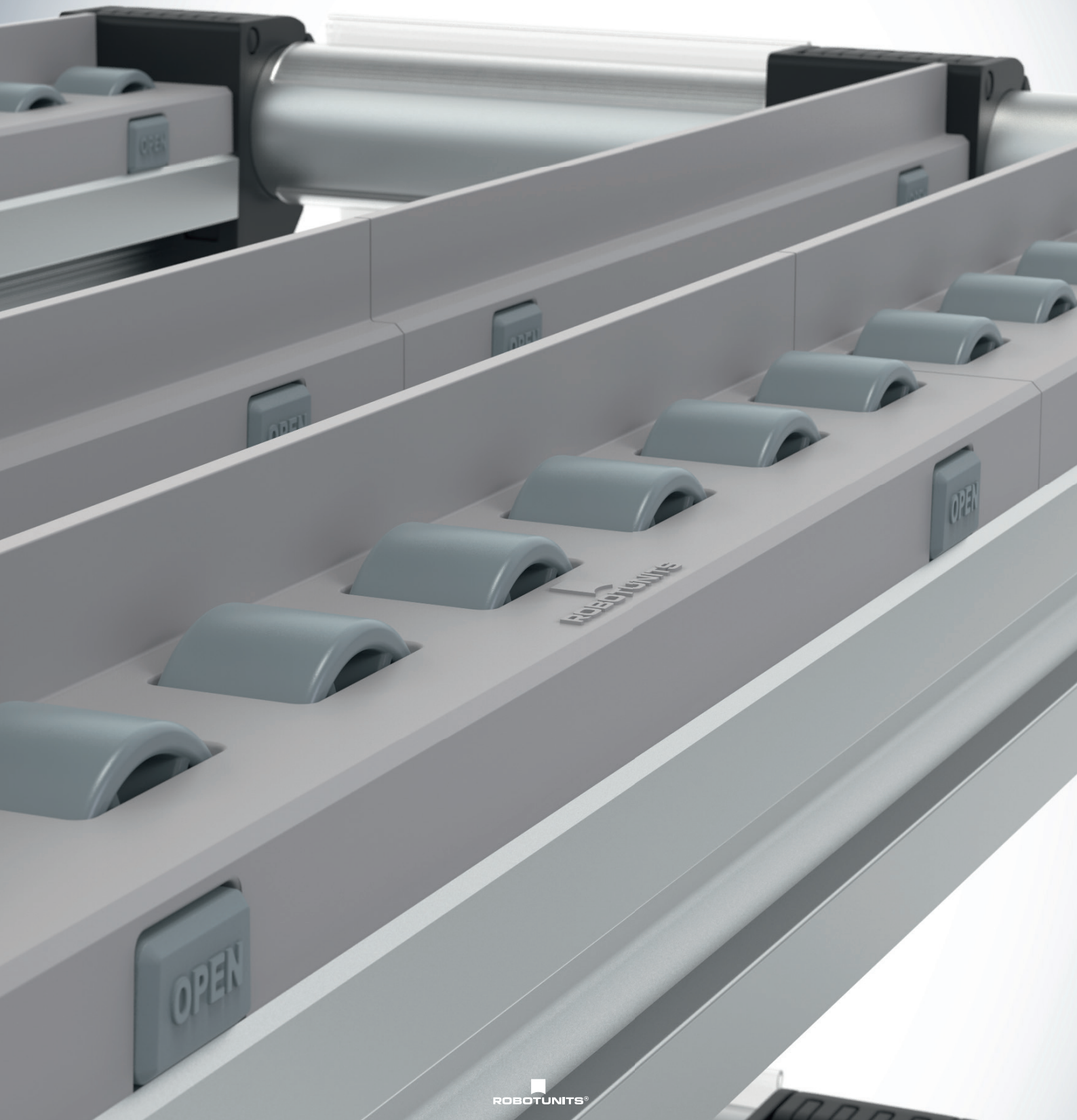




THE VERSATILE MBS PICKSTAR



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

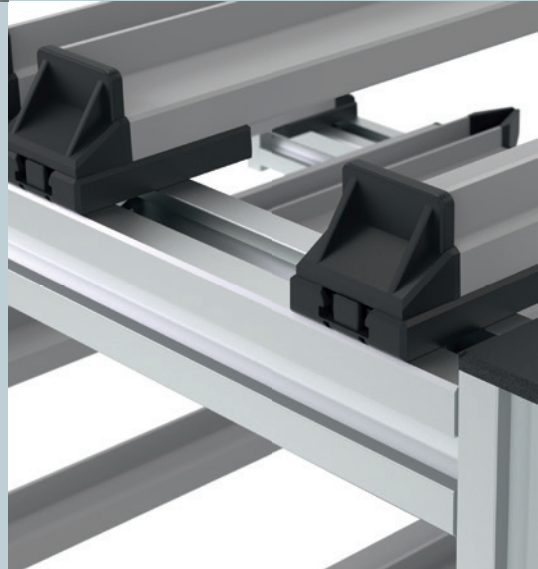
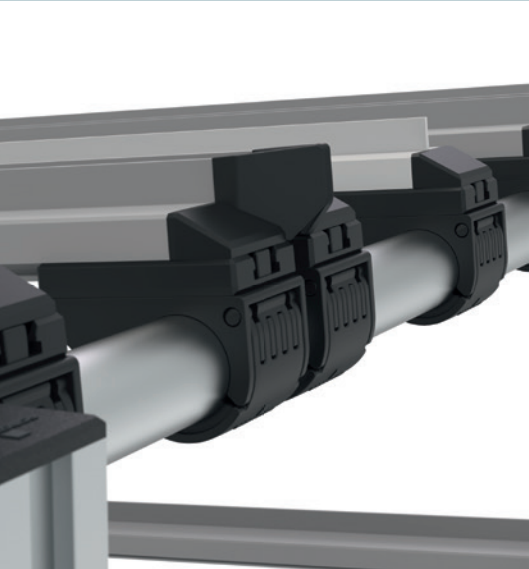
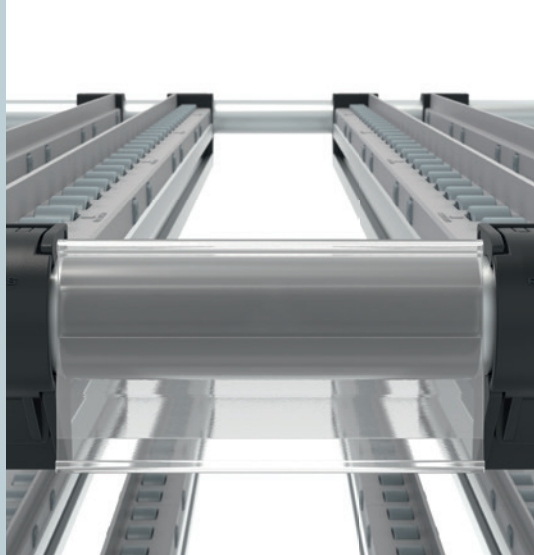
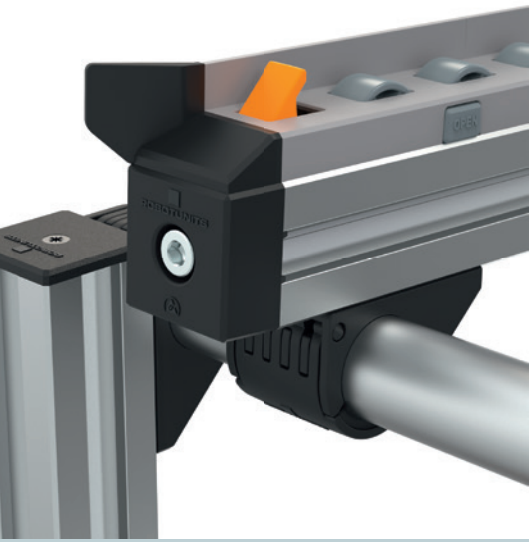
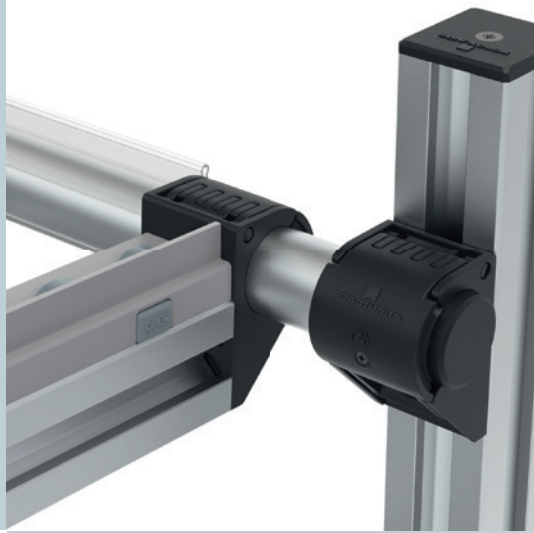
- all components fully compatible with the Robotunits Modular Automation System
- multifunctional stop elements allow safe in-feed and removal of material
- unlimited applications due to 14 mm T-slot
- reduced inventory cost due to multifunctional parts



