

INDA's e-Filter Newsletter

The Filtration Industry's Information Hub

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Welcome to e-FILTER, sponsored by INDA, Association of the Nonwoven Fabrics Industry (www.inda.org). It is sent every other month to executives within the global filtration business and focuses on the latest news, new products, patents, legislative issues and commentary in the filtration industry. Check out the information at the end of this newsletter on how to subscribe or submit your company's information for inclusion.

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FILTRATION 2008 SET FOR DECEMBER 9-11 IN PHILADELPHIA

A number of special events – including two keynote presentations, an Industry Reception and the annual Best Booths Competition – will help to make Filtration 2008 next month the largest, most important gathering of the global filtration industry of the year.

Filtration 2008, organized by INDA, Association of the Nonwoven Fabrics Industry, will take place December 9-11 at the Pennsylvania Convention Center in Philadelphia, Pa., and is expected to attract more than 1700 filtration professionals from around the globe.

Among the highlights of Filtration 2008:

- ❑ The annual Best Booth Competition, which will recognize the most creative and attendee-friendly booths in both the Large and Small Booth categories. The recipients will be announced in the Day 2 issue of the Daily Filter, the official Show Daily newspaper of Filtration 2008.
- ❑ Two important keynote presentations that will focus on corporate sustainability and innovation. See item below for details.
- ❑ A Networking Reception will be held Wednesday, December 10, from 4-5 p.m. on the show floor. The reception is sponsored by Ahlstrom, Filtration Group, Johns Manville and PGI.
- ❑ A Hot Topics Session on Tuesday, December 9, that will focus on issues and technologies vital to the global filtration business.

For more information: <http://www.inda.org/events/filt08> or Marilyn Bellinger, 919-233-1210, ext. 118, mbellinger@inda.org.

FILTRATION 2008 EXHIBITORS CAN GET FREE PRESS IN DAILY FILTER

All exhibitors at Filtration 2008 in Philadelphia next month can get free publicity in the Daily Filter, the official Show Daily newspaper of Filtration 2008. Exhibitors should send a press release or information on what they are highlighting at Filtration 2008 – along with a photo if available – to editor Michael Jacobsen at [mjacobson@inda.org](mailto:mjacobsen@inda.org); 201-612-6601.

Deadline to submit information is November 20.

FILTRATION 2008 KEYNOTE SPEAKERS TO EXPLORE SUSTAINABILITY AND IMAGINATION

The growing importance of corporate sustainability and an emphasis on innovation are the subjects of two keynote presentations at the Filtration 2008 International Conference & Exposition in December.

In his keynote presentation “The DuPont Sustainability Commitment and Its Implications for Filtration,” Barry M. Granger, Vice President and General Manager for DuPont Nonwovens, will explore DuPont’s commitment to Energy Sustainability, report on the success of its efforts to date, explain DuPont’s goals for the future and report on how DuPont’s goals tie specifically to filtration.

Granger’s presentation will take place on Thursday, November 11, at 9 a.m.

In a second keynote address, Feilim Coyle, General Manager of GE Energy, will explain how GE Energy’s Environmental Services business focuses on innovation as a leading global supplier of air quality solutions to power generation and industrial plants. He will provide several examples of how GE’s filtration products are being applied in such diverse applications as coal-fired power generation, cement production, steel production, primary aluminum, carbon black production, and gas turbine inlet filtration.

His keynote presentation is scheduled for Wednesday, December 10, at 9:15 a.m.

The keynote speeches are just two of dozens of world-class presentations that will be offered during the Filtration 2008 Conference. For a complete list of the updated schedule go to <http://www.inda.org/events/filt08/index.html>.

In addition to the three days of technical sessions, Filtration 2008 includes two days of Expositions that will feature more than 110 exhibiting companies from every link in the filter supply chain. There is limited exhibit space remaining and companies wishing to reserve their space should contact Marilyn Bellinger, INDA, 919-233-1210 Ext. 118; mbellinger@inda.org

FILTRATION PRODUCT TO BATTLE WITH FOUR OTHER FINALISTS FOR 2009 VISIONARY AWARD

Five consumer products – including a novel filter media -- have been nominated as finalists for the prestigious 2009 Visionary Award.

