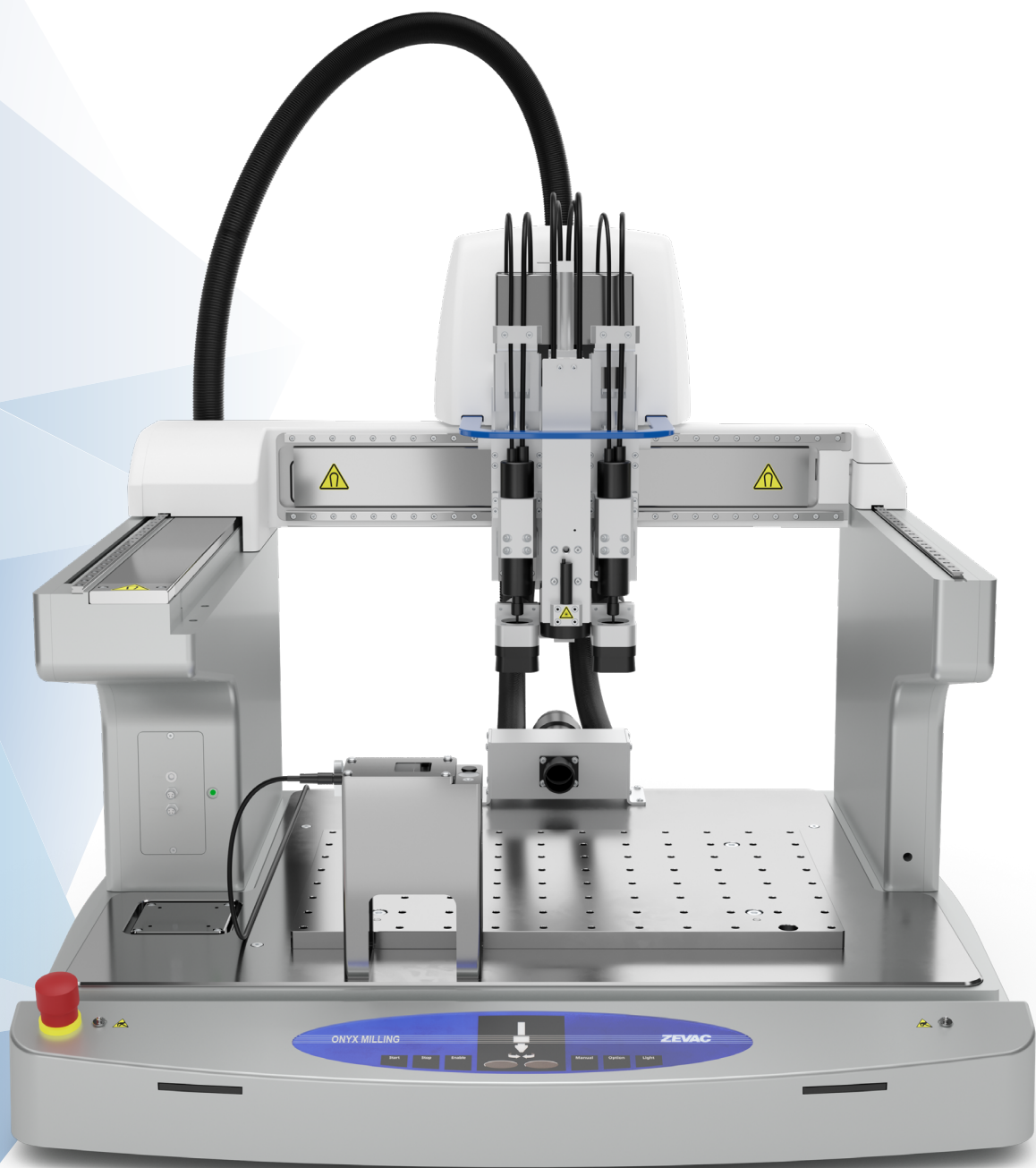


ONYX MILLING

Precise mechanical removal of SMD-Parts surrounded with underfill without any impact of heat

