

TORWEGGE carrier rollers

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TORWEGGE carrier rollers

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General information on carrier rollers

TORWEGGE carrier rollers are custom manufactured for our customers. In order to comply with these special requirements, it is necessary to precisely specify the desired carrier rollers. This is achieved through our uniform order number structure.

Example:

No.	Carrier roller type/ bearing type	Supporting tube Ø/ wall thickness	Tube material	Axle Ø	Axle end construction	Installation length
Piece	mm					mm
10 x	KUT 300	50 x 2.8	KB	A8	M8	EL: 400

Attention: A carrier roller is made up of three elements: bearing, axle, and tube. Refer to the diagrams on page F5 for determining the load-carrying capacity of a carrier roller. The weakest element is decisive for the load-carrying capacity of the roller. The load-carrying capacity is approximately halved for accumulating carrier rollers.

Plastic and steel carrier rollers, drums, and stations

These comprise a vast array of different conveyor elements according to DIN standards and special measurements of your choice.

Therefore, this catalog is only able to provide a selection of the most common dimensions and models from our production program. If you cannot locate a suitable item for your field of application here, please contact us. We will certainly be able to offer a practical solution.

Carrier roller designs and coatings

Order No.	Material	Coating/Description
ST	Tube	Precision steel tube according to DIN 2394
STI	Tube	Galvanized
STL	Tube	Painted
STE	Tube	Epoxy resin-coated
STG	Tube	Rubberized black/white
STSI	Tube	With PVC cover tubing
STSR	Tube	With PVC shrink tubing
STF	Tube	With felt tubing
STV	Tube	PUR Vulkollan® coating
STP	Tube	PUR-RIM/expanded PU black
STB	Tube	PU-Baytec® / natural
STC	Tube	Hard chrome-plated
STH	Tube	Nitrided
STT	Tube	PTFE tube
ST-Elastoflex	Tube	Elastoflex - special rubber
ST-silicone	Tube	Silicone
KB/KGH	Plastic tube	PVC impact-resistant, temperature-resistant -25°C to +60°C (blue/gray)
AI	Aluminum tubing	ALMgSi 0,5
N	Stainless steel tube	Material No. 1.4301 (stainless steel)
N4	Stainless steel tube	Material No. 1.4571 (stainless steel)
N	Axle	Material No. 1.4301 (stainless steel)
ST	Axle	Bright steel

Other wheel bodies, in addition to carrier rollers, can be coated with Elastoflex or silicone. Felt tubing is available in individual lengths; PVC covering tube and shrink tube are available by the meter.

Load-carrying capacity diagram

Attention: A carrier roller is made up of three elements: bearing (drive element), axle, and tube. All 3 elements must be considered for determining the load-carrying capacity. The weakest element is decisive for the load-carrying capacity of the roller. The load-carrying capacity is approximately halved for accumulating carrier rollers.

Accumulating carrier rollers: The following information should be specified in inquiries or orders for accumulating carrier rollers:

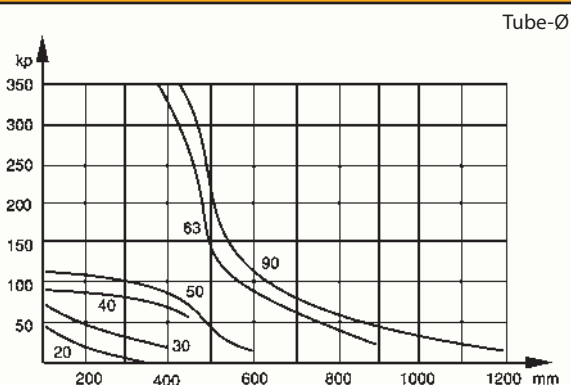
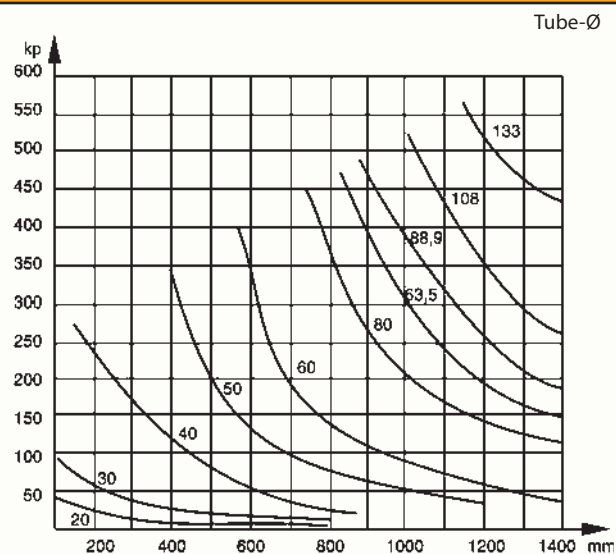
- **Conveyed goods**
- **Dimensions of the material being conveyed** (L x W x H)
Condition of the bearing surface of the material to be conveyed or the material carrier
- **Weight** (surface load, point load)
On which side the load lies on the roller conveyor or on the material carriers
(on the driven or non-driven side)
- **Pitch** (axle spacing of the carrier rollers) or accumulating rollers
- **Conveyor speed** (m/min)

Note: Load-carrying capacity of accumulating carrier rollers with plastic sprocket max. 30 kp/roller
with steel sprocket max. 80 kp/roller
at normal speed (12-24 m/min)

Maximum permissible static surface load on the tubes

Steel tube

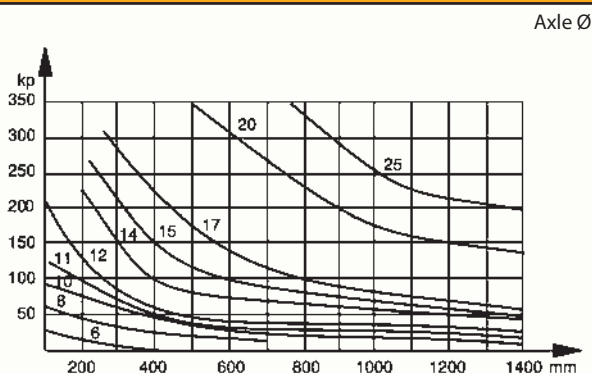
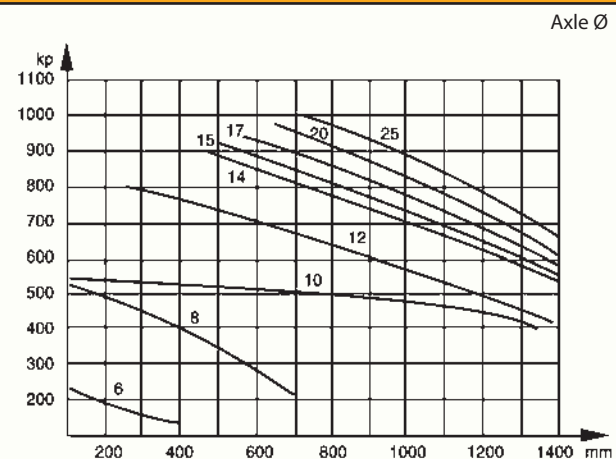
Plastic tube



Maximum permissible static surface load on the axles

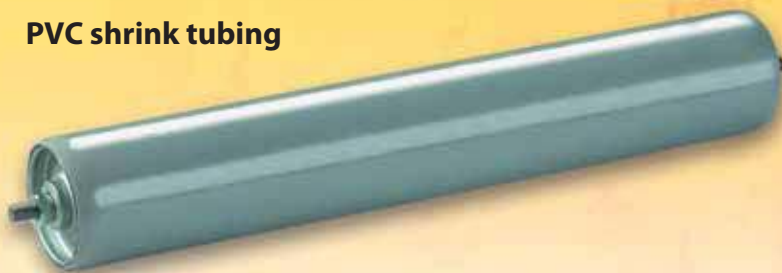
Clamped support

Loose support



Coatings

PVC shrink tubing



- PVC approx. 94° Shore A
- RAL 7001 silver gray
- Temperature resistance – 20 °C/+ 85 °C
- Coating thickness 1.5 mm for tube diameters. 50/60/80 mm

Shrink tube can be ordered by the meter for retrofitting. See page F 32.

PVC cover tubing



- Soft PVC approx. 63° Shore
- RAL 7001 silver gray
- Temperature resistance – 10 °C/+ 60 °C
- Coating thickness 2/3/5 mm depending on tube diameter

Cover tubing can be ordered by the meter for retrofitting. See page F 32.

Rubber/black



- Glued and sanded
- Coating thickness 3 – 12 mm
- 65° Shore A
- Temperature resistance – 20 °C/+ 90 °C
- Good resistance to general weather conditions. Oil and grease, good wear resistance

Type NBR 65° Shore A
 Type NBR mini-diamond 8–12 mm, NBR (nitrile rubber, trade name Perbunan N)

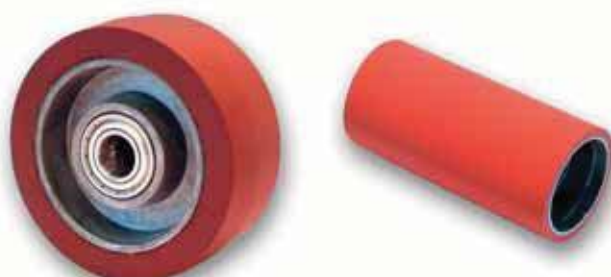
Rubber/white



- Glued and sanded
- Coating thickness 5 mm
- 60° Shore
- Temperature resistance – 20 °C/+ 110 °C
- Food-grade
- Good resistance to oils and greases

- Hardness: adjustable from approx. 50°–95° Shore A
- Temperature resistance – 40 °C/+ 290 °C
- Decomposition occurs at temperatures above 350 °C
- High resistance to oils, fuels, lubricants, solvents, and mineral acids
- Elastoflex does not undergo aging or weathering

Elastoflex - special rubber



We can also coat other wheel bodies and cylinders, besides carrier rollers, with Elastoflex.

Coatings

PUR-Vulkollan®



- Glued and sanded
- Coating thickness 5 mm
- 65° Shore
- Temperature resistance – 25°C/+ 90°C
- Very good resistance to general weather conditions, very good wear resistance/ high abrasion resistance

PUR/polyurethane (trade name Vulkollan®)

PUR-RIM/expanded PU black



- Potting compound approx. 100° Shore A
- Temperature resistance – 20°C/+ 110°C
- Good resistance to general weather conditions as well as oils and greases
- High impact strength and abrasion resistance

PUR-RIM (polyurethane, trade name Büfacast 83-51, Oldorim)

PU-Baytec® / natural



- Rotation casting method 73°–92° Shore A
- Temperature resistance – 20°C/+ 80°C
- Good resistance to general weather conditions as well as oils and greases, high abrasion resistance

PTFE tube



- Also available as PU black 72° Shore A heat shrink tubing
- Good anti-adhesive properties
- Coating thickness 1.5 mm
- Continuous working temperatures to + 249°C possible
- Extends the service life of the roller PTFE tube, can be ordered by the meter for retrofitting (starting at 900 mm in length)

Seamless felt coatings for extremely delicate surfaces



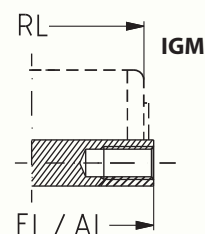
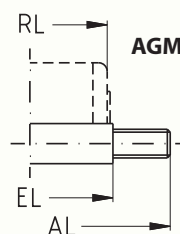
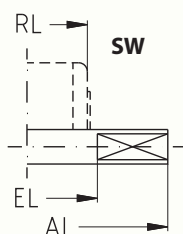
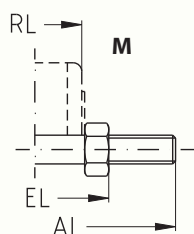
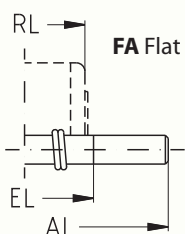
- Cut-resistant
- High wear-resistance
- Temperature resistance: 80°C = 8 days, 120°C = 2 hours
- Thickness: 4 mm and up
- Properties: absorbs liquids, squeezes off, is evenly distributed on surfaces, resists sticking of paste-like materials
- Felt tubing can be ordered individually for retrofitting

Axles

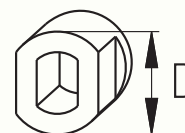
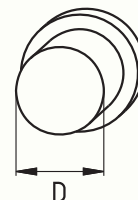
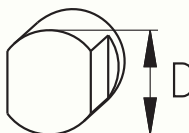
Axle designs



Axle Ø	Spring axle	Flat	External threads	Width across flats	Offset external thread	Internal threads
A	FA	G	M	SW	AGM	IGM
5	5	5				
6	6	6	M 6 x 15			
8	8	8	M 8 x 15			
10	10	10	M 10 x 15	SW 8	M 8	IGM 6
SK 11	SK 11	SK 11				
12	12	12	M 12 x 15	SW 10	M 10	IGM 8
14	14	14	M 14 x 20	SW 12	M 10	IGM 8
					M 12	IGM 10
15		15	M 14 x 20	SW 12	M 10	IGM 8
			M 12 x 15	SW 10		IGM 10
17		17	M 16 x 20	SW 14	M 10	IGM 10
			M 12 x 15	SW 12		IGM 12
20		20	M 20 x 25	SW 14	M 16	IGM 10
				SW 15		IGM 12
25		25	M 24 x 35	SW 18	M 16	IGM 16
				SW 22	M 20	



Caps Plastic



Axle Ø			
8	SK 11 x 11 (7.9)	SK 11 x 11	SW 10 x 10 D = 12
	SK 11 x 11 FA (8.5)	SK 11 x 11	SW 14 x 10 D = 16
10			SW 14 x 10 D = 16
12			SW 14 x 10 D = 16
14			SW 17 x 10 D = 21
15			A20 glatt D = 20
20			SW 30 x 13 D = 36

(sintered metal and plastic)

Steel and plastic carrier rollers



Plastic carrier rollers type KUT 100 with spring axle Ø 8 mm

Ø 20 x 1.5 mm		Roller length	Installation length	Ø 30 x 1.8 mm		Roller length	Installation length
Ident. No.	Order No.	mm	mm	Ident. No.	Order No.	mm	mm
0034500	KUT100/20/FA8-2	195	200	0034504	KUT100/30/FA8-2	195	200
0034501	KUT100/20/FA8-3	295	300	0034505	KUT100/30/FA8-3	295	300
0034502	KUT100/20/FA8-4	395	400	0034506	KUT100/30/FA8-4	395	400
0034503	KUT100/20/FA8-5	495	500	0034507	KUT100/30/FA8-5	495	500

Ø 40 x 2.3 mm		Roller length	Installation length	Ø 50 x 2.8 mm		Roller length	Installation length
Ident. No.	Order No.	mm	mm	Ident. No.	Order No.	mm	mm
0034508	KUT100/40/FA8-2	195	200	0034512	KUT100/50/FA8-2	193	200
0034509	KUT100/40/FA8-3	295	300	0034513	KUT100/50/FA8-3	293	300
0034510	KUT100/40/FA8-4	395	400	0034514	KUT100/50/FA8-4	393	400
0034511	KUT100/40/FA8-5	495	500	0034515	KUT100/50/FA8-5	493	500

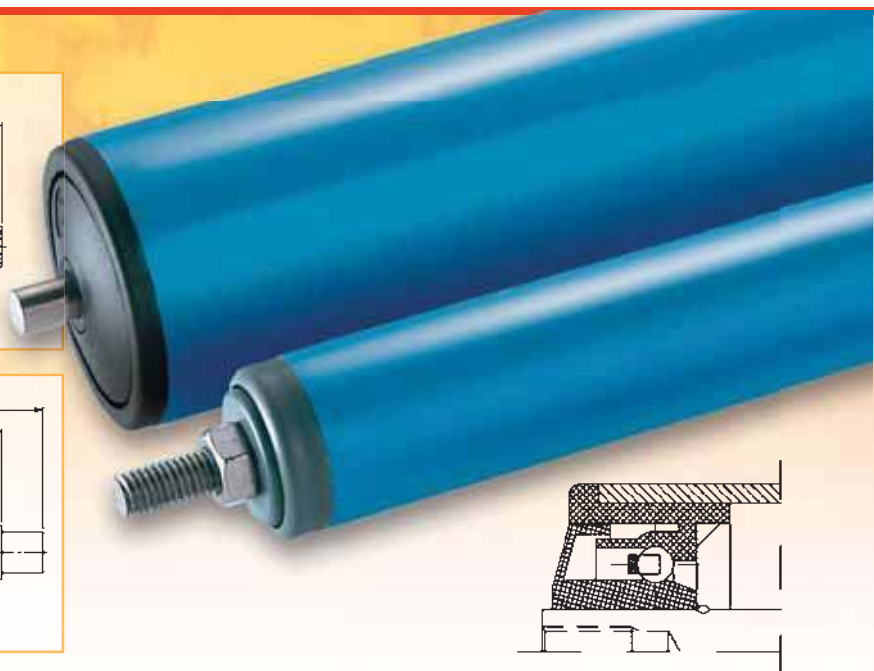
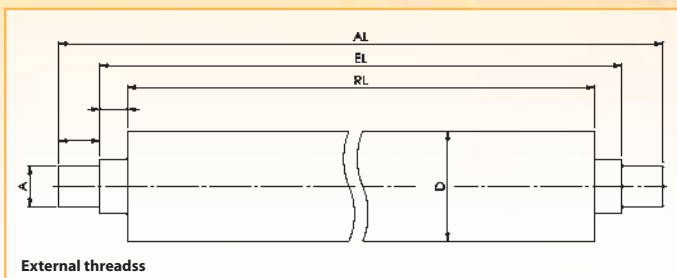
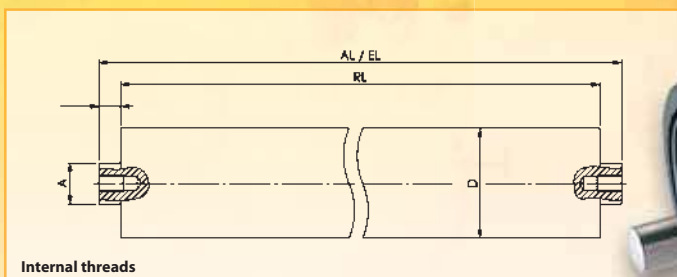
Large quantities
continually
in stock

Steel carrier rollers type TRG galvanized with interior threads M8

Ø 50 x 1.5 mm Axle Ø 12 mm		Roller length	Installation length	Ø 60 x 2 mm Axle Ø 12 mm		Roller length	Installation length	Ø 80 x 2 mm Axle Ø 12 mm		Roller length	Installation length
Ident. No.	Order No.	mm	mm	Ident. No.	Order No.	mm	mm	Ident. No.	Order No.	mm	mm
0022776	TRG50/12/IGM8-2	194	200	0022781	TRG60/12/IGM8-2	194	200	0022786	TRG80/12/IGM8-2	190	200
0022777	TRG50/12/IGM8-3	294	300	0022782	TRG60/12/IGM8-3	294	300	0022787	TRG80/12/IGM8-3	290	300
0022778	TRG50/12/IGM8-4	394	400	0022783	TRG60/12/IGM8-4	394	400	0022788	TRG80/12/IGM8-4	390	400
0022779	TRG50/12/IGM8-5	494	500	0022784	TRG60/12/IGM8-5	494	500	0022789	TRG80/12/IGM8-5	490	500
0022780	TRG50/12/IGM8-6	594	600	0022785	TRG60/12/IGM8-6	594	600	0022790	TRG80/12/IGM8-6	590	600
								0022791	TRG80/12/IGM8-8	790	800

Carrier rollers for troughed belt conveyors TRST with axle Ø 20 mm; WAF 15

Ø 63.5 x 1.8 mm		Roller length	Installation length	Ø 89 x 2.9 mm		Roller length	Installation length	Ø 108 x 3.25 mm		Roller length	Installation length
Ident. No.	Order No.	mm	mm	Ident. No.	Order No.	mm	mm	Ident. No.	Order No.	mm	mm
0025876	TRST63.5/20/200	200	206	0025887	TRST89/20/200	200	206	0025866	TRST108/20/200	200	206
0025877	TRST63.5/20/250	250	256	0025888	TRST89/20/250	250	256	0025867	TRST108/20/250	250	256
0025878	TRST63.5/20/315	315	321	0025889	TRST89/20/315	315	321	0025868	TRST108/20/315	315	321
0025879	TRST63.5/20/380	380	386	0025890	TRST89/20/380	380	386	0025869	TRST108/20/380	380	386
0025880	TRST63.5/20/465	465	471	0025891	TRST89/20/465	465	471	0025870	TRST108/20/465	465	471
0025881	TRST63.5/20/500	500	506	0025892	TRST89/20/500	500	506	0025871	TRST108/20/500	500	506
0025883	TRST63.5/20/600	600	606	0025894	TRST89/20/530	530	536	0025872	TRST108/20/600	600	606
0025884	TRST63.5/20/750	750	756	0025895	TRST89/20/600	600	606	0025873	TRST108/20/750	750	756
0025885	TRST63.5/20/950	950	956	0025900	TRST89/20/750	750	756	0025874	TRST108/20/950	950	956
0025875	TRST63.5/20/1150	1150	1156	0025901	TRST89/20/950	950	956	0025865	TRST108/20/1150	1150	1156
				0025886	TRST89/20/1150	1150	1156				



Plastic carrier rollers KUT 100 Plastic tube Ø 20 / 30 / 40 / 50 / 63 mm

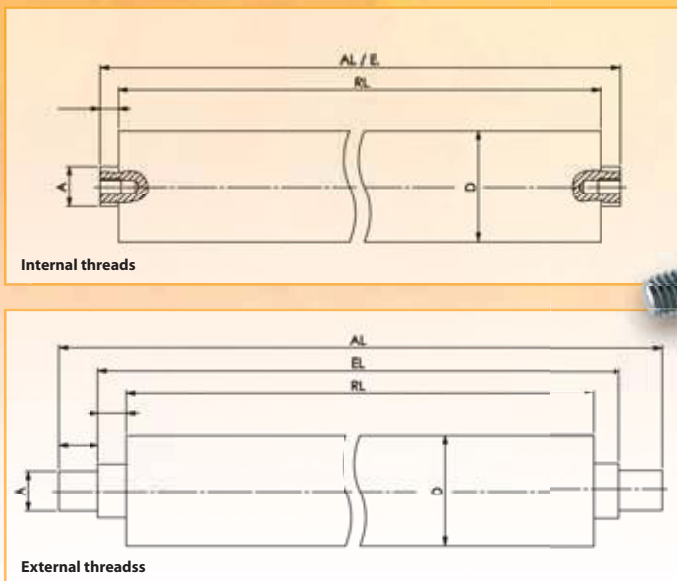
- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads, interior threads, spring axles or width across flat.
- **Bearing:** Thermoplastic bearing with one row of balls.
- Please specify the exact model when ordering:
Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
KUT 100/50x1.5/KB/A10/M10 EL = 500 mm or
KUT 100/63x3/KB/A12/SW10 EL = 600 mm.
- **Application:** Gravity carrier roller, light-running, light non-driven roller conveyors for in-house use, higher degree of running smoothness than TRG.

