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## KCP\* Launches Innovative RightCycle Programme to Recycle Single-Use Cleanroom and Laboratory Gloves and Garments

Kimberly-Clark Professional has launched a pioneering initiative across EMEA that enables cleanroom and laboratory operators to recycle a wide range of used protective garments. This follows a successful launch in the United States earlier this year.

The programme, called RightCycle, makes it easy to dispose of previously hard-to-recycle garments such as coveralls, gloves, hoods, boot covers and hairnets in a sustainable manner. The used items are simply placed in a RightCycle collection box or the operator's own box. Full boxes are assembled onto pallets and collected by Kimberly-Clark Professional programme partner TerraCycle.

Launched initially in the UK and Germany as a one-year pilot scheme, RightCycle is the first large-scale recycling solution for this kind of waste, offering companies an opportunity to reduce landfill waste streams and enhance their sustainability efforts. After the used garments are collected, they are turned into raw materials to create eco-friendly consumer products such as plastic chairs.

Ruud Sleumer, Customer Marketing Manager at Kimberly-Clark Professional, commented: "Our cleanroom and laboratory customers have ambitious sustainability goals, yet often struggle with where and how to get started. Our innovative RightCycle programme offers a powerful and easy way for them to exceed their solid waste reduction goals, while helping to make their workplaces healthier, safer and more productive."

The RightCycle programme supports the 'Planet' pillar of the three-pronged Kimberly-Clark Corporation Sustainability 2015 vision, which also encompasses 'People' and 'Products'.

The Sustainability 2015 strategy engages Kimberly-Clark businesses, brands and employees globally. Under each of the three pillars, the company is working towards meeting a range of demanding targets that will make a major difference to the sustainability of its operations and, potentially, affect millions of people's lives for the better.

Sustainability 2015 builds on the success of previous Kimberly-Clark Professional environmental improvement programmes – such as the Vision 2010 initiative, under which the company implemented a number of successful projects worldwide to improve its performance in key environmental areas. It also widens the focus and scope of the company's sustainability agenda to integrate elements that sustain and nurture healthy working environments and communities.

Ruud Sleumer said: "The disposal of solid waste by pharmaceutical and other scientific organisations poses considerable challenges for businesses and society. Landfill options are becoming more limited and waste disposal costs continue to rise. The RightCycle programme takes recycling to a new level – beyond downcycling, upcycling and other approaches – by making it easy to recycle pharmaceutical cleanroom and laboratory garments that used to be very difficult to dispose of sustainably."

He continued: "This new recycling programme, operated with our partner TerraCycle, further extends the Kimberly-Clark Professional commitment to offering our customers sustainability initiatives which save time, materials and ultimately money. This new capacity to recycle cleanroom gloves and coveralls also importantly helps our customers' employees stay motivated to reach their CSR goals."

Chris Baker, General Manager for TerraCycle Europe, added: "TerraCycle is delighted to partner with industry leader Kimberly-Clark Professional to launch this new, first-of-its-kind recycling solution for non-traditional cleanroom waste. Providing end-of-life solutions for previously difficult-to-recycle items from cleanrooms is an exciting new venture and could have massive industry-wide impact."

**Autor: Suzanne Howe**

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# Vaisala HUMICAP® Celebrates Its 40 Years

In 1973, Vaisala introduced HUMICAP®, the world's first thin-film capacitive humidity sensor. Since then, Vaisala has become the market leader in relative humidity measurements, and thin-film capacitive humidity sensors have developed from one company's innovation into a global industry standard. Constantly under further research & development, the Vaisala HUMICAP sensor is still the most accurate and reliable humidity sensor on the market.

As the world's first thin-film capacitive humidity sensor, the HUMICAP was a radical innovation that completely changed the way humidity is measured. Until then, reliable humidity measurement was an unresolved challenge and hair hygrometers were commonly used. The new ground-breaking technology had no moving parts, and it was

## VAISALA

amazingly small due to the advanced use of thin-film technologies.

The innovation was originally designed for a new radiosonde; however the greatest interest for this revolutionary new sensor came from various industrial customers. In fact, it marked the beginning of Vaisala's industrial business. Continuous innovation of the sensor has developed INTERCAP, an interchangeable humidity sensor, as well as HUMICAP variants which measure moisture in oil. The fourth generation humidity sensor with improved stability and chemical tolerance was introduced in 2006. The sen-

sor is manufactured in-house from start to finish in state-of-the-art cleanroom facilities at Vaisala.

