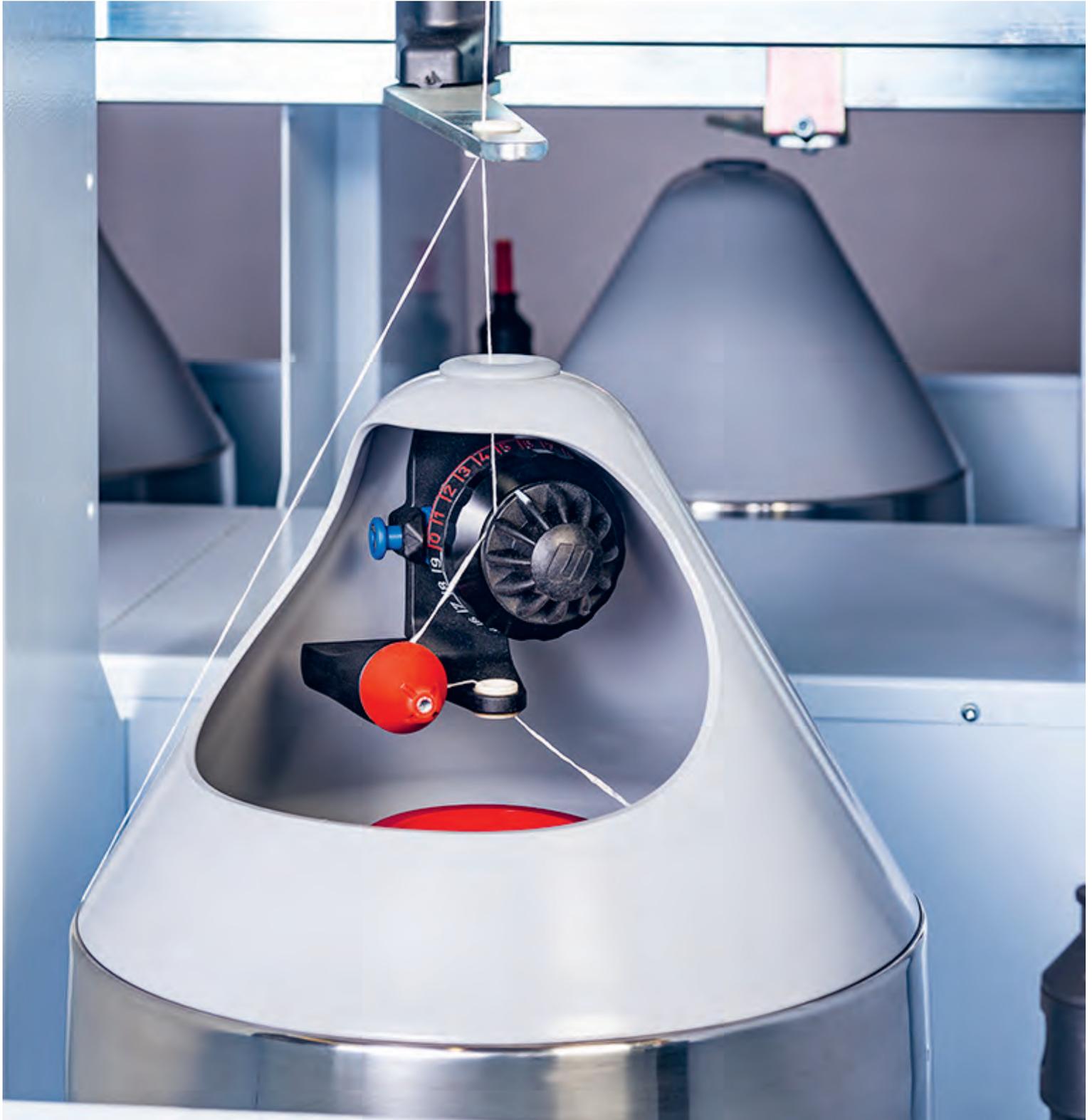


SAURER.



Unsurpassed.●

CarpetCabler CarpetTwister 1.10





Saurer Twisting Solutions is continuously setting new milestones in the development of twisting and cabling machines.

We combine innovative technology with decades of experience so that you can react reliably and confidently to the demands of an ever-changing market with our machines.

Our entrepreneurial and pioneering spirit is the driving force for further developments and innovations – for your future as well!

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Technical and textile data

Features and benefits

- Innovative yarn sensor**
- Electronically monitored motor spindle**
- New network-capable software**
- Optimised operability due to the open and easily accessible overfeed area**
- New Hi-Lo creel for ergonomic operation**
- Yarn brakes for all kinds of applications**
- Cooling systems in the drive unit**

