



Products & Services

PITA CORPORATE SUPPLIER MEMBERS

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The Paper Industry Technical Association (PITA) is an independent organisation which operates for the general benefit of its members – both individual and corporate – dedicated to promoting and improving the technical and scientific knowledge of those working in the UK pulp and paper industry. Formed in 1960, it serves the Industry, both manufacturers and suppliers, by providing a forum for members to meet and network; it organises visits, conferences and training seminars that cover all aspects of papermaking science. It also publishes the prestigious journal *Paper Technology International* and the *PITA Annual Review*, both sent free to members, and a range of other technical publications which include conference proceedings and the acclaimed *Essential Guide to Aqueous Coating*.



ABB ADDS NEW FEATURES TO ITS WEB IMAGING SYSTEM

Full Sheet Formation Analysis and Real-Time Wrinkle Count will help pulp and paper makers achieve optimal results.

Technology leader ABB launched two new features as part of its Web Imaging System, designed to help manufacturers deliver on-specification paper as part of ABB's commitment to providing end-to-end integrated solutions for the pulp and paper industry.

For fine paper and paperboard manufacturers seeking to optimize printability of their end product, reduce rejects and achieve consistent output quality, Full Sheet Formation Analysis provides conclusive, highly visualized measurement of paper uniformity for the full web. Aiming to redefine the standard of measurement accuracy, this patent-pending new feature offers deeper and more precise analysis of formation, helping papermakers better optimize established paper properties to achieve higher quality goals.

While traditional measurement techniques only look at a small portion of the web and may not reveal the floc sizes or shapes, ABB's full sheet solution leverages proprietary methods, processing parallelism, and the flexibility of the FPGA (field-programmable gate array) based smart camera platform to reveal and classify paper formation floc sizes and shapes. This greatly improves the ability to determine the uniformity of paper formation, while removing the possibility of misleading results.

For linerboard and liquid packaging manufacturers that require accurate detection and analysis of wrinkle formation, Real-Time Wrinkle Count provides online measurement and analysis of all paper web-based products. The new feature is the only system available for pulp and paper manufacturers that identifies wrinkles and aggregates the data to easily reveal problems across the web in real time, giving papermakers a competitive edge on maintaining quality.

The feature captures up to 1.4 million wrinkle defects per camera without overloading the system and sends alerts when KPIs are outside of user-defined thresholds. It then aligns defect maps to sample machine or cross direction location. It provides highly consistent results, enables precise laboratory correlation, allows for better management of the process, and reduces the amount of rejects.

"The launch of these two powerful new features demonstrates our continued investment in our Web Imaging System and reinforces our commitment to helping papermakers achieve the highest quality in their product output," said Stephen Mitchell, Product Manager, Web Imaging at ABB. "We are determined to push the industry forward with the development of new measurement techniques that use the most advanced technology to make online quality control easier to achieve."

Real-Time Wrinkle Count and Full Sheet Formation Analysis are part of the ABB Ability™ Quality Management System integrated solution suite consisting of products, services and applications for quality control. ABB's web inspection system, with formation analysis and/or wrinkle count features, will deliver actionable information to ABB's QCS (Quality Control System) and DCS (Distributed Control System) systems, based on industry-leading ABB Ability™ System 800xA, enabling process alarms and quicker corrective actions to quality issues.

<https://new.abb.com/news/detail/36344/abb-adds-new-features-to-its-innovative-web-imaging-system-to-help-paper-makers-enhance-quality>



ABB LAUNCHES WINDER PERFORMANCE OPTIMIZATION SOLUTION

ABB's patented solution optimizes winder performance for improved availability, product quality and asset life.

Technology leader in digital industries ABB introduces Winder Performance Optimization, a digital solution for papermakers seeking to maximize asset performance, convert to different paper grades and/or increase machine speed, without replacing existing winders. The new solution works by benchmarking winder performance, implementing improvements, monitoring to sustain performance and—uniquely—further optimizing productivity by applying online calculations that continuously adjust winder acceleration and deceleration targets. This optimization aligns capacity to demands and can improve productivity significantly; recent implementations have provided 8 percent improvement.

The benefits of optimizing existing winders are many. The solution is cost-effective and easy to implement – requiring limited or no shutdown of the winder. Bottlenecks caused by larger, faster machines in the production process can be reduced and winder capacity maximized without compromising quality. KPIs are continuously monitored and analyzed to enable preventive maintenance and increased uptime. In regenerative mode, the solution feeds energy back into the system while decelerating winder drives, enabling mills to be more energy efficient.

“We understand the importance for papermakers to ensure their existing winders are able to handle demands of different grades, various roll orders with high quality and productivity improvement needs,” said Shankar Singh, global product manager, ABB Digital Solutions. “Our goal with this product is to help mills get improved productivity out of their existing winders, without the need to invest heavily in new equipment. With several existing installations around the world, we are pleased that papermakers are already realizing the benefits of improved winder performance and productivity by utilizing our patented solution’s unique ability to continuously adjust winder speed.”

Further advantages of ABB Winder Performance Optimization include the ability to monitor and improve roll set quality, and improved utilization of machine reel capacity. Local and remote dashboards enable instant, straightforward data visualization, with advanced analytics and daily analysis of performance, control (speed, load share, tension) and roll set performance carried out by ABB experts. Customers also benefit from configurable alerts to highlight performance falling outside site-specific thresholds.

ABB Winder Performance Optimization is part of ABB Ability™ Performance Optimization solution suite, whose offerings focus on maximizing equipment and process performance to ensure efficient operations. The Ability™ platform enables structured monitoring and analysis of KPIs and drives system performance to make sure the winder productivity is maximized.

For further information on performance optimization for pulp and paper, please visit: <https://new.abb.com/pulp-paper/abb-in-pulp-and-paper/collaborative-operations/winder-performance-optimization>



ABB'S NEW DODGE® SAFETY MOUNT SPHERICAL ROLLER BEARINGS

Dodge® Safety Mount spherical roller bearings with patented built-in mounting system substantially cut installation time and improve safety and productivity

ABB has launched Dodge® Safety Mount spherical roller bearings with a built-in patented locking mechanism that reduces installation time by up to 75 percent compared to traditional products. Best suited for bulk material and air handling applications, the new bearing mounts by tightening fasteners instead of using a hammer and other tools. The new system also allows for simple installation and removal from the same side of the bearing, which means only one person is needed for the task.

“The new mounting system replaces the blows of a hammer with the tightening of fasteners,” says Jim Madsen, Dodge Mounted Roller Bearing Product Manager, ABB. “It also makes it faster to install large bearings, but more importantly, it makes it safer for the installer.”

Safety Mount bearings feature a triple-lip contact seal and corrosion-resistant flinger sealing system which prevents contamination from entering the product during installation and operation. A labyrinth seal option is available for high-speed and high-temperature applications.

Dodge Safety Mount spherical roller bearings are suitable for use with the ABB Ability™ Smart Sensor for mounted bearings, an easy-to-use, wireless sensor that monitors the health of bearings.

Dodge Safety Mount bearings combine the advantages of the Dodge Imperial family of bearings: factory sealed and greased, shaft ready out of the box, with no feeler gauges required. They are offered in split cap and single piece housing options in standard SAF, metric SN, Type E, and Imperial housing dimensions in sizes 4-15/16” to 7” (115 mm to 170 mm).

<https://new.abb.com/news/detail/26053/abb-dodge-safety-mount-spherical-roller-bearings>





NEW ANALYTICAL TRANSMITTER (AWT210)

Analytical transmitter with plug-and-play technology offers cost-effective and future-proof solution for industrial pH and conductivity measurement.

ABB has taken an innovative approach to transmitter design with its new AWT210 single-channel two-wire transmitter for measurement and control of pH, redox (ORP) and conductivity in hazardous and non-hazardous industrial applications. The modular design reduces process downtime and overall operations expenditure while improving safety and boosting performance by optimizing plant control and availability.

The low power high-performance transmitter is built around single sensor interchangeable modular plug-and-play technology. This means that a major benefit of the AWT210's modular design is its ability to handle future sensor technologies such as ABB's digital EZLink sensors. By simply upgrading the transmitter with the necessary module, operators can avoid the cost and time of purchasing and installing new transmitter units.

