

Ring spinning  
Ring spinning machine G 38

**RIETER**

**G 38**

Ring spinning machine G 38

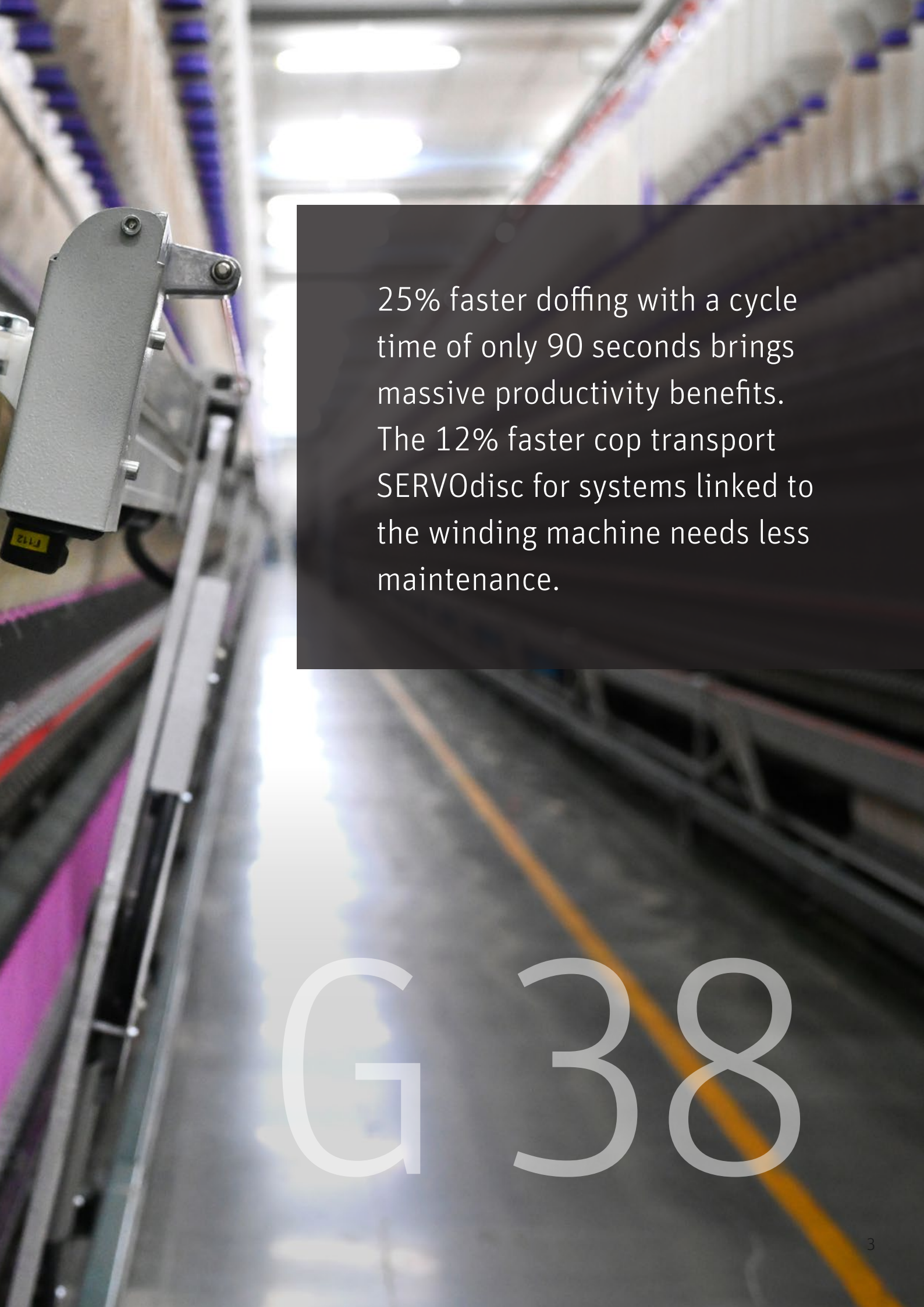


Highest productivity at  
lowest energy consumption





# Highest Production Time



25% faster doffing with a cycle time of only 90 seconds brings massive productivity benefits. The 12% faster cop transport SERVOfdisc for systems linked to the winding machine needs less maintenance.

# G 38






# G38

Full Flexibility  
for Producing  
Standard, Compact  
and Special Yarns



A detailed close-up of a textile machine's internal components. A hand is shown adjusting a blue plastic component on a metal shaft. The machine features various rollers, including purple and beige ones, and a blue label with technical specifications. The background is dark and out of focus, emphasizing the mechanical details.

Yarn count, twist, and twist direction are easily adjustable on the operating unit. The electronic drafting system FLEXIdraft maximizes the production time and allows extraordinary flexibility.

The compacting devices COMPACTdrum, COMPACTapron and COMPACTeasy can easily be plugged in and out.





With spindle speeds of up to 28 000 rpm and the High-Speed Package (34 mm spinning ring, 16 mm DUI tube/spindle dimension, LENA 28 spindle) the production limits have been considerably extended.





# Highest Spinning Speeds

G38



## Consistent Performance

Fully automated piecing robot ROBOSpin for minimal personnel deployment

## Concept for Low Energy Spinning

Energy-savings with efficient suction system, IE4 motors, LENA spindles and 4-spindle drive

## Highest Spinning Speed with High-Speed Package

Special components plus new short-balloon setting push the limits

## Maximum Flexibility with Innovative Compacting Solutions

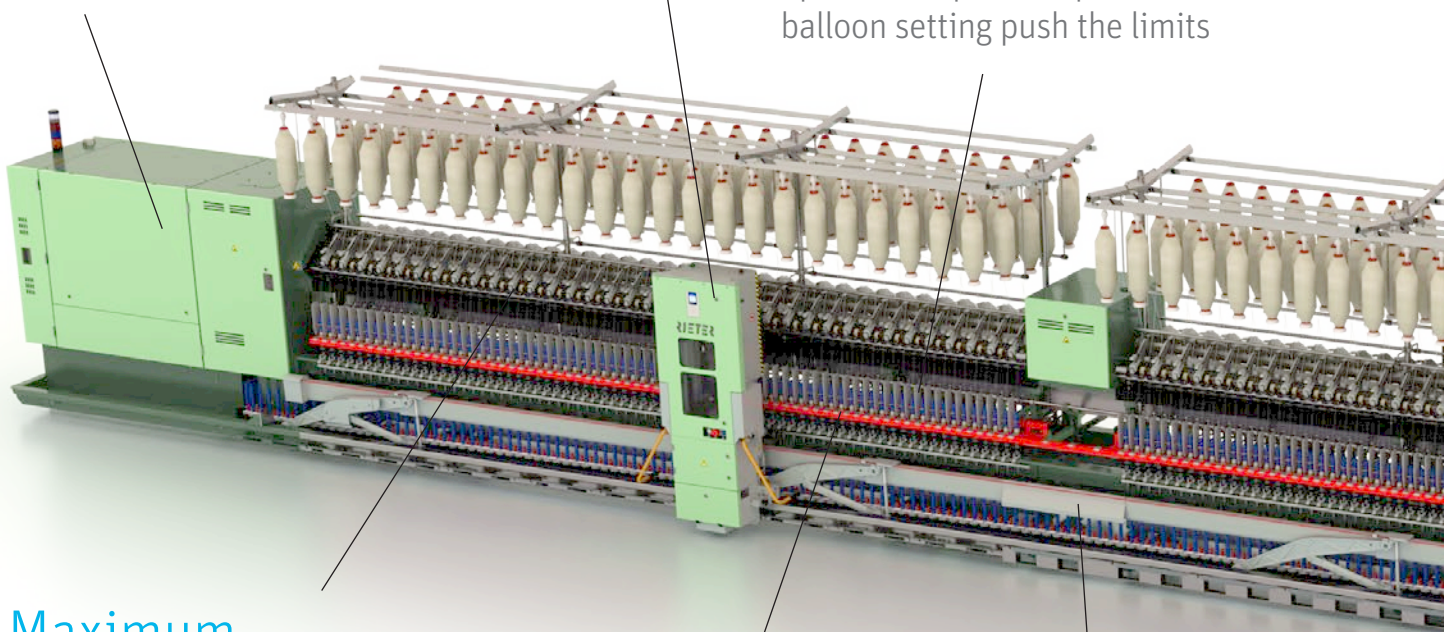
COMPACTdrum and COMPACTeasy for fast switch between ring and compact yarn

## High Efficiency with ISM

Integrated individual spindle monitoring ISM premium for efficient operator guidance

## Faster Doffer and New SERVODisc Increase Efficiency

Unique and self-monitoring SERVOflex makes yarn unwinding redundant





# G 38

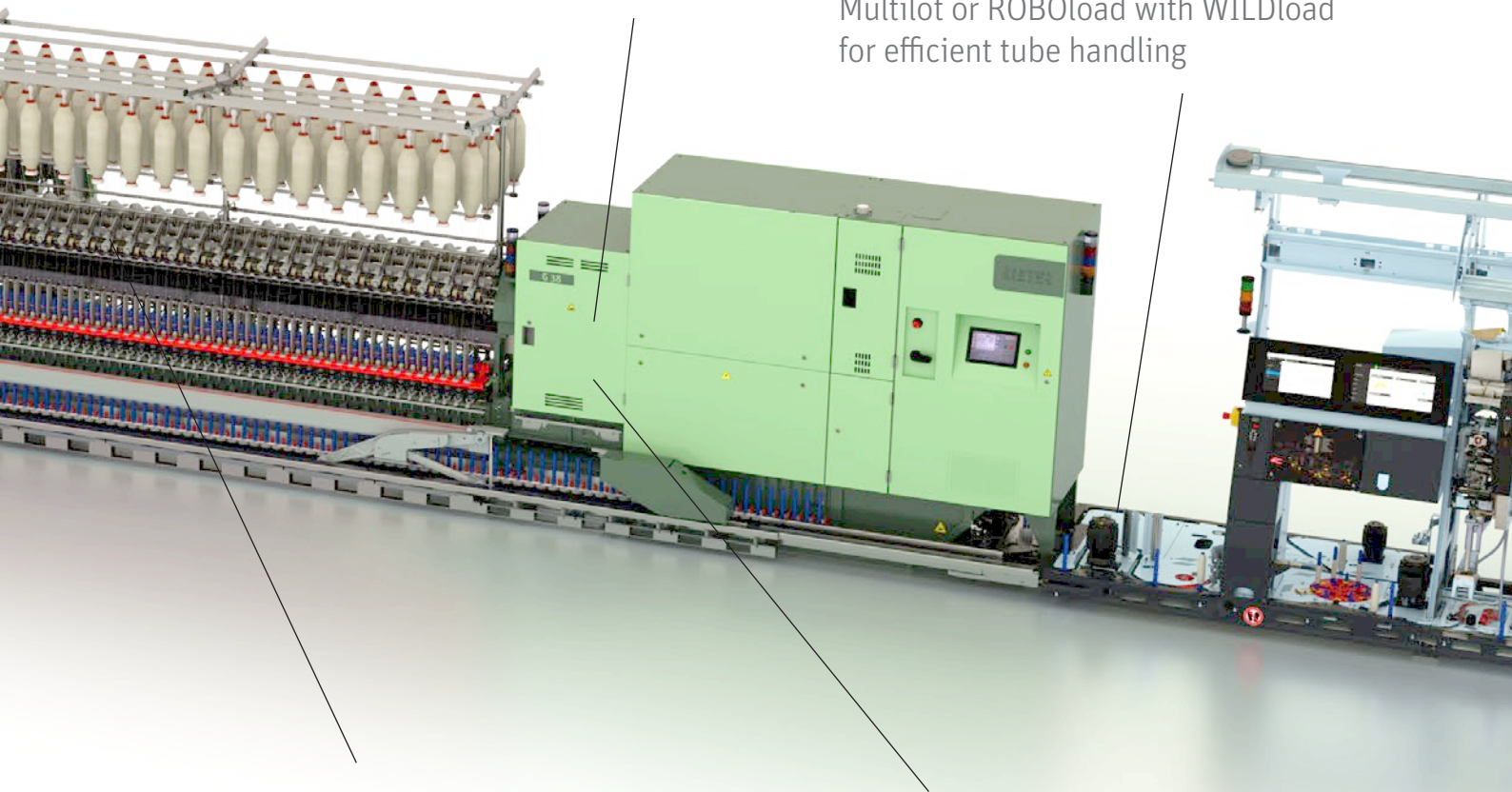
## OUTSTANDING ADVANTAGES

### Drive Solutions on Demand

Electronic drafting drive FLEXIdraft  
or economic semi-electronic drive

### Intelligent Linking with Winding Machine

Automation solutions Multilink/  
Multilot or ROBOfload with WILDload  
for efficient tube handling



