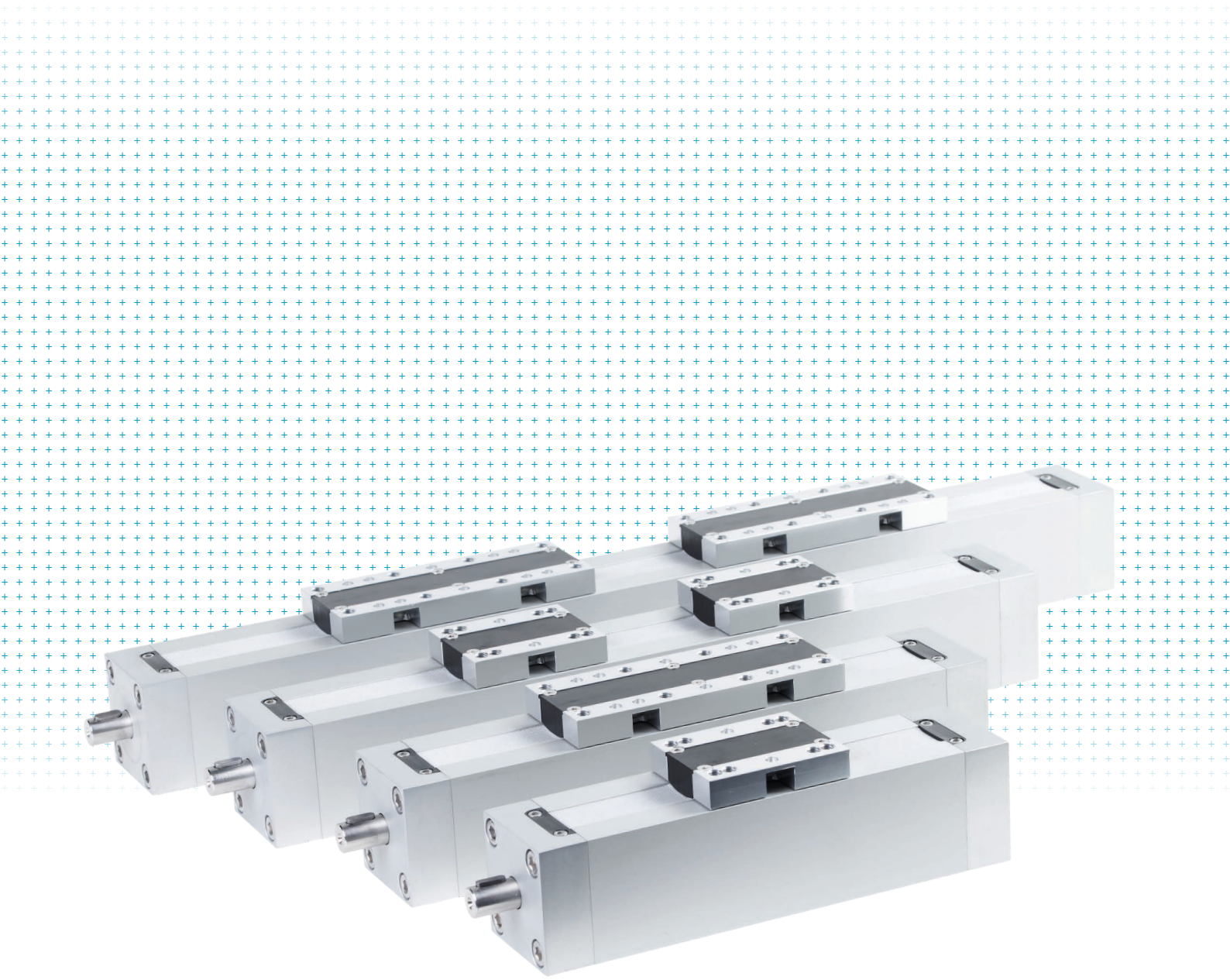
INOCON



Profile Linear Units

Innovative assembly components inocon.de

Profile Linear Units

Linear units have been a fixed part of the product selection for many years. A diverse range of designs plus various drive and kinematics options support countless different applications.

