

FIELD OF APPLICATION:

In case of high demands on load forces e.g. in machine tools or in running accuracy. Because of small rolling element diameter suitable for short oscillating movements.

DIMENSIONS:

Sizes 6 and 9 are compatible to our cross roller guides and TV-guides.
Special executions and dimensions on application.

MATERIAL AND EXECUTION

ERO-longitudinal guides type N/O are fabricated out of toolsteel as a standard.
The hardness of the material lies between 60 and 62 HRS. Its surfaces are ground in finest way.

CAGES

- Size 6: HW10 - needle rollers holded material brass, steel or aluminium
- Size 9: HW15 - Needle rollers holded material brass, steel or aluminium

ADMISSIBLE OPERATING TEMPERTATURES

ERO-longitudinal guides type N/O can be used operating temperatures until +80°C.
For short time there are temperatures possible ut to +150°C.

ACCELERATION AND ADMISSIBLE SPEED

With normal installation situations an acceleration of 150 m/sec² and speeds until 50m/min can be made.

ABRASION

The abrasion coefficient with guides having cages can be calculated under normal conditions to be 0.003.

SEALING

It is an absolute requirement that the longitudinal guides must be protected against effects by dirt, whether in firm or liquid form.

LUBRICATION

Lubrication is done with roller bearing greases on the basis of lithium soap.

The guides should not be lubricated too much, a first lubrication can - depending on the effort in case - last for several years.

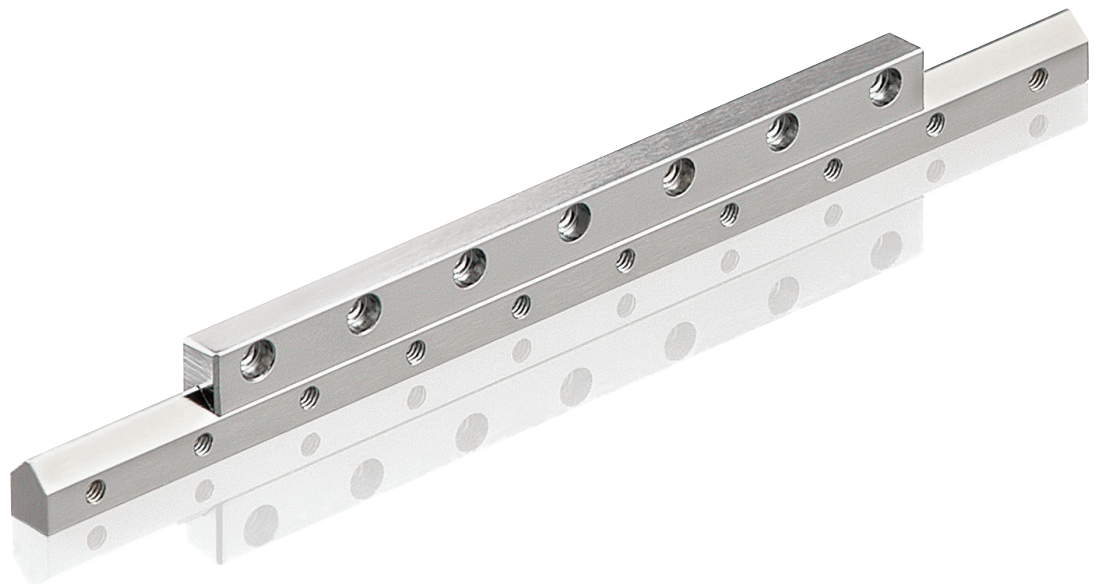
LONGITUDINAL GUIDES GROUND TOGETHER

It is possible to put several longitudinal guides together in a series to form a special length. In such a way that there does not happen any change with regard to precision, soft running and sliding capability.

When such a type is delivered, the longitudinal guides are numbered accordingly, so that the customer can make the installation correctly.

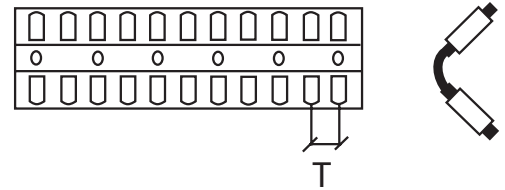
ADVANTAGES OF ERO LONGITUDINAL GUIDES OF TYPE N/O

- smooth running
- coefficient of friction (0.003)
- no starting friction (stick-slip-effekt)
- minimal wearing
- high bearing capability
- high rigidity
- free of clearance
- highest precision
- replaceability with R- and TV-rails

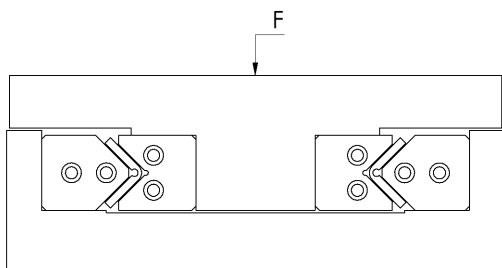


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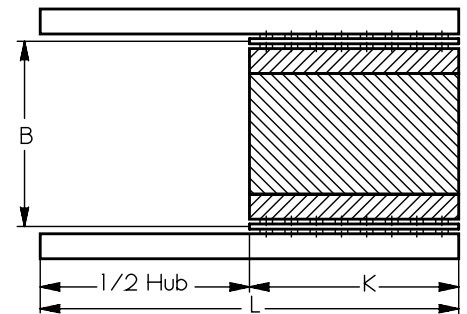
- needle rollers helded
- size 6 and 9: materials brass, steel or aluminium
- Suitable for horizontal and vertical installation



designation	size	carrying power 2 rollers dyn. (N)	partition T
HW10	6	2740	4
HW15	9	4000	4.5



The cage length should at least 1.5 x guiding distance B.



DIMENSIONING OF A GUIDANCE:

$$\text{Cage length } K = \frac{\text{charge } F \times \text{partition } T}{\text{carrying force/roller } P}$$

$$\text{Rail length } L = \frac{\text{cage length } K + \text{lifting } H}{2}$$

$$\text{Number of rollers in the cage} = \frac{\text{rail length } L - 1/2 \text{ lifting}}{\text{partition } T}$$

$$\text{or } = \frac{\text{cage length } K}{\text{partition } T}$$

Example

Requested: length of guide rails = 400 mm
lifting = 150 mm

$$K = 400 \text{ mm} - \frac{150}{2} = 325 \text{ mm}$$

ORDERING EXAMPLE:

Example for ordering a complete guidance with 150mm lifting:

2 pieces of guide rails of type N

N 6400
↑ length L
↑ rail size

2 pieces of guide rails of type O

O 6400
↑ length L
↑ rail size

2 pieces of cages

HW 10 - 325
↑ length (mm)

