

Case Study

weisstechnik plans and implements
air-conditioning technology for clean room laundry

WHY

New building for a clean room laundry
Increasing demand for sterile washing

HOW

Turnkey solution air-conditioning
technology with particle monitoring
and qualification

WHAT

400 m² clean room laundry
room-in-room concept

WHY - the challenge.

Bardusch GmbH & Co. KG is an internationally successful textile service provider. To expand business activities, a new clean room laundry has been built in Mülheim-Kärlich. Here, sterile laundry for pharmacies, the pharmaceuticals and electronics industry is washed, dried, sterilised and delivered. The clean room air-conditioning technology required had to be optimised for the special processes in order to fulfil the ISO classes 5 and 6 and GMP classes A and B and to work as energy-efficiently as possible. In addition, the interfaces to the power plants on the one hand and the laundry components - washing machines, dryers and steam autoclaves - on the other needed to have an optimum design.



HOW - the idea.

Early integration in project planning and well-established cooperation with other project partners made it possible to develop an optimum overall room-in-room concept. The range of services covered not only the wall and ceiling system but also the entire air-conditioning technology including air locks and control system from a single source as well as surfaces especially for clean room and pharmaceutical applications including the necessary seals. It also included the integration of a monitoring system that permanently monitors particle freedom as well as the controlled overpressure, temperature and humidity.

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WHAT- the solution.

At the heart of the air-conditioning technology is a Vindur Compact 75.3 air-conditioning unit which contains the entire regulation and control technology and is responsible for both dissipation of the process heat and fresh air supply. In order to minimise energy costs and fulfil the requirements of the German Energy Saving Ordinance (Energie-Einsparverordnung (EnEV)), the air-conditioning technology works mainly in recirculating mode, fresh air is only supplied to the extent required for personnel and the room pressure.

Product selected: Vindur Compact 75.3

The air-conditioning technology also includes 73 filter fan units. The particle monitoring system SIMPATI monitor to pharmaceutical standard was integrated in order to ensure the cleanness necessary for clean room washing. Following installation, the clean room laundry was qualified and commissioned.



Overview of turnkey services

- Planning and construction
- Coordination of all clean room trades
- Integration of all interfaces
- Booth wall-ceiling system
- Lighting
- Air-conditioning technology including duct system
- Particle monitoring system SIMPATI monitor
- Air locks including control system
- Qualification and commissioning

