

Fab¹

Flexible Automatic Assembly Bonder

Modular micro assembly
production platform
designed for

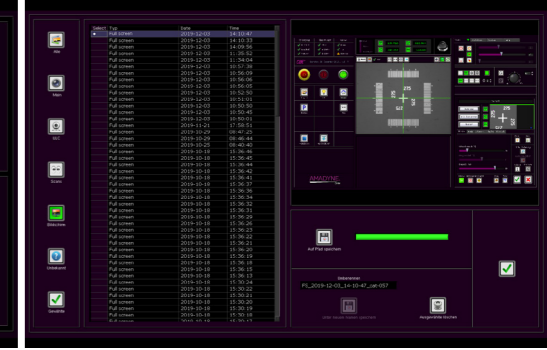
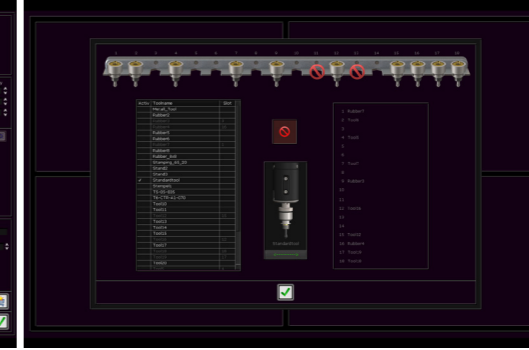
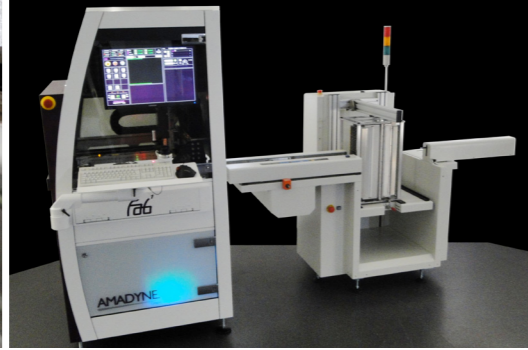
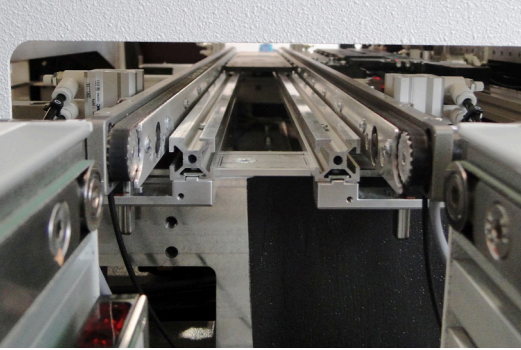
- short setup times
- standard & advanced packaging processes
- complex high-mix & high-quality products
- fast product changeovers
- integration of application specific solutions
- remote system support & diagnostics
- versatility with multiple hardware & software options



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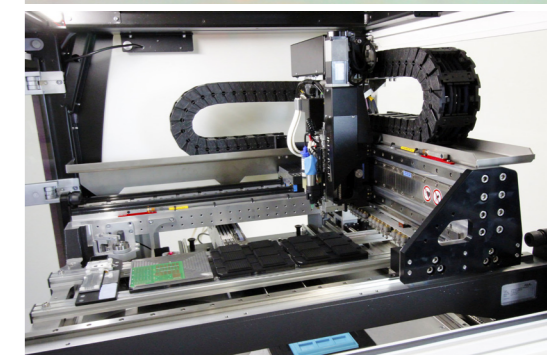
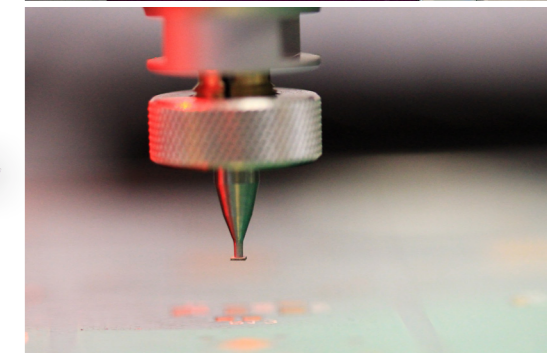
fab¹ is a compact, flexible automatic assembly platform for handling virtually any kind and size of component, as well as for applying adhesives. Typical applications are pick & place, dispensing, sorting, inspection and test functions.

