



Particle Pal Pro

The most advanced **Particle Pal**

Utilises 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. Remaining oil life, water content & viscosity sensors complete the package.

Diagnosis & Prevention



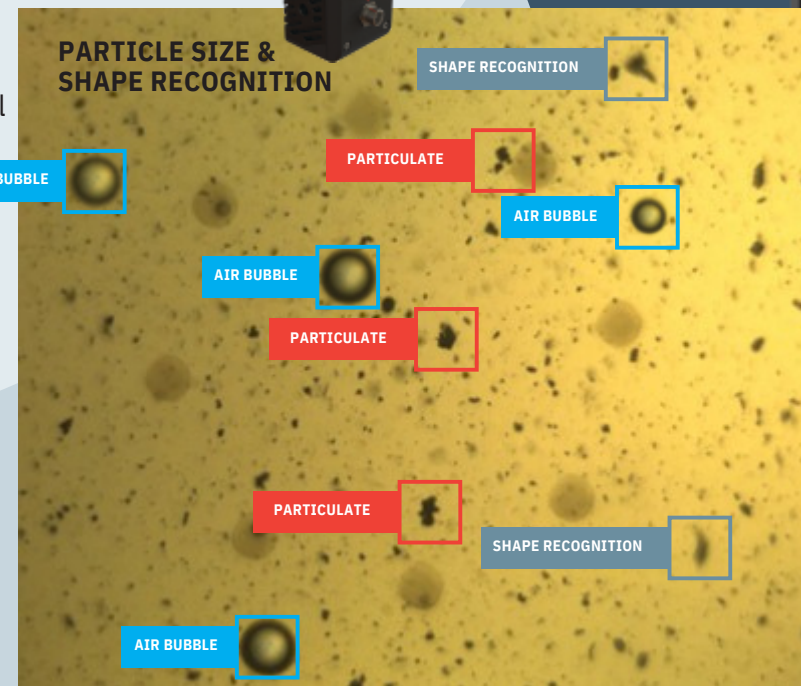
THE PICTURE OF HEALTH

Harnessing the power of proven digital imaging technology

We've embedded the latest particle counting technology into our new Particle Pal Pro series. All units report in accordance with ISO 11171 (previously 4406), NAS 1638 and SAE standards. The unit also provides particle counts in the standard ranges up to 70µ as well as bubble detection and elimination. Digital imaging, combined with advanced algorithms, sorts particles into fatigue wear, cutting wear and sliding wear categories to give root cause analysis. This powerful technology, when coupled with additional sensors for measuring water content and oil life, provides unprecedented, on-the-spot insight into the condition of your oil.

OIL LIFE SOFTWARE - ALL THE METRICS YOU NEED AT YOUR FINGERTIPS IN AN EASY TO USE SOFTWARE

Powered by:
ATTEN2
Advanced Monitoring Technologies



The image above is 4mm x 3mm and shows particulate that the human eye can't see.



Water content.

Displayed as % saturation (relative humidity). Helps inform whether an oil change is actually required.



Oil life indication.

Over 250 oils profiled with the ability to self-calibrate. Gives early warning of oil coming to the end of its life and also helps inform whether an oil change is actually required.

Particulate analysis.

The Atten2 digital imaging particle counter gives advanced size and shape recognition for any sample. Counting particulate in virtually any oil up to 2,400cSt, the Atten2 device also eliminates air bubbles, making it ideal for heavy lube and gear oil applications in cold temperatures. Reporting 4, 6, 14, 21, 38, 70 & >100 micron counts as well as categorising any particle greater than 20 microns into:

- Fatigue Wear • Sliding Wear • Cutting Wear • Fibres



Digital Imaging Particulate Counter

Capable of broad size determination from 4, 6, 14, 21, 38, 70 >100 micron counts. Air bubble and water droplet elimination. Shape determination to identify fatigue, sliding or cutting wear as well as fibre identification.



Water Sensor

Water in oil is a contaminant that can contribute to microbial growth and encourage further contamination, from solids to rust. The inbuilt water sensor shows the relative humidity of any oil as a % saturation.



Oil Life Sensor

The Tan Delta Full Spectrum Holistic oil condition sensor monitors the overall condition of the oil, giving you unparalleled sensitivity, accuracy and precision. This enables the oil's remaining useful life to be calculated. The sensor works with virtually any oil, drawing on a database of over 250 common industrial oils with the ability to self-calibrate.

