

FIXED DRIVE CONVEYOR ROLLER SERIES 3500

Low-noise fixed drive, different drive types

Product Description

- Customer benefits**
 - Exceptionally low-noise operation
 - Polyamide drive heads (alternatively sprockets made of steel)
 - Replaceable chain heads and toothed belt heads for fixed and friction drives
 - Fixed bearing housing for attachable drive heads
 - Comprehensive drive versions
 - Round, PolyVee, toothed and flat belts; chain drive 1/2" Z9, Z11, Z14
- Applications**
 - Transport of medium-heavy materials to be conveyed
 - Drums, tyres, boxes
- Properties**
 - Sealed precision ball bearing (6002 2RZ)
 - Series 3500 based on Series 1700
- Associated platform**
 - Platform 1700
- New development Round belt head with 2 grooves**
 - The drive head is pressed into the tube by a press fit
 - No tube deformation by grooves
 - Spatial separation of drive and conveyor areas
 - Standard round belt
- New development PolyVee head with 9 grooves**
 - The drive head is pressed into the tube by a press fit
 - Twice the torque transmission is possible when using flexible PolyVee belts with only 2 ribs compared with a comparable round belt
 - Spatial separation of drive and conveyor areas

Technical Data

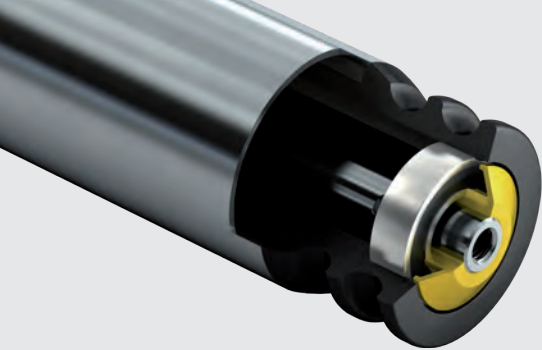
General technical data	
Max. load capacity	2,000 N
Max. conveyor speed	2 m/s (with chain drive 0.5 m/s)
Temperature range	-5 to +40 °C
Materials	
Bearing housing	Polyamide
Drive head	Polyamide / Steel
Seal	Polypropylene
Ball bearing	Steel 6002 2RZ

The load capacity depends on the length of the roller, the tube diameter and the torque transmission.

Female threaded shaft version

Tube material	Ball bearing	Torque transmission	Ø Tube mm	Ø Shaft mm	Max. load capacity in N with an installation length of mm						
					200	400	600	800	1000	1200	1400
PVC	6002 2RZ	Polymer sprocket Z = 11	50 x 2.8	14	300	300	110	40	–	–	–
		1 & 2 polymer sprockets Z = 14	50 x 2.8	14	350	265	90	50	–	–	–
		Toothed belt head Z = 18									
Steel, zinc-plated	6002 2RZ	Polymer sprocket Z = 11	50 x 1.5	14	300	300	300	300	300	290	250
		1 & 2 polymer sprockets Z = 14	50 x 1.5	14	1500	1500	1450	1410	1370	910	650
		Toothed belt head Z = 18	50 x 1.5								
		Round belt head & PolyVee Heads	50 x 1.5	14	350	350	350	350	350	350	350
		1 & 2 polymer sprockets Z = 14	60 x 1.5	14	1500	1500	1450	1410	1390	1370	1150
		Toothed belt head Z = 18	60 x 1.5								
		1 & 2 steel sprockets Z = 14	50 x 1.5	14	2000	2000	2000	1830	1150	790	580
			60 x 1.5		2000	2000	2000	2000	2000	1390	1020

Load capacity



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Standards

Product Selection

Tapered shaft-shuttle shaft version

Tube			Ball bearing	Shaft
Material	Ø mm	Torque transmission		Reference number
Steel, zinc-plated	50 x 1.5	Round belt head with 2 grooves	6002 2RZ	Tapered shaft-shuttle on 8 mm hex
				3.5R6.JAA.V8U

