



## **J-200, J-300 & J-400 Series**



### **Fluid jet micronizers designed for 'medium production'**

[Jet mill systems](#) are the ideal choice for micronising pharmaceutical powders down to 1 micron in size.

Especially developed for pharmaceutical applications, the **J-200, J-300 & J-400** fluid jet micronizers are designed for medium production.

Based on the intuitive and highly efficient jet milling technology developed by **Tecnologica Meccanica** (Italy), the **J-**

**200**

,  
**J-300**

&

**J-400**

series of

### [Fluid Jet Micronizers](#)

are capable of yielding extremely narrow tight particle size distribution (PSD) curves of  $d_{100} < 5\mu\text{m}$  (100% below  $5\mu\text{m}$ ) and  $d_{99} < 3\mu\text{m}$  (99% below  $3\mu\text{m}$ ) or even less depending on the nature of the product.

### Profile

The

**J-200**

fluid jet micronizer has been designed on the basis of c

The

**J-200**

works at a constant temperature (endothermic) and ind

Thanks to its modular design concept, the **J-200** can be upgraded, on request, to the **J-300** or **J-400**.

### Features

- Productivity from 0.50 to 350.00 kg/hour
- One single collecting point bin, available in many different sizes
- Scalability of the process to bigger micronizers
- Very low product loss, typical yields are 99% of batch size
- Elimination of blow-back phenomenon
- Limited caking of sticky powders
- Quick and easy assembling and disassembling of the system with a limited number of clamped components
- Rapid cleaning and easy validation
- Simplicity of the whole unit
- Special internal lining, Ptfе, Pur (Vulkollan), Ceramic, Titanium nitride, etc.
- The **J-200** is manufactured in AISI type 316L (EN 1.4404) stainless steel

## Benefits

While the **J-200** is capable of micronizing **J-300** order batches up to 350.00

Simplicity of the whole unit combined with very low product loss (typical yields of 99.5% of the batch size)

The system is fully-automated by PLC/HMI and comes equipped with volumetric or gravimetric pharma

## Technical Specifications

### **Milling Chamber: J-200**

- Process gas at 7 bar=1.70 m<sup>3</sup>/min (60.0 CFM)
- Process gas at 12 bar=2.74 m<sup>3</sup>/min (96.8 CFM)
- Estimated capacity=from 0.5 to 50.0 kg/hour

### **Milling Chamber: J-300**

- Process gas at 7 bar=4.20 m<sup>3</sup>/min (148.3 CFM)
- Process gas at 12 bar=6.90 m<sup>3</sup>/min (243.7 CFM)
- Estimated capacity=from 5.0 to 200.0 kg/hour

### **Milling Chamber: J-400**

- Process gas at 7 bar=7.00 m<sup>3</sup>/min (247.2 CFM)
- Process gas at 12 bar=12.00 m<sup>3</sup>/min (423.8 CFM)
- Estimated capacity=from 10.0 to 350.0 kg/hour

## Options

Numerous configurations are available and can be offered to tailor our micronizers to your specific application

The following options are already available:

- Volumetric or gravimetric pharma feeders
- Many different configurations for cyclone filter
- Sanitary rotary valve for the product collection
- In line sampling device
- Low Emission version with HEPA filter ( )

- Balance line

•	<b>J-200</b>	,	<b>J-300</b>	&
•	<b>J-200</b>	,	<b>J-300</b>	&

- CIP and SIP systems
- Explosion proof (ATEX) version
- Sterile version
- Open version for clean room
- Totally closed, stand-alone version
- System fully automated by PLC/HMI

### ***The Standard Pharma Version***

- Open manifold execution, FDA validatable
- Upper and lower plates + central nozzles ring closed by four handles, or by a single V-clamp
- Twin screw volumetric feeder
- Manifold with automatic main valve, ball process valves, two pressure gauges, and one thermometer
- Cyclone filter with polyester anti-static filter sleeves, ending with a sanitary butterfly valve for product collection
- Final filtering unit with pre-filter, semi absolute, and absolute Hepa filter (99.997% efficiency)
- Main control panel
- Simplified version based on the same Pharma concept can be customized for other applications:
  - Cosmetics
  - Fine chemicals
  - Food
  - Fillers

### **Gallery**

See it in Action!

{gallery}J200300400{/gallery}  
{flv}video |600|450|{/flv}

{/faq}

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, particularly in the pharmaceutical industry.

### **How Does**

### **Micronization Technology Work?**

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

{flv}venturi |600|450|{/flv}

The micronizing effect occurs when the slower incoming powder particles and the faster particles in the

Watch the micronization effect in a jet mill below:

{flv}jetmill |600|450|{/flv}

This process works at a constant temperature (endothermic) and independently with the lowest consumption

The

**Particle Size Distribution (PSD)**

is controlled by adjusting two m

- **PRESSURE** : The energy used to micronize; increased pressure incr
- **FEED RATE** : The concentration of product fed into the milling chamb

### **The Fluid Jet Micronizer Advantages**

- Enhanced 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** has over 40 years experience with [Micronization Technology](#) . It currently manufactures [Fluid Jet Micronizers](#)

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

To browse each solution, [Fluid Jet Mill](#) select your desired size below the available

[J-20, J-25 & J-30 Series](#) The capacity is from 0.5 [More info](#) to 100.00 g/hour, suitable for lab

[J-40, J-50 & J-70 Series](#) The capacity is from 0. [More info](#) 7.00 kg/hour, suitable for pilot, or small prod

[J-100, J-125 & J-150 Series](#) The capacity is from 0.5 [More info](#) 30.00 kg/hour, suitable for small produc

[J-200, J-300 & J-400 Series](#) The capacity is from 0.5 [More info](#) 35.00 kg/hour, suitable for medium to

[J-500, J-600, J-750 & J-900 Series](#) The capacity is from 0.5 [More info](#) 150.00 kg/hour, suitable for large production appl

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#### Download Brochure:

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J-200 Data Sheet 

J-300 Data Sheet 

J-400 Data Sheet 

[J-200, J-300 & J-400 & Product Sheet](#)



[J-200, J-300 & J-400 & Presentation](#) 

[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-Fluid Jet Micronizers](#) [xtype: download]



**TECNOLOGIA**

Specializzata nello sviluppo e nella produzione di **MICRO**

Specialized in the development and manufacturing of **FLUID JET M**