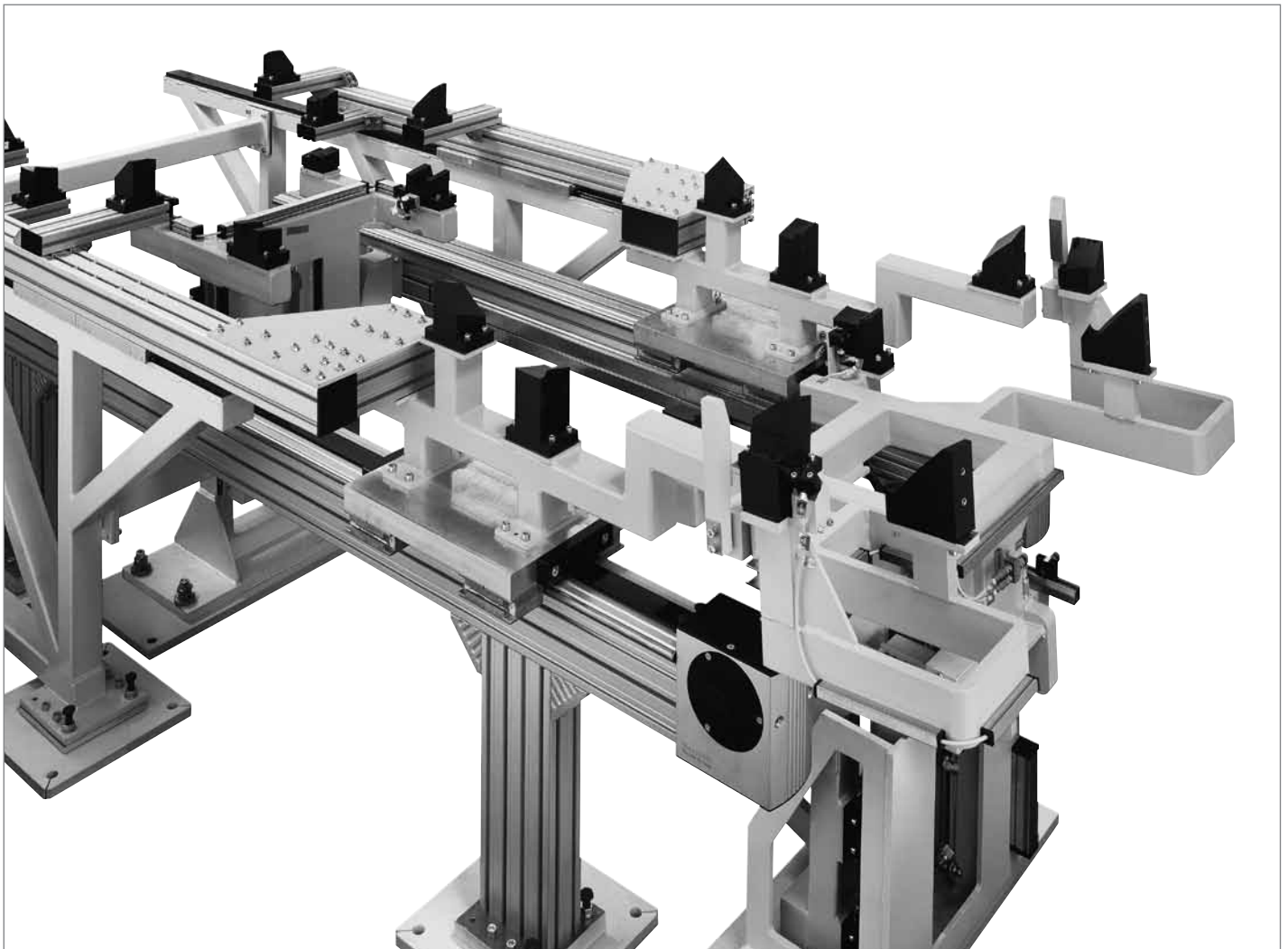


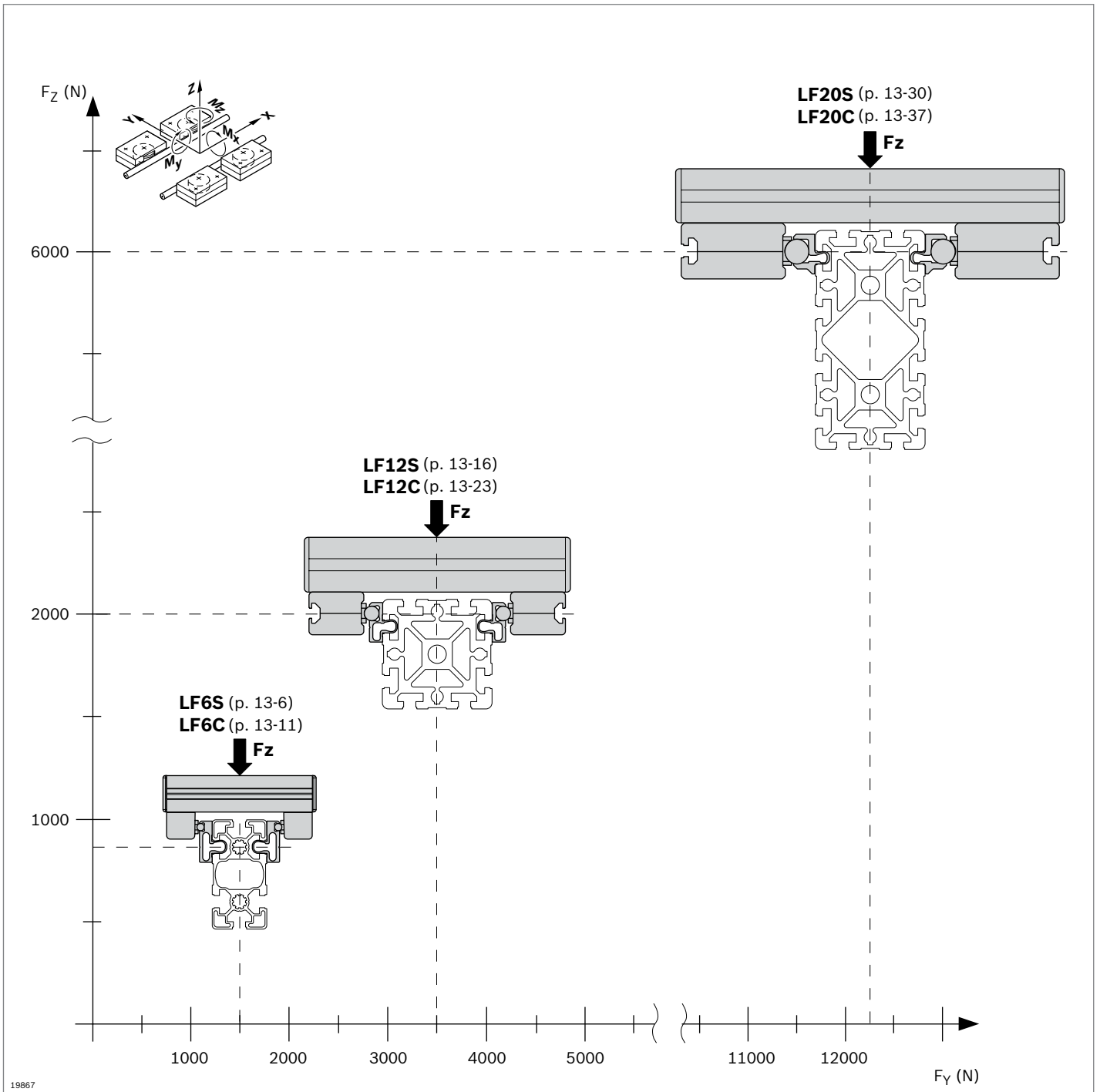


Linear guides

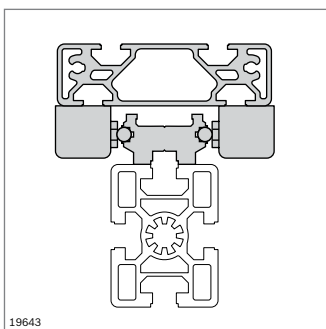
- ▶ For constructing linear guides based on cam roller guides
- ▶ Cam roller guides are suitable for applications with high speeds and medium loads, in particular for the construction of handling equipment, feed systems, guides in work machines, and many other applications
- ▶ Fully pre-assembled in any required length or as individual components for assembly on site
- ▶ Without drive or with toothed-belt drive for attaching gears and motors



