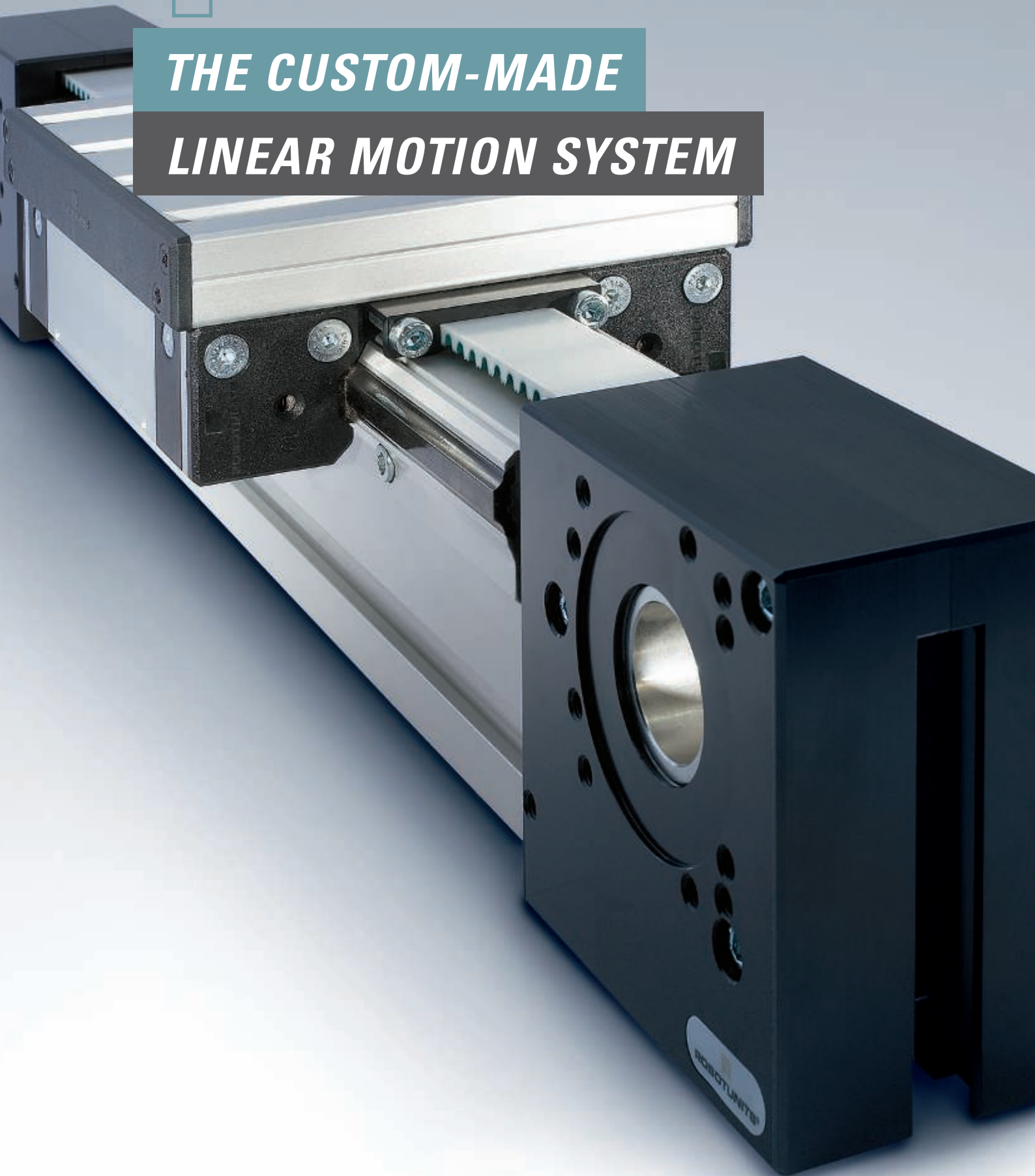




***THE CUSTOM-MADE  
LINEAR MOTION SYSTEM***



Customized linear motion technology. Based on our proven Extrusion and Fastening Technology, we have developed Linear Motion Units that meet the highest customer expectations in terms of versatility, stability and efficiency.

