



TECHNICAL DATAS

- Dimensions: L 1430 mm / W 1550 mm / H 1250 mm (57" x 61" x 50")
- Weight: approx. 800 kg • Colour: base frame RAL 7035 / door panel RAL 7021 • Extraction rate: 400 m³/hr • Power requirements: 3 x 32 A / 3 x 400 V / 50 Hz depends on the configuration 6 – 14,4 KW



FLUXER

Fluxer type	Micro Drop
Flux container	3 liter pressurized pot with level indicator

PRE HEAT

Type	Quick-reacting quartz rods
Power	Approx. 6 KW
Top side preheat	Installed in the gripper, 3 KW

SYSTEM CONTROL

Control concept	Beckhoff PLC, incl. PC and accessories
Interface	Ethernet, USB
Offline Software	Offline software for easy programming
Axis type	XY-Portal; Z-axis lift; DC Servo motors with encoders; CAN-BUS
Axis movement	Combination of toothed belts and ball screw
Repeatability y	±0,15 mm (±0,006")

PRINTED CIRCUIT BOARD

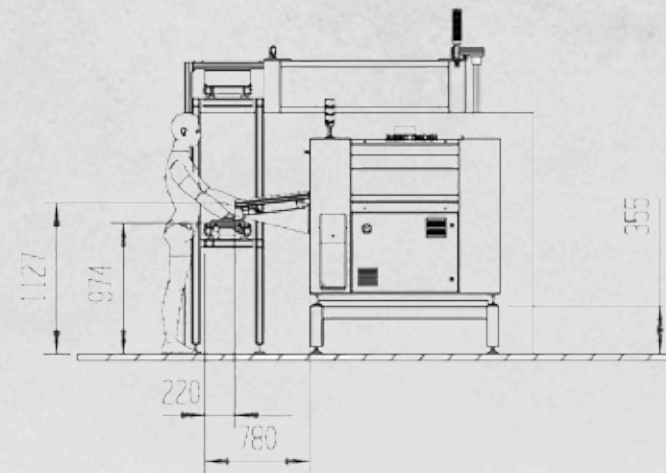
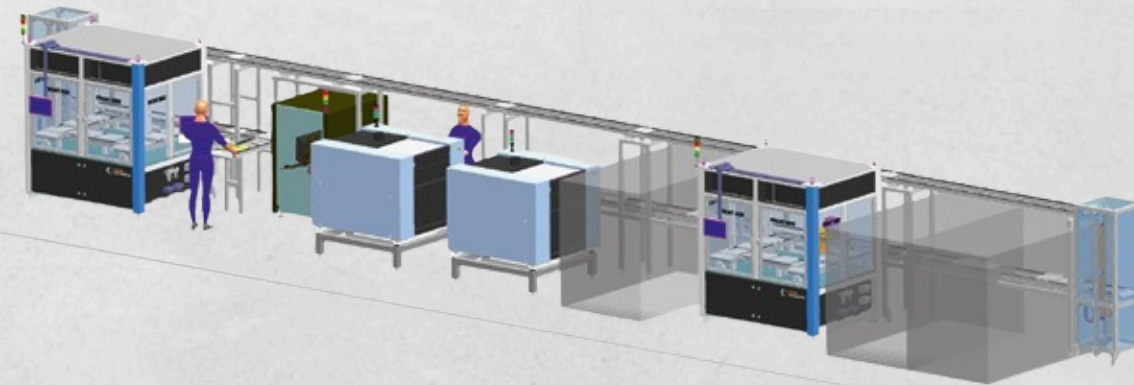
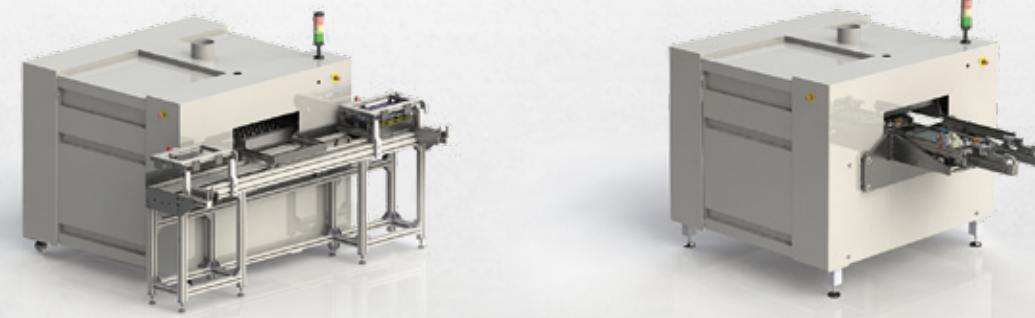
Dimensions min. / max.	20 x 20 mm / 460 x 460 mm (0,8" x 0,8" / 18" x 18"), Carrier 550 x 550 mm
Soldering angle	0° and 7°
Bottom side clearance / Top side clearance	30 mm (1,2") / 150 mm (6")

