

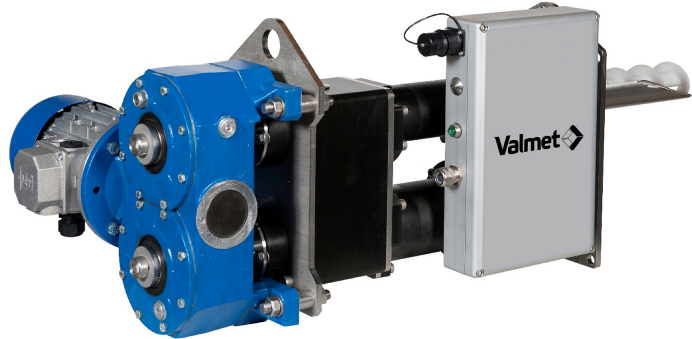
# Valmet High Solids Measurement

Unique real-time measurement for process control

Valmet High Solids Measurement (Valmet HS) is a continuous and accurate measurement of over 30% total solids for various industrial and municipal applications. It utilizes microwave technology for reliable solids measurement.

## Features

- Reliable screw based sampling
- Solids range of 30–99 %
- Built-in calibration routine
- Industrial Internet remote access



Valmet High Solids Measurement (Valmet HS) utilizes microwave technology, requiring no special certification or safety procedures, to make a stable and accurate solids measurement in various industrial and municipal applications. Valmet HS extracts a continuous sample from the falling cake flow after centrifuges, presses, or dryers to measure the solids content. An online measurement with continuous solids output offers you accurate information when the process is running.

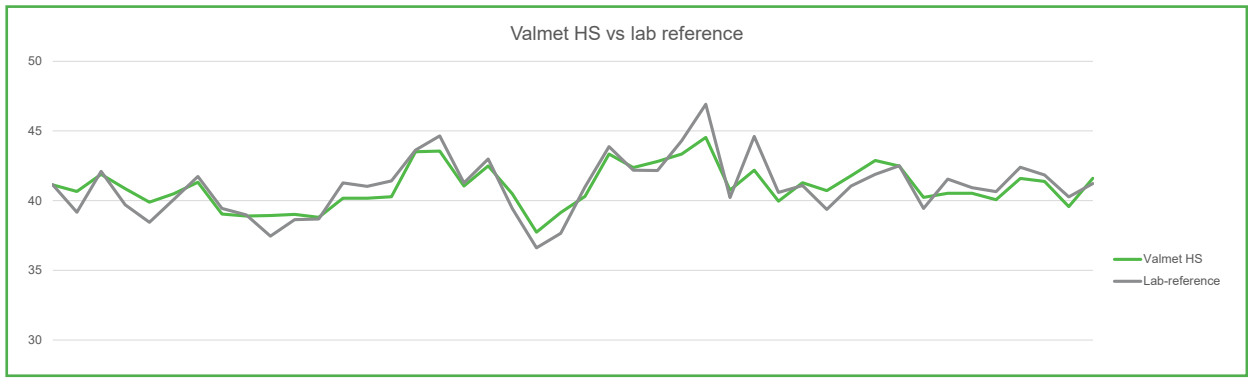
- Enables feedback control of dryers, presses, and dewatering machines to save energy, transportation and chemical costs, and service fees
- Real-time online measurement offers valuable process information 24/7 without a delay
- Reliable, continuous process measurement for sectors where no measurement has been available so far
- More stable output of dryer, press, or dewatering machine means better quality of the end product
- Enables more accurate invoicing in cases where billing is based on tonnage instead of volume

In addition to full remote access of Valmet HS functions, measurement data, alarms and diagnostics via the Industrial Internet, the Valmet HS Ethernet connection can be used for local control during commissioning.

## Operation

Valmet High Solids Measurement is installed where material is dropping in chute or from conveyor to another conveyor. 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 multivariable microwave measurement adapts to material temperature and density variations. The measurement is calibrated during commissioning with laboratory samples.



Correlation between Valmet HS and laboratory during a two-year period.

## Applications

### Municipal wastewater

- Sludge moisture measurement before incineration
- Sludge moisture measurement to control thermal drying process
- Sludge moisture measurement after dewatering

### Pulp and paper

- Pulp and paper wastewater treatment plant sludge
- High consistency pulp from HC press pulp and paper mill
- HC consistency of TMP pulp after bleaching, screening and washing

### Biogas production

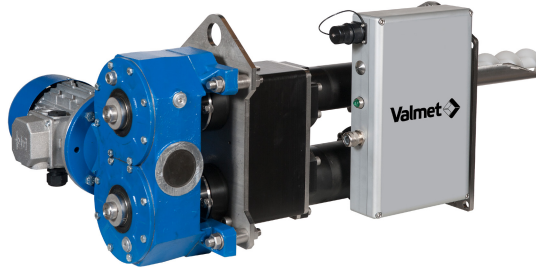
- Sludge moisture after / before thermal dryers

### Other

- Wood processing: saw dust moisture measurement before pelleting
- Starch moisture measurement
- Sugar industry
- Animal food production
- Cypsum moisture measurement
- Distillery rejects



Motor control cabinet



Measurement unit



Remote connection (optional)

Main parts of Valmet High Solids Measurement

Specifications	
<b>Sensor material</b>	HDPE / Body Al
<b>Measuring range</b>	30...99 % Solids-%
<b>Measured material</b>	Saw dust, municipal and industrial wastewater sludge, HC Pulp, starch, other applications coming up all the time
<b>Temperature range</b>	+0...65 °C (High temperature version max 105 °C)
<b>Maximum conductivity</b>	10-13 mS/cm
<b>Mill system interface</b>	4...20 mA, Ethernet
<b>Power</b>	24 VDC (measuring electronics) 3 phase AC (sample screws)
<b>IP-classification</b>	IP65