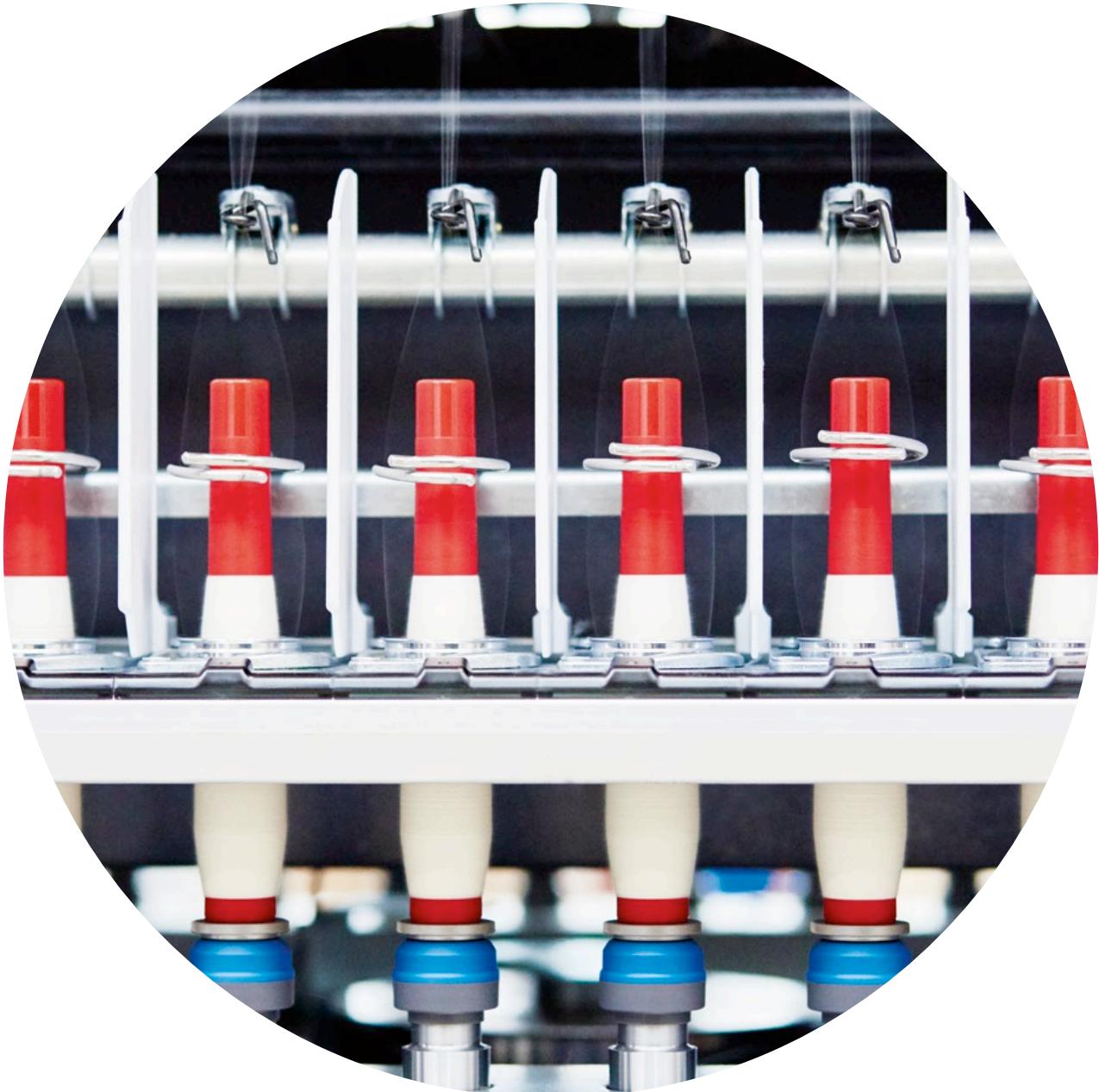


**SAURER.**



**Be modular.**

**ZR 72XL/ZI 72XL**





**Zinser Systems offer a wide range of specialised ring-spinning solutions from bale to package. Starting from the blow room and carding, Zinser Systems is designed to ensure the excellent processing of fibres. Efficient ring-spinning machinery combined with intelligent winding machinery guarantee high yarn quality.**

**E<sup>3</sup>: optimising energy, economics and ergonomics, adding intelligence. With our customers' needs always top of mind, E<sup>3</sup> forms the basis of our design philosophy.**

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## Highlights

- Modular machine concept for maximum flexibility
- Up to 2 016 spindles with 26 000 rpm for maximum productivity
- Encapsulated electronically controlled drafting system drive DraftBox with adjustable break draft for the fastest lot changing times
- Intelligent speed maximisation with OptiSpeed for high efficiency
- New compact Impact FX pro system for high-quality yarns
- User-friendly individual spindle monitoring (ISM) for maximum machine efficiency
- Underwinding-free doffing with Spinnfinity for increased productivity

# E<sup>3</sup>

## Energy Economics Ergonomics

### Energy

- Save up to 66% energy during suction**
- Powerful and economical drive technology
- Low energy costs thanks to TwinSuction and OptiSuction
- Energy monitoring for maximum cost transparency

### Economics

- More productivity with 2 016 spindles**
- Consistent yarn quality thanks to FlexiDrive central drive
- Maximum productivity for commodity and specialist applications
- More productivity per m<sup>2</sup>

### Ergonomics

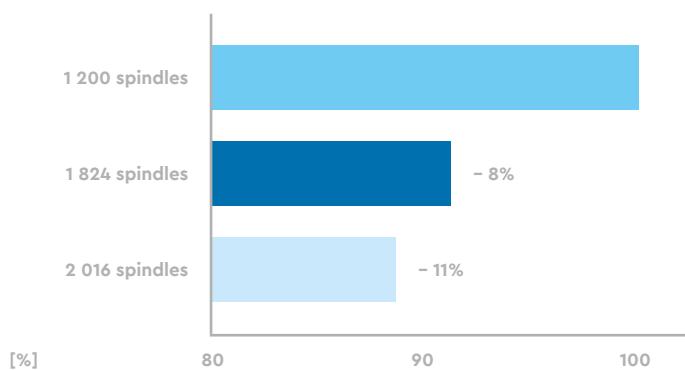
- Reduced handling and maintenance input**
- Simple, intuitive operation thanks to EasySpin
- No wharve cleaning with Spinnfinity
- Made-to-measure automation

### E<sup>3</sup>: our product promises

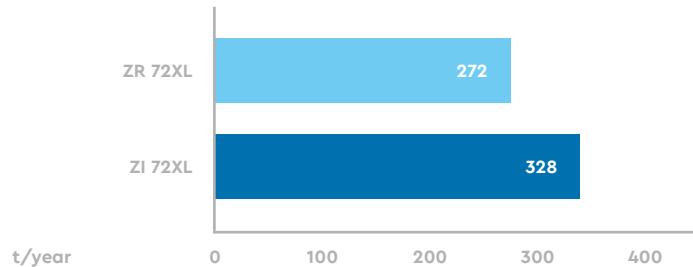
With our customers' needs always top of mind, we ensure that our products deliver optimised energy consumption, economics and ergonomics, with a focus on intelligence. This E<sup>3</sup> principle forms the basis of our design philosophy. Our passion for textile machinery drives us to manufacture innovative products that add value to our clients' businesses.