Now in its eighth year, the Award - which is given annually to a new consumer product that utilizes nonwoven fabrics in its final form - will be presented at the VISION 2009 Consumer Products Conference, January 26-29, 2009 in New Orleans, La. The finalists will make presentations during VISION 2009 and conference attendees will vote on the recipient of the 2009 Visionary Award.

“The vital role nonwovens continue to play in a host of consumer products is clear in the quality of these five finalists, which were selected from almost two dozen nominations from around the world,” says Visionary Award Chairman Michael Jacobsen, of INDA. “They represent the most significant advances in incorporating nonwovens technology into consumer products and they are being recognized not only for their technical attributes, but for their novel use of nonwoven fabrics as well.”

The five finalists are:

1. Ahlstrom Disruptor nanoalumina fiber, nonwoven water filter media
Disruptor is a nonwoven, wet laid filter media that is based on nanoalumina fiber technology. Disruptor offers many benefits for consumer product water purification products, including refrigerators, tap filters, shower filters, counter top filters, under sink filters, prefilters to home reverse osmosis (RO) filters, water pitchers, water coolers and spa filters.
2. Back Enterprises, Germy Wormy Sanitary Sleeve
The Germy Wormy Sanitary Sleeve is a kid-friendly, easy-to-use disposable product that captures germs by teaching children to cough and sneeze into their elbow in a fun way. The product is comprised of a nonwoven laminate containing multiple elastic filaments for the cuffs, an inner layer of breathable film and an outer layer of spunbond polypropylene.
3. Kimberly-Clark, GoodNites Sleep Boxer for Boys and Sleep Shorts for Girls
GoodNites give children comfortable protection that looks and feels like everyday sleepwear. They are designed to help protect, with customized protection zones for girls and for boys.
4. Rotano International, Nooby's Booties Disposable Dog Boot
These disposable dog booties are made from spunbond polypropylene and polyethylene and are marketed to fill a gap in the market as a disposable dog bootie. It comes in two versions - a Disposable Dog Bootie for Wet Conditions and one for Dry Conditions.
5. WearOnce.com/Tredegar Consumer Designs, Inc., Once Single-Use Panty
Created for the modern woman and introduced in late 2007, the Once single-use panty with a breathable, soft, stretchy and stylish fit feels like any other panty, but with one big advantage - it is worn once and then discarded. It is made from a breathable, soft, and stretchy nonwoven with comfortable leg and waistbands and a cotton gusset.

Last February at VISION 2008 in San Antonio, Tex., Kimberly-Clark's Spa Sensials personal care treatment received the 2008 Visionary Award over five other finalists. Other previous recipients include Tyco Healthcare Retail Group's Swim Pants (2008); Chicopee's Disaster Relief Blanket (2006); Fiberweb's Resolution Print Media (2005); Church & Dwight's Brillo Scrub 'n' Toss (2004); FMJ ChemBio's Civilian Quick Escape Mask (2003); and Procter & Gamble's Swiffer (2002).

For more information on VISION 2008: www.inda.org

FILTRATION 2008 EXHIBITOR PREVIEW

Because Filtration 2008 is set for Philadelphia next month, this issue of e-Filter provides a preview of what some exhibitors will be highlighting during the two day Expo.

Air Techniques International is involved in testing equipment for specialized air filters and masks. Since 1961, the company has enabled its customers to improve product quality, ensure worker health and safety and comply with stringent testing standards and regulations for filtration of airborne particulates as a resource for government, military, nuclear, and commercial industries. ATI's ISO-9001, NQA-1 laboratory is the only Department of Energy certified and audited filter testing facility in the world.

Through its line of testing equipment, ATI offer solutions for virtually any filtration application. It designs and manufactures products that range from small, compact equipment used for portable filter and respirator testing to the industry's largest testing systems, used by global manufacturers, laboratories and end-users to test everything from filter media to process air.

In addition to its commercial products, ATI offers in-house filter and mask testing services for customers who want an economical outsourced solution.

