

textile.4U

THE TEXDATA INTERNATIONAL MAGAZINE

ISSUE NO.2 2019

TEXDATA
INTERNATIONAL

ITMA 2019

**PREVIEW of the
exhibitors**

**INTERVIEW:
André Imhof**

**MAY THE
ITMA
BEGIN!**



REVIEW: TECHTEXTIL AND TEXPROCESS 2019

**VDMA MEMBERS PRESENT
INDUSTRY 4.0 SOLUTIONS**

BARCELONA
spain



Welcome
to Barcelona

Welcome
to ITMA

Welcome
to Monforts



hall 2 | booth D101

A. Monforts Textilmaschinen GmbH & Co. KG | Germany | A member of CHTC Fong's Group



FROM THE EDITOR

DEAR READER,

after 3 years and 213 days or, to put it another way, 187 weeks or 1309 days, the ITMA – the most important event for the textile machinery industry – will finally be opening again on 20 June. Representatives from the international textile industry will be congregating in Barcelona for 7 days, and the Spanish port will once again become the textile centre of the world. The ITMA is always a very special occasion for the world of textiles, on a par with the Olympics for the world of sport, but the 2019 event is set to outstrip everything that's gone before. The world is in a state of rapid flux, and major changes lie ahead. There is talk of an industrial revolution. We therefore expect to see solutions – machines, materials, processes and services – that address the needs of an industry undergoing revolutionary, or rather evolutionary change, and that demonstrate the tremendous innovative capability of the industry. The

textile industry and the associated textile machinery industry may be somewhat slower-moving than other sectors and have less sex appeal at first sight, but taken together, they are probably the world's most important industries on account of the number of countries involved. Moreover, our industry has been reinventing itself for centuries. Change is in our DNA.

And change is precisely what the ITMA is all about. In Barcelona we expect the two major megatrends – sustainability and digitalisation in all their different forms – to come together for the first time in the shape of solutions for the textile industry. Although the official focus of the ITMA is on digitalisation, the current mood in Europe demonstrates that sustainability is also a matter of great importance and is likely to remain so in the future. Climate change and the reduction of CO2 emissions are the most urgent issues for the young generation, and amid all the ent-

husiasm for digitalisation, it is important for exhibitors and visitors not to lose sight of these concerns. And indeed, there is little danger of that happening.

For our part, we can hardly wait for the ITMA. Judging from the announcements already made by leading exhibitors in the run-up to the event, we can expect the usual magnificent display of innovation. The new technologies in combination with the mood in the industry and the receptiveness for change, even if it involves disruption, provide us with a clear idea of what the next four years in our industry will bring.

What we hope to learn from the trade fair is how smart technologies will enable us to enter a new era. Perhaps that's what you have in mind too. In any event, we hope you find the right answers to your questions. Here's wishing everyone another amazing ITMA.

BEST REGARDS
OLIVER SCHMIDT

#Editor-in-chief



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VDMA MEMBERS PRESENT INDUSTRY 4.0 SOLUTIONS

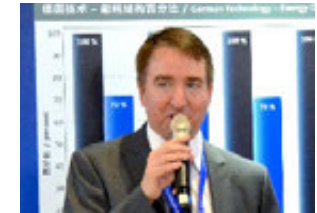


The future of the textile industry is more and more determined by **Industry 4.0**. Industry 4.0 has many dimensions and possible fields of application. In three of them (Smart Services, Operations and Factory), key solutions are provided by the machinery industry.

The other ones from **smart textile products, marketing** and **sales, employees** up to **strategy** and **organization** are specific know-how issues for textile mills.

INTERVIEW BY NICOLAI STRAUCH

PRESS OFFICER OF THE
VDMA TEXTILE MACHINERY
ASSOCIATION, GERMANY



Nicolai Strauch © 2019 TexData

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- **Eric Schöller**, Managing Director, Groz-Beckert
- **Dr. Christof Soest**, CTO, Trützschler
- **Jochen Stillger**, Head of Sales, Thies

INDUSTRY 4.0 & DIGITIZATION

At the ITMA 2019 in Barcelona, visitors will have the chance to see how Industry 4.0 solutions are impacting the textile process chain. Six weeks prior to ITMA, Nicolai Strauch, press officer of the VDMA Textile Machinery Association, Germany, spoke to experts of VDMA member companies about their products and services with regard to digitization and Industry 4.0.

MR. ADLER, WHAT CAN YOUR CUSTOMERS EXPECT 'DIGITALLY' FROM OERLIKON?

JOCHEN ADLER: I would say the digital refinement of our machines and production systems for manufacturing yarns, fibers, nonwovens along the textile value chain. We want to further optimize the efficiency of the systems and the quality of the end products with digital solutions. For this, we are deploying the know-how of our newly-integrated partner AC-Automation – which specializes in large-scale systems automation, transport, packaging and warehouse logistics and end product automated quality control. We combine this with our process competencies and digital data handling using our Plant Operation Center (POC). This has created Industry 4.0 solutions for our customers – with integrated storage and communication capabilities, wireless sensors, embedded actuators and intelligent software systems. In turn, this allows us to build

bridges between data and material flows and between the virtual and real worlds.

AND WHAT ASPECTS OF ALL THIS CAN VISITORS ALREADY SEE AT THE ITMA IN BARCELONA?



JOCHEN ADLER: At our trade fair stand we will be offering our visitors a digital experience that allows them to intensely discover and understand our machines, systems, components and services. Here, we will be deploying playful solutions to present the topic of artificial intelligence. We will be taking our 360-degree and augmented-reality applications as well as our virtual showroom with us, to allow visitors to experience complex systems live in 3D. The 'digital factory' is already in part becoming a reality in conjunction with our machine exhibits.

DR. SOEST, WHAT IS TRÜTZSCHLER'S LATEST I4.0 INNOVATION?

DR. CHRISTOF SOEST: We have developed intelligent, self-optimizing machines and connect them through digital monitoring systems. The latest examples are cloud-based monitoring solutions which enable customers to literally steer and optimize their spinning mill anytime from anywhere in the world. This combination of complete, intelligent machinery solutions and digital support systems means a big step in automation and ensuring high quality.



AND WHAT IS THE EXACT BENEFIT FOR A SPINNING MILL?

DR. CHRISTOF SOEST: Customer benefits range from improved productivity and quality to fewer downtimes, machine failures and reduced scrap. One of our monitoring systems, for example, warns operators about potential issues or optimization needs. It also specifies where exactly they occur and advises what needs to be done.

There is no need for time-consuming searches for the source of the issue. This saves a lot of time and money! By connecting all machines in a unified data set, we eliminate the information silos that made it difficult to steer production in the past.

LET'S STAY IN THE SPINNING SECTOR. MR. LANGIUS, COMPANY NEUENHAUSER SPECIALISES IN THE HANDLING OF YARN PACKAGES WITHIN THE YARN SPINNING PROCESS. ARE TRANSPORTATION SYSTEMS ALSO INFLUENCED BY INDUSTRY 4.0?

WILHELM LANGIUS: Indeed, a good example is a new development for the automated handling of sliver cans. Have you ever heard of AGVs?



INDUSTRY 4.0 & DIGITIZATION

SHOULD I?

WILHELM LANGIUS: AGV stands for Automatic Guided Vehicles, a technology that has been around for many years but has been fuelled recently by the introduction of Industry 4.0.

Neuenhauser saw with the recent advances in autonomous vehicles and navigation systems that an AGV is also a good solution for spinning mills.

We thought it is a useful tool to automate the labour-intensive handling of sliver cans in a spinning plant. Within twelve months, our team developed a state-of-the-art transport system using a large fleet of intelligently controlled automated guided vehicles. The AGV will pick-up sliver cans which are filled with cotton sliver material and deliver them to the spinning frame where empty cans will be exchanged with full cans. The empty cans are then returned to the equipment which will refill the sliver cans with cotton sliver to repeat the cycle. Within a typical spinning mill, very large numbers of sliver cans are required to be moved each hour.

AND HOW DO YOU MAKE SURE THESE VEHICLES FIND THEIR WAY IN A SPINNING MILL?

WILHELM LANGIUS: The vehicles are equipped with the latest state-of-the-art safety sensors to ensure the vehicles operate

safely alongside plant personnel who need to share the same floor space and aisles within the spinning mill. The plant personnel are also equipped with specialized sensors they wear on their safety vest, to inform the AGV where the operators are working and moving around within the manufacturing floor. With such a system both the AGVs and local plant personnel can work safely together within the same manufacturing area.

MR. MÜLLER-PROBANDT, COMPANY DIENES SPECIALISES IN MACHINE COMPONENTS FOR THE MANMADE FIBER PRODUCTION AS WELL AS TEXTILE SPECIAL APPLICATIONS. ONE FOCUS ARE PILOT INSTALLATIONS FOR RESEARCH. HOW IS INDUSTRY 4.0 TOUCHING THIS APPLICATION?



Steffen Müller-Probandt © 2019 Dienes

STEFFEN MÜLLER-PROBANDT: One key product in our portfolio is a modular spinning system which allows customised solutions, starting from thread run studies to complete pilot installations.

Each unit has its own PLC (Programmable Logic Controller), which allows to run DIENES units in foreign lines or to integrate foreign units in a DIENES line. The units can be operated with an interface directly or over the ethernet from an upper control system.

WHAT ARE THE ADVANTAGES FOR CUSTOMERS E.G. RESEARCH INSTITUTES OR R&D DEPARTMENTS?

STEFFEN MÜLLER-PROBANDT: Our modular system includes a line overview, which rearranges itself almost automatically for different operation modes in alternative machine sequences. The detailed process representation allows the customer to monitor directly the effect for all changes of parameters. If a good yarn could be realized it is possible to back-track the journey of this yarn through the process.

The parameters can be modified with mobile devices, like a pad or a mobile phone. All these functionalities allow the research institutes and industry to reduce the cost of investments and to operate fast and flexibly in the development of new products, which additionally save costs and time.

LET'S GO A STEP FORWARD IN THE TEXTILE CHAIN. INDUSTRY 4.0. IS ALSO AN ISSUE IN FABRIC PRODUCTION. MR. KÜRIG, AT ITMA ASIA 2018 KARL MAYER LAUNCHED ITS OWN DIGITAL BRAND, KM.ON. WHAT IS NEW IN THE ASSOCIATED DIGITAL SOLUTIONS PORTFOLIO WITH REGARD TO PRODUCTION?

MAXIMILIAN KÜRIG: KM.ON's range of features has been extended considerably. A good example from Karl Mayer is a new digital tool that combines a PDA system with a ticket system to enable any disruptions in production to be managed efficiently. The relevant information can be input easily and quickly at the machine and forwarded to the appropriate location in real time. Any problems can be dealt with quickly, and the root cause can be tackled rapidly by displaying the relevant sequence.



Maximilian Kürig © 2019 KARL MAYER

INDUSTRY 4.0 & DIGITIZATION

WHAT DOES THIS TOOL MEAN FOR THE MACHINE OPERATOR? IS IT AN OPERATOR FRIENDLY TECHNOLOGY?

MAXIMILIAN KÜRIG: This system is very easy to operate, which means that this new development can be used immediately.

INTEGRAL PARTS IN KNITTING, WARP KNITTING AND SEWING ARE NEEDLES. MR. SCHÖLLER, WILL NEEDLE HANDLING ALSO MOVE TO A DIGITAL LEVEL?

ERIC SCHÖLLER: Yes, indeed. Groz-Beckert has developed a quality and life cycle management system for needles. It organises each needle in a clearly structured process and documents them digitally, from arriving at the factory to leaving for recycling.

HOW DO CUSTOMERS BENEFIT FROM THIS SYSTEM?

ERIC SCHÖLLER: This quality management system makes it possible to efficiently conduct audits and, as part of the digitalization process, provides a complete overview of KPIs (Key Performance Indicators) with the option of implementing predictive maintenance measures. Customers also benefit from the ability to improve machine utilization and identify weak points in production. The use of the system reduces needle consumption at

factories by up to 10 percent. Downtime during needle changes also decreases by 50 percent on average. Moreover, the risk of contractual penalties due to non-compliance with brand owner specifications goes to zero. The use of the system also eliminates the need to store used needles for documentation purposes; the needles can be sent for recycling right away – a decisive benefit in the sense of sustainability.



Eric Schöller, Groz-Beckert © 2019 Groz-Beckert

LET'S MOVE FORWARD IN THE TEXTILE CHAIN. MS. DILO, HOW CAN INDUSTRY 4.0 HELP CUSTOMERS IN THE NONWOVENS INDUSTRY TO INCREASE EFFICIENCY AND SO TO DECREASE COSTS?

REBEKKA DILO: Our new operator system assists the operators through intelligent sensors and automatized modes allowing a reduction of workforce at nonwoven lines. At a line restart, the newly formed web may wrap around rollers in the card and crosslapper. The new starting mode automatically prefills the line and forms a stable start nonwoven, minimizing the risk of wrappings.

WHAT IS THE EFFECT OF THIS?

REBEKKA DILO: As a result, the line starts smoothly with minimal manual intervention. Moreover, an energy-saving technology helps to decrease costs at the fibers transport, one of the main energy consumers in needling lines. Instead of operating the ventilators for the fiber-air transport at maximum frequency, the system controls the ventilator speed according to the actual throughput and also gives warnings before blockages can occur.



Rebekka Dilo, Dilo © 2019 Dilo

The technology therefore targets ecosensitive nonwoven producers, who also want to increase their line availability. This targets especially producers working with fiber blends and several bale openers respectively.

MR. LUKAS, ANDRITZ KÜSTERS ALSO SPECIALIZES IN TECHNOLOGIES FOR THE NONWOVENS INDUSTRY. WHICH STEPS HAVE BEEN TAKEN RECENTLY TO ADDRESS THE TOPIC I4.0?

ANDREAS LUKAS: Andritz has pooled its relevant expertise under a new technology brand that covers smart sensors, big data analytics and augmented reality.

AUGMENTED REALITY IS A GOOD TOPIC THAT HAS NOT BEEN MENTIONED SO FAR. WHAT ARE THE ADVANTAGES OF THIS TECHNOLOGY?

ANDREAS LUKAS: Portrayal of important information where operations are taking place and always with respect to the product or object are compelling arguments in favor of using Augmented Reality. Other benefits for customers: Conventional operating manuals are converted into digital instructions, virtual tools can be displayed in the real work environment, and users can perform difficult work sequences with a lower error rate.



Andreas Lukas © 2019 Andritz

INDUSTRY 4.0 & DIGITIZATION

DR. HORN, HERZOG IS PRODUCING BRAIDING MACHINES. WHAT IS YOUR LATEST I4.0 PRODUCT AND WHAT IS YOUR APPROACH?

DR. JANPETER HORN: An additional module for Herzog machines, an app-box, with which Industry 4.0 scenarios can be realised without employing software teams or starting big Industry 4.0 projects. This technology is an app-based one. Apps can be downloaded and installed easily.

HOW DO CUSTOMERS BENEFIT FROM THIS?

DR. JANPETER HORN: The customer can easily access the data of Herzog machines, e.g. on a PLC (Programmable Logic Controller). The data can be visualised on dashboards created by the customer on terminals or others. The data can be processed, e.g. by creating key figures, alarms or analyzation. Alarms and information could be transferred by e-mail,



Dr. Janpeter Horn

© 2019 Herzog

messengers. Furthermore, the data can be linked to order from pps systems or transferred to the machines – if the customer decides to go this way.

CAN YOU QUANTIFY THE BENEFIT?

DR. JANPETER HORN: No formation of software teams outside machines. New applications could be created easily. No additional software.

WHAT IS REALLY NEW AT THIS SOLUTION?

DR. JANPETER HORN: It is the result of a three-year research project. Various innovations have been implemented: The use of cloud technologies on the shop floor; open source technologies for inexpensive apps; no internet connection is necessary. The main advantage however is the “one-click” installation of apps which have been applicable only for smartphones and tablets. The apps are installed in a so-called box outside the machines.

THE LAST STEPS IN THE TEXTILE CHAIN IS FINISHING. MR. HEINRICHS, WHAT WILL MONFORTS PRESENT AT ITMA?

KLAUS HEINRICHS: Thanks to a support app for communication and an app for operating Monforts systems, Monforts machines now feature a “digital twin” that will be presented to the textile industry for the first time ever at ITMA in Barce-



Klaus Heinrichs

© 2019 Monforts

lona. With the help of advanced sensor technology, all technical data are mapped in the cloud virtually and in real time. The data in the cloud indicate the current state of the system with its respective specifications and can map the entire production process, enabling targeted analysis and controlled planning and production: Insights harnessed from data analyses can be used to optimise the actual production process.

WHAT IS NEW ABOUT YOUR SOLUTION / TECHNOLOGY?

KLAUS HEINRICHS: The status overview in real-time improves machine availability while minimising downtime considerably. Potential sources of error can be anticipated and eliminated. The digital twin provides information on individual wear parts of a system, such as converters or gears, for example. In the future operators will be able to see how long a wearing part will last and when it has to be maintained

or replaced ahead of time. Direct access to the integrated Monforts webshop allows users to order wearing and spare parts at the press of the button when they are needed, virtually preventing machine downtime. On request, Monforts can monitor machine availability and proactively approach customers if action is required. Data is only ever called from the cloud provided customers have agreed, requiring their consent in the interest of data security.

WHAT ADVANTAGES DOES THIS OFFER FOR YOUR CLIENTS?

KLAUS HEINRICHS: With the support app, the customer can contact Monforts service virtually 24 hours a day or at an arranged time via smartphone or tablet. Support is given right on site via a video connection. The Monforts service specialist can point out individual system parts on the customer's smartphone using a mouse cursor and assist users in troubleshooting or operating the machine on site. Documents, such as machine documentation, can also be shown in real-time on the smartphone. Data can be used to analyse a system's energy requirements. For example, machine operation can be optimised for production to go into full operation when electricity costs are at their lowest.

LET'S STAY IN THE FINISHING PROCESS. MR. STILLGER, THE COMPANY THIES

INDUSTRY 4.0 & DIGITIZATION

SPECIALIZES IN DYEING TECHNOLOGY. WHAT IS YOUR LATEST I4.0 PRODUCT?

JOCHEN STILLGER: For the ITMA 2019 we offer a new version of our maintenance system, which, among others, was extended by the condition monitoring module. It is an automated planning, execution and monitoring software for inspection, service and routine maintenance, which not only facilitates the procurement of spare parts, but also provides the corresponding technical documentation digitally. At the same time, we are laying the foundation for future machine-specific and customized machine-based learning from the history data.

In addition, a new controller generation will be offered together with one of our control suppliers, which will be open for I4.0 applications and at the same time can be connected to the corresponding MES (Manufacturing Execution System).



Jochen Stillger

© 2019 Thies

WHAT SPECIFIC BENEFIT DOES A CUSTOMER GET FROM YOUR SOLUTION / TECHNOLOGY?

JOCHEN STILLGER: Optimization of production processes and production safety through completely transparent planning, implementation and monitoring tools. In the medium term, a significant reduction in process and maintenance time is achieved. There will be a reduction in the failure rate and the time to fix failures. All in all, a reduction in maintenance costs due to a purposefully controlled spare parts inventory and a prioritized and more efficient maintenance is expected.

CAN YOU PROVE THIS WITH SOME FACTS AND FIGURES?

JOCHEN STILLGER: Customers will achieve higher machine efficiency through intelligent maintenance. Depending on the individual situation in the dye house, optimization of the processes may reduce the costs by 20 to 50%. Successful energy management (managing energy allocation) can lead to an additional 7% to 10% reduction in costs.

