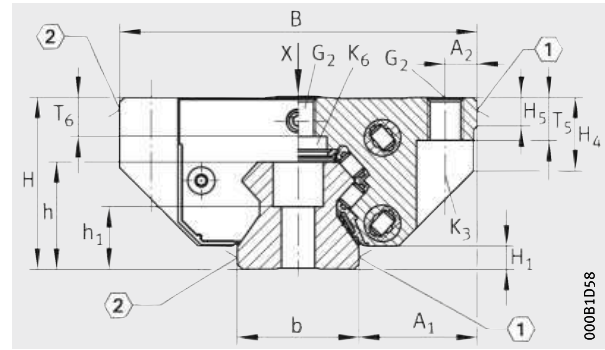


# Linear recirculating roller bearing and guideway assemblies

Full complement  
Standard and L carriages



RUE...-E, RUE...-E-L

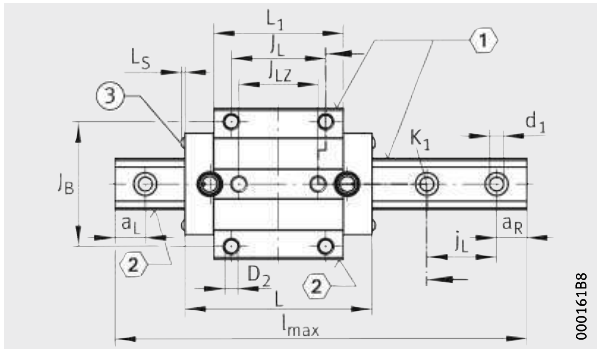
Dimension table · Dimensions in mm

Designation	Dimensions				Mounting dimensions											a <sub>L</sub> , a <sub>R</sub> <sup>4)</sup>	
	l <sub>max</sub> <sup>2)</sup>	H	B	L <sup>3)</sup>	A <sub>1</sub>	J <sub>B</sub>	b	A <sub>2</sub>	L <sub>1</sub>	L <sub>S</sub>	J <sub>L</sub>	J <sub>LZ</sub>	J <sub>L</sub>	min.	max.		
							-0,005 -0,035										
<b>RUE25-E</b>	3 930	36	70	91	23,5	57	23	6,5	65,6	2,2	45	40	30	20	23		
<b>RUE25-E-L</b>				107					82,2								
<b>RUE35-E</b>	5 900	48	100	122,9	33	82	34	9	85,2	2,2	62	52	40	20	31		
<b>RUE35-E-L</b>				148,8					111								
<b>RUE45-E</b>	5 888	60	120	145,9	37,5	100	45	10	104,2	2,2	80	60	52,5	20	41		
<b>RUE45-E-L</b>				178,3					136,6								
<b>RUE55-E</b>	5 880	70	140	172,7	43,5	116	53	12	127	2,75	95	70	60	20	47		
<b>RUE55-E-L</b>				210,7					165								
<b>RUE65-E</b>	5 865	90	170	195,5	53,5	142	63	14	141,2	2,75	110	82	75	20	61		
<b>RUE65-E-L</b>				261,9					207,6								
<b>RUE100-E-L</b>	2 730	120	250	372,2	75	200	100	25	306,5	3,3	230	-	105	30	83		

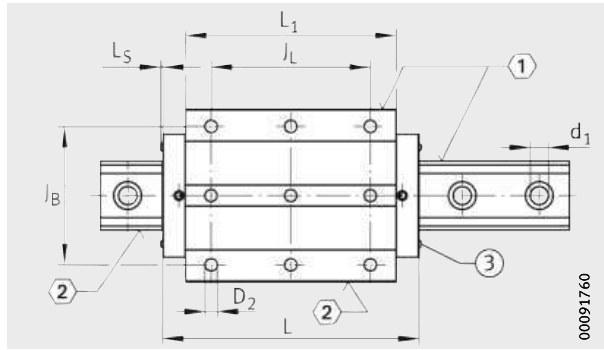
For further table values, see page 122 and page 123.

① Locating face. ② Marking. ③ Fixing screw.

- 1) The stated torques represent maximum values for the secure transmission of forces in vibration-free, quasistatic applications ( $S_0 = 1$ ). We recommend that the tightening torques for the screw connection of the adjacent construction should be determined at the customer under the conditions specific to the application and operation, observing the information in VDI Guideline 2230 Part 1 (2015) and the information in this description, see page 69 and page 26.
- 2) Maximum length of single-piece guideways.  
Permissible number of guideway segments, see page 117.
- 3) Minimum covered length for sealing the upper lubrication connectors.
- 4) a<sub>L</sub> and a<sub>R</sub> are dependent on the guideway length.



