Destacker

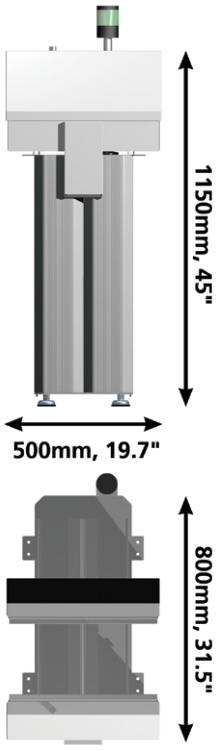
Standard features:

- Start of line or in-line placement
- Knob for easy board thickness adjustment
- Tube mounted light as status indicator
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Destacker separates a batch of PCBs and transports them one by one to the following machine.

When the Destacker becomes empty, the operator is notified and the machine starts to work as a regular 500 mm transport conveyor. This function enables the machine to be placed in-line, as well as in the beginning of a line.
PCBs are loaded/unloaded from above.

The conveyor is built in one 0,5 m section and each side has its own belt driving motor. Motors and cables are housed behind the steel covers. PLC and associated control electronics are located in the base frame.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Board length:	80 - 470 mm (3.2 - 18.5”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.7 - 3 mm (0.028 - 0.12”)
• Max. stack height:	200 mm (7.9”)
• Max. stack weight:	20 kg (44 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- Automatic width adjustment
- Auto width control unit

Order code: Destacker, K-017-0592

Telescopic Gate Conveyor

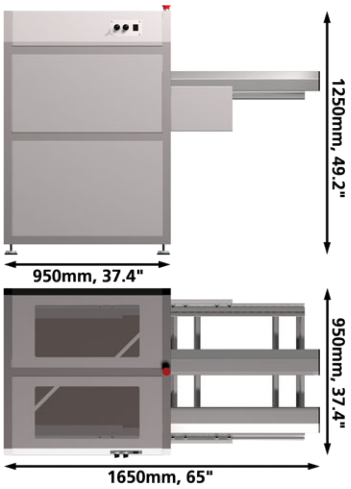
Standard features:

- Fully automated, ‘handsfree’
- Solid welded steel frame construction
- DC-motor controlled telescopic movement
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Telescopic gate conveyor is a fully automated pass through conveyor that allows people and vehicles to go through, rather than round a complete line. Since the retracted position of the telescopic conveyor is its idle position there is no need to press any buttons to pass through the line.

The telescopic conveyor is mounted on rails and movement is executed by a DC motor which gives a smooth, safe and stable extraction.
Each side and section of the conveyor has its own motor drives and belts.

Width adjustment is motorized and is carried out manually by a toggle switch. Motors, cables, PLC and associated control electronics are located behind steel covers. The covers are mounted on the base frame, which is manufactured from welded steel that makes the system extremely rigid and solid.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Board length:	70 - 470 mm (2.8 - 18.5”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.0016 - 0.24”)
• Max. board weight:	4 kg (8.8 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Conveyor range inlet position:	950mm (37.4”)
• Conveyor range outlet position:	1650mm (65”)
• Gate width:	700mm (27.6”)
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment

Order code: Telescopic gate, MB770

Manual Gate Conveyor

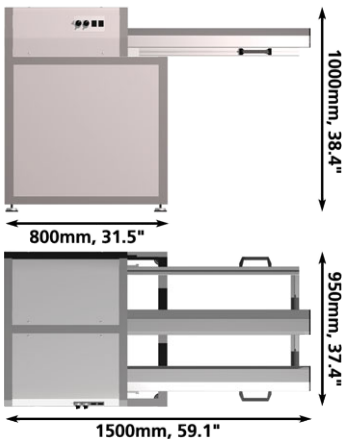
Standard features:

- Easy to operate, 'lift and pass'
- Solid welded steel frame construction
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The manual gate conveyor allows people and vehicles to go through, rather than round a complete line. It consists of two conveyor sections, one fixed and one jointed.

The second (jointed) section is made a non-buffering section to keep it empty for as long time as possible, thereby allowing people to pass through even if the line has a heavy board flow. The jointed section is supplied with a counter-weight and shock absorber, to ensure a smooth movement.

Motors and cables are housed in the conveyor profile, giving the unit a clean appearance. Conveyor width adjustment is motorized and is operated manually by a toggle switch.



Technical information:

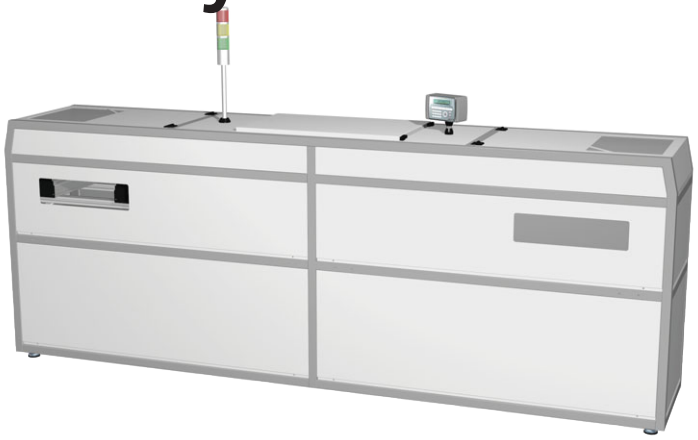
• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Board length:	70 - 470 mm (2.8 - 18.5”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.0016 - 0.24”)
• Max. board weight:	4 kg (8.8 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Gate width:	700mm, (27.6”)
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment

Order code: Manual gate, MB775

Board Transfer System



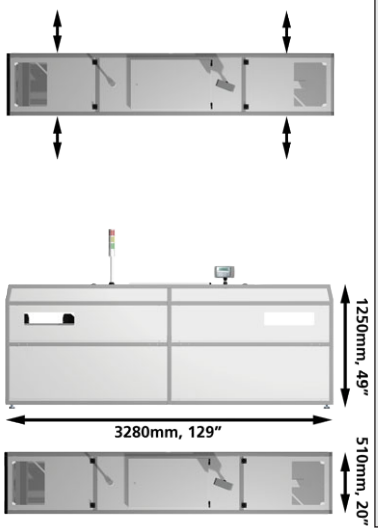
Standard features:

- Customer defined transfer distance and infeed/outfeed configuration
- PLC controlled
- Precision positioned shuttle with accelerated/decelerated starts and stops
- Motorized width adjustment
- Light tower and audible status indicator
- SMEMA interface

The board transfer system is a sophisticated solution for dividing, merging, or rerouting production lines by transferring boards between them. The machine consists of a traverse unit and a board carrying shuttle conveyor.

