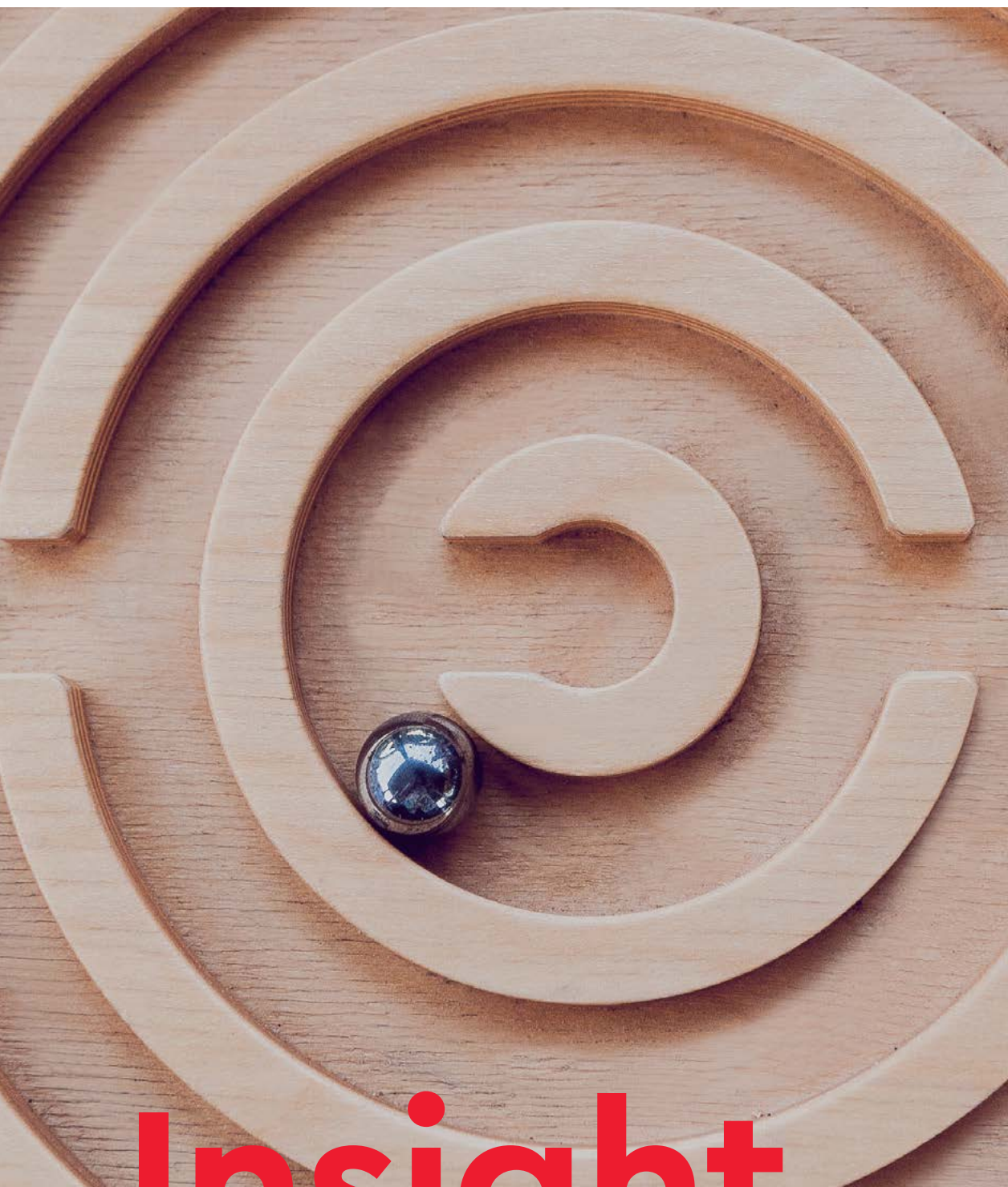


SAURER.

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Do you have any requests or suggestions for the editors?
We're looking forward to receiving your feedback:

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Editorial

Building resilience for the future

We chose this edition's theme based on what has occurred over the past few months. Our intention was to find the more positive side and focus on challenges our customers and Saurer have overcome and will overcome.

While confronted by downward market cycles and the global impact of the Covid-19 pandemic, we must keep our eyes on the future and ensure that we are flexible, ready to tackle any situation that might arise, increasing our skill sets and capabilities. Saurer will continue to set trends with our products and services, moving into new fields, to ensure that you – our customer – stay ahead of your competitors.

Saurer's customer focus must be razor-sharp, understanding what you need – today and tomorrow. We are enhancing our digital offerings, moving in tune with the constantly evolving developments associated with Industry 4.0. In terms of quality, it is our goal to focus on our operational strategy. We strive to expand our service and original parts supplies while doing our utmost to react to your concerns as quickly as possible.

By collaborating effectively within the Saurer Group, our teams worldwide will help us to expand and strengthen our footprint strategy, bringing our products to you, wherever you may be.

Developing our digital products to their full potential, we envision you overseeing and managing multiple processes. Especially considering current events, the level of automation will determine a business's success going forward. Our new portfolio, Automation Solutions, will provide you with transport systems, AGVs, palletisers and packing lines. We are also developing upgrade kits as a segment of our original parts supply and are expanding our digital services.

Management's ambition is to drive the various business units with its long-time experience. It is also time to focus on our Engineered Bearing Solutions and Elastomer Components business. You will be able to capitalise on Saurer's global presence and take advantage of our varied experience and background knowledge. Ultimately, our aim is to strengthen the capabilities and mind-sets of our employees so that they can meet your unique needs.

I hope you enjoy what you read in the following pages!



Wolfgang Leupers
CEO Saurer Technologies

A stylized, handwritten signature in black ink, appearing to read 'W. Leupers'.



Autocoro: new light concept.

→ 12



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ready for the future
in turbulent times.

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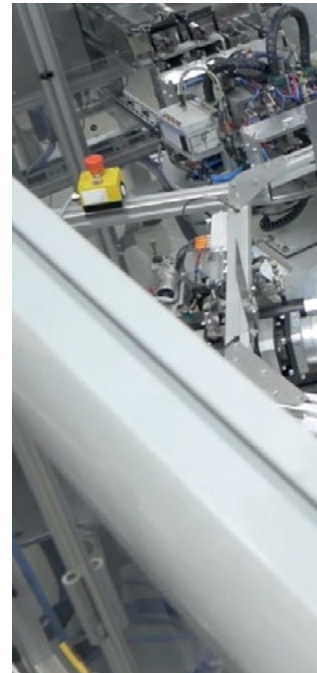
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Challenge accepted!

Beyond focusing on the customer and offering tailor-made solutions, mastering challenges also means thinking ahead, being proactive and acting in time.

Saurer has set itself the goal of focusing on the customers in order to recognise their needs in time and to be able to act with foresight. Keeping pace with technical developments and actively setting trends is one of the many challenges that Saurer faces every day. This requires not only an international team working together on solutions, but also customer proximity – local presence in the most important markets – in order to be able to offer customers short distances and fast reactions.

Reaching customers in all corners of the globe

Proximity to customers is ensured by our plants, warehouses and local customer support. Short distances are important, not only to save costs, but also time. After all, time is a key factor when it comes to replacing spare parts or on-time installation. For this reason, Saurer is constantly working to expand its local network by investing in new plants and in the modernisation of existing locations.

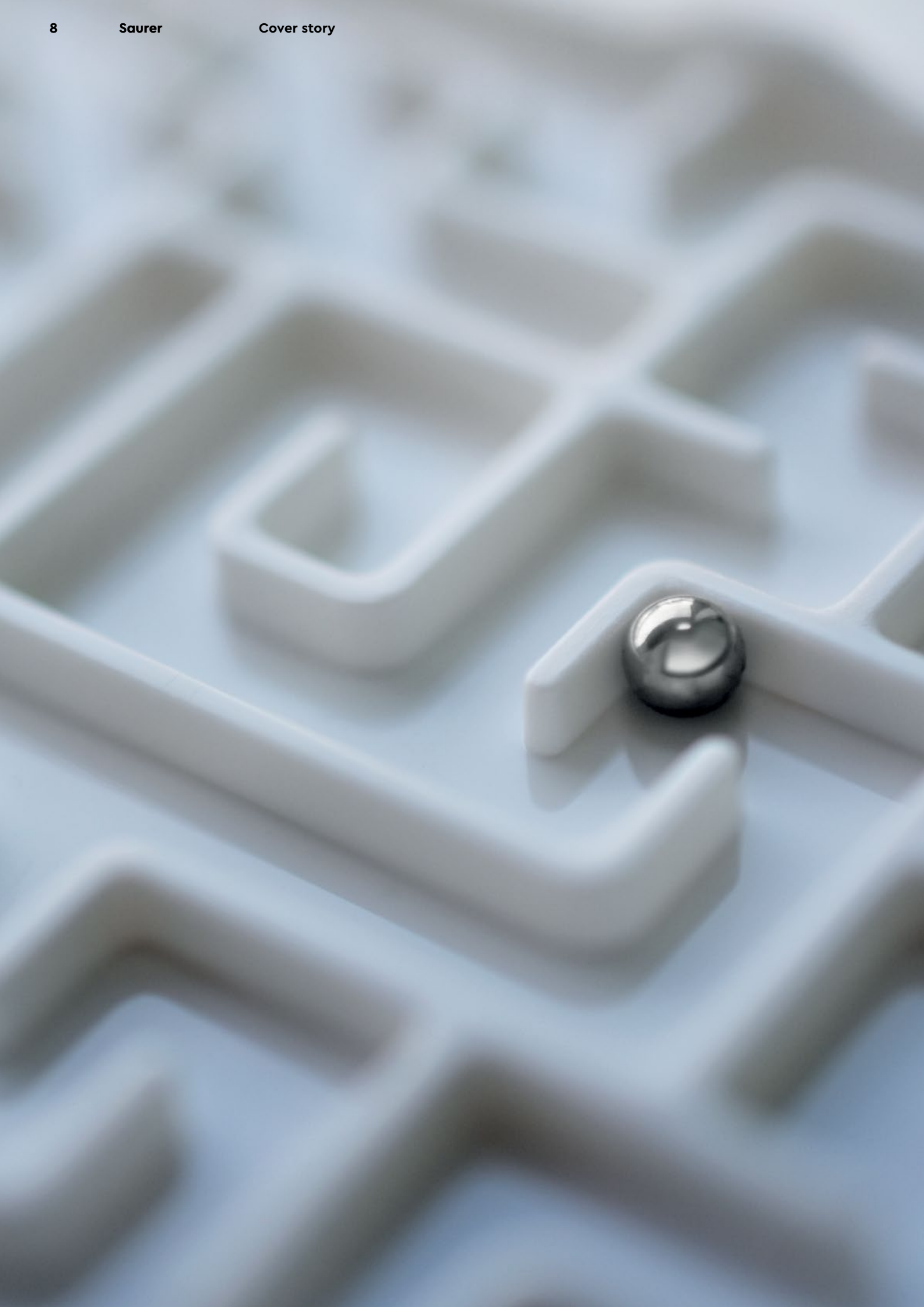
This approach can be seen in our new locations in Asia, including our facility in Karjan, India, which offers service and repair services, also featuring an original parts warehouse for our ring-spinning machines. In 2015, the Saurer site in Suzhou, China, was recognised by the government as a high-tech company in Jiangsu Province. This award is only given to innovative companies in key areas relevant for China. In 2018, we launched a smart factory on the new Silk Road. Our plant in Übach-Palenberg was recently expanded and modernised. (Read more about "Made in Germany" on p. 44.)

