

On 3 September, the panel of judges for the Cleanzone Awards 2020 selected seven outstanding projects. (Source: Messe Frankfurt Exhibition GmbH)

## Recognising excellence: The Cleanzone Awards 2020

**Outstanding innovations generate excitement for the future – for the cleanroom industry and beyond. That is why the Cleanzone Award honours outstanding projects that promise key benefits for their users and for the cleanroom industry as a whole.**

On 3 September, the panel of judges for the Cleanzone Awards 2020 got together for their virtual meeting. The team of specialists from the fields of academia, engineering, journalism and cleanroom technology evaluated twelve submissions.

The panel is made up of Egon Buchta, Managing Director, Ingenieurbüro & Reinraumservice Egon Buchta GmbH; Dr. Roy Fox, Editor-in-Chief of the ReinRaumTechnik trade journal; Josef Ortner, owner of Ortner Reinraumtechnik GmbH; Prof. Andreas Schmid, Dean of the Life Sciences Faculty at Albstadt-Sigmaringen University; and Anja Diete, Director of Cleanzone.

Every one of the entrants' projects has a great deal of potential – so much, in fact, that the award's panel faced quite a challenge. Finally, after much back and forth and dozens of arguments for and against, the panel selected seven finalists in an open process. However, the final decision lies with the visitors to Cleanzone.

The international trade fair for cleanroom technology is taking place on 18 and 19 November 2020. Both the trade fair and the industry are utilising high-tech to avoid contamination through micro-organisms, pathogens and particles – and one of the reasons they are doing so is to make face-to-face encounters and the advantages they bring possible again soon.

Beckman Coulter GmbH has been chosen as one of the finalists for its MET one 3400+, an air particle counter

that automates the routine monitoring of GMP cleanrooms.

Josef Ortner, owner of Ortner Reinraumtechnik GmbH, offered his analysis: "By automating some data importation and employing modern visualisation technology directly with the measurement equipment, this innovation improves measurement processes while significantly increasing process security."

Another favourite of the panel is the Fan-Filter-Module submitted by Colandis GmbH. Its compact construction allows for flexible utilisation, while its low energy consumption contributes to sustainability efforts.

Egon Buchta, Managing Director of Ingenieurbüro & Reinraumservice Egon Buchta GmbH: "The wide-ranging application possibilities in standard ceilings are a big advantage – it can be used in new cleanrooms or retrofitted to upgrade existing facilities."

Contec's ReFIBE wipes also made a real impression. Designed for applications where single-use is a necessity, these polyester wipes are made entirely from post-consumer recycled plastic bottles.

Prof. Andreas Schmid: "I believe that using recycled PET bottles to clean cleanrooms is an innovative contribution to increasing sustainability for disposable consumables."

The concept submitted by Initial Textil Service GmbH & Co KG is 'playful' in the most literal sense of the word.

## Recognising excellence: The Cleanzone Awards 2020

The board game created by the CWS Group company uses game play to impart cleanroom knowledge with 600 questions in six categories.

Dr. Roy Fox, Editor-in-Chief of the ReinRaumTechnik trade journal: "The game helps test fundamental knowledge and what has been learnt. The company not only thought outside the box – they put their concept inside one."

The panel was also impressed by the hood-goggles combination created by Dastex Reinraumzubehör. Two clicks and pulling two straps is all it takes for snugly-fitting goggles – and the circumference of the hood is automatically adjusted at the same time.

Prof. Andreas Schmid, Dean of the Life Sciences Faculty at Albstadt-Sigmaringen University, is certain: "The innovative hood-goggles combination will greatly simplify the process of properly donning goggles – a process that can otherwise be prone to contamination."

Fraunhofer IPA submitted 2ndSCIN®, a breathable, textile protective cover that is suitable for use in cleanrooms. It also can be individually adapted to the requirements of dynamic automation components. The panel thought quite highly of its capabilities.

Anja Diete, Director of Cleanzone: "They have created a highly intelligent bionic protective sleeve whose sensors allow it to register the data of its environment and employ it using artificial intelligence."

An innovative coating of textile surfaces with special paints also scored a nomination. The project submitted by the Textilforschungs-

institut Thüringen-Vogtland e.V. textile research institute and the Orterer company involves the application of a protective coating to textiles that is only 100 nanometres thick. This coating shields them against things such as cyanobacteria and moulds.

Dr. Roy Fox, Editor-in-Chief of the ReinRaumTechnik trade journal: "It is an excellent example of modern, interdisciplinary collaboration: innovative, creative and at the forefront of modern science and developments. Surface functionalisation for the 21st century!"

Cleanzone is taking place on 18 and 19 November 2020. The event is aimed at decision-makers from all industries that use or build cleanroom production facilities or that are considering their future use to ensure high product quality – from the pharmaceutical and medical technology industries to the food industry, the field of microtechnology and the automotive industry.

**cleanzone**

More ...

cleanzone

Messe Frankfurt Exhibition GmbH

Ludwig-Erhard-Anlage 1 D 60327 Frankfurt am Main

Telefon: +49 69 7575 6290 Telefax: +49 69 7575 96290

E-Mail: [anja.diete@messefrankfurt.com](mailto:anja.diete@messefrankfurt.com)

Internet: <https://cleanzone.messefrankfurt.com/frankfurt/de.html>



### October 2020

Dear subscribers,

the last quarter of this year has now begun and as a generally positive thinking person, I firmly believe that after more than 6 months Corona everything still can become good. Hope dies last. After all, it is not all that bad as predicted: Not so many deaths and seriously ill people than expected, despite increased numbers of tests, many people tested positive but few sick people, hardly any intensive care beds are needed and, measured in terms of mortality in Germany as a whole, as good as no more deaths. If this isn't good and hopeful news.

The second good news is that we are currently working on the Cleanroom Yearbook 2021 and that there are still a few pages left. So if you are hoping for good business next year, just reserve one of the remaining free pages.

And the third good news: We have again some interesting articles for you:

- > **Recognising excellence: The Cleanzone Awards 2020**
- > **Online: Cleanzone is going digital**
- > **Laboratory monitoring system safeguards HIV/AIDS vaccines**
- > **New laboratory and regulatory services for biotech customers**
- > **Cleanroom technology in action against COVID-19**
- > **Trends, information and the latest process technology for precision cleaning**
- > **New handbook for production of Water for Injection**
- > ...

Yours sincerely

Reinhold Schuster

# Online: Cleanzone is going digital

**Cleanzone will be taking place on 18 and 19 November 2020 as a purely virtual event. Messe Frankfurt made this decision in close consultation with the Cleanzone strategy commission and the industry.**

Rising COVID-19 case numbers and stricter travel restrictions make it difficult or impossible for exhibitors and visitors from outside Germany in particular to take part in Cleanzone in person.

Kerstin Horaczek, Group Show Director Technology Messe Frankfurt: "These conditions make it impossible for Cleanzone to take place in Frankfurt this November in a way that would do justice to its role as a highly international industry gathering. Even so, the cleanroom industry and their user sectors from all high-tech industries continue to need and want an international meeting place this autumn where they can engage in dialogue about the latest developments in the field of contamination control and join forces to promote their innovations. That is why, in collaboration with the industry and the strategy commission, we have decided to provide this platform in the digital realm."

Virtual Cleanzone offers exhibitors lots of attractive new business functions, as well as the opportunity to give multimedia presentations of their products and actively network with their customers using AI-supported matchmaking. Visitors will not only be able to speak with exhibitors, but also view product demonstrations, interactively participate in highly relevant specialist presentations, vote for this year's Cleanzone Award winner and view the award ceremony live.

Horaczek added that: "We will be marketing the digital Cleanzone event worldwide – our international sales network is ready. Our efforts will be aided by the experience we have already gained organising virtual trade fairs."

The latest developments have made it clear just how important

international exchange and dialogue is. Now more than ever, innovations are needed to manage contamination risks in the field of industrial hightech production. The fight against COVID-19 has also benefited from the expertise of cleanroom specialists – their solutions have been utilised not only in the field of medicine, but also in everyday life. Other areas of focus at the virtual Cleanzone trade fair include modular cleanroom systems and the importance of cleanroom technology in battery production. As an international trade fair, Cleanzone is an indispensable meeting place in which these issues can be discussed.

The event is aimed at decision-makers from all industries that use or build cleanroom production facilities or that are considering their future use to ensure high product quality – from the pharmaceutical and medical technology industries to the food industry, the field of microtechnology and the automotive industry.

Additional information and registration for the event will soon be available on our website.

## cleanzone

More ...

cleanzone

Messe Frankfurt Exhibition GmbH

Ludwig-Erhard-Anlage 1 D 60327 Frankfurt am Main

Telefon: +49 69 7575 6290 Telefax: +49 69 7575 96290

E-Mail: [anja.diete@messefrankfurt.com](mailto:anja.diete@messefrankfurt.com)

Internet: <https://cleanzone.messefrankfurt.com/frankfurt/de.html>



The cleanroom community gets together at Cleanzone. (Messe Frankfurt/Petra Welzel)



# Convenient, robust and precise

## MBV AG introduces MAS-100 Regulus digital anemometer for calibration of MAS-100 microbial air samplers



MBV AG, the global market leader in impaction-based active air monitoring solutions, launches the MAS-100 Regulus® digital anemometer. The MAS-100 Regulus is successor to the DA-100 NT® and replaces it as the worldwide standard for the compliant calibration and adjustment of the air flow of MAS-100 microbial air samplers.

The digital anemometer MAS-100 Regulus impresses with its outstanding precision, robustness and ergonomic design. It is certified in MBV's own ISO 17025 accredited calibration laboratory and enables users and service departments of MAS-100 air samplers

to calibrate and adjust instruments independently.

MAS-100 air samplers are engineered and manufactured to the most exacting standards. The air flow of the instruments must be verified regularly to ensure compliant operation. This is because the air flow defines the impaction velocity of the airborne particles into the agar surface and thus significantly influences the collection efficiency of a microbial air sampler.

With the new digital anemometer MAS-100 Regulus this regular verification can be done even faster, more conveniently and precisely. Compensated for ambient temperature and pressure, the MAS-100 Regulus calibrates and adjusts fully automatically and

displays highly precise values for air volume flow and air mass flow (standard liters per minute, SLPM). For complete traceability of air sampling data to international standards the MAS-100 Regulus comes with a calibration certificate issued by MBV's own calibration laboratory accredited according to the ISO 17025 standard by the Swiss Accreditation Service.

The MAS-100 Regulus has been designed for intensive use. The instrument is specified for hundreds of calibrations, manufactured from robust anodized aluminum and protected by a sturdy case for transportation. Additional innovative safety features such as an acceleration sensor that warns of impacts and an impeller self-check for the ball bearing make this the ideal instrument for calibrating air samplers on site.

