



NUTEK

EUROPE

PCB handling & Traceability equipment



Company

Nutek Europe BV is the European distributor of Nutek Board Handling & Traceability Equipment and is the leading supplier of this equipment for the European, African and Middle East PCB Assembly industry.

Our history traces back to 1992, when Nutek Europe obtained the exclusive European sales rights of Nutek Pte Ltd, Singapore. Since then a network of agents has been setup and maintained to serve customers throughout our sales region. The agents are supported by the Nutek Europe's area sales managers who are familiar with the entire production process and specialize in several specific areas.

Nutek Europe has its own customer-service department with a standard 12-hours response time. Naturally, Nutek Europe has the necessary spare parts on stock for fast delivery, if required.

The Nutek Europe facility offers adequate space for customer demonstration's, technical- and sales training and has a 750 square meter warehouse, where the European stock of Nutek equipment, including spare parts and magazine racks is stored.

Contents

Click the machine below
to jump to the matching
datasheet

Traceability 2

Laser marker CO2-S3	2
Laser marker CO2-S5	4
Barcode labelling	6
Scan station	8

Buffers 37

Single magazine buffer	37
Multi magazine buffer	38
FIFO buffer	39
LIFO buffer	40
Belt FIFO buffer	41
Small capacity buffer	42

Loaders & unloaders 9

Single magazine line loader	9
Single magazine line unloader	10
Dual magazine line loader	11
Dual magazine line unloader	12
Multi magazine line loader	13
Multi magazine line unloader	14
Pusher conveyor	15
Bare board loader by-pass	16
Destacker	17
Push-up destacker	18
Push-up stacker	19

E-series 43

E-series Single magazine line loader	43
E-series Single magazine line unloader	44
E-series Dual magazine line loader	45
E-series Dual magazine line unloader	46
E-series Multi magazine line loader	47
E-series Multi magazine line unloader	48
E-series Destacker	49
E-series Linking conveyor	50
E-series Inspection conveyor	51
E-series Reject conveyor	52
E-series Workstation	53
E-series Manual gate	54
E-series Inverter	55
E-series Turn conveyor	56

Conveyors 20

Linking conveyor	20
Solder infeed conveyor	21
Solder outfeed conveyor	22
Inspection conveyor	23
Reject conveyor	24
AOI rework conveyor	25
In line workstation	26
Telescopic conveyor	27
Telescopic conveyor (NC/NO)	28
Manual gate	29
PCB cleaning conveyor	30
Coating conveyor	31

Semicon series 57

Advance platform loader/unloader	57
Platform loader/unloader	58
High speed mini loader	59
High speed mini unloader	60

Traffic controllers 32

Shuttle conveyor	32
Inverter	33
Coating inverter	34
Lifter	35
Turn conveyor	36

Conveyor chains 61

The unit is designed to accurately mark PCB's within a production line or can be used as a stand alone cell. A "flying laser" concept is used which means that the PCB is locked in the marking position while the CO₂ laser is moved using servo controlled X-Y axis. The number of markings and their positions are easily programmed in Windows™ based software. An optional integrated inverter is available for double-sided marking.



Standard features

- CCD camera for readability check.
- Three level camera lighting (brightness)
- Large marking area.
- Controlled by industrial PC.
- Capability to mark text, barcodes, 2D codes and graphics.
- Conveyor width adjustment using hand crank.
- Rigid machine structure with large access doors.
- PCB side clamping.
- Mechanical PCB lift for constant focal point.
- Quick product change-over.
- Selectable by-pass operation.
- Uninterruptible power supply (UPS).
- Towerlight display for machine status.
- CE certified.

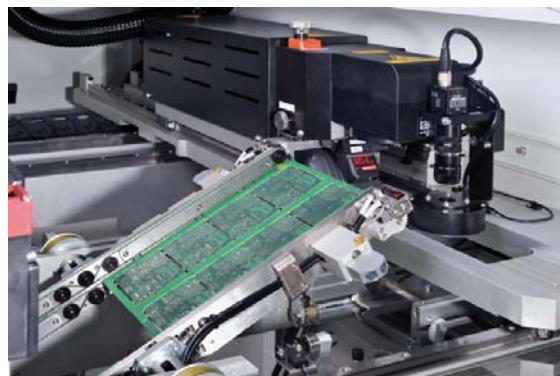
Technical specifications

Laser type:	CO ₂ , 10 Watt, air cooled
Wave length:	10.63 µm
Laser class:	Class 4
Housing class:	Class 1
Marking area:	105 mm x 105 mm per position, 460 mm x 460 mm total coverage
Cell size:	≥ 0,127 mm (5 mil)
Conveyor type:	3 mm ESD edge belt
Conveyor speed:	24 m/min.
PCB transfer time:	≤ 5 sec.
System software:	Windows XP
Network interface:	Ethernet
Monitor:	17" high-density flat screen
PCB transfer height:	950 mm ± 25 mm*
Component clearance:	Top 30 mm, bottom 30 mm*
Conveyor flow direction:	Left to right*
Conveyor interface:	SMEMA*
Colour:	RAL 9002*
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	1610 VA max. (fume extraction included)
Air supply:	5 bar
Air consumption:	20 ltr/min max.
Noise level:	max. 65 dB * or specify

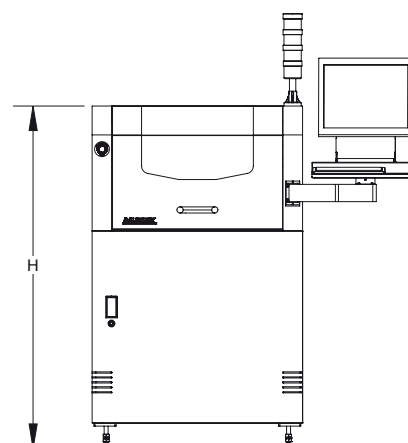
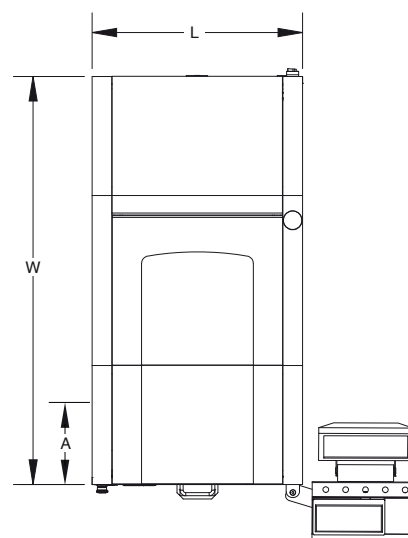
Options

- Program controlled conveyor width adjustment
- PCB orientation check
- Fiducial recognition and position alignment
- Double-sided marking using integrated inverter
- Barcode scanner (Microscan MS4)
- Bad marking recognition
- Database- and network connection
- Fiber laser
- Fume extraction unit (external, 1000 VA max.)

Other options available on request



* with optional inverter



	LMC-S3
Machine dimensions (l x w x h)	850 x 1645 x 1380 mm
Weight	700 kg
Applicable PCB length	80 mm - 508 mm
Applicable PCB width	65 mm - 460 mm
PCB thickness	0.6 mm - 4 mm
Fixed rail to front dimension (A)	330 mm

The unit is designed to accurately mark PCB's within a production line or can be used as stand alone cell. The usage of a 3-axis galvo-head provides a large marking area (350 x 350 mm) without having to use a X-Y gantry. This results in very short cycle times for a large number of markings. The type, number of markings and their positions are easily programmed in Windows™ based software. An optional integrated inverter is available for double-sided marking.



Standard features

- Controlled by industrial PC.
- Capability to mark text, barcodes, 2D codes and graphics.
- Conveyor width adjustment using hand crank.
- PCB side clamping.
- Rigid machine structure with large access doors.
- Dynamic (adjustable) focal distance using software.
- Quick product change-over.
- Selectable by-pass operation.
- Uninterruptible power supply (UPS).
- Towerlight display for machine status.
- CE certified.

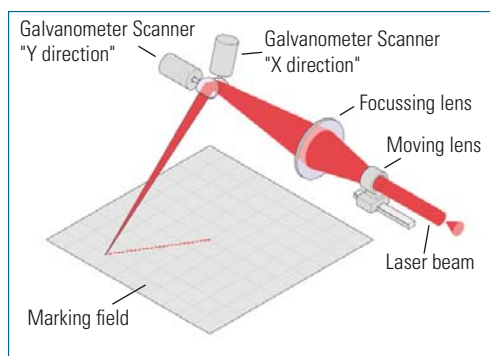
Technical specifications

Laser type:	CO2, 10 Watt, air cooled
Wave length:	10.63 μ m
Laser class:	Class 4
Housing class:	Class 1
Marking area:	350 mm x 350 mm
Cell size:	$\geq 0,195$ mm (7 mil)
Conveyor type:	3 mm ESD edge belt
Conveyor speed:	24 m/min.
PCB transfer time:	≤ 5 sec.
System software:	Windows XP
Network interface:	Ethernet
Monitor:	17" high-density flat screen
PCB transfer height:	950 mm $\pm$ 25 mm*
Component clearance:	Top 30 mm, bottom 30 mm*
Conveyor flow direction:	Left to right*
Conveyor interface:	SMEMA*
Colour:	RAL 9002*
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	1600 VA max. (fume extraction included)
Air supply:	5 bar
Air consumption:	20 ltr/min max.
Noise level:	max. 65 dB * or specify

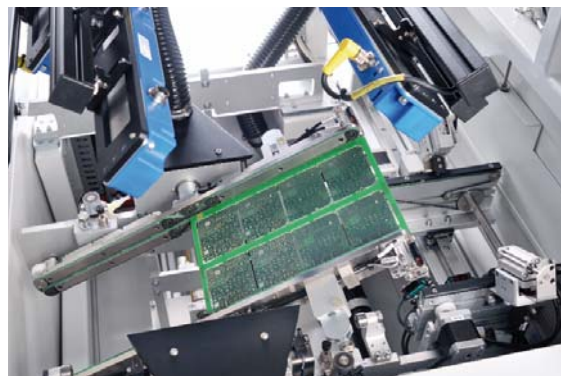
Options

- Program controlled conveyor width adjustment
- Double sided marking using integrated inverter
- Code verification of one single code using fixed scanner (Microscan MS4)
- Code verification, covering full marking area, using CCD camera, camera adaptor and LED bar lights
- Database- and network connection
- Fiber laser
- Fume extraction (external, 1000 VA max.)

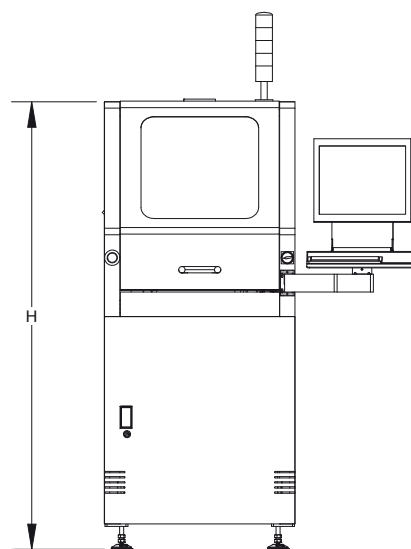
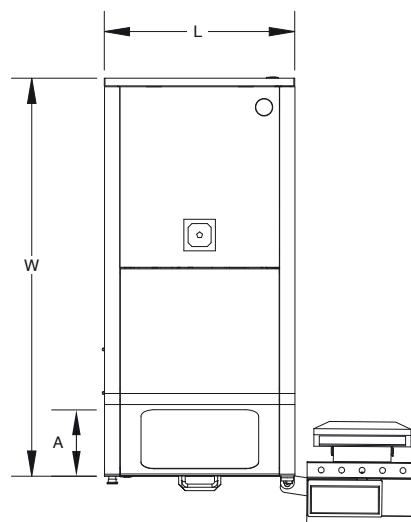
Other options available on request



	LMC-S5
Machine dimensions (l x w x h)	745 x 1558 x 1752 mm
Weight	550 kg
Applicable PCB length	80 mm - 508 mm
Applicable PCB width	65 mm - 460 mm
Applicable PCB thickness	0.6 mm - 4 mm
Fixed rail to front dimension (A)	236 mm



* with optional inverter



The unit is designed to accurately apply labels on PCB's or on top of components. It uses a X-Y gantry to move the applicator head between the label printer and the placement position. The PCB is clamped in position and supported from the bottom by manual positioned magnetic support pins while one or more labels are applied at any desired position. The number of labels and their positions are easily programmed in Windows™ based software.



