



FILTECH

November 12 – 14, 2024
Cologne – Germany

The Filtration Event

www.Filtech.de

**Delivers solutions
for current and
future challenges**

Koelnmesse · Cologne · Germany

Innovations · Highlights · Trends

580+ Exhibitors
30% more than 2023

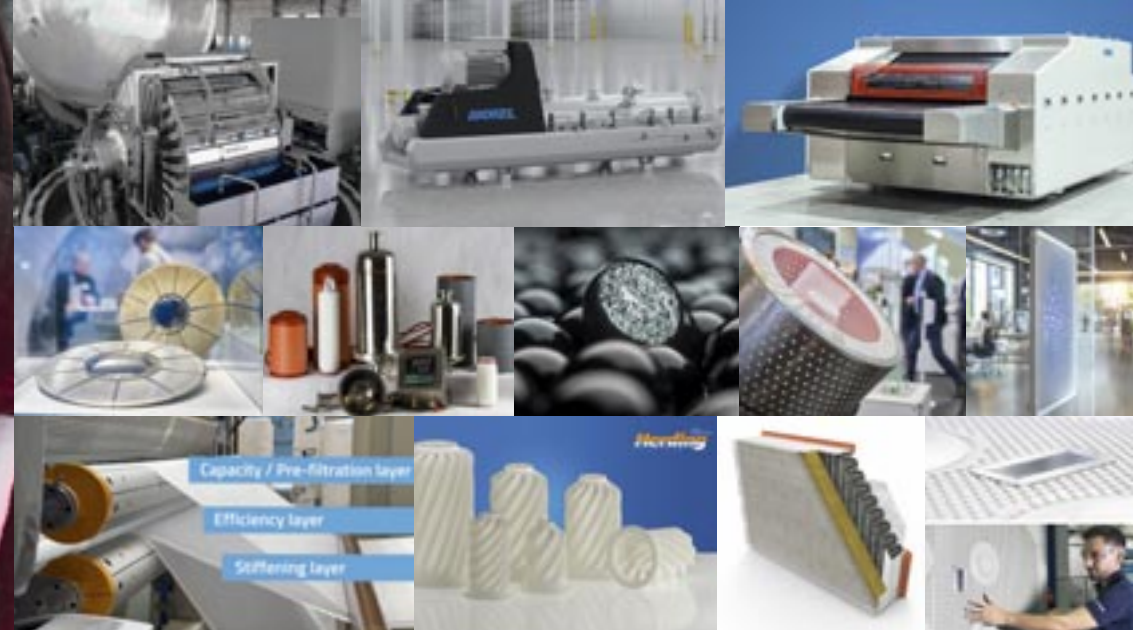
FILTECH

November 12 – 14, 2024
Cologne – Germany

The Filtration Event
www.Filtech.de

Platform
for your
success

Join the world's largest
Filtration Event



Providing all industries with targeted filtration & separation solutions

The Filtration industry provides innovative solutions for current and future challenges. This dynamic industry is of further growing importance and turning into a key industry worldwide. At the **FILTECH 2024** Show the latest innovations will be on display and will provide visitors with an exclusive overview and insights on the state-of-the-art science and technologies.

Sophisticated filtration and separation solutions play a key role in all industries to achieve cost-effective processing structures as well as reduced risks. FILTECH is a global solution provider for targeted filtration & separation tasks covering all industries.

580+ companies will present their cutting-edge products and innovations for the chemical industry, food & beverage, life science, minerals processing, pulp & paper, waste management, water treatment, environmental engineering petrochemicals and many more.

The Conference programme features **200+ technical papers** and gives a representative cross-section of the different procedures and appliances of separation technology as well as across the industry about the applications. The Conference brings together researchers, experts and industry professionals from various sectors to address pressing issues such as air pollution, climate impact, health hazards and optimizing efficiency in solid and liquid separation processes. From technologies for air filtration to solutions for solid and liquid separation, FILTECH offers tailored solutions to meet the diverse needs of industries across the board. It provides a platform to explore targeted solutions for all filtration challenges, driving progress and excellence in filtration and separation technologies.

The new compact filters for molecular contamination according to ISO 10121-3

The newly developed Carboactiv Cube Carb and Carboactiv Cube Duosorb compact filters from MANN+HUMMEL offer maximum energy efficiency. The molecular filters provide comparable pressure drops to particulate filters and can be replaced using existing filter configurations. Now certified according to ISO 10121-3: ISO 10121-3 is the first classification system for molecular filters for general ventilation applications and helps with the selection of molecular filters for specific supply air applications through easily understandable filter classes.

Application areas

With their outstanding filtration performance, the compact filters ensure clean air in HVAC systems and solve a variety of problems with molecular contamination. They can be used universally, e.g.

in commercial kitchens, airports or museums, and improve indoor air quality. Replacement is possible without increasing the energy consumption of the ventilation system.

For more details, visit us at our stand C11!

#CleanerAir #FiltrationMakesTheFuture #LeadershipInFiltration



BoVac Disc XL352 – The largest and best-performing vacuum disc filter on the market

Modern high-performance disc filters such as the BoVac Disc Filter have set new standards in applications where large capacities of solids, liquids and air have to be managed through the filters. These disc filters have an enormous hydraulic capacity. For applications in mineral processing – with a special focus on tailings – which typically have high solids throughputs but low filtrate and air flows, this capacity can be used to expand the filtration area while maintaining the benefits of very good cake discharge even with thin cakes (4-5 mm) and a high filter speed.

Research work over the last century has proven that increasing the filter area should be achieved by increasing the disc diameter. Because adding more discs leads to big problems with the cake discharge. However, as the disc diameter increases, the filter segments become longer and heavier.

The BoVac Disc XL352 is the perfect essence. With a filtration area of 352 m² it is the biggest vacuum disc filter on the market. The disc diameter is 6.4 m and the filter has six discs. In tailing applications, the capacity can exceed 1.000 t/h per filter at a moisture of 16-18 %-m/m or get a moisture of 13-16 %-m/m at a reduced capacity.

However, this filter is as well very suitable for coal, ore concentrates and hydrometallurgical separation steps. Particularly in tailings dry stacking projects this filter offers a significant reduction in OPEX and CAPEX compared to the use of pressure filtration with filter presses.



Next-level crossflow filtration with adaptive control: The Metris addIQ digital twin for Dynamic Crossflow Filters (DCF)

For most players in the food and chemical industries, using a Dynamic Crossflow Filter (DCF) is an efficient means of filtrating different products. Today, however, operations need to be significantly improved to increase productivity, reduce OPEX, and improve product quality – something which is now possible thanks to the Metris addIQ digital twin. This solution combines advanced automation and digitalization solutions to optimize efficiency and maximize profits.

The Metris Digital Twin represents a digital replica of the physical process using asset-specific information such as actual physical dimensions and equipment characteristics. When connected to online plant data, the Metris Digital Twin acts like a performance information tool similar to an MRI of the human body – both can be used to find otherwise undetectable anomalies and highlight the gaps between actual and optimal operation.



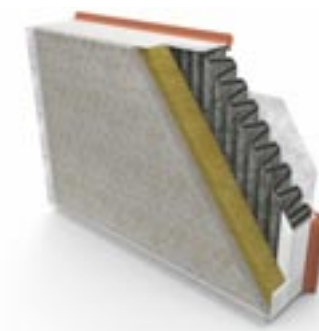
The system runs in parallel with your operations, continuously calculating key process parameters that sometimes cannot be measured or are difficult to measure with traditional instrumentation. Thanks to its proven simulation capabilities and combined with live plant data, the Metris Digital Twin provides virtual plant transmitters, it calculates optimal setpoints, and performs what-if scenarios analysis. The data reconciliation helps with online model correction and replaces faulty measurements with plausible values.

Cathode Air Filter Element for Fuel Cell Applications

The innovative Flat Cathode Air Filter Element designed to ensure optimum air quality and performance for fuel cell systems. It efficiently removes harmful gases from the cathode air path and protects your system from contaminants. The filter element has four stages. The first and second stages are comprised of a synthetic fleece for pre separation and a cellulose particle filter element for high dust holding capacity. The third stage is an adsorption filter that efficiently eliminates harmful gases such as sulfur dioxide (SO₂), nitrogen oxides (NO_x), and ammonia (NH₃). The fourth stage which is a synthetic layer on the clean side ensures high CCM requirements.

Experience the future of air filtration with our Cathode Air Filter Element. Visit our booth to learn more about how this technology!

