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TRÜTZSCHLER

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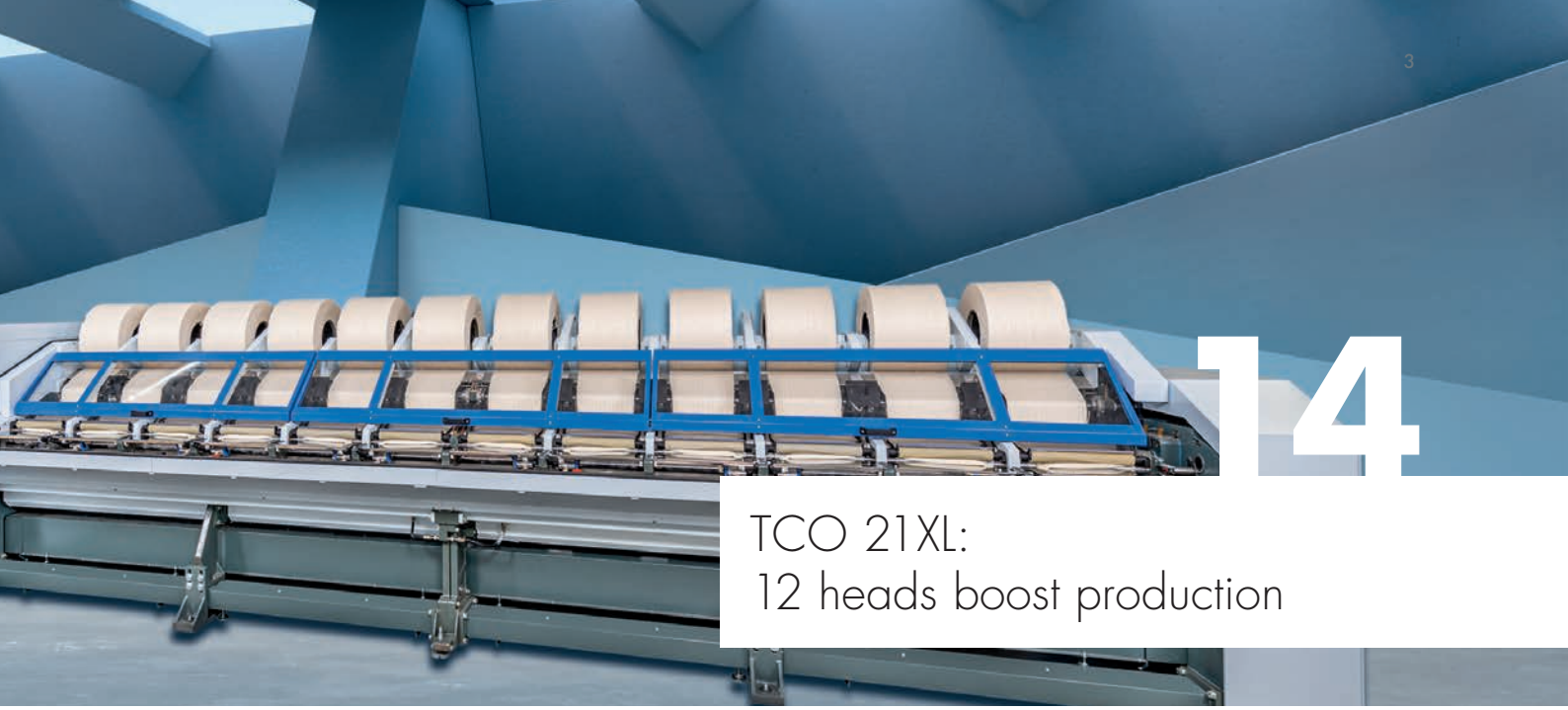

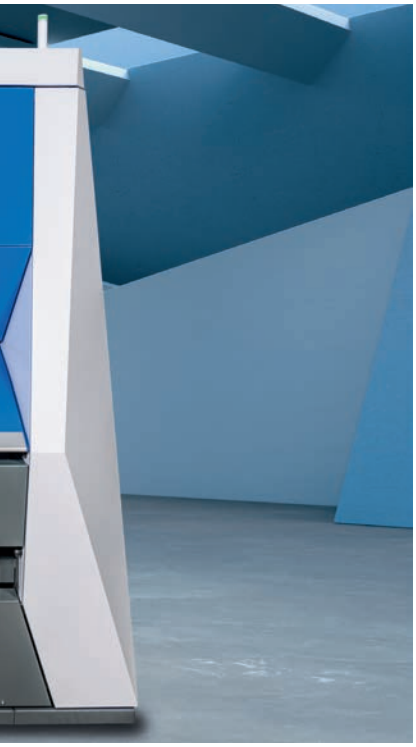

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Trützschler Group SE
D-41241 Mönchengladbach
Postfach 41 01 64
www.truetzschler.de
info@truetzschler.de
Editorial staff
Dr. Bettina Temath
Kleo Knippertz
Cover
Milan Cathedral

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TRÜTZSCHLER FOUNDATION

Editorial

Dear Customers, Partners and Friends of Trützschler, dear Employees,

The world has changed dramatically since the last ITMA. The Coronavirus pandemic led to worldwide disruptions in logistics chains, rising prices for raw materials and components, and major shifts in textile production chains. The war in Ukraine has caused energy costs in Europe to soar. Increasing inflation is a problem for all of us. Most recently, the earthquake in eastern Türkiye had a devastating impact on our customers and employees, as well as their families and communities.

Since our company was founded 135 years ago, we have built a strong position in the marketplace by winning the trust of our customers – through strong innovation, highly valued service and reliability, and with dedicated support from all of our employees. We deeply regret the delivery restrictions that we have been dealing with for longer than expected as a result of the above issues. However, we can assure you that we are working with full commitment to restore our usual levels of reliability.

By adopting our Group's first ever climate target – carbon-neutral production by 2035 – we have sharpened our sustainability measures. We have also created a visible framework for our social commitment by introducing the Trützschler Foundation, which supports children and young people in the areas of sport, education and research.

For the sustainability of our family business, it is particularly important for us to introduce our successors in the 5th generation at Trützschler: Mrs. Charlotte Fontaine and Mr. Florian Schürenkrämer. They have already been closely involved in driving the development of our company for 10 years and have supported us for five years as our deputy spokespersons in many internal engagements and interactions with customers, as well as at trade fairs.

We are delighted to personally welcome you to our stand at the show, together with our Executive Board Members Dr. Ulrich Schwenken (CEO), Alexander Stampfer (CSO), Heinrich Krull (COO) and Stefan Schröder (CFO). We wish you a thoroughly inspiring and enjoyable time in Milan.