Possible board routing configurations are from 1 in 1 out, up to 1 in 3 out or 3 in 1 out. Board routing in a multiple in/out configuration is determined by a selector switch or signals supplied by the preceding machine(s).

Width adjustment is motorized and is easily adjusted from the operators panel. Automatic width adjustment is available as an option. Motors, cables, PLC and associated control electronics are located behind steel covers. The covers are mounted on the base frame, which is manufactured from welded steel that makes the system extremely rigid and solid.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	70 - 470 mm (2.8 - 18.5 ")
• Board width:	50 - 508 mm (2 - 20")
• Board thickness:	0.4 - 6 mm (0.0016 - 0.24")
• Max. board weight:	4 kg (8.8 lbs)
• Board edge clearance:	3 mm (0.12")
• Max. board warpage width:	0.5%
• Transfer distance:	Specified by customer
• Board routing configuration:	Specified by customer (H, h, Z or U)
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment
- Barcode reader

Order code: Board transfer, MB776

Shuttle Conveyor

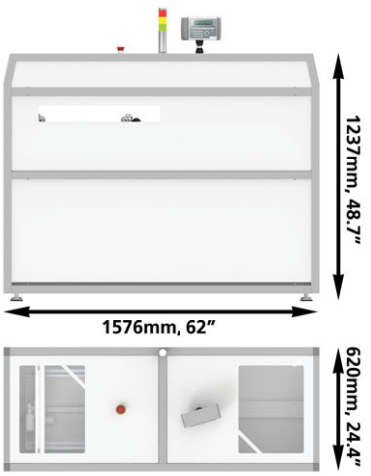
Standard features:

- Programmable infeed/outfeed positions
- PLC controlled
- Precision positioned shuttle with accelerated/decelerated starts and stops
- Motorized width adjustment
- Light tower and audible status indicator
- SMEMA interface

The shuttle conveyor works as a link between single lane and dual lane production lines. By transferring boards sideways on a shuttle, one lane is divided into two, or two lanes are merged into one. The machine consists of a traverse unit and a board carrying shuttle conveyor.

Infeed/outfeed positions and board routing rules are programmable through the operators panel.

Manual motorized width adjustment is standard and automatic width adjustment is available as an option. Motors, cables, PLC and associated control electronics are located inside the machine, behind covers. The covers are mounted on the base frame that is manufactured from welded steel and makes the system rigid and solid.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	70 - 570 mm (2.8 - 22.4 ")
• Board width:	50 - 508 mm (2 - 20")
• Board thickness:	0.4 - 6 mm (0.0016 - 0.24")
• Max. board weight:	4 kg (8.8 lbs)
• Board edge clearance:	3 mm (0.12")
• Max. board warpage width:	0.5%
• Transfer distance:	Specified by customer
• Board routing configuration:	1 in -> 2 out or 2 in -> 1 out
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment
- Barcode reader

Order code: Shuttle conveyor, MB777

Buffer Unit

Standard features:

- DC-motor controlled level positioning
- FIFO, LIFO, and Pass through mode
- Solid welded steel frame construction
- Light tower and audible status indicator
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Buffer unit is designed to balance station-capacity differences by offering board escape possibilities in case of failures or slow board flow in the connected systems.

The FIFO/LIFO capability and the 'pass through' function, that disables board buffering and allows the boards to pass through the unit without being buffered, gives the unit a wide range of uses.

Buffer full warning level, start slot, stepping and pass through slot is selectable. All input is made through the operators panel that makes the unit easy to operate. Motors, cables, PLC and associated control electronics are located behind steel covers. The covers are mounted on the base frame, which is manufactured from welded steel.

Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	70 - 450 mm (2.8 - 17.7")
• Board width:	50 - 508 mm (2 - 20")
• Board thickness:	0.4 - 3 mm (0.0016 - 0.12")
• Max. board weight:	2 kg (4.4 lbs)
• Board edge clearance:	3 mm (0.12")
• Max. board warpage width:	0.5%
• Storage capacity:	20 boards
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment

Order code: Buffer Unit, K-017-0188

Board Inverter

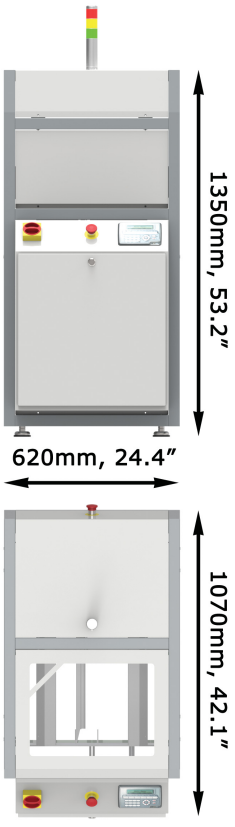
Standard features:

- Programmable board flow sequence
- DC-motor controlled inverter movement
- Pass through function
- Solid welded steel frame construction
- Light tower as status indicator
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Board inverter turns a board upside down to make processing possible on both sides without manual intervention. A board transfer cycle consists of infeed, flip or no-flip, and outfeed. Up to 5 different board transfer cycles can be stored. The machine is bi-directional and can receive and send boards both up- and downstreams.

All settings and adjustments are done through the operators panel. Status feedbacks, in form of informational messages and alarms, are also displayed on the HMI when the machine is in production or an alarm occurs.

Motors, cables, PLC and associated control electronics are located behind steel covers. The covers are mounted on the base frame, which is manufactured from welded steel which makes the system extremely rigid and solid.



