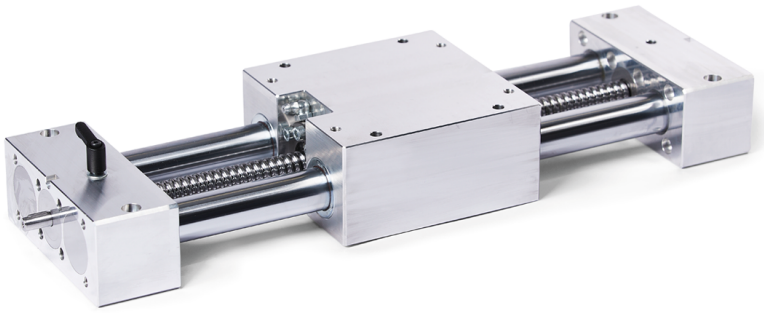
PD1DK

Precision double tube linear units with one double guide element and recirculating ball screw



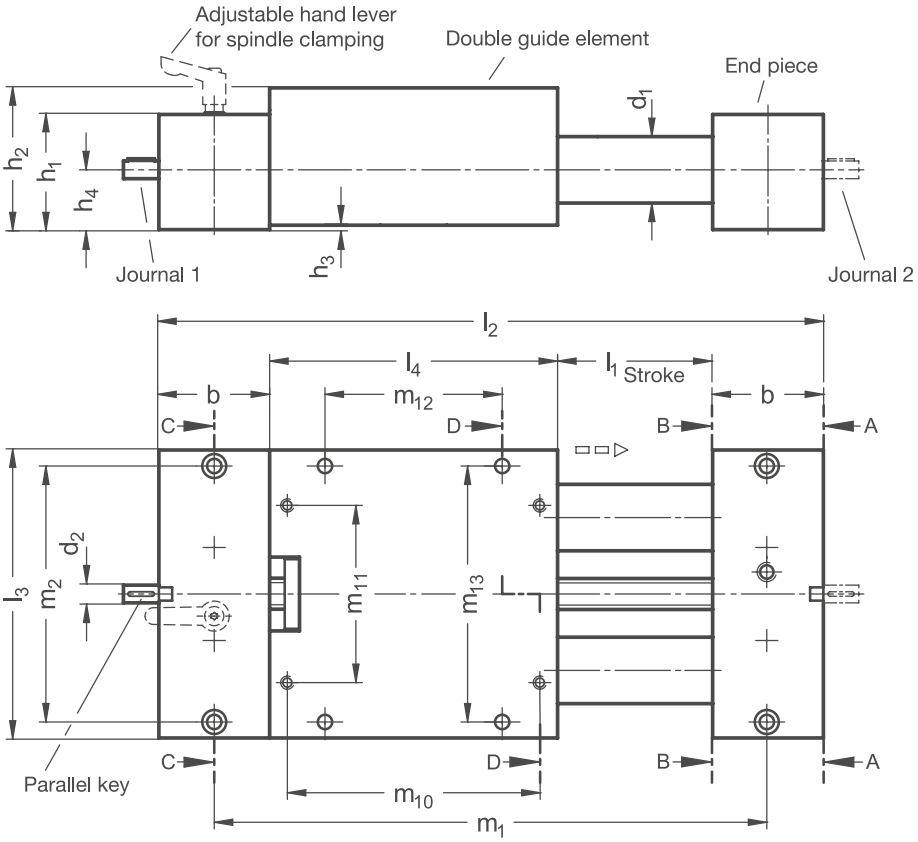
PRODUCT INFO

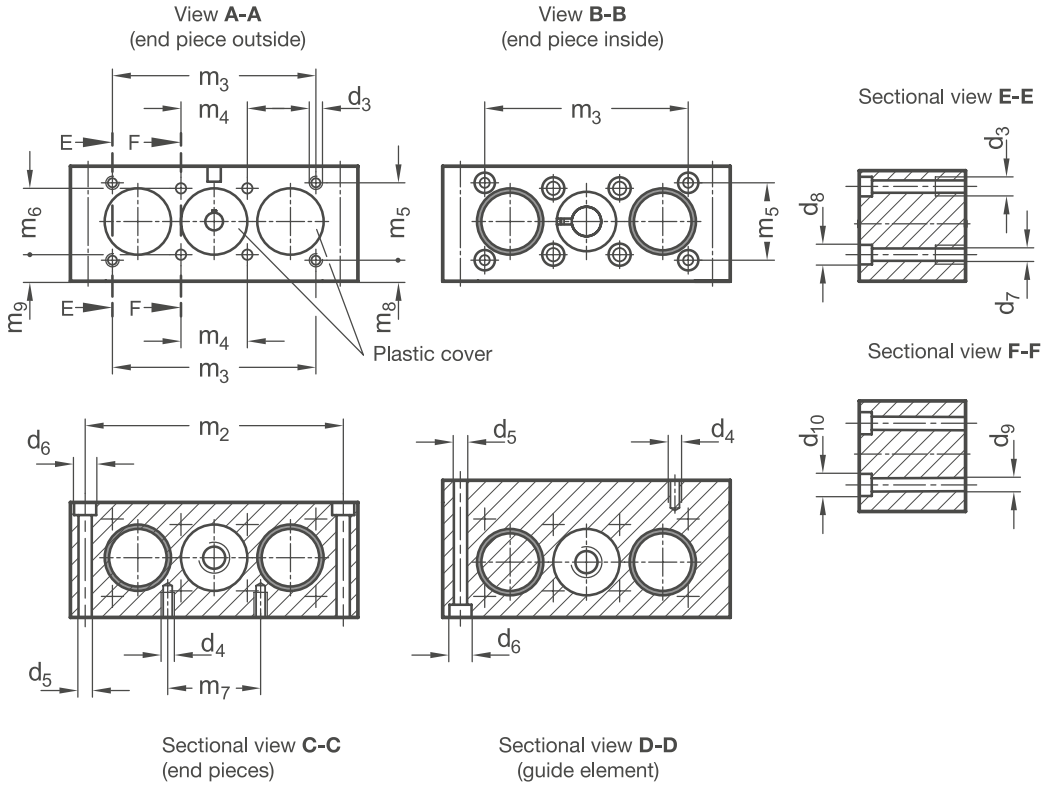
The round guides of the **precision double tube linear units PD1DK** are made of hard-chrome-plated steel or polished stainless steel solid shafts. The aluminum CNC end pieces connect the solid shafts and form a very precise linear guide together with the guide element. A continuous whirled or rolled recirculating ball screw is situated in the center. The roller-guided double guide element is moved linearly along the spindle thread by the integrated ball screw nut.

Double tube linear units have high torsional stiffness and can handle high weights and torques. The double guide element distributes the load among four guide points, allowing for even higher loads.

