# Portable [condition monitoring] OIICMS [ON-SITE PORTABLE SERIES]

OilCMS is the portable, robust, realtime solution featuring Atten[2] optical technology for particle counting and particle morphology analysis in lubrication systems.

The Portable OilCMS utilizes breakthrough digital imaging technology which provides a greater insight into the size and type of particulate in any oil system. Air bubble elimination and shape recognition gives root cause particle analysis. A stepper motor pump for high viscosity oils completes the package.

Giving ISO 4406 counts as well as 4, 6, 14, 21, 38 & >70 micron sizing and bubble elimination. Digital imaging combined with advanced algorithms sorts particles into fatigue wear, cutting wear and sliding wear categories to give root cause analysis.



#### All Atten[2] technology functionalities available

- Particle counting according to ISO 4406 standard > 4 microns
- Discrimination and counting of air bubbles
- Classifies particles in 6 ranges (>4, >6, >14, >21, >38, >70 μm)
- Shape analysis

# [FEATURES]



### Digital Imaging Particulate Counter

Classification and counting of particles larger than 4 microns in 6 ranges. 4, 6, 14, 21, 38, 70 >100 microns. Air bubble and water droplet elimination.



#### **Root cause information**

Shape determination to classify fatigue, sliding or cutting wear as well as fibre identification helping to identify the root cause.

## [TECHNICAL INFORMATION]

Fluid Compatibility	Synthetic oils, organic oils, mineral oils & diesel fuel (2,400 cSt viscosity limit)			
Display Information	Particulate: ISO 4406, SAE AS4059 & NAS 1638, bubble elimination and particle wear analysis			
Modes of operation	High-pressure live system sampling (up to 350 bar) - via a high-pressure adaptor Bottle sampling and tank sampling (up to 2,5 bar)			
Data	All data stored locally and backed up off-site. Export to .cSV or PDF			

# [DIMENSIONS]



## Atten[2]

## [TOUCH SCREEN DISPLAY]

1.	ISO: 18 /	16 / 13	3	04/02/2022 14:38:02	4.
2.	SizeISO4µm18.66µm16.214µm13.421µm11.538µm9.370µm8.2	Particles 1921 364 54 15 3 1	Bubbles 4 3 2 2 1 0	20.0 17.5 15.0 12.5 10.0 20 5.6 9.2 12.8 16.4 20.0 Time (Secs)	5.
3.	NAS: 7	SA	E: 4	4μm 6μm 14μm Fatigue: 44 Sliding: 6 Cutting: 12 Fibre: 1	6.

1. Clear and easy to read ISO code which changes between green, white and red to indicate the oil cleaninliness

- Oil cleanliness for each size category details the ISO code, number of particles per mililitre and the bubbles detected
- Additional sensors give an unprecedent insight into the overall condition of the oil
- 4. Additional settings allow control of the pump speed for priming and flushing, datalogging, ISO cleanliness alarm limits and changing the time zone
- **5.** Oil cleanliness is trended over time to show how its condition changes
- 6 Particles are analysed and sorted into fatigue wear, cutting wear, sliding wear and fibre identification to give root cause analysis



#### **Internal Stepper Motor Pump**

We've developed a fully controllable stepper motor driven pump to deliver exact flow rates for any oil from 1 to 2,400 cSt. The pump also allows connection to a live system up to 350 bar via a high pressure adaptor.



#### **Battery life**

Internal rechargeable lithium battery provides a long life for remote use.