

**SAURER.**  
Schlafhorst

**ZINSERRING 71.**  
GO NON-STOP –  
WITH OUR ORIGINAL COWEMAT.



## Go non-stop – with our original CoWeMat.

Achieve your targets with us. Welcome to the ZinserRing 71, the entry model to the most reliable ring spinning technology in the world.

Place your trust in 100 years of Zinser tradition, 100 years of experience, 100 years of attention to detail, and 100 years of continuous improvement of every last component of our machine – with up to 1,440 spindles, the most reliable doffer in the world, and reduced spinning costs.

Individual automation solutions from Schlafhorst – from roving frame to winding machine – reduce your reliance on personnel and increase your productivity.



Less downtime



Fewer personnel



More production



More flexibility



More quality



Fewer raw materials



Less energy



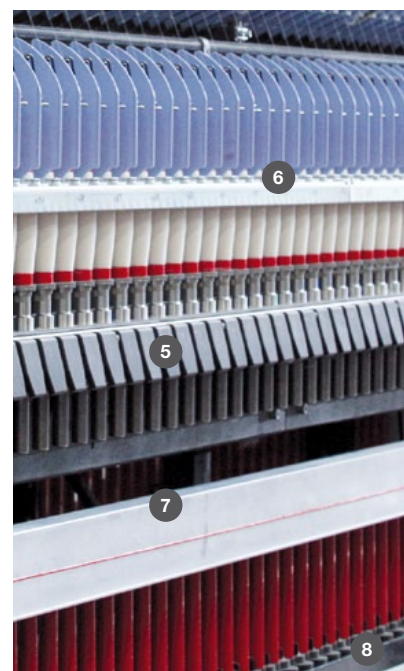
Fewer wearing parts



Less space costs

# ZinserRing 71

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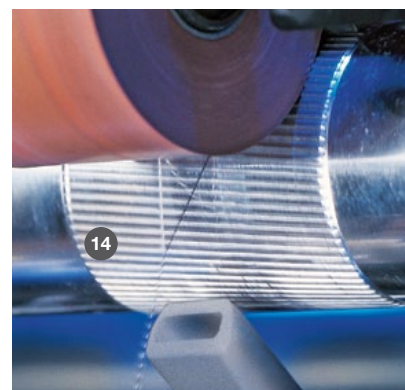
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# ZinserRing 71

## Go non-stop – with our original CoWeMat



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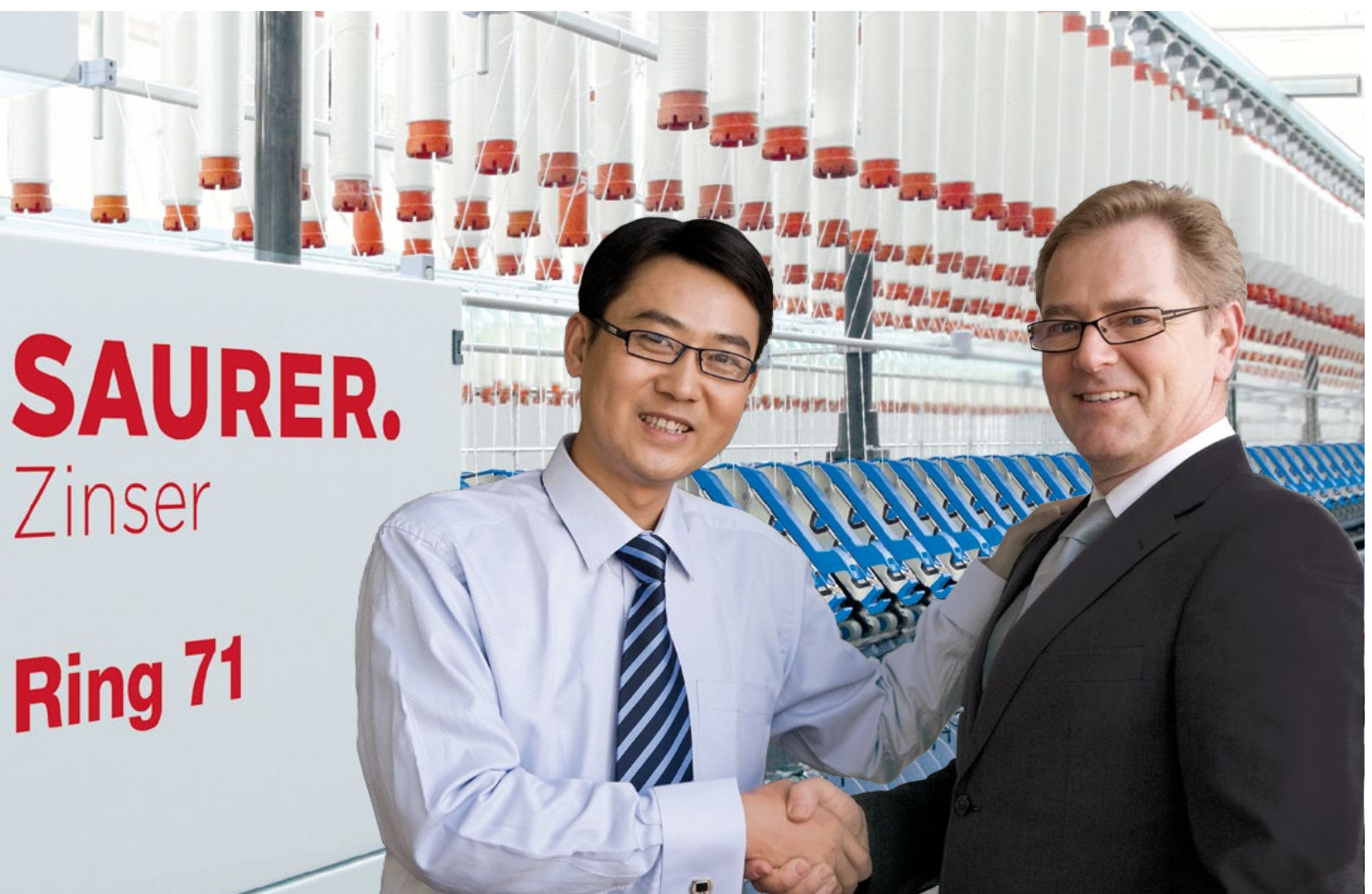
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## The reliability you need

