eAMU
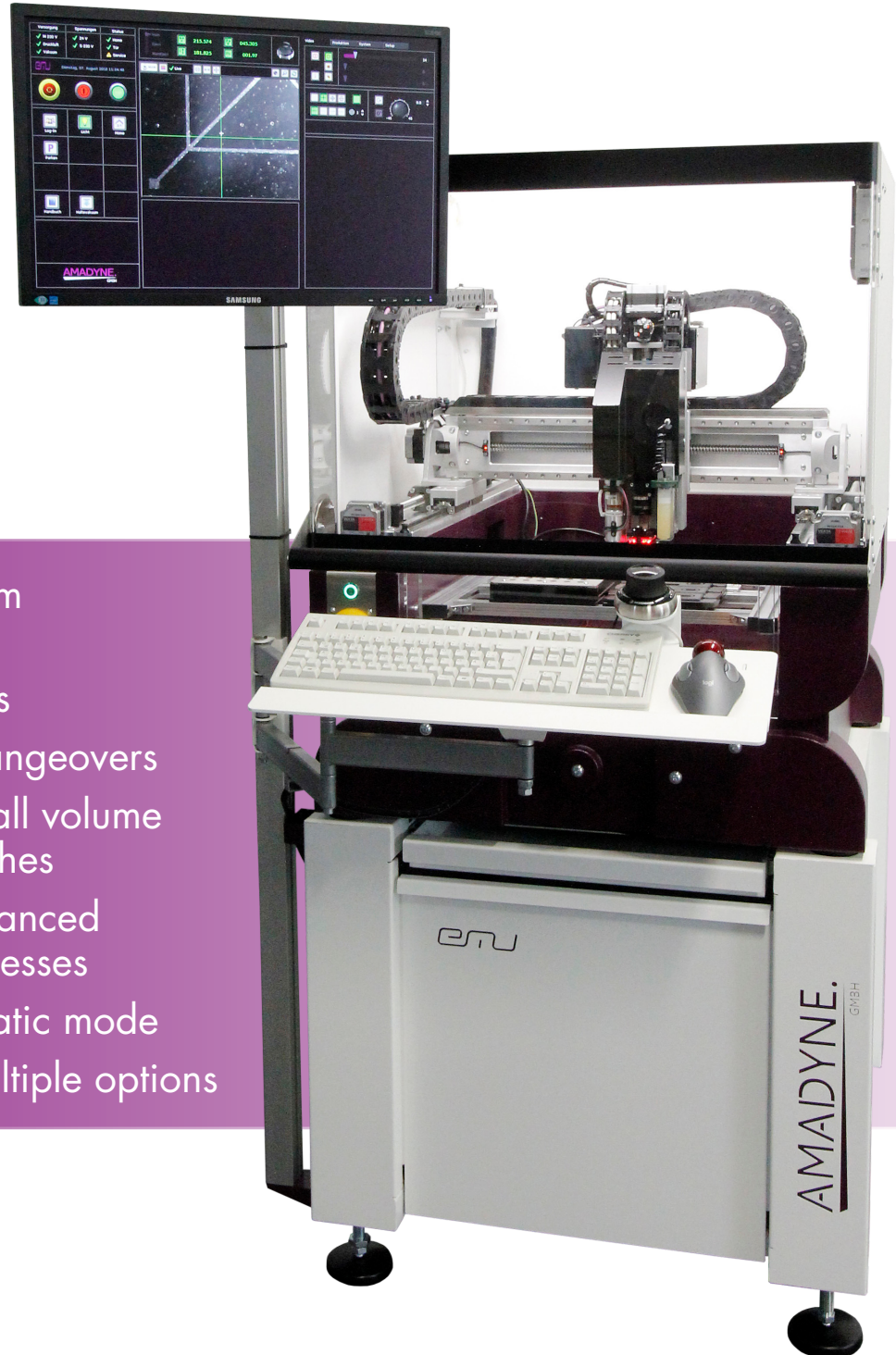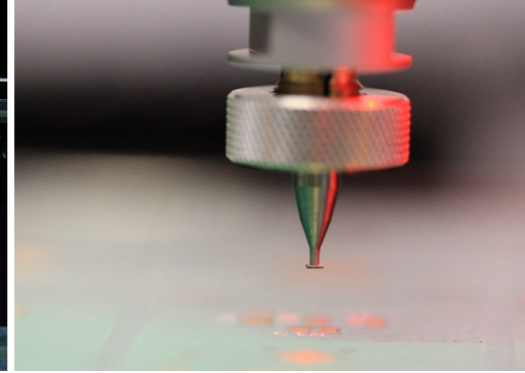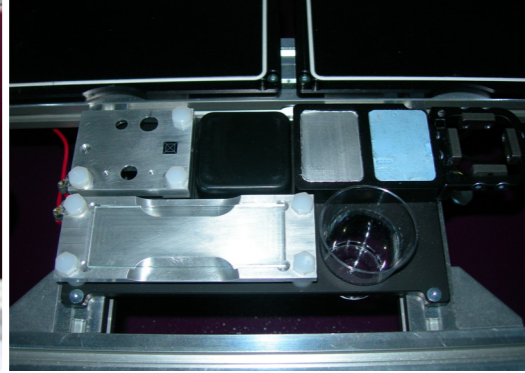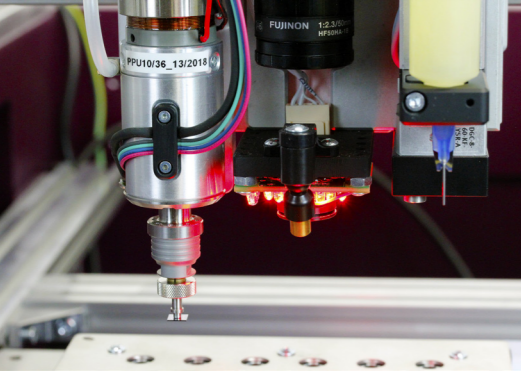
Flexible Micro Assembly System

