



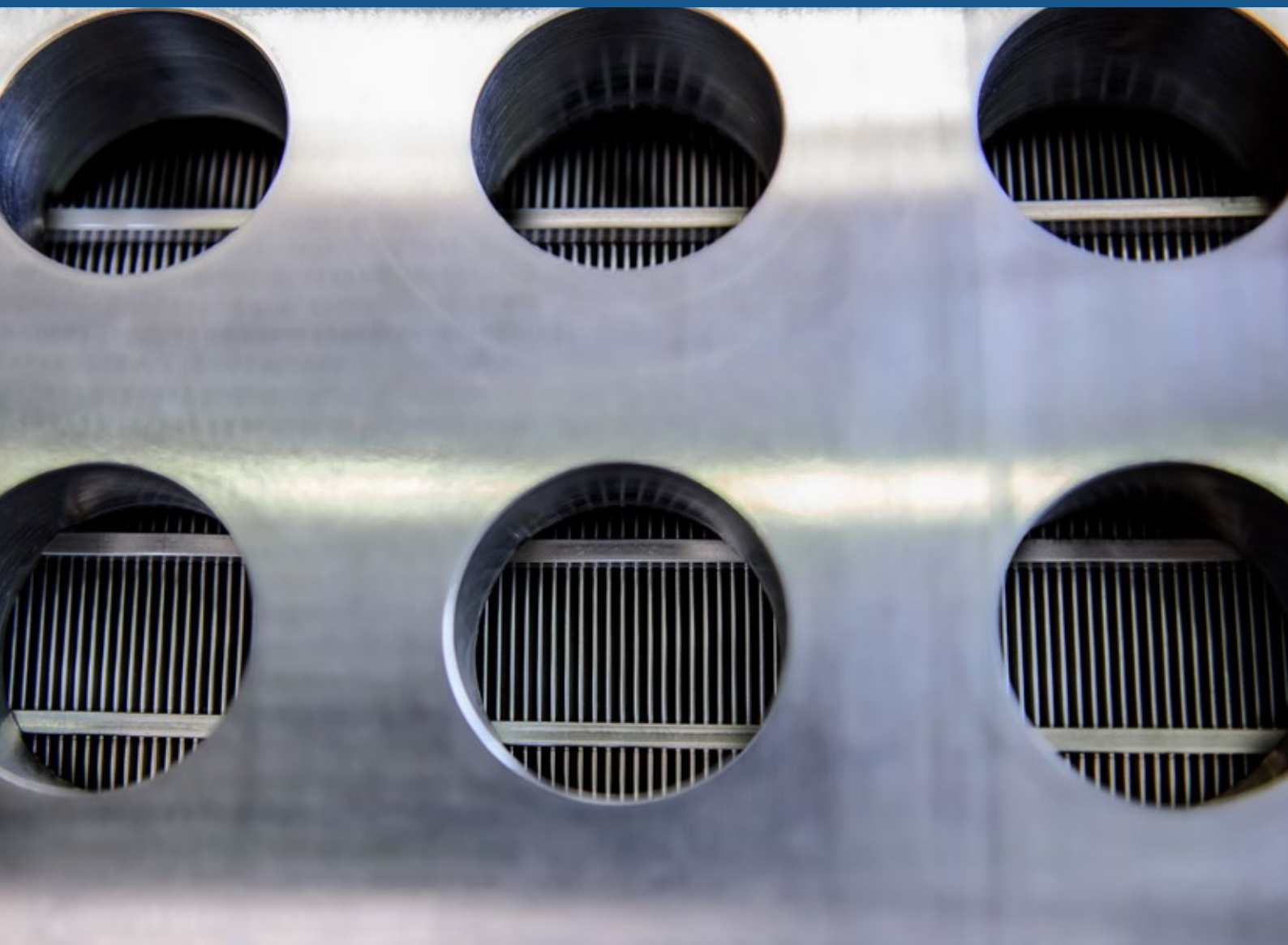
# ENGINEERED FOR EXCELLENCE IN MINING AND MINERALS

ANDRITZ wedge wire and perforated components

**ANDRITZ**



With extensive experience and exceptional know-how in machine and plant engineering, ANDRITZ excels in all processes related to perforating metals and wedge wire screen technology. Benefit from our expertise in further processing products into ready-to-install components, ensuring efficiency and reliability every step of the way. Specifically for the mining and minerals industry, wedge wire and perforated plates are indispensable for their efficiency, durability, versatility, and cost-effectiveness.



