

## The versatile Material Handling System

Modern factories are geared towards high speed production. Time pressure increases constantly. Changeover time between production runs need to be shorter. Therefore product cycles and demanding customers require a new dimension in flexibility.

The solution is now available: Robotunits expands its Modular Automation System with a unique concept for material handling. Only 8 multi-functional components allow for a large range of applications.



### Individual lengths and widths

- Lane length and width can be easily adjusted
- No tools needed to change lane width
- Additional tracks can be added if load requires



### Adjustable angle

- Infinitely adjustable angle
- Track can be attached to the tube clamp in the front, or in the T-slot of the extrusion
- Brakes can be inserted anywhere on the track to control the speed of the box



### Safe and rigid design

- Rigid system through Robotunits Fastening Technology
- Tight fitting track covers prevent contamination of roller tracks
- Low noise level due to special gliding bearings
- Entire construction available for ESD
- Anti-Reverse can be placed anywhere on the track
- Colored anti-reverse shows maximum fill level



### System compatible

- 8 components fully compatible with the Robotunits Modular Automation System
- Multi-functional stop elements allow safe in-feed and removal of material
- Unlimited applications due to 14mm T-slot
- Reduced inventory cost due to multi-functional parts



### Save time, reduce cost

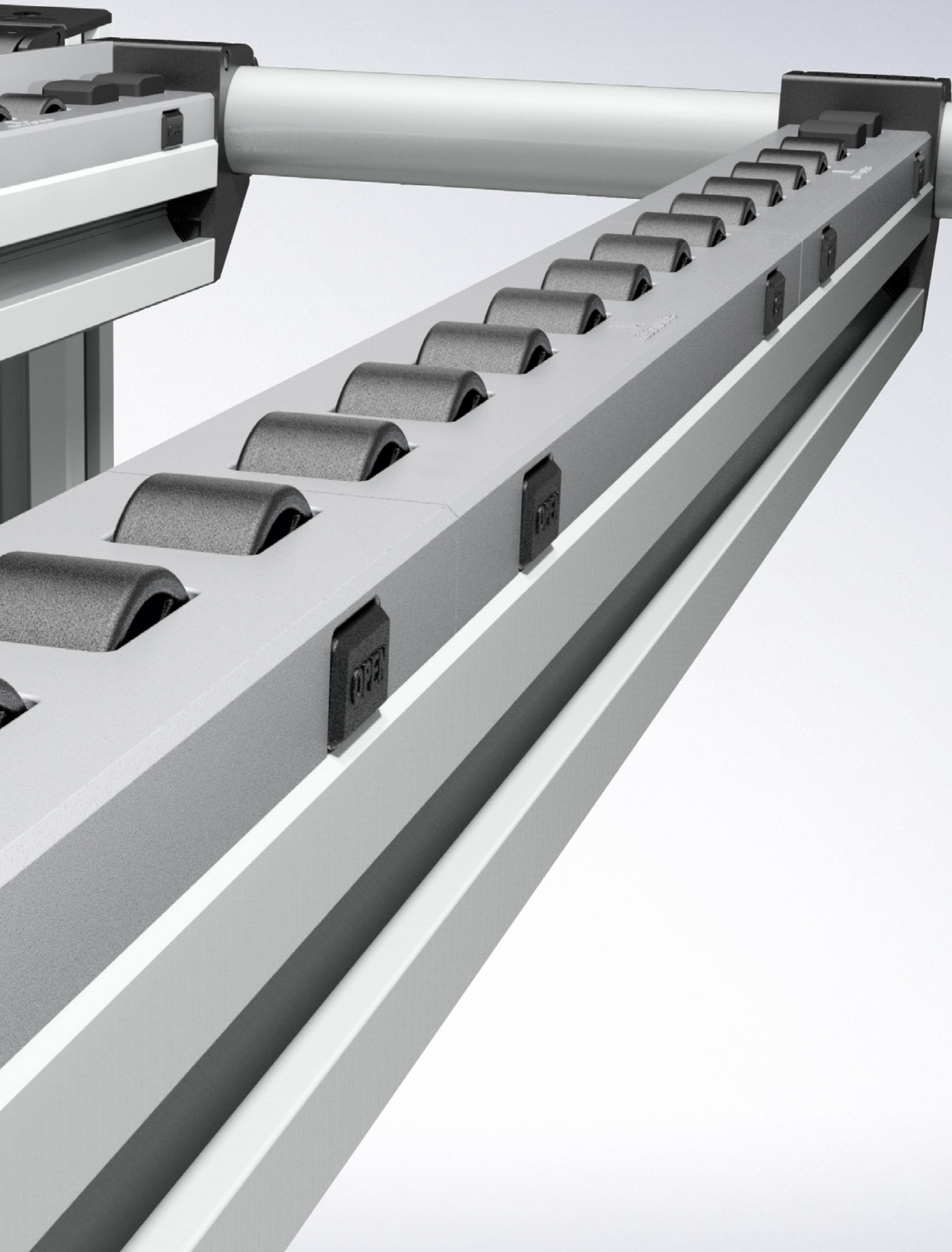
- Minimal design effort necessary
- Snap-in connections for quick assembly
- Minimal training required
- Individual adjustments possible

