforced seals, see page 112
With preload 7% or 10%
For precision-rolled screws SN-R
of tolerance grade T5, T7

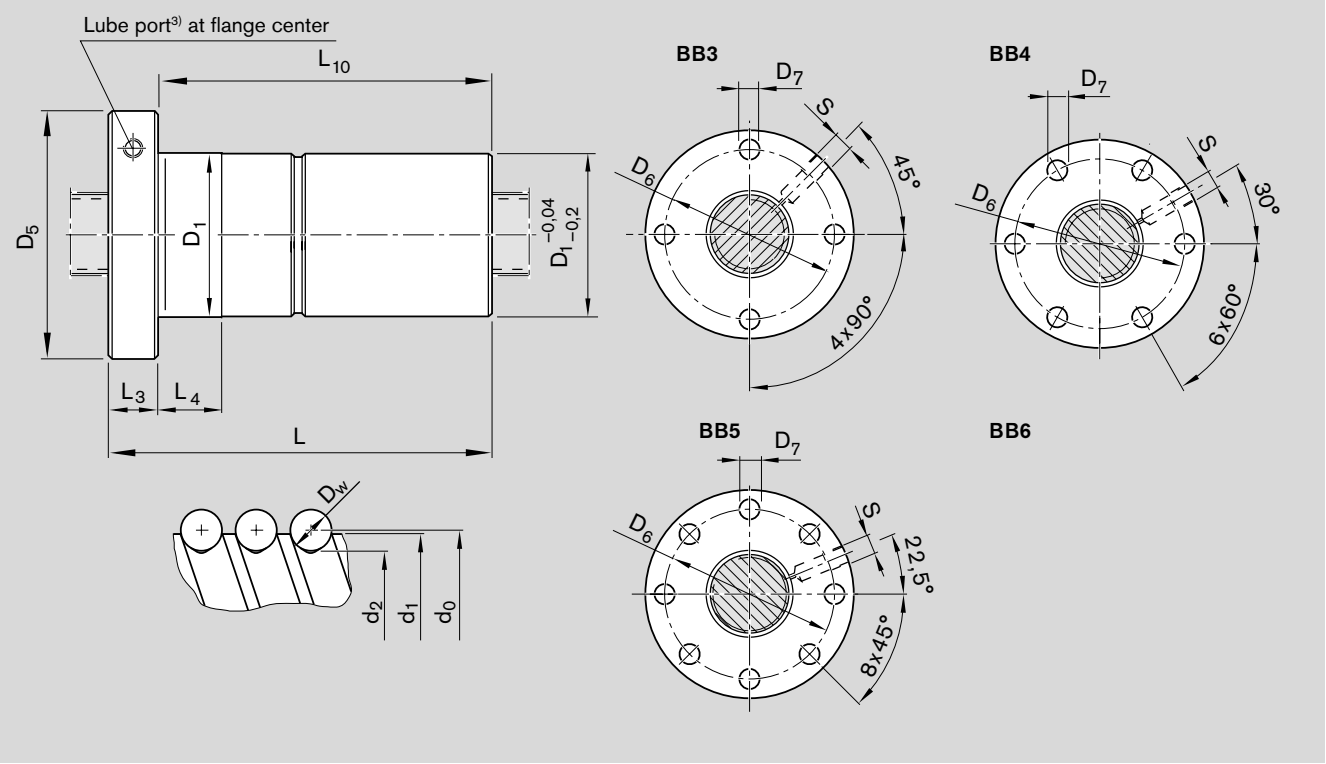


Ordering code: **FDM-E-S | 20 x 5R x 3-4 | 1 | 2 | T7 | R | 82Z120 | 41Z120 | 1250 | 0 | 1**

