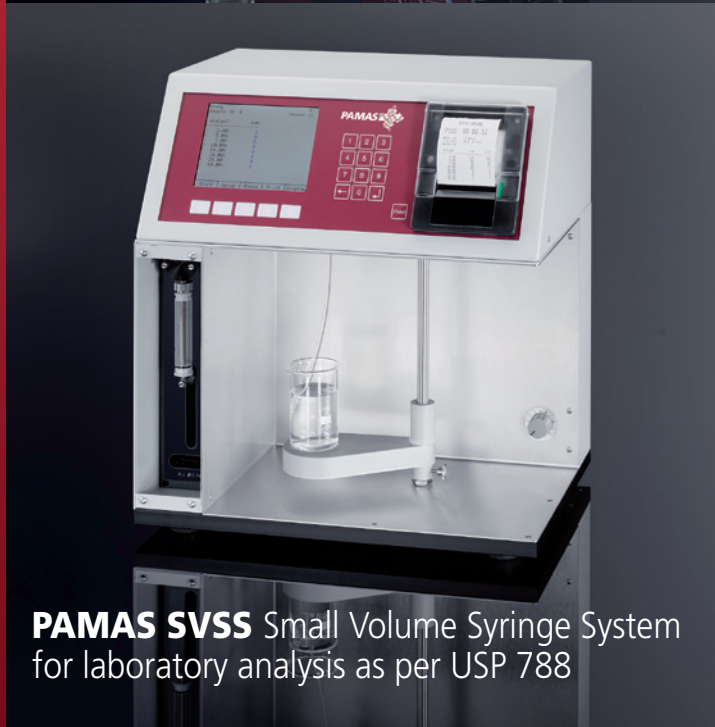




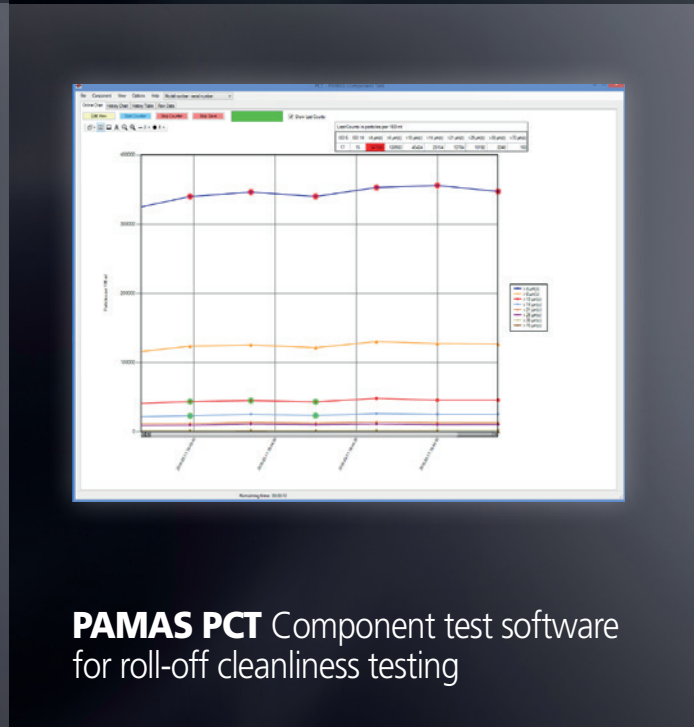
PAMAS S4031 Portable particle counter for batch and online sampling



PAMAS S50 Online particle counter for permanent integration into test rigs



PAMAS SVSS Small Volume Syringe System for laboratory analysis as per USP 788



PAMAS PCT Component test software for roll-off cleanliness testing

PAMAS Parts Cleanliness Testing

Particle counters for Component Cleanliness Control

IN THE WORLD OF PARTICLES PAMAS COUNTS

PAMAS Parts Cleanliness Testing

Contamination analysis of medical and automotive components



The cleanliness requirements for components in automotive industry and in medical technology are demanding. Automotive parts and medical components (e.g. artificial joint implants, cannula or catheters) must be free from particles before they are processed or implanted into a human body. A fluid particle counter is able to verify if the components are technically clean.