To cover an even wider range of scenarios, the selection has now been expanded with profile linear units. This new category is particularly suited for the automation of packaging systems. They also offer features that are extremely advantageous in many industrial applications.

The new profile linear units are based on precise and especially stable aluminum profiles that can be individually machined. For profile diameter 50, three different guide element drive concepts are available: spindle, synchronous belt or rack-and-pinion. Profile diameter 30 is available with a spindle drive.

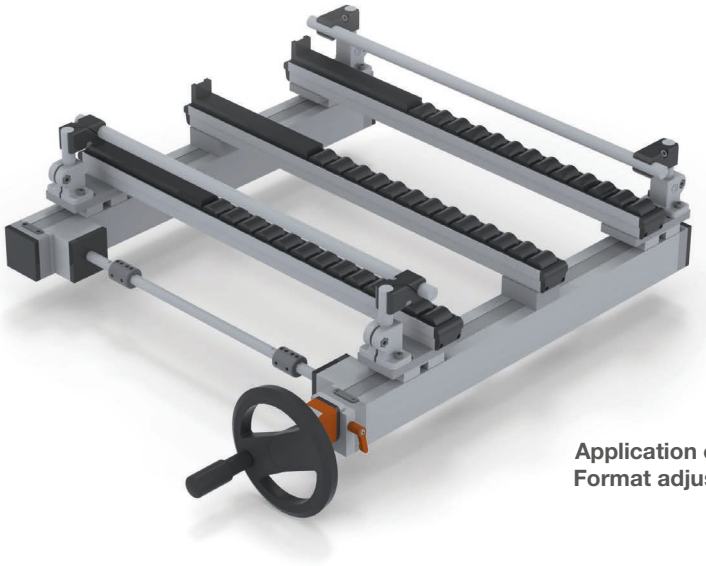
Depending on the chosen drive concept, additional guide element options are available with respect to the length, clamping capability and the quantity per linear unit.

In addition, the guide element's direction of movement can also be defined. For example, this allows two guide elements to move in the same direction, in opposite directions or independently of each other.

In the future, the majority of options listed will be available as standard for ordering via catalog data sheet or online configurator. Many applications can only be optimally implemented with a smart combination of two or more linear units. In such cases, complete solutions for complex movement tasks are available on request.

The information provided below represents an example selection of the options and possibilities.

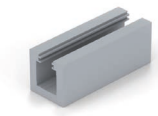
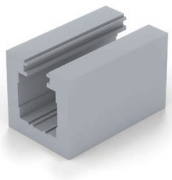
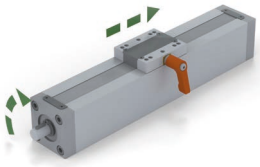
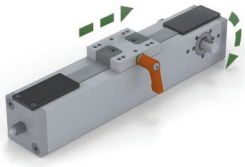
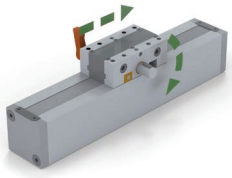
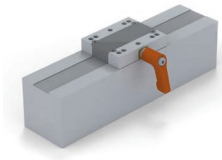
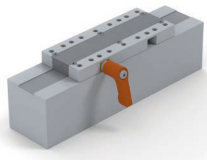
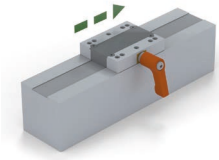
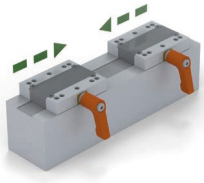
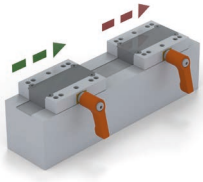
We would be happy to advise you on specific solutions – contact us today!