#CleanerMobility #FiltrationMakesTheFuture #LeadershipInFiltration



Lenzing Filtration

Hall 7 L12

LENZING OptiFil improved design innovation

After almost 15 years on the market, the LENZING OptiFil is widely recognized as a reliable backwash filter that starts where others stop.

Its unique patented design allows a reduced reject amount, removing much smaller particles and thus higher solid concentration in the feed compared to traditional backwash filter designs. This while having an unbeatable backwash efficiency compared to other filtration solutions worldwide. These unique features paved the way into conservative industries, such as sugar production and sugar refining or automotive e-coat pretreatment as well as niche applications in chemical industry and water treatment. All of which have been served beforehand somewhat insufficiently by backwash filters. Now, a strategic redesign program has been developed with the target to maintain competitive pricing and to extend the application fields. The cost-efficient design due to the increasing numbers sold over the past years allowed for a couple of price-positive design changes such as the increased use of investment casts and a higher degree of standardization using common parts for different sizes and different models. With the new model OptiFil-S ("S" for standard) pricing have been kept stable even under rising labor costs in at the same time keeping all standard features allowing for highest backwash efficiency and versatile use. The model OptiFil-L ("L" for lean) is fabricated at lower cost, with slightly less accuracy, however, keeps the main feature of a seal between feed chamber and reject chamber. Thus, it forms a lower cost version that is targeting for applications slightly less demanding. Since the housing is the same, it is still possible to upgrade to OptiFil-S, should an application proof to be more demanding than previously anticipated.



a2z Filtration Specialities Pvt Ltd.

Hall 8 A9

a2z will showcase their Intelligent Blade Pleater and Next Generation Servo Blade Pleater

A2Z will be showcasing its Intelligent Blade Pleater with a multi axis Pitching System. The line consists of A2Z Next Generation Servo Blade Pleater, pitching line and cross cutter. Their deep knowledge of filter manufacturing processes and their ability to develop customer specific, innovative and efficient automation has resulted in development of fit-to-purpose solutions. Largest Range of Components

A2Z Filtration Specialities manufactures a large variety of end caps, components and parts to suit the assembly of all types of filters. A2Z supplies products in injection molding, sheet metal duly stamped, machined and cast. With a range of over 6500+part numbers.

The latest version of SolidWorks® is used to design all tooling. All tooling's are manufactured inhouse on HAAS CNC machines for quick turnaround & extremely short lead times.



A.L. Group

Hall 7 L08

Boost Air Quality and Productivity with IN-EX HVAC Filters

Now that the EPBD (Energy Performance of Buildings Directive) mandates standards for healthy indoor air quality, A.L. GROUP provides the simplest way to enhance EPBD scores with IN-EX HVAC filters.

Utilizing cutting-edge Sono-Chemical technology, these filters are impregnated with metal oxide, enabling the most efficient capture and neutralization of harmful bacteria and viruses with over 99.9% proven efficacy against Influenza (H1N1) and over 99.99% efficacy against E. coli and S. aureus.



IN-EX filters are the ideal solution for any indoor setting, including commercial and industrial environments, with an emphasis on food and medical production where air quality is crucial. This plug-and-play solution provides a straightforward, cost-effective upgrade to existing HVAC systems, without the need for new infrastructure or complex maintenance.

EPA and BPR-approved IN-EX filters not only enhance public health and building maintenance but also create a safer, more inviting environment for all.

Math2Market GmbH

Hall 8 B26

Adsorption simulations for pollution control and carbon capture – GeoDict software

Adsorption-based processes, essential to reduce environmental pollution and eliminate harmful substances, commonly use filter media materials: activated carbon, zeolites, and metal-organic frameworks, to effectively purify fluids and gases in water treatment or air purification. Breakthrough curves are assessed to measure and classify the quality of adsorption filter media. The curve shows the adsorbate concentration in the filtrate behind the filter media and the breakthrough that occurs when adsorbate appears in the filtrate. However, determining breakthrough curves for a specific contaminant often requires time-consuming and costly experimental procedures.

The new feature in the GeoDict simulation software of Math2Market makes possible to calculate the molecular movement of particles and to solve for the adsorption equilibrium step-by-step using Langmuir and Toth adsorption isotherms.

These most advanced simulations deliver breakthrough curves for various contaminants. Adsorption is vital in carbon capture to trap and store CO₂ emissions from industrial activities and power generation, and prevent their release into the atmosphere, making these simulations a great step towards sustainable engineering.



Porous Metal Structures made by 3D Metal Printing

We have developed methods to produce customized porous metal structures by 3D printing. The great advantage of this technology is the 100% control of the design. One can build in layers or channels according to the requirements of the application. The design and manufacturing procedure is fixed in a program. So quality is very stable even over different production lots. This guarantees a high grade of repeatability.



It is even possible to produce hybrid structures of solid metal material and porous structure on top. The structures can be very complex in shape without the need for expensive toolings. Lot size 1 piece and leadtime 3 days is possible.

From the materials side many grades are possible. We can process materials such as Stainless Steel, Monel, Hasteloy, Inconel, Titanium, Heat Resisting Steel, Hot Working Steel, 17-4 PH and others. From our point of view the technology can be favourable to produce special filter elements with graded structure and complex shape or for media diffusors such as burner elements.

We are looking forward to discuss potential projects on our booth during FILTECH 2024 – or even before.

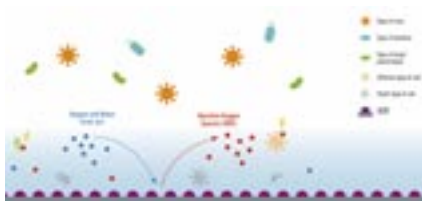
Effective and regulatory-compliant antimicrobial protection of filter media with AGXX technology

Heraeus Precious Metals is proud to present their AGXX technology – an environmentally friendly solution for antimicrobial technologies

Water filters are susceptible to contamination by microorganisms and biofouling, posing a risk to both consumer health and the lifespan of the products. As regulations become stricter towards the release of potential hazardous compounds, particularly in Europe, it is increasingly challenging to effectively protect filter media from microbial contamination in a regulatory-compliant manner, as the currently prevailing technologies based on the release of silver-ions are in the process of being banned by the regulatory authorities (ECHA).

Conventional antimicrobial technologies, including silver-ion-based methods, rely on the release of toxic substances. In contrast, the AGXX technology operates by catalytically generated reactive oxygen species (ROS) from ambient air and humidity. AGXX meets current regulatory requirements and provides an environmentally friendly solution.

Additionally, efficacy tests in accordance with ASTM E 2149 conducted at QualityLabs BT GmbH have demonstrated that activated carbon functionalized with AGXX achieves a higher antimicrobial activity than activated carbon functionalized with a conventional silver technology. This highlights the potential of AGXX as a superior alternative in water filter applications.



Molecular filtration performance at the highest level

Wherever conventional filter technology reaches its limits, Talamon's filtration solutions are in their element.

The product range of the Premium line is characterized by foam and pleatable flat filter media based on spherical high-performance adsorbents of polymer origin and ion exchangers for very special applications and requirement profiles.

These products are well known in air filter applications such as aerospace, medical technology, clean rooms, special automotive solutions, kitchen ambient air and others.

Now Talamon is expanding its product range to include filter media based on granulated activated carbons to reach new markets.



The new Standard line also includes product solutions with impregnated carbons, from acidic and basic functionalisation to broadband impregnations for a wide spectrum of pollutants in the treatment of air and gas flows.

The products from both lines will be presented at Filtech 2024. The Talamon team looks forward to welcoming you to booth E38 in Hall 8.

Thermo Fisher Scientific Presents: Apreo ChemiSEM

Working with advanced materials requires a keen understanding of your sample's surface, structure, and chemical composition.

Whether you are researching your next innovation or focusing on product development and manufacturing, these attributes can help you certify the origin and purity of raw materials, assess failures, and ensure the quality of finished products.

The Thermo Scientific™ Apreo™ ChemiSEM™ System revolutionizes and simplifies these analyses.

By fully integrating hardware and software for high-resolution imaging, elemental analysis, and structural analysis, it offers a seamless workflow that keeps up with fast-paced labs and delivers high-performance analysis for a wide range of samples.

Thermo Scientific Apreo™ ChemiSEM™ is an advanced microscope designed to accelerate the imaging process and provide unparalleled insights for both expert users and first time users.

It supports Material Science research from every perspective, offering integrated workflows and easy access to elemental analyses (EDS) and structural characterization (EBSD). It brings reproducible and reliable results, saving time and eliminating hassle.



