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 standard > 4 microns
- Classifies particles in 6 ranges
  (>4, >6, >14, >21, >38, >70)
- Oil degradation
- Shape analysis
- Discrimination and counting of air bubbles
- Oled screen with relevant data

Atten[2]'s OilWear® S120-D 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-D 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-D has a robust, modular design and is easy to integrate into any data acquisition system or CMS of the oil condition monitoring asset. Also, there is on-screen display of data.

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
- On-screen display of data
- Full integration with SCADA/PC/PLC via digital communications for easy interpretation

[SPECIFICATIONS]

Counting output	Particle classification according to: ISO 4406:1999 // NAS 1638 Total particles (P/ml) Air Bubble Detection & Discrimination & Counting (b/ml) Shape recognition (p/ml)- Fatige, sliding, Cutting & Others Oil Degradation (%)
Calibration standard	ISO 11171
Precision	+/- 1 ISO
Additional variables	Device temperature measurement
Power supply	24 VDC
Current consumption	<150 mA
Digital output	RS485 (Modbus: RTU) Ethernet RJ45 (Modbus: TCP/IP, FTP)
Operating pressure	Up to 150 bar
Electronic operating temperature	From -30° C up to 70°C
Fluid operating temperature	Up to 85° C
Viscosity range	Up to 1280 cSt
Flow rate	Up to 0,5 l/min / Optimal 0,2 l/min
Sensor size/weight	113.5 x 60.6 x 62.7 // 335 gr
Display	20 x 41mm, autoscroll
Hydraulic connections	1/8 BSPF (x2)
Materials	Aluminium, BK7 and FKM (other materials on request)
Internal datalog	Last 10.000 tests and 100 last images
Protection class	IP65
Certifications	CE, UL

[DATA SHOWN IN DISPLAY]

20/11/2022	10:31
ISO	
19.2 / 17.5 / 14.1	

Size	Part	Bub
4um	2963	0
6um	962	0
14um	85	0

Fatigue	1
Sliding	0
Cutting	0
Fibre	0

Size	Part	Bub
21um	1	0
38um	0	0
70um	0	0