These carrier rollers are also available in stainless steel (stainless steel bearing balls and axle).

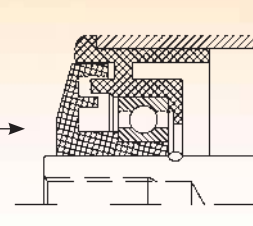
Standard lengths
see page F 9

Additional models and prices on request

Order No.	Precision tubing D x W mm	Axle Ø mm	External threads			Internal threads		Spring axle		Width across flats		
			M	AL = EL +	EL = RL +	M	EL = RL +	AL = EL +	EL = RL +	SW	AL = EL +	EL = RL +
KUT100/20x1.5/KB/A06	20 x 1.5	6	M6	30	15	-	-	16	5	-	-	-
KUT100/30x1.8/KB/A08	30 x 1.8	8	M8	30	18	-	-	20	5	-	-	-
KUT100/30x1.8/KB/A10	30 x 1.8	10	M10	30	17	M6	5	20	5	8	20	5
KUT100/40x2.3/KB/A08	40 x 2.3	8	M8	30	18	-	-	20	5	-	-	-
KUT100/40x2.3/KB/A10	40 x 2.3	10	M10	30	17	M6	5	20	5	8	20	5
KUT100/50x2.8/KB/A08	50 x 2.8	8	M8	30	20	-	-	20	7	-	-	-
KUT100/50x2.8/KB/A10	50 x 2.8	10	M10	30	19	M6	7	20	7	8	20	7
KUT100/50x2.8/KB/A12	50 x 2.8	12	M12	30	21	M8	7	24	7	8/10	20	7
KUT100/63x3/KB/A08	63 x 3.0	8	M8	30	20	-	-	20	7	-	-	-
KUT100/63x3/KB/A10	63 x 3.0	10	M10	30	19	M6	7	20	7	8	20	7
KUT100/63x3/KB/A12	63 x 3.0	12	M12	30	21	M8	7	24	7	8/10	20	7



Labyrinth seal



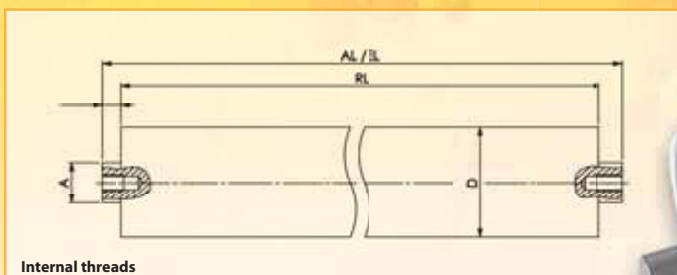
Plastic carrier rollers KUT 300 for medium loads - plastic tube Ø 50 / 63 / 90 mm

- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads, interior threads, spring axles or width across flat.
- **Bearing:** High-quality plastic with double labyrinth seal and precision deep groove ball bearings.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
KUT 300/63x3/KB/A12/IG M8 EL = 400 mm or
KUT 300/90x7/KB/A14/M14 EL = 750 mm.
- **Application:** For driven and non-driven roller conveyors, higher degree of running smoothness than KUT 100.

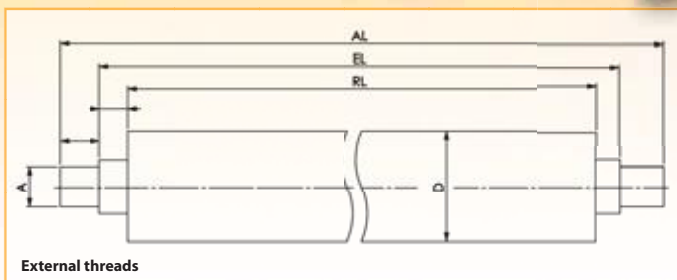
Ideal for wet operation with stainless steel axle and 2RS- or SS- deep groove ball bearing.

Additional models and prices on request

Order No.	Precision tubing D x W mm	Axle Ø mm	External threads			Internal threads		Spring axle		Width across flats		
			M	AL = EL +	EL = RL +	M	EL = RL +	AL = EL +	EL = RL +	SW	AL = EL +	EL = RL +
KUT300/50x2.8/KB/A08	50 x 2.8	8	M8	30	20	-	-	20	7	-	-	-
KUT300/50x2.8/KB/A10	50 x 2.8	10	M10	30	19	M6	7	20	7	8	20	7
KUT300/50x2.8/KB/SK11	50 x 2.8	SK11	-	-	-	-	-	20	7	-	-	-
KUT300/50x2.8/KB/A12	50 x 2.8	12	M12	30	21	M8	7	24	7	10	20	7
KUT300/50x2.8/KB/A14	50 x 2.8	14	M14	40	23	M10	7	28	7	12	20	7
KUT300/63x3/KB/A10	63 x 3.0	10	M10	30	19	M6	7	20	7	8	20	7
KUT300/63x3/KB/SK11	63 x 3.0	SK11	-	-	-	-	-	20	7	-	-	-
KUT300/63x3/KB/A12	63 x 3.0	12	M12	30	21	M8	7	24	7	10	20	7
KUT300/63x3/KB/A14	63 x 3.0	14	M14	40	13	M10	7	28	7	12	20	7
KUT300/90x7/KB/A10	90 x 7.0	10	M10	30	29	M6	17	20	17	8	20	17
KUT300/90x7/KB/A12	90 x 7.0	12	M12	30	31	M8	17	24	17	10	20	17
KUT300/90x7/KB/A14	90 x 7.0	14	M14	40	33	M10	17	28	17	12	20	17
KUT300/90x7/KB/A17	90 x 7.0	17	M17	40	33	M10	17	-	-	14	20	17



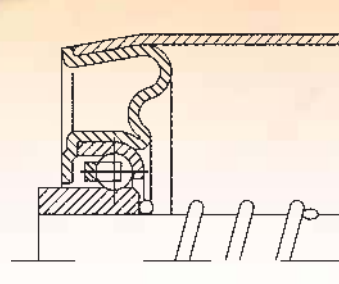
Internal threads



External threads



Standard lengths
see page F 9



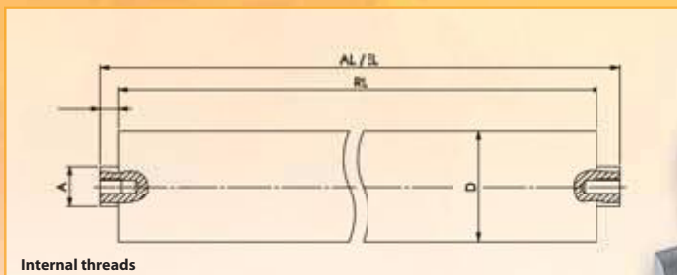
Carrier and conveyor belt roller TRG

for light to medium loads - Steel tubing Ø 16 / 20 / 30 / 40 / 50 / 60 / 80 mm

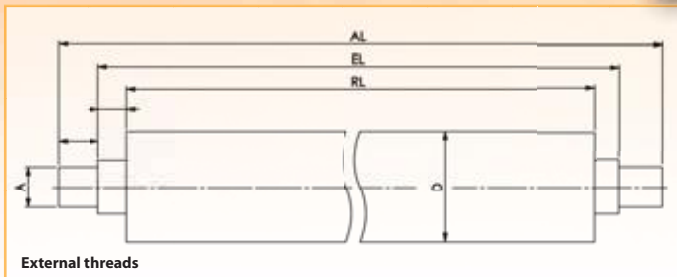
- **Axle:** Steel, bright-drawn, axle ends with threads, interior threads, spring axle or width across flat.
- **Bearing:** Model TRG 30, 40, 50, 60, 80 made of deep drawn steel sheet with tapered ball bearing. Model TRG 16 and 20 made of thermoplastic bearing with one row of balls.
- All carrier rollers are also available with a galvanized finish or with other coverings (see pp. F6 and F7).
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
TRG/50x1,5/ST/A10/M10 EL= 300 mm.
- **Application:** Gravity carrier roller, light-running, antistatic (please indicate with order).

Additional models and prices on request

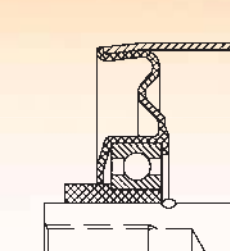
Order No.	Precision tubing D x W mm	Axle Ø mm	External threads			Internal threads		Spring axle		Width across flats		
			M	AL = EL + mm	EL = RL + mm	M	EL = RL + mm	AL = EL + mm	EL = RL + mm	SW	AL = EL + mm	EL = RL + mm
TRG/16x1/ST/A05	16 x 1.0	5	-	-	-	-	-	16	5	-	-	-
TRG/20x1.5/ST/A6	20 x 1.5	6	M6	30	15	-	-	16	5	-	-	-
TRG/20x1.5/ST/A8	20 x 1.5	8	M8	30	19	-	-	20	6	-	-	-
TRG/30x1/ST/A8	30 x 1.0	8	M8	30	19	-	-	20	6	-	-	-
TRG/40x1.5/ST/A8	40 x 1.5	8	M8	30	19	-	-	20	6	-	-	-
TRG/40x1.5/ST/A10	40 x 1.5	10	M10	30	18	M6	6	20	6	8	20	6
TRG/40x1.5/ST/A12	40 x 1.5	12	M12	30	20	M8	6	20	6	10	20	6
TRG/50x1.5/ST/A8	50 x 1.5	8	M8	30	19	-	-	16	6	-	-	-
TRG/50x1.5/ST/A10	50 x 1.5	10	M10	30	18	M6	6	20	6	8	20	6
TRG/50x1.5/ST/SK11	50 x 1.5	SK11	-	-	-	-	-	20	6	-	-	-
TRG/50x1.5/ST/A12	50 x 1.5	12	M12	24	20	M8	6	20	6	10	20	6
TRG/50x2/ST/A10	50 x 2.0	10	M10	30	18	M6	6	20	6	8	20	6
TRG/50x2/ST/SK11	50 x 2.0	SK11	-	-	-	-	-	20	6	-	-	-
TRG/50x2/ST/A12	50 x 2.0	12	M12	30	20	M8	6	20	6	10	20	6
TRG/60x2/ST/A10	60 x 2.0	10	M10	30	18	M6	6	20	6	-	-	-
TRG/60x2/ST/SK11	60 x 2.0	SK11	-	-	-	-	-	20	6	-	-	-
TRG/60x2/ST/A12	60 x 2.0	12	M12	30	20	M8	6	20	6	-	-	-
TRG/80x2/ST/A10	80 x 2.0	10	M10	30	18	M6	6	20	6	8	20	6
TRG/80x2/ST/SK11	80 x 2.0	SK11	-	-	-	-	-	20	6	-	-	-
TRG/80x2/ST/A12	80 x 2.0	12	M12	30	24	M8	10	20	10	10	20	10



Internal threads



External threads

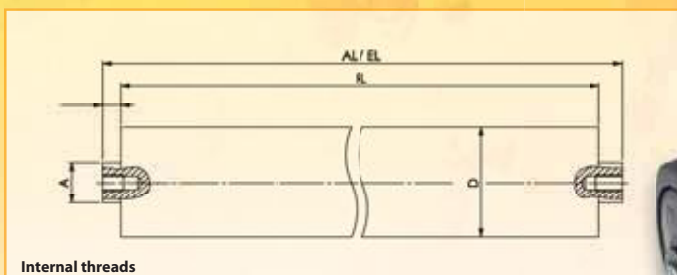


Carrier and conveyor belt roller TRK for medium loads - Steel tubing $\varnothing$ 50 / 60 / 80 mm

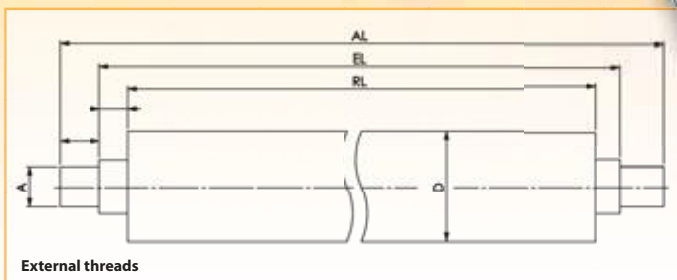
- **Axle:** Steel, bright-drawn, axle ends with threads, interior threads, spring axle or width across flat.
- **Bearing:** Model TRK 50, 60, 80 made of deep drawn steel sheet with deep groove ball bearing 6003 or 6202, choice of ZZ or RS.
- Please specify the exact model when ordering: Roller $\varnothing$, axle $\varnothing$, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
TRK/50x1,5/ST/A10/M10 EL= 300 mm or
TRK/80x2/ST/A17/SW14 EL= 950 mm.
- **Application:** For driven and non-driven roller conveyors. Higher load, speed, and running smoothness than TRG.
- **Options:** With splash water protection for A12 + A15.
- For high speed A15; A17 (all-steel model).

Additional models and prices on request

Order No.	Precision tubing D x W mm	Axle $\varnothing$ mm	External threads			Internal threads		Spring axle		Width across flats		
			M	AL = EL +	EL = RL +	M	EL = RL +	AL = EL +	EL = RL +	SW	AL = EL +	EL = RL +
				mm			mm		mm		mm	
TRK/40x1.5/ST/A12	40 x 1.5	12	M12	30	24	M8	10	20	-	10	20	10
TRK/50x1.5/ST/A8	50 x 1.5	8	M8	30	23	-	-	20	10	-	-	-
TRK/50x1.5/ST/A10	50 x 1.5	10	M10	30	22	M6	10	20	10	8	20	10
TRK/50x1.5/ST/A12	50 x 1.5	12	M12	30	24	M8	10	20	10	10	20	10
TRK/50x1.5/ST/A14	50 x 1.5	14	M14	40	26	M10	10	20	10	12	20	10
TRK/50x1.5/ST/A15	50 x 1.5	15	M15	40	26	M10	10	20	10	12	20	10
TRK/50x1.5/ST/A17	50 x 1.5	17	M16	40	26	M12	10	-	-	14	0	10
TRK/50x2/ST/A8	50 x 2.0	8	M8	30	23	-	-	20	10	-	-	-
TRK/50x2/ST/A10	50 x 2.0	10	M10	30	22	M6	10	20	10	8	20	10
TRK/50x2/ST/A12	50 x 2.0	12	M12	30	24	M8	10	20	10	10	20	10
TRK/50x2/ST/A14	50 x 2.0	14	M14	40	26	M10	10	20	10	12	20	10
TRK/50x2/ST/A15	50 x 2.0	15	M15	40	26	M10	10	20	10	12	20	10
TRK/50x2/ST/A17	50 x 2.0	17	M16	40	26	M12	10	-	-	14	20	10
TRK/60x2/ST/A10	60 x 2.0	10	M10	30	22	M6	10	20	10	8	20	10
TRK/60x2/ST/A12	60 x 2.0	12	M12	30	24	M8	10	20	10	10	20	10
TRK/60x2/ST/A14	60 x 2.0	14	M14	40	26	M10	10	20	10	12	20	10
TRK/60x2/ST/A15	60 x 2.0	15	M15	40	26	M10	10	20	10	12	20	10
TRK/60x2/ST/A17	60 x 2.0	17	M16	40	26	M12	10	-	-	14	20	10
TRK/80x2/ST/A12	80 x 2.0	12	M12	30	24	M8	10	20	10	10	20	10
TRK/80x2/ST/A14	80 x 2.0	14	M14	40	26	M10	10	20	10	12	20	10
TRK/80x2/ST/A15	80 x 2.0	15	M15	40	26	M10	10	20	10	12	20	10
TRK/80x2/ST/A17	80 x 2.0	17	M16	40	26	M12	10	-	-	14	20	10



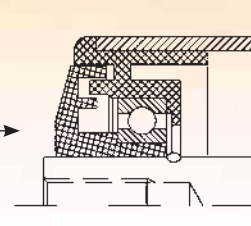
Internal threads



External threads



Labyrinth seal

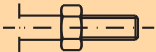
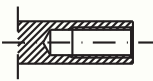
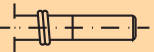
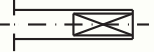


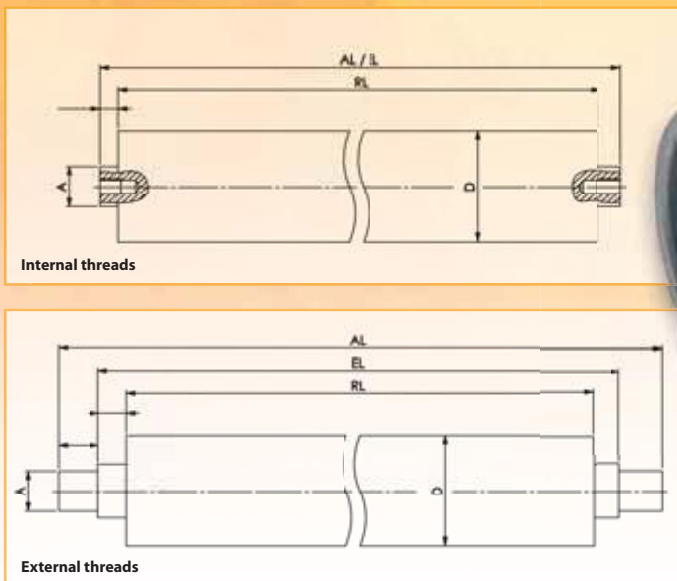
Carrier and conveyor belt roller TRM for medium loads - Steel tubing $\varnothing 50 / 60 / 63.5 / 70 / 80 / 89$ mm

- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads, interior threads, or width across flat.
- **Bearing:** Made of high-quality plastic with labyrinth seal, precision deep groove ball bearings 6202, 6202 Z, 6202 RS, 6003, 6003 Z, 6003 RS.
- These carrier rollers are also highly protected against penetration of dirt and splash water.
- Please specify the exact model when ordering: Roller $\varnothing$, axle $\varnothing$, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
TRM/50x2/ST/A14/M14 EL = 550 mm.

Ideal for wet operation with stainless steel tube and axle and 2RS or SS deep groove ball bearing.