EcoTurbo - CFD powered Venturi solution to save energy in dedusting operation

We're excited to introduce EcoTurbo Cage, our patented solution designed to enhance the performance of pulse jets in dust collectors. By harnessing the powerful pressure waves of the impulse, EcoTurbo significantly increases dust cake release. This innovation leads to substantial energy savings for compressors and fans by reducing average machine differential pressure and boosting air intake efficiency.



JCEM proceeds with the advanced ongoing innovation

JCEM releases its latest P7 Heavy Duty Speed Pleater, for multi-layer wire mesh pleating, with highest material throughput and high pleat compression. We also introduce our fully automatic Inline Slitter blade change to change slit widths without any operator involvement, and without removal of material. It offers customers the fastest change over time, highest precision, lowest waste and brings the pleat pack production to another level of quality and speed. The result is an extreme improvement for the customers ROI.

Our P8 High-Speed pleater offers the highest speeds even at common industry pleat heights, between 25-40mm, being pleated with approximately 30m/min (500 pleats/min). Our Swiss made machinery not only achieves record speeds but also provides high reliability and is designed to run 24h/7days in real production environment.

TAG, the most advanced CNC Mini-pleat system, redesigned and innovated the latest Vario Rotafalt with all new Drives, PLC, and brand-new HMI including Production Overview Dashboard (for machine self-diagnostics/preventive maintenance), OPC UA Server, resulting in more on the fly options and auto adjust features. Also available is TAG's latest on the fly automatic Cross Cutter which eliminates operator involvement in the cross-cutting process. JCEM Group, including JCEM GmbH (Switzerland), TAG (Germany) and JCEM Inc. (USA), is the global leader for all types of pleating equipment, offering the world's most innovative, efficient, and robust pleating systems available.

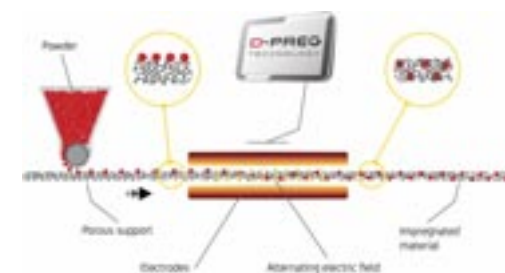


Fibroline Filter Solutions

Fibroline SA has developed and patented dry impregnation technologies. These solutions enable the impregnation of various powders into porous structures homogeneously thanks to high intensity alternating electric fields. One main advantage of these innovative technologies is no need for water or solvents.

Dry impregnation can be used for both thin or relatively thick filter media. Many different powders can be impregnated to achieve the desired functions. Recently, Fibroline have made important improvements to capture/extract specific molecules from air or liquids thanks to active powders, for example: MOFs (Metal Organic Frameworks), zeolites and ion exchange resins. By using porous particles with controlled geometries, the targeted molecules are trapped in a very selective way.

The Fibroline technologies give a homogeneous distribution of the particles throughout the porous media. The use of smaller particles will also increase the active area and give higher adsorption capacity and faster adsorption/desorption kinetics.



Promising results have recently been obtained for water treatment (arsenic removal, ion extraction, etc.) as well as for air filtration (capture of hazardous gasses in CBRN applications, CO₂ capture or odor removal).

Sustainable Filter Elements

The latest innovation in filtration technology focuses on sustainability without compromising performance. By utilizing renewable materials, we have significantly reduced the product carbon footprint of a heavy duty air filter element. The new design incorporates recycled plastics and bio-based raw materials. This innovative approach not only conserves resources but also positively impacts the CO₂ footprint, while fulfilling automotive customer requirements and test standards.

Join us in embracing a greener future with our sustainable filter elements, designed to meet the stringent specifications of the automotive industry while promoting environmental responsibility. #CleanerMobility #FiltrationMakesTheFuture #LeadershipInFiltration



1A Star presents: 100% electrical cutting press

1A Star is delighted to present its new 100% electrical cutting press at FILTECH 2024! This innovation allows the operator to place his cutting tool and freely remove the cut parts.

When necessary and as an option, the tool can be placed under the bridge. In this case, the operator recovers only the cut parts. In other words, on this machine, the cutting counterparts can be located both on the bridge and on the rising table.

Bridge recoil is adjustable on the touchscreen in 100mm increments (configurable).

The table rises vertically towards the receding head when it is in the forward position.

The machine is easy to use thanks to its intuitive tactile interface.

Energy savings, easy to use, high productivity, minimum maintenance and safety are the key words used to define this cutting press.



High-Capacity Liquid Filtration Media

BinNova is the technology leader for high-capacity materials for liquid filtration. At a given efficiency these materials provide highest permeability, lowest pressure drop and at the same time best dirt holding capacity.

The difference to conventional materials is significant. In many applications it is possible to replace a pre-filter layer and a main filter layer with one HC layer only.



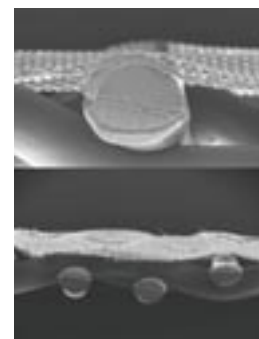
FC6-free Air-Oil-Separation (Coalescer) Media
BinNova is setting a new standard for environmentally conscious and high-performance filtration. Choose sustainability without compromising efficiency – FC6 free media ensures exceptional liquid- aerosol separation in gas streams without the use of fluorocarbons, contributing to a greener and cleaner industrial operation.

Multi Layer Composites
BinNova offers a broad range of composite filter materials for a lean filter manufacturing process compared to traditional Co-Pleating. BinNova provides synchronized rolls in width and length for better logistics and significantly reduced material wastage.

Composite Filter 4.0

Increasing challenges to the filtering process have led us to think about a groundbreaking innovation in the design of composite filters made of a fine fabric (filter) and a coarse fabric (supporting fabric).

While in the past ordinary double-layer filter media were woven and later point-glued, we make use of a relatively new technology from the yarn industry. The carrier fabric is partly made of so-called core-jacket yarns.



The fine mesh is connected to the coarse mesh under pressure and temperature. The coat of individual yarns in the supporting fabric melts and the liquid plastic combines with the upper cover layer of fine fabric when it catches a cold.

This has enormous advantages for the filtering process:

- fully renewable
- improved chemical resistance
- higher throughput capacity
- smallest filter fineness possible
- material 100% sorted
- can be used in the food industry.

needlona® BLUE - the filter medium for a reduced CO₂ footprint

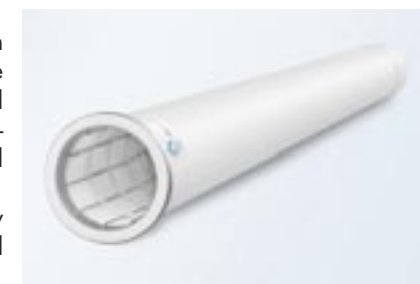
Our new needlona® BLUE product line is the environmentally friendly filter medium with which we already achieve more than 10% CO₂ savings in the manufacturing process compared to a standard filter medium. This is how we put our climate protection measures into practice. For a clean environment of the future.

needlona® BLUE is environmentally friendly and energy efficient thanks to

- increased use of high quality, recycled fibres
- own in-house recycling
- optimised use of operating resources in the production

Calculation and certification by ClimatePartner
The Product Carbon Footprint calculation is based on the GHG (Greenhouse Gas) Protocol. It records the CO₂ emissions of needlona® BLUE in the individual phases of the product life cycle. This takes raw materials, manufacturing, transport and waste disposal into consideration.

Filter bags which are already environmentally friendly in the manufacturing process thanks to a reduced CO₂ carbon footprint.



New 30 & 60 liter tank melter PH30 & PH60

Puffe Engineering due to decades of experience in hot-melt adhesive technology, a reliable partner and provider for tailor-made solutions in many industries.

In 2024 we are launching our latest PH30 & PH60 tank melters with Siemens S7 PLC control, integrated heating register and pull-out control cabinet. This allows easy access to the pump(s) & electric motor for easier service. Both variants will be available with 2 single gear pumps, 2 PowerFoam pumps or with a double gear pump, with up to 2 outputs.

The new tank melters of Puffe Engineering are made from high quality components. The aluminum milled main melt from a block ensures better temperature transfer to the material and at the same time better temperature storage. Another plus point are the removable pre melt register and the bayonet removable filters.

