



cab product overview  
Devices and systems  
for the electronics production

Made in Germany

## Types



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# HEKTOR 2 off-cut remover



Technical data	
Separation method	Punch blade
Operation	manual
Material	FR4
PCB thickness	up to 2.5 mm
Air pressure supply	1/4" coupling socket
Operating pressure, typical	4 bar
Temperature / humidity	Operation + 10 - 35°C / 10 - 85 %
	Stock 0 - 60°C / 20 - 80 %
not condensing	Transport - 25 - 60°C / 20 - 80 %
Width x Height x Depth	220 x 170 x 255 mm
Weight	2.7 kg
Approvals	CE, FCC Class A

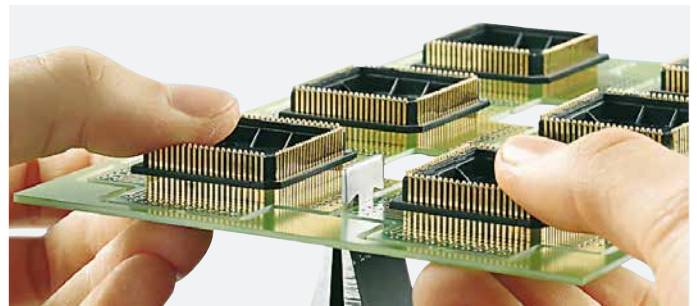
PCBs are separated carefully and quickly, off-cuts are removed precisely and smoothly. A two-part matrix enables the different blades to be assembled resp. exchanged easily.

Off-cuts are punched out with the help of a compressed air cylinder. The operating pressure can be set on the unit.

## Safe operation

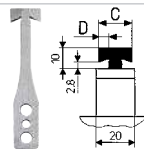
PCBs are positioned with their milled groove over the blade onto the matrix. The off-cut is fed below the punch blade. A foot switch triggers the punching and the off-cut is collected in the bottom tool.

Part no.	Product
<b>8932145</b>	Off-cut remover HEKTOR 2 (no blades)
<b>8932xxx</b>	Blade (to be ordered separately)
Scope of delivery	Off-cut remover with pressure regulator Foot switch Allen key 2 mm Allen key 4 mm Operator's manual DE/EN



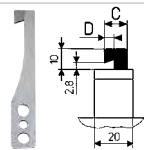
## T blade

to punch out off-cuts on the right and left margins. Turning the PCB is not necessary



## L blade

used with small distances between the off-cuts



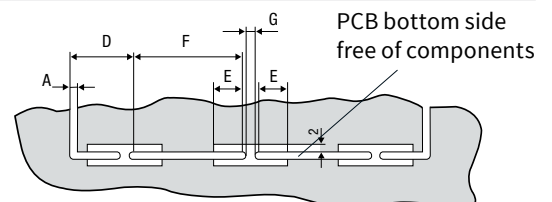
## Matrix

included in the scope of delivery



Blade		Milled groove width	Blade width	Blade length	Cutting length	Solder side free of components	Milled groove length	Off-cut width
Part no.		A	B	C	D	E	F	G
<b>8932137.001</b>	Blade 1,5 T	≥ 1.5	1.35	17.2	4.7	> 19	> 19	3
<b>8932138.001</b>	Blade 2,0 T	≥ 2.0	1.85	17.2	5.2	> 19	> 19	3
<b>8932191.001</b>	Blade 2,4 T	≥ 2.4	2.25	18	5.7	> 19	> 19	3
<b>8932139.001</b>	Blade 2,5 T	≥ 2.5	2.35	18	5.7	> 19	> 19	3
<b>8932144.001</b>	Blade 3,0 T	≥ 3.0	2.85	18	5.7	> 19	> 19	2.5
<b>8932122.001</b>	Blade 1,5 L	≥ 1.5	1.35	12	4.7	> 15	> 13	3
<b>8932123.001</b>	Blade 2,0 L	≥ 2.0	1.85	12	5.2	> 15	> 13	3
<b>8932141.001</b>	Blade 2,4 L	≥ 2.4	2.25	12	5.7	> 15	> 13	3
<b>8932124.001</b>	Blade 2,5 L	≥ 2.5	2.35	12	5.7	> 15	> 13	3
<b>8932125.001</b>	Blade 3,0 L	≥ 3.0	2.85	12	5.7	> 15	> 13	2.5
<b>8932171.001</b>	Matrix (as a spare part)							

Further blade thicknesses on request



# MAESTRO 2, 2M PCB separators



The compact MAESTRO 2 separates PCBs quickly and economically. Little footprint is required.

## MAESTRO 2

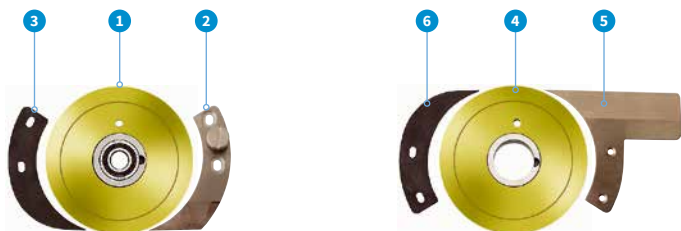
is the affordable entry-level device to handle smaller demands. PCBs are fed between the circular blades manually to be separated.

## MAESTRO 2M, motor-driven

to separate large numbers of PCBs without tiring. The lower circular blade is motor-driven. The PCB is fed, seized by the circular blade, transported and separated. The device especially fits with highly dense assembly or slim margin strips. Three speeds can be selected.

## Safe operation

The distance between the holder **1** and the guide **2** is set so the PCB can be fed only in the milled groove.



Technical data	MAESTRO 2	MAESTRO 2M
Separation method	Component side	Circular blade
	Solder side	Circular blade
Operation	manual	motor-driven
Separation speed	-	100, 200, 300 mm/s
Separation length	15 - 300 mm	
Material	FR4	
Component height	Solder/component side up to 34 mm	
Power supply	-	230/115 VAC, 50/60 Hz
Temperature / Operation	+ 10 - 35°C / 10 - 85 %	
humidity Stock	0 - 60°C / 20 - 80 %	
not condensing Transport	- 25 - 60°C / 20 - 80 %	
Width x Height x Depth	195 x 330 x 620 mm	
Weight	16 kg	19 kg
Approvals	CE, FCC Class A	

Component height	
Outside dimensions increased after separation: typically 0.2 mm	
The milled groove may be interrupted by cutouts to a length of up to 5 mm.	

