

# Rexroth Ball Rail Systems

## Standard Runner Blocks, Steel Version

### Runner Block 1666-

#### Slimline, short

Versions:

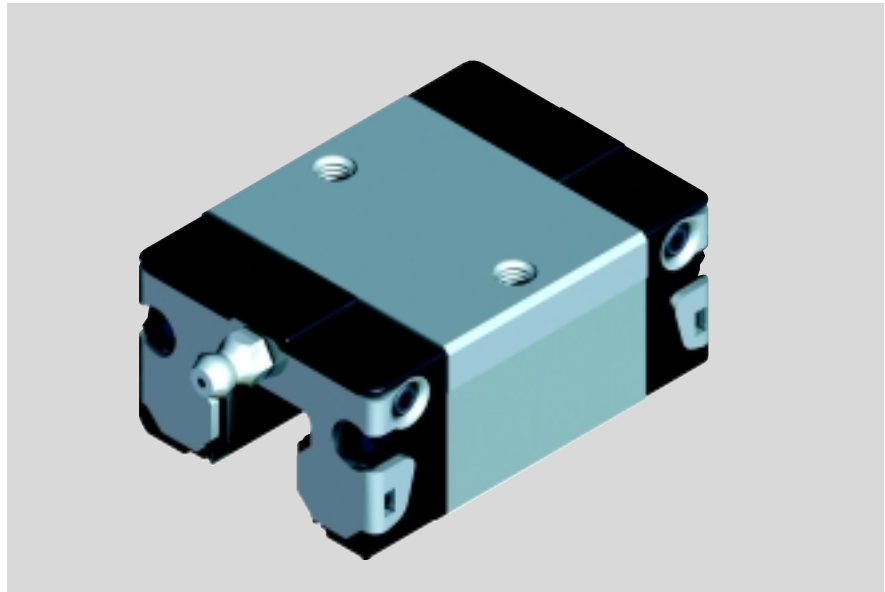
- Runner block without ball chain:  
for part numbers, see table
- Runner block with ball chain:  
part numbers 1666-...-22

#### Dynamic Characteristics

Speed  $v_{\max} = 5 \text{ m/s}$

Acceleration  $a_{\max} = 500 \text{ m/s}^2$

Other technical data, see chapter "General Technical Data and Calculations".



#### Part numbers

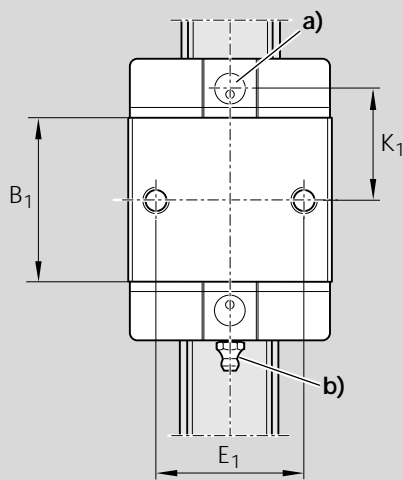
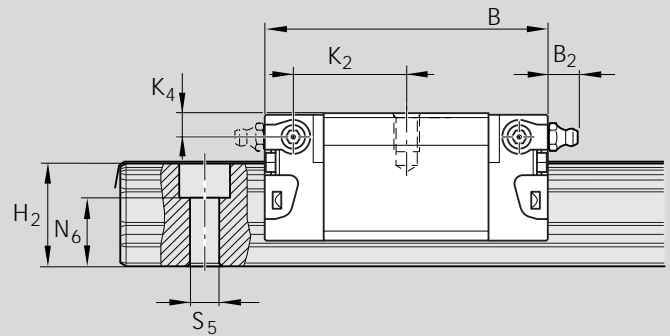
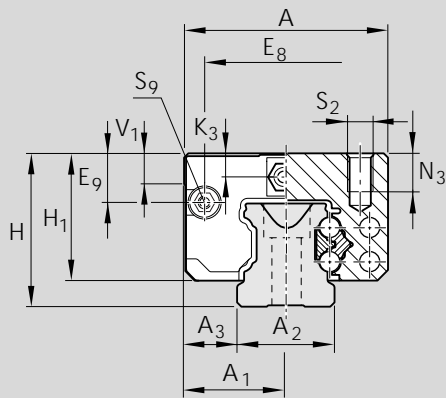
Size	Accuracy class	Part numbers for runner blocks for preload class	
		up to approx. 10 $\mu\text{m}$ clearance	Preload 0.02 C
15	H	1666-193-20	1666-113-20
	N	1666-194-20	1666-114-20
20	H	1666-893-20	1666-813-20
	N	1666-894-20	1666-814-20
25	H	1666-293-20	1666-213-20
	N	1666-294-20	1666-214-20
30	H	1666-793-20	1666-713-20
	N	1666-794-20	1666-714-20
35	H	1666-393-20	1666-313-20
	N	1666-394-20	1666-314-20

