

# Rexroth Ball Rail Systems

## Standard Runner Blocks, Steel Version

### Runner Block 1621-

#### Slimline, high

Versions:

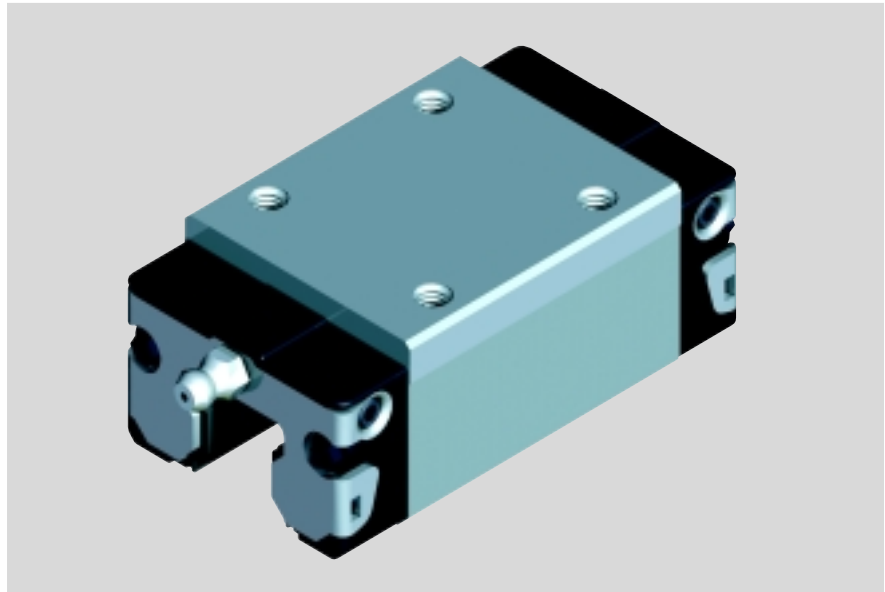
- Runner block without ball chain:  
for part numbers, see table
- Runner block with ball chain:  
part numbers 1621-...-22

#### 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	Preload 0.08 C	Preload 0.13 C
15	P		1621-112-20	1621-122-20	1621-132-20
	H	1621-193-20	1621-113-20	1621-123-20	
	N	1621-194-20	1621-114-20	1621-124-20	
25	P		1621-212-20	1621-222-20	1621-232-20
	H	1621-293-20	1621-213-20	1621-223-20	
	N	1621-294-20	1621-214-20	1621-224-20	
30	P		1621-712-20	1621-722-20	1621-732-20
	H	1621-793-20	1621-713-20	1621-723-20	
	N	1621-794-20	1621-714-20	1621-724-20	
35	P		1621-312-20	1621-322-20	1621-332-20
	H	1621-393-20	1621-313-20	1621-323-20	
	N	1621-394-20	1621-314-20	1621-324-20	
45*	P		1621-412-20	1621-422-20	1621-432-20
	H	1621-493-20	1621-413-20	1621-423-20	
	N	1621-494-20	1621-414-20	1621-424-20	

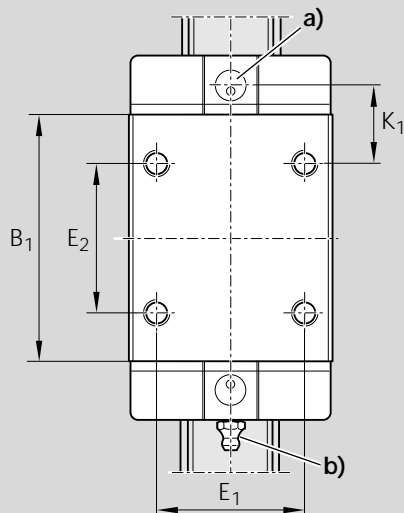
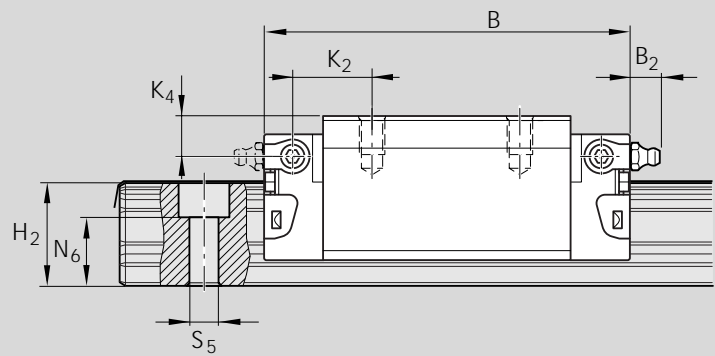
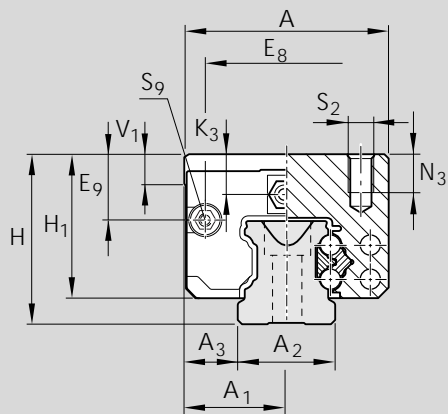
\* Under preparation

#### 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<sub>t</sub>** and **M<sub>L</sub>** by 1.26  
in accordance with Rexroth table.



