

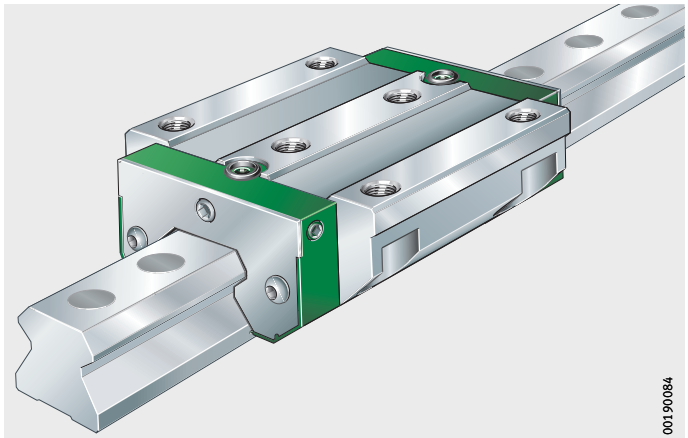
RUE-F

Sixth generation linear recirculating roller bearing and guideway assemblies

Product overview Linear recirculating roller bearing and guideway assemblies

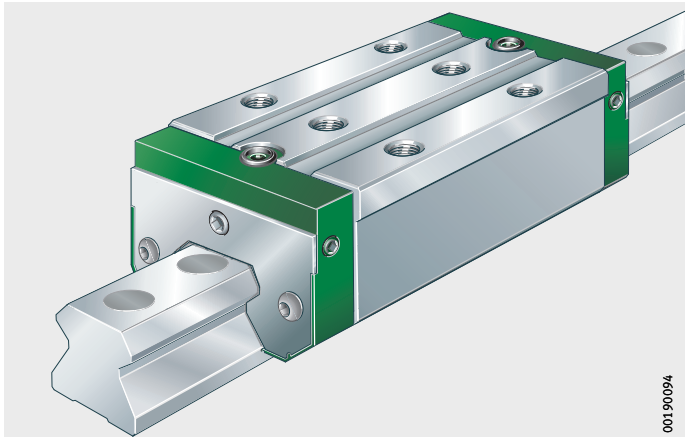
Full complement
For oil and grease lubrication

RUE..-F, RUE..-F-L



00190084

RUE..-F-H, RUE..-F-HL, RUE..-F-SL



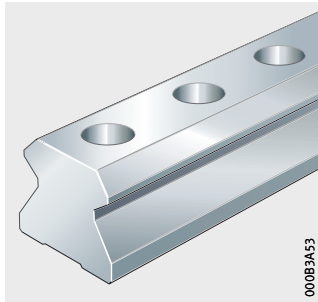
00190094

Product overview Linear recirculating roller bearing and guideway assemblies

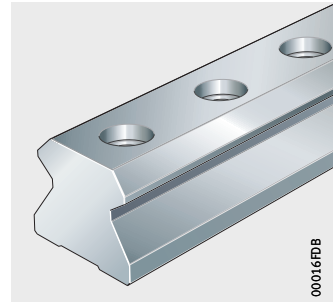
Guideways

Standard
or
for steel closing plugs

TSX..-E

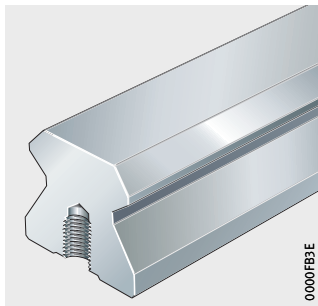


TSX..-E-KA-ST/A

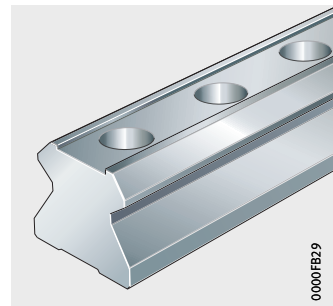


For screw mounting from below
or
with slot for covering strip

TSX..-E-U



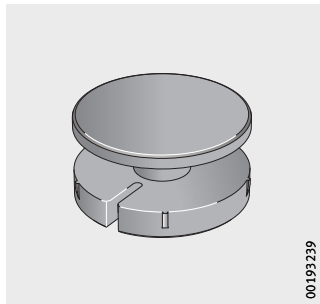
TSX..-E-ADE



Standard accessories

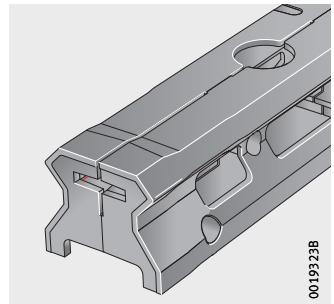
Plastic closing plugs
Dummy guideway

KA...-TN/B



00193239

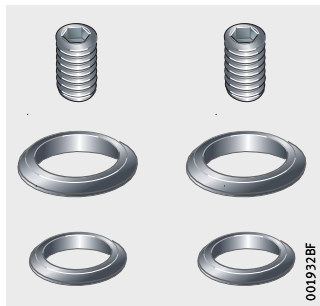
MSX...-F



00193238

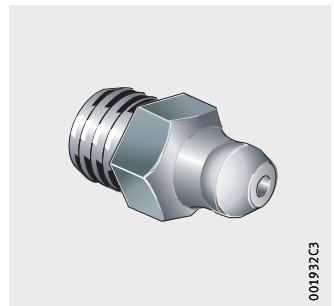
Mounting set
Lubrication connector

M-Satz



0019328F

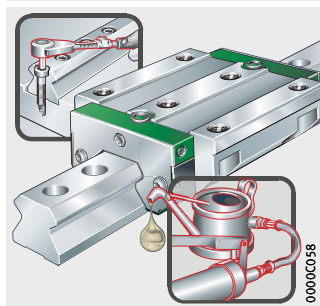
S25



001932C3

Mounting manual

MON 30



0000C058

Linear recirculating roller bearing and guideway assemblies RUE-F

Features Linear recirculating roller bearing and guideway assemblies RUE..-F and linear recirculating roller bearing and guideway assemblies RUE..-E are 100% interchangeable. Linear recirculating roller bearing and guideway assemblies RUE..-F are available in sizes 35 to 65. Sizes 25 and 100 are available in version RUE..-E, see table.