Our tank melters are extremely durable and robust, even when used at extremely high temperatures. If desired, you can choose between a solid and a PowerFoam® optimized application.

The new melters are also perfectly matched to our parts, like our hoses, application heads and modules.



TANVI FILTERING EQUIPMENT

Sanitary heatable and heat retaining filters

Tanvi sanitary heatable and heat retaining filters are designed to the filtration working environment that needs to hold a certain temperature or a continuous dry environment. The sanitary design make the filters are suitable for high level clean working areas.

The filter consists of a stainless steel filter housing, a heating jacket, a temperature controller and a SS316L stainless steel filter enclosing shell.

The full-PFA filter (available sizes 5", 10", 30", easy for operating and disassembly) can work at a certain temperature that higher than natural ambient temperature (1~160°C), it can be used to hold a certain temperature of filtration and vent filters that need to prevent water condensation on the filter cartridges and prevent growth of bacteria in the enclosing vessels.

Features and Benefits

- The complex structure of heating and anti-scald layers makes the filters are safe when they are heating



- Laddering temperature control prevent the condensation and overheating damage on filter cartridges;
- Over-temperature protection
- Excellent heating and heat preservation performance reduced energy consumption;
- Sanitary SS shell make the whole unit are enclosed and no dead corner
- Easy for operating and disassembly
- Adjustable temperature
- Low working noise

Reducing energy costs in air filtration with the patented Kappa Waveline® bag filter

Bag filter systems play a crucial role in various industries by providing an efficient and reliable method of separating contaminants from production processes. These systems are essential for maintaining clean air in environments where dust and other particulate matter are generated. In bag filter systems, exhaust air from various processes is fed through flexible bag filter elements, which effectively separate and capture dust emissions, ensuring a cleaner and safer workspace.

The patented Kappa Waveline bag filter can be used to optimize existing or newly planned bag filter systems. The Kappa Wavelin® bag filter has 25% more filter surface area, supported on the patented Waveline® support basket with the installation size of a standard bag filter. The increased filter surface area leads to a lower filter surface load at the same volume flow and thus to a reduced pressure loss. The result is significantly reduced energy consumption, in some cases by 30-60%, and thus lower operating costs for the filtration of emissions.



The 25% increase in filter surface area also supports the cleaning effect and reduces the number of cleaning sequences required. This improved cleaning leads to significant savings in compressed air.

TS Filter

High Capacity large Capsule Filter provides flexibility, convenience and excellent Filtration Performance in small and medium scale applications

Large capsule filter consists of a standard cartridge encapsulated in a robust polypropylene housing, is available with TS Filter's full range of filter media for filter cartridges, this ready to use disposable capsule filter is available in T-type, A-type and inline configurations in lengths up to 40 inches, with inlet and outlet connections including sanitary flange and hose barb, is the best solution as a scale up filter for pilot and production scale processing in pharmaceutical, food & beverage and electronics industries.

FEATURES AND BENEFITS

- T-type, Inline, and A-type capsule designs, A-type capsule includes a gauge port for pressure measurement and a filter stand for fast and easy installation
- 10", 20", 30", 40" lengths
- Removal ratings from 0.04 µm to 100 µm
- Low hold-up volume and production losses
- Without the need of a stainless filter housing
- Protects operators during setup, production and cleaning
- Easy to use, rapid installation and minimum downtime
- Robust construction stand up to autoclave sterilization.



Certification of Point-of-Entry water treatment systems to both NSF/ANSI Standard 42: Drinking Water Treatment Units – Aesthetic Effects and NSF/ANSI Standard 55: Ultraviolet Microbiological Water Treatment Systems.

Water Systems International Limited is the first company to Certify Point-of-Entry water treatment systems to both NSF/ANSI Standard 42: Drinking Water Treatment Units – Aesthetic Effects and NSF/ANSI Standard 55: Ultraviolet Microbiological Water Treatment Systems.

Certification to these standards means that these products have been evaluated for material safety, structural integrity, contaminant reduction, and product literature accuracy. The NSF/ANSI drinking water treatment units Standards are internationally recognized and only products that meet the rigorous requirements are allowed to bear the NSF Mark.

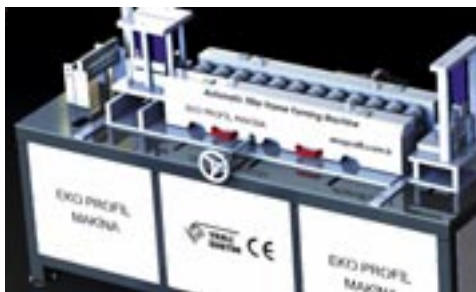
Model WSR4N is Certified for the reduction of Chlorine, taste, and odor for 49,000 Liters (129444 gal) under Standard 42, and Disinfection Performance Class A under Standard 55 with a flow rate of 50 liters per minute (13.2 gpm).

Model WSC4N is Certified for the reduction of Chlorine, taste, and odor for 100,000 Liters (264172 gal) under Standard 42, and Disinfection Performance Class A under Standard 55 with a flow rate of 114 liters per minute (30 gpm).

Water Systems International have a range of 20 drinking and secondary waste water systems for Residential, Commercial and Marine use. With representation in North and South America, New Zealand, Australia and China we are looking for International Dealers and Distributors. Please contact stewart@uvwatersystems.co.nz



2024 NEW Filter Frame Forming Machine



Eko Profil Makina Systems will present its newest Innovation at the 2024 FILTECH Show:

A new Filter Frame Forming Machine which excels in Cassette- and Bag Filters' outer frame production.

This new, highly specialized machine has a width adjustable body and is able to produce all widths from 20mm to 100mm.

Intelligent cloth washing with ANDRITZ SEPARATION

Based on sensors' measurements it is possible to determine the right moment to start the filter cloth washing.

Shifting plate online monitoring: If the system detects deviations from nominal values, the filter press is stopped automatically. This action ensures operating safety.

Online monitoring of the plate package: If the measurements taken deviate from nominal values, the system provides a recommendation to the operator to conduct an automatic washing cycle. In addition, the intelligent filter press detects any deviations from nominal pressure at the beginning of the filtration process:

- Monitoring of filter cloth performance
- Keep capacity/throughput at highest level
- Cloth washing on real demand

Undeniable advantages are provided by both features. The intelligent cloth washing enables up to 20% longer lifetime of your filter cloth and a filter press, that operates under optimum mechanical conditions. This reduces the OPEX of your machine and guarantees maximum safety for the operators, as the sealing areas are clean.



Defining an environment before filtering it: Analytical Services

Effective chemical filtration needs accurate contaminant data. Entegris Analytical Services provides measurement of Airborne Molecular Contamination (AMC) in commercial environments. Contaminants are identified and detected down to parts per trillion (ppt, 10-12) concentration levels, with 99% confidence. Whereas health concerns usually center around ppm level contamination, product and electronics corrosion can happen at much lower concentrations.



Asset archives, data centers, control rooms, hospitals, fuel cells, turbines all need to be protected from gas-phase impact. Qualitative measurement techniques like corrosion strips do not provide sufficient information to formulate optimized filter solutions. Entegris provides filtration solutions that are tailored for the respective application, based on competent environmental analysis.

Visit us in Hall 8 at Booth C40 and several of our technical presentations in the conference.

Cutting-edge honeycomb activated carbon and carbon filter technologies

Discover the future of air purification with HANYAN—your trusted global leader in cutting-edge honeycomb activated carbon and carbon filter technologies. Our new honeycomb activated carbon with over 100% H2S breakthrough capacity will make its debut at the upcoming Filtech, perfect for a broad range of industrial and commercial applications.

Don't miss out on our star attraction at Filtech: the GridFilter, our best-selling gas-phase air filtration medium. Engineered for robust VOCs & Odor Treatment, Acid Gas Treatment, and Alkaline Gas Treatment, GridFilter excels in the most demanding environments:

- Optimal for high airflow settings (>500 fpm) .
- Resilient in temperatures up to 300°C.
- Effective in up to 99% RH humidity levels.
- Versatile mounting options—horizontal or vertical with bi-directional airflow.
- Designed for maximum removal of gaseous contaminants and enhanced protective performance.

As pioneers in activated carbon production, HANYAN doesn't just lead the market—we drive innovation through customized solutions tailored to your specific filtration needs. Join us in setting new standards in air quality management.



Herding® OMIKRON - Adaptable Cleanable Sterilizable

The new Herding® OMIKRON element is a washable and sterilizable unibody filter element made of polyethylene. It is food compliant according to FDA and European guidelines as well as PFAS-free. This makes it future-proof and in line with upcoming regulations and legislation.