SOLDER POT

Solder pot with the possibility to use a second mini wave module	Solder volume lead-free (45 KG) / Tin Lead (50 KG)
Alternative: Solder pot for solder module with electro-dynamic pump single nozzle	Solder volume lead-free / Tin lead (42 KG)
Solder nozzles	Different sizes are available Ø 4 mm – Ø 30 mm
Solder temperature / temperature control	Maximum 330°C / via PID sensor
Solder wave height control	Program controlled, soldering heat query (automatic)
Nitrogen gas	N ₂ , 5.0 is recommended, max. pressure 5,5 bar, consumption approx. 2m ³ /hr per nozzle

FROM THE STANDALONE SYSTEM TO THE INTEGRATION IN PRODUCTION LINES

The structure of this system allows it to be operated as a standalone system with the smallest footprint, up to the integration into an effective production line.



The system can also be integrated into automatic lines in which the loading and process takes place without an operator.

The low consumption values are another point where the ROI of the system stands out in the market. The software specifically controls standby functions in order to keep the effective use of nitrogen and electrical energy to a minimum.



THE SYSTEM FOR AUTOMATION IN THE MANUAL SOLDERING AREA



+1 (956) 897-3647
ventas@solucinde.com

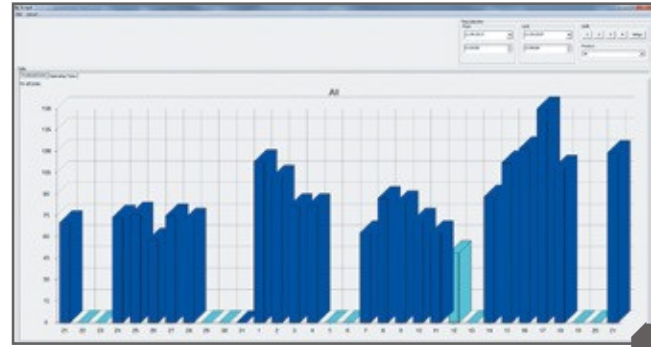


CUBE.460

THE ENTRY-LEVEL
SELECTIVE SOLDERING
SYSTEM

EASY PROGRAMMING

- Easy, graphical programming
- Quick entry into the selective soldering technology
 - Professional functions
 - Process monitoring
 - Bus compatible DC servo motors
 - Connection to MES as well as the logging of all process data



From the basic equipment to the complete soldering cell including an AOI system.

In the design, particular attention has been made to ease setup and maintenance, through good accessibility.

The manual loading is customizable and furthermore it can be automated.

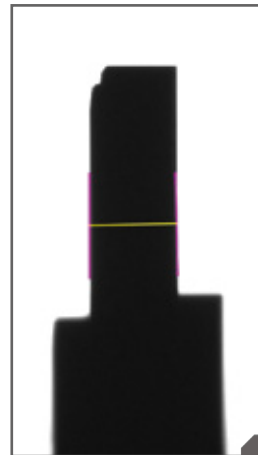
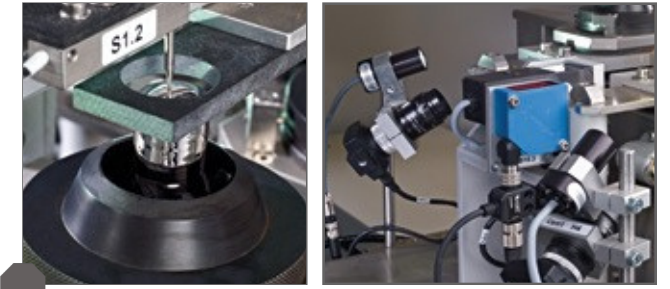
EFFECTIVE PREHEATING

- Efficient quartz preheating
- Low energy consumption
- Control of the PCB temperature and transfer of the values in BDE datas



