CustomerStory

„Quality that is proven, not (just) promised"

Machinefabriek & Apparatenbouw Geha b.v.

Geha B.V. is using ewm Xnet quality management software to optimise its production processes

„Customers require an increasing amount of data, and we are able to meet this need," says Franc van Wilgen, managing director of Geha B.V., summing up the biggest advantage of ewm Xnet. The Dutch company manufactures fans, ventilator covers and steel structures for heat exchangers at its plant in Nieuw Amsterdam, close to the border with Germany. These products are used all over the world for air cooling in processes in the chemical, oil and gas industries, including processes carried out in very demanding climatic conditions. Quality certifications and traceability are becoming more and more important where such critical components are concerned.

Welding data is fed into the network via a gateway – the small box mounted on the front of the power source. Older models manufactured in 2002 or later can also be easily integrated into the network.

Installation was completed in a day

Installation by sales partner Kumoweld and EWM was completed in a day. Since then, Geha has used ewm Xnet to log all the data for the five welding machines completely automatically online: data is saved directly to the server during the welding process. This allows it to be analysed and evaluated by welding coordination personnel, both in real-time and also at a later point. "We have too much steel in the production department to allow data transfer via WiFi," says van Wilgen, explaining why the firm uses LAN technology.

An alternative method is offline data recording on a storage medium in the welding machine. This technology is useful for machines that are used on external construction sites, for example, or for premises where a network is not viable. Welding data can therefore be recorded, documented and analysed even without a network by using a USB flash drive.

Interconnecting welding machines

In March 2016, Geha linked together five of its welding machines – one of which dates from 2002 – and the first ewm Xnet module was installed. Geha had already undertaken all the necessary preparation work, including laying a LAN cable and setting up a server.

Quality certification

Only correct welding parameters produce error-free welding data and thus a high-quality seam. Before ewm Xnet was introduced, Geha could only go as far as reassuring customers that welding had been carried out in accordance with their specifications.

Now, the company can use the data at any time to prove that the stipulated parameter settings were actually adhered to during production – and that the required level of quality has been attained.
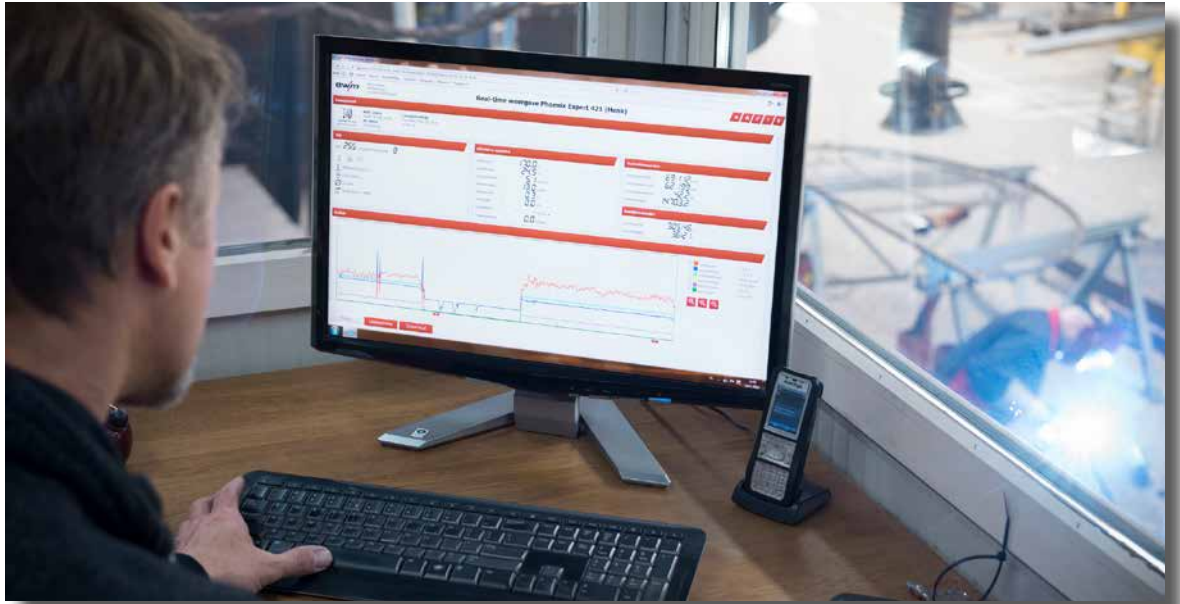
This applies both to individual parts and to serial parts. "If there are any queries, there is no need for any discussion with the welder, because the facts and figures speak for themselves," says van Wilgen. "This means we can actually prove the quality is up to standard, rather than just saying that it is."

Van Wilgen believes that the continuous logging of welding data is the only way to meet requirements, such as those in EN 1090 standards. "This type of data collection will continue to increase in the future, especially in view of the traceability it provides," says van Wilgen, confidently.

Steel framework with mounted heat exchanger by Geha B.V.

Real-time view of the welding data overview on the computer of the welding coordination personnel.

Improving productivity

Recording data and certifying quality is only one aspect of ewm Xnet, however. The software can do much more with the right analysis of the data. Not only can it track welding data, it also provides information on welding time and non-productive time. An analysis of these times can lead to measures that reduce non-productive time, thereby increasing productivity. "Customers only pay for welding time. High non-productive time means high additional costs," points out van Wilgen. "ewm Xnet therefore also helps to increase productivity."

