INSIGHT

IE LIFE SCIENCE

More power and better packaging – In the new cleanroom

The Stryker Group is one of the world's leading suppliers in the orthopedic and medical technology market. At its Selzach site, Stryker produces and packages osteosynthesis products for treating broken or deformed bones. These include implants and external fixators, among other things.

The company is constantly expanding. As a result, the flow of materials and people throughout the packaging area had to be adjusted accordingly. The space available for order picking and shipping was also no longer sufficient for the new production volumes. Given this situation, a comprehensive solution was developed in a series of workshops.

Everything from a single source
As general contractor and general planner, IE Life Science was able to expand the low-germ packaging area with an additional cleanroom. To make this possible, various production areas were relocated in stages.

Various challenges
The renovation had to be carried out during ongoing production, without any interruption to production, and directly adjacent to the existing ISO 6/7 cleanroom.

CONSTRUCTION TIME
- 7 months

INVESTMENT TOTAL
- Cleanroom CHF 1,15 million
- building renovation CHF 2,85 million

IE SERVICES
- General planning
- Operations planning
- General contracting
- Construction management

CLEANROOM CLASSES

Cleanroom	ISO 6/7/8
Packaging area	ISO 6
Preparation	ISO 8

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The tight space constraints and time and cost pressures made things even harder. The ongoing adjustments to the construction site setup kept any contamination of production from happening.

Holistic planning
Planning the GMP ISO 7 cleanroom with integrated ISO 6 (LF area) involved more than just the building: expertise in integrating processes and optimizing the flow of people and materials was also required. Thanks to its specialist knowledge and many years of experience, IE Life Science – together with the customer – was able to make the right decisions at an early stage.

Optimized flow of people and materials
As a basis for the layout planning, IE created a functional relationship diagram in which the production processes were linked to the cleanroom zones. Targeted optimizations meant that traffic areas could be minimized without impairing the flow of people and materials. The layout was chosen so that the new cleanroom could be connected to the existing one without great effort.

Sophisticated ventilation concept
The challenge and task of ventilation planning was to keep the air parameters within the defined tolerance range. This took into account the heating and cooling loads of all energy inputs in the cleanroom and the renovation measures to be carried out on the building.

Functional infrastructure technology
The process technology also had to be adapted to meet the requirements of the new cleanroom. Only production-relevant technology was left in the cleanroom.

Besondere IE Leistungen
- Development of all production and process steps for a functional and future-oriented concept
- Coordination of construction processes with cGMP-compliant production
- Consistent separation of production and construction, adapted to the respective stages
- Special construction site hygiene concept, such as negative pressure in the construction area

Impressive results
The results speak for themselves: a self-sufficient and independently controlled cleanroom; clear personnel and material flows; bright, light-flooded workstations; GMP-compliant production in line with the latest findings; energy efficiency in the cleanroom.
Conclusion: quality, costs, and deadlines were met.

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