



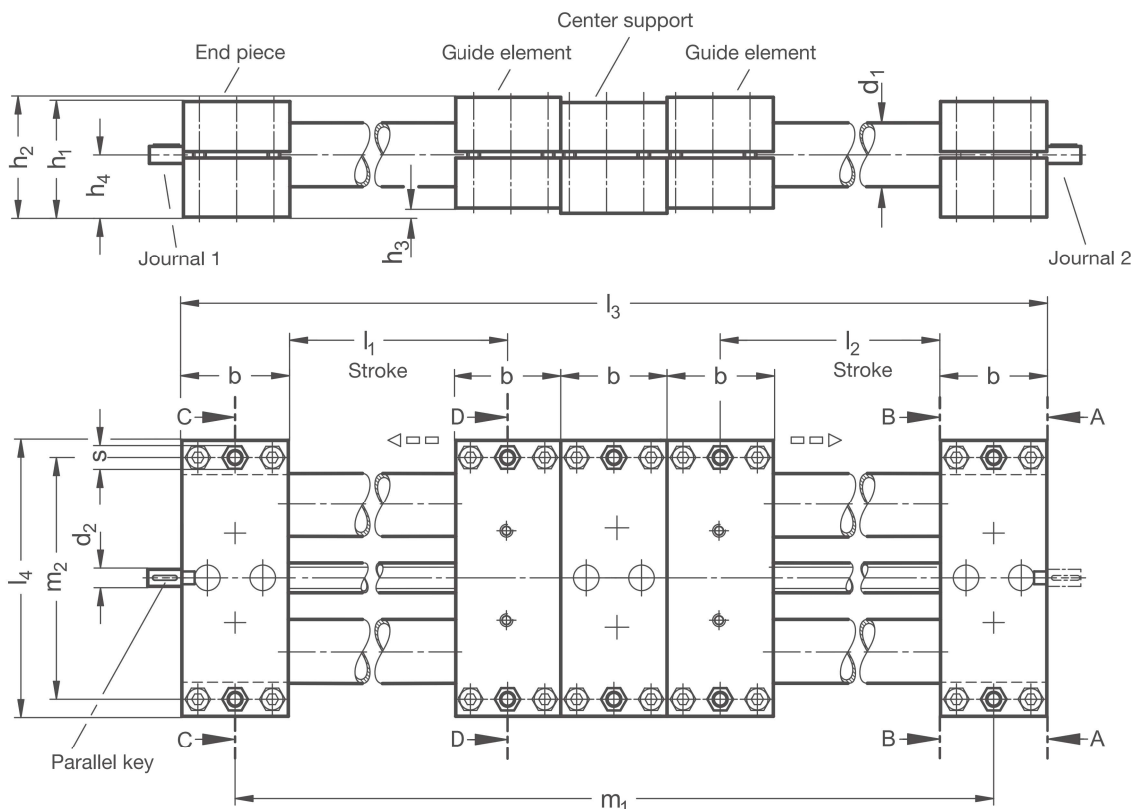
PRODUCT INFO

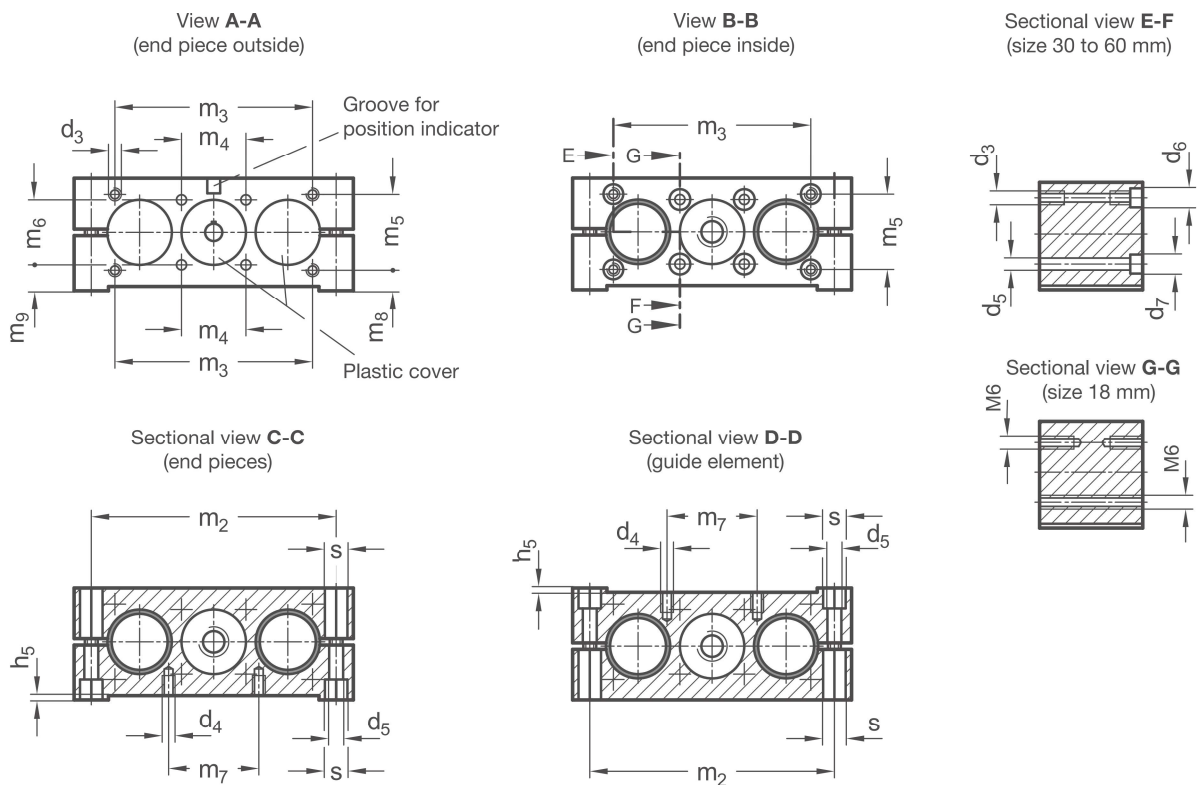
The guide tubes of the **double tube linear units VD3E** are made of chrome-plated steel or polished stainless steel precision tubes. The aluminum end pieces connect the tubes and form a solid linear guide together with the guide element. Two independent spindles with ball bearings on each side are installed in the center. The thread direction of the spindles can be chosen as desired for each side. Together with the single guide elements, the affixed spindle nuts move linearly along the spindle thread, independently of the opposite side.

Double tube linear units have high torsional stiffness and can handle high weights and torques. 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. The accessories are not included with the linear units.

RoHS-compliant product





d_1	Stroke l_1	Stroke l_2	b	d_2	d_3^*	d_4^{**}	d_5	d_6	For screws DIN 912	d_7	For screws DIN 912	h_1
18	...400	...400	28	6	-	M 5	5,3	-	-	-	-	28