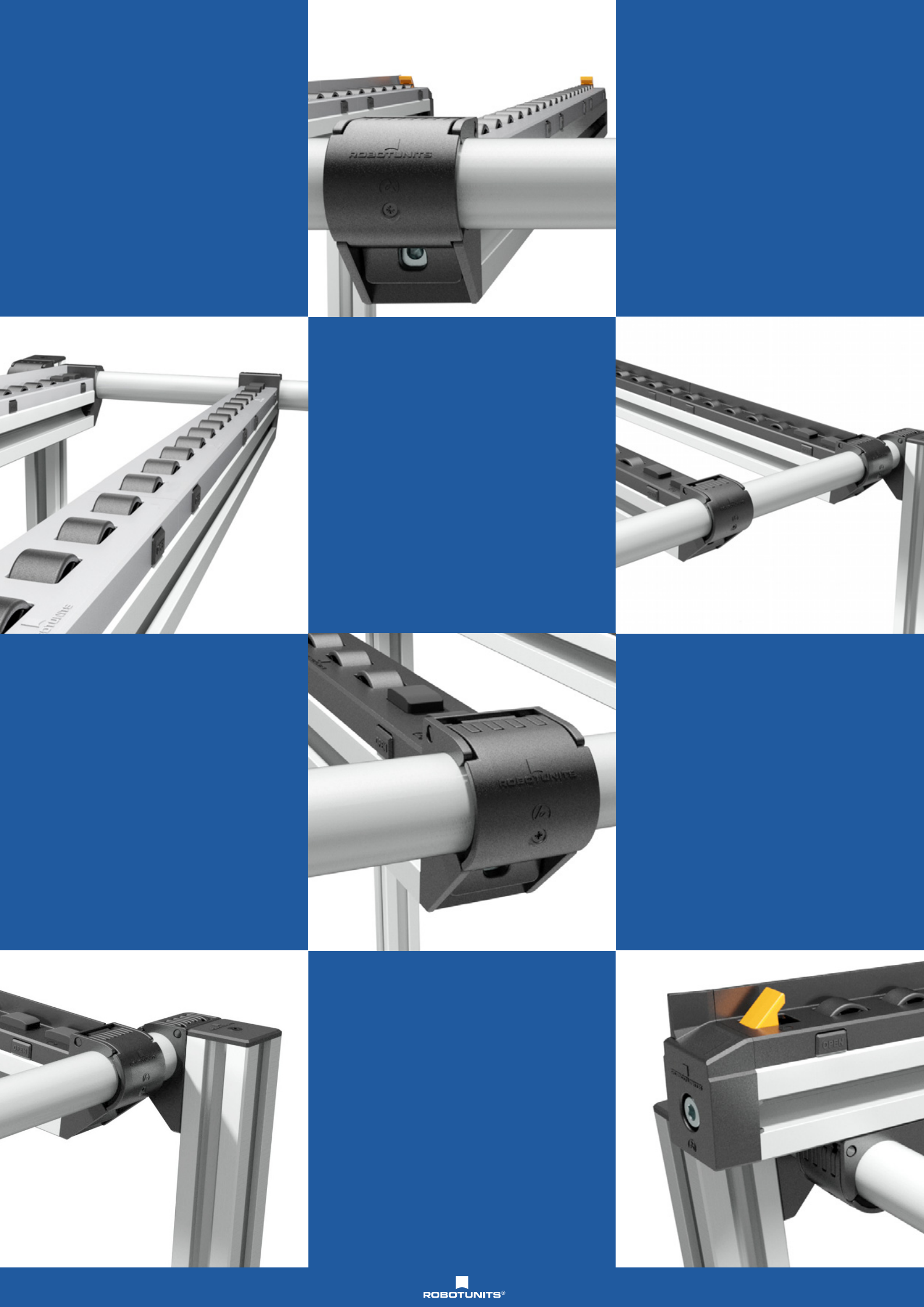


### High Flexibility

- Open T-slots can be used to install additional components
- Tracks can be inserted in any of the Robotunits extrusions
- Quick assembly without special tools
- System can be easily adjusted for new requirements





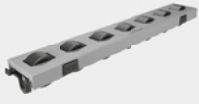


# The versatile **Material Handling System**

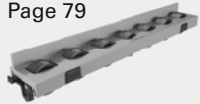
## System Options

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RollerTrack with  
Side Guides  
MAT 459\_  
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Tube Clamp Front,  
MAT 3011  
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Tube Clamp T-slot  
MAT 3021  
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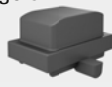
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MAT 4577  
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Front Part Slider  
Left/Right  
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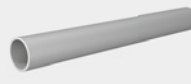
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Anti-Reverse for  
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Round Tube  
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End Cap for Round  
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Label Holder  
50 x 100  
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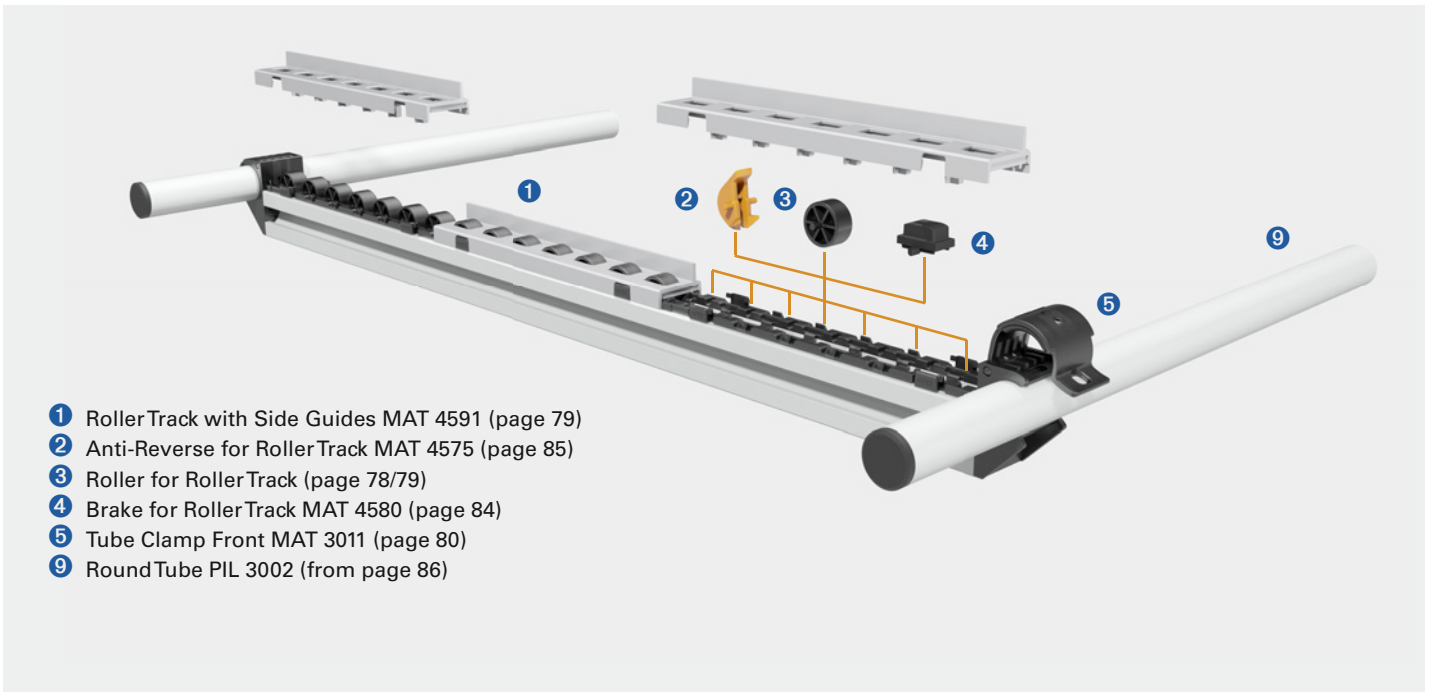
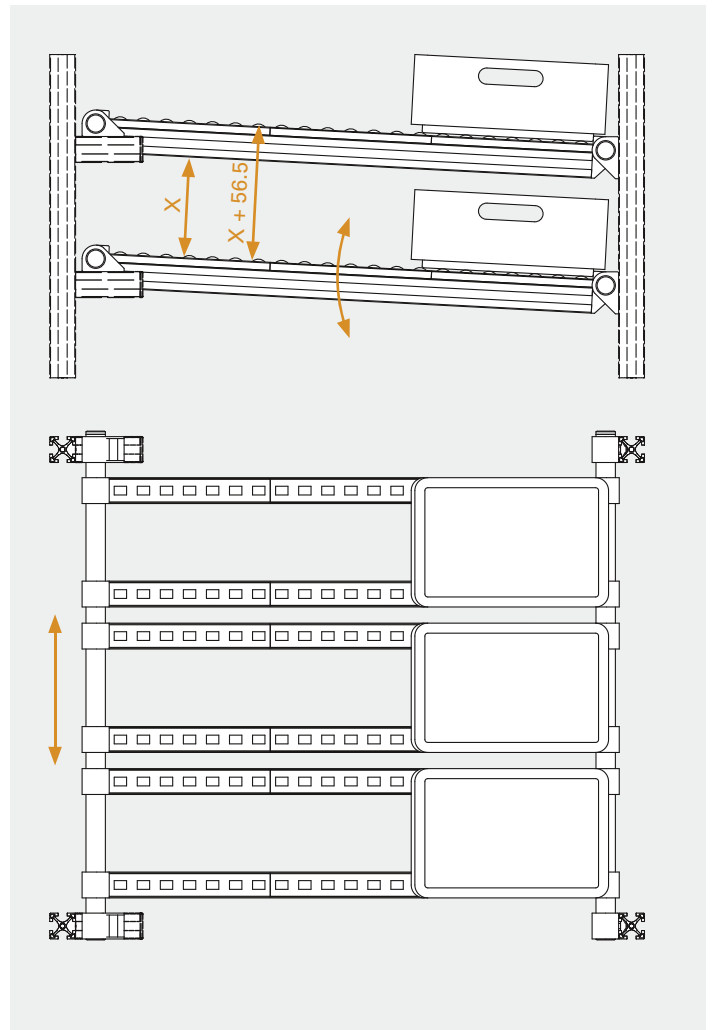


