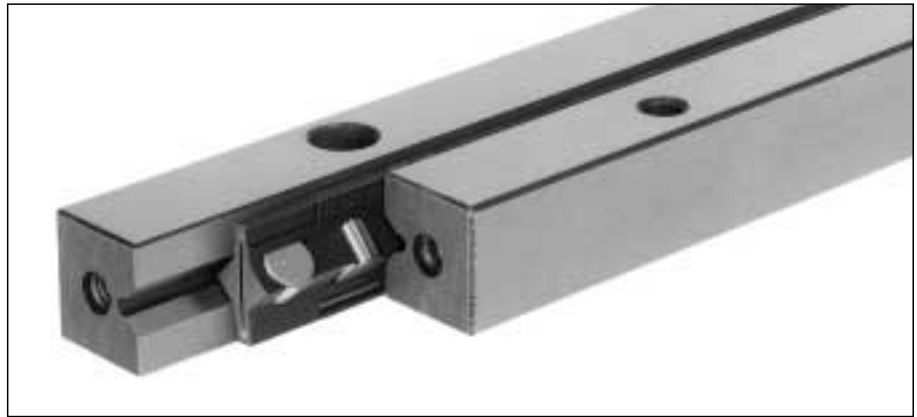


### 5.1 Linear Bearings Type R



Type R linear bearings can be equipped with ball or roller cages and are suitable for applications involving medium to high demands. Further combinations are possible with type RD linear bearings and type SK, SKD, SR and SKC recirculating units.

### 5.2 Material

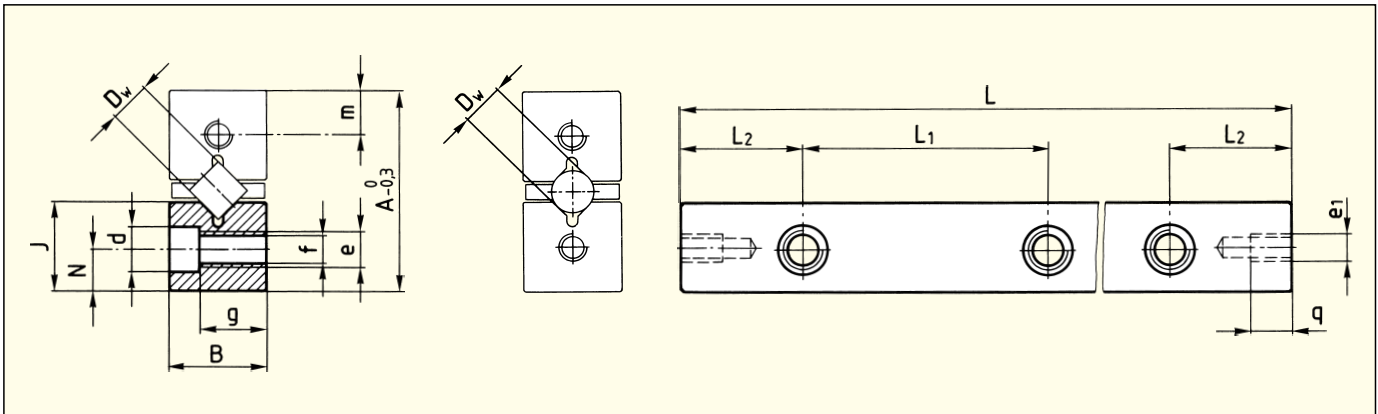
SCHNEEBERGER **linear bearings** are normally manufactured from tool steel No. 1.2510 or 1.2842. The hardness is between 58 and 62 HRC, or min. 54 HRC for certain corrosion resistant models (material No. 1.4125).

The whole SCHNEEBERGER **rolling element range** is made generally from bearing steel No. 1.3505. The hardness is between 58 and 64 HRC, or min. 56 HRC for corrosion-resistant models.