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**ZR 72XL with 2 016 spindles:**  
Up to 11% lower production costs



**Up to 20% more production thanks to a reduction in twist**

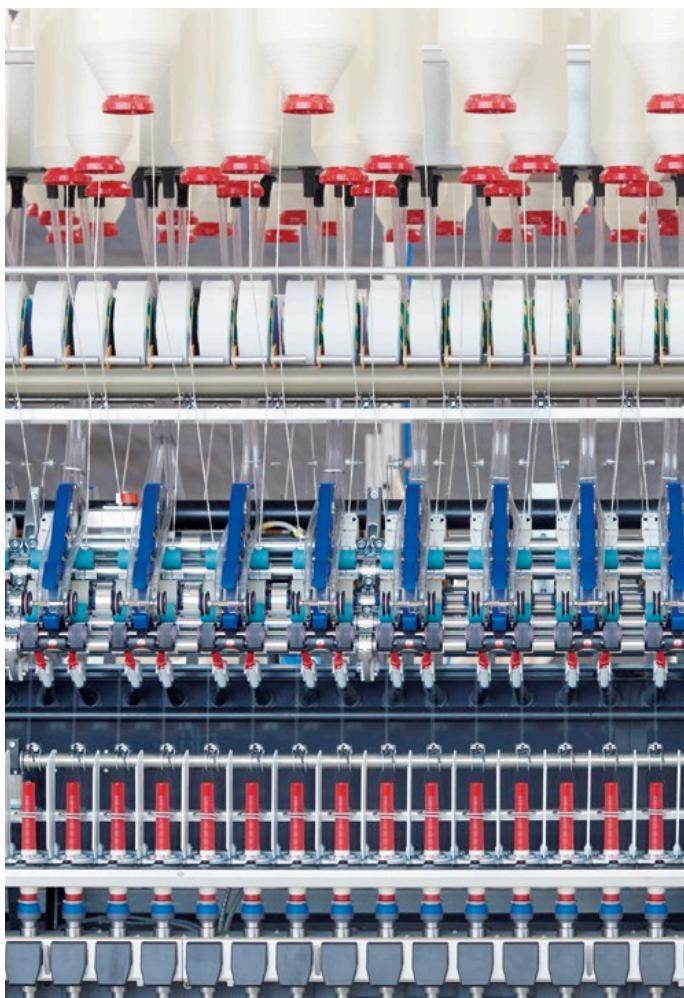


# More flexibility for more success.





- **Widest range of applications with maximum efficiency**
- **Made-to-measure machine configuration for all markets and applications**
- **Electronically controlled DraftBox drafting system drive for unsurpassed flexibility and fastest lot changing times**
- **Impact FX pro for compact yarns with improved quality**
- **Efficient production of fancy yarns, core yarns, dual core yarns, technical yarns and Siro plied yarns**



## The all-rounder for maximum flexibility

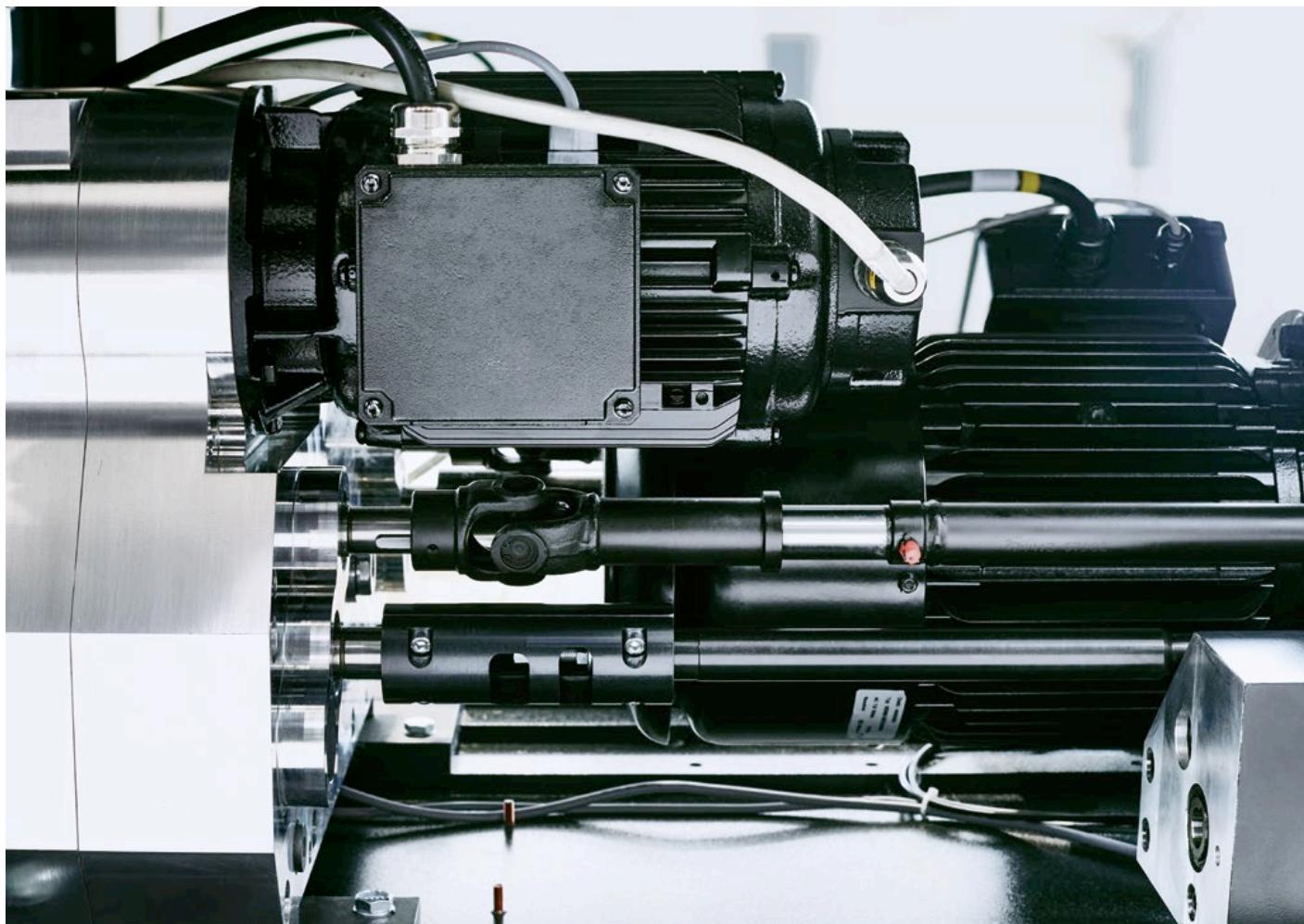
**Individual challenges demand individual solutions. Discover the new Z 72XL – a modular ring spinning platform that adapts 100% to your needs. Modularly equipped with the drafting system drive of your choice and, depending on the application, the appropriate compact system, a flexible fancy yarn system and other advanced technologies.**

**100% Saurer. For every application. For all markets. For every investment project.**

### Unique configuration options

The Z 72XL comes in two designs. As the ZR 72XL for conventional ring spinning and as the ZI 72XL for compact spinning. The machines can be equipped with a mechanical or an electronic drafting system. Almost all equipment options are available for each drafting system variant.

