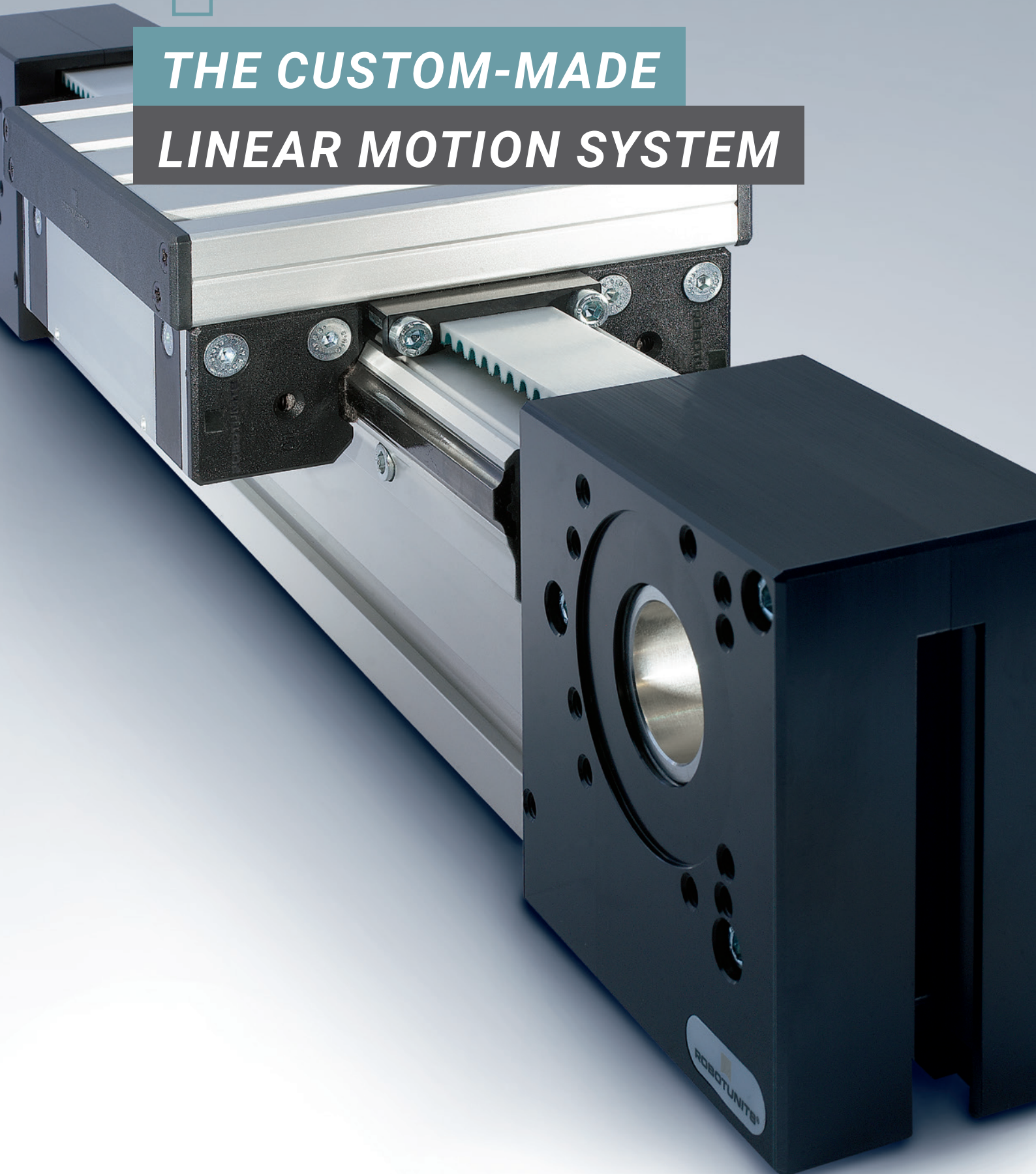




THE CUSTOM-MADE LINEAR MOTION SYSTEM



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

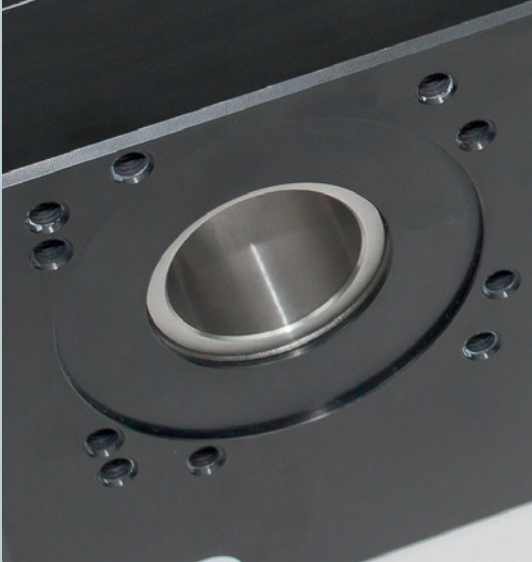