Female threaded shaft version

Tube			Ball bearing	Shaft
Material	Ø mm	Torque transmission		Reference number
PVC	50 x 2.8	Polymer sprocket 1/2", Z = 14	6002 2RZ	Ø 14 mm (M8 x 15)
		Polymer sprocket 1/2", Z = 11	6002 2RZ	3.5M3.SAA.N90
		2 polymer sprockets 1/2", Z = 14	6002 2RZ	3.5M1.SAA.N90
				3.5M5.SAA.N91
Steel, zinc-plated	50 x 1.5	Toothed belt head	6002 2RZ	3.5B3.JAA.N90
		Steel sprocket 1/2", Z = 14	6002 2RZ	3.504.JA4.N90
		Round belt head	6002 2RZ	3.504.JA4.N90
		Polymer sprocket 1/2", Z = 14	6002 2RZ	3.5R4.JAA.N7X
		Polymer sprocket 1/2", Z = 11	6002 2RZ	3.5RD.JAA.N90
		Polymer sprocket 1/2", Z = 11	6002 2RZ	3.5H4.JAA.N90
		PolyVee head	6002 2RZ	3.5PA.JAA.N7X
		2 steel sprockets 1/2", Z = 14	6002 2RZ	3.5HJ.JAA.N91
		2 polymer sprockets 1/2", Z = 14	6002 2RZ	3.504.JA3.N91
				3.5HJ.JAA.N91
	60 x 1.5	Toothed belt head	6002 2RZ	3.5NB.JAB.N90
		Steel sprocket 1/2", Z = 14	6002 2RZ	3.50T.JC1.N90
		Polymer sprocket 1/2", Z = 14	6002 2RZ	3.5N3.JAB.N90
		2 steel sprockets 1/2", Z = 14	6002 2RZ	3.50T.JC2.N91
		2 polymer sprockets 1/2", Z = 14	6002 2RZ	3.5N5JAB.N91

On request, we can offer you further options in addition to our standard products (cf. p 57).

Example of a reference number: 3.5HB.JAA.N90 - 460

This reference number is for a Conveyor Roller Series 3500, steel, zinc-plated, Ø tube 50 mm, polymer sprocket 1/2", Z = 14, Ø shaft 14 mm, female threaded shaft and reference length 460 mm. The reference length RL can be found on the dimensioned drawing: RL = EL - 40. The axial play of the sides of 1 mm and 0.5 mm has already been taken into account. The nominal clearance of your conveyor is 500 mm, which also corresponds to the installation length EL, i. e. the reference length is: 500 - 40 = 460 mm.

Ordering example

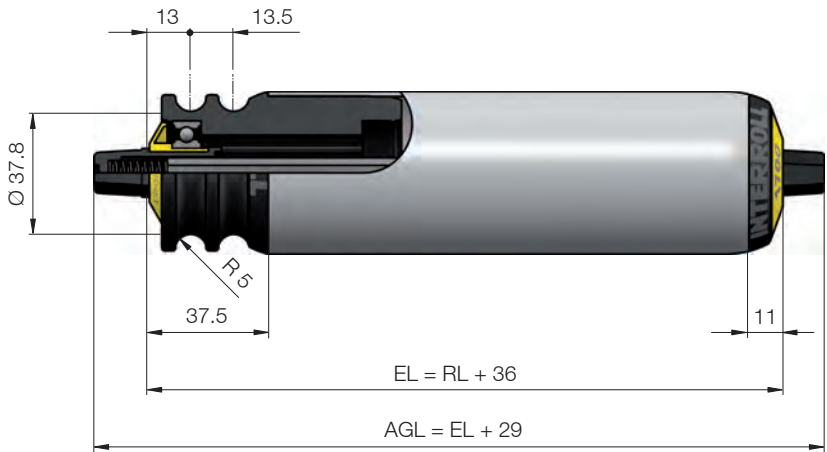
Dimensions

RL	Reference length/Ordering length*
EL	Installation length
AGL	Total length of shaft

*The reference length/ordering length RL does not have any reference edges on the conveyor roller and can therefore not be shown.