The machine length is determined by the space you have available. If you are using shorter machines, a compact suction system, yarn break suction system and drafting system drive can be completely or individually omitted in the end frame.



## Innovative drafting system drive

### DraftBox: flexible, fast, precise

The new electronically controlled drafting system drive completely redefines cleanliness and efficiency. The transmissions are fully encapsulated. No more cleaning and lubrication of the gear wheels necessary. Stocking and doffing gear wheels is no longer necessary either. Your benefits: more economical production, fewer personnel and logistics requirements.

### Sensor-controlled production optimisation

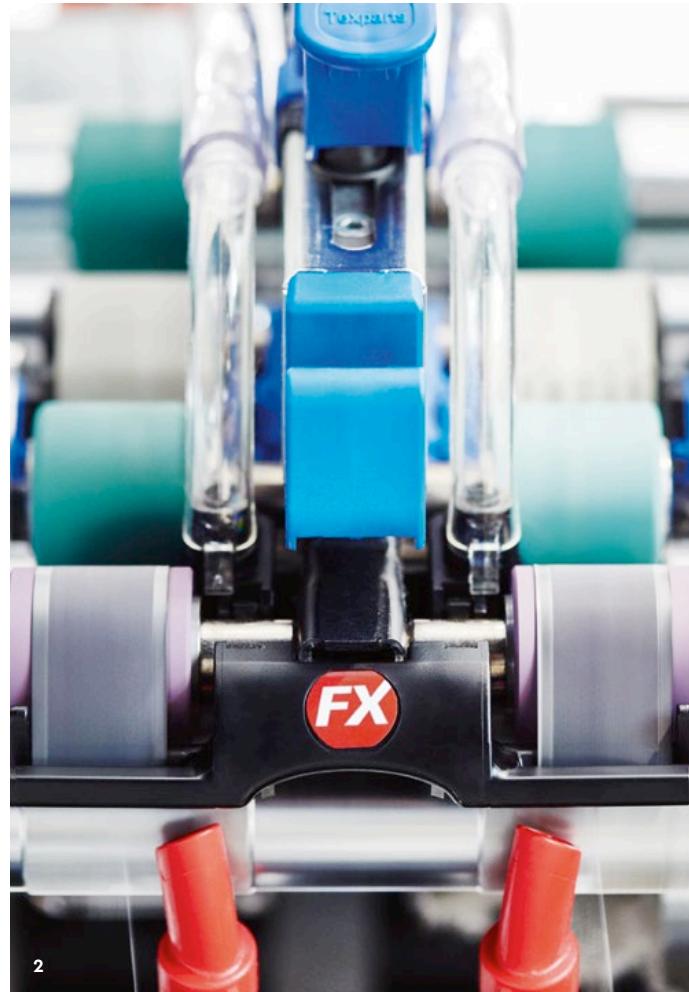
The DraftBox renders all mechanical draft settings superfluous. Using EasySpin, the total and break draft – as well as all other important spinning parameters – can be centrally adjusted by your staff. The speeds of the individual bottom rollers are controlled electronically via sensors. For fast lot changing and consistent yarn quality.

### Simple operation using EasySpin

Operating times, running times and setting errors are reduced by a simple operating concept and easy-to-understand input assistance.



1



2

## Two compact systems to choose from

### **Impact FX**

The self-cleaning Impact FX has truly proven itself over the years and is the most economical compact spinning technology used worldwide. Impact FX is the first choice for compact yarns up to a yarn count of Ne 40.

### **Impact FX pro**

The new Impact FX pro compact system was specially developed for yarns in the fine yarn count range. It achieves particularly low hairiness, fewer imperfections, higher strength and improved evenness.

The special feature of Impact FX pro is its mesh apron, which guides the fibres over an inclined opening, where the negative pressure is applied. The compaction is particularly efficient and gentle on the fibres.

### **Independent compact vacuum unit**

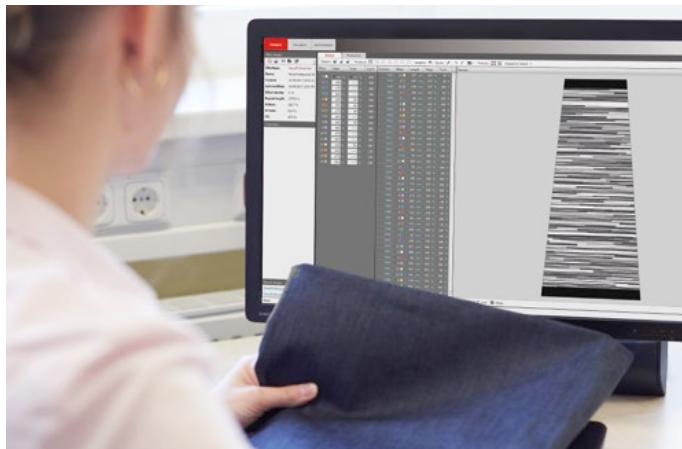
An independent compact vacuum unit supplies both technologies with the defined compact force. Consistent and reliable. This guarantees high process reliability and a permanently consistent yarn quality.

### **Maximum increase in production**

Both compact technologies can be set variably for maximum efficiency and raw material utilisation. Compact spinning with the ZI 72XL facilitates an increase of up to 20% in production by reducing the twist.

1 Impact FX

2 Impact FX pro



## Reacting quickly to trends

### **Reliable and efficient fancy yarns**

React quickly to fashion trends and produce stylish fancy yarns in a particularly economical manner with the integrated fancy yarn system FancyDraft. Without the need for additional units. And without a Moiré effect. Select the desired effects quickly and simply at the EasySpin touchscreen. The MultiCount and MultiTwist effect functions can even be combined. You can use all trends with an infinite number of fancy variants.

### **Designing effects on the PC**

With the FancyDesigner software, you simply simulate the desired effect in the fabric on the PC and transfer the production data to the machine by USB stick.