Save time, reduce cost

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

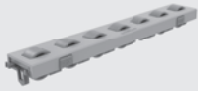





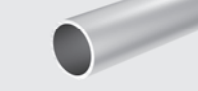
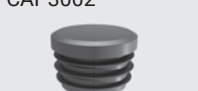
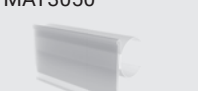




The versatile MBS PickStar

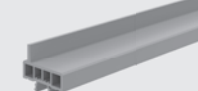




MBS PickStar RL System

Page 114

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

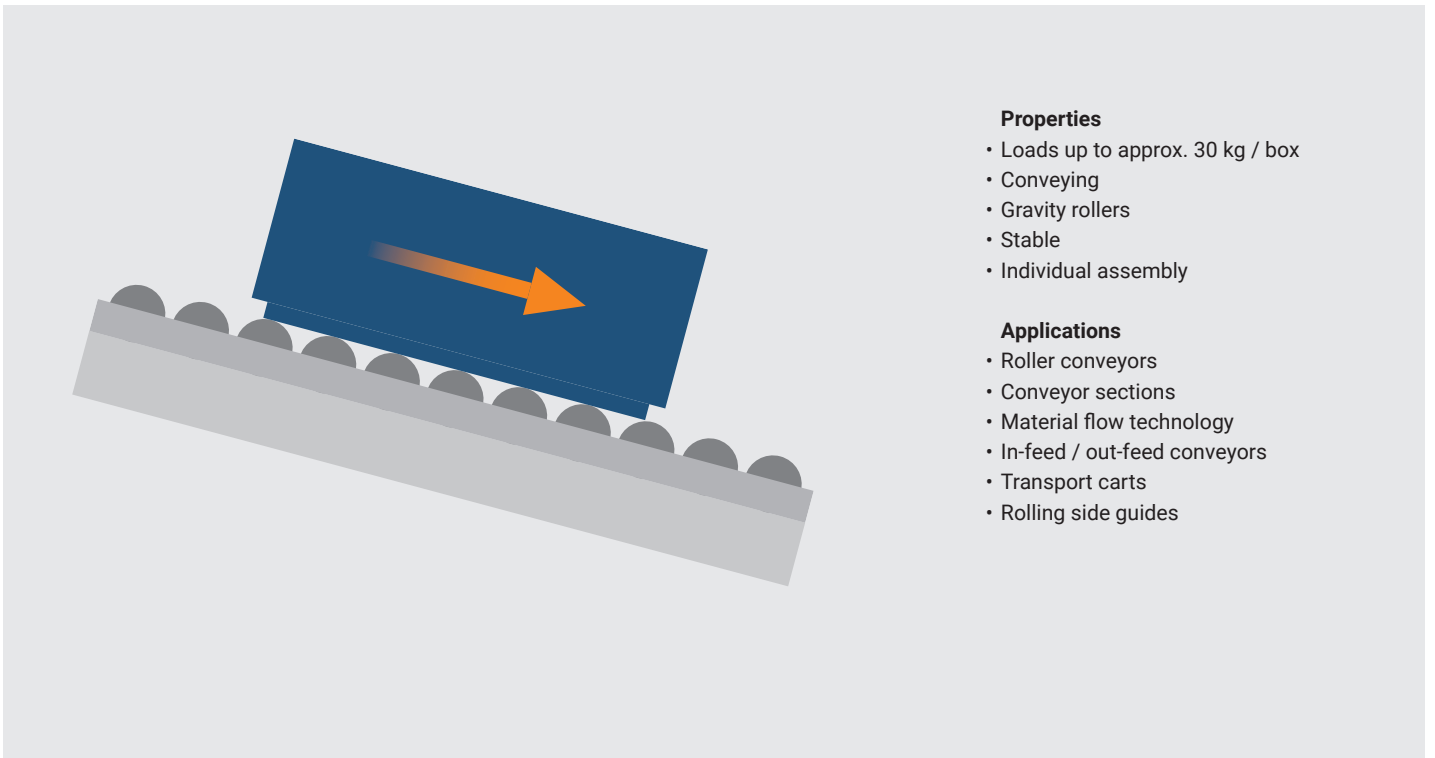
MBS PickStar GL System

Page 124

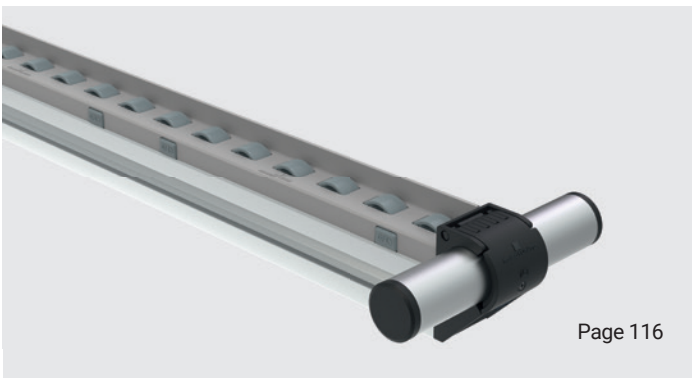
<p>Sliding Rail MAL453_</p>  <p>P. 126</p>	<p>Tube Adapter MAT303_</p>  <p>P. 127</p>	<p>Extrusion Adapter MAT403_</p>  <p>P. 128</p>	<p>Adapter MAT903_</p>  <p>P. 129</p>	<p>Round Tube 30x2 PIL3002</p>  <p>P. 130</p>
<p>End Cap for Round Tube 30x2 CAP3002</p>  <p>P. 130</p>	<p>Label Holder 50x100 MAT3050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