Part no.	Product	
<b>8933900</b>	MAESTRO 2 PCB separator	
<b>8933935</b>	MAESTRO 2M PCB separator	
Scope of delivery	PCB separator Power cable Type E+F, length 1.8 m (MAESTRO 2M only) Allen key 2 mm Operator's manual DE/EN	
Pos.	Part no.	Wear parts
<b>1</b>	<b>8930509.001</b>	Circular blade FR4
<b>2</b>	<b>8930522.001</b>	Holder
<b>3</b>	<b>8930744.001</b>	Upper blade protection
<b>4</b>	<b>8933661.001</b>	Lower circular blade
<b>5</b>	<b>8930514.001</b>	Guide
<b>6</b>	<b>8930745.001</b>	Lower blade protection

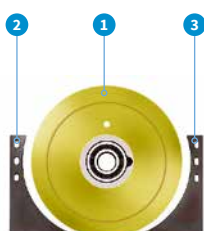
# MAESTRO 3E PCB separator



The MAESTRO 3E separates both small and large PCBs. The support table and the rest can be set continuously to the best possible operational position. By adjusting the distance between the linear blade and the rest, margin strips can fall through and are sorted out.

## Safe operation

A PCB is positioned with its milled groove onto the linear blade and the circular blade is moved manually through the PCB. The distance between the holder and the linear blade is set so the PCB can be separated only in the milled groove.



Technical data		
Separation method	Component side Solder side	Circular blade Linear blade
Operation	manual	
Separation length	up to 450 mm	
Material	FR4	
Component height	Component side	up to 34 mm
	Solder side	up to 23 mm
Temperature / humidity not condensing	Operation Stock Transport	+ 10 - 35°C / 10 - 85 % 0 - 60°C / 20 - 80 % - 25 - 60°C / 20 - 80 %
Width x Height x Depth	350 x 455 x 700 mm	
Weight	22 kg	

Component height	
Outside dimensions increased after separation: typically 0.2 mm	
The milled groove may be interrupted by cutouts.	
Protruding components need a recessed linear blade. Contact us, if required	

Part no.	Product	
<b>8933945</b>	MAESTRO 3E/450 PCB separator	
Scope of delivery	PCB separator Allen key 2 mm Operator's manual DE/EN	
Pos.	Part no.	Wear parts
1	<b>8930509.001</b>	Circular blade FR4
2	<b>8936615.001</b>	Blade protection
3	<b>8936614.001</b>	Blade protection
4	<b>8933394.001</b>	Linear blade 450

# MAESTRO 4S PCB separator

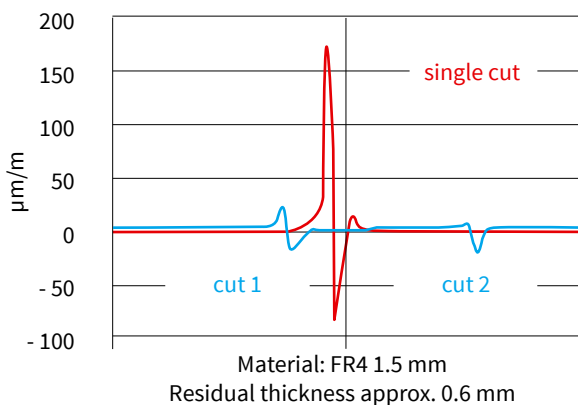


MAESTRO 4S separates both small and large PCBs quickly and economically without stress.

### Key features:

- Blade distance to be entered on the operation panel is set motor-driven.
- Up to nine programs to be stored
- Separation length to be continuously adjusted via limit switches
- In terms of a preventive blade maintenance, the cutting performance is displayed.

By traversing the milled groove once, tensile and compressive stresses can cause damage to sensitive components located close to the groove. A second traverse and simultaneous readjustment of the blade distance already reduces stresses considerably. The quality of the assembled PCBs improves significantly.



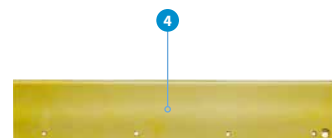
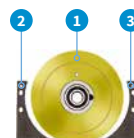
### Dial gauge

In order to separate without stress and to achieve a long service life, the circular and linear blades have to be guided along the entire separation. The dial gauge setting and regularly checking the parallelism is assembled to the carriage.



Technical data	4S/450	4S/600
Separation method	Component side Circular blade	Solder side Linear blade
Operation	path-optimized, motor-driven	
Separation speed	300, 500 mm/s, to be switched	
Materials	FR4, aluminum	
Component height	Component/solder side up to 34 mm	
Separation length	up to 450 mm	up to 600 mm
Support table depth	200 mm	
Programming		
Start	Traverse to initial position	
Programs	9	
Separation steps	1 - 5	
Blade distance	0.9 - 0.05 mm	
Key button	Unlock program selection	
Performance display	up to 99 km	
DEL	Step reset	
Power switch	ON/OFF	
Foot switch	START separation	
Safety switch	E-stop	
Power supply	100 - 240 VAC, 50/60 Hz	
Emmission sound pressure level	LpA < 70 dB (A)	
Temperature / Operation	+ 10 - 35°C / 10 - 85 %	
humidity Stock	0 - 60°C / 20 - 80 %	
not condensing Transport	- 25 - 60°C / 20 - 80 %	
Width x Height x Depth	702 x 434 x 425 mm	852 x 434 x 425 mm
Weight	38 kg	46 kg
Approvals	CE, FCC Class A	

Part no.	Product	
<b>8936800</b>	MAESTRO 4S/450 PCB separator	
<b>8936800.520</b>	MAESTRO 4S/450/alu PCB separator	
<b>8936745</b>	MAESTRO 4S/600 PCB separator	
<b>8936745.520</b>	MAESTRO 4S/600/alu PCB separator	
Scope of delivery	PCB separator Power cable Type E+F, length 1.8 m Foot switch Allen key 2 mm Support table including assembly kit Dial gauge Operator's manual DE/EN	
Pos.	Part no.	Wear parts
1	<b>8930509.001</b>	Circular blade
2	<b>8936615.001</b>	Blade protection
3	<b>8936614.001</b>	Blade protection
4	<b>8933394.001</b>	Linear blade 450
	<b>8933682.001</b>	Linear blade 600