Technical information:

• Programmable cycle parameters:	Infeed and outfeed side, flip or no-flip
• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	70 - 550 mm (2.8 - 22.8")
• Board width:	50 - 508 mm (2 - 20")
• Board thickness:	0.8 - 3 mm (0.03 - 0.12")
• Max. board weight:	3 kg (6.6 lbs)
• Board edge clearance:	3 mm (0.12")
• Top/bottom clearance:	25/20 mm (1.0/0.8")
• Max. board warpage width:	0.5%
• Voltage:	100 - 240 VAC, 50/60 Hz
• Max. power consumption:	0.4 kWh
• Air supply:	5-10 bar, 220 l/h (70-140 psi, 0.13 cfm)
• SMEMA Interface	

Options:

- Automatic width adjustment
- Auto width control unit

Order code: Board Inverter, K-017-0189

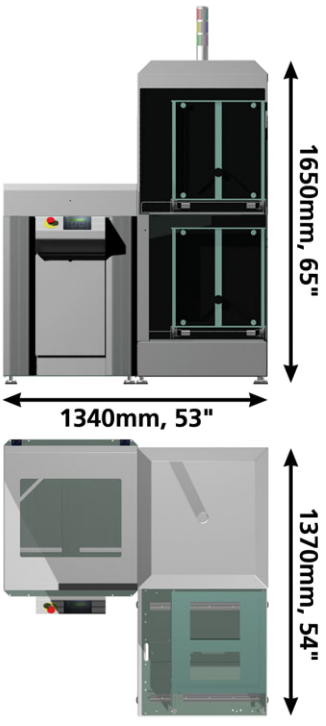
Automatic Loader

Standard features:

- Supports most standard sized magazines
- Data for multiple magazines can be stored/recalled for faster changeovers
- Modular magazine conveyors
- High precision level positioning
- PLC controlled
- SMEMA interface

The Loader separates and loads bare or pre-mounted PC-Boards from rasterized magazines, onto a subsequent production line.

Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. Most standard sized magazines are supported and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines.
All input is made through the operation panel, which makes the unit easily managed. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- SMEMA Machine Ready detection
- Master function for automatic width adjustment
- Additional magazine conveyor unit
- Batch handling (FlowLine)

Order code: Automatic Loader, MB801

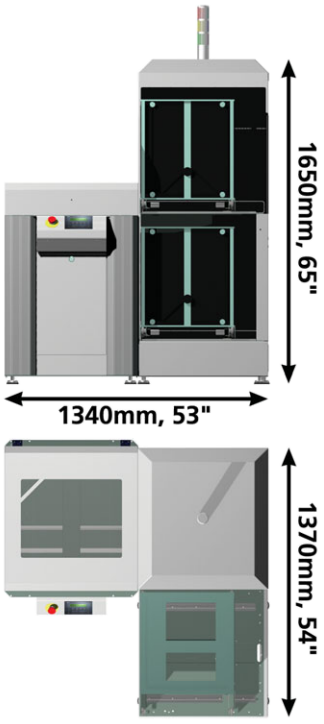
Automatic Unloader

Standard features:

- Supports most standard sized magazines
- Data for multiple magazines can be stored/recalled for faster changeovers
- Unload conveyor included
- Modular magazine conveyors
- High precision level positioning
- PLC controlled
- SMEMA interface

The Unloader unloads the production line and loads bare or pre-mounted PC-Boards into rasterized magazines.

Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. Most standard sized magazines are supported and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines.
All input is made through the operation panel, which makes the unit easily managed. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- SMEMA Board Available detection
- Automatic width adjustment on included Unload conveyor
- Additional magazine conveyor unit
- Batch handling (FlowLine)

Order code: Automatic Unloader, MB802

Turn Unit

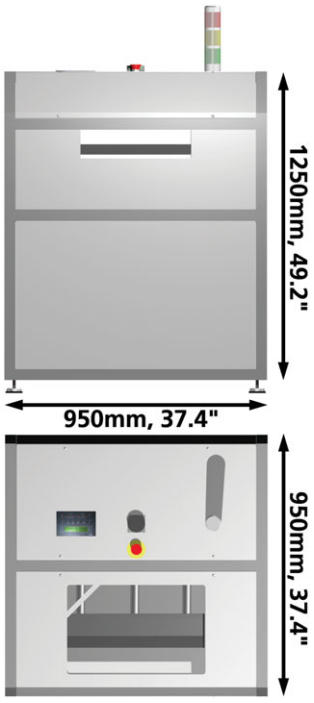
Standard features:

- Board routing through L-bends, T-junctions or crossovers
- DC-motor precision controlled rotation and X/Y motion
- Solid welded steel frame construction
- Light tower and buzzer as status indicator
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Turn unit routes boards from 1, 2 or 3 infeed sides, to 1, 2 or 3 outfeed sides. Board infeed/outfeed routing can be fixed, based on board flow, and/or based on priority values set via the control panel. Outfeed routing can also be controlled by external signals or by a barcode reader.

All configurations, such as side assignment, infeed/outfeed routing, width adjustment, and more, are made through the control panel.
The unit is compact and can be placed next to adjacent machines without the need for any interconnecting conveyors.

The conveyor, which is mounted on a DC-motor controlled X/Y table, is built in one 0,5 m section and each side has its own belt driving motor.
Cables, PLC and associated control electronics are located behind steel covers below the control panel, which makes it easy to access.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Board length:	70 - 450 mm (2.8 - 17.7”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.0016 - 0.24”)
• Max. board weight:	4 kg (8.8 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Voltage:	100 - 240 VAC, 50/60 Hz

- Accelerated and decelerated X/Y movement and rotation
- SMEMA Interface

Options:

- Automatic width adjustment
- Barcode reader for board routing

Order code: Turn Unit, MB750

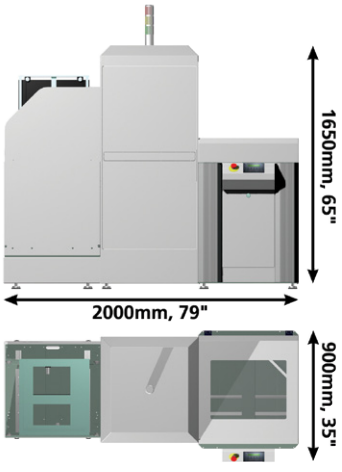
Automatic Reloader

Standard features:

- Supports most standard sized magazines
- Data for multiple magazines can be stored/recalled for faster changeovers
- Bi-directional reload conveyor included
- Modular magazine conveyors
- High precision level positioning
- PLC controlled
- SMEMA interface

The Reloader separates and loads bare or pre-mounted PC-Boards from rasterized magazines, onto a subsequent production line, waits for the board to return, and receives the processed board into its original magazine slot.

Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. Most standard sized magazines are supported and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines.
All input is made through the operation panel, which makes the unit easily managed. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- SMEMA Machine Ready detection
- SMEMA Board Available detection
- Automatic width adjustment on included Reload conveyor
- Master function for automatic width adjustment
- Additional magazine conveyor unit

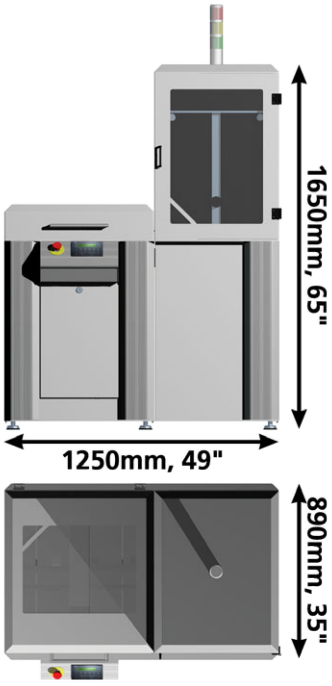
Order code: Automatic Reloader, K-017-0563

In-line Magazine Buffer

Standard features:

- Five modes of operation:
  FIFO Buffer, LIFO Buffer, Manual Loader, Manual Unloader, Pass-through
- Pass-through conveyor on elevator below magazine
- Data for multiple magazines can be stored/recalled for faster changeovers
- High precision level positioning
- PLC controlled
- SMEMA interface

The Magazine buffer is placed in the line to balance board flow in FIFO or LIFO buffer mode, act as a line splitter in Loader or Unloader mode, or line merger in Pass-through mode. The magazine can be removed/exchanged at any time in all work modes. Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. All input is made through the operation panel, which makes the unit easily managed. Most standard sized magazines are supported in Loader and Unloader mode, and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines. The pass-through conveyor, mounted below the magazine, enables smooth transportation of PCBs in pass-through mode and in buffer modes when the magazine is empty. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”) **
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

** Magazine depth must be 535 mm in FIFO, LIFO and Pass through mode

Options:

- SMEMA Board Available detection
- SMEMA Machine Ready detection
- Automatic width adjustment on included Unload conveyor
- Master function for automatic width adjustment

Order code: In-line Magazine Buffer, MB805

Single Loader

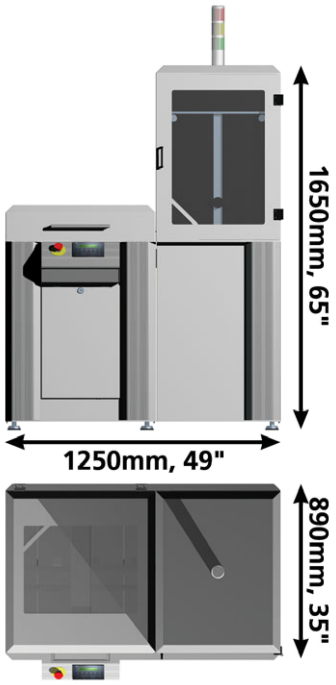
Standard features:

- Supports most standard sized magazines
- Data for multiple magazines can be stored/recalled for faster changeovers
- High precision level positioning
- PLC controlled
- SMEMA interface

The Loader separates and loads bare or pre-mounted PC-Boards from rasterized magazines, onto a subsequent production line.

Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. Most standard sized magazines are supported and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines.

All input is made through the operation panel, which makes the unit easily managed. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- SMEMA Machine Ready detection
- Master function for automatic width adjustment

Order code: Single Loader, MB806

Single Unloader

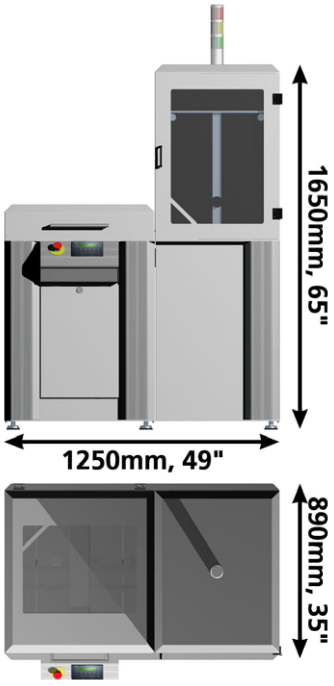
Standard features:

- Supports most standard sized magazines
- Data for multiple magazines can be stored/recalled for faster changeovers
- Unload conveyor included
- High precision level positioning
- PLC controlled
- SMEMA interface

The Unloader unloads the production line and loads bare or pre-mounted PC-Boards into rasterized magazines.

Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. Most standard sized magazines are supported and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines.

