

2D Wire embedding technology

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Ultra-fast and precise wire-embedding on flat surfaces

Our **2D wire-embedding solutions** are in a class of their own! The weight-optimized and highly dynamic portal design of our systems allow for **very high machining speeds**. With a variety of configuration options available, you are able to customize your machine to best suit your business needs.

In combination with selected motors and motor controls, the **high-performance control system** enables **high acceleration values, high speeds and precision in adhering to specified path contours on flat surfaces and materials**. With the **patented ruhlatmat wire-laying heads** and software solution Easy Create, there are almost no limits to shapes and contours.

Benefit from our **decades of expertise in ultrasonic wire embedding with various substrate-wire combinations** and experience for yourself the high quality of our products.

Different versions of our 2D wire laying system



FILUS - large wire laying

With the innovative multifunctional portal FILUS, **large-scale and complex structures can be embedded precisely and quickly**. FILUS' tool carrier may accommodate up to five different processing tools. Further options such as three wire-laying heads, cutting unit, pick-and-place handling unit, soldering unit and dosing unit are also available.



WCE2D - high-speed wire embedding

The WCE2D proves itself through **excellent quality, the highest wire-embedding precision and an unbeatable price-performance ratio**. In addition to wire embedding and wire cutting, your custom-made machine solution includes additional integrable functions, such as **thermo-compression bonding, soldering, dosing, testing and much, much more**.

Advantages:

- ultrasonic wire embedding with up to 12 wire-laying heads for the highest capacity of our standard systems (depending on the challenge the number of wire-laying heads can be increased)
- machining surfaces up to 1,800 mm x 2,500 mm
- high precision and accurate (heating) wire embedding in different substrates
- highly dynamic CFRP NC axes for X and Y movements
- simple importation of CAD models
- electrical connections can be directly integrated into finished WCE series components such as sensor and LED wiring
- contacting processes such as thermocompression bonding or soldering possible

- electrical components can be integrated using pick-and-place
- various quality controls through electrical testing or camera inspections
- user-friendly operation and maintenance
- compact
- patented ruhlamat wire-laying heads

Technologies:

- wire embedding
- cutting
- pick-and-place
- soldering
- dosing
- drawing, marking
- hot embossing
- online product test (ATS)

Applications:

- heating film for vehicle covers
- heating film, radio / TV antennas and rain sensors for laminated glass
- heatable textiles for functional clothing
- laying contact wires on finished components, including pick-and-place of electrical components and contacting
- evaluation electronics such as safety mats or torque sensors

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