

3 Overview of product



Linear guideway type R



Linear guideway type RD



Linear guideway type RN



Linear guideway type RNG



Linear guideway type N/O



Linear guideway type M/V



Recirculating unit type SK



Recirculating unit type SKD



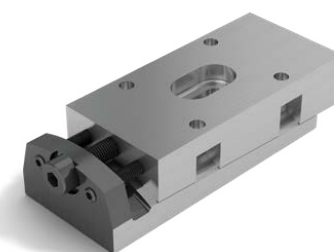
Recirculating unit type SKC



Recirculating unit type SR



Recirculating unit type NRT



Preload wedge NRV

3 Overview of product

3.1 An overview of linear guideways

The SCHNEEBERGER range of linear guideways offers you perfect solutions for your specific applications.



For features and dimension table, see chapter

R	RD	RN	RNG	N/O	M/V
5.1	5.1	5.2	5.3	5.4	5.5

Assessment of the advantages

Parameter: displacement force & high level of smoothness

- balls	++++	++++				
- rollers	+++	+++	+++	+++		
- needles					++	++

Parameter: High loading capacity

- balls	+	+				
- rollers	++	++	+++	+++		
- needles					++++	++++

Legend:

++++ best choice
+++
++
+ good choice

Performance parameters

Maximum acceleration in m/s ²	50	50	50	50	50	50
Maximum acceleration with cage control in m/s ²	Not available	Not available	300	300	200	200
Maximum speed in m/s	1	1	1	1	1	1
Maximum speed with cage control in m/s	Not available	Not available	1	1	1	1
Quality classes	see chapter 9.1	see chapter 9.1	see chapter 9.1	see chapter 9.1	see chapter 9.1	see chapter 9.1
Operating temperature in degrees Celsius	-40° C – +80° C	-40° C – +80° C	-40° C – +80° C	-40° C – +80° C	-40° C – +80° C	-40° C – +80° C

Material (standard)


Rail made of tool steel, hardness in HRC	58 - 62	58 - 62	58 - 62	58 - 62	58 - 62	58 - 62
Rolling element made of tool steel, hardness in HRC	58 - 64	58 - 64	58 - 64	58 - 64	58 - 64	58 - 64

Material (corrosion-resistant)

Rail made of tool steel, hardness in HRC	min. 54	min. 54	min. 54	min. 54	min. 54	min. 54
Rolling element made of tool steel, hardness in HRC	min. 56	min. 56	min. 56	min. 56	min. 56	min. 56

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The following special versions do not apply in respect of every rail cross-section or every rail length. For details and technical information, see chapter 7.

Special versions	Order code						
		R	RD	RN	RNG	N/O	M/V
Precision in special quality ⁽¹⁾	SQ	✓	✓	✓	✓	✓	✓
Precision in super special quality ⁽¹⁾	SSQ	✓	✓	✓	✓	✓	✓
Linear guideways made of corrosion-resistant steel ⁽²⁾	RF	✓	✓	✓	✓	✓	✓
Run-ins rounded	EG	✓	✓	✓	✓	✓	✓
Prepared for roller cage type EE	EE	✓	✓	---	---	---	---
Multi-part linear guideways	ZG	✓	✓	✓	✓	✓	✓
Pair of height-matched guideways	HA	✓	✓	✓	✓	✓	✓
DURALLOY® coating ⁽³⁾	DU	✓	✓	✓	✓	✓	✓
DryRunner coating ⁽⁴⁾	DR	---	---	✓	✓	---	---
Cage control FORMULA-S	KS	---	---	✓	✓	---	---
Cage control	KZST	---	---	---	---	✓	✓
Various versions of fixing holes	V, G, D	✓	✓	✓	✓	✓	✓

(1) There are limitations relating to:

- corrosion-resistant steel
- coatings
- maximum rail length

(2) There are limitations relating to:

- Maximum rail length (in normal quality as well as in options SQ and SSQ)
- Hardness of the steel. This is reduced to a min. 54 HRC, which affects the service life of the linear guideway

(3) – The special versions ZG and SSQ are not possible

- Special quality (SQ) only on request

(4) – DryRunner® supports operating without a lubricant. Due to increased cage creep we recommend the additional use of the option «cage control FORMULA-S»