### Ring Yarns of Highest Perfection from Any Fiber

Special components available for recycled raw material and man-made fibers

### Full Flexibility for Special Yarns

Systems for core, slub (VARIOspin) and twin yarns are available for all machine lengths



# Fully Automated Piecing Robot ROBOspin

**ROBOspin is the first fully automated piecing robot for ring spinning machines. One robot per machine side repairs ends down that occur during startup or while the machine is running.**

## The industry's first fully automated piecing robot in ring spinning

The robot travels directly to the affected spinning position and repairs the ends down in the shortest time possible. As a result, the complete piecing cycle runs fully automatically – from finding the yarn on the cop to threading the traveler and placing the yarn behind the delivery roller. The robot receives the required information from the integrated individual spindle monitoring system ISM.

## Consistent quality, 24/7

The automated piecing process ensures consistent quality of the yarn piecing. Human contact with the cop is avoided during the cycle. The outer layer does not get contaminated and top quality yarn is produced.

## Maximum productivity with minimal personnel deployment

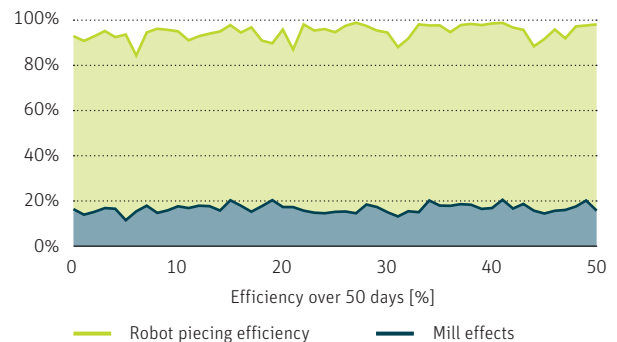
ROBOspin has a consistently high productivity level – 24 hours a day. It reduces personnel requirements in the ring spinning section by 50%, noticeably lowers personnel costs and helps overcome labor shortages. Human resource planning and spinning mill organization are made easier.

## Consistent high performance proven in spinning mills

ROBOspin runs with consistent high performance in various spinning mills around the world. The piecer efficiency reaches over 80% in the first attempt. In the second attempt an auxiliary yarn is used which achieves additional 10% efficiency. Piecing with auxiliary yarn helps to protect the sensitive yarn layers and thus improves quality.

### The robot reliably reaches up to 95% piecing efficiency

Ne 30, 100% cotton carded, ISM premium, 18 000 rpm, 1 824 spi/machine









# Highest Spinning Speeds

## Raising the bar with the new G 38

### High-Speed Package for maximum productivity

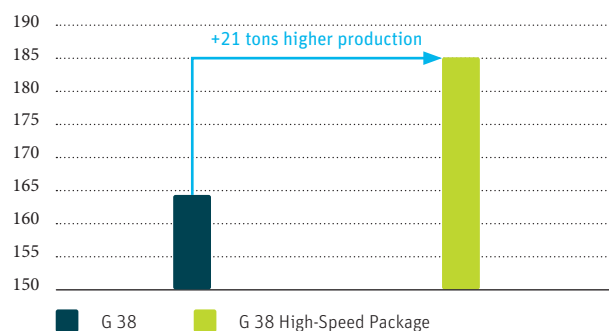
Maximizing the productivity in ring and compact spinning is an enormous challenge for spinning mills. The Rieter specialists have put together a High-Speed Package, in which the components are optimally matched to one another: LENA 28 spindle + smaller spinning ring with a 34 mm diameter + spinning tubes with smaller DUI of 16 mm.

The G 38 achieves up to 28 000 rpm spindle speed mechanically. This is an increase of 12% compared to 25 000 rpm achieved until now. The High-Speed Package includes a smaller spinning ring with a diameter of just 34 mm. The traveler needs less distance and less time for one revolution on the smaller ring. With a smaller spinning ring diameter, the traveler speed is reduced, opening up potential for an increase in spindle rotation. A plus of 3 000 rpm means a higher production of 21 tons/year, exemplarily realized with cotton yarn, Ne 60.

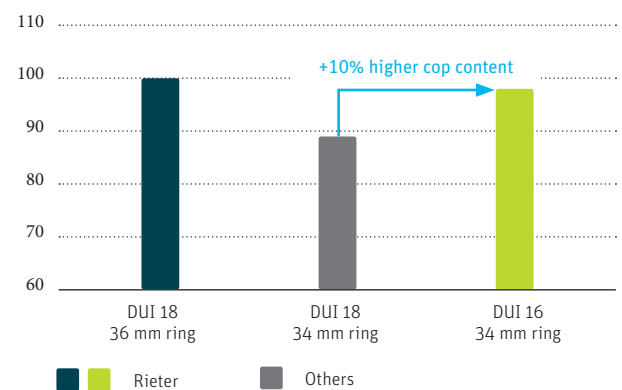


A smaller spinning ring diameter means less space for yarn on the tube. This would lead to more doffing processes and reduce profitability. To prevent this, a tube with a smaller bottom inner diameter (DUI) was designed, and the energy efficient LENA 28 spindle was adapted accordingly. The tube with the smaller DUI dimension can thereby take almost the same yarn weight as a conventional tube. So, the number of doffing processes on the spinning machine and number of cop changes on the winding machine remain the same.

12% higher production: CO, Ne 60 [tons/year/mc]



10% higher cop content: DUI 16, 34 mm ring [%]



### Highest delivery speed

Depending on the yarn specification and spinning parameters, the ring spinning machine G 38 can produce ring and compact yarns with highest delivery speeds of up to 40 m/min. This increase is particularly important for the efficient production of coarse yarns and makes the ring spinning machine even more competitive compared to other spinning systems.

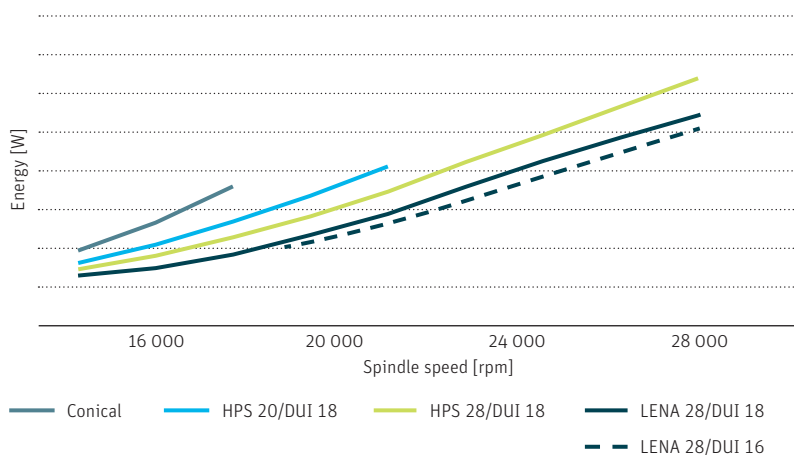


## Spindle LENA 28 for high speed and low energy consumption

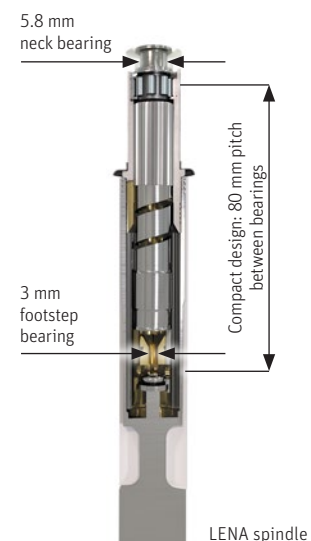
The selection of the optimum spindle is a key factor for high productivity with consistently uniform yarn quality. With the new HPS 28 and LENA 28 spindles, revolutions of up to 28 000 rpm can be run. Both spindles have a second damping system to remarkably reduce the bearing load and the noise level. Low vibration, low maintenance and a long service life are the distinguishing features of these spindles.

Compared to conventional spindles with a whorl diameter of 18.5 mm or 25 mm, the LENA spindle with 17.5 mm brings significant advantages for finer yarn counts. LENA has a neck bearing of 5.8 mm and a foot bearing of 3 mm. These bearing dimensions together with the whorl diameter of 17.5 mm, make LENA 28 fast and highly energy efficient. The high-precision LENA 28 spindle is available in two DUI dimensions (DUI 18 and DUI 16) and achieves the highest production values in practice. LENA stands for Low Energy Noise Absorption.

Energy consumption comparison



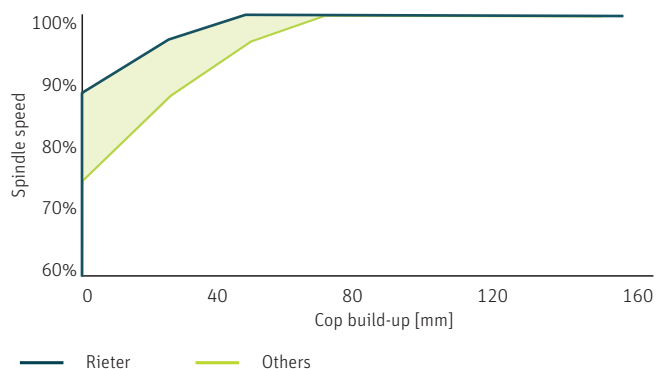
LENA 28, HPS 28 and HPS 20 are compatible with new Rieter ring and compact-spinning machines.



## Faster to maximum spindle speed

Highest productivity levels and minimal energy consumption lead to low yarn production costs. With its unique Rieter spinning geometry and the consistent use of high-quality technology components, the G 38 runs at very high spindle speeds. Spinning can be performed at high speed, even when the cops are in the build-up phase. With a yarn count of Ne 30, for example, up to 2% more yarn can be produced per machine per year.

