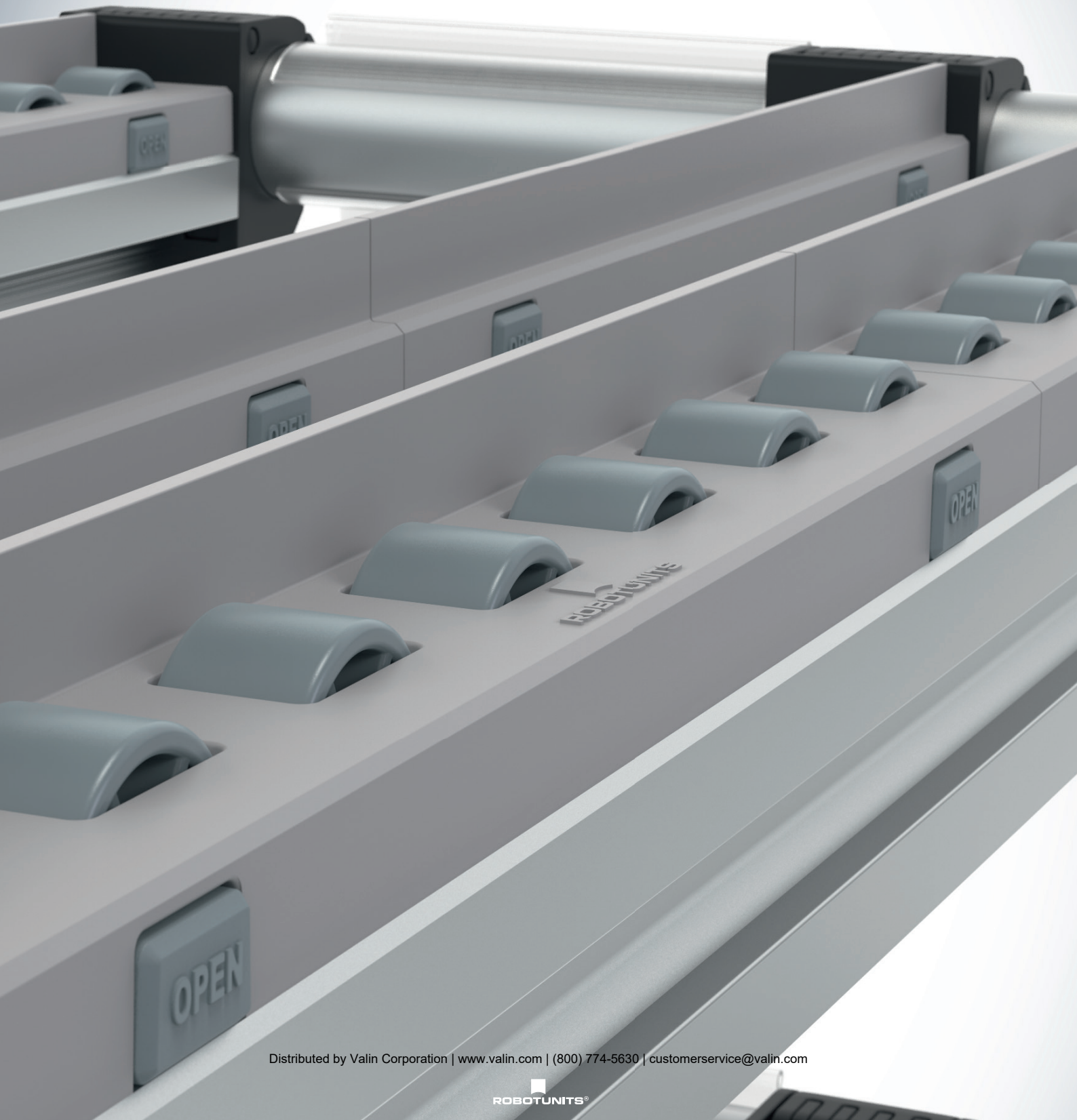




THE VERSATILE MBS PICKSTAR



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 multifunctional 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



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



System compatible

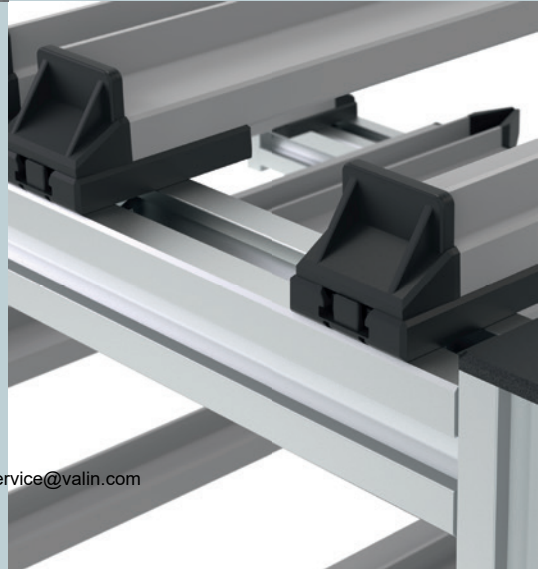
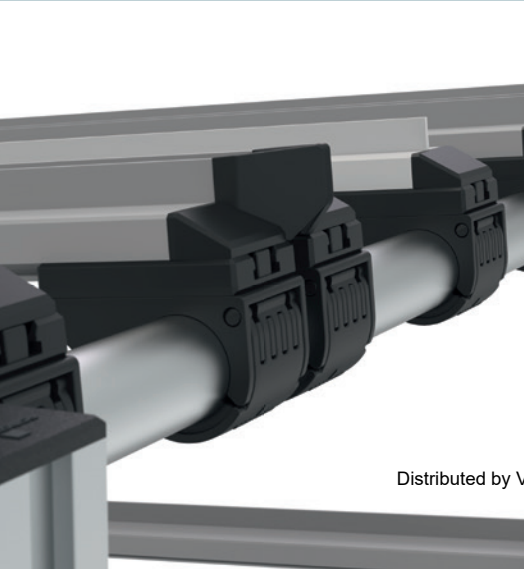
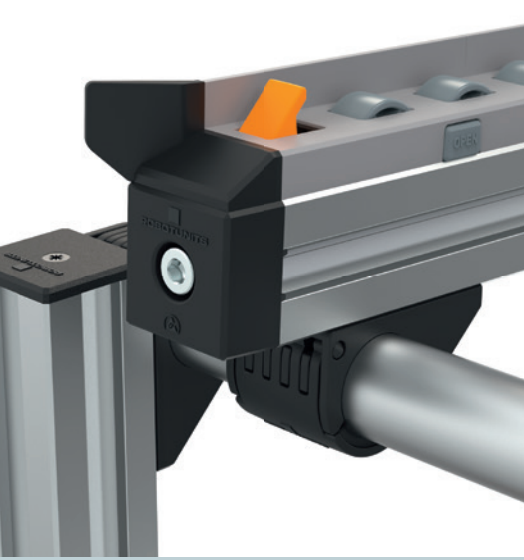
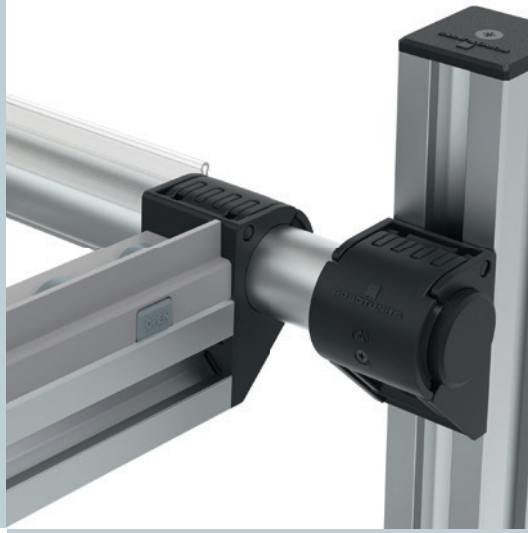
- all components fully compatible with the Robotunits Modular Automation System
- multifunctional stop elements allow safe in-feed and removal of material
- unlimited applications due to 14 mm T-slot
- reduced inventory cost due to multifunctional parts



Save time, reduce cost

- minimal design effort necessary
- snap-in connections for quick assembly
- minimal training required
- individual adjustments possible

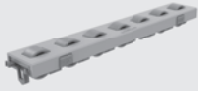
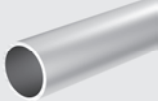




The versatile MBS PickStar

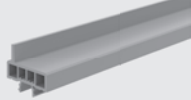
MBS PickStar RL System

Page 114

Roller Track MA_456_  P. 118	Roller Track With Side Guides MA_459_  P. 119	Tube Clamp Front MAT30_1  P. 120	Front Part MAT455_  P. 121	Brake for Roller Track MAT4580  P. 122
Anti-Reverse For Roller Track MAT4575  P. 123	Round Tube 30x2 PIL3002  P. 130	End Cap for Round Tube 30x2 CAP3002  P. 130	Label Holder 50 x 100 MAT3050  P. 131	