# Leading the way with efficient and reliable solutions

Across diverse industries, one thing remains constant: the reliability of ANDRITZ wedge wire and perforation products. Engineered to seamlessly integrate with your OEM machines, our solutions ensure seamless integration and top performance.

At ANDRITZ, we prioritize your goals, crafting bespoke solutions tailored to your specific needs. Our wedge wire and perforated components are available for a wide range of applications in the mining and mineral industry, including (but not limited to):

- Battery minerals processing
- Coal
- Gold
- Lithium
- Potash
- Tailings
- Uranium

Our wedge wire and perforated components support various process steps and equipment to enhance process quality and efficiency:

- **Screening and sizing:** Vibrating panels like polywedge
- **Dewatering:** Centrifugal screens, static sieves
- **Interstage screening:** Wedge wire interstage screening
- **Well sand screening:** ISR well screens
- **Leaching:** Collectors and baskets for elution columns
- **Filtration:** Mobile sand filtration unit



Wedge wire installed on a pusher centrifuge

# Boost efficiency with vibrating panels for high-capacity material separation

Vibrating panels are vital for efficient, high-capacity material separation and screening in the mining and mineral industry, contributing to improved process quality and reduced operational costs.

Whatever their final use (scalping, desliming, etc.), vibrating machines are widely used in mining and mineral processes and are usually equipped with decks made of modular panels (in polyurethane, rubber, and metals depending on the application).

To meet the needs of vibrating machines manufacturers, ANDRITZ offers wedge wire panels and polywedge modules, an hybrid configuration combining wedge wire screens with PU frames. These solutions provide high open area, abrasion and corrosion resistance, making them ideal for highly abrasive applications such as dewatering and desliming coal slurry.

## MAIN FINAL USE

- **Scalping:** Removing material from primary and secondary crushing
- **Screening:** Separating material by size
- **Grading:** Preparing top products with varying size ranges
- **Dewatering:** Removing process water from ore
- **Desliming:** Removing material < 500 µm

## AVAILABLE DIMENSIONS

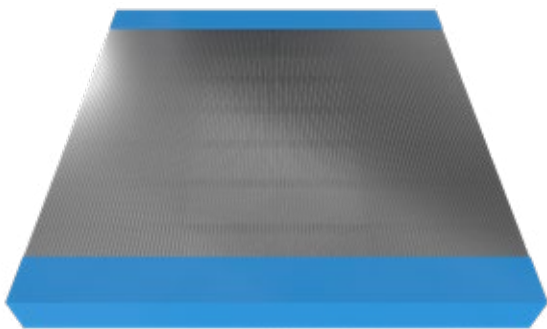
- 305x305 mm
- 300x300 mm
- 600x305 mm
- 610x305 mm
- 500x300 mm

## PROFILE WIRE SELECTION

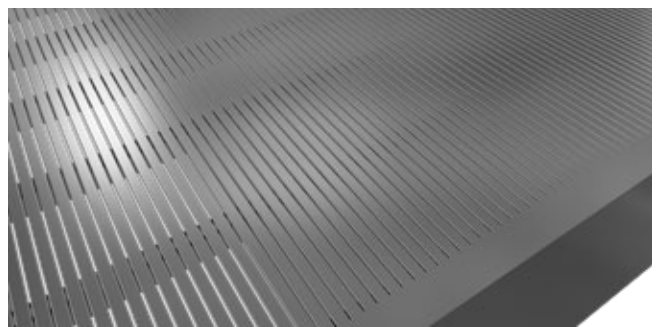
- Available in a wide range of profile wires from 0.5 mm to 5 mm
- Slot sizes range from 0.05 mm (50 µm) to several millimeters, depending on the application
- Material of construction: AISI 304, AISI 430

## YOUR BENEFITS

- High open area for high capacity
- Abrasion and corrosion resistance for longer lifespan



Polywedge panel commonly used in mining and minerals applications



Fine and precise wedge wire

# Enhance performance and reliability of decanter and filter centrifuges

In the mining and mineral industry, efficient and solid wedge wire and filtering screens are essential for decanter and filter centrifuges used for dewatering, like tailings dewatering, cristal dewatering, as well as in beneficiation processes for potash, coal or lithium.

