

High containment System with an integrated Mill

Double Security

Some subjects equally preoccupy operators and mill manufacturers with containment systems: the inflow of extraneous material into the process, the discharge of product from the process in the opposite direction, and cross contamination. These three factors increasingly oblige the operator to decide in favour of contained solutions. As customers' demands have increased in the wake of directives and requirements; an OEB level 5 is today frequently required. The market currently offers a range of quite varied solutions in order to achieve this standard.

A simple, continuous liner system (CLS) has long been deemed adequate for the preparation of pharmacological and highly active materials in drug manufacturing. However, to be on the safe side, it is now often advisable to go one step further. In order to achieve this, the pharmaceutical industry uses flexible technologies with premium, quality film and foil materials. One example is the Frewitt containment system consisting of a flexible isolator equipped with suitable filter technology. Product and waste materials enter and leave the Frewitt containment system using an air-lock via a special tubular film transfer system.

And now comes the Highlight of the Double Security

Flexible use, good visibility, process change, sieve control, rapid cleaning: and all this in a new, mobile isolator with an integrated mill concept employing negative pressure monitoring.

The containment system is mounted on a mobile base, consisting of an isolator, a CLS and a Frewitt Fredrive-Lab mill. The Fredrive-Lab is mounted on a lifting column, forming the core of the system. Using this flexible mill, heat-sensitive, hard, crystalline and fibrous products can be pulverised, de-agglomerated, calibrated and milled (D90 to 10 µm). Depending on the milling process and the material to be processed, the operator can choose between six different milling heads, which are easily interchangeable on a single Tri-Clamp flange. The milling heads could be introduced and taken out using a CLS system mounted on the side and on the bottom of the isolator. This is also used for changing the individual screens and rotors, as well as for feeding the products to be processed.

A frequency-regulated fan permanently controls the negative pressure in the isolator. Enabled by the large front panel; the process is easy to monitor, and the well-illuminated process chamber guarantees safe, precise working. A total of four isolator gloves guarantees access right into all four corners. Containment filters and operating equipment can be removed from the isolator via the CLS system. The system components can be dismantled into individual parts and removed through the CLS system for cleaning. A spray gun for cleaning enables the isolator and the machine parts to be quickly and efficiently cleaned.

The light-weight design of the system allows it to be used for a wide variety of purposes with excellent operational safety. The complete system can be easily moved to different process locations. The isolator, with its secure docking system and CLS, along with the flexible milling system forms a high containment system using the principle of "double security»