PROCESS CONTROL

- An optional process camera allows for constant monitoring
- The wave height is measured and adjusted via a titanium needle
- Position correction with Fiducial
- Deflection measurement of the PCB with a warpage control sensor



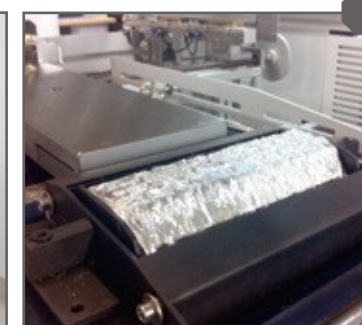
AUTOMATIC SOLDERING NOZZLE DETECTION

One of the many technical features is the automatic nozzle recognition via a camera in the soldering area. This supports the operator and avoids an incorrect nozzle tip insertion.

Distanz 1 messen		Distanz 2 messen		Distanz 1+2 messen		Gesamte Distanz messen		Reconnect	
Höhe Lotaußen 1	Brille Kanen 1	Brille Kanen 1	Brille Kanen 1	Höhe Lotaußen 2	Brille Kanen 2	Brille Kanen 2	Brille Kanen 2		
421.63	100.43	71.13	Pinel	394.02	53.75	43.76	Pinel		
Werkzeug 1		Werkzeug 2		Werkzeug 1		Werkzeug 2			
50.0 mm		4.0 mm		50.0 mm		4.0 mm			
Eingeladetes Tool 1		Eingeladetes Tool 2		Eingeladetes Tool 1		Eingeladetes Tool 2			
Werkzeug 1		Werkzeug 2		Werkzeug 1		Werkzeug 2			
Angewendetes Tool 1		Angewendetes Tool 2		Angewendetes Tool 1		Angewendetes Tool 2			
Werkzeug 1		Werkzeug 2		Werkzeug 1		Werkzeug 2			

QUICK CHANGE-OVER OF DIFFERENT ALLOYS / SOLDERING MODULE

- The throughput and flexibility can be increased by the use of a second soldering module with program-controlled actuation
- Easy exchange with a trolley (optional: The distance between two soldering modules can be adjusted automatically)
- A 200 mm wave module changes the CUBE.460 into a system for all applications



ELECTRODYNAMIC SOLDERING PUMP

In addition to the standard soldering pump, an electromagnetic version is available.

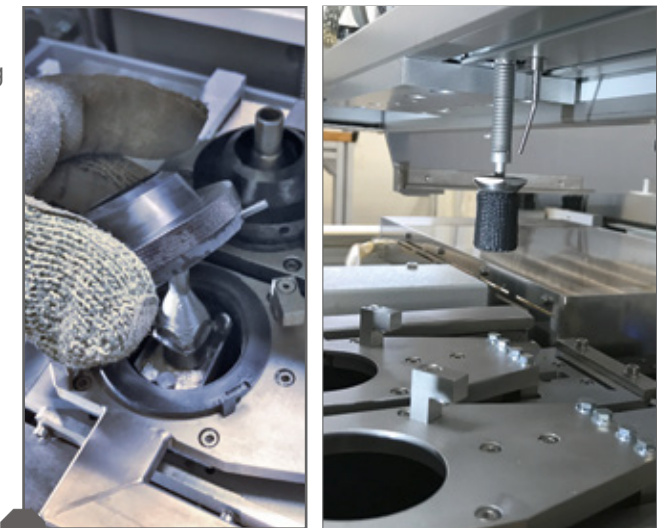


PRECISE FLUX CONTROL

- The standard microdrop fluxer achieves a precise application pattern for fluxing with very few residues
- Optical monitoring with a light barrier (optionally: different fluxes and application systems)

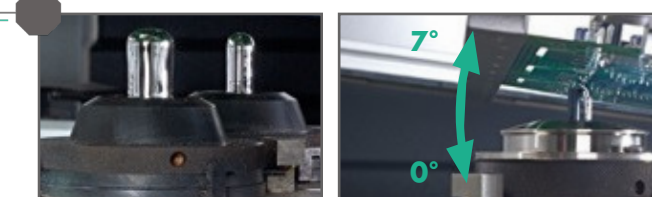
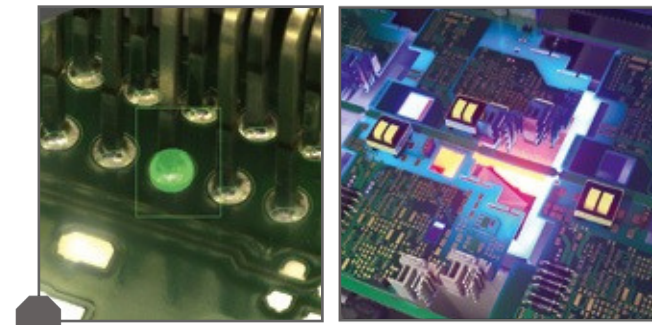
EXCHANGEABLE SOLDER NOZZLES