Warm regards,

Heinrich Trützschler,
Member of the Supervisory Board

Dr. Michael Schürenkrämer,
Member of the Supervisory Board

Charlotte Fontaine,
Member of the Shareholders' Committee

Florian Schürenkrämer,
Member of the Shareholders' Committee

TC 30i: The new benchmark in carding

Author: Martin Dovern

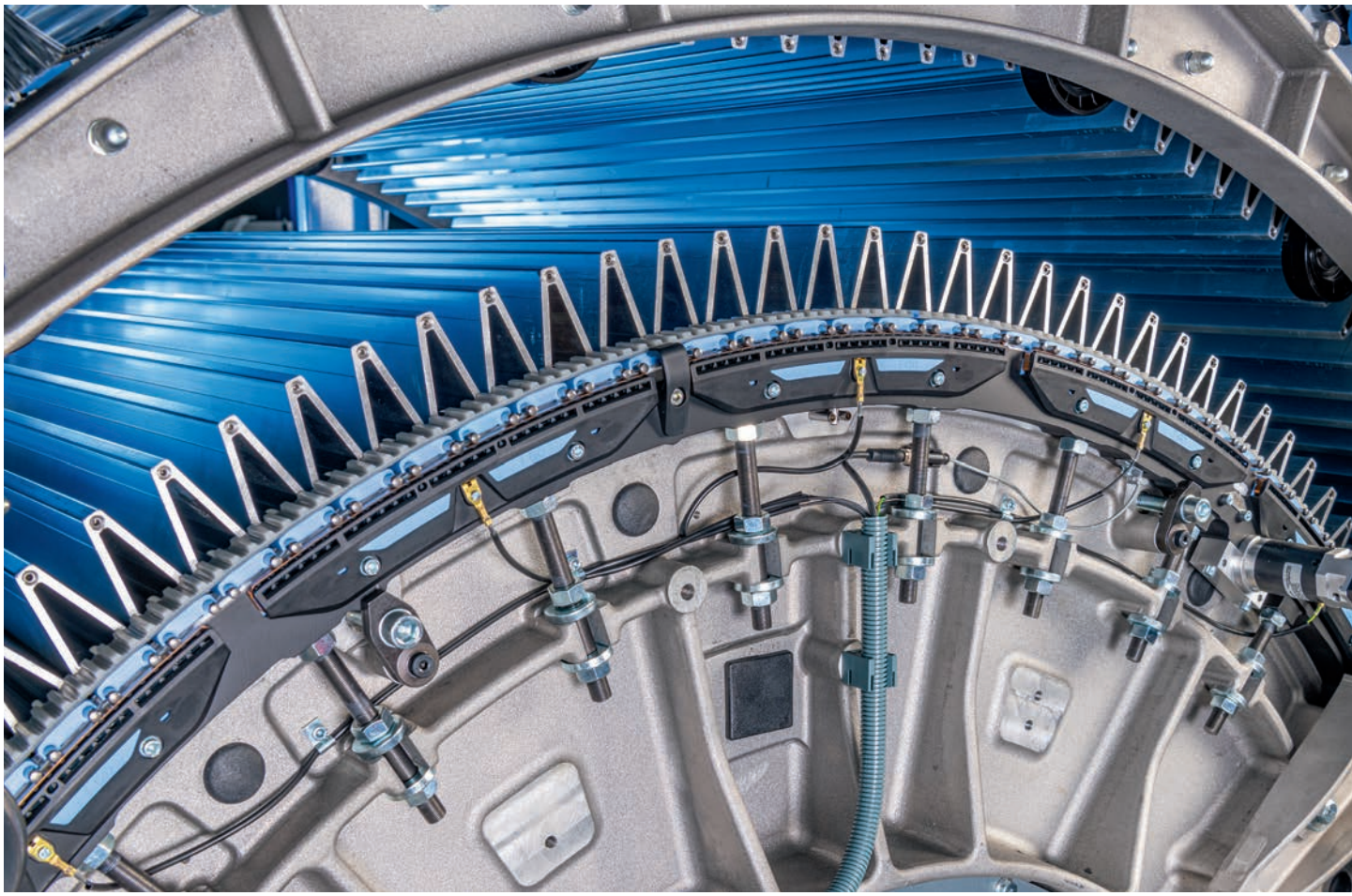
» How can you make the world's best card even better? This was the challenge we faced when we further developed the proven intelligent card TC 19i.
The result: Our TC 30i.

Thomas Schmitz,
Head of R&D Fiber Preparation at Trützschler Spinning

The TC 30i delivers best quality from any raw material, thanks to an expanded cylinder diameter and higher number of active flats. This leads to a significantly increased carding length. In combination with the intelligent T-GO gap optimizer, which ensures the right carding gap setting precisely and automatically, the best possible yarn quality is achieved.

The TC 30i also includes a new suction system that cuts costs and boosts sustainability because it separates higher value card waste from the remaining waste. This valuable material can be turned into additional revenue.

The TC 30i creates more value from card waste
by collecting waste of different values separately



The extended flat circuit of the TC 30i

Inventing the next-generation of card

To understand why the TC 30i is so special, it helps to take a look back at the previous generation. The intelligent card TC 19i revolutionized the way cards are set and operated.
Its self-adjusting gap optimizer T-GO set new standards for the market – and sales of the TC 19i outperformed every other card. What sounds like a fairytale, created a new headache for the development engineers at Trützschler: How can you make the world's best card even better?
Trützschler's answer involved bringing together a great team of experts to combine their insights and willpower – and develop the next generation of card. Our engineers devoted themselves to every aspect of the machine setup, made fundamental changes to the platform and placed a particular focus on the core carding process.

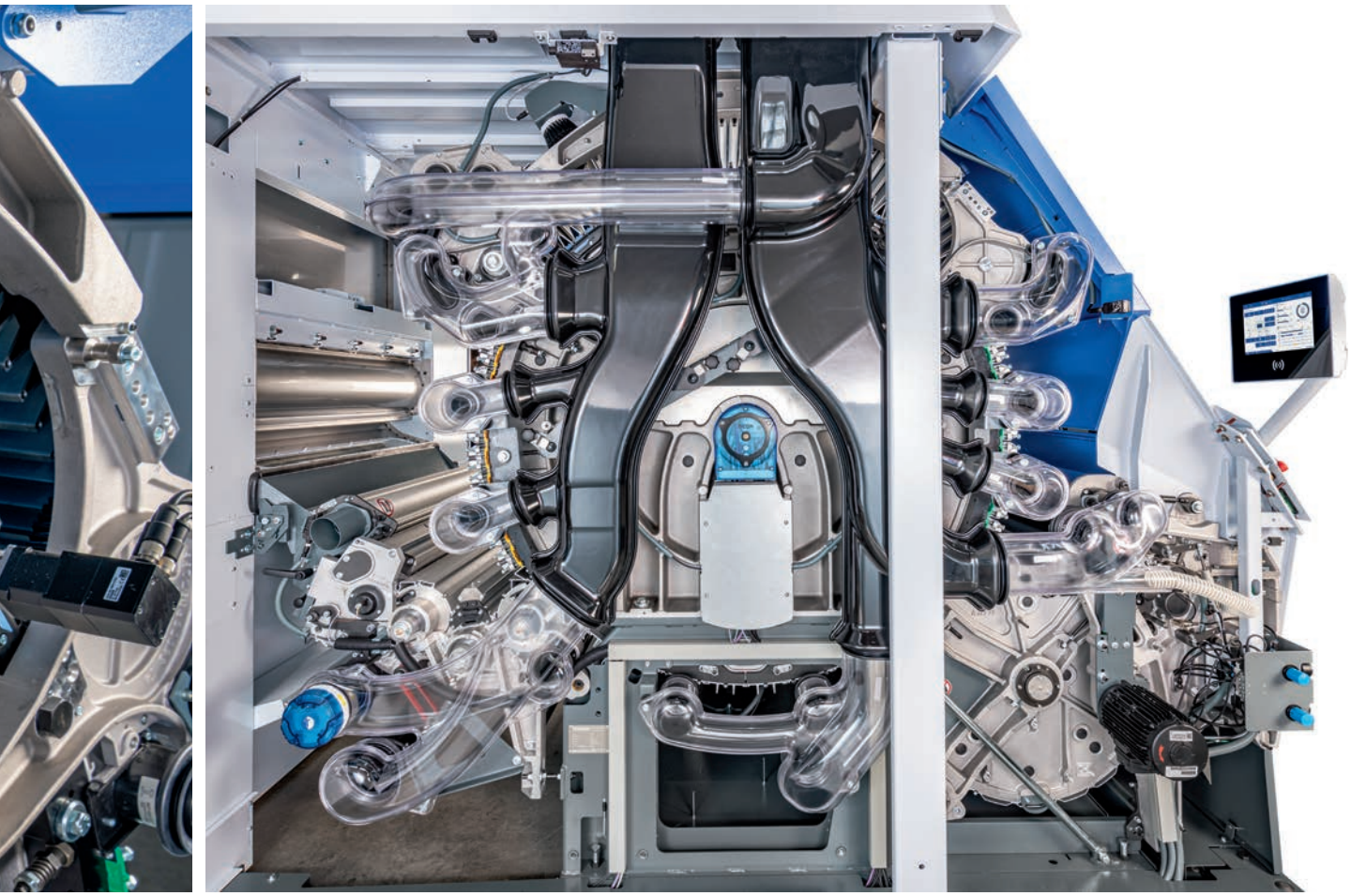
New setup for outstanding yarn quality

From a technological point of view, the most potential to take final yarn quality to the next level is found in the main carding zone between cylinder and flats – and in the carding length, which refers to the path a fiber takes through the machine. T-GO is the only proven and automatic gap optimizer that precisely adjusts the carding gap and keeps it constant.

In this way, T-GO really exploits the quality potential of a longer flat circuit and enlarged cylinder diameter. Now, the carding length has been extended by 14 % and the number of active flats has been increased by 35 %. All of this has been achieved without compromising any of the pre-carding or post-carding positions, and without making the card more difficult to service. The arrangement of all of the machine components has also been refined to optimize the carding process. This improved machine setup can also maximize production capacity by up to 15 % while maintaining the same level of quality!

T-GO now even more effective

Anyone who has ever set the carding gap of a conventional card will understand why the intelligent card TC 19i and its integrated T-GO gap optimizer was so revolutionary. Instead of needing highly qualified employees to perform a time-consuming process with high potential for errors, the T-GO automatically ensures the ideal carding gap at all times.
This makes it possible to set the carding gap very precisely and it can also be set much narrower than conventional cards – which enables better quality and higher productivity, even when there are changes to parameters such as raw materials, cylinder speed or temperature.



The new suction system of the TC 30i

The outcome? Outstanding yarn quality and no risk of damaging the clothing or the card. Now, the T-GO gap optimizer is becoming even more effective because of the structural changes in the TC 30i card. Fibers stay in the carding gap for longer because the number of active flats is increased, and this leads to higher levels of performance and quality. And in combination with the enhanced T-CON system, it is now possible to predict and monitor the carding gap with increased precision.

