

SEMI AUTOMATIC SOLDERING AND DESOLDERING MACHINE ONYX 24

MACHINES

4.104



APPLICATION: SMT

ZEVAC-LINE: ONYX

The complete ONYX product line documentation is composed of the following data sheets:

MACHINES 4.101 - 4.105

ACCESSORIES 2.201, 2.202

OPTIONS 4.301



NEW

- Placement with force
- 2000 W top heating
- 3500 W bottom heating



WIDE APPLICATION RANGE

SELECTIVE SOLDERING AND DESOLDERING OF SMD COMPONENTS. THE HIGH PERFORMANCE ONYX 24 GUARANTEES HIGH RELIABILITY AND EASE OF OPERATION. IT IS EQUIPPED WITH A SPECIAL VISION SYSTEM FOR ACCURATE ALIGNMENT OF ALL SMD'S AND FINE-PITCH COMPONENTS AND IS IDEAL FOR:

Repairs

Misaligned devices can be accurately repositioned, and defective components replaced.

Prototyping

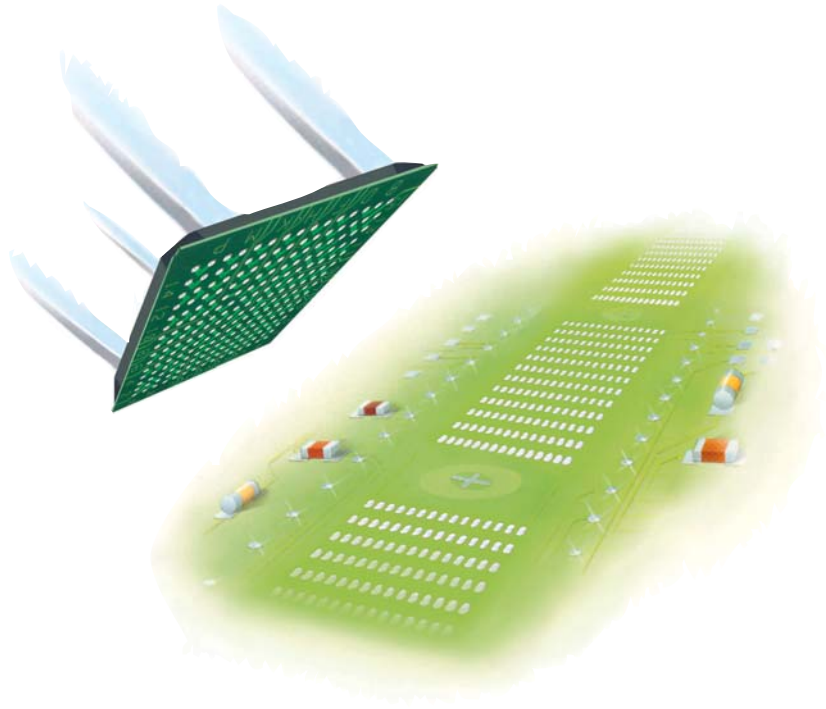
The ONYX 24 simultaneously assembles and solders prototypes. It allows expensive components to be desoldered and re-used.

Post-assembly

Components that are missing at assembly time can be placed and soldered later. Individual devices which cannot be handled by available production resources can be retrofitted.

Assembly

The ONYX 24 soldering and desoldering machine is the most accurate tool for assembly, from the simplest to the most densely populated boards.

**MARKET REQUIREMENTS**

THE COMPLEXITY OF MANUAL SMD SOLDERING OPERATIONS IS GROWING. COMPONENT POSITIONING REQUIREMENTS HAVE BECOME MORE CRITICAL WITH THE INTRODUCTION OF MORE COMPLEX AND EXPENSIVE DEVICES AS WELL AS MORE INTEGRATED CIRCUIT BOARDS. RAPIDLY INCREASING SOPHISTICATION IN SMT HAS GENERATED AN URGENT NEED FOR A TRULY PROFESSIONAL SOLUTION. THE NEW ONYX 24 MACHINE MEETS ALL THESE REQUIREMENTS IN A PRECISE MANNER:

High accuracy positioning with reproducible results

Rapid positioning of circuit boards with precise adjustments in x, y, and theta directions. Boards are locked in position by a mechanical locking system. SMD components are centered in gas nozzles specially designed and adapted to the component housing.

This design shields components and circuit boards against excess heat.

Easy operation**Availability**

Ergonomic design.

Fast, uncomplicated nozzle exchange.

Short heat-up period with powerful, efficient heating system.

More than 100 different standard nozzles in stock.