Up to 2% higher productivity using the same maximal spindle speed





# Perfect Machine in Desired Configuration

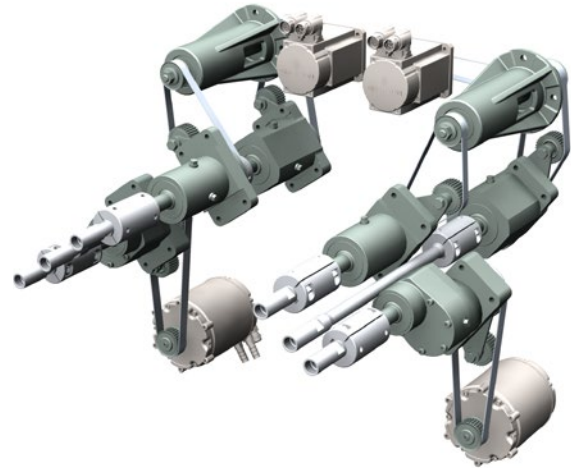
## Easy machine handling

The new G 38 is available either as machine with electronic FLEXIdraft drafting system (G 38 FE) or with semi-electronic system (G 38 SE). Rieter previously offered two ring spinning machines, now the different types of drafting systems can be configured modularly within the new G 38 machine generation. By offering two different drafting systems, based on the same model, the customer can select the option that best fits their budget and operational needs, potentially reducing investment costs.

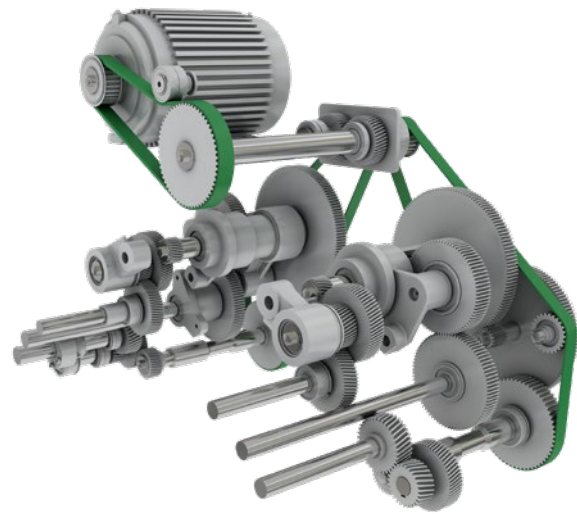
In both cases, the spindle speed, the yarn twist, and the yarn twisting direction, Z or S, can be changed easily on the panel and without additional mechanical adjustment. With the fully electronic machine also the yarn count can be changed electronically on the panel.

With the semi-electronic version, the drafting system for the yarn count change needs manual adjustment. This is an economical solution for spinning mills with lower variability and is often used when the same yarn count is produced over a longer period of time.

The optional VARIOspin drive system for slub yarn production is completely integrated into the fully electronic version, with a separate panel for easy operation and design.



G 38 FE with electronic drafting drive FLEXIdraft



G 38 SE with semi-electronic drafting drive



## Economic startup

The optional FLEXIstart allows the drafting system to be switched on and off in stages. This allows a more efficient machine startup. Depending on the machine length, only a quarter or half of the machine is put into operation. This option for the electronic drive system FLEXIdraft avoids unnecessary material waste.



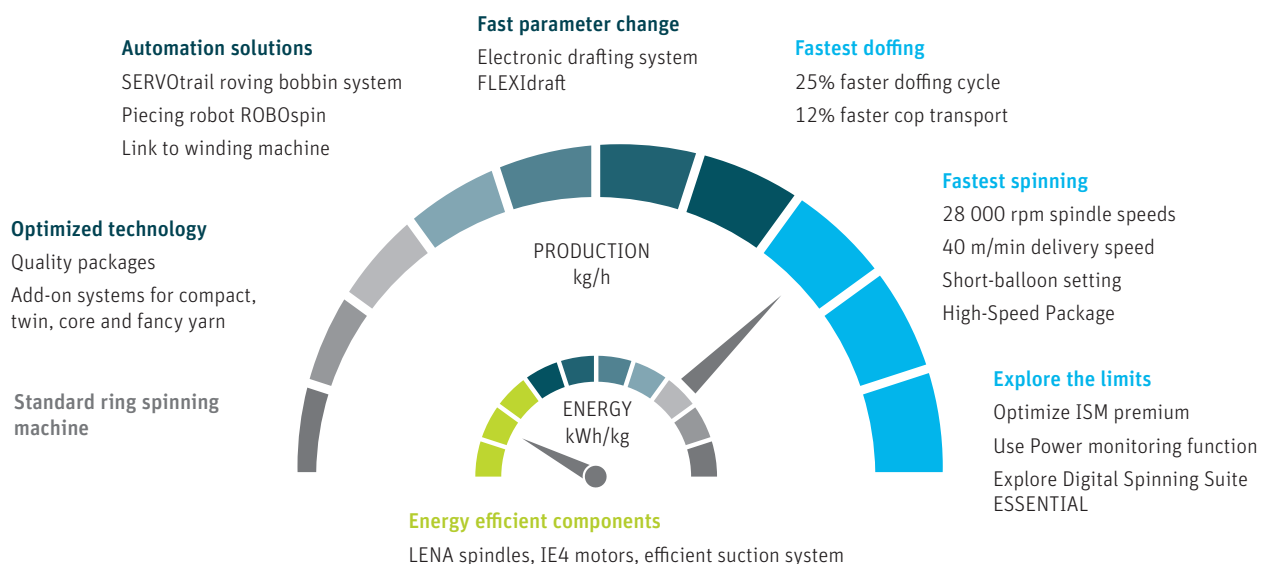
# Highest Performance and Flexibility

## The new generation of the G 38 redefines the boundaries

Maximum production in ring and compact spinning not only means offering the highest spindle speeds. Noticeable production benefits can be achieved by significantly reducing machine downtimes. And this is where the new version of the ring spinning machine G 38 leads the way.

The new doffing system with a doffing cycle time of less than 90 seconds, the optimized transport system

SERVODisc with 12% faster cop transport and the effective balancing of the various balloon forces to reduce the ends down rate are just some of the new features of the new generation of the ring spinning machine G 38. Combined with the highest spindle speed of 28 000 rpm, the G 38 ensures maximum competitiveness in the production of ring and compact yarns in all yarn count ranges.



## The flexible powerhouse

**Flexible in yarn design:** The modular G 38 allows easy change from ring to compact-yarn production with add-on compacting devices. Customers can diversify their product offerings by utilizing the machine for slub, twin and core yarn production.

**Flexible in automation:** The new G 38 offers varying levels of automation, from manual yarn piecing to fully automated piecing with ROBOspin for minimal personnel deployment. Intelligent linking with winding machines

and flexible automation solutions with Multilink/Multilot or ROBoload with WILDload can be used flexibly according to customer requirements.

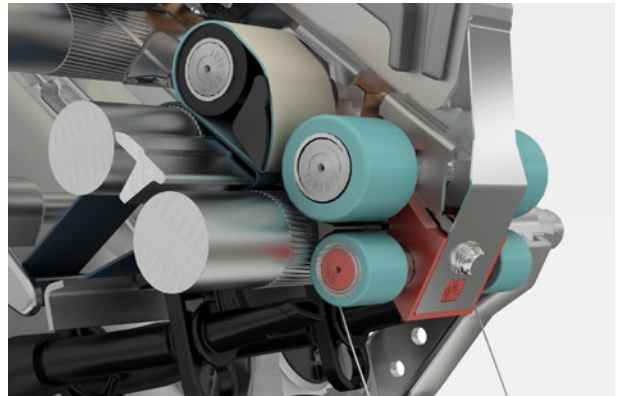
**Flexible in digitalization:** The Individual Spindle Monitoring (ISM) system premium is now standard on every ring spinning machine and is the basis for the roving stop device. A much higher level of process optimization can be achieved by integrating the machines into the all-in-one mill management system ESSENTIAL.



# Compact Yarns for Outstanding Quality Demands

## COMPACTeasy

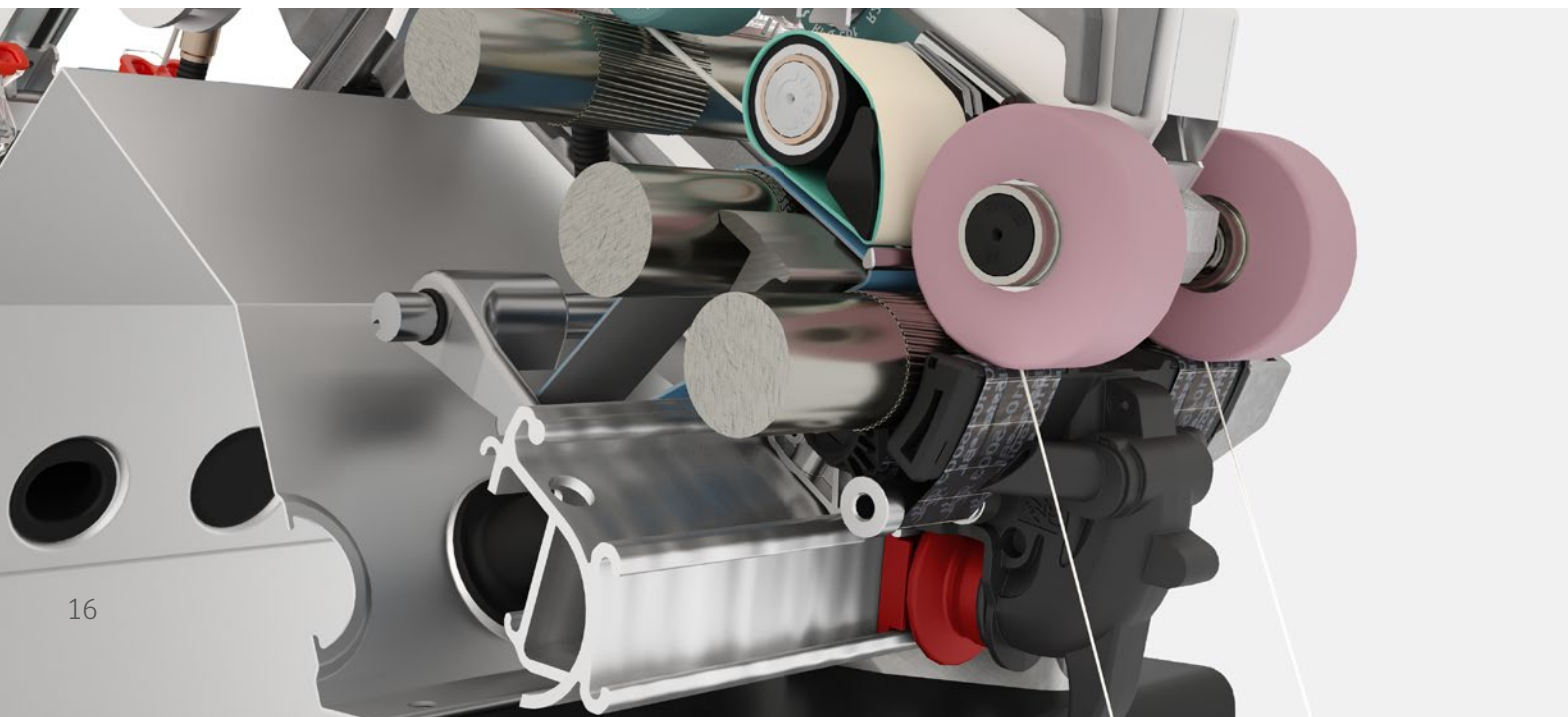
The mechanical compacting device COMPACTeasy is attracting customers thanks to its low investment costs. COMPACTeasy produces yarns with excellent characteristics from all standard raw materials. This is based on the intensive double compacting that does not require any additional energy. With the y-channel compactor, COMPACTeasy is particularly suitable for the most common applications, including the spinning of blends and 100% manmade fibers. COMPACTeasy supports the traverse motion. It extends the service life of cots and ensures in particular a constant yarn quality.