The MAS-100 Regulus is compatible with all MAS-100 air samplers for isolators and RABS as well as all portable instruments except those for compressed gases. With its calibration air flow range from 50 – 200 L/min it is future proof and will be compatible with suitable upcoming microbial air samplers of MBV. All required cables and accessories necessary for automatic calibration are part of the delivery scope.

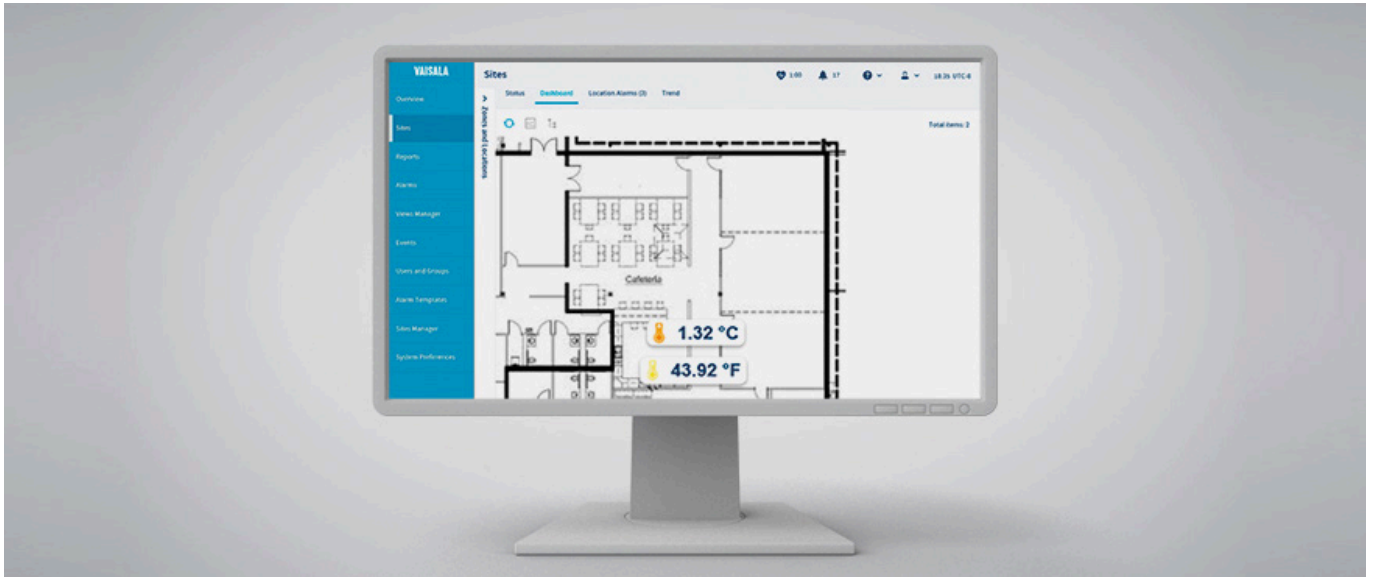
Certified service providers and customers who wish to calibrate their MAS-100 air samplers independently have the most important tool at hand with the MAS-100 Regulus to ensure constant measurement reliability. MBV itself employs the MAS-100 Regulus in instrument production for initial calibration and in the service center for air sampler recalibration.



**mbv**  
LUFT. SONST NICHTS.

More ...

MBV AG  
Microbiology and Bioanalytic  
Industriestrasse 9  
CH 8712 Stäfa  
Telefon: +41 44 928 30 80  
Telefax: +41 44 928 30 89  
E-Mail: [welcome@mbv.ch](mailto:welcome@mbv.ch)  
Internet: <http://www.mbv.ch>



viewLinc's software interface showing customizable dashboards.

# Laboratory monitoring system safeguards HIV/AIDS vaccines

It was winter in the Brazilian state of Rio Grande do Sul when Dr. Leonardo Motta, a research pharmacist, received an email alarm notification while attending a conference in the USA. The alarm came from his lab at the University of Caxias do Sul. The temperature in a fridge storing HIV/AIDS medicines and vaccines had increased beyond storage specifications for the drugs. Motta acted immediately, contacting the lab technicians and letting them know which fridge to check. The technicians quickly found the issue: a frozen unit in the building's HVAC system. Thanks to the alarm, the lab technicians took corrective action and saved the drugs. The medicines and vaccines inside the fridge were not only valuable, but also critical for the people undergoing treatment at the lab, Instituto de Pesquisas em Saúde (IPS) at University of Caxias do Sul (UCS).

## Continuous, Flexible and Easy to Use

Medicines, vaccines and active ingredients for drug manufacturing are sensitive to temperature; their chemical properties can change in different conditions, especially temperature and humidity. A drug or vaccine stored in conditions other than specified for that product must be destroyed. To ensure this does not occur, drugs and vaccines at IPS have been monitored by the Vaisala viewLinc Continuous Monitoring System for the last decade.

"We deployed viewLinc in October 2009," says Motta. "Originally we installed the system in our ultra-low temperature freezers and a cryogenic freezer. After installing the loggers in freezers, we installed more data loggers in the pharmacy. Later we expanded the system to our refrigerators and to monitor ambient temperature and humidity." (Dr. Leonardo Motta - University of Caxias do Sul)

One feature of the viewLinc monitoring system that has been especially useful at IPS is the software's dashboard. Dashboards allow a graphic overview of all environments monitored by viewLinc in the

facility. Users upload an image file — photo or facility schematic — and add sensors to locations on the image to provide a visual representation of their monitored area. The dashboard interface includes features like color-based status (green, yellow and red) and the ability to click on a monitored location to get historical data and trends from that data logger.

Using viewLinc's secure historical data, lab technicians generated trend-line graphs that indicated a slow temperature increase in an ultra-low freezer. By analyzing the data over time, technicians predicted a possible compressor failure in the freezer. They proactively transferred the specimens to another, more stable ultra-low freezer. Within a week, the freezer that had shown a trend of impending malfunction failed and was decommissioned.

"Our original reasons for choosing viewLinc included remote alarm notification and a wide temperature measurement range. We needed to monitor temperatures in three ultra-low temperature (-70 °C) freezers and one cryogenic freezer (-150 °C). Since deploying the system, we've made use of many other useful features.

"In addition to graphs and historical data, viewLinc has a Rate of Change (ROC) function that allows us to receive alerts if temperatures vary at a specified rate, for example, 2°C per minute. We also benefit from viewLinc's automated reports that are delivered according to a schedule we set up. We've configured viewLinc's functions to optimize monitoring according to the needs of each application." (Dr. Leonardo Motta - University of Caxias do Sul)

## Automated & Compliant

Prior to installing the viewLinc monitoring system, laboratory temperatures were monitored using calibrated thermohygrometer equipment. Lab technicians performed daily temperature checks, manually recording the data. "This was inadequate for several reasons,"

## Laboratory monitoring system safeguards HIV/AIDS vaccines

says Motta.

"First, it left us without daily data checks and records during weekends and holidays. We would only become aware of any temperature deviation when we checked the monitoring equipment on the next business day.

"Second, the measurement range of the thermohygrometers (-50 °C to + 70 °C) did not permit freezer temperature monitoring to -70 °C. We also needed a system that could send notifications remotely if conditions ever went out-of-specification."

Another benefit to IPS has been viewLinc's GxP-compliant reporting. "An important part of clinical research is sample storage, which can extend over a long period," says Motta. "We always have to be able to demonstrate proper sample storage to research sponsors. The viewLinc system not only safeguards our research, but it's proved very useful during audits or inspections," says Motta.

In Brazil, the National Health Surveillance Agency (ANVISA) publishes Good Manufacturing Practices that provide guidance monitoring conditions in drug processing and storage. ANVISA regularly audits laboratories, warehouses, manufacturing and processing facilities.

### Local Support, Friendly Interface

The viewLinc monitoring system has evolved over time to reflect the newest technology. The viewLinc software interface features on-screen prompts that guide users through common tasks, making the system easy to learn. Embedded help allows end users to install, configure and maintain their system. Additionally, IPS has ensured FDA and ANVISA compliance by validating their monitoring system with viewLinc's IQOQ documentation. IPS has their data loggers calibrated at Vaisala's Sao Paulo service center.

The ease of use, flexibility and reliability of the viewLinc system are crucial to ensuring IPS's core mission: "To develop clinical research and provide services in the area of translational medicine, through the generation of knowledge and the pursuit of excellence in health technologies, contributing to the well-being of society." IPS carries out research through multiple partnerships with universities, governmental organizations, private institutions and national and international funding agencies. Since 2002, IPS has conducted over fifty clinical research projects involving more than 100,000 patients.

"Our goal is to ensure that patients have access to new therapeutic regimens, drugs and diagnostic methods without having to wait until they become available through public or private networks. Our laboratory is integrated with the health programs at the University of Caxias do Sul. Through our research into the diagnosis, prevention and treatment of HIV and associated pathologies, we provide life-saving benefits to the community. As our research has evolved, viewLinc has met our needs. We are extremely pleased with the viewLinc system and the services Vaisala provides." (Dr. Leonardo Motta - University of Caxias do Sul)

More ...

# VAISALA

Vaisala GmbH  
Adenauerallee 15  
D 53111 Bonn  
Telefon: +49 228 249710  
Telefax: +49 228 2497111  
E-Mail: [vertrieb@vaisala.com](mailto:vertrieb@vaisala.com)  
Internet: <http://www.vaisala.de>



Dr. Motta checking the status of a cryogenic freezer in a viewLinc pop-up alarm window.



One of the freezers where reliable monitoring is crucial.



# Avoiding bad investments: Modular platform enables flexible adaption to changing requirements for the packaging of solida and parenteral medicines

## Retrofitting is possible even years later by replacing and adding modules

Solida and parenteral blister packs are often produced on monobloc machines designed for specific applications. Format changes are complex and expensive procedures. In packaging medication, the pharmaceutical industry must not only meet the highest quality standards, but also increasingly cope with minimal production times, and so be able to use packaging systems very flexibly. This demands new machine designs, so Mediseal GmbH has developed a flexible blister and cartoner machine portfolio based on a modern modular system. The future-proof Blister Expert platform makes it possible to configure a machine for a specific need by choosing from multiple modules, and assemble the machine immediately using these pre-produced components. Special components and modules can also be designed and built. By switching out and/or adding modules, a Blister Expert machine can be comprehensively modified at a later date to address new products or future challenges. The only real limitations are the available space and the pre-defined interfaces.

