

EFFICIENT DEWATERING FOR HIGHEST PRODUCT QUALITY

ANDRITZ decanter centrifuges A/AS

ANDRITZ

The ANDRITZ decanter centrifuges A/AS have been designed for the chemical and the mining and minerals industries. ANDRITZ, as a globally leading supplier of decanter centrifuges, offers two-phase and three-phase decanter centrifuges with continuous adjustability in operation to accommodate variations in feed conditions (capacity of up to 300 m^3/hr, solids in feed up to 150 t/h). Based on our long-term relationships with customers, we have optimized our product solutions to manage the most demanding industrial process situations while maintaining high performance and ensuring a long machinery lifetime.

ANDRITZ offers in-depth process experience from a large number of reference installations. Moreover, the comprehensive product portfolio comprises the product ranges acquired from Humboldt and Bird Machine Company - which have been updated using our latest technology.



Meeting your requirements to ensure your full satisfaction

With an installed base of over 20,000 machines, ANDRITZ is the leading supplier of decanter centrifuges. Continuous optimization and systematic R&D enable ANDRITZ to offer the optimum machine for almost all process applications.

ROBUST DESIGN

The robust design of the machines results in a service life of several decades. You benefit from a wide choice of different materials of construction (MOCs) to handle even the most demanding, corrosive environments.

BEST PROTECTION AGAINST WEAR FOR AN EXTENDED DECANTER LIFE CYCLE

Through performance surveys and R&D work, ANDRITZ continuously improves wear resistance, ensuring that you have value-added components. The different zones and elements in a decanter that may be subject to higher wear are protected by a carefully composed selection of wear protection systems. Depending on the extent of wear, different material compositions ranging from polyurethane to sintered tungsten carbide elements are used to protect the

- scroll (feed chamber, flight)
- bowl (inside, solids discharge ports)
- solids discharge casing
- feed pipe

YOUR BENEFITS

- **Maximum efficiency and availability for highest production yield**
- **Superior dewatering performance for best solids and centrate/filtrate quality**
- **Lowest flake content to deliver optimum end-product quality**
- **Maintenance-friendly design for lowest maintenance effort and costs**
- **Compact design for easier installation and smaller building footprint requirement, thus reducing overall capital investment**

PROCESS PARAMETER RANGE

- Processed slurry from gentle to abrasive minerals, from sticky to dusty, from light to heavy
- Temperature from -80 °C to +180 °C
- pH from 0 to 14
- Atmosphere from safe atmosphere to ATEX zones 1 and 2, and also toxic
- Housing pressures up to 6 bar

INDUSTRIES ALREADY CONVINCED AND SATISFIED

Mining and Minerals

- Tailings
- Calcium carbonate
- Potash
- Salts
- Coal
- Aluminum
- Phosphates

Chemicals

- ZLD/MEG
- Petrochemicals including BPA, PX, PVC, and HDPE
- Soda ash
- Mineral and slop oil
- Special, base and agrochemicals

... and many more!

The right decanter centrifuge solution to fit your processing needs

At ANDRITZ, we have one of the largest decanter centrifuge ranges on the market. We offer individual machines as single machine, customized mobile unit or in container units. The special designs of the ANDRITZ decanter centrifuge A/AS ensure maximum efficiency and process reliability.

The ANDRITZ decanter centrifuge A/AS is configurable to individual process needs. It features a standard design platform that can be configured with innovative modules for a perfect fit.

FEATURES OF MODULAR DESIGN

- **Wide choice of MOCs,** such as stainless steel, hastelloy, titanium, or nickel
- **Cleaning-in-Place (CIP)** for highest hygienic standards while minimizing downtimes
- **TurboJet wear plate** for energy recovery
- Various **feed port systems,** including the innovative GentleFeeder™ for less particle breakage
- Optimized **bearing, seals and wear protection** for longer lifetime and greater safety (including static oil fill for conveyor bearings to reduce maintenance and downtime for lubrication)
- **Solids washing** for cleaner solids output
- Several **drive and gear box** options, with optimum power transmission for each application
- Gas-tight and pressurized **case option**
- Suitable for light to heavy-duty tasks





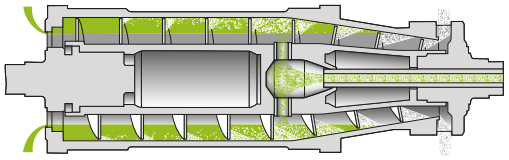


Some examples of single-machines designed for chemical or mining and minerals applications, or containerized units

THE WIDEST RANGE FOR CHEMICAL AND MINING AND MINERALS APPLICATIONS

Solid-bowl decanter centrifuge A

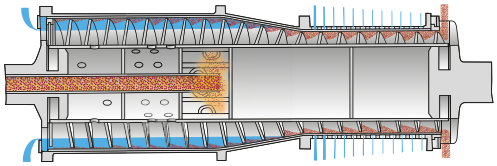
Standard machine for solid/liquid separation, the solid-bowl decanter is typically used for all kinds of plastic materials and various residues.



Solid-bowl decanter centrifuge A

Screen-bowl decanter centrifuge AS

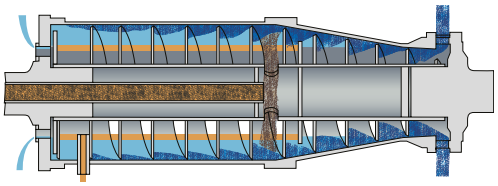
Screen-bowl decanters transport and dewater crystalline solids over the conical section, followed by transport along a cylindrical screen section for further dewatering and optional washing, combining the steps of sedimentation and filtration in one machine.



