As the world’s leading separation specialist, ANDRITZ SEPARATION is home to the deepest knowledge, broadest technical resources, and most comprehensive service solutions in the field of separation.

For more than 150 years our technologies and services have been driving the evolution of industries ranging from food and beverage production to mining and minerals, chemicals, organic waste, biomass, and wastewater management.
The right solution for every separation challenge

With the world’s most comprehensive portfolio of solid/liquid separation technologies, ANDRITZ SEPARATION is well positioned to provide the right solution for any type of mechanical or thermal separation challenge.

It all starts with your specific process requirements, and ends with a system that gives you the best results – day in and day out, for decades to come.
ANDRITZ SEPARATION
OUR TECHNOLOGIES
The right solution for every separation challenge

MECHANICAL SEPARATION

- Decanter Centrifuges
- Filter Centrifuges
- Separators
- Disc and Drum Filters
- Filter Presses

SCREENS, DRAINS, PRESSES

- Screens, Drains, Presses
- Thickener and Flocculant Plants

THERMAL SEPARATION

- Contact and Paddle Dryers
- Belt, Drum, and Fluid Bed Dryers

SERVICE AND AUTOMATION

- Process Monitoring, Improvement, and Training

OTHER EQUIPMENT

- OTHER EQUIPMENT
ANDRITZ SEPARATION INDUSTRIES WE SERVE
Sustainable growth through smarter separation solutions

OEM BEHIND LEADING BRANDS
3Sys Technologies
Bird
Delkor Capital Equipment (Pty) Ltd.
Escher Wyss dryers
Frautech
Guinard Centrifugation
KHD Humboldt Wedag
Krauss-Maffei centrifuges, dryers, and filters
Lenser
Netzsch Filtration
Rittershaus & Blecher
Royal GMF Gouda
Sprout Bauer
Vandenbroek

ENVIRONMENT
ANDRITZ SEPARATION is the world’s only supplier to offer a selection of four dewatering, three thickening, four drying, and multiple screening technologies for industrial and municipal wastewater, biomass, and organic waste.

FOOD
With thousands of installations worldwide – covering everything from presses and centrifuges to filters, screens, and drying systems – we offer the right solution for food and beverage producers of all sizes.

CHEMICALS
Choose from a comprehensive range of reliable separation, drying, and automation solutions for chemical and petrochemical processing applications.

MINING & MINERALS
Discover the industry’s most efficient and reliable separation solutions for iron ore, potash, coal, precious metals, and more.

WORLDWIDE SERVICE AND SUPPORT
Wherever in the world you are located, we can help strengthen your operations with service and support for nearly all brands and technologies, from one of the largest OEM manufacturers of separation equipment.

5 / ANDRITZ SEPARATION / COMPANY PRESENTATION / © COPYRIGHT ANDRITZ
ANDRITZ SEPARATION
BUSINESS DEVELOPMENT

For all your separation challenges

Being the supplier with one of the world’s broadest portfolios of separation technologies, we serve a wealth of applications in diverse industrial markets for decades.

To channel these business insights and to put them to work for you, we have established a unique team of cross functional “out of the box” thinkers, ensuring our solutions stay ahead.

By evaluating market requirements, exploring technological synergies and encouraging industrial crossover ideas – we leave trodden paths on purpose, to be able to serve your needs best.
As a trusted partner we provide our customers with innovative single machines, complete systems, and comprehensive services all around the world.
WORLDWIDE SERVICE AND SUPPORT

Our installed base of more than 55,000 solid/liquid separation solutions and systems means we take service extremely seriously.

Whether it’s consulting, process optimization, repairs, upgrades, spare and wear parts, operator training, or service agreements, we work closely with all of our customers to ensure a lifetime of efficiency and reliability.

A TRUE FULL-SERVICE PROVIDER

Many of our customers know us as the OEM behind world-renowned brands like Bird, Netzsch Filtration, Royal GMF Gouda and more – all of whom have been acquired by the ANDRITZ Group over the years.

But fewer realize that we can service and supply spare and wear parts for nearly all brands of solid/liquid separation equipment on the market.
YOUR TRUSTED PARTNER

For more than 150 years, we’ve specialized in the development of key separation technologies and expertise.

To continuously expand our portfolio, ANDRITZ SEPARATION has also acquired well-known global brands for technologies ranging from presses, centrifuges, and separators, to decanters, drying/cooling systems, filters, screens, and more.