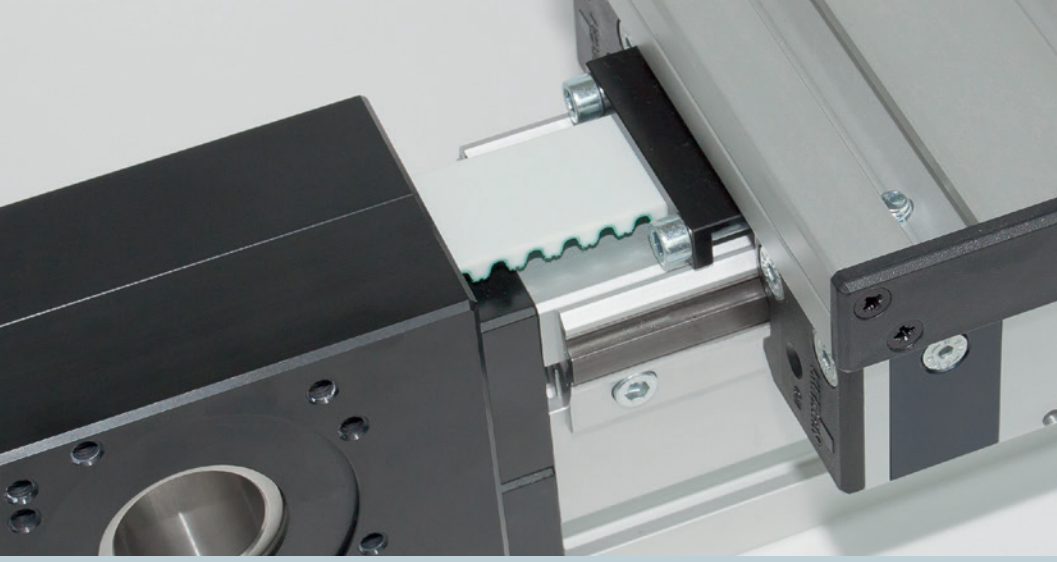
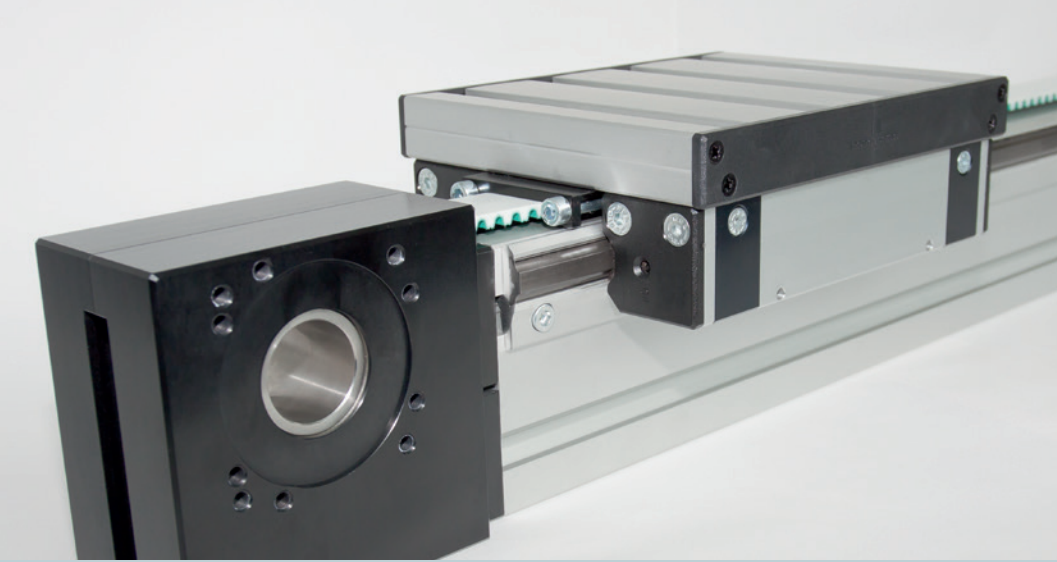
- integrated overrun protection prevents mechanical damage



