



## **Insight in our competencies**

State-of-the-art logistical and production solutions form the basis upon which we provide bespoke factory planning. Depending on the assignment, we prepare for you ideal locational, plant-structure and building concepts, as well as models for their use. Layout planning appropriate for material flow and production is a central element for us. In this context, the form is in line with the ideal process within the framework of outline conception and detail planning. We also assist you in the selection of technology for all intra-logistic applications and its practical implementation. Upon customer request, we also take on the role of general factor planner, including building planning and all architectural services. High-performance IT applications for the planning and management of material flow and transport are also essential components of our consultancy services. Within this, we give particular consideration to digitalisation solutions and the principals of an Industry 4.0.

## **Insight in current topics**

### **Adaptation of production strategies during factory expansion**

The economy is currently healthy, so there is a boom in factory expansions to accommodate volume growth and product diversification. They are mainly intended to create additional capacities for machinery, production and associated logistics as quickly as possible. Nevertheless, very few of them use the opportunity to optimise production strategies and the principles of manufacturing control at the same time. For instance, the benefits of material flow-oriented machinery segmentation, the introduction of pull-control systems and the adaptation of master data and scheduling principles can be implemented far better and with greater efficiency during construction of a new factory. When requested to do so by our clients, we integrate these issues as part of factory planning projects and hence create synergy for the achievement of operational excellence in the new facility.

## **Factory planning – an interdisciplinary challenge**

Factory planning is so much more than simply the layout planning with regard to the arrangement of machines and production facilities and the planning of a suitable production building. To achieve efficiency and minimal-waste value flows, production aspects must be harmonised with a layout suitable for the material flow. The supply and disposal of material to and from production and assembly areas must be set up systematically and laid out for possible automation. Intelligent driverless transport systems and automatic handling technology offer completely new opportunities that must be utilised – without hindering processes with inflexible linear controls, as used to be the case. Excessively broad lanes and the waste of floorspace thus associated are also things of the past. Thinking first and foremost of the building plans in the course of factory planning or plant structure planning is generally the wrong approach to take. The planning should start on the inside and work outwards, following the ideal processes and underpinning technology. For the design of the building this means also being able to implement the ideal material flow and layout concepts as far as possible. Of course, it goes without saying that this is not always possible due to construction law, fire prevention and economic framework conditions. This makes it all the more important that the implementation of a new factory or the modernisation of one is conceived as an interdisciplinary task.

## **From improving efficiency to the sustainable optimisation of factory logistics**

Efficiency improvement projects are recognised methods of achieving cost targets and creating urgently required capacity for new products and volume growth. The numerous factories maintained by western European companies in eastern Europe are perfect examples of this kind of project. Rapid growth and the scarcity of human resources often bring companies to the limits of their capacities, exhausting any cost benefits that previously existed. In these cases they frequently initiate reorganisation projects to achieve short-term alleviation, but usually without any lasting effects. At this point it is high time to establish sustainably optimised factory structures at these seemingly low-cost locations. Measures may include the relocation of production units during layout optimisation, reorganisation of material flows in the facilities and on the company grounds, as well as the introduction of automation technology. A variety of external warehouses and satellite locations should be consolidated and grouped around a central location through appropriate investment in warehouse/transport technology and factory structures. It goes without saying that this process must adhere to lean production principles and introduce highly automated Logistics 4.0 solutions.

## **Competencies of ebp-consulting**

### **A selection**

Whether it's for the restructuring, planning or the expansion of factories, production facilities or warehouses – we analyse and assess all aspects to identify optimisation potential, feasibility, efficiency and viability. By doing so, we ensure you have the necessary leeway for smooth and sustainably economic business development.

## 1. Location concept and general development for factories

- Location analysis and selection
- Review of different financing options, such as sale & lease back
- General development planning
- Optimisation and planning of the plant structure
- Derivation of requirements for implementation of the structure and building engineering
- Preparation of building specifications
- Definition of the building structure

## 2. Factory structure and material flow

- Planning of the factory structure
- Development of a floor-space usage concept
- Layout planning
- Development of a building usage concept
- Overall material flow concept
- Transport infrastructure planning
- Integration of logistics function areas
- Optimisation of the production control strategy and deduction of its influences on the material flow and factory structure
- Machine assembly planning
- Fit-out planning
- Segmentation of production facilities
- Project management for factory planning and realisation

## Contact us:

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