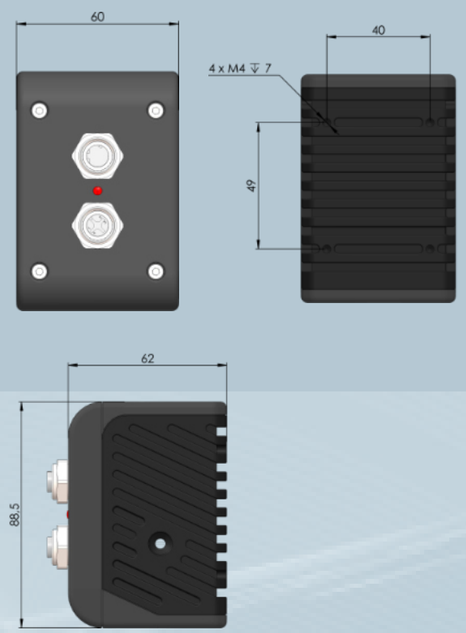
FEATURES

- Oil cleanliness codes: ISO 4406, NAS 1638, & SAE AS4059
- Particles are grouped by micron size in seven categories - 4, 6, 14, 21, 38, 70
- The S120 counts air and gas bubbles and eliminates them from the counts
- The shape recognition software is able to categorise particulate into sliding, cutting & fatigue wear
- A highly accurate sensor, capable of self-calibration
- Full integration with SCADA/PC/PLC which can be controlled via analogue or digital instrumentation

S120 - DIGITAL IMAGING PARTICLE COUNTER

TECHNICAL INFORMATION

Accuracy	+/- 1 ISO code
Power Display	24 VDC
Ports	1/8" BSP
Max Pressure	160 Bar
Flow Rate	0.1 - 1.0 l/min
Viscosity Limit	2,400 cSt
IP Rating	IP65
Fluid compatibility	Mineral oils, synthetic oils, diesel, skydrol, water glycols other fluids possible - please contact us for more information.
Weight	0.5 Kg
Dimensions	80 x 45 x 45cm
Temperature range	-20°C - 70°C
Output Options	Modbus RTU (RS485) Modbus TCP/IP Local panel mount indicator Local field mount indicator





Integrated options..

The S120 sensor is built-in to both models of the Particle Pal Pro series.

1. Particulate and Water
2. Particulate, Water and oil life option

Contact us for more information.

Filtertechnik Ltd,
1 Central Park,
Lenton Lane,
Nottingham,
NG7 2NR
Tel: +44 (0)115 9003 600
Email: sales@filtertechnik.co.uk

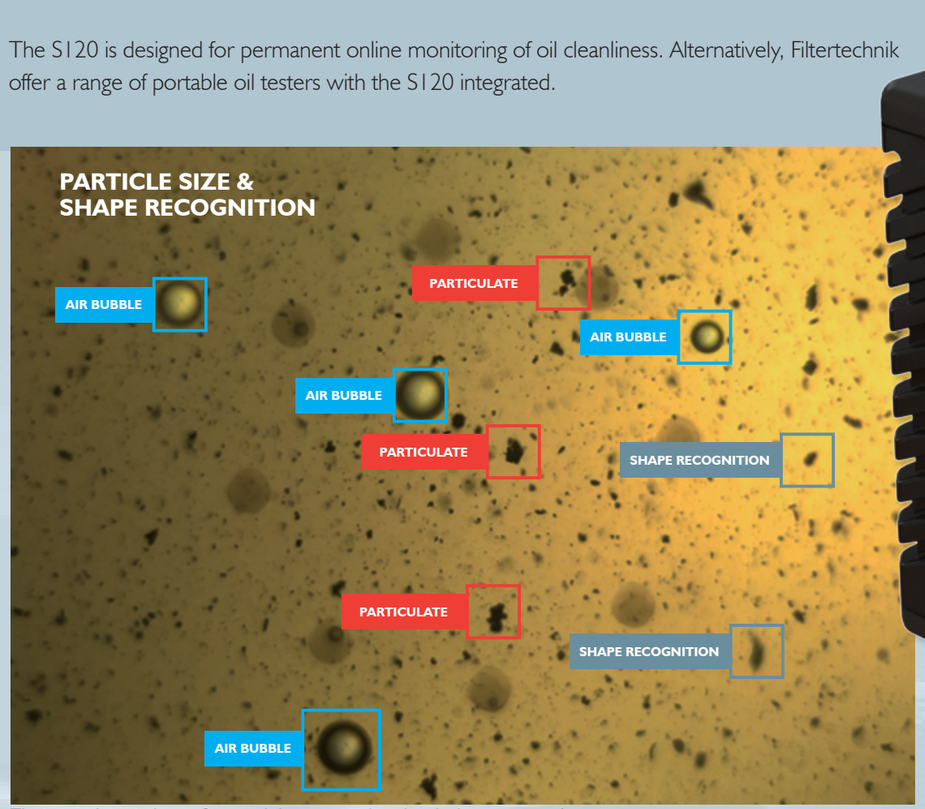
www.filtertechnik.co.uk



GET A **CLEAR** PICTURE OF YOUR **OIL**

The S120 digital imaging particle counter is a revolutionary sensor capable of counting a broad spectrum of particles, recognising shapes and eliminating air bubbles from the counts. Digital imaging particle counting provides engineers with a deeper insight into their oils. The sensor has the ability to measure a broad spectrum from 4 to > 70μ recognising different shapes of particles which can be grouped into fatigue wear, sliding wear and cutting wear as well as fibres.

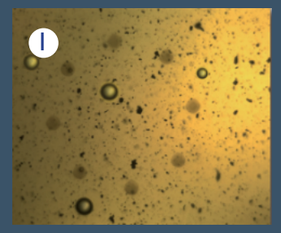
The S120 is designed for permanent online monitoring of oil cleanliness. Alternatively, Filtertechnik offer a range of portable oil testers with the S120 integrated.



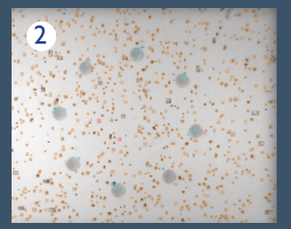
The image above is 4mm x 3mm and shows particulate that the human eye can't see.



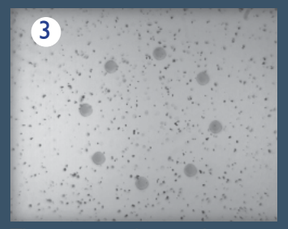
SENSOR OPERATION



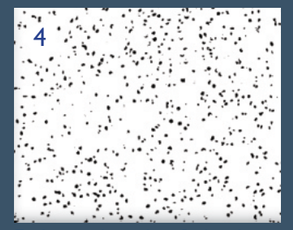
The fluidic cell ensures that the oil is in an optimum condition, and captures images.



The images obtained are calibrated (dimensions) and compensated (illumination).



The images are binarized.



Each particle is identified and analysed, it s size is calculated and the bubbles are removed.

The S120 determines the shape of particles over 20μ. The embedded software, developed in conjunction with an oil analysis laboratory, categorises particles into 4 known shape groupings.

Examples of shape recognition:



FEATURES

- ISO, NAS and SAE particle codes
- 4, 6, 10, 14, 21, 38, 70μ counts
- Air & Gas bubble counts are eliminated
- Particulate shape
  - Sliding wear
  - Fatigue wear
  - Cutting wear
  - Fibres

Applications in industry include:



SHIP BUILDING



POWER GENERATION



MANUFACTURING



WIND POWER



HYDRAULIC