



IDLERS AND
CONVEYOR BELT ROLLERS



TROUGHING SETS



GUIDE ROLLERS

We have been specialists for idlers and roller bearings for over 75 years.

Our medium-sized company is now into its third generation of facing up to the challenges of the market. With creativity and flexibility, we develop innovative and high-quality products for the widest range of industry sectors. Reliability and trust are what define our long-standing business relationships.



PLANT BOTTROP
IDLERS AND
CONVEYOR BELT ROLLERS

With a great deal of motivation and enthusiasm, we design individual solutions for our customers and thus help to increase efficiency. In order to achieve our goals, we rely on modern technology and economic thinking.

Through close partnerships with universities and technical institutes, we constantly move with the times. The combination of research, profitability and efficient process configuration makes us one of the most high-performance and future-oriented partners in the industry. Our employees form the basis of our success. Therefore we are a strong supporter of encouraging their potential and expanding their responsibility.

In this way, we secure and maintain jobs and promote Germany as a location of manufacture.

Our products will bear the “Made in Germany” seal in the future too.



PLANT VELBERT
ROLLER BEARINGS AND
TRACK ROLLER

**WÄZLAGER-VERTRIEBS-
GESELLSCHAFT**
STANDARD BEARINGS
AND DRIVE ELEMENTS

Idlers and Components for Bulk Materials Handling.
Custom-designed solutions for individual specifications.

 **Compact**

Proven
Standard Quality

 **Compact** plus

High Quality for
Special Demands

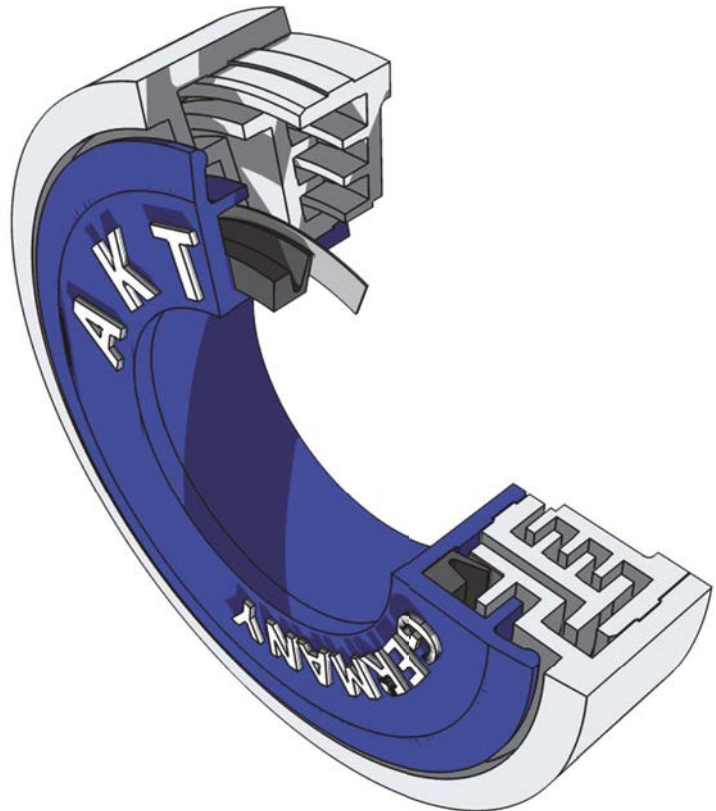
 **Premium**

Top Quality for
Highest demands and
Longest Service Life

 **Compact**

 **Compact^{plus}**

 **Premium**



QLR Hybrid Sealing

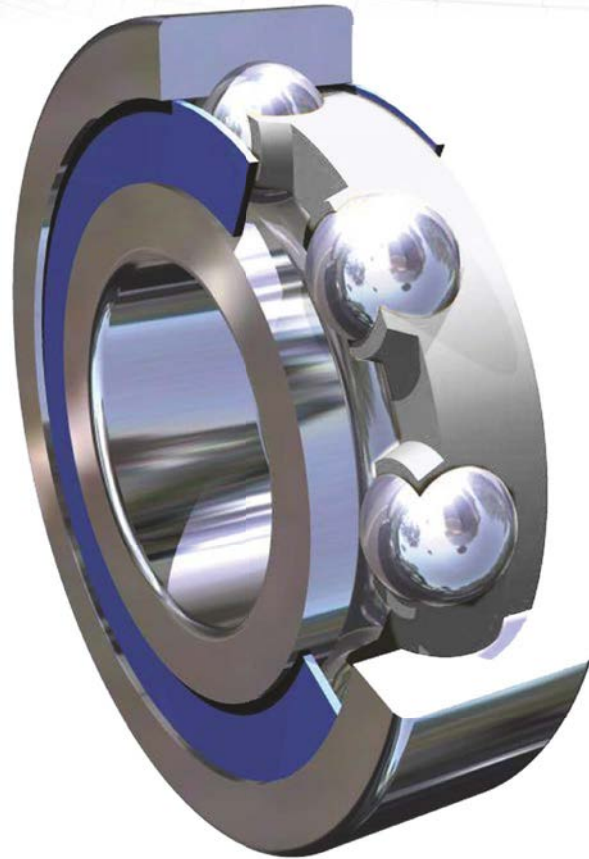
- Unique solutions for bulk materials
- KÜPPER Patent
- Multi-chamber sealing system
- Greased for life
- Non-frictional matched components
- High-quality materials for extreme demands
- Includes a rot shaft lip seal
- Especially effective against the intrusion of water and dust
- Long-term protection of the roller bearings
- For an idler service life of up to 10 years



 **Compact**

 **Compact** plus

 **Premium**

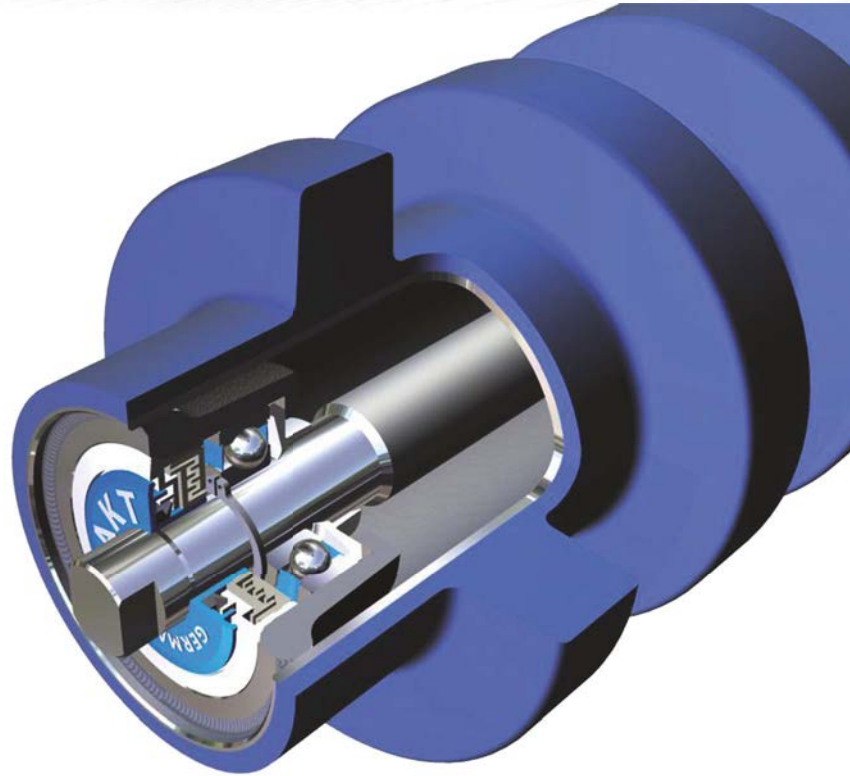


AKT-Roller Bearings

- Specially developed for bulk materials handling
- Increased contact area in the housing and at the locking ring through edge trimming
- Maintenance-free and greased for life with high-performance grease and increased grease filling degree
- Excellent failsafe running properties and sound-optimized through plastic caging
- Suitable for extreme loads because of increased radial internal clearance within tight tolerances
- Reduced running resistance through optimized bearing geometry
- Protected by non-contacting seals on both sides, reduced sealing gap
- For an idler service life of up to 10 years

Compact plus

Premium






PU Idler Coating

- Specially developed for bulk materials handling
- Reduced running resistance through an optimized geometry within the belt contact zone
- Optimized geometry for a tight connection to the tube within the contact area
- Material: Special KÜPPER blend, abrasion $\leq 20 \text{ mm}^3$ (acc. to DIN 53516)
- Service life extended by a factor of 5 under identical operating conditions compared to standard rubber products
- Running resistance reduced by a factor of 2 compared to rubber products



01

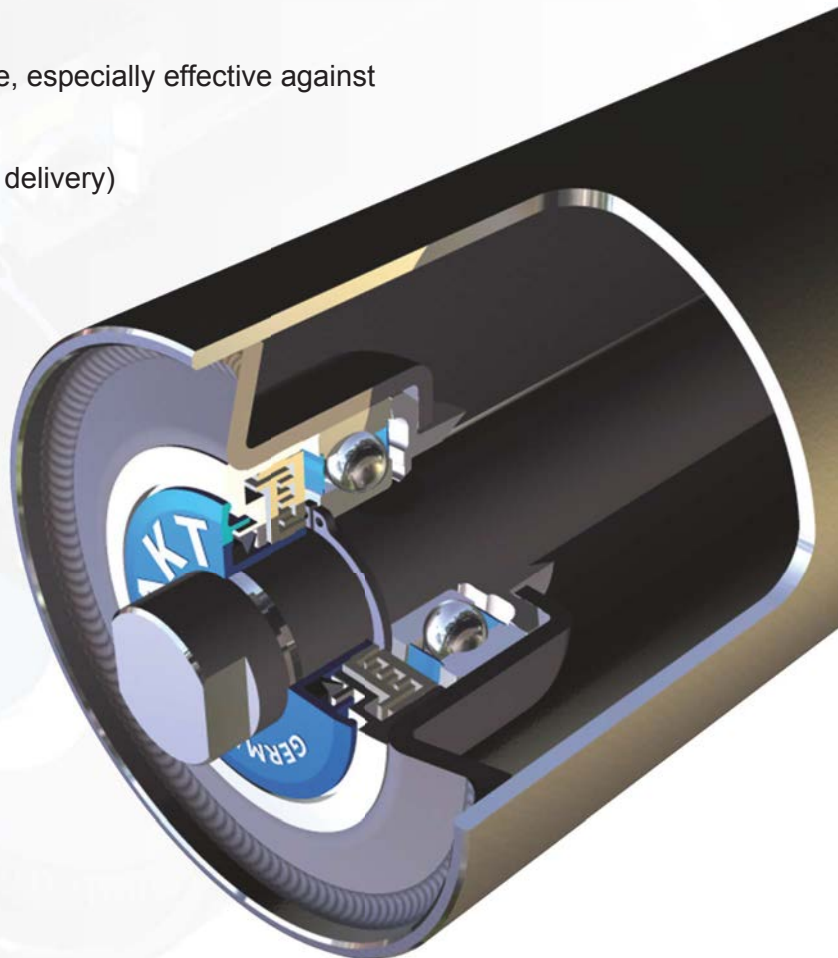
CARRYING IDLERS

COMPARISON	 Compact	 Compact ^{plus}	 Premium	
Idler tube				
Tubes	Welded cold-sized steel tubes acc. to EN 10305-3	Welded cold-sized steel tubes acc. to EN 10305-3; with restricted tolerances (Küpper Standard)	Welded cold-sized steel tubes acc. to EN 10305-3; with restricted tolerances (Küpper Standard)	
Materials	S235JR acc. to EN 10025-2	S235JR acc. to EN 10025-2	S235JR acc. to EN 10025-2	
Bearing housing				
Type	Deep-drawn part	Forged part, cast part	Forged part	
Materials	DD13 acc. to EN 10111	C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2 or EN-GJL-200 acc. to EN 1561	C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2	
Bearing seat	IT7	IT7	IT7	
Axles				
Type	Solid	Solid or bending-resistant hollow axle	Solid or bending-resistant hollow axle	
Materials	Round bar steel acc. to EN 10277	Round bar steel acc. to EN 10083-2 / Tube acc. to EN 10305-3	Round bar steel acc. to EN 10083-2 / Tube acc. to EN 10305-3	
Bearing seat	IT9	IT6	IT6	
Bearing				
Manufacturer	AKT	AKT	SKF, FAG, AKT	
Type of bearing	Deep-groove ball bearings	Deep-groove ball bearings	Deep-groove ball bearings	Self-aligning roller bearings
Bearing sizes	6204 - 6306	6204 - 6312	6306 - 6312	21312 - 22312
Sealing	2Z	2Z	2Z	-
Radial internal clearance	C4	C4	C4H	C3
Tolerance class	P0	P0	P5	P0
Cage	Plastic cage	Plastic cage	Plastic cage	Steel sheet cage, Brass cage
Lubrication	50 – 60 % of bearing's free internal volume	50 – 60 % of bearing's free internal volume	Designed to customer specifications	
Sealing				
Type	QLR Hybrid Sealing	QLR Hybrid Sealing	QLR Hybrid Sealing, steel sheet dust cover, water protection cap	
Running characteristics				
True running [mm/m]	0.7*	0.5*	< 0.2*	
Balance quality	< G40 acc. to ISO 1940**	< G25 acc. to ISO 1940**	< G14 acc. to ISO 1940***	
<p>* Average of the total delivery ** Belt speed 3 m/s *** Belt speed max. 10 m/s</p>				