A special feature is that the geometry and connection of the sintered rigid filters is freely adaptable. Thanks to this parametric design, Herding® OMIKRON can be tailored precisely to any application and can therefore also be integrated into existing systems.

This allows maximum flexibility and pure productivity!

Strict hygiene requirements in the food and pharmaceutical industries often make it necessary to regularly replace disposable filters made of paper or textiles to prevent the formation of bacteria. Herding® OMIKRON can be washed or sterilized after product contact or when changing products to make it germ-free again. Therefore it can be used repeatedly while greatly reducing operating and disposal costs.



The fiber-free sintered unibody allows contamination-free product recovery, for example in the case of pneumatic conveying or in industrial vacuum cleaning systems.

JP Air Tech Introduces Advanced Multi-Layer Filter Media

Discover Innovation with JP Air Tech's latest advancements in filter media for static filtration. Our new investment in ultrasonic bonding technology has led to exceptional multi-layer filter media targeting HVAC, cabin air, APC, gas turbine air intake, and other applications requiring high dust holding capacity and low pressure drop.



Our multi-layer filter media, certified and classified according to ISO 16890 standards, ensures efficiency and performance across various filtration classes and basis weights. These innovations set new standards in the filtration industry, enhancing air quality and operational efficiency.

Don't miss JP Air Tech's revolutionary products. Visit us at Hall 8, Stand E35 to see how our advanced filter media can transform your filtration systems.

IMT-Filter Company presents innovative fibers PANION®

PANION® are fibrous ion exchangers for air and water purification. They are polymeric materials containing in their structure active functional groups that can chemically interact with target compounds. The variety of functional groups and their combinations makes it possible to remove a wide range of organic and inorganic impurities of an acidic or alkaline nature from water/air. The main advantages of ion exchange fibers are:

- high degree of air purification (95-100%) at low concentrations of removed substances (0,1-500 mg/m³ in air and 0,01-10 mg/l in water);
- the possibility of producing different textile forms, which provides a wide range of design options for filtering devices and technological processes;
- The small diameter of the elementary fiber (5-50 µm) provides a high rate of sorption-regeneration and allows the process to be carried out in small layers of sorbent (2-30 mm), which determines the low aero- and hydrodynamic resistance of the filter layer;
- low energy and water consumption when used in gas and water purification devices.



The fibers PANION® are suitable for use in various areas of air and water purification, including new applications to protect the environment and human health.

FTRJ GmbH presents standardised nanofiltration plants

The NanoFil filtration plant series is the perfect solution for treating small and medium process or waste water streams from various industries by means of ceramic nanofiltration membranes. Separation tasks that require membrane pore diameters smaller than 1 nm can be realized.

Recycling the clean permeate back to the main process leads to fresh water supply reduction, energy savings and eco-friendly production.

Due to a flexible and fully automated design the NanoFil series is adaptable to almost every application and location. For that purpose, FTRJ GmbH offers pilot plants for rental to initiate first field tests. Upscaling is easily possible due to a unique NanoFil design. Main advantages of the NanoFil filtration plant series equipped with nanofiltration ceramic membranes:

- Cut-off in the range of 200 g/mol
- High chemical and abrasive resistance
- Thermal membrane resistance up to 145°C
- Membrane regeneration by backwash and chemical cleaning
- Long service membrane life
- Standard plant operating temperature up to 95°C, higher temperature design on request
- Fully automated stand-alone unit
- Various upgrade options for process integration and optimization



The Nanofil units are also available for use in explosive atmospheres!

Roxia Smart Filter Press™ (SFP) – A Fully Automatic Filter Press

The Smart Filter Press™ (SFP) is an innovative advancement in industrial filtration, offering fully automatic, self-cleaning operation with enhanced safety and efficiency. The Roxia SFP, designed to meet modern industrial demands, boasts a compact design with up to 10 times the capacity of traditional filter presses. Its innovative gasketed filter plate pack ensures leak-free filtration, eliminating slurry sprays and preventing human contact with hazardous materials.

- Fully Automatic: Operates 24/7 with over 98% unmanned availability.
- High Capacity & Small Footprint: Delivers greater throughput using just one-sixth the space.
- Cost-Effective: Reduces operational, disposal, and maintenance costs.
- Enhanced Safety: Features multiple error-detection functions and a self-diagnostic system for maximum safety.

The versatile Roxia SFP serves industries like mining, chemicals, food, pharmaceuticals, power, and wastewater treatment, handling tough conditions with ease.

Applications range from solid particle removal to specialized filtration processes, making the Roxia SFP the ultimate solution for reliable, efficient, and safe industrial filtration.



BioEir Air Filters – 100% Sustainable and Biodegradable Air Filters

BioEir is the first commercially available fully sustainable and biodegradable filter media. Manufactured in our facility in Limerick, Ireland – BioEir has already been installed in several data centre AHU sites. This has already demonstrated its capabilities in reducing energy use and increasing filter replacement intervals, resulting in overall cost savings for customers.

BioEir is also being considered for large scale use in several exciting projects across residential, industrial and commercial sectors in several markets as the demand for more sustainable solutions increases.



For more info visit us in Hall 8/F54!

LENSER i-Plate revolutionizes filtration processes

The LENSER i-Plate significantly enhances efficiency and control in filtration processes. This innovative solution enables real-time measurements directly from the filter press - a profound optimization of the process.

In a time where process monitoring is crucial, the LENSER i-Plate sets new standards. With an integrated sensor capturing moisture, temperature, and electrical conductivity in the filter cake, it significantly shortens the conventional iterative process of filtration optimization. This leads to a significant increase in production capacity and substantial savings in energy and water consumption.

Through precise tracking and control of the entire filtration cycle in real-time, the LENSER i-Plate allows for targeted adjustment of each step. This means that companies are now able to define and control the ideal filling cutoff point for various suspension qualities in real-time.

Additionally, it enables the early detection of the optimal end of the pressing duration.



To facilitate customer access to this new technology, LENSER offers an exclusive leasing option for the digital sensor to interested parties of the Basic and Visual service packages. This enables companies to optimize their filtration process without major investments. Also, for customers who only need insights into the drainage behavior of their filtration environment for a limited period, LENSER's Rent-Your-Success is very attractive: They can lease the sensor with a monthly cancelable usage agreement.

KFK-E POWER

#faster #precise #hotter

MEYER developed a special edition of the most successful Flatbed Laminator KFK-E with some remarkable new features. The new KFK-E Power. More precision, more power, higher productivity and equipped with new belts for higher temperatures, while keeping a compact design. This machine is fully capable of processing filter media!

#FASTER:

- 100% stronger Heating zone
- Faster heat up time
- Faster production speed possible
- Power level can be reduced, if not needed
- 400% more cooling capacity, reducable

#PRECISE:

- Independent level & pressure adjustment for left and right side of pressure roller
- Level can be adjusted within 0,02mm compared to 0,1mm in standard KFK-E
- Very useful feature for calibration tasks, where materials are thermo-calibrated to a certain thickness

#HOTTER:

- New endless belt technology for higher temperatures and mark free production
- PTFE coated glass fabric belts, truly endless, without marking of a seam
- Temperatures up to 290°C possible.
(Some restrictions apply)



Your partner for digitalizing especially fluid and particle processes

With our simulation software DNSlab, you can generate models of porous filter media, calculate permeabilities, filtration efficiencies and lots more. DNSlab combines Computational Fluid Dynamics (CFD) with the Discrete Element Method (DEM). DNSlab novelties in 2024 are:

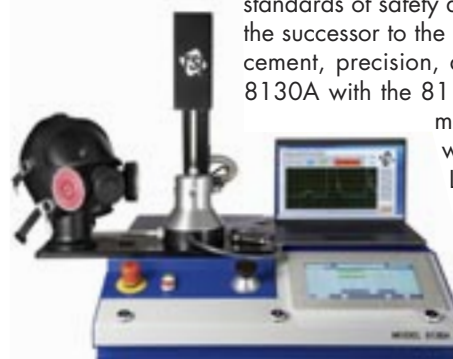
- increased CFD performance: analyze bigger 3D models with same memory
- improved models for CFD-DEM coupling: switch between hard sphere and soft sphere contact model
- new Python interface: integrate DNSlab computations in your python environment

The new Python interface enables you to customize the DNSlab pre- and postprocessing. You can now calculate fluid and particle flow with DNSlab through self-generated 3D models and analyze the results via python code. This enables faster integration of DNSlab in your individual simulation environment.



