particle technology
PALAS® PARTICULAR 1 | 2012

INFORMATION FOR CUSTOMERS AND PARTNERS OF PALAS® GMBH

PALASCOUNTS

Fiberweb relies on test rig MFP 3000 FTD

New test channel from Palas® facilitates economical testing of filter media

▶Since the beginning of the year the company Fiberweb, specialist for nonwovens, has employed a further development of the filter test rig MFP 3000 at its production and research centre in Biesheim, France.

At this location, the company develops and produces filter media for different branches and therefore conducts tests with dusts and liquid aerosols. Palas® has installed an additional channel in the test rig and with it, fulfils the special requirements of the customer. ▶**Page 2**

Further topics in this issue:

Dear Readers,

▶At trade fairs and events, again and again we hear from our customers that with Palas®, they can rely on the measurement results. For us, this is the finest recognition of our work, because this is precisely our particular expertise. Measurement results with our devices must be traceable at any time and capable of being determined reproducibly. This applies for filter test systems just as for the nanoparticle measurement technology or devices for fine dust measurements. This reliability is the precondition for our products' economic efficiency.

In order that you may better orient yourself in the wide range of different product groups from Palas®, we have restructured them. You may find information thereto in this newsletter and also on our website. Now the classification of the product names is also consistent and clearly assigned to the respective application.

The very good business results for 2011, that again topped another very good previous year, are also an indication that we are on the right track with our quality philosophy. This growth manifests itself in three new employees who reinforce our team.

We thank our customers sincerely for their confidence and assure you, we will continue along the way we set out on.

Yours sincerely,

Leander Mölter
Managing Director of Palas®

Fiberweb relies on test rig MFP 3000 FTD

New test channel from Palas® facilitates economical testing of filter media

▶In Biesheim, France, Fiberweb primarily produces filter media for various applications - from room air filters to cabin air filters and engine intake air filters. At the same time, research on new and further developments is also conducted at the centre in Alsace, France. The supplier of nonwovens, who has already deployed a filter test rig from Palas® since 1987, has now invested in a new filter test rig MFP 3000 FTD.

The different products developed by Fiberweb in Biesheim require a test rig with which dusts as well as liquid aerosols can be tested. This took the focus during preliminary discussions between Dr. Andreas Manz, from the company division Business Development Filtration at Fiberweb, and the engineers at Palas® in Karlsruhe regarding the requirements for the new test rig. If the same test channel is used for both dusts and droplets, it could quickly accumulate sticky deposits and then needs to be cleaned with considerable effort. The idea of how to solve this problem was developed together. Palas® constructed a further development of the MFP 3000 with an additional channel for Fiberweb. „This was very customer-oriented", states Dr. Manz. With the new filter test rig, one can „measure fractional separation efficiencies with different particles for different applications, but also carry out dust loads."

Additional channel extends the possible applications of the filter test system

The additional channel (FTD – Filter Test Duct) consists of ducts as well as of plug connectors and is operated by a simple plugging with the electronic and the blower of the MFP 3000. Furthermore, the additional channel extends the possible applications of the filter test system. With a filter surface of 400 cm², this is four times as large as in the standard version. If the small test surface is used, only a minimal dust consumption occurs. If a medium with a small dust holding capacity should be tested, the channel with the larger test surface is used for avoiding errors in the output weight. This way the user receives an integral value more quickly so that instead of e.g. four tests only one with a larger test quantity needs to be conducted. „This was a solution not yet existing that way on the market", as Palas® Sales Manager Martin Schmidt explains the innovative character of this further development. Dr. Manz points out the advantages:

Filter tests with the new test rig MFP 3000 FTD at Fiberweb in Biesheim – from left: Laurine Béghin, R&D Scientist, Ralph Berkemann, Director R&D Filtration, Patrick Lauffenburger, R&D Scientist

„Normally we would have needed two test rigs." Through the further development with an additional channel, the company saves 35 % of the costs in comparison to the purchase of two filter test rigs.

The pre-acceptance for the test rig at Palas® came at the end of March and all tests fulfilled the requirements. The Fiberweb employees were also introduced to the software and operation during this time. At delivery, Sales Manager Schmidt also went to Biesheim to install the MFP 3000 FTD at Fiberweb. Once again, the function of the filter test system was verified and the employees trained in its operation. „The trainings had been accomplished very well", states Dr. Manz. „Of course a certain experience is required, but on such an all-around device this is completely clear."

Fiberweb is currently carrying out a renewal of the entire product portfolio in their filter technology area. Therefore the new filter test rig MFP 3000 FTD is in continuous operation in Biesheim. „This way our development is evidently faster, yet we can also provide our customers with distinctly better data", explains Dr. Manz. An advantage, especially regarding EN 779:2012, the new standard for particle air filters. Yet the consistent overall concept also served to convince him. Test rigs and software are coordinated to each other very well; added to this is the all-around service: „Since everything comes from one source, whenever there are problems or questions a contact partner is immediately available." A commendation, which naturally is well-received in Karlsruhe.

