Application area
Driven unit handling conveying in the curve section, such as transport of cardboards, containers or tires.

Low-noise
The use of polyamide drive heads results in very quiet running.

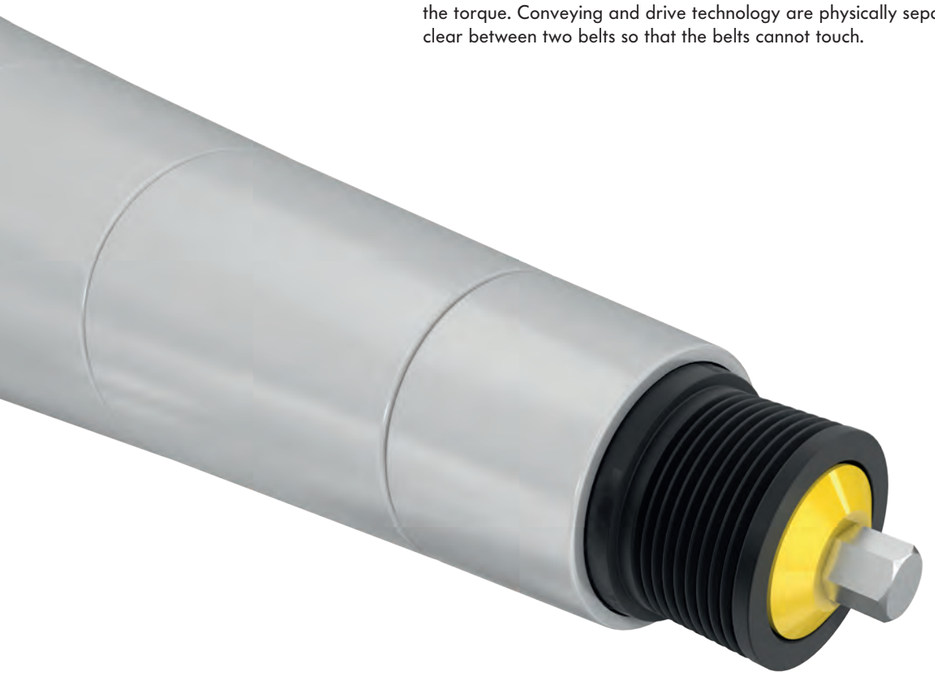
Tight curve radii
Using elements with a conicity of 2.2° allows implementing tight curve radii.

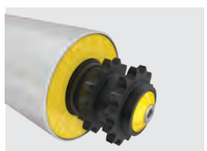
Good running properties
The tapered elements made of polypropylene distinguish themselves with a low net weight so that good startup properties can be achieved.

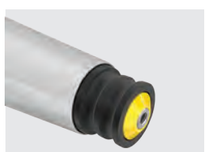
Robust construction
The tapered elements are abrasion-proof, noise-reducing, impact-resistant and excel through a high weather-resistance.

Variants
Depending on the requirement, the curve rollers can be supplied with drive heads for PolyVee belts, round belts or chains.

- **Round belt drive head**
  With the round belt head, the drive section is separated from the conveying section, so that materials cannot be shifted due to batching belts. Since the drive head has a higher friction because of grooves in the metal tube, the result is a higher conveyance of the round belts. If the round belts should slip because of the application, then the wear of the belts on a round belt drive head is higher.
- **PolyVee drive head**
  Compared with a round belt, the use of a 2-rib belt allows transferring approximately twice the torque. Conveying and drive technology are physically separated. A groove must remain clear between two belts so that the belts cannot touch.







