

V-Guide Rails

# Product Description

## Outstanding features

Thanks to their mounting style, V-Guide Rails offer the following advantages:

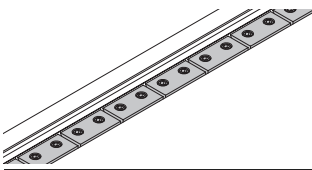
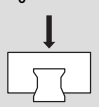
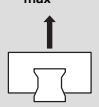
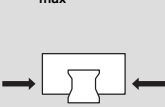
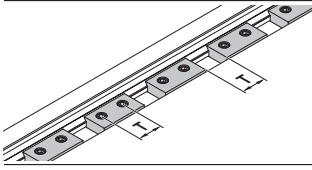
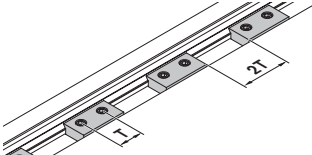
- Optimally smooth runner block travel, since there are no mounting holes in the guide rail
- Improved straightness through uninterrupted guide rail profile
- Smooth rail surface for optimal sealing action
- Cost-saving – only one row of holes necessary for mounting and alignment

Thanks to Rexroth's proven policy of interchangeability, the entire range of runner blocks and accessories can be used with these rails.

## Further highlights

- Number of pressure pieces can be varied to match loads.
- No need for mounting hole plugs or covers
- Mounting base can be machined using standard profile milling tools.

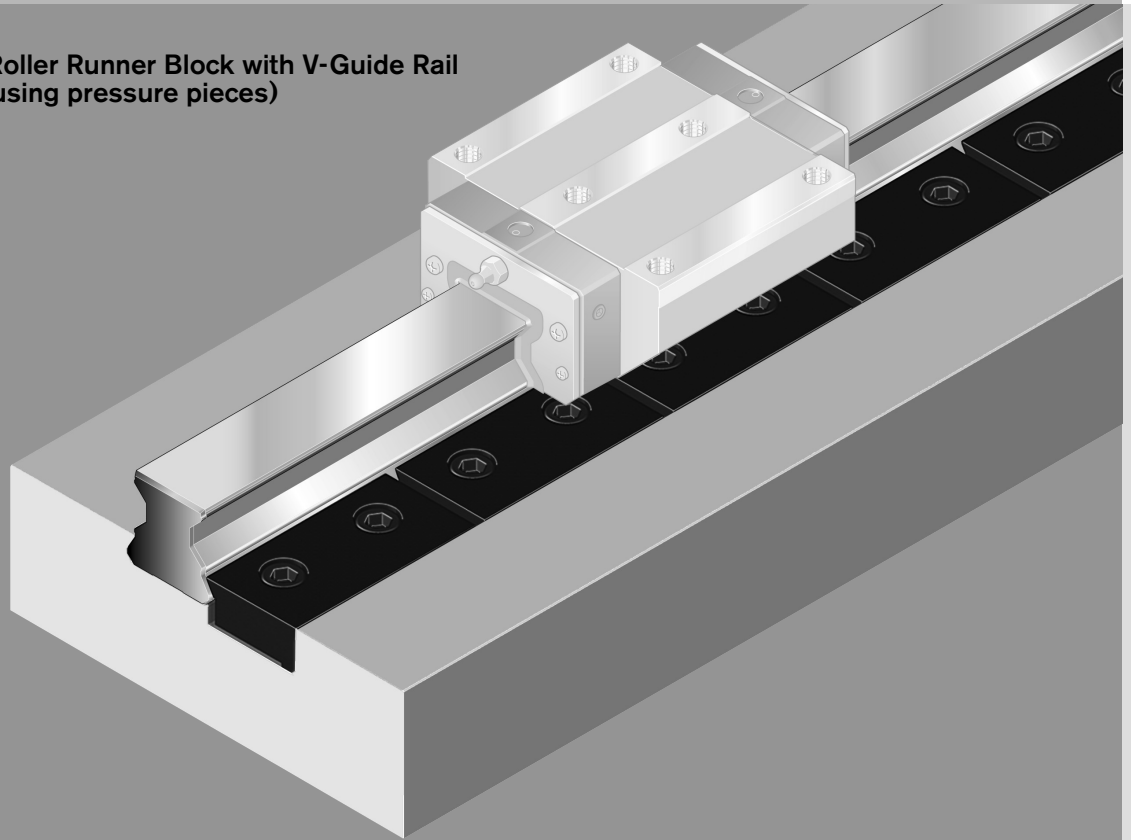
### Load-dependent fastening<sup>1)</sup>

Arrangement of pressure pieces	Load capacities of V-Guide Rails (%)		
	Down load $C_0$	Lift-off load $F_{max}$	Side load $F_{max}$
	 100	 100	 100
	100	70 <sup>2)</sup>	70 <sup>2)</sup>
	100	30 <sup>2)</sup>	50 <sup>2)</sup>

