link

Customer magazine no. 77/2021

ITMA Asia 2021

Ensuring Competitiveness Through Technology

CONTENTS

Cover:
Rieter's virtual booth at ITMA Asia + CITME 2021 offers insights into cutting-edge technologies that accelerate competitiveness! Register here: virtualworld.rieter.com/auth/register

Publisher:
Rieter

Editor-in-chief:
Anja Knick
Marketing

Design and production:
Marketing Rieter CZ s.r.o.

Volume:
Year 33

Address changes:
Please send to the following e-mail address: rieter-link@rieter.com

Dear Customer,

Things have moved considerably faster than many of us thought they would.

When the last edition of link was published in June 2020, the priority was clear: getting the best out of existing systems. Many customers have embraced the associated Rieter offerings. In this edition, we are once again presenting solutions that enable this goal to be achieved: COMPACTdrum as a retrofit solution for ring spinning machines, as well as Performance Optimization Services, repair services and upgrades for draw frames from After Sales.

Many of us had anticipated that customers would not start investing in new systems until the pandemic had ended. This has not been the case, however, and customers have been investing in new systems since the beginning of the year, despite the fact that COVID is far from over in many parts of the world. This is due to the catch-up effect from 2020, which was a very poor year. Another key factor is the structural shifting of textile production, which is benefitting the markets outside China. The investments that are being made in China are likewise important in ensuring competitiveness on an international scale.

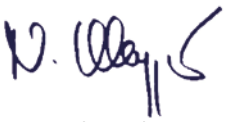
In the last edition of "link", we presented the possibilities that Rieter rotor spinning systems offer our customers.

In this edition, we are highlighting the attractiveness of the Rieter ring spinning range. Maximum productivity and yarn quality at low energy consumption, combined with as much automation and flexibility as possible, set Rieter ring spinning systems apart – both those based on the G 37 (“workhorse”) and those based on the G 38 (“all-rounder”). Integrating the system using the ESSENTIAL digital platform creates transparency and provides important support functions for optimal spinning mill operation.

In some parts of the world, it is still challenging for Rieter teams to offer you the level of support to which you are accustomed. We are doing our best. Please let us know if you need our help.

I would like to wish you, your family and your team all the best in these extraordinary times. Stay safe!

Truly yours,



Dr. Norbert Klapper
CEO

Best-in-Class Ring Spinning from Rieter

The appropriate system for everyone

The Rieter ring spinning portfolio includes machines for a variety of customer needs. The “workhorse” G 37 with the semi-electronic drafting system is now available in a new, attractive configuration with 1 200 spindles. The G 38 is an "all-rounder" with a fully electronic drafting system and is the ideal solution for flexibly producing high-quality yarns. In combination with a Rieter blowroom and the digital platform ESSENTIAL an automated, flexible and intelligent Rieter ring spinning system is created for producing yarns efficiently, and therefore profitably and sustainably.

Fig. 1: Ring spinning machine G 38 with the fully electronic drafting system drive and compacting device COMPACTdrum for simple switching between ring and compact yarn

The ring spinning machine G 37 with the semi-electronic drafting system meets all requirements for efficient yarn production. This machine is in particular demand by customers who produce the same yarn types over longer periods of time. It scores points with its consistent performance and high productivity. Thanks to the individual spindle monitoring system ISM basic, the operator is guided directly to spindles with ends down. It is therefore possible to run the machine at the maximum production speed and, at the same time, achieve consistently high quality values.

G 37 – the "workhorse"

There is a new G 37 configuration with 1 200 spindles that can be integrated into an existing system to save space or can replace older machines. Used specifically for this shorter configuration, the Novibra spindle HPS 22 reaches speeds of up to 22 000 rpm. With up to 20% higher speed compared to the HPS 18, this spindle offers significant potential for increased productivity. It is the best value for money in this category, across all applications.

The fast automatic doffing with a cycle time of less than 120 seconds comes as standard and also improves the productivity of the G 37. With the integrated SERVOgrip system, doffing can be performed without underwinding. Durable and economic Bräcker spinning rings and Rieter aprons ensure consistently high yarn quality and a reduction in machine downtimes. The machine can be upgraded with the compacting devices COMPACTapron, COMPACTdrum or COMPACTeasy (see also page 8), or with the fully automated piecing robot ROBOspin, at any time. In contrast to other machines commonly available on the market, converting this machine to compact yarn does not require additional suction systems to be installed. For all machine lengths, the G 37 can be supplied with systems for slub yarns, core yarns and twin yarns.

G 38 – the "all-rounder"

With its fully electronic drafting system drive and up to 1 824 spindles, the ring spinning machine G 38 is the new standard in the flexible production of high-quality yarns (Fig. 1). This machine is supplied with the spindle HPS 25 as standard, but is also available with the HPS 22, depending on the customer’s requirements. It is the perfect solution for spinning mills that have to adapt quickly to constantly changing market conditions and therefore regularly switch yarn types. Parameters such as yarn count, yarn twist and twist direction can be set with ease using the operating unit.

The ring spinning machine G 38 features the integrated individual spindle monitoring system ISM premium. In comparison to ISM basic, ISM premium controls other parameters in addition to the ends down. Firstly, the rotational speed of each individual spindle is constantly monitored. Secondly, in the case of faulty cops, the winding machine sends a signal to the affected spinning position. In addition, ISM premium can send a signal to the roving stop device to stop the roving feed. The operating personnel are guided even more accurately to the faulty spindles. The system can save approx. 5% of