Robotunits offers a Linear Motion System of the highest quality and precision, with a maximum potential for cost and time savings in design and assembly.



#### Fully integrated Linear Motion System

- completely compatible with the entire Modular Automation System
- belt return inside the extrusion
- leaves 3 sides of the extrusion free for additional attachments
- available in 50 mm series



#### It runs and runs and runs ...

- single or double idlers can be used, depending on the load
- high strength due to special captive design of idler extrusion
- large rollers
- integrated fastening option for Flexible Energy Chain



#### Guiderails instead of guide systems

- easily mounted guiderails eliminate the need for a separate guide system
- playfree datum edge positioning
- hardened, tempered steel guiderail allow heavier loads
- high wear resistance allows smooth and quiet operation
- quick and easy assembly



#### Modular design of linear motion units

- customized linear motion units, from single units to complex 3 axis gantry systems
- single and multiple guiderails available in one system
- X-,Y-,Z-combinations possible
- almost limitless combinations



#### Drive options

- motor selection tailored to performance requirements
- minimal design time through expansion coupling system
- one size pulley for all chassis sizes



#### Protection against damage

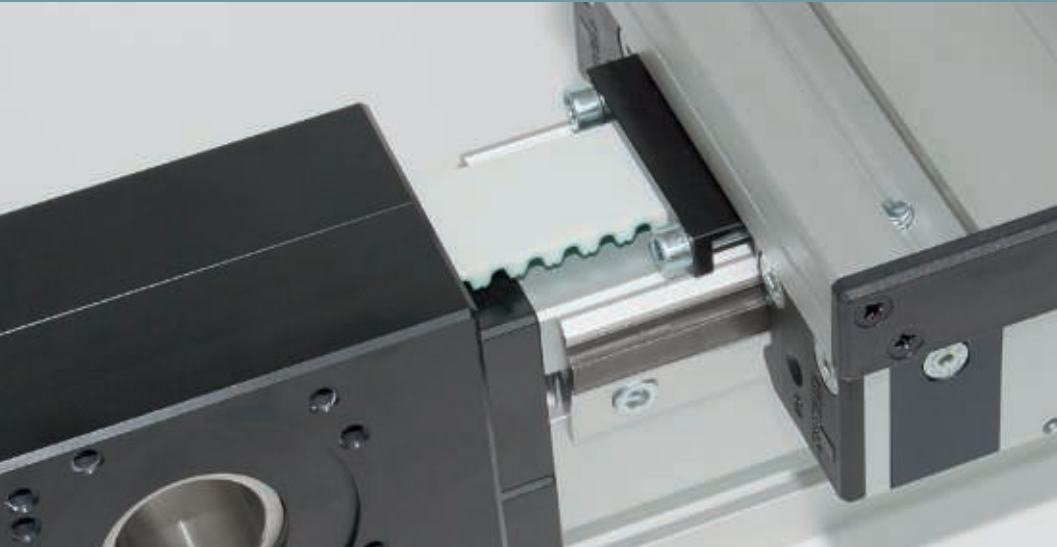
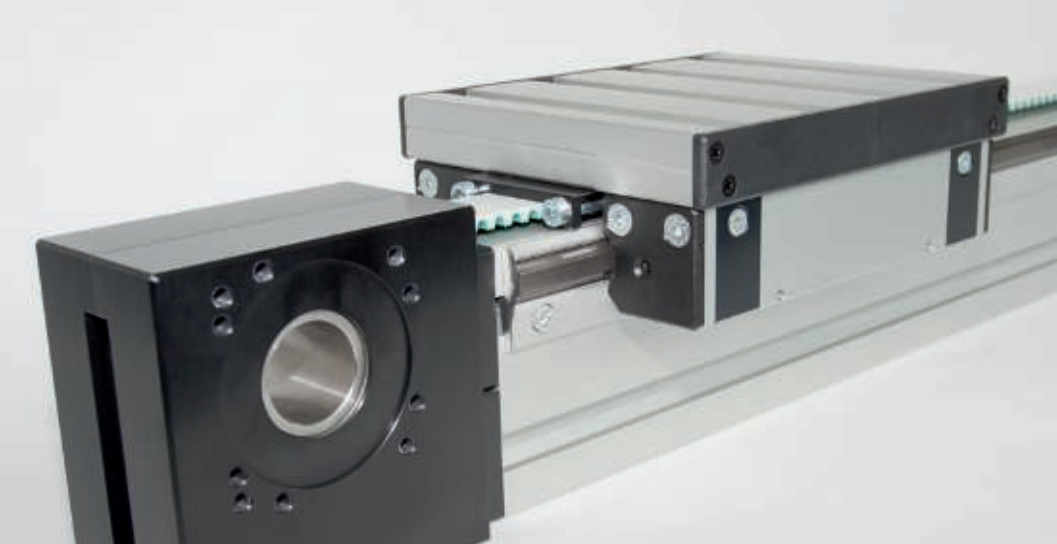
- integrated overrun protection prevents mechanical damage



