

## OVERVIEW ONYX / SSM

Complete product line of the ZEVAC machines





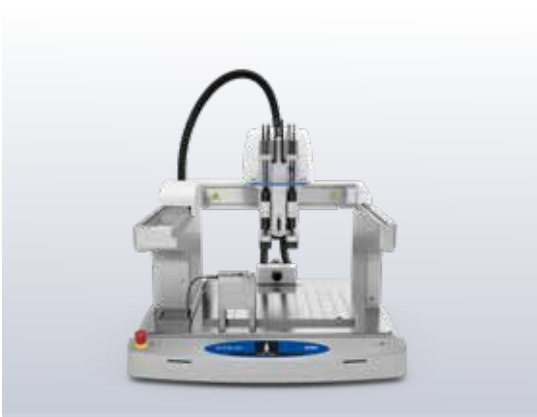
## SSM 4A & SSM 9 – Repair of through hole parts

The SSM 9 soldering and desoldering machine provides reproducible results independent of the operator using programmable parameters

**SSM 4A** Manually adjustable parameters

**SSM 9** Programmable parameters

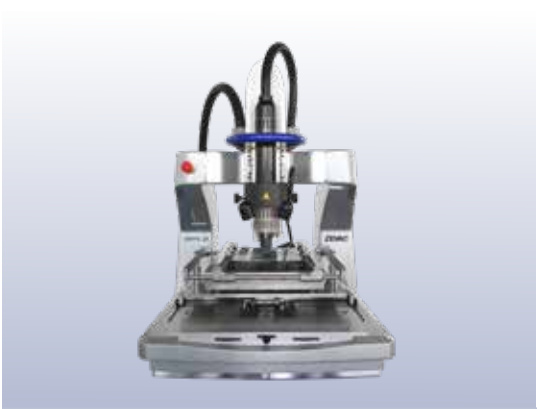
The optional preheater module PH 4 can be used to preheat the printed circuit board. Heating performance of 3500 watt.



## ONYX Milling – Precise removal of components

With the ONYX Milling machine, SMD components can be milled off the substrate very precisely without any heat impact. A clean surface results, perfect for the placement and soldering of new components.

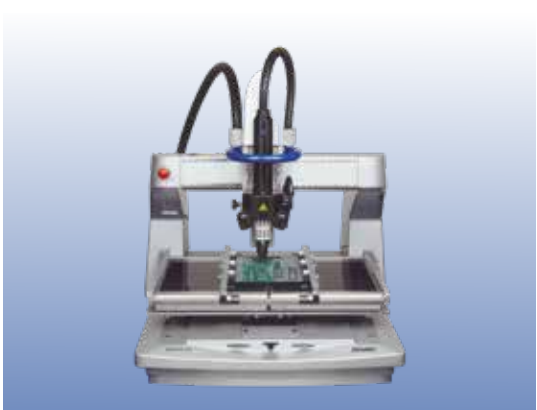
- **High frequency precision spindle** up to 80'000 min-1
- **Entire process without any tool change**
- **Different tools** with e.g. diamond coating
- **Automatic tool calibration** in X / Y and Z direction
- X and Y linear motors
- Precise process accuracy, precision in µm



## ONYX 24 – Repair of circuit boards

The ONYX 24 is used to process printed circuit boards with dimensions up to 300 x 400 mm. Due to the integrated vision-system the precise orientation of components is guaranteed. The multifunctional hot gas heater head can be used to solder components, to remove components and for site clean processes (contactless removal of residual solder). In addition many unique options for several additional processes are available.

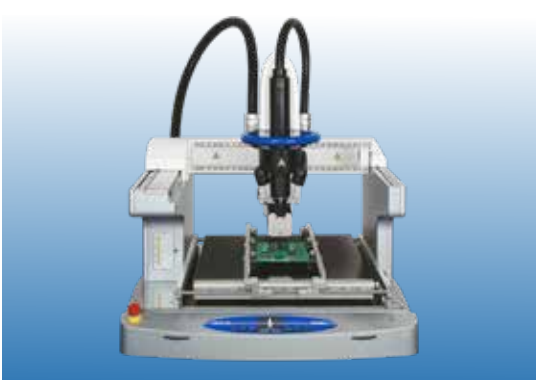
- **Four motorized axes** with closed loop motion control
- **Integrated hand wheels** for quick and precise positioning of the hot gas head
- **Automatic process control**



## ONYX 25 – Repair of large circuit boards

The ONYX 25 is used to process printed circuit board with a width up to 560 mm and, thanks to the open construction, with an unlimited length. Due to the integrated vision-system the precise orientation of components is guaranteed.