Today, products based on Vaisala HUMICAP technology range from radiosondes to hand-held meters to industrial transmitters. The sensor covers applications from HVAC to the most demanding industrial and environmental applications, both indoors and out. The sensor continues to offer superior performance in the most demanding environments. As the HUMICAP celebrates 40 years, it also celebrates its first year onboard NASA's Mars Rover Curiosity.

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## HEMCO Corporation ISO Certification 2013

HEMCO Corporation was recertified as an ISO 9001:2008 Certified Company on April 1st 2013, marking a significant commitment on the part of HEMCO Corporation to be continuously improving, in an effort to meet and exceed the needs of our customers. ISO (International Organization for Standardization) is the world's largest developer and publisher of International Standards.

ISO is a non-governmental organization that forms a bridge between the public and private sectors. Therefore, ISO enables a consensus to be reached on solutions that meet the requirements of business and the broader needs of society.

HEMCO Corporation US 64056 Missouri



Dear readers, dear subscribers,

this is the second English issue of our cleanroom newsletter. We were very happy about all the positive emails which we received after we had published our first English newsletter. We are sure that after publishing some issues the content and the number of readers as well will gradually increasing. We are convinced that cleanroom online is well on the way to being your international communication platform in the future.

Yours sincerely

Yours Reinhold Schuster

## Enhancing the cleanroom industry in South Africa

# 1. Cleanroom Forum

Cleanrooms are an integral feature of highly controlled manufacturing environments. They are operated in diverse industries, from pharmaceutical, to food, industrial and electronics. The diverse nature of the markets for cleanroom products has resulted in a dynamic cleanroom industry.

**Thursday 10th October 2013**

Through product development and innovation, solutions are continuously enhanced to improve environmental control, user safety and cost benefits – which result in better products at lower costs.

Basan South Africa and the University of Pretoria would like to be part of these developments and are establishing a forum for cleanroom experts to meet, share with, and learn from other experts. Basan SA and UP are bundling their knowledge to share these with manufacturers using cleanroom solutions.

The inaugural Cleanroom Forum will be hosted on Thursday 10th October 2013 at the University of Pretoria. The aim of the forum is to highlight new developments in the cleanroom industry. Specialists will speak on a range of topics relating to cleaning techniques, cleaning and validation, guidelines, standards and much more.

Basan SA and UP believe, that sharing information across companies and industries will result in a stronger domestic manufacturing sector, contributing to South Africa's economy and future.

Therefore Basan SA is grateful for the participation of the University of Pretoria and the possibility to give their students a look into their possible future working environment.

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## An educational seminar on the fundamentals of particle counting and its applications

# Particle College

Through presentations and demonstrations, you will learn about particles, what they are, how they are detected, forces on particles, and what type of instruments are used to quantify these contaminants. Professionals with realworld experience will instruct you on the mechanics of detecting particulates, discuss the benefits and considerations of various monitoring techniques, and will offer insight on the future trends associated with contamination. The Particle College is a collaboration between ParticleMeasuringSystems and the Reinraum-Akademie. Seminar language is German and English.

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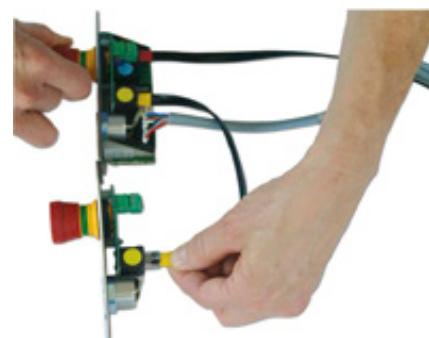
# Industry Award 2013 for the Dictator Interlock Control System

The Dictator interlock control system of the Dictator Technik GmbH succeeded in convincing the independent jurors of the „Industriepreis 2013“ (industry award) because of its modular structure and very easy connection.

Awarding the Dictator interlock control system the certificate „BEST OF 2013“ is due to the fact that it is one of the products that combine high technological standard with absolutely simple handling and high flexibility.

It is very easy to install a Dictator interlock control system – also subsequently. Contrary to most other interlock control systems you don't need a computer for programming. All relations between the doors are on site adjusted by DIP switches and – of course – can always be changed.

Furthermore the system is completely pluggable. All intra-system components including the power supply are connected by preassembled, pluggable cables. Therefore, the installation of simple systems doesn't re-



quire a specialist.