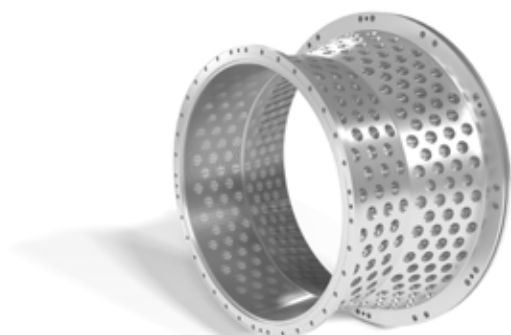
ANDRITZ plates and screens are commonly used for precise filtration, ensuring only particles of the desired size pass through, enhancing the separation of valuable minerals from waste. Designed to withstand high pressures and abrasive materials, their robust construction guarantees long-term reliability and reduces the need for frequent replacements. By maintaining consistent performance, these screens lead to higher throughput and better product quality, maximizing yield and profitability. Additionally, their durability reduces downtime and maintenance costs, contributing to lower operational expenses. Effective filtration processes also minimize waste and improve water recovery, reducing the environmental impact of mining operations.

## MAIN FINAL USE

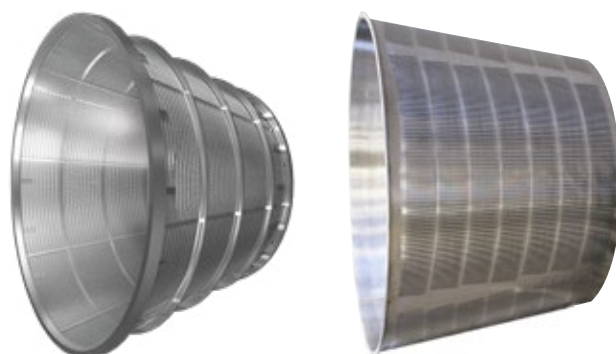
- Pusher centrifuges
- Peeler centrifuges
- Screen scroll centrifuges
- Tumbler centrifuges
- Sliding centrifuges
- Screen bowl decanter centrifuges

## YOUR BENEFITS

- Wide type of screens available:
  - Wedge wire screens
  - Milled/drilled plate
  - ConiPerf screens
  - Punched screens
  - Laser / waterjet perforation
- Extensive expertise in selecting the optimal screens to meet your needs
- Tight tolerances on dimensions, on slot/perforation size
- Special solutions to improve lifespan



Robust screen bowl decanter basket for mining application



Filtering elements installed in screen scroll centrifuge baskets for potash and coal



# Essential components for efficient leaching

Leaching treatment in mining involves extracting valuable minerals from ore using either heap leaching or in-situ leaching. Heap leaching uses acid or alkali solutions after pre-processing the ore, while in-situ leaching pumps the solution through drilled wells in the ore deposit. Both methods use ion exchange resins or absorbents to extract and concentrate metals.

To meet the demanding expectations in leaching application, ANDRITZ offers a wide range of solutions and equipment, adapting processes, vessel configurations, and design conditions. This includes:

- Headers
- Screen laterals (distributors and collectors)
- Inlet/outlet screen baskets
- Screen nozzles
- Screen resin traps

These components allow for maximization of flow rate, optimization of filtration and regeneration cycles, reduction of pressure drop, improved reliability by preventing resin leakage, and enhanced resistance against corrosion through the use of special alloys.

## MAIN FINAL USE

Leaching system for:

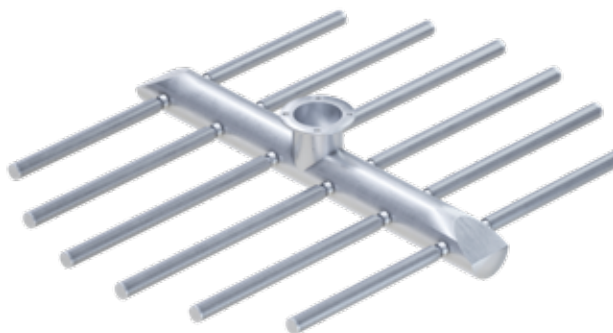
- Uranium (ISR: In-situ recovery processes)
- Lithium (DLE: Direct lithium extraction)
- Precious metals (Gold, Silver)

## AVAILABLE DIMENSIONS

- Large dimensions capabilities (engineered on demand)

## YOUR BENEFITS

- Maximization of flow rate
- Optimization of cycle (filtration/regeneration)
- Reduction of pressure drop reducing OPEX and avoiding plugging risk
- Improvement of reliability (eliminates resin leakage) and resistance against corrosion



Collector/distributor used for flow rate maximization



Outlet basket for efficient leaching



In additions to these components for heap and in-situ leaching, ANDRITZ cylinders optimize tank leaching and adsorption processes, including CIP and CIL interstage screening. These cylinders ensure effective leaching and simultaneous adsorption, preventing carbon from moving downward in the circuit and enhancing overall recovery efficiency.