Blister packs are used in the pharmaceutical industry typically to package individual doses, especially of solida like tablets and capsules, as well as parenterals in ready-to-use hypodermics, ampoules and the like. "Many manufacturers offer monobloc machines for this purpose, which users purchase for a specific application," explains Ulf Leineke, Director R&D at Mediseal GmbH, a company in the Körber Group with over 11,000 employees worldwide. If requirements change, these machines are all equipped to be easily modified. Typically it requires a lot of engineering effort and consequent down time. But in many cases, it cannot be modified at all or only with great effort. In many cases, it then becomes necessary to buy a new blister machine."

With the 100% modular Blister Expert platform from Mediseal, which includes blistering as well as cartoning solutions, this is no longer necessary. "In a modular system, existing machines can be adapted to meet future needs, since their functions can be altered within the limitations of the available space and previously defined interfaces," according to Ulf Leineke. "For example, if there is an innovation in the sealing function after the machine is taken into production, the old module can be replaced with a new, improved version, since both are

designed to be interchangeable." This lets manufacturers address the ever shorter innovation cycle times in the pharmaceutical industry.

### Retrofit capability including extending machines in the field

For companies such as contract packagers, whose dependency on orders means they cannot predict their needs years in advance, the ability to purchase options or modules later provides a high level of future safety. This can be illustrated with an example from ampoule packaging. Normally, ampoules are presented in blister packs without needing to be sealed by a lidding foil. With a modular system like the Blister Expert platform, a company that takes in such an order can acquire a machine specifically for this purpose. The company doesn't need to include the components necessary for sealing with lidding foil.

However, if a later order requires lidding foil sealing, for example due to subsequent sterilization, a sealing station can be added. Standardized modular attachments even let the machine be expanded in the field. "This makes it possible to separate the blistering machine



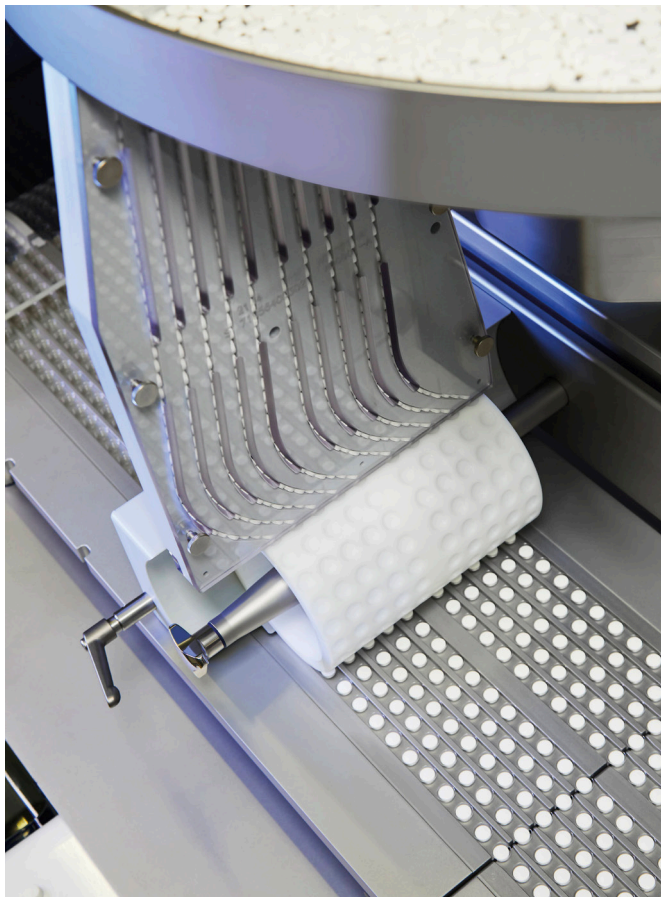
Solida and parenteral blister packs are often produced on monobloc machines designed for specific applications. Format changes are complex and expensive procedures. In packaging medication, the pharmaceutical industry must not only meet the highest quality standards, but also increasingly cope with minimal production times, and so be able to use packaging systems flexibly. (Source: Tim Reckmann / pixelio.de, stux / pixabay.com)

## Avoiding bad investments

and cartoner, and insert another module between them," explains Stefan Kemner, System integration & Portfolio manager at Mediseal GmbH. On conventional non-modular blister machines, the inability to retrofit presents companies with the need to cover possible future requirements at the time of purchase by including expensive functions that they may not end up ever using.

### Shorter delivery times through configure-to-order

Building blistering lines with a modular design has other advantages. With the Blister Expert platform, it enabled Mediseal to implement a full configure-to-order approach. "The customer gives us basic information which we enter into a configurator, for example which solids and/or parenterals are to be packaged, and what performance category is needed. The customer can then choose from among various package options, for example optimizing the machine for easy conversion, ergonomics or productivity," explains Stefan Kemner. "This configures the system exactly for the target product." The configurator identifies the necessary modules, and based on this information the production order is placed. Mediseal then sources the necessary components or assembles premanufactured modules. This differs from the conventional process, in which a designer first brings together the individual parts and assemblies based on the customer order, and the production order is then prepared from that. This step, which is costly and error-prone, is eliminated in the Blister Expert system. Furthermore, any Mediseal cartoning machine can be configured downstream



The modular system helps keep machine downtime to a minimum. When changes need to be made, replacing old modules with new ones or retrofitting others significantly reduces validation effort. The pharmaceutical manufacturer doesn't need to revalidate the entire machine, just the new module. (Source: Mediseal GmbH)



Foil rolls can be replaced on the fly without needing to stop the machine. (Source: Mediseal GmbH)

of the blister machine, unlike many other systems where only one cartoner fits the chosen blister machine.

In addition, Mediseal can build special systems. "For example, if a customer wants a UV disinfecting station or another option that we haven't yet included as a standard component in our module pool, we'll develop the necessary element," says U. Leineke. "We can do this because either there is the space for it at the proper point in the machine we already configured, or we simply extend the machine length a little." While the additional module is being designed, the standard modules are already in production so the system as a whole can be taken into operation sooner.

### Modularity for less downtime

At the same time, the modular design helps keep machine downtime to a minimum. When changes need to be made, replacing old modules with new ones or retrofitting others significantly reduces validation effort. "The pharmaceutical manufacturer doesn't need to revalidate the entire machine, just the new module," explains Ulf Leineke. "Thus, during upgrades, the machine is out of use for much less time than systems that do not use a modular design." Furthermore, if a machine in use malfunctions because a component is defective, with a modular system it can be replaced by a module that the machine manufacturer has previously fully commissioned. By contrast, with conventional blister packaging lines, it is usually necessary for a technician to take the machine apart and determine which parts are affected. Typically, only then can the necessary parts be drawn from stock, which takes much more time.

The Blister Expert Platform helps reduce downtime in another way as well. Mediseal's solution is designed so that a format change needs no tools, and only a few light parts need to be switched out. This noticeably reduces format changeover time. The ergonomics have also been improved. The design works mostly with curves and rounded edges and avoids corners and angles. This makes cleaning much faster, for example during a line clearance or product change. By reducing dirt traps, it increases machine availability.

### Compatibility with Pharma 4.0

The Blister Expert system is ready for Pharma 4.0. For example, a predictive maintenance package is available that shows the user the regular maintenance intervals as well as immediate needs, such as when wear parts like the suction cups on the suction wheels no longer function well and need to be replaced. If there are frequent chan-



## Avoiding bad investments

ges in format or operating personnel, the Guided Format Change option is recommended. This features augmented-reality goggles that guide the operator through the format change step by step, showing the operations on the goggles' display. Mediseal's proprietary HMI



Mediseal GmbH has developed a flexible blister and cartoner machine portfolio based on a modern modular system. The future-proof Blister Expert platform makes it possible to configure a machine for a specific need by choosing from among multiple modules, and assemble the machine immediately using these pre-produced components. (Source: Mediseal GmbH)

used to operate the Blister Expert series is also very user-friendly. The user interface is reminiscent of a smartphone, and is based on self-explanatory symbols and graphics, with task-oriented jobs that can be individually adapted. "The production manager is presented with pre-programmed elementary actions, and can assemble them into a job by drag-and-drop," says S. Kemner. "Additional actions can be entered or defined as well." This intuitive structure prevents errors and incorrect machine operation, especially if the guided mode is used.

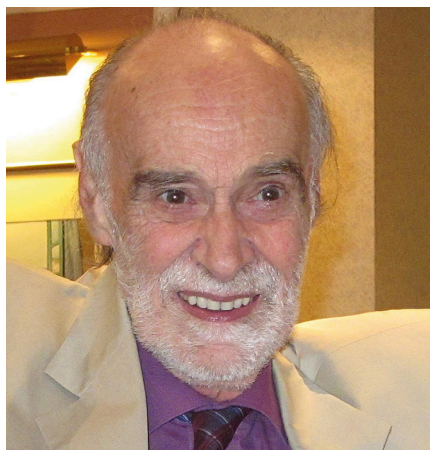
In addition, the machine can be equipped with all-digital interface solutions that let machine data be provided to Level 2,3 and 4 systems in a standardized manner. Thus, in plug-and-produce scenarios, monitoring systems present at the site can capture machine status in a standardized way, so that the company can better assess the condition and productivity of its machines, and perform maintenance as needed. "Within our company group, there is also the option of equipping the entire line with a line manager called – LION. This provides a consistent data flow for the blister and cartoning machines, and can incorporate a third-party scale and bundle packer," explains Stefan Kemner. "This enables guided format change on the third-party machines as well." Thus, the Blister Expert platform provides a high degree of future safety in blister packaging for many years.

Mediseal GmbH  
D 33758 Schloß Holte

## Lawrence Whittard Obituary: Founder of Cherwell Laboratories

### Cherwell Laboratories bids sad farewell to its founder who passed away on 10th September, aged 83.

Cherwell Laboratories, specialist suppliers of environmental monitoring and process validation solutions for the pharmaceutical and related industries, announces with great sadness that its founder, Lawrence Whittard, passed away peacefully at home,



In memory of Lawrence Whittard,  
Cherwell Laboratories' founder.

on 10th September 2020, he was 83 years old.

Lawrence graduated as a veterinary surgeon from University of Bristol in 1960 and embarked on a career in practice in the West country where he greatly enjoyed rural life. His university year group remained in contact and met each year for a dinner.

An interest in diagnostic work led him to start his own business and he founded Cherwell Laboratories in 1971 as a veterinary diagnostic laboratory. His interests and curiosity meant that new opportunities were never far away and a chance meeting at a laboratory equipment show in 1979 introduced him to Roberto Ligugnana of International PBI, Italy. Cherwell quickly became the UK distributor of their range of media preparation equipment and this started focusing the business on microbiology. Soon afterwards the SAS microbiological air samplers appeared and because of promoting these Cherwell started commercially offering prepared microbiological media to customers; the Redipor®

name was born in the early 1980s.

