

User Report

Ebner converts welding production facilities to EWM machines



Game, set and match in all welding technology categories

Ebner converts welding production facilities to EWM machines

Mündersbach, Germany 01/08/2017 – EWM came out on top at Ebner. The specialist for heat treatment technologies and industrial furnace construction based in Leonding near Linz in Austria converted their manual welding applications to EWM machines after comparing welding machines from four renowned manufacturers.

Modernisation of welding technology

In 2014, Ebner planned to modernise their equipment and purchase new welding machines, both for MIG/MAG and TIG welding. During a test phase, welders, maintenance staff and welding coordinators scrutinised and thoroughly tested products from a total of four welding machine providers. "The most important factor to me was that the welders were satisfied, because they're the ones that work with the machines", said Franz Haubner, Head of Mechanical Production, concerning his approach to selecting a current total of 45 welding machines. They tested machines from the alpha Q puls and Phoenix puls series for MIG/MAG welding and machines from the Tatrix series for TIG welding. All machines were delivered complete and ready for work including torches and the appropriate accessories.

The criteria for evaluating the machines included welding machine handling, options for using various welding procedures, manageability of the welding torches and the services provided. EWM won this comparison hands down as the company proved to give the best value for money and the maintenance was rated most highly.

Winners of the welding technology category

The components that Ebner manufactures for industrial furnaces can be the size of a standard detached house. Franz Haubner says with certainty, "If the component won't come to the welder, the welder must go to the component". For this reason, the

User Report

Ebner converts welding production facilities to EWM machines



WE ARE WELDING

machines themselves must be light and easy to push or pull along. However, the proviso that the welders must be able to complete their entire range of welding tasks using only one machine was even more significant. Meeting this demanding requirement was the pièce de résistance for EWM and gave our machines a clear competitive edge: As all innovative welding procedures are saved in our machines, a single device can weld especially thick materials, such as steel rings for load transfer, using forceArc and use coldArc to weld particularly thin CrNi steels, such as those used in nozzle casings.

Winners of the integrated welding procedures category

coldArc and forceArc welding procedures are extremely different in application as are the parameters required for welding using the two procedures. forceArc welds are mainly used on thick structural steel welded using steel wire. CrNi steels, on the other hand, are welded using suitable welding consumables. The composition of the shielding gas used for the two procedures is also different. Despite these differing requirements, welders using EWM machines can switch between the procedures at the touch of a button – much easier than when using the other welding machines tested.

The EWM double wire feeder is the reason for this flexibility. The device is equipped with two wire rolls, two welding torches and two gas cylinders. If requirements change, the welder simply switches to the alternative welding torch and the machine takes care of the rest at the touch of a button. This makes changing between completely different applications as easy as pie.

Winners of the welding torch category

The most immediate tool used by welders is the welding torch. These must sit comfortably in the hand, be light and work without interference. EWM welding torches met and indeed exceeded all these criteria. The interference-free wire feed reduced the number of weld seam errors. In addition, EWM MT torches formed weld seams with minimal spatter. But the greatest advantage was the reduction of preproduction

User Report

Ebner converts welding production facilities to EWM machines



costs. The service life of contact tips and gas nozzles is increased by up to 50% meaning that the welding procedure must be interrupted much less frequently to change nozzles. This results in significant savings.

Winner in the service category

From steel to CrNi and Ni-based alloys to aluminium – at first this sounds like the processing range of a typical specialist welding shop. But this range is much larger than normal at Ebner. Usually, one characteristic curve is sufficient for CrNi steels. In contrast, Ebner uses more than ten different CrNi welding consumables. Each of these has its own characteristic curve.

Each of these characteristic curves was adjusted for Ebner by EWM and saved as a JOB in the EWM machines. In this way, the entire range of applications was covered. Welders can quickly find the JOBs and easily select them.

