Anhydro®

MICRASPRAY 400

ANHYDRO SMALL-SCALE PLANTS

The small-scale spray dryer, MicraSpray 400, 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 customize each plant to match their exact requirements.

Basic Plant Equipment

- Feedtank
- Watertank
- Peristaltic feed pump
- Feedpipe
- 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 and data logging facility
- Butterfly valve
- Support structure

Options

- Progressive cavity feed pump
- Centrifugal atomizer with optional ATEX version
- Two-fluid nozzle atomizer, counter-current
- Fine filters, HEPA filters, Duplex filter in feed line
- Dehumidifier
- Pneumatic hammers
- Rotary valve
- Bag filter with optional CIP version
- Additional powder container
- Wet scrubber
- Vent duct
- Indoor explosion venting system
- Outdoor explosion venting system
- Explosion suppression system
- Manual cleaning equipment (CIP lances)
- Manual or automatic CIP system
- CIP Kitchen
- Noise attenuation
- GMP/Qualification documentation (IQ, OQ)

Other configurations

- Closed circuit
- Multistage

For specific requirements, please contact SPX FLOW

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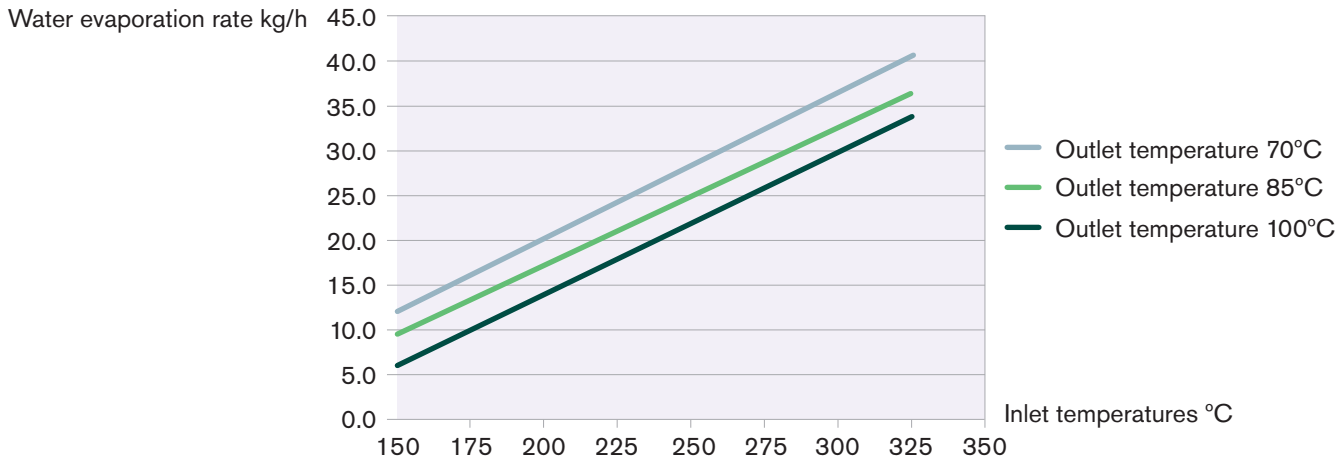
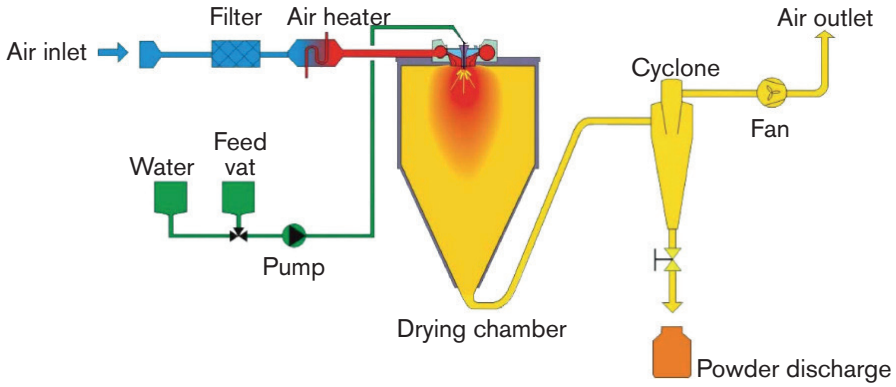
ANHYDRO MICRASPRAY 400	
Max. inlet air temperature	325°C
Max. water evaporation (outlet temp. 70°C)	Approx. 37 kg/h
Max. drying air rate	400 kg/h
Drying chamber diameter	1,150 mm
Power supply, standard, at 50 Hz	3x400 V
Suction fan	2.7 kW
Main air heater	35 kW
Feed pump	0.25 kW
Compressed air consumption at 1.5 to 5.6 bar (G)	50-250 NL/min

ANHYDRO MICRASPRAY 400	
Pressure shock resistance	1 bar
Max. Kst. value (with rupture disc)	299 bar*m*S-1bar m/s
Noise emission*	85 dB (A)
Product contacting parts	AISI 316L
Non-product contacting surfaces	AISI 304
Floor space L x W	4.0*2.5 m
Height	3.3 m
Recommended free height	4.2 m
Weight, net approx.	1,100 kg

The MicraSpray 400 plant design complies with CE, ATEX and GMP guidelines for food contact material.



Process Flow



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