30	...750	...750	50	8	M 6	M 6	6,5	9	M 5	10,5	M 6	52
40	...1150	...1150	60	12	M 8	M 8	8,5	13,5	M 6	13,5	M 8	60
50	...1265	...1265	72	12	M 10	M 8	8,5	13,5	M 8	13,5	M 8	72
60	...1550	...1550	80	14	M 10	M 10	10,5	13,5	M 8	16,5	M 10	86

d_1	h_2	h_3	h_4	h_5	l_3	l_4	m_1	m_2	m_3	m_4	m_5	m_6
18	29	1	14,5	0,75	$5xb+l_1+l_2$	81	$4xb+l_1+l_2$	68	-	20	-	20
30	54	2	27	0,85	$5xb+l_1+l_2$	130	$4xb+l_1+l_2$	114	92	30	35	30
40	63	3	31,5	1,05	$5xb+l_1+l_2$	180	$4xb+l_1+l_2$	160	132	39	38	39
50	76	4	38	1,2	$5xb+l_1+l_2$	206	$4xb+l_1+l_2$	184	150	46	50	46
60	90	4	45	1,35	$5xb+l_1+l_2$	240	$4xb+l_1+l_2$	216	185	55	60	55

d_1	m_7	m_8	m_9	s	Parallel key DIN 6885	Accessories:				Handwheel
						Torque support	Clamping plate	Position indicator		
18	18	-	4,5	8	A2x2x12	VZDD	-	VZPM	-	VZH
30	42	9,5	12	10	A2x2x12	-	VZK	VZPM (only for stroke ≤ 1000 mm)	VZPE	VZH
40	62	12,5	12	13	A4x4x12	-	VZK	VZPM	VZPE	VZH
50	62	13	15	13	A4x4x12	-	VZK	VZPM	VZPE	VZH
60	74	14	16,5	17	A5x5x16	-	VZK	VZPM (only for trapezoidal thread)	VZPE	VZH