Making the best use of raw materials

When creating the new machine setup for our TC 30i, our innovators also redesigned the suction system to tap into its full potential. Depending on the position, the card eliminates waste with different compositions – from dark and dirty waste through to clean, higher-value waste. By collecting these types of waste separately, good fibers contained in the clean waste can re-enter the spinning process. This way more than 50 % of card waste can be reused. Alternatively, the high quality waste can be sold to significantly higher prices to third parties.
Either way, the new suction system delivers a measurable economic contribution for our customers and sets new standards in the sustainable use of raw materials.

On top of this, the redesigned suction system also saves energy because it requires less pressure. The function of the new suction system is supplemented by the optimized PMS 2 knife at the licker-in. This makes it possible to use highly precise settings of up to 8/1000“. In combination with WASTECONTROL, customers can choose the ideal waste excretion setting from economic to intensive. This enables a further contribution to reducing waste.

Operation has never been so easy

Alongside intelligent features like T-GO and WASTECONTROL, our innovative TC 30i also comes with T-LED, SMART TOUCH and RFID. This makes the machine easy to adjust and operate.
The new design also places a strong focus on accessibility. As a result, all maintenance positions are still easily accessible – including the licker-in, flats and doffer. This means the redesigned setup makes life easier for the technicians maintaining the machine. Trützschler offers the perfect solution for spinning a wide range of materials. Our TC 30i is available for fine cotton (the TC 30 Fi), for man-made fibers (the TC 30 Si) and for recycling (the TC 30 Ri). Whatever your specific needs, the innovative TC 30i is the next-generation card with the power to help your company grab a competitive advantage by achieving outstanding levels of quality, productivity and sustainability.

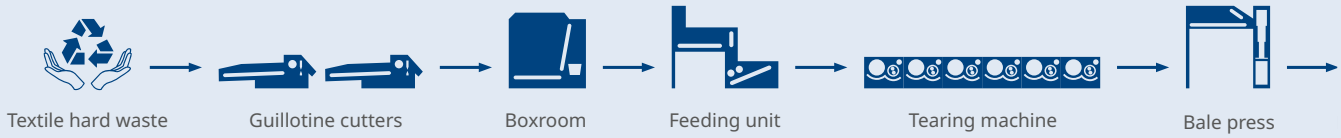
Textile recycling: Trützschler and Balkan join forces

Author: Dr. Bettina Temath/Martin Dovern

The cooperation with Balkan Textile Machinery. INC.CO completes our product portfolio for recycling by cutting and pulling solutions, making us the first full-liner in spinning preparation for recycling!

Thanks to our combined machinery expertise and technological know-how our customers can produce yarns at the highest possible quality level – and literally turn waste into value.

From waste to value: Balkan and Trützschler process for the recycling of hard textile waste



Markus Wurster, Director Sales and Marketing at Trützschler Group, and Osman Balkan, Owner of Balkan Textile Machinery. INC.CO

Together we can make a significant contribution to dealing with textile waste globally.

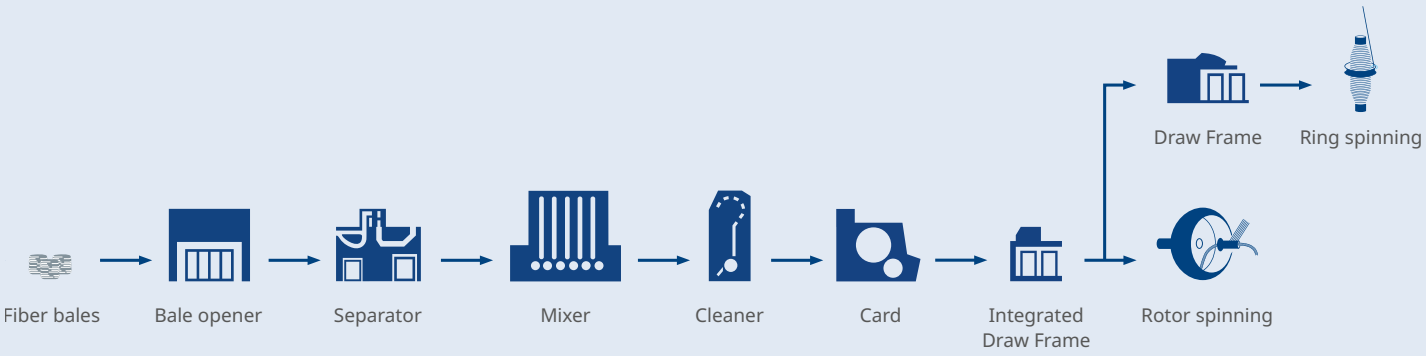
Osman Balkan
Owner of Balkan Textile Machinery. INC.CO

Closing the loop – first full-liner in spinning preparation for recycling

We are happy to introduce Balkan Textile Machinery. INC.CO, a partner that not only complements our product line but also shares our values. Both Balkan and Trützschler are family-owned companies for whom sustainability in the textile chain is a major concern. Balkan is well established in Turkey, one of the most important markets for textile recycling. Their robust and reliable machines help to cut, mix and tear textile waste to individual fibers, and to press them into bales of secondary fibers. These bales can be fed to the preparation process with Trützschler machines.

"We are now able to provide a complete line-up of technologically leading machinery which has been specifically developed for rotor and ring yarns from recycled materials", says Markus Wurster, Director Sales and Marketing at Trützschler Group. "Customers benefit from less complexity when planning and executing a mill project. The combined processes from Trützschler and Balkan are perfectly fine-tuned, reliable and reproducible. And of course, customers have access to Trützschler's premium service."

Osman Balkan, owner of Balkan Textile Machinery. INC.CO, adds: "I am very happy that we can join forces with such a strong international player like Trützschler. Together we can make a significant contribution to dealing with textile waste globally."



Processing secondary fibers with appropriate card clothing

Of course, appropriate card clothing is part of our complete recycling solution. Trützschler Card Clothing continuously developed their card clothing to meet the technological challenges in the processing of secondary fibers and to improve the resulting yarn quality. Special attention has been paid to the flat top as the heart of the carding process. Trützschler Card Clothing has combined the strength of MT/PT 40 and the cleaning power of MT/PT 45, resulting in the development of the MT/PT 45R – the new flat top for recycled materials. The right combination of flat top and cylinder wire is the key for yarn quality. Therefore, Trützschler Card Clothing offers various cylinder wires suitable for different recycling applications depending on production rates, type of textile waste and raw material – pure or blends. Thanks to this specification, customers can benefit from the best possible carding result, long lifetime of wires and high production in recycling applications.


MT/PT 45R flat top for recycling

"We are excited to offer our customers globally a complete package for recycling from June 2023 onwards", says Markus Wurster, "including tearing line, blow room, card, draw frame, card clothing and of course our service and technological know-how. We are looking forward to discuss these solutions with numerous visitors at our booth!"

truecycled®

TRUECYCLED stands for state-of-the art recycling installations from Trützschler. These Trützschler preparation processes enable manufacturers to achieve a high-quality end-product from textile hard waste. With TRUECYCLED, manufacturers can rest assured they use the best technology and a reliable and reproducible manufacturing process – the pre-requisite for high quality yarn made from hard textile waste.
How does a TRUECYCLED process look like? It is based on Trützschler's technological recommendations and a Trützschler machinery line-up to ensure best possible quality of the end-product: Be it a ring or rotor yarn or a wipe. For example, Trützschler recently worked with a fashion company to make use of their own pre-consumer waste.

Thanks to a special combination of Trützschler blow room machinery, the usage of TC 19i for Recycling and Trützschler draw frames, it was possible to create a ring yarn containing 60 % of pre-consumer waste – a true TRUECYCLED product! Trützschler customers and partners may use the brand TRUECYCLED for both the process itself and the end-product, as long as it contains a significant amount of textile waste.

More **info** on our website.

TCO 21XL: 12 heads

Author: Eva Trenz

At this year's ITMA trade fair, we are proud to present an exciting innovation for the textile machinery market: The high-performance comber TCO 21XL with 12 combing heads. For many decades, eight combing heads has been considered state-of-the-art in the spinning industry.
Now, Trützschler's advanced technology and engineering proves that it is possible to build a heavy-duty comber that maximizes productivity by 50 % and saves space – without compromising on quality.

boost production

The high-performance comber TCO 21XL

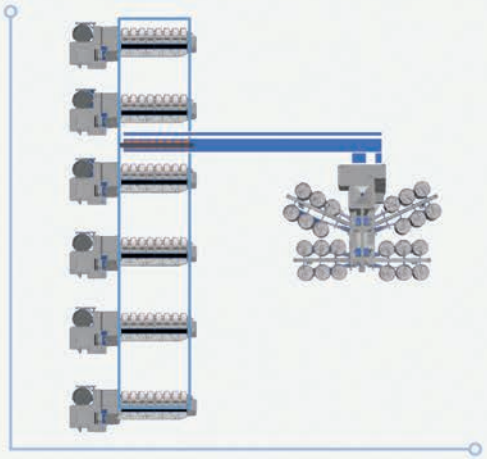
Pushing up productivity without pushing up costs in same amount

They say two heads are better than one, so just imagine what 12 heads can do! That's the simple but effective idea behind the TCO 21XL. Increasing the number of combing heads by 50 % makes it possible to increase productivity by 50 %, enabling rates of up to 150 kg/h.