#### Save time, cut cost

- easy selection of components
- easy to order
- minimal design time required
- quick and easy attachment of accessories
- easy installation





# The Custom-Made Linear Motion System

Linear Motion Unit 50

Page 62

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Linear Motion  
Unit 50  
LIL 5010



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Linear Motion Unit 100

Page 63

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Linear Motion  
Unit 100  
LIL 1010



P. 63

Linear Motion Unit 50 With Omega Drive

Page 64

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Linear Motion Unit  
50 With Omega  
drive LOL 5010



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Linear Motion Accessories Overview

Page 138

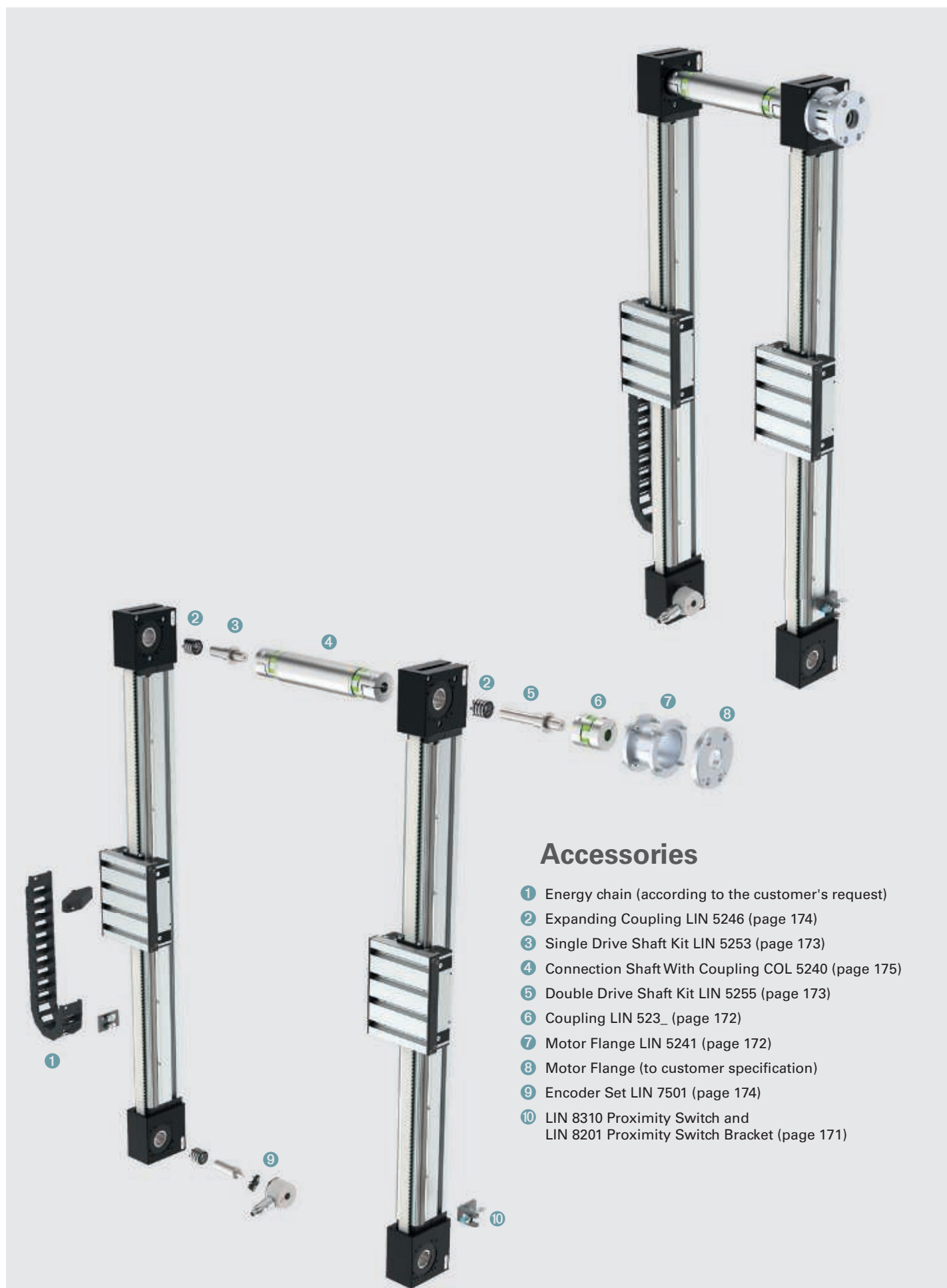
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## Product Parts