Operational simplicity is at the heart of the AWT210. Based on ABB's common intuitive HMI, users can easily navigate the device. Easy setup menus provide step-by-step guidance and routine calibration tasks can be initiated at a touch of a button.

The AWT210 pH and conductivity systems ensure optimal safe performance in the harshest of applications. This combined with greater user flexibility and environmental compliance make them ideal for the oil and gas, pulp and paper, metals and mining and chemical and petrochemical industries.

The highly flexible transmitter design enables the same unit to be used with pH, redox (ORP) and ion-selective sensors as well as two- and four-electrode and toroidal conductivity sensors. Factory-calibrated modules for the different sensor types can be quickly fitted and exchanged when required via the transmitter's hinged door, enabling fast and easy upgrading and maintenance in the field.

This same approach applies when integrating the AWT210 into different control systems, equipped with a range of exchangeable modules available for 4-20mA with HART®, FOUNDATION Fieldbus® and Profibus PA® communications protocols.

With its range of wall, pipe and panel mounting options and IP66 rated enclosure, the AWT210 can be installed almost anywhere in an industrial process with both intrinsically safe and non-incendive versions for hazardous area installation certified by USFMc and ATEX/IECEx.

To prevent unauthorized modifications to calibration and configuration settings, multi-level security access ensures that users can only perform tasks within their specific profiles, with a choice of read-only, calibrate and advanced security access levels.



<https://new.abb.com/products/measurement-products/analytical/continuous-water-analysis/transmitters/awt210-2-wire-transmitter>



ABB ABILITY™ CONDITION MONITORING SMART SYSTEM

Transcontinental Advanced Coatings extends successful pilot of ABB's smart sensor monitoring and predictive maintenance solution as it aims for zero downtime.

Industrial coatings producer Transcontinental Advanced Coatings has successfully piloted ABB Ability™ Condition Monitoring on critical equipment at its UK facility. The manufacturer used the pilot project to enhance the existing predictive maintenance regime on a critical oxidizer process that cleans the air before it's released to the atmosphere.

ABB Ability™ Smart Sensors – fitted to the motors and mounted bearings that operate on the oxidizer's two fans – collect and analyze data to monitor performance. The system alarms if pre-defined limits for parameters such as temperature and vibration are exceeded. This enables preventive maintenance to be carried out before problems occur.

Transcontinental Advanced Coatings – based in Wrexham, North Wales, UK, and Matthews, North Carolina, United States – makes precision coated papers, films and specialty substrates for digital imaging, electronics, medical and optical technologies. Based on the success of the pilot project, the company will extend the remote condition monitoring solution to an entire production line in its Wrexham facility.

“Our overall goal is zero downtime. ABB Ability™ Condition Monitoring ensures we can identify equipment issues early on – before they happen – and take action to prevent breakdowns from occurring,” says Dr. Keith Vidamour, Engineering Manager for the Transcontinental Advanced Coatings North Wales plant. “Conducting maintenance as needed rather than on a fixed schedule will help us improve reliability and process control.”

Previously, the company relied on monthly manual monitoring of the fans' motors and bearings using thermal imaging, oil sampling, and vibration analysis. These tests were only a snapshot of the condition of the process rather than a continuous real-time picture. The results also relied on an individual engineer's interpretation.

“We are keen to move to a more objective, more data-based condition monitoring regime,” says Dr. Vidamour. “We are now monitoring additional parameters and have access to far more objective information than ever.”



The second phase of the project will use multiple smart sensors to remotely monitor the motors and bearings throughout a process, together with up to four Bluetooth gateways connecting with ABB's secure server. Ultimately, the company will roll out the solution across its global platform.

“Transcontinental Advanced Coatings wanted to prove that the condition of critical machinery could be remotely monitored,” says Derek Robinson, ABB's Key Account Manager for High- and Low-Voltage Motors. “The successful trial proved they could significantly improve overall maintenance efficiency. The company's decision to continue to add additional ABB Ability™ Smart Sensor technology will give it a real competitive edge.”

<https://new.abb.com/motors-generators/service/advanced-services/smart-sensor>



ANDRITZ LAUNCHES MASTERDRY™ DRYER FABRIC PORTFOLIO

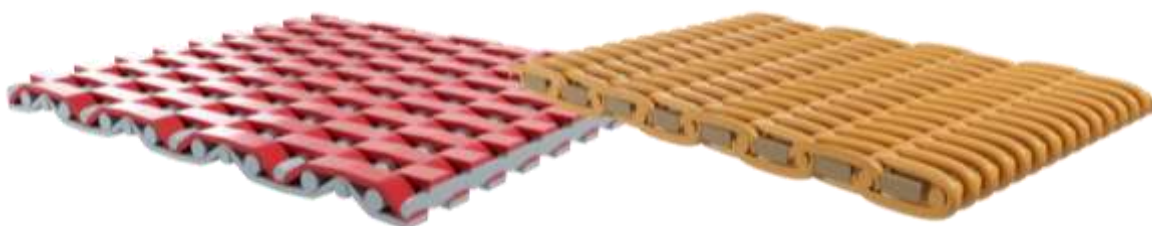
International technology Group ANDRITZ presents its new “MasterDry™” dryer fabric portfolio based on premium-performance dryer fabric technology.

MasterDry includes best-in-class woven and spiral fabrics specifically designed for the broadest range of applications, from the fastest low-caliper, single-tier positions, for high-temperature positions, and for those positions requiring extreme contamination resistance. It includes specially engineered woven or spiral dryer fabrics to cover an entire paper machine producing paperboard/packaging and graphical papers or also pulp machines, thus providing customers with a very comprehensive suite of high-performance dryer fabric options.

“We will continue to focus on R&D to launch new innovative products and to invest in our plants to become the premier global supplier of the highest quality dryer fabric technology with shortest delivery times,” says Bill Butterfield, Executive Vice President and Chief Technology Officer at ANDRITZ Fabrics and Rolls.

With the new MasterDry portfolio of dryer fabrics, ANDRITZ once again confirms its position as one of the global market leaders for the supply of innovative fabrics, press felts, and roll technology solutions.

For more information, please visit www.andritz.com/fabrics-and-rolls.



MasterDry offers a complete portfolio of high-quality woven and spiral dryer fabric technology for every application in paperboard/packaging, graphical, and pulp machines.



ANDRITZ LAUNCHES STRATAPRESS™ SX SINGLE-SEAM PRESS FELT

International technology Group ANDRITZ has launched its new-generation “StrataPress™ SX” felt with patented, integrated single-seam technology.

StrataPress SX is specifically engineered for the most demanding positions in paperboard/packaging, graphical, and pulp machines. Its patented, integrated seam ensures strength and durability while delivering rapid and safe installation.

It is specially designed with a game-changing combination of materials, base fabric structures and unique batt concepts that deliver the highest sheet quality, faster machine speeds, reduced energy consumption, and extended life potential.

“With StrataPress SX, for the first time in our industry, customers can now enjoy the convenience and safety of seam felts along with the superior machine performance previously only available from premium-class endless press felts. And with its unique compressibility and nip dampening characteristics, StrataPress SX provides that superior dewatering performance even in the hardest press nip applications, and with reduced operating costs,” says Bill Butterfield, Executive Vice President and Chief Technology Officer at ANDRITZ Fabrics and Rolls.

STRATAPRESS SX – THREE PRODUCT CLASSES

As StrataPress SX technology is built utilizing three distinct warp systems, there is an exact product specification specially engineered to maximize machine performance for graphical, board and packaging, and pulp grades.

StrataPress SX is also available with ANDRITZ’s exclusive “QS” Quick Saturation technology. Hydrophilic components embedded in the base fabric structure ensure optimized water management to provide improved start-up behaviour, enhanced profiles and better NIP dewatering over the entire service lifetime.

With the new StrataPress SX technology, ANDRITZ once again confirms its position as one of the global market leaders for the supply of innovative fabrics, press felts, and roll technology solutions.

For more information, please visit www.andritz.com/fabrics-and-rolls.



StrataPress SX is specifically engineered for the most demanding positions in paperboard/packaging, graphical, and pulp machines.