Linear guides – sizes, designs, and loads



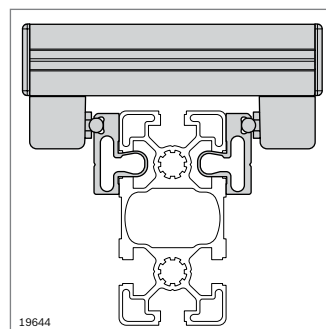
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LF...S

- ▶ Compact construction
- ▶ Fixed track width
- ▶ $v_{max} = 5 \text{ m/s}$

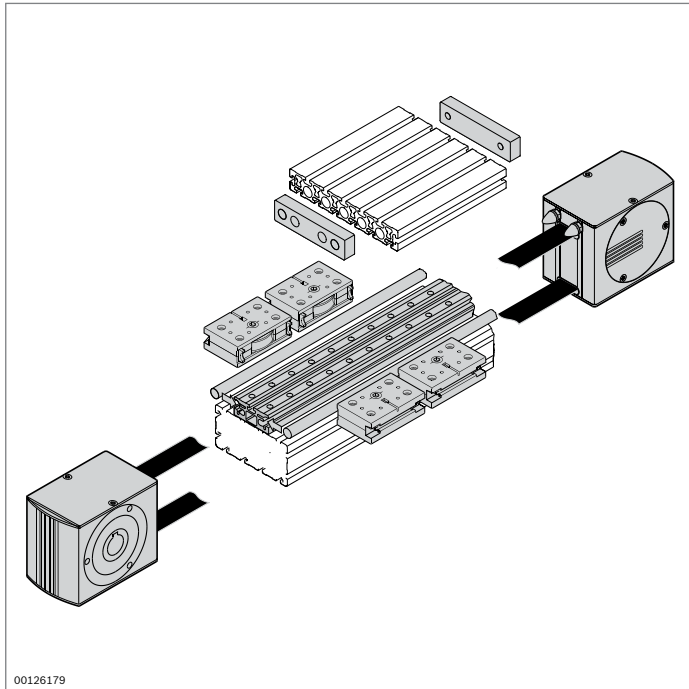


19644

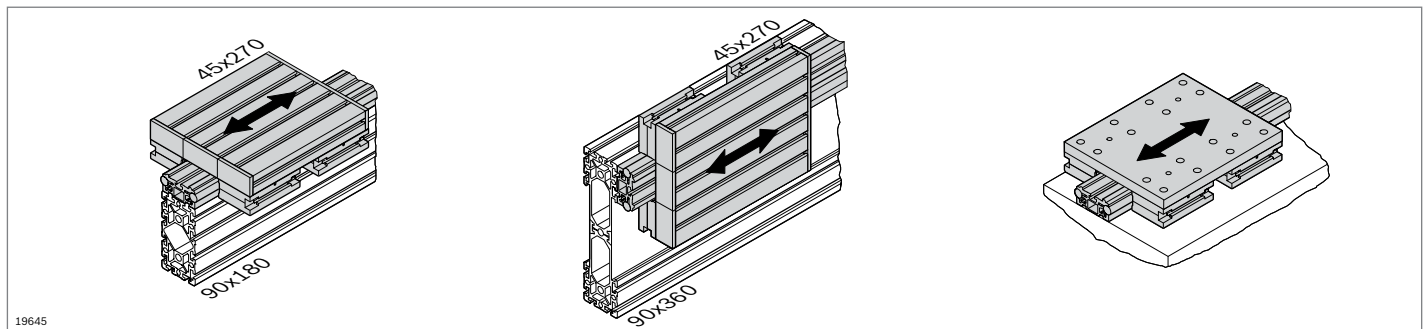
LF...C

- ▶ Freely selectable track width for greater torque absorption
- ▶ $v_{max} = 5 \text{ m/s}$

