

## MICRASPRAY 150

### ANHYDRO SMALL-SCALE PLANTS



The small-scale spray dryer, MicraSpray 150, is designed for small-scale production for R&D purposes at universities and public institutions and is used worldwide by customers in the dairy, food, chemical and pharmaceutical industries.

The small-scale spray dryer is designed with specific focus on flexibility in design and configuration, safety during operation, process control, easy cleaning, sanitary design, and scalability. It is based on a unique modular concept consisting of a basic plant and a large number of optional items, enabling customers to customise each plant to match their exact requirements.

#### Basic Plant Equipment

- Feedvat
- Peristaltic feed pump
- Feedline
- Two-fluid nozzle atomizer, co-current
- Air intake filter
- Electrical air heater
- Drying chamber with rupture disc for explosion venting
- Drying chamber prepared for installation of pneumatic hammer(s)
- Cyclone with powder container
- Exhaust fan and ducting
- Control panel with PLC incl. touch screen
- Data logging
- Support structure
- Butterfly valve

#### Options

- Two-fluid nozzle atomizer, counter-current
- Centrifugal atomizer with optional ATEX components
- Fine inlet air filter or HEPA filters
- Pneumatic hammer
- Two-point powder discharge
- Rotary valve
- Bag filter
- Additional powder container
- Outdoor explosion venting system
- Indoor explosion venting system
- Simple manual cleaning equipment
- GMP/Qualification documentation (IQ, OQ)

#### Other configurations

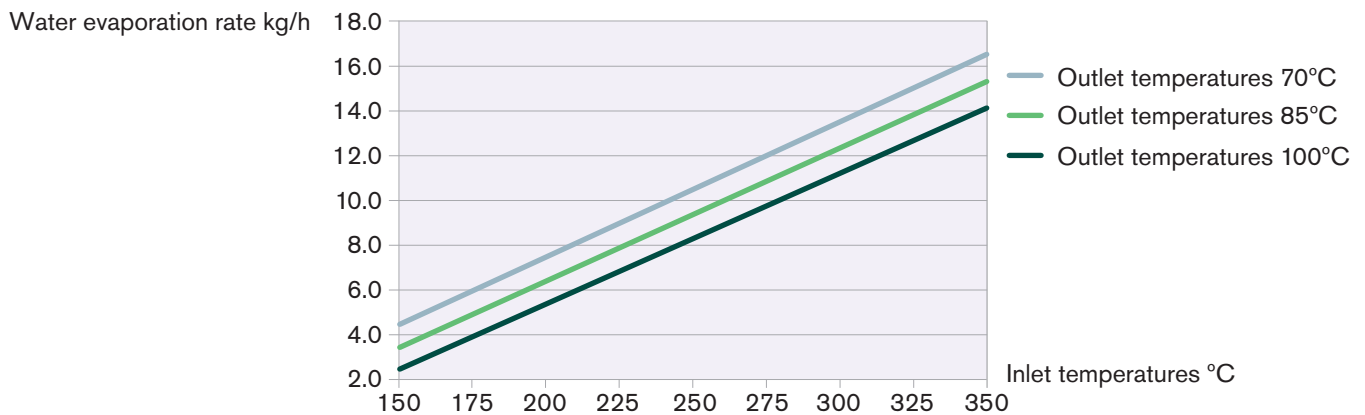
- Closed circuit

**For specific requirements, please contact SPX FLOW**

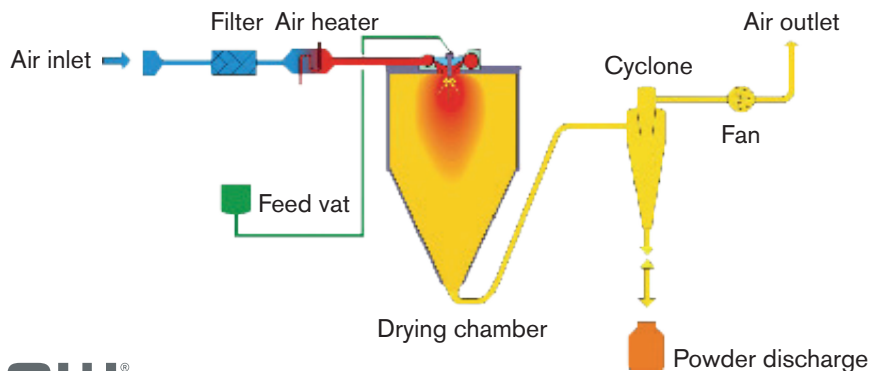
ANHYDRO MICRASPRAY 150	
Max. inlet air temperature	350°C
Water evaporation (outlet temp. 70°C)	Approx. 16 kh/h
Nominal drying air rate	150 kg/h
Drying chamber diameter	900 mm
Power supply, standard, at 50 Hz	3x400 V
Suction fan	3 kW
Air heater	15 kW
Compressed air consumption	50-250 NL/min
Pressure shock resistance, chamber	1 bar
Pressure shock resistance, cyclone	10 bar

ANHYDRO MICRASPRAY 150	
Pressure shock resistance, fan	10 bar
Max. Kst. Dust Exp. class (with rupture disc)	299 bar*m*S-1bar m/s
Noise emission level	85 dB(A)
Product contacting parts	AISI 316L
External surfaces	AISI 304
Floor space L x W	2.5*1.35 m
Height	2.5 m
Recommended free height	3.2 m
Weight, net approx.	900 kg

The MicraSpray 150 plant design complies with CE, ATEX, and GMP guidelines for food contact material.



## Process Flow



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