## Option with front Tube Clamp



### Advantages

- Option with Front Tube Clamp saves 41mm in height compared to option with T-Slot Tube Clamp
- Multifunctional Tube Clamp can also be used as end stop (less parts)



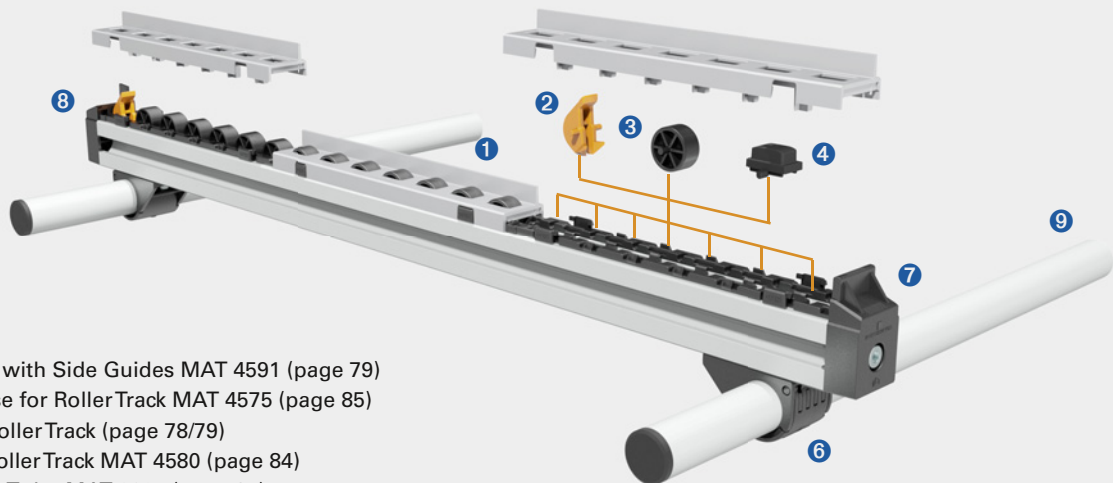
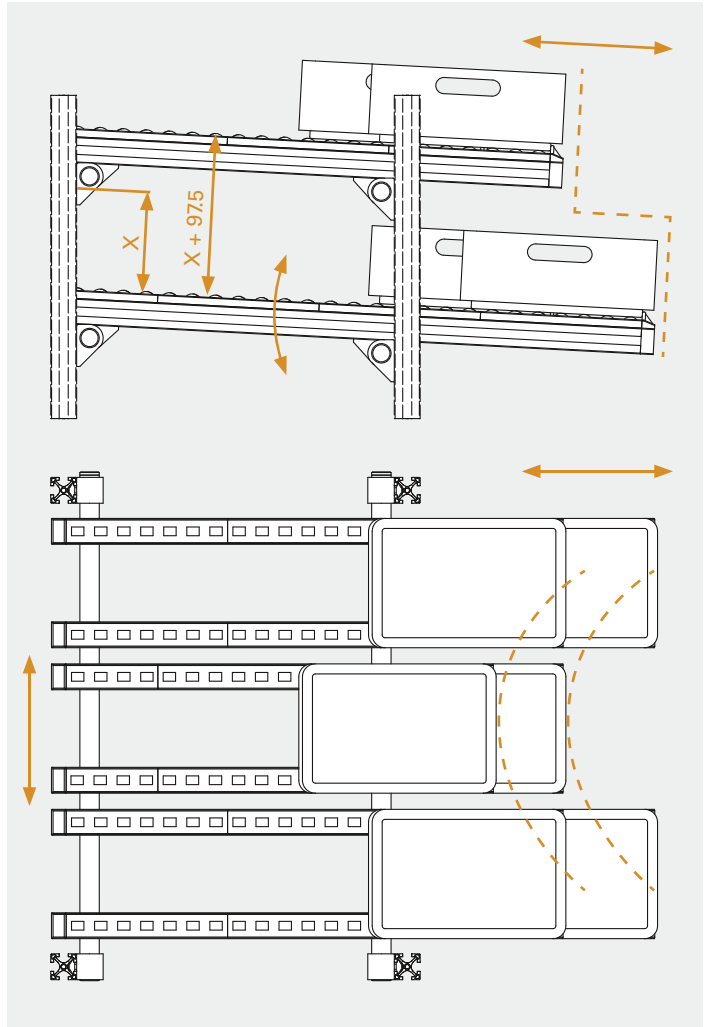
- 1 RollerTrack with Side Guides MAT 4591 (page 79)
- 2 Anti-Reverse for RollerTrack MAT 4575 (page 85)
- 3 Roller for RollerTrack (page 78/79)
- 4 Brake for RollerTrack MAT 4580 (page 84)
- 5 Tube Clamp Front MAT 3011 (page 80)
- 9 RoundTube PIL 3002 (from page 86)