No company can have production sites everywhere, which is where our Customer Service Centres (CSCs) come in, ensuring a strong and reliable life-cycle partnership and making sure that your machines run at their best, increasing sustainability with the packages offered through Sun – Service Unlimited. CSCs take care of your needs in Indonesia, Uzbekistan, South Africa and Mexico, among over a dozen other sites. (Meet two of our CSC team leaders on p. 38.)

At our location in Charlotte, USA, the "Saurer truck" became operational in July 2008, increasing visibility to customers and showing commitment to the carpet industry by providing services and introducing new products. It offers rebuilt spindles and an original parts service on regularly scheduled visits within a 100 km (65-mile) radius of Dalton, Georgia, serving about 80% of US customers in this sector.

Thomas Elder in the Saurer truck. Offering rebuilt spindles and an original parts service, it has been visiting US customers in the carpet industry since 2008.





Covid-19: braving a crumbling supply chain and closed borders

The outbreak of the coronavirus has shown how important customer proximity and anticipatory action is. As borders started to shut and flights were being cancelled en masse, we knew we had to move fast to keep local original parts warehouses around the world stocked. This way, we ensured that important and critical parts, particularly consumables, were and are available locally in sufficient quantities. As a result, the increase in air freight rates and the closure of customs offices posed no obstacle for Saurer customers.

"Thanks to the foresighted stocking, there were no bottlenecks for original parts."

Delivery was made by local transport companies, which in turn ensured that the machines restarted smoothly after various lockdowns.

As lockdowns took effect, our service personnel turned to digital technology to assist customers via video call. In urgent cases, special vehicles were organised for deliveries, even at weekends.

In addition, we provided our customers with special guidelines in good time on how to stop the machines for a longer period and then restart them safely. The parts teams put together the components that our customers would need for restarting after a long standstill. In some cases, in compliance with strict hygiene measures, local service teams, on site at the customer's premises, ensured that new assemblies were completed and the necessary service provided, despite the pandemic.

With our solutions, Saurer's customers will be able to navigate a maze of challenges – including market pressures, demanding raw materials, tight production deadlines and environmental concerns – to realise their goal.

Developing just the right products at the right time

But there are also many challenges in product development, because every machine must be able to serve a wide range of users and yet be adaptable to individual customer requirements. "One of the biggest challenges begins with finding and defining the right products," says Thomas Ammer, Head of the Saurer Group's Project Management Office.

Like our customers, we have to adapt continually to the changing environment. Development often takes years and foresight is vital to be able to tackle the problems of tomorrow, while ensuring that our customers benefit from our innovations and boost profits. Today, more than ever, flexibility and automation are what is required to meet the demands of the market. Saurer has been producing technologies that take this into account, including MultiLot technology on the rotor-spinning machine Autocoro, which allows customers to produce up to five lots simultaneously. PilotSpin can be used to conduct spinning trials on certain spindles while the remainder runs at full production speed. (For more on Autocoro's intelligent features, see p. 12.)

We also ensure that our machines can be upgraded and place a high value on sustainability. One example of this is the energy-saving spindles Saurer developed for our CarpetTwister and CarpetCabler machines. Customers can retrofit this technology onto earlier models. It makes a substantial contribution to return on investment – an energy saving of up to 30% means that the payback period is significantly shorter.

For almost two centuries, we as Saurer have stood by our customers, supporting them as they navigated the maze of challenges posed by our cyclical industry and dynamic markets. As always, our eyes remain fixed on future possibilities and opportunities.

The rocky path to the Age of IoT



Claudio Lamprecht,
PhD candidate and doctoral
researcher at the Bosch IoT Lab
at the University of St. Gallen,
Switzerland

How does the process of moving from a networked product to profitable IoT business succeed?

The Internet of Things (IoT) has been attributed with enormous business potential by market research institutes and management consultancies. In fact, the merging of the physical and digital worlds – where what were previously purely physical objects, such as washing machines and sewing machines, go online – makes a wide range of business opportunities possible, which are currently changing the business logic of entire sectors. Despite euphoric prognoses, current empirical research results have shown a digitisation paradox. This digitisation paradox shows that numerous manufacturing companies are having difficulty realising the expected gains from their IoT initiatives despite high levels of investment. This also affects IoT pioneers such as General Electric, who have already had to correct their communicated figures for IoT projects downwards.

Many of the IoT initiatives analysed by us are solutions that look for a problem to be solved. That is, purely technologically driven developments – or

“solution in need of problem-project” or “science projects” – that do not address any real customer problem and that customers accordingly are not prepared to pay for. To counteract this, manufacturing companies must know the needs and desires of their customers and understand how these can be addressed. A promising approach in this context is gaining an understanding of the profit & loss (P&L) of customers including the drivers behind sales and costs. For example, yarn quality is a central driver for P&L in ring-spinning mills. Thanks to this understanding/awareness, IoT services can be developed that influence these value drivers of the customers. In the case of yarn quality, the online quality

monitoring system SPID (Spindle Identification System) is used to detect bobbins that are not within the pre-set quality limits at an early stage using sensors and RFID. The automatic exclusion of these bobbins from the material cycle and the direct identification of the ring-spinning position that caused the problem, make it possible to correct the error early, thus avoiding additional costs.

With regard to the value proposition of these IoT developments, it is about overcoming the dominant product paradigm. Software companies have already demonstrated this change. They are moving away from the sale of software licences towards the

“Many companies still view IoT as incremental product innovation.”



"Software-as-a-Service" model. In this approach, the customer only pays for their actual use of the software, while the provider is responsible for supplying the software via the Cloud as well as administration and maintenance. For manufacturing companies, this means the same thing as supplying value in use. An example is the Cat® Detect Service, where the operator of construction machinery always knows what is happening around the machine by means of cameras and RFID technology. This increases safety on building sites. Or the operator model of the company Kaeser, where customers buy the pressurised air, but not the compressors. It is about overcoming the rigid focus on the product business, which still mostly dominates today, and building capacity for producing value in use. This requires unique expertise regarding customers, adequate corporate structures, new monetising strategies and value-creation activities.

Many manufacturing companies still view IoT – or digitisation in general – as incremental product innovation or as a new product feature. However, the potential lies in completely new business logics, with previously unknown services. This requires manufacturing companies to be more conscious of customer processes than was previously necessary.

Profile

Claudio Lamprecht is a PhD candidate at the Bosch IoT lab at the University of St. Gallen (HSG), Switzerland. His research focuses on the design and implementation of data-based business models in the context of the Internet of Things and artificial intelligence with an emphasis on IoT performance management and Equipment-as-a-Service business models. In addition to his studies, he has already worked in various sectors, e.g. surveying & engineering, banking and the automotive sector.

1

Online quality monitoring with SPID means that quality data is collected, analysed and allocated to ensure a high level of yarn quality. This process is carried in a future-oriented way by means of RFID and sensor technology as well as chips that are integrated in the SmartTray.

Light for efficient operator guidance

"The new light concept illuminates the path to the future of advancing automation."

With the new Autocoro, the design has gone beyond the spinning process of the machine. Processes and procedures around the machine have also 'seen the light' and have been sustainably improved thanks to the new light concept.

Long machines with up to 768 spinning positions and up to five lots for the new Autocoro make monitoring and controlling the entire machine a challenge for the machine operator in the modern spinning mill.

The solution: the new Autocoro's intelligent and unique light concept. Thanks to efficient operator guidance, it sustainably increases machine efficiency. Machine operators can quickly gain information on the status of the spinning position at a glance and manage their workflows in a targeted way – which is especially helpful for personnel without a lot of experience. Workflow times decrease, personnel are effectively deployed and can look after and control more spinning positions at the same time.

A powerful LED light strip is installed over each spinning position that fulfils two functions simultaneously. Firstly, a coloured light is displayed when the can content falls below what is specified on the HMI. The operator can take care of refilling even before a can is empty. Downtimes due to empty cans are effectively prevented, which sustainably maintains efficiency.

The second function involves the LED light strip glowing in a different colour. The light informs the operator of spinning positions with reduced productivity. Threshold values can be defined on the HMI for when the coloured light should be displayed to provide information on efficiency, clearer cuts or yarn breaks. Both functions are combined in the Efficiency Package of the new Autocoro and implemented visually with the intelligent light concept.

Saurer is looking to the future with the development of the new light concept. With a view to advancing automation in spinning mills, Saurer is also looking at processes occurring around the Autocoro. With unique innovations such as this light concept, Saurer is designing their fully automatic rotor-spinning machines for an automated future in a targeted way. The new Autocoro – a real highlight!

2

Thanks to the light strip above the spinning position, the machine operator can always keep track of things and can work efficiently.



Efficiency package with light concept

- Powerful light concept with LED strip above each spinning position
- Efficient operator guidance thanks to logistically optimised workflows
- Contains two solutions: coloured lights indicate cans that are almost empty and signals spinning positions with reduced productivity

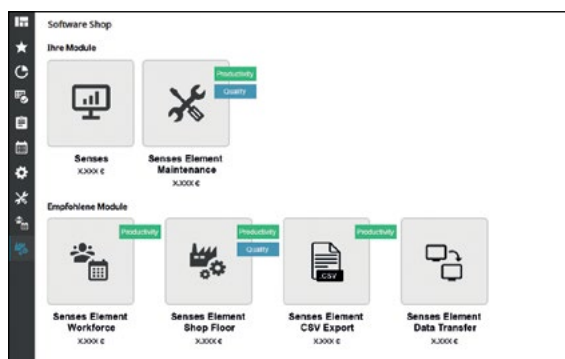


Discover more: <https://saurer.com/en/products/machines/spinning/rotor-spinning/autocoro>



Senses. Next-level mill management

The challenges facing mill management systems are ever changing. But with Senses Elements from the Software Shop, you can add new functions to Senses at any time.



2

Installed and recommended Elements displayed neatly and clearly.



3

The Software Shop: just one click away in Senses.

The Senses digital mill management system aggregates and analyses production, quality and performance data throughout the production process at spinning mills, from fibre to yarn. By interlinking textile machines and quality assurance systems – whether from Saurer or other suppliers – across all departments, it enables efficient real-time mill management.

With its modular design, the system is suitable for spinning mills of all sizes and can be scaled up as your factory grows. New functions can be added at any time, so it is already able to take on all future mill management challenges. Senses gives Saurer customers the agility they need to deal with the constantly evolving textile industry.