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- ▶ Traditional German reliability – already since 2002 in Asia
- ▶ Schlafhorst is your partner for business success – today and tomorrow



# From us for you: Traditional German reliability

## Our successful company – now with headquarters in Shanghai



### For 100 years: German precision by Zinser

Pioneering inventions bear the name of Zinser. All with the same objective: to increase the business success of its customers by providing maximum reliability.

- 1914** Eugen Zinser receives the imperial patent for the first Zinser spindle in Berlin.
- 1967** Zinser invents the CoWeMat, the world's most reliable and sought-after automation technology to date.
- 1999** Zinser presents Impact FX, the only self-cleaning compact spinning technology in the global market.
- 2002** Schlafhorst, the market leader in spinning technology, establishes its own ultra-modern production facility in China.
- 2012** Opening of the new headquarters in Shanghai.
- 2013** Establishment of the new Saurer Group.

### The reliability you need

Today Asia is at the heart of the textile industry – and we have our finger on the pulse! Schlafhorst has been in Asia already since 2002 to support the Asian textile industry with reliable technology during its dynamic growth. Quality, productivity and cost-effectiveness are decisive factors of success for your economic efficiency. We support you with European know-how, innovative power and process experience.

On the sure road to success - with Schlafhorst. We are the only company on the international market that offers trend-setting rotor spinning, ring spinning, compact spinning and winding machines from one single source for the important issues of our time: For the most efficient use of raw materials and resources. For reliable automation and greater productivity in keeping with pinpoint quality.

With our headquarters in Shanghai, the latest textile machinery plant in Suzhou and an extensive service network in all Asian countries, we are committed to working for your financial success.





## Higher production with less personnel

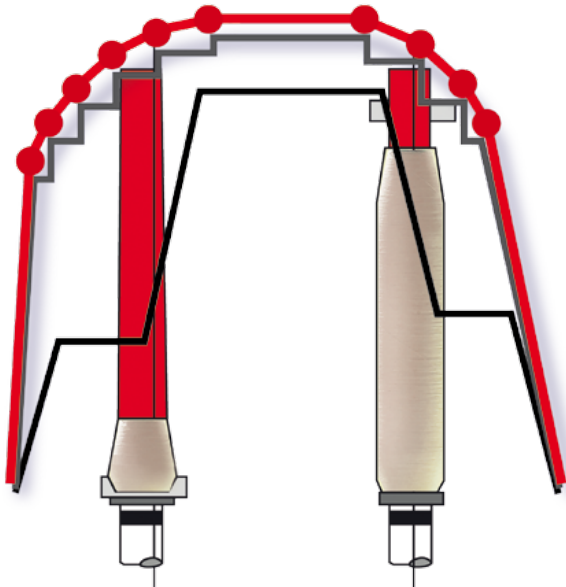
- ▶ Peak productivity up to 1,440 spindles
- ▶ Highest speeds and lowest yarn break rates
- ▶ Less down time, less personnel
- ▶ CoWeMat, the doffer straight from the inventor – the only one with safety membrane
- ▶ Efficient automation solutions as stand-alone version and with linked systems





# Making progress with profitable precision technology and state-of-the-art software control

## Less yarn breaks, more yarn



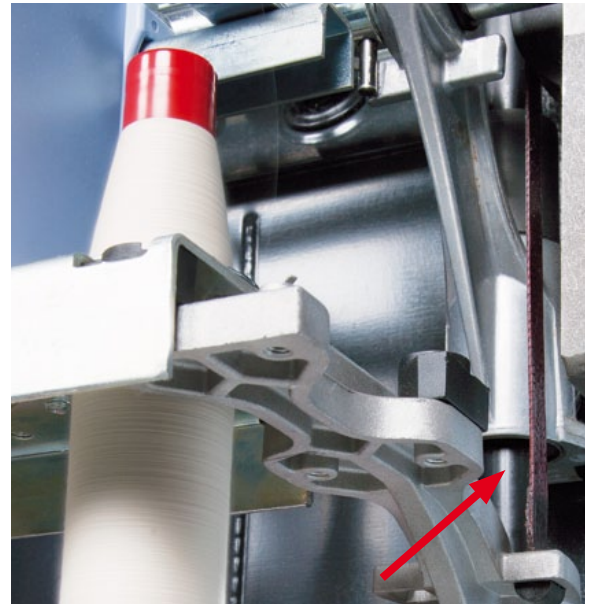
- Zinser – OptiStep 10-point spinning programme
- Machines with frequency inverter control
- Machines with PU control

## Producing at the speed of Formula One – for your dynamic growth

Avoid non-producing spindles, reduce personnel requirement. The integrated software OptiStep allows you to automatically spin with cutting-edge technology at all times – without high yarn break rates. Only OptiStep has 10 control points. Thus, you operate at absolute maximum speed without yarn break during every phase of the bobbin travel. Your advantage:

- you can achieve a higher speed at the same yarn break rate or
- lower yarn break rates at the same speed.

