THE ART OF SEPARATION
CONTINUOUS OPERATION

PUSHER CENTRIFUGES

PM-23 | Simple and robust
+ Originally developed by Sulzer Escher Wyss
+ Basket diameter: 230 mm
+ Mechanical pusher mechanism

P-32 - P-120 | Proven and efficient
+ Originally developed by Sulzer Escher Wyss
+ Basket diameter: 320 mm - 1200 mm
+ Hydraulic pusher mechanism

D-ACT® PUSHER CENTRIFUGES

PD-60 - PD-100 | Unbeatable performance
+ Ferrum patented
+ Basket diameter: 630 mm - 1000 mm
+ Double action hydraulic pusher mechanism

DECANTER CENTRIFUGES

ZDC-20 - ZDC-140 | Compact and reliable
+ Modular design
+ Basket diameter: 200 mm - 1400 mm
+ High level of containment
DISCONTINUOUS OPERATION

**VERTICAL BASKET CENTRIFUGES**

**VTC 630 - 1600 | Top discharge**
+ Basket diameter: 630 mm - 1600 mm
+ Basket volume: 51 l - 850 l

**VBC-W 1000 - 1600 | Bottom discharge**
+ Basket diameter: 1000 mm - 1600 mm
+ Basket volume: 200 l - 1011 l

**VBC-S 1000 - 1250 | Swivel open**
+ Basket diameter: 1000 mm - 1250 mm
+ Basket volume: 200 l - 501 l

**VGC 1250 - 1600 | Performance trimmed**
+ Basket diameter: 1000 mm - 1600 mm
+ Basket volume: 200 l - 1011 l

**VTC-M 320 - 400 | Compact and mobile**
+ Basket diameter: 320 mm - 400 mm
+ Basket volume: 7 l - 13 l

**VTC-I 320 - 400 | HAPI containment**
+ Basket diameter: 320 mm - 400 mm
+ Basket volume: 7 l - 13 l

**HORIZONTAL BASKET CENTRIFUGES**

**HPZ 630 - 1600 | Highest purity**
+ Basket diameter: 630 mm - 1600 mm
+ Basket volume: 41 l - 704 l

**HCZ 1000 - 2000 | Durable performance**
+ Basket diameter: 1000 mm - 2000 mm
+ Basket volume: 172 l - 1718 l
AFTERSALES SERVICE

SERVICE
+ Prompt and uncomplicated support from our customer service team
+ Worldwide service centres
+ Maintenance, inspections, maintenance contracts based on BGR 500
+ Modifications, upgrades and integration of new drive and control systems
+ Customer-specific training

SPARE PARTS
+ Large stock of spare parts
+ Fast delivery
+ Reliable service worldwide
+ Competitive prices
+ Top manufacturer quality
+ Original parts

UPGRADES

GET MORE FOR LITTLE
+ Process optimisation to reduce down times and increase reliability
+ Control system upgrades with newest hard- and software
+ Process monitoring to improve availability
+ Remote maintenance for fast inexpensive troubleshooting
+ Technical improvements to increase output and product quality
AUTOMATION SYSTEMS

RELIABLE CONTROL

- Safety analyses, safety circuits
- Design and assembly of control cabinets and operator panels
- Regenerative breaking units
- Compliance to international regulations
- Interface to process control systems, remote maintenance
- Documentation: diagrams, concept descriptions, instructions, safety certificates
- Commissioning of complete systems on site
- Modifications and upgrades of existing systems

INERTOSAFE® SIL 2

- Validation according to SIL 2 (EN 61511)
- Validation certificates included

INERTOSAFE® PL d

- Validation according to PL d (EN 13849-2)
- Validation certificate included

INERTOSAFE® Basic

- For any type of vessel
- Integration in customers own safety control system

PROCESS TECHNOLOGY

PROCESS ORIENTED

- Product tests at our fully equipped laboratory
- Product tests by our process engineers on site
- Pilot tests on your site
- Commissioning of new installations
- Optimisation of existing installations
- Troubleshooting
USED CENTRIFUGES