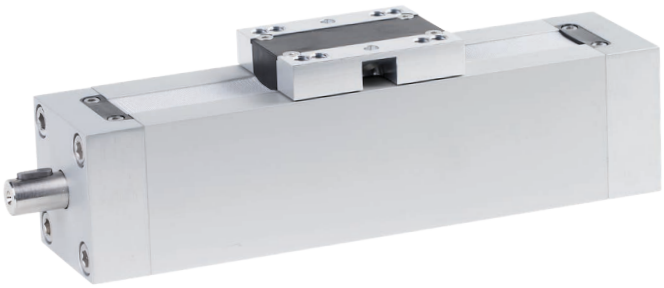
Application example
Format adjustment

Product properties

- **Aluminum guide profile, anodized, □30 / □50 mm, thick-walled, length max. 6,000 mm**
- **Three drive concepts: Spindle / synchronous belt / rack-and-pinion**
- **Aluminum guide elements, with friction bearing**
- **Guide element clamping with wedge profile**
- **Profile cover, with positive connection, polyurethane FDA-compliant**
- **Positioning precision ± 0.2 mm**
- **Aluminum attachments, anodized**
- **Plastic attachments, polyamide, black**

Sizes	Profile 30 	Profile 50 		
Drives	Spindle drive 	Synchronous belt drive 	Rack-and-pinion drive 	
Guide element length	Standard 	Extended 		
Guide element kinematics	With one guide element 	With two opposing guide elements 	With two independent guide elements 	
Accessories	Hand wheels VZH 	Mechanical position indicators VZPM 		

VP1S | Profile linear units, with one guide element



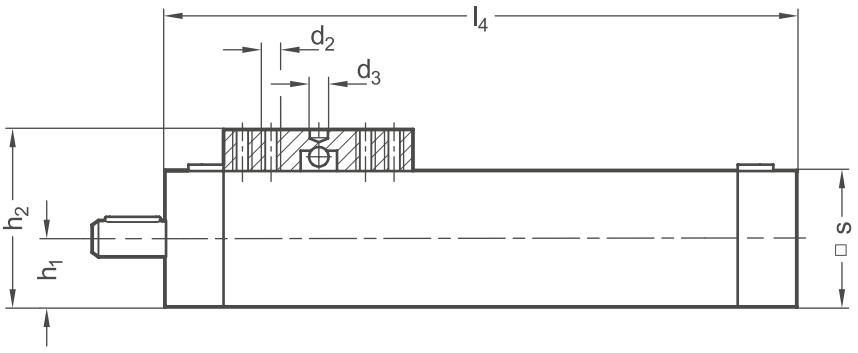
PRODUCT INFO

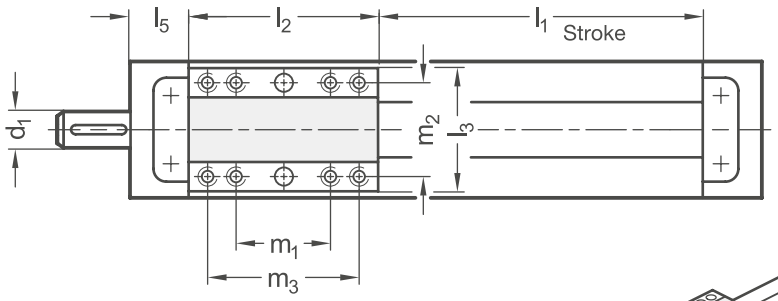
The housing of the **profile linear units VP1S** is made of aluminum profile.
The aluminum end pieces serve as bearing housings and close the linear profile units. A continuous spindle with ball bearings on each side is installed in the aluminum profil. The spindle nut transmits the linear movements to a linear unit connector along the guide groove.

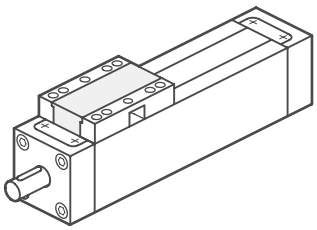
Profile adjustment units can be individually equipped with mounting holes. You can choose between threaded holes for mounting from below or through-holes with flat countersunk holes for mounting from above. Depending on the design, the part to be moved is fastened to the guide element or the guide element itself is installed at the place of use such that the entire linear unit moves together.

Possible accessories are already taken into account in the selection of the linear units according to the options given in the tables. This ensures, for example, that the journal lengths z_1 and z_2 are appropriate for attachment of the accessories. Accessories are not included with the linear units and must be ordered separately.

