



SEPARATION
**DECADES OF EXPERIENCE
IN ONE BOX**

METRIS addIQ CONTROL SYSTEM
FOR DECANTER CENTRIFUGES

ANDRITZ

ENGINEERED SUCCESS

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.

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 decanter 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 decanter technologies.

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

We can look back on more than 150 years of experience with over 15,000 decanter 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 ECO

The Metris addIQ Eco package is the most cost-efficient solution for your separation challenge. It also comes with a 4" widescreen touch panel and intuitive operator design, along with a high-performance controller. The design is optimized to the dedicated machine equipped with Metris addIQ Eco.

- Easy integration into overall control systems
- Monitoring and control of machine-mounted instruments and actuators
- Intuitive design of operator interface
- 4" HMI panel as standard with option to upscale to larger screen sizes

METRIS addIQ DYNAMIC

The mid-size Metris addIQ Dynamic package brings a 9" widescreen touch panel, intuitive operator design, and a safety-integrated controller. It comes with a larger screen than the Metris addIQ Eco version.

- All of the above +
- Monitoring and control of machine and machine auxiliaries
- 9" touchscreen as standard with option to upscale
- Advanced control and optimization functions
- Full process line control system

METRIS addIQ PRIME

The high-end solution is the Metris addIQ Prime package, ideal for complete systems and plants. It comes with a 15" widescreen panel PC and the most sophisticated features of the intuitive operator design. The controller is a high-end device with extensive expansion options. It goes without saying that integrated safety functions come as standard.

- All of the above +
- Remote-access function
- 15" touchscreen as standard
- High-end trending and diagnostic functions

METRIS addIQ PURES

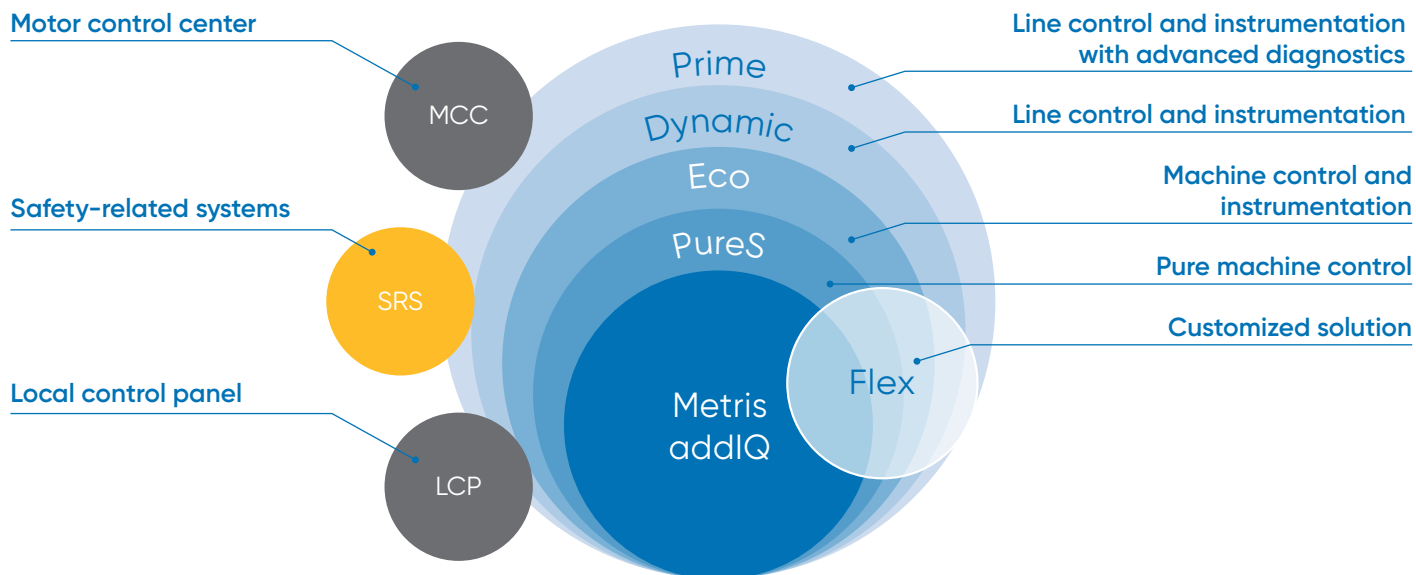
The Metris addIQ PureS package is the replacement product for existing installations with old ANDRITZ control systems. It comes with a 9" widescreen touch panel and intuitive operator design along with a high-performance controller. Metris addIQ PureS combines comprehensive machine control functions and a compact design with cost effectiveness.