## COMPACTapron

The compacting device COMPACTapron for full compacting sets a new benchmark for yarn tenacity. By reducing conversion cost and energy consumption for compacting, COMPACTapron is the right system for competitive spinning mills. COMPACTapron is suitable for a wide yarn count range, common raw materials and is easy to plug in and out.

Thanks to 3D technology, COMPACTapron transports the fibers in the condensing zone over the suction slot in a distinctive distance to the mesh apron so that all fibers are entirely compacted. The distance between the nip lines of COMPACTapron is shorter than the shortest fiber so that fibers are smartly guided through the compacting zone, thus achieving better yarn strengths compared to competitors. The overall result is an additional 0.5 to 1 cN/tex, a yarn tenacity which is unmatched in the market.





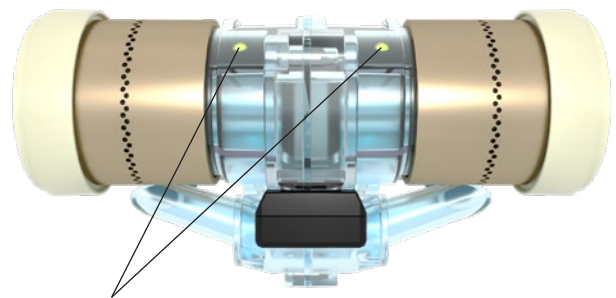
## COMPACTdrum

The compacting device COMPACTdrum for full compacting produces yarns with optimal characteristics that take yarn hairiness reduction and yarn tenacity to a whole new level: Long protruding fibers are reduced to an absolute minimum and significantly less yarn abrasion is the consequence. The compact yarn is highly sought-after in downstream processing.

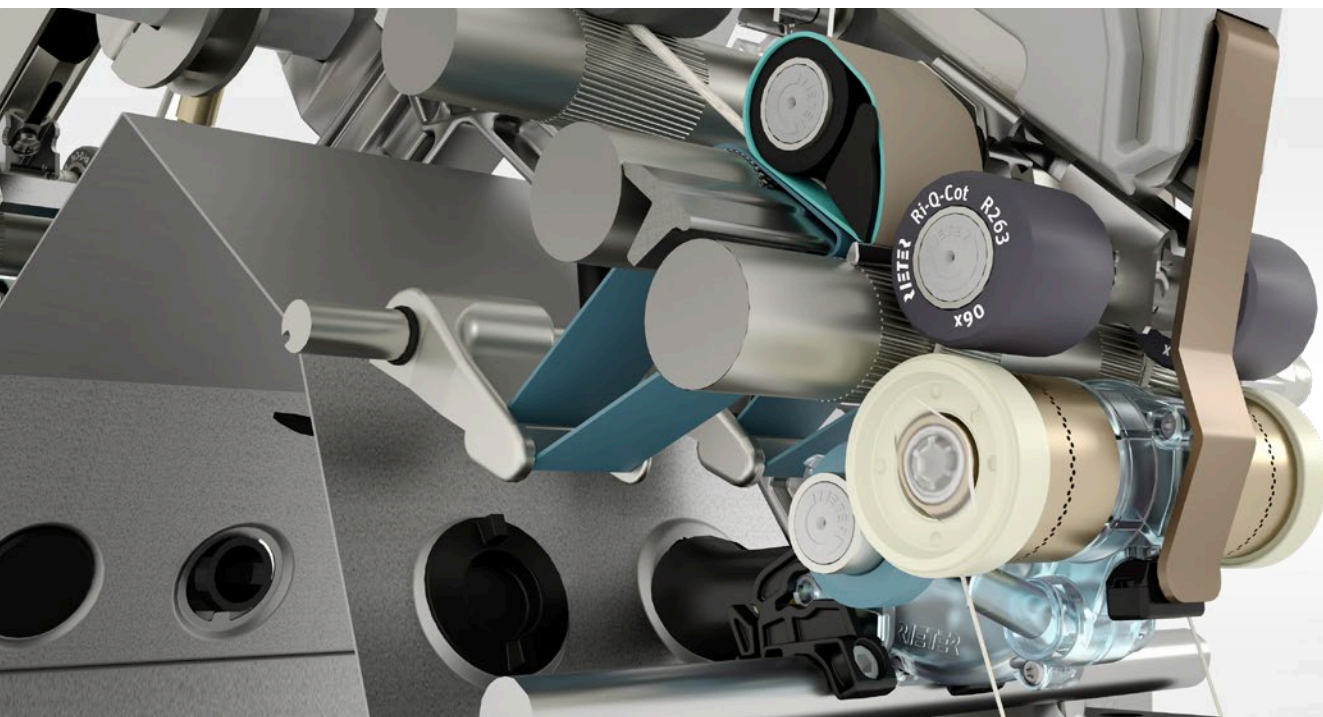
The long-lasting technology components used in the COMPACTdrum system ensure that the yarn quality stays consistently high in the long term. COMPACTdrum features a detect function which constantly monitors the compacting process. This ensures consistently fully compacted yarn and reduces personnel requirements.

The compacting device is easy to plug in and out. Conventional ring yarns and compact yarns can be spun on the same machine. This offers a high level of flexibility when faced with market requirements that are constantly changing.

New Rieter ring spinning machines can be delivered with COMPACTdrum. Almost every existing Rieter machine can be upgraded with minimal installation efforts.



The COMPACTdrum detect function monitors the compacting process at each spinning position and ensures a consistently high yarn quality. The yellow detect ball appears as soon as the yarn compacting process is disturbed or interrupted.





# Faster Doffing for Highest Production Time

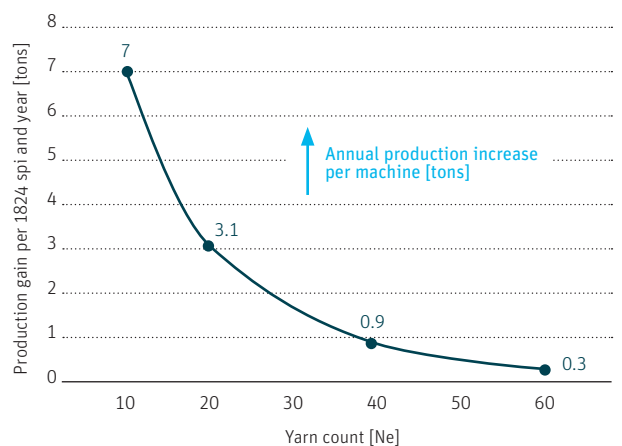
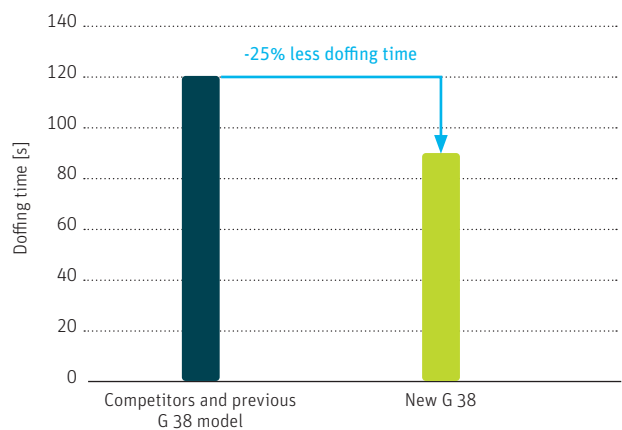
## Doffing in only 90 seconds

The new generation of the ring spinning machine G 38 redefines the boundaries. The new and most reliable automatic doffing system with a perfect alignment of gripper, tube and cop tray enables a fast sequence of all doffing process steps. The redesigned doffing system completes its cycle in just 90 seconds, showcasing a remarkable 25% reduction compared to the prior version of the G 38 and all known competitors, whose cycles typically take 120 seconds. The reduced doffing time results in shortest machine downtime and therefore a significant production gain. The advantage is particularly evident with coarse yarn counts. With Ne 10 the annual production gain is 7 tons and for Ne 20 still 3.1 tons per machine with 1 824 spindles.

Thanks to the sophisticated monitoring system, doffing requires no human intervention. The system includes a special profile of the doffer beam and releasable grippers. In the event of faults, the doffing process is automatically stopped by a pressure monitor, ensuring highest process reliability. With the integrated SERVOfrip system, doffing can be performed without underwinding.



Doffing time and its influence on yarn production



25% faster doffing system leads to remarkable production gain

## New and faster cop transport system SERVODisc

The new cop transport system SERVODisc for link systems to the winding machine is 12% faster than the previous solution. It forwards up to 45 cops per minute directly to the winding machine and positions empty tubes. This open rail system is fast enough to remove all cops on time before the next doffing cycle is due. This is important for long machines with short spinning cycles and very coarse yarn counts. The new SERVODisc is even more reliable and needs less maintenance. The solid steel profile with less contact points reduces friction, and the positive driven pulley enhances the lifetime of machine components. Intelligent cop trays (Smarttray) with integrated RFID chip are available with the link system to the Rieter winding machine Autoconer X6 for information and material flow control.

The cops transport system SERVODisc is an open system that requires less maintenance. The system is driven by two diagonally offset 70 W motors. This requires only 10% of the energy compared to those of a pneumatic system.

## Self-monitoring doffer grippers

The optionally available, redesigned gripper GRIPPEReasy has a safety clip for a more precise and reliable tube positioning. The long lasting gripper membrane with improved grip is abrasion resistant and easy to replace. Changing of the membrane can be done directly on the machine within 15 seconds. This corresponds to a time saving of 80%.



New SERVODisc drive concept for less maintenance

## Save yarn with the SERVOGrip system

The proven and unique Rieter SERVOGrip system enables doffing without underwinding. By using SERVOGrip, no yarn ends need to be removed from the whorl. This saves yarn and keeps the machine clean. Ends down caused by fiber fly and yarn ends are also avoided, thus increasing yarn quality.

The SERVOGrip system contains a clamping crown. Rieter is the only manufacturer whose clamping crown is opened and closed using the ring rail. This guarantees precise and controlled fixing of the yarn. Ends down following cops changes are thus largely avoided.



