

**SAURER.**  
Schlafhorst

**AUTOCORO 9.**  
LEADING TECHNOLOGY –  
THE NEXT GENERATION.

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# Leading technology – the next generation.

Four years ago, the Autocoro 8 revolutionised the world of rotor spinning. Its innovative, highly productive individual spinning position technology overcame the barriers imposed by belt drives and raised productivity to previously undreamed-of heights. The next Autocoro generation is again taking over leadership of the market.

The Autocoro 9 impressively demonstrates the superiority of its technology. With its increased intelligence it sets new standards in energy efficiency, productivity, economy, user-friendliness and quality. Spinning mills all over the world that produce large volumes of commodity yarns have already reshaped their markets with the new Autocoro technology. The success story continues – with the new Autocoro 9.





# Autocoro 9

Get to know the new Autocoro 9 with E<sup>3</sup> added value. Reduce energy costs by up to 25 %. Achieve maximum productivity results. Massively reduce personnel and maintenance costs. Check out the exciting benefits of the Autocoro 9 now.

## Highlights

- ▶ Reduce energy costs by up to 25 %
- ▶ Maximise efficiency with the unique individual spinning position technology
- ▶ High rotor speeds of up to 180,000 rpm and take-off speeds of up to 300 m/min – on all lengths of machine and also for very large packages up to 350 mm in diameter
- ▶ Individually customisable machine length, perfectly automated spinning positions with up to 6 doffers and SynchroPiecing 24
- ▶ Maximum productivity/m<sup>2</sup> thanks to optimal space utilisation
- ▶ Reduce maintenance times and personnel requirements
- ▶ Maximum economic efficiency in all markets





## E<sup>3</sup> – Triple added value

We aim to provide our customers with innovative products that make a difference in their production and profitability. The passion for our products drives our innovation. By focusing on our customers' requirements and combined with Saurer's philosophy of innovation and sustainability, triple added value has been created.

### Energy

#### Up to 25 % less energy

- ▶ Minimum energy costs
- ▶ Innovations for greater energy efficiency
- ▶ Maximum cost transparency through energy monitoring

### Economics

#### Up to 30 % more productivity

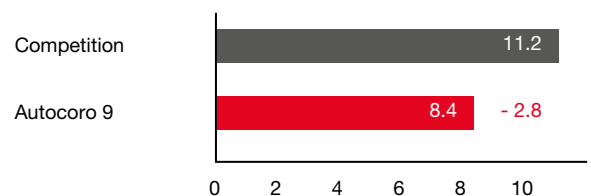
- ▶ Outstanding efficiency
- ▶ Maximum productivity for commodity and specialist applications
- ▶ Outstanding productivity per m<sup>2</sup>

### Ergonomics

#### Up to 60 % less maintenance costs

- ▶ Intelligent processes
- ▶ Maintenance and cleaning during on-going operation
- ▶ Intuitive, smart symbol display
- ▶ 30 % larger tube magazine with automatic tube colour control

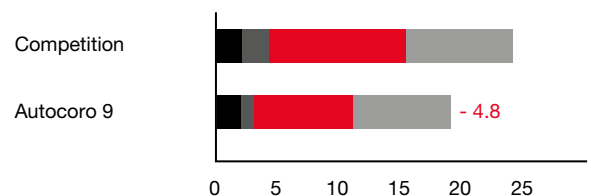
#### 25 % less energy costs with E<sup>3</sup>



Energy costs: € Cent/kg yarn

Brazil, 480 spinning positions, 100 % CO,  
Weaving yarn Ne 24, 143,000 rpm, 181 m/min

#### 19 % less spinning costs with E<sup>3</sup>



€ Cent/kg yarn

■ Personnel ■ Compressed air ■ Energy  
■ Space requirement

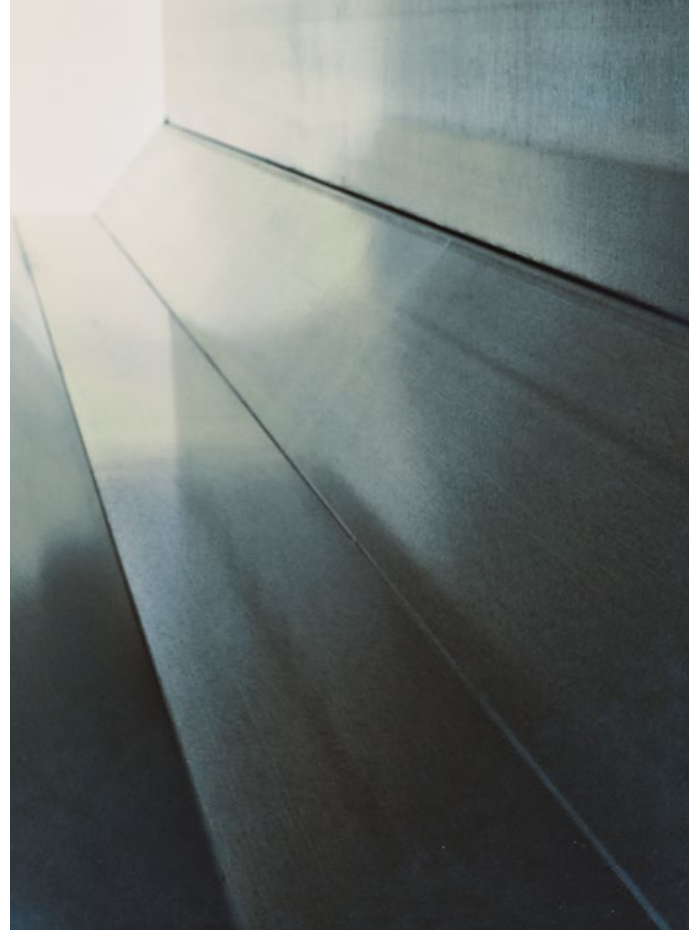
Brazil, 480 spinning positions, 100 % CO,  
Weaving yarn Ne 24, 143,000 rpm, 181 m/min

## Energy costs reduced by up to 25 %

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- ▶ Best energy efficiency on the market thanks to the enhanced individual spinning position technology of the current machine generation
- ▶ New energy monitoring: Low energy consumption displayed on the Informator: per kg of yarn and per lot





## Energy efficiency

### Frugal even at high speed

Schlafhorst has systematically enhanced the revolutionary individual spinning position technology and made the Autocoro 9 even more economical. Make significant energy savings – even at maximum rotor speed.

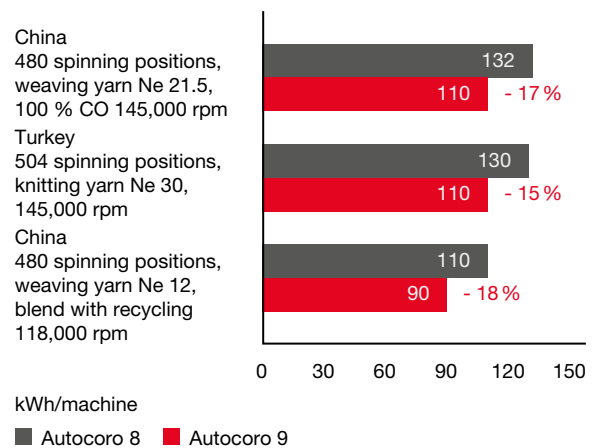
### More intelligent E-Drive saves energy

New, more energy-efficient components make the Autocoro 9 even more economical. Its innovative E-Drive has become even smarter thanks to improved process and control technologies. Intelligent savings – at each spinning position.

