

ALPHA 6

Coating/Dispensing Platform

YOUR INNOVATION.
OUR CHALLENGE.



The all-rounder

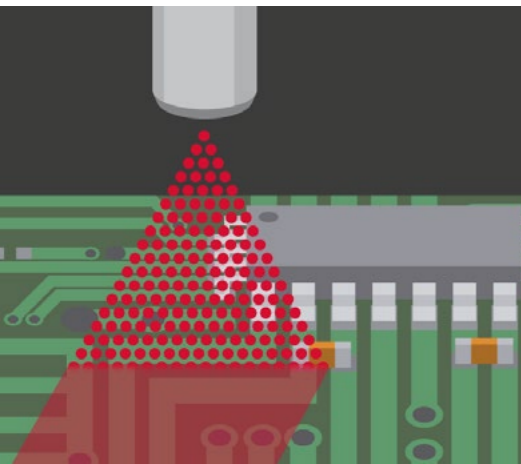
The perfect coating system for Conformal coating, dispensing, bonding and potting

Alpha 6 is the new innovative and compact processing platform by Werner Wirth for a wide range of coating and dispensing applications.

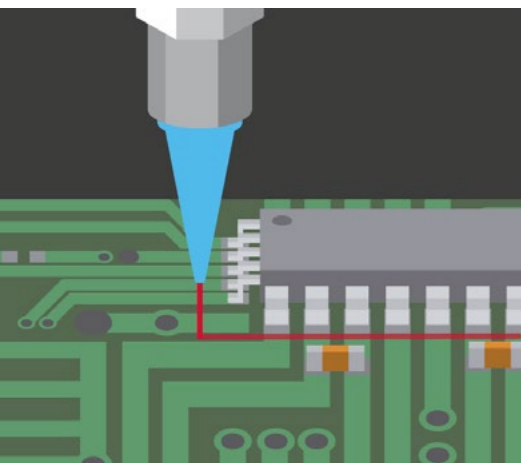
The system is outstandingly easy to use and highly flexible in meeting many different requirements. The machine is designed as a self-contained working cell that can be used

for both coating and dispensing various media, together with other customer-specific applications, such as surface treatment with atmospheric plasma.

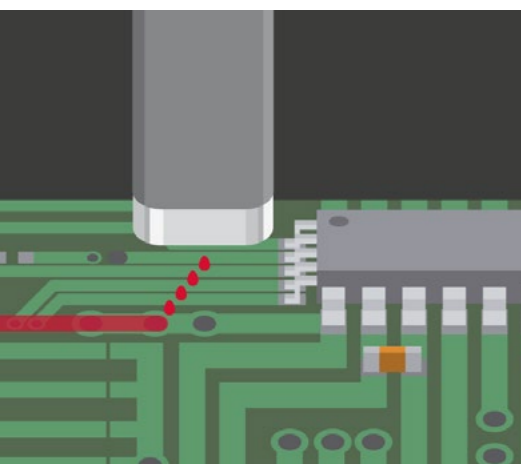
Alpha 6 is a robust, aesthetically pleasing machine that stands for high precision and reproducibility in application.



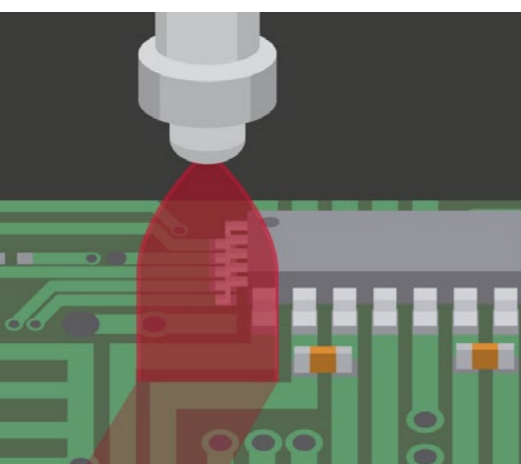
Atomized Spray
for universal, extensive coating of thin foils that can be applied to workpieces in all shapes.



Dispensing
is ideally suited for the micro-volume dispensing of materials containing UV or fillers.



Non-contact Jet dispensing
offers high-precision, contact-free, high-speed dispensing with extremely high reproducibility.



Film coating
for uniform coating including accurate working edges.