Additional models and prices on request

Additional models and prices on request												
			External threads			Internal threads		Spring axle		Width across flats		
	Precision tubing D x W	Axle Ø	M	AL = EL +	EL = RL +	M	EL = RL +	AL = EL +	EL = RL +	SW	AL = EL +	EL = RL +
Order No.	mm	mm	mm			mm		mm		mm		
TRM/50x2/ST/A10	50 x 2.0	10	M10	30	19	M6	7	20	7	8	20	7
TRM/50x2/ST/SK11	50 x 2.0	SK11	-	-	-	-	-	20	7	-	-	-
TRM/50x2/ST/A12	50 x 2.0	12	M12	30	21	M8	7	20	7	10	20	7
TRM/50x2/ST/A14	50 x 2.0	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/50x3/ST/A10	50 x 3.0	10	M10	30	19	M6	7	20	7	8	20	7
TRM/50x3/ST/SK11	50 x 3.0	SK11	-	-	-	-	-	20	7	-	-	-
TRM/50x3/ST/A12	50 x 3.0	12	M12	30	21	M8	7	20	7	10	20	7
TRM/50x3/ST/A14	50 x 3.0	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/60x2/ST/A10	60 x 2.0	10	M10	30	19	M6	7	20	7	8	20	7
TRM/60x2/ST/SK11	60 x 2.0	SK11	-	-	-	-	-	20	7	-	-	-
TRM/60x2/ST/A12	60 x 2.0	12	M12	30	21	M8	7	20	7	10	20	7
TRM/60x2/ST/A14	60 x 2.0	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/63.5x2.9/ST/A10	63.5 x 2.9	10	M10	30	19	M6	7	20	7	8	20	7
TRM/63.5x2.9/ST/SK11	63.5 x 2.9	SK11	-	-	-	-	-	20	7	-	-	-
TRM/63.5x2.9/ST/A12	63.5 x 2.9	12	M12	30	21	M8	7	20	7	10	20	7
TRM/63.5x2.9/ST/A14	63.5 x 2.9	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/63.5x2.9/ST/A17	63.5 x 2.9	17	M16	40	22	M10	7	20	7	14	20	7
TRM/70x2/ST/A12	70 x 2.0	12	M12	30	21	M8	7	20	7	10	20	7
TRM/70x2/ST/A14	70 x 2.0	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/80x2/ST/A12	80 x 2.0	12	M12	30	21	M8	7	20	7	10	20	7
TRM/80x2/ST/A14	80 x 2.0	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/80x2/ST/A17	80 x 2.0	17	M16	40	22	M10	7	20	7	14	20	7
TRM/89x2.9/ST/A12	89 x 2.9	12	M12	30	21	M8	7	20	7	10	20	7
TRM/89x2.9/ST/A14	89 x 2.9	14	M14	40	23	M8/10	7	20	7	12	20	7
TRM/89x2.9/ST/A17	89 x 2.9	17	M16	40	22	M10	7	20	7	14	20	7

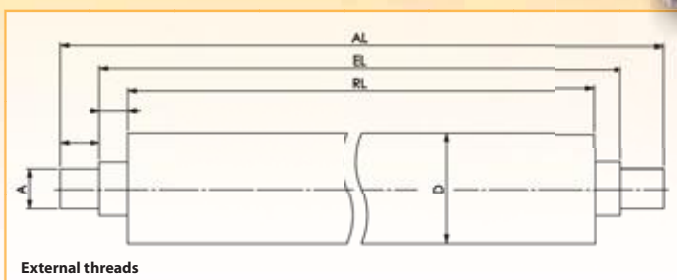
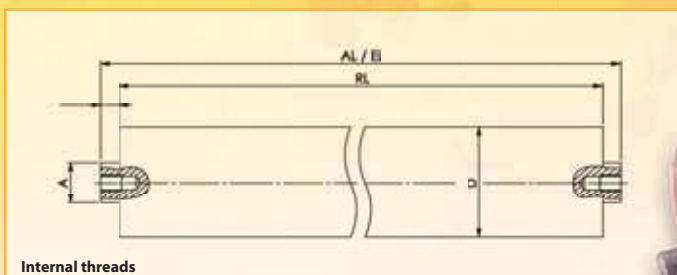


Carrier and conveyor belt roller TRK, heavy-duty for medium loads - Steel tubing Ø 63.5 / 80 / 89 / 108 mm

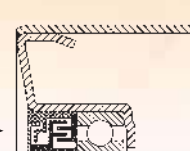
- **Axle:** Steel, bright-drawn, axle ends with threads, interior threads, spring axle or width across flat.
- **Bearing:** Model TRK 63,5/80/89/108 made of deep drawn steel sheet with deep groove ball bearing 6204, 6205.
- All carrier rollers are also available with a galvanized finish or with other coverings (see pp. F6 and F7).
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
TRK/80x2/ST/A20/SW 15 EL = 950 mm.
- **Application:** For driven and non-driven roller conveyors.
- **Options:** With splash water protection for A20, Ø 80, 89, and 108.

Additional models and prices on request

Order No.	Precision tubing D x W mm	Axle Ø mm	External threads			Internal threads		Spring axle		Width across flats		
			M	AL = EL +	EL = RL +	M	EL = RL +	AL = EL +	EL = RL +	SW	AL = EL +	EL = RL +
TRK/63.5x2.9/ST/A17	63.5 x 2.9	17	M16	40	22	M10	6	-	-	14	20	6
TRK/63.5x2.9/ST/A20	63.5 x 2.9	20	M20	50	24	M12	6	-	-	15	20	6
TRK/80x2/ST/A20	80 x 2.0	20	M20	50	24	M12	6	-	-	15	20	6
TRK/80x2/ST/A25	80 x 2.0	25	M24	60	26	M16	6	-	-	18	20	6
TRK/89x2.9/ST/A17	89 x 2.9	17	M16	40	22	M12	6	-	-	14	20	6
TRK/89x2.9/ST/A20	89 x 2.9	20	M20	50	24	M12	6	-	-	15	20	6
TRK/89x2.9/ST/A25	89 x 2.9	25	M24	60	26	M16	6	-	-	18	20	6
TRK/108x3.2/ST/A17	108 x 3.2	17	M16	40	22	M12	6	-	-	14	20	6
TRK/108x3.2/ST/A20	108 x 3.2	20	M20	50	24	M12	6	-	-	15	20	6
TRK/108x3.2/ST/A25	108 x 3.2	25	M24	60	26	M16	6	-	-	18	20	6



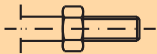
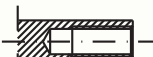
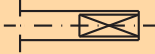
Labyrinth seal



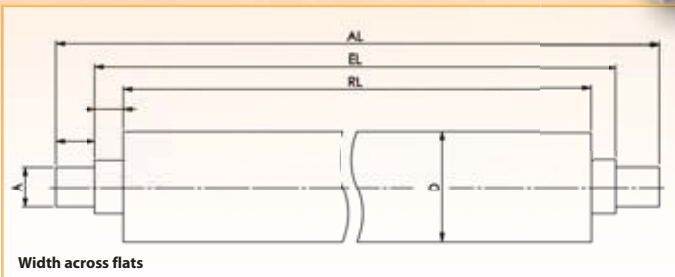
Carrier and conveyor belt roller TGF – Desired lengths

- **Roller sleeves:** Carrier roller precision steel tube with tightened tolerances for especially quiet running with red stove enamel finish.
 - **Roller bases:** Deep drawn steel sheet with calibrated ball bearing seat. The roller base is welded to the precision carrier roller tube.
 - **Axle:** Steel, bright-drawn, axle ends with threads, interior threads, offset threads or width across flats.
 - **Seal:** Multiple plastic labyrinth rings are combined to form a sealing unit, which is also protected with a steel sealing cap. The labyrinth, in addition to the amply dimensioned pre-chamber, is greased.
- An additional rain protection cap prevents the penetration of rain and splash water into the roller interior through the use of centrifugal force.
- **Bearing:** Precision ball bearing 6204, 6205 und 6206.
 - **Lubrication:** Permanent lubrication for bearing and labyrinth with high-quality lithium-based grease.
 - Please specify the exact model when ordering. Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
 - **Ordering example:**
 TGF/89x2.9/STL/A20/SW 15 EL = 500 mm or
 TGF/108x3.25/STL/A30/IG M 20 EL = 750 mm.

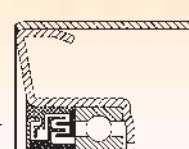
Additional models and prices on request

Additional models and prices on request										
			External threads			Internal threads		Width across flats		
	Precision tubing D x W	Axle Ø	M	AL = EL +	EL = RL +	M	EL = RL +	SW	AL = EL +	EL = RL +
Order No.	mm	mm	mm			mm		mm		
TGF/51x2.9/STL/A20	51 x 2.9	20	M20	50	24	M12	6	15	20	6
TGF/63.5x1.8/STL/A20	63.5 x 1.8	20	M20	50	24	M12	6	15	20	6
TGF/80x2/STL/A20	80 x 2.0	20	M20	50	24	M12	6	15	20	6
TGF/89x2.9/STL/A20	89 x 2.9	20	M20	50	24	M12	6	15	20	6
TGF/108x3.25/STL/A20	108 x 3.25	20	M20	50	24	M12	6	15	20	6
TGF/133x3.6/STL/A20	133 x 3.6	20	M20	50	24	M12	6	15	20	6
TGF/159x4.5/STL/A20	159 x 4.5	20	M20	50	24	M12	6	15	20	6
TGF/89x2.9/STL/A25	89 x 2.9	25	M24	70	24	M16	6	18	20	6
TGF/108x3.25/STL/A25	108 x 3.25	25	M24	70	24	M16	6	18	20	6
TGF/133x3.6/STL/A25	133 x 3.6	25	M24	70	24	M16	6	18	20	6
TGF/159x4.5/STL/A25	159 x 4.5	25	M24	70	24	M16	6	18	20	6
TGF/89x2.9/STL/A30	89 x 2.9	30	M30	80	24	M20	6	22	20	6
TGF/108x3.25/STL/A30	108 x 3.25	30	M30	80	24	M20	6	22	20	6
TGF/133x3.6/STL/A30	133 x 3.6	30	M30	80	24	M20	6	22	20	6
TGF/159x4.5/STL/A30	159 x 4.5	30	M30	80	24	M20	6	22	20	6

Large quantities
continually in stock



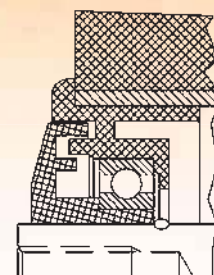
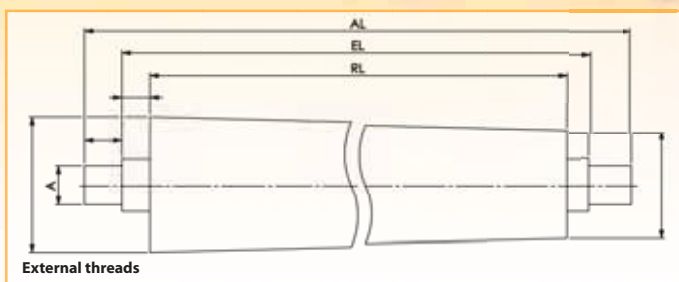
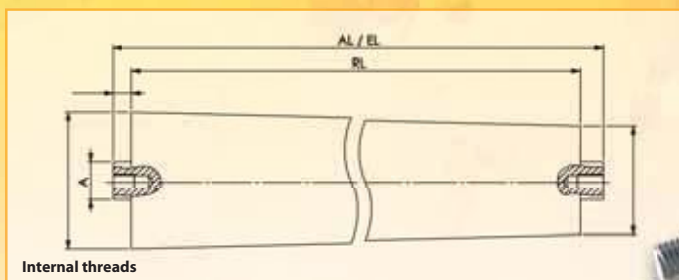
Labyrinth seal



Carrier rollers for troughed belt conveyors TRST – Standard lengths

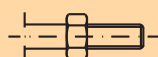
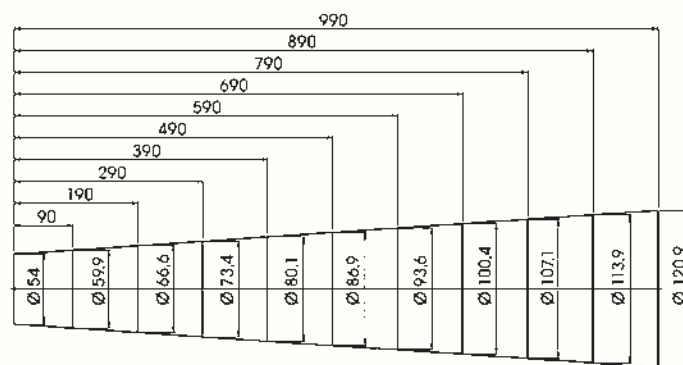
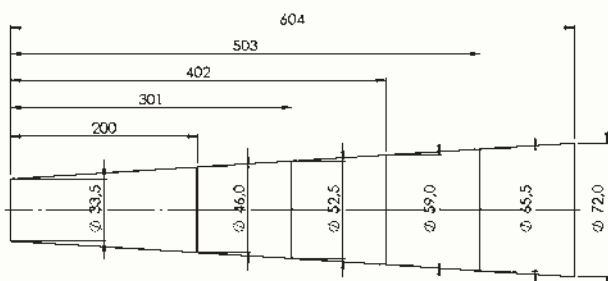
- **Roller sleeves:** Precision steel tube with red stove enamel finish.
- **Roller bases:** Deep drawn steel sheet base with calibrated ball bearing seat, welded all around to the roller sleeve.
- **Axle:** Steel, bright-drawn, axle ends with width across flats.
- **Bearing:** Precision ball bearing. Bearing series 6204.
- **Lubrication:** Permanent lubrication.
- **Seal:** The precision ball bearing is provided with an interior seal on the tube interior. On the exterior with a labyrinth seal, a dust cap, grease chamber.

Ident. No.	Order No.	Precision steel tube	A	SW	RL	EL	AL	kg
		D x W mm						
0025876	TRST63.5/20/200	63.5 x 1.8	20	15 x 10	200	206	226	2.7
0025877	TRST63.5/20/250	63.5 x 1.8	20	15 x 10	250	256	276	3.1
0025878	TRST63.5/20/315	63.5 x 1.8	20	15 x 10	315	321	341	3.6
0025879	TRST63.5/20/380	63.5 x 1.8	20	15 x 10	380	386	406	4.0
0025880	TRST63.5/20/465	63.5 x 1.8	20	15 x 10	465	471	491	4.5
0025881	TRST63.5/20/500	63.5 x 1.8	20	15 x 13	500	506	532	4.9
0025883	TRST63.5/20/600	63.5 x 1.8	20	15 x 13	600	606	632	5.7
0025884	TRST63.5/20/750	63.5 x 1.8	20	15 x 13	750	756	782	6.8
0025885	TRST63.5/20/950	63.5 x 1.8	20	15 x 13	950	956	982	8.3
0025875	TRST63.5/20/1150	63.5 x 1.8	20	15 x 13	1150	1156	1182	9.6
0025887	TRST89/20/200	89 x 2.9	20	15 x 10	200	206	226	2.8
0025888	TRST89/20/250	89 x 2.9	20	15 x 10	250	256	276	3.3
0025889	TRST89/20/315	89 x 2.9	20	15 x 10	315	321	341	3.9
0025890	TRST89/20/380	89 x 2.9	20	15 x 10	380	386	406	4.9
0025891	TRST89/20/465	89 x 2.9	20	15 x 10	465	471	491	5.4
0025892	TRST89/20/500	89 x 2.9	20	15 x 13	500	506	532	6.0
0025894	TRST89/20/530	89 x 2.9	20	15 x 13	530	536	556	6.3
0025895	TRST89/20/600	89 x 2.9	20	15 x 13	600	606	632	7.1
0025900	TRST89/20/750	89 x 2.9	20	15 x 13	750	756	782	8.4
0025901	TRST89/20/950	89 x 2.9	20	15 x 13	950	956	982	10.6
0025886	TRST89/20/1150	89 x 2.9	20	15 x 13	1150	1156	1182	12.1
0025866	TRST108/20/200	108 x 3.25	20	15 x 10	200	206	226	3.5
0025867	TRST108/20/250	108 x 3.25	20	15 x 10	250	256	276	4.0
0025868	TRST108/20/315	108 x 3.25	20	15 x 10	315	321	341	4.7
0025869	TRST108/20/380	108 x 3.25	20	15 x 10	380	386	406	5.4
0025870	TRST108/20/465	108 x 3.25	20	15 x 10	465	471	491	6.0
0025871	TRST108/20/500	108 x 3.25	20	15 x 13	500	506	532	6.7
0025872	TRST108/20/600	108 x 3.25	20	15 x 13	600	606	632	7.7
0025873	TRST108/20/750	108 x 3.25	20	15 x 13	750	756	782	9.4
0025874	TRST108/20/950	108 x 3.25	20	15 x 13	950	956	982	11.6
0025865	TRST108/20/1150	108 x 3.25	20	15 x 13	1150	1156	1182	13.7

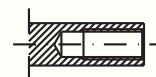


Tapered carrier rollers KFR for medium loads

- **Roller sleeves:** Made of thermoplastic, alternatively: Steel.
- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads or interior threads.
- **Bearing:** Made of thermoplastic with double labyrinth seal and precision deep groove ball bearings.
- **Ordering example:**
KFR50/290/A12/IG M 8 EL = 307 mm.



External threads



Spring axle

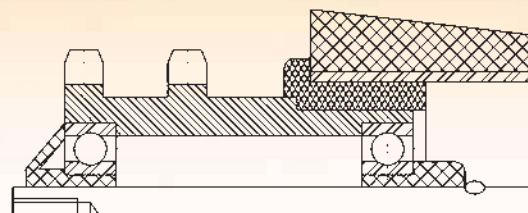
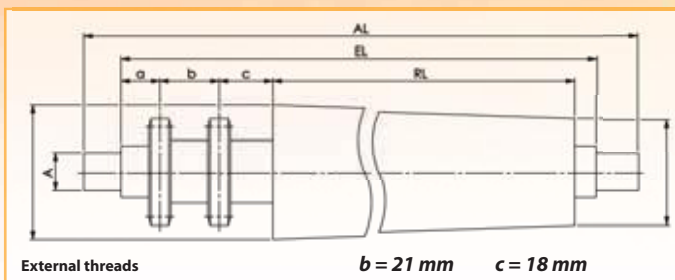
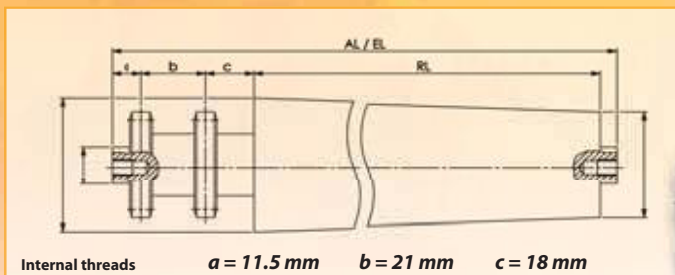
Order No.	Caster Ø mm	Axle Ø mm	External threads				Spring axle		mm
			RL	M	EL = RL +	AL = EL +	M	EL = RL +	

Tapered carrier roller for inside radius 800 mm with Ø 50 mm tube

KFR50/090/A12	54/59.9	12	90	M12	29	30	M8	17	17	20
KFR50/190/A12	54/66.6	12	190	M12	29	30	M8	17	17	20
KFR50/290/A12	54/73.4	12	290	M12	29	30	M8	17	17	20
KFR50/390/A12	54/80.1	12	390	M12	29	30	M8	17	17	20
KFR50/490/A12	54/86.9	12	490	M12	29	30	M8	17	17	20
KFR50/590/A12	54/93.6	12	590	M12	29	30	M8	17	17	20
KFR50/690/A12	54/100.4	12	690	M12	29	30	M8	17	17	20
KFR50/790/A12	54/107.1	12	790	M12	29	30	M8	17	17	20
KFR50/890/A12	54/113.9	12	890	M12	29	30	M8	17	17	20
KFR50/990/A12	54/120.9	12	990	M12	29	30	M8	17	17	20

Tapered carrier roller for inside radius 500 mm with Ø 30 mm tube

KFR30/200/A8	33.5/46.0	8	200	M8	35	30	-	-	22	20
KFR30/301/A8	33.5/52.5	8	301	M8	35	30	-	-	22	20
KFR30/402/A8	33.5/59.0	8	402	M8	35	30	-	-	22	20
KFR30/503/A8	33.5/65.5	8	503	M8	35	30	-	-	22	20
KFR30/604/A8	33.5/72.0	8	604	M8	35	30	-	-	22	20



Tapered carrier rollers with double sprocket KFR-2K for medium loads

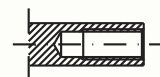
- **Roller sleeves:** Made of thermoplastic, alternatively: Steel.
- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads or interior threads.
- **Bearing:** Made of thermoplastic with double labyrinth seal and precision deep groove ball bearings.
- **Drive element:** Steel, alternatively plastic, pin wheel toothing.
- **Ordering example:**
KFR50-2K/290/A12/IG M 8 EL = 356 mm.

There are various types of tapered carrier rollers available:

- Tapered elements made of thermoplastic.
- PUR-RIM/expanded PU black coated steel tube to the desired dimensions.
- Tapered bright, galvanized, or stainless steel tube to the desired dimensions.