PUT OUR EXPERTISE TO WORK

Every year our specialists install more than 2,000 machines worldwide, including everything from the most reliable industry standards to the most advanced automation systems.

This sheer depth of experience guarantees that you get the latest specialist expertise for any machine and any process, anywhere in the world.

GLOBAL STRENGTH CLOSE TO YOU

More than 2,000 separation specialists are at the heart of ANDRITZ SEPARATION, located in 40 countries.

Add to this some 250 ANDRITZ GROUP production sites, service, and sales companies, and you can rest assured that a local team is always available to support your individual needs.
GLOBAL PRESENCE
THE KEY TO LOCAL SUPPORT

GERMANY
Cologne
Freiburg
Ravenburg
Selb
Vierlücken

THE NETHERLANDS
Dee Reider
Waalwijk

UNITED KINGDOM
Belper
Newcastle-upon-Tyne

CANADA
Saskatoon

USA
Arlington
Bloomfield
Lakeland
Pittsburgh
San Leandro
Scottsdale
Walpole

BRAZIL
Belo Horizonte
Pomerode
São Paulo

SPAIN
Barcelona
Córdoba
Madrid

FRANCE
Châtillon-sur-Loing
Vézelay-Villabé

ITALY
Milan

SOUTH AFRICA
Kykamal

AUSTRIA
Graz
Vienna

SLOVAKIA
Spisska

RUSSIA
Moscow
St. Petersburg

CHINA
Beijing
Foshan
Shanghai

MONGOLIA
Ulaanbaatar

TAIWAN
Taipei

VIETNAM
Ho Chi Minh City

SINGAPORE
Singapore

PHILIPPINES
Manila

AUSTRALIA
Canberra
Dessau
If we’ve learned one thing serving customers in all industries across the globe, it’s that no two separation processes are exactly alike.

This is why we’ve devoted more than a century to ensure that we can offer the best solution or service for any application, product or process.
We’ve designed and built the world’s largest municipal sludge drying plant in Singapore, capable of evaporating up to 55 tons of water per hour.

**Client & area:** Public Utilities Board of Singapore (Changi, Singapore), Municipal wastewater

**Challenge:** Build a wastewater treatment facility to cater to Singapore’s increasing population and expanding economy

**Our solution:** Design, supply, and install the world’s largest sludge drying plant including 5 lines of DDS 110 drum dryers (each with a capacity of 11 tons water evap./hr) and screens, with a peak flow of 400 MLD

**Results:** All targets met, the wastewater plant is self-sufficient in thermal energy by using the biogas from the digestion process, and the treatment facility plans to expand capacity up to 2.4 million cubic meters of water per day.
DID YOU KNOW?

Our coal tailings dewatering solution in Mongolia saves more than 3 million cubic meters of water annually with 15% less downtime, winning Best Technology in the 2013 Mining Journal Awards.

Client & area: Energy Resources, Ukhaa Khudag Coal Mine (Mongolian Gobi desert), Coal tailings dewatering

Challenge: A tailings dewatering solution for tailings water reuse in one of the world’s most remote and harsh environments

Our solution: A continuously operating and efficient series of 8 ANDRITZ CPF 3000 SMX belt presses, including everything from flocculants to conveyor belts

Results: Winner of the Best Technology category in the 2013 Mining Journal Awards, our solution saves the mine up to 3.12 million cubic meters of water annually with 15% less downtime – or 1,000 hours of increased up time per year
DID YOU KNOW?

We developed a safe, corrosion and bulletproof Fiberglass Reinforced Plastic (FRP) centrifuge case, and tested it at a shooting range.

Client & area: Lubrizol Advanced Material Resin (The Netherlands) is using our decanter for producing soaps, shampoos, core polymers and engine, industrial, and fuel additives

Challenge: Severe corrosion in high-grade titanium of decanter centrifuge. A safe, cost-efficient replacement was needed

Our solution: An innovative corrosion-proof centrifuge case in Fiberglass Reinforced Plastic, tested at a firing range to withstand projectiles at more than 6 times the speed of any part coming from the centrifuge

Results: More than 100 hours per year in reduced downtime
DID YOU KNOW?

Our drum dryers are the industry standard in baby food production, used by every major multinational in the world.

