

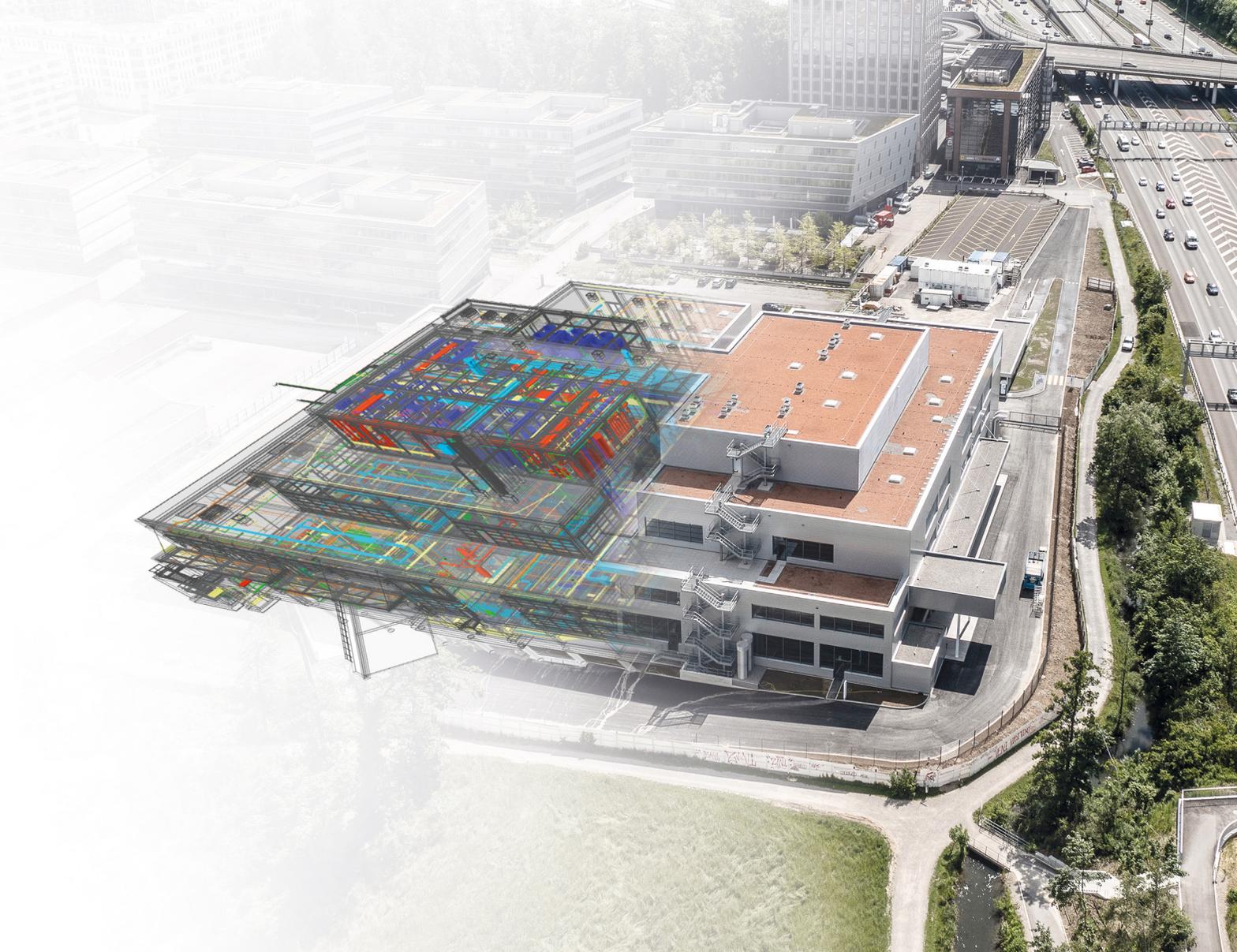


TECHNOLOGY

The specialist for industrial buildings.

REISHAUER AG, WALLISELLEN (ZH)

INSIGHT



Reishauer AG specializes in the development of systems for the hard finishing of gears, which are mainly installed in automatic transmissions in automobiles. With a clear focus on this core competence, the long-established company has become the global market leader in its field. With the construction of a completely redesigned factory, Reishauer AG is ushering in a new era in its successful history. Supported by its planning partner IE Technology.

Founded in 1788 and officially registered as a tool factory in 1870, the Swiss family-owned company Reishauer AG launched the first gear tooth grinding machine in 1945, laying the foundation for its current global success as a manufacturer of precision machines for grinding gears. Decades of continuous growth pushed the historically grown production facility to its limits. Outdated building structures and inefficient processes hindered the company's further development. In 2014, the time had come to set a new course for the future. After carefully reviewing various options, Reishauer AG decided to build a completely new factory at its existing location in three stages spread over seven years. Only a trustworthy partner with comprehensive planning expertise and many years of experience in factory construction during ongoing operations was considered for the planning of this ambitious generational project. The choice fell on IE Technology.

FREED FROM OLD STRUCTURES

**A NEW FACTORY
FOR THE GRINDING MACHINE
MANUFACTURER
REISHAUER AG**

«The rebirth of our production infrastructure is off to a promising start. The experts at IE Technology did an excellent job planning and executing the first of three construction phases. We particularly appreciated their willingness to identify with our goals and work closely with us to develop compelling solutions.»