NEARLY AS GOOD AS NEW

+ Know-how from the original equipment manufacturer
+ Safe operation and compliance to all current regulations
+ Short delivery time and 12 month guarantee
+ Complete overhaul
+ Application-specific modifications
+ Detailed documentation

PERIPHERAL ELEMENTS

RISK-FREE OPERATION

+ Various valves and butterfly valves
+ Flexible connections and flow sight glasses
+ Siphons and pressure relief valves
+ CIP collectors and valves for the regulation of the CIP cleaning cycles
+ Collectors on the centrifuge for the distribution of instrument air, nitrogen and hydraulic oil
+ Pilot valve blocks for the control of various system parts
+ Dosing devices and agitators for installation below static thickeners
+ Hydrocyclones to thicken suspension prior to the centrifuge feed

DOCUMENTATION

CUSTOMISED

+ Detailed documentation fulfilling all directives and standards
+ Meeting requirements as per customer specification (e.g. EN10204 - 3.1 Certificates)
+ DQ / IQ / OQ / As Built documents, data sheets, operating manuals
+ Detailed spare parts catalogues
+ Support at HAZOPS
+ EC declaration of conformity
+ ATEX 2014/34/EU
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<th><strong>PRODUCTS</strong></th>
<th><strong>APPLICATION</strong></th>
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<tr>
<td>Chlorides</td>
<td>NaCl</td>
<td>Sodium chloride</td>
<td>Table salt, pharmaceutical grade</td>
</tr>
<tr>
<td></td>
<td>Sea salt, Lake salt, Evaporator salt</td>
<td></td>
<td>Chemical industry, waste water treatment</td>
</tr>
<tr>
<td></td>
<td>KCl</td>
<td>Potassium chloride</td>
<td>Hot leaching or flotation</td>
</tr>
<tr>
<td></td>
<td>NH₄Cl</td>
<td>Ammonium chloride</td>
<td>Soda industry</td>
</tr>
<tr>
<td></td>
<td>TCCA</td>
<td>Trichloroisocyanuric acid</td>
<td>Chemical industry, disinfectant</td>
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<td></td>
<td>DCCNa</td>
<td>Sodium Dichloroisocyanurate</td>
<td>Chemical industry, disinfectant</td>
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<tr>
<td>Sulphates</td>
<td>Na₂SO₄</td>
<td>Sodium sulphate anhydride</td>
<td>Mining, by-product from spinning baths</td>
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<td></td>
<td>Na₂SO₄·10H₂O</td>
<td>Sodium sulphate decahydrate</td>
<td>By-product from spinning baths</td>
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<tr>
<td></td>
<td>CaSO₄·2H₂O</td>
<td>Gypsum</td>
<td>From coal fired power plants or copper plants, others</td>
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<tr>
<td></td>
<td>K₂SO₄</td>
<td>Potassium sulphate</td>
<td>Potash industry</td>
</tr>
<tr>
<td></td>
<td>MgSO₄</td>
<td>Magnesium sulphate</td>
<td>Epsom salt</td>
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<tr>
<td></td>
<td>(NH₄)₂SO₄</td>
<td>Ammonium sulphate</td>
<td>By-product of caprolactam, coking plants, fertilizer</td>
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<tr>
<td></td>
<td>FeSO₄ * 7 H₂O</td>
<td>Iron sulphate heptahydrate</td>
<td>Titanium dioxide processing</td>
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<td>Chlorates</td>
<td>NaClO₃</td>
<td>Sodium chlorate</td>
<td>Oxidant, bleaching agent</td>
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<tr>
<td></td>
<td>KClO₃</td>
<td>Potassium chlorate</td>
<td>Oxidant</td>
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<tr>
<td>Nitrites</td>
<td>NaNO₃</td>
<td>Sodium nitrate</td>
<td>Fertilizer</td>
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<tr>
<td></td>
<td>KN0₂</td>
<td>Potassium nitrate</td>
<td>Fertilizer</td>
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<tr>
<td></td>
<td>C₆H₇NO</td>
<td>PAP</td>
<td>P-aminophenole</td>
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<tr>
<td>Urea</td>
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<td>Diff. processes</td>