- Includes specific machine control functions
- Easy and fast exchange of existing control system
- Ready for remote support (Metris addIQ Connect)
- Cost-efficient solution for stand-alone machines
- 9" HMI panel for monitoring and parameter set-up

METRIS addIQ FLEX

The most versatile solution is Metris addIQ Flex, giving the customer maximum flexibility. The controller type, HMI, IO-cards, and design of documentation are all fully customizable.





Standard tool set tailored to your specific needs

NEWLY DESIGNED
USER INTERFACE FOR
NEW AND EXISTING
MACHINES



Benefits

- Easy integration into existing or new lines/plants, ensuring a short start-up time
- High availability and good performance in operation for all decanter centrifuge related functionalities
- Avoids downtime by using preventive maintenance alarms and intuitive machine interface – peace of mind due to machine automation
- Ready for 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 decanter centrifuge

METRIS addIQ CONNECT

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

METRIS addIQ MONITORING

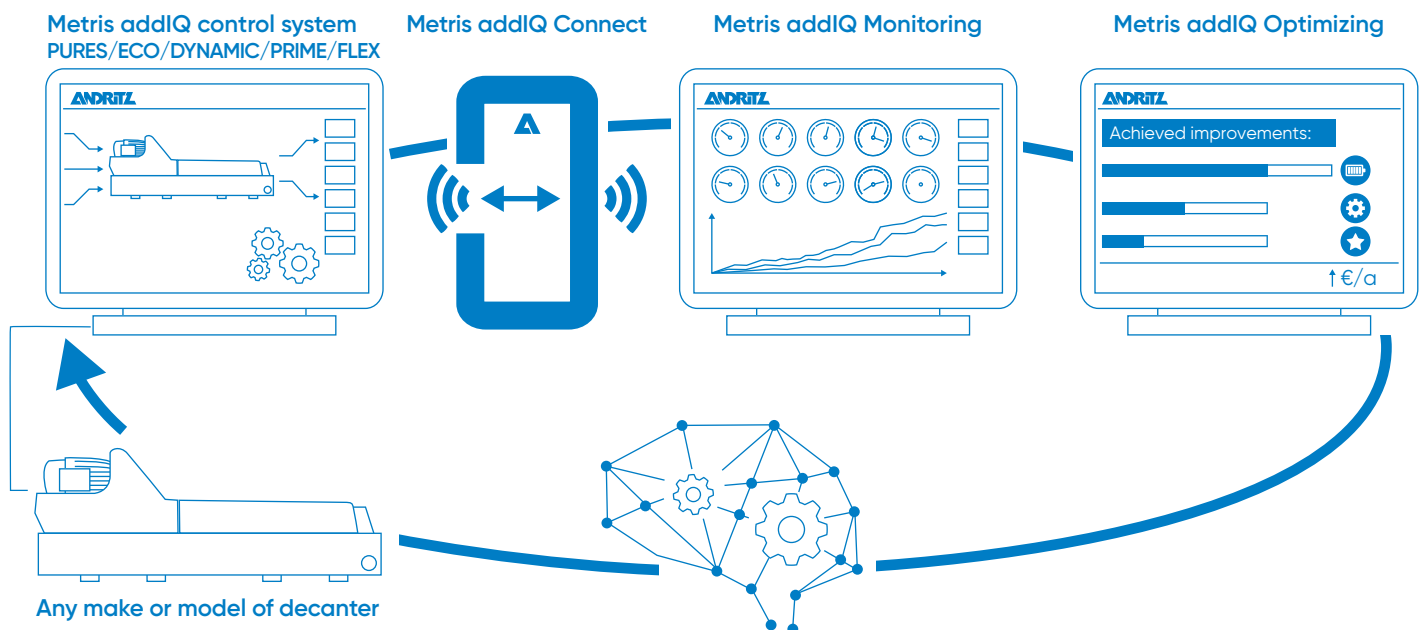
With this monitoring tool, you can monitor the health status of your machine 24/7 from anywhere in the world.

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 helps you to monitor your machine 24/7.
Here displayed via the available ANDRITZ app for machine monitoring.



Additional improvement of process performance

With its modular software and hardware design, the Metris addIQ control system can be easily upgraded with one or more of the following packages:

POLY. SAVING FUNCTION

Poly. Saving optimizes the polymer dosage continuously in accordance with the actual feed flow rate and the operating mode.

