

SUCCESS STORY

Innovative Factory Design for Highest Quality Demands at HAWE Hydraulik SE

Plant engineering and high tech





HAWE HYDRAULIK SE: REALIZING A “GREEN FACTORY”

Compliance with highest quality requirements as well as all time and budget targets

In the autumn of 2014, when hydraulics manufacturer HAWE Hydraulik SE celebrated the inauguration of its most modern plant to date in Kaufbeuren. A “Green Factory” was the end result. This was made possible, in large part, by Ingenics, as technical management consultancy. All goals and objectives of HAWE Hydrauliks were met and remained in compliance of the high standards of quality, aggressive timing and budget targets set by HAWE Hydraulik management.

About HAWE Hydraulik SE

HAWE Hydraulik SE is a leading manufacturer of technologically sophisticated and high-quality hydraulic components and systems. At the headquarters in Munich, at six other German plants, as well as in international subsidiaries in Europe, America and the Asian-Pacific region, more than 2,100 persons are employed

From the start, the realization of a “Green Factory” played a central role in planning. The decision to select Ingenics as a partner appeared the obvious choice, since HAWE already had very good experiences with the technical consultancy company from Ulm. Ingenics planned and realized HAWE Hydraulik plants in Dorfen (district Erding), Freising and Kirchheim near Munich.

All parties were sure, with a very high level of confidence, that the desired integration would be realized in accordance with economic and ecological principles set by HAWE Hydrauliks.

The decision to involve Ingenics already within production site analysis quickly paid off for HAWE, since decisions could be made promptly based on preestablished goals and objectives. What is more, due to high quality requirements, the decision was made to organize an architectural competition – Ingenics, with its decades of experience, also participated as a judge for the competition. From seven renowned architectural firms, the draft submitted by the Berlin/New York office of Barkow Leibinger prevailed.



The new HAWE plant corresponds with the established lean principles of a “Green Factory”.

Here, on a total surface of 125,000 m², a differentiated ensemble of buildings was created, where four factory halls with a total surface of about 50,000 m², the canteen and additional buildings were constructed in a campus-style design around an inner courtyard. Right up to the ancillary areas, the structure and housing technology correspond with established lean principles of a “Green Factory”.

As a result, for instance the new factory is 100 % free of industrial effluent; production halls and adjoining rooms are illuminated by LED lights; energy consumption is 25% lower than the statutorily prescribed requirements posed by EnEV, and actual energy consumption of the subject building is approximately 38% lower. In addition, HAWES Hydraulik operates their own thermal power station. A photovoltaic system on the roof that is, in part, greened, as well as heat recovery systems have been included in the design. This innovative factory design is thus based on a closed energy cycle.

Regarding the new plant, other objectives were clearly attained. The production process, a major consideration, was targeted for

The most important project results and Ingenics performances:

- › Significantly lower deviation of actual to the budget costs
- › On schedule commissioning
- › Lower deviation of the EnEV
- › Project controlling
- › Production site analysis and selection
- › Organization of an architecture competition
- › Optimized Production process
- › Technical planning and scheduling
- › Lean Learning Academy

optimization. For this reason, production halls were built up in accordance with manufacturing steps to ensure efficient and consistent production processes. In addition, the move was used for introducing new production systems and development of attractive workplaces. Sustainable factory sites and production processes constitute the foundation for a “Green Factory”.

Additionally, and within the context of the Ingenics philosophy, “empowering people” is just as important. All affected managers were aligned to lean objectives by way of an “Ingenics Lean Learning Academy”.

Also important to note is that far-sighted technical planning and scheduling of Ingenics was communicated openly throughout the entire project and was even adapted to external circumstances (e.g. the extreme winter of 2012/2013),

so that move in and relocation deadlines could be met. The building project was verifiably and realistically calculated. It is due to these circumstances that the project was completed on time, under budget and met all expectations of high quality. All attributable to the high competence exhibited by Ingenics’ professional project management.

“The project was realized by Ingenics to the utmost satisfaction of the responsible project manager and by satisfying the highest quality standards and maximal requirements regarding a ‘Green Factory’.”

Andreas Gilnhammer,
Project Manager HAWE Hydraulik SE

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.

