

# Pilot with nitrogen generator PG30

## Tabletop selective soldering system

The Pilot selective soldering system is an extremely compact system that also offers all the functionalities of the larger models. The Pilot model is a selective soldering system as a table-top version for small to medium batch sizes. Two universal frames for PCB sizes up to 330 x 250 mm are used for quick product changes.

The system is equipped with the same solder nozzle technology as the larger Pillarhouse selective soldering systems and has an integrated drop-jet fluxer. When using the optional underside preheater, assemblies with a high heat requirement can also be processed without any problems.

## Advantages

- For PCBs up to a maximum of 330 mm x 250 mm
- For stand-alone operation with manual loading
- Easily customisable for different applications
- Suitable for inline and stand-alone operation
- Integrated drop-jet fluxer for selective fluxing
- Programmable pressure of the flux bottle
- Inert soldering atmosphere with low nitrogen consumption
- Control system with self-diagnosis

## Options

- Measurement and correction of the plumb wave height
- Fiducial recognition and correction system
- Pillarpad offline programming system, etc.
- Nitrogen generator PG30

NITROGEN GENERATOR PG30



PILOT LP FRAME





# Jade MKII

## Flexible selective soldering system

The Jade MKII selective soldering system is an economical solution for small and medium batch sizes. The Jade MKII is designed for manual loading of PCBs. To optimise the soldering process and minimise dross formation, the Jade MKII solders using a nitrogen atmosphere.

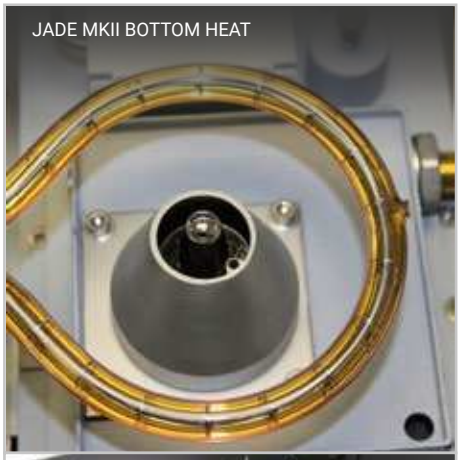
## Advantages

- Universal AP soldering nozzles from 1.2* mm to 25 mm

*) patented micro soldering nozzle

## Options

- PCB formats up to 457 mm x 508 mm
- Autofiducial system for position correction
- Programmable top heating with pyrometer control
- IR ring heater for the underside of the LP
- Laser-based deflection control - Warp Detection
- Ultrasonic fluxer - in addition to the drop-jet fluxer
- Automatic solder feed



JADE MKII BOTTOM HEAT



JADE MKII SOLDERING HEAD



# JadePro & Jade MKV

## Selective soldering systems

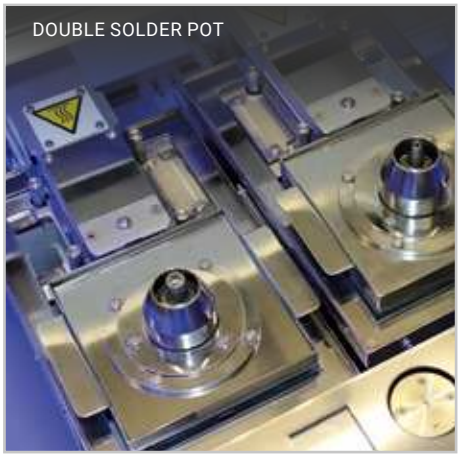
Selective soldering systems with manual loading and high flexibility for small and medium batch sizes. The systems can be equipped with up to 4 solder pots and therefore allow a quick product change even with different solders. The system's easily adjustable universal frame allows the processing of PCBs up to 457 x 508 mm. The Jade MKV model also has an integrated rotary table with two adjustable universal holders.



The JadePro and Jade MKV systems can be equipped with a double solder pot. This increases the flexibility of the system through the simultaneous use of different solder nozzles.

The spectrum of soldering nozzles that can be used ranges from a 1.5 mm micro soldering nozzle to a 75 mm wide soldering wave. This allows the user to react flexibly to the most diverse applications in the field of electronics production.

The Jade MKV model also offers a turntable with two PCB holders for quick product changes and as an integrated placement station.


DOUBLE SOLDER POT



# Fusion

## High speed selective soldering platform

The Fusion concept allows the system to be optimally customised to your selective soldering process requirements. Fusion is a fully integrated inline selective soldering system with a choice of two, three or four process stations.

The Fusion concept allows the selective soldering process to be optimally adapted to the requirements of your production. With up to three soldering modules working in parallel, this system is also suitable for fast cycle times and large batch sizes.

## Advantages

- For PCBs up to a maximum of 508 mm x 950 mm
- Easily customisable for different applications
- Configurable for 2 to 4 solder pots
- Integrated drop-jet fluxer for selective fluxing
- Programmable pressure of the flux bottle
- Inert soldering atmosphere with low nitrogen consumption
- Control system with self-diagnosis
- Use of AP nozzles from 1.2 mm to 25 mm

## Options

- 50 to 150 mm wide soldering nozzles
- IR-LP top side preheating for each process station
- IR ring heater for the underside of the PCB
- Retractable and extendable underside preheater
- Detection and compensation of LP deflection
- Ultrasonic fluxer instead of or in addition to the drop jet
- Nitrogen generators PG40 or PG80



FUSION SOLDER POTS



150 MM SOLDER WAVE



# Synchrodex

The modular and expandable concept offers the user the option of adapting the selective soldering line to increasing requirements and shorter throughput times.

The Orissa Synchrodex works with wetted AP-1 solder nozzles with single ascent and the patented spiral solder return, which prevents the formation of solder balls. An optional solder wave nozzle with a 75mm or a 150 mm wide solder wave, various jet wave solder nozzles and customised solder nozzles are available.

As with more complex pillar house systems, the use of a protective gas atmosphere counteracts the formation of oxide. The standard integrated system for selective fluxing works according to the drop-jet method.

The modular and expandable concept offers the user the option of adapting the selective soldering line to increasing requirements and shorter throughput times.

Options for selective preheating using heated nitrogen or for programmable IR preheating of the PCB from the top side are used to prepare the PCB for the actual soldering process. The optional PillarPAD package for offline programming enables the use of Gerber data.

## Advantages

- For PCBs up to a maximum of 457 mm x 610 mm
- Easily customisable for different applications
- Suitable for inline and stand-alone operation
- Integrated drop-jet fluxer for selective fluxing
- Programmable pressure of the flux bottle
- Inert soldering atmosphere with low nitrogen consumption
- Control system with self-diagnosis

## Options

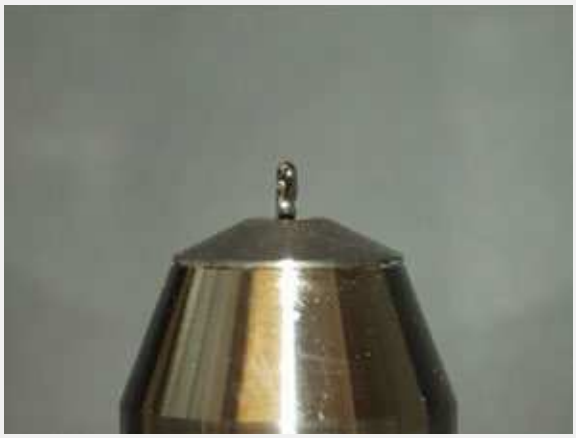
- Selective preheating by heated nitrogen jet
- IR-LP top side preheating
- Measurement and correction of the plumb wave height
- Fiducial recognition and correction system
- Detection and compensation of LP deflection
- PillarPad offline programming system, etc.
- Nitrogen generators | Selective soldering
- Patented 1.2 mm and 1.5 mm soldering nozzles



FLUXER PREHEATER V2



SYNCHRODEX LINE



# Patented 1,2 mm and 1,5 mm soldering nozzles

Pillarhouse has developed a special solder nozzle just 1.5 mm wide to prevent the components from being „washed away“ or short-circuits from occurring when there are narrow gaps between THT pins to be soldered and neighbouring SMD components. This soldering nozzle enables problem-free selective soldering with extremely narrow spacing.