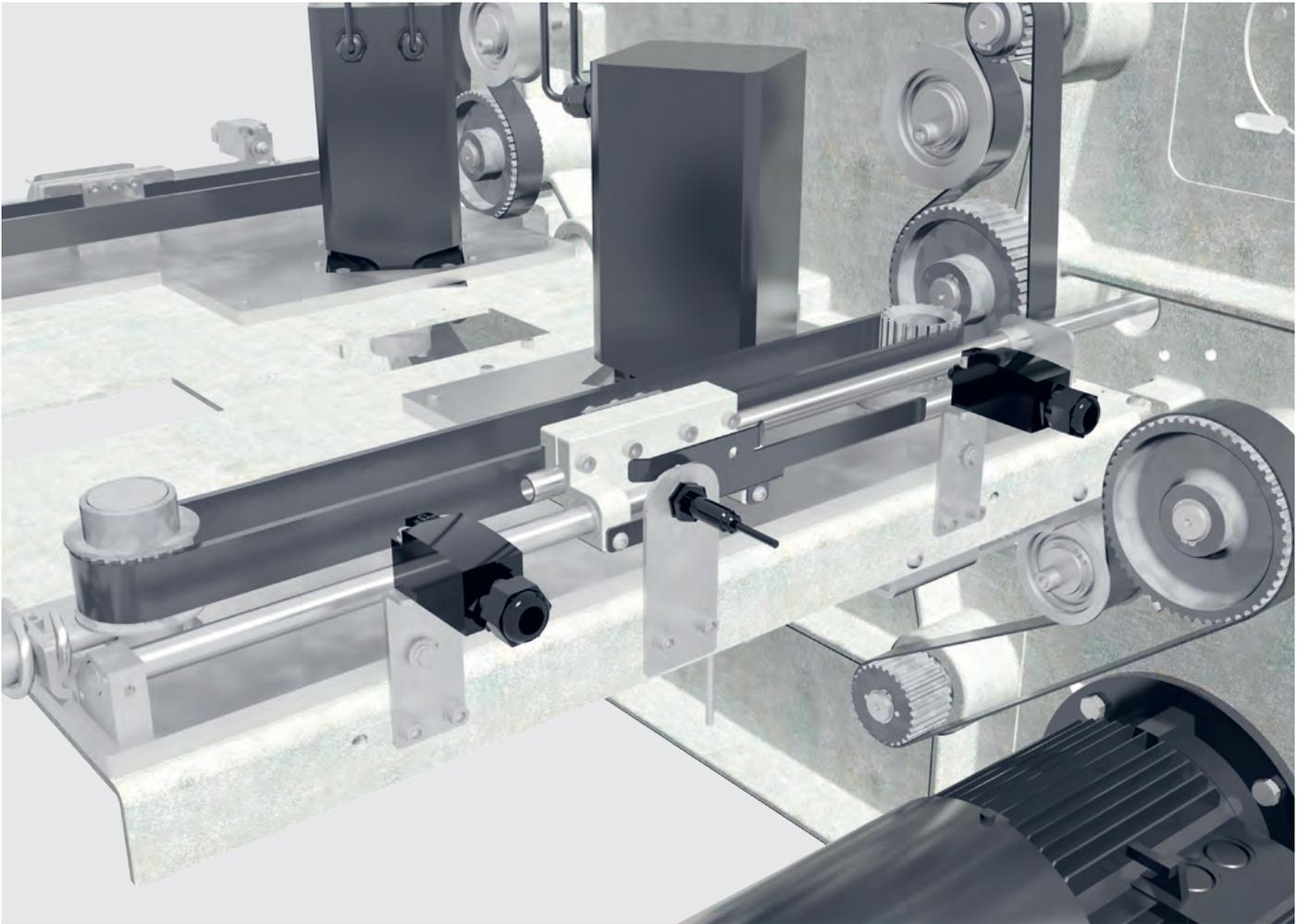


CarpetCabler / CarpetTwister

For over 35 years, our CarpetCabler and CarpetTwister twisting and cabling machines have been producing high-quality yarns for sophisticated carpets and other textiles.

Innovative developments, use of the latest technology at all times and the readiness to go one step further with and for our customers have been a common thread over the decades.

Our new series 1.10 offers optimum possibilities for reliably and confidently mastering even the most unusual requirements of an ever-changing market.



Cool running – the air-conditioned drive technology

Servo gearbox

The programmable servo gearbox combines innovative development with years of experience in textile machine construction.

The maintenance-friendly and clean, oil-free design allows the production of optimum cross-wound delivery packages even at high delivery speeds.

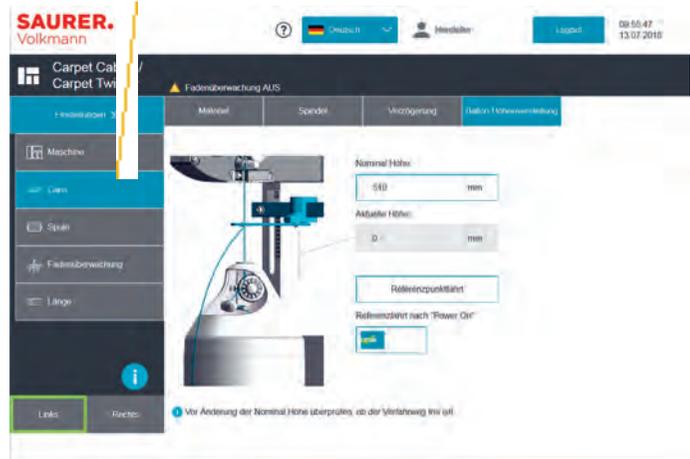
The separate machine sides mean that small strand lots can be processed simultaneously without any problems, while the computer-aided control system eliminates time-consuming conversion times.

Air conditioning of the drive section

The various air conditioning options of the drive section generate a uniform temperature in the control cabinet and thus increase the operational reliability and service life of the units.

Depending on the outside temperature, the use of air or air-water cooling prevents overheating in the control cabinet.

Water-cooled frequency inverters support air conditioning. In addition, filters prevent the penetration of dirt particles.



Intuitive operation

Control panel (human-machine interface)

The new control panel with multitouch technology and the innovative user interface makes operation even more intuitive and easier.

It registers, controls and monitors the entire production sequence and administers all machine and lot parameters as well as your production data.