Sizes for RUE..-F and RUE..-E

| Size | Linear recirculating roller bearing and guideway assembly |
|------|---|
| 25 | RUE25-E |
| 35 | RUE35-F |
| 45 | RUE45-F |
| 55 | RUE55-F |
| 65 | RUE65-F |
| 100 | RUE100-E |

Carriages The carriages have saddle plates made from hardened steel and the rolling element raceways are precision ground. The cylindrical rollers are recirculated in enclosed channels with plastic return elements.

Interchangeability Carriages RWU..-F and RWU..-E are 100% interchangeable. The outer and mounting dimensions of carriages RWU..-F and RWU..-E are identical for carriages of the same size. The guideways remain unchanged and are also used with carriages RWU..-F, with the result that no changes to the adjacent construction are required.

Guideways The guideways are made from hardened steel and are ground on all faces, the rolling element raceways are precision ground.

Location from above or below Guideways TSX..-E (-ADE) are located from above and have through holes with counterbores for the fixing screws. Guideways TSX..-E-U are located from below and have threaded blind holes.

Slot for covering strip Guideways TSX..-E-ADE have a slot for the insertable steel covering strip ADE, see dimension tables.

Catalogue PF 1 ■ Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

Standard accessories

The scope of delivery includes various accessory parts as standard.

Dummy guideway

The plastic dummy guideway prevents damage to the rolling element set and prevents the rolling elements from falling out if the carriage is removed from the guideway, *Figure 1*.



The dummy guideway must be used at all times when fitting and dismantling the carriage.

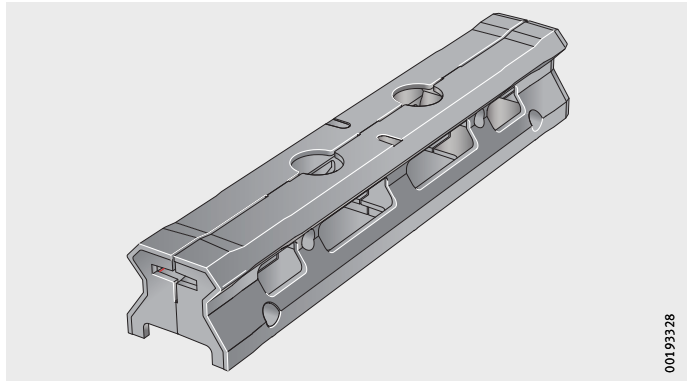


Figure 1
Dummy guideway
MSX...F

Catalogue PF 1

■ Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

Linear recirculating roller bearing and guideway assemblies RUE-F

Plastic closing plugs

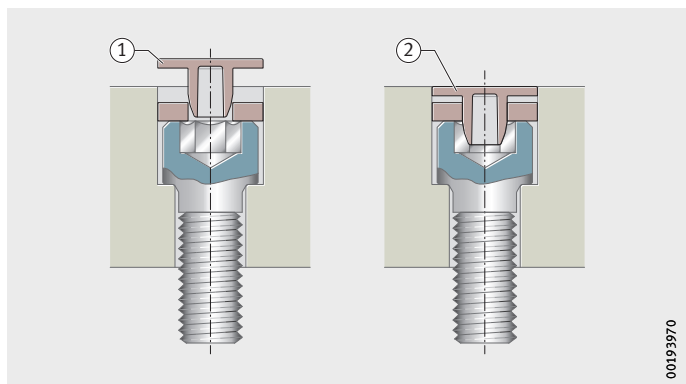
The scope of delivery includes one-piece/two-piece plastic closing plugs KA..-TN/B, which close off the counterbores of the guideway holes flush with the surface of the guideway.

The one-piece/two-piece closing plug KA..-TN/B comprises a closing plug, with a clinch ring connected to it. The clinch ring guides the closing plug and ensures ideal alignment with the guideway surface. Retaining lugs on the circumference of the clinch ring ensure a firm and secure hold in the fixing hole, allowing the closing plug to be easily mounted in all spatial directions. The one-piece/two-piece plastic closing plug KA..-TN/B is very easy to use, particularly in overhead and wall mounting or where long guideways are used.

The closing plug can be fitted securely and with minimal effort with the aid of a hammer and press-in block. After fitting, a minimal visible ring gap remains.

- ① Closing plug, inserted
- ② Closing plug, knocked in

Figure 2
One-piece/two-piece closing plug KA..-TN/B



Optionally, brass or steel closing plugs are also available, see catalogue PF 1.

Mounting set M-Satz

The delivery of RUE..-F includes the mounting set M-Satz. This comprises:

- O rings for sealing purposes if relubrication is carried out from above via the adjacent construction
- grub screws for closing off the relubrication holes from above

Lubrication connector

The standard lubrication connector S25 for mounting on the end face or side of the end piece is included in the scope of delivery. If a different lubrication connector is selected when ordering, this is included instead of the standard lubrication connector.

Catalogue PF 1

- Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

Other accessories

Other accessories include damping carriages or braking and clamping elements, see catalogue PF 1.

Sealing

The end pieces of the carriages are fitted on both sides with non-contact, corrosion-resistant end plates and elastic end wipers that retain the lubricant in the system and protect the carriage against the ingress of contamination from outside.

Standard sealing strips and an additional lower sealing strip with labyrinth seal ensure reliable sealing and protect the rolling element system against contamination, even in demanding environmental conditions, *Figure 3*.



Under extremely heavy contamination load, additional wipers can be fitted, see catalogue PF 1.

Where necessary, additional covers must be used.

- ① Upper sealing strip
- ② Lower sealing strip with labyrinth seal

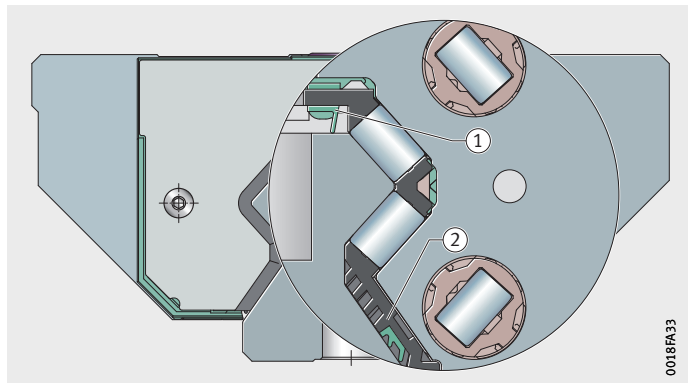


Figure 3
Upper and lower sealing strips

Catalogue PF 1

■ Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

Linear recirculating roller bearing and guideway assemblies RUE-F

Lubrication Linear recirculating roller bearing and guideway assemblies RUE...-F are suitable for oil and grease lubrication. The standard lubrication connector S25 for grease is included in the delivery. Optionally, other lubrication connectors are available, see catalogue PF 1.