#### MAIN FINAL USE

- Tank leaching

#### AVAILABLE DIMENSIONS

- Diameter from 500 to 2,300 mm

#### PROFILE WIRE SELECTION

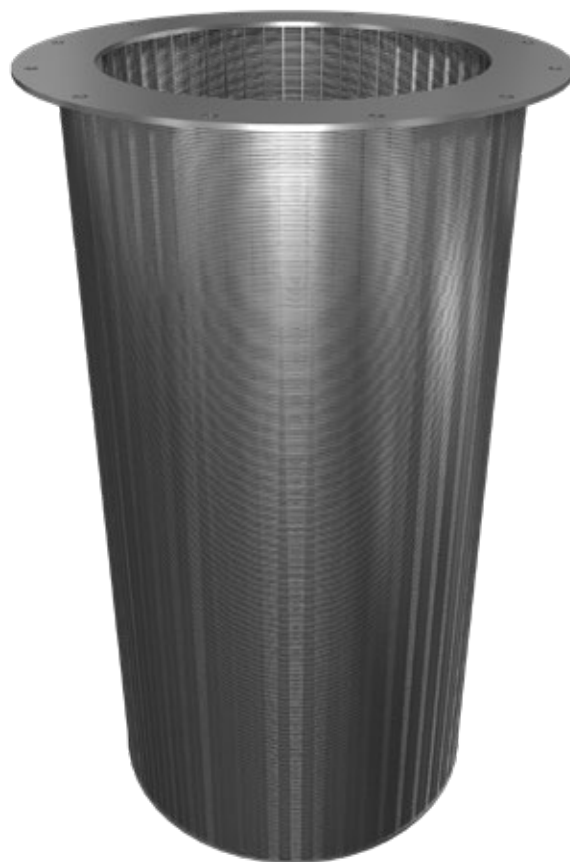
- Profile wire typically P223, P224, PW220. depending on mechanical resistance, pressure drop, and flow rate
- Material: AISI 304
- Slot size depends on the carbon particle size, half the size of the smallest particles

#### YOUR BENEFITS

- High flow rate, thanks to large open area
- High reliability, due to strong construction



Outlet cartridge for improved reliability



Large screen drum with diameter up to 2,300mm for interstage screening

# Discover the power of wedge wire sieve bends for static sieves

A static sieve is a simple, cost-effective solution for dewatering, commonly used in mining and minerals for dewatering, desliming, or media recovery.

ANDRITZ offers a diverse selection of sieve bends made of wedge wire. These feature a very sharp profile wire that enhances the cutting effect and provides a high open area ensuring high slot tolerance for superior filtration quality. Highly resistant to wear, these sieve bends are available in large panel widths up to 2,500 mm.

## MAIN FINAL USE

- Static sieves

## AVAILABLE DIMENSIONS

- Width from 500 mm (20") to 2,500mm (8')
- Arc length from 762 mm (30") to 2,159 mm (85")

## PROFILE WIRE SELECTION

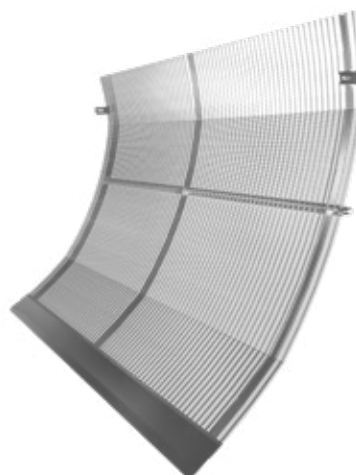
- Available in a wide range of profile wires from 0.35 mm to 5 mm
- Slot opening from 0.05 mm

## YOUR BENEFITS

- Sharp profile wire enhances cutting efficiency, enabling 150 µm filtration in gravity-fed conditions
- High open area, thanks to profile wire, as small as 0.35 mm wide
- High slot tolerance for a better filtration quality
- Abrasion resistance alloy (AISI 430) for higher wear resistance



HydraSieve, a simple and highly efficient screen, designed for solid/liquid separation



Curved grill commonly use on static sieves



# Ensure reliable uranium recovery with ANDRITZ well screens

In-situ recovery of uranium involves injecting a dilute acid solution into drilled boreholes to dissolve uranium, which is then collected through production wells.

