

# Powder Handling Excellence



## Particle Size Reduction to Microscale Level

Controlled micronisation of solids in standard, contained and aseptic format is one of Dec's expertise. This technology allows for the production of very small particles used for applications with pharmaceutical, chemical and cosmetic ingredients such as color pigments, fillers, inhaled and formulated products. The particle size and respectively the particle size distribution (PSD) greatly influence the processing properties and characteristics of each solid. For instance, the impact on bioavailability by reduced particles in size is a crucial factor for the capacities of the final product.

## MC Jetmill Micronizing product range

Dec offer a complete line of scalable jet mills on microscale level (< 1-5 micron) in a variety of configurations and formats that meet the complex requirements of the pharmaceutical industry.

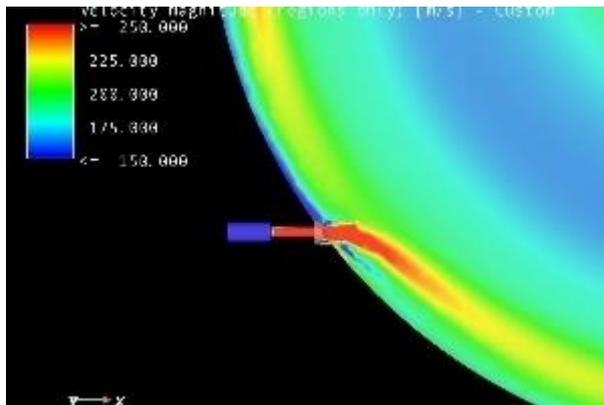


Aseptic Micronizing and Dispensing Isolator for potent products.

Focusing on the benefits of MC Jetmills, these include:

- High quality materials
- Easy and fast cleaning (CIP/SIP)
- High product yields - Single Pass Technology
- Narrow Particle Size Distribution (PSD)
- Automatic control PLC
- Low process gas consumption
- Special version for hard and sticky products
- Reproductive from laboratory up to production scale (0.2 g - 3000 kg)

## New Advances in Particle Size Reduction



Dec have also available a new generation of micronisers - **the MicroJet series** - which was further developed with **Computational Fluid Dynamics (CFD)** to analyze the bottlenecks in conventional micronisers and to pinpoint "dead" areas where turbulence causes powder to build up and eventually lead to clogging, ie time-consuming and expensive downtime. The optimized internal geometry of the MicroJet series giving better energy distribution and reduced turbulence within the mill (Smooth Flow) achieves an even tighter PSD, especially when working with difficult-to-handle R&D compounds. Simpler versions of

pharma-design systems are available for the fine chemical, cosmetic and food industries, with different internal materials to cope with product variances.

Dec provide customers the possibility to test their products in their test facilities and provide expert advice for optimal system design taking into account your product properties, which is a critical factor to the success of any project.

[For more product information please click here](#)



MicroJet10 perfect for R&D and small scale production



**Dietrich Engineering Consultants sa**

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