



# OPTIMIZE POLYMER CONSUMPTION AND REDUCE COSTS BY UP TO 25%

**ANDRITZ ARGOS for decanter centrifuges and screw presses**



**ANDRITZ**

# Saving resources with our AI-based optical measurement system

ANDRITZ ARGOS is an AI-based optical measurement system designed for mechanical dewatering equipment in sludge processing facilities.

ANDRITZ ARGOS is available for decanter centrifuges and screw presses and enables continuous optimization of thickening and dewatering processes. Inspired by the all-seeing giant Argos from Greek mythology, the system provides constant oversight of critical process parameters to ensure stable operation, reduced resource consumption, and measurable cost savings.

ARGOS combines advanced optical measurement technology with artificial intelligence to transform process data into automated control decisions – 24/7 and without the need for operator supervision.

## INTELLIGENT PROCESS CONTROL FOR MECHANICAL DEWATERING

Stable dewatering performance requires continuous adaptation to fluctuating feed conditions. Variations in sludge composition, solids load, or upstream process conditions can quickly result in overdosing of polymer, reduced cake dryness, deteriorating centrate or filtrate quality, and increased disposal, energy, and operating costs.

Maintaining optimal settings manually would require constant operator attention – a level of supervision that is rarely feasible in everyday plant operation. ARGOS acts as an intelligent, automated “second set of eyes” and ensures that your machine continuously operates at its economic optimum.

## WORKING PRINCIPLE

ARGOS continuously monitors the actual centrate or filtrate condition using AI-based optical analysis. Based on real-time measurement data, the system automatically adjusts polymer dosage and, where applicable, further operating parameters to stabilize the separation process. By keeping chemical consumption aligned with actual process demand, ARGOS prevents overdosing while maintaining target performance levels.