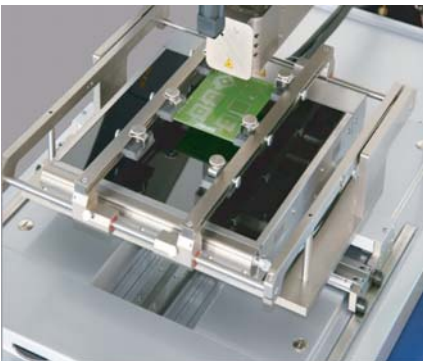
Custom nozzles for special applications are available on short notice (see Nozzle Data Sheets 2.201, 2.202).



ONYX 24:

High accuracy with semi-automatic process control:

- 1 printed circuit board
- 2 x/y-table fine adjustment
- 3 gas nozzle
- 4 2000 W Top heating system
- 5 illumination
- 6 MFOV VISION
- 7 4 Thermocouple inputs
- 8 flat screen
- 9 base plate
- 10 board cooling
- 11 board holder
- 12 preheater
- 13 theta adjustment for heater head



IR PREHEATER SYSTEM
For leadfree applications

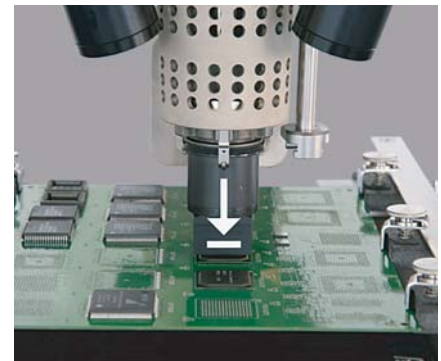
Single preheater: 300 x 300 mm
3500 W
Optional board cooling for faster cool down.



VISION (MFOV)
Guarantees a highly accurate positioning

With the motorized VISION system, the component and the layout of the board are projected on top of each other, verifying the position on all 4 sides. The LED illumination, one for the component and one for the board-layout, guarantees an optimum view independent of surrounding conditions.

- 1 Vision system
For components up to 70 mm.
- 2 LED illumination

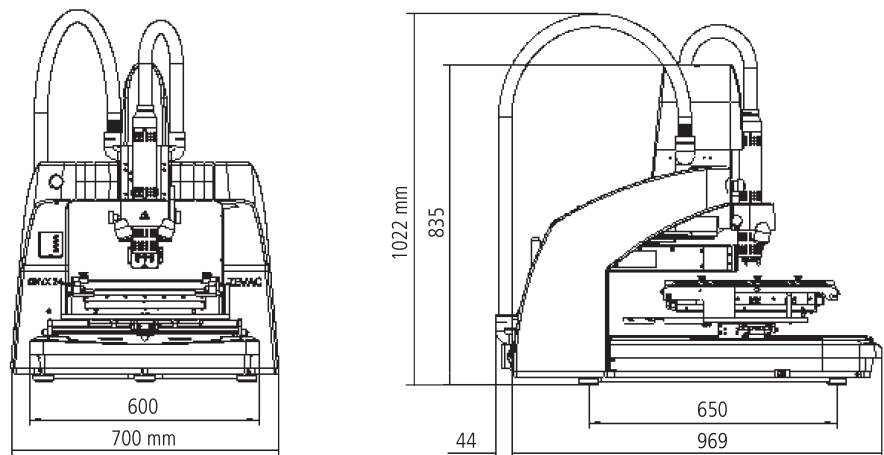


FORCE PLACEMENT
Accurate motorized force placement

The Z-axis is motorized and places the the component automatically with force control in the gramme range onto the board.

Technical data	Product designation	ONYX 24
	Max. board size	300mm width, ∞ depth
	Max. component height	20 mm bottom side (optional 30 mm) 30 mm top side (optional 70 mm)
	Gas pressure	4 – 6 bar
	Angle rotation of heater head	± 15°
	Hot gas	compressed air nitrogen, 20-80l/min
	Max. power consumption	5600 VA
	Electrical power requirements	3 x 400 / 230 VAC, 50 / 60 Hz
	Dimensions (W x D x H)	700 x 1120 x 1022 mm
	Weight	120 kg (basic machine)
	Max. component size	70 x 70 mm
	Hotgas temperature	20 - 475°C
	Technical data subject to change	

Dimensions



Accessories	Hot gas nozzles	Data sheet 2.201
	Gas nozzles for BGA and CSP components	Data sheet 2.202
Options	Options - Site Solder Removal System - Board cooling - IR sensor - Component pick up tool - Direct View Camera System - Fume extraction	Data sheet 4.301

ZEVAC Distributor

ZEVAC	ZEVAC AG	Telephone	+41 / 32 626 20 80
	Vogelherdstrasse 4	Fax	+41 / 32 626 20 90
	CH - 4500 Solothurn / Switzerland	E-mail	info@zevac.ch
		Website	www.zevac.ch