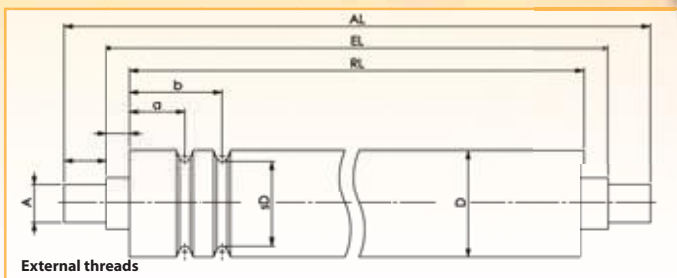
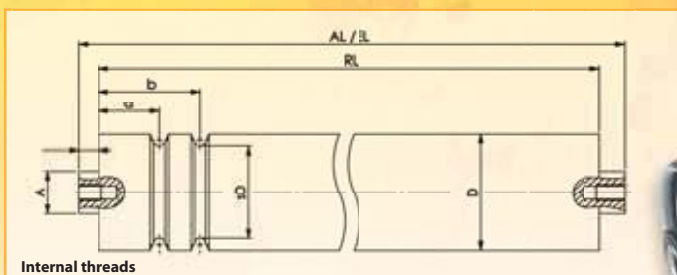


External threads



Internal threads

	Caster Ø	Axle Ø	RL	M	EL = RL +	AL = EL +	M	EL = RL +
Order No.	mm	mm	mm					
Tapered carrier roller with double sprocket for inside radius 800 mm with Ø 50 mm tube								
KFR50-2K/090/A12	54/59.9	12	90	M12	81	30	M8	67
KFR50-2K/190/A12	54/66.6	12	190	M12	81	30	M8	67
KFR50-2K/290/A12	54/73.4	12	290	M12	81	30	M8	67
KFR50-2K/390/A12	54/80.1	12	390	M12	81	30	M8	67
KFR50-2K/490/A12	54/86.9	12	490	M12	81	30	M8	67
KFR50-2K/590/A12	54/93.6	12	590	M12	81	30	M8	67
KFR50-2K/690/A12	54/100.4	12	690	M12	81	30	M8	67
KFR50-2K/790/A12	54/107.1	12	790	M12	81	30	M8	67
KFR50-2K/890/A12	54/113.9	12	890	M12	81	30	M8	67
KFR50-2K/990/A12	54/120.9	12	990	M12	81	30	M8	67
Tapered carrier roller with double sprocket for inside radius 500 mm with Ø 30 mm tube								
KFR30-2K/200/A8	33.5/46.0	8	200	M8	64	30	-	-
KFR30-2K/301/A8	33.5/52.5	8	301	M8	64	30	-	-
KFR30-2K/402/A8	33.5/59.0	8	402	M8	64	30	-	-
KFR30-2K/503/A8	33.5/65.5	8	503	M8	64	30	-	-
KFR30-2K/604/A8	33.5/72.0	8	604	M8	64	30	-	-

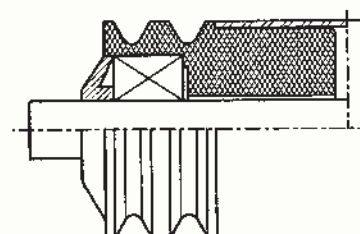


Plastic and steel carrier rollers with belt grooves

TRM-2S 50 x 1.5

Standard element of polyamide

- All carrier rollers of types KUT 300, TRK, and TRM can be supplied with grooves for round belt drive.
- Advantages:** High transport speeds, accumulating drive, low costs, very low noise development.
- Round belt drives are suitable for conveyor systems with low to medium loads.
- Ordering example:**
 KUT 300/50/M10 RL = 450 mm with one belt groove a = 35
 KUT 300/50/M10 RL = 450 mm with two belt grooves a = 35; a - b = 30

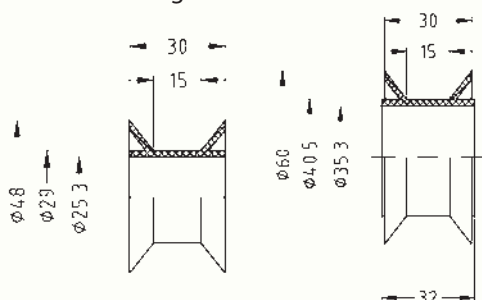


a = 6 b = 18 SD = 40

Belt Ø R	Tube-Ø D	Minimum a	Minimum b - a	Maximum b	Maximum SD
mm	mm	mm	mm	mm	mm
Steel tube					
4	40	30	30	85	32
5	50	30	30	115	40
6	50	30	30	115	38
6	60	35	35	120	48
6	80	35	35	120	68
8	88.9	35	34	150	73
Plastic tube					
5	50	30	30	145	40
5	63	35	35	145	53

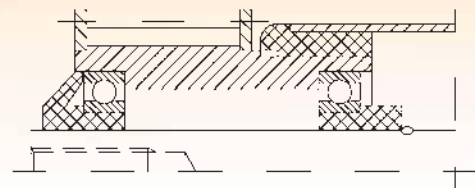
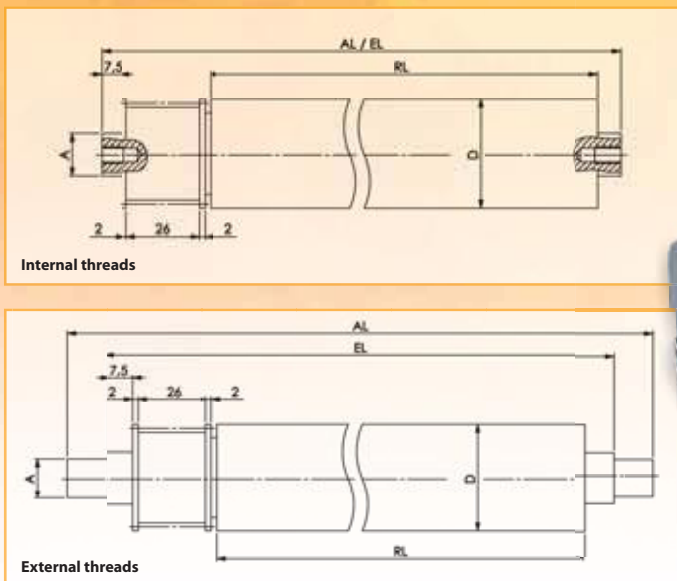
Round belt pulley

- Material:** Delrin, ensures quiet running and low degree of wear.



Ident. No.	Order No.	Axle Ø mm	Tread Ø mm	Outer Ø mm	Width mm
0023651	Round belt pulley 29 x 25.3	25	29	48	30
0026928	Round belt pulley 40.5 x 35.3	35	40.5	60	32


Round belts on request.



Steel and plastic carrier rollers with double drive belts (smooth running)

- **Bearing:** Made of a plastic element (alternately steel), 20 teeth, T8 Polychain, counter bearing KUT 300 or TRM.
- This type is also available as accumulating drive: STR 300-2Z/..., STR-2Z/...

Additional models and prices on request

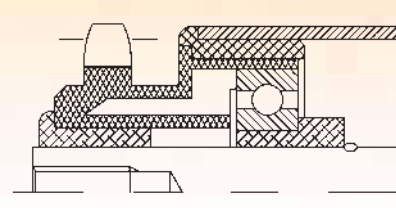
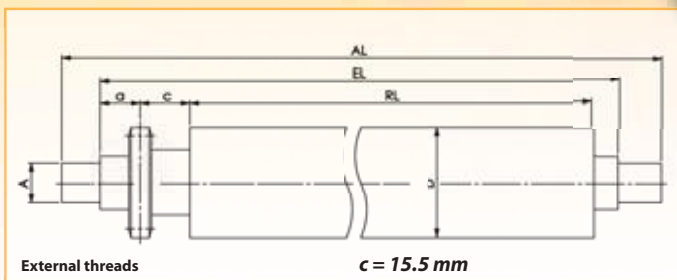
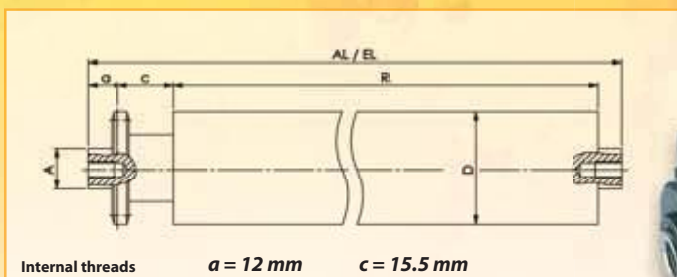
On request	Tube (D x W)	Axle Ø	M	EL = RL +
Order No.	mm	mm		mm
Plastic tube				
KUT300-2Z/50x2.8/KB/A12	50 x 2.8	12	M8	46
KUT300-2Z/50x2.8/KB/A14	50 x 2.8	14	M8/M10	46
KUT300-2Z/63x3/KB/A12	63 x 3.0	12	M8	46
KUT300-2Z/63x3/KB/A14	63 x 3.0	14	M8/M10	46
KUT300-2Z/90x7/KB/A12	90 x 7.0	12	M8	46
KUT300-2Z/90x7/KB/A14	90 x 7.0	14	M8/M10	46
Steel tube				
TRM-2Z/50x1.5/ST/A12	50 x 1.5	12	M8	46
TRM-2Z/50x1.5/ST/A14	50 x 1.5	14	M8/M10	46
TRM-2Z/50x2.0/ST/A12	50 x 2.0	12	M8	46
TRM-2Z/50x2.0/ST/A14	50 x 2.0	14	M8/M10	46
TRM-2Z/60x2/ST/A12	60 x 2.0	12	M8	46
TRM-2Z/60x2/ST/A14	60 x 2.0	14	M8/M10	46
TRM-2Z/63.5x2.9/ST/A12/IGM8	63.5 x 2.9	12	M8	46
TRM-2Z/63.5x2.9/ST/A14	63.5 x 2.9	14	M8/M10	46
TRM-2Z/80x2/ST/A12/IGM8	80 x 2.0	12	M8	46
TRM-2Z/80x2/ST/A14	80 x 2.0	14	M8/M10	46
TRM-2Z/89x2.9/ST/A12/IGM8	89 x 2.9	12	M8	46
TRM-2Z/89x2.9/ST/A14	89 x 2.9	14	M8/M10	46

Drive belts

- Low noise development
- Low degree of wear



Ident. No.	Order No.	Type	Length mm	Width/Ø mm	Number of teeth	Roller pitch mm - 0.2
0017745	Z-8Mx288	8M	288	12	36	64
0017746	Z-8Mx352	8M	352	12	44	96
0017747	Z-8Mx416	8M	416	12	52	128
0017748	Z-8Mx480	8M	480	12	60	160
0017749	Z-8Mx544	8M	544	12	68	192
0017750	Z-8Mx608	8M	608	12	76	224
0017751	Z-8Mx640	8M	640	12	80	240



Plastic carrier rollers with single sprocket KUT 300-1K Accumulating carrier roller with single sprocket STR 300-1K

for medium loads - plastic tube $\varnothing 50 / 63 / 90 \text{ mm}$

- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads or interior threads.
- **Bearing:** Made of thermoplastic with labyrinth seal, precision deep groove ball bearing.
- **Drive element:** Plastic, alternatively steel, pin wheel toothing $1/2" \times 5/16" \times 11$ teeth.
- Please specify the exact model when ordering:

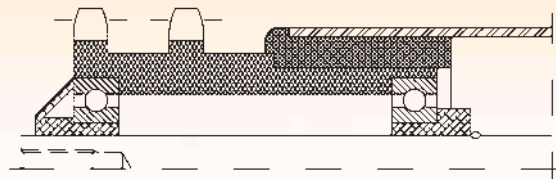
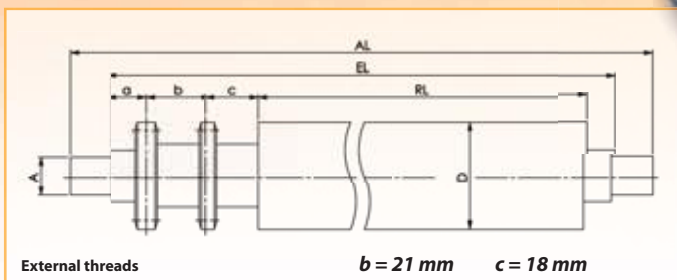
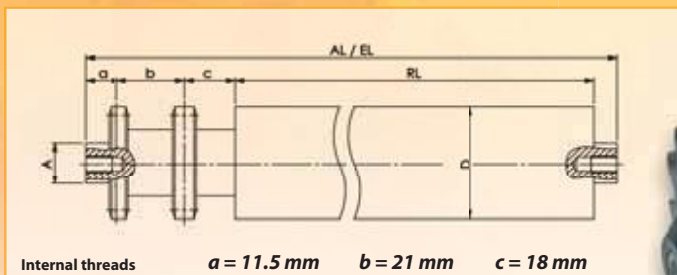
Roller $\varnothing$, axle $\varnothing$, axle type, roller length (RL), installation length (EL) and axle length (AL).

- **Ordering example:**
KUT 300-1K/63x3/KB/A12/IGM8 EL = 400 mm or
STR 300-1K/50x2.8/KB/A12/IGM8 EL = 350 mm.
- **Options:** Plastic, alternatively steel, pin wheel toothing $1/2" \times 5/16" \times 14$ teeth.
- **Accumulating carrier rollers:**
(Please observe information on page F 5.)

Ideal for wet operation with stainless steel axle and 2RS or SS deep groove ball bearing.

Additional models and prices on request

Order No.	Precision tubing D x W mm	Axle $\varnothing$ mm	Sprocket	Teeth	External threads			Internal threads	
					M	EL = RL + mm	AL = EL + mm	M	EL = RL + mm
KUT300-1K/50x2.8/KB/A10	50 x 2.8	10	$1/2" \times 5/16"$	11	M10	45	30	-	-
KUT300-1K/50x2.8/KB/A12	50 x 2.8	12	$1/2" \times 5/16"$	11	M12	47	30	M8	33
KUT300-1K/50x2.8/KB/A14	50 x 2.8	14	$1/2" \times 5/16"$	11	M14	49	30	M10	33
KUT300-1K/63x3/KB/A10	63 x 3.0	10	$1/2" \times 5/16"$	11	M10	45	30	-	-
KUT300-1K/63x3/KB/A12	63 x 3.0	12	$1/2" \times 5/16"$	11	M12	47	30	M8	33
KUT300-1K/63x3/KB/A14	63 x 3.0	14	$1/2" \times 5/16"$	11	M14	49	30	M10	33
KUT300-1K/90x7/KB/A10	90 x 7.0	10	$1/2" \times 5/16"$	11	M10	45	30	-	-
KUT300-1K/90x7/KB/A12	90 x 7.0	12	$1/2" \times 5/16"$	11	M12	47	30	M8	33
KUT300-1K/90x7/KB/A14	90 x 7.0	14	$1/2" \times 5/16"$	11	M14	49	30	M10	33



Plastic carrier rollers with double sprocket KUT 300-2K Accumulating carrier roller with double sprocket STR 300-2K

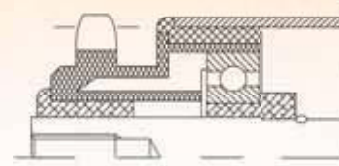
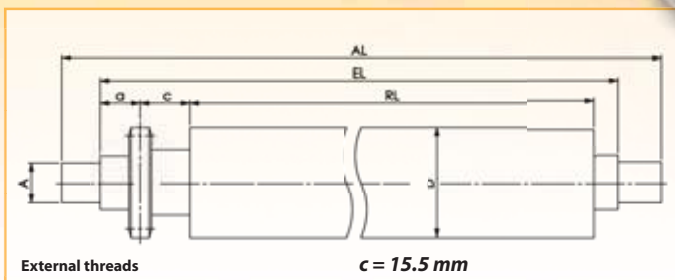
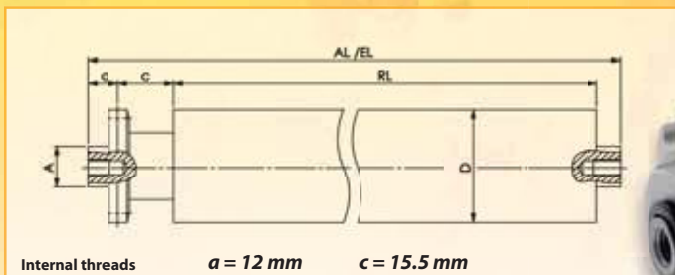
for medium loads - plastic tube Ø 50 / 63 / 90 mm

- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads or interior threads.
- **Bearing:** Made of thermoplastic with labyrinth seal, precision deep groove ball bearing.
- **Drive element:** Plastic, alternatively steel, pin wheel toothing 1/2" x 5/16" x 14 teeth.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
KUT 300-2K/63x3/KB/A12/IGM8 EL = 400 mm or
KUT 300-2K/90x7/KB/A14/M14 EL = 750 mm
STR 300-2K/50x2.8/KB/A12/IGM8 EL = 350 mm.
- **Accumulating carrier rollers:**
(Please observe information on page F 5.)

Ideal for wet operation with stainless steel axle and 2RS or SS deep groove ball bearing.

Additional models and prices on request

Order No.	Precision tubing D x W mm	Axle Ø mm	Sprocket	Teeth	External threads			Internal threads	
					M	EL = RL + mm	AL = EL + mm	M	EL = RL + mm
KUT300-2K/50x2.8/KB/A10	50 x 2.8	10	1/2" x 5/16"	14	M10	69	30	-	-
KUT300-2K/50x2.8/KB/A12	50 x 2.8	12	1/2" x 5/16"	14	M12	71	30	M8	57
KUT300-2K/50x2.8/KB/A14	50 x 2.8	14	1/2" x 5/16"	14	M14	73	30	M10	57
KUT300-2K/63x3/KB/A10	63 x 3.0	10	1/2" x 5/16"	14	M10	69	30	-	-
KUT300-2K/63x3/KB/A12	63 x 3.0	12	1/2" x 5/16"	14	M12	71	30	M8	57
KUT300-2K/63x3/KB/A14	63 x 3.0	14	1/2" x 5/16"	14	M14	73	30	M10	57
KUT300-2K/90x7/KB/A10	90 x 7.0	10	1/2" x 5/16"	14	M10	69	30	-	-
KUT300-2K/90x7/KB/A12	90 x 7.0	12	1/2" x 5/16"	14	M12	71	30	M8	57
KUT300-2K/90x7/KB/A14	90 x 7.0	14	1/2" x 5/16"	14	M14	73	30	M10	57

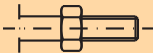


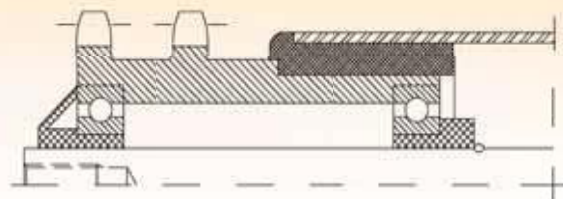
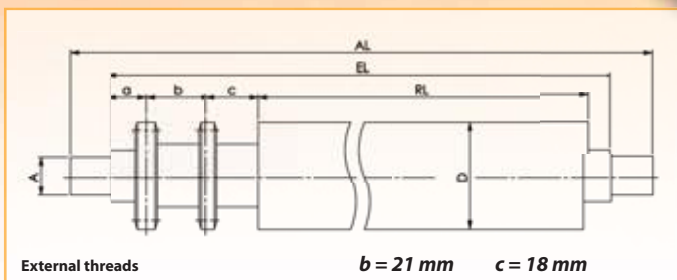
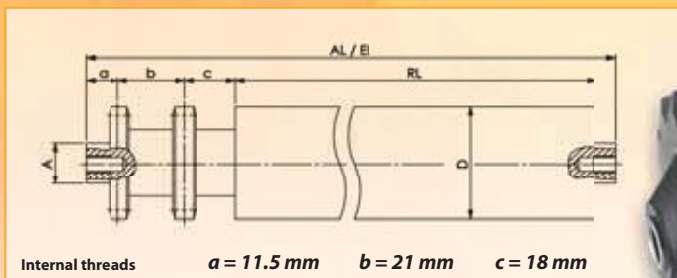
Steel carrier roller with single sprocket TRM-1K with fixed drive

Accumulating carrier roller with single sprocket STR-1K with accumulating drive

- **Roller bases:** Made of thermoplastic.
- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads or interior threads.
- **Bearing:** Made of thermoplastic with labyrinth seal, precision deep groove ball bearing, Z + RS bearing.
- **Drive element:** Steel, alternatively plastic, pin wheel toothing 1/2" x 5/16" x 11 teeth.
- These carrier rollers are also highly protected against penetration of dirt and splash water.
- Please specify the exact model when ordering:
Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
TRM-1K/50x2/ST/A14/M14 EL = 550 mm or
STR-1K/80x2/ST/A12/IG M8 EL = 780 mm.
- **Options:** Accumulating drive, with rust-resistant groove ball bearing, tube and axle in stainless steel, welded steel sprocket, 14 teeth with double bearing.
- **Accumulating carrier rollers:**
(Please observe information on page F 5.)