The surface cleanliness of components is analysed indirectly, i.e. the particles are at first extracted from the surface (e.g. through flushing, hosing, flooding or through removal in the ultrasonic bath); afterwards the rinsing fluid is analysed with the aid of the automatic particle counter. A comparison

with the results of the blank test reveals the original contamination of the analysed surface. If there are still contaminants on the surface, the component needs to be cleaned for further process.

Depending on the type of application, the technical cleanliness of components is analysed according to different standards. In the automotive sector, the cleanliness standards VDA-19 and ISO 16232 are commonly applied, whereas medical technology measures according to the USP 788 pharmacopoeia or according to company specific standards. PAMAS particle counters provide measuring reports in compliance with the required standard.

The PAMAS SVSS analysing system is the ideal instrument for laboratory batch sampling. The system can be used along with the pharmaceutical procedural software PAMAS USP. The software indicates whether the sample meets the requirements of the USP standard or another pharmacopoeia.

In the automotive sector, components are analysed consecutively in a test rig. For this purpose, an online particle counter (e.g. PAMAS S50 or PAMAS OLS4031) is installed permanently into the test rig. The surface cleanliness is verified with the aid of the PAMAS PCT software. The programme displays the results in a chart and shows a visual signal if the sample meets the pre-defined cleanliness limits.

Finally, the PAMAS S4031 portable particle counter can be used for a more flexible analysis of component cleanliness. The instrument can be used for online and batch sampling. In the sector of medical technology, the PAMAS S4031 is applied e.g. for contamination analysis of catheters.



Management System
ISO 9001:2015

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Standard	Calibrating procedure and calibration material	Particle size channels
VDA-19	Calibration according to ISO 11171 with test dust ISO MTD and according to ISO 21501 with mono-sized latex spheres	ten size intervals for the particle sizes > 5 µm, > 15 µm, > 25 µm, > 50 µm, > 100 µm, > 150 µm, > 200 µm, > 400 µm, > 600 µm und > 1000 µm
ISO 16232-10	Calibration according to ISO 11171 with test dust ISO MTD and according to ISO 21501 with mono-sized latex spheres	ten size intervals for the particle sizes > 5 µm, > 15 µm, > 25 µm, > 50 µm, > 100 µm, > 150 µm, > 200 µm, > 400 µm, > 600 µm und > 1000 µm
USP 788	Calibration according to USP 788 with mono-sized latex spheres	three size intervals for the particle sizes > 10 µm, > 15 µm und > 25 µm



PAMAS HEAD OFFICE Dieselstraße 10, D-71277 Rutesheim, Phone: +49 7152 99 63 0, Fax: +49 7152 99 63-32, Email: info@pamas.de
PAMAS USA 1723 South Boston Avenue, Tulsa, OK 74119 USA, Phone: +1 918 743 6762, Fax: +1 918 743 6917, Email: clay.bielo@pamas.de
PAMAS BENELUX Mechelen Campus, Schaliënhoevedreef 20T, B-2800 Mechelen, Phone: +32 15 28 20 10, Mobile: +32 477 42 48 62, Email: paul.pollmann@pamas.de
PAMAS FRANCE Route du Tailleur 210/136, F-40170 Saint-Julien-en-Born, Mobile +33 6 25 33 20 41, Email: eric.colon@pamas.fr
PAMAS LATIN AMERICA Curitiba-Paraná, Brazil, Phone/Fax: +55 41 3022 5445, Mobile: +55 41 999 72 21 73, Email: marcelo.aiub@pamas.de
PAMAS INDIA No. 203, I floor, Oxford House, #15 Rustam Bagh Main Road, Bangalore 560017, India, Phone: +91 80 41 15 00 39, Email: info@pamas.in
PAMAS HISPANIA Calle Zubillleta No. 13 1ºB, ES-48991 Algorta, Mobile: +34 67 75 39 699, Email: julian.malaina@pamas.de
PAMAS UK Sci-Tech Daresbury, Keckwick Lane, Daresbury, Cheshire WA4 4FS, Mobile: +44 79 17 71 33 66, Email: graeme.oakes@pamas.de

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