Standard features

- Rigid machine structure with large access doors.
- Integrated 600 dpi printer.
- ZebraDesigner 2 user license.
- Slide-out mechanism (rear-side) for easy and fast label or ribbon replacement.
- Label rotation programmable in 1° step.
- Vacuum sensing of the label from pick-up to placement.
- CCD camera to read label before pick-up.
- Controlled by industrial PC.
- Conveyor width adjustment using hand crank.
- PCB side clamping.
- Active support base including 4 magnetic pins.
- Quick product change-over.
- Selectable by-pass operation.
- Uninterruptible power supply (UPS).
- Towerlight display for machine status.
- CE certified.

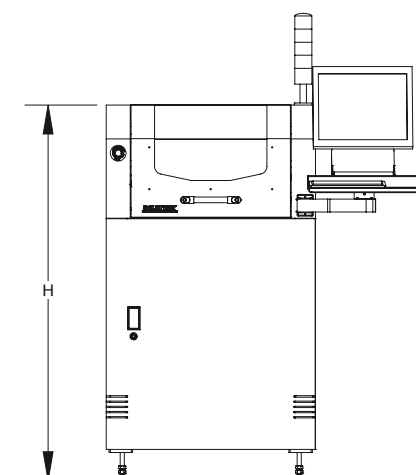
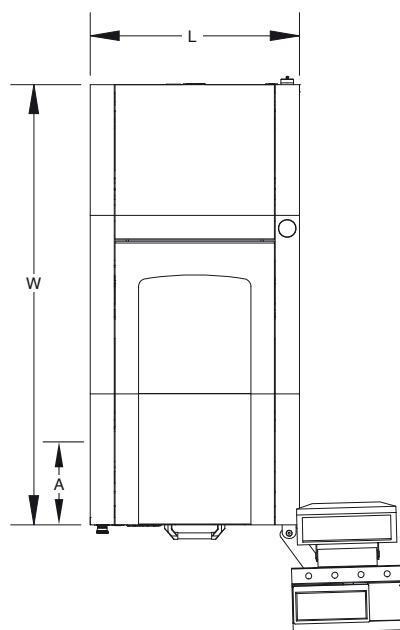
Technical specifications

Printer type:	Zebra 110 x i4 (600 dpi)
Minimum label size:	5 mm x 5 mm
Label creation software:	ZebraDesigner 2
Cycle time:	2.5 sec. per label
Conveyor type:	3 mm ESD edge belt
Conveyor speed:	24 m/min
PCB transfer time:	≤ 5 sec.
System software:	Windows XP
Network interface:	Ethernet
Monitor:	17" high-density flatscreen
PCB transfer height:	950 mm ± 25 mm*
Component clearance:	Top 30 mm, bottom 30 mm*
Machine interface:	SMEMA*
Colour:	RAL 9002*
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	700 VA max.
Air supply:	6 bar
Air consumption:	70 ltr/min max.
Noise level:	Max. 65 dB
	* or specify

Options

- Program controlled conveyor width adjustment
- Second thermal transfer printer
- Database- and network connection
- PCB orientation check

Other options available on request



	BLC-S3
Machine dimensions (l x w x h)	850 x 1680 x 1440 mm
Weight	750 kg
Applicable PCB length	80 mm - 508 mm
Applicable PCB width	65 mm - 460 mm
Applicable PCB thickness	0.6 mm - 4 mm
Fixed rail to front dimension (A)	335 mm

The Scan station integrates the 'Adomo' (Advanced Optical Modulation) system from the company MODI. This system enables the inspection of large areas with high resolution and short cycle times using stepper controlled mirror heads within the Adomo module. One of the applications is the scanning of 1D/2D codes at multiple positions.

The camera field of view can deflect from one position to another with an accuracy of 1 µm within just a few milliseconds. The process is controlled by an integral microprocessor that not only enables the precise movement of the mirror to each position, but also controls the camera synchronisation. Depending on the application, the system can be equipped with cameras with resolutions of 0.5-4 Megapixels.



Standard features

- ADOMO Camera System.
- Applicable scan area of max. 460 mm x 460 mm (depending on application).
- PC running complimentary VCSP software package.
- Extreme short inspection times.
- High-density flat screen.
- Sliding keyboard tray.
- Hinged front cover and rear access door.
- Integrated ESD edge belt conveyor.
- Electrical conveyor width adjustment.
- Selectable by-pass operation.
- Towerlight display for machine status.
- CE certified.

Technical specifications

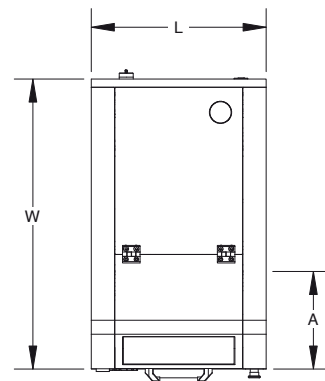
Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to Right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor type:	3 mm ESD edge belt
Belt speed:	Fixed in/out (14 m/min) & variable at stopper position
System software:	Windows XP
Network interface:	Ethernet
Component clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	600 VA max.
Air supply:	4-6 bar
Air consumption:	1 ltr/min max.
	* or specify

Options

- Program controlled conveyor width adjustment
- Database- and network connection
- Double-sided scanning
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment

Other options available on request

	NTM 600SC
Machine dimensions (l x w x h)	600 x 1000 x 1700 mm
Weight	150 kg
Applicable PCB length	80 mm - 460 mm
Applicable PCB width	80 mm - 460 mm
Fixed rail to front dimension (A)	333 mm



Single magazine loader

9

NTM 710LM • NTM 710LL

The unit loads your production line automatically by pushing PCB's out of a magazine onto the conveyor of the downstream machine.



Standard features

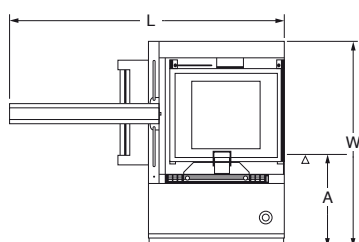
- Magazine is manually placed on the platform and clamped in position.
- Flexible platform to suit standard magazines.
- Controlled by PLC.
- Exchange magazine from the rear of the machine.
- Regulated pressure on attached pneumatic pusher.
- Pusher position adjustable to centre of the magazine.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	350 VA max.
Air supply:	6 bar
Air consumption:	10 ltr/min max.
PCB loading time:	± 6 seconds
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg
	* or specify

Options

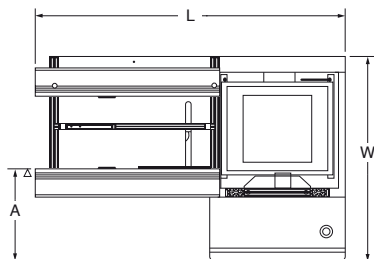
- Front-side magazine loading
 - Hybrid magazine
 - Touchscreen display
 - Alarm buzzer
- Other options available on request



	NTM 710LM	NTM 710LL
Machine dimensions (l x w x h)	1080 x 845 x 1300 mm	1330 x 1005 x 1300 mm
Weight	170 kg	180 kg
PCB length	80 mm - 330 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 460 mm*
Magazine dimensions (max.)	360 x 321 x 583 mm	535 x 530 x 570 mm*
Fixed rail to front dimension (A)	452 mm	452 mm

* or specify

The PCB's are collected from upstream machine using attached conveyor and pushed into the magazine.



Standard features

- Magazine is manually placed on the platform and clamped in position.
- Flexible platform to suit standard magazines.
- Stopper at inlet to control PCB flow from upstream reflow oven.
- Controlled by PLC.
- Exchange magazine from the rear of the machine.
- Conveyor width adjustment using hand crank.
- Regulated pressure on pneumatic pusher.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	350 VA max.
Air supply:	6 bar
Air consumption:	10 ltr/min max.
PCB unloading time:	$\pm$ 6 seconds
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg
	* or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Front-side magazine loading
- Pusher moves at ratio 1:2 to conveyor width
- Hybrid magazine
- Touchscreen display
- Alarm buzzer

Other options available on request

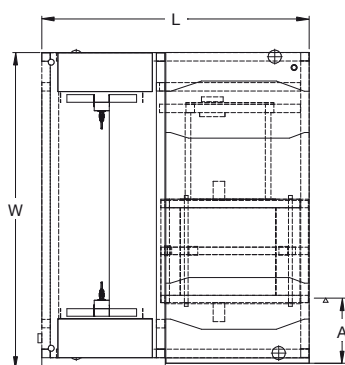
	NTM 710UM	NTM 710UL
Machine dimensions (l x w x h)	1200 x 845 x 1300 mm	1500 x 1005 x 1300 mm
Weight	200 kg	230 kg
PCB length	80 mm - 330 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 460 mm*
Magazine dimensions (max.)	360 x 321 x 583 mm	535 x 530 x 570 mm*
Fixed rail to front dimension (A)	452 mm	452 mm

* or specify

Dual magazine line loader

NTM 720LM • NTM 720LL • NTM 720LXL

The PCB's are extracted from the magazines onto the shuttle conveyor using puller mechanism. Shuttle conveyor moves sideways between magazines and downstream machine.



Standard features

- Magazines are manually placed on the platform and clamped in position.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on the integrated pull cylinder.
- Ball screw driven positioning of shuttle conveyor.
- Conveyor width adjustment using hand wheel.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt*
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	550 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB loading time:	± 25 seconds (rear magazine)
Pitch control:	1-4, 10 mm pitch 5 top magazine slots must remain empty
Maximum total magazine weight:	50 kg each * or specify

Options

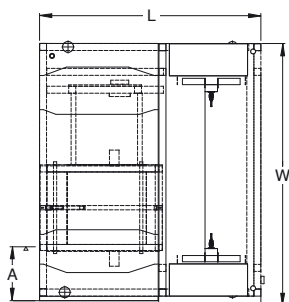
- Servo drive upgrade for shortened cycle time
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Rotating pull cylinder to increase magazine capacity
- Puller moves at ratio 1:2 to conveyor width
- Hybrid magazine
- Dual direction for same side loading/unloading
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 720LM	NTM 720LL	NTM 720LXL
Machine dimensions (l x w x h)	1080 x 1350 x 1750 mm	1420 x 1680 x 1750 mm	1420 x 1970 x 1750 mm
Weight	330 kg	400 kg	480 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 407 mm	70 mm - 460 mm*
Magazine dimensions (max.)	370 x 320 x 570 mm	535 x 460 x 570 mm	535 x 580 x 570 mm
Fixed rail to front dimension (A)	380 mm	380 mm	380 mm

* or specify

The PCB's are collected from upstream machine onto a shuttle conveyor and pushed into designated magazine. Shuttle conveyor moves sideways between upstream machine and magazines.



Standard features

- Magazines are manually placed on the platform and clamped in position.
- Pneumatic stopper at inlet to control PCB flow from upstream reflow oven.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on the integrated pusher.
- Good or bad board separation.
- Ball screw driven positioning of shuttle conveyor.
- Conveyor width adjustment using hand wheel.
- Towerlight display for machine status.
- Threshold signal to protect PCB's in upstream oven.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	550 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB unloading time:	± 18 seconds (rear magazine)
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg each
	* or specify

Options

- Servo drive upgrade for shortened cycle time
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Pusher moves at ratio 1:2 to conveyor width
- Hybrid magazine
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 720UM	NTM 720UL	NTM 720UXL
Machine dimensions (l x w x h)	880 x 1350 x 1750 mm	1140 x 1680 x 1750 mm	1250 x 1970 x 1750 mm
Weight	330 kg	400 kg	480 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 407 mm	70 mm - 460 mm*
Magazine dimensions (max.)	370 x 320 x 570 mm	535 x 460 x 570 mm	535 x 580 x 570 mm
Fixed rail to front dimension (A)	380 mm	380 mm	380 mm

* or specify

Multi magazine line loader

13

NTM 110LM • NTM 110LL • NTM 110LXL

The unit loads your production line automatically by pushing PCB's out of the magazine onto the conveyor of the downstream machines. Full magazines are inserted at an ergonomic low level.