Discover Confidence in Respirator Integrity with the Respirator Leak Tester 8119A

Whether in healthcare, industry, or any PPE-required environment, the quality of your respiratory protection equipment cannot be compromised. The 8119A, compatible with the Automated Filter Tester 8130A, ensures safety and effectiveness by testing various components like eyepieces, valves, and cartridges. This duo empowers critical post-maintenance tests or whenever doubts arise, ensuring that your respiratory protection equipment consistently meets the highest standards of safety and effectiveness.



A legacy continues with the 8119A, the successor to the original 8119 accessory. Trust its evolution for advancement, precision, and reliability. When it comes to safety, equip your 8130A with the 8119A for peace of mind. Don't compromise on safety; make sure your masks are in proper physical condition with this new Respirator Leak Tester.

Learn more: <https://tsi.news/4cZQ3wq>
Filter Testing Instruments from TSI®

At TSI, we are committed to providing you with the highest quality filter testing devices and support.

Contact us today to learn more about our products and how we can help you ensure occupational health and safety with confidence.

From particles to molecules - New air filter test systems according to ISO 29463 and ISO 10121

Topas is going ahead proving its core competence in air filter testing equipment.

After more than 90 global installations of HEPA and ULPA filter scanners according to EN 1822 and ISO 29463 using x-y traverse systems a new technology for 3-dimensional filter scanning has been developed. This enables leak detection and determination of local filtration efficiencies also at filter cartridges and V-shaped filters. There is almost now limit regarding 3d filter geometries since all required PLC and software programming is done in-house.

A second key project is related to molecular testing of adsorptive HVAC filters according to new ISO 10121 standard. We look back to a long history in molecular filter testing starting in 1998. Based on our experience, skills, and technical creativity we will now design a first commercial test setup for one of our long-term key customers.

There are certain test gas generation and measurement technology synergies that will be applied from a current project on fuel cell intake filters.

Good to know: Our Technical Innovation Center will be available for doing your own filter tests.



Yuanfuxin presents: EGS® Filter Bag

EGS® is an energy-saving and carbon reduction fabric filter bag for dust removal and flue gas filtration, which featured both high filtration accuracy and lower pressure drop of the filter medium. Compared to the conventional membrane-coated filter bag, EGS® has a larger air permeability, a better cleaning effect and a longer service life.

All above features contributed by three core technologies:

- Three-dimensional inter-embedded asymmetric structure
- Deep fibrillated membrane technology
- Deep fibrillation laminating technology

EGS® brings you 4 key values:

Value 1 – Ultra-Clean Emission System, dust emission can reach 5mg/Nm³ under normal working conditions.

Value 2 – Energy-Saving and Consumption-Reduction System, it can save energy by 20%-50% after system upgraded.

Value 3 – Productivity Enhancement System, the production can be increased by 10%-30% after system upgraded.

Value 4 – Reduce Equipment (Renovation) Investment by 10-20%, the filter velocity of the dust collector can be appropriately increased and the life of the filter bag can be extended.

Application industries: Cement, glass, biomass, waste incineration, steel and non-ferrous metal smelting, lithium, industrial silicon, chemical industry, etc.



True ULPA Pure Synthetic Pleatable Filter Media

C&M Filtration Solutions launched the world first True ULPA pleatable PP composite air filter media. It has a filtration efficiency of 99.9995% over 0.1 micron DEHS @5.33cm/sec., with a less than 80pa air resistance (TSI3160) and extremely slow charge decay. All these product properties, make it a very effective filter media to remove Covid-19 and other airborne viruses and germs. Due to its pure synthetic fiber design, the used medium can be disposed through incineration instead of being buried, thus more environmental friendly.



This True ULPA pleatable filter media is good for:

- Room air purifiers
- Vacuum cleaner
- Industrial respirators
- EV car cabin filter
- Any other suitable air filtration applicationsy fossil components.

ANDRITZ introduces decanter centrifuges tailored to challenging industrial oil recovery, for use in both ATEX Zone 1 and 2 areas

ANDRITZ 3-phase decanter centrifuges are not only capable of separating liquid from solid but also liquids with different densities like oil and water. These proven machines have now been further developed and tailored to the recovery of high purity oil from tainted sources such as slop and crude oil, lake, lagoon or tank cleaning and API separator sludge. This is part of ANDRITZ's commitment to conserve resources and protect the environment in partnership with its customers.



Crucially for oil and gas applications, the ANDRITZ decanter centrifuge range includes now both ATEX Zone 1 and Zone 2 machines. This makes them suitable for use in plants where an explosive atmosphere may occur during normal operations. Machine housing seals can be supplied as gas-tight, flame and explosion-proof versions. And many other technical innovations make this machine highly reliable for industrial process.

The latest additions to the ANDRITZ decanter centrifuge range build on more than a century of expertise with more than 30,000 references worldwide and a global network of support and manufacturing infrastructure.

Advanced Automatic Filter Bag Making Machine Line Newly Launched

filter bag tube improved a lot than the last version. For example, the surface of the filter material is flawless when stop for hot welding and PTFE tape sealing, this greatly reduces material waste. Also, the special heating device allows the heating temperature to reach 700 degrees celsius and can be bonded to pure PTFE tape.

Main Functions:

- Automatic sewing function. Sewing speed: 4-10m/min. Sewing diameter: 120-230mm.
- Automatic hot welding function. Welding speed: 8-16m/min. Welding diameter: 90-220mm.
- Automatic PTFE taping function. PTFE taping speed: 4-10m/min. Diameter: 120-230mm.
- Automatic filter bag length cutting function. Max. Cutting length can be 12 meters.
- Equipped with automatic disconnection detection and automatic stopping device.
- Equipped with stripping machine and film cutting collection device, high-power hot air device, high-power cutter motor and tungsten steel blade.
- Equipped with needle cooling function, backlight detection function.
- Equipped with alarm functions such as temperature abnormality, film shortage and abnormal filter bag length.
- Equipped with JUKI brand sewing head and aluminum profile structure.
- Equipped with intelligent centralized control function.
- Especially suitable for woven fiberglass filter bag and PTFE filter bag production.



Metso

Hall 7 K21

Metso introduces upgraded Larox® PF 60 series pressure filter and new machining unit at Filtration Technology Center in Finland

Metso is introducing the upgraded Larox® PF 60 series pressure filter at the opening ceremony of the new machining unit at the company's Filtration Technology Center in Lappeenranta, Finland, on September 11, 2024.

"The new version of the Larox® PF 60 series filter marks a step change in the technological development of tower filters. It significantly improves safety, process efficiency and dewatering capacity in mining and other process industry applications, thanks to its novel technological solutions. This upgraded model is fully automated to enable flexible operation for process variations and is future-ready for different plate pack configurations to provide consistent and homogenous filter cake with efficient solids wash," says Jussi Venäläinen, Vice President of the Filtration business line at Metso.

The Larox® PF 60 series filter is part of Metso's Planet Positive offering, thanks to its advanced features that decrease water and oil usage by up to 90% and 75%, respectively. In addition, it can reduce the need for installed electric power by 25%. The filter has a compact and open design, which translates to less floor space required and a significant improvement in ease of maintenance. The structure has also been upgraded to meet the latest seismic standards. To ensure optimized lifelong performance, Metso offers a comprehensive service portfolio including remote support.



New machining unit brings more capacity and increased quality

Valco Melton

Hall 8 A47

Valco Melton presents at FILTECH: The SmartFoam Series

Valco Melton's SmartFoam Station creates adhesive foam by using a dynamic mixer to combine different types of adhesives with dry air.



This process may reduce adhesive density by up to 50% while maintaining its bonding capabilities. Immediate benefits include important adhesive savings and more eco-conscious operations.

Additionally, foaming improves certain adhesive properties such as open time, wetting, and compression, and increases the contact surface.

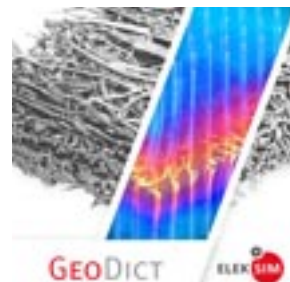
This results in a stronger bond between substrates, even when not compressed immediately after adhesive application.

Math2Market

Hall 8 B26

GeoDict software for advanced simulation of next-generation electret filters

Electret filters are known for their superior filtration efficiency, but research on their improvement faces numerous challenges and complexities: charge stability over time, charge uniformity and distribution of charges.



