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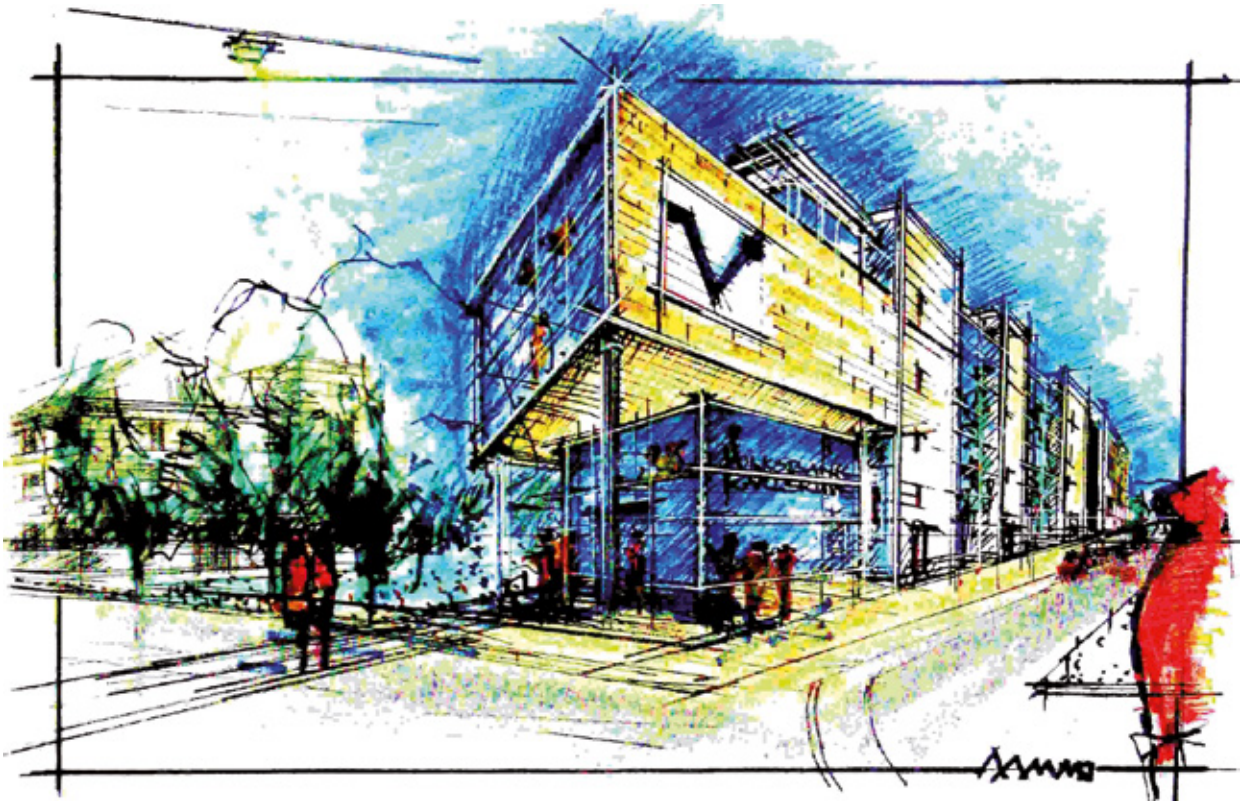
SUCCESS STORY

Success through Multiple-Site Process Optimization at Vollack Hallen- und Stahlbau

Construction

PLANNING | OPTIMIZATION | QUALIFICATION



NEW PROCESS DESIGN AT TWO SITES FOR VOLLACK HALLEN- UND STAHLBAU

A significant increase in productivity with unique just-in-sequence production

Experts in steel-frame building construction at both sites of Vollack Hallen- und Stahlbau collaborate on project planning, industrial architecture, and construction management. Sophisticated steel girder solutions are developed and produced in Karlsruhe and Mihla. Rather than duplicating efforts, the aim was to boost efficiency while maintaining both sites. Implementing the solution developed in cooperation with Ingenics reduced the hours worked per ton by 45 percent.