RUE...-E, RUE...-E-L  
View X rotated 90°



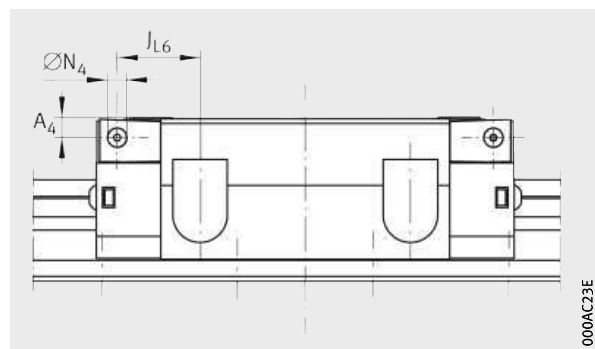
RUE100-E-L



Fixing screws <sup>1)</sup>																
H <sub>1</sub>	H <sub>5</sub>	H <sub>4</sub>	T <sub>5</sub>	T <sub>6</sub>	h	h <sub>1</sub> ±0,5	DIN ISO 4762-12.9						DIN 7984-8.8		d <sub>1</sub>	D <sub>2</sub>
							G <sub>2</sub>		K <sub>1</sub>		K <sub>3</sub>		K <sub>6</sub>			
							M <sub>A</sub> Nm		M <sub>A</sub> Nm		M <sub>A</sub> Nm		M <sub>A</sub> Nm			
6,5	5,25	17,8	10	8,5	22,3	11,8	M8	24	M6	17	M6	17	M6	10	6,7	6,7
6,5	8	20,5	12	10,9	30	17,5	M10	41	M8	41	M8	41	M8	24	8,6	8,6
8,5	8	26	15	13,2	38	19,5	M12	83	M12	140	M10	83	M10	48	10,6	10,6
11	12	32	18	14,8	45	22,5	M14	140	M14	220	M12	140	M12	83	12,5	12,5
11,5	15	39,2	23,3	23,3	53,8	28,8	M16	220	M16	340	M14	220	M14	130	14,5	14,5
15	25	52,5	29	26,6	80	48	M20	470	M24	1100	M16	340	M16	220	17,5	17,5

# Linear recirculating roller bearing and guideway assemblies

Full complement  
Standard and L carriages

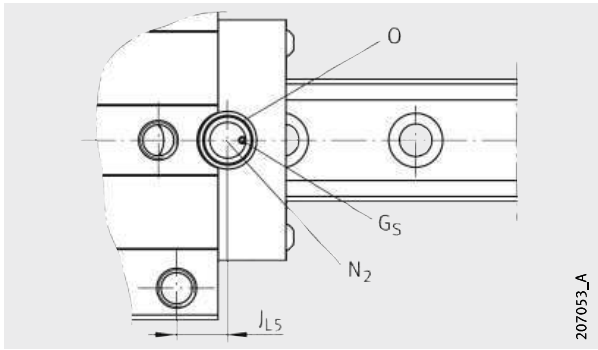


Lubrication connector on lateral face

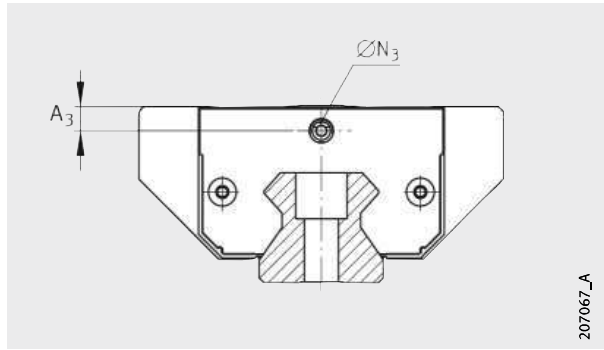
Dimension table (continued) · Dimensions in mm

Designation	Carriage		Guideway		Lubrication connectors				
	Designation	Mass m ≈ kg	Designation	Mass m ≈ kg/m	A <sub>3</sub>	N <sub>3</sub> <sup>1)</sup>	A <sub>4</sub>	N <sub>4</sub> <sup>1)</sup>	J <sub>L6</sub>
<b>RUE25-E</b>	RWU25-E	0,68	TSX25-D	2,9	7,5	M6	-	-	-
<b>RUE25-E-L</b>	RWU25-E-L	0,86							
<b>RUE35-E</b>	RWU35-E	1,75	TSX35-E	5,9	6,6	M6	5,6	M6	24,4
<b>RUE35-E-L</b>	RWU35-E-L	2,29							37,4
<b>RUE45-E</b>	RWU45-E	3,07	TSX45-E	9,4	6,6	M6	6,6	M6	27
<b>RUE45-E-L</b>	RWU45-E-L	4,05							43,2
<b>RUE55-E</b>	RWU55-E	5,24	TSX55-E	13,1	8,1	M6	8,1	M6	32,9
<b>RUE55-E-L</b>	RWU55-E-L	6,83							51,9
<b>RUE65-E</b>	RWU65-E	9,32	TSX65-E	19,5	19,6	M6	19,6	M6	34,8
<b>RUE65-E-L</b>	RWU65-E-L	13,8							68,1
<b>RUE100-E-L</b>	RWU100-E-L	35,7	TSX100-E	45,3	10,6	M6	10,6	∅5,6	65,1

- 1) Maximum screw depth in end piece 6 mm.
- 2) Maximum diameter of lubrication hole in adjacent construction.
- 3) Position of lubrication hole in adjacent construction.
- 4) The basic load rating can only be transmitted fully if the whole thread length is used and the adjacent construction is dimensioned appropriately.
- 5) Supplied loose with the M-Satz.