Additional models and prices on request

Additional models and prices on request									
					External threads			Internal threads	
	Precision tubing D x W	Axle Ø	Sprocket	Teeth	M	EL = RL +	AL = EL +	M	EL = RL +
Order No.	mm	mm			mm			mm	
TRM-1K/50x1.5/ST/A10	50 x 1.5	10	1/2" x 5/16"	11	M10	45	30	-	-
TRM-1K/50x1.5/ST/A12	50 x 1.5	12	1/2" x 5/16"	11	M12	47	30	M8	33
TRM-1K/50x1.5/ST/A14	50 x 1.5	14	1/2" x 5/16"	11	M14	49	30	M8/10	33
TRM-1K/50x2/ST/A10	50 x 2	10	1/2" x 5/16"	11	M10	45	30	-	-
TRM-1K/50x2/ST/A12	50 x 2	12	1/2" x 5/16"	11	M12	47	30	M8	33
TRM-1K/50x2/ST/A14	50 x 2	14	1/2" x 5/16"	11	M14	49	30	M8/10	33
TRM-1K/60x2/ST/A10	60 x 2	10	1/2" x 5/16"	11	M10	45	30	-	-
TRM-1K/60x2/ST/A12	60 x 2	12	1/2" x 5/16"	11	M12	47	30	M8	33
TRM-1K/60x2/ST/A14	60 x 2	14	1/2" x 5/16"	11	M14	49	30	M8/10	33
TRM-1K/63.5x2.9/ST/A10	63.5 x 2.9	10	1/2" x 5/16"	11	M10	45	30	-	-
TRM-1K/63.5x2.9/ST/A12	63.5 x 2.9	12	1/2" x 5/16"	11	M12	47	30	M8	33
TRM-1K/63.5x2.9/ST/A14	63.5 x 2.9	14	1/2" x 5/16"	11	M14	49	30	M8/10	33
TRM-1K/80x2/ST/A12	80 x 2	12	1/2" x 5/16"	11	M12	47	30	M8	33
TRM-1K/80x2/ST/A14	80 x 2	14	1/2" x 5/16"	11	M14	49	30	M8/10	33
TRM-1K/80x2/ST/A17	80 x 2	17	1/2" x 5/16"	11	M16	51	30	M10	33
TRM-1K/89x2.9/ST/A12	89 x 2.9	12	1/2" x 5/16"	11	M12	47	30	M8	33
TRM-1K/89x2.9/ST/A14	89 x 2.9	14	1/2" x 5/16"	11	M14	49	30	M8/10	33
TRM-1K/89x2.9/ST/A17	89 x 2.9	17	1/2" x 5/16"	11	M16	51	30	M10	33



Steel carrier rollers with double sprocket TRM-2K with fixed drive

Alternatively: welded

Accumulating carrier rollers with double sprocket STR-2K with accumulating drive

- **Axle:** Steel, bright-drawn ST 37 K, axle ends with threads or interior threads.
- **Bearing:** Made of thermoplastic with labyrinth seal, precision deep groove ball bearing, Z + RS bearing.
- **Drive element:** Steel, alternatively plastic, pin wheel toothing 1/2" x 5/16" x 14.
- These carrier rollers are also highly protected against penetration of dirt and splash water.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL) and axle length (AL).
- **Ordering example:**
TRM-2K/50x2/ST/A14/M14 EL = 550 mm or STR-2K/80x2/ST/A12/IG M8 EL = 780 mm.
- **Accumulating carrier rollers:**
(Please observe information on page F 5.)

Additional models and prices on request

Additional models and prices on request

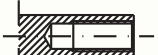


External threads

M

EL = RL +

AL = EL +

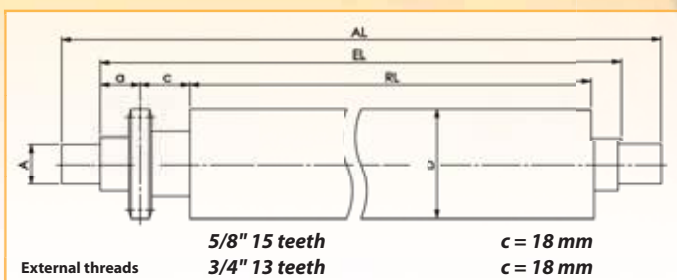
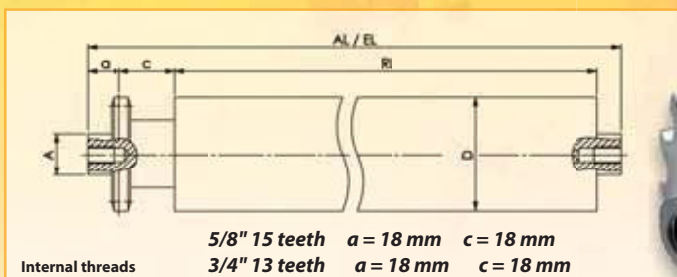


Internal threads

M

EL = RL +

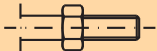
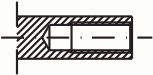
Order No.	Precision tubing D x W mm	Axle Ø mm	Sprocket	Teeth	M	EL = RL +	AL = EL +	M	EL = RL +
TRM-2K/50x1.5/ST/A10	50 x 1.5	10	1/2" x 5/16"	14	M10	69	30	-	-
TRM-2K/50x1.5/ST/A12	50 x 1.5	12	1/2" x 5/16"	14	M12	71	30	M8	57
TRM-2K/50x1.5/ST/A14	50 x 1.5	14	1/2" x 5/16"	14	M14	73	30	M8/10	57
TRM-2K/50x2/ST/A10	50 x 2	10	1/2" x 5/16"	14	M10	69	30	-	-
TRM-2K/50x2/ST/A12	50 x 2	12	1/2" x 5/16"	14	M12	71	30	M8	57
TRM-2K/50x2/ST/A14	50 x 2	14	1/2" x 5/16"	14	M14	73	30	M8/10	57
TRM-2K/60x2/ST/A10	60 x 2	10	1/2" x 5/16"	14	M10	69	30	-	-
TRM-2K/60x2/ST/A12	60 x 2	12	1/2" x 5/16"	14	M12	71	30	M8	57
TRM-2K/60x2/ST/A14	60 x 2	14	1/2" x 5/16"	14	M14	73	30	M8/10	57
TRM-2K/63.5x2.9/ST/A10	63.5 x 2.9	10	1/2" x 5/16"	14	M10	69	30	-	-
TRM-2K/63.5x2.9/ST/A12	63.5 x 2.9	12	1/2" x 5/16"	14	M12	71	30	M8	57
TRM-2K/63.5x2.9/ST/A14	63.5 x 2.9	14	1/2" x 5/16"	14	M14	73	30	M8/10	57
TRM-2K/80x2/ST/A12	80 x 2	12	1/2" x 5/16"	14	M12	71	30	M8	57
TRM-2K/80x2/ST/A14	80 x 2	14	1/2" x 5/16"	14	M14	73	30	M8/10	57
TRM-2K/89x2.9/ST/A12	89 x 2.9	12	1/2" x 5/16"	14	M12	71	30	M8	57
TRM-2K/89x2.9/ST/A14	89 x 2.9	14	1/2" x 5/16"	14	M14	73	30	M8/10	57

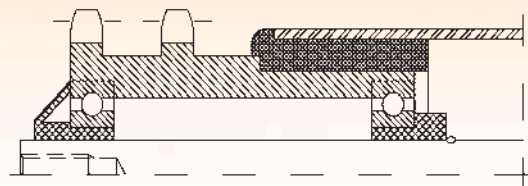
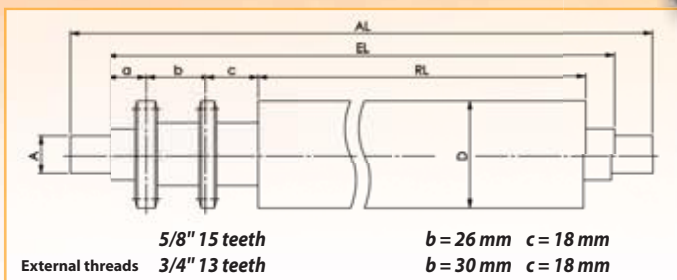
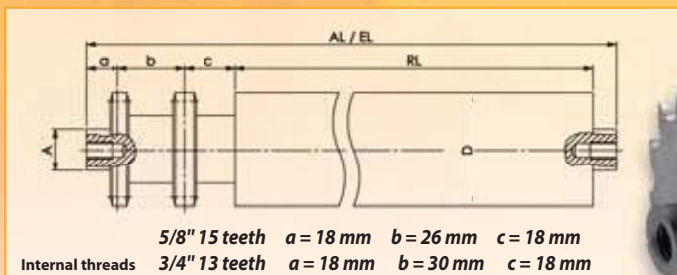


Steel carrier roller with single sprocket TRK-1K

- **Sprocket:** With single sprocket turned from solid steel (solid material) and welded to the roller sleeve. Opposite side: drawn-in steel sheet base.
- **Axle:** Steel, bright-drawn, axle ends with threads or internal threads.
- **Bearing:** Drawn-in steel sheet base and precision ball bearing (6204 and 6305) with permanent lubrication.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL), axle length (AL), sprocket version.
- **Ordering example:**
 TRK-1K5/8Z15/80x2/ST/A20/IGM 12 EL = 800 mm.

Additional models and prices on request

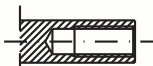
Additional models and prices on request										
					External threads			Internal threads		
	Precision tubing D x W	Axle Ø	Sprocket	Teeth	M	EL = RL +	AL = EL +	M	EL = RL +	
Order No.	mm	mm				mm			mm	
TRK-1K5/8Z15/63.5x2.9/ST/A20	63.5 x 2.9	20	5/8" x 3/8"	15	M20	59	50	M12	41	
TRK-1K5/8Z15/80x2/ST/A20	80 x 2.0	20	5/8" x 3/8"	15	M20	59	50	M12	41	
TRK-1K5/8Z15/89x2.9/ST/A20	89 x 2.9	20	5/8" x 3/8"	15	M20	59	50	M12	41	
TRK-1K5/8Z15/108x3.25/ST/A20	108 x 3.25	20	5/8" x 3/8"	15	M20	59	50	M12	41	
TRK-1K5/8Z15/80x2/ST/A25	80 x 2.0	25	5/8" x 3/8"	15	M24	61	60	M16	41	
TRK-1K5/8Z15/89x2.9/ST/A25	89 x 2.9	25	5/8" x 3/8"	15	M24	61	60	M16	41	
TRK-1K5/8Z15/108x3.25/ST/A25	108 x 3.25	25	5/8" x 3/8"	15	M24	61	60	M16	41	
TRK-1K3/4Z13/80x2/ST/A20	80 x 2.0	20	3/4" x 7/16"	13	M20	59	50	M12	41	
TRK-1K3/4Z13/89x2.9/ST/A20	89 x 2.9	20	3/4" x 7/16"	13	M20	59	50	M12	41	
TRK-1K3/4Z13/108x3.25/ST/A20	108 x 3.25	20	3/4" x 7/16"	13	M20	59	50	M12	41	
TRK-1K3/4Z13/80x2/ST/A25	80 x 2.0	25	3/4" x 7/16"	13	M24	61	60	M16	41	
TRK-1K3/4Z13/89x2.9/ST/A25	89 x 2.9	25	3/4" x 7/16"	13	M24	61	60	M16	41	
TRK-1K3/4Z13/108x3.25/ST/A25	108 x 3.25	25	3/4" x 7/16"	13	M24	61	60	M16	41	

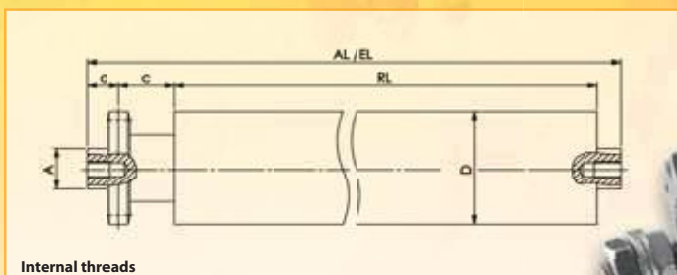


Steel carrier roller with double sprocket TRK-2K

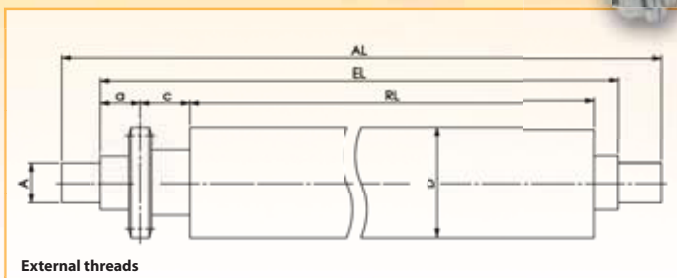
- Sprocket:** With double sprocket turned from solid steel (solid material) and welded to the roller sleeve. Opposite side: drawn-in steel sheet base.
- Axle:** Steel, bright-Drawn, axle ends with threads or internal threads.
- Bearing:** Drawn-in steel sheet base and precision ball bearing (6204 and 6305) with permanent lubrication.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL), axle length (AL), sprocket version.
- Ordering example:**
 TRK-2K3/4Z13/80x2/ST/A20/IGM12 EL = 800 mm.

Additional models and prices on request

Additional models and prices on request									
					External threads			Internal threads	
	Precision tubing D x W	Axle Ø	Sprocket	Teeth	M	EL = RL +	AL = EL +	M	EL = RL +
Order No.	mm	mm			mm			mm	
TRK-2K5/8Z15/63.5x2.9/ST/A20	63.5 x 2.9	20	5/8" x 3/8"	15	M20	85	50	M12	67
TRK-2K5/8Z15/80x2/ST/A20	80 x 2.0	20	5/8" x 3/8"	15	M20	85	50	M12	67
TRK-2K5/8Z15/89x2.9/ST/A20	89 x 2.9	20	5/8" x 3/8"	15	M20	85	50	M12	67
TRK-2K5/8Z15/108x3.25/ST/A20	108 x 3.25	20	5/8" x 3/8"	15	M20	85	50	M12	67
TRK-2K5/8Z15/63.5x1.8/ST/A25	63.5 x 1.8	25	5/8" x 3/8"	15	M24	87	60	M16	67
TRK-2K5/8Z15/80x2/ST/A25	80 x 2.0	25	5/8" x 3/8"	15	M24	87	60	M16	67
TRK-2K5/8Z15/89x2.9/ST/A25	89 x 2.9	25	5/8" x 3/8"	15	M24	87	60	M16	67
TRK-2K5/8Z15/108x3.25/ST/A25	108 x 3.25	25	5/8" x 3/8"	15	M24	87	60	M16	67
TRK-2K3/4Z13/80x2/ST/A20	80 x 2.0	20	3/4" x 7/16"	13	M20	89	50	M12	71
TRK-2K3/4Z13/89x2.9/ST/A20	89 x 2.9	20	3/4" x 7/16"	13	M20	89	50	M12	71
TRK-2K3/4Z13/108x3.25/ST/A20	108 x 3.25	20	3/4" x 7/16"	13	M20	89	50	M12	71
TRK-2K3/4Z13/133x3.25/ST/A20	133 x 3.25	20	3/4" x 7/16"	13	M20	89	50	M12	71
TRK-2K3/4Z13/80x2/ST/A25	80 x 2.0	25	3/4" x 7/16"	13	M24	91	60	M16	71
TRK-2K3/4Z13/89x2.9/ST/A25	89 x 2.9	25	3/4" x 7/16"	13	M24	91	60	M16	71
TRK-2K3/4Z13/108x3.25/ST/A25	108 x 3.25	25	3/4" x 7/16"	13	M24	91	60	M16	71
TRK-2K3/4Z13/133x3.25/ST/A25	133 x 3.25	25	3/4" x 7/16"	13	M24	91	60	M16	71



Internal threads



External threads



Steel carrier rollers with single sprocket TGF-1K

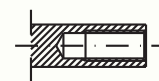
- **Sprocket:** With single sprocket turned from solid steel (solid material) and welded to the roller sleeve. Opposite side: Welded steel sheet base.
- **Axle:** Steel, bright-drawn, axle ends with external or internal threads.
- **Bearing:** Multiple labyrinth seal and precision ball bearing (6204, 6305, and 6306) with permanent lubrication.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL), axle length (AL), sprocket version, sprocket position (a), (b).
- **Ordering example:**
TGF-1K/80x2/ST/A20/IGM 12 EL = 800 mm with sprocket No. 1, c = 18 mm.

Additional models and prices on request

Additional models and prices on request	Precision tubing D x W	Axle Ø	Sprocket	External threads			Internal threads	
				M	EL = RL +	AL = EL +	M	EL = RL +
Order No.	mm	mm		mm			mm	
TGF-1K/51x2.9/ST/A20	51 x 2.9	20	1-4	M20	40	50	M12	40
TGF-1K/63.5x1.8/ST/A20	63.5 x 1.8	20	1-4	M20	40	50	M12	40
TGF-1K/80x2/ST/A20	80 x 2.0	20	1-4	M20	40	50	M12	40
TGF-1K/89x2.9/ST/A20	89 x 2.9	20	1-4	M20	40	50	M12	40
TGF-1K/108x3.25/ST/A20	108 x 3.25	20	1-4	M20	40	50	M12	40
TGF-1K/133x3.6/ST/A20	133 x 3.6	20	1-4	M20	40	50	M12	40
TGF-1K/159x4.5/ST/A20	159 x 4.5	20	1-4	M20	40	50	M12	40
TGF-1K/80x2/ST/A25	80 x 2.0	25	5-8	M24	45	70	M16	40
TGF-1K/89x2.9/ST/A25	89 x 2.9	25	5-8	M24	45	70	M16	40
TGF-1K/108x3.25/ST/A25	108 x 3.25	25	5-8	M24	45	70	M16	40
TGF-1K/133x3.6/ST/A25	133 x 3.6	25	5-8	M24	45	70	M16	40
TGF-1K/159x4.5/ST/A25	159 x 4.5	25	5-8	M24	45	70	M16	40
TGF-1K/89x2.9/ST/A30	89 x 2.9	30	5-8	M30	50	80	M20	40
TGF-1K/108x3.25/ST/A30	108 x 3.25	30	5-8	M30	50	80	M20	40
TGF-1K/133x3.6/ST/A30	133 x 3.6	30	5-8	M30	50	80	M20	40
TGF-1K/159x4.5/ST/A30	159 x 4.5	30	5-8	M30	50	80	M20	40



External threads



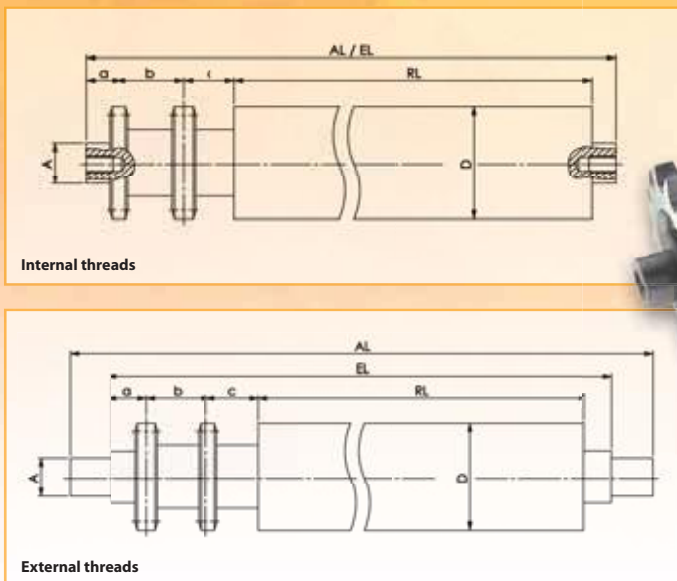
Internal threads

Example of sprocket version Axle-Ø 20 mm

Sprocket	1/2" x 5/16"	5/8" x 3/8"	5/8" x 3/8"	3/4" x 7/16"
No.	1	2	3	4
Number of teeth	19	17	15	13
Z	7	8.9	8.9	10.8
DK	82	93	83	88
c	18	18	18	18

Example of sprocket version Axle-Ø 25 mm

Sprocket	1/2" x 5/16"	5/8" x 3/8"	5/8" x 3/8"	3/4" x 7/16"
No.	5	6	7	8
Number of teeth	21	17	15	15
Z	7	8.9	8.9	10.8
DK	90	93	83	101
c	18	18	18	18



Steel carrier rollers with double sprocket TGF-2K

- **Sprocket:** With double sprocket turned from solid steel (solid material) and welded to the roller sleeve. Opposite side: Welded steel sheet base.
- **Axle:** Steel, bright-drawn, axle ends with external or internal threads.
- **Bearing:** Multiple labyrinth seal and precision ball bearing (6204, 6305, and 6306) with permanent lubrication.
- Please specify the exact model when ordering: Roller Ø, axle Ø, axle type, roller length (RL), installation length (EL), axle length (AL), sprocket version, sprocket position (a), (b), (c).
- **Ordering example:**
TGF-2K/80x2/ST/A20/IGM 12 EL = 800 mm.