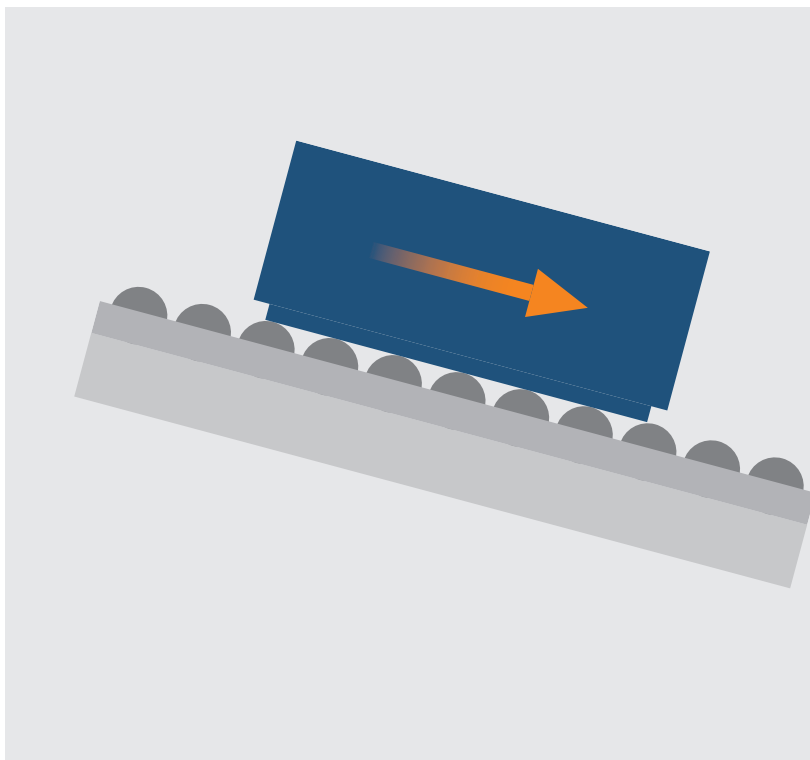
MBS PickStar GL System

Page 124

Sliding Rail MAL453_  P. 126	Tube Adapter MAT303_  P. 127	Extrusion Adapter MAT403_  P. 128	Adapter MAT903_  P. 129	Round Tube 30x2 PIL3002  P. 130
End Cap for Round Tube 30x2 CAP3002  P. 130	Label Holder 50x100 MAT3050  P. 131			



MBS PickStar RL System



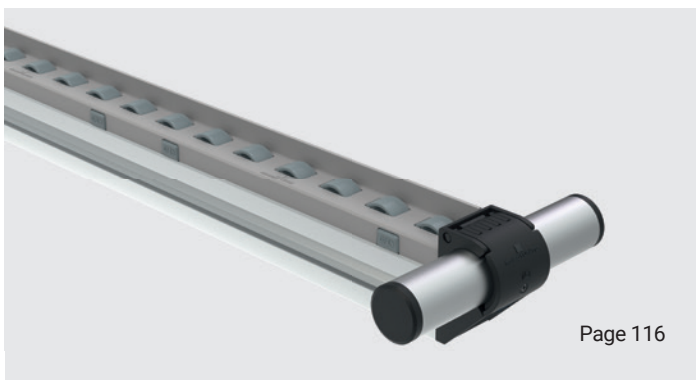
Properties

- Loads up to approx. 30 kg / box
- Conveying
- Gravity rollers
- Stable
- Individual assembly

Applications

- Roller conveyors
- Conveyor sections
- Material flow technology
- In-feed / out-feed conveyors
- Transport carts
- Rolling side guides

Compact System Options



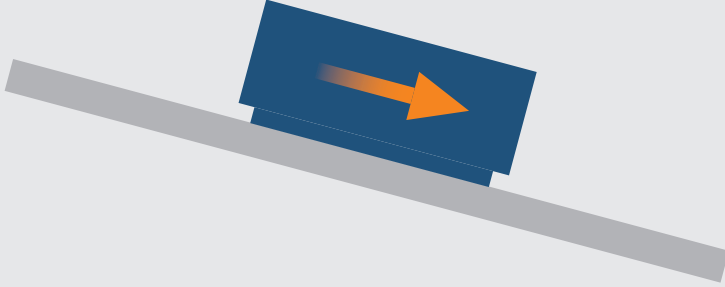
Page 116

Ergonomic System Options



Page 117

MBS PickStar GL System



Properties

- Loads up to approx. 5 kg / box
- Storage (deposit, warehousing)
- Manual operation
- Low overall height
- Few components
- Low price

Applications

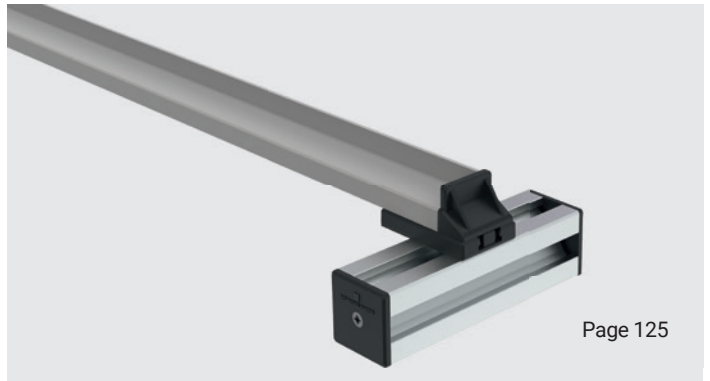
- Manual workstation

Round System Options



Page 124

Square System Options



Page 125



MBS PickStar RL System - Compact



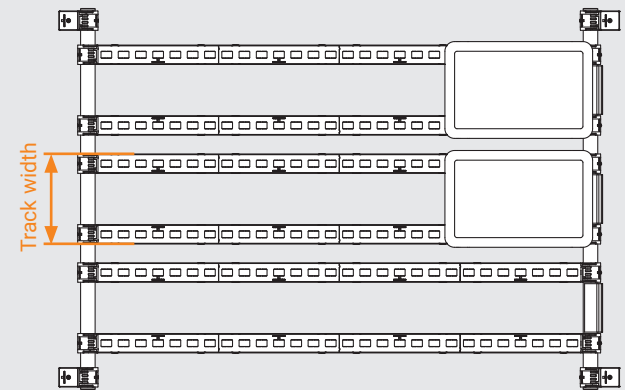
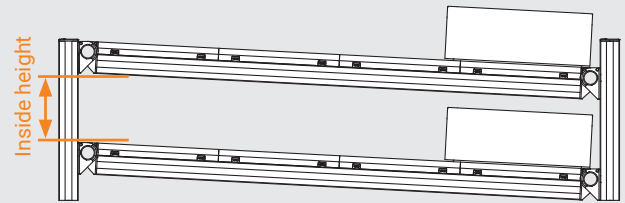
Benefits

- Flexible track width, inside height
- Lower overall height
- Few components

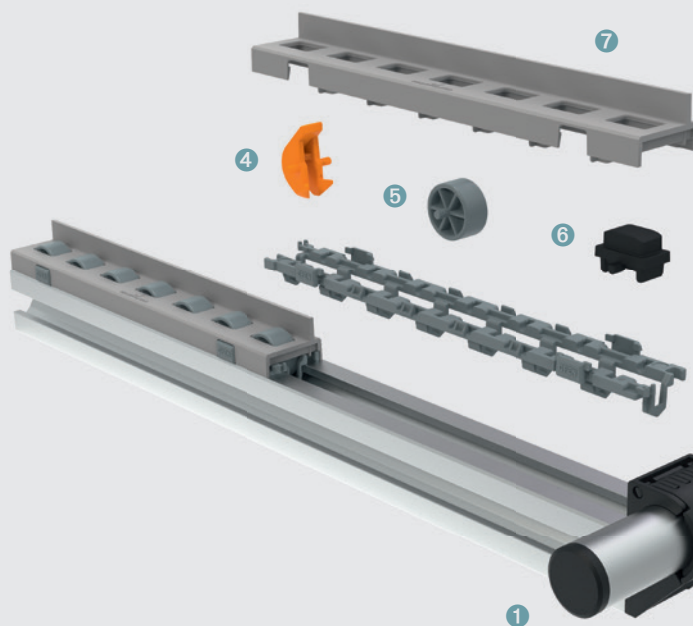
Application

- KANBAN carts, workstations

Multiple combination options available



Design MBS PickStar RL System - Compact



- 1 Round Tube 30x2 PIL3002 (page 130)
- 2 Tube Clamp ESD Front Kit MAT3011 (page 120)
- 3 Label Holder MAT3050 (page 131)
- 4 Anti-Reverse For Roller Track MAT4575 (page 123)
- 5 Roller for Roller Track
- 6 Brake for Roller Track MAT4580 (as of page 122)
- 7 Roller Track With Side Guides MAT4591 (as of page 119)