RoHS-compliant product







s	Stroke max. l_1	l_2 Type A	l_2 Type B	d_1	d_2	d_3 H7	h_1	h_2	l_3	max. l_4	l_5	m_1	m_2	m_3 Type A	m_3 Type B
30	1000	40	84	8	M 5	4	15	39	29	1112	14	22	22	-	66
50	1500	60	120	12	M 6	5	25	62	49	1662	21	36	36	48	108

Material
w

ST	Steel • Housing / guide element atural anodized • Metric threaded spindle: Steel, with ball bearing • Spindle nut: POM • Belt clamping / guide element cover / sliding guides: Plastic
ED	Stainless steel • Housing / guide element atural anodized • Metric threaded spindle: Stainless steel AISI 303, with ball bearing • Spindle nut: POM • Belt clamping / guide element cover / sliding guides: Plastic

Type
t

A	Guide element short
B	Guide element long

Spindle thread direction
r

RH	Right-hand thread
LH	Left-hand thread

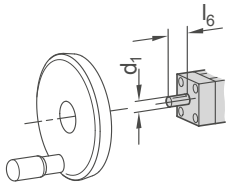
s	Spindle Ø	Spindle pitch p / Thread	Journal diameter d_1	Journal length B l_6	Journal length C l_7	Journal length D l_8	Journal length E l_9	Journal length F l_{10}	individual Journal length l_{11}
30	10	1,5	8	16	39	55	34	70	16...70
50	16	2	12	18	49	67	40	82	18...82

Accessories:

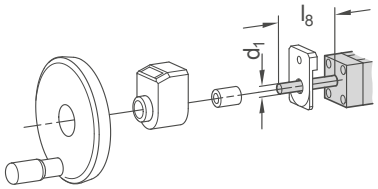
d_1	Torque support	Clamping plate	Position indicator		Handwheel
30	VZDP	VZK	-	VZPE	VZH
50	VZDP	VZK	VZPM	VZPE	VZH

Zapfen
Z_1

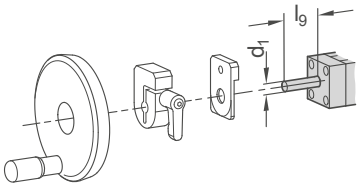
B	Journal for handwheel	D	Journal for position indicator and handwheel	E	Journal for clamping plate and handwheel



Journal length l_6

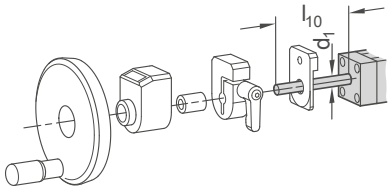


Journal length l_8

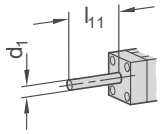


Journal length l_9

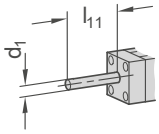
F	Journal for clamping plate, position indicator and handwheel	Gxx	Individual length with keyway (for xx enter value from column l_{11})	Hxx	Individual length without keyway (for xx enter value from column l_{11})



Journal length l_{10}



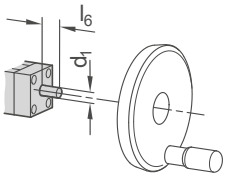
Journal length l_{11}



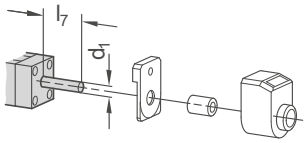
Journal length l_{11}

Zapfen
Z_2

A	Without journal	B	Journal for handwheel	C	Journal for position indicator

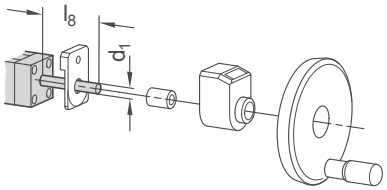


Journal length l_6

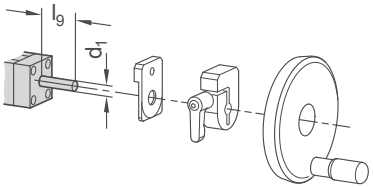


Journal length l_7

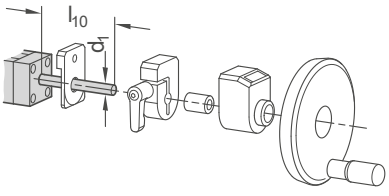
D	Journal for position indicator and handwheel	E	Journal for clamping plate and handwheel	F	Journal for clamping plate, position indicator and handwheel