- ① Timing Belt Pulley LIN 5411 (page 166)
- ② Timing Belt LIN 3008 (page 168)
- ③ Guiderail LIL 5000 SNN (page 169)
- ④ Carriage Plates LIN 1501 / LIN 2001 (page 170)
- ⑤ Limit Stop LIN 5191 (page 170)
- ⑥ Timing Belt Clamp LIN 3221 (page 167)
- ⑦ Extrusions, 50x50, 50x100, 50x200, or 100x100 (starting page 74)
- ⑧ End Cap CAP 2521 (page 177)
- ⑨ Single Idler Kit, concentric LIN 5001 or Double Idler Kit, concentric LIN 5011 (page 168)
- ⑩ Single Idler Kit, eccentric LIN 5003 or Double Idler Kit, eccentric LIN 5013 (page 168)

# Linear Motion System



## Accessories

- ① Energy chain (according to the customer's request)
- ② Expanding Coupling LIN 5246 (page 174)
- ③ Single Drive Shaft Kit LIN 5253 (page 173)
- ④ Connection Shaft With Coupling COL 5240 (page 175)
- ⑤ Double Drive Shaft Kit LIN 5255 (page 173)
- ⑥ Coupling LIN 523\_ (page 172)
- ⑦ Motor Flange LIN 5241 (page 172)
- ⑧ Motor Flange (to customer specification)
- ⑨ Encoder Set LIN 7501 (page 174)
- ⑩ LIN 8310 Proximity Switch and LIN 8201 Proximity Switch Bracket (page 171)



#### Application

- For transportation and exact positioning of parts.
- Used as individual units or x-y-z gantries