Additional models and prices on request

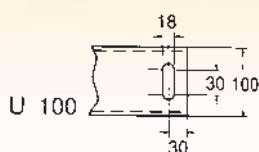
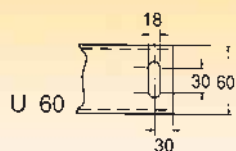
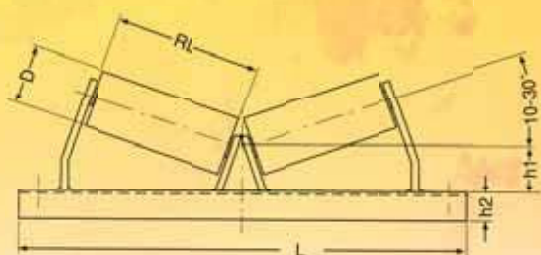
Additional models and prices on request	Precision tubing D x W	Axle Ø	Sprocket	External threads			Internal threads	
				M	EL = RL +	AL = EL +	M	EL = RL +
Order No.	mm	mm		mm			mm	
TGF-2K/51x2.9/STI/A20	51 x 2.9	20	1-4	M20	70	50	M12	70
TGF-2K/63.5x1.8/STI/A20	63.5 x 1.8	20	1-4	M20	70	50	M12	70
TGF-2K/80x2/STI/A20	80 x 2.0	20	1-4	M20	70	50	M12	70
TGF-2K/89x2.9/STI/A20	89 x 2.9	20	1-4	M20	70	50	M12	70
TGF-2K/108x3.25/STI/A20	108 x 3.25	20	1-4	M20	70	50	M12	70
TGF-2K/133x3.6/STI/A20	133 x 3.6	20	1-4	M20	70	50	M12	70
TGF-2K/159x4.5/STI/A20	159 x 4.5	20	1-4	M20	70	50	M12	70
TGF-2K/80x2/STI/A25	80 x 2.0	25	5-8	M24	75	70	M16	70
TGF-2K/89x2.9/STI/A25	89 x 2.9	25	5-8	M24	75	70	M16	70
TGF-2K/108x3.25/STI/A25	108 x 3.25	25	5-8	M24	75	70	M16	70
TGF-2K/133x3.6/STI/A25	133 x 3.6	25	5-8	M24	75	70	M16	70
TGF-2K/159x4.5/STI/A25	159 x 4.5	25	5-8	M24	75	70	M16	70
TGF-2K/89x2.9/STI/A30	89 x 2.9	30	5-8	M30	80	80	M20	70
TGF-2K/108x3.25/STI/A30	108 x 3.25	30	5-8	M30	80	80	M20	70
TGF-2K/133x3.6/STI/A30	133 x 3.6	30	5-8	M30	80	80	M20	70
TGF-2K/159x4.5/STI/A30	159 x 4.5	30	5-8	M30	80	80	M20	70

Example of sprocket version Axle-Ø 20 mm

Sprocket	1/2" x 5/16"	5/8" x 3/8"	3/4" x 7/16"
No.	1	2	3
Number of teeth	19	17	13
Z	7	8.9	10.8
DK	82	93	88
c	18	18	18
b	28	26.1	29.2

Example of sprocket version Axle-Ø 25 mm

Sprocket	1/2" x 5/16"	5/8" x 3/8"	3/4" x 7/16"
No.	4	5	6
Number of teeth	21	17	15
Z	7	8.9	10.8
DK	90	93	101
c	18	18	18
b	28	26.1	29.2

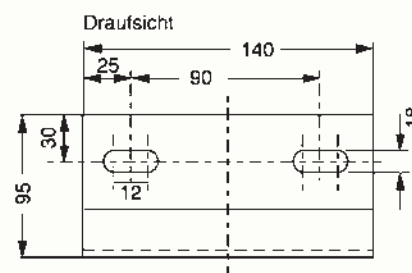
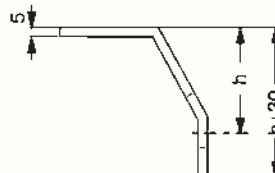
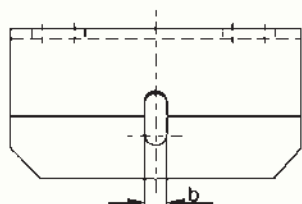


Upper belt stations: OB-2 20°, OB-3 30°

- **Optional:** Angle of inclination 10°–30° (please specify when ordering).
- **Cross bar:** U profile 60/45/4 mm
U profile 100/50/5 mm
- Carrier rollers, model TRST (not included in scope of delivery).

Suitable carrier
rollers are
on page F 17.

Ident. No.	Order No.	Belt width	L	h ₁	h ₂	D	RL	Angle of inclination	Weight
		mm	mm	mm	mm	mm	mm	Degrees	approx. daN (kp)
0022384	OB-2/60/250	400	700	85	45	63.5	250	20	7.2
0022385	OB-2/60/315	500	800	85	45	63.5	315	20	8.0
0022386	OB-2/60/380	650	950	85	45	89.0	380	20	9.2
0022380	OB-2/100/250	400	700	85	50	63.5	250	20	10.0
0022381	OB-2/100/315	500	800	85	50	63.5	315	20	11.0
0022382	OB-2/100/380	650	950	85	50	89.0	380	20	13.0
0022447	OB-3/60/200	500	800	85	45	-	200	30	8.4
0022448	OB-3/60/250	650	950	85	45	-	250	30	9.7
0022449	OB-3/60/315	800	1150	85	45	-	315	30	11.5
0022388	OB-3/100/200	500	800	85	50	-	200	30	12.0
0022389	OB-3/100/250	650	950	85	50	-	250	30	14.0
0022429	OB-3/100/315	800	1150	85	50	-	315	30	16.0
0022431	OB-3/100/380	1000	1350	85	50	-	380	30	17.5



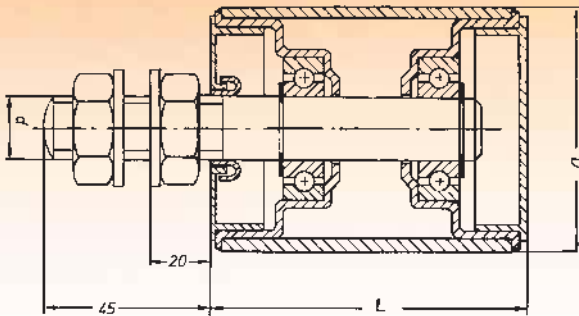
Lower belt station Model: US

- The lower belt stations each consist of a pair of angled guide blocks and a carrier roller model TRST, which must be ordered separately.
- Please specify the exact model when ordering:
Roller Ø, roller length (RL).

Ident. No.	Order No.	Caster Ø	h	b
		mm	mm	mm
0026344	US-63.5/70	63.5	70	16
0026345	US-89/70	89	70	16
0026341	US-108/70	108	70	16.19
0026342	US-133/100	133	100	16.19
0026343	US-159/100	159	100	16.19

Belt guide rollers

Belt guide rollers secure the entire run of the belt. They are installed permanently on the conveyor belts or are components of automatically operating control stations.



Ident. No.	Order No.	D mm	L mm	d mm	Bearings
0015493	BRB50/12	50.0	100	M12	6201
0015494	BRB60/12	60.0	100	M12	6201
0015495	BRB63.5/20	63.5	100	M20	6204
0015496	BRB80/20	80.0	100	M20	6204
0015497	BRB89/20	89.0	100	M20	6204
0015491	BRB108/20	108.0	100	M20	6204

Buffer rings

Ident. No.	Order No.	Tube-Ø mm	D mm	d mm	b mm
0022744	Puf-Ring 63.5/89x25	63.5	89	60	25
0022740	Puf-Ring 63.5/108x30	63.5	108	60	30
0022742	Puf-Ring 63.5/133x30	63.5	133	60	30
0022745	Puf-Ring 89/133x35	89	133	85	35
0022748	Puf-Ring 89/159x35	89	159	85	35
0022749	Puf-Ring 89/180x35	89	180	85	35
0022733	Puf-Ring 108/159x40	108	159	105	40
0022734	Puf-Ring 108/180x40	108	180	105	40

Form A

0024162	ST-Ring 63.5/108x25	63.5	108	60	25
0024164	ST-Ring 63.5/133x25	63.5	133	60	25
0024166	ST-Ring 89/133x30	89	133	85	30
0024169	ST-Ring 89/159x30	89	159	85	30
0024171	ST-Ring 89/180x35	89	180	105	40
0024159	ST-Ring 108/159x35	108	159	105	35
0024161	ST-Ring 108/180x40	108	180	105	40

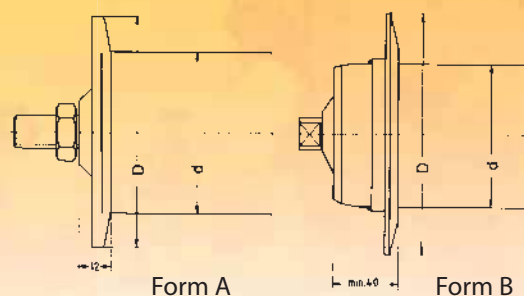
Form B

0024163	ST-Ring 63.5/108x40	63.5	108	60	40
0024165	ST-Ring 63.5/133x40	63.5	133	60	40
0024167	ST-Ring 89/133x40	89	133	85	40
0024170	ST-Ring 89/159x40	89	159	85	40
0024160	ST-Ring 108/159x50	108	159	105	50



Wheel flanges

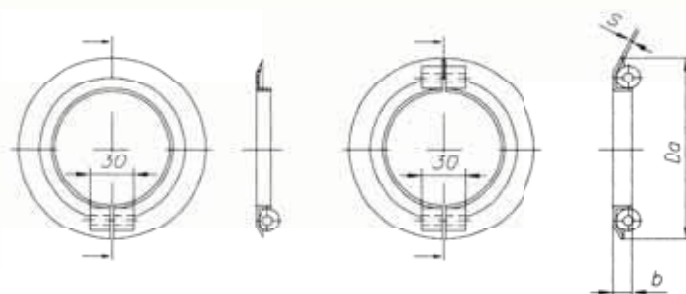
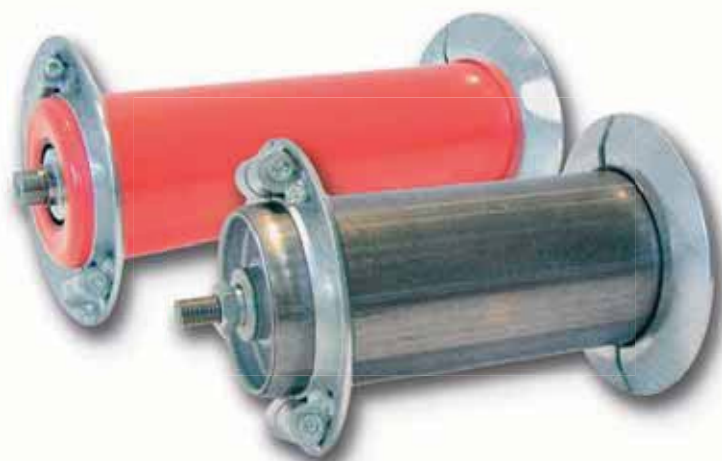
- **Wheel flanges:** Steel sheet, deep drawn, welded to the roller sleeve (tubing).



		Form	d	D
Ident. No.	Order No.	mm	mm	mm
0023912	SP50/70	A	50	70
0023913	SP60/110	B	60	110
0023914	SP80/150	B	80	150
0023915	SP89/150	B	88.9	150

Flanged wheels

- Flanged wheels divided on both sides are only available for tube Ø 63,5, 80, 89 and 108.



		Tube-Ø	Da	b	s
Ident. No.	Order No.	mm	mm	mm	mm
0025831	BRS63.5/130	63.5	130	14	2.5
0015500	BRS80/130	80	130	14	2.5
0015501	BRS89/150	89	150	14	2.5
0015499	BRS108/160	108	160	14	4.0

Shrink tubing

- Gentle on conveyed material
- Quiet running
- Degree of softness: 93° Shore A



		Tube-Ø	Wall thickness	Material
Ident. No.	Order No.	mm	mm	
0023770	Schrumpfschlauch-50	50	1.5	PVC
0023771	Schrumpfschlauch-60	60	1.5	PVC
0023895	Schrumpfschlauch-80	80	1.5	PVC
0023772	Schrumpfschlauch-89	89	1.5	PVC

Cover tubing

- Gentle on conveyed material
- Quiet running
- Degree of softness: 63° Shore A

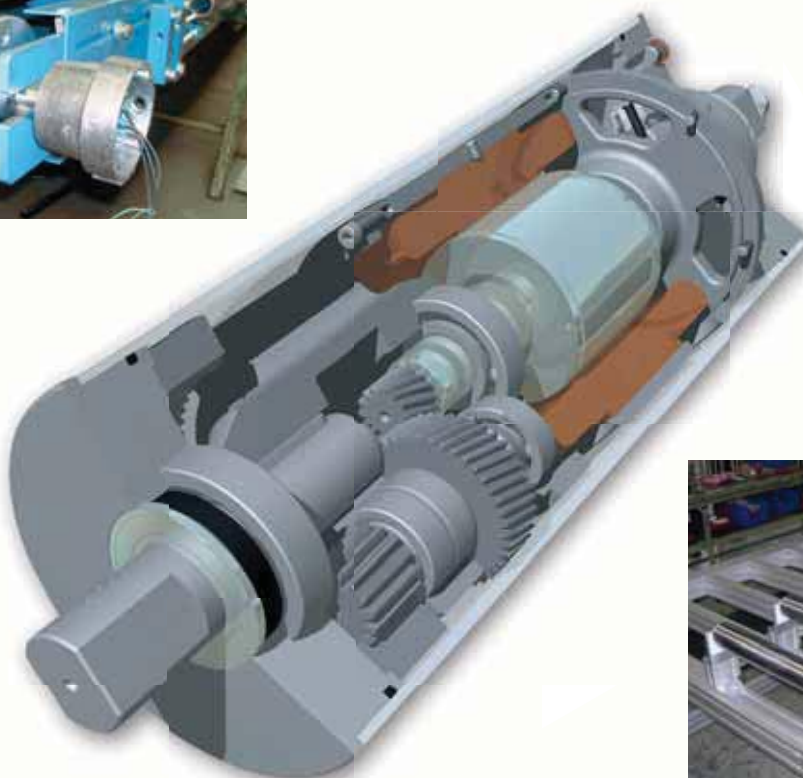


		Tube Ø	Material thickness	Material
Ident. No.	Order No.	mm	mm	
0023763	Schießschlauch-40x2	34	2	Soft PVC
0023764	Schießschlauch-50x2	44	2	Soft PVC
0025699	Schießschlauch-50x3	45	3	Soft PVC
0023765	Schießschlauch-60x2	54	2	Soft PVC
0025700	Schießschlauch-60x3	54	3	Soft PVC
0023766	Schießschlauch-80x2	72	2	Soft PVC
0025701	Schießschlauch-80x3	74	3	Soft PVC
0023767	Schießschlauch-89x2	83	2	Soft PVC

Drum motors

Drum motors are used for driving stationary or transportable conveyor belts to transport the most diverse types of bulk articles and they are also used in transportation systems without belts. The drum motor is being used in an increasingly expanding range of operational areas in drive technology as a result of its space-saving construction and good adaptability to specific operating conditions. Drum motors have been successfully utilized for decades in many areas of application in conveyor technology.

Optionally the drum motors can also be supplied with different rubber coatings.



Custom solutions
on request



Order No.	Drum Ø	Performance range P2 (kW)		Belt speed V [m/s]		Minimum length depending on performance
	mm	Minimum	Maximum	Minimum	Maximum	mm
TTM60	60	0.03	0.08	0.09	0.47	355
TTM80	80	0.06	0.12	0.12	0.60	320
TTM110	110	0.08	0.37	0.10	1.54	250 – 275
TTM135	135	0.09	0.75	0.05	1.03	310
TTM160	160	0.09	0.75	0.06	1.22	320
TTM174	174	0.37	1.1	0.25	2.21	370 – 400
TTM216	216	0.75	3	0.32	2.26	370 – 450
TTM321	321	1.5	7.5	0.39	3.30	520 – 550
TTM415	415	3	10	0.61	2.19	570 – 700

Driving drums ATR

Deflection drums UTR

e.g. shaft welded



e.g. shaft with UTFC bearing



e.g. shaft with clamping set



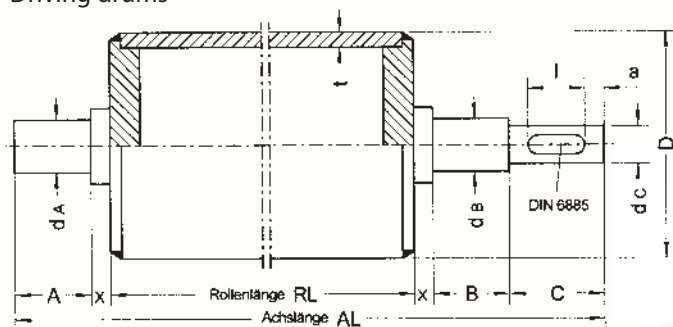
Drum casing

Steel tube cylindrically wound, alternatively: rubberized.
 Tapered cylindrical wound for an extra charge.

Shaft

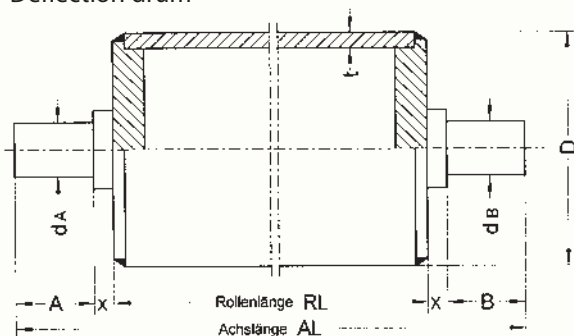
Steel shaft St 52.3, welded, wound bearing seat.
 For ATR a shaft end with feather key groove acc. to DIN 6885/1.

Driving drums



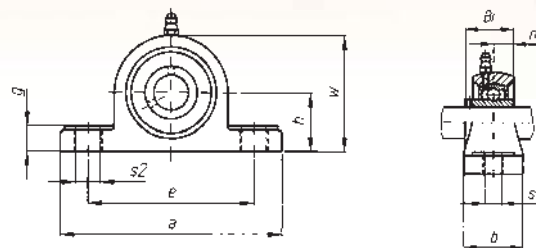
We manufacture
 according to your
 specifications

Deflection drum



We put things in motion

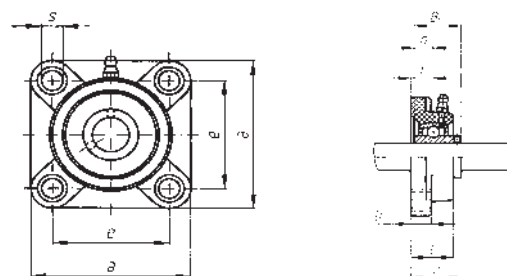
Product similar to illustrations!



Pedestal bearing, cast housing

Alternatively with polymer housing
and SS bearings type PPL

Ident. No.	Order No.	Ø mm	h	a	e	b	s ₁	s ₂	g	w	Bi	n
0029018	UCP204	20	33.3	127	96	38	19	13	13	65	31	12.7
0029019	UCP205	25	36.5	140	105	38	19	13	13	70	34	14.3
0029020	UCP206	30	42.9	165	121	48	21	17	15	83	38.1	15.9
0029021	UCP207	35	47.6	167	127	48	21	17	16	92	42.9	17.5
0029022	UCP208	40	49.2	184	137	54	21	17	17	98	49.2	19
0029023	UCP209	45	54	190	146	54	21	17	17	106	49.2	19
0029024	UCP210	50	57.2	206	159	60	22	20	19	113	51.6	19
0029025	UCP211	55	63.5	219	171	60	22	20	19	125	55.6	22.2
0029026	UCP212	60	69.8	241	184	70	25	20	22	138	65.1	25.4



Flange bearing, cast housing

Alternatively with polymer housing
and SS bearings type FPL

Ident. No.	Order No.	Ø mm	a	e	i	g	l	s	z	Bi	n
0029027	UCF204	20	86	64	15	12	25.5	12	33.3	31	12.7
0029028	UCF205	25	95	70	16	14	27	12	35.7	34	14.3
0029029	UCF206	30	108	83	18	14	31	12	40.2	38.1	15.9
0029030	UCF207	35	117	92	19	16	34	14	44.4	42.9	17.5
0029031	UCF208	40	130	102	21	16	36	16	51.2	49.2	19
0029032	UCF209	45	137	105	22	18	38	16	52.2	49.2	19
0029033	UCF210	50	143	111	22	18	40	16	54.6	51.6	19
0029034	UCF211	55	162	130	25	20	43	19	58.4	55.6	22.2
0029035	UCF212	60	175	143	29	20	48	19	68.7	65.1	25.4



Brake rollers

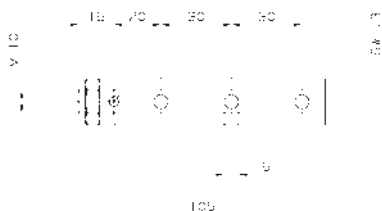
Brake rollers regulate the speed on gravity roller conveyors and they keep the material being conveyed at a constant speed. This is achieved via a planetary gear set, which presses a centrifugal force braking mechanism with each rotation onto the roller body with proportional braking force to the applied braking moment.

