

## Best dewatering and drying technology for corn processing plants

### VetterTec Flash Dryer for corn 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 Fluid Bed Dryer for corn germ

The fluid bed dryer is a static convection dryer, in which the product is being dried in a fluidized bed.

This bed is being build up by blowing hot air through a bed plate on which the product is, the air together with the product builds the fluid bed. At the end of the fluid bed cold, resp. ambient air, can be used to cool the product. Through the drying process there is no mechanical impact on the product, thus the particles remain the size as they have at the entry.

### 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.



### VetterTec Tube Bundle Dryer for corn gluten meal, corn germ and corn feed

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 vapor is very low and potentially a high percentage of the drying energy can be recovered by re-use in boundary processes, e.g. the CSL evaporator (energy integration).



## Achieving sustainable success

### Proven Systems

As you will find all dewatering and drying technologies for the corn processing industries in the product portfolio of VetterTec, VetterTec is able to integrate or combine these technologies in order to serve single point responsibility and optimized solutions in terms of optimal product quality and minimized energy consumption. All our systems will be designed individually, so feel free to contact our experts.

### 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

- / Plant Retrofitting
- / Preventive Maintenance
- / After Sales Services

## Driven by Competence

VetterTec as part of Moret Industries Group combines a total of more than 150 years of specialisation and experience in evaporation, drying and dewatering equipment for the ethanol, brewery, starch, environmental, chemical, food and alcohol 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 know-how in a wide range of industries.

VetterTec solutions combine energy efficiency with the highest product quality.

VetterTec can offer integrated solutions with incorporated energy recovery.

VetterTec offers reliable and approved technologies ensuring highly assured capital investment.

VetterTec operates worldwide and has experience in further various industries like:

- / Wheat Starch Industries
- / Fuel Ethanol Industries
- / Alcohol Industries
- / Brewery Industries
- / Oil Extraction Industries



### Headquarter

VetterTec GmbH  
Leipziger Straße 104-108  
D-34123 Kassel, Germany  
Tel : +49 561 500190  
Fax: +49 561 5001940  
info@vettertec.com

### United Kingdom

VetterTec Ltd.  
Pascal Place, Randalls Way  
Leatherhead, KT22 7TW, UK  
Tel : +44 1732 441440  
Fax: +44 1732 458818  
info.uk@vettertec.com

### North America

VetterTec Inc.  
2073 rue Michelin  
Laval (QC) H7L5B7, CANADA  
Tel : +1 450 505 6111  
Fax: +1 450 505 6112  
info.na@vettertec.com

There is always someone who can help you: Contact us at any time and find out how we can help you achieve more!

Expect more –  
customized drying solutions  
Corn Wet Milling

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## Corn Wet Milling

Corn is cultivated worldwide and is one of the most produced cereals besides wheat and rice. Apart from the fact that corn can be used as animal feed, it can also be processed into its ingredients like starch, corn gluten, corn oil, corn feed, corn germ and special products (bioproducts).

For the processing of the corn into its different ingredients, the wet milling process is most common. In this process the corn will be processed through a number of process steps mainly the cleaning, the steeping, the milling and separation, the fine grinding and screening, the separation of starch and gluten. Further on the starch can be either dried as starch or further processed to syrup and finally to dextrose, maltodextrin or amino acids.

As the entire process will be done under wet conditions at the end of the process this water needs to be removed. Here VetterTec offers the entire range of mechanical dewatering and all type of dryers necessary to dry the desired products. On the bases of our broad product portfolio we can offer for some products as germ and gluten different technologies. Depending on customers' needs and focus VetterTec is able to select the most fitting technology without any preference.