ROLLERS
SERIES 3500KXO
Fixed drive curve roller

Technical data

General technical data			
Differentiation of tapered elements	Conicity 1.8° Color Gray	Conicity 1.8° Color Black	Conicity 2.2° Color Gray
Platform	1700	1700	1700
Max. load capacity	500 N	500 N	500 N
Max. conveyor speed	2 m/s (chain drive 0.5 m/s)	2 m/s (chain drive 0.5 m/s)	2 m/s (chain drive 0.5 m/s)
Anti-static version (< 10^6 Ω)	No	Yes	No
Impact-resistant version	Yes	No	Yes
Temperature range	–5 to +40 °C with greased ball bearing –28 to +20 °C with oiled ball bearing	–5 to +40 °C with greased ball bearing	–5 to +40 °C with greased ball bearing –28 to +20 °C with oiled ball bearing
Material			
Tube	Zinc-plated steel, stainless steel, aluminum	Zinc-plated steel, stainless steel, aluminum	Zinc-plated steel, stainless steel, aluminum
Shaft	Uncoated steel, zinc-plated steel, stainless steel	Uncoated steel, zinc-plated steel, stainless steel	Uncoated steel, zinc-plated steel, stainless steel
Color of tapered elements	RAL7030 (stone gray)	RAL9005 (jet black)	RAL7030 (stone gray)
Material of tapered cones	Polyamide and polypropylene	Polypropylene	Polyamide and polypropylene
Bearing housing	Polyamide, RAL9005 (jet black)	Polyamide, RAL9005 (jet black)	Polyamide, RAL9005 (jet black)
Seal	Polypropylene, RAL1021 (rape yellow)	Polypropylene, RAL1021 (rape yellow)	Polypropylene, RAL1021 (rape yellow)
End cover	Polypropylene, RAL1021 (rape yellow)	Polypropylene, RAL1021 (rape yellow)	Metal disk, not completely closing
Drive head	Polyamide, RAL 9005 (jet black), sprocket also in steel		
Bearing version	Precision steel ball bearing 6002 2RZ, precision stainless steel ball bearing 6002 2RZ, bearing play each C3		

An antistatic element is always present in the tube of a roller with tapered elements.

To prevent any damages from static charging or discharging, Interroll recommends the use of black tapered elements.

Design versions

Lubrication options for ball bearing	Greased for an ambient temperature from –5 to +40 °C (standard) Oiled for an ambient temperature from –28 to +20 °C
Shafts	The following are available in addition to the variants listed in the load capacity tables: • With spring on both sides • With variable length • Different design of both shaft ends
Drives	The following are available in addition to the variants listed in the load capacity tables: • The drive heads for round and PolyVee belt can be designed with an additional fixation for temperature-sensitive applications (freezer applications). This fixation is located inside the roller and creates a form-fit torque transfer between tube and drive head. Hence, damages to materials or collecting adhesive tape at the outside of interfering corners is being avoided.

Load capacities of series 3500KXO with screw-connected installation

The load capacity table refers to a temperature range of +5 to +40 °C.
The maximum static load at −28 °C to −6 °C measures 350 N.

Valid for the following shaft designs: female thread or male thread.

Bearing: 6002 2RZ.

Tube material	Ø Tube/ thickness [mm]	Drive element	Ø Shaft [mm]	Maximum static load [N] for installation length [mm]				
				200	400	600	800	1000
Steel	50 x 1.5	PolyVee drive head at the small diameter	12	350	350	350	350	350
		Round belt drive head at the small diameter		350	350	350	350	350
		Polymer double sprocket head 1/2", T14		500	500	500	500	500
		Steel double sprocket head 1/2", T14		500	500	500	500	500
		PolyVee drive head at the small diameter	14	350	350	350	350	350
		Round belt drive head at the small diameter		350	350	350	350	350
		Polymer sprocket head 1/2", T9		300	300	300	300	300
		Polymer sprocket head 1/2", T14		500	500	500	500	500
		Steel sprocket head 1/2", T14		500	500	500	500	500
		Polymer double sprocket head 3/8", T20 at the large diameter		500	500	500	500	500
		Polymer double sprocket head 1/2", T14 at the large diameter		500	500	500	500	500
		Steel double sprocket head 1/2", T14 at the large diameter		500	500	500	500	500

T = Number of teeth

ROLLERS
SERIES 3500KXO
Fixed drive curve roller

Load capacities of series 3500KXO with loose installation

The load capacity table refers to a temperature range of +5 to +40 °C.
The maximum static load at −28 °C to −6 °C measures 350 N.

Valid for the following shaft designs: spring-loaded shaft, fixed shaft or flatted shaft.

Bearing: 6002 2RZ.