* usable thread depth on both sides min. $2 \times d_3$ ** usable thread depth min. $1,5 \times d_3$

Material
W

ST	Aluminum - steel • Guide tubes: Steel, chrome-plated • End pieces / guide elements: Aluminum, bright. Assembly surfaces: Machined • Trapezoidal / fine thread spindle: Steel, with ball bearing	STS	Aluminum - steel • Guide tubes: Steel, chrome-plated • End pieces / guide elements: Aluminum, powder-coated, Black RAL 9005, Assembly surfaces: Machined bright • Trapezoidal / fine thread spindle: Steel, with ball bearing
ED	Aluminum - stainless steel • Guide tubes: Stainless steel AISI 304, polished • End pieces / guide elements: Aluminum, bright. Assembly surfaces: Machined • Trapezoidal / fine thread spindle: Stainless steel AISI 303, with ball bearing	EDS	Aluminum - stainless steel • Guide tubes: Stainless steel AISI 304, polished • End pieces / guide elements: Aluminum, powder-coated, Black RAL 9005, Assembly surfaces: Machined bright • Trapezoidal / fine thread spindle: Stainless steel AISI 303, with ball bearing

Spindle thread direction
r

RH	Right-hand thread
LH	Left-hand thread

d ₁	Spindle Ø	Spindle pitch p ₁		Spindle pitch p ₂		Journal diameter d ₂	Journal length B l ₄	Journal length D l ₆	Journal length E l ₇	Journal length F l ₈	Individual journal length l ₉
		Trapezoidal thread	Fine thread, metric	Trapezoidal thread	Fine thread, metric						
18	10	3	1	3	1	6	16	46	-	-	16...46
30	14	4	1	4	1	8	16	52	31	67	16...67
40	20	4	1	4	1	12	17	59	32	74	17...74
50	20	4	1	4	1	12	18	60	33	75	18...75
60	24	5	1,5	5	1,5	14	19	61	34	76	19...76

Journal
Z₁

B	Journal for handwheel	D	Journal for position indicator & handwheel (torque support required for d ₁ =18)	E	Journal for clamping plate & handwheel (only for d ₁ ≥ 30)
<p>Journal length l₄</p>		<p>Journal length l₆</p>		<p>Journal length l₇</p>	
F	Journal for clamping plate, position indicator & handwheel (only for d ₁ ≥ 30)	Gxx	Individual journal length with keyway (for xx, enter values from column l ₉)	Hxx	Individual journal length without keyway (for xx, enter values from column l ₉)
<p>Journal length l₈</p>		<p>Journal length l₉</p>		<p>Journal length l₉</p>	

Journal Z_2					
B	Journal for handwheel	D	Journal for position indicator and handwheel (torque support required for $d_1 = 18$)	E	Journal for clamping plate and handwheel (only for $d_1 \geq 30$)
<p>Journal length l_5</p>		<p>Journal length l_6</p>		<p>Journal length l_7</p>	
F	Journal for clamping plate, position indicator & handwheel (only for $d_1 \geq 30$)	Gxx	Individual journal length with keyway (for xx, enter values from column l_9)	Hxx	Individual journal length without keyway (for xx, enter values from column l_9)
<p>Journal length l_8</p>		<p>Journal length l_9</p>		<p>Journal length l_9</p>	

ORDER KEY

	Name key	Supplemental key
	VD3E - d₁ - w - l₁ - l₂ - r₁ - p₁ - z₁ - r₂ - p₂ - z₂	
Double tube linear unit	VD3E	
Tube diameter	d ₁	
Material	w	
Stroke l ₁	l ₁	
Stroke l ₂	l ₂	
Thread direction r ₁	r ₁	
Spindle pitch p ₁	p ₁	
Journal z ₁	z ₁	
Thread direction r ₂	r ₂	
Spindle pitch p ₂	p ₂	
Journal z ₂	z ₂	

ACCESSORIES

- Handwheels **VZH** → see page 356
- Position indicators **VZPM / VZPE** → see page 358/360
- Clamping plates **VZK** → see page 362
- Torque supports **VZDD** → see page 368
- Angle gears **YLD** → see page 378
- Transfer units **VA** → see page 370

ON REQUEST

- Additional following guide elements
- Guide element connector plates
- Multiple guide elements with scissors synchronization
- Bellows covers