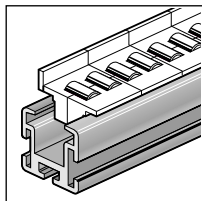


Section 10—Conveyors and Transport Components

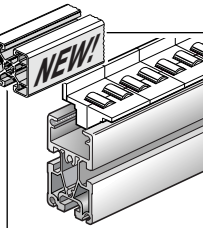
Roller elements, roller profiles, support rollers, and other components are perfect to set up lean manufacturing work cells. These non-powered roller elements make material transfer within and between work cells easy.

Bosch also offers a complete line of modular powered conveyors. Call 1-877-AT-BOSCH for a free brochure.

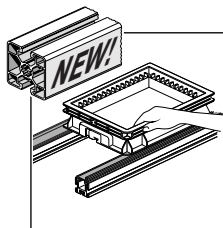
Powered Conveyor Brochure



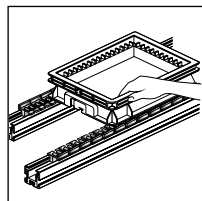
Roller Profile
45x30RP &
45x45RP
10-2



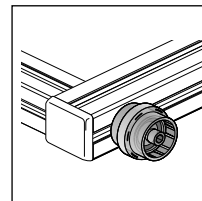
Roller Profile
45x50RP &
45x75RP
10-3



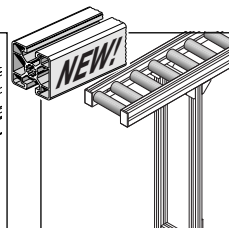
Guide Profile
10-4



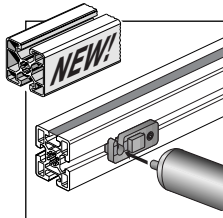
Roller Elements
10-5



Support Rollers
10-6

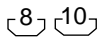


Track Rollers
10-7



Track Roller
Mounting Blocks
10-8

Roller Profiles (45x30RP, 45x45RP)

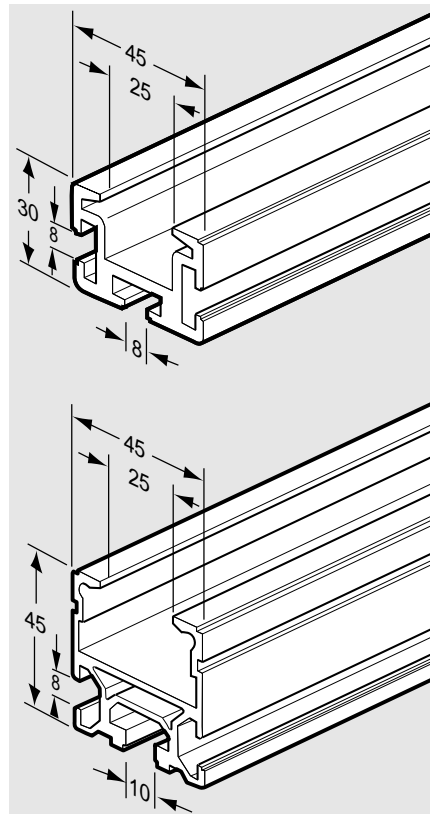
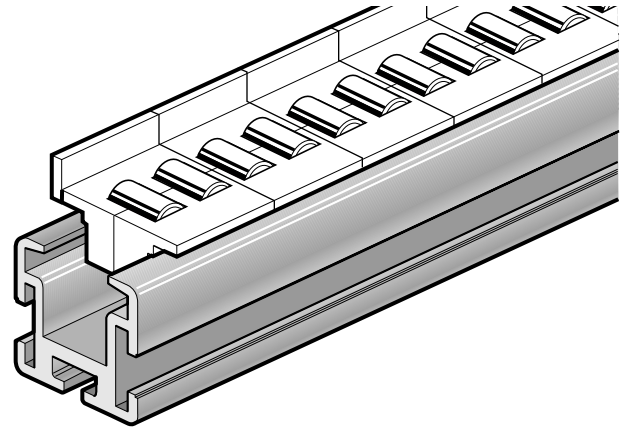


The 45x30RP and 45x45RP roller profiles are designed specifically for mounting roller elements or guide profiles to create non-powered conveyor sections for material transfer or gravity feed. These profiles are suitable for distributed loads up to 90 kg/m (60 lbs./ft.). With either profile, supports should be located as needed but at intervals no greater than 2 meters ($\approx 6\frac{1}{2}$ feet) along the profile's entire length.

