SAURER.

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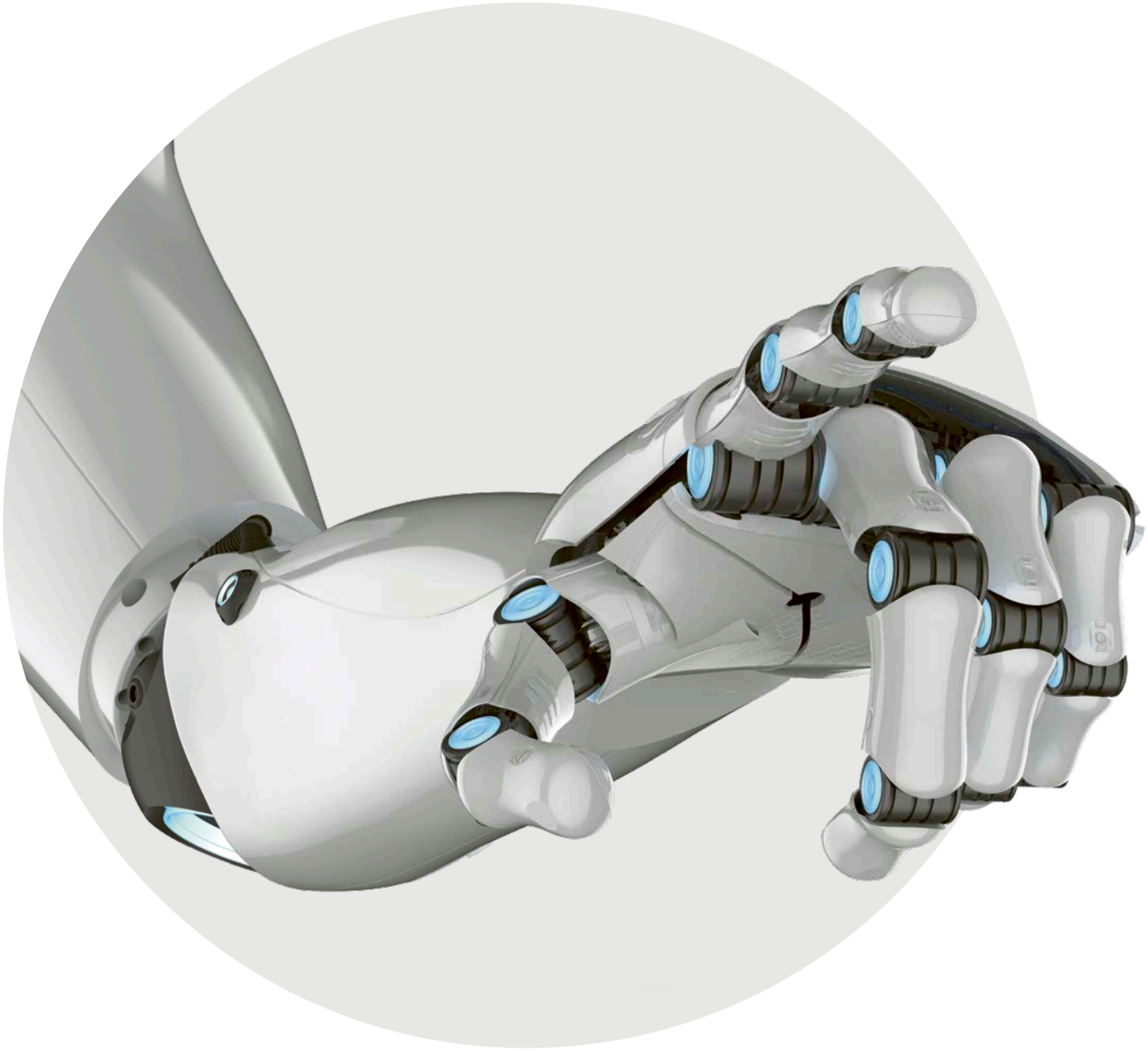

Forward.

Automation Solutions


SAURER
PackDrive

Saurer already has 30 years of experience in planning and installation of transport systems. The company has successfully implemented more than 100 systems worldwide.

The new Saurer Automation Solutions serve as your expert engineering partner for integrated automation solutions across the entire textile value chain.

We are meeting the growing demand for cost-effective automation of spinning and further processing in staple fibre spinning and twisting mills as well as in filament yarn processing.

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Features and benefits

→ Automated material flows

→ More efficient production

→ Better ergonomics for operators

→ No material mixing

→ Traceability of packages/bobbins

→ Reduced personnel requirements

→ Higher quality of yarn and bobbins

→ Integrated system solutions

→ Engineering services that are flexible and optimally tailored to individual needs

Comprehensive mill automation

Textile companies are facing increasingly complex challenges: on the one hand rising labour costs and employee fluctuation and on the other hand the need to automate material flow, reduce lead times and boost productivity. Furthermore, companies require comprehensive automation solutions due to greater demands on yarn quality and ease of use as well as the trend towards large and heavy packages. Comprehensive data management with innovative quality functions has become indispensable from the roving production facility to the yarn warehouse. The Saurer Mill management system Senses offers all this.