BEOT Sinter Metal Filters is a manufacturer of sintered metal filters as well as a designer and installer of complete sets of fluid equipment in China. BEOT offers a range of standard materials for filtration and fluidization and also offers filter elements with a variety of end-fitting configurations and filtration ratings from 0.5 to 200 microns.

Its materials are available in alloys ranging from 300 Series stainless steels (ss316L, 304) to Monel 400, Hastelloy C-22, phosphor bronze and other metals and alloys.

More than 20 years of experience in the sintered porous metals industry makes BEOT qualified in the production of application-specific sintered metals. The company passed the authentication of ISO9001 International Quality System and ISO4001 International Environmental Authentication. It currently sells into the U.S., Western Europe and Southeast Asia. Its sintered metal filters have been widely used in various industrial fields, including petrochemicals, chemicals, pharmaceuticals, electronics, environment, brewing, foodstuff and beverage, especially used in catalyst recovery and hot gas filtration.

Blue Heaven Technologies has developed a high temperature duct to test air filters at temperatures up to 300 degrees F (149 C). Filters can be tested at full flow, up to 4000 CFM with pressures to 25 inch w.g. The new duct is designed with observation ports to allow visual inspection of the filter throughout the test. Any deformation, buckling, or degradation can be observed and measured via a laser detection system.

Real world conditions can be simulated by running the duct at the desired temperature and flow for any period of time to determine the long term effects.

Coats has 40 manufacturing locations with distribution in over 70 countries. The company will be highlighting its filtration threads at Filtration 2008. Included in its product and service line-up: Bobbins — Ready-Wound; Thread — Aramid; Cord; Core; Fiberglass; Filter Bag; High-Temperature; Nylon; Nylon Filament-Bonded; Poly-Cotton; Polyester; Polyester Filament Bonded; Polypropylene; PTFE; Ready-Wound; Bobbins; Twine. Its trade names include Aptan, Barbobs, Belbobs, Dabond, Gral, Nymo, Nymo UVR, Polymatic, Star and Ultra Dee.

Dimatra slitters/rewinders are supplied up to 4.5 m wide. A slitter/rewinder can help reduce inventory of roll goods, optimize freight costs, save space in the warehouse, reduce time in purchase orders handling operations, reduce cost of raw materials, solve minimal special requests and avoid having to deny products to clients.

This is why Dimatra decided to scale its 2.6 m wide slitter/rewinders design up to a 4.5 m and now offers customized characteristics ranging from the simplest to the most sophisticated features depending on the type of material that will be converted and quality of the input rolls.

The decision of where to locate the slitters must be the result of an analysis of three aspects: the structure of the distribution chain, the role a company plays and the size of the company. Other equipment required to complete the converting processes at this stage — core cutters, rolls, palletizers and roll turnovers — can also be provided by Dimatra.

For more than 30 years **D-Mark** has been specializing in the manufacture of activated carbon air filters and specialized filter media for the control of fumes, odors and gaseous pollutants.

CarbonWeb Filter Roll Medias from D-Mark are sold in 50 foot to 200 foot rolls and a variety of widths, suitable for die cutting, pleating or sewing. Carbon loadings of 15 to 90 grams per square foot (equivalent to 160 to 960 grams/square meter).

In the last year, there have been many developments at **Edelmann Technology**. First, ownership changed in July 2007 when Jesús López Marin, new owner and CEO, took over Edelmann Maschinen and in order to emphasize the future direction of the company, the name was changed to Edelmann Technology GmbH.

Little time was taken in developing and launching the latest inline slitter winder. Edelmann has many years of experience with inline slitting and winding, having launched the first non-stop in line winder for the nonwovens industry in 1972.

In addition to the new inline developments, Edelmann Technology has developed a fully automatic spacer-free core cutting and positioning system.

This system allows a single offline slitter/winder to work more efficiently, negating the need for a second slitter/winder in high speed applications.

The M640 inline slitter winder is characterized by robust steel plate side frame construction, mechanically designed for winding and slitting nonwovens up to 1000 m/min in line, high quality winding through rider roll control, lateral guiding and new roll changing system and finished slit rolls in excess of 1500 mm diameter.