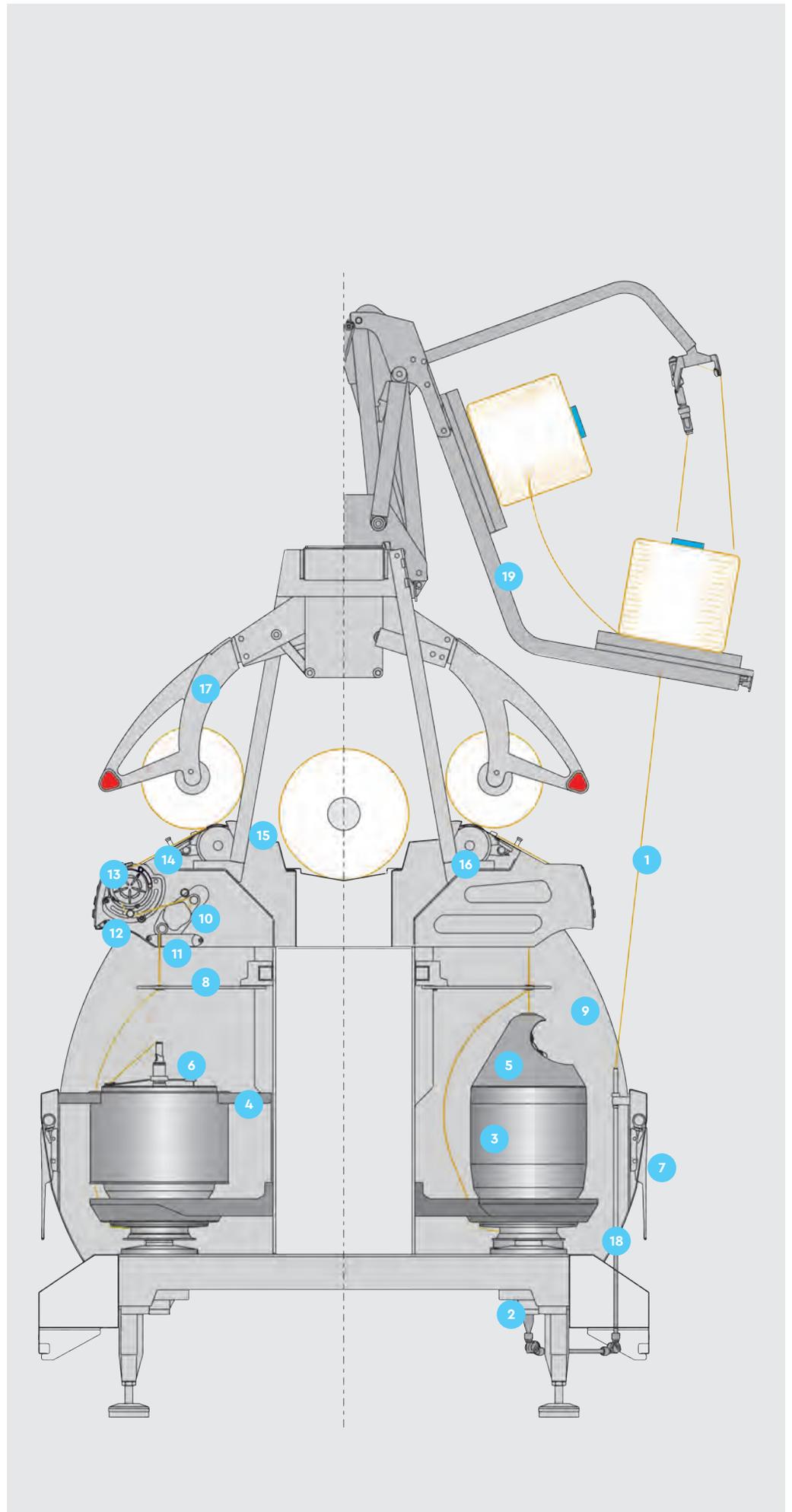
The simple and self-explanatory user interface guarantees fast and straightforward input and simplifies machine control. Stored lot data can be called up easily and simplifies handling.

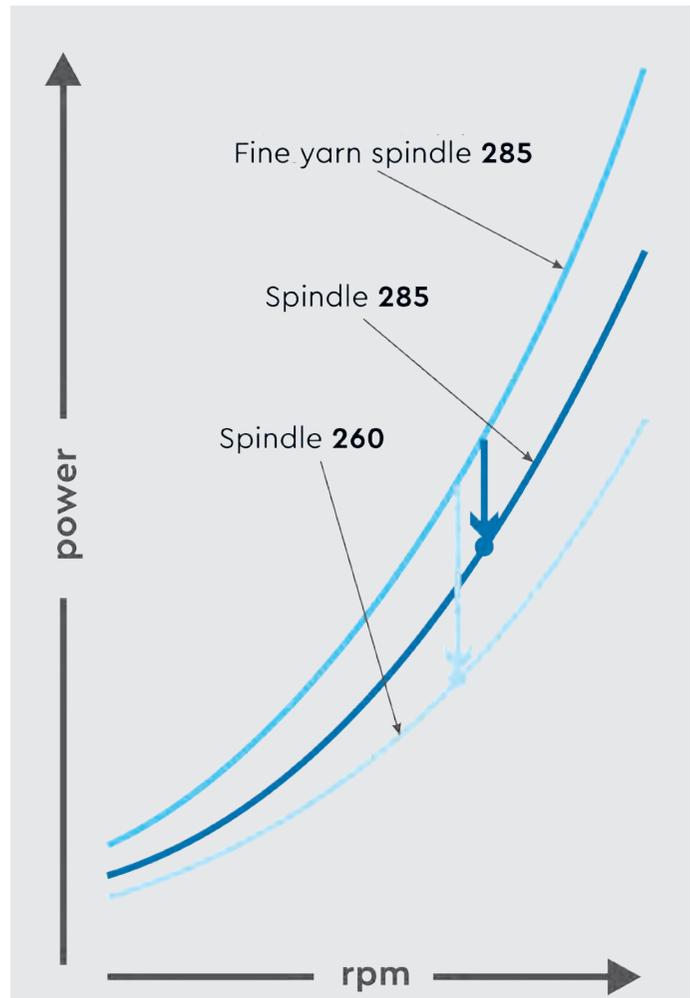
Senses

With Senses, our innovative Mill Management System, you can take the evaluation of your key production figures to a new level.

