# textile.4U

THE TEXDATA INTERNATIONAL MAGAZINE

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TEXDATA
INTERNATIONAL

**PREVIEWS**
FOR ALL
TRADE FAIRS

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FROM THE EDITOR

# **DEAR** READER,

We live in very complicated times. Finally, we have set our sights on the problems of the future and worked to address them and initiate a multitude of changes to set the course for a better future. Climate change has been at the forefront of our strategic direction and in recent years there has been a gradual shift towards acting more sustainably with and in all facets and areas. Less CO2 emissions. More environmental protection. Green technologies. Expansion of renewable energies. Responsible use of resources and raw materials. Circular economy. Social justice. Generational justice. These are all issues that were and still are high on the agenda. However, in recent months and years we have had to realize more and more how fragile all that is, which we thought was a very solid starting position to start something new. First, the pandemic made us realize the impact that global disasters have on all our lives and how quickly priorities can shift. And when we had increasingly gained the impression that we could at least significantly mitigate this problem of a viral disease that brings death, a war made us realise that even a life in peace is not set in stone, simply due to the fact that - apart from the fight against terror - we have had peace for so long. Peace also requires our full attention and commitment. And as if all this were not enough, we were also made aware that a globalized world is much more vulnerable than we had suspected or wanted to believe. Disrupted supply chains, shortages, price increases and displacement are the words of the day that define much of our economy and industry. There are so many factors involved that it is difficult to keep our bearings and define the way forward. To use an analogy: We want to build a new storey for our house and have now noticed that the foundation has cracked. So, what to do? Well, we cannot avoid taking care of the foundation, but we must not lose sight of the new floor. In the very long term, we must work to subordinate the vital interests of states to the vital interests of the planet. However we succeed, it must be a goal and the world's brightest minds will have to think about it.

These are thoughts about the big picture. But our daily life usually takes place on a small scale in our microcosm, even if the global situation certainly has its influences in such an international industry with long supply chains like the textile industry. Especially for internationally operating companies and certainly even more so for the world market leaders. The companies have to face the new challenges alone or organized in their associations and permanently revise their strategies and their operative actions.

We will feel the results on a small scale. Now, with ITM 2022, there is again one of the leading trade fairs for textile machinery in Europe for the first time since 2019. The same applies to Techtextil for technical textiles and Texprocess for apparel technology. All these exhibitions are taking place under new conditions in a dramatically changed world. They will show how companies are reacting to the current and future changes. Among exhibitors as well as visitors. This makes the fairs particularly important, perhaps more important than ever before. Because there, in the halls and at the stands, you can feel the pulse of the times, experience the new orientation of companies and deduce the effects for your own business. Innovations. Analyses. Evaluations. Ideas. All this will be shared there. We are happy to be part of this sharing and also look forward to the many face-to-face meetings. Very much with you, too. On the grounds or come to our stand.

Yours sincerely

**OLIVER SCHMIDT**

#Editor-in-chief

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# CONTENT


# THE EU TEXTILE STRATEGY CHANGES EVERYTHING!

**Hardly any event or decision in recent years will change the European textile landscape as much as the strategy for sustainable and recyclable textiles (EU textile strategy) adopted by the European Commission on 30 March. There is no need for more reasons to take a closer look at it. The strategy comprises about 15 pages with 6520 words in English. It is divided into 5 sections: introduction, key actions for sustainable and recyclable textiles, creating the conditions, the global linkage of a sustainable textile value chain and a short conclusion.**

In this context, the EU Textile Strategy is one part of a very large package that includes new legislation and related measures to make sustainable products the norm in the EU, promote circular business models and empower consumers in the green transition. As announced in the Circular Economy Action Plan, the Commission is proposing new rules to make almost all physical goods on the EU market greener, more circular and more energy efficient throughout their life cycle, from design to daily use to disposal or repurposing.

**Textiles are environmental offenders**

Textiles have been identified as a crucial product group, as European textile consumption ranks fourth in terms of environmental impact and climate change, after food, housing and mobility. It ranks third in water consumption and land use and fifth in the use of primary raw materials. In detail, this means that around 5.8 million tonnes of textiles are disposed of every year, which corresponds to 11.3 kg per person. In addition, 35% of all microplastics released into the environment can be traced back to textile products. According to an EU survey, almost 9 out of 10 Europeans (88%) believe that clothing should be designed to be more durable.

The new EU Textile Strategy was created to make textiles more durable or to repair, reuse or recycle them, to tackle 'fast fashion', textile waste and the destruction of unsold textiles, and to ensure that social rights are fully respected in the production of textiles.

**Only green textiles have a future**

The ideas on this have huge implications because they affect pretty much the entire textile value chain. Let's look at the general goal of the strategy. It states:

"This Strategy for Sustainable and Circular Textiles aims to create a coherent framework and a vision for the transition of the textiles sector whereby:

By 2030 textile products placed on the EU market are long-lived and recyclable, to a great extent made of recycled fibres, free of hazardous substances and produced in respect of social rights and the environment. Consumers benefit longer from high quality affordable textiles, fast fashion is out of fashion, and economically profitable re-use and repair services are widely available. In a competitive, resilient and innovative textiles sector, producers take responsibility for their products along the value chain, including when they become waste. The circular textiles ecosystem is thriving, driven by sufficient capacities for innovative fibre-to-fibre recycling, while the incineration and landfilling of textiles is reduced to the minimum."

Put simply, textiles are more durable, so they can be worn, repaired and reused for a long time, and their underlying fabrics are made from recycled materials, which in turn can be recycled. At best, without losses and in a durable process.

**Green is precisely defined**

The second part of the strategy deals with the model for Europe to bring the vision to life and to tackle implementation. It details the following key actions for sustainable and recyclable textiles:

2.1. Introducing mandatory Ecodesign requirements
2.2. Stopping the destruction of unsold or returned textiles
2.3. Tackling microplastics pollution
2.4. Introducing information requirements and a Digital Product Passport
2.5. Green claims for truly sustainable textiles
2.6. Extended producer responsibility and boosting reuse and recycling of textile waste

**New, green product design**

Let us take a closer look at area 2.1. as an example. This area deals with product design, which is considered to play a key role. Already here, the choice of materials should ensure that quality deficiencies in terms of colour fastness or tear resistance are minimised so that the textile can be used for a long time. At the same time,

circular economy models such as reuse, rental and repair, take-back service and second-hand trade should be supported, so that cost savings are made possible for the citizens. On the other hand, the choice of materials should take into account that they can be produced in an environmentally friendly way and that the recycling of textile waste is supported.

**Comfort zones become more difficult**

In this context, the strategy also addresses a very sensitive issue for the garment industry: The blends of fibres, for example polyester and cotton, and in particular also the problems that elastane makes for successful recycling. Here, at the latest, the entire industry has to prick up its ears, because these fibre blends are also a basis for many functional textiles and leisure textiles, which have been enhanced with function and are also intended to increase comfort. The Commission sees the improvement of product design as a first step here, while the technical processes of recycling still need to be further developed.

Voluntary schemes developed by the Commission, such as the EU Ecolabel criteria for textile products 19 and the EU GPP criteria for textile products and services 20 already contain requirements related to environmental aspects of textile products. They include, for example, detailed criteria for high quality and durable products, restrictions on hazardous chemicals and requirements for the environmentally sound sourcing of textile fibres. Work on the environmental footprint of clothing and footwear products with representatives of the textile industry is ongoing and is expected to be completed by 2024. It further states that the Commission will prioritise products with the greatest potential and impact in terms of environmental sustainability.

**Bans, requirements and transparency**

The excerpt of the strategy already illustrates the extent of changes in the first of six sub-items alone:
Product design.

The other areas are no different. They include detailed plans and stipulations such as the introduction of clearer labels on textiles and a digital product passport. Tackling green washing to empower consumers and raise awareness of sustainable fashion. A U-turn on overproduction and overconsumption and deterrents ranging from destruction of unsold or returned textiles to bans. The proposal of compulsory extended producer responsibility for textiles with environmentally related fee scales. Tackling the unintentional release of microplastics from synthetic textiles. As well as restricting the export of textile waste. And appropriate incentive and promotion schemes to create for more sustainable textiles.

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A Roadmap for Transition will be published by the end of 2022 - an action plan for actors along the textile supply chain to successfully achieve the green and digital transition and make the textile sector more resilient. The corresponding action plans, such as the Digital Product Passport, of which 24 are listed in the annex of the strategy, are to be implemented very quickly, between 2022 and 2024. Only the Horizon Europe to support textile research has a duration until 2027.

**Changing business models**

The EU Textile Strategy will destroy, change and create new business models. It can only be recommended to everyone to take a very close look at the strategy to get a picture for themselves with all the implications for their own business. And to inform oneself accordingly in further sources. For example, also from its associations.

**EURATEX is concerned about SMEs**

In a commentary published on the very day of the publication of the EU Textile Strategy, EURATEX calls for an intelligent and realistic implementation with special attention to the concerns and opportunities of SMEs. Considering the multitude of tasks and goals, there is no way around such an implementation if it is to be successful. This is also reflected in the following excerpt from the EURATEX commentary: "If implemented incorrectly, such a huge wave can lead to a complete collapse of the European textile value chain under the weight of restrictions, requirements, costs and an uneven playing field. In contrast, the changes ahead can boost the entire textile ecosystem and create a model for successful green and digital transformation in manufacturing, starting in Europe and spreading globally."

**The journey has already started**

In recent news, you can see that the industry is gearing up. H&M Group has increased its stake in Renewcell, Indorama Ventures has started building a pilot plant in France with France's Carbios for its unique biological PET recycling, and Inditex committed in May to a three-year purchase of Infinna™ textile fibres from manufacturer Infinited Fiber for over €100 million. You can see from the actions of the market leaders that the journey has begun. A journey that will change everything.

- ec.europa.eu/environment/strategy/textiles-strategy_en
- www.euratex.eu
- www.texdata.com

# TECHNICAL TEXTILES & NONWOVENS

# STILL ON THE **RISE**

## Different reports show **strong growth**

**Technical textiles and nonwovens have once again gained in importance over the last ten years and the corresponding markets have shown good growth and developed accordingly. But what does the future hold? Here, too, numerous studies see very attractive growth for the next five to ten years.**

The study "Technical Textiles Market By Application, Process & Region - Forecast 2021 - 2031 by Future Markets Insights reports that the market for technical textiles will show positive growth during the analysis period. The study sees the total value in 2021 at around US$183 billion and expects a compound annual growth rate (CAGR) of 4.6% between 2021 and 2031. The study sees growth in the medical application area also as an after-effect of the pandemic and mentions here, for example, surgical stockings, caps, bed linen, sheets, pillowcases and uniforms, in geotextiles due to the increasing demand for sustainable solutions for water treatment and protection against soil erosion, in workwear preferably in mining and in the mobile tech segment. The study also sees significant further development in smart textiles. It writes: "The increasing use of Bluetooth Low Energy (BLE) technology in smart devices and technological advancements in smartphones and laptops will drive the demand for smart textiles in the future."

Markets and Markets' "Technical Textile Market by Material, by Process, by Application, and Region - Global Forecast to 2025" study forecasts that the global technical textiles market is expected to grow from USD 164.6 billion in 2020 to USD 222.4 billion in 2025, at a CAGR of 6.2% from 2020 to 2025. The study identifies the main driver as increased awareness of the superior functionality and diverse applications, and thus increased awareness of the benefits of technical textiles such as their flexibility, durability, high strength, and light weight. While the study sees increased raw material costs as a problem that is squeezing margins, it hopes on the other hand that manufacturing costs can be reduced through increased production volumes. In terms of applications, the study reports a significant increase in hygiene products during the COVID-19 pandemic and sees this segment continuing to gain ground, especially for nonwovens, which are used as an alternative to conventional textiles in hygiene products due to their excellent absorption properties, softness, smoothness, strength, comfort and fit, stretchability and cost-effectiveness.

Grand View Research, in its study "Technical Textile Market Size, Share & Trends Analysis Report ... 2022 - 2030 "estimates the global technical textiles market at USD 180.9 billion in 2021 and is projected to grow at a CAGR of 4.7% from 2022 to 2030. The study expects increasing awareness of the benefits of technical textiles across various end-use industries to drive the market during the forecast period. In terms of production processes, the study explicitly mentions 3D weaving technology as a leading process for the production of technical textiles with products in construction, ballistics, automotive, marine and other application industries, but also mentions that 3D knitting technology will drive the market growth with increasing applications in the building and civil engineering segment.

The study identifies growth drivers as government support for the production of technical textile products in response to rising demand, on the one hand, and recent technological and scientific advancements, on the other, which offer considerable potential for manufacturers in the global market. This is in addition to the generally increasing use of technical textiles in various industries such as automotive, construction, healthcare, apparel, packaging, agriculture, sportswear and sports equipment, which is expected to boost sales.

Transparency Market Research also concludes in its study "Technical Textiles Market Outlook 2031" published on 10 February 2022 that the global market for technical textiles will grow at an average rate of 6.2% during the forecast period from 2021 to 2031. Although the growth forecasts are quite similar, different studies arrive at different drivers for this growth. On the one hand, this certainly has to do with the different focus of the analysis, but on the other hand it also shows the enormous bandwidth and the diverse growth opportunities of the industry.

https://www.transparencymarketresearch.com/sample/sample.php?flag=B&rep_id=1255
https://www.fortunebusinessinsights.com/technical-textiles-market-102716
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# IMPORTANT INDUSTRY EVENT FOR PRESENTATION AND VOLUME BUSINESS

Heimtextil will take place as a one-time summer special from June 21 to 24, 2022, parallel to the trade fair duo Techtextil and Texprocess. The decision to hold a summer edition this year is the result of a positive vote from the home and contract textile industry, which is longing for a re-start of personal business meetings this year. Exhibitors and buyers will also benefit from valuable synergy effects between the three international trade fair formats.

"It is great to see the high level of trust that our exhibitors have in us, even after more than two years of the pandemic. The results of the vote and the first confirmations of participation show: The need to finally return to personal business meetings and new global contacts in face-to-face exchanges before the end of this year is as strong as ever – even if the reunion this year will take place in a different setting than usual," says Olaf Schmidt, Vice President Textiles & Textile Technologies, delighted at the positive response.Three weeks after the announcement of the Heimtextil Summer Special, around 1,000 exhibitors have already registered for the one-time summer edition of the leading international trade fair for home and contract textiles.

With a global offering from 46 countries, Heimtextil will once again cover a diverse range of products for textile interior design in the summer. One of the focal points is the intercontinental volume business.

Quickly, the first manufacturers - including long-standing Heimtextil exhibitors such as the Jover Group, the Lenzing Group and Weberei Hohmann - confirmed their participation and gave good reasons for the summer special.

"From our point of view, it is a good decision to reschedule Heimtextil to summer this year. We need a platform to present our new products to the market. The industry needs to see each other again, a personal relationship is important. We hope that the situation this summer will allow exhibitors and visitors to travel freely and that the fair will mark the beginning of a return to normality," says Francisco Jover Pastor, CEO of Jover Group.

"It means a lot to us that Heimtextil 2022 will be held as part of the Summer Special. In June, we will finally be able to connect personally with the global trade again at a central location and show live what is possible with Tencel lyocell and modal fibers for the interior sector. Especially for home textiles, it is very important to see and touch the products.

We are looking forward to many new contacts and to seeing long-time customers and companions again at Heimtextil 2022 this summer," said Ebru Bayramoğlu, Head of Global Business Development at the Lenzing Group.

Deep Nature: Textile design using various methods of natural dyes, stamping technique and digital printing by Maria Højrup, VIA University College, VIA Design & Business. Photo SPOTT for Heimtextil

Beyond Identity: Natural dyed garments by design student Emma Nørgaard Poulsen, VIA University College, VIA Design and Business. Photo SPOTT for Heimtextil

Hyper Nature: Sailcloth textile from Middle of Nowhere by Busk A. Agesen. Glow textile design by VIA University College, Research & Development Center for Creative Industries and Professions. Photo SPOTT for Heimtextil

"We are positive about the summer date and will participate with the same booth planning for June that was planned for the January event," announces Martin Buchta, CEO of Hohmann Weberei.

## SUCCESS IN LARGE QUANTITIES: MANUFACTURERS AND WHOLESALERS FROM 46 COUNTRIES

The Summer Special in June 2022 will also be the central date for suppliers with a focus on large-volume orders and will bring them together with wholesalers, exporters, owners of chain stores and other volume-oriented buyers from Europe and overseas:

"We are very pleased with the decision to hold the Heimtextil Summer Special. International face-to-face meetings with visitors and customers this summer – especially with wholesalers and chain stores – are important to showcase our products and strengthen business relationships," says Mário Abreu, Events & Marketing Manager of Elastron Group, Portugal.

## HEIMTEXTIL CONFERENCE "SLEEP & MORE"

Consultancy and product offerings for the bedding trade will also be comprehensively highlighted at the Heimtextil Summer Special. The Heimtextil Conference "Sleep & More" (Hall 3.0, Stand D 041) will serve as a contact point for representatives of the bedding trade, where they can look forward to a top-class program of lectures, discussion rounds and product presentations.

Here, high-calibre experts will provide valuable orientation for decision-makers in the hotel industry and hospitality trends will be examined from the point of view of sustainability and the circular economy.

## HEIMTEXTIL TRENDS AND SUSTAINABILITY

The staging of Heimtextil Trends in hall 4.0 in the summer offers an in-depth insight into the furnishing themes of tomorrow. In this context, sustainability also takes center stage at Heimtextil. Heimtextil Trends 22/23 will highlight how important it is to focus more on the composition of textiles and to encourage companies to think in the long term. In the centre of the fair grounds, in Hall 4.0, the trend area under the motto 'Next Horizons' not only offers inspiration for the latest trend colours and materials but also shows how sustainable themes can be staged. Based on the Material Manifesto, local resources, environmentally friendly or borrowed materials will be used for the stand design.

## SUSTAINABILITY - A FOCUS TOPIC AT THE HEIMTEXTIL SUMMER SPECIAL

The Heimtextil industry takes the subject of sustainability seriously and the trade fairs also show that sustainability is not a trend but has been increasingly anchored in the industry for years and is constantly developing through innovations. At the Heimtextil Summer Special, the measures and offers relating to sustainability will be brought to life.

The Green Village (Hall 3.0, Stand D51) helps to keep track of official labels and certificates. Label providers and certifiers will provide exhibitors and interested trade visitors with answers to their questions and up-to-date information on current developments. This is also where you will find the SDG (Sustainable Development Goals) Lounge, which is being created in cooperation between Messe Frankfurt and the Conscious Fashion and Lifestyle Network as well as the United Nations Office for Partnerships. Together with Messe Frankfurt's Texpertise Network, the business network of the company's around 50 international textile fairs, the lounge focuses on the UN's Sustainable Development Goals (SDGs). The online Green Directory shows all suppliers of sustainably produced textiles. Finding one's way around the fair is made easier by the exhibitors' clearly recognisable stand sign. The Green Tours also offer the opportunity to be guided directly to selected sustainably producing companies and to learn more about their products.

## OUTLOOK: HEIMTEXTIL 2023

Around 2,200 international exhibitors have already registered for Heimtextil 2023. This current level, eight months before the event from 10 to 13 January 2023, is already around 75 percent compared to Heimtextil 2020 and shows the high relevance of Heimtextil for companies and the sector.

**heimtextil.messefrankfurt.com**


Sewing machine. Photo: Messe Frankfurt Exhibition GmbH / PIETRO SUTERA PHOTGRAPHY

# GREAT EXPECTATIONS FOR TEXPROCESS 2022

## INNOVATIONS ON THE PRESENTATION STAGE FOR THE **FIRST TIME** IN 3 YEARS

The apparel and textile processing industry is looking forward with great anticipation to Texprocess, the leading trade fair for the sector, which will open its doors in Frankfurt for the sixth time from 21 to 24 June 2022. At the leading international trade fair, international exhibitors will then finally once again present trade visitors with the entire spectrum of the latest machinery, plant, processes and services for garment manufacturing and textile and flexible materials. As usual, Techtextil, the leading international trade fair for technical textiles and nonwovens, will be held parallel to Texprocess. In addition, there will be a one-time Heimtextil Summer Special, the international trade fair for home and contract textiles.

"After three years have passed since the last Texprocess, the industry has a lot of catching up to do in terms of face-to-face communication," said Elgar Straub, Managing Director of VDMA Textile Care, Fabric and Leather Technologies at the international press conference for Texprocess in Frankfurt. "Exhibitors want to show what innovations they have developed in the last three years. They have hardly had the opportunity to show these to a larger audience since the pandemic began. In turn, visitors are looking for solutions for more sustainable, more flexible and also more regional production. Accordingly, the expectations for Texprocess are enormous and linked to the hope that many necessary investments will be made. The pandemic has shown that no virtual meeting can replace face-to-face exchanges on site."

## MANY INNOVATIONS AMONG THE EXHIBITORS

Due to the new hall concept with occupancy of Halls 8 to 12 for texprocess and techtextil, around 200 exhibitors will present their exhibits in Halls 8.0 and 9.0. More than 50 exhibitors have already announced in advance that they will be presenting new products at the fair. One can be very curious about this. The focal theme of this year's Texprocess is sustainability, which is likely to receive another huge boost with the new EU strategy for textiles and the move towards a circular economy mentioned there. In terms of product groups, there are 32 exhibitors for CMT (Cutting-Making-Trimming), 29 for sewing, joining and fastening technology, 14 for CAD/CAM and product development and 10 for product preparation. Those interested in internal material flow will also find an exhibitor for this in Eton Systems AB (Hall 8.0 / F41). Unfortunately, the situation is different for recycling processes for clothing. Here, the search results for the exhibitors do not show any hits and the industry therefore still has a lot of catching up to do as well as potential.

## SUSTAINABILITY IS AN IMPORTANT TOPIC

"Sustainability at Texprocess": in the field of processing textile and flexible materials, more and more companies are focusing on greater sustainability. The leading international trade fair explicitly focuses on exhibitors' approaches to sustainability. Texprocess exhibitors selected by an international jury of sustainability experts can be found in the online exhibitor search, the Texprocess app and in a separate fair guide.

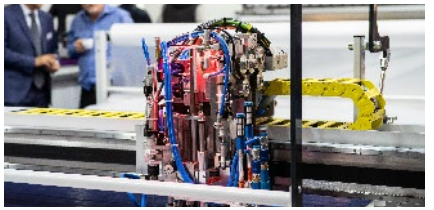
## STATUS QUO OF AUTOMATION

An always exciting topic at Texprocess is also automation in sewing, as this is considered a huge challenge due to the softness of the materials. Over the last five years, solutions that would lead to a fully automated sewing room have been announced quite loudly from time to time, but after a while, things got quiet around the companies in question. Good places to go to learn about the state of the art and the possibilities are certainly the stands of Dürrkopp Adler and KSL. KSL, or more precisely PFAFF Industriesysteme und Maschinen GmbH Zweigniederlassung KSL, specialises in the customised development and manufacture of special systems for the automated processing of technical textiles for the automotive, aerospace, filter and home textiles sectors to a worldwide customer base. KSL's product range is extremely diverse: CNC-controlled sewing systems, multi-needle sewing units, robot systems, gluing and welding units as well as complete automatic production lines are part of it. Many of the sophisticated special solutions are innovative one-offs.

Dürkopp Adler (Hallo 9.0 / C21), the largest European manufacturer and technology leader for industrial sewing technology, develops and distributes, as a premium manufacturer, automated sewing units, standard sewing machines, flat and post bed sewing machines, free arm sewing machines, lockstitch and chainstitch machines as well as CNC-controlled sewing units with outstanding performance and quality.

## DIGITALIZATION

The digitalization of the industry along the value-added chain is certainly another hot topic and this already starts in the design process. With Assyst GmbH (Hall 8.0 / Stand B41), based near Munich, one of the technology leaders for the digitalization of these processes will be exhibiting at Texprocess. Assyst develops and sells innovative software for the apparel industry and, with its software solutions, makes apparel digital - from the very beginning, from capturing the very first idea, through design, cutting and production, right into the shop. According to the company, it is the market leader in Germany and number 3 worldwide. Assyst offers products for 2D/3D design, marker-making, grading and virtual prototyping. 3D-Vidya is a leading software for 3D garment simulation.



Cutting head for ply cutting machine. Photo: Messe Frankfurt Exhibition GmbH / Pietro SuteraGRAPHY

In 2019, Assyst presented a 3D innovation process including a Digital Showroom for the first time at Texprocess, plus an innovative shop concept with the Digital Fashionboard. Definitely a worthwhile destination for visitors with touch points to learn about market penetration and further development of these groundbreaking solutions in 2019.

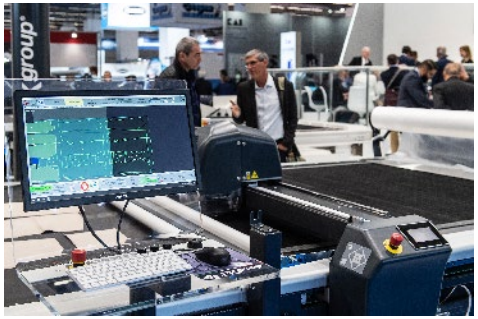
Solutions from the sector's new super heavyweight, Lectra, the absolute world market leader in software and digitization following its acquisition of Gerber Technology, will unfortunately not be seen by visitors, as Lectra will not be exhibiting at the fair, as it did three years ago.

However, digitalisation and "Industry 4.0" are not only important trade fair topics for product development. The industry wants and needs to further digitalize, and numerous exhibitors offer solutions here for their sector and their products. Dürkopp Adler, for example, develops and markets leading Industry 4.0 solutions for the digitalization of the textile industry with its QONDAC business unit.

## INDUSTRY FACES MAJOR CHALLENGES

Manufacturers of sewing and garment technology and machines for processing technical textiles are currently facing major challenges, as are the customer sectors. The effects of the pandemic and the war in Ukraine are confronting the industry with major challenges in the form of material shortages, availability problems, long delivery times and increased logistics costs, as are increased energy costs

3d & digitalization, power sizing and fitting.
Photo: Messe Frankfurt Exhibition GmbH / Pietro Sutera



Cutting System
Photo: Messe Frankfurt Exhibition GmbH / Pietro Sutera

and the enormous shortage of labor. Customer industries are accordingly looking for solutions for more flexible, regional and sustainable production, and technology manufacturers are meeting these requirements with new, innovative automation and digitization solutions.

## SIGNIFICANT INCREASE IN INCOMING ORDERS

The conceptual partner of Texprocess is the VDMA Textile Care, Fabric and Leather Technologies. In March, it reported that the German manufacturers of textile care, fabric and leather technologies ended the year 2021 with positive figures. Orders received in 2021 increased by 35 per cent compared to the previous year. In the field of sewing and clothing technology, German machine manufacturers were also able to increase exports in 2021 by 8 percent to 439 million euros. The most important export market from a German perspective was Poland, followed by the USA and France.

German suppliers of shoe and leather technology increased their exports by 16 percent to 47.5 million euros. Here, the main customer countries were the USA, France and Mexico. Exports of German laundry and textile cleaning technology also increased by 6 percent to 364 million euros in 2021. The most important export markets here were Poland, Turkey and the USA. From a European perspective, exports also recovered in 2021. Exports of Italian sewing and garment technology, for example, rose by 11.5 per cent to 271 million euros and Italian shoe and leather technology also increased by over 19 per cent to 284 million euros. Spain was also able to increase exports of laundry and textile cleaning technology by 12 percent to 87 million euros.

Exports also recovered at the European level in 2021. Exports of the entire EU countries increased by 8.5 percent to 1.356 billion euros. The most important markets for EU exports were Germany, the USA and Poland. "Companies' order books are well filled after the pandemic-related decline in 2020," said Straub.

"However, the ever-increasing prices for raw materials, the massive supply bottlenecks for preliminary products, the expensive and difficult transport conditions and the enormously increased energy costs are very challenging for many technology manufacturers. Added to this are now the unforeseeable consequences of the war in Ukraine."

## DENIM FUTURE FACTORY SHOWS INNOVATIVE PRODUCTION AND PROCESSING

A special highlight of Texprocess this year is the Denim Future Factory. The denim industry is the fastest-growing market in the textile and fashion industry and has developed significantly in recent times. The special show in hall 8.0 picks up on these developments and showcases innovations in manufacturing and processing along the entire textile process chain and focuses on sustainable approaches in denim production. Visitors will be able to experience new processes in every step of production - from design, cutting, sewing, knitting and embroidery to finishing, IT and logistics.

The denim industry has also led the way in the area of sustainability and has successfully adapted many new technologies in recent years. New developments have also been driven forward. An example of this is the company Jeanologia (Hall 8.0 G39), which over the years has changed the way jeans are made through groundbreaking technologies and innovative software.

Today, over 35% of the 5 billion jeans produced worldwide each year are made with Jeanologia technologies. Laser, G2-Ozone, e-flow, Smart Boxes and H2Zero have revolutionised the textile industry and Jeanologia has set further lofty goals: With their Mission Zero, they encourage all textile industry players to help drive the dehydration and detoxification of the denim industry by 2025.

## TEXPROCESS FORUM

The Texprocess Forum in Exhibition Hall 9.0 offers insights into current industry topics on all days of the fair and is included in the ticket price. Expert lectures on topics such as Impact 4.0 / Future of Industry 4.0, Quality Management of the Future, Supply Chain Management, Digital Product Development and Sustainability Management are planned, among others.

## TEXPROCESS INNOVATION AWARD

As in previous years, the Texprocess Innovation Award will be presented at Texprocess 2022, representing the innovative content of Texprocess and the future-oriented product achievements of its exhibitors. The award is given for innovative and outstanding developments, technologies and processes for processing textiles and flexible materials.

