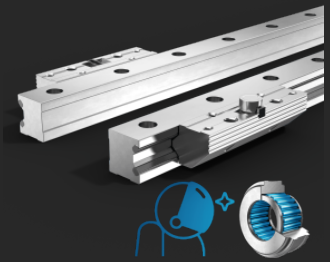


# Linear Guides Type FDI-R

## Pair of single rails and Pair of Roller Shoes

### Vacuum suitable



Aluminum roller guides of type FDI are special guides for use in high vacuum. The full needed bearings are equipped with vacuum-compatible lubricant.

## Description

Franke FDI linear guides are equipped with vacuum-compatible needle bearings and are made almost entirely of lightweight aluminum. Special design, material and lubricants prevent outgassing in a vacuum. Rail elements can be manufactured in a length of 500 mm to 4000 mm and, on request, can also be linked endlessly.

## Characteristics

Rollers	Needle bearing
Raceway	Non corrosive steel

## Properties

Resilience	● ●
Dynamics	●
Corrosion resistant	● ● ● ● ●
Non magnetic	●
Lubricant free	●
Price	● ●

## Technical data

### Stroke length

One piece from 500 mm to 4000 mm, longer strokes on request

### Material

Roller shoes,  
 Rail body: aluminum, not anodised  
 Raceways: non-corrosive steel  
 Rollers: non-corrosive bearing steel, full needed

### Operation range

Ultra High vacuum  $10^{-7}$  to  $10^{-12}$  mbar

### Operating temperature

-20 °C to +80 °C

### Maximum speed

1 m/s

### Maximum acceleration

5 m/s<sup>2</sup>

### Mounting position

Any

### Lubricant

Lifetime-lubricated with high-vacuum suitable grease, maintenance-free

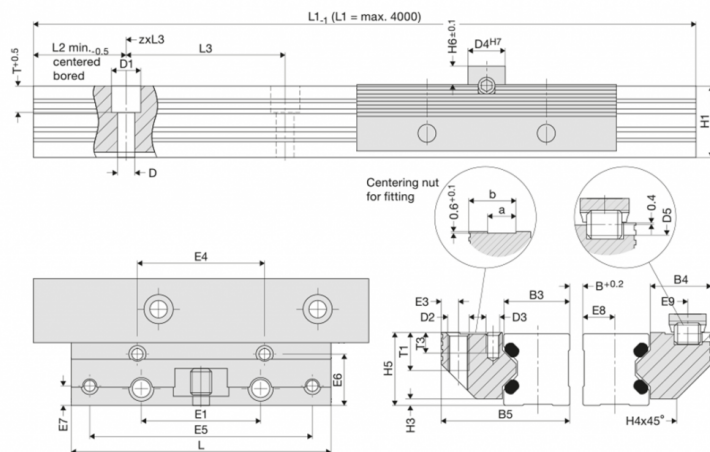
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### Data tables



### FDI-R

Size	Dimensions mm														
	L	B5	H5	B3	B4	D3	D	D1	D2	D4	D5	E1	E3	E4	E5
12	64	24,4	15,0	12,00	11,9	M 3	3,4	6	M 4	8	3	25	3,4	29	57
15	78	30,9	19,0	15,25	15,2	M 4	4,5	8	M 5	10	4	30	4,4	34	68
20	92	40,9	23,0	20,00	20,4	M 5	5,5	10	M 6	10	4	40	4,9	42	80
25	98	48,4	27,5	25,00	22,9	M 5	6,6	11	M 8	14	6	45	6,4	48	84
35	135	68,9	37,5	35,00	32,9	M 6	9,0	15	M 10	14	6	62	8,9	67	117
45	165	82,4	46,5	45,00	36,4	M 8	11,0	18	M 12	14	6	80	9,9	83	146

### FDI-R

Size	Dimensions mm													
	E6	E7	E8	E9	H1	H3	H4	H6	L3	T	T3	a	b	
12	9,7	3,4	5,5	4,9	14,7	1,4	5,5	4	40	5,5	6,0	4,5	9,5	
15	12,4	4,9	7,0	5,9	18,7	2,0	8,0	5	60	6,0	7,5	5,0	12,5	
20	16,9	5,9	9,5	5,9	22,6	2,0	11,0	5	60	8,0	8,0	7,5	16,0	
25	19,4	7,4	12,0	8,9	27,0	2,5	13,0	7	60	10,0	5,0	10,5	17,5	
35	28,4	8,9	17,0	8,9	37,0	3,5	20,0	7	80	11,5	8,5	12,5	26,0	
45	30,9	9,9	22,0	8,9	46,0	4,0	22,0	7	105	14,5	9,5	15,5	31,0	

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Innovation in Motion



#### Basic load ratings, weight, length

Size	Load ratings N		Moment capacities pair of roller shoes Nm				Weight kg		Order no.
	C	C <sub>0</sub>	M <sub>0cx</sub>	M <sub>cx</sub>	M <sub>0cy</sub> /M <sub>0cz</sub>	M <sub>cy</sub> /M <sub>cz</sub>	PRS	Rail/m	
12	550	600	0,3 (B+30,3)	0,3 (B+30,3)	8,5	8	0,07	0,40	84495NV
15	1350	1500	0,7 (B+36,5)	0,7 (B+36,5)	26	23	0,12	0,80	84395NV
20	2150	2500	1,2 (B+47,0)	1,1 (B+47,0)	51,5	44	0,23	1,20	84442NV
25	2900	4150	2,1 (B+58,4)	1,4 (B+58,4)	92	64	0,35	1,80	84367NV
35	5000	7250	3,6 (B+85,0)	2,5 (B+85,0)	226	156	1,00	3,10	84368NV
45	8500	10200	5,1 (B+109,0)	4,2 (B+109,0)	387	322	1,80	5,00	84369NV

#### Contact

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