

RMA[®]

Battery Welder

LASER WELDING SOLUTIONS

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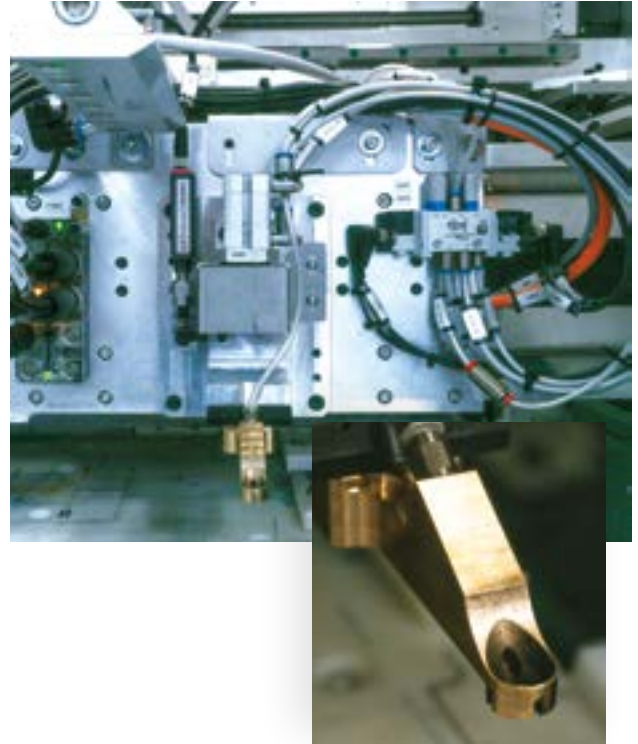
Laser Welding Solutions - Battery Welder

For many years, we have been delivering innovative and comprehensive solutions for the battery industry. Our main focus is laser processing and welding automation.

We offer **tailor-made solutions, as well as ready-to-use machines, production lines and stations dedicated for the laser welding of the battery modules.** Our hands-on experience and close cooperation with several business partners worldwide, allows us to continuously design and implement machines and production stations which are both **efficient and safe.**

With the use of RMA's Laser Application Center (LAC) located at our main headquarters, we develop and deliver a highly efficient and repeatable laser welding process which allows the joining of components made of various materials.

We have got a wide experience in welding the cylindrical cells (18650, 21700 and others) and the prismatic cells. We work with such materials as copper, aluminium, nickel and steel.



Our scope

- Machine design, engineering, assembly and commissioning
- Testing and technology development
- Full automation of the production process
- Professional after-sales service and support

The main benefits of our solutions

- Online monitoring of welding quality*
- In-process metrology
- Full product identification - traceability
- Easy adaptation to non-standard technical requirements



RMA BW Flex

A fully flexible solution which can be used both for R&D and serial production. BW Flex integrates two independent gantry systems for the laser processing head and for the pressing units (1 or 2). This specific configuration allows to take full advantage of the scanning head capabilities by providing high welding speed and substantial work area.

Welding time for a single cylindrical cell	~0,9 s
Work area [mm]	1200x800
Supported cell types:	cylindrical/prismatic/pouch
Feeding:	automatic/manual
Dimensions [LxWxH] [mm]	2400x2800x2700

RMA BW Max

A fully automatic solution dedicated for the welding of large cylindrical battery modules. BW Max has been engineered to match the capacity requirements of the high-performance automatic production lines. When additionally combined with the flip station, BW Max provides a comprehensive automation of the welding process.

Welding time for a single cylindrical cell	~0.5 s
Work area [mm]	600x800
Supported cell types:	cylindrical/prismatic
Feeding:	automatic
Dimensions [LxWxH] [mm]	2000x3000x2500

RMA BW Spot

BW Spot stands for simplicity of use and represents the most economical solution in RMA product line. The mechanical design is based on the XYZ gantry system where the laser processing head is integrated directly with the pressing unit. BW Spot already allows the end-user to benefit from all the laser welding advantages.

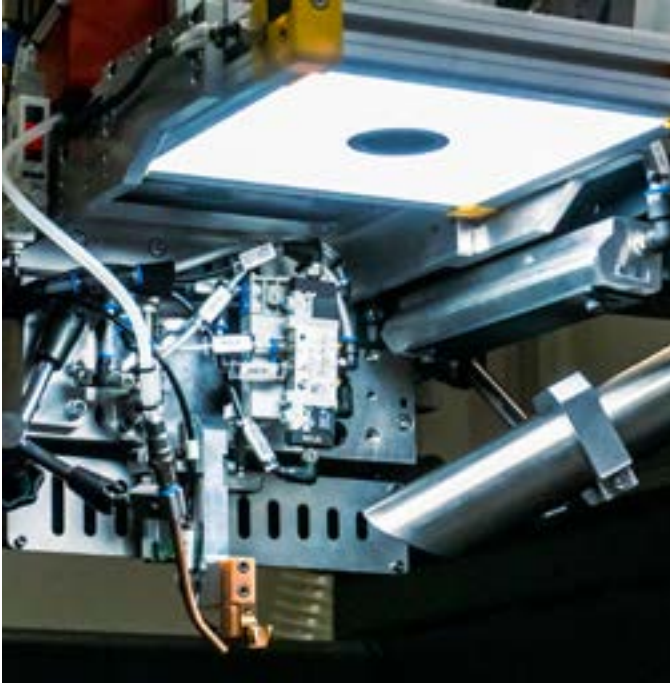
Welding time for a single cylindrical cell	~1.2 s
Work area [mm]	200x200
Supported cell types:	cylindrical/prismatic
Feeding:	automatic/manual
Dimensions [LxWxH] [mm]	1000x900x2000

RMA BW Fast PATENT PENDING

A smart solution responsible for the ultrafast welding of the cylindrical battery modules. The use of a clamping mask, together with an advanced profilometer, leads to the maximum reduction of the welding time. BW Fast is especially recommended for highly compact modules which are manufactured in a very high volume.

Welding time for a single cylindrical cell	~0.1 s
Work area [mm]	200x200
Supported cell types:	cylindrical
Feeding:	automatic/manual
Dimensions [LxWxH] [mm]	1000x900x2000

* Our solutions can be easily equipped with the **on-line welding quality monitoring systems**. This allows the end-user to continuously and in real-time control and collect the process data for each weld and product. As such, **machine itself becomes directly linked with the QA chain**.



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LASER PROCESSING

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