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

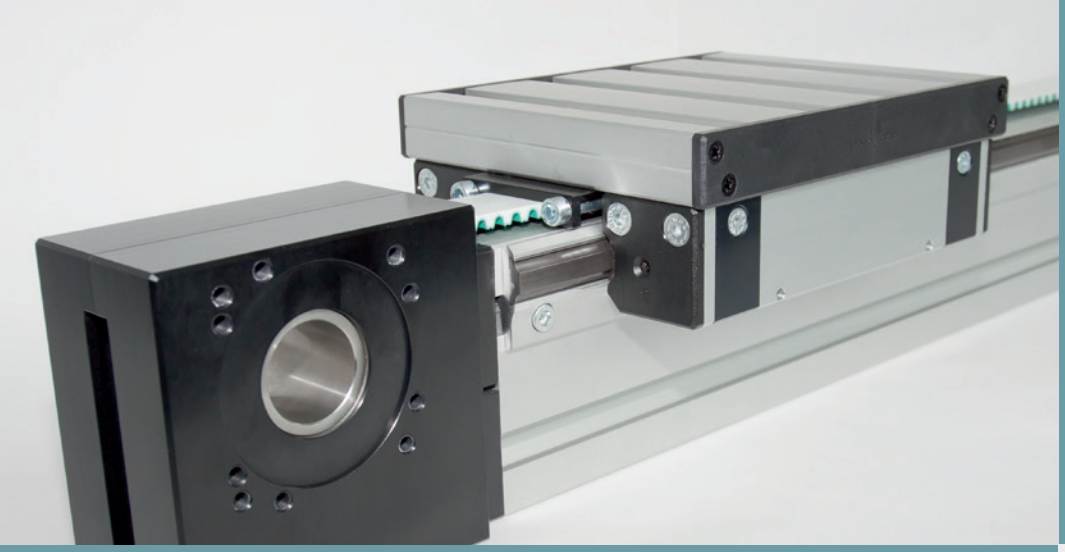
Guiderails instead of guide systems
- easily mounted guiderails eliminate the need for a separate guide system
- playfree datum edge positioning
- hardened, tempered steel guiderail allow heavier loads
- high wear resistance allows smooth and quiet operation
- quick and easy assembly

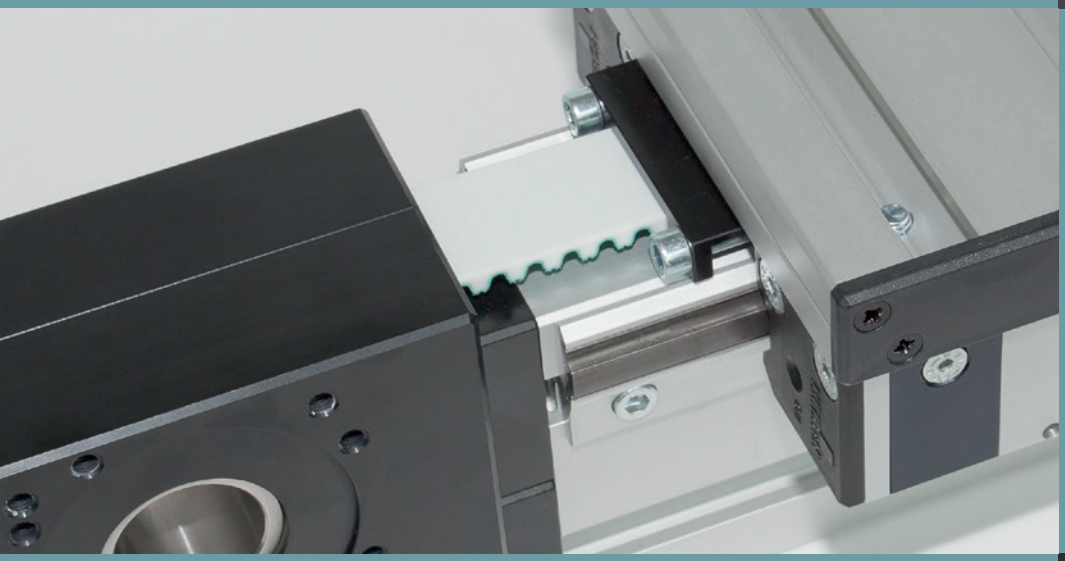
Modular design of linear motion units
- customized linear motion units, from single units to complex 3 axis gantry systems
- single and multiple guiderails available in one system
- X-,Y-,Z-combinations possible
- almost limitless combinations

