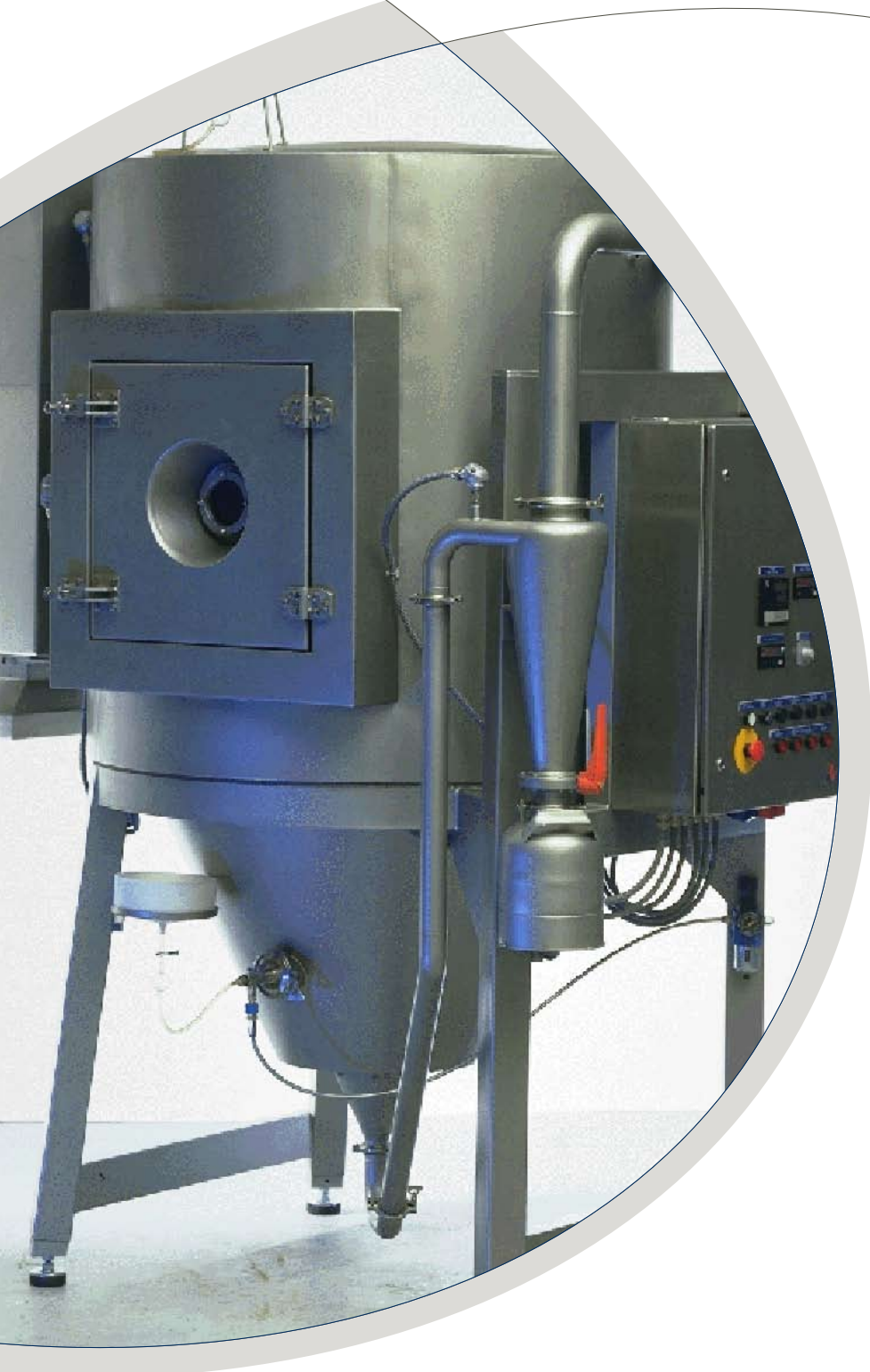


Anhydro Small Scale Spray Dryer Type PSD 52



The PSD-52 is the smallest single stage Spray Dryer in the Small Scale Plants range and is designed for scientific test work, industrial R&D, as well as for small scale production.

Equipment Supply, Basic Plant

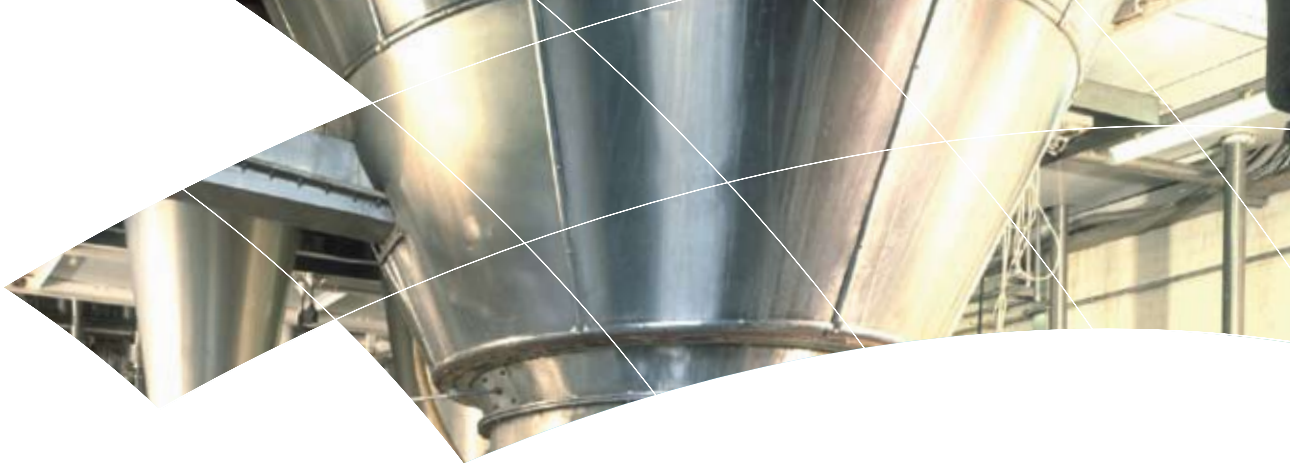
- Feed tank and feed pipe
- Two-fluid nozzle atomizer, counter-current
- Air intake filter, electrical air heater for main air, and hot air duct
- Drying chamber, complete with rupture disk for EX-protection
- Cyclone with powder container
- Fan and ducts
- Control panel with PLC, graphical soft-touch colour screen and data-logging facility
- Support structure