## CONCLUSION

At the first Texprocess after the pandemic, one will certainly miss one or two exhibitors who, for their own reasons, are not attending the fair. Whether this will be noticeable in the end remains to be seen. There will be no lack of innovations and there will not only be plenty to see, but also a lot to talk about. Face to face. Just like in the old days. That alone makes the heart beat faster.

**texprocess.messefrankfurt.com/**

# HIGHTEX 2022

## INTERNATIONAL TECHNICAL TEXTILES AND NONWOVEN TRADE FAIR

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# MAJOR CHANGES IN THE GENERAL CONDITIONS OFFER NEW OPPORTUNITIES FOR TECHTEXTIL & TEXPROCESS

**The world has changed dramatically since the last Techtextil and is still doing so. Pandemic. War. Lockdown. Congestion. Supply shortage. Climate change. This is not without impact on the world's leading trade fair for an important industry. Governments and societies have set themselves major goals in many areas, developed visions, developed strategies and adopted plans to respond to old and new challenges and set the course for implementing sustainable strategies in all areas. The current trade fair duo of Techtextil and Texprocess thus comes at a time of change and these changes will, in all probability, be visible at the fair. We see at least five more or less major influencing factors.**

## 1. TRADE FAIR DUO BECOMES TRADE FAIR TRIO

The first change is based solely on the fact that, with the Heimtextil Summer Special, another textile fair has been added and the duo has become a trio. One more fair from a related sector with new exhibitors and visitors broadens the spectrum and offers new opportunities from which, in concrete cases, synergies could arise quickly and easily. Buyers who are already there can easily move one house or hall over and take a look at what is available there. Simply out of curiosity. One more trade fair enables new "walk-in customers", at least in theory, and this naturally applies vice versa. But the synergies do not only refer to business. Transitions can also take place on a technical level, because the paths have never been so short, and the technical innovations of one area can be passed on to the other. Such an exchange can become an important impulse and trigger ideas in all directions and on a broad scale. Almost all exhibits along the value chain are affected: raw materials, fibres, yarns, fabric properties and qualities, applications and also the manufacturing process.

## 2. LONGING FOR TEXTILE FAIRS

A second change results quite naturally from the fact that there have been no events of this magnitude for such a long time, since during various lockdown phases all major events were cancelled or postponed. Many people who regularly cultivated their contacts via trade fairs miss the personal meetings, the "see and be seen" and the quick casual chat with known or unknown faces. As with other trade fairs in related sectors, the return of Techtextil will in all likelihood lead to a particularly good atmosphere, because simply the basic mood is already quite excellent regardless of anything else - despite all the problems of our time.

# 3. PLENTY OF TIME FOR FURTHER DEVELOPMENT OF INNOVATIONS

The third change results from the time gap to the last Techtextil itself. Here, the established standard of 2 years became a period of 3 years due to Covid-19. The result was 50 percent more time for exhibitors to tinker with their innovations or to develop them to market level. Michael Jänecke, Director Brand Management Technical Textiles & Textile Processing, is very positive about the innovative spirit. "Since the last edition of Techtextil and Texprocess in 2019, many exhibitors have invested intensively in research and development of their products. They can now finally present their new products and innovations to customers, decision-makers and the public," he said in the run-up. Techtextil and Texprocess have always been regarded as trade fairs of innovation and the nature, quality and scope of the innovations will be a very crucial point in assessing the extent of the pandemic on the industry besides the commercial impact. Has the time been used and are there more and better innovations or has the one extra year just fizzled out because the possibilities to develop something together with customers were limited? The answer to this will only be found at the fair, on the stands.

# 4. VALUE CHAIN TURNED UPSIDE DOWN

The fourth change has its roots in the disruptions of the supply chains with all their excesses, from the price increases for primary products and raw materials to the massive delivery problems with individual components. The supply difficulties may already have had an impact on the participation of exhibitors, some of whom may currently have other topics on their agenda than new products and orders. And the supply problems could also affect the Techtextil trade fair character. If a trade fair like Techtextil was previously seen more as a sales fair at which new products and applications are pushed into the markets, it could currently be used as a procurement fair to eliminate bottlenecks. In addition, there is the chance that new products will be drawn into the markets that arise from the bottlenecks or are developed to eliminate them. This is certainly too lofty a statement, as such a shift would be mitigated by the very fact that in the technical textiles industry sector there has always been close cooperation between manufacturers and customers in product development and innovation.

Nevertheless, it remains at least as a latent tendency. Complementary to the supply availability of products, the increased raw material prices for many products are also likely to have an impact. The price increase should at least lead to new and further alternatives being explored in procurement. In times like these, buyers have to leave their comfort zones and explore new options. And with that, technical textiles could now offer the opportunity to replace other materials, as they are not only more sustainable or durable, for example, but also cheaper. Of course, this presupposes that their price has not risen to the same extent as that of the material to be substituted, which in some cases has become much more expensive. For example, the price of steel for hot-rolled wide strip has tripled since the beginning of the pandemic in March 2020 and has still doubled compared to the highest price so far in February 2018 (source: steel benchmarker).

# 5. A NEW TEXTILE AGE IS KNOCKING ON THE DOOR

The fifth change, which we would like to mention last, probably does not have the presence and clarity of the previous ones, but could be the first in terms of its impact. Its source is the paradigm shift of the European Union towards closed-loop value chains and the accompanying EU Textile Strategy adopted by the European Parliament on 30 March. The EU strategy for sustainable and circular textiles starts with the production and consumption of textiles and at the same time emphasises the importance of the textile sector. It serves to implement the European Green Deal, the new Circular Economy Action Plan and the Industrial Strategy. The new strategy has implications for almost all parts of the textile value chain, from the sustainability-focused design of garments, the traceability of materials, the materials themselves and their reuse, to the labelling of textiles at the consumer's end. Euratex Director General Dirk Vantyghem also highlighted the topic and its importance for the further development of the textile industry in the joint press conference for the Frankfurt fairs. He said: "With the EU Textile Strategy now published, we have a clear roadmap in front of us on how the European textile industry needs to change. The June meeting will be an excellent opportunity to present this roadmap and get the necessary input from textile companies on the ground."

## Conclusion

These are our five reasons why the upcoming Techtextil and Texprocess will be different from those of recent years. The good thing is that the changes will definitely whet the appetite for the fair, not inhibit it at all, because they promise movement, flexibility and perhaps even provide a special spirit. Visitors to the fair will experience it.


# INTO A NEW AGE WITH TECHNICAL TEXTILES

## TECHTEXTIL 2022 SHOWS US THE FUTURE

Finally, trade fair again! Finally, textile innovations again as far as the eye can see. From 21 to 24 June, Techtextil, the world's leading trade fair for technical textiles and nonwovens, will finally open its doors again in Frankfurt am Main after the Corona-related break.


As usual, Texprocess, Leading International Trade Fair for Processing Textile and Flexible Materials, will also be taking part. A completely new feature is the Heimtextil Summer Special, which, on the one hand, is intended to compensate somewhat for the cancellation of Heimtextil in January for exhibitors and visitors and, on the other hand, will offer new opportunities due to its textile affinities.

This will be a textile power restart, as the organisers of Techtextil, Messe Frankfurt, put it so well in a press release and rightly pointed out that there has rarely or never been more textile value-added chain at a fairground at the same time. It will be special and this fair will probably be quite different from the events of the last few years for several reasons. We at least have found five good reasons, which we have mentioned elsewhere.

*(View article "Major changes in the general conditions offer new opportunities for TECHTEXTIL & TEXPROCESS")*

## FACTS AND FIGURES

Let's look at a few forecast signs about the 2022 trade fair trio. After years of growth in the number of exhibitors and a record in 2019, there will be a decline in 2022 compared to 2019 and 2017, although this is hardly surprising after two years of pandemic and taking into account the current situation. According to Messe Frankfurt's figures from April, Texprocess and Techtextil together will attract more than 1,100 exhibitors from 45 countries.

These include numerous joint stand participants and 13 international pavilions. In addition, for the Heimtextil Summer Special, planned as a one-off event, there will be around 800 exhibitors with a high level of international participation from 47 countries. They are all looking forward to presenting their products to an international trade audience.

The classification into product groups and the twelve areas of application remains unchanged and has been a standard for grouping technical textiles for many years. This guarantees the well-known great variety and bandwidth of the product range. According to Messe Frankfurt, products for the application areas of construction, mobility, health and protection, as well as sportswear, medical and functional clothing, are strongly represented at Techtextil. This can also be backed up with figures. With 230, the largest number of exhibitors will be showing applications in the Indutech segment, 92 of them in

the Filter and Filtration segment, followed by 195 exhibitors in the Mobiltech segment, 190 in Clothtech in general, 184 in Medtech, 156 in Protech and 133 in Sporttech. In the subordinate areas, 97 exhibitors offer something for automotive engineering, 31 for aerospace, as well as 31 personal protection equipment, 29 textile roofing and 11 solutions for textile reinforcement for concrete and other hardening masses. The figures show once again that on the one hand there are definitely focal points, but on the other hand the fair is very broadly diversified.

In the breakdown of exhibitors by country, Germany is in the lead, as expected, with 330 exhibitors, followed by 129 exhibitors from Italy, 79 from France, 65 from Turkey, 56 from Switzerland and 49 from Spain.

© 2022 Messe Frankfurt GmbH (middle) Pietro Sutera (middle) (top / below) Jean-Luc Valentin

The decline in exhibitors from China from 113 in 2019 to 12 in 2022 certainly needs no further explanation. In contrast, Turkey has 65 more exhibitors than in 2019. 19 exhibitors come from Poland and 23 from the Czech Republic. Despite the decline in the number of exhibitors, Techtextil has lost none of its internationality.

A phenomenal 42,500 visitors from 105 countries, including visitors from Texprocess, came to the last Techtextil and it will definitely not be easy to top this figure under the new circumstances. On the other hand, there is certainly a longing for trade fairs with withdrawal symptoms. Moreover, we are living in a time when you have to be on site and keep your nose to the wind to sniff out the new paths and destinations.

## NEW HALL CONCEPT IN FRANKFURT

Exhibitors and visitors will benefit from a spacious and modern hall structure. For the first time, Techtextil and Texprocess will be held in Halls 8, 9, 11 and 12 on the West Ground of Messe Frankfurt. In addition, the ground-level hall layout at Texprocess will make logistics easier for technology suppliers. In future, large and heavy machines will be easier to transport to the relevant stand. A contribution to improving the CO2 balance of the trade fair, too.


© 2022 Messe Frankfurt GmbH (left) Thomas Freda, (right) Jean-Luc Valentin

## TECHNICAL TEXTILES REMAIN A GROWTH MARKET

The business outlook for the industry continues to be very positive, as a large number of current studies and market analyses report. These see average growth of between 4.6 % and 6.3 % for the coming years and a market volume that is thus expected to increase from around US$ 180 billion in 2021 to up to US$ 350 billion in 2031 (Transparency Market Research study of 10 Feb 2022).

This means that the industry is growing faster than the average and, taking into account that this industry growth is also an average value, individual areas of technical textiles are likely to achieve even significantly higher growth. Interestingly, the studies see different application areas in the lead. Among others, the areas of Mobiltech, Indutech, Geotech and Sporttech are mentioned, whereby differentiation is partly made by country.

## FOCUS ON SUSTAINABILITY

With Sustainability@Techtextil, the theme of sustainability once again runs through all areas of Techtextil. For the first time, exhibitors can submit sustainable products, both those already certified and those not yet certified, for examination by an independent international jury. After a successful analysis, exhibitors with sustainable products will be highlighted at the fair. Exhibitors with innovative and sustainable fibres, yarns and fabrics as well as progressive processes are expected. In addition, the industry will discuss sustainable processing technologies and textile innovations in the walk-in conference formats of both fairs: Techtextil Forum and Texprocess Forum. The Techtextil and Texprocess Innovation Awards also devote a separate category to this focus topic.

The identification of exhibitors' sustainability approaches was on the agenda for the first time at the last fair in 2019. A separate trade fair guide directed visitors to the relevant exhibitors.

A Techtextil Innovation Award 2019 in the Sustainability category was won by the consortium of Comfil (Denmark), Chemosvit Fibrochem (Slovakia), Fraunhofer Institute for Chemical Technology ICT (Germany), Technical University of Denmark and Centexbel (Belgium) for fully bio-based, self-supporting thermoplastic composites based on PLA fibres. The second award in the sustainability category went to PICASSO, a cooperative project of Portuguese project partners to develop a dyeing and functionalisation process for clothing based on fungal and plant extracts and enzymes.

## RECYCLING AND BIODEGRADABILITY

If trends from the two most recent nonwovens fairs are anything to go by, biodegradable and compostable yarns and nonwovens are likely to occupy some space at the fair. Here, solutions are increasingly available as an answer to the

problem of environmental pollution by micro-plastics, which has increasingly become the focus of public attention in recent years. At the moment, such solutions are generally still more of an add-on in the portfolio than a comprehensive solution for the mass markets. However, individual solutions do have the potential to substitute existing products, which in turn makes the topic generally interesting and important.

One example is the WLS technology (wet-laid/spunlace) developed by Trützschler Nonwovens and Voith to industrial market maturity. The raw material for WLS nonwovens is largely inexpensive NBSK wood cellulose, which is also used in paper production. With an admixture of lyocell or viscose fibres, WLS technology produces environmentally friendly disposable products. Since the bonding is done exclusively mechanically with the help of high-pressure water jets, the products are 100% biodegradable.




However, another topic related to the life cycle of textiles is likely to become even more important. With the EU strategy for textiles adopted in March and the new path towards a circular economy, the topic of recycling will clearly move up the agenda of textile companies. Solutions for post-consumer recycling have a much higher complexity than the topic of post-industrial recycling, which has often been dealt with in recycling so far. From 2025 onwards, the flows for the separate collection and recording of used textiles are to be implemented in the EU and, at best, the technical processes and capacities will then also be created to recycle them into new raw materials and feed them back into the textile production process. In recent years, some promising technical approaches have emerged in this area, including the conversion of cotton into new materials based on cellulose.

With the Infinited Fiber Company from Finland, such a company is an exhibitor at Techtextil and one can certainly take the new fibre with the name Infinna in one's hand and examine it. Information on the subject of recycling can certainly also be obtained from numerous textile machinery manufacturers who are optimising their machines for the new fibres and challenges. Of course, the latest information will also be available from institutes and research facilities such as the Textile Research Department of the Fraunhofer Institutes, ITA Institut für Textiltechnik of RWTH Aachen University or the Saxon Textile Research Institute (STFI).

## FOCUS ON APPLICATIONS

Whether and which application fields will be in the spotlight at this edition of the event is particularly difficult to assess in the run-up to the fair. Purely in terms of the number of exhibitors, it will be applications from the areas of Mobiltech, Indutech, Buildtech and Clothtech, as usual. At the last events, there was above all a lot of news for lightweight construction and equipment in

the automotive sector with eye-catchers such as textile lighting effects, textiles for architecture and construction, products for mechanical engineering and for the chemical and electrical industries, which accounted for around half of the exhibitors at the last Techtextil, as well as many new developments in the field of workwear and sportswear.

In addition, there are always very innovative applications in the field of medical textiles and personal protective equipment. This could be reinforced by the experience of the pandemic. This also applies to the many new applications in the field of nonwovens, for which the world's well-known market leaders will present their innovations.

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## SMART TEXTILES

Smart textiles are said to have huge potential and in the past there have been lighthouse projects that have made technology shine, but the big breakthrough into the mass markets is still to come.

According to various studies, the market for smart textiles and wearables is set to enter an exponential growth phase. Estimates range from around US$ 1.5 billion in 2021 for the total global market to almost US$ 3 billion for the European market alone in 2024. According to SmartX, the "European Smart Textile Accelerator" programme, which is part of the European Technology Platform for the Future of Textiles and Clothing (Textile ETP), the majority of applications are concentrated in 4 main areas: protection and defence, sports and fitness, industrial and technical applications (transport, architecture), and medicine and healthcare.

In a virtual event on 22 March 2022, SmartX presented its six successful Smart Textile developments from the German-speaking region, which were funded and coached thanks to the support of Horizon 2020 of the EU. Further projects were presented at the SmartX project closing conference in Brussels in April 2022.

The funded projects (www.smartx-europe.eu/funded-projects/) include products and applications such as asthma monitoring, baby monitoring, better and healthier sleep, health monitoring and protective clothing for motor sports such as an airbag in motorbike pants. So there is news and you can definitely expect to get some insights into the state of the art and latest ideas from Techtextil.

## TEXTILE MACHINERY

For many years, companies from the textile machinery sector have also been represented at Techtextil. They support their customers on site with analyses of wishes and new ideas and, for their part, present them innovations to produce technical textiles even better or to make their production possible at all. This year is no different and textile machinery manufacturers in particular are represented in their usual numbers by almost all the international market leaders.

© 2022 Messe Frankfurt GmbH (top) Thomas Freda (below) Pietro Sutera

In addition to the individual stands, there will once again be joint stands of the individual national associations ACIMIT, Swissmem or the Swiss Textile Machinery Association and the VDMA Textile Machinery Association.

## TECHTEXTIL INNOVATION AWARD

For the 16th time, Techtextil will present the Techtextil Innovation Award for outstanding new and further developments in technical textiles, nonwovens and functional apparel textiles. Both exhibitors and non-exhibitors at Techtextil could take part in the competition and submit their new developments by mid-March. These must not be older than two years and must not have received an award before. For the first time, Techtextil will honour outstanding developments in the field of functional or high-performance textile materials for fashion with the Techtextil Performance Fashion Award.

The Techtextil Innovation Award 2022 will be presented in an official, media-rich ceremony, and the winners will also receive a certificate. In addition, the developments selected by an international jury of experts will be presented to trade visitors and journalists during the fair in a special area (Hall 9.1. / Stand B86).

For the first time, the winners will also be presented virtually, as part of the Digital Extension of Techtextil 2022. "We are delighted to promote forward-looking progress in the field of technical textiles through the Techtextil Innovation Award 2022," explains Michael Jänecke, Director Brand Management Technical Textiles & Textile Processing.

## TECHTEXTIL FORUM

The Techtextil Forum (Stand D80) in Hall 9.1 focuses on current and future-oriented topics and is included in the ticket price. It covers topics such as strategy, medical and hygiene textiles, smart textiles, architecture, biobased materials and recycling. Visitors, exhibiting companies, researchers, developers and users will exchange ideas in lectures, discussions and interactive formats. Following the Techtextil Forum, the lectures will also be made available on demand on the Techtextil Digital Extension platform.

## DIGITAL EXTENSION: EXPERIENCE TECHTEXTIL AND TEXPROCESS ON SITE AND DIGITALLY

For the first time, Techtextil and Texprocess 2022 will offer a Digital Extension: exhibitors and visitors will be able to meet both on-site in Frankfurt and virtually and exchange information in complementary formats.

These new touchpoints include: Matchmaking offers, round tables, chat function, 1-to-1 video calls, digital timetables, conferences, panel discussions or keynotes. Exhibitor offers, such as web sessions, can be streamed live or on demand. Messe Frankfurt's formats, such as the conferences, can be accessed time-delayed on demand. From 13 June to 8 August, the digital format will be available to all visitors, journalists and exhibitors.

## EVERYTHING IN ONE PLACE: VISITORS EXPERIENCE THE ENTIRE TEXTILE VALUE-ADDED CHAIN

In addition to the Heimtextil Summer Special and the interesting complementary programme, there are further additions that will enable visitors to experience the entire textile value-added chain at the Exhibition Centre and in the city of Frankfurt am Main. These are the D2C Neonyt Lab (24.6-26.6.2022), which, as a progressive trend platform, brings fashion, sustainability and innovation to life, and the Frankfurt Fashion Week, which takes place at the same time (20.6-26.6.2022). From innovative textiles and their production and processing to the end product as a home textile or fashion product and its recycling. Visitors can expect a rich programme and, with the purchase of a ticket, Techtextil, Texprocess and Heimtextil can be visited at the same time.

**www.techtextil.com**

# "FREUDENBERG EXPERTS MEET SUSTAINABILITY"

Following their merger, Freudenberg Performance Materials, Low & Bonar, Mehler Texnologies® and Filc will be presenting their innovative solutions at a joint. The focus is on sustainability. Among the highlights are Evolon® RE, a microfilament textile for a wide variety of applications and markets, FILFLEX, a sustainable padding material for car seat covers, and the truck tarpaulin POLYMAR® 8556 ECO CF.

## EVOLON® TEXTILES MADE FROM RECYCLED PET

With Evolon® RE, Freudenberg PM is presenting an even more sustainable version of its high-performance microfilament textiles. Evolon® RE is manufactured from an average of 70% recycled polyester, which the company makes by cycling post-consumer PET bottles in-house. Evolon® RE products are available for various applications such as technical packaging, in weights currently ranging from 80g/sqm to 300g/sqm. For high-tech wiping, lightweight Evolon® RE is now available starting from 30g/sqm.


Sustainable tarpaulin for trucks © 2022 Mehler Texnologies

The material meets the needs of cleaning specialists for more sustainable wiping solutions. Evolon® RE offers the same high quality and material performance as all other Evolon® textiles.

## TARPAULINS MADE FROM RECYCLED RAW MATERIALS

When it comes to tarpaulins on trucks, both protection of the transport cargo and advertising for the transport company place high demands on the material. Mehler Texnologies® tarpaulin material ranks among the premium products for truck tarpaulins. The company is showcasing POLYMAR® 8556 ECO CF. This unique material has a 25% share of recycled raw materials in the coating mass. In addition, the material is made with 100% R-PES yarns. The input materials undergo a complex separation and filtering process.

## SUSTAINABLE PADDING MATERIAL

FILFLEX is a soft and flexible padding layer made from nonwovens for automotive and furniture seat covers. It prevents leather from creasing and improves the dimensional stability of the seat covers. In terms of sustainability, its benefit is its 100% PET composition, making FILFLEX easy to recycle. FILFLEX offers customers easier handling during sewing and the seat covering process. End users benefit from the high seating comfort.

www.freudenberg-pm.com



# HIGH-TECH YARNS BY GEBR. OTTO

The Dietenheim-based textile company Gebr. Otto manufactures a selected range of functional high-tech yarns made, for example, of conductive, high-strength and flame-retardant fibres. "In the industry Gebr. Otto is mostly known for its cotton yarns and twines," says Robin Hefter, who is in charge of technical textiles at Gebr. Otto. The technical yarns that have been in the company's product range for a good five years are still relative newcomers. They account for around 10 per cent of the company's output, their share of which is on the increase.

"Technical textiles have proved to be a growth sector in recent years," Hefter explains, "and due to current political events demand for them has increased even further." That is a reference to personal protective equipment – clothing and gloves. Gebr. Otto's highperformance functional yarns, many of which are based on high-tech fibres, are specially designed for use in this area. In addition to flame-retardant yarns made of meta-aramid Gebr.Otto processes antistatic or conductive fibres.

Gebr. Otto's aim at the trade fair is to make personal contacts and to expand regional technology chains.

www.otto-garne.com



# FIRST BIODEGRADABLE FABRICS FOR WORKWEAR

Being the first textile manufacturer to use biodegradable technology to produce workwear fabrics, Carrington Textiles has announced their focus on the promotion of Orca and Hawksbill, as well as on their latest flame retardant addition, Flamestat 250, at Techtextil 2022.

Promotion of a new sustainable technology for textiles
© 2022 Carrington Textiles

Carrington Textiles' Orca and Hawksbill stand out for their addition of the new CiCLO fibre. The CiCLO technology is a sustainable textiles ingredient in the form of an additive that is combined with polyester at the very beginning of the fibre making process. When CiCLO polyester ends up in the environment, it behaves like natural fibres, in turn reducing microplastic pollution and textile accumulation. Hawksbill's composition includes 65% CiCLO polyester and 35% organic cotton. While Orca incorporates 26% recycled CiCLO polyester, 29% virgin CiCLO polyester and 35% Better Cotton. Hawksbill and Orca are the sustainable alternative to the company's bestselling fabric, Tomboy.

www.carrington.co.uk

## MORE THAN NONWOVENS
# BY SANDLER

Sandler invites people to experience more – more innovation and more commitment to sustainability. More than Sandler is THE motto at Techtextil 2022. The focus is on innovations and initiatives geared towards cooperating closely with partners to implement performance and sustainability throughout the product life cycle and beyond.

From raw material selection to recycling optimised for every application: high-performance quality nonwovens made by Sandler pave the way for environmentally friendly product solutions:

**bluefiber:** more than acoustics. Designing living and working space, enabling concentrated work, promoting individual room concepts, conserving resources! bluefiber portfolio: more than 100% single-polymer, made to a large extent from post-consumer fibres, fully recyclable at the end-of-lifetime, the right solution for every project.

**Fast Forward Fabric:** more than noise reduction. The symbiosis of maximum performance and resource conservation. Textile materials for highly stable complex component geometries, specific material configurations for optimized vehicle acoustics inside the passenger compartment as well as towards the surroundings. The open-pore structure combines noise dampening and thermal management. Made from 100% polyester with up to 80% recycled fibres Fast Forward Fabric creates closed material cycles.

More than recycling: Sandler further expands its sustainability campaign #sandlerpuzzle. The initiative „Going beyond circular limitations" is the next step towards creating closed cycles. Sandler and National Sweden AB integrate modern concepts to recycle processing remnants – resulting in raw materials for the manufacture of new products. Partnership and commitment create a completely closed material cycle: reducing waste and decreasing the use of virgin resources.

Visitors can discover more than ideas created by Sandler and can discover more of the world of innovative nonwovens. They can meet the Sandler team live in Frankfurt/Main at booth D50, hall 12.1, or online at the first virtual Techtextil show.

**www.sandler.de**



## VTI WILL SHOWCASE
### NEW PRODUCTS IN THE FIELDS OF COATING, NONWOVENS AND YARN PRODUCTION

The Association of the North-East German Textile and Clothing Industry (vti), together with the Saxony Economic Development Corporation (Wirtschaftsförderung Sachsen GmbH), is offering 17 Saxon companies the opportunity to present their know-how to a broad trade audience at a joint stand.

Expertise from the fields of coating, nonwovens and yarn production will be on display in Hall 11.1. The vti will also be presenting the health.textil network. In addition to the user-oriented development of medical and health textiles, the focus is also on further increasing the level of awareness of products and services on the part of textile suppliers.

Norafin Industries (B41) will be showing its new Komanda product range, in addition to technical nonwovens for filtration. OTEX Textilveredlung (B40) will be presenting its expertise in refining polyamide and polyester multifilament yarns into yarns that are soft on the skin or extra strong. Vowalon Beschichtung (B47), coating experts, will be presenting a new, sustainable artificial leather with coffee husk filler, which consists of 51 percent renewable raw materials. Textilausrüstung Pfand (C42) showcase new textiles for water purification, aviation and special clothing, especially work and safety clothing.

**www.vti-online.de**

# SWISS TEXTILE MACHINERY MEMBERS SET STANDARDS IN DEMANDING FABRIC SECTORS

## TECHNICAL TEXTILES: THE MARK OF QUALITY AND SUSTAINABILITY

Technical textiles, machines and components developed in Switzerland drive the highest quality standards. Satisfaction is guaranteed for woven and nonwovens manufacturers and their end-users. And Swiss solutions are committed to technology that is both innovative and sustainable, leaving the smallest possible environmental footprint.Techtextil is the ideal platform for **Swiss Textile Machinery members** to present their innovations. They offer latest technology and great service for the sector, to produce textiles that are `technically´ perfect for a vast range of applications.

### NONWOVENS: UNRIVALLED AND SUSTAINABLE

**Luwa air engineering** has developed a sustainable humidification system – a hygienic solution with high energy-efficiency since its technology is not based on steam. The company also offers unique filters for removal of airborne fibers and additives such as super absorbent powders.

Sustainable manufacturing is also a key goal for **Autefa Solutions**, with a focus on manufacturing systems which preserve both energy and raw materials. Spunlace processes can require relatively high energy usage, but Autefa's unique combination of hydroentanglement machine and drum dryer can reduce energy consumption by up to 30%. Customers can also modernize existing production lines with the newest hydroentanglement technology. Product quality in needlepunching lines can be monitored and improved by a sophisticated control system.

High web quality is also the business of **Rieter** subsidiary **Graf**. Its innovative and ingenious design of products such as metallic card clothing help manufacturers consistently produce impeccable webs. Thanks to its precise fiber transfer, 20% fewer failures are produced in the web. Graf's superior performance increases throughput by up to 10% and results in greater carding efficiency compared to conventional clothing. This applies to both short and long staple fibers bonded by chemical, mechanical, thermal or solvent treatments. The resultant webs hold the fabric together more durably.

### FLAWLESS TRENDS IN FABRIC MAKING

Technical textiles are ideal for **Crealet** and its specialized electronic warp thread feed solutions. These highly reliable systems are applicable to various types of weaving machines, with customized solutions also offered. The company's extensive know-how spans mechanical engineering, drive technology, electronics, software development and textile technology.

That is the basis for ensuring yarn tension is exactly right. Yarn tension is a major factor in warp feeding, and Crealet has devised effective solutions which quickly and precisely synchronize the tension of different warp beams, and which connect to an integrated network.

Correct tension is the ideal start for weaving, but fabric quality also depends on other factors at the next stages. Yarn and weft control systems by **Loepfe** detect the smallest filamentation, fluff and knots, as well as all types of weft faults, during the weaving process. They drive quality assurance to reach zero-defect manufacturing, meeting the high demands of technical textiles. Loepfe solutions are particularly well represented in the automotive industry, where perfect and often flawless end-product is indispensable for a wide range of vehicle components. Its optical yarn defect sensor provides all-around control over every single millimeter of the running yarn.

### ASSURED SATISFACTION

Fabric producers need to deliver guaranteed quality reliably. This requires a consistently high rate of fabric defect detection. The **Uster** quality assurance system ensures this by using automated control during intermediate and final inspection, removing the need for costly manual inspection.