## Option with T-slot tube clamp



### Advantages

- Staggered configuration possible
- Different track lengths on the same level for ergonomic reach



- 1 RollerTrack with Side Guides MAT 4591 (page 79)
- 2 Anti-Reverse for RollerTrack MAT 4575 (page 85)
- 3 Roller for RollerTrack (page 78/79)
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- 6 Tube Clamp T-slot MAT 3021 (page 81)
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**Application**

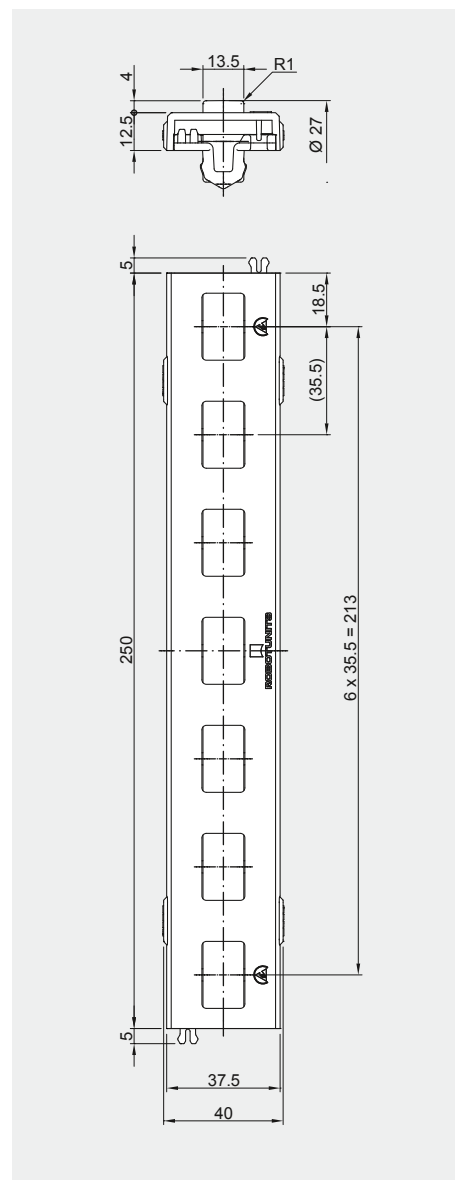
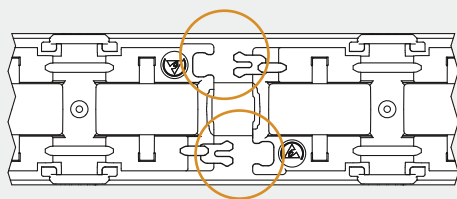
- For roller tracks, e.g. for:
- Material flow applications
  - Manual assembly stations
  - In- and out-feed
  - Transport carts
  - Rolling side guides

**Technical Data**

Material:  
 Base part PA6 black (ESD)  
 Cover PA6 gray or PA6 black (ESD)  
 Roller POM-C black (ESD)

Max. load per unit 15 kg  
 Max. load per meter 60 kg

Resistance to ground per ESD assembly  
 < 35 M $\Omega$

**ESD Conductivity**

Connecting the tracks using snap-in connections which allow for compensation of temperature related length changes.

**Order Code**

Description	Scope of Delivery			Order Code <sup>1)</sup>	
	Base Part	Cover	Rollers	Length	Weight
RollerTrack Kit	1	1	7	MAT 4561	0.112 kg
RollerTrack Kit, cut to length	1	1	X <sup>2)</sup>	MAL 4561 SNN ____ <sup>3)</sup>	0.448 kg/m
RollerTrack ESD Kit	1	1	7	MAT 4563	0.114 kg
RollerTrack ESD Kit, cut to length	1	1	X <sup>2)</sup>	MAL 4563 SNN ____ <sup>3)</sup>	0.456 kg/m

1) Please complete the order code by adding the desired length

2) Roller quantity depending on cut track length

3) Ideal length is in increments of 35mm (roller pitch)

Diagram dimensions in mm

## MAT 459\_

## RollerTrack with Side Guides

**Application**

For roller tracks, e.g. for:

- Material flow applications
- Manual assembly stations
- In- and out-feed
- Transport carts
- Rolling side guides

**Technical Data**

Material:

Base part PA6 black (ESD)

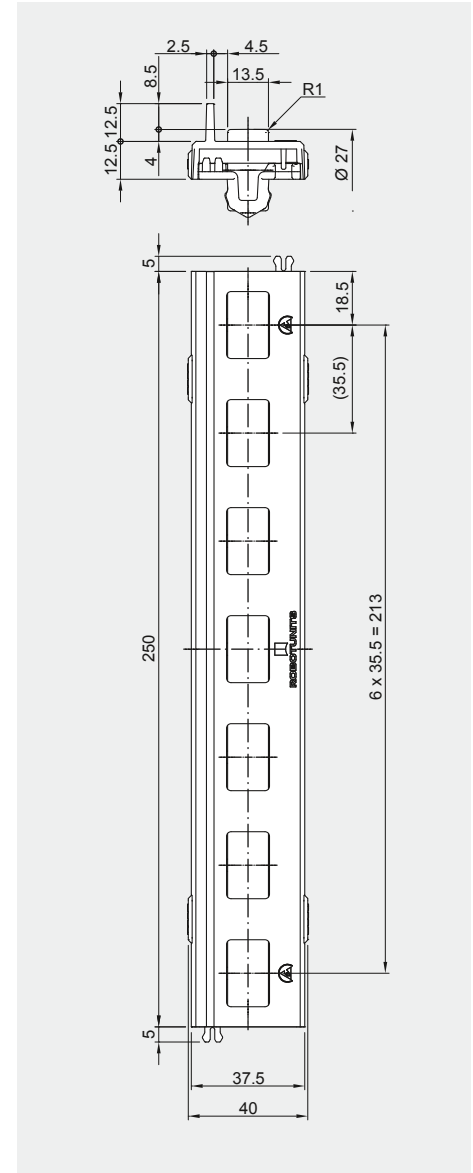
Cover PA6 gray or PA6 black (ESD)

