

### 4. Mounting

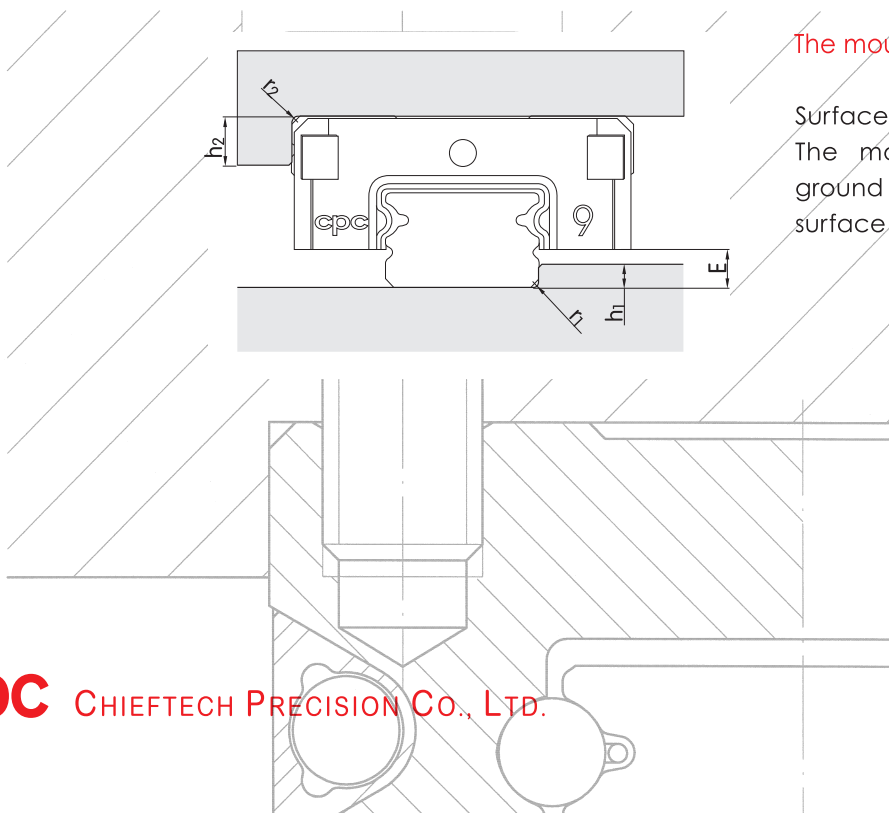
#### Height and fillet of the fitting edge

To avoid any interference, the corner of the fitting edge with a recess is recommended. If not so, please refer to the following table for the fillet of the fitting edge corner and the height of the fitting edge.

#### Screw tightening moment (Nm)

Screw grade	Screw tightening moment (Nm)		
	Steel	Cast Iron	Non Iron metal
12.9			
M2	0.6	0.4	0.3
M3	1.8	1.3	1.0
M4	4.0	2.5	2.0

Dimensions of the fitting edge						Dimensions of the fitting edge					
Dimension	h <sub>1</sub>	r <sub>1max</sub>	h <sub>2</sub>	r <sub>2max</sub>	E	Dimension	h <sub>1</sub>	r <sub>1max</sub>	h <sub>2</sub>	r <sub>2max</sub>	E
3M	0.5	0.2	1.5	0.3	0.7	3W	0.7	0.2	1.7	0.3	1
5M	1.2	0.2	1.9	0.3	1.5	5W	1.2	0.2	2	0.3	1.5
7M	1.2	0.3	2.8	0.3	1.5	7W	1.2	0.3	2.8	0.3	2
9M	1.5	0.3	3	0.3	2.2	9W	1.5	0.3	3	0.3	4.2
12M	2.5	0.5	4	0.5	3	12W	2.5	0.5	4	0.5	4
15M	2.5	0.5	4.5	0.5	4	15W	2.5	0.5	4.5	0.5	4



#### The mounting surface

##### Surface roughness

The mounting surface should be ground or finemilled to reach a surface roughness Ra1.6.

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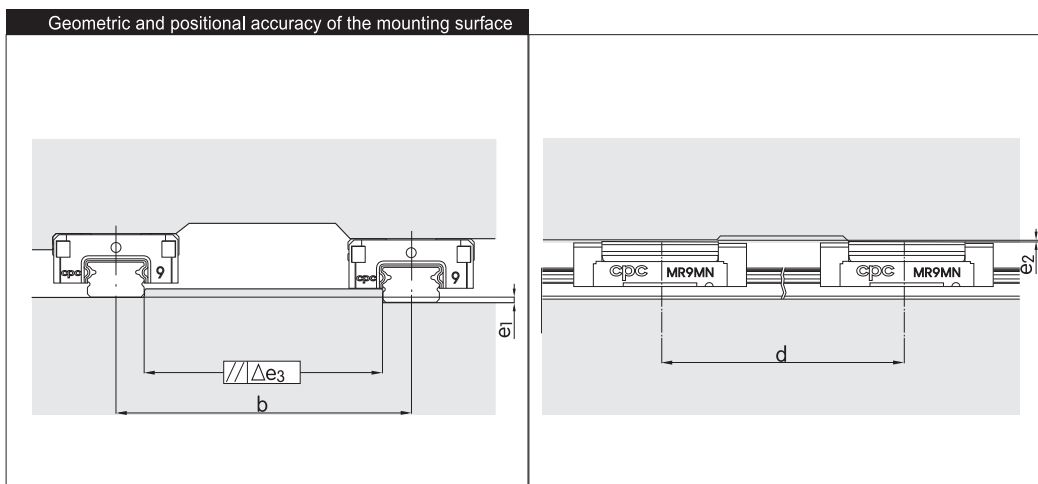
#### Geometric and positional accuracy of the mounting surface

The inaccuracy of the mounting surfaces will affect the running accuracy and reduce the operating lifetime of the MR miniature linear guide. If the inaccuracies of the mounting surfaces exceed the values calculated by formulas (15), (16), and (17), the lifetime will become shortened, as calculated by formulas (4) and (5).

$$e_1 \text{ (mm)} = b \text{ (mm)} \cdot f_1 \cdot 10^{-4} \quad \text{--- (15)}$$

$$e_2 \text{ (mm)} = d \text{ (mm)} \cdot f_2 \cdot 10^{-5} \quad \text{--- (16)}$$

$$e_3 \text{ (mm)} = f_3 \cdot 10^{-3} \quad \text{--- (17)}$$



Size	V0			V1		
	f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>	f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>
3 MN	4	9	2	3	9	1
5 MN	4	8	2	2	8	2
7 MN	5	11	4	3	10	3
9 MN	5	11	6	4	10	4
12WN	6	13	8	4	12	6
15MN	7	11	12	5	10	8
3 ML	4	5	2	3	5	1
5 ML	3	5	2	2	5	1
7 ML	4	6	4	3	6	3
9 ML	5	7	5	3	7	4
12ML	5	8	8	3	7	5
15ML	7	8	11	4	8	7

Size	V0			V1		
	f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>	f <sub>1</sub>	f <sub>2</sub>	f <sub>3</sub>
3 WN	2	5	2	4	3	1
5 WN	2	5	2	1	3	1
7 WN	2	6	4	2	4	3
9 WN	2	7	6	2	5	4
12WN	3	8	8	2	5	5
15WN	2	9	11	1	6	7
3 WL	2	3	1	1	2	1
5 WL	2	3	2	1	2	1
7 WL	2	4	4	1	3	3
9 WL	2	5	5	2	3	3
12WL	2	5	7	2	3	5
15WL	2	5	10	1	4	7