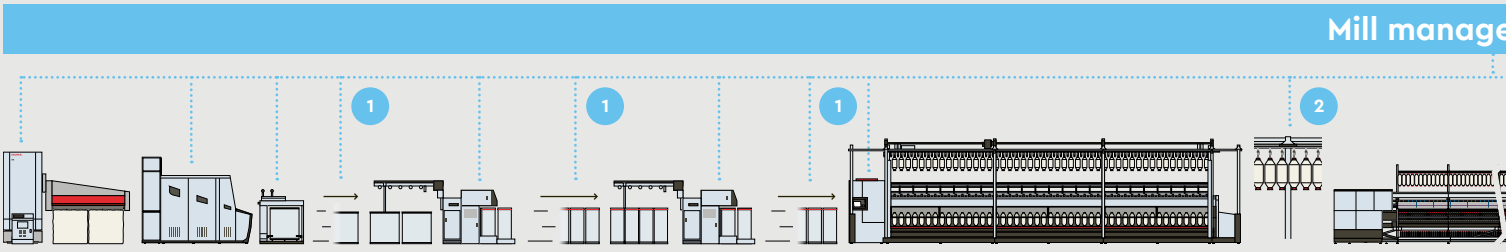
Saurer Automation Solutions offer tailor-made solutions in the following areas:

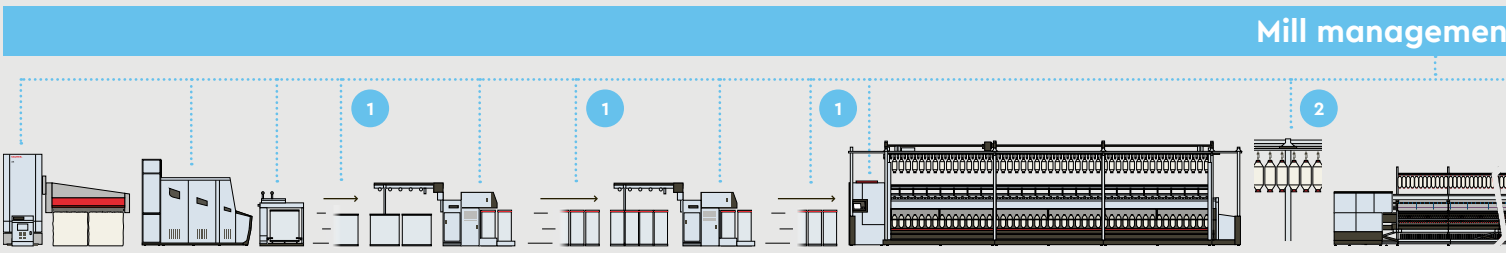
Staple fibre spinning and twisting
Can transport using automatic guided vehicles, transport systems for roving bobbins, palletising systems, conditioning, packaging, transport systems for cross-wound packages from the winding/spinning machine to the yarn warehouse.

Filament twisting and cabling
Transfer of feed packages with loading units on rail systems for BCF yarns and tire cord for block doffing. Removal of cross-wound twist packages using lifters/rail systems or an automated transport system to the next process step, such as automatic loading of thermosetting systems and weaving creels, using robotic units.

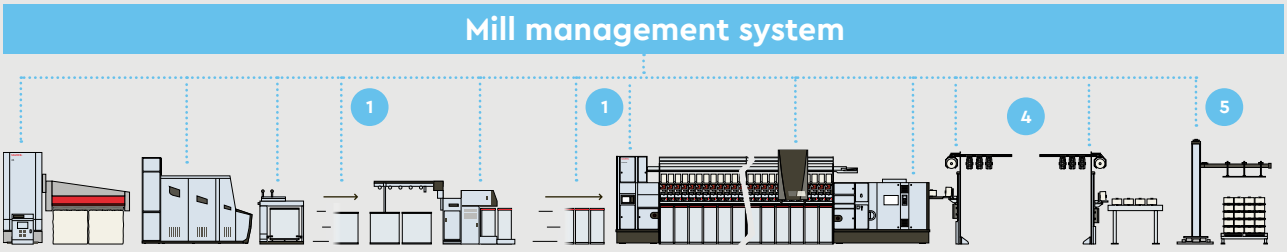
Project engineering
Consulting, project planning and implementation of custom solutions.