# Nitrogen generator PillarGen PG30

## Also serves as a base frame for the Pilot selective soldering system

- Height: 835mm
- Length: 915mm / 36“
- Width: 700mm / 28“
- Compressed air requirement: 400 l/min, 8-10 bar / 116-145 psi, 12 mm connection
- Power connection: single-phase
- Voltage: 100V - 240V
- N2 supply: 30 litres N2/min. @ purity100 ppm 99.990%
- Noise level: 70 dB or less




# Nitrogen generator PillarGEN-40

### For Jade MKII, Synchrodex, Fusion and others ...

- Height: 1155mm
- Length: 968mm
- Width: 700mm
- Compressed air requirement: 500 l/min, 8-10 bar / 116-145 psi, 12 mm connection
- Power supply: 240V - single-phase
- N2 output: 40 litres N2/min. @ Purity: 50 ppm / 99.995%
- Noise level: 70 dB or less

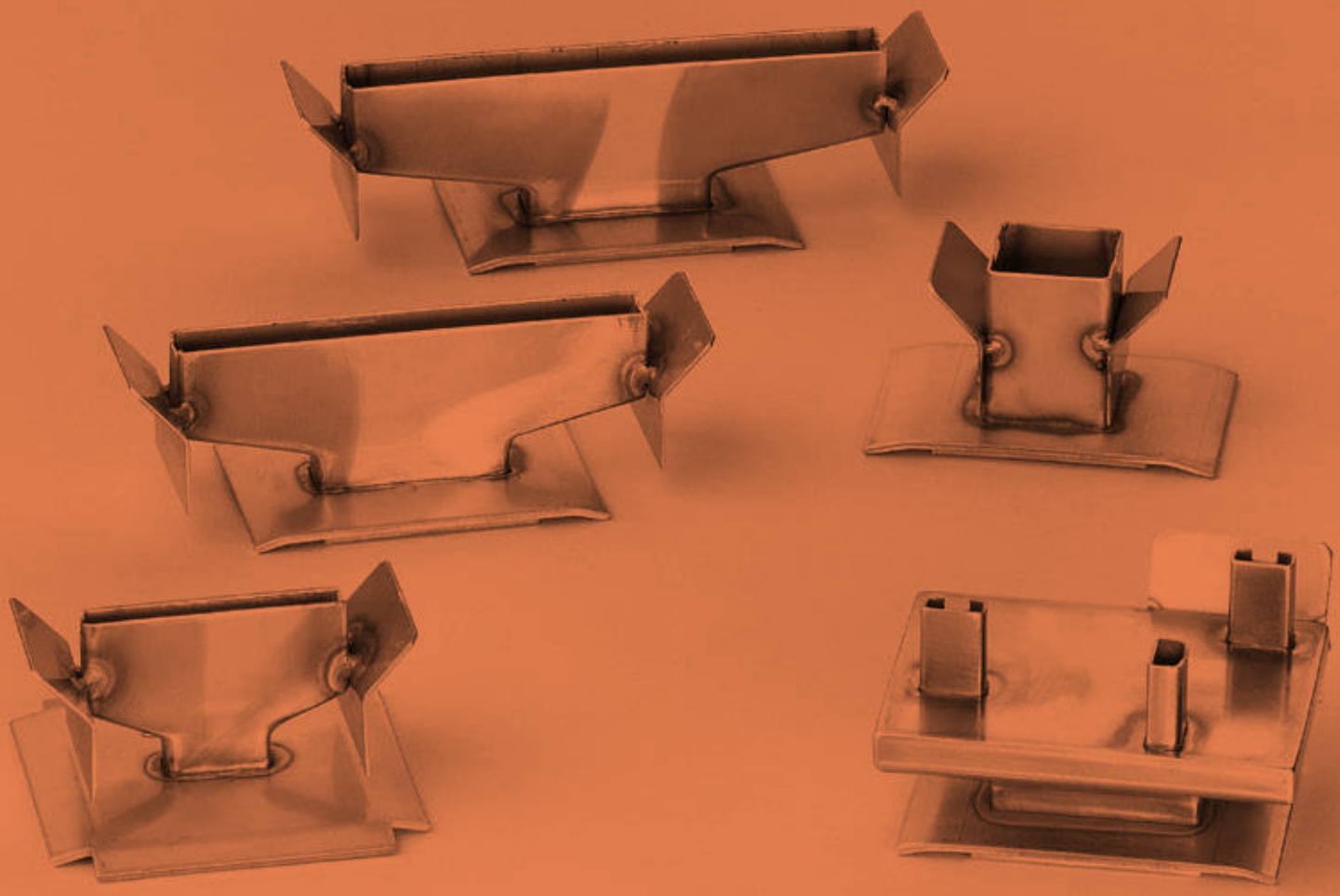



# Nitrogen generator PillarGEN-80

### For JadePro, JadeProdex, Synchrodex, Fusion and others.

- Suitable for the N2 supply of two Soldering modules
- Height: 1155mm / 46“
- Length: 1020mm / 40“
- Width: 970mm / 38“
- Compressed air requirement: 1000 l/min, 8-10 bar / 116-145 psi, 12 mm connection
- Power supply: 240 V single-phase
- N2 capacity: 80 litres N2/min. @ Purity: 50 ppm / 99.995%
- Noise level: 70 dB or less

# Bench Top Soldering Systems





# Mini solder wave TOP-375

Versatile soldering system for production and repairs. The system works with easily exchangeable soldering nozzles. It only takes a few minutes to change over to a new product. We offer a wide range of standard nozzles that cover most common THT components. In addition, we offer customised solder nozzles that are precisely matched to the respective application and thus enable optimum soldering results.

## Features of the benchtop soldering system

- Timer function for process control
- Standby function to reduce the rise time to the soldering height and to preheat the nozzle
- Optional nitrogen unit
- With a range of optional standard solder nozzles
- Customised solder nozzles for the TOP-375 selective soldering system on request

## Areas of application

- For selective soldering, also with lead-free solders
- As an economical alternative to wave soldering for the complete soldering of smaller PCBs
- At the end of an automatic reflow assembly line for soldering wired components
- As a supplement to the conventional wave soldering system
- In the field of repair soldering as a repair soldering system for fast soldering and desoldering, e.g. of high-pole through-hole components

TOP-342 LP frame



TOP-375 SP





# Mini solder wave TOP-375 SP & SPH

## Mini solder wave with separate control unit – for integration in automated systems

- Lead-free soldering at soldering temperatures from 200 to 350°C
- With the TOP-375SPH high-temperature module, solder bath temperatures of up to 450°C are possible
- Corresponds to the TOP-375 model, but has separate housings for the solder bath and electronics and ...
- Opens up additional possibilities for inline applications
- Practically prevents any heat transfer from the solder bath to the electronics housing and
- Facilitates maintenance work

## Features of the TOP-375 SP and SPH

- Timer function for process control
- Standby function to reduce the rise time to the soldering height and to preheat the nozzle
- Optional nitrogen unit
- With a range of optional standard solder nozzles
- Customised solder nozzles for the selective soldering devices on request

## Areas of application

- For selective soldering, also with lead-free solders
- For integration into automatic production systems
- As an economical alternative to wave soldering for the complete soldering of smaller PCBs
- At the end of an automatic reflow assembly line for soldering wired components
- As a supplement to the conventional wave soldering system
- In the field of repair soldering as a repair soldering system for quick soldering and desoldering of e.g. high-pole
- Push-through parts



# TOP-341 and TOP-342

## PCB holder and lift controller for the TOP-375 solder wave

The TOP342 PCB holder is the ideal addition to the TOP-375 mini soldering wave for processing smaller PCBs. Once the basic setting for soldering or desoldering components on a PCB has been made with the aid of a specific soldering nozzle, identical PCBs can now be conveniently and easily brought into the soldering position and fixed at the side, making selective soldering much easier.