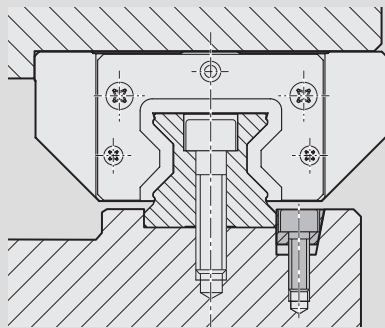
1) See "Mounting Instructions"

2) Guide values

### Standard Roller Runner Block with V-Guide Rail (fastened using pressure pieces)



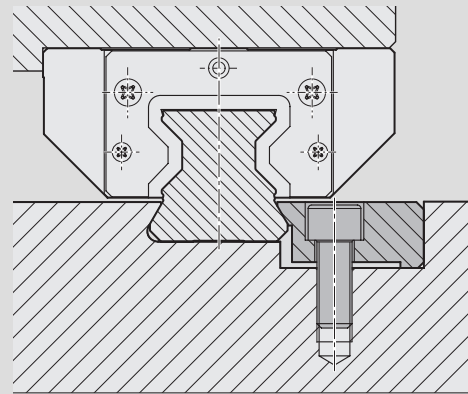
#### Comparison of mounting styles Roller rail system with standard guide rail



#### Mounting of standard guide rail

The standard guide rail is pressed against the reference edge using clamping strips or wedge profiles to align it. The rail is screwed into place from above or below. Mounting holes in the standard guide rail are closed with a cover strip or plugs. Two rows of holes per rail are needed in the machine bed.

#### Roller rail system with V-guide rail



#### Mounting of V-Guide Rail

The V-guide rail is installed using pressure pieces to push it up against an inclined reference edge, align it and fix it in place. The number of pressure pieces can be varied to match loads. The V-guide rail has no mounting holes. If desired, the pressure pieces can be covered. Only one row of holes per rail is needed in the machine bed.

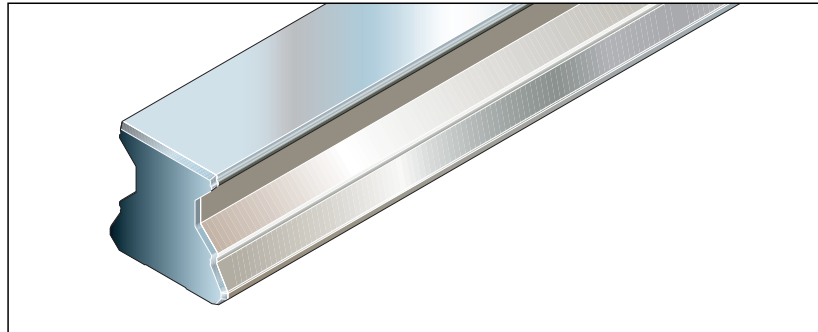
V-Guide Rails

# V-Guide Rails without Mounting Holes

## V-guide rail R1808 .1. 3.

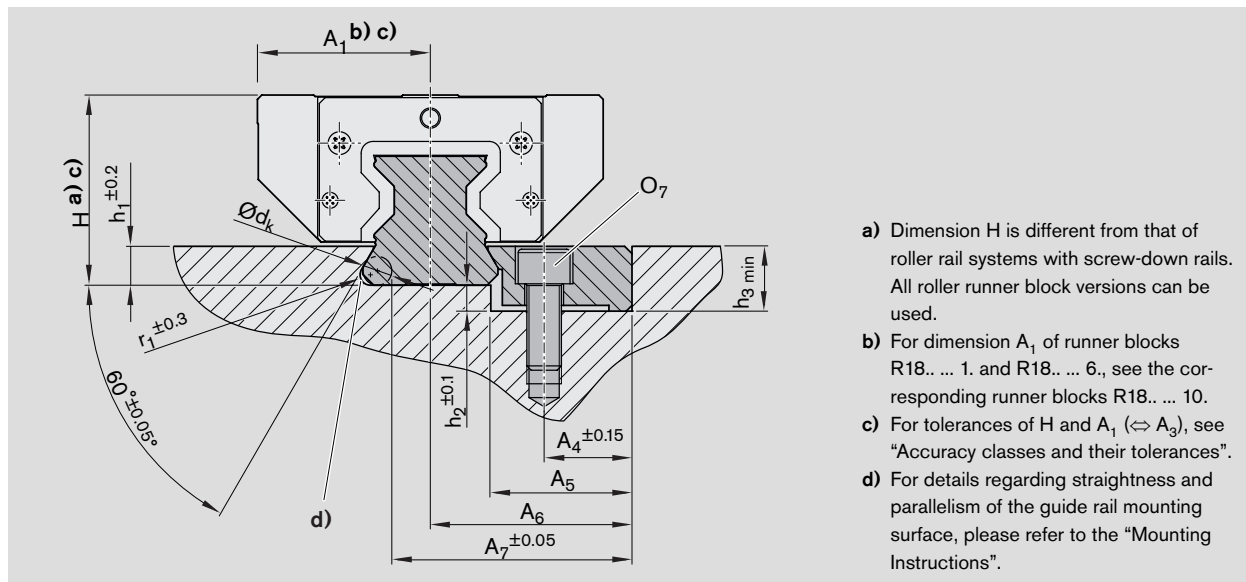
Without mounting holes.  
Mounting with pressure pieces.