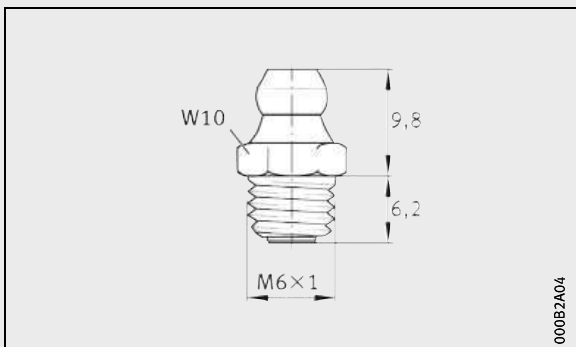
Lubrication connector on top face



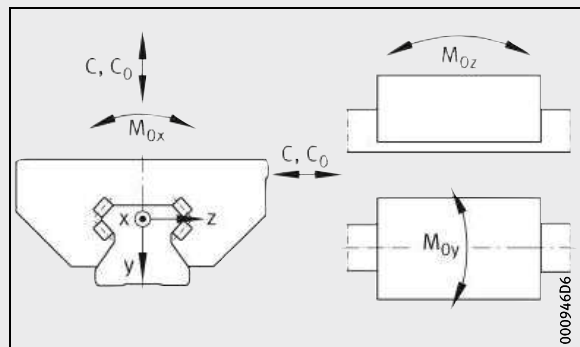
Dimensioning of lubrication connector on end face



				Load carrying capacity				
N <sub>2</sub> <sup>2)</sup>	J <sub>L5</sub> <sup>3)</sup>	G <sub>S</sub> DIN EN ISO 4027	O DIN 3771	Basic load ratings <sup>4)</sup>		Moment ratings		
				dyn. C N	stat. C <sub>0</sub> N	M <sub>0x</sub> Nm	M <sub>0y</sub> Nm	M <sub>0z</sub> Nm
3	14,5	M4×4	10×1,5	28 000	65 000	350	760	680
	22,8			33 500	82 000	440	1 200	1 080
6	14,3	M4×4	10×1,5	59 000	140 000	1 200	2 150	1 950
	27,2			70 000	175 000	1 500	3 350	3 000
6	15,7	M4×4	10×1,5	92 000	215 000	1 899	4 255	3 821
	31,9			114 000	285 000	2 503	7 263	6 536
6	21,6	M4×4	10×1,5	136 000	320 000	3 287	7 404	6 667
	40,6			167 000	415 000	4 226	12 214	11 010
6	15,6	M4×4	18×1,5	200 000	435 000	5 450	12 100	10 900
	48,8			270 000	640 000	7 600	24 000	21 500
6	47,15	M4×4	10×1,5	630 000	1 490 000	33 780	80 250	72 280



Lubrication connector S25 to DIN 71412-A-M6<sup>5)</sup>



Load directions

# Linear recirculating roller bearing and guideway assemblies

Full complement  
H, HL and SL carriages

Dimension table · Dimensions in mm														
Designation	Dimensions				Mounting dimensions									
	$l_{\max}^{2)}$	H	B	$L^{3)}$	$A_1$	$J_B$	b	$A_2$	$L_1$	$L_S$	$J_L$	$j_L$	$a_L, a_R^{4)}$	
							$-0,005$ $-0,035$						min.	max.
<b>RUE25-E-H</b>	3 930	40	48	91	12,5	35	23	6,5	65,6	2,2	35	30	20	23
<b>RUE25-E-HL</b>				107					82,2		50			
<b>RUE35-E-H</b>	5 900	55	70	122,9	18	50	34	10	85,2	2,2	50	40	20	31
<b>RUE35-E-HL</b>				148,7					111		72			
<b>RUE45-E-H</b>	5 888	70	86	145,9	20,5	60	45	13	104,2	2,2	60	52,5	20	41
<b>RUE45-E-HL</b>				178,3					136,6		80			
<b>RUE55-E-H</b>	5 880	80	100	172,7	23,5	75	53	12,5	127	2,75	75	60	20	47
<b>RUE55-E-HL</b>				210,7					165		95			
<b>RUE65-E-H</b>	5 865	100	126	195,5	31,5	76	63	25	141,2	2,75	70	75	20	61
<b>RUE65-E-HL</b>				261,9					207,6		120			
<b>RUE65-E-SL</b>	2 730	90	126	261,9	31,5	76	63	25	207,6	2,75	120	75	20	61

For further table values, see page 126 and page 127.