THE VDMA SUPPORTS THE MECHANICAL AND PLANT ENGINEERING INDUSTRY IN THE DEVELOPMENT OF OPC / UA COMPANION SPECIFICATIONS. OPC / UA IS AN OPEN INTERFACE STANDARD THAT DEFINES THE MECHANISMS OF COOPERATION IN THE

INDUSTRIAL ENVIRONMENT. WHAT ADVANTAGES DOES OPC / UA PROVIDE WITH REGARD TO YOUR SOLUTION / TECHNOLOGY?

JOCHEN STILLGER: The OPC / UA interface enables standardized data transfer. A significant improvement in data quality is achieved. The new technology introduces customer-specific and system-specific monitoring of the functioning of the machine. Smarter sensors are used for process monitoring. Forward-looking history data are collected for the configuration of self-optimizing AI processes.

GENTLEMEN, IN THE DAILY PRESS I GET SOMETIMES THE IMPRESSION THAT I4.0 / DIGITIZATION IS AN END IN ITSELF. MR. PIEPER, IN TEXTILE FINISHING, ENERGY CONSUMPTION PLAYS A CRUCIAL ROLE. CAN I4.0-SOLUTIONS HELP TO REDUCE ENERGY COSTS?

AXEL PIEPER: Brückner has developed an intelligent machine assistance system that monitors the settings of the entire system in the background. Deviations from default values are immediately signaled to the machine operator and stored in the production history logbook. A new simulation tool helps the machine operator to get the highest possible productivity and/or energy savings out of the system. Maintenance and spare part suggestions are displayed preventively after a certain interval. Upcoming maintenance tasks are

comprehensively visualized for the maintenance department and can even be retrieved from mobile devices.

HOW CAN A FINISHING COMPANY REALIZE SAVINGS POTENTIALS WITH THIS SOLUTION?

AXEL PIEPER: During production, a production assistance system helps the operator to decide which parameters need to be adjusted to make the system even more energy-efficient and productive. Optimized recipes can be stored for future processes and are therefore very easy to reproduce. At the customer's request, we can also connect his system to a higher-level control station system. This allows recipe data to be researched in a central data base and to be shared with other users. This new intelligent assistance system in combination with the simulation tool allows productivity increases of up to 40%. Energy consumption can be reduced by up to 30% with these systems.



Axel Pieper

© 2019 Brückner

INDUSTRY 4.0 & DIGITIZATION

LET'S STAY IN THE FINISHING PROCESS. MR. MESTERMANN, COMPANY MAHLO DEVELOPS AND PRODUCES MEASUREMENT AND CONTROL EQUIPMENT FOR THE TEXTILE AND NONWOVEN INDUSTRY. A BASIC IDEA OF INDUSTRY 4.0 IS COLLECTING AND PROCESSING DATA FOR BETTER PRODUCTION RESULTS. HOW IS MAHLO ADDRESSING THIS ISSUE?

RAINER MESTERMANN: A new platform from Mahlo realizes these ideas of industry 4.0 with digital technologies. In the digitization concept for all Mahlo products, the functionalities are grouped, optimized and standardized as „services“. This results in modular hardware and software function blocks that can also be retrofitted. There are modules e.g. for the acquisition and processing of measured values, for con-



Rainer Mestermann

© 2019 Mahlo

trol tasks or for the long-term archiving, data logging and analysis.

WHY SHOULD MANUFACTURERS AND FINISHERS OF TEXTILE FABRICS INVEST IN YOUR SOLUTIONS?

RAINER MESTERMANN: Our new platform makes it easier for customers to use data in a meaningful manner to optimize their processes. Networking of Mahlo devices with each other and with other systems ensures consistent data exchange and enables the bundling of information as a basis for process improvement. Higher machine availability through remote maintenance via better product quality by adaptive control or flexible data analysis as the basis for better decisions provide immediate monetary benefits.

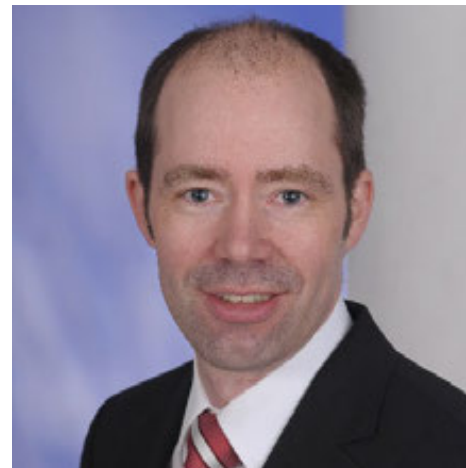
CAN YOU QUANTIFY THE BENEFITS, PLEASE?

RAINER MESTERMANN: One example is the control module in our weft straighteners. Together with a renowned university, the distortion control was revised and digitized. Optimized hardware and software resulted in a faster and more efficient controller. Evaluations confirmed by customers prove that the control module regulates 20% faster and more precisely than before. Better straightening results reduce the production of second-choice goods

and the need to pass the same fabric through the stenter several times.

MR. HANNES, TELL US SOMETHING ABOUT THE PORTFOLIO OF SEDO-TREE-POINT.

ANDREAS HANNES: We are known for smart factory integration and offer integrated textile management systems along the textile production chain, such as spinning, weaving, knitting, dyeing, finishing, printing and inspection. For all departments, PPS, routing of orders (track and trace) or energy management is available. Existing ERP systems are integrated as well, so double entry of existing information is avoided.



Andreas Hannes

© 2019 Sedo-Treepoint

WHAT CAN WE EXPECT FROM YOUR COMPANY AT ITMA IN BARCELONA?

ANDREAS HANNES: We will introduce a new series of our dyehouse controllers. The new series is specially designed for Industry 4.0. The open connectivity on production and machine level improves the M2M-communication. Important information for the production floor is displayed wherever required.

MR. OTT, YOUR COMPANY HALO ELECTRONICS FROM AUSTRIA DEVELOPS ENTERPRISE-RESOURCE-PLANNING (ERP) SYSTEMS FOR THE TEXTILE INDUSTRY. PLEASE, TELL US MORE ABOUT YOUR COMPANY.

MARCUS OTT: We provide custom-tailored IT solutions, that offer textile industry customers the perfect level of data transparency - from fibre to finished product. Direct communication between man and machine not only enables this consistently transparent presentation of all relevant data, but also gives employees flexible and, most importantly, mobile access to it. All important information is available on the handheld device while „on the go“.

INDUSTRY 4.0 & DIGITIZATION

HOW IS THE USABILITY OF YOUR SOLUTION? CAN YOU QUANTIFY THE BENEFITS OF THE PRODUCT?

MARCUS OTT: The intuitive software relies on language-independent icons instead of text and can therefore be used without training in any work environment. The resulting cost savings are clear. The seamless implementation of the software in all relevant production processes up to the point of delivery enables complete consistency and transparency of the data collection, which simplifies optimisation processes and gives management vital deci-



Marcus Ott © 2019 Halo Electronics

on-making information. For example, the use of our software enables time savings of 45% for the storage and retrieval of products in the warehouse.

MR. KEMNITZER, BAUMÜLLER IS A WELL-KNOWN MANUFACTURER OF INTELLIGENT DRIVE AND AUTOMATION SYSTEMS AS WELL AS SOFTWARE FOR NUMEROUS BRANCHES, INCLUDING TEXTILE MACHINERY. ONE FOCUS IS SIMULATION SOFTWARE. WHAT'S ACTUALLY NEW?

LEONHARD KEMNITZER: Many simulation tools graphically depict machines and systems as 3D simulations. These standard tools focus on the behavior of the machines under optimal conditions.



Leonhard Kemnitzer © 2019 Baumüller

Our simulation software starts one step ahead. In the first step, the drives and the mechanical parts are selected for the respective application task in order to then verify the motion profiles of the machine.

WHAT ADVANTAGE DOES THE SOFTWARE OFFER?

LEONHARD KEMNITZER: Our software is very user-friendly. With classical simulation tools a large number of different parameters has to be entered. The advantage of our tool is the great simplification of the models without losing their accuracy. Application engineers can work with ready-made models that are just as accurate from the calculation cycles as they are in other simulation tools. Due to the complete integration in the operating software, the models are automatically parameterized and changes can be carried out very quickly. The result of the simulation process is a parameter set which can be used in the real application. This saves much time in the engineering process and reduces the time to market.

Ladies and Gentlemen, thank you very much for this Industry 4.0 journey along the textile chain plus supplier. More than 200 VDMA member companies will exhibit at ITMA end of June. We are eagerly looking forward to a fantastic and successful ITMA in Barcelona.

TEXDATA INTERNATIONAL



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ANDRÉ IMHOF

CEO AUTEFA SWITZERLAND & AUSTRIA

“I don’t know of any other machinery manufacturer in the premium nonwoven segment that has such a comprehensive product range.”

INTERVIEW BY
OLIVER SCHMIDT



Since 2011, the name Autefa Solutions has stood for the combined expertise and long-standing tradition of AUTEFA from Germany, Fehrer from Austria, the Italian companies FOR and OCTIR from Biella, and Strahm Hi-Tex from Switzerland. In the meantime, the company has made tremendous strides, at least that’s how it looks from an outsider’s perspective. In recent years, for example, you have introduced numerous innovative machines, including the Fehrer StylusONE needle loom, which stands for both quality and cost effectiveness. Or the AUTOMATIC NEEDLE EXCHANGER 2.0, which features a fully automatic needle exchange process and is suitable for use with all needle boards and needles. In addition, you opened an impressive technical centre in 2016. You yourself have been CEO of Autefa Solutions Switzerland and Austria since 2014, and as such you have been responsible for this progress. How do you view the current market position of Autefa Solutions and what does Autefa Solutions stand for?

It’s fair to say that Autefa Solutions, being a well-established group, has done very well. We’re very pleased about that because of course we carry a lot of responsibility on account of our long-standing tradition. Appearances are not deceptive in this case; the positive trend is reflected in the figures. In recent years, we have achieved growth rates in the double figures. We should perhaps make a distinction between how we are actually perceived and how we want to be perceived. We want to be seen as the preferred supplier of nonwoven lines. That

THE TEXDATA MAGAZINE

is our vision and the basis for our slogan: "Lead the way in nonwoven lines". I think that's how we are actually seen, though not in all markets or for all applications. Our aim is to reinforce our market position as line supplier. We want the market players to realise that we cover virtually all areas of the business with our cards, crosslappers, needle loom lines, and with our Airlay machines in the segments mechanical bonding and thermobonding, and offer complete spunlace lines as well as chemical bonding and air through thermobonding. I don't know of any other machinery manufacturer in the premium nonwoven segment that has such a comprehensive product range.

And what are your plans for the future? Have you got a particular idea or vision for your company that you want to implement in the next five to ten years?

Let me start by looking back on what we've achieved so far before we look to the future. Over the past few years, we have invested a lot of time and effort in bringing together our individual brands AUTEFA, Fehrer, FOR, OCTIR und Strahm under one roof: Autefa Solutions. We now intend to continue building on that. You ask about our plans for the next 5 to 10 years. The next steps for us can be summed up by the words "innovation, digitalisation and service". Looking ahead, the first thing I have to say is that the textile industry has made relatively slow progress in recent years compared with other industries. At least that's how I see it, having worked in other industries for a while. However, the textile

industry seems to be gaining new impetus at the moment and things have started moving. Widespread change is underway due to megatrends such as mobility, the ageing population, digitalisation and sustainability. These trends affect us all and will no doubt continue to do so over the next few years. I think our far-reaching solutions put us in a very good position in this respect. As a sample I like to mention our V-Jet injector for spunlace machine, introduced in 2015 during the last ITMA. The V-Jet injector is an important contribution to energy saving. And in 10 years' time? A couple of years ago, I might have been able to answer that question, but given the current developments, that's no longer possible. A lot of things will probably look completely different than they do now.

What do you see as the major issues currently driving change in the world of nonwovens and what trends have you been able to identify?

As far as sustainability is concerned, plastic pollution is undoubtedly a major issue calling for new recycling loops and new products. The geotextile segment is still registering very strong growth, and in the mobility segment, lightweight technology is in high demand. There may be applications for our carbon and composite fiber processing carbon lines here. In the energy sector, we're looking at filters and energy efficiency. The ageing population is impacting the hygiene segment, including incontinence products, for example. We're actively addressing all these issues

– that's for sure. Over the past few years, we have made steady or evolutionary progress in the textile industry. And now we're even seeing radical and disruptive change in response to numerous new issues, and an awful lot of things are being called into question. Completely new business models are emerging. That's how we see it at Autefa and what we're hearing from other people.

As you mentioned before, we live in times of great change and that also applies to the world of textiles, including nonwovens. One of the megatrends we're seeing is the desire for greater sustainability in manufacturing. For machinery manufacturers, that no doubt means not just addressing traditional issues such as the improvement of energy efficiency, but also dealing with challenges such as the need to adapt machines to new fibres and fibre blends that, for a variety of reasons, are considered more environmentally friendly. At the same time, there is increasing demand for fibres to be recycled. Are these issues that you're having to address in order to support your customers? Is machinery optimisation a must or an option, and what kind of solutions are you offering?

I've already talked about the importance of sustainability. I'll be glad to explain how we're assisting our customers with these changes. We've noticed that customers take a very different approach these days. They used to come to us with a bag full of products and ask us to manufacture them. We knew exactly what they wanted,

and the specifications were clear to a large extent. Nowadays, customers approach us with an idea for solving a particular problem. They come with lots of different fibres and requests and want to create a product with very specific properties. We become involved at a much earlier stage, and in order to provide optimal support for our customers we have recently developed two additional complete lines at our Technical Centre. That means we now have four complete lines for handling all products. The plan is to enable our customers not only to develop products in cooperation with us, but to create variations on those products with the help of line 4, the Advanced Nonwoven Technical Centre. Here they can manufacture 2, 5 or 10 tonnes of a product in a variety of designs and thus gain validated supplier status with a car manufacturer, for example. Thanks to the Technical Centre, we are practically integrated in our customers' product development processes. They now come to us with their development teams or with fibre manufacturers and other suppliers who manufacture a special textile finish, for example. That means we have to be open to all the ideas and requests put to us by our customers and offer them the best possible options for the realisation of their products.

Another megatrend is digitalisation, which is expected to bring about changes in both technology and business models. Many of these ideas are still merely visions for the future, and few have generated tangible approaches or results to date. Data availability, data visibility, data analysis and

artificial intelligence for optimising machinery set-up are currently much-talked-about topics. Concepts such as “predictive maintenance” are also under discussion in some segments of the textile industry. Are customers demanding technological changes of this kind from Autefa Solutions or from within the nonwoven industry or do you anticipate them doing so in the near future? And what is your strategy or implementation concept?

At the present time, the market is not directly calling for digitalisation, but for the results achievable through digitalisation. The aim is to increase productivity, reduce waste and thus lower raw material costs, reduce energy consumption and make more efficient use of manpower. How that is achieved is not the customers’ main concern, but digitalisation is an obvious solution. And since the last ITMA, ideas and discussions have led to concrete products: products that work, offer advantages and are available on the market. At Autefa Solutions, we have been very preoccupied with this issue. We have sought outside help, held a digitalisation workshop organised by the SWISS-MEM Association, and achieved results. One of the products we intend to display at the ITMA is Autefa iWeb. This product is all about creating a self-optimising nonwoven line. It’s not acceptable for different people to have so much influence on production by using individual machine settings and entering parameters manually. Nor is it acceptable for the standard production line not to function automatically and, above all, not to be fully reproducible. And of course achie-

ving specific properties, such as a constant CV value, weight or air permeability at the press of a button when changing products requires a certain degree of intelligence. It requires the recording of parameters, sensor technology, video monitoring, and ultimately intelligence. Processing these huge volumes of data and automatically setting the machine may call for deep learning or perhaps artificial intelligence at some point in the future. This is something we’re looking at, and Autefa iWeb is a vision that we’ve initiated and are currently working on. Our customers will have to be willing to share their data with us, but only with us, and in return we will be sharing our knowhow with them. This will lead to continual improvements in our customers’ manufacturing processes.

Another project in the field of digitalisation is our Autefa Service 4.0. As the name suggests, this offers customers 4 service levels. Level 1 starts with straightforward online enquiries about certain settings and 24-hour remote maintenance access. Level 2 is advanced and includes automatic monitoring via permanent data access, which enables us to monitor numerous parameters and errors and intervene where necessary. At Level 3, which we refer to as “premium”, we offer proactive suggestions with respect to maintenance, for example, as well as optimisations, software upgrades and training courses about the system. And at Level 4, the highest level aptly referred to as “ultimate”, we offer full system support including preventive maintenance, the supply of spare parts, maintenance planning

and maintenance, the provision of wear parts, and guaranteed response times. This is still just a vision for the future, but what we have to aim for: in effect, we will be acting as the customer’s system operator. It goes without saying that a sudden system standstill is a nightmare for any customer. And with the help of this product, Autefa Service 4.0, we can provide customers with ever better protection from this scenario at the individual levels. At “ultimate” level, everything is in at the price, and customers who opt for this level can include the cost in their calculations and leave everything else to us if they want to.

It’s not long now until the ITMA in Barcelona. No doubt you’ve got something very special in store for your customers. Would you care to let us into a few secrets? And if not, would you mind telling us in what areas of nonwoven manufacturing you expect to see new technologies and how you rate progress so far and its impact on the industry?

I’ll be glad to tell you a bit more about our ITMA products. We will be exhibiting a “digital twin” of a baling press, and the same system will be on display at the Siemens stand. We’ll be demonstrating how we digitally simulate processes and system software. We believe there’s a lot of potential here, as our industry has relied far too much on mechanical systems up till now. We will of course also be exhibiting machines. 380 units of our Airlay have already been installed, and we have invested in a new Airlay Futura system that is completely mo-

dular and mounted on a track. Customers are free to select modules for the desired configurations. The track system offers numerous advantages, such as rapid changeover and fast, convenient access to the components for cleaning and maintenance purposes. This is particularly important in the natural fibre segment and very straightforward with this system. It’s what we call “easy opening”. In addition, settings that were previously adjusted mechanically can now be controlled electronically from the console instead, making it possible to follow a set production plan.

Another thing I’d like to mention is that we’ll also be demonstrating what we have to offer in terms of fiber baling, fiber logistics technology and woollen carding technology. And we’ve got something else in store for you, but I’m keeping it under wraps for the time being. We will be displaying another new machine. All the details will be made available on the first day of the ITMA.

And what are you personally looking forward to most at the ITMA?

I’m very much looking forward to our team at the ITMA. Last time, there was such a great team spirit, it was unforgettable. That’s a fantastic feeling and something I’ve been looking forward to during the entire run-up to the fair. And of course I’m also looking forward to the customers, to sharing this feeling with everyone and talking about the many new products, planning for the future, and sealing business deals. It’s all great fun.

Textile Machinery



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MAY THE ITMA BEGIN!

VISITORS CAN EXPECT A FIREWORK OF INNOVATIONS.

It's ITMA time again. This brings us this very distinct feeling like at the Olympics or the Football World Cup. The mother of all textile machinery trade fairs only comes around in Europe every four years, and the fact that the innovation cycle of the textile machinery industry ties in with this schedule is what makes the fair so special, indeed unique. Founded in 1951 by CEMATEX, with its first-ever event taking place in Lille, the ITMA will be entering its 18th round from 20 to 26 June. It is due to take place once again in the Spanish city of Barcelona, at the new exhibition centre Fira de Barcelona - Gran Via, which is perfectly equipped for staging all manner of technical and mechanical engineering fairs. Designed by the Japanese architect Toyo Ito, winner of the Pritzker prize, it boasts 240,000 m² of exhibition floor space. Its eight pavilions, connected by a walkway that channels the flow of visitors, provide cutting-edge services and logistics.