## Highest speeds



Carbon coating for optimal smooth running

## No non-producing spindles due to continuous readjustment – the ZinserRing 71 keeps on running and running

The ZinserRing 71 offers reliable top technology, extreme performance, and high-precision processing at a reasonable price. For instance the ring rail: The solid design ensures uniform productivity at maximum speed. The basic settings of the machine are strictly maintained and do not require continuous readjustment. This eliminates your reliance on personnel and increases machine efficiency.

# More yarn at the end of each shift

## Quick lot change



### Reliable productivity – independent of personnel!

When using mechanical control elements, your productivity depends on personnel. When using Zinser with EasySpin software control, this is not the case. Your advantage: immediate access, quick set-up, quality assured and trouble-free production at highest level.

### No time-consuming settings – rapid set-up with EasySpin

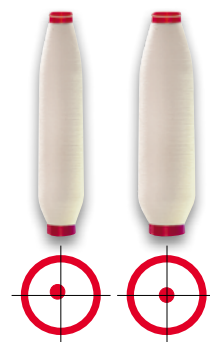
The spinning settings can be transferred to other machines in seconds – at 100% reliability. This ensures that you always use the best and most productive machine settings for spinning, regardless of the skill level of your personnel.

## Centerable rings



### Others:

Poorly centred ring:  
low amount of yarn  
on bobbin, low  
speed, high yarn  
break ratio



### Zinser:

Centred ring:  
more yarn on  
bobbin, maxi-  
mum speed, less  
yarn breaks

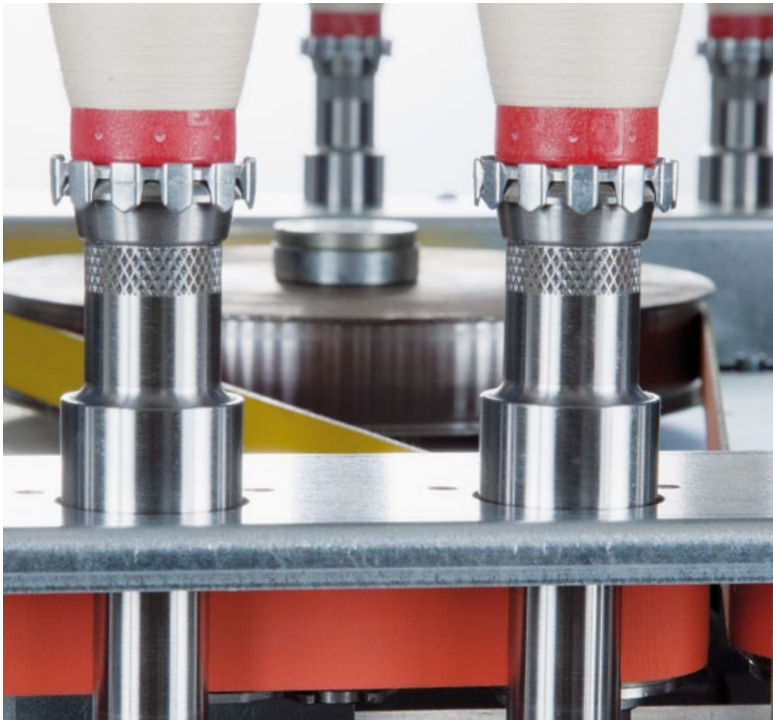
### Productivity with cutting-edge technology

Complete major orders in record time! The ZinserRing 71 is the most productive ring spinning machine of its class. The centerable rings ensure stable running behaviour. Yarn tension remains constant. Not only do you get excellent yarn quality, thanks to low yarn break rates you can also spin faster. Another advantage is that each bobbin comprises considerably more yarn. All these advantages add up – you produce more yarn at the end of each shift.



# Trouble free spinning at peak productivity – without interruptions

## Maintenance-free drive



### Less time for maintenance, more time for production

Forget all about non-producing spindles because of missing tapes or continuous cleaning, for instance with 4-spindle tape drive. Our tangential belt is maintenance-free. The belt drive is enclosed, which keeps it tidy and reduces the cleaning effort. Changing a belt is not required very often and can be done as part of the regular maintenance programme. In contrast, 4-spindle tape drives need to have tapes replaced 2 to 3 times a week, which creates additional manpower requirements. Moreover, worn belts can block the knee brakes of other solutions - causing production loss.

### Energy saving and crucial for quality

The low energy consumption is another advantage of the Zinser tangential belt drive. This is the results of the low number of deflection points, which ensures a straight-running belt without twists and a small belt surface - for less friction and minimal air turbulence.