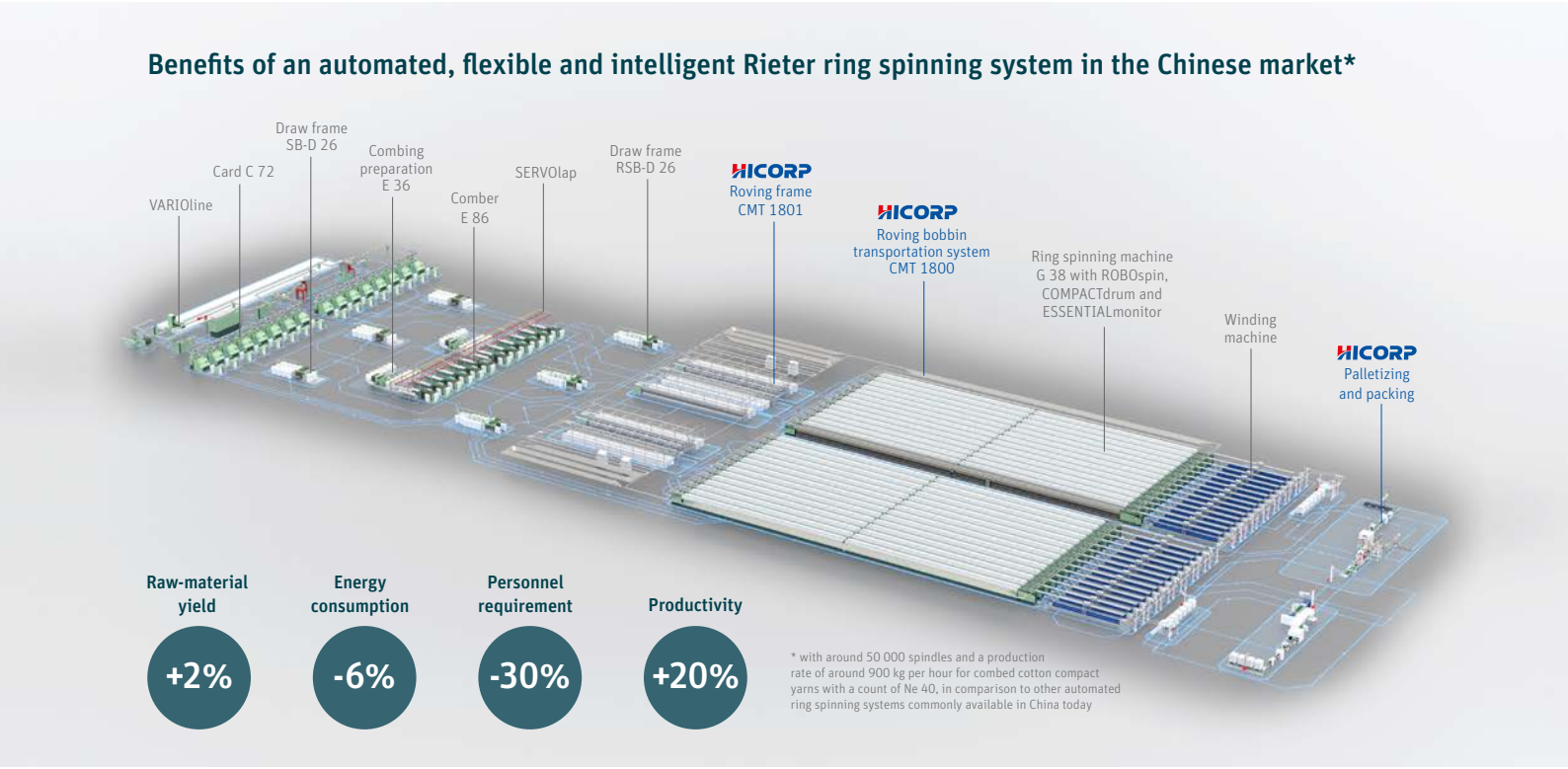


Fig. 2: Investing in a Rieter ring spinning system with automated and intelligent solutions is worthwhile.

personnel cost in comparison to a machine without individual spindle monitoring as unnecessary inspection rounds are eliminated. The process becomes even more efficient when ISM transmits information on the ends down position directly to the piecing robot ROBOspin.

Of course, this machine can also be equipped with SERVOgrip, COMPACTeasy, COMPACTapron or COMPACTdrum, or a configuration with ROBOspin – plus it can also produce slub, core and twin yarns.

Automation allows increased production

An ever increasing number of customers would like to benefit from an automated spinning system that allows machines to run efficiently around the clock, largely independent of personnel availability. The following example, which is being presented at the Rieter stand at ITMA Asia, demonstrates the fact that investing in an automated, flexible and intelligent Rieter system is worthwhile in comparison to other automated ring spinning systems commonly available in China today. The example system has around 50 000 spindles and a production rate of around 900 kg per hour for combed cotton compact yarns with a count of Ne 40. With the automated Rieter system, production can be increased by 20% compared to other systems commonly available on the Chinese market; the number of operating personnel required is reduced by 30% to 18 operators per shift. Energy requirements are reduced by around 6%. This system also allows a 2% increase in raw-material yield, which is mainly due to the high performance of the combers (Fig. 2).

A combing section no longer dependent on personnel

The automated Rieter ring spinning system for the Chinese market starts with the bale opener A 12 and other machines of the blowroom line VARIOline, followed by the high-performance card C 72. The combing section is equipped with the OMEGAlap E 36 and a comber E 86 featuring the automated solutions SERVOlap and ROBOlap. The lap transport system SERVOlap transports the laps produced in the combing preparation to the combers automatically and without

contact. Thanks to ROBOlap, the automated lap change and batt piecing system on the comber, the entire process is no longer largely dependent on personnel.

Intelligent early warning systems increase safety and quality

The double-head autoleveler draw frame RSB-D 26 is equipped with Rieter Quality Monitor (RQM), which checks the sliver quality. The RQM offers maximum security as it continuously delivers exact and reliable real-time information on the current quality level. Deviations in sliver weight, evenness, periodic faults and thick places can be detected immediately – before they are spun into the yarn. The mass of the sliver is measured using a moving calender roller. The RQM stops the machine automatically if the preselected limit values are exceeded.

The expert system SLIVERprofessional provides additional valuable technological support. The system is integrated directly into the touchscreen at the draw frame and provides recommended settings for the entire machine after entering the raw-material data. The recommended settings can then be stored as a data record and reactivated at any time. In addition, SLIVERprofessional analyzes spectogram errors, such as periods and draft waves, so that operators can quickly rectify faults.

Automation solutions for efficient processing that protects the material

The Rieter system presented at ITMA Asia is configured with roving frames, an automated roving bobbin transport system and packing and palletizing solutions from Hicorp. The roving frame CMT 1801 delivers outstanding roving quality and short downtimes thanks to its automated doffing system. The intelligent roving bobbin transport system transports the bobbins from the roving frame to the ring spinning machine contact-free, and offers a number of technical variants as well as several automation levels. At the end of the process, the automated single or central palletizing systems efficiently place packages on pallets. This protects the material while reducing costs and minimizing the risk of material mix-ups.