Roller POM-C black (ESD)

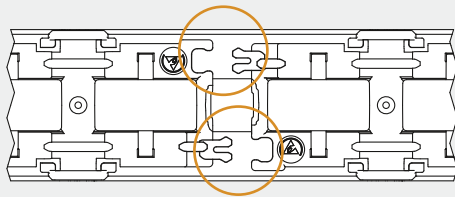
Max. load per unit 15 kg

Max. load per meter 60 kg

Resistance to ground per ESD assembly  
< 35 M $\Omega$



## ESD Conductivity



Connecting the tracks using snap-in connections which allow for compensation of temperature related length changes.

## Order Code

Description	Scope of Delivery			Order Code <sup>1)</sup>	Weight/Meter
	Base Part	Cover	Rollers		
RollerTrack with Side Guide Kit	1	1	7	MAT 4591	0.122 kg
RollerTrack with Side Guide Kit, cut-to-length	1	1	X <sup>2)</sup>	MAL 4591 SNN ____ <sup>3)</sup>	0.488 kg/m
RollerTrack ESD with Side Guide Kit	1	1	7	MAT 4593	0.124 kg
RollerTrack ESD with Side Guide Kit, cut-to-length	1	1	X <sup>2)</sup>	MAL 4593 SNN ____ <sup>3)</sup>	0.496 kg/m

1) Please complete the order code by adding the desired length

2) Roller quantity depending on cut track length

3) Ideal length is in increments of 35mm (roller pitch)

Diagram dimensions in mm



## MAT 3011

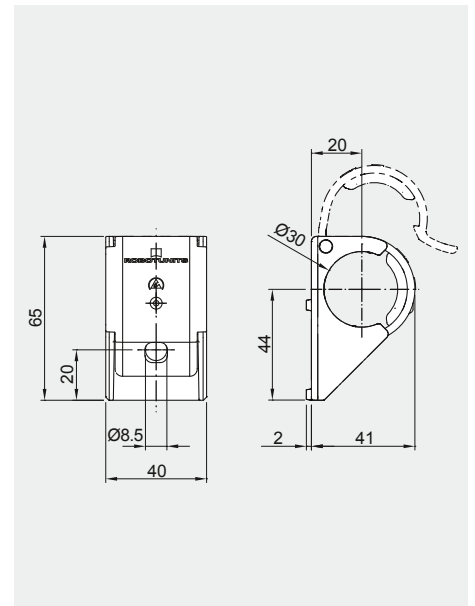
## Tube Clamp Front

**Application**

Connector to attach the Round Tube to the face of the extrusion

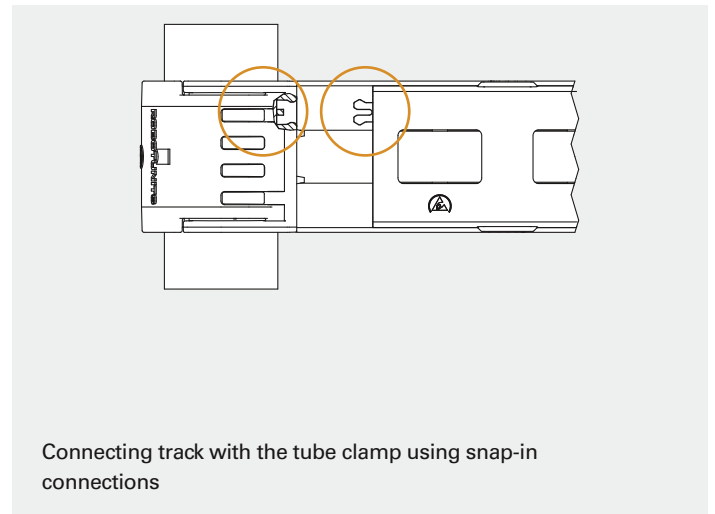
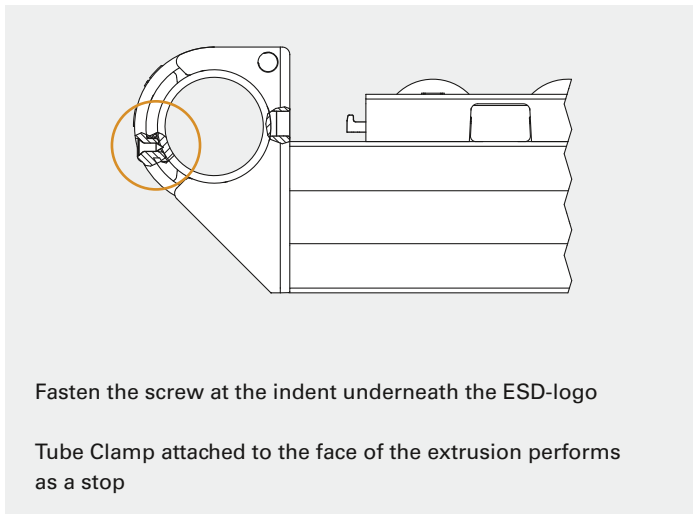
**Technical Data**

Material:  
 Base part PA6 black (ESD)  
 Clamp PA6 black (ESD)  
 and TPV rubber black  
 Hardware: steel, galvanized



Resistance to ground per ESD assembly  
 < 35 M $\Omega$

## ESD Conductivity



## Order Code

Description	Scope of Delivery					Order Code	Weight
	Base Part	Clamping Part	IBS M08x018NIKO	BLS M008 S02	BKS 2x07		
Tube Clamp ESD Front Kit	1	1	1	1	1	MAT 3011	0.052 kg