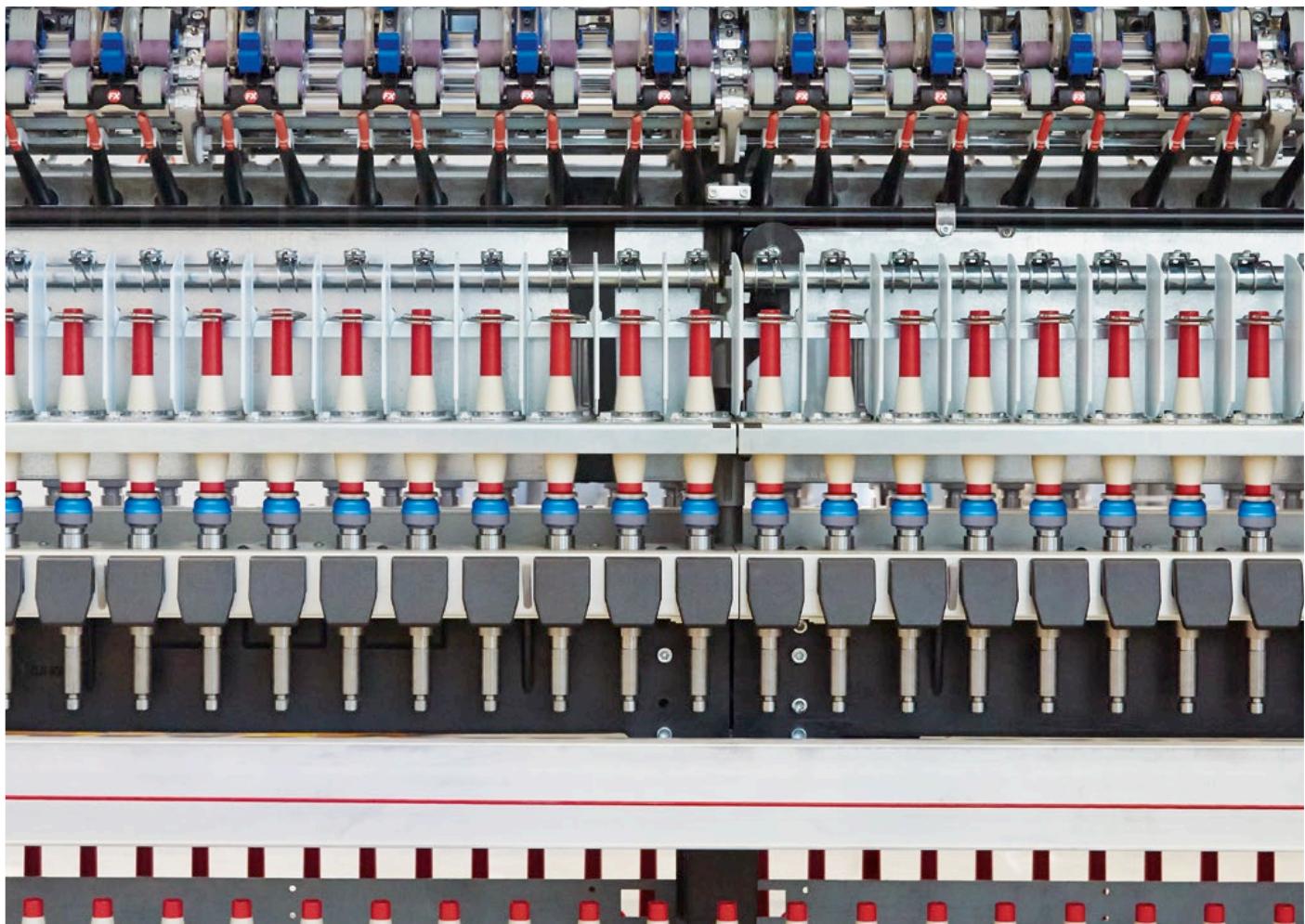
### **Success with special yarns**

Manufacture siro and core yarns, dual core yarns and technical yarns on the Z 72XL. With SiroSpun, you produce siro plied yarns of a unique yarn character. CoreSpun enables you to spin hard and soft core yarns on the Z 72XL. SiroSpun and CoreSpun can be combined, and you can even expand your product range at a later stage without any problems. This is why you will be best prepared for upcoming fashion trends.

# Efficiency through intelligence.



- 
- **High-speed spinning with 26 000 rpm on up to 2 016 spindles**
  - **Intelligent speed maximisation with OptiSpeed**
  - **User-friendly individual spindle monitoring (ISM)**
  - **Raw material efficiency with roving stop**
  - **Prime use of space with FlexiDrive central drive**
  - **Energy-saving suction with TwinSuction and OptiSuction**



## High-speed spinning with 26 000 rpm

The Z 72XL is systematically designed for high speeds and optimum energy efficiency. Every detail is trimmed to increase productivity. The economical, 110 kW main drive accelerates the 2016 spindles in the Z 72XL to up to 26 000 rpm. Each spindle gives you more efficiency. Effective energy-saving technologies reduce operating costs.

### High-performance components from Texparts

With the CS 1S high-performance ring spindle from Texparts and the new Texparts ring, you can produce at maximum speeds – for extremely economical yarn production.

### Precision for more efficiency

Consistent yarn values and maximum production reliability: the high-precision drafting system makes sure of that. Mechanical weighting arms ensure constant pressure on all spindles.



## Controlled to the limit

### Intelligent speed maximisation

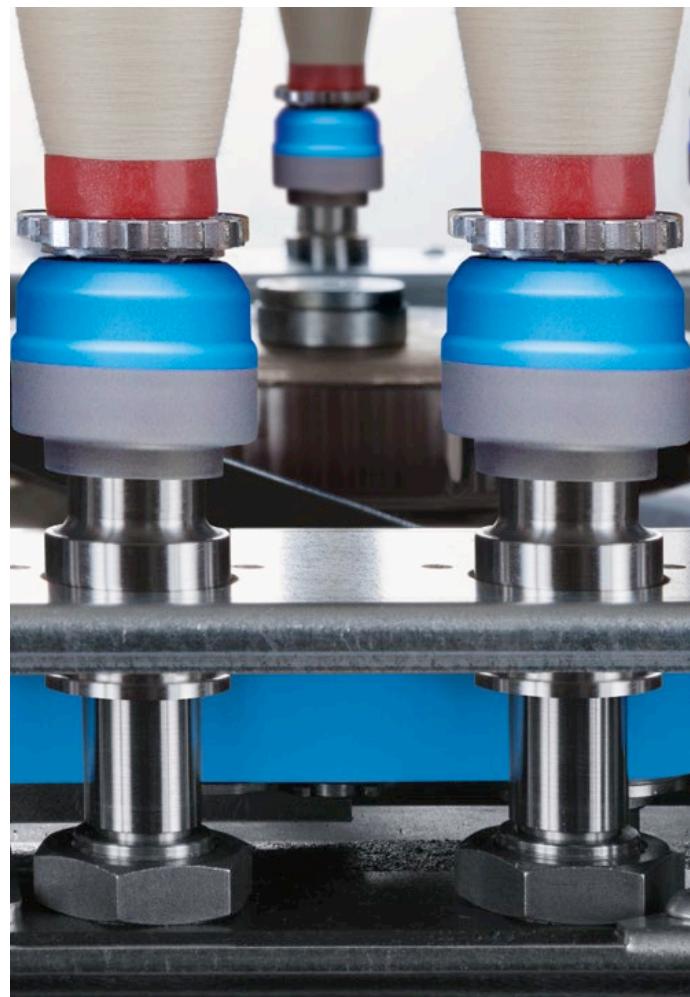
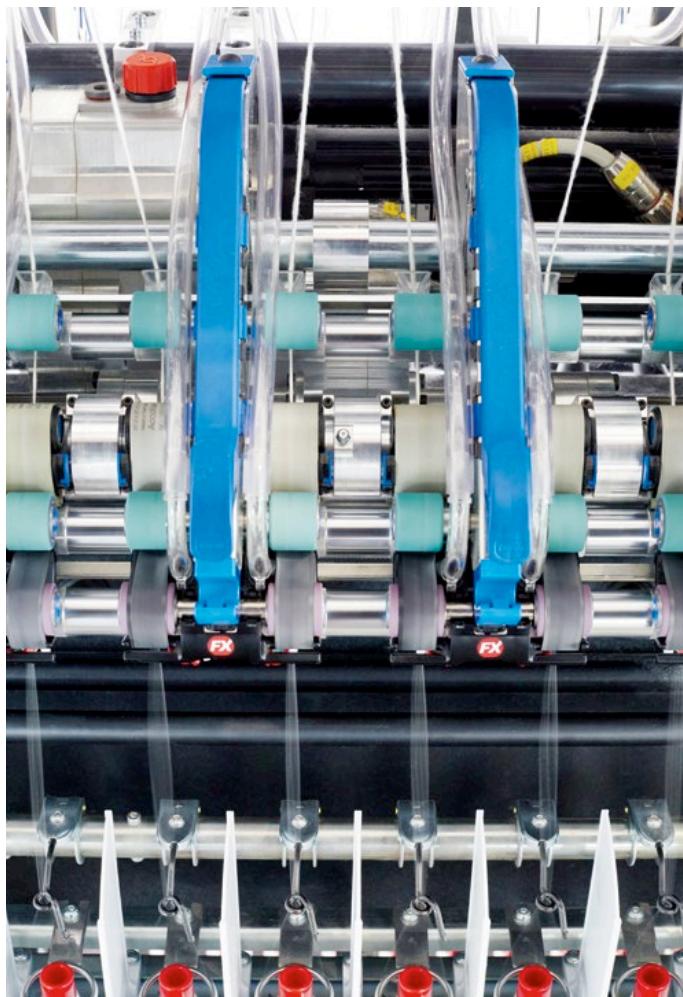
OptiSpeed guarantees maximum efficiency in combination with the integrated individual spindle monitoring (ISM). You set the limits for yarn breaks on the EasySpin. The intelligent OptiSpeed software controls the speed in such a way that it is always controlled at the technological spinning limit. The system reacts quickly and fully automatically. With better roving quality, OptiSpeed increases the speed until the yarn break limit is reached. If the roving quality drops, it slows down the speed. As a result, your productivity increases noticeably.

