

PRESS RELEASE 3

New AMADA FLW series

Fiber laser technology now also available for welding

There is one incomparable advantage that makes fiber laser technology stand out: It permits the largely problem-free machining of demanding materials such as copper, brass and titanium. Following the outstanding success of this capability in the field of laser cutting, AMADA has now extended it to the world of laser welding with the launch of its new FLW series.

Problem-free machining of demanding sheet materials with fiber laser technology opens up a whole new dimension of process expertise to users in the field of welding technology. The FLW series machines from AMADA now allow parts to be manufactured from combinations of materials that have up to now presented machinists with considerable difficulties. Thus, for example, it is possible to weld together copper and stainless steel sheet components, which are characterized by very different melting points, to form assemblies. What is more, the use of fiber laser technology is also beneficial when machining materials with comparatively high reflectance values. This is the case with copper and brass for example. AMADA will be demonstrating a machine from the FLW series at Blechexpo 2013. The whole of the series has been conceived as a modular system and covers a wide power range between 1 kW and 6 kW.

Extremely clean welding process

One special feature of the AMADA FLW series is the optical assembly which is equipped with a patented rotating lens. This means that the laser beam is no longer aligned with a specific point on the target; instead it circles within a small area. This makes it possible to bridge larger as well as uneven gap sizes and a clean, even welding process is guaranteed. The heat input into the material is also optimized. The result is precisely defined weld edges with almost no unnecessary deposits of material. This capability contributes to the great economic efficiency of the FLW series by minimizing or even completely eliminating the need for retouching operations on the workpiece.

Faster than ever development of welding programs

The FLW series is particularly user friendly due to its specially developed software solution combined with a high-resolution camera system. During the setup phase, this is used to position the welding head and define the precise weld trajectory. Users can intuitively develop welding programs ready for operation much faster and the time taken to set up the system is reduced by around 50 percent.

approx. 2,500 characters

Illustration



Fiber laser welding on the FLW series machines from AMADA opens up a new dimension of process expertise for sheet metal machinists.

Photo credit: AMADA GmbH

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About AMADA GmbH

The AMADA Group is one of the world's leading manufacturers of sheet metal working machines. AMADA GmbH offers a comprehensive range of cutting, bending, punching and laser technologies. The portfolio is complemented by modular automation components, software applications and a wide range of tools. In addition, AMADA offers its customers a wide variety of additional services. The AMADA Group was founded in 1946 in Japan by Isamu Amada. The German subsidiary AMADA GmbH has been operating since 1973.