LITTLE MOMENTUM DUE TO GLOBAL ECONOMIC SITUATION

As always, there is great excitement about the ITMA ahead of time, as well as hopes that the event within the industry will spark a greater enthusiasm for the next four years. There are some very mixed omens on that score. Nobody is very happy about the timing so close to the important Techtextil in Frankfurt. Almost more important, the global economy isn't running at full steam either - not only losing momentum due to the impending trade war. China no longer has the growth that makes everything else in economy forget. The new, desirable locomotives, such as India, Bangladesh and Vietnam, must travel much faster. Hardly anyone else speaks of B and R in the BRIC as well as MINT. Brazil, Russia, Indonesia, Mexico, Turkey and Nigeria have their own problems. Added to that, currency fluctuations, political crises, wars, refugees and turbulence on the financial markets hardly give cause for optimism about the ITMA.



The announcement of ITMA 2019 four years ago. Now it's time!
© TexData International

But even these difficulties before an ITMA are not new. Even four years ago, global indicators were not very good and ITMA itself was one of the best and most successful events ever. The reason was the indicators of the textile industry itself. And this time, they are still classified as good, if not better than four years ago. The growing demand for textiles remains due to the increase in the world's population and notably the significant growth of an affluent middle class in many emerging countries. There are also excellent forecasts for many textile sectors.

TEXTILE INDUSTRY CONTINUES TO GROW

Moreover, isn't it fair to question whether the "major economic indicators" really do have a decisive impact on the success of a trade fair like the ITMA?

Shouldn't greater significance be attached to the more minor industry-specific indicators, which paint a far rosier picture? There are in fact a lot of positive signs. Let's take the example of technical textiles. They represent a huge growth market, and it is still too early to estimate just how many potential applications they may have. Nonwovens are on the increase; digital printing is on the increase; coated textiles are on the increase; smart textiles are gaining momentum - and the same applies to countless other segments.

INDUSTRY 4.0 WILL CHANGE A LOT

But it isn't just the growth of many textile segments that bodes well for the success of the ITMA. A far more convincing argument is the theme: "Industry 4.0" - the fourth industrial revolution. Already at the ITMA Asia in Shanghai in October last year, the topic of Industry 4.0 has shown its enormous impact on the entire textile industry. With the companies Oerlikon and Karl Mayer, two world market leaders had put their digital strategies at the center of their shows and thus really triggered a jolt. For the first time, the talks were no longer dominated by speeds and feeds, but by data. „Data is the new oil," is a well-known saying and this oil is to flow and as a lubricant to make all connections worldwide and to make them easy and viable. The announcements made by some market leading exhibitors suggest that the aforementioned jolt will become a minor quake at ITMA.

Hardly any company will not present its possibilities for digitization and the topic of IoT. And these possibilities can be far-reaching and disruptive. Models are argued that the textile machinery manufacturers will no longer sell machines in the future, but will operate the machinery of textile manufacturers against a lump-sum payment. The machine builder



Big crowds of visitors in the entrance area of the fairgrounds at ITMA 2011 in Barcelona © 2011 CEMATEX



In 2015 the prizes have been awarded in a gala night © TexData International



The number of visitors 4 years ago in Milan was unprecedented. Can that be topped? © TexData International

can then use all his know-how to maximize profit, and the textile mill can focus 100% on other tasks. An interesting mind game. And until that happens, other, faster-to-implement solutions such as predictive maintenance, digital twin, big data, production monitoring and control, machine setup and, of course, automation will be in the foreground.

Thomas Waldmann, Managing Director of the VDMA Textile Machinery Association, summarised: "The future success of the textile industry is more and more determined by Industry 4.0. As seen today, Industry 4.0 has many dimensions and possible fields of application. In Smart Services, Operations and Factory, key solutions are provided by the machinery industry. Today's presentations are just a few examples for innovative Industry 4.0 solutions. At ITMA in Barcelona, visitors will have the chance to see the whole range of I4.0 and other innovative solutions offered by VDMA member companies."

SUSTAINABILITY REMAINS A KEY FACTOR

And sustainability? Even if the central theme of the last ITMA 2015 seems to have moved back a bit, it has continued to gain momentum and underpins its shift from trend to megatrend. Today, sustainability is more than ever the dominant direction of the global economy and its industries. The paradigm shift is taking place and it needs to be done. This is clearly shown by the recent election results in Europe.

If we accept the premise that sustainability of production is also destined to become the decisive purchasing criterion for consumers over the next twenty years, it is not hard to predict the significance of this topic for businesses and the extent of the changes that may be involved. Neologisms such as "price-sustainability-ratio" could become everyday usage.



FASCINATING TEXTILE MACHINERY

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There is both a willingness and a necessity on the part of corporations, retailers and brands to address this topic while striving to achieve market leadership in their respective segments. This is having a significant impact on the supply chain. A few years ago, organisations such as the Sustainable Apparel Coalition have even set themselves the goal of making textile manufacturing sustainability measurable for each individual textile, and they envisage displaying water, chemical and energy consumption figures on washing labels for consumers. It will probably come to that.



In Germany, the „green dot“ is now to introduce a seal that shows consumers with the credibility of the state or the government to buy a sustainable product. The German Development Minister Müller, who had already launched the Alliance for Sustainable Textiles, wants to set a further example here. This could join other countries.

THE CLOSED LOOP WILL COME

Equally interesting for a more sustainable future is certainly the „MANIFESTO FOR A CIRCULAR ECO-



NOMY IN TEXTILES” announced at the Techtextil in Frankfurt. It brings together five leading apparel organizations (EURATEX, FESI, GFA, IAF and SAC) to urge existing and future policy makers in the EU to rethink the tools for creating a circular apparel and fashion system. The manifesto highlights the importance of recycling and the circular economy for the industry and sets out different demands and opportunities to achieve the highest goals. Such a change also offers many risks and opportunities for textile companies. Machines and processes that support the recycling of textiles and fibers could thus experience a boom in the years to come, and the ITMA will certainly show many solutions in this area. For example Oerlikon will show in cooperation with the subsidiary company BBEngineering the VacuFil® – a recycling solution within a running polyester production with a waste-free approach.

These are just a few aspects on the topics of Industry 4.0 and sustainability, which are intended to highlight the explosive nature of these topics and the risks and opportunities they offer. The ITMA in Barcelona is the best place to find out about these opportunities from a manufacturing perspective and thus take a decisive step towards shaping your own future. Particularly in view of the explosive nature of the changes and the strategic importance of the topics, ITMA 2019 is a must for all decision-makers in the textile industry to get a personal and immediate picture.

It will be interesting to see what solutions the textile machinery manufacturers come up with to make an impression on both you and us.

MORE EXHIBITORS - MORE VISITORS?

Now let's take a look at a few facts about the ITMA. According to CEMATEX 1724 exhibitors (+4%) from

45 countries (+0%) will be presenting their machines and services. More than 120,000 visitors are expected to attend. The ITMA is backed by over a hundred organizations, including the International Textile Manufacturers Federation (IMTF), the International Association for the Nonwovens and Related Industries (EDANA), the Industrial Fabrics Association International (IFAI), the European Specialist Printing Manufacturers Association (ESMA), and Textile Exchange, along with numerous textile associations, textile machinery associations and chambers of commerce from the individual textile-manufacturing countries.

Italy, like four years ago, accounts for the largest number of exhibitors - an impressive 371 (-16%) - followed by China with 277 (+50%) and Germany with 222 (-5%). As usual, Cematex has divided the individual machinery segments into chapters, which have then been assigned to specific halls.

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ITMA 2019 | Hall 7 | BOOTH A210A



The most well-represented segment, with 476 exhibitors, is textile finishing machines (chapter 8, hall 1 & 2), followed by spinning machines with 346 exhibitors (chapter 1, hall 6 & 7), weaving machines with 285 exhibitors (chapter 4, hall 4 & 5), warp knitting and knitting machines with 198 exhibitors (chapter 5, hall 8.0 & 8.1 / North Access), and nonwovens machines with 184 exhibitors (chapter 3, hall 5). It is also worth noting that the new chapter, printing including digital printing, has attracted as many as 225 exhibitors (chapter 9, hall 3).

NEW ORGANIZER - EVERYTHING THE SAME

For the first time, the trade fair is being organised by ITMA Services, but with experienced staff. Many people already demonstrated its capabilities in Milan and, with the benefit of its experience from that event, will no doubt be ensuring that the ITMA runs like clockwork. Judging from the excellent work that has gone into preparing the fair, there is every reason to assume that this is the case.

The trade fair will be rounded off with a suitably impressive supporting programme of high-profile conferences; the fascinating array of topics will make the alternative option of visiting the exhibition halls seem a little less appealing on conference days. There are i.e. the „Tex Summit Global: Sustainable Trends and Demand“ on June 20 from 3:00 pm to 5:55 pm, focusing on China's textile industry trends.

From 21st to 25th June, 11:00 pm to 5:30 pm, the daily ITMA SPEAKERS PLATFORM provides a value-added channel for exhibitors to share research projects and cutting-edge technology developments. And last but not least the ITMA-EDANA NONWOVENS FORUM on June 21, from 09:45 to 5:30pm will feature discussions on the latest innovations in nonwovens.

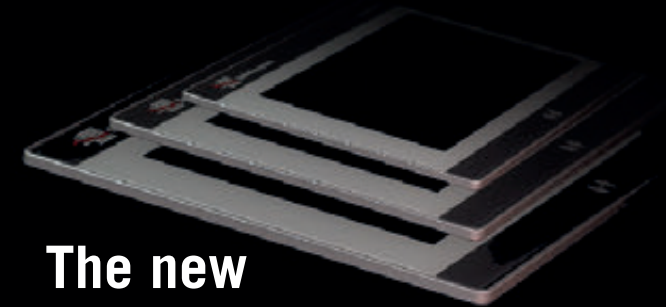
NUMEROUS ANNOUNCEMENTS BY THE EXHIBITORS

This brings us to the most important aspect of the fair: the exhibitors and their machines. Nowadays, as four years ago, many exhibitors provide a preview of what innovations visitors can expect to see at their stands prior to the opening of the fair.

As a result, we are now able to provide you with some up-front information about many of the exhibitors in our ITMA preview, including the exhibits to be displayed or at least the machines or subclusters featuring innovations. As usual, we have structured our preview in accordance with the textile value chain, stating the ITMA chapter and the halls for the respective sector as well as the booth numbers of the individual exhibitors.

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Hall 2 - Stand B120



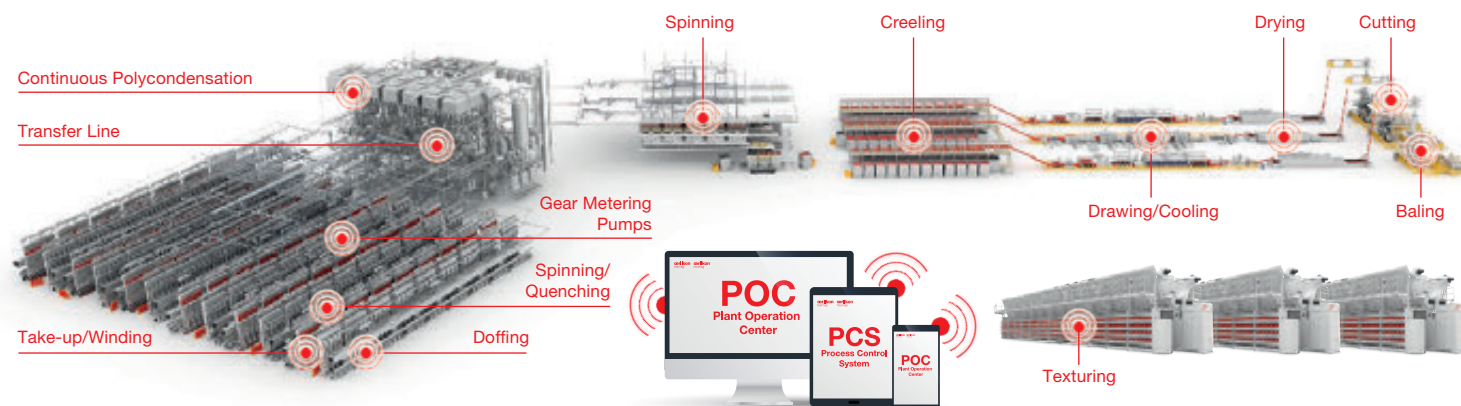
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Welcome to Oerlikon – let's talk about the future in hall H7/booth A101.



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SAVIO WILL PRESENT AS A PROVIDER OF HIGH TECH AND INDUSTRY 4.0 WINDING SOLUTIONS

Savio will exhibit innovative, highly automated, energy saving and Industry 4.0 solutions in all displayed machines.

PREMIUM PACKAGE QUALITY

Manmade fibers and elastomeric yarns (single and dual core) have reached a dominant role in fiber demand growth. Savio's Polar Evolution and EcoPulsarS winding machines can easily process these special and challenging yarns, thanks to special splicing and tension control devices for ensuring perfect joints and perfect package shape, while always monitoring off-standard values.

AUTOMATION – SAVIO “DIRECT LINK SYSTEM” BESPOKE SOLUTIONS

The latest solution from Savio for integrated automation is the Multi Link, that connects multiple ring spinning frames to one Savio winder, becoming a tailor-made circuit to link two or three RSFs to one winding machine. A special iPeg tray guarantees the circulation of RSF bobbing to/from winder.

SAVIO WAY FOR INDUSTRY 4.0

Connectivity, data management, remote machine set-up and operator real time interactivity: this is the Savio way for smart solutions for textile mills. Nowadays, Savio product development is focused

on “smart” components that must transmit data online. The new possibilities offered by the connection of the machines translates into the different levels of Savio Industrial IoT, with the possibility of progressive sophistication (Basic, Business or Executive). From simple connectivity and machinery data downloading, to remote machine setup, to operator real-time interactivity.

When one of the winding machines present a problem, the anomaly signal is sent to the operator through a smartwatch, Savio Smart Bracelet able to communicate also the type of intervention required, thus minimizing the break down-times of machine. Another direction of technological development concerns maintenance, with numerous systems already connected in real time with the assistance network.



Savio Smart Bracelet © 2019 SAVIO

TAKING QUALITY TO THE NEXT LEVEL FOR TUFTERS

Eltex reports major gains with its first generation Eltex EYE in the carpet and artificial grass manufacturing sectors in recent years. Beta testing of the latest advanced version of the Eltex EYE yarn fault detection system for tufting machines is currently underway at the plant of a major high end carpet manufacturer in the USA. “Such companies are typically manufacturing very expensive carpets made in a myriad of patterns and if faults are allowed to occur they can be very expensive to mend,” says Brian Hicks, managing director of Eltex of Sweden, the developer of the technology.

“If all goes to plan – and all the testing results are very exciting so far – we will be unveiling the latest version of the Eltex EYE at ITMA 2019”. The latest advanced tufting machines, he explains, put significant limitations on the space that is available for yarn fault detection systems, and the Eltex EYE is very comprehensive, with each yarn individually controlled for a 100% detection of every tufting yarn break and end out.



The EYE for tufting uses the Compact yarn sensors. © 2019 Eltex



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OERLIKON CELEBRATES FOUR WORLD PREMIERES. CLEAN TECHNOLOGY. SMART FACTORY

Oerlikon invites all visitors to this year's ITMA in Barcelona on a journey into the future of manmade fiber production. The world market leader will show all its guests its vision of a sustainable and automated manmade fiber production in a virtual 4D showroom at its 1,000 m² stand. "Clean Technology. Smart Factory." is the motto of the future. And this is only a stone's throw away from reality at the stand. Because today Oerlikon is presenting four world premieres for efficient machine and plant concepts in a new, innovative industrial design. Together with numerous other innovations, all this forms the new DNA of the Oerlikon Manmade Fibers segment. The challenges for the manmade fiber industry are manifold and Oerlikon shows its customers solutions:

1. CHOOSING THE RIGHT BUSINESS MODEL

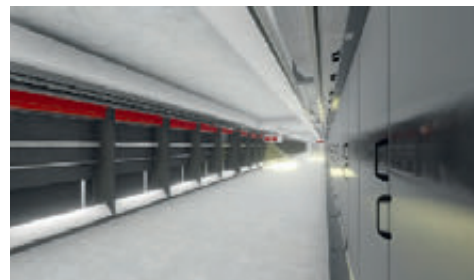
Price pressure on fiber and yarn manufacturers is growing due to global market consolidation. Here it is important to position oneself correctly. Are you producing polyester, nylon or polypropylene for the niche market and skimming off good margins with innovative products and ingenious material properties, or are you looking for business success through economies of scale in the volume market such as the constantly growing apparel

sector? Oerlikon has the right answers for both business models. And the most important thing: the market leader supplies all solutions from a single source. See for yourself at the world premieres of the machine and system concepts of WINGS FDY PA6, BCF S8 Tricolor and the revolutionary eAFK Evo texturing machine.

2. FINDING ALTERNATIVES FOR GOOD PERSONNEL

Finding good operators in the manmade fiber industry is becoming increasingly difficult, even in emerging industrial nations such as China, India and Turkey.

The solution is obvious. What, for example, the automotive industry achieved



Oerlikon Manmade Fibers wiping robot makes operator's life easier. A prime example of an automated solution: cleaning spinnerets. Thanks to its intelligent control system, the robot not only saves production time, work and operating costs, it also generates benefits for HR and health management. © 2019 Oerlikon

years ago with the 3rd Industrial Revolution is now also taking its course in the textile industry. And at the same time it is even shifting up a gear. In the next step, automation in combination with digitization will lead to new, sustainable production. Oerlikon will be showing how automation and digitization interact at ITMA. Self-learning machines and systems, artificial intelligence (AI), remote services and edge computing are just a few of the key words in the digital half of the new Oerlikon Manmade Fibers DNA.

3. GUARANTEE QUALITY AND TRACEABILITY

The qualities of the fibers and yarns must meet the highest demands and their production must be traceable throughout the textile value chain. This no longer only plays an important role in the automotive industry, where safety is of paramount importance. Other branches of industry that use fibers, yarns and nonwovens also want to know where the raw materials they produce for consumer articles come from. Legal regulations are demanding this more and more frequently. Oerlikon offers optimal solutions with its DIN ISO certified manufacturing processes. More than half of the world's manmade fiber producers are convinced every day that the qualities produced on Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven equipment are right – and all visitors to ITMA can do the same on site.

4. EFFICIENT AND SUSTAINABLE PRODUCTION

In the future, the materials produced from manmade fibers must become part of a further improved global recycling economy. The recycling of polyester – with over 80% market share the most frequently used manmade fiber in the world – has not only been on the agenda since today. Oerlikon already has solutions at hand: from PET bottles to fibers and filaments, to textiles and carpets. ITMA is the next step. With the VacuFil® Oerlikon in cooperation with the subsidiary company BBEngineering presents the world premiere No. 4 – a recycling solution within a running polyester production with a waste-free approach.

VISION BECOMES REALITY

The Oerlikon Manmade Fibers segment thus demonstrates what the ITMA in Barcelona promises as the world's leading trade fair for textile machinery and plant construction: "Innovating the world of textiles – sourcing for a sustainable future".



The new draw frame generation

The regulation draw frame TD 10 is the quality filter in the spinning mill. In ring and airjet spinning, Truetzschler's new draw frame is the key element for high sliver consistency. It features increased compactness and has a highly modern regulating system.