The highly uniform surface of the belt is crucial for quality. The spindles are steadily driven in a gentle and completely vibration-free way. The advantage: the variation of the spindle speed is below 1 % with uniform yarn twist.

## Operational reliability during power failure



### Simply bridge power failures

During short power failures up to 2 seconds, the ZinserRing 71 simply continues to run, thanks to intelligent power failure protection. For this purpose, power supply and machine speed are permanently monitored and switched to generator operation in case of power failure.

### Save additional personnel and eliminate expensive production loss

If the "critical time" is exceeded, the machine shuts down in a controlled manner. After the energy supply has been restored, the machine starts as usual and without any problems – without additional yarn breaks.

# Not all doffing is the same – only CoWeMat features clever safety technology

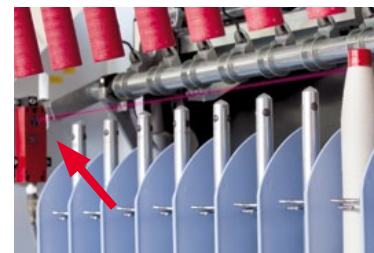
## Save up to 61% personnel with the original CoWeMat



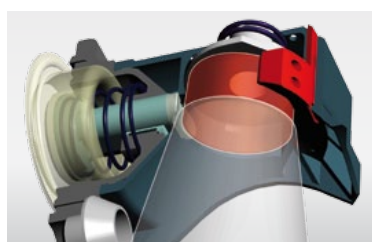
High-precision, stable technology - virtually no yarn breaks during start-up or machine stops



Cutting knife for disjoining course and high-tenacity yarns



Light barrier for monitoring automatic doffing



Safety membrane prevents doffer stops



Precision-controlled bobbin tray system; always accurate without readjustment

### Only a reliable doffer saves personnel

There are plenty of doffers, but only one CoWeMat from Zinser. Invented in 1967, we have continuously improved it over 45 years. When it comes to the doffer, what really matters is that it actually works – permanently, day in and day out, for years without trouble, without checks. The CoWeMat is world-famous for this.

### Maximum protection against doffer downtime and machine stop

During doffing, it is nearly impossible to entirely avoid individual gripper malfunctions. With other doffers, this often results in the downtime of the whole machine. The CoWeMat works completely different. Due to decoupled grippers with safety membrane and independent vacuum system, the CoWeMat continues to run, just like the entire machine.

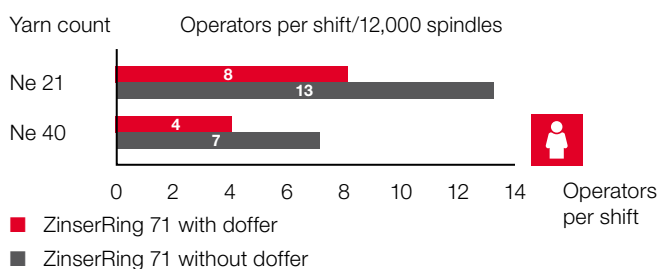
### The marathon doffer – resulting from decades of hard development work by Zinser

Safety is of top priority to Zinser– because malfunctions cost money. To make the CoWeMat worry-free, it has become a true marvel of safety technology today. For your success!

### No need for constant control

A light barrier monitors the smooth application flows of the doffing. In case of a malfunction, the machine shuts down automatically. This ensures reliable separation even of high-tenacity yarns. The Zinser BobbinTray system with precision drive ensures reliability without controls.

### Up to 61% savings in personnel through automatic doffing





# Automation that offers precision running and saves effort

## Most reliable stand-alone solution



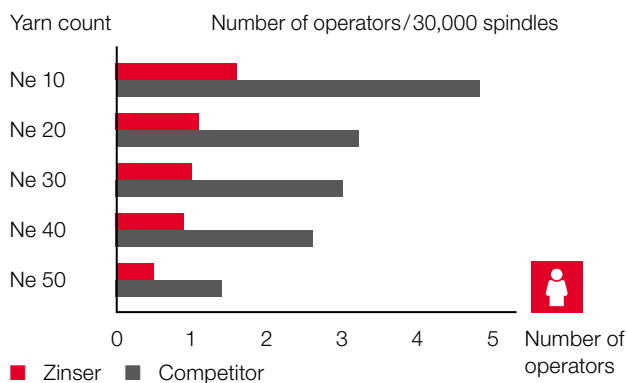
### No need to sort tubes with CoWeFeed

Stand-alone machines with doffer require that the tubes are inserted in a special way, otherwise the doffer or the entire machine shuts down. A clever, typical Zinser technology saves you this trouble: the CoWeFeed.

### Automatic and trouble-free, one filling is sufficient

The empty tubes are simply dumped into the CoWeFeed container – sorting is not required. CoWeFeed takes care of the rest, fully automatic and without problems. One filling is sufficient for a complete doffing cycle. Nothing would require less personnel or be more reliable!

### Up to 66 % savings in personnel through CoWeFeed



## Most efficient linked system



### Reliable yarn quality, highest productivity, minimum personnel requirement

The ZinserRing 71 can be integrated seamlessly with a complete automation solution, from roving frame to winding machine. A linked system is particularly profitable when producing large lots – by maximum space utilisation, optimal coordination of winding and spinning capacity, minimising personnel requirement, and increased yarn quality. As a result, efficiency is increased and production run times are reduced even more. The ZinserRing 71 can be linked to all automatic package winding machines.