Automation as part of ring-spinning processes

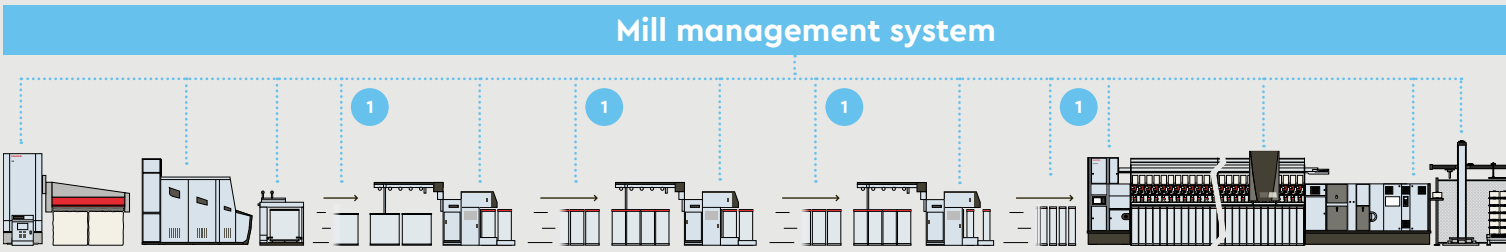




Automation as part of rotor-spinning processes



Automation as part of air-spinning processes



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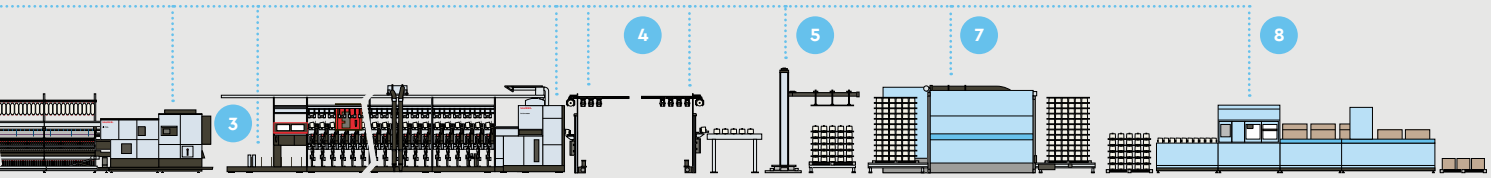
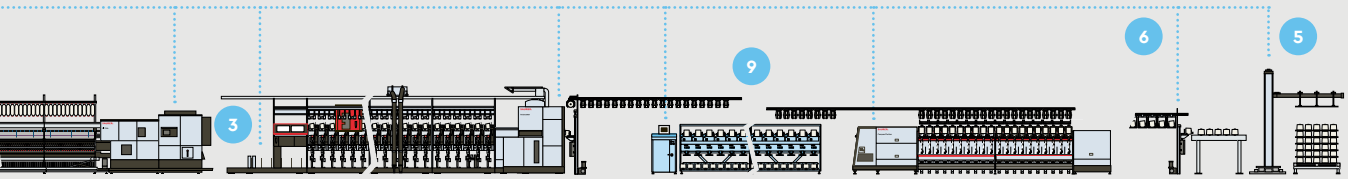


t system



1 Automatic can transport system (round or rectangular)

2 Roving bobbin transport system

3 MultiLink/DirectLink

4 Cone transport system

5 Central palletiser

6 Twist package transport system

7 Conditioning

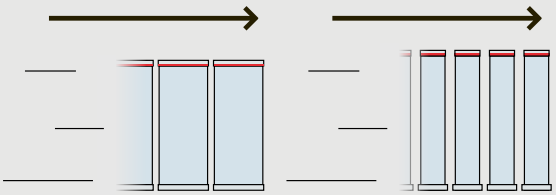
8 Cone packing

9 Supply package transport system (assembly winder – twisting machine)

10 Single palletiser

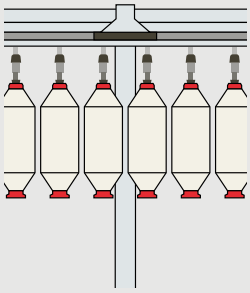
Automation systems for spinning processes

1 Automatic can transport system (round or rectangular)



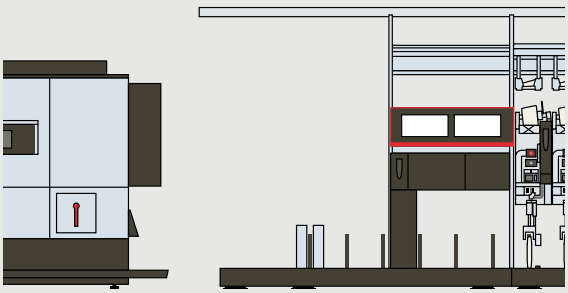
The transport system moves full and empty cans semi- or fully automatically between the different targets in the mill. The system is compatible with rectangular cans as well as round ones.

2 Roving bobbin transport system



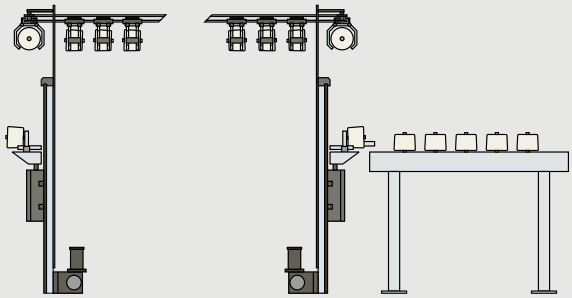
The roving bobbin transport system delivers the bobbins from the roving frame to the spinning machine. Semi-automatic or fully automatic systems are available.
The customer specific solution can also include automated bobbin exchange at the roving frame, automatic tube cleaner and automatic tube magazine. Additionally, the roving bobbin transport system acts as a buffer zone for roving bobbins.