Minimum length: 30mm
Maximum length: 5600mm
(nominal)

Material:

- Natural anodized aluminum



Technical Data

45x30RP

Moment of inertia	$I_x = 4.5\text{cm}^4$
	$I_y = 11.9\text{cm}^4$
Profile surface	$A = 5.3\text{cm}^2$
Weight	1.4 kg/m

Technical Data

45x45RP

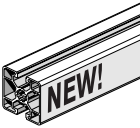
Moment of inertia	$I_x = 9.6\text{cm}^4$
	$I_y = 13.3\text{cm}^4$
Section modulus	$W_x = 3.8\text{cm}^3$
	$W_y = 6.5\text{cm}^3$
Profile surface	$A = 5.4\text{cm}^2$
Weight	1.5 kg/m

Non-Machined End Finish Options

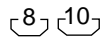
	Part Number
45x30RP, single, 5600mm long bottom T-slot	3 842 508 553
45x30RP, single, square cut to length bottom T-slot	3 842 992 676/ __mm*
45x45RP, package of 16, 5600mm long bottom T-slot	3 842 511 376
45x45RP, single, 5600mm long bottom T-slot	3 842 511 377
45x45RP, single, square cut to length bottom T-slot	3 842 990 408/ __mm*

*Specify length $\geq 30\text{mm} \leq 5600\text{mm}$

All dimensions are metric, with English dimensions in parentheses.



Roller Profiles (45x50RP, 45x75RP)

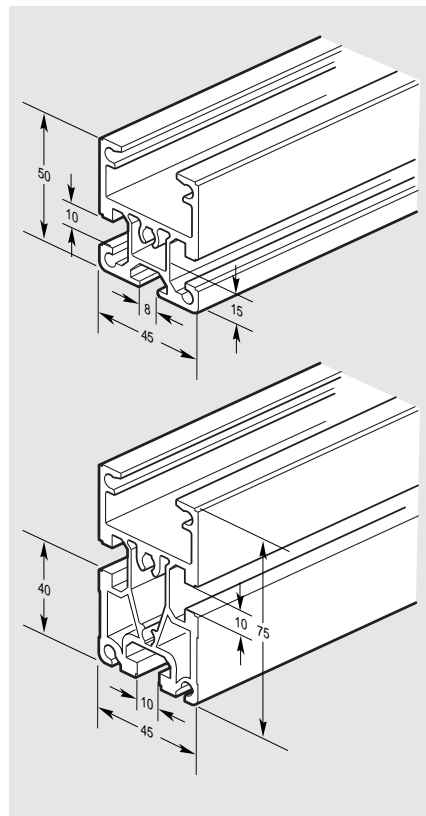
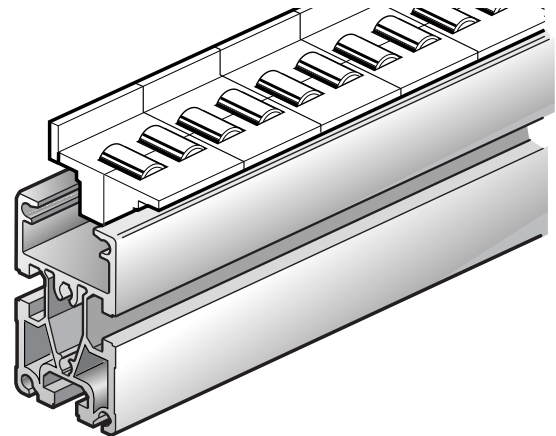


The 45x50RP and 45x75RP roller profiles are designed specifically for mounting roller elements or guide profiles to create non-powered conveyor sections for material transfer or gravity feed. These profiles are suitable for distributed loads up to 90 kg/m (60 lbs./ft.). With either profile, supports should be located as needed but at intervals no greater than 2 meters ($\approx 6\frac{1}{2}$ feet) apart along the profile's entire length.