Integrated into your IT infrastructure, Senses enables production-relevant data to be analysed and checked on any browser-enabled device.

- 1 Yarn path
- 2 Motor spindle drive
- 3 Spindle pot
- 4 Balloon limiter
- 5 Cabling tension hood
- 6 Yarn brake and flyer
- 7 Knee lever for yarn threading
- 8 Yarn balloon guide
- 9 Separator
- 10 Quality sensor
- 11 Cutting and Clamping device
- 12 Deflection roller
- 13 Overfeed roller
- 14 Traversing mechanism
- 15 Package lift-off paddle
- 16 Friction roller
- 17 Cradle
- 18 Yarn guide tube
- 19 Hi-Lo creel with brake





The proven spindle family

Our spindles offer an optimal answer to every market requirement.

The energy-optimised motor spindle offers impressively high speeds up to 10,000 rpm, optimised monitoring and reduced maintenance requirements.

Your advantages:

- Less energy per spindle
- Reduced energy consumption per kilogram
- Higher production per unit area
- Optimum strand quality
- More flexibility

Fine strand spindle 285

The fine strand spindle for processing fine yarns can be used for both up-twisting and cabling.

Spindle 285

The energy-optimised spindle reduces energy consumption by up to 15%. Thanks to the optimised spindle geometry, the largest possible strand count range can be processed.

Spindle 260

With the newly optimised geometry, up to 35% of energy can be saved. All major strand counts can be processed during up-twisting and cabling, and production costs can be significantly reduced.



Hi-Lo creel with reduced working height

Mechanical Hi-Lo creel

The spring-supported Hi-Lo creel makes it easier to present the packages due to its clear and simple operation.

The reduced working height supports the operator during loading.

Your advantages:

- Ergonomic loading position
- Simple high-low operation
- Robust and reliable
- Automatic locking
- Optimised yarn path
- Flexible creel loading with up to 3 packages and a maximum total weight of 16 kg.
- Extra plug-in options for alternative customer requirements
- Various creel yarn brakes
- Simple operation

Pneumatic Hi-Lo creel

In addition to the advantages of the mechanical Hi-Lo creel, the pneumatic Hi-Lo creel slides almost automatically into the operating position.



Creel yarn brakes – alternative solutions

The large selection of creel yarn brakes in combination with various pre-brakes and different deflection guide rollers offers solutions for the most varied strand requirements.

Double multi-tension device (standard)

- Very wide range of adjustable yarn tensile forces
- Calming of the yarn through the gradual application of braking force
- Self-cleaning due to open design

Creel ball yarn brake

- Good simultaneous readability of the inner yarn and outer yarn brake.
- The transfer tail can be adjusted during strobe observation
- The creel does not have to be lowered (increasing machine availability)

Compensation brake

- Uniform yarn take-up
- Reproducible withdrawal forces
- Compensation of tension fluctuations in the strand

Roller brake

- Central, pneumatic adjustability per machine side via control panel
- Reduced conversion times
- Optimum unwinding conditions
- Reproducible withdrawal forces
- Good knot passage capability
- Reduction of setting errors
- Processing of special strands



For the best possible strand quality

The optimum combination of spindle and spindle pot in combination with brakes, unwinding aids and brake hoods represents the decisive component for the production of high-quality yarns.

Hysteresis brake

Calibrated, high-precision hysteresis brakes have been specially developed for processing carpet strands in the direct cabling process. The quick adjustability can be easily reproduced on all hoods due to the clear readability of the brake. The hysteresis brakes guarantee a homogeneous strand quality due to precise and high-quality, wear-resistant yarn guide elements.

Brake hood

The new brake hood can withstand even the heaviest loads thanks to the use of state-of-the-art materials.



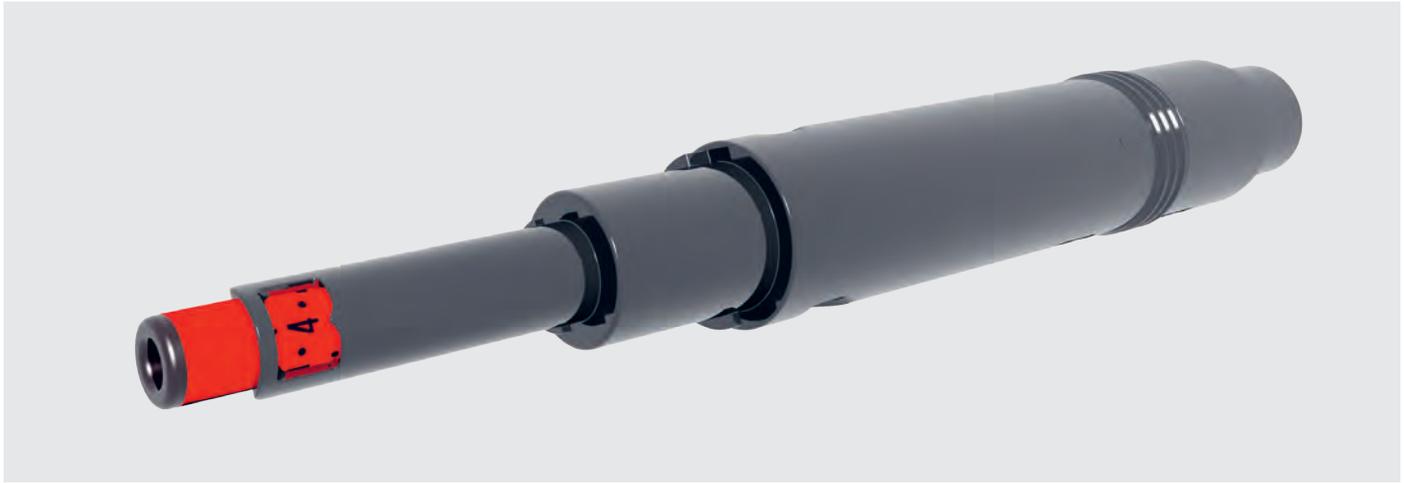
Twisting, cabling or up-twisting?

