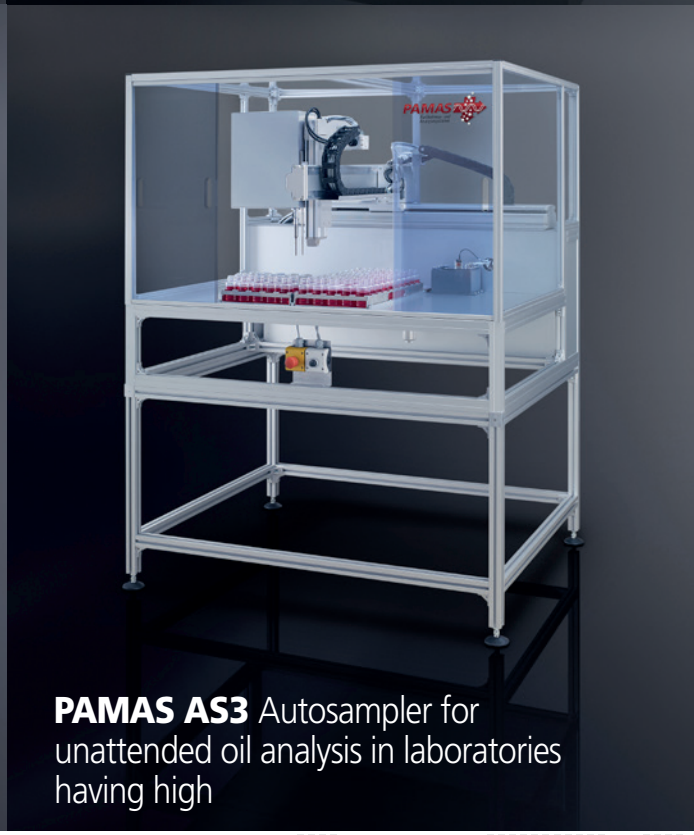
PAMAS
Partikelmess- und Analysesysteme

PAMAS S40 Portable particle counter for offline and online measurement

PAMAS S50 Online particle counter for cleanliness control as per ISO 4406

PAMAS SBSS
Versatile particle analysing system for batch sampling



PAMAS AS3 Autosampler for unattended oil analysis in laboratories having high

PAMAS Oil Instruments
Particle Counters for Oil Contamination Analysis

REV 02/2021

IN THE WORLD OF PARTICLES PAMAS COUNTS

PAMAS Oil Instruments

Oil contamination control through offline, online and on-site analysis

Particles circulating at high speed and pressure in the operating liquids of turbines, power plants, gearboxes and offshore applications are capable of damaging mechanical parts of the system. Preventive condition monitoring thus includes the regular control of the operating oil. The extensive PAMAS product range offers four different product types for oil contamination analysis: Depending on the site of analysis and on the method of sample extraction, we distinguish laboratory particle counters (like the **PAMAS SBSS**) for batch sampling, fixed installations (like the **PAMAS S50**) for permanent online condition monitoring, autosamplers (like the **PAMAS AS3**) for unattended measurement of high quantities of samples, and portable particle counters (like the **PAMAS S40**) for field measurements on-site. PAMAS portable instruments can be used both for online measurement and for batch sampling. Industrial oil cleanliness, e.g. of hydraulic oil, lubricating oil or insulating oil, usually is classified in contamination classes. Cleanliness standards were established to enable uniform fluid cleanliness classification.

With the help of these standards, the user can easily and quickly assess the fluid's contamination level. In the oil industry there are 7 approved industrial standards commonly used for fluid cleanliness classification. PAMAS particle counters are able to measure quantity and size of each individual contaminant in the oil. The measuring results about the oil cleanliness are reported in compliance with the common oil cleanliness standards. Furthermore, particle size distribution is given in cumulative and differential counts, so the exact number of particles is known for a certain size (e.g. > 4 µm(c)) or within a certain size channel (e.g. from 4 to 6 µm(c)).

TÜVRheinland® ZERTIFIZIERT

Management System
ISO 9001:2015

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Standard	Calibrating procedure and Calibration material	Particle size channels
DEF STAN 91-91	Procedure: ISO 11171 Test dust: ISO MTD	three size intervals for the particle sizes > 4 µm(c), > 6 µm(c) and > 14 µm(c)
GJB 420	Procedure: ISO 11171 Test dust: ISO MTD	six size intervals for the particle sizes > 4 µm(c), > 6 µm(c), > 14 µm(c), > 21 µm(c), > 38 µm(c) and > 70 µm(c)
GOST 17216	Procedure: ISO 4402 Test dust: ACFTD	size intervals between 0,5 and 200 µm
ISO 4406:1987 (withdrawn)	Procedure: ISO 4402 Test dust: ACFTD	two or three size intervals (> 5 µm and > 15 µm or > 2 µm, > 5 µm and > 14 µm)
ISO 4406:1999	Procedure: ISO 11171 Test dust: ISO MTD	three size intervals for the particle sizes > 4 µm(c), > 6 µm(c) and > 14 µm(c)
NAS 1638 (withdrawn)	Procedure: usually ISO 4402 Test dust: ACFTD	five size intervals for the particle sizes > 5 µm, > 15 µm, > 25 µm, > 50 µm and > 100 µm
SAE AS 4059	Procedure: ISO 11171 Test dust: ISO MTD	six size intervals for the particle sizes > 4 µm(c), > 6 µm(c), > 14 µm(c), > 21 µm(c), > 38 µm(c) and > 70 µm(c)

DESIGNED DEVELOPED MADE PAMAS IN GERMANY

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