

# Technical Details

## 1. Selection of an adequate telescopic slide

The selection of a telescopic slide mainly depends on the following aspects:

- Carrying capacity
- Installation size (height, width, rail length)
- Kind of telescopic slide (part extension, full extension etc.)
- Travelling distance
- Material

## 2. Length tolerances

Installation Length(mm)	≥ 150 < 420	≥ 420 < 1050	≥ 1050 < 2840
Tolerance (mm)	± 0,5	± 0,8	± 1,2

At installation tolerances for balancing from  $\pm 0,2$  -  $\pm 0,3$  are to regard.

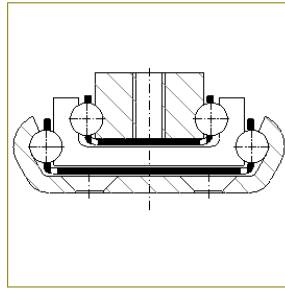
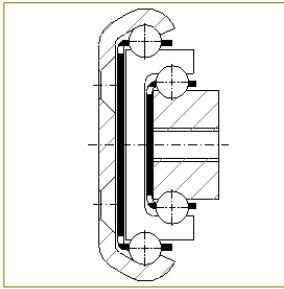
The tolerances according to DIN ISO 2768-1 (m) apply for all the other gauges.

## 3. Carrying capacity

The maximal carrying capacity indicated on the data sheets always refers to a couple of telescopic slides. To achieve the max. carrying capacity the following conditions are to consider.

- Absolutely stiff connecting constructions
- Constant division of the load all over the whole length of the movable rail element
- Anchor of the telescopic slides with all the designated bores on a planar and stiff face
- Vertical assembly of the telescopic slides

### Vertical and flat installation



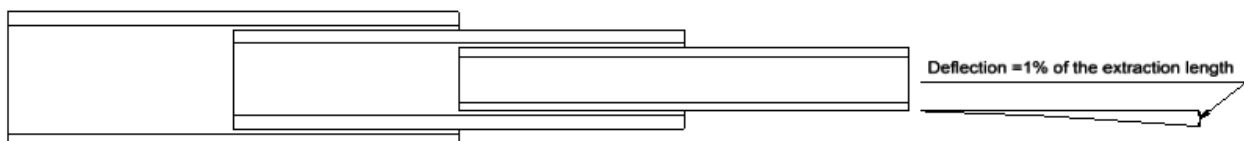
If not all of the conditions can be ideally realized, please contact us.

At a flat installation position of the telescopic slides only 70%-50% (according to the type) of the permitted load values can be used.



## 4. Deflection

Allowing for the conditions below point 2, „carrying capacity“, and paired installation, the deflection at full-applied load amounts max. 1% to the travelling distance e.g.: 500mm travelling distance -> max. 5mm deflection at full-applied load.



## 5. Durability

The term „durability“ denotes the period described from commissioning to breakdown of the telescopic slide because of excessive wear and tear of a component.

The durability is mainly affected by the following aspects:

- Applied load
- Precision of the assembly
- Parallelism at paired installation
- Stiffness of the connecting construction
- Impacts and vibrations
- Operating temperature
- Grease (Point “maintenance intervals” is to regard)

## 6. The force of action

The force of action is subject to tolerances according to the assembly and additionally determined by the applied load and the deflection of a telescopic slide.

Allowing to the applied load and the deflection of a telescopic slide the closing force will be higher than the opening force. The reason why is that at applied load there is a deflection and at closing you have to work against an incline.

## 7. Working temperature

The telescopic slides can be used at ambient temperatures from -30°C to +250°C.

At temperatures from +100°C a high temperature grease is used.

At application in the food industry alternative lubricants can be offered.

## 8. Corrosion protection

All classes are galvanically zinc coated and blue passivated.

For higher corrosion protection alternative kinds of coating can be offered.

General overview of possible coats:

Coat	Brine spray test DIN50021NSS	RoHS
bluecromated	ca. 70 hours	yes
blackcromated	ca. 200 hours	no
yellowcromated	more than 300 hours	no
yellowcromated	more than 300 hours	yes
olivecromated	more than 350 hours	no
Zinc-Nickel-with passivation	more than 700 hours	yes

## 9. Maintenance intervals

According to ambient conditions a casual visual check should be conducted, dirt particles should be removed and „dry“ guide ways should be greased occasionally with roller bearing grease. This reduces friction, protects the prefabricated parts and allows long system durability. The re-greasing intervals are variable and have to be ascertained with regard to the particular operating conditions like applied load, environmental conditions, movement speed, temperature, pollution etc.

## 10. Ball cage displacement

The stroke movement of a telescopic slide is (among other things) realized by ball cages. At different travel distances inside a telescopic slide a “ball cage displacement” can happen. This ball cage displacement, formed by slip, leads to the achievement of the end position only with an increased effort.

For automated systems this fact means that the systems have to command an adequate driving power reserve or that an additional maximal stroke has to be included.

If required constructive special solutions can be realized – please contact us.

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Still technical questions remaining?

Please contact us!

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