3 MultiLink/DirectLink



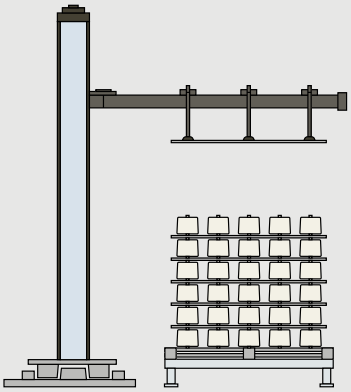
With the smart linkage of up to four ring spinning machines with a single winding machine processes are streamlined in an intelligent and integrated material flow. This enables seamless quality control combined with less space and energy requirements at the same time.

4 Cone transport system



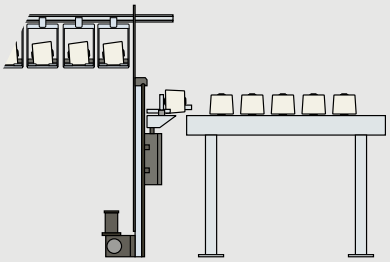
The lifting device takes up the cones from the conveyor belt of either the winding machine, the rotor-spinning machine or the air-spinning machine, and delivers them to the next process step.

5 Central palletiser



A central palletiser takes up packages from a central collection point and distributes them to different assigned palletising stations.

6 Twist package transport system

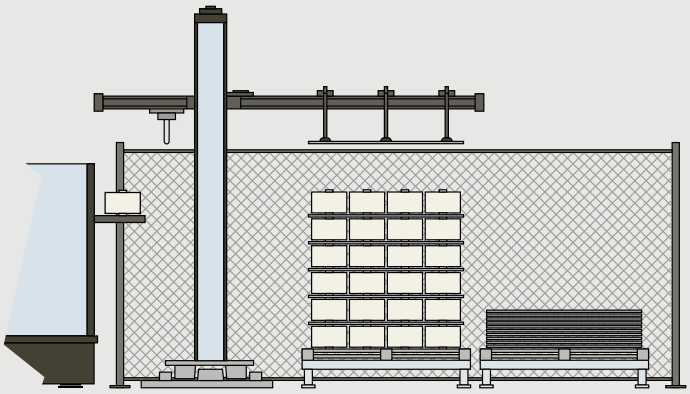


Complete twist packages are removed from the twisting machine via a rail system for further downstream processing.

9 Supply package transport system (assembly winder – twisting machine)

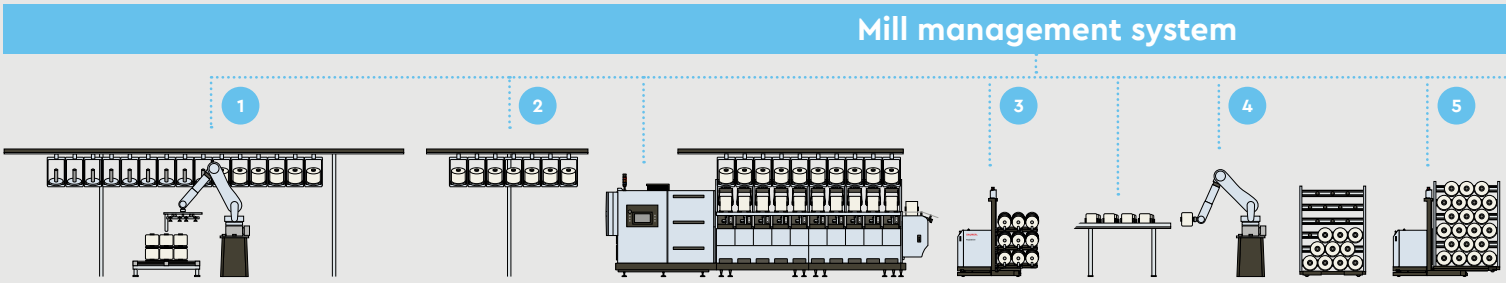
The transport system for supply packages delivers packages for the entire side of a twisting machine.

10 Single palletiser

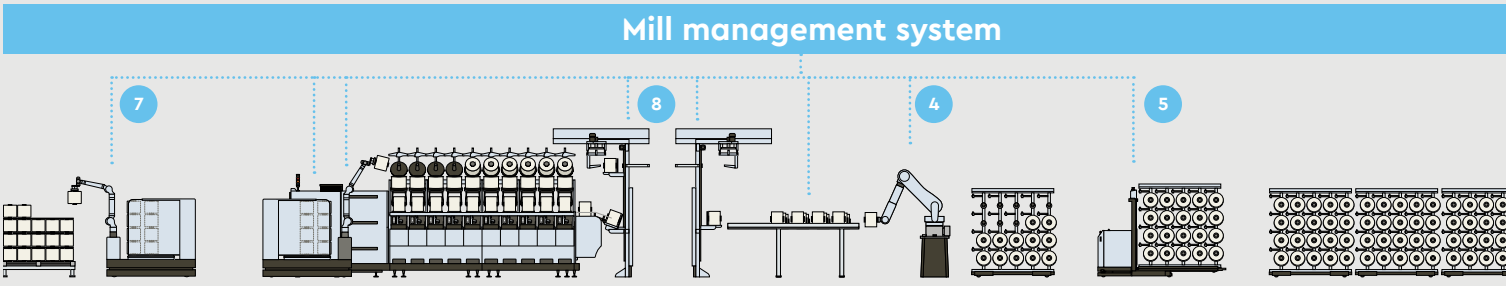


The single palletiser is developed to be directly connected to a winding, twisting or open-end machine. It unloads conical or cylindrical cross-wound packages automatically and stacks them on pallets.