- a) For O-ring  
 Size 15: dia. 4 · 1.0 (mm)  
 Size 25 to 45: dia. 5 · 1.0 (mm)  
 Open lube bore as required.  
 See Accessories:  
 Mounting lubrication adapter.
- b) Lube nipple sizes 15:  
 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 45: 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>2</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	58.2	39.2	28	23.90	16.30	16.20	5.0	26	26	24.55	10.70	10.00	11.60	7.20	7.20
25	48	24	23	12.5	86.2	57.8	40	33.90	24.45	24.25	7.5	35	35	38.30	15.50	17.45	18.60	9.50	9.50
30	60	30	28	16.0	97.7	67.4	45	38.35	28.55	28.35	7.0	40	40	48.40	17.60	20.00	21.70	9.05	9.05
35	70	35	34	18.0	110.5	77.0	55	47.40	32.15	31.85	8.0	50	50	58.00	24.35	20.50	22.00	13.90	13.90
45	86	43	45	20.5	137.6	97.0	70	60.30	40.15	39.85	10.0	60	60	69.8	30.9	27.3	29.3	18.20	18.20

<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	0.20	7 800	13 500	74	130	40	71
25	9.0	15.2	M6	7.0	M3-5 deep	0.60	22 800	30 400	320	430	180	240
30	12.0	17.0	M8	9.0	M3-5 deep	0.95	31 700	41 300	540	720	290	380
35	13.0	20.5	M8	9.0	M3-5 deep	1.55	41 900	54 000	890	1 160	440	565
45	18.0	23.5	M10	14.0	M4-7 deep	3.00	68 100	85 700	1 830	2 310	890	1 130

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

# Rexroth Ball Rail Systems

## Standard Runner Blocks, Steel Version

### Runner Block 1621-

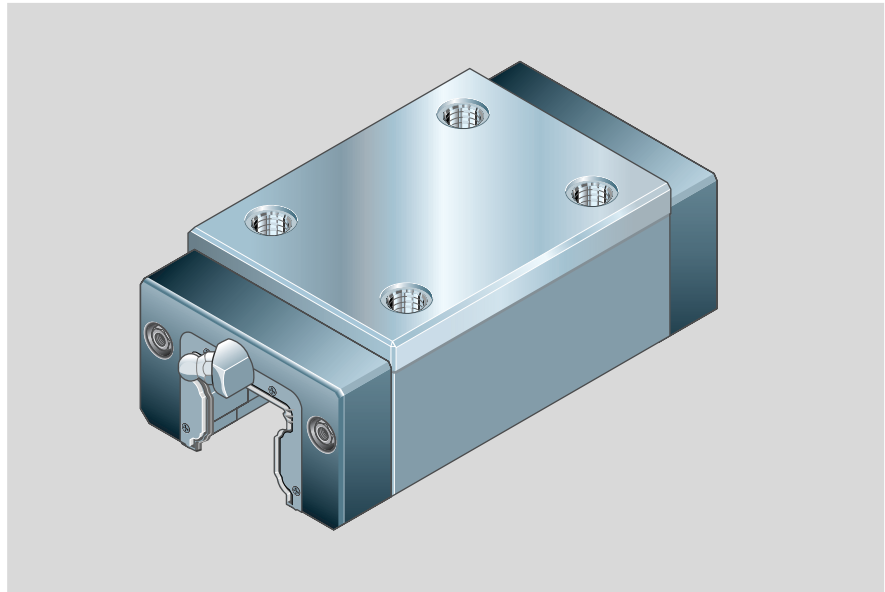
Slimline, high

#### Dynamic characteristics

Speed  $v_{\max} = 3 \text{ m/s}$

Acceleration  $a_{\max} = 250 \text{ m/s}^2$

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



#### Part numbers

Size	Accuracy class	Part numbers for runner block for preload class			
		up to approx. 10 $\mu\text{m}$ clearance	Preload 0.02 C	Preload 0.08 C	Preload 0.13 C
45*	P		1621-412-10	1621-422-10	1621-432-10
	H	1621-493-10	1621-413-10	1621-423-10	
	N	1621-494-10	1621-414-10	1621-424-10	
55	P		1621-512-10	1621-522-10	1621-532-10
	H	1621-593-10	1621-513-10	1621-523-10	
	N	1621-594-10	1621-514-10	1621-524-10	