Lawrence's eye for an opportunity never diminished and he helped design and build a Cherwell contact plate filling machine, followed by a system based microbial air sampling system named Multi-SAS. Cherwell grew and by the 2000s had focused on manufacturing prepared media and selling microbiological products primarily to the pharmaceutical sector. As the business continued to grow, more space was required and in 2004 it relocated to its current site, a significant step up but one which has allowed the business to continue to flourish. Lawrence's son Andy had already joined the business and in 2005 became Managing Director.

Lawrence had always been a dedicated family man and welcomed the opportunity for the business to be passed to the next generation. His other son Pete is also a shareholder in the business and sits on the board. Lawrence continued to be an animal lover and had many pets over the years, he was also a keen photographer.

Current restrictions mean it is not possible to come together at this time to celebrate Lawrence's life, however, his family plan to do so in the future when circumstances allow.

Cherwell Laboratories Ltd  
OX26 4XB BICESTER  
Vereinigtes Königreich

# New laboratory and regulatory services for biotech customers

## Gx Biological Solutions offers enhanced services for pharmaceutical primary packaging in the US and in Europe.

Gerresheimer adds essential laboratory and regulatory services to its broad portfolio of products, solutions and services for biotech companies. Specialized laboratory technicians and an experienced team of further specialists offer these services in the two innovation and technology centers in Bünde (Germany) and Vineland (New Jersey/USA). Gx Biological Solutions offers full service for biotech companies regarding product development of primary packaging and drug delivery solutions, material and functional testing as well as comprehensive regulatory support. The partnership with Gerresheimer shortens the time to market for pharmaceutical companies, minimizes risks and saves resources.

„Our Glass Innovation and Technology Centers, with their new laboratory and regulatory services, take a lot of the work off our customers on the long road to regulatory approval,” says Stefan Verheyden, Global Vice President of the Gx Biological Solutions Team.

### Glass Innovation and Technology Center, Bünde (Germany)

The new center is located at the production site for glass syringes, injection vials and cartridges in Bünde. The range of services includes laboratory and regulatory services by regulatory experts for DMF III (Drug Master File) and the new MDR (Medical Device Regulation). Product support is provided by the relevant product and material experts. They take care of the correct specification and can guide regarding fill & finish questions. Chemical analyses help in finding the appropriate packaging system with regard to material in direct contact



The comprehensive range of services offered by the innovation and technology centers shortens the time required for market launch of biopharmaceuticals.

to the drug formulation, such as glass, tungsten, adhesives, silicone oil or polymers. Customer-specific developments and design proposals are also developed and adapted to intelligent solutions as required. Throughout the whole value chain of drug development, subsequent testing and analyses can be conducted. Material and particle analysis, extractables and leachables testing, container closure integrity investigations, drug container interaction and aging tests, residual volume, fill & finish support and orienting stability tests are just a couple of examples of the cutting edge services that Gerresheimer will offer.

Additionally, a sample stock will hold many frequently used possible container formats for biopharmaceutical development enabling our customers to rapidly respond to any urgent market requirements they might face. The Gx innovative portfolio includes strengthened glass vials (both in non-sterile and ready-to-fill format) silicone-free syringes, safety devices, also in already assembled, sterilized and nested format (Gx RTF), and other intelligent primary packaging solutions.

### Glass Innovation and Technology Center, Vineland (NJ/USA)

In parallel Gerresheimer has expanded the reach of the existing Glass Innovation and Technology Center in Vineland (NJ/USA) with a comparable extended service offering as specified for the Bünde site. Next to the existing material science capabilities, an extensive offering of functional testing will be added. The bundling of development capacities with dedicated lab and regulatory services for primary pa-

## New laboratory and ...



packaging such as injection vials and cartridges has clear advantages when it comes to significantly reduce "time to market". At Vineland, experts and engineers who specialize in glass technology work in an environment that encourages collaboration through open offices, project, laboratory and meeting rooms. The environment also enables interactive collaboration with customers on site. The Innovation Center was the first of its kind for Gerresheimer's primary packaging glass business and was built in 2019 next to the plant in Vineland. In this way, the Innovation Center develops and tests new products and processes in close proximity to a production site and can incorporate

the operational know-how of engineers from this plant. In addition, Gerresheimer's other American production sites can also use the service. It comprises a detailed analysis of the primary packaging material; for example, the material, surfaces and functions of injection vials are tested and chemical analyses are carried out. Gerresheimer also accompanies and supports its customers with regulatory support, official documentation and registration.

Gerresheimer AG  
D 40468 Düsseldorf

# Official Launch for Fakuma-Virtual

## The New Marketplace for Implementing the Digital Transformation in the Plastics Industry

12th - 26th October 2021: FAKUMA 2021, Friedrichshafen (D)

The Fakuma international trade fair for plastics processing has been officially launched on its new digital trade fair platform, namely Fakuma-Virtual. Immediately after postponing the scheduled trade fair dates in 2020 to next year, trade fair promoters P. E. Schall GmbH & Co. KG acted quickly and officially opened the new digital meeting place for suppliers and users of industrial plastics processing. Exhibitors are showcasing their trade fair highlights, product innovations and sustainability features in a compact format in attractive, ideally structured virtual showrooms, along with web-based presentations

with the help of a webcast function. Valuable leads and perfectly matched business contacts are generated for the international expert audience by the integrated RFQ for individualised problem-solving on the landing page of Fakuma-Virtual.

Fakuma is deemed the first port of call for injection moulding, extrusion technology, thermoforming and 3D printing. It presents innovations covering all aspects of materials, machines, peripherals, processes, simulation, procedures, technologies and tools, as well as plastics processing – now in virtual format too. Industrial users from



## Official Launch for Fakuma-Virtual

the plastics sector need practically implementable and economically efficient solutions for upcoming, far-reaching transformation processes – especially in economically difficult times. And thus to an ever greater extent, connectivity is becoming a living reality within the trade fair landscape of P. E. Schall GmbH & Co. KG. "In particular during the course of this extraordinary year, Fakuma-Virtual provides exhibitors with strong benefits at comparatively low costs. In order to kick off his virtual presentation, all the exhibitor has to do is upload information which is already available for the trade fair anyway in the usual data formats. This is automatically networked via the content management system. With our additional new focused trade fair offerings, we're moving up quickly to the required level of practical solutions for technological change in an uncomplicated manner. And we continue to promote sustainable success in the plastics industry," explains Bettina Schall, managing director of the trade fair promoters.

### Intelligently Networked Technology Meeting Place for Fakuma Visitors

As of immediately with its new virtual format for the 27th Fakuma, the globally unique trade fair which is awaited each year with great expectancy is providing an additional, lasting opportunity for gathering information concerning premieres, product innovations and important exhibitor news concerning sustainability at a single digital marketplace in a concise and compact manner. As is well-known, more and more attention is being focused on the issues of environmental protection, sustainability, efficient use of resources, circular economy and bioplastics.

With the help of the integrated, thematically focused search engine, expert visitors at Fakuma-Virtual can select any desired information concerning the trade fair nomenclature in an optimum fashion,

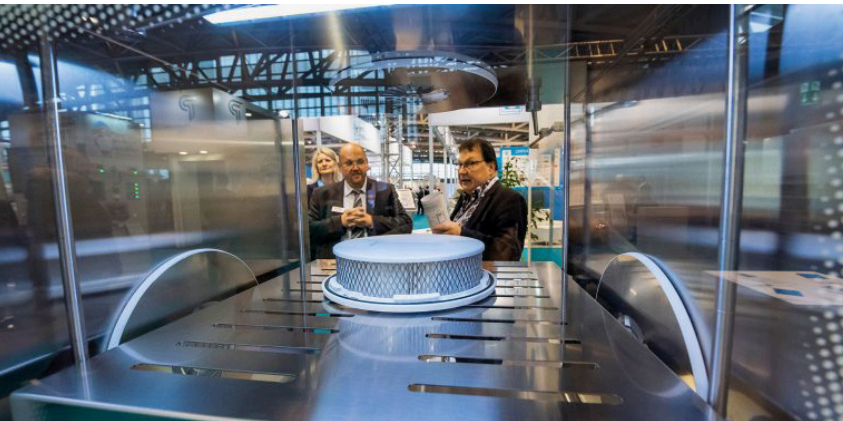
or collect relevant, targeted matches for their business by entering keywords. What's especially clever is the fact that in the end, a functional hit list is generated. Visitors are thus provided with the opportunity of sending individualised RFQs to the exhibitors included in the highly qualified search results, in order to mutually work out special solutions – like they would at an on-site event. Suppliers and users are thus provided with ideal conditions for setting out on their mutual path towards best possible attainment of their goals for everyday industrial practice. And thus Fakuma's portfolio of products and services is continuously available to all interested parties at the new virtual technology venue in an ideally structured manner.

"We're convinced that Fakuma-Virtual offers a promising alternative for gathering information concerning industry trends in an uncomplicated manner in our current situation. Visitors are able to familiarise themselves with numerous innovations very quickly. At igus, this falls under the mission statement 'Tech up, costs down. That's our job' – with over 100 motion plastics innovations this year which verifiably and sustainably improve technology and reduce costs," says Oliver Cyrus, head of public relations and advertising at Igus GmbH concerning the new opportunities provided by Fakuma.

However, Fakuma-Virtual will definitely not replace personal, face-to-face dialogue. The plastics industry is looking to next year optimistically, when it will once again be possible to invite customers directly and explore and develop complex applications in close, individual contact. Schall makes trade fairs for markets – for real markets. The next Fakuma international trade fair for plastics processing will take place in Friedrichshafen on beautiful Lake Constance from the 12th through the 16th of October, 2021 – accompanied by the extended range provided by Fakuma-Virtual.

P. E. Schall GmbH & Co. KG  
D 72636 Frickenhausen





# Cleanroom technology in action against COVID-19

In the time of coronavirus, one thing is certain: until an effective vaccine is found, distancing, hygiene, traceability and extensive testing capacities are going to be top priority. And when it comes to hygiene, there is already a group of experts who have been focusing on combating harmful micro-organisms for many years: cleanroom technicians.

As an interdisciplinary technology, cleanroom technology serves every area of application where contamination control is required – including the pharmaceuticals and food industries, medical technology, hospitals, microtechnology and the automotive industry. Following the outbreak of the coronavirus pandemic, many cleanroom technology manufacturers took their responsibility seriously and adapted their products to help fight the coronavirus pandemic.

