

# **ZWAG®** nutsche dryer by Chemap

## for filtration and drying processes in pharmaceutical production

## Reliably meet pharmaceutical requirements

With a ZWAG® nutsche dryer from Chemap, you can achieve the highest level of process reliability in the filtration and drying process.

The closed pressure nutsche with stirrer enables high, consistent product quality, protection of personnel and efficient process control.

As a specialist in pharmaceutical filtration, we offer filtration solutions for numerous applications in the pharmaceutical industry.

### **Examples of applications for ZWAG® nutsche dryers**

#### **Filtration**

- ✓ Active Pharmaceutical Ingredients (API)
- ✓ Antibiotics
- ✓ Blood Plasma Fractionation
- ✓ Insulin, vaccines and other injectables
- ✓ Vitamin
- √ X-ray contrast agent

#### **Drying**

- √ Vacuum drying (of e.g. amino acid)
- ✓ Drying API
- ✓ Solvent evaporation from filter cake



# Advantages of the ZWAG® nutsche dryer

- A ZWAG® nutsche dryer enables the complete separation of fine to coarse solid particles and the recovery of clear filtrate.
- The integrated stirrer supports uniform cake formation, reduces cracking and enables efficient, automatic cake discharge.
- Pressurized filtration achieves high filtration rates.
- The variably adjustable stirrer height allows different batch sizes to be processed on one system.



#### **Process features**

- Batch separation of solids from liquids in a closed system
- Washing or extraction of the filter cake
- Mechanical dehumidification of the formed filter cake by means of compressed gas flow
- Gentle drying of the filter cake by heating the jacket and agitator with gas flushing (stripping) under vacuum
- Sterile discharge of the product through variable docking interface
- Cleaning (CIP) and sterilization (SIP) including drying of the process chamber



# Our support for your project

Based on your process requirements and our experience, we provide design calculations for filter area, filter design and process parameters.

If filtration tests on a laboratory scale are possible, we perform those with our test filters and take the results into account when planning the filter system.

We accompany the commissioning of the ZWAG® nutsche dryer in your plant to achieve an optimal operation of the filtration and drying process and to ensure good product quality and operational reliability in the long term.

### Contact us, we will be happy to support you!

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