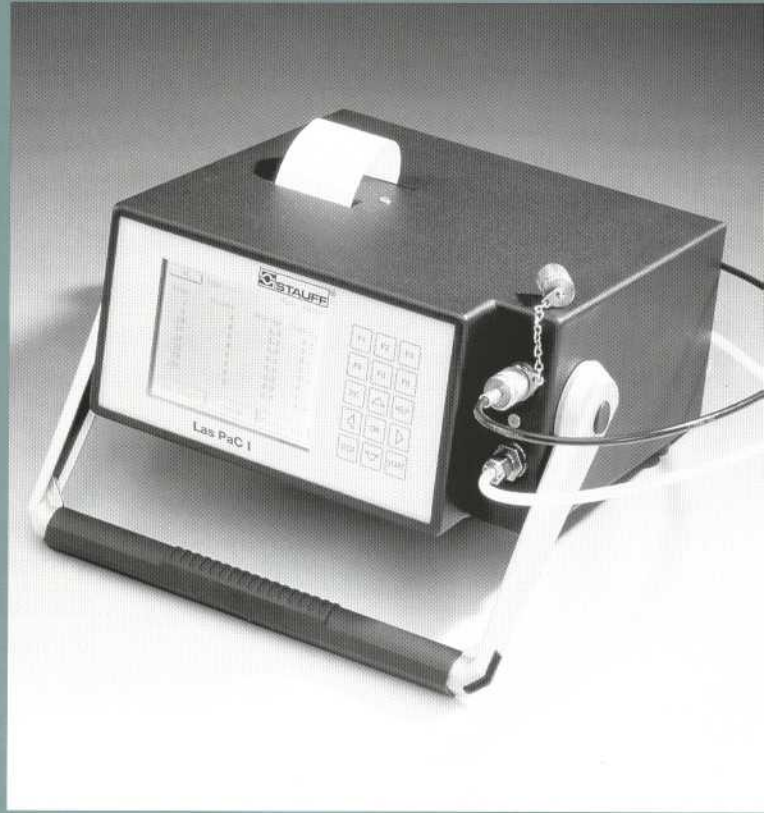




FILTRATION TECHNOLOGY



Laser Particle Counter I **LasPaC I**

**Quality and Service
worldwide**

STAUFF

1. Mobile → Light weight and handy

With its comparatively low weight of 8,5 kg – only 16.4 kg with the associated robust aluminium case – the device is well suited for use within the production plant or in the field, even in areas that are difficult to access.

2. Quick results → ease of operation

Intuitive operation is provided via touch-screen and functional keys. The control features of the particle counter have been designed so that metering can be done as easily and quickly as possible. As an alternative, additional measuring programs can be user-defined and stored (with password protection).

3. Flexible → multi-range calibration to ISO 11 171 / ISO 4402 (for NAS 1638)

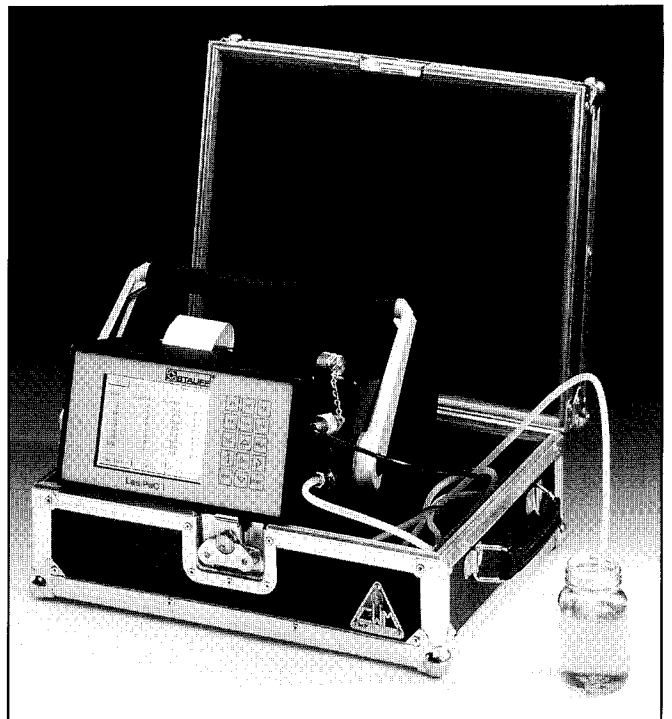
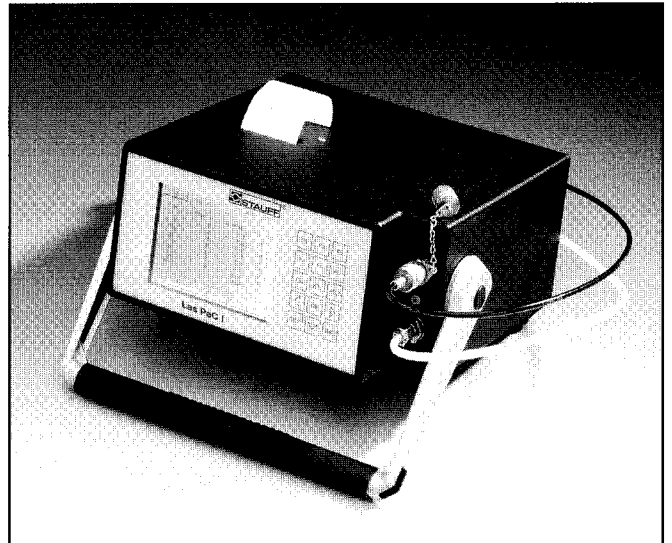
By default, the LasPaC I is set to the latest calibration as per ISO 11 171. However, if users wish to do so, they can switch over to the former calibration based on ISO 4402 and access earlier measurements for comparison. In addition, the device evaluates the readings based on NAS 1638 classes.

