

ROLLERS

SERIES 3800

Friction conveyor roller



Application area

Transporting and accumulating unit handling, such as cardboards or containers. Also suitable for implementing buffer sections.

Modular construction

The friction heads are interchangeable and can also be exchanged with fixed friction heads. A permanently pressed bearing housing allows inserting a variety of drive heads. The friction heads made of polyamide are secured against dropping out.

Low-noise

The use of polyamide or polyoxymethylene drive heads results in very quiet running.

Numerous drive types

Numerous drive types are available. Depending on the requirement profile, the rollers can be driven with flat, PolyVee or toothed belts as well as chains with a pitch of 1/2" or 3/8".

Weight-dependent

Conveyance as well as accumulation pressure depend on the weight of the materials.

Note: Please read the additional important information about the use of the friction roller in the planning section, Friction rollers.





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Technical data

General technical data	
Platform	1700
Max. load capacity	500 N
Max. conveyor speed	0.5 m/s
Temperature range	−5 to +40 °C PVC tube: With increased ambient temperature (from +30 °C) and high continuous static load over hours, a permanent deformation of the rollers cannot be ruled out.
Material	
Tube	Zinc-plated steel, stainless steel, aluminum PVC: RAL7030 (stone gray) RAL5015 (sky blue) for Ø 50 mm
Shaft	Uncoated steel, zinc-plated steel, stainless steel
Bearing housing	Polyamide, RAL9005 (jet black)
Drive head	Polyamide, RAL9005 (jet black) Polyoxymethylene, RAL9005 (jet black) Steel (sprocket drive heads only)
Seal	Polypropylene on non-drive side and polyamide on drive side each in RAL1021 (rape yellow)
Bearing version	Precision steel ball bearing 6002 2RZ, precision stainless steel ball bearing 6002 2RZ, bearing play each C3

Design versions

Tube sleeves	PVC sleeve (page 23) PU sleeve (page 25) Lagging (page 26)
Anti-static version	(< 10 ⁶ Ω) Standard design for rollers with tube sleeves, cannot be used for PVC tube
Special tube surface treatment	Carbonitriding
Shafts	The following are available in addition to the variants listed in the load capacity tables: • With variable length • Different design of both shaft ends

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Load capacities of series 3800

The load capacity table refers to a temperature range of +5 to +40 °C.
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	1200	1400
PVC	50 x 2.8	Polymer sprocket head 1/2", T14	12	500	185	75	40	–	–	–
		Polymer double sprocket head 1/2", T14		500	215	85	45	–	–	–
		Polymer flat belt drive head 38 mm	14	500	150	65	35	–	–	–
		Polymer sprocket head 1/2", T9 and T14		300	300	135	70	–	–	–
		Polymer sprocket head 1/2", T14		500	335	135	70	–	–	–
		Polymer double sprocket head 3/8", T20		350	185	75	40	–	–	–
		Polymer toothed belt drive head 8, T18		350	185	75	40	–	–	–
		Polymer double sprocket head 1/2", T14		500	215	80	45	–	–	–
Steel	50 x 1.5	Polymer sprocket head 1/2", T14	12	500	500	500	500	500	500	500
		Steel sprocket head 1/2", T14		500	500	500	500	500	500	500
		Polymer double sprocket head 1/2", T14		500	500	500	500	500	500	500
		Steel double sprocket head 1/2", T14		500	500	500	500	500	500	500
		Polymer flat belt drive head 38 mm	14	500	500	500	500	500	500	500
		Polymer sprocket head 1/2", T9 and T14		300	300	300	300	300	300	300
		Polymer sprocket head 1/2", T14		500	500	500	500	500	500	500
		Steel sprocket head 1/2", T14		500	500	500	500	500	500	500
		Polymer double sprocket head 3/8", T20		350	350	350	350	350	350	350
		Polymer toothed belt drive head 8, T18		350	350	350	350	350	350	350
		Polymer double sprocket head 1/2", T14		500	500	500	500	500	500	500
		Steel double sprocket head 1/2", T14		500	500	500	500	500	500	500
		PolyVee drive head		350	350	350	350	350	350	350
		Steel sprocket head 1/2", T14	15	500	500	500	500	500	500	500
		Steel double sprocket head 1/2", T14		500	500	500	500	500	500	500



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Tube material	Ø Tube/ thickness [mm]	Drive element	Ø Shaft [mm]	Maximum static load [N] for installation length [mm]						
				200	400	600	800	1000	1200	1400
Steel	60 x 1.5	Polymer double sprocket head 1/2", T14	12	500	500	500	500	500	500	500
		Polymer sprocket head 1/2", T9 and T14	14	300	300	300	300	300	300	300
		Polymer sprocket head 1/2", T14		500	500	500	500	500	500	500
		Steel sprocket head 1/2", T14		500	500	500	500	500	500	500
		Polymer double sprocket head 3/8", T20		350	350	350	350	350	350	350
		Polymer toothed belt drive head 8, T18		350	350	350	350	350	350	350
		Polymer double sprocket head 1/2", T14		500	500	500	500	500	500	500
		Steel double sprocket head 1/2", T14		500	500	500	500	500	500	500
		Steel sprocket head 1/2", T14	15	500	500	500	500	500	500	500
		Steel double sprocket head 1/2", T14		500	500	500	500	500	500	500

T = Number of teeth

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.