### Production secured even in the event of a power failure

The Z 72XL bridges brief power outages autonomously without any stoppage in production. If the power is down for longer than approx. 2 seconds, there is a controlled shutdown. The machine subsequently starts up without any problems. Your benefit: no unnecessary yarn breaks, less operator input.

### Monitor production using individual spindle monitoring (ISM) and roving stop

As an interlinked system, the individual spindle monitoring system and the automatic roving stop permanently monitor your production. All data can be retrieved centrally on the EasySpin. The intelligent auxiliary guidance system for optical yarn break detection optimises the workplace on the Z 72XL. Your benefits: you conserve material, avoid lap formation and increase your efficiency rating.



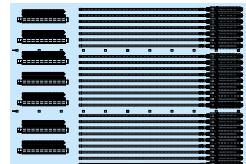
## Make full use of super length

### Quality consistency thanks to FlexiDrive

Only the Z 72XL features the cutting-edge FlexiDrive central drive for super-long machines – integrated into the machine to save space. This means that your valuable production area is not wasted on drives, but used for productive spindles. This saves you up to 22% of the production area with 2 016 spindles. For more output per square meter with consistent yarn quality and minimal yarn break rates.

Your production costs fall by up to 11% compared with a ring spinning installation with 1 200 spindles.

### ZR 72XL with 2 016 spindles: up to 22% less space required



- 15 ring spinning machines with 2 016 spindles, 5 roving frames, 15 winding machines
- 25 ring spinning machines with 1200 spindles, 7 roving frames, 25 winding machines

## Exemplary energy efficiency

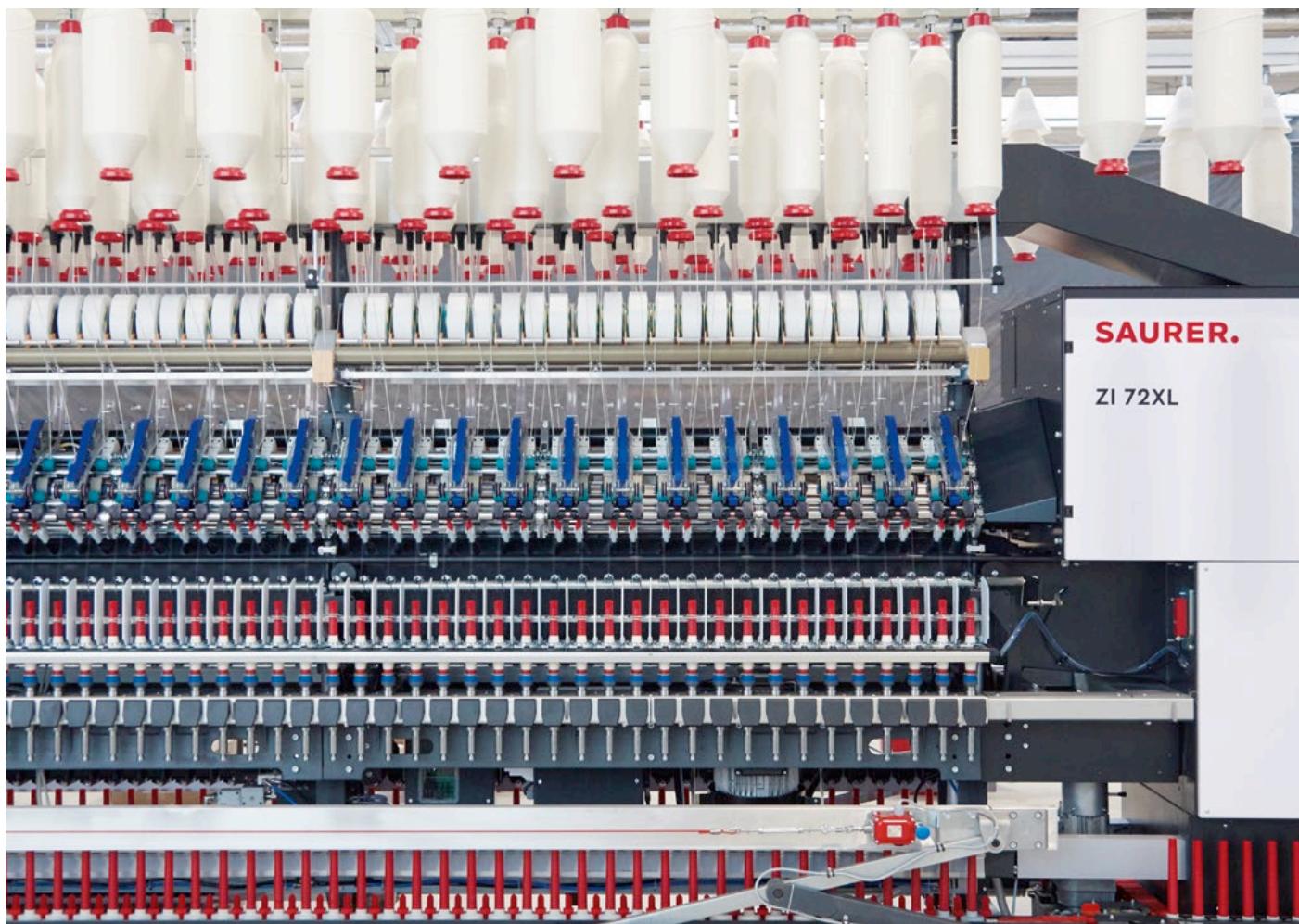
### Economical tangential belt drive

The Z 72XL is equipped with the highly efficient, low-maintenance tangential belt drive. The multi-motor drive has an optimised bearing assembly for the nip and deflection rollers as well as reduced air friction.

Compared with rival machines with a 4-spindle belt drive, the tangential belt has 1/4 less area. It is especially economical in energy terms.

