



SEPARATION

MAKE YOUR FILTER CENTRIFUGE READY FOR THE FUTURE

METRIS addIQ CONTROL SYSTEM
FOR FILTER CENTRIFUGES

ANDRITZ

ENGINEERED SUCCESS

Intelligence for machine and process control

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.

METRIS addIQ CONTROL SYSTEMS

Our tailored turnkey systems from a single supplier can improve entire plants or individual machines. By providing state-of-the-art automation technologies and digitalization, we ensure best-in-class performance. Automating machine and plant equipment measurably reduces gaps in many different production process steps. By using automation from ANDRITZ, you can reduce downtime thanks to features such as predictive analysis that allow you to optimize productivity.

Metris addIQ covers all levels of automation, starting at basic automation (machine, process, and plant control), to upgrades, and add-ons for process optimization. Together, you have a full range of optimized solutions that help reduce maintenance efforts and ensure preventive service for your machines and plants. These are all delivered from a single source and always individually tailored to your business demands. addIQ control systems are part of Metris, the ANDRITZ brand for digital solutions.

ANDRITZ offers a broad and constantly growing range of innovative products and services in the industrial digitalization sector under the brand name Metris, helping customers to enhance plant efficiency and profitability, optimize the use of resources, achieve constant and highest product quality, reduce production downtime, and maximize user-friendliness.

Make your filter centrifuge ready for the future

Our mission is to enable our customers to achieve their target figures in overall equipment efficiency, minimum production costs, transparency, and short training periods – all of which are required to give our customers peace of mind. This is especially important in the highly competitive markets our customers are dealing with – be it the food, mining and minerals, environment, or chemicals industry. And the industries are facing a new challenge – the fourth industrial revolution, based on the use of cyber-physical systems. That is what drives us in our continuous R&D efforts aimed at developing state-of-the-art filter centrifuge technologies.

YOUR TRUSTED PARTNER FOR FILTER CENTRIFUGE TECHNOLOGY IN THE PAST AND IN THE FUTURE

We can look back on more than 150 years of experience with over 55,000 installations worldwide – a track record that not only underlines our status as a global separation specialist, but also as a strong

partner for a wide range of customers in different industries. Our references underpin our vast experience and the trust our customers put in our know-how. Extensive experience paired with innovation – ANDRITZ is your key to Industry 4.0.



Metris addIQ portfolio – stages of expansion to meet your needs

Metris addIQ combines all our extensive operation and start-up experience in one tailored automation solution. The Metris addIQ control system is a unique automation product. Its nucleus is a modular, PLC-based control system that supports you in making best use of your filter centrifuge. In combination with Metris addIQ add-ons and upgrades, the Metris addIQ control system maximizes your machine performance regardless of whether you are using ANDRITZ filter centrifuges or other makes. Of course, it is also available as an upgrade for existing filter centrifuges.

STAGES OF EXPANSION TO MEET YOUR NEEDS

The Metris addIQ control system is available in different packages according to individual needs. The packages available include Metris addIQ Eco, Metris addIQ Dynamic, Metris addIQ Prime, and Metris addIQ Flex.

METRIS addIQ ECO

The addIQ Eco package is the most cost-efficient solution for your separation challenge. The design is optimized for pusher centrifuges.

- Monitoring and control of machine and machine auxiliaries
- Controller with integrated safety functions
- Remote-access function
- Intuitive design of operator interface, including recipe and user management
- 4" HMI panel as standard with option to upscale to larger screen sizes
- Easy integration into overall control systems
- The addIQ Eco is also used for subsystems like the feed controller (e.g. TFKR, FCA)

METRIS addIQ DYNAMIC

The mid-size addIQ Dynamic is optimized for peeler centrifuges.