## Improved yarns help you achieve high growth targets

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- ▶ Wide range of applications
- ▶ Can be upgraded to Impact FX – the most productive compact technology
- ▶ Expanding the product range with SiroSpun
- ▶ All-round protection for your quality
- ▶ Fast, reliable operation with EasySpin





# The high quality standard is maintained! Constant optimal yarn values without readjustment

## Guaranteed quality, cost-effective



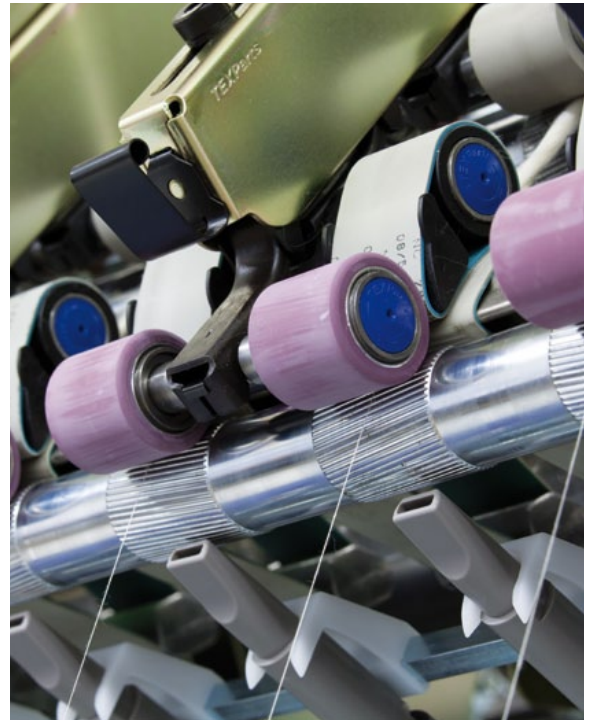
### Ring yarns for all markets, independent of personnel

Spin top ring yarns from Ne 10 to Ne 120. The ZinserRing 71 simplifies machine settings and eliminates your reliance on personnel. With this system you can supply any desired ring yarn on time at the touch of a button – with a guaranteed quality level and an unrivalled price-performance ratio.

### Upgrade option to compact and SiroSpun yarn

And you can also retrofit the ZinserRing 71 with Impact FX, the best integrated and self-cleaning compact spinning technology in the world, as well as with a SiroSpun yarn option.

## Safety drafting system



### Precise observance of yarn count – without continuous readjustment

Constant yarn values are the basis of your success. The Zinser drafting system relies on high-quality precision technology that firmly maintains the correct setting and requires no readjustment.

### Safety in the drafting system: mechanical load rules out quality risks

Our mechanical weighting arms ensure constant pressure on all spinning positions. Pneumatic weighting arms frequently cause leaks, resulting in unnoticeable deterioration of yarn values. With the ZinserRing 71, this is entirely eliminated.

# Reliable quality technologies that support your economic growth

## Software-supported quality

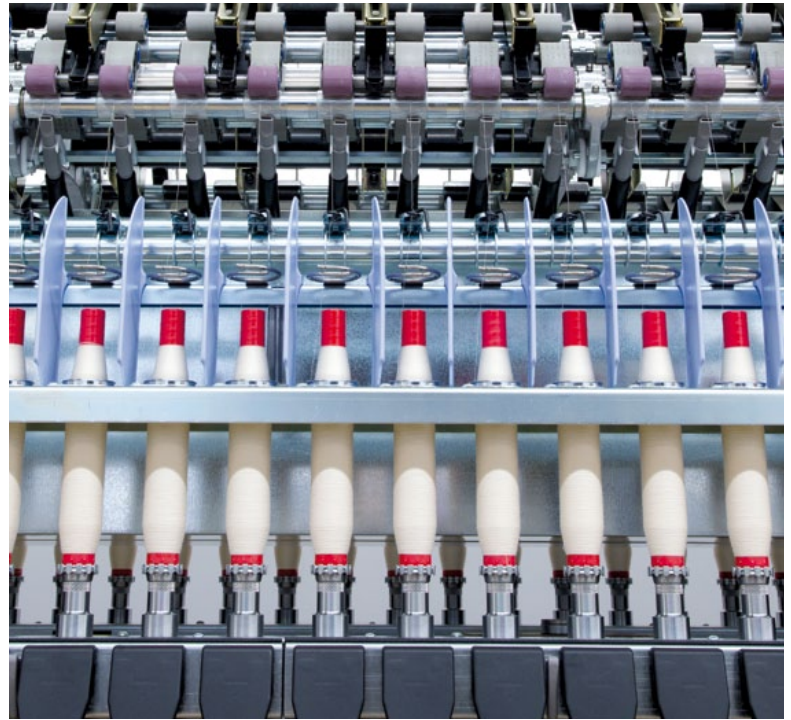


### EasySpin – the control that supports your personnel

EasySpin is the most economical and reliable application software available in the spinning market – the high-end standard of Schlafhorst.

