

Centrifuge Technology

Our innovation – your benefit

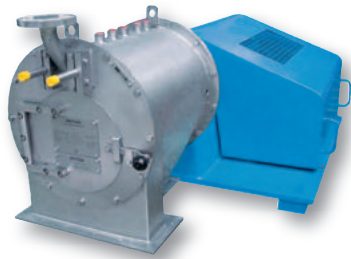


Base chemicals

Pusher centrifuges

Continuous operation
High product wash efficiency, low residual moisture
High product recovery, low energy consumption
Robust design even under toughest conditions

Salts: Sodium chloride, sodium sulfate, etc.
Fertilizers: Potassium chloride, ammonium nitrate, sulfates, etc.
Plastics: Adipin, ABS, etc.
Soda, Cellulose, etc.



PM-230 pusher centrifuge

- Originally developed by Escher-Wyss
- Basket diameter: 230 mm
- Typical capacity for NaCl: 1.5 t/h
- Mechanical pusher mechanism

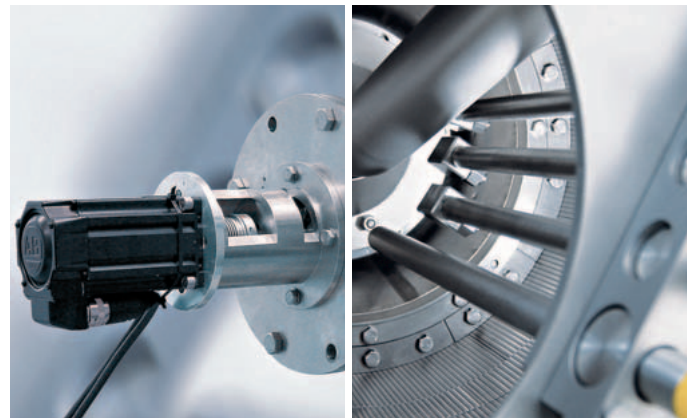
P-32 – 50 pusher centrifuges

- Developed by Ferrum-Escher-Wyss
- Basket diameter: 320 mm – 500 mm
- Typical capacity for NaCl: 6 – 18 t/h
- Hydraulic pusher mechanism



P-60 – 120 pusher centrifuges

- Originally developed by Escher-Wyss
- Basket diameter: 600 mm – 1200 mm
- Typical capacity for NaCl: 30 – 85 t/h
- Hydraulic pusher mechanism



Upgrades for pusher centrifuges

- Integrated pre-thickening cone:
product pre-thickening directly inside the centrifuge
- Pulsed feeding:
higher product throughput with existing centrifuges

Pharmaceuticals/Fine chemicals

Scraper and top discharge centrifuges

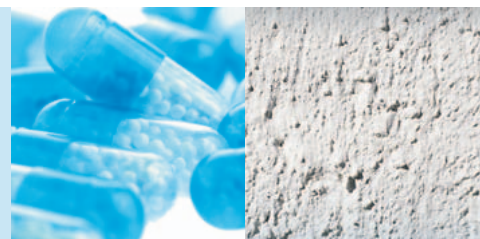
Discontinuous operation

Design according to latest cGMP guidelines

Modularity and upgrade possibilities

Easy inspection of all functional devices

Herbicides, pesticides,
proteins, vitamins (C, A, K, etc.),
gypsum, starch, lysines, API, etc.



HPZ 630 – 1600 horizontal scraper centrifuges

- Basket diameter: 630 mm – 1600 mm
- Basket volume: 41 l – 704 l
- Horizontal discharge through solids discharge chute
- For pharmaceutical applications
- Optional clean room installation using membrane connection
- Swivel open housing and front door (optional)



VBC 1000 – 1600 vertical scraper centrifuges

- Basket diameter: 1000 mm – 1600 mm
- Basket volume: 200 l – 1011 l
- Vertical bottom discharge
- Design for pharmaceutical and chemical applications
- Optional clean room installation using membrane connection
- Swivel open cover and housing (optional)



VTC 320 – 1600 vertical top discharge centrifuges

- Basket diameter: 320 mm – 1600 mm
- Basket volume: 6.6 l – 820 l
- Vertical top discharge
- Special design for mobile turnkey systems for the use in Ex-Zone 1 areas (according to RL 94/9/EG)
- Special design for installation in isolators for handling of toxic substances



HCZ 1000 – 2000 horizontal scraper centrifuges

- Basket diameter: 1000 mm – 2000 mm
- Basket volume: 172 l – 1718 l
- Horizontal discharge through solids discharge chute or screw conveyor
- For fine chemical and chemical applications
- Very robust design, high throughputs
- Permanent operation under toughest conditions