- All of the above +
- 9" touchscreen as standard with option to upscale
- Advanced controller with integrated safety function
- Advanced control and optimization functions
- Full process line control system

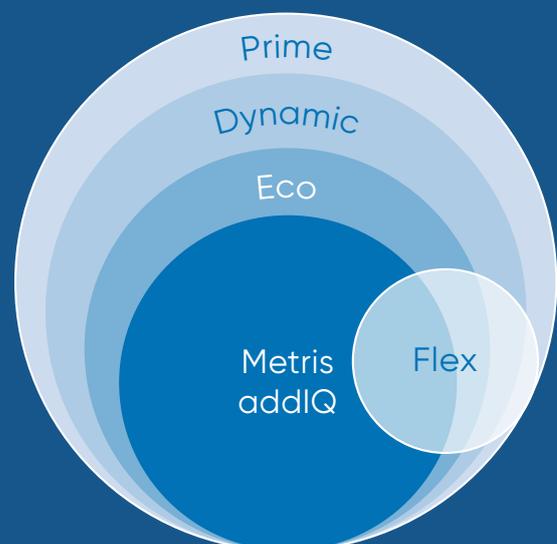
METRIS addIQ PRIME

The high-end solution is the addIQ Prime package, ideal for pharma peeler centrifuges or complete systems.

- All of the above +
- High-performance controller with integrated safety features
- 15" touchscreen as standard
- High-end trending and diagnostic function

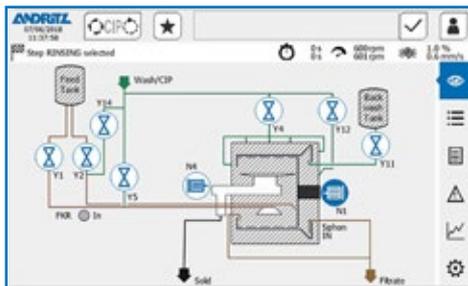
METRIS addIQ FLEX

The most flexible solution is Metris addIQ Flex. Its scope of control and technical specification can be customized to a large extent. Each package has individual specifics that are directly connected to the type of filter centrifuges with which it is to be used.



Standard tool set tailored to your specific needs

ENTIRE addIQ PORTFOLIO AVAILABLE FOR NEW FILTER CENTRIFUGES OR AS AN UPGRADE



Benefits

EX

The Metris addIQ control system is also available in an EX/ATEX design for Zone 1 or Zone 2.

PHARMA

For pharmaceutical applications, we can offer an add-on that complies with FDA 21 CFR Part 11 (FDA regulations for electronic records and signatures).

- Easy integration into existing or new lines/plants, ensuring a short start-up time
- High availability and good performance in operation for all filter centrifuge-related functionalities
- Avoids downtime by using preventive maintenance alarms and intuitive machine interface – peace of mind thanks to machine automation
- Remote support to guarantee short response times (Metris addIQ Connect)
- Process improvements where applicable
- Metris addIQ control systems open the door to all future IIoT solutions

Metris addIQ options for your filter centrifuge

METRIS addIQ CONNECT

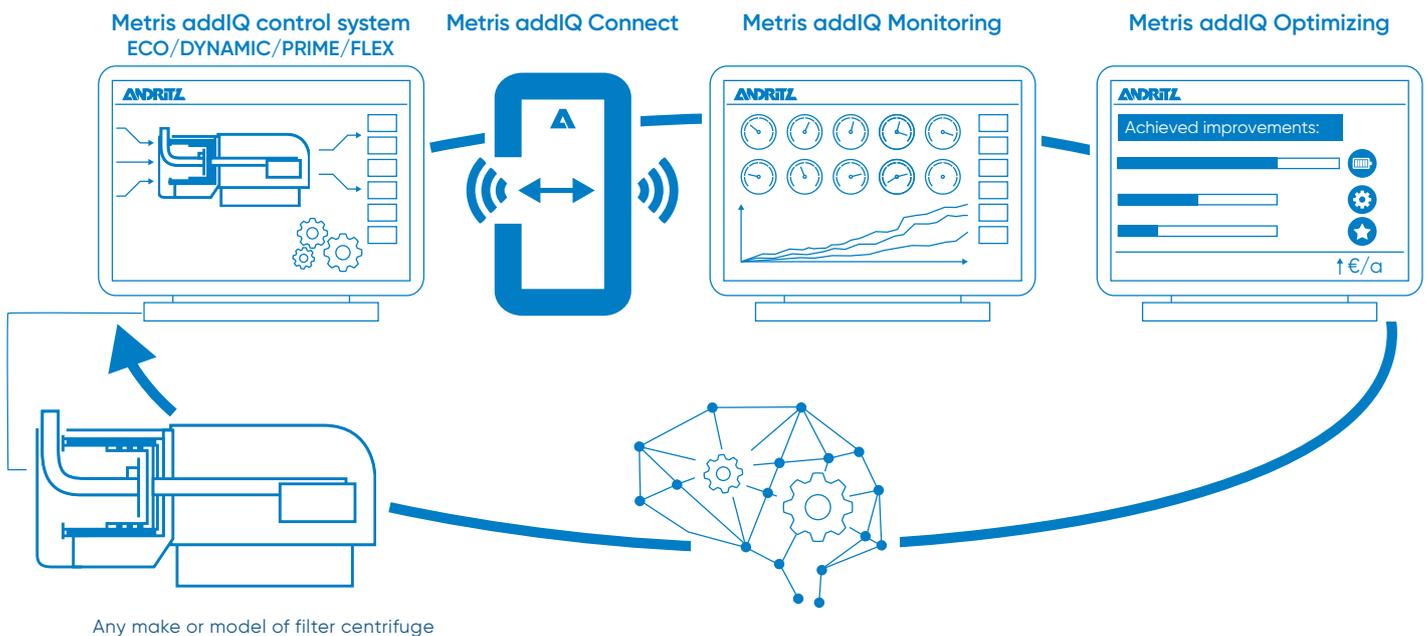
addIQ Connect links your machine to the secure ANDRITZ environment. Besides this, addIQ Connect enables remote support for fast interaction between your machine and the ANDRITZ specialist.