Compact

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3, S235JR acc. to EN 10025-2
- Bearing housing made of deep-drawn sheet steel DD13 acc. to EN 10111
- Bearing housing with seat IT7 acc. to EN ISO 286-1
- Axles made of bright-drawn round bar steel acc. to DIN EN 10277; seat IT9 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT acc. to DIN 625-1 2Z, plastic cage, greased for life to 50 – 60 % of bearing's free internal volume
- Bearing sizes 6204 – 6306
- Patented QLR Hybrid Sealing greased for life, especially effective against the intrusion of water and dust
- True running 0.7 mm/m (average of the total delivery)
- Balance quality \leq G40 acc. to ISO 1940



Compact



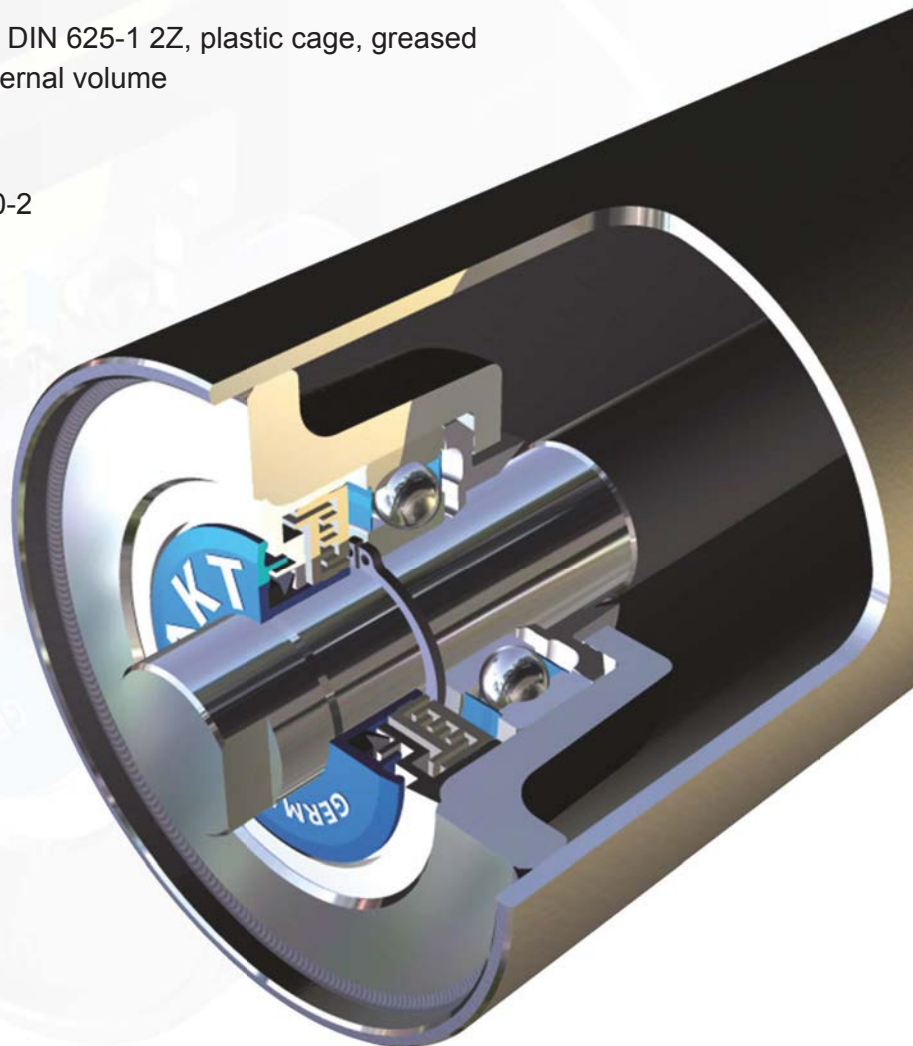
		Bearing size						
		6204	6205	6305	6306	6308	6310	6312
Idler diameter Ø D [mm]	63.5	•						
	88.9	•	•	•				
	101.6	•	•	•	•			
	108	•	•	•	•			
	127	•	•	•	•			
	133	•	•	•	•			
	139.7	•	•	•	•			
	152.4			•	•			
	159			•	•			
	177.8				•			
	193.7							
	203.2							
	219.1							

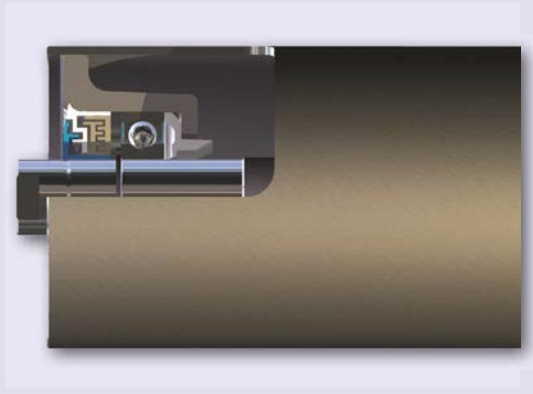
Further sizes on request

Compact^{plus}

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3, with restricted tolerances (Küpper Standard), S235JR acc. to EN 10025-2
- Bearing housings forged C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2 / bearing housings cast from EN-GJL-200 acc. to EN 1561
- Seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to EN 10083-2 or bending-resistant hollow axle, precision tube with welded-in shaft extensions; seats IT6 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT acc. to DIN 625-1 2Z, plastic cage, greased for life to 50 – 60% of bearing's free internal volume
- Bearing sizes 6204 – 6312
- ISO tolerance class P0 acc. to DIN 620-2
- Radial internal clearance C4 acc. to DIN 620-4
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- True running 0.5 mm/m (average of the total delivery)
- Balance quality \leq G25 acc. to ISO 1940





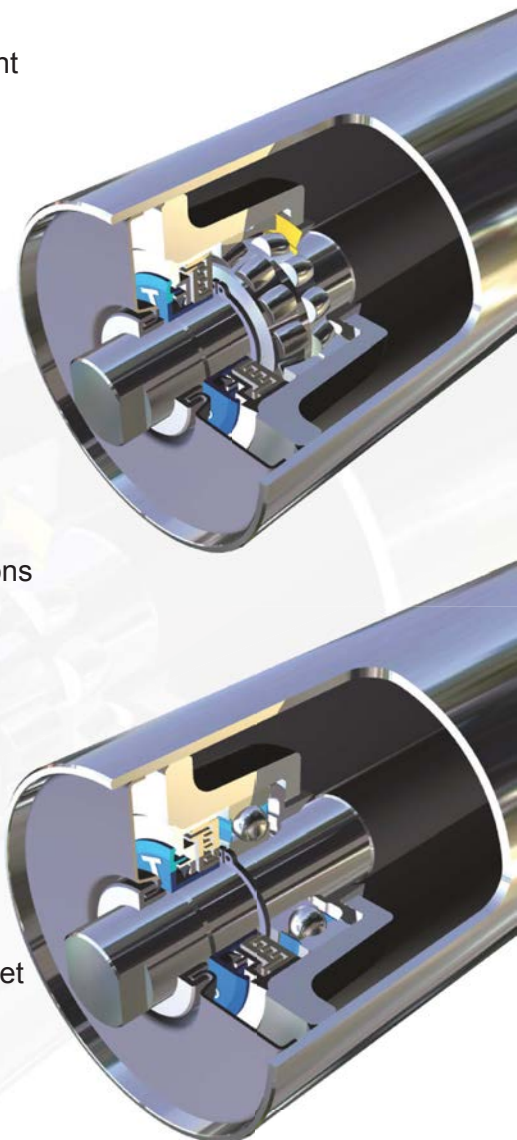
		Bearing size						
		6204	6205	6305	6306	6308	6310	6312
Idler diameter Ø D [mm]	63.5	•						
	88.9	•	•	•				
	101.6	•	•	•	•	•		
	108	•	•	•	•	•		
	127	•	•	•	•	•		
	133	•	•	•	•	•	•	
	139.7	•	•	•	•	•	•	
	152.4			•	•	•	•	
	159			•	•	•	•	•
	177.8				•	•	•	•
	193.7					•	•	•
	203.2						•	•
	219.1						•	•

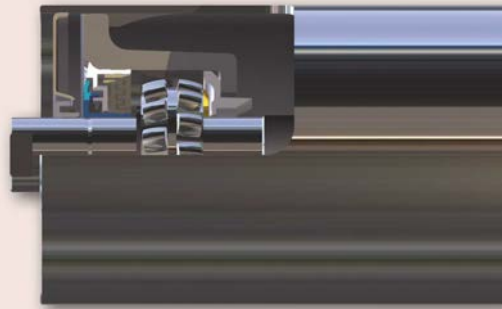
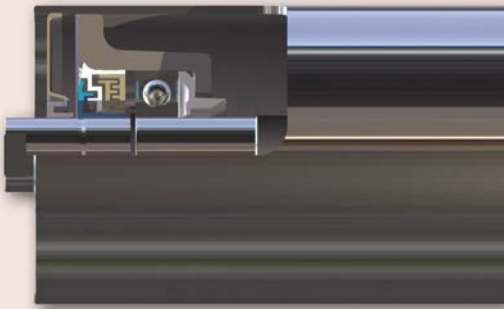
Further sizes on request

Premium

Characteristics

- Idler tube machine-turned, surface roughness $Ra=12.5 \mu\text{m}$, made of longitudinal seam-welded steel tubes acc. to EN 10305-3
- With restricted tolerances (Küpper Standard), S235JR acc. to EN 10025-2; true running $\leq 0.2 \text{ mm/m}$ (average of the total delivery)
- Bearing housings forged from C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2
- Seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to EN 10083-2 or bending-resistant hollow axle, precision tube with welded shaft extensions; seat IT6 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT, FAG, or SKF acc. to DIN 625-1 2Z, plastic cage, greased for life, lubrication designed to customer specifications
- Deep-groove ball bearings 6306 – 6312
- Bearings ISO tolerance class P5 acc. to DIN 620-2
- Radial internal clearance of the deep-groove ball bearings C4H acc. to DIN 620-4
- Self-aligning roller bearings AKT, FAG, or SKF acc. to DIN 635-1, with steel or brass cage, lubrication designed to customer specifications
- Self-aligning roller bearings 21312 - 22312
- Self-aligning roller bearings ISO tolerance class P0 acc. to DIN 620-2
- Radial internal clearance of the self-aligning roller bearings C3 acc. to DIN 620-4
- Additional inner sealing made of high-quality materials
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- Additional protection against extreme conditions by use of a steel sheet dust cover and water protection cap
- Sound-optimized through a vibration-insulating ring
- Balance quality $\leq G14$ acc. to ISO 1940





		Bearing size					
		6306	6308	6310	6312	21312	22312
Idler diameter Ø D [mm]	63.5						
	88.9						
	101.6	•	•				
	108	•	•				
	127	•	•				
	133	•	•	•			
	139.7	•	•	•			
	152.4	•	•	•			
	159	•	•	•	•	•	•
	177.8	•	•	•	•	•	•
	193.7		•	•	•	•	•
	203.2			•	•	•	•
219.1			•	•	•	•	

Further sizes on request

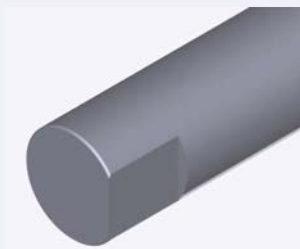
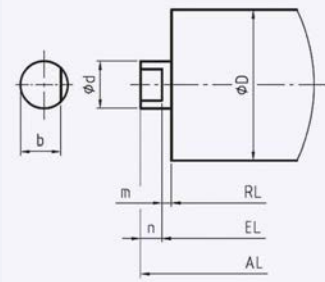
Idler sets for belt conveyors All measures in mm

Belt width	Idler diameter Ø	Tube length		
				
400	63.5	500	250	160
	88.9			
	108			
500	63.5	600	315	200
	88.9			
	108			
	133			
650	63.5	750	380	350
	88.9			
	108			
	133			
800	88.9	950	465	315
	108			
	133			
1000	88.9	1150	600	380
	108			
	133			
	159			
1200	108	1400	700	465
	133			
	159			
1400	133	1600	800	530
	159			
1600	133	1800	900	600
	159			
1800	133	2000	1000	670
	159			
2000	133	2200	1100	750
	159			
	193.7			
2200	159	2500	1250	800
	193.7			
2400	159	2800	1400	900
	193.7			
2600	159	3000	1500	950
	193.7			
2800	159	3150	1600	1050
	193.7			
	219.1			
3000	159	3350	1700	1120
	193.7			
	219.1			

Further sizes on request

Axle tips for carrying idlers Troughing idlers

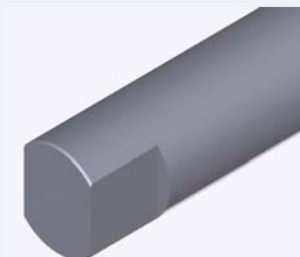
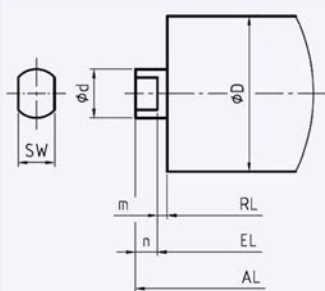
A1 One-sided flattened axle tip



Further axle tips on request

		Bearing size								
		6204	6205	6305	6306	6308	6310	6312	21312	22312
Idler diameter ϕD [mm]	63.5	•								
	88.9	•	•	•						
	101.6	•	•	•	•	•				
	108	•	•	•	•	•				
	127	•	•	•	•	•				
	133	•	•	•	•	•				
	139.7	•	•	•	•	•				
	152.4			•	•	•				
	159			•	•	•				
	177.8				•	•				
	193.7					•				
	203.2									
219.1										

A2 Two-sided flattened axle tip

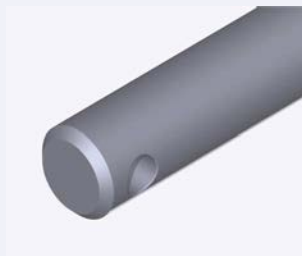
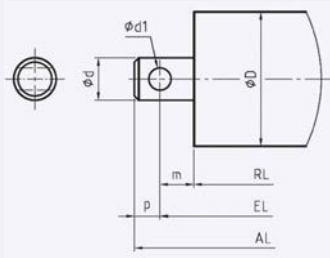