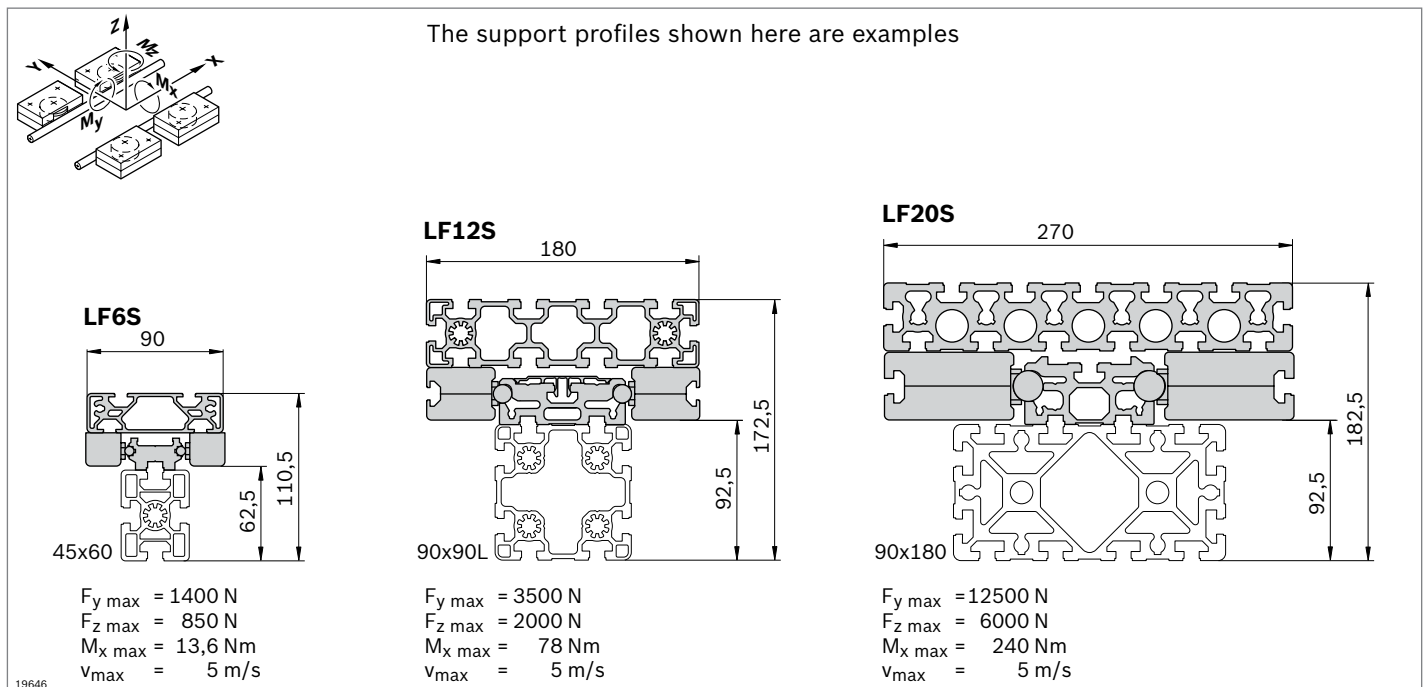
Cam roller guides LF...S



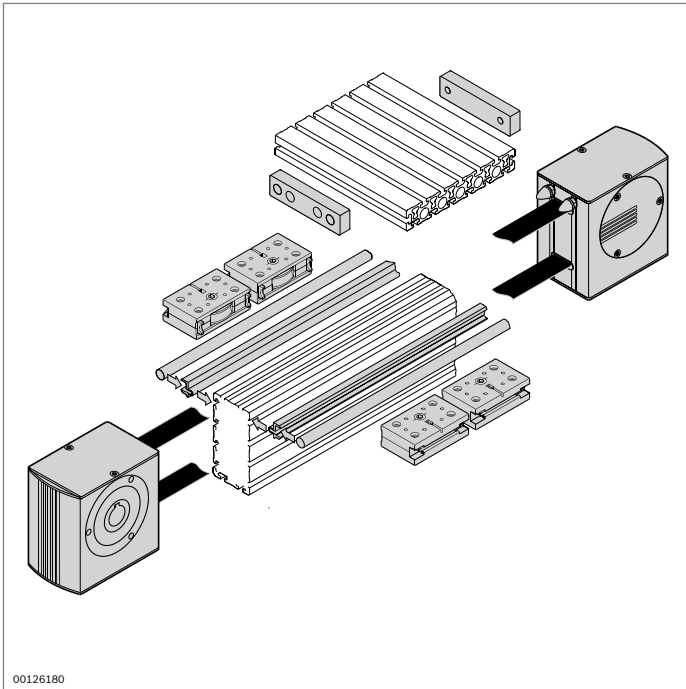
- ▶ Cam roller guide LF...S with fixed track widths
- ▶ Guide rail made of aluminum with hardened and polished VA guide rods
- ▶ Simple mounting on strut profile or directly on flat surface, e.g. on a machine
- ▶ High precision, dimensional stability and torsional rigidity
- ▶ Lighter and cheaper than steel guides
- ▶ Light trolley with good torsional rigidity
- ▶ Freely selectable trolley lengths
- ▶ Freely selectable stroke lengths possible
- ▶ High permissible speed