VALMET DEVELOPS DIGITAL PLATFORM FOR FIELD SERVICES OPS

Valmet is investing in a new digital platform to support, streamline and develop its strategically important field services. The global implementation of the new platform will be completed by spring 2020, and it will replace multiple current platforms.

Valmet's vision is to become the global champion in serving its customers. One step toward the vision is to further improve field services as an important part of Valmet's customer service, support and local presence. Valmet Field Services offering consists of maintenance and process supporting services, annual shutdowns, and remote assistance.

"The new platform will further improve Valmet's capability to provide world-class services to our customers by providing workforce transparency and connecting our on-site field service professionals with Valmet Performance Centers through remote connections. This makes delivering desired services at customers' sites faster and more accurate. It also allows us to better predict and advise services and develop shared maintenance and service roadmaps for our customers' equipment and processes," says Anders Öhrblad, Director, Field Services Growth, Valmet.

The investment supports Valmet's strategy to become a frontrunner in field services

The investment is part of Valmet's strategic decision to develop its field services through a dedicated program. The focus is on new field services offerings, improved service capacity and availability, developing competencies, and harmonization of processes. Today, Valmet has more than 1,100 field services professionals, an increase of 11 percent in the past year.

The platform will be delivered by ServiceMax, a leading provider of Field Service Execution Software.

"We're honored to support Valmet's vision for field service excellence and the strategic importance of service for the company's asset-intensive customers," says Neil Barua, CEO of ServiceMax. "Our partnership with Valmet will help not only deliver a world-class industrial field service program, but also provides Valmet's technicians with the tools to better predict service requirements. The partnership will also help in developing shared maintenance and service roadmaps around customers' industrial equipment and processes for the long-term."

<https://www.valmet.com/media/news/press-releases/2019/valmet-develops-its-field-services-operations--invests-in-a-new-digital-platform/>



VALMET INTRODUCES A NEW USER INTERFACE FOR THE DNA SYSTEM

Valmet is taking process automation further by introducing a new web-based user interface for its Valmet DNA automation system. Leveraging modern web technologies, the innovative Valmet DNA User Interface (DNA UI) extends the use of automation system beyond the traditional control room.

The introduction of the DNA UI is a part of the continuous renewal of Valmet DNA automation system, which is used in pulp, paper, energy and other process industries around the world.

Relevant information based on the needs of different user groups.

Intuitive user experience and serving the needs of various user groups has been the main focus in the development of the new Valmet DNA User Interface.

The system adapts shown information based on the needs of various users and user groups. Relevant information is delivered in visual, well-structured, easy-to-understand dashboards, process and sub-process views, which allows the users of the automation system control the process better than ever before.

“It is essential for us to understand how our customers consume information, so we can help different user groups to process information faster. In the new DNA User Interface, we have structured and visualized data in new ways to make the workflow more intuitive – which in turn helps to make faster conclusions based on the data,” explains Jukka Ylijoki, Vice President, R&D, Automation business line, Valmet.

Control room no longer sets boundaries for work

Traditionally, system information and people using it have been tied in the control room. Built with latest web technologies, Valmet DNA User Interface comes with a secure web-based access that enables the mill or plant teams to access relevant information whenever they need it, regardless of their location.

“From logistics and laboratory to the boardroom, the entire site community needs specific information about the process. With Valmet DNA User Interface, users no longer need to stay in the control room to be on top of the situation,” Ylijoki continues.

Increased awareness leads to increased efficiency

With over 40 years of heritage in digital industrial automation, Valmet wants to make sure that industrial plants are safe and efficient to operate and that they meet the set quality and production targets.

“For the users, the new Valmet DNA UI will mean a complete feeling of awareness. They will always have the situation in hand and can easily manage information content to support their decisions. This leads to efficiency and helps to achieve savings throughout the process,” Ylijoki says.

Valmet DNA User Interface is the first web-based user interface on the market that can be delivered also as an upgrade to an existing Valmet DNA automation system. This means that in the future the existing customers can unlock the benefits the web-based user interface offers via upgrade rather than a full system renewal.

<https://www.valmet.com/automation/control-systems/valmet-dna/user-interface/ui/>



VALMET'S NEW INLINE OPTICAL TOTAL CONSISTENCY & ASH SENSOR

Valmet has launched a new Valmet Optical Consistency Measurement (Valmet OC2R), which has been developed for recycled pulp manufacturing applications, as well as general stock preparation applications in paper, tissue, and board.

Valmet OC2R shares the total consistency measurement method utilized in the original Valmet Optical Consistency transmitter with the added capability of ash content available as a second measured value. Particularly in low-consistency measurements, Valmet's optical transmitters are frequently the only possible measurement technique to provide reliable results. Valmet OC2R offers easy and low-cost installation with a measuring probe that makes insertion and removal possible without requiring special tools or a process stop.

For mechanical and chemical pulp, as well as for recycled fiber furnishes, Valmet OC2R is an ideal choice for control applications, from re-pulping and screening all the way to the machine chest.

"The addition of the ash measurement to total consistency opens new possibilities for recipe management in pulp blending, better broke handling, and reducing machine chest furnish variability. In recycled fiber processing, the benefits of the two measurements include better end product quality with improved strength and optical properties," says Heikki Föhr, Product Manager, Valmet Optical Consistency Measurement, Automation business line, Valmet.

Technical information about Valmet Optical Consistency Measurement (Valmet OC2R)

Valmet OC2R joins the Valmet Optical Consistency Measurement (Valmet OC) family of transmitters, each optimized for use with eucalyptus pulp, recycled fiber and chemical pulps in addition to mechanical furnishes. Installed in an area of turbulent flow, the temperature and vibration resistant probes are self-cleaning even in the demanding environment of recycled fiber processing. Sharing the same basic components and modules optimized for each application, they have gained a deserved reputation for accuracy, reliability, and ease of installation.

<https://www.valmet.com/valmetoc>





VALMET'S NEW ROLL COVER MATERIAL

Valmet is the first company in the world to offer roll covers based on biomaterials and recycled materials for board, paper, tissue and pulp making. These new composite covers for press, guide and calender rolls are now available for the first customer deliveries.

In new composite roll covers Valmet uses bio-based resin and hardener in the polymer matrix. The reinforcing fiber and filler are originating from recycled consumer plastic and glass. Depending on cover type, the content of recycled or bio-based raw materials is 75-96 percent. New materials are being tested continuously, and the target is to reach 100 percent as soon as possible.

Valmet has set strict criteria for the bio-based raw material in the covers. Only renewable materials derived from non-food chain plants or plant parts are used, in order to prevent the effect to global food production. Cultivation and harvesting of plants must not endanger the growth of natural forests either.

“In best cases, bio-based materials can be produced from plant parts that would otherwise be waste. For example, lignin, carbon black made of lignin and nanocellulose can be utilized as reinforcing fillers in roll covers,” explains Jani Turunen, R&D Manager for Polymeric Roll Covers, Valmet. “Our customers do not have to compromise in product performance either, as the results have shown that in some applications the performance is even above the traditional offering.”

A more sustainable future with a new generation of roll cover materials

Roll covers used in paper, board, tissue and pulp making need periodical renewal and thus consume tons of materials. A major part of the raw materials of traditional roll covers has been manufactured from fossil-based materials, which has been refined and processed from crude oil.

Valmet's R&D work focuses strongly on enhancing raw material and energy efficiency and promoting the use of renewable raw materials. Valmet is continuously investigating the possibilities to replace fossil-based materials with renewable or recyclable materials. For example, recycling and more sustainable use of ceramic and metallic roll covers is under active research.

“Our continuous investing in R&D of sustainable solutions for our customers helps us increase the occupational safety of our employees, replace fossil-based raw materials with renewable ones, re-use and recycle materials and save energy. This is our contribution to the global challenge we face regarding our planet's future. And by doing this, we are helping our customers do their part as well,” says Jukka T Heikkinen, Senior Manager, Roll R&D, Valmet.

“In best cases, bio-based materials can be produced from plant parts that would otherwise be waste. For example, lignin, carbon black made of lignin and nanocellulose can be utilized as reinforcing fillers in roll covers,” explains Jani Turunen, R&D Manager for Polymeric Roll Covers, Valmet.