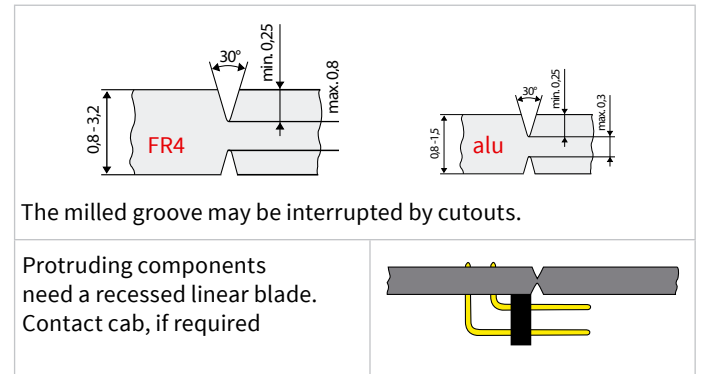
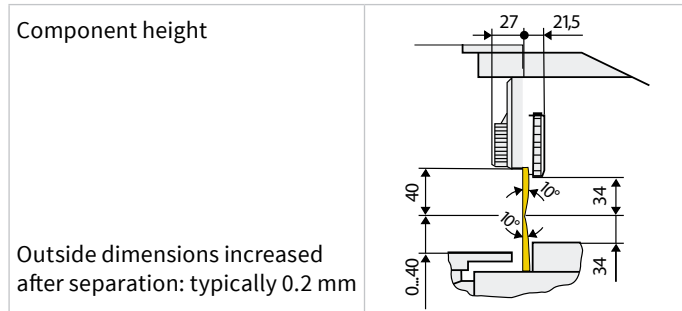


# MAESTRO 4S PCB separator

## Separating aluminum

To separate aluminum with MAESTRO 4S, special adjustment is needed for the standard circular blade. For information see the operator's manual

Aluminum PCBs are manufactured in various alloys. Sample PCBs added to a request help with adjusting the circular blade and optimizing the cutting geometry.



## Accessory



### Conveyor belt

to deposit separated PCBs individually and further transport them aside. The speed adapts to the size of the PCB. Incoming PCBs are detected by a light barrier and the belt stops.

Technical data	450	600
Conveyor belt material	antistatic	
Direction of movement	to the right	
Belt speed	5, 6, 7, 8, 9 m/min	
Light barrier	to be activated to stop the belt moving	
Vertical distance to the linear blade	5 - 17 mm	
PCB depth	up to 200 mm	
Belt width	170 mm	
Length	1,200 mm	1,350 mm
Power supply	100 - 240 VAC, 50/60 Hz	
Temperature / Operation	+ 10 - 35°C / 10 - 85 %	
humidity	Stock	0 - 60°C / 20 - 80 %
not condensing	Transport	- 25 - 60°C / 20 - 80 %
Weight	14 kg	
Approvals	CE, FCC Class A	

Part no.	Product
8931240	Conveyor belt 450
Lieferumfang	Power cable Type E+F, length 1.8 m Assembly kit Operator's manual DE/EN

# MAESTRO 4X PCB separator

for high components



MAESTRO 4X separates both small and large PCBs quickly and economically without stress.

### Key features:

- Blade distance to be entered on the operation panel is set motor-driven.
- Up to nine programs to be stored
- Separation length to be continuously adjusted via limit switches
- In terms of a preventive blade maintenance, the cutting performance is displayed.

By traversing the milled groove once, tensile and compressive stresses can cause damage to sensitive components located close to the groove. A second traverse and simultaneous readjustment of the blade distance already reduces stresses considerably. The quality of the assembled PCBs improves significantly.

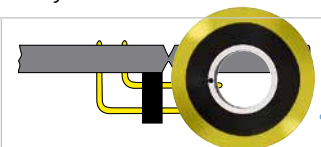
Technical data	4X/450	4X/600
Separation method	Component side Solder side	Circular blade Linear blade
Operation	path-optimized, motor-driven	
Separation speed	300, 500 mm/s, to be switched	
Materials	FR4, aluminum	
Component height	Component/solder side up to 76 mm	
Separation length	up to 450 mm	up to 600 mm
Support table depth	690 mm	
Programming		
Start	Traverse to initial position	
Programs	9	
Separation steps	1 - 5	
Blade distance	0.9 - 0.05 mm	
Key button	Unlock program selection	
Performance display	up to 99 km	
DEL	Step reset	
Power switch	ON/OFF	
Foot switch	START separation	
Safety switch	E-stop	
Power supply	100 - 240 VAC, 50/60 Hz	
Emmission sound pressure level	LpA < 70 dB (A)	
Temperature / Operation humidity	+ 10 - 35°C / 10 - 85 %	
Stock	0 - 60°C / 20 - 80 %	
not condensing Transport	- 25 - 60°C / 20 - 80 %	
Width x Height x Depth	702 x 434 x 425 mm	852 x 434 x 425 mm
Weight	37 kg	45 kg
Approvals	CE, FCC Class A	

Component height	
Outside dimensions increased after separation: typically 0.2 mm	

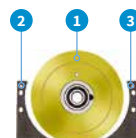
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The milled groove may be interrupted by cutouts.

Protruding components need a recessed linear blade. Contact cab, if required



Part no.	Product	
<b>8937732</b>	MAESTRO 4X/600 PCB separator	
<b>8937732.520</b>	MAESTRO 4X/600/alu PCB separator	
<b>8937733</b>	MAESTRO 4X/450 PCB separator	
<b>8937733.520</b>	MAESTRO 4X/450/alu PCB separator	
Scope of delivery	PCB separator Power cable Type E+F, length 1.8 m Foot switch Allen key 2 mm Support table including assembly kit Dial gauge Operator's manual DE/EN	
Pos.	Part no.	Wear parts
1	<b>8930509.001</b>	Circular blade
2	<b>8936615.001</b>	Blade protection
3	<b>8936614.001</b>	Blade protection
4	<b>8933394.001</b>	Linear blade 450
	<b>8933682.001</b>	Linear blade 600



# MAESTRO 5L PCB separator



It can be used economically when large quantities of milled PCBs have to be separated.

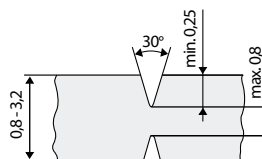
Up to 15 PCBs arranged next to one another can be separated simultaneously. 310 mm is the maximum passage width. The distances and the number of circular blades are adapted to the PCB. Solid and precisely manufactured blade shafts ensure smooth PCB separation. The hardened and ground and titanium-coated circular blades achieve a high running performance.