At the end of a soldering process, the holding frame can be lifted on one side manually or with the aid of the optional TOP341 lift controller in order to peel the soldered connections out of the solder while avoiding the formation of solder bridges.

The lift controller can be connected to the TOP-375 selective soldering device instead of the foot switch, so that the start switch of the TOP341 also triggers the rise of the solder in the nozzle to the actual soldering height. The TOP341 controller has a timer for setting the time until the LP frame starts to rise, as well as the option of setting the speed at which the frame is raised.



EXAMPLE OF A CUSTOMISED PRINTED CIRCUIT BOARD MOUNTING FRAME FOR HEAVY AND LARGE ASSEMBLIES. CIRCUIT BOARD CAN BE MOVED IN X-DIRECTION. Y-AXIS COMPLETELY MOVABLE.

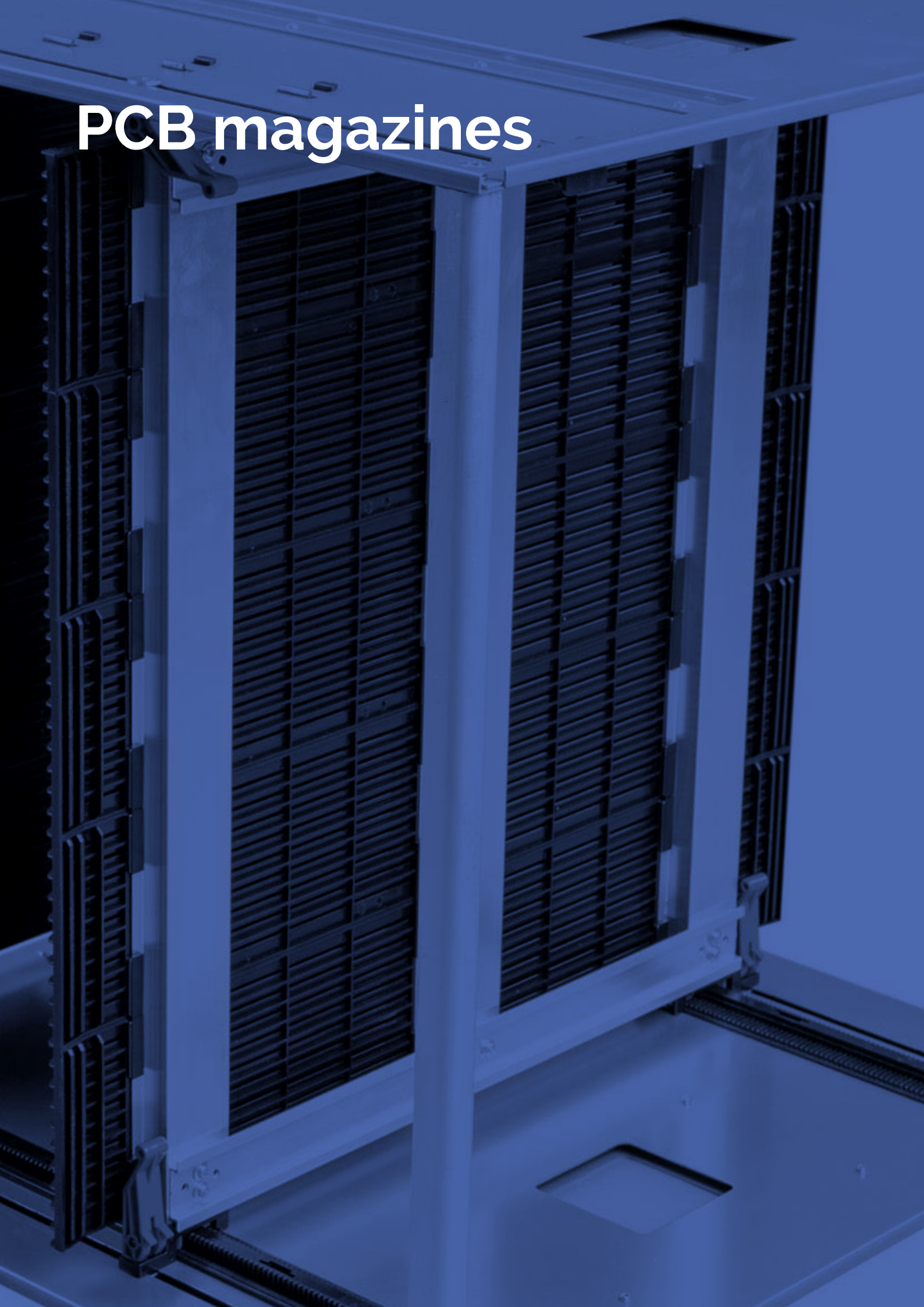
# Soldering nozzles for TOP-375CE and TOP-375SP

## Quick-change soldering nozzles for TOP-375CE and TOP-375SP

A small selection of different solder nozzles. We supply both standard soldering nozzles and customised variants.



# PCB magazines





# PCB magazines for transport + storage

## Magazines with quick-release mechanism

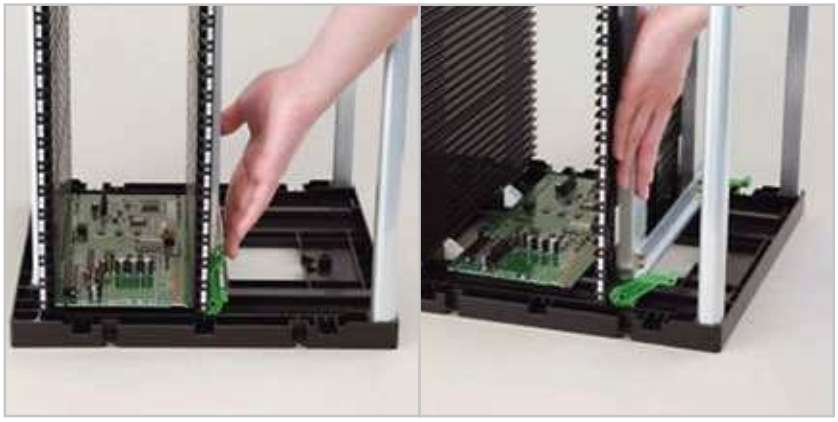
The main feature of the NIKKO PCB magazines with the „one-touch parallel adjustment“ is the patented „synchronised linear gearbox“, which always ensures parallelism between the fixed and movable side walls. Converting the magazines to a different PCB width is extremely easy and can be done in just a few seconds. NIKKO PCB magazines are suitable for loading and unloading PCBs in automatic assembly lines and test systems as well as for many other applications.

With different temperature resistances of the racks from 60°C to 165°C, with many different magazine sizes and with bases made of metal or sturdy, weight-saving plastic, the various models of NIKKO PCB magazines also offer you the right solution for the requirements of your production.

