



**Timing Belt Conveyor with outer casing**

- according to machinery directive 2006/42 EG, appendix II B
- adjustable brackets
- movable grip protection tunnel



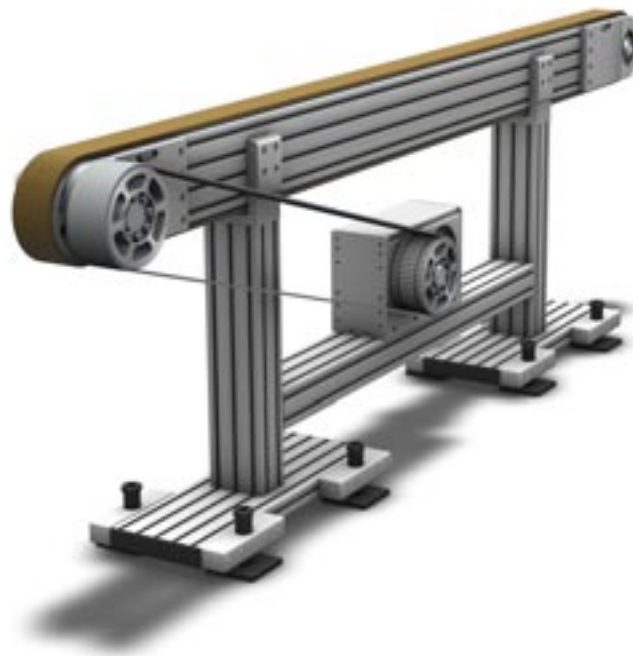


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#### Timing Belt Conveyor

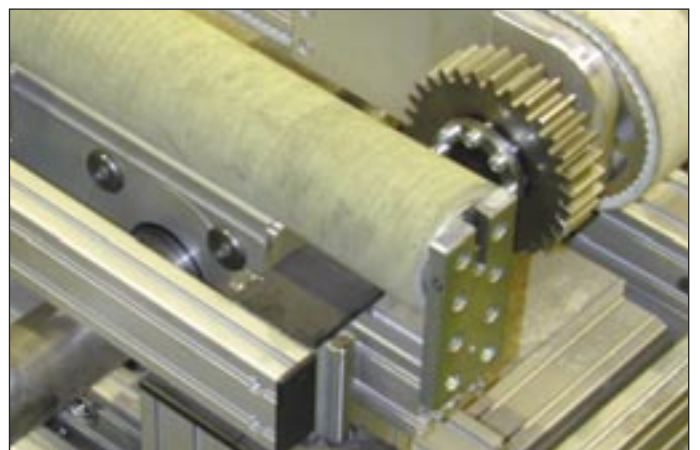
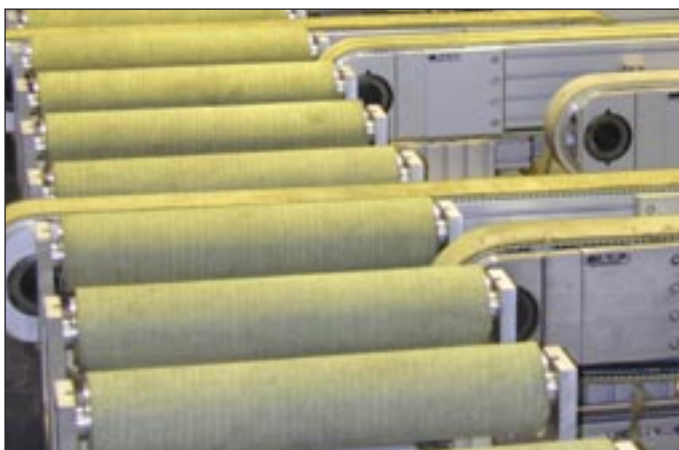
The belt conveyor framework is constructed from the standard range of *Paletti* profiles. The conveyor belts are purchased to customer requirements.

