

About Dec

Founded in 1987, **Dec** is a leading global provider of powder handling systems to the pharmaceutical, chemical, food and cosmetic industries. Their turnkey and custom designed solutions have been successfully integrated into complex operations in hundreds of companies worldwide, both multi-nationals and specialists.

Dec's versatile and multi-format Micronizers are designed to satisfy the full range of these requirements. Available in open and contained arrangements, with the ability to handle difficult and hard handle products, they are ideal for Pharmaceutical, Chemical and Cosmetic production.

The systems can be provided in sterile, toxic or sterile toxic arrangements in contained or non contained format. They also have the advantage of being both scalable and achieving any PSD (particle size distribution) profile when looking for a PSD below 20 microns.

With correct optimization product recovery rates of 99% are achievable, with production ranging between 0.2 grams on the smallest system, to better than 150 kgs/hour on the larger systems.

Powder Handling Excellence



Micronizing Powder Handling Excellence

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Dec – Micronizers

Particle size reduction is a key process in laboratories and small scale manufacturing, right through to full size production.

Dec's versatile and multi-format **Micronizers** are designed to satisfy the full range of these requirements. Available in open and contained arrangements, with the ability to handle difficult products.



MCOne®

The **MCOne** is the perfect tool for Research and Development teams seeking the ability to micronize very small quantities of material (0.2grams), allowing them to carry out many more trials using limited or costly products with very high yields.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|--------------------|----------------------|----------------------|--------------------------------------|--------------------------------------|-----------------|
| 33 mm (1.3 inches) | From 0.1 to 50 gr/hr | From 0.2 gr to 50 gr | 0.09 Nm ³ /min (3.18 CFM) | 0.18 Nm ³ /min (6.36 CFM) | - |

MC2 Jetmill®

The **MC2** is ideal for clinical trials and scale-ups, especially when extremely small batches of high value products with very low product loss need micronizing.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|------------------|------------------------|------------------|--------------------------------------|---------------------------------------|-------------------|
| 50 mm (2 inches) | From 35.0 to 200 gr/hr | 1.5 gr to 500 gr | 0.19 Nm ³ /min (6.71 CFM) | 0.33 Nm ³ /min (11.65 CFM) | 0.05 kW (0.00 HP) |

MC Jetmill® 50

The versatile and compact **MC 50** is designed to satisfy the needs of laboratories and small scale manufacturing.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|-------------------|------------------------|--------------|--|--|-------------------|
| 100 mm (4 inches) | From 0.05 to 5.0 kg/hr | 3 g to 20 kg | 0.412 Nm ³ /min (14.55 CFM) | 0.706 Nm ³ /min (24.93 CFM) | 0.25 kW (0.33 HP) |

MC Jetmill® 150

The **MC 150** is the smallest production fluid Jetmill in the range which allows easy cleaning and high yields.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|-------------------|----------------------|------------------|---------------------------------------|---------------------------------------|-------------------|
| 150 mm (6 inches) | From 0.5 to 30 kg/hr | 0.2 kg to 100 kg | 0.73 Nm ³ /min (25.80 CFM) | 1.24 Nm ³ /min (48.80 CFM) | 0.25 kW (0.33 HP) |

MC Jetmill® 200

The **MC 200** is the next step up the scale from the MC 150 laboratory unit, suitable for micronizing up to 40kg/hr.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|-------------------|----------------------|-----------------|---------------------------------------|--|-----------------|
| 200 mm (8 inches) | From 1.0 to 40 kg/hr | 1 kg to 1000 kg | 1.59 Nm ³ /min (56.36 CFM) | 2.738 Nm ³ /min (96.69 CFM) | 1.2 kW (1.6 HP) |

MC Jetmill® 300

The **MC 300** is the third step up from the MC 50 laboratory unit, suitable for micronizing up to 50kg/hr.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|--------------------|-----------------------|-----------------|--|--|-----------------|
| 300 mm (12 inches) | From 5.0 to 200 kg/hr | 5 kg to 2000 kg | 3.89 Nm ³ /min (137.37 CFM) | 6.67 Nm ³ /min (235.55 CFM) | 1.2 kW (1.6 HP) |

MC Jetmill® 400

The **MC 400** is the fourth step up from the MC 50 laboratory unit, suitable for micronizing up to 300kg/hr.



| Nominal diameter | Estimated capacity | Batch size | Process gas @ 7 bar | Process gas @ 12 bar | Installed power |
|--------------------|----------------------|------------------|---|--|-----------------|
| 400 mm (16 inches) | From 10 to 300 kg/hr | 10 kg to 3000 kg | 6.990 Nm ³ /min (246.85 CFM) | 11.980 Nm ³ /min (423.07 CFM) | 1.5 kW (2 HP) |