

Extended [life-cycle]

# OilWear

[SHAPE SERIES]

**Technology based on artificial vision and AI algorithms that provide fast, real-time information about machine status, allowing decisions and actions to be taken at an early stage of failure, generating considerable savings.**

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

Atten[2]'s OilWear® S120 is an online sensor that detects particles and bubbles larger than 4 microns in the machine fluid and classifies them into 6 size ranges. Designed to work installed in-line, it provides real-time information about the machine's condition through the contamination of its fluids.

OilWear® S120 is the best ally for predictive maintenance strategy based on oil cleanliness. The measurement of an abnormal amount of particles allows the early detection of machine failures and thus the initiation of corrective actions.

OilWear® S120 has a robust, modular design and is easy to integrate into any data acquisition system or CMS of the oil condition monitoring asset.



## Integration and communication

The multiple options for visualization and interpretation of the data allow substantial improvements in the maintenance of the assets favoring better decision making

## Types of fluids

- Hydraulic fluids and lubricants
- Fuels
- Mineral and synthetic oils
- Coolants
- Cutting fluids
- Aqueous solutions
- Glycols
- Cleaning fluids
- Water

## [BENEFITS]

- Classification and counting of particles larger than 4 microns in 6 ranges
- Provides early information on machine condition, up to 7 times earlier than other technologies
- Provides fast and reliable information on fluid contamination
- Extends fluid life and reduces machine downtime
- Recognizes and classifies particles larger than 20 microns by wear type helping to identify root cause
- Integrates OilHealth technology that provides information on oil degradation and contamination
- Simple installation
- Full integration with SCADA/PC/PLC via digital communications for easy interpretation

## [SPECIFICATIONS]

<b>Counting output</b>	Particle classification according to: ISO 4406:1999 // NAS 1638 Total particles (P/ml) Particle shape recognition (p/ml)- Fatigue, sliding, Cutting & Others & Air Bubble Detection & Discrimination (b/ml) Oil Degradation (%)
<b>Precision</b>	+/- 1 ISO
<b>Additional variables</b>	Device temperature measurement
<b>Power supply</b>	24 VDC
<b>Current consumption</b>	<150 mA
<b>Digital output</b>	RS485 (Modbus: RTU) Ethernet RJ45 (Modbus: TCP/IP, FTP)
<b>Operating pressure</b>	Up to 150 bar
<b>Electronic operating temperature</b>	From -30° C up to 70°C
<b>Fluid operating temperature</b>	Up to 85° C
<b>Viscosity range</b>	Up to 1280 cSt
<b>Flow rate</b>	Up to 0,5 l/min / Optimal 0,2 l/min
<b>Sensor size/weight</b>	88.5 x 60 x 62 mm // 320 gr
<b>Hydraulic connections</b>	1/8 BSPPF (x2)
<b>Materials</b>	Aluminium, BK7 and FKM (other materials on request)
<b>Internal datalog</b>	Last 10.000 tests and 100 last images
<b>Protection class</b>	IP65
<b>Certifications</b>	CE, UL



Also available for explosive atmosphere environments

CE Ex II 3G Ex ec op is IIB T4 Gc

UL 121201

CSA C22.2 #213-17

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[DIMENSIONS]