4. For any type of application → various pressure stages

An extraordinary feature are the two integrated pressure ranges for 0 ... 6 bar low pressure and 5 ... 420 bar high pressure. This function allows oil samples to be taken from pressureless systems or reservoirs without any additional equipment, such as tanks or bypass filter systems, being necessary. Many of the other products available today require special add-ons or pressure cartridges which need to be recharged again and again. The STAUFF TEST hoses, which are included in the scope of supply, allow an easy connection to common used test couplings (16 x 2).

5. Global use → variable voltage supply

The integrated power supply unit provides a voltage range of 110 V ... 240 V.



6. Independent use → storage-type battery

The integrated rechargeable battery makes it possible to perform on-the-spot measurements, even in cases where a direct connection to the external voltage supply is not possible. The measured data are stored and can be transferred to a computer later on if necessary.

7. "In black and white" → built-in printer

The integrated printer supports printouts in the field, thus providing immediate documentation.

8. Making the connection → downloading via a serial interface

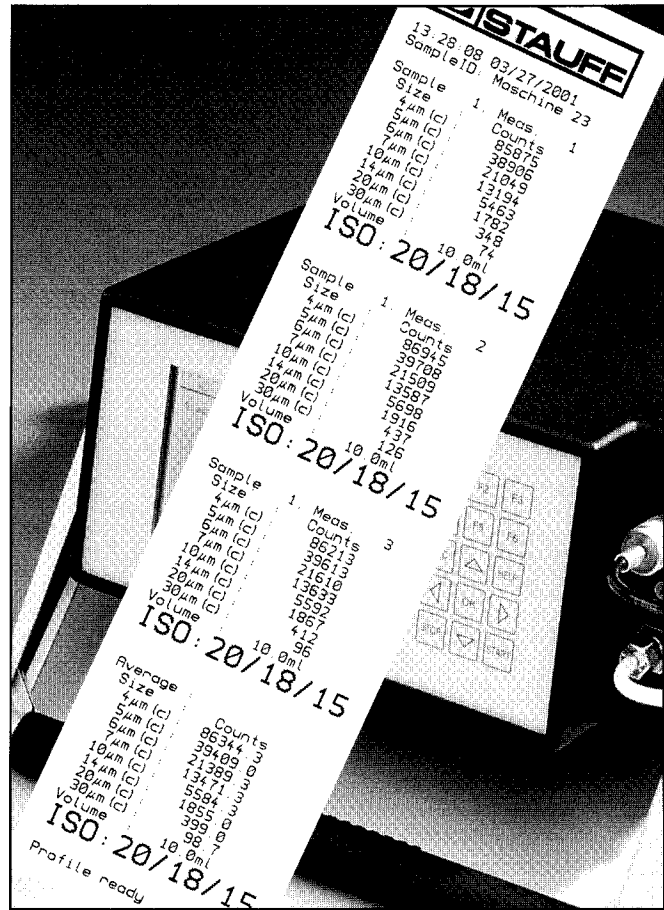
The measured data can be downloaded onto any PC or notebook via the device's serial interface, supported by a convenient downloading software. Further processing and storage of the data is done in Microsoft Excel® with the use of specially designed macros. The prepared forms provide for easy transfer of the data. The integrated diagrams represent the data graphically for more clarity. Likewise the data can be assembled to a trend analysis. With Microsoft Excel®, it is possible to edit the data as required, e.g. with the customer's logo.

