# **Best dewatering and drying technology** for wet spent grains processing plants

#### **VetterTec Screw Press for wet spent grains**

VetterTec screw presses are used to pre-dewater wet spent grains prior to the drying section. This will mini-



mise the energy demand in the dryer, and thus the operation cost, significantly. Wet spent grains are fed to the pressing screw hrough a feed hopper, and the screw press conveys them into the compression area, where the product is further compressed during onward transportation.

This is achieved by reducing the volume of the wet spent grain material. The pressed out water escapes through screen cages. At the end of the pressing section, the

material falls through a discharge hopper thus leaving the press.

#### VetterTec Tube Bundle Dryer for wet spent grains

A 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 with 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 Spray Dryer for wet yeast

VetterTec yeast dryer plants are used to dry the yeast coming from the fermenting cellar and the storing cellar in breweries.

Therefore VetterTec offers spray dryers, which are pure convection dryers and atomise 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.

# **Achieving sustainable success**

### **Proven Systems**

As you will find all dewatering and drying technologies for the breweries 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 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.

### 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 optimised life cycle in terms of cost and performance.

- Plant Performance Optimisation
- I Troubleshooting
- **I** 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, brewerv. starch. environmental. chemical 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.





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- VetterTec can offer integrated solutions with incorporated energy recovery.
- VetterTec offers reliable and approved technologies ensuring highly assured capital investment.
- VetterTec operates world-wide and has experience in further various industries like:
- Corn Starch Industries
- Fuel Ethanol Industries
- Alcohol Industries
- **Brewery Industries**
- **Oil Extraction Industries**

# Expect more – customised solutions

# conveying / storage / dewatering / drying

# **Brewery Industries**







Contact us at any time and find out how we can help you achieve more!









successful drying systems"



# **Brewery Industry**

VetterTec technology is used for collection, conveying, dewatering and drying of spent grains as well as for yeast drying in the brewing industry.

#### **Spent grains**

VetterTec supplies a complete component conveying and storage solution for spent grains through the brewery. VetterTec Screw Presses and VetterTec Dryers can be used to dewater and dry spent grains to the required final moisture. Dry spent grains contain 20 to 26% crude protein and are used as a pure, natural addition to animal fodder.

#### Combined spent grains and yeast drying

In order to increase the protein content in spent grains, yeast can be mixed up with spent grains. This system combines an increase of the product value with minimisation of the total investment. The dried product contains a percentage of 48% crude protein (highly digestive) as per the ratio of yeast and spent grains.

#### **Yeast drying**

VetterTec technology is also used for yeast drying in the brewing industry. Dry yeast contains more than 48% crude protein (highly digestive). It is a completely natural product, which is used as an animal fodder additive for ruminants, pigs, horses and poultry.

#### **Complete system solution**

VetterTec has the competence to deliver the complete system starting after the lauter tun/filter up to the final bagging or truck loading.

# **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
- I Optimised and integrated drying processes
- Cost effective solutions



Increased productivity

I Storage of wet spent grains

**/** Continuous operating

**I** Placed under the lauter tun

Grains

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### VetterTec Conveyor VetterTec Buffer Tank

Pre-dewatering system

**Buffer tank extension** 



## VetterTec Silo and Dosing Screw

**I** Storage of spent grains

/ Discharge of spent grains

Loading on truck

Wet Spent Grains

Wet Yeast



## **VetterTec Screw Press**

/ Pre-dewatering wet spent grains
/ Prior to the drying section
/ Minimising drying energy
/ Continuous operating

Dry Spent

Wet

Grains



### VetterTec Tube Bundle Dryer

Indirect heating

I Heated by saturated steam

I Highly efficient

Low air flow

Lowering emissions



# approved and reliable installations in various wet processing plants are operating around the world."

"A number of high efficient,



# Best dewatering and drying technology

for wet spent grains and wet yeast processing plants

For wet spent grains and wet yeast processing plants, VetterTec offers the complete range of screw presses and dryers:

#### **Applications**

- Collection of spent grains
- Dewatering spent grains
- Drying spent grains
- Conveying
- Storage
- Drying yeast
- Combination of drying yeast and spent grains
- Pelletising spent grains

### VetterTec Yeast Spray Dryer

I Low powder temperature drying

I Controlled particle size

I Centrifugal and nozzle atomisers

## **Dry Spent Grains**

Animal Food



"SUCCESSful dry successful drying systems"