VE3R | Single tube linear units, round, for two independent guide elements

PRODUCT INFO

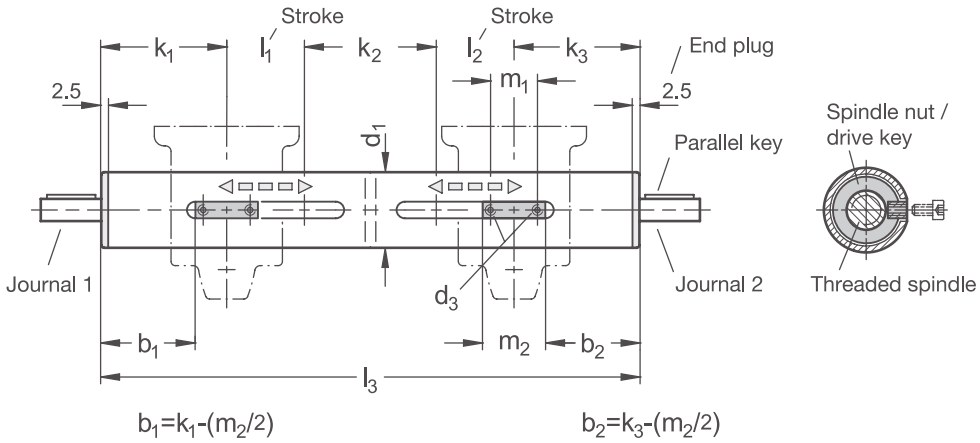
The guide tubes of the **linear units VE3R** are made of chrome-plated steel or bright stainless steel precision tubes. Two independent spindles with ball bearings on each side are installed in the guide tube. The thread direction of the spindles can be chosen as desired for each side. The spindle nuts positioned on each spindle transmit the linear movements to the linear unit connector via a drive key along the guide groove, independently of the opposite side.

The guide element bores form solid linear round guides together with the guide tube. Multiple connector types are available for selection and can be adjusted or clamped for low play using the slitted bore. The parts to be moved are fastened to the guide element, such as for format adjustments, in which one side guide is moved independently from the opposite side to various widths.

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 linear unit connectors and the accessories are not included with the linear units and must be ordered separately.

Adjustable hand levers are intended for repeated, tool-free clamping of the guide elements. Under the designation HSK, these are available separately for individual use and in other designs. Compared with the tool-operated hex socket cap screw, the clamping force achievable with an adjustable hand lever is lower due to the shorter lever length.

RoHS-compliant product



d_1	Stroke max. l_1	Stroke max. l_2	Edge distance 1 min. k_1	Spacing min. k_2	Edge distance 2 min. k_3	d_3	Total length max. (k_1+ k_2+ k_3 + l_1+ l_2) l_3	m_1	m_2
30	601	601	57	50	57	M 4	1455	23	38
40	753	753	76	66	76	M 5	1805	42	54
50	748	748	80	70	80	M 6	1805	42	54
60	715	715	98	90	98	M 8	1805	58	70

Material
w

ST	Steel • Guide tube, DIN EN 10305-4: Steel, chrome-plated • Trapezoidal / fine thread spindle: Steel, with ball bearing • Spindle nut: Red brass / end plug: Plastic
ED	Stainless steel • Guide tubes, EN 10216-5: Stainless steel AISI 304 • Trapezoidal / fine thread spindle: Stainless steel AISI 303, with ball bearing • Spindle nut: Red brass / end plug: Plastic

Spindle 1 thread direction (on journal z_1)
r_1

RH	Right-hand thread
LH	Left-hand thread

Spindle 2 thread direction (on journal z_2)
r_2

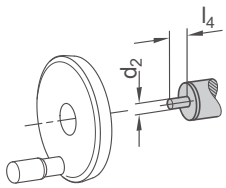
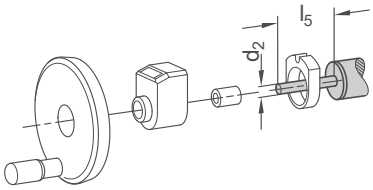
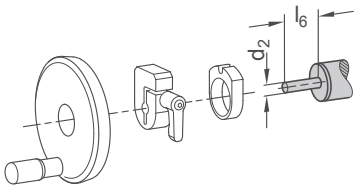
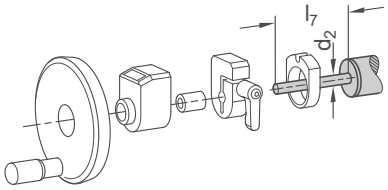
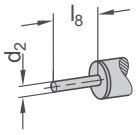
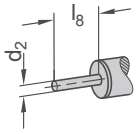
RH	Right-hand thread
LH	Left-hand thread