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Getting fibers into shape – since 1888.

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TRUETZSCHLER PRESENTS NEW SOLUTIONS FOR SPINNING PREPARATION, NONWOVENS & MAN-MADE FIBERS

INTELLIGENT SPINNING PREPARATION

Cost pressure, personnel bottlenecks and fluctuating raw material qualities: These are some of the most pressing challenges in spinning preparation. At the same time, spinning preparation is decisive for the yarn's quality. In order to meet these requirements, Truetzschler counts on state-of-the-art sensor technology and digital integration – and opens up a new chapter in carding technology: The new intelligent card TC 19i automatically and continuously optimizes the carding gap whose setting has a critical influence on quality and performance. With a precision not achievable by humans, the intelligent card permanently realizes even the narrowest carding gap setting of 3/1000 inch. "This allows us to measurably improve our customers' raw material utilization and productivity while achieving consistently high quality," says Dr. Dirk Burger, CEO of the Truetzschler Group. In addition, new cloud-based digital monitoring and management systems provide yarn manufacturers with transparency over all processes in the spinning mill. The My Wires app, for example, provides information on the status of clothings and service intervals and helps with the planning of reorders. Competent service for re-clothing can be provided immediate-

ly by Truetzschler Card Clothing (TCC). "With the smart networking of machines as well as production and maintenance, we support customers in simplifying their entire spinning process," explains Dr. Christof Soest, CTO of the Truetzschler Group, and emphasizes: "This is why our digital platforms work not only for Truetzschler technology".

The latest innovation in the blowroom offers more economy and quality as well: The Portal Bale Opener BO-P, with widths of 2,900 mm or 3,500 mm, allows significantly more bales to be placed side by side and processes them in parallel using two opening rolls. Thus, it results in significantly better blending and higher productions of up to 3,000 kg/h.

As a complete supplier for spinning preparation, Truetzschler is also breaking new ground in draw frames, the quality filters in the spinning mill. The autoleveller draw frame TD 10 automatically adjusts the perfect break draft for optimum sliver quality and realizes significant cost savings due to its compact design and energy-efficient suction system. Like the TC 19i and the BO-P, the TD 10 provides the operator-friendly T-LED remote display which visualizes important machine and production information in a simple way.

INDIVIDUAL, SUSTAINABLE INSTALLATION CONCEPTS

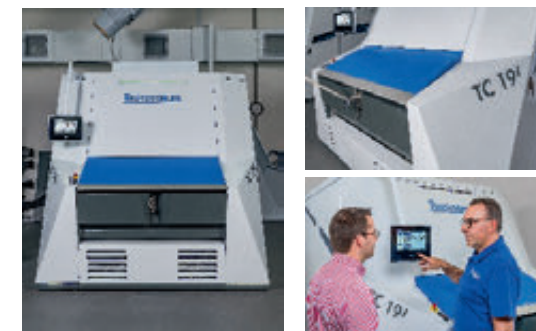
Truetzschler Nonwovens' focus is on technologies for the production of biodegradable light-weight webs from renewable raw materials. In addition to proven solutions for carded, spunlaced nonwovens made of 100% cotton or 100% viscose, Truetzschler Nonwovens has developed an alternative technology in cooperation with Voith: In a wet-on-wet process, the web is formed from cellulose-based short fibers suspended in water and then bonded by means of hydroentanglement. The sustainable, high-quality wipes and cleaning cloths that result from this process can be completely degraded by microorganisms in the environment after usage by the consumer. The Man-Made Fibers division presents the new four-end BCF machine MO40, which is based on the proven M40 concept.

The symmetrical design in combination with the lamellaless HPC texturing results in maximum yarn and bobbin qualities. As each spinning position produces four BCF ends simultaneously, the machine achieves high productivity at moderate speeds, which ensures a stable process. "Higher, faster, further is not always the solution", emphasizes Dr. Lassad Nasri, CTO at Truetzschler Man-Made-Fibers,

"as with the entire Truetzschler Group, individual customer requirements always have priority for us. We support our customers with complete installation concepts, services and know-how - from the product idea to new business models."

TAILOR-MADE CLOTHINGS

TCC completes its portfolio of special flat clothings with the MT 52, which demonstrates outstanding stability, particularly at high card productions in ring and rotor spinning. In addition, TCC has developed the new PRECISETOP flat clothing, which is essential for the intelligent self-optimization of the carding gap in the TC 19i.



TC 19i: The first intelligent card with gap optimizer automatically and permanently adjusts the ideal carding gap © 2019 Truetzschler

ANOTHER MAJOR STEP

IN 'MANAGING A TEXTILE MILL WITH QUALITY IN MIND'

At ITMA 2015 USTER introduced the USTER® TESTER 6. This allowed users, for the first time, to combine both laboratory and in-process data from different production stages to optimize quality control and its management. In 2019, the next logical step is to extend this connected approach to the further production processes, to offer value modules which enable textile producers to prevent and optimize wherever possible.

LAUNCHING AT ITMA 2019

USTER® QUALITY EXPERT, the Quality Management Platform, collects and evaluates information from different production stages and expands its insightful analytics with valuable intelligence as each additional instrument is connected. The entire process becomes more transparent for managers and operators. Finally, the Quality Management Platform drives consistent quality in every part of the spinning process. The introduction of the Quality Management Platform marks an important evolution for Uster Technologies. It combines collection and smart data analysis from more process steps with the next level of knowledge-based alerts about possible defects and extended prognosis of yarn performance in subsequent processes. Also very new is the possibility for better contamination

control and quality-based optimization of the ring spinning process, including the possibility to stop defect production as early as possible. Alerts are available on a mobile app and important performance indicators are also projected on dashboards – both with the target to trigger early reaction to problems. Of course, the reporting is also accessible on client terminals across the plant.

The Quality Management Platform will form the centerpiece of the USTER presentation at the upcoming ITMA 2019. At the same time, the comprehensive portfolio of online, laboratory, fabric inspection products and value-added services is being extended with further innovations. Furthermore, a completely new ITMA booth design will highlight the digitally-connected Uster Technologies offering and showcase developments across the entire portfolio.



USTER Tester 6 © 2019 Uster

www.ssm.ch

Unveiling INNOVATION



Discover our new
product range at ITMA Barcelona
on June 20, 2019. Visit us in hall 6 booth C 201.

DISCOVER HOW SAURER POWERS CREATION!

Saurer will present a range of new products, demonstrating the drive for continual innovation to its customers and the industry. With the E³ principle, they acknowledge their responsibility to create sustainable machinery – the new products require less energy and fewer resources while featuring optimised ergonomics to enhance user-friendliness. In addition, they are increasingly incorporating intelligent technology to augment the human effort. The focus is on meeting the needs of investors and operators of spinning mills as they strive to reach their goals. Since the beginning, Saurer's innovations have been the driving force behind its customers' creations – from yarns to garments, tyres and artificial turf. They also understand that they need to address the unique needs of each client, which could range from funding issues to energy concerns. In addition, a number of Saurer business lines are celebrating anniversaries this year, the most long-lived of which, the embroidery business, was founded 150 years ago.

SAURER SPINNING SOLUTIONS

The innovations that Saurer Spinning Solutions will show include new machinery, automation and digitisation technologies as well as quality-determining components and services. Saurer's solu-

tion approach is also integrated into the product portfolio of the segment. Managing the spinning value chain from finalised package down to fibres gives Saurer a knowledge base that translates into a competitive advantage for its customers. For Saurer, the solution consists of more than just machinery. Automation, digitisation, service, training, consulting and even project financing are integral parts of a smart offering, conceptualised with customers' top-of-mind requirements.

COMPLETE YARN QUALITY CONTROL

The extension of the value chain from bale to package allows Saurer to have complete control over yarn quality along the entire process. While focusing on delivering perfect package quality for each spinning application from one source, they have divided the systems into ring spinning (Zinser System) and open-end spinning (Schlafhorst System). The Zinser System focuses on flexibility and intelligent linkage in high-speed ring spinning, and features a new modular structure and intelligent RFID-based material flow.

In open-end spinning, the Schlafhorst System embodies versatility with solutions for different yarn structures.

The Saurer Technologies Segment is also presenting an array of innovative products. The direct cabling machine CableCorder CC5 is already in its fifth generation – this version is even more economical and features a smart spindle concept as well as smart quality control and software solutions. Customers in the carpet yarn sector will need look no further than the new series of CarpetCabler/CarpetTwister – these machines are capable of fulfilling any requirement with ease. SAURER will also be launching the latest generation of the CompactTwister, which has already demonstrated its dominance in the market with sales of over four million spindles.

150 YEARS SAURER EMBROIDERY

For the embroidery sector they will also offering a complete top-down embroidery solution – customers can complete each step of the ennoblement process, from the first drawing of the design to the final stitch on the Epoca 7 machine. Its HeadLine application system, also incorporating a new laser head that can cut virtually any fabric, allows customers to produce limitless designs. Automation features have resulted in a dramatic increase in productivity.

With the launch of a device-monitoring system for all ball bearings, Saurer enters the market for Industrial Internet of Things (IIoT) solutions. The system allows the constant condition monitoring of every single Temco bearing within a plant.

Identifying positions with possible defects before serious malfunctions occur enables customers to take a proactive approach. Predictive maintenance based on the real load situation will become a reality. In the elastomer components business line, they are fulfilling customers' requests for a ring-spinning cot with a hardness of 68 Shore A, completing the range of Accotex J-series cots from soft to hard with different lifetimes for different applications. The latest air jet-spinning aprons feature a redesigned composition of the inner layer in combination with a newly designed knurled structure, resulting in even gentler yarn treatment.



Epoca 7 © 2019 Saurer

SPINNING

Hall H7 / Booth A 206

**REINERS + FÜRST PRESENTS
NEW TURBO-S RINGS &
NEW RING TRAVELLERS**

The new TURBO-S spinning ring is equipped with a specially designed surface structure which significantly enhances the formation of lubrication film in the traveller contact area. This further development of the well-known TURBO ring marks a new milestone by leading German ring and traveller manufacturer R+F. More than 30 Mio units of TURBO rings have been installed and contribute to the customers' success. Managing Director at R+F, Mr Benjamin Reiners points out, "The new TURBO-S rings include many benefits such as extremely stable running behaviour even at highest speeds under critical circumstances along with excellent yarn quality parameters such as low-est yarn hairiness, and on top very quick adaption after change of yarn type – even for synthetic fibres."

Reiners + Fürst will also present new ring travellers for High-Speed ring spinning. The end-users benefit from best possible yarn qualities and lowest running-in periods after traveller changes at the same time. R+F customers generally achieve highest efficiencies of the ring frames benefitting from unique traveller surface treatments for optimized spinning conditions of each application.

QUALITY CONTROL

Hall 7 / Booth A210a

**LOEPFE PRESENTS:
A WORLD FIRST -
SMARTER THAN EVER**

Loepfe is driving forward developments and presenting themselves under the motto "a world first". Innovative technologies for solutions to various problems will surprise and set new standards. The company says the total solution from Loepfe offers lasting improvements in quality management while increasing productivity and efficiency.

In a teaser video Loepfe announces the next generation of textile quality control systems. This includes a world of colors for the first time ever, a world of sensors better than ever and last but not least a world of connectivity easier than ever. That sounds promising and we can be curious. Loepfe reveals the secret in Barcelona.

SPINNING

Hall H6 / Booth C201

**SSM UNVEILS
INNOVATION**

The Swiss based SSM Schärer Schweiter Mettler AG, the inventor of the electronic yarn traverse system, will continue their tradition of trend-setting with the presentation of breakthrough technologies such as preciforce™ and powerblade™. All innovations will be unveiled at the fair.

**PEAK TECHNOLOGY AND
EXCELLENT SOLUTIONS
FOR TEXTILES**

THE GROUP HOLDS A VERY HIGH TECHNOLOGICAL KNOW-HOW, THUS AIMING TO REPRESENT EXCELLENCE BOTH IN FINISHING AND IN YARN QUALITY CONTROL SYSTEMS. A GLOBAL PARTNER, WHICH IS ABLE TO PROVIDE STATE-OF-THE-ART SOLUTIONS, HAVING ALREADY ESTABLISHED UNIQUE SKILLS THROUGH CONTINUOUS RESEARCH.



 **Savio**
Automatic winding, TFO twisting & Rotor spinning machines
HALL 7 STAND A210

 **Loepfe**
Quality control systems
HALL 7 STAND A210a

 **Mesdan**
Yarn splicers and textile laboratory
HALL 7 STAND A210b - HALL UL STAND C207

 **BMSvision**
Manufacturing Execution Systems
HALL 4 STAND B204

 **SedoTreepoint**
Integrated systems for the dyeing and finishing industry
HALL 2 STAND B120

 **SedoEngineering**
Technology for denim industry
HALL 2 STAND B120

DORNIER TO PRESENT ITS NEWEST "GREEN MACHINES" AND AN EXPANDED SERVICE OFFERING

Under the banner theme of "The Green Machine" DORNIER will present the latest machines and lines, "Made in Germany" for the sustainable, efficient manufacture of clothing, home textiles and technical fabrics and flexible, economical production of high-quality composite semi-finished materials.

WORLD PREMIERE OF THE NEW RAPIER WEAVING MACHINE P2

Highlights include the new rapier weaving machine P2, which will be presented in its standard configuration for the first time in Barcelona. It combines the strengths of the P1 All-rounder with many innovations to equip the weaver optimally for the future. "We didn't reinvent rapier weaving, but we improved every major aspect of the process", says Thomas Laukamp, DORNIER's Head of Advanced Technology Development Weaving Machines. Accordingly, with improved shed geometry and a more rigid frame, greater productivity, maintenance-free operation and optimized positive center transfer movement, the P2 rapier weaving machine offers the highest flexibility and process reliability available on the world market. The new machine structure with clearly defined primary and auxiliary modules represents a further advance. "The modular design and clear interfaces between the machine

modules make conversion and expansion work simpler", explains Laukamp. He adds that this translates to greater investment security for the weaver, because the P2 can easily be adapted for processing different yarns for clothing, domestic and technical textiles as well as high-quality composite semi-finished materials. So the weaver can respond faster to unpredictable market developments. "Who knows what orders weavers will have to deal with in five years" said Laukamp, who sees DORNIER as a solution provider.

"The resource-saving operating principle and long service life of the P2 make it a truly 'Green Machine'", says Head of Advanced Technology Development Laukamp.

FUTURE-ORIENTED: THE ENCAPSULATED AIR-JET WEAVING MACHINE

On the subject of air-jet weaving, DORNIER will exhibit an encapsulated air-jet weaving machine. This solution is designed to bring different, individually controllable climate zones into the production workshop for the first time: This means that each weaving machine can be run in its own climate, adjusted to create the ideal conditions for the respective manufacturing process, regardless of the heat and humidity in the rest of the

production workshop. This approach too makes for the greatest possible flexibility in accepting and completing orders, since it is then possible to process different fibers ranging from wool to glass simultaneously in the same workshop. The lower levels of noise, dirt and mechanical vibration that prevail as a result of the encapsulation also make the fabric manufacturing workstations safer and more comfortable - a convincing argument for recruiting young employees and experienced technicians.

24/7 ONLINE SHOP FOR ORIGINAL PARTS: THE NEW MYDOX® CUSTOMER PORTAL

The new myDoX® customer portal will also be presented at the ITMA. Based on the latest database technology, the portal adds digital order management to the personalized technical, installation and maintenance service for which DORNIER is known. It will provide an online shop with permanent availability for original parts (DoXPOS – Parts Order System) for all product lines. Remote maintenance and networking of weaving machines – to improve run characteristics, for example – will also be possible in future via myDoX®.

MORE HIGHLIGHTS FROM DORNIER:

The new color selector and feed system DORNIER DisCoS (DCS) for rapier weaving machines, enabling more efficient processing of up to eight colors; the DORNIER Weft Saver (DWS) weft saving device which enables weaving without a left catch selvedge, reducing weft; the double weft rapier heads DORNIER DoP-PIO with free color transfer and parallel weft insertion.



From wool to glass in one weaving workshop: The future-oriented encapsulated air-jet weaving machine brings different, individually controllable climate zones into the production workshop for the first time. © DORNIER

ITEMA GROUP: INNOVATION ON STAGE

Itma will feature 3 stands and 11 weaving machines, plus more in partner's booths. At the Itma booth seven machines will be displayed - along with special products highlights - including two absolute new market launches, a never-before-seen weaving insertion concept and a series of weaving novelties.

ITEMA DISCOVERY

ITMA 2019 will be the absolute world-premiere of what Itma named a while back "The Loom of the Future". The brand-new Itma Discovery, developed by Itemalab™, comes to the world to demonstrate Itma's mission to tirelessly work to innovate the weaving industry.

Introduced at ITMA as a concept, Discovery completely redefines weaving foundations by basing its operations on mechatronic principles and not anymore, as it happens on current weaving machines,



Itma unveils the „Loom of the Future“. The Itma Discovery, at ITMA as a concept, features breakthrough mechatronic platform and completely new weft insertion system to demonstrate Itma dedication to innovating the weaving industry. © Itma

on mechanical drives. The machine – that will run only a couple of times during the exhibition daily demo hours – is set to amaze worldwide weaving aficionados.

A9500-2

A9500-2 is the second generation of the Itma airjet A9500 and A9500p. It further enhance speed and machine performances. Thanks to a new and optimized pneumatic platform, the weft insertion cycle is significantly improved leading to a quicker system response when handling air load and pressure guaranteeing minimized vibrations and higher structural reliability. The whole machine structure has been revised to increase the air tank capacity ensuring superior textile performances even at the highest speeds.

The A9500-2 features the brand-new Bi-Power stretch nozzle which ensures perfect weft catching pick by pick. Compact, powerful and cordless, the Bi-Power stretch nozzle allows air consumption reduction and increased fabric quality by keeping the weft perfectly straight in the fabric. The user-experience has been further optimized thanks to a new machine ergonomics with a lowered front frame to improve machine accessibility.

A9500-2 BEDSHEETING

The A9500-2bedsheeting has been tailored on bed sheeting weavers desires. Key machine components - such as main and tandem nozzles - have been redesigned along with the whole pneumatic platform to ensure superior performances in terms of speed coupled with superior fabric quality and textile efficiency.

Absolute new launch and core advancement featured on the A9500-2bedsheeting are the brand-new heald frames SKYFRAME - Itma exclusive proprietary technology - made of aluminium and carbon and designed by Itemalab in cooperation with Lamiflex. In fact, heald frames represent key components on airjet technology and the Itma SKYFRAME, thanks to its superior lightness and sturdiness, allows to run at the highest speeds without compromising reliability and resistance.

R9500-2, R9500-2DENIM, R9500TERRY

Furthermore, the Itma denim dedicated rapier machine R9500-2denim comes to ITMA equipped with the one-of-a-kind iSAVER™ that represents the unique real sustainable weaving tool in the weaving industry and with a further enhanced weft transfer system and innovative IOT solutions. The brand-new iBOOSTER package and iCARE system implement the most

modern principles to provide unparalleled performances and predictive maintenance. Next is the R9500-2, the Second Generation of the Itma rapier, now providing significant energy consumption reduction and new valuable features to make weavers life even more easy. Last but not least, the high-end terry market leader – the R9500terry is exhibited.