- Stand alone system designed for
  - short setup times
  - fast product changeovers
  - prototype & small volume production batches
  - standard & advanced packaging processes
- Manual or automatic mode
- Versatility with multiple options
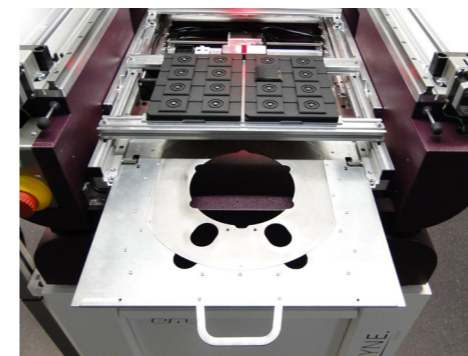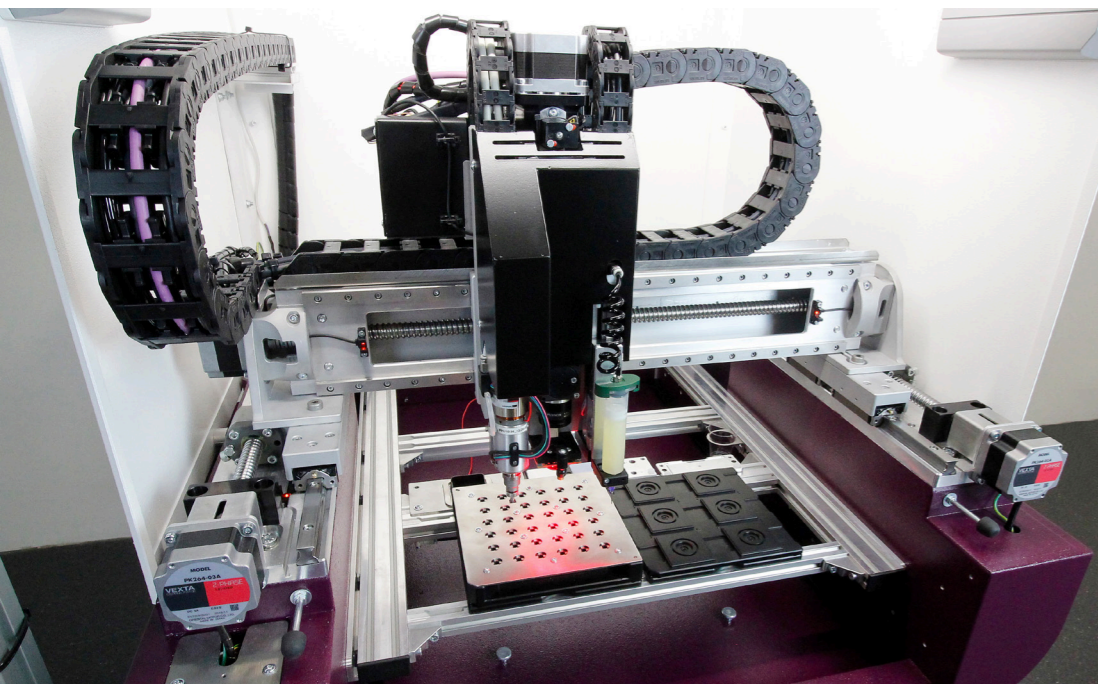
AMADYNE.
GMBH