Ordering dimensions for tube sleeves, e.g. PVC sleeves, see page 24.

RL = Reference length/ordering length

EL = Installation length, inside diameter between side profiles

AGL = Total length of shaft

U = Usable tube length: Length without bearing housing and for flanged metal tube without length of flanging

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Ø Tube [mm]	Tube material	Ø Shaft [mm]	Drive element	EL [mm]	AGL [mm]	U [mm]
50 x 2.8	PVC	12	Polymer sprocket head 1/2", T14	RL + 40	RL + 40	RL – 12
			Polymer double sprocket head 1/2", T14	RL + 62	RL + 62	
		14	Polymer flat belt drive head 38 mm	RL + 40	RL + 40	
			Polymer sprocket head 1/2", T9, T11 and T14			
			Polymer double sprocket head 3/8", T20			
			Polymer toothed belt drive head 8, T18			
			Polymer double sprocket head 1/2", T14	RL + 62	RL + 62	
50 x 1.5	Steel	12	Polymer sprocket head 1/2", T14	RL + 40	RL + 40	RL – 19
			Steel sprocket head 1/2", T14			
			Polymer double sprocket head 1/2", T14	RL + 62	RL + 62	
			Steel double sprocket head 1/2", T14			
		14	Polymer flat belt drive head 38 mm	RL + 40	RL + 40	
			Polymer sprocket head 1/2", T9, T11 and T14			
			Steel sprocket head 1/2", T14			
			Polymer double sprocket head 3/8", T20			
			Polymer toothed belt drive head 8, T18			
			Polymer double sprocket head 1/2", T14	RL + 62	RL + 62	
			Steel double sprocket head 1/2", T14			
			PolyVee drive head	RL + 40	RL + 40	
60 x 1.5	Steel	12	Polymer double sprocket head 1/2", T14	RL + 62	RL + 62	RL – 19
		14	Polymer sprocket head 1/2", T9, T11 and T14	RL + 40	RL + 40	
			Steel sprocket head 1/2", T14			
			Polymer double sprocket head 3/8", T20			
			Polymer toothed belt drive head 8, T18			
			Polymer double sprocket head 1/2", T14	RL + 62	RL + 62	
			Steel double sprocket head 1/2", T14			