About Vollack Hallen- und Stahlbau GmbH & Co. KG

The companies that make up Vollack Management + Beteiligungen GmbH & Co. KG are among the most innovative providers of project planning, industrial architecture, and construction man-agement. Innovative steel construction plays an important role. In order to increase its innovative strength – already exceptional for a medium-sized company in the construction industry – Vollack put all of its processes to the test and introduced a stringent approach to project controlling and time management.
www.vollack.de

Anyone investing in steel construction in Germany today will have to endure the question “Why?” Although there is certainly no shortage of demand for steel components, most companies produce overseas for reasons of cost. Vollack Hallen- und Stahlbau had different ideas about corporate responsibility and decided to develop its own steel component production plants in Germany in a way that meant there was no need to fear the competition.

As experts in steel-frame building construction, the companies in the Vollack Group are famous for the highest level and capacity of innovation in the areas of project planning, industrial architecture, and construction management. Factories in Karlsruhe and Mihla produce highly specialized steel girder solutions. For historical reasons, however, there was considerable duplication of effort in the past. It was important to overcome these circumstances in order to become more competitive without putting the future of either site into question. This meant optimizing productivity by merging production processes, introducing a new process that encompasses both plants in order to at least offset the drawbacks imposed by transportation distances. It was necessary to organize planning, production preparation, and production more efficiently – by eliminating any waste on

The most important project results and Ingenics performances:

- **Potential analysis leading to a massive restructuring project**
- **Processing time reduced by 45%, mainly through a significant reduction of stock and material handling**
- **Major decrease in order cycle times achieved through cooperative planning between sites and synchronization of job control**
- **Prevention of redundant investments by shifting and concentrating value-creation processes**
- **Verified potential assessment after about 18 months with 80% of ambitious goals achieved**

one hand while perpetuating efficiency gains through synchronized process steps and the implementation of continuous improvement processes.

It was a very challenging task, even for experienced consultants from Ingenics AG, calling for everyone in the team to test put their skills. In the end, the goal to implement a new cross-site production process with a productivity increase of at least 20 percent was exceeded by a significant margin.

The plan to design this cross-plant process chain (rough cutting in Karlsruhe, followed by assembly and finishing in Mihla before products are handed over to construction site logistics) evolved in a series of workshops over several weeks. The result was just-in-sequence production, a solution so efficient that the bottom line remains well in the black despite transportation distances and costs incurred. Planned change measures were implemented under real conditions using the Ingenics rapid factory planning method. Simulation of processes and detailed job planning were important steps, but it was even more crucial to ensure acceptance among staff. With that in mind, those employees who would later play a part in determining the success of the project were trained and qualified in workshops as a priority. Subsequent workshops to support the project were more geared toward drawing on the expertise and specific work experience of these employees in the area of detailed planning. As supervisors, consultants, and employees came together on equal terms and shared their enthusiasm for new common objectives, the project began to manage itself. Indeed, even the responsible consultant and project director from Ingenics noted with fascination that he rarely witnessed “such drive” in a team.

“Change projects can only be successful if the people concerned are on board. The coaching sessions involved everyone rather than simply imposing our ideas, which may have triggered a defensive response. Our stated objective was to reduce cycle times by 20 percent. Since then, we have reduced the hours worked per ton by 45 percent.”

Jürgen Fett,
managing partner of Vollack until 2013

When it comes to competitiveness in the long term, everyone involved in the project now understands that a significant improvement in productivity was the only solution. As promised at the outset, there were no redundancies and no jobs were lost. Only the distribution of work has shifted a little due to a growing need for machine operators and fewer steel construction workers. Young apprentices are being trained at both sites for the future. The stated goal to reduce cycle times by 20 percent was surpassed, and the number of hours worked per ton was cut by about 45 percent.

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Efficiency improvement³ – Building sustainable business success

In a nutshell, the core services of Ingenics can be summarized in three words: Planning. Optimization. Qualification. Or, to put it simply, efficiency improvement³. Our main focus is on three central areas of business – factories, logistics, and organization. Ingenics' history in these areas has been sustained for more than 35 years.

Benefit from unique experiences gained over the course of more than 5.100 successful projects. Discover how, considering your goals and objectives, we create space for your sustainable corporate success.

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