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

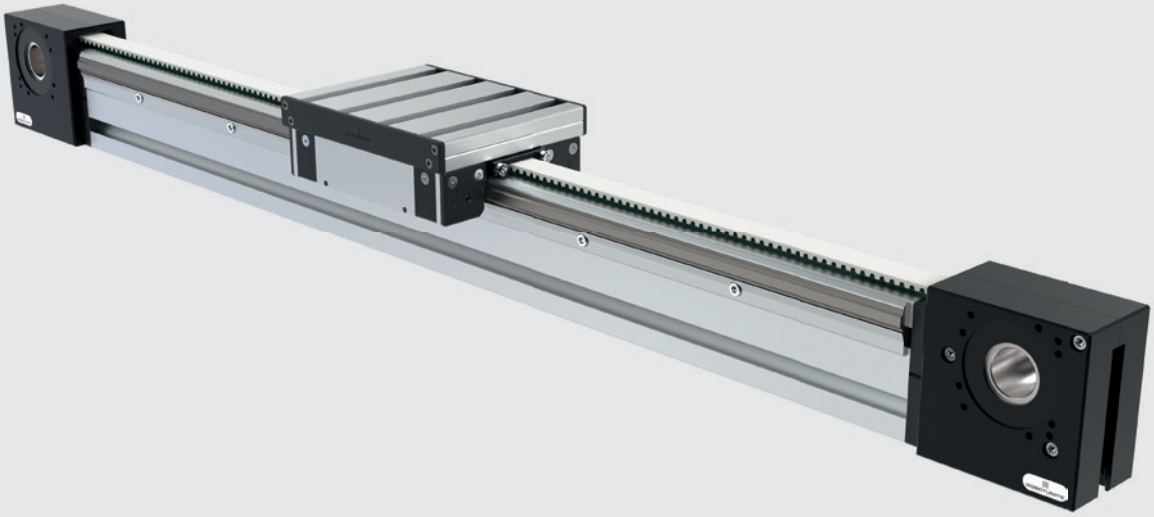
Save time, cut cost
- easy selection of components
- easy to order
- minimal design time required
- quick and easy attachment of accessories
- easy installation