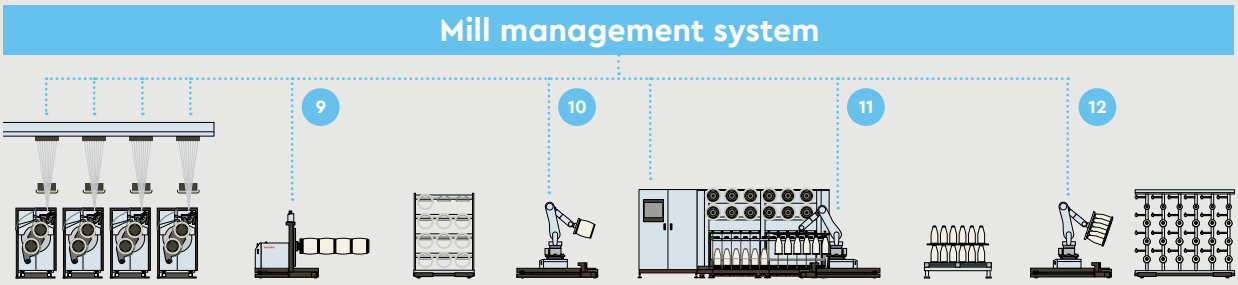
Automation as part of carpet cabling processes



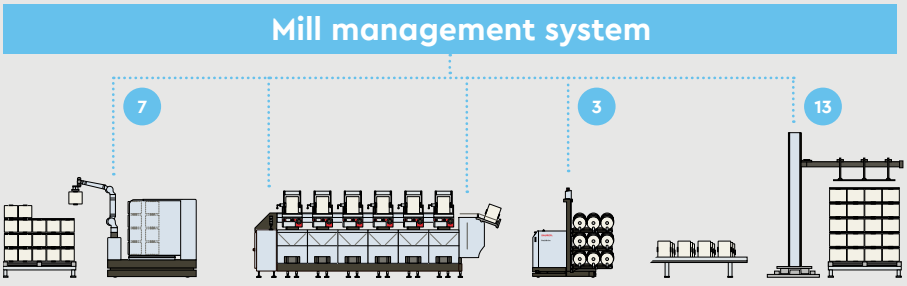
Automation as part of tire cord cabling processes

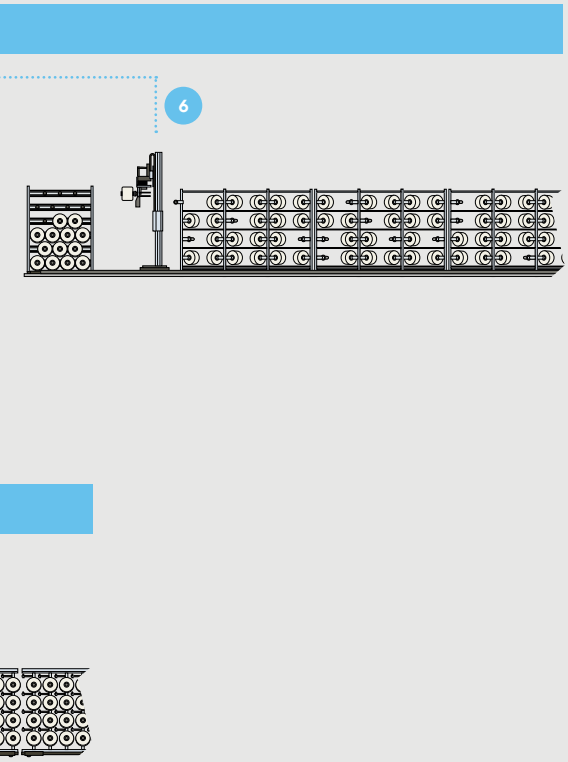


Automation as part of glass filament processes



Automation as part of industrial yarn twisting processes





1 Depalletiser / transport system loading unit

2 Supply package transport system

3 AGV package collector

4 Loading device for racks / weaving creels

5 AGV creel transport

6 Creel loading unit

7 Robot AGV

8 Transport system for twisted packages with lifting device

9 AGV cake collector

10 Cake loading device

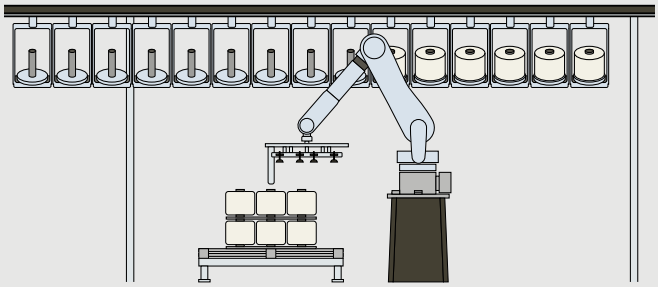
11 Bobbin unloading device

12 Creel loading unit

13 Central palletiser

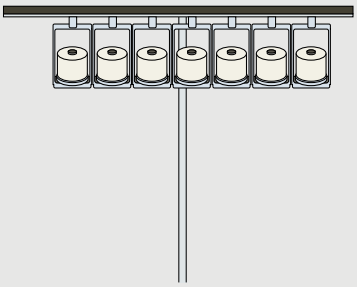
Automation systems for twisting and cabling processes