### Energy Monitoring

The new energy monitoring system checks energy consumption online. You can read off the current energy consumption – per lot or per kg of yarn. You can also analyse the stored consumption data to make your production even more energy-efficient.

### Up to 18 % energy savings compared to the Autocoro 8 thanks to E-Drive technology



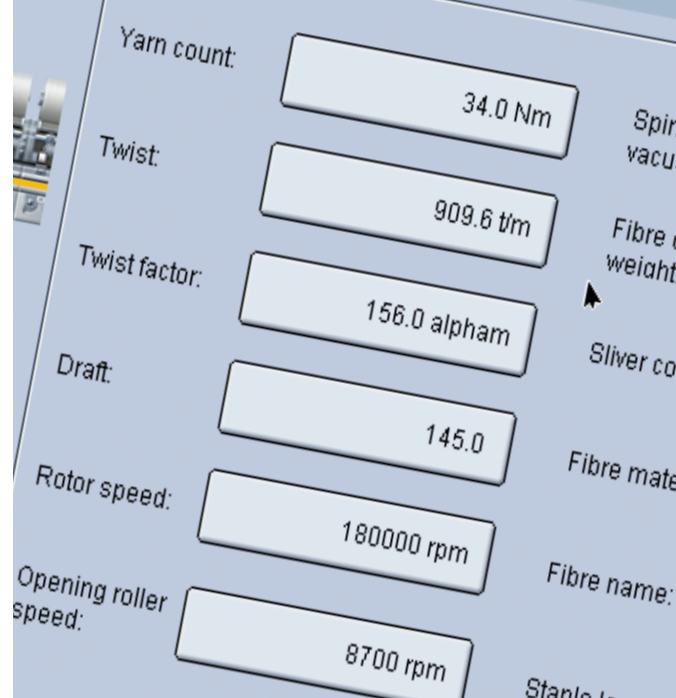
# Up to 30 % more productivity

## Maximum efficiency in rotor spinning

- ▶ High rotor speeds of up to 180,000 rpm in practice
- ▶ Take-off speeds of up to 300 m/min on all lengths of machine and also for very large packages up to 350 mm in diameter
- ▶ Custom machine length with high-performance automation: individually configurable number of spinning positions, up to 6 doffers, SynchroPiecing 24
- ▶ Seamless lot change, PilotSpin, MultiLot 2-5 and Fancynation for each section
- ▶ Highest productivity per m<sup>2</sup> – lowest space requirements per kg







## Maximum economy at all times

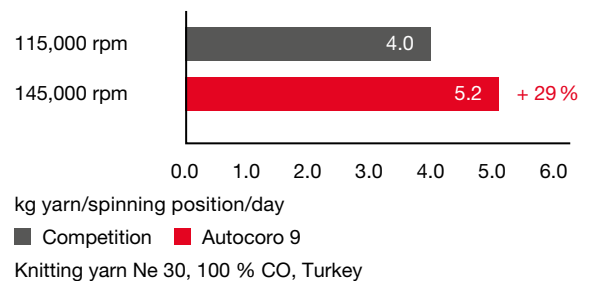
**180,000 rpm achieved in practice – with all machine lengths and with super-sized packages**

In comparison to competitor machines, the Autocoro 9 demonstrates its unrivalled performance every day in practice. It spins at rotor speeds of up to 180,000 rpm with any length of machine and any size of package. Take-off speeds of 300 m/min with super-sized packages of 350 mm diameter are the everyday norm for spinning mills with Autocoro 9.

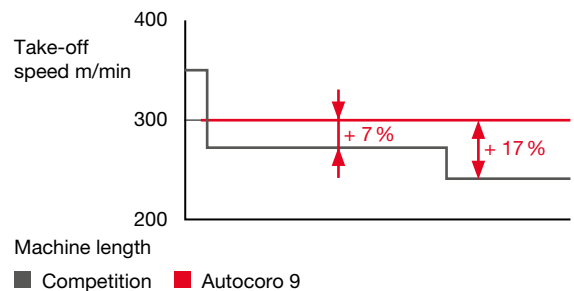
**11 % more yarn per m<sup>2</sup> compared with the competition**

The Autocoro 9 combines high speed with a super-compact, space-saving design. Make better use of your production area and produce 11 % more yarn than with competitor machines.

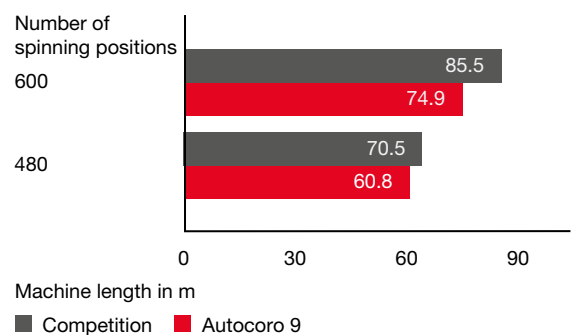
**Autocoro 9 – the productivity turbo:**

