

Your partner for 360° joining technology



Good cooperation is the basis for success. Our customers' and ours.

High-strength joining solutions for modern sign manufacturing.



Signature Hiller and Böllhoff: Joining to point the way.



Signature Hiller – the signature for quality in sign manufacturing

In 1954, the Segor family founded the Signature Hiller GmbH Company in Birkenfeld, Germany, which today is among the pioneers in the signage sector. From the idea to the development to the design, production and fitting – the company offers everything from a single source. Since 2016 and after temporarily being part of a group, the company has again been led by the Hiller family.

Originally producing signs from enamel, a siliceous glass, the product range has been continuously expanded and modernised over the years.

The portfolio of services and products includes

- traffic signs compliant with the highway code for motorways and rural roads as well as town signs,
- showcases, benches and waiting pavilions at railway stations,
- the development and planning of stop systems,
- traffic safety as well as
- individual solutions for all urban furniture categories.

Apart from the headquarters in Birkenfeld, there are further branches in the German cities of Unna, Münster and Halle (Saale).

Currently, a total of 100 employees are working at Signature Hiller.



Initial situation

For the production of large motorway and road signs, first aluminium plates are cut to size and braced by means of oblong profiles on the rear. The reflective sheeting produced by use of a modern digital printing method is then bonded to the sign. The individual segments are transported to the motorway where they are joined.

Traffic signs are made from aluminium because it is a lightweight and durable material. The large dimensions of motorway signs, however, quickly result in larger weights. Originally, weld studs were used to be able to join the stiffening profiles on the rear to the aluminium material.

Later, when the innovative composite material DIBOND®traffic was used, a new generation of traffic signs was born. As the inventor of the original aluminium composite sheet, the 3A Composites Company based in Singen, Germany, makes a great contribution with the DIBOND®traffic. With the innovative composition of two aluminium cover layers and a laminated polyethylene core material, the sheet convinces through its suitability for lightweight construction, weathering resistance and its equivalence with a solid sheet.

The challenge: DIBOND®traffic is not suited for welding. This is where Böllhoff offers the perfect solution with RIVSET® self-pierce rivets.



RIVSET® "Roadsign": robust and flexible self-pierce riveting system for modern sign manufacturing



High-strength joint with RIVSET® self-pierce rivets

The solution: RIVSET® self-pierce riveting technology – high strength and high process reliability

RIVSET® self-pierce riveting is a joining method to create mechanical high-strength joints from similar and dissimilar materials. Joints can consist of two or more layers.

In one step, the semi-tubular rivet punches through the top material layers, forms an interlock in the bottom material layer and also forms the characteristic button. The bottom material layer is not punched through so that a gas- and liquid-tight spot joint is created.

From the beginning, Böllhoff had been involved as the joining technology expert. During numerous tests in the in-house joining technology laboratory, the RIVSET® self-pierce rivet proved to fulfil the high requirements for the joint. In combination with the RIVSET® "Roadsign" processing system, a self-pierce riveting system which had been especially developed for the manufacture of traffic signs, it was verified by the TU Dortmund University and approved by the German Güteschutzgemeinschaft Verkehrszeichen und Verkehrseinrichtungen e.V. for the quality assurance for traffic signs.

Do you wish to know more? Please do not hesitate to contact us.

Customer benefits

- Flexible in use
- Cost-saving
- High quasi-static and dynamic strength

Product characteristics

- Joining of dissimilar materials
- No pre-punching
- Particularly suited for hybrid joining

BÖLLHOFF

Passion for successful joining.

Böllhoff Group

Innovative partner for joining technology with assembly and logistics solutions.

Find your local partner at www.boellhoff.com or contact us at fat@boellhoff.com.

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