MBS PickStar RL System - Ergonomic



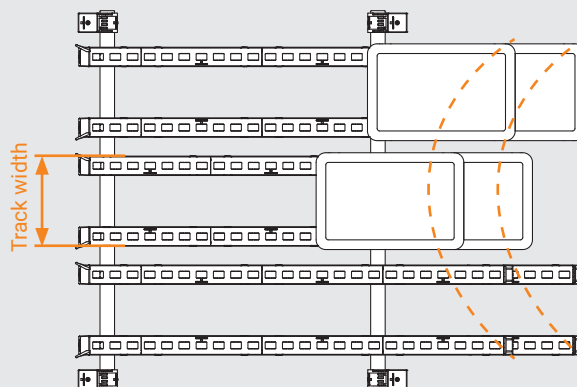
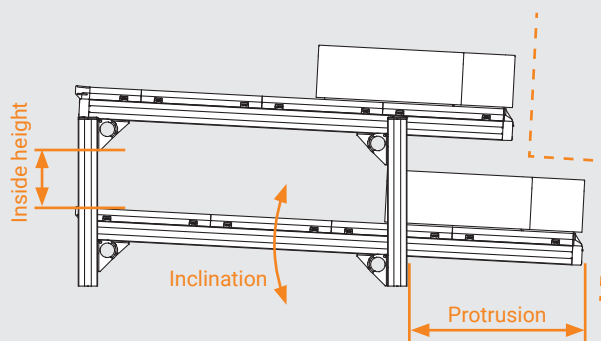
Benefits

- Flexible adjustable inclination, track width, protrusion, inside height
- Staggered configuration
- Individual arrangement

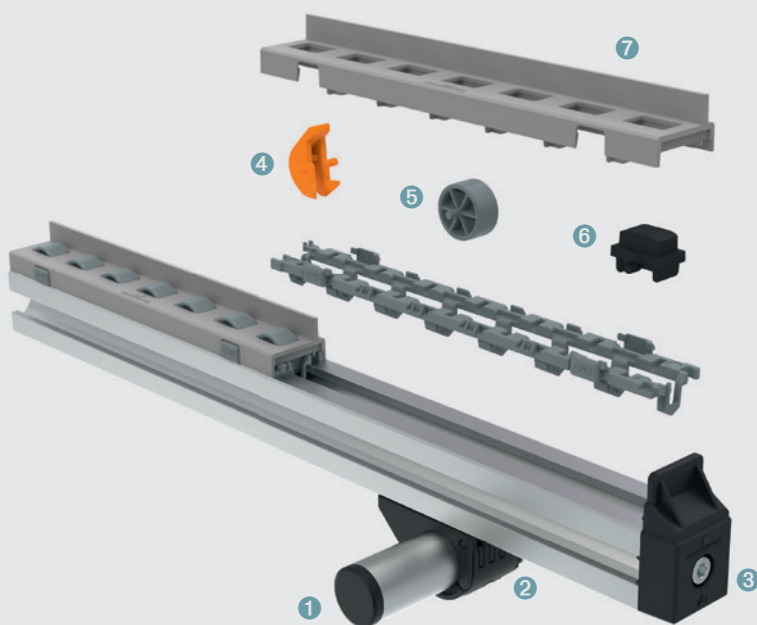
Application

- Ergonomic (semi-circular) gripping chamber application

Multiple combination options available



Design MBS PickStar RL System - Ergonomic



- 1 Round Tube 30x2 PIL3002 (page 130)
- 2 Tube Adapter ESD Kit (page 127)
- 3 Front Part ESD Stop Kit (page 121)
- 4 Anti-Reverse For Roller Track MAT4575 (page 123)
- 5 Roller for Roller Track
- 6 Brake for Roller Track MAT4580 (as of page 122)
- 7 Roller Track With Side Guides MAT4591 (as of page 119)

MAT4561



MAT4563



Application

- For roller conveyors, e.g. for:
- Material flow technology
 - Manual workstations
 - In- and out-feed conveyors
 - Transport carts
 - Rolling side guides

Technical Data

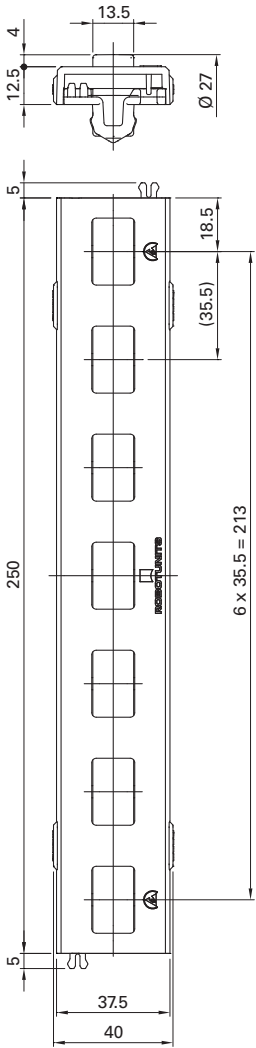
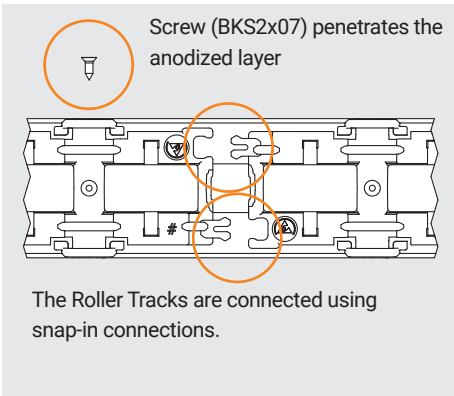
Material: Base part and gray PP or black PP cover (ESD conductive)
Roller gray POM-C or black POM-C (ESD conductive)

Max. load per unit 15 kg

Inclination angle (depending on the product to be transported)
MAT4561: 4° to 5°
MAT4563: 5° to 6°

Surface resistance per Roller Track
 $R_s < 35 \text{ M}\Omega$

ESD Conductivity

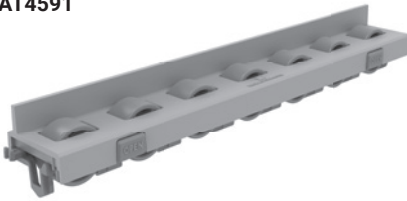


Order Code

Description	Scope of Delivery				Order Code	Weight
	Base Part	Cover	Castors	BKS2x07		
Roller Track Kit, 250 mm	1	1	7	-	MAT4561	0.112 kg
Roller Track Kit, cut to length, 108 mm	1	1	3	-	MAL4561SNN0108	0.048 kg
Roller Track Kit, cut to length, 143 mm	1	1	4	-	MAL4561SNN0143	0.064 kg
Roller Track Kit, cut to length, 178 mm	1	1	5	-	MAL4561SNN0178	0.080 kg
Roller Track Kit, cut to length, 213 mm	1	1	6	-	MAL4561SNN0213	0.096 kg
Roller Track ESD Kit, 250 mm	1	1	7	1	MAT4563	0.114 kg
Roller Track ESD Kit, cut to length, 108 mm	1	1	3	1	MAL4563SNN0108	0.049 kg
Roller Track ESD Kit, cut to length, 143 mm	1	1	4	1	MAL4563SNN0143	0.065 kg
Roller Track ESD Kit, cut to length, 178 mm	1	1	5	1	MAL4563SNN0178	0.082 kg
Roller Track ESD Kit, cut to length, 213 mm	1	1	6	1	MAL4563SNN0213	0.098 kg

Drawing dimensions in mm

MAT4591



MAT4593 T



Application

For roller conveyors, e.g. for:

- Material flow technology
- Manual workstations
- In- and out-feed conveyors
- Transport carts

Technical Data

Material: Base part and gray PP or black PP cover (ESD conductive)

Roller gray POM-C or black POM-C (ESD conductive)

Max. load per unit 15 kg

Inclination angle (depending on the product to be transported)