**Swiss Textile Machinery** are committed to enabling customers to make the most of their machines and components – from the very start to the very end of the production. "Quality and sustainability are important factors of differentiation and conclusively essential for success. Our members' innovations aim for satisfied and long-standing customers in the technical textile industry around the world," says Cornelia Buchwalder, Secretary General of the Swiss Textile Machinery Association.

High-performance yarns now offer almost unlimited possibilities for replacing traditional raw materials in a vast range of technical applications. Often tailor-made, these filament yarns go way beyond the conventional idea of 'textiles' – finding new uses in sectors such as automotive, aviation, maritime, medical and construction, among many others.

Technical Textiles Yarn © 2022 SSM

# ITALIAN TEXTILE MACHINERY MANUFACTURERS
## OFFER SOLUTIONS FOR MARKETS CURRENTLY IN DEMAND

**AT THE EXTREMES**

Technology drives applications beyond our current imagining in the case of **Heberlein** air splicers. Developed for a wide range of uses with high-strength technical fibers, they have no problems splicing aramid fibers up to 16'100 dtex, carbon up to 30'000 dtex, Dyneema up to 5'500 dtex, and glass up to 4'800 tex. Using compressed air, the splicers produce a tear-resistant, homogeneous splice of material without interfering knots.

**Retech** has the technology to achieve impressive specifications for filament yarns, drawing and stretching fibers to perfection. Top heated godet rolls – many customized – are developed for high-performance fibers. Temperatures up to 400 °C can be achieved. Combining the right settings and wide speed ranges for each specific process results in unique end-products.

Fabric producers of high-end applications must avoid any quality risk. Yarn producers are well aware of this responsibility, so they use precision package winders for technical yarns, developed by Rieter's subsidiary **SSM**. Taking yarns from ring twisting bobbins, its specialist finish winders can produce coarse-count technical yarns up to 50'000 dtex, offering a new level of flexibility and winding quality.

**LIFESTYLE ESSENTIALS**

Complex specifications make twisting and cabling machines essential for the automotive industry. **Saurer** offers ideal machines for the production of technical yarns made from a variety of feed materials in a very wide yarn count range. They are needed for vehicle products such as tire carcasses, toothed engine belts, seat belts, airbags and lorry tarpaulins.

**Bräcker,** part of **Rieter's** components business, offers a well-balanced selection of vertical sinter metal rings and nylon travelers for glass fiber twisting, so that mills can achieve the highest levels of productivity and quality.

**Switzerland** is the hub of innovation and Swiss Textile Machinery members are definitely the first call for partners seeking consultancy, components and machines. Members already work closely with industry-oriented, non-profit research institutions, building relationships to explore the unlimited future potential in the expanding world of technical textiles. 24 Swiss companies will exhibit at the Swiss Association's Member's Pavilion presenting **Bräcker, Crealet, Heberlein, Hunziker, Jakob Müller, Loepfe, Retech, Steiger, Willy Grob, Zeta Datatec** or at individual booths.

www.swisstextilemachinery.ch

The return of Italian textile machinery manufacturers to such an important trade fair after the last edition in 2019 will once again see them in the spotlight. The Covid-19 pandemic has increased the demand for special-purpose textiles, especially in the medical and personal protective equipment sectors.

So in 2021 the Italian textile machinery manufacturers registered a growth of their sales for the sector. Exports of machinery for the production of nonwovens have increased by 76% over 2019 and 85% over 2020.

As in past editions, Italian Trade Agency and ACIMIT, the Association of Italian textile machinery manufacturers, are organising an exhibition space reserved for textile machinery manufacturers. There are 29 companies exhibiting in the Italian pavilion.

Of these, the following are associated with ACIMIT: 4M Plants, A. Piovan, Aeris, Beschi, Bombi, Bonino, Color Service, Corino, Cubotex, Fadis, Ferraro, Gualchieri e Gualchieri, Kairos Engineering, Lawer, Loptex, Mcs, Mesdan, Monti-Mac, Noseda, Salvadè, Sariel, Srs, Stalam, Testa, Toscana Spazzole, Zappa. Other ACIMIT member companies exhibit with their own booths outside the Italian Pavilion.

"Techtextil has always been a fair that Italian manufacturers look to with particular interest", comments Alessandro Zucchi, president of ACIMIT. "The versatility of the Italian technological supply allows, in fact, Made in Italy machinery to be used in different application fields of technical textiles, meeting the different requests by the many visitors attending the event".

In the 2022 edition, the focus of Techtextil will be on sustainability, which is another strong point of Italian textile machinery.

"Italian manufacturers have been committed to designing sustainable machinery for years, both from an environmental and economic point of view", says Zucchi.

"Savings in raw materials, energy and chemicals are the basis of ACIMIT Sustainable Technologies project, and the Green Label, which a growing number of Italian textile machinery manufacturers boast, certifies the commitment of the Italian sector to contributing to the sustainability of the textile supply chain".

www.acimit.it/en

## GETTING CLOSER TO HOME
# WITH TMAS TECHNOLOGIES

Members of TMAS, the Swedish Textile Machinery Association, will be showcasing a range of solutions aligning with the growing trend for more localised and automated textile manufacturing. Digitalisation and the push for more sustainable, shorter and less expensive supply chains are currently making manufacturing in high-cost countries within Europe more attractive and there have been many other contributing factors to this over the past two years.

**Eton Systems** (1) will be unveiling its latest Ingenious software solution which further enhances the company's Opta Unit Production System (UPS) introduced in 2021. "Our automated technology has already had a great impact on the productivity of thousands of garment production lines," says Eton's Managing Director Jerker Krabbe.

**Imogo** (1) meanwhile recently installed the first industrial scale dyeing system in Sweden for many years. The Dye-Max spray dyeing line has the potential to slash the use of fresh water, wastewater, energy and chemicals by as much as 90% compared to conventional jet dyeing systems. It is capable of carrying out the application of a wide range of fabric pre-treatments and finishing processes, providing users with unbeatable flexibility in production.

**ACG Kinna Automatic** (3) specialises in automation solutions for filled products such as quilts, pillows and mattresses and its live demonstrations of robotics in action have proved a magnet for visitors to Heimtextil. This year's show will be no exception.

Localised textile production is also booming in the USA, where **Coloreel** (2) has recently secured multiple orders for its instant thread colouration technology via its US partner Hirsch. "Coloreel technology enables the high-quality and instant colouring of a textile thread while it is actually being used in production and can be paired with any existing embroidery machine without modification, while also making it possible to produce gradients in an embroidery for the first time," explains VP of Sales Sven Öquist.

**Svegea** (1) will be promoting its latest EC 300 collarette cutting machine at Texprocess 2022. This machine is used by garment manufacturers around the world for the production of tubular apparel components such as waistbands, cuff and neck tapes and other seam reinforcements. With its E-Drive 2 system and fully automatic FA500 roll slitter, the EC 300 has an output of around 20,000 metres per hour.

The advanced yarn tension monitoring technologies of **Eltex of Sweden** (4) meanwhile play an essential role in rectifying defects in weaving, tufting and composite reinforcement operations. "A correct tension of the warp and weft threads ensures proper machine operation," explains Eltex Global Marketing and Sales Manager Anoop K. Sharma "The constant tension monitoring and automatic control of the tension of the thread help to overcome unnecessary problems. "We continue to make advances in both the hardware and software of our tension monitoring systems, such as the EyE™ for the warping process. With the EyE™, the yarn tension values from all yarns are continuously updated and displayed on screen. In addition, tension values outside the warning level are indicated both on the sensor's LEDs and on the screen for complete quality control. No fabric can be woven without the appropriate and correct tension."

"**TMAS members** are constantly fine-tuning their technologies, both in terms of hardware and software, to better meet market demands," says **TMAS Secretary General Therese Premler-Andersson**. "New automated solutions and digital technologies – which in many cases have been crash-tested much more rapidly than was planned due to Covid-19 restrictions – mean localised production is now making sense for many manufacturers and their brand customers.

**www.tmas.se**

## VDMA
## SPOTLIGHT TALKS @ TECHTEXTIL

**21 June (1st day)**

09.00 am CEST: **Pleva**: How to become efficient and sustainable in textile finishing

10.30 am CEST: **Andritz**: Web optimization – most innovative. Automatic web profiling for enhanced material quality

2.00 pm CEST: **Institut für Textiltechnik Augsburg & Trützschler Spinning**: Upcycling textile waste: The ITA Recycling Atelier and Trützschler Recycling solutions

4.00 pm CEST: **Groz-Beckert** Special Application Needles (SAN®) for sewing machines

5.30 pm CEST: **Groz-Beckert**: System parts for warp knitting machines

**22 June (2nd day)**

09.00 am CEST: Welcome to **Mahlo** – Individual measurement and control solutions for your demands

10.30 am CEST: **Brückner**: Sustainable textile production in future

Live from the VDMA Lounge

02.00 pm CEST: **Oerlikon & Institut für Textiltechnik of RWTH Aachen University**: Sustainable Polymers and Their Applications

4.00 pm CEST: **Walter Reiners Foundation** Award Ceremony: promotion of young talents

**23 June (3rd day)**

09.00 am CEST: **Trützschler Nonwovens & Man-Made Fibers**: Modern needling lines: high productivity, high efficiency, low maintenance, less stress on material and machines

10.30 am CEST: **Thies**: Modern tension control and low-liquor technology for sophisticated, technical fabrics

04.00 pm CEST: **Trützschler Nonwovens & Man-Made Fibers**: Speed up your production performance. Reach a new level with T-ONE, Trützschler Nonwovens' digital working environment

Registration for the Spotlight Talks via:

**www.industryarena.com/m4t**

INNOVATION:
**IT'S IN OUR DNA**

swisstextilemachinery.ch

Geneva, Switzerland, 1783: Jacob Schweppe invents a way of carbonating liquids, becoming the father of sparkling water - and founder of an industry which today sees over 200 billion liters of fizzy soft drinks per year consumed worldwide.

Visit us at
Techtextil Frankfurt
Swiss Pavilion
Hall 12.0, Booth B11

Invented in Switzerland. Where the same innovative spirit drives textile progress today.

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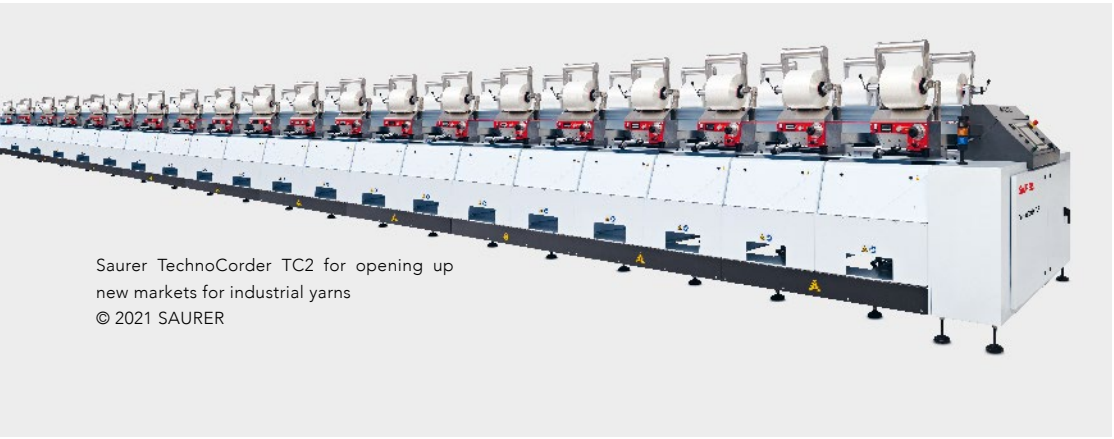
# SAURER TECHNOCORDER TC2
# WITH BRILLIANT INNOVATIONS



Saurer TechnoCorder TC2 for opening up new markets for industrial yarns
© 2021 SAURER

As a regular participant at Techtextil, Saurer Twisting Solutions is delighted to be welcoming customers and experts from all over the world to its Booth D77 in Hall 12. The focus is the two-for-one twisting machine TechnoCorder TC2 with brilliant innovations and valuable customer benefits.

The Saurer TechnoCorder TC2 is a high-performance machine for twisting single and multiple yarns from a multitude of supply materials in a very wide range of count materials. The further development of the TC2 represents three decisive innovations and offers Saurer customers significant competitive advantages.

**PRECIWINDING: JUST PUT MORE ON IT**

With the newly developed take-up area from Saurer, twist packages with preci-sion winding can be produced on the TechnoCorder TC2 Plus in an outstanding quality. With their compact shape, high density and an exact edge structure, the packages demonstrate better unwinding behaviour.

The reduced handling effort and the resulting increased productivity are easily noticed by Saurer's custom-ers. In addition, transport costs can be reduced by increasing the package den-sity. This is an economic advantage, especially in the current environment.

**RUNNING SMOOTHLY WITH THE OILING DEVICE FROM SAURER**

The responsible use of resources is also of particular importance to Saurer's customers. For the recycling of big bags, for example, unmixed materials are required also with regard to the sewing thread. For finishing the twisted PP yarn, Saurer offers an oiling device directly after the twisting process. This new option sus-tainably increases the benefits for Saurer customers.

**MAXIMUM QUALITY IS INDISPENSABLE**

Technical textiles are rightly expected to meet the highest standards, because they must be extremely resilient and guarantee best possible safety. Online moni-toring of the quality parameters with our newly developed quality sensor ensures the required quality.

The Saurer exhibition team is looking forward to welcoming customers and visi-tors at the Techtextil 2022 and to informing them about the advantages of the TechnoCorder TC2 in person.

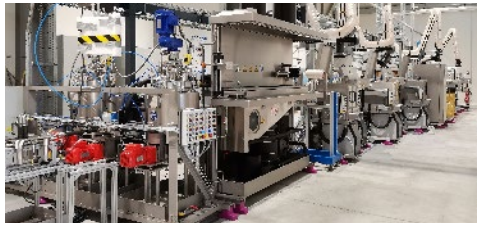
www.saurer.com



# DIENES WILL PRESENT MULTIMODE®

DIENES will show how the company is supporting its customers in shaping a more sustainable future for technical textiles and how its solutions are helping research teams on their way from the first laboratory tests to the modular construction of production lines. A reliable development of textile and technical filament yarns demands an efficient, systematic and, in part, self-optimising experimental working system which must be intelligent and flexible. At Techtextil, DIENES will present its approach towards digitalisation which is called MultiMode®. In a MultiMode® plant, each process step is represented by a module which can be individually adapted to customer-specific requirements and has its own decentralised control. Thus, DIENES production lines consist of several intelligent modular units which can be easily exchanged and rearranged at any time with a reduced programming effort. Moreover, all production parameters can be permanently visualised and recorded, enabling a complete traceability of the process.

www.dienes.net

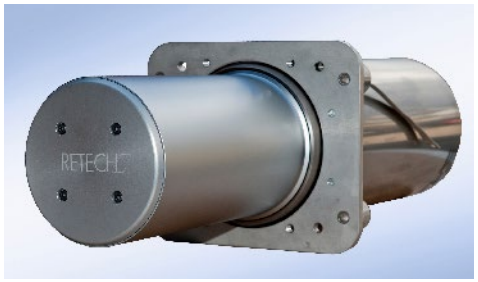


DIENES team are "your experts in fibre processing"
© 2022 DIENES

# MASTERING THE HEAT IN **SYNTHETIC FILAMENT PRODUCTION**

Threads made of polyamide, polyester, polypropylene, aramid, carbon, bio-based and many other polymers, categorized as technical yarns and high-performance fibers are a special field of Retech. The Swiss company is the expert in heat treatment and drawing man-made fibers of any material. They present their latest developments at Techtextil Germany 2022 in Hall 12.0, Booth B11.

Identifying a strong demand for technical yarns with maximum strength, Retech addressed this with the newly-launched godet roll, with an ideal length of 420 mm to process eight or twelve threads at a time. Its extended diameter of 250 mm allows a significantly increased speed with the same dwell time. Additionally, the higher motor torque guarantees the very best results in yarn tenacity. Further technical parameters are as remarkable: speed can be ramped up to 6500 m/min and the temperature reaches 250°C with an excellent temperature profile of +/- 1.5 °C.



Retech heated technical yarn godet © 2022 Retech

High-temperature godet rolls are invented for high-performance fibres. Some unique yarn characteristics are made possible by impressive temperatures. High-performance fibres require temperature at extremely high levels, since fibres such as para-aramids have high glass transition temperatures nearing 370 °C. Retech high-temperature godet rolls have a heating power of up to 400 °C. They also offer outstanding performance in terms of precision within 0.5°C – guaranteed by the established Retech temperature controller – and repeat accuracy from 1 to 100 godets.

Retech's innovations for godet roll temperature management are precise, reliable, easy to handle, and durable. One of these innovations is the temperature transmitter which proves to operate in the harshest electromagnetic environment at highest precision. The system's key part, the co-rotating sensor fork was recently revolutionized. Latest electronic and new materials compensate for disturbing influences which could tamper with the measuring signal. Last but not least, the UTL monitoring device analyses the data and integrates it in the communication protocol for perfect data security. The UTL guides filament yarn producers toward Industry 4.0.

**www.retech.ch**



# STFI'S INNOVATIONS: **SUSTAINABLE, MOBILE & DIGITAL**

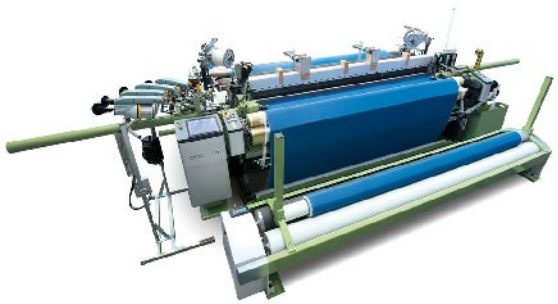
The Saxon Textile Research Institute (STFI) will be presenting innovative highlights from research and development at Techtextil 2022, the leading international trade fair for technical textiles and nonwovens. In addition to a warp-knitted textile façade greening in a modular system and textile lightweight construction elements for the building sector made from hemp as a renewable raw material, the STFI will also be showing innovations from nonwovens research.

The project optiformTEX is an example of the nonwovens competence: in this project, the mass per unit area was specifically influenced for the production of semi-finished products in the automotive sector. Furthermore, the Chemnitz Institute exhibits an ecological foam coating for protective textiles. Central highlight of the STFI's presence at the fair is also a mobile robot system, which demonstrates the automated loading of a small-scale bobbin creel. Dr. Heike Illing-Günther, Managing Director STFI states:„We are looking forward to presenting at Techtextil our latest develop-ments to the branch in order to move the industry forward. Our ideas and solutions will enable the textile industry to implement sustainability in the value chains of the future, be it through optimised processes, new materi-als or methods." **www.stfi.de**

# SUSTAINABLE WEAVING FOR A BETTER FUTURE –

## LINDAUER DORNIER WILL PRESENT "QUALITY CREATES VALUE"

Unrivaled in volume, unique in the sector: While weavers in the clothing and home textiles industry use weaving machines from DORNIER to make carpet, garments and suits from wool, silk or cotton, technical weavers use the same machines to manufacture high-performance fabrics for satellites, aircraft and cars with carbon, glass and aramid fibers. This extraordinary versatility in processing different materials and yarns is based on over 60 years of design and development experience in building rapier and air-jet weaving machines. The machines of the DORNIER system family process up to 16 different yarns precisely, gently and flawlessly. Weavers of high-performance items such as airbags, which inflate in the space of 150 milliseconds (0.15 seconds), must satisfy the most stringent of quality requirements. Either the fabric is flawless or it is unusable for saving lives.



DORNIER P2 © 2022 Lindauer DORNIER

DORNIER is the market leader in weaving machines for manufacturing "one piece woven" airbags: Two out of three airbags and three quarters of all automobile tires in the world begin their journeys on machines made beside Lake Constance.

The weaving machines from DORNIER meet all of the requirements that are essential for modern fabric production: flexible, gentle material insertion, an exceptionally broad spectrum of material and pattern capabilities, absolute functional reliability, flawless goods and short standstill times. The DORNIER system family, consisting of rapier and air-jet weaving machines, is the contemporary answer to the unforgiving catalog of specifications demanded by today's market. The machines are manufactured in the production workshops at Lindau in Germany. 90% of the machines produced are exported.

More flexible, faster and more efficient – the DORNIER P2 rapier weaving machine is the culmination of almost seven decades of expertise in developing and building rapier weaving machines. With this latest innovation from DORNIER, its predecessor P1 has been decisively improved in every component of importance to the weaver.

www.lindauerdornier.com



# VANDEWIELE WILL INSPIRE BY THE

## LARGE RANGE OF SOLUTIONS AND ACCESSORIES

Vandewiele has some stunning presentations of new realizations in the field of woven technical textiles – but they will also present the Vandewiele weaving machinery, feeders and other developments for multilayer fabrics, spacer fabrics, etc...
Today's machinery allows already manufacturing the most complex 3D geometries and composites for hybrid lightweight construction. After visiting the booth on Techtextil, weavers will be convinced that there is still an enormous number of open opportunities, the company says.

At Techtextil Vandewiele will show several examples of technical textiles based on the core technology of double piece distance weaving creating a sandwich structure.

The Vandewiele group of companies has in house all the required technologies. The Vandewiele weaving machines create sandwich structures by weaving two fabrics bonded together by vertical yarns. The Vandewiele IRO zero twist feeders gives you full control of the weft. The warp is controlled by the Vandewiele Bonas full electronic jacquard machines. The technology of the use of servo motors in all the machines is controlled in house from Vandewiele – Aros producing all types of motor and drive solutions.

The combination of distance weaving, know-how of handling heavy yarn, optimal control of the weft and full flexibility in the movement of the jacquard makes Vandewiele the ideal partner for any product. This together with optimal, Industry 4.0 standard, follow up, guaranteeing highest efficiency in combination with full quality control. The use of servo motors instead of mechanical parts makes the machines not only more flexible in applications but makes full control possible. Software solutions making this easy to do will also be shown at the exhibition by BMS.

Vandewiele invites visitors to come and discuss their needs for multi-layer fabrics, geotextiles, bullet proof material, construction textiles, sports materials, composites, ..and much more. The corresponding specialists are on site.

www.vandewiele.com

Reinforced fabrics © 2022 VANDEWIELE

# FEEL

## THE ADDED VALUE of ITEMA TECHNOLOGY

**It's the technology that produced your fabric that makes your product so special.**

The Itema weaving machines guarantee to worldwide weavers the most innovative technology tailored on the latest market trends: superior performances, eco-efficiency and textile mastery are the features you immediately feel when relying on Itema.

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Hall 12 - A 50

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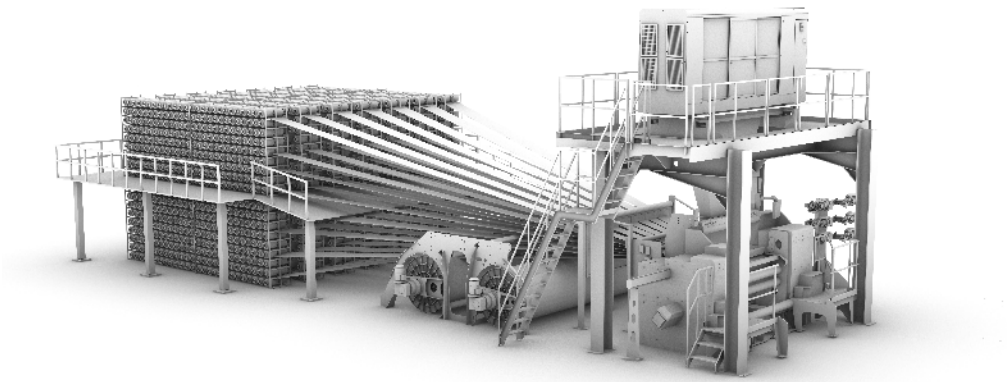
# STÄUBLI INFORMS ABOUT

## ADVANCED PRODUCTION SOLUTIONS FOR NEW APPLICATION AREAS



TF weaving system for complex multilayers © 2022 Stäubli

With over 125 years of experience in the weaving industry, Stäubli is well known as a leading global manufacturer of high-speed shedding and weaving preparation machinery. When it comes to weaving technical fabrics, profitable and competitive mill operation requires high precision and optimized production speeds. Stäubli machinery provides both, as well as exceptional durability. Visitors to Techtextil Texprocess 2022 are invited to come by Booth D89 in Hall 12.0 to learn about the entire range of Stäubli machinery and advanced production solutions for new application areas.

Stäubli's reputation for quality machinery is based on ingenious technologies developed through continual R&D, the use of top-quality materials, and comprehensive service before, during, and after the machinery installation. Stäubli textile machinery is in daily operation around the world, producing all sorts of technical fabrics, including the most demanding. Producing technical fabrics such as one-piece woven (OPW) airbags, custom fabrics for lightweight construction, and artificial grass is subject to highest demands, and these are fully met by the company's broad range of cam motions, rotary dobbies and Jacquard machines, but also its complete TF weaving systems.

In addition, Stäubli provides renowned automation solutions to optimize time consuming weaving preparation processes, such warp tying and drawing-in.

Visitors to the Stäubli booth will see the MAGMA tying machine, which is ideal for processing technical yarns, including PP tape.

### STÄUBLI – COMPETENCE IN TECHNICAL WEAVING AND SUPPORTING RESEARCH

A Stäubli TF20 weaving system was recently installed at the Hof University of Applied Sciences, more precisely its Institute for Material Sciences, in Germany. The purpose of this installation is to support the study of new material mixes, especially with carbon and/or ceramics, and new applications for various industries. Here, renowned researchers and their students pursue their daily quest for new materials, studying their behavior in various production processes, including weaving. The institute works with the renowned Fraunhofer Institute, allowing the opportunity to conduct research on ceramic fiber production and processing fabrics.

In such manufacturing processes, every step is crucial and must be executed using specifically adapted machinery operating with the utmost precision. The TF weaving system comes with a shedding solution that offers unlimited binding

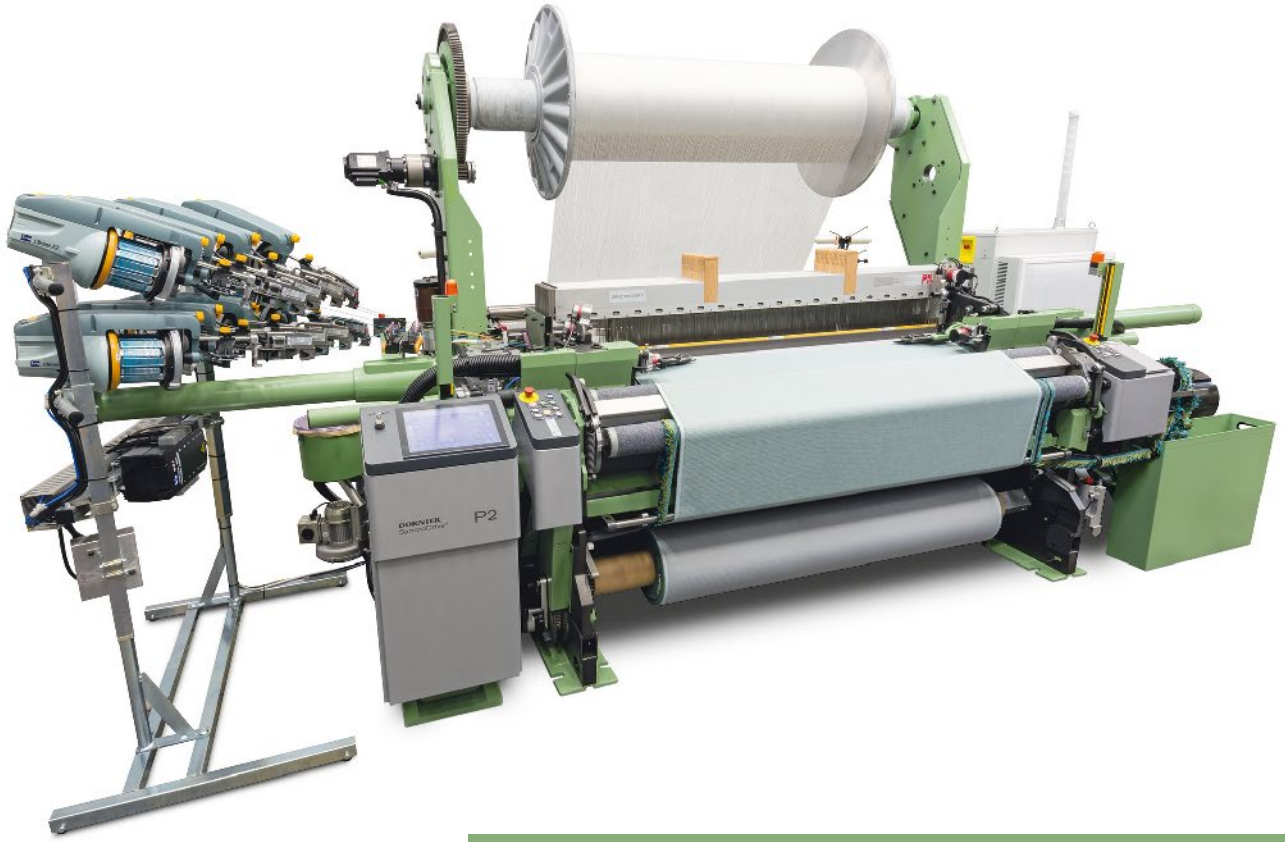

MAGMA warp tying machine for technical yarns
© 2022 Stäubli

options and is encapsulated in order to process conductive fibers like carbon. The researchers and students collaborate closely with the Stäubli Textile division, which provides technical assistance for sophisticated bindings, speedy support, and a wide range of services, always with one key objective in mind: to advance the world of technical textiles and allow this market to step ahead.

A selection of technical fabrics woven on the Stäubli TF weaving system can be seen at Booth D89 in Hall 12.0.

Weavers who want to produce technical textiles or who are planning to tackle a challenging weaving project are invited to schedule a talk with the Stäubli team in Frankfurt and find out more about the broad range of machinery designed for producing technical textiles.

