

ROLLERS

SERIES 1100

Gravity conveyor roller



Application area

Internal conveyor systems, particularly suited for cost-efficient implementation of gravity or push conveyors. Can also be used in the food processing sector. The grease used in the bearings is FDA-compliant.

High corrosion resistance

The rollers consist of stainless material. Upon request, it is also possible to use stainless steel balls.

Resistant to contamination

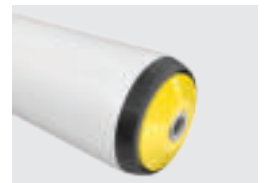
The smooth surfaces protect against dirt accumulation.

Lateral loading

The tube ends are rounded, thereby allowing materials to be easily moved on from the side.

Robust construction

For axial fixation of the bearing housing, the bearing assemblies for PVC tubes starting at a diameter of 30 mm are secured with an internal press-in edge in addition to the press fit.





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Technical data

General technical data	
Platform	1100
Max. load capacity	350 N
Max. conveyor speed	0.3 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) RAL7024 (dark gray) for Ø 20 mm RAL5015 (sky blue) for Ø 50 mm
Shaft	Uncoated steel, zinc-plated steel, stainless steel
Bearing housing	Polypropylene: RAL9005 (jet black) RAL7024 (dark gray) for tube with Ø 20 mm
Seal	Polypropylene: RAL1021 (rape yellow) for use of carbon steel balls RAL7030 (stone gray) for use of stainless steel balls RAL7024 (dark gray) for use of stainless steel balls at Ø 20 mm
Bearing version	Special ball bearing made of polypropylene with steel balls (carbon steel or stainless steel)

Design versions

Tube sleeves	PVC sleeve (page 22) PU sleeve (page 24) Lagging (page 25)
Anti-static version	($10^6 \Omega$) Standard design for rollers with tube sleeves, cannot be used for PVC tube and tube with Ø 16 mm
Special tube surface treatment	Carbonitriding
Shafts	The following are available in addition to the variants listed in the load capacity tables: <ul style="list-style-type: none"> • With spring on both sides • With variable length • Different design of both shaft ends
Noise reduction	For tube with Ø 50 mm

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Load capacities of series 1100 with screw-connected installation

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: guided balls, no precision ball bearing.

Tube material	Ø Tube/ thickness [mm]	Ø Shaft [mm]	Maximum static load [N] for installation length [mm]											
			100	200	300	400	500	600	700	800	900	1000	1100	1200
Aluminum	20 x 1.5	6	90	90	90	90	85	60	45	35	-	-	-	-
	50 x 1.5	10, 12	350	350	350	350	350	350	350	350	350	350	310	260
PVC	20 x 1.5	6	90	20	10	5	-	-	-	-	-	-	-	-
	30 x 1.8	8	120	90	35	20	15	-	-	-	-	-	-	-
	40 x 2.3	8, 10	180	180	130	70	40	25	20	15	10	-	-	-
	50 x 2.8	8, 10, 11 HEX, 12	350	350	275	150	95	70	50	35	30	25	20	15
Steel	20 x 1.5	6	90	90	90	90	90	90	90	90	75	60	50	45
	30 x 1.2	8	120	120	120	120	120	120	120	120	120	120	120	120
	50 x 1.5	8, 10, 11 HEX, 12	350	350	350	350	350	350	350	350	350	350	350	350

HEX = hexagon



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Load capacities of series 1100 with loose installation

The load capacity table refers to a temperature range of +5 to +40 °C.
Valid for the following shaft designs: spring-loaded shaft, fixed shaft or flatted shaft.

Bearing: guided balls, no precision ball bearing.

Tube material	Ø Tube/ thickness [mm]	Ø Shaft [mm]	Maximum static load [N] for installation length [mm]											
			100	200	300	400	500	600	700	800	900	1000	1100	1200
Aluminum	20 x 1.5	6	90	90	90	90	85	60	45	35	-	-	-	-
	50 x 1.5	8	350	350	350	350	350	345	295	260	230	210	190	180
		10	350	350	350	350	350	350	350	350	350	350	350	310
PVC	16 x 1	5	35	7	-	-	-	-	-	-	-	-	-	-
	20 x 1.5	6	90	20	10	-	-	-	-	-	-	-	-	-
	30 x 1.8	6, 8	120	90	35	20	15	-	-	-	-	-	-	-
	40 x 2.3	8, 10	180	180	115	65	40	25	20	15	10	-	-	-
	50 x 2.8	8, 10, 11 HEX, 12	350	350	275	150	95	65	50	35	30	25	20	15
Steel	16 x 1	5	50	50	50	50	50	50	45	35	25	20	20	15
	20 x 1.5	6	90	90	90	90	90	90	90	90	75	60	50	45
	30 x 1.2	8	120	120	120	120	120	120	120	120	120	120	120	120
	50 x 1.5	8	350	350	350	350	350	330	280	245	220	195	180	165
		10, 11 HEX, 12	350	350	350	350	350	350	350	350	350	350	350	350