MAT4591: 4° to 5°

MAT4593: 5° to 6°

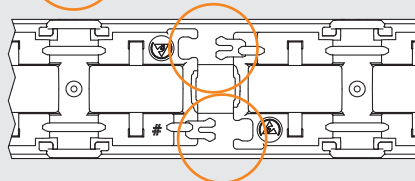
Surface resistance per Roller Track

$R_s < 35 \text{ M}\Omega$

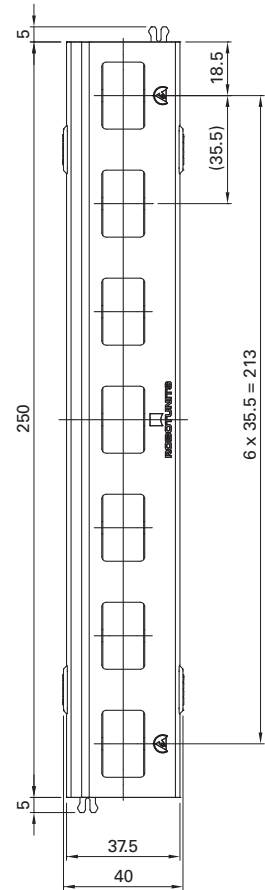
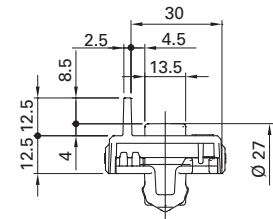
ESD Conductivity



Screw (BKS2x07) penetrates the anodized layer



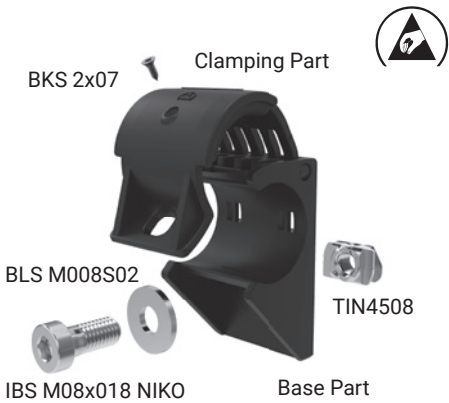
The Roller Tracks are connected using snap-in connections.



Order Code

Description	Scope of Delivery				Order Code	Weight
	Base Part	Cover	Castors	BKS2x07		
Roller Track with Side Guide Kit, 250 mm	1	1	7	-	MAT4591	0.122 kg
Roller Track with Side Guide Kit, cut to length, 108 mm	1	1	3	-	MAL4591SNN0108	0.052 kg
Roller Track with Side Guide Kit, cut to length, 143 mm	1	1	4	-	MAL4591SNN0143	0.070 kg
Roller Track with Side Guide Kit, cut to length, 178 mm	1	1	5	-	MAL4591SNN0178	0.087 kg
Roller Track with Side Guide Kit, cut to length, 213 mm	1	1	6	-	MAL4591SNN0213	0.104 kg
Roller Track ESD with Side Guide Kit, 250 mm	1	1	7	1	MAT4593	0.124 kg
Roller Track ESD with Side Guide Kit, cut to length, 108 mm	1	1	3	1	MAL4593SNN0108	0.053 kg
Roller Track ESD with Side Guide Kit, cut to length, 143 mm	1	1	4	1	MAL4593SNN0143	0.071 kg
Roller Track ESD with Side Guide Kit, cut to length, 178 mm	1	1	5	1	MAL4593SNN0178	0.089 kg
Roller Track ESD with Side Guide Kit, cut to length, 213 mm	1	1	6	1	MAL4593SNN0213	0.106 kg

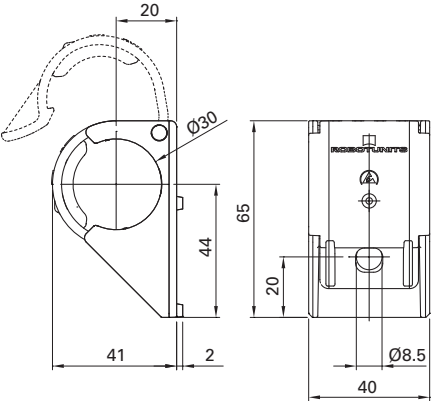
Drawing dimensions in mm



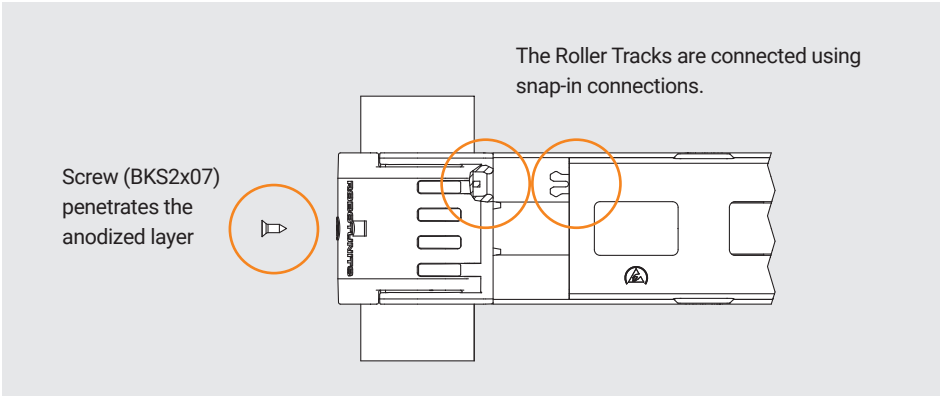
Application
Connector for fastening the Round Tube to the face or T-slot of the extrusion; Clamp can be opened without tools

Technical Data
Material: Base Part PA6, black (ESD conductive) Clamping Part PA6, black (ESD conductive) and TPV rubber, black
Fastening material: galvanized steel

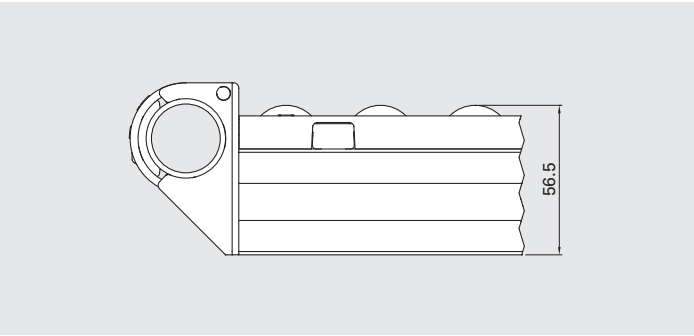
Surface resistance per Tube Clamp
 $R_s < 35\text{ M}\Omega$



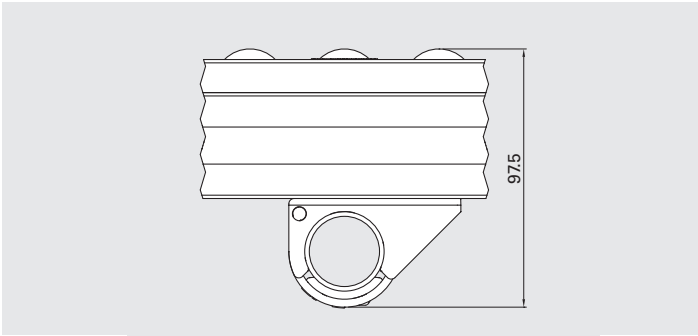
ESD Conductivity



Compact Installed Height



Ergonomic Installed Height



Order Code

Description	Scope of Delivery						Order Code	Weight
	Base Part	Clamping Part	IBS M08x018NIKO	BLS M008S02	BKS 2x07	TIN4508		
Tube Clamp ESD Front Kit	1	1	1	1	1	-	MAT3011	0.052 kg
Tube Clamp ESD T-Slot Kit	1	1	1	1	1	1	MAT3021	0.062 kg

Drawing dimensions in mm

MAT455_

Front Part

MAT4553

Stop Insert



IBS M08x025



Base Part

Application

Material stop at the start or the end of the Roller Track
In-feed, removal or transfer support in combination with Roller Track Without Side Guides

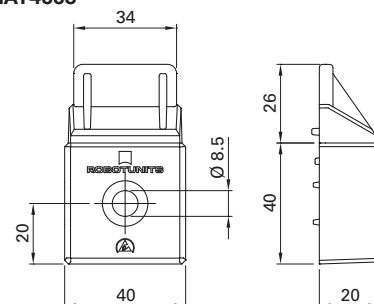
Technical Data

Material: PA6, black (ESD conductive)
Fastening material: galvanized steel

Surface resistance per Front Part

 $R_s < 35 \text{ M}\Omega$

MAT4553



MAT4555

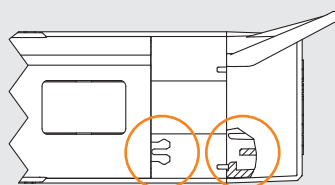
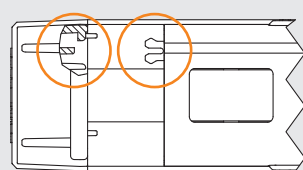
Flat Insert

IBS M08x025



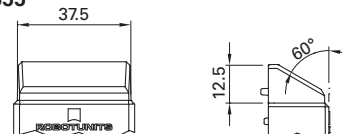
Base Part

ESD Conductivity



The Roller Tracks are connected using snap-in connections.