High productivity and flexibility: G 38 with ROBOspin and COMPACTdrum

At the center of the ring spinning system is the ring spinning machine G 38 with the fully automated piecing robot ROBOspin and the compacting device COMPACTdrum. ROBOspin moves directly to the respective spinning position with ends down and rectifies this in the shortest time possible. As a result, the complete piecing cycle is automated. The robot receives the required information from the integrated individual spindle monitoring system ISM. For cotton, the piecing efficiency in the first attempt reaches over 80%. In the second attempt, auxiliary yarn is used. This results in an efficiency of around 90%. ROBOspin demonstrates consistently high performance in various spinning mills around the world.

The compacting device COMPACTdrum can be installed onto and removed from the ring spinning machine in less than ten seconds when switching between ring and compact yarn. COMPACTdrum impresses customers thanks to a very high yarn tenacity and a new dimension in hairiness reduction. With the cop transport system SERVOdisc, the ring spinning machine is directly linked to a winding machine.

Achieve production targets with ESSENTIALmonitor

ESSENTIALmonitor, the intelligent spinning mill monitoring module, is also used in the example system (see also page 7). ESSENTIALmonitor analyzes past and current events and provides suggestions for improvements to maximize efficiency.

This automated Rieter ring spinning system enables spinning mills in China to produce competitive yarn, even amid rising cost pressures. The fully electronic drafting system of the G 38 provides extraordinary flexibility when it comes to responding quickly to changes in the market. The machine can easily produce standard, special and compact yarns. Intelligent and automated solutions throughout the spinning process ensure maximum productivity and low personnel requirements. Thanks to reliable data in real time, operators can quickly respond to deviations. The low energy consumption and the high raw-material utilization are in line with growing environmental awareness and keen interest in sustainable solutions.

ESSENTIALmonitor: Controlling Spinning Mills in Real Time

Two new functions unlock the full potential of the spinning process

ESSENTIALmonitor is the mill monitoring module of ESSENTIAL. It combines clearly organized data from the entire spinning process in a centralized manner. Two new, exclusive functions provide an overview of the production status at all times and offer recommendations for action in the event of deviations from production targets.

ESSENTIAL, the Rieter Digital Spinning Suite, is an all-in-one mill management system. The individual ESSENTIAL modules can be chosen as required to meet the needs of the spinning mill. The ESSENTIALmonitor module, for example, enables employees to exploit the full potential of the spinning mill based on real data. Two new functions that are only available with the monitor module make this possible: "Estimated Production" and "Error-Remedy Translation."

Achieve production targets at any time

"Estimated Production" compares the spinning mill's actual production with its current benchmark. Managers are alerted if actual production does not meet the preset values. Thanks to user-friendly navigation, employees and operating personnel can access deeper levels of information step by step. This way, they can find out which machines, articles or machine groups are underperforming. This allows deviations to be detected and remedied accordingly during an ongoing shift rather than afterward.

Remedy faults quickly

The new "Error-Remedy Translation" function translates notifications coming from the machine control unit into actionable items and gives users an overview of events and errors, together with the corresponding remedy. For example: At an autoleveled draw frame, there is no load on the scanning rollers. Operating personnel receive a description of the problem, the cause and a proposed solution. In this case, operating personnel are prompted to turn the rotary switch to the right-hand position and release it after a brief period.

These new functions help users to intervene promptly in the event of deviations and also provide guidance, including to employees with less experience.

Do you want to experience ESSENTIAL?

ESSENTIALbasic, the starter module of ESSENTIAL, is available free of charge to all Rieter customers. Access the platform now with your login credentials or contact your sales representative.

https://l.ead.me/bc1NVn

New Compacting Possibilities

Spinning ring yarns and compact yarns using the same machine

By simply plugging in or plugging out the compacting devices COMPACTapron, COMPACTdrum and COMPACTeasy on a ring spinning machine, production can be switched between ring yarn and compact yarn. This offers a high level of flexibility when faced with market requirements that are constantly changing. The compacting devices are impressive thanks to innovative technology, excellent yarn quality and low energy consumption. They can be incorporated into the specifications for new ring spinning machines and supplied as part of the machine. Machines that have already been installed can be easily retrofitted.

As well as compact-spinning machines that have been proven over several decades and the pneumatic compact-spinning concept EliTe from Rieter subsidiary Suessen, Rieter's portfolio now also includes the compacting devices COMPACTapron, COMPACTdrum and COMPACTeasy (Fig. 1), all three of which are easy to install on and remove from ring spinning machines. COMPACTdrum and COMPACTeasy were launched in 2019 at ITMA Barcelona, while the COMPACTapron was presented to visitors at the event in the form of a concept study. The COMPACTapron is now also available to buy. Spinning mills are sure to find the right solution to suit their needs in this comprehensive compact-spinning portfolio.

COMPACTapron: optimal yarn tenacity thanks to new 3D technology

The new compacting device COMPACTapron is revolutionizing pneumatic compact spinning. Innovative 3D technology means that this compacting system is able to offer up to 1 cN/tex higher yarn tenacity than conventional compacting systems and is therefore setting new benchmarks in the sector.

COMPACTapron functions completely differently to all other compacting solutions. The fibers are transported using the suction slot and maintain a significant distance from the lattice apron. The compacting airflow acts on all of the fibers in the fiber strand. Any protruding hairs are fully exposed to the airflow and are therefore reliably compacted. Other systems use two-dimensional compacting. In this process, the fibers are placed on the surface of a mesh apron, a perforated apron or a perforated cylinder and compacted. The COMPACTapron uses an airflow to compact the fibers from all sides, resulting in three-dimensional (3D) compacting.