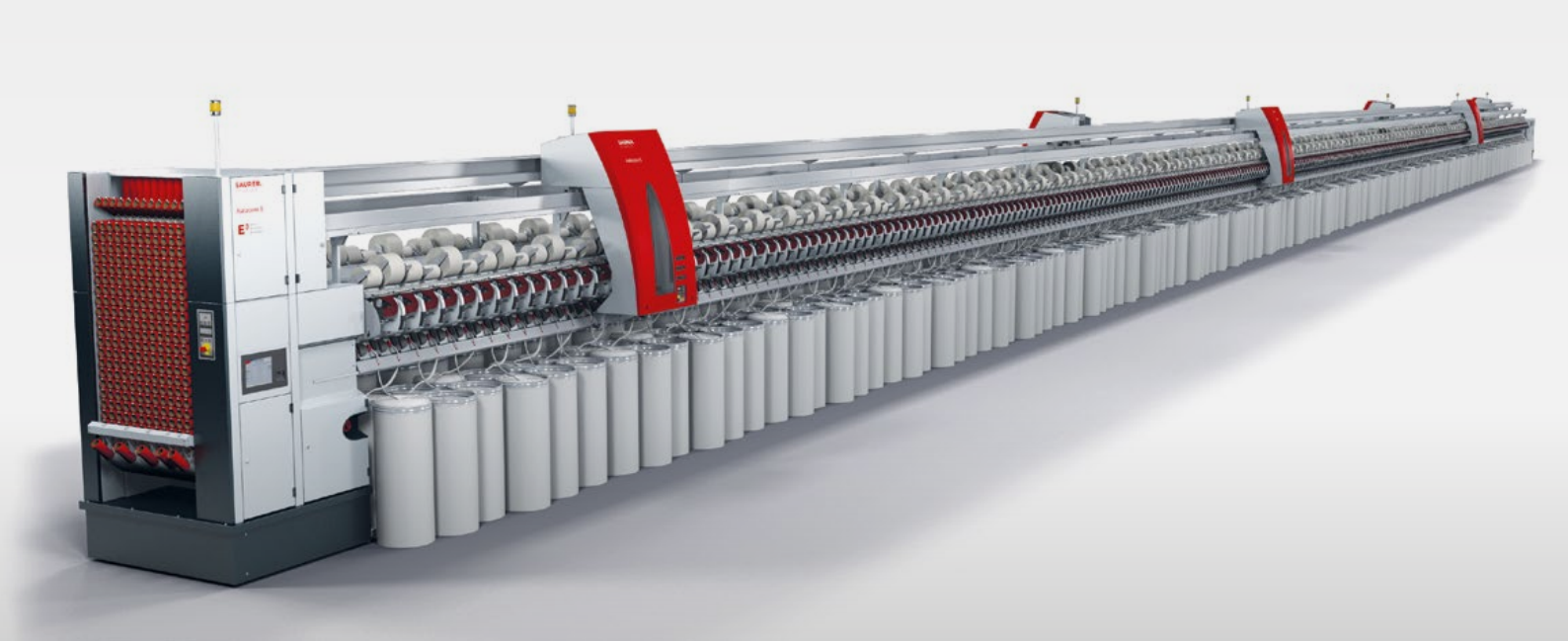


**High take-off speed with all lengths**



**Up to 10 m shorter than competitor machines**



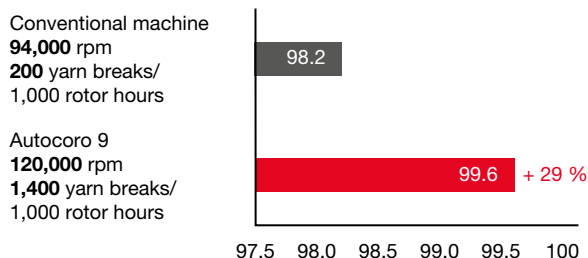


## High-performance automation

### Intelligently automated spinning positions

Each spinning position on the Autocoro 9 is an intelligently automated, independent production unit with individually controlled spinning and winding processes and the highest piecing capacity anywhere in the world. Automation is now more intelligent and more powerful. High performance with any raw material and under all operating conditions.

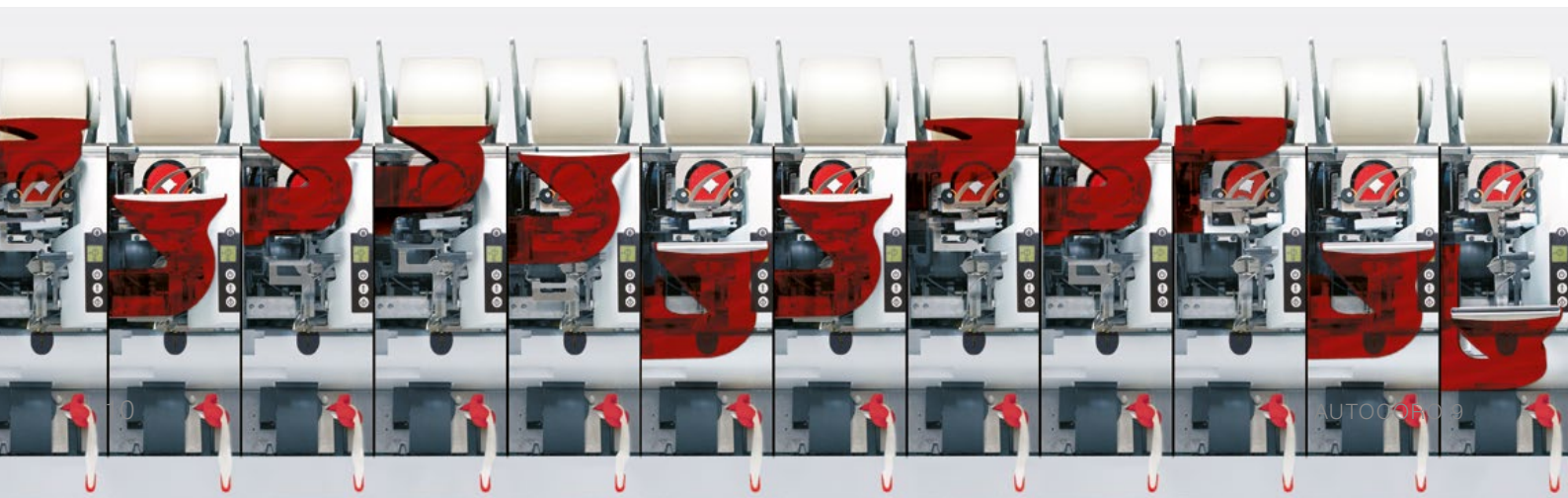
### Productivity increased by 29 % due to high rotor speeds plus high efficiency ratings



