

A detailed close-up photograph of a centrifuge rotor. The rotor is a large, circular, metallic component with a highly reflective surface. It features a central hub and several curved, perforated baskets or buckets arranged radially. The perforations are small, dark holes. The lighting creates strong highlights and shadows, emphasizing the metallic texture and the precision engineering of the component. The image is split vertically: the left side is overlaid with a semi-transparent blue filter, while the right side is in grayscale.

**ferrum**  
CENTRIFUGE TECHNOLOGY

# THE ART OF SEPARATION

+ SWISSMADE



# AFTERSALES SERVICE<sup>+</sup> FAST AND RELIABLE

## SERVICE

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A large team of experienced service specialists as well as various service centres are available to our customers worldwide. This way we ensure uncomplicated support as fast as possible.



- + 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

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We maintain a large stock of spare parts at our factory in Schafisheim. Our inventory and careful stock management ensure high availability and short delivery times.



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

# PROJECTS<sup>+</sup>

## SOLID-LIQUID SEPARATION



### SODA PRODUCTION

#### Total of 20 pusher centrifuges for 1 project

- + 4x P-100/2 Sodium chloride
- + 6x P-100/2 Sodium carbonate monohydrate
- + 6x P-100/2 Ammonium chloride
- + 4x P-60/2 Sodium sulphate

### TCCA (TRICHLOROISOCYANURIC ACID)

#### 2x HCZ 1600/800 RT/Ti

- + Disinfectant, water purification
- + Housing: Halar coated (base material 316L)
- + Basket: Solid titanium



# USED CENTRIFUGES<sup>+</sup>

## A SAFE ALTERNATIVE

### NEARLY AS GOOD AS NEW

With short delivery times and a 12 month guarantee Ferrum offers used centrifuges as an interesting alternative to new machines. As the original supplier our decades of experience are at your disposal. We offer consultation and support to implement customer-specific requirements.

- + Short delivery time and 12 month guarantee
- + Know-how from the original equipment manufacturer
- + Safe operation and fulfillment of all current regulations
- + Complete overhaul of the used centrifuge at Ferrum
- + Application-specific modifications
- + Full documentation



# AUTOMATION<sup>+</sup> CONTROL SYSTEMS

## RELIABLE CONTROL

The automation of centrifuges is of central importance at Ferrum. Ferrum has invested many years into the development of centrifuge automation. Proven, standardised hardware and software modules are used as a basis and are supplemented with customer-specific requirements or specifications. Ferrum uses components from leading suppliers: ABB, Siemens, Rockwell, Danfoss, Bartec, Stahl, Allen-Bradley, Moeller-Eaton, Pepperl+Fuchs, Pilz etc.

- + Safety analysis
- + 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<sup>+</sup> ABSOLUTE SAFETY

## INERTOSAFE® SIL 2

InertoSafe® SIL 2 is a new development by Ferrum. The inertisation system with corresponding control unit is certified according to SIL 2 (EN 61511) and can be used for inertisation of centrifuges and other vessels.

- + Based on N<sub>2</sub> flow rate and pressure monitoring, O<sub>2</sub> measurement optional
- + Independent system - no validation costs
- + SIL 2 (EN 61511) validation certificates included
- + UL, CSA certificates for all instruments

## INERTOSAFE® ATEX

The InertoSafe® ATEX inertisation system is certified according to ATEX and can be used for inertisation of Ferrum centrifuges.

- + Based on N<sub>2</sub> flow rate and pressure monitoring, O<sub>2</sub> measurement optional
- + System monitored by the centrifuge control unit
- + UL, CSA certificates for all instruments



# APPLICATIONS<sup>+</sup>

## STATE-OF-THE-ART SOLUTIONS

MAIN PRODUCT GROUP	PRODUCTS	APPLICATION	
<b>APPLICATIONS IN THE CHEMICAL INDUSTRY</b>			
<b>Chlorides</b>	NaCl	Sodium chloride	Table salt, pharmaceutical grade
		Sea / Lake salt / Evaporator salt	Chemical industry, waste water treatment
	KCl	Potassium chloride	Hot leaching or flotation
	NH <sub>4</sub> Cl	Ammonium chloride	Soda industry
	TCCA	Trichloroisocyanuric acid	Chemical industry, disinfectant
	DCCNa	Sodium Dichloroisocyanurate	Chemical industry, disinfectant
<b>Sulphates</b>	Na <sub>2</sub> SO <sub>4</sub>	Sodium sulphate anhydride	Mining, by-product from spinning baths
	Na <sub>2</sub> SO <sub>4</sub> *10H <sub>2</sub> O	Sodium sulphate decahydrate	By-product from spinning baths
	CaSO <sub>4</sub> *2H <sub>2</sub> O	Gypsum	From coal fired power plants or copper plants, others
	K <sub>2</sub> SO <sub>4</sub>	Potassium sulphate	Potash industry
	MgSO <sub>4</sub>	Magnesium sulphate	
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	Ammonium sulphate	By-product of caprolactam, coking plants, fertilizer
	FeSO <sub>4</sub> * 7 H <sub>2</sub> O	Iron sulphate heptahydrate	Titanium dioxide processing
<b>Chlorates</b>	NaClO <sub>3</sub>	Sodium chlorate	Oxidant, bleaching agent
	KClO <sub>3</sub>	Potassium chlorate	Oxidant
<b>Nitrates</b>	NaNO <sub>3</sub>	Sodium nitrate	Fertilizer
	KNO <sub>3</sub>	Potassium nitrate	Fertilizer
		Lysine	Pharmaceutical grade, animal food additive
<b>Urea</b>		Diff. processes	Fertilizer
<b>Intermediate Products</b>		Sodium bicarbonate crude	Soda industry
		Sodium carbonate monohydrate	Soda industry
		PAP P-aminophenole	Chemical industry
<b>Fibrous Products</b>		Nitrocellulose Chips / Fibers	Explosives, paint industry
		CMC	Synthetic surface protection
<b>Various</b>		Calcium tartrate	Food industry

### APPLICATIONS IN THE FINE CHEMICAL AND PHARMA INDUSTRY

<b>Fine Chemicals</b>		Sodium bicarbonate refined	Food industry
		Pigments	Paint industry
		Herbicides, insecticides	Agrochemicals
		Sodium cyanide	
		Carbofuran	Agrochemicals
<b>Pharmaceuticals</b>		Antibiotics, Vitamines, APIs	Health, pharmaceutical products
		Intermediates	Pharmaceutical products
<b>Starch</b>		Various	Food industry

### APPLICATIONS IN THE MINERAL PROCESSING

<b>Mining</b>		Rock phosphate	Phosphate treatment plants
		Rock salt (NaCl), Sea Salt	
		Potassium chloride from Flotation	Fertilizer

### APPLICATIONS IN THE PETROCHEMICAL INDUSTRY

<b>Basic Products</b>		Adipic acid	Polyamides, Nylon 66
		Bisphenol A	Polycarbonate, plexiglass, synthetic resins
		Caprolactam	Nylon 6
		Paraxylene	Synthetic fibres
		ABS, MBS	Pure resins
		Polyethylene	Resins
		PP	Resins

# CONTACT

## WWW.FERRUM.NET



**Ferrum Ltd.**  
**Head Office**  
CH-5102 Rapperswil  
Switzerland  
T +41 62 889 14 11  
F +41 62 889 15 13  
zentrifugen@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  
ferrumindia@gmail.com  
www.ferrum.net

**ACT LOCAL<sup>+</sup>**  
**THINK GLOBAL**