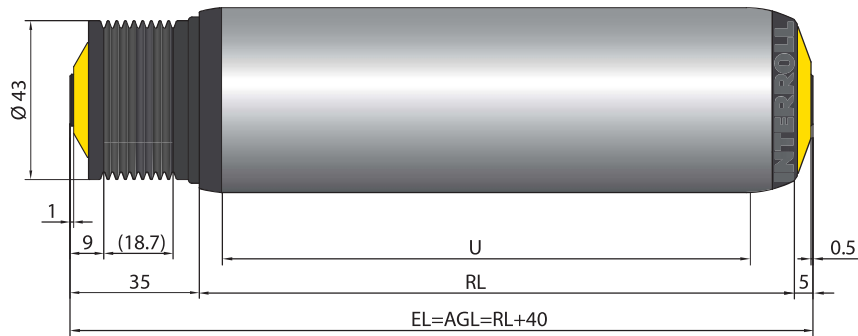
T = Number of teeth



ROLLERS SERIES 3800

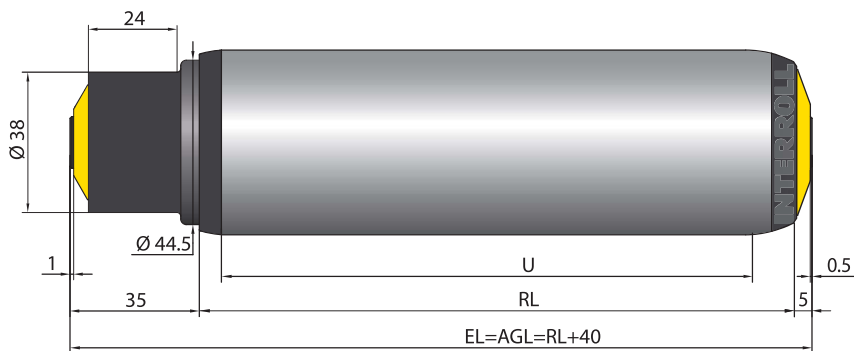
Friction conveyor roller

PolyVee drive head

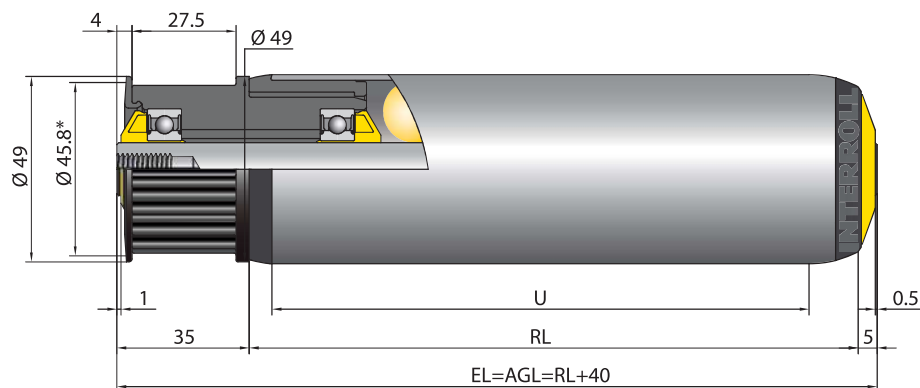


- PolyVee belt see page 178
- PolyVee tensioning device see page 179
- PolyVee finger guard see page 179

Flat belt drive head and female threaded shaft



Toothed belt drive head (8 pitch and 18 teeth) and female threaded shaft



* Effective diameter

Interroll recommends a max. belt width of 12 mm and a poly chain GT gearing.

Friction conveyor roller

[illegible]

Technical drawing of the INTERROLL roller assembly. The drawing shows a side view of the roller with various dimensions and labels. The main dimensions are:

- Overall length: U
- Roller diameter: $\varnothing 64$
- Internal diameter: $\varnothing 57.07$
- Internal diameter: $\varnothing 38$
- Internal diameter: $\varnothing 45$
- Internal diameter: $\varnothing 35$
- Internal diameter: $\varnothing 16.5$
- Internal diameter: $\varnothing 7.1$
- Internal diameter: $\varnothing 1$
- Internal diameter: $\varnothing 0.5$
- Internal diameter: $\varnothing 5$

The drawing also includes the label "INTERROLL" on the roller body and the formula $EL=AGL=RL+40$ at the bottom.



Friction conveyor roller



Technical drawing of the INTERROLL roller assembly in side view. The drawing shows a horizontal roller with a central shaft. Key dimensions include: shaft diameter Ø 45, roller diameter Ø 62, roller width 57, and various offset dimensions (16.5, 22, 1, 7.1, 57, 5). The roller body is labeled 'INTERROLL' and has a yellow protective cap at the end. The total length is defined as U, and the roller length is RL. The formula $EL=AGL=RL+62$ is provided at the bottom.

Technical drawing of a roller bearing assembly, showing a side view and a cross-section. The main dimensions are:

- Outer diameter: $\varnothing 62$
- Inner diameter: $\varnothing 57.07$
- Roller diameter: $\varnothing 38$
- Roller length: 16.5
- Roller width: 7.1
- Roller height: 35
- Roller length (U): U
- Roller height (RL): RL
- Roller length (EL): EL = AGL = RL + 53
- Roller diameter: $\varnothing 50$
- Roller length (18): 18



ROLLERS SERIES 3800

Friction conveyor roller

General technical information

Rollers | Conveying elements | Accessories

Planning basics

ROLLERS
SERIES 3800 LIGHT

Friction conveyor roller
Double friction conveyor roller

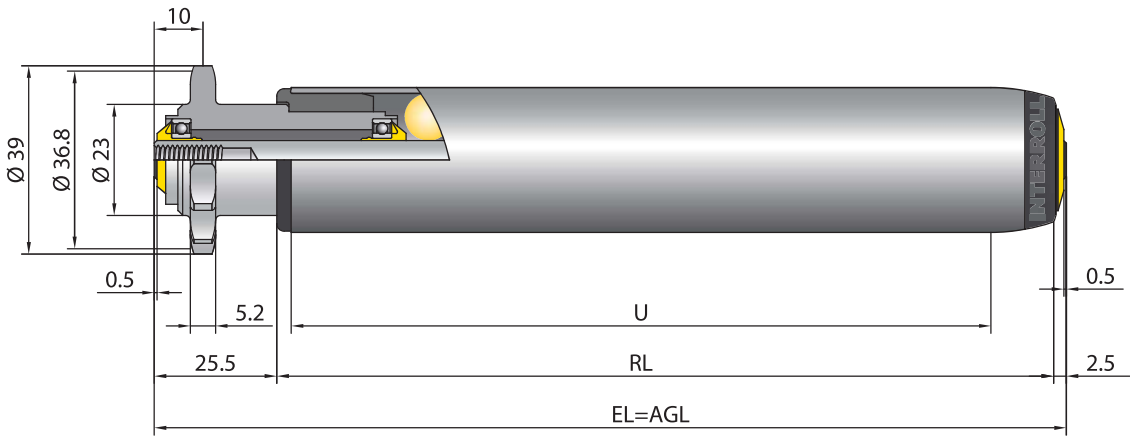


Dimensions

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 without bearing housing and for flanged metal tube without length of flanging

Single friction roller with 3/8" zinc-plated steel sprocket head and 12 teeth



Ø Tube [mm]	Tube material	Ø Shaft [mm]	Drive element	EL [mm]	AGL [mm]	U [mm]
30 x 1.2	Steel	8	Steel sprocket head 3/8", T12	RL + 28	RL + 28	RL - 16