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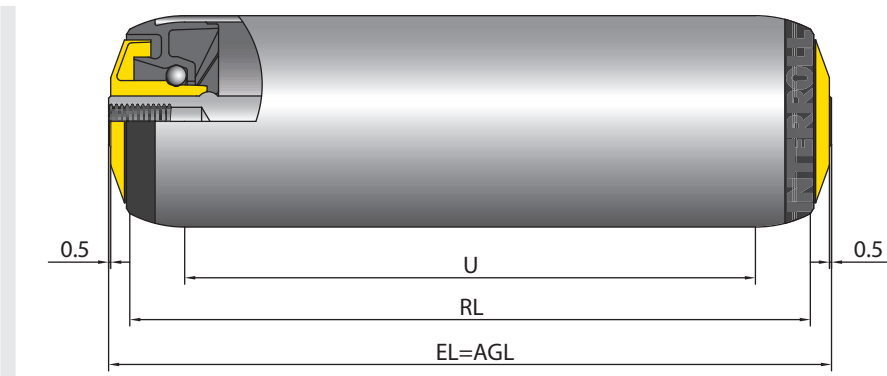


Dimensions

The dimensions of the conveyor roller depend on the shaft version. A sufficient axial play is already taken into account, so that only the actual lane width between side profiles is required for ordering.
Ordering dimensions for tube sleeves, e.g. PVC sleeves, see page 23.

- 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

Female threaded shaft



Ø Tube [mm]	Tube material	Ø Shaft [mm]	EL [mm]	AGL [mm]	U [mm]
30 x 1.2	Steel	8	RL + 5	RL + 5	RL - 26
30 x 1.8	PVC	8	RL + 5	RL + 5	RL - 12
40 x 2.3	PVC	8, 10	RL + 10	RL + 10	RL - 12
50 x 1.5	Steel	8, 11 HEX	RL + 10	RL + 10	RL - 26
	Aluminum/Steel	10, 12			
50 x 2.8	PVC	8, 10, 11 HEX, 12	RL + 10	RL + 10	RL - 12

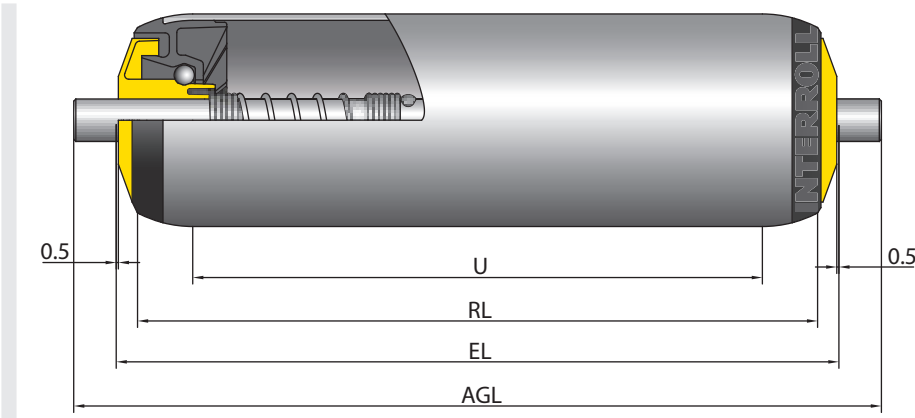
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Spring-loaded shaft



Ø Tube [mm]	Tube material	Ø Shaft [mm]	EL [mm]	AGL [mm]	U [mm]
16 x 1	PVC/Steel	5	RL + 5	RL + 17	RL - 16
20 x 1.5	Aluminum/PVC/Steel	6	RL + 5	RL + 17	RL - 16
30 x 1.2	Steel	8	RL + 5	RL + 21	RL - 26
30 x 1.8	PVC	6	RL + 5	RL + 17	RL - 12
		8		RL + 21	
40 x 2.3	PVC	8	RL + 10	RL + 26	RL - 12
		10		RL + 30	
50 x 1.5	Aluminum/Steel	8	RL + 10	RL + 26	RL - 26
		10		RL + 30	
	Steel	11 HEX		RL + 32	
		12		RL + 34	
50 x 2.8	PVC	8	RL + 10	RL + 26	RL - 12
		10		RL + 30	
		11 HEX		RL + 32	
		12		RL + 34	

HEX = hexagon

Detailed product specifications are available on request.