Standard features

- Automatic magazine change-over.
- Magazine alignment by upper and lower pneumatic clamping.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on pneumatic pusher.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

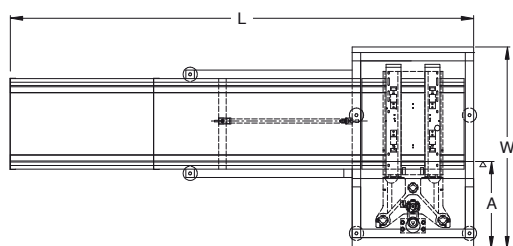
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	550 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB loading time:	± 6 seconds
Magazine change-over time:	± 30 seconds
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg each
Total number of magazines:	1 magazine on the lifter platform. 2 empty magazines on the upper magazine conveyor. 3 full magazines on the lower magazine conveyor.
	* or specify

Options

- Width adjustable magazine conveyor(s)
- Additional magazine capacity
- Shorter magazine change-over time (±22 sec)
- Automatic pusher positioning system
- Touchscreen display
- Alarm buzzer

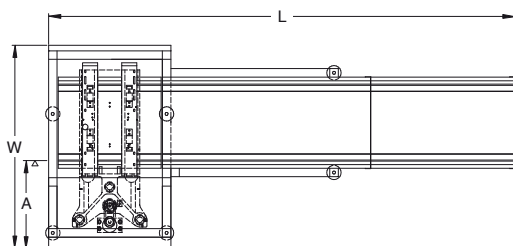
Other options available on request



	NTM 110LM	NTM 110LL	NTM 110LXL
Machine dimensions (l x w x h)	1870 x 820 x 1700 mm	2535 x 1045 x 1700 mm	2535 x 1095 x 1700 mm
Weight	235 kg	330 kg	400 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Magazine dimensions (max.)	360 x 320 x 583 mm	535 x 530 x 570 mm	535 x 580 x 570 mm
Fixed rail to front dimension (A)	380 mm	395 mm	395 mm

* or specify

The unit provides automatic magazine change-over for continuous line unloading. PCB's are collected from an upstream pusher conveyor (ordered separately) and pushed into the magazine. Full magazines are offloaded at an ergonomic low level.



Standard features

- Automatic magazine change-over.
- Automatic magazine alignment by upper and lower pneumatic clamping.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Threshold signal to protect PCB's in upstream oven.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	550 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB unloading time:	$\pm$ 6 seconds
Magazine change-over time:	$\pm$ 30 seconds
Pitch control:	1-4, 10mm pitch
Maximum total magazine weight:	50 kg each
Total number of magazines:	1 magazine on the lifter platform. 2 empty magazines on the upper magazine conveyor. 3 full magazines on the lower magazine conveyor.
Pusher conveyor:	To be ordered separately * or specify

Options

- Width adjustable magazine conveyor(s)
- Additional magazine capacity
- Shorter magazine change-over time ($\pm$ 22 sec)
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 110UM	NTM 110UL	NTM 110UXL
Machine dimensions (l x w x h)	1870 x 820 x 1700 mm	2535 x 1045 x 1700 mm	2535 x 1095 x 1700 mm
Weight	235 kg	330 kg	400 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 407 mm	70 mm - 460 mm*
Magazine dimensions (max.)	360 x 320 x 583 mm	535 x 530 x 570 mm	535 x 580 x 570 mm
Fixed rail to front dimension (A)	380 mm	395 mm	395 mm

* or specify

The pusher conveyor is used in combination with a multi magazine line unloader and guarantees that PCB's are completely pushed into the magazine.



Standard features

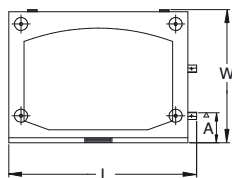
- Controlled by multi magazine line unloader.
- Conveyor width adjustment using hand crank.
- Adjustable pusher position.
- Pneumatic stopper at inlet to control PCB flow from upstream oven.
- Regulated pressure on pneumatic pusher.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Machine interface:	Controlled by unloader
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	Controlled by unloader
Power consumption:	Controlled by unloader
Air supply:	Controlled by unloader
Air consumption:	Controlled by unloader
PCB cycle time:	± 6 seconds
	* or specify

Options

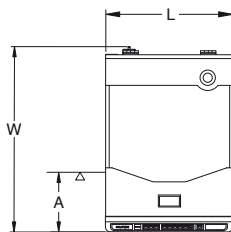
- Electrical conveyor width adjustment
 - Automatic conveyor width adjustment
 - Pusher moves at ratio 1:2 to conveyor width
 - Dual direction, used for same magazine slot, loading/unloading
- Other options available on request



	NTM I10PM	NTM I10PL	NTM I10PXL
Machine dimensions (l x w x h)	755 x 500 x 1100 mm	950 x 660 x 1100 mm	950 x 720 x 1100 mm
Weight	70 kg	85 kg	100 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 407 mm	70 mm - 460 mm*
Fixed rail to front dimension (A)	156 mm	156 mm	156 mm

* or specify

The unit is designed for automatic loading of unpopulated PCB's onto the line using suction cups. The top PCB is lifted from stack and lowered onto belt segment.



Standard features

- Large stock capacity.
- Flexible suction cup positioning.
- By-pass mode selectable without removing PCB stack.
- Controlled by PLC.
- Convenient front door stack loading.
- Conveyor width adjustment using hand crank.
- Towerlight display for machine status.
- Empty stack sensor.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance (by-pass):	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	4-6 bar
Air consumption:	90 ltr/min max.
PCB cycle time:	± 10 seconds
Diameter suction pads:	15 mm
PCB thickness capability:	0.2 mm - 4.0 mm
PCB stock capacity:	220 mm
	* or specify

Options

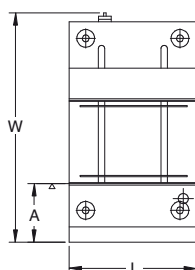
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input- or output conveyor (length 500 mm)
- Touchscreen display
- Alternative suction cup size
- Alarm buzzer

Other options available on request

	NTM 210BMBP	NTM 210BLB	NTM 210BXLBP
Machine dimensions (l x w x h)	500 x 730 x 1300 mm	653 x 870 x 1300 mm	653 x 952 x 1300 mm
Weight	110 kg	140 kg	160 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

A large stack of unpopulated PCB's is placed above the ESD belt conveyor. Unique separation cams take one PCB from the bottom of the stack and lowers it onto the ESD belt conveyor.



Standard features

- Short PCB cycle time.
- Controlled by PLC.
- Thin PCB capability.
- By-pass mode selectable without removing PCB stack.
- Conveyor width adjustment using hand crank.
- Towerlight display for machine status.
- Pre-warning low stack sensor.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance (by-pass):	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	4-6 bar
Air consumption:	5 ltr/min max.
PCB cycle time:	± 10 seconds
PCB thickness capability:	0.6 mm - 4.0 mm
PCB stock capacity:	220 mm
	* or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Extension 200 mm for convenient stack loading
- Cantilevered input- or output conveyor (length 500 mm)
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 220DSM	NTM 220DSL	NTM 220DSXL
Machine dimensions (l x w x h)	500 x 905 x 1300 mm	500 x 905 x 1300 mm	653 x 960 x 1300 mm
Weight	150 kg	150 kg	160 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

A large stack of unpopulated PCB's can be placed in the machine when opening the topcover. Top PCB is separated from the stack and placed onto ESD belt conveyor.



Standard features

- Fully enclosed design.
- Short PCB cycle time.
- Controlled by PLC.
- Thin PCB capability.
- By pass mode selectable without removing PCB stack.
- Conveyor width adjustment using hand crank.
- Towerlight display for machine status.
- Pre-warning low stack sensor.
- CE certified.

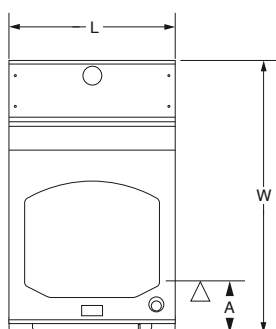
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance (by pass):	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	4-6 bar
Air consumption:	5 ltr/min max.
PCB cycle time:	± 8 seconds
PCB thickness capability:	0.8 mm - 4.0 mm
PCB stock capacity:	220 mm
	* or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input- or output conveyor (length 500 mm)
- Touchscreen display
- Alarm buzzer

Other options available on request



	NTM 225DSM	NTM 225DSL	NTM 225DSXL
Machine dimensions (l x w x h)	653 x 1110 x 1275 mm	653 x 1110 x 1275 mm	653 x 1110 x 1275 mm
Weight	180 kg	180 kg	180 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 407 mm	70 mm - 460 mm*
Fixed rail to front dimension (A)	238 mm	238 mm	238 mm

* or specify

Designed to restack un-populated PCB's after laser marking or label placement.



Standard features

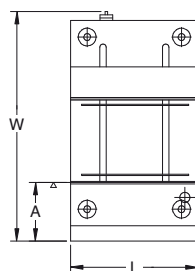
- Short PCB cycle time.
- Ergonomic unloading.
- Controlled by PLC.
- Conveyor width adjustment using hand crank.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance (by-pass):	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	6 bar
Air consumption:	5 ltr/min max.
PCB cycle time:	± 9 seconds
PCB thickness capability:	0.6 mm - 4.0 mm
PCB stock capacity:	250 mm
	* or specify

Options

- Electrical conveyor width adjustment
 - Automatic conveyor width adjustment
 - Touchscreen display
 - Alarm buzzer
 - Double stack function for re-stacking of fragile boards
- Other options available on request



	NTM 230PSM	NTM 230PSL	NTM 230PSXL
Machine dimensions (l x w x h)	500 x 905 x 1300 mm	500 x 905 x 1300 mm	653 x 955 x 1300 mm
Weight	120 kg	140 kg	180 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

This unit is used to link between production machines or board handling units.



Standard features

- Multi zone concept available, standard segment length is 500 mm.
- Conveyor width adjustment using hand crank.
- Controlled by PLC.
- CE certified.

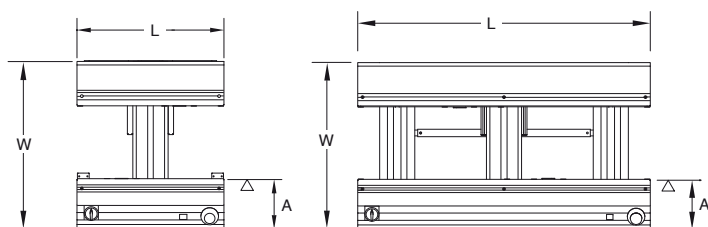
Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.
	* or specify

Options

- Non standard conveyor/segment lengths
- Hinged top cover
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Variable speed per segment
- Dual speed per segment
- Inspect function at exit sensor.

Other options available on request



Standard lengths (X): 500, 1000, 1500, 2000.

	NTM 410M (X)	NTM 410L (X)	NTM 410XL (X)
Machine dimensions (l x w x h)	(X) x 570 x 985 mm	(X) x 727 x 985 mm	(X) x 780 x 985 mm
Weight	50 - 80 kg	70 - 100 kg	80 - 110 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	168 mm	168 mm	168 mm

* or specify

Solder infeed conveyor

21

NTM 420M 1000 • NTM 420L 1000 • NTM 420XL 1200

This conveyor is used to feed PCB's or pallets into wave soldering machine at 6-7° angle.