As a valuable alternative, our cutting-edge FilterDict module of the GeoDict software provides valuable insights into the complex interplay among electrostatic forces, airflow dynamics, and particle behavior, aspects not easily observable or measurable through experiments.

FilterDict capabilities have been enhanced* to perform advanced numerical simulations of electrophoresis and dielectrophoresis, simulations of diverse charge distribution in both particles and fibers, and tracking of surface charge decay in electret filter media over time.

These simulations bring now already the possibility to engineer innovative next-generation electret filter media with different charge distribution methods, structural configurations, and improved charge stability. Unlock the next era of filtration design today!

Lanaco

Hall 8 C31

EcoStatic® wool-based electrostatic air filter media

We are making natural possible in air filtration with our flagship product, EcoStatic®. We combined the unique properties of wool with data-driven proprietary technology, delivering proven efficiency and ultra-low resistance.

EcoStatic® is our high-performing electrostatic filter media, available in a range of weights from 50 to 500 gsm on various support materials, providing the ideal balance of rigidity, pleatability, and versatility. Additionally, the natural properties of wool make our media fire resistant and hydrophobic, preventing water buildup that could clog the filter media.

Many of our products are USDA Certified Biobased under the BioPreferred® Program, which supports the development of biobased solutions that address climate change by offering renewable alternatives to petroleum-based products.

Explore our standard offerings with the EMP-Series, our performance range that is usually the first step for customers to introduce EcoStatic® into their air filter applications.

Contact us today to discover how you can incorporate EcoStatic® into your products.

Email hansol.cha@lanaco.co.nz for more information



AHLSTROM

Hall 7 P2

New high-performance materials for engine air intake filters

We have introduced a new dual-layer filter media technology, which represents a leap forward in filtration and is a perfect solution to comply with future market needs. The dual-layer design offers up to double dust holding capacity compared to the single-layer design, as each layer serves a distinct purpose to optimize the overall retention of particles in the depth of the material. In automotive engine air intake applications, the technology has proven to extend by over 50% the filter lifetime in the same configuration. It also offers the possibility to reduce both size and weight of the filter element in vehicles where these parameters are important.

Dual-layer filter materials are designed to comply with current and future engine air intake specifications, including fuel cells. The media can be customized with flame retardancy properties to increase safety in use without compromising performance.

The technology is highly adaptable and can be extended to filter air and liquid in many other transportation and industrial applications. Let's discuss further at FILTECH, please stop by our booth P2 in hall 7.

#purifyandprotect #innovation
#filtermaterials #filtermedia



BOKELA GmbH

Hall 8 A45

HiBar Drum Filters – The answer to new filtration challenges in battery, minerals and rare earth processing

The electrification of the future is battery driven. Some of the metals and minerals required for electric motors and batteries – like lithium, cobalt, neodym, samarium or other rare earth elements – appear in very low concentration and require intense hydro metallurgical processing. This processing consists of several steps of solid liquid separation with extreme pH-values (<2 or >12), temperatures > 100 °C, intense washing, low moisture, continuous operation etc. Especially washing of solids often ends up in 2-3 steps of filtration with intermediate solids reslurry. This pushes CAPEX for filtration equipment to the high end and puts the realization of projects at risk.



Modern pressure drum filters such as BOKELA's BoHiBar Drum XL18 or XL26 are able to perform a three-stage counter current cake wash with a slurry that is fed to the filter with a temperature of up to 200 °C and solids with a d50 of down to almost 1 micron. The special filter design reaches the target figures with only one filter unit while other filter types like plate or frame filter presses require two filters with intermediate reslurry – or the materials do not allow temperatures of 100-200 °C. Furthermore, the BoHiBar Drum can be equipped with a steam hood to reduce the moisture to a minimum.



The Conference

The FILTECH Conference is the globally acknowledged platform for scientific exchange of the latest research results and knowledge transfer between theory and practice. It provides a representative overview of current research and state-of-the-art developments for filtration and separation targets in a wide range of sectors and covers all relevant subject areas and techniques for the separation of particles from liquids and gases.

More than 200 Technical Papers

An exciting programme gives a representative cross-section of the different procedures and appliances of separation technology as well as across the industry about the applications, from the preparation of mineral raw materials, the chemistry, environmental technology and water purification down to the pharmacy and biotechnology.

For full programme and compendiums of all abstracts visit www.filtech.de

Conference Fees

Early Bird until 30.09.2024
Day-Ticket € 340
3-Day-Ticket € 680
Short Course € 540

Regular Price from 01.10.2024
Day-Ticket € 440
3-Day-Ticket € 880
Short Course € 640
 (all prices including German VAT).



Your Conference Registration includes:

- Proceedings featuring all papers in an abstract book & personalized download-link
- Entrance to the FILTECH 2024 Exhibition & Catalogue
- Refreshments during breaks & lunch/es
- Cologne Public Transport Ticket (November 11-14,2024)

Short Course 1

9:00 am - 6:00 pm

Solid/Liquid Separation

This 1-day Course "Solid/Liquid Separation" is of interest to engineers, scientists, managers and other technical personnel involved in solid-liquid separation in the process and other industries. They will find the course informative, regardless of whether they design, purchase, research or use filtration and separation equipment. Plant engineers, technicians and operators should find the course materials directly applicable, and graduate research students will value the expert introduction to the technologies. It is a comprehensive review of the processes involved in the separation of solids from liquids, which will emphasise practical aspects and present appropriate theoretical information as necessary.



Course Presenter

Dr.-Ing. Harald Anlauf was till March 2020 Academic Director at the Karlsruhe Institute of Technology (KIT), Institute of Mechanical Process Engineering and Mechanics and since more than 40 years active in the field of solid liquid separation technology. He earned his academic degrees as Chemical Engineer 1980 and 1985 at Karlsruhe University. 1999-2006 he was Chairman of the VDI-GVC working party „Mechanical Liquid Separation“, since 2000 Co-Chairman of the FILTECH Congress Scientific Committee. 2004-2008 he was Chairman of INDEFI and President of the 10th World Filtration Congress 2008 in Leipzig, Germany. He published more than 190 technical papers, books etc. and is internationally active in giving consultations and lectures.

Short Course 2

9:00 am - 6:00 pm

Air Cleaning and Dust Separation

This 1-day "Air Cleaning and Dust Separation" Short Course is of interest to engineers, technicians, scientists, managers, and other personnel involved in gas-solid separation in the process and other industries. They will find the course informative, regardless of whether they design, purchase, research, or use dust separation equipment for product recovery, emission control, air cleaning or process gas cleaning. It is a comprehensive review of the processes involved in the separation of solid or liquid particles from gases, which will emphasise practical aspects and present appropriate theoretical information as necessary.



Course Presenter

Prof. Dr.-Ing. habil. Eberhard Schmidt is Full Professor for Safety Engineering/ Environmental Protection at Wuppertal University. His academic degrees he earned 1991 and 1998 at Karlsruhe University. From 1993 to 1994 he was affiliated with the Joint Research Centre in Ispra/Italy. In the years 1998 and 1999 he was with Degussa company in the department of process engineering/ particle technology. He is Co-Chairman of the FILTECH Conference and was Scientific Secretary of 10th World Filtration Congress. He has published more than 100 technical papers, books, patents, etc. and consulted and lectured throughout the world.