<td>Fertilizer</td>
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<tr>
<td>Intermediate Products</td>
<td>Na₂CO₃</td>
<td>Sodium carbonate crude</td>
<td>Soda industry</td>
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<td></td>
<td>Na₂CO₃·H₂O</td>
<td>Sodium carbonate monohydrate</td>
<td>Soda industry</td>
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<td></td>
<td></td>
<td>Chemical industry</td>
</tr>
<tr>
<td></td>
<td>C₆H₇NO</td>
<td>PAP, P-amino phenole</td>
<td>Chemical industry</td>
</tr>
<tr>
<td>Fibrous Products</td>
<td></td>
<td>Nitrocellulose Chips / Fibers</td>
<td>Explosives, paint industry</td>
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<td></td>
<td></td>
<td>CMC</td>
<td>Synthetic surface protection</td>
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<tr>
<td>Various</td>
<td>Ca₃(PO₄)₂</td>
<td>Calcium tartrate</td>
<td>Food industry</td>
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<tr>
<td></td>
<td></td>
<td>Sewage</td>
<td>Waste water treatment</td>
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<tr>
<td><strong>APPLICATIONS IN THE FINE CHEMICAL AND PHARMA INDUSTRY</strong></td>
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<tr>
<td>Fine Chemicals</td>
<td>NaHCO₃</td>
<td>Sodium bicarbonate refined</td>
<td>Food industry</td>
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<td></td>
<td>Pigments</td>
<td>Paint industry</td>
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<tr>
<td></td>
<td>NaCN</td>
<td>Herbicides, insecticides</td>
<td>Agrochemicals</td>
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<tr>
<td></td>
<td>C₆H₇NO</td>
<td>Sodium cyanide</td>
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<tr>
<td>Pharmaceuticals</td>
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<td>Carbofuran</td>
<td>Agrochemicals</td>
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<td>Antibiotics, Vitamines, APIs</td>
<td>Health, pharmaceutical products</td>
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<td></td>
<td></td>
<td>Intermediates</td>
<td>Pharmaceutical products</td>
</tr>
<tr>
<td>Starch</td>
<td></td>
<td>Various</td>
<td>Food industry</td>
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<tr>
<td><strong>APPLICATIONS IN THE MINERAL PROCESSING</strong></td>
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<tr>
<td>Mining</td>
<td>Ca₃(PO₄)₂</td>
<td>Rock phosphate</td>
<td>Phosphate treatment plants</td>
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<tr>
<td></td>
<td>NaCl</td>
<td>Rock salt, Sea salt</td>
<td>Phosphate treatment plants</td>
</tr>
<tr>
<td></td>
<td>KCl</td>
<td>Potassium chloride from flotation</td>
<td>Fertilizer</td>
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<td><strong>APPLICATIONS IN THE PETROCHEMICAL INDUSTRY</strong></td>
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<tr>
<td>Basic Products</td>
<td>C₆H₁₀O₄</td>
<td>Adipic acid</td>
<td>Polyamides, Nylon 66</td>
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<tr>
<td></td>
<td>C₈H₁₀O₂</td>
<td>Bisphenol A</td>
<td>Polycarbonate, plexiglass, synthetic resins</td>
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<tr>
<td></td>
<td>C₆H₁₁NO</td>
<td>Caprolactam</td>
<td>Nylon 6</td>
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<td>C₆H₁₀</td>
<td>Paraxylene</td>
<td>Synthetic fibres</td>
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<td>ABS, MBS</td>
<td>Pure resins</td>
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<tr>
<td></td>
<td>C₆H₁₂O₂</td>
<td>MEG (Monoethylene glycol)</td>
<td>MEG Recovery</td>
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<td></td>
<td>(C₃H₇)₉</td>
<td>Polyethylene</td>
<td>Resins</td>
</tr>
<tr>
<td></td>
<td>(C₃H₇)₉</td>
<td>Polypropylene</td>
<td>Resins</td>
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