MAT4555



MAT4557

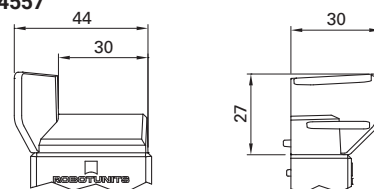
MAT4557

Left Insert

IBS M08x025



Base Part



MAT4559

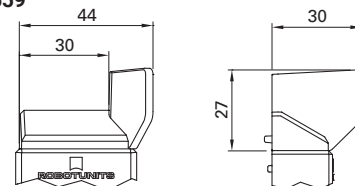
MAT4559

Right Insert

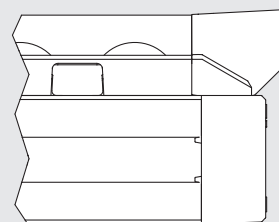
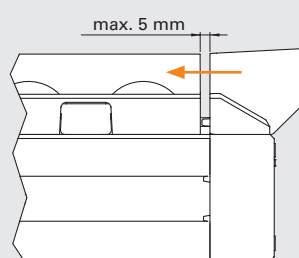
IBS M08x025



Base Part



Variable Inserts



Gap between Roller Track and Base Part can be closed by a Variable Insert

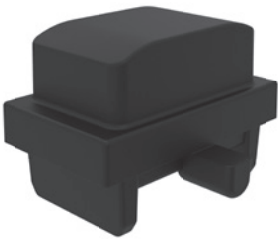
Order Code

Description	Scope of Delivery			Order Code	
	Base Part	Insert	IBS M08x025		Weight
Front Part ESD Stop Kit	1	1 (stop)	1	MAT4553	0.036 kg
Front Part ESD Flat Kit	1	1 (flat)	1	MAT4555	0.034 kg
Front Part ESD Left Kit	1	1 (left)	1	MAT4557	0.035 kg
Front Part ESD Right Kit	1	1 (right)	1	MAT4559	0.035 kg

Drawing dimensions in mm

MAT4580

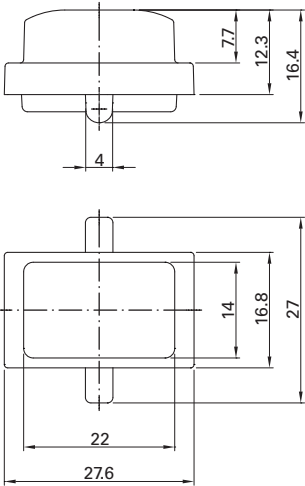
Brake For Roller Track



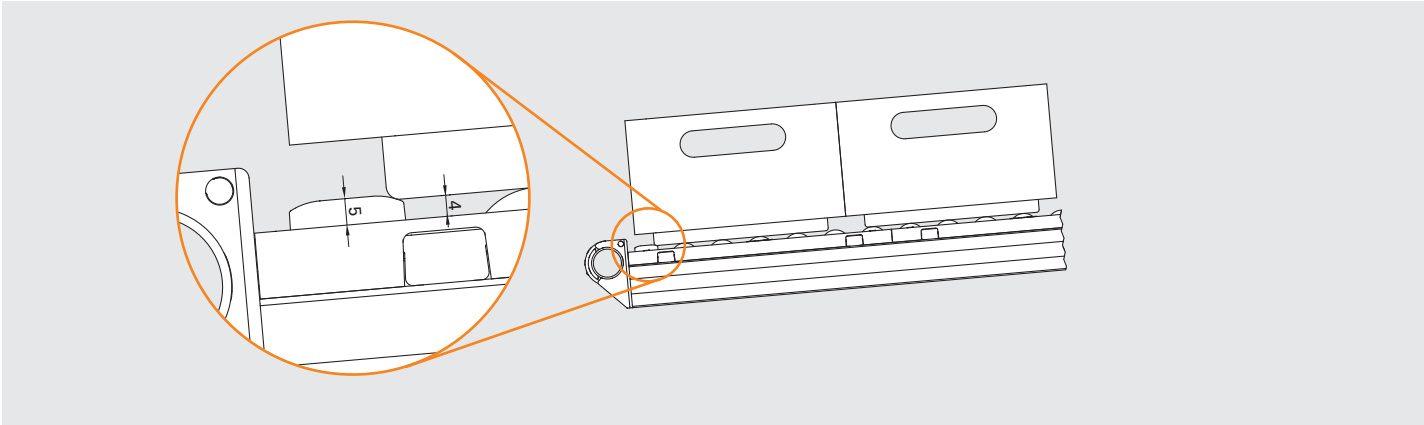
Application
Slowing down the transported product

Technical Data
Material: TPV rubber, black

- Easy retrofitting possible.
(Switch Roller with Brake)
- Depending on the product
(weight, condition of bottom, etc.)
several Brakes can be installed



Function



Order Code

Description	Order Code	Weight
Brake for Roller Track	MAT4580	0.003 kg

Drawing dimensions in mm

MAT4575

Anti-Reverse For Roller Track

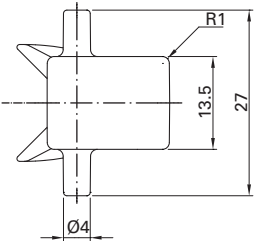
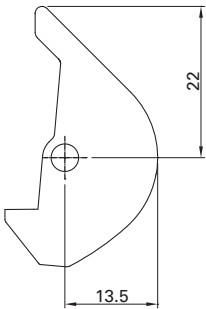


Application
Material stop at the start or end of the Roller Track
Prevents product at the back of the shelf from sliding down when product at the front is removed

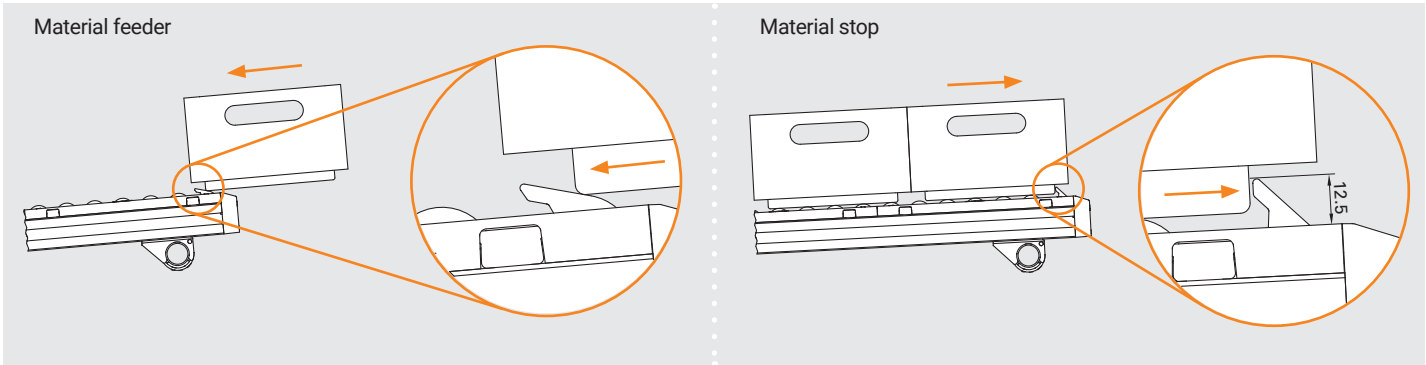
Fill level indicator through signal color
(visible = empty)

Technical Data
Material: POM-C orange

Easy retrofitting possible.
(Switch Roller with Anti-Reverse for Roller Track)