Josef Ortner from Ortner Reinraumtechnik, who is also a member of the Cleanzone strategy commission, summarised the importance of the cleanroom industry in the current situation: “Our industry in particular offers a foundation for action – it serves as a link between the virologists, the decision-makers and the economy.”

Gernod Dittel, Chairman of the Board of the German Cleanroom Institute (DRRI), added: “Germany boasts the world’s leading cleanroom technology industry, meaning it is ideally situated for developing pioneering technologies under cleanroom conditions – not only to protect products, but also to protect people.”

## Protective air from above

Be it at supermarket checkouts, pharmacies or hotel reception desks, accompanying acrylic glass screens with laminar flow units offers additional security to people in systemically relevant professions with extensive customer contact. These units, which are mounted above the person being protected, generate a low-turbulence displacement flow (laminar flow) that forms a protective ‘shell’ around the employee, because the freely flowing air has the property that it builds up around surfaces. The air is then drawn back in and filtered in the laminar flow unit.

Airlocks for personnel or materials prevent micro-organisms from travelling from A to B. In hospitals, for example, it must be ensured that no microbes travel from the isolation ward into normal hospital operations, or from there into the isolation ward. Here too, cleanroom technology offers helpful products: depending on the particular requirements, air showers using airflows to remove adhering particles or wet showers for persons using disinfectant can be employed.

## Reutilisation: local and sustainable

In times where resources are scarce, the ability to reuse contaminated materials, especially disposables, is particularly important. An Austrian working group involving Ortner Reinraumtechnik and Graz University of Technology has developed a concept for decontaminating protective clothing and other protective equipment. Among the methods that the group studied and found to be effective were fumigation with hydrogen peroxide and irradiation with UVC. An ingenious logistics system ensures local supply centred on a container system for disinfection with an upstream intake and downstream output zone.

## Mobile hospitals and testing laboratories

Be it for crisis-hit areas, infection control or in the form of containers at airports, the demand for mobile laboratories and cleanrooms continues to grow. Already in 2016, the ‘Shellbe’ mobile hospital created by the Adriatic Institute of Technology won the Cleanroom Award for innovation. Dr. Gernod Dittel, who was involved in designing this mobile cleanroom, explains its importance for combating COVID-19: “China’s ability to build an entire hospital for coronavirus patients within eight days impressed the entire world. While this may be less well known, German technicians can accomplish the same feat. Germany possess tremendous expertise in modular construction that can be deployed worldwide.” Technological advances such as ‘Shellbe’ and ‘Life-Isle’ are mobile, sterile, dust-free cleanrooms that can be set up faster than any hospital. These award-winning systems are suitable or use as hospital wards, operating rooms, outpatient clinics, pharmacies and biotech labs. Particularly flexible cleanrooms for medical purposes can also be quickly erected on a fabric basis, such as the Cape tent by Fraunhofer IPA or spairlab by the company of the same name from Aachen. Both projects were nominated for the Cleanroom Award: “Cape” in 2018 and “spairlab” in 2017.

More ...

cleanzone

cleanzone

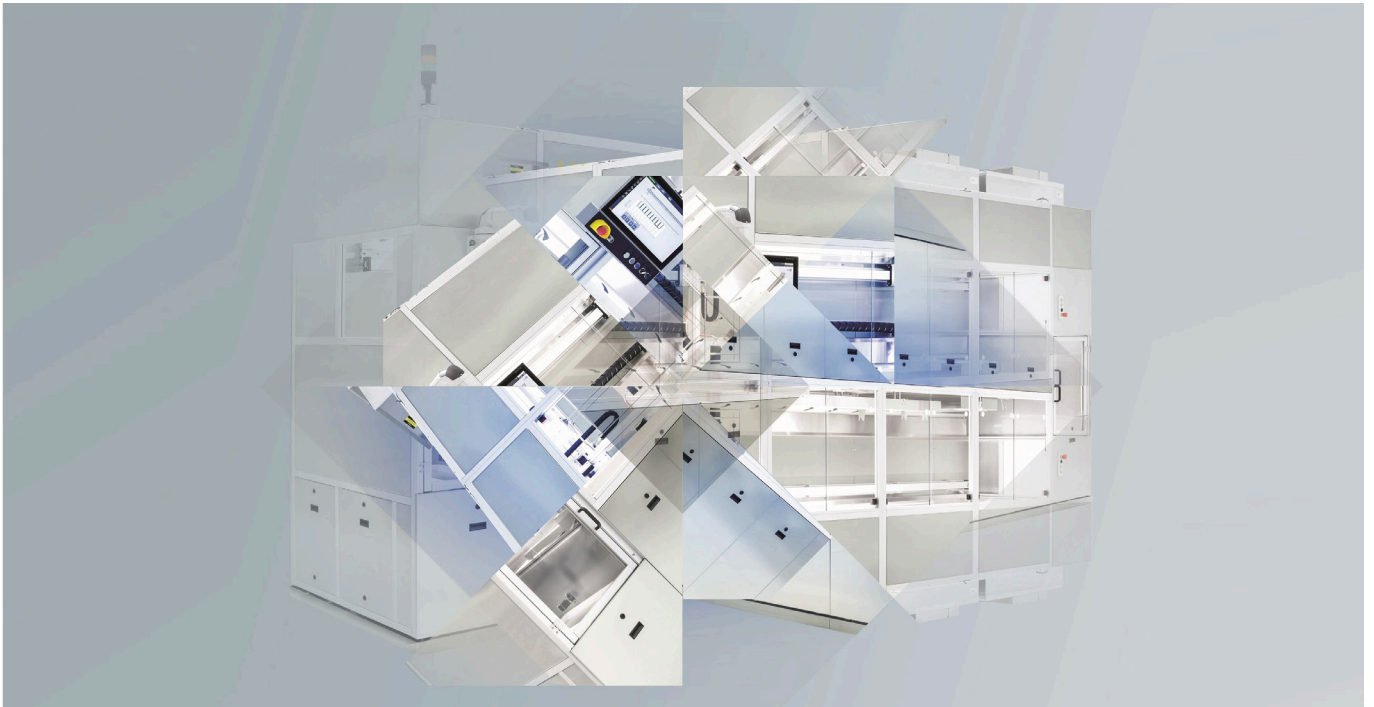
Messe Frankfurt Exhibition GmbH

Ludwig-Erhard-Anlage 1 D 60327 Frankfurt am Main

Telefon: +49 69 7575 6290 Telefax: +49 69 7575 96290

E-Mail: [anja.diete@messefrankfurt.com](mailto:anja.diete@messefrankfurt.com)

Internet: <https://cleanzone.messefrankfurt.com/frankfurt/de.html>



# Trends, information and the latest process technology for precision cleaning

## Virtual customer day at UCM on 29 September 2020

In times of contact restrictions, travel constraints and trade fair cancellations, the virtual customer day held by the Swiss company UCM AG offers customers and interested parties a safe way of keeping up to date with the latest developments in the field of precision and ultrafine cleaning. Presentations in German and English will inform about current trends and demands, as well as about solutions and innovative processes for meeting the requirements set by many industries for ever-cleaner parts. The innovative UCMSmartLine, which can be individually configured from standard modules, will also be showcased for the first time at the digital exhibition booth on 29 September 2020.

Companies from sectors such as the medical engineering, optics, automotive and supplier industries, precision engineering and microtechnology, the jewelry, watchmaking and coating industries, and also high-purity processing, are confronted with ever-increasing cleanliness requirements related to particulate and film-type/chemical contamination. Solutions to these issues are often discussed during a visit to a trade fair, but that is not possible this year. In order to inform customers, users and other interested parties on a larger scale and to answer questions, the Swiss company UCM AG - a division of the SBS Ecoclean Group specializing in precision and ultrafine cleaning - is staging a unique digital customer day with a virtual exhibition booth.

### World premiere of the highly-adaptable, modular UCMSmartLine

One of the program highlights of the online event on 29 September 2020 will be the first-time presentation of the novel smart solution

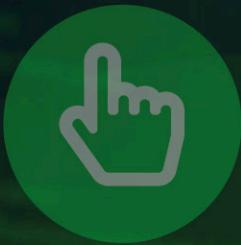
for efficient precision and fine cleaning, UCMSmartLine. The innovative and cost-efficient ultrasonic cleaning series is based on standardized modules, including not only integrated electrical and control technologies for the process steps of cleaning, rinsing, drying, loading and unloading but also a versatile transport system. The modules are used to configure customized systems for pre-cleaning, intermediate and final cleaning, and can be adapted to changing requirements and market conditions at any time.

### Recognizing trends and providing optimal solutions

The presentations with subsequent Q&A rounds also address the different and growing demands of the various branches of industry. They will be held in German and English with a time delay. Topics include "Customized solutions for precision cleaning", "UCMSmartLine - modular solutions for ultrafine cleaning", "Solvent-based processes for ultrafine cleaning" and "Innovative processes for highest cleanliness requirements".

The customer day is free of charge. The virtual exhibition booth can still be visited after the online event. Access to the customer day and exhibition booth is available to participants via <https://ucm-ag.com/virtual-customer-day/>.





# Digital Days CLEANROOM PROCESSES

3. und 4. November 2020

## DAS INTERAKTIVE ONLINE-EVENT

Von den Machern der LOUNGES



An Fachbeiträgen teilnehmen



Mehr über Produkte und Dienstleistungen erfahren



In Chats und Foren kommunizieren

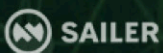
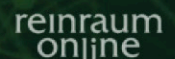
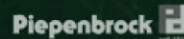
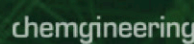
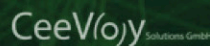


Experten online treffen



Unternehmen und Ansprechpartner kennenlernen

In Zusammenarbeit mit



[www.expo-lounges.de](http://www.expo-lounges.de)

# analytica 2020: World's leading trade fair to be held virtually

- analytica virtual to take the place of the presence fair in Munich
- Virtual laboratory fair intended to achieve global reach
- Supporting program with special show Digital Transformation and analytica conference



analytica  
virtual

**This year, Messe München is hosting the world's leading trade fair for laboratory technology, analysis and biotechnology as a virtual event. The new format analytica virtual will enable exhibitors to book digital trade fair booths for October 19 to 23. Furthermore, it offers all customers additional opportunities for exchange and networking. Large parts of the lecture and supporting program will also be available in digital form.**

**19th - 23rd October 2020: analytica 2020, Online Live Event**

In coordination with the analytica advisory board, in March 2020 the decision was made to postpone the trade fair from April 2020 to October 2020. As late as July, exhibitor interest in a presence fair was very high, even though the hoped-for relaxation of travel restrictions from non-European countries failed to materialize. Visitor promotion was then focused on the European market again. "Unfortunately, particularly in Europe a development has begun in the weeks of August that affects exhibitor and visitor markets directly," says Dr. Reinhard Pfeiffer, Deputy Chairman of the Management Board of Messe München. "News came from important European analytica core markets that trade fair visits would not be able to take place. A presence fair in October would therefore have fallen far short of the requirements of the participants with regard to the internationality of analytica, disappointed the expectations of visitors and exhibitors even in Corona times, and damaged the core of the event. A digital platform is now the alternative, which many exhibitors have also advocated."