Because being very versatile the Dictator interlock control system can be used for simple installations as well as for highly complex interlock systems with many special functions. It is also possible to connect it to a facility management system. Due to its modular structure, the system adapts to the most different requirements.

There is also available an ex-proof version of the Dictator interlock control system.

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# Reproducible measuring results: PAMAS SBSS – Tried and trusted reference instrument for laboratory particle counting



The PAMAS SBSS particle analysing system is a tried and trusted consistent measuring instrument for laboratory particle counting. Using measuring data provided by fluid samples with known particulate contaminant, Pamas has proved the repeatability of its particle counting systems. The evaluations of these measurements clearly show that the results of different measurements of the same fluid sample scarcely deviate from one to the next. Many renowned laboratories appreciate the extremely high measuring accuracy of Pamas particle counters and in turn, manufacturers of conventional particle counters use the PAMAS SBSS particle analysing system as a reference for their calibration.

The repeatability of a particle counter is an important parameter to define the performance of a system. Fluid cleanliness, control of water, oil, hydraulic liquids and pharmaceutical suspensions require an accurate indication of particulate matter. Been a specialist in fluid particle counting, Pamas develops, manufactures and sells particle analysing instruments for batch and online

sampling and for field measurements on-site. For batch sampling of higher viscosity fluids, the company recommends the PAMAS SBSS particle analysing system.

Automatic Particle Counters (APC) are used for contamination control to determine the size distribution and concentration of particulate matter in fluids. Initial calibration assures the particle counters' measuring accuracy. By defining a standardised procedure for the calibration of Automatic Particle Counters, the international calibration standard ISO 11171 guarantees the exact determination of the particle size distribution in liquids.

The ISO 11171 calibration standard contains some repeatability statements. All ISO 11171 compatible systems need to fulfill these requirements to ensure they adhere to the standard. ISO 11171 defines the repeatability requirements through the DQ value (DQ standing for Difference in Quantity). So the DQ parameter determines the repeatability of APC measuring results. The DQ value is calculated by the formula:  $DQ = 100 * ((\max - \min) / \text{mean count})$ . For all measurements with more than 10.000 counts per size channel, the DQ value is limited to 11% (+/- 5.5%). The limit increases for samples with lower counts. At 100 counts per measurement, the permitted DQ value is 27.5% (+/- 13.75%).

Using measuring data provided by fluid samples with known particulate contaminant, Pamas has tested the repeatability of the PAMAS SBSS laboratory particle counting system. To calculate the DQ value, a hydraulic oil sample has been measured five times after previous standardised sample preparation. The particles were counted in the size channels > 4 µm(c), > 5 µm(c), > 6 µm(c), > 7 µm(c), > 8 µm(c), > 10 µm(c) and > 12 µm(c). The particle counts of all five measurements then were compared in each size channel.

The test resulted in DQ values between 0.59% and 5.94%. The test results thus were

far below the maximum DQ limit of 11%. For the particle size > 4 µm(c), the DQ value was 0.59%: this corresponds to only 54 ‰ of the maximum DQ limit as determined by ISO 11171. The test clearly defined the high measuring accuracy and supreme repeatability of the PAMAS SBSS particle analysing system.

Due to its supreme measuring accuracy and repeatability, the PAMAS SBSS is used as the reference instrument in renowned laboratories. Manufacturers of conventional particle counting systems appreciate the tried and trusted Pamas particle counters and use them as a reliable reference to calibrate their systems.

Besides its measuring accuracy, the PAMAS SBSS laboratory particle counting system further excels due to its ease of use: Equipped with an integrated pre-adjustable sampling mode, the system analyses the sample directly out of the sample container, thus removing the need for the fluid sample to be transferred to another container before measurement which may falsify results due to cross contamination. Once the instrument is set up to the user specified parameters, the PAMAS SBSS's operation is reduced to a one button press combined with the insertion of the fluid samples wishing to be analysed.

Another benefit of the PAMAS SBSS laboratory instrument is the integrated pressure container. This sample vessel is used to create either high pressure or vacuum. High pressure is applied to transport high viscous liquids through the sensor for measurement whereas the vacuum mode removes gas bubbles out of the sample.

This user-friendly laboratory instrument offers full flexibility as virtually all measuring parameters can be pre-set and adapted to the specific application by the user.

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## Original texts and images

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