Shop for the future

Digital mill management requirements can change in a flash and Saurer customers rely on Senses to allow them to react quickly. Our customers can discover new functional modules – Senses Elements – by simply visiting the online Shopping Tour in the Senses Software Shop, accessed right from the Senses menu via the shopping trolley icon.

In just a few clicks, they can activate new Senses Elements in the shop. The result? Senses' range of functions expands and the mill management system is all set to deal with new challenges.

Full control, full data security

Since the Software Shop is seamlessly integrated into the mill management system, it provides the same robust level of data security as Senses. Other suppliers store their customers' sensitive data in the cloud, but Senses is a locally hosted web application allowing spinning mills to retain full control of their data.

"Shop for the future in the Senses Software Shop."

Three-month free trial

Thanks to our licensing model, you can try before you buy as all our Elements come with a three-month free trial. Once purchased, the licences last for one year. And if you opt not to extend a licence, all data related to the Element in question is frozen and becomes available again whenever a new licence is purchased. With its real-time function, Senses brings clarity to manufacturing – in real time. And Senses Elements from the Software Shop enable textile companies to react to new challenges just as quickly. With flexible mill management becoming ever more important, Senses is the perfect tool for the future.

1

Tailor-made customer solutions thanks to a modular design and the flexibility of Senses Elements.

Sensibly connected. Senses Mill Management System

- One web application for the entire spinning mill production process
- Analysis of production, quality and performance data across all departments and locations
- Full data control and data security
- Modular and expandable thanks to Senses Elements in the integrated Software Shop



Discover more: <https://saurer.com/en/products/digitalisation/senses>

Recycled yarns – Saurer is all set



1

Recycling plastics such as PET is one of the biggest challenges facing today's textile industry.

2

Processing rPET yarns using a ceramic-coated drum.

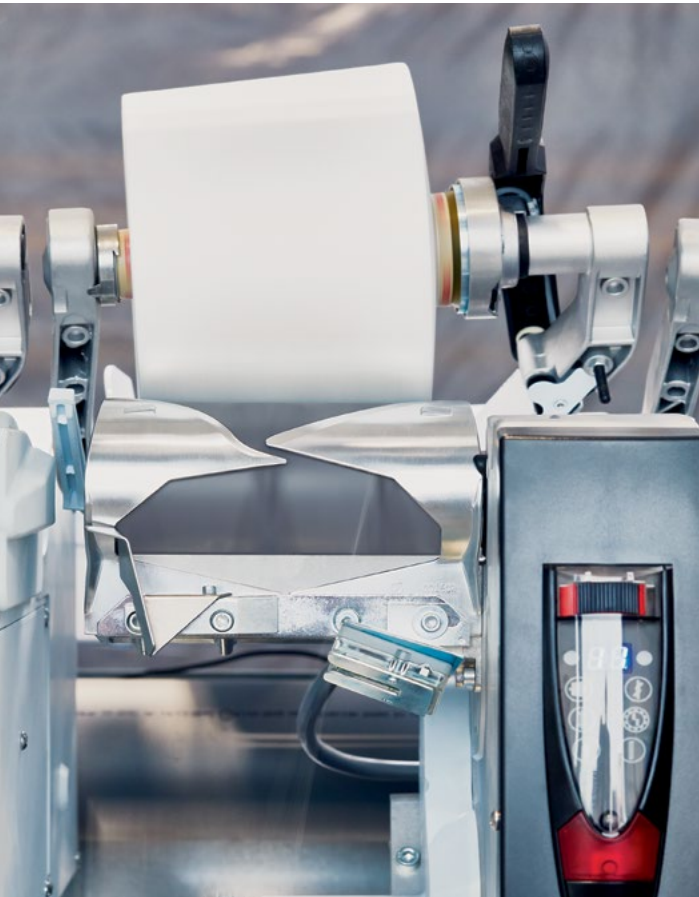
Thanks to a ceramic coating, Autoconer drums are even more resistant to the abrasive properties of recycled polyester (rPET).

There are already 150 million tons of plastic waste floating in our oceans, and this figure grows by another 8 million tons every year. If we don't act now, in 30 years' time there will be more plastic than fish in the sea. Recycling plastics such as PET is one of the modern world's greatest challenges, for the economy as a whole and for the textile industry.

In March 2020, the European Commission adopted a new Circular Economy Action Plan, the main building block of the European Green Deal, and things are starting to change. More and more, global fashion brands are focusing on sustainability. Small start-ups are cooking up innovative ideas to promote recycling. People are becoming more critical about the environmental



"Abrasive recycled yarns create challenges for the winding process."



2

footprint of traditional raw materials while alternatives such as recycled polyester are gaining momentum.

In terms of quality, recycled PET is almost indistinguishable from new PET, yet according to a study by the Swiss Federal Office for the Environment, but its manufacture requires 59% less energy.

PET is a precious raw material that belongs in manufacturing, not in the ocean. With just five PET bottles you can make enough yarn for an XXL T-shirt. And high-quality rPET is already being used in many fields. You'll find it in stylish sustainable clothing, sportswear and functional

wear, rucksacks, shoes and technical fabrics.

While recycled plastics create huge market potential, they also bring new challenges. There are still many kinks to iron out across the entire textile process and value chain, from obtaining the raw material through a nationwide recycling system up to the companies responsible for coming up with new product ideas.

With our efficient spinning and winding machines, at Saurer we promote the processing of recycled plastics. This throws up new challenges for us too, such as the higher abrasiveness of the yarns, but even the smallest of innovations can make all the difference.

As the aggregates that guide and lay the yarn, the Autoconer drums are particularly exposed to the abrasive properties of rPET yarns. But Saurer's innovative ceramic coating makes them more durable. Our customers already using the ceramic-coated drums for winding rPET have been impressed with the performance. Recycled yarns are a cinch for the Autoconer.

Processing rPET with the Autoconer

- Ceramic-coated drum – more resistant to the rPET yarns' abrasive properties
- Process-optimised package build
- Winding process with high winding speeds for both hard packages and dye packages



Discover more: <https://saurer.com/en/products/machines/winding/autoconer>

High-performance yarns save lives

High-performance yarns not only withstand immense stresses, they also protect life and limb. They pose a challenge for both people and machines because fitting customers' machines with the correct equipment requires flexibility.

High-performance yarns include para-aramids, which are used in industrial yarns and in the security sector. Bulletproof clothing is hugely important in the everyday work of certain professionals. Twaron and Kevlar are common para-aramid trade names.

Twaron is used mainly in industrial yarns, for instance as reinforcement in high-pressure hoses, whereas Kevlar is predominantly used in ballistics. Kevlar is one of the main components in protective vests worn to protect people against fatal injuries if they are faced with an armed attack.

Para-aramids are known for their immense tensile strength, which gives them their high energy absorption capacity. They are also very heat-resistant, easily withstanding temperatures of over 370°C.

"Para-amid yarn provides protection and ensures safety."

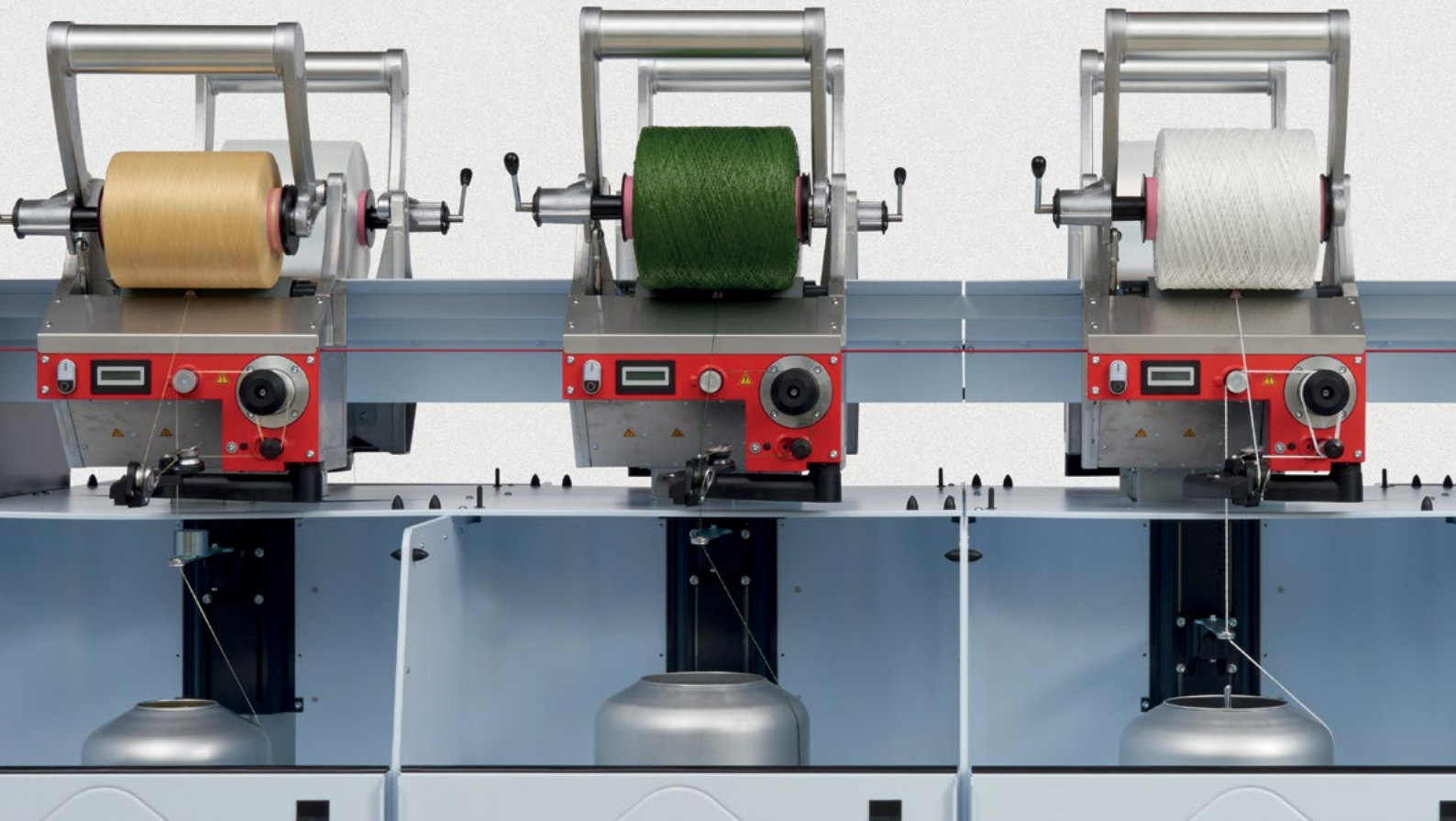
Bespoke TechnoCorder TC2 machine

Since the properties and types of para-aramids differ depending on their intended use, it is essential to find suitable yarn guide elements and associated surfaces that can process the different para-aramids carefully and without damaging them – to achieve the best end result yarn properties such as tensile strength and elongation of the fibres used in textiles must be consistently kept at the optimum level.