1 Depalletiser/transport system loading unit



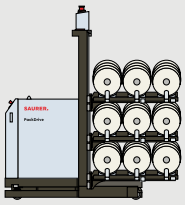
The depalletiser takes up the supply packages in order to load them onto the transport system fully automatically. The empty tubes are removed at the same time.

2 Supply package transport system



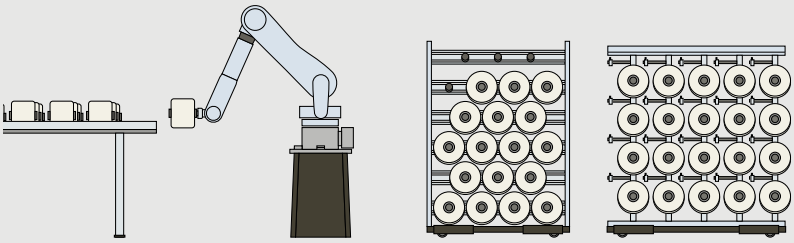
The supply package transport system replaces the conventional high/low creel. It precisely delivers the packages for a complete machine side.

3 AGV package collector



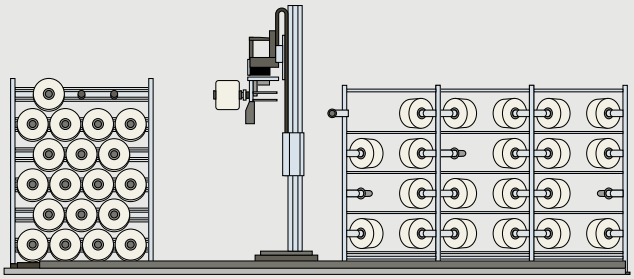
The AGV package collector takes up the complete packages from the conveyor belt of the machine in order to transport 27 of them to the next location for the following process step.

4 Loading device for racks/weaving creels



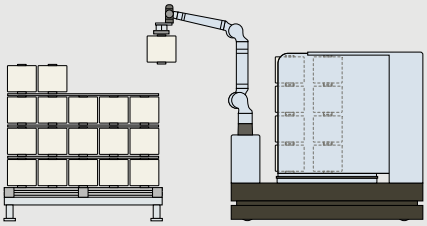
A robot picks up the packages from the receiving unit and transfers them to a rack/weaving creel or pallet.

6 Creel loading unit



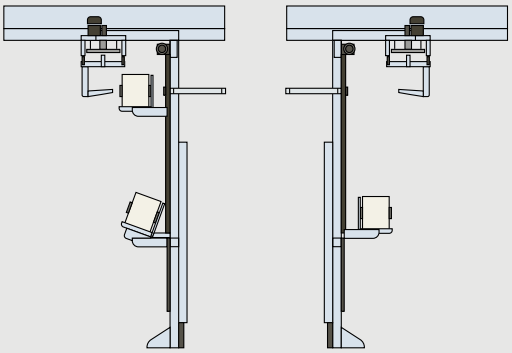
A linear 3-axis robot picks up the packages from the rack and transfers them precisely to their positions at the heatset creel.

7 Robot AGV



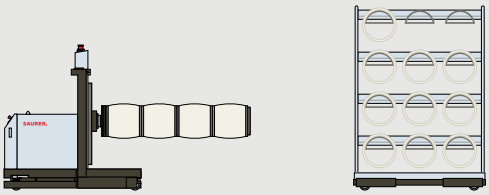
The robot AGV picks up the packages from a pallet or from the conveyor belt of the machine and stores them in its internal buffer system. Then it transports the packages and loads the subsequent machine.

8 Transport system for twisted packages with lifting device



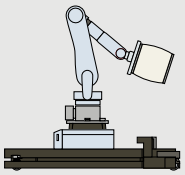
The lifting device picks up the twisted packages from the output conveyor belt of the cabling machine. It delivers the packages to the transport system and transports them to the next location for subsequent processing.

9 AGV cake collector



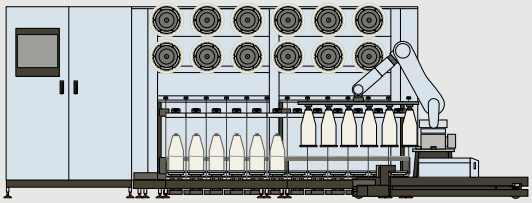
The AGV cake collector takes the winding cakes from the CakeFormingWinder and transfers them to a rack/creel.