The M640 is designed for the easy integration of the Andritz Kusters nextect system, Dienes Werke fully automatic slit width adjustment and service life check as well as full integrated packing systems from Jürgens Maschinenbau GmbH.

A 4800 mm wide M640 is available in house at Edelmann Technology for such trials and demonstrations.

Edelmann Technology also offers a line of narrow width slitter/rewinders for rewinding, reworking, splicing and special slitting. These units are typically 1.2 m wide and come in a number of layouts depending on customer requirements.

Enka Tecnica offers a range of services for spunbond and meltblown spinnerets to assure optimal performance. Months or even years of operation wear out spinnerets, which in turn reduces the quality of the end product. The repair, overhaul, or in some cases the optimization of a spinneret, returns it to a nearly new condition.

Enka Tecnica offers the following services for repair/overhaul of spunbond and meltblown spinnerets:

- Preventive maintenance (grinding/lapping of spinneret faces, recalibration of capillaries)
- Repair of damage to capillaries or spinning plate
- Modification and optimization of the spinneret, adding or blocking holes
- Inspection and overhaul of meltblown dies

Fi-Tech is a manufacturer's rep serving the nonwovens industry. Together with its line of producers and products, Fi-Tech is able to offer nonwoven fabric manufacturers a one-stop source for machinery and components.

Fi-Tech's product line includes Reifenauser Reicofil spunbond and meltblown lines; Edelmann winding and slitting systems; Fleissner spunlace lines and dryers/ovens; Enka Technica spinnerets, die tips and jet strips; Mahlo web gauging and monitoring systems; and Ungricht engraved bonding and embossing rolls.

Filtration Technology Systems specializes in filter production equipment and in the past year has developed a Servo Driven Pusher Bar Pleater for HVAC pleat production. Utilizing Mitsubishi Servo, PLC and Operator Interface, the changeover time for going between pleat heights is greatly reduced and pleat speeds on the taller heights is greatly increased.

Other features built into the program sense media thickness and automatically adjust for the thickness. This is just one of many features built into this new state of the art pleater.

Fleissner is a system supplier within the Trützschler nonwoven organization. While the company specializes in supplying machinery for spunlacing, thermal bonding, chemical bonding and general finishing processes such as impregnation and drying, sister company ERKO brings technically advanced equipment for fiber opening, blending, carding, airlaying and needle punching processes to the table.

The two companies form a natural team by complementing each others' product portfolio.

Also from Fleissner, the MiniJet was developed to serve both as laboratory line or as machine for beginners in the market. It is now standardized at machine widths of 1000 mm and 500 mm and commercially available at attractive costs. The main features are operating pressures of up to 400 bar and speeds up to 55 m/min. It is built as skid mounted system, hence minimizing installation costs at site.

Also from Fleissner is the High Speed Foam Foulard that may revitalize the demand for resin bonded products since it speeds up the process from 60-70 m/min to 200 m/min. This is achieved by the integration of a small hydroentanglement step for prebonding prior to running the material through the foulard. It offers speeds up to 200 m/min; higher tensile strength of the web, better distribution of the binder in the dewatered moist web and less binder pick-up necessary due to pre-entanglement of carded webs

Herrmann Ultrasonics has introduced an approach to solve challenging applications in ultrasonic cut and seal applications, which are typically limited in their usage due to anvil wear and inconsistency in results. Producers of fabric and film products used in the medical, filtration, consumer or rolled good industries have had to settle with using a two step process of heat and die cut to achieve desired results.

Conventional use of ultrasonic ground detect uses an electrical signal from the controller or generator to the anvil to detect the grounding of the sonotrode against the cutting anvil. This requires isolation of the anvil from the rest of the machine, and only led to marginal improvement of cutting results.

In a plunge weld mode, a standard cutting die is mounted on the new cutting module from Herrmann Ultrasonics. This cutting die can have a length of up to 250 mm or a two dimensional shape contained within an approximately 75 mm x 250 mm area. If a seal pattern is required in addition to the cutting, a fixed anvil can also be mounted in conjunction with the cutting module. The cutting module is a new standard component that can be retrofitted to most cut and seal applications. Immediate results can be realized as the cutting module is easy to set up and only requires a supply of compressed air.