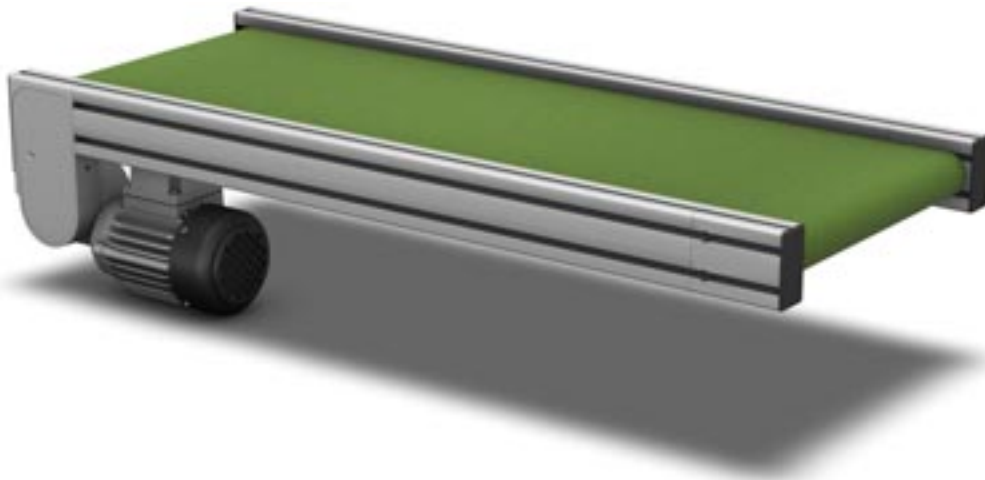
The conveyors have a selection of drive units available to suit most needs. Power is transferred by a gearbox, the conveyor belt is tensioned by two return units.



*On request the drive unit may be relocated by a gearbox.*

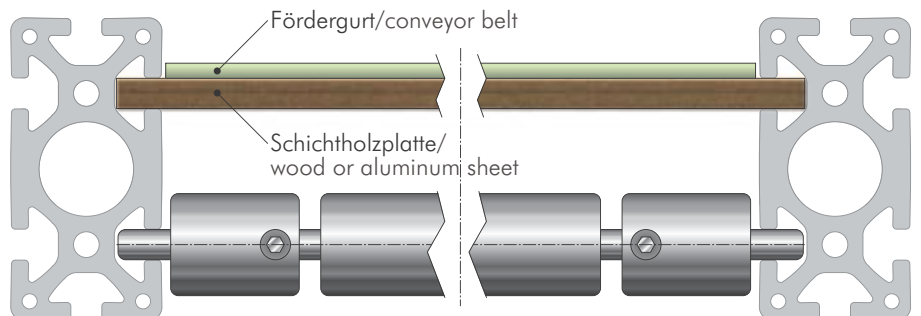
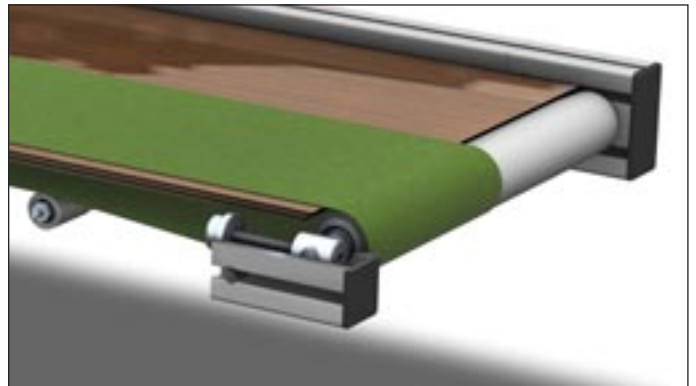
Automated conveyor discharge system





**Belt Conveyor**

The belt conveyor framework is constructed from the standard range of *Paletti* profiles. Wood or aluminum sheet is used to support the conveyor belt. The conveyor belts are purchased to customer requirements. The drive rollers are ground to a conical finish. The conveyors have a selection of drive units available to suit most needs. Power is transferred by a timing belt or by a drive chain. The conveyor belt is tensioned via two profile belt tensioners.



Superstructure of a belt conveyor.

### Motors, with gearbox TD

Part-Nº	Description	Size
ST0002Z	Motor, with gearbox TD	90 W
ST0004Z	Motor, with gearbox TD	180 W

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**Application:** Drive motor for conveyor systems.