Features	Your benefits
Closed-loop regulation of upstream sludge feeding and polymer dosing with different feed regulation modes for selection	<ul style="list-style-type: none">• Operation at highest efficiency• Reduced operating cost
Automatic sensor cleaning	<ul style="list-style-type: none">• Increased process stability

CIP CLEANING-IN-PLACE

CIP is, by definition, a method of cleaning equipment without disassembling it. The CIP control system is a hardware and software upgrade based on the well proven addIQ functions, recognized as a solution for any application where higher cleaning efficiency is required and where standard single-machine flushing at high and low speed is not sufficient.



Features	Your benefits
Flexible configuration of cleaning sequences (8 valves, up to 30 cleaning steps, and 3 customized recipes)	<ul style="list-style-type: none">• Maximize your centrifuge performance with intermediate cleaning during production
CIP line overview with status indication of each component	<ul style="list-style-type: none">• Clear status information

THICKENING FUNCTION

In thickening operation, the expected torque values are too low for precise regulating. The Metris addIQ thickening function thus includes online solids measurement at the decanter outlet. A constant solids output (= constant torque) can be achieved with this specific upgrade package.

Features	Your benefits
Closed-loop control for thickening operation with online solids measurement at centrifuge outlet	<ul style="list-style-type: none">• High stability of total solids content at machine outlet
Automatic sensor cleaning	<ul style="list-style-type: none">• Increased process stability



SmartSIM - SIMULATION-BASED OPERATOR TRAINING.

ANDRITZ SmartSIM is a computer-assisted classroom training course, which can be used at any time without affecting actual plant operation. The working principle for this training is simple: Using the original operating interface, trainees can control a digital twin of your machine, including the individual parameters of your production operations.

Features

Training to deal with even the most difficult or least expected machine/process conditions

Realistic process model with real production parameters integrated into a digital twin

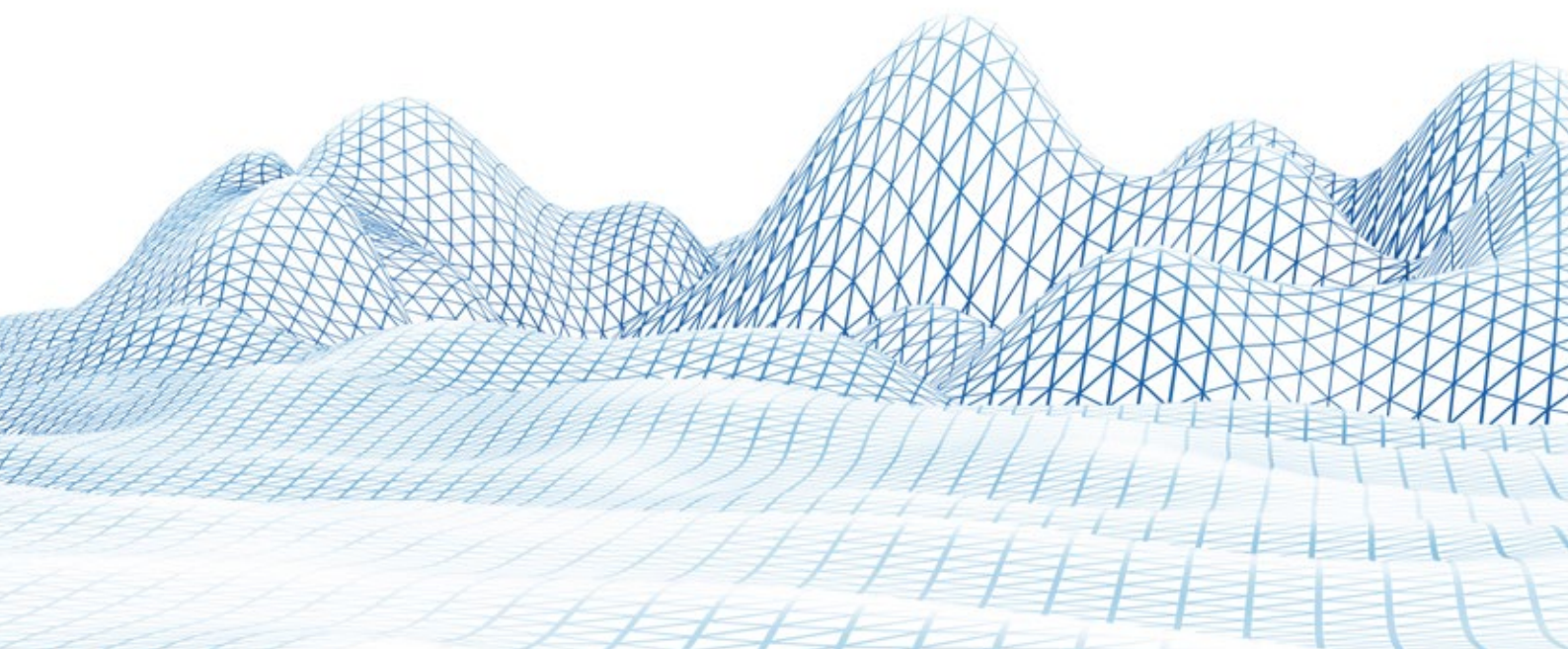
Flexible training in a computer-assisted learning environment