### 5.3 Special version

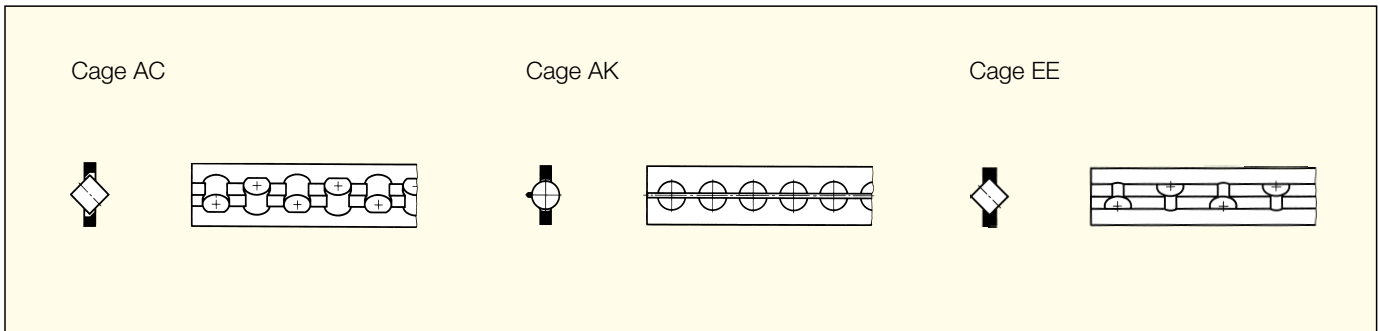
Also available in a special corrosion resistant material. The comprehensive standardized program is complemented as the situation requires with special models so that every desired, technically optimal design can be realized. We can supply complete solutions specific to the application conditions.

### 5.4 Dimension Table Type R



Type	Size	A	B	Dw	J	L <sub>1</sub>	L <sub>2</sub>	N	d	e	e <sub>1</sub>	f	g	m	q
R	1	8.5	4	1.5	3.9	10	5	1.8	3	M2	M1.7	1.65	2.6	1.9	2.5
R	2	12	6	2	5.5	15	7.5	2.5	4.4	M3	M2.5	2.55	4	2.7	3.5
R	3	18	8	3	8.3	25	12.5	3.5	6	M4	M3	3.3	4.8	4.1	7
R	6	31	15	6	13.9	50	25	6	9.5	M6	M5	5.2	9.8	6.9	9
R	9	44	22	9	19.7	100	50	9	10.5	M8	M6	6.8	15.8	9.8	9
R	12	58	28	12	25.9	100	50	12	13.5	M10	M8	8.5	19.8	12.9	12

Type	Size	Length L														Max L	
R	1	020	030	040	050	060	070	080	100	120						200	
R	2	030	045	060	075	090	105	120	150	180						300	
R	3	050	075	100	125	150	175	200	225	250	275	300	350	400	500	600	700
R	6	100	150	200	250	300	350	400	450	500	600	700	800	1000			1500
R	9	200	300	400	500	600	700	800	900	1000	1100	1200	1400			1500	
R	12	200	300	400	500	600	700	800	900	1000	1100	1200				1500	
R 15, R 18, R 24 and other lengths on request																1500	



Type	Size	Accessories (see also chapter 7)						Spec. Attaching screws GD	Options							
		Cages AC	AK	Endpieces GA GB		GC	GC-A		SQ	SSQ	RF	EG	EE	ZG	HA	DU
R	1	•	•		•				•	•	•	•		•	•	•
R	2	•	•		•				•	•	•	•		•	•	•
R	3	•	•	•	•	•	•	•	(•)	(•)	(•)	•		•	•	•
R	6	•	•	•	•	•	•	•	(•)	(•)	(•)	•	•	•	•	•
R	9	•	•	•	•	•	•	•	(•)	(•)	(•)	•	•	•	•	•
R	12	•	•	•	•	•	•	•	(•)	(•)	(•)	•		•	•	•

(•) Maximum length 600 mm

Corrosion resistant, brass or aluminium cages on request

**Ordering information Linear Bearings**

Standard

Options

Type	Size	-	Length	-	Additional ordering information
R	9	-	800	-	SQ Special quality, high requirements <sup>1)</sup> SSQ Super special quality, most stringent requirements <sup>1)</sup> RF Corrosion resistant <sup>2)</sup> EG Inlets rounded <sup>3)</sup> EE For Cages EE <sup>4)</sup> ZG Linear Bearings ground together <sup>1)</sup> HA Of Height Matched Linear Bearings in pairs <sup>1)</sup> DU Chrome coating type Duralloy <sup>®2)</sup>

