

## Rexroth Ball Rail Systems Standard Runner Blocks, Steel Version

Runner Block 1651-

Standard Width

With ball retainer as an option

Versions:

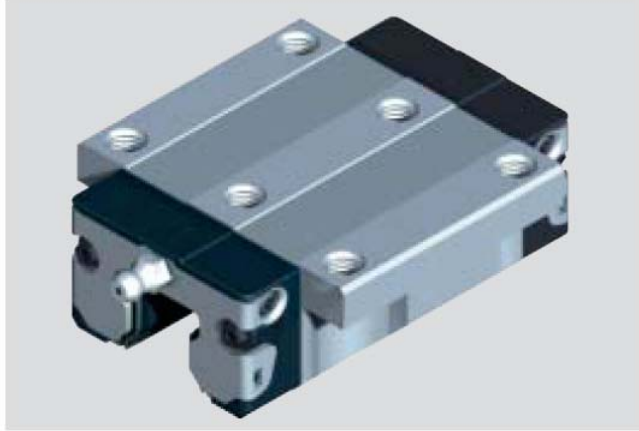
- Runner block without ball retainer:  
for part numbers, see table
- Runner block with ball retainer:  
part numbers 1651-...-22

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	UP		1651-119-20	1651-129-20	1651-139-20
	SP		1651-111-20	1651-121-20	1651-131-20
	P		1651-112-20	1651-122-20	1651-132-20
	H	1651-193-20	1651-113-20	1651-123-20	
	N	1651-194-20	1651-114-20	1651-124-20	
20	UP		1651-819-20	1651-829-20	1651-839-20
	SP		1651-811-20	1651-821-20	1651-831-20
	P		1651-812-20	1651-822-20	1651-832-20
	H	1651-893-20	1651-813-20	1651-823-20	
	N	1651-894-20	1651-814-20	1651-824-20	
25	UP		1651-219-20	1651-229-20	1651-239-20
	SP		1651-211-20	1651-221-20	1651-231-20
	P		1651-212-20	1651-222-20	1651-232-20
	H	1651-293-20	1651-213-20	1651-223-20	
	N	1651-294-20	1651-214-20	1651-224-20	
30	UP		1651-719-20	1651-729-20	1651-739-20
	SP		1651-711-20	1651-721-20	1651-731-20
	P		1651-712-20	1651-722-20	1651-732-20
	H	1651-793-20	1651-713-20	1651-723-20	
	N	1651-794-20	1651-714-20	1651-724-20	
35	UP		1651-319-20	1651-329-20	1651-339-20
	SP		1651-311-20	1651-321-20	1651-331-20
	P		1651-312-20	1651-322-20	1651-332-20
	H	1651-393-20	1651-313-20	1651-323-20	
	N	1651-394-20	1651-314-20	1651-324-20	
45*	UP		1651-419-20	1651-429-20	1651-439-20
	SP		1651-411-20	1651-421-20	1651-431-20
	P		1651-412-20	1651-422-20	1651-432-20
	H	1651-493-20	1651-413-20	1651-423-20	
	N	1651-494-20	1651-414-20	1651-424-20	