METRIS addIQ OPTIMIZING

Our analyzing tool Metris addIQ Optimizing and the ANDRITZ specialists seek out ways for you to save money and of stabilizing and increasing production on your equipment.

METRIS addIQ MONITORING

With this monitoring tool, you can monitor the health status of your machine 24/7 from anywhere in the world.





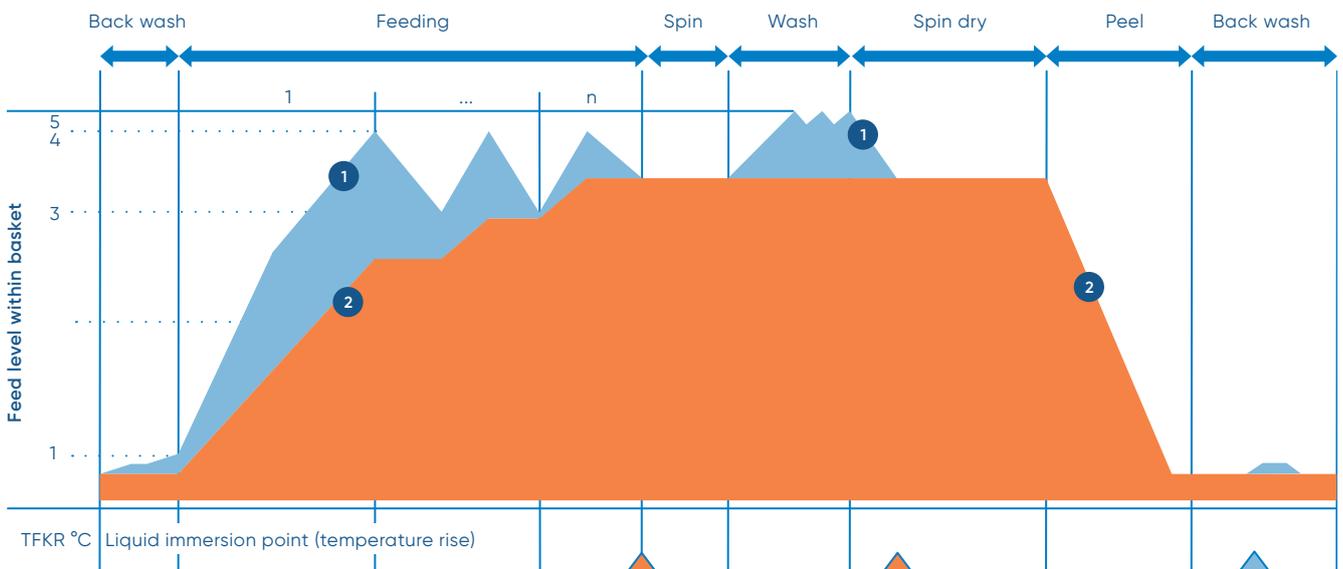
Optional IIOT solutions for filter centrifuges

STROKE MONITORING FOR PUSHER CENTRIFUGES

SZ pusher stroke monitoring observes the frequency of the pusher stroke. This increases the machine reliability, with easy detection of any blockages, hence ensuring an optimum process.