10 Cake loading device



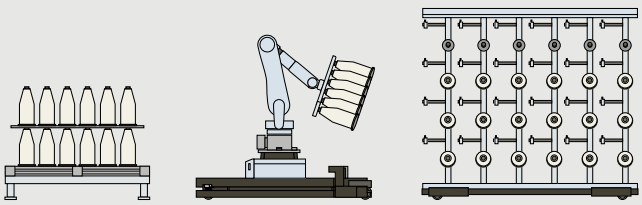
The cake loading device picks up the winding cakes from a rack/creel and loads them onto the glass twisting machine.

11 Bobbin unloading device

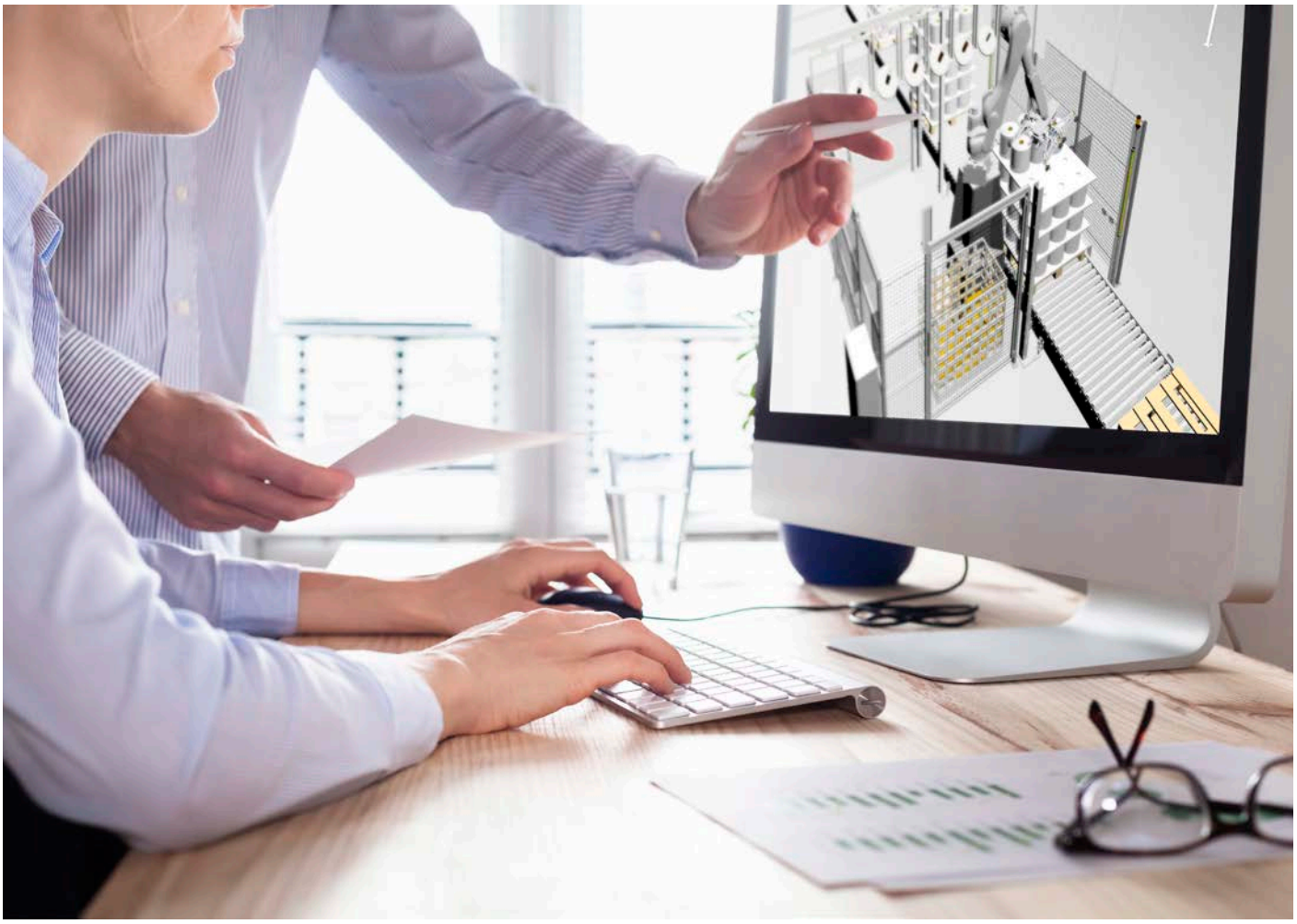


The bobbin unloading device unloads the twisted bobbins from the glass twisting machine and stacks them e.g. onto a pallet.

12 Creel loading unit



The creel loading unit picks up the twisted bobbins from a pallet and transfers them to a rack/creel.