<https://www.valmet.com/media/articles/services/recycled-and-renewable-raw-materials-in-future-roll-covers/>



VALMET'S ULTRA-HIGH DEFINITION OPTICS TO FIBER ANALYSIS

Utilizing more than 35 years of experience in laboratory and online fibre measurements, Valmet has launched a completely redesigned optics module. The ultra-high definition optics can measure more fibres with much higher resolution in order to expand application areas and improve measurement precision.

Since its launch in 2013, the Valmet Fiber Image Analyzer (Valmet FS5) has made precise standardized fiber morphology measurements possible without special training, sample preparation or laboratory facilities. Now, the new optics feature a wider measurement cell to allow improved shive particle measurement, a larger image area to measure more and longer fibres and an ultra-high definition camera providing faster fibre analysis and increased sharpness for better fibril and small particle detection. The new optical module is also available as an upgrade to existing Valmet FS5 analyzers.



"Our Research & Development team did it once again! The improvements in the optics allow our customers to see smaller particles, identify particles like parenchyma cells, and to be able to measure longer fibers or larger shives particles than before," says Tommi Niskanen, the Product Manager for Valmet FS5.

Valmet FS5 is intended for use in regular mill testing while also meeting the requirements for research laboratories. The results are ISO standard compliant and fully traceable and provide a better understanding of the paper making potential of the pulp, helping papermakers to better manage the process to get targeted end product quality.

The upkeeping requirements for Valmet FS5 are minimal and each unit is calibrated with an accredited calibration tool at Valmet's production center in Kajaani, Finland.

"Valmet FS5 platform has been validated by over one hundred happy customers globally. The possibilities with the new optics have created positive feedback from both our old and new customers," says Tuomo Kälkälä, Director for Valmet's analyzers, measurements and performance solutions.

Ultra HD technology detects smaller particles

The Valmet Fiber Image Analyzer enables pulp and paper mills to unlock the true value potential of their raw material for optimum end product quality. With the new compact and user-friendly unit, customers can benefit from a wider range of available measurements combined with improved usability and reliability resulting in savings in terms of both time and resources.

The analyzer requires no special facilities other than water, drain and electricity. It is transportable for use on the machine floor as well as shift laboratory, when and where needed for fast and accurate pulp property analysis. Easily programmed for customized analysis and reporting, the FS5 is provided with basic measurements of fiber dimensions (length & width), fines, coarseness and curl, with two optional measurement packages that add blend ratio, external fibrillation, kink and cell wall thickness as well as neural network classification of vessel cells, shives, parenchyma cells, fibre entanglements, and more.

Read more: www.valmet.com/fs5



CHEMICALS



BASF LAUNCHES NEW DEFOAMER

BASF launches new defoamer that complies with major food contact regulations for adhesives, paper coating applications and functional packaging

The new new defoamer – Foamaster® WO 2360 – is compliant with China’s food contact regulation GB 9685-2016 for adhesives and major food contact regulations such as Code of Federal Regulation (CFR) Title 21, Food Contact Materials Regulation (EC), Bundesinstitut für Risikobewertung (BfR) and Swiss Ordinance on Food Contact Materials for packaging.

China’s National Food Safety Standard GB 9685-2016 governs the use of additives in food contact materials and their products. It was introduced by China’s National Health and Family Planning Commission (NHFPC), which came into force in October 2017.

The new white oil-based defoamer demonstrates excellent and persistent defoaming efficiency, excellent compatibility across acrylic PSA systems and good oil-slick resistance during storage for adhesive formulations. When applied in paper coatings, Foamaster® WO 2360 also exhibits excellent defoaming efficiency coupled by good anti-foaming and fast foam break time.

The versatility of Foamaster® WO 2360 makes it widely applicable for paper coating formulations, barrier coatings, paper and paperboard applications that all require contact with food. This, in turn, removes the need for customers to carry multiple defoamers in its inventory.

For more information, please visit www.basf.com/additives

BASF HAS RECENTLY LAUNCHES A HIGH MOLECULAR WEIGHT DISPERSING AGENT

BASF has recently launched a new high molecular weight dispersing agent: Dispex® Ultra PX 4290, which features excellent performance in pigment stabilization, outstanding color strength and brilliant viscosity reduction.

Dispex® Ultra PX 4290 offers the benefits of higher pigment loadings while maintaining exceptional flow characteristics. Other highlights also include improved gloss, anti-flooding behaviour and excellent flocculation stability.

Dispex® Ultra PX 4290 was developed in response to a surging market demand for a dispersing agent, which enables broad applicability in both inorganic and organic pigments and fillers used in water-based automotive OEM and refinish coatings, industrial coatings and wood coatings. Its application can be further extended to printing inks and adhesives as well.

For more information, please visit www.basf.com/additives



EXXONMOBIL LAUNCHES LANDMARK GEAR AND CIRCULATING OIL

Breakthrough synthetic lubricant offers class-leading performance benefits to the pulp and paper industry

- Mobil SHC™ Elite performs at temperatures up to 150°C in intermittent service
- Advanced gear and circulating oils can extend oil drain intervals by up to 12 times¹, reducing maintenance costs and enhancing safety
- Offers up to a 3.6% energy efficiency benefit versus mineral oils²

ExxonMobil is introducing Mobil SHC™ Elite, a breakthrough synthetic gear and bearing circulating oil for pulp and paper mills. The lubricant's advanced formulation can help protect equipment operating at extreme temperatures, while increasing energy efficiency and extending oil drain intervals.

Extensive testing shows that Mobil SHC™ Elite can deliver double the oil life³ of traditional synthetic products and up to 12 times¹ the oil life of mineral products. It can also help protect equipment operating at temperatures up to 150°C in intermittent service making it ideally suited for a range of paper industry applications, such as helping to protect dryer and calendar drives, as well as kiln and trunnion bearings.

The advanced synthetic lubricant is specifically formulated to deliver excellent wear protection and oxidation resistance without any of the compatibility challenges often associated with glycol-based products used in high temperature applications.

In addition, Mobil SHC™ Elite has also demonstrated an enhanced torque ratio, enabling it to deliver a 3.6%² energy efficiency improvement when compared with conventional mineral oils.

“Protecting heavily loaded paper manufacturing equipment from high in-service temperatures can be a major challenge for mill operators,” said Emre Noyan, industrial marketing manager at ExxonMobil. “Mobil SHC™ Elite’s extended oil life, wide temperature range performance and energy efficiency improvement can help operators increase uptime and cut costs – giving them a competitive edge.”

Mobil SHC™ Elite has already received approval for its proven performance from leading gearbox manufacturers including Siemens, whose FLENDER gear units depend on effective lubrication to ensure reliability in intense operating environments.

For more information about Mobil SHC™ Elite or Mobil SHC™ products, please visit www.mobil.com/industrial.

- [1] Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.
- [2] Energy efficiency relates solely to the performance of Mobil SHC™ Elite when compared to conventional (mineral) reference oils of the same viscosity grade in gear applications. The technology used allows up to 3.6% efficiency compared to the reference when tested in a worm gearbox under controlled conditions. Efficiency improvements will vary based on operating conditions and application.
- [3] Up to 2x oil life as demonstrated in numerous bench and rig tests. Oil life will vary based on application and operating conditions



VPCI®-386 WATER-BASED ANTI-CORROSION COATING

It can be challenging to balance corrosion protection and worker safety in manufacturing, since many powerful corrosion inhibitors are hazardous chemicals. However, Cortec® Corporation has repeatedly demonstrated the potential for replacing many traditional hazardous materials with more environmentally responsible, user-friendly alternatives such as Cortec's VpCI®-386 water-based coating.

Just last year, Cortec® was able to help a refrigerator coil manufacturer replace a solvent-based coating with a water-based coating for increased worker safety and better corrosion protection. The manufacturer was using the solvent-based paint to coat new refrigerator coils. This exposed workers to a strong solvent smell and associated hazards. To make matters worse, the paint did not provide the long-term level of corrosion protection desired. Cortec® was able to introduce VpCI®-386 to the manufacturer as a water-based corrosion inhibiting alternative, helping them reduce their solvent VOCs and providing the desired corrosion protection.