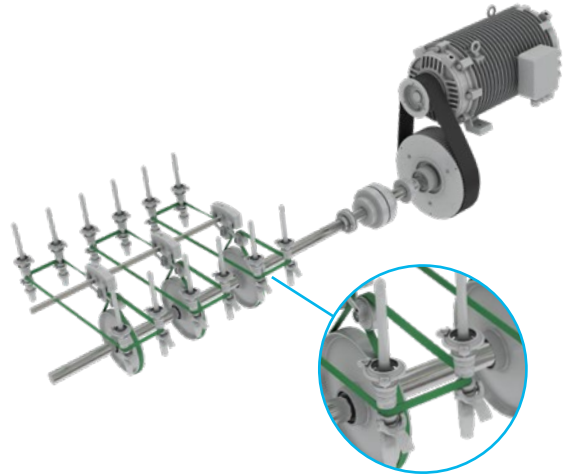


# Energy-Efficient

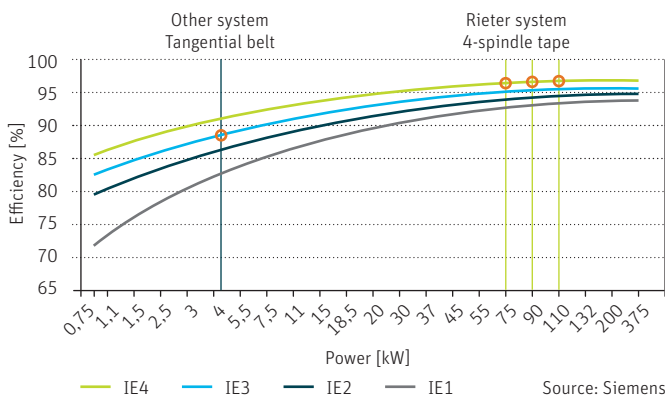
## 4-spindle tape drive and LENA spindle

The Rieter 4-spindle tape drive is energy-efficient and easy to handle. The large enlacement of 90° ensures that the spindle operates without failure, even with minimal contact pressure. The low contact pressure guarantees low energy consumption.

With the new HPS 28 and LENA 28 spindles, revolutions of up to 28 000 rpm can be run. Both spindles have a second damping system to remarkably reduce the bearing load and the noise level. Compared to conventional spindles with a whorl diameter of 18.5 mm or 25 mm, the LENA spindle with 17.5 mm saves up to 6% energy.



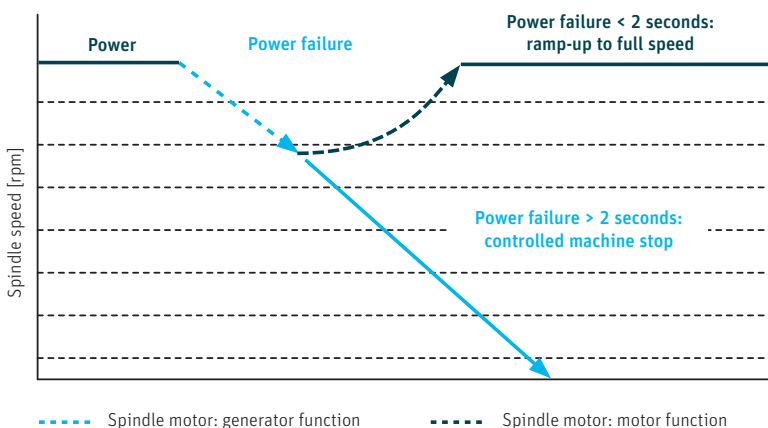
Efficiency depends on technology and motor size



## Energy efficient main motor

The extremely efficient IE4 main motor drives were developed for high speeds to save energy. It can also be used profitably on machines with fewer spindles and low speeds due to its permanent magnetic functioning. Efficiency is not only related to motor technology but also to motor size. With one single spindle motor and the choice of IE4 motors, Rieter invests in sustainable yarn production.

Full control during a power failure reduces production loss



## No ends down in the event of a power failure

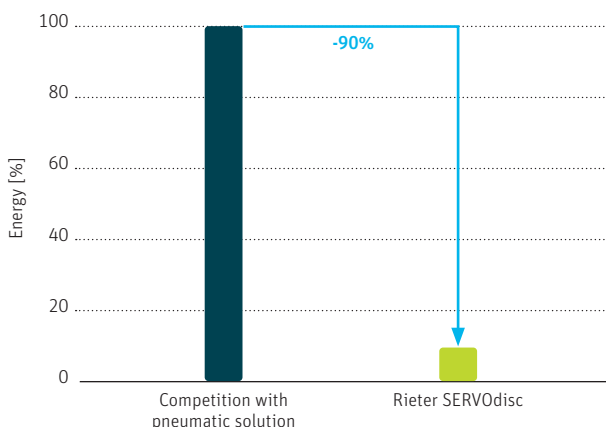
If a power failure occurs, the rotational energy of the spindles is used to supply the machine control systems with electricity. At this time, the main motor switches to generator mode. The machine comes to a controlled stop in the event of extended interruptions, thus avoiding ends down.

## Energy savings with power monitoring function

The power monitoring function is a new standard configuration for the new ring spinning machine G 38. Power monitoring is used to compare the energy values between machines. The values provide the operator with information for early detection of energy losses. There are various reasons for higher energy consumption of a single machine in a spinning mill, for example high fiber contamination on different machine elements such as travelers, spindle tape or drafting rollers. The energy consumption can be an indication of the right time to replace wear parts. The power monitoring function effectively supports to find the most energy efficient machine settings and helps to save energy.

## Most energy saving cop transport system SERVODisc

Power consumption for cop transport

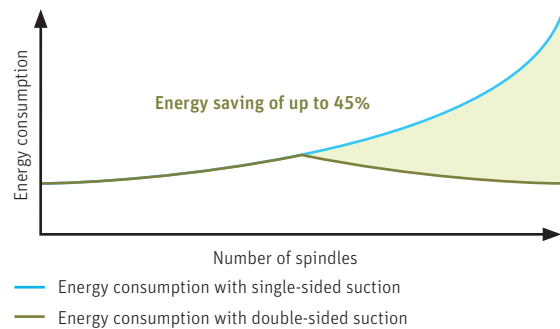


The cop and tube transport system SERVODisc is an open system that requires far less energy compared to others. The system is driven by two 70 W motors and requires up to 90% less energy compared to those of a pneumatic system, often used by competition. Up to 650 USD per machine and year can be saved for Ne 30 with 1 824 spindle machine.

## Efficient suction system

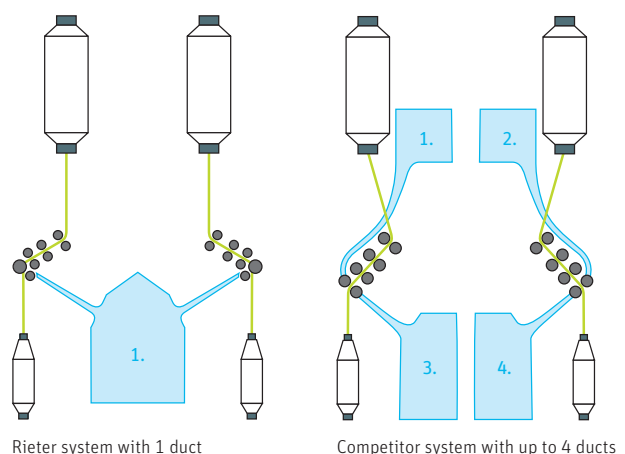
The double-sided suction for long machines optimizes the aerodynamics of the entire suction system. This reduces the energy that is required to generate the underpressure on machines with up to 1 824 spindles. Compared to single-sided suction system, the same air volume can be transported using less energy.

Energy saving potential with double-sided suction



The G 38 with one-duct system requires significantly less energy for the production of high quality compact yarn in comparison to other solutions. No additional suction installation and motors are required as the underpressure for yarn compacting is supplied from the suction base unit. The large duct cross-section lowers air speed and reduces the air friction. This results in additional energy savings.

Rieter one-duct system for ring and compact spinning





# Ring Yarns of Highest Perfection from Any Fiber

## Ideal fiber guidance in the drafting system

The drafting system Ri-Q-Draft ensures the ideal fiber guidance for most applications and very stable running behavior. The deflection bridge Ri-Q-Bridge is a key component in the spinning process. The optimal position and form of the cradle reduce the distance to the nipping point of the delivery roller. All listed technology components, including the bottom aprons, are perfectly tailored to each other. This ensures ideal fiber guidance in the main draft zone.

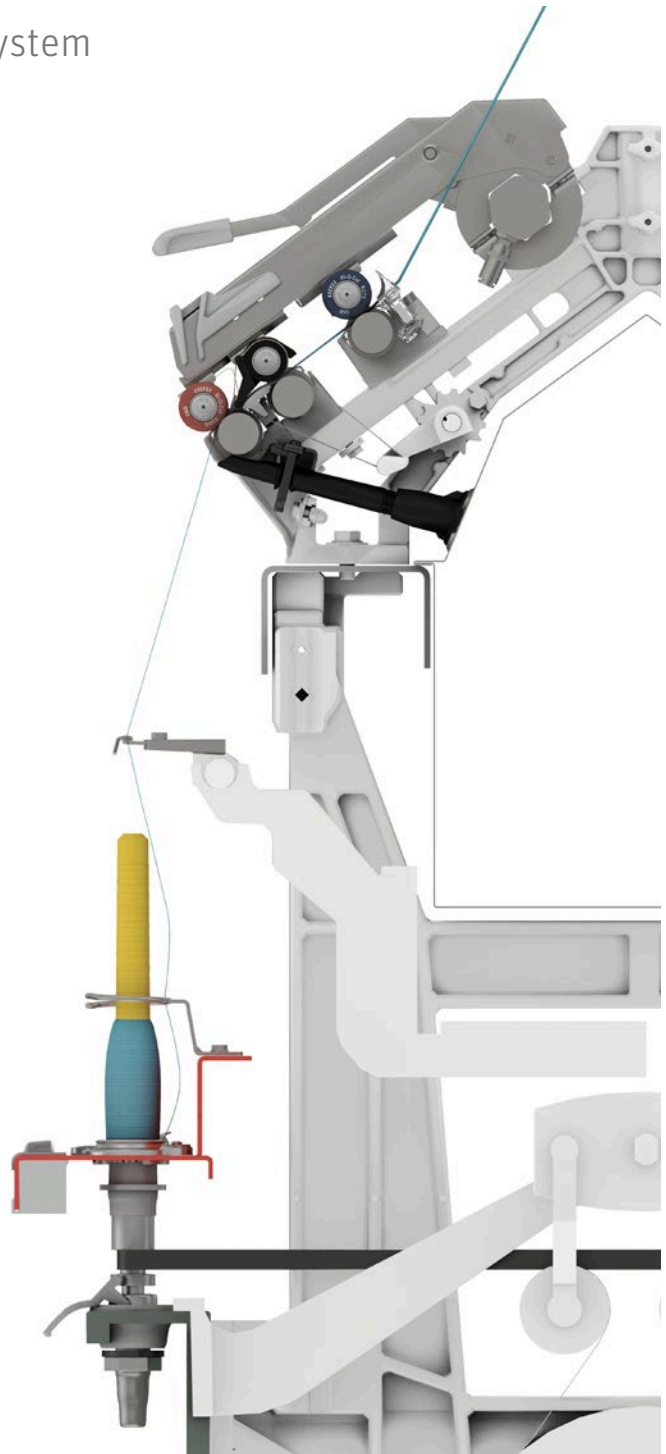
## Premium components as standard

The top roller cots Ri-Q-Cot developed by Rieter ensure perfect yarn quality. Different cots are available depending on the processed raw material and the yarn count.

High-quality TITAN spinning rings from Bräcker are included in the G 38 standard package. These spinning rings have a long service life.

All machines are delivered exclusively with proven Novibra quality spindles, which have excellent running characteristics. Energy consumption and noise levels are lower compared to those of other products. Higher spindle speeds can be achieved as the Novibra spindles reduce vibrations to a minimum when running.

Rieter's precise quality spinning tube Ri-Q-Tube is made from a particularly stable polymer mixture and has a high true-running accuracy. The spindle bearings experience minimal load even at high speeds.