**www.staubli.com**

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# THE WORLD OF SEWING MACHINE NEEDLES

## GROZ-BECKERT PRESENTS ITS SEWING PORTFOLIO

In addition to other innovations from the portfolio, Groz-Beckert experts will present the latest products and solutions for the sewing industry.

Whether classic T-shirts, high-quality suits, shoes or technical textiles – with a wide product range of about 3,000 sewing and shoe machine needles Groz-Beckert offers the right product for every application. Professionals shouldn't miss the opportunity to get first-hand information, answers to their questions and expert advice at the Techtextil/Texprocess. Some product highlights are introduced below for everyone who unfortunately can't make it personally to the Groz-Beckert booth.

### SENSITIVE APPLICATION

Groz-Beckert Special Application Needles (SAN® series) are especially designed for challenging sewing processes. The SAN® 5.2 needle meets the requirements for processing technical textiles like airbags, car seats or upholstered furniture. It offers a great stability through a special blade reinforcement, reliable loop pick-up for a greater safeguard against skipped stitches as well as advantages in multidirectional sewing operations due to a double groove in the point area. GEBEDUR® coating (titanium nitride) protects the needle from wear and damages, especially in the eye and point area.

### SENSITIVE FABRIC

When it comes to the sewing of fine knitwear, the Special Application Needles SAN® 10 and SAN® 10 XS are the solution to avoid material damage. Gentle and stable is how the special application needle SAN® 10 is best described. It combines the requirements of material protection and needle stability. Its slim design results in a reduced cross-section in the eye area, reducing the stress on the material as the needle penetrates it. At the same time, the special blade geometry provides sufficient stability to avoid needle breakage. SAN® 10 XS is even gentler on the material. The cylindrical blade enables a very gentle penetration of the material by the needle but reduces needle stability.

Needle dispensing trolley
© 2022 Groz-Beckert

It is used for the processing of very fine and delicate material where the main focus is on avoiding material damage.

### MORE TOUGH STUFF

For the processing of medium to heavy materials like denim or work clothing, Groz-Beckert offers its Special Application Needle SAN® 6. As thread breakage and skipped stitches often occur when sewing denim, the SAN® 6 needle comes with a larger eye so that the thread can slide through smoothly. Also thicker threads can be used without increasing the needle size. Due to the Loop Control® geometry, a perfect loop formation and pick-up is guaranteed so that skipped stitches can be reduced. Needle breakages are also avoided.

### PERFECTLY ORGANIZED FOR PROCESS SAFETY AND MORE

What sewing factories must definitely avoid is the risk of injury to the end user by needle fragments left in the garment. For this reason, Groz-Beckert has developed its INH Quality Management, which will also be presented. The patented INH (Ideal Needle Handling) Quality Management facilitates the handling of sewing machine needles within the production process and supports adherence to the buyers' compliance regulations.

It helps to quickly find all fragments of broken needles and document all needle changes in a digital way. The INH Quality Management includes work equipment like the needle dispensing trolley, needle return box and with the app INH@site and the browser software INH@office also two software components. With the Customer Portal Sewing, Groz-Beckert fulfils unspoken customer wishes. Of course, the Customer Portal is open 24 hours a day, 7 days a week and can be accessed on any device with an internet connection. The integrated product catalog presents all 3,000 types of sewing and shoe machine needles. The customer account with its valuable features makes the shopping experience perfect. Request login details at my.groz-beckert.com/sewing/login so that you can plan for tomorrow and make bottlenecks in the warehouse a thing of the past. The Customer Portal displays the current delivery times and prices throughout the entire ordering process. And the quick delivery hasn't even been mentioned yet.

**www.groz-beckert.com**

Special application needle SAN® 10 XS for sewing very fine and delicate fabrics © 2022 Groz-Beckert

Special application needle SAN® 5.2 for sewing technical textiles © 2022 Groz-Beckert

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KARL MAYER STOLL KM.ON

# SUSTAINABILITY IS THE NEW FUNCTIONALITY
# THE KARL MAYER GROUP WILL BE PRESENTING SOLUTIONS FOR A BETTER FUTURE

The KARL MAYER Group will be presenting itself at Techtextil as an innovative partner in the production of high-performance textiles. The global player can be found in Hall 12.0 on Stand C93. Innovative patterns and application examples of warp knitting and flat knitting will be shown.

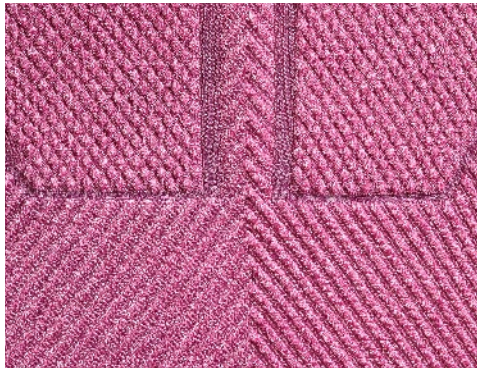
**MORE SUSTAINABILITY THROUGH SOLUTIONS FROM THE WARP KNITTING INDUSTRY**

The KARL MAYER Group manufactures biaxial and multiaxial warp-knitting machines, as well as warp-knitting machines with and without weft insertion, on which functional articles for a wide range of applications are produced.

With its exhibition, the manufacturer joins the key theme of Techtextil: sustainability. For the composites industry, it presents solutions for the production of fiber-reinforced plastics made from natural fibers. The renewable resources are processed on weft and multiaxial warp knitting machines into reinforcement structures that open up completely new perspectives in terms of their environmental performance.

The textile innovation 4D-KNIT offers new possibilities for a better life cycle assessment of fashion articles and outdoorwear. The fabric for midlayer and softshell performance solutions scores with a sophisticated textile construction that leads to significantly lower fiber release during washing than when using double-sided raised fleece fabrics. Besides, a positive effect for the environment is a reduction in microplastic pollution.

Warp-knitted footwear fabric with 3D-printed reinforcement structure © 2022 KARL MAYER



4D-KNIT article © 2022 KARL MAYER

Another focal point on the KARL MAYER stand is the topic of "Smart Textiles and Wearables". With the possibilities of jacquard and multibar patterning of warp knitting machines, electrically conductive yarns can be integrated directly and tailor-made into knitted fabrics in order to implement functional elements such as sensors, conductors and coils in an uncomplicated way.

The textile properties remain unaffected. The potential arising from the seamless combination of electronics and textiles is being researched in the company's own TEXTILE-CIRCUIT unit. The latest results of this work will be on show at the KARL MAYER stand at Techetxtil.

As an innovative pioneer, the Group is also working on forward-looking solutions in the field of additive manufacturing. The work under the heading RAPID TEXTILE focuses in particular on the combination of 3D printing with textile technology. In principle, the combination of the versatile printing process with traditional fabric formation technology offers new possibilities for production on demand.

If only what the consumer needs is manufactured, this is also a contribution to greater sustainability. Techtextil will show how the 3D printing process can be integrated into series production.

Warp-knitted sensors with optimised skin contact
© 2022 KARL MAYER

For the first time, the KARL MAYER Group also has flat knitting innovations from STOLL in its trade fair baggage.

The presentation will include solutions for waste-free production, the implementation of multifunctionality in a single process step, 3D shaping without additional work steps, and efficient knitting-on-demand production.

**MINIMIZE THE ECOLOGICAL FOOTPRINT WITH FLAT KNITS**

For the first time, the KARL MAYER Group will also have flat knitting innovations from STOLL in its trade fair baggage. This business unit of the KARL MAYER Group will also be exhibiting samples on the themes of sustainability and recyclability. Both are basic requirements which the flat knitting technology meets excellently from the outset, for example with solutions for waste-free production, the implementation of multifunctionality in a single process step, 3D shaping without additional work steps, and efficient knitting-on-demand production.

Processing of flax fibres on a multiaxial warp-knitting machine © 2022 KARL MAYER

For this purpose, STOLL will be showing current and innovative application topics from the currently important areas of bandage technology as well as shoe uppers and cover fabrics, which correspond 100% to the required expectations of sustainability.

Shoe fabric solution from STOLL, using technologies such as inverse plating, STOLL-ikat plating® and STOLL-weave-in® Technology, it can incorporate a wide range of knitwear looks and all the components of the upper directly into the fabric, thus speeding up the making up process. (shoe created in a project with DESMA) © 2022 KARL MAYER

In addition, special industrial and transport topics will be the focus of the exhibition. A wide range of synergies are expected from the first trade fair appearance under the umbrella of the KARL MAYER Group. For example, the STOLL team would also like to get to know the customers of other KARL MAYER business units and open up the wide product world of the entire group to its customers.

www.karlmayer.com

# REAL ENERGY SAVINGS
# ARE MORE IMPORTANT THAN EVER, SAYS MONFORTS

European-built Montex stenters have earned a leading position on the market for fabric finishing © 2022 Monforts

The Techtextil and Heimtextil Summer Special exhibitions represent a welcome, once-only opportunity for Monforts to showcase its advanced finishing and coating technologies for two of its major markets – especially at a time when energy prices continue to soar for textile manufacturers in Europe.

European-built Montex stenters have earned their leading position on the market for fabric finishing due to their robustness, reliability and economy. Existing customers include many manufacturers in the field of home textiles, as well as those making geotextiles, automotive fabrics and other functional materials – all of whom will be well represented in Frankfurt this June. Dedicated Montex lines have also been supplied to producers of airbags, flame retardant barrier fabrics and spacer fabrics, as well as high-temperature filter materials.

Energy prices are rising steeply everywhere and a particular emphasis for Monforts in Frankfurt will be on the energy and heat recovery that can be achieved with Montex stenters, through features such as better insulation of the treatment chambers or the MonforClean system, in which waste heat from the drying process is used to pre-heat the drying air resulting in a radical reduction in the conventional heat supply required compared to gas and thermal oil heating.

The modular system for heat recovery can also be extended for exhaust air cleaning and odour elimination. Monforts can provide a range of further resource-saving and energy recovery options tailored to each individual line installation including modification of the heating source.

"Montex stenters provide maximum efficiency, the ultimate in flexibility and the ability to switch quickly from one fabric formula to the next," says Monforts Textile Technologies Engineer Jonas Beisel. "The easy to use human-machine interface (HMI) makes the operation of the line much simpler and cuts down the necessary training periods, while at the same time reducing the chance of human error."

With the highly intuitive Qualitex 800 visualization software, all article-specific settings can be stored and the formulations for thousands of treatment processes called up again at any time. Individual operators can also personalise their dashboards with the most important machine functions and process parameters. The Qualitex 800 system is available for the automatic and continuous operation of the company's Montex stenters, as well as its Thermex continuous dyeing ranges, Monfortex shrinking systems and Montex®Coat coating units.

Monforts Montex®Coat coating units serve an equally diverse number of markets, including tents, tarpaulins and awnings, black-out roller blinds and sail cloth, automotive interior fabrics and medical disposables.

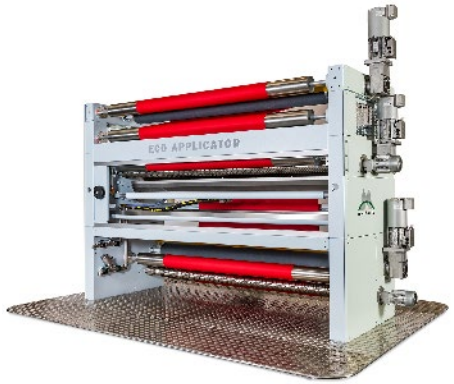
Jonas Beisel and the team look forward to reconnecting with you in Frankfurt © 2022 Monforts

Full PVC coatings, pigment dyeing or minimal application surface and low penetration treatments and solvent coatings (in explosion-proof conditions) with knife coating, roller coating or screen printing can all be accommodated with this system.

All of these very different materials require expert coating and finishing for maximum efficiency, using Monforts technologies which provide the ultimate in flexibility and the ability to switch quickly from one fabric run to the next, without compromising on the economical use of energy or raw materials.

The Monforts EcoApplicator offers further potential for sustainably achieving perfect finishes via a precise direct

application system, as an alternative to conventional padding – where fabrics are immersed in a bath of the required finishing chemicals. It can significantly further reduce the energy and water required and finishes can be applied on just one side of the fabric, or both, and even separately on each side, to be sealed in place via different heating zones in the stenter. This allows endless differentiation possibilities.




The Monforts EcoApplicator enable perfect finishes via a precise direct application system, as an alternative to conventional padding © 2022 Monforts

"Both home textiles and textiles for a wide range of technical applications are key end-use markets for our technologies, making the joint Techtextil and Heimtextil shows a stand-out event in 2022," says Monforts Managing Director Stefan Flöth. "We are looking forward to reconnecting with customers old and new in Frankfurt."

**www.monforts.com**

SPECIAL STRAIGHTENING TECHNOLOGY FOR TECHNICAL TEXTILES BY

# MAHLO

Mahlo will present the wide portfolio of intelligent scanners and sensors that record product and process parameters, such as distortion, fabric temperature, dwell time, basis weight, coating weight, thickness, moisture content, residual moisture, exhaust moisture, air permeability, etc. online. Visitors can expect to see the Famacont PMC-15 weft density measurement system in live operation. The system measures the weft or course density on the running web and compares it with the target value stored in the recipe data management system. The detected deviation from the target value is used to fully automatically control the overfeed during the needling process at the stenter frame and to ensure a constant weft/course density over the full width of the product.

Mahlo's range also includes solutions for straightening distorted goods. Best suited for technical textiles are the Orthopac RVMC-15 and the reinforced version Orthopac GRVMC-15. Frame, bearings, and rollers are designed for high loads and allow large working widths of up to 5,400 mm. As the latest development the experts present the Orthopac CRVMC-15 automatic straightener, which is particularly interesting for the glass & carbon fabric industry and some special applications.

**www.mahlo.com**



SUSTAINABILITY AND CIRCULAR ECONOMY ARE CENTRAL THEMES

# CHT GROUP TO PRESENT SUSTAINABLE AUXILIARIES

The topics of sustainability and circular economy will play a key role in the presentation.

TUBICOAT PET-H is a polyester-based polymer dispersion ideally suited for environmentally friendly sustainable stiffening and coating of polyester fabrics and nonwovens. Since TUBICOAT PET-H itself consists of polyester, goods finished with it can be declared as unmixed, recycled and returned to the material cycle, as in the case of carpets, filters or luggage nets, for example.

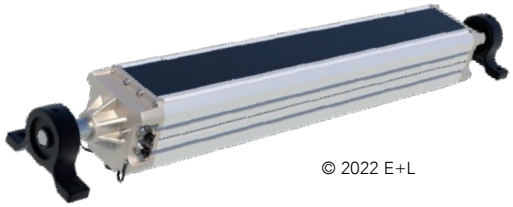
Products from the APYROL range are flame retardants that delay the spread of flames in the event of a fire, thus giving people at risk more time to rescue or extinguish the fire or to escape. In addition to their effectiveness in the event of fire, modern flame retardants are also subject to increasingly stringent requirements in terms of environmental compatibility. This applies to everything from production and processing all the way to application. The CHT Group also offers ecological alternatives to the classic antimony/halogen-containing products, so-called "green" flame retardants based on P-N or inorganic Mg or Al compounds.

Products of the TUBCOSIL range are silicone coatings that can be applied to almost all textiles and nonwovens. They are mainly used in the field of technical textiles. Due to their exceptional material properties, they can meet the highest technical requirements in terms of resistance, mechanics, look and feel. TUBCOSIL products are solvent-free.

UBINGAL® RISE is the CHT Group's first textile softener made from recycled silicones and suitable for all fiber types. In keeping with the circular economy, "end-of-life" silicones are recycled and formulated with emulsifiers from renewable raw materials to create a new hydrophilic softener. Its product quality is identical to a silicone softener made from primary raw materials - only more sustainable.

The ECOPERL product range meets all requirements for modern and innovative PFC-free water repellents. Renewable raw materials have been optimized here as the basis for waxes and fluorine-free polymers. The suitability for various standards such as ZDHC, bluesign®, GOTS, Oeko-Tex® Standard 100 as well as a Material Health Certificate for Cradle to Cradle® are a matter of course and underline the CHT Group's commitment to sustainability. New developments are ECOPERL YWR, a versatile water repellent with anti-wick effect for yarns with excellent water absorption stop and ECOPERL DCR, a highly effective water repellent for pad finishing of all fiber types. **www.cht.com**

# NEW METAL DETECTOR **PRESENTED BY E+L**



© 2022 E+L

The Erhardt+Leimer Group, specializing in automation and inspection technology, will present systems for web guiding and spreading, web tension measurement and control, as well as cutting units for technical textiles. In addition to these devices, which have proven themselves thousands of times worldwide for the simple, robust and reliable automation of production processes in the textile industry, E+L will be exhibiting a new metal detector at the trade fair – a further development of earlier systems, which can now detect even smaller metal particles in the fabric. In addition, a new seam sensor for the detection of cross-seams will be presented.

The metal detector ELMETA MDA 1005 / 1006 reliably and accurately detects the smallest metal particles over the entire width of the web. Per segment (300 mm) a signal LED on the sensor indicates the position of the metal particle in the web. The metal detector can be used for dry and damp web textiles and non-woven fabrics. Its function is assured at production speeds from 2 to 500 m/min.

**www.erhardt-leimer.com**



# **THIES SOLUTIONS FOR** ENERGY, LABOR AND QUALITY IN WET PROCESSING

Thies Textilmaschinen will be highlighting its latest range of machines for the processing and treatment of technical textiles. The Thies specialists will be on hand to offer expert advice on dyeing aspects of technical textiles. Thies machines are processing a wide variety of yarn, fibres, nonwovens and fabrics suitable for technical textile applications including, for example, Aramide; used in security wear and top-end, bullet-proof automobiles.

## ICONE YARN DYEING

Thies iCone yarn dyeing machines are treating yarns and fibres; guaranteeing an even dye distribution and targeted colour fastness whilst addressing important factors of operating costs and environmental impact. This technology also enables the production of medical cotton as well as sewing threads for all other technical textiles applications including sun screens, tent materials or sunshades.

Thies HT- Jigger © 2022 Thies Textilmaschinen

## HT- JIGGER

The Thies HT - Jigger is used for dyeing fabrics, nonwovens or space fabrics in high qualities. Suitable to process textiles at temperatures up to 143°C, the Jigger is recommended for the treatment of crease sensitive, permeable and non-permeable fabrics; to offer optimum flexibility for finishing of all modern fibres. The Jigger offers stepless tension and material speed control with an economical dye trough. It has been designed to offer uniform dyeing in short liquor ratios.A key application is the automotive sector with, for example, treatment of filter materials and vehicle interiors.

## IMASTER H2O DYEING MACHINES

For applications where water consumption is an important consideration, together with other possible energy savings including steam, electricity plus chemicals and dyestuffs, the iMaster H20 dyeing machine is proving successful with several automotive fabric producers. Significant savings in water consumption are achieved with reduced liquor ratios as low as 1 : 3,5 or less. The system features a transport winch inside the kier, allowing cotton, synthetic fibres and their blends, and including articles with a high elastane content, to be processed with significantly reduced elongation; resulting in fabrics with an improved stability whilst offering flexibility in the processing of a wide range of products.

## SOFT-TRD SIII

Designed for the universal dyeing of wovens, knits and nonwovens, this third generation of soft-TRD machines sets new standards in the efficient use of materials and resources.The soft-TRD SIII is able to handle crease and surface sensitive articles at fabric speeds of up to 600 m/min. The free material flow and low intensive transport zone, guarantee optimum relaxation and uniform treatment of the entire rope. This new design with its swimming material transport, provides the finisher with increased flexibility in the processing of a wide range of fabrics and material weights.

**www.thiestextilmaschinen.de**

Thies iCone © 2022 Thies Textilmaschinen

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GROUP

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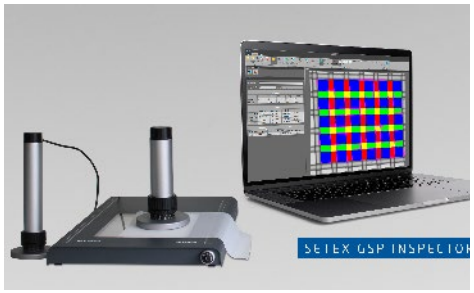
Hall 12 Booth B35

# ONLINE, STATIONARY AND MOBILE MEASUREMENT OF CHARACTERISTIC FABRIC-DESIGN PARAMETERS

SETEX increased the product family of camera-based instruments to provide fabric parameters such as yarn thickness, yarn frequency, fabric geometry and pore size.

## GSP INSPECTOR 250/5 FOR DIRECT MEASUREMENT OF CHARACTERISTIC FILTER PARAMETERS

The effect of functional wear, filters or clinical applications depends on the diameter of the largest particles that can just pass through the mesh. In the forefront of complex permeability tests, the measurement-based determination of the critical mesh parameters already enables a correlation with the targeted requirements. GSP INSPECTOR 250/5 reports with a simple measurement the pore size, pore shape, and fabric pore count in plain weaves. Developed with input from the filtration industry, the system provides further characteristics such as yarn thickness and the open mesh area.




Analysis of fiber and pore dimensions © 2022 SETEX

The graphical measurement also visualizes structure defects in addition to the characterizations, and their influence on the result can be tracked interactively. Test results are easy to view and analyze on screen and reports can be customized for print and export to PDF.

## FABRICINSPECTOR PROVIDES FAST AND SIMPLE MEASUREMENTS OF THE FABRIC DENSITY

Aimed to automotive, workwear and protective wear industries with high quality-criteria, the thread analysis for woven and knitted fabrics gives consistent results in a fraction of the traditional counting time. If it takes about 4 minutes to determine the thread count of 5 fabrics with a thread density of about 40 threads per cm by counting with a magnifying glass, the FabricINSPECTOR does this in 55 seconds by measuring. The evaluation of KPIs and tolerances keeps a record of quality along the value chain.

## FABRICINSPECTOR MOBILE

The lightweight and compact FabricINSPECTOR Mobile is ideal for users who want a quick decision at the location of the operation. Without the need for sampling and punching patterns, you get reliable measured values - even from running fabric.By sharing the database and reporting app with the desktop FabricINSPECTOR, it is an easy to supplement existing units. www.setex-germany.com



# BALDWIN'S SUSTAINABLE TEXCOAT G4 FINISHING SYSTEM TO BE SHOWCASED

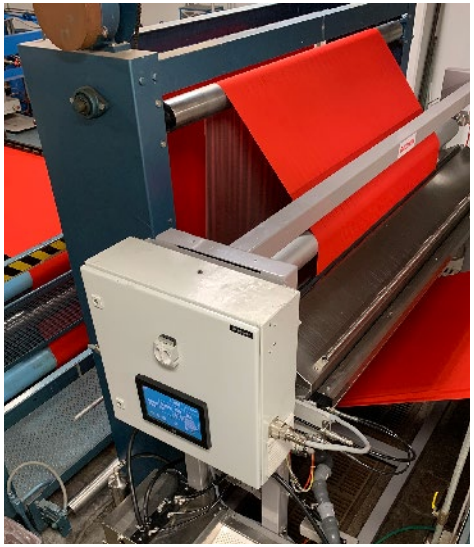
NON-CONTACT PRECISION-SPRAY SYSTEM SUPPORTS TEXTILE FINISHERS MANAGING HIGH ENERGY AND CHEMICAL COSTS

Baldwin Technology will showcase its highly sustainable TexCoat™ G4 finishing system. The revolutionary TexCoat G4 non-contact precision-spray technology helps textile finishers up their game by enabling consistent, high-quality finishing, with zero chemistry waste and drastically minimized water and energy consumption.

With a cost-sensitive global economy and an increased focus by brands and consumers on the environment, customers are placing a premium on sustainability in textile production. TexCoat G4's non-contact spray technology offers numerous advantages compared to conventional methods of applying finishing chemistry.

With Baldwin's innovative system, the chemistry is precisely distributed across the textile surface and is applied only where it is required, on one or both sides of the fabric. The non-contact technology eliminates chemistry dilution in wet-on-wet processes, allowing full control of maintaining consistent chemistry coverage rates. Plus, pad bath contamination is eliminated, and changeovers are only required when there is a change of finish chemistry.Textile finishers can expect unprecedented tracking and control of the finishing process for consistent quality. Changeovers are easily and quickly performed, thanks to recipe management, including automated chemistry and coverage selection. Furthermore, the system offers automated speed tracking, fabric-width compensation, and real-time monitoring to track system uptime, performance and chemistry usage, as well as active care alerts. The system can process a wide range of low-viscosity water-based chemicals, such as durable water repellents, softeners, anti-microbials, flame retardants and more.

www.baldwintech.com



Baldwin's sustainable TexCoat G4 finishing system
© 2022 Baldwin Technology

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Member of the Benninger Group

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**A Jakob Müller Company**

## AUTOMATIC ON-LOOM FABRIC INSPECTION BY
# BMSVISION

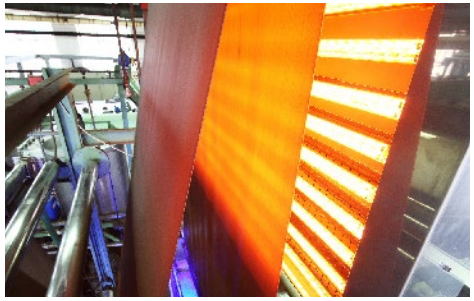
BMSvision will be focusing on automatic on-loom fabric inspection, Industry 4.0 and energy monitoring solutions for the entire textile value chain. BMSvision has been a pioneer in the field of camera based on-loom inspection systems. Since the introduction of Cyclops 20 years ago, hundreds of looms are equipped with Cyclops for the on-line quality control of airbag, coating fabrics and many other technical fabrics. With its new product Argus, BMSvision again pushes the boundaries of automatic inspection as it extends the possibilities from inspection of plain fabrics towards complex Jacquard fabrics, such as OPW airbag. Through intelligent wireless networking of all production equipment in the mill, the BMSvision MES solution transfers the huge amount of production and quality data originating from the various processes to a central data base and translates it into meaningful information for the managers.

**www.bmsvision.com**

Automatic on-loom fabric inspection © 2022 BMSvision



## HERAEUS NOBLELIGHT WILL BE EXHIBITING
# INFRARED EMITTERS



© Heraeus Noblelight 2022

A customized infrared system is helping to implement a drying process within a limited time window and tight space constraints. Century Dyeing, works with high quality synthetic fabrics. When changing from dark colors to lighter shades, the dye on the fabric was not drying sufficiently and was being smeared by the web guide. Fast response medium wave infrared emitters provided a remedy here, because they dry the waterbased paint considerably faster with precisely tuned radiation in the medium wavelength range. At the same time, these emitters respond to control commands within seconds. This enables rapid temperature changes and, in the event of an unforeseen belt stop, damage to the material is minimized by a quick shutdown. Infrared systems offer particularly efficient possibilities for preheating, smoothing, laminating, embossing, fusing or drying technical textiles through contact-free and fast heat transfer.

**www.heraeus-noblelight.com/infrared**



# ANDRITZ WILL BE PRESENTING
## ITS INNOVATIVE NONWOVENS PRODUCTION AND TEXTILE SOLUTIONS

The broad ANDRITZ product portfolio covers state-of-the-art nonwovens and textile production technologies, such as air-through bonding, airlay, needlepunch, spunlace, spunbond, wetlaid/WetlaceTM, converting, textile finishing, recycling, and natural fiber processing. For Techtextil, special focus lies on technologies for textile recycling, needlepunch, airlay, wetlaid glass fibers and textile calendering.

### ANDRITZ TEXTILE RECYCLING TECHNOLOGIES BASED ON TEARING

With the acquisition of ANDRITZ Laroche SAS, ANDRITZ has expanded its product portfolio to include airlay and recycling technology as well as bast fiber processing technologies. Complete recycling lines for post-consumer and industrial textile waste to produce fibers for re-spinning and/or nonwoven end-uses are one focus of this product range. ANDRITZ Laroche offers a complete process range of tearing lines from 50 up to 3,000 kg/h, which can be used for almost all types of pre/post-consumer textile waste. The aim is to preserve the character of the original fibers, for example cotton, by maximizing fiber length, strength and feel. The EXEL and JUMBO EXEL tearing machines are user-friendly and equipped with tailor-made automated solutions to remove the non-textile parts from post-consumer waste and unsold items.

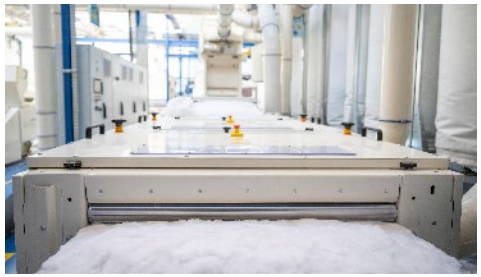
The EXEL tearing machine has a production capacity of 400 to 800 kg/h and the JUMBO EXEL tearing machine has a high production capacity of 600 to 1,200 kg/h. Always depending on the raw material for spinning quality.

### CUTTING-EDGE SOLUTIONS FOR DURABLE APPLICATIONS

The use of nonwovens in the automotive sector has increased dramatically in recent years. Based on decades of experience, ANDRITZ develops cost-efficient and reliable turnkey needlepunch and airlay lines. The recent boom in the market for durable nonwoven products led ANDRITZ to develop its PA3000 elliptical pre-cylinder to meet the demand for higher capacities and lighter products.

Another focus is the ProWinTM technology for profile weight correction in the needlepunch industry.