Standard features

- Conveyor width adjustment using hand crank.
- Two ESD belt segments of 500 mm (XL size = 600 mm).
- Second belt segment at 6-7° adjustable angle.
- Dual speed on second segment for fluent transfer.
- Controlled by PLC.
- CE certified.

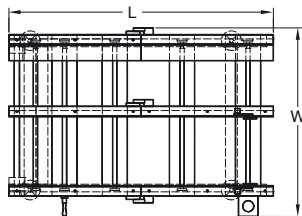
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	Fixed in at 14 m/min, variable out 0.5-14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
	* or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Pinchain (3 mm or 5 mm pins) instead of ESD belt
- Outfeed delay timer

Other options available on request



	NTM 420M 1000	NTM 420L 1000	NTM 420XL 1200
Machine dimensions (l x w x h)	1000 x 535 x 1000 mm	1000 x 690 x 1000 mm	1200 x 740 x 1000 mm
Weight	60 kg	70 kg	85 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*

* or specify

This conveyor is used to unload PCB's or pallets from a wave soldering machine at 6-7° angle. Decline section presents PCB/pallet at standard height to downstream machine.



Standard features

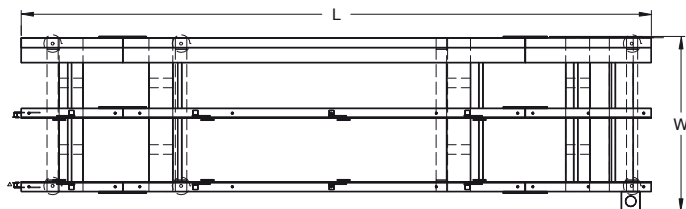
- Conveyor width adjustment using hand crank.
- Free running concept, no flow control.
- Flux protected by using 3 mm pinchain.
- Sliding resistors on decline section.
- CE certified.

Technical specifications

Transfer height:	Specify upon order
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	None
Conveyor concept:	Metal pinchain
Chain speed:	Variable 0.5 mm -3 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption	150 VA max.
	* or specify

Options

- Pinchain using 5 mm pins
 - Cooling fans
 - PLC package; incl. alarm buzzer, SMEMA interface, stopper and sensor
 - Electrical conveyor width adjustment
 - Automatic conveyor width adjustment
- Other options available on request



	NTM 430M 2500	NTM 430L 2500	NTM 430XL 2500
Machine dimensions (l x w x h)	2500 x 535 x 1300 mm	2500 x 690 x 1300 mm	2500 x 740 x 1300 mm
Weight	180 kg	200 kg	220 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*

* or specify

The inspection conveyor is used in the PCB assembly line when frequent visual inspection of PCB's is required.



Standard features

- Multi zone concept available, standard segment length is 500 mm.
- Conveyor width adjustment using hand crank.
- Inspection and by-pass mode selectable.
- Centre PCB stop position.
- Controlled by PLC.
- CE certified.

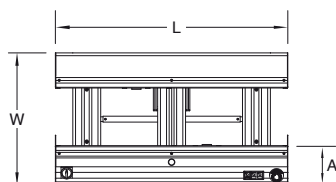
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	Fixed in 14 m/min, variable out 2-14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.
	* or specify

Options

- Non standard conveyor/segment lengths
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Inspection interval counter
- Outfeed delay timer
- Light fixture
- PCB release foot switch

Other options available on request



Standard lengths (X): 1000, 1500.

	NTM 510ICM (X)	NTM 510ICL (X)	NTM 510ICXL (X)
Machine dimensions (l x w x h)	(X) x 570 x 985 mm	(X) x 727 x 985 mm	(X) x 780 x 985 mm
Weight	60 - 75 kg	65 - 75 kg	80 - 90 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	168 mm	168 mm	168 mm

* or specify

Used for good/bad PCB separation or visual inspection without interrupting the PCB flow. The PCB is lifted 65mm from the ESD belt using metal fingers.



Standard features

- Reject, inspect and by-pass mode selectable.
- Conveyor width adjustment using hand crank.
- Controlled by PLC.
- CE certified.

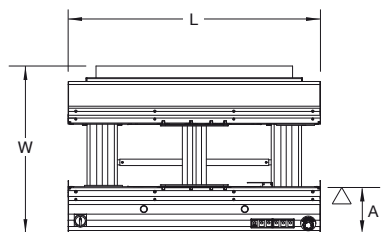
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	Variable 2-14 m/min.
PCB edge support:	3 mm
Components clearance:	Bottom 30 mm, top+bottom = 65 mm max.
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
	* or specify

Options

- Non standard conveyor/segment lengths
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Additional lift positions for extra buffer capacity
- Inspection interval counter
- Light fixture
- Alarm buzzer

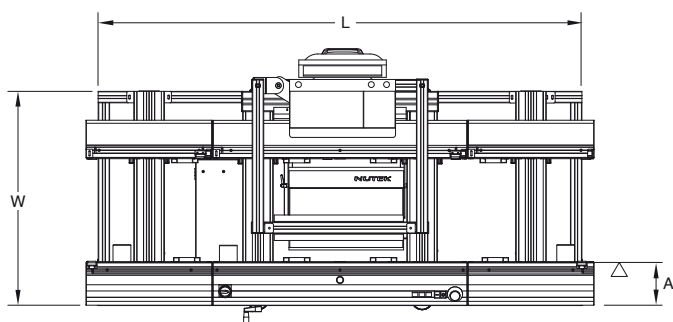
Other options available on request



	NTM 510RCM 1000	NTM 510RCL 1000	NTM 510RCXL 1000
Machine dimensions (l x w x h)	1000 x 667 x 980 mm	1000 x 824 x 980 mm	1000 x 875 x 980 mm
Weight	80 kg	90 kg	95 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm*	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	186 mm	186 mm	186 mm

* or specify

The AOI rework conveyor is designed for good/bad PCB separation. The in- and outgoing segments pneumatically move up/down allowing separation without interrupting the flow of good PCB's.



Standard features

- Rework and by-pass mode selectable.
- 7 ESD belt segments, providing possibility to buffer three failed PCB's.
- Conveyor width adjustment using hand crank.
- Controlled by PLC.
- ESD bracelet connection.
- Foot rest.
- Overhead lighting.
- Flatscreen & keyboard support.
- PC stand.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to Right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Component clearance:	Bottom 30 mm, top+bottom = 54 mm max. (belt to belt)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	400 VA max.
Air supply:	4-6 bar
Air consumption:	65 ltr/min max.
	* or specify

Options

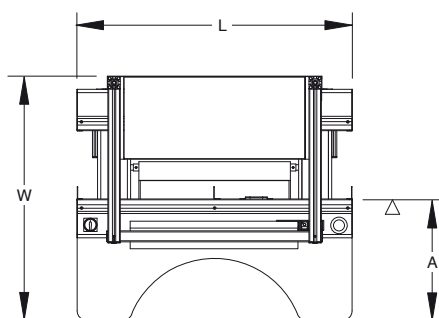
- Part shelf
- PCB release foot switch
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Variable speed per segment

Other options available on request

	NTM 520WSM 2000-7	NTM 520WSL 2000-7	NTM 520WSXL 2000-7
Machine dimensions (l x w x h)	2000 x 730 x 2190 mm	2000 x 890 x 2190 mm	2000 x 940 x 2190 mm
Weight	190 kg	220 kg	250 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	168 mm	168 mm	168 mm

* or specify

The workstation is used where manual assembly work is performed on the PCB without removing it from the PCB assembly line.



Standard features

- Multi zone concept available, standard segment length is 500 mm.
- Work and by-pass mode selectable.
- Conveyor width adjustment using hand crank.
- Centre PCB stop position
- Enhanced stability.
- Controlled by PLC.
- ESD bracelet connection.
- Foot rest.
- Sliding parts shelf.
- LED overhead lighting.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	Fixed in 14 m/min, variable out 2-14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
	* or specify

Options

- Non standard conveyor/segment lengths
 - Electrical conveyor width adjustment
 - Automatic conveyor width adjustment
 - Additional part shelf
 - Bin rail
 - PCB release foot switch
 - Variable speed per segment
 - Dual speed per segment
- Other options available on request

Standard lengths (X): 1000, 1500.

	NTM 530WSM (X)	NTM 530WSL (X)	NTM 530WSXL (X)
Machine dimensions (l x w x h)	(X) x 887 x 2190 mm	(X) x 1044 x 2190 mm	(X) x 1095 x 2190 mm
Weight	100 - 150 kg	110 - 160 kg	130 - 180 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	438 mm	438 mm	438 mm

* or specify

The unit provides a 'normal open' passage in a PCB assembly line. An integrated conveyor segment slides across the opening to deliver PCB to downstream machine.

Standard features

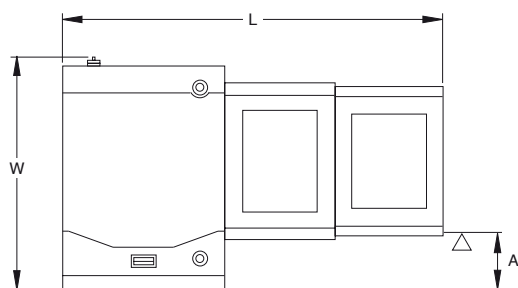
- Conveyor width adjustment using hand crank.
- Electrically driven for smooth extension and retraction.
- Fully enclosed design.
- Controlled by PLC.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEGA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	300 VA max.
Machine cycle time:	± 15 seconds
Passageway:	847 mm
	* or specify

Options

- Machine length 2000 mm, passageway of 1100 mm
 - Electrical conveyor width adjustment
 - Automatic conveyor width adjustment
 - Normal closed operation using second belt segment (reduces passage way to 745 mm)
 - Towerlight display for machine status
- Other options available on request



	NTM GPTM	NTM GPTL	NTM GPTXL
Machine dimensions (extended) (l x w x h)	1500 x 775 x 1100 mm	1500 x 905 x 1100 mm	1500 x 955 x 1100 mm
Weight	225 kg	250 kg	280 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

This unit provides a 'normal open' or 'normal closed' passage in a PCB assembly line. A timing belt is used to transport the PCB and extend/retract the belt guide bars.

Standard features

- Selectable operation; normally closed or normally open.
- Conveyor width adjustment using hand crank.
- Electrical driven for smooth extension and retraction.
- Controlled by PLC.
- CE certified.

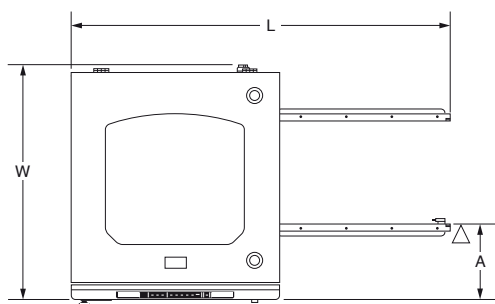
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	Timing belt
Belt speed:	Variable 2-14 m/min.
PCB edge support:	3 mm
Component clearance:	Top 30 mm, bottom 30 mm
PCB thickness:	0.6 mm to 4 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	200 VA max.
Machine cycle time:	± 15 seconds (NO); 8 seconds (NC)
Passageway:	675 mm
Air supply:	4-6 bar
Air consumption:	2 ltr/min max.
	* or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Top cover
- Towerlight display for machine status

Other options available on request



	NTM 5210M	NTM 5210L	NTM 5210XL
Machine dimensions (l x w x h)	1500 x 770 x 1100 mm	1500 x 930 x 1100 mm	1500 x 980 x 1100 mm
Weight	120 kg	140 kg	150 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	300 mm	300 mm	300 mm

* or specify

By manual lifting the conveyor section, access is gained to the rear of the line.

Standard features

- Conveyor width adjustment using hand crank.
- Ergonomic air pressure supported opening and closing.
- Locking device to avoid opening during PCB transfer.
- Controlled by PLC.
- CE certified.