MBS PickStar RL System



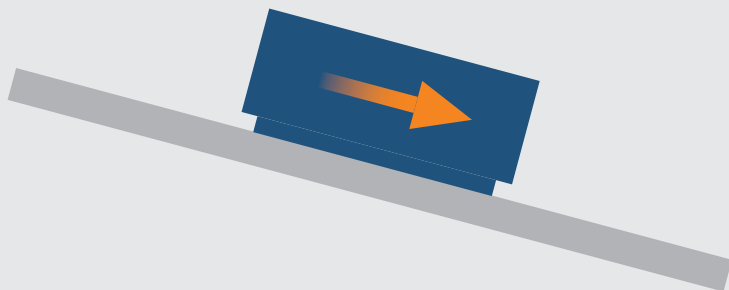
Compact System Options



Ergonomic System Options



MBS PickStar GL System



Properties

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

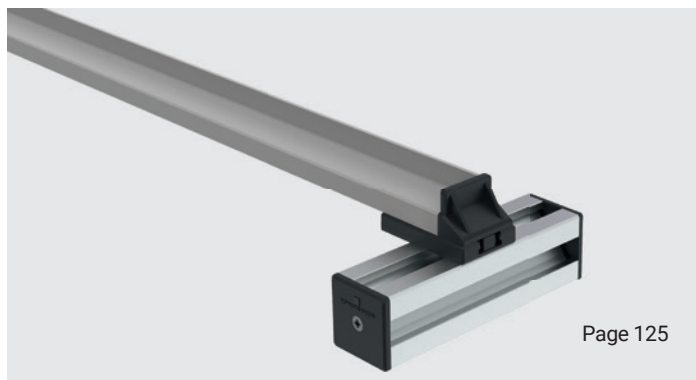
Applications

- Manual workstation

Round System Options



Square System Options



MBS PickStar RL System - Compact



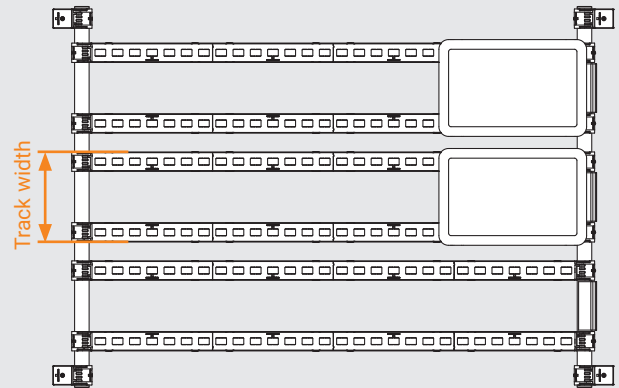
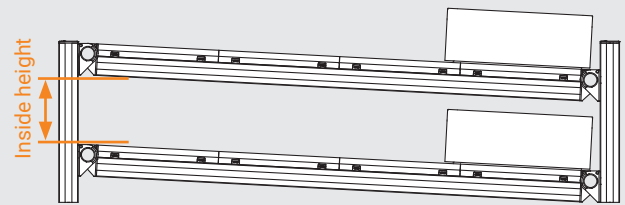
Benefits

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

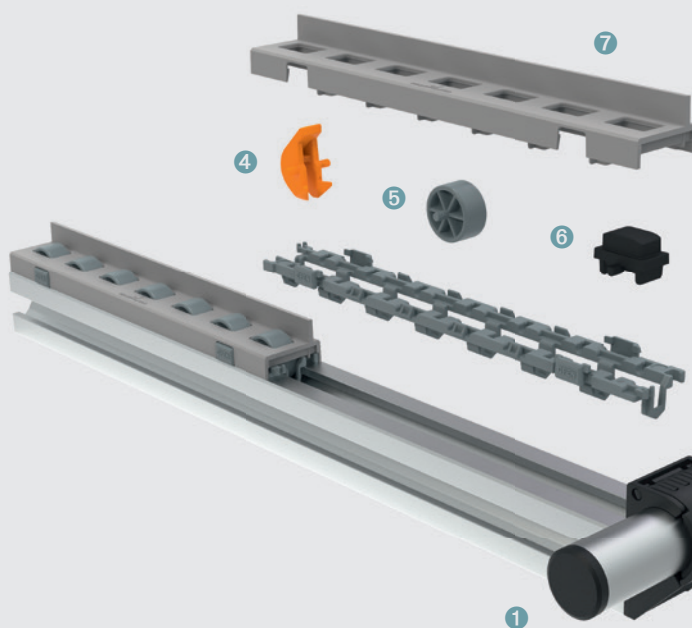
Application

- 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



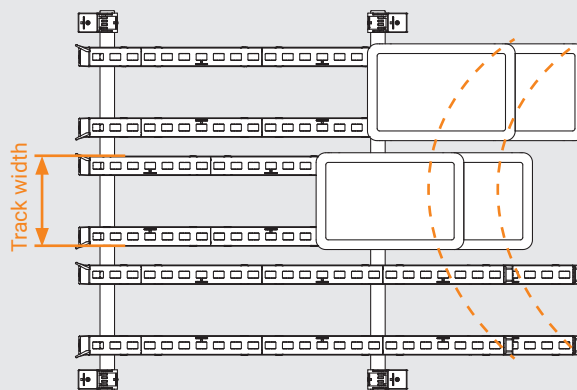
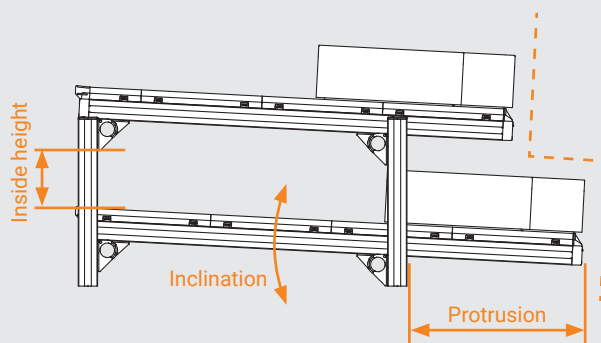
Benefits

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

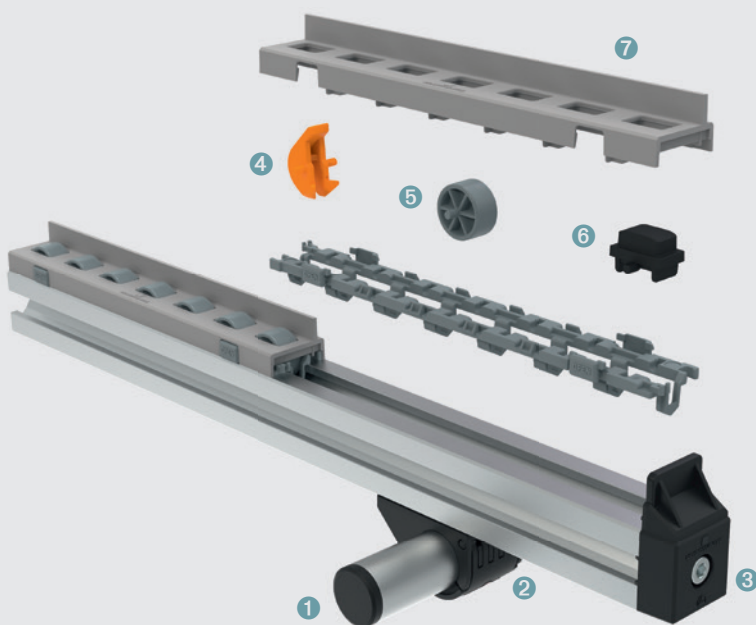
Application

- 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)

