

... In practice



Skilled worker shortages, full order books and high quality standards

IGEFA WEINBRENNER manufactures individual heat exchangers using EWM welding machines and processes

Heat exchangers made by Hof-based company, IGEFA WEINBRENNER Energy Solutions GmbH in the Westerland region of Germany, are used across many different sectors, from the food, brewing and beverage industry and energy/chemical sector, all the way to the pulp and paper industry. And, just like the production and industrial systems used in these sectors, the heat exchangers used also have to be tailored to the needs of the industry. When it comes to constructing and designing these sys-

tems, the use of special materials is just as important as continuous data collection for the purposes of quality assurance. The efficiency and profitability of the production processes is, of course, another significant parameter to consider. That's why IGEFA WEINBRENNER Energy Solutions GmbH, a subsidiary of the ZILONIS Group, switched its entire welding production line to EWM machines, investing in 13 new welding machines in one go.

The challenge

Many sectors and companies are currently faced with a challenging combination of skilled worker shortages, full order books and high quality standards to maintain. More important yet are efficient and safe processes that ensure optimum use of the given resources.

Heat exchangers are often welded following the Pressure Equipment Directive (PED). According to these guidelines, seams must be x-ray proof across all passes right down to the root. To ensure such safety, a consistent welding process and continuous data collection are fundamental.



The coldArc pulsed short arc delivers the highest welding quality in the root pass.



Low-spatter and x-ray proof weld seams can be achieved by choosing the right welding process and characteristics.

The solution

IGEFA WEINBRENNER Energy Solutions GmbH successfully implemented a line of EWM welding machines in the area of TIG welding. As part of the planned switchover within welding production, it also made sense to take a closer look at EWM machines for MAG welding, too.

The arc of the EWM welding machines immediately impressed during the demonstration. The root was welded with a short arc using the coldArc welding process. The results are similar to TIG weld seams, but they can be produced at the speed of MAG welding. There is an extensive range of possible characteristics for the final pass to create a low-spatter arc when carrying out pulsed welding for beautiful, low-spatter welds.

The success

Choosing the right welding process can significantly decrease the amount of rework needed, increasing weld seam quality in the root pass and reducing welding time, all of which helps to significantly improve productivity for more efficient component production.

Continuous data collection for all of the relevant welding parameters can also help to ensure a consistent weld seam quality that can be proven at any time.



Gazmend Smakaj, Marvin Bode and CEO Musa Smakaj are delighted with the 13 new EWM welding machines.



Markus Brenner from EWM AG (middle) completely wowed with his demonstration of the welding machines, according to Gazmend Smakaj (left) and Marvin Bode (right).