Images and symbols guide the operator to the right settings, quickly and precisely. Practical tips are found at every input screen. Illustrated messages provide targeted information about actions that are required. This allows your employees to quickly and reliably set the correct values for your yarns, and to spin at maximum machine performance at all times.

## Clean drive, clean yarn



### Minimum fibre fly, higher quality yarn

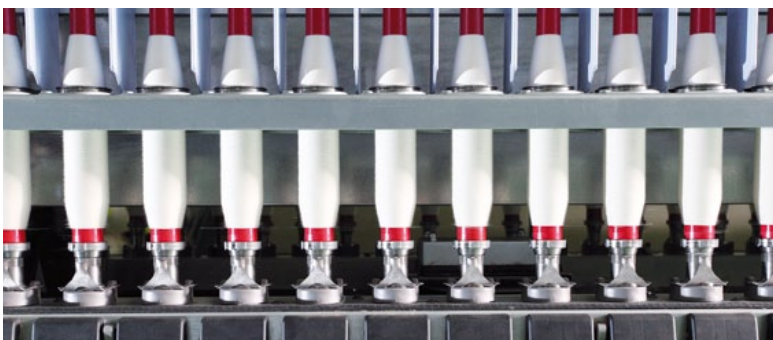
The Zinser tangential belt drive is enclosed, thus preventing air turbulences and accumulation of fibre fly. The yarn is free of foreign particles that otherwise could cause imperfections in the yarn.

### Constant twist, constant profit

The uniform belt surface ensures synchronous spindle drive. All spindles produce yarn with exactly the same twist. In contrast to 4-spindle belt drive, the twist of the adjacent spindle is not influenced, even when slowing down spindles for yarn break repair.



## Secure setting, secure yarn quality



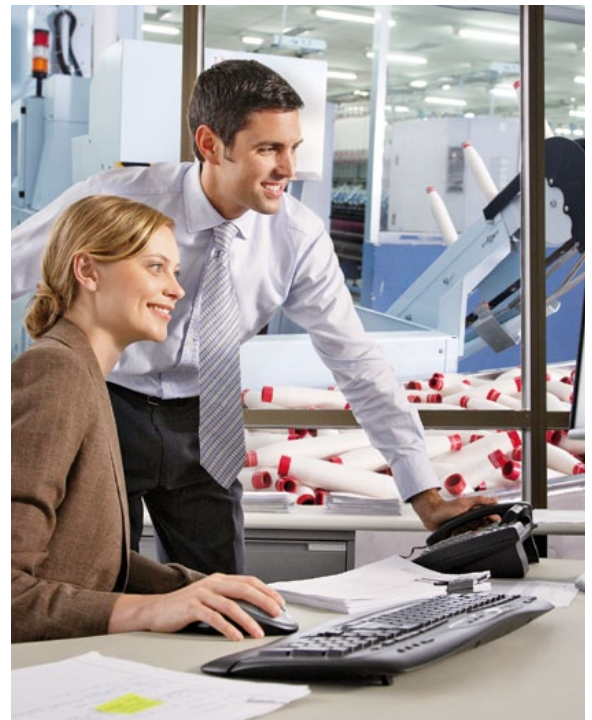
### Guaranteed yarn quality without compromise

Opt for reliable quality, independent of personnel. All spinning parameters are precisely and centrally set in the user-friendly EasySpin: a self-explanatory, clear arranged software, with many pictures and pictograms, available in several languages.

### Quality assurance through data transfer – no hardware change required

Do without unreliable parameter settings performed by personnel, e.g. for mechanical control elements. Simply transfer the data to your other Zinser ring spinning machines by USB stick – it takes only seconds and is 100 % safe. This ensures that you are always spinning using the best and most productive machine settings, regardless of your staff's personal skills.

## Central data management



### Linked quality and production management

With the Plant Control System you are always up to date as to staff assignment and level of efficiency at which your system is currently operating.

Your Schlafhorst product lines are linked via a system network employing a central computer. All production and quality data are recorded online and are available at a mouse click as shift or production reports. With information prepared in detail, you optimise your operational application flows, thus increasing the economic success of your company.



## Lower spinning costs

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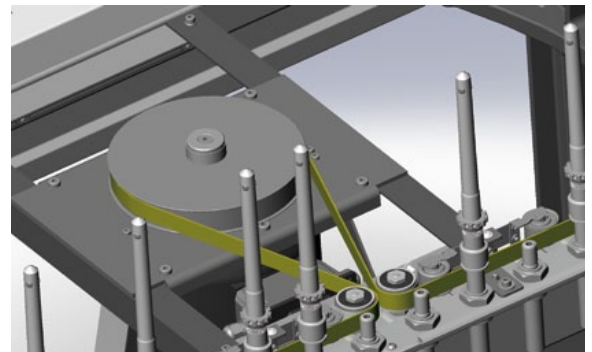
- ▶ Up to 1,440 spindles
- ▶ Higher speeds due to precision design
- ▶ Energy-saving spindle drive
- ▶ Mechanical weighting arms without compressed air requirement
- ▶ Longer service lives of travellers, aprons and top rollers with OptiStart and OptiMove
- ▶ Upgrade option to self-cleaning integrated compact technology Impact FX





# Maximum economic efficiency, improved energy balance

## Make better use of space, increase energy and resource efficiency



### Cost reduction per kg yarn – with longer machines and higher speeds

The ZinserRing 71 offers decisive advantages with just a few long machines to achieve increased productivity at reduced spinning costs: with long Zinser machines that provide continuous maximum performance.