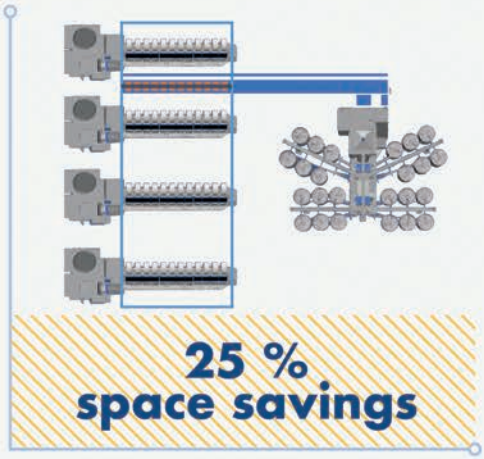
As a result, two TCO 21XL combers offer the same production capacity as three conventional combers. And that means companies that buy and operate two machines instead of three can achieve significant benefits in terms of their price-performance-ratio (cost/kg).

The costs of running the machines are broken down into 12 instead of eight heads, making the machine more cost-effective over its entire operating life.

Project Planning



TCO 21
6 x 8 heads = 48 heads



TCO 21 XL
4 x 12 heads = 48 heads

50 % higher productivity is great – and it can be even greater if the machine is operated with JUMBO cans. The can changer needs to keep up with the extra performance, and JUMBO cans can easily collect the additional output of the TCO 21XL because they feature a 1200 mm diameter. This makes it possible to minimize non-productive time when changing cans.

Anybody who is planning a new spinning mill knows that every square meter of space adds to the overall costs. The new TCO 21XL comber offers huge benefits in this regard because 25 % less floor space is required to operate same number of combing heads. This reduces the initial building costs, while also decreasing operating costs related to lighting, air conditioning and other overheads.

Benefits

1 **12 heads for lowest conversion cost/kg**

- **50 % more production**
- **25 % less space**

2 **Consistent sliver quality on 12 heads**

- **Torsions resistant design: DUAL DRIVE, 2TWIN DRIVE**
- **High-performance drafting system**

3 **Noil always under control**

- **Online Noil Monitoring**

Operation as simple as an 8-head comber.
Learn more about it in the new training portal:
www.training.truetzschler.com

ONLINE NOIL MONITORING:
New function solves a major challenge

As the world's leading manufacturer of spinning preparation equipment, Trützschler strives to produce reliable and high-quality machines – and we also place a strong focus on meeting our customers' needs and continuously improving our products. In this spirit, we have reinvented our tried-and-tested monitoring system by adding the unique ONLINE NOIL MONITORING function TCO 21XL. This means our COUNT CONTROL and ONLINE NOIL MONITORING functions are now working together to give customers full control over the combing process and the final yarn quality.

Variations in the noil are detected automatically and operators receive a warning if a significant change occurs. In this way, the noil percentage and final yarn quality stay consistent. Material distinctions between different lots are also noticed in real-time, which empowers the operator to act quickly. This can enable big savings in material costs, while also reducing the workload of downstream process steps.

Trützschler opens a new chapter in the history of combing

Why is Trützschler able to build a comber with 12 heads, when eight heads have been considered cutting-edge for so many years? All our competitors have probably been trying to increase the number of combing heads too, but none of them have successfully overcome the challenges that come with this innovation project. Trützschler is the only manufacturer with the necessary technical expertise to open this new chapter in the history of large-scale combing processes.

The double-sided drive concept of DUAL DRIVE and 2TWIN DRIVE ensures the synchronized movement of all machine parts over the entire increased shaft length. During the combing process, high-precision movements are essential to achieve high quality in the sliver. Conventional combers only provide one-sided drives, which lead to higher shaft torsion over the machine width. This might work when operating eight combing heads – but not if you add four more.

High-performance drafting system

12 combing heads produce 12 slivers, which is a lot more material for the drafting system to handle. Trützschler's high-performance drafting system delivers a decisive advantage in this respect because it is specifically designed for processing the increased production volumes.

The lower deflection angle at the transition to the web guide protects the highly sensitive combed web, fibers are guided precisely and slivers with excellent levels of uniformity are produced. In the wide drafting system, the minimal bearing temperatures of the top rollers make an important positive contribution by enabling lower process temperatures during drafting, as well as optimal running behavior.

Do you want to check out the TCO 21XL with 12 combing heads?
Our team will be delighted to show you our innovative comber and answer your questions at ITMA 2023 in Milan!

IDF 3 – The shortest path to perfect quality

Author: Eva Trenz

Usually, it's not possible to get everything you want. But with the new integrated draw frame IDF 3, you really can. It offers a range of innovative features that give customers even better quality, efficiency and handling – as well as accelerated can change times and improved productivity.

A key part of our product range

The Integrated Draw Frame (IDF) has developed remarkably in recent years. Although there were some doubts when the IDF first hit the market twenty years ago, it has now demonstrated its positive impact on short spinning processes. "As a result, the IDF is a key part of our product range today. Two generations of this machine have already delivered valuable performance improvements for our spinning customers worldwide. And our innovators have now successfully created the third generation: The new integrated draw frame IDF 3", says Jörg Schmitz, Senior Expert R&D Spinning Preparation.

Proven to deliver excellent quality

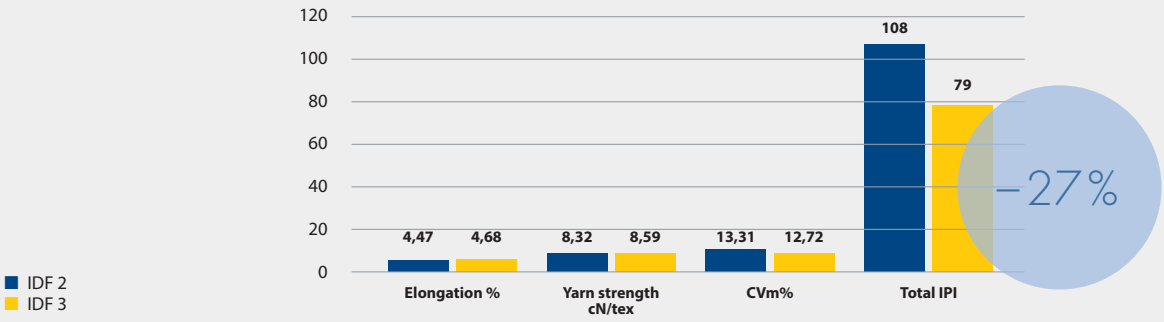
Trützschler's technical experts decided it was time to give the IDF a turbo boost by adding components and features from other areas of our draw frame portfolio, including our popular autoleveller draw frame TD 10. First, the team adapted the precise, robust measuring devices DISC LEVELLER and DISC MONITOR to fit the specifications of card and IDF 3.

The resulting IDF DL and IDF DM interact perfectly with the existing 1-zone drafting system, which results in more homogeneous slivers and higher yarn quality. Switching to the IDF DL and IDF DM system instead of the previous measuring funnel adds more benefits than advanced detection of sliver deviations. The new system also works entirely without compressed air, which reduces operating costs.

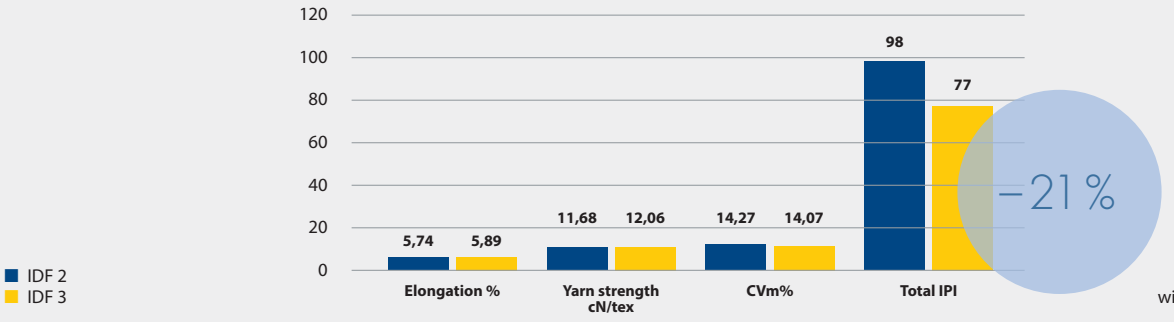
In addition, the IDF 3 make-over includes a complete redesign of the drafting zone in line with all Trützschler drafting systems. This further stabilizes the drafting process and significantly improves the yarn imperfection total IPI for recycled fibers and raw cotton, while also blending with synthetics. Yarn strength and elongation are also improved.