ITEMATECH

Itematech, the new division dedicated to technical textiles born as a result of the agreement signed with PTMT (ex Panter) will exhibit 4 machines:

- the famous UniRap, capable to weave the widest range of carbon fiber and composite yarns, on show weaving a linen tape fabric (due to exhibition's carbon fiber restrictions)
- the Hercules rapier machine – 380 cm - weaving a heavy filter fabric style
- the Hercules in extra-wide width - 550cm - running geotextile
- the R9500-2 – 280 cm - with FPA-Free Positive Approach weft transfer weaving a complex filter fabric style

Lamiflex – the leading supplier of technical composite products – will be present with its ample catalogue of key rapier weft transfer components.

VANDEWIELE GROUP SHOWS A COLORFUL BOUQUET OF GROUNDBREAKING INNOVATIONS

VANDEWIELE Group and its member companies will unveil a lot of groundbreaking innovations. For example, Superba, leading the field in heat-setting machines, will introduce the latest version of its MCD/3 space dyeing machine for carpets, along with further new developments in heat-setting, texturizing and winding technologies. The latest MCD/3 space dyeing machine is meanwhile capable of handling a layer of 72 ends with an unequalled range of spot length – especially for the ultra-short spots of below 25mm, thus enabling “one-pile/one-colour” process on the carpet. In combination with a TVP3 heat-setting line, it can space dye polyester or polyamide yarns with up to six colours and also allow special dyeing effects such as bi-colour printing to be achieved. For acrylic yarns, the MCD/3 can similarly be combined with Superba’s new high capacity DL/5 setting line.



The latest Superba MCD/3 space dyeing machine.
© VANDEWIELE

FURTHER VANDWIELE INNOVATIONS:

- The new RCE2+ Rug and Carpet Expert weaving machine – a truly digital workhorse, with all yarns continuously controlled and measured and the difficult bobbin changes of the past completely eliminated due to Vandewiele’s latest Fast Creel.
- The new VSi32 Velvet Smart Innovator jacquard, in combination with the latest Smart Creel, for the production of Italian velvet – combining the potential of flat woven jacquard fabrics with pile yarns leading to the potential for the creation of whole new range of fabrics for the home and for fashion.
- The INCA (interlacing by non-continuous air) system for BCF extrusion systems – a new method for intermingling BCF yarns which greatly improves tangle knot uniformity for significant cost savings.
- The Vandewiele Cobble Colortec L+, which is now the most versatile tufting machine available on the market.
- A range of jacquards from Vandewiele Bonas, demonstrated across ITMA 2019 above flat weaving machines from the industry leaders, as well as Vandewiele’s own RCE2+.
- The completely revised Titan 5540 carpet finishing machine from Vandewiele Titan, which is now able to accommodate carpets with straight, round and complexly-shaped corners simultaneously.
- The Vandewiele Protechna Arraycam 5420 optical inspection system which is suitable for monitoring standard fabrics on all common tricot warp knitting machines.
- The latest IRO-ROJ weft insertion technologies.

WIDE RANGE OF INNOVATIONS BY MARKET LEADER STÄUBLI

Stäubli will be presenting its latest solutions for highly efficient weaving and knitting. Visitors can experience high-speed machinery and systems for an optimized weaving process such as the SAFIR drawing-in machine for the preparation of perfect warps. They will also enjoy a complete overview of Stäubli’s range of cam motion and dobbies for efficient frame weaving of quality fabrics of any kind.

JACQUARD MACHINE

The exhibit of Stäubli’s shedding solutions includes name selvedge, narrow fabric Jacquard machinery, and three complete installations featuring the LX/LXL/LXXL Jacquard machine models, weaving inspiring applications. The latest generation Jacquard machine LXXL is specially developed for weaving large-pattern flat fabrics such as upholstery, tapestry, silk fabrics and fabrics for apparel on rapier weaving machine. The machine offers a new generation electronic control system NOEMI for hook selection. Weaving mills around the globe trust in the robust LX/LXL/LXXL series to provide the automotive industry with first-class airbags in any format for all-around protection.

CARPET WEAVING

Visitors interested in carpet weaving can see a wide variety of rugs being produced on the ALPHA 500 weaving system and discover the many different binding technologies and design effects. Schönherr carpet systems offers the new creative binding technology MAGIC WEFT Effect DUO (MWE Duo), which allows mills to create high-quality carpets with areas that realistically appear to be worn down. The trick is controlled transitions from cut pile to pure weft patterning.

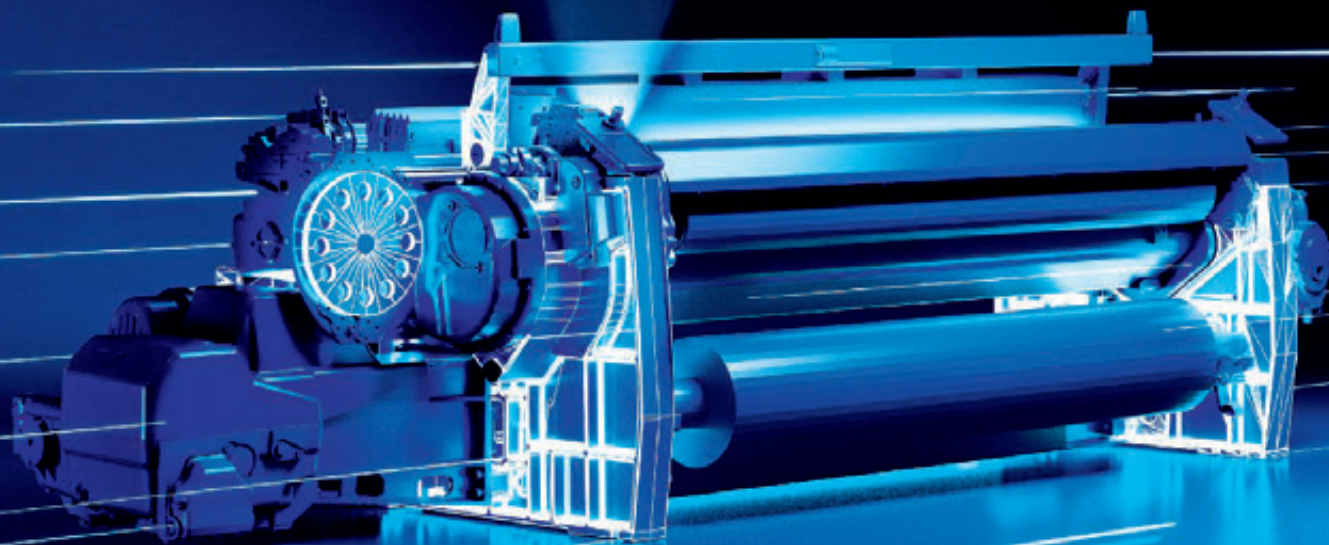
Industrials seeking to excel in the sock manufacturing market are invited to visit the knitting specialists at Booth B212 in Hall 8.1. Two circular sock-knitting machines in operation there will clearly demonstrate the gain in production time offered by a circular knitting machine equipped with the Stäubli D4S automatic toe-closing device.



LXL Jacquard machine © Stäubli

Feel the future

itema



At Itema we make the impossible so that you can create the unimaginable.

With innovation as a state of mind, we work tirelessly to provide our Customers with the most advanced, futuristic weaving technology on the market to meet and exceed weavers' expectation.

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Discover **iSAVER™**, the breakthrough device patented by ItemaLab, that – unique in the industry – completely eliminates the left-hand waste selvage, leading to significant money saving and setting a new benchmark in sustainable weaving.

Visit us at



ITMA 2019

Barcelona, 20-26 June
Hall 4 – C101



www.itemagroup.com
contact@itemagroup.com

CREALET PRESENTS ITSELF WITH A NEW LOOK ON THE PULSE OF THE TIME

Apart from the new, fresh appearance the visitors can expect new and inspiring features for optimizing warp tension control of small warp beams. CREALET's core competence are special solutions in warp tension control for narrow and wide weaving machines. CREALET develops drives and controls that allow a fast and precise positioning and synchronized movements that support highest dynamics in an intelligent system network.



Load-Cell © CREALET

LT CONTROL UNIT

The new LT controller is a control unit for warp tension control. It is suitable for various areas of application where the measurement and control of the warp tension is required. Typical areas of application are the control of small warp beams in ribbon weaving or selvedge bobbins on wide weaving machines.

PICANOL PRESENTS A BRAND NEW AIRJET MACHINE

Picanol will demonstrate its latest weaving technology. Visitors will see the world premiere of a brand new airjet machine, the OmniPlus-i, which represents a new benchmark in airjet weaving according to Picanol.

In total, Picanol will have 12 machines on display at ITMA Barcelona. In addition to 5 new airjet weaving machines, Picanol will also present 5 rapier weaving machines with many new developments. Furthermore, a rapier machine in Jacquard

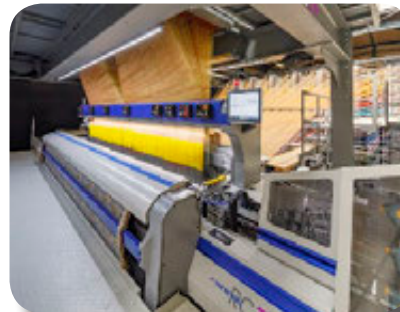
execution will be on display at the Bonas booth and a terry airjet at the Stäubli booth. In an ever-changing world, Picanol products are designed with a focus on four principles: Smart Performance, Sustainability Inside, Driven by Data and Intuitive Control.



OmniPlus-i 4P 280 sheeting © Picanol

VANDEWIELE

inspired by **Expertise**



ITMA 2019

20 -26 JUNE 2019

Hall 4
Booth A206



www.vandewiele.com

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ITMA 2019, BARCELONA

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HALL 8.0 | B107

www.karlmayer.com

„STATE OF THE ART“ TECHNOLOGY AND „BEST OF TEXTILE“ SOLUTIONS FOR WARP KNITTING, WARP PREPARATION AND TECHNICAL TEXTILES

KARL MAYER will present technical pioneering solutions for an efficient, flexible production in the fields of Warp Knitting, Warp Preparation and Technical Textiles, as well as new digital products of the sector's software trendsetter, KM.ON. Moreover, under the motto „Future of Textiles“ the company will present clever textile solutions for new, exciting applications and markets as well as contributions to the topic of sustainability. Progressive warp preparation technology for processing high-quality yarns and an experience world with fabrics full of creative ideas will round off KARL MAYER's presence.

WARP-KNITTING MACHINES

In the field of raschel machines a new RSJ 4/1 EL will be premiered. Offering 50 % more working width at the same speed compared to its predecessor, this machine



The new OJ 91/1 B © KARL MAYER

is highly productive and uniquely flexible. Thanks to the EL technology, it is possible to ensure a rapid pattern change and to produce patterns with long repeats. Under the LACE.EXPRESS trademark, KARL MAYER launched the OJ series in 2016, perfectly tailored to the special needs of the apparel market. Now they will present a self-contained, complete 134" machine platform for the intimate sector. The company will offer a B- (Back) version and a F-Jacquard (Front) version for each of the representatives. The special highlight of the system: the related models are compatible to one another.

As far as the double raschel technology is concerned, KARL MAYER will show how a new RDPJ 6/2 EL machine can be used to open up a previously unknown product world. The outstanding warp-knits are marketed under 4D-KNIT.SOLUTIONS. As innovation in the field of tricot machines, KARL MAYER will be displaying the first three-bar HKS model with electronic guide bar control. The new HKS 3-M-ON offers the same performance in terms of speed and design variety as the previous version, but thanks to an innovative gear solution it is faster and simpler during pattern change.

WARP PREPARATION SECTOR

KARL MAYER will showcase its new MULTI-MATIC® 32 for producing sample and short production warps. This new machine impresses with its excellent price-performance ratio, and offers all the advantages of the KAMCOS® 2 platform. Regarding the direct beamers, KARL MAYER has consistently pursued its twin product line strategy. The new ISODIRECT was successfully launched as a standard model, and the PRODIRECT will be presented to the public as a version for the premium market. The new PRODIRECT will be presented to the public as a version for the premium market. Moreover, KARL MAYER will be showing the new stop motion MULTIGUARD as prototype. With models and presentations, KARL MAYER will be showing innovative technical solutions for guaranteeing improved efficiency and sustainability in the denim production in its „Future of Textiles“ sector. One main focus in this context is the topic of SUSTAINABLE DENIM. KARL MAYER presents a newly developed technology for an indigo dyeing process in nitrogen atmosphere, which ensures an optimum setting of the dye in terms of solidity and brilliant tone, at the same time requiring less dye bath volume, chemicals and water.

PREMIERE OF A COMPOSITE MACHINE

KARL MAYER Technische Textilien is continuing to develop into a systems supplier for non-crimped fabrics (NCFs) and is launching a new line for producing thermoplastic unidirectional tapes (UD tapes). In the „Future of Textiles“ area, the visitors will have the opportunity to see very promising applications for the textiles manufactured on the machines made by KARL MAYER Technische Textilien. The focus here is on the issue of concrete components reinforced with carbon or glass fibre NCFs rather than steel.

THE DIGITAL BRAND KM.ON

In 2018, KARL MAYER launched its own digital brand, KM.ON, the associated digital product portfolio with eight categories, and the first solutions. Other offers will follow just in time for the next ITMA in Barcelona. k.ey, has also been upgraded.

ECOLOGICAL SOLUTIONS

KARL MAYER keeps the focus on sustainability. Almost all of the high-performance warp-knitting machines have been equipped with LEO®. Moreover, it is possible to process resource-saving yarns on KARL MAYER machines. On show a HKS 3-M EN will work a textile completely from a recycled filament yarn.

Hub of the textile world

We maintain long-term partnerships and open dialog with our employees and customers, because we know: we can only move forward together.



grosz-beckert.com



June 20–26, 2019
Barcelona, Spain
Hall 8.0, Booth C101

KNITTING | WEAVING | FELTING | TUFTING | CARDING | SEWING

GROZ-BECKERT PRESENTS PRODUCT AND SERVICE INNOVATIONS

Groz-Beckert will be present with all six product areas and the Groz-Beckert Academy and the Technology and Development Center (TEZ) will also be represented with their service range spanning across all fields and product areas. While the TEZ will be presenting its wide range of options for problem solving, optimizations and new developments, the Academy will be showing its comprehensive training range. A new feature: The plans for digital expansion of the analog range – to help us remain independent from the event time and location. The individual product areas offer completely new virtual insights into the product and service world of the company thanks to augmented reality.

KNITTING

The Knitting area also has several new products up its sleeve: A knitting machine needle that was specially designed for use in large diameter circular knitting machines that work with staple fiber yarns. A sock needle that is particularly suitable for high loads due to its optimized geometries. A needle for application-oriented use in the field of technical textiles for flat knitting machines and a needle that enables penetration into new dimensions of fineness in the flat knitting sector.

In addition, the Knitting division is planning various sales campaigns for visitors at the booth.

WEAVING

Automated and digital processes in the sense of Industry 4.0 play an increasingly important role – also and especially in weaving preparation. Groz-Beckert's Weaving department is taking on these challenges and presenting live at the ITMA about how innovation and automation could look within weaving preparation. Visitors will learn everything there is to know about high-performance machines for weaving preparation, as well as the extensive range of weaving accessories.



Groz-Beckert Felting Customer Product © Groz-Beckert

FELTING

The Felting product area will present its comprehensive contribution to the global nonwovens industry. Whether the new customer product improves our customers' know-how protection or simplifies needle logistics, the customer-specific label offers numerous advantages that visitors can learn about in detail at the ITMA. Increasing demands on the quality of products are shaping the demands of end customers in the area of Tufting as well. The corresponding tools demand maximum performance. Groz-Beckert takes on these requirements with the unique quality promise of its gauge part system, which we use to meet the highest demands of our customers.

CARDING

Around four years after integrating Groz-Beckert's newest product area, the Carding area will present numerous new developments at the ITMA. Visitors can look forward the new InLine clothing series for the nonwovens industry, further developed cylinder and doffer wires, and stationary and revolving flats for the spinning industry.

SEWING

The Sewing product area is presenting various innovations that meet various requirements. Because the variety of materials is immense: From the finest knitted goods to the thickest leather. The process of sewing is faced with different challenges at every turn. To ensure that we have the right product for every situation, Groz-Beckert offers an extensive product range and provides support far beyond the actual sewing process with additional services. Further exciting innovations and new products and services await visitors at the booth.



Groz-Beckert Sewing Smart INH Trolley © Groz-Beckert

BRÜCKNER UNDERLINES 70 YEARS OF SUCCESS THROUGH INNOVATION

For 70 years, BRÜCKNER has been the worldwide partner for all companies which are drying, coating and finishing web-shaped materials. The variety of materials to be processed has never been limited. Today, BRÜCKNER has invested, developed and implemented a lot in digitization and Industry 4.0 which open up completely new possibilities for increasing productivity, reducing the use of resources and improving quality:

- Intelligent assistance systems monitor the machine settings in the background and provide the machine operator with information on how to run the system even more productively and consuming less resources.
- A newly developed simulation tool helps to optimize existing recipes.
- For the service, there is a new maintenance tool that proactively gives the machine operator or maintenance department instructions that can be tracked in a logbook. In future, a newly developed online service platform will support the customers with all service inquiries. The technicians communicate directly with the customer via video conferencing - partly with augmented reality.
- The exchange of machine data with higher-level control station or ERP systems is easily possible with OPC-UA.

In addition to these efforts in the field of automation, BRÜCKNER also demonstrates the great diversity of their experience and product portfolio. Particularly noteworthy is the economical finishing with minimum application technology and another important component in the finishing of denim fabrics is the proven BRÜCKNER Sanfor line POWER-SHRINK, which will be presented. In addition, BRÜCKNER can offer new concepts in the field of continuous dyeing. The continuously improved POWER-INFRATHERM IR pre-dryer has heating and cooling times of less than 5 seconds. With the new BRÜCKNER POWER-FRAME VNE multi-layer stenter, only one machine operator is required, as the entry and the exit are on the same machine side. This applies both to the version with two and with six fabric passages.



Entry zone of the new VNE2 multi-layer stenter © 2019 BRÜCKNER

SANTEXRIMAR GROUP SHOWS SOMETHING NEW AND PROVEN

SantexRimar Group is showing with Santacompact RD their well-known felt belt compacting machine for the finishing of high-quality open-width knitted fabrics. This machine, specially designed for knitwear, enables the highest performance and best fabric quality to be achieved with minimum production and maintenance costs.

Santacompact RD is a double felt belt compactor in one line with levelling frame at the entry. This unique design of short and direct feed from the levelling frame into the special designed compacting zones ensures an excellent dimensional stability. Santex Rimar AG will show the latest version with special designed felt belt features to ensure the gentle handling of cotton or cotton blended knits and to maximise performance.



Santacompact RD © 2019 Santex Rimar

DESIGNED FOR INDUSTRY 4.0 BY SEDO-TREEPOINT

Sedo-Treepoint, known for smart factory integration and offering integrated textile management systems along the textile production chain, will introduce a new series of our dyehouse controllers. The new series is specially designed for Industry 4.0. The open connectivity on production and machine level improves the M2M-communication. Important information for the production floor is displayed wherever required. For all departments, PPS, routing of orders (track and trace) or energy management is available.

XETMA VOLLENWEIDER FOR TEXTILE SURFACES

Xetma Vollenweider will be presenting their latest machine systems for the finishing of all types of textile surfaces. The X-CEPT XB is a new brush sueding machine with alternatively three or four sueding brushes in vertical design. The new warp thread cutting machine X-CITE XF reliably cuts all types of floating warp threads on woven fabrics and warp knit articles. For the finishing of carpets and textile floor coverings Xetma have developed the new X-PLORE XCS carpet shearing system.