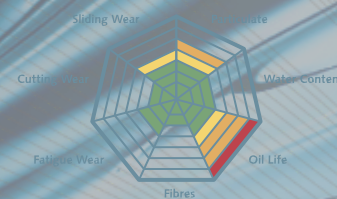


Viscosity

A highly accurate resonant/vibration viscometer normally found in laboratory equipment. The Particle Pal Pro measures up to 2,400cP. Knowing the viscosity of your oil can help spot end of life or dilution/topping up issues. The sensor shows live viscosity as well as reference viscosity at 40°C.

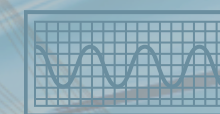
Particle Pal Pro - The Picture of Health - TECHNICAL INFORMATION

Fluid Compatibility	Synthetic oils, organic oils, mineral oils & diesel fuel (2,400 cSt viscosity limit)
Display Information	Particulate: ISO 11171, SAE AS4059 & NAS 1638, bubble elimination and particle wear analysis. Water: relative humidity (RH%). Oil condition: utilises Tan Delta's oil life sensor to determine the remaining life of any oil profiled.
Modes of Operation	High pressure live system sampling (up to 350 bar) - via a high pressure adaptor. Bottle sampling and tank sampling.
Data	All data stored locally with an option to export to CSV or PDF.
Calibration	Ability to self calibrate any oil also included, via a one time routine.



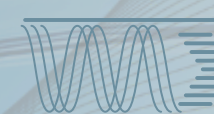
Spider Infographic

A multi-stage infographic helps engineers understand at a glance the condition of their oil, based on all of the data collected from the internal sensors.



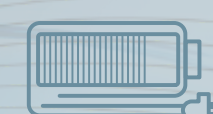
NEW Software

A 10" touch screen LCD allows users to view data in great detail, with zoom, trending and analysis breakdown. Within the software we have embedded oil ageing profiles for over 250 oils. Also included is the ability to self-calibrate an oil life profile, should your oil not be on the database. This is a one time routine where oil is taken through a heat cycle.



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 350bar via a high pressure adaptor.



Battery Life

Internal rechargeable lithium batteries provide a long life for remote use.

ASSET MANAGEMENT SOFTWARE

Load	Select	Asset/Test Name	Selected Oil	Creation Date	ISO Classes	Duration (secs)	Comments	Delete	Edit	PDF	CSV
C	▶	Add new Asset...									
C	■ ▼	demo 1 (OT)	Gazpromneft, GEs...	2022-05-03 11:21:21				✕	/		
C	■ ●	kerowena test1		2022-05-03 17:24:12	20 1/10 1/12 1/9 6/5 0/0 0	690.05		✕	/	📄	📄
C	●	Add new Test...									
C	■ ▼	FLISR	Euro1, Hykol VRL...	2022-05-03 12:29:21				✕	/		
C	■ ●	FLISR		2022-05-03 13:22:29	24 8/27 7/26 3/16 7/12 2/0 0	132.64		✕	/	📄	📄
C	●	Add new Test...									
C	■ ▼	95-PPVision	Fuctra, Curanda 9F...	2019-04-21 08:50:20				✕	/		
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C	●	Add new Test...									
C	■ ▶	example 1	Shell, Tetras S2 ...	2022-05-25 10:50:54				✕	/		
C	●	Add new Test...									
C	■ ▼	IronTest	Avia Oils, Beels...	2021-12-10 09:12:12				✕	/		
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C	●	Add new Test...									

Create oil assets which then logs and records the data of completed tests. Refer back to this at any point as all the data is saved on the device. New tests are added and all data can be trended over time.

Allocate a specific oil to each asset as a reference, this is very useful when creating a report. Oil profile is retained for future tests added to this asset.

ASSET MANAGEMENT KEY FEATURES:

- Save all recorded data using our easy to use sophisticated asset management system
- Ability to send all reports directly from device
- Create professional reporting templates on the device
- Export and retrieve all real time data
- Revisit previous tests
- Generate graphic trends over time
- Remotely access all information
- Export to PDF or CSV from device

Learn more about the software here:



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Made in the UK



Also available...

In addition to the Particle Pal Pro series, we now offer our latest digital imaging counter in the Particle Pal Plus

Contact us for more information.