*Markus Rykart,
Chief Operation Officer, Reishauer AG*



SUCCESS FACTORS

1

DEVELOPMENT AND ANALYSIS OF VARIOUS SCENARIOS

SOLID FOUNDATIONS FOR A CONFIDENT PROJECT DECISION.

The enormous strategic importance of building a new factory prompted Reishauer AG to approach the planning process with great care and caution. The planners at IE Technology conducted an initial feasibility study back in 2014. This was followed by a whole series of further studies and concept variants, including a general location evaluation. On the basis of these well-founded analysis, Reishauer AG finally decided to build a new factory at the existing location in Wallisellen. The aim of this ambitious project was to increase production capacity, create space for manufacturing of larger and heavier machines, and expand the scope for action through a flexible building concept.

After three years of planning, the complete building application was submitted in 2017. In 2019, the starting signal was given for the realization of the first of three stages with IE Technology as general planner and total contractor. The project included the production facilities with the milling, grinding, and painting shops, shipping and logistics, the training workshop and canteen, as well as the building services center and the first part of the underground parking garage.

2

PLANNING WITH THE WHOLE PICTURE IN MIND

DEVELOPMENT OF IDEAL PRODUCTION CONDITIONS.

IE Technology integrated the results of the various feasibility studies for the overall project into a master plan covering all three stages, which also includes the remaining existing buildings and an overall traffic concept. In order to create the best possible conditions for efficient production, the IE planners took a close look at the potential of the site and the manufacturing processes at Reishauer AG. Based on the findings, they developed an ideal layout, which they then adapted to the actual conditions on the site and the specific production concept of Reishauer AG. Building on this, the IE planners tackled the first construction stage, with planning carried out according to the proven IE principle of working from the inside out.

3

PLANNER AND CLIENT WORKING AS A TEAM

PERFECT SYNERGY OF SKILLS.

From the initial preliminary studies to the commissioning of the first stage, the planning of the new Reishauer AG factory was characterized by close cooperation and communication on an eye-to-eye level between the IE planners and the project managers on the client's side. In regular workshops, mixed teams led by IE Technology developed ideas and concepts for defining spatial relationships, organizing processes, logistics concepts, and integrating building services. Among other methods, utility value analyses and morphological boxes were used to combine approaches and evaluate solutions.

4

PRECISE CLIMATE CONTROL AND PROTECTION AGAINST VIBRATIONS

HIGH OPERATIONAL RELIABILITY OF SENSITIVE PRODUCTION EQUIPMENT.

Reishauer AG's production facilities are extremely sensitive to temperature fluctuations. The tolerance range is between -1K and +1K. In addition, they must not be exposed to excessive humidity. The IE planners used energy simulators to determine the energy load. This enabled them to find out how much waste heat had to be removed from the hall. Based on these calculations, they developed various ventilation concepts, taking into account issues such as maintenance and servicing of the system when evaluating the most suitable solution.

In addition to air conditioning, the prevention of vibrations was an important aspect that the IE planners had to consider. Using suitable materials, they succeeded in designing the foundations in such a way that the systems are decoupled from the ground and thus effectively protected against vibrations.

5

STRUCTURED AND SYSTEMATIC PROJECT MANAGEMENT

A IMPRESSIVE FACTORY CONCEPT IN EVERY RESPECT.

The new construction project for Reishauer AG gave IE planners the opportunity to contribute their operations, logistics, and construction planning expertise, combined with their architectural expertise. The entire project was planned and executed from the ground up using 3D BIM. This enabled the operations planners to use a VR tool during the planning phase to virtually place the machines in the new production areas, simulate process flows, and optimize them.

The main building of the new factory, which was constructed in the first phase of construction, houses a high-performance infrastructure and offers employees a high-quality working environment with its spacious, bright halls. The building structure, divided into cubic elements with rhythmically arranged windows and external staircases, gives the building a distinctive character. The new production wing demonstrates that the long-established company Reishauer is well equipped to meet future challenges.



28 MONTHS

> Planning and construction period

2014

> Start of planning

2019

> Start of construction work

2022

> Handover Stage 1



23 140 m²

> Building area - 1st construction phase



CHF 75 MILLION

> Investment volume for the building



IE TECHNOLOGY SERVICES

> Project management as a general contractor

> Feasibility study, concept study, construction project, tenders and execution



IE TECHNOLOGY

The specialist for industrial buildings.

We are the IE Group: Your specialist for industrial buildings.

We plan, design, and construct industrial buildings. Our goal is to maximize the efficiency of your production - with the help of industrial buildings that are perfectly tailored to your manufacturing processes. We work in manageable and therefore effective teams of industry experts whose motivation and initiative you can rely on. Because at our company, all employees are involved in the business. It goes without saying that we also give you guarantees on costs, deadlines, and quality. **IE Plast, IE Food, IE Life Science** and **IE Technology** are part of the IE Group, which has been on the market since 1966 and offers the necessary financial backing - even for large construction projects.



AT HOME IN YOUR INDUSTRY



ENTREPRENEURIAL THINKING AND ACTION



ALL EXPERTS UNDER ONE ROOF



SECURITY THROUGH GUARANTEES

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