All input is made through the operation panel, which makes the unit easily managed. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- SMEMA Board Available detection
- Automatic width adjustment on included Unload conveyor

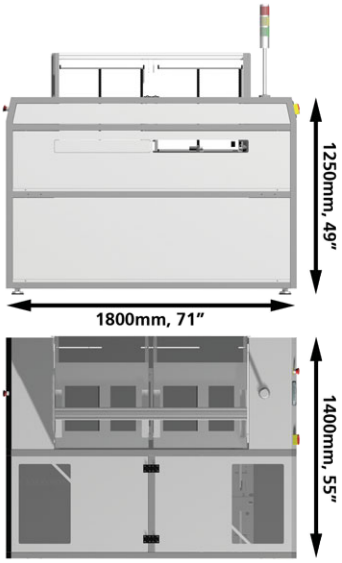
Order code: Single Unloader, MB807

Dual Unloader

Standard features:

- Six modes of operation, all easily selectable from the operators panel
- Fully programmable shuttle conveyor input/output positions
- Board pass/fail function
- Function for automatic switching to second magazine
- Automatic width adjustment
- Automatic pusher positioning to center of board
- PLC controlled
- High precision servo motor controlled magazine elevator
- Ample lifting capacity
- SMEMA interface with OK/NG signalling

The Dual Unloader consists of a conveyor, mounted on a traversing table, that receives and distributes PCBs, from an upstream machine into one or two magazines, depending on selected work mode. If the pass/fail function is activated, good and bad PCBs will be separated and stored in different magazines. Six modes of operation, and automatic width/pusher adjustment, provide superior flexibility and make the machine suite most customers in need of a high capacity line unloader. Functions and features that make the machine flexible and easy to operate is implemented as standard, and most likely make this machine the most advanced and flexible dual unloader on the market today. By implementing all functions and features as standard, the machine will fulfill the customers needs in both static and varying production environments.



Technical information:

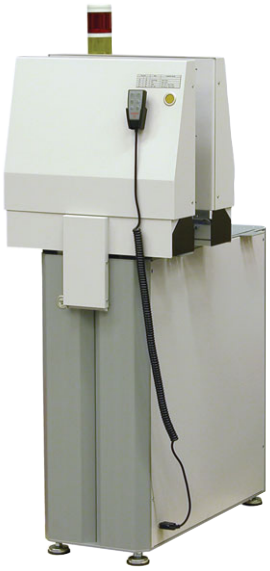
• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Max. board size:	L: 470 mm (18.5") - W: 508 mm (20")
• Board thickness:	0.4 - 4 mm (0.016 - 0.16")
• Board edge clearance:	3 mm (0.12")
• Max. magazine depth:	535 mm (21")
• Max. magazine width:	580 mm (22.8")
• Max. magazine height:	570 mm (22.4")
• Max. lift weight:	100 kg (220 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- SMEMA Board Available detection

Order code: Dual Unloader, MB809

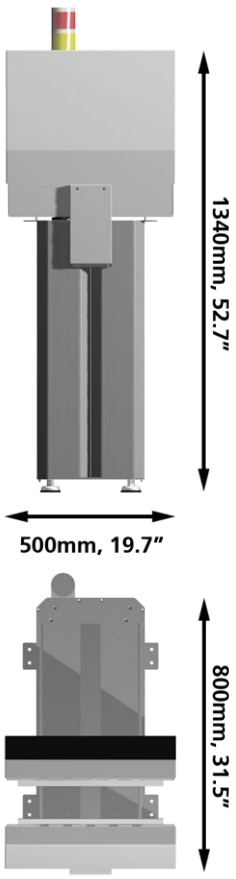
Mini Buffer



Standard features:

- Five modes of operation: LIFO, Loader, Unloader, Pass through, Triggered
- Modes easily changed through hand control unit
- Tube mounted lights as status indicator
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Mini buffer consists of a vertical buffer and a 500mm conveyor, and is placed in the line to balance board flow in LIFO buffer mode, act as a line splitter in Loader or Unloader mode, or good/bad board separator in Triggered mode. Width adjustment, work mode, and other functions, are all accessed from the hand control unit, which makes the unit easily managed.
In LIFO mode, boards are received from a preceding machine and are buffered when the subsequent machine is occupied. A board is lowered from the buffer and transported to the subsequent machine as soon as it becomes ready.
In Loader mode, a maximum of 10 boards can be manually loaded in the buffer to provide the subsequent machine with a constant board flow.
In Unloader mode, a maximum of 10 boards received from the preceding machine, are stored in the buffer for manual removal.
In Triggered mode, boards signaled as bad (NG) from the preceding machine are stored in the buffer for manual removal, while good boards continue down the line to the subsequent machine.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	100 - 450 mm (3.9 - 17.7")
• Board width:	50 - 508 mm (2 - 20")
• Board thickness:	0.4 - 6 mm (0.016 - 0.24")
• Max. board weight:	3 kg (6.6 lbs)
• Max. combined board weight in buffer:	15 kg (33 lbs)
• Components clearance top:	20 mm (0.8")
• Components clearance bottom:	15 mm (0.6")
• Board edge clearance:	6 mm (0.24")
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- Automatic width adjustment
- Auto width control unit

Order code: Mini buffer, MB810

Single Reloader

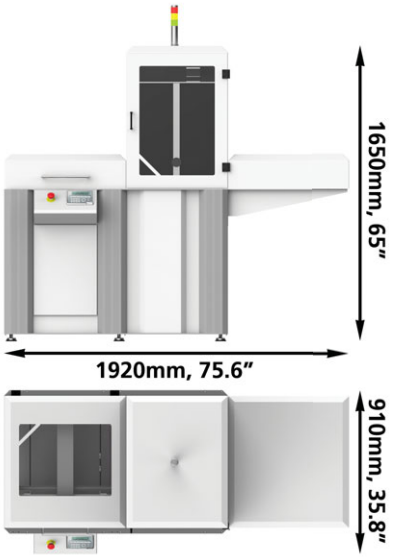
Standard features:

- Supports most standard sized magazines
- Data for multiple magazines can be stored/recalled for faster changeovers
- Bidirectional conveyor included
- High precision level positioning
- PLC controlled
- SMEMA interface

The Single reloader separates and loads bare or pre-mounted PC-Boards from rasterized magazines, onto a subsequent production line, waits for the board to return, and receives the processed board into its original magazine slot.

Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. Most standard sized magazines are supported and multiple magazine settings can be stored in memory for easy retrieval when changing between different sized magazines.