Function

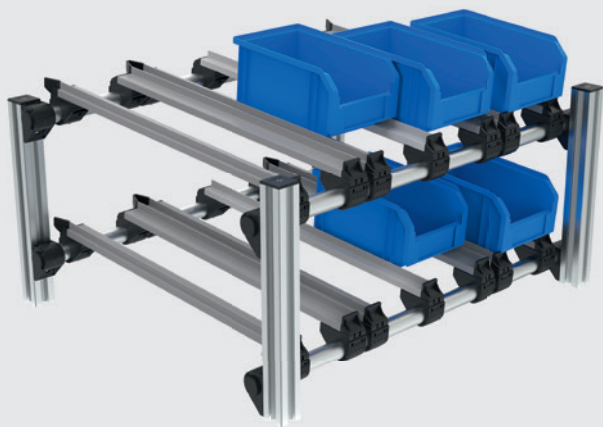


Order Code

Description	Order Code	Weight
Anti-Reverse for Roller Track Kit	MAT4575	0.006 kg

Drawing dimensions in mm

MBS PickStar GL System - Round

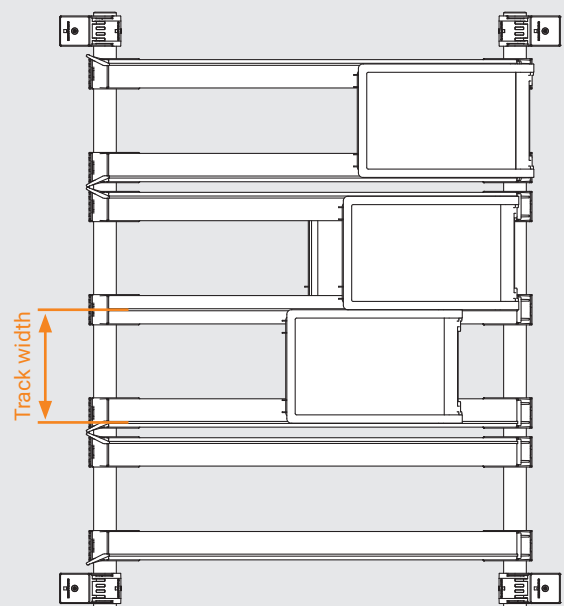
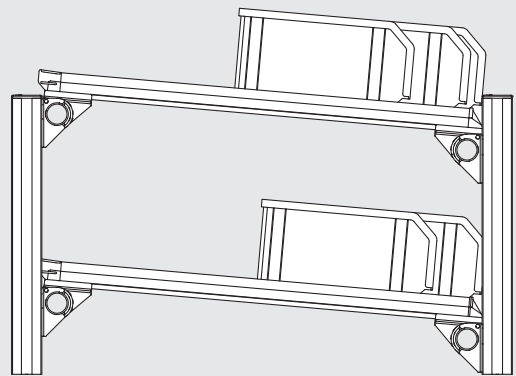


Benefits

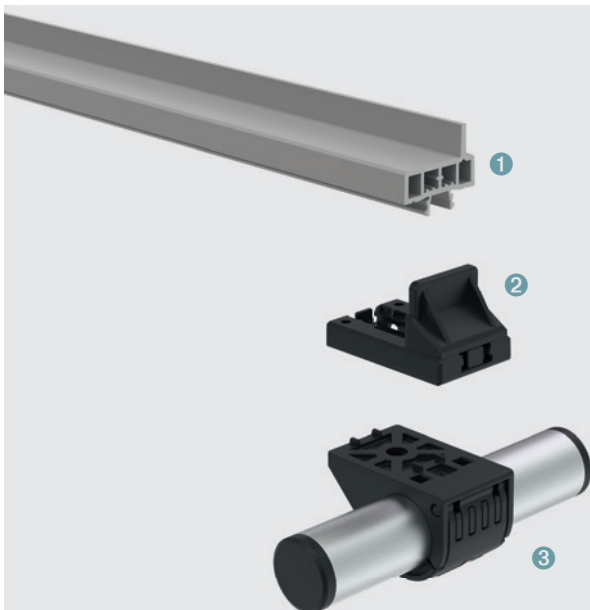
- Flexible adjustable track width
- Simpler assembly
- Freely adjustable incline

Application

Workstation with short tracks



Design MBS PickStar GL System - Round

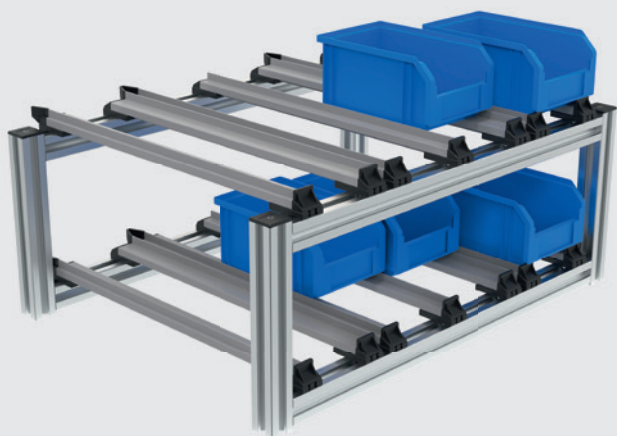


① Sliding Rail With Side Guide MAL4532 (page 126)

② Tube Adapter ESD Stop Kit MAT3033 (page 127)

③ Round Tube 30x2 PIL3002 (page 130)

MBS PickStar GL System - Square

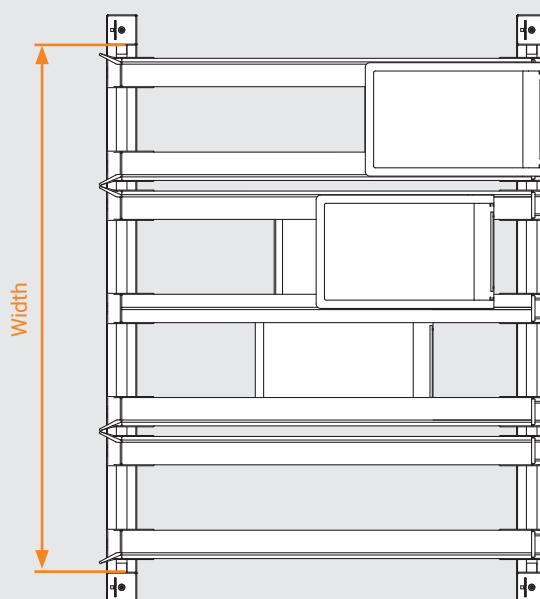
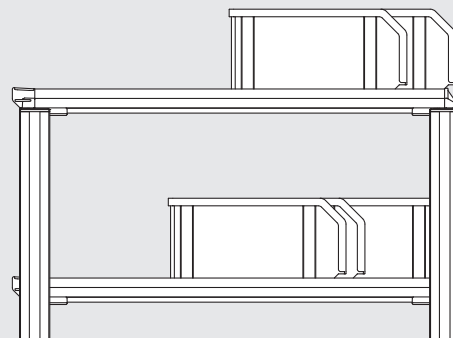


Benefits

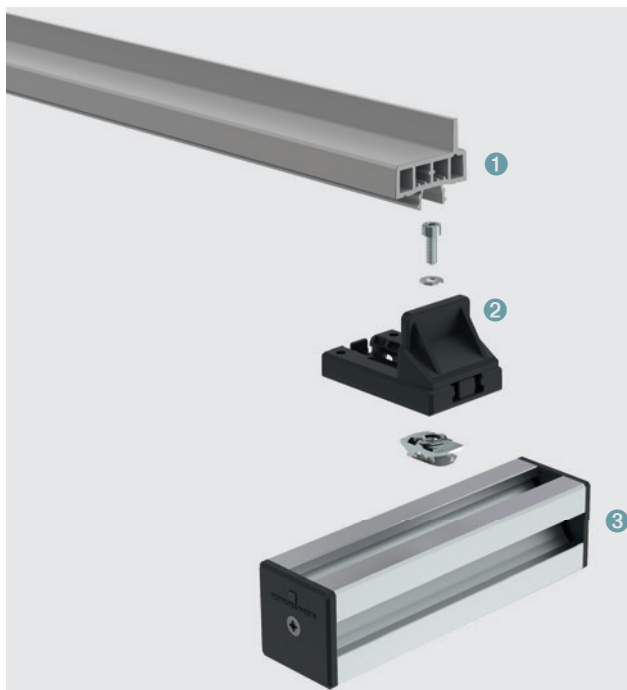
- Sturdy frame design
- Greater width
- Subsequent installation directly onto extrusions

Application

Integration into existing extrusion frame



Design MBS PickStar GL System - Square

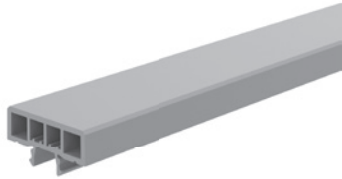


- 1 Sliding Rail With Side Guide MAL4532 (page 126)
- 2 Extrusion Adapter ESD Stop Kit MAT4033 (page 128)
- 3 Extrusion Technology (page 64)

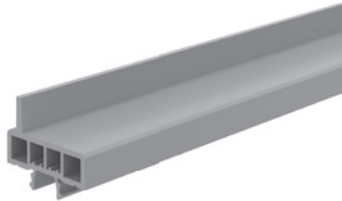
MAL453_

Sliding Rail

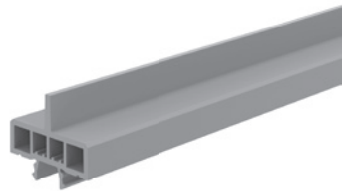
MAL4530



MAL4532



MAL4534



Application

For sliding tracks, e.g. for:
• Manual workstations

Technical Data of Sliding Rail (MAL4530)