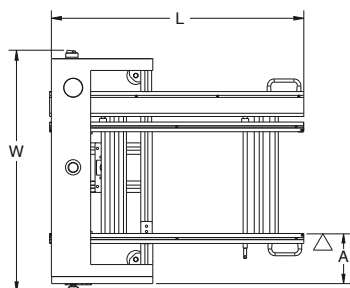
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.
Passageway:	600 mm
Air supply:	4-6 bar
Air consumption:	35 ltr/lift max.
	* or specify

Options

- Machine length 1500 mm, passageway of 990 mm
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Variable speed per segment
- Dual speed per segment
- Inspect function
- Top cover

Other options available on request



	NTM MGM 1000	NTM MGL 1000	NTM MGXL 1000
Machine dimensions (l x w x h)	1000 x 790 x 1100 mm	1000 x 920 x 1100 mm	1000 x 970 x 1100 mm
Weight	90 kg	100 kg	110 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	194 mm	194 mm	194 mm

* or specify

The machine uses specially formulated elastomer rollers to remove dust, particles, etc. from the PCB surface. This contamination is transferred from the elastomer rollers to adhesive rolls.



Standard Features

- Touchscreen control panel used for easy programming.
- Preset number of PCB & pre-warning counter to purge adhesive rolls.
- Password protected.
- Single sided cleaning (topside or specify if otherwise).
- Ioniser bars (double sided) for static discharge.
- Integrated conveyor able to buffer one board cleaning.
- Easy changing of adhesive rolls.
- Conveyor width adjustment using hand crank.
- Controlled by PLC.
- CE certified.

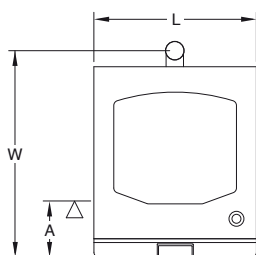
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	Variable 2-14 m/min.
PCB edge support:	3 mm
Component clearance:	Top 30 mm, bottom 30 mm
PCB thickness:	0.6 mm to 3.0 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	310 VA max.
Air supply:	4-6 bar
Air consumption:	2 ltr/min max.
	* or specify

Options

- Double sided cleaning (selectable)
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Additional ioniser bars
- Pre-cut adhesive rollers
- Towerlight

Other options available on request



	NTM TCM 650	NTM TCL 750
Machine dimensions (l x w x h)	653 x 800 x 1300 mm	750 x 1050 x 1300 mm
Weight	180 kg	200 kg
PCB length	100 mm - 330 mm	100 mm - 457 mm
PCB width	50 mm - 250 mm	50 mm - 407 mm
Fixed rail to front dimension (A)	220 mm	220 mm

Coating conveyor

31

NTM 410CM • NTM 410CL • NTM 410CXL

The coating conveyor is designed for in-line coatings operations. It guarantees a smooth PCB transfer and an environment friendly coating process.



Standard features

- Multi zone concept available, standard segment length is 500 mm.
- Hinged top cover.
- Exhaust connection 6" with Dwyer differential pressure safety switch.
- Removable stainless steel drip pan.
- Controlled by PLC.
- CE certified.

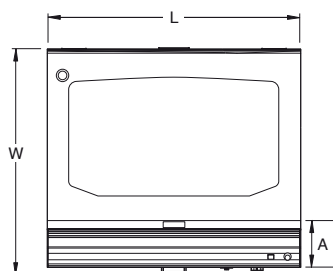
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	Metal 06B chain
Conveyor speed:	0-12 m/min.
PCB edge support:	3 mm
Components clearance:	Top 90 mm, bottom 90 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.
	* or specify

Options

- Non standard conveyor/segment lengths
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- External flash timer 0-60 seconds
- Inspect function at exit sensor
- Inspection interval counter
- UV-light package
- Outfeed delay timer
- Pinchain 3 or 5 mm

Other options available on request

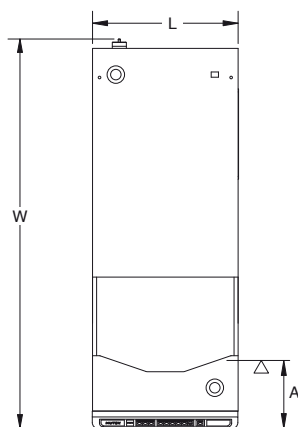


Standard lengths (X): 500, 1000.

	NTM 410CM (X)	NTM 410CL (X)	NTM 410CXL (X)
Machine dimensions (l x w x h)	(X) x 705 x 1135 mm	(X) x 860 x 1135 mm	(X) x 915 x 1135 mm
Weight	50 kg	70 kg	80 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*
Fixed rail to front dimension (A)	186 mm	186 mm	186 mm

* or specify

The shuttle conveyor is used for transporting boards from one line into two lines or vice versa. The orientation of the board is not changed during traversing.



Standard features

- Traversing distance of 1500 mm (or specify).
- Conveyor width adjustment by hand crank.
- Configuration upon request.
- Controlled by PLC.
- By-pass mode selectable.
- Front and rear adjustable stop positions.
- Frequency controlled traversing speed.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	250 VA max.
Machine cycle time:	± 18 seconds
	* or specify

Options

- Servo drive upgrade for shortened cycle time
- Customized traversing distance (4000 mm max.)
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input or output conveyor (length 500 mm)
- Good- or bad board separation
- Touchscreen display
- Towerlight display
- Alarm buzzer

Other options available on request

	NTM 910TVM 1500	NTM 910TVL 1500	NTM 910TVXL 1500
Machine dimensions (l x w x h)	500 x 2500 x 1100 mm	653 x 2700 x 1100 mm	653 x 2800 x 1100 mm
Weight	180 kg	200 kg	240 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

This unit is used to invert/flip PCB's (180°) for 'double-sided' process.



Standard features

- Pneumatic stopper to keep PCB in position during inverting.
- Conveyor width adjustment using hand crank.
- Controlled by PLC.
- By-pass mode selectable.
- CE certified.

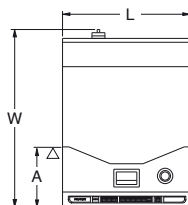
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	200 VA max.
Air supply:	4-6 bar
Air consumption:	1.1 ltr/min max.
Machine cycle time:	± 8 seconds
	* or specify

Options

- Frequency control upgrade for shortened cycle time
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input- or output conveyor (length 500 mm)
- Top clamping to hold down board during inverting
- Touchscreen display
- Towerlight display
- Alarm buzzer

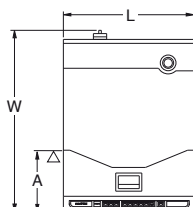
Other options available on request



	NTM 310IM	NTM 310IL	NTM 310IXL
Machine dimensions (l x w x h)	500 x 735 x 1300 mm	653 x 870 x 1300 mm	653 x 920 x 1300 mm
Weight	110 kg	120 kg	130 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

The coating inverter is designed to gently flip the PCB, creating the possibility to coat the board at both sides without manual handling. The coating inverter comes with advanced operation modes and exhaust safety system.



Standard features

- Exhaust connection 6" with dwyer differential pressure safety switch.
- Removable stainless steel drip pan.
- Controlled by PLC.
- Conveyor width adjustment using hand crank.
- Selectable operation mode:
 - Invert
 - Return and invert
 - Invert twice
 - By pass
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	Metal 06B chain
Conveyor speed:	0-12 m/min.
PCB edge support:	4 mm
Components clearance:	Top 90 mm, bottom 90 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	200 VA max.
Air supply:	4-6 bar
Air consumption:	Negligible
Machine cycle time:	± 10 seconds
	* or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input or output conveyor (length 500 mm)
- Towerlight display
- Touchscreen display
- Alarm buzzer
- Pinchain 3 or 5 mm

Other options available on request

	NTM 310CM	NTM 310CL	NTM 310CXL
Machine dimensions (l x w x h)	500 x 729 x 1330 mm	653 x 1040 x 1330 mm	653 x 1090 x 1330 mm
Weight	110 kg	140 kg	170 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*
Fixed rail to front dimension (A)	252 mm	252 mm	252 mm

* or specify

This unit is used in lines with a PCB/pallet return system. The lift brings PCB/pallet from upper level to the lower level or vice versa.



Standard features

- Ball screw driven lift movement.
- Frequency controlled lift movement for gentle start/stop.
- Conveyor width adjustment using hand crank.
- Hinged top cover.
- Controlled by PLC.
- CE certified.

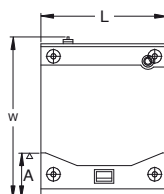
Technical specifications

Transfer height:	950/250 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	350 VA max.
Air supply:	4-6 bar
Air consumption:	1.5 ltr/min max.
Machine cycle time:	± 25 seconds

Options

- Servo drive upgrade for shortened cycle time
- Tall version for 'up & over' solutions
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input- or output conveyor (length 500 mm)
- Variable speed
- Safety shutter at input- or output
- Towerlight display
- Touchscreen display
- Alarm buzzer

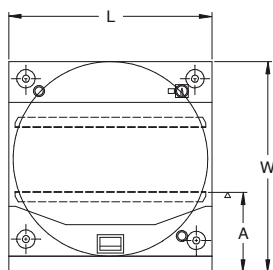
Other options available on request



	NTM 340LM	NTM 340LL	NTM 340LXL
Machine dimensions (l x w x h)	500 x 945 x 1350 mm	653 x 1100 x 1350 mm	653 x 1150 x 1350 mm
Weight	160 kg	180 kg	200 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	292 mm	292 mm	292 mm

* or specify

The turn conveyor is designed to change the flow direction of a PCB assembly line. The PCB is transferred onto the built-in ESD belt conveyor, which turns either clockwise or counter-clockwise.



Standard features

- Conveyor width adjustment using hand crank.
- (NTM 91) Turning 90° clockwise or counter-clockwise
- (NTM 181) Turning 180° to change fixed rail position
- (NTM 271 and 361) various configurations possible
- By-pass mode available.
- Controlled by PLC.
- Unique lateral transfer system to handle small PCB's.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	200 VA max.
Air supply:	4-6 bar
Air consumption:	1.5 ltr/min max.
Machine cycle time:	± 16 seconds
	* or specify

Options

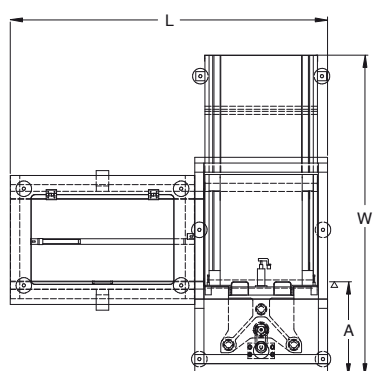
- Good or bad board separation
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input- or output conveyor (length 500 mm)
- Touchscreen display
- Towerlight display
- Alarm buzzer

Other options available on request

	NTM 91, 181, 271, 361M	NTM 91, 181, 271, 361L	NTM 91, 181, 271, 361XL
Machine dimensions (l x w x h)	795 x 795 x 1100 mm	875 x 875 x 1100 mm	975 x 975 x 1100 mm
Weight	160 kg	170 kg	200 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	272 mm	234 mm	234 mm

* or specify

The single magazine buffer can be used as a mid-line loader or unloader, as a LIFO/FIFO buffer or as a reject buffer.



Standard features

- 5 operation modes available:
Buffer mode (LIFO/FIFO)
Unload mode
Load mode
Reject mode
By-pass mode
- Dual function pusher conveyor.
- Pressure limitation on pneumatic pushers.
- Exchange magazine from rear of the machine.
- Tailor made to the magazine of your choice.
- Threshold signal to protect PCB's in upstream oven.
- Automatic magazine alignment by upper- and lower pneumatic clamping.
- Controlled by PLC.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	580 VA max.
Air supply:	4-6 bar
Air consumption:	15 ltr/min max.
Machine cycle time:	10-25 seconds max.
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg each
Total number of magazines:	1 magazine on the lifter platform. * or specify

Options

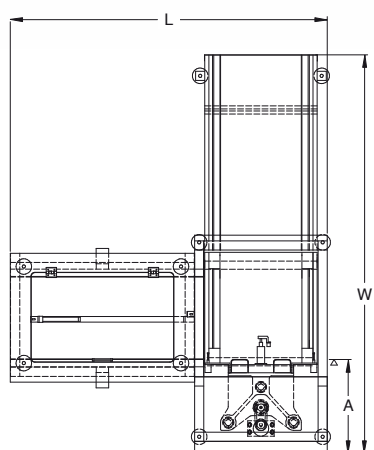
- By-pass conveyor above magazine platform
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Width adjustable magazine conveyor
- Front-side magazine exchange
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 610SM	NTM 610SL	NTM 610SXL
Machine dimensions (l x w x h)	1260 x 1170 x 1700 mm	1560 x 1455 x 1700 mm	1560 x 1575 x 1700 mm
Weight	200 kg	250 kg	300 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*
Magazine dimensions (max.)	360 x 320 x 583 mm	535 x 530 x 570 mm	535 x 580 x 570 mm
Fixed rail to front dimension (A)	395 mm	380 mm	380 mm

* or specify

The multi magazine buffer can be used as a mid-line loader or unloader, as a high capacity LIFO/FIFO buffer or as a reject buffer.