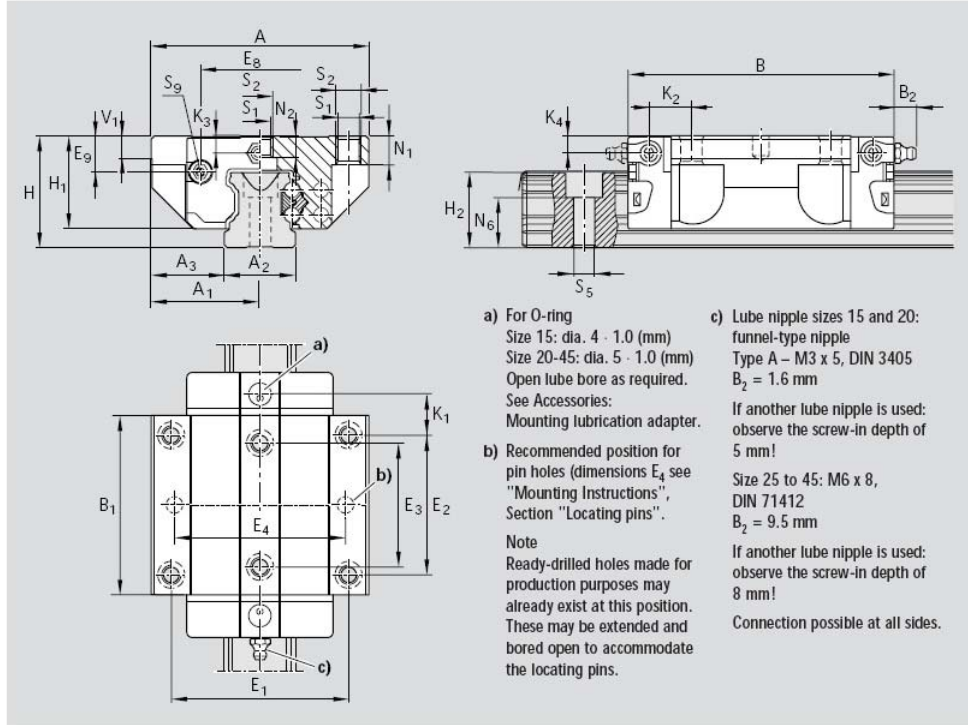
**Note on dynamic load capacities and moments**  
(see table)

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.

\* Under preparation



Size	Dimensions (mm)																			
	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>3</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	47	23.5	15	16.0	58.2	39.2	24	19.90	16.30	16.20	5.0	38	30	26	24.55	6.70	8.00	9.6	3.20	3.20
20	63	31.5	20	21.5	75.0	49.6	30	25.35	20.75	20.55	6.0	53	40	35	32.50	7.30	11.80	11.8	3.35	3.35
25	70	35.0	23	23.5	86.2	57.8	36	29.90	24.45	24.25	7.5	57	45	40	38.30	11.50	12.45	13.6	5.50	5.50
30	90	45.0	28	31.0	97.7	67.4	42	35.35	28.55	28.35	7.0	72	52	44	48.40	14.60	14.00	15.7	6.05	6.05
35	100	50.0	34	33.0	110.5	77.0	48	40.40	32.15	31.85	8.0	82	62	52	58.00	17.35	14.50	16.0	6.90	6.90
45	120	60.0	45	37.5	137.6	97.0	60	50.30	40.15	39.85	10.0	100	80	60	69.80	20.90	17.30	19.3	8.20	8.20

<sup>1)</sup> Dimension  $H_2$  with rail seal cover strip

<sup>2)</sup> Dimension  $H_2$  without rail seal cover strip

Size	Dimensions (mm)								Mass (kg)	Load capacities (N) <sup>3)</sup>		Moments (Nm)			
	N <sub>1</sub>	N <sub>2</sub>	N <sub>6</sub> <sup>±0.5</sup>	S <sub>1</sub>	S <sub>2</sub>	S <sub>5</sub>	S <sub>9</sub>	C		C <sub>0</sub>	M <sub>L</sub>	M <sub>L0</sub>	M <sub>L</sub>	M <sub>L0</sub>	
	dyn.	stat.	dyn.	stat.	dyn.	stat.	dyn.	stat.		dyn.	stat.	dyn.	stat.		
15	5.2	4.4	10.3	4.3	M5	4.4	M2.5-3.5 deep	0.20	7 800	13 500	130	74	40	71	
20	7.7	5.2	13.2	5.3	M6	6.0	M3-5 deep	0.45	18 800	24 400	240	310	130	165	
25	9.3	7.0	15.2	6.7	M8	7.0	M3-5 deep	0.65	22 800	30 400	320	430	180	240	
30	11.0	7.9	17.0	8.5	M10	9.0	M3-5 deep	1.10	31 700	41 300	540	720	290	380	
35	12.0	10.2	20.5	8.5	M10	9.0	M3-5 deep	1.60	41 900	54 000	890	1160	440	565	
45	15.0	14.4	23.5	10.4	M12	14.0	M4-7 deep	3.00	68 100	85 700	1830	2310	890	1130	

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