- Quick exchange of the solder nozzles without any tooling
 - Flexible process adjustment of the solder nozzle
 - Short cycle times with very high solder quality
- by using a Multiport tool
- The use of the automatic soldering nozzle cleaning avoids any maintenance / cleaning for the operator during the production



AOI & CONTROL OF COMPONENT INSERTION

- Automatic control of component insertion of the THT components and polarity
- Start of the process only if the component is correctly equipped
- Automatic solder joint inspection for SMT and THT components
- Inspection of the component from below
- Error display in the analysis and repair station software



VARIABLE SOLDER ANGLE

- Adjustable to 0° and 7°, to make it possible using various soldering nozzles
- Also difficult layouts can be achieved, with ultra-narrow clearances

VERSATILE SYSTEM EXPANSIONS ARE POSSIBLE

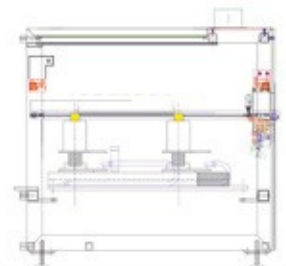
Whether the CUBE Inline+ is used as a base system or with one of the many options, with the CUBE Inline+ you are prepared for all challenges.

BASIC	
	Fluxer + Preheat + MiniWave
	Fluxer + Fluxer + Preheat + MiniWave
	Fluxer + Preheat + Preheat + MiniWave
	Fluxer + Preheat + Preheat + MiniWave + MiniWave
	Fluxer + Preheat + ActiveFlow
	Fluxer + Preheat + ActiveFlow + MiniWave
	Fluxer + Preheat + Preheat + Preheat + ActiveFlow
	Fluxer + Preheat + Preheat + Preheat + ActiveFlow + MiniWave

The configurations shown above, represent the flexible construction of the soldering system.

The modules AOI, brush or cooling module can be combined with any of these versions.

AOI module



Brush module



Cooling module



FROM THE BASIC VERSION TO THE PRODUCTION LINE

Thanks to the clever design of the modules, they are able to be retrofit at a later date in addition to the start. This allows for increased production capability of the line.

The results in the optimal production line according to the customer needs and requirements.



THE MODULAR
SOLDERING SYSTEM
FOR HIGHEST
EFFICIENCY



The AOI directly connected to the solder system offers the customer 100% control over the PCB. With the downstream verifications station, the product can be inspected and verified by the operator.

INERTEC is also happy to offer a complete line with integrated workstations for the customer.



+1 (956) 897-3647
ventas@solucinde.com

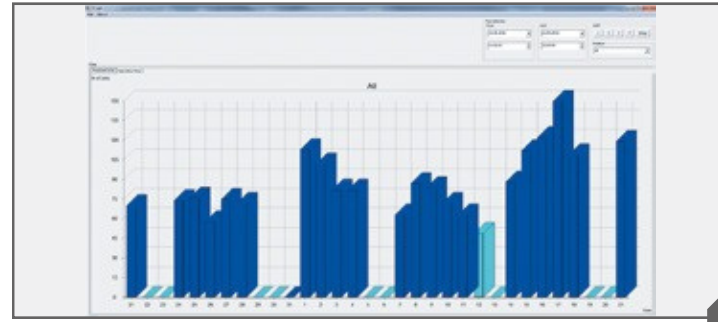


CUBE Inline+

FOR HIGHEST EFFICIENCY
AND PRODUCTIVITY

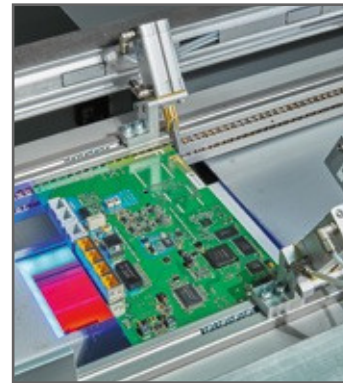
EASY PROGRAMMING

- Easy, graphical programming
- With a modular structure, retrofitting is possible and easy to implement on site
- Professional functions
- Process monitoring
- Bus compatible DC servo motors
- Connection to MES as well as the logging of all process data