The support profiles shown here are examples

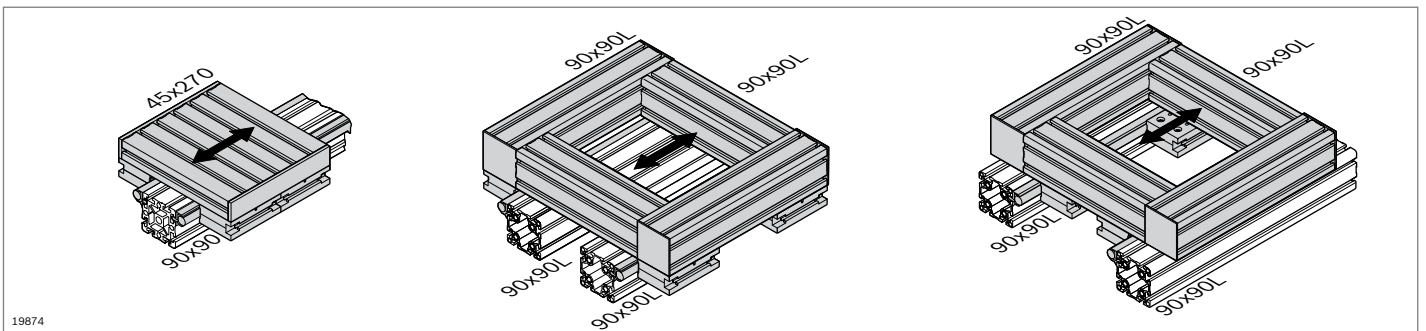


Cam roller guides LF...C



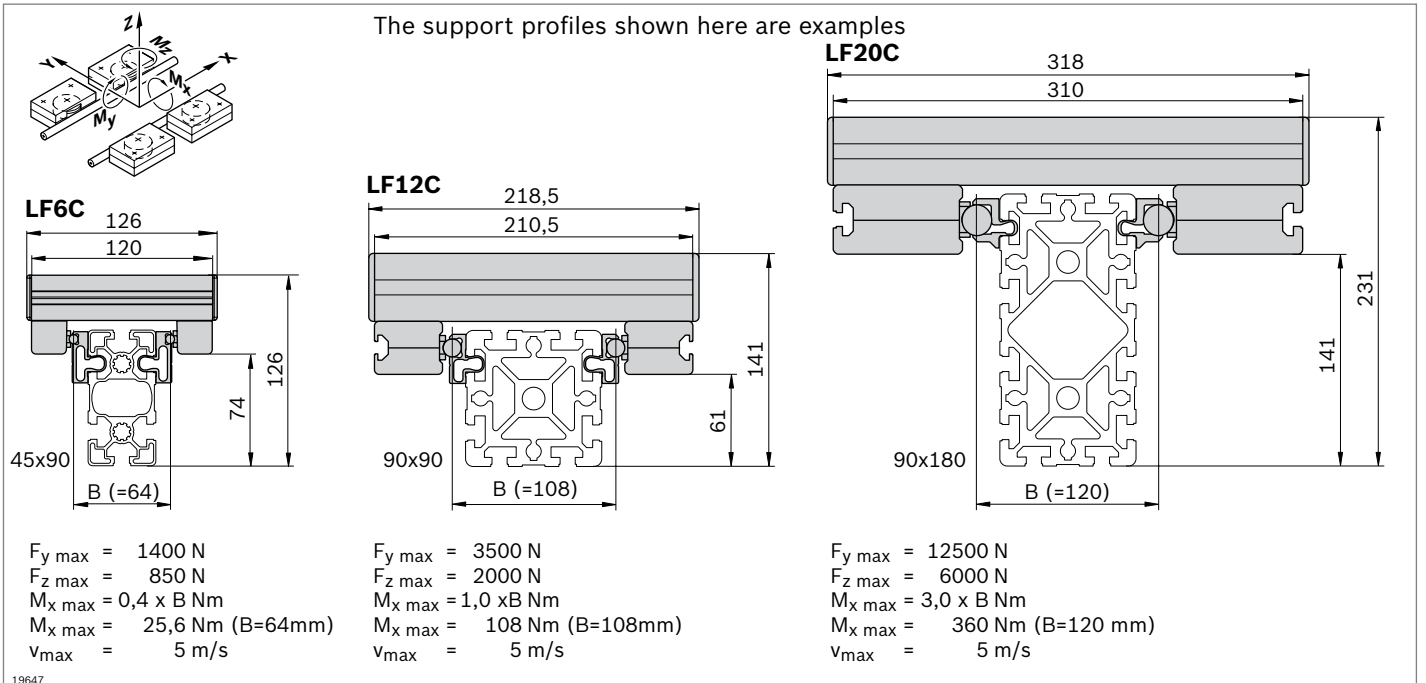
- ▶ Cam roller guide LF...C for free choice of track widths and large track widths
- ▶ Clamping profile made of aluminum with hardened and polished VA guide rods
- ▶ Easy assembly through clipping the clamping profile into the slots of any Rexroth profile with 10 mm slot