Efficiency %

Ne 30, weaving yarn

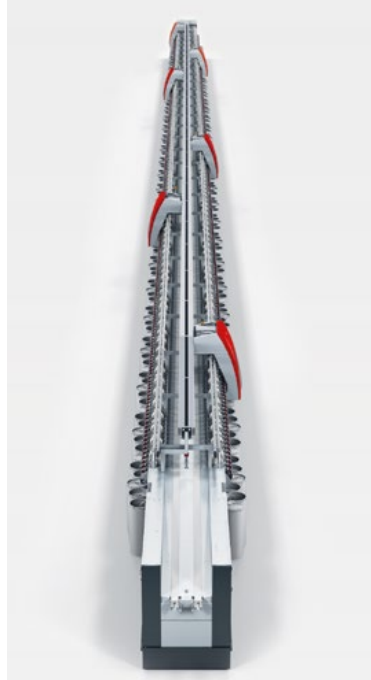
65 % recycled cotton, 35 % PES, Turkey





### Powerful automation capabilities

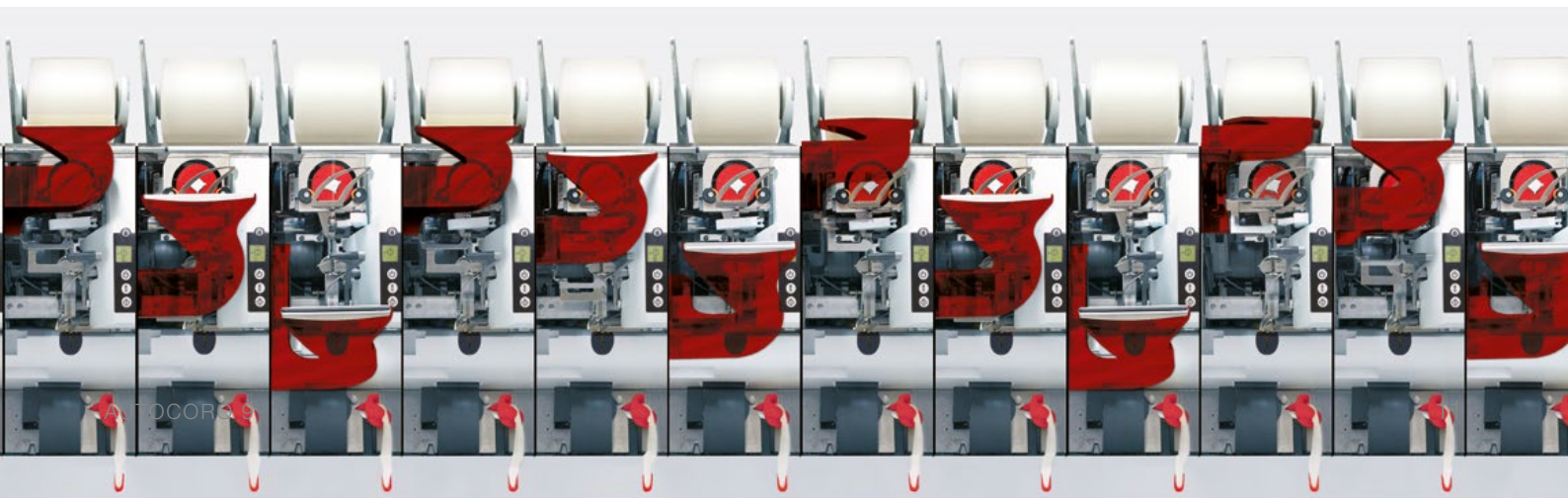
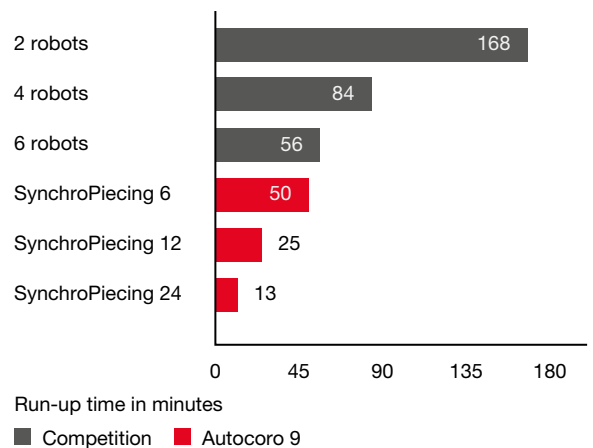
The 6 doffers manage each required package change with ease. Since piecing is integrated in the individual spinning positions, the doffers are solely responsible for the package change. What is impossible for competitor machines, is achieved every day with the Autocoro 9 – the combination of a long machine with short package run times and high efficiency. An enormous competitive advantage!



### SynchroPiecing 24: up to twelve times faster startup

Powerful digital piecing technology ensures the high productivity of the Autocoro 9. With the new SynchroPiecing 24, the new Autocoro starts up to twelve times more quickly than a conventional machine with two robots. The contrast with conventional machines is particularly striking here.

### Start up to 12 times quicker – 600 spinning positions





# Flexibility

## Seamless lot change even on single-lot machines

Fully automatic lot change with no idle time – only possible with the individual spinning position technology of the Autocoro. The intelligent spinning units manage all this automatically. They know when the old lot is running out and which tube colour and datasets they need to request for the next lot. The Autocoro 9 changes at each individual spinning position to the next lot with no loss of productivity – it even achieves clean lot separation during can and spinning component exchange.

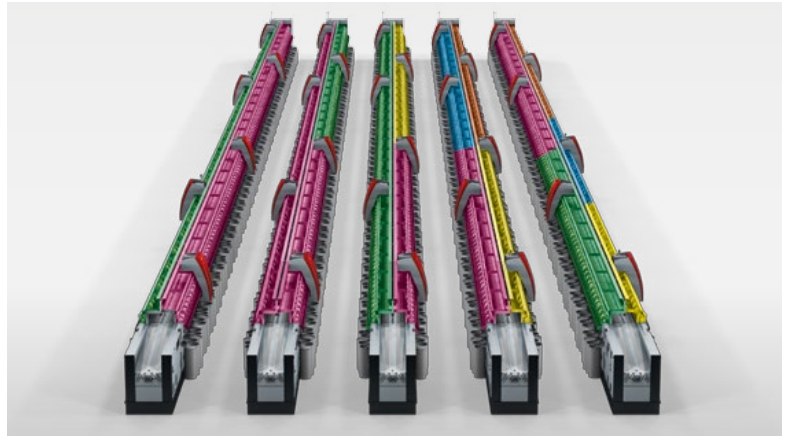
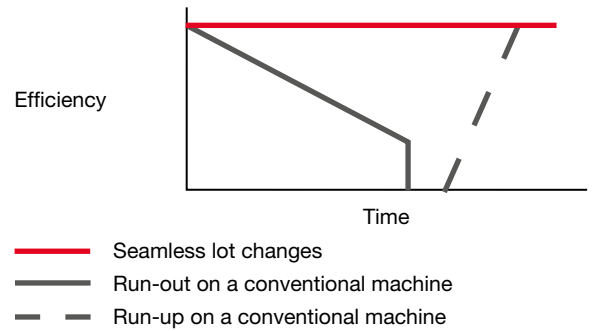
## Practical MultiLot technology

With its innovative MultiLot technology, the Autocoro 9 is able to spin up to five lots simultaneously. You can specify the number and assignment of spinning positions for the individual lots. This enables you to produce smaller “just in time” lots in parallel with the delivery of large customer orders.

## Spinning trials during on-going production

With PilotSpin you can use individual spinning positions for the production of test packages while the other spinning positions simply continue to spin. This means you can maintain the high productivity levels of the Autocoro 9 even during spinning trials – a significant plus point, particularly with long machines.

## Lot change without loss of production



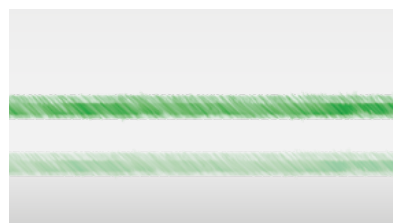
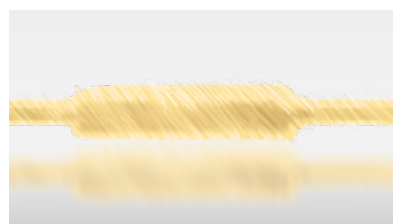
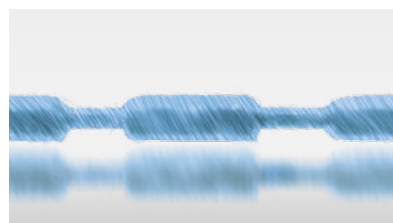
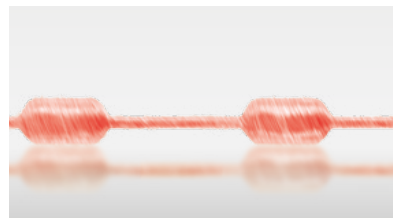


### Fancynation – on individual sections

Your entry to fancy yarn production has now become more affordable. Fancynation is available on the Autocoro 9 as a cost-effective option for individual spinning sections – ideal for commodity spinning mills that want to develop new markets without major capital investment. Spin up to five different fancy yarns simultaneously, or fancy yarns and smooth yarns in parallel, on one machine. And with the fancy yarn library each yarn is reproducible at the touch of a button.