PCBs are inserted to the guide manually or are fed automatically by a loader resp. an external conveyor belt. When separated, the PCBs are deposited on the built-in conveyor belt.

A SMEMA interface provided, installation in an assembly line is possible (for information see the operator's manual). With the help of a base frame vertically adjustable, MAESTRO 5L can be adapted to any application. A possibility to connect an extraction and filter device is in preparation.

Outside dimensions increased after separation: typically 0.2 mm

The milled groove may be interrupted by cutouts.



## Technical data

Separation method	Component side Solder side	Circular blade Circular blade
Operation	motor-driven	
Separation speed	100 - 220 mm/s to be set in ten steps	
PCB length light barrier activated light barrier deactivated	100 - 570 mm up to 2,000 mm	
PCB width	up to 290 mm	
Residual off-cut width	at least 5 mm	
Component height	Component side	up to 30 mm
	Solder side	up to 10 mm
Number of circular blades	up to 12 per blade shaft	
Programming		
Display	- Separation speed - Separation length resp. number of PCBs	
Control buttons	- Start, Stop, Reverse	
Programming button	- Separation speed setting	
Monitoring	- Detection of separation length - Accumulation before / behind the blades - Conveyor belt finally stopping	
Interfaces	- external start / stop - SMEMA (round, 14 pins)	
Power supply	230/115 VAC, 50/60 Hz	
Temperature / humidity not condensing	Operation Stock Transport	+ 10 - 35°C / 10 - 85 % 0 - 60°C / 20 - 80 % - 25 - 60°C / 20 - 80 %
Width x Height x Depth	440 x 750 - 1,000 x 1,100 mm	
Weight	63 kg	
Approvals	CE, FCC Class A	

Part no.	Product
<b>8934520</b>	MAESTRO 5L PCB separator neither circular blade or protective cover  The blade shaft has to be ordered separately. It is assembled to the device and adjusted ex factory by the manufacturer.
<b>893xxxx</b>	Blade shaft assembled
<b>893xxxx</b>	Device-specific parts
Scope of delivery	PCB separator, base frame Power cable Type E+F, length 1.8 m Service tool Warning light Auxiliary device for blade shaft Rest, entirely End piece for extraction Operator's manual DE/EN
Part no.	Wear parts
<b>8934803.001</b>	Circular blade, width 8 mm
<b>893xxxx.001</b>	Circular blade, customer-specific

# Series 100, 180, 300 PCB magazines

providing 32 PCB slots



To be equipped both in vertical and horizontal orientation

The system's variable width enables individual assembly according to any PCB size.

Magazines 100, 180 and 300 mm in height are offered for the various PCBs.

32 slots in gaps of 10 mm offer maximum packing density.

### Safe guidance

Funnel-shaped slot entries ensure safe PCB insertion. Yellow position stickers indicate the exact positions and prevent from falsely inserting PCBs diagonally by hand.