## **New travel restrictions for European countries in August**

In addition to travel bans that companies are currently imposing on their employees and the restrictions on travel to Germany that states have introduced, in August the Federal Republic of Germany also made it more difficult to enter Germany from some states. These include regions in France (such as the area around Paris), Belgium (Antwerp, Brussels) and Spain (the entire mainland and Balearic Islands), which are among the most important exhibitor and visitor countries at analytica.

In the last two weeks in particular, the analytica team received extremely large numbers of notes from European exhibitors regarding the impracticability of their trade fair participation. Many German exhibitors understandably voiced their concerns that only a small portion of the expected visitors would come to analytica.

"The original decision to postpone the analytica was correct. However, with external conditions having deteriorated sharply recently, reassessment of the situation is inevitable. analytica is the leading

international trade fair. Many participants would have been unable to come to Munich because of newly introduced travel restrictions. We are glad that Messe München has reacted flexibly and quickly and in the form of analytica virtual offers the proper concept for 2020," emphasizes Siegbert Holtermüller, Chairman of analytica's Exhibitor Advisory Board and Head of Sales Life Sciences at Olympus.

## **Online trade fair with virtual booths and supporting program**

The analytica project team is now working on expanding the analytica virtual format launched in August into a globally visible digital trade fair for the laboratory industry, reflecting as many offers and formats as possible that have been distinguishing analytica in Munich for decades. analytica virtual is being realized in close cooperation with Lumitox AG.

analytica virtual will be available 24 hours a day in order to enable visitors in all time zones to participate. On virtual exhibition booths, exhibitors will present novel products and product innovations from all areas of laboratory and analytical technology for the target industries of chemistry, biotechnology, pharmaceuticals, and food. Visitors can experience product presentations, download flyers and contact the respective exhibitor directly via a text, audio and video chat function. In addition, web seminars, specialist lectures and a large part of the supporting program will be available via the platform. Important program items will be repeated at various times of the day.

The highlights will include the globally unique special show Digital Transformation, in which companies and scientists have realized eight workflows to present the state of the art in laboratory automation. The analytica conference will likewise take place in a purely virtual manner in 2020 and can thus maintain its high professional level with international top speakers.



# MEDICA and COMPAMED 2020 to be launched as ,virtual.MEDICA' and ,virtual.COMPAMED' with three focal areas

16th - 19th November 2020: virtual.Medica + virtual.COMPAMED, online

COMPAMED



ALL OVER THE WORLD  
16-19 NOVEMBER 2020

Member of  MEDICAAlliance



virtual.  
COMPAMED

MEDICA 2020 and COMPAMED 2020, the world-leading information and communication platforms for the medical technology industry and supplier industry for the medical technology industry, will take place entirely online from 16 to 19 November. Within the framework of ,virtual.MEDICA' and ,virtual.COMPAMED', decision-makers from all sectors of the healthcare industry can then expect a comprehensive range of products and services at <https://virtual.MEDICA.de> and <https://virtual.COMPAMED.de> consisting of three focal areas: The Conference Area (conference and forum program), the Exhibition Space (for exhibitors and product innovations) and the Networking Plaza (networking/ matchmaking). The next events, MEDICA 2021 and COMPAMED 2021, will be held as a hybrid event next year. The hybrid concept consists of combining live platforms for professional visitors to the Düsseldorf trade fair centre and digital offers.

"Our hygiene and infection protection plan was positively received by the exhibitors and the successive relaxations of the international travel rules in early summer meant that we had realistic hopes that both trade fairs would be able to be held successfully and safely. The development of the global pandemic must now, however, be re-evaluated. Against the backdrop of a multitude of travel limitations and considering the very international demographic of MEDICA and COMPAMED in terms of both exhibitors and visitors, we must now focus solely on the virtual format this year", explains Wolfram Diener, Chairman and CEO of Messe Düsseldorf.

"The essence of the MEDICA and COMPAMED brand is global broadcasting for exhibitors and visitors. This central core is still present this year, just not in the form of an event that demands physical presence, due to the pandemic. With the annual rotation of MEDICA and COMPAMED, we are now staying in touch with our customers by creating a comprehensive virtual and globally accessible market place for the community with a high-profile programme. This is a good starting point for the joint launch in the trade show year 2021, when we will again offer the successful combination of live platforms for trade visitors at the Düsseldorf Exhibition Center and digital offerings," Wolfram Diener continues.

In recent years, we have repeatedly found that a total of over 80% of our exhibitors have come from abroad, from around 70 different na-

tions. Our visitors come from around 170 nations, putting our proportion of international visitors at 70%. Both events together brought in a total of over 6,300 exhibitors and 121,000 professional visitors last year.

## Laying an excellent foundation with established online portals

"Over the past few years, we have constantly expanded our digital offers and therefore have established internet-based industry platforms in the form of our MEDICA and COMPAMED web portals. We can now implement these in order to offer our customers the appropriate tools for networking and facilitating the valuable transfer of knowledge, even in these challenging times" emphasises Horst Giesen, Global Portfolio Director for Health & Medical Technologies at Messe Düsseldorf.

"On the dates of MEDICA 2020 and COMPAMED 2020, we will seek out the best elements for streaming from the 600 previously planned sessions for the specialist forums and conferences, working together with our cooperating associations and partners. Participants can expect to see highlights with high relevance to Corona in particular in these virtual formats. In addition, there will be diverse web presentations from exhibitors on their innovations and an online matchmaking area for making valuable business contacts, including a video web meeting function" promises Horst Giesen, giving an overview of the agenda.

The content of the MEDICA specialist program has its finger firmly on the pulse, with digital program events relating to technical, economic and healthcare policy trends and queries this year. The MEDICA forums include the following: the MEDICA CONNECTED HEALTHCARE FORUM, the MEDICA HEALTH IT FORUM, the MEDICA LABMED FORUM, the MEDICA TECH FORUM, the MEDICA ECON FORUM and the COMPAMED HIGH-TECH FORUM and the COMPAMED SUPPLIERS FORUM.



# interplastica in Moscow sends Important Signal in Difficult Times

- Successfully launched “Recycling Solutions” segment to be continued
- Lecture forums Polymer Plaza and Special 3D fab+print with high-calibre expert programme
- upakovka running concurrently again

26th - 29th January 2021: interplastica 2021, Moskow (R)

The Covid-19 pandemic currently faces businesses around the globe with very special challenges. Like the international trade fair business. Trade fairs have been cancelled worldwide but the industry is not at a standstill. After all, trade fairs are urgently needed for restarting the economy as a whole. They are indispensable experience and communication platforms for entire sectors of industry where contacts can be established, experiences exchanged, knowledge gathered and innovations appraised live.

interplastica 2021, the International Trade Fair for Plastics and Rubber, will be held again at the AO Expocentre in Krasnaja Presnja in Moscow from 26 to 29 January 2021. To guarantee the highest degree of safety for exhibitors, visitors, partners and employees, Messe Düsseldorf Moscow is currently developing a comprehensive hygiene and infection protection concept in close coordination with the operator of the exhibition centre and in compliance with the hygiene regulations in force in that country to be employed at interplastica.

Exhibitors' brisk demand confirms that companies in the plastics and rubber industries welcome the opportunity to gain exposure on such a relevant market especially during such difficult times.

Alongside machinery, raw materials and equipment the focus will again be on the circular economy and recycling themes in the coming year. The Recycling Solutions segment featuring highly speciali-

sed enterprises was received very well at its debut during the previous interplastica and will also be continued in 2021 with accompanying discussion forums revolving around waste management and circular economy.

Beyond this, innovative technologies for all sectors of plastics processing will be showcased not only at the exhibitors' stands but also addressed in the lectures and discussions at the Polymer Plaza and as part of the special show 3D fab+print Russia. Experts here will again pick up on current developments and additive manufacturing possibilities in technical talks and demonstrations.

Held concurrently with interplastica will be upakovka 2021, the No. 1 Trade Fair in Russia for Processing and Packaging. At upakovka innovative packaging machines as well as technologies and materials for manufacturing packaging materials and media will be exhibited thereby generating a wealth of synergies for the visitors of interplastica.

Interested companies can still register direct at [www.interplastica.de](http://www.interplastica.de) or contact Ms Caroline Erben for further details at: [ErbenC@messe-duesseldorf.de](mailto:ErbenC@messe-duesseldorf.de).

Messe Düsseldorf GmbH  
D 40001 Düsseldorf



(Photo: Messe Düsseldorf, Constanze Tillmann)

# Chillventa eSpecial: Interview with Petra Wolf

**From 13 to 15 October 2020, the international refrigeration, AC, ventilation and heat pump sector will come together online for the Chillventa eSpecial. In this interview, Petra Wolf from the NürnbergMesse management board gives us a preview of the event.**

## **How is the Chillventa eSpecial being received by the sector?**

Petra Wolf: We are currently still in the acquisition phase but at this point we are pleased with progress so far. Particularly in the current circumstances, there is a strong need within the industry for networking and dialogue, and the Chillventa eSpecial offers the ideal platform for this. The exclusive partner contingent, for example, is almost fully booked, so anyone still wanting to access this package will have to be quick. The Ticket Shop for participants has been opened for a few days now and is also attracting a lot of interest.

## **Do you think that the Chillventa eSpecial is a good substitute for an on-site event, and are there perhaps even aspects of it that you plan to adopt for Chillventa 2022?**

Naturally, a virtual event has different qualities to an on-site trade fair. Meeting face-to-face again, getting information and talking to one another are elementary human needs that are becoming increasingly apparent, particularly in these times of crisis. Leading international fairs like Chillventa will in future continue to offer guidance to all industry stakeholders and will still be platforms for business success.

A virtual event in this format is a new departure for us. We will certainly be able to gather new experiences and then we can see whether and what we can adopt for 2022 in Nuremberg.