**Technical Data:** 3 phase motor with gearbox

**Output:** 90 W (ST0002Z)

180 W (ST0004Z)

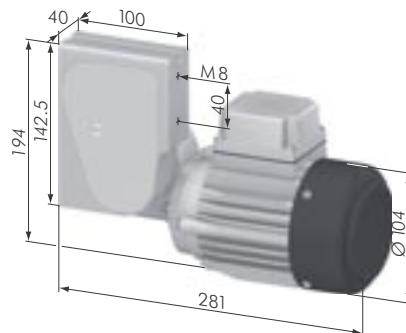
**Speed:** 1350 Upm

**Ratio:** i = 50, other ratio upon request

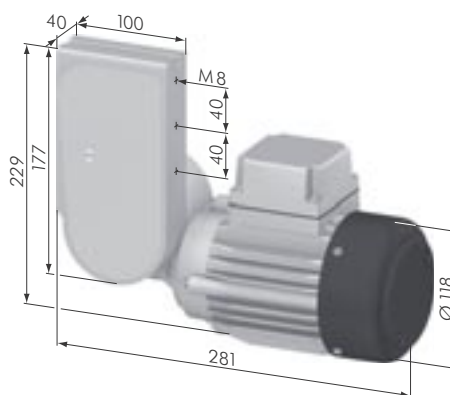
**Protection:** IP 44

**Torque:** ST0002Z: 13 Nm (i = 50)

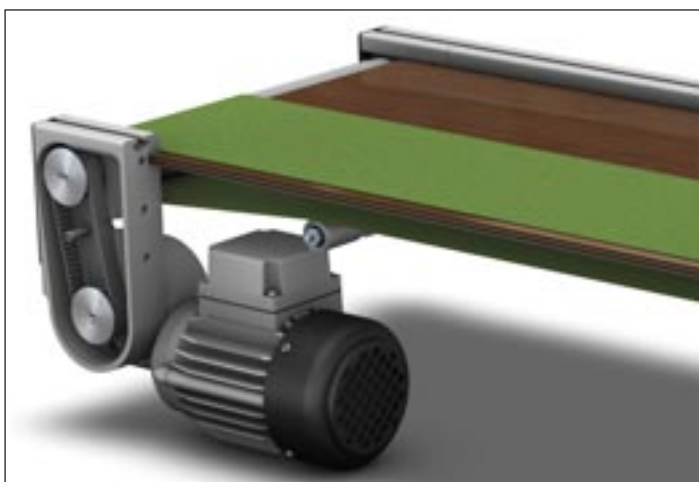
ST0004Z: 32 Nm (i = 50)



ST0002Z



ST0004Z



### Conveyor Roller

Part-Nº	Description	Weight
ST1000N	Conveyor Roller	

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**Application:** Conveyor roller for conveyor systems.

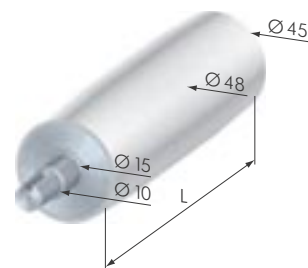
**Material:** aluminum, anodized, with a ground conical finish

Price list is valid for conveyor rollers up to 300 mm.

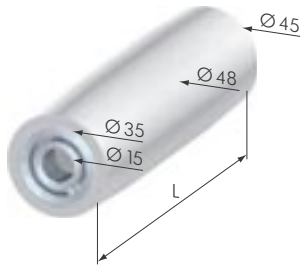
Prices for longer conveyor rollers on request.

**Supply:**

- 1x conveyor roller
- 1x fitting key 4 x 4 x 20, DIN 6885
- 1x compensating bearing



ST1000N



ST1500N



**Return Roller**

Part-Nº	Description	Weight
ST1500N	Return Roller	

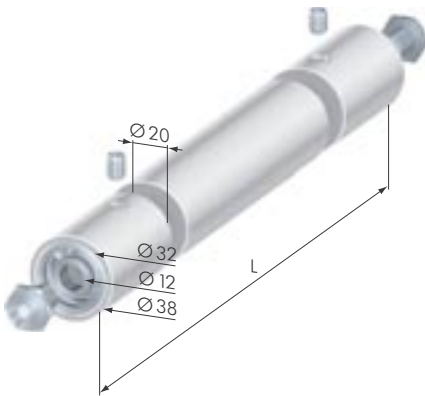
**Application:** Return roller for conveyor systems.

**Material:** aluminum, natural anodized, with a conical finish

**Supply:**

- 1x return roller
- 2x compensating bearing

Price list is valid for conveyor rollers up to 300 mm.  
Prices for longer conveyor rollers upon request.