Peripheral system parts

Accessories for pusher, scraper and top discharge centrifuges



Automation

Customised control and drive systems



ATEX

FERRUM inertisation system InertoSafe® SIL 2

- SIL 2 (EN 61511) certified inertisation and control system
- Independent system – no validation costs
- SIL 2 (EN 61511) validation certificates included
- For the inertisation of any vessel
- All instruments with UL, CSA certificates



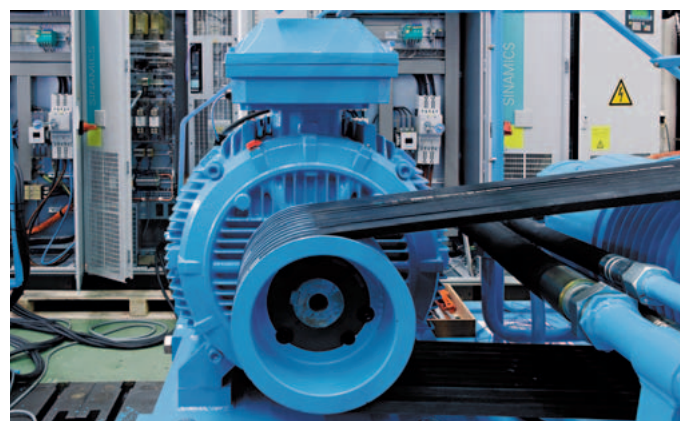
Control systems

- Software programming
- Operator panels and control cabinets
- Connections to distributed control systems, remote maintenance
- Design according to the latest safety standards
- Explosion protection in Ex-Zone 1 areas (according to RL 94/9/EG)



Peripheral elements

- Siphons, pressure relief valves, flexible connections
- Valves for chemical and pharmaceutical applications
- Solids discharge cones, container docking stations
- CIP-, N₂-, control air-, hydraulic-collectors
- DAU-dosing devices for the continuous discharge of suspension from tanks



Drive systems

- Optimally designed drive units
- Energy recovery
- Explosion protection in Ex-Zone 1 areas (according to RL94/9/EG)
- Sensor technology and data logging

Expertise all under one roof

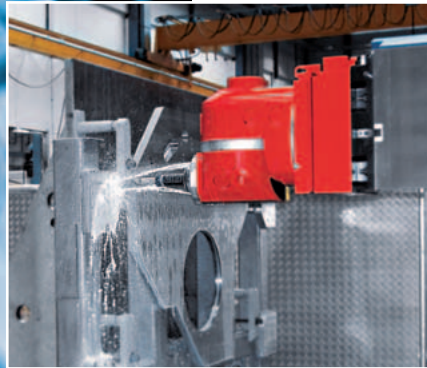
Design, construction, production, assembly, project management, etc.

Aftersales service

- Large warehouse with spare and wear parts, worldwide and fast delivery
- Inhouse production of sieve elements for pusher centrifuges
- Overhauls, reengineering and upgrading of existing installations
- Service contracts based on BGR 500
- Customised client training
- Service centres worldwide

Used equipment at good value

- Overhaul including functional test by FERRUM LTD.
- Short delivery times, 12 month guarantee



Process technology support

- Product tests in the laboratory and on customer's site
- Semi-industrial tests on customer's site
- Commissioning of new and optimisation of existing installations

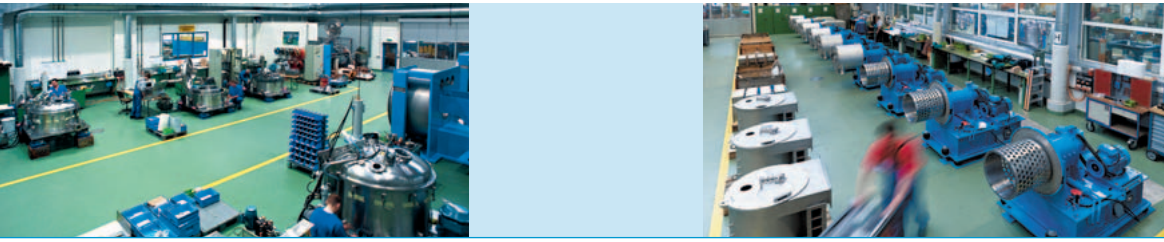
Documentation according to newest guidelines

- Certificates according to EN 10204 (e.g. 3.1 certificates) and customer's specifications
- DQ/IQ/OQ supporting documentation
- AS BUILT documents, data sheets, manuals
- Easy to use wear and spare parts catalogue with drawings, etc.

Excellence since decades

FERRUM LTD. was founded in 1917 and is still a family owned company, consolidating 5 business units operating in different industries. The broad diversification of the product range, a high degree of self financing as well as economic independence secure a strong position with excellent perspectives in the future.

Over 60 representatives worldwide



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