Standard features

- Automatic magazine change-over
- 5 operation modes available:
 - Buffer mode (LIFO/FIFO)
 - Unload mode
 - Load mode
 - Reject mode
 - By-pass mode
- Dual function pusher conveyor.
- Pressure limitation on pneumatic pusher.
- Threshold signal to protect PCB's in upstream oven.
- Controlled by PLC.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	800 VA max.
Air supply:	4-6 bar
Air consumption:	15 ltr/min max.
Machine cycle time:	12-30 seconds max.
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg each
Total number of magazines:	1 magazine on the lifter platform. 2 empty magazines on the upper magazine conveyor. 2 full magazines on the lower magazine conveyor.

* or specify

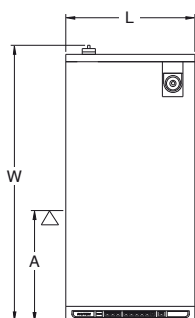
Options

- By-pass conveyor above magazine platform
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Width adjustable magazine conveyor(s)
- Magazine conveyors located at front-side.
- Touchscreen display
- Alarm buzzer

	NTM 620SM	NTM 620SL	NTM 620SXL
Machine dimensions (l x w x h)	1260 x 2145 x 1700 mm	1560 x 2825 x 1700 mm	1560 x 2975 x 1700 mm
Weight	230 kg	280 kg	330 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	75 mm - 250 mm	75 mm - 407 mm	75 mm - 460 mm*
Magazine dimensions (max.)	360 x 320 x 583 mm	535 x 530 x 570 mm	535 x 580 x 570 mm
Fixed rail to front dimension (A)	395 mm	380 mm	380 mm

* or specify

The FIFO buffer is designed to buffer PCB's in FIFO mode. The PCB's are transferred by special ESD rollers onto the pick-up location. Metal support bars lift the PCB carefully from the conveyor segment and stores them until downstream request.



Standard features

- Selectable FIFO, LIFO and by-pass mode.
- Controlled by PLC.
- Conveyor width adjustment using hand crank.
- Selectable pitch settings.
- Threshold signal to protect PCB's in upstream oven.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD roller
Conveyor speed:	8 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	350 VA max.
Air supply:	4-6 bar
Air consumption:	2 ltr/min max.
Machine cycle time:	12-30 seconds max.
Pitch control:	1-4, 20 mm pitch (component height -5 mm from selected pitch)
Buffer capacity:	Max. 26 pcb's at pitch 1 * or specify

Options

- High speed operation reducing cycle time to 20 sec.
- Cantilevered input- or output conveyor (length 500 mm)
- Adjustable threshold counter
- Cool down timer or package
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Reject mode for buffering bad boards
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 640SM	NTM 640SL	NTM 640SXL
Machine dimensions (l x w x h)	500 x 980 x 1700 mm	653 x 1080 x 1700 mm	653 x 1130 x 1700 mm
Weight	210 kg	240 kg	260 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	425 mm	425 mm	425 mm

* or specify

The LIFO buffer is designed to buffer PCB's in LIFO mode. The PCB's are buffered using four special chains. The open design allows operator to manually remove the PCB's when used as good/bad separator or line unloader.



Standard features

- Buffer in LIFO mode.
- Controlled by PLC.
- Conveyor width adjustment using hand crank.
- Selectable pitch settings.
- Threshold signal to protect PCB's in upstream oven.
- Towerlight display for machine status.
- Good or bad board separation.
- CE certified.

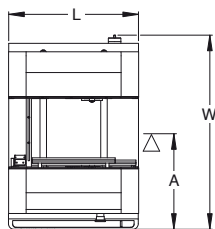
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	250 VA max.
Machine cycle time:	± 15 seconds
Pitch control:	1-4, 9.5 mm pitch (component height -3 mm from selected pitch)
Buffer capacity:	Max. 49 pcb's at pitch 1 * or specify

Options

- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Cantilevered input- or output conveyor (length 500 mm)
- Adjustable threshold counter
- Touchscreen display
- Alarm buzzer

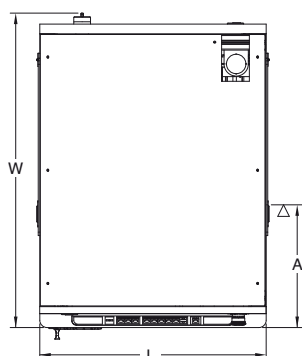
Other options available on request



	NTM 650SM	NTM 650SL	NTM 650SXL
Machine dimensions (l x w x h)	500 x 750 x 1565 mm	500 x 905 x 1565 mm	653 x 960 x 1565 mm
Weight	170 kg	200 kg	230 kg
PCB length	80 mm - 457 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	70 mm - 250 mm	70 mm - 407 mm	70 mm - 460 mm*
Fixed rail to front dimension (A)	234 mm	234 mm	234 mm

* or specify

This unit allows buffering of PCB's in FIFO mode. It uses belt segments to hold the PCB over its complete length. When adding or extracting a PCB to/from the buffer a drive mechanism engages with the belt segment to smoothly transfer the PCB in- or out.



Standard features

- Selectable FIFO and LIFO mode.
- Controlled by PLC.
- Conveyor width adjustment using hand crank.
- Selectable pitch settings.
- Threshold signal to protect PCB's in upstream oven.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Conveyor speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	600 VA max.
Air supply:	4-6 bar
Air consumption:	2 ltr/min max.
Machine cycle time:	8-30 with average of ~ 15 seconds.
Pitch control:	1-4, 27 mm pitch
Buffer capacity:	Max. 20 pcb's at pitch 1 * or specify

Options

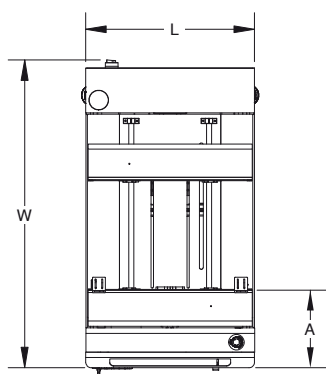
- Servo drive upgrade for shortened cycle time
- Cantilevered input- or output conveyor (length 500 mm)
- Adjustable threshold counter
- Cool down timer or package
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Reject mode for buffering bad boards
- Touchscreen display
- Alarm buzzer

Other options available on request

	NTM 660SM	NTM 660SL	NTM 660SXL
Machine dimensions (l x w x h)	500 x 1050 x 1700 mm	653 x 1210 x 1700 mm	700 x 1260 x 1700 mm
Weight	210 kg	240 kg	260 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm	80 mm - 460 mm*
PCB width	50 mm - 250 mm	50 mm - 407 mm	50 mm - 460 mm*
Fixed rail to front dimension (A)	354 mm	354 mm	354 mm

* or specify

This unit allows buffering of PCB's in FIFO mode. It uses belt segments to hold the PCB over its complete length.



Standard features

- Selectable FIFO and LIFO mode.
- Controlled by PLC.
- Conveyor width adjustment using hand crank.
- Selectable pitch settings.
- Frequency controlled lifter motor.
- Towerlight display for machine status.
- CE certified.

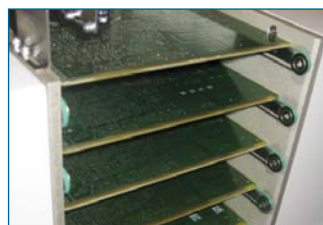
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Conveyor speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 25 mm, bottom 25 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	350 VA max.
Air supply:	4-6 bar
Air consumption:	2 ltr/min max.
Machine cycle time:	<10 seconds
Pitch control:	1-2, 50 mm pitch
Buffer capacity:	Max. 5 pcb's at pitch 1
	* or specify

Options

- Cantilevered input- or output conveyor (length 500 mm)
- Cool down timer
- Electrical conveyor width adjustment
- Automatic conveyor width adjustment
- Touchscreen display
- Alarm buzzer

Other options available on request



	NTM 670SM	NTM 670SL
Machine dimensions (l x w x h)	500 x 985 x 1100 mm	653 x 1200 x 1100 mm
Weight	130 kg	150 kg
PCB length	80 mm - 330 mm	80 mm - 457 mm
PCB width	50 mm - 250 mm	50 mm - 460 mm
Fixed rail to front dimension (A)	300 mm	300 mm

* or specify

NTE 0710LL

The unit loads your production line automatically by pushing PCB's out of a magazine onto the conveyor of the down-stream machine.



Standard features

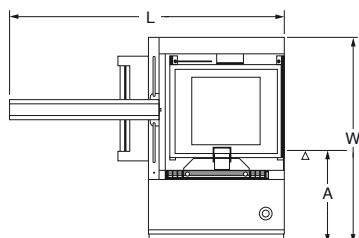
- The magazine is manually placed on the platform and clamped in position.
- Flexible platform to suit standard magazines.
- Controlled by PLC.
- Exchange magazine from the rear of the machine.
- Regulated pressure on attached pneumatic pusher.
- Pusher position adjustable to center of the magazine.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm
Colour:	RAL 9002
Flow direction:	Left to right
Fixed rail:	Front
Machine interface:	SMEMA
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	240 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB loading time:	± 7 seconds
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg

Options

No options available



	NTE 0710LL
Machine dimensions (l x w x h)	1330 x 1005 x 1300 mm
Weight	180 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Magazine dimensions (max.)	535 x 530 x 570 mm
Fixed rail to front dimension (A)	452 mm

The PCB's are collected from upstream machine using attached conveyor and pushed into the magazine.



Standard features

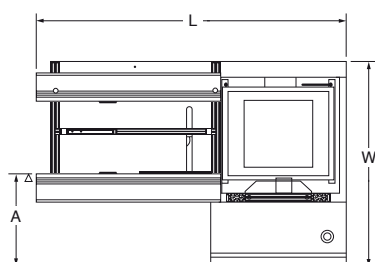
- The magazine is manually placed on the platform and clamped in position.
- Flexible platform to suit standard magazines.
- Stopper at inlet to control PCB flow from upstream reflow oven.
- Controlled by PLC.
- Exchange magazine from the rear of the machine.
- Conveyor width adjustment using hand crank.
- Regulated pressure on pneumatic pusher.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm
Colour:	RAL 9002
Flow direction:	Left to right
Fixed rail:	Front
Machine interface:	SMEMA
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	270 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB unloading time:	$\pm$ 7 seconds
Pitch control:	1-4, 10mm pitch
Maximum total magazine weight:	50 kg

Options

No options available



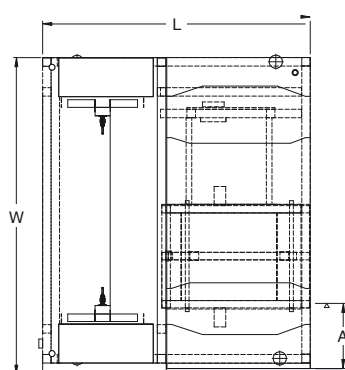
	NTE 0710UL
Machine dimensions (l x w x h)	1500 x 1005 x 1300 mm
Weight	230 kg
PCB length	80 mm - 460 mm
PCB width	70 mm - 460 mm
Magazine dimensions (max.)	535 x 530 x 570 mm
Fixed rail to front dimension (A)	452 mm

NTE 0720UL

The PCB's are extracted from the magazines onto the shuttle conveyor using a puller mechanism. Shuttle conveyor moves sideways between magazines and downstream machine.