The uranium-laden solution is processed at a treatment plant, and the solution is re-injected in a closed circuit. Well screens are used to prevent sand particle migration into the acid solution. For such purpose, ANDRITZ well screens are essential for both injection and production wells in in-situ uranium recovery. They ensure reliable operation by preventing sand particle migration, maintaining efficient solution flow, and enhancing the overall recovery process.

## MAIN FINAL USE

- In-situ leaching

## AVAILABLE DIMENSIONS

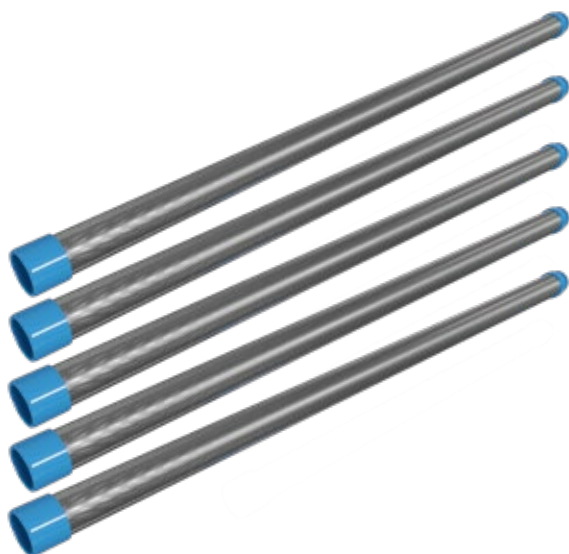
- DN50 (2") to DN100 (4")

## PROFILE WIRE SELECTION

- Slot openings range from 250  $\mu\text{m}$  (0.01") to 500  $\mu\text{m}$  (0.02")
- Profile wire P183 (1.8 mm wide), P223 (2.28 mm wide)
- Open area up to 21.7%
- PVC couplings

## YOUR BENEFITS

- High open area for higher productivity
- Non plugging surface
- High collapse and tensile strength
- High corrosion resistance for longer lifetime



Well screens for injection and production wells



Well screens with PVC couplings

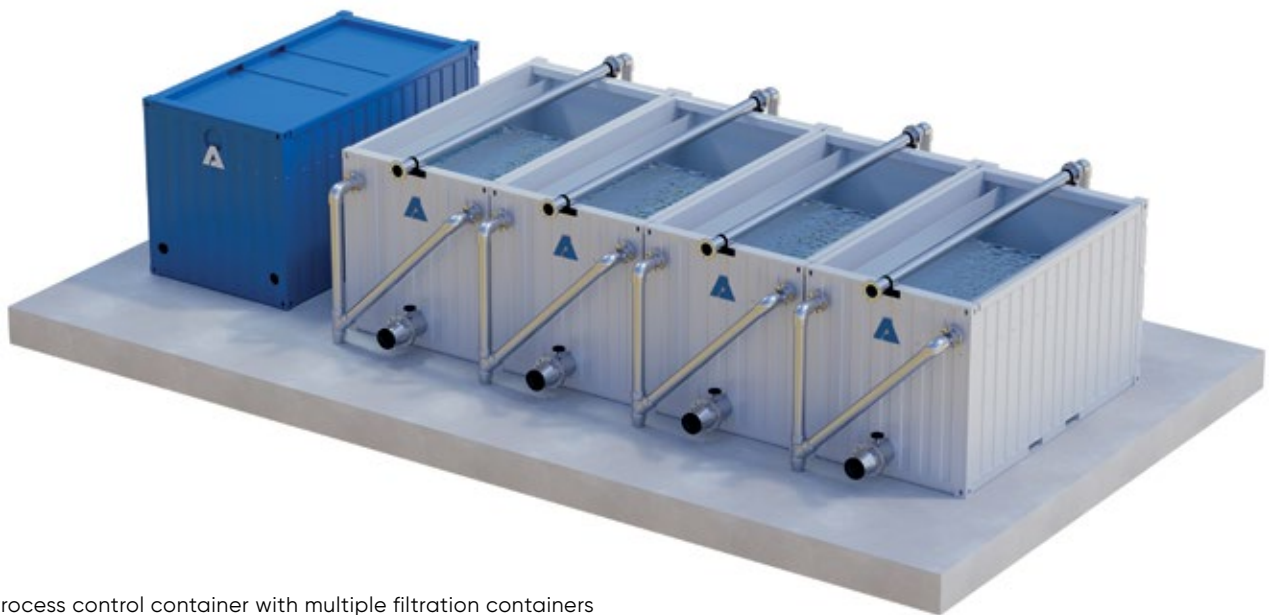
# Mobile filtration unit: Fully adaptable to your water recovery