Diagram dimensions in mm

## MAT 3021

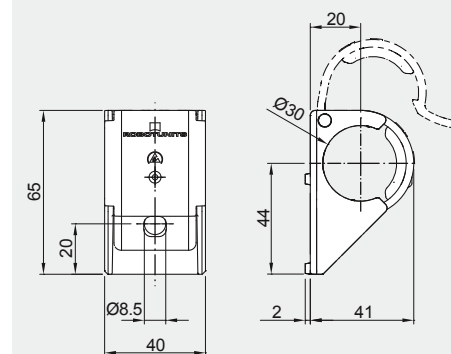
## Tube Clamp T-slot

**Application**

Connects the Round Tube to the T-slot of the extrusion

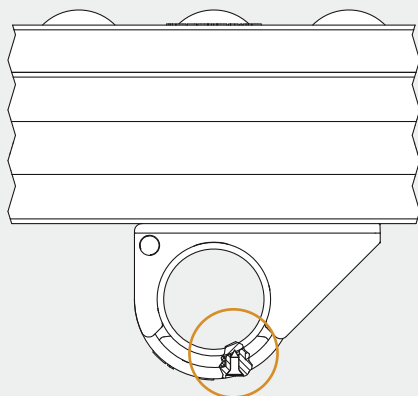
**Technical Data**

Material:  
 Base part PA6 black (ESD)  
 Clamp PA6 black (ESD)  
 and TPV rubber black  
 Hardware: steel, galvanized



Resistance to ground per ESD assembly  
 $< 35 \text{ M}\Omega$

## ESD Conductivity



Fasten the screw at the indent underneath the ESD-logo

## Order Code

## Scope of Delivery

Description	Scope of Delivery						Order Code	Weight
	Base Part	Clamping Part	IBS M08x018NIKO	BLS M008 S02	BKS 2x07	TIN4598		
Tube Clamp ESD T-slot Kit	1	1	1	1	1	1	MAT 3021	0.062 kg

Diagram dimensions in mm

## MAT 4577

## Front Part Flat/Stop

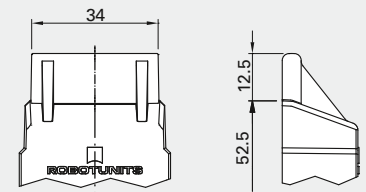
**Application**

Material stop at start or end of the roller track  
In-feed, removal or transfer support in combination with roller track without side guides

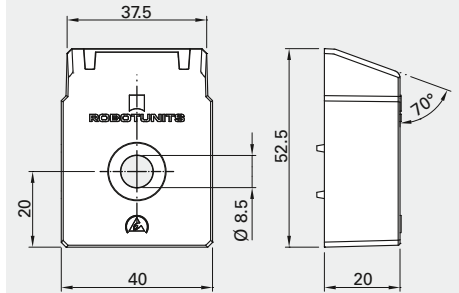
**Technical Data**

Material: PA6 black (ESD)  
Hardware: steel, galvanized

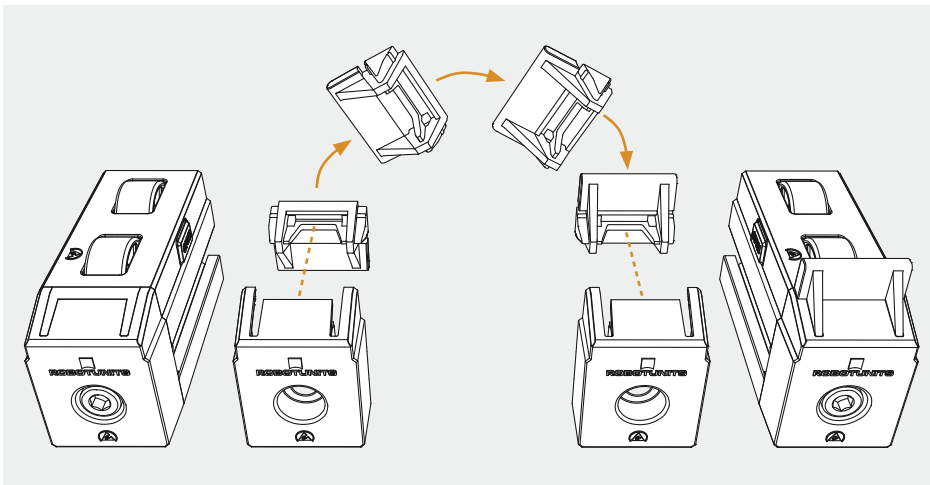
## Option Insert stop



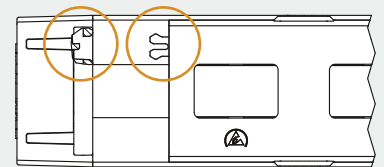
## Option Insert flat



## Options



## ESD Conductivity



Connecting tracks with  
Front Part Flat/Stop  
using snap-in connection

## Order Code

Description	Scope of Delivery			Order Code	Weight
	Base Part	Adjustable insert	IBS M08x025		
Front Part ESD Flat/Stop Kit	1	1	1	MAT 4577	0.042 kg