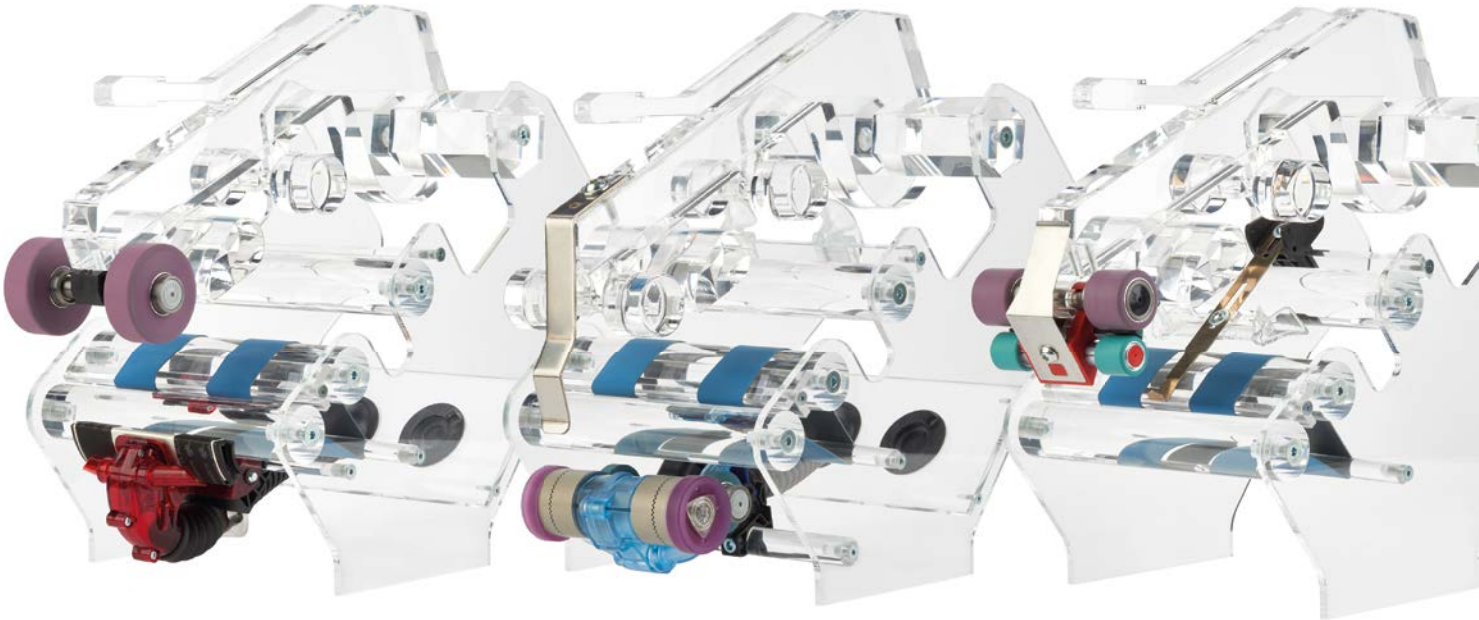


Fig. 1: New compacting possibilities – COMPACTapron, COMPACTdrum and COMPACTeasy make it simple to switch between ring yarn and compact yarn.

COMPACTapron is easy to plug in and plug out from almost any ring spinning machine and can be used for all standard applications. Thanks to low energy consumption, minimal maintenance and components with a long service life, customers benefit from very low conversion costs.

COMPACTdrum: a new dimension to reducing hairiness

The compacting device COMPACTdrum uses a sieve drum system and sets new standards for reducing hairiness, especially for long hairs (Fig. 2). Even in terms of other yarn parameters, such as yarn evenness or seldom-occurring yarn faults, the COMPACTdrum offers a number of advantages over other compacting devices. COMPACTdrum is the ideal solution for products in which minimum yarn hairiness is important, as well as for markets where energy costs are relatively high and maximum productivity is essential.

The compacting device can be plugged in and plugged out from the ring spinning machine in less than ten seconds when switching between ring yarn and compact yarn. It is only available for Rieter ring spinning machines, is capable of processing all standard raw materials and covers a wide yarn count range. Thanks to the sieve drum system, COMPACTdrum is also extremely low maintenance as it is fitted with components that have a long service life. COMPACTdrum is impressive thanks to its low energy consumption.

COMPACTeasy: a mechanical system with low investment costs

COMPACTeasy is a mechanical compacting system for all standard applications. It stands out thanks to its low investment cost. The yarn parameters are significantly improved in comparison to conventional ring yarns and other mechanical compacting systems.

COMPACTeasy features a compacting system with a y-shaped channel, enabling intensive double compacting without any additional energy consumption. The COMPACTeasy top rollers also need to be ground less often due to the transverse movement of the compacting device. This increases the service life and reduces the amount of maintenance required. COMPACTeasy is directly connected to the standard traverse rod of the ring spinning machine. This allows traversing of 6 mm and is a considerable advantage over the process of switching the top front roller that is usually required for mechanical systems.

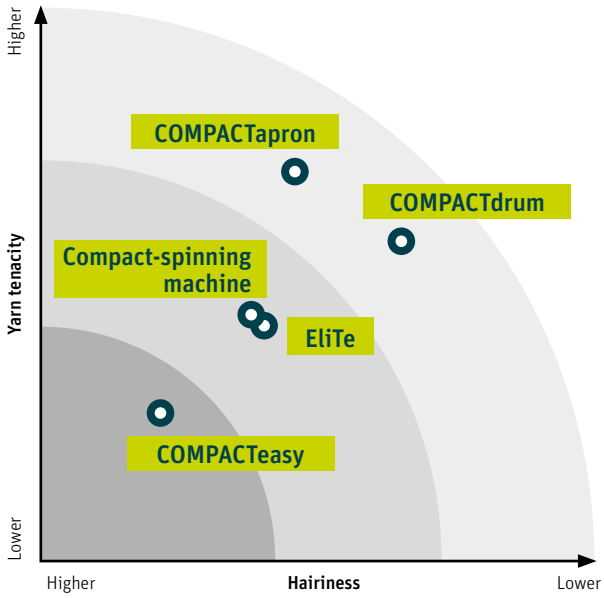


Fig. 2: Positioning of the three Rieter compacting devices in comparison to the compact-spinning system EliTe and the compact-spinning machine with pneumatic compacting.