1

In some cases, the fire brigade also relies on ballistic vests during firefighting operations.





2

**TechnoCorder TC2 –
flexible and versatile.**

Achieving these results requires robust process technology and high-quality components. Enter Saurer's TechnoCorder TC2 – a machine flexible enough to meet any challenge.

Hand in hand with our customers

Our customers send their template material and required twist constructions and yarn properties to the "Textiltechnikum" technical centre at Saurer Twisting Solutions in Kempten, Germany, and we use them to configure the best TechnoCorder TC2 for the different para-aramid types. Tests carried out on the TechnoCorder TC2 at the centre determine the optimal machine specifications for obtaining the yarn quality required for the product. During this process the surfaces, spindle size and spindle gauge are set, and the process parameters for maximum machine efficiency are determined. The textile lab does a final evaluation of the yarn parameters to confirm the selected machine specifications.

Thanks to the TechnoCorder TC2's flexibility and versatility, our customers can process para-aramids to the highest standard while also covering a huge range of yarns with the most diverse properties within a fineness range of 235 to 60 000 dtex.

TechnoCorder TC2 – as versatile as the market.

- Maximum production flexibility
- Unparalleled flexibility of materials
- Yarn count range from 235 to 60 000 dtex
- Delivery rate up to 400 m/min
- First-rate package quality with high package density
- Extremely user-friendly



Discover more: <https://saurer.com/en/products/machines/twisting/industrial/technocorder-tc2>

Automation – demand is increasing

Saurer has been a competent partner for the planning and installation of automation systems for 30 years. Over 100 systems have already been successfully implemented globally.



Markus Schauenburg,
Head of Saurer
Automation Solutions

The new business line Saurer Automation Solutions is there to support the textile industry as a competent engineering partner for integrated automation solutions along the entire textile value creation chain. In this way, Saurer is reacting to the increasing demand for automation of spinning and further processing activities in staple fibre spinning and twisting mills as well as in the processing of filament yarns.

Markus Schauenburg, a mechanical engineer specialising in mechatronics, explains where the challenges lie. With 19 years of experience at Saurer and as the Head of Saurer Automation Solutions, the focus of his activities is the realisation of automation projects.

Insight: How do you assess the challenges and needs of customers regarding automation in the textile industry?

Markus Schauenburg: Textile companies are presented with ever more complex challenges: increasing labour costs and staff turnover, the desire to automate the flow of materials and reduce throughput times in order to increase productivity. But there are also higher requirements in terms of yarn quality and operating comfort as well as the trend for large and heavy packages, which are increasing the demand for extensive automation solutions. From roving production to yarn storage, comprehensive data management with innovative quality functions is also now indispensable.



1

The AGV Package Collector takes the packages from the conveyor belt of the machine and transports them for subsequent further processing.

2

The feed package transport system replaces the conventional high-low creel of the cabling machine. It delivers the exact packages for a whole machine side.

"Automation reduces costs and increases the quality of yarns and packages."

Insight: How can we imagine the automation of textile factories specifically, and in what areas is Saurer already offering solutions?

M.S.: We offer custom-made solutions for many areas. For example, for staple fibre spinning and twisting mills, Saurer offers can transport with driverless transport systems, transport systems for roving bobbins, palletising systems, conditioning, packaging and cross-wound package transport systems, from the winding/spinning machine right up to yarn storage.

And for filament twisting and cabling: the handling of feed packages with loading units on rail systems for bulked continuous filament (BCF) yarns, as well as tire cord for block doffing and removal of cross-wound twist packages using lifters/rail systems. Or with a driverless transport system to the next process step, such as the automatic feeding of thermosetting systems and weaving creels using robotic units.

Insight: What added value does automation offer for customers?

M.S.: Automation ensures smooth material flows, more efficient production and improved ergonomics for operating personnel. There is no mixing of materials and packages can be easily tracked. An important aspect is also the reduced personnel requirements and the associated increase in the quality of yarns and packages, as damage due to personnel errors is reduced. In addition, we offer customers engineering services that are flexible and tailored to their needs.

Insight: What Saurer automation solutions have proved to be the most successful?

M.S.: In addition to the standardised FixFlow and FlexFlow roving bobbin transport systems, the CreelFlow and PackFlow filament transport systems have also proved successful. Saurer engineers can precisely implement individual customer wishes.

Our customers receive tailor-made package transport systems of various automation and flexibility levels – fully automatic, semi-automatic or manual designs are planned, projected and realised together with the customer.

Insight: Where do you see Saurer's greatest strength and competency in the area of automation?

M.S.: Without hesitation I would say project engineering. From consultation and project planning to the implementation of customer-specific solutions.

Insight: Thank you for the interview.

Forward.

- Clearly structured material flow
- Traceability of packages
- More efficient production
- Reduction in personnel requirements
- No mixing of materials
- Significant quality advantages
- Improved ergonomics for personnel

Discover more: <https://saurer.com/en/products/automation/staple-fiber-spinning>

<https://saurer.com/en/products/automation/filament-cabling>

From curtains to masks



Mr Murat Yildirim,
R&D Manager at Zorluteks

Zorluteks, based in Turkey, repurposed its Epoca 7 pro shuttle embroidery machines in an innovative way when the pandemic struck.

A leading producer of polyester yarn and cotton home textiles in the region, Zorluteks felt that they had a responsibility to stem the spread of the coronavirus pandemic. In May, the company sprang into action, producing face masks for its employees.

"We were honoured to fulfil this duty to the best of our ability. We could not have made our contribution without our amazing employees, they are the true heroes in all of this," Mr Murat Yildirim, R&D Manager at Zorluteks, states proudly.

An in-house solution

At its production facility located in Lüleburgaz the company set aside a special area for the production of face masks. While Zorluteks usually embellishes curtains on its embroidery

machines, they were put to another use to meet the rising demand for these vital items. The masks were produced from a specialised fabric according to the highest hygiene standards.

Thinking outside the box, the designers took advantage of the flexibility of the SoutacheHead – generally used to attach ribbon and cord – using it to stitch the elastic loops to the masks. It is thus possible for Zorluteks to produce the masks without great need for human intervention, preventing bottlenecks and allowing the company to build up large reserves quickly.

As part of its corporate social responsibility, Zorluteks also shared the pattern for the masks with its peers in the industry so that more people could benefit from its expertise.

Efficient production

Using this design, one Epoca 7 pro is capable of producing 25 000 masks in a single day, which translates to a monthly output of 600 000 masks per machine, or a six-month supply for all the Zorluteks staff.

"As Zorluteks, we are happy to continue to stand by our country and the world. We look forward to the future with our valuable customers, valuable business partners and valuable customers, who all empower us," adds Mr Yildirim.



"Our employees are our most valuable assets – their health is our top priority."

1

The Zorlu Textiles Group is one of the world's prominent manufacturers in its field with a total of 800 000m² of enclosed space.

2

Zorluteks produces face masks under the strictest hygiene conditions.

3

The separate masks being cut out after the Epoca 7 stitched them and added the elastic loops.

Zorlu Textiles Group



Location

Lüleburgaz (Kırklareli), Bursa, Istanbul

Year of establishment

1982

Number of employees

7 000

Production

Polyester yarn
Cotton home textiles
Technical textiles

Saurer machinery

7 pcs Epoca 5, PEC
2 pcs Epoca 5, MPE
6 pcs Epoca 6, PEC
2 pcs Epoca 6, MPE
8 pcs Epoca 7, ST
6 pcs Epoca 7, PEC-PG
6 pcs HeadLine System
2 pcs Sequins Solo



Discover more:

<https://www.zorlutekstekniktekstil.com.tr>

<https://www.youtube.com/watch?v=WWBLxzShfaQ>

Hanam Textile: a pioneer in Vietnam

Equipped with Saurer BD rotor-spinning machines, Hanam is taking a leading role in the production of high-quality yarn in its home country.

1





Mr Truong Cong Kien,
Vice General Director of
Hanam Textile Company

Successful in a competitive environment

Established in 1996, Hanam Textile has become one of the leading companies in cotton yarn industry in Vietnam. Today they have 220 000 spindles and more than 1 500 employees. The brand name Hantex is listed as one of the top companies with cotton yarn products of the highest quality in its domestic market and in the major export markets.

The company produces 63 000 tons of quality yarn per year, including 100% cotton open-end yarn in the count range from Ne 8 to Ne 32 as a major product. Ninety percent of the yarn is exported for applications such as home textiles and fabric.

The company has set itself ambitious targets for both growth as well as for improving the yarn quality and is investing in modern equipment to ensure the highest level of customer satisfaction. Saurer and Hanam Textile are long-term partners and Saurer is proud to accompany Hanam Textile on their growth journey. The latest step was the recent installation of 20 BD 7 rotor-spinning machines to optimise productivity.

Maximum productivity and yarn quality

In 2013, the first Saurer BD rotor-spinning machine was installed at Hanam Textile. Now, 34 BD machines with a total of 18 272 rotor positions are operating at the company, along with 20 BD 7 machines. The market-proven BD 7 machines, powered by Autocoro technologies, are ensuring that the spinning mill works at maximum productivity and efficiency, qualities that propel Hanam to the top of the market.

Thanks to the patented technology, perfect piecing quality can be guaranteed. As a consequence, Hanam's customers can enjoy optimal efficiency during the weaving or knitting processes, which helps the company by promoting customer satisfaction in the long term, which further enhances its reputation. "The BD 7 machines ensure better yarn quality, a lower percentage of yarn break and our

2



1 + 2

Whether table linen, towels or décor – home and contract textiles are among the most important applications for rotor yarns.

employees find the machines easy to operate," says Mr Truong Cong Kien, the Vice General Director of Hanam Textile.

Taking on challenges together

Vietnam's economic growth per year has been above 5% for the past two decades, making it one of the fastest-growing and most stable emerging countries. Now, the country's textile industry, like many other sectors, has also been affected by the coronavirus pandemic.

However, according to the Vietnam National Textile and Garment Group, Vinatex, the textile industry should be one of the sectors that can recover more quickly.

Hanam Textile Company

Location

Chau Son Industrial Park, Chau Son Ward, Phu Ly City, Hanam Province, Vietnam

Year of foundation

1996

Staff

1 500

Production

63 000 tons p.a. rotor yarn, ring-carded yarn, twisted yarn for home textile applications, 90% of the yarns are for export

Machinery

200 000 ring-spinning units
18 272 rotor-spinning units

Fighting to preserve our shared future

Facing massive challenges, Fengshu continued production at the height of the Covid-19 pandemic and fully resumed operations.

1 Fengshu's factory for its new spinning line.



2 Fengshu owns 33 units of Saurer ring-spinning machines.



Fengshu, located in China's Hubei Province, is an important partner of Saurer Group in the country's sewing thread market. For more than 30 years, the company has kept innovating in this field, improving the sewing concept and consistently adding value to this process.