Minimum length: 30mm
 Maximum length: 5600mm (nominal)

Material:

- Natural anodized aluminum



Technical Data

45x50 RP

Moment of inertia	$I_x = 15.2\text{cm}^4$ $I_y = 16.9\text{cm}^4$
Section modulus	$W_x = 5.3\text{cm}^3$ $W_y = 7.5\text{cm}^3$
Profile surface	$A = 6.9\text{cm}^2$
Weight	1.9 kg/m

Technical Data

45x75 RP

Moment of inertia	$I_x = 49.5\text{cm}^4$ $I_y = 25.8\text{cm}^4$
Section modulus	$W_x = 12.1\text{cm}^3$ $W_y = 11.5\text{cm}^3$
Profile surface	$A = 10.4\text{cm}^2$
Weight	2.8 kg/m

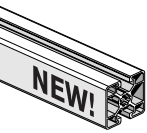
Non-Machined End Finish Options

Part Number

45x50RP, single, 5600mm long bottom T-slot	3 842 518 145
45x50RP, single, square cut to length bottom T-slot	3 842 992 903/ __mm*
45x75RP, single, 5600mm long bottom T-slot	3 842 517 821
45x75RP, single, square cut to length bottom T-slot	3 842 992 884/ __mm*

*Specify length $\geq 30\text{mm} \leq 5600\text{mm}$

All dimensions are metric, with English dimensions in parentheses.



Guide Profile

8-10

Guide profile is perfect for use in any manual push-type material moving application or for gravity feed conveyors and feed racks. The polyamide 12 guide profile has a surface with a low coefficient of friction which permits pallets to move easily over its surface. The electrically conductive guide profile is suitable for ESD applications.

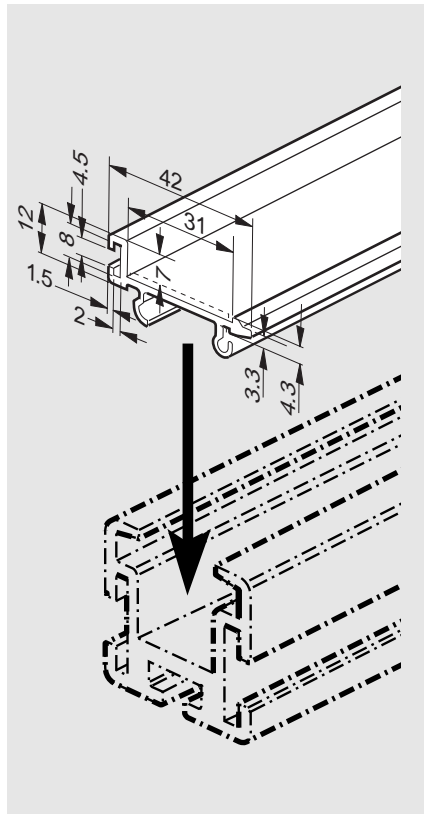
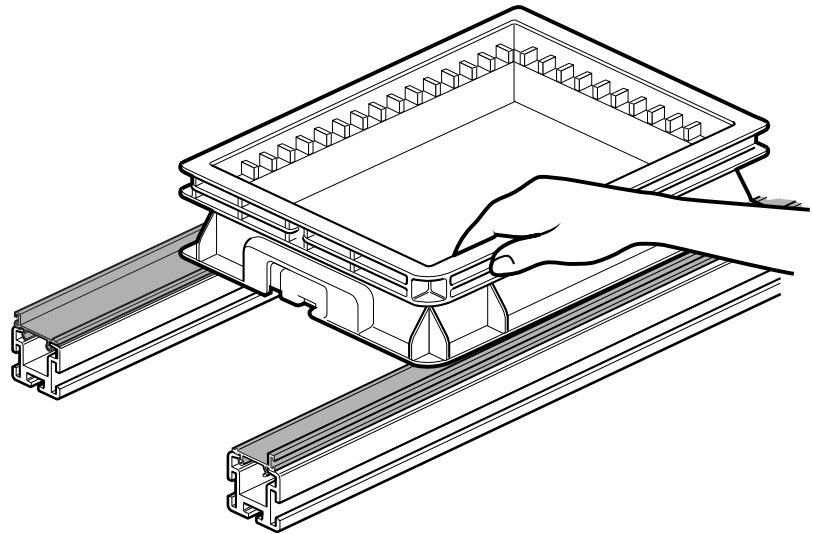
Minimum length: 30mm
Maximum length: 5600mm (nominal)