### New, stronger yarn effects, for outstanding productivity

The Autocoro 9 offers yarn effects that are almost twice as strong with an increase in mass of 800 % – and at high take-off speeds of up to 300 m/min.



AUTOCORO 9



# Intelligent processes, up to 60 % less maintenance costs

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- ▶ **Lean maintenance:** maintenance and cleaning during on-going operation
- ▶ **More efficient control,** spinning position optimisation with new smart symbol display
- ▶ **Fewer movements with 30 % larger tube magazine and integrated automatic tube colour control**



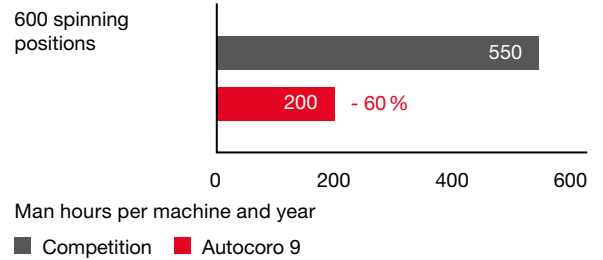


# Reduced costs, more profits

## Efficient lean maintenance

The intelligent individual spinning position drive enables maintenance of individual spinning positions during on-going operation. There is now no longer any need for gangs of cleaning personnel, nor for complete machine shutdowns for maintenance and cleaning that is necessary for competitor machines. With the Autocoro 9 you save 60 % of your maintenance costs.

## Up to 60 % less maintenance costs



## Smart symbol display

The intelligent spinning positions communicate individually with operating personnel via a smart symbol display. In the event of malfunctions, the display signals the relevant error. Your staff can then intervene immediately on site.



## Less handling

The 30 % larger tube magazine of the Autocoro 9 reduces the amount of handling thanks to longer refill intervals. The magazine is equipped with an intelligent colour detection system. It learns the tube colours and always sends the right tube to the conveyor.

Many other ergonomically optimised components of the Autocoro 9 reduce the travel and service times of your personnel.



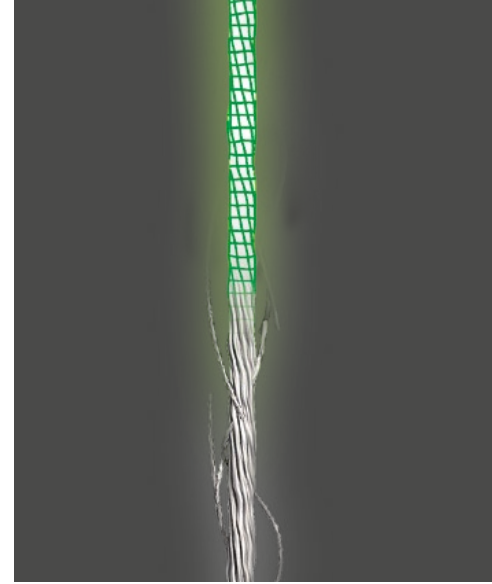
# Groundbreaking Autocoro yarn and package quality

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- ▶ **Quality leadership through innovative digital technology: DigiPiecing and DigiWinding**
- ▶ **The right Corolab clearer for all requirements**
- ▶ **Innovative, high-performance FX technologies for the most demanding requirements**
  - ▶ **Optimised piecings with DigiPiecing FX**
  - ▶ **Perfect dye packages with DigiWinding FX**
  - ▶ **The best XXL packages with FlexPack FX**







## The next generation of quality

### Innovation through intelligence

With its Autocoro digital technologies, Schlafhorst is setting new quality benchmarks in rotor spinning. Textile technology processes are digitally controlled with precision – based on the Autocoro 9 individual spinning positions. On the Autocoro 9 you can achieve yarn and package characteristics that were previously unimaginable.

### 100 % digital piecing, directly and completely at the spinning position

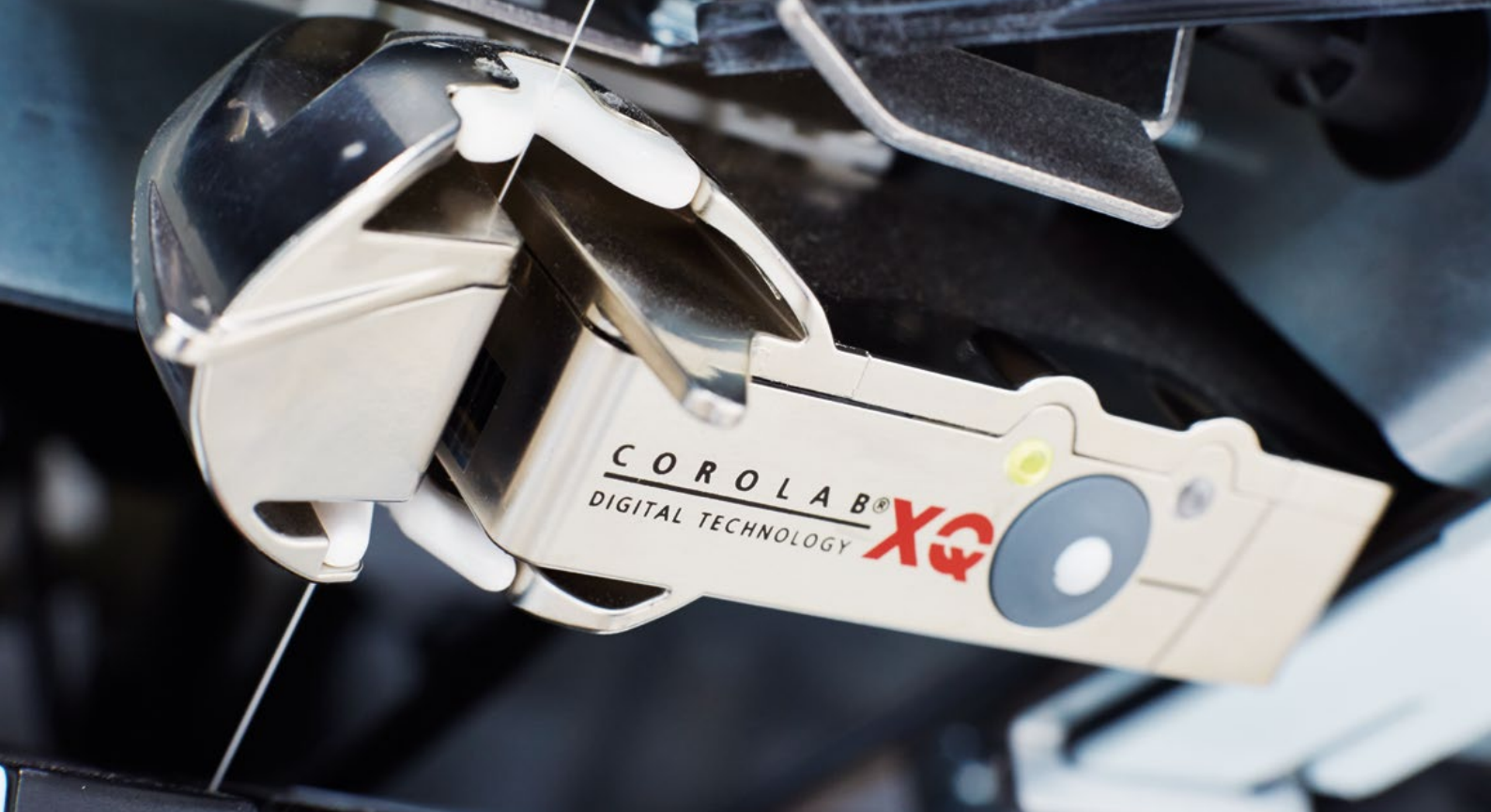
With DigiPiecing these features come as standard on the Autocoro and offer an outstanding future technology that outstrips the competition. Completely digitally controlled piecing is integrated in each individual Autocoro spinning position. The single-motor drives ensure a high-precision piecing process from sliver intake and rotor motor through to yarn take-off. For maximum reproducible piecing quality at each spinning position.