FILTECH Conference Session Overview

Tuesday, 12.11.2024

08:30	Registration			
10:15	Opening Session - Welcome Coffee in the main lobby of the conference section from 8 am - 10 pm			
10:45 12:00	PL	Plenary Lecture – Prof. Dr. Liang-Yin Chu, Sichuan University / China Regulation and intensification of mass-transfer and separation processes with micro-/nano-structured functional materials		
Lunch 1st Floor				
	Room 1	Room 2	Room 3	Room 4
13:00 14:15	K1 Keynote Lecture I	L1 Challenges for Improving Sustainability of Filtration Processes	G1 Adsorption I	G2 Filter Test
Coffee Break				
14:45 16:00	K2 Keynote Lecture II	F1 Bio-based Polymers as Alternative for Fossil Based Polymers	G3 Adsorption II	G4 Measurement Techniques
Coffee Break				
16:45 18:00	L2 Particle and Solid Structure Characterization	L3 Numerical Simulation of Solid-Liquid-Separation Processes	F2 Adsorption of Substances on Filter Media	G5 Surface Filtration

Wednesday, 13.11.2024

	Room 1	Room 2	Room 3	Room 4	
09:00 10:15	L4 Discontinuous Pressure and Press Filtration	F3 Trend Towards Sustainable Filtration Technologies	G6 Face Masks	M1 Water Treatment	
Coffee Break					
10:45 12:00	K3 Keynote Lecture III	F4 Sustainable Filter Elements and Media	G7 Indoor Air Quality	M2 Desalination	
Lunch 1st Floor					
13:00 14:15	K4 Keynote Lecture IV	L5 Continuous Vacuum Belt and Pressure Drum Filtration	F5 PFAS-Free Membranes	G8 Energy Efficient Air Filtration	
Coffee Break					
	Room 1	Room 2	Room 3	Room 4	Room 5
14:45 16:00	L6 Short Oral	F6 Short Oral	G9 Short Oral	G10 Short Oral	M3 Short Oral
16:00 16:45	All Poster Presentations in the Poster Section in front of Hall 7				
	Room 1	Room 2	Room 3	Room 4	
16:45 18:00	L7 Reliability of Lab Scale Filtration Tests	F7 Modelling and Testing of Filter Media Properties	G11 Mist and Droplets	M4 Membrane Fouling	

Thursday, 14.11.2024

	Room 1	Room 2	Room 3	Room 4
09:00 10:15	L8 Fundamental Studies on Sedimentation and Filtration Phenomena	G12 Industrial Gas Cleaning	F8 Surface Functionalization of Filter Media	M5 Cross Flow and Back Filtration
Coffee Break				
10:45 12:00	L9 Modelling of Compressible Particle Layers	G13 Modelling and Simulation I	F9 Enhancement of Filter Media Performance	M6 Microfiltration
Lunch 1st Floor				
13:00 14:15	L10 Filtration of heterogeneously composed slurries	G14 Modelling and Simulation II	F10 Electro- and Melt-Spun Filter Media	M7 Ultrafiltration
Coffee Break				
14:45 16:00	L11 Multiple Contaminant Removal and Particle Fractionation	G15 Modelling and Simulation III	F11 Advanced Methods to create Porous Filter Structures	M8 Reverse Osmosis

Programme is subject to amendments. Up-to-date Programme is available at www.Filtech.de



Plenary Lecture – Regulation and intensification of mass-transfer and separation processes with micro-/nano-structured functional materials

Prof. Dr. Liang-Yin Chu,

Membrane Science & Functional Materials Group – Sichuan University / China

Mass transfer and separation processes are important processes in many industrial fields such as chemical engineering, biomedicine and so on. The regulation and intensification of mass transfer and separation processes play a key role in the transformation of traditional technology and the development of new technology. By introducing the response behaviors of smart materials, it is possible to achieve the environmental regulation and intensification of mass transfer and separation processes, and it is one of the frontiers and hotspots in the interdisciplinary researches of chemical engineering and materials, chemistry, medicine and so on. How to construct novel mass-transfer and separation systems to break through the diffusion theory and enhance the membrane separation processes is still challenging in this field. By designing molecular-level structures and micro-/nano-structures...



Keynote Lecture 1 – Membrane technology – New developments, challenges, markets and applications

Prof. Dr. Steffen Schütz,

Stuttgart University IMVT & MANN+HUMMEL, Germany



Keynote Lecture 2 How filtration and separation impact global sustainability

Dr. Wu Chen,

DOW, USA



Keynote Lecture 3 – Formation and separation of flocculated suspensions: Good practices and challenges for laboratories and industries

Dr.-Ing. Pascal Ginisty,

IFTS – Institut de la Filtration et des Techniques Séparatives, France



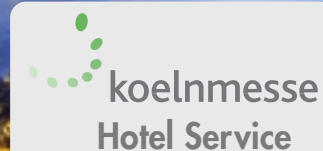
Keynote Lecture 4 From process to operation: Digital twins for filtration

Dr. rer. nat. Ralf Kirsch,

Fraunhofer Institute for Industrial Mathematics ITWM, Germany



Travel & Accommodation



Find, compare, and book at your hotel with the online portal of the Koelnmesse Travel & Hotel Service. Make your online hotel accommodation reservation easily, securely and profit from favourable prices:

The Koelnmesse Travel & Hotel Service does everything to make your stay at **FILTECH 2024** as pleasant as possible. Use their experience and profit from particularly favourable prices.

For assistance please contact:

Ms. Sara Langiu-Kollack
Koelnmesse Travel & Hotel Service
Phone: +49 (0)221 8212087
E-mail: s.langiu-kollack@koelnmesse.de

For online booking visit:
www.filtech.de → plan your trip

FILTECH 2024 will be held again at the venue Koelnmesse in Cologne. Due to Koelnmesse's central location, which is conveniently situated for all transport links, visitors can quickly reach the exhibition centre by car, train and plane.

Train travel time from Airports to Cologne

From **Frankfurt Airport (FRA)**: → Approx. 50 min.

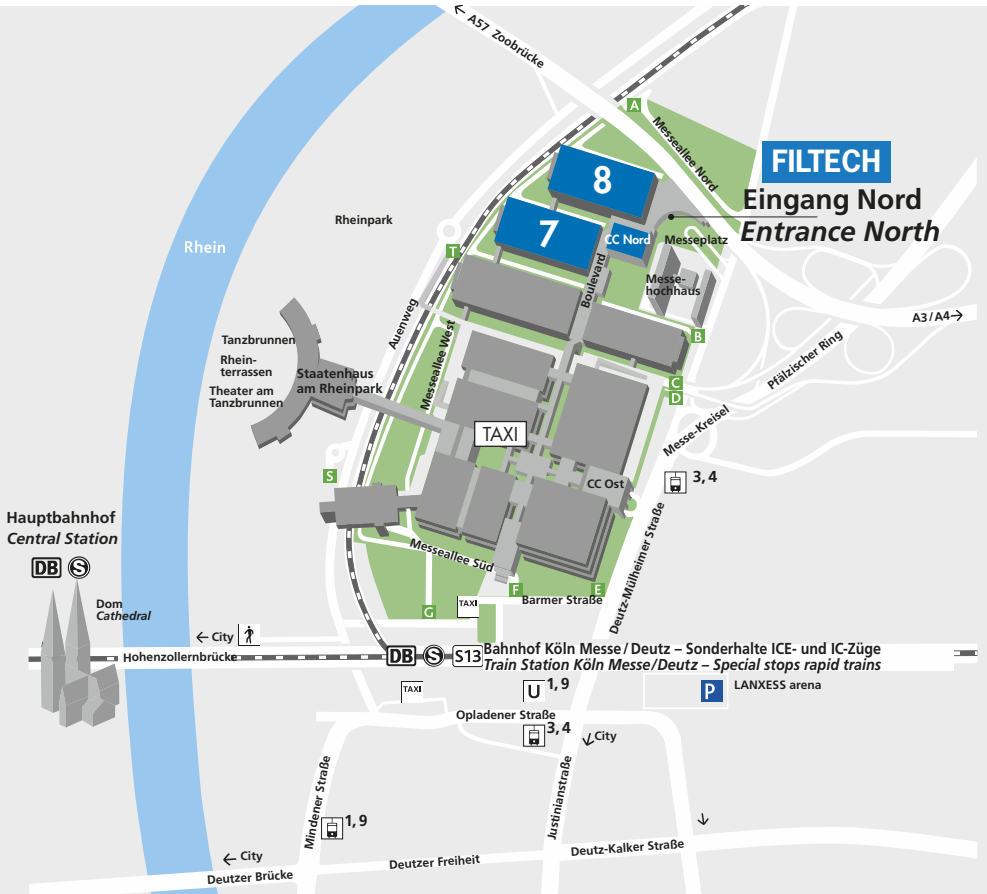
From **Cologne-Bonn Airport (CGN)**: → Approx. 12 min.
with train line S13 – Ticket Category 1B

From **Düsseldorf Airport (DUS)**: → Approx. 45 min.



FILTECH 2024

Koelnmesse · Cologne · Germany



Opening hours Exhibition

November 12 -13 9 am - 6 pm
November 14 9 am - 5 pm

Koelnmesse – Halls 7+8 – Entrance North

Messeplatz 1
50679 Cologne · Germany

Visitor Tickets

Registration until 12.10.24

1-Day Ticket: 20,00 €

2-Day Ticket: 25,00 €

3-Day Ticket: 30,00 €

from 13.10.24

1-Day Ticket: 40 €

2-Day Ticket: 45 €

3-Day Ticket: 50 €

Pre-register at www.filtech.de
and have fast track entry to
the exhibition