THERMAL FEED CONTROLLER (TFKR) FOR PEELER CENTRIFUGES

The thermal feed controller increases the throughput of your filter centrifuge by intelligent control of the centrifuge cycle. The machine feed is optimized by periodically scanning the product or liquid level. The TFKR also detects a liquid or solid surface by means of a temperature-oriented signal that is used to detect the liquid immersion point, which is important for the process.



1 Liquid level 2 Solid level

Liquid-solid level over centrifuge cycle: The process and cycle time are optimized by events that occur during the cycle

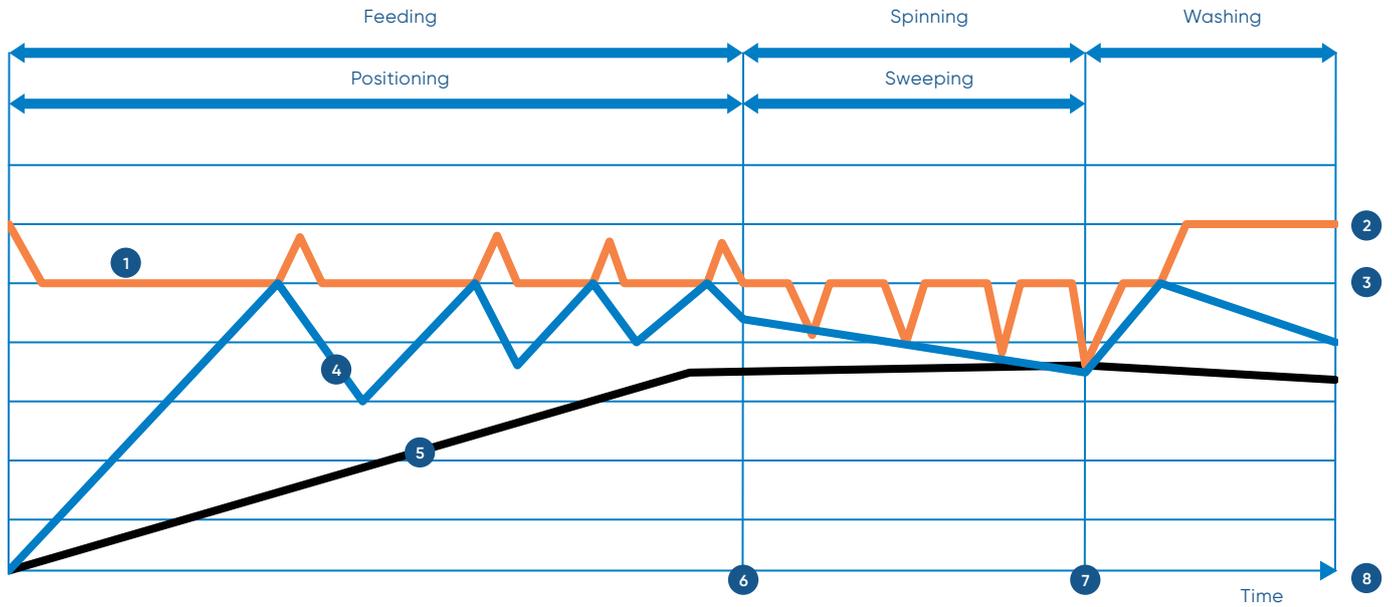
Benefits

- Up to 20% more throughput due to shorter cycles
- Better product quality thanks to result-dependent control of the filter centrifuge



FEED CONTROLLER ANALOG (FCA) FOR PEELER CENTRIFUGES

The FCA is a measuring instrument that can detect and monitor the surface level inside the centrifuge basket. The entire component is driven pneumatically, and the feeler design prevents too much splashing inside the centrifuge. Two operating modes are possible: positioning and sweeping.



- ① Position of feeler
- ② Idle position of feeler
- ③ Max. filling height, basket rim
- ④ Suspension/Liquid
- ⑤ Solids
- ⑥ Change from positioning mode to sweeping mode
- ⑦ Liquid immersion point
- ⑧ Filter cloth

Liquid-solid level over centrifuge cycle: The process and cycle time is triggered by events that occur during the cycle.