Order information

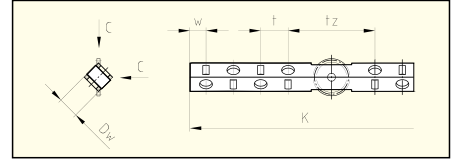
- 4 Linear Bearings Type R 9-800-SQ
- 2 Roller cages AC 9 x 33 rollers
- 8 Endpieces GB 9

- <sup>1)</sup> see chapter 15.1
- <sup>2)</sup> see chapter 15.2
- <sup>3)</sup> see chapter 16.7
- <sup>4)</sup> see chapter 7.1

## 7.1 Cages

**Roller Cages Type KBS, Sizes 3–6 for FORMULA-S**

- Suitable for all types of fitting
- Captive rollers

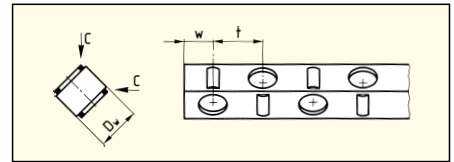


Type	Size	D <sub>w</sub>	t	t <sub>z</sub>	w	C/Roller in N
<b>KBS</b>	<b>3</b>	3	5	18	3.5	410
<b>KBS</b>	<b>4</b>	4.5	6.5	23	4	850
<b>KBS</b>	<b>6</b>	6.5	8.5	27	5	1800

Ordering example: 2 Roller Cages KBS 4 × 15 rollers for RN 4

**Roller cages Type KBN, for RN and RNG, Sizes 3–12**

- Suitable for all types of fitting
- Captive rollers
- DELRIN 500 CL

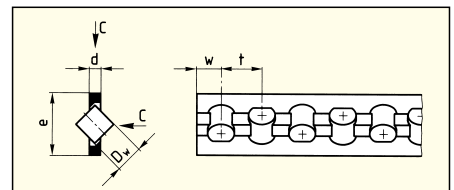


Type	Size	D <sub>w</sub>	t	w	C/Roller in N
<b>KBN</b>	<b>3</b>	3	5	3.5	410
<b>KBN</b>	<b>4</b>	4.5	6.5	4	850
<b>KBN</b>	<b>6</b>	6.5	8.5	5	1800
<b>KBN</b>	<b>9</b>	9	12	7.5	3900
<b>KBN</b>	<b>12</b>	12	15	9	6500

Ordering example: 2 Roller Cages KBN 4 × 15 rollers

**Roller Cages Type AC, Sizes 1–12 for R and RD**

- Suitable for all types of fitting
- Captive rollers
- Material: Sizes 1 and 2 Delrin 500 CL  
from size 3 PA 12 GF 30%  
Steel wire

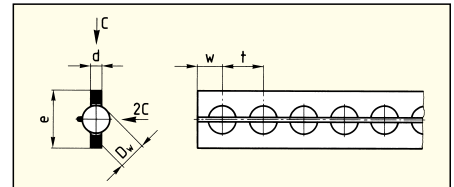


Type	Size	D <sub>w</sub>	d	e	t	w	C/ Roller in N	Number of rollers	Max. Length
<b>AC</b>	<b>1</b>	1.5	0.45	3.5	3	1.5	50		70
<b>AC</b>	<b>2</b>	2	0.75	5	4	2	85		85
<b>AC</b>	<b>3</b>	3	1	7	5	2.5	130	240	1200
<b>AC</b>	<b>6</b>	6	2.5	14	9	6	530	166	1500
<b>AC</b>	<b>9</b>	9	3.5	20	14	9	1300	107	1500
<b>AC</b>	<b>12</b>	12	4.5	25	18	11	2500	83	1500

Ordering example: 2 Roller cages AC 3 × 20 rollers

**Ball cages Type AK, Sizes 1–12 for R and RD**

- Suitable for all types of fitting
- Captive balls
- Material: Sizes 1 to 3 POM  
from size 6 PA 12 GF 30%  
Steel wire composite



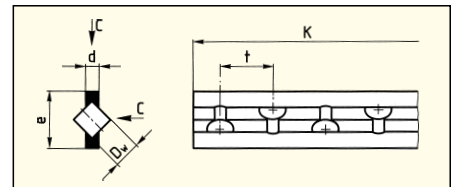
Type	Size	D <sub>w</sub>	d	e	t	w	C/ Ball in N	Number of balls	Max. Length
AK	1	1.5	0.45	3.5	2.2	1.5	9	23	80
AK	2	2	0.75	5	4	2	15	23	100
AK	3	3	1	7	4.2	2.5	25	42	180
AK	6	6	2.5	14	9	6	65	166	1500
AK	9	9	3.5	20	14	9	150	107	1500
AK	12	12	4.5	25	18	11	260	83	1500