Journal length l_8

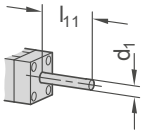


Journal length l_9

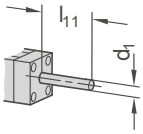


Journal length l_{10}

Gxx	Individual length with keyway (for xx enter value from column l_{11})	Hxx	Individual length without keyway (for xx enter value from column l_{11})



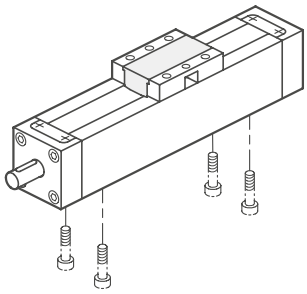
Journal length l_{11}

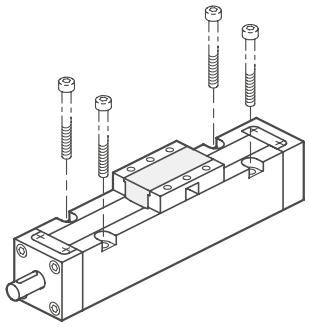


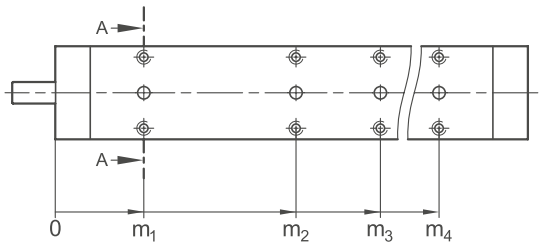
Journal length l_{11}

Mounting option
b

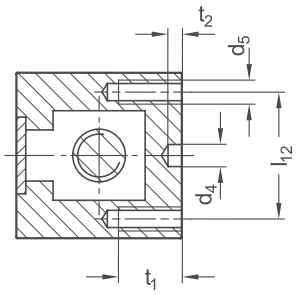
W	without mounting option		
U	from below (threaded hole)	O	from above (through-hole with flat counterbore)

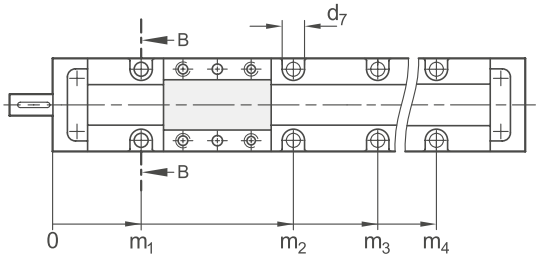




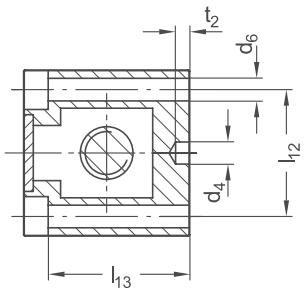


Sectional view A-A
(Mounting holes)





Sectional view B-B
(Mounting holes)



s	d_4 H7	d_5	d_6	d_7	l_{12}	l_{13}	t_1	t_2
30	3	M 3	3,4	6,5	24	26,6	10	3
50	5	M 5	5,5	10	40	44,6	12	5

ORDER KEY

WITH MOUNTING HOLES

Name key | Supplemental key

VP1S - s - w - l_1 - t - r - p - z_1 - z_2 - b- m_1 - m_2 - m_3 - m_4

- Profile linear unit
- Outer diameter
- Material
- Stroke
- Type
- Spindle thread direction
- Spindle pitch
- Journal z_1
- Journal z_2
- Mounting option
- Mounting positions (only to be specified for mounting option U / O)

ACCESSORIES

- Handwheels **VZH** → *see catalog page 356*
- Position indicators **VZPM / VZPE** → *see page 358*
- Clamping plate **VZK** → *see page 362*
- Torque supports **VZDP**

Innovative assembly components





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