Experts in Liquid-Solid Separation and Drying

Laboratory and Pilot Centrifuges and Dryers
## Vertical Centrifuges

**V 200-TP - V 500-TP**

The vertical centrifuges Type V200 TP, V300-TP V400-TP and V500 TP have been designed for basic tests of centrifugal separation technology.

**Customer benefits:**
- Mobile design with small foot print
- Easy installation; “Plug and use”
- Ideal for Scale-Up
- Simplest handling
- CIP Cleaning
- Installation in isolator housing/glove box possible

<table>
<thead>
<tr>
<th>Standard Specification:</th>
<th>Standard Configuration:</th>
<th>Options:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowl diameter 200 - 500 mm</td>
<td>- Housing</td>
<td>- Mobile construction</td>
</tr>
<tr>
<td>Filter surface 0.062 - 0.47 m²</td>
<td>- Base frame with bearing</td>
<td>- ATEX execution</td>
</tr>
<tr>
<td>Nominal volume 1.5 - 30 l</td>
<td>- Sieve drum with removable collar</td>
<td>- CIP Cleaning</td>
</tr>
<tr>
<td>Maximum load 2.0 - 36 Kg</td>
<td>- Feedpipe</td>
<td>- Heating and cooling jacket</td>
</tr>
<tr>
<td>Max. centrifugal force 900 - 2550</td>
<td>- Washing pipe</td>
<td>- Electro-Polished surfaces</td>
</tr>
<tr>
<td>Material 1.4571 or 2.4602 (Alloy C22)</td>
<td>- Sight and light glass</td>
<td>- Several types of bowls (see fig. page 4)</td>
</tr>
<tr>
<td>Surfaces Ra &lt; 0.8 µm in contact with product</td>
<td>- Control</td>
<td>- Filtrate reservoir</td>
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<tr>
<td></td>
<td>- Variable speed drive</td>
<td>- Can be integrated in Isolator/Glovebox</td>
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<td></td>
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<td>- Further special equipment on request</td>
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</tbody>
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## Pilot Plant Centrifuges

**H250-P -H500-P**

The HEINKEL Inverting Filter Centrifuge, type F and HF, and the Horizontal Peeler Centrifuge, types H 250-P, H 400-P and H 500-P, are especially designed for demanding laboratory and test operations as well as production of small quantities.

**Customer benefits:**
- Small foot print
- Easy installation; “Plug and use”
- Ideal for Scale-Up
- Fully automated operation
- cGMP conformity

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<tr>
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</thead>
<tbody>
<tr>
<td>Bowl diameter 200 - 500 mm</td>
<td>- Housing</td>
<td>- Mobile construction</td>
</tr>
<tr>
<td>Filter surface 0.098 - 0.39 m²</td>
<td>- Base frame with bearing</td>
<td>- ATEX execution</td>
</tr>
<tr>
<td>Nominal volume 2.5 - 20 l</td>
<td>- Sieve drum</td>
<td>- CIP Cleaning</td>
</tr>
<tr>
<td>Maximum load 3.1 - 25 Kg</td>
<td>- Feedpipe</td>
<td>- Clean Room separation</td>
</tr>
<tr>
<td>Max. centrifugal force 1500 - 2020</td>
<td>- Washing pipe</td>
<td>- Electro-Polished surfaces</td>
</tr>
<tr>
<td>Material 1.4571 or 2.4602 (Alloy C22)</td>
<td>- Discharging system</td>
<td>- Filtrate reservoir</td>
</tr>
<tr>
<td>Surfaces Ra &lt; 0.8 µm in contact with product</td>
<td>- Sight and light glass</td>
<td>- PAC System (Inverting Filter Centrifuge)</td>
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<tr>
<td></td>
<td>- Control</td>
<td>- Removal of residual heel (Peeler Centrifuge)</td>
</tr>
<tr>
<td></td>
<td>- Variable speed drive</td>
<td>- Further special equipment on request</td>
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</tbody>
</table>
**BS-miniDRY®**

Lab Dryer and Mixer

The **BS-miniDRY®** has specifically been designed for research and development with little amount of product. Tailor made for the requirements in the laboratory, it can be installed in a ventilation booth and be operated under many process conditions.

Customer benefits of the Lab Dryer with 0,15 to 1,5 Liter nominal volume:
- Flexible working volume from 10% to 100% of nominal volume
- Mobile and compact design
- Easy “plug and use” installation
- Excellent for Scale-Up
- Easy to operate
- CIP Cleaning
- Installation in ventilation booth

### Standard Specification:
- **Material**: 1.4404 (SS316L) or 2.4602 (Alloy C22)
- **Working volume**: Type DKL015: 0.15 - 1.5 Liter
- **Working pressure**: 1.0 - 0.5 barg
- **Working temp.**: -20 - 120 °C
- **Heating/Cooling**: Water/thermal oil at 0 - 6 barg
- **Surfaces**: internal Ra < 0.8 µm

### Basics:
- Heating/Cooling jacket
- Insulation jacket
- Dust filter
- Two drives with variable speeds
- Manual ball discharge valve
- Pressure and temperature sensors
- Manual sampler
- Height adjustable support frame

### Options:
- Hybrid stirrer with central shaft mixer
- Vacuum System with solvent recovery
- Heating/Cooling system
- SPS Control with Lab software
- Operation via PC or Laptop
- Free programmable process control
- ATEX Configuration
- Additional options are available

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**BS-pilotDRY®**

Pilot Dryer and Mixer

For processes in pilot plants and small scale production, the **BS-pilotDRY®** has been designed. It can easily be moved from one place to another and is fully equipped with the necessary instrumentation.

Customer benefits of the Pilot Dryer with 10, 30 and 50 liter nominal volume:
- Flexible working volume from 10% to 100% of nominal volume
- Mobile and compact design
- Easy “plug and use” installation
- Ideal for Scale-Up
- Easy to operate
- CIP Cleaning

### Standard Specification:
- **Material**: 1.4404 (SS316L) or 2.4602 (Alloy C22)
- **Working volume**: Type ML001 - ML005: 10 - 50 Liter
- **Working pressure**: 1.0 - 3.0 barg
- **Working temp.**: -20 - 120 °C
- **Heating/Cooling**: Water/thermal oil at 0 - 6 barg
- **Surfaces**: internal Ra < 0.8 µm

### Basics:
- Heating/Cooling jacket
- Insulation jacket
- Dust filter
- Two drives with variable speeds
- Manual ball discharge valve
- Pressure and temperature sensors
- Manual sampler
- Height adjustable support frame

### Options:
- Hybrid stirrer with central shaft mixer
- Vacuum System with solvent recovery
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- SPS Control with Lab software
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- Additional options are available
Centrifuges

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

Dryers

- Orbit Arm
- Central shaft
- Liquid/Gas injection & NIR flange
- BS Sampler

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