The Rotosonic Ultrasonic Welding Machine from Hermann Ultrasonics, with its rotary technology, allows the manufacturing of welded seams that can be water and air tight. Ultrasonic bonding can be up to 10 times faster than sewing or gluing processes. The Rotosonic can also be equipped to cut fabric while sealing the cut edge to prevent material from fraying or unraveling. Applications include medical blankets, boat covers, tents, outdoor wear, protection clothing including body armor, lingerie, furniture, technical fabrics, geo-textiles, filters and many more.

To prevent material drift and bulking during the bonding process, the Rotosonic is equipped with a Rotary Sonotrode and a rotating anvil wheel. The material is pulled through the welding gap tangentially and is easy to guide. In addition, this technology will also reduce the risk of 'over-bonding' and 'burn-through' while only requiring minimum operator training.

Plastomer Technologies will be showcasing its Plastolon PTFE thread, a fiber of choice for industrial filtration sewing applications, at Filtration 2008. Plastolon thread offers the durability, strength, and chemical resistance required to create the filtration dust bags, cartridges and other sewn filtration media.

Made from monofilament expanded PTFE fibers, the product offers less abrasiveness than other materials, is chemically inert, and offers low flammability. This ePTFE thread will not degrade in high temperatures, withstanding from -250 degrees C to 260 C, and is naturally hydrophobic. Plastolon thread maintains durability in prolonged harsh environmental conditions and is non flammable making it the ideal thread for filtration applications.

Plastomer Technologies, an EnPro Industries company, manufactures a variety of specialty PTFE products, including tapes, fibers, films, and shapes. Plastolon thread is offered in a variety of sizes and formats to fit a custom requirements.

Precision Filtration Products offers custom OEM filter design and manufacturing, portable filtration systems, filter carts, filter housings, cartridges, bags, discs, panels and all media types. It is a distributor of all major brands and offers emergency filter rental units for all types of applications.

PFP is presently educating its customers on the economic importance of fluid cleanliness. The company offers a variety of filtration systems and vacuum dehydrators designed to achieve critical ISO Cleanliness Codes.

Its Portable Filter Carts are designed by a Certified Lubrication Specialist. They are for high-viscosity lubrication and hydraulic oils and can be used for filtering new fluids during transfer and replenishment, as well as, filtering fluids currently in service. Two stage filtration offers the advantage of removing both particulate and water contamination.

PFM also offers Platform Mounted Two Stage Filtration Carts for higher flow rates, Coolant Filter Carts for metalworking applications, Panel Mounted Units, Fountain Solution Systems, and a new Drum Top Filtration System designed to sit securely on a 55 gallon drum.

When it comes to sealing and sticking in the automotive industry, this year's focus at specialist trade fairs is on energy and resource saving. Following this trend, **Rampf Giessharze** is introducing the RAKU PUR brand PU-system for sealing oil and hydraulic filters, which not only saves time but also energy in relation to conventional production processes and thus effectively increases productivity.

The delayed thixotropic effect of the newly developed system RAKU PUR 80-2464 makes it possible. The entire production time of a filter element with two filter end-caps now only takes about 50 seconds. Already 25 to 30 seconds after sealing one side, the end-cap can be turned without the sealant material running or dripping. No additional heat is necessary for hardening so that parallel to fixing the first cap the sealing process for the second end-cap can take place on the end of the filter.

With RAKU PUR 80-2464 it is possible to save time and energy. This emphasizes the economy of the material, which also corresponds to the further higher demands of the automobile industry. Good resistance against chemical influences as well as against mineral and hydraulic oils, diesel, glycol and synthetic esters is also an advantage, as is the good and direct adhesion to different end-cap materials, such as PP, zinc or sheet metal.

Reicofil has unveiled developments in the production of meltblown fabrics for filtration applications. As a technology supplier to the nonwovens industry, Reicofil has focused its efforts in R&D to meet the growing requirements for improved filtration fabrics.