Diagram dimensions in mm

# MAT 4579

# Front Part Slider Left/Right

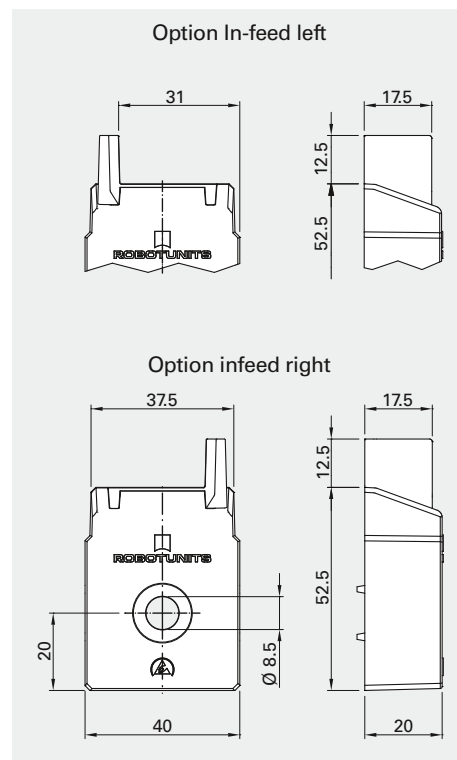


### Application

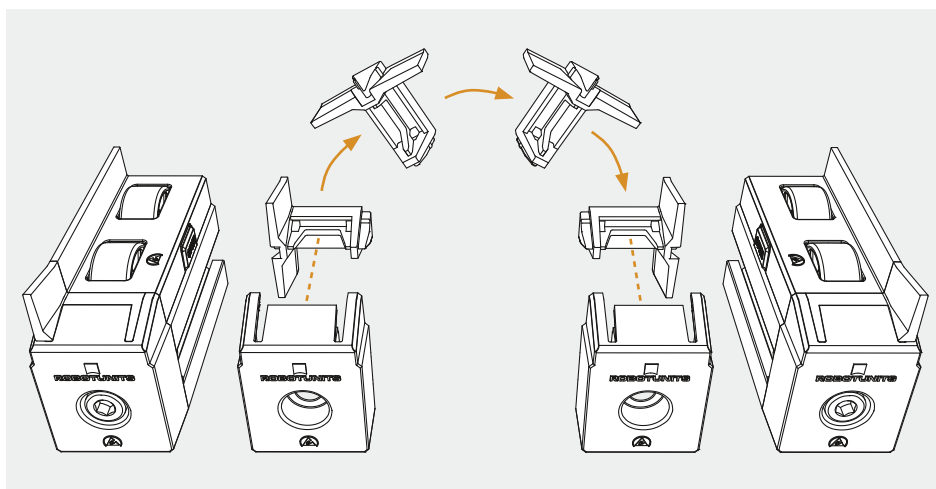
In-feed, removal or transfer support in combination with roller track without side guides

### Technical Data

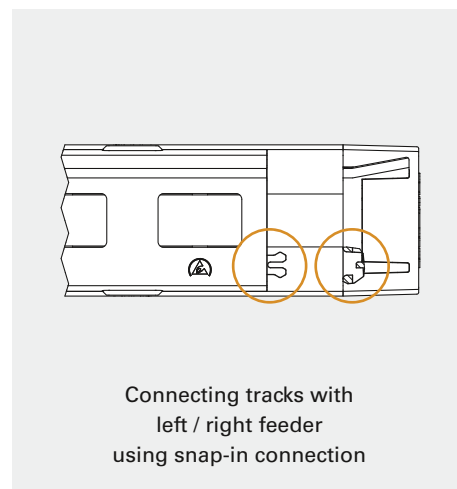
Material: PA6 black (ESD)  
Hardware: steel, galvanized



## Adjustable Insert Applications



## ESD Conductivity



## Order Code

Description Front Part ESD Slider Left/Right Kit	Scope of Delivery			Order Code MAT 4579	Weight 0.040 kg
	Base Part 1	Adjustable insert 1	IBS M08x025 1		

Diagram dimensions in mm

## MAT 4580

## Brake for Roller Track

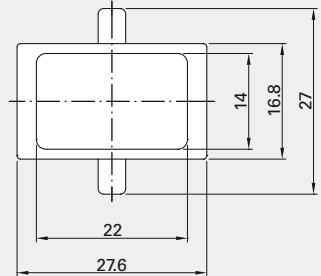
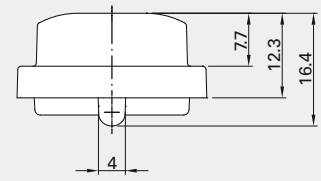
**Application**

To slow down boxes or trays

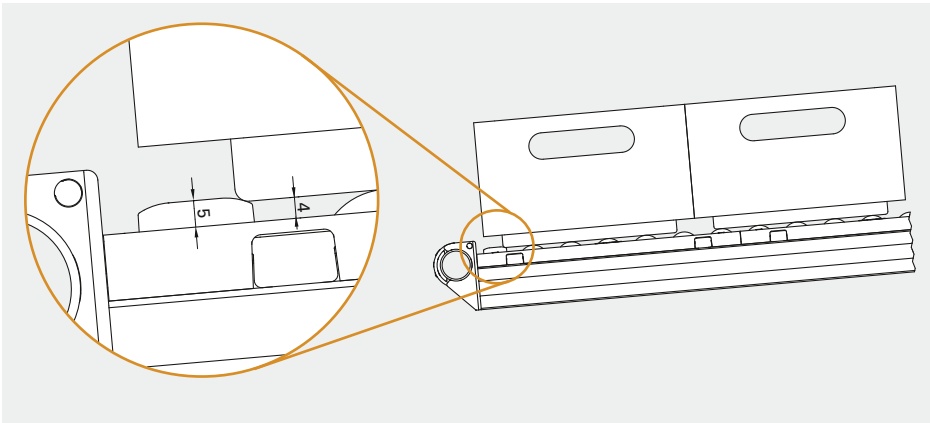
**Technical Data**

Material: TPV Rubber black

Easy to insert post-assembly by swapping roller with brake. Depending on the transported material (weight, surface properties, ...) multiple brakes can be inserted adjacent to each other or spaced out with rollers in between



## Function



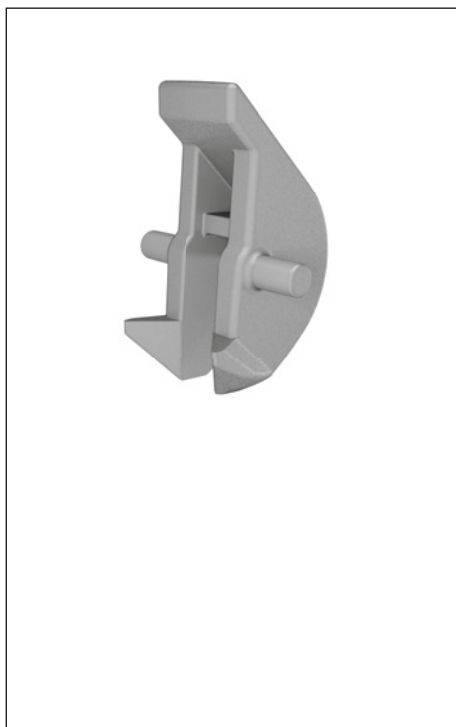
## Order Code

Description	Order Code	Weight
Brake for Roller Track	MAT 4580	0.003 kg

Diagram dimensions in mm

## MAT 4575

## Anti-Reverse for Roller Track

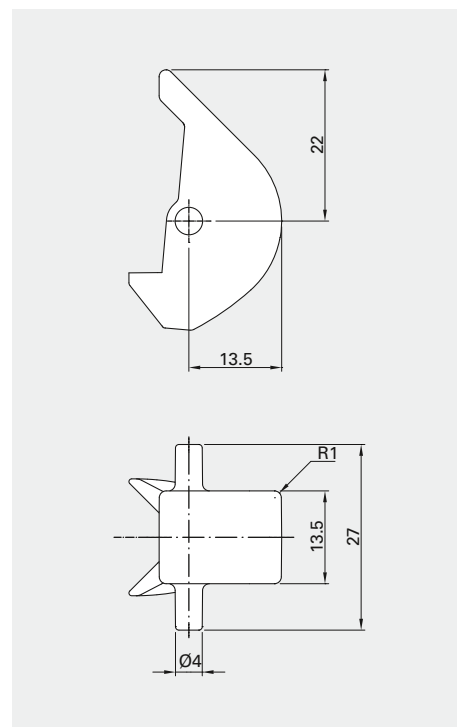
**Application**

Material stop at the start or end of the roller track  
Colored Anti-Reverse shows maximum fill level  
(e.g. Kanban signal)

