ROLLERS
SERIES 3870
Double friction conveyor roller

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

Two-sided friction coupling
It is a double friction roller whose two-side friction couplings are connected with each other by an internal tube. Positioning materials of different widths to the friction side are not required in this case.

Robust construction
The drive heads are pressed together with the internal tube which secures them against dropping out.

Numerous drive variants
A toothed belt drive head and sprockets with different number of teeth are available so that wrapping and tangential chain drive can be implemented.

Note: Please read the additional important information about the use of the friction roller in the planning section, page 259.

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Technical data

General technical data	
Platform	1700
Max. load capacity	500 N
Max. conveyor speed	0.5 m/s
Anti-static version	No
Temperature range	–5 to +40 °C
Material	
Tube	Zinc-plated steel, stainless steel, aluminum
Shaft	Uncoated steel, zinc-plated steel, stainless steel
Bearing housing	Polyamide, RAL9005 (jet black)
Drive head	Polyamide, RAL9005 (jet black)
Seal	Polyamide, RAL1021 (rape yellow)
Bearing version	Precision steel ball bearing 6002 2RZ, bearing play C3

Design versions

Tube sleeves	PVC sleeve (page 31) PU sleeve (page 33) Lagging (page 34)
Special tube surface treatment	Carbonitriding Chrome-plating

Load capacities of series 3870

The load capacity table refers to a temperature range of +5 to +40 °C.
Valid for the following shaft designs: female thread.

Bearing: 6002 2RZ.

Tube material	Ø Tube/ thickness [mm]	Drive element	Ø Shaft [mm]	Maximum static load [N] for installation length [mm]			
				200	1100	1300	1500
Steel	50 x 1.5	Polymer sprocket head 1/2", T9, T11 and T14	14	500	500	440	280
		Polymer toothed belt drive head 8, T18		500	500	440	280
		Polymer double sprocket head 1/2", T14		500	500	440	280
	60 x 3	Polymer sprocket head 1/2", T14	14	500	500	440	280
		Polymer double sprocket head 1/2", T14		500	500	440	280

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 31.

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

Ø Tube [mm]	Ø Shaft [mm]	Drive element	EL [mm]	AGL [mm]	U [mm]
50 x 1.5	14	Polymer sprocket head 1/2", T9, T11 and T14	RL + 35	RL + 35	RL – 21
		Polymer toothed belt drive head 8, T18	RL + 40	RL + 40	
		Polymer double sprocket head 1/2", T14	RL + 57	RL + 57	
60 x 3	14	Polymer sprocket head 1/2", T14	RL + 35	RL + 35	RL – 34
		Polymer double sprocket head 1/2", T14	RL + 57	RL + 57	

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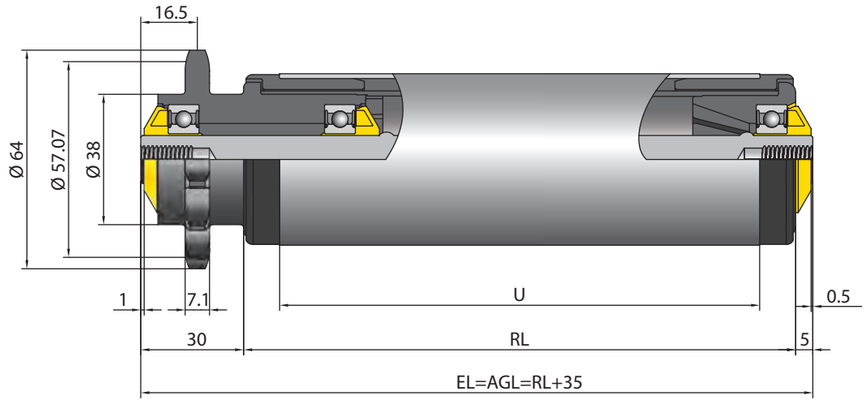
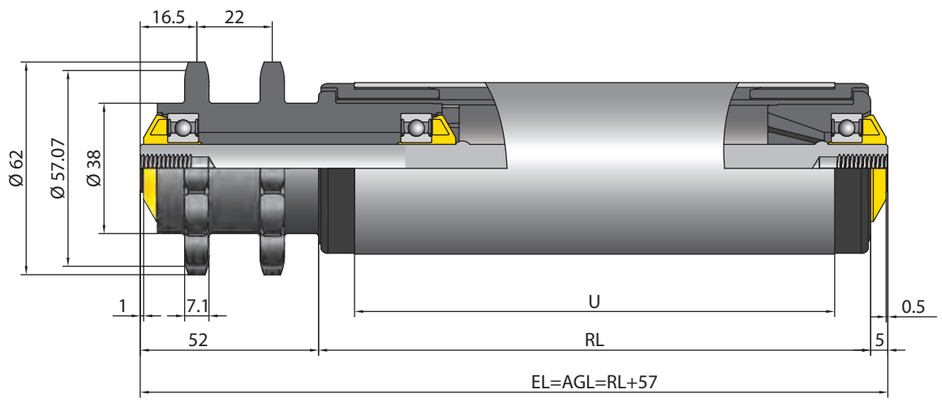
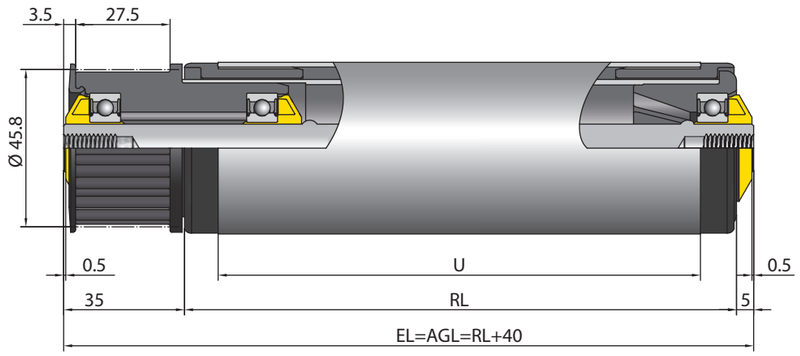
1/2" polymer sprocket head with 14 teeth



1/2" polymer double sprocket head with 14 teeth

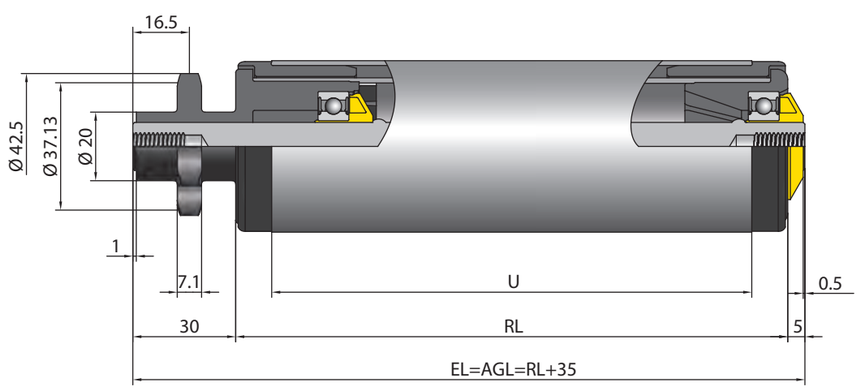


Toothed belt drive head (8 pitch and 18 teeth) and female threaded shaft



* Effective diameter

1/2" polymer sprocket head with 9 teeth



1/2" polymer sprocket head with 11 teeth