- Options ZG and SSQ cannot be supplied. Option SQ on request
- There are limitations concerning maximum rail length
- This option is not available for the sizes RN/RNG 9 and RN/RNG 12

3 Overview of product

3.2 An overview of recirculating units

The SCHNEEBERGER range of recirculating units offers you perfect solutions for your specific applications



For features and dimension table, see chapter 6

Assessment of the advantages

Parameter: Low displacement force & high level of smoothness

- balls	+++	++++	++++		
- rollers				++	++

Parameter: High loading capacity

- balls	++	++	+		
- rollers				+++	++++

Legend:

++++ best choice

+++

++

+ good choice

Performance parameters

Max. acceleration in m/s ²	50	50	50	50	50
Max. speed in m/s	2	2	2	2	1
Operating temperature in degrees Celsius	-40° C – +80° C	-40° C – +80° C	-150° C to +200° C	-40° C – +80° C	-40° C – +80° C

Material (standard)

Supporting structure of tool steel, hardness in HRC	58 - 62	58 - 62	58 - 62 coated	58 - 62	58 - 62
Rolling element made of tool steel, hardness in HRC	58 - 64	58 - 64 (Damping elements made of plastic)	---	58 - 64	58 - 64
Rolling element made of ceramic (Balls made of Teflon® are situated between the ceramic balls)	---	---	✓	---	---
Redirection unit	Size 1, 2, 9 and 12 made of anodized aluminium Sizes 3 and 6 depending on the length made of plastic or aluminium	Depending on the length made of plastic or aluminium	tool steel, coated	Depending on the length made of plastic or aluminium	Plastic

Special versions

Detailed technical information on the options listed below can be found in chapter 8

	Order code				
Matched (height-matched)	GP	✓	✓	✓	✓
Connection for centralised lubrication	ZS	---	---	---	✓

3 Overview of product

3.3 Earlier generations of the product

Examples of earlier generations of the product, which we are also pleased to manufacture for you today:



Linear guideway type W/Z



Linear guideway type L/M or J/K



Linear guideway type A



Linear guideway type B



Linear guideway type C



Linear guideway type D



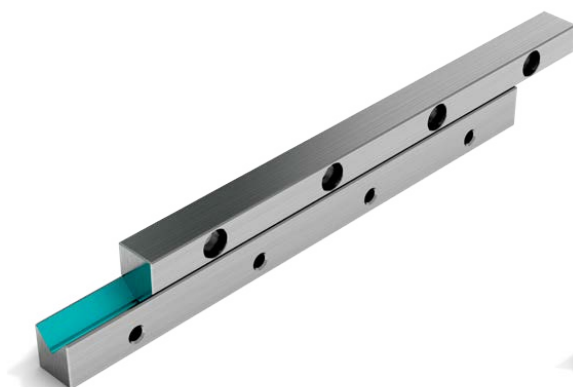
Linear guideway type E

3 Overview of product

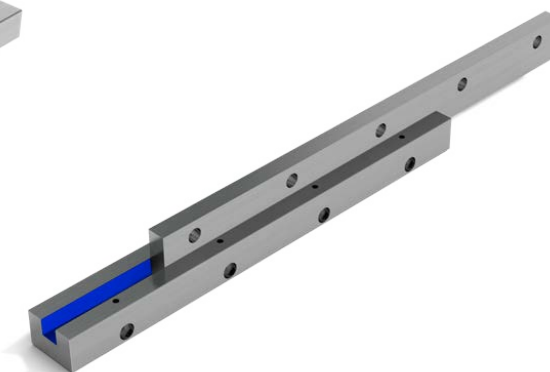
3.4 Slideways

In some applications slideways/slide bearings are more suitable than roller-contact bearings. For such applications SCHNEEBERGER produces steel strips, which are produced with a slideway lining selected by the customer (e.g. Turcite B, Glycodur or Ampco) and then re-ground.

The slideways can be supplied in standardised dimensions for the roller-contact bearing or on a customer-specific basis too.



Slideways



Flat strips

3.5 Application-specific solutions



Our linear guideways can be universally deployed, but can also be configured on a customer-specific basis ex works. Amongst other things, SCHNEEBERGER offers the following services:

- modified standard
- customer-specific design
- special greasing (cleanroom, vacuum, extraordinary temperature ranges, etc.)
- special packaging