## **What are the distinctive features of the eSpecial? How can participants meet and talk to one another in the virtual space?**

The Chillventa eSpecial will bring specialists together for virtual knowledge-sharing. International exhibitors from all around the world will present their products, innovations and solutions and facilitate professional dialogue. On all three days, participants can network with

exhibitors via their corporate profiles and find out about their latest products.

The exchanges and knowledge-sharing between participants and exhibiting companies are a key aspect of the event. The best example of this is the integrated matchmaking tool to facilitate networking, without doubt one of the highlights of the event. In the onboarding process for the eSpecial, participants will indicate the solutions and products they are interested in and will then receive their personal "best matches" as suitable proposed contacts. Using chat and video calls, all participants can then start a conversation directly.

Another impressive feature of the event will be the high-calibre professional content provided by the exhibiting companies and renowned speakers from all around the world.

The Chillventa eSpecial will kick off on 13 October 2020 with the Chillventa CONGRESS. As always, the congress will offer valuable inspiration on the latest developments in refrigeration, AC and heat pumps, derived directly from the R&D environment and practical applications, as well as information on the latest policy frameworks.

On 14 and 15 October, three parallel streams will focus on knowledge transfer with experts under the thematic heading "Chillventa Connecting Experts". Numerous presentations, round tables, web sessions and panel discussions will explore innovative solutions and new developments in components, systems and applications. The key topics will include aspects of the coronavirus pandemic, illegal refrigerants, energy performance, low GWP refrigerants, low charge R717, safety precautions for the use of virtual tools, and heat pumps.

The easiest way to get an overview is to look at the platform yourself. You can get an initial impression on our landing page, for example: [www.chillventa.de/especial-participation](http://www.chillventa.de/especial-participation)

## **What do participants need to bear in mind if they want to take part in the eSpecial, and what system requirements are necessary?**

They will need an up-to-date browser, ideally Google Chrome or Microsoft Edge. The eSpecial is a web platform and can be used everywhere from a notebook, laptop, PC, tablet or mobile device.

## **How do you envisage the future of trade fairs? Will the current situation change anything in the long term?**

At present, the trade fair industry is slowly starting to come to life again. In the last six months NürnbergMesse ground to a halt. From March to September there was an official government ban on events, so we could not hold any exhibitions. We postponed, cancelled or digitised many events. Although the virtual platforms are shaping up very well, from our perspective they are no substitute for face-to-face events.

It is not yet possible to predict what impact the current situation



## Chillventa eSpecial: interview with Petra Wolf

will have on the trade fair industry worldwide. However, we are highly confident that in future we will be once again be holding high-quality trade fairs, organised by experts for experts, all over the world.

### About Petra Wolf

In her function as Member of the Management Board and head of Expo & Conference NürnbergMesse, Petra Wolf is responsible for the successful Chillventa as the leading international, refrigeration and air-conditioning exhibition. This also includes the worldwide refrigeration, air-conditioning, ventilation and heat pump community. In

addition to Chillventa, other events include the European Heat Pump Summit, ACREX India, and REFCOLD INDIA. She is also responsible for the Building & Construction Cluster. This includes numerous leading international trade fairs and product families such as the combined trade fairs FENSTERBAU FRONTALE and HOLZ-HANDWERK, as well as Chillventa, European Heat Pump Summit, Stone+tec, GaLaBau, Feuertrutz, and eltec.

NürnbergMesse GmbH  
D 90471 Nürnberg

# New handbook for production of Water for Injection

## Guideline explains and helps implement the regulations

**Amended European guidelines open up new approaches for the production of Water for Injection. The new regulations nonetheless raise questions about how to implement the new process. An expert group within the International Society for Pharmaceutical Engineering (ISPE) has taken on the issue and developed a common understanding of the manufacturing process requirements.**

The European Pharmacopoeia Commission decided in 2016 to permit use of the cold method for the manufacture of Water for Injection (WFI), which is utilized primarily to produce injection and infusion solutions. Since coming into effect in 2017, the new resolution allows European manufacturers to use not only conventional distillation processes but also energy-efficient membrane methods such as those already permitted in the US and Japan.

### New methods promise more safety and efficiency

While experts see an opportunity to produce WFI with a greater degree of safety and lower energy costs with the new process, the amendment to the regulation brings with it an abundance of new regulatory requirements for pharmaceutical companies. In order to minimize risk, for instance, WFI systems are subject to continuous monitoring and must satisfy strict engineering requirements.

"The guidelines leave a lot of room for

interpretation. If a pharmaceutical manufacturer implements every single aspect in accordance with the legal regulations, distillation is still the more cost-effective option," says Fritz Röder, expert within the ISPE group for pharmaceutical water and steam for the German/Austrian/Swiss region and head of the WFI manual project.

### Handbook serves as aid to implementing the guidelines

An expert team within the ISPE, which is involved in issues related to production systems and processes for pharmaceutical water and pure steam systems, has now created a guideline that describes what the legal regulations mean for the production of WFI. Specialists from various disciplines contributed extensive expert knowledge to the 110-page handbook, which is intended to serve as an orientation guide for plant and pharmaceutical manufacturers, as well as government representatives.

Stefan Raabe, Strategic Account Mana-



Guideline for the production of Water for Injection – the newly published ISPE Handbook.

ger at Endress+Hauser and a member of the expert team, who boasts years of first-hand experience in planning and implementing pharmaceutical water systems, underscores the necessity of the guideline: "The handbook provides answers to a wide range of unanswered questions related to the membrane-based production of WFI. Pharmaceutical manufacturers and regulatory authorities around the world can use this manual to design their water systems and produce medications for patients in a safe, effective and affordable manner."

Endress+Hauser AG  
CH 4153 Reinach BL1



# Training courses available for valves, measurement and control systems have been expanded and online versions have been added

**GEMÜ, the valve manufacturer based in Ingelfingen in Baden-Württemberg, have expanded their wide range of available training courses and have included current technical topics and new training methods.**

GEMÜ has added the topics of explosion protection/ATEX and surface technology, as well other industry-related application topics, to its training content. Non-proprietary technical basic training such as materials engineering, pipe connectors, measurement and control systems, as well as functional principles of valves and their process-related selection, will continue to be offered without modifications.

The emphasis on application-focussed solutions and practical experience will be further developed in all training courses. A three-part learning stage concept provides all participants with knowledge on various levels matched to their requirements. The first knowledge level, the all-rounder, is aimed at young professionals and people changing careers, as well as employees working in plant design, construction and operation, and offers a sound general knowledge base. The concept is designed such that the

training can provide even non-technicians a basis for gaining further expertise. The second knowledge level, the specialist, focuses on product and functional knowledge of valves for process engineering, as well as on measurement and control devices. Workshops and practical exercises on the functional model remove obstacles particularly in the area of valve control, and teach an application practice which ensures safety. The third knowledge level, the expert, is aimed at target groups who require comprehensive and detailed knowledge. The focus here is on fast and targeted fault analysis and troubleshooting in plants. The expert level also puts participants in a position to serve as valuable sources of knowledge for their colleagues in their day-to-day work.

The technical requirements of members of staff continue to be a factor even in times of COVID-19 – meaning there still exists a need for training. For this reason, GEMÜ

has reorganised the majority of its events to enable them to take place online in the short term. The concept has proved highly successful both in Germany and worldwide; many training courses therefore now take place online as standard and have become an integral part of the training courses on offer. Online training courses have proved to be a valuable addition particularly for those topics which do not require participants to be physically present – they are not only more time-efficient, but also save travelling and overnight accommodation expenses. GEMÜ has adapted the approach of these online training courses accordingly, as this format causes participants to reach the limits of their concentration and receptiveness more quickly. For this reason, online courses are condensed to just the essential topics, and their duration is reduced to a maximum of four to five hours.

For plant operators, plant designers and maintenance companies, topics relating to preventive maintenance and repair work have proved to be particularly useful in adding value. Product- and user-specific practical training and qualifications for maintenance technicians and their technical contact persons are therefore among the most highly sought-after GEMÜ further training courses in the world.

The events take place in German and English and at fixed times at the training centre at the headquarters in Ingelfingen-Criesbach. Upon consultation, individual events can also be held on-site at any time for essential users. In the case of online seminars where participants are based in another time zone, GEMÜ will adapt the timing of training courses to their local time. This guarantees that participants can receive the training during their usual work time, ensuring the best possible results.



# Welcome to the ENGEL live e-xperience 2020

## ENGEL presents product and technology innovations in a completely new virtual format

True passion, real innovation, virtual experience – this is the message from ENGEL at the first ENGEL live e-xperience from 13 to 16 October 2020. ENGEL is setting new standards with a completely new virtual and interactive trade fair concept in a year that will not let the Fakuma show happen. Live exhibits, an online specialist congress and one-on-one meetings with familiar local contacts and other experts ensure that the ENGEL live e-xperience is on a par with a physical trade fair.

13th - 16th October 2020: ENGEL live e-xperience 2020

„Even in times of Covid-19, there is plenty going on in the ENGEL R&D pipeline“, as Dr. Christoph Steger, CSO of ENGEL emphasises. In order to present the innovations originally planned for Fakuma 2020 to its customers and prospects despite contact restrictions and travel restrictions, the injection moulding machine manufacturer and system solutions provider has developed a completely new virtual trade fair and event format.

### Focus on personal contacts

Personal contacts are still the focus of the ENGEL live e-xperience. Visitors to the virtual trade fair can arrange appointments with their sales contact or a technology expert in the run-up to the event. Meetings take place via video conferencing using Microsoft Teams. During a meeting, the trade fair visitor can be guided through the exhibits



ENGEL is setting new standards with a completely new virtual and interactive trade fair concept in a year that will not let the Fakuma show happen. Never before has it been so easy to join in. (Picture: ENGEL)

online. ENGEL has put all seven machine exhibits into operation in its technology centre at the ENGEL headquarters in Schwertberg, and will be providing insights into the new machine concepts and process technologies via video recordings.

In addition to the machine exhibits, there is an experience zone where visitors to the virtual event can join in with the action themselves. Tailored to the needs of process engineers, production managers or maintenance staff, for example, target group-specific tasks are being presented that can be easily and efficiently solved with ENGEL's inject 4.0 products. This makes it possible to experience digitalisation at first hand. Visitors can try out working in a smart factory in the experience zone.

### Live and individual

„The ENGEL live e-xperience is a live event“, emphasises Steger, which is also clearly reflected in the keynote programme. ENGEL experts are presenting their topics on two days of the conference, and each day will be repeated once. The audience can use the chat function to ask questions during the presentation and join in the live discussion following each presentation. The four-day event programme is kicking off on the first day with a keynote speech by Dr. Stefan Engleder, CEO of ENGEL.