Further axle tips on request

		Bearing size								
		6204	6205	6305	6306	6308	6310	6312	21312	22312
Idler diameter ϕD [mm]	63.5	•								
	88.9	•	•	•						
	101.6	•	•	•	•	•				
	108	•	•	•	•	•				
	127	•	•	•	•	•				
	133	•	•	•	•	•	•			
	139.7	•	•	•	•	•	•			
	152.4			•	•	•	•			
	159			•	•	•	•	•	•	•
	177.8				•	•	•	•	•	•
	193.7					•	•	•	•	•
	203.2						•	•	•	•
219.1						•	•	•	•	

Axle tips for carrying idlers Garland idlers

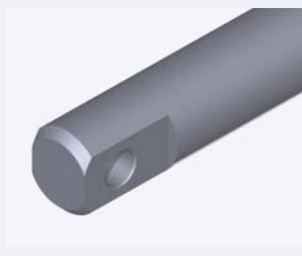
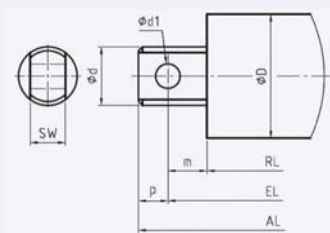
G1 Axle tip with cross-hole



Further axle tips on request

		Bearing size								
		6204	6205	6305	6306	6308	6310	6312	21312	22312
Idler diameter ϕD [mm]	63.5	•								
	88.9	•	•	•						
	101.6	•	•	•						
	108	•	•	•						
	127	•	•	•						
	133	•	•	•						
	139.7	•	•	•						
	152.4			•						
	159			•						
	177.8									
	193.7									
	203.2									
219.1										

G2 Two-sided flattened axle tip with cross-hole





Further axle tips on request

		Bearing size								
		6204	6205	6305	6306	6308	6310	6312	21312	22312
Idler diameter ϕD [mm]	63.5									
	88.9									
	101.6				•	•				
	108				•	•				
	127				•	•				
	133				•	•	•			
	139.7				•	•	•			
	152.4				•	•	•			
	159				•	•	•	•	•	•
	177.8				•	•	•	•	•	•
	193.7					•	•	•	•	•
	203.2						•	•	•	•
219.1						•	•	•	•	

A close-up photograph of a series of blue, cylindrical conveyor rollers. The rollers are arranged in a repeating pattern, creating a strong sense of depth and perspective. A semi-transparent white rectangular box is overlaid on the center of the image, containing the text '02 RETURN IDLERS'.

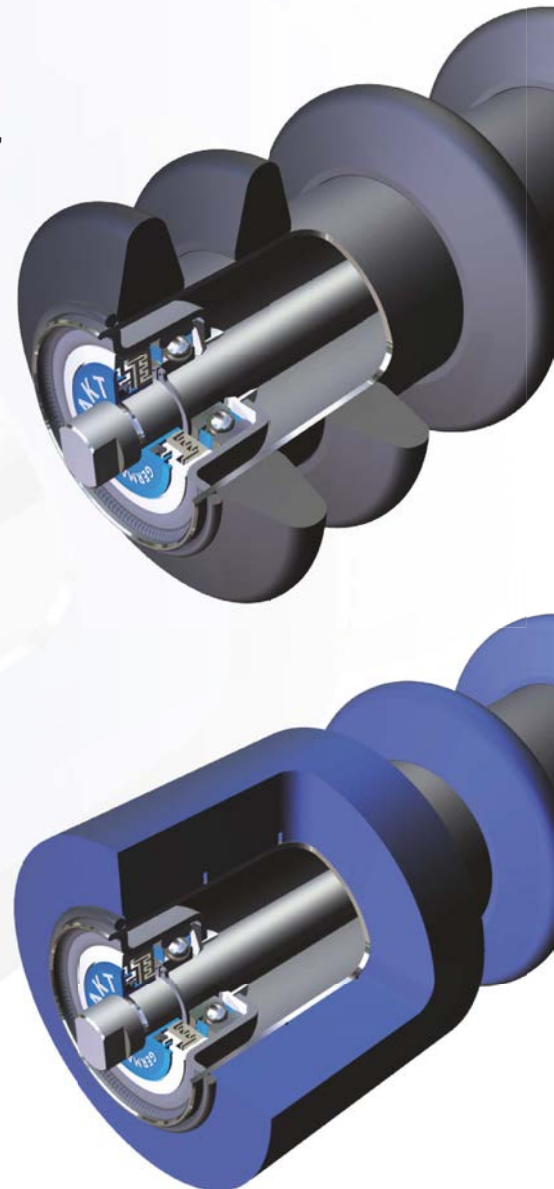
02 RETURN IDLERS

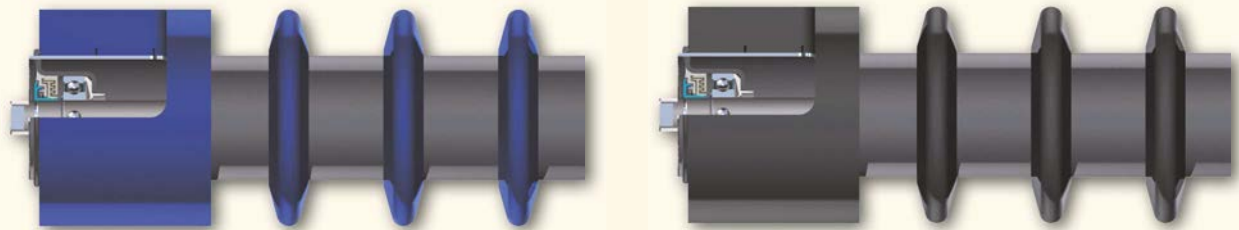
COMPARISON	 Compact	 Compact ^{plus}	 Premium
Idler tube			
Tubes	Welded cold-sized steel tubes acc. to EN 10305-3	Welded cold-sized steel tubes acc. to EN 10305-3; with restricted tolerances (Küpper Standard)	Welded cold-sized steel tubes acc. to EN 10305-3; with restricted tolerances (Küpper Standard)
Materials	S235JR acc. to EN 10025-2	S235JR acc. to EN 10025-2	S235JR acc. to EN 10025-2
Bearing housing			
Type	Deep-drawn part	Forged part, cast part	Forged part
Materials	DD13 acc. to EN 10111	C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2 or EN-GJL-200 acc. to EN 1561	C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2
Bearing seat	IT7	IT7	IT7
Axles			
Type	Solid	Solid or bending-resistant hollow axle	Solid or bending-resistant hollow axle
Materials	Round bar steel acc. to EN 10277	Round bar steel acc. to EN 10083-2 / Tube acc. to EN 10305-3	Round bar steel acc. to EN 10083-2 / Tube acc. to EN 10305-3
Bearing seat	IT9	IT6	IT6
Bearings			
Manufacturer	AKT	AKT	SKF, FAG, AKT
Type of bearing	Deep-groove ball bearings	Deep-groove ball bearings	Deep-groove ball bearings
Bearing sizes	6204 - 6306	6306 - 6310	6306 – 6310
Sealing	2Z	2Z	2Z
Radial internal clearance	C4	C4	C4H
Tolerance class	P0	P0	P5
Cage	Plastic cage	Plastic cage	Plastic cage
Lubrication	50 – 60 % of bearing's free internal volume	50 – 60 % of bearing's free internal volume	Designed to customer specifications
Sealing			
Type	QLR Hybrid Sealing	QLR Hybrid Sealing	QLR Hybrid Sealing
Support ring / Coating			
Type	Support rings	Support rings or segmented rings	Cast-in shell
Materials	Rubber or PU	PU	PU

Compact

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3, S235JR acc. to EN 10025-2
- Bearing housings made of deep-drawn sheet steel DD13 acc. to EN 10111
- Bearing housings with seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to DIN EN 10277; seat IT9 – EN ISO 286-1
- Deep-groove ball bearings AKT acc. to DIN 625-1 2Z, plastic cage, greased for life to 50 – 60% of bearing's free internal volume
- Bearing sizes 6204 – 6306
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- Support rings made of rubber, alternatively PU





Support ring arrangements

Support rings made of rubber or polyurethane

Ø-ring	108	133	133	159	159	180	194	194	219
Ø-tube	63.5		88.9		108		133		
Return idler with support rings acc. to DIN 15210: forms A and B									
S1	•	•	•	•	•	•	•	•	•
S2	•	•	•	•	•	•	•	•	•
S3	•	•	•	•	•	•	•	•	•
S4	•	•	•	•	•	•	•	•	•
S5	•	•	•	•	•	•			
S6	•	•	•	•	•	•			
S7	•	•	•	•	•	•	•	•	•
S8	•	•	•	•	•	•	•	•	•
S9	•	•	•	•	•	•			
Return idler with trapezoidal rings made of polyurethane									
ST1						◦	◦	◦	◦
ST2						◦	◦	◦	◦
ST3						◦	◦	◦	◦
ST4						◦	◦	◦	◦
ST5						◦	◦	◦	◦
ST6						◦	◦	◦	◦

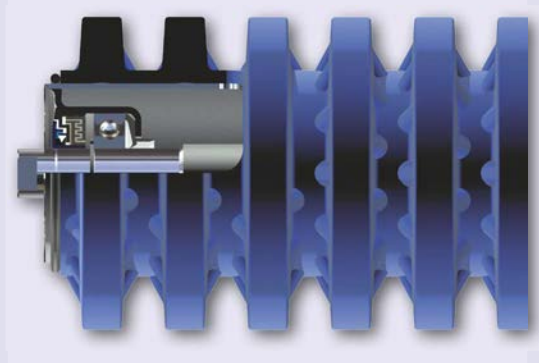
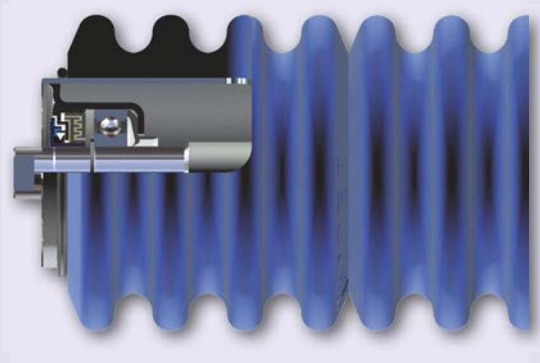
◦ = optional, on request

Compact^{plus}

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3, with restricted tolerances (Küpper Standard), S235JR acc. to EN 10025-2
- Forged bearing housings C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2 / Bearing housing made of deep-drawn sheet steel EN-GJL-200 acc. to EN 1561
- Seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to EN 10083-2 or bending-resistant hollow axle, precision tube with welded shaft extensions; seat IT6 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT acc. to DIN 625-1 2Z, plastic cage, greased for life 50 – 60% of bearing's free internal volume
- Bearing sizes 6306 – 6310
- ISO tolerance class P0 acc. to DIN 620-2
- Radial internal clearance C4 acc. to DIN 620-4
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- Available with PU Support rings or segmented rings





Support ring arrangements Support rings made of polyurethane

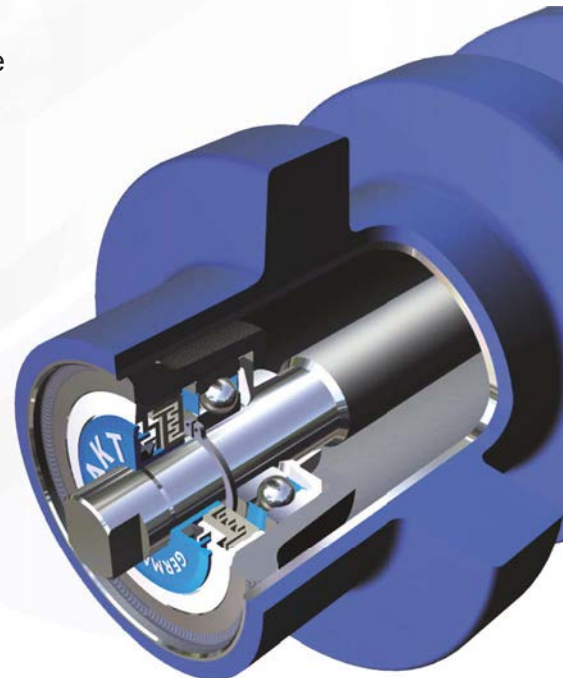
Ø-ring	180	194	194	219	250
Ø-tube	108		133		194
Return idler with support rings acc. to DIN 15210 standard: forms A and B					
S1	◦	◦	◦	◦	
S2	◦	◦	◦	◦	
S3	◦	◦	◦	◦	
S4	◦	◦	◦	◦	
S5	◦				
S6	◦				
S7	◦	◦	◦	◦	
S8	◦	◦	◦	◦	
S9	◦				
Return idler with trapezoidal rings					
ST1	•	•	•	•	
ST2	•	•	•	•	
ST3	•	•	•	•	•
ST4	•	•	•	•	
ST5	•	•	•	•	•
ST6	•	•	•	•	•
Return idlers with segmented rings					
SP2	•				•
SP3	•				•

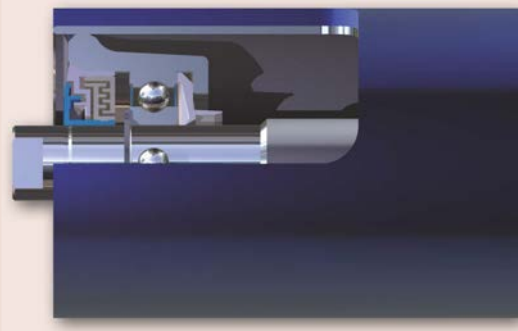
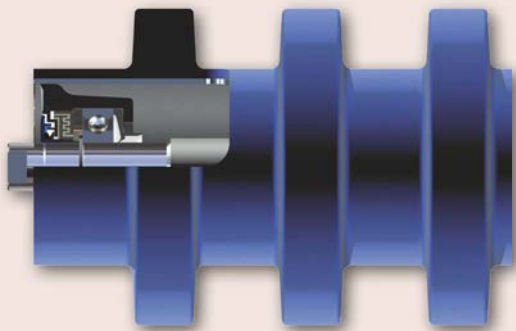
◦ = optional, on request