Consecutive numbers and markings

Carry handle to be retracted

Bracket for accompanying documents

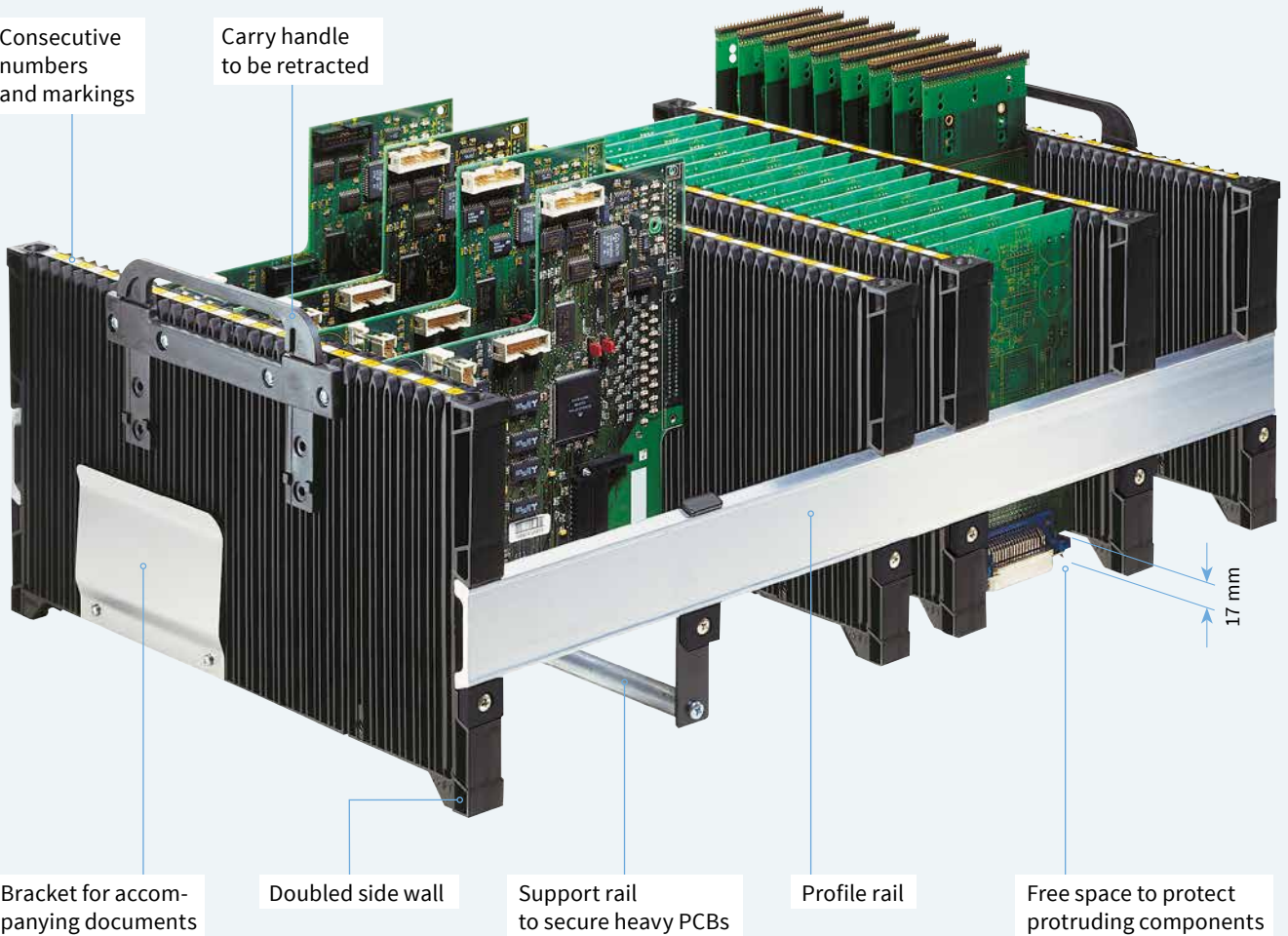
Doubled side wall

Support rail to secure heavy PCBs

Profile rail

Free space to protect protruding components

17 mm

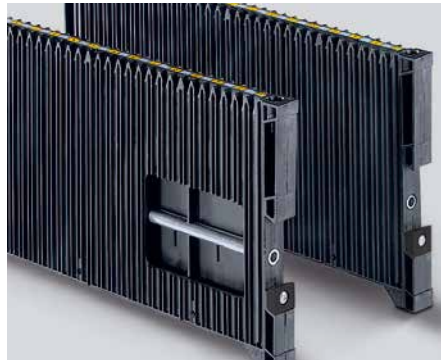


# Series 100, 180, 300 PCB magazines



### Quick and simple assembly

The side walls are adjustable with the help of the profile rails. Two PCBs are inserted in the outer adjusting grooves. The upper side wall has to be pressed against the PCBs and be fixed with screws.



### Solid and resistant to torsion

The double-wall construction makes the side walls extremely solid. A metal tube is provided to further stiffen a side wall in the case of high mechanic and thermal forces.



### Slot lock

To prevent from component damage when inserting PCBs in a magazine, slots that are not in use can be covered.



### Stackable

Boreholes and pins on the outer margins allow the magazines to be stacked. On the bottom of the side walls, molded recesses simplify the lifting.



### Upright position

Assembled PCBs need horizontal storage before soldering. For this purpose, the magazines are set upright.



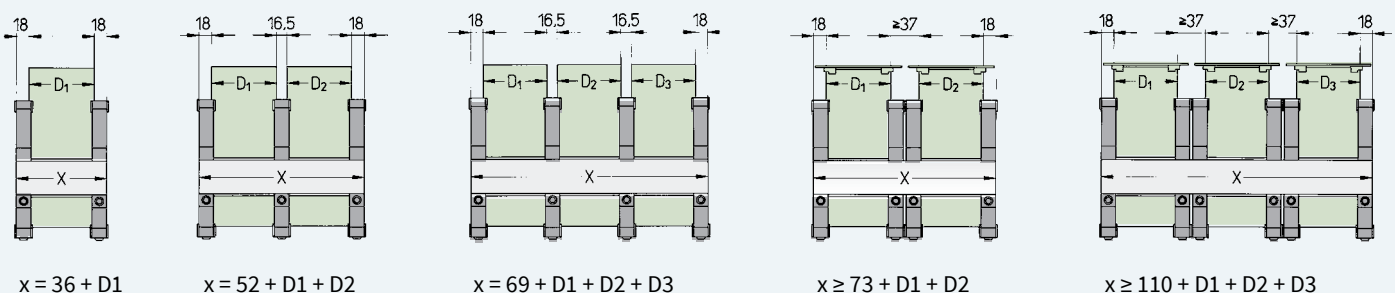
### Transport boxes

The magazines can be inserted into standard 600 x 400 resp. 400 x 300 mm boxes for transport. Retractable carry handles simplify the insertion and removal.

Technical data	100	180	300
Material	Polypropylene		
Color	black		
Surface resistance	accord. to DIN EN 61340-5-1 <10 <sup>9</sup>		
Slot width	2.8 mm	4 mm	3.5 mm
Slot depth	2 mm	2.5 mm	2.5 mm
Number of slots	32		
Distance between the PCBs	10 mm		

### Length of profile rails

D = PCB width    x = profile rail width



# Series 100, 180, 300 PCB magazines

## Delivery program

	Part no.	Product	Weight
 <p>359 mm</p> <p>100 mm</p> <p>83 mm</p>	<b>8910050</b> <b>8910102</b> <b>8913913</b>	Side wall 100 Side wall 100 reinforced Side wall 100 with boreholes for slot locks	0.28 kg 0.40 kg 0.28 kg
 <p>359 mm</p> <p>180 mm</p> <p>163 mm</p>	<b>8910060</b> <b>8910104</b>	Side wall 180 Side wall 180 reinforced with boreholes for slot locks	0.53 kg 0.65 kg
 <p>357 mm</p> <p>303 mm</p> <p>285 mm</p>	<b>8912049</b> <b>8913914</b>	Side wall 300 Side wall 300 with boreholes for slot locks	0.7 kg 0.7 kg
 <p>The profile rails are cut according to your instructions. xxxx is the desired length in mm.</p>	<b>8910136</b> <b>8910252</b> <b>8910547</b> <b>8911000</b> <b>8912000</b> <b>8913000</b> <b>891xxxx</b>	Length in mm Profile rail 0136 Profile rail 0252 Profile rail 0547 Profile rail 1000 Profile rail 2000 Profile rail 3000 Profile rail xxxx	0.06 kg 0.11 kg 0.24 kg 0.45 kg 0.90 kg 1.35 kg
	<b>8910009</b>	Bracket for accompanying documents	
	<b>8912004</b> <b>8912005</b> <b>8912006</b>	Support rail 100 Support rail 180 Support rail 300	
	<b>8912007</b> <b>8910097</b>	Carry handle 100 Carry handle 180/300 Pack unit: 1 set	
 <p>Slot lock 1      Slot lock 2</p> <p>enlarged display</p>	<b>8913916</b> <b>8913917</b>	Slot lock 1 Slot lock 2 Pack unit: 100 sets each	

# Series 6000, 7000 PCB magazines

Consistent further development of previous series 600/700/800 magazines

### Automation requires precision

Precision, stability and dimensional accuracy are key features when operating magazines in automated pick-and-place plants.

Ball-bearing precision spindles keep side panels synchronous along the entire range of alignment.

A rugged and torsion-resistant frame design enables long-term use in manufacture. Side panels are designed electrically conductive.