## Special components for recycled raw material, man-made fibers and blends



Rieter offers a full package of components especially for man-made fibers like SERVOflex knife, bottom rollers with a larger diameter, and reinforced separators. It is a modular set. The individual elements can be configured based on customer requirements. The man-made fiber package improves spinning performance for yarns made of man-made fibers and blends.

The bottom rollers have a larger diameter and improve the running characteristics of the machine when long man-made fibers are used.

The metal-reinforced front edge of the separators prevents notching from rotating thread ends. No fibers get caught. The run of the thread is not interrupted by flying fibers; as such, the ends down rate is very low.

## Reliable yarn cutting for man-made fiber yarns with the SERVOflex knife

The SERVOflex knife reliably cuts the yarn during doffing and prevents ends down during startup. Rieter has developed a technology that reduces yarn twisting before doffing. When combined with the SERVOflex knife, even high-strength yarns or core yarns can be cut properly when doffing.

## Ring yarns with up to 40% recycled cotton

The production of ring yarn with acceptable quality from heterogeneous, recycled raw materials with a high short-fiber content brings new challenges. Thus, ring yarns made of recycled cotton can rarely be found on the market up to now. Rieter sets new standards and offers a complete ring spinning system that is designed to process recycled fibers in the best possible way. High-quality ring yarns with a share of 38% recycled cotton are possible. Due to the better integration of the fibers during ring spinning, ring yarn has a higher tenacity. This opens a wider range of applications for yarns made of recycled cotton.





# Short-Balloon Setting for Enhanced Performance

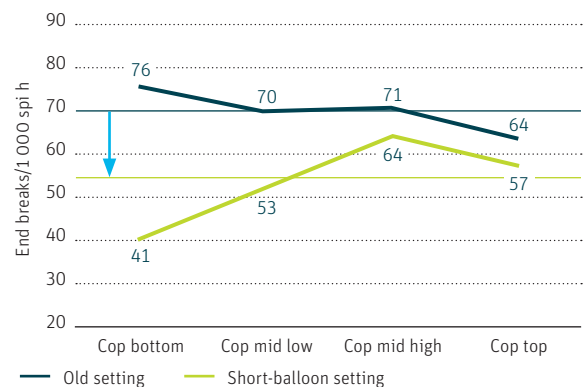
## Explore the enormous potential

The limiting factors in ring yarn production are yarn tension peaks and the interaction with ring and traveler. One of the most important tasks therefore is to balance the various balloon forces during cop build-up. The short-balloon setting optimizes these ratios and brings clear advantages in terms of up to 10% less ends down rates in average and longer traveler lifetime. Alternatively, the ends down rate can be kept constant, but production can be increased up to 2%. The traveler must continue to optimally compensate tension peaks and help that the yarn balloon is formed evenly during the entire ring rail movement.

## Lower ends down rate

The short-balloon setting reduces tension peaks and balances various balloon forces during cop build-up. Lower end breaks can be expected especially at the cop bottom stage for fine yarn counts. Less end breaks in average and significantly lower rate at cop bottom stage is possible with short-balloon setting for example for 100% cotton, Ne 60 and twist TM 4.2.

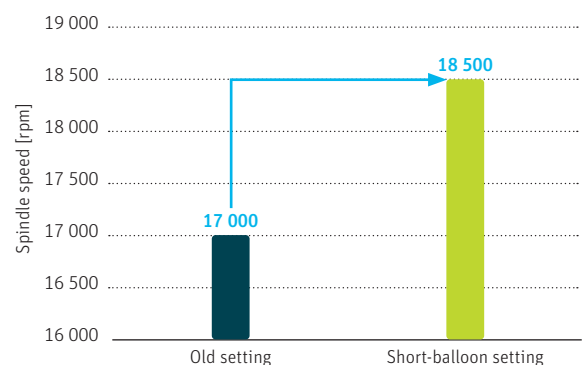
Lower ends down at different cop stages



## Expand technological limits

With the short-balloon setting the spindle speed increased from 17 000 to 18 500 rpm with ends breaks within customer limits and without traveler fly. The spindle speed increased by 9% for 100% cotton carded, Ne 20 and twist TM 4.3.

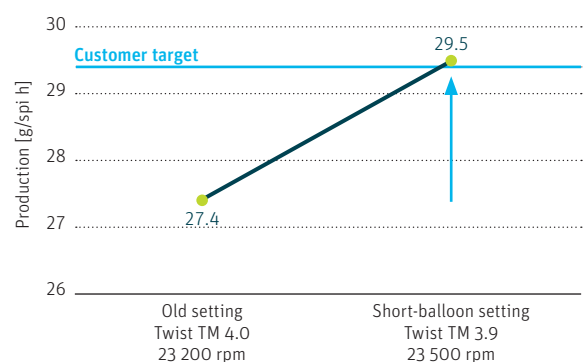
9% higher spindle speed



## Surpass production target

The new setting allowed a yarn twist reduction from TM 4.0 to 3.9 and higher spindle speed to increase production by 8%. The machine with short-balloon setting was able to surpass the production target and achieved 29.5 g/spi h for 100% cotton, Ne 30 and twist TM 3.9.

8% higher production

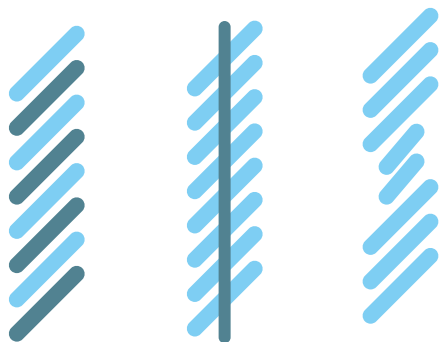


# Full Flexibility for the Production of Standard and Special Yarns

## Efficient production of slub yarns

The ring spinning machine G 38 is an all-rounder that allows the business to respond quickly to changing market requirements. Optionally, the G 38 FE machine can be equipped with the slub yarn system VARIOspin. The late generation servo motors are ideal for the high dynamics involved in slub yarn production.

A range of slub designs can easily be programmed on the operating unit or an external computer with the appropriate software. This allows slub yarns to be produced efficiently and profitably with outstanding Rieter quality.



Twin, core and fancy yarn

## Q-Package – the quality package for cotton

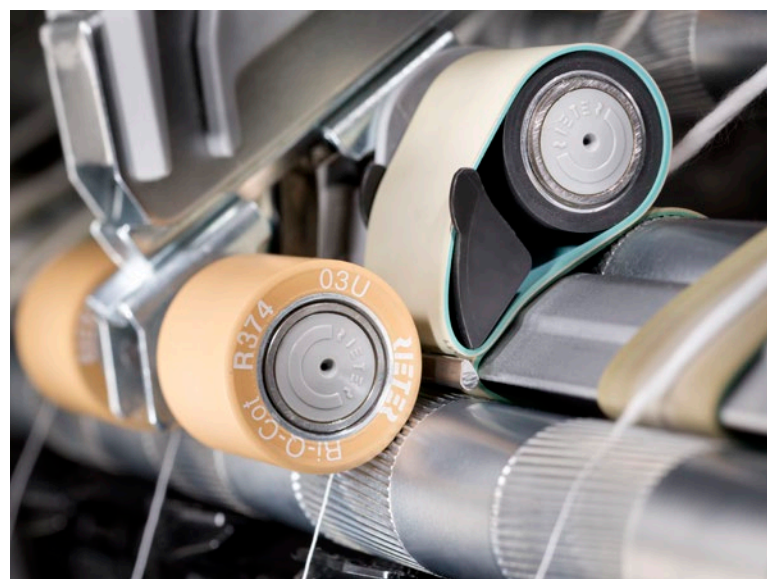
The quality package Q-Package for cotton contains a nose bar, an “active” cradle (moving deflection edge), and a pressure bar (pin). Fiber guidance between the cradle and the nipping point of the delivery roller is further improved with the Q-Package. The evenness of the yarn (Cvm%) is improved by up to one percentage point. At the same time, yarn imperfections are reduced by 10% to 30%.

## Precise production of core yarns

With the core yarn devices, soft, hard, and dual core yarns can be produced. The filament is always precisely integrated into the yarn. The core yarn devices work with a traversing guide roll for the filament. The traversing system for the filament is aligned with the traversing system of the roving.

## Easy production of twin yarns

To produce a twin yarn, two rovings must run to one spinning position. In the drafting system, both are drafted separately. The rovings are then twisted together in the spinning triangle. Due to their ply-yarn-like characteristics, twin yarns improve the quality of the yarn and the end product.





# High Machine Efficiency Through Digitization

## Efficient production with ISM premium

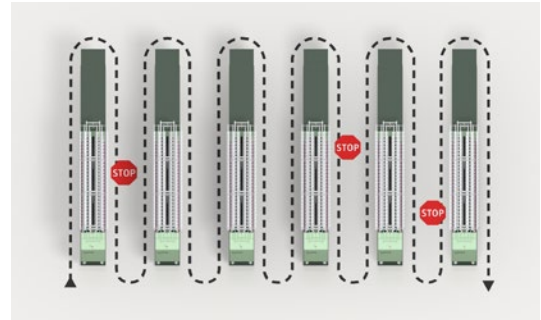
The individual spindle monitoring system ISM premium is built into the machine as a standard. In addition to LEDs at each spinning position, it also has an LED at each section and signal lamps at the head and end of the machine. The LEDs light up as soon as the individually defined limit for ends down is exceeded. Thanks to the three-stage display concept, operating personnel are guided to the ends down even more efficiently.

Another function is the permanent monitoring of the speed of each spindle. If a spindle runs outside the defined specifications, this is indicated by the LED flashing. This allows the operator to quickly and easily recognize which spindle is not running correctly. The operator can then intervene immediately, which avoids loss of raw material and quality.

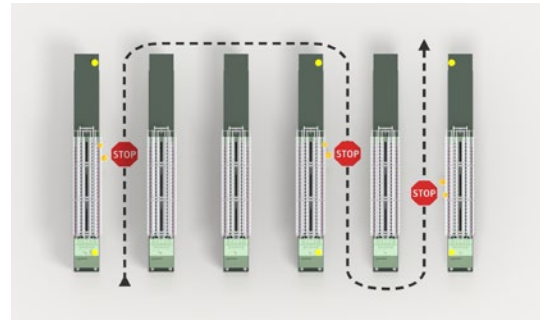
## Options for spinning position identification and roving stop

Using the SPID system of the winding machine Autoconer X6 in linked installations, the winding unit can detect faulty cops and assign it to the defective spinning position. The operator is guided directly to the spinning position that is not operating correctly and can intervene immediately.