### Productivity through precision – with Zinser

Zinser has been known for decades for the longest ring spinning machines in the world. Length requires precision. And precision is also the prerequisite for higher speeds. This demonstrates: Zinser is the best choice for your economically successful future.

### Save energy and spinning costs, maximise profits

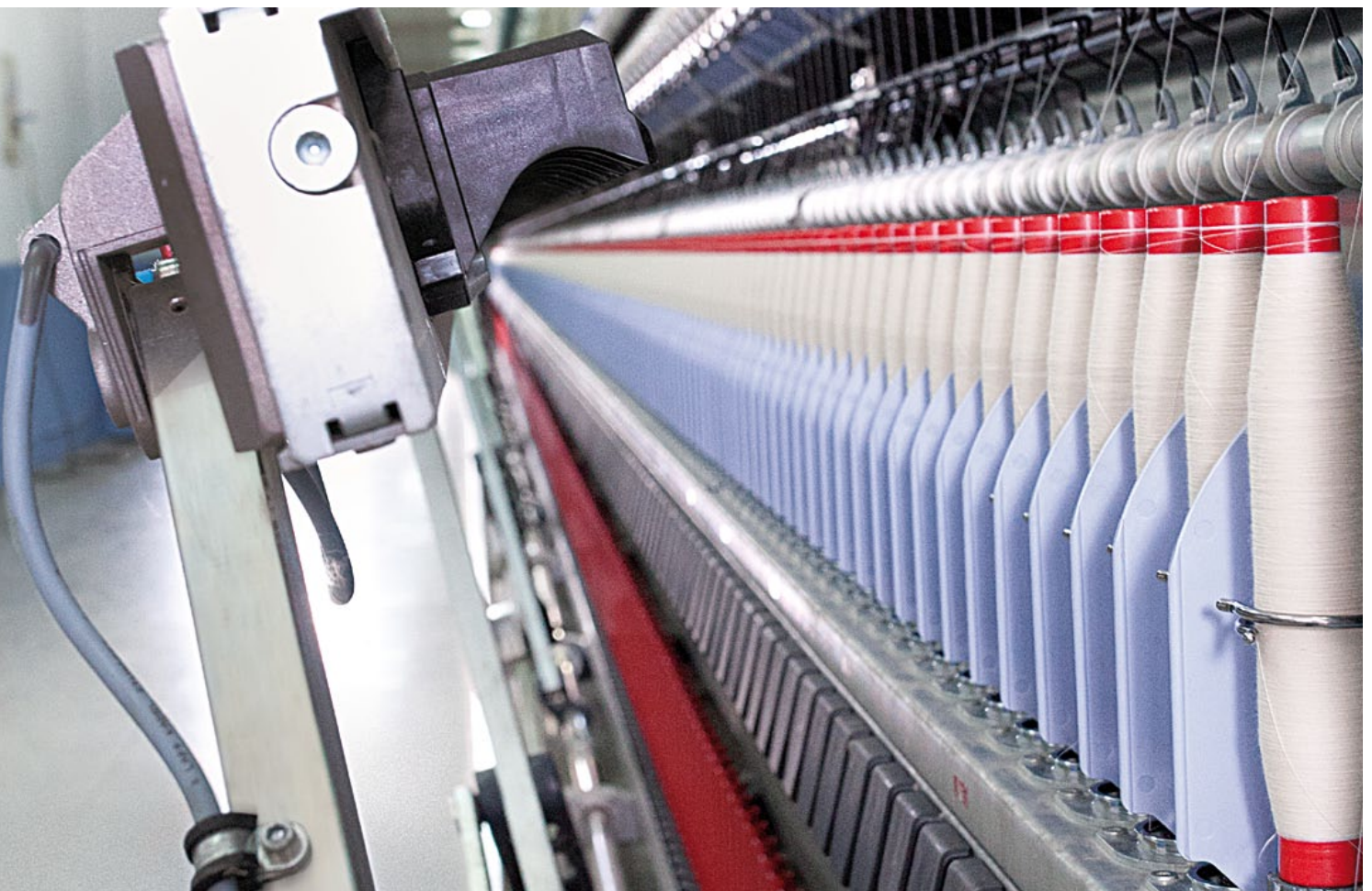
The ZinserRing 71 tangential belt drive offers low energy consumption and low maintenance. Permanent regluing of tapes is not necessary. The mechanical weighting arms are also low-maintenance and energy-saving. Costly wear to ring travellers, aprons and top rollers is minimised thanks to the OptiStart and OptiMove systems. OptiStart ensures that the ring travellers are run in correctly. This significantly increases the down-time of ring travellers. OptiMove reduces the wear of aprons and top rollers.

The ZinserRing 71 thus lowers your spinning costs in the long term.