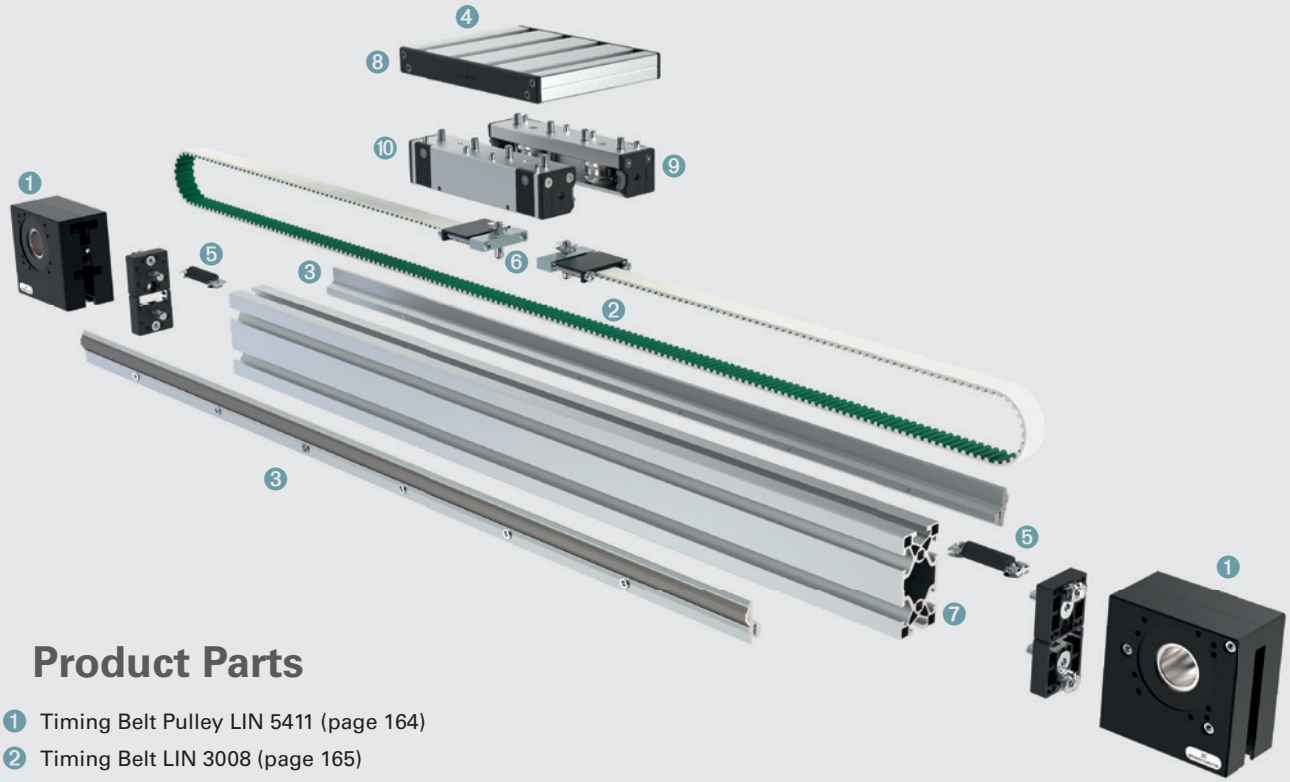




The Custom-Made Linear Motion System

Linear Motion Design

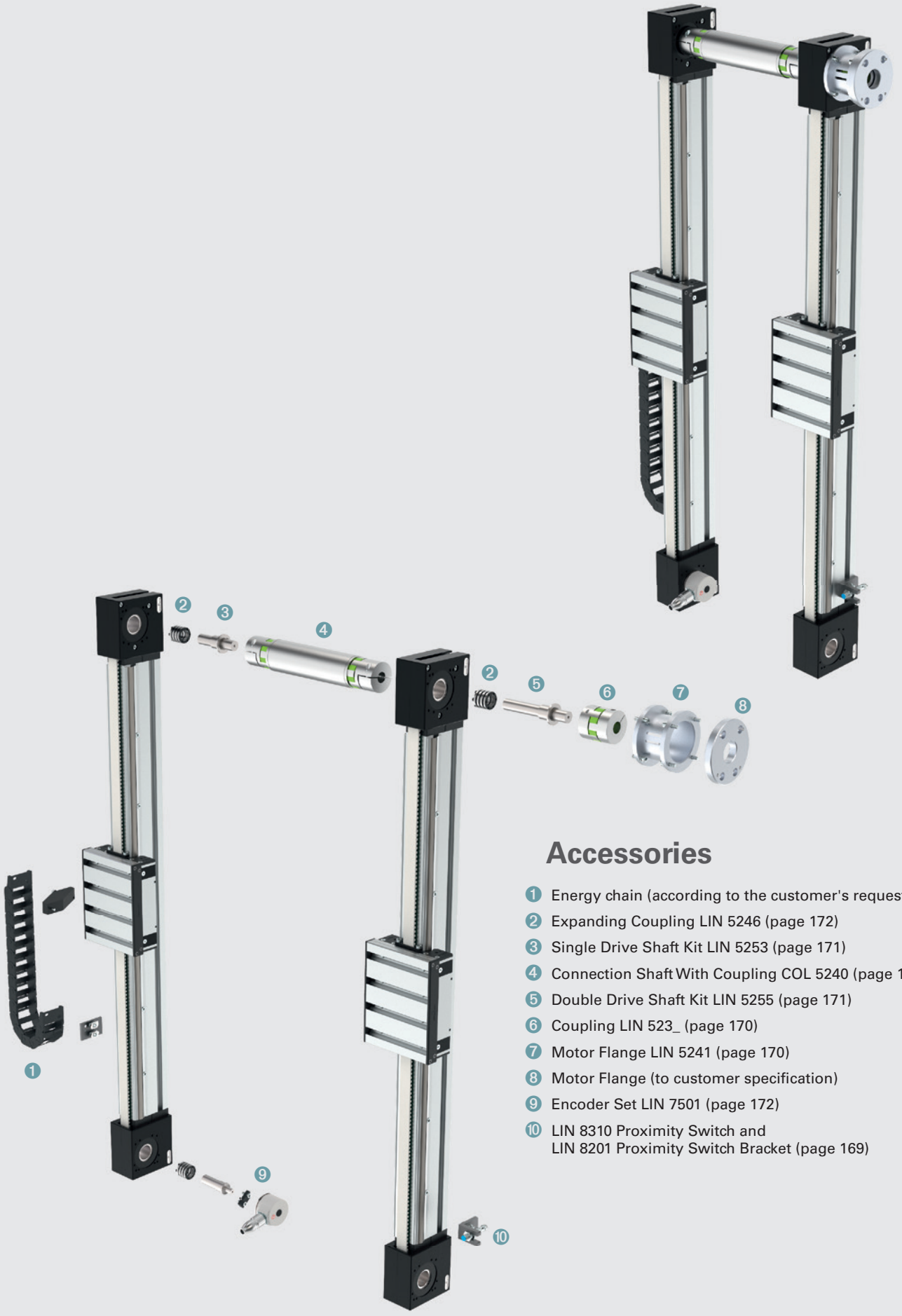




Product Parts

1. Timing Belt Pulley LIN 5411 (page 164)
2. Timing Belt LIN 3008 (page 165)
3. Guiderail LIL 5000 SNN (page 167)
4. Carriage Plates LIN 1501 / LIN 2001 (page 168)
5. Limit Stop LIN 5191 (page 168)
6. Timing Belt Clamp LIN 3221 (page 165)
7. Extrusions, 50x50, 50x100, 50x200, or 100x100 (starting page 72)
8. End Cap CAP 2521 (page 175)
9. Single Idler Kit, concentric LIN 5001 or Double Idler Kit, concentric LIN 5011 (page 166)
10. Single Idler Kit, eccentric LIN 5003 or Double Idler Kit, eccentric LIN 5013 (page 166)

Linear Motion System



Accessories

1. Energy chain (according to the customer's request)
2. Expanding Coupling LIN 5246 (page 172)
3. Single Drive Shaft Kit LIN 5253 (page 171)
4. Connection Shaft With Coupling COL 5240 (page 173)
5. Double Drive Shaft Kit LIN 5255 (page 171)
6. Coupling LIN 523_ (page 170)
7. Motor Flange LIN 5241 (page 170)
8. Motor Flange (to customer specification)
9. Encoder Set LIN 7501 (page 172)
10. LIN 8310 Proximity Switch and LIN 8201 Proximity Switch Bracket (page 169)