All input is made through the operation panel, which makes the unit easily managed. When necessary, the three coloured light tower, with audible alarm, attracts the operators attention and an informative message is displayed on the operation panel.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2")
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5")
• Max. magazine depth:	535 mm (21")
• Max. magazine width:	580 mm (22.8")
• Max. magazine height:	570 mm (22.4")
• Max. lift weight:	40 kg (88 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- Automatic width adjustment master function
- Automatic width adjustment on included bidirectional conveyor

Order code: Single Reloader, MB812

FIFO Buffer 10

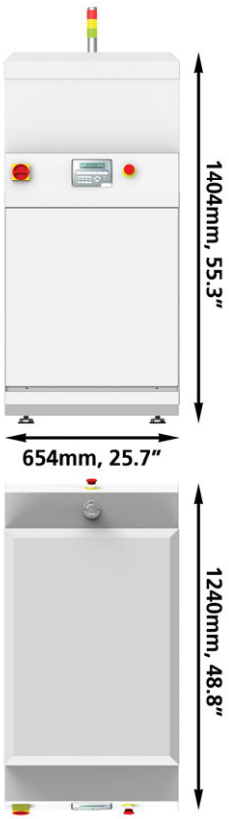
Standard features:

- DC-motor controlled level positioning
- FIFO, LIFO, and Pass through mode
- Light tower and audible status indicator
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The Buffer unit is designed to balance station-capacity differences by offering board escape possibilities in case of failures or slow board flow in the connected systems.

The FIFO/LIFO capability and the 'pass through' function, that disables board buffering and allows the boards to pass through the unit without being buffered, gives the unit a wide range of uses.

Buffer full warning level, start slot, stepping and pass through slot is selectable. All input is made through the operators panel that makes the unit easy to operate. Motors, cables, PLC and associated control electronics are located behind steel covers, which gives the unit a clean outlook.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	70 - 610 mm (2.8 - 24")
• Board width:	50 - 508 mm (2 - 20")
• Board thickness:	0.4 - 3 mm (0.0016 - 0.12")
• Max. board weight:	5 kg (11 lbs)
• Board edge clearance:	3 mm (0.12")
• Max. board warpage width:	0.5%
• Storage capacity:	10 boards
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment
- Cooling fans
- Ventilation hood
- Ventilation guard sensor

Order code: FIFO Buffer 10, MB813

Light Loader/Unloader

Standard features:

- Unload conveyor, light tower, magazine locking
- Supports most standard sized magazines
- High precision level positioning
- PLC controlled
- SMEMA interface

The Light Loader/Unloader is an ‘open’ variant of the Single Loader/Unloader.

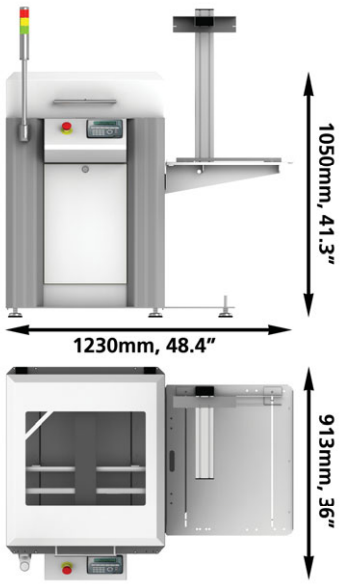
The Loader

The Loader separates and loads bare or pre-mounted PC-Boards from rasterized magazines, onto a subsequent production line.

The Unloader

The Unloader unloads the production line and loads bare or pre-mounted PC-Boards into rasterized magazines.

The Loader and Unloader support most standard sized magazines.
Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. All input is made through the operation panel, which makes the unit easily managed. When necessary, the operation panel also provides the operator with informative messages.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	30 kg (66 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- Motorized width adjustment (Unloader)
- Automatic width adjustment (Unloader)
- Master function for automatic width adjustment (Loader)
- SMEMA Machine Ready detection (Loader)
- SMEMA Board Available detection (Unloader)

Order codes: Light Loader, MBL814 Light Unloader, MBL815

Light Loader/Unloader

Standard features:

- Unload conveyor, light tower, magazine locking
- Supports most standard sized magazines
- High precision level positioning
- PLC controlled
- SMEMA interface

The Light Loader/Unloader is an ‘open’ variant of the Single Loader/Unloader.

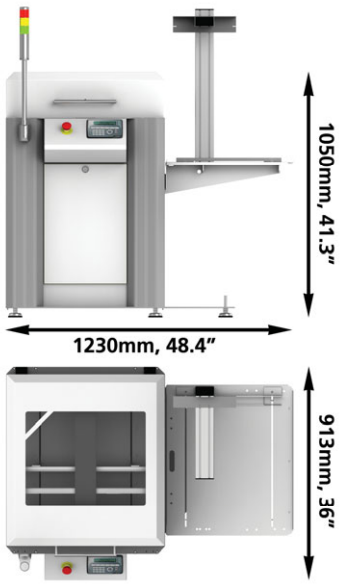
The Loader

The Loader separates and loads bare or pre-mounted PC-Boards from rasterized magazines, onto a subsequent production line.

The Unloader

The Unloader unloads the production line and loads bare or pre-mounted PC-Boards into rasterized magazines.

The Loader and Unloader support most standard sized magazines.
Filling ratio, skip factor, first and last load / unload position of the magazine is selectable. All input is made through the operation panel, which makes the unit easily managed. When necessary, the operation panel also provides the operator with informative messages.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Mag. lower edge to first PCB slot:	Min. 30 mm (1.2”)
• Mag. lower edge to last PCB slot:	Max. 547 mm (21.5”)
• Max. magazine depth:	535 mm (21”)
• Max. magazine width:	580 mm (22.8”)
• Max. magazine height:	570 mm (22.4”)
• Max. lift weight:	30 kg (66 lbs)
• Voltage:	100 - 240 VAC, 50/60 Hz
• Air pressure:	6-8 bar (600-800 kPa)
• SMEMA Interface	

Options:

- Motorized width adjustment (Unloader)
- Automatic width adjustment (Unloader)
- Master function for automatic width adjustment (Loader)
- SMEMA Machine Ready detection (Loader)
- SMEMA Board Available detection (Unloader)