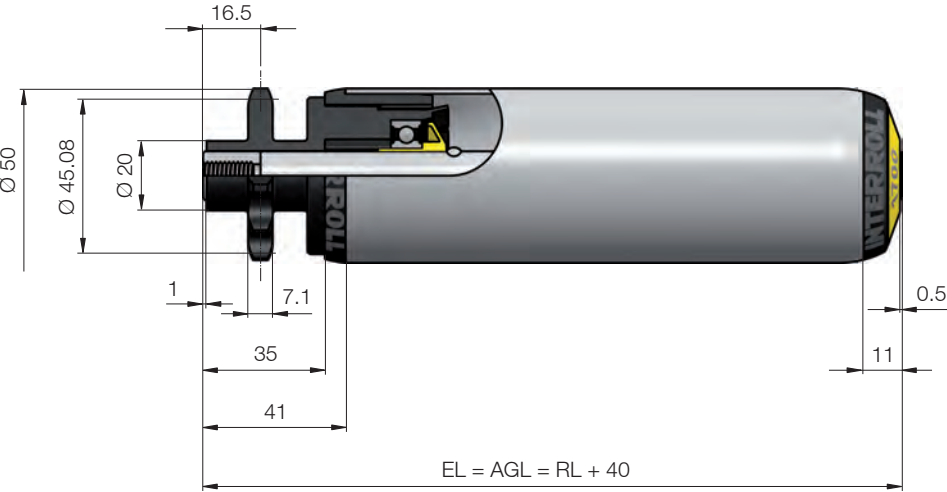
The dimensions of the conveyor roller depend on the shaft version and the torque transmission. Below are shown dimensioned drawings for each version.