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

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Linear Motion
Unit 50
LIL5010



P. 58



Linear Motion Unit 100

Page 59

Linear Motion Unit
100
LIL1010



P. 59

Linear Motion Unit 50 With Omega Drive

Page 60

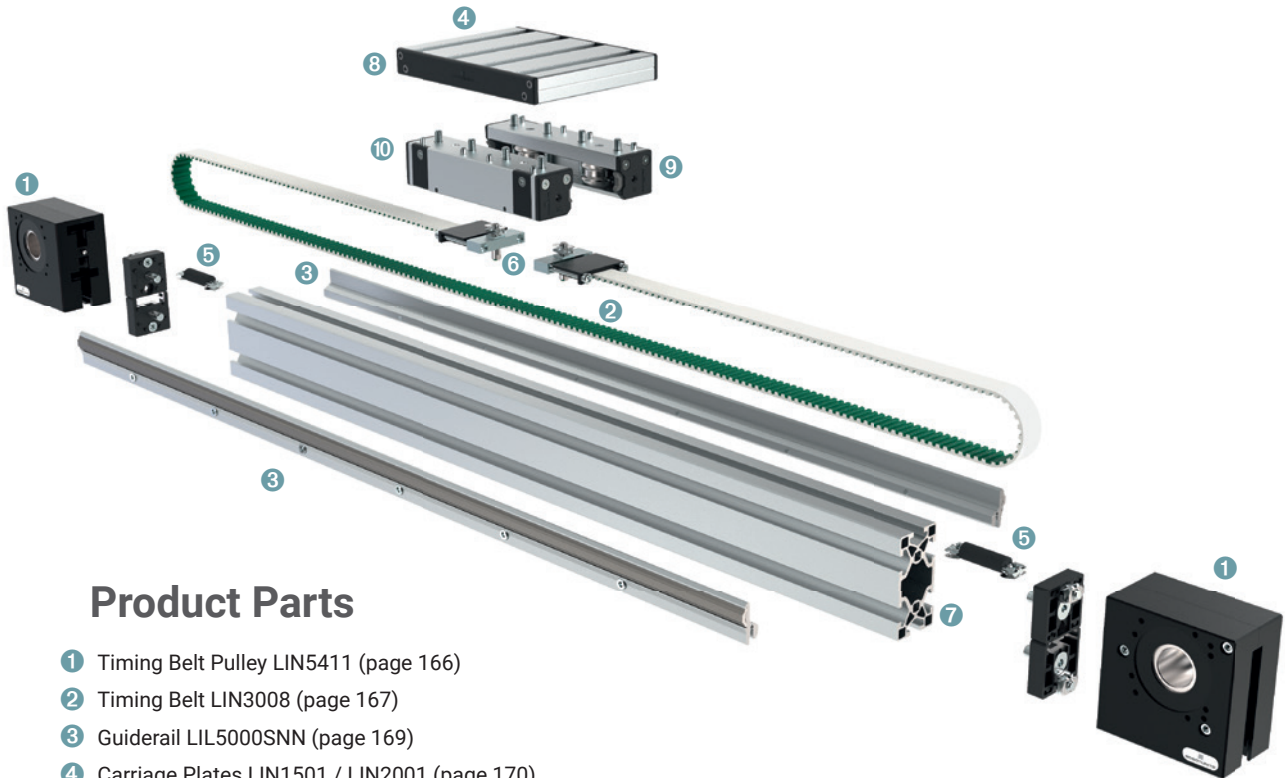
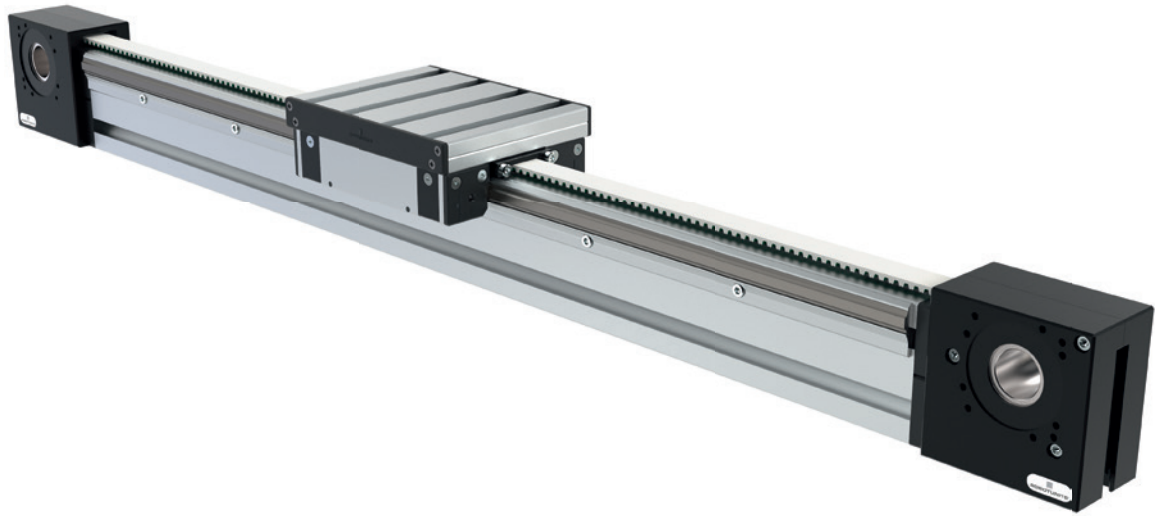
Linear Motion Unit
50 With Omega drive
LOL5010