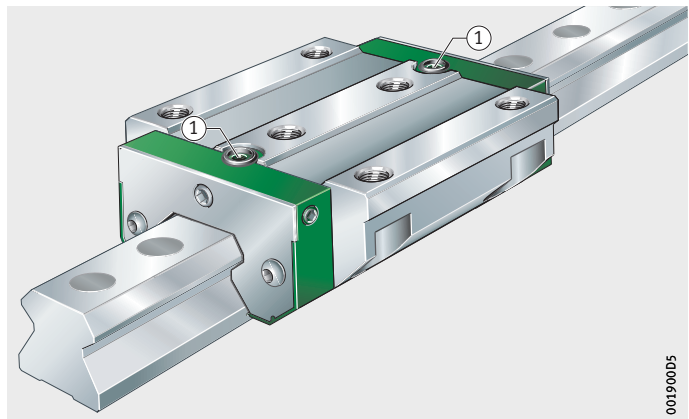
If a different lubrication connector is selected when ordering, this is included instead of the standard lubrication connector. Lubrication is optimised by accessories such as lubricant quantity metering valves (SMDS), long term lubrication units (KIT series 400) and the lubricant quantity metering unit (KIT series 500).

The lubrication connectors can be screw mounted into the end piece on the right, left or end face. The relubrication holes in the end faces and sides are closed off by means of grub screws. Before the lubrication connector is screwed in, the corresponding grub screw must be removed.



If relubrication is carried out from above, it must be ensured that the adjacent construction completely covers the carriage (including the end pieces) and the O rings for sealing off the relubrication hole from above are inserted, *Figure 4*. Otherwise, lubricant may escape through the upper lubrication hole.

If the upper relubrication holes are not used, these can be closed off using grub screws. Grub screws GSTI for closing off the upper relubrication hole are included with the mounting set M-Satz.



① Upper relubrication hole with O ring

Figure 4
Relubrication hole



If lubrication connectors are fitted on the end or side, the maximum permissible screw depth must be observed, see dimension tables. If additional sealing elements KIT are used, the screw depth is increased for the end relubrication facility.

The standard lubrication connector is then no longer usable. Suitable lubrication connectors must additionally be taken into consideration when ordering, see catalogue PF 1.

Catalogue PF 1 ■ Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

Technical data Technical data that are not specified in this description, such as load carrying capacity, acceleration and velocity, preload classes or accuracy classes, are as stipulated for RUE..-E, see catalogue PF 1.

Catalogue PF 1 ■ Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

Linear recirculating roller bearing and guideway assemblies RUE-F

Ordering example, ordering designation

| | |
|---|--------------------|
| Unit, guideway with asymmetrical hole pattern: | |
| Linear recirculating roller bearing and guideway assembly | RUE-F |
| Size | 45 |
| Carriage type | L |
| Number of carriages per guideway set | W2 |
| Preload | V3 |
| Accuracy class | G2 |
| Length of guideway | 1540 mm |
| a_L | 20 mm |
| a_R | 50 mm |
| Closing method | Covering strip ADE |

Ordering designation

Ordering designation provided by the customer and in the order confirmation (with sample letter code):
1×RUE45-F-L-ADE-W2-1540/20/50-V3-G2, Figure 5
1×RUE45-F-L-ADE-W2-1540/AAAC, Figure 6

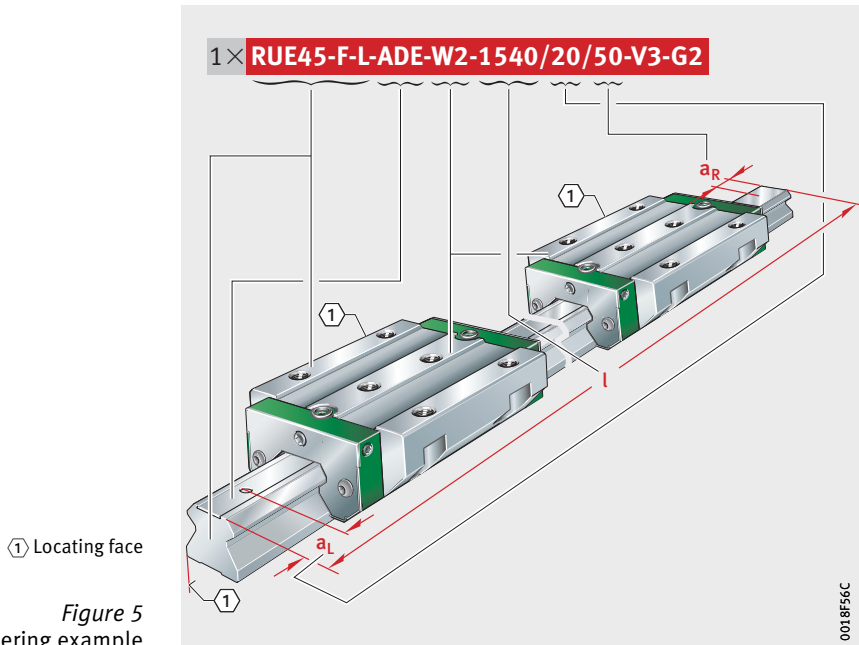


Figure 5
Ordering example

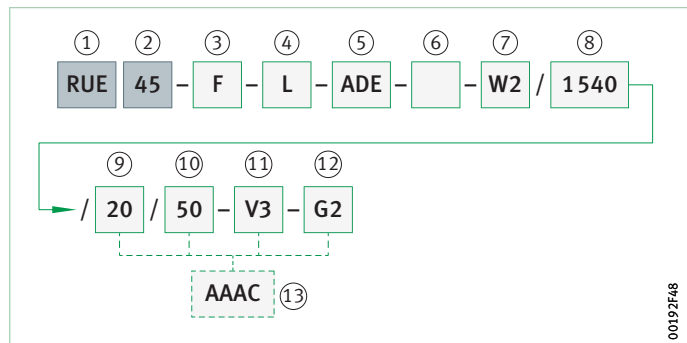


Figure 6
Structure of the ordering designation, example based on one guideway set