Optional Equipment

- Peristaltic feed pump
- Two fluid nozzle co-current
- Centrifugal atomizer
- Additional powder container
- Vent duct
- Q-pipe
- Pneumatic hammers
- Two point discharge
- Rotary valve
- Cartridge filter
- Tank Cleaner
- Simple ICS
- Noise attenuation

Other Versions

- Closed Circuit version
- Tall Form version



Type PSD 52

The PSD 52 has been supplied to over 700 private companies, R & D institutions and Universities worldwide. It is ideal for product development and even small-scale production. This dryer features flexibility, modern process control and produces scalable process results.

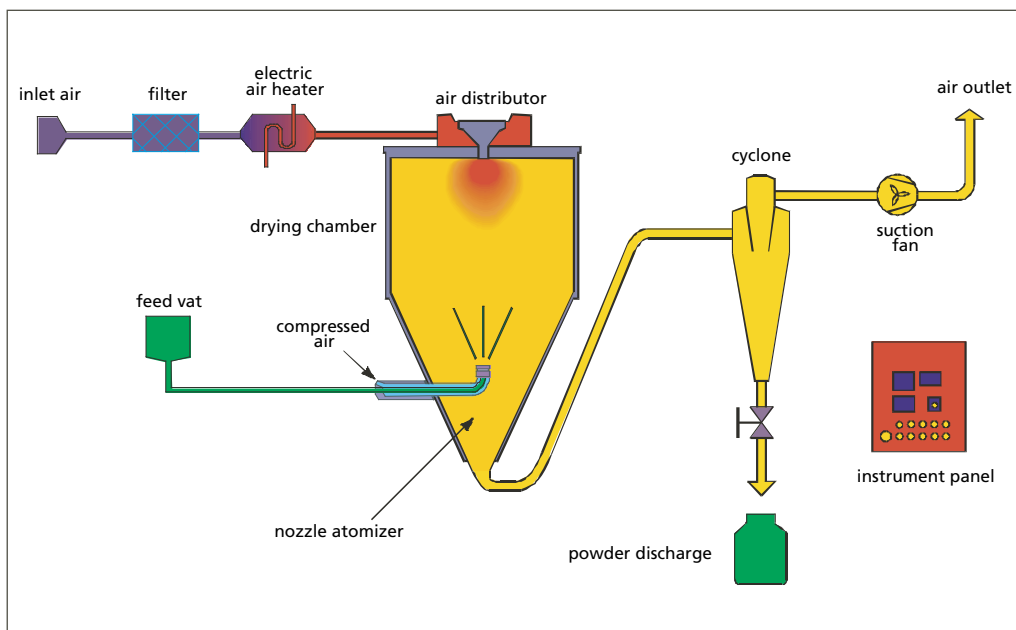
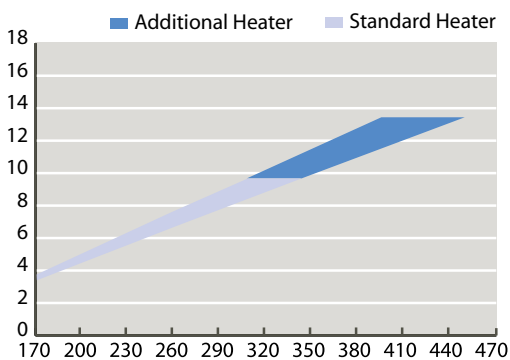
The liquid product is fed to the atomizer system where it is dispersed into a mist of fine droplets in the drying chamber.

The electrically heated process air is introduced into the chamber through a ceiling mounted air distributor.

In the drying chamber the atomized liquid is closely mixed with the drying air causing the droplets to dry out.

The powdered particles and drying air are ducted to a cyclone where the powder is collected and the spent drying air is exhausted through an exhaust air duct.

Water Evaporation Capacity



Technical data

Process Design Data

Max. inlet air temp.	350°C
Max. outlet air temp.	150°C
Max. Water evaporation temperature (ti/to 350/80)	10 kg/h
Maximum air rate	150 kg/h

Power Supply (standard)

Voltage	3 x 400 V
Frequency	50 Hz

Materials

Product Contact Parts	AlSi 316
External surfaces and support structure	AlSi 304
Fan	spec.alu.alloy

Installed power

Electrical air heater	12 kW
Exhaust fan	1 kW
Feed pump	0,25 kW

Compressed air consumption

Two fluid nozzle atomiser	5-18 Nm ³ /h
Bag filter	1-3 Nm ³ /h

Safety

With rupture disk, max Kst values up to 300 bar*m/s

Noise emission

Basic plant	80 dB(A)
Pneumatic hammer (option)	95 dB(C)

Space Requirements

Width x depth	1.9 x 1.35 m
Height	2.4 m
Recommended free height	4 m