Perfect symbiosis: The TC 30i + IDF 3

Ne 10/1 DIRECT SPINNING ROTOR
80 % Recycling / 20 % PES



Ne 30/1 DIRECT SPINNING ROTOR
93 % cotton / 7 % soft waste



The diagrams show two examples of improvements for Ne 10 and Ne 30 with different material mix

Can changer becomes a game changer

Improving the IDF is only possible if innovators also look at the card and can changer, because there is huge potential if the interaction between the three elements are optimally balanced. This is particularly true for the DIRECT SPINNING process, with its small can sizes. Each time a full can is replaced by an empty can, the delivery speed of the card and IDF needs to be drastically reduced – and this slows down the production process.

Every second that can be saved from this can change process adds to the overall productivity. In this context, our teams have optimized the can changer to save our customers valuable time. The delivery speed of the IDF 3 stays at the high level of 300 m/min during can changes, which increases efficiency by 3 %.

Easy operation, great performance and high quality

It's essential that machines are easy to operate and offer good accessibility in order to enable accurate machine settings and effective maintenance. For this reason, the IDF 3 is designed to open directly towards the operator. This makes it easy to reach all of the adjustment points within the working area.

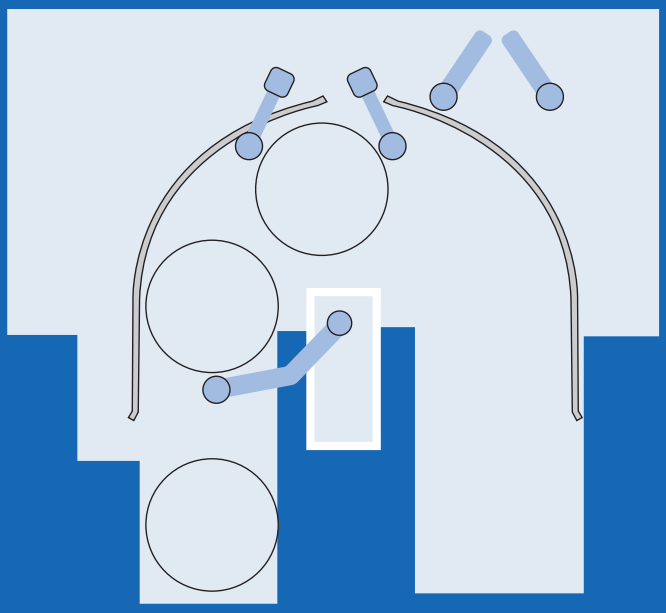
Thanks to our QUICK START autopiecing function, operators do not need to open the drafting unit. Instead, they simply insert the sliver end into the IDF DL, which saves up to 60 seconds during each piecing event. Depending on the number of piecing processes performed, this saved time quickly adds up to a significant increase in productivity.

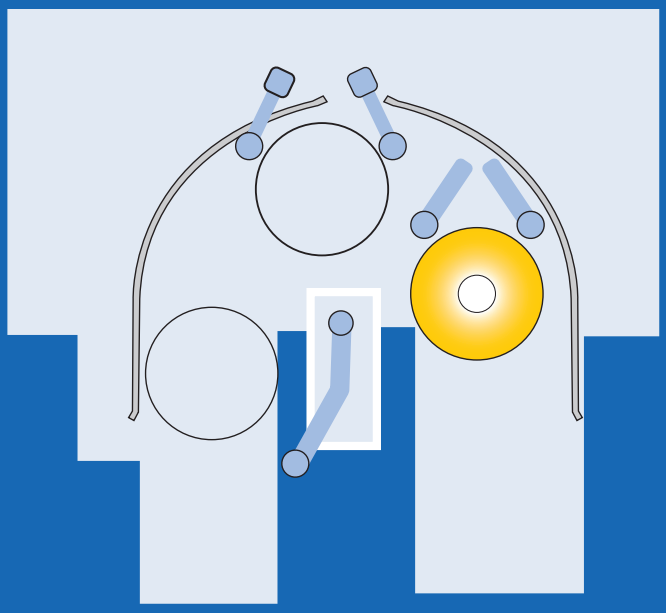
Trützschler's technicians have also improved the pressure adjustment on the IDF 3 by adding an easy-to-reach digital pressure manometer. This makes it possible to precisely set the pressure and directly monitor limits on the drafting system via the display screen. The IDF 3 can also be configured with the exclusive Trützschler features T-LED, SMART TOUCH and RFID to further enhance handling.

Have a look and have it all

Our third generation of IDF proves that you really can have it all. Customers benefit from better quality, higher efficiency and easier handling. We are delighted to invite you to experience the IDF 3 at our booth during ITMA 2023!

The can changer becomes a game changer





» The IDF 3 proves it: You really can have it all! It's the shortest path to perfect quality.

Jörg Schmitz,
Senior Expert R&D Spinning Preparation

IDF 3: Speed stays at the high level of **300 m/min** – resulting in 4 times faster delivery speed during can change.

Get exactly what you need for needle-punching!

Author: Jutta Stehr

Do you need needle-punching solutions? You can find them at ITMA – twice! Trützschler and the Italian company Texnology S.l.r. have teamed up to create a truly outstanding needle-punching line: T-SUPREMA. These innovative systems are specifically designed for each customer's unique end-product – unlike typical standardized needle-punching concepts.
And experts from the two partners are both presenting the T-SUPREMA at the world's largest international textile and garment technology exhibition.

The T-SUPREMA is a needle-punching line concept with two proud parents. It was developed by Trützschler Nonwovens and Texnology as part of a close cooperation, which delivers customizable solutions that combine the strengths of both innovative companies. All T-SUPREMA lines offer excellent productivity and efficiency by a complete package of seamlessly integrated machinery and services that is more than the sum of its parts.