Dimensions for round belt head with 2 grooves, R = 5 mm

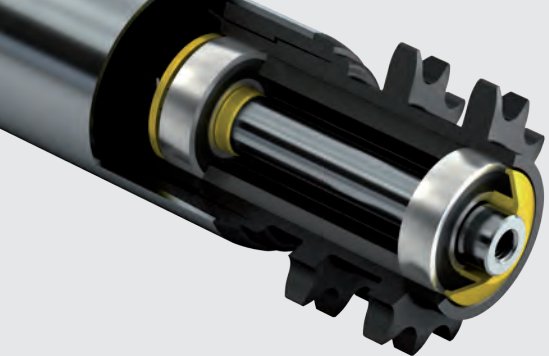


Tapered shaft-shuttle

Dimensions for polymer sprocket 1/2", Z = 11



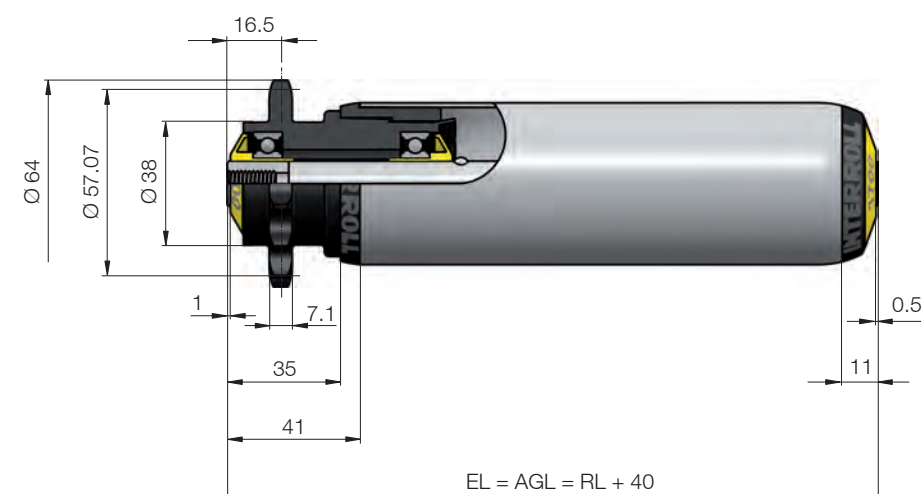
Female thread



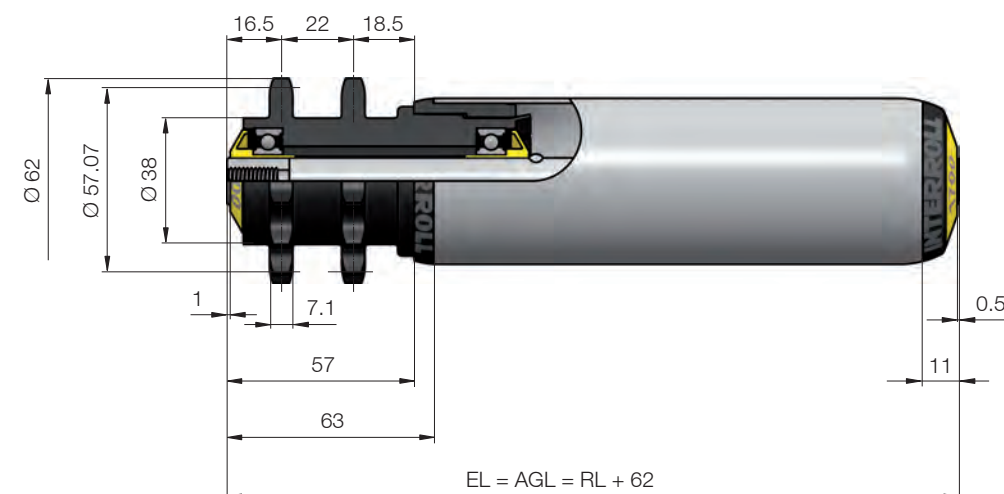
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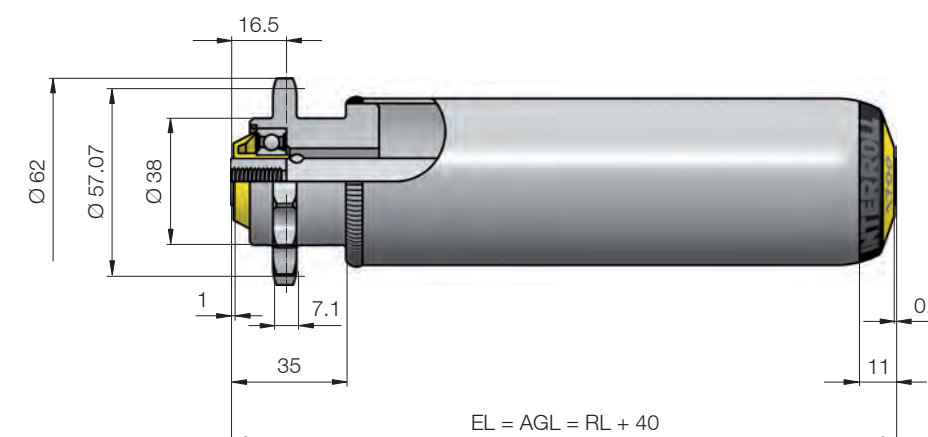
Dimensions for polymer sprocket 1/2", Z = 14



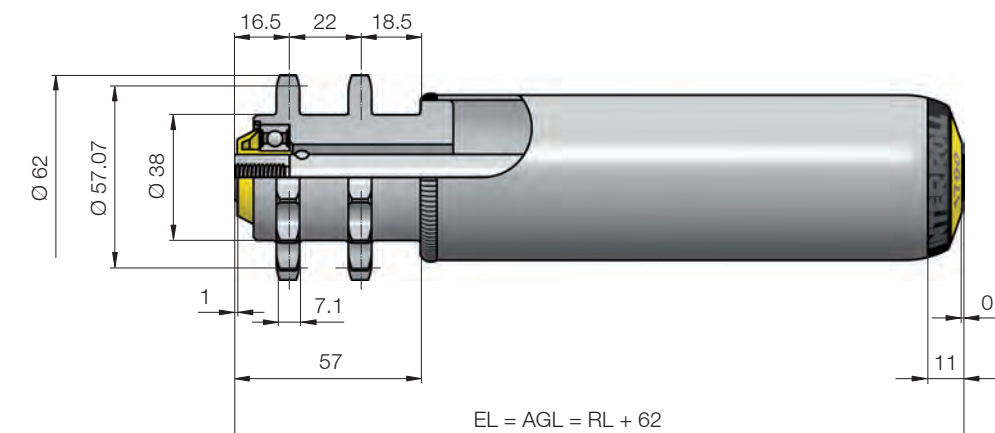
Dimensions for 2 polymer sprockets 1/2", Z = 14