Features:

- Electrically conductive
- Low coefficient of friction

Material:

- Guide profile:
Electrically conductive
Polyamide 12

**Non-Machined End Finish Options****Part Number**

Kit includes 45x45RP and guide profile, square cut to length 	8 981 992 252/_mm*
Guide profile only, 5600mm, one 	3 842 511 236
Guide profile, 5600mm, bundle of 16 	3 842 510 228
Guide profile, square cut to length 	3 843 992 651/_mm*

*Specify length $\geq 30\text{mm} \leq 5600\text{mm}$

See pages 12-2 & 12-3 to order aluminum profile.

All dimensions are metric, with English dimensions in parentheses.

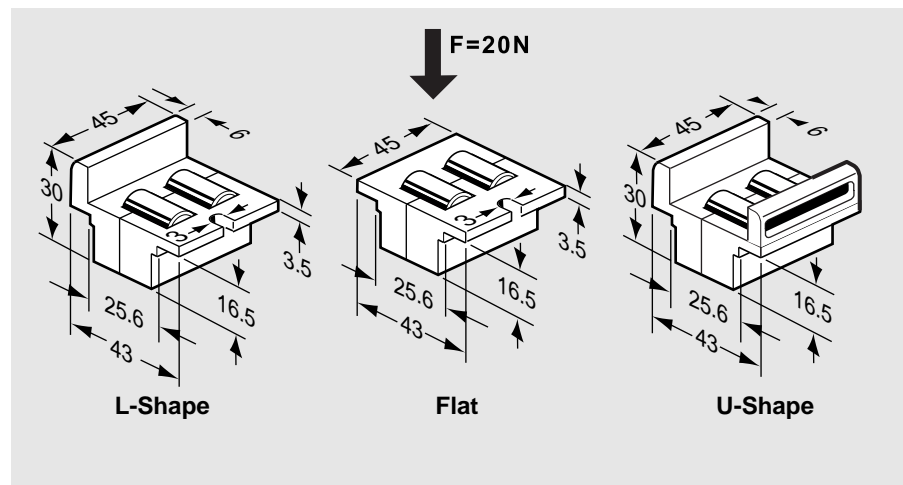
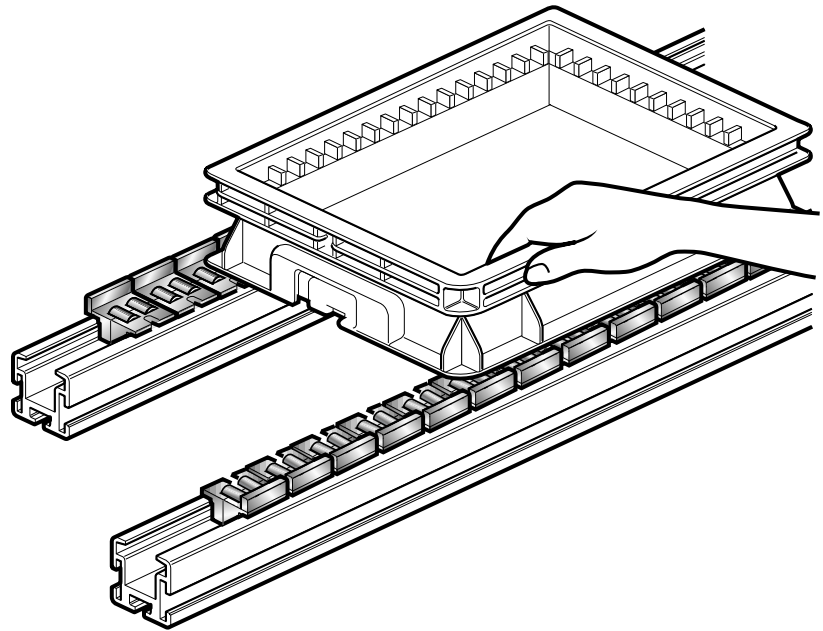
Roller Elements