LIL 5010 Linear Motion Unit 50

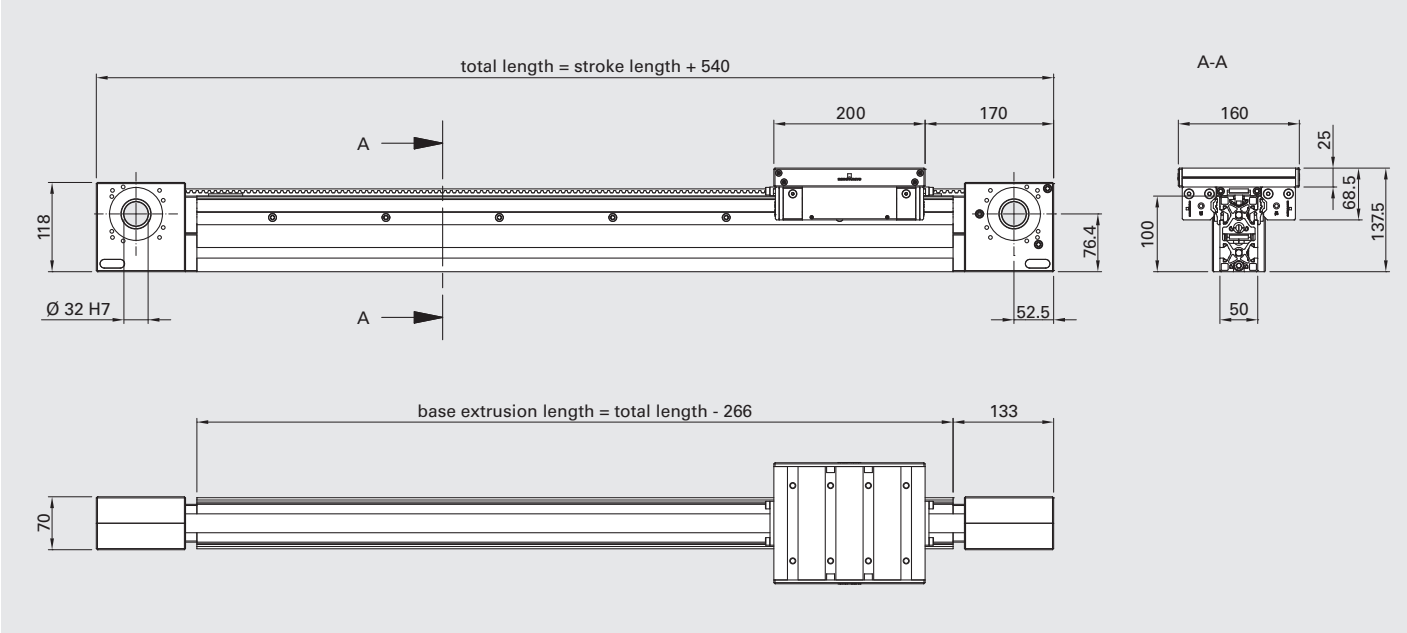
Application
- For transportation and exact postitioning of parts.
- Used as individual units or x-y-z gantries

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: ± 0.2 mm (without drive backlash)
Weight of carriage: 2.66 kg

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

Assembly Instructions
See page 193

Dimensions



Order Code

	Order Code[1]			
Description		Base Extrusion	Type	Stroke Length[1]
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

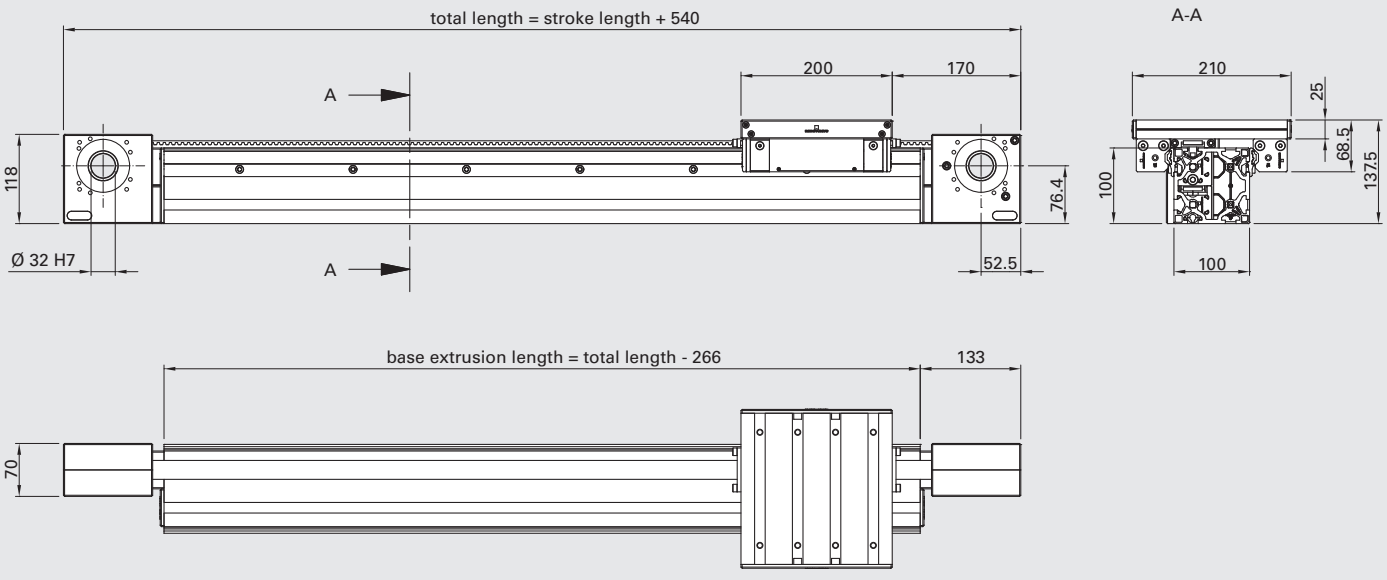
Application
- For transportation and exact postitioning of parts.
- Used as individual units or x-y-z gantries