**Structure of
the ordering designation**

| Feature | Code | Description |
|--|----------------|---|
| ① Designation | RUE | Linear recirculating roller bearing and guideway assembly |
| ② Size | 25 | RUE25-E |
| | 35 | RUE35-F |
| | 45 | RUE45-F |
| | 55 | RUE55-F |
| | 65 | RUE65-F |
| | 100 | RUE100-E |
| ③ Version | E | Sizes 25 and 100 in version RUE...-E |
| | F | Sizes 35 to 65 in version RUE...-F |
| ④ Carriage type | – | Standard |
| | H | High carriage |
| | HL | High, long carriage |
| | L | Long carriage |
| | SL | Narrow, long carriage |
| ⑤ Guideway design | – | Closing plugs as closing method or hole pattern from below |
| | ADE | Guideway with slot for covering strip (including covering strip and MSATZ.ADE) |
| ⑥ Guideway location | – | Hole pattern from above |
| | U | Hole pattern from below (not specified for guideway design) |
| ⑦ Number of carriages per guideway set | W1 up to W10 | The number indicates the number of carriages. A maximum of 10 carriages per guideway set is possible. |
| ⑧ Length requested by the customer | 1540 (example) | Guideway length in mm. Maximum length of single-piece guideways, see dimension tables. |
| ⑨ Spacing a_L | – | Symmetrical hole pattern (a_R not specified) |
| | 20 (example) | Spacing to hole on the left in mm (a_R must also be specified) |
| ⑩ Spacing a_R | – | Symmetrical hole pattern (a_L not specified) |
| | 50 (example) | Spacing to hole on the right in mm (a_L must also be specified) |
| ⑪ Preload | – | Standard V3 |
| | V1 to V5 | Specification if different from standard |
| ⑫ Accuracy | – | Standard G2 |
| | G0 to G3 | Specification if different from standard |
| ⑬ Letter code | AAAC (example) | These features are stored in a four-digit letter code in the order confirmation. |

Linear recirculating roller bearing and guideway assemblies

Full complement
Standard and L carriages

Dimension table · Dimensions in mm

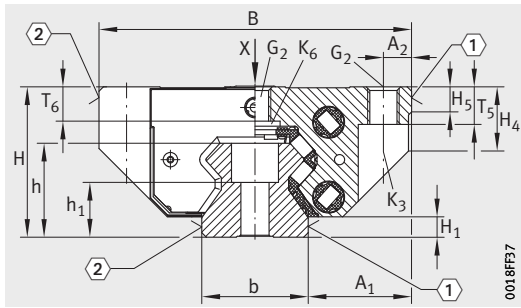
| Designation ¹⁾ | Dimensions | | | | Mounting dimensions | | | | | | | | | | a _L , a _R ⁵⁾ | |
|---------------------------|--------------------------------|----|-----|-----------------|---------------------|----------------|----|----------------|----------------|----------------|----------------|-----------------|----------------|------------------|---|--|
| | l _{max} ³⁾ | H | B | L ⁴⁾ | A ₁ | J _B | b | A ₂ | L ₁ | L _S | J _L | J _{LZ} | j _L | min. | | |
| | | | | | | | | | | | | | | -0,005 -0,035 | | |
| RUE35-F | 5 900 | 48 | 100 | 122,9 | 33 | 82 | 34 | 9 | 85,2 | 2,2 | 62 | 52 | 40 | 20 | 31 | |
| RUE35-F-L | | | | 148,8 | | | | | 111 | | | | | | | |
| RUE45-F | 5 888 | 60 | 120 | 145,9 | 37,5 | 100 | 45 | 10 | 104,2 | 2,2 | 80 | 60 | 52,5 | 20 | 41 | |
| RUE45-F-L | | | | 178,3 | | | | | 136,6 | | | | | | | |
| RUE55-F | 5 880 | 70 | 140 | 172,7 | 43,5 | 116 | 53 | 12 | 127 | 2,75 | 95 | 70 | 60 | 20 | 47 | |
| RUE55-F-L | | | | 210,7 | | | | | 165 | | | | | | | |
| RUE65-F | 5 865 | 90 | 170 | 195,5 | 53,5 | 142 | 63 | 14 | 141,2 | 2,75 | 110 | 82 | 75 | 20 | 61 | |
| RUE65-F-L | | | | 261,9 | | | | | 207,6 | | | | | | | |

For further table values, see page 14 and page 15.

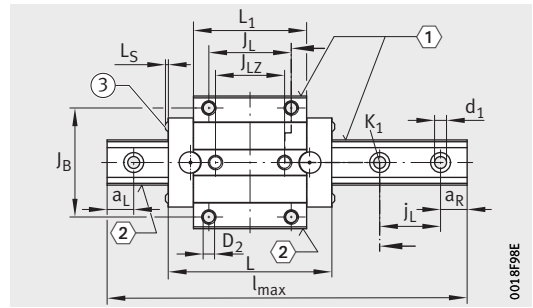
① Locating face. ② Marking. ③ Fixing screw.

Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

- 1) Sizes 25 and 100 are still available, see catalogue PF 1.
- 2) 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 catalogue PF 1.
- 3) Maximum length of single-piece guideways.
Permissible number of guideway segments, see catalogue PF 1.
- 4) Minimum covered length for sealing the upper lubrication connectors.
- 5) a_L and a_R are dependent on the guideway length.



RUE..-F, RUE..-F-L

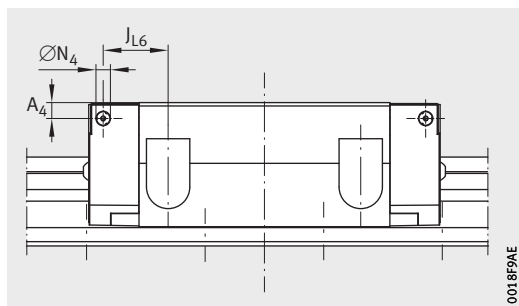


RUE..-F, RUE..-F-L
View X rotated 90°

| | | | | | | | | Fixing screws ²⁾ | | | | | | | | | | | | |
|----------------|----------------|----------------|----------------|----------------|------|----------------|----------------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|----------------|--|----------------|
| H ₁ | H ₅ | H ₄ | T ₅ | T ₆ | h | h ₁ | G ₂ | | K ₁ | | K ₃ | | K ₆ | | d ₁ | D ₂ | | | | |
| | | | | | | | DIN EN ISO 4762-12.9 | | | | | | | | | | DIN 7984-8.8 | | | |
| | | | | | | | | M _A | | M _A | | M _A | | M _A | | | | M _A | | M _A |
| | | | | | | | | Nm | | Nm | | Nm | | Nm | | | | | | |
| 6,5 | 8 | 20,5 | 12 | 10,9 | 30 | 17,5 | M10 | 41 | M8 | 41 | M8 | 41 | M8 | 24 | 9 | 8,6 | | | | |
| 8,5 | 8 | 26 | 15 | 13,2 | 38 | 19,5 | M12 | 83 | M12 | 140 | M10 | 83 | M10 | 48 | 13,4 | 10,6 | | | | |
| 11 | 12 | 32 | 18 | 14,8 | 45 | 22,5 | M14 | 140 | M14 | 220 | M12 | 140 | M12 | 83 | 15,4 | 12,5 | | | | |
| 11,5 | 15 | 39,2 | 23,3 | 23,3 | 53,8 | 28,8 | M16 | 220 | M16 | 340 | M14 | 220 | M14 | 130 | 18 | 14,5 | | | | |