**www.andritz.com**



ANDRITZ textile recycling line based on tearing
© 2022 ANDRITZ

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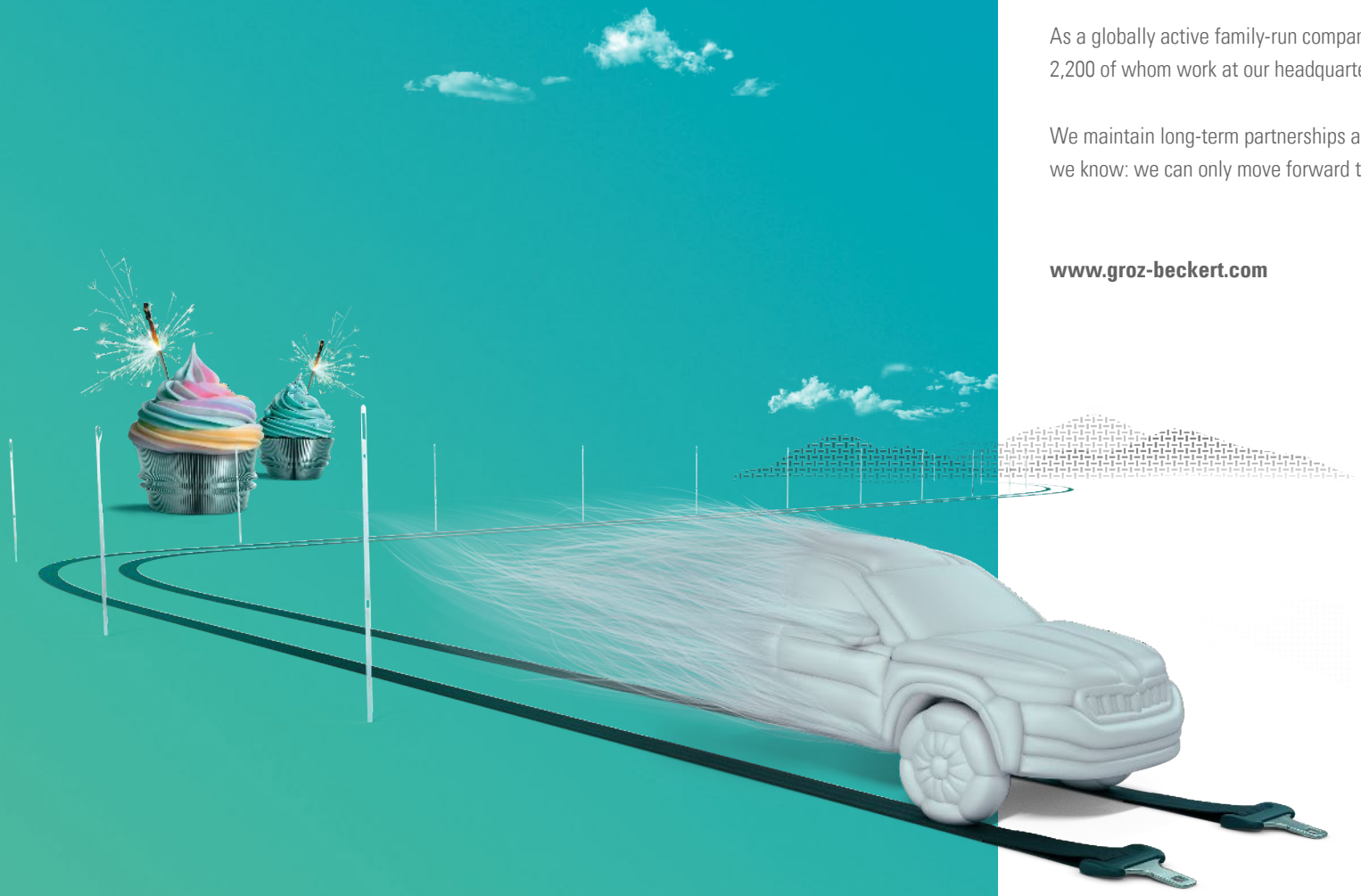

# Hub of the textile world

Groz-Beckert is the world's leading provider of industrial machine needles, precision parts and fine tools for knitting, weaving, felting, tufting, carding and sewing.

As a globally active family-run company, we currently employ around 8,700 employees – more than 2,200 of whom work at our headquarters in Albstadt, Germany.

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

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KNITTING | WEAVING | FELTING | TUFTING | CARDING | SEWING

## OERLIKON POLYMER PROCESSING SOLUTIONS PRESENTS LATEST TECHNOLOGIES

# SUSTAINABLE INFRASTRUCTURE SOLUTIONS, ROAD SAFETY AND HEALTH PROTECTION

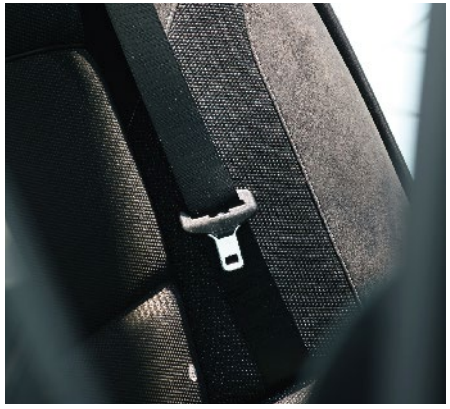
At this year's Techtextil, Oerlikon Polymer Processing Solutions will be presenting the trade audience with new applications, special processes and sustainable solutions focusing on the production of industrial textiles. Among other things, the company will be showcasing new technology for charging nonwovens that sets new standards with regards to quality and efficiency. Between June 21 and 24, the discussions in Hall 12.0, Stand C60 will be concentrating on airbags, seat belts, tire cord, geotextiles, filter nonwovens and their diverse applications.

### MORE POLYESTER FOR AIRBAGS

Airbags have become an integral part of our everyday automotive lives. The yarns used in them are made predominantly from polyamide. As a result of increasingly diverse airbag applications and also the increasing size of the systems used, polyester is today used as well, depending on the applica-tion requirements and cost-benefit considerations. Against this background, the Oerlikon Barmag technologies make an invaluable contribution. In addition to high productivity and low energy consumption, they particularly excel in terms of their stable production processes. Furthermore, they comply with every high quality standard for airbags, which – as in the case of virtually all other textile products used in vehicle construction – must provide the highest level of safety for vehicle occupants. And all this without any loss of function in any climate and anywhere in the world for the life-time of the vehicle.

### BUCKLE UP!

Seat belts play a decisive role in protecting vehicle occupants. They have to withstand tensile forces in excess of three tons and simultaneously stretch in a controlled manner in emergencies in order to reduce the load in the event of impact. A seat belt comprises approximately 300 filament yarns, whose individual, high-tenacity yarn threads are spun from around 100 individual filaments.



In accidents, the number one lifesaver is not the vehicle's body work or the airbag, but the seat belt. It holds the vehicle occupants firmly in position and thus enables other protective technologies to unfold their full function.
© 2022 Oerlikon


The hycuTEC process easily achieves filtration efficiencies in excess of 99.99% in the case of typical filter media © 2022 Oerlikon

"With our unique, patented Single Filament Layer Technology, we offer a sophisticated and simultaneously gentle high-tenacity (HT) yarn process for manufacturing these lifesavers and other applications made from industrial yarn", explains Dr. Roy Dolmans, Technology Manager IDY and R&D Filament Processing.

### HYCUTEC – TECHNOLOGICAL QUANTUM LEAP FOR FILTER MEDIA

In the case of its hycuTEC hydro-charging solution, Oerlikon Neumag offers a new technology for charging nonwovens that increases filter efficiency to more than 99.99%. For meltblown producers, this means material savings of 30% with significantly superior filter performance. For end users, the consequence is noticeably improved comfort resulting from significantly reduced breathing resistance. With its considerably lower water and energy consumption, this new development is also a future-proof, sustainable technology.

### INVISIBLE, BUT ESSENTIAL – ROAD REINFORCEMENT USING GEOTEXTILES

But it not just inside vehicles, but also under them, that industrial yarns reveal their strengths.

The new Staple Fiber Technology Center in Neumünster - with around 2,100 m2 one of the largest in the world. © 2022 Oerlikon

Low stretch, ultra-high tenacity, high rigidity – industrial yarns offer outstanding properties for the demanding tasks carried out by geotextiles; for instance, as geogrids in the base course system under asphalt. Normally, geotextiles have extremely high yarn titers of up to 24,000 denier. Oerlikon Barmag system concepts simultaneously manufacture three filament yarns of 6,000 denier each. Due to the high spinning titers, fewer yarns can be plied together to the required geo-yarn titer in a more cost- and energy-efficient manner.

**NEW HIGH-TECH STAPLE FIBER TECHNOLOGY CENTER**

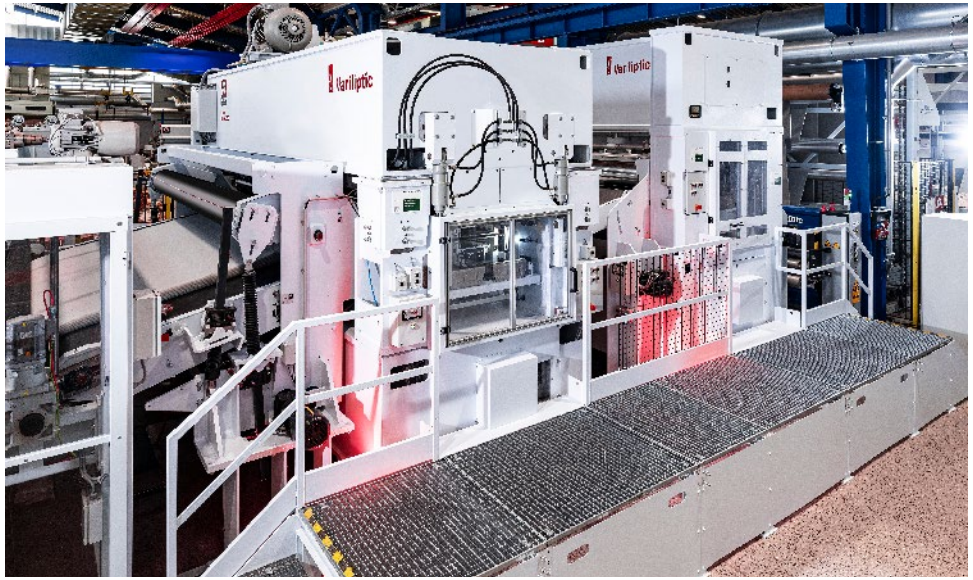
Extending to around 2,100 m2, Oerlikon Neumag in Neumünster is home to one of the world's largest staple fiber technology centers. As of now, these state-of-the-art staple fiber technologies are also available for customer-specific trials.

The focus during the planning and the design of the Technology Center was on optimizing components and processes. Here, special attention was paid to ensuring the process and production parameters in the Technology Center system could be simply and reliably transferred to production systems. "We are not only able to run all standard products available on the market at our Technology Center, it also offers us the perfect prerequisites for the development of new processes and products", explains Tilman Reutter, Technology Manager - Head of Staple Fiber Process. Here, the fiber tape processing line is modular in design. All components can be combined with each other as required. And comprehensive set-up options supply detailed findings for the respective process for various fiber products.

The Technology Center is also equipped with two spinning positions for mono- and bi-component processes. The same round spin packs are used for both processes, characterized by excellent fiber quality and properties and meanwhile very successfully deployed in all Oerlikon Neumag production systems. Furthermore, the spinning plant is complemented by automation solutions such as spin pack scraper robots, for example. "In future, we will be able to focus more strongly on the special requirements of our customers in the development of our product lines", comments Tilman Reutter.

www.oerlikon.com/nonwoven

# AUTEFA SOLUTIONS ARE COMMITTED TO TECHNOLOGY THAT IS BOTH **INNOVATIVE AND SUSTAINABLE**




AUTEFA Solutions needle looms Stylus VARILIPTIC © 2021 Autefa Solutions

During Techtextil, visitors will experience the economic and technical advantages of AUTEFA Solutions as a full line supplier for carded- crosslapped needlepunch lines, aerodynamic web forming technology, spunlace, and thermobonding lines. AUTEFA Solutions nonwoven lines meet customers' requirements for quality web formation, bonding, active weight regulation, and minimal maintenance.

The general trend is for weight reduction whilst maintaining physical properties providing savings in material costs and increasing operating speeds. Customers require machines and lines that are able to produce light weight fabrics without any compromises regarding material strength. Furthermore, growth in needlepunching technology remains strong, a good example is Artificial Leather, also in terms of sustainability.

AUTEFA Solutions serves the growing demand for needled technical applications e.g., the filtration business and for paper maker felts. Sustainability is a huge topic, worldwide. With the increasing environmental awareness, the demand for renewable textiles is forthcoming, allowing the wood pulp technology segment to grow enhanced growth rates. Our customers are increasing the use of replacement fibers like recycled PET fibres, carbon fibers, reclaimed fibers as well as various natural fibers such as hemp or coconut.

Therefore, AUTEFA Solutions needle punching have special options like optimized bed and stripper plates, advanced needle patterns with conical bed plate holes, and optimized feeding system for pre-needle looms. A dust extraction system is available and recommended when processing recycled and natural fibers, glass and short fibers, and carbon and mineral fibers.

AUTEFA Solutions Needle Punching lines distinguish themselves by easy operation, less energy consumptions/gms, excellent and reproducible product quality with reduced operation cots. The needlelooms of the Stylus product family can process all fiber types. The needle looms are designed to suit the required output and speed by adjusting the number of the drive modules. AUTEFA's needlepunch lines produce an even and homogenous lightweight fabric with outstanding technical performance in terms of tensile strength and evenness (MD/CD ratio). Needle punching lines are composed by several steps, like blending, carding, crosslapping and needling. The performances of such a line and the quality of the product in terms of appearance, evenness and mechanical characteristics depends on all steps. As a full line supplier, AUTEFA Solutions has worked on all the different steps of the process to improve the performances and supply high quality line on all its components.

AUTEFA Solutions offers a complete range of nonwovens machinery, covering needlepunch lines, aerodynamic web forming, spunlace and thermobonding equipment. Application sectors range from hygiene and wipes through filtration, geotextiles, automotive, carpets, technical felts, wadding and insulation. In the premium nonwovens segment, AUTEFA Solutions is renowned for the quality, durability and performance of its technology for both forming and bonding processes, incorporating the famous brands Fehrer, FOR and Strahm.

**www.autefa.com**

# USTER TO PRESENT ITS **QUALITY ASSURANCE SOLUTIONS**

In medical, hygienic and cosmetic applications flawless end-products are essential. And that means contamination in the fiber raw material is not allowed. The risk of contamination, such as small pieces of plastic, reaching the card is that it will be shredded into minute particles and then be incorporated into the material at web bonding. This kind of contamination would be disastrous in a hygiene or cosmetic application which comes into contact with sensitive human skin. With Uster Jossi Vision Shield N integrated in their fiber processing line, nonwovens producers can avoid that risk. Uster Jossi Vision Shield N uses imaging spectroscope technology to identify contamination in a fraction of a second, instantly removing it from the mass of good fiber material. Detection works across a much greater wavelength than conventional camera systems, so that contamination as small as a single hair and in the lightest colors is pinpointed. For best results in contamination detection, Uster Jossi Vision Shield N is integrated right after the opener in the blowroom. At this stage in fiber preparation, detection is enhanced, since the fiber tufts are open, preventing any small contaminants being hidden inside them. Uster Jossi Vision Shield N is the result of surveys, close collaboration with international nonwovens companies and countless hours of field tests.

Installation is easy, since the fiber cleaner's slim design fits perfectly into existing lines. The system readily copes with the pace of standard production environments – up to a capacity of 2,000 kg per hour. Uster ensures that the system is seamlessly integrated into production lines, adapting the position of the fiber feed and the main components with the imaging spectroscopes, for optimum results.

UJVSN installation in nonwovens production © 2022 USTER

The future-oriented graphical user interface gives a quick overview of running performance in real-time, on a large high-resolution touchscreen, showing the most relevant data at a glance. User-friendly, quick and intuitive navigation makes data handling easy. www.uster.com

## NEW DEVELOPMENTS AIMED AT IMPROVING PRODUCTION TECHNOLOGIES

# WITH A FOCUS ON NEEDLEFELTS

For DiloGroup Techtextil Frankfurt is an important exhibition for the textile industry and thus offers a central forum for dialogue within the textile production sector with the relevant supply chain comprising textile machine building, fibre production, ancillaries and accessories. The event is traditionally a good oppportunity to inform customers and interested parties about new developments aimed at improving production technologies with a focus on needlefelts.

Dilo 3D-Lofter © 2022 Dilo

Dilo needling line © 2022 Dilo

It becomes more evident that the textile industry comes into the focus of regulatory authorities who push respecting sustainability principles and who initiate a new body of laws. Hence all industrial sectors are requested to achieve savings in material and energy.

The textile machine building, of course, plays an important role by seizing this initiative and offering solutions for fibre pulp recycling and reduction of energy, water and ancillaries. DiloGroup has made big efforts to meet these challenges together with a circle of partner companies. In this regard focal points of the development work are:

### 1. INTENSE NEEDLING

Needling per se is a mechanical production method with a high energy efficiency. For this reason, the development efforts of DiloGroup aim at producing nonwovens by "intense needling" instead of water entangling, even for light nonwovens made of fine fibres for the medical and hygiene sector with an area weight of 30 – 100 g/m². This would result in a reduction of the environmentally relevant production costs; per annum to about 1/3 to 1/5 of current.

Despite the prospective advantages of the mechanical intense needling method over the hydrodynamical, water entanglement is at the moment the most important production method for low area weights and highest production capacity and is also offered by the DiloGroup as general contractor in cooperation with partner companies.

### 2. "FIBRE PULP RECYCLING"

Fibrous material in nonwovens and particularly used clothes can be successfully recycled, if staple length can be conserved in the tearing process. In the classical tearing process, staple lengths are dramatically reduced and therefore these fibres can only be used as base material for inferior uses in thermal or acoustic insulation or in protective textiles, transportation or protective covers etc. When recycling textile waste in the context of the collection of used clothes, the so called "filament-saving" tearing using special tearing machines and methods must be used to produce fibres with longer staple lengths which can be fed to a nonwoven installation. Hence product characteristics can be better specified and controlled.

### 3. ADDITIVE NONWOVEN PRODUCTION

The additive production method of the "3D-Lofter" is especially suited for automotive parts with differently distributed masses; but there may also be potential for increasing uses in the sector of apparel and shoe production.

### 4. "ISOFEED"-CARD FEEDING

In the field of card feeding, the "IsoFeed" method offers great potential for a more homogeneous card feeding at the same time reducing the variation in cross-machine fibre mass distribution and thus the fibre consumption while conserving the end product quality.

DiloGroup would like to discuss the above mentioned developments of needling technology as well as modules of Industry 4.0 applications for further digitalization during the Techtextil exhibition. They will, of course, also inform about the numerous universal and special applications of the complete nonwovens technology. The DiloGroup staff look forward to meeting again customers and interested parties within the textile industry.

**www.dilo.de**

Needle module holder © 2022 Dilo

# TRÜTZSCHLER PRESENTS VARIOUS NEW AND PROVEN SOLUTIONS FOR THE **NONWOVEN, CARD CLOTHING AND MAN-MADE FIBER SECTORS**


Trützschler Man-Made Fibers new TEC-O40 system for industrial yarn © 2022 Truetzschler

Trützschler Nonwovens card TWF-NCT for man-made and even cotton fibers © 2022 Truetzschler

Trützschler Nonwovens, Trützschler Card Clothing and Trützschler Man-Made Fibers present various new and proven solutions for the nonwoven, card clothing and man-made fiber sectors.

Trützschler Nonwovens invites to talk sustainable fibers such as hemp or linen and out-of-the-box fibers such as nettle and pineapple fibers. Our solutions for manufacturing innovative nonwoven products include machinery and complete production lines for paper grade pulp, re-generated cellulose fibers, cotton and various other natural fibers.

What happens when sustainable meets digital? Trützschler Nonwovens and software partner Proptium introduce T-ONE, the new digital working environment for both fiber- and polymer-based nonwoven producers.

T-ONE supports routine tasks such as quality control and recipe management but also enables systematic line monitoring and data collection for T-ONE's line optimizations.

Another focus is on durable nonwovens for automotive applications or end-uses in filtration, building and construction. Trützschler Nonwovens presents modern solutions for high-productivity, high-efficiency and low maintenance production lines.

Trützschler cards are inevitably linked with tailor-made wires by Trützschler Card Clothing. Visitors can expect excellent innovations and reliable solutions that boost productivity in needling, high-speed spunlacing, thermo- and chemical bonding lines.

Trützschler Man-Made Fibers introduces the OPTIMA-based, versatile TEC-O40 and TEC-O80 systems for extruding and spinning industrial yarns (IDY). The modular OPTIMA platform is highly flexible and adaptable to manufacturing a broad spectrum of (semi-)industrial yarns from polyamide, polypropylene or polyester.

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THE TEXDATA INTERNATIONAL MAGAZINE

# THE GREAT IDEA: ITM 2022




LEADING TECHNOLOGY FAIR IS AN IMPORTANT INDICATOR FOR THE FUTURE

**At last, after three long years of abstinence, textile machinery manufacturing also has a major trade fair in Europe again. For the eighth time, the ITM International Textile Machinery Exhibition and the parallel HIGHTEX 2022 International Technical Textile & Nonwoven Trade Fair will take place at the TÜYAP Fair Convention and Congress Center in Istanbul, Turkey, from 14 to 18 June 2022.**

**As in previous years, ITM 2022 is organised by Tüyap Fairs and Exhibitions Organization Inc. and Teknik Fairs Inc. in cooperation with TEMSAD (Turkish Textile & Machinery Industrialists Association). Originally planned for 2020 as the showcase of ITMA 2019 innovations for the Eurasian region, ITM 2022 had to be postponed twice due to the pandemic.**

This means that ITM 2022 will follow in the footsteps of the very successful ITM 2018, which also took place a year before ITMA and was already used by some companies to present real innovations to an audience hungry for new technology. This naturally fuels a certain expectation, especially after the long period of abstinence, to see brand new technology again at the current edition. But let's take it one step at a time.

First, let's take a look at a few facts about ITM. About 1000 exhibitors from 30 countries will present their machines and services in 12 halls and on an exhibition area of 120,000 square metres. Unsurprisingly, host country Turkey is the largest number with 374 (2018:303) exhibitors, followed by Italy (157, 2018:145), China (47, 2018:141), Germany (113, 2018:102), India (36, 2018:43) and Switzerland (33, 2018:31).

## LATEST MACHINES ALONG THE VALUE CHAIN

As usual, the entire spectrum of textile machinery along the value chain, from fibre and spinning preparation to textile finishing, plus machinery for digital textile printing and nonwovens processing, textile chemistry, IT and many additional and other solutions, will be on display at the show. According to the official ITM News, many exhibitors have announced the presentation of new machines, and some will even celebrate their premiere at ITM. The market leaders in spinning machines already declared in advance that they will exhibit the latest technologies and underlined once again the importance of ITM and Turkey for their market segment. Rieter CEO Norbert Klapper, for example, said: "Thanks to wise investments, the country's textile industry has shown remarkable resilience during the pandemic and is now more important than ever. What is even more inspiring is that Turkey, in line with its global leadership, is also looking at ways to improve the industry's environmental footprint. The ITM show will bring together the best and brightest minds in the industry and we look forward to an impressive showcase of the latest yarn manufacturing technologies that are both good for business and good for the planet." Similarly, Pia Terasa, Head of Marketing and Market Intelligence Saurer Spinning Solutions emphasised the importance of Turkey and its future opportunities. She said, "In the last two years, our



spinning segment in Turkey has seen tremendous growth, despite the pandemic. The Covid crisis has intensified the discussion on onshoring and nearshoring. The close proximity to Europe offers Turkey an excellent opportunity to increase its share in the European textile and apparel market." The opportunities for Turkey in terms of capturing further market share in Europe that have been mentioned are obvious and we had already highlighted them in the last ITM preview. Sustainable production in the future means not only sustainable production through the latest technology but also geographical proximity. Turkey has one of these, and can implement the other on its own. And with the new EU strategy for textiles, further opportunities may arise, as transport routes will become even more important here.

Innovations were also announced for weaving. Ferdinando De Micheli, Itema Sales Director, said: "ITM 2022 will be the first trade fair after the long forced break due to the pandemic. Therefore, ITM 2022 will be the perfect stage to showcase the latest innovations we have been working on for the last two years." The same applies mutatis mutandis to Picanol. They will present their new PicConnect and the associated weaving machines OmniPlus-i Connect and OptiMax-i Connect. In knitting, Karl Mayer Stoll and Mayer & Cie, among others, will present new machines, and in digital textile printing, SPG Prints and EFI Reggiani have announced the presentation of new machines. And there will certainly be some innovations in textile finishing as well. Traditionally, Turkish textile machinery manufacturers are strongly represented here and want to gain international market shares for their part.

## ITM FAIR CONTINUES TO DEVELOP

The Turkish textile industry is certainly already looking forward to ITM 2022. And it is not only this country that will enjoy the fair, because since its first event in 2004, ITM has developed into an international event whose appeal extends from Europe to Asia and Africa. Over 1150 companies exhibited their latest technologies at ITM 2018 and 59,000 visitors from 94 countries once again set a new record for attendance. These figures show that ITM is not only the premier and most important event in Turkey and the region, but has become one of the leading textile machinery shows in the world. Naturally, the organisers are hoping for an increase this year as well and want to achieve new success as the first international textile machinery fair after many cancellations of fairs due to the problematic pandemic outbreak. There are good reasons for this. For one thing, textile machinery manufacturers last met in Barcelona in 2019. They are eagerly awaiting the ITM 2022 Exhibition to present their new technologies and products. The organiser speaks of a steady increase in interest on the part of exhibitors since the start of reservations in 2018, including a great deal of interest from new participants, even when the sales phase had already been completed.



At the same time, he reports in this context that efforts to build more halls are continuing.

And on the other hand, large visitor flows are also expected for ITM 2022. On the visitor side, the organisers assume that after the three-year break during the pandemic period and the four-year break from the last ITM 2018, those responsible from the textile industry are already impatiently waiting to visit ITM 2022 to finally see the latest developments from the leading manufacturers of textile technology and can also hope for world premieres.

## VISA AGREEMENTS ENSURE EVEN MORE VISITORS

The many textile visitors from Turkey itself will be joined by thousands of visitors from Europe, Central Asia and the Arab countries, especially the Turkic Republics, who also want to find out about the latest trends in textile machinery. As the organiser published, there is an intensive application of visitors to consulates and commercial attachés from all over the world. The visa agreement between Turkey and many countries such as India, Pakistan, Bangladesh, Indonesia, Vietnam, Egypt, Algeria, Tunisia, Morocco, Iran, Uzbekistan and Turkmenistan is making a decisive contribution to a visit to the fair.

## STRONG SUPPORT FOR ITM 2022

In addition, ITM 2022 has been included by the Ministry of Commerce in the list of "domestic organisations supported by government incentives". Numerous trade committees from dozens of countries wish

to participate in ITM 2022. Countries that have registered procurement delegations include Bangladesh, India, Iran, Serbia, Czech Republic, Pakistan, Indonesia, Ethiopia, Malaysia, Mexico, Egypt and Vietnam.

## STRONG ECONOMIC GROWTH IN TURKEY

The general indicators for ITM 2022 after the pandemic are much better than one would first assume. For one thing, according to the OECD Economic Outlook of December 2021, the global economy is growing at roughly the same level as before the pandemic. Global GDP growth was predicted to be 4.5% in 2022 and 3.2% in 2023, but recent events such as war and inflation could lead to a 1% drop, according to the latest assessment from March 2022. At least if no appropriate countermeasures can be taken. On the other hand, Turkey itself achieved excellent growth results in 2021 and also offers a positive outlook for the coming years. For example, the Reuters news agency reported economic growth of 11% for 2021 and still 3.5% as a forecast for 2022. However, this forecast was already exceeded in the first quarter of 2022. Again, Reuters reported growth of 7.3 % on 31 May. It is possible that some forecasts are too defensive, as has sometimes been the case in the past. Turkey's growth is often better than previously expected.

The export markets also look quite good in terms of growth. Although the European Commission revised the growth outlook for the EU downwards and the inflation forecast upwards in May 2022, there is still at least a two before the decimal point. Real GDP growth of 2.7% in 2022 and 2.3% in 2023 is now expected for both the EU and the euro area, up from 4.0% and 2.8% (2.7% for the euro area) in the winter 2022 interim forecast.

## TURKISH TEXTILE INDUSTRY OCCUPIES A TOP POSITION

The Turkish garment and textile sector ranks very high globally and is also very important for Turkey itself, especially in terms of the country's exports. It is one of the largest and best performing sectors of the Turkish economy, accounting for around 6% of the country's GDP. At the 79th ICAC Plenary Session in December 2021, the Head of Delegation to Turkey, Mr Erbulent Kursun, Deputy Director General of the Ministry of Commerce, gave an update on the Turkish textile and clothing industry. According to the report, there are over 65 thousand textile and clothing companies operating in the country and they employ over 1.2 million people, which corresponds to 7.5 % share in total employment and 20.3 % of overall manufacturing labour force. The Turkish clothing and textiles industry exported some 65% of its production, accounting for nearly 15 % of Turkey's total exports in 2020. The Turkish textile and clothing sector covered approximately one seventh (25 billion US dollar) of total export earnings (170 billion USD) of Turkey in 2020. On the other hand, as of January-October 2021, the textile and apparel export realized 25 billion US dollar and it is expected to reach 30 billion US dollar in 2021, the highest export level of recent times. These are impressive results of the textile and apparel industry, which are also underpinned by ITM News.