Material: gray PVC-U (antistatic)
Modulus of elasticity E: 3000 N/mm²
Section modulus W_x: 0.5 cm³
Section modulus W_y: 1.6 cm³
Area moment of inertia I_x: 0.6 cm⁴
Area moment of inertia I_y: 2.9 cm⁴
Max. load per unit m: 1.5 kg

Technical Data of Sliding Rail With Side Guide (MAL4532)

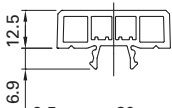
Material: gray PVC-U (antistatic)
Modulus of elasticity E: 3000 N/mm²
Section modulus W_x: 0.7 cm³
Section modulus W_y: 1.7 cm³
Area moment of inertia I_x: 1.2 cm⁴
Area moment of inertia I_y: 3.4 cm⁴
Max. load per unit m: 2.5 kg

Technical Data of Sliding Rail With Center Guide (MAL4534)

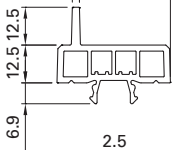
Material: gray PVC-U (antistatic)
Modulus of elasticity E: 3000 N/mm²
Section modulus W_x: 0.7 cm³
Section modulus W_y: 1.6 cm³
Area moment of inertia I_x: 1.2 cm⁴
Area moment of inertia I_y: 2.9 cm⁴
Max. load per unit m: 2.5 kg

Surface resistance per sliding rail
R_s < 100 GΩ

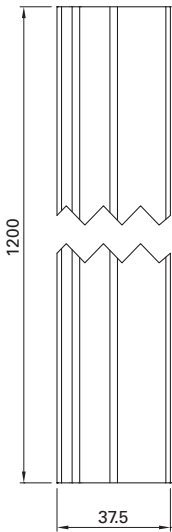
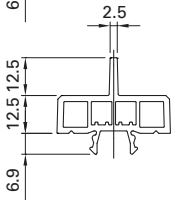
MAL4530



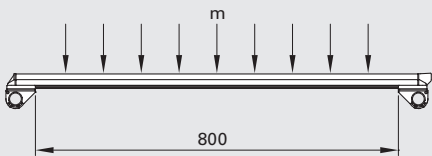
MAL4532



MAL4534

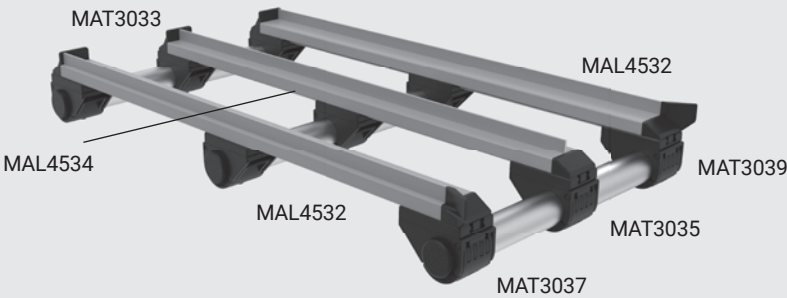


Load



m = Maximum load per 800 mm of sliding rail

Application



Order Code

Description	Order Code ¹	Weight/Meter
Sliding Rail, cut to length	MAL4530SNN	0.290 kg
Sliding Rail, stock length 1200 mm	MAL4530NNN	0.290 kg
Sliding Rail with Side Guide, cut to length	MAL4532SNN	0.330 kg
Sliding Rail with Side Guide, stock length 1200 mm	MAL4532NNN	0.330 kg
Sliding Rail with Center Guide, cut to length	MAL4534SNN	0.330 kg
Sliding Rail with Center Guide, stock length 1200 mm	MAL4534NNN	0.330 kg

1) Please complete the order by adding the length parameters for cut to length orders.
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MAT303_

Tube Adapter

MAT3031

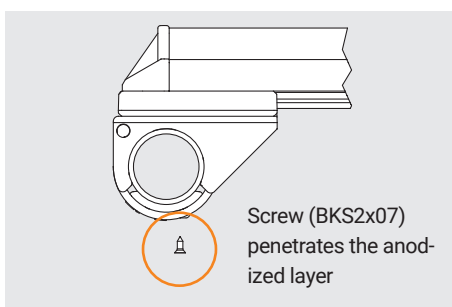
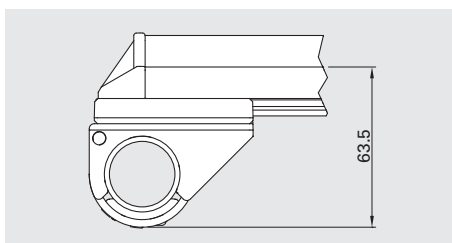
**Application**

Adapter to connect the Round Tube to the Sliding Rail

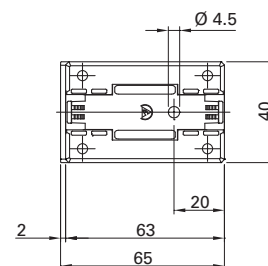
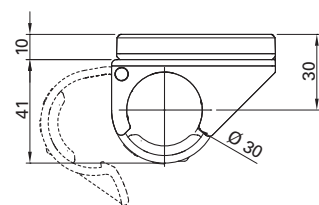
Technical Data

Material: Base part and adapter plate
PA6, black (ESD conductive)
Clamping Part PA6, black (ESD conductive)
and TPV rubber black
Inserts: PA6, black (ESD conductive)
Conductivity screw: galvanized steel

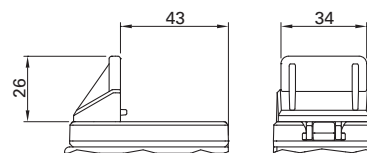
Surface resistance per Tube Adapter
 $R_s < 35 \text{ M}\Omega$

ESD Conductivity**Round Installed Height****Application**

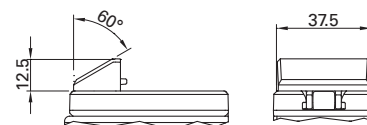
MAT3031



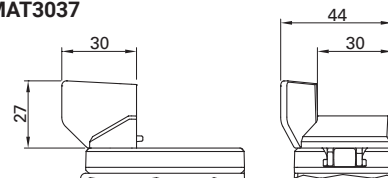
MAT3033



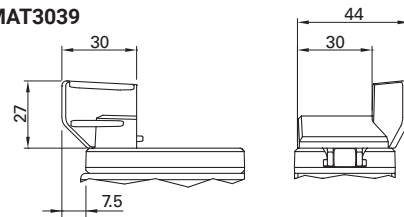
MAT3035



MAT3037



MAT3039

**Order Code**

Description	Scope of Delivery					Order Code	Weight
	Base Part	Clamping Part	Adapter plate	Insert	BKS 2x07		
Tube Adapter ESD Kit	1	1	1	-	1	MAT3031	0.054 kg
Tube Adapter ESD Stop Kit	1	1	1	1 (stop)	1	MAT3033	0.061 kg
Tube Adapter ESD Flat Kit	1	1	1	1 (flat)	1	MAT3035	0.059 kg
Tube Adapter ESD Left Kit	1	1	1	1 (left)	1	MAT3037	0.060 kg
Tube Adapter ESD Right Kit	1	1	1	1 (right)	1	MAT3039	0.060 kg

Drawing dimensions in mm

MAT403_

Extrusion Adapter

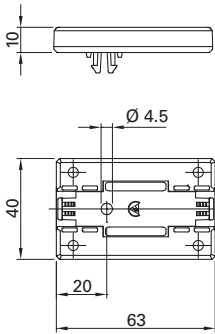
MAT4031



Application
Adapter to connect the extrusion to the Sliding Rail

Technical Data
Material: Adapter plate PA6, black (ESD conductive) Inserts: PA6, black (ESD conductive) Fastening material: galvanized steel