#### Technical Data / Scope of Delivery

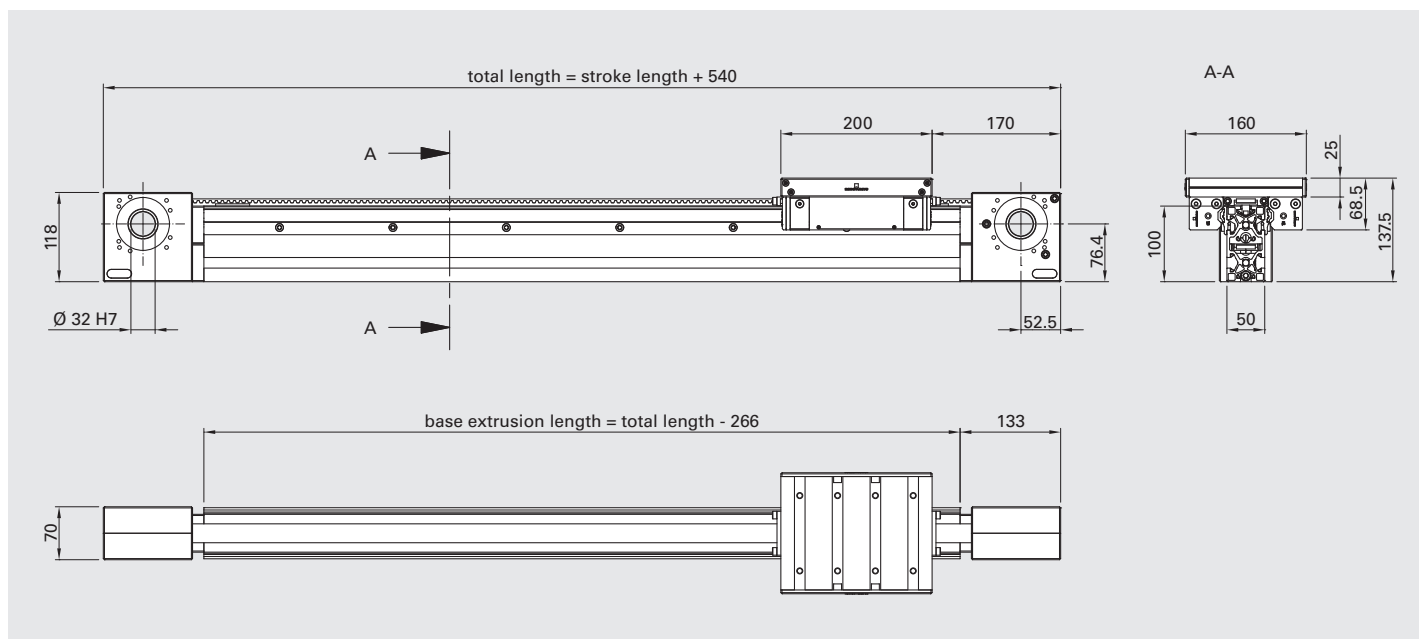
Base extrusion 50x100 (PIL 5010)  
 Standard carriage plate: 200x150 mm  
 Md max.: 60 Nm (max. transmittable drive torque)  
 Carriage stroke per revolution: 200 mm  
 Pitch circle diameter: 63.66 mm  
 Idle torque: 1 Nm  
 Positioning accuracy:  $\pm 0.2$  mm (without drive backlash)  
 Weight of carriage: 2.66 kg

#### Assembly Instructions

See page 195

A Wrench LIN 9990 (page 167) is needed to adjust the eccentric roller

## Dimensions



## Order Code

Description	Order Code <sup>1</sup>		
	Base Extrusion	Type	Stroke Length <sup>1</sup>
Linear Motion Unit 50	LIL 5010	SNN	—

1) Please complete the order code by adding the desired stroke length in mm.