VpCI®-386 is a fast-drying water-based acrylic one-coat system topcoat that can be applied direct to metal for protection in harsh, outdoor, unsheltered applications. The complex mixture of corrosion inhibitors offers protection that competes with most paints and zinc-rich primers. VpCI®-386 has excellent UV resistance. It is also weldable and can be used to keep surfaces corrosion-free prior to welding. VpCI®-386 comes as a clear coat for minimal change to the surface appearance, or it can be matched to most custom colors.

Learn more about VpCI®-386 at: <https://www.cortecoatings.com/product/vpci-386/>





MATERIALS HANDLING



HYSTER LIFT TRUCK SOLUTION SIMPLIFIES LOADING OF PAPER REELS

To simplify the process of loading trailers with paper reels in line with industry best practice recommendations, Hyster Europe has specially optimised the J5.5XN6 electric lift truck.



“When transporting paper reels by road, it is typical industry best practice to load and position the reels down the centre line of the lorry trailer in single file to help evenly distribute weight and improve stability,” says Josie Burrell, Industry Manger for Hyster Europe.

“This would ordinarily require a 7-tonne capacity lift truck with an attachment spacer to reach over the trailer bed and handle the reel,” she continues. “However, the Hyster® J5.5XN6 lift truck with tilting carriage option and a reel clamp attachment makes all of this possible with a 5.5-tonne capacity lift truck instead.”

The electric Hyster® J5.5XN6 lift truck design extends capability in arduous paper reel handling applications more effectively than simply increasing the lift capacity. This is combined with a hydraulic tilting carriage which increases reach by 250mm at lorry bed height, ideal for efficiently loading reels onto a trailer in the correct position.

To help reduce costly potential damage to paper reels, with the truck mast on full forward tilt, the Hyster® tilting carriage option truck brings the paper reel clamp back to a horizontal level. This, combined with the stability of the extended load centre, helps the paper reels to be placed down flat, reducing damage to the edge of the reel.

A chain slack prevention valve also helps avoid wrapper damage. When the clamped load is stacked and the mast lowering function is operated, this feature prevents the mast chain from losing tension. Therefore, when the clamp attachment arms are opened, they do not slip and damage the roll wrapper.



“The right choice of attachment is key for both efficiency and damage avoidance in paper reel handling operations,” says Josie. “However, there are a number of additional options and upgrades that may help too.”

This includes environment protection features, such as a belly pan, tilt cylinder boots and a sealed drive axle to prevent the ingress of dust. Also available are camera solutions to support operator accuracy, truck-to-truck, truck-to-object and truck-to-pedestrian detection systems and Hyster® Tracker telematics for fleet management.

The agile electric Hyster® J5.5XN6 lift truck also offers space saving benefits, with a compact design and zero turn radius (ZTR) axle making it easy to manoeuvre in both the warehouse and the loading bay, and tough enough to withstand all weathers when used outdoors.

“Organisations in the paper supply chain are often keen to reduce their carbon footprint,” says Josie. “This electric lift truck offers zero emissions and a low energy performance mode option, providing an environmentally friendly solution but with no compromise on performance.”

Like the rest of the Hyster® range of lift trucks and warehouse equipment, the Hyster® J5.5XN6 forklift offers a low cost of ownership, with long service intervals, maintenance free AC traction and hoist systems and easy serviceability. Paper applications worldwide receive service and support from local Hyster distribution partners.



www.hyster.eu



ANALOGUE TOOLS VITAL IN A SMART FACTORY FUTURE

With a smart future edging closer and closer, manufacturing stands to be one of the most heavily affected industries. While some may associate this change with disruption, a leading UK-based materials handling equipment provider says that analogue tools and human input will remain key elements in both the creation and the long term success of a smart factory future.

Midland Pallet Trucks, a West Midlands-based provider of hand pallet trucks, lift platforms, moving skates, and a wide range of other materials handling equipment, believes that fears of complete upheaval are unfounded. The firm says that analogue tools and human knowledge will both play a critical role in the digital shift, with manual processes and decision making, alongside operation of digitally-enhanced machinery, being supported through the use of analogue tools.

The company cites two primary reasons why the use of analogue tools will remain a 'go to' method for operational success. Firstly, the human element must always be factored into plans for a smart factories; the ability for skilled workers to manually operate equipment for optimal results in particularly complex moves, for example.

Secondly, a smart factory future will not be an instantaneous change. The notable skills gap which currently exists means that a smart factory future is a long term change, with a significant 'hand over' period where analogue and digital concepts will be used in unison to fully develop a safe, effective, efficient and smart environment.

"We often hear that a smart future is on the way, but what many don't realise is that the essential building blocks of industry 4.0 are already widely available," says Phil Chesworth, Managing Director of Midland Pallet Trucks. "Of course, many operational processes can and indeed will be automated eventually using the latest connected technologies, but materials handling, and many other complex areas of warehouse management, will largely continue to be supported through analogue.

"It's not just about supporting the skilled human decision makers on-site, but also about cost. Quite simply, growing businesses don't want to be paying out for IoT-enabled handling equipment when analogue gets the job done."

Smart factories are on the rise around the world, with traditional machinery beginning to be replaced with connected, Internet of Things-enabled solutions which automate many of the more predictable processes within the workplace. However, smart factories are rarely anticipated to be fully automated environments, and are instead considered to be collaborative spaces which succeed through the combined use of both digital and analogue tools, along with skilled human activity.

To find out more about the wide range of analogue equipment products available from Midland Pallet Trucks, visit <https://www.midlandpallettrucks.com/>



MIDLAND PALLET TRUCKS CHAMPIONS MOVING SKATES RANGE

Midland Pallet Trucks, which holds one of the largest collections of high quality moving skates available to UK customers, is championing its extensive range of the warehouse staple to increase awareness of its unique advantages. As demand for moving skates continues to grow, Midland Pallet Trucks has announced a commitment to promoting the benefits of the equipment across a variety of industries in a bid to improve workplace productivity and safety in Britain.

Moving skates ensure the safe and secure movement and transport of heavy loads, traditionally within warehousing, manufacturing and logistics environments. The skates, which often come in sets of 2 or 4, can be strategically positioned to move pallets, machinery, and other heavy load items. While there are many different types of moving skate available, they typically come with durable nylon, polyurethane, or steel wheels to suit various loads and workplace conditions, and are operated through a simple, manual push/pull system to offer complete control over direction.

“While we know that our customers couldn’t live without moving skates, we feel that many industries simply don’t think to look at equipment such as this as a problem solver” says Midland Pallet Trucks Managing Director Phil Chesworth. “We believe that skates are somewhat of the unsung heroes of the warehouse as they’re frequently overlooked and yet offer a range of benefits that could bring tremendous value.

“Our aim is to continue expanding and promoting our vast range of moving skates, which is already one of the largest ranges in the UK, to ensure we’re always able to provide both new and existing customers with the quality equipment they need to operate safely within the workplace... whatever type of workplace that may be!”

Midland Pallet Trucks currently stocks a number of different types of moving skate, including fixed skates, turntable-style skates and steerable skates. These come in a variety of sizes, and with a load capacity of up to 60 tons. Much of the equipment is imported from Europe directly from the manufacturer, ensuring that all skates and complete skate sets are of the highest quality and bring true value to many sectors.

Midland Pallet Trucks hopes that in championing its line of moving skates, businesses in many industries will see that there are many benefits to this sort of equipment. While moving skates are typically associated with heavy loads, they can also be used to move lighter loads contained within confined spaces where traditional forklifts would struggle due to restrictions stemming from reduced turning circles. Similarly, limited load trolley jacks could easily be replaced with higher capacity moving skates.

In addition to moving skates, Midland Pallet Trucks is also a leading supplier of a wide range of other equipment, including hand pallet trucks and lift platforms.

To find out more about Midland Pallet Trucks’ extensive range of moving skates, visit <https://www.midlandpallettrucks.com/product-category/skates/>



MIDLAND PALLET TRUCKS LAUNCHES SEMI-ELECTRIC AERIAL WORK PLATFORM

Midland Pallet Trucks has announced that the revolutionary SESP3.9 semi-electric aerial work platform is now available to order directly online.

Providing a more versatile alternative to standard mobile towers, the introduction of this innovative piece of equipment holds the key to improving workplace safety across a variety of settings and environments, including hospitals, schools, warehouses and shopping centres where safety is paramount.

