

RobotStudio™

Case Study: Driescher Wegberg GmbH



Gerd Baltes, Peter Gotzes and Detlef Wittke are all certified RobotStudio programmers at Driescher Wegberg..

Already in the beginning of the 20th Century Fritz Driescher realized the future importance for the demand of electrical power supply. In the age of only 24 he founded the enterprise in 1909.

29 kilometers of welds

Driescher Wegberg manufactures equipment for energy distribution. Their main products are air and gas insulated switching systems. They use welding robots for joining the gas isolated switching systems, SF6. In year 2002 alone Driescher did 29 kilometers of welds.

Delivery-by-event

Due to the variety of systems and the delivery-by-event situation in the energy distribution business there was a lot of time spent on programming the welding cell. The complexity of

the systems forced Driescher Wegberg to manufacture many parts themselves to achieve a delivery time suitable for the market.

Welding bottle-neck

The SF6 system production is a comprehensive and difficult field. The number of field variants continuously increases. This forced Driescher to a continuously increase of programming time spent on the robot.

Horst Heinrichs, executive manager preproduction at Driescher Wegberg explains; "For a three-field system we needed nearly 24 hours programming. During this time the actual welding process was down. This process was a bottle-neck that was not acceptable. We needed to find a flexible way of working to meet our deadlines. The only possibility that we saw was to get away from the teach-in process to offline programming so that the robot could produce instead of being burdened by programming."

Driescher Wegberg GmbH

The 'Aha effect'

Horst Heinrichs, was involved in the transition from online to offline programming: "Today we use RobotStudio for TIG and MIG welding. With RobotStudio are we able to minimize the teach-in process. Now, the programming is done parallel meanwhile the production is running." The fact that Driescher has chosen RobotStudio ArcWeld PowerPac gives an improved understanding for the software. Horst Heinrichs calls it the 'Aha effect': "Since RobotStudio has been introduced, the work method has changed. We approach everything differently. The work is done more relaxed. We have more time to create certain programs. The programming of the system can be done far ahead of time, actually as soon as the order for the system has been received. We don't have to wait until the robot system is available for programming anymore."

Encourage extraordinary performances

Eight employees have been taking the RobotStudio training course. They had no experience from PC programming before. The complexity of offline programming was reduced thanks to ArcWeld PowerPac. With ArcWeld PowerPac the employees were able to close the gap between the reality and RobotStudio. This gave a significantly higher acceptance for the software. "The one thing that has to be mentioned is that the people are able to achieve a whole different valuation of their performance at the programming station. The fact is that our people greatly motivate and encourage each other to achieve extraordinary performances", states Horst Heinrichs.



Offline programming on the factory floor: Detlef Wittke creates robot programs in RobotStudio ArcWeld PowerPac.



"ArcWeld PowerPac gives an improved understanding for the software." Horst Heinrichs, executive manager preproduction.

Omit a shift entirely

"With RobotStudio we were able to realize the advantages that we had previously wished for. We were able to omit a shift entirely. The night shift, the most expensive shift, in the area of robotic welding was eliminated," says Horst Heinrichs and continues: "In addition, you can see a clear increase in quality due to the fact that there are zero leaks during final installation. The work method has changed enormously. The people are very dedicated with RobotStudio. It is not so much the teach-in process, but more that RobotStudio greatly motivates the people to produce high quality."

Quick delivery of complex systems

"RobotStudio delivers a very high standard in the area of impermeability. Our systems must be gas proof. This means that every system is manually inspected for impermeability. We notice a clear increase in terms of gas impermeability. Before, we had a leak share of approximately 2-3%. Now we are at less than 1%", says Horst Heinrichs. "With RobotStudio we have also realized a big step in the direction of improved delivery time. Today, we are able to deliver complex units just as quickly as standard systems from our catalogue. The availability of the cell has increased enormously. We have the same output rate now in 16 hours as when we previously run three shifts", concludes Horst Heinrichs.

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