In the face of the sudden outbreak of Covid-19, Fengshu found itself at the epicentre of the pandemic in China. Despite the entire business being hugely affected, from the beginning, Fengshu showed strength. "As employees of a Chinese private enterprise, our staff displayed a high level of social responsibility – they understood that production had to go on, because sewing thread is a vital raw material used in personal protective equipment," says Mr John Chen, general manager of Fengshu.

Upon approval by the Hubei government, even at the height of the pandemic, Fengshu started one production line for sewing yarn at the end of February. By early March, the company began resuming operations gradually, reaching 100% production by July. Fengshu's spinning line features Saurer ring-spinning machines and FusionTwister units as well as precision propeller assembly winding (PPAW) machines from Saurer's strategic partner and other advanced spinning equipment from third-party manufacturers.

In early April, although the situation was still grim, the Hubei government began to ease the lockdown. At the same time, Fengshu decided to gradually continue with the installation of spinning machines and pick-up of twisting machines from Suzhou for their new project. "We are grateful that Saurer sent a team of engineers to help us to restart the installation despite the potential risk involved," says Mr Chen.

During the months that logistics within China was at a standstill, Saurer ensured that all finished FusionTwister and PPAW machines – over 50 units – were safely stored in its Suzhou warehouse. Working in close collaboration with Fengshu, Saurer rescheduled the material and production plan for their remaining machines, in order to fully support the company in reaching their goal: to restart the entire production line by the end of August.

"As a severe, unpredictable event, Covid-19 had a huge impact on the textile industry. We will continue to feel its effects for a long time. But in this moment of crisis, companies in the sector have supported one another," comments Mr Chen. "This unity will ensure that the sector can overcome this difficult time and recover."



3

FusionTwister units can be seen in Fengshu's production hall.

"The unity in our sector will ensure that the industry can overcome this difficult time and recover."

Hubei Fengshu Thread Manufacturing Co. Ltd.



FENGSHU

Location

Ezhou City, Hubei Province, China

Year of foundation

1987

Staff

1 500

Production

Staple-spun polyester thread

Core-spun thread

Performance yarn

Machinery

Blowing & carding units

Draw frames

Roving frames

Ring-spinning machines



Discover more:

www.fengshu.com

AVS Tekstil makes a breakthrough with Saurer



Ali Yanginci,
CEO and shareholder
of AVS Tekstil

This company made a radical decision upgrade its carding machinery in partnership with Saurer and has become a pioneer in Turkey.

The company, which was established in the Uşak province of Turkey in 1980, began producing yarn with its sister company Yanginci Tekstil in 1989. Today, it produces yarns with a fineness of Ne 4 to Ne 30 in three separate factories in the Uşak Organized Industrial Zone, the recycled yarn production centre of

integrated recycling machines. It produces 7 000 tons of yarn per year.

AVS Tekstil recently decided to upgrade some of its pre-spinning machines, and after a long period of market research, it selected Saurer carding and fine opening machines, which recently entered the Turkish market. Mr Ali Yanginci, one of the company's shareholders, states: "We needed to change our cards, but it was a radical decision on our part to replace all the machinery and to opt for Saurer. Our years-long cooperation with Saurer and our trust in their service and care played a role in making this decision. After we saw the reference cards on the market, we purchased 15 units JSC 328A and two fine openers.

"We were very pleased with the cards and placed an order for 10 more units."

Turkey. With rotor-spun yarn from polyester, cotton, viscose, wool and acrylic fibres and a number of blends, also including recycled material, AVS Tekstil specialised in the production of circular knitted fabric, flat knitted fabric, shirt, towels and socks for leading brands in Turkey and around the world. The company also plays an important role in sustainability by converting cotton and synthetic textile wastes into the yarns with its

"We currently produce yarns of constant quality according to customer specifications. The opening, autolevelling and nep-removal qualities of the machines are excellent, and they can operate continuously with high efficiency. We are very happy, especially with the machines' low energy consumption. We subsequently ordered 10 more cards,



1
Saurer carding
machines.

2
Saurer rotor-spinning
machines.

and are awaiting our new machinery."

For many years, AVS Tekstil has been making successful progress with its longstanding R&D and sustainability projects in the industry. The company will make even further progress with the renewed machinery. "We need to save global resources, and we are doing all that we can to achieve this goal. In our recycling facilities, we make use of the textile scraps and waste that we collect from the environment," says Mr Yanginci.

"Uşak is the most important centre in Turkey on the subject of recycled yarn, and we are a family firm that has been working in this field for many years. We intend for our children to continue providing the sector with this service in our country and international markets. We closely monitor new technologies to streamline our production processes and elevate our customer satisfaction to the global standard. Saurer's rotor-spinning machines continue to provide us with efficient and economic production, and the Saurer's team in Turkey has always supported us for both technical service and R&D. We look forward to receiving the same support for our new pre-spinning machines," he adds.



AVS Tekstil San.ve Tic. A.Ş.



Location

Uşak, Turkey

Year of establishment

1980

Number of employees

285

Production

Original and recycled blended yarn from polyester, cotton, viscose, wool and acrylic

Machinery

Textile waste recycling machines

Blowroom machinery

15 Saurer JSC328A

2 Saurer JSB318

1 Saurer BD 352

2 Saurer BD 416

2 Saurer BD 448

4 Saurer BD 7

7 Saurer Autocoro SE12

4 Saurer Autocoro 8



Discover more:

www.avstekstil.com

Making lockdown a little easier



Mr Sanjay Arora,
Managing Director
of D'Decor

Mr Sanjay Arora, Managing Director of D'Decor, a leading producer of soft furnishing fabrics and a household name in its native India, discusses the impact of the pandemic on the company and the country.

D'Decor felt the impact of the pandemic strongly, especially in the domestic market, where they generate 50% of their revenue. The export markets – particularly certain European countries and Australia – began to see signs of recovery sooner. "Business is returning and customers are optimistic. They are eager to increase sales," explains Mr Arora, who estimates that the company's exports may return to normal by year-end.

Regarding the situation in India, he says: "Companies are cooperating: we are taking care of our workforce, the supplier and the customer. We've all managed to live with each other in these Covid times and work together." He estimates that the local economy may take a year to recover. He believes that D'Decor, which generates a significant portion of sales overseas, may optimistically see a return to pre-pandemic levels by April 2021.

With lockdowns and shut borders having confined people to their houses around the world,

he notes that consumer behaviour has changed – they have come to appreciate their homes more. "Since they can't travel too much, a large percentage of the budget is going to home furnishings," Mr Arora says. "They want to put more effort into having a better home, a more beautiful home, because they have a greater understanding of how important it is to have a pleasant and comfortable living space."

Has the pandemic had an effect on the company's strategy? He comments: "We are already a huge brand in India and will continue to focus on being a reliable supplier domestically. Our aim is to provide great value to the consumer. With our exports, we want to be the ultimate B2B supplier, providing our customers with the best quality goods on time."

Due to the prevailing uncertainty, expansion is not on the cards for D'Decor in the coming months, but the modernisation of their factories remains a top priority. "We would be consistently looking at making ourselves fitter. We have to

1
On Saurer's Epoca embroidery machines, the company creates diverse designs for its ranges of bedding and curtains.

2
D'Decor has five manufacturing plants in Tarapur in the Indian state of Maharashtra.

1



2

**"The pandemic
has changed the way
people view their homes."**

maintain our high standards and stay on the top of the game," Mr Arora states.

Regarding trends in the market, he says: "We are focusing on recycled fabrics, sustainable fibres – these are in demand in Europe. Antibacterial performance fabrics and our curtains with their air-purifying coating are also popular. Indian consumers are likely to start following these trends soon."

Discover more:
<https://www.ddecor.com/>

Efficiency of spinning machinery has increased

Despite decreasing installed base, staple yarn output still shows slight growth on yearly basis.

1

Cotton production 2019: India remains the major producer of cotton followed by China, the US and Brazil.

2

The pandemic has caused worldwide disruptions in the textile value chain. A slow recovery is visible as the degree of mill utilisation is increasing.

3

Global economic recovery could encourage increased consumption of textiles, resulting in an increased demand for cotton.

 Discover more:

Fiber Year:
<https://www.the-fiberyear.com>

ITMF:
<https://itmf.org/>

ICAC:
<https://icac.org/>

Fibre production and yarn output is growing in 2019

According to recently published edition of "The Fiber Year 2020", world staple-fibre production grew 0.3% to almost 59 million tons. While harvesting of natural fibres sunk, it remained the major source with 31.9 million tons. Cellulosic has seen increased popularity and it grew 6.7% to 6.9 million tons and synthetic fibres grew by 3.9% to 19.9 million tons.

Worldwide yarn output (filament and spun yarn) grew by 3.8%. For years, filament has shown a higher growth rate compared to staple spun yarn. 2019 figures see filament heading the growth by 5.5% while staple yarn had a more moderate growth of 1.5%. While the global installed base has shrunk in total by around 5% in the past three years, the output of yarn is still growing slightly due to the introduction of new, more efficient machinery. High-speed rotor- and air-spinning machinery along with higher speed at the new ring-spinning frames are keeping up the total capacity.

The ICAC "COTTON: Review of the World Situation" expects consumption for the 2019/20 season to decline 12% to 23 million tons, but it could improve in 2020/21 if the global economy recovers. The unknown quantity here remains the consumers – while the general situation regarding the coronavirus pandemic has improved in many Asian and European countries, the consumption of textile still needs to increase in order to trigger investments. Meanwhile, cotton continues to face price competition from synthetic fibres.

Deliveries of ring- and rotor-spinning machinery in 2019 according to ITMF

The International Textile Manufacturers Federation (ITMF) publishes figures on global textile-machine deliveries on an annual basis ("International Textile Machinery Shipment Statistics"). The report is compiled in cooperation with more than 200 textile machinery manufacturers across the globe, thus providing a representative picture of this market.

Sales of new ring spindles fell by 6.9 million, dipping to the lowest level since over 10 years. Most of the new short-staple spindles (92%) were shipped to Asia. With a total of 3.6 million spindles, China remains the world's largest investor in short-staple spindles, followed by India (0.98 m), Uzbekistan (0.53 m) and Vietnam (0.51 m).

Global deliveries of long-staple spindles shrunk by 66% – from approximately 120 316 spindles in 2018 to 40 634 spindles in 2019. Relative to the short-staple spindle market, long staple has shown more volatility.

After three strong years, the number of deliveries of open-ended rotors sunk by 20% to 0.57 million positions, still remaining slightly over the 10 year average. Rotor has shown strong growth especially in China. Saurer deliveries have made up a significant proportion of these.



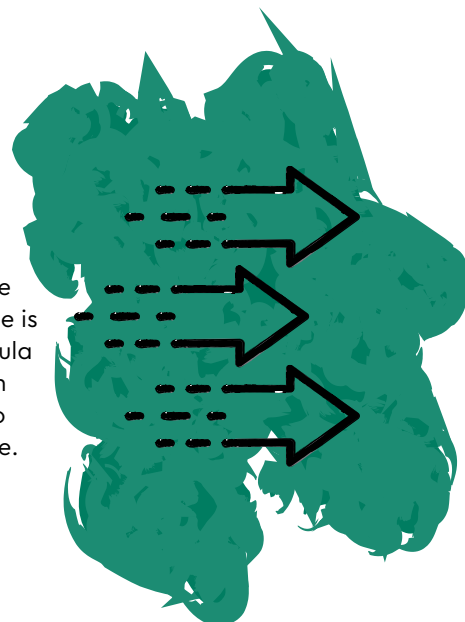
"Rotor has shown strong growth especially in China."