- ▶ Optimally adjustable to different loads
- ▶ Greater torque absorption due to a C construction and free choice of track width
- ▶ Light trolley with good torsional rigidity
- ▶ Freely selectable trolley lengths and widths
- ▶ Freely selectable stroke lengths possible
- ▶ High permissible speed

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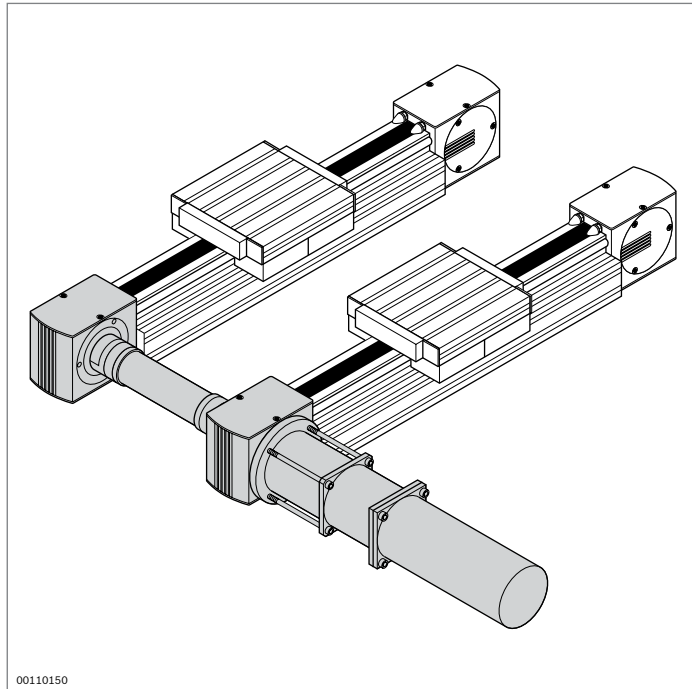