Linear recirculating roller bearing and guideway assemblies

Full complement
Standard and L carriages



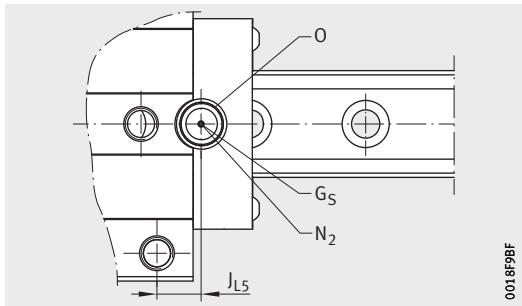
Lubrication connector on lateral face

Dimension table (continued) - Dimensions in mm

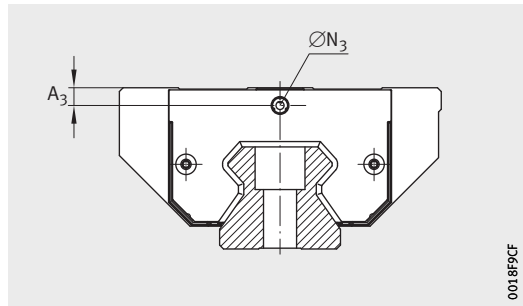
| Designation | Carriage | | Guideway | | Lubrication connectors | | | | |
|------------------|-------------|-------------------|-------------|---------------------|------------------------|------------------------------|----------------|------------------------------|-----------------|
| | Designation | Mass m ≈ kg | Designation | Mass m ≈ kg/m | A ₃ | N ₃ ¹⁾ | A ₄ | N ₄ ¹⁾ | J _{L6} |
| RUE35-F | RWU35-F | 1,75 | TSX35-E | 5,9 | 6,6 | M6 | 5,6 | M6 | 24,4 |
| RUE35-F-L | RWU35-F-L | 2,29 | | | | | | | 37,4 |
| RUE45-F | RWU45-F | 3,07 | TSX45-E | 9,4 | 6,6 | M6 | 6,6 | M6 | 27 |
| RUE45-F-L | RWU45-F-L | 4,05 | | | | | | | 43,2 |
| RUE55-F | RWU55-F | 5,24 | TSX55-E | 13,1 | 8,1 | M6 | 8,1 | M6 | 32,9 |
| RUE55-F-L | RWU55-F-L | 6,83 | | | | | | | 51,9 |
| RUE65-F | RWU65-F | 9,32 | TSX65-E | 19,5 | 19,6 | M6 | 19,6 | M6 | 34,8 |
| RUE65-F-L | RWU65-F-L | 13,8 | | | | | | | 68,1 |

Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

- 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) Lubrication connector S25 (standard) or an alternatively selected lubrication connector is included loose in the delivery.

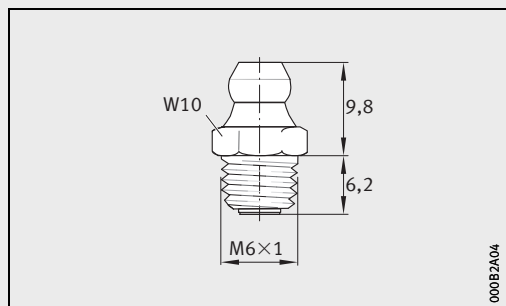


Lubrication connector on top face

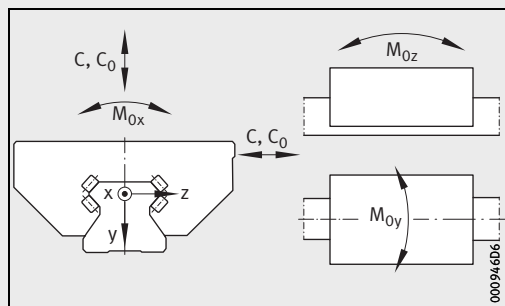


Dimensioning of lubrication connector on end face

| $N_2^{2)}$ | $J_{L5}^{3)}$ | G_5 DIN EN ISO 4027 | O DIN 3771 | Load carrying capacity | | | | |
|------------|---------------|--------------------------|---------------|----------------------------------|---------------------|----------------|----------------|----------------|
| | | | | Basic load ratings ⁴⁾ | | Moment ratings | | |
| | | | | dyn. C N | stat. C_0 N | M_{0x} Nm | M_{0y} Nm | M_{0z} Nm |
| 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 |



Lubrication connector S25 to DIN 71412-A-M6⁵⁾



Load directions

Linear recirculating roller bearing and guideway assemblies

Full complement
H, HL and SL carriages

Dimension table · Dimensions in mm

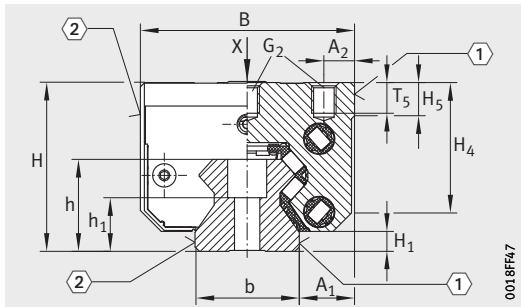
| Designation ¹⁾ | Dimensions | | | | Mounting dimensions | | | | | | | | | |
|---------------------------|--------------------------------|-----|-----|-----------------|---------------------|----------------|----|----------------|----------------|----------------|----------------|----------------|---|------|
| | l _{max} ³⁾ | H | B | L ⁴⁾ | A ₁ | J _B | b | A ₂ | L ₁ | L _S | J _L | j _L | a _L , a _R ⁵⁾ | |
| | | | | | | | | | | | | | min. | max. |
| RUE35-F-H | 5 900 | 55 | 70 | 122,9 | 18 | 50 | 34 | 10 | 85,2 | 2,2 | 50 | 40 | 20 | 31 |
| RUE35-F-HL | | | | 148,7 | | | | | 111 | | 72 | | | |
| RUE45-F-H | 5 888 | 70 | 86 | 145,9 | 20,5 | 60 | 45 | 13 | 104,2 | 2,2 | 60 | 52,5 | 20 | 41 |
| RUE45-F-HL | | | | 178,3 | | | | | 136,6 | | 80 | | | |
| RUE55-F-H | 5 880 | 80 | 100 | 172,7 | 23,5 | 75 | 53 | 12,5 | 127 | 2,75 | 75 | 60 | 20 | 47 |
| RUE55-F-HL | | | | 210,7 | | | | | 165 | | 95 | | | |
| RUE65-F-H | 5 865 | 100 | 126 | 195,5 | 31,5 | 76 | 63 | 25 | 141,2 | 2,75 | 70 | 75 | 20 | 61 |
| RUE65-F-HL | | | | 261,9 | | | | | 207,6 | | 120 | | | |
| RUE65-F-SL | 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 18 and page 19.