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: ± 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 193

Dimensions



Order Code

	Order Code[1]			
Description		Base Extrusion	Type	Stroke Length[1]
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

LOL 5010 Linear Motion Unit 50 With Omega Drive

Application

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

Technical Data / Scope of Delivery

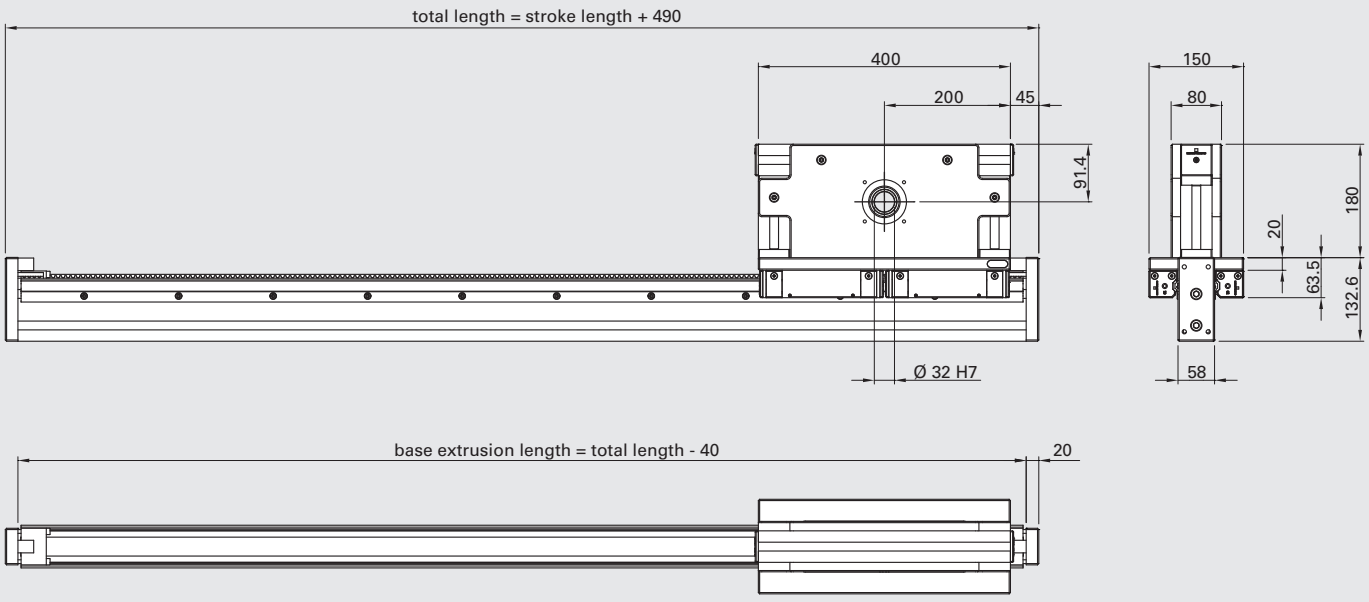
Base extrusion: 50x100 PIL 5010
Carriage Plate: 400 x 150 mm
Md max.: 60 Nm (max. transmittable drive torque)
Carriage stroke per revolution: 200 mm
Pitch circle diameter: 63.66 mm
Idle torque: 1 Nm
Positioning accuracy: ± 0.2 mm (without drive backlash)
Weight of profile incl. guiderail: 5.4 kg/m
Weight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