## Simple width adjustment in just 10 seconds

Slide the movable side panel onto the PCB so that it is held in the reference slot.

Then close the four clamping levers - done!



LARGE MAGAZINES



STANDARD MAGAZINE SIZES





50 SLOTS COMPLETE

# Magazines for high-temperature processes

## Full metal magazines

Our full metal magazines for printed circuit boards have been specially developed for applications in the high-temperature range up to 250°C. They are suitable for storage in drying ovens, drying processes after curing your PCBs, curing adhesives of all kinds and much more.

We supply both standard sizes that are compatible with our standard PCB magazines and customised special sizes. The magazines are made exclusively of metal without any plastic parts.

The width adjustment is easy to realise without the use of tools thanks to the special design.

## Magazines

- High temperature resistance
- Process temperatures up to 250°C
- Compatible with our standard LP magazines
- Customised magazine sizes available
- Simple width adjustment without tools

20 INSERT



50 SLOTS FROM ABOVE



# Magazine accessories to optimise your production logistics

TROLLEY FOR 1 MAGAZINE



TROLLEY WITH TWO MAGAZINES



TROLLEY WITH ONE MAGAZINE



MEMOCLIPS



DUST COVER



STACKING FRAME FOR TWO MAGAZINES



STACKING FRAME FOR A MAGAZINE



SLIDE-IN LOCK FOR MAGAZINE SLOT



TWO MAGAZINES WITH STACKING FRAME



STOPPER ROD FOR MAGAZINE LOCKING



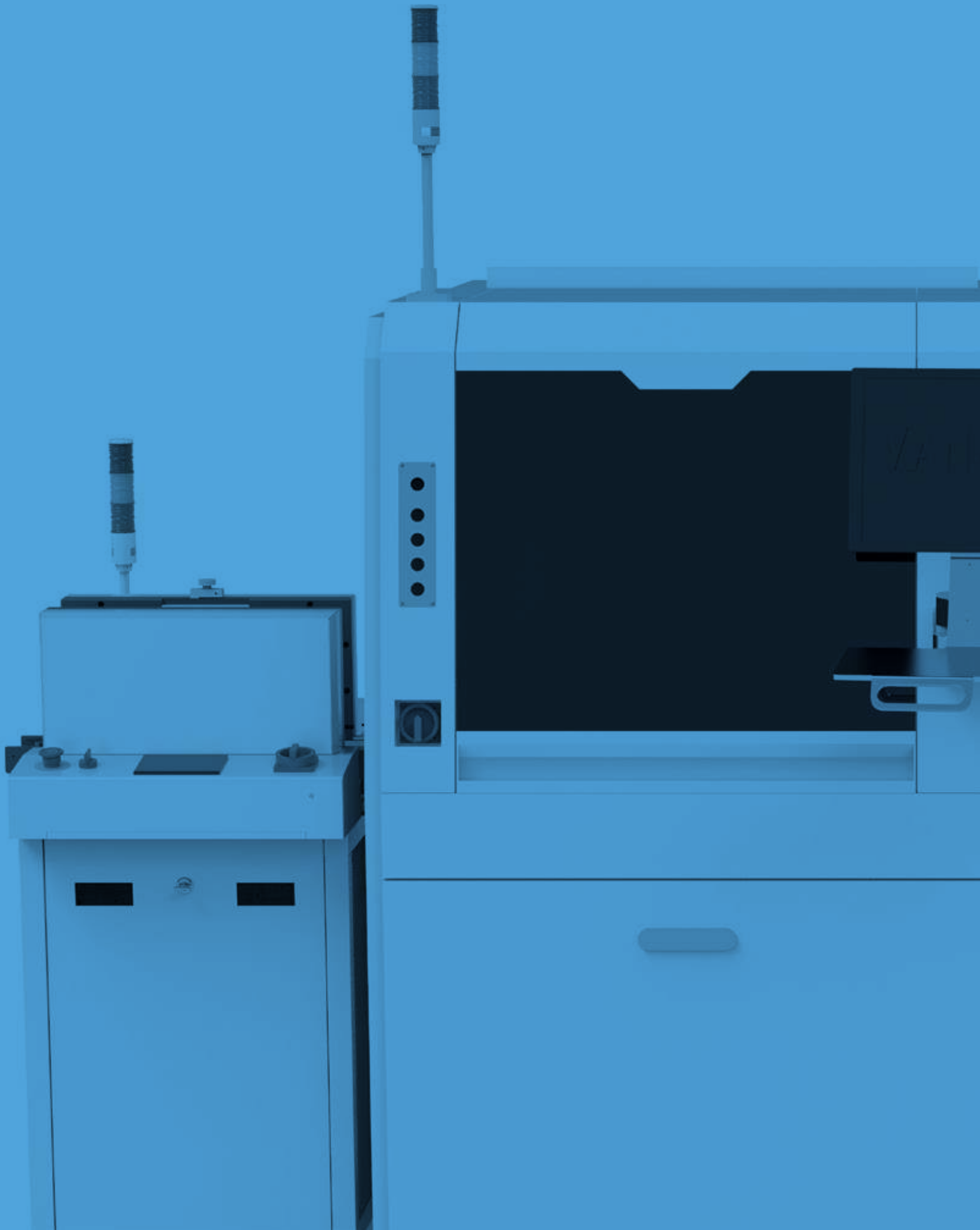
STOPPER RODS FOR DIFFERENT MAGAZINES



SLOT LABELS FOR NUMBERING THE SLOTS



# PCB handling



# Magazine loading and unloading station and inline buffer

SINGLE MAGAZINE LOADER



SINGLE MAGAZIN UNLOADER



MULTI MAGAZINE LOADER



MULTI MAGAZINE UNLOADER



90° MULTI MAGAZINE LOADER



LOADER - UNLOADER COMBINATION



GOOD - BAD SORTER



NG BUFFER



SINGLE MAGAZINE BUFFER



COOLING BUFFER



VACUUM STACKER



LOADER - DESTACKER COMBINED



## 180° flip stations and 90° rotary modules for printed circuit boards





## Loading and unloading transport modules for wave soldering





# Printed circuit board transport modules

1000 mm TRANSPORT BELT WITH COOLING



1000 mm TRANSPORT BELT WITH
1 OR 2 SEGMENTS



500 mm TRANSPORT BELT



CONVEYOR BELT FOR LINE PASSAGE



SHUTTLE TRANSPORT MODULE



TELESCOPIC LINE PASSAGE



UV INSPECTION CONVEYOR



CONVEYOR BELT FOR MANUAL
INLINE ASSEMBLY



## Printed circuit board transport modules
## Easy to install in any production line

### Standard version with

- Mitsubishi SPS - By-pass or inspection mode selectable
- Manual width adjustment
- Centre LP stop
- Stepper motor for the belt drive
- Solid design prevents slipping
- SMEMA interface

### Options

- Motorised width adjustment
- Automatic width adjustment
- Inspection interval adjustable
- Width adjustment via RS485 Follow me sensor
- Touch panel operation
- Barcode scanner

# Smart Conveyor System with CMS software

## Areas of application

The Smart Conveyor System from Vanstron enables a high level of transparency in your line production by providing all data relevant to PCB handling.

All modules of the intelligent production line have a LAN interface for communicating with the separate line controller. This enables an online status display of all relevant line parameters.