Premium

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3 with restricted tolerances (Küpper Standard), S235JR acc. to EN 10025-2
- Bearing housings forged from C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2
- Seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to EN 10083-2 or bending-resistant hollow axle, precision tube with welded shaft extensions; seat IT6 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT, FAG, or SKF acc. to DIN 625-1 2Z, plastic cage, greased for life, lubrication designed to customer specifications
- Bearing sizes 6306 – 6310
- ISO tolerance class 5 (P5) acc. to DIN 620-2
- Radial internal clearance for deep-groove ball bearings C4H acc. to DIN 620-4
- Additional inner sealing made of high-quality materials
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- PU cast-in shell





Support ring arrangements Support rings made of polyurethane

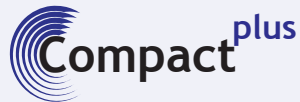
Return idler with cast-in PU support rings					
Ø-ring	180	194	219	219	250
Ø-tube	108		133	159	178
U1	•	•	•	•	•
U2	•	•	•	•	•
U3	•	•	•	•	•
U4	•	•	•	•	•

Coating

Return idler with cast-in shell made of polyurethane									
Ø-shell	116	122	133	143	150	160	167	173	180
Ø-tube	108			133			159		
Ø-shell	185	191	204	208		220	230	250	
Ø-tube	177			194			219		

Support ring arrangements Support rings made of rubber or polyurethane

1. Support rings acc. to DIN 15210 standard: forms A and B



with spacing rings

S1	
S2	
S3	
S4	
S5	
S6	

without spacing rings

S7	
S8	
S9	

Support ring arrangements Support rings made of polyurethane

2. Trapezoidal rings



with spacing rings

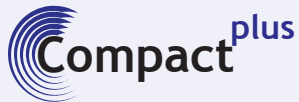
ST1	
ST2	
ST3	
ST4	

without spacing rings

ST7	
ST8	

Support ring arrangements Support rings made of polyurethane

3. PU segmented rings



SP2	
SP3	

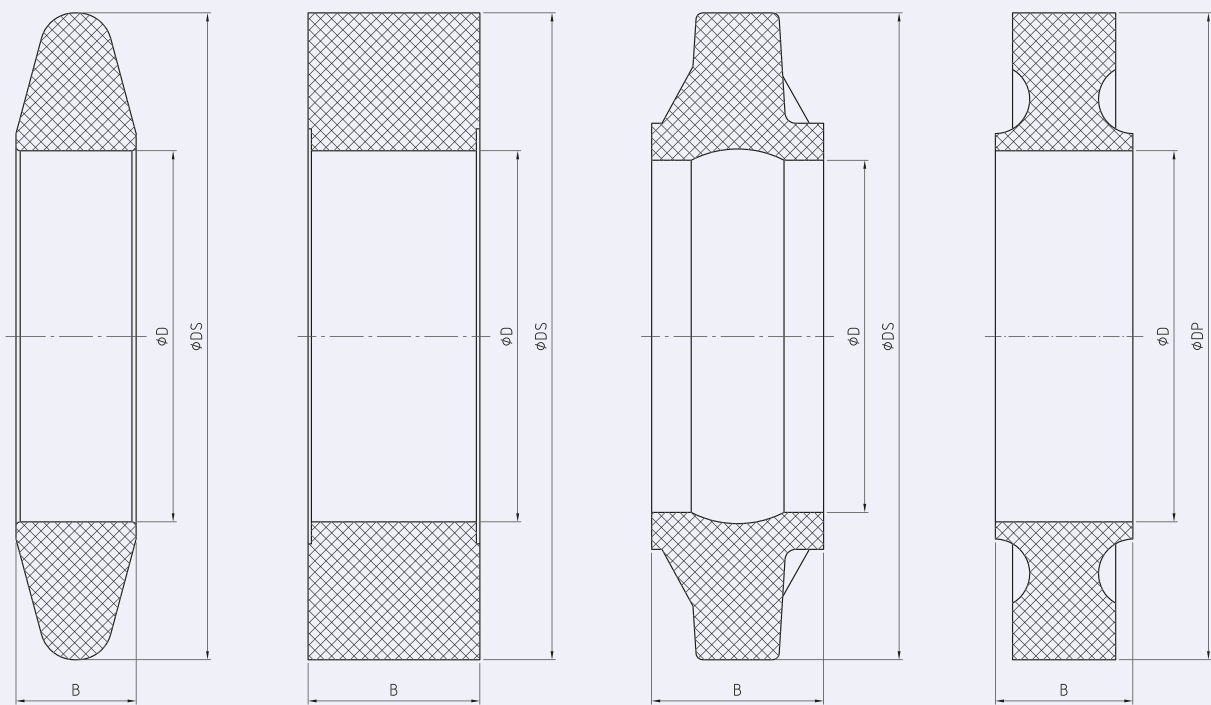
Support ring arrangements Support rings made of polyurethane

4. Cast-in PU shell



U1	
U2	
U3	
U4	

Support and impact rings
Fact Sheet: Main dimensions



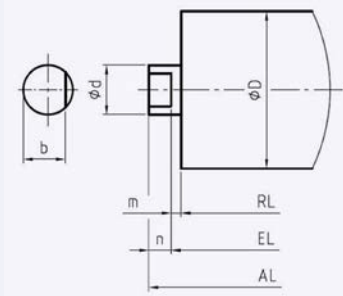
Support and impact rings

Fact Sheet: Main dimensions

Nominal size		Support ring				Impact ring
Tube diameter	Ring external diameter after assembly	Form A	Form B	Trapezoidal form	Segmented ring	
ØD	ØDS oder ØDP	Width B				
63.5	89	-	-	-	-	25
	108	25	40	-	-	30
	133	25	40	-	-	-
88.9	133	30	40	-	-	35
	159	30	40	-	-	35
108	159	35	50	-	-	40
	180	40	50	50	160	-
	194	35	50	50	-	40
133	194	40	50	50	-	45
	219	40	50	50	-	45
159	250	-	-	-	-	60
177.8	250	-	-	50	-	-
193.7	250	-	-	50	160	-
Material		Rubber or polyurethane	Rubber or polyurethane	Polyurethane	Polyurethane	Rubber

Axle tips for return idlers Troughing idlers

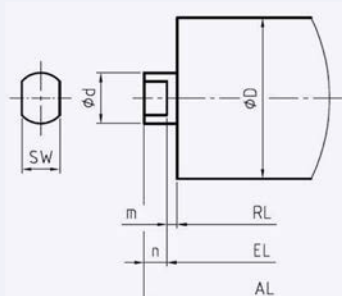
A1 One-sided flattened axle tip



	Bearing size					
	6204	6205	6305	6306	6308	6310
Ød	20	25	25	30	40	
b	17	22	22	27	37	
m	4	4	4	4	4	
n	9/19	12/22	12/22	12/22	12/22	

Further axle tips on request

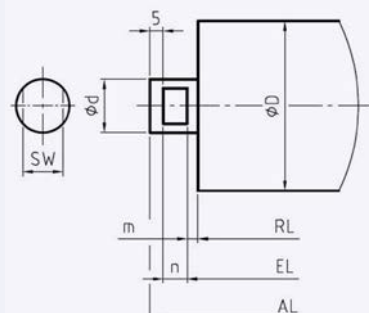
A2 Two-sided flattened axle tip



	Bearing size					
	6204	6205	6305	6306	6308	6310
Ød	20	25	25	30	40	
SW	15	18	18	22	32	
m	4	4	4	4	4	
n	9/19	12/22	12/22	12/22	12/22	

Further axle tips on request

B2 Two-sided limited flattened axle tip

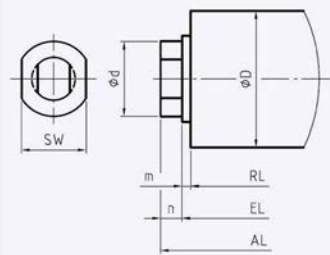


	Bearing size					
	6204	6205	6305	6306	6308	6310
Ød	20	25	25			
SW	15	18 / 20	18 / 20			
m	10/4	10/4	10/4			
n	9/38	12/38	12/38			

Further axle tips on request

Axle tips for return idlers Troughing idlers

C2 Axle tip with two-sided flattened cap

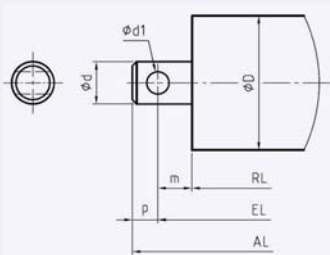


	Bearing size					
	6204	6205	6305	6306	6308	6310
Ød	35	45	45	45		
b	30	38	38	38		
m	4	4	4	4		
n	10/20	12/22	12/22	12/22		

Further axle tips on request

Axle tips for return idlers Garland idlers

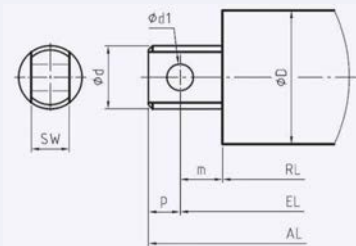
G1 Axle tip with a borehole



	Bearing size					
	6204	6205	6305	6306	6308	6310
Ød	20	25	25	30	40	50
Ød1	8.5 / 10.5	10.5 / 12.5	10.5 / 12.5	12.5 / 15.0	15	21
m	14 / 16	16 / 20	16 / 20	20 / 24	24	20
n	10/12	12/15	12/15	15 / 16	16	24
Tlg.	25.4 / 31.75	31.75 / 38.1	31.75 / 38.1	38.1 / 44.45	44.45	57.15

Further axle tips on request

G2 Two-sided flattened axle tip with a borehole




	Bearing size					
	6204	6205	6305	6306	6308	6310
Ød				30	40	50
Ød1				12.5	15	21
SW				22	32	40
m				20	24	20
n				35	40	55
p				15	16	24
Tlg.				38.1	44.45	57.15

Further axle tips on request



03 IMPACT IDLER

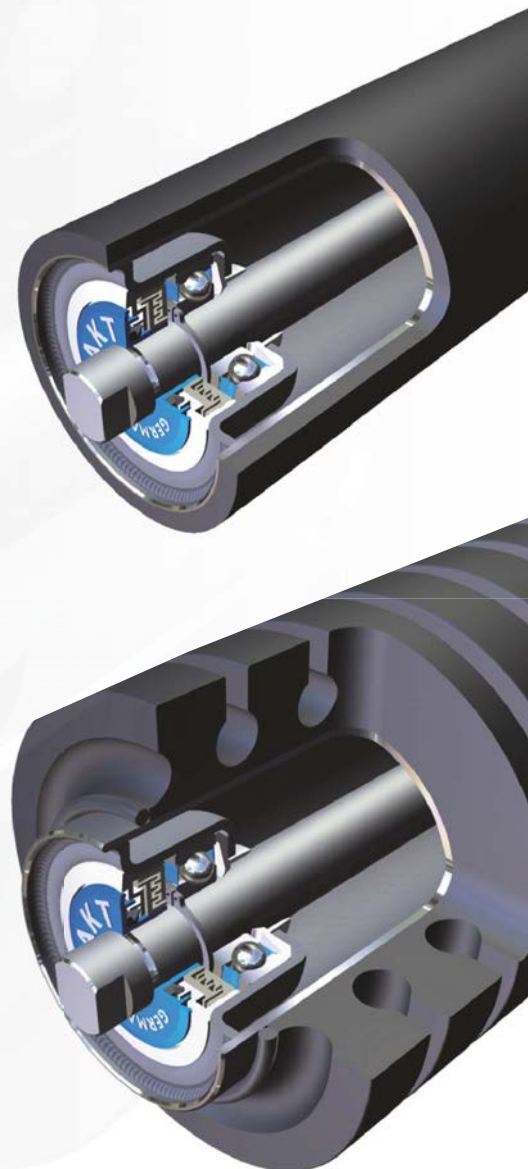
COMPARISON	 Compact	 Compact ^{plus}	 Premium	
Idler tube				
Tubes	Welded cold-sized steel tubes acc. to EN 10305-3	Welded cold-sized steel tubes acc. to EN 10305-3; with restricted tolerances (Küpper Standard)	Welded cold-sized steel tubes acc. to EN 10305-3; with restricted tolerances (Küpper Standard)	
Materials	S235JR acc. to EN 10025-2	S235JR acc. to EN 10025-2	S235JR acc. to EN 10025-2	
Bearing housing				
Type	Deep-drawn part	Forged part	Forged part	
Materials	DD13 acc. to EN 10111	C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2	C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2	
Bearing seat	IT7	IT7	IT7	
Axles				
Type	Solid	Solid or bending-resistant hollow axle	Solid or bending-resistant hollow axle	
Materials	Round bar steel acc. to EN 10277	Round bar steel acc. to EN 10083-2 / Tube acc. to EN 10305-3	Round bar steel acc. to EN 10083-2 / Tube acc. to EN 10305-3	
Bearing seat	IT9	IT6	IT6	
Bearings				
Manufacturer	AKT	AKT	SKF, FAG, AKT	
Type of bearing	Deep-groove ball bearings	Deep-groove ball bearings	Deep-groove ball bearings	Self-aligning roller bearings
Bearing sizes	6204 - 6305	6306 - 6312	6310 - 6318	21312 - 22318
Sealing	2Z	2Z	2Z	-
Radial internal clearance	C4	C4	C4H	C3
Tolerance class	P0	P0	P5	P0
Cage	Plastic cage	Plastic cage	Plastic cage	Steel sheet cage Brass cage
Lubrication	50 – 60 % of bearing's free internal volume	50 – 60 % of bearing's free internal volume	Designed to customer specifications	
Sealing				
Type	QLR Hybrid Sealing	QLR Hybrid Sealing	QLR Hybrid Sealing Solid protection cover	
Running characteristics				
True running [mm/m]	-	-	≤ 0,2	
Impact rings / coating				
Type	Impact rings or coating	Impact rings or coating	-	
Materials	Rubber	Rubber	-	