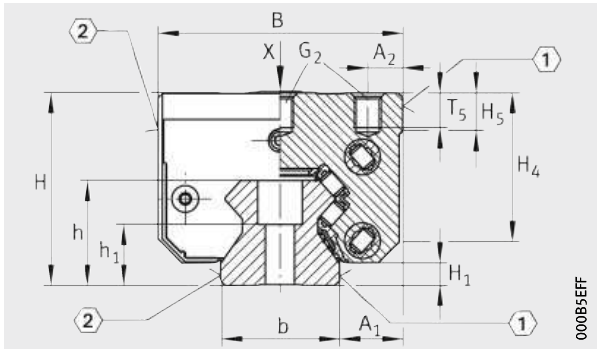
① Locating face. ② Marking. ③ Fixing screw.

1) The stated torques represent maximum values for the secure transmission of forces in vibration-free, quasistatic applications ( $S_0 = 1$ ). We recommend that the tightening torques for the screw connection of the adjacent construction should be determined at the customer under the conditions specific to the application and operation, observing the information in VDI Guideline 2230 Part 1 (2015) and the information in this description, see page 69 and page 26.

2) Maximum length of single-piece guideways.  
Permissible number of guideway segments, see page 117.

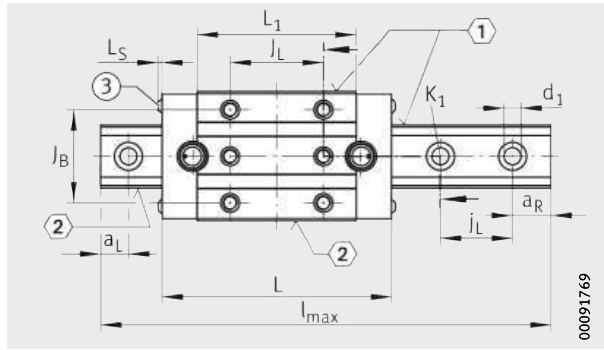
3) Minimum covered length for sealing the upper lubrication connectors.

4)  $a_L$  and  $a_R$  are dependent on the guideway length.



RUE...-E-H, RUE...-E-HL, RUE...-E-SL

000B5EFF



RUE...-E-H, RUE...-E-HL, RUE...-E-SL  
View X rotated 90°

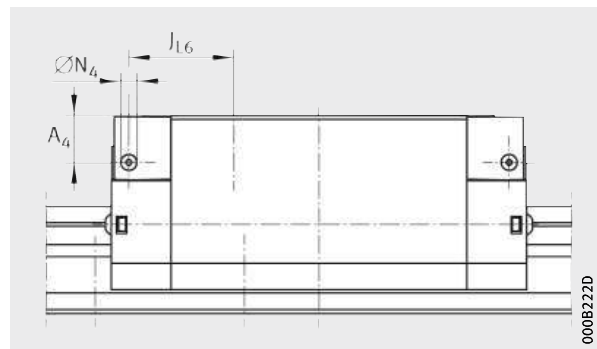
00091769



						Fixing screws <sup>1)</sup>				
H <sub>1</sub>	H <sub>5</sub>	H <sub>4</sub>	T <sub>5</sub>	h	h <sub>1</sub> ±0,5	G <sub>2</sub>		K <sub>1</sub>		d <sub>1</sub>
						DIN ISO 4762-12.9				
							M <sub>A</sub> Nm		M <sub>A</sub> Nm	
6,5	5,25	32,5	7,5	22,3	11,8	M6	17	M6	17	6,7
6,5	10,8	41,9	10	30	17,5	M8	41	M8	41	8,6
8,5	13,7	52,4	12,5	38	19,5	M10	83	M12	140	10,6
11	16	61,4	15	45	22,5	M12	140	M14	220	12,5
11,5	15	71,2	20	53,8	28,8	M14	220	M16	340	14,5
11,5	15	61,2	12,5	53,8	28,8	M16	340	M16	340	14,5

# Linear recirculating roller bearing and guideway assemblies

Full complement  
H, HL and SL carriages

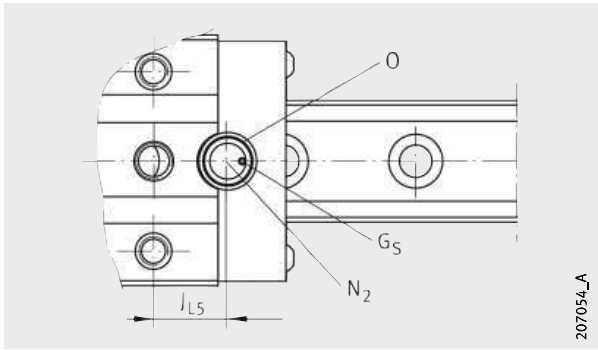


Lubrication connector on lateral face

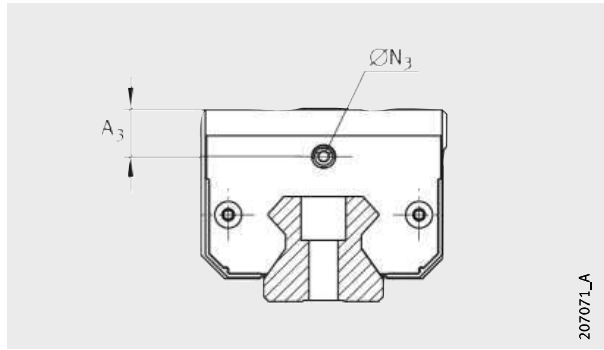
**Dimension table** (continued) · Dimensions in mm