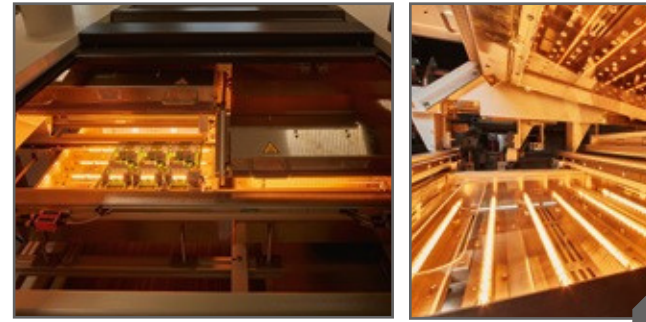
AOI

- Automatic solder joint inspection for SMT and THT components
- Automatic control of component insertion and solder fill control
- Inspection from below
- Inspection from below and above in a cell
- Angled camera
- Error display in the analysis and repair station software



PRECISE FLUX CONTROL

- Drop Jet Fluxer as the perfect solution for applying flux
- Several spray heads, depending on the cycle time requirement
- Optical monitoring via laser (optional: measurement / monitoring of the application quantity)
- Program-controlled cleaning of the Drop Jet Fluxer, this avoids the maintenance and cleaning by the operator



HIGH EFFICIENCY PREHEATING

- The number of preheating modules as well as the preheating type can be selected as desired
- Efficient quartz preheater as well as convection heater is applicable
- Low energy consumption
- Control of the PCB temperature and transfer of the values in BDE datas



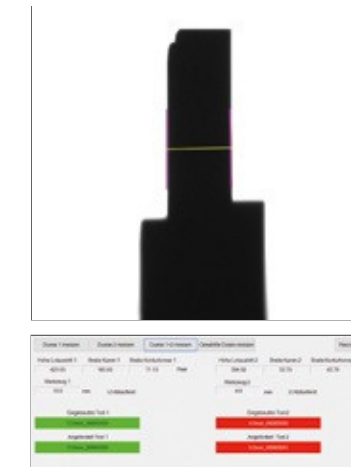
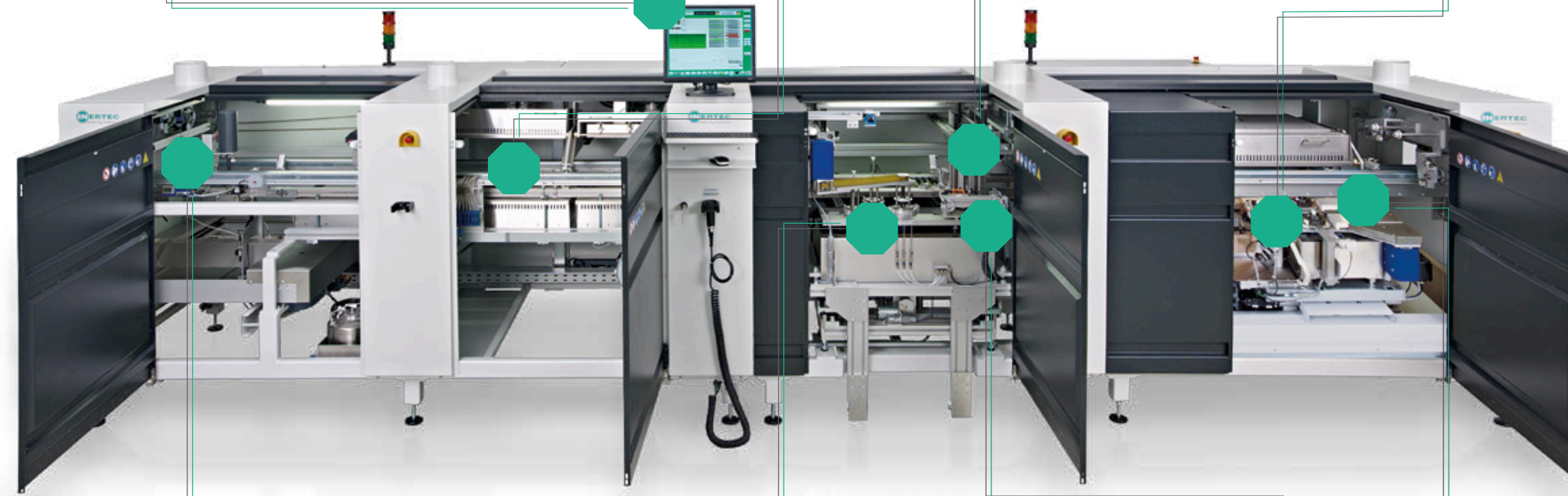
ROBUST CONVEYOR

