



# Real-Time Particle Size Analyser

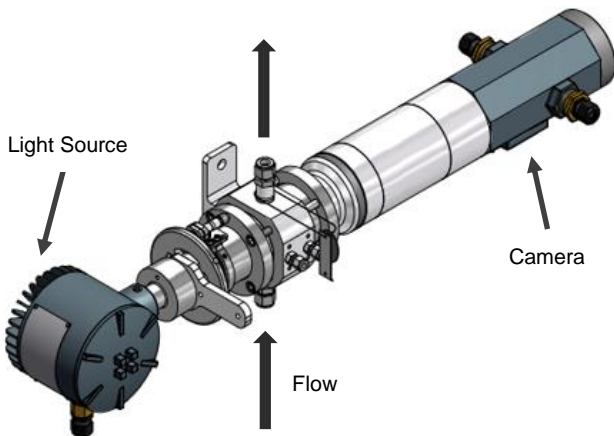


The SMS Particle Analyser enables clients to collect crucial Total Suspended Solids (TSS) and Particle Size Distribution (PSD) data directly from process lines in real-time.

## The System Overview

The online particle size analyser system does not involve manual handling of samples, and this allows clients to obtain live sand rate and PSD data of online processes that may constitute health hazards such as presence of mercury, NORM, H2S, abnormally high levels of CO2, etc.

Vision-based particle analysis systems typically suffer from the limitation of requiring single-phase liquids, but SMS' system is the first of its kind in the industry as it has the capability to separate water and solids from live streams to allow the visual system to analyse and produce results immediately.



## Features

### Real-Time Solids Analysis

- Real-time sand rate and PSD data with visual verification

### Side-Stream Multiphase Fluid Separation

- NACE rated vessel – static or dynamic flow
- Variable temperature with heating for waxy crude

### Robust Monitoring System

- Requires minimal maintenance, infield calibration, integrated jet spray ring for lens cleaning

### Fused Glass Window

- Fused glass to metal window creates a smooth surface that does not alter fluid dynamics

## Benefits

### Increased Safety

- Reduced risk and personnel exposure to potentially harmful samples

### Intelligent Analysis

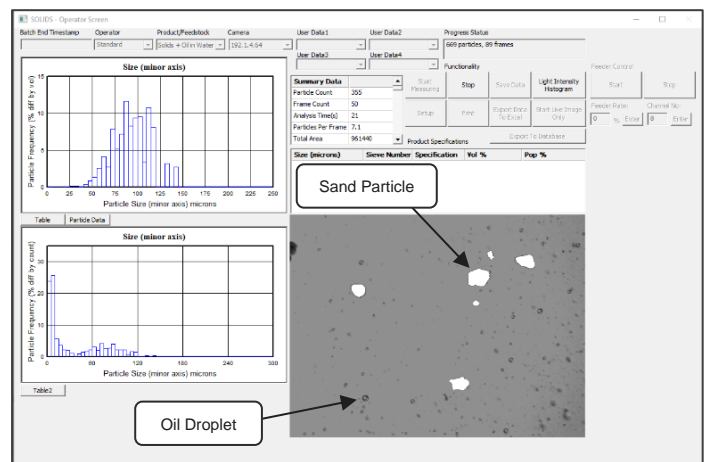
- Distinguishes solids, oil, water and gas particles

### Not Sample Size Limited

- No minimum sample weight requirement

### Minimal Turnover

- No logistics of samples to labs for results involved



Sense



Understand



Perform

## Specification

### Functional Characteristics

Analysis Technique .....	Vision based system – self lighting, calibration adjustable
Data Output .....	Typical PSD Data (Dv, Dn values in Excel format files)
Max Flow Rate .....	8 Liters/minute
Accuracy .....	0.7 micron – 2,200 - micron particle size options
Calibration .....	Factory set calibration
.....	Calibration recommended after significant transportation and according to project scope
Reading Frequency.....	Up to 15 frames per second (depending on acquisition settings)
Data Interface.....	Real-time output direct into acquisition system
Maintenance.....	Monthly visual checks only
Power .....	12–24 VDC or 100-240 VAC, 50/60Hz
Hazardous Area	
Classification .....	Available in NEMA4, IP66, Explosion Proof or Flame Proof Packages
Ambient Temperature .....	0 to 50°C (32 to 122°F) std. Contact for other requirements
Output Ranges & Accuracy..	0.7 micron – 20,000 micro particle size options
Outputs.....	Analogue: Dual isolated 4-20 mA (loop powered)
.....	Digital: OPC, RJ45
Displays.....	External graphic display 128 x 64
Interface .....	CantyVision Intelligent Analysis
Pipework Connections .....	Small bore eg ½ "swageloc
Dimensions .....	Canty Particle analyser: 1200 x 800 x 500mm, 15kg
.....	Power supply box: 770 x 770 x 350mm, 10kg

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