Ordering example: 2 Ball cages AK 1 × 5 balls

**Roller Cages Type EE, Sizes 6 and 9 for R 6, R 9, RD 6 and RD 9 (Special Accessories)**

Application see chapter 17.5

- Use only with specially designated Linear bearings (suffix EE) and Type GB or GC endpieces
- For horizontal and vertical fitting
- Captive rollers
- Acts as a dirt wiper, thus running friction is somewhat higher
- When ordering, it is essential that the overall cage length K is quoted
- Material PE plastic
- Not suitable for protruding cages and gravity loaded bearings



Type	Size	D <sub>w</sub>	d	e	t	C/Roller in N
EE	6	6	3.2	13.5	12	530
EE	9	9	4.6	19	18	1300

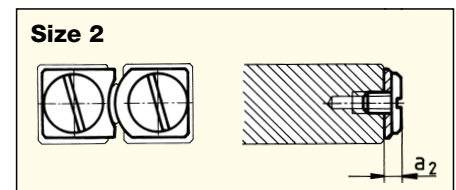
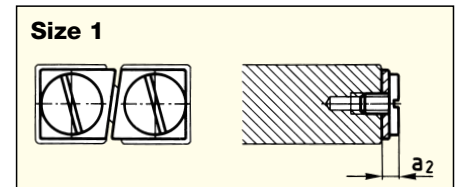
Ordering example: 2 Roller cages EE 6 × 150 mm length

Other materials for cages/rolling elements on request

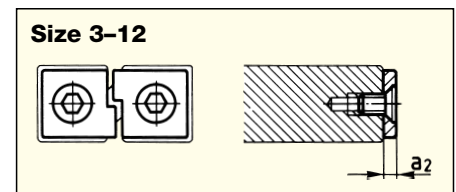
## 7.2 Endpieces

### Endpieces Type GB

- For horizontal or vertical fitting
- For R 1 and R 2

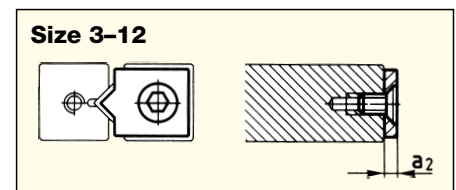


- For horizontal or vertical fitting
- For Type EE roller cages
- For R 3 to R 12



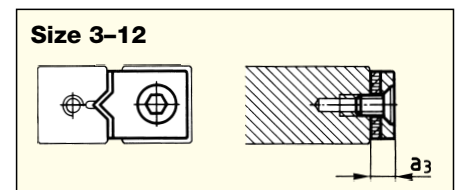
### Endpieces Type GC

- For protruding cages
- For R 3 to R 12



### Endpieces Type GC-A with Wipers

- For horizontal or vertical fitting
- Felt Wiper
- For R 3 to R 12



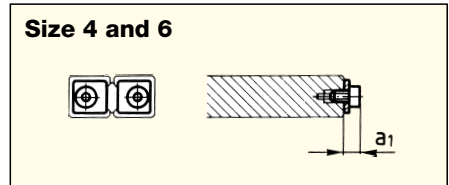
Size	1	2	3	6	9	12
$a_1$	-	-	2	3	3	3
$a_2$	1.7	2	2	3	4	5
$a_3$	-	-	5	6	7	8

Ordering example: 8 Endscrews GA 6 or 4 Endpieces GC-A 9

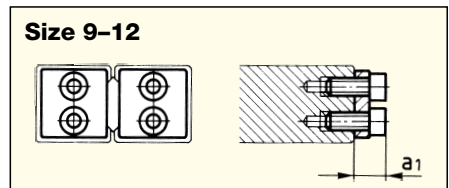
### Endpieces delivered with attaching screws