## The key features of the CMS system

| | |
|---|---|
| **Automatic width adjustment** | By specifying the product width, all modules on the line automatically adjust to the new width |
| **Real-time status monitoring** | Display of line status on a separate PC Management and recording of production parameters |
| **Log file generation editing of access levels** | Assignment of function levels for operating and maintenance personnel |

# Magazine Lifter

## Handling of PCB magazines for loader-unloaders and other magazine transport modules



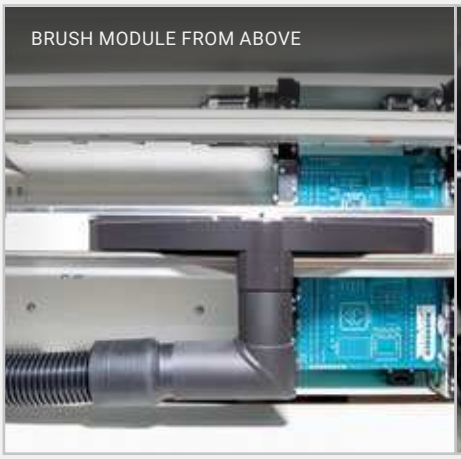
## Areas of application

- For lifting and manual movement of printed circuit board magazines
- Fast, manoeuvrable and reliable
- Capacity: 1 magazine
- For loads up to approx. 70 kg
- With 24-volt battery operation of the lift platform
- ESD-compliant and CE-compliant

## Options

- Additional equipment as a turning station with manual 180° rotation of the magazine
- Designed for multiple magazine sizes

# Printed circuit board cleaning



BRUSH MODULE FROM ABOVE



CLEANING WITH TOP BRUSH



DOUBLE-SIDED BRUSH FOR TOP AND BOTTOM CLEANING



# Inline PCB cleaning with ESD brushes

Inline cleaning system for efficient cleaning before stencil printing. Your PCBs are cleaned gently and thoroughly with a rotating brush made of special ESD-compliant material. The released particles are effectively extracted into a filter via the integrated extraction system. We offer our PCB cleaning systems for both single-sided and double-sided inline cleaning of your PCBs. The integrated ioniser prevents static build-up on the PCBs.

## Non-contact inline PCB cleaning with Airknife

Inline PCB cleaning system for cleaning PCBs before solder paste printing using Airknife and ionised air. A fan-like air stream flows over the PCB at high speed. Loose particles are lifted and safely removed via the integrated extraction system. The ionised air prevents the „Sticking“ of statically charged parts to the circuit board. Includes integrated ioniser.



AIRKNIFE MIT 3 PROGRAMMIERBAREN SEKTIONEN

## Inline PCB cleaning with adhesive rollers

### PCB cleaning with adhesive rolls (sticky cleaner)

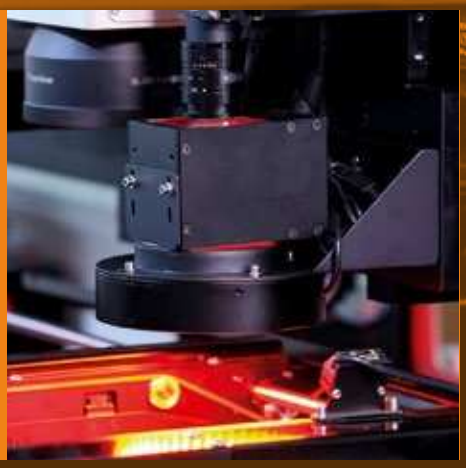
Pick-up of dust particles and other contaminants on the PCB by an adhesive roller. Loose particles are extracted and collected in a filter system. The system is equipped with an ioniser to prevent static charges.



# Laser Marking

## Quality and precision

An important aspect of laser marking is the verification of the marking quality. The integrated Mark Quality Check is used for this purpose. Each barcode is compared with the database in terms of grey scale, contrast ratio, perfect squares and circles to ensure the optimum quality of each code.





# Inline Laser Marking System 460S - Series

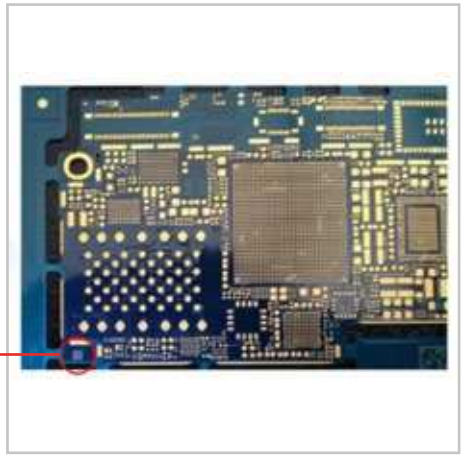
## Inline PCB transport with flip module for double-sided marking

A basic prerequisite for maximization production quality in the manufacturing of electronic assemblies, is the continuous traceability of all process steps. Labelling your assemblies using laser marking is an inexpensive and effective method for individual marking at the start of the process chain.

The individual labelling of all assemblies in automated electronics production offers the possibility of documenting all production steps and thus achieving complete traceability. Labelling using laser marking offers many advantages and should ideally take place before the first solder paste is printed. Our laser marking systems offer maximum flexibility for all types of labelling.

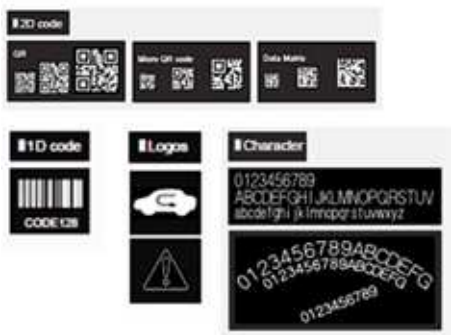
## Advantages

- Small space requirement for the areas to be marked
- Low error rate
- Marking and checking in the same process
- Integration into a network
- Paperless data management



## Features

- Marking depth control
- Marking height control
- CCD Online Control
- Barcode quality check
- Barcode grade check
- MES System Link
- Concentric CCD & Laser
- Laser Auto Control




## Possibility of extremely small markings

When space on the assembly is very tight, the requirement for the minimum size of the labelling increases. With our laser marking systems, the labelling of 2D codes measuring just 1 x 1 mm is possible.

# AOI Systems

## Automatic optical inspection systems

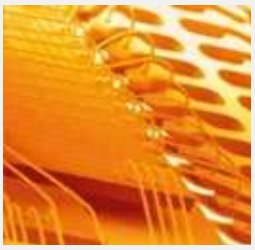
**for SMT - 3D SPI - 3D microelectronics back end as well as wire bond inspection and BGA solutions**



3D SMT solutions



3D SPI solutions



3D Microelectronics and metrology



3D lead frame



3D BGA solutions

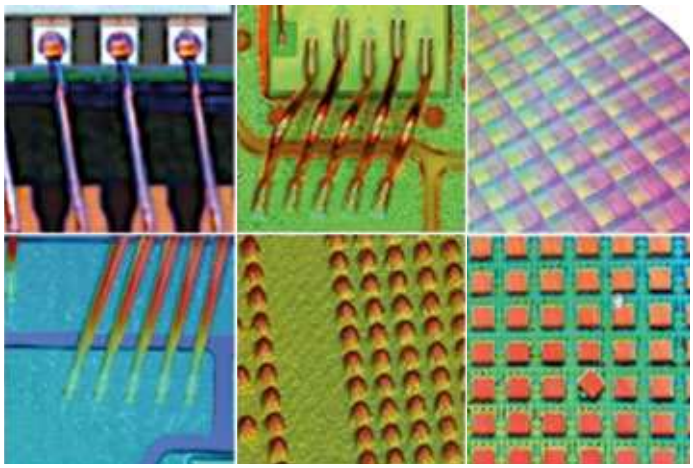
# Product overview



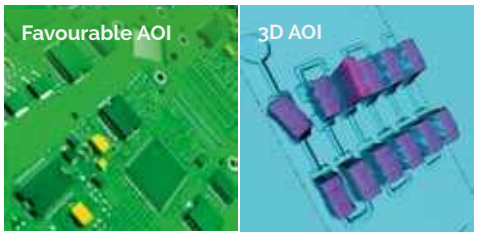
Series 900 | 2030 DWMS | Versa | Spectra | Software Products