Drawing dimensions in mm

## LIL 1010

## Linear Motion Unit 100

**Application**

- For transportation and exact positioning of parts.
- Used as individual units or x-y-z gantries

**Technical Data / Scope of Delivery**

Base extrusion 100x100 (PIL 1010)  
 Standard carriage plate: 200x200 mm  
 Md max.: 60 Nm (max. transmittable drive torque)  
 Carriage stroke per revolution: 200 mm  
 Pitch circle diameter: 63.66 mm  
 Idle torque: 1 Nm  
 Positioning accuracy:  $\pm 0.2$  mm  
 (without drive backlash)  
 Weight of carriage: 3.04 kg

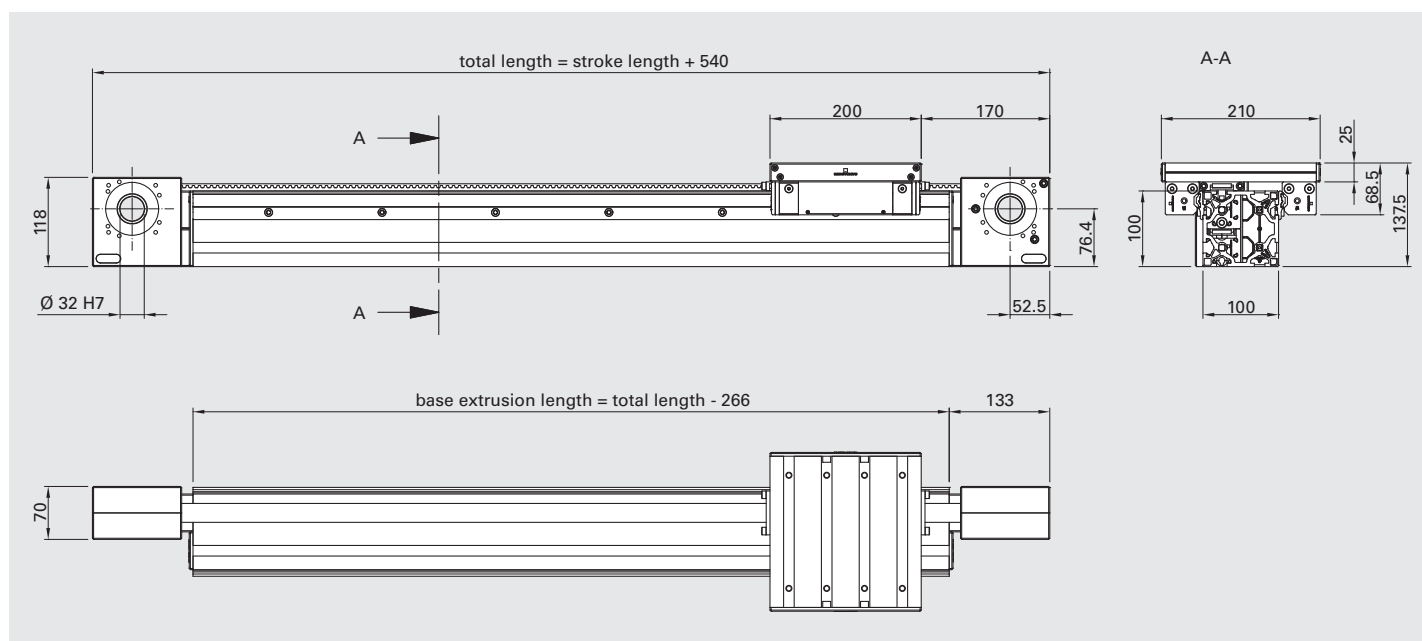
A Wrench LIN 9990 (page 167) is needed to adjust the eccentric roller

**Assembly Instructions**

See page 195



## Dimensions



## Order Code

Description	Order Code <sup>1</sup>		
	Base Extrusion	Type	Stroke Length <sup>1</sup>
Linear Motion Unit 100	LIL 1010	SNN	—

1) Please complete the order code by adding the desired stroke length in mm.