**1 Top covers and base plates are entirely closed to protect PCB.**

**2 Knobs** for magazine stacking

**3 Precision spindles** for keeping side panels parallel

**4 Transport lock**  
A latch is provided on the front and back of a fixed side panel. It unlocks by vertical lifting. Inclination causes the latch to slide aside.

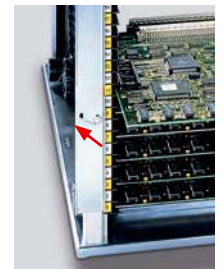
Picture: series 7000 magazine



Magazine locked



Magazine unlocked



**Transport lock A**  
for manual and automatic operation (no turnaround mode)

**Transport lock B**  
for turnaround operation

**Transport lock C**  
for operation in autonomous manufacturing lines

See further details with accessories on page 18.

**5 Side panels**  
Three designs are provided. Choice depends on the ambient temperature. Consecutive numbering from 1 to 50 along the guides simplifies PCB insertion.



**Reliable stacking**  
Four knobs on the top cover enable magazines be stacked reliably and save-spacing.



**Turnaround operation**  
Vertical symmetry allows magazines be rotated by 180°. No use of stacking knobs



**Metal magazine**  
In cases of high mechanic and high thermal force, metal side panels may be provided. Assembled with stacking knobs on delivery

# Series 6000 PCB magazines

Widths set by hand using four screw clamps



**1 Top covers and base plates are entirely closed to protect PCB.** NEW  
Nothing can enter from above or below, Higher rigidity is another benefit.

**2 PCB locking during transport**  
Partly assembled magazines have locks B enclosed separately upon delivery. Locks A or C are options.

**3 Alignment to PCB**  
Side panels can be aligned to target PCB widths by loosening four screw clamps.

■ Standard

Type	Part no.	Material		Temperature °C			Outside dimensions			PCB		Scope of magazine delivery				
		Side panel	Base plate	Slide-ins	Ambient	Weight kg	Width W	Length L	Height H	Width D	Length C	Standard		Optional		
												partly assembled	assembled	assembled with stacking knobs	assembled for turnaround operation	
<b>6001.1</b>	8917905	Polystyrene	Cast aluminum	60	50	5.6	320	355	563	40-250	342	■	-	DL31011	DL31012	
<b>6001.2</b>	8918905	Polycarbonate		130	100	5.9						■	-	DL31011	DL31012	
<b>6001.3</b>	8919905	Metal		200	200	6.9						-	■	-	■	
<b>6002.1</b>	8917906	Polystyrene	Cast aluminum	60	50	5.8	320	400	563	40-250	387	■	-	DL31011	DL31012	
<b>6002.2</b>	8918906	Polycarbonate		130	100	6.1						■	-	DL31011	DL31012	
<b>6002.3</b>	8919906	Metal		200	200	7.2						-	■	-	■	
<b>6003.1</b>	8917907	Polystyrene	Cast aluminum	60	50	6.2	380	400	563	40-310	387	■	-	DL31011	DL31012	
<b>6003.2</b>	8918907	Polycarbonate		130	100	6.5						■	-	DL31011	DL31012	
<b>6003.3</b>	8919907	Metal		200	200	7.6						-	■	-	■	

further dimensions upon request

# Series 7000 PCB magazines

Widths set by hand using a gear belt or motoric by clutch



- 1 Top covers and base plates are entirely closed to protect PCB.** NEW  
Nothing can enter from above or below, Higher rigidity is another benefit.
- 2 Synchronous side panel setting**  
PCB widths are quick and accurate to align using four precision spindles and bearing free of backlash.
- 3 PCB locking during transport**  
Partly assembled magazines have locks A enclosed separately upon delivery. Locks B or C are options.
- 4 Alignment to PCB by hand**
  - 4A** Pulling the gear belt
  - 4B** Fine control by turning a handwheel
- 5 Motoric alignment to PCB by clutch**  
Once a magazine is positioned on the unloader, a clutch connects the servo motor to the spindle gear.
- 6 Fixing a width setting**  
The gear belt is fastlocked. If aligning to a PCB width by hand, the clamp block is lifted by pressing and locked into place. The gear belt is again fixed by pressing the locking lever. In cases of motoric width setting, the clamp block is lifted by a plunger during positioning.

■ Standard

Type	Part no.	Material	Temperature °C	Outside dimensions			PCB		Scope of magazine delivery						
				Width W	Length L	Height H	Width D	Length C	Standard		Optional				
		Side panel	Base plate	Slide-ins	Ambient	Weight kg	mm	mm	mm	mm	max. mm	partly assembled	assembled	assembled with stacking knobs	assembled for turnaround operation
7001.1	8917901	Polystyrene	Cast aluminum	60	50	5.6	320	355	563	40-250	342	■	-	DL31011	DL31012
7001.2	8918901	Polycarbonate		130	80	5.9						■	-	DL31011	DL31012
7001.3	8919901	Metal		200	100	6.9						-	■	DL31011	DL31012
7002.1	8917902	Polystyrene	Cast aluminum	60	50	5.8	320	400	563	40-250	387	■	-	DL31011	DL31012
7002.2	8918902	Polycarbonate		130	80	6.1						■	-	DL31011	DL31012
7002.3	8919902	Metal		200	100	7.2						-	■	DL31011	DL31012
7003.1	8917903	Polystyrene	Cast aluminum	60	50	6.2	380	400	563	40-310	387	■	-	DL31011	DL31012
7003.2	8918903	Polycarbonate		130	80	6.5						■	-	DL31011	DL31012
7003.3	8919903	Metal		200	100	7.6						-	■	DL31011	DL31012
7004.1	8917904	Polystyrene	Sheet steel	60	50	7.8	400	460	563	40-330	447	■	-	DL31011	DL31012
7004.2	8918904	Polycarbonate		130	80	8.0						■	-	DL31011	DL31012
7004.3	8919904	Metal		200	100	9.5						-	■	DL31011	DL31012
7016.2	8918916	Polycarbonate	Sheet steel	130	80	9.5	460	535	563	10-390	522	■	-	DL31011	DL31012
7016.3	8919916	Metal		200	100	10.9						-	■	DL31011	DL31012
7017.2	8918917	Polycarbonate	Sheet steel	130	80	9.7	530	535	563	10-460	522	■	-	DL31011	DL31012
7017.3	8919917	Metal		200	100	11.1						-	■	DL31011	DL31012

