

■ Process: Production of tablets in the pharmaceuticals industry



■ The Task

An obsolete filter system with pocket-type filters which was over 25 years old in a medium-sized company required re-mounting.

The dust is extracted from different areas of the production process such as tablet presses, mixers, etc, where a wide range of ingredients is processed. The existing filter system with vibration cleaning was totally inadequate for the ultra-fine dust particles. Dust was therefore breaking through, resulting in soiling.

The requirements of the new filter system were various. To ensure interruption-free production and flexible operations the new filter system had to be able to extract different types of dust including ultra-fine fractions. For the safety of both man and product no dust should be allowed to escape. The filter had to meet the ATEX-regulations and, to guarantee absolute safety, it also had to be capable of accommodating an explosion suppression system. The planned location was a flat roof in the open air and because of the restricted space available it had to be small and also low-maintenance.

■ The Solution

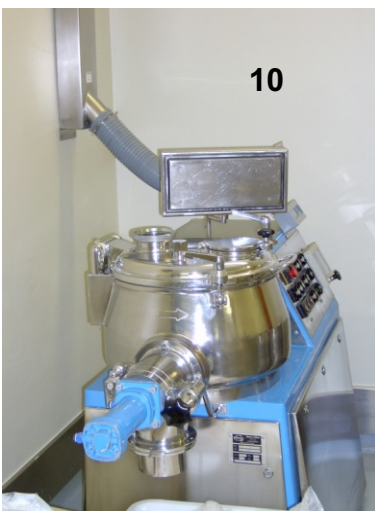
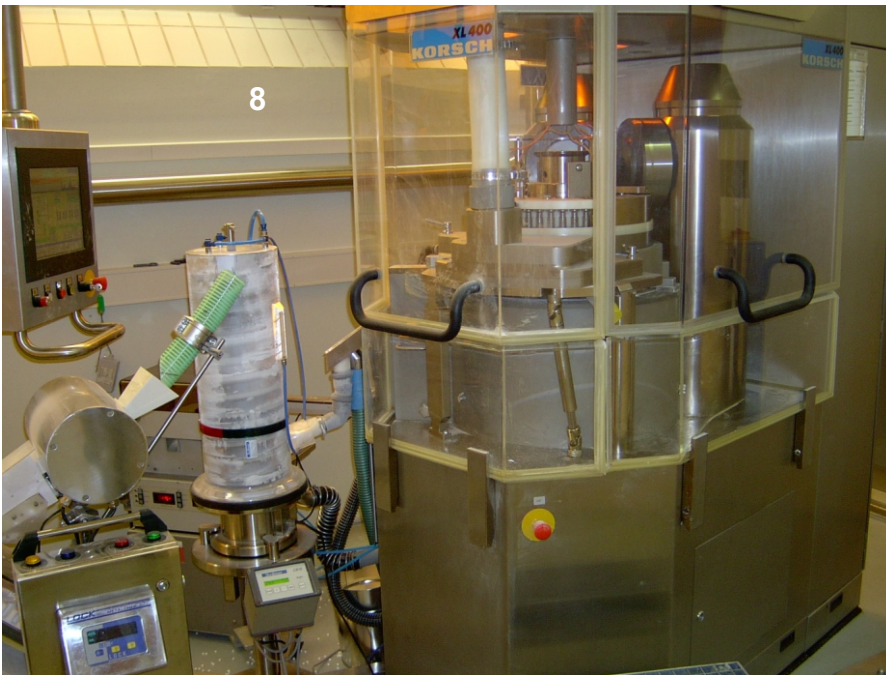
Herding® filter system Type HSL 1500-22/18 GZ

Air flow: approx. 10,000 in operational condition m³/h; filter area: 168 m²

Advantages:

- ⇒ Reliable and economical dust separation thanks to the Herding® sinterplate filter
- ⇒ Antistatic filter elements and equipotential bonding to prevent effective ignition sources
- ⇒ Long filter medium service thanks to optimum surface filtration
- ⇒ High mechanical stability thanks to a compact, rigid body (minimisation of the risk of dust penetration)
- ⇒ Constant air extraction rate and pressure loss thanks to clean surface filtration
- ⇒ Residual dust concentration < 1mg/m³
- ⇒ Pressure surge resistant design up to 0.7 bar
- ⇒ EXAM-tested (DMT), hence maximum safety
- ⇒ Filter elements resistant to flame penetration: No additional safety measures required on the clean gas side
- ⇒ ATEX-conform

■ Machines on which extractors are used



- 1 Filter system
- 2 Silencers
- 3 Explosion suppressors
- 4 Flame barrier on the raw gas side
- 5 Flame resistant rotary air lock
- 6 Dust disposal in disposable containers with internal plastic sacks
- 7 Filling level controls
- 8 One of a range of tablet presses
- 9 Mixer for large quantities with docking device for containers
- 10 Mixer with manual filling of ultra-small quantities

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