SIMPLER AND SMARTER WITH MONFORTS

A. Monforts Textilmaschinen will demonstrate a range of new advances made possible by Industry 4.0 techniques.

Visitors will discover the possibilities of 'digital twin' capability – now being made available for all Monforts machine systems – and that by exploiting the latest advanced sensor technology, comprehensive technical machine data can now be virtually mapped in the cloud in real time. The data can be easily accessed using the new Monforts Smart Support and Smart Check apps for an instantaneous status overview.

All specifications relating to machine performance and the production process can be mapped, to enable vastly simplified and targeted analysis for controlled planning and production. Insights harnessed from such analysis can be used to optimise the actual production process. At the same time, potential sources of error can be anticipated and eliminated, enabling improved machine availability while considerably minimising downtime.

PARTS PREDICTION

In addition, the digital twin system provides information on the individual wear parts of a system, such as, for example, converters or gears.

"Operators and mill managers are informed by Smart Check sensors when maintenance or the replacement of key components will be required, well ahead of time," explains Monforts Vice President Klaus A. Heinrichs. "Direct access to the integrated Monforts webshop allows users to instantly order such parts when they are needed, virtually preventing machine downtime."

On request, Monforts can also virtually monitor machine performance and pro-actively alert customers to the need for preventative action. In such cases, however, data is only ever called from the cloud by Monforts when customers have given their full consent, in the interests of data security.



The new CYD system is available for demonstrations and trials at the Monforts Advanced Technology Centre (ATC) in Mönchengladbach, Germany. © 2019 Monforts

REMOTE MAINTENANCE ASSISTANCE

At present with Smart Support, customers can also contact Monforts service via smartphone or tablet, in order to access support on site via a remote visual link. Monforts service specialists can point out individual system parts on the customer's smartphone and assist them in troubleshooting. Documents such as machine documentation can also be shown in real-time via white-board over a smartphone, tablet or office PC. "The Monforts digital twin system and apps are being made available for all of our machine ranges going forward and will make the operations of our customers considerably smarter, and at the same time, simpler," Mr Heinrichs concludes.

BENEFITS AND SAVINGS WITH THE NEW MONFORTS MONFORCLEAN

In addition, Monforts will be presenting an energy-optimised new version of its industry-leading Montex stenter for the first time. With the introduction of the new MonforClean exhaust air treatment system and other unique process innovations, Monforts has been able to further reduce the energy consumption of Montex stenters by a further 13%. Exhaust air treatment on stenter frames has posed particular challenges over the years, since the air can contain significant amounts of oil, fibre and even wax particles that may see emissions limits being reached in the processing of certain fabrics, depending on the legal specifications.

In addressing this issue, Monforts is now incorporating the MonforClean module into the stenter frame, so there is no additional space requirement. At the same time, the costs for laborious secondary installations and the piping of the exhaust air treatment components, as well as supporting structures are eliminated due to the machine configuration.

INTRODUCTION OF CYD MULTI-COLOUR YARN DYEING SYSTEM

Furthermore, a revolutionary new system for yarn dyeing based on the proven Econol® dyeing system for fabrics will be introduced. This latest CYD denim processing technology integrates new functions and processes into the weaving preparatory processes in order to increase quality, flexibility, economic viability and productivity. Econol® is a pad-dry process employed in Monforts continuous dyeing in which the reactive dyestuff is fixed to the cellulose fibres during drying and the CYD multi-colour yarn dyeing system introduces a number of new concepts based on it, including the unique Eco Bleach process. This is the first bleaching system for yarn treatment available on the market and will be of particular interest to denim manufacturers.



The new Montex stenter with the integrated MonforClean modular exhaust air treatment system and further energy optimisation features. © 2019 Monforts

INTERSPARE PRESENTS THE LATEST KRANTZ SYNCRO

The German company INTERSPARE Textilmaschinen is presenting current developments and innovations from its ARTOS, BABCOCK (BTM) and Krantz product lines for the sophisticated finishing of textiles and knitted fabrics. The central exhibit in the presentation is the latest version of the Krantz Syncro shrink dryer. "Our client's buyers have very high expectations and we are very happy that we are able to support them still further with our innovations. This means that our clients are capable of fulfilling the requirements far better than their competition", says Dirk Polchow, Managing Partner at INTERSPARE.

KRANTZ SYNCRO

At ITMA, INTERSPARE will exhibit the Krantz Syncro with an overstretching zone, thereby demonstrating how even the most challenging requirements on modern finishing can be fulfilled on all levels by a superior machine design and the use of the latest technologies. This applies both to the absolute premium quality of the finished goods in connection with the high price-performance ratio and also the current crucial requirements in regard to sustainability, connectivity, and data exchange. The Krantz Syncro especially reveals its performance capability

in the drying of warp knits, as tubular knitted fabrics or cut open, as well as both light and heavy items. The Syncro has an overstretching zone which allows the fabric to be returned to its basic structure. This means that the elongation of the stitches is reduced in order to achieve the best possible residual shrinkage values. Thanks to the diversity of the Syncro, a smooth operation is possible with multiple narrow or wide material webs (single webs or multiple webs). Furthermore, multiple processes such as drying, shrinking, intermediate drying and effect drying can be carried out here on just one piece of equipment.

SMART FINISHING - BLUE TECHNOLOGY

The trade fair motto "Smart Finishing - Blue Technology" is directly aimed at the many constructive advantages of the finishing machines from the Krantz and Ar-



Syncro © 2019 INTERSPARE

tos product lines. With the Syncro, Smart Finishing is achieved in many ways. Firstly it delivers the highest premium material quality with a particularly soft feel, which is achieved through controlled shrinking and volume development. In addition, the product is also optimised by numerous smart components. In this way, high productivity is achieved with maximum flexibility and profitability. The Syncro is equipped with the latest measurement and control systems from the Siemens firm, which open up wide-ranging possibilities for use in Industry 4.0 environments. The Syncro is also smart in terms of maintenance. In this regard INTERSPARE has enhanced the Syncro in a number of ways. INTERSPARE is presenting another innovation at ITMA with a fully-automated filter belt cleaning system. An automated filter belt replaces the filter insert here. This eliminates the need for cleaning by employees and the revolving filter belt is automatically cleaned by a traversing vacuum nozzle.

In terms of energy efficiency, the Syncro has already set a real milestone, as sustainability is considered as early as during the construction phase. The patented Econ-Air airflow system makes optimal use of the used heat energy. A true "blue competence" process. Furthermore, it is of course equipped with components, drive units and engines from the latest product generations by Lenze or Siemens.

"READY-4-FUTURE"

READY-4-FUTURE ensures an evolutionary start to the fourth industrial revolution. Precisely coordinated modernisation packages with customisable, individual out-of-the-box modules make all retrofitting and modernisation works cost-effective, calculable and quick to implement. The INTERSPARE experts will happily demonstrate at ITMA how all READY-4-FUTURE packages will recoup costs in just a few years.

APP SMART ORDER SYSTEM

Predictive maintenance is certainly the top solution of the future. However, a comprehensive implementation will take many more years. With the SMART ORDER SYSTEM app, INTERSPARE is offering a particularly smart and efficient solution. Customers can simply use the app to take a photo of the wearing part or the damage and send it to INTERSPARE.

NEW COOPERATION FOR CHINA

INTERSPARE is entering into a collaboration with the Chinese firm Shaoxing Hengyuan. Alongside the Krantz tensioning frames which continue to be produced in Germany, INTERSPARE is developing a parallel production facility in China together with their partners. In the future Krantz tensioning frames will be produced solely for the Chinese market under the name Krantz Hengyuan.

THIES' MOTTO FOR ITMA 2019 IS "BE THE CHANGE"

Founded in 1892, the family company Thies consequently presents many years of commercial, product and applications experience under the motto "BE THE CHANGE". Thies will be presenting the latest version of the Maintenance Manager, which is inter alia complemented by the module 'Condition Monitoring'. The software schedules, executes and controls all maintenance and servicing works. It facilitates the procurement of spare parts and provides the technical documentation digitally. At the same time, with the collection of these data Thies lays the foundation for prospective machine learning from customized respectively system-specific history data. Furthermore, Thies is offering a new generation of controllers (T390), which is designed for Industry 4.0-applications as well as for interfacing appropriate MES-systems. As during previous ITMAs, Thies will be presenting daily talks in Barcelona on a wide range of topics in several languages.

ICONE

The yarn dyeing machine iCone is ideal for bleaching and dyeing fibres in different forms like packages, warp beams, combed tops or flock.

IMASTER H2O

The latest version of the iMaster H2O incorporates various new detail improvements. The iMaster mini is a fully-equipped variant with a loading capacity of 20-80 kg for small production runs and laboratory work.

SOFT-TRD SIII

The soft-TRD SIII combines perfect fabric running properties with the latest short liquor ratio technology.

DOSING- AND DISPENSING SYSTEMS

For reducing error rates and increasing reproducibility, the automation of the chemical and auxiliaries supply is mandatory. The MPS product family offers a complete solution for fully automated supply of a finishing plant with chemicals, dyes and auxiliaries.



MPS-Colourmatic © 2019 Thies

BENNINGER INCORPORATES THE TRADITIONAL AND THE MODERN

This year, Benninger is celebrating its 160th anniversary which stands primarily for 160 years of commitment to textiles, but also for 160 years of responsibility towards sustainable textile production. Thanks to consistent innovation and the continuous improvement and further development of the products, processes and services, for the past 160 years the name Benninger has stood for textile finishing plants that are particularly resource-efficient.

BENNINGER WILL BE PRESENTING ITS LATEST DEVELOPMENTS:

- The Benninger-Küsters CPB dyeing centre for knitwear and woven fabrics - the only salt-free cold dyeing process
- The TEMPACTA washing steamer for knitted fabrics with freshwater supply that is controlled by the degree of contamination
- The TRIKOFLEX drum washing machine that is available up to a working width of 5400 mm. In addition, a specially developed expander roller for sensitive fabrics will be exhibited.
- BENNINGER – Kuesters Multipad - the new development for complex impregnation tasks on woven fabrics and knitwear with electronically monitored, automatic lubrication

SALT-FREE DYEING OF WOVEN FABRICS AND KNITWEAR

Salt-free dyeing without the use of energy is only possible using the cold pad batch (CPB) dyeing process. The heart of the CPB system is the BENNINGER KUESTERS DYPAD. BENNINGER is the only textile machine manufacturer with the know-how of the original S-roller technology, which is synonymous with an even dyeing result across the entire fabric width.

IOT - INFORMED AT ALL TIMES

Besides other innovations a newly revised maintenance manager provides information about the maintenance status of the system at any time and generates a recommendation as well as a schedule for the next maintenance cycle. And they have further developed the management information system BEN-iDATA.



TEMPACTA washing steamer © 2019 Benninger

MAHLO BRINGS LATEST TRENDS

The experts of Mahlo present new systems and solutions for efficient and high-quality textile production and finishing. Three topics are on focus in the machine builder's appearance.

GATEWAY TO INDUSTRY 4.0

Via the „Gateway to Industry 4.0“ visitors can immerse in the digital world of Mahlo. mSmart is the name of the concept developed by the technology leader from Bavaria, that defines the digital environment. „Our systems generate data, which the client can use immediately to control on-line. In addition to that, those figures are logged in our new data management system and are retrievable at any time in order to optimize processes and minimize weak points in the production“, Sales Director Thomas Höpfl explains. How measuring data are saved, logged and evaluated, that visitors can test in the mSmart control room.

THE FUTURE OF STRAIGHTENING & PROCESS CONTROL

Furthermore, Mahlo showcases according to the motto „The Future of Straightening and Process Control“ the latest advancements. In live operation, the most recent generations of weft straightener Orthopac RVMC-15 or web gauging system Qualiscan QMS-12, why they enhance every

textile production line. Patcontrol PCS-15 for pattern control and Famacont PMC-15 for controlling weft thread and mesh density also contribute to high-quality textile production and finishing. Both are also in live operation at the ITMA. People interested can have the operation principle explained with the help of a demo tower and their own or provided fabric samples at the Mahlo booth.

DENIM-CORNER

At the Denim-Corner everything revolves around the rugged cotton fabric. Mahlo introduces in Barcelona a new high-end-solution for straightening the demanding material. „The new technology allows exact and quick controlling even of the heaviest web. In a way unprecedented in the denim industry“, says Höpfl.



Weft straightener Orthopac RVMC-15 © 2019 Mahlo

iMASTER H₂O



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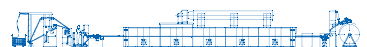
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Quality



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Original



Still the peak in finishing machinery

Visit us at ITMA 2019 in Hall H1 booth A131

AUTEFA SHOWS HOW THEY LEAD THE WAY IN NONWOVEN LINES

Autefa Solutions, the well-known full line supplier for nonwovens lines from Germany, Switzerland and Austria, will present latest innovations in main process steps from web forming, web bonding and web finishing. Furthermore, the company has a special focus on Industry 4.0 for entire nonwovens production systems. There will be a couple of highly sophisticated exhibits to watch on the booth. And they'll also be demonstrating what they have to offer in terms of fiber baling, fiber logistics technology and woollen carding technology.

AUTEFA SERVICE 4.0

Autefa Service 4.0 offers customers 4 service levels. Level 1 starts with online enquiries about certain settings and 24-hour remote maintenance access. Level 2, "advanced", includes automatic monitoring via permanent data access. At Level 3, "premium", they offer proactive suggestions with respect to maintenance, for example, as well as optimisations, software upgrades and training courses about the system. And at Level 4, the highest level aptly referred to as "ultimate", Autefa offers full system support including preventive maintenance, the supply of spare parts, maintenance planning and maintenance, the provision of wear parts, and guaranteed response times.

NEW AERODYNAMIC WEB FORMING AIRLAY FUTURA

Autefa Solutions will show the new Airlay Futura system that is completely modular and mounted on a track. Customers are free to select modules for the desired configurations. The track system offers numerous advantages, such as rapid changeover and fast, convenient access to the components for cleaning and maintenance purposes. This is particularly important in the natural fibre segment and very straightforward with this system. Autefa calls it "easy opening". In addition, settings that were previously adjusted mechanically can now be controlled electronically from the console instead, making it possible to follow a set production plan.

DIGITAL TWIN

Another highlight will be the presentation of a digital twin of a baling press. Autefa Solutions will be demonstrating how they digitally simulate processes and system software. "We believe there's a lot of potential here, as our industry has relied far too much on mechanical systems up till now", said André Imhof, Autefa Solutions CEO Switzerland and Austria.

SURPRISE

Last, but not least they will unveil another new machine on the first day of ITMA.

DILO GROUP

ENGINEERING FOR NONWOVENS



June 20-26, 2019
Barcelona
Visit us at booth
B201, hall H5

DiloGroup

P. O. Box 1551
69405 Eberbach / Germany
Phone +49 6271 940-0
info@dilo.de

www.dilo.de

The „8000X“!

The new needle pattern:
Better homogeneity –
wide range of advance/
stroke

DILO PRESENTS COMPLETE LINE IN OPERATION

DiloGroup will once again exhibit a complete operating production line on a booth space of ca. 1.100 m². This line will illustrate improvements and modifications as well as innovations in numerous machine design-engineering aspects. The complete technological process starting with fibre preparation via card feeding, to precise web forming and the new Hyperpunch H α needling will be shown. Elements of "industry 4.0" have been incorporated to design the assisting operating system "diloline 4.0".

FIBRE PREPARATION

In the fibre preparation phase with Dilo-Temafa components, the "Baltromix Pro" will show a faster blend changeover which is a prerequisite for even higher throughput. An exact control of the filling level avoids idling or over-filling by feeding fibre bales with the aid of a "bale timer". The sensor module "DI-LoWatt" assures fibre transport with a minimum of air and thus saves energy.

The current universal card feeder VRS-P Vibration Chute is supplemented by a fine opening stage to further improve feeding quality. After the "VectorQuadroCard" the latest version of the high speed crosslapper "HyperLayer" will be included which al-

lows highest throughput at small to medium layering widths and which is especially suited for hydroentanglement lines. The advantages of the elliptical needle beam kinematics of Hyperpunch technology is even better used in the "Hyperpunch H α " loom as a very economic version of the classical Hyperpunch technique. The needleloom on show – DI-LOOM OD-II SLH α V – is equipped with the new needle pattern 6000X to give a very homogeneous stitching distribution.

"SMART-START" AND "3D-LOFTER"

An automatic starting-aid "smart-start" for the card with automatic threading to crosslapper and needleloom reduces the number of manual interventions.

In the field of "textile additive manufacturing" the "3D-Lofter" will offer further chances of fibre savings for needlefelts used in the automotive and other applications because topologically distributed fibre masses can be positioned in the felt where needed by so called "individual webforming spots".

"DILOLINE 4.0"

"diloline 4.0" includes a wide variety of "smart manufacturing" actions in collaboration with Siemens which all aim at further simplifying operation, increasing

transparency in web forming and consolidation thereby increasing efficiency. Production data are stored, documented and compared. An "alarm monitor" indicates disturbances. A production analysis documents the reasons for standstill times. This data can be used to avoid disturbances. Numerous information modules can be recalled via mobile apps and cloud data (mindSpheres).

All these methods to control the machines and to generate production data will be helpful to further secure the complex functions within the production system independently of personnel and shift.



Needle arrangement "8000X" for a more even needlefelt surface © 2019 Dilo



Dilo needlefelt production line, working width 7 m © 2019 Dilo

ANDRITZ WILL BE PRESENTING ITS INNOVATIVE NONWOVENS PRODUCTION AND TEXTILE SOLUTIONS

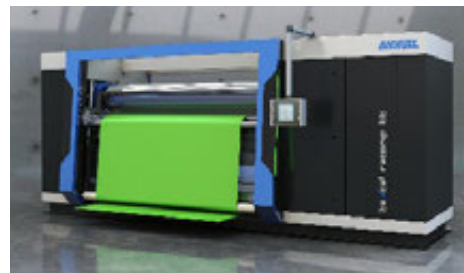
SOPHISTICATED NEEDLELOOM EXPERTISE

The presentation of a complete velours needleloom at ANDRITZ's booth is one of the definitive highlights. In combination with Augmented Reality (AR) content, the needleloom on show provides a detailed insight into the functionality of this key technology.

At the fair, ANDRITZ will introduce its latest needling technology for producing veloured felts, mainly for applications in the automotive industry. The long-lasting brush design combined with a needleloom for high production capacities ensure reduced production costs and a high return on investment for customers. With this full-size needleloom exhibit, realistic presentations can be provided at many points of the machine using AR technology. ITMA will also see ANDRITZ present the next generation of its cross-laying technology, the ProWin system. ProWin is a further development of ProDyn and ProWid, which have achieved a high level of acceptance on the market with around 200 systems installed. This technology improves the current weight-profiling options and increases the actual production capacity.

THE NEXT GENERATION IN TEXTILE CALENDERING

The new ANDRITZ teXcal Raconip TT sets new standards in textile processing for technical textiles, both in terms of technological maturity and of design. It is aimed at customers who require versatility and operator-friendly handling along with excellent process stability in addition to constantly high manufacturing quality. The new calender impresses with an innovative, deflection-controlled roll – the newly developed Raconip TT. It offers maximum flexibility thanks to unrestricted profiling across the entire fabric width by means of hydrostatic pistons. This guarantees highest quality, such as absolute flatness and precise air permeability. It was developed in cooperation with Rolf Ramisch, a well-known specialist in textile calender technology.