Drawing dimensions in mm



**Application**

- For transportation and exact positioning of parts.
- Used as individual units or x-y-z gantries

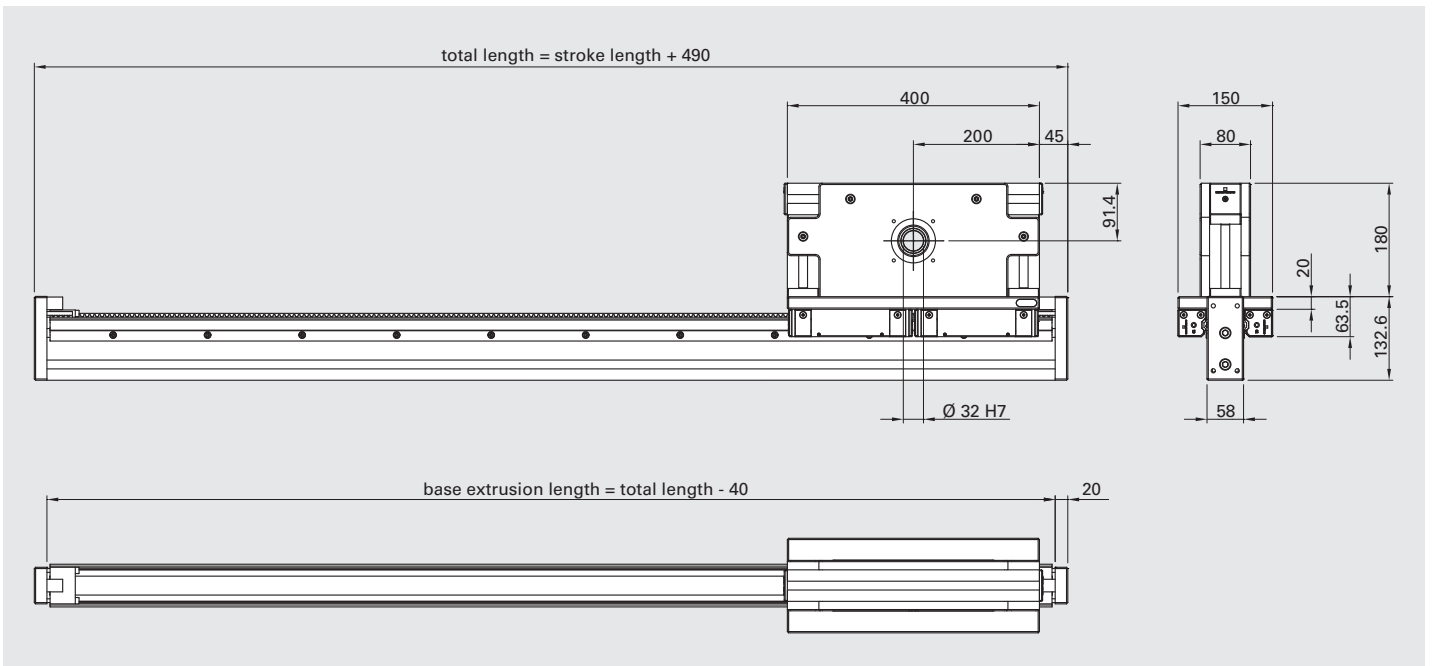
**Technical Data / Scope of Delivery**

Base extrusion: 50x100 PIL 5010  
 Carriage Plate: 400 x 150 mm  
 Md max.: 60 Nm (max. transmittable drive torque)  
 Carriage stroke per revolution: 200 mm  
 Pitch circle diameter: 63.66 mm  
 Idle torque: 1 Nm  
 Positioning accuracy:  $\pm 0.2$  mm (without drive backlash)  
 Weight of profile incl. guiderail: 5.4 kg/m  
 Weight of right and left end parts: 1.2 kg  
 Weight of drive unit without motor: 15.0 kg

**Assembly Instructions**

See page 195

A Wrench LIN 9990 (page 167) is needed to adjust the eccentric roller

**Dimensions****Order Code**

Description	Order Code <sup>1</sup>		
	Base Extrusion	Type	Stroke Length <sup>1</sup>
Linear Motion Unit 50 With Omega Drive	LOL	5010	SNN

1) Please complete the order code by adding the desired stroke length in mm.  
 Drawing dimensions in mm

# Linear Motion Unit and Lift Application Examples