MAT4031

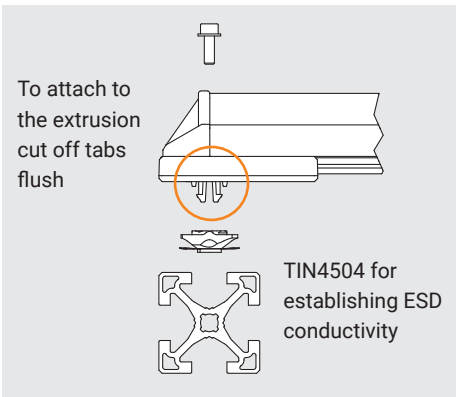


MAT4033

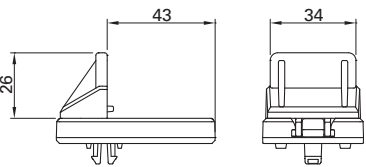


Surface resistance per Extrusion Adapter R_s
< 35 MΩ

ESD Conductivity



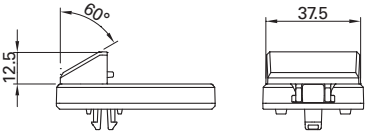
MAT4033



MAT4035



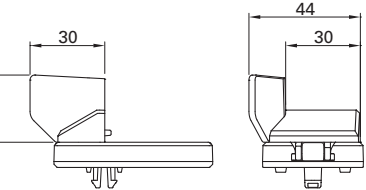
MAT4035



MAT4037



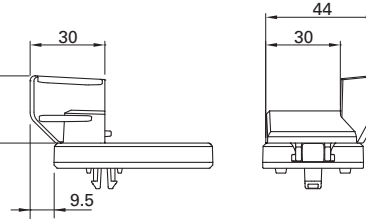
MAT4037



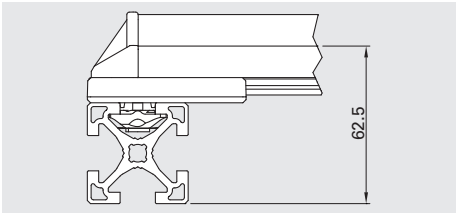
MAT4039



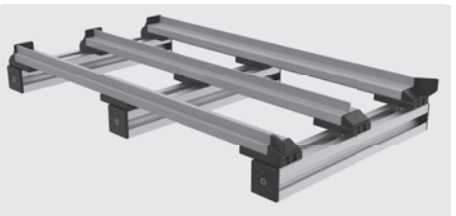
MAT4039



Round Installed Height



Application



Order Code

Description	Scope of Delivery					Order Code	Weight
	Adapter plate	Insert	SKS M04x012	BLS M004	TIN 4504		
Extrusion Adapter ESD Kit	1	-	1	1	1	MAT4031	0.027 kg
Extrusion Adapter ESD Stop Kit	1	1 (stop)	1	1	1	MAT4033	0.034 kg
Extrusion Adapter ESD Flat Kit	1	1 (flat)	1	1	1	MAT4035	0.032 kg
Extrusion Adapter ESD Left Kit	1	1 (left)	1	1	1	MAT4037	0.033 kg
Extrusion Adapter ESD Right Kit	1	1 (right)	1	1	1	MAT4039	0.033 kg

MAT903_

Adapter

MAT9031

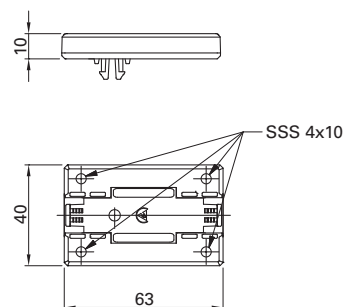
**Application**

Connector for fastening the Sliding Rail for protruding sections or partitioned Sliding Rails

Technical Data

Material: Adapter plate PA6, black (ESD conductive)
 Inserts: PA6, black (ESD conductive)
 Fastening material: galvanized steel

MAT9031



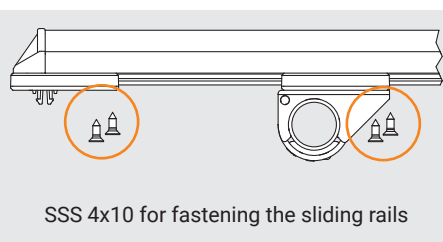
MAT9033



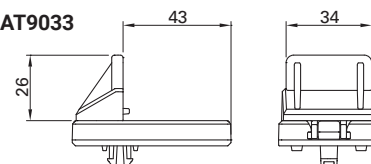
Surface resistance per Adapter
 $R_s < 35 \text{ M}\Omega$

Round Protrusion

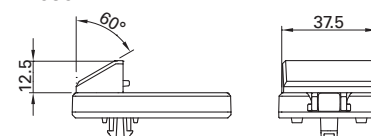
MAT9035



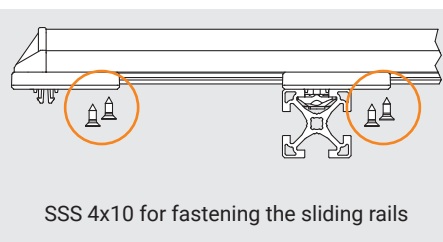
MAT9033



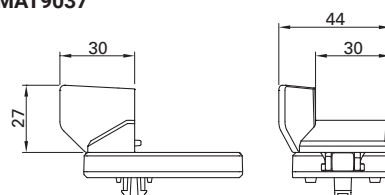
MAT9035



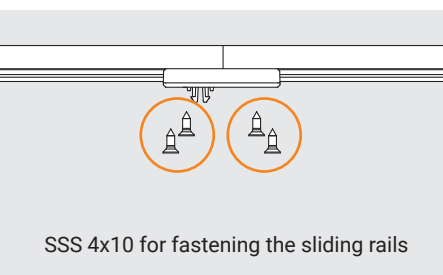
MAT9037

**Square Protrusion**

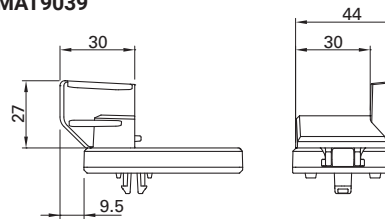
MAT9037



MAT9039

**Partitioning**

MAT9039

**Order Code**

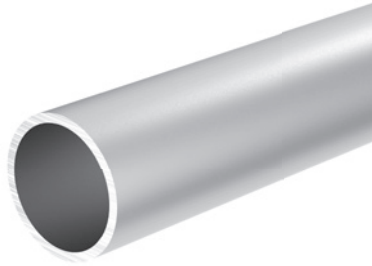
Description	Scope of Delivery			Order Code	Weight
	Adapter plate	Insert	SSS 4x10		
Adapter ESD Kit	1	-	4	MAT9031	0.017 kg
Adapter ESD Stop Kit	1	1 (stop)	4	MAT9033	0.024 kg
Adapter ESD Flat Kit	1	1 (flat)	4	MAT9035	0.022 kg
Adapter ESD Left Kit	1	1 (left)	4	MAT9037	0.023 kg
Adapter ESD Right Kit	1	1 (right)	4	MAT9039	0.023 kg

Drawing dimensions in mm

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PIL3002

Round Tube 30x2

**Application**

- Universally useful, e.g. as
- Material flow technology
 - Manual workstations
 - In- and out-feed conveyors
 - Signage and shelving
 - Transport carts
 - Table frames

Technical Data

Material: EN AW-6063-T66 clear anodized aluminum

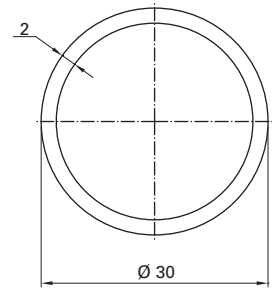
Section modulus $W_x = W_y$: 1.16 cm³

Area moment of inertia

against x + y $I_x = I_y$: 1.73 cm⁴

against torsion I_t : 3.47 cm⁴

Cross sectional area A: 175.9 mm²



Extrusion, stock length: 6050 mm
(usable length 6000 mm)

Order Code

Description	Order Code ¹	Weight/Meter
Round Tube 30x2, cut to length	PIL3002SNN	0.475 kg
Round Tube 30x2, stock length 6050 mm	PIL3002NNN	0.475 kg
Round Tube 30x2, 175 pcs., stock length 6050 mm	PIL3002PAC	0.475 kg

CAP3002

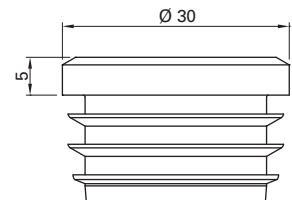
End Cap For Round Tube 30x2

**Application**

End Cap for Round Tube

Technical Data

Material: PE, black



Order Code

Description	Order Code	Weight
End Cap for Round Tube 30x2	CAP3002	0.004 kg

1) Please complete the order by adding the length parameters for cut to length orders.
Drawing dimensions in mm

MAT3050

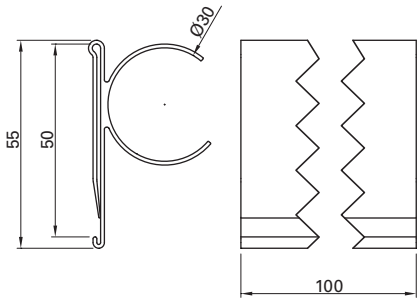
Label Holder 50x100



Application
Labels can be inserted into transparent Label Holder
Label Holder can be snapped on directly to Round Tube

Technical Data
Material: PVC transparent

Max. label size 50x100 mm



Order Code

Order Code		Weight
Description		
Label Holder 50x100	MAT3050	0.023 kg

Drawing dimensions in mm

