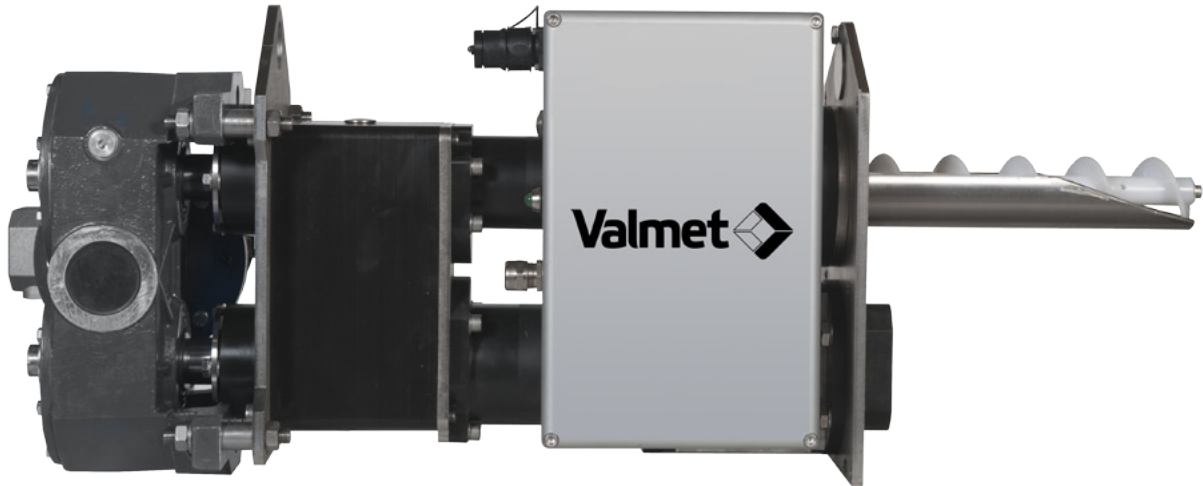


Valmet Dry Solids Measurement



Valmet Dry Solids Measurement of dried wastewater sludge (dry cake) at waste water treatment plants contributes to significant savings in polymer dosage, energy and dewatered solids transportation.

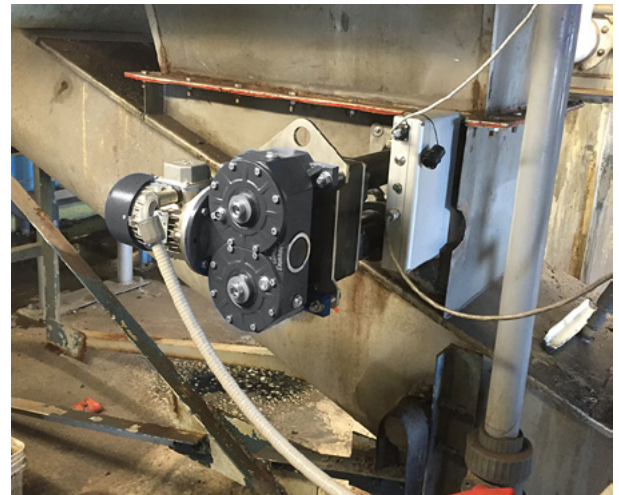
Valmet Dry Solids Measurement (Valmet DS) utilizes microwave technology, requiring no special certification or safety procedures, to make a stable and accurate solids measurement for dewatering control in waste water treatment. Valmet DS extracts a continuous sample from the falling cake flow after a centrifuge or screw press and measures the solid content before returning the sample back to the process.

Feedback control using the accurate dry solids measurement provided by Valmet DS can fully optimize polymer dosage and provide energy savings through better torque control of the centrifuge.

Maximizing drying efficiency to a target dry cake solids content can provide additional savings with reduced transportation costs and improved power boiler combustion.

- Reliable screw based sampling
- Solids range of 15–35 %
- Built-in calibration routine
- Industrial Internet remote access

In addition to full remote access of Valmet DS functions, measurement data, alarms and diagnostics via the Industrial Internet, the Valmet DS Ethernet connection can be used for local control with a laptop or tablet computer during commissioning.



Operation

Valmet DS is typically located in the downfall section of the dry cake. A sample retrieval screw feeds a return screw which compresses and pushes the sample through the microwave sensor chamber before being returned to the process.

The Valmet DS measurement is based on multivariable microwave resonance, compensated for variations in material temperature and calibrated during commissioning with samples taken from the screw and oven dried.

Specifications

Sensor material	Ceramics / Body Aisi 317L
Measuring range	15...35 % Solids-%
Material measured	Municipal dried wastewater (sewage) cake
Temperature-range	+0...65 °C
Repeatability	0.01 %
Resolution	0.001 %
Mill system interface	4...20 mA, Ethernet
Power:	24 VDC (measuring electronics) 3 phase AC (sample screws) *
IP-classification	IP65