Designation	Carriage		Guideway		Lubrication connectors				
	Designation	Mass m ≈ kg	Designation	Mass m ≈ kg/m	A <sub>3</sub>	N <sub>3</sub> <sup>1)</sup>	A <sub>4</sub>	N <sub>4</sub> <sup>1)</sup>	l <sub>L6</sub>
<b>RUE25-E-H</b>	RWU25-E-H	0,58	TSX25-D	2,9	11,5	M6	–	–	–
<b>RUE25-E-HL</b>	RWU25-E-HL	0,72							
<b>RUE35-E-H</b>	RWU35-E-H	1,67	TSX35-E	5,9	13,6	M6	12,6	M6	30,4
<b>RUE35-E-HL</b>	RWU35-E-HL	2,14							32,4
<b>RUE45-E-H</b>	RWU45-E-H	3,05	TSX45-E	9,4	16,6	M6	16,6	M6	37
<b>RUE45-E-HL</b>	RWU45-E-HL	3,95							43,2
<b>RUE55-E-H</b>	RWU55-E-H	4,94	TSX55-E	13,1	18,1	M6	18,1	M6	42,9
<b>RUE55-E-HL</b>	RWU55-E-HL	6,34							51,9
<b>RUE65-E-H</b>	RWU65-E-H	8,9	TSX65-E	19,5	29,6	M6	29,6	M6	54,8
<b>RUE65-E-HL</b>	RWU65-E-HL	12,89							63,1
<b>RUE65-E-SL</b>	RWU65-E-SL	10,8	TSX65-E	19,5	19,6	M6	19,6	M6	63,1

- 1) Maximum screw depth in end piece 6 mm.
- 2) Maximum diameter of lubrication hole in adjacent construction.
- 3) Position of lubrication hole in adjacent construction.
- 4) The basic load rating can only be transmitted fully if the whole thread length is used and the adjacent construction is dimensioned appropriately.
- 5) Supplied loose with the M-Satz.



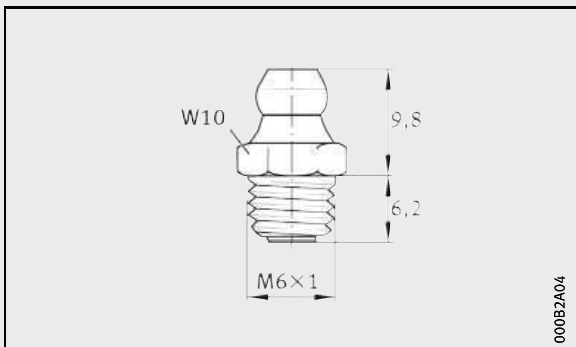
Lubrication connector on top face



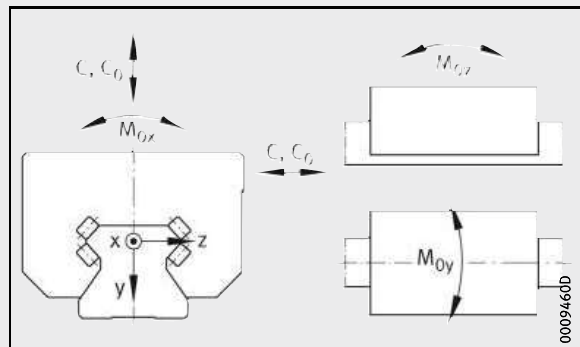
Dimensioning of lubrication connector on end face



				Load carrying capacity				
N <sub>2</sub> <sup>2)</sup>	J <sub>L5</sub> <sup>3)</sup>	G <sub>S</sub> DIN EN ISO 4027	O DIN 3771	Basic load ratings <sup>4)</sup>		Moment ratings		
				dyn. C N	stat. C <sub>0</sub> N	M <sub>0x</sub> Nm	M <sub>0y</sub> Nm	M <sub>0z</sub> Nm
3	19,5	M4×4	10×1,5	28 000	65 000	350	760	680
	20,3			33 500	82 000	440	1 200	1 080
6	20,3	M4×4	10×1,5	59 000	140 000	1 200	2 150	1 950
	22,2			70 000	175 000	1 500	3 350	3 000
6	25,7	M4×4	10×1,5	92 000	215 000	1 899	4 255	3 821
	31,9			114 000	285 000	2 503	7 263	6 536
6	31,6	M4×4	10×1,5	136 000	320 000	3 287	7 404	6 667
	40,6			167 000	415 000	4 226	12 214	11 010
6	35,6	M4X4	18×1,5	200 000	435 000	5 450	12 100	10 900
	43,8			270 000	640 000	7 600	24 000	21 500
6	43,8	M4X4	18×1,5	270 000	640 000	7 600	24 000	21 500



