

MicraSpray 35

The MicraSpray 35 is the ideal means to convert liquids into powders. A versatile tool for particle design by processing in a controlled environment. The particle designer may form particles with specified characteristics and spray drying provides a clear path forward; predictable scalability provides easy transfer from the laboratory to manufacturing.

CGMP design for clinical production:

- Fast processing
- Aqueous and non-aqueous formulations
- Molecule stabilization
- Amorphous compound isolation
- Solid dispersions
- Processing of heat labile materials
- Inhalation delivery of fine particles
- Morphology control
- Micro encapsulation
- Controlled release
- Taste masking

May replace the following unit operations:

- Lyophilization
- Centrifuging
- Crystallization
- Filtering
- Extraction
- Milling
- Classification

Special executions available:

- Pyrogen free processing
- Aseptic processing
- Potent compounds
- Live biologics





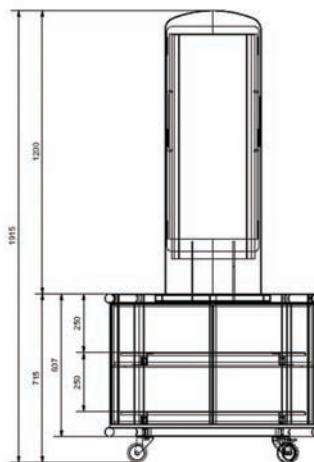
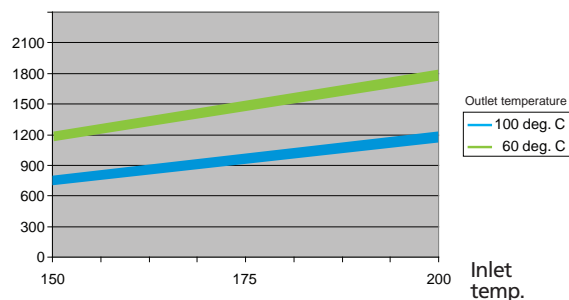
MicraSpray 35

The small scale plant, Type MicraSpray 35 has been especially designed for pharmaceutical R&D work as well as small scale and continuous production.

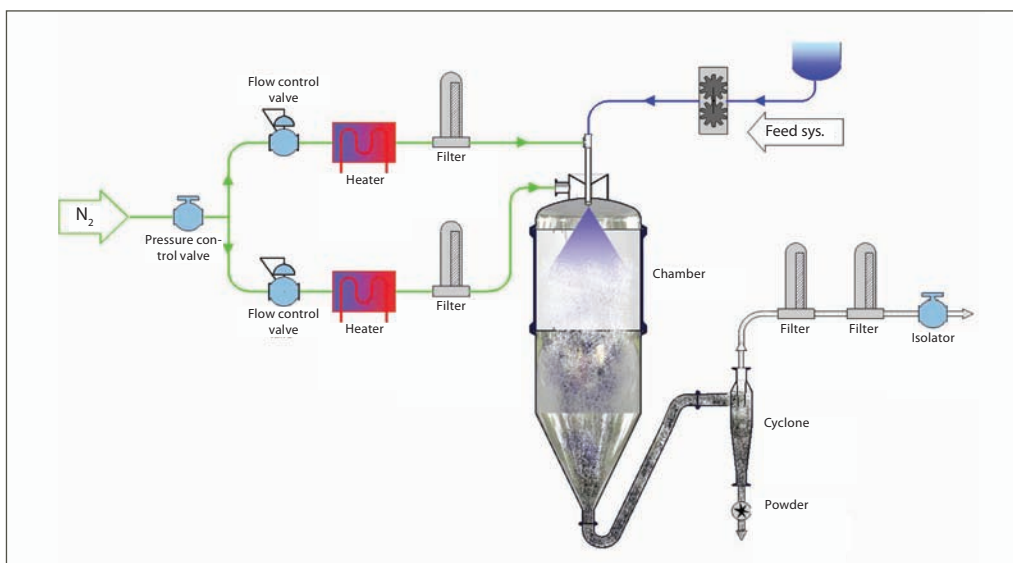
The unique modular concept makes it possible to start with a basic plant, onto which a vast number of high quality standardized modules can be added.

The MicraSpray 35 performs fully transferable results and has received particular interest in the pharmaceutical and dairy sectors as well as areas within food additives, flavours, plant extracts and functional foods. This dryer can be used for both production and pilot plant units.

Water evaporation (g/h)



Process flow



Technical data

- **Process design data:**
 - Max. inlet air temp. 220 °C
 - Outlet gas temp. 30-120 °C
 - Max. water evaporation 1 kg/h (To=60 °C)
 - Max. drying air rate 35 kg/h
 - Drying chamber dia. 300 mm
- **Installed power:**
 - Power supply, std. 1 x 220 V/60 Hz
 - Main air heater 4 KW
 - Nozzle air heater 0.5 KW
 - Jacket heater 0.9 KW
 - Cyclone heater 0.3 KW
 - Feed pump 0.3 KW
- **Air consumption:**
 - Compressed air/ Nitrogen 50-140 l/min. (at 1.5 - 5.6 bar (g))
- **Atomization gas rate:** 0-3 kg/h
- **Safety:**
 - Pressure relief < 1 bar
 - Noise emission < 75 dba
- **Materials:**
 - Product contact parts AISI 316
 - Non-product surfaces AISI 304
- **Feed rate:** 0.3 to 3 kg/h
- **Dimensions:**
 - Floor space 0.51 m³
 - Height 2000 mm
 - Shipping volume 10 m³
 - Weight, gross 300 kg
 - Weight, net 250 kg
- Complies with regulations and standards according to CE, ATEX and cGMP