New ANDRITZ textile calender
teXcal Raconip TT © 2019 ANDRITZ

NEW WETLAID LINE FOR GLASS FIBERS

The ANDRITZ wetlaid line for glass fibers comprises a completely new, revolutionary development in the manifold, diffuser, and former machinery segments. Highly uniform fiber distribution with optimal structures during the laying process is a basic prerequisite for high-quality end materials. An ingenious recycling management system ensures a continuous reduction in the consumption of raw materials and water. A resource-saving water and energy system also helps to reduce costs from the very first day of operation.

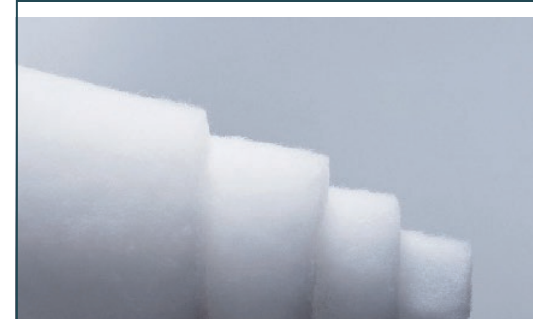
DIGITAL SOLUTIONS AS A BRIDGE BUILDER

ANDRITZ will also focus on its digital solutions and products, marketed under the technology brand Metris. In addition to Augmented Reality in combination with the needleloom, other Metris services, such as the spare part catalog and technical documentation, will be central topics. Above all, however, the ANDRITZ booth at ITMA will focus on the future networking of and external communication with machinery operating on production sites. This is an absolutely essential factor in order to develop faster and more targeted processes in service and maintenance.

COMPETENCE IN NEEDLE PUNCHING LINES

AUTEFA Solutions leads the way

www.autefa.com



Visit us at ITMA in Barcelona
June 20-26, 2019
Hall 5, Booth C 111

AUTEFA Solutions is a leading supplier of complete nonwoven lines. Needle punching lines provided by AUTEFA Solutions meet all customer requirements for maximum productivity, constant high quality, raw material savings and maintenance friendly machine concepts.

SPGPRINTS OFFERS DIGITAL TEXTILE PRINTING JOURNEY

PIKE SINGLE-PASS

SPGPrints will be giving live demonstrations of its second generation PIKE single-pass digital textile printing machine printing on viscose fabric with reactive inks. Based on the PIKE's established image quality performance combining the industry's highest resolution of 1200 dpi with the smallest droplets and lowest ink consumption, you can now come and see the new PIKE® printing at considerably higher speeds than before while producing the best deep black blotches ever.

JAVELIN MULTI-PASS

Also, from the established JAVELIN® multi-pass printing machine, a second generation will be showcased at ITMA. Besides the extension with an acid and a direct sublimation application, this new JAVELIN® will have additional functionality that boosts both the top printing speed as well as the average speed to print every design, resulting in a higher print capacity per day or month.

In the Digital Ink Experience Center, they take you behind the scenes of the development and production of its high-quality digital inks and launch two new versions of its deep black ultra HD in the Nebula reactive ink series for Kyocera print heads.

FIRST GLOBAL SHOWING OF NEW HYBRID TEXTILE PRINTER BY MIMAKI

Mimaki will showcase its broad portfolio of cutting-edge digital print technologies. This will include the first global showing of a brand-new hybrid digital textile printer, uniquely featuring both direct-to-textile and direct-to-transfer print capabilities. Crucially, these features enable textile and garment manufacturers to achieve unparalleled flexibility and enhanced application opportunities for increased business growth. Furthermore, according to Mimaki they will showcase a wealth of technological breakthroughs and creative opportunities to drive digital print adoption in textiles.

INDUSTRIAL PRINTER TIGER-1800B MKII

A not-to-be-missed highlight on the Mimaki booth, visitors will also see the company's flagship industrial digital textile printer, the Mimaki Tiger-1800B MkII – in dye-sublimation configuration. Combining Mimaki's Japanese expertise in electronics with La Meccanica's know-how in building solid and robust belt printer bodies with 'made-in-Italy' design, the Tiger-1800B MkII – the latest model of Tiger-1800B Series – enables users to produce extremely high-quality products (up to 1200 x 1200 dpi resolution) at up to 385m²/h print speed, without the need to compromise on production and throughput.

WORLDWIDE LAUNCH OF KORNIT PRESTO

Kornit Digital plans to stay ahead of the curve by rethinking how fashion and textile companies can improve time-to-market and by introducing no less than three pivotal solutions. The show also marks the official worldwide launch of the Kornit Presto solution, the only industrial single-step solution for direct-to-fabric printing.



PRESTO © 2019 Kornit Digital

PRESTO

The Presto eliminates the need for pre and post treatment of fabric and allows for high-quality printing on an extraordinarily broad variety of fabric types and applications. Presto does not consume water in the printing process, making it the most environmentally friendly solution available for direct-to-fabric textile printing today. It comes with the ground-breaking NeoPigment Robusto, according to Kornit the best Pigment-based ink available in the industry.

MOUVENT'S WORLD PREMIERE OF NEW DIGITAL TEXTILE PRINTER

Mouvent will unveil its new textile machine – the TX802 – for the very first time. There will be 6 official live demonstrations each day of the TX802 at the following times: 10h30, 11h30, and then from 13h30 every hour. But of course, on demand demos are always possible, as well.

The new TX802 builds on the success of Mouvent's popular inaugural TX801. TX802 is an 8-color multi-pass digital textile printer producing the highest print quality on textiles with up to 2,000 DPI optical resolution, and is associated with very high printing speeds of up to 100 linear m/min. It has double the output of the TX801, producing up to 400 sqm per hour of perfectly printed fabrics. It achieves this with only 20% additional space required compared with the TX801. The Mouvent™ Cluster is an ingenious digital printing technology, which uses clusters instead of fixed size print bars by color, arranging them in a modular, scalable matrix.



The new TX802 © 2019 Mouvent

FEEL THE POWER OF SWISS INNOVATION

For textile people, ITMA is the 'greatest show on earth' and there will again be a strong presence of Swiss textile machinery companies, whose participation at any ITMA is always the focus of enormous visitor interest. The majority of the 63 exhibitors from Switzerland at ITMA 2019 will attend under the organisation of their national representative body, the Swiss Textile Machinery Association (Swissmem), whose president, Ernesto Maurer, promises an exciting and dynamic showcase of genuine innovation: "Swiss machinery manufacturers always provide some of the headline presentations at the big exhibitions," he says. "Barcelona this year will be no exception, as our members will certainly demonstrate the power of Swiss innovation, a tradition rooted in our national DNA across numerous ground-breaking inventions in textiles and the wider world."

Every major sector along the textile value chain will be covered by Swiss exhibits, ranging from fiber and yarn manufacturing through knitting, weaving, non-wovens, dyeing and finishing. In many of these disciplines Swiss firms lead the world. The heritage of the Swissmem members is impressive, dating back to the dawn of the industrial revolution and amounting to a combined total of more than 4,000 years of expertise in meeting the needs of textile producers worldwide.

INNOVATE OR DIE: TMAS AT ITMA

A focus on customer service, aligned with the drive to constantly innovate, has long ensured that the member companies of TMAS – the Swedish textile machinery manufacturers' association – stay well ahead of the curve. "All of the Swedish textile machinery companies are doing really well in major markets such as Europe, China, India and the USA," says TMAS Secretary General Therese Premler-Andersson. "I expect to see new players and partnerships as we enter the industry 4.0 era for real."

The forward-looking attitude of the Swedish companies is perhaps best summed up by Reimar Westerlind, the owner, since 1961, of ACG Gruppen. At the age of 90, Reimar still travels to his office every day to oversee the operations of the diverse companies operating under the ACG umbrella. "Everything now is about automation and digitisation," he says. "We have to be on that track or we will be lost – innovate or die."

Members of TMAS at ITMA 2019:

ACG Kinna Automatic AB (Hall 3 / D239), Baldwin Technology AB (Hall 2 / A204), Eltex of Sweden AB (Hall 4 / B102), ES Automatex Solution AB (Hall 3 / C250), Eton Systems AB (Hall 2 / A214), IRO AB (Hall 4 / A206b), Svegea of Sweden AB (Hall 3 / D250, Texo AB (Hall 5 / A101).

ITALIAN TEXTILE MACHINES GET READY

The presence of the Italian exhibitors at ITMA is remarkable, representing the first country in terms of exhibitors number and occupied surface. They amount to around 360 companies, with an occupied exhibition area of 30,000 square meters. The Italian companies are distributed as follows: 22% in the spinning/winding section, 10% in weaving, 9% in knitting/hosiery, 35% in finishing/printing and 24% in the other business areas planned for the show.

Alessandro Zucchi, President of ACIMIT: "Once again the Italian textile machinery industry will be the protagonist with a large number of participants in the most important international showcase for textile machines. This confirms the vitality of our sector, in terms of quality and technological level that we know how to express".

During ACIMIT press conference at ITMA (June 21) the Association will award two of the 40 member companies that joined the Sustainable Technologies project. The Italian Green Label Award aims to reward those companies that have been more virtuous over the past years, reducing the carbon dioxide emitted by their machines to a greater extent.

"MAKE IT YOURS"

FRENCH MACHINERY@ITMA2019

France is the sixth textile machinery manufacturer worldwide with an annual turnover of about 1 billion Euros. The manufacturers are agile SME's run by entrepreneurs with long term objectives. They are particularly strong in long fibre spinning (wool, acrylic ...), yarn twisting and control (including technical yarns), space-dyeing, heat setting for carpet yarns, carpet systems, dyeing and finishing, felts and belts for finishing processes, nonwovens, air conditioning of textile plants, and recycling processes of textile materials. Services include, for examples, remote assistance through internet, spare parts availability and upgrading. Evelyne CHOLET, Secretary General of UCMTF, states: "We have worked hard to welcome our customers on our booths, and surprise them; my message to them about our machines is: make it yours!"

Exhibitors are:

NSC SCHLUMBERGER (Hall 6 / Stand A 107), LAROCHE (Hall 5 Stand C 106), SUPERBA (Hall 6 Stand D 206), FIL CONTROL (Hall 6 Stand B 203), PETIT SPARE PARTS (Hall 6 Stand B 202), AESA Air Engineering (Hall 8.1 Stand B 211), EBELMANN (Hall 4 Stand B 210), MALLEIN (Hall 4 Stand B 213), ALLIANCE (Hall 2 Stand B 318), ROUSSELET Centrifugation (Hall 2 stands B 316-317), DOLLFUS & MULLER (Hall 2 Stand C 202), SPOOLEX Group (Hall 1 Stand B 209) and SCHAEFFER Productique (Hall 8.1 Stand A 104).

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Techtextil and Texprocess 2019: **THE MOST INTERNATIONAL SHOWS OF ALL TIME**

At Techtextil and Texprocess the textile and apparel industries displayed their most progressive side and even in challenging times still inspires a positive mood throughout the sector as a result. Record numbers of exhibitors and the highest levels of international participation to date have once again confirmed Frankfurt as the sector's global marketplace.

With a total of 1,818 exhibitors from 59 countries and, in all, some 47,000 trade visitors from 116 countries [1], the two biggest editions of Techtextil and Texprocess ever to be held, ended in May in Frankfurt. Accordingly, for four days, the Frankfurt Fair and Exhibition Centre once again became the leading international platform for users of technical textiles from the widest variety of sectors, as well as for manufacturers of apparel, fashionwear, upholstered furniture and leather products.

"Over the last four days, Techtextil and Texprocess have brought together the entire world of textiles and their areas of application in Frankfurt. This double-barrelled trade fair had, in particular, three major things going for it: a larger number of top decision-makers, higher levels of international participation and a greater



The fair was so well attended that the escalators in Hall 4 were never empty © TexData International

degree of satisfaction amongst exhibitors than ever before. Both exhibitors and visitors were extremely well prepared and actively took advantage of what was on offer at the two fairs, in order to drive their business forward in focussed ways," says Detlef Braun, Member of the Executive Board of Messe Frankfurt.

TECHTEXTIL SCORES HIGHLY FOR VISITOR QUALITY AND VARIETY OF USERS

"We were thoroughly inundated on the very first day, particularly with international visitors. On top of our already high proportion of existing customers, we got lots of new contacts during the course of the trade fair," says Dr. Günther Gradnig, Managing Director at Sattler Pro-Tex GmbH. The response of exhibitors to the

high levels of technical expertise amongst the visitors has been extremely positive. "The nice thing about Techtextil is that the visitors you meet are 100 percent specialists. The discussions we have had have been exclusively on a technical level – and a very high level at that. At the end of the day, this provides the foundation of good business," confirms Jörg Perwitzschky, Director of Marketing at Bayern Innovativ, speaking of visitor quality.

A SMORGASBORD OF INNOVATIONS

As always, the Techtextil and Texprocess were not only a trade fairs, but also real showcases. Hardly any exhibitor came to Frankfurt without any innovation and there was almost everything imaginable. New fibers. New fabrics. New composites. New applications. Many innovations revolved around the topic of sustainability, with all its facets, from water conservation and chemical use to biodegradation and even the closed cycle of workwear. Other topics included lightweight construction, fire protection, acoustics, carbon concrete, coatings, micro factories, sewing robots, digitization and much more. (editor's note: We will introduce in detail the innovations in the next issues)



Messe Frankfurt CEO Detlef Braun shows up at the press conference in a fancy jacket © TexData International



The „Digital Textile Microfactories“ showed exactly the production processes of a digitized and almost fully automatic production and had many visitors © TexData International



Applied textiles, which are supposed to spark their moving play of colors in the light, support muses and inspiration in a future asphalt world © TexData International

PERFORMANCE, FUNCTIONALITY, AND SMART TEXTILES – IN ABUNDANCE

There was, amongst other things, strong representation at Techtextil for suppliers of fabrics for functional apparel and of smart textiles with integral lighting, heating and sensory functionality, which are used in sportswear, fashionwear, outdoor clothes and workwear. With these products, companies like Schoeller, Freudenberg, RUDOLF and Lenzing attracted designers, product managers and buyers from a host of well-known clothing manufacturers. "We had loads of people at our stand, who were looking for specific things, including many well-known brands such as Alpha Tauri, Mammut, North Face and Tommy Hilfiger," confirms Hendrikus van Es, Head of Protection Textiles and Member of the Senior Management Team of Schoeller Textil AG. There were, moreover, numerous exhibitors for accessories and components including, for instance, international market leaders for zip fasteners, YKK. "Visitors came from all over the world, from the USA, Pakistan, Asia, even Columbia. We are fantastically satisfied with the show," says, for example, Jan Cees van Baaren, Sales Manager at YKK.

TEXPROCESS A HUGE BOOST FOR THE SECTOR

"Texprocess has inspired a very positive mood amongst suppliers. The manufacturers of sewing and apparel technology and of machinery for the processing of technical textiles and leather, have been reporting a certain reluctance to invest amongst their customers, caused by, among other things, current international trade barriers," says Elgar Straub, General Manager of the Textile Care, Fabric and Leather Technologies (TFL) division of the VDMA (Association of German Machine and Plant Manufacturers). "We look towards the future with a great deal of positivity."

Texprocess was also all about digital solutions for the sector – from fully networked production lines in the form of micro-factories and machines capable of autonomous learning to cloud-based collaboration between designers, product developers, manufacturers and retailers across national boundaries. "Digitalisation and interlinked networks in the sector are gaining traction and have now reached as far as the retail shop," says Straub. "An effect that we summarise as

Impact 4.0, the direct effects of Industry 4.0." It is something Alexander Behm, Product Manager Technical Textiles at H. Stoll AG & Co. KG also confirms: "I think that, in the not too distant future, things will go more and more in that direction and, in partnership with software suppliers and machinery manufacturers for other stages of the work, will eventually include the entire process chain."

These particular knitting machine manufacturers showcased the 3D knitting of shoe uppers in the Digital Textile Micro-Factory at Techtextil and Texprocess.

GERBER'S PANEL DISCUSSION GROUNDBREAKING FOR DIGITIZATION

Gerber Technology's stand was on hand for this Texprocess with a top-class panel discussion: "Consumer focus to be key into today's world of fashion", Gerber spokes person Yvonne Heinen-Foudeh opened the panel discussion among experts from different segments in the fashion arena. "From Instagram to instant fashion – the recent offensive of that picture portal to develop to an actual marketplace leads the way", she stres-



Gerber Technology Panel discussion with representatives from various sectors of the textile industry at the Texprocess 2019 © TexData International

sed. "This while creation, development and production of collection programs or also personalized fashion outfits according to desire and also with the body measurements (editor's note: in case of Gerber called AccuMark MTM) of the end consumer within days or even hours are already feasible reality." Jelle Van Laer, Director Business Development, Grosso Moda, stated: "Within Grosso Moda our aim is to implementing a new way of product development combining the best of both worlds - of digital and physical." And Michele Caldirola, Senior Pattern Maker Calvin Klein, said: "I have worked with several pattern software and I am now embracing the highly user-oriented 3D approach along with Gerber Technology's AccuMark to for Calvin Klein and other brands of PVH Group by the way to evolve from our '2D' way of creating

patterns. And yes from a workflow point of view with many sites involved it is a challenge - our new frontier at C.K., yet we are moving forward each single day."

TEXTILE INDUSTRY INCREASINGLY COMMITTED TO SUSTAINABILITY

With 'Sustainability at Techtextil and Texprocess' both trade fairs concentrated the focus on the approaches that its exhibitors are adopting to sustainability issues. A dedicated exhibition guide took visitors straight to the relevant exhibitors. Marc W. Lorch, CEO of Zwissler Holding AG: "For us, the sustainability focus at this year's Techtextil was extremely important. We have our own Sustainability Manager, who consistently takes care of this matter and its ramifications in all areas. We not only talk about sustainability – we live it. We have been preparing ourselves for this appearance for a long time in the run up to the show and have also involved our customers and suppliers." And, for the first time, there were, in 2019, two winners of the Techtextil Innovation Award in the sustainability category.

The next Techtextil and Texprocess will take place from 4 to 7 May 2021.

WINNERS OF THE TEXPROCESS INNOVATION AWARDS 2019 AND THE TECHTEXTIL INNOVATION AWARDS 2019

TEXPROCESS

The Texprocess Innovation Award 2019 for new and further technological developments in the field of textile processing was presented to four winners.



In the 'New Technology' category, the jury was particularly impressed by the new M-TYPE DELTA sewing system made by Dürkopp Adler AG. The award-winning industrial-sewing concept can be integrated into a fully digitalised sewing production line for automotive interiors, home upholstery, leather goods and technical textiles. Using digital solutions to the maximum extent, the machine guides the operator and continuously augments its functions and 'know-ledge'.



M-TYPE DELTA

The second award in the 'New Technology' category went to Vetron Typical Europe GmbH for the Vetron Viper, an ultra-lightweight sewing system made using carbon components. The system weighs a total of six kg, including yarn corps and drive motor, which means a smaller and more cost-effective industrial robot can be used in the sewing process. Thus, the solution is compact, flexible and easy to install and remove.



VETRON VIPER

The award winners in the 'New Process' category include Assyst GmbH for a 3D innovation process. For the first time, the company is showing at Texprocess how a digital process innovation can revolutionise the textile value chain, from design to development and sales. Assyst has developed a virtual decision-making aid for everyone involved in the process, from designers in the creative phase, via product developers in the virtual fitting stage, to sales staff with a 3D in-store presentation. Moreover, the technology provides a completely new product experience for both B2B and B2C customers.