8 10

Roller elements mount into 45x30RP or 45x45RP profiles to create non-powered conveyor sections for material transfer or assembly. They are ideal for manual load and unload operations at workstations, or for gravity conveyor applications. There are three different roller types: (1) L-shape, for holding pallets, bins, or trays between rails, (2) U-shape, for holding trays with flanges on bottom, and (3) flat, where keeping trays directly aligned with rail is unnecessary or where other means of guiding trays exist. Maximum load per roller element: 20 N (≈ 4.5 lbs.).

Material:

- Black polyamide



Description	Part Number
L-shape roller element, one	3 842 319 500
Flat roller element, one	3 842 319 501
U-shape roller element, one	3 842 319 502



Support Rollers

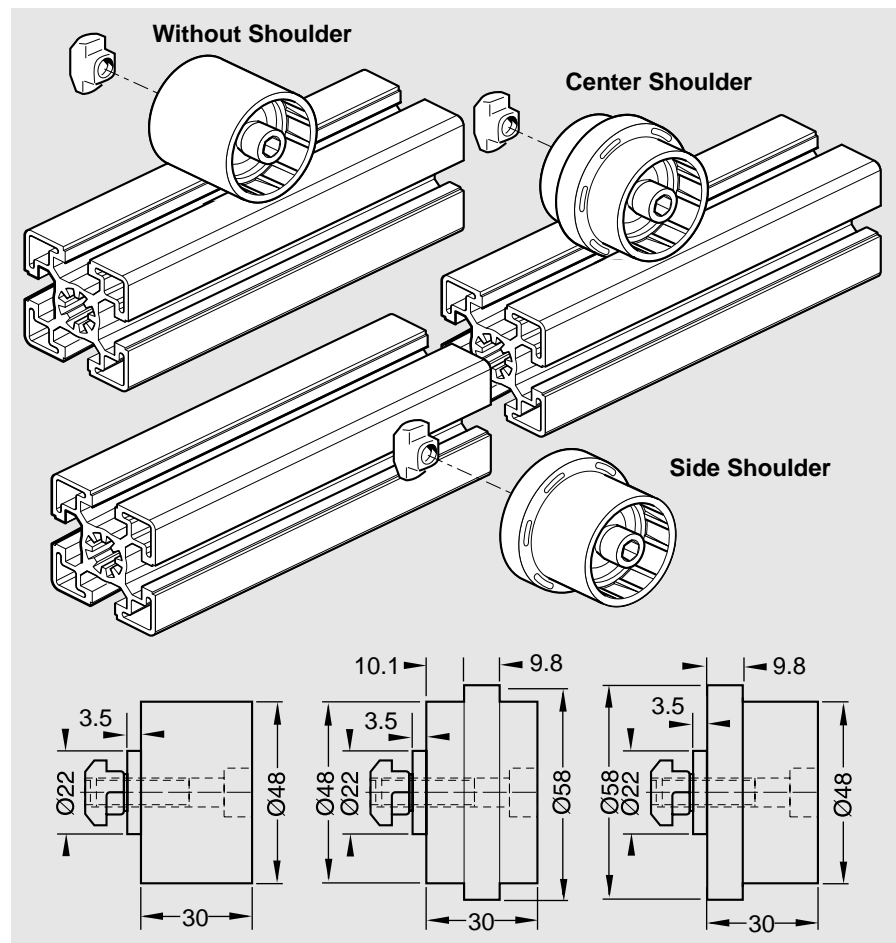
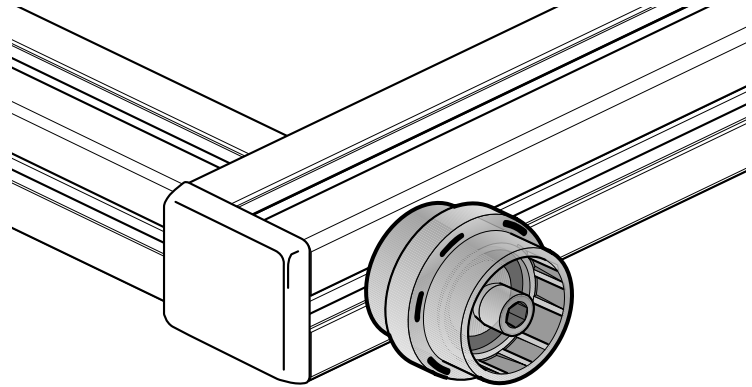