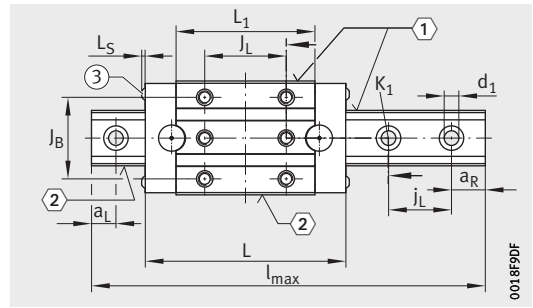
① Locating face. ② Marking. ③ Fixing screw.

Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

- 1) Sizes 25 and 100 are still available, see catalogue PF 1.
- 2) 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 catalogue PF 1.
- 3) Maximum length of single-piece guideways.
Permissible number of guideway segments, see catalogue PF 1.
- 4) Minimum covered length for sealing the upper lubrication connectors.
- 5) a_L and a_R are dependent on the guideway length.



RUE..-F-H, RUE..-F-HL, RUE..-F-SL

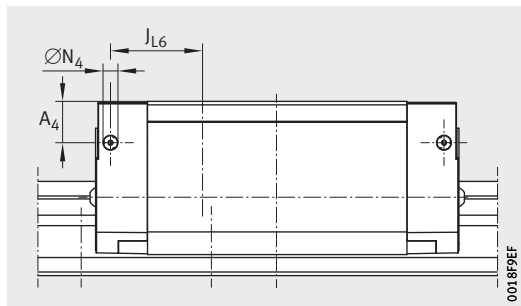


RUE..-F-H, RUE..-F-HL, RUE..-F-SL
View X rotated 90°

| | | | | | | Fixing screws ²⁾ | | | | |
|----------------|----------------|----------------|----------------|------|------------------------|-----------------------------|----------------------|----------------|----------------------|----------------|
| H ₁ | H ₅ | H ₄ | T ₅ | h | h ₁ ±0,5 | G ₂ | | K ₁ | | d ₁ |
| | | | | | | DIN EN ISO 4762-12.9 | | | | |
| | | | | | | | M _A Nm | | M _A Nm | |
| 6,5 | 10,8 | 41,9 | 10 | 30 | 17,5 | M8 | 41 | M8 | 41 | 9 |
| 8,5 | 13,7 | 52,4 | 12,5 | 38 | 19,5 | M10 | 83 | M12 | 140 | 13,4 |
| 11 | 16 | 61,4 | 15 | 45 | 22,5 | M12 | 140 | M14 | 220 | 15,4 |
| 11,5 | 15 | 71,2 | 20 | 53,8 | 28,8 | M14 | 220 | M16 | 340 | 18 |
| 11,5 | 15 | 61,2 | 12,5 | 53,8 | 28,8 | M16 | 340 | M16 | 340 | 18 |

Linear recirculating roller bearing and guideway assemblies

Full complement
H, HL and SL carriages



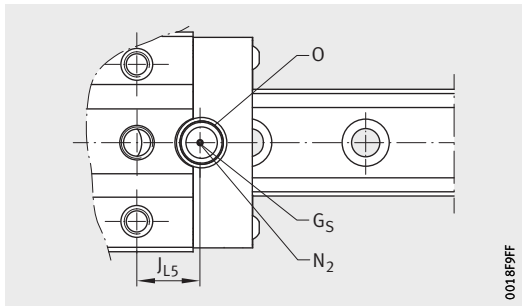
Lubrication connector on lateral face

Dimension table (continued) - Dimensions in mm

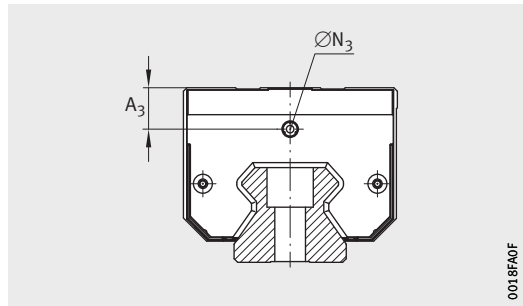
| Designation | Carriage | | Guideway | | Lubrication connectors | | | | |
|-------------------|-------------|-------------------|-------------|---------------------|------------------------|------------------------------|----------------|------------------------------|-----------------|
| | Designation | Mass m ≈ kg | Designation | Mass m ≈ kg/m | A ₃ | N ₃ ¹⁾ | A ₄ | N ₄ ¹⁾ | J _{L6} |
| RUE35-F-H | RWU35-F-H | 1,67 | TSX35-E | 5,9 | 13,6 | M6 | 12,6 | M6 | 30,4 |
| RUE35-F-HL | RWU35-F-HL | 2,14 | | | | | | | 32,4 |
| RUE45-F-H | RWU45-F-H | 3,05 | TSX45-E | 9,4 | 16,6 | M6 | 16,6 | M6 | 37 |
| RUE45-F-HL | RWU45-F-HL | 3,95 | | | | | | | 43,2 |
| RUE55-F-H | RWU55-F-H | 4,94 | TSX55-E | 13,1 | 18,1 | M6 | 18,1 | M6 | 42,9 |
| RUE55-F-HL | RWU55-F-HL | 6,34 | | | | | | | 51,9 |
| RUE65-F-H | RWU65-F-H | 8,9 | TSX65-E | 19,5 | 29,6 | M6 | 29,6 | M6 | 54,8 |
| RUE65-F-HL | RWU65-F-HL | 12,89 | | | | | | | 63,1 |
| RUE65-F-SL | RWU65-F-SL | 10,8 | TSX65-E | 19,5 | 19,6 | M6 | 19,6 | M6 | 63,1 |

Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

- 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) Lubrication connector S25 (standard) or an alternatively selected lubrication connector is included loose in the delivery.