- **Four motorized axes**
- **Up to two preheater modules** 300 x 300 mm, 3500 watt
- **2000 watt top heater**
- Integrated **force measurement**
- **Automatic process control**



## ONYX 29 – Automated repair of circuit boards

Due to the integrated vision-system the precise orientation of components is guaranteed. The multifunctional hot gas heater head can be used for serial processes due to the highly integrated automation features to solder components, to remove components, to site clean (contactless removal of residual solder) and optional as a dispenser for dispensing applications. In addition many unique options for several additional processes are available.

- All **seven axes are motorized**, closed loop motion control
- Manual motion via integrated hand wheels for quick and precise positioning of the hot gas head
- **Automatic and overall process control**



## ONYX 500 – Fully automatic repair of circuit boards

The ONYX 500 is the fully automatic version of the well-established and proven ONYX 29 platform. It is a versatile system built for dynamic and automatic rework processes. Its flexible conception and modularity enable an easy processing of the most demanding components.

- **Motorized axes**, closed loop motion control
- **Automatic and overall process control**
- Thermocouple ports to control process temperature
- Closed loop gas flow control from 8 to 80 l/min
- **Automatic contactless site cleaning** for removal of residual solder with a motorized X/Y/Z-System



## IC-900 – Fully automatic rework in cell

Fully automatic high-tech unit with digital image processing system for highly precise assembly and soldering applications. The integrated software enables automatic placement in the  $\mu\text{m}$  range. Laboratory applications, prototyping and rework of larger badges of production volumes. One of the main application is the fully automated rework process of SMT components. Desoldering, site solder removal, positioning, placing and soldering is possible without any manual intervention of the operator.

## MAIN FEATURES ONYX

### THREE DIMENSIONAL VISION-SYSTEM

The high specification VISION system clearly shows any displacement in the theta, X and / or Y axes. By using a beamsplitter, the image of the component or nozzle overlays the substrate image. Adjustable, LED illumination ensures bright illumination independent of ambient light conditions.

### FROM POSITIONING TO SOLDERING: EVERYTHING IS UNDER CONTROL

The component and the circuit board layout are projected in the same image plane, free from parallax errors using the Vision system and magnified on screen by the use of a camera.

### HOT GAS NOZZLES FOR STANDARD AND SPECIAL COMPONENTS

A wide range of hot gas nozzles is available for selective soldering and desoldering. From simple chip capacitors and SOICs to flat-packs, PLCCs, Flip-Chips and BGA's. Fast and uncomplicated nozzle exchange. All components can be soldered or desoldered safely and without problems, even on high density boards.

### OPTIONS

The ONYX machines are complemented by a wide range of options including: Printed circuit board cooling. The use of underboard cooling reduces the cycle time and minimises the delta T in a lead free process. Non contact site solder removal system, to clean the site before soldering in a new component.

## COMPANY HISTORY

Zevac AG is a swiss company based in Solothurn. Since the repositioning in Solothurn 1988, Zevac AG grew continuously to an international acting company.

The success story of Zevac AG started in 1978 in Germany when the company realized its first products with the development and production of selective soldering machines for the electronics industry.

More than 40 years of experience in reparation and selective soldering of electronic printed circuit boards, with highly motivated and experienced employees, enables Zevac AG to set new milestones every year.

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## APPLICATION RANGE

The SSM and ONYX units with different levels of automation cover a wide range of applications. From the manually controllable soldering and soldering unit to the fully automatic multifunction platform which processes challenging assembly and soldering tasks. De-soldering, site clean solder removal, grinding, dispensing, soldering for rework of THT, SMT, semiconductor and every used part of circuit boards today.

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## VISION

The requirements of all participants, in particular of our customers, define our actions: We are curious, open to new ideas and solutions and to strive to exceed all expectations.

Next to standard solutions Zevac develops and produces machines for the component placement and the component interconnection technology including soldering processes, focusing on printed circuit board repair systems within the manufacturing process of the electronics industry.

Precision, reliability and flexibility build the focus of our products and internal processes.

**We make your products work!**