**Note**  
Composite guide rails also available.  
The joints must be mounted with a central pressure piece.



Size <sup>1)</sup>	Accuracy class	Guide rail		Rail lengths One-piece L <sub>max</sub> <sup>2)</sup> mm
		One-piece Part number, Rail length L (mm)	Composite Part number and number of sections, Rail length L (mm)	
35	H	R1808 313 31, ....	R1808 313 3., ....	4000
	P	R1808 312 31, ....	R1808 312 3., ....	
	SP	R1808 311 31, ....	R1808 311 3., ....	
45	H	R1808 413 31, ....	R1808 413 3., ....	4000
	P	R1808 412 31, ....	R1808 412 3., ....	
	SP	R1808 411 31, ....	R1808 411 3., ....	
55	H	R1808 513 31, ....	R1808 513 3., ....	4000
	P	R1808 512 31, ....	R1808 512 3., ....	
	SP	R1808 511 31, ....	R1808 511 3., ....	

- 1) Size 65 in preparation
- 2) Freely selectable length



Size <sup>1)</sup>	Dimensions (mm)													Weight kg/m
	A <sub>4</sub>	A <sub>5</sub>	A <sub>6</sub>	A <sub>7</sub>	d <sub>k</sub>	H <sup>2)</sup>	H <sup>3)</sup>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	O <sub>7</sub>	r <sub>1</sub>		
35	21.5	33	50	57.093	10	53	60	10.5	4.3	9	M8 x 20	R2.6	7.8	
45	30.5	49	70	83.346	10	66	76	13.5	9.0	12	M12 x 30	R3.6	12.5	
55	38.0	60	85	102.652	10	76	86	15.0	10.0	14	M14 x 35	R3.8	17.6	

- 1) Size 65 in preparation
- 2) Height H of runner blocks in standard height
- 3) Height H of high runner blocks

V-Guide Rails

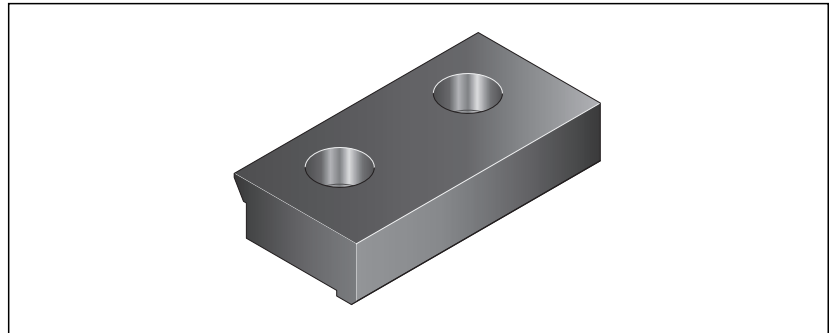
# Pressure Pieces for V-Guide Rails

## Pressure pieces

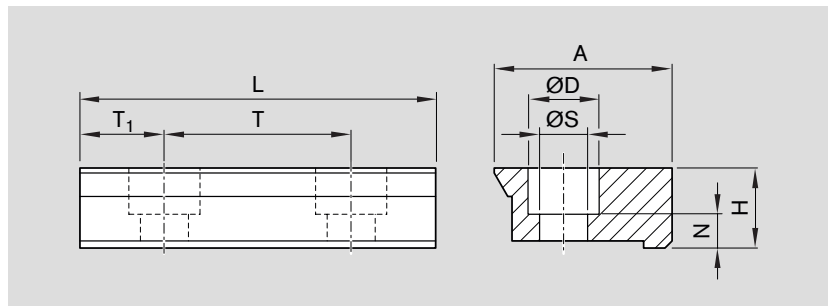
For mounting of V-guide rails  
R1808 .1. 3.

**Note**

The number of pressure pieces can be varied to match loads. For the arrangement of pressure pieces, see "Load depending fastening".



Size <sup>1)</sup>	Part numbers
35	R1810 390 65
45	R1810 490 65
55	R1810 590 65



Size <sup>1)</sup>	Dimensions (mm)								Weight kg
	A	D	H	L	N	S	T	T <sub>1</sub>	
35	34.4	15	14.8	75	6.3	9	40.0	17.50	0.25
45	50.0	20	22.5	100	9.5	14	52.5	23.75	0.70
55	61.5	24	25.0	115	10.0	16	60.0	27.50	1.10

1) Size 65 in preparation

## Suggestion for covering the pressure pieces

**Notes**

If desired, the pressure pieces can be covered. Take note of the dimensions given in the table.

Size <sup>1)</sup>	t <sub>max.</sub> mm
35	1.2
45	1.2
55	2.5

1) Size 65 in preparation