3



30 g

This is the maximum acceleration of a shuttle on an Epoca 7 when the embroidery machine is running at 700 rpm. For comparison, a Formula 1 driver is subjected to up to 5 g-forces when cornering and a fighter pilot must be able to withstand 9 g-forces for short periods of time.



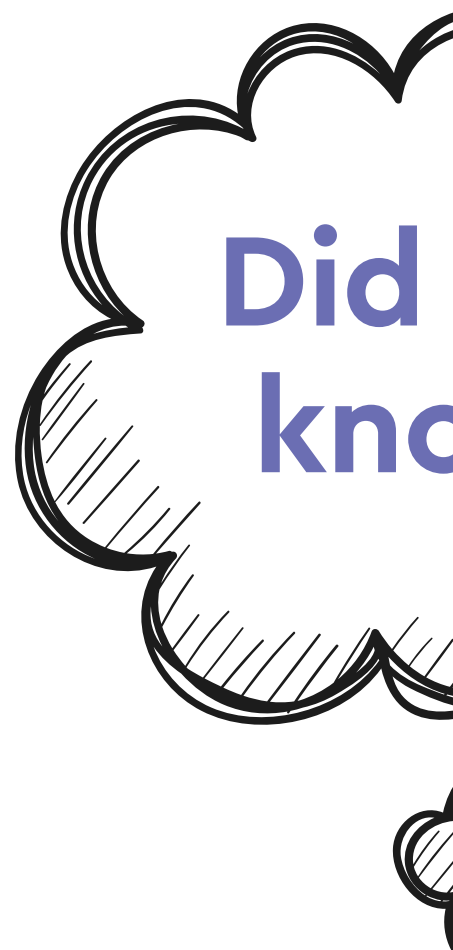
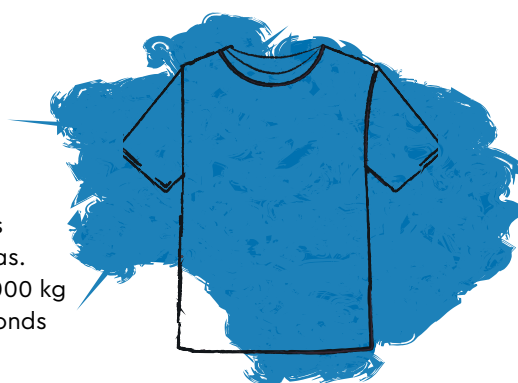
Infinite versatility



The GlassTwister VGT-P is extremely versatile. It processes: (1) Twisted or hybrid yarns for the automotive industry. (2) Glass filament and basalt glass yarns, which are used for automotive light-weight construction, fire protection and as insulation material. (3) Twisted yarns for thermally resistant applications in the defence industry. (4) Copper cables for medical technology. (5) Wool twine and blends thereof for the aircraft industry and carpets. (6) Silk yarn, rubber- or PET-coated glass filament for drive belts and outdoor furniture. (7) Polypropylene, glass filament yarn, Teflon for medical applications or steel staple fibre.

2 016

This is how many spinning positions the Z 72XL ring-spinning machine has. With an annual production of 430 000 kg of cotton yarn (Ne 30), this corresponds to 2 000 000 T-shirts.



75%

Tire cord that has been produced on a Saurer CableCorder can be found in 3 out of 4 car tires worldwide.



5 bottles

This is the small number of PET bottles needed to provide enough fibre material to make a T-shirt. The Autoconer can process yarns from 100% recycled PET. For example, a drum with a ceramic coating is available for this purpose to take account of the yarn characteristics in the winding process. (Read more on p. 16.)



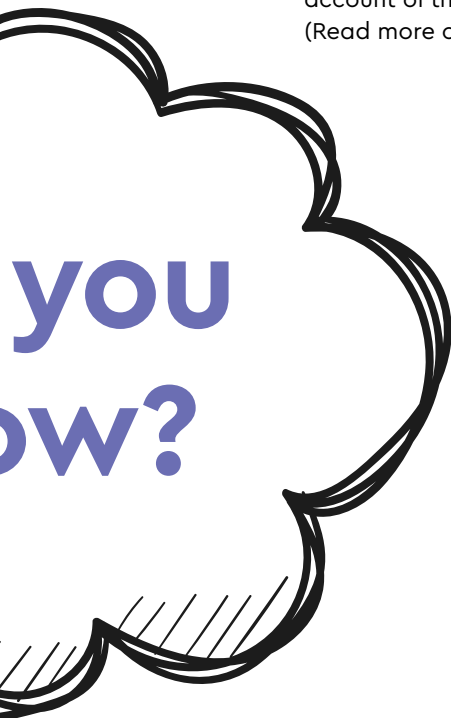
1 BLINK OF AN EYE

A splice impulse on the Autoconer takes just 0.15 seconds, about as long as it takes to blink.



Bright idea

Saurer embroidery machines make curtains glow. Mini LEDs embroidered on the fabric provide the light. The fabric is conductive and the LEDs are powered by the battery – this makes the LEDs practically invisible. Luminous textiles may not be new, but they are becoming increasingly sophisticated. Despite the dimmable lighting technology, the new fabrics remain soft, pliable and even washable.



Elastic compounds under the microscope



Holger Janßen,
Head of R&D, Saurer
Technologies, Münster,
Germany

No reliable result without an exact compound: for the optimal transport of fibres into the machines, our laboratories in Münster rely on extensive testing, research and development of elastomers.



1

Vulcanisation behaviour is determined with a test piece for the vulcanometer test.

At our Münster production site, everything revolves around elastomers. Many factors play an important role for their use in spinning machines in order to ensure the smooth running of production without disruptions – under the most varied conditions. For customers to be able to produce an optimal yarn result, the aprons and cots must fulfil high quality standards.

In order to achieve this, the testing and development labs first check the individual raw materials and elastomer compounds before the vulcanisation process begins. The lab technicians apply various testing procedures for this purpose: hardness testing, colour measurement, rebound elongation, testing of deformation under pressure as well as testing of the tensile strength and dispersion quality. Only at this point is it still possible to eliminate any weak points and optimise the composition. As soon as the compounds are vulcanised, it is no longer possible to change anything and the product would have to be disposed of.

Lab technician Olaf Neumann detects even the smallest defects, starting with the quality of the core raw materials: "Rubber, in particular, can cause problems. As the largest constituent substance in the compounds, we must pay attention to the exact quality here above all else." As rubber can influence the degree of hardness of the elastomer, this raw material must be of especially good quality and must correspond to the specifications (e.g. Mooney viscosity). "The softer the final elastomer compound, the better the yarn quality later!"

But the labs are not the only place where quality assurance is carried out. The QA department in production also tests with its own testing tools during the individual process steps. "In the R&D and application labs, among other measures, the finished aprons are tested by means of random sampling," explains Product and Application Manager Claudia Timp. This includes the testing of dimensions, thread position, the ratio of the layers as well as surface quality and structure. The friction properties of the inner and outer layer, tear resistance and stretching as well as the torque with the apron running in the drafting system without the influence of fibres must also be assessed in the series of tests. Newly developed products or modifications also

undergo an extensive series of tests. But before this stage, meticulous work and research is first done in the R&D lab. Interview with Head of Development Holger Janßen:

Insight: The testing and development labs in Münster are unique. What distinguishes them?

H.J.: We move between two worlds. On the one hand we can measure properties such as tensile strength, rebound elongation, colour and abrasion resistance using elastomer technology. On the other hand, we meet customer demands for good results with regard to yarn quality and service life of the components. This combination of research into the best formulation and achieving the desired features distinguishes us. The goal is to keep extending the service life of the products without the yarn quality changing.

Insight: Describe your research work into new elastomer compounds.

H.J.: We experiment with the compounds and add new raw materials in order to continually improve the measured elastomer properties. It is about developing the best formulation so that the customer receives a final product of the highest quality and durability. Our cots can be regarded as the car tires of a spinning machine: they ensure the optimal transport of the yarn.

Insight: What trends are you seeing and what are you already working on?

H.J.: The focus is definitely on the long service life of the products combined with the best yarn result. With our AccoSmart product range we have already made a start. The sandwich cots combine a soft inner layer with a harder outer layer. Thanks to the harder layer, there is less wear on the cots and the service life is lengthened. The soft inner layer ensures good formation and offers a large attachment surface for the fibres, which guarantees the best yarn quality. The first step has therefore already been taken, but we are continuing to develop further.

Insight: What vision do you have for elastomers?

H.J.: We are already researching the manufacture of an "intelligent elastic", signifying a great leap forward in yarn production. However, I cannot reveal more at this point.

Our vision: to manufacture an "intelligent elastic".

Local roots, global networking



Andreas Bennewitz,
Head of Customer Service
Centre (CSC), Übach-
Palenberg, Germany

The Customer Service Centre (CSC) in Übach-Palenberg has moved to new premises. We interviewed the two CSC team leaders to discuss the centre's importance within the global Saurer network.

Insight: You both run the CSC in Übach-Palenberg. What role does it play within Saurer Spinning's global CSC network?

Andreas Bennewitz, Head of Customer Service Centre (CSC): Übach-Palenberg is responsible for the European market, but it is also a kind of blueprint for our global customer service network. It is here that we develop the standards that are implemented across all 16 Saurer Spinning Solutions CSCs. And that goes for everything: from 5S lean management within the organisation right up to the technical equipment at the CSCs. We've also seen digitisation increase in many different areas. As well as hardware components, customer service also needs to factor in increasingly complex software applications. The challenge

we face at the moment is to offer every customer a personalised solution to their problem.

Insight: How does the global Saurer customer service network work in practical terms?

A. B.: Because all CSCs follow the same 5S lean standards – and in future the new, even more comprehensive CSC 5* Star ones – every customer service employee immediately feels at home at any location. This promotes intercultural exchange, both when we run on-site team training workshops and during video calls, which we currently have almost every day to maintain communication.



1

Video calls with local CSCs on site make fault diagnosis easier and leads to fast solutions.

2

Saurer's exclusive digital diagnostics technology: an intelligent early warning system provides traffic-light signals to indicate which frequency converters should be proactively replaced. Multigenerational teams work together.





Joaquim dos Santos,
Manager Customer Service
Centre (CSC), Übach-
Palenberg, Germany

**Joaquim dos Santos, Manager
Customer Service Centre (CSC)
Übach-Palenberg:**

Our roots are local but our network is global. Our customers have their dedicated contacts at their local CSCs, who they often enjoy a trusting working relationship with for many years. In the background, though, our global network is working hard for our customers. For instance, if the CSC in Brazil finds a solution to a specific problem today, a customer in Uzbekistan can reap the benefits as early as tomorrow.

