



ferrum



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

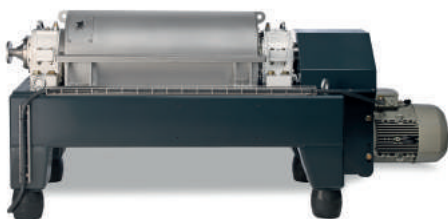
D-ACT® PUSHER CENTRIFUGES



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



INERTISATION 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



+ APPLICATIONS

MAIN PRODUCT GROUP	PRODUCTS	APPLICATION
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APPLICATIONS IN THE CHEMICAL INDUSTRY

Chlorides	NaCl	Sodium chloride	Table salt, pharmaceutical grade
		Sea salt, Lake salt, Evaporator salt	Chemical industry, waste water treatment
	KCl	Potassium chloride	Hot leaching or flotation
	NH ₄ Cl	Ammonium chloride	Soda industry
	TCCA	Trichloroisocyanuric acid	Chemical industry, desinfectant
	DCCNa	Sodium Dichloroisocyanurate	Chemical industry, desinfectant
Sulphates	Na ₂ SO ₄	Sodium sulphate anhydride	Mining, by-product from spinning baths
	Na ₂ SO ₄ *10H ₂ O	Sodium sulphate decahydrate	By-product from spinning baths
	CaSO ₄ *2H ₂ O	Gypsum	From coal fired power plants or copper plants, others
	K ₂ SO ₄	Potassium sulphate	Potash industry
	MgSO ₄	Magnesium sulphate	Epsom salt
	(NH ₄) ₂ SO ₄	Ammonium sulphate	By-product of caprolactam, coking plants, fertilizer
	FeSO ₄ * 7 H ₂ O	Iron sulphate heptahydrate	Titanium dioxide processing
Chlorates	NaClO ₃	Sodium chlorate	Oxidant, bleaching agent
	KClO ₃	Potassium chlorate	Oxidant
Nitrates	NaNO ₃	Sodium nitrate	Fertilizer
	KNO ₃	Potassium nitrate	Fertilizer
	C ₆ H ₁₄ N ₂ O ₂	Lysine	Pharmaceutical grade, animal food additive
Urea		Diff. processes	Fertilizer
Intermediate Products	Na ₂ CO ₃	Sodium bicarbonate crude	Soda industry
	Na ₂ CO ₃ H ₂ O	Sodium carbonate monohydrate	Soda industry
	C ₆ H ₇ NO	PAP P-aminophenole	Chemical industry
Fibrous Products		Nitrocellulose Chips / Fibers	Explosives, paint industry
		CMC	Synthetic surface protection
Various	CaC ₄ H ₄ O ₆	Calcium tartrate	Food industry
		Sewage	Waste water treatment

APPLICATIONS IN THE FINE CHEMICAL AND PHARMA INDUSTRY

Fine Chemicals	NaHCO ₃	Sodium bicarbonate refined	Food industry
		Pigments	Paint industry
		Herbicides, insecticides	Agrochemicals
	NaCN	Sodium cyanide	
	C ₁₂ H ₁₅ NO ₃	Carbofuran	Agrochemicals
Pharmaceuticals		Antibiotics, Vitamines, APIs	Health, pharmaceutical products
		Intermediates	Pharmaceutical products
Starch		Various	Food industry

APPLICATIONS IN THE MINERAL PROCESSING

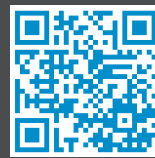
Mining	Ca ₃ (PO ₄) ₂	Rock phosphate	Phosphate treatment plants
	NaCl	Rock salt, Sea salt	Phosphate treatment plants
	KCl	Potassium chloride from flotation	Fertilizer

APPLICATIONS IN THE PETROCHEMICAL INDUSTRY

Basic Products	C ₆ H ₁₀ O ₄	Adipic acid	Polyamides, Nylon 66
	C ₁₅ H ₁₆ O ₂	Bisphenol A	Polycarbonate, plexiglass, synthetic resins
	C ₆ H ₁₁ NO	Caprolactam	Nylon 6
	C ₈ H ₁₀	Paraxylene	Synthetic fibres
		ABS, MBS	Pure resins
	C ₂ H ₆ O ₂	MEG (Monoethylene glycol)	MEG Recovery
	(C ₂ H ₄) _n	Polyethylene	Resins
	(C ₃ H ₆) _n	Polypropylene	Resins