Accessory parts are listed in the tables and are already taken into account when selecting the linear units. This ensures, for example, that the lengths of the journals z_1 and z_2 are correct for attaching the accessories. The accessories are not included with the linear units.

RoHS-compliant product





d_1	Stroke l_1	b	d_2	d_3	d_4	d_5	d_6	For screws DIN 912	d_7	d_8	For screws DIN 912	d_9	d_{10}	For screws DIN 912
25	...1500	50	8	M 6	M 6	6,1	10,5	M 6	5,5	10	M 5	6,6	11	M 6
40	...2500	60	12	M 8	M 8	8,4	13,5	M 8	6,6	11	M 6	8,6	13,5	M 8

d_1	h_1	h_2	h_3	h_4	l_2	l_3	l_4	m_1	m_2	m_3	m_4	m_5	m_6	m_7
25	52	64	2	27	$2xb+l_4+l_1$	130	130	$b+l_4+l_1$	114	97	30	35	30	42
40	60	75	3	31,5	$2xb+l_4+l_1$	180	180	$b+l_4+l_1$	160	138	39	38	39	52

d_1	m_8	m_9	m_{10}	m_{11}	m_{12}	m_{13}	Parallel key DIN 6885	**Accessories:** Position indicator		Handwheel
25	9,5	12	114	80	80	114	A2x2x12	VZPM (only for stroke ≤ 1000 mm)	VZPE	VZH
40	12,5	12	160	120	120	160	A4x4x12	VZPM	VZPE	VZH

