

Zeta Dryer

The Zeta Dryer is the optimal drying solution for high-viscous products. This dryer is designed to dry proteins, fibres and paste-like chemical products. With a wide range of applications combined with the fact that this dryer is more compact than our previous dryers, provides our customers with the best quality and a cost-effective solution for their production.

Applications

The Zeta Dryer was developed for native starch, derivatives and various down-stream products; we can provide the entire operation for a range of starch types – including:

- high viscous plant fibres
- plant proteins
- animal protein products
- mixtures of various food matrices

Spin drying

The feed enters the feed vat by a slow-moving agitator. The air is drawn from the outside and continues through an air filter unit before it flows into an air heater. The heated air enters the drying chamber through a tangential inlet placed in the air distributor under the chamber. The product entering the drying chamber is immediately disintegrated by means of a rotor. In this way, a rotating fluidized powder layer is formed and drying takes place.

The dried powder and drying air leave the chamber through the top of the chamber and is conveyed to a high-efficient cyclone. Here the powder is separated from the air and discharged through a rotary valve into a powder cooling system. The process air from the cyclone is then led to the bag filter for emission control.

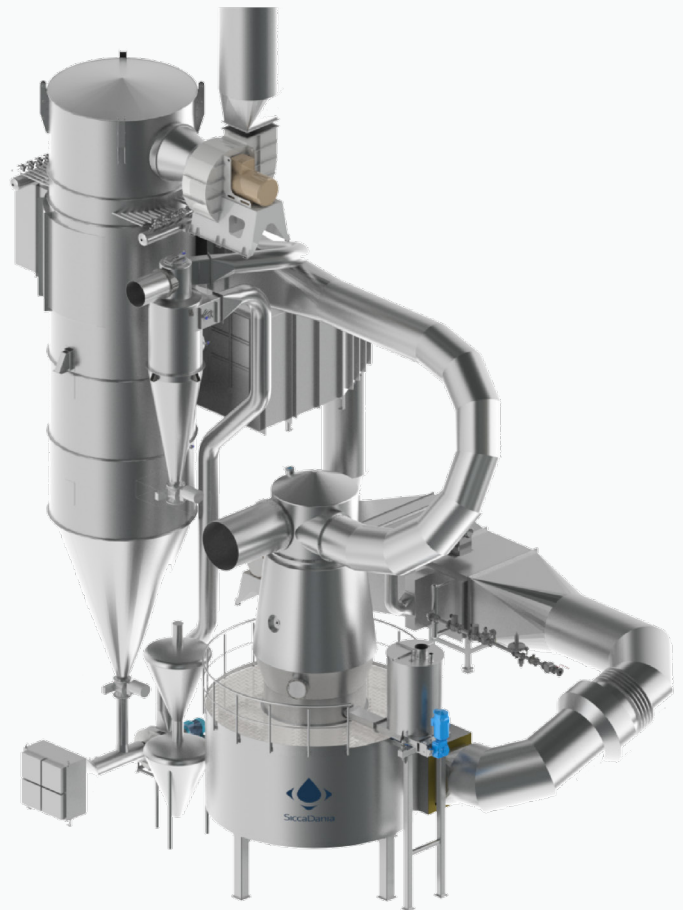
The powder is air-cooled and separated in a cooling

cyclone before being discharged through a rotary valve to the final storage. The spend process air from the cyclones continues to the bag filter for final powder separation before going to the exhaust.

Benefits of the Zeta Dryer

The Zeta Dryer is a superior choice and will in some instances be more cost-effective and energy-efficient compared to the equipment the Zeta is replacing.

- Can handle high viscous products
- Has a wide application range
- Operates with high capacities
- Has a compact design



Technical data

Model	1000*	1120*	1250*	1400*	1600*	1800*	2000*	2240*	2500*	2800*
Installation dimensions [mm]	H: 2900 ØD2: 1300	H: 3200 ØD2: 1400	H: 3500 ØD2: 1600	H: 3900 ØD2: 1700	H: 4400 ØD2: 2000	H: 4900 ØD2: 2200	H: 5400 ØD2: 2500	H: 6000 ØD2: 2800	H: 6600 ØD2: 3100	H: 7300 ØD2: 3400
Water evap. [kg/h]**	541	679	846	1061	1385	1753	2165	2715	3382	4243

*ØD - diameter of the chamber [mm]

** The water evaporation capacity is based on certain inlet/outlet temperatures and product type

Equipment

Standard equipment

- Feed vat
- Agitator
- Double Feed screw
- Air ducts
- Spinner rotor (disintegrator)
- G4 and F7 air inlet filter
- Pressure, exhaust and cooling fan, stainless steel
- Direct or indirect heater (gas)
- Drying chamber
- Air distributor
- Powder trap
- Powder separation equipment (High-efficiency cyclone and/or bag filter)
- Cooling cyclone
- Fire & Explosion safety equipment
- Fully automatic program

Optional equipment

- Agitator in feed vat
- Winter coil
- HEPA filter H13
- Dehumidifier
- Bigbag system
- Online NIR sensor
- WIP (with water)