The spacing of the brake rollers and the correct type of brake roller are influenced by several factors.

One brake roller per plate section is ideal because this enables a controlled speed without acceleration and the occurrence of high forces. The execution speed should never exceed 0.3 m/s. With the correct arrangement of brake rollers, however, the speed should be just 0.2-0.25 m/s.

Suspension axle

Suspension axle AS,
suspension axle for mounting
the brake roller.



Spring suspension



Spring suspension in various lengths:

Length A = 30 mm: FA30, length A = 40 mm: FA40

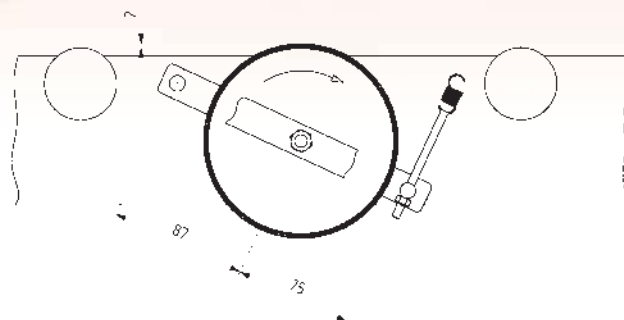
Length A = 50 mm: FA50, length A = 65 mm: FA365

Clip bolt

Clip bolt in
various lengths:

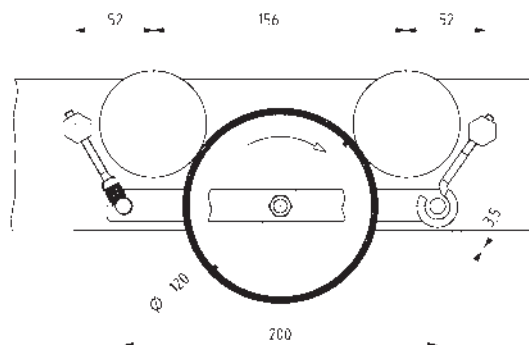
Length H = 67 mm: HS67

Length H = 88 mm: HS88



Direct braking (-K)

During direct braking the brake roller is subjected to direct contact with the load. It is spring mounted and must stand approx. 2 mm above the level.



Indirect braking (-L)

The indirect braking method is preferred in many cases because the pallet is contacted via 2 carrier rollers. 4 springs assume the contact and 2 clip bolts, which are loosely integrated, secure the brake roller. In order to improve the degree of contact between the brake roller, carrier roller, and pallet, the carrier roller should be provided with a self-adhesive friction covering.

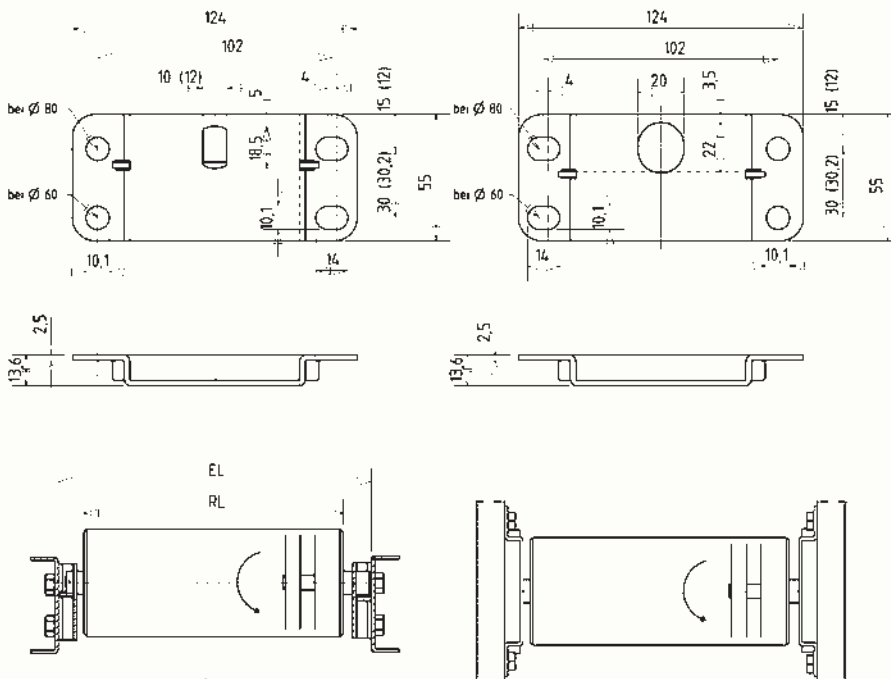
Order No.	Permissible pallet weights kg	Braking		Suspension without	Suspension axle	Spring suspension	Clip bolt
		Indirect	Direct				
TBR300	300	D	I	O	AS	FA30, FA40, FA50, FA65	HS67, HS88
TBR500	500	D	I	O	AS	FA30, FA40, FA50, FA65	HS67, HS88
TBR800	800	D	I	O	AS	FA30, FA40, FA50, FA65	HS67, HS88
TBR1000	1000	D	I	O	AS	FA30, FA40, FA50, FA65	HS67, HS88
TBR1200	1200	D	I	O	AS	FA30, FA40, FA50, FA65	HS67, HS88

Brake carrier rollers TBT Ø 80, 89 mm



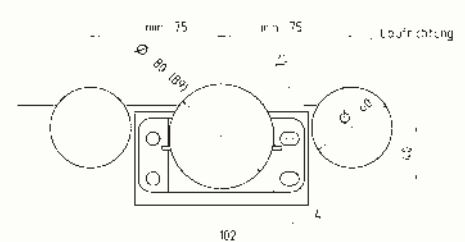
Installation variant: Fixed installation with leaf spring holder Design B.

Brake carrier rollers TBT



Dimensions in () for brake carrier roller Ø 89

Installation variant



Other installation variants available on request

Order No.	Permissible pallet weights	Design		Steel	Steel	PVC tube
	kg	w/o bracket	with bracket	bright	galvanized	
TBT80-300	100 – 500	O	B	ST	STI	STSI
TBT80-1000	300 – 1000	O	B	ST	STI	STSI
TBT89-800	200 – 1000	O	B	ST	STI	STSI
TBT89-1200	600 – 1200	O	B	ST	STI	STSI
TBT89-1500	600 – 1500	O	B	ST	STI	STSI

Ordering example:

TBT89-1200-B-STI-900, brake carrier roller with bracket B for pallet weights 600–1200 kg. Design galvanized for EL = 900 mm.

Product portrait

Ball transfer units



Applications of ball transfer units:

- AirCargo
- Tool manufacturing and machine construction
- Conveyor technology

TORWEGGE ball transfer units

	Series	Page
	With steel plate housings	F 40
	Solid material, heavy-duty ball transfer units	F 41
	With countersunk housings	F 42
	With threaded bolts	F 42
	With 2-hole mounting, universal ball transfer units	F 43
	OTF, OTSF	F 44
	OT, OTSP	F 44
	MINI ball transfer units with threaded bolts	F 45
	Ball transfer unit clips	F 45

Large quantities
continually in stock

Ball transfer units

- The ball transfer units generally consist of a steel housing with an embedded, hardened ball cup, which serves as the running track for the small bearing balls. Many of these steel balls support the large load ball, which is also manufactured from steel or plastic.
- The ball transfer units are constructed so that a very smooth run is possible in all directions. They can also be installed upright (50% loss of load-carrying capacity), are easy to maintain, and are protected from direct accumulation by an oil-soaked felt seal.
- Galvanized ball transfer balls manufactured from stainless steel or plastic are resistant to corrosion, aliphatics, and aromatic hydrocarbons, benzene, alcohol, oils, ether, greases, and other similar agents. Ball transfer units with plastic load balls are particularly suitable for loads with delicate surfaces such as glass, polished aluminum, brass, and steel sheet.

For ball transfer tracks, see page F 64.

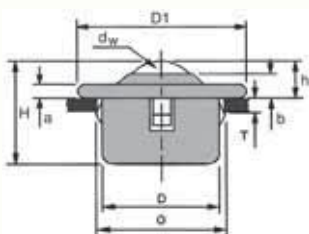
Ball transfer units with steel plate housings



Load-carrying capacity
50 – 600 kg



Load-carrying capacity
10 – 25 kg



Load-carrying capacity
50 – 600 kg

		Design	d _w	D	D ₁	h	H	a	b	Load-carrying capacity (kp)	Unit weight
Ident. No.	Order No.		mm	mm	mm	mm	mm	mm	mm	daN	kg
0017480	KU15B	Surface galvanized	15	24	31	9.5	21	2.8	6.3	60	0.043
0017490	KU22B		22	36	45	9.8	30	2.8	5.5	160	0.132
0017499	KU30B		30	45	55	13.8	37	4	8.3	300	0.278
0017510	KU45B		45	62	75	19	53.5	4	10	610	0.725
0017482	KU15C	All parts galvanized, stainless steel ball	15	24	31	9.5	21	2.8	6.3	60	0.043
0017492	KU22C		22	36	45	9.8	30	2.8	5.5	160	0.132
0017501	KU30C		30	45	55	13.8	37	4	8.3	300	0.278
0017512	KU45C		45	62	75	19	53.5	4	10	610	0.725
0017487	KU15Niro	All parts in stainless steel	15	24	31	9.5	21	2.8	6.3	38	0.043
0017496	KU22Niro		22	36	45	9.8	30	2.8	5.5	100	0.132
0017508	KU30Niro		30	45	55	13.8	37	4	8.3	200	0.278
0017483	KU15C-D	Housing galvanized, with plastic load ball	15	24	31	9.5	21	2.8	6.3	10	0.043
0017493	KU22C-D		22	36	45	9.8	30	2.8	5.5	20	0.132
0017502	KU30C-D		30	45	55	13.8	37	4	8.3	25	0.278

Ball transfer units with mounting clips and steel plate housings

- With integrated mounting clip
- Secure hold
- Easy assembly

		Design	d _w	D	D ₁	h	H	a	b	O	T	Load-carrying capacity (kp)	Unit weight
Ident. No.	Order No.		mm	mm	mm	mm	mm	mm	mm	mm	mm	daN	kg
0026956	KU15B-K	Surface galvanized	15	24	31	9.5	21	2.8	6.3	25	2	60	0,043
0026957	KU22B-K		22	36	45	9.8	30	2.8	5.5	37	3	160	0,132
0026958	KU30B-K		30	45	55	13.8	37	4	8.3	46	6	300	0,278
0026959	KU45B-K		45	62	75	19	54	4	10	63	7	610	0,725
0026960	KU15C-K	All parts galvanized, stainless steel ball	15	24	31	9.5	21	2.8	6.3	25	2	60	0,043
0026961	KU22C-K		22	36	45	9.8	30	2.8	5.5	37	3	160	0,132
0026962	KU30C-K		30	45	55	13.8	37	4	8.3	46	6	300	0,278
0026963	KU45C-K		45	62	75	19	54	4	10	63	7	610	0,725
0026964	KU15K-Niro	All parts in stainless steel	15	24	31	9.5	21	2.8	6.3	25	2	38	0,043
0026965	KU22K-Niro		22	36	45	9.8	30	2.8	5.5	37	3	100	0,132
0026966	KU30K-Niro		30	45	55	13.8	37	4	8.3	46	6	200	0,278

Large quantities
continually in stock



Mounting clips

For dimensions,
see page F 45.

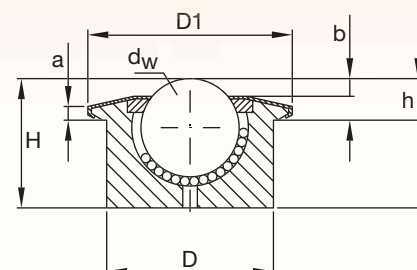


Ball transfer units

- The running qualities are not influenced by temperatures between minimum -30 °C and maximum +70 °C constant or +100 °C for short periods.
- If the seals are omitted, then temperatures from 150 °C to 200 °C are possible. In this case, however, a bearing reduction occurs, whereby the following approximate values can be taken note of:

at 125 °C = 10 %
 at 150 °C = 20 %
 at 170 °C = 30 %
 at 200 °C = 50 %

- If required, seals that are suitable for stricter requirements can also be used.



Solid material ball transfer units

		Design	dw	D	D1	h	H	a	b	Load-carrying capacity (kp)	Unit weight
Ident. No.	Order No.		mm	mm	mm	mm	mm	mm	mm	daN	kg
0017484	KU15M*	Surface galvanized	15	24	31	9,5	21	3,8	5,5	100	0,06
0017494	KU22M		22	36	45	9,8	30,5	3	6	180	0,18
0017506	KU30M		30	45	55	13,8	36,8	3,4	8,3	350	0,38
0017517	KU45M		45	62	75	19	53,5	3,8	10	600	1,1
0028513	KU60M		57,1	100	117	29,5	77,5	5	13	1500	3,8
0017486	KU15M-R*	All parts galvanized, stainless steel ball	15	24	31	9,5	21	3,8	5,5	100	0,06
0017495	KU22M-R		22	36	45	9,8	30,5	3	6	180	0,18
0017507	KU30M-R		30	45	55	13,8	36,8	3,4	8,3	350	0,38
0017518	KU45M-R		45	62	75	19	53,5	3,8	10	600	1,1
0028764	KU60M-R		57,1	100	117	29,5	77,5	5	13	1000	3,8

* without felt seal



Load-carrying capacity
100 – 1500 kg



Heavy-duty ball transfer units for transporting containers

Airport ball transfer units made of solid material with rotating ball collar and a large dirt exit hole (no seal).

		Design	dw	D	D1	h	H	a	b	Load-carrying capacity (kp)	Unit weight
Ident. No.	Order No.		mm	mm	mm	mm	mm	mm	mm	daN	kg
0017503	KU30C-O	Surface galvanized	30	45	55	13,8	36,8	3,4	8,3	350	0,38
0017514	KU45C-O		45	62	75	19	53,5	3,8	10	600	1,1
0017504	KU30C-ONiro	All parts in stainless steel	30	45	55	13,8	36,8	3,4	8,3	200	0,38
0017515	KU45C-ONiro		45	62	75	19	53,5	3,8	10	300	1,1
0017505	KU30C-OM	Housing galvanized, stainless steel ball	30	45	55	13,8	36,8	3,4	8,3	350	0,38
0017516	KU45C-OM		45	62	75	19	53,5	3,8	10	600	1,1

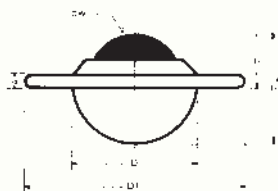


Large quantities
continually in stock

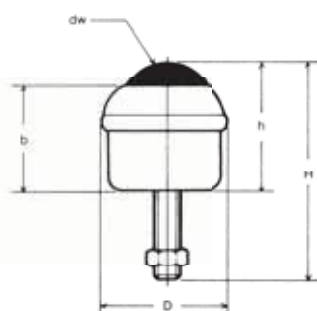
Ball transfer units

- The load on the ball transfer unit is generally centric, but it can also be subjected to an eccentric load during the transfer of round material.
- All load-carrying capacity specifications are valid for use with an upright ball.**
These specifications are reduced by approx. 50 % when the ball is facing down.
- Standard design with steel balls, self-cleaning.
N = with nylon balls, self-cleaning, for delicate transport material.
R = with stainless steel balls and stainless steel housings, self-cleaning.
For use in moist or chemical atmospheres or immersed in liquids.

Load-carrying capacity up to 330 kg



Load-carrying capacity up to 110 kg



Leaving technical changes!

Ident. No.	Order No.	dw	D	D1	h	H	a	Mount- ing hole Ø	Hole circle Ø	Unit weight kg	Load-carrying capacity steel daN	Load-carrying capacity of nylon daN
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Ball transfer units with countersunk housings

- Housing shiny galvanized. choice of steel or nylon balls (N).
- Low installation height due to flange mounting. Three mounting holes.
Order No. 9701-15 (0028223) with two mounting holes.

0028223	9701-15	15	22.2	41.3	10.2	18.5	3.2	3.5	30	0.045	12	-
0014721	9701-20	19	29.1	61	10	22	3.2	5.1	44.5	0.087	25	-
0014722	9701-20N	19	29.1	61	10	22	3.2	5.1	44.5	0.087	-	20
0014724	9701-25	25	37.2	73	14.2	30	3.5	5.1	55.6	0.175	55	-
0014725	9701-25N	25	37.2	73	14.2	30	3.5	5.1	55.6	0.175	-	25
0014727	9701-30	32	45.5	73.7	16.2	36.1	4.2	5.1	58.7	0.265	125	-
0014729	9701-40	40	62.0	94.6	21.2	48.5	6.3	7	76.2	0.635	225	-
0014731	9701-50	50	75.3	120.7	28.3	58.5	6.3	8	92	1.065	340	-

Ball transfer units with countersunk housing, rust-free

- Design as above. but with housing and ball made of **stainless steel**.

0014723	9701-20R	19	29.1	61	10	22	3.2	5.1	44.5	0.087	25	-
0014726	9701-25R	25	37.2	73	14.2	30	3.5	5.1	55.6	0.175	55	-
0014728	9701-30R	32	45.5	73.7	16.2	36.1	4.2	5.1	58.7	0.265	125	-
0014730	9701-40R	40	62.0	94.6	21.2	48.5	6.3	7	76.2	0.635	225	-
0014732	9701-50R	50	75.3	120.7	28.3	58.5	6.3	8	92	1.065	250	-

Ident. No.	Order No.	dw	D	h	H	b	Thread	Threaded bolt length	Unit weight kg	Load-carrying capacity steel daN	Load-carrying capacity of nylon daN
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Ball transfer units with threaded bolts

- Housing shiny galvanized. choice of steel or nylon balls (N).

0014733	9702-20	19	32.1	30.2	75.2	25.5	M8	45	0.08	25	-
0014734	9702-20N	19	32.1	30.2	65.2	25.5	M8	35	0.08	-	20
0014736	9702-25	25.4	39.7	39.7	82.7	33.4	M8	43	0.16	55	-
0014737	9702-25N	25.4	39.7	39.7	82.7	33.4	M8	43	0.16	-	25
0014739	9702-40	39.7	55.5	54.8	96.8	42.9	M10	42	0.46	140	-

Ball transfer units with threaded bolts, rust-free

- Design as above. but with housing and ball made of **stainless steel**.

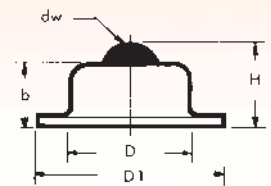
0014735	9702-20R	19	32.1	30.2	65.2	25.5	M8	35	0.08	25	-
0014738	9702-25R	25.4	39.7	39.7	72.7	33.4	M8	33	0.16	55	-
0014740	9702-40R	39.7	55.5	54.8	96.8	42.9	M10	42	0.46	140	-



Ball transfer units with 2-hole mounting

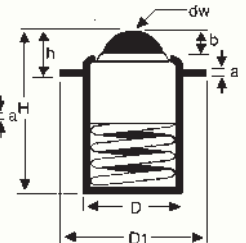
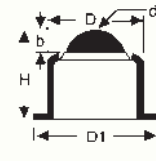
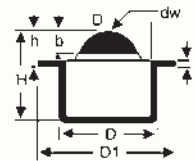
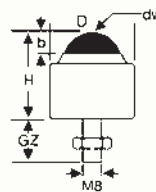
- Housing shiny galvanized, choice of steel or nylon balls (N), or stainless steel (R) without seal.

		dw	D	D1	H	b	Mounting hole Ø	Hole spacing L	Unit weight kg	Load-carrying capacity (kp)
Ident. No.	Order No.	mm	mm	mm	mm	mm	mm	mm	kg	daN
0014741	9704-25	25.4	44.5	69	30.5	24.2	5	60.3	0.16	55
0014742	9704-25N	25.4	44.5	69	30.5	24.2	5	60.3	0.16	25
0014743	9704-25R	25.4	44.5	69	30.5	24.2	5	60.3	0.16	55



Universal ball transfer units

- Housing shiny galvanized with steel ball.
- Basic unit with choice of threaded bolt, countersunk, upright, or spring-loaded housing.



without thread .../0
with thread .../1

.../2

.../3

.../4

		dw	D	D1	H	h	a	b	Mounting hole Ø	Hole spacing L	Threaded bolts GZ	Unit weight kg	Load-carrying capacity (kp)
Ident. No.	Order No.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	daN
0014744	9705-25/0	25.4	39.5	-	35.8	-	-	6.1	-	-	-	0.16	100
	9705-25/1	25.4	39.5	-	35.8	-	-	6.1	M8	-	18/23/28	0.18	100
0014752	9705-25/2	25.4	42	69	36.5	12	1.7	6	5.1	58.7	-	0.196	100
0014756	9705-25/3	25.4	42	69	35.8	-	1.8	6.1	5	58.7	-	0.2	100
0014759	9705-25/4	25.4	44.5	71.3	72.2	19.3	2	6.7	5.1	60.4	-	0.4	50

Universal ball transfer units

- Design as above. but with nylon ball.