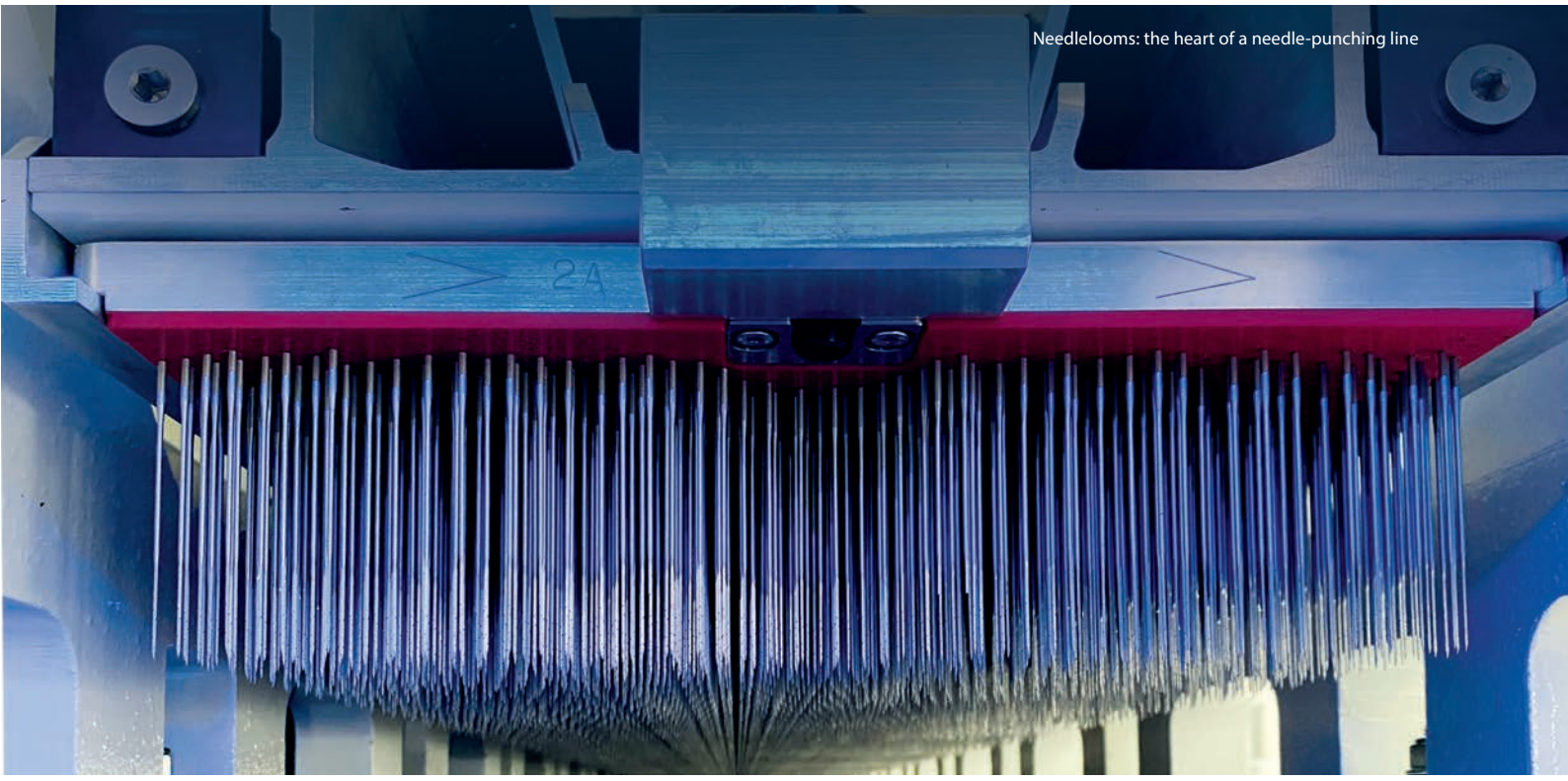
New solutions for needle-punching

Smart-designed machinery is the basis of T-SUPREMA: On the one hand, Trützschler's Clean Concept (e.g. special sealings, powerful suction, guided air flows) ensures a reliable fiber processing as well as less need for cleaning and maintenance of bale openers, cards etc. On the other hand, Texnology's needlelooms are the most silent, maintenance-friendly, least wear and tear machines in the market due to a design that minimizes vibrations.
The machines group to tailor-made production that can serve any application. The T-SUPREMA package is completed by true Trützschler service and T-ONE, an integrated digital working environment for optimizing both performance and ease-of-use.

T-SUPREMA at ITMA

At ITMA, the two companies are proudly showcasing their respective contributions to this new needle-punching line concept.
At Booth C101 in Hall 3, experts from Trützschler Nonwovens are providing an overview of the opportunities and capabilities of T-SUPREMA. Our partners from Texnology will present the crosslapper and needlelooms in action at Stand A101 in Hall 10. Visitors can discuss their specific ideas and projects with this team, who has vast experience of all aspects of the needle-punched nonwoven market and related machinery.

Acoustic panels for noise reduction – a typical end-use
for a technical felt made by T-SUPREMA. Source: Autex Acoustic



Needlelooms: the heart of a needle-punching line

One of the first joint projects for Trützschler and Texnology:
A needle-punching line including the Trützschler TWF-NCR random card

From special fibers through to innovative end uses or unique requirements for nonwoven quality – the colleagues from Trützschler and Texnology are happy to answer any questions. We look forward to talking to you about how T-SUPREMA can meet your needle-punching needs.

Come and check out the **T-SUPREMA** – making needle-punching easier and more profitable than ever!

Z-Wire: Outstanding web forming at high speeds

Author: Jürgen Hils

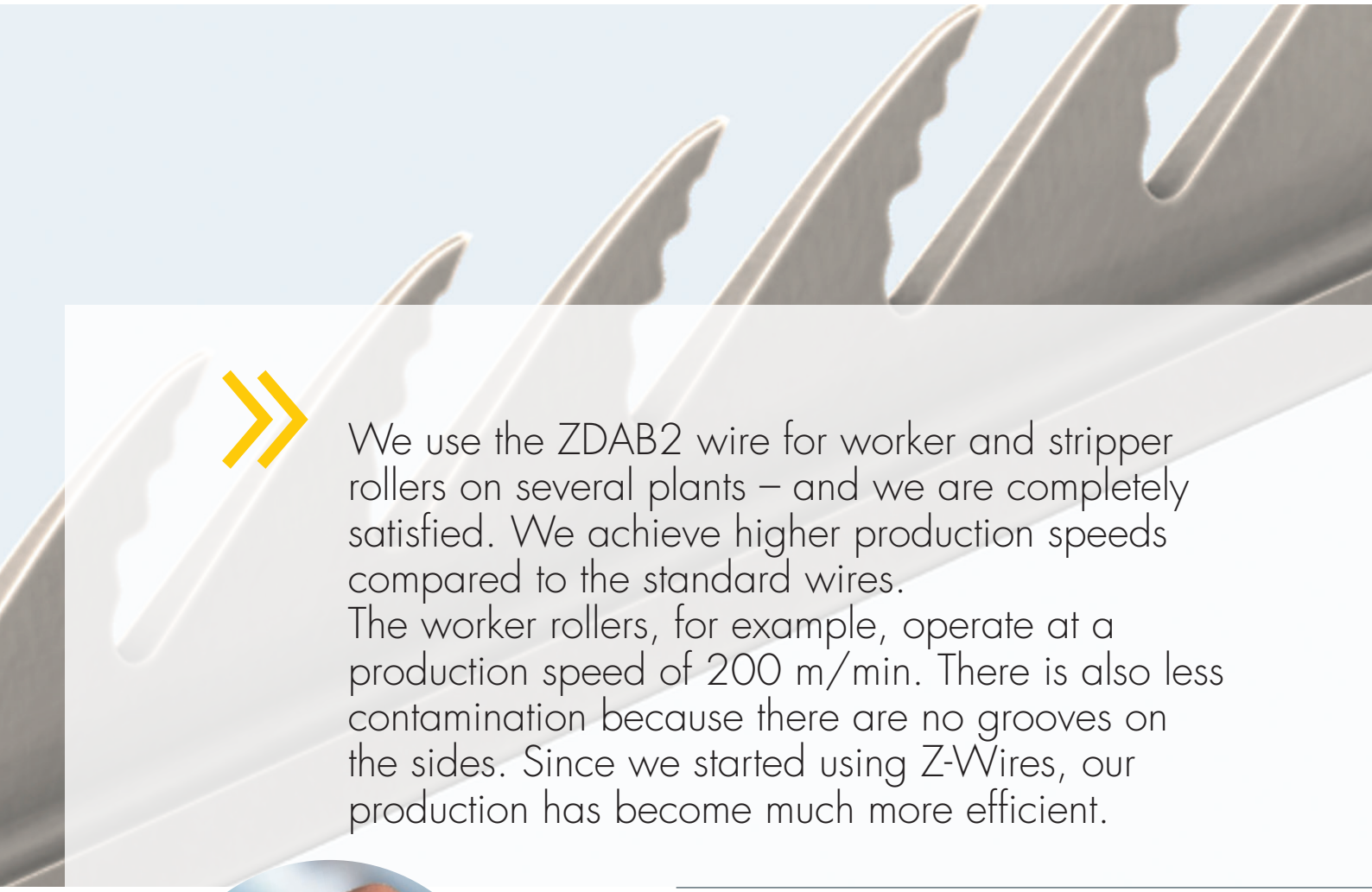
Speed is exciting – but it can be challenging too. In nonwovens production, for example, hydroentangling lines can hit production speeds of up to 300 m/min at the winder. That creates difficulties for carding and web forming. Now, innovators at Trützschler Card Clothing have created the solution to this high-speed problem. It's called Z-Wire…

Every company in every industry is constantly pushing for more efficiency and productivity. For nonwoven textile producers, that means high-speed production lines that achieve excellent quality within a faster timeframe. Trützschler' s Z-Wire clothing for worker, stripper and doffer rollers empowers our customers to move forward with their ambitions for speed, efficiency and quality.

It has serrated contours to make sure fibers are continuously held in position, even at high production speeds. The fibers are then released at exactly the right moment to be transferred and orientated. This controlled transfer from roll to roll enables uniform web formation, while fiber fly is minimized, the risk of fiber migration is reduced and the operational reliability of the line increases. These advantages make the Z-Wire the perfect fit for Trützschler Nonwoven´s NCT. The optimized interaction between machine and clothing enables maximum performance from high-speed cards. As a result, the Z-Wire is now successfully established on the market worldwide.

Feedback from our customers

Our customer TWE has shared direct feedback about how the Z-Wire performs in real-world production situations. TWE was founded in 1912 and is a proven specialist in innovative nonwovens solutions worldwide. The company processes a wide range of fibers such as viscose, polyester and polypropylene in fineness of 1.7 – 17 dtex. It has an annual fiber throughput of 1.85 million kilograms. TWE uses the Trützschler Z-Wire at its site in Emsdetten, Germany.



We use the ZDAB2 wire for worker and stripper rollers on several plants – and we are completely satisfied. We achieve higher production speeds compared to the standard wires.
The worker rollers, for example, operate at a production speed of 200 m/min. There is also less contamination because there are no grooves on the sides. Since we started using Z-Wires, our production has become much more efficient.

