

BEST DRYING TECHNOLOGY FOR WHEAT PROCESSING PLANTS

VETTERTEC FLASH DRYER FOR WHEAT STARCH

A number of different flash dryer designs are available in order to meet the different demands for drying of native and the broad variety of modified starches.

The working principle of this dryer is pure convection with a minimized retention time. The main components of the dryer are the sling feeder, the drying column, cyclone system, fan and further equipped with other features depending on design requirements.



VETTERTEC DRYERS FOR WHEAT FEED

VetterTec offers two different technologies for drying of wheat feed, namely the tube bundle dryer and the flash dryer with internal recycling.



✓ VetterTec Tube Bundle Dryer

The tube bundle dryer uses steam for the drying process and works indirectly as a combined contact and convection dryer. This drying principle is very gentle to the

product and safe in terms of explosion and fires. At the same time the amount of air in the vapour is very low and potentially a high percentage of the drying energy can be recovered by re-use in boundary processes (energy integration).

✓ VetterTec Flash Dryer with internal recycling

The flash dryer is operated by hot air produced whether by using natural gas or hot air streams to recover energy. The working principle is pure convection with lowest retention time.

VETTERTEC SPRAY DRYER FOR VARIOUS PRODUCTS



If the starches are further processed and liquid streams as maltodextrin, lysine, etc. are to be dried, VetterTec offers a spray dryer. Spray dryers are pure convection dryers and atomize the liquid product at the product inlet.

A number of different designs with integral fluid bed, external fluid bed, different air outlets, different chambers, etc. are available to provide the desired particle size and moisture content of the final product.

DRIVEN BY COMPETENCE

VetterTec has more than 90 years of specialization and experience in evaporation, drying and dewatering equipment for the starch, ethanol/alcohol, brewery, environmental, chemical and food industries.

- ✓ VetterTec has **experience** with the **majority of dryer and evaporator types** and can select the optimum technology from self-owned technologies without any preference.
- ✓ VetterTec has a **broad product expertise** in a wide range of industries.
- ✓ VetterTec solutions combine **energy efficiency** with the highest product quality.

- ✓ VetterTec can offer optimised, **integrated drying solutions** with best energy recovery.
- ✓ VetterTec supplies **reliable and proven technologies** for a highly secured capital investment and best ROI.
- ✓ VetterTec operates worldwide and has **experience in many other industries** such as
 - ✓ Corn Starch Industries
 - ✓ Fuel Ethanol Industries
 - ✓ Alcohol Industries
 - ✓ Brewery Industries
 - ✓ Oil Extraction Industries
 - ✓ Chemical Industries
 - ✓ Food Industries



ACHIEVING SUSTAINABLE SUCCESS

PARTS AND SERVICES

Our commitment doesn't stop after successful production startup. VetterTec is offering to continue the close relationship with the customer to ensure an optimized life cycle in terms of cost and performance.

- ✓ Plant Performance Optimization
- ✓ Troubleshooting
- ✓ Training and Seminars
- ✓ Plant Retrofitting
- ✓ Preventive Maintenance
- ✓ Spare Part Service/After Sales

PROVEN SYSTEMS

As you will find all drying technologies for the wheat processing industries in the product portfolio of VetterTec, we are able to integrate or combine these technologies in order to serve single point responsibility and optimised solutions in terms of optimal product quality and minimised energy consumption.

All our systems will be designed individually, so feel free to contact our experts.

EXPECT MORE – CUSTOMIZED DRYING SOLUTIONS

WHEAT PROCESSING INDUSTRIES



Perfectly adapted to your individual requirements

Concept and Artwork: www.facc3.de | 2021-04 | Printed on PEFC certified paper out of sustainably managed forest.

WHEAT PROCESSING

Wheat is cultivated worldwide and is one of the most produced cereals besides corn and rice. Apart from the fact that wheat can be used as animal feed, for bread baking, etc. directly after milling, it is also possible to process the wheat into its major ingredients like starch, gluten and bran.

For the separation of the different ingredients, a number of different processes are available. All of them utilise water to liquefy the wheat flour in order to be able to separate its ingredients by means of decanters, centrifuges or other separation equipment. At the end of the process, this water is usually removed in order to obtain a storable and tradable product with a long shelf time. This is done on dryers.

Drying of products consumes a significant amount of the total energy for the process. Thus, cost efficient drying is essential for a profitable operation of the plant.

VetterTec offers all drying technologies for this application and acts as a strategic development partner, a system supplier or equipment supplier for this industry globally. A partnership with VetterTec secures the sum of expertise and technologies of world-class specialists in drying, and therefore a profitable operation of the plant.

"A LARGE NUMBER OF HIGHLY EFFICIENT, PROVEN AND RELIABLE INSTALLATIONS IN MANY WET PROCESSING PLANTS ARE OPERATING AROUND THE WORLD."

VETTERTEC RING DRYER



- ✓ Integrated mechanical dewatering to minimize energy consumption
- ✓ Integrated mill for controlled particle sizes, optionally
- ✓ Adjustable blades and special feeding devices

VETTERTEC FLASH DRYER



- ✓ Simple economic design
- ✓ Shortest residence time
- ✓ Small footprint
- ✓ Four different designs available



VETTERTEC TUBE BUNDLE DRYER



- ✓ Steam heated, low drying temperatures
- ✓ High efficient because of minimized air utilized = high potential for energy recovery
- ✓ Small footprint

VETTERTEC SPRAY DRYER



- ✓ Low powder temperature drying
- ✓ Controlled particle size
- ✓ Centrifugal and nozzle atomizers

VETTERTEC ADVANTAGE

What you get:

- ✓ All technologies are group designed and manufactured
- ✓ Best technology well selected for your application
- ✓ Highly reliable systems with a long life expectancy
- ✓ High thermal efficiency, optional with heat recovery
- ✓ Optimised and integrated drying processes, including air emission reduction and control
- ✓ Cost effective solutions

BEST DRYING TECHNOLOGY FOR WHEAT PROCESSING PLANTS

For the wheat processing plants VetterTec offers the complete range of dryers comprising:

VETTERTEC RING DRYER FOR WET WHEAT GLUTEN



The dryer design is so called a full ring dryer; its working principle is pure convection with short and 'extended short' retention time. The dryer mainly consists of a disintegrator, the drying duct and bend, the manifold, adjustable blades, an external recycling system, a filter and fan.

To reduce the thermal energy, a VetterTec screw press is installed upstream of the dryer. For the control of the final particle size, a mill is integrated in the entire dryer system.

WHEAT GLUTEN WHEAT STARCH AMINO ACIDS LYSINE WHEAT FLOUR WHEAT FEED