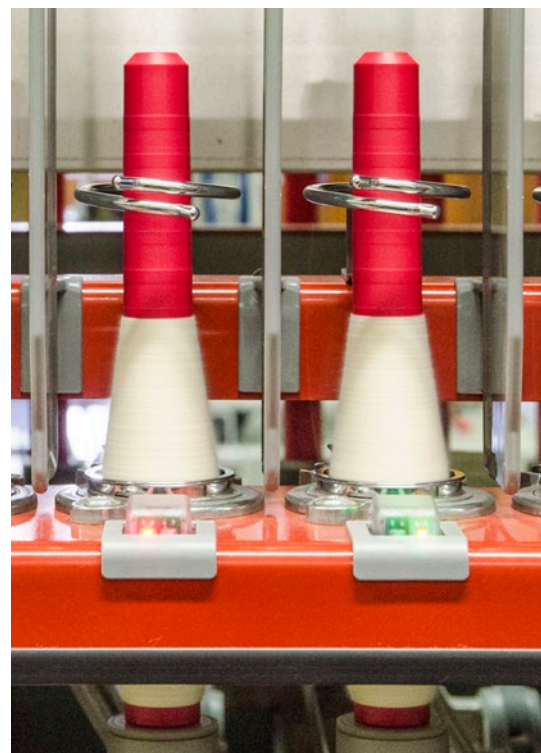
ISM premium is the basis for the roving stop device. If ends down occur, the ISM sends a signal to the roving stop device, which stops the roving feed. This saves raw material.



Without individual spindle monitoring – long distances for the operator



With individual spindle monitoring – optimized path saves time and improves efficiency



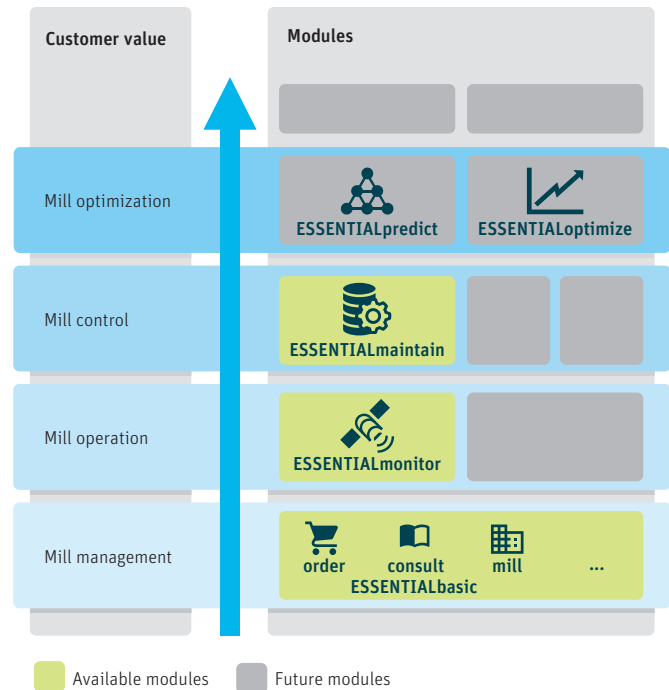
# ESSENTIAL – Rieter Digital Spinning Suite

Rieter's all-in-one mill management system for production traceability

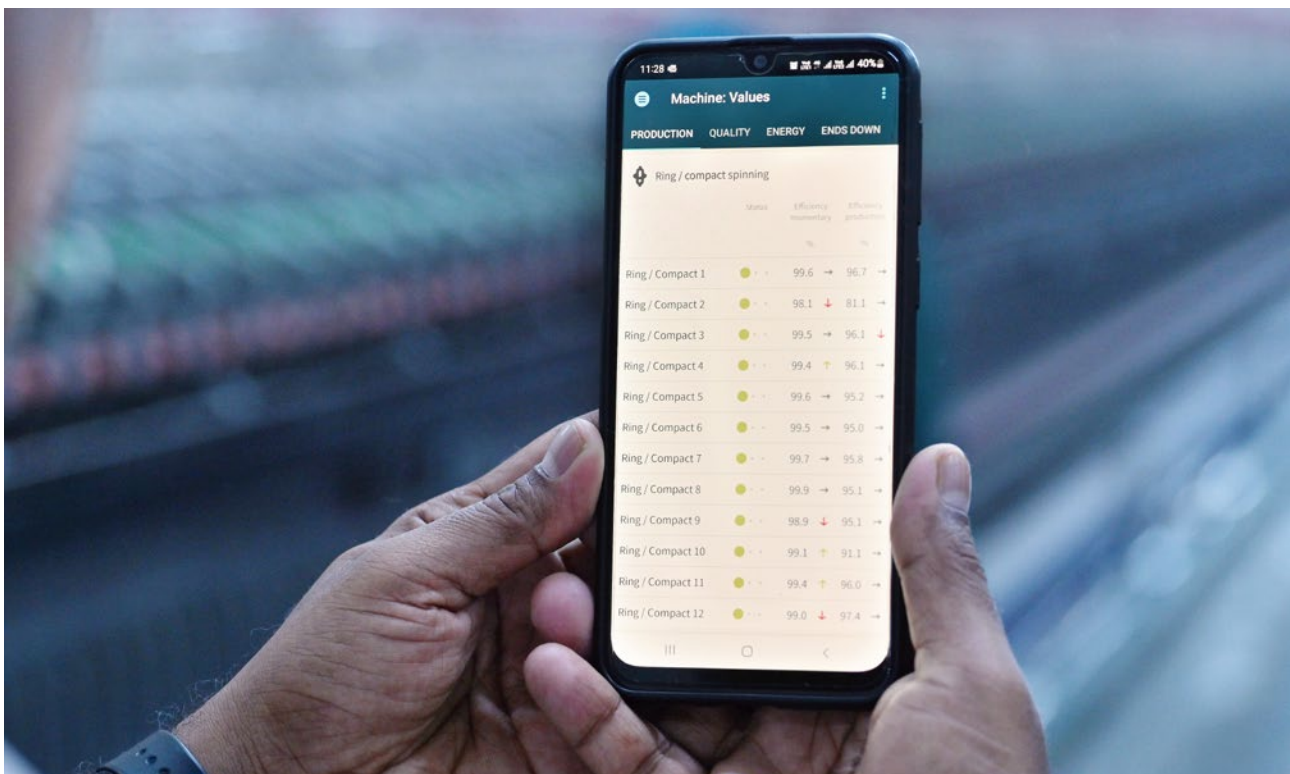
ESSENTIAL leverages digital technology for the textile value creation. The Rieter Digital Spinning Suite analyzes data of the entire spinning mill in real-time and provides meaningful key performance indicators based on this.

With comprehensive and clearly arranged digital analysis, the system supports management in strengthening the expertise of mill staff, eliminating inefficiencies and optimizing processes across the entire system. Through its holistic approach, ESSENTIAL connects the dots in the spinning mill.

ESSENTIAL is a modular system, so the spinning mill can be gradually digitized.



Modular set up of ESSENTIAL

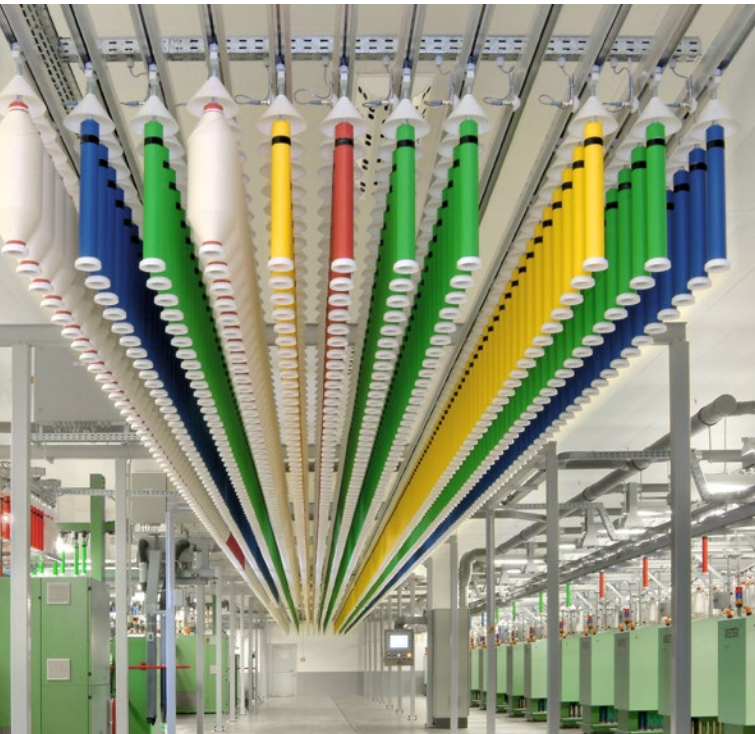




# Highest Level of Spinning Mill Automation

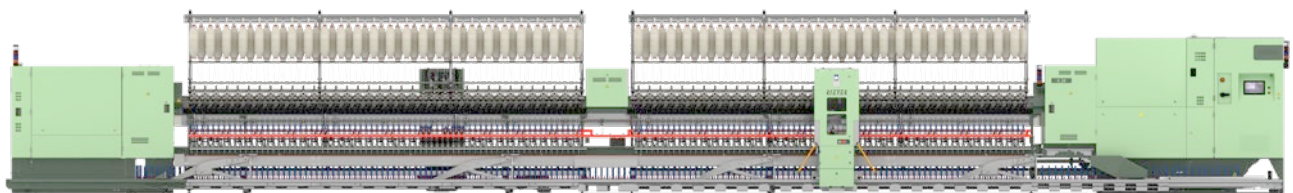
Roving bobbin transport SERVOrail for all customer requirements

Customized SERVOrail for all customer requirements

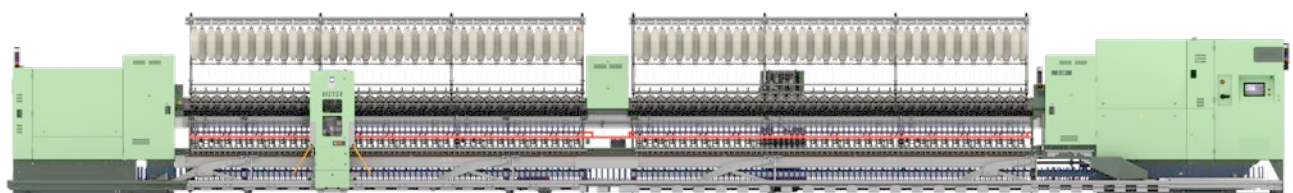


The modular roving bobbin transport system SERVOrail offers the optimal material flow between the roving frames and the ring or compact-spinning machines. It reduces personnel requirements, increases machine efficiency, and ensures excellent roving quality. Customers can choose from several technical variants and levels of automation. Different assortments can be managed flexibly as the roving bobbins are assigned to the corresponding ring or compact-spinning machine in a targeted manner. SERVOrail saves space, reduces the distance that operators are required to travel, and ensures that the spinning machines are freely accessible.

SERVOrail offers perfect solutions for both machine variants G 38 FE and G 38 SE. The housings for the drafting system drives differ in height.



Ring spinning machine G 38 FE



Ring spinning machine G 38 SE

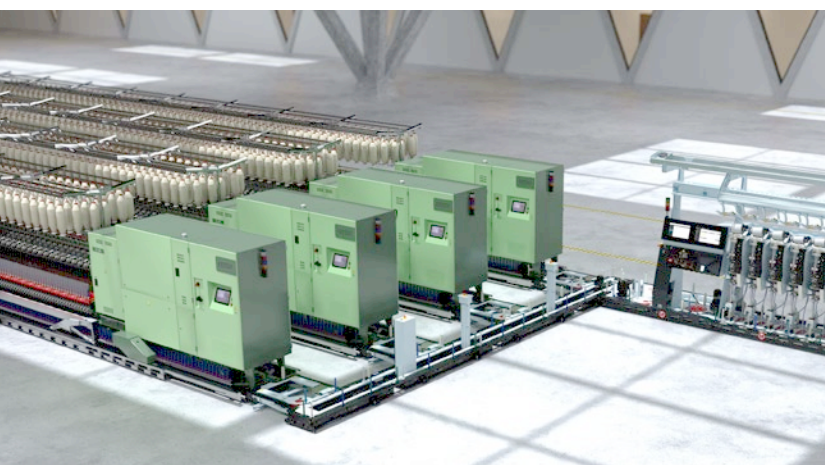
# Minimal Workload

## Intelligent automation

The linking of Rieter ring and compact-spinning machines to the winding machine Autoconer X6 enables the most intelligent process automation. Cops and tubes circulate directly in a closed process system of ring spinning and winding machines. Customers benefit from intelligent cop and tube logistics with complete material tracking. RFID chips turn peg trays into Smarttrays. Position and status of all cops and tubes is known at all times. RFID is the basis for intelligent lot changes and online yarn quality monitoring.

