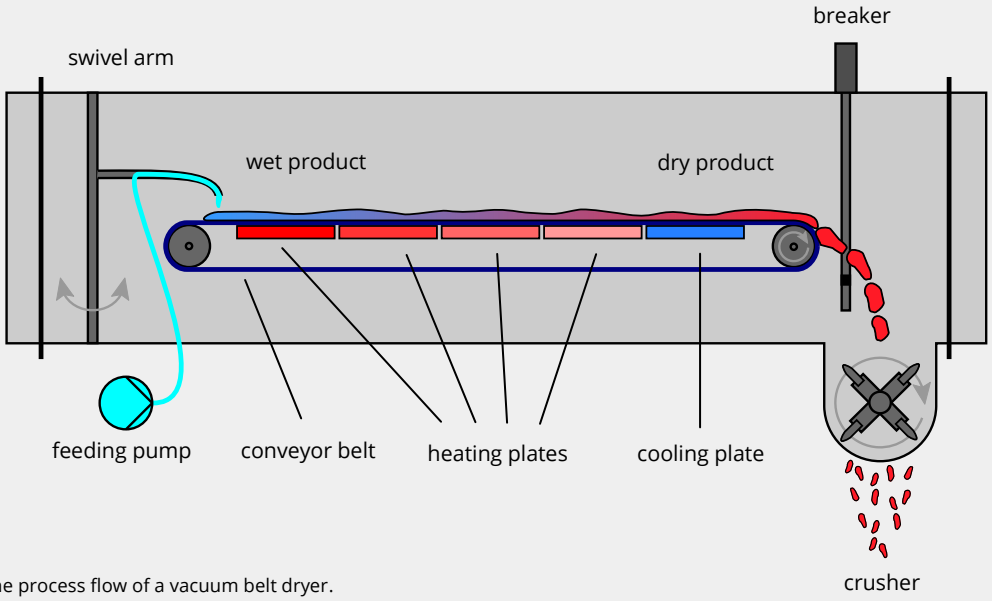
hegatec ENGINEERING

# VACUUM BELT DRYER




*The illustration shows the process flow of a vacuum belt dryer.

## PROCESS DESCRIPTION

- regulation of the operating vacuum in the dryer via condensation and vacuum system
- uniform distribution of liquid or pasty products
- product conveying through heating and cooling zones on parallel operating belts
- required dry matter of products regulated by adjustable parameters such as feeding volume, conveying velocity, temperature and pressure
- integrated crushing of the final product
- WIP cleaning (Washing in Place) of the dryer by automatic washing system

## BENEFITS

- gentle drying by reducing the boiling point
- continuous, automated process
- fast drying
- low product temperature
- low loss of aroma
- no oxidation of the product
- controllable Maillard reaction
- very good water solubility of end products
- very good instant product properties
- possibility of solvent recovery
- automatic cleaning

## GENTLE DRYING

malt and baking mixes, meat extracts, plant extracts, fruit concentrates and fruit pulps, vegetable concentrates, fruit pieces, vegetable pieces, aroma, baby food, chemical products, pharmaceutical products and many more

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ENGINEERING

# OUR PILOT PLANT - *compact and powerful*

## MANY TASKS - ONE SOLUTION

With our pilot plant your products can be

▪ *MIXED* ▪ *EVAPORATED* ▪ *DRIED* ▪ *CRUSHED* ▪

For this purpose our vacuum belt dryer and our vacuum evaporator are available.

## WITH DRYING TRIALS TO SUCCESS

Benefit from our experience in drying technology. We support your product and process development. We offer individual test procedure for pasty, liquid or chunky products with detailed data evaluation and analysis.

Our pilot plant can also be rented at a reasonable price. A *hegatec* process engineer supports you in installation and test procedure.

## VACUUM BELT DRYER

Our vacuum belt dryer ensures a continuous, automated process. The process data can be recorded with several measuring devices. The special features of our vacuum belt dryer are a compact design and a high-quality workmanship. The entire plant including peripherals is installed on a four-wheeled single frame. Our PLC control system is web-based and can be operated from any PC, laptop, tablet or industrial touch panel.

Technical data

| | |
|---|---|
| water evaporation: | max. 2.5 kg/h |
| operating pressure: | 5 - 300 mbar abs. |
| temperature zones: | 6 |
| max. temperature: | 210°C |
| material: | stainless steel (1.4404/316L) |
| conveying belts: | fiberglass, polyester and Kevlar |
| weight: | approx. 1 t |
| dimensions: | 3.2 x 0.8 x 1.8 m |

## VACUUM EVAPORATOR & MIXER

Our vacuum evaporator works as evaporation plant, mixer and feeding vessel for the vacuum belt dryer. The anchor agitator with PTFE-scraper mixes the product and keeps it moving to achieve a good heat transfer. This ensures a high evaporation rate.

Technical data

| | |
|---|---|
| vessel volume: | 60 l |
| operating pressure: | 5 - 300 mbar abs. |
| water evaporation: | 8 kg/h |
| viscosity range: | 100 - 200.000 mPas |
| material: | 1.4404 (316L) |
| feed rate: | 0.5 - 10 kg/h |

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