Andreas Wolbring, Head of Production at TWE in Emsdetten/Germany, shares his first-hand experience of using the Z-Wire.

Speed and quality

The Z-Wire successfully delivers the optimal wire geometry to hold fibers precisely in place and control them during web formation. As a result of its various advantages, the Z-Wire is the perfect solution for high-speed roller cards – with high productivity and excellent reliability.

Check out our Guide for more info about our
Card Clothing portfolio

My Mill – Digital solution meets real-world needs

Digital technologies are revolutionizing the world of work. This transformation opens up fresh opportunities, as well as new challenges that companies need to successfully manage.

To keep up with the fast pace of change and tap into that exciting potential, businesses need to constantly adapt to shifting requirements. That is true for users of digital solutions and for providers of these innovative technologies – like Trützschler.

Author: Eva Trenz

With My Mill, Trützschler offers an all-in-one platform that provides customers with information about their production processes, maintenance requirements and product quality, as well as a complete overview of the status for every machine they operate.

Our innovators are constantly expanding the range of features and strengthening the underlying technology to empower customers to leverage the full potential of My Mill. Close dialogue is incredibly valuable for this ongoing process because it enables us to make certain this digital system meets the real-world needs of the textile market, while helping us stay up-to-date about the latest trends and challenges too.

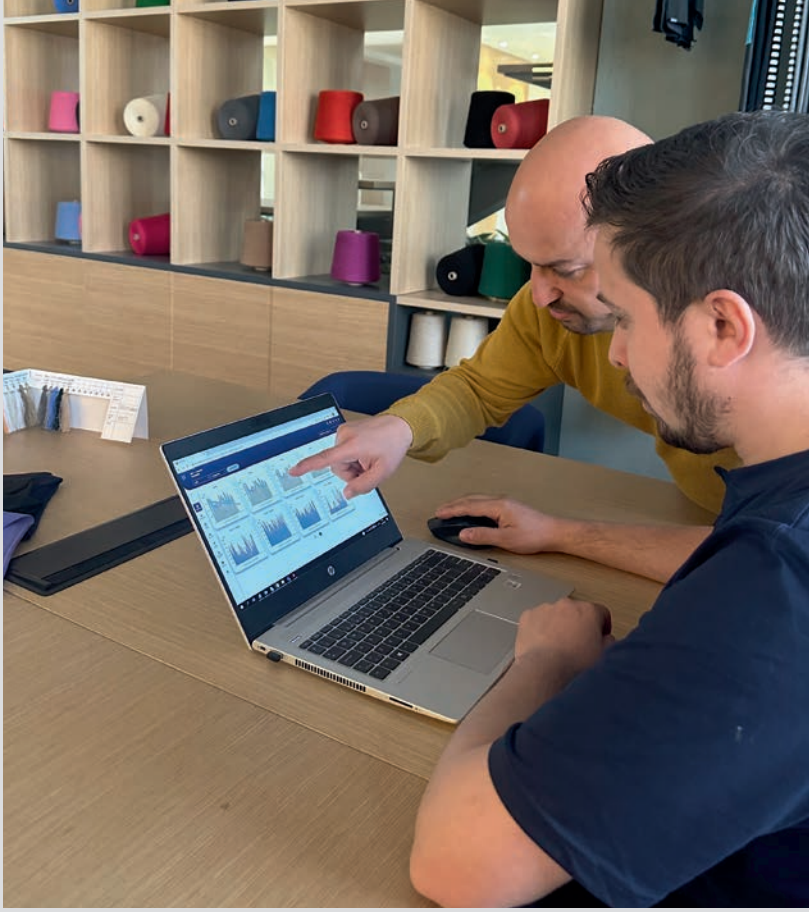
For this edition of *it's true,* we interviewed Mr. Mevlüt Aygün, Chief of Maintenance from Aksa Akrilik Kimya Sanayii A.Ş. Founded in 1968, Aksa is part of Akkök Holding, one of the biggest industrial groups in Turkey.

Aksa is now the world's leading producer of acrylic fibers, with approximately 300 customers in over 50 countries across five continents. The company employs more than 1,200 people. Aksa began producing outdoor fibers in 2001 and now also manufactures flock tow, homopolymer and filament thread.

Further, Aksa operates an acrylic yarn business called Aksafil. It is equipped with the latest technology and has brought innovation to the sector with an annual production capacity of 6600 tons. The world's first Aksafil technology is used to produce 100 % acrylic high-bulk Jairjet and corespun yarns.

It has ambitious plans to expand its leading position for the future – and was one of the first Trützschler companies to start using My Mill.

Mevlüt Aygün, Chief of Maintenance from Aksa Akrilik Kimya Sanayii A.Ş.



My Mill gives useful insights into production processes

Interview

When did Aksa begin using My Mill and how is it used in your day-to-day activities?

» Since we were onboarded to My Mill, we've been using it to increase production efficiency and support preventive maintenance measures. These precautionary measures enable us to reduce maintenance costs, which is great.
But the greatest benefit is seeing accurate production data in real-time – because that allows me to follow the production process easily and saves me a lot of time.

Which functions are most important for you?

» It's great to have so much information in one central platform. With My Mill, I can easily switch between statistics, error records, energy consumption, production and shift data.

Which Aksa employees currently use My Mill?

» At the moment, our managers are the main users of the analyses we receive from My Mill. But also the employees in our maintenance, quality and production teams, like me, are now discovering the system for themselves.
This means that we are gradually using the insights in My Mill for our daily work as well, and more and more Aksa employees are reaping the benefits of the information My Mill provides, for example, in the form of daily email briefings and as a basis for decision-making.

What kind of digital solution do you expect from Trützschler in the future?

» Right now, we have digital solutions for several different parts of our mill. In the future, we hope to have one single system covering the entire mill – including data from our Trützschler machines, spinning machines, the ERP system and everything else.

We thank Mr. Mevlüt Aygün from Aksa Akrilik Kimya Sanayii A.Ş. for providing these fascinating insights.
Are you already using or planning to install My Mill? Do you have comments to add? We'd be very happy to hear about your experiences. Please send an e-mail to us (info@truetzschler.de) or contact your local representative.

MYMILL

MPD: Saving energy, space & money

Author: Jutta Stehr

Companies are under increasing pressure to use less power and cut the related greenhouse gas emissions. Innovators at Trützschler are always looking for ways to improve our range of machinery to help customers save energy and shrink their carbon footprint.

And now we've created an energy-efficient Modular Performance Dryer (MPD) for the production of hydroentangled (spunlaced) nonwovens.

Through-air drying is the most efficient but also a highly energy-intensive process. Power is needed to evaporate the water from the moist nonwoven. This drives costs up, while also causing CO2 emissions to enter the planet's atmosphere when the energy is generated.

Trützschler Nonwovens understands this problem – and we've responded by creating a new, energy-saving dryer model.

The dryer significantly increases the energy efficiency of our high-performance carded-pulp lines and our proven cotton lines for the production of cotton pads.

Make-up removal – a typical task for dry or wet spunlaced body wipes

Energy-efficient design

The MPD features a separate intermediate chamber between the drying and heating chambers. The exhaust air fan extracts humid, cooled-down exhaust air directly from the intermediate chamber. Therefore, only parts of the circulating air and sucked-in fresh air need to be heated up by the heating system.
This significantly reduces the amount of energy needed for the drying process compared to dryers without separated air flows.

Tailor-made heating solutions

For a long time, natural gas burners were the low-cost solution. Now, classic systems such as electric, steam or thermal oil heating are increasingly in demand. New solutions such as hydrogen and biomass burners also become mature.
The MPD is designed for all heating systems – the size 2 configuration is even capable of 2 different systems. Gas burners in the first module are accompanied by electric heating in the second module, allowing a process-specific heating solution.

Space savings

The new MPD also offers advantages regarding space requirements and flexible use of space. It replaces the long multi-drum dryers in spunlaced cotton and viscose or wet-laying lines by a space-optimized, vertical concept. An omega-shaped design features a perforated drum with a two-meter diameter and a 300-degree wrap angle, which gives it a drying zone of 5.2 meters. This is comparable to the five-meter drying zone of our standard type two multi-drum dryer. The MPD achieves the highest levels of nonwoven drying capacity without compromising on quality or production line speed.

The MPD is designed as a building block to enable customers to adapt and enhance their specific drying process. It's possible to stack two MPD modules on top of each other to form a vertical dryer and optimize evaporation capacity. Horizontal formations and other combinations of the MPD modules are also possible to further maximize drying power and minimize the use of floor space.