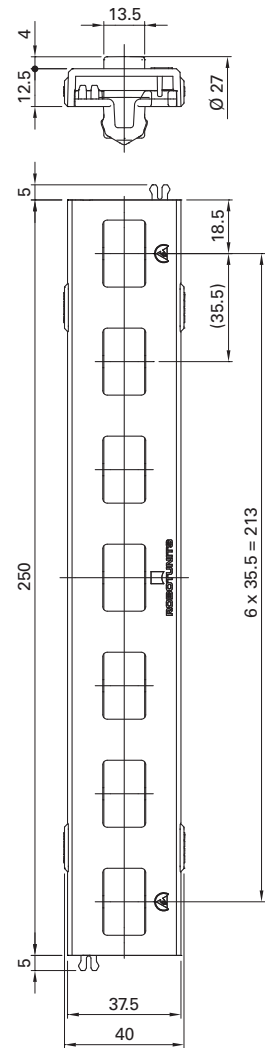
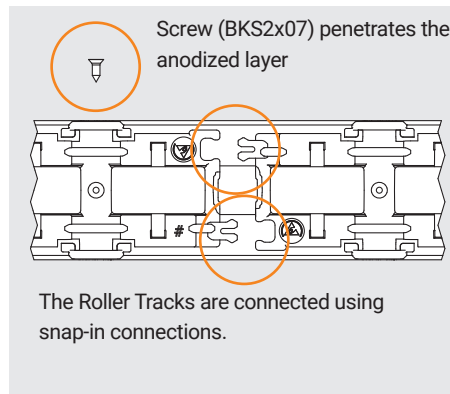
MAT4561: 4° to 5°

MAT4563: 5° to 6°

Surface resistance per Roller Track

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

ESD Conductivity



Order Code

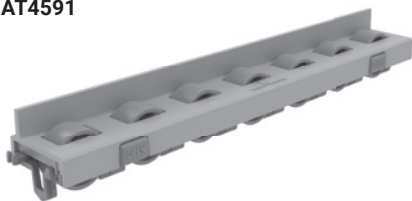
Description	Scope of Delivery				Order Code	Weight
	Base Part	Cover	Castors	BKS2x07		
Roller Track Kit, 250 mm	1	1	7	-	MAT4561	0.112 kg
Roller Track Kit, cut to length, 108 mm	1	1	3	-	MAL4561SNN0108	0.048 kg
Roller Track Kit, cut to length, 143 mm	1	1	4	-	MAL4561SNN0143	0.064 kg
Roller Track Kit, cut 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

MA_459_

Roller Track With Side Guide

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°

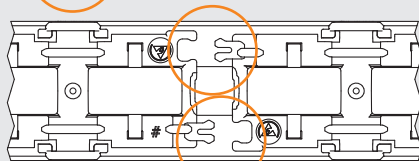
Surface resistance per Roller Track

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

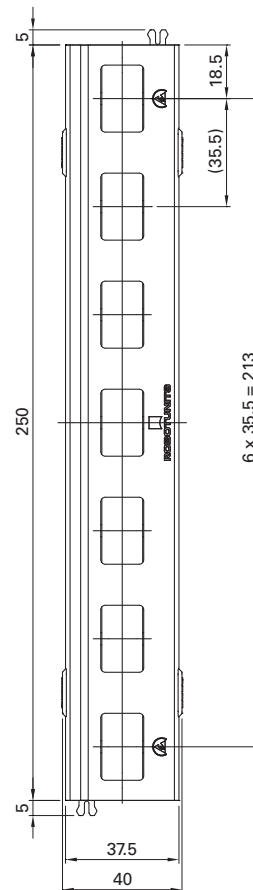
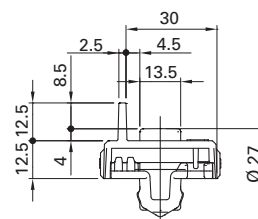
ESD Conductivity



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

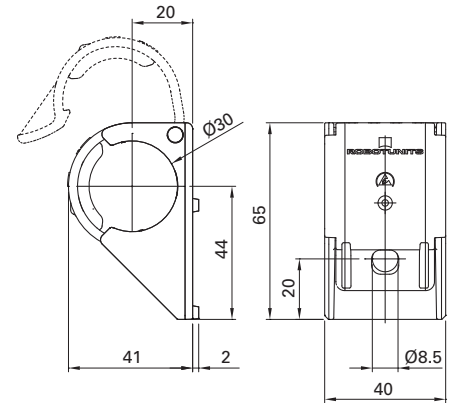
**Application**

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

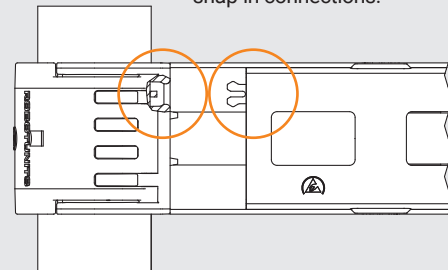
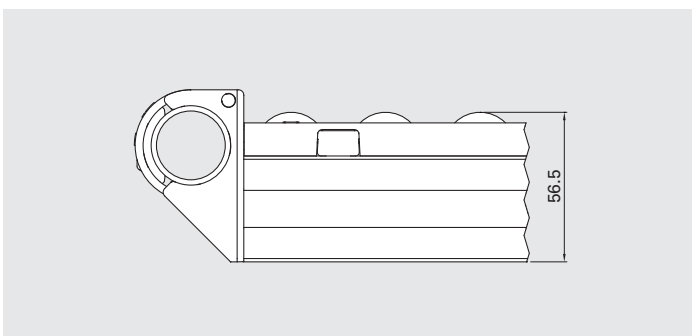
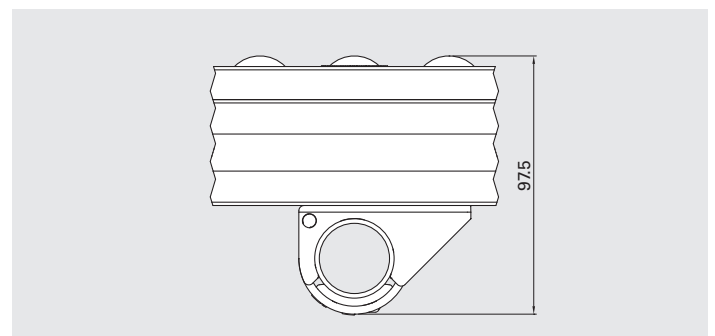
Surface resistance per Tube Clamp
 $R_s < 35 M\Omega$

**ESD Conductivity**

Screw (BKS2x07) penetrates the anodized layer



The Roller Tracks are connected using snap-in connections.

**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

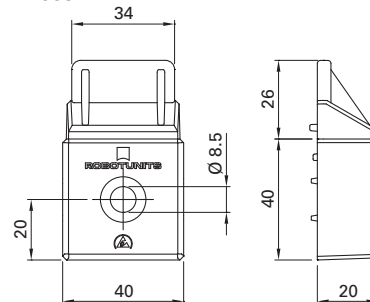
Material stop at the start or the end of the Roller Track
In-feed, removal or transfer support in combination with Roller Track Without Side Guides