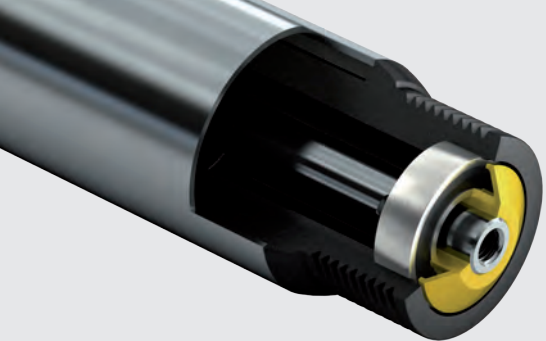


Dimensions for steel sprocket 1/2", Z = 14



Dimensions for 2 steel sprockets 1/2", Z = 14

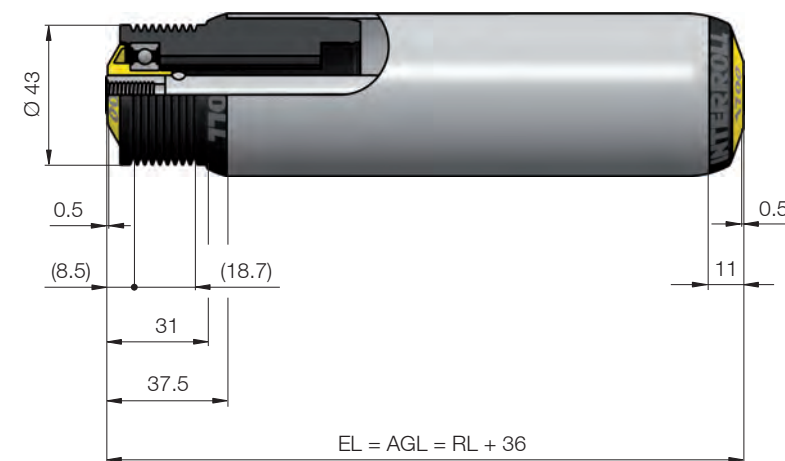




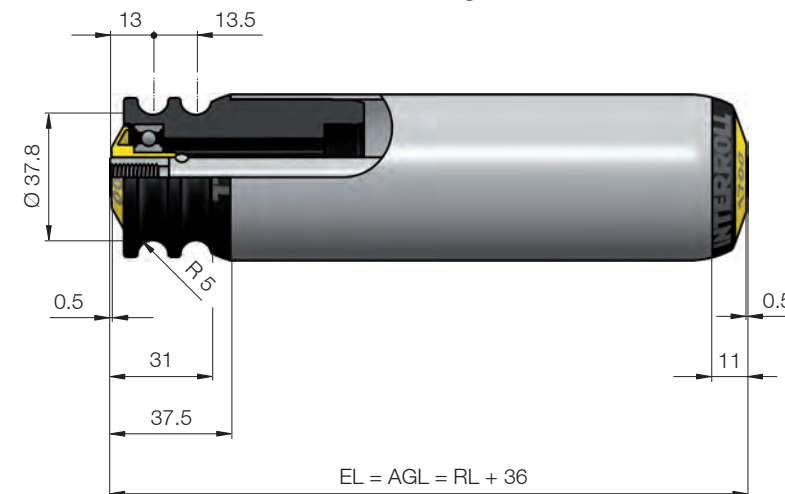
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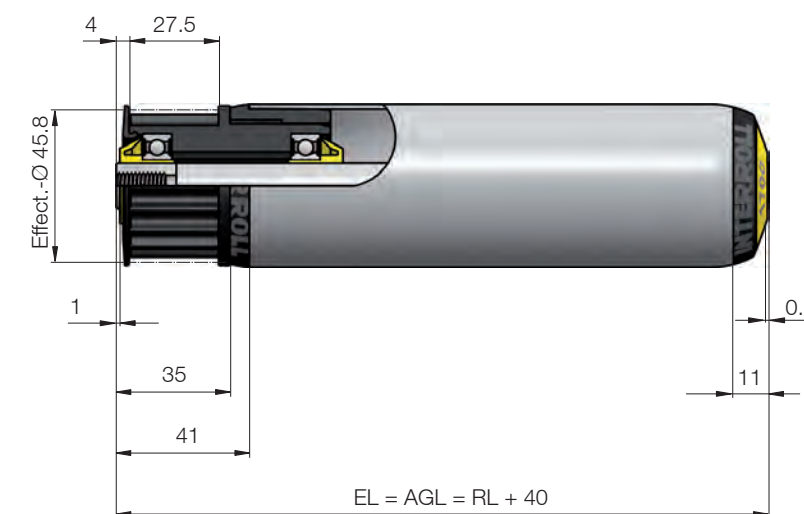
Dimensions for PolyVee head with 9 grooves



Dimensions for round belt head with 2 grooves



Dimensions for toothed belt head T = 8, Z = 18



Options

We can offer you the following options in addition to our standard products:

- Antistatic version
- Flanges
- Special surface finish for tubes
 - Hardened
- Tube sleeves
 - Flexible PVC sleeve
 - PU sleeve for $\varnothing 50$ mm
 - Rubber coating