The yarn quality is not just determined by the compacting system – i.e., the y-shaped channel – but also by the integrated plunger rod. This pin is located upstream of the compacting channel. It acts on the fibers while they are in the drafting system area – the area where they are subject to the least guidance. This ensures excellent yarn evenness and high yarn tenacity.

Spin ring yarn one day and compact yarn the next – all on the same machine. The three compacting devices from Rieter make it possible. COMPACTapron, COMPACTdrum and COMPACTeasy differ in achievable yarn parameters and production costs (Fig. 2). This means that the right solution can be selected for every application. The flexible use of the compacting devices will allow spinning mills to broaden their product range and achieve a better position on the market.

Flexibility in Raw Material Selection

R 37 delivers excellent rotor yarn quality even with cost-effective raw materials

The semi-automated rotor spinning machine R 37 has already been able to demonstrate its advantages in numerous spinning mills in the first few months after its introduction. With the R 37, the Rieter customer Longgang Deao Industrial Co. Ltd., based in China, has achieved consistently higher production as well as improved yarn tenacity and fewer imperfections compared to other machines in use at the company.

The R 37 model is Rieter's latest semi-automated rotor spinning machine. The new spinning box technology makes this machine unique as it allows for flexible adaption to the raw material. Thanks to the replaceable trash channels, a higher level of trash extraction is achieved. The optimized fiber flow in the spinning box results in higher yarn tenacity and fewer imperfections.

The R 37 is designed for high production volumes and is more productive than other semi-automated rotor spinning machines available on the market. With the latest rotor spinning technology and up to 600 highly productive spinning units, the R 37 produces yarn at a delivery speed of up to 200 m/min.

Recycled rotor yarn – productivity and quality
Recycled cotton/viscose, Ne 10, weaving yarn, rotor diameter: 33 mm, rotor speed: 85 000 rpm

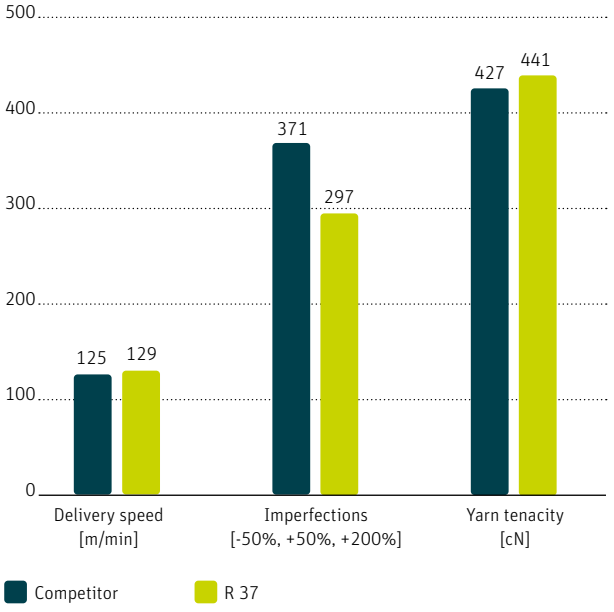


Fig. 1: Rieter customers can use the R 37 to produce yarns out of recycled fibers with a high level of productivity and good yarn quality.

20% fewer imperfections in economical blends

Longgang Deao produces rotor yarn using recycled cotton. The R 37 proved itself to be the perfect machine for this application as the replaceable trash channel allows the trash extraction process to be adapted to the recycled material. At Longgang Deao, the R 37 has shown that it can remove more trash than other machines, all while retaining valuable long fibers in the yarn-production process. This has significant advantages: higher productivity, improved yarn tenacity and a 20% reduction in imperfections (mainly neps; Fig. 1).

This shows that competitive yarn qualities can be achieved from economical blends with a high proportion of waste or recycled fibers. In addition, the R 37 offers high spinning stability and enables the customer to further improve productivity and yarn quality.

Satisfied customers in downstream processing

The considerably improved trash extraction and fiber yield at Longgang Deao meant more good fibers were retained in the spinning process and more short fibers were in the waste, which also led to advantages in downstream processing. Firstly, there was less dust in the subsequent process steps, fewer instances of ends down and thus a reduced workload for the operating personnel. Secondly, the finished material was more impressive as it had a more attractive finish. Zongnao Zhou (Fig. 2), General Manager of Longgang Deao, states: "We believe that the R 37 is the most advanced semi-automated rotor spinning machine in the world. The fabrics are more even, and efficiency at the weaving mill is higher. Our customers in downstream processing are more satisfied than ever with Deao products."

Despite its very high rotor speed, the R 37 has a low energy consumption. This is possible thanks to the highly efficient main drives and an efficient suction system. Longgang Deao reported that the R 37 has a 10% lower energy consumption compared to the competition.

Save time and money

Operating personnel not only benefit from the R 37's high level of productivity, but also from its ergonomic height. This makes piecing easier for operating personnel. Thanks to the AMIspin piecing process, each step is automatically