Client & area: Every major multinational baby food producers

Challenge: To ensure the right taste, consistency, easy digestion, and 100% purity for hundreds of millions of baby food consumers worldwide

Our solution: More than 500 ANDRITZ Gouda drum dryers and 20 turnkey lines installed for baby food production

Results: An industry-leading drum drying technology now serving all major multinational baby food producers worldwide
**DID YOU KNOW?**

Our tilting pan filters enabled Indonesia’s state fertilizer plant to dramatically improve output and lower energy consumption, making the country self-sufficient in agriculture fertilizer.

**Client & area:** Wuhuan Engineering, Petrokimia, Gresik (Indonesia), fertilizer manufacturing

**Challenge:** Develop and provide the best designed equipment for a facility, that was burdened by outdated technology and struggling to process enough fertilizer to meet the growing volume, that a country this size and this population demands

**Our solution:** Provide two tilting pan filters (diameter 18m and 23m with a filtration area of 131m² and 225m²) offering a superior and efficient technology that has facilitated higher volume yields and lowered the total cost of ownership

**Results:** Thanks to dramatic improvements in output and energy consumption, the plant is now on target to reach an output of 200,000 tons of phosphoric acid, a crucial contribution to making Indonesia self-sufficient in agricultural fertilizer

Can a chemical filtering technology really help feed a nation of 252,000,000 people?
Our Dynamic Crossflow Filter helped an Italian family winery increase yield to 98%, reduce waste by 20%, and cut energy costs by 30%.

Client & area: Toso S. p. A., Cossano Belbo (Italy), beverage filtration

Challenge: A wine filtration solution to increase yield, reduce production costs, minimize or eliminate the need for filter aids, save space

Our solution: Dynamic Crossflow Filter that facilitates direct wine recovery from the lees, while being capable of handling must and sparkling wine

Results: Up to 98% of wine lees are now processed, helping to boost production by 4,600 hl/year, reduce waste by 20%, and reduce energy consumption by 30%
We supplied a wastewater treatment plant to meet strict new environmental regulations and serve 2 million people.

**Client & area:** Wastewater treatment plant, Ambarli, Turkey; large-scale plant serving 2 million people

**Challenge:** Treat 400,000 cubic meters of sewage per day in a very compact building. Upgrade to meet strict new regulations in terms of technology, costs and energy consumption

**Our solution:** A sludge drying plant with six ANDRITZ Gouda paddle dryers, each with a capacity of 100 tons of sludge cake per day. Heat recovered from dryers’ exhaust is reused in sludge digestion & dewatering

**Results:** A fully automated plant with a very good energy balance, treating 600 tons/day of dried sludge, with biogas converted into electricity
DID YOU KNOW?

Our craft beer clarifier skid helped one brewery to improve product quality, reduce clarifying labor costs by half, and boost yield by an average of nearly 7%.

**Client & area:** Speakeasy Brewery, San Francisco California, beer clarification

**Challenge:** Improve a filtration process with long processing times, high loss, and occasional blinding of DE filter

**Our solution:** Replace the brewery’s DE filter with an ANDRITZ SEPARATION craft beer clarifier skid

**Results:** Easier operation; improved flavor and aroma due in part to substantially reduced dissolved oxygen levels; 50% lower labor costs associated with clarification process; 5-7% average increase in yield
DID YOU KNOW?

Our membrane filter presses helped remediate more than 13 miles of contaminated riverbed in the Lower Fox River in Wisconsin, with each filter press capable of producing 18 tons of filter cake every hour.

**Client & area:** Boskalis Environmental, Lower Fox River, USA, environmental remediation

**Challenge:** Reliably and cost-effectively process 375,000 m³ of contaminated river sediment per year

**Our solution:** 8 fully automated, cost-efficient ANDRITZ filter presses overhead A4 2000 with membrane system

**Results:** Easy operation with throughput rate targets exceeded by 10%
How do you dewater more ore with less impact?

Our horizontal vacuum belt filters helped to substantially decrease the environmental impact of one South African magnetite dewatering plant by boosting capacity, reducing downtime and improving water recycling.

Client & area: PMC, South Africa, magnetite dewatering

Challenge: Remedy oversaturated tailings ponds with a safer, more efficient, higher-capacity solution

Our solution: Three continuously operating horizontal vacuum belt filters

Results: Reduced environmental risk together with improved tailings capacity, less downtime and more efficient use of recycled filtration water
DID YOU KNOW?