### DigiWinding

DigiWinding has made Autocoro packages a by-word for quality and maximum value added. The intelligently produced packages have straight flanks and up to 10 % higher weight. Operating periods in the weaving mill are increased and the unwinding properties are better than with packages from competitor machines. In addition, logistics costs are reduced by a tenth.







### Digital yarn clearing

The Corolab XQ technology in the Autocoro 9 ensures perfect yarns and piecings that deliver what they promise. As well as looking at yarn count variations, the Corolab sensors analyse the structure of all piecings. Corolab also ensures that slivers that are too thick or too thin are recognized as “incorrect slivers”.

The Corolab XF yarn clearer also eliminates foreign fibres in the yarn.





## Textile innovation

### FX made by Saurer Schlafhorst

With its technology innovations, FX from Schlafhorst revolutionises quality standards in spinning and winding processes. The intelligent FX high-tech components achieve groundbreaking quality improvements in the characteristics of yarns and packages.

They open up the possibility of creating products with innovative added value and of optimising upstream and downstream textile production processes. FX made by Saurer Schlafhorst is the technology innovation that offers textile companies measurable benefits.



### DigiWinding FX

With DigiWinding FX you can produce at the touch of a button packages with process-optimised density and up to 10 % more weight with the same diameter. In addition, you can now also produce high-quality rounded dye packages. DigiWinding FX saves on logistics and process costs as it does away with edge bending and rewinding.

### FlexPack FX

In addition to the functions of DigiWinding FX, the unique Autocoro 9 FlexPack FX technology offers further optimisation possibilities for all diameters. With FlexPack FX you benefit from new value creation potentials whether for process-optimised dye packages, packages with straight flanks or oversized package formats.



### DigiPiecing FX

DigiPiecing FX is the benchmark for piecing technology. With general textile technology know-how your personnel can produce optimal piecings from the raw material quickly and easily with DigiPiecing FX. This is made possible by the integrated intelligence of the Autocoro 9.





# Schlafhorst: Innovation leader in rotor spinning

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- ▶ Be at the forefront of the market now and in future with Autocoro technology.
- ▶ More success in the commodity yarn market with unique future-oriented rotor spinning technology.
- ▶ **SUN – SERVICE UNLIMITED**



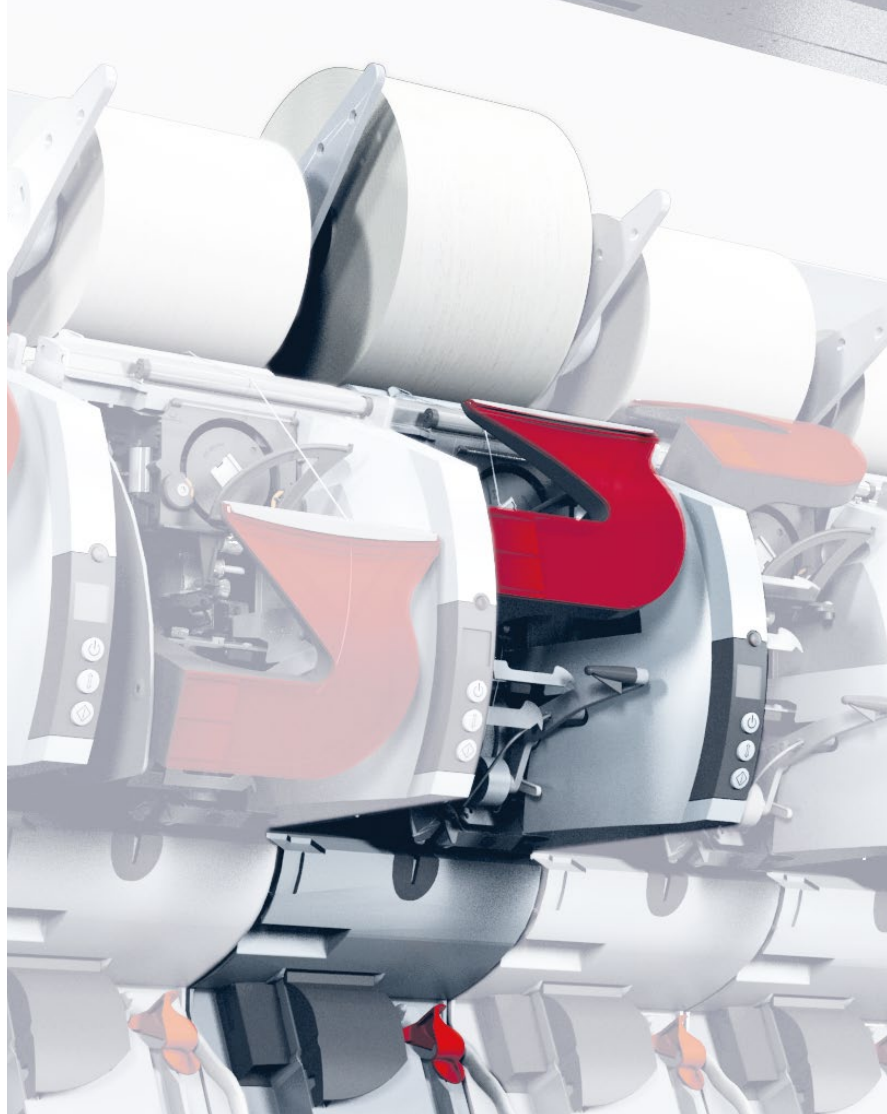


# A step ahead of the market

## The technology platform of the future

In less than four years the Autocoro 8 has written a unique and revolutionary chapter in the history of rotor spinning. This innovative rotor spinning development would hardly be possible without individual spinning position technology.

The Autocoro 9 is now continuing this success story and ensures you stay at the forefront of the market – today and tomorrow.



## Leading in the commodity market

With its unbounded productivity, outstanding energy efficiency, incomparable economy and unsurpassed quality, the Autocoro 9 sets new standards in the commodity market. Take the lead in your market – with the Autocoro 9.