For industrial use (like in mining and minerals applications), the scalable ANDRITZ Mobile Filtration Unit (AMFU) is the most flexible and effective supplement to produce extra process water whenever needed.

Sites with limited space can easily integrate the container-based design, for temporary or permanent production.

During maintenance at a full-scale water filtration plant, the AMFU helps keep your operations up and running, avoiding costly downtimes.

The AMFU is currently available in three standard units with different capacities (50 m<sup>3</sup>/h, 100 m<sup>3</sup>/h, 200 m<sup>3</sup>/h) and higher capacities can be engineered on request.



Process control container with multiple filtration containers

## FEATURES

### 20' filtration container:

- Open gravity filter with the ANDRITZ Underdrain System (AUS)
- Dispersal ramp
- Shipping container design (6 m x 2.4 m x 3 m)
- 316L stainless steel
- Filtering media: sand, CAG, and others

## FEATURES

### 20' process container:

- Air blower
- Backwash pump
- Control panel
- Possible additional options:
  - Dosing injection system (coagulant, chlorine,...)
  - UV disinfection
  - Disk filtration

# Your full-service provider

With ANDRITZ, you gain access to one of the world's largest OEM manufacturers for solid/liquid separation systems, including such well-known brands as 3Sys Technologies, Bird, Dedert, Delkor Capital Equipment (Pty) Ltd., Escher Wyss dryers, Guinard Centrifugation, KHD Humboldt Wedag, Krauss-Maffei centrifuges, dryers, and filters, LENSER Filtration, Netzsch Filtration, REINEVELD centrifuges, Rittershaus & Blecher, Royal GMF Gouda, Sprout Bauer and Vandenbroek.

Whether you need spare parts, rentals, local service, repairs, upgrades, or modernization of your equipment, ANDRITZ is your true full-service provider. From initial consulting through to service agreements, process optimization, and training programs, we are always looking for ways to minimize downtime and increase

predictability in operations while raising your overall production efficiency. Wherever you operate, our network of 550 service specialists and global service centers ensures we'll always be there to support you for many life cycles to come. Let's sit down and see how we could take your operations to the next level.



#### LOCAL SUPPORT

Responsive local service centers and field service technicians



#### REPAIRS & UPGRADES

Optimization of machine and process performance, repair work, retrofitting, and modernization



#### SECOND-HAND & RENTALS

Certified second-hand and rental machines



#### TRAINING

Operator training and tailored seminars for operating and maintenance personnel



#### OEM SPARE PARTS

Filter cloths, spare and wear parts from OEMs or with OEM level quality, all readily available



#### SERVICE AGREEMENTS

Preventive maintenance, contracts for spare parts, maintenance, inspections, repairs, upgrades, operation, and equipment monitoring



#### PROCESS OPTIMIZATION

Automation tools and process expertise to boost your profit



#### LAB AND ON-SITE TESTS

Lab and testing capabilities for process optimization and machine upgrades





## A WORLD OF SEPARATION SOLUTIONS

ANDRITZ provides mechanical and thermal solid/liquid separation technologies, complemented by comprehensive services, automation, and digitalization solutions for the chemicals, environment, food and beverage, as well as mining and minerals industries. Our customized, innovative solutions focus on minimizing resource consumption and maximizing process efficiency, thus making a substantial contribution towards sustainable environmental protection. With over 150 years of experience and more than 2,700 separation specialists around the globe, we are a driving force in the evolution of separation solutions – enabling industries to meet tomorrow's demands responsibly. **ANDRITZ. FOR GROWTH THAT MATTERS.**

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