# AOI application examples:

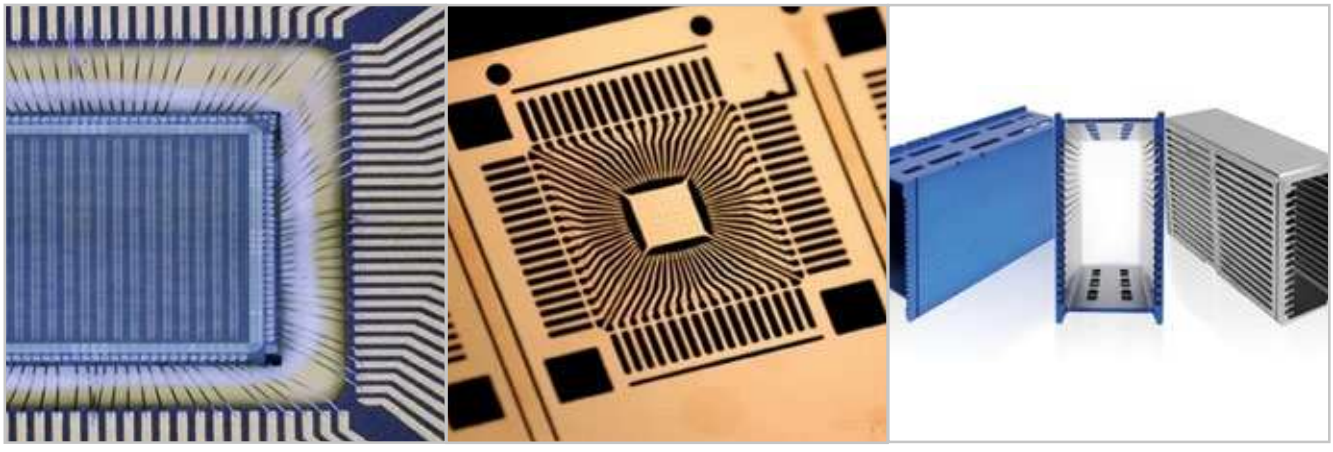
## Wire Bond Inspection



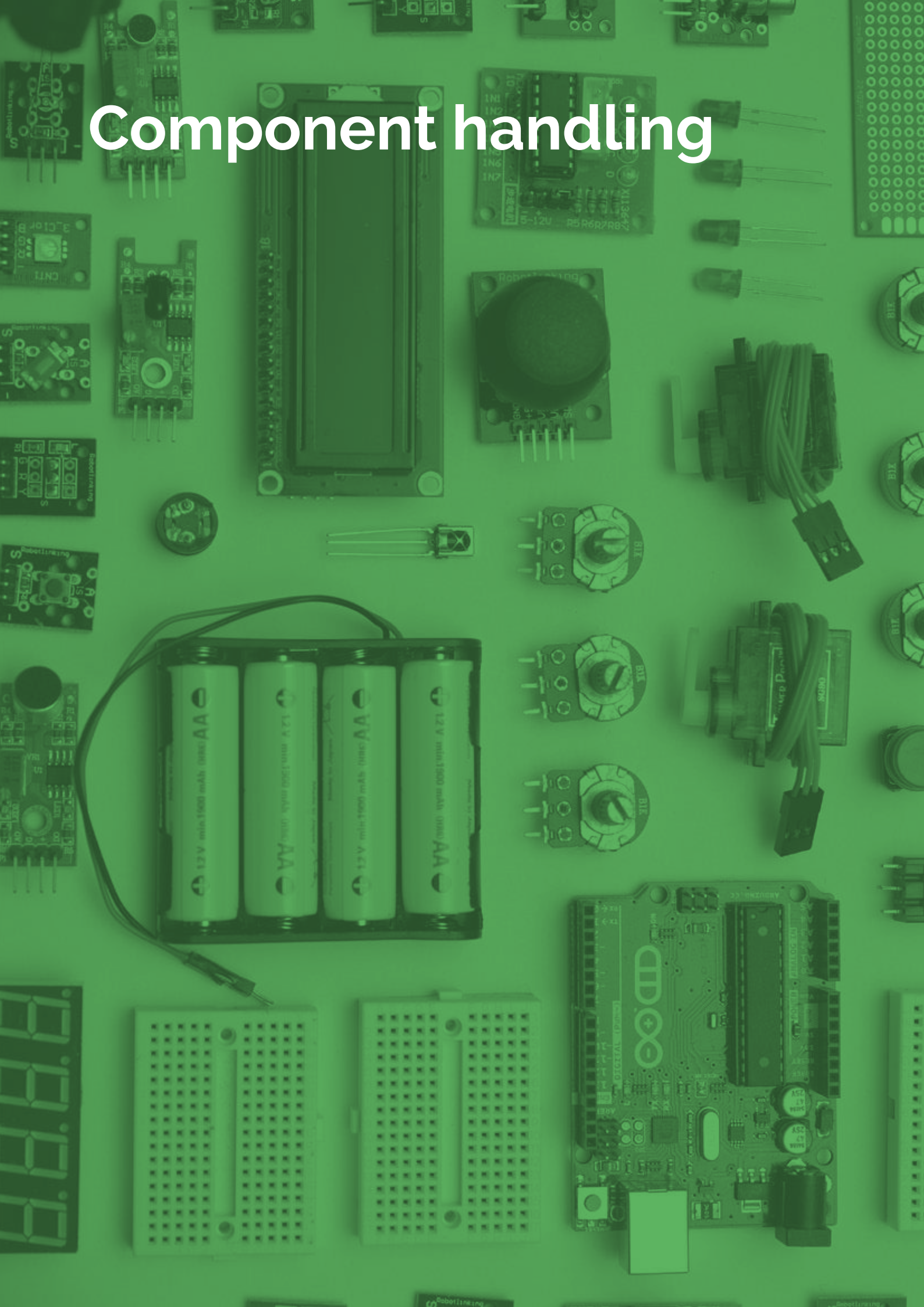
## 3D AOI inspections




## Lead Frame Inspection



# Component handling



# Electronic component feeders for blister Tapes

FEEDER FOR TAPE WIDTHS FROM 8 MM TO 72 MM



Our electronic tape feeders offer fast and reliable feeding of SMT components in 8-, 12-, 16-, 24-, 32-, 44-, 56- and 72-mm tapes. The feeders can handle all components packaged in accordance with EIA 481-A, whether in large or small reels, whether in plastic, cardboard or metal belts.

PROGRAMMABLE TAPE PITCH



The feed width can be programmed using a binary input. The exact pick-up position can also be programmed. An automatic return is also possible. LEDs indicate whether feed forward or return is selected for the feeder, whether it is in programming mode or ready. The feeders are easy to integrate, compact, space-saving and simple to use.