# Customer Support

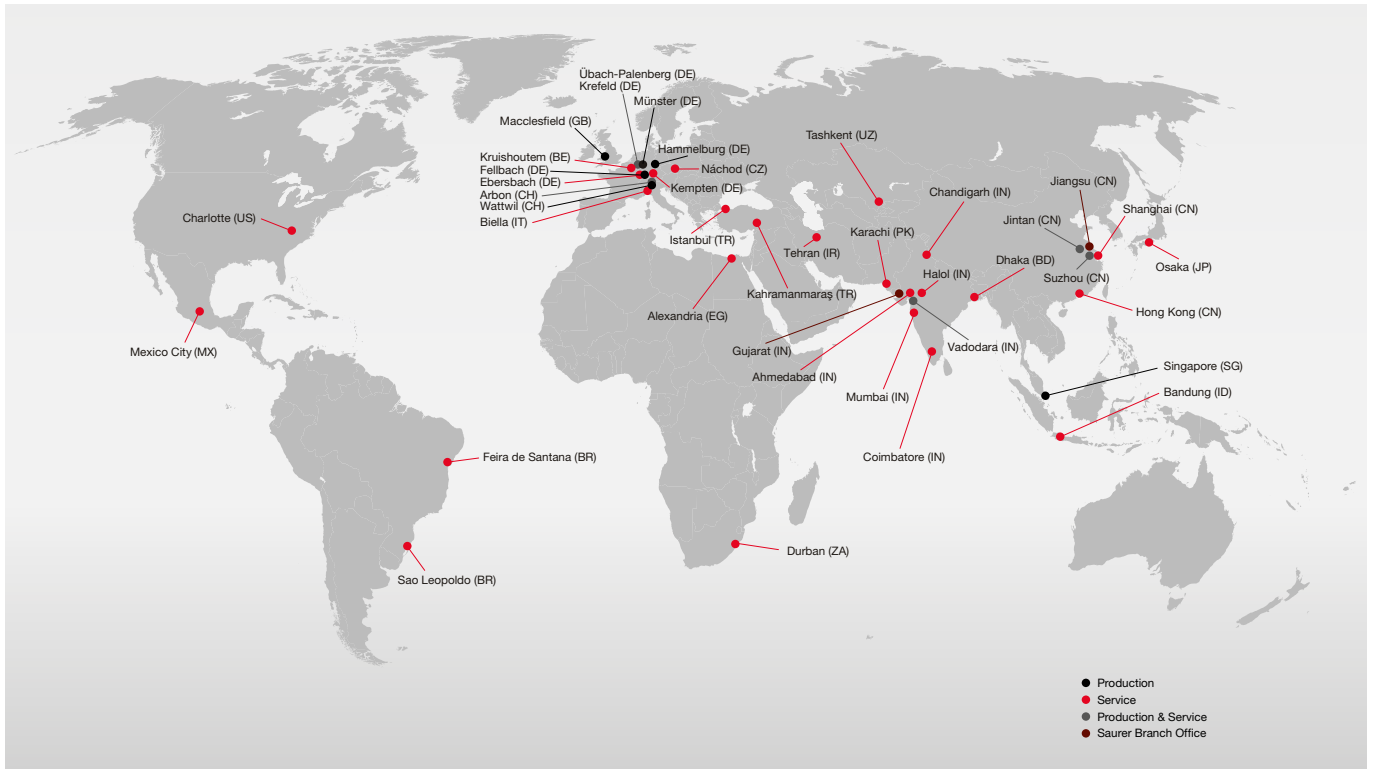
## SUN – SERVICE UNLIMITED

With SUN – SERVICE UNLIMITED Saurer establishes new service standards for the entire textile value chain. SUN is a bundle of differentiated services that add real value to Saurer machinery throughout its entire life cycle. Highly trained staff accompanied by state-of-the-art tools improve our customers' daily business in a flexible and individual way. We provide the owners of Saurer machinery with innovative products and best services to improve production and profitability.

With SUN – SERVICE UNLIMITED Saurer sets the benchmarks in:

- Consulting
- Installation
- Know-how Transfer
- Original Parts
- Maintenance and Repair
- Updates and Upgrades





## SECOS 2.0

### A strong tool, a strong partner

With SECOS 2.0 Saurer is providing its customers with an efficient tool for optimising the operation of machines and equipment. With its second generation, SECOS enables a significant increase in efficiency for processes concerning the maintenance, care, modernisation and procurement of original parts.

With the latest generation of the online portal Saurer underlines its service leadership in textile machinery engineering. Years of experience in online customer service combined with state-of-the-art IT and an innovative user interface produce a number of appealing customer benefits. Users of SECOS 2.0 are given access to all the necessary information for running their product portfolios.

From operating and service documentation to original parts catalogues, up to e-learning modules and knowledge databases – all of it precisely tailored to their machinery and needs.





# Autocoro 9 Technical data

## Machine type

- Automatic Rotor Spinning Machine Autocoro 9
- DigiPiecing digital piecing technology
- Doffing of full packages with the DCU doffing and cleaning unit
- Sectional design with 24 spinning positions per section
- Spindle gauge: 230 mm
- E<sup>3</sup> Energy: E-Drive technology for energy-saving yarn production

## Technology data

### Raw materials

Natural and manmade fibres and their blends, fibre length up to 60 mm

### Yarn count range

167 – 10 tex/Nm 6 – 100/Ne 3.5 – 60

### Sliver feed

8.0 – 2.5 ktex/Nm 0.125 – Nm 0.40/Ne 0.07 – Ne 0.24

### Draft

25 – 400 fold

## Basic machine

- DigiPiecing digitally controlled piecing technology for simultaneous piecing
- Energy Monitoring on the Informator \*
- SynchroPiecing 6 for up to 6 simultaneous piecing processes
- SynchroPiecing 12 for up to 12 simultaneous piecing processes \*
- SynchroPiecing 24 for up to 24 simultaneous piecing processes \*
- PilotSpin: Freely selectable spinning positions for the production of sample and test packages, no automatic package doffing \*
- 2, 4 \* or 6 \* DCU package doffing and cleaning units with EIS Event Identification System
  - Sensor-monitored package doffing process
  - Integrated cleaning head for the pneumatic and mechanical cleaning of rotors, navels and yarn navel tubes
  - Pneumatic cleaning of spinbox and winding head
  - Automatic cover opening at the touch of a button \*
- Tube magazine for up to 432 empty tubes, arranged in 12 rows with 36 empty tubes per row
- Tube magazine for up to 576 empty tubes, arranged in 12 rows with 48 empty tubes per row \*
- EVA Electronic Vacuum Adjustment for a constant and electronically controlled spinning vacuum 65 to 95 mbar
- Input of spinning parameters on the Informator with touch-screen input display
  - Data display on screen or via an external printer (not included in the scope of supply) by means of USB interface and flash card
- Yarn residues, waste and fibres are collected separately in a dual-chamber system
- Fancynation yarn device, number of sections operated with Fancynation can be freely selected \* in combination with MultiLot \*

- Possible connection to central waste disposal systems \*
- Conveyor belt per machine side for package removal
- Central lubrication and bearing temperature monitoring of the suction system motor
- Seamless lot change with can and spinning component exchange function \*