Assembly Instructions

See page 193

A Wrench LIN 9990 (page 155) is needed to adjust the eccentric roller

Dimensions

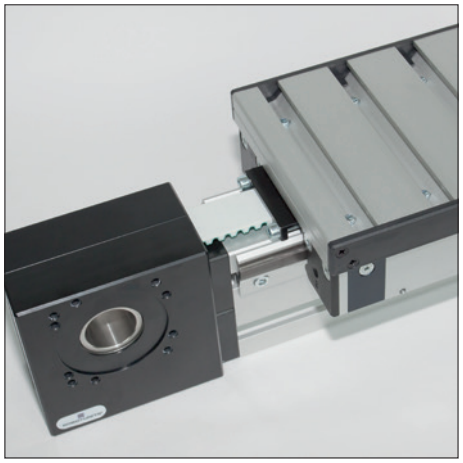
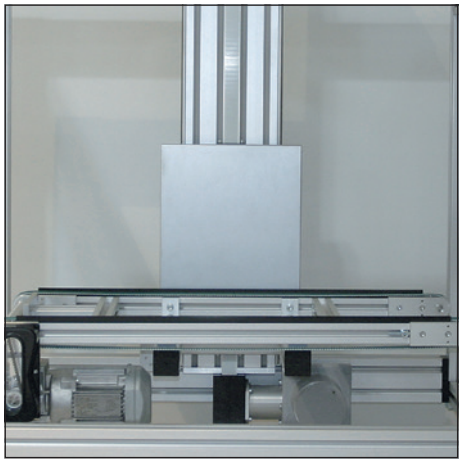
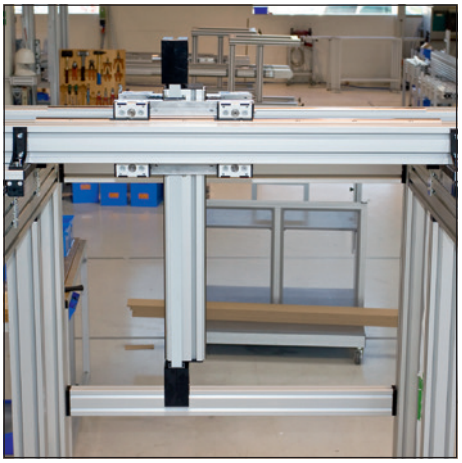
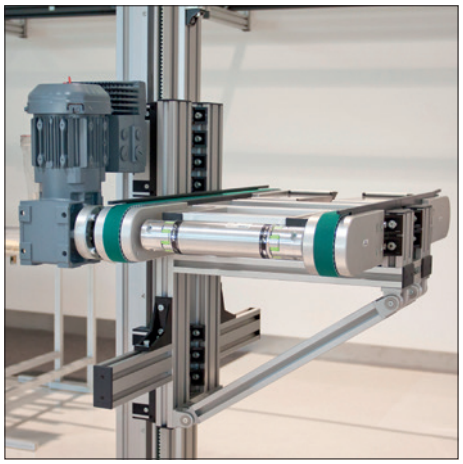
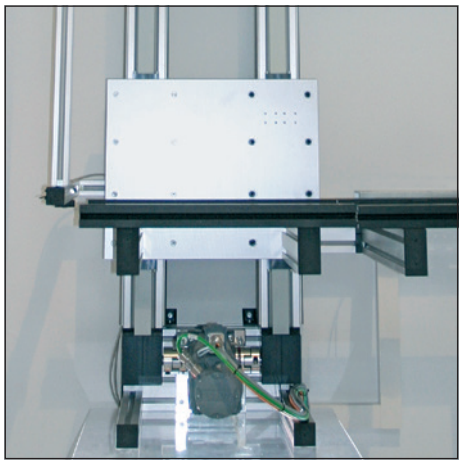