Insight: What challenges are textile companies facing today?

A. B.: The specific challenges are varied and ultra-specific.

But two areas always take centre stage: yarn quality and productivity. Ensuring a specific quality is a particular challenge in the staple fibre business segment, where a large number of spinning mills have to deal with fluctuating raw material quality. The drive towards greater sustainability through recycling is presenting new challenges for quality management. And cost pressures mean productivity is an enduring issue.

3

Each Corolab Q/XQ/XF system is tested and calibrated directly at our customers' premises or in our global CSCs.

"Maintenance Kit Corolab service – real-time quality assurance from Saurer."

A. B.: The Maintenance Kit also includes optional employee training, which brings measurable benefits. When trained staff operate correctly calibrated Corolab systems, costly yarn complaints are avoided.

There's also the Maintenance Kit Frequency inverter service, which uses preventive maintenance of the electronics on the basis of an intelligent early warning system to avoid unnecessary downtimes and thus boost productivity. In addition, we protect all machinery components that are directly connected to the frequency inverter so that they are not damaged during a breakdown.

J. d. S.: The Maintenance Kit Corolab and Frequency inverter services can be ordered from any Saurer CSC, along with a wide range of other Maintenance Kits. We also help our customers overcome market challenges by providing tailor-made services.

Insight: Thank you for taking the time to talk to us.

Insight: How do you help your customers tackle these challenges?

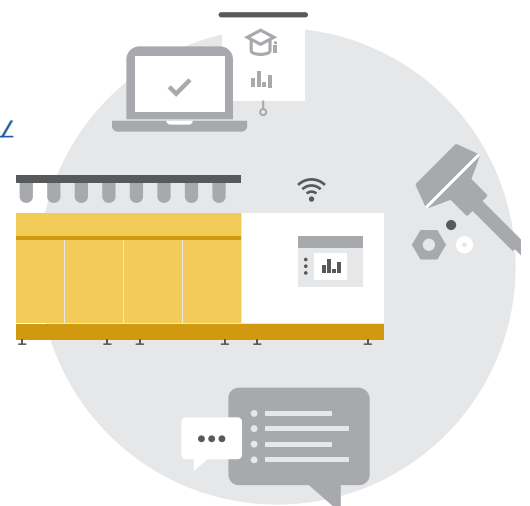
J. d. S.: Our Maintenance Kit Corolab service is a great example. The Corolab real-time quality assurance system monitors the yarn and piecing quality for our Autocoro and BD rotor-spinning machines. The system requires regular maintenance, and the Maintenance Kit includes all the necessary servicing operations. Our technicians inspect the Corolab system, check all the functions and calibrate the sensor systems. And the servicing is ISO 9001-certified.

5S lean management means working to the internationally recognised standards "Sort, Set, Shine, Standardise and Sustain".



Discover more:

<https://saurer.com/en/services/sun-service-unlimited>



Thriving despite her tough start

Adjusting to a new job is difficult under normal circumstances, but this spirited employee joined Saurer just before the pandemic began.



1

In 2019, Saurer's sales and service office relocated to Americana, in one of Brazil's key textile regions. This site is close to one of the major airports, Viracopos International Airport in Campinas.

Ariane Souza,
Administrative Assistant,
Controlling, at Saurer's
Brazil location in Americana





2

Ariane Souza appreciated this Easter hamper with face masks that was provided to the Saurer team in Brazil.

Insight: Tell us about your background.

Ariane Souza, Administrative Assistant, Controlling, at Saurer's Brazil location: I started my professional life in a supermarket. After attaining my degree in Tourism Management, I spent a decade in that industry. Upon returning from maternity leave, I sought a position in the administrative sector and I worked in the financial administration department of a car dealership for three years.

Insight: What does your job involve?

A.S.: My work routine includes accounts receivable, invoice verification process, billing and collection of services rendered, among others.

Insight: You arrived just a few months before the coronavirus made itself felt. How was this experience?

A.S.: As soon as the state of emergency was declared, we were instructed to work from home. I was still in my training period and had never worked remotely before. This time was challenging, but in the end we managed well.

Insight: Why was this?

A.S.: I think careful planning had a lot to do with it. I also received a great deal of support from the leadership. They also had confidence in me. It was clear that the quality of life and safety of employees was the top priority for the leadership team. This made this moment of crisis less turbulent. Thanks to the entire team's commitment, the workflow was not interrupted, and we managed to cope with this challenge. I believe this is all thanks to our humane and people-centred leadership.

Insight: How did the company boost morale during this time?

A.S.: Throughout this period, it was obvious that the company was concerned about each employee. At home, we received healthcare e-mails and updates regarding Covid-19. We also received chocolate treats to celebrate Easter along with face masks. All these gestures from the company's leadership made us feel motivated and willing to make every day a win, even when we couldn't physically be in the office.

Insight: What is your favourite part about working for Saurer?

A.S.: It's seeing how much they value and care about each employee. We see this in every detail, starting with

the annual leave that is made available to employees. Also, every birthday is announced to everyone at our office and we celebrate special days, too. On Women's Day, for example, we all received a hamper of perfume and soaps. Every small gesture makes me want to contribute more to the growth of this company.

Insight: How would you describe the culture in Saurer's Brazil office?

A.S.: Externally, I would say it is a company that is results-oriented and focuses on putting the customer first. Internally, it has an employee-oriented management style that values the well-being and growth of staff members together with the company.

Insight: What are you particularly proud of having gained during the short period at Saurer?

A.S.: Recognition. Like, for example, receiving a compliment from your co-worker when you are proactive and being noticed in the company, as with this interview.

Insight: Can you tell us about a challenge you face?

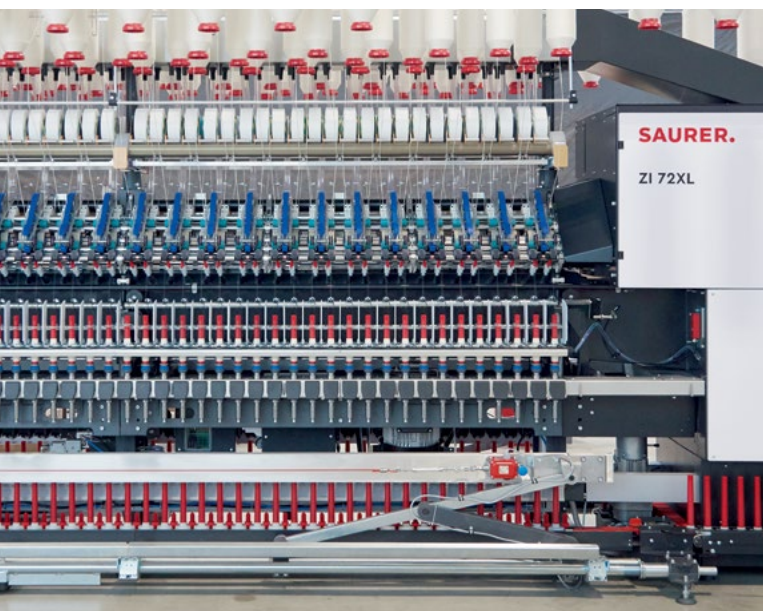
A.S.: Communicating with people from Germany can be difficult as I am not fluent in English, but nowadays we have many tools that facilitate our work. Wanting to experience life abroad one day motivates me to overcome this obstacle.

Insight: What do you want our customers to know about Saurer?

A.S.: I want them to know how much this company values each employee, because if a company has motivated, happy employees, the quality of service increases as a result.

Insight: Thank you very much!

Efficient production, worldwide



Customer satisfaction is what motivates us at Saurer. That's why we've set up a state-of-the-art ring-spinning machine assembly facility in Übach-Palenberg, a town right at the heart of Europe.

1

The factory in Übach-Palenberg, Germany.

2

The most cost-effective ring spinning with the ZI 72XL.

3

The best-selling worsted yarn ring-spinning machines: the ZR 451/ZI 451.

"We manufacture where our customers expect us to."



Other textile machinery manufacturers are moving their production out of Europe, but Saurer remains committed to the region.

Germany is the world's third largest centre of cutting-edge manufacturing behind China and India, and is now home to the latest generation of ring-spinning machines. Saurer has production facilities around the world, meaning we are perfectly placed to cater to our customers' individual preferences and requirements.

"At Saurer, we thrive on keeping our customers satisfied. And we keep them happy by manufacturing our leading products in countries where they expect us to," says Steffen Saur, Senior Vice President Global Sales & Service at Saurer Spinning Solutions.

Z 72XL and Z 451 short and long-staple ring- and compact-spinning machines will enter production at the new state-of-the-art assembly department in Übach-Palenberg from October 2020.

The unparalleled flexibility of the new Z 72XL is impressing our ring-spinning customers across the globe, while the Z 451, the epitome of efficiency, productivity and cost-effectiveness, has been the worsted yarn market leader for years.

Sustainable down to the last detail

From the outset, the planners of the new Übach-Palenberg assembly department were focused on sustainability. Using an intelligent layout, they optimised the assembly space for other product groups, enabling an existing building to be modernised and used as a production shop. Their design removed the need to build on any green open spaces.

The new production shop draws heat and electricity from the company's own CHP plant. It is lit by LEDs, reducing power consumption by 240 kW annually. And highly insulated skylights minimise heat loss in winter while limiting temperature rises in summer, meaning less air conditioning is required.

Equipped for Industry 4.0

The cutting-edge assembly department guarantees efficient production processes and greater production capacity, paving the way for increased digitalisation in the future as part of Saurer's Industry 4.0 strategy. "For us, sustainability is not just about reducing land use and energy consumption," says Dr Marcus Rennekamp, Senior Vice President Supply Chain at Saurer Spinning Solutions. "In designing this new assembly department, we are laying the foundation for the Industry 4.0 smart factory of the future."

State-of-the-art ring-spinning machine manufacture in Europe

- Short-staple product line: ZR 72XL (ring spinning), ZI 72XL (compact spinning)
- Long-staple product line: ZR 451 (ring spinning), ZI 451 (compact spinning)

Introducing Saurer Customer Support

Worldwide, our Twisting Solutions Customer Support has over 100 employees who will advise and support you with commitment and know-how. Who are the faces behind our support services?



Hardy Chen,
Customer support manager
in China

Hardy Chen has been leading the Customer Support Team in Suzhou with an experienced hand since 2003. As a textile technologist, customer support supervisor and customer support manager, he and his team support over 500 customers.



James Sherrill,
Sales and Service Manager
in Charlotte, USA

Insight: What was or is your greatest challenge with Saurer projects?

Hardy Chen: The biggest challenge is optimal staffing to meet our high expectations, employees are a key factor in our success. Saurer opened the plant in Suzhou in 1997. Due to continuous growth in the Chinese market, the number of customers and projects grew and our team had to expand accordingly. Our employees' qualifications and motivation were very important. We focus strongly on the promotion and retention of talent. A range of measures and methods has contributed to the stable development of the team, such as the recognition and cultivation of local experts, and the carefully considered assignment of company goals to individuals. The employees are highly committed. The staff turnover rate for the past 10 years is less than 1.5%, we are proud of that.

