

Valmet Sludge Dewatering Optimizer

Improved performance through continuous optimization



24/7
real-time
measurements



Up to **50%**
savings in polymer
consumption

Benefits of Valmet SDO:

- Savings in transportation and incineration costs
- More efficient polymer usage for cost savings
- Improved energy efficiency and centrifuge performance
- Greater process sustainability
- Minimized need for laboratory sampling
- 24/7 real-time data without need for operator

Exceed your performance goals with Valmet SDO

Sludge dewatering is an important part of the process in municipal wastewater treatment plants and a wide range of other industries such as the pulp, paper and chemical. Due to ever-tightening environmental requirements, as well as continued pressure to improve profitability, the optimization of plant processes and output is more important than ever.

Achieving boosted and yet undisrupted performance, while keeping down labor costs, is an everyday challenge for wastewater plants. However, basing your process on time-intensive periodic laboratory sampling is not satisfactory in the long-term to give the data you need to further enhance performance. With Valmet Sludge Dewatering Optimizer (Valmet SDO), continuous measurements and accurate, real-time data combine to bring concrete optimization.

Greater process control with Valmet SDO

Valmet SDO applies inputs from solids and centrifuge measurements to optimize the dewatering process. Valmet Total Solids Measurement (Valmet TS) offers measurements for feed solids and dry cake percent solids and Val-

met Low Solids Measurement (Valmet LS) gives accurate centrate suspended solids measurements. While, the Valmet Dry Solids Measurement (Valmet DS) provides continuous reliable measurements of dry solids.

With key data, Valmet SDO utilizes a multi-variable model predictive control (MPC) to control polymer dosing and centrifuge torque. The

