

The Combi-Dryer

from Buss-SMS-Canzler consists of a vertical and a horizontal thin film dryer.

Special Features of thin film contact drying technology:

- Gentle treatment of heat sensitive products due to a short residence time
- Fully enclosed design to treat explosive, toxic and hazardous substances
- Continuous operation
- Small product hold-up

Operating method

The wet feed product is fed into the vertical dryer directly above the heating zone and evenly spread as thin turbulent film on the heating surface by the high-speed rotor. The pre-dried product falls from the drying zone of the vertical dryer directly onto the rotor of the horizontal dryer. This rotor conveys the product in horizontal direction to the product outlet on the opposite side of the dryer.

The vapours of both dryers flow in counter current direction to the product, and then through the vapour nozzle of the vertical dryer into the next process stage.

Advantages of this arrangement

- Entrained fine particles from the horizontal dryer are removed in the top wet zone of the vertical dryer
- Product loss is minimized due to the compact arrangement
- No intermediate storage or conveying device is required between first and second drying stage
- Different heating media as well as different temperature profiles can be applied

Applications

The dryers are widely used throughout the process industries to convert liquids, slurries and pastes to free-flowing solids in continuous, single pass operation.

The Combi-Dryer is applied for the processing of:

- Dyes and pigments
- Optical whitener
- Polypropylene suspensions
- Organic and inorganic salts
- Polyethylene slurry
- Zeolites