further dimensions upon request

## Special magazines



### Double capacity by parallel insertion

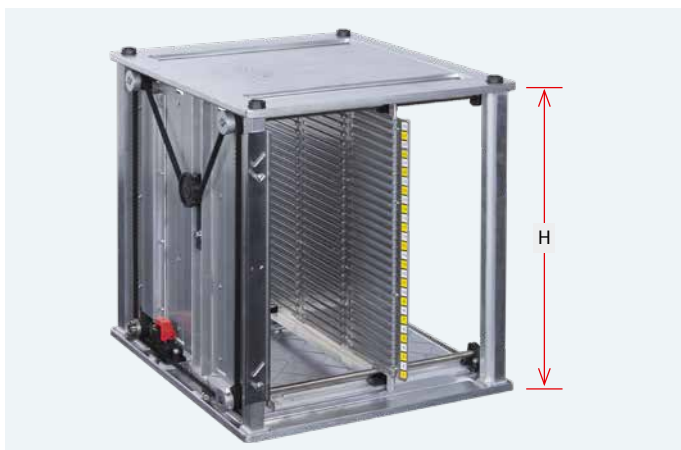
With series 6000 magazines

A maximum load of 100 PCB in one magazine

Magazines with two slide-in units can be used side by side with narrow PCB. Partly assembled magazines have locks B enclosed separately upon delivery. Locks A or C are options.

Side panels: polystyrene, polycarbonate (metal upon request)

Type	Part no.	Temperature °C		Weight kg	Outside dimensions			PCB		
		Slide-ins	Ambient		L mm	B mm	H mm	Width D		Length C
								min. mm	max. mm	max. mm
6001.1-P	8917908	60	50	7.5	355	320	563	40	100	342
6001.2-P	8918908	130	100	8.0	355	320	563	40	100	342
6002.1-P	8917909	60	50	7.9	400	320	563	40	100	387
6002.2-P	8918909	130	100	8.1	400	320	563	40	100	387
6003.1-P	8917910	60	50	8.2	400	380	563	40	130	387
6003.2-P	8918910	130	100	8.5	400	380	563	40	130	387



### Low overall heights

With series 6000, 7000 magazines

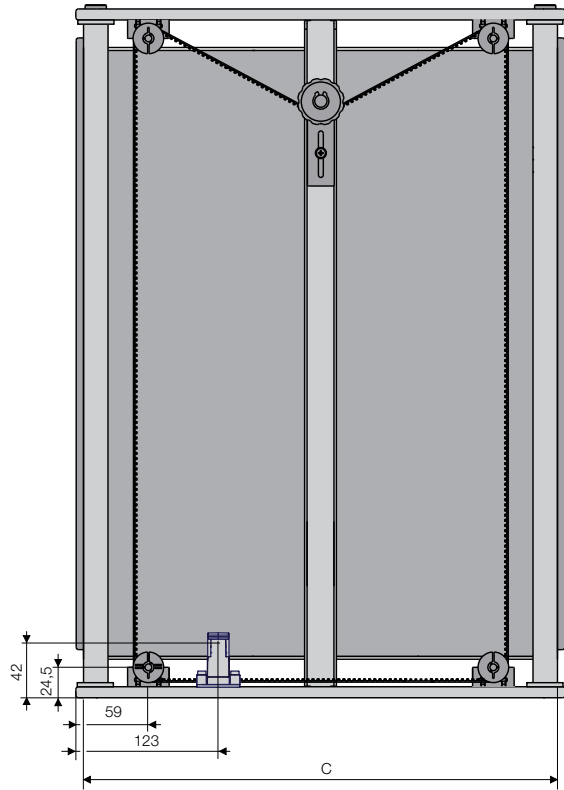
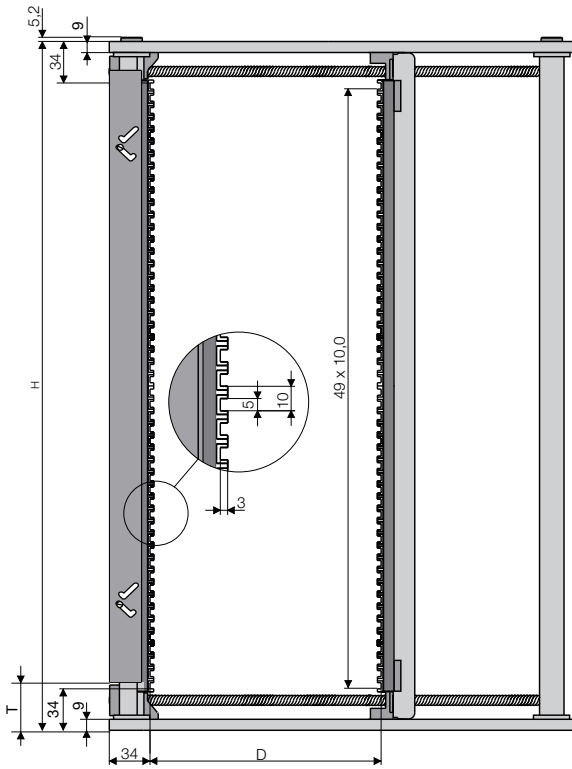
Use, for example, in tempering ovens. Reducing the height also prevents weight overload with heavy PCB or goods carriers. Partly assembled magazines have locks A enclosed separately upon delivery. Locks B or C are options.