Universal hollow-shaft spindle

The universal hollow-shaft spindle allows the simple alternating conversion from the two-for-one method to the cabling method.

The high-quality and wear-resistant surface enables a yarn guidance without damaging the strand. The ideal design of the spindle pot allows a maximum number of feed packages.

The reserve disc with its wear-resistant special surface guarantees a balanced tension level in the yarn balloon.



Brakes and unwinding aids

High-speed elements for up-twisting

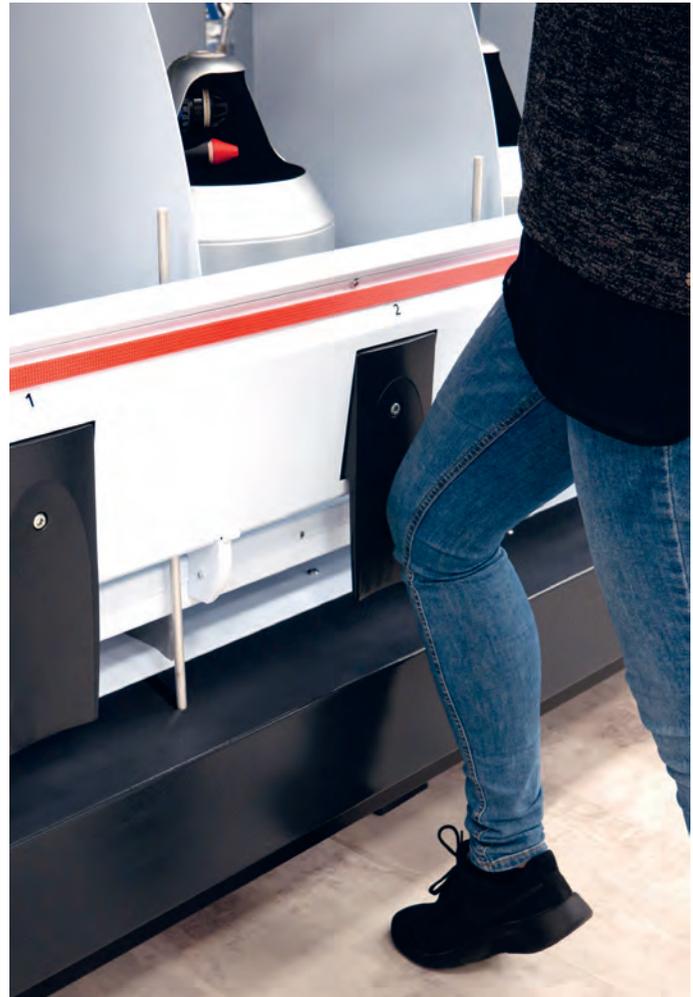
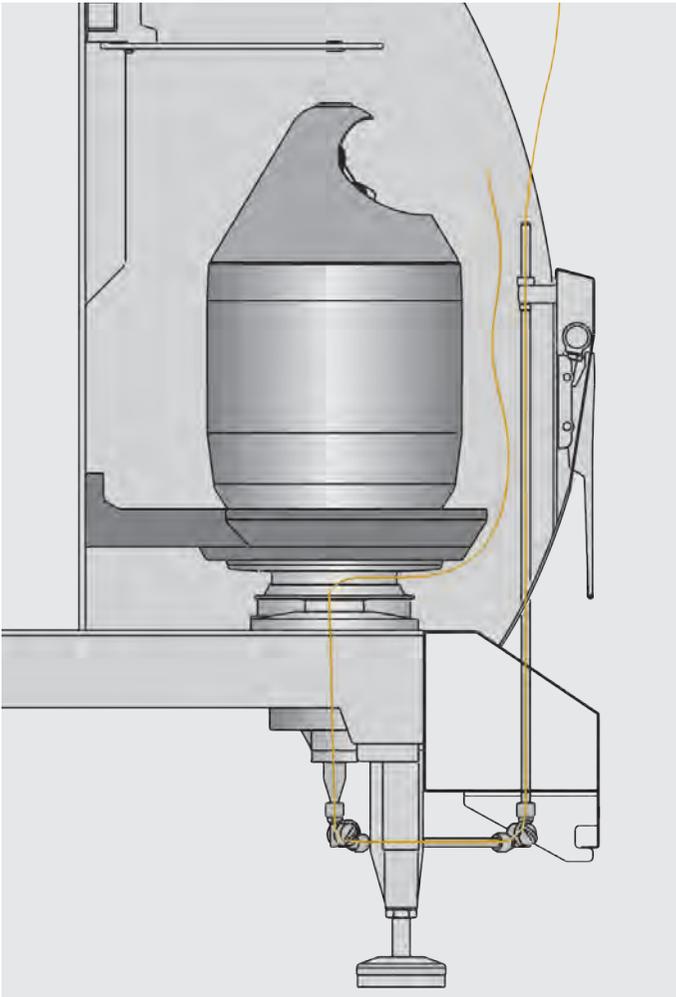
Specially designed unwinding aids allow the processing of up-twisted articles with low amounts of twist and high take-up speeds. When an inner balloon is formed, resulting from very high unwinding speeds, the protective hood ensures that inner balloon and outer balloon are separated.