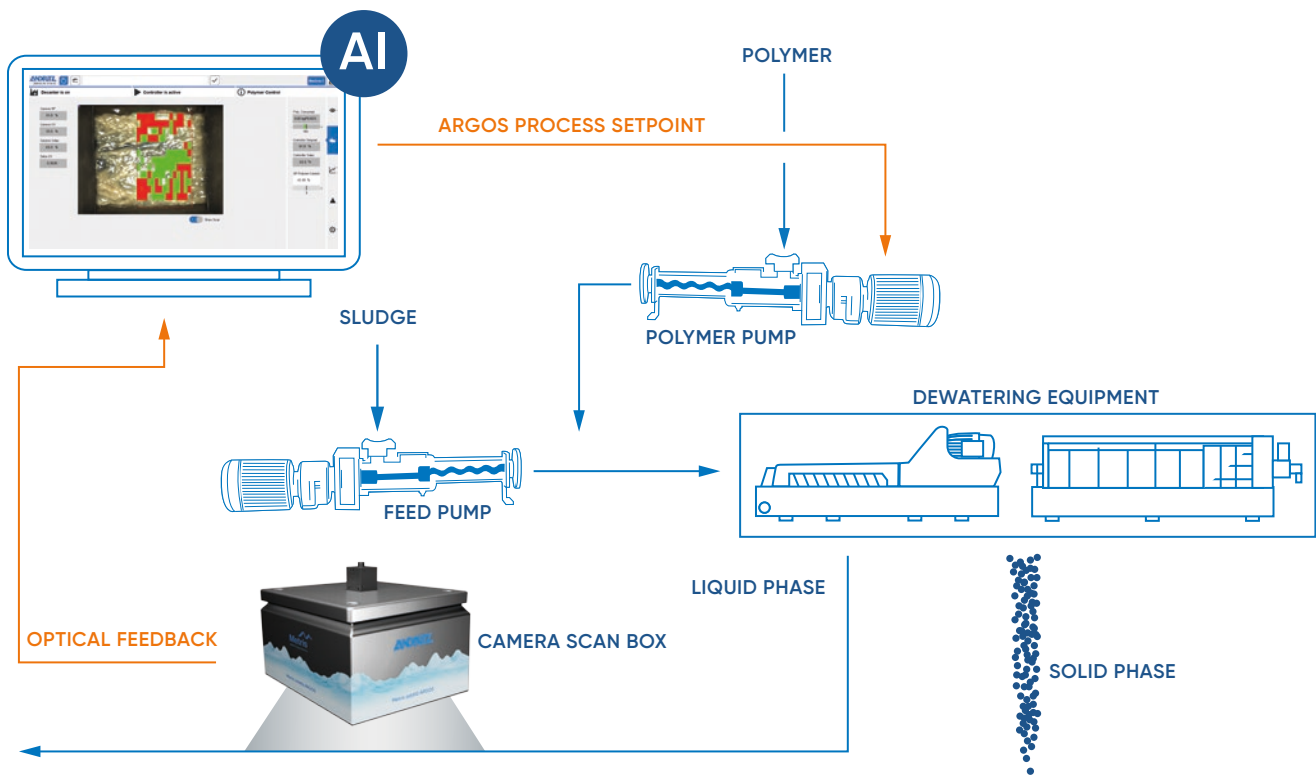
## YOUR BENEFITS

- Up to 25% reduction in polymer consumption\*
- Short amortization period
- 24/7 real-time, AI-based process optimization
- Increased plant reliability and operational stability
- Fully automated operation without supervision
- Compatible with automated polymer dosing systems from any manufacturer
- No mechanical wear parts, ensuring easy cleaning and low maintenance
- Optimized torque control for decanter centrifuges
- Reduced wash water consumption through adaptive cleaning sequences for screw presses

In screw press installations with regular cleaning cycles, ARGOS additionally evaluates the contamination level of the discharged wash water. Cleaning intensity and duration are dynamically adapted based on condition-based control: If contamination levels remain high, cleaning activity is intensified; if wash water quality indicates sufficient cleanliness, the washing sequence is shortened.

In addition, ARGOS supports plant operators through continuous process supervision. The system automatically generates alerts if abnormalities, unexpected trends, or critical process conditions are detected, enabling early intervention and helping to prevent process disturbances or performance losses.

\* Results proven in on-site tests



### STEERING YOUR PROCESS TO THE OPTIMUM

ARGOS analyzes the optical appearance of the centrate in real time and compares it with a predefined target value. Using AI-based evaluation, the system automatically adjusts the polymer dosage to keep the dewatering process close to its optimum operating point.

The color classification used by ARGOS indicates the direction of correction. Darker centrate signals insufficient polymer dosing, while very clear centrate indicates overdosing. ARGOS continuously compensates these deviations by increasing or reducing the polymer dosage accordingly. By converting optical process data into automated control actions, the system stabilizes separation performance while minimizing chemical consumption and operating costs.

RECORDING	ARGOS EVALUATION	SYSTEM RESPONSE
		<p><b>Reference value:</b> 0%</p> <p><b>Target value:</b> 60%</p> <p><b>Polymer underdosage detected:</b> ARGOS will increase the dosage to restore stable separation and a high product quality at the liquid and solid phase</p>
		<p><b>Reference value:</b> 40%</p> <p><b>Target value:</b> 60%</p> <p><b>Nearly ideal centrate quality:</b> ARGOS will increase the polymer dosage slightly to approach the target quality</p>
		<p><b>Reference value:</b> 93%</p> <p><b>Target value:</b> 60%</p> <p><b>Polymer overdosage detected:</b> ARGOS will reduce the polymer dosage to avoid unnecessary chemical consumption</p>



## 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.**

### 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](https://www.andritz.com/separation)

JOIN US ON SOCIAL MEDIA



# ANDRITZ

All data, information, statements, photographs and graphic illustrations in this brochure 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 Group 2026. 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, Stattegger Strasse 18, 8045 Graz, Austria. PB\_ARGOS for decanter centrifuges and screw presses 4.0/03.2026 EN