Fiberweb - Specialist for nonwovens

▶Fiberweb is one of the worldwide largest manufacturers of nonwovens. The company headquarters, with 1200 employees, is in London. Fiberweb is active around the world with 12 locations. The main focus is on Europe and North America; additional locations are in Asia and Australia.

The products from Fiberweb, which set industrial standards in many branches, are used in the most widely varying fields. The spectrum ranges from filter technology through applications in medicine and pharmacy, through railway technology and the aviation industry, up to the building sector and agriculture. The company operates several research and development centres. In Nashville, Tennessee and Biesheim (Alsace), mainly products for the filter technology are developed.

fiberweb
THE NEXT ANSWER

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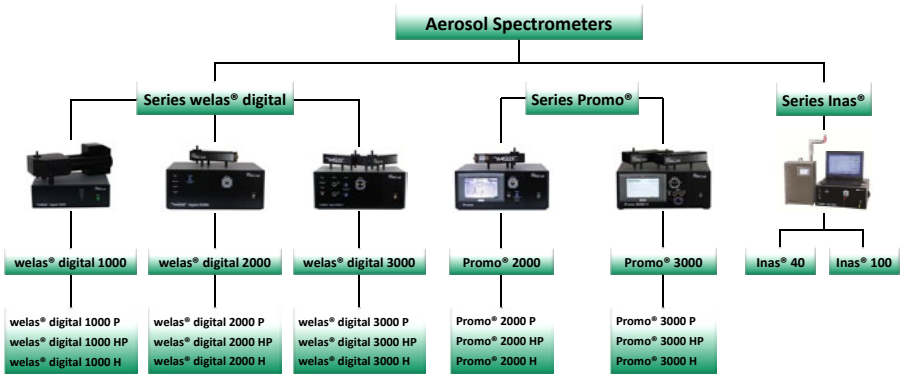
Dr. Andreas Manz

New classification of Palas® product groups

Consistent classification eases the assignment to applications

▶With the implementation of new products, Palas® has revised the structure of its product groups. In the future there will be the following product groups:

- ▶Aerosol spectrometers
- ▶Filter media test systems
- ▶Filter test systems
- ▶Aerosol sensors
- ▶Fine dust measurement systems
- ▶Nanoparticle measurement technology
- ▶Aerosol generators for solids
- ▶Aerosol generators for liquids
- ▶Dilution systems
- ▶Discharge systems
- ▶Software
- ▶Particles – powders and liquids



The new classification of the Palas® product groups using the example of the aerosol spectrometer product group.

A further classification into model groups follows within the product groups, for example the Promo® series in the aerosol spectrometer product group. The model groups are divided into different models. These are characterized by a number, therefore in our example Promo® 2000 and Promo® 3000. Then there is a further classification into model variations characterized by a letter: Promo® 3000 P, Promo® 3000 HP and Promo® 3000 H.

With this new systematic classification, it is now easier to find the right product for the different applications. You will find a general overview of the individual product groups on the Internet: www.palas.de/en/product.

Palas® supports students with final theses

▶It is already a minor milestone which Palas® can celebrate this year. 25 years ago Michael Rockstroh wrote the first thesis with the title „Location analysis for a medium-sized German company in the USA under special consideration of the technology transfer criteria".

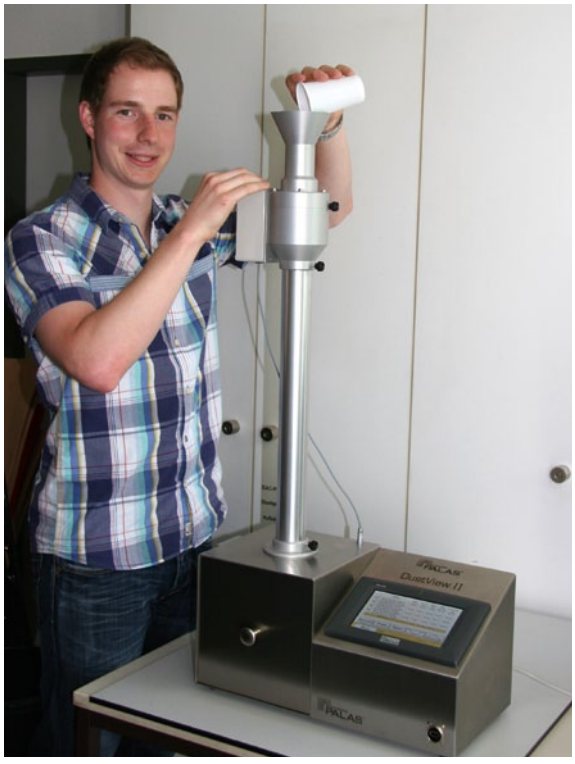
The tradition as partner for students had already begun two years earlier with a research paper from Richard Kubat. For many years students have been coming to us, in order to gain insight into their later profession in the form of research projects or internships.

Especially where thesis projects are concerned, we are happy to offer students the possibility to carry out their research in a practical setting. Both sides profit from this: We personally support the students, provide the equipment for research work, stand ready with advice and also facilitate visits to congresses. We profit because important detailed questions in the context of this work are precisely analysed and so improve the reliability of our devices.