Monitoring quality, not the welder

ewm Xnet is a support tool for administration and the data recorded is completely transparent.

The aim of an economic production system is higher productivity, and this is achieved when a welding company is able to weld a high number of seams in a short time while maintaining a high level of quality. Quality is always the number one priority at Geha.

With ewm Xnet, this high level of quality can be proven and productivity can be increased by means of the relevant measures. "The system is not intended to make the welder work harder, but smarter," says van Wilgen, emphasising the advantages of ewm Xnet.
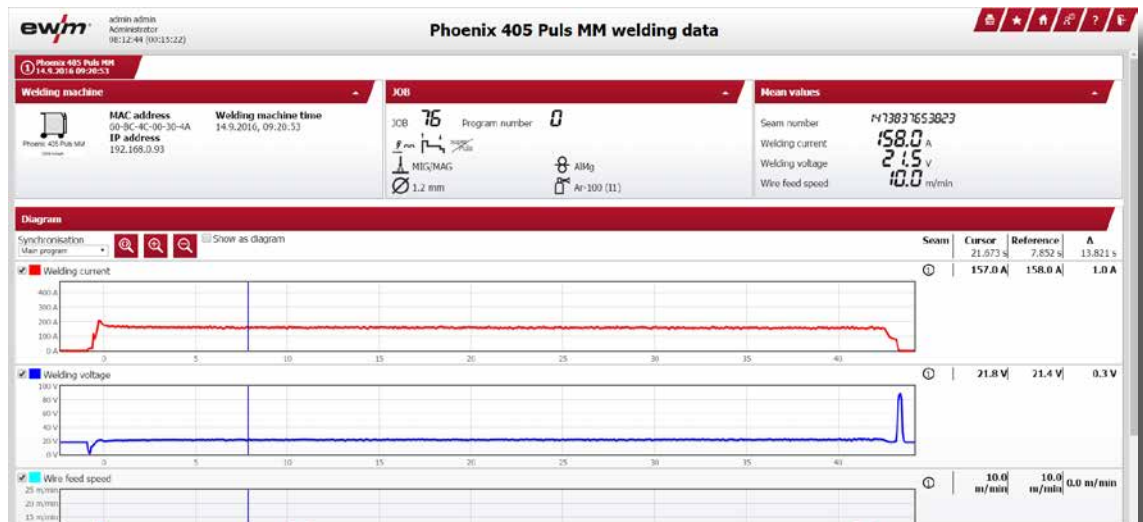
For him, quality is clearly paramount, but without compromising productivity.

Optimising maintenance times

The maintenance of machines is expensive but necessary in order to extend the service life of the machine and ensure high-quality performance.

Costs for replacement parts need to be added to the cost of lost working time while maintenance is being carried out. Undertaking maintenance work at as late a stage as possible has a number of advantages. It means components remain in use for as long as possible and no fully functioning components are replaced. This cuts costs for replacement parts. Lost working time is also postponed and maintenance intervals are increased as much as possible, meaning that working time is used for productive welding, not maintenance work. The welding data obtained using Xnet allows companies to determine the optimum time for servicing and maintenance: as late as possible and as early as necessary.

Detailed view of the welding data. The analysis enables productivity to be improved; quality can subsequently be certified.

Impressed by the quality of EWM products: the Geha team. From left: Franc van Wilgen (managing director of Geha), Benedict Menningen (EWM), John E. de Boer (owner of Geha), René Timmer (service technician at sales partner Kumoweld), Bertus Vinke (Geha welding coordinator), Pieter Tent (technical department manager)
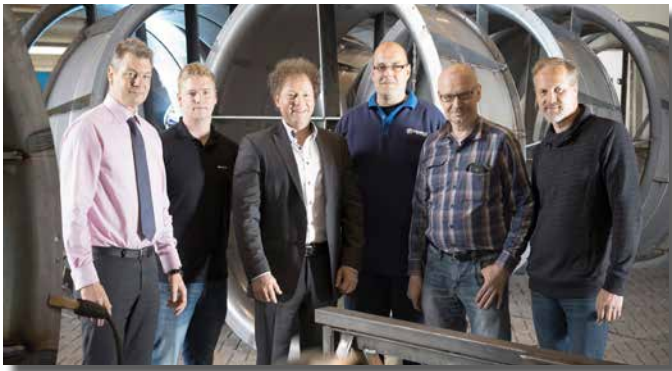

Final costing

In the past, cost calculation at Geha was a complex manual task that was also prone to error. With ewm Xnet, the costs can now be calculated precisely and also much faster. Before a contract or project starts, the relevant consumption parameters – such as gas, electricity and welding consumables – are set to zero. Upon completion, the consumption data can be read out and then processed and presented in different ways – as total costs, costs per component or even costs per individual weld seam.

Reliability of ewm Xnet

Ultimately, only a test on a real component could demonstrate whether ewm Xnet did actually exhibit the promised characteristics and deliver the stipulated parameters. Geha designed, implemented and then analysed a project in three different ways specifically for this purpose. The welding processes and the welding sequence were the key parameters that were changed in this test. The final analysis of the components focused on comparing the results that had been theoretically predicted beforehand with the results that had actually been achieved.

Passed with flying colours

These outcomes were identical, meaning that ewm Xnet passed Geha's test with flying colours. "We're now ready to take the next step with EWM and install the second module, the WPQ-X Manager," says van Wilgen, looking to the future.

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