

SAURER.



Unmatched.

CompactTwister





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!

Contents

4
Features and benefits

6
Drive and control

8
Cross section

10
Spindle area

13
Take-up area

18
Technical and textile data

Features and benefits

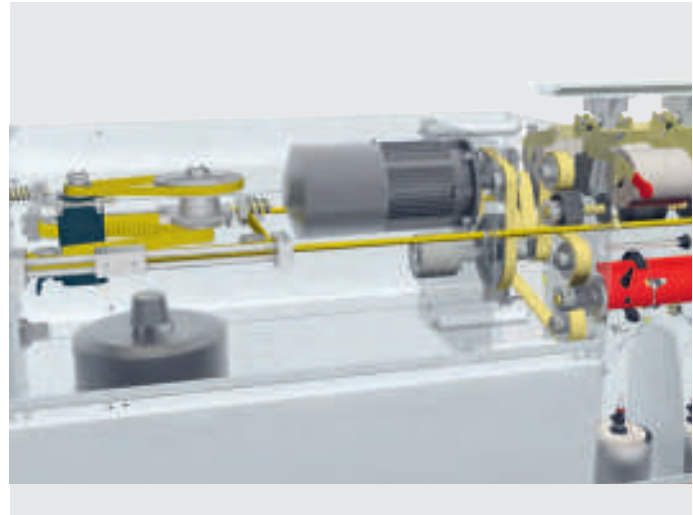
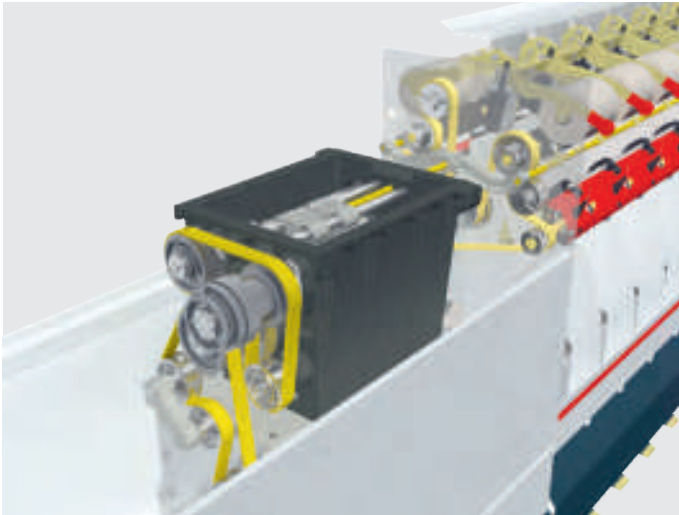
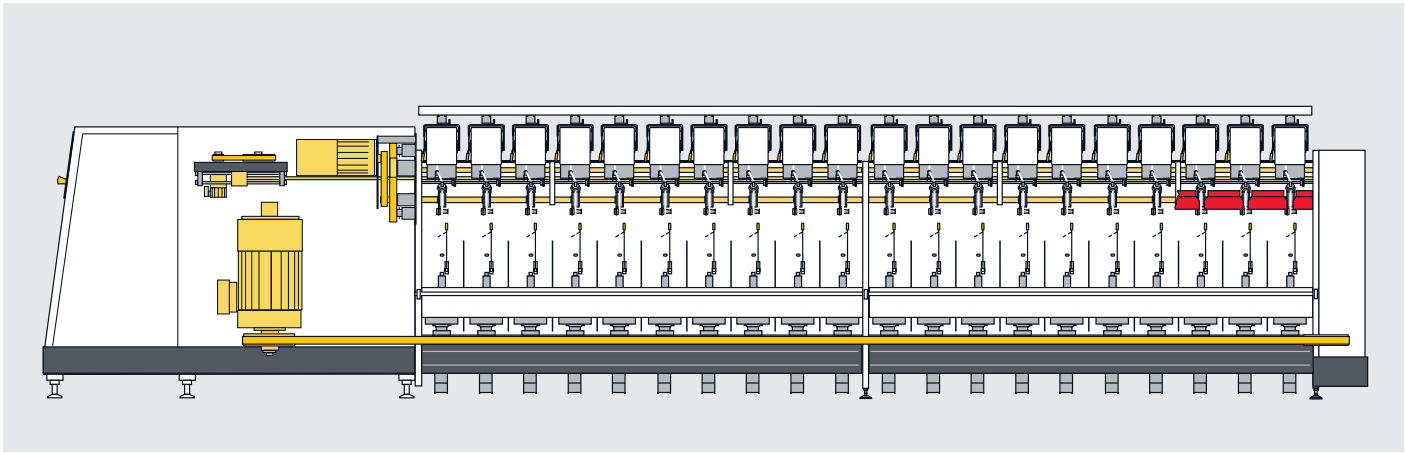
- The highest twist quality due to high quality yarn guide elements**
- Optimised energy requirement due to application-specific spindle sizes**
- Minimised friction losses due to optimised drive and storage technology**
- Short set-up times due to central machine adjustments**
- Low space usage due to optimized spindle spacing**
- Low investment costs and a high degree of globally trusted reliability**
- High degree of security, with CE certification**
- Minimum maintenance effort**



CompactTwister

The CompactTwister has been established in the market for over 25 years. The latest generation, the series 8, once again sets new standards for the quality of twisted yarn, flexibility, energy consumption, robustness, lower space requirement and ease of maintenance.

Nearly 5 million supplied spindles demonstrate its leading position on the market. Thanks to innovative development and the latest production methods, the CompactTwister offers high efficiency combined with excellent quality of the cross-wound delivery packages produced.



Drive concept

The CompactTwister offers two optimised drive concepts for the different needs of the market.

Mechanical drive section

- 6" traverse guide cam drive
- Proven technology
- Traverse variation
- Simple operation
- Electronically controlled anti-patterning device

Electronic drive section with servo gearbox

- Continuously adjustable spindle speed and amount of twist