Your benefits

- Reduced downtime because there are fewer operating errors

- Shorter start-up time

- Lower maintenance costs because operators are well trained



Metris addIQ control system upgrade for decanter centrifuges

Case study: Recycling plant upgrade

CHALLENGE

Recycling plant in operation with an early-generation design of Censor decanter centrifuge (3-phase separation). Despite the centrifuge itself being in good condition, the customer was facing production losses due to unscheduled shutdowns caused by the limited functions of the existing control system. Lack of spare parts on the market due to outdated system, consequent high risk of production coming to a complete standstill.

SOLUTION

ANDRITZ delivers a complete automation solution for the recycling process line. In close cooperation with the customer, the concept is defined and basic engineering is carried out. During a short downtime period, ANDRITZ installs Metris addIQ Flex, which integrates upstream and downstream equipment as well as selected instrumentation to optimize the entire process line.

CUSTOMER BENEFITS

- Increased machine capacity due to self-optimizing control system features
- Lower energy consumption due to intelligent regulating of the heating system during the drying stage
- Fully automatic control of the whole process line
- Easy recipe management for different products

Case study: Wastewater treatment plant upgrade

CHALLENGE

Customer facing problems with outdated frequency inverters at their four existing centrifuges, limiting machine availability and production capacity. Difficulties in the supply chain for frequency inverters cause a greater risk of unscheduled shutdowns.

SOLUTION

ANDRITZ supplies a new Metris addIQ dynamic control system, including up-to-date frequency inverters for all four machines. With a strong team on site from automation, the downtime for each machine is kept to a minimum. Integration of the new control system into the overall plant controls completes the upgrade to the customer's full satisfaction.

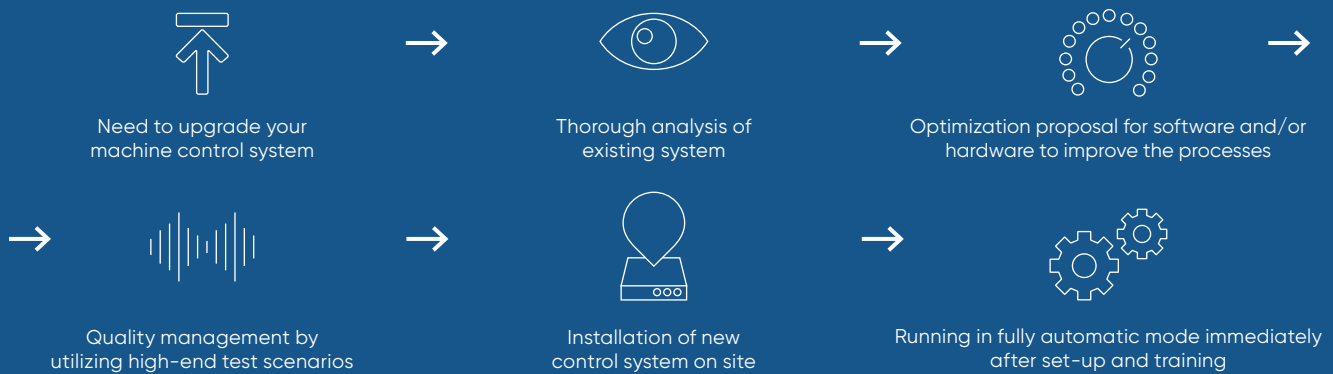
CUSTOMER BENEFITS

- Greater machine availability – no unscheduled shutdowns
- Intuitive operator interface for easy operation
- Updated documentation for all decanter centrifuges

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
- Ready for remote support to guarantee short response times (Metris addIQ Connect)
- Process improvements where applicable
- New automation documentation in electronic form

Moving to 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 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.



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
service.separation.za@andritz.com

EUROPE

ANDRITZ AG
p: +43 316 6902 2297
service.separation@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
service.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 9115
separation.bra@andritz.com

CHINA

ANDRITZ (China) Ltd.
p: +86 400 1034 188
separation.cn@andritz.com

ANDRITZ.COM/SEPARATION



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