AirConnect™
Flexible small-scale fluid bed processing

The multipurpose **AirConnect™** from GEA delivers a range of fluid bed processing solutions for small-scale applications. A service unit provides the main air treatment and control facilities with exchangeable modules delivering an array of processing options, including fluid bed drying, granulation and both pellet and tablet coating.

Fluid Bed Drying
The quick and easy removal of liquid from granulated products is enhanced by GEA's patented Gill Plate and plenum technologies. The flexibility of the AirConnect™ provides effective fluid bed drying for batches from as little as 100 g up to more than 10 kg.

Easy Access and Maintenance
Gull-wing doors, runner-mounted control plates and sliding panels provide easy access for calibration and maintenance.

Coating Applications
From bottom spray pellet coating (Precision-Coater™) to side spray (FlexCoat™) and high-speed tablet coating (ConsiGma™), the AirConnect™ does it all.

Comprehensive Containment
With integrated loading and discharge ports, the AirConnect™ fluid bed processing modules have been designed to integrate with GEA's containment solutions, such as the BUCK® MC valve and the Hicoflex® range of disposable components and interfaces.

Flexstream™ Compatible
Fluid bed granulation and coating applications are enhanced with GEA's unique Flexstream™ side spray system for granular products or to coat micro-pellets.

Rapid, Small-Scale Tablet Coating
Fill levels from as little as 1200 g and up to 3.5 kg, combined with typical processing times of less than 10 minutes in the AirConnect™'s ConsiGma™ tablet coating module, provide speed, efficiency and flexibility.

More Than Hot Air

The **AirConnect**™ has been developed by GEA to meet the pharmaceutical industry's requirements for unit operation flexibility and is based on the proven principle that a single core component can be used for numerous processes by interchanging a range of application-specific modules.

Air Handling

The Service Unit provides the basis for the entire AirConnect™ system, providing the inlet and exhaust air handling systems, along with the control systems needed to operate the drying, granulation and coating processes. Designed to be located in a single room, the unit can, however, be disconnected and relocated if required necessary.

The inlet and exhaust connections feature inflatable seals that facilitate the removal of the modules and ensure that the entire process remains fully contained and pressure shock resistant.

Control System

The AirConnect™ control system features an intuitive touchscreen interface, providing essential user functions and the critical real-time status feedback required for small-scale fluid bed and coating operations. Ideally suited for non-hazardous environments, ATEX-compatible upgrades are available.

Built-In Flexibility

Critical to AirConnect™'s flexibility is the ability to remove both the product container and the filter housing from the main service unit, enabling a wide range of capacities to be processed. Whereas larger batches require higher airflow rates, increasing the filter area, a smaller filter could be used for small batches to maximise yield.

Taking a modular approach allows the integration of other airflow-based processes. The Precision-Coater™ system can be used to enhance pellet coating, and the ConsiGma™ module can be integrated with the standard filter housing to facilitate tablet coating.

Standard Safety Features

The fluid bed processing chamber components are 10 bar pressure shock resistant (PSR) and designed according to VDI 2263 Part 3. Safety collars are fitted between all process components, and all elements of the process line — between the inlet and exhaust filters — are built to 10 bar PSR, including the exhaust air HEPA filter.

Equipment Options

Integrated weigh scales, providing the capability to control the liquid feed rate, a standalone inlet air dehumidifier, featuring desiccant adsorption technology, process humidity monitoring and 21 CFR Part 11-compliant batch data management and reporting, can all be supplied on request.

The AirConnect™ from GEA is the ultimate fluid bed processor for small-scale research and production applications (from 100 g up to more than 10 kg). Suitable for granulating, drying and coating, the AirConnect™ accelerates and optimises product development by minimising the amount of scale-up required to move from R&D-level batch processing to full-scale production systems.

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