The four scissor SESP3.9 semi electric scissor aerial work platform extends to a height of 3900mm, with a 33 second lifting time, and 30 second descent. Despite offering a safe working height of 19 feet and 4 inches, the model is remarkably compact, designed to effortlessly fit through standard doorways with a 1300mm length and 740mm width. Constructed with safety in mind, the aerial platform features 2 fixed wheels and 2 lockable swivel wheels, making it easy to manoeuvre in warehouses and other busy environments while still ensuring complete stability when in use.

In addition to aerial work platforms, Midland Pallet Trucks also stocks a wide range of other high quality manual and electric materials handling equipment including high lift pallet trucks and lift platforms.

“Mobile towers have traditionally been the go-to equipment for working at height,” says Midland Pallet Trucks Managing Director Phil Chesworth, “but some models are known to be notoriously difficult to use, which heightens risk within the workplace.

“We’ve been looking to expand our range of aerial work platforms and lifts for some time now, and the versatility of the SESP3.9, which can be adjusted at the touch of a button, makes this particular option an excellent addition to our growing collection.”

This is not the first SESP aerial work platform model to be offered by West Midlands-based Midland Pallet Trucks. It stocks the SESP3.0 mobile aerial work platform; a smaller, three scissor alternative with a maximum platform height of 3000mm for an average 5 metre safe working height.

The new addition is designed to bring all the benefits of the SESP3.0, such as efficient lifting and descent time, and an impressive 300kg lift capacity, to a larger model, allowing businesses to work safely at greater heights of up to 5.9 metres.

Aerial work platforms are designed to create safe, temporary access to areas that are otherwise inaccessible due to their height. The platforms are typically used in maintenance, construction, and warehousing, but can be used across many sectors.

To find out more, visit: <https://www.midlandpallettrucks.com>



COMPACT, RELIABLE AIR CONVEYORS WITH NO MOVING PARTS

Air Conveyors, also known as air hopper fillers, are a convenient way of moving powdered or granulated products around a factory and a new range introduced by The Spray People Group (SPG) is a good example of these types of product. Manufactured by Canadian company Nexflow and sold under The Air Nozzle People sub-division of SPG, these compact conveyors offer important advantages over conventional conveyors, such as no moving parts, high reliability and easily controllable flow.

The conveyors work by converting a compressed air stream into a strong moving air current with a partial vacuum at one end and a positive air flow at the other. This allows light product to be moved through a tube system with no moving parts and no external power source other than the compressed air feed line.

They are available in a range of materials including hygienic 316 stainless steel for food grade applications and in several different sizes to fit pipework from 3/8" up to 5". Also, an XS-PC option is available as a clog resistant conveyor which is suitable for moving materials that may be prone to clogging conventional conveyors.

Typical applications for air conveyors occur in food and general manufacturing such as hopper loading, fibre tensioning, material conveying, waste / trim removal, chip removal, part transfer and filing operations. ENDS

More details at: <https://www.airnozzle.co.uk/products/air-operated-conveyors/>





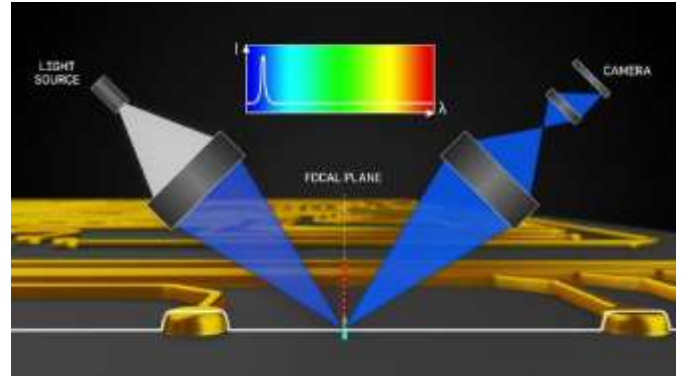
SENSORS / TESTING / ANALYSIS



AMETEK SURFACE VISION SMARTVIEW® COLOR FUNCTIONALITY PROVIDES ADDITIONAL DEFECT DETECTION CAPABILITIES

AMETEK Surface Vision, a world leader in automated online surface inspection solutions, now offers manufacturing industries a precise and accurate method of detecting key surface defects of interest, utilizing a new color classification option available in Surface Vision's industry-leading SmartView® defect inspection system.

The most advanced surface inspection platform available, SmartView combines powerful software, linescan camera technology, high-intensity lighting and industry-leading engineering for trusted automatic defect detection. Color classification extends SmartView's abilities by enabling the recognition of common contaminants in the production process, particularly blood, oil spots, water spots and dirt: substances that, even in minute traces, can compromise the quality of food or medical grade materials.



SmartView's color functionality works by identifying, cross-checking and classifying a specific defect through a color feature set integrated into SmartView's comprehensive defect libraries. By classifying and distinguishing each defect, users are supported in making production decisions that maintain high product quality and improve productivity. For example, as SmartView is able to distinguish water drops from oil spots, users can improve winder operation efficiency, as the ability to dry water drops later in the process means the paper does not need to be stopped at the winder.



Users get the immediate benefits of SmartView's SmartLearn functionality, which provides an advanced classification solution that classifies easily distinguishable defects, with real-time results at any production speed. Unlike systems that require the user to set the parameters manually by building a manual classification table, SmartLearn's patented automatic multi-step classification technology enables much quicker start-ups.

SmartView's color option is applicable in manufacturing light coated papers; food package grade paper; fine and light coated paper used in magazine printing and office copying; coated board for high grade packaging; and nonwoven materials such as medical cloth.

SmartView's color functionality is fully compatible with the most recent iterations of the software.

www.ameteksurfacevision.com



BTG LAUNCHES NEW CHARGE MEASUREMENT SENSOR (SPC-5500)

BTG launches its new online charge instrument called Single Point Charge SPC-5500. It is considerably smaller, easier to install and easier to handle than previous products. Its single point modular design allows for greater flexibility and it comprises BTG's expert knowledge in charge measurement.

The SPC-5500 is suitable for wet-end applications in all papermaking processes such as in tissue, packaging and board or specialty paper. It is used to control key process stages like anionic trash levels in incoming thick stock streams, especially for closed loop control of fixatives. Furthermore, the effectiveness of functional additives dosed along the process can be evaluated through charge measurement.

The SPC-5500 continuously measures the charge of colloidal dissolved substances in process streams. Cationic demand or anionic demand is detected by automatic titration of the sample with an oppositely charged poly-electrolyte solution. Each measurement cycle follows a cleaning which is a basis for correct results.

The BTG Group is an international provider of integrated, highly specialized process solutions for the global pulp and paper industry. BTG is committed to help its customers achieve significant, sustainable gains in business performance.

<https://www.btg.com/news-and-events/btg-launches-the-next-generation-of-charge-measurement-with-the-single-point-charge-spc-5500/>





DATACOLOR - KEYS TO RELIABLE DIGITAL COLOR COMMUNICATION

The challenge that we all face regardless of our business is how to get the right product to the customer at the right time when they are ready to purchase. This is especially true in the apparel business. Consumer preference changes quickly and failure to have products that fit the current trend can mean more than just a short-term loss of business.

The adoption of digital colour communication has facilitated a significant reduction in colour development cycle time, but it has also introduced challenges of its own. Failure to control the process by which the digital colour data is created will lead to:

- The exchange of incorrect information
- Misunderstanding about product quality
- Delays in the development cycle

To ensure confidence in the quality of the digital colour data that is being exchanged, the sources of variation in the measurement process must be identified and controlled.

Basics of Digital Colour Communication

Multiple processes are required for successful colour development from the time that a designer selects a colour until the time that it ends up on a showroom floor. In order to have products for a particular season, the development process must start months in advance. The challenge is how to ensure that the right colour is communicated from concept to consumer.

Identify the Standard

The first step in the colour specification process is to identify a standard to use for colour matching. The original source for inspiration may be a swatch of fabric or a colour created on a monitor, and this target must be communicated accurately to the mills providing the final product.