9. Always up-to-date → an integrated clock

An integrated and rechargeable battery-operated clock provides the exact date and time which are shown on every printout. In addition, every download of measured data is marked with date and time. The precise time of measurement is thus documented on all printouts and for all the data stored.

10. Adaptable → software updates

The serial interface ensures flexibility for future developments in terms of calibration, evaluation and output. Moreover, software updates can be installed on the particle counter, without any problems.



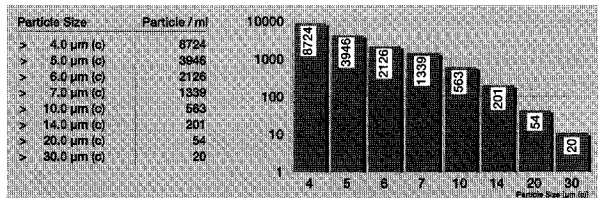
LasPaC I Report according to ISO 11171

Sample ID: : Machine 23
 Service Hour : 554 h
 Oil temperature : 41
 Notes : normal check
 Test Date : 27. Mar 2001
 Report Date : 07. Aug 2001
 Profile Name : low pressure

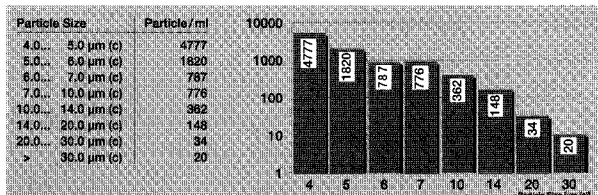
Meas. Volume : 10 ml
 Analysis Volume : 1 ml

NAS 1638 : 10 (9/8/9/10/9) (Calibr. ISO 4402 : 1991)
 ISO 4406 : 19/17/14 (Calibr. ISO 4402 : 1991)
 ISO 4406 : 20/18/15 (Calibr. ISO 11 171 : 1999)

Analysis Cumulative



Analysis Differential



11. Technical data

Microprocessor-controlled 8-channel particle counter for contamination monitoring of hydraulic fluids based on mineral oil. The particle counter is equipped with a laser sensor. The orifice of the sensor has a cross-section of 500 x 500 µm. The maximum concentration is 24,000 p/ml at a flow rate of 25 ml/min (ISO 4406 Code 23). The sensor can be calibrated in accordance with the following standards:

Calibration according to ISO 11 171 (1999):

4 ... 30 µm (relating to ISO 4406: 1999)

Calibration according to ISO 4402 (1991):

1 ... 100 µm (relating to ISO 4406: 1987 und NAS 1638)

Channels	1	2	3	4	5	6	7	8
ISO 11171 in µm	4	5	6	7	10	14	20	30
ISO 4402 in µm	2	5	10	15	20	25	50	100

Fluid compatibility

Mineral oil und phoshatester
(other fluids please call, e.g. Skydrol)

Pressure and viscosity

High pressure 5 bar ... 420 bar

Viscosity up to 300 mm²/s

Low pressure 0 ... 6 bar

Viscosity up to 160 mm²/s

(Through the integrated pump)

Power supply

Voltage range: 110 V ... 240 V AC

10 V ... 36 V DC

Rechargeable battery operation: 2,5 h

(battery charger is integreted in the counter)

Working conditions

Fluid temperature: 0 ... 90°C

Ambient temperature: 0 ... 40°C

Humidity 20% ... 85%, non-condensing
95% by storage

Data output:

Cumulative particle counts, as well as cleanliness classes to ISO 4408 and NAS 1638.

Integrated printer

Integrated memory: 500 single measurements

Download software

Downloading and storage of the data in ASCII format, as well as the evaluation and the further processing in Microsoft Excel®.

Dimensions (w x h x d) in mm

Particle counter 360 x 420 x 145

Case 400 x 600 x 180

Weight

Particle counter 8.5 kg

Particle counter with case and accessories 16.4 kg

12. Scope of deliveries

1 x LasPaC I particle counter

1 x Aluminium case

1 x Power supply connection cable

1 x Serial connection cable for connection to PC or notebook

1 x Download software

2 x STAUFF TEST hose (l = 1,5 m) for input/output

1 x Adapter low pressure hose to test coupling

1 x Control pen with plastic pin for the touchscreen

5 x Spare paper roll for built-in printer

(order code SPR LasPaC)

2 x Specimen bottles made of glass

1 x Operating instructions, in German and in English

13. Order number code