*Average of the total delivery

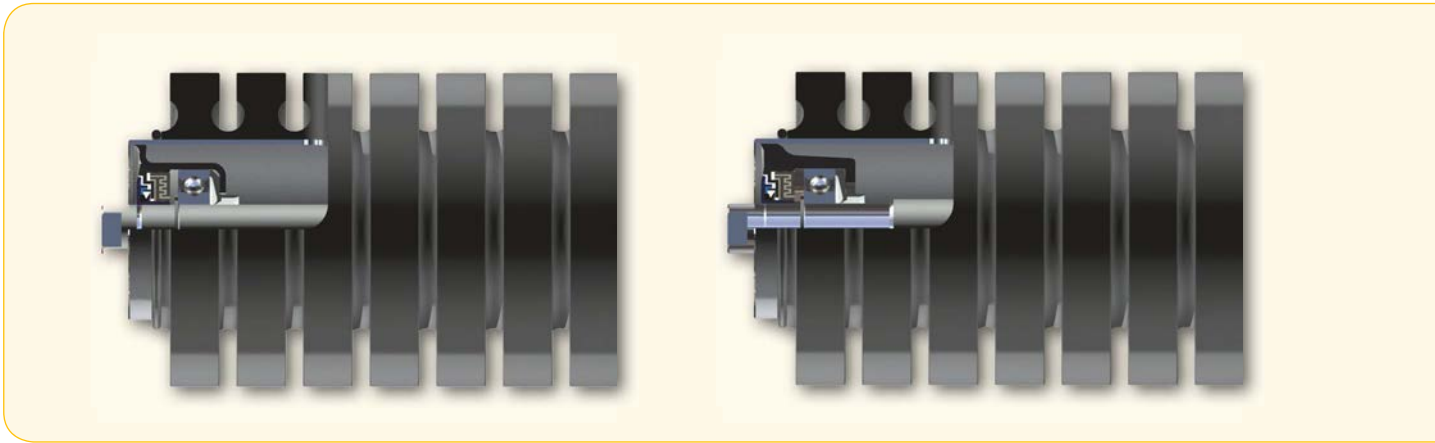
Compact

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3, S235JR acc. to EN 10025-2
- Bearing housings made of deep-drawn sheet steel DD13 acc. to EN 10111
- Bearing housing with seat IT7 acc. to EN ISO 286-1
- Axles made of bright-drawn round bar steel acc. to DIN EN 10277; seat IT9 acc. to EN ISO 286-1
- Deep-groove ball bearing AKT acc. to DIN 625-1 2Z, plastic cage, greased for life to 50 – 60% of bearing's free internal volume
- Bearing sizes 6204 – 6305
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- Available with rubber impact rings or vulcanized rubber coating



Compact



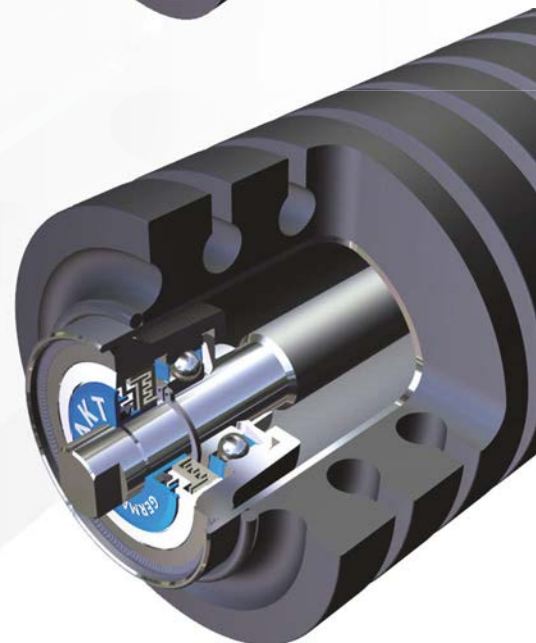
		Bearing size			
		Ø-ring	6204	6205	6305
Idler diameter Ø D [mm]	63.5	108	•	•	
		133	•	•	
	88.9	133	•	•	•
		150	•	•	•
		159	•	•	•
	108	159		•	•
		180		•	•
		193.7		•	•
	133	193.7			•
		212			•
		219.1			•

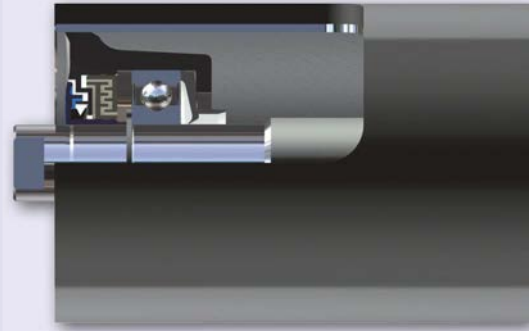
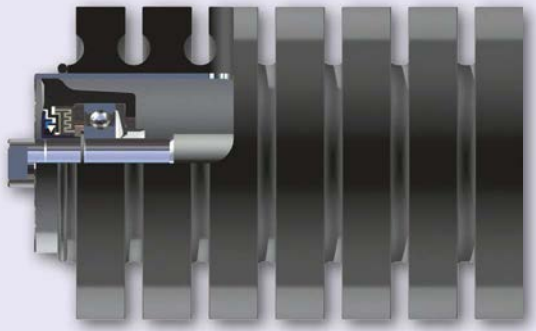
Further sizes on request

Compact^{plus}

Characteristics

- Idler tube made of longitudinal seam-welded steel tubes acc. to EN 10305-3, with restricted tolerances (Küpper Standard), S235JR acc. to EN 10025-2
- Bearing housings forged from C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2
- Seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to EN 10083-2 or bending-resistant hollow axle, precision tube with welded shaft extensions, seat IT6 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT acc. to DIN 625-1 2Z, plastic cage, greased for life to 50 – 60% of bearing's free internal volume
- Bearing sizes 6306 – 6312
- ISO tolerance class P0 acc. to DIN 620-2
- Radial internal clearance C4 acc. to DIN 620-4
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- Available with rubber impact rings or vulcanized rubber coating





		Bearing size				
		Ø-ring	6306	6308	6310	6312
Idler diameter Ø D [mm]	88.9	133	•			
		150	•			
		159	•			
		180	•			
	108	159	•	•		
		180	•	•		
		193.7	•	•		
	133	193.7	•	•	•	
		212	•	•	•	
		219.1	•	•	•	
	159	250			•	•

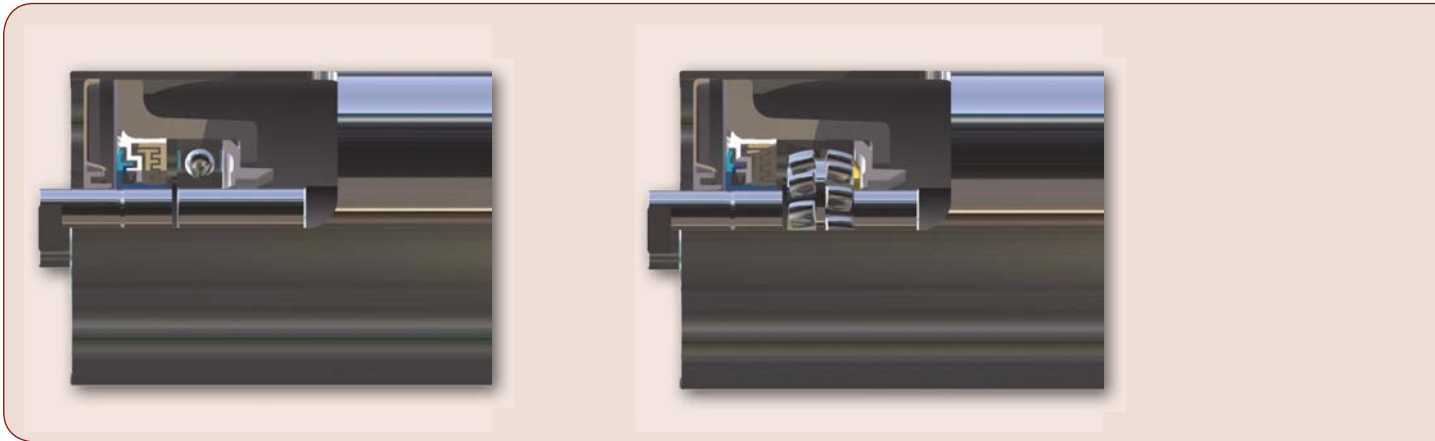
Further sizes on request

Premium

Characteristics

- Idler tube machine-turned, surface roughness $Ra=12.5 \mu\text{m}$, made of longitudinal seam-welded steel tubes acc. to EN 10305-3 with restricted tolerances (Küpper Standard), S235JR acc. to EN 10025-2
- Bearing housings forged from C15 acc. to EN 10267-2 or S235JR acc. to EN 10025-2
- Bearing housings with seat IT7 acc. to EN ISO 286-1
- Axles made of round bar steel acc. to EN 10083-2 or bending-resistant hollow axle, precision tube with welded shaft extensions; seat IT6 acc. to EN ISO 286-1
- Deep-groove ball bearings AKT, FAG, or SKF acc. to DIN 625-1 2Z, plastic cage, greased for life; lubrication designed to customer specifications
- Deep-groove ball bearing sizes 6310 – 6318
- Deep-groove ball bearings – ISO tolerance class 5 (P5) acc. to DIN 620-2
- Radial internal clearance of the deep-groove ball bearings C4H acc. to DIN 620-4
- Self-aligning roller bearings AKT, FAG, or SKF acc. to DIN 635-1, with steel sheet cage or brass cage, greased for life; lubrication designed to customer specifications; bearings sealed
- Self-aligning roller bearings sizes 21312 - 22318
- Self-aligning roller bearings – ISO tolerance class 0 (P0) acc. to DIN 620-2
- Radial internal clearance of the self-aligning roller bearings C3 acc. to DIN 620-4
- Additional inner sealing made of high-quality materials
- Patented QLR Hybrid Sealing, greased for life, especially effective against the intrusion of water and dust
- Additional protection against extreme conditions by use of a solid protection cover
- True running $\leq 0.2 \text{ mm/m}$ (average of the total delivery)





		Bearing size								
Idler diameter Ø D [mm]	ØD	6310	6312	6316	6318	21312	21316	22312	22318	
	133	•								
	139.7	•								
	152.4	•	•							
	159	•	•							
	177.8		•	•						
	193.7		•	•		•				
	203.2			•		•	•			
	219.1			•	•	•	•	•	•	

Further sizes on request



04 GARLANDS

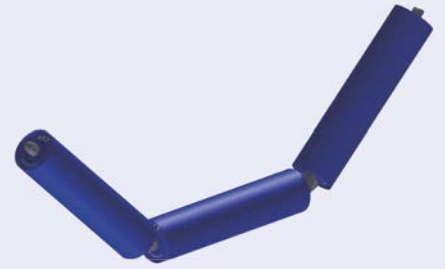
Idler Garlands



2-part



2-part with support rings

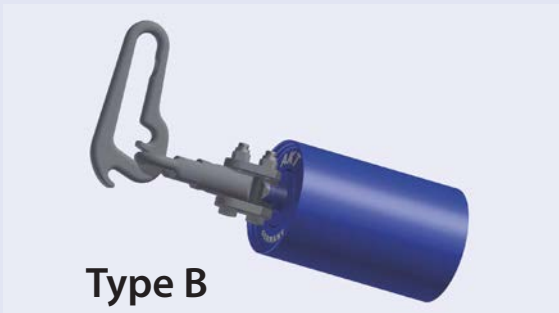


3-part



5-part

Garland Suspensions



Type B



Type H



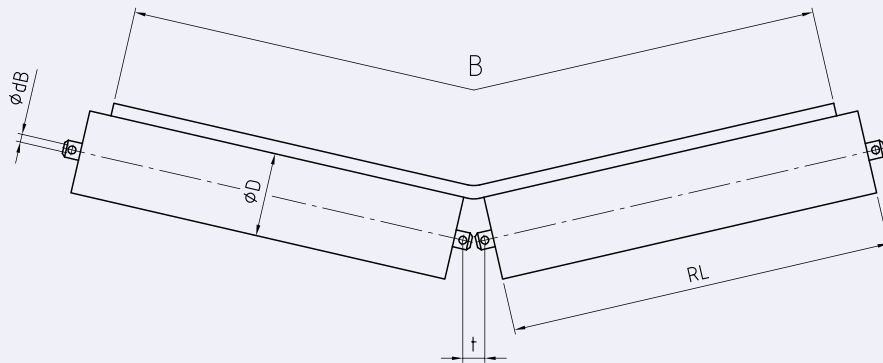
Type BS



Type K

Idler Garland 2-part

Belt widths 500 to 1200



Belt width	Idler diameter ϕ	Tube length	Connecting elements: choice of types							
			Bolts ϕdB [mm]	Lugs: borehole spacing "t" inch and mm						
				1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15	
B [mm]	ϕD [mm]	RL [mm]								
500	63.5 89 108 133	315	8.3	•	•					
			10.2		•	•				
650	63.5 89 108 133	380	8.3	•	•					
			10.2		•	•				
			12.0			•	•	•		
			14.7			•	•	•		
800	63.5 89 108 133 159	465	8.3	•	•					
			10.2		•	•				
			12.0			•	•	•		
			14.7			•	•	•		
1000	63.5 89 108 133 159	600	8.3	•	•					
			10.2		•	•				
			12.0			•	•	•		
			14.7			•	•	•		
1200	89 108 133 159	700	8.3	•	•					
			10.2		•	•				
			12.0			•	•	•		
			14.7			•	•	•		
			16.0				•	•	•	
			18.0					•		