CONTACT

WWW.FERRUM.NET



FERRUM MORE THAN 100 YEARS SINCE 1917

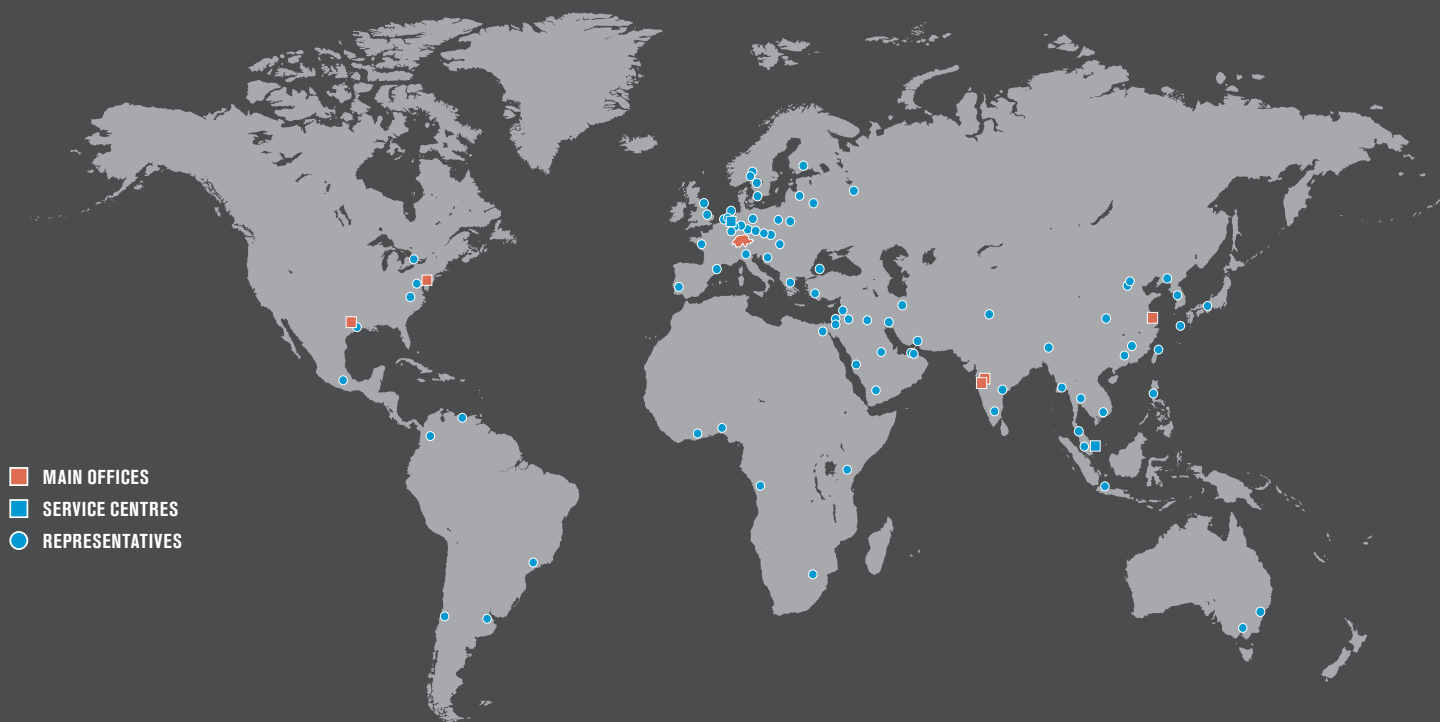
+
Ferrum Ltd.
Centrifuge Technology
CH-5503 Schafisheim
Switzerland
T +41 62 889 14 11
F +41 62 889 15 13
centrifuges@ferrum.net
www.ferrum.net

+
Ferrum Inc.
Centrifuge Technology
Houston, TX 77084
USA
T +1 877 933 3778
F +1 877 711 2329
sales@ferrumUS.com
www.ferrumUS.com

+
Ferrum Technologies
India Private Ltd.
400016 Mahim, Mumbai
India
T +91 222 431 4299
F +91 222 432 2276
sale@ferrumIN.com
www.ferrum.net

+
Ferrum Canning and Centrifuge
Technology (Kunshan) Co., Ltd.
215321 Kunshan City
P.R. China
T +86 512 3662 5104
F +86 512 3662 5100
centrifuge@ferrumChina.com
www.ferrumChina.com

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