## EXPORTS IN 2021 WITH HISTORIC RECORDS

These go into more detail about the increases in the pure textile sector, including primary products such as yarns and fibres, in terms of exports. They report that Turkey set an all-time record in the export of these goods in 2021 with a value of goods of USD 12.9 billion and a growth of a staggering 33.2%. With a value of 5.9 billion USD, most of the exports went to the EU27 countries and here an increase of 33.8% could even be achieved compared to the previous year. Among the individual EU countries, Italy was in the lead with 1.1 billion USD and an increase of 52.5 %, followed by Germany with 1.0 billion USD and an increase of 11.2 %. Looking at the individual product groups, yarn was surprisingly in first place with an increase of 67.6%. Here synthetic artificial filaments fibres were far ahead with a goods value of 971 million USD and a share of 36.6%. Yarn was followed by woven fabrics with an increase of 25.8% and a value of goods of 2.4 billion USD. Knitted fabrics also grew with an increase of 44 % and a value of goods of 2.1 billion USD. The third most important group, technical textiles, however, declined by 14.5% to a value of USD 2.3 billion compared to the previous year. Nonwovens, which make up 31.9% of the sector, bucked the trend with an increase of 5.5% and a value of goods of USD 750 million. There were also increases in fibres (63.7%, USD 1 billion), home textiles (27.0%, USD 2.3 billion) and denim (24.2%, USD 305 million). The best markets here were Tunisia (24.2%, 61 million USD), Egypt (14.2%, 43 million USD) and Morocco (9.6%, 29 million USD).




**DENIM TECHNOLOGIES SPECIAL SECTION**

The denim sector is a sub-sector of the textile and garment industry that has emerged as a pioneer of innovation in recent years. Denim, which is considered one of the timeless products of the fashion world, now generates a considerable turnover from manufacturing to retailing and Turkish textile companies are very successful in production and also marketing in this sector. Moreover, its geographical location between Europe and Asia with proximity to Africa is considered an advantage. ITM 2022 will provide a special home for denim industry participants with the Denim Technologies Special Section, which will be held for the first time in a dedicated hall. Visitors can learn about the latest technological innovations in denim production, from the machinery used in the sector to the dyes used in production.

**TURKEY SHOWS WILLINGNESS TO INVEST**

Turkey is taking the path of focusing on efficiency and productivity through investment and modernisation, increasing production capacity and the quality of goods. Through this and its geographical advantages, it has succeeded in taking market share from Asian competitors and opening up new segments. In recent years, there has been a lot of investment in the modernisation and expansion of the Turkish textile and garment industry. The official ITM news lists a large number of individual domestic and foreign investments, such as a 500 million USD investment by Korean Hyosung, a 330 million USD investment by Sasa Polyester, a 3.6 billion TL investment by the clothing company LC Waikiki in a large factory with 5,000 employees and a 200 million USD investment by Turkish Migiboy in a spandex factory with 500 employees. These examples illustrate that Turkey is systematically strengthening and expanding the textile industry as one of the most important industries in the country.

Incidentally, the strengthening is also taking place at another level. Internationally, the country has no longer been called Turkey, but Türkiye since the beginning of June, after the Turkish government submitted an amendment to the UN to make the name even clearer and more unmistakable. A small change, but one that can certainly develop its appeal if the products behind the label continue to develop as they have in the past and the companies gradually become world market leaders.

Türkiye is going its way as a country for the production of high-quality textiles and clothing, and ITM 2022 will be an indicator of the speed with which it continues on this path. And that brings us back to ITM Exhibition and technology. With all the focus on markets and opportunities, it is the most important aspect of the fair: the exhibitors and their machines.

**www.itmexhibition.com**

# HIGHTEX 2022

## NONWOVEN INDUSTRY SHOWS NOVELTIES

At the same time as the ITM 2022 exhibition, the HIGHTEX exhibition will also be held, as usual, in Hall 9 at Istanbul's Tüyap Exhibition and Congress Centre from 14 to 18 June 2022. It will showcase nonwoven products, the raw materials used in their production and the latest technologies, and as the first and only nonwovens and technical textiles exhibition in Turkey, it will of course host the world's leading manufacturers of technical textiles and nonwovens for 5 days in Istanbul. They will show their latest products and production technologies from many fields, from medical textiles to hygiene textiles, from agricultural textiles to geotextiles.

As the organiser announced in advance, Turkish exhibitors are very much looking forward to meeting again with the global players of the industry, investing in technology and presenting their latest products. And not just the Turkish ones, as HIGHTEX is set to become the largest meeting place in the Middle East and Eastern Europe for nonwovens industry professionals. The organiser expects thousands of visitors, because the industry is booming in Turkey and thus offers optimal conditions for good business and also exciting cooperations.

Strong exports of technical textiles in 2021

In the period from January to November 2021, the most important product groups in textile and raw material exports were technical textiles. Exports of technical textiles made in the 11 months exceeded the exports of technical textiles made in the whole of the previous year. They amounted to 2.1 billion US dollars. The main countries to which the technical textiles were exported are Germany, Italy, the USA, the UK and Spain.

Nonwovens offer a lot of potential

In the January-November 2021 period, the nonwovens product group accounted for 32% of total exports. During this period, Turkish nonwovens exports increased by 6.9% and reached a value of $685 million.

Important centre of nonwovens supply

During the global covid 19 pandemic, Turkey quickly demonstrated its production strength and product quality in technical textiles and rapidly expanded its capacity. The nonwoven manufacturers quickly adapted to the changing demand and were able to respond to the requests with increased capacities in the shortest possible time. This is also reflected in the increased export figures.

These successes are good to build on and the high demand for personal protective equipment as well as many other nonwoven applications is expected to continue. Market growth forecasts are good and Hightex 2022 should see many new applications as well as a good investment climate.

**www.hightexfairs.com**

# TRÜTZSCHLER WILL SHOW STATE-OF-THE-ART SUSTAINABLE TECHNOLOGIES

## IN ALL BUSINESS AREAS: SPINNING, CARD CLOTHING, NONWOVENS AND MAN-MADE FIBERS

Trützschler Man-Made Fibers: With 4-ends per spinning position our OPTIMA BCF extrusion systems are unrivalled in the market © 2022 Truetzschler

The Trützschler team will present state-of-the-art sustainable technologies for the textiles industry – including all business areas: Spinning, Card Clothing, Nonwovens and Man-Made Fibers.

**SUSTAINABILITY AND AUTOMATION**

Trützschler is driven by its vision of smart and sustainable solutions. Visitors to ITM 2022 will experience exactly how Trützschler brings this vision to life with its technologies. With regard to spinning preparation the booth will feature the new and easy-to-use combing machine, TCO 21, which maximizes productivity and automation to provide excellent process efficiency and yarn quality. Based on various graphics and animations, guests get the latest of the pre-cleaner CL-X and the intelligent card TC 19i, which utilize advanced air technology and contribute to more energy-efficient spinning mills.

Visitors will also get a chance to see and touch card slivers made from recycled materials at our booth. They can then talk to Trützschler experts about the specially designed recycling card, TC 19i for Recycling.

Meets the demands for cotton yarn spinners around the globe: The new Trützschler comber TCO 21
© 2022 Truetzschler

Trützschler Card Clothing offers a unique range of wires and flat tops, including specific solutions for recycling
© 2022 Truetzschler

It empowers customers to achieve highest possible quality when carding secondary fibers from torn waste through continuous self-optimization.

Models and samples will also showcase the unique range of wires for card clothing, including solutions for recycling applications. Trützschler Man-Made Fibers will present news about all variations of the OPTIMA platform for Bulk Continuous Filament (BCF) carpet yarn manufacturing. Whether BCF standard qualities, low dpf, high-count or tricolor yarns – OPTIMA delivers highest productivity and yarn quality. Further, the booth will offer touchscreen movies that share interactive information about the technologies for nonwovens – with a special focus on the efficient cotton nonwoven lines as well as the proven carded/pulp technology. Both concepts allow for manufacturing eco-friendly wipes from renewable resources, for example pulp and re-generated cellulose fibers, such as viscose and lyocell. Moreover, Trützschler Nonwovens will introduce its new digital solution, T-ONE, which enables our customers to keep an eye on the quality of their products as well as their line performances.

**SOLUTIONS AND SERVICES FOR THE STRONG MARKET IN TURKEY**

Trützschler views Turkey as one of its top markets worldwide. The demand for innovative textile machinery solutions is very strong – and it is growing all the time. This trend is driven by the constant push for saving energy and boosting resource efficiency, while cutting costs.

www.truetzschler.com

## OERLIKON POLYMER PROCESSING SOLUTIONS PRESENTS LATEST TECHNOLOGIES

# ENERGY-EFFICIENT MANMADE FIBER SYSTEMS FOR THE TURKISH MARKET

The Oerlikon Polymer Processing Solutions division will be showcasing its solutions and technologies at the Tekstil Servis stand in Hall 3, Stand 313.

The focus for the machine and systems builder will be on total solutions – from melt to yarn, fibers through to nonwovens. "Turkey is an extremely active market", comments Sales Director Oliver Lemke, talking about the current mood in the country. "Our customers are hugely interested in factory projects that comprise everything – from the in-house polycondensation system through to the textured yarn, the accompanying automation and corresponding digital solutions. Basically, From Melt to Yarn and beyond." The unbeatable benefit of such concepts is that procuring all process steps from a single source promises harmonized technology, whose design guarantees that the produced yarn is high quality.

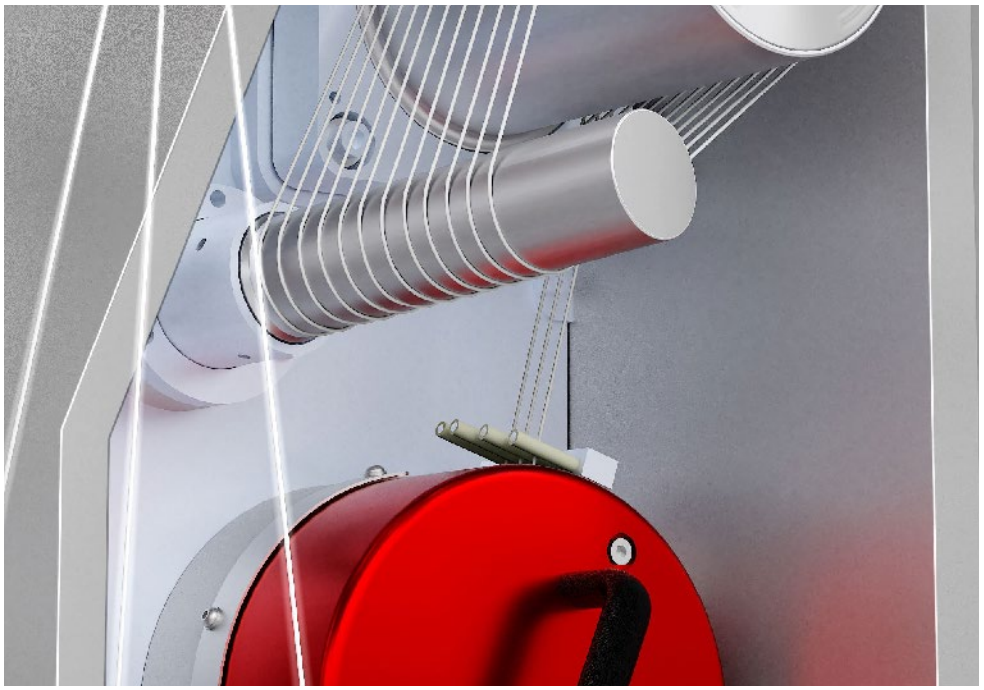
A further information focus will be on the topic of sustainability. There are currently many developments taking place in manmade fiber yarn manufacturing: mechanical and chemical technologies for recycling of bottles, but also of textiles and biopolymers as well as the circular economy – all these are already possible.

With partners and subsidiaries, including Oerlikon Barmag Huitong Engineering (OBHE) and Barmag Brückner Engineering (BBE), Oerlikon Polymer Processing Solutions will be unveiling concrete concepts at the trade fair.

BCF technology: tangling 6,800-dtex yarns with the RoTac³

High-pile carpets and carpets for outdoor use are currently on trend, with demand for these high-margin yarns noticeably rising. The thick BCF yarns made from PP, PET and PA6 required can now be tangled using the RoTac³. In so-called plying, all three filaments are jointly fed through a tangling opening in the RoTac³ and then tangled. "BCF yarn manufacturers can now also use the RoTac³ for yarns of up to 6,800 dtex. They not only benefit from energy savings due to lower compressed air consumption and considerably more even tangling knots, manufacturers can also respond more flexibly to market requirements and hence expand their product portfolio", explains Arnd Luppold, BCF Sales Director, talking about the advantages of plying using the RoTac³.

Even at high production speeds, tangling knots can be set much more evenly with the RoTac³ than in the case of other conventional tangling units.



The hycuTEC process easily achieves filtration efficiencies in excess of 99.99% in the case of typical filter media
© 2022 Oerlikon

Frequent tangling glitches are now a thing of the past. This ensures better yarn quality and has a positive impact on further processing. The result: the carpet has a visibly more even appearance.

Furthermore, compressed air consumption is reduced by up to 50 percent, depending on yarn type.

The 3-in-1 plying package is optionally available for the BCF S+ and BCF S8 with RoTac³ systems and can also be retrofitted on request.

**www.oerlikon.com/polymer-processing**

# SAURER SPINNING SOLUTIONS

## WILL PRESENT THE LATEST INNOVATIONS

Saurer Spinning Solutions will present the latest innovations in machinery, digitalisation, and components for pre-spinning as well as in ring, rotor and air spinning. Spinning Solutions offers high-quality, technologically advanced, and customer-specific automated solutions for staple fibre processing from bale to yarn.

**SAURER AUTOCARD – CREATE FURTHER VALUE IN THE FIBRE PREPARATION CHAIN**

The new Autocard's higher carding area means 18% higher output and even cleaner sliver. It also features LED lights for intelligent operator guidance. It was developed to create further value in the fibre preparation chain. It offers the right solutions to prepare all kinds of fibres for the subsequent processes in the textile value chain. The right combination of blow room and carding machinery ensures excellent fibre utilisation and sliver quality, thus increasing the efficiency of the spinning process and improving the quality of yarn.

**AUTOCORO – THE MOST POPULAR ROTOR-SPINNING MACHINE IN TURKEY**

Clever solutions for more productivity, flexibility, yarn quality and sustainability are the recipe for success for Saurer spinning machines. The automation solutions of the Autocoro rotor spinning machine and the Autoairo air spinning machine pave the way to more independence from the availability of personnel, more output and quality assurance and also reduce spinning and raw material costs. In just 10 years, Saurer installed one million of Autocoro spinning positions with individual drive technology.

**ZR 72XL AND ZI 72XL – THE GLOBAL BENCHMARKS FOR INTELLIGENT SPINNING**

ZR 72XL/ZI 72XL are two highly productive ring- and compact-spinning machines. They set the global benchmarks for intelligent spinning, low energy consumption, user friendliness and flexible automation solutions. From the finest compact yarns for high-quality shirting fabrics to coarse denim effect yarns and recycled yarns – with their flexibility, the Saurer ring-spinning machines open up access to almost all applications. Equipped with the proven Optisuction and Twinsuction energy-saving modules, the ZR 72XL/ZI 72XL additionally impress with highlights such as Impact FX, Draftbox, Spinnfinity and Optispeed.

**SUN – SERVICE UNLIMITED OFFERS LIFE CYCLE PARTNERSHIPS FOR ALL SAURER MACHINES**

Profitable, durable and sustainable: Saurer offers customers a lifelong partnership for their rotor- and ring-spinning mills. The company has been present in Turkey for years with its own Customer Service Centre in Kahramanmaraş Saurer invites visitors to ITM to the Sun area at its booth: the company's service experts will show them the latest offers for updates and upgrades, original parts and clever preventive services for their existing machinery. Visitors will also discover how they can also make older Autocoro and BD machines fit for the demanding processing of recycled fibres with profitable conversions and software upgrades. Saurer also offers free test versions for many Autocoro software upgrades.

**SEE THE FULL PICTURE WITH SENSES**

Senses is Saurer's IOT platform that allows customers to connect all Saurer and third-party machines in one system. The application increases overall product quality and productivity through detailed and transparent data monitoring across various production processes along the textile chain. In addition, Senses supports the user with important information to quickly find problem-solving solutions. Senses reduces textile mills' labour costs by automatically collecting and analysing data – even for future use without loss of data.

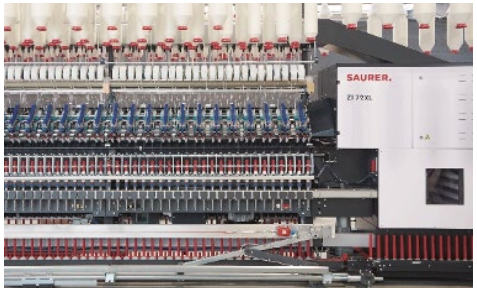
**TEXPARTS – INTRODUCING THE NEW E-SHAPE SPINDLE**

Eshape has a reduced 17.5 mm wharve diameter. The double elastic spindle is based on CS 1 S, which has proven its worth over many decades. Outstanding running properties up to 30 000 rpm and about 4% energy saving are the key performance factors. Eshape combined with the best system for spinning without underwinding, Spinnfinity, is the perfect fit for automated and efficient ring spinning. Dirt-resistant, durable and lightweight – these are the qualities that enable Spinnfinity to reduce costs, increase productivity and improve ergonomics.

The Saurer team looks forward to answering all visitor questions at the ITM Booth 310A in Hall 3 from 14 to 18 June 2022.

**www.saurer.com**


Autocoro 10 © 2021 SAURER




ZI 72XL © 2021 SAURER

# RIETER FURTHER IMPROVES
# ATTRACTIVENESS OF RING AND COMPACT-SPINNING SYSTEM

Rieter is presenting the Autoconer X6, which further improves the attractiveness of the company's ring and compact-spinning offering by completing the system. In addition, Rieter is showing the roving frame F 40 which doffs at 90 seconds only. SSM's NEO-YW precision winder is launching into the European market while three key innovations in components are being introduced.

## AUTOCONER X6 IS THE KEY MACHINE FOR HIGHEST EFFICIENCY

The Autoconer X6 is a globally recognized winding machine at the highest performance level, putting it on a par with all other Rieter machines. The winding machine serves as the final quality assurance in the ring and compact-spinning process and is key to the performance of the subsequent process stages.

The latest splicer generation OZ1 (Ne 20 to Ne 120 and finer) and OZ2 (Ne 3 to Ne 40) provides an optimum splice quality based on an open prism. When splicing cotton-based elastic core yarns, duo-core yarns and multi-core yarns, the open prisms are used in combination with the Elastosplicer. This has already been successfully introduced in vertically integrated mills.

The new Multilink system with Multilot offers maximum flexibility: Up to four ring spinning machines are linked to one Autoconer, with each ring spinning machine able to supply a different type of yarn.With the integration of the Autoconer X6 into the Rieter system, the mill management system ESSENTIAL will open up over the coming years the potential for end-to-end transparency and optimization throughout all process steps.The roving frame F 40 was already introduced to the market at ITMA 2019. A precise bobbin build-up in combination with a doffing time of 90 seconds only and the option of setting the drafting system electronically are convincing customers to invest in this machine in combination with Rieter systems.

## COMPONENTS FOR HIGHER PERFORMANCE AND DURABILITY

The newly acquired Accotex and Temco brands are adding strength to the components family, which now includes Accotex, Bräcker, Graf, Novibra, SSM, Suessen and Temco. Rieter is presenting three key innovations at ITM.

Accotex's new top and bottom aprons NO-79201 offer outstanding tear and abrasion resistance and superior friction properties. They can be applied universally, making service and stocking more efficient.

Temco's intelligent bearing solution i-Bearing for filament machines allows condition monitoring online. By identifying critical conditions, bearings can be replaced before they fail which helps to minimize machine downtimes.

Today, Bräcker's berkolizing technology of treating rubber cots with UV light to improve the surface has become an industry standard. At ITM, Bräcker is introducing the berkolizer pro which stands for consistent, energy-efficient, and adjustable UV treatment.

## SSM LAUNCHES NEO-YW

SSM is presenting the NEO-YW precision winder which brings to bear SSM's unmatched winding expertise into one easy-to-use and high-performing machine. NEO-YW will kick off its launch into the European market at ITM 2022. It only takes a simple click of the button on the touch screen terminal to adjust all winding parameters. The elimination of the mechanical adjustments improves winding performance while also saving time and manpower.

The direct package drive ensures a precise package build-up and the best unwinding performance. The NEO-YW can process a wide range of yarn counts, from 10 up to 3 000 dtex.

In addition, the new automatic, regulated electro-mechanical back pressure system enables density regulation for high and low densities with an accuracy of up to ±3 g/l, depending on yarn and winding parameters. The height of the integrated creel can be easily adjusted to best fit the type of supply packages and ensure the highest winding speeds up to 1 500 m/min so it can adapt to changing market requirements. The new online backpressure system for low and high package densities sets new standards combined with the well-established fastflex thread laying system digitens tension control for optimum dyeing results.

Rieter Virtual ITM Booth
www.rieter.com/company/virtualworld

www.rieter.com
www.ssm.ch


SSM Neo-YW© 2022 SSM

SAURER TWISTING SOLUTIONS PRESENTS

# TWISTING AND CABLING INNOVATIONS

Saurer Technologies – Twisting Solutions will be happy to provide information about the CarpetCabler/CarpetTwister and CompactTwister machines.

**MAKING ITS MARK ON THE CARPET INDUSTRY**

For over 35 years, our CarpetCablers and CarpetTwisters have been producing high-quality yarns for sophisticated carpets and other textiles. Innovative developments, use of the latest technology at all times and the readiness to go one step further with and for our customers have been a common thread over the decades. This product portfolio covers with conventional and computer controlled machines all requirements.

CompactTwister © 2022 Saurer

**LEADER IN THE PRODUCTION OF TWISTED STAPLE FIBRE YARNS**

The CompactTwister has been established in the market for over 25 years. The latest generation, the series 8, once again sets new standards for the quality of twisted yarn, flexibility, energy consumption, robustness, lower space requirement and ease of maintenance.

More than five million supplied spindles demonstrate its leading position on the market. Thanks to innovative development and the latest production methods, the CompactTwister offers high efficiency combined with excellent quality of the cross-wound delivery packages produced.

**AUTOMATION TECHNOLOGIES BOOST PROCESSES IN THE MILL**

The above machines can be used in conjunction with tailored transport automation from Saurer Automation Solutions including the Robot AGV and Palletiser. Integrating these solutions into the textile plant allows for substantial time and cost savings.

Saurer Twisting Solutions looks forward to welcoming visitors at the İkiler Tekstil Booth 311B in Hall 3.

www.saurer.com



SAVIO WILL PRESENT SOLUTIONS-ORIENTED PORTFOLIO TO

# MAXIMIZE MACHINERY RETURN ON INVESTMENT

Turkey is one of the biggest textile markets for Savio, so attention to Turkish customers is fundamental to support their new projects with the most advanced and automated machines. Savio will be exhibiting solutions-oriented machinery portfolio: winding, winding for continuous shrinkage, bulking and heat setting and TFO twisting. To decide which spinning technology is best suited to customer's needs, Savio offers numerous solutions to support the quality of the final yarn product. To quote a few Savio solutions for Turkish market:

**DENIM YARN PROCESSING**

Savio automatic winders can easily process special yarns, such as the current very demanded product like the dual core spun yarns. The Savio winding unit is equipped with clearing, splicing and tension control devices for ensuring perfect splices and perfect package shape.

**ACRYLIC YARN PROCESSING**

Many years of experience and a close collaboration with customers have allowed Savio to offer several solutions for production of acrylic yarns. The effect of the Volufil machine process gives acrylic fibers dimensional stability, higher volume, wrinkle resistance or temperature resistance, which acquires a regular geometrical structure with excellent volume.

"Multicone" technology and Sirius twisting machines are also addressed to our customers producing acrylic packages for dyeing, knitting and home furnishing.

**PACKAGES FOR DYEING PROCESS**

The yarn package weight and density are two important parameters which are to be standardized for uniform and trouble-free dyeing. The soft package winding is the most important pre-dyeing operation, which directly affects not only the dyeing quality but also post dyeing operations. Savio winding machines for all kind of short staple yarns, are suitable for dye package winding, warping preparation and rewinding with or without waxing devices.

**CELLULOSIC AND TENCEL™ FIBER YARNS PROCESSING**

According to the complexity in the production process of TENCEL™ fiber, Savio pays great attention to yarn control during the winding process.

**SUPER FINE YARN PROCESSING**

Savio Multicone technology and Sirius twisting machines are especially addressed to our customers producing packages for dyeing and very fine counts, from Nm 200 and above.

www.saviotechnologies.com

# STÄUBLI

## SOLUTIONS DELIVERING GREATER BENEFITS

Stäubli is presenting an overview of its latest high-end technologies, machinery, and solutions that offer the textile industry more and greater benefits.

### A WORLD PREMIERE FOR EFFICIENT JACQUARD WEAVING

#### SX PRO JACQUARD MACHINE ANSWERS CHALLENGING MARKET DEMANDS

The new Stäubli SX PRO responds to market demands for higher power efficiency and lower energy consumption. It incorporates all of the proven technology of the predecessor Stäubli Jacquard machines as well as several innovations to reduce energy consumption: low-friction design of the MX PRO module, power supply fully integrated into the machine itself, and a new ventilation system with optimized temperature monitoring. Equipped with up to 2,688 hooks, the SX PRO is perfectly adapted to the needs of the Turkish market, where terry cloth, apparel fabrics, tapestries, and upholstery fabrics are produced.

#### N4L NARROW JACQUARD MACHINE ENTHUSES WEAVERS OF LUXURY FABRICS

The N4L narrow Jacquard machine adds value to premium fabrics by weaving the brand name or logo into selvedges, which also safeguards against counterfeiting. It was unveiled at ITMA 2019 and has since become firmly established in the market. Many customers have sent them highly enthusiastic comments about the machine, some praising the revolutionary positioning mechanism, as the machine is easy to place anywhere along the reed with no need for tools.

#### HIGH-SPEED S1792 CAM MOTION FOR AIR-JET WEAVING

Since its launch at ITMA 2019, the exceptional S1792 cam motion has made a name for itself around the world. With impressive speed and reliability, it squarely masters the two main challenges of air-jet weaving: quality and performance. This cam motion is available with a housing size of 10 lifting units. It is another convincing Stäubli solution that allows weavers to stay at the forefront of their demanding markets.

#### S3000 / S3200 ELECTRONIC ROTARY DOBBY FAMILY

The third generation of electronic rotary dobbies, the S3000 / S3200 electronic rotary dobby family, is an evolutionary design. It incorporates the unique Stäubli locking system, which provides enhanced security for the selection of the heald frames, allowing higher running speeds and superior reliability. This latest generation of electronic rotary dobbies offers astounding benefits to weavers.

#### NEWLY DEVELOPED TRANSMISSIONS WITH LOWER MAINTENANCE

The transmission is a vital link in the frame-weaving installation, handling a great many loads and forces. Dedicated to continuous improvement, Stäubli has further developed its range of transmissions and now offers the e32/33 for low-mounted and the de82/83 for top-mounted dobbies. With sealed and patterned bearings, these new transmissions reduce the need for maintenance and enhance the performance of the overall installation. An S3060 dobby for rapier and air-jet weaving machines can be seen at the booth in operation with frames as well as an S3260 model with 16 frames in combination with latest maintenance-free transmission.

#### ACTIVE WARP CONTROL (AWC) ON SAFIR DRAWING IN MACHINES

The renowned SAFIR automatic drawing-in machines make it possible to shorten workflows, resulting in cost savings and expanding the variety of application possibilities. Equipped with state-of the art Stäubli technology, the so-called Active Warp Control (AWC), the SAFIR drawing-in machines feature capabilities such as colour recognition or yarn repeat management. Even warps with multiple colours and without a 1:1 lease can be drawn in, with no error or loss of productivity. The final result is a perfectly drawn-in weaving harness ready for the downstream weaving process. Stäubli is exhibiting the SAFIR S60 (2.3 m wide model) drawing in a multi-coloured (5 colours) cotton warp sheet. The warp sheet is 1,750 mm wide and comprised of 8,650 ends (yarn count Nm 135) (Ne 9). The yarn is being drawn into 8 heald frames including healds made of steel with J-shaped end loops, drop wires, and reed.

N4L Jacquard machine for custom labelling on selvedges
© 2022 Stäubli

#### TIEPRO WARP-TYING MACHINE – THE NEW 'MUST HAVE' STÄUBLI SOLUTION

Stäubli is presenting the TIEPRO warp tying machine together with TPF3B-10 warp tying frame. This machine offers unique features supporting easy start up and processing of the warp to be tied.

#### CARPET-WEAVING SYSTEMS AND DESIGN TECHNOLOGIES FOR ANY TYPE OF CARPET

Stäubli recently launched the ALPHA 560 UNIVERSAL carpet weaving machine.Latest carpet samples woven on the ALPHA 560 UNIVERSAL can be seen at the booth.

www.staubli.com

# ITEMA EXHIBITS
# CUTTING-EDGE INNOVATIONS AND A COMPLETE RANGE OF WEAVING SOLUTIONS

Itema, the leading provider of advanced weaving solutions including weaving machines, spare parts and integrated services, that recently announced the establishment of a new company in Turkey, will exhibit at ITM 2022. Turkey represents for Itema one of the most strategically important markets in the world and the Itema technology is very well represented and loved by Turkish weavers as confirmed by the excellent 2021 sales results. The set-up of the new company in Turkey reaffirms the Itema commitment of being closer than ever to its valuable customers in the country. Itema prepared a product line-up specifically designed to meet and exceed its visitors needs and desires, including an absolute new market launch and interesting new applications of key innovations.

## Weaving Machines on Show

### THE BRAND-NEW ITEMA RAPIER R9500-2TERRY

The reliable, popular and guaranteed technology on the market to boost the production of terry fabrics comes at ITM 2022 in its Second Generation. The rapier terry machine preferred by worldwide terry weavers, with an impressive number of machines installed in more than 35 countries, and the absolute protagonist of terry fabrics production in Turkey, is now back in a new version that further increases textile mastery, eco-efficiency and performances. Textile mastery is a core competitive advantage of the R9500-2terry. The unique Itema Pile Formation Unit has been completely redesigned to ensure increased productivity, maximum ease of use and excellent terry quality.



