Laser processing for metallic bipolar plate manufacturing





New drive technologies require new components and manufacturing processes. Benefit from our knowledge and experience in the field of laser joining and cutting.

Laser welding and cutting of bipolar plates for fuel cells and electrolyzers

Our patent-pending welding module for the production of metallic bipolar plates achieves processreliable absolute welding speeds of 1000 mm/s with a large usable working area of 500 × 350 mm. The intelligent "Butterfly-Weld" welding sequence enables optimum symmetrical heat input. The static overall system and the automatic reproducible clamping technology guarantee process reliability with high contour accuracy and reproducibility.

Based on the series modules, we also offer prototype production from contour cutting of individual plates using lasers, laser welding of the bipolar plates, leak testing via our technology partner ZELTWANGER, and the design and manufacture of the clamping device.

GERMAN FUEL CELL COOPERATION

Since coating and final testing technology are also important factors in the production of bipolar plates, we are cooperating with VON ARDENNE and ZELTWANGER: In the German Fuel Cell Cooperation, we have developed an integrated production line that combines all process steps – laser welding, leak testing and coating. This allows you to manufacture efficiently from metal strip to fuel cell system.

Weil Technology

Weil Technology's core competencies are machines for sheet metal processing by laser welding and cutting. Here we can look back on 35 years of experience. At the company headquarters in Müllheim, around 240 employees develop and manufacture our concepts and systems. We deliver solutions to realize changes in the automotive market from exhaust components to electromobility components. This is where our forward-looking applications as a machine supplier in the field of hydrogen and battery technology come into play.

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For more information, see: www.weil-technology.com/stories