- Segmented conveyor provided with a pin chain
- Precise placement of the workpiece carrier / PCB through a stopper system
- Optionally: automatic conveyor width adjustment



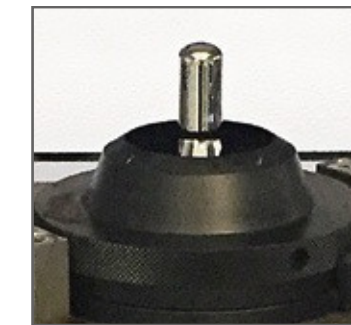
PROCESS CONTROL

- An optional process camera allows for constant monitoring of the nozzles
- The wave height is measured and adjusted via a titanium needle
- Position correction with Fiducial
- Deflection measurement of the PCB with a warpage control sensor



AUTOMATIC SOLDERING NOZZLE DETECTION

One of the many technical features is the automatic nozzle recognition via a camera in the soldering area. This supports the operator and avoids an incorrect nozzle tip insertion.



ELECTRODYNAMIC SOLDERING PUMP

In addition to the standard soldering pump, an electromagnetic version is available

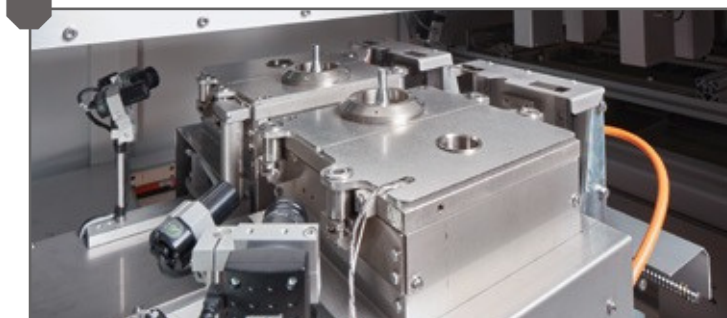
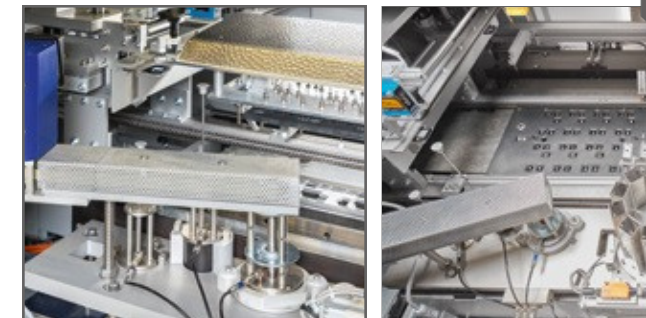
SOLDERING MODULE ACTIVEFLOW

- High energy transfer between the smallest component clearances
- PCB's up to dimensions of 400 x 400 mm
- Short cycle times



SIMPLE TOOL CHANGE

- Maintenance friendly
- Quick and accurate tool exchange
- Soldering height is actively controlled
- Coated components/ stamps are made of titanium
- High energy transfer during soldering due to the circulation of the solder in the stamp



SOLDERING MODULE MINI WAVE

- Consistent heating of the soldering area
- Two soldering aggregates (different nozzle sizes are possible)
- Quick and easy exchange of soldering nozzles
- The use of the automatic soldering nozzle cleaning avoids any maintenance / cleaning for the operator during the production

CONTACT

 VENTAS@SOLUCINDE.COM

LOCATION MÉXICO
Zacatecas 503A, Lampacitos,
Huastecas de Lampacitos,
88780

LOCATION USA
1124 N International
blvd suite 650, Hidalgo
Texas 78557



IF YOU WOULD LIKE A
QUOTE, PLEASE CONTACT
US BY SCANNING OUR
WHATSAPP QR CODE



WANT TO LEARN MORE
ABOUT OUR SOLUTIONS?
VISIT OUR WEBSITE.