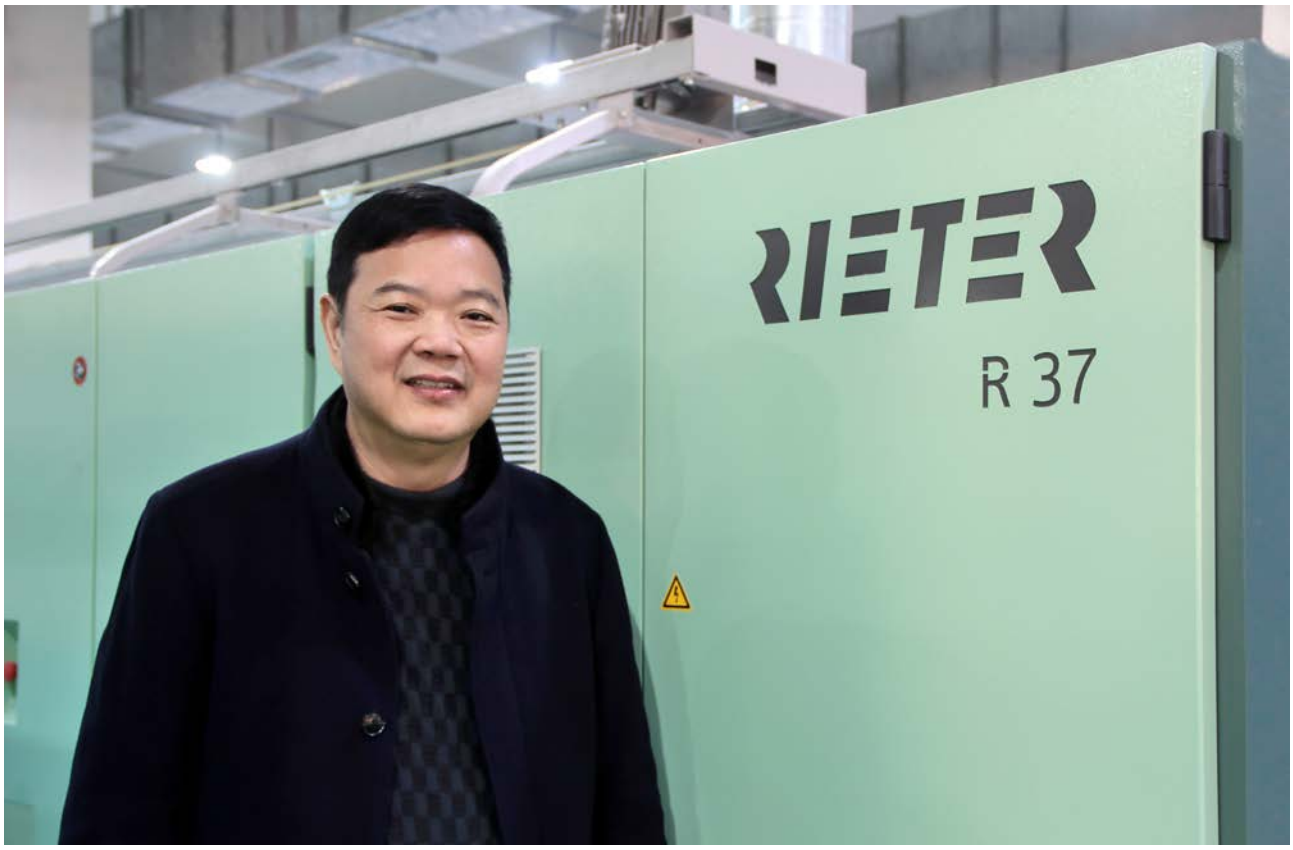


Fig. 2: Zongnao Zhou, General Manager of Longgang Deao, and customers in downstream processing are very happy with the R 37 and the yarn it produces.

monitored electronically. Once the operating personnel has properly prepared the yarn ends and inserted them into the exit tube, the process starts automatically after the spinning box is closed. This exactly reproducible process forms the basis for consistent piecing quality and leads to noticeably trouble-free downstream processing.

The perfect height of the machine also allows for much faster doffing. According to customer feedback, only around half the time is required to doff the entire machine in comparison to other similar machines – even when working with large cans. All important components are directly and easily accessible to the operating personnel and are logically arranged from top to bottom. This ensures better monitoring and consistently good yarn quality.

The new optional ROBOdoff can replace the full packages without interrupting the spinning process. This simplifies the exhausting task of manual doffing. ROBOdoff also ensures that all doffed packages have the same yarn length on the package and that there is a sufficient transfer tail.

All of these features make the R 37 the perfect solution for spinning mills that want to benefit from flexibility when selecting raw materials, high productivity, low energy consumption and optimal conditions for operating personnel. The innovative trash extraction system at the spinning box ensures competitive yarn quality, even when using cost-effective raw materials.

Tailored Mill Performance Uplift

Performance Optimization Services as key to success

To increase the competitiveness of spinning mills, Rieter offers Performance Optimization Services. Rieter experts achieve this by making use of the company's broad portfolio of After Sales products and services. This means that customers benefit from a tailored Mill Assessment, as a recent example from China demonstrates.

The aim is to maintain the competitiveness of spinning mills in terms of productivity, conversion cost and quality over the lifetime of the machines. This requires compensation for technical wear and tear, as well as ensuring that the gap between the existing mill's performance and that of new spinning mills is kept as low as possible. The Rieter Performance Optimization Services (POS) service concept addresses both of these points. The concept is tailored to meet individual customer needs and follows a three-step optimization approach: Pre-Assessment, Mill Assessment and Solutions (Fig. 1).

Continuous exchange

During the Pre-Assessment, Rieter experts create an overview of the current situation through remote analysis. They also record the customer's desired improvements. The Rieter machines installed at the site are reviewed and the customer's areas of concern are discussed. Through these measures, the Pre-Assessment defines the goals and focus areas of the next steps.

During the Mill Assessment, Rieter experts from the field service and textile technology departments visit the spinning mill. The team assesses the current performance of the spinning mill, conducts tests and provides advice on adjusting machine settings. The aim is to optimize the entire Rieter spinning process so that the customer can realize the full performance potential of the system. Particular focus is put on the areas of concern defined during the Pre-Assessment. During the Mill Assessment, there is a continuous exchange

Three-step approach of Rieter Performance Optimization Services

	PRE-ASSESSMENT	MILL ASSESSMENT	SOLUTION
Why?	• To plan the mill assessment	• To report potential mill performance improvements	• To increase mill competitiveness • To generate more revenues
How?	• Review of current and desired situation	• Know-how transfer • Analysis of weak points and potentials • Settings adjustment, trials	• Realization of potentials • Elimination of weak points
What?	• Remote analysis of key data to evaluate potential for a mill assessment	• Minimum one week on-site assessment by Rieter specialists	• Installation of upgrades, replacement of parts, execution of training and services

Fig. 1: Increasing competitiveness with tailored solutions

Fig. 2: POS experts sharing the Mill Assessment findings with the customer.

between the Rieter team and the customer to share findings (Fig. 2). The findings are summarized in a condensed presentation for the customer after concluding the Mill Assessment.

In the third step, Rieter proposes its Solution, which is tailored to precisely meet the customer's needs and improve the performance of the mill. The tailored combination of measures is based on the desired improvements defined during the Pre-Assessment phase as well as the findings during the Mill Assessment. Recommendations may include, among others, replacing machine parts and installing upgrades to improve performance, as well as training and textile technology services.