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 x P x D_W - i	Part number	Load ratings dyn. C (N)	Load ratings stat. C_0 (N)	Linear speed[1] v_{max} (m/min)
C	**16 x 5R x 3 - 4**	R1502 010 23	12300	16100	30
C	**20 x 5R x 3 - 4**	R1502 110 33	14300	21500	30
C	**25 x 5R x 3 - 4**	R1502 210 33	15900	27200	30
C	**25 x 10R x 3 - 4**	R1502 240 33	15700	27000	60
C	**32 x 5R x 3.5 - 4**	R1502 310 33	21600	40000	23
C	**32 x 10R x 3.969 - 5**	R1502 340 33	31700	58300	47
C	**40 x 5R x 3.5 - 5**	R1502 410 33	29100	64100	19
C	**40 x 10R x 6 - 4**	R1502 440 33	50000	86400	38
C	**40 x 10R x 6 - 6**	R1502 440 34	72100	132200	38
C	**40 x 20R x 6 - 3**	R1502 470 33	37900	62800	75
C	**50 x 5R x 3.5 - 5**	R1502 510 33	32000	81300	15
C	**50 x 10R x 6 - 4**	R1502 540 33	55400	109000	30
C	**50 x 10R x 6 - 6**	R1502 540 34	79700	166500	30
C	**50 x 20R x 6.5 - 5**	R1502 570 34	75700	149700	60
C	**63 x 10R x 6 - 4**	R1502 640 33	61800	140500	24
C	**63 x 10R x 6 - 6**	R1502 640 34	88800	214300	24
C	**63 x 20R x 6.5 - 5**	R1502 670 34	83900	190300	48
C	**80 x 10R x 6.5 - 6**	R1502 740 34	108400	291700	19
C	**80 x 20R x 12.7 - 6[2]**	R1502 770 04	262700	534200	30

1) See page 101 Characteristic speed $d_0 \cdot n$ and page 124 Critical speed n_{cr}
2) Nuts 80 x 20R x 12.7 - 6 available up to a thread length of 2500 mm, with preload



Size	Dimensions (mm)											Weight
d_0 x P x D_w - i	d_1	d_2	D_1 g6	D_5	Hole pattern	D_6	D_7	L	L_3	L_4	L_{10}	S3)	m (kg)
16 x 5R x 3 - 4	15.0	12.9	28	53	BB3	40	6.6	72	12	10	60	M6	0.33
20 x 5R x 3 - 4	19.0	16.9	33	58	BB4	45	6.6	82	12	10	70	M6	0.45
25 x 5R x 3 - 4	24.0	21.9	38	63	BB4	50	6.6	82	12	10	70	M6	0.53
25 x 10R x 3 - 4	24.0	21.9	38	63	BB4	50	6.6	120	12	16	108	M6	0.70
32 x 5R x 3.5 - 4	31.0	28.4	48	73	BB4	60	6.6	88	13	10	75	M6	0.84
32 x 10R x 3.969 - 5	31.0	27.9	48	73	BB4	60	6.6	146	13	16	133	M6	1.22
40 x 5R x 3.5 - 5	39.0	36.4	56	80	BB4	68	6.6	100	15	10	85	M8x1	1.13
40 x 10R x 6 - 4	38.0	33.8	63	95	BB4	78	9.0	140	15	16	125	M8x1	2.25
40 x 10R x 6 - 6	38.0	33.8	63	95	BB4	78	9.0	180	15	16	165	M8x1	2.83
40 x 20R x 6 - 3	38.0	33.8	63	95	BB4	78	9.0	175	15	25	160	M8x1	2.66
50 x 5R x 3.5 - 5	49.0	46.4	68	98	BB4	82	9.0	100	15	10	85	M8x1	1.60
50 x 10R x 6 - 4	48.0	43.8	72	110	BB4	90	11.0	140	18	16	122	M8x1	2.74
50 x 10R x 6 - 6	48.0	43.8	72	110	BB4	90	11.0	180	18	16	162	M8x1	3.39
50 x 20R x 6.5 - 5	48.0	43.4	85	125	BB4	105	11.0	255	22	25	233	M8x1	6.71
63 x 10R x 6 - 4	61.0	56.8	85	125	BB4	105	11.0	140	22	16	118	M8x1	3.53
63 x 10R x 6 - 6	61.0	56.8	85	125	BB4	105	11.0	180	22	16	158	M8x1	4.32
63 x 20R x 6.5 - 5	61.0	56.4	95	140	BB4	118	14.0	255	22	25	233	M8x1	8.65
80 x 10R x 6.5 - 6	78.0	73.3	105	150	BB4	125	14.0	190	22	16	168	M8x1	6.35
80 x 20R x 12.7 - 6	76.0	67.0	125	180	BB5	152	18.0	340	25	25	315	M8x1	20.20

3) Lube port machining: flat surface $L_3 \leq 13$ mm, countersink $L_3 > 14$ mm