Experience bears out, however, that physical standards are often a source of misunderstanding between designers and manufacturers and can lead to delays if they're not selected carefully. While finding a good standard solves many of the problems associated with getting a good shade match, they do nothing to improve upon the colour development process as a whole. Physical standards must still be distributed and the target colour maintained throughout the development process in order to achieve the desired colour in the market.

Communicate the Digital Representation

The only way to guarantee the colour integrity of the standard and to also decrease development time is to communicate the digital representation of the selected standard. What does a digital standard look like? It is simply a set of numbers called spectral reflectance values that describe how the object interacts with light. Whether we are beginning the colour process with a physical standard or a CAD design, the colour can be defined numerically in this way. Numerous computer programs have been developed that interpret these numbers and provide basic descriptions of colour and colour difference.



Proceed with Development

Once the physical colour standards have been selected, they can be measured on a spectrophotometer and instantly e-mailed to suppliers who can then begin their development process. Suppliers will typically use dye formulation software to quickly produce dye recipes that have been optimized to control issues such as:

- Metamerism
- Repeatability
- Coordination with other components

Provide Samples to Retail Customer

Suppliers then communicate samples to the retail customer in either physical form or in digital form. The advantage of a digital process is that samples can be quickly compared to target standards using quality control software as a filtering tool to eliminate unacceptable samples before they are given final review.

This is critical as the volume of samples typically received in any given period is substantial. Those samples that pass the numeric filtering process can then be evaluated visually using calibrated monitor technology. The samples are evaluated individually against a standard or previewed in various light sources to determine if metamerism is a problem. Prior to final approval the samples may be evaluated with other components to assess colour coordination and consistency.

Depending on the volume of development work required, the savings in time and expense realized by a retailer who employs electronic communication of standards and colour submissions can be substantial. It must be noted, however, that not all materials and colours are suitable for digital color communication and will continue to be processed using existing manual methods. Care must be taken at the beginning of the process to identify these types of materials to avoid any misinterpretation of the success of the digital colour program.

Ensuring Digital Colour Reliability

The key to the success of the digital colour communication process is the reliability of the digital data being communicated during each step of the development cycle. Digital data can be deemed reliable when a different person can get the same results when the physical sample is remeasured at a different location on a different instrument. This is possible by careful control of the instrument, the measurement technique, the environment in which the samples are measured, and the methods employed by the person evaluating the data. Problems in any of these areas can introduce errors that manifest themselves as the wrong colour at the end of the development process.

What is your company doing to streamline colour development? Do you have any questions about how you can improve the process? Send us a note at marketing@datacolor.com and let us know.

To download the free ebook *Fundamentals of Color* click [here](#).



LMI TECHNOLOGIES ACQUIRES FINNISH OPTICAL METROLOGY COMPANY FOCALSPEC

LMI Technologies (LMI), the global leader in 3D inline scanning and inspection, is pleased to announce the acquisition of FocalSpec, an innovative optical metrology company based in Finland that designs and manufactures patented Line Confocal Imaging (LCI) products. LMI's parent company - The TKH Group - will acquire 100% of the shares of FocalSpec. The company will be integrated into the LMI group of companies and the LCI products will continue to be sold under the FocalSpec product brand.

FocalSpec LCI sensors leverage a unique optical method based on lateral chromatic confocal scanning that is mounted off-axis to simultaneously capture 3D topography (surface geometry), 2D intensity (surface contrast), and 3D tomography (scanning multiple layers beneath a transparent surface) at sampling speeds up to 27M data points per second and a measurement repeatability of 70nm. No other vision solution on the market combines this level of speed, precision, and multi-modal, multi-layer imaging capability.

The acquisition of FocalSpec expands LMI Technologies' smart sensor portfolio of laser profilers and structured light snapshots with patented confocal technologies. Together, our scanning and inspection solutions lead the industry in solving challenging applications across a variety of markets such as consumer electronics (CE), battery, pharma, semiconductor and medical.

"Line confocal sensors offer a leap in technological performance for scanning opaque, transparent and curved materials, such as hybrid glass assemblies common in cell phone manufacturing. By combining this game changing optical approach with our proven Gocator inspection software and volume manufacturing know-how, customers will be able to solve challenging inline metrology applications at a price/performance and ease of use never seen in the market today." said Terry Arden, CEO, LMI Technologies.

Sauli Törmälä, Chairman of FocalSpec: "The addition of LCI technology to the 3D product portfolio of LMI Technologies builds a highly complementary set of solutions for metrology applications in critical assembly processes. Along with their leading inspection software, we believe FocalSpec and LMI will be a power house of metrology in the years to come and look forward to joining forces."

For more information on FocalSpec LCI products, please visit www.focalspec.com. Additional information will be communicated on the LMI website at www.lmi3d.com in the months to come upon the successful integration of FocalSpec with the LMI group.



NEW CMR SENSOR FIRES IMPROVED BURNER CONTROL AND QUALITY

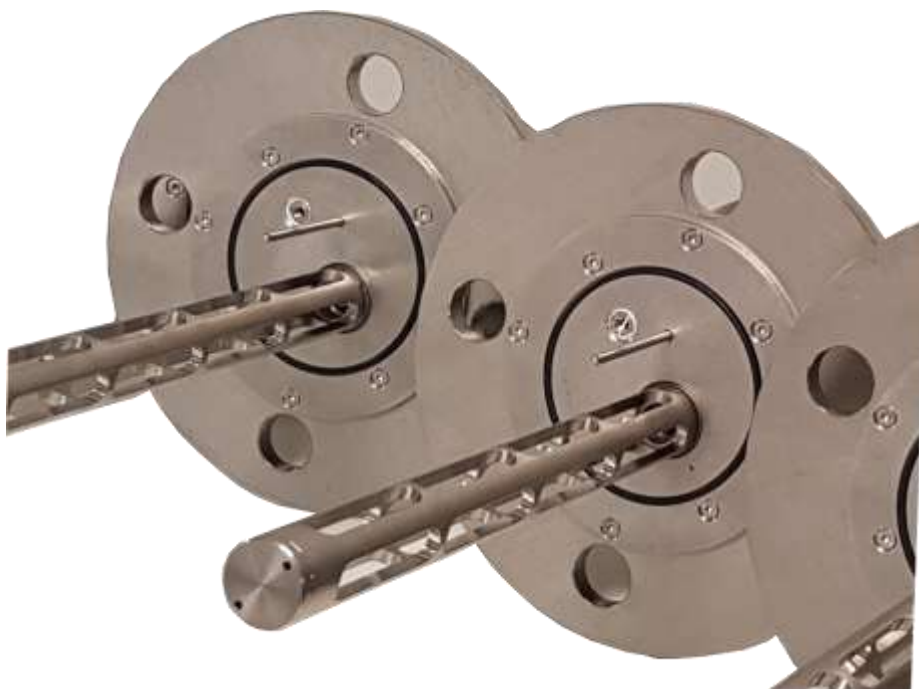
The use of 1MW/unit gas burners in paper production can now be improved with the application of the new NIRIS (Near Infrared Intelligent Sensor) Natural Gas sensor from CMR Group.

The sensor, which reduces consumption levels of natural gas-powered burners used for heating, furnaces and other industrial purposes through the real time measurement of fuel quality, is directly connected to the gas feeder pipeline, boosting combustion control and providing enhanced quality control and monitoring capabilities.

The sensor is built around smart infrared hardware and data treatment software and features a CAN bus (controller area network) communications facility which enables the system to be upgradeable without dismantling the sensor for improved performance and retro applications.

Natural gas consumption levels can be further reduced by using the sensor to fine tune and calibrate burners. Other benefits include lower fuel analysis costs, correct burner performance, stable combustion, and the overall alleviation of time consuming and costly damage to components brought on by inferior or low-grade gas fuels.

CMR Group designs, manufactures and commissions automation, control system and turnkey project solutions for global industrial and renewable energy sectors, alongside specialist instrumentation for high power diesel or gas engines. More at www.cmr-group.com





TURBIDITY MEASUREMENT MADE EASY

The new EXspect 231 NIR absorption sensor from EXNER is not only compact and robust, but also can be used in a multitude of processes and, at the same time, is easy to use.