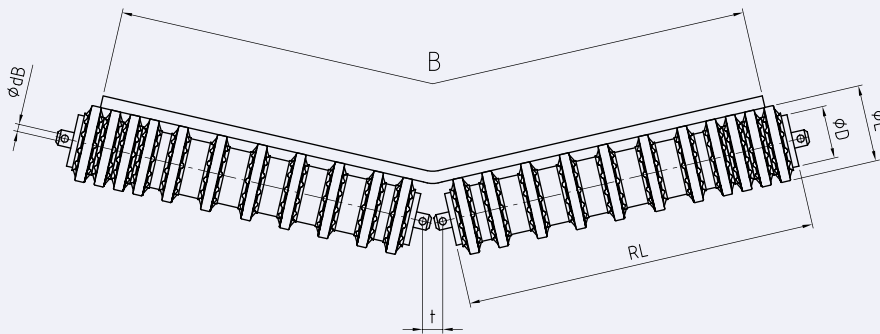
Idler Garland 2-part

Belt widths 1400 to 2600

Belt widths	Idler diameter-Ø	Tube length	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
				1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
B [mm]	ØD [mm]	RL [mm]							
1400	89 108 133 159 193.7	800	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
1600	89 108 133 159 193.7	900	10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
1800	108 133 159 193.7	1000	10.2		•	•			
			12.0		•	•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
2000	108 133 159 193.7	1148	12.0		•	•	•	•	
			14.7		•	•	•	•	
			16.0				•	•	
			18.0					•	
2200	108 133 159 193.7 219.1	1250	12.0		•	•	•	•	
			14.7		•	•	•	•	
			16.0				•	•	
			18.0					•	
2400	108 133 159 193.7 219.1	1400	12.0		•	•	•	•	
			14.7		•	•	•	•	
			16.0				•	•	
			18.0					•	
2600	108 133 159 193.7 219.1	1500	16.0				•	•	
			18.0					•	•
			22.0				•	•	•
			25.0					•	•

Idler Garland 2-part with support rings

Belt widths 500 to 1000



Belt width B [mm]	Support ring-Ø ØE [mm]	Tube length RL [mm]	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
				1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
500	89 108 133 159	315	8.3	•	•				
			10.2		•	•			
			12.0						
650	89 108 133 159 180	380	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			18.0					•	
800	89 108 133 159 180 193.7	465	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			18.0					•	
1000	89 108 133 159 180 193.7 250	600	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			18.0					•	

Idler Garland 2-part with support rings

Belt widths 1200 to 2000

Belt width B [mm]	Support ring-Ø ØE [mm]	Tube length RL [mm]	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
				1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
1200	89 108 133 159 180 193.7 250	700	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
1400	89 108 133 159 180 193.7 250	800	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
1600	89 108 133 159 180 193.7 250	900	10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
1800	108 133 159 180 193.7 250	1000	10.2		•	•			
			12.0		•	•	•	•	
			14.7			•	•	•	
			16.0				•	•	
			18.0					•	
2000	108 133 159 180 193.7 250	1148	12.0		•	•	•	•	
			14.7		•	•	•	•	
			16.0				•	•	
			18.0					•	

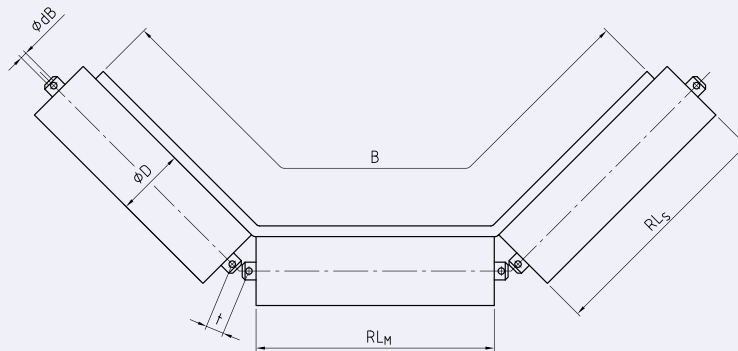
Idler Garland 2-part with support rings

Belt widths 2200 to 2600

Belt width	Support ring-Ø	Tube length	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
B [mm]	ØE [mm]	RL [mm]		1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
2200	108	1250	12.0		•	•	•	•	
	133		14.7		•	•	•	•	
	159		16.0				•	•	
	180		18.0					•	
	193.7								
2400	108	1400	12.0		•	•	•	•	
	133		14.7		•	•	•	•	
	159		16.0				•	•	
	180		18.0					•	
	193.7								
2600	108	1500	16.0				•	•	
	133		18.0					•	•
	159		22.0				•	•	•
	180		25.0					•	•
	193.7								
250									

Idler Garland 3-part

Belt widths 500 to 1000



Belt width	Idler diameter-Ø	Tube length	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
B [mm]	ØD [mm]	RL [mm]		1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
500	63.5 89 108 133	200	8.3	•	•				
			10.2		•	•			
650	63.5 89 108 133	250	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
800	63.5 89 108 133 159	315	18.0					•	
			8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
1000	63.5 89 108 133 159	380	18.0					•	
			8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	

Idler Garland 3-part

Belt widths 1200 to 2000

Belt width	Idler diameter-Ø	Tube length	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
B [mm]	ØD [mm]	RL [mm]		1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
1200	89 108 133 159	465	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
1400	89 108 133 159 193.7 219.1	530	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0					•	•
			25.0						
1600	89 108 133 159 193.7 219.1	600	10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
			25.0						
1800	108 133 159 193.7 219.1	670	10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
			25.0						
2000	108 133 159 193.7 219.1	750	12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
			25.0						

Idler Garland 3-part

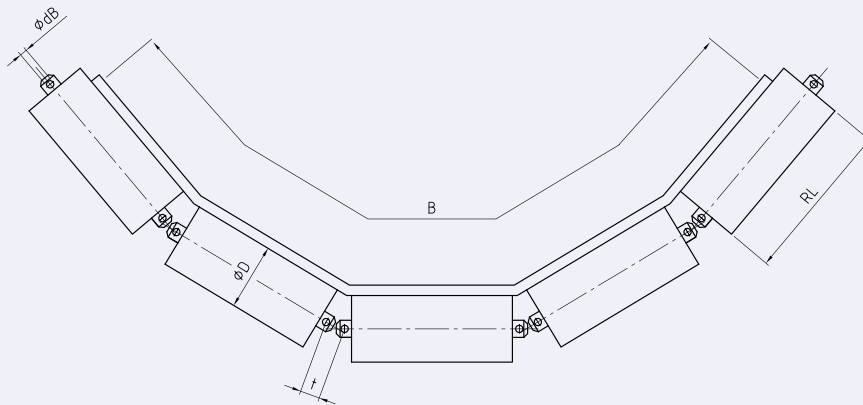
Belt widths 2200 to 2600

Belt width B [mm]	Idler diameter-Ø ØD [mm]	Tube length RL [mm]	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
				1	1 ¼	1 ½	1 ¾	2	2 ¼
				25.4	31.75	38.1	44.45	50.8	57.15
2200	108	800	12.0			•	•	•	
	133		14.7			•	•	•	
	159		16.0				•	•	
	193.7		18.0					•	
	219.1		25.0						•
2400	108	900	12.0			•	•	•	
	133		14.7			•	•	•	
	159		16.0				•	•	
	193.7		18.0					•	
	219.1		25.0						•
2600	108	950	16.0				•	•	
	133		18.0					•	
	159		25.0						•

Belt width B [mm]	Idler diameter-Ø ØD [mm]	Tube length RL M [mm]	Tube length RL S [mm]	Connecting elements: choice of types						
				Bolts ØdB [mm]	Lugs: Borehole Spacing "t" inch and mm					
					1	1 ¼	1 ½	1 ¾	2	2 ¼
				25.4	31.75	38.1	44.45	50.8	57.15	
2800	193.7	700	1120	25.0						•
	193.7	600	1160							
3000	193.7	900	1120	25.0						•
	193.7	600	1260							
3200	193.7	1120	1120	25.0						•
	193.7	665	1400							

Idler Garland 5-part

Belt widths 800 to 1200



Belt width	Idler diameter-Ø	Tube length	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
B [mm]	ØD [mm]	RL [mm]		1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
800	89 108 133	165	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			18.0						•
1000	89 108 133 159	205	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			18.0						•
1200	89 108 133 159	250	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•

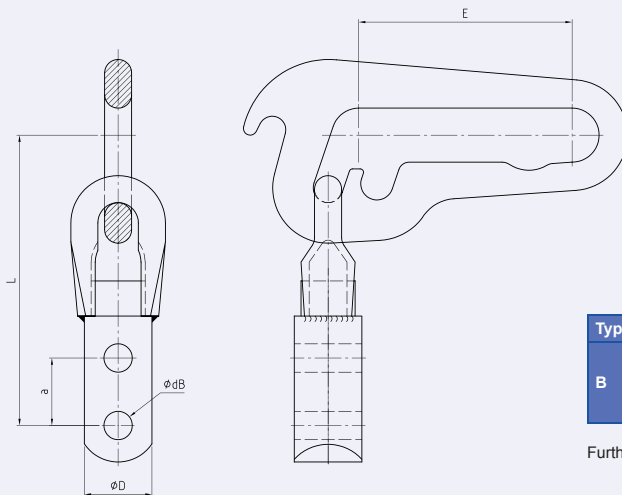
Idler Garland 5-part

Belt widths 1400 to 2600

Belt width	Idler diameter-Ø	Tube length	Connecting elements: choice of types						
			Bolts ØdB [mm]	Lugs: borehole spacing "t" inch and mm					
B [mm]	ØD [mm]	RL [mm]		1 25.4	1 ¼ 31.75	1 ½ 38.1	1 ¾ 44.45	2 50.8	2 ¼ 57.15
1400	89 108 133 159 193.7	290	8.3	•	•				
			10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
1600	89 108 133 159 193.7	340	10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
1800	108 133 159 193.7	380	10.2		•	•			
			12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
2000	108 133 159 193.7	420	12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
2200	108 133 159 193.7	460	12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
2400	108 133 159 193.7	500	12.0			•	•	•	
			14.7			•	•	•	
			16.0					•	•
			18.0						•
2600	108 133 159 193.7	540	16.0				•	•	
			18.0						•

Garland Suspensions

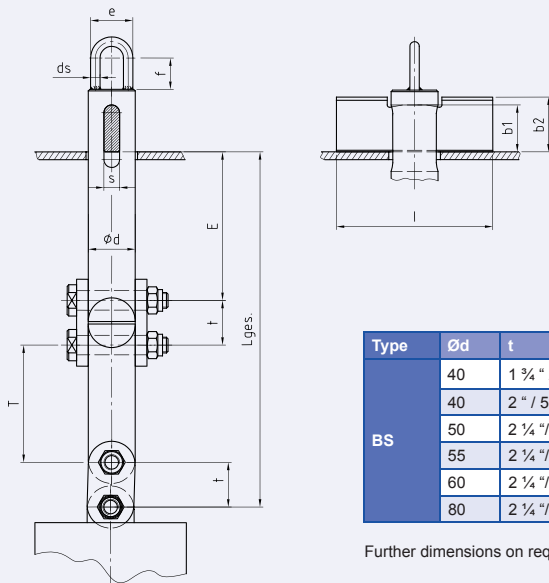
Type B Eyehook



Type	L	E	ØD	ØdB ± 0,2	a
B	190	158	40	16.0	-
	215	158	50	21.0	50
	525	250	60	25.0	80

Further dimensions on request

Type BS Suspension with bolts and locking plate

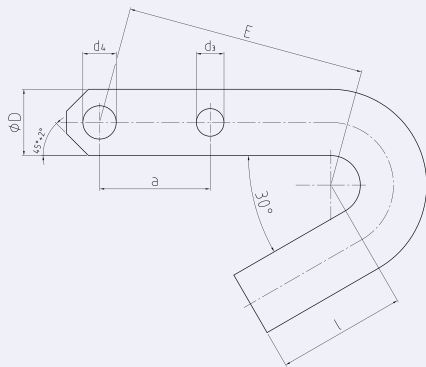


Type	Ød	t	T	E	s	l	b1	b2	ds	e	f	Lges
BS	40	1 ¼" / 44.45	150	190	12	105	45	50	6	31	40	429
	40	2" / 50.8	150	190	12	105	45	50	6	31	40	442
	50	2 ¼" / 57.15	150	170	16	150	45	55	8	36	40	434
	55	2 ¼" / 57.15	150	250	20	160	45	55	12	45	40	514
	60	2 ¼" / 57.15	150	190	20	200	60	70	12	54	40	454
	80	2 ¼" / 57.15	150	250	30	220	95	110	20	64	50	514