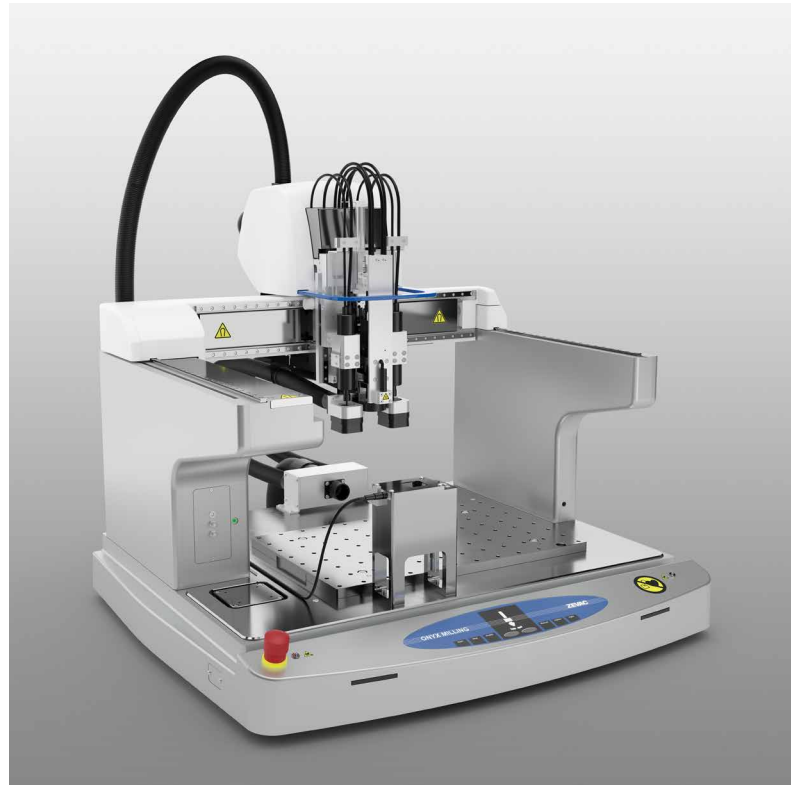


ONYX MILLING

Once soldered SMD components normally can only be removed from the printed circuit board or substrate by using de-soldering processes applying massive heat to the device. With the novel ONYX Milling machine, SMD components can be milled off the substrate very precisely. A clean surface results, perfect for the placement and soldering of new components.

MAIN FEATURES

- **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**
- **Integrated exhaust device** of the processing head
- Down looking image data processing
- **Circuit board holder**
- ONYX Milling application software



PRECISE REMOVAL OF COMPONENTS

The developed dust and particles from the milling process are completely vacuumed in the closed processing chamber. The rest solder between the printed circuit board and the component can be removed mechanically and gently up to an exact definable height. Potential "underfill" material can also be removed within the same process. Trough parallel milling of the existing solder, printed circuit boards, master cards or substrates can be prepared for the placement of new components. The substrate is not harmed by the milling process and provides excellent surface conditions for the solder process of the new components and neighbor components are not being influenced. New components can be placed and soldered immediately with other products from Zevac, e.g. with the ONYX 29. For forensic applications, instead of the substrate, the actual components can be saved by milling out the substrate below the component.

APPLICATION RANGE

- Components with «underfill» can be removed precisely without any impact of heat
- Connectors and metal BGA can be detached easily
- Painted printed circuit boards can be edited
- Component salvage by milling the printed circuit board
- Minor SMD parts are removable fast and precisely
- Printed circuit boards, master cards or substrates can be prepared for the placement of new components
- A clean surface results, perfect for the placement and soldering of new components
- Optionally the ONYX Milling machine can also be expanded to a dispensing machine to apply new solder