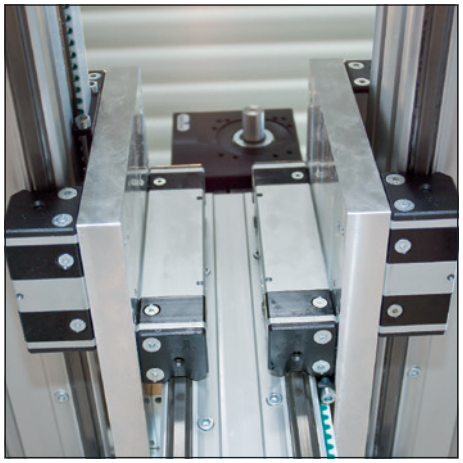
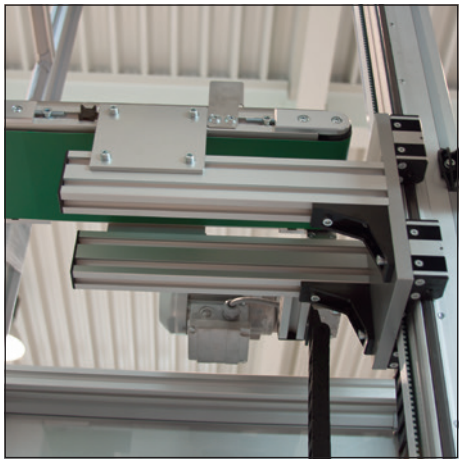
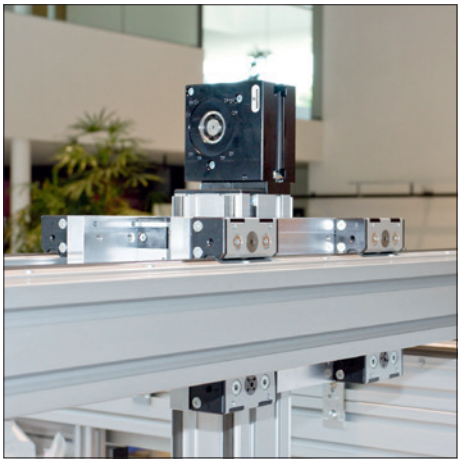
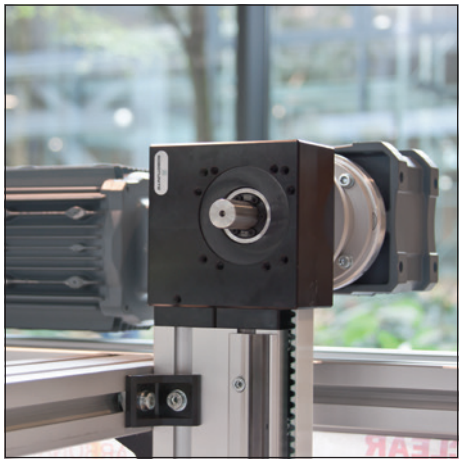
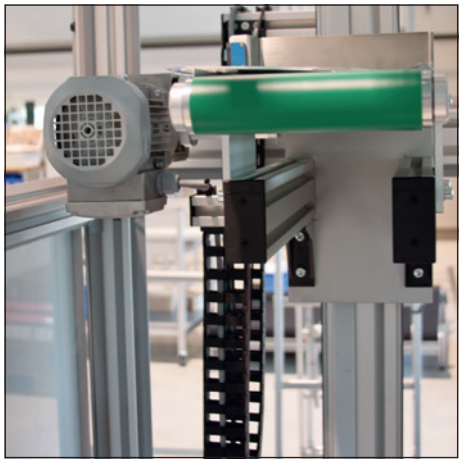
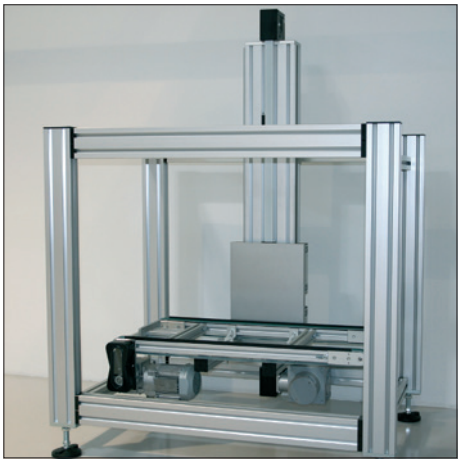
Order Code

	Order Code[1]			
Description		Base Extrusion	Type	Stroke Length[1]
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

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