**Endpieces Type GBN**

- For horizontal and vertical fitting
- For RNG 4 and 6

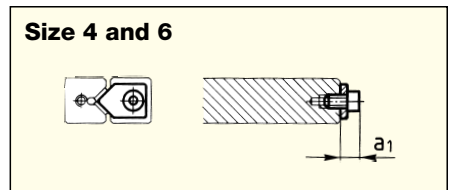


- For RNG 9 to 12

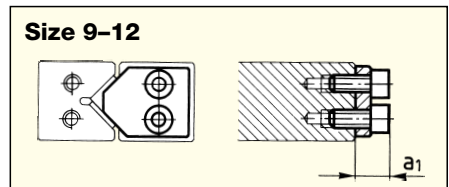


**Endpieces Type GCN**

- For protruding cages
- For RNG 4 and 6

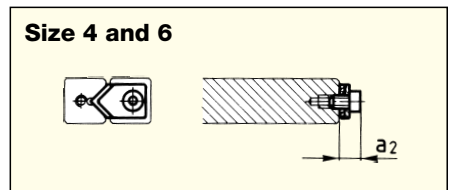


- For RNG 9 to 12

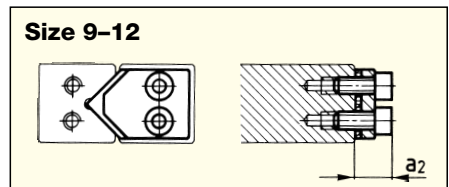


**Endpieces Type GCN-A with Wipers**

- For horizontal and vertical fitting
- Plastic wiper
- For RNG 4 and 6



- For RNG 9 to 12



Size	4	6	9	12
a <sub>1</sub>	4	4	4	8.5
a <sub>2</sub>	5.5	5.5	5.5	10

Ordering example: 40 Endpieces GBN 9

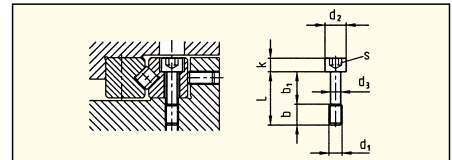
**Endpieces delivered with attaching screws**

### 7.3 Attaching Screws

#### Special Attaching Screws for R and RN

##### Type GD, Sizes 3-12

- To compensate for difference in hole pitch

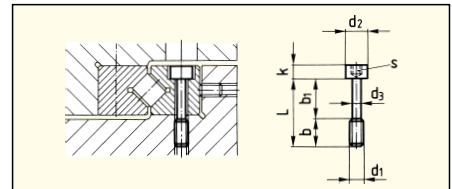


Type	Size	L	b	b <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	k	s
<b>GD</b>	<b>3</b>	12	5	7	M3	5	2.3	3	2.5
<b>GD</b>	<b>4</b>	16	7	9	M4	6.5	3	4	3
<b>GD</b>	<b>6</b>	20	8	12	M5	8	3.9	5	4
<b>GD</b>	<b>9</b>	30	12	18	M6	8.5	4.6	6	5
<b>GD</b>	<b>12</b>	40	17	23	M8	11.3	6.25	8	6

#### Special Attaching Screws for RNG

##### Type GDN, Sizes 4-12

- To compensate for difference in hole pitch



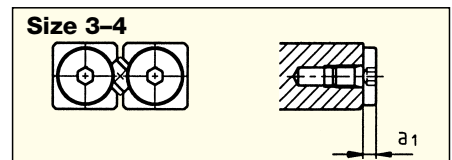
Type	Size	L	b	b <sub>1</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	k	s
<b>GDN</b>	<b>4</b>	12	5	7	M2.5	4.5	1.85	2.5	2
<b>GDN</b>	<b>6</b>	16	5	11	M3	5.5	2.3	3	2.5
<b>GDN</b>	<b>9</b>	25	11	14	M4	7	3	4	3
<b>GDN</b>	<b>12</b>	30	12	18	M6	10	4.6	6	5

Ordering example: 50 Special Attaching Screws GDN 9

### 7.4 Endscrews

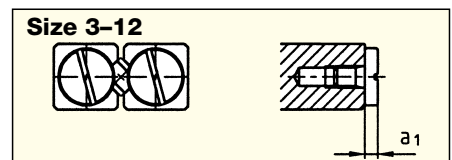
#### Endscrews Type GAN

- a<sub>1</sub> = 2
- For RN 3-RN 4



#### Endscrews Type GA

- For horizontal fitting
- For R 3-R 12
- From RN 6-RN 12



Order numbers in bold face are standard articles