Tube material	Ø Tube/ thickness [mm]	Drive element	Ø Shaft [mm]	Maximum static load [N] for installation length [mm]				
				200	400	600	800	1000
Steel	50 x 1.5	PolyVee drive head at the small diameter	8, 11 HEX, 12	350	350	350	350	350
		Round belt drive head at the small diameter		350	350	350	350	350

HEX = hexagon

Dimensions

A sufficient axial play is already taken into account, so that the actual lane width between side profiles is required. The dimensions of the conveyor roller depend on the shaft version and the drive element.

RL = Reference length/ordering length
EL = Installation length, inside diameter between side profiles
AGL = Total length of shaft
U = Usable tube length: Length of tapered elements

Reference length with tapered elements without drive head

Conicity: 1.8°, color: gray (not antistatic)			Conicity: 1.8°, color: black (antistatic)		
Reference length [mm]	Min. Ø [mm]	Max. Ø [mm]	Reference length [mm]	Min. Ø [mm]	Max. Ø [mm]
150	55.6	64.8	150	55.6	64.8
200	52.5	64.8	200	52.5	64.8
250	55.6	71.2	250	55.6	71.2
300	52.5	71.2	300	52.5	71.2
350	55.6	77.6	350	55.6	77.6
400	52.5	77.6	400	52.5	77.6
450	55.6	84.0	450	55.6	84.0
500	52.5	84.0	500	52.5	84.0
550	55.6	90.4	550	55.6	90.4
600	52.5	90.4	600	52.5	90.4
650	55.6	96.8	650	55.6	96.8
700	52.5	96.8	700	52.5	96.8
750	55.6	103.2	750	55.6	103.2
800	52.5	103.2	800	52.5	103.2
850	55.6	109.9	–	–	–
900	52.5	109.9	–	–	–
950	55.6	116.0	–	–	–
1000	52.5	116.0	–	–	–

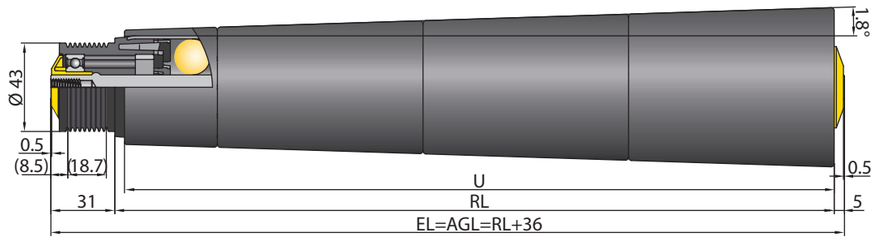
The specified minimum diameters refer to the smallest diameter of the first tapered element. The reference lengths 150 mm and 200 mm as well as 950 mm and 1,000 mm do not receive an end cover.

Conicity: 2.2°, color: gray (not antistatic)		
Reference length [mm]	Min. Ø [mm]	Max. Ø [mm]
190	56.0	70.6
240	56.0	74.4
290	56.0	78.3
340	56.0	82.1
440	56.0	89.8
540	56.0	97.5
640	56.0	105.2
740	56.0	112.8

ROLLERS
SERIES 3500KXO
Fixed drive curve roller

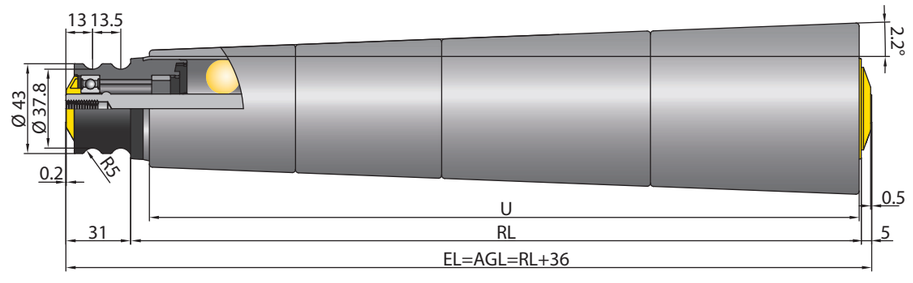
The specified minimum diameters refer to the smallest diameter of the first tapered element.

Tapered elements with 1.8° and PolyVee drive head



· PolyVee belt see page 240

Tapered elements with 2.2° and round belt drive head



Tapered elements with 1.8° and 1/2" polymer double sprocket head with 14 teeth