

Wire Embedding Systems

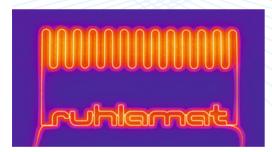
Optimum process times with short cycle times

Constant changes in our customers' markets, require quick solutions.

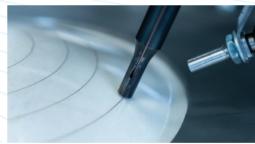
When implementing assembly lines in the automotive sector, ruhlamat implements a wide variety of processes and process modules to achieve optimum productivity and stability. Since the automotive industry is dedicated to mass production of automobiles, ruhlamat offers customized solutions for your project specifically for this purpose.

Profit from our decades of experience in the manufacture of high-precision, partially or fully automated automation technology. Our machine portfolio includes numerous systems and units. Ruhlamat develops and combines these units into a machine package according to your requirements.



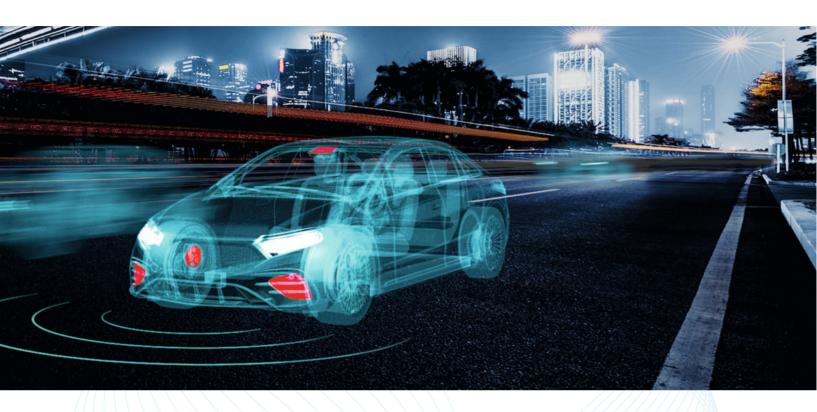








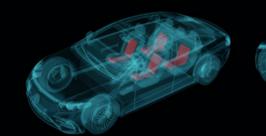




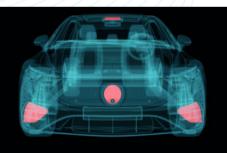
VEHICLE DE-ICING & INTERIOR HEATING

VEHICLE BATTERY HEATING & MONITORING

SENSORS & SENSITIVE FUNCTIONALITY







To reliably ensure the availability of distance and environment detection, anti-icing or de-icing of the surface of the sensor technology is required, among other things. This is the only way to ensure vehicle operation in frost and snowy conditions.

By means of filigree wire meanders embedded in foils or plastic injection molding elements, sensors are heated and freed from snow and ice in the shortest possible time.

Our wire embedding system WCEvario3D allows - flexibly robot-supported - to embed heating wires in complex 3D contours.

Monitoring of cell status regarding energy and temperature is needed to work in best shape and stay in best conditions during start and charging procedures and also lifetime.

Foils with wire circuits added with electronic components enable huge, free designable PCB's in the flattest possible construction.

Heating of cell modules also can be done in a very small and very flexible geometry implementing heating wires on foils. Divided functionality from also needed cooling get's possible to optimize and control both system functionalities independent from each other.

Detection and action by touch is a growing demand, inside and outside vehicles.

Sensor wires are used for rain detection or "hands-on detection" in driver assistance and for other functions where sensitive surfaces replace hardware switches and controls.

The accurate laying and embedding of these sensor wires on plastic surfaces or foils is handled by our wire embedding systems.



Reliable Wire Embedding

Since 1997, we have been working on optimizing wire-embedding technology for a variety of industries and applications. Examples of some these are antenna inlays for the production of ePassports, ID cards and contactless cards as well as wire embedding with concave and convex contours mainly for the production of heatable covers in the automotive sector.



ruhlamat GmbH

Sonnenacker 2 99834 Gerstungen OT Marksuhl

Tel.: +49 36925 - 929 0 Fax.: +49 36925 - 929 111

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www.ruhlamat.com