Screen-bowl decanter centrifuge AS

3-phase decanter centrifuge

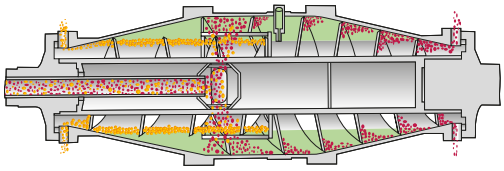
This machine is used when the liquid contains two phases of different densities. Besides the treatment of oil and fats, these machines are used to recover oil from tank and pond cleaning operations (slop oil).



3-phase decanter centrifuge

Decanter centrifuge CENSOR ACZ

The CENSOR ACZ decanter centrifuge is used to selectively separate two plastic fractions of different densities. The resulting recycled products are available for high-quality reuse and help to reduce landfill.



Decanter centrifuge CENSOR ACZ



ANDRITZ decanter centrifuges A are a modular series for unrivalled dewatering

Innovative design for an extended decanter life cycle

Energy savings and process optimization provide a strategic, long-term investment with a safe ROI. ANDRITZ has developed several innovations to extend the life cycle of your decanter.

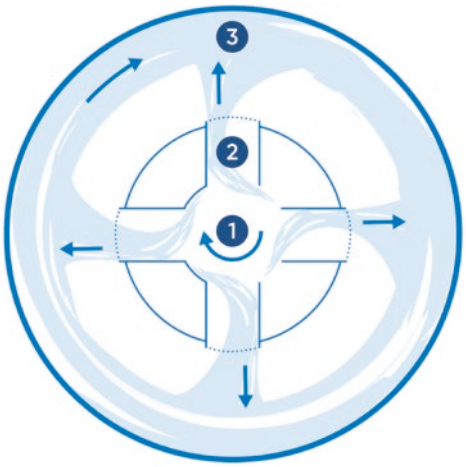
ACHIEVE BETTER RESULTS WITH LOWER ENERGY CONSUMPTION

ANDRITZ continuously innovates to deliver the best separation equipment so that customers never have to waste energy in their decanter centrifuges. ANDRITZ has shaped and improved today's industry standards through a number of technological innovations for energy savings, such as the TurboJet weir plates. Working in the same way as a jet engine, the TurboJets recover the remaining kinetic energy in the clarified liquid. By creating liquid jets pointing in the opposite direction to the bowl rotation, the reaction force supports this action. The TurboJet weir plates reduce total power consumption by up to 30% as a stand-alone feature.

GENTLEFEEDER™ FEEDING SYSTEM

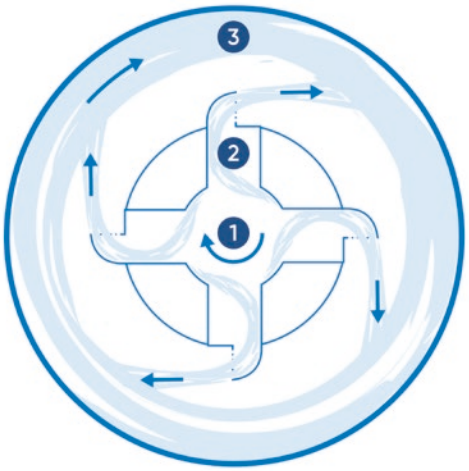
The CFD-optimized GentleFeeder™ is designed to reduce shear forces and smoothen the injection impact. It has been shown to increase revenue due to the product quality, with half the amount of solids in the centrate. The GentleFeeder™ has thereby become a standard feature for selected applications of special interest, in particular for crystallites and brittle solids. It minimizes crystal breakage while preserving the product value.

REGULAR FEED PORT DESIGN



1 Feed pipe 2 Feed port 3 Pool

IMPROVED FEED PORT DESIGN WITH GENTLEFEEDER™ FEEDING SYSTEM



1 Feed pipe 2 GentleFeeder™ feed port 3 Pool

GentleFeeder™ feeding system: Comparison between standard and improved feed port design

The right solution for any separation challenge

PEACE OF MIND, COST EFFICIENCY, AND SUSTAINABILITY – ALL FROM ONE TRUSTED PARTNER.

Regardless of your industry – whether environmental, chemicals, mining and minerals, or food and beverage – efficient separation processes are essential for high product quality, reduced waste, and the responsible use of valuable resources. With our advanced technologies, comprehensive services, and smart automation and digitalization solutions, we deliver peace of mind today and lasting success for tomorrow – efficiently, responsibly, and with measurable impact. What's more, with us you also gain access to one of the world's largest OEM manufacturers for solid/liquid separation for well-known brands such 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 and Blecher, Royal GMF Gouda, Sprout Bauer, and Vandenbroek.

SEPARATION EQUIPMENT AND SYSTEMS

- Decanter and filter centrifuges
- Filter presses
- Dryers
- Presses and screens
- Extractors
- Thickeners
- Evaporators and crystallizers
- Disc and drum filters
- Screening and filtration components
- Specialized thermal systems



FULL-SERVICE OFFERING

- OEM spare and wear parts
- Maintenance and repairs
- Service agreements
- Automation and digitalization
- Machine and process optimization
- Second-hand and rentals

AUTOMATION AND DIGITALIZATION SOLUTIONS

Site assessment and integration • Advanced process control and artificial intelligence • Simulation and training • Digital twin technology • Data analytics and prediction • Electrification, instrumentation and controls

Enabling the green transition

As a technology leader in a changing world, we strive to make a positive impact on our environment. We believe that what we do today can make a difference tomorrow and in the future. We drive change and enable our customers to achieve their sustainability goals and make the world greener with our sustainable solutions in decarbonization, circular economy, renewable energy, and environmental technologies. 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. FOR GROWTH THAT MATTERS.

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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