RheaVita

Continuous and Controlled Freeze-Drying

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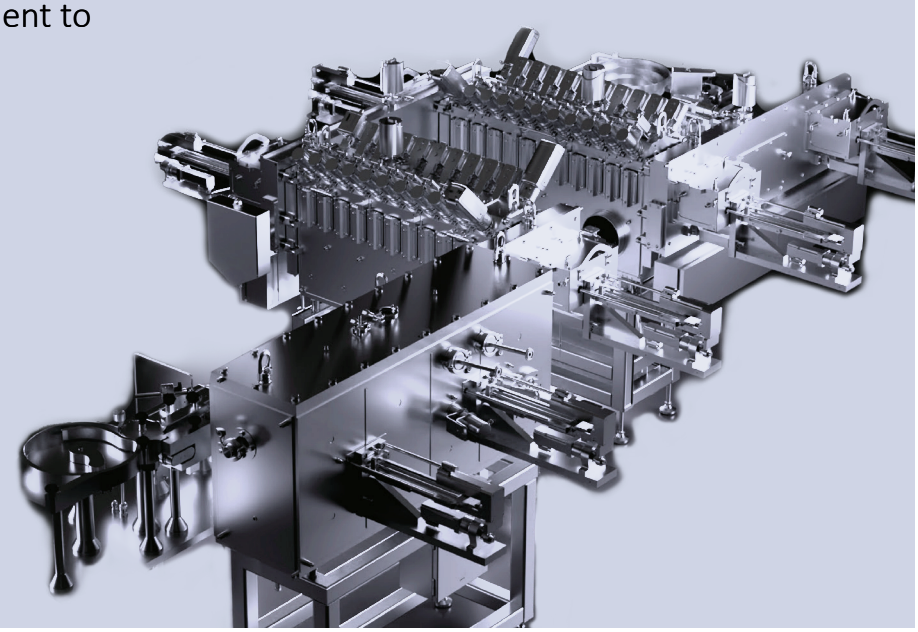
Improve the quality of your biologicals and streamline your manufacturing with our controlled, continuous freeze-drying technology.

RheaVita provides an innovative freeze-drying process for (bio)pharmaceutical products, converting a traditional batch approach to a smart spin-freezing and radiative drying alternative. We offer tight controls during the entire process for consistent quality.

Designed to overcome the limitations of traditional batch freeze-drying, such as lengthy cycles, variability between batches and individual vials, and slow freezing rates. Offering continuous freeze-drying for easy scale-out from development to GMP production.



Benefits for your product development include:

- Significant acceleration of development cycles
- Easy scale-out from R&D to GMP manufacturing

Lyophilizing individual vials in a continuous cold stream mitigates many of the risks of conventional batch processing. **Very short processing times** (hours, not days), reduce the exposure of your compound to stress and possible degradation.

Highly **consistent freezing and drying processes** are unaffected by physical variations in individual vials. Therefore, fewer replicates are needed to accurately characterize the performance of a formulation.

Scale-out by adding parallel lines or extra drying modules enables rapid development of commercial processes. The use of engineering models to design processing conditions is a valuable aid to new product development.

Continuous freeze-drying creates a **flexible and agile facility**. Adjust throughput to variations in demand.

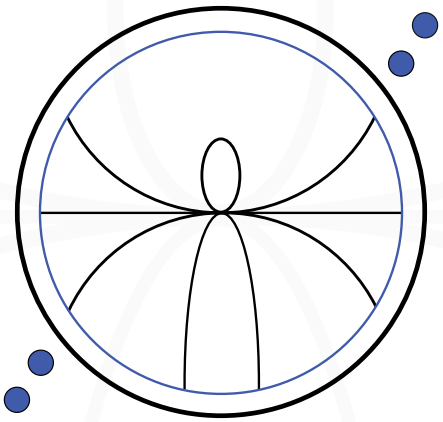
Overall **production efficiency** improvement (less downtime, less QC efforts, less waste).

A non-contact infrared thermometer is used throughout the entire process, combined with **closed-loop feedback.** Absolute control of individual vial temperature for appropriate safety margins.

Built-in analytics & process analytical testing (PAT) provide immediate information about the performance of a formulation during processing.

Individual vial processing data used for quality release:

- Eliminate risk of whole-batch rejection
- Allows real-time release



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