

**Weld 25 kilometers in a single day -  
with EBOCONT, electron beam strip welding systems can be  
produced successfully in emerging markets.**

**Steigerwald Strahltechnik (SST) is the world market leader in special machines  
for the mass production of strip-shaped materials**

For many years, electron beam welding of strip-shaped materials has established itself as the ideal production process. It has been perfected over the years by Steigerwald Strahltechnik, the inventors of electron beam welding. **EBOCONT** welding systems weld together two or three metal strips with different properties to form a bimetal or trimetal strip.

Bimetal strips are used as semi-finished products for manufacturing low-cost band saws in the metalworking industry or for perforating cutters in the paper industry.

Klaus Schmelzeisen, Sales Engineer at SST, describes the process in more detail:

*“Two or three single strips are unwound from coils and straightened out. Our specially developed vacuum lock systems allow the strips to move from atmosphere to vacuum and back to atmosphere without any problems. These locks provide a stable vacuum in the welding chamber, which ensures a highly reproducible and continuous welding process. The finished welded bimetal or trimetal strip is then rewound onto a coil after the welding process. In addition to different steel metals, our EBOCONT systems also perfectly weld together copper and copper alloys of the same or different thicknesses. At welding speeds of up to 20 meters per minute, approximately 25 km of continuous welding per day can be achieved.”*



**Caption:** EBOCONT strip welding machine from Steigerwald Strahltechnik

## **Everything is getting smart – the growing demand for precision resistors raises the demand for shunts**

As technological development in Europe and worldwide is focused on being "smart", there is an increasing demand for precision measuring resistors in most sectors. SST sees switching from magnetic to electronic energy meters in Europe as a decisive driver for this, along with the use of battery management systems in the field of electromobility.

SST Sales Engineer Klaus Schmelzeisen uses the example of two Steigerwald customers who are among the leading companies in the field of measurement systems and the manufacture of custom bimetal and trimetal strips as semi-finished products for further processing. Both companies use EBOCONT strip welding machines in their production.

## **World leader in growing markets**

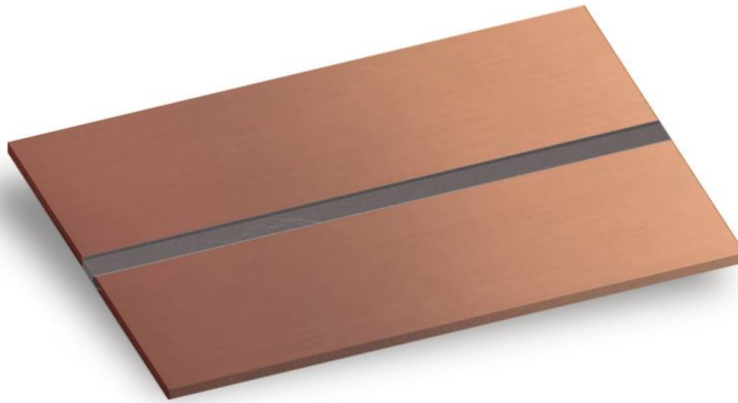
Isabellenhütte Heusler GmbH & Co. KG is one of the world's leading manufacturers of precision measurement products, and a recognized technological leader in manufacturing materials for resistors and temperature measurement.

The company was the first in the world to offer high-precision measurement of current, voltage and temperature in the field of automotive battery management. At Isabellenhütte Heusler, the shunts are punched from trimetal strips made from three individual copper strips and an alloy welded together in an EBOCONT electron welding system.



**Caption:** Shunt, manufactured by Isabellenhütte Heusler

Wieland-Werke AG is the world's leading specialist for copper and copper alloys. The Wieland Group has many locations on several continents, enabling them to supply customers around the globe with their semi-finished products.



**Caption:** Trimetal Stripe, manufactured by Wieland-Werke AG

Wieland produces tailored bimetal and trimetal strips, i.e. customized semi-finished products for further processing, with different widths, various metal combinations and flexible strip thicknesses.

**More information available at:** [www.sst-ebeam.com](http://www.sst-ebeam.com)