\* Phased-out model

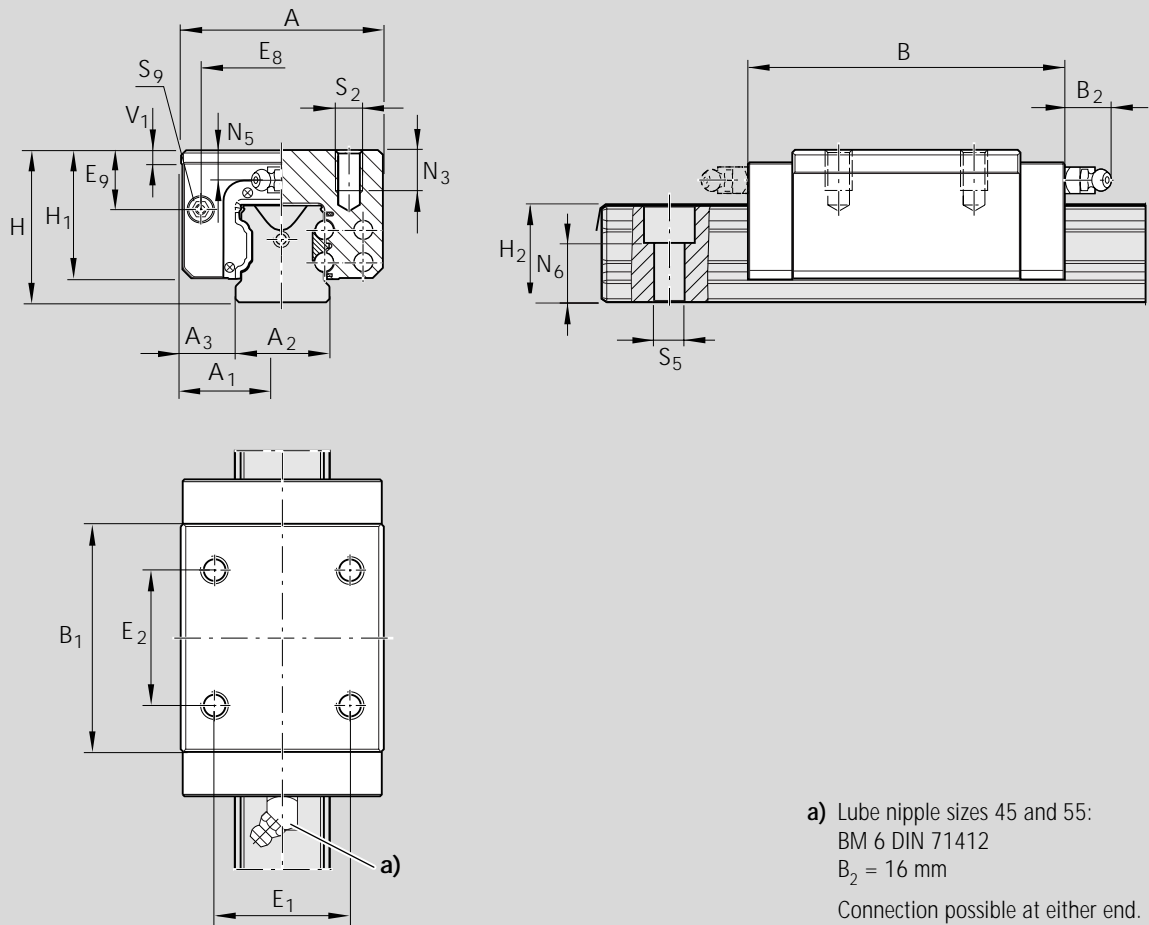
#### Note on dynamic load capacities and moments (see table)

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<sub>t</sub>** and **M<sub>L</sub>** by 1.26 in accordance with Rexroth table.



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>2</sub>	E <sub>8</sub>	E <sub>9</sub>	N <sub>3</sub>
45	86	43	45	20.5	133.0	97.0	70	60.0	40.15	39.85	10.0	60	60	69.8	30.9	18
55	100	50	53	23.5	159.0	115.5	80	67.0	48.15	47.85	12.0	75	75	80.0	32.3	19

<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

Dimensions (mm)								Load capacities (N)		Moments (Nm)			
Size	N <sub>5</sub>	N <sub>6</sub> <sup>±0.5</sup>	S <sub>2</sub>	S <sub>5</sub>	S <sub>9</sub>	Mass (kg)	C		M <sub>t</sub>		M <sub>L</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.	
45	18.0	23.5	M10	14.0	M4-7 deep	2.90	68 100	85 700	1 830	2 310	890	1 130	
55	19.0	29.0	M12	16.0	M5-8 deep	4.70	98 200	121 400	3 100	3 860	1 540	1 905	