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The support profiles shown here are examples



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Linear guide drives

Drive concept

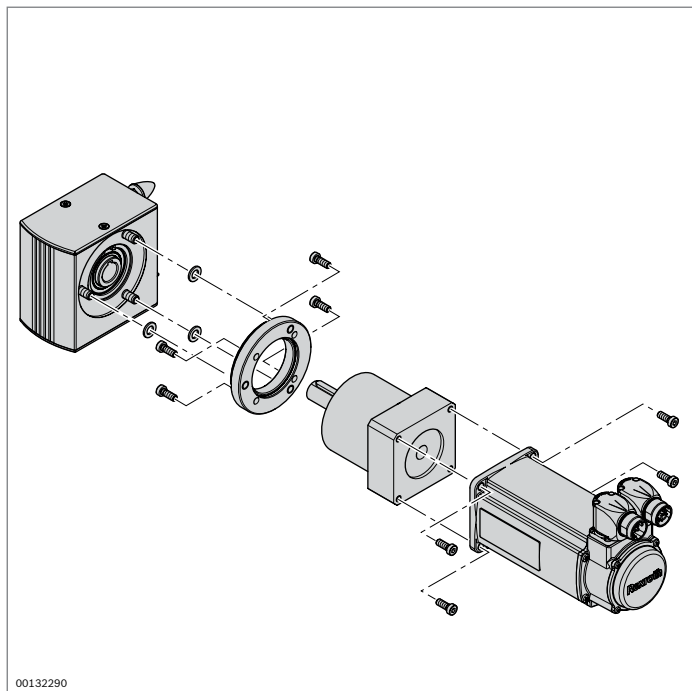
The linear guides are driven via the hollow shaft in the drive head. The drive head is used to directly install a motor or alternatively (in connection with a center shaft) a hollow shaft gear or a coupling. Depending on the desired speeds of movement for the application, it is necessary to use various motor types in conjunction with intermediate gears. Due to the multitude of drive components available in the market, there are a large number of possible combinations.

The MGE modular profile system makes it easy to assemble Bosch Rexroth linear guides through the use of a standard shaft and simple connection dimensions.

Fastening

The drive head is directly secured on the profile by means of longitudinal end connectors.

The motor, or the intermediate gear flange, can be screwed to the drive head as a complete unit from the left- or right-hand side.

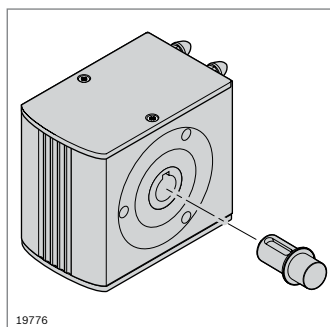


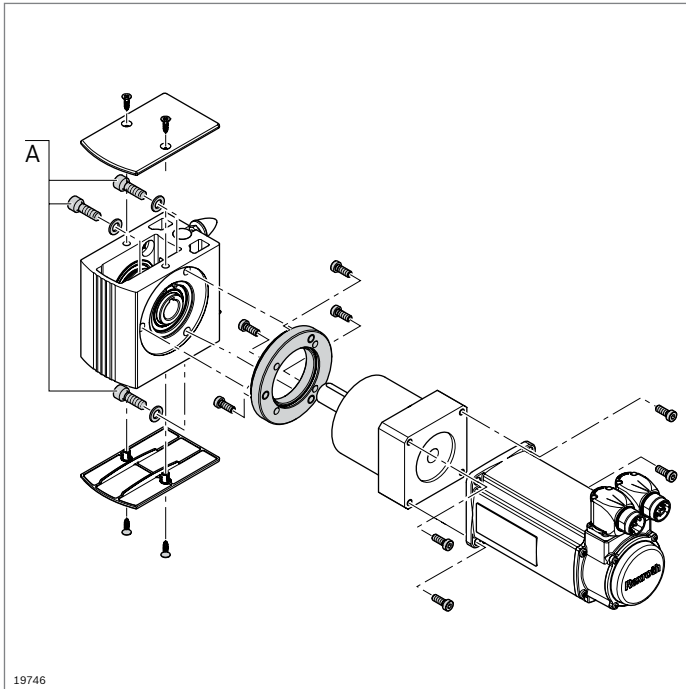
Synchronous shafts

The use of synchronous shafts (p. 13-47) enables several linear axes to be operated with one drive.