2C

Version
a

3ST	Double solid shaft roller slideway / ball screw • Solid guide shafts: Steel, polished and hard-chrome-plated • End pieces / guide elements: Aluminum, CNC-milled parts • ball screw: With ball bearing
3ED	Double solid shaft roller slideway / ball screw • Solid guide shafts: Stainless steel, induction-hardened and polished • End pieces / guide elements: Aluminum, CNC-milled parts • ball screw: With ball bearing

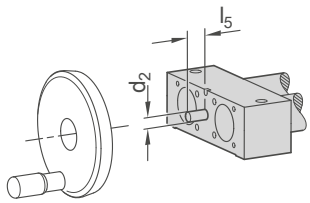
Spindle thread direction / clamping
r

RH	Right-hand thread
RHK	Right-hand thread with clamping ring and hand lever for spindle clamping
LH	Left-hand thread
LHK	Left-hand thread with clamping ring and hand lever for spindle clamping

d_1	Spindle Ø	Spindle pitch **p** Ball screw	Journal diameter d_2	Journal length B l_5	Journal length C l_6	Journal length D l_7	Individual journal length l_8
25	16	5	8	16	36	52	16...67
40	20	5	12	17	42	59	17...74

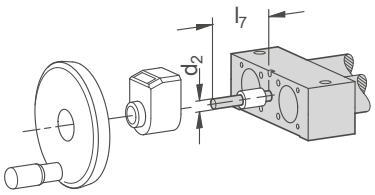
Journal
z_1

B	Journal for handwheel



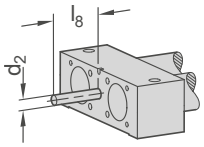
Journal length l_5

D	Journal for position indicator & handwheel



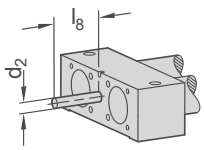
Journal length l_7

Gxx	Individual journal length with keyway (for xx, enter values from column l_8)



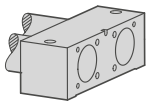
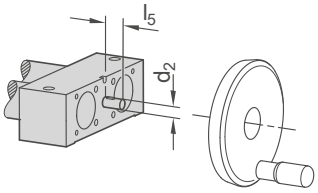
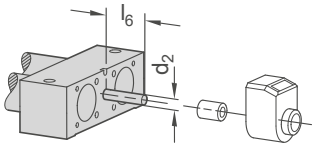
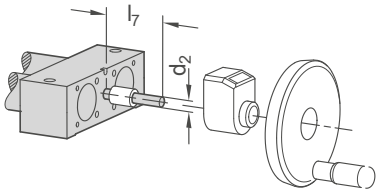
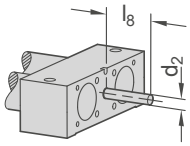
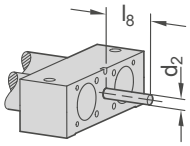
Journal length l_8

Hxx	Individual journal length without keyway (for xx, enter values from column l_8)



Journal length l_8

Journal
z_2

A	Without journal	B	Journal for handwheel	C	Journal for position indicator
		 Journal length l_5		 Journal length l_6	
D	Journal for position indicator & handwheel	Gxx	Individual journal length with keyway (for xx, enter values from column l_8)	Hxx	Individual journal length without keyway (for xx, enter values from column l_8)
 Journal length l_7		 Journal length l_8		 Journal length l_8	

ORDER KEY

Name key | Supplemental key

PD1DK - d_1 - a - l_1 - r - p - z_1 - z_2

- Double tube linear actuator
- Tube diameter
- Version
- Stroke
- Spindle thread direction
- Spindle pitch
- Journal z_1
- Journal z_2

ACCESSORIES

- Handwheels **VZH** → *see page 356*
- Position indicators **VZPM / VZPE** → *see page 358 / 360*
- Angle gears **YLD** → *see page 378*
- Transfer units **VA** → *see page 370*

ON REQUEST

- Additional following guide elements
- Bellows covers
- Complete linear unit of stainless steel