emu

The EMU is an automatic Micro Assembly System for picking up and placing of components from various presentation formats, as well as applying adhesives. Typical applications include: manufacturing of proto-types, samples, small series production or process evaluations utilising micro system technology.
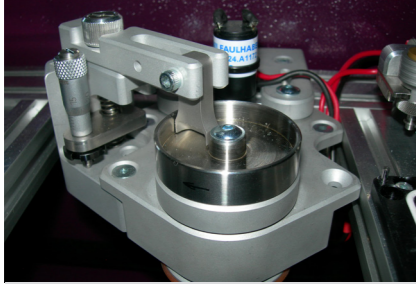
Easy to setup, programme and operate, the machine enables manufacturing of technologies like Chip on Board – COB, Multichip Modules – MCM, Chip-on-Chip – COC, Flip Chip and RF Devices etc., using eutectic soldering, sintering, plus other adhesive and die-attach process.

Key features

- 300 x 350 mm assembly area in the xy axis
- Versatile hardware configuration for advanced packaging applications
- Options including: toolbox, dispenser, chip eject system, eutectic station and upward looking camera etc.
- Short product setup and change-over times
- Robust "Linux" based software architecture
- Proven user interface, easy to program and operate

AMADYNE.

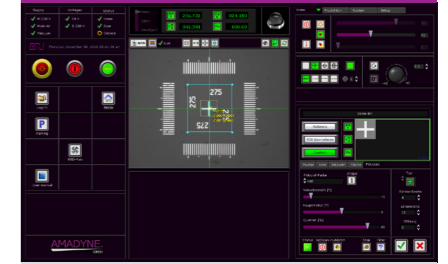Single squeegee with selectable speed and adjustable epoxy film thickness

Hardware
Basics

- Compact, mineral molded casting provides machine stability
- PC system with quad core processor
- Precision hybrid stepper motors for all axes
- Full 360° tool rotation

Software
Basics

- Open software architecture with SQL backend
- GUI, graphical user interface supported with expert panels
- Linux 4.x operating system
- Image recognition, feature based with pattern matcher, circle, edge and ink dot matching
- Easy to operate and program

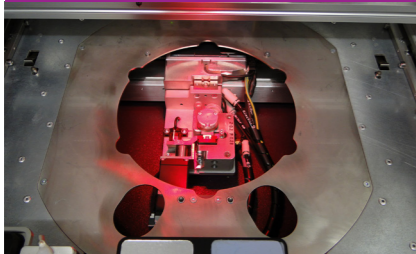With live video, production window and status readouts