EASY TO INTEGRATE FEEDER BENCH

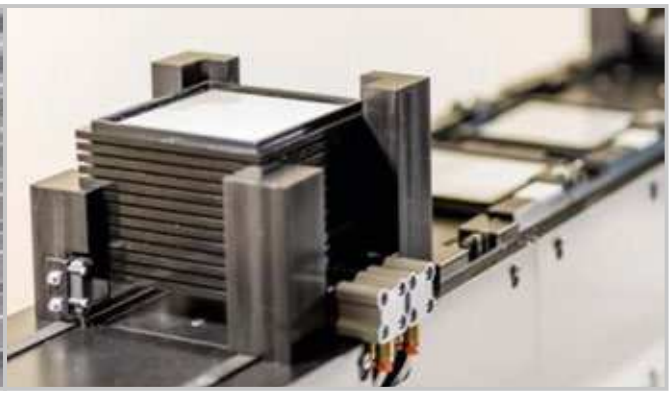


As an option, we offer both standard and customized feeder benches that can be easily integrated into your systems.

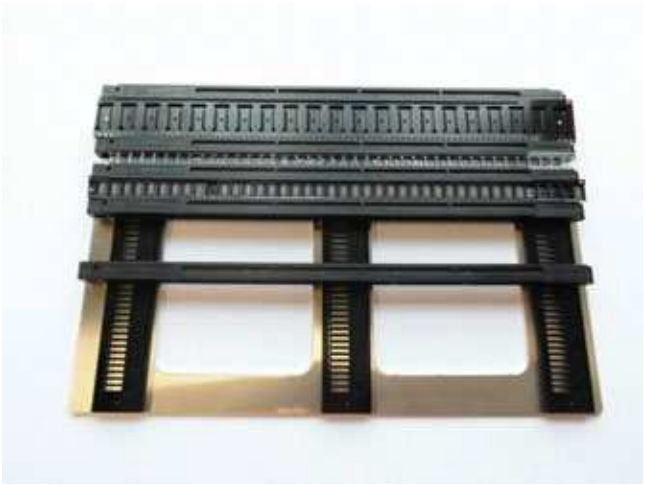
# Handling von JEDEC-Trays und Waffle-Packs



FEEDER FOR JEDEC TRAYS. PROCESSING OF TRAYS IN STACKS WITH SEPARATING MECHANISM



FEEDER FOR WAFFLE PACKS FROM A STACKING DEVICE



# Carrier tape tray

## Tape tray for processing short blister tapes in pick-and-place machines

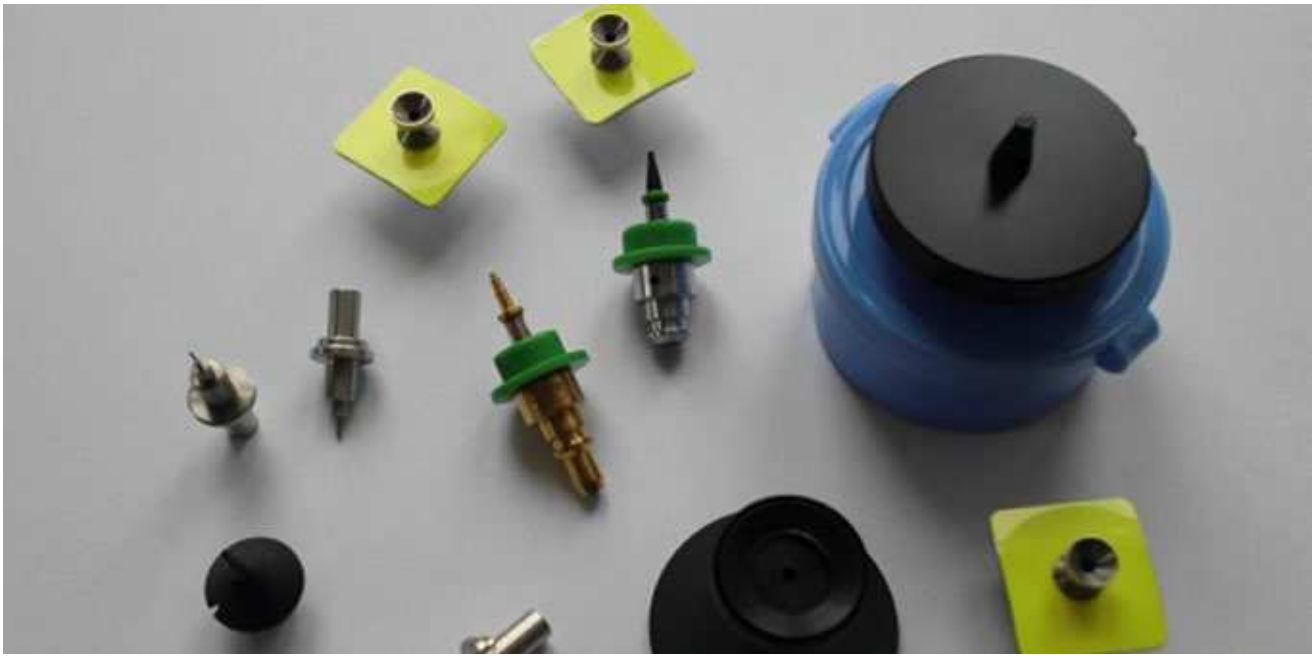
The NCSJ-S model is used for quick and easy assembly of PCBs with components from short trays. The handling is similar to that of other trays. It is used, for example, for the reuse of SMT components, for SMD evaluation, for feeding individual SMT components or simply for processing short offcuts from component tapes.

## Specification:

- Including 5 Tape guide rails
- Up to 4 Tapes in parallel
- Max. Component height: 10 mm
- External dimensions: 230 (W) x 355 (D) x 20 (H) mm

# Pick & Place Nozzlen

## Nozzles for different Pick & Place machines



# Tape & Reel Systems for Blister Tapes



TAPE & REEL SYSTEM MODEL VS-120



TAPE & REEL SYSTEM MODEL MT-35

# Dry storage cabinets for electronics, medical technology and other areas





MODEL XTC-1200 - DRYING CABINET 1200 LITRES

# Dry storage cabinets

The X-TREME series drying storage cabinets are suitable for all applications in the drying and storage of moisture-sensitive devices and components in electronics and other areas.

The user-friendly touch screen on the drying cabinet allows access to all system information and settings. With the integrated data logger curve plotting, the latest data can be traced at a glance. Drawers and holders for feeders from various manufacturers are also available. The unique, particularly fast drying, the attractive design and numerous options of the X-TREME series drying storage cabinets will convince even the most demanding user.

## Advantages

- Clear touch screen
- Complete redundancy of the drying process
- Integrated data logger display
- Patented dehumidification technology
- Extra-fast drying in 10 min. to 1% r. h.
- With nitrogen option or as a pure N2 cabinet
- Load volume from 300 to 1850 litres
- Remote monitoring via RS-232 interface
- Humidity settings from 1-50% r. h.
- Password-protected access
- Attractive design
- Market-leading specifications
- Integrated heating up to 45°C or 125°C

MODEL XTC-300:
DRYING CABINET 300 L



MODEL XTC-600:
DRYING CABINET 600 L



## Applications

Drying and storing moisture-sensitive appliances and components is becoming increasingly important. With its reliable design and market-leading specifications, the automatic drying oven in the X-TREME series can be used for all drying applications. Operation with the user-friendly touch screen allows access to all system information and settings. With the integrated curve plotting data logger, the latest data can be tracked at a glance.

The unique, ultra-fast drying and the appealing design will convince even the most demanding user.



I Divider, U Divider and Reel Holder Divider can be added by double-clicking on the shelves of the cabinet and the slots in which the product is to be placed are created automatically. In this way, it is possible to track which product is in which compartment of the shelf.



# Accessories for drying ovens

Drawers with castor holders and pull-out shelves.