Technical Data

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

Surface resistance per Front Part
 $R_s < 35 M\Omega$

MAT4553



MAT4555

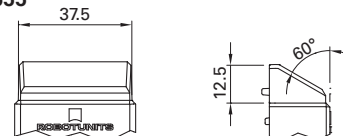
Flat Insert

IBS M08x025



Base Part

MAT4555



MAT4557

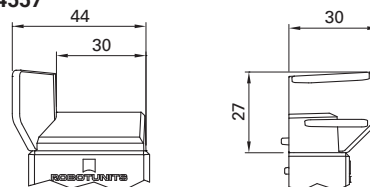
Left Insert

IBS M08x025



Base Part

MAT4557



MAT4559

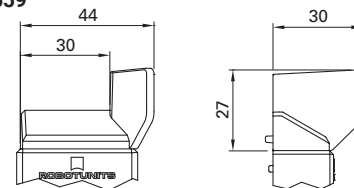
Right Insert

IBS M08x025

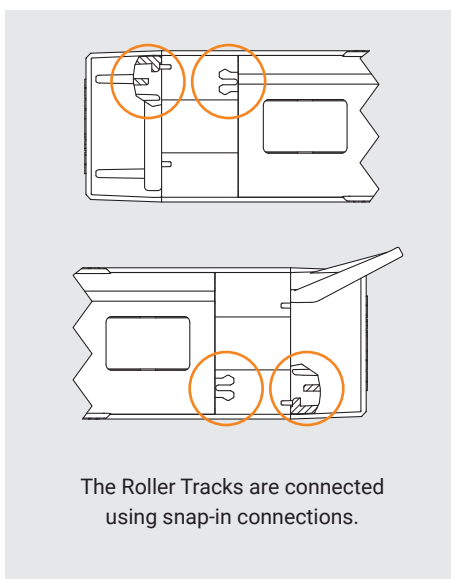


Base Part

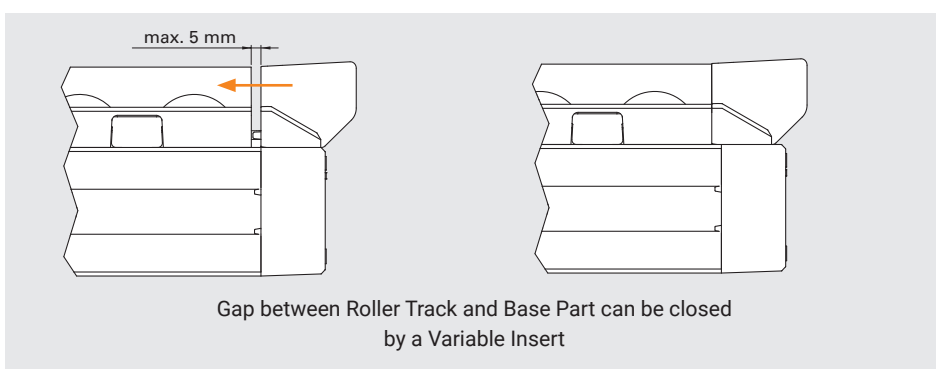
MAT4559



ESD Conductivity



Variable Inserts



Order Code

Description	Scope of Delivery			Order Code	Weight
	Base Part	Insert	IBS M08x025		
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



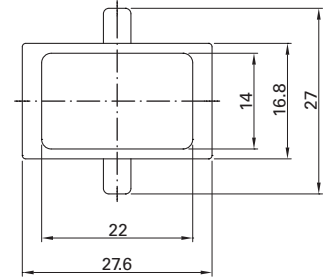
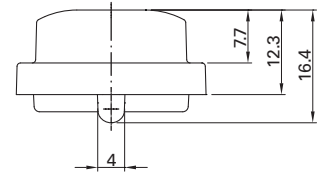
Application

Slowing down the transported product

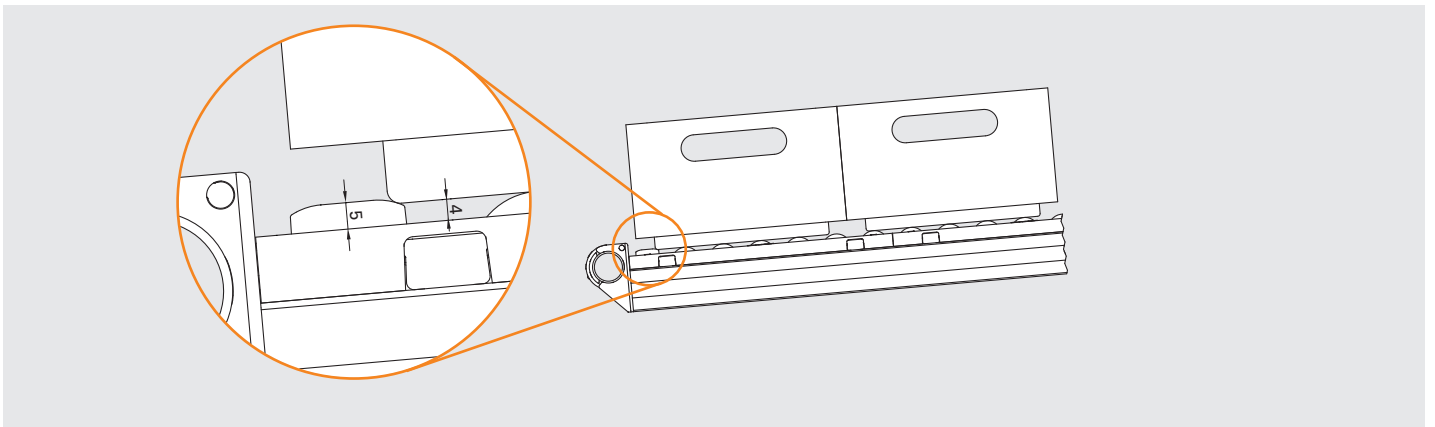
Technical Data

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



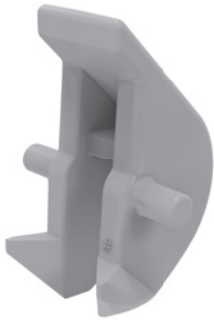
Order Code

Description	Order Code	Weight
Brake for Roller Track	MAT4580	0.003 kg

Drawing dimensions in mm

MAT4575

Anti-Reverse For Roller Track



Application

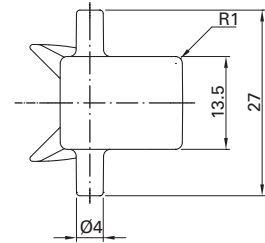
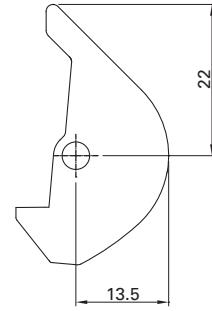
Material stop at the start or end of the Roller Track
Prevents product at the back of the shelf from sliding down when product at the front is removed

Fill level indicator through signal color (visible = empty)