Layouts for high performance processes

Nonwovens from wet-in-wet processes have an extremely high-water content of 140 % or more before entering the dryer. Mechanical de-watering by heavy suction, pressing or pre-drying with a forceful air stream distorts the web structure and reduces web volume. As a result, a long drying zone is the only effective approach. Our proven layout for drying biodegradable wet-laid/spunlaced (WLS) nonwovens with a pulp content of 60 % and 40 % lyocell fibers features two dryers with up to four drums each. Such high-speed WLS processes of up to 300 m/min now can be served with two (2x2) MPD modules.
This configuration requires around 40 % less space than the MDD-4 + MDD-4 configuration.

There is a perfect MPD configuration for every hydroentangling line – whether it involves spunlaced wipes from polyester/viscose fiber blends, single or three-layer cotton nonwovens or pulp-based materials. Trützschler's innovative dryer model can be adapted and constructed to meet the unique requirements of your factory, your products and your customers. And it can save money, reduce energy consumption and decrease the related CO2 emissions too.

OPTIMA: Flexibility and performance

Author: Jutta Stehr

ITMA is a great place to make new contacts – and you can get to know the perfect platform for your BCF carpet or industrial yarn process too. Make your way to Booth C101 for a date with OPTIMA, the Trützschler Man-Made Fibers solution that can be flexibly adapted and customized to implement your unique extrusion and spinning process.

Regardless of which end products or which yarn characteristics are required: OPTIMA delivers highest performance and flexibility.

The OPTIMA for BCF was launched in 2019, and dozens of spinning positions are now running smoothly worldwide. With the four-end MO40 systems for monocolor BCF yarns and the TO40 extrusion system for tricolor yarns, Trützschler offers solutions with a symmetrical yarn path for optimum yarn quality. Customers benefit from outstanding productivity, lower production costs and stable processes.

The OPTIMA for Industrial Yarn (IDY) variant transfers these advantages to the production of industrial and technical yarn. The TEC systems enable the efficient manufacturing of high-tenacity, low-shrinkage, high-count and semi-industrial filament yarns. The outstanding yarn and bobbin qualities even meet the demands of the automotive industry. Applications range from tire reinforcements, airbags and belts to geotextiles, ropes, tents and travel luggage.

The OPTIMA for BCF delivers outstanding carpet yarns

For more **info** check out our website about **BCF**

...and **IDY**

The OPTIMA for IDY ensures yarns for safety-critical, high-performance applications

Meet OPTIMA at ITMA

Our experts and the entire OPTIMA family are waiting to meet you! Special software is ready to take you on a digital journey around the flexible platform.
Explore the systems, individual components and the innovations for greater efficiency and flexibility in texturing, tricolor yarn spinning and intermingling.

And we've got a secret little surprise planned too: We'll be introducing another highly productive OPTIMA system for low-denier yarn production.

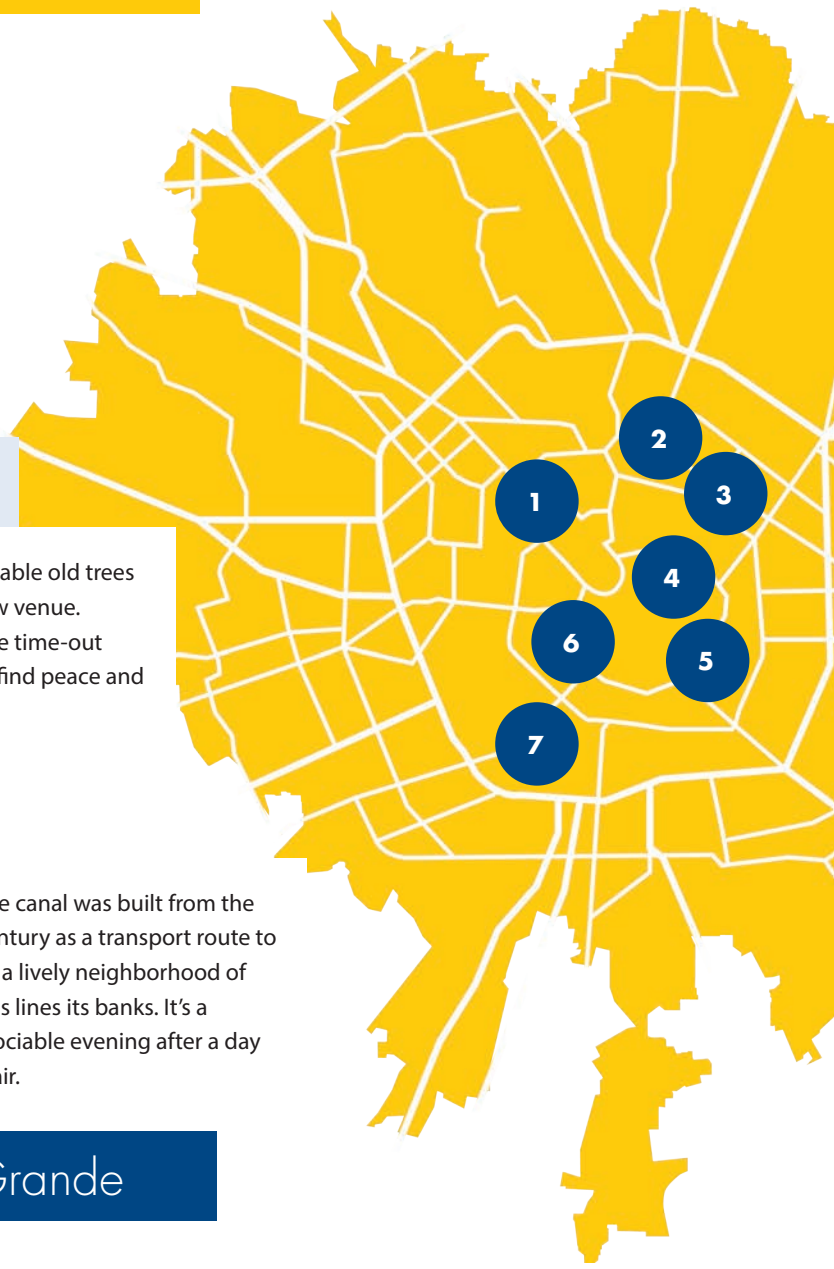
Milan City Life

In addition to ITMA, Milan has a huge range of attractions for visitors. We have put together some recommendations for your free time during the trade fair.

Fiera Milano

1 Parco Sempione

This enormous park with remarkable old trees is located close to the trade show venue. Anyone who wants to take a little time-out from the daily ITMA routine can find peace and quiet here.



The Naviglio Grande canal was built from the 12th to the 13th century as a transport route to Switzerland. Today, a lively neighborhood of bars and restaurants lines its banks. It's a perfect spot for a sociable evening after a day at the ITMA trade fair.

7 Naviglio Grande

This vertical forest turns a futuristic idea into reality. It shows how urban spaces can be opened up and used effectively while supporting biodiversity too.

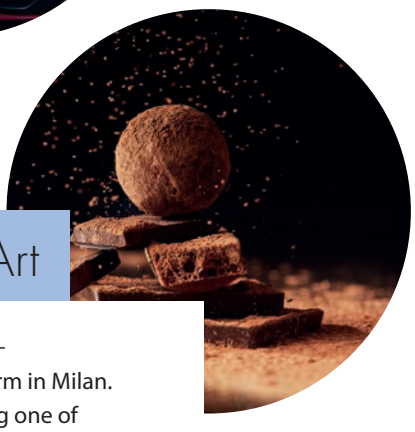
2 Bosco Verticale

3 Mint Garden Cafe

Mint Garden Cafe is a calm place full of a variety of flowers and plants. It is a unique and cool location where you can enjoy a hot or cold drink in a relaxing atmosphere.

4 Via Monte Napoleone

470 meters of luxury… Via Monte Napoleone is one of the most magnificent streets in Europe. Its 19th century palazzi gives the street a special flair. And it's a great starting place to explore Milan's fashion district – the Quadrilatero della Moda.



5 Milan Chocolate Art

From ice cream to hot drinks – chocolate-making is an art form in Milan. We highly recommend visiting one of the many cioccolaterias.

6 Sant'Ambrogio

The origins of this basilica date back to 379 AD, when the Roman empire ruled in Lombardy. It is among the oldest and most important churches in Milan, and one of the five Romanesque churches consecrated by St. Ambrose.

THE XL COMBER

Productivity booster:
The TCO 21XL

The new Trützschler heavy-duty comber maximizes productivity by 50 % and saves 25 % space – without compromising quality. It delivers consistent, superior sliver quality on 12 heads thanks to Trützschler's torsion-resistant design with DUAL DRIVE and 2TWIN DRIVE. Operating 12 instead of 8 heads reduces energy consumption by 10 % per head, which minimizes conversion costs per kilogram.

ONLINE NOIL MONITORING solves a major challenge for combing and shows noil changes online.

TRÜTZSCHLER
SPINNING