P. 60

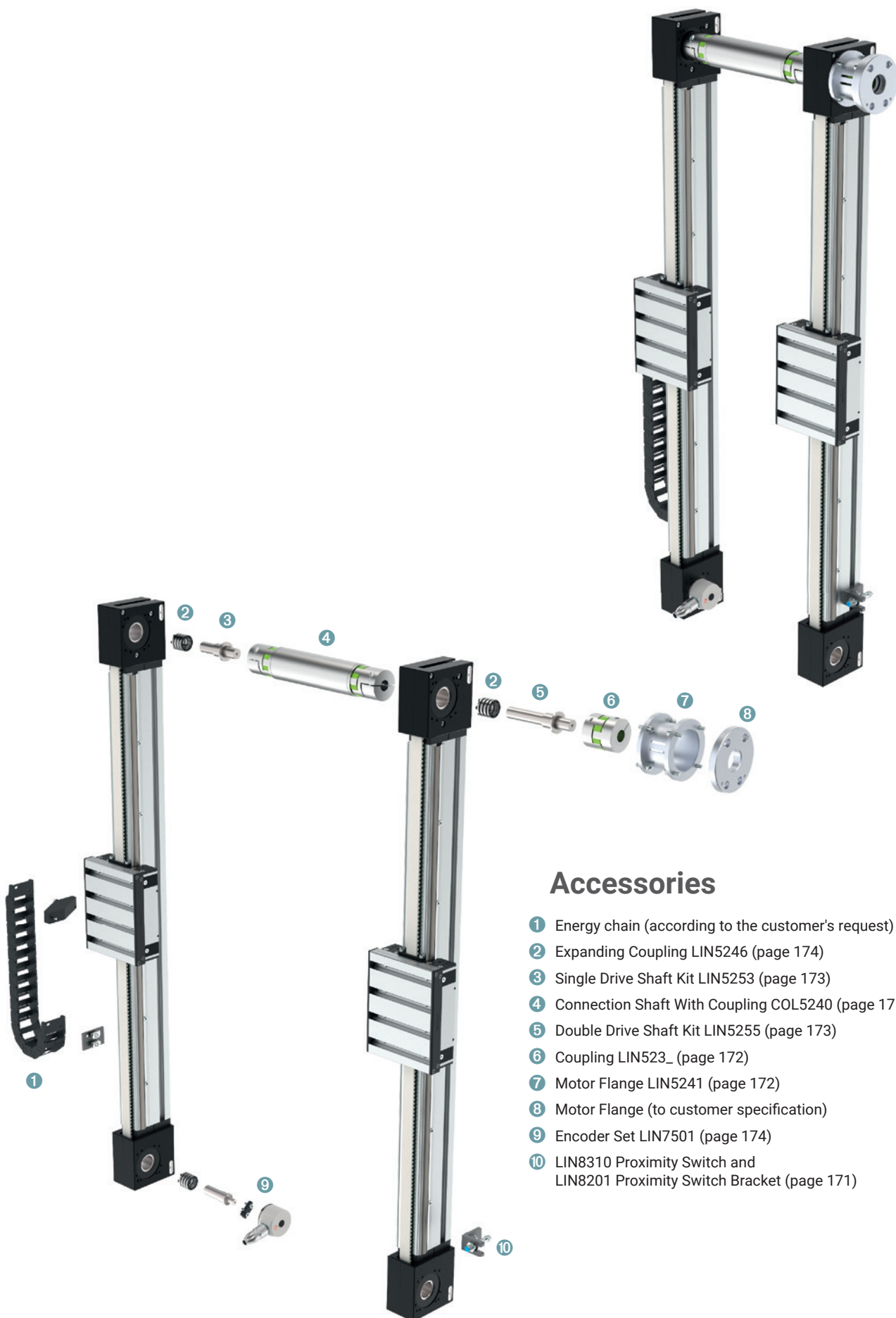
Linear Motion Accessories Overview

Page 143



Product Parts

- 1 Timing Belt Pulley LIN5411 (page 166)
- 2 Timing Belt LIN3008 (page 167)
- 3 Guiderail LIL5000SNN (page 169)
- 4 Carriage Plates LIN1501 / LIN2001 (page 170)
- 5 Limit Stop LIN5191 (page 170)
- 6 Timing Belt Clamp LIN3221 (page 167)
- 7 Extrusions, 50x50, 50x100, 50x200, or 100x100 (starting page 70)
- 8 End Cap CAP2521 (page 177)
- 9 Single Idler Kit, concentric LIN5001 or Double Idler Kit, concentric LIN5011 (page 168)
- 10 Single Idler Kit, eccentric LIN5003 or Double Idler Kit, eccentric LIN5013 (page 168)