12 years ago Sven Schütz wrote his thesis at our company and is now sales and applications engineer at our company. From 2007 to 2009 Maren Kuhli wrote her dissertation in collaboration with us. She has analysed the aerosol spectrometer Inas® regarding its suitability for the development and quality control of pharmaceutical aerosols.

Last year Katharina Stiglbrunner and Matthias Forjan concluded their master theses. They ventilated pig lungs and loaded them with dust, from which many thousands end up in waste unused and therefore pointed out an alternative to animal experiments in respiration research.

Sebastian Kohler has just concluded his bachelor thesis on the topic „Revision and validation of a measuring device for the analysis of the dust behaviour of powders and bulk materials" (Karlsruhe University of Applied Sciences, Faculty Electrical Engineering - Sensorics). „I can only commend the support during my bachelor work. I was always received with open ears when discussing problems or reporting the current status", states Kohler, for whom the personal support and strong commitment of his supervisor Dr. Maximilian Weiß, manager of research and development, was extremely helpful. „This allowed me to conclude my bachelor thesis at Palas® with great success (grade 1.0)." As a result of his work we have developed the new product DustView II, which already has been sold several times. This is why Mr. Kohler has also convinced us. After graduation he will begin his career at our company.



Sebastian Kohler

Successful World Filtration Congress

▶With six employees we were represented at the 11th World Filtration Congress in Graz, Austria. Around 1,800 participants from over 50 countries took part in the congress from 16 to 20 April and used the accompanying trade exhibition for informative conversation. The Palas® team was ready around the clock to inform the guests at our booth.

Once again, the live filter tests of our two test rigs (MFP 3000 and MMTC 2000) were especially well-received. Here, the visitors could have their own filter media tested on-site.

The congress presentations of our Sales Managers Martin Schmidt and Sven Schütz were also very well received by the audience and resulted in further enquiries at our booth.

Due to the great interest in our products and many interesting contacts, we see a very positive balance and already look forward to the next World Filtration Congress 2016 in Taipei, Taiwan.

Palas® booth at the World Filtration Congress

Palas® sales partner USA: Dr. Rudolph Jaeger

▶In this issue, we begin with the introduction of the official Palas® sales partners who sell our products at locations around the world.

Dr. Rudolph Jaeger, our sales partner in the USA, marks the start.

Dr. Jaeger is a certified toxicologist in Europe and in the USA. Through his company CH Technologies Inc., based in Westwood, New Jersey, he primarily sells optical aerosol spectrometers, precise aerosol generators, soot particle generators and filter test systems. The company, founded in 1998, also produces its own equipment and supports researchers in, for example, inhalation toxicology, environmental research and therapeutic pharmacology.

Dr. Jaeger is a retired research professor at


Dr. Rudolph Jaeger

New York University Medical School and consulting inhalation toxicologist, a discipline in which he also holds a patent. In his current project he focuses on environmental sources of lead.

Sponsor of the ICCCS 2012

▶From 3 to 7 September, the 21st International Symposium on Contamination Control (ICCCS) will be held at the Swiss Federal Institute of Technology in Zurich, Switzerland. This symposium, which takes place every two years, is the meeting point for members of the branch and employees from industry, life sciences, research and all branches in which the topic cleanroom technology plays a role. In addition to a number of lecture series, this event also offers an accompanying trade exhibition. Palas® Managing Director Leander Mölter will also hold two lectures on the internationally oriented event, which we support as sponsor.

With the RAS 3000 (Reference Aerosol-Distribution System) and the ACA 1000 (Adjustable Clean Airstation), Palas® offers two high performance systems for determining the degree of protection in operation rooms and for calibrating optical particle counters. Both devices were demonstrated at the accompanying trade fair.

New company software introduced

▶Shortly before the 30-year anniversary, we updated the data processing at Palas®. On 1 April, a new company software combining ERP and CRM commenced operation. All departments are now networked with each other.

Due to the transparent system, information flow has been optimised and the workflows have been shortened; in parallel, we have given our quote and shipping documents a more modern form. The conversion took place during normal operation. Thanks to good advance work, disturbances had no impact on daily business so that our customers took no notice of the conversion.

The thanks for this goes to Nina Heim and her outstanding management of the project.

▶ PALAS® AGENDA

Palas® attends regularly conferences and exhibitions. The up-to-date details can be found on our website: www.palas.de/en/exhibition.

We already booked a booth at the following events:

- **8th China International Filtration and Separation Exhibition, Beijing/China 08. – 10.08.2012, booth no. 3133**
- **EAC – European Aerosol Conference Granada/Spain 02. – 07.09.2012, booth no. 7**
- **ICCCS 2012, Zurich/Switzerland 03. – 07.09.2012**
- **Gala 2012, Rostock/Germany 04. – 06.09.2012**
- **AAAR 2012, Minneapolis/USA 08. – 12.10.2012, booth no. 510**

Please reserve:

- **26th Palas® Aerosol Technology Seminar Karlsruhe, Germany, 24. – 25.09.2012**

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