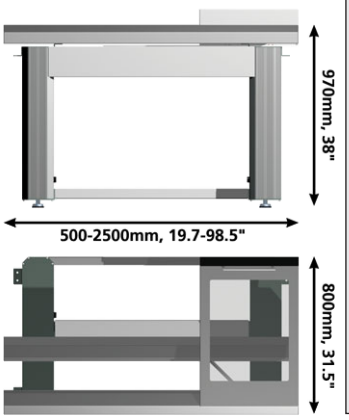
Order codes: Light Loader, MBL814 Light Unloader, MBL815

Conveyor T3

Standard features:

- Buffering conveyor sections
- Stable and ridgid construction
- Board thickness down to 0.4mm
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The T3 conveyor is a sectioned conveyor with a rigid framework. Each side and section of the conveyor has its own motor, belt and board-present sensor, enabling a board to be buffered on each section and provide smooth, reliable transportation of PCBs.
Communication with preceding and following units is done via the standard SMEMA interface, which makes the conveyor easy to install in an electronics assembly line. The board train function with controlled high speed transportation and automatic width adjustment are two optional features that increase throughput and reduce the need for manual interventions, i.e. features that are eligible especially in high-mix / high-volume production.
Conveyor width adjustment is motorized as standard. Motors and cables are housed in the conveyor profile, giving a clean outlook to the unit. The conveyor frame is used for housing connectors, PLC and associated control electronics.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Buffering zone length:	500 mm (19.7”)
• Board length:	70 - 470 mm (2.8 - 18.5”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.016 - 0.24”)
• Max. board weight:	5 kg (11 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Safety covers ESD, Safety covers ESD + safety loop
- Adjustable transport speed for interfacing reflow ovens
- Automatic width adjustment
- Barcode reader
- Board train function
- Start of line/End of line function
- Board stop for inspection

Order codes:

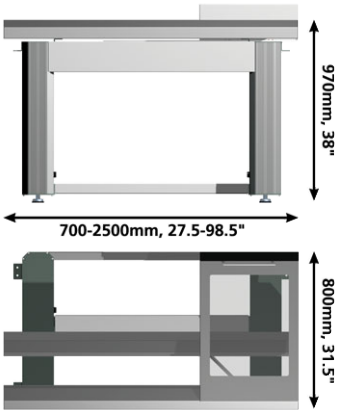
Conveyor T3 500mm, MB702T3
Conveyor T3/T4 700mm, MB703T3T4
Conveyor T3 1000mm, MB704T3
Conveyor T3/T4 1200mm, MB705T3T4
Conveyor T3 1500mm, MB706T3
Conveyor T3 1700mm, MB707T3
Conveyor T3 2000mm, MB708T3
Conveyor T3/T4 2250mm, MB709T3T4
Conveyor T3 2500mm, MB710T3

Conveyor T4

Standard features:

- Buffering conveyor sections
- Stable and ridgid construction
- Board thickness down to 0.4mm
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The T4 conveyor is a sectioned conveyor with a rigid framework. Each side and section of the conveyor has its own motor, belt and board-present sensor, enabling a board to be buffered on each section and provide smooth, reliable transportation of PCBs.
Communication with preceding and following units is done via the standard SMEMA interface, which makes the conveyor easy to install in an electronics assembly line. The board train function with controlled high speed transportation and automatic width adjustment are two optional features that increase throughput and reduce the need for manual interventions, i.e. features that are eligible especially in high-mix / high-volume production.
Conveyor width adjustment is motorized as standard. Motors and cables are housed in the conveyor profile, giving a clean outlook to the unit. The conveyor frame is used for housing connectors, PLC and associated control electronics.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Buffering zones:	1, 2 or 3
• Board length:	70 - 575 mm (2.8 - 22.6”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.016 - 0.24”)
• Max. board weight:	5 kg (11 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

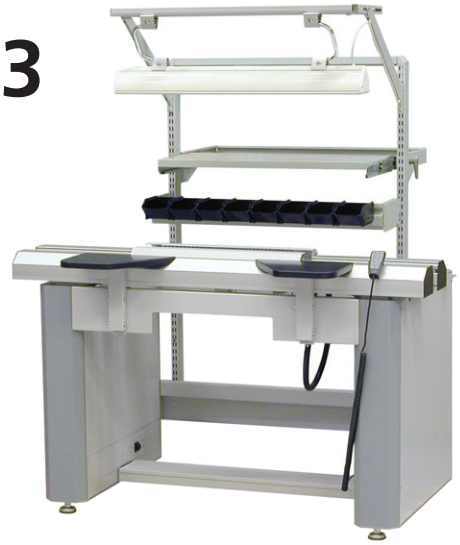
Options:

- Safety covers ESD, Safety covers ESD + safety loop
- Adjustable transport speed for interfacing reflow ovens
- Automatic width adjustment
- Barcode reader
- Board train function
- Start of line/End of line function
- Board stop for inspection

Order codes:

Conveyor T3/T4 700mm, MB703T3T4	Conveyor T4 1700mm, MB707T4
Conveyor T4 1000mm, MB704T4	Conveyor T4 2000mm, MB708T4
Conveyor T3/T4 1200mm, MB705T3T4	Conveyor T3/T4 2250mm, MB709T3T4
Conveyor T4 1500mm, MB706T4	Conveyor T4 2500mm, MB710T4

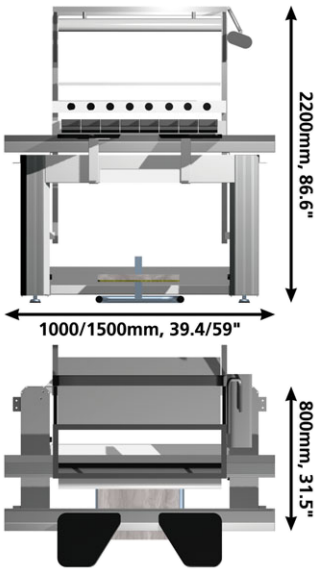
Workstation T3



Standard features:

- Board stop function, board release, arm rests
- Stable and ridgid construction
- Board thickness down to 0.4mm
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The T3 workstation is built around the standard T3 conveyor and enables manual assembly work and inspections to be carried out on PCBs in-line.
Each side and section of the conveyor has its own motor and belt, providing smooth and reliable transportation of PCBs.
Communication with preceding and following units is done via the standard SMEMA interface, which makes the conveyor easy to install in an electronics assembly line.
Width adjustment is motorized as standard. Motors and cables are housed in the conveyor profile, giving a clean outlook to the unit. The conveyor frame is used for housing connectors, PLC and associated control electronics.