Further dimensions on request

Garland Suspensions

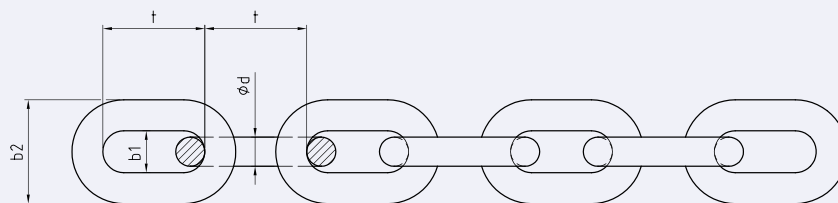
Type H Hook



Type	Nominal size	E	ØD	d ₁ ± 0,2	a	l	d ₂ ± 0,2
H	15	80	36	15,0	ca. 50 - 70	30	15
	15	80	36	15,0	ca. 50 - 70	70	15
	15	100	36	15,0	ca. 50 - 70	30	15
	15	100	36	15,0	ca. 50 - 70	70	15
	15	130	36	15,0	ca. 50 - 70	70	15
	15	160	36	15,0	ca. 50 - 70	70	15
	15	200	36	15,0	ca. 50 - 70	70	15
	15	300	36	15,0	ca. 50 - 70	70	15
	18	100	36	18,5	ca. 50 - 70	50	18
	18	130	36	18,5	ca. 50 - 70	70	15
	18	100	40	18,5	ca. 50 - 70	40	18
	18	150	40	18,5	ca. 50 - 70	40	18
	18	150	40	18,5	ca. 50 - 70	70	18
	18	100	45	18,5	ca. 50 - 70	70	18
	18	130	45	18,5	ca. 50 - 70	70	18
	18	150	45	18,5	ca. 50 - 70	40	18
	18	150	45	18,5	ca. 50 - 70	70	18
	18	160	45	18,5	ca. 50 - 70	70	18
	18	200	45	18,5	ca. 50 - 70	70	18
	18	270	45	18,5	ca. 50 - 70	70	18
	21	130	45	21,5	ca. 50 - 70	70	18
	23	100	45	23,5	ca. 50 - 70	70	18
	23	130	45	23,5	ca. 50 - 70	70	18
23	200	45	23,5	ca. 50 - 70	70	18	

Further dimensions on request

Type K Chain suspension acc. to DIN 764

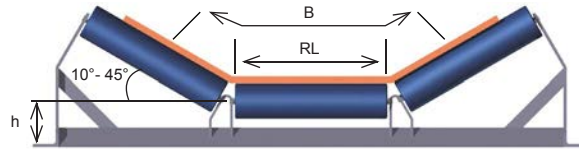


Type	d	t	b1	b2	DIN 764	Number of segments
K	10	35	14	36	B 10	7
	13	45	18	47	B 13	7
	16	56	22	58	B 16	7

Further dimensions on request



05 TROUGHING SETS

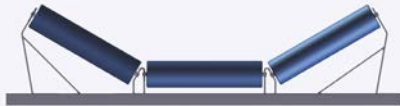


Type	Bar	ØD [mm]	h [mm]	B (Belt width in [mm])												
				400	500	650	800	1000	1200	1400	1600	1800	2000	2200	2400	
SP3-70	U70x50x4	63.5 - 108	125		•	•	•	•	•							
SP3-100	U100x50x5	89 - 133	135		•	•	•	•	•	•						
SLK3-60	L60x6	63.5 - 108	125		•	•	•	•	•							
SLK3-70	L70x7	89 - 133	135		•	•	•	•	•							
SLK3-80	L80x8	89 - 133	160				•	•	•	•	•					
SLK3-100	L100x10	89 - 133	175					•	•	•	•	•				
SL3-60	L60x6	89 - 108	125		•	•	•	•	•							
SL3-70 /135	L70x7	89 - 133	135		•	•	•	•	•							
SL3-70 /150	L70x7	89 - 133	150		•	•	•	•	•							
SL3-80	L80x8	108 - 159	160				•	•	•	•	•					
SL3-90	L90x9	108 - 159	170					•	•	•	•	•				
SL3-100/175	L100x10	133 - 159	175						•	•	•	•	•			
SL3-100/205	L100x10	133 - 159	205						•	•	•	•	•	•		
SL3-120	L120x12	133 - 159	200							•	•	•	•			
SU3-65	U65 DIN 1026	89 - 108	125		•	•	•	•								
SU3-80	U80 DIN 1026	89 - 133	125		•	•	•	•	•							
SU3-100/135	U100 DIN 1026	89 - 133	135			•	•	•	•	•						
SU3-100/150	U100 DIN 1026	89 - 133	150			•	•	•	•	•						
SU3-120	U120 DIN 1026	89 - 159	155				•	•	•	•	•					
SU3-140	U140 DIN 1026	108 - 159	160					•	•	•	•	•				
SU3-160	U160 DIN 1026	108 - 159	165						•	•	•	•	•			
SU3-180	U180 DIN 1026	133 - 159	200							•	•	•	•	•		
SU3-200	U200 DIN 1026	133 - 159	205								•	•	•	•	•	
SP2-70	U70/50/4	63.5 - 133	125	•	•	•	•									

Further designs on request

Frames

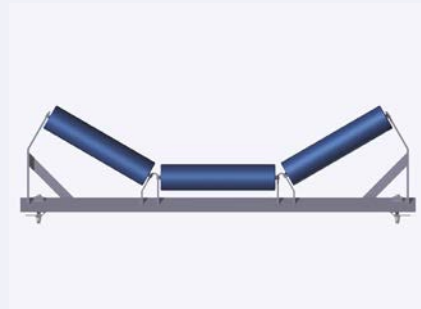
Frames SP3



	SP3-70	SP3-100
Belt width	500 – 1200 mm	500 -1400 mm
Tube diameter	Ø 63.5 – Ø 108 mm	Ø 89 – Ø 133 mm
Bar	U70/50/40 DIN 59413	U100/50/5 DIN 59413
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16 mm for SW 14, 15 mm	16 mm for SW 14, 15 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Frames SLK3



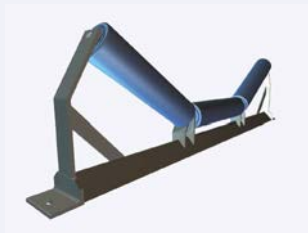
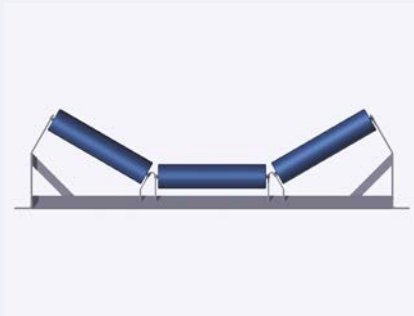
	SLK3-60	SLK3-70
Belt width	500 – 1200 mm	500 -1400 mm
Tube diameter	Ø 63.5 – Ø 108 mm	Ø 89 – Ø 133 mm
Bar	L60/60/6 DIN 1028	L70/70/7 DIN 1028
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16 mm für SW 14, 15 mm	16 mm für SW 14, 15 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461
Connecting elements	inclusive	inclusive

	SLK3-80	SLK3-100
Belt width	800 – 1600 mm	1200 – 1800 mm
Tube diameter	Ø 89 - Ø133 mm	Ø 89 - Ø133 mm
Bar	L80/80/8 DIN 1028	L100/100/10 DIN 1028
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16 mm für SW 14, 15 mm	16 mm für SW 14, 15 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461
Connecting elements	inclusive	inclusive

Further designs on request

Frames

Frames SL3



	SL3-60	SL3-70 / 135
Belt width	500 – 1200 mm	500 – 1200 mm
Tube diameter	Ø89 - Ø133 mm	Ø89 - Ø133 mm
Bar	L60/60/6 DIN 1028	L70/70/7 DIN 1028
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16,19,23,33 mm for SW 14,18,22,32 mm	16,19,23,33 mm for SW 14,18,22,32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

	SL3-70 / 150	SL3-80
Belt width	500 – 1200 mm	800 – 1600 mm
Tube diameter	Ø89 - Ø133 mm	Ø108 - Ø159 mm
Bar	L70/70/7 DIN 1028	L80/80/8 DIN 1028
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16,19,23,33 mm for SW 14,18,22,32 mm	16,19,23,33 mm for SW 14,18,22,32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

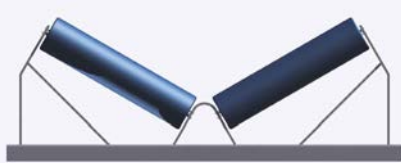
	SL3-90	SL3-100 / 175
Belt width	1000 – 1800 mm	1200 – 2000 mm
Tube diameter	Ø108 - Ø159 mm	Ø133 - Ø159 mm
Bar	L90/90/9 DIN 1028	L100/100/10 DIN 1028
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16,19,23,33 mm for SW 14,18,22,32 mm	16,19,23,33 mm for SW 14,18,22,32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

	SL3-100 / 205	SL3-120
Belt width	1200 – 2000 mm	1400 – 2000 mm
Tube diameter	Ø133 - Ø159 mm	Ø133 - Ø159 mm
Bar	L100/100/10 DIN 1028	L120/120/12 DIN 1028
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16,19,23,33 mm for SW 14,18,22,32 mm	16,19,23,33 mm for SW 14,18,22,32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Frames

Frames SP2



	SP2-70
Belt width	400 – 800 mm
Tube diameter	Ø63,5 - Ø133 mm
Bar	U70/50/4 – DIN 59413
Inclined position acc. to operation	yes/yes
Notches	16 mm for SW 14, 15 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Frames SU3



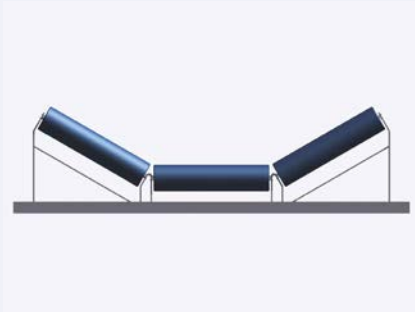
	SU3-65	SU3-80
Belt width	500 – 1000 mm	500 – 1200 mm
Tube diameter	Ø89 - Ø108 mm	Ø89 - Ø133 mm
Bar	U65 - DIN 1026	U80 – DIN 1026
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

	SU3-100 / 135	SU3-100 / 150
Belt width	650 – 1400 mm	650 – 1400 mm
Tube diameter	Ø89 - Ø133 mm	Ø89 - Ø133 mm
Bar	U100 – DIN 1026	U100 – DIN 1026
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Frames

Frames SU3 (Continued)



	SU3-120	SU3-140
Belt width	800 – 1600 mm	1000 – 1800 mm
Tube diameter	Ø89 - Ø159 mm	Ø108 - Ø159 mm
Bar	U120 – DIN 1026	U140 – DIN 1026
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

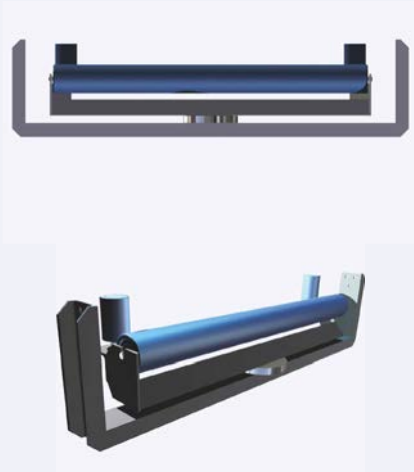
	SU3-160	SU3-180
Belt width	1200 – 2000 mm	1400 – 2200 mm
Tube diameter	Ø108 - Ø159 mm	Ø133 - Ø159 mm
Bar	U160 – DIN 1026	U180 – DIN 1026
Inclined position acc. to operation	yes/yes	yes/yes
Notches	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461	Hot-dip galvanized acc. to DIN EN ISO 1461

	SU3-200
Belt width	1600 – 2400 mm
Tube diameter	Ø133 - Ø159 mm
Bar	U200 – DIN 1026
Inclined position acc. to operation	yes/yes
Notches	16, 19, 23, 33 mm for SW 14, 18, 22, 32 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Centering Stations

Centering stations ZA1



Belt width	400 – 1600 mm
Tube diameter	Ø63,5 - Ø159 mm
Bar	U100, U120, U140, U160 – DIN 1026
Inclined position acc. to operation	no/yes
Notches	15, 16, 19, 23 mm for SW 14, 15, 18, 22 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Centering stations ZA3

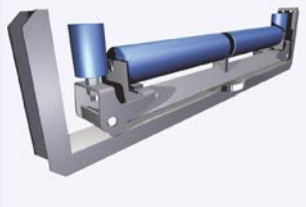


Belt width	400 – 1600 mm
Tube diameter	Ø63,5 - Ø159 mm
Bar	U100, U120, U140, U160 – DIN 1026
Inclined position acc. to operation	no/yes
Notches	15, 16, 19, 23 mm for SW 14, 15, 18, 22 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Centering Stations

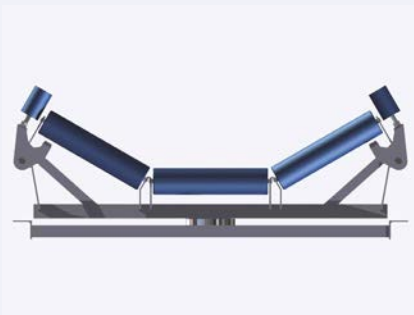
Centering stations ZB2



Belt width	400 – 1600 mm
Tube diameter	Ø63,5 - Ø159 mm
Bar	U100, U120, U140, U160 – DIN 1026
Inclined position acc. to operation	no/yes
Notches	15, 16, 19, 23 mm for SW 14, 15, 18, 22 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461

Further designs on request

Centering stations ZB3



Belt width	400 – 1600 mm
Tube diameter	Ø63,5 - Ø159 mm
Bar	U100, U120, U140, U160 – DIN 1026
Inclined position acc. to operation	no/yes
Notches	15, 16, 19, 23 mm for SW 14, 15, 18, 22 mm
Corrosion protection	Hot-dip galvanized acc. to DIN EN ISO 1461