Connection dimensions (flange)

The connection dimensions for the size LF6, LF12 and LF20 linear guides are shown on pages 13-45.





Flange

A flange is generally required for fixing the motor/gear unit in place. The connection dimensions for connection to the drive head are shown below. The connection to the motor/gear unit depends on the model chosen in each case.

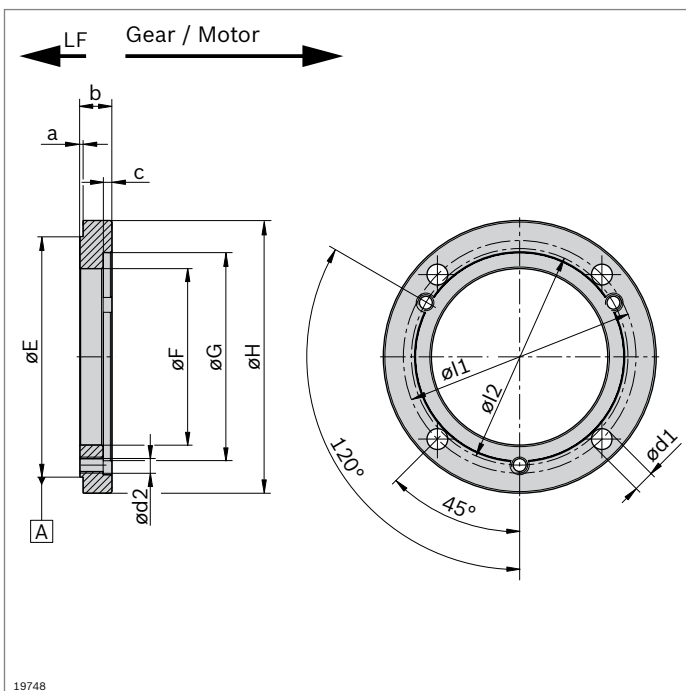
See also the connection dimensions for the drive heads LF6S (p. 13-9), LF6C (p. 13-14), LF12C (p. 13-28), LF12S (p. 13-21), LF20C (p. 13-42), LF20S (p. 13-35)

Fastening material flange A

Note regarding flange in self-build version. Adapt fastening material to suit differing flange thicknesses.

	LF6 (b = 14.5 mm)	LF12 (b = 20 mm)	LF20 (b = 20 mm)
Drive head – flange	ISO 4762 – M8x22 (3x) ISO 7092 – 8 (3x)	ISO 4762 – M8x25 (3x) ISO 7092 – 8 (3x)	ISO 4762 – M10x30 (3x) ISO 7092 – 10 (3x)

13



Drawing and dimensions for flange in self-build version. Customer-specific adjustment is necessary, depending on the motor and gear unit. The fastening material must be self-sourced.

Flange

Dimension parameter	LF6 (mm)	LF12 (mm)	LF20 (mm)
a	3.5 ± 0.15	3.5 ± 0.15	2 ± 0.15
b _{min} ^{*)}	0.05	*)	*)
c ^{*)}	*)	*)	*)
E	Ø 88 -0.1/-0.3	Ø 111 -0.1/-0.3	Ø 150 -0.1/-0.3
F _{min} ^{*)}	Ø *)	Ø *)	Ø *)
G ^{*)}	0.05 A	Ø *)	Ø *)
H ^{*)}	Ø *)	Ø *)	Ø *)
l1 ^{*)}	Ø *)	Ø *)	Ø *)
l2	Ø 78	Ø 100	Ø 135
d1 ^{*)}	Ø *)	Ø *)	Ø *)
d2	Ø 0.25 M8	M8	M10

^{*)} Dimension according to customer drive.

Note: The values must be checked by the user.

Alternative mounting with coupling

Instead of direct mounting over the section link, a coupling can be inserted. This allows any user truing errors to be rectified. The coupling must be designed and sourced by the customer.