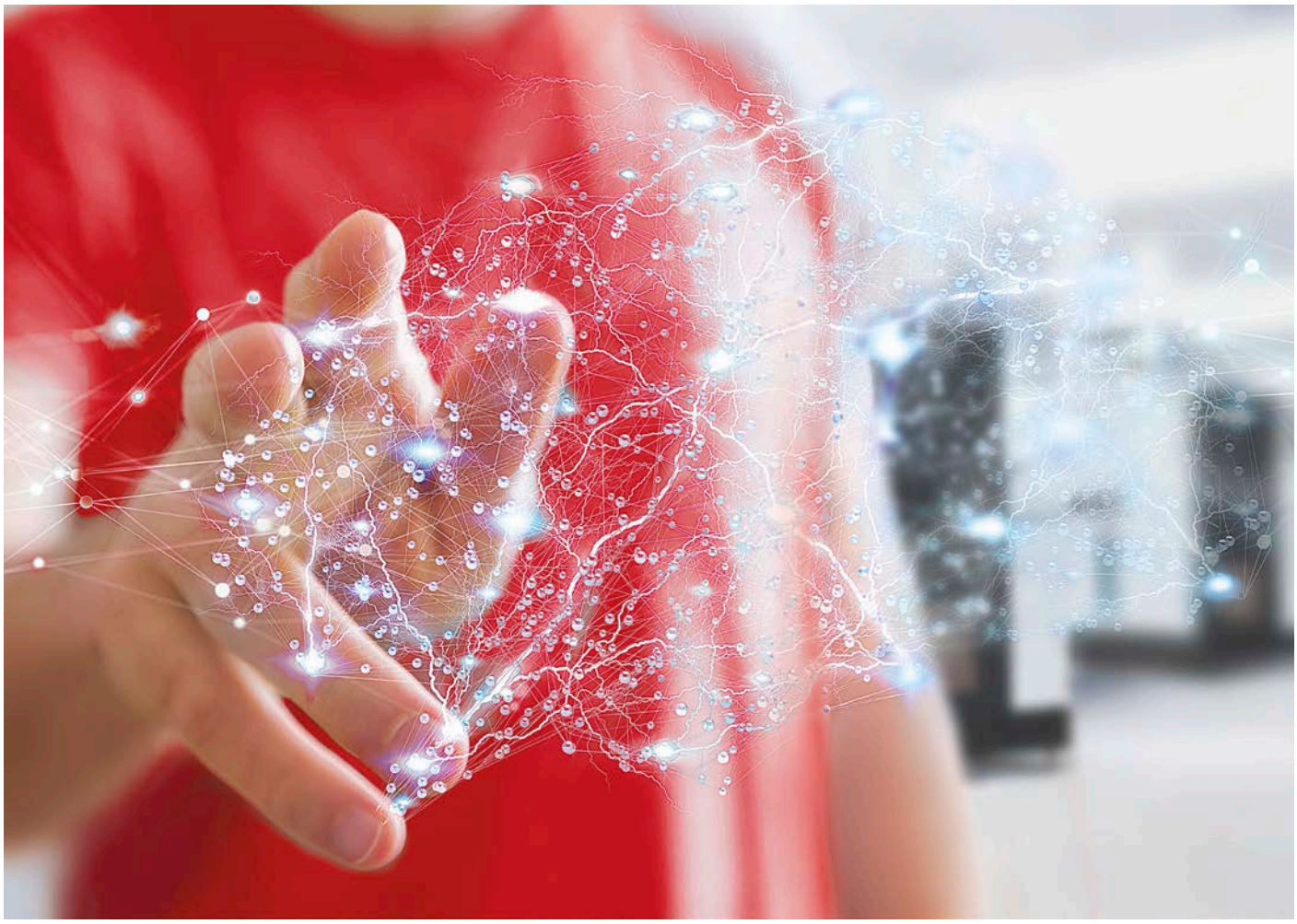
Engineering – tailor-made solutions

A functioning system is always more than the sum of its individual elements – the added value results from their perfect interaction. To ensure this, experienced Saurer engineers develop solutions that are precisely tailored to customers' needs.

A competent team of Saurer engineers develops individual solutions for all process stages of staple-fibre yarn production and filament processing. The focus is always on the respective requirements of our customers and their markets. With coherent overall concepts that meet all requirements for process optimisation and increased efficiency, Saurer ensures the future-proof competitive advantage of its customers' spinning and twisting mills. Our portfolio of services also includes the most precise adjustment of the plant inventory, as well as the development of full-scale plant layouts.

Our engineering team can support you with:

- Meeting requirements of management
- Concept and layout
- Schedule and project management
- Installation and commissioning
- Employee training
- Product and process optimisation
- Maintenance and repair
- Updates and upgrades



Senses

With the mill management system Senses you can manage your entire spinning mill with one single program. The Saurer solution for intelligent data collection and analysis includes the networking between Senses, Saurer machines, Saurer automation devices and Saurer Autolab laboratory systems. This makes it possible to display and analyse cross-area production data from machines from Saurer and external providers as well as quality data in one application.

Knowledge in real time
Senses provides and connects information about production data and machine conditions accurate to the second. Plan deviations, quality fluctuations or irregularities are thus detected in real time and managed specifically.

All processes at a glance
With the multi-process view, Senses provides full overviews of all processes from fibre to yarn. In addition to the quick overview of how processes are running, you can also monitor individual products across the process chain. Senses makes associations between process steps visible and allows you to exploit additional opportunities for optimisation.

Total control
As Senses is a locally hosted web application, all data is stored on your own servers. Evaluations can thus be carried out immediately during operation. While other providers save your sensitive production data in the cloud, with Senses you have everything under control.

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