Filter Centrifuges for Pharmaceutical Industry
HEINKEL – proud partner of the centrifugal force since 1971

A company with a long tradition
HEINKEL is a supplier of filtration and drying machinery and equipment. Their functionality, design and construction follow an integrated approach: customized, durable, cost optimized, and efficient.

A powerful group of companies
HEINKEL realizes part or full concepts for chemical synthesis plants. Individual modules are aligned, interfaces to other modules defined, and standard automation philosophies developed. The equipment is tested and fully documented to achieve a quick and trouble-free commissioning on site.

An innovative developer
HEINKEL manufactures machines and equipment for the filtration of solids in the chemical-pharmaceutical industry, the fine and special chemical industry, the food industry, as well as the recycling and environmental industries: even for extremely difficult filtering products.

A competent partner
HEINKEL offers customized service concepts and guarantees for their spare parts deliveries as well as repairs: around the clock, worldwide.

Core competence:
- Solids/liquid separation
- Manufacturing of centrifuges
- Concepts for solids separation
- Combined concepts including centrifugation and drying
- Automation concepts for centrifuges and separation systems
Vertical centrifuges

V 200-TP – V 500-TP

The vertical centrifuges Type V 200-TP, V 300-TP V 400-TP and V 500 TP have been designed for basic tests of centrifugal separation technology.

The advantages of these centrifuges are:
- Mobile design with small food print
- Easy installation; “Plug and use”
- Ideal for upscaling
- Simplest handling
- CIP Cleaning
- Installation in separator housing / glove box possible

<table>
<thead>
<tr>
<th>Technical Data</th>
<th>V 200-TP</th>
<th>V 300-TP</th>
<th>V 400-TP</th>
<th>V 500-TP</th>
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<tbody>
<tr>
<td>Bowl diameter (mm)</td>
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<td>Filter surface (m²)</td>
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<td>Weight (kg)</td>
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</tbody>
</table>

Dimensions

Pilot plant centrifuges

H 250-P – H 500-P

The HEINKEL horizontal peeler centrifuges of the H 250 P, H 400 P and H 500 P range have been designed specifically for demanding lab and experimental operations, pilot plants and small batch productions.

The advantages of these centrifuges are:
- Small foot print
- Easy installation; “Plug and use”
- cGMP conformity
- Fully automated operation
- Ideal for upscaling

<table>
<thead>
<tr>
<th>Technische Daten</th>
<th>H 250-P</th>
<th>H 400-P</th>
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Dimensions
**Horizontal peeler centrifuges**

Typ H 630-P – H 1300-P

**Lack of hygiene in machines and equipment in pharmaceutical applications can lead to health risks due to product contamination. Therefore HEINKEL centrifuges have been designed to accommodate easy cleaning and inspection.**

The advantages of these centrifuges are:
- Wide range of applications
- Highest CCMP standard
- Fully automated and validated CIP-Cleaning
- Inspect ability of all parts in product area
- Clean Room Design
- Manufactured with FDA conform materials for bodywork and seals
- Enclosed design to avoid contamination

The automatically opening housing of the centrifuge allows for total access and therefore complete inspection of all component parts within the process area.

Product deposits are minimized through the virtually dead spot free design and highly polished surfaces. The pneumatic residual heel removal guarantees a complete product discharge. A fully automated CIP system, where required complemented with flooding of the process housing, accomplishes a thorough cleaning of all surfaces in the process area. The GMP-compatible design of these series is continually improved.

**For the highest standards of reproducible quality**

Our customers prefer HEINKEL pharmaceutical centrifuges whenever the highest demands are made regarding reproducible quality of high value substances. Since these are often physiologically active fine chemicals, our centrifuges are designed to prevent any contact between operators and the product.

**Efficient CIP systems**

Our horizontal peeler centrifuges comply with all requirements of the pharmaceutical industry. Efficient CIP systems allow cleaning of the closed product area, hinged housings enable an inspection all surfaces in contact with product. For this reason our centrifuges are often applied in synthesis plants with frequent product changes.

**Maximum safety**

With their closed design and the fully automated, uninterrupted operation, HEINKEL centrifuges fulfil the highest safety standards and guarantee maximum safety for the operating personnel, the environment and the product.
### Top discharge centrifuges

**Typ V 400-TP – V 1250-TP**

The classical HEINKEL- vertical top discharge centrifuges are a cost efficient alternative in small batch production. The centrifuge can easily be adapted to product performance. This makes it ideally suited to operations producing a multitude of varying products in small to medium batch sizes.

The advantages of these centrifuges are:

- Flexible design for poor filtering products
- Complete discharge of filter cake
- Gentle discharge preserving particle size
- Automated CIP
- Easy access to product contacted machine parts
- High washing and extraction performance
- Simple design

### Technical Data

#### Horizontal peeler centrifuges

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<th>H630-P</th>
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<td>Filter surface (m²)</td>
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<td>1,98</td>
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<td>900</td>
<td>1200</td>
<td>1700</td>
<td>2400</td>
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The slurry is introduced via a filling pipe into the centrifuge bowl. Build up of a homogenous cake can be guaranteed by optimising the filling speed, filling flow rate, and location of the feed pipe.

The wash liquid is introduced onto the cake by a separate wash line. The geometrically optimized wash tube achieves an even distribution of the wash liquor.

Inside the centrifuge bowl the filtrate is spun of at a free selectable speed. The reduction of the cakes moisture is time controlled. A fully automated level control enables a refill if required.

The dried cake will be discharged using a intelligently controlled peeler knife. The product leaves the centrifuge by an optimal shaped chute. During discharge the centrifuge remains gas tight.

Fully automated CIP systems and partial flooding of the process housing effectively and quickly accomplish validated cleaning of Heinkel horizontal peeler centrifuges in the closed state.

The process housing can be opened quickly and easily. All product contact surfaces of the process area are therefore easily accessible. No removal of machine components is necessary.

### Horizontal peeler centrifuges

#### Bowl varieties

- Perforated bowl
- Overflow bowl
- Skimming bowl
- Perforated bowl with removable top
- Sedimentation bowl

#### Operating modes

- **Filling**
- **Washing**
- **Spinning**
- **Discharge**
- **CIP**
- **Inspection**
After Sales Service by HEINKEL – ensuring that everything continues to turn over smoothly.

### Product Support

**Wear parts**
Worldwide distribution from stock
Ordering via web shop

**Spare parts**
Available worldwide
Ordering via web shop

**Repairs**
Worldwide inspection on site within 24 hours, 365 days per year

### Sales Support

**Installation**
Assembly and erection on site

**Start-up**
Mechanical and electrical commissioning, test runs

**Training**
Training of operators on function, controls and troubleshooting

**Maintenance**
Telemaintenance and maintenance on site.

**Guarantee**
Comprehensive guarantees on new machines.

### Solution Support

**Installation**
Assembly and erection on site

**Start-up**
Mechanical and electrical commissioning, test runs

**Training**
Training of operators on function, controls and troubleshooting

**Maintenance**
Telemaintenance and maintenance on site.

**Guarantee**
Comprehensive guarantees on new machines.

### Business Support

**Refurbishment**
Partial or complete refurbishment of used machines (of other producers as well)

**Guarantee**
Guarantees for refurbished machines and parts

**Rental machines**
Quick compensation for failed units
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Mexico
Netherlands
Norway

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Poland
Portugal
Puerto Rico
Sweden
Singapore
Spain
Taiwan
Turkey
Hungary

and other countries