Lubrication connector S25 to DIN 71412-A-M6<sup>5)</sup>

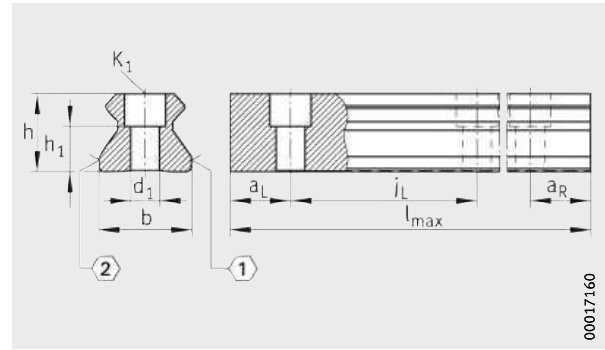


Load directions



# Linear recirculating roller bearing and guideway assemblies

Guideways and closing methods



TSX..-D, TSX..-E

Dimension table · Dimensions in mm

Designation	For linear guidance system	Mass m  ≈ kg/m	Closing plug <sup>1)</sup>					Covering strip <sup>2)</sup>			
			Plastic <sup>4)</sup>		Brass			Steel two-piece	Adhesive bonded	Clip fit	
			one-piece	two-piece	one-piece	two-piece	conical				
<b>TSX25-D</b>	RUE25-E	2,9	KA11-TN	KA11-TN/A	KA11-M	KA11-M/A	KA11-M-konisch	-	-		
<b>TSX25-D-U</b>			-	-	-	-	-			ADB13	
<b>TSX25-D-ADB</b>			-	-	-	-	-			-	ADK12
<b>TSX25-D-ADK</b>			-	-	-	-	-			-	-
<b>TSX35-E</b>	RUE35-E	5,9	KA15-TN	KA15-TN/A	KA15-M	KA15-M/A	KA15-M-konisch	-	-		
<b>TSX35-E-KA+ST</b>			-	-	-	-	-			KA16-ST/A	
<b>TSX35-E-U</b>			-	-	-	-	-			-	ADB18
<b>TSX35-E-ADB</b>			-	-	-	-	-			-	ADK16
<b>TSX35-E-ADK</b>	-	-	-	-	-	-	-	-			
<b>TSX45-E</b>	RUE45-E	9,4	KA20-TN	KA20-TN/A	KA20-M	KA20-M/A	KA20-M-konisch	-	-		
<b>TSX45-E-KA+ST</b>			-	-	-	-	-			KA21-ST/A	
<b>TSX45-E-U</b>			-	-	-	-	-			-	ADB23
<b>TSX45-E-ADB</b>			-	-	-	-	-			-	ADK21
<b>TSX45-E-ADK</b>	-	-	-	-	-	-	-	-			

① Locating face. ② Marking.

1) Closing plugs, see page 180.

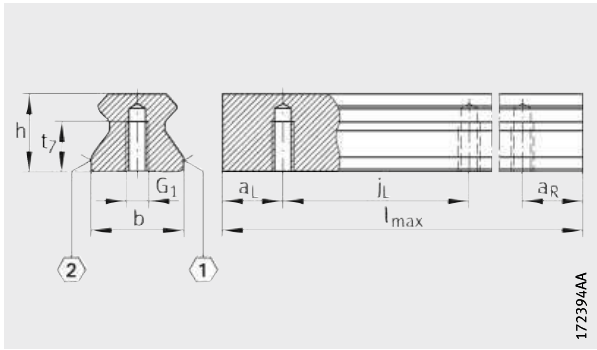
2) Covering strips, see page 183.

3) The stated torques represent maximum values for the secure transmission of forces in vibration-free, quasistatic applications ( $S_0 = 1$ ). We recommend that the tightening torques for the screw connection of the adjacent construction should be determined at the customer under the conditions specific to the application and operation, observing the information in VDI Guideline 2230 Part 1 (2015) and the information in this description, see page 69 and page 26.

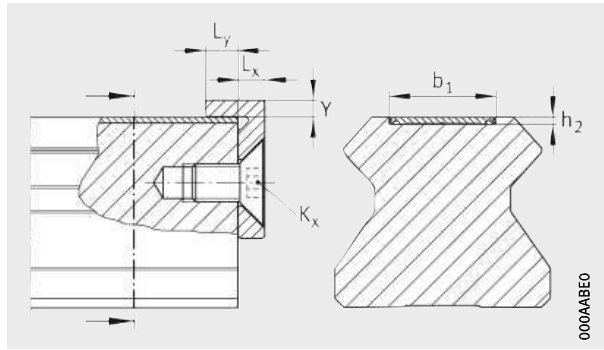
4) Standard.

5) Maximum length of single-piece guideways.  
Permissible number of guideway segments, see page 117.

6)  $a_L$  and  $a_R$  are dependent on the guideway length.