Brake

Two different pot brakes are available for the two-for-one twisting process:

The proven multi-tension device offers 5 different tension capsules for different requirements.

The ball yarn brake covers the entire yarn tension range with the wear-resistant ceramic ball. A simple turn of the inlet tube quickly adjusts the braking force over 24 levels.



Proven technology

Tried, tested and optimised for decades, the Creel-Jet and Volcojet pneumatic threading systems suck the yarn through the spindle, guide it upwards around the spindle pot and thus avoid the tedious manual threading process.

Knee lever

The knee lever is ergonomically adapted to the operator's needs and starts threading the yarn. The optimised motion sequence improves the working posture and contributes to keeping your employees healthy.

Innovative design for optimum handling.





- **Optimised handling**
- **Intelligent sensor technology**
- **Strand quality detection**
- **Open machine design**
- **Fast threading**
- **Simple setting options**
- **Ergonomic operating panel**
- **Maintenance-friendly design**
- **Visual display of spindle operating status**



Optimised operation

Overfeed roller

The new pre-take-up roller with its innovative design offers the operator a lot of space when inserting the yarn. The optimised accessibility of the clamping/cutting device, sensor and deflection guide rollers offers a clear added value during operation.

Simply pulling out and moving the front yarn guide roller quickly and easily changes the wrap-around angle of the yarn at the overfeed roller.

Centrally adjustable yarn balloon guide

Incorrectly set yarn balloon guides create costs. With the central adjustment, you not only change the height of all yarn balloon guides on the selected machine side to an optimum, even height, you also save a lot of time and avoid incorrect settings thanks to the simple input on the control panel.

Your advantages:

- Centrally adjustable on each machine side
- Faster, easier and more accurate
- No setting errors
- Energy saving through optimised yarn balloon
- Stored balloon yarn guide height is quickly retrievable and reproducible



Optimisation potential for your strand

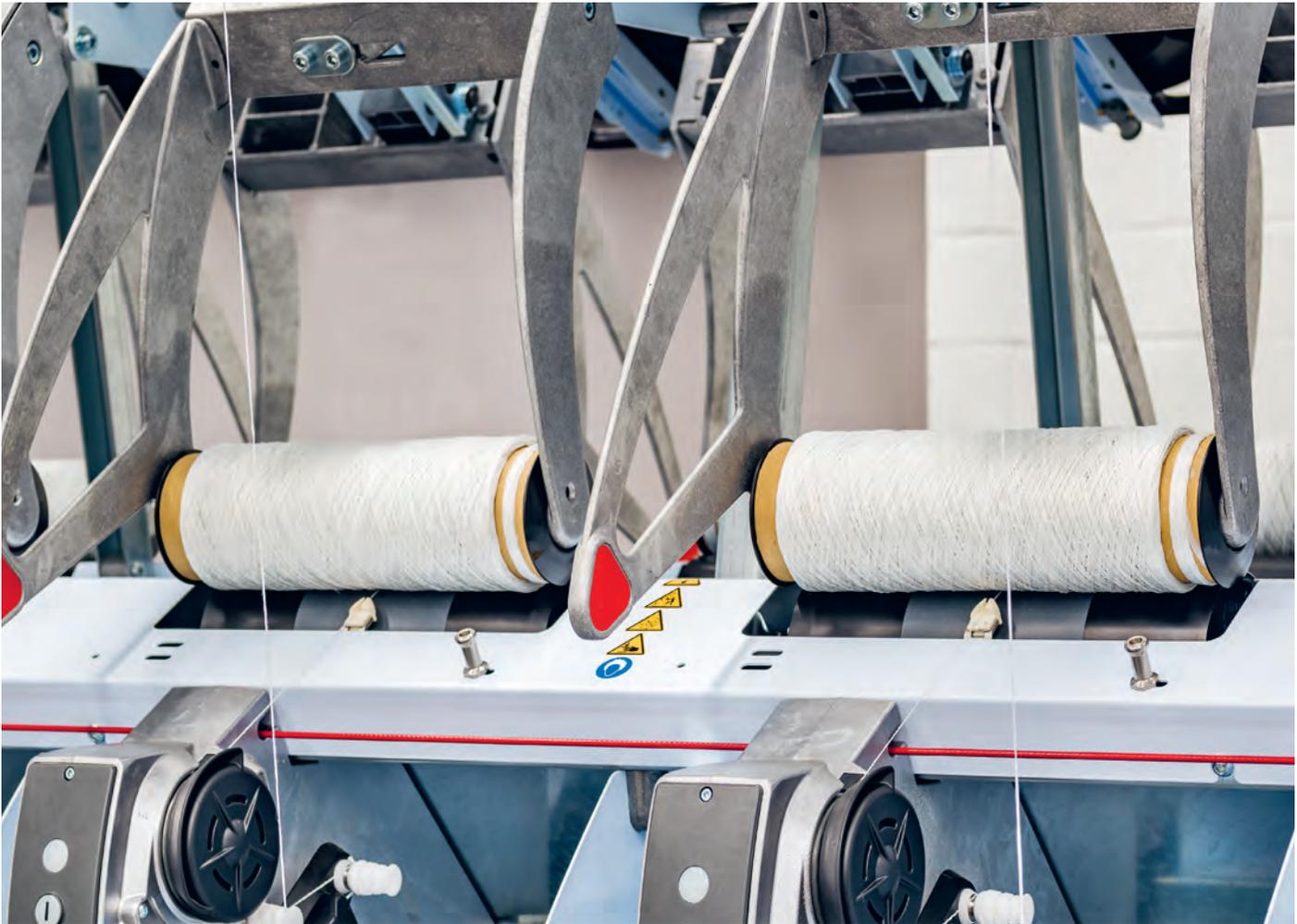
Quality sensor

Our latest generation of quality sensor takes the testing of your yarn to a new level.