Benefits

- Increased throughput by intelligent control of batch processes
- Less product loss due to overflow protection
- Result-oriented operation of the centrifuge to optimize throughput



Metris addIQ control system upgrade for filter centrifuges

Case study: Chemical plant upgrade

CHALLENGE

A customer facing the problem that no spare parts are available for his outdated control system hardware, threatening machine performance and availability. In addition, the upgrade must comply with current CE conformity and EX/ATEX regulations.

SOLUTION

ANDRITZ supplies a new, state-of-the-art Metris addIQ control system upgrade with Metris addIQ Connect, which makes remote support possible. The new control system is installed and started up quickly, keeping downtime to a minimum. During installation, all previous modifications are integrated into the new control system.

CUSTOMER BENEFITS

- Improved filter centrifuge performance resulting in higher production capacity
- Guaranteed spare parts availability
- Machine safety meets the latest regulations, standards (CE/ATEX)
- Standardized electrical/automation documentation, which makes life easier for the maintenance team



ATEX control cabinet with HMI

Case study: Upgrade of a flue gas desulfurization (FGD) plant

CHALLENGE

Unplanned filter centrifuge shutdowns due to outdated hardware and a lack of historical trends for analyzing machine performance.

SOLUTION

ANDRITZ supplies a Metris addIQ control system upgrade including the intuitive operating interface that enables the customer to analyze machine performance with long-term data trending. With more detailed data available, sustainable availability of the filter centrifuge is ensured.

CUSTOMER BENEFITS

- Increased machine availability due to remote support capability
- Increased filter centrifuge performance and production
- Updated documentation for control cabinets (no handwritten sheets)

Benefits

- Ensures reliability of control system by replacing outdated hardware with state-of-the-art components
- Intuitive operator interface for easy operation, resulting in high availability and good performance
- Easy integration into existing lines/plants, ensuring a short start-up time
- Remote support to guarantee short response times (addIQ Connect)
- Process improvements where applicable
- New automation documentation in electronic form



Moving towards a modern control system under tight time constraints



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, Frautech, Guinard Centrifugation, KHD Humboldt Wedag, Krauss-Maffei centrifuges, dryers, and filters, Lenser, Netzsch Filtration, Rittershaus & Blecher, Royal GMF Gouda, Sprout Bauer, and Vandebroek. 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.



THE METRIS COMPETENCE

ANDRITZ offers a broad and constantly growing range of innovative products and services in the industrial digitalization sector under the brand name Metris, helping customers to

- Enhance plant efficiency and profitability
- Optimize the use of resources
- Achieve constant and highest product quality
- Avoid production downtime
- Maximize user-friendliness

AFRICA

ANDRITZ Delkor (Pty) Ltd.
p: +27 11 012 7300
separation.za@andritz.com

EUROPE

ANDRITZ Separation GmbH
p: +49 8139 80299 0
separation.de@andritz.com

ASIA

ANDRITZ Singapore Pte. Ltd.
p: +65 6512 1800
separation.sg@andritz.com

NORTH AMERICA

ANDRITZ Separation Inc.
p: +1 817 465 5611
separation.us@andritz.com

AUSTRALIA

ANDRITZ Pty. Ltd.
p: +61 3 8773 4888
separation.au@andritz.com

SOUTH AMERICA

ANDRITZ Separation Ltda.
p: +55 47 3387 9100
separation.bra@andritz.com

CHINA

ANDRITZ (China) Ltd.
p: +86 757 8258 6802
separation.cn@andritz.com

[ANDRITZ.COM/SEPARATION](https://www.andritz.com/separation)

JOIN US ON SOCIAL MEDIA



ANDRITZ

All data, information, statements, photographs, and graphic illustrations in this leaflet are without any obligation and raise no liabilities to or form part of any sales contracts of ANDRITZ AG or any affiliates for equipment and/or systems referred to herein. © ANDRITZ AG 2021. All rights reserved. No part of this copyrighted work may be reproduced, modified, or distributed in any form or by any means, or stored in any database or retrieval system, without the prior written permission of ANDRITZ AG or its affiliates. Any such unauthorized use for any purpose is a violation of the relevant copyright laws. ANDRITZ AG, Statterger Strasse 18, 8045 Graz, Austria. PB addIQ for filter centrifuges 2.0/04.2021 EN