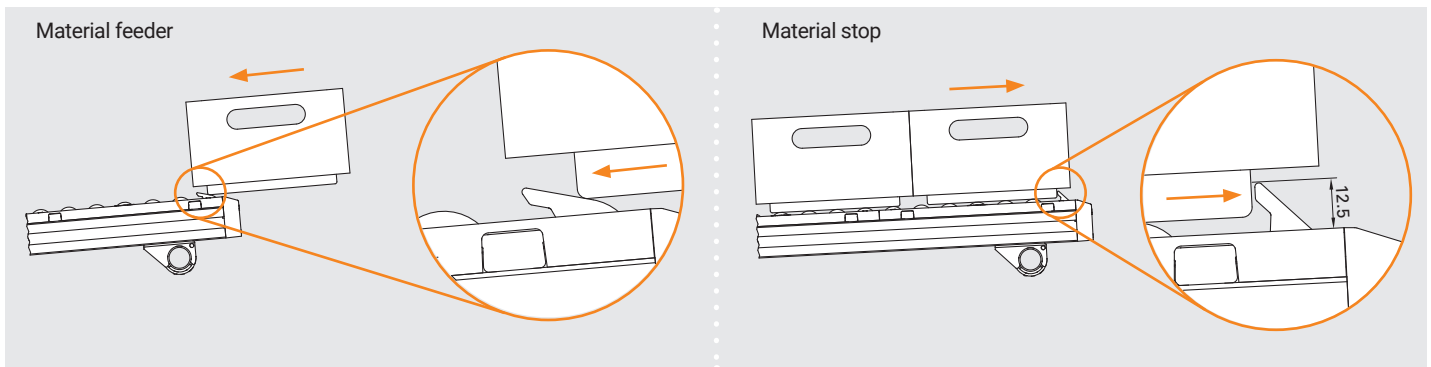
Technical Data

Material: POM-C orange

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



Function

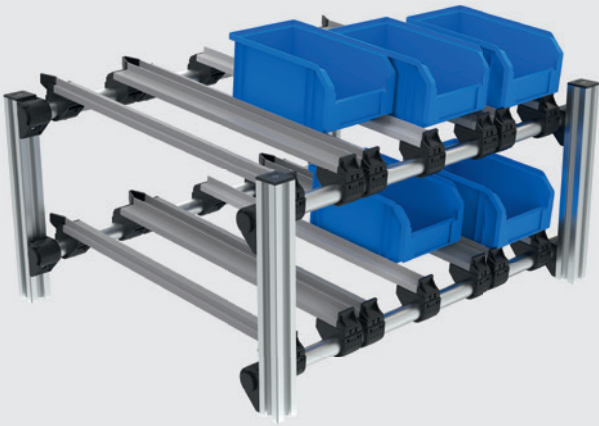


Order Code

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

Drawing dimensions in mm

MBS PickStar GL System - Round

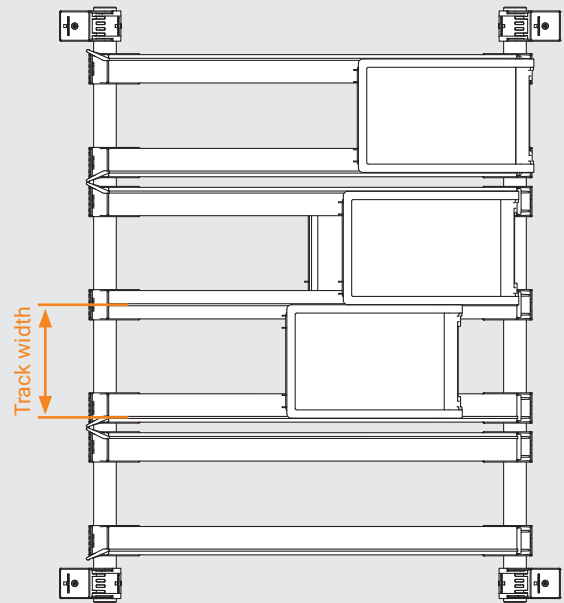
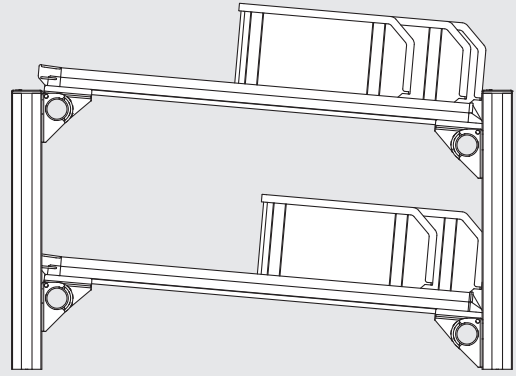


Benefits

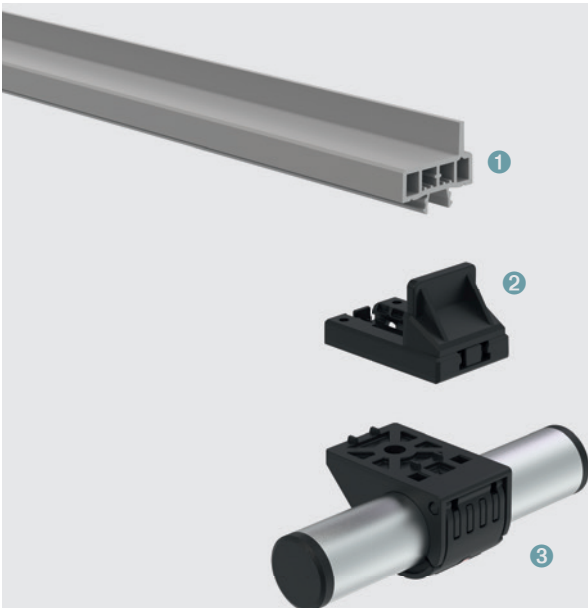
- Flexible adjustable track width
- Simpler assembly
- Freely adjustable incline

Application

Workstation with short tracks



Design MBS PickStar GL System - Round

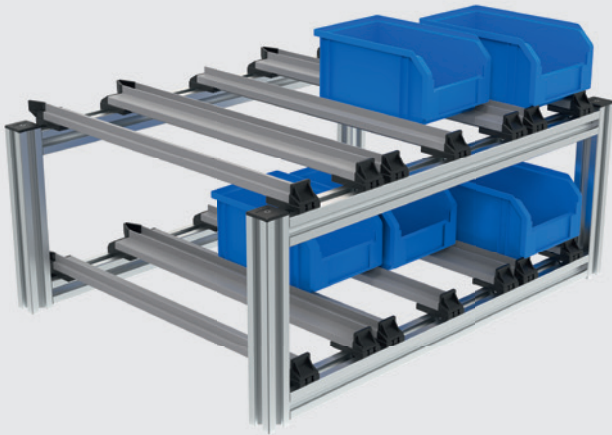


① Sliding Rail With Side Guide MAL4532 (page 126)

② Tube Adapter ESD Stop Kit MAT3033 (page 127)

③ Round Tube 30x2 PIL3002 (page 130)

MBS PickStar GL System - Square

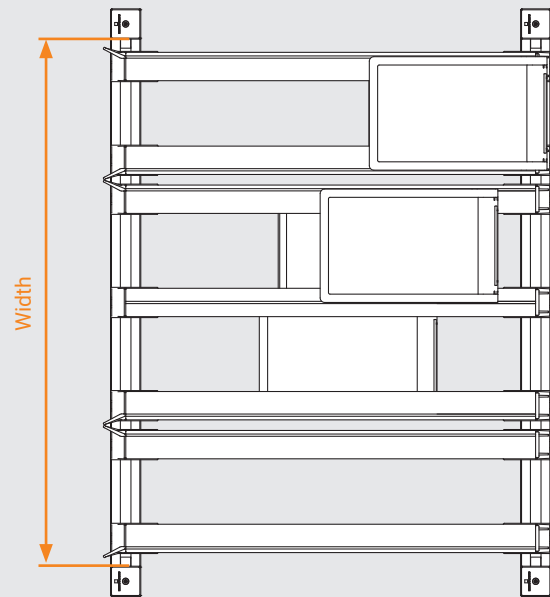
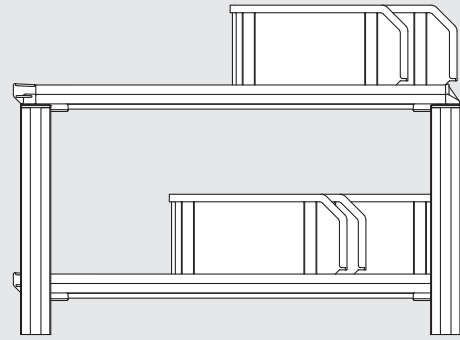