Aside from the welders, the opinions of maintenance staff were also of importance during the selection procedure. The maintenance staff focussed particularly on the easy accessibility of all components and the ease with which the machines can be serviced. The outstanding and prompt support from the Application Technology, Service and Sales departments of the EWM Austria branch also contributed to Ebner's final decision.

At the end of the day, both the welders and maintenance staff were in complete agreement that EWM should be their new welding machine supplier.

User Report

Ebner converts welding production facilities to EWM machines

/ Images:



Image 1: Bell furnace belonging to the Austrian industrial furnace producers Ebner for heat-treating metallic products

Photo: Ebner Industrieofenbau GmbH



Image 2: Tack welding and welding fillet and single-V butt welds on the workbase of a bell furnace system in PA and PF welding positions. Steel/steel and steel/CrNi joints require different welding consumables that are both available from the welding machine at the same time.

Photo: EWM AG



Image 3: Welding a double V-butt weld on a steel ring using forceArc.

Photo: EWM AG

User Report

Ebner converts welding production facilities to EWM machines



Image 4: Reduction of the included angle from 60 ° to 40 ° uses less weld bead in forceArc welding. This minimises the duration of welding and saves money.

Photo: EWM AG



Image 5: Dissimilar joint on a protective cover flange.

Photo: EWM AG



Image 6: MAG-welded fillet weld in PB position is virtually spatter-free.

Photo: EWM AG



Image 7: Virtually spatter-free welding of edge welds, fillet welds and butt welds on a nozzle casing of an annealing furnace. The low-heat coldArc procedure minimises distortion when joining the 2-mm-thick stainless sheet steel.

Photo: EWM AG

User Report

Ebner converts welding production facilities to EWM machines



Image 8: Satisfied with the new welding machines, Christoph Eidenberger, welder at Ebner, Heinz Stephan, Manager of the EWM Austria branch, Franz Haubner, Head of Ebner Mechanical Production, Christian Gruber, Ebner Welding Shop Technical Group Leader.

Photo: EWM AG



Image 9: Handing over the machines to Ebner. Currently, the stock of machines amounts to 24 alpha Q 351 Expert 2.0 puls, 4 alpha Q Expert 2.0 puls in the double wire feeder version, 11 Tetrax 230 Comfort, 3 Tetrax 351 AC/DC Synergic, 2 Phoenix 355 puls and 1 Phoenix 1002 as a SAW power source.

/ About EWM:

EWM AG is Germany's largest manufacturer of arc welding equipment and one of the most important suppliers of this technology worldwide. The family-run company provides a complete range of solutions for first-class welding results. From welding machines, welding torches and welding consumables to welding accessories for manual and automated applications – EWM offers everything from a single source. The company assumes technological responsibility for the entire welding process. Customers also benefit from a comprehensive range of services, including “ewm maXsolution” innovation and technology consulting. EWM has a strong global presence with around 600 employees at 12 German and 7 international locations and plants, as well as more than 400 sales and service outlets worldwide.

As a developer of numerous highly innovative products and welding procedures, EWM is recognised in the industry and by users as one of the most important drivers of technology. EWM is committed to bringing the added value of Industry 4.0 to welding production with its intelligent networked solutions that boost productivity. The company's passion for welding is anchored in its guiding principle WE ARE WELDING. This, together with the BlueEvolution sustainability initiative, underscores the company's commitment to meeting specific customer requirements as effectively as possible while

User Report

Ebner converts welding production facilities to EWM machines



WE ARE WELDING

always taking economic and ecological factors into account. Users benefit from energy-saving welding processes, a reduction in the use of raw materials, lower emissions and shorter overall production times. This results in significant savings in costs and resources. Customers are thus able to boost their competitiveness while at the same time protecting the environment.

/ Press contact:

Heinz Lorenz
EWM AG
Dr.-Günter-Henle-Str. 8 / 56271 Mündersbach / Germany
Tel. +49 2680 181 126 / heinz.lorenz@ewm-group.com
High resolution images: www.ewm-group.com