With the development of Reicofil's new meltblown system the company has provided improvements in fiber spinning and stretching, leading to improved fabric qualities. The physical properties of the web determine the filtration characteristics such as absorption, filtration efficiency, barrier properties, etc. These parameters can be adjusted to suit individual needs by means of changing the pore size, fabric loft, or fiber diameter. The new system provides control of all manufacturing variables, allowing the production of finer filaments

Recruiter Solutions International offers professional recruitment services for the filtration industry. Dan Regovich and Lisa Sprowls are professional recruiters that service the filtration and related industries. Searches are performed on many levels of employees within several disciplines, which include, but are not limited to, sales and marketing, manufacturing, HR, purchasing, accounting and finance, quality and engineering.

Sealant Equipment & Engineering is introducing its Servo-Flo 608 meter system designed to meter mix and dispense two-component materials for high

speed filter end cap molding applications. This unique meter design has two new features designed for the filter manufacturing industry.

A new positive rod displacement design eliminates the normal reload cycle of a standard rod displacement meter system and maintains the precision metering and long life features of positive rod displacement. This design allows the meter to dispense large volumes of material without reloading.

The Servo-Flo 608 meter also has dual servo drive motors in its design. This new design feature allows the manufacturer to dial in the material ratio with precision, which is especially important for users that want to use more than one material formulation in the dispensing system.

This new servo-drive meter is engineered to dispense materials such as two-part silicones, epoxies, urethanes, in temperature-controlled robotic and manual dispensing applications. The meter is engineered to handle virtually all mix ratios of two-component end cap material formulations.

The Servo-Flo 608 meter is also available as part of a complete turnkey automated dispensing system for molding filter end caps. Automated dispensing provides precise and repeatable dispense volumes, improves production rates and product quality and reduces manufacturing costs in filter end cap molding applications.

Shanghai Feng Cheng Machinery Engineering Company will be displaying its most advanced knife pleating machine at Filtration 2008. Its advantages include higher efficient and much more accurate to adjust the pleat height, as all specifications can be set on the PLC. It can produce W, M, V, W and pyramid shape pleat and can produce multiple layers of materials on one machine.

During recent years, the company has developed a series of machines to meet the different demands from customers. For HEPA filters, big air filters, hydraulic filters, Toyota filters, it has developed kinds of relative equipments.

Fine MicroEtch Screens from stainless steel are manufactured by Tech-Etch using photoetching technology. Photoetching enables designers to specify a straight hole or a tapered hole, which facilitates liquid filtration and back flow cleaning. Hole sizes range from .003 inches and up.

Unlike stamping, photoetching yields a burr-free product that results in cleaner, more efficient screens with greater material integrity. These superior quality screens feature a tighter tolerance on hole sizes and greater dimensional stability than woven wire mesh. This makes them ideal in applications requiring frequent cleaning or in devices where there is mechanical contact. Unlike woven wire mesh screens, the fixed photoetched openings will not change through use.

Typical applications of MicroEtch Screens are filters used in the medical market, hydraulic valve screens, fuel filters, laser light filters, extruding screens, as well as particle separation and sizing. These tight tolerance screens

are primarily produced from stainless steel, but other materials are available. Tech-Etch, Inc. offers a standard line of screens with holes in a 60 degree or 90 degree pattern that are available with a maximum guaranteed perforated area of 18 x 21 inches.

Established in 1892, **Ungricht** has more than 100 years of experience in roll manufacturing and engraving technology. Through a long history of continuous development and investment in new technology, Ungricht is today one of the few companies in the world that can offer a full service for roll manufacturing and engraving.

Ungricht's product offering to the nonwovens industry includes thermal bonding calender rolls, embossing rolls, coating rolls, heated rolls, cooling rolls, smooth rolls, calibrating rolls and ultrasonic anvil rolls - all supported by a huge library of more than 20,000 engraving patterns.

Just this year, Ungricht supplied the world's largest engraved calender roll to the nonwovens industry. In addition, Ungricht has developed a technology for the engraving of calender rolls as well as a radiation treatment to improve the release properties of calender rolls.

THAT'S ALL, FOR THIS MONTH ...

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Any company with news for the INDA e-FILTER Newsletter, or any individual with something they want to say to the industry, should send an email to Michael Jacobsen, INDA, at mjacobsen@inda.org; 201-612-6601; Fax 201-612-6677.