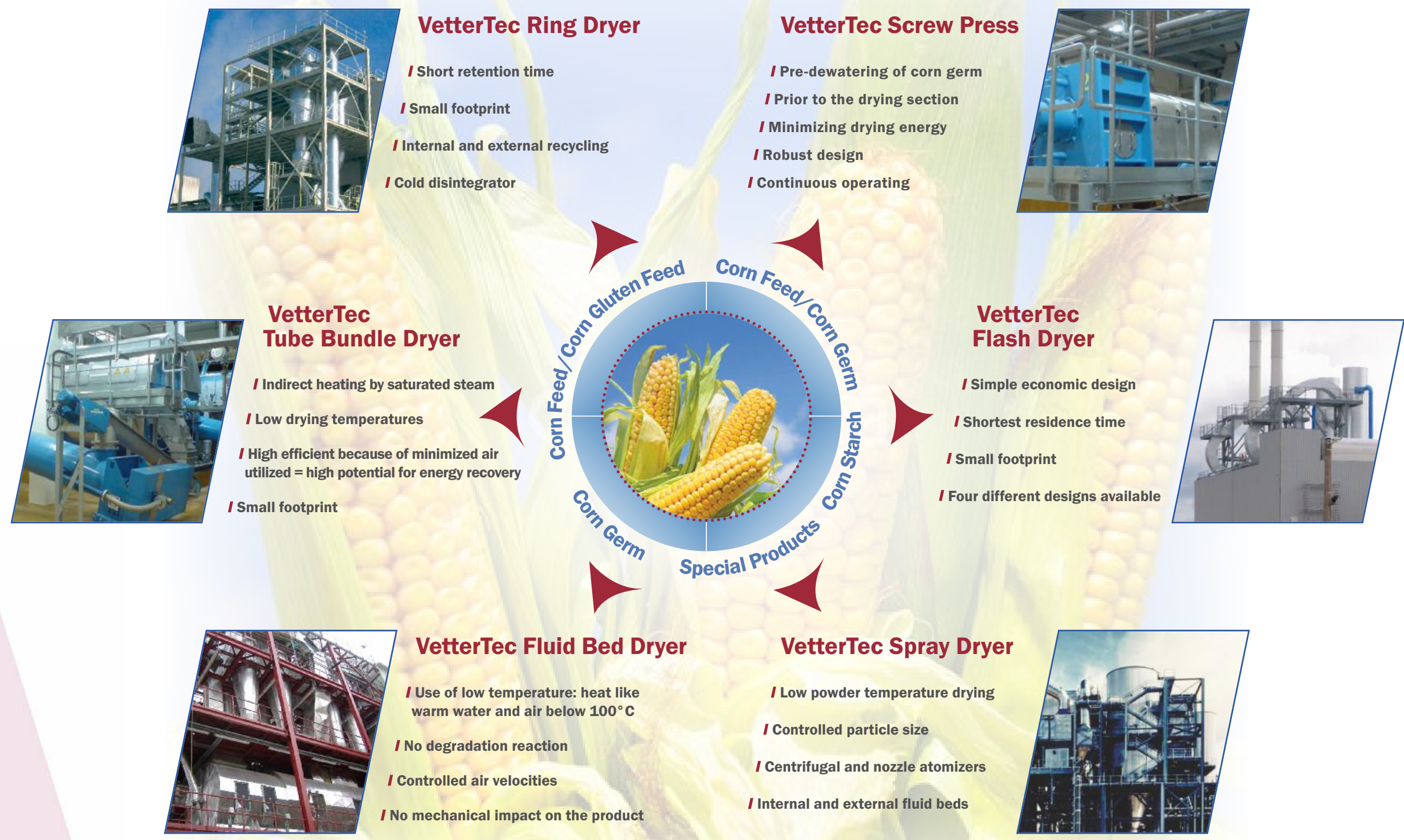
Drying of products consumes a significant amount of the total energy for the process. Thus cost efficient drying is essential for a profitable operation of the plant.

**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.**

## VetterTec Advantage

What you get:

- ! All technologies are group designed and manufactured
- ! Best technology well selected for your application
- ! Focused technologies and applications
- ! Innovative and sophisticated solutions
- ! Optimized and integrated drying processes
- ! Cost effective solutions



„A number of high efficient, approved and reliable installations in various wet processing plants are operating around the world.“



## Best dewatering and drying technology

For the corn wet milling plants VetterTec offers the complete range of dryers comprising:

### VetterTec Ring Dryer for corn gluten meal

The dryer design is so called a ring dryer with cold disintegrator; its working principle is pure convection with lowest retention time to achieve a light yellow product color. The dryer mainly consists of a disintegrator, the drying duct and bend, the manifold, adjustable blades, an external recycling system, a filter and fan.



### VetterTec Screw Press for wet corn fiber and wet corn germ

The VetterTec screw press is used to pre-dewater corn germ and corn fiber in front of the dryer. In all our screw presses the screw, screen and cage are precisely machined together. The entire mechanical design is very strong. Both, the machining and design, is ensuring best and constant pre-dewatering results and minimizes the energy demand in the dryer.



Corn Starch   Corn Gluten   Lysine   Amino Acids   Corn Meal   Corn Germ