The system provides an optimal pile warp tension guaranteeing – unique in the market - both positive and negative control, hence ensuring excellent terry fabric quality. Key improvements – such as the main motor with oil cooling and the optimization of the machine lubrication system – ensure reduced energy consumption and improved heat management, achieving peerless eco-efficiency standards. Moreover, the optimized Pile Formation Unit features a reduced number of cylinders compared to the previous machine version thus leading to increased operational weaving space and user-friendliness and reduced style change time.

Performance is achieved through tangible advancements. Monitoring the machines efficiency and performances has never been so easy: thanks to the Itema plant management software iMANAGER, it is possible to effortlessly control and access machines data and statistics. In addition, the Itema in-depth knowledge of terry segment allowed the development of dedicated solutions to further improve fabric quality and weaving efficiency.

The R9500-2terry on show at ITM 2022 is a courtesy of the Itema Customer Ceylan Havlu based in Denizli. In weaving width 3800mm, the machine will weave fashion hand towels.

### RAPIER R9500-2 WITH ISAVER® FOR NEW APPLICATIONS

The most versatile rapier machine in the market, the Itema R9500-2, comes at ITM 2022 loaded with an absolute innovation: iSAVER® for apparel applications. iSAVER®, the device that revolutionized the denim weaving providing tangible benefits in terms of sustainability and money saving thanks to the left side waste selvedge elimination, has been further developed to successfully weave a wider range of yarns. The device is now available also for the benefit of apparel weavers and it can successfully process cotton, Lycra, Tencel and Poliester yarns.

Another innovative feature on display on the R9500-2 is iCARE™, a future oriented system – based on an advanced sensors mechanism able to monitor real-time the state of health of the Itema tapes and sprocket wheels, suggesting possible adjustments or interventions through the machine latest generation console. iCARE™ brings significant benefits to weavers, including the possibility to run the machine at the highest speeds without compromising components reliability, thanks to its breakthrough preventive maintenance function.

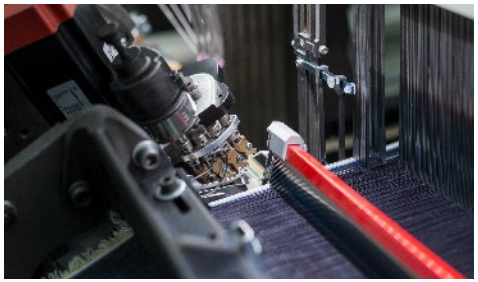
Courtesy of the Itema customer Erka, based in Bursa, the R9500-2 on show in weaving width 2200mm will weave a stretch apparel style.

**ITEMA AIRJET A9500-2**

The A9500-2 is designed for high productivity, whilst ensuring reduced levels of energy and air consumption as well as top machine reliability. The A9500-2 on display features the Itema heald frames SKYFRAME®, combining the highest machine speeds with maximum reliability. In addition, the machine textile mastery will be demonstrated by the weaving of double pick insertion. Courtesy of the Itema customer Erka, the A9500-2 in weaving width 2200mm will run a typical Turkish apparel style.

**ITEMA RAPIER R9500-2 WIDE VERSION FOR CURTAIN FABRICS**

The last machine on show at ITM is the wide version of the most successful rapier machine in recent history, the Itema R9500-2. Traditionally renowned as the preferred supplier for furnishing and upholstery fabrics weaving machines, Itema does not miss the opportunity to demonstrate the superior versatility of the R9500-2 by weaving sophisticated curtain fabrics. The R9500-2 in weaving width 3600mm and fully loaded with best-in-class Itema devices comes directly from Berteks Tekstil, leading producer of high-quality curtain fabrics.



iSAVER® © 2022 ItemaGroup

**ITEMA OEM SPARE PARTS**

At Itema, the mission is to be close to its customers providing them not only advanced weaving machines but a complete range of services to guarantee a comprehensive and attentive support for the entire lifetime of the Itema weaving machines, including upgrade and conversion kits, and replacement of damaged or broken parts with original spare parts. Choosing original spare parts represents the best way to protect the investment long-term, in fact rectifying problems due to non-original parts and non-original service can have dire and expensive consequences. The latest solutions to upgrade the existing Itema – and previous brands Sulzer, Somet and Vamatex – looms will be exhibited.

**LAMIFLEX AND SCHOCH**

The Itema Group companies Lamiflex and Schoch will be present at ITM in Itema booth with their advanced weaving accessories offering. The Lamiflex branded portfolio of rapier tapes and sprocket wheels and the Schoch wide range of weaving reeds for airjet and rapier weaving machines and drop-wires will be on display.

www.itemagroup.com

# VANDEWIELE WILL INTRODUCE OF LOT OF INNOVATIONS

Vandewiele will promote the digitally controlled RCF machine with Fast Creel, cut-loop machines, and specific machines for weaving light carpets - illustrated by carpet samples. The digital control of yarns allows the development of new qualities, a higher production efficiency and a closer follow-up of the machine park. Yarn waste is reduced at the highest production speed. Combinations of cut pile carpets with flatweave as well as sisal look carpets will be presented. The highest carpet qualities in reed 1000 d/m 10 colours, 1200 d/m and 1500 d/m with up to 5.000.000 points/m² will be shown.

In tufting, the digital control of pile yarns (active yarn feed, also called IPD) has allowed Vandewiele the development of high definition Colortec 1/10" tufting carpet in 8 colours – or 1/7" gauge, competing with the traditional Axminster carpets.

**VANDEWIELE, EXPERT IN JACQUARDS**

VANDEWIELE will show its newest addition to the Bonas JI range of jacquards: the JIL. The JIL allowes the customers higher hook capacities up to 11520 within the same range of machines. If bigger capacities are required, the SI machine going up to more than 31000 hooks in a single machine. The Bonas JIL at ITM will be shown at the Vandewiele booth on a Picanol Optimax 190cm loom using the special superstructure resulting in a very compact installation with a required roof height much lower than classical gantry installations. The new very user friendly and practical controller software can be seen next to the loom.

On Bejimac side, they present the new autonomous shearing machine, the ATSH. For the back coating the focus will be energy saving, an important topic nowadays. Superba is now offering their hot-air heat-setting solution with the DHS3 line.To complete their range, SUPERBA is also introducing their new B403 automatic winder. Finally, with the BXE extrusion line from VANDEWIELE, the MF400 texturizing machine and the MCD3 space-dyeing machine the carpet industry gets all the necessary equipment to produce innovation and quality at the most economic prices. All the Vandewiele machines can be connected through cloud computing to the "TEXconnect" supervision system to comply with the Factory 4.0 concept.

www.vandewiele.com


RCE+ carpet weaving machine © 2022 VANDEWIELE

# THE INNOVATIVE WORLD MARKET LEADER KARL MAYER WILL SHOWCASE

## MACHINES, TEXTILE DEVELOPMENTS, DIGITAL SOLUTIONS AND SERVICES TO SUPPORT GROWTH

The innovative world market leader is looking forward with great expectations to its participation in the important machine building fair for the textile and apparel industry. The global player will showcase the machines, textile developments, digital solutions, and aftersales and service offerings that it is using to support Turkish textile manufacturers on their growth and modernization course. For the first time on the KARL MAYER stand at the ITM: the new STOLL Business Unit, which represents the Group's expertise in flat knitting.

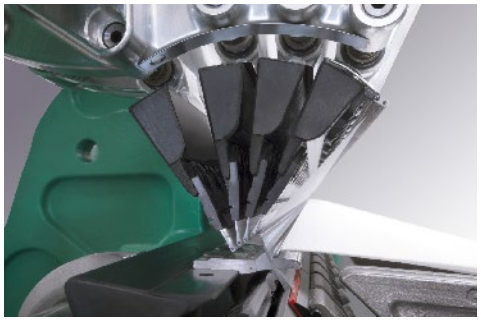
**SETTING TRENDS WITH WARP KNITTING IN THE APPAREL SECTOR**

Guests from the warp knitting sector can look forward to an innovation in the field of four-bar high-performance tricot machines on the KARL MAYER stand. The HKS 4-M ON with electronic guide bar control is coming in a new guise and with KAMCOS® 2, and above all offers even more possibilities in patterning by linking it to k.innovation CORE and other features. The machine will be shown in a working width of 268″ and is predestined for the outerwear market._In addition, an exclusive trend area with fabrics and applications invites visitors to come up with new ideas and experience textiles. The exhibits - chic curtains, furniture and living room accessories with velour covers, as well as terry fabrics for body care, wellness and cleaning - offer inspiration for the home and household textile sector. For the fashion sector, there will be insights into the equally creative and diverse world of clothing made from knitted fabrics. Highlights include new articles with crinkle looks from high-performance tricot machines, elastic fabrics with an extra portion of power from the new HKS 2-SE PLUS, and trendy RASCHELTRONIC®, Seamless and Powernet fabrics.

**MOST EXTENSIVE PRODUCT RANGE AND DIGITAL INNOVATIONS FOR FLAT KNITS**

New to the STOLL range and ready for its launch is the CMS 503 ki, the highly productive and economical machine for customers focusing on a wide range of fully fashion applications. STOLL's entry-level model for this volume segment, the BMS 52 ki, is ideally suited to classic knit fabrics of basic construction and will be presented at ITM in two different gauges: in E14/12 and E3,5.2. The gauge E3,5.2 is predestined for the coarser look currently in demand and complements the gauges already launched in 2021 for finer knits.

A total of seven selected machine exhibits represent the range of modern STOLL flat knitting machines. The ADF 830-24ki KW W E10.2 will be presented in Istanbul as a prime example of the high art of flat knitting. This all-in-one machine masters even very fine knit & wear articles, and implements every conceivable knitting technique.



Detail of HKS 4 M ON © 2022 KARL MAYER

CMS503 Ki © 2022 KARL MAYER

Another plus point is that all machines can be networked and integrated into automated processes according to individual customer requirements.

STOLL's software solutions are combined under knitelligence®. There is also something new here: The powerful knitwear design software k.innovation CREATE DESIGN and the patterning software k.innovation CREATE PLUS will be presented on the Turkish market for the first time.

**MORE EFFICIENCY AND LESS ENVIRONMENTAL IMPACT IN WARP PREPARATION WITH TRENDSETTER SOLUTIONS**

For ITM visitors from the Warp Preparation sector, KARL MAYER will have visual and information material for the top themes of denim, sizing and sample warping in its trade fair luggage. GREENDYE presents an environmentally friendly indigo dyeing process that relies on nitrogen technology and, thus, significantly reduces chemical consumption. In addition, water can be saved in the washing process thanks to the unique dye fixation.

In sizing, the PROSIZE® sets industry standards in terms of maximizing weaving efficiency and minimizing costs and environmental impact with an innovative application process. The use of sizing agents alone can be reduced by up to 10%. Further reductions are possible in energy consumption and wastewater volumes.

For the production of stencil and shorter production warps, the MULTI-MATIC® warp sampling machine is unbeatably flexible and efficient. The basis for its unique performance is above all an automated color change and leasing process at maximum production speed, patterning with up to 128 individually controlled yarn guides and a maximum working width of 3,600 mm.

**DIGITIZE PRODUCTION WITH KM.ON SOLUTIONS**

KM.ON wants to help its customers enter the world of smart manufacturing and, thus, raise their business to a completely new level through innovation and increased efficiency. To this end, KARL MAYER's software start-up is developing digital solutions and will be presenting them as a highlight. k.management dashboard ensures reliable monitoring of networked machines. The smart tool provides near-time data from production and, thus, an important overview of key figures for planning upcoming tasks and available capacities, anytime and anywhere.In addition to monitoring, KM.ON focuses on patterning. For flexible, simple design implementation, the young company has developed k.innovation CORE. Simply log in with any Internet-enabled device, select a machine, enter the lappings for the individual ground guide bars, create the pattern file with just a few clicks and send it to the KM.ON cloud! Before production starts, the lapping file only needs to be selected on the machine's user interface. In addition, the web-based software offers collaboration options for faster development processes.

Applications produced on KARL MAYER STOLL machines
© 2022 KARL MAYER

**BUILDING AND REFURBISHING WITH TECHNICAL WARP-KNITTED FABRICS**

In the Technical Textiles sector, KARL MAYER presents innovative textile solutions for infrastructure and construction. In particular, weft knitted fabrics for use as plaster grids, the implementation of roofing systems and the reinforcement of roadways ensure greater efficiency in new construction and renovations worldwide, and are selling very well. For the production of the grid structures, for example from glass or basalt fibers, the WEFTTRONIC® II G weft knitting machine has been in high demand for several years. This highly efficient model can replace up to 25 weaving machines, thus, saving personnel and space. Promising discussions are also expected in Istanbul, especially regarding the WEFTTRONIC® II G.

**MORE ROOM FOR CORE BUSINESS WITH CARE SOLUTIONS**

To provide the customer with maximum support for their individual needs in their everyday work, the KARL MAYR Group has now also combined its extensive support services to form package solutions. The new Care Solutions packages offer various services at corresponding prices. The booking is made per machine on the basis of an annual period with subsequent renewal option. The new packages complement the well-known products of the portfolio in the aftersales area. Among the most popular are the WEBSHOP SPARE PARTS and the courses offered by global KARL MAYER Academies.

www.karlmayer.com

# PICANOL TO PRESENT ITS LATEST WEAVING INNOVATIONS

Picanol will be showcasing its latest technology in. ITM is the first major textile machinery fair where Picanol's latest developments, which were released at the end of 2021, will be shown to a live audience. Not only will four machines from the Connect generation be on display at the Picanol booth but the new and fully digital platform PicConnect will also be demonstrated. With these innovations, Picanol has once again confirmed its leading role among weaving machine manufacturers.

Picanol will also highlight its recently launched PicConnect platform. PicConnect offers a wide range of features, from industrial IoT to service-related applications. This includes, for example, the new webshop for Picanol Original Quality Parts, which is called PartsLine.

"Going a step further and connecting Picanol weaving machines to PicConnect will allow our customers to leverage the full extent of the machine possibilities. The brand-new functionalities, such as the applications for energy and production monitoring, the file management system, and the style administration application can be discovered at www.picanol.be/machines-features/picconnect," explains Mr. Kurt Lamkowski, Manager Worldwide Sales.

Details of the Picanol weaving machines that will be on display:

**OptiMax-i Connect-4-R-220 Fancy denim** The digital loom! A machine that is driven by data, relying on smart performance, with sustainability always in mind.

**OptiMax-i Connect-8-R-360 Curtain**
Enabling home textiles to be woven without compromise. Available in Free Flight up to T-380, allowing ultimate weft versatility in combination with delicate warps, with e-Leno for perfect selvedges.

**TerryMax-i Connect-8-R-260 Terry towel**
The benchmark for terry weaving. No limitations in design, combining maximum performance with ultimate versatility.

**OmniPlus-i Connect-4-D-220 Double face**
Airjet machine equipped with SmartShed. This is Picanol's direct-driven shedding motion and it combines the best of both worlds: performance, flexibility, and energy efficiency.

An additional **OptiMax-i-12-J-19**0 will be presented at the **Bonas** booth (Hall 2, Booth 215A).

www.picanol.com

OmniPlus-i Connect-4-D-220 Double face
© 2022 PICANOL

# SPOTLIGHT ON THE MONTEX STENTER

A recent Montex line installation in Turkey. © 2022 Monforts

Monforts and its Turkish representative Neotek are looking forward to meeting customers old and new at the forthcoming ITM 22 international textile machinery show which is taking place from June 14-18 at the Tüyap Fair and Congress Centre in Istanbul, after a three-year break.

"We will be emphasising the robustness and versatility of the Montex stenter for essential processes such as drying, stretching, heatsetting and coating at the Istanbul show," said Monforts Area Sales Manager Thomas Päffgen. "The Montex has become the industry standard for the fabric finishing industry, providing a number of advantages in terms of production throughput and especially in energy efficiency and savings."

"With energy prices rising steeply everywhere, features such as the MonforClean system, or the EcoBooster, in which waste heat from the drying process is used to pre-heat the drying air, are proving more invaluable than ever," added Ahmet Kilic of Neotek. "Monforts can provide a range of further resource-saving and energy recovery options tailored to each individual line installation. We expect fruitful discussions on how we can meet the needs of our many mill partners during this key Istanbul event."

With the TwinAir heating chamber system within a Montex stenter, top and bottom airflows can be regulated completely independently of each other, ensuring heat is only applied when and where it is required. The Optiscan balancing system ensures continuous automatic evaluation of the distance between the nozzles and the fabric for highly economical and contact-free drying. The resulting constant evaporation rate within the stenter ensures optimum energy utilisation and also avoids markings on the fabric.

With the latest Montex stenters, overall energy savings of up to 40% can now be achieved compared to a conventional stenter with no heat recovery or energy optimisation measures like high-quality chamber insulation.

The Montex stenter also benefits from full digital control, with the Qualitex 800 PLC control system providing ease of operation and rapid access to line and management data, including full operating cost overviews, as well as maintenance monitoring. Advances in digital technology mean that there are also now significant gains to be made in the retrofitting of existing Monforts machines with the latest automatic drives and control systems, going far beyond the basic replacement of spare parts.

The Monforts and Neotek teams will be pleased to welcome you at ITM 22 in Istanbul.© 2022 Monforts

Turkey's first Montex®Coat coating system has recently been commissioned at Altun Tekstil in Bursa.
© 2022 Monforts

"We will be very happy to welcome you on our booth 1209B in hall 12 during ITM," said Ahmet Kilic and Thomas Päffgen.

**www.monforts.com**

# SEDO TREEPOINT OFFERS SMART FACTORY SOLUTIONS **FOR IMPROVING SUSTAINABILITY AND DIGITALIZATION**

Sedo Treepoint's focus is on the Sedomat 6000/8000 controller Series which comes now in four different sizes. Sedomat 6007 is a cost-effective solution for high degree automation which offers many flexible internal I/O options. Sedomat 8007 has a 7" touch user interface and is the perfect solution for lab machines and data acquisition. Sedomat 8010 comes with a 10,1" touch dis-play which can be adapted to every dyeing and finishing machine. Sedomat 8015 offers a big 15,4" display for visualization of processes and is the ideal choice for the control and supervi-sion of continuous machines.

In addition to the well proven benefits of the Sedomat controllers, the new series is more flex-ible and offers different interface options like CANopen, Profibus DP and MODBUS RTU. To improve the communication between different systems, OPC UA and MQTT interfaces will enhance data communication.

SedoMaster is the core of the production shop floor: Intelligent central production planning, control, monitoring, and reporting becomes available. It is a useful tool for all key operators and the management due to the connection of all dyeing and finishing machines. Powerful reporting gives information on productivity, resource costs and OEE.

SedoMaster also links all periphery systems like dispensers, dissolvers, or ERP systems.

Within the past years, energy cost becomes one of the most important cost factors for the textile finishing industry. EnergyMaster calculates the energy consumption in production and gives the required information to optimize energy use. This results in a better carbon footprint and saves a lot of cost.

SedoMaster MES - the core of the Smart Factory
© 2022 Sedo Treepoint

ColorMaster is the most expert system for recipe management and color measurement. The Windows based software calculates the best and most cost-effective recipe in laboratory and in production it offers the best possible treatment and correct dye program selection. Colori-metric control within different production steps and calculation of additions for addition treat-ments supplement its functionality.

The Textile Manufacturing Simulation system (TMS) is developed to create the most effi-cient production schedule for all active production orders (SFOs). With TMS all orders can meet their delivery date and the machine utilization is enhanced. Further advantages are opti-mized resources and energy costs as well as improved quality.

The future-oriented graphical user interface gives a quick overview of running performance in real-time, on a large high-resolution touchscreen, showing the most relevant data at a glance. User-friendly, quick and intuitive navigation makes data handling easy.

Morapex enables reliable, non-destructive tests in some minutes. Its main functions are an-alyzation of pH value and residuals, control of wash procedure, check of wash and water as well as perspiration fastness. Testing with the systems is possible at any stage of production and in laboratory.

The perfect tool to optimize/automate wash- and rinsing process is Ecomat. It comes with optical RGB-technology and checks online the water clearness during washing/rinsing after the dyeing process. Connected to the Sedomat controller, it can automatically optimize and automate the rinsing process.

With the new SedoAPP all production data can also be displayed on mobile devices. Using a Sedo SmartBracelet the machine operator will get every notice directly on his wrist. He can act immediately when a machine requires his attention.

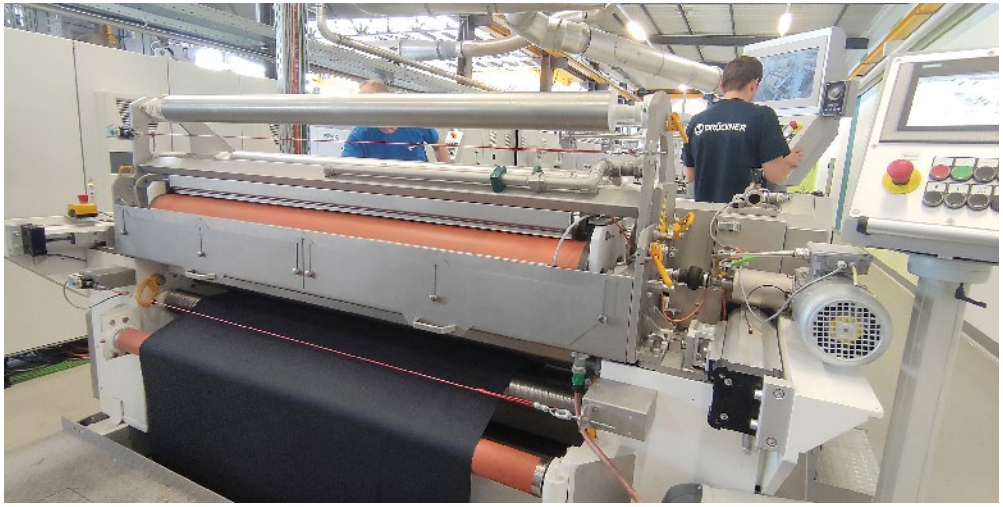
With Sedo Treepoint systems, you can get many cutting-edge features for the Smart Factory and along with smart software solutions the complete textile supply chain is integrated trough intelligent production. Sedo Treepoint products help to improve sustainability, reduce costs, and increase productivity and efficiency at the same time.

**sedo-treepoint.com**

# BRÜCKNER'S ANSWER TO THE CURRENT CHALLENGES IN THE TEXTILE INDUSTRY

Who would have thought after the last ITMA 2019 in Barcelona that the world would change so drastically in a very short time, that a virus would force the whole mankind to stay at a distance and that Europe now also has to experience a war. Add to this the global supply chain problem, extreme price increases in many areas and general uncertainty about the future development of the markets. Such times of crisis are challenging, but also reveal opportunities.

The German machinery producer BRÜCKNER used exactly these chances and repositioned itself during the pandemic period. For more than 70 years, the family-run company has been specialized in individual finishing concepts for textiles, technical textiles, nonwovens and floor coverings. The current challenges in the textile industry are serious. The clear increase of the energy costs and the general uncertainty of the energy supply as well as political requirements make a profitable textile production more and more demanding for many companies.



© 2022 Brückner

BRÜCKNER responds to this with a newly developed stenter concept with double heating system. Depending on availability, the lines can be operated with gas or oil, but also other combinations with steam or renewable energies are possible. This means that production delays and machine downtimes can be avoided as far as possible.

In addition, BRÜCKNER has developed intelligent assistance systems for its machines that support the machine operator in using the best possible process to operate the line as energy-efficiently as possible. Further energy savings are possible with new energy-efficient motors or heat-recovery and exhaust air cleaning systems. This also helps to avoid harmful emissions.

But many textile producers are also focusing on reducing chemicals. For this purpose, BRÜCKNER's further developed ECO-COAT minimum application unit can make a decisive contribution. Knitted and woven fabrics, but also nonwovens can be finished on one or both sides via different fabric paths. With the minimum application via an engraved roller, a single-sided application of up to 100 g/m² can be achieved.

A double-sided and higher application quantity is achieved, for example, by impregnation in the nip. Irrespective of the selected fabric path, a very small liquor reservoir means that only minimal quantities of waste water are produced when changing batches or liquors, and the use of chemicals can also be significantly reduced. In addition, less water has to be evaporated in the subsequent drying process than, for example, in the case of impregnation in a water bath, so the energy requirement is significantly reduced.

On the two upcoming trade fairs ITM in Istanbul and TECHTEXTIL in Frankfurt in June, interested customers can personally get an idea of BRÜCKNER's new developments. This includes e.g. the new OPTI-COAT 2in1 coating unit which combines the advantages of application via floating knife and knife-over-cylinder in one system. Due to its design, the unit offers good accessibility for maintenance and cleaning work and delivers excellent coating results.

You can find out further solutions in a personal meeting with BRÜCKNER at the ITM in Istanbul from 14 - 18 June in hall 14, booth 1406B or at the TECHXTEXTIL in Frankfurt from 21 - 24 June in hall 12.0, booth B60.

www.brueckner-textile.com

## DILO INFORMS ABOUT LATEST EQUIPMENT DEVELOPMENTS

# FROM FIBRE OPENING TO THE FINISHED FELT

DiloGroup offers tailor-made production systems from one supplier and will inform on booth # 905A about its portfolio and the latest equipment developments from fibre opening to the finished felt. As a leading group in the field of staple fibre nonwoven production lines DiloGroup will inform about complete lines as well as high speed needlelooms for spunbonds.

A new, simplified elliptical needle beam drive makes Hyperpunch technology also attractive for standard application. Hyperpunch HαV allows a more uniform stitch distribution in the preneedling process especially in combination with the new needle pattern 6000X. In a complete needling line this felt homogenization process can be improved further. The new needle pattern 8000X is a milestone in the needle pattern development process and results in endproduct surfaces with low markings over a wide range of advances/stroke.

Dilo needling line © 2022 Dilo

Another strong pillar of our sales program over decades has been fibre preparation and high speed webforming equipment for other nonwoven technologies. During these years, there has been a shift to higher throughput rates, and in some cases in Asia, a requirement for improved MD/CD strength ratios of hydroentangled products. In addition, our further development of the high-speed layering principle "Hyperlayer" made considerable progress for better CD strength through a combination of inline cards and crossline card with crosslapper.

Particularly, carding machines in a working width above 3.5 m up to 5.1 m have been supplied by DiloSpinnbau as complete high speed carding systems, comprising two or even three cards in a line to directly feed the hydroentangling units of various suppliers. Together with DiloTemafa not only have high throughput rates been achieved in the fibre preparation section of the line but also dedusting filtering and air-conditioning systems have been successfully engineered and integrated.

Until recently, Dilo did not supply complete lines including water-jet units, ovens and end-of-line equipment to the important hydroentanglement market segment. This has changed and Dilo is glad to confirm the partnership with Sicam, Italy. Together with Sicam, we have combined know-how for hydroentangling technology and therefore can provide complete lines as general contractor including equipment for cutting, winding and packaging.

Another interesting machine is the 3D-Lofter, first presented during ITMA 2019 in Barcelona, which offers a wider range of nonwovens applications by exploring the third dimension. A series of single web forming units which work according to the aerodynamic web forming principle deliver defined fibre masses in varied patterns on a base needlefelt.

A stress oriented production of technical formed parts resulting in fibre savings or patterned DI-LOUR or DI-LOOP felts with or without repeat are two examples for this technology which explores new application areas for needlefelts. The 3D-Lofter technology may also be used "inverted" as "IsoFeed" for filling up bad spots in web mats and thus achieves a better homogeneity of spunlace or airlay products.

The DiloLine 4.0 concept offer I4.0 modules which not only support the user but also facilitate quality control and maintenance by a maximum data transparency in production and control of operation. The Dilo solutions "Smart Start" for a fully automatic start of the production line or "DI-LOWATT" for energy savings are accompanied by Siemens solutions which can be selected via App or Data Cloud "MindSphere".

With more than 400 installations delivered to the nonwovens industry worldwide, DiloGroup has the necessary know-how and the complete equipment portfolio to engineer the perfect production line for any product specification. The efficiency of Dilo production lines is the result of long-term research work and experience.

**www.dilo.de**

Dilo 3D-Lofter © 2022 Dilo

# Tailor-made warp-knitting in batch size 1

## Patient-individualized textile implants using Jacquard warp knitting technology

AUTHORS: THOMAS GRIES, TOBIAS LAUWIGI, KAI-CHIEH KUO

**Current situation:**

Demographic change and an increasingly unhealthy lifestyle in the Western world are leading to steadily rising numbers of patients with cardiovascular diseases and posing major challenges for modern medicine. Due to the increasing number of treatments, the number of patients who are not suitable for treatment with off-the-shelf (standardized) products due to their individual anatomy or physiology is also rising. This applies to about 40% of all patients of the approximately 21,000 endovascular treatments of aortic aneurysms performed annually in Germany. Patient-oriented healthcare therefore makes individualization of medicine essential [2]. This also necessitates a progression of patient individualization through medical technology in order to achieve the desired therapeutic success. These individualized implants should be precisely tailored to the specific anatomy of the patient and produced in batch size 1 on the basis of a medical image data set. In this way, a supply of the vital outlets of the aorta is guaranteed. From a technical and economic point of view, individualization is confronted with the condition of an economical and reproducible production of products with batch size 1. These requirements can be met with innovative textile manufacturing processes. Warp knitting technology in general and Jacquard warp knitting technology in particular meet the necessary requirements, but are highly operator-dependent. The enormous potential of Jacquard warp knitting technology for the manufacture of textile implants is currently not being exploited because there is no experience of the interrelationships of the warp knitting process and no design tools exist which adequately describe such interrelationships. The results obtained at the Institute of Textile Technology at RWTH Aachen University (ITA) in the "IndiTexPlant" project offer for the first time the possibility of transferring the virtual product design in combination with Jacquard knitting technology in a digital product development from the medical image data set to the topology model of the reconstructed product geometry up to the derivation of the patterning for the textile product (see Figure 1).

