



SEPARATION

**EFFICIENT DEWATERING
FOR HIGHEST PRODUCT
QUALITY**

ANDRITZ DECANTER CENTRIFUGES A/AS

ANDRITZ

ENGINEERED SUCCESS

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 m³/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.

Screen-bowl decanter centrifuge AS

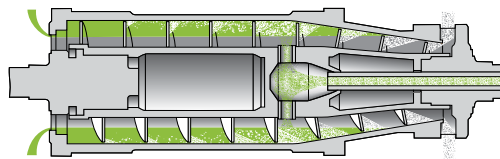
Screen-bowl decanters transport and dewater crystalline solids over the conical section, followed by transport along a cylindrical screen section for further dewatering and optional washing, combining the steps of sedimentation and filtration in one machine.

3-phase decanter centrifuge

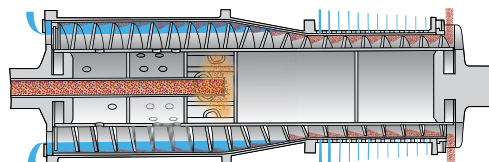
This machine is used when the liquid contains two phases of different densities. Besides the treatment of oil and fats, these machines are used to recover oil from tank and pond cleaning operations (slop oil).

Decanter centrifuge CENSOR ACZ

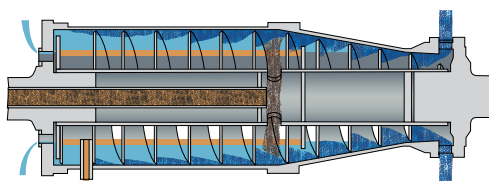
The CENSOR ACZ decanter centrifuge is used to selectively separate two plastic fractions of different densities. The resulting recycled products are available for high-quality reuse and help to reduce landfill.



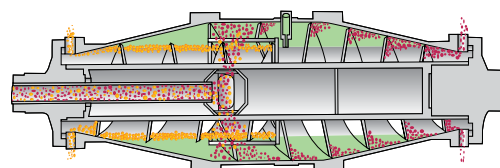
Solid-bowl decanter centrifuge A



Screen-bowl decanter centrifuge AS



3-phase decanter centrifuge



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.

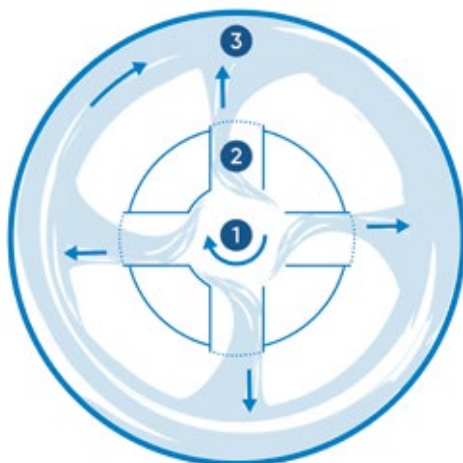
ACHIEVE BETTER RESULTS WITH LOWER ENERGY CONSUMPTION

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

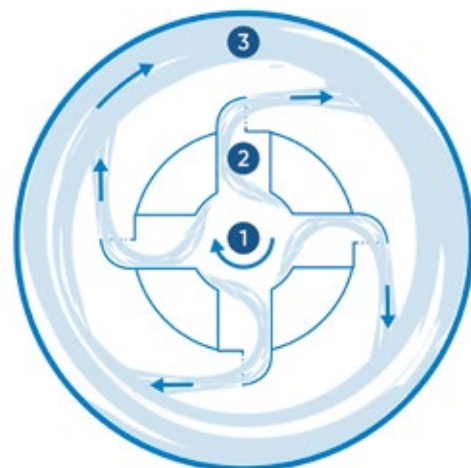
The CFD-optimized GentleFeeder™ is designed to reduce shear forces and smoothen the injection impact. It has been shown to increase revenue due to the product quality, with half the amount of solids in the centrate. The GentleFeeder™ has thereby become a standard feature for selected applications of 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

Intelligence for machine and process control

METRIS addIQ CONTROL SYSTEMS

With Metris addIQ, you have a well-proven, intelligent control solution for industrial processes and machines. Our solid/liquid separation specialists use their in-depth expertise to provide scalable solutions that are individually tailored to regional and application requirements. Whether you're automating new equipment or upgrading to extend the lifecycle of existing systems, we find the ideal solution for you.



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, Delkor Capital Equipment (Pty) Ltd., Escher Wyss dryers, Guinard Centrifugation, KHD Humboldt Wedag, Krauss-Maffei centrifuges, dryers, and filters, Lenser, Netzsch Filtration, 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



REPAIRS & UPGRADES



SECOND-HAND & RENTALS



TRAINING



OEM SPARE PARTS



SERVICE AGREEMENTS



PROCESS OPTIMIZATION



LAB AND ON-SITE TESTS



WHAT'S YOUR SEPARATION CHALLENGE?

ANDRITZ Separation is the world's leading separation specialist with the broadest technology portfolio and more than 2,000 specialists in 40 countries. For more than 150 years, we have been a driving force in the evolution of separation solutions and services for industries ranging from environment to food, chemicals, and mining & minerals. As the OEM for many of the world's leading brands, we have the solutions and services to transform your business to meet tomorrow's changing demands – wherever you are and whatever your separation challenge. **Ask your separation specialist!**

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