Adjusting to the new normal with POS

As the market in China rapidly recovered in the second half of 2020 following the COVID-19 pandemic, a Chinese Rieter customer found itself in a dilemma regarding its ring and compact-spinning mill: Yarn prices were increasing while spinning mills were finding it difficult to meet the rising demand for high-quality yarn at the same time.

The customer initially responded by attempting to reduce the machine speed to improve the yarn quality. The result was a lower production output. Given the high yarn price and increased demand, the customer was not satisfied with this approach. The customer therefore reached out to the Rieter POS team with the following request: support in sustainably enhancing yarn quality while maintaining production output at a constant level.

The team of Rieter experts conducted a thorough analysis of the entire spinning mill and optimized various machine settings. The experts looked for the root causes that were affecting the nep count and productivity. Based on the team's findings, Rieter recommended a series of measures to the customer, for instance replacing technology components and upgrading the licker-in of the card. As a result, card production increased by 20%, while the nep count for compact yarn with a yarn count of Ne 40 was reduced by 60%. The result exceeded the customer's expectations. After the measures were implemented, the yarn quality reached the desired, significantly higher level with consistent productivity. Rieter also recommended additional measures that would increase productivity by up to 15% while maintaining consistent yarn quality.

Repair Services on the Doorstep

Rieter is scaling up its fast, high-quality support

Many Rieter customers worldwide have been operating Rieter machines with great success for a long time now. Rieter is supporting these customers with high-quality repair services in the areas of mechanics and electronics and is further expanding the corresponding network.

By the end of 2021, Rieter will operate 26 repair centers in 22 countries. Even in September last year, the third repair centers were opened in the key markets of Turkey and India, in Uşak and Chandigarh respectively. By mid 2021, Uzbek customers will also be able to reap the benefits of high-quality Rieter repair services when the first repair center opens in Tashkent, Uzbekistan. It will be run by long-standing Rieter partner JV TSS. In Mexico, the existing small repair workshop will be likewise scaled up into a repair center this year. This means the center will cover the entire range of electronic and mechanical repairs. This center in Naucalpan de Juárez will be operated by the Rieter partner Eurotécnica. Since last year, customers in Brazil have been making use of the new mechanical repairs alongside the electronic repair package that has been offered for many years.

Active support – even in times of crisis

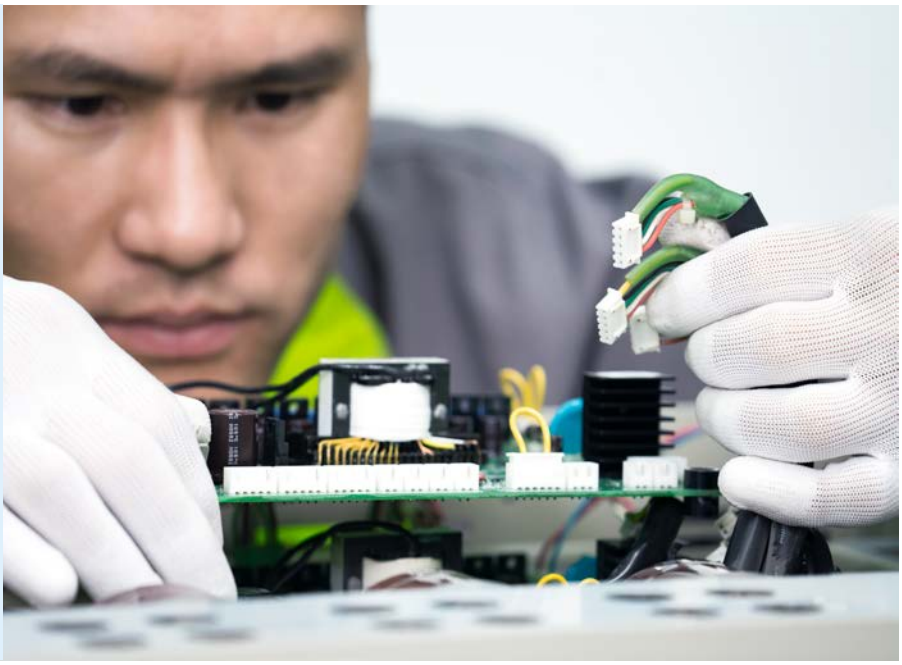
As many spinning mills were at a standstill for several weeks during the lockdown of spring 2020, Rieter repair services helped to reduce the negative effects of machine downtime. They also gave customers tips and tricks ensuring that they could start up their spinning mills again smoothly. This avoided machine damage and enabled spinning mills to reach their full capacity quickly. Rieter repair services were therefore able to make an important contribution in helping the spinning mills cope with the COVID-19 pandemic.

Complete service with mechanical repairs

Rieter has been offering high-quality electronic repairs for more than three decades. The repair centers have a globally unique level of expertise that benefits customers daily. These days, the teams in the repair centers specialize in mechanical repairs, too. For example, the centers overhaul gearboxes, repair differential drives and maintain top weighting arms; preventive electronic and mechanical maintenance services complete the offering, which is being used by more and more customers. This allows them to avoid the negative consequences of machine downtime, achieve consistent yarn quality and extend the lifetime of their machines.

Benefits of Rieter repair services at a glance

- High-quality repairs thanks to unique repair expertise and original components
- Complete range of services
- Reduced risk of unforeseen breakdowns
- Higher yarn quality
- Extended lifetime of machines



High-quality electronic and mechanical repairs enable spinning mills to produce efficiently.

Draw Frame Retrofit to Optimize Performance

Less downtime, lower maintenance costs, maximum sliver quality

Draw frames are key machines for all short-staple spinning processes. Like any other machine, they are subject to technical wear. Replacing key components with upgrades when carrying out maintenance enables performance and sliver evenness to be improved, downtime to be minimized and maintenance costs to be reduced.

Thanks to the Rieter maintenance concept for draw frames, customers achieve excellent sliver evenness, save on maintenance costs and minimize unplanned downtime.

To achieve the optimum balance between quality and productivity, draw frames need to be equipped with properly functioning components. This is precisely where the new Rieter maintenance concept comes in. The concept contains important upgrades based on the latest technological developments that increase the reliability and productivity of machines and improve the yarn quality.