#### Note on dynamic load capacities and moments (see table)

Determination of dynamic load capacities and moments is based on a travel life of 100 000 m.

However, frequently this is determined on the basis of only 50 000 m.

In this case for comparison: multiply values  $C$ ,  $M_t$  and  $M_L$  by 1.26 in accordance with Rexroth table.



a) For O-ring

Size 15: dia. 4 · 1.0 (mm)  
 Size 20-35: dia. 5 · 1.0 (mm)  
 Open lube bore as required.  
 See Accessories:  
 Mounting lubrication  
 adapter.

b) Lube nipple sizes 15 and 20:  
 funnel-type nipple  
 Type A – M3 x 5, DIN 3405  
 $B_2 = 1.6$  mm

If another lube nipple is used:  
 observe the screw-in depth  
 of 5 mm!

Size 25 to 35: M6 x 8,  
 DIN 71412  
 $B_2 = 9.5$  mm

If another lube nipple is used:  
 observe the screw-in depth  
 of 8 mm!

Connection possible at all sides.

Dimensions (mm)

Size	A	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	B	B <sub>1</sub>	H	H <sub>1</sub>	H <sub>2</sub> <sup>1)</sup>	H <sub>2</sub> <sup>2)</sup>	V <sub>1</sub>	E <sub>1</sub>	E <sub>8</sub>	E <sub>9</sub>	K <sub>1</sub>	K <sub>2</sub>	K <sub>3</sub>	K <sub>4</sub>
15	34	17	15	9.5	44.7	25.7	24	19.90	16.30	16.20	5.0	26	24.55	6.70	16.25	17.85	3.20	3.20
20	44	22	20	12.0	57.3	31.9	30	25.35	20.75	20.55	6.0	32	32.50	7.30	22.95	22.95	3.35	3.35
25	48	24	23	12.5	67.0	38.6	36	29.90	24.45	24.25	7.5	35	38.30	11.50	25.35	26.50	5.50	5.50
30	60	30	28	16.0	75.3	45.0	42	35.35	28.55	28.35	7.0	40	48.40	14.60	28.80	30.50	6.05	6.05
35	70	35	34	18.0	84.9	51.4	48	40.40	32.15	31.85	8.0	50	58.00	17.35	32.70	34.20	6.90	6.90

<sup>1)</sup> Dimension H<sub>2</sub> with rail seal cover strip

<sup>2)</sup> Dimension H<sub>2</sub> without rail seal cover strip

Size	N <sub>3</sub>	Dimensions (mm)					Mass (kg)	Load capacities (N) <sup>3)</sup>				Moments (Nm)			
		N <sub>6</sub> <sup>±0.5</sup>	S <sub>2</sub>	S <sub>5</sub>	S <sub>9</sub>	C dyn.		C <sub>0</sub> stat.	M <sub>t</sub> dyn.	M <sub>t0</sub> stat.	M <sub>L</sub> dyn.	M <sub>L0</sub> stat.			
15	6.0	10.3	M4	4.4	M2.5-3.5 deep	0.10	6 800	8 100	52	80	19	28			
20	7.5	13.2	M5	6.0	M3-5 deep	0.25	12 400	13 600	150	170	52	58			
25	9.0	15.2	M6	7.0	M3-5 deep	0.35	15 800	18 200	230	260	82	94			
30	12.0	17.0	M8	9.0	M3-5 deep	0.60	22 100	24 800	380	430	133	150			
35	13.0	20.5	M8	9.0	M3-5 deep	0.90	29 300	32 400	640	700	200	220			

<sup>3)</sup> Load capacities for version without ball chain. Load capacities for version without ball chain, see Product Overview with Load Capacities.