Flexibility, easy operation and an extensive range of options, enable the use of standard and advanced packaging technologies like chip on board, multichip modules, chip on chip, flip chip, eutectic soldering processes, as well as the assembly of complex and high quality products.

fab¹ uses the latest hardware technology, combined with a network transparent fully graphical control software, interacting with a SQL server backend.

Key features

- Large 500 mm x 430 mm XY working area
- Component presentation in all common forms: Waffle Pack, GEL PAK, Tape Feeder, one Wafer up to 12" or two parallel Wafers up to 8"
- Linux based open software architecture with SQL database and various options
- Versatile hardware configuration with extensive options and possible combinations
- High accuracy motion system with ironcore XY linear motors
- Flexible platform design for fast and easy integration of customer specific requirements
- Integrated Clean-Air-Flow-Box, with separation efficiency of 99.995 %
- Compact Footprint < 1.2 m²
- Typical power consumption for standard configuration < 500 Watt
- Remote application support, error diagnosis and maintenance control

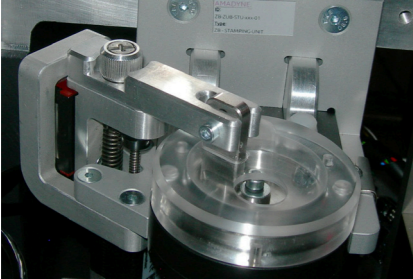


Toolbox



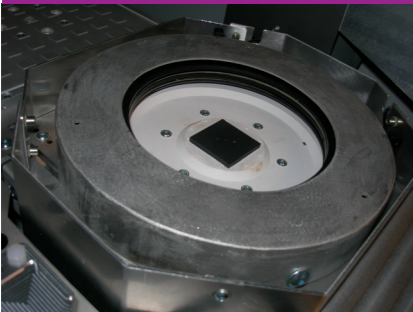
Toolbox for up to 15 tool holders

Stamping unit



Single squeegee with selectable speed and adjustable epoxy film thickness

Eutectic unit



Eutectic unit for soldering processes

Eject system



Exchangeable, single- and multineedle capable for Wafer up to 12"