ST2000N



**Idler Roller**

Part-Nº	Description	Weight
ST2000N	Idler Roller	

**Application:** Prevents the sagging of the conveyor belt.

**Material:** aluminum, natural anodized

**Supply:**

- 1x idler roller
- 2x grooved bearing
- 2x axle journal; steel, zinc-plated

**Acc.:**

- 2x SV2002V t-nut M 8 / ball-type, slide-in

Price list is valid for conveyor rollers up to 300 mm.  
Prices for longer conveyor rollers on request.

The tensioning screw for the conveyor belt is situated behind the profile cap in the 25 bore of the profile.



**Conveyor Belt Tensioner**

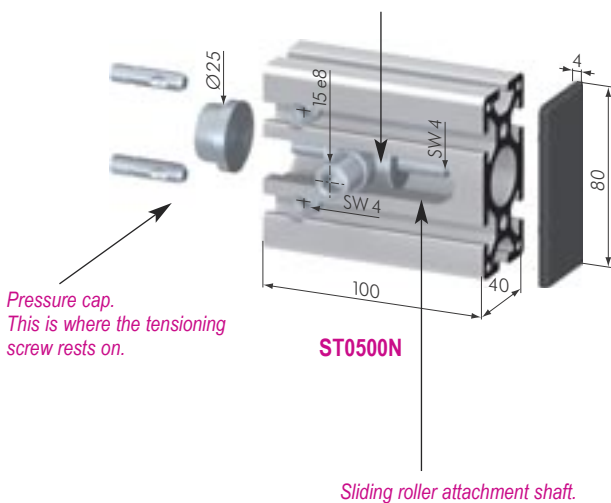
Part-Nº	Description	Weight
ST0500N	Conveyor Belt Tensioner	637 g

**Application:** For tensioning conveyor belts with fastening kit and profile cap.

**Material:**

- casing: aluminum, natural anodized
- pressure cap: steel, zinc-plated
- tensioning screw: steel, zinc-plated
- central fastener 40 G: steel, zinc-plated

**Technical Data:** horizontal adjustment: 0 - 29 mm

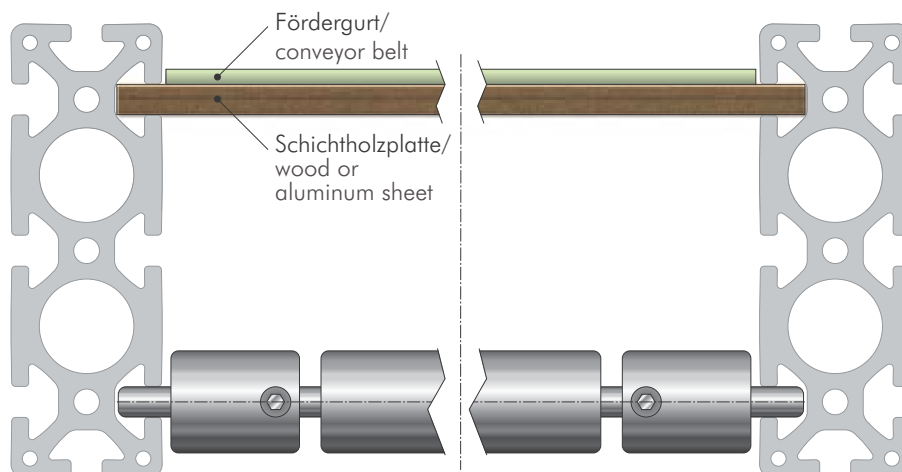




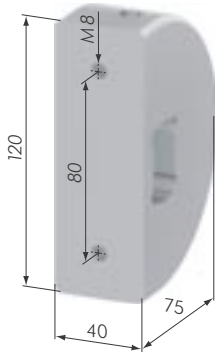
### Belt Conveyor With Drum Motor

The belt conveyor framework is constructed from the standard range of *Paletti* profiles. Wood or aluminum sheet is used to support the conveyor belt. The conveyor belts are purchased to customer requirements. The drive rollers are ground to a conical finish.

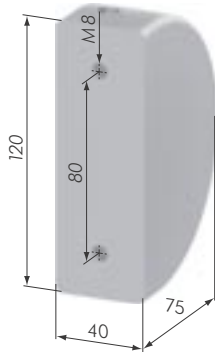
A drum motor is used for the drive unit, so that power is transmitted directly to the conveyor belt which is tensioned by the non-powered return unit as well as by two idler rollers.



