Fluid Jet Micronizers

With forty years of experience and in-depth know-how in the design and manufacture of equipment for the pharmaceutical, cosmetics and chemical industries, **Tecnologia Meccanica** (Italy) today can offer the most advanced
Fluid Jet Micronizers
systems (also known as
Fluid Jet Mills
) for the micronization of process powders.

{xtypo_info}**Fluid Jet Micronizers** provide an integrated and super-fast method of reducing the

dimension of powder particles to under 5 µm in size.{/xtypo_info}This technology is extremely important in different industrial fields, particularly the pharmaceutical industry where the reduction of the active principles (the so-called API and HPAI) to such dimensions increases exponentially the characteristics of Bioavailability, Bioequivalence, and the surface area available of the product.

{xtypo_quote}**Tecnologia Meccanica**'s **Fluid Jet Micronizers** are capable of achieving an extremely narrow tight particle size distribution curve of d100<5 µm (100% below 5 µm) and d99<3 µm (99% below 3 µm) or even less depending on the nature of the product.{/xtypo_quote}

A full range of **Fluid Jet Micronizers** is available for all your applications, including lab machines with capacities as low as 0.5 g/hour, up to production units with throughputs of up to 1500 kg/hour.

Find out more about **Micronization Technology** and its advantages to your applications below:

{faq inline/sliders} **What is Micronization Technology?**

Micronization Technology is a term that refers to the complex process of producing highly-refined powders

Generally, this is a complicated and rather expensive process with wide applications in various fields, pa

How Does Micronization Technology Work?

Process powder is fed at subsonic speeds (approximately 50 m/s) into the flat cylindrical milling chambe

The micronizing effect occurs when the slower incoming particles and the faster particles in the spiral pa
This process works at a constant temperature (endothermic) and independently with the lowest consump

The **Particle Size Distribution** is controlled by adjusting two main parameters:
- **PRESSURE** : the energy used to micronize; increased pressure incre
- **FEED RATE** : the concentration of product fed into the milling chamb

The Fluid Jet Micronizer Advantage

• Advanced hi-tech milling chamber geometry
• nozzles designed for laminar jet streams and available with different grinding angles
• optimized static classifier
• elimination of the "caking" of sticky powders
• narrow Gauss curve (particle size distribution)
• lowest gas consumption on the market
• elimination of the "blowback" phenomenon
• optimised gas-solid separation and unique collecting point with yields close to 100%
• balance and control of pressures within the whole micronisation system
• reduction of contact surfaces – rapid cleaning and lower product loss
• easy cleaning and validation operations
• sterilizing system with hydrogen peroxide solution
• Inexpensive and easy to operate
• Capable of processing products with high solvent content (around 3000 ppm)
• Capable of processing sticky powders that do not flow well

Find Your Fluid Jet Micronizer Solution

Tecnologia Meccanica have over 40 years experience in **Micronization Technology** currently manufacture **Fluid Jet**

Each size caters for a different requirement, depending on your application. If you are at all unsure or re

To browse each solution, simply select your desired **Fluid Jet Mill** size from the available options below:

J-20, J-25 & J-30 Series The capacity is from 0.50 g/hour to 100.00 g/hour, suitable for la **More Info**

J-40, J-50 & J-70 Series The capacity is from 0.00 to 7.00 kg/hour, suitable for pilot, or small pro **More Info**

J- 100, J-125 & J-150 Series The capacity is from 0.50 to 30.00 kg/hour, suitable for small produ **More Info**

J-200, J-300 & J-400 Series The capacity is from 0.50 to 150.00 kg/hour **More Info**

J-500, J-600, J-750 & J-900 Series The capacity is from 0.50 to 1500.00 kg/hour, suitable for large production app **Contact Us**

{/faq}
Download Brochure:
{xtypo_download}
Fluid Jet Mill Technology
Benefits From the High-Tech Micronization Process

Tests and Trials-Fluid Jet Micronizers
Check List Sheet-Fluid Jet Micronizers

Screw Feeders
PSD-Fluticasone Propionate {/xtypo_download}