### No additional cooling circuit

Modern energy-efficient high-performance motors drive the drafting system and spindles. They are designed especially for the power required in spinning machines and do not heat up.



## Energy-saving technologies

### TwinSuction saves up to 53% energy

With the Z 72XL, the suction system is installed on both ends of the machine instead of just one end. Measurements in practice prove: TwinSuction saves up to 53% energy. You can benefit from this day after day.

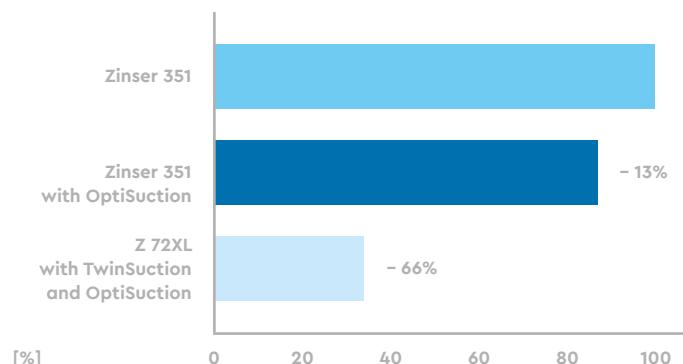
### Additional 13% energy saving thanks to OptiSuction

The sensor-monitored OptiSuction yarn break suction system always provides exactly the vacuum level required, no matter how full the filter box is. You set the setpoint value on the EasySpin touchscreen. OptiSuction regulates the vacuum to match the raw material and yarn count. Your energy requirements are reduced by an additional 13%!

### Energy Monitoring

With the Z 72XL's Energy Monitoring, your staff always has an overview of the energy consumption on the EasySpin touchscreen. Complex energy measurements for energy optimisation are no longer necessary. The integrated online measurement saves time, resources and personnel.

### Save up to 66% energy with TwinSuction and OptiSuction

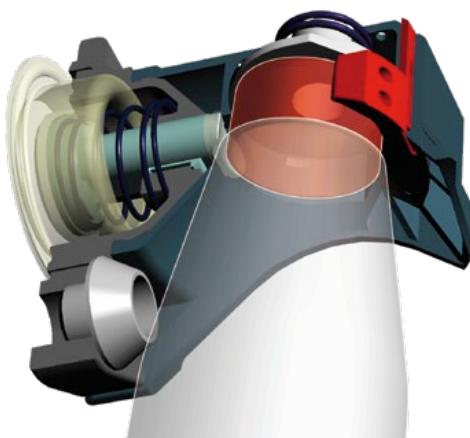


# Relieve personnel, assure quality.





- Maximum efficiency with the worldwide reliable CoWeMat doffer
- Personnel reductions with the self-sorting tube feed CoWeFeed
- Underwinding-free doffing with Spinnfinity
- State-of-the-art linked system solution for maximum efficiency
- Autoflow systems for tailor-made roving bobbins transport systems
- Senses mill management system for increased profitability in the textile business



## Doffing in record time

### Original CoWeMat – the most reliable doffer

The original CoWeMat doffs fully automatically in under 2 minutes. For all machine lengths. Safety standards such as an independent vacuum supply, releasable grippers and a light barrier guarantee reliable doffing.

### CoWeFeed: Automatic tube sorting

Only self-sorting tube feed CoWeFeed saves so much time and personnel. The operators simply tip the empty tubes into the feed container. CoWeFeed sorts independently and error-free.

### Spinnfinity – the dirt-resistant, energy-saving zero underwinding

With its innovative spring principle, Spinnfinity is the most modern device for doffing without underwinding. Spinnfinity does not require ball bearings and is therefore insensitive to dust. Thanks to its lightweight, low-friction spring principle, Spinnfinity also significantly saves a lot of energy.



## Spinning plant solutions for more profit

### **State-of-the-art linked solutions**

The Z 72XL can be linked with any commercially available winding machine. The contact-free bobbin conveyance protects the yarn and makes you independent of personnel. The fully automatic linked system is the benchmark for economic efficiency and quality.

### **Steaming in linked systems**

For certain yarn qualities, the bobbins need to be steamed prior to the winding process. A continuous steaming process between the ring spinning and the winding machine additionally reduces production throughput times. The ring spinning machines have the optimum interface for available systems.

### **Tailor-made roving bobbins transport systems**

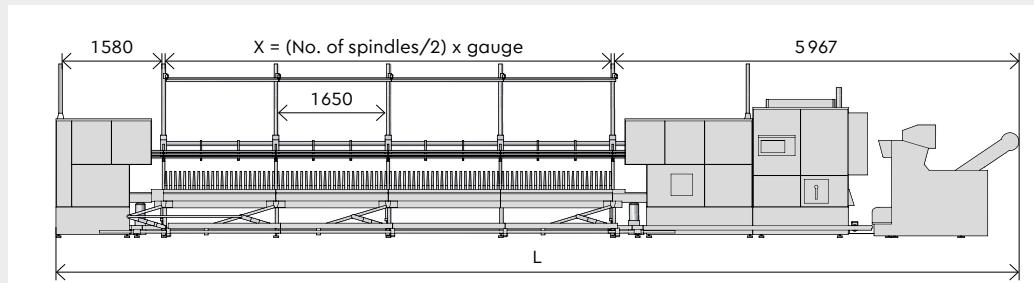
With Autoflow systems, tailor-made solutions are possible for every spinning plant layout and all budgets. The transport system reduces staffing needs, accelerates roving logistics and ensures yarn quality through non-contact conveyance.

## Senses – the new mill management system

### **For maximum added value and profitability**

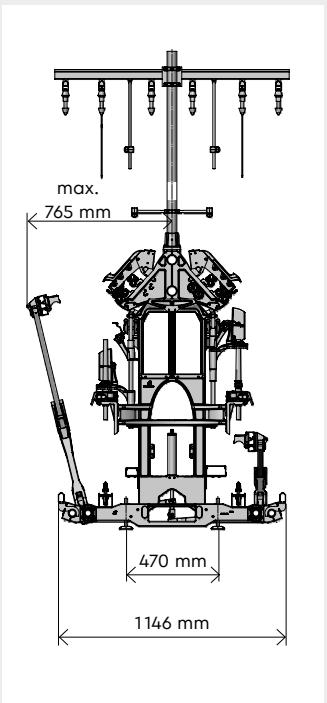
Senses is the new Saurer mill management system for the entire textile value-added chain. The information system collects, bundles and visualises the production, quality and machine data of your entire spinning mill. The application delivers valid information to management and the machine operators in order to profitably optimise the use of raw materials, material, time, personnel, energy and capital. Senses is therefore the ultimate addition to your Saurer machinery. The application runs on all smart devices, adapts to your demands and can be upgraded to new Senses Elements at any time in the Saurer software shop. Use your new digital senses and sustainably optimise the profitability of your textile business through real-time information and big-data mining.