Accessories

- ① Energy chain (according to the customer's request)
- ② Expanding Coupling LIN5246 (page 174)
- ③ Single Drive Shaft Kit LIN5253 (page 173)
- ④ Connection Shaft With Coupling COL5240 (page 175)
- ⑤ Double Drive Shaft Kit LIN5255 (page 173)
- ⑥ Coupling LIN523_ (page 172)
- ⑦ Motor Flange LIN5241 (page 172)
- ⑧ Motor Flange (to customer specification)
- ⑨ Encoder Set LIN7501 (page 174)
- ⑩ LIN8310 Proximity Switch and LIN8201 Proximity Switch Bracket (page 171)



Application

For transportation and exact positioning of parts.

Technical Data

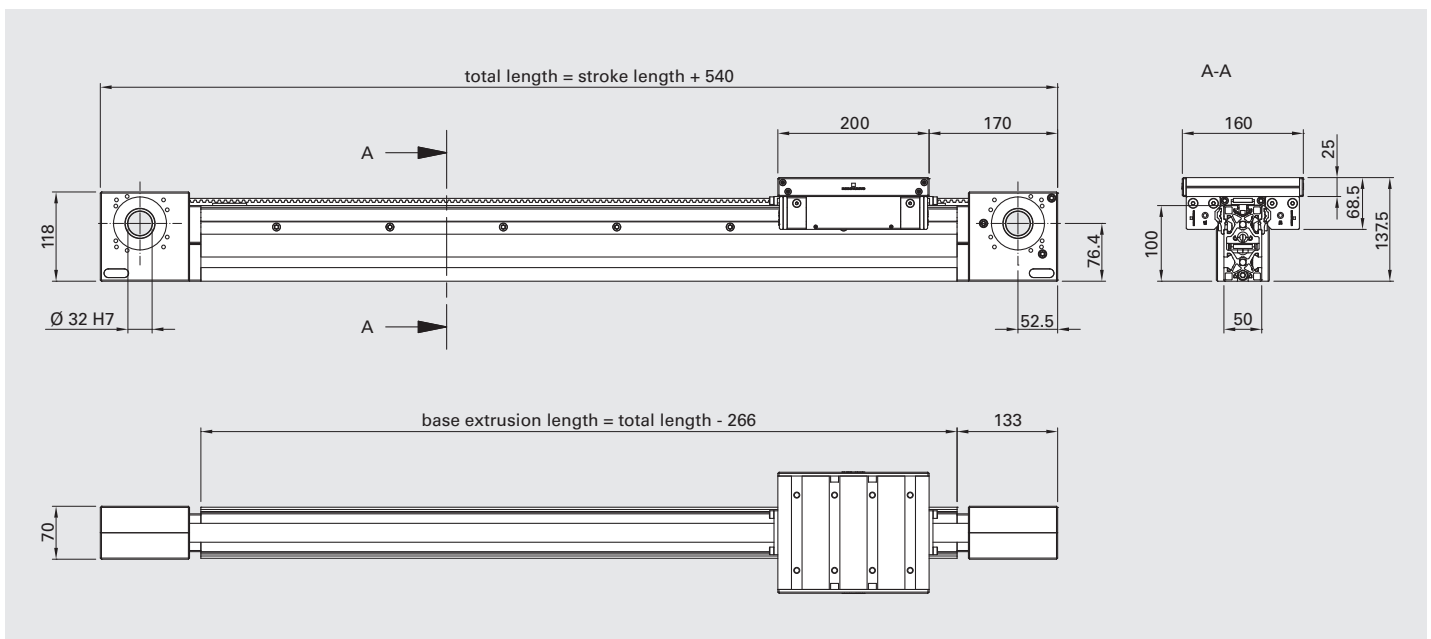
Base extrusion 50x100 (PIL 5010)
 Standard carriage plate: 200x150 mm
 Md max.: 60 Nm (max. transmittable drive torque)
 Carriage stroke per revolution: 200 mm
 Pitch circle diameter: 63.66 mm
 Idle torque: 1 Nm
 Positioning accuracy: ± 0.2 mm (without drive backlash)
 Weight of carriage: 2.66 kg