Superstructure of a belt conveyor with drum motor.



ST0610N



ST0611N



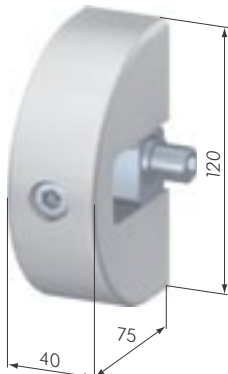
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**Drive Unit Admittance DM**

Part-Nº	Description	Weight
ST0610N	Drive Unit Admittance DM, left	
ST0611N	Drive Unit Admittance DM, right	

**Application:** For admitting of the drum motor.

**Material:** aluminum, natural anodized



ST0600N



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**Return Unit DM**

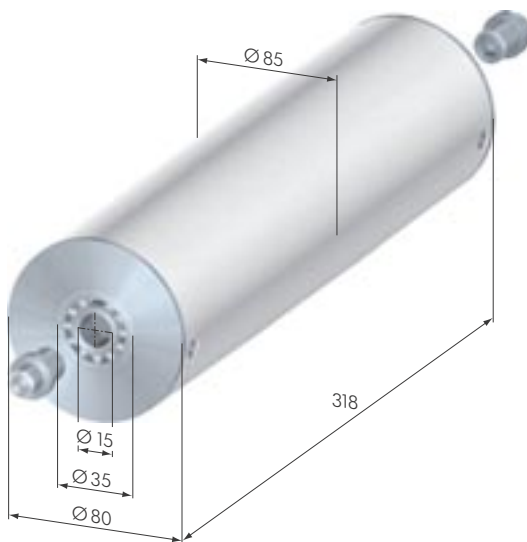
Part-Nº	Description	Weight
ST0600N	Return Unit DM	

**Application:** For the admittance of the return roller Ø 85.

**Material:** aluminum, natural anodized

**Supply:**

- 2x return unit
- 2x clamping block
- 2x cap head screw, DIN 912



ST1600N



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**Return Roller Ø 85**

Part-Nº	Description	Weight
ST1600N	Return Roller Ø 85	

**Application:** Return roller for belt conveyor systems with drum motor.

**Material:** aluminum, natural anodized; with a conical finish

**Supply:**

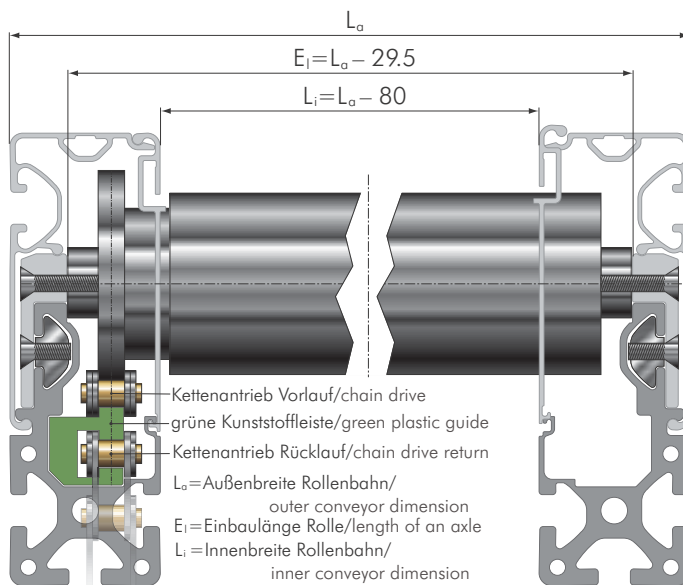
- 1x return roller
- 2x compensating bearing, DIN 630
- 2x axle journal; steel, zinc-plated





### Driven Roller Conveyor

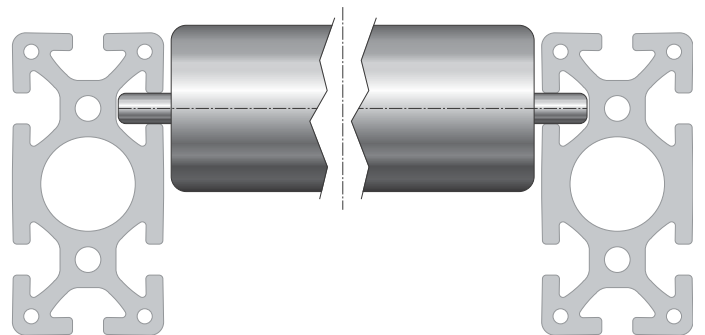
For driven roller conveyors, *Paletti* produces a specific profile, which consists of four individual profiles that when clipped together add up to a complete roller conveyor profile.