With the EXspect 231 absorption sensor, EXNER brings a measuring device to market which can be reliably used to determine turbidity in a multitude of processes. The new type is based on the tried and tested EXspect 230 and EXspect 250 sensors. The robust stainless steel housing of the sensor has a hygienic design and is executed in protection class IP69. The measurement itself is done in the near infrared range (NIR) with a wavelength of 850 nm, which allows colour-neutral measurement. The LED light source and the detector are protected by a durable sapphire window. Cleaning by means of CIP / SIP processes is possible. For the calibration and verification of sensors in the field NIST-traceable reference filters are available.

Thanks to its hygienic and simultaneously robust design, the EXspect 231 sensor can be used for a wide variety of applications not only in the food industry, but also in the processing industry, as well as in environmental technology. Applications like the monitoring and control of separators, the determination of yeast concentrations in breweries, concentration measurement in the headbox in paper production, and the monitoring of purification processes in dairies, for example, are belonging to the areas of application.

The sensor is available in a variety of configurations and can thus be optimally adapted to suit the customer's requirements. The new EXspect 231 type replaces the previous sensor types 230 and 250 of the EXspect range.

<https://www.pressebox.de/pressemitteilung/exner-process-equipment-gmbh/Turbidity-measurement-made-easy/boxid/973299>





MISCELLANEOUS



MICROBES FOR NATURAL WASTEWATER SOLUTIONS

Bionetix® International helps solve wastewater imbalances and odour problems around the world by supplying specially targeted microorganisms and nutrients to degrade waste with greater efficiency. Bionetix® International's full line of natural wastewater treatments ranges from solutions for starting new operations, to meeting wastewater discharge limits, to making biogas plants more productive.



Wastewater Startup Solutions

Starting a new wastewater operation requires “seeding” it with a healthy microbial population that can handle a heavy influx of contaminants. These beneficial microorganisms play a critical role in biodegradation by breaking down waste and essentially using it as food. If the waste outbalances the microbial population, treatment plant operators will have trouble keeping up with the overload. A shock dose of microorganisms and nutrients such as those in BCP50™ gives an important boost to the system, so it can handle the first sudden influx of waste.



For the last several years, Bionetix® International has been supplying BCP50™ to a local college in Quebec to seed the “pilot plant” students use to study wastewater treatment. The college successfully uses BCP50™ to create a new batch of sludge (or MLSS) every year to run the miniature aerobic tank for educational purposes. BCP50™ was recommended because of its use in municipal wastewater plants. It is an excellent choice for “seeding” new operations.

Meeting Wastewater Discharge Limits

Wastewater contaminant levels are often measured by BOD (biological oxygen demand) and COD (chemical oxygen demand). Industrial or municipal wastewater operations must meet certain BOD and COD

limits before discharging effluent. Bioaugmentation is an excellent strategy for reducing contaminants in order to meet discharge limits and avoid extra fees. For greater effectiveness, Bionetix® doses specialized microbial and nutrient blends according to waste type. For example:

- BCP22™ targets high grease content
- BCP55™ targets high starch content
- BCP655™ targets high levels of ammonia, nitrate, and nitrite (together with organic waste)
- BCP57™ targets high cellulose content
- BCP80™ targets manure waste



In Spain, the wastewater lagoon effluent at a pig farm was marked by high levels of ammonium. A laboratory test conducted on effluent samples found that bioaugmentation with A55L™ successfully reduced ammonium levels, while BCP50™ reduced COD levels. In Mexico, a trial was done at an automotive factory using BCP50™ to maintain an 81% reduction in COD levels in the test tank. BCP50™ outperformed the global automaker's standards and was approved for use in factories around the world.

Increasing Biogas, Reducing Odor

Bioaugmentation also has many side benefits related to waste treatment. In 2018, Bionetix® was able to help two biogas plants in Japan deal with inefficiency and bad odor problems. The plants dosed BCP12™ and STIMULUS™ at both locations, in addition to BCP80™ at the manure biogas plant and BCP57™ at the plant with high herbage content. The odor problem was resolved, methane production increased from 40% to the industrial norm of 60%, and power production rose from 100 kW/generator to reach full 300 kW/generator capacity.

These are just a few examples of what Bionetix® has accomplished with biological treatments that release powerful natural mechanisms. By tailoring the right microorganisms to the job, Bionetix® is able to maximize the efficiency of wastewater treatment systems and keep operations in healthy balance for a variety of applications around the globe.

Learn more about Bionetix® biological solutions for municipal wastewater treatment here:
<http://www.bionetix-international.com/products/municipalwaste.html>



FLUIDMASTER DEVELOPS A HIGHLY EFFICIENT FLUSHING PROCESS

Kipp Umwelttechnik had previously focused largely on the mechanical cleaning of heat transfer systems with different processes like the JetMaster, SpeedMaster and TubeMaster.

The FluidMaster system closes a gap in the field of closed, non-removable heat transfer systems. Kipp Umwelttechnik can now offer devices and systems for the cleaning of all heat transfer systems. Together with its sister company mycon, Kipp Umwelttechnik focuses on automation or partial automation as far as possible and economical. FluidMaster is also equipped with a PLC. The suitable cleaning program can be easily selected and started.

The system has several sensors that indicate the development of pressure and volume flow as well as the temperature and pH value of the cleaning medium. FluidMaster is constantly monitored for tightness of all connections within the system and switches itself off automatically in the event of an unexpected flow (e.g. leakage).

All recorded values are constantly recorded and stored per second or minute, depending on the setting. The course of the cleaning is thus completely visible and can be documented at any time during or after the cleaning in any desired form. FluidMaster can therefore also remain in operation for longer periods without personnel monitoring onsite.

FluidMaster works with relatively high flow velocities. For large-volume heat transfer systems, the mycon SpeedMaster system can also be used as a combination device. SpeedMaster increases the flow rate of the cleaning medium and can also introduce a second cleaning medium at the same time if required.

For cleaning smaller heat transfer systems, the Mini-FluidMaster is also available as a lightweight cleaning device.

<https://www.pressebox.de/pressemitteilung/kipp-umwelttechnik-gmbh/Kipp-Umwelttechnik-GmbH-uses-new-FluidMaster-cleaning-system-from-sister-company-mycon-GmbH/boxid/973778>





DUSTCONTROL LAUNCHES NEW CENTRALISED VACUUM SYSTEM

Those in the food and drink processing, packaging and pharmaceutical industries can now benefit from the advanced range, which includes additional components to offer a fully integrated centralised vacuum system when fixed and fitted to the firm's complimenting equipment.

This means that the Good For Food range has been extended to now specifically include flap valves, suction brushes, flat nozzles, hose connectors, full stainless tubing system, joints, pre-separator, automatic shutter valves, and stainless steel filter units.

Manufactured specifically for the food industry, the equipment offers a unique combination of properties. For one, it is antistatic and ESD certified, which means it can be used in ATEX Zone 22, where dust explosions can occur.



The brushes and nozzles are also approved for food surface contact and the system for food transport, being both FDA compliant and the European equivalent.

The brush and accessories colour coding, covering five handle colours and two easily interchangeable brush colours, allows for different applications in the factory, different areas or even for different days of the week depending on need.

In addition, their material composition makes them detectable via metal detector as well as being autoclavable up to 121°C, allowing for high-pressure saturated steam cleaning.

James Miller, Managing Director of Dustcontrol UK, said: "Our Good For Food range has been developed specifically for the needs of the food industry. The range is now far more than merely brushes, with a wealth of research and development going into the design, so we're very excited to see the range evolve into a complete system."

The firm's Good For Food range is designed to offer a source extraction system that can be fully integrated into the production process for recycling, or used as a centralised vacuum cleaning system. Ultimately, it provides a flexible system where all parts are approved for food contact.

James concluded: "Through our unique suction brushes and a complete source extraction system with all materials approved for food contact, we're continuing to help those in the food industry extend their improvement of safety and hygiene standards."

Dustcontrol with its UK subsidiary based in Milton Keynes, has over 45 years of experience in designing and installing complete source extraction systems globally to fit client requirements in the food industry. They are experts in capturing dust at its source - both where and when it's created.

For further information on Dustcontrol UK's Good For Food brushes and centralised vacuum system, please call 01327 858001, or visit <http://dustcontrolfood.com/>.

Alternatively, for further information on Dustcontrol UK, visit www.dustcontroluk.co.uk.