By combining intelligent software and innovative evaluation technology, the new quality sensor generates the best possible results for your strand quality.

The quality sensor always provides the right basis to increase significantly the quality standard of your strand.

Recognise your optimisation potential!



Simple handling

Cradle

The proven four-joint cradle with its stable design allows high take-up speeds and packages of max. 400 mm diameter with a uniform winding density.

Centring discs

Easily replaceable and dirt-resistant centring discs mounted on ball pins make simple and fast change-overs possible on various tube or cone types.

Friction roller

The plasma-coated friction roller enables a safe drive of the package.

Package lift-off paddle

The sensor-controlled yarn monitoring automatically stops the spindle when the feed package runs out or when there is a yarn break. With a time delay, the package lifting device lifts the cross-package and avoids rubbing of the package surface.



The path to further processing

Package conveyor belt

The conveyor belt conveys the finished cross-packages to the end of the machine without damaging the strand. The ergonomically optimised belt exit point enables the cross-packages to be removed at the side. This measure allows for a further reduction in operating times in combination with easier operator workloads when handling large volumes of yarn. The package conveyor belt can also be used as an interim storage facility for cross-packages. A light barrier at the end of the conveyor belt allows packages to be removed in cycles.

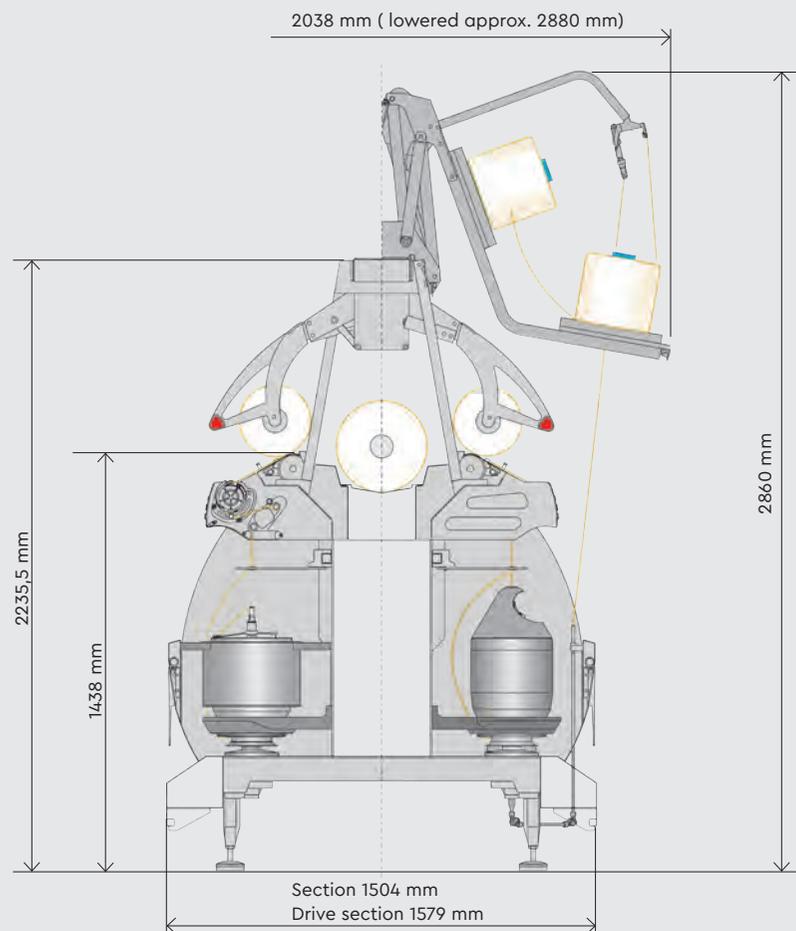
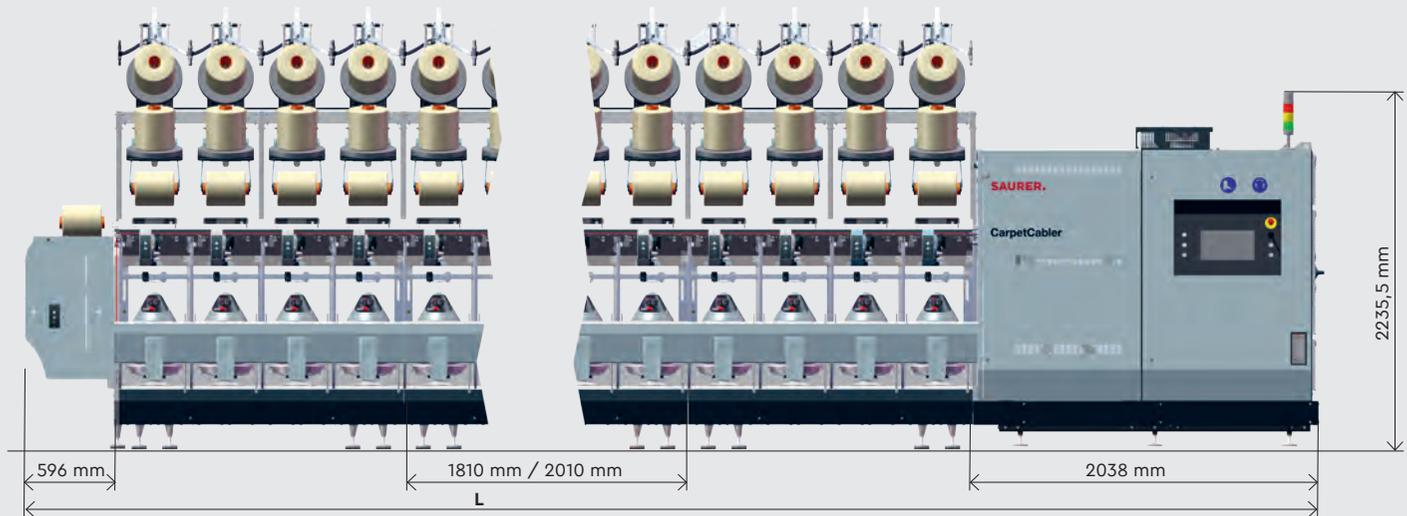
The handling times are significantly shorter and the packages can be supplied for further processing faster. Either manually, or with our new automation system.