James Sherrill began his career in Saurer as an electrical technician in 1985. In 1997 he was promoted to electrical service manager and he has been working as Sales and Service Manager since 2008.

Insight: What was or is your greatest challenge with Saurer projects?

James Sherrill: My biggest challenge was supervising the installation of the CarpetCabler CarpetTwister 8.05 for a major customer. 62 machines with 168 spindles each were installed, of which two per week had to be integrated into an existing system, while yarn was continuing to be produced. The installation was completed on time and the customer was and is very happy with the installation and equipment.

Insight: What makes Saurer so special for you?

Hardy Chen: I can name three important aspects that are unique and that distinguish Saurer from many other companies. Firstly, Saurer promotes independent thinking, regardless of rank and position, different opinions will be respectfully acknowledged as well. The workplace should be a place of mutual respect and appreciation for our employees. Secondly, Saurer is dedicated to the improvement and promotion of the professional skills and qualifications of its employees, almost regardless of the cost. The positive policy with strategic vision makes employees very loyal to the company. Last but not least, knowledge and experience are cultivated and transferred throughout the entire organisation, this provides a strong guarantee for the sustainable development of Saurer.

This would not have been possible without the hard work of our technicians and the great support we received from Germany.

Insight: What makes Saurer so special for you?

James Sherrill: Saurer is not just a workplace – Saurer is more like a family. This is not just true for the employees here in Charlotte, but also for my colleagues in Germany and across the world.



Markus Mayer,
Senior Manager, Customer Support
in Kempten (Allgäu), Germany

In 2002, Markus Mayer began his training as an industrial manager at Saurer in Kempten. After successfully completing his qualification, he started his career in the original parts team and was later promoted to Senior Manager in Customer Support.

Insight: What was or is your greatest challenge with Saurer projects?

Markus Mayer: The development of Secos in 2011 was the greatest challenge I have faced to date.

It was not easy to find a single platform for embroidery, Twisting Solutions and Spinning Solutions, with which all our customers and employees could communicate through a single interface. The Secos team had great success in developing solutions for all locations with uniform data interfaces to our ERP systems and processes. Today, Secos 2.0 is our most important customer portal with the highest level of customer transparency and the greatest benefit for our customers and our company. The easily accessible machinery documents, original parts catalogues, parts availability and price information is a decisive distinguishing characteristic in the textile machinery market. Thanks to Secos 2.0, our service process is also very effective and rapid. We can access the latest information at any time and ensure quick response times. Secos 2.0 is being constantly further developed and optimised.

Insight: What makes Saurer so special for you?

Markus Mayer: I appreciate working with a global team of excellent and professional colleagues who focus on our Saurer core values. I am proud to be a member of an innovative and customer-oriented team.



Xavier Peligry,
Manager of Customer Support
at Twisting Solutions
in Valence, France

His career at Saurer began in 2015 after Saurer Twisting Solutions took over the replacement parts and service division of the company Verdol in France. Since then, Xavier Peligry has been working in Customer Support and is responsible for the former Verdol business globally. His tasks include original parts distribution, machine upgrades, monitoring software and service sales.

Insight: What was or is your greatest challenge with Saurer projects?

Xavier Peligry: My greatest challenge to date was a project with a Chinese customer. The customer was interested in a modern monitoring system. The negotiations, installations, adjustments and fine-tuning took a total of three years. Today the customer is very happy with the product and we are proud to have them as a reference.

Insight: What makes Saurer so special for you?

Xavier Peligry: I was initially unsure how my future would look in such a large group when changing from a competitor company into the Saurer Group. I have been positively surprised by the effective organisation and work at Saurer and am happy that my experiences to date have actually exceeded my expectations. Saurer trusts me and values my work and, after almost five years of successful work, I am very happy to be part of the group and to give my best in order to make the company even more successful.



Andreas Keil,
Senior Manager Service,
Customer Service
in Krefeld, Germany

His career at Saurer began in research and development in 1992. In 2000 he moved to production and later he was responsible for electrical installations as a team leader. He was also responsible for apprentices as a trainer. In 2008 he started working in Customer Support and was responsible for system upgrades, among other things. In 2013, as a service leader he took over responsibility for all customer matters regarding installations, damage management and service organisation.

Insight: What was or is your greatest challenge with Saurer projects?

Andreas Keil: The customer is always the focus at Saurer and we gladly rise to meet every challenge regarding the needs of our customers. It is not always a simple matter to find a good balance between customer and corporate needs. Throughout our entire company history, good cooperation between Saurer and our customers has already produced many innovations in the textile industry – even if it wasn't all smooth sailing. We grow in a customer and market-oriented way – because this is the only way we can be strong together. Also, dealing with different nationalities and their mindsets and cultures is not always intuitive. We Europeans often have our own way of thinking and that is why it is important to be conscious of different customs and traditions, and to respect them too. This is often a basic prerequisite for a fruitful partnership together.

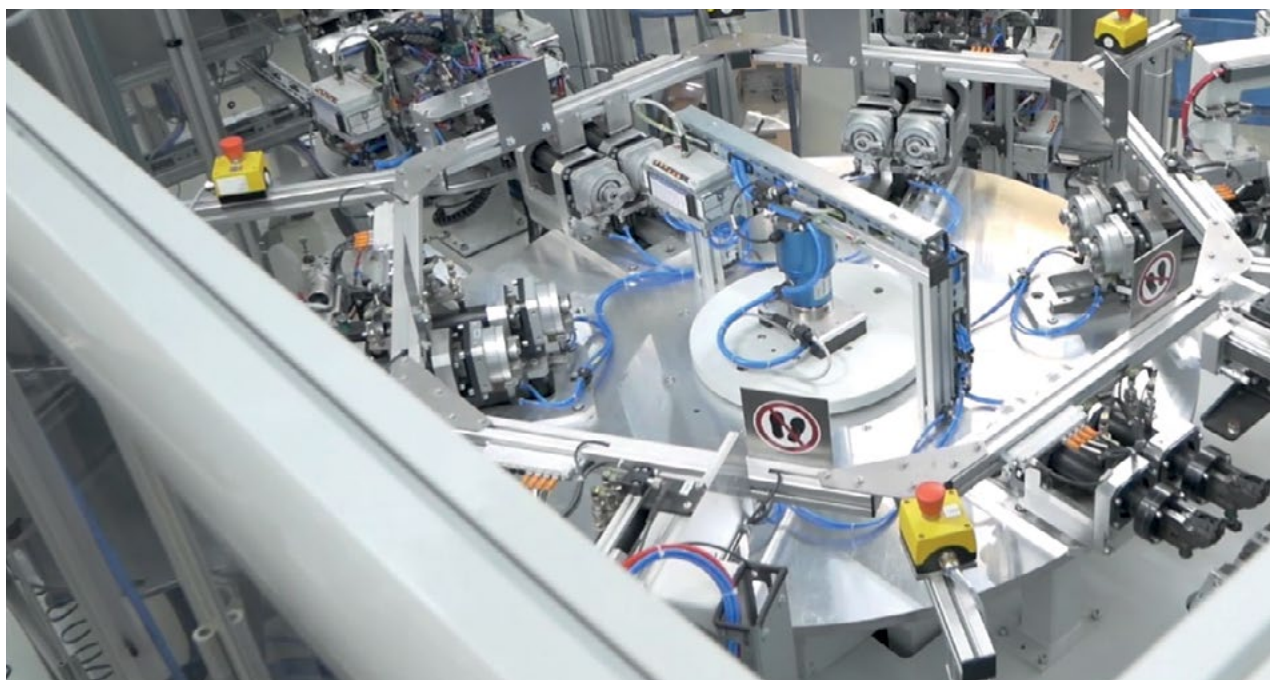
Insight: What makes Saurer so special for you?

Andreas Keil: At Saurer, work is done in a goal-oriented way and we are always on the lookout for win-win solutions. I very much appreciate the team spirit within Saurer as well as the international and varied work with our customers.

State-of-the-art manufacturing in Fellbach

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Highly automated manufacturing technology that is tailored to the requirements of the product.



At the Saurer plant in Fellbach, Germany, a high level of automation is relied on – 95% of manufacturing is fully automated. This not only guarantees "Made in Germany" quality, it also means maximum output with minimum personnel.

Thirty employees in manufacturing and nine employees in logistics ensure maximum flexibility in the production and dispatching of components by means of 1–3 shift operation. "The challenge lies in short-term planning," says Sven Wolf, Head of Production. "With weekly, sometimes even daily planning, we can react quickly to spikes in orders and always deliver on time. Customers therefore have a reliable supply of what they need."

With a factory floor area of some 3 000 m², around 22 000 modules are assembled per shift from approximately 450 000 individual parts. Around 157 000 parts leave the Fellbach site per day, which corresponds to an annual capacity of up to 39.5 million parts.

Automation means perfection

Automation increases the consistency of the quality and the machines are designed for maximum output with a minimal error rate. Various methods for quality assurance are already used during the manufacturing process. Poka Yoke, for example, ensures that only the correct parts can be inserted in a specific position, thereby ruling out mix-ups.

"95% automation – added value for the customer."

Through constant monitoring of all product-relevant details, such as dimensions and press-in forces, manufacturing errors are almost eliminated. This consistent quality ensures a high level of precision, in particular

The Texparts product line stands for high-quality components for the textile industry. This includes drafting systems, spindles, spinning rings and travellers as well as bearings for the area of ring and rotor spinning, winders and twisting machines.



for spindle bearings – 30 000 rpm is possible without any problems.

In addition, manufacturing is further optimised by means of precision measurement technology, as the system detects the smallest tolerances of the raw material. Through the constant monitoring, only individual parts that are optimally tuned to one another are automatically assembled. Parts that do not meet the requirements are separated out by the machines.

What's more, all parts undergo a meticulous final inspection before delivery. The PK 2630 SE weighting arm for example, is subjected to a final quality inspection through the measurement of the spring forces of all load-bearing components. Each item is also inspected for visual defects. Only when all inspections have been passed does the product receive a serial number. The production order, all individual parts of the suppliers and all measured values can be assigned to the product using this serial number.

This ensures 100% traceability for the customer.

At Fellbach, Saurer combines product development, a textile technology laboratory, quality assurance, supply chain management and manufacturing at one location. For the customer, this means the quick and efficient implementation of specific requirements, tailored solutions and the constant availability of mass-produced items.

The biggest challenge here was and remains reducing labour costs for assembly in Germany in order to be competitive on the international market. And doing this while maintaining the highest quality standards. Thanks to the high level of automation, this is guaranteed.

Discover more about how our products are manufactured in our state-of-the-art production facility in our video.

2

Real-time quality monitoring by means of precision measurement technology.



Discover more:
<https://saurer.com/en/components/product-ranges-product-lines/texparts>