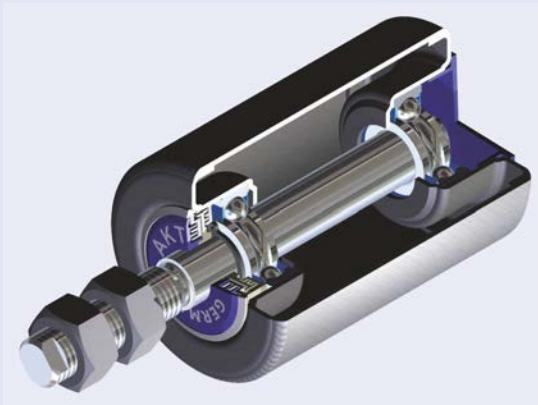
Further designs on request



06 GUIDE ROLLERS

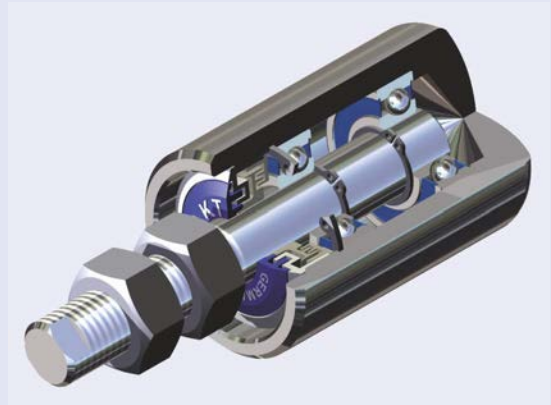
FE

welded steel roller with plastic cover



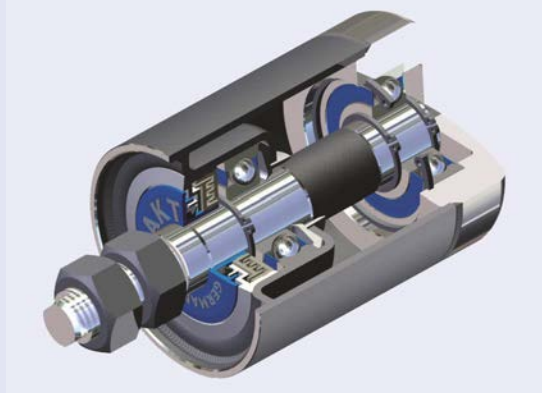
GG

with cast-iron body



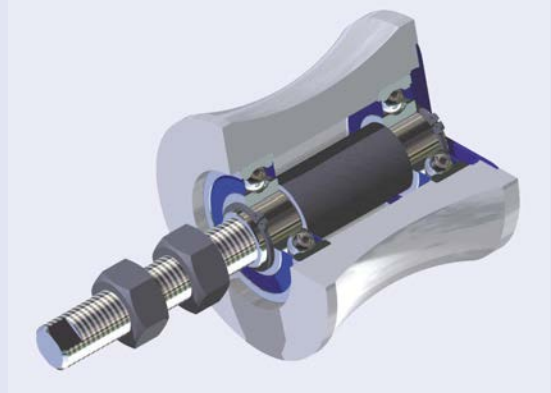
MB

with solid machine-turned closing cover



NE

with plastic roller body

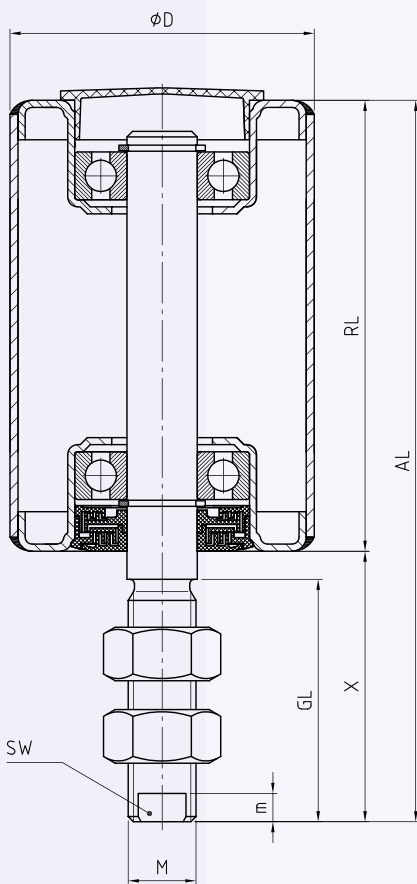


Overview

Type	ØD	Bearing
FE welded steel roller with plastic cover	63.5 - 133	6204 - 6310
GG with cast-iron body	63.5 - 133	6204 - 6310
MB with solid machine-turned closing cover	63.5 - 133	6204 - 6310
NE with plastic roller body	63.5 - 133	6204 - 6310

Further designs on request

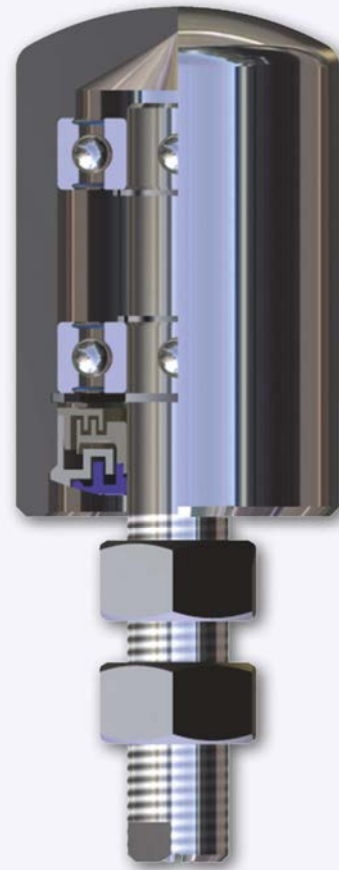
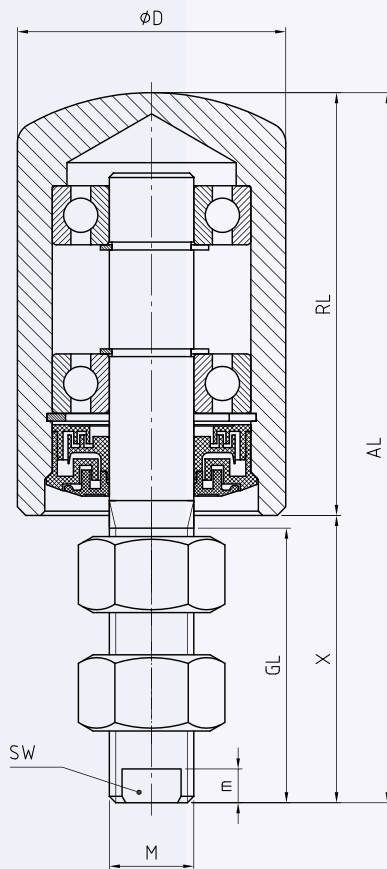
All dimensions in mm



Type	ϕD	Bearing
FE welded steel roller with plastic cover	63.5 - 133	6204 - 6310

Further designs on request

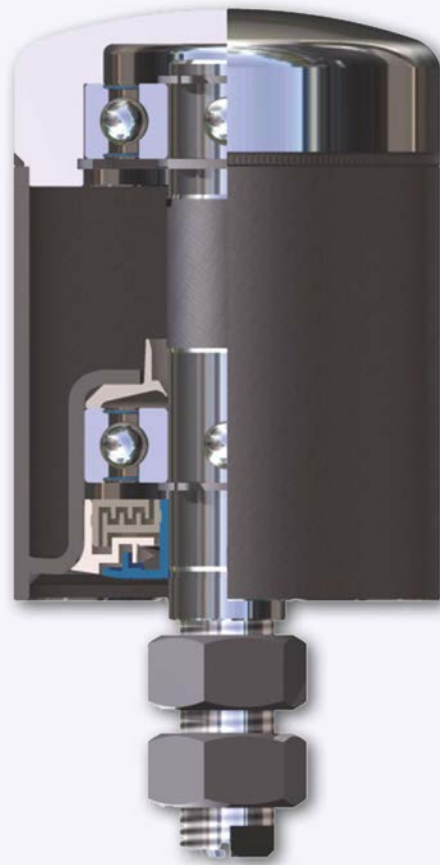
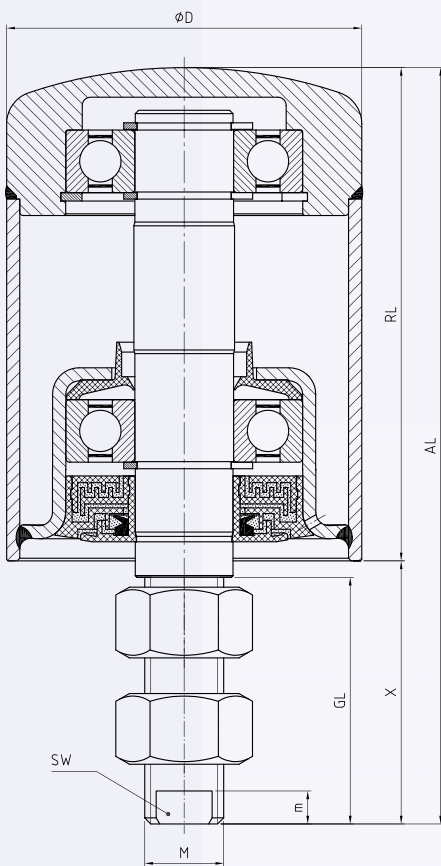
All dimensions in mm



Type	ϕD	Bearing
GG with cast-iron body	63.5 - 133	6204 - 6310

Further designs on request

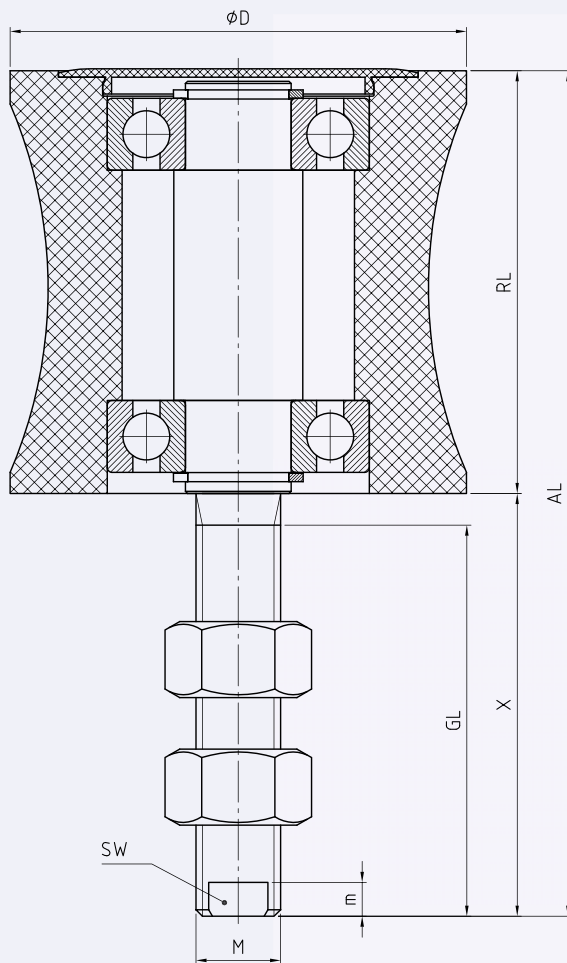
All dimensions in mm



Type	ØD	Bearing
MB with solid machine-turned closing cover	63.5 - 133	6204 - 6310

Further designs on request

All dimensions in mm



Type	ϕD	Bearing
NE with plastic roller body	63.5 - 133	6204 - 6310

Further designs on request

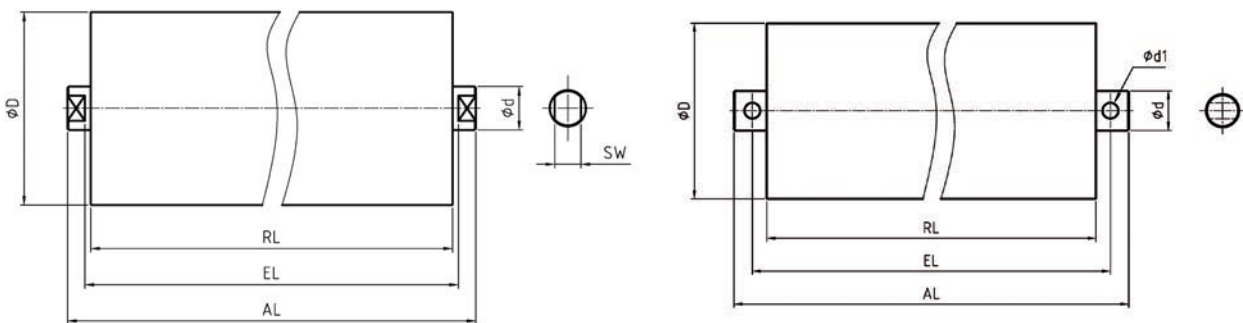
All dimensions in mm

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		Carry	Return	Impact
Quantity				
Idler Spacing	[m]			
Tube Diameter ØD	[mm]			
Tube Length RL	[mm]			
Axle Length AL	[mm]			
Clamping Length EL	[mm]			
Axle Diameter Ød	[mm]			
Width Across Flat SW	[mm]			
Diameter of Bore Hole Ød1	[mm]			
Belt Speed	[m/s]			
Belt Width	[mm]			
Belt Type				
Belt Thickness	[mm]			
Belt Mass	[kg/m]			
Mass Flow Rate	[t/m]			
Transported Material				
Lump Size	[mm]			
Free Fall Height	[m]			
Trough Angle	[°]			
Special Environmental Conditions (Weather, Temperature, Hillside Situation)				

Note

QUALITY FROM TRADITION



- AGRICULTURAL TECHNOLOGY AND AIRPORT TECHNOLOGY
- AUTOMATION / ROBOTICS
- AUTOMOTIVE INDUSTRY
- BULK MATERIAL HANDLING
- CONVEYOR TECHNOLOGY
- ENERGY INDUSTRY
- FOODSTUFF INDUSTRY
- LIGNITE MINING
- MACHINERY CONSTRUCTION
- PACKAGING EQUIPMENT
- TEXTILE INDUSTRY
- TRANSFER / LINEAR GUIDANCE SYSTEMS
- UNIT LOAD HANDLING



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