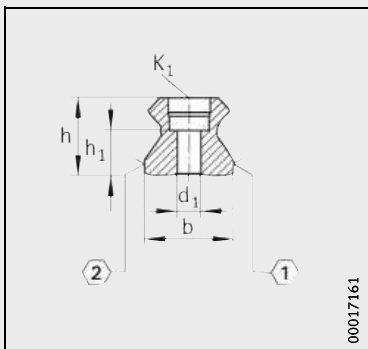
TSX..-D-U, TSX..-E-U



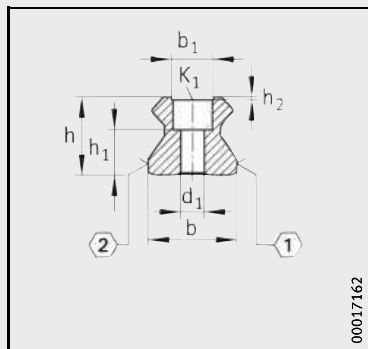
Retaining plate and covering strip



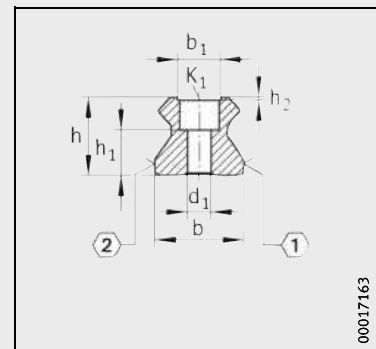
Retaining plate	Dimensions										Fixing screws <sup>3)</sup>								
	Dimensions				l <sub>max</sub> <sup>5)</sup>	h	b	a <sub>L</sub> , a <sub>R</sub> <sup>6)</sup>		j <sub>L</sub>	h <sub>1</sub>	h <sub>2</sub>	t <sub>7</sub>	b <sub>1</sub>	G <sub>1</sub>		K <sub>1</sub>		d <sub>1</sub>
	K <sub>x</sub>	L <sub>x</sub>	L <sub>y</sub>	Y				min.	max.						±0,5	DIN ISO 4762-12.9		M <sub>A</sub>	
					Nm	Nm													
-	-	-	-	-	3930	22,3	23	20	23	30	11,8	-	-	-	-	M6	17	6,7	
HPL.ADB9-B	M5	4	5	2								0,5	1,1	13	12,6	-	-	M6	17
-	-	-	-	-	5900	30	34	20	31	40	17,5	-	15	-	-	M8	41	8,6	
HPL.ADB17-B	M6	4	5	2,5								0,5	1,1	18	16,6	-	-	M8	41
-	-	-	-	-	5888	38	45	20	41	52,5	19,5	-	-	-	-	M12	140	10,6	
HPL.ADB17-B	M6	4	5	2,5								0,5	1,1	23	21,7	-	-	M12	120



TSX..-E-KA+ST



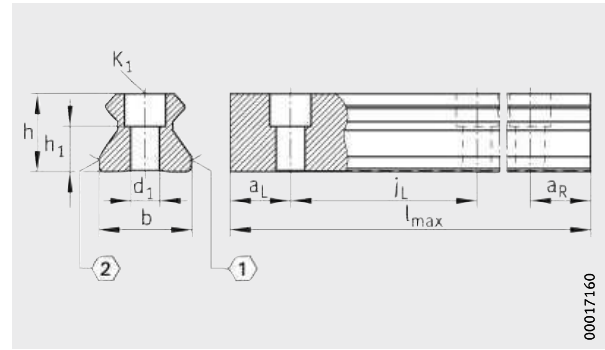
TSX..-D-ADB, TSX..-E-ADB



TSX..-D-ADK, TSX..-E-ADK

# Linear recirculating roller bearing and guideway assemblies

Guideways and closing methods



TSX..-E

**Dimension table** (continued) · Dimensions in mm

Designation	For linear guidance system	Mass m ≈ kg/m	Closing plug <sup>1)</sup>					Covering strip <sup>2)</sup>				
			Plastic <sup>4)</sup>		Brass			Steel two-piece	Adhesive bonded	Clip fit		
			one-piece	two-piece	one-piece	two-piece	conical					
<b>TSX55-E</b>	RUE55-E	13,1	KA24-TN	KA24-TN/A	KA24-M	KA24-M/A	KA24-M-konisch	–	–	–		
<b>TSX55-E-KA+ST</b>			–	–	–	–	–	KA25-ST/A			–	
<b>TSX55-E-U</b>			–	–	–	–	–	–			ADB27	
<b>TSX55-E-ADB</b>			–	–	–	–	–	–			–	ADK25
<b>TSX55-E-ADK</b>			–	–	–	–	–	–			–	–
<b>TSX65-E</b>	RUE65-E	19,5	KA26-TN	–	KA26-M	KA26-M/A	KA26-M-konisch	–	–	–		
<b>TSX65-E-KA+ST</b>			–	–	–	–	–	KA27-ST/A			–	
<b>TSX65-E-U</b>			–	–	–	–	–	–			ADB29	
<b>TSX65-E-ADB</b>			–	–	–	–	–	–			–	ADK27
<b>TSX65-E-ADK</b>			–	–	–	–	–	–			–	–
<b>TSX100-E</b>	RUE100-E-L	45,3	–	–	KA40-M	–	–	–	–	–		

① Locating face. ② Marking.