## Automation solutions Multilink/Multilot

Multilink is characterized by highest throughput rates (up to 60 cops/min for the interface) and for highest productivity (up to 96 winding units). With Multilink, customers can connect up to four ring spinning machines with one winding machine in various positions. Multilot manages the processing of up to four different materials on one Autoconer. Multilot is unbeatable thanks to the unique color-coded operator guidance, the simple lot handling at the operating unit and the flexible material flow configuration.



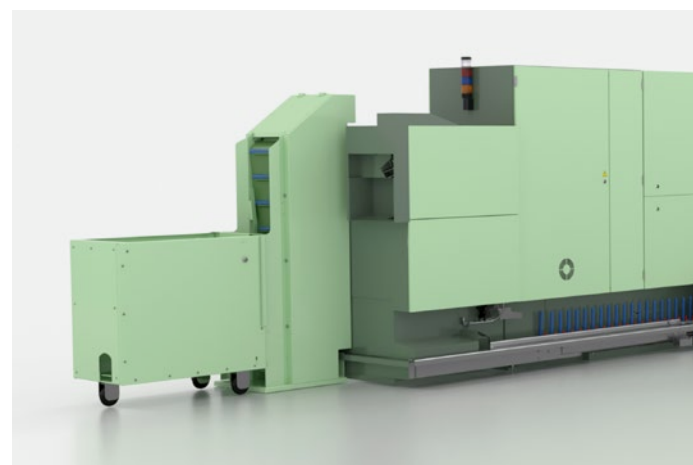
Link to the winding machine with Multilink system

## Individual link solutions

Whether direct link or underfloor link: Rieter creates an individual solution, suitable for the requirements of a spinning mill. The new Multilink offers even more flexibility in spinning mill design, with optimum space utilization and cost-saving potential. Links with machines in parallel or serial positioning are possible.

## Tube loader ROBload with add-on system WILDload and trolley

The system WILDload means significantly less work for operating personnel. The tubes are loaded into a trolley at the winding machine which is then clicked directly onto the ROBload. No manual work is required.

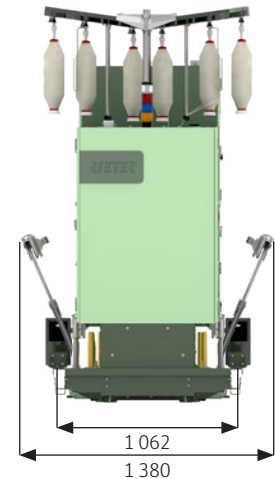
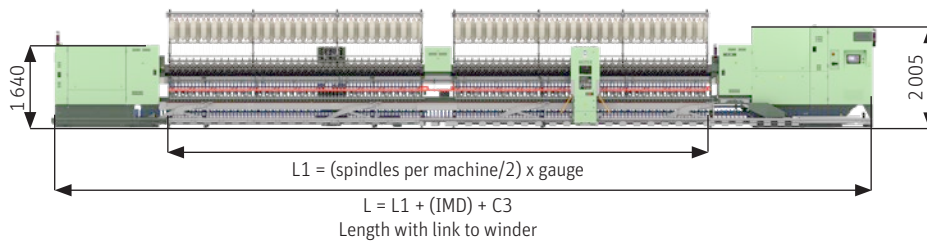
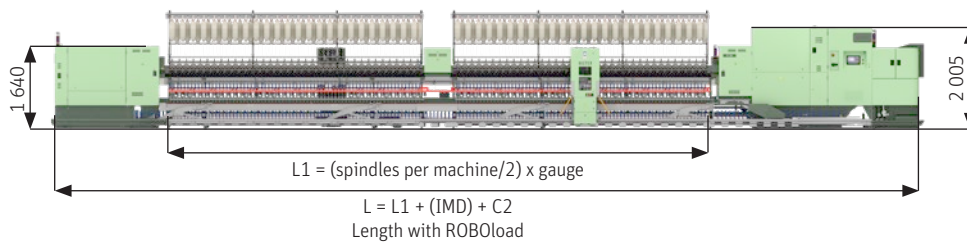
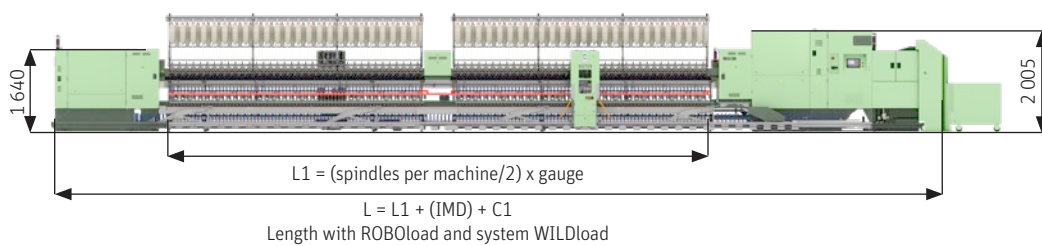


System WILDload: The tubes are picked up one after the other then aligned and fed to the tube loader ROBload.



# Machine Data

Ring spinning machine G 38 with electronic drafting drive (FE) and semi-electronic drafting drive (SE)



## Machine length L [mm]

$L = (\text{no. spindles}/2 \times \text{gauge}) + \text{intermediate drive (IMD)} + \text{constant (C)}$

## Maximum number of spindles

Up to 1 824 spindles per machine with 70 mm gauge  
Up to 1 632 spindles per machine with 75 mm gauge

## Machine without intermediate drive (IMD)

Up to 1 248 spindles: all raw materials, 70 and 75 mm gauge  
Up to 1 440 spindles: 100% cotton, 70 mm gauge

Length of intermediate drive (IMD): 600 mm

Length of ROBOload: 1 005 mm

Length of add-on system WILDload: 643 mm

Length of trolley: 980 mm and 1 200 mm available

## Endstock length depending on version [mm]

Suction	Single-sided*	Double-sided*
C1: ROBOload and system WILDload without trolley	5 828	7 284
C2: ROBOload without trolley	5 185	6 641
C3: Link to Rieter, Murata, Savio	4 180	5 636

\*Single-sided suction is available for up to 1 440 spindles. Double-sided suction always has an intermediate drive and is available from 1 296 spindles.

## Example calculation for machine length L [mm]

1 824 spindles, 70 mm gauge, intermediate drive, double-sided suction, link  
 $L = ([1\,824/2] \times 70) + 600 + 5\,636 = 70\,076 \text{ mm}$

All pictures represent G 38 FE (see page 28 for model comparison)

Technological data		
<b>Material</b>	Cotton, man-made fibers and blends up to 63 mm (2 1/2 in)	
	<b>G 38 FE</b>	<b>G 38 SE</b>
<b>Yarn count</b>	All raw materials 132 – 3.7 tex Nm 7.5 – 270 Ne 4.5 – 160	Cotton 90 tex – 3.7 tex Nm 11 – 270 Ne 6.5 – 160
	VARIOspin option 132 – 2.4 tex Nm 7.5 – 423 Ne 4.5 – 250	Blends, MMF 60 tex – 3.7 tex Nm 17 – 270 Ne 10 – 160
<b>Draft</b>		
Mechanical	8 – 130-fold	12 – 95-fold
Technological	10 – 80-fold	12 – 80-fold
VARIOspin	6 – 250-fold	
<b>Twist range</b>	200 – 3 000 T/m (5.1 – 76.1 T/in)	400 – 3000 T/m (10.2 – 76.1 T/in)

Machine data	
<b>Number of spindles</b>	
Max.	1 824 with 70 mm gauge 1 632 with 75 mm gauge
Min.	288 (144 on request)
Per section	48
<b>Spindle gauge</b>	70; 75 mm
<b>Ring diameter</b>	
70 mm gauge	34; 36; 38; 40; 42; 45 mm
75 mm gauge	... 42; 45; 48; 51, (54) mm
<b>Tube length</b>	
70 mm gauge	180 – 230 mm
75 mm gauge	220 – 250 mm
<b>Tube and spindle diameter DUI</b>	
DUI 18; DUI 20	Rieter spindle range
DUI 16	LENA 28 spindle with 34 mm ring

<b>Machine width</b>	
Over center of spindle	660 mm
Doffer retracted	1 062 mm
Doffer extended	1 380 mm

<b>ROBOspin data (option)</b>	
Machine width with ROBOspin	1 586 mm
Compressed air Min. supply pressure	7 bar
Installed power	2 x 0.48 kW

Technical data		
Spindle speed	Mechanical up to 28 000 rpm	
Installed power		
Main drive motor depending on spindle number	55 kW 75; 90; 110 kW (IE4)	
	G 38 FE	G 38 SE
Drafting system drive	FLEXIdraft electronic	Semi-electronic
Standard	5 – 15.1 kW	6.5 – 17.0 kW
Without IMD	4.4 – 8.8 kW	6.5 – 13.0 kW
VARIOspin	4.38 – 16.7 kW	
Ring rail drive	1.75 kW	
Single-sided suction on the power supply (50/60 Hz)		
up to 1 200 spindles	6.5 kW	
1 248 – 1 440 spindles	9.0 kW	
1 488 – 1 632 spindles	12.6 kW	
Single-sided suction with converter		
Up to 1 008 spindles	6.5 kW	
1 056 – 1 440 spindles	12.6 kW	
Double-sided suction with converter		
1 296 – 1 824 spindles	2 x 6.5 kW	
Mains connection		
Rated voltage	380 – 440 V; 50/60 Hz Other rated voltages available on request	
Compressed air		
Min. supply pressure	7 bar	
Consumption	approx. 1.5 Nm³/h (up to 1 440 spindles) approx. 1.75 Nm³/h (up to 1 632 spindles) approx. 2 Nm³/h (up to 1 824 spindles)	
Exhaust air		
Air volume with single-sided suction	9 400 m³/h with 1 632 spindles	
Air volume with double-sided suction (even split of air flow rate in the head and foot of the machine)	9 400 m³/h with 1 632 spindles 10 500 m³/h with 1 824 spindles	

<b>Options</b>		
• COMPACTdrum	• Man-made fiber package	• GRIPPEReasy
• COMPACTapron	• High-Speed Package	• DOFFlock
• COMPACTeasy	• LENA 28 spindles (DUI 18; DUI 16)	• ROBOLoad with system WILDload
• Twin yarn	• 75; 90; 110 kW IE4 equivalent main motor	• Roving stop device
• Core yarn device	• Highest delivery speed	• ESSENTIAL
• Slub yarn VARIOspin	• ROBOspin	
• Q-Package		





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