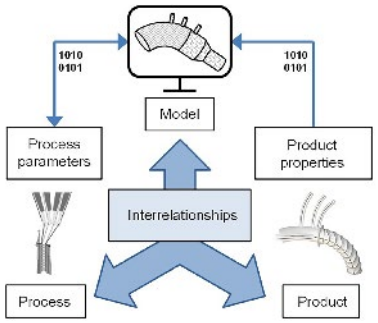



Figure 1 © ITA

**The tailor-made implant**

The objective of the research approach in the "IndiTexPlant" project was to implement an automated manufacturing process for patient-individualized textile implants in order to provide patients with an ideal therapy. For this purpose, different approaches of geometric and structural patient individualization of textile stent grafts were investigated and the three individualization elements (diameter change, branch and curvature) for a patient-individualized stent graft were developed (see figure 2).

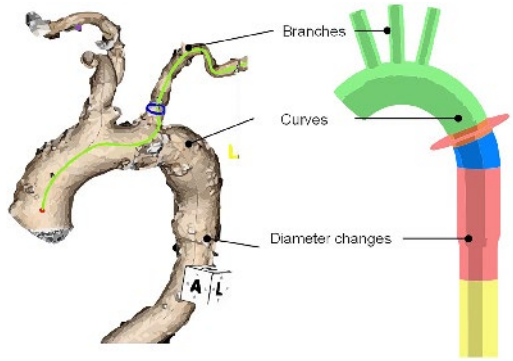



Figure 2 © ITA

For this purpose, approaches for geometric and morphological patient individualization of textile implant structures using Jacquard knitting technology were investigated. Implants for the treatment of thoracic aortic aneurysms served as an application example, since this is a clinically as well as economically extremely relevant field of application for patient-individualized implant structures. With regard to a continuous digital process chain, a virtual product design was used. A decisive factor for the success of the project was the determination and evaluation of the relevant process parameters for the main process of chain working. Tools and aids for monitoring the process and inline monitoring of product quality had to be developed and implemented. For the data acquisition of the process parameters and storage of the inline measured process variables, an SQL database with a user-friendly input mask was programmed in such a way that an assignment of the product data, process data and product data is guaranteed after production. By analyzing this data, it was

possible to determine the interrelationships between the virtual implant design, the manufacturing process on the double-bar raschel knitting machine and the resulting properties of the textile semi-finished product. The aim is to obtain a modular system in which geometric and morphological elements can be combined with each other in the virtual product design to create patient-specific structures. The result is a tailor-made implant for the respective patient.

## Project results

A database-supported virtual model for product design was developed for the end-to-end digital process chain, enabling the transfer of measured CT data of a thoracic aortic aneurysm into a 3D model. The cause-effect relationships between the virtual pro-duct design, the process parameters of the manufacturing process, and the resulting implant properties were determined both in-line and off-line. For the inline acquisition of the process parameters, in particular a thread tension monitoring and an inline video analysis were developed and implemented. These acquired data are fed back into the database of the virtual model, thus continuously improving the accuracy and robustness of the patient-specific design and production of implant structures. In this way, an economical and reproducible production of textile implants with batch size 1 is realized and thus an implant optimally adapted to the patient is made possible (see Figure 3). The offline measurement of the implant properties involved quality control of the manufactured structures with regard to their mechanical (strip tensile, circumferential tensile test) and morphological (sample geometry, mesh density, porosity, wall thickness) properties.

## Conclusion

The results in the field of the virtual product platform for the production of medical textiles can be used by implant and semi-finished product manufacturers to digitize existing process lines. Software manufacturers and service providers in the field of implant design can also benefit from these results. Furthermore, a cross-industry transfer of the results to manufacturing processes of other technical textiles is promising. In the field of knitted structures, the project results can make a decisive contribution to the economical production of implant structures with batch size 1 by means of the correlations between the configured morphology and geometry clusters in the virtual model level and the resulting properties of the textile semi-finished product. For new developments for alternative applications in the field of patient-individualized medical textiles, the guidelines established in the project for the development and design of patient-individualized implant structures can make a decisive contribution to time- and cost-efficient product development. Based on the project results, it will be possible to reduce the time required for the new development of individualized implant structures from many months to a few weeks. In the field of implant development, the knowledge gained can be transferred to other areas of application after the end of the project. Particularly worthy of mention are tubular implant structures for use, for example, as intestinal replacements, urethral replacements or esophageal replacements. Due to the complex approval process for medical devices, it is expected to take 5 - 7 years after the end of the project until commercial implementation, depending on changes in the new European Medical Device Regulation (MDR).

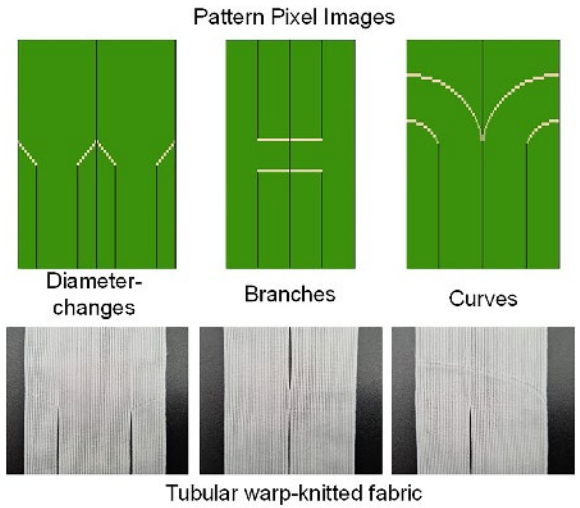



Figure 3 © ITA


## Acknowledgements

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# Numerical modelling of the yarn path in twist units in the false-twist texturing process

AUTHORS: MATHIAS SCHMITZ, THOMAS GRIES

**Abstract**

Nowadays, thermoplastic, melt-spun filament yarns are mostly textured for apparel, carpets and technical textile applications to give the priorly smooth yarn a bulky and natural fibre-like character with corresponding properties. Worldwide, the most commonly used texturing process is false-twist texturing. Its production speed is, however, limited by the forces acting on the yarn. Especially for spun-dyed yarns, the introduced dye particles cause weak points. Here, yarn breakages in the process occur first. In order to investigate the forces in the yarn, a numerical model is implemented which maps the yarn path through the twist unit in false-twist texturing. In this model, arbitrary friction disc speeds and geometries can be selected. The validity of the model is checked on a texturing test bench and evaluated on the basis of the yarn tensile forces upstream and downstream of the twist unit. The model shows deviations from measured tensile forces but reproduces the yarn path well.

**Introduction**

The global annual demand for fibres increases continuously and more and more fibres have to be produced in order to meet this demand. The majority of these fibres are polymeric melt-spun man-made fibres. [Eng20] As-spun, smooth filaments are mainly used for technical applications in the industry. For use in clothing or home textiles, a texturing process is used to give the filaments a crimp and thus a feel and properties similar to natural fibres. Like this they can be processed and then be used in textiles. Even the joint use with natural fibres is now possible. [Atk12, GVW15]

In texturing, partially oriented yarns (POY) are of particular importance. After production, these yarns are drawn and simultaneously crimped (Draw-Textured Yarn, DTY).

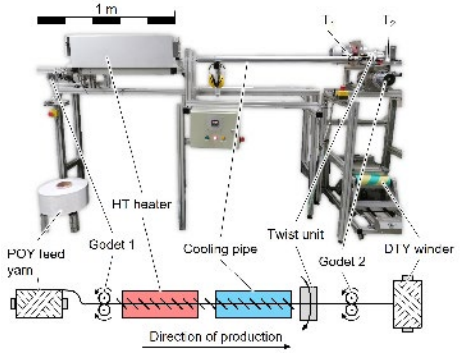


Figure 1: Modular false-twist texturing test bench at ITA with measuring positions of the yarn tensile forces T1 and T2 . Schematic acc. to [Bru90, GV16] © ITA

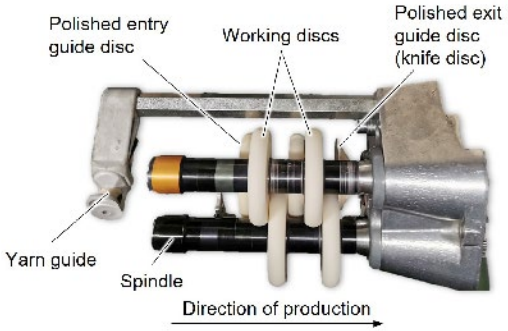


Figure 2: Friction disc twist unit at ITA with entry guide, working and exit knife discs © ITA

This is mainly done using the so-called false-twist texturing process (FTT process). Besides other texturing processes such as air or stuffer box texturing, FTT is the world's most important texturing process in the textile industry with a share of 90 %. [Atk12, GVW15, Lew07, SST+17]

Periodic yarn tension fluctuations („surging") limit FTT to a production speed of 1000 m/min. This affects the uniformity of DTY and thus particularly the dyeability. [Atk12, Esk03, HHW01] Furthermore, not every friction disc contributes the same torque to the yarn but on the second disc, there is a maximum of the applied torque and thus force peaks occur [Olb95]. Especially when spun-dyed yarns are processed, process stability is reduced as the dye particles in the yarn cause weak points. Thus, the mechanical properties of the yarns are deteriorated. This effect also occurs when other particles are used. [ASC+06, TK11]

For the investigation of these force peaks, a model is developed in which the yarn path through a triaxial friction disc twist unit is calculated. For maximum flexibility, the number of discs, their geometries and speeds can be changed independently. The developed model is based on Veit and Olbrich [Olb95, Vei99]. The knowledge gained is used to understand how a conventional twist unit must be changed in order to increase process stability and production speed of the FTT process.

The FTT process is mathematically modelled and the numerical model is implemented using a suitable software development process. The simulation results are validated through trials on a texturing test bench and subsequently evaluated.

**Materials and methods**

For the implementation, MATLAB R2021a (MathWorks, Inc., Natick, MA, USA) is used. The underlying software development process is based on a reduced waterfall model with only four phases [Han10, BKS14]. For the validation, a modular false-twist test bench at the Institut für Textiltechnik (ITA) of RWTH Aachen University, Aachen, Germany is used (Fig. 1).

A friction disc unit from Oerlikon Textile GmbH & Co. KG, Remscheid, Germany is used. It is equipped with seven friction discs in a 1-5-1 configuration (Paul Rauschert GmbH & Co. KG, Scheßlitz, Germany). This means that the entry guide disc and the exit disc are polished. The exit disc is furthermore a knife disc. All discs are made of ceramics. They have an outer diameter of 52 mm. The entry disc and the five working discs are each 9 mm thick (Fig. 2).

Immediately in front of and behind the twist unit, the yarn tensile forces are determined using a manual tension meter (Tension meter ETPX-200, Hans Schmidt & Co. GmbH, Waldkraiburg, Germany). The measured value T1 upstream of the twist unit serves as the input parameter for the simulation model. T2 behind the twist unit is calculated in the model and then compared with the measured value for reasons of validation.

## Results

Using the model developed here, the yarn path through a triaxial twist unit with arbitrarily adjustable disc geometries is calculated. The disc diameter, thickness, curvature radius, surface roughness as well as the distances between the discs and many more geometrical parameters can be varied. Furthermore, arbitrary process and material parameters can be chosen. For reasons of initial simplicity, the twist unit modelled here consists of only six discs (1-4-1) and does not impart a knife disc. Instead, a polished exit guide disc is used which corresponds to the entry guide disc in terms of dimensions and material properties (Fig. 3).

For the above geometry, which is modelled based on the twist unit at the ITA, the result of the simulation is a helical path along the unit's spindles (Fig. 4). This agrees well with the expectations from the literature, as this shape corresponds to the shortest yarn path through the twist unit [Vei99].

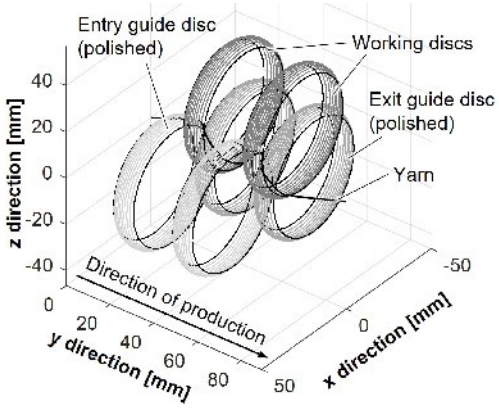


Figure 3:Simulated twist unit (1-4-1) with yarn path © ITA

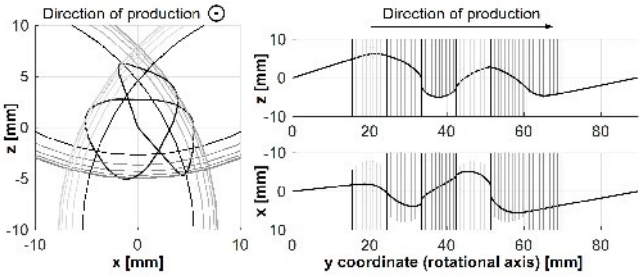


Figure 4: Simulated yarn path through the twist unit. Black bold line: yarn. Grey thin lines: friction discs © ITA

The simulation of torques and forces is validated by the yarn tension T2 behind the twist unit. Deviations between the simulated and measured values amounting to 9 and 60 % are observed. This insufficient accuracy is attributable to inaccuracies in the force calculation. The developed model is currently being revised and improved. Soon an accurate calculation of the forces occurring between the yarn and discs in the twist unit will be possible due to updated conservation equations and improved precision. If you are interested in this topic, you are welcome to contact us.

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# NEWS

#NGO #Fiber

**ZDHC FOUNDATION AND THE MICROFIBRE CONSORTIUM ANNOUNCE COLLABORATION TO ADDRESS MICROFIBRES WITHIN WASTEWATER**

TThe ZDHC Foundation (ZDHC) and The Microfibre Consortium (TMC) have unveiled details of the next stage of a major initiative to address the issue of microfibres in textile manufacturing wastewater. Following the release of 'Control of Microfibres in Wastewater' manufacturing guidelines by TMC, the two organisations will now collaborate closely during a new phase of the project, combining the expertise of ZDHC in sustainable chemical management and the science led fibre fragmentation (previously referred to as microfibre release) knowledge of TMC.

**www.roadmaptozero.com**

# SUSTAINABILITY

#NGO #Apparel

**SAC PARTNERS WITH FAIR WEAR AND THE ETHICAL TRADING INITIATIVE TO HELP INDUSTRY ACHIEVE 45% GHG REDUCTION TARGET BY 2030**

The Sustainable Apparel Coalition (SAC), a global multi-stakeholder nonprofit alliance for the consumer goods industry, is pleased to announce its partnership with Fair Wear and the Ethical Trading Initiative focused on facilitating collective action across the industry towards achieving the 45% greenhouse gas (GHG) reduction by 2030. The partnership, which falls under The Industry We Want (TIWW), is part of an initiative geared towards ensuring dignity for workers in decent jobs, thriving businesses along the supply chain, and a positive impact on the planet.

**apparelcoalition.org**

#NGO #Seal

**MANDATORY SELF-ASSESMENT FOR ECO PASSPORT BY OEKO-TEX® IN 2023**

As of the 1st of April 2023, the Self-Assessment will become mandatory for ECO PASSPORT by OEKO-TEX® certification. A mandatory Self-Assessment will ensure the quality and traceability of manufactured products, proper wastewater, and emission management as well as worker safety.

**www.oeko-tex.com**

#Association #Textile #Apparel

**UNLOCKING THE POTENTIAL OF SOCIAL STANDARDS TO CONVERGE**

IAF and ITMF have developed the Standards Convergence Initiative (SCI) to help identify the full potential of convergence across social standards and to reduce audit fatigue. **itmf.org** **www.iafnet.com**

#Sports #Apparel #Textiles

**ISPO AWARD: SUSTAINABLE FIBERS, CIRCULAR SYSTEMS AND LIGHTER PRODUCTS ARE MAJOR TRENDS SWEEPING THROUGH SPORTS INDUSTRY**

Sixty products and services made it into the main competition. Twenty-three of them ultimately emerged as winners of the highly coveted ISPO Award for the second quarter of 2022, having been selected as the best and most innovative products and services in the sports industry. The competition was shaped by two unmistakable trends: "sustainability" and "weight reduction."

**www.ispo.com/award**

#Fiber #PEF

**NEW WHITEPAPER PUBLISHED BY MAKE THE LABEL COUNT**

The whitepaper presents pragmatic recommendations to better align the methodology with the EU's Green Deal and circular economy objectives.

**makethelabelcount.org**

#Apparel

**SEVEN INNOVATORS JOIN FASHION FOR GOOD'S 2022 ASIA INNOVATION PROGRAMME**

The selected innovators joining the Fashion for Good 2022 Asia Innovation Programme are: Picvisa, Gaiacel, AN Herbals, Fermentech Labs, Sodhani Biotech, Vaayu and UKHI Hemp Foundation

**fashionforgood.com**

#Textile machinery

**OERLIKON PUBLISHES SUSTAINABILITY REPORT 2021**

Oerlikon has published its Sustainability Report 2021, outlining the progress and achievements of the company in environmental, social and governance topics.

**www.oerlikon.com**

#RPolyester #Textile Chemistry

**TEIJIN FRONTIER DEVELOPS NEW CHEMICAL RECYCLING TECHNOLOGY FOR POLYESTER FIBERS**

Teijin Frontier Co. has developed a recycling technology using a new depolymerization catalyst to recycle colored polyester fibers without losing the quality of polyester fibers made from petroleum-derived raw materials. The new technology also lowers environmental load compared to conventional recycling.

**www.teijin.com**

# RECYCLING

#RPolyester #Award

**BB ENGINEERING SHORTLISTED FOR PLASTICS RECYCLING AWARDS EUROPE**

BB Engineering has been shortlisted for the prestigious Plastics Recycling Awards Europe 2022 for the category Recycling Machinery Innovation with its PET recycling line VacuFil® Visco+ for fiber-to-fiber inline recycling. **www.bbeng.de**

#Fiber #Sorting

**RECOVER™ PARTNERS WITH SYSAV**

Recover™, has announced a new partnership agreement with textile sorting company, Sysav, in an effort to tackle the growing problem of textile waste and accelerate circularity in the textiles industry.

**recoverfiber.com**

#Denim #Cotton

**TRÜTZSCHLER CARD CLOTHING: A PIONEERING PARTNERSHIP FOR SUSTAINABLE SUCCESS IN EGYPT**

Sharabati Denim is one of the major leading manufacturers of eco-friendly denim in Egypt, Syria and Turkey. In 2018, the company launched the state-of-the-art recycling initiative "Tadweer" that uses recycled material and sustainable production processes. Trützschler Card Clothing (TCC) is delighted to join this innovative concept with its experts and equipment.

**www.truetzschler.com**

Fiber #Factory #Pilot plant

**WORN AGAIN ANNOUNCES PLANS TO BUILD A NEW TEXTILE RECYCLING DEMO PLANT IN WINTERTHUR**

Worn Again Technologies is in the final planning stages of an innovative demonstration plant that will showcase its ground-breaking polymer processing technologies for textile recycling. The facility, which will be built and operated by the company, is to be constructed in Winterthur, Switzerland and will have the capacity to prevent 1'000 tonnes of textiles being incinerated every year, paving the way for industrial-scale operations. Sulzer Chemtech is a technology partner.

**wornagain.co.uk**

#Retail R&D

**H&M FOUNDATION AWARDS 5 INNOVATIONS A TOTAL €1 MILLION GRANT**

A laundry solution that prolongs garments' life, AI helping smallholder cotton farmers to increase yield and income, an invention realising the circular recycling of elastane and polyester blends, carbon-negative viscose made from CO2 emissions and regenerative agriculture making planet positive alternative to goose down – these are the five Global Change Award winners 2022, sharing a €1 million grant from the non-profit H&M Foundation.

**hmgroup.com**

#Denim #Fiber

**ISKO SIGNS DUTCH DENIM DEAL**

The Denim Deal, a public-private initiative, was launched by the Dutch government following the EU Green Deal and the Circular Action Plan and includes agreements to make the denim textile chain more circular. In the deal, more than 40 parties are working together to improve post-consumer textiles in the denim industry and make fiber recycling the new norm. **iskodenim.com**

#Retail R&D

**RENEWCELL AND BIRLA CELLULOSE SIGN LETTER OF INTENT FOR LARGE SCALE CIRCULAR FIBER PRODUCTION**

The Swedish textile-to-textile recycling innovator Renewcell has signed a LoI with Birla Cellulose, the pulp and fibre business of Grasim Industries Ltd. a flagship company of the Aditya Birla Group and one of the world's largest man-made cellulosic fibre producers, concerning a long-term commercial collaboration for man-made cellulosic fiber production..

**www.renewcell.com/en/**

#Nonwovens #Testing

**NEW TESTING FACILITY CONFIRMS QUALITY OF RECYCLED MATERIAL**

Berry Global's plastics recycling facility in Heanor, UK, has opened a Centre of Excellence to further enhance the level of quality evaluation of the recycled material that is used to produce the company's Sustane® recycled polymer. **www.berryglobal.com/en/**

#Raw material #Fiber

**ONCEMORE® BY SÖDRA AND RESTER ANNOUNCE A NEW PARTNERSHIP**

Södra and Rester are launching a partnership that has a wider impact beyond these two companies. The collaboration brings synergies and provides a hub in Sweden for collecting all different kind of recyclable business textiles. These will then be processed and distributed to best possible and suitable streams of raw material for the textile industry.

**rester.fi**

#Fiber

**LENZING PRESENTS ONLINE SUSTAINABILITY REPORT 2021 "LINEAR TO CIRCULAR" FOR THE FIRST TIME**

The Lenzing Group, the world's leading supplier of wood-based specialty fibers, released its Sustainability Report 2021, April 05, 2022, on the occasion of "Earth Month". Bearing the title "Linear to Circular", the report emphasizes the company's focus on carefully balancing its needs with those of nature in the spirit of the circular economy. With the implementation of the two key projects amounting to EUR 200 mn, Lenzing continues to march purposefully towards Group-wide climate neutrality. **www.lenzing.com**

#Brand #Apparel

## ADIDAS GROWS DOUBLE-DIGIT IN WESTERN MARKETS IN Q1

"In the first quarter, consumer demand for our brand and products was strong in all Western markets. Our combined sales in North America, EMEA and Latin America grew at a double-digit rate. Backed by an exceptionally strong wholesale order book and relentless focus on driving growth in our own DTC channels, we expect this positive development to continue for the rest of the year," said adidas CEO Kasper Rorsted.

**www.adidas.com**

#Fiber #Yarn

## RADICIGROUP CLOSES 2021 WITH POSITIVE RESULTS

With total sales of EUR 1.508 million generated by over 30 production and sales units in Europe, Asia and America, RadiciGroup closed its 2021 financial year with positive results, despite the difficulties due to the lingering effects of the pandemic and the steep increase in the cost of raw materials and energy, especially during the latter part of the year. EBITDA reached EUR 268 million, and net income for the year was EUR 150 million. In 2021, the Group invested EUR 53 million financed from cash flow.

**www.radicigroup.com**

#Brand #Apparel

## HUGO BOSS WITH RECORD Q1 SALES

In the first three months of 2022, HUGO BOSS continued its strong financial and operational performance, posting significant top- and bottom-line improvements year-on-year. Group sales increased 52% currency-adjusted to EUR 772 million (Q1 2021: EUR 497 million), marking the strongest first quarter in the history of HUGO BOSS from a top-line perspective.

**www.hugoboss.com**

#Textile Machinery

## OERLIKON CONTINUES STRONG PROFITABLE GROWTH IN Q1

The Polymer Processing Solutions Division delivered another strong quarterly performance. Order intake increased by 31.5% to CHF 415 million. Sales significantly increased by 40% to CHF 369 million year-over-year across all regions. Growth was driven by filament and non-filament end markets and includes a 15% sales contribution from Oerlikon HRSflow, which was acquired in 2021.

**www.oerlikon.com**

#Recycling

## BASF VENTURE CAPITAL INVESTS IN OCEANWORKS

BVC, the corporate venture company of BASF Group, announced a strategic investment in Oceanworks. Oceanworks is based in the U.S. and offers a powerful platform for brands looking to reliably secure high-quality sources of ocean, ocean-bound, and averted PCR plastic.

**www.basf.com**

#Recycling #Retail #Fiber

## INDITEX SIGNS A THREE-YEAR COMMITMENT TO BUY INFINNA

Inditex and Infinited Fiber Company announced a new partnership with the shared goal of advancing new and innovative technologies towards textile-to-textile circular loop. At the core of this partnership is Inditex´s three-year commitment to buy 30% of Infinited Fiber Company's annual future production volume of Infinna™, a textile fiber that can be created from 100% textile waste –a deal valued at more than €100 million. This purchase commitment is significant for Infinited Fiber's plans to scale up its recycling technology through its first large-capacity factory, which it expects to begin operations in 2024. **www.inditex.com**

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#R&D #Association

## JOHANNES DIEBEL IS THE NEW MANAGING DIRECTOR OF THE „FORSCHUNGSKURATORIUMS TEXTIL"

Johannes Diebel © 2022 textil+mode

Diebel has been reorganising the FKT (Forschungskuratoriums Textil) since 2017 as head of research together with the executive board member, Uwe Mazura, who is also chief executive of the German Textile and Fashion Industry Association (Gesamtverband textil+mode). This included the strategic realignment of research to the future needs of the industry as well as a guideline for the textile future with the „Perspectives 2035". Johannes Diebel: „The future is being built from textiles. Textile research holds essential technologies for an advanced circular economy and innovations for a climate-neutral economy. We see this as one of our main tasks in the coming years and want to develop the FKT into an important „think tank" in the textile industry."

**www.textilforschung.de**

Coating plant in the DITF © DITF

#Sustainability #Textile Chemistry

## REPLACEMENT OF TOXIC CHEMICALS IN THE MANUFACTURE OF TIRES AND CONVEYOR BELTS

The quality of composite systems made of cords of high-strength fibers such as polyester, aramid or polyamide and matrix materials of rubber is largely determined by the adhesion properties of the fibers to the matrix. In the established manufacturing process, adhesion promoters made of resorcinol-formaldehyde-latex (RFL) are used to improve the adhesion properties. Researchers at DITF are showing ways to replace the harmful formaldehyde with technically equivalent substances that are harmless to health. DITF have tackled the problem and developed a new, formaldehyde-free coating system. It is based on the substance hydroxymethylfurfural (HMF), which can be extracted from wood.

**www.ditf.de**

#Technical textiles

## OIL-WATER SEPARATION WITH BIO-INSPIRED TEXTILES

Superhydrophobic biological surfaces are able to adsorb oil from water and separate it at the same time. In the BOA - Bionic Oil Adsorber project, this phenomenon was analysed in detail, abstracted and now successfully transferred to textile technology. Technical textiles are now available with which oils of different viscosities and compositions can be separated from water according to the biological role model. The advantage of this method is that the oil is transported through the textile and can be collected with a floating container. Following this, it is possible to dispose of the oil properly. According to current findings, the textiles are reusable and suitable for permanent use.

**ita.rwth-aachen.de**

#Technical textiles

## EDGE PROCESSING OF THREE-DIMENSIONAL, TECHNICAL TEXTILES WITH HIGH INHERENT STIFFNESS

The aim of the joint research project was the development and verification of a new technology for the automatic processing of the edge areas of three-dimensional, technical textiles for the production of edge trim. These are characterised above all by the fact that they have a high geometric complexity with changing contour radii as well as a high bending stiffness. As edge processing, the focus was on the edging of single- or multi-layer textile structures with corresponding edging tapes. A major focus of the project was the realisation of a mechanical functional model to verify the developed technology. The joint project was successfully completed and the goals of the research project were achieved.

**www.stfi.de**

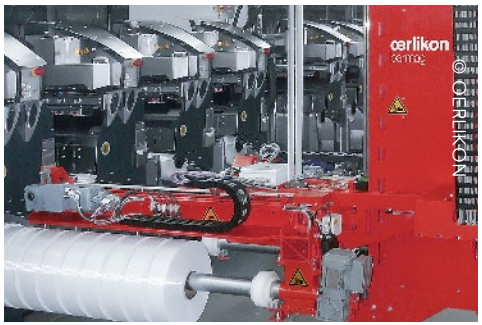
#Recycling

## RECYCLING PROCESSES FOR THE SPUNBOND PROCESS

Curious about recycling PP, PET or PLA start-up filaments? Ralf Taubner from STFI will speak about current research results on recycling for the spunbond process at the International Nonwovens Symposium, which will take place in Lyon from 8 to 9 June 2022. He will present the development of a new technical solution for the direct recycling of polymer filaments produced during the start-up phase of spunbond production into stand-by operation: The symposium is organised by EDANA.

**www.stfi.de**





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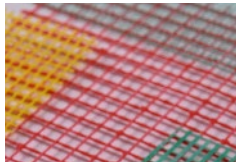

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# NEXT ISSUE: 3 / 2022

## TOP THEME: FIBERS AND YARN

**PREVIEW CINTE TECHTEXTIL CHINA 2022**
+ MARKETS, TRENDS AND APPLICATIONS
+ INNOVATIONS
+ HIGHLIGHTS OF THE EXHIBITORS

**REVIEW TECHTEXTIL 2022 / TEXPROCESS 2022**

**REVIEW ITM 2022 / HIGHTEX 2022**

**SPECIAL:** FIBERS FROM CELLULOSE

Preview Dornbirn GFC
Preview Performance Days

#INTERVIEWS

Textile Machinery Innovations: Spinning
Fiber Innovations
Focus on production: Digital solutions

**+ + + NEXT ISSUE WILL BE PUBLISHED ON 2022-08-30 + + +**

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