RheoScan, our automated optical polymer measurement and dosage system, helped one wastewater plant to achieve 34% lower polymer consumption in the belt thickener alone, and more than 10% increase in annual biogas production.

**Client & area:** JP Vodovod-Kanalizacija in Ljubljana, Slovenia, wastewater treatment

**Challenge:** Reduce polymer costs and increase overall efficiency

**Our solution:** Real-time optimization for KPIs with RheoScan, an automated optical polymer measurement and dosage system

**Results:** Nearly 34% fewer polymers used in the belt thickener, 16% fewer polymers in the decanter, and an 11.7% increase in annual biogas production
We helped one of the world’s largest starch producers improve productivity from 400 to 1,000 tons per day of commercial dry starch with three fully automated Krauss-Maffei peeler centrifuges.

**Client & area:** Thailand, tapioca starch dewatering

**Challenge:** Replace 20 manual centrifuges with a superior technology to improve yield and reduce drying costs

**Our solution:** Three fully automated Krauss-Maffei peeler centrifuges designed specifically for starch production

**Results:** Increased productivity from 400 to 1,000 tons per day, with substantially higher yield and reduced drying costs

How do you more than **double your starch production** with 85% fewer dewatering centrifuges?
We supplied dewatering and drying equipment for one of the world’s largest production lines for sodium bicarbonate, with an annual capacity of 100,000 tones and 15% less energy consumption than conventional technologies.

**Client & area:** Various clients, pharmaceutical dewatering and drying

**Challenge:** Help leading producers worldwide optimize production for superior throughput and product purity

**Our solution:** Dewatering and drying equipment including a specialized fluid bed dryer with in-bed heat exchangers

**Results:** 100,000 tones annual capacity, reduced energy consumption and high purity due to closed carbon dioxide drying atmosphere

DID YOU KNOW?

Pure medical-grade bicarbonate? Or 100,000 tonnes for food production? What if you could do both with one efficient solution?
DID YOU KNOW?

Our ANDRITZ C-Press helped upgrade one outdated potable water treatment plant to treat more than 2,500 m³ of potable water per day, with minimal sludge production, low maintenance, and full remote monitoring.

Client & area: Municipality of Brezovice, Czech Republic, potable water

Challenge: Upgrade a severely outdated potable water treatment plant with a reliable, cost-efficient technology capable of full remote offsite monitoring

Our solution: ANDRITZ C-Press with simple operation and low operational and maintenance costs

Results: 2,500 m³ of potable water production per day, ensuring more reliable and cost-efficient drinking water for generations to come

What does it take to secure a safe, affordable water supply for future generations?
Modern **production facilities all over the world** guarantee the health and safety of our employees as well as a first class service of machines and spare parts.
Availability of well equipped test centers to support your research and development activities.

Your benefits

- Pilot scale
  - Project safety by process guarantees (output, energy consumption etc.)
  - Product properties assessment
- Lab scale
  - Budgetary info for ROI studies
  - Feasibility check
- Extensive know-how
  - Experienced team and routines
  - More than 5,000 different applications tested
  - Large reference lists
ANDRITZ has combined its innovative IIoT (Industrial Internet of Things) solutions under the technology brand „Metris“. Metris technologies are the very latest state-of-the-art in the IIoT sector and can be fully tailored to individual customer needs.

Based on extensive and long-term experience as a supplier of technologies and systems for various branches of industry, ANDRITZ offers a broad portfolio of intelligent, digital solutions to help customers operate their plants with even higher performance.

- Enhancing plant efficiency and profitability
- Optimizing the use of resources
- Constant and highest product quality
- Avoiding production downtime
- Maximum user-friendliness, e.g. easy control via smartphone/tablet PC
At **ANDRITZ SEPARATION**, we see every new challenge as a welcome opportunity. To give a few examples: we have designed and installed the worlds largest municipal wastewater drying plant and the industries highest-capacity hyperbaric disc filter for iron ore processing. In the daily business we work in close collaboration with our customers to optimize complete processes and implement new solutions leading to significant productivity enhancements.

With profound expertise and an absolute passion for what they do, our employees support you worldwide in the implementation of your visions.
You want to learn more about our innovative separation technologies?

Contact us, we are happy to support you.

ANDRITZ AG

Eibesbrunnergasse 20
1120 Vienna, Austria
+43 508050
separation@andritz.com
www.andritz.com/separation