



# Rapidly on Course

**Following a number of bad experiences, Otto Wöhr GmbH, a manufacturer of space-saving car parking systems based in Friolzheim in the German state of Baden-Württemberg, no longer believed in the advice offered by consultants. But the company then agreed to KAIZEN basic training with Porsche Consulting. For more than a year now, the employees in production have been enjoying the new processes which have led to a significant improvement in delivery deadlines being met.**

📄 Reiner Schloz, 📷 Christoph Bauer

The employees at Otto Wöhr GmbH start every week by resolving to do their best. Each Monday the plant manager Jörg Stahlkopf and Jochen Bauer, head of the order center, gather representatives from operations planning, contract manufacturing, and production around a table to discuss the state of operations. The events of the previous week are reviewed and the coming days discussed. But above all everybody agrees to work together to achieve the shared aim which has shaped everyday production for some time now. Stahlkopf: “We want to maintain the standards that we have worked hard to create.”

For a good year now, the production of car parking systems in Friolzheim has been based, in the most important areas, on the principles of lean production, as was once invented by Toyota in Japan and has been adapted by Porsche for the Western world. However, experience shows that the culture shock is great when employees are suddenly confronted with long distances to travel and spaces divided up in an unfamiliar way in their everyday life at work and are then supposed to help on a consistent basis to optimize the process of creating added value. And even if you limit yourself to ▶



The parking process, which usually takes place away from public gaze: The Wöhr system automatically parks the Porsche in position

the simple basics of lean production, this provokes the question: Is it possible to learn the methods within one week?

Managing director Wolfgang Wöhr decided to try the experiment and today he is delighted that he did. He summarizes his previous experiences with consultants as follows: “They come, leave you with a strategy paper, and then they go again. This did not help us.” But after a joint tour of production operations, Eberhard Weiblen, managing director of Porsche Consulting, presented him with an unusual proposal relating to a kind of KAIZEN crash course.

What he had in mind was just one week of basic training which was intended to consist of instruction, analysis, and implementation. “It is not standard practice to have a program like this in such a short period of time,” says project manager Jürgen Groß. Together with his colleague Matthias Beerstecher, he worked out what was feasible and then really got things moving.

An unusual measure for a company that manufactures unusual products: mechanical car parking systems. Over 300,000 parking spaces around the world originate from Frielzheim. But in addition to series manufacturing, Otto Wöhr GmbH has made a particular name for itself inter-



“Clear-up team”: The consultants Matthias Beerstecher (1.) and Jürgen Groß (3rd fr. l.) as well as Jörg Stahlkopf (4th fr. l.) and their team



Transit paths and search paths were reduced in the welding shop



Clear-out: Redundant objects ended up in the skip

nationally with automatic multi-story car parks. Over 100 facilities have so far been delivered globally. Only recently one of the most modern public multi-story car parks opened in Budapest, equipped with what is known as a Parksafe system: the vehicle is parked in a box from where at the touch of a button it disappears without the driver inside the multi-story car park. It then reappears in the box at the touch of a button.

The idea of mechanical parking is not new though. Wolfgang Wöhr possesses documents relating to mechanical parking spaces in Paris dating from 1905. And as early as 1924 there was a large mechanical garage on Rue Ponthieu. At this time, the primary concern was to protect the valuable means of transport from theft. But as there is increasingly an acute shortage of places to park in big cities, the space-saving mechanical systems are more in demand than ever. This meant that the company would find it increasingly difficult to meet its customers' deadlines. Stahlkopf: "The critical point in our production operation is the welding shop. It is an important cost factor because welding is the aspect in the entire production process that takes longest and is therefore where the largest stocks of product accumulate. In addition,

assembly and commissioning are both dependent on how the welding proceeds."

The consultants decided to look at the relevant areas in their analysis, recorded the value flow of a top-selling product from Wöhr and also examined the welding shop carefully. The aim here was to adopt just-in-time principles to introduce lean processes and to improve quality, costs, and the delivery service. Twelve employees participated in the five days of basic training. After conducting value stream mapping, the working procedure was analyzed in the welding shop and different types of waste (for example unnecessary transit paths and search paths) were recorded and documented with key figures in a spaghetti chart. Alongside this, the consultants sensitized the employees to the notion of overproduction and gave a clear illustration of the production flow and pull principle: in order to avoid the unnecessary accumulation of stocks of product between the individual working stops, only levels of product which are required and can be processed on quickly should now be produced.

The suggestions for improvements, put forward by the employees themselves, were assessed, and plans for ▶

implementation were drawn up and then put into practice. Groß: “We really tidied up operations in the welding shop.” And this was done by adhering strictly to what is termed the “5-S process”: Sort out! Set down! Sanitize! Standardize! Practice self-discipline!

In combination with an optimized value flow, it proved possible to reduce the lead time for the product under investigation by more than 30 working days, which trebled the stock turnover rate. Sales, purchasing, suppliers, and customers did of course also have to be incorporated into the new procedures, which initially caused slight irritation among the parties involved. The new standards ultimately also led to incoming orders being handled in a different way. “At first this was very unusual for those people affected,” says Wolfgang Wöhr today, “but complaints have fallen by 99 percent.” This is because there has been such a noticeable improvement in meeting deadlines that the sales department has already expressed the fear that the order situation could become off-kilter. In addition, in the welding shop the search times and transit times have been reduced to such an extent that the welders had no cause for complaint anyway.

A one-week crash course—and the improvements are still in evidence today. “From time to time,” says Stahlkopf, “you still need to issue a reminder about certain things, but essentially everyone has been persuaded that the changes have been beneficial.” But this would scarcely have been possible without the commitment shown by the Porsche consultants. “They turned up—and things began to happen straight away,” says Wolfgang Wöhr. “This was a totally fresh approach for us and this was what ultimately won over the employees.”

Stahlkopf is convinced about one other thing too: “The credibility of the consultants played a crucial role. If they had not put on their overalls and got their hands dirty in production, they would not have been accepted

by the workers.” This acceptance is soon set to be extended to the indirect areas of the company as well. There are already firm plans in place for Wöhr employees who work in organization to gain qualifications at the Porsche Akademie. ◀



Review: What can be cleared away?



Theory: Simulation of a production process with boxes