Improve the shelf life of your biologicals and streamline your scale-up and production with our continuous freeze-drying technology.

RheaVita provides a novel freeze-drying process for (bio)pharmaceutical products, bringing an 80-year-old technology to the age of Industry 4.0 with a fast spin-freezing cycle of less than one hour. This is achieved by spinning the vials in a nitrogen gas flow, followed by radiative drying, and is tightly controlled to deliver consistent quality.

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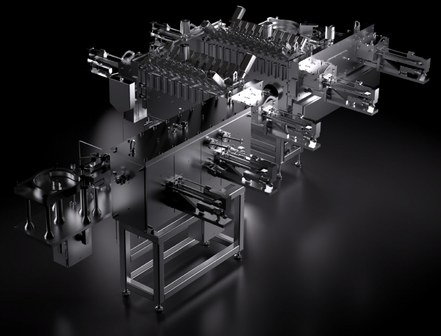
RheaVita

Continuous And Controlled Freeze-Drying

Designed to overcome some of the shortcomings of traditional batch freeze-drying, such as high energy costs and variability between batches and individual vials, continuous freeze-drying also offers new opportunities, such as ease of scale-up.



Benefits for your product development include:

- Significant acceleration of development cycles
- Easy to scale from R&D to GMP manufacturing
- Reduced need for expensive materials

Lyophilizing individual vials in a continuous stream mitigates many of the risks of conventional batch processing. **Very short processing times**, potentially less than one hour, reduce the exposure of sensitive molecules 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.

Simple scale-up by adding parallel lines in the module 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**. Segment throughput capacity to react quickly to variations in demand. It enables also processing of vials, DCCs, prefilled syringes,...

Reduced energy consumption during operation thanks to efficient freezing, sublimation, and drying methods. Continuous lines have a **small footprint and fast change-over times**, through built-in cleaning and sterilization systems.

Coordinated intelligent systems ensure:

- Output control
- High product quality
- Increased efficiency and sustainability

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

Detailed real-time monitoring of every individual vial during processing is used for active process control:

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

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