The five expert talks, in which ENGEL's product and technology experts are providing an outlook on the future of injection moulding, are a special highlight. The talks focus on the smart machine control unit, data analytics, digital service concepts, innovative automation solutions and new processing technologies. The ENGEL experts are exploring the current state of development and discussing the new opportunities that are opening up live with the participants.

All presentations and expert talks will be available for download in the media library after the show.

Registered visitors can put together their own individual lecture and discussion programme, join in live discussions or experience the innovative world of ENGEL at any other time. Never before has it been so easy to join in, and it's free of charge.

Registration for ENGEL live e-xperience starts on 21 September.



# „Wir sind da.“: Technology Days 2021

- Save the date: 9 to 12 June 2021
- More certainty: event in the summer rather than in the spring
- Success story: more than 93,000 invited guests from around 50 countries since 1999

The Arburg Technology Days have been a unique and firmly established event in the international world of plastics since 1999. In 2020, due to the coronavirus and with significant foresight at the time, Arburg cancelled the event to avoid exposing visitors and employees to risk. “Wir sind da.” will be our motto once again next year. Arburg has already decided to host next year’s Technology Days in the summer of 2021, from 9 to 12 June, rather than in the spring.

“Welcoming around 6,000 visitors every year, the Technology Days are a hallmark that Arburg is famous for all over the world,” explains Juliane Hehl, who is responsible for the Marketing department in her role as Managing Partner. Arburg certainly does not intend to abandon this tradition and its concept of combining live technology with personal contact, which has now been proving successful for more than 20 years.

## Better general conditions in the summer

“In these uncertain times, we are determined not to put safety and security at risk,” continues Juliane Hehl. “By making the decision to move the event to June at this early stage, we are proactively demonstrating our commitment to the responsibility we owe to our customers, partners, and employees.” Although things continue to be very unclear at the current time, the company is anticipating that the situation around the epidemic will be more positive by June 2021 and that once the cold and flu season is over, the event and its proven successful concept will be able to go ahead. “You should definitely make space in your diaries for the Technology Days from 9 to 12 June 2021,” says Arburg’s Managing Partner. “I can promise you now – it will be

worth it!” We also recommend that the following year – as in previous years – you keep the second week of March free for Arburg.

## An industry highlight for more than two decades

Since 1999, more than 93,000 invited guests from around 50 countries have attended the Technology Days, some 50 per cent of whom have been first-time visitors. The four-day event at the company’s headquarters in Lossburg owes much of its success to a unique mix of theory and practice. More than 50 exhibits featuring applications from all sectors of industry demonstrate the entire range of Arburg’s products and services. They include new innovations, the machine and robot system portfolio with its turnkey systems, numerous processes and digital products, as well as pre-sales and after-sales service. The Efficiency Arena – the stage which showcases the highlights of the event – is a major attraction for visitors. There are also expert presentations, tours of the site and – last but by no means least – opportunities for visitors to engage in personal dialogue with Arburg representatives.

ARBURG GmbH + Co KG D 72290 Loßburg



Nobody had even heard of corona in 2019: around 30 exhibits and applications in the Customer Center gave visitors to the Technology Days an overview of the depth and breadth of Arburg’s portfolio of machines and processes. (Photo: ARBURG)



# Heated Humidity and Temperature Probe for Meteorology

**The new EE260 sensing probe has a dual heating system to deliver precise and reliable measuring results even at high levels of humidity.**

The EE260 humidity and temperature probe is the latest product development for meteorology from E+E Elektronik. Among other applications, this high-precision sensing probe is perfect for reliable weather monitoring in road traffic or at airports. The sensor and probe heating enables precise and continuous humidity measurement even in areas with high humidity levels. Due to its compact design, the EE260 is compatible with commercially available radiation shields.

## Precise and Continuous Measurement Despite High Humidity

The EE260 sensing probe has a dual heating system consisting of a sensor and probe heating. Heating prevents condensation of the humidity sensing element and measuring head in case of fog, dew, rain or snowfall. This means that the probe always delivers precise and reliable measuring results even where humidity levels are permanently high. Heating also results in a very short response time, making the EE260 particularly suitable for use in weather warning systems.

## Long-term Stability Thanks to Sensor Coating

The monolithic humidity and temperature sensing element built into the measuring head is protected against corrosive and electrically conductive contamination by the proprietary E+E sensor coating. Especially near the sea (salt) or in a dusty environment, the long-term stability and service life of the sensor is significantly improved.

## Compact, Innovative Design

In addition to the heated humidity sensing element, the EE260 has a separate temperature sensing element which is integrated into the probe in an innovative way. Due to its compact design, the sensing probe is compatible with commercially available rotational-symmetric radiation shields. The IP67 enclosure, made of UV- and

heat-resistant thermoplastic elastomer, protects the internal electronics against environmental influences and mechanical damage in the best possible way.

## Analogue and Digital Measured Value Output

The sensing probe has two freely configurable voltage outputs and an RS485 interface with Modbus RTU protocol. The measuring data is available simultaneously at the analogue outputs and at the digital output.

Based on the measured humidity and temperature values, the EE260 calculates further humidity-related quantities such as the dew point temperature, absolute humidity or mixing ratio.



[More ...](#)

E+E Elektronik GmbH  
Langwiesen 7 A 4209 Engerwitzdorf  
Telefon: +43 7235 605 0    Telefax: +43 7235 6058  
E-Mail: [info@epluse.at](mailto:info@epluse.at)  
Internet: <http://www.epluse.com>



EE260 humidity and temperature probe for challenging meteorological applications.  
(Photo: E+E Elektronik Ges.m.b.H.)

Due to its compact design, the EE260 is compatible with commercially available radiation shields. (Photo: E+E Elektronik Ges.m.b.H.)



# Miniature Sensor Module Measures CO<sub>2</sub>, Temperature and Pressure

**The EE895 sensor module is ideal for use in climate measuring devices.  
Pressure and temperature compensation ensure a high CO<sub>2</sub> measuring accuracy.**

The new EE895 sensor module from E+E Elektronik measures CO<sub>2</sub>, temperature and ambient pressure. The small 3-in-1 module is an ideal choice for measuring instruments used for ventilation and climate control, in building automation or for process control. Due to its low power consumption, the module is also suitable for battery-operated devices such as hand-held meters, data loggers or wireless transmitters. The temperature and pressure compensation ensures high CO<sub>2</sub> measurement accuracy under changing environmental conditions.

## A Single Module – 3 Measurands

Additionally to CO<sub>2</sub> concentration up to 10 000 ppm the EE895 module measures also the temperature and ambient pressure. The pressure and temperature compensation with on-board sensors minimizes the environmental influences onto the CO<sub>2</sub> measurement. Thus the module offers a constantly high CO<sub>2</sub> measurement accuracy, independent of altitude or changing ambient conditions.

## Long-Term Stable CO<sub>2</sub> Measurement Principle

The dual wavelength NDIR CO<sub>2</sub> measuring principle with auto-calibration ensures long-term stable measurements, as it automatically compensates for aging effects and is particularly resistant to contamination. The factory multi-point CO<sub>2</sub> and temperature adjustment procedure leads to an excellent CO<sub>2</sub> measurement accuracy over the entire temperature working range of -40...60 °C (-40...140 °F).

## Easy Design-In

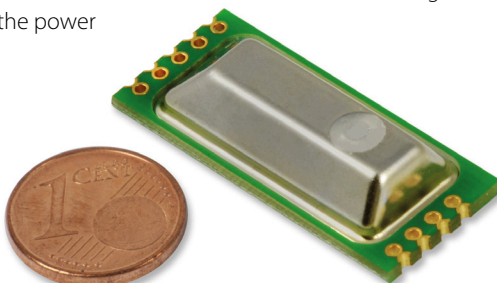
The measured data for CO<sub>2</sub>, temperature and pressure is available on the I<sup>2</sup>C or UART interface. The very small dimensions of only 35 mm x 15 mm x 7 mm (1.38" x 0.6" x 0.27") and various mounting options facilitate the design-in of the sensor module.

## Flexibly Configurable

The EE895 module can be flexibly configured via the digital interface. The CO<sub>2</sub> measurement interval can be set according to the application and the power requirements.

Fig. 1: EE895 sensor module for CO<sub>2</sub>, temperature and pressure.

(Photo: E+E Elektronik GmbH)



## Evaluation Board for Testing on a PC

With the separately available EE895 Evaluation Board, the sensor module can be tested on a PC. The free evaluation software displays the measurement data in graphical form and allows the user to set the sampling rate and the measurement units for temperature and pressure. For further processing, the data can be saved as .CSV file.



More ...

E+E Elektronik GmbH  
Langwiesen 7  
A 4209 Engerwitzdorf  
Telefon: +43 7235 605 0  
Telefax: +43 7235 605 8  
E-Mail: [info@epluse.at](mailto:info@epluse.at)  
Internet: <http://www.epluse.com>

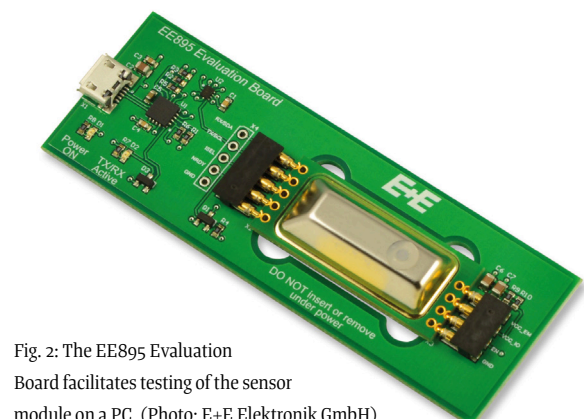


Fig. 2: The EE895 Evaluation Board facilitates testing of the sensor module on a PC. (Photo: E+E Elektronik GmbH)

## Impressum:

cleanroom online / W.A. Schuster GmbH · Mozartstrasse 45 · D 70180 Stuttgart · Tel. +49 711 9 64 03 50 · Fax +49 711 9 64 03 66  
[info@reinraum.de](mailto:info@reinraum.de) · [www.cleanroom-online.de](http://www.cleanroom-online.de) · GF Dipl.-Designer Reinhold Schuster · Stgt, HRB 14111 · VAT DE 147811997

Original texts and images

The contributions mentioned by name are the responsibility of the particular author. Reprinting, also of extracts, are permitted only with the approval of the editor and with reference to the source. The publisher does not accept any responsibility for unsolicited manuscripts and illustrations. The publisher is granted the exclusive, spatial, temporal and contentual limited right to freely use the article in unchanged or edited form for all purposes as often as desired or to transfer it to third parties for use. This right of use relates to print and electric media (Internet, databases, data carriers of all kinds).