



SD2500 SS

Single Stage Configuration

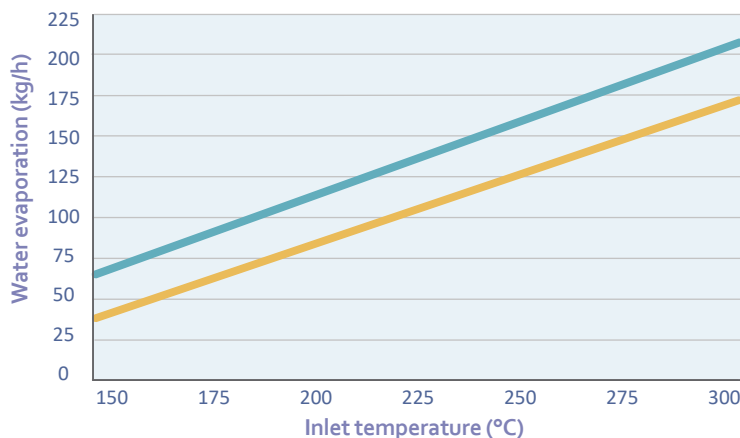
The Small Scale Spray Dryer, type SD2500 single stage, has been designed for drying of liquid products into powders. In single stage configuration the air is introduced in the top of the drying chamber where the feed is atomized into droplets. All air and powder is conveyed through the drying chamber to the cyclone for efficient powder separation. Single stage configuration enables production of single spherical particles.

The spray drying process is scalable and the SiccaDania Small Scale Spray Dryers are available in many flexible configurations enabling process simulations of larger industrial size spray dryers.

SD2500 is targeted for R&D work as well as small scale production and used by companies worldwide. It is available in a standard version and also features a range of optional items and modules, thus enabling customization to match individual requirements. The SD2500 is produced in sanitary design following GMP guidelines and includes state-of-the-art solutions regarding safety, easy cleaning and a sophisticated PLC based control system. All parts in contact with product are made in stainless steel and all elastomers are food grade approved. All plants are skid-mounted, FAT-tested and pre-wired which minimize installation time and costs.



WATER EVAPORATION CAPACITY

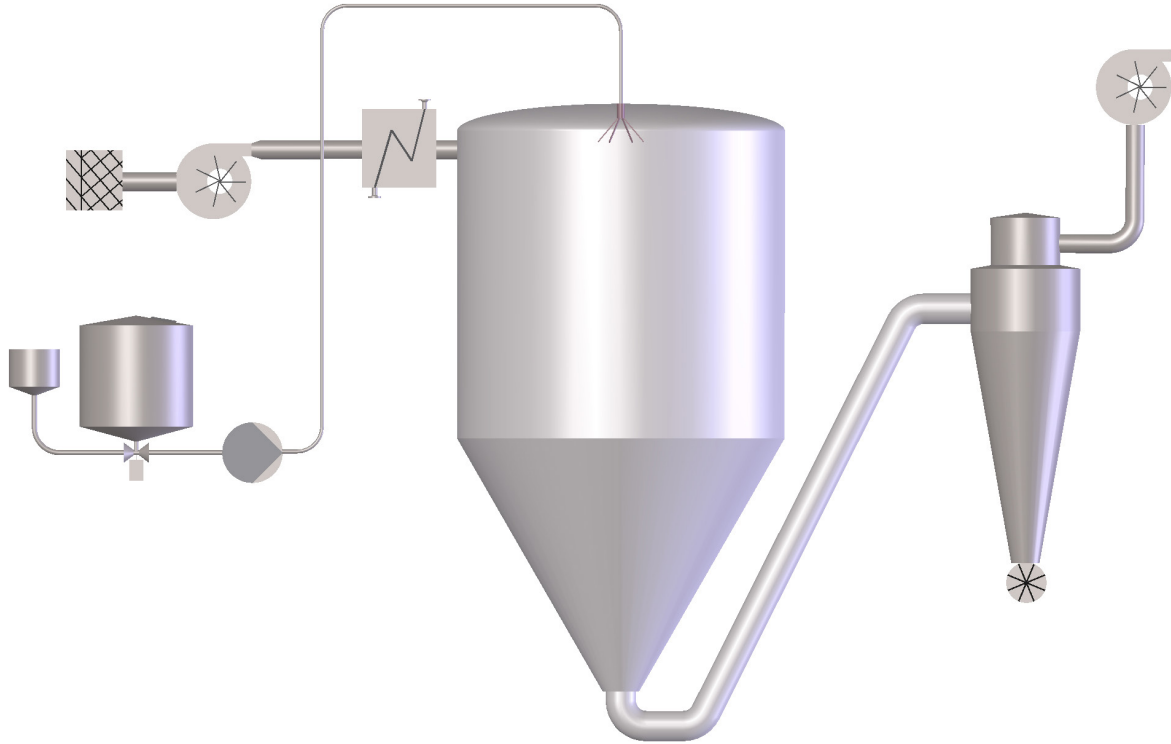


■ Outlet temperature at 70 °C
 ■ Outlet temperature at 100 °C

TECHNICAL DATA

Drying air rate, max	2500 kg/h
Inlet air temperature, max	220°C*
Water evaporation capacity, max.	Up to 130 kg/h*
Drying chamber diameter	2.5 m
Power supply	3 x 400 V, at 50 Hz
Compressed air consumption	Up to 5.6 bar(g) Up to 250 NI/min
Noise emission, max.	85 dB(A)
Kst value, max.	200 bar-m/s
Pressure shock resistance	1 bar(g)
Space requirements LxWxH	5.2 x 5.0 x 7.5 m
Recommended free height	8.6 m
Product contact parts	AISI 316
External surfaces	AISI 304
Weight, net	4.000 kg

* On request the maximum temperature and capacity can be increased further depending on type of main heater.



BASIC PLANT

- Water balance tank 20 L with level switch control
- Feed tank 200 L with level switch control
- Mono pump
- Feed line
- Two-fluid nozzle atomizer
- G4 and F7 air inlet filter
- Pressure fan, stainless steel
- Steam heater, with electrical booster heater
- Drying chamber
- Rupture disc
- Cyclone
- Rotary valve under cyclone
- Air ducts
- Suction fan, stainless steel
- Control panel with PLC incl. touch screen, cables, wiring and data logging
- Support structure with stairways, platforms and railings – all in stainless steel

OPTIONS

- Insulated feed tank
- Agitator in feed tank
- Duplex filter on feed line
- High pressure feed system
- Homogenizer
- Centrifugal atomizer
- HEPA filter H13
- Dehumidifier
- Gas heater, indirect or direct
- Pneumatic hammers
- Bag filter
- Venturi scrubber
- Powder cooling and conveying system
- Indoor explosion venting system
- Explosion suppression system
- N₂ and CO₂ gas injection unit
- CIP components and connection points incl. CIP return tank and return pump

OTHER VERSIONS

- Multi stage version

EQUIPMENT