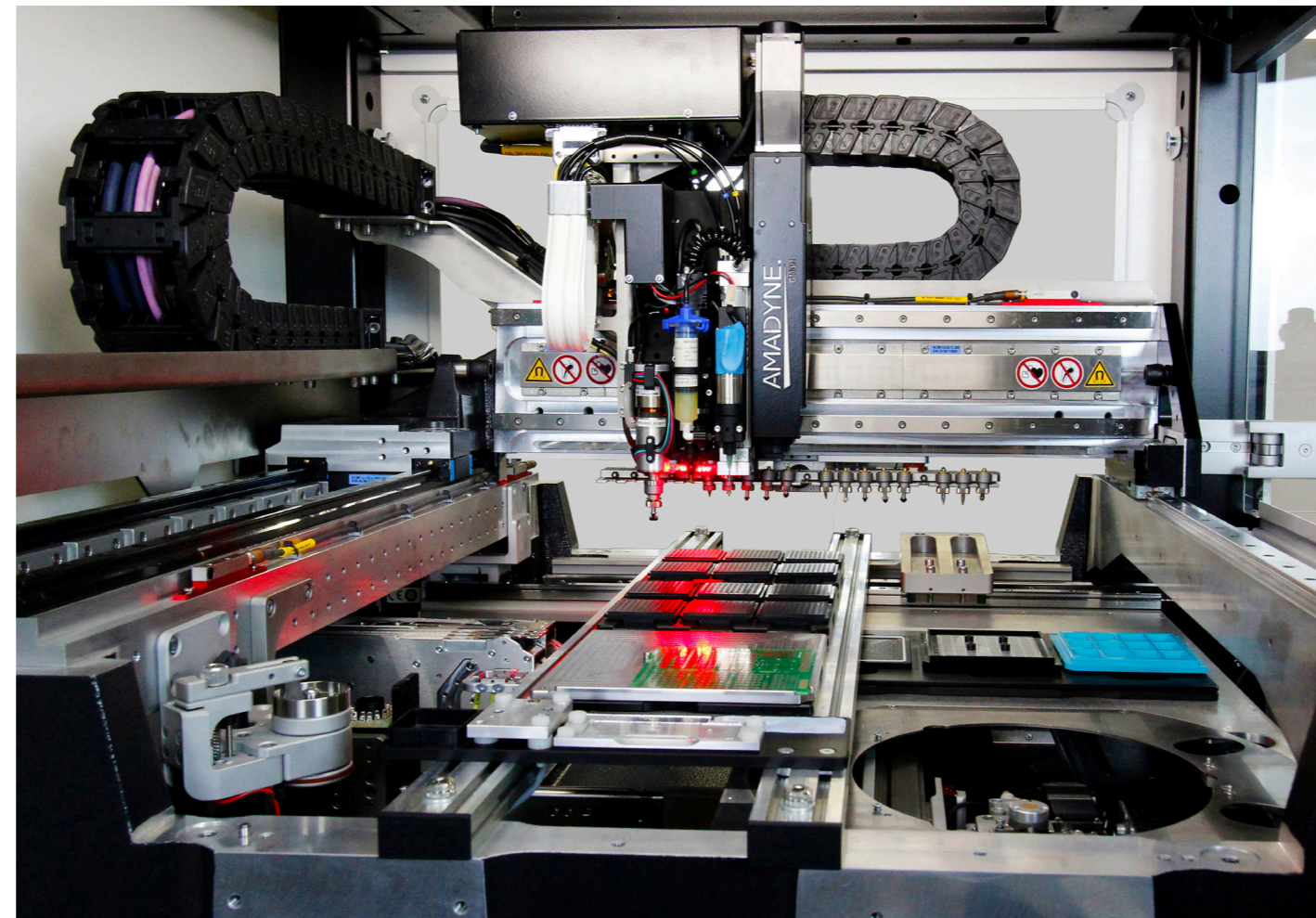
Dispenser



Free moveable writing time/pressure or rotary micro valve dispenser

Hardware Basics

- Rugged compact steel mainframe with an embedded vibration damped aluminium casting
- Ironcore linear motors for xy axis integrated in the aluminium casting.
- PC System with quad core processor
- Integrated clean air flow box with H14 filter
- 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



Basic user interface / GUI Setup



Live video, production window and status readouts

Service Menu



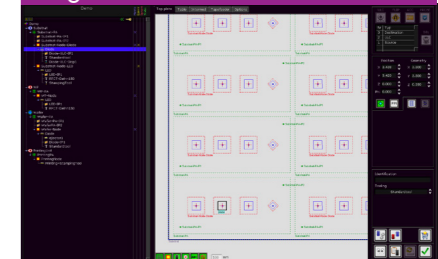
Operating of actuators, display of sensor states, system diagnosis

Expert Trace



Quick and easy adjustment of process parameters for every component, graphical visualisation of process steps

Program Editor



Creation of programs, display schematics of the actual applications

Options

- Toolbox
- Eject system
- Dispenser
- Stamping unit
- Flip chip unit
- Uplinking camera
- Tape feeder
- Eutectic unit
- Transport system
- Component presentation lift system

Options

- Wafer mapping
- Post-place Inspection
- Remote application support & maintenance system
- Offline Programming, CAD data import
- Inspection of particles and chipping
- Manual Pick & Place Mode
- Tracking of production data

