



SD1600 SS

Single Stage Configuration

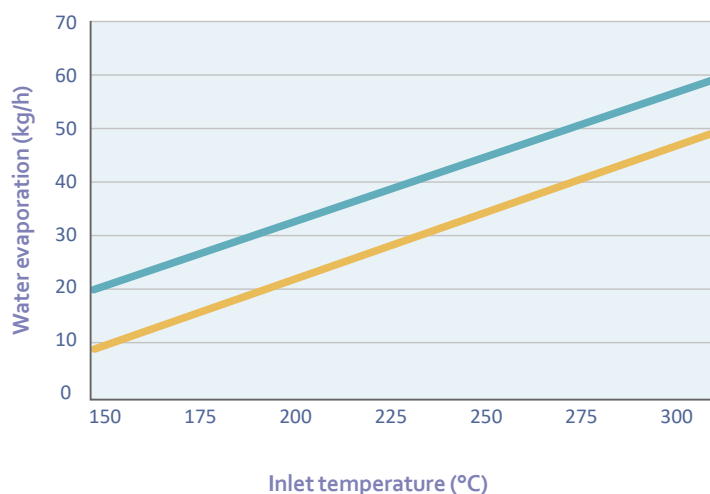
The Small Scale Spray Dryer, type SD1600 single stage, has been designed for drying of liquid products into powders. In single stage configuration the air is introduced in the top of the drying chamber where the feed is atomized into droplets. All air and powder is conveyed through the drying chamber 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.

SD1600 is targeted for R&D work as well as small scale production and used by companies and universities 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 SD1600 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.



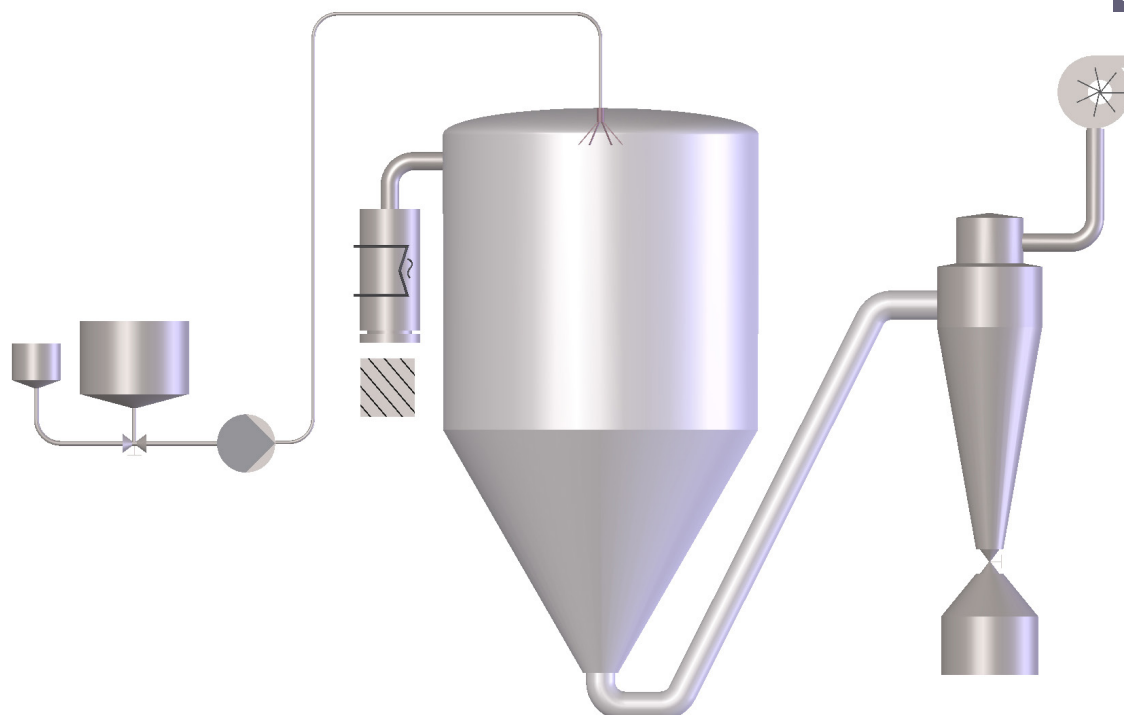
WATER EVAPORATION CAPACITY



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

TECHNICAL DATA

Drying air rate, max.	750 kg/h
Inlet air temperature, max.	300 °C
Water evaporation capacity, max.	Up to 59 kg/h
Drying chamber diameter	1.6 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	4.0 x 4.0 x 5.5 m
Recommended free height	6.6 m
Product contact parts	AISI 316
External surfaces	AISI 304
Weight, net	2500 kg



BASIC PLANT

- Water balance tank, 10 L with level control
- Feed tank, 50 L with level switch control
- Mono pump
- Feed line
- Two-fluid nozzle atomizer
- G4 and F7 air inlet filter
- Electrical heater
- Drying chamber
- Rupture disc
- Cyclone
- Powder container, 22 L
- Air ducts
- Suction fan, stainless steel
- Fire extinguishing system
- 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
- High pressure feed system
- Homogenizer
- Centrifugal atomizer
- HEPA filter H13
- Dehumidifier
- Steam heater
- Gas heater, indirect or direct
- Pneumatic hammers
- Bag filter
- Venturi scrubber
- Powder cooling and conveying system
- Explosion suppression system
- Indoor explosion venting system
- N₂ and CO₂ gas injection unit
- CIP components and connection points incl. CIP return tank and return pump

OTHER VERSIONS

- Multi stage version