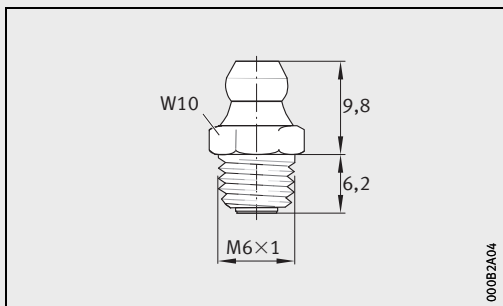


Lubrication connector on top face

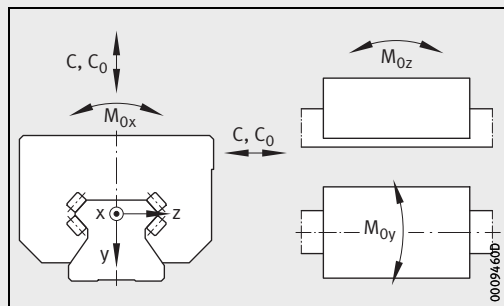


Dimensioning of lubrication connector on end face

| N ₂ ²⁾ | JL ₅ ³⁾ | G ₅ DIN EN ISO 4027 | O DIN 3771 | Load carrying capacity | | | | |
|------------------------------|-------------------------------|-----------------------------------|---------------|----------------------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| | | | | Basic load ratings ⁴⁾ | | Moment ratings | | |
| | | | | dyn. C N | stat. C ₀ N | M _{0x} Nm | M _{0y} Nm | M _{0z} Nm |
| 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 |



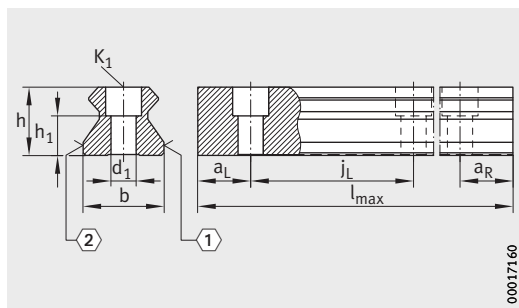
Lubrication connector S25 to DIN 71412-A-M6⁵⁾



Load directions

Linear recirculating roller bearing and guideway assemblies

Guideways and closing methods



TSX...E

Dimension table · Dimensions in mm

| Designation ¹⁾ | For linear guidance system | Mass m ≈ kg/m | Closing plug ²⁾ | | | | Steel two-piece | Covering strip ³⁾ Inserted |
|---------------------------|----------------------------|-------------------------|------------------------------------|--------------------|-----------|----------------|--------------------|--|
| | | | Plastic ⁵⁾ two-piece | Brass one-piece | two-piece | conical | | |
| TSX35-E | RUE35-F | 5,9 | KA15-TN/B | KA15-M | KA15-M/A | KA15-M-konisch | – | ADE17 |
| TSX35-E-KA+ST | | | – | – | – | – | KA16-ST/A | |
| TSX35-E-U | | | – | – | – | – | – | |
| TSX35-E-ADE | | | – | – | – | – | – | |
| TSX45-E | RUE45-F | 9,4 | KA20-TN/B | KA20-M | KA20-M/A | KA20-M-konisch | – | ADE22 |
| TSX45-E-KA+ST | | | – | – | – | – | KA21-ST/A | |
| TSX45-E-U | | | – | – | – | – | – | |
| TSX45-E-ADE | | | – | – | – | – | – | |

① Locating face. ② Marking.

Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

1) Sizes 25 and 100 are still available, see catalogue PF 1.

2) Closing plugs, see catalogue PF 1.

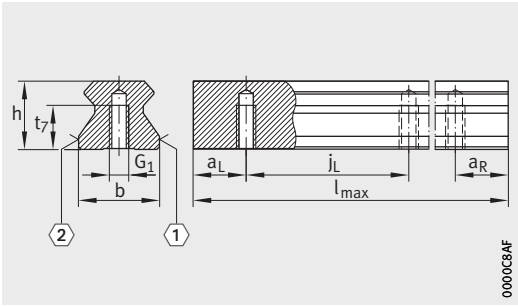
3) Covering strips, see Product Data Sheet PDB ADE ► <https://www.schaeffler.de/std/1F88>.

4) 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 catalogue PF 1.

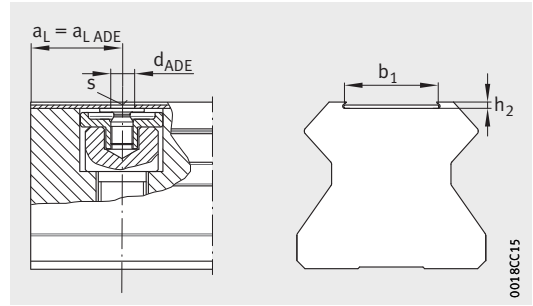
5) Standard.

6) Maximum length of single-piece guideways.
Permissible number of guideway segments, see catalogue PF 1.

7) a_L and a_R are dependent on the guideway length.

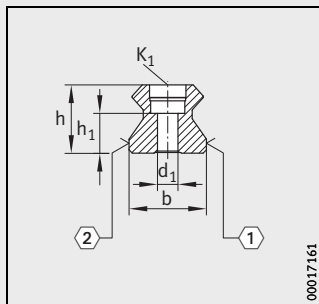


TSX..-E-U

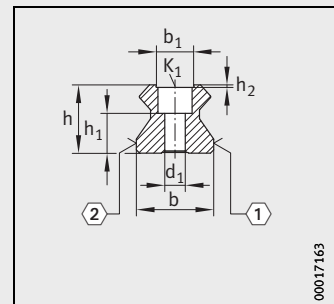


MSATZ.ADE and covering strip

| MSATZ.ADE | Dimensions | | Dimensions | | | | | | | | | Fixing screws ⁴⁾ | | | | | |
|-------------|------------------|---|--------------------------------|----|----|---|------|----------------|----------------|----------------|----------------|-----------------------------|----------------|----------------|----------------|------|----------------|
| | d _{ADE} | S | l _{max} ⁶⁾ | h | b | a _L , a _R ⁷⁾ | | j _L | h ₁ | t ₇ | b ₁ | h ₂ | G ₁ | | K ₁ | | d ₁ |
| | | | | | | DIN EN ISO 4762-12.9 | | | | | | | M _A | M _A | | | |
| | | | | | | min. | max. | | | | | | | | Nm | Nm | |
| - | - | - | 5 900 | 30 | 34 | 20 | 31 | 40 | 17,5 | - | - | - | - | M8 | 41 | 9 | |
| MSATZ.ADE17 | 4,3 | 2 | | | | | | | | 15 | 17,5 | 1,1 | M8 | 41 | - | - | M8 |
| - | - | - | 5 888 | 38 | 45 | 20 | 41 | 52,5 | 19,5 | - | - | - | - | M12 | 140 | 13,4 | |
| MSATZ.ADE22 | 4,3 | 2 | | | | | | | | 20 | 22,6 | 1,1 | M12 | 140 | - | - | M12 |