## Machine dimensions – ZR 72XL



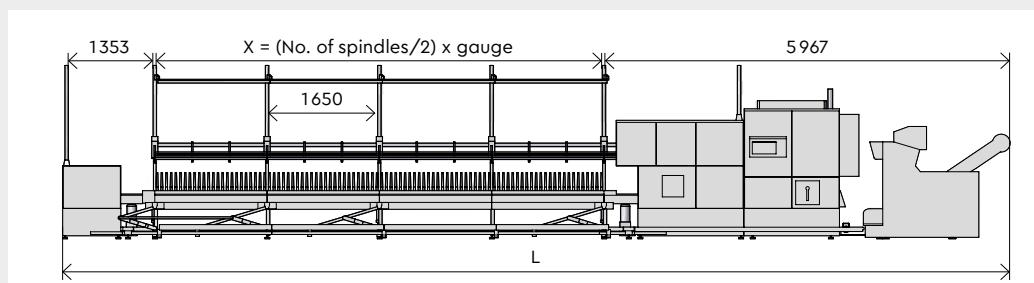
ZR 72XL with CoWeMat 396 F, with CoWeFeed

Machine length L (mm)  
 $L = 7547 + X$

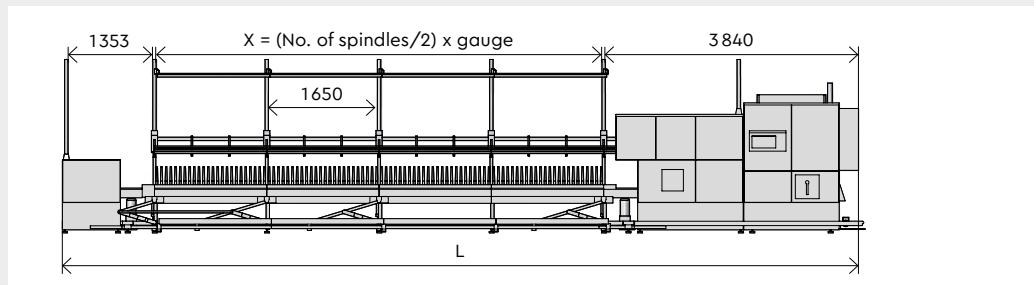


ZR 72XL with CoWeMat 396 V, linked system

Machine length L (mm)  
 $L = 5420 + X$

ZR 72XL with CoWeMat 396 F, with CoWeFeed,  
without yarn break suction system and  
without drafting system drive in the end frame\*

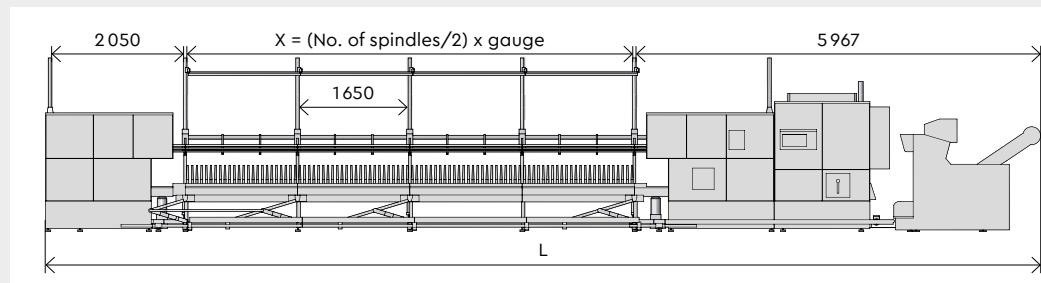
Machine length L (mm)  
 $L = 7320 + X$

ZR 72XL with CoWeMat 396 V, linked system,  
without yarn break suction system and  
without drafting system drive in the end frame\*

Machine length L (mm)  
 $L = 5193 + X$

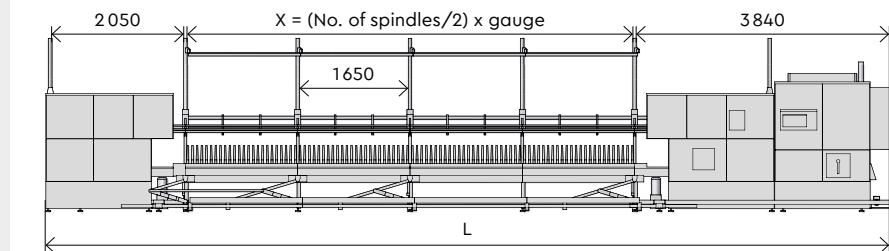
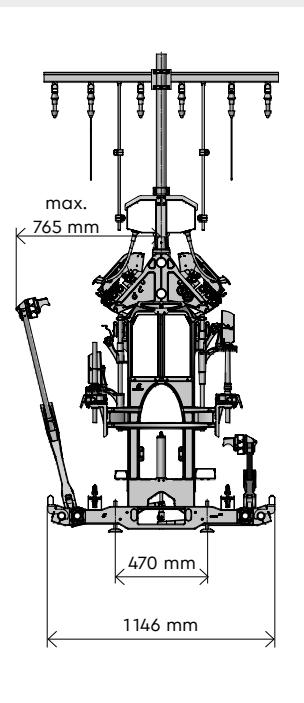
\* ≤ 1440 spindles (68.75 mm)  
≤ 1408 spindles (75 mm)

## Machine dimensions – ZI 72XL



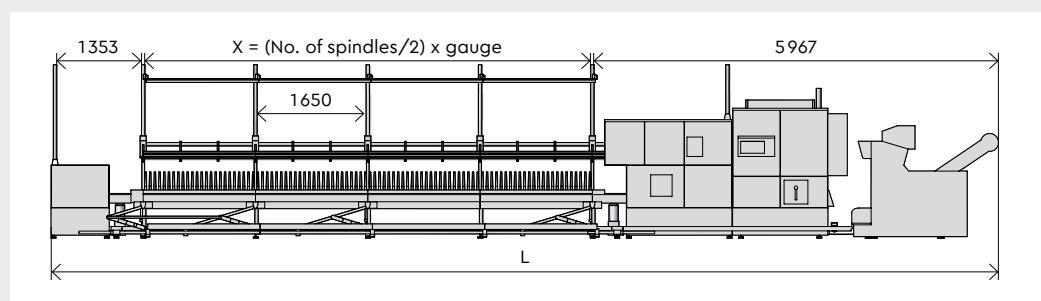
ZI 72XL with CoWeMat 396 F, with CoWeFeed

Machine length L (mm)  
 $L = 8\,017 + X$

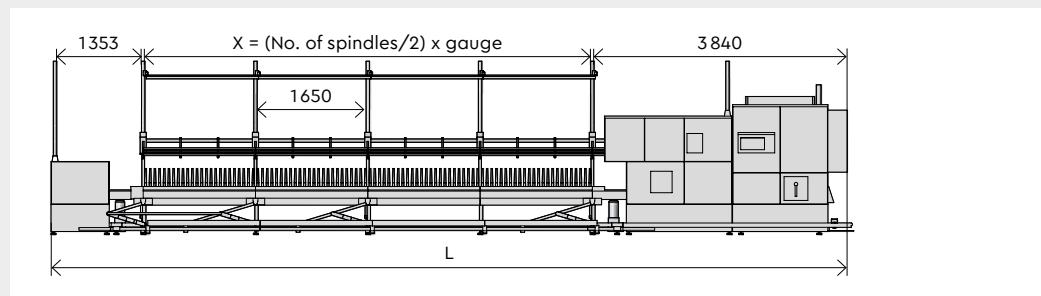


ZI 72XL with CoWeMat 396 V, linked system

Machine length L (mm)  
 $L = 5\,890 + X$

ZI 72XL with CoWeMat 396 F, with CoWeFeed,  
without compact suction system,  
without yarn break suction system and  
without drafting system drive in the end frame\*