Automation

With our innovative FlexFlow system, we offer individual solutions for your package transport, tailored to your needs:

- Simple
- Fast
- Optimised use of personnel

Machine dimensions



General note:

Research and development do not stand still. This can mean that one or another statement about our products is superseded by technical progress. The illustrations have been selected according to informative aspects. They can also contain optional additional equipment that is not included in the standard scope of delivery. Our technical details in the offer and order confirmation are decisive for the binding machine design.

Technical and textile data

Machine lengths spindle gauge 400, VTS-05 /-05-C

Number of spindles	10	20	30	40	50	60	70	80	90	100	110
Machine length mm	4,805	6,815	8,825	10,835	12,845	14,855	16,865	18,875	20,885	22,895	24,905
Number of spindles	120	130	140	150	160	170	180	190	200		
Machine length mm	26,915	28,925	30,935	32,945	34,955	36,965	38,975	40,985	42,995		

Spindle gauge 450, VTS-05-0-F /-05-0-C-F

Number of spindles	8	16	24	32	40	48	56	64	72	80	88
Machine length mm	4,605	6,415	8,225	10,035	11,845	13,655	15,465	17,275	19,085	20,895	22,705
Number of spindles	96	104	112	120	128	136	144	152	160	168	176
Machine length mm	24,515	26,325	28,135	29,945	31,755	33,565	35,375	37,185	38,995	40,805	42,615

Spindle gauge 500, VTS-05-0 /-05-0-C

Number of spindles	8	16	24	32	40	48	56	64	72	80	88
Machine length mm	4,805	6,815	8,825	10,835	12,845	14,855	16,865	18,875	20,885	22,895	24,905
Number of spindles	96	104	112	120	128	136	144	152	160	168	176
Machine length mm	26,915	28,925	30,935	32,945	34,955	36,965	38,975	40,985	42,995	45,005	47,015

Machine lengths without cooling unit dimensions

Machines with air cooling + 260 mm

Machines with air-water cooling+ 145 mm

Machines with additional package creel + 395 mm

Twist range:	Cable Twisting	21 to 355 t/m 41 to 710 t/m
Yarn count range: (depending on spindle type)	Cable Twisting	500 to 5,000 dtex Nm 2/2 to 28/2
Spindle speed:		up to 10,000 rpm
Take-up speed:		Max. 150 m/min

The overview shows an overall working range, depending on the machine specification there may be restrictions.

Packages	Creel package	Pot feed package spindle 285	Pot feed package spindle 260	Cylindrical take-up package	Tapered take-up package
Winding stroke:	254 mm	254 mm	254 mm	254 mm	254 mm
Max. package diameter:	285 mm	285 mm	255 mm	400 mm	400 mm
Max. tube length:	290 mm	290 mm	290 mm	290 mm	290 mm
Min. inner tube diameter:	73 mm	73 mm	73 mm	73 mm	33 mm
Net strand weight:	approx. 5.5 kg	approx. 5.5 kg	approx. 4.8 kg		

Optional additional devices:

The optional additional devices not included in the standard scope of delivery of the machine are:

Volcojet, Creeljet, conveyor belt, central adjustment of yarn balloon guide, add-on balloon limiter, various brakes, adapters and unwinding aids, lubrication system, senses,

Saurer Technologies GmbH & Co. KG
Twisting Solutions
Weeserweg 60
47804 Krefeld
Germany
T +49 2151 717 01
sales.twisting@saurer.com

Saurer Technologies GmbH & Co. KG
Twisting Solutions
Leonhardstrasse 19
87437 Kempten
Germany
T +49 831 688 0
sales.twisting@saurer.com

Saurer Hong Kong
Machinery Co. Ltd.
Room 2803-5, 28/f, The Center
99 Queen's Road Central
Central
Hong Kong
T +852 2866 0308
jackson.ye@saurer.com

Saurer (Jiangsu)
Textile Machinery Co., Ltd.
Shanghai Branch Company
36F, Tower B, The HQ, 100 Zunyi Road
200051 Shanghai
China
T +86 21 2226 2578
TWI.SH.CN@saurer.com

Saurer (Jiangsu)
Textile Machinery Co., Ltd.
No.9, Chang Yang Street
Suzhou Industrial Park, 215024
Jiangsu Province
China
T +86 512 8188 5688
info.TWI.CN@saurer.com

Saurer Inc.
8801 South Boulevard
Charlotte, NC 28273
USA
T +1 704 916 42 72
Twisting.USA@saurer.com

saurer.com