Side panels: metal, synthetics

Provided upon request

# Series 6000, 7000 PCB magazines

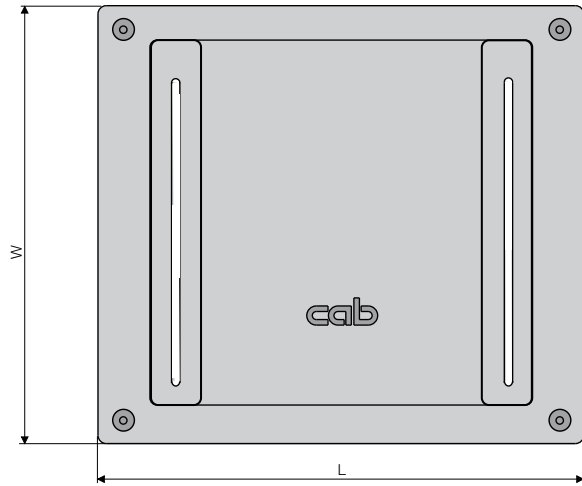
## Dimensional drawing



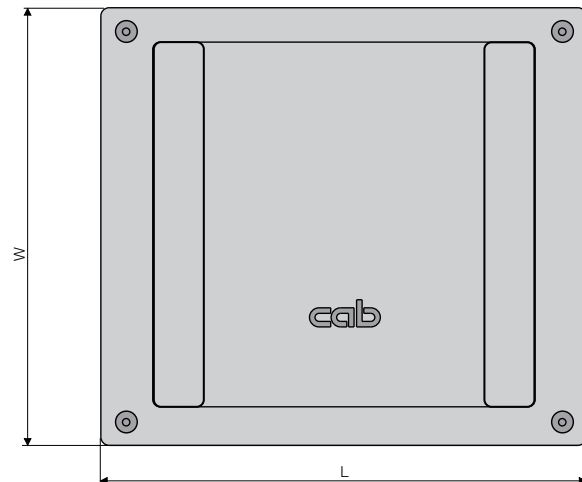
Transport lock		Type A	Type B	Type C
T1	closed	31.5	14	19
T2	open	39.5	22	27
T3	locked	41.5	24	-

Type	PCB				
	W mm	L mm	H mm	D mm	C max. mm
6001 7001	320	355	563	40 - 250	342
6002 7002	320	400	563	40 - 250	387
6003 7003	380	400	563	40 - 310	387
7004	400	460	563	10 - 330	447
7016	460	535	563	10 - 390	522
7017	530	535	563	10 - 460	522

Type	Side wall material	Surface resistance
600x.1/70xx.1	Polystyrene	according to DIN EN 61340-5-1 < 1E-9 Ω/cm
600x.2/70xx.2	Polycarbonate	
600x.3	Metal	
70xx.3	Metal	



Base plate Series 6000



Base plate Series 7000  
Figure: Cast aluminum

# Accessories

provided for series 6000, 7000 PCB magazines

■ standard

Series			Part no.	Designation	PU	
6000	7000					
X	X		<b>8913151.001</b>	<b>Transport lock A</b>	1 set	Designed for manual and automatic operation. It is lockable in open position. At a stroke of 8 mm, slots open for inserting or removing PCB. The latch locks at a further stroke of 2 mm. It must be slightly lifted for closing and locks as soon as it has been released.
X	X		<b>8913152.001</b>	<b>Transport lock B</b>	1 set	Designed for turnaround operation. Functionalities correspond to lock A. (Locking in open position is possible only on the lower inclined guide.)
X	X		<b>8916654.001</b>	<b>Transport lock C</b>	1 set	Designed for operation in autonomous manufacturing lines. A locker mechanism is missing on the latch. By this, it always remains closed outside an unloader.
X	X		<b>8917096</b>	<b>Clip</b>	5	When inserting or removing PCB by hand, the latch of a transport lock C can be held in position by a clip attached to the profile.
X	X		<b>8913416</b>	<b>Bracket</b>	1	Accompanying documents can be attached to magazines with synthetic side panels.
X	X		<b>8916571</b>	<b>Slot lock 1</b> 	100	Partition as required – designed for locking the slots of magazines with synthetic side panels. No tools are required for clipping and removal.
X	X		<b>8916575</b>	<b>Slot lock 5</b> 	20	Partition 20 mm – designed for locking the slots of magazines with synthetic side panels. No tools are required for clipping and removal.
X	X		<b>8916411</b>	<b>Protective cover 1</b>	10	Magazine types 6001, 7001 6002, 7002 6003, 7003 7004 7016 7017 PCB in a magazine are prevented from dirt. conductive, solid, tear-proof Material: Permastat ESD Color: pink Thickness: 150 µm
			<b>8916412</b>	<b>Protective cover 2</b>	10	
			<b>8916413</b>	<b>Protective cover 3</b>	10	
			<b>8916414</b>	<b>Protective cover 4</b>	10	
			<b>8916416</b>	<b>Protective cover 6</b>	10	
			<b>8916417</b>	<b>Protective cover 7</b>	10	

# AD 401 aligner device

## Widths set by hand using a gear belt

Series 701 to 704 and 7001 to 7004 magazines can be aligned precisely to PCB widths. A CCD laser determines the exact position of a side panel. Distances to add to the nominal PCB width can be set separately.



### Instructions

- Insert a magazine and fix it with the tension lever.
- Loosen the clamping of the gear belt

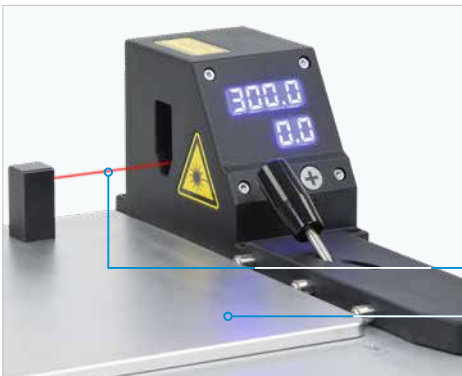
#### AD 401 width setting by hand

- Pull the gear belt for quick side panel alignment.
- Turn the pulley to the nominal PCB value for fine control.
- Fix the side panel position by clamping the gear belt.
- Loosen the tension lever and remove the magazine

Part no. 8917401 / AD 401 aligner device

#### Technical data

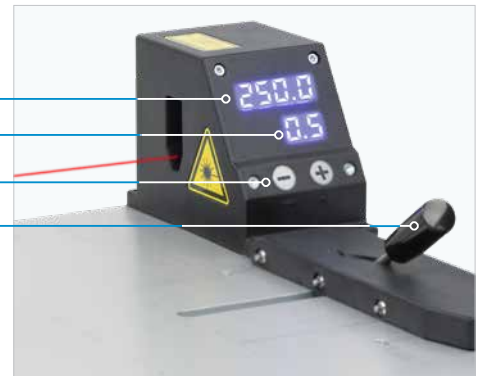
- Magazine widths: 320 - 400 mm, 530 mm in preparation
- PCB widths: 40 - 330 mm, 460 mm in preparation
- Repetitive accuracy +/- 0,2 mm
- Steps in 0.1 mm
- Voltage: 100 - 240 VAC, 50/60 Hz
- Consumption of power in typical operations < 5 W



### Measuring unit

- Nominal PCB value
- Distance to add to nominal value
- Control buttons
- Tension lever

- CCD laser
- Calibration plate



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