



## J-20, J-25 & J-30 Series

### Fluid jet micronizers designed for 'R & D'

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

{xtypo\_info}Especially developed for pharmaceutical applications, the **J-20**, **J-25** & **J-30** Fluid Jet Micronizers are designed for laboratory and R & D works.{/xtypo\_info}

Based on the intuitive and highly efficient jet milling technology developed by **Tecnologica Meccanica**

(Italy),  
**J-**

the  
**20**

,  
**J-25**  
&

### J-30

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.

{faq inline/tabs}

### Profile

The

**J-20**

'laboratory' fluid jet micronizer has been designed on the

The

**J-20**

works at a constant temperature (endothermic) and independent of the

{xtype\_quote}Thanks to its modular design concept, it can be upgraded, on request, to the J-25 or J-30

### Features

- Processing batch sizes ranging from 0.2 to 100.0 g
- Minimum batch of 50 mg *Milligram Kit* configuration
- Productivity from 0.50 to 100.00 g/hour
- One single collecting point
- Scalability of the process to bigger micronizers
- Metal contamination below 1 PPM (particles per million)
- Two different filter sleeve sizes
- Two different collecting bin sizes
- Quick and easy assembling and disassembling of the system with a limited number of clamped components
- Simplicity of the whole unit
- Miniaturized dimensions
- Equipped with a skid-mounted *Process Gas Generator* for feeding treated gas to the jet mill
- The **J-20** is manufactured in AISI type 316L (EN 1.4404) stainless steel

### Benefits

Ability to micronize very small batches/samples from 0.2 to 100 g with (even 20 mg) the extremely narrow

Pharmaceutical laboratories all over the world are concentrating their research efforts on new molecules

Until recently, researchers had to settle for R&D fluid energy jet mills able to micronize batches starting f

### Technical Specifications

**Milling Chamber: J-2 0**

- Process gas at 7 bar=0.08 m3/min (2.82 CFM)
- Process gas at 12 bar=0.20 m3/min (7.06 CFM)
- Estimated capacity=from 0.50 to 100.00 g/hour

**Milling Chamber: J-25**

- Process gas at 7 bar=0.14 m3/min (4.94 CFM)
- Process gas at 12 bar=0.24 m3/min (8.47 CFM)
- Estimated capacity=from 5.00 to 300.00 g/hour

**Milling Chamber: J-30**

- Process gas at 7 bar=0.17 m3/min (6.00 CFM)
- Process gas at 12 bar=0.28 m3/min (9.89 CFM)
- Estimated capacity=from 5.00 to 600.00 g/hour

### Options

Numerous configurations are available and can be offered to tailor our micro

The following options are already available:

- **J-20** with a ' *milligram kit* '
    - Single and double screw feeders
    - Low Emission version fitted with Hepa filter ( )
    - Automatic shaking system
    - Balance line
    - Cold/cryogenic processing ( )
  - **J-20** , **J-25** ,
    - Explosion proof version
    - Totally contained solution in a glove box
- Gallery** {gallery}J202530{/gallery}  
See it in Action! {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 powder.

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.



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

Watch the micronization effect in a jet mill below:



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

The **Particle Size Distribution (PSD)** is controlled by adjusting two main parameters:

- **PRESSURE** : The energy used to micronize; increased pressure increases the PSD.
- **FEED RATE** : The concentration of product fed into the milling chamber.

### 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 re

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

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

[J-40, J-50 & J-70 Series](#) The capacity is from 0.0 [kg/hour](#) to 7.00 kg/hour, suitable for pilot, or small prod

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

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


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


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[J-20 Product Sheet](#) 

[J-20 Data Sheet](#) 

[J-20, J-25 & J-30 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-Fluticasone Propionate](#) {/xtypo\_download}



**TECNOLOGIA**

Specializzata nello sviluppo e nella produzione di **MICRO**  
Specialized in the development and manufacturing of **FLUID JET M**