

CustomerStory



POLLRICH GmbH

The system concept makes all the difference

Expert advice for perfect results

Alongside increased productivity and simultaneously reduced costs, POLLRICH GmbH also expected a modern welding technology system to offer a welding management system that could manage and document the relevant data as well as fulfil all the quality

assurance requirements. For POLLRICH, the maXsolution consultancy from EWM came at just the right moment. Considering all factors in welding technology comprehensively allows to optimally coordinate the different components with each other. This approach characterises the system concept – and makes the system supplier stand out.

Enormous dynamic loads

In its production facilities in Mönchengladbach POLLRICH manufactures industrial fans which transport not only air but also dust, shavings, powders and aggressive media. A fan wheel can have a diameter of up to four meters and up to 14 blades. At a rotation of 20 revolutions per second the fans can reach circumferential speeds of up to 860 kilometres per hour. This means that the fans, materials, and weld seams are subject to enormous dynamic stresses. The requirements of the

materials used, welding technology, and documentation for such critical components are correspondingly high. A system

A system: more than the sum of its individual components

is much more than the putting together of several individual components. It is the optimum coordination of the individual components, of hardware and software. In welding technology the combination



A welded fan wheel with a diameter of 3.5 metres. Including the reinforcement rings there are over 60 metres of weld seams in the component here.

of a power source, wire feeder, and welding torch is part of the system concept. In addition the highly diverse welding procedures can be matched to the specific application, the welding consumables, and the software. Here particular attention is paid to the networking and implementation of data transfer between welding machines and the production process planning in relation to the smart factory as part of Industry 4.0.

Alongside the fan wheels the housing is also designed and manufactured by POLLRICH, usually using the MAG welding process.



Everything from a single source – everything from EWM

The welding machine manufacturer EWM from Mündersbach in the West-erwald is the only German full-service provider and system supplier in the welding technology sector. It produces its own power sources, wire feeders, and welding torches; the welding consumables are produced as per the EWM quality requirements. The innovative welding processes for highly diverse applications and the Welding 4.0 welding management system ewm Xnet for analysing, monitoring, and managing welding data and welding results are also EWM in-house

developments. As part of the ewm maXsolution consultancy, EWM's experts work together with the customers to put together an optimum package for production from this portfolio. It was precisely this comprehensive approach that convinced POLLRICH in 2018 to switch all of its welding production to EWM – and also to purchase all welding consumables and wear parts from the firm. "In addition to the terrific products, the commitment of the EWM employees played a major role in the purchasing decision", affirmed Thorsten Wirtz, Welding Coordinator and Quality Control Director at POLLRICH, explaining the choice of EWM. "They are available at all times to provide advice and assistance, and can offer comprehensive support for all welding technology issues." From his own experience Wirtz is able to judge the quality of the products and the advice; he himself spent ten years welding the fan wheel's blades, day-in, day-out.



POLLRICH also designs and produces the tools for its own production. Here a faceplate for a pressure device is being reinforced with braces.

The connectivity of the future

eWM Xnet is a welding management system that supports, monitors, and documents a component's entire production process from work preparation to product costing analysis – completely paperless. eWM Xnet records all the welding data in real time, can manage it, and transmit the consumption data. However, eWM Xnet's capabilities go far beyond the actual welding process. eWM Xnet provides support during component management, the creation of subsequent welding plans, and the allocation of welding procedure specifications. These can also be managed and, if necessary, even individually created. And last but not least, the individual monitoring of the welders' test certificates as well as the allocation of individual access permissions are also features of eWM Xnet. "With eWM Xnet it is possible to manage all aspects of welding technology with just one system", enthuses Wirtz.

Welding duplex steels with tigSpeed

EWM's tigSpeed is a wire feeder for TIG welding. The required welding filler metal is continuously fed into the weld seam. tigSpeed emulates the manual TIG welding process by retracting the filler metal from the arc again and again. The automatic wire feeding, even of hot wire, makes the welder's life much easier, especially in the case of weld seams that are many metres long, such as in the fan wheels. Very high quality, spatter-free seams are the result. Mechanical wire feeding produces a weld surface that is even smoother than with manual welding.

Ergonomic welding torches for fatigue-free work

The majority of the weld seams are welded at POLLRICH using the MIG/MAG process. This applies both to fan wheels themselves and to the casings or to auxiliary structures for production, which are also developed and produced at POLLRICH. Together with the new welding machines from EWM, the matching welding torches have also been purchased. All of the welding torch components have been designed for secure current contacting, excellent shielding gas coverage, and an interference-free wire guide. This reduces the error rates during welding. Furthermore, the consumables have a longer service life and the shielding gas consumption is reduced. "We expect these welding torches to be much more economic for us than the welding torches we had before, both as regards productivity and the consumption costs", says Thorsten Wirtz confidently.



POLLRICH's Quality Controller Thorsten Wirtz (right) is impressed by the EWM products and the support provided by EWM sales representative Sven Gaudian (left).

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