0014745	9705-25/0N	25.4	39.5	-	35.8	-	-	6.1	-	-	-	0.16	25
	9705-25/1N	25.4	39.5	-	35.8	-	-	6.1	M8	-	18/23/28	0.18	25
0014753	9705-25/2N	25.4	42	69	36.5	12	1.7	6	5.1	58.7	-	0.196	25
0014757	9705-25/3N	25.4	42	69	35.8	-	1.8	6.1	5	58.7	-	0.2	25

Universal ball transfer units

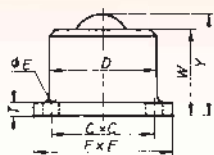
- Design as above. but entirely of stainless steel.

0014746	9705-25/0R	25.4	39.5	-	35.8	-	-	6.1	-	-	-	0.16	100
	9705-25/1R	25.4	39.5	-	35.8	-	-	6.1	M8	-	18/23/28	0.18	100
0014754	9705-25/2R	25.4	42	69	36.5	12	1.7	6	5.1	58.7	-	0.196	100
0014758	9705-25/3R	25.4	42	69	35.8	-	1.8	6.1	5	58.7	-	0.2	100



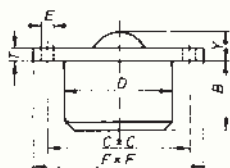
Ball transfer units

The performance of TORWEGGE ball transfer units is determined by their correct use. Installation, load, and spacing accuracy are crucial for achieving optimal operating efficiency. In addition, the surfaces that come into contact with the ball transfer units must be hardened. If it is difficult to adequately meet these requirements as a result of the conditions at the place of installation, then it is recommended that a safety factor be incorporated into the calculation of the required quantity and performance.



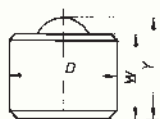
Ball transfer units OTF with base flange

		Ball Ø	Y	W	D	F x F	C x C	T	E Ø	Load-carrying capacity (kp)	Unit weight
Ident. No.	Order No.	mm	mm	mm	mm	mm	mm	mm	kg	daN	kg
0022456	OTF51	12.7	22.6	19.1	23.8	44.5	34.8	3.2	2 x 3.6	35	0.086
0022457	OTF52	25.4	41.4	35.8	44.5	57.2	44.5	4.8	4 x 5.6	135	0.459
0022458	OTF53	25.4	45.5	39.1	50.8	76.2	57.9	6.3	4 x 7.1	320	0.735
0022459	OTF54	38.1	62.2	49.2	60	76.2	57.9	12.4	4 x 7.1	1000	1.3
0022460	OTF55	50.8	98.3	84	101.6	127	101.6	9.6	4 x 11	2000	5.52



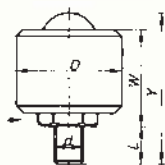
Ball transfer units OTSF with head flange, to be used if the overall height is limited.

		Ball Ø	Y	B	D	F x F	C x C	T	E Ø	Load-carrying capacity (kp)	Unit weight
Ident. No.	Order No.	mm	mm	mm	mm	mm	mm	mm	kg	daN	kg
0022464	OTSF61	12.7	11.2	11.2	23.8	44.5	34.8	3.2	2 x 3.6	35	0.082
0022465	OTSF62	25.4	10.3	31.3	44.5	57.2	44.5	4.7	4 x 5.6	135	0.463
0022466	OTSF63	25.4	13	32	50.8	76.2	57.9	6.9	4 x 7.1	320	0.746
0022467	OTSF64	38.1	25.4	35.8	60	76.2	57.9	12.4	4 x 7.1	1000	1.24
0022468	OTSF65	50.8	33.3	65	101.6	127	101.6	19	4 x 11	2000	6.14



Ball transfer units OT press-fit

		Ball Ø	Y	W	D	Load-carrying capacity (kp)
Ident. No.	Order No.	mm	mm	mm	mm	daN
0022451	OT71	12.7	19.6	16.1	20.6	35
0022452	OT72	25.4	41.4	35.8	44.5	135
0022453	OT73	25.4	44.7	38.6	50.8	320
0022454	OT74	38.1	61.5	48.5	60	1000
0022455	OT75	50.8	98.4	84.1	101.6	2000

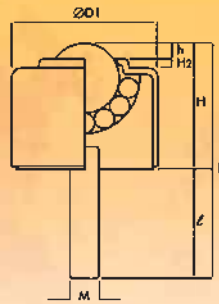


Ball transfer units OTSP with threaded bolt

		Ball Ø	Y	W	D	L	d	Load-carrying capacity (kp)
Ident. No.	Order No.	mm	mm	mm	mm	mm	mm	daN
0022469	OTSP81	12.7	35.8	19.6	20.6	16.2	M8	35
0022470	OTSP82	25.4	72.4	48.3	44.5	24.1	M12	135
0022471	OTSP83	25.4	77	51.3	50.8	25.7	M12	320
0022472	OTSP84	38.1	114.3	60.7	60	40.8	M20	1000
0022473	OTSP85	50.8	159	109.1	101.6	49.9	M24	2000

MINI ball transfer units with threaded bolts

Load-carrying capacity up to 120 kg



- For use in measuring instruments.
- For the transport of material in clean rooms.
- Guides for small linear bearings.

IS-N = Steel housing, steel balls
 IS-SN = Stainless steel housing, stainless steel balls, upper cylindrical
 IS-SNM = Aluminum housing, stainless steel balls, upper conical

Ident. No.	Order No.	Ball Ø	D1	h	L	H	e	H2	Thread	Unit weight	Load-carrying capacity (kp)
		mm	mm	mm	mm	mm	mm	mm		kg	daN
0026941	IS-05SNM	4.8	8	1	8.5	6	2.5	-	M2	0.003	5
0026942	IS-05N	4.8	13	1	24	9	15	-	M6	0.01	10
0026943	IS-05SN	4.8	13	1	24	9	15	-	M6	0.01	10
0026944	IS-06SNM	6.4	13	2	16.5	10.5	6	-	M3	0.007	10
0026945	IS-06N	6.4	17	2	26	11	15	-	M6	0.02	20
0026946	IS-06SN	6.4	17	2	26	11	15	-	M6	0.02	20
0026947	IS-08SNM	7.9	15	2	20.5	12.5	8	-	M4	0.012	15
0026948	IS-08N	7.9	18	2	32	14	18	-	M8	0.03	30
0026949	IS-08SN	7.9	18	2	32	14	18	-	M8	0.03	30
0026950	IS-10N	9.6	23	2	40	20	20	-	M8	0.06	40
0026951	IS-10SN	9.6	23	2	40	20	20	-	M8	0.06	40
0026952	IS-13N	12.7	28	3.5	48	25	23	-	M8	0.1	50
0026953	IS-13SN	12.7	28	3.5	48	25	23	-	M8	0.1	50
0026954	IS-16N*	15.8	24	4	32.5	20.5	12	-	M6	0.06	70
0026955	IS-16SN*	15.8	24	4	32.5	20.5	12	-	M6	0.06	70

*Tapered design

Ball transfer unit clips for secure installation without special tools



CL 11
for KU22-KU45

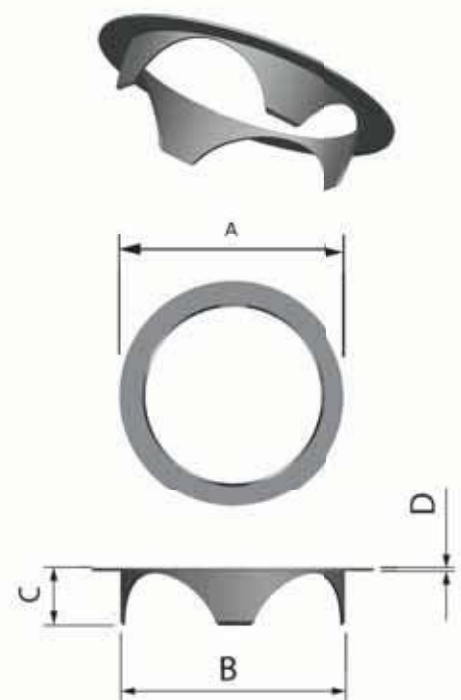


CL 12
for KU15-KU45



CL 14
for KU15-KU45

Ident. No.	Order No.	A	B	C	D
		mm	mm	mm	mm
0029207	CL11-22	71.1	35.9	-	0.7
0029208	CL11-30	71.1	61.2	-	0.7
0025498	CL11-45	72.6	61.2	-	0.7
0029209	CL12-15	-	-	-	-
0029210	CL12-22	-	-	-	-
0029211	CL12-30	-	-	-	-
0029212	CL12-45	-	-	-	-
0011650	CL14-15	30.9	24.7	6	0.3
0011651	CL14-22	44.5	36.7	7	0.3
0011652	CL14-30	54.9	45.7	7	0.3
0029213	CL14-45	74	62.7	7	0.3

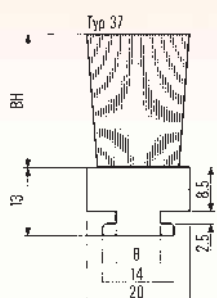


Leaving technical changes!

Roller tracks and toothed brushes for glass and window construction

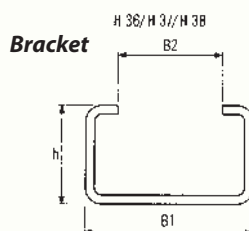


- Material that is sensitive to scratching is especially carefully stored and transported via toothed brushes during manufacturing or assembly.
- Toothed brushes of type GL PA/2000 can be used, for example, for assembly benches in synthetic window construction, or as guide rails for extremely sensitive workpieces.



Toothed brushes

Ident. No.	Order No.	Body material	Type	Installation height	Length	Number of rows	Edging material
			mm	mm	mm		
0010880	GL PA/2000	PVC green	37	8.0	2000	3	0.20 PA 6 weiß



Profile rail made of galvanized steel

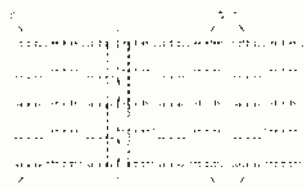
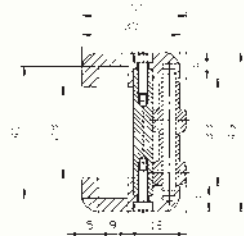
Ident. No.	Order No.	B1	B2	h	Standard length
		mm	mm	mm	mm
0010255	HG2/2000	18.0	9.0	12.0	2000

SF-Flex flexible side guide

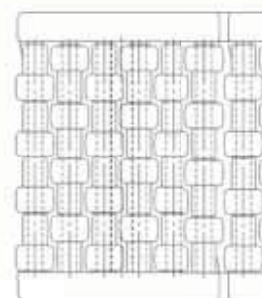
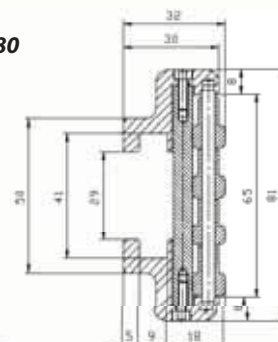
For use as a linear guide or in curves with min. 500 mm radius. Available as a single element 348.5 mm long for attaching to steel bar 40 x 8 mm or as a complete track with length of 3000 mm, complete with stainless steel M-profile.

- Especially quiet running
- Simple installation
- Compact construction
- Narrowest roller pitch
- Other designs, dimensions, and colors available on request.

SF-Flex50



SF-Flex80



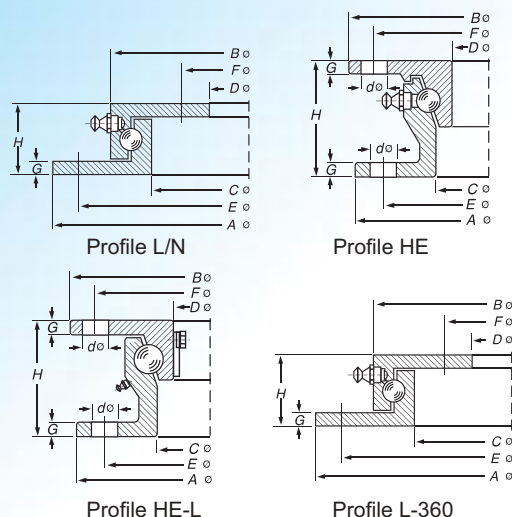
Ident. No.	Order No.		Length	Height
			mm	mm
0034856	SF-Flex50x3000	Complete with VA M-profile	3000	49
0034858	SF-Flex50x350	Single module	348.5	49

Ident. No.	Order No.		Length	Height
			mm	mm
0034857	SF-Flex80x3000	Complete with VA M-profile	3000	81
0034859	SF-Flex80x350	Single module	348.5	81

Ball steering rings for light to heavy axial loads 750 – 13.00 kg



- Precision ball steering rings consist of 2 steel rings with rolling bearing steel balls in the ball race with lubrication nipple at the periphery.
- Low height with high axial load, wear-resistant.
- Both flange rings in profiles L and N are without a drill hole.
- Some of the HE profiles have drill holes.
- Suitable for trailers and transport equipment, swivelling range 120°.



Swivelling range 120°	A	B	C	D	E	F	G	H	ød	Weight	Axial load	
Order No.	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	t	
400L	400	342	292	230	375	260	8	45	-	11	0.75	
500L	500	442	392	330	475	360	8	45	-	15	0.9	
650L	650	592	542	480	625	510	8	45	-	20	1.5	
750L	750	692	642	580	725	610	8	45	-	23	1.8	
850L	850	792	742	680	825	710	8	45	-	27	2.5	
950L	950	892	842	780	925	810	8	45	-	30	3.0	
1050L	1050	992	942	880	1025	910	8	45	-	34	3.5	
500N	500	437	384	330	475	340	8	52	-	17	1.8	
650N	650	587	534	465	625	490	8	52	-	23	2.5	
750N	750	687	634	565	725	590	8	52	-	28	3.0	
850N	850	787	734	665	825	690	8	52	-	32	3.5	
950N	950	887	834	765	925	790	8	52	-	36	4.0	
1050N	1050	987	934	865	1025	890	8	52	-	40	4.5	
HE4	685	700	588	567	657	671	9	80	-	32	3.0	
HE5*	880	895	783	762	852	866	9	80	16	43	5.0	
HE6*	1090	1105	993	972	1060	1074	9	80	18	52	6.5	
HE12/1000	1000	1008	886	859	960	974	10	90	-	63	7.0	
HE1000/22	1000	1008	886	859	960	974	10	90	-	63	10.0	
HE1100/22*	1100	1108	986	959	1060	1074	10	90	18	69	12.0	
HE1200/22*	1200	1208	1086	1059	1160	1174	10	90	18	76	13.0	

* drilled (drill diagram on request)

The axial loads specified are applicable for three-axle trucks.
These axial loads can be exceeded by 10% for two-axle trucks.
The values can be exceeded by 20% at speeds below 25 km/h.

Ball ring profile HE-L

only for agricultural two-axle trailers; speeds up to 80 km/h

HE12L*	1100	1108	986	959	1060	1074	10	90	18	69	9.0	
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Ball ring profile L-360

- Swivelling range 360° and more.
- Technical data as above, but with additional hardened spacer balls in the ball race.

400L-360	404	346	294	236	375	260	8	42	-	11	0.38	
500L-360	504	446	394	336	475	360	8	42	-	15	0.45	
650L-360	654	596	544	486	625	510	8	42	-	20	0.75	
750L-360	754	696	644	586	725	610	8	42	-	23	0.9	
850L-360	854	796	744	686	825	710	8	42	-	27	1.25	
950L-360	954	896	844	786	925	810	8	42	-	30	1.5	
1050L-360	1054	996	944	886	1025	910	8	42	-	34	1.75	

Single-row ball bearing slewing ring

This slewing ring is a light model from the slewing bearings product range. Rolling elements made from ball bearing steel with surface hardened ball tracks. Material: C 45 N according to DIN 17200. Permissible bending tension at the base of the tooth: 130 N/mm² (normal), 260 N/mm² (maximum for a brief period).

The bearing cross sections of this type series are kept relatively small for efficiency purposes. Therefore the slewing bearings are to be assembled to a torsionally rigid companion structure.

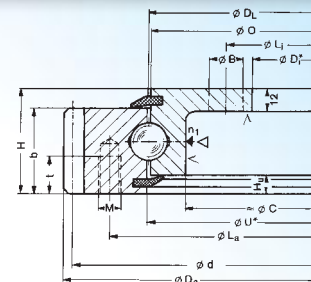
The bearing surfaces for the slewing bearings must be even to prevent the bearings from being twisted when screwed. This could result in bottlenecks forming in the track, which would, in turn, cause load peaks at these locations. The bearing surfaces must be mechanically processed for this reason.



Bearing with external teeth	Rolling circle diameter	Weight	External diameter	Internal diameter	External rolling circle diameter	External rolling circle diameter	Number of holes	Number of holes	Diameter	Diameter	Diameter	Diameter	Pitch circle dia- meter	Module	Number of teeth	Width of tooth	Change in the height of the head	perm. tangential force	perm. tangential force, maximum	
	DL mm	kg	Da mm	Di mm	La mm	Li mm	na	ni	O mm	U mm	A mm	C mm	d mm	m mm	z	b mm	k * m mm	kN	kN	
500L-360/AZ	414	29	504	304	455	332	10	24	412.5	415.5	-	375	495	5	99	45.5	-0.5	11.75	23.5	
650L-360/AZ	544	39.2	640.8	434	585	462	14	28	542.5	545.5	-	505	630	6	105	45.5	-0.5	14.2	28.4	
750L-360/AZ	644	47.2	742.8	534	685	562	16	32	642.5	645.5	-	605	732	6	122	45.5	-0.6	14.2	28.4	
850L-360/AZ	744	53.1	838.8	634	785	662	18	32	742.5	745.5	-	705	828	6	138	45.5	-0.6	14.2	28.4	
950L-360/AZ	844	64.7	950.4	734	885	762	18	36	842.5	845.5	-	805	936	8	117	45.5	-0.8	18.93	37.86	
1050L-360/AZ	944	69.1	1046.4	834	985	862	20	40	942.5	945.5	-	905	1032	8	129	45.5	-0.8	18.93	37.86	
1200L-360/AZ	1094	82.5	1198.4	984	1135	1012	22	40	1092.5	1095.5	-	1055	1184	8	148	45.5	-0.8	18.93	37.86	

Hole diameter, outer B/M M12
Hole diameter, inner B/M 18 mm
Overall height H56 mm
Depth of thread t: 20 mm

Distance to outer ring Hu 10.5 mm
n1 = 4 piece lubricating nipple
b = 45.5 mm tooth width
Bearing clearance: axial < 0.5, radial < 0.5



Bearing with internal toothings	Rolling circle diameter	Weight	External diameter	Internal diameter	External rolling circle diameter	External rolling circle diameter	Number of holes	Number of holes	Diameter	Diameter	Diameter	Diameter	Pitch circle dia- meter	Module	Number of teeth	Width of tooth	Change in the height of the head	perm. tangential force	perm. tangential force, maximum	
	DL mm		Da mm	Di mm	La mm	Li mm	na	ni	O mm	U mm	A mm	C mm	d mm	m mm	z	b mm	k * m mm	kN	kN	
500L-360/IZ	414	26.9	518	326.5	490	375	16	12	412.5	415.5	453	-	335	5	67	45.5	-0.75	13.54	27.08	
650L-360/IZ	544	36.7	648	445.2	620	505	20	16	542.5	545.5	583	-	456	6	76	45.5	-0.6	16	32	
750L-360/IZ	644	43.4	748	547.2	720	605	24	18	642.5	645.5	683	-	558	6	93	45.5	-0.6	15.62	31.24	
850L-360/IZ	744	50.8	848	649.2	820	705	24	20	742.5	745.5	783	-	660	6	110	45.5	-0.6	15.32	30.64	
950L-360/IZ	844	61.3	948	737.6	920	805	28	20	842.5	845.5	883	-	752	8	94	45.5	-0.8	20.8	41.6	
1050L-360/IZ	944	65.4	1048	841.6	1020	905	32	22	942.5	945.5	983	-	856	8	107	45.5	-0.8	20.49	40.98	
1200L-360/IZ	1094	80.3	1198	985.6	1170	1055	32	24	1092.5	1095.5	1133	-	1000	8	125	45.5	-0.8	20.16	40.32	

Hole diameter, outer B/M 18 mm
Hole diameter, inner B/M 20 mm
Overall height H56 mm
Depth of thread t: 20 mm

Distance to outer ring Hu 10.5 mm
n1 = 4 piece lubricating nipple
b = 45.5 mm tooth width
Bearing clearance: axial < 0.5, radial < 0.5