Superstructure of a driven roller conveyor. The rollers are powered by a drive chain.

### Non-Driven Conveyor

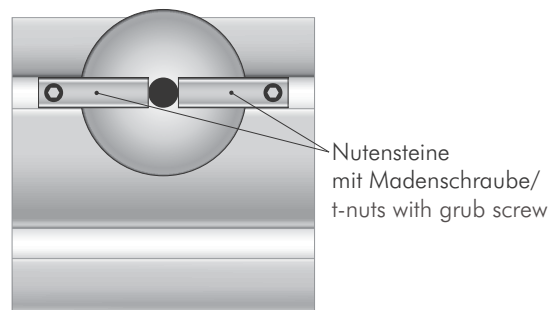
With the wide range of *Paletti* standard systems, in conjunction with some additional systems, any conveyor or transport job can be accomplished.

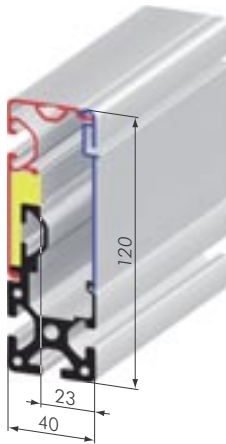


Superstructure of a non-driven roller conveyor. The fixation of the roller axle occurs via t-nuts with grub screw.

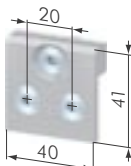
chain tensioner

drive unit

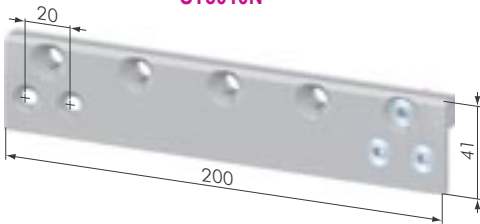




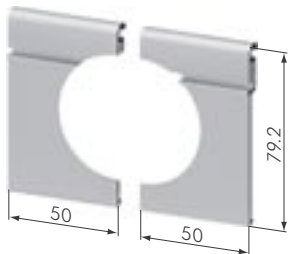
SP0801N



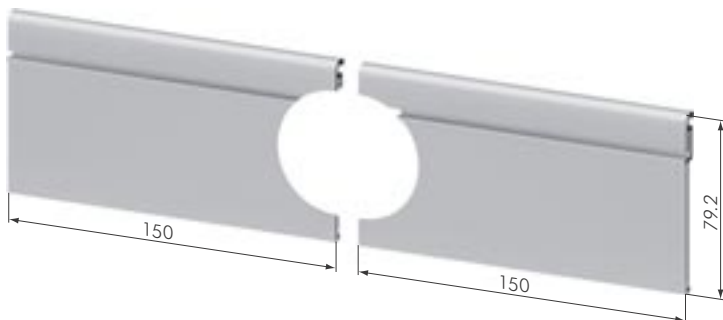
ST5010N



ST5012N



ST5000N



ST5002N



**Roller Conveyor Profile**

Part-Nº	Description	Weight
SP0801N	Roller Conveyor Profile, natural	4,11 kg/m
	Roller Conveyor Support Profile, natural	2,33 kg/m
	Roller Conveyor Wall Profile, natural	0,39 kg/m
	Roller Conveyor Housing Profile, natural	0,66 kg/m
	Roller Conveyor Cover Profile, natural	0,73 kg/m

**Application:** Powered roller conveyor.

**Material:** aluminum, natural anodized



**Roller Fastening Sets**

Part-Nº	Description	Weight
ST5010N	Roller Fastening Set 40	47 g
ST5012N	Roller Fastening Set 200	138 g

**Application:** The roller fastening set is used to fasten the load-bearing rollers onto the roller conveyor profile.

**Material:** aluminum, natural anodized

**Supply:** special t-nuts and screws



**Roller Protective Covers**

Part-Nº	Description	Weight
ST5000N	Roller Protective Cover 80 / 50	14,4 g
ST5002N	Roller Protective Cover 80 / 150	118,5 g

**Application:** For the protection of the conveyor chain drive from dirt and dust.

**Material:** aluminum, natural anodized

**Supply:** One roller uses one left and one right cover.



The roller conveyor profile comprises of four separate profiles that when clipped together make one profile. The support profile forms the frame onto which all the other profiles are attached. Roller conveyors are quickly assembled using *Paletti* clip technology. They can also be quickly disassembled or changed even when they are part of a larger structure or machine installation.

The inside edge cover profile closes the chain drive and roller sprockets from conveyed products and also provides operator safety from moving parts. The profiles use the same clip technology as the other profiles. The protective cover set 80/50 consists of two short profiles 50 mm long. The protective cover set 80/150 consists of two longer profiles 150 mm long. Customer specific protective cover profiles are available on request.

The roller fixing profile is attached to support profile using screws and t-nuts. The roller fixing profile 40 is intended for one roller. *Paletti* also supplies the roller fixing profile in larger lengths to accommodate positions of rollers at customer specified distances. The cover profile closes the support and roller attachment profiles and protecting operators from moving parts and inhibiting dirt accumulation.



**System Components**

The (driven) roller conveyor consists of the roller conveyor profile SP0801N, the roller protective cover (chain drive), conveyor housing and load-bearing roller with chain wheel.

The processing speed averages  $V_{max} = 1,2 \text{ m/s}$ .



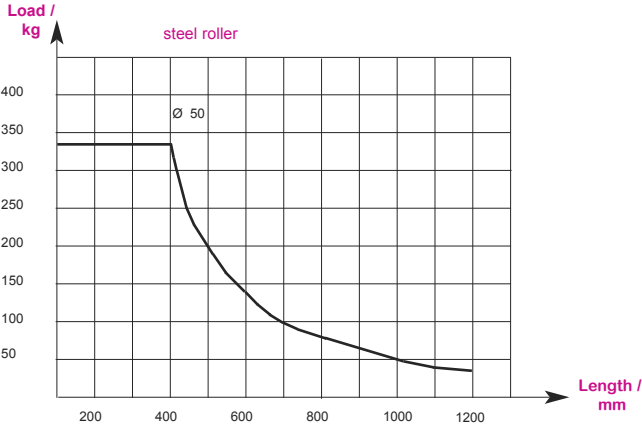
Roller Conveyor Profile    Roller Fixing Profile    Protective Cover Profile

**Load-Bearing Capacity**

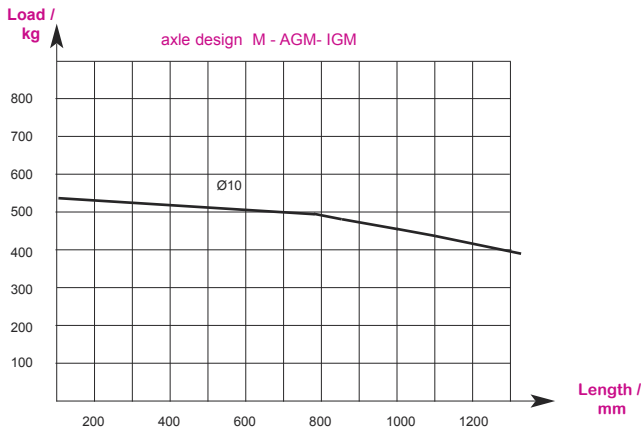
The diagrams only apply to a static surface load, for a point loading at bearing locations, the surface loading values apply. For middle loading, the values taken, have to be multiplied by 0.6.

The load-bearing capacity of the bearings used is 100 kg.

The bearing tolerances in the roller and axle must be added when calculating loadings.



static load-bearing capacity: steel roller



static load-bearing capacity: axle



**Technical Details**

The weight per meter of the used roller – Ø 50 x 1.5 wall thickness – averages 1.794 kg. The Ø 10 mm steel roller is made of 9S20K (steel) and is galvanically zinc-plated and has an internal thread M 6 x 10. The advantages of the used roller are high strength, temperature, and cleaning qualities. The material is also resistant to UV radiation, oil, grease, petrol and other chemicals.

**Load-Bearing Roller User Conditions**

There must always be a minimum of three axles per static load. For middle or two-point loading, the values have to be multiplied by a factor of 0.6. The load-bearing capacity averages 100 kg per roller. The load bearing roller is provided with a chain wheel 1/2" x 5/16" for the fixed drive chain.