Machine length L (mm)  
 $L = 7\,320 + X$

ZI 72XL with CoWeMat 396 V, linked system,  
without compact suction system,  
without yarn break suction system and  
without drafting system drive in the end frame\*

Machine length L (mm)  
 $L = 5\,193 + X$

\* ≤ 1440 spindles (68.75 mm)  
≤ 1408 spindles (75 mm)

# Technical data – ZR 72XL/ZI 72XL

## ZR 72XL/ZI 72XL

Electronically controlled drafting system drive (DraftBox)

Gauge (mm)	Max. no. of spindles	No. of spindles per section	No. of spindles per motor	
			Standard	Option
68.75	2 016*	48	120	96
75	1 848**	44	110	88

\* Middle bottom roller drive FlexiDrive > 1440 spindles

\*\*Middle bottom roller drive FlexiDrive > 1408 spindles

## ZR 72XL/ZI 72XL

Mechanical drafting system drive

Gauge (mm)	Max. no. of spindles	No. of spindles per section	No. of spindles per motor	
			Standard	Option
68.75	1 440	48	120	96
75	1 408	44	110	88

	ZR 72XL	ZI 72XL
<b>Application area</b>		
Staple fibres	up to 54 mm	up to 50 mm
<b>Raw materials</b>	Combed cotton, carded cotton, viscose, manmade fibres and their blends	
<b>Count range for 100% cotton</b>	Ne 6 – 160	
Optional	up to Ne 260	
<b>Count range for manmade fibres and their blends</b>	Ne 10 – 100 (more on request)	
<b>Draft range</b>		
DraftBox	8 – 90-fold	
Mechanical drafting system drive	15 – 85-fold	
<b>Spindle gauge</b>	68.75 mm, 75 mm	
<b>Tube length</b>	180 – 260 mm	
<b>Ring diameter</b>	36 – 54 mm	
<b>Spindle speed</b>	26 000 rpm (mechanical)	
<b>Bottom roller diameter</b>	27 – 30.5 – 27 [mm]	27 – 30.5 – 27 – 27 [mm]
Option	32 – 30.5 – 32 [mm]	
<b>Top roller diameter</b>	30 – 25 – 30 [mm]	30 – 25 – 30 – 27 [mm]
<b>Installed power</b>		
DraftBox	75, 90, 110 kW (depending on number of spindles)	
Mechanical drafting system drive	55, 75, 90 kW (depending on number of spindles)	
<b>Electrical parameters</b>	380 V, 400 V, 415 V, 440 V	
	50 or 60 Hz	

# Equipment options – ZR 72XL/ZI 72XL

	Electronically controlled drafting system drive (DraftBox)	Mechanical drafting system drive
<b>Spinning position, spindle drive, drafting system drive, units in the spinning process</b>		
DraftBox (electronically controlled drafting system drive)	●	-
Mechanical drafting system drive	-	○
SynchroDrive (tangential belt drive)	●	●
Inverter drive	●	●
Movable balloon control ring for tube length 220 – 260 mm (gauge 75 mm)	●	●
Movable balloon control ring for tube length 180 – 230 mm (gauge 68.75 mm)	○	○
Motor-driven opening of yarn guides	●	●
Centrable rings	●	●
Individual knee brakes for spindles	●	●
Loop prevention function	●	●
Spinnfinity (zero underwinding)	●	●
<b>Information system and applications</b>		
EasySpin (graphical user interface)	●	●
OptiStart (traveller running-in program)	●	●
OptiStep (spinning program)	●	●
OptiSpeed (automatic speed maximisation)	○	○
OptiSuction (yarn break suction system)	●	○
Energy Monitoring	○	○
Senses (mill management system)	○	○
<b>Additional equipments</b>		
FancyDraft	○	-
FancyDesigner	○	-
SiroSpun	○	○
CoreSpun	○	○
Combination SiroSpun and CoreSpun	○	○
Roving stop	○	○
ISM (individual spindle monitoring)	○	○
<b>Automation</b>		
CoWeMat (doffing device)	●	●
Linked version (interface with package winder)	●	●
Stand-alone version with CoWeFeed (self-oriented tube feed)	○	○

## ● Basic specification

○ Option

- Not available

## Regarding this brochure

Research and development never stand still. This may mean that some statements about Saurer products are obsolete due to technical progress. The illustrations are selected for informative content only. They may contain special equipment which is not included in the standard scope of supply.

# Sun



Saurer sets the benchmarks with:

- **Consulting**
- **Installation**
- **Academy**
- **Original Parts**
- **Maintenance**
- **Updates and Upgrades**

Sun – Service Unlimited

**Strong and reliable life-cycle partnership.**

**Unique smart solutions to increase the benefit to the customer.**

**Notable performance and sustainability throughout the machine lifetime.**

**Sun is a bundle of differentiated services that add real value to Saurer machinery throughout its entire life cycle. Highly trained staff using state-of-the-art tools improve our customers' daily operations in a flexible and individual way. We provide the owners of Saurer machinery with innovative solutions and services to improve the product quality, machine performance and profitability.**

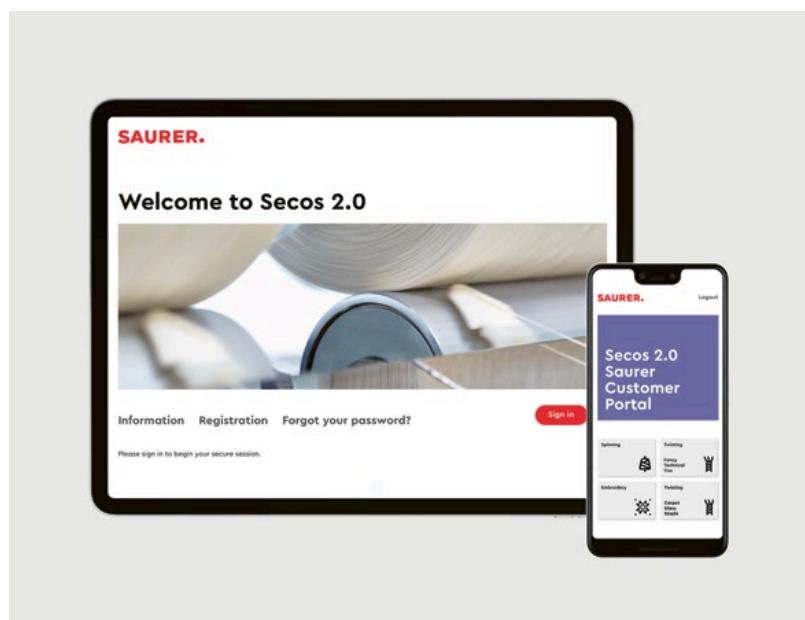
**We keep you competitive.**

## Secos

### Saurer Customer Portal

The modular Secos 2.0 customer portal packages all important information about the customer's machine park as well as the services available.

- Order Saurer original parts quickly through the Secos e-shop. The most common wear parts for each machine type can now be found more easily with photo catalogues.
- Find instead of searching: all your data, all your machines, all your original parts at a glance
- Convenient order management with order history going back 5 years
- Quick finder functions with one-click buttons for favourites and current Saurer offers



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**saurer.com**



Our quality management system  
complies with the requirements of  
EN ISO 9001.