## **Schlafhorst – the competent partner for your successful system solution**

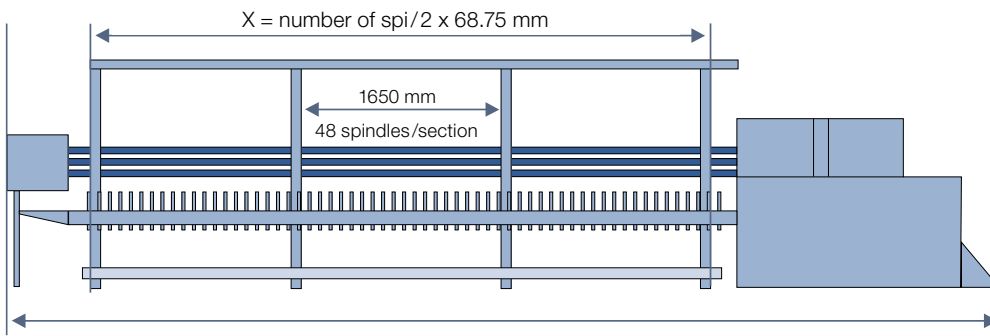
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- ▶ **Market and innovation leader in system solutions for the spinning mill**
- ▶ **Specialist for greater economic efficiency in ring spinning and compact spinning**
- ▶ **Customised technologies with greater energy efficiency, greater raw material flexibility and smarter automation**
- ▶ **Trusted service quality worldwide**



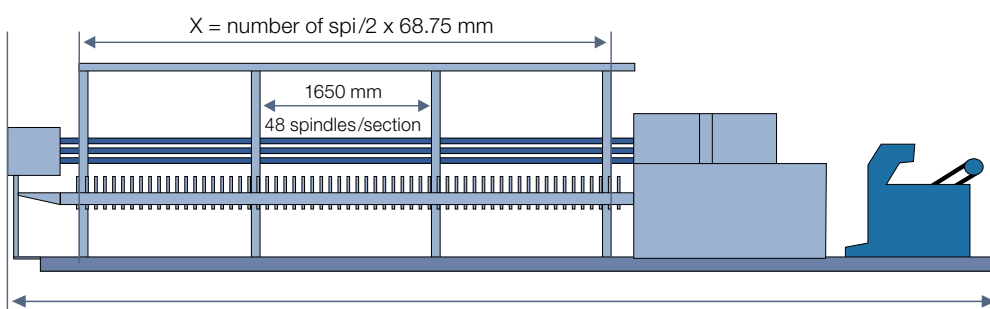
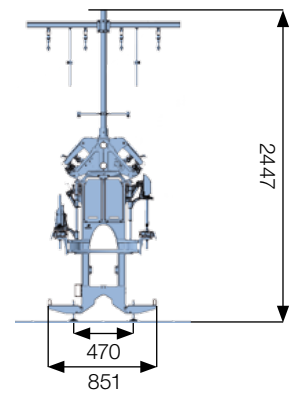


# Technical data ZinserRing 71



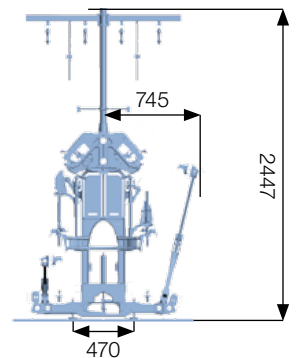
ZinserRing 71 without CoWeMat

up to 672 spindles  $L = 2,367 + X$   
 720 – 1,440 spindles  $L = 3,116 + X$   
 Machine length L (mm)



ZinserRing 71 with CoWeMat 396 V, linked system

up to 672 spindles  $L = 3,350 + X$   
 720 – 1,200 spindles  $L = 3,444 + X$   
 1,248 – 1,440 spindles  $L = 3,553 + X$



ZinserRing 71 with CoWeMat 396 F, with CoWeFeed

up to 672 spindles  $L = 5,296 + X$   
 720 – 1,200 spindles  $L = 5,390 + X$   
 1,248 – 1,440 spindles  $L = 5,499 + X$   
 Machine length L (mm)

## Application range

Staple fibres up to 54 mm

## Raw material qualities

Combed cotton, carded cotton man-made fibres and their blends

## Count range

Ne 10–120

## Draft range

15–85-fold

## Gauge

68.75 mm

## Tube length

180–230 mm

## Ring diameter

36–48 mm (without CoWeMat)  
 36–45 mm (with CoWeMat)

## Number of spindles

240–1,440

## Spindle speed

25,000 rpm (mechanical)

## Bottom rollers diameter

27 – 30.5 – 27 [mm]

## Top rollers diameter

28 – 25 – 28 [mm]

## Electrical parameters

400 V (+/- 10%)  
 50 or 60 Hz

## Standard equipment

High-end features – standards of ZinserRing 71

- EasySpin – graphic user interface
- OptiStart – running-in programme for ring travellers
- OptiStep – spinning programme
- SynchroDraft for long machines
- Balloon control rings
- Inverter drive
- Centerable rings
- Individual knee brakes for spindles
- Loop prevention function
- Automatic yarn guide tilting mechanism

## Options

CoWeMat doffing device – easy add-on at any time possible!

- CoWeMat 396 F: Stand-alone version with unsorted tube feeding CoWeFeed
- CoWeMat 396 V for linked systems to cone winders

Plant Control System

SiroSpun

## Regarding this brochure

Our ongoing research and development efforts mean that some of the technical information provided here may have already been overtaken by advancements. The illustrations have been selected for their informative content. They may contain special equipment which is not included in the standard scope of supply.

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