(right to left direction)



Standard features

- Magazines are manually placed on the platform and clamped in position.
- Conveyor width adjustment using hand wheel.
- Safety shutter between conveyor and lifter platform.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on the integrated pull cylinder.
- Pneumatic cylinder used for positioning shuttle conveyor.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

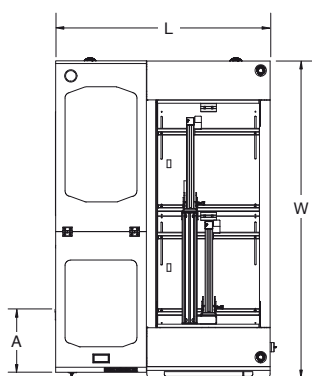
Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	450 VA max.
Air supply:	4-6 bar
Air consumption:	20 ltr/min max.
PCB loading time:	$\pm$ 27 seconds (rear magazine rack)
Pitch control:	1-4, 10 mm pitch
	5 top magazine slots must remain empty
Max. total magazine weight:	50 kg each
	* or specify

Options

- Alarm buzzer
- Other options available on request

	NTE 0720EL
Machine dimensions (l x w x h)	1420 x 1970 x 1750 mm
Weight	400 kg
PCB length	80 mm - 460 mm
PCB width	70 mm - 460 mm
Magazine dimensions (max.)	535 x 530 x 570 mm
Fixed rail to front dimension (A)	380 mm

The PCB's are collected from the upstream machine onto a shuttle conveyor and pushed into the designated magazine. Shuttle conveyor moves sideways between upstream machine and magazines.



Standard Features

- Conveyor width adjustment using hand wheel.
- Magazines are manually placed on the platform and clamped in position.
- Safety shutter between conveyor and lifter platform.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on the integrated pusher.
- Pneumatic cylinder used for positioning shuttle conveyor.
- Towerlight display for machine status.
- Threshold signal to protect PCB's in upstream oven.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	350 VA max.
Air supply:	6 bar
Air consumption:	20 ltr/min max.
PCB unloading time:	$\pm$ 20 seconds (rear magazine rack)
Pitch control:	1-4, 10 mm pitch
Max. total magazine weight:	50 kg each
	* or specify

Options

- Pneumatic stopper at inlet to control PCB flow from upstream reflow oven
- Good- or bad board separation
- Alarm buzzer

Other options available on request

	NTE 0720UL
Machine dimensions (l x w x h)	1250 x 1970 x 1750 mm
Weight	400 kg
PCB length	80 mm - 460 mm
PCB width	70 mm - 460 mm
Magazine dimensions (max.)	535 x 530 x 570 mm
Fixed rail to front dimension (A)	380 mm

The unit loads your production line automatically by pushing PCB's out of the magazine onto the conveyor of the downstream machines. Full magazines can be inserted at an ergonomic low level.



Standard features

- Automatic magazine change-over.
- Automatic magazine alignment by upper and lower pneumatic clamping.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on pneumatic pusher.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

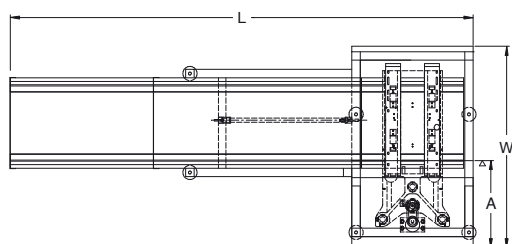
Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	580 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB loading time:	$\pm$ 7 seconds
Magazine change-over time:	$\pm$ 40 seconds
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg each
Total number of magazines:	1 magazine on the lifter platform. 2 empty magazines on the upper magazine conveyor. 3 full magazines on the lower magazine conveyor.
	* or specify

Options

- Width adjustable magazine conveyor(s)
- Additional magazine capacity
- Shorter magazine change-over (22 sec)
- Alarm buzzer

Other options available on request



	NTE 0110LL
Machine dimensions (l x w x h)	2480 x 975 x 1700 mm
Weight	300 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Magazine dimensions (max.)	535 x 530 x 570 mm
Fixed rail to front dimension (A)	385 mm

The unit provides automatic magazine change-over for continuous line unloading. PCB's are collected by the cantilevered pusher conveyor and pushed into the magazine. Full magazines are taken off at an ergonomic low level.



Standard features

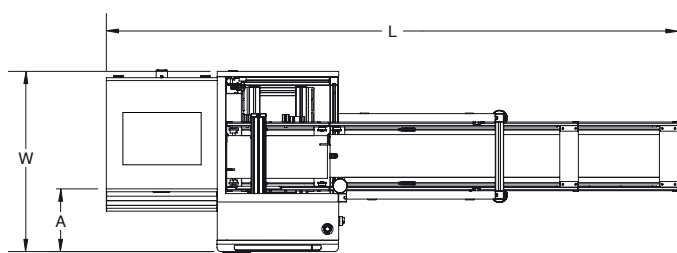
- Automatic magazine change-over.
- Automatic magazine alignment by upper and lower hand crank.
- Conveyor width adjustment using hand crank.
- Hinged top cover on pusher conveyor.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Threshold signal to protect PCB's in upstream oven.
- Towerlight display for machine status.
- Selectable pitch settings.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Components clearance:	Top 30 mm, bottom 30 mm (depends on pitch)
Power supply:	230 VAC/50Hz/1 Ph
Power consumption:	600 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
PCB unloading time:	$\pm$ 6 seconds
Magazine change-over time:	$\pm$ 40 seconds
Pitch control:	1-4, 10 mm pitch
Maximum total magazine weight:	50 kg each
Total number of magazines:	1 magazine on the lifter platform. 2 empty magazines on the upper magazine conveyor. 3 full magazines on the lower magazine conveyor.
	* or specify

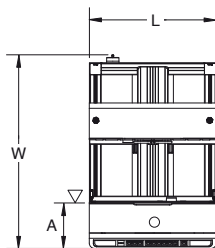
Options

- Pneumatic stopper at inlet to control PCB flow from upstream reflow oven
- Cooling fans on pusher conveyor
- Width adjustable magazine conveyor(s)
- Additional magazine capacity
- Shorter magazine change-over (20 sec)
- Alarm buzzer



	NTE 0110UL
Machine dimensions (l x w x h)	3075 x 975 x 1700 mm
Weight	310 kg
PCB length	80 mm - 460 mm
PCB width	70 mm - 460 mm
Magazine dimensions (max.)	535 x 530 x 570 mm
Fixed rail to front dimension (A)	386 mm

A stack of bare boards is placed above the ESD belt conveyor by the operator. Using separation cams one board is separated from the bottom of the stack and dropped on edge belt conveyor.



Standard features

- Conveyor width adjustment using sliding mechanism.
- Controlled by PLC.
- Thin PCB capability.
- By-pass mode selectable.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to Right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Component clearance (by-pass):	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.
Air supply:	4-6 bar
Air consumption:	5 ltr/min max.
PCB cycle time:	$\pm$ 5 seconds
PCB thickness:	0.6 mm - 4 mm
PCB stock capacity:	200 mm (max. 20 kg)
	* or specify

Options

- Alarm buzzer

	NTE 0220DSL
Machine dimensions (l x w x h)	500 x 810 x 1185 mm
Weight	150 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Fixed rail to front dimension (A)	180 mm

This unit is used to link between production machines or board handling units.



Standard features

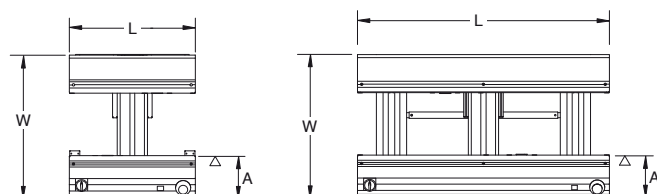
- Conveyor width adjustment using hand crank.
- Inspect function at exit sensor.
- Controlled by PLC.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm
Colour:	RAL 9002
Flow direction:	Left to Right
Fixed rail:	Front
Machine interface:	SMEMA
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Component clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.

Options

- Belt segment divided into 2 x 500 mm



	NTE 0410L 500	NTE 0410L 1000
Machine dimensions (l x w x h)	500 x 745 x 980 mm	1000 x 745 x 980 mm
Weight	40 kg	70 kg
PCB length	80 mm - 460 mm	80 mm - 460 mm
PCB width	70 mm - 460 mm	70 mm - 460 mm
Fixed rail to front dimension (A)	186 mm	186 mm

NTE 0510ICL 1000

The inspection conveyor is used when frequent visual inspection of PCB's is required in the PCB assembly line.

Standard features

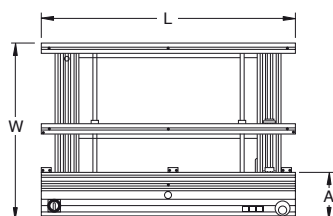
- Conveyor width adjustment using hand crank.
- Inspect and by pass mode selectable.
- Controlled by PLC.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm
Colour:	RAL 9002
Flow direction:	Left to Right
Fixed rail:	Front
Machine interface:	SMEMA
Conveyor concept:	ESD belt
Belt speed:	Fixed in 14 m/min. variable out 2-14 m/min.
PCB edge support:	3 mm
Component clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	100 VA max.

Options

- Belt segment divided into 2 x 500 mm



	NTE 0510ICL 1000
Machine dimensions (l x w x h)	1000 x 750 x 980 mm
Weight	50 kg
PCB length	80 mm - 460 mm
PCB width	70 mm - 460 mm
Fixed rail to front dimension (A)	186 mm

Used for good or bad PCB separation or visual inspection without interrupting the PCB flow. The PCB is lifted 35mm from the ESD belt using metal fingers.

Standard features

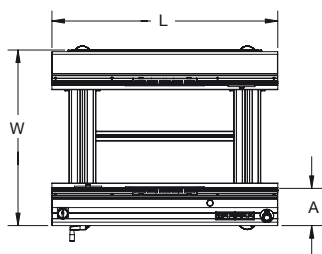
- Reject, inspect and by-pass mode selectable.
- Conveyor width adjustment using hand crank.
- Controlled by PLC.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Bottom 30 mm, top+bottom = 35 mm max.
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
	* or specify

Options

- Variable speed per segment
 - Dual speed per segment
 - Alarm buzzer
- Other options available on request



	NTE 0510RCL 1000
Machine dimensions (l x w x h)	1000 x 780 x 980 mm
Weight	70 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Fixed rail to front dimension (A)	165 mm

NTE 0530WSL 1000

The workstation is used where manual assembly work is performed on the PCB without removing it from the PCB assembly line.



Standard features

- Conveyor width adjusting using hand crank.
- Work and by-pass mode selectable.
- Controlled by PLC.
- ESD bracelet connection.
- Centre PCB stop position.
- Sliding parts shelf.
- Overhead lighting.
- CE certified.

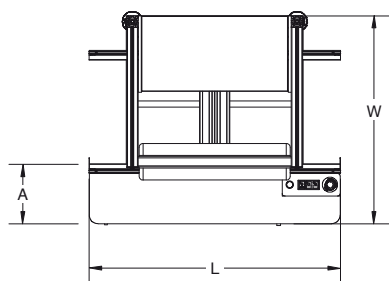
Technical specifications

Transfer height	950 mm ± 25 mm*
Colour	RAL 9002*
Flow direction	Left to right*
Fixed rail	Front*
Machine interface	SMEMA*
Conveyor concept	ESD belt
Belt speed	14 m/min.
PCB edge support	3 mm
Components clearance	Top 30 mm, bottom 30 mm
Power supply	230 VAC/50 Hz/1 Ph
Power consumption	150 VA max.