3D INNOVATION

The second award in this category went to Lectra for its fashion-on-demand technology, the first end-to-end solution for personalising fashions. The turn-key solution automates on-demand production so that companies can now process several individual orders at the same time, including individualized apparel. In other words, individualized products can be delivered just as fast as standard articles.



FASHION-ON-DEMAND



TECHTEXTIL

During the opening ceremony of Techtextil, International Trade Fair for Technical Textiles and Nonwovens, seven companies were presented with the renowned Techtextil Innovation Awards for textile products distinguished by a particularly high level of innovation. New this year, Techtextil honoured two award winners in the 'Sustainability' category. The international jury was particularly impressed by two projects in the 'New Technology' category.

Robert Bosch GmbH and H. Stoll AG were presented with the Techtextil Innovation Award for a knitted sensor glove. The seamless, 3D flat-knitted glove is made of sensor yarn and offers the wearer sensory and control functions on all fingers, e.g., for operating interfaces in man-machine interaction, for movement control in relation to augmented and virtual-reality applications or rehabilitation purposes in a medical setting. The glove provides the same level of wearing comfort as a conventional glove.



KNITTED SENSOR GLOVE

The second award in this category went to Germany's Northwest Textile Research Centre for its 'Textile Mining' project, a functional textile that enables, for example, companies from the metal industry to recycle and recover noble metals, such as gold, platinum and palladium, from industrial waste water. Against the background of a growing shortage of raw materials, industrial waste water is, alongside electrical waste, an important source of noble metals and, therefore, 'urban mining', i.e., separating and recovering raw materials from existing resources in urban settings. Other project partners: Kayser Filtertech, Setex-Textilveredlung, Cornelsen Umwelttechnologie, Unimicon Germany and Wieland Edelmetalle (all from Germany).



TEXTILE MINING

In the 'New Material' category, the Techtextil Innovation Award 2019 went to Portugal's Seda-cork cork processing company for CORK-A-TEX, a new yarn made of cork. Previously, cork-based textiles for apparel or home textiles have been relatively stiff. The new cork yarn is a flexible product made of a natural material and thus offers additional design opportunities for the fashion industry and interior furnishing.



CORK-A-TEX

In the 'Sustainability' category, a Techtextil Innovation Award went to a working group comprising Comfil (Denmark), Chemosvit Fibrochem (Slovakia), the Fraunhofer Institute for Chemical Technology ICT (Germany), the Technical University of Denmark and Centexbel (Belgium) for BIO4SELF, fully bio-based, self-reinforced polymer composites based on PLA fibres. These composites can be used in the fields of automobile manufacturing, the sports industry and medical technology. Moreover, they contribute to the sustainable development goals defined by the United Nations by promoting the transition to an inclusive green economy.



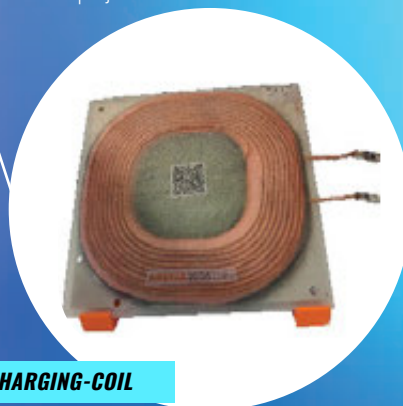
BIO4SELF

The second award in the sustainability category went to PICASSO, a joint venture of Portuguese project partners for the development of a coloration and functionalization process for garments based on natural extracts from residues and/or species of mushrooms and plants, as well as enzymes. The project partners are the Centre for Nanotechnology and Smart Materials (CeNTI), the Tintex sustainable textiles company, spice and herb producer Ervital, biotech company Bioinvitro Biotechnologia and the CITEVE textile technology centre.



PICASSO

In the 'New Application' category, the awards went to the German Institutes for Textile and Fibre Research Denkendorf (DITF) and Beira Interior University (DCTT) in Portugal. DITF have developed a space-saving inductive charging coil for hybrid and electric vehicles. Due to a lack of space under most vehicles, it has been very difficult to install inductive charging coils to permit linear scaling of the coil area and thus maintain the equal power density necessary for charging larger batteries. DITF use high-tech knitting technology to meet this challenge. Partnering DITF in this project is Robert Bosch GmbH.



CHARGING-COIL

The second award in this category went to the E-Caption 2.0 smart and safe coat developed by the Beira Interior University in Portugal. The coat is primarily designed to protect workers from excess radio-frequency signals while climbing antennas, the number of which is growing worldwide with the increasing spread of mobile telephony and the internet. Protection is given by a textile system that harvests energy and is connected to LEDs that indicate when the radiation level exceeds that recommended by the European Union. The project partner is the Aveiro Institute for Telecommunication.



E-CAPTION 2.0

#Denim

ISKO HAS OFFICIALLY BECOME A MEMBER OF TEXTILE EXCHANGE

ISKO seizes yet another chance to further expand its vision of a responsible and sustainable landscape in the industry, as its latest achievement involves joining forces with Textile Exchange. Moving forward in its journey to full responsibility, ISKO chooses the support of this non-profit organization to develop even more sustainable ways to tackle textile production. Becoming member of Textile Exchange is evidence of how ISKO maintains an open dialogue with all the different stakeholders, shaping and developing more sustainable business models and more efficient practices. This same attitude is shared by Sanko Group, ISKO's parent company and already a member of Textile Exchange.

iskodenim.com

#Exhibition #Technical Textiles

SUSTAINABILITY A MAJOR TOPIC AT TECHTEXTIL AND TEXPROCESS

„Sustainability at Techtextil“ and „Sustainability at Texprocess“ have been the two topics by which these leading international trade fairs have explicitly turned their focus for the first time onto their exhibitors' approaches to sustainability. In the run-up to Techtextil and Texprocess exhibitors at both fairs were able to

submit their approaches and evidence of their work on every aspect of sustainability to the fairs' organisers. An independent, international jury of experts on sustainability assessed the submissions, in accordance with the relevance and validity of current national and international product-sustainability labels, such as currently mainly Bluesign, Cradle-to-Cradle, EU Eco Label, ISO 14001, GOTS, GRS as well as SteP by Oeko-Tex. Overall, 47 firms were selected, including 44 exhibitors at Techtextil and three at Texprocess.

www.techtextil.com www.texprocess.com

#Textile Chemistry #Coating

ARCHROMA LAUNCHES APPRETAN NTR

Archroma has launched Appretan® NTR, a break-through water-based textile coating binder based on renewable natural ingredients. Appretan® NTR does not contain biocides or alkylphenolethoxylates (APEO) and does not release formaldehyde. It has been designed so that the optimum properties can be achieved without additional curing step at high temperature compared to the industry standard process, thus helping to save significant energy. Initially developed for the chemical bonding of non-wovens for technical textiles and coating, Appretan® NTR displays excellent film forming properties and very hydrophobic behavior.

www.archroma.com

SUSTAINABILITY



Appretan® NTR is a water-based textile coating binder
© ARCHROMA

#Textile Chemistry #Home textiles

DEVAN LAUNCHED TWO NEW SUSTAINABLE TECHNOLOGIES

Devan Chemicals launched two new technologies at the Techtextil show in Frankfurt. Bio-flam, a bio-based flame retardant product and Odour Breakdown, a wash durable, non-biocidal odour control solution. Bio-based FR treatments, like Bio-flam, are made from renewable, vegetable sources and enable the FR treated products to be biodegradable. The active components are 100% halogen- and heavy metal-free. The European Commission requires mattresses to be recyclable by 2030 in order to reduce landfill. Bio-flam P307 is the first introduction in the new Devan BIO-FR family, and is biodegradable and is developed to be used on 100% cotton or cotton/viscose mixtures, in order to create an ecological concept.

www.devan.net

#Fiber #Viscose

KELHEIM FIBRES JOINS CANOPYSTYLE INITIATIVE

At the CanopyStyle Brand Summit in Shanghai, the German viscose fibre manufacturer Kelheim Fibres announced that it is joining the CanopyStyle initiative. The CanopyStyle initiative aims to make sure that no wood from ancient and endangered forests is used for the production of viscose fibres by seamlessly documenting the supply chain. As a European producer, Kelheim Fibres already meets the requirements of the strict EU Timber Regulation and exclusively uses wood pulp from sustainable forestry with either FSC® or PEFC™ certification.

www.kelheim-fibres.com

#ITMA

ITMA 2019 SUSTAINABLE INNOVATION AWARD FINALISTS UNVEILED

CEMATEx, the European Committee of Textile Machinery Manufacturers, has unveiled the finalists of the second ITMA Sustainable Innovation Award. The award comprises two categories: ITMA Industry Excellence Award which celebrates the collaboration of ITMA exhibitors and their customers, and the ITMA Research & Innovation (R&I) Excellence Award for Master's students of R&I Pavilion exhibiting institutions.

www.itma.com

Industry Excellence Award

The panel of judges selected the following three finalists:

- **Candiani SpA**
Innovation: Candiani Re-Gen: Creating Circular Denim
Nominated by Lenzing AG
- **Levi Strauss & Co**
Innovation: FLX Customisation Studio
Nominated by Jeanologia S.L
- **VF Corporation**
Innovation: All-in-One System
Nominated by Tonello S.R.L.

R&I Excellence Award – Master's

The Award recognises outstanding achievements in textile and garment related post-graduate research. The finalists are:

- **Mathias Zidda**, Institut Für Textiltechnik, RWTH Aachen University
Thesis: Development of a gear driven 3D rotational braiding machine and its control concept
- **Pamela Massaccesi**, Universidad De Buenos Aires
Thesis: TUTTI – Reusable Food Wrapping
- **Sarika Sunil Borikar**, D.K.T.E. Society's Textile & Engineering Institute Thesis: Sanitary Napkin: A Greener Approach

The winners of the ITMA Sustainable Innovation Award will be announced at a prize presentation ceremony at ITMA 2019 on 20 June, immediately following the press conference.

#Carbon Fiber #Aerospace

BOEING & ELG CARBON FIBRE FIND NEW LIFE FOR AIRPLANE STRUCTURE MATERIAL

Boeing and ELG Carbon Fibre have announced a partnership to recycle excess aerospace-grade composite material, which will be used by other companies to make products such as electronic accessories and automotive equipment. The agreement – the first of its kind for the aerospace industry – covers excess carbon fiber from 11 Boeing airplane manufacturing sites and will reduce solid waste by more than one million pounds a year.

www.elgcf.com

#Association

CIRCULARITY IN EUROPEAN MANUFACTURING

With "Prospering in the Circular Economy", EURATEX has taken stock of where Circular Economy is already used in European manufacturing and what it takes to scale it up, to unleash its full potential. At Techtextil EURATEX has announced taking the initiative to a new level and boosting cooperation both within Europe and at global scale. In the European Industry, EURATEX sets out a new strategy, working with its Members and companies to design solutions fit to enable circular economy at wide scale.

On 14 May, five leading apparel organisations partnered to call on existing and forthcoming EU policymakers to rethink tools to establish a circular fashion system. The joint Industry Manifesto (**see next page**) sets the scene framing agreed key issues which shall inspire industry and policy makers' actions notably to bring on board all steps of the value chain, local and global actors, SMEs, consumers. A new approach is called for: a new toolbox bringing together private and public initiatives, coordination and smart regulation, to address issues the industry cannot address alone. Ultimately, a new formula to rewrite the book of rules and procedures shall be agreed upon to deliver new policies and new partnerships.

Mauro Scalia, EURATEX Director of Sustainable Businesses, says: "We believe joint endeavors can win global challenges. The Manifesto shows that finding new ways for unprecedented coordination is possible". And Jérôme Pero, Secretary General, FESI, states that "[...] to drive change, it is essential that all actors work together to make it happen. That's why I believe this manifesto is a perfect, timely call to unite everyone".

www.euratex.eu

<https://t1p.de/l782> (Manifesto)

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Nonwovens #Textile Machinery

GRAND OPENING OF THE NEW NON-WOVENS CUSTOMER AND TECHNOLOGY CENTER IN EGELSBACH



The big moment has come: starting the line. From the Truetzschler family: Dr. Michael Schuerenkraemer and Heinrich Truetzschler (pictured on the left and the right side). From Truetzschler Nonwovens & Man-Made Fibers GmbH: Bodo Heetderks (Director Technology; pictured second left), Dr. Georg Reinhold (Managing Director CEO; pictured in the middle), Marc Wolpers (Managing Director Sales, pictured second right) © 2019 Truetzschler

During Techtextil fair Truetzschler has opened its new customer and technology center for nonwovens in Egelsbach (near Frankfurt/Main) to push the technological innovations of nonwoven products as well as the related manufacturing processes. The family-owned company was established in 1888 and is one of the world wide leading manufacturers of textile machinery today. The key factors for the success of Truetzschler Group are sustainable technological innovation, the quality of its machines and its strong customer orientation.

Thus, the investment in the new nonwovens customer and technology center is the logical consequence to further develop the solid status of today to technology and quality leadership in this segment. The technology center presents two complete production lines: an inline carding line with thermobonding and spunlacing equipment and a spunlace-crosslapper line in an industrial working width.



The new Customer and Technology Center in Egelsbach – Web forming section © 2019 Truetzschler

Both lines feature a wide range of possible variations and options to realise innovative end products. By opening their new customer and technology center, Truetzschler invite all customers to jointly design the “way into the future”.

www.truetzschler.com

#Textile Chemistry

ARCHROMA OPENS GLOBAL COMPETENCE CENTER IN GERMANY

Archroma has officially inaugurated its new Global Competence Center for Au-



Opening ceremony at the new Archroma Global Competence Center for Automotive & Synthetic Dyeing in Korschenbroich, Germany, in presence of Alexander Wessels (center), CEO, Mark Dohmen (right), Head of the Global Competence Center for Automotive & Synthetic Dyeing, and Thomas Hoffmann (left), Head of Operations, Korschenbroich. (Photo: Archroma) © 2019 ARCHROMA

tomotive & Synthetic Dyeing in Korschenbroich, Germany. The site is part of former M. Dohmen, an international group specializing in the production of textile dyes and chemicals for the automotive, carpet and apparel sectors, that Archroma acquired between 2014 and 2018. The inauguration ceremony, held on 6 May 2019 in the presence of Alexander Wessels, CEO of Archroma, and Mark Dohmen, former CEO of M. Dohmen and Head of the new Global Competence Center for Automotive & Synthetic Dyeing, also celebrated the merger of M. Dohmen GmbH into Archroma Germany GmbH. With the new Global Competence Center for Automotive & Synthetic Dyeing, Archroma creates a global hub for technical expertise, market knowledge, technology and creativity.

www.archroma.com

#Digital Printing

EFI ACQUIRES BDR BOYA KIMYA

Electronics For Imaging announced that it has acquired privately held BDR Boya Kimya San. Tic. A.S. Based in Bursa, Turkey, BDR is a leading manufacturer of reactive inkjet inks for industrial digital textile printing. BDR is being integrated into EFI™ Reggiani, a global leader in textile printer technology, and it will continue to develop inks, working closely with and supporting its clients while expanding and growing its capabilities. BDR's employees are joining EFI, working from their current sites in Turkey.

www.efi.com

#Carbon Fiber #Recycling

MITSUBISHI COMPLETES ACQUISITION OF STRATEGIC SHAREHOLDING IN ELG CARBON FIBRE

The previously announced acquisition of 25% of shares in ELG Carbon Fibre (ECF) by Mitsubishi Corporation (MC) has been completed. This arrangement is effective since 5th April 2019. By uniting ELG Haniel's advanced technology and proficiency in the metals reprocessing industry, ECF's know-how regarding carbon fibre recycling and MC's global network and broad interface with different industries, the companies can now enhance their reliable supply of reprocessed carbon fibre.

www.elgcf.com

RESEARCH & DEVELOPMENT

#Industry 4.0 #Weaving #Braiding

NEW 3D BRAIDING MACHINE AND MIXED REALITY LEARNING ENVIRONMENT FOR THE WEAVING PROCESS AT ITMA 2019

At the ITMA in Under Linkway booth D221 (UL D221), ITA, will demonstrate the digital retrofitting of a 3D braiding machine for the production of three-dimensionally reinforced ceramic turbine components and a mixed reality learning environment for a weaving process to qualify new and also experienced employees.

Digital retrofitting of a 3D braiding machine for the production of three-dimensionally reinforced ceramic turbine components

Developed from an existing conventional mechanics, a 3D braiding machine was



3D braiding machine © ITA

digitized and rebuilt according to industry 4.0 standard. This enables, for example, the prototyping and production of three-dimensionally reinforced ceramic components. As a virtual micro factory, the processing of very sensitive or brittle fibre materials can be simulated in an appropriate software environment. Subsequently, the process data is generated and the production is mapped in the real machine. The exhibit demonstrates on the one hand the successful digital retrofitting of analogous machines and on the other hand the holistic (virtual and real) process design for the processing of sensitive fibre materials, which are used in highly efficient energy conversion as lightweight construction materials.

Mixed-Reality Learning Environment for Weaving Process

Training and qualification of new and existing employees are important prerequisites for a company's success, especially for machine and textile manufacturers. The ITA has developed a learning environment based on a 3D model of a tape loom using mixed-reality technology. Mixed reality is the combination of data from reality with artificial 2D or 3D objects (virtual reality).

ita.rwth-aachen.de

#Technical textiles #Medtech

ITA POST-DOC VALENTINE GESCHÉ RECEIVES NRW INNOVATION AWARD

The NRW Minister of Economic Affairs Andreas Pinkwart presented the NRW Innovation Award in the category of young talent to Dr Valentine Gesché from Institut für Textiltechnik of RWTH Aachen University, on Monday, 13 May 2019. Ms Gesché receives the prize, endowed with 50,000 euros, for the development and research of patient-individualised implants.



The winner Dr Valentine Gesché with congratulators and research team © ITA

As head of the Exist research transfer project „PerAGraft“, Ms Gesché and her team are now working to bring this platform technology to market. Patients with a complex aortic aneurysm suffer from an increasing, pathological and permanent aneurysm of the aorta and shall be saved from the life-threatening rupture of the aorta by an individual implant. The innovative procedure reduces the delivery time of a customised implant from up to eight weeks today to less than a week.

ita.rwth-aachen.de

#Digitisation #Industry 4.0 #Russia

„ARTIFICIAL INTELLIGENCE IN THE ERA OF DIGITAL TRANSFORMATION“

On May 28 the first German-Russian conference was held at Lomonossow Moscow State University - entitled „Artificial Intelligence in the Era of Digital Transformation“ - at the National Center for the Digital Economy. The Lomonosov University as well as many other research institutions in Russia are world leaders in the foundations of mathematics, theoretical computer science and physics. Thus, Lomonosov University is the alma mater of I.N. Bronstein & K.A. Semendjajev, the authors of the standard work „Paperback of Mathematics“. But there are also new interesting approaches in Russian mathematics in the context of artificial intelligence. In the rest of the world, these are still largely unused, but hold enormous potential. But the arc was also extended to ethics and aesthetics. The participants work out common points of contact between the RWTH and Lomonosov University.



Conference at the Lomonossow University shows enormous cooperation potentials © ITA

PREVIEW



NEXT ISSUE:

#Review ITMA 2019

Markets, trends and applications. Innovations and exhibits.

#Textile Machinery focus:

ITMA innovations in spinning, winding, weaving, knitting and warp knitting.

#Industry 4.0

Innovations from ITMA. Blockchain. Innovations from Texprocess.

#Sustainability

Innovations from ITMA. Biobased Coatings.

#Nonwoven Technology

Innovations from ITMA. Filter. Mobility.

#Fiber

Innovations from Techtextil.

#Interviews



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