Benefits

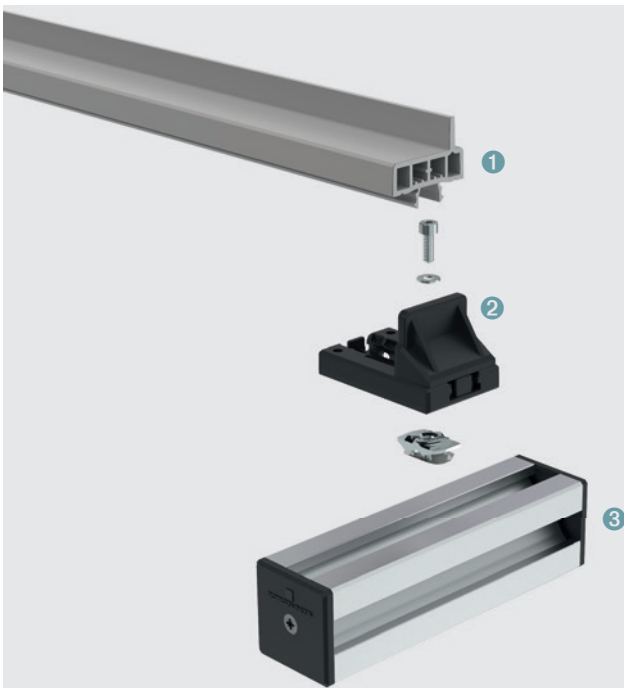
- Sturdy frame design
- Greater width
- Subsequent installation directly onto extrusions

Application

Integration into existing extrusion frame

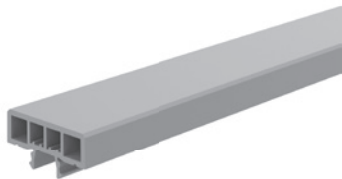


Design MBS PickStar GL System - Square

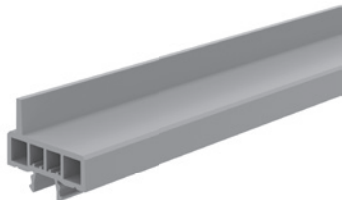


- 1 Sliding Rail With Side Guide MAL4532 (page 126)
- 2 Extrusion Adapter ESD Stop Kit MAT4033 (page 128)
- 3 Extrusion Technology (page 64)

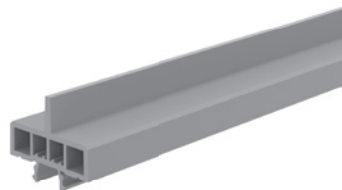
MAL4530



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/mm ²
Section modulus W_x :	0.5 cm ³
Section modulus W_y :	1.6 cm ³
Area moment of inertia I_x :	0.6 cm ⁴
Area moment of inertia I_y :	2.9 cm ⁴
Max. load per unit m:	1.5 kg

Technical Data of Sliding Rail With Side Guide (MAL4532)

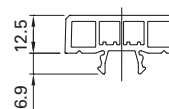
Material:	gray PVC-U (antistatic)
Modulus of elasticity E:	3000 N/mm ²
Section modulus W_x :	0.7 cm ³
Section modulus W_y :	1.7 cm ³
Area moment of inertia I_x :	1.2 cm ⁴
Area moment of inertia I_y :	3.4 cm ⁴
Max. load per unit m:	2.5 kg

Technical Data of Sliding Rail With Center Guide (MAL4534)

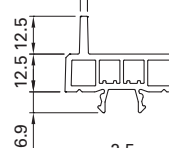
Material:	gray PVC-U (antistatic)
Modulus of elasticity E:	3000 N/mm ²
Section modulus W_x :	0.7 cm ³
Section modulus W_y :	1.6 cm ³
Area moment of inertia I_x :	1.2 cm ⁴
Area moment of inertia I_y :	2.9 cm ⁴
Max. load per unit m:	2.5 kg

Surface resistance per sliding rail
 $R_s < 100 \text{ G}\Omega$

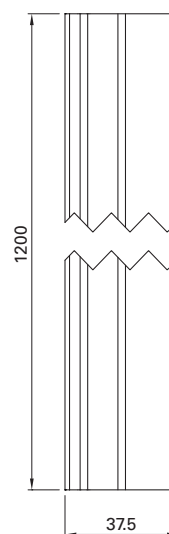
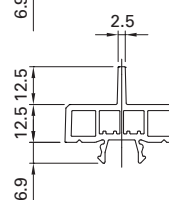
MAL4530



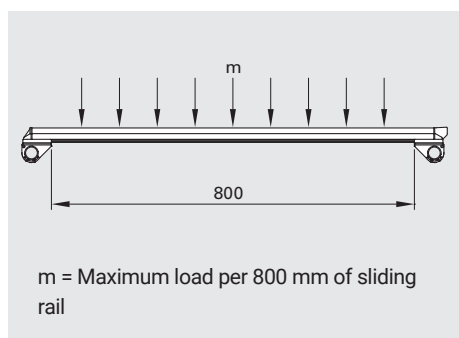
MAL4532



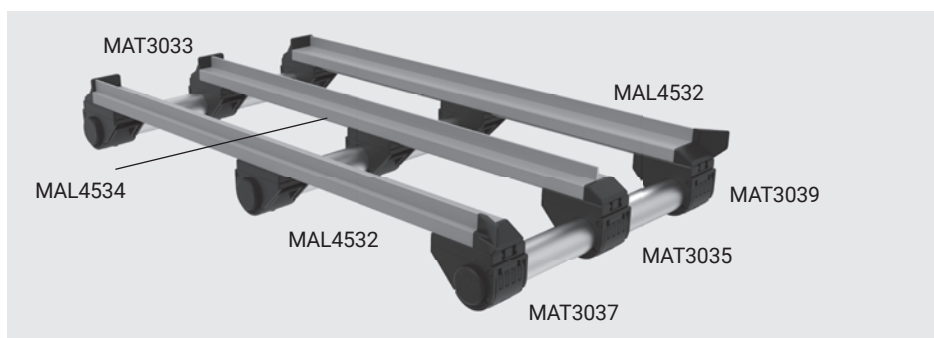
MAL4534



Load



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.
 Drawing dimensions in mm

MAT303_

Tube Adapter

MAT3031



Application

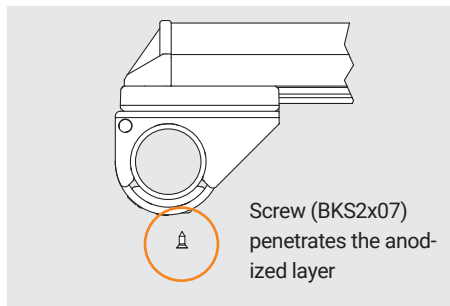
Adapter to connect the Round Tube to the Sliding Rail

Technical Data

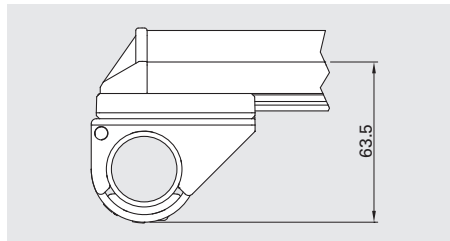
Material: Base part and adapter plate PA6, black (ESD conductive)
 Clamping Part PA6, black (ESD conductive) and TPV rubber black
 Inserts: PA6, black (ESD conductive)
 Conductivity screw: galvanized steel

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

ESD Conductivity



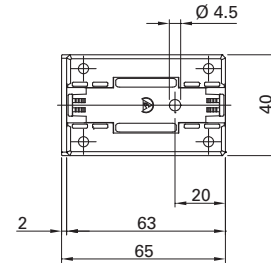
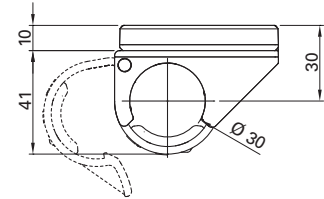
Round Installed Height