Assembly Instructions

See page 195

Eccentric Key LIN 9990 (page 169) is needed to adjust the eccentric roller

Dimensions



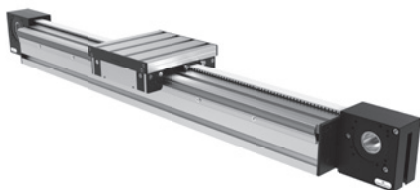
Order Code

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

1) Please complete the order by adding the corresponding parameters for order processing.
 Drawing dimensions in mm

LIL1010

Linear Motion Unit 100



Application

For transportation and exact positioning of parts.

Technical Data

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: ± 0.2 mm (without drive backlash)
 Weight of carriage: 3.04 kg

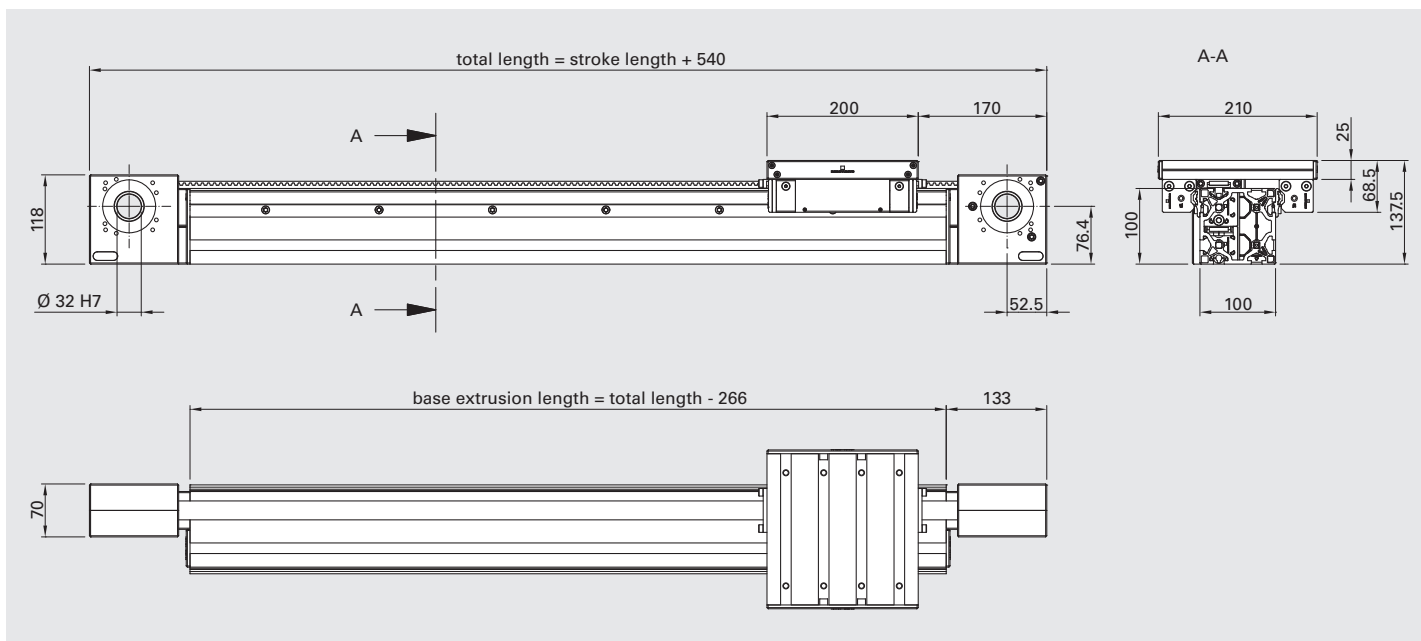
Assembly Instructions

See page 195

Eccentric Key LIN 9990 (page 169) is needed to adjust the eccentric roller



Dimensions



Order Code

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

1) Please complete the order by adding the corresponding parameters for order processing.
 Drawing dimensions in mm

**Application**

For transportation and exact positioning of parts.