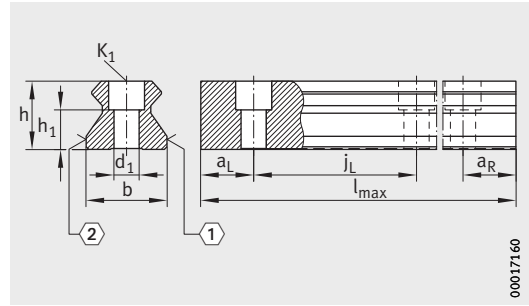
TSX..-E-KA+ST



TSX..-E-ADE

Linear recirculating roller bearing and guideway assemblies

Guideways and closing methods



TSX...E

Dimension table (continued) · Dimensions in mm

| Designation ¹⁾ | For linear guidance system | Mass m ≈ kg/m | Closing plug ²⁾ | | | | Covering strip ³⁾ | | |
|---------------------------|----------------------------|-------------------------|----------------------------|-----------|-----------|----------------|------------------------------|----------|---|
| | | | Plastic ⁵⁾ | | Brass | | Steel two-piece | Inserted | |
| | | | two-piece | one-piece | two-piece | conical | | | |
| TSX55-E | RUE55-F | 13,1 | KA24-TN/B | KA24-M | KA24-M/A | KA24-M-konisch | – | ADE26 | |
| TSX55-E-KA+ST | | | – | – | – | – | KA25-ST/A | | – |
| TSX55-E-U | | | – | – | – | – | – | | – |
| TSX55-E-ADE | | | – | – | – | – | – | | – |
| TSX65-E | RUE65-F | 19,5 | – | KA26-M | – | KA26-M-konisch | – | ADE28 | |
| TSX65-E-KA+ST | | | – | – | – | – | KA27-ST/A | | – |
| TSX65-E-U | | | – | – | – | – | – | | – |
| TSX65-E-ADE | | | – | – | – | – | – | | – |

① Locating face. ② Marking.

Catalogue PF 1 ► <https://www.schaeffler.de/std/1F7E>.

1) Sizes 25 and 100 are still available, see catalogue PF 1.

2) Closing plugs, see catalogue PF 1.

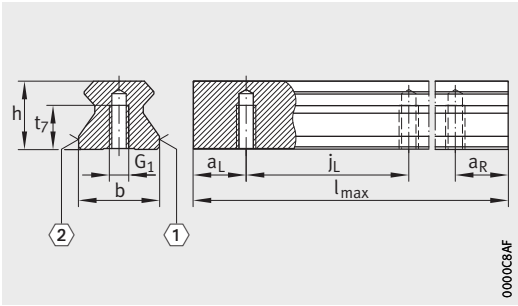
3) Covering strips, see Product Data Sheet PDB ADE ► <https://www.schaeffler.de/std/1F88>.

4) 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 catalogue PF 1.

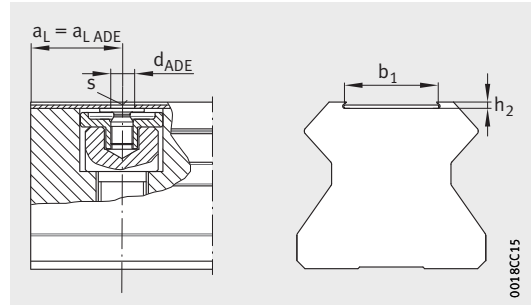
5) Standard.

6) Maximum length of single-piece guideways.
Permissible number of guideway segments, see catalogue PF 1.

7) a_L and a_R are dependent on the guideway length.

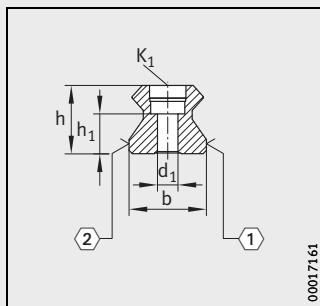


TSX..-E-U

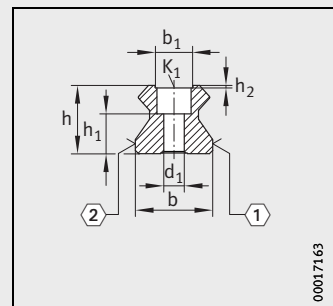


MSATZ.ADE and covering strip

| MSATZ.ADE | Dimensions | | Dimensions | | | | | | | | | Fixing screws ⁴⁾ | | | | | |
|-------------|------------------|---|--------------------------------|------|----|---|----|----------------|----------------|----------------|----------------|-----------------------------|----------------|----------------|----------------|------|----------------|
| | d _{ADE} | S | l _{max} ⁶⁾ | h | b | a _L , a _R ⁷⁾ | | j _L | h ₁ | t ₇ | b ₁ | h ₂ | G ₁ | | K ₁ | | d ₁ |
| | | | | | | DIN EN ISO 4762-12.9 | | | | | | | M _A | M _A | | | |
| | | | | | | | | | | | | | | | Nm | Nm | |
| - | - | - | 5 880 | 45 | 53 | 20 | 47 | 60 | 22,5 | - | - | - | - | M14 | 220 | 15,4 | |
| MSATZ.ADE26 | 4,3 | 2 | | | | | | | | - | 22 | - | - | M14 | 220 | - | - |
| - | - | - | 5 865 | 53,8 | 63 | 20 | 61 | 75 | 28,8 | - | - | - | - | M16 | 340 | 18 | |
| MSATZ.ADE28 | 4,3 | 2 | | | | | | | | - | 25 | - | - | M16 | 340 | - | - |



TSX..-E-KA+ST



TSX..-E-ADE

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TPI 272 / en-GB / DE / 2021-06