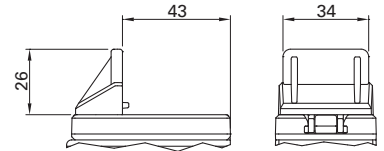
Application



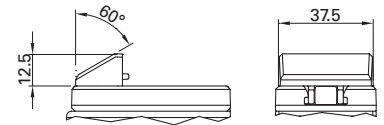
MAT3031



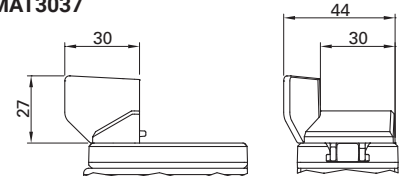
MAT3033



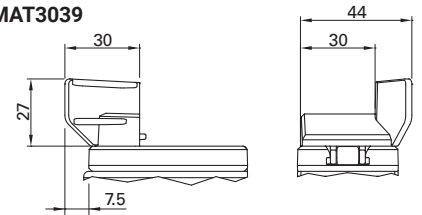
MAT3035



MAT3037



MAT3039



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

MAT4031

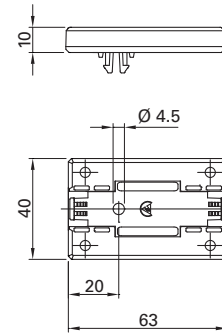
**Application**

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



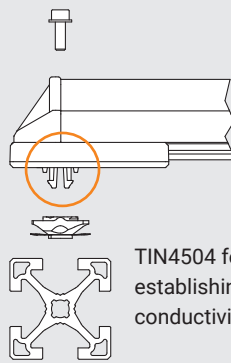
MAT4033



Surface resistance per Extrusion Adapter R_s
< 35 M Ω

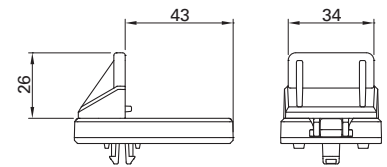
ESD Conductivity

To attach to the extrusion cut off tabs flush



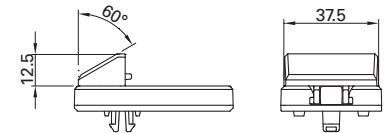
TIN4504 for establishing ESD conductivity

MAT4033



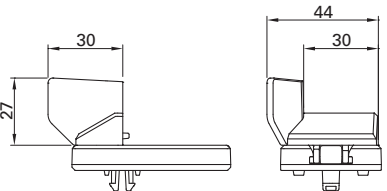
MAT4035

MAT4035



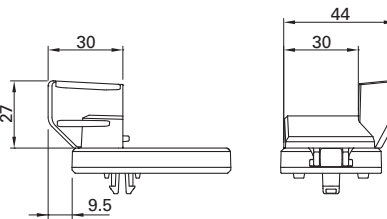
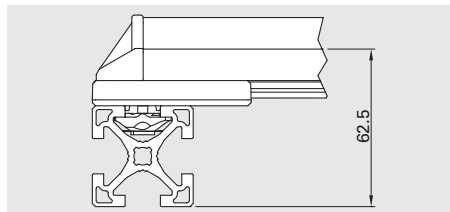
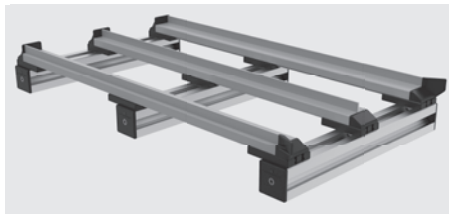
MAT4037

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

Drawing dimensions in mm

MAT903_

Adapter

MAT9031

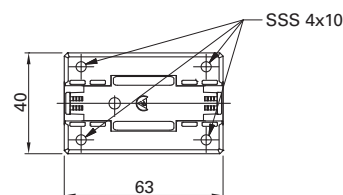
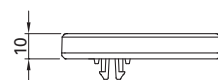
**Application**

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

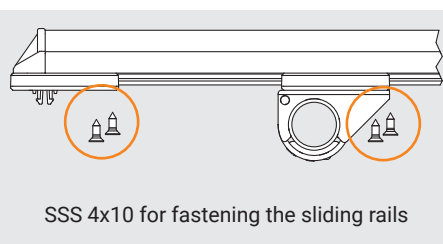
MAT9031



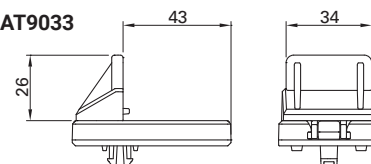
MAT9033



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

Round Protrusion

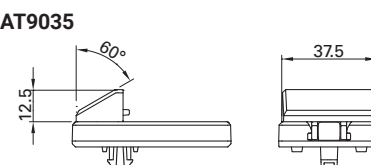
MAT9033



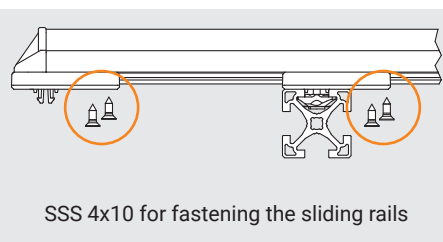
MAT9035



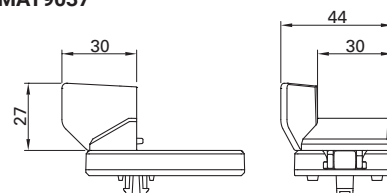
MAT9035



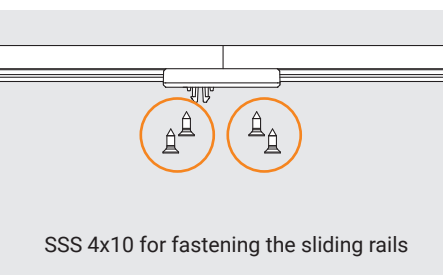
MAT9037

**Square Protrusion**

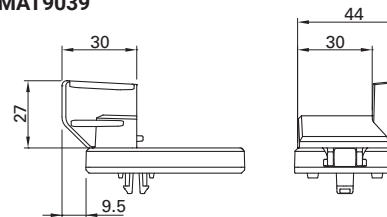
MAT9037



MAT9039

**Partitioning**

MAT9039

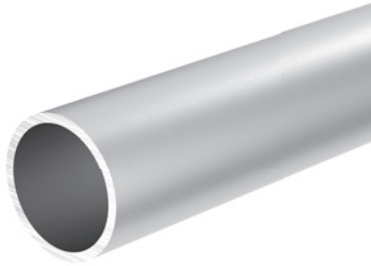
**Order Code**

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

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

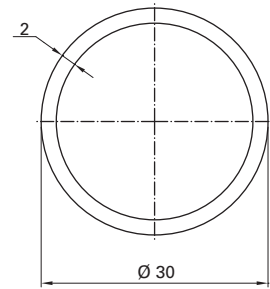
Section modulus $W_x = W_y$: 1.16 cm³

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

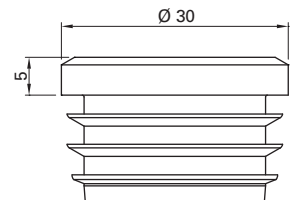
End Cap For Round Tube 30x2

**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

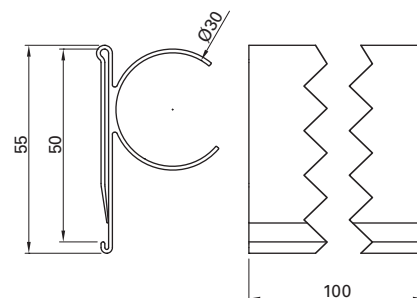
**Application**

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

Description	Order Code	Weight
Label Holder 50x100	MAT3050	0.023 kg

Drawing dimensions in mm