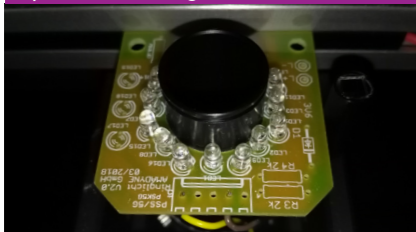## Toolbox

Toolbox for up to 5 tool holders

Dispenser

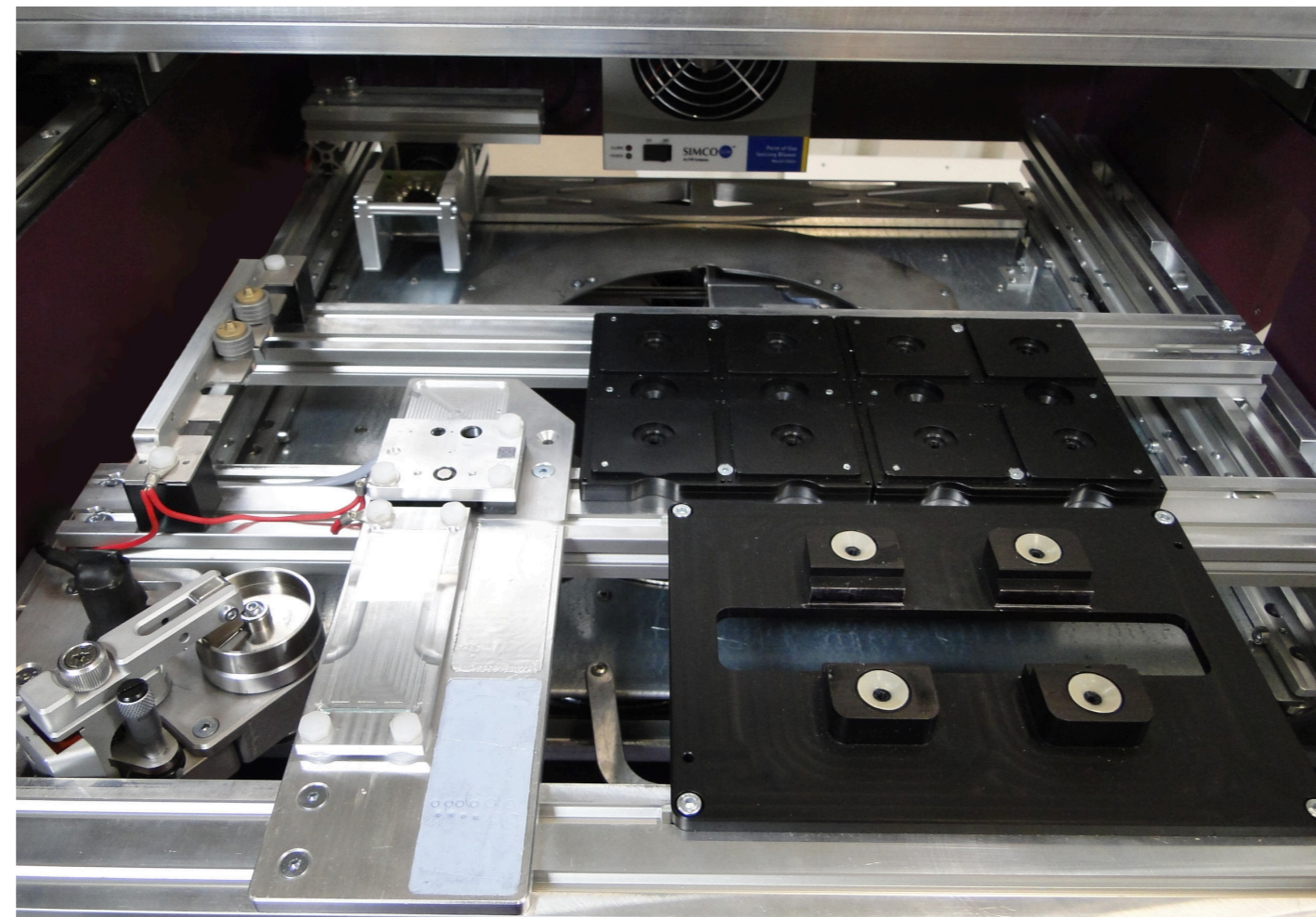Fully programmable with time/pressure or rotary micro valve dispenser

Eject System

Eject system for wafer up to 8"

Upward looking camera

With coaxial and ring light for bottom side alignment & inspection

Service Menu

Machine status, operation of actuators, sensor states and system diagnostics

Program Editor

Graphical display of presentation area and tree based progam structure

Parameter setting

Separate tabs to set parameters for the different die bonding processes
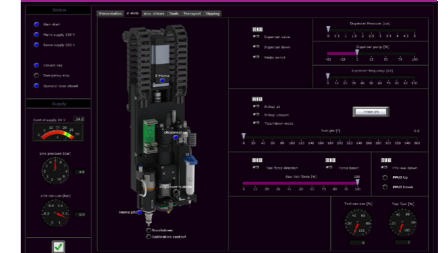
Options

- Toolbox
- Dispenser system
- Upward looking camera
- Eutectic unit
- Stamping unit
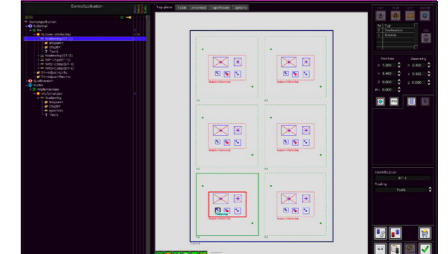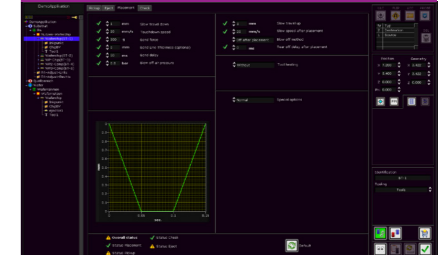- Chip eject system

Options

- Wafermapping
- Post-place inspection
- Remote application support & maintenance system
- Manual pick & place mode
- Tracking of production data