F7C1FC 8 1 EXTERNAL ALARM BAR



HUMIDITY SENSOR



HOLDER FOR FEEDERS OF DIFFERENT PICK & PLACE SYSTEMS.



HOLDER FOR COMPONENT REELS



PULL-OUT SHELVES



INLAY SHELVES





# Drying cabinets for solder paste storage

The solder paste storage cabinet from the X-Treme series is used for the safe storage of solder pastes under controlled conditions. The 600 litre cabinet, for example, can hold up to 4 x SPS-01 FiFo shelves. Each FiFo shelf can hold 75-80 pieces/ cans of solder paste. This essentially depends on the can size. These conditions are generally between 2 °C and 20 °C and vary depending on the manufacturer of the solder paste. The shelf life of solder pastes at room temperature is approx. 2 weeks. Particularly high temperatures affect the solder viscosity of solder pastes. However, moisture is also an important factor for solder pastes!

The shelf life of solder pastes that are not stored under suitable conditions is shortened and leads to problems such as oxidation, solderability and contamination, resulting in poor solder quality.

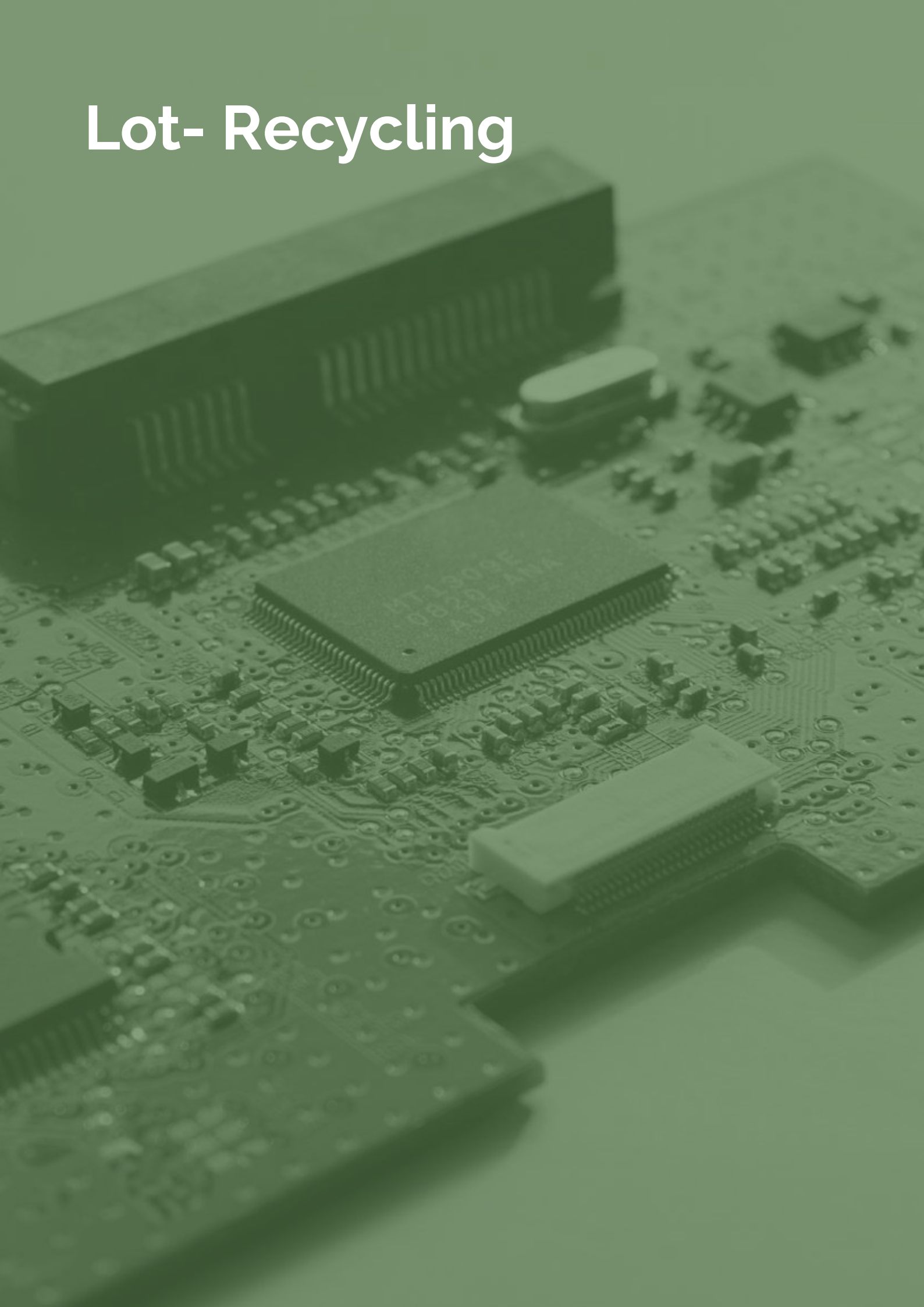
For this reason, solder pastes should be stored at low temperatures and suitable humidity levels. The solder paste storage cabinet of the X-Treme series can be set to the desired values in the temperature range from 2 °C to 45 °C and in the humidity range from 0.5 % Rh to 95 % Rh, so that the solder pastes can be stored in the appropriate environment, thus avoiding soldering problems and eliminating them in the production phase. Thanks to state-of-the-art technology sensors, the operator can read the humidity and temperature values in the cabinet with high sensitivity. Thanks to the homogeneous humidity and temperature distribution in the drying cabinet, all soldering materials are stored under the same conditions, avoiding possible losses and additions.

## Here are the standard functions:

- 1 x zeolite dehumidification module
- Cooling unit 5°C
- Internal humidity and temperature sensor
- 7-inch touchscreen control panel, screen resolution 800 x 480 pixels
- Internet connection via WLAN or Ethernet cable
- Remote monitoring system (RMS)
- Data logger (2 GB)
- Stainless steel shelves (SS).
- Door alarm with buzzer
- Double insulated glass doors
- Rear stainless steel plates (SS).
- 4 or 6 castors (2 of which are lockable)
- Adjustable stabilising legs 2 pieces
- Enclosure ESD-compliant coating and steel core



# Lot- Recycling



# EVS Lot Recovery Systems

## Efficient solder recovery

The EVS solder recovery system works with a patented process. Heat and pressure are collected in a magnetic cylinder to separate the pure solder and then collect it in the solder drawer. The rest of the material is automatically ejected into the slag drawer.

More than thousand analyses prove that the recovered solder has the same properties as the solder in wave. This has been authenticated by the solder manufacturers and confirmed by the International Tin Research Institute.





# EVS Lot Recovery System EVS500LF

## Efficient solder recovery

**The process:**
In its patented process, the EVS solder recovery system uses heat and pressure in a mechanical cylinder to separate the pure solder and collect it in a solder container. The rest of the material is automatically transported to the dross container.

**The quality facts:**
Thousands of analyses prove that the recovered solder has exactly the same properties as the original solder. This has been authenticated by solder manufacturers and confirmed by the International Tin Research Institute.



# Models EVS 8K, EVS 10K and EVS 18K“

## Complete systems on a trolley

The new EVS models 8K, 10K and 18K have the capacity to recycle the dross, even from the largest wave soldering systems, in a single pass. The large hopper enables the dross to be filled in quickly and safely and speeds up the skimming process by up to 85 per cent. This results in a cleaner wave with less maintenance, less downtime and reduced formation of short circuits and bridges. Furthermore, the use of powder additives and covering oils for dross reduction can be dispensed with.


RECOVERED LEAD FREE SOLDER BARS


SELECTIVE SOLDER TRAY


DROSS AFTER CYCLE V3