d_1	Spindle Ø	Spindle pitch spindle 1 p_1		Spindle pitch spindle 2 p_2		Journal diameter d_2	Journal length B l_4	Journal length D l_5	Journal length E l_6	Journal length F l_7	individual journal length l_8
		Trapezoidal thread	Fine thread, metric	Trapezoidal thread	Fine thread, metric						
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	14	19	61	34	76	19...76

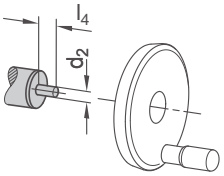
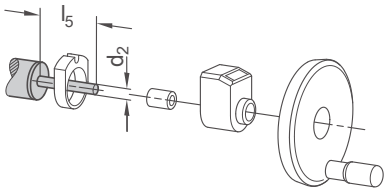
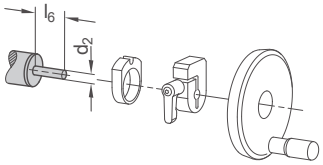
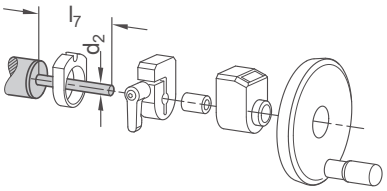
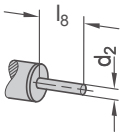
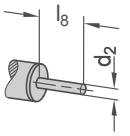
Accessories:

d_1	Torque support	Clamping plate	Position indicator		Handwheel
30	VZDR	VZK	VZPM	VZPE	VZH
40	VZDR	VZK	VZPM	VZPE	VZH
50	VZDR	VZK	VZPM	VZPE	VZH
60	VZDR	VZK	VZPM (only trapezoidal thread)	VZPE	VZH

Journal
z_1

B	Journal for handwheel	D	Journal for position indicator and handwheel	E	Journal for spacer plate and handwheel (only for $d_1 \geq 30$)
 Journal length l_4		 Journal length l_5		 Journal length l_6	
F	Journal for spacer plate, position indicator and handwheel (only for $d_1 \geq 30$)	Gxx	Individual length with keyway (for xx enter value from column l_8)	Hxx	Individual length without keyway (for xx enter value from column l_8)
 Journal length l_7		 Journal length l_8		 Journal length l_8	

Journal
z_2

B	Journal for handwheel	D	Journal for position indicator and handwheel	E	Journal for spacer plate and handwheel (only for $d_1 \geq 30$)
 Journal length l_4		 Journal length l_5		 Journal length l_6	
F	Journal for spacer plate, position indicator and handwheel (only for $d_1 \geq 30$)	Gxx	Individual length with keyway (for xx enter value from column l_8)	Hxx	Individual length without keyway (for xx enter value from column l_8)
 Journal length l_7		 Journal length l_8		 Journal length l_8	

ACCESSORIES

- Handwheels **VZH** → *see page 356*
- Position indicators **VZPM / VZPE** → *see page 358 / 360*
- Clamping plates **VZK** → *see page 362*
- Torque supports **VZDR** → *see page 364*
- Angle gears **YLS / YTS** → *see page 374 / 376*
- Transfer units **VA** → *see page 370*

ORDER KEY

Name key | Supplemental key

VE3R - d_1 - w - l_1 - l_2 - k_1 - k_2 - k_3 - r_1 - p_1 - z_1 - r_2 - p_2 - z_2

- Single tube linear unit
- Outer diameter
- Material
- Stroke 1
- Stroke 2
- Edge distance 1
- Spacing
- Edge distance 2
- Spindle 1 thread direction
- Spindle 1 thread pitch
- Journal z_1
- Spindle 2 thread direction
- Spindle 2 thread pitch
- Journal z_2

LINEAR UNIT CONNECTORS

The single tube linear unit VE3R only becomes a functional axis after attachment of a linear unit connector. Linear unit connectors are available in a variety of designs for different applications. To simplify the selection process, an overview is provided on page 238.