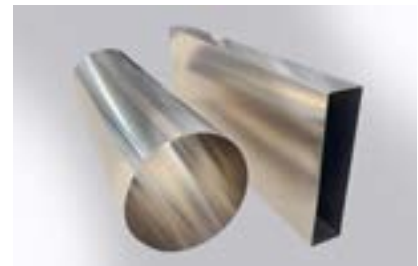
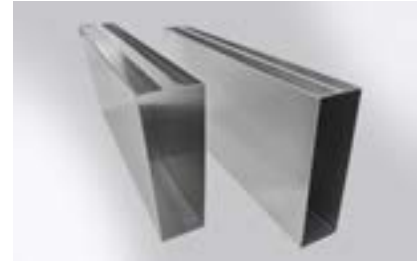
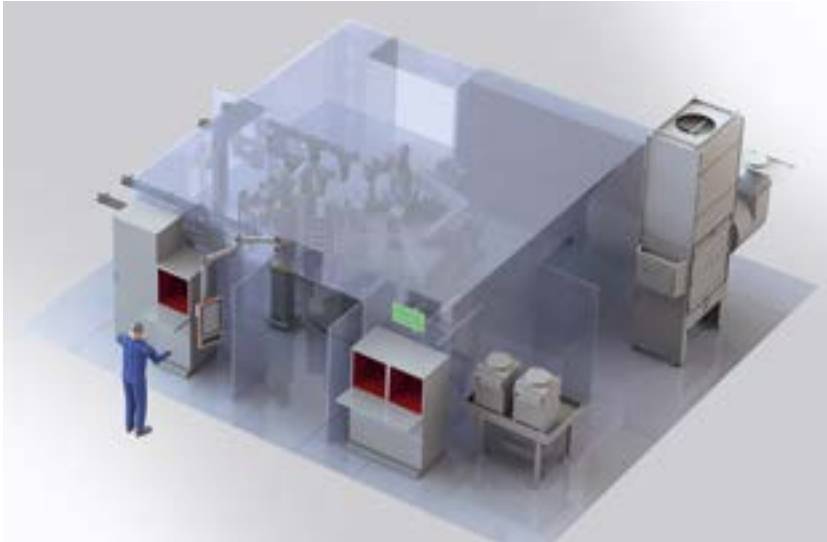


Manufacturing solutions for the economical production of prismatic cell housings



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Prismatic battery cells are increasingly being used in both electric vehicles and mobile and stationary storage systems. The prismatic format offers advantages in energy efficiency and durability. For the production of the metallic cell housings, most processes involve forming flat material into an open profile, which is then joined using laser welding. The use of lasers for welding is characterized by high process speed, reliability, and low costs per cell can.

Efficient laser welding of cell cans in high volumes: two system technologies depending on material type and thickness

The Laser Welding Cell for the production of cell housings from press-formed blanks is primarily used for aluminium with wall thicknesses of 0.4 mm to 0.8 mm. It enables parallel loading and unloading as well as minimal weld seam pull-in thanks to its innovative scanner welding technology with a vision system. Optionally, the system can be equipped with a laser cleaning system for pre-cleaning the joining edges before the welding process, thus ensuring maximum weld seam quality with aluminium.

Alternatively, we offer an innovative system that can produce a cell housing made of stainless steel directly from a coil or blank. We draw on our decades of expertise in short tube production. After the optional blank trimming, a tube is rounded in the first part of the system and reliably laser-welded using scanner optics. In the next step, the tube is expanded into its final shape and finally calibrated. This allows stainless steel cell housings with material thicknesses as low as 0.2 mm to be produced economically and at high outputs in a compact space.

Weil Technology

Weil Technology's core competencies are machines for sheet metal processing by laser welding and cutting. Here we can look back on over 35 years of experience. At the company headquarters in Müllheim (Germany), around 250 employees develop and manufacture our concepts and systems. We deliver solutions to realize changes in the automotive market from combustion 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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