### MultiLot processing system \*

- Simultaneous production of up to 5 lots on one machine
  - MultiLot 2: 2 lots
  - MultiLot 3: 3 lots
  - MultiLot 5: 5 lots
- Seamless lot changes
- Tube magazine with single-motor drive of lot-related tube rows in up to 5 groups
- Automatic colour detection of single-colour tubes
- 2 package conveyor belts with individual control

## Spinning and winding unit

### Spinning unit

- Corobox SE 20
- DigiPiecing:
  - Digitally controlled piecing technology at each spinning position by means of single-motor driven piecing elements
- DigiPiecing FX: DigiPiecing Fx software for optimal piecing quality and simpler piecing parameter configuration \*
- Single-motor driven rotors, magnetic axial and radial bearings
- Technically designed for rotor motor speeds up to 200,000 rpm
- Rotor speeds from 20,000 – 180,000 rpm in practice with infinitely variable setting and digital control
- Single-motor driven opening rolls with infinitely variable electronic setting and digital control
- Single-motor driven and digitally controlled SDSI Single Drive Sliver Intake
- Motor-driven waxing device for wax rolls up to a size of 75 x 50 mm \*

### Yarn quality monitoring

- Corolab XQ – digital yarn monitoring system for quality control and for clearing thick and thin places
- Corolab XF – digital yarn monitoring system for quality control and for clearing thick and thin places and foreign fibres \*
- Digital piecing tester at each spinning position

### Winding unit

- Digitally controlled winding process and package build with single-motor package drive and single-motor yarn guide
- DigiWinding \*: Digitally controlled function for straight package flanks without traverse reduction, complete digital anti-patterning
- DigiWinding FX \*:
  - Includes DigiWinding
  - Rounded package flank transitions mean reduced process costs in the production of dye packages
- Take-up speed:
  - Up to 300 m/min for any machine length \*

- Operating unit with 3-colour LED on each spinning position
- Operating unit with operator-friendly display and menu navigation using symbols and pictograms \*
- Additional package cradle damping for manmade fibres \*
- Electronic length measuring unit for packages with a defined yarn length

### Package formats

- Cylindrical packages up to 300 mm in diameter
- Tapered packages 1°50' up to 280 mm diameter \*
- FlexPack FX \*:
  - Cylindrical packages up to 350 mm diameter, packages with particularly high or particularly low density and for packages with rounded flanks

### Tube dimensions, cylindrical, smooth/flanged

- diam. 54 x 170 mm /
- diam. 54/42 x 170 mm

## Spinning cans

Spinning can dimensions – round cans:

Diameter	457 mm (17.5")
	(two rows)
	530 mm (20")
	(three rows)
Height	900 mm to 1,200 mm (36" to 48").

Spinning can dimensions – rectangular cans:  
220 mm width x 970 mm depth x 900 – 1,200 mm height (1,070 mm when using can supports).

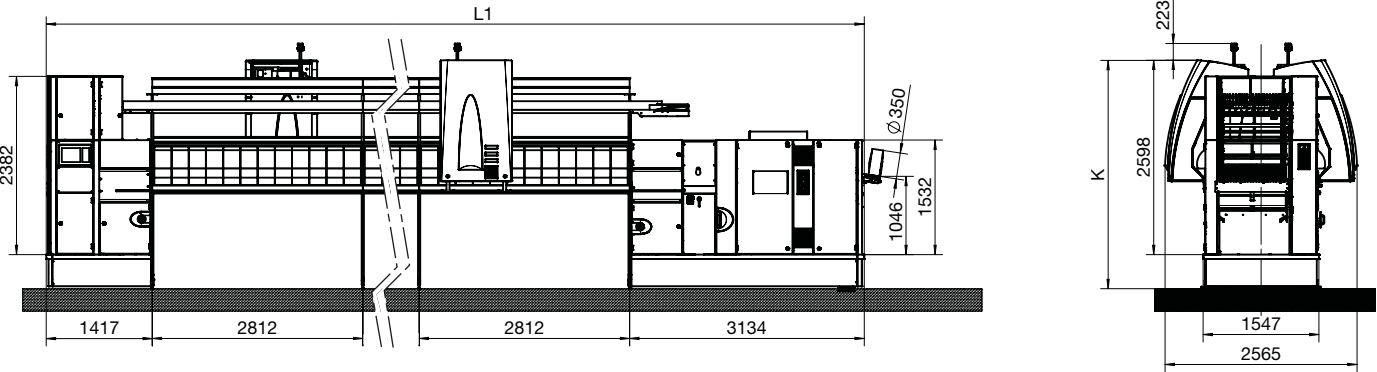
## Automatic package removal systems \*

- Removal systems e.g. single palletizer or Autoflow
- Distribution by Neuenhauser Maschinenbau GmbH, Neuenhaus, Germany

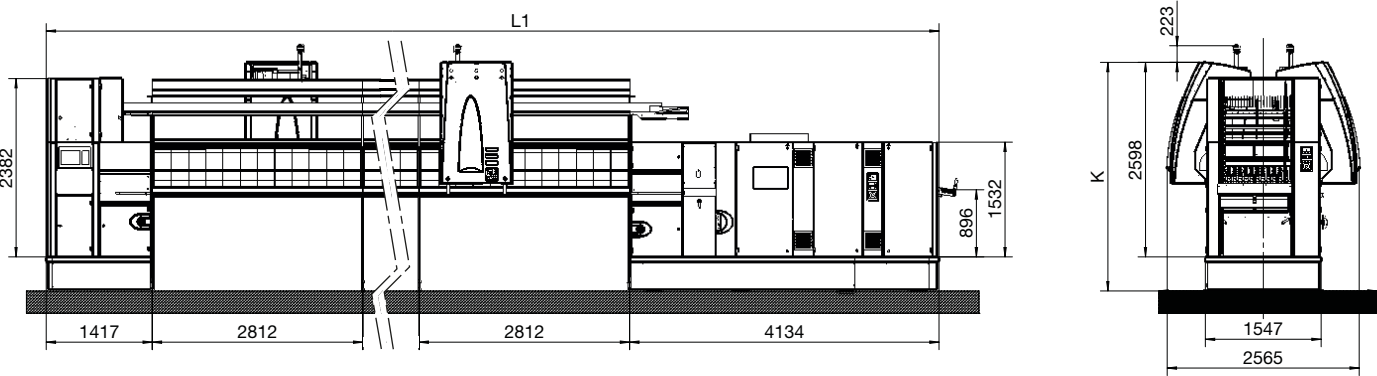
\* Option

	Spinning positions	Sections	Net weight (2 doffers)	Length L1	Net weight 2 additional doffers
	48	2	6,800	10,174/11,175	600
Dimensions and weights for each additional section	24	1	1,400	2,812	

Suction unit (standard design)



Suction unit (reinforced design)



**Regarding this brochure**  
Research and development never stand still. This may mean that some statements about the Autocoro have been rendered obsolete by technical progress. The illustrations have been selected for information purposes only. They may show special equipment which is not included in the standard scope of supply.



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Schlafhorst's quality management system complies with the requirements of EN ISO 9001.