* or specify

Options

- Belt segment divided into 2 x 500 mm (work-buffer)
- Conveyor length of 1500 mm
- Foot rest
- Additional part shelf
- Variable speed per segment
- Dual speed per segment



	NTE 0530WSL 1000
Machine dimensions (l x w x h)	1000 x 830 x 2190 mm
Weight	80 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Fixed rail to front dimension (A)	215 mm

By manual lifting the conveyor section, access is gained to the rear of the line.



Standard features

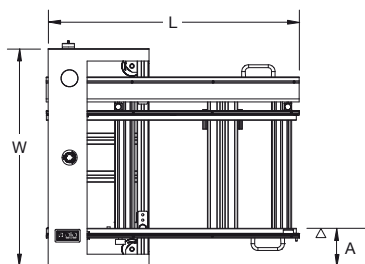
- Conveyor width adjusting using hand crank.
- Gas spring supported opening and closing.
- Locking cylinder to avoid opening during PCB transfer.
- Controlled by PLC.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Passageway:	600 mm
Power consumption:	100 VA max.
Air supply:	4-6 bar
Air consumption:	negligible
	* or specify

Options

- Variable speed per segment
- Dual speed per segment
- Inspect function



	NTE MGL 1000
Machine dimensions (l x w x h)	1000 x 860 x 1100 mm
Weight	80 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Fixed rail to front dimension (A)	127 mm

This unit is used to invert/flip PCB's (180°) for 'double-sided' process.



Standard features

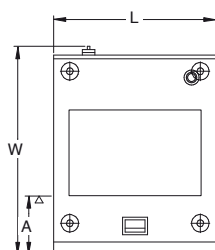
- Rotation using pneumatic cylinder.
- Conveyor width adjustment using hand crank.
- Pneumatic stopper to keep PCB in position during inverting.
- Controlled by PLC.
- By-pass mode selectable.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	150 VA max.
Air supply:	6 bar
Air consumption:	1.1 ltr/min max.
Machine cycle time:	± 15 seconds
	* or specify

Options

- Towerlight display
- Alarm buzzer
- Cantilevered input- or output conveyor (length 500 mm)



	NTE 0310IL
Machine dimensions (l x w x h)	653 x 965 x 1300 mm
Weight	110 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Fixed rail to front dimension (A)	234 mm

The unit is designed to change the flow direction of a PCB assembly line. The PCB is transferred onto the built-in ESD belt conveyor, which turns either clockwise or counter-clockwise.



Standard features

- Conveyor width adjustment using hand crank.
- (NTE 091) Turning 90° clockwise or counter-clockwise
- (NTE 0181) Turning 180° to change fixed rail position
- (NTE 0271 and 0361) various configurations possible.
- By-pass mode available.
- Controlled by PLC.
- Unique lateral transfer system to handle small PCB's.
- CE certified.

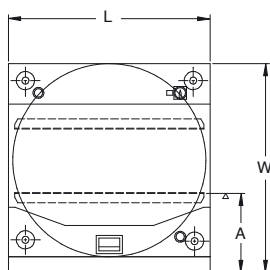
Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Components clearance:	Top 30 mm, bottom 30 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	200 VA max.
Air supply:	4-6 bar
Air consumption:	1.5 ltr/min max.
Machine cycle time:	± 18 seconds
	* or specify

Options

- Good- or bad board separation
- Cantilevered input- or output conveyor (length 500 mm)
- Towerlight display
- Alarm buzzer

Other options available on request



	NTE 091, 0181, 0271, 0361L
Machine dimensions (l x w x h)	875 x 875 x 1100 mm
Weight	180 kg
PCB length	80 mm - 460 mm
PCB width	50 mm - 460 mm
Fixed rail to front dimension (A)	234 mm

Used to either load or unload substrates, leadframes and carriers.
System uses a pneumatic pusher and integrated conveyor for loading or unloading of the line.



Standard features

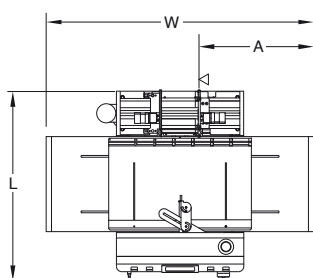
- Caters for different magazine types/dimensions.
- Magazine capacity depends on external magazine dimensions.
- Touch screen operation panel for swift adjustment of magazine change over/settings.
- Stores up to 10 different types of magazine dimensions.
- Servo motor drive for flexible positioning and precise indexing.
- Controlled by PLC.
- Tailor made to the magazine of your choice.
- Regulated pressure on pneumatic pusher.
- Conveyor width adjustment using hand crank.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Transfer height:	950 mm ± 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Indexing pitch:	6 mm*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	850 VA max.
Air supply:	4-6 bar
Air consumption:	1 ltr/min max.
	* or specify

Options

- Alarm buzzer
- Other options available on request



	NTM 441OLM (loader)	NTM 441OUM (unloader)
Machine dimensions (l x w x h)	760 x 1050 x 1100 mm	760 x 1050 x 1100 mm
Weight	165 kg	165 kg
Magazine length	100 mm - 280 mm	100 mm - 280 mm
Magazine width	30 mm - 250 mm	30 mm - 250 mm
Magazine height	< 330 mm	< 330 mm
Fixed rail to front dimension (A)	450 mm	450 mm

Used to either load or unload substrates, leadframes and carriers. System uses a pneumatic pusher and integrated conveyor for loading or unloading of the line.



Standard features

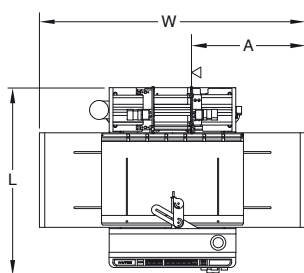
- Caters for one magazine type/size only.
- Magazine capacity depends on external magazine dimensions.
- Controlled by PLC.
- Frequency inverter control for precise indexing.
- Tailor made to the magazine of your choice.
- Regulated pressure on pneumatic pusher.
- Conveyor width adjustment using hand crank.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Indexing pitch:	6 mm*
Conveyor concept:	ESD belt
Belt speed:	14 m/min.
PCB edge support:	3 mm
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	450 VA max.
Air supply:	4-6 bar
Air consumption:	1 ltr/min max.
	* or specify

Options

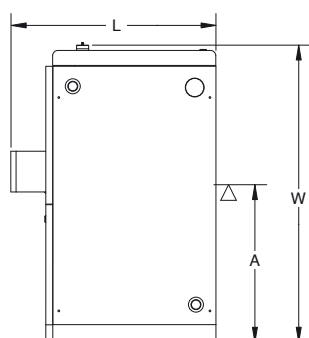
- Alarm buzzer
- Other options available on request



	NTM 441LM (loader)	NTM 441UM (unloader)
Machine dimensions (l x w x h)	760 x 1050 x 1100 mm	760 x 1050 x 1100 mm
Weight	165 kg	165 kg
Magazine length	100 mm - 280 mm	100 mm - 280 mm
Magazine width	30 mm - 250 mm	30 mm - 250 mm
Magazine height	< 330 mm	< 330 mm
Fixed rail to front dimension (A)	450 mm	450 mm

NTM 4412LM

The high speed mini loader is used to load substrates, lead-frames, carriers onto the line. The full magazine is automatically picked up from the lower magazine conveyor. When in position a pneumatic pusher is used to push the product out of the magazine starting at the bottom magazine slot. When the magazine is empty it is placed on the upper magazine conveyor.



Standard features

- Operation by touch screen panel.
- Stores up to 10 different type of magazines.
- Swift change-over between different magazine types.
- Multi magazine capacity, quantity depends on external magazine dimensions.
- Stainless steel magazine guide.
- Servo controlled lifter motor.
- High speed and precise indexing according to the selected magazine.
- Regulated pressure on pneumatic pusher.
- Controlled by PLC.
- Towerlight display for machine status.
- CE certified.

Technical specifications

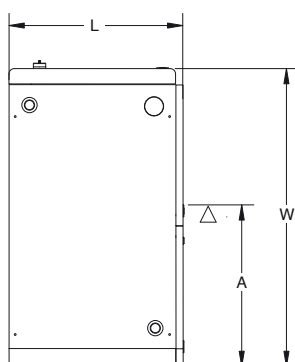
Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	850 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
Product loading time:	$\pm$ 5 seconds
Magazine change-over time:	$\pm$ 20 seconds
Indexing pitch:	1-4 (5 mm pitch)*
No. of magazines:	Depends on magazine type
	* or specify

Options

- Alarm buzzer
- Other options available on request

	NTM 4412LM
Machine dimensions (l x w x h)	820 x 1200 x 1390 mm
Weight	210 kg
Magazine length	165 mm - 305 mm
Magazine width	25 mm - 127 mm
Magazine height	< 330 mm
Fixed rail to front dimension (A)	630 mm

The high speed mini unloader is used to unload substrates, lead-frames, carriers from the line. The empty magazine is automatically picked up from the upper magazine conveyor. Via the mini conveyor the product is transferred into the magazine, starting at the top magazine slot. A pneumatic pusher extends to push the product completely inside the magazine before magazine indexes to the next position. When the magazine is full it is transferred on to the lower magazine conveyor.



Standard features

- Operation by touch screen panel.
- Stores up to 10 different type of magazines.
- Swift change-over between different magazine types.
- Multi magazine capacity, quantity depends on external magazine dimensions.
- Stainless steel magazine guide.
- Servo controlled lifter motor.
- High speed and precise indexing according to the selected magazine.
- Regulated pressure on pneumatic pusher.
- Hand crank width adjustment belt conveyor
- Controlled by PLC.
- Towerlight display for machine status.
- CE certified.

Technical specifications

Transfer height:	950 mm $\pm$ 25 mm*
Colour:	RAL 9002*
Flow direction:	Left to right*
Fixed rail:	Front*
Machine interface:	SMEMA*
Power supply:	230 VAC/50 Hz/1 Ph
Power consumption:	850 VA max.
Air supply:	4-6 bar
Air consumption:	10 ltr/min max.
Product loading time:	$\pm$ 5 seconds
Magazine change-over time:	$\pm$ 20 seconds
Indexing pitch:	1-4 (5 mm pitch)*
No. of magazines:	Depends on magazine type
	* or specify

Options

- Alarm buzzer
- Other options available on request

	NTM 4412UM
Machine dimensions (l x w x h)	685 x 1200 x 1390 mm
Weight	210 kg
Magazine length	165 mm - 305 mm
Magazine width	25 mm - 127 mm
Magazine height	< 330 mm
Fixed rail to front dimension (A)	630 mm



Pin chain



Plastic roller chain



Metal roller chain



O6B Chain



NUTEK



Worldwide Offices

EUROPE

Bliek 23
4941 SG Raamsdonksveer
The Netherlands
Tel: (31) 162 578 578
Fax: (31) 162 578 579
E-mail: info@nutek-europe.com
Website: <http://www.nutek-europe.com>

UNITED KINGDOM

Lodge Park
Lodge Lane, Langham
Colchester, Essex CO4 5NE
United Kingdom
Tel: (44) 1206 233 538
Fax: (44) 1206 233 539
E-mail: info@nutek-uk.com
Website: <http://www.nutek-uk.com>

AUSTRALIA

75-77, Westgate Drive
Altona North, Victoria 3025
Australia
Tel: (61) 3 8369 6600
Fax: (61) 3 8368 2699
E-mail: gcp@hrltd.com.au

ASIA (Main Design & Manufacturing Centre)

39, Joo Koon Circle
Singapore 629105
Tel: (65) 6862 0255
Fax: (65) 6862 0040
E-mail: info@nutek-sg.com
Website: <http://www.nutek-sg.com>

CHINA

Room 1016, Huaihai China Tower
885, Ren Min Road
Shanghai 200010, China
Tel: (86) 21 6355 3926/27
Fax: (86) 21 6355 3933
E-mail: info@nutek-china.com

AMERICAS

1811, Lefthand Circle, Suite B
Longmont, Colorado 80501
United States of America
Tel: (1) 303 684 0400
Fax: (1) 303 684 9886
E-mail: info@nutekamericas.com
Website: <http://www.nutekamericas.com>