Technical information:

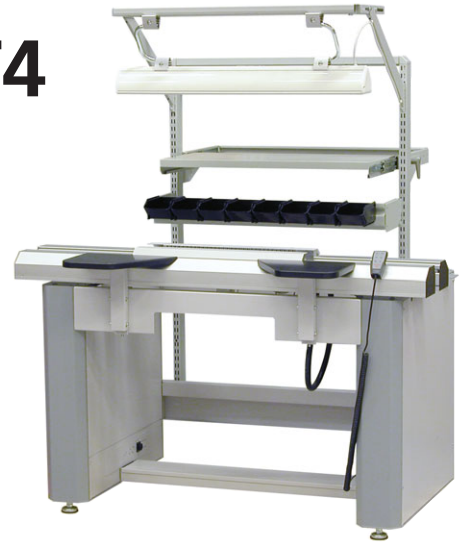
• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Buffering zones:	1000mm = 2, 1500mm = 3
• Board length:	70 - 470 mm (2.8 - 18.5”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.016 - 0.24”)
• Max. board weight:	5 kg (11 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Safety covers ESD
- Adjustable transport speed
- Automatic width adjustment
- PCB reject & inspection lift
- Framework with lighting, boxes, shelves
- Foot rest, board release foot pedal

Order codes: Workstation T3 1000mm, MB729T3
Workstation T3 1500mm, MB730T3

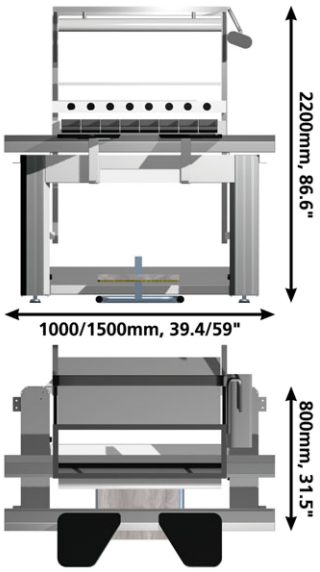
Workstation T4



Standard features:

- Board stop function, board release, arm rests
- Stable and ridgid construction
- Board thickness down to 0.4mm
- PLC controlled
- Motorized width adjustment
- SMEMA interface

The T4 workstation is built around the standard T4 conveyor and enables manual assembly work and inspections to be carried out on PCBs in-line.
Each side and section of the conveyor has its own motor and belt, providing smooth and reliable transportation of PCBs.
Communication with preceding and following units is done via the standard SMEMA interface, which makes the conveyor easy to install in an electronics assembly line.
Width adjustment is motorized as standard. Motors and cables are housed in the conveyor profile, giving a clean outlook to the unit. The conveyor frame is used for housing connectors, PLC and associated control electronics.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2”)
• Buffering zones:	1000mm = 1, 1500mm = 2
• Board length:	70 - 575 mm (2.8 - 22.6”)
• Board width:	50 - 508 mm (2 - 20”)
• Board thickness:	0.4 - 6 mm (0.016 - 0.24”)
• Max. board weight:	5 kg (11 lbs)
• Board edge clearance:	3 mm (0.12”)
• Max. board warpage width:	0.5%
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Safety covers ESD
- Adjustable transport speed
- Automatic width adjustment
- PCB reject & inspection lift
- Framework with lighting, boxes, shelves
- Foot rest, board release foot pedal

Order codes: Workstation T4 1000mm, MB729T4
Workstation T4 1500mm, MB730T4

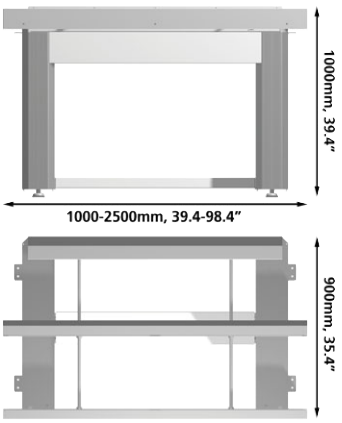
T5 / T6 Conveyor

Standard features:

- PLC controlled
- SMEMA interface
- Stable and ridgid construction
- Buffering conveyor sections
- Motorized width adjustment
- Adjustable transport speed

The large board conveyor is based on the standard transport/buffer conveyor with the following main differences: reinforced rail structure, rail suspension, and belt driving mechanism. Each section of the conveyor has its own powerful DC motor, that drives the belt on both sides and provides smooth, reliable transportation of PCBs through an electronics assembly line.

Conveyor width adjustment is motorized as standard. Belt driving motors and cables are covered with sheet metal, giving a clean appearance to the unit. The conveyor frame is used for housing the PLC and associated control electronics.



Technical information:

• Board transport level:	940 ± 30 mm (37 ± 1.2")
• Board length:	70 - 930 mm (2.8 - 36.6")
• Board width:	50 - 621 mm (2 - 24.5")
• Board thickness:	0.8 - 12.7 mm (0.03 - 0.5")
• Max. board weight:	25 kg (55 lbs)
• Board edge clearance:	4 mm (0.16")
• Max. board warpage width:	0.5%
• Component below:	25mm (1")
• Voltage:	100 - 240 VAC, 50/60 Hz
• SMEMA Interface	

Options:

- Automatic width adjustment
- Auto width control unit
- Barcode reader
- Board train function
- Safety cover

Order codes: Conveyor 1000mm, MB904 Conveyor 1500mm, MB906
Conveyor 2000mm, MB908 Conveyor 2500mm, MB910