1 Alpha 6

Coating/dispensing system characteristics

- Compact, flexible machine platform
- Servo drive system up to 6 axes with encoder, closed loop
- Robust drive system: ball screw with linear guide
- Flexible in terms of requirements and applications
- Automatic limit value monitoring of default values
- High coating quality and reproducibility
- Graphic user-friendly programming environment
- Simple intuitive operation
- Adaptable system size
- Detailed process data acquisition

Options*

- Servo system up to 6 axes
- Belt transport system
- Conveyor system automatic electric width adjustment
- Stand-alone-solution: PCB fixture
- Camera system
- Black light
- MES (Manufacturing Execution System)
- Barcode functionality
- Material: feed systems, low level, flow monitor
- PCB locator
- Loading/discharging shuttle systems
- Valve dispensing needle measurement XYZ
- Multiple valve configurations

*Other options on request



Alpha CDS Software:
Graphic and user-friendly programming interface with simple and intuitive operation



Alpha UV-Cure
Inline UV curing system for stabilisation in seconds

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Alpha Loader & Alpha Unloader:
Continuous loading and unloading of the production line „from magazine to magazine“ with Alpha Loader (left) and Alpha Unloader (right).



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Alpha Motion:
Handling of printed circuit boards in the production line between the individual processing machines in two different widths as Alpha Motion Single (left) and Alpha Motion Duo (right).

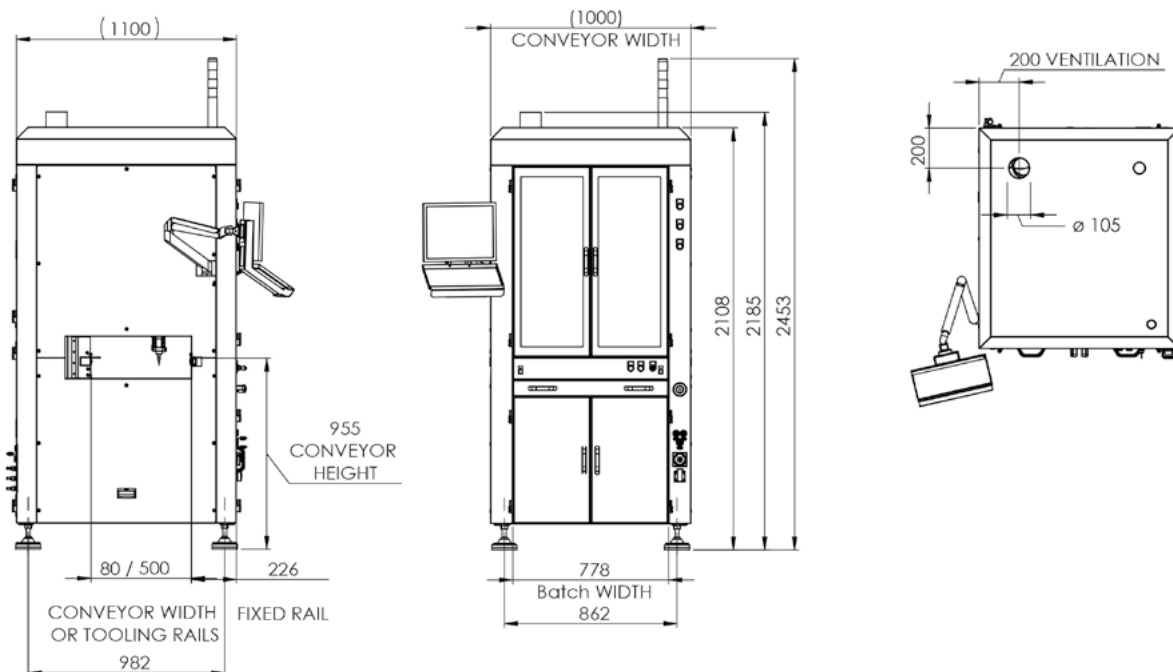


ALPHA 6 | Technical details*

| General | | |
|------------------------------|------------------------------------------------------------------------------|--------------|
| Weight | approx. 770 kg | |
| Power supply | 230 V AC 1Phase 50Hz 16A | |
| Exhaust air | by customer, 500m ³ /h, including waste air monitoring (spraying) | |
| Air/nitrogen supply | 6–8 bar, 100–200 l/min | |
| Standard Conformity/Protocol | CE/SMEMA | |
| Drive system | X-Y axis | Z axis |
| Servo drives with encoder | closed Loop | |
| Speed | up to 1.000 mm/s | |
| Acceleration | up to 1 g (10.000 mm/s ²) | |
| Resolution | +/- 0,001 mm | +/- 0,001 mm |
| Positioning precision | +/- 0,05 mm | +/- 0,05 mm |
| Drive system load capacity | max. 10 kg | |
| Travel distance Z-axis | max. 120 mm | |
| Coating/dispensing section** | 3-axis system, 1 valve | |
| Stand alone | 500 mm x 500 mm | |
| Inline | 500 mm x 500 mm | |
| Computer/software | | |
| Computer | PC, Keyboard, Touch screen | |
| Operating system | Windows 11 Pro | |
| Interfaces | USB, Ethernet | |
| Application software | standard | |
| Offline programming | standard | |
| Transport system | | |
| Inline | chain (standard), electric width adjustment | |
| Width adjustment | 80–500 mm | |
| Component clearance | +/- 100 mm | |

* Detailed information on request

** Options may result in deviations



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