ScrubberGuard

Measuring system for Scrubber wash water monitoring

Applications

- Monitoring wash water of exhaust gas cleaning systems

Industries

- Shipping industry

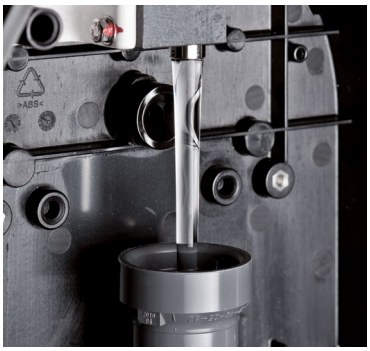
Advantages

- True non-contact free-fall measurement of turbidity and PAH (polycyclic aromatic hydrocarbons) guarantees consistent true measurement values
- Calibration with secondary standard possible at any time
- Low maintenance
- Compact and certified all-in-one system
- Central, integrated control unit with colour touch-screen
- Display of values and / or graphs with visualization of the measured data covering the past 32 days.

ScrubberGuard

Measuring system for Scrubber wash water monitoring

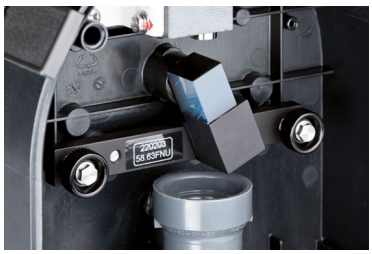
Innovations with tanigble benefits



No window fouling as a result of the non-contact free-fall measurement

The AquaScat and the OilGuard measure turbidity or the PAH-content, respectively, in a free-fall water stream. There is no contact between the water and the optics.

- No reading falsifications as a result of window fouling
- The true measurements are always guaranteed
- Low maintenance



Re-calibration with secondary standard

At SIGRIST, the AquaScat is calibrated with formazine, the OilGuard with phenanthrene. For a recalibration at customer site, a secondary standard (solid) is delivered with each instrument.

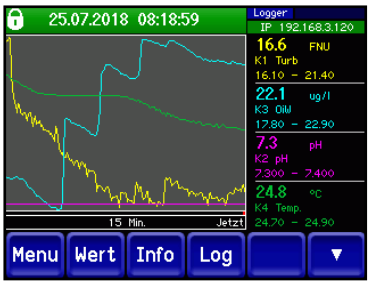
- Exact re-calibration without formazine/ phenanthrene
- No chemicals necessary
- Low total cost of ownership

Compact all-in-one system

- Simple installation by fixing the rack on the floor, connecting power and in- and outlet for the sample
- Multitude of communication options

Modular design

- For a simple integration and adaptation to individual operation conditions



Integrated control unit

The instrument is operated via a touch screen with colour display.

- Values, graphs, states or alarms can be displayed, as selected
- An internal data logger allows the visualisation of the measured data covering the past 32 days
- Extensive communication options incl. integrated web server

Technical data

ScrubberGuard System	
Dimensions:	approx.1280x880x400mm (h/w/d)
Sample temperature:	0..+50°C
Sample flow:	min. 4l/min
Max. pressure:	0.3 Mpa (3 bar)
Max. ambient temperature:	+50°C
Ambient humidity:	0.. 100% rel.h.
Protection index:	IP 54
Power supply:	220V/60Hz, 230V/50Hz
Power consumption:	650W (1050W incl. inlet pump)
List:	Reliable measurement up to 20°, measurement possible up to 30° (all axes)
Weight:	approx.100 kg
Materials	
Structure:	316L
In contact with medium:	316L, PVC-U (+GF+), FKM, NBR
Pumphead:	316L; Viton® and PPE
Impeller:	NBR
Operation and interfaces	
Display:	1/4 VGA, 3.5"
Operation:	Touchscreen
Outputs:	4 x 0/4.. 20mA 4 x digital outputs 2 x relays freely configurable
Inputs:	1 x digital input for Remote Control
Digital interfaces:	Ethernet, Modbus TCP, microSD card
Optional:	Profibus DP, Modbus RTU, HART, Profinet IO, USB Memory
Connection dimensions	
Electr. conn. dim.:	0.25-4mm², AWG 22-12
Hydr. connection:	R1"
Turbidity measurement	
Measuring principle:	90° scattered light acc. to standard ISO7027/EN27027
Unit:	FNU
Measuring range:	0...1000 FNU
Oil-in-water measurement	
Measuring principle:	UV fluorescence acc. to MEPC.259(68)
Unit:	Phenanthrene equivalent
Measuring range:	0-1000 µg/l phenanthrene equivalent
pH/temperature sensor	
Measuring principle pH:	Glas electrode
Measuring range pH:	0-14 pH
Meas. principle temperature:	NTC 22 kΩ
Unit temperature:	°C, K, °F
Meas. range temperature:	0 - 130°C