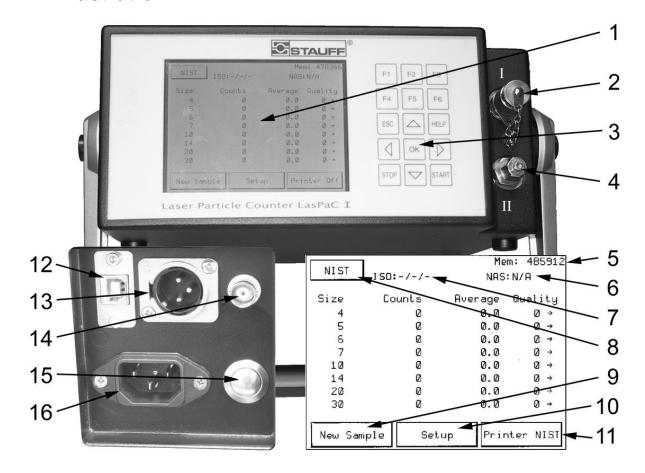
Operating Instructions Quickstart

Laser Particle Counter LasPaC I



Attention: Before installation (startup, switching-on), please be sure to read not only this brief information, but also the entire detailed operating instructions! Noncompliance with the operating instructions can result in hazards to people and property. Please understand that we cannot accept any claims resulting from noncompliance with instructions.

1 Illustration



- 1 Touch screen
- 2 Port I: high-pressure inlet / low-pressure outlet
- 3 Key pad
- 4 Port II: high-pressure outlet / low-pressure inlet
- 5 Free memory space
- 6 ISO class (depending on calibration selected)
- 7 AS 4059 class at NIST; NAS class at AC

- 8 Calibration selected
- 9 Start new measurement
- 10 System settings
- 11 Set the printer
- 12 USB interface
- 13 10 ... 36 VDC socket
- 14 BNC jack for sensor signal
- 15 ON/OFF switch
- 16 110 ... 240 VAC power

2 Operation

The LasPaC is operated by pressing the buttons on the touch screen or by pressing the respective keys on the keypad. Please use the enclosed pen for the touch screen.

3 Place of Sampling

In order to obtain representative particle counts, we recommend that the sample is taken during normal operating conditions. Sampling from the pressure line is preferred over sampling from the tank. This is the only measurement where test conditions can be reproduced for follow-up measurements. After any measurement, make sure that there is no contaminated or resinifying oil left inside the LasPaC.

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4 11 Steps to Obtain the Measuring Result

- a Before starting-up, charge the storage cell.
- b Look for suitable measuring point.
- c Identify the pressure at this measuring point.
- d Turn on device by pressing button 15 or select New Sample if the device is in ON condition.
- Select the measuring profile depending on the pressure.
 - i Pressure < 5bar low-pressure measurement = Low Pressure Std. [F1]
 - ii Pressure > 5 bar (73 psi) and < 420 bar (6091 psi) = high-pressure measurement; select with High Pressure Std. [F2].
- f Enter data.
- g Press Start.
- h Connect the LasPaC to the measuring point in accordance with the information displayed.

Attention: Internal leakage oil will automatically cause that oil is being transported from PORT I (high pressure entry) to PORT II (low pressure entry). If the low pressure inlet is closed, a too high pressure will be built up. The device will then be destroyed inside. In order to avoid this, it is essential to connect PORT II first, and then PORT no. I. It must be avoided to have a pressure exceeding 6 bar (87 psi) at PORT II.

Attention: Be sure to connect the hoses to the LasPaC first and then to the measuring point!

LP outlet -> port I: low-pressure measurement fluid outlet
-> port II: low-pressure measurement fluid inlet
-> port II: high-pressure measurement fluid outlet
-> port II: high-pressure measurement fluid inlet

- i Press Start.
- j First the oil in the LasPaC is being changed. Then, 3 individual measurements are performed, each using 10 ml of fluid. After the measurements are completed, the average value as well as the cleanliness classes are displayed.
 - You can cancel the measuring operation by pressing Stop.
- k Activate New Sample if you wish to perform more measurements.

5 Displaying and Printing

While the measurement is going on, you can use the touch screen to select *NIST* (calibration in compliance with ISO 11171) or *AC* (calibration in compliance with ISO 4402).

Setting the printer should be carried out before any measurement, otherwise the printout will be incomplete.

6 Maintenance and Cleaning

After each test, the oil should be removed and the LasPaC should be cleaned with clean oil and then filled with clean oil. The Profile *FLUSH* uses the low-pressure mode.

- Turn on the device or press New Sample if the unit is already in ON condition.
- Press Custom [F3]
- Press profiles: ____
- Press FLUSH
- Press "Start" twice

7 Charging the Storage Cell

The LasPaC I is equipped with an intelligent charging system. To charge the storage cell, perform the following steps:

- 1. The device must have been OFF for at least 5 seconds and must not be connected to the general power supply (pull out the power plug).
- 2. Connect the device to the power supply via the power cable.
- 3. The charging process starts automatically.
- 4. Charging time for a full charge is approximately 3 hours. Charging time for a partial charge is proportionately shorter.
- 5. The microprocessor-controlled charging system stops the charging process automatically as soon as the full capacity of the storage cell is reached.

Please note: The fan included in the LasPaC I is running as long as the unit is connected to the power supply, both power system operation and charging operation.

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