

1.6.8 Dimensions of the TM rail

1.6.8.1 Dimensions TMN_R

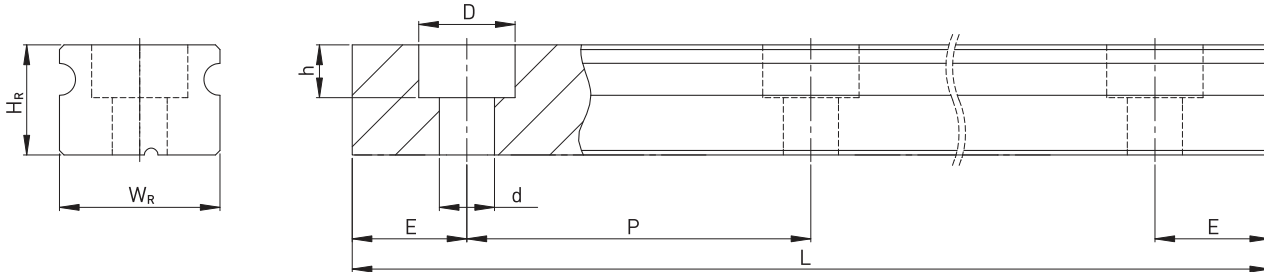
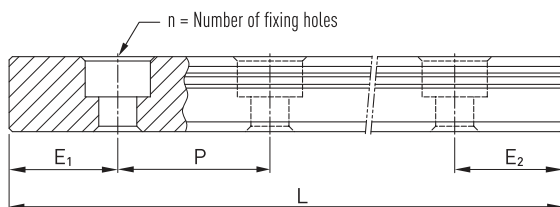


Table 1.88 Dimensions of the rail TMN_R

Series Size	Screws for rail [mm]	Dimensions of the rail [mm]						Max. length [mm]	Max. length $E_1 = E_2$	$E_{1/2}$ min [mm]	$E_{1/2}$ max [mm]	Mass [kg/m]
		W_R	H_R	D	h	d	P					
TMNR05R	M2 × 6	5	3,6	3,6	0,8	2,4	15,0	250	240	4	11	0,15
MGNR09R	M3 × 8	9	6,5	6,0	3,5	3,5	20,0	1200	1180	5	15	0,38
MGNR12R	M3 × 8	12	8,0	6,0	4,5	3,5	25,0	2000	1975	5	20	0,65

1.6.8.2 Calculation of the length of rails

HIWIN offers customer-specific lengths. To ensure that the ends of the rails for non-standard lengths are stable, value E must not exceed half the distance between the fixing holes (P). In addition, value $E_{1/2}$ must not be less than $E_{1/2}$ min and must not exceed $E_{1/2}$ max to prevent breakage of the fixing hole.



$$L = (n-1) \cdot P + E_1 + E_2$$

- L : Total rail length [mm]
- n : Number of fixing holes
- P : Distance between two fixing holes [mm]
- $E_{1/2}$: Distance from the center of the last fixing hole to the end of the rail [mm]

1.6.8.3 Tightening torques for fixing screws

Insufficient tightening of the fixing screws will highly detract from the accuracy of the linear guideway; the following tightening torques are recommended for the respective screw sizes.

Table 1.90 Tightening torques for fixing screws to ISO 4762-12.9

Series/Size	Screw size	Torque [Nm]	Series/Size	Screw size	Torque [Nm]
TMN5	M2 × 6	0,6	TMN12	M3 × 8	2,0
TMN9	M3 × 8	2,0			