1) Closing plugs, see page 180.

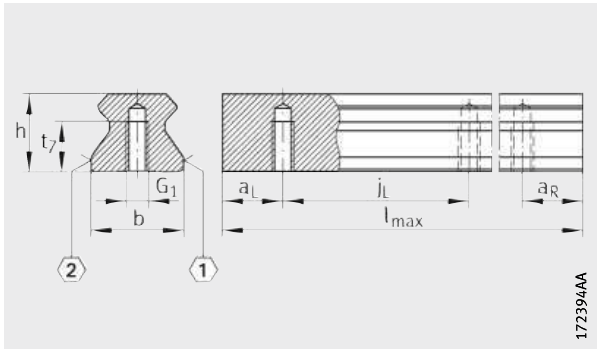
2) Covering strips, see page 183.

3) The stated torques represent maximum values for the secure transmission of forces in vibration-free, quasistatic applications ( $S_0 = 1$ ). We recommend that the tightening torques for the screw connection of the adjacent construction should be determined at the customer under the conditions specific to the application and operation, observing the information in VDI Guideline 2230 Part 1 (2015) and the information in this description, see page 69 and page 26.

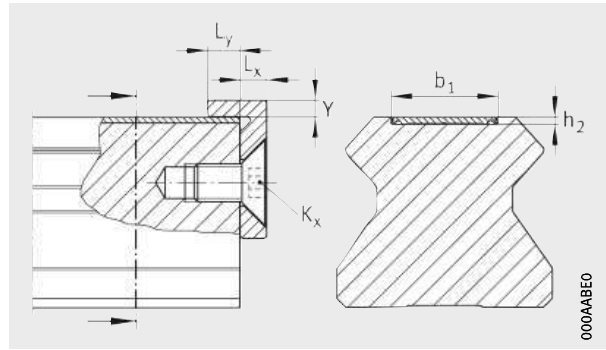
4) Standard.

5) Maximum length of single-piece guideways.  
Permissible number of guideway segments, see page 117.

6)  $a_L$  and  $a_R$  are dependent on the guideway length.



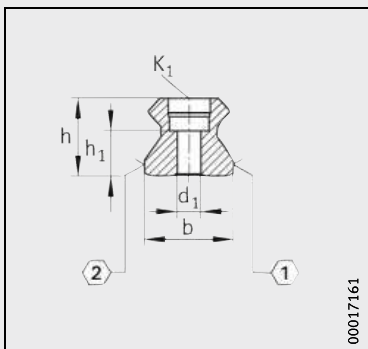
TSX..-E-U



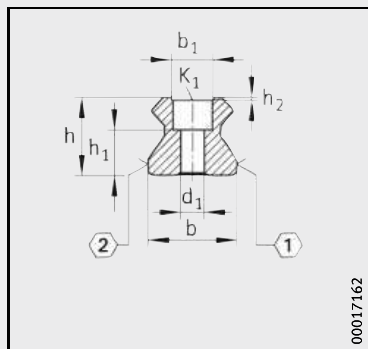
Retaining plate and covering strip



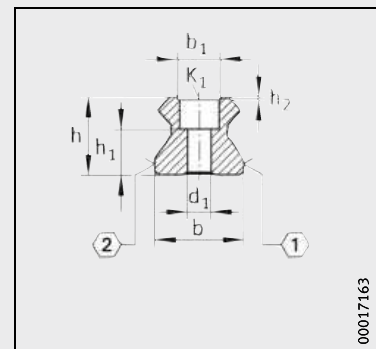
		Dimensions											Fixing screws <sup>3)</sup>						
Retaining plate	Dimensions				l <sub>max</sub> <sup>5)</sup>	h	b	a <sub>L</sub> , a <sub>R</sub> <sup>6)</sup>		j <sub>L</sub>	h <sub>1</sub>	h <sub>2</sub>	t <sub>7</sub>	b <sub>1</sub>	G <sub>1</sub>		K <sub>1</sub>		d <sub>1</sub>
	K <sub>x</sub>	L <sub>x</sub>	L <sub>y</sub>	Y				-0,005 -0,035	min.						max.	±0,5	DIN ISO 4762-12.9		
															Nm	Nm			
-	-	-	-	-	5 880	45	53	20	47	60	22,5	-	-	-	-	-	M14	220	12,5
HPL.ADB17-B	M6	4	5	2,5							0,5 1,1	-	27 25,7	-	-	M14	220	12,5	
-	-	-	-	-	5 865	53,8	63	20	61	75	28,8	-	-	-	-	M16	340	14,5	
HPL.ADB17-B	M6	4	5	2,5							0,5 1,1	-	29 27,7	-	-	M16	340	14,5	
-	-	-	-	-	2 730	80	100	30	83	105	48	-	-	-	-	M24	1 100	17,5	



TSX..-E-KA+ST



TSX..-E-ADB



TSX..-E-ADK