Retrofitting key components lowers costs

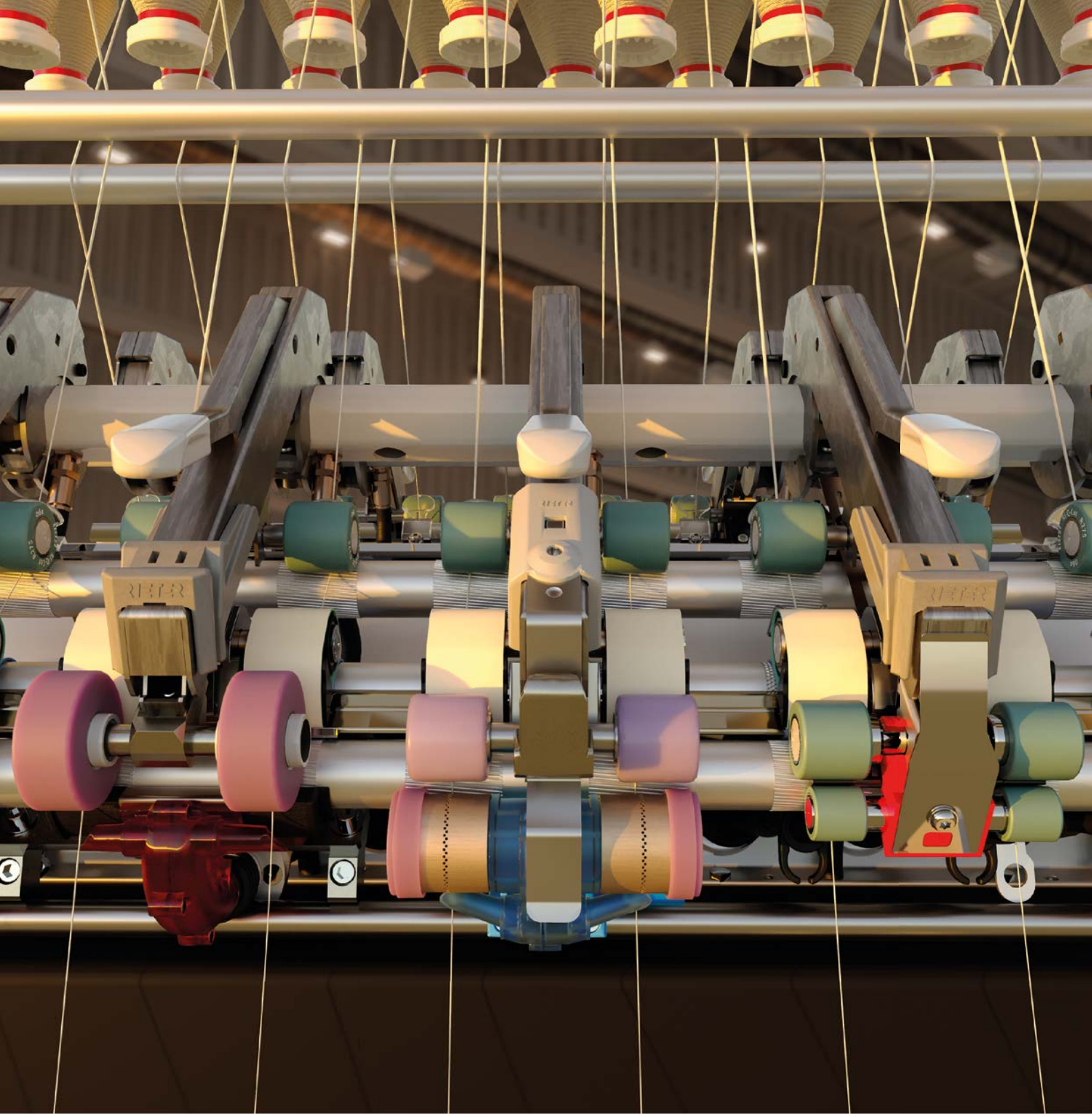
Depending on the spinning process, spinning mills have one or two draw frame passages installed. With the latter, there is a draw frame without autoleveler in the first passage and a draw frame with autoleveler in the second passage.

It is important that both machines operate correctly, especially the autoleveler draw frame. This is because any errors that occur after the second passage can no longer be rectified. An optimally configured Rieter autoleveler draw frame prevents the formation of thin and thick places in the yarn and therefore avoids fluctuations in the yarn count.

Upgrading key components – such as the main drive unit, sensors and fiber-touching parts – optimizes production, reduces downtime and saves maintenance costs. Depending on the customer's budget and maintenance strategy, there are plenty of options. With the autoleveler draw frame, Rieter recommends installing the SERVOdrive upgrade whenever one of the three following parts is defective: AC servomotor, planetary gear and inverter. Compared to a differential gear, SERVOdrive has the advantage that it is maintenance-free and runs more precisely. Other parts that are in good condition can be maintained by the Rieter repair service and then used for other draw frames in the spinning mill. One example is gear repair, where all internal parts are replaced with long-lasting serviced parts.

Take advantage of upgrades

Rieter offers an extensive after-sales service portfolio that ranges from replacing or repairing single parts to overhauling a single machine and even optimizing an entire spinning mill. Before carrying out a major upgrade, having a machine inspection by a Rieter service technician is recommended. This inspection ensures that the upgrade is compatible and installed correctly. It also determines the condition of the machine and which parts should be replaced at the same time. This way, customers benefit 100% from upgrades to optimize performance.



New compacting possibilities: spinning ring yarns and compact yarns using the same machine

Rieter Machine Works Ltd.
Klosterstrasse 20
CH-8406 Winterthur
T +41 52 208 7171
F +41 52 208 8320
machines@rieter.com
aftersales@rieter.com

Rieter India Private Ltd.
Gat No. 768/2, Village Wing
Shindewadi-Bhor Road
Taluka Khandala, District Satara
IN-Maharashtra 412 801
T +91 2169 304 141
F +91 2169 304 226

Rieter (China) Textile Instruments Co., Ltd.
390 West Hehai Road
Changzhou 213022, Jiangsu
P.R. China
T +86 519 8511 0675
F +86 519 8511 0673

www.rieter.com