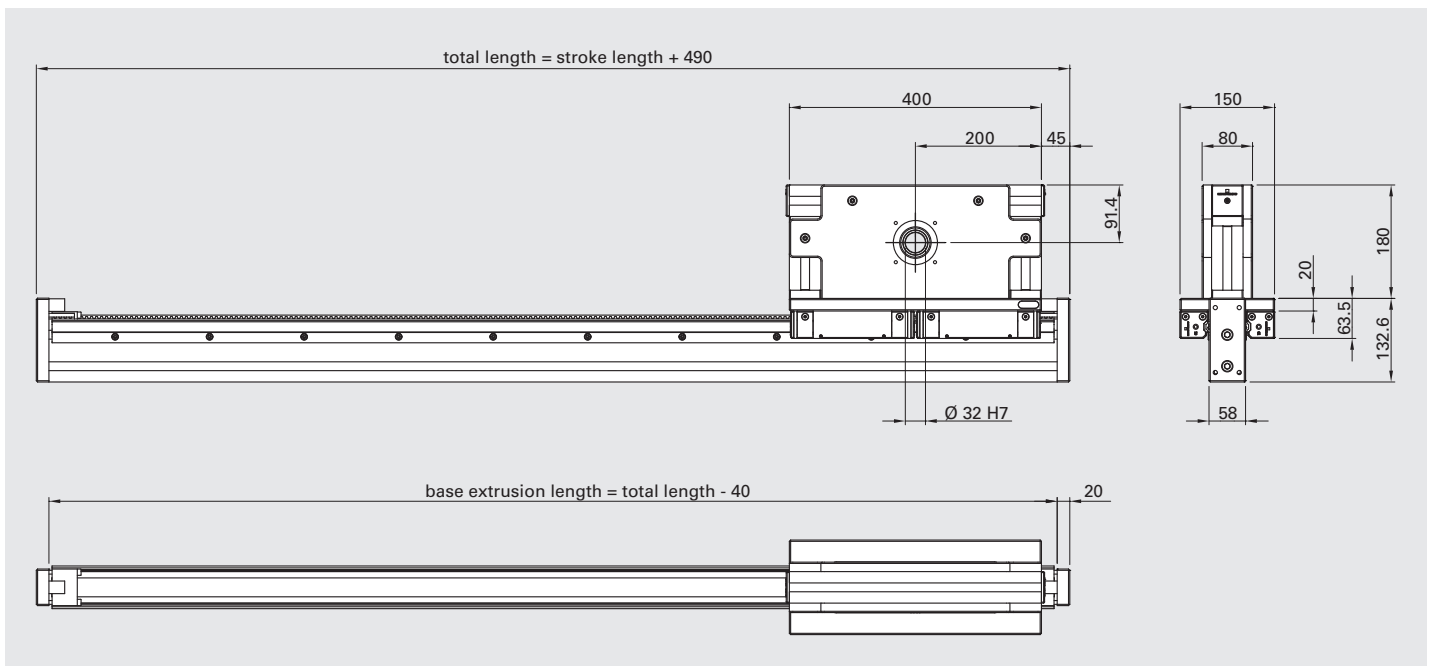
Technical Data

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: ± 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

Eccentric Key LIN 9990 (page 169) is needed to adjust the eccentric roller

Dimensions**Order Code**

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

1) Please complete the order by adding the corresponding parameters for order processing.

Drawing dimensions in mm

Linear Motion Unit and Lift Application Examples