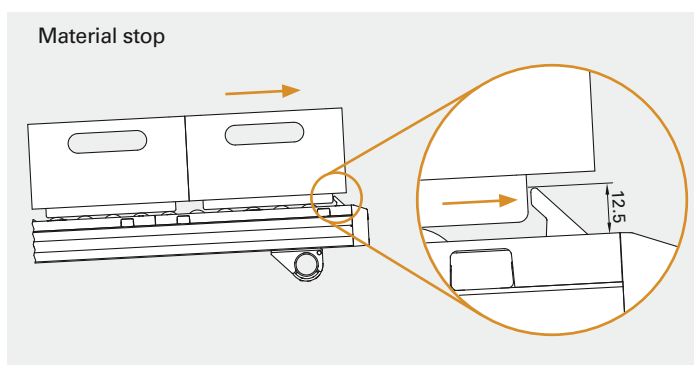
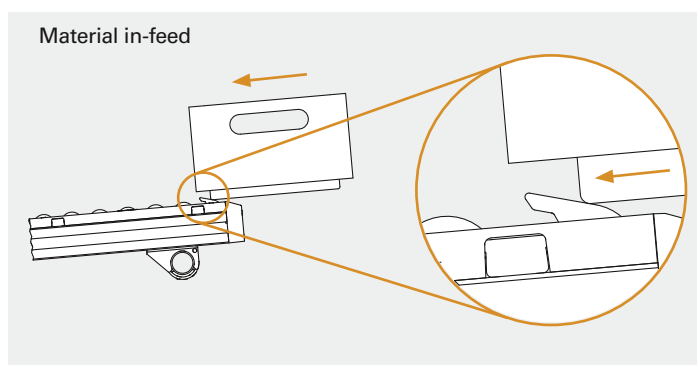
**Technical Data**

Material: POM-C orange

Easy to insert post-assembly!  
(Swap roller with anti-reverse)



## Function



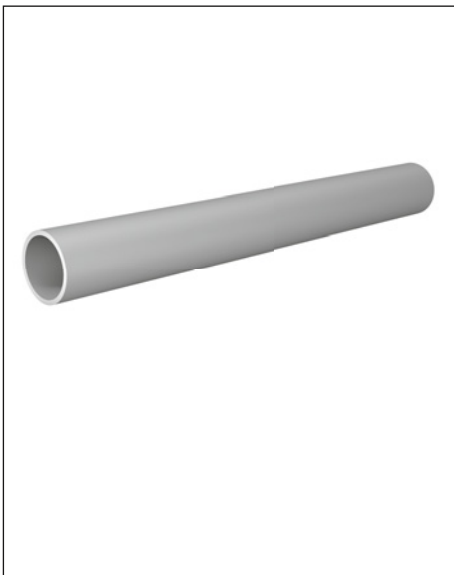
## Order Code

Description	Order Code	Weight
Anti-Reverse for RollerTrack	MAT 4575	0.006 kg

Diagram dimensions in mm

## PIL 3002

## Round Tube

**Application**

Used in applications like:

- Material flow
- Assembly work stations
- In-, out-feed
- Signs and shelves
- Transport carts
- Table frames

**Technical Data**

Material: EN AW-6063-T66 clear anodized aluminum

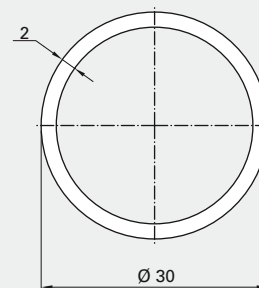
Section modulus  $W_x=W_y$ : 1.16 cm<sup>3</sup>

Area moment of inertia

against x + y  $I_x=I_y$ : 1.73 cm<sup>4</sup>

against torsion  $I_t$ : 3.47 cm<sup>4</sup>

Cross sectional area A: 175.9 mm<sup>2</sup>



## Order Code

## Description

Round Tube 30x2, cut to length

Round Tube stock length 6050 mm (usable length 6000 mm)

Round Tube, 175 units, stock length 6050 (usable length 6000 mm)

Order Code<sup>1)</sup>

## Length

## Weight/Meter

PIL 3002 SNN ____	0.475 kg
PIL 3002 NNN 6050	0.475 kg
PIL 3002 PAC 0175	0.475 kg

## CAP 3002

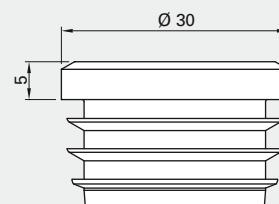
## End Cap for Round Tube

**Application**

End cover for Round Tube

**Technical Data**

Material: PE black



## Order Code

## Description

End Cap for Round Tube 30x2

## Order Code

CAP 3002

## Weight

0.004 kg

1) Please complete the order code by adding the desired length  
Diagram dimensions in mm

## MAT 3050

## Label Holder 50 x 100

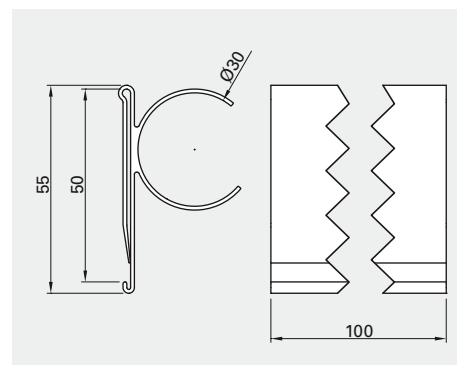
**Application**

Labels can be inserted into transparent Label Holder  
Label Holder can be snapped on directly to RoundTube

**Technical Data**

Material: PVC transparent

Max. label size 50 x 100 mm



## Order Code

Description	Order Code	Weight
Label Holder 50 x 100	MAT 3050	0.023 kg

Diagram dimensions in mm