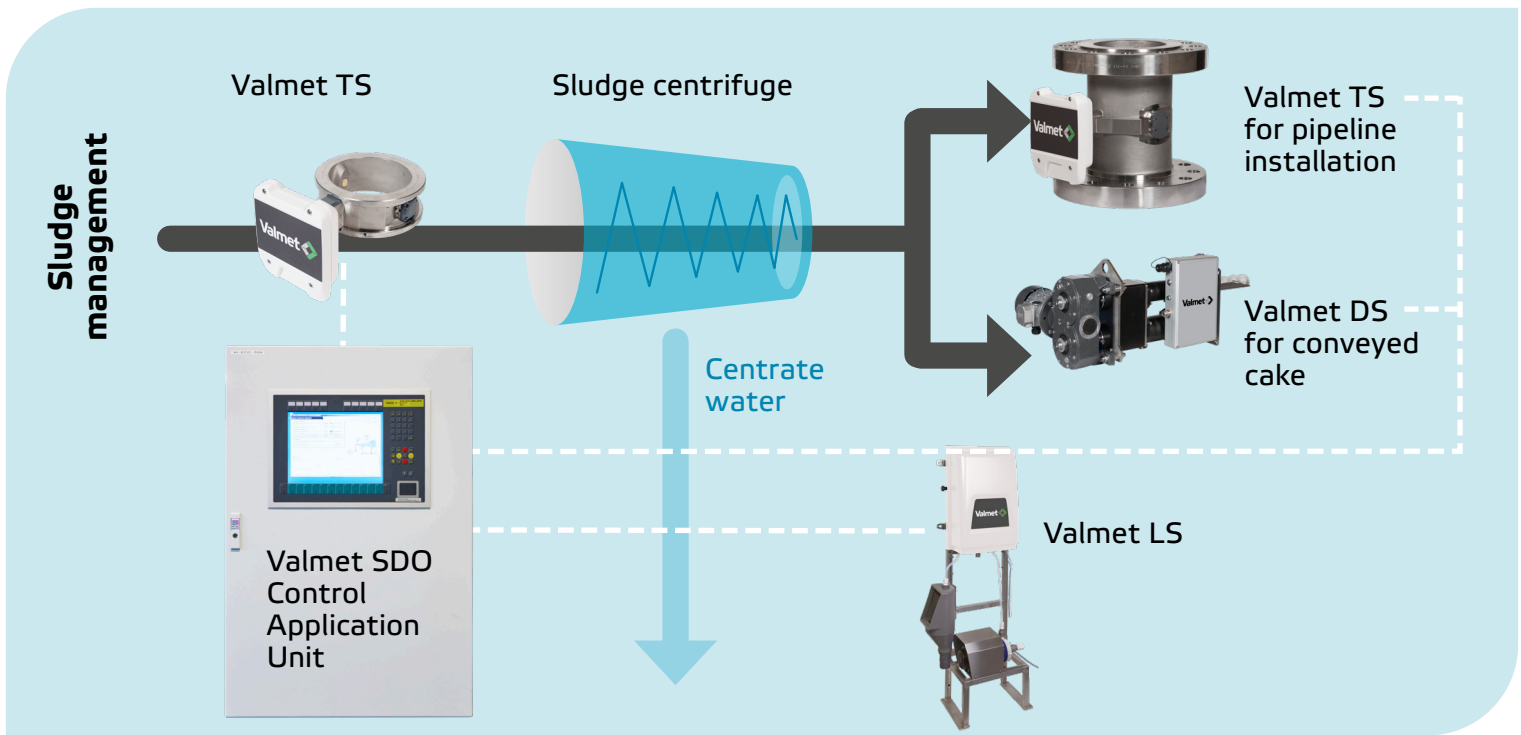


Valmet's measurement technology is built on decades of experience.

multi-variable MPC is unique to Valmet SDO and is an essential component for centrifuge optimization, as centrifuge control is a non-linear process.

Convenience for your plant

Valmet SDO serves to optimize and automate centrifuge operation, bringing 24/7 functioning without the need for an operator to be present. The plant can fully reap the benefits from quickly available solid measurements, significantly reducing the need for time-consuming laboratory sampling. Valmet SDO can be conveniently installed on one centrifuge or your entire centrifuge installation, and its modular structure makes it easily adaptable to most existing automation systems.



Valmet TS – Total Solids Measurement (0-50%)

- Solution for measuring sludge feed and output cake solids
- Allows for both feed forward and feedback control
- Based on proven microwave time of flight measurement
- Low maintenance, no moving parts
- Cost savings in polymer consumption, transportation and incineration

Valmet LS – Low Solids Measurement (0-5000 mg/l)

- Solution for measuring suspended solids in centrate liquid
- Self-cleaning and flushing for low maintenance optical LED measurement
- Allows for optimizing of polymer dosing and centrifuge torque
- Assures optimal polymer dosing
- Helps minimize the amount of suspended solids that are recycled back into the plant

Valmet DS – Dry Solids Measurement (15-35%)

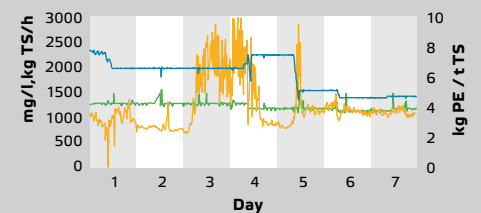
- Continuous dry solids measurements of falling cake flow with microwave technology
- Reduces need for laboratory sampling
- Increases capacity
- Cost savings in transportation and incineration costs
- Optimizes polymer dosage for significant savings
- Energy savings through better torque control

Your dependable partner in wastewater treatment

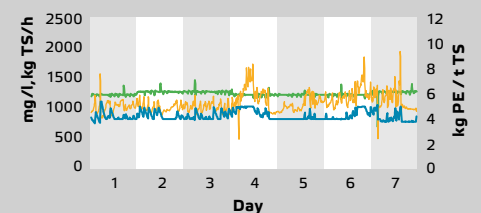
With over 50 years of experience, our solutions are designed meet the growing needs of our customers to improve production process efficiency. Valmet's global experts bring unique know-how that help plants reach business goals, improve productivity, meet environmental requirements, lower risks and optimize costs.

Creating savings out of sludge

Manual control



Automatic control with Valmet SDO



- Sludge to drying
- Polymer
- Total suspended solids

Automatic control: Polymer dosage is managed on the basis of centrate quality within given limits.



Valmet's professionals around the world work close to our customers and are committed to moving our customers' performance forward – every day.

Over 8,200 analyzers and tens of thousands of measurements delivered all over the world.



For more information, contact your local Valmet office. www.valmet.com
Specifications in this document are subject to change without notice.
Product names in this publication are all trademarks of Valmet Corporation.

