



**PAMAS S40 AVTUR**  
 Portable particle counter for kerosene  
 analysis as per IP 577 and DEF STAN 91-91



**PAMAS S50P Fuel**  
 Online particle counter for kerosene  
 analysis according to ISO 4406



**PAMAS S40 Skydrol®**  
 Portable particle counter for  
 Phosphate-Ester based hydraulic fluids



**PAMAS SBSS Skydrol®**  
 Laboratory particle analysing system for  
 Phosphate-Ester based hydraulic fluids

## **PAMAS Aviation products** **Particle counters for kerosene** **and Phosphate-Ester analysis**

**IN THE WORLD OF PARTICLES PAMAS COUNTS**

# PAMAS Aviation products

## Standardised particle counting of Aviation fluids



Fluid particle counters are used in aviation to control particulate contamination in kerosene and Phosphate-Ester (Skydrol®). These two fluids must fulfil a determined cleanliness level before they are used for aircraft operation. Jetfuel usually is analysed before it enters a tank, since fresh kerosene is often highly contaminated.

Before being filled into the aircraft tank, the kerosene is filtered until it meets the required cleanliness level.

The online particle counter **PAMAS S50P Fuel** is the ideal instrument for permanent condition monitoring of jetfuel. The instrument has been specifically designed for fuel analysis. The display shows the contamination level according to ISO 4406 in the three size channels  $> 4 \mu\text{m(c)}$ ,  $> 6 \mu\text{m(c)}$  and  $> 14 \mu\text{m(c)}$ . Beyond these 3 size channels, the particle counter is equipped with 5 additional size channels in the calibration range of 4 to  $70 \mu\text{m(c)}$ . With the aid of a PC and a software tool, the user can access a very differentiated particle size analysis of size channels in

total. The differentiated measuring results for larger particle sizes help to identify system failures (e.g. abrasion, corrosion) at an early stage, and to prevent that contaminated kerosene is pumped into the aircraft tank.

The portable particle counter **PAMAS S40 AVTUR** can measure both online and offline. It is used if Jetfuel samples shall be measured via batch sampling in addition to online sampling. The particle counter is compliant with the standardised analysing method IP 577 that was drafted and validated by the Energy Institute in London and published by the UK Ministry of Defence in the DEF-STAN 91-91 standard. The **PAMAS S40 AVTUR** provides measuring results according to common cleanliness standards including ISO 4406, NAS 1638, SAE AS 4059, GJB 420 and GOST 17216.

In aviation, the landing gear and further hydraulic aircraft components are operated with hardly inflammable Phosphate-Ester based hydraulic fluids. The most common hydraulic fluid used in aviation is the fire resisting fluid Skydrol®. It can be used at low temperatures at very high altitude. Since Skydrol® is a highly corrosive liquid, particle counters for this application fields must be manufactured with special, chemically stable materials. The portable particle counter **PAMAS S40 Skydrol®** and the laboratory particle analysing system **PAMAS SBSS Skydrol®** are specifically designed for the analysis of Phosphate-Ester based hydraulic fluids. The two instruments report measuring results according to industry-related cleanli-

ness standards. The **PAMAS S40 Skydrol®** portable particle counter can be used for online and batch sampling in the field. The **PAMAS SBSS Skydrol®** is equipped with a pressure container. The pressurised sample vessel is used to create either high pressure or vacuum. High pressure is applied to transport the sample through the sensor for measurement whereas the vacuum mode removes gas bubbles out of the sample. Due to its versatility regarding sample preparation and measurement settings, the **PAMAS SBSS Skydrol®** particle analysing system offers full flexibility, as virtually all measuring parameters can be pre-set and adapted to the specific application by the user.



Management System  
ISO 9001:2015

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