Support rollers are used to move components along the surface of 10mm T-slotted profiles. Typical uses include pallets, large sliding doors, and linear motion where critical tolerances aren't essential. Three types available: (1) roller with side shoulder, (2) roller with center shoulder, and (3) roller without shoulder. When using rollers with a shoulder, the shoulder may ride in the 10mm T-slot. All rollers have ball bearings for smooth rolling.

Maximum load capacities:
for downward forces—150 N (34 lbs.); for side forces—100 N (23 lbs.). Fastening hardware included.

Material:

- Roller: black polyamide
- Socket screw and T-nut: zinc-plated steel



Description

Support roller with side shoulder, one

Part Number

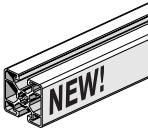
3 842 218 941

Support roller with center shoulder, one

3 842 218 940

Support roller without shoulder, one

3 842 218 942



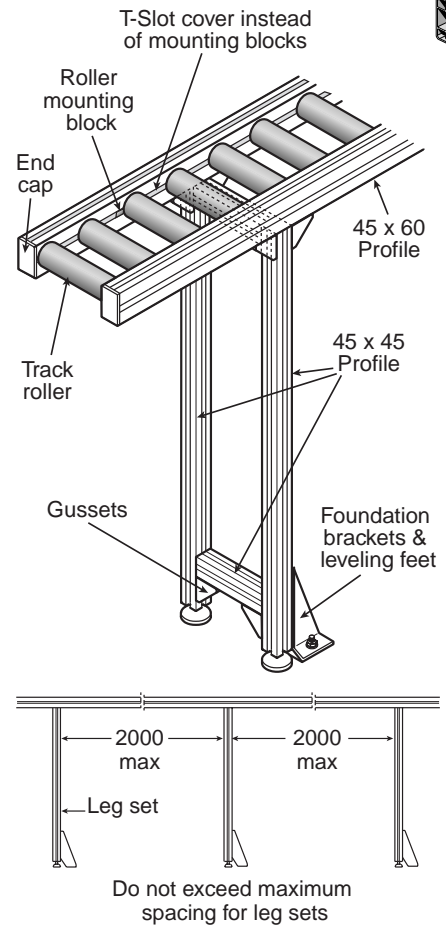
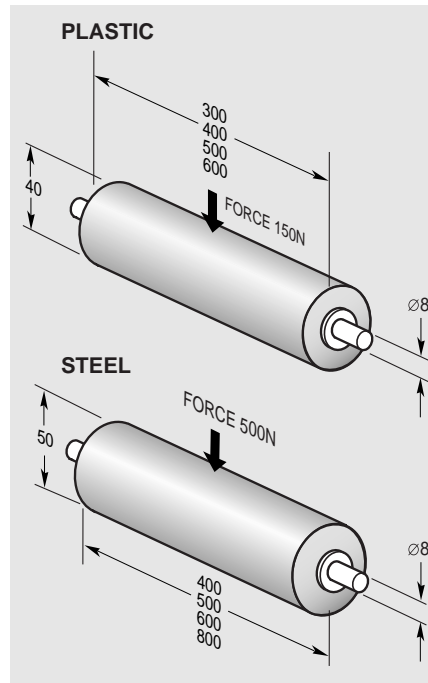
Track Rollers

8 10

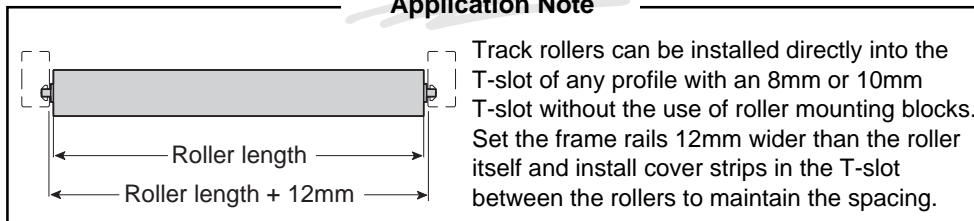
With track rollers and standard framing components, it is easy to construct a low-cost, non-powered roller conveyor to shuttle materials and components between workstations and process equipment. The rollers can be mounted in two ways: Directly into the T-slot of any profile or using the roller mounting blocks on page 10-8. Two types of track rollers are available: plastic, and steel for heavy payloads.

Material:

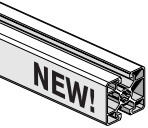
- Roller: plastic or steel



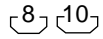
Application Note



Description	Part Number
Plastic track roller, 300mm, one	3 842 518 960
Plastic track roller, 400mm, one	3 842 518 961
Plastic track roller, 500mm, one	3 842 518 962
Plastic track roller, 600mm, one	3 842 518 963
Steel track roller, 400mm, one	3 842 518 964
Steel track roller, 500mm, one	3 842 518 965
Steel track roller, 600mm, one	3 842 518 966
Steel track roller, 800mm, one	3 842 518 967



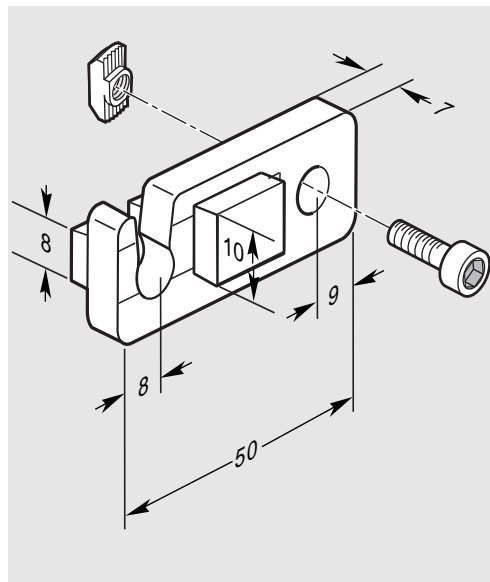
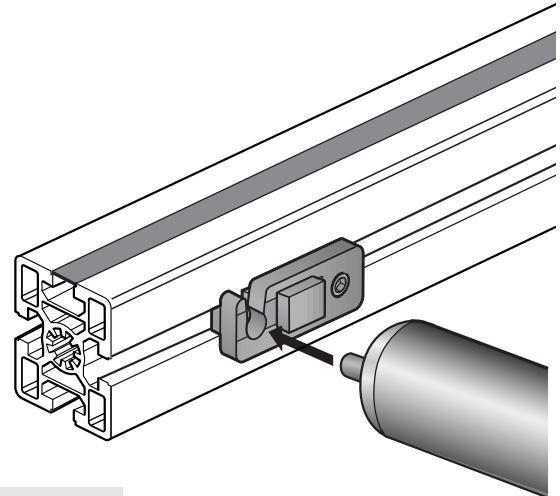
Track Roller Mounting Blocks



The track roller mounting block is easily installed, requires no machining, and makes it convenient to mount track rollers. It is also possible to replace individual rollers without dismantling the entire system. Includes fastening hardware.

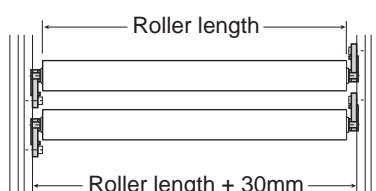
Material:

- Black polyamide 6



10

Application Note



When using track roller mounting blocks, always make the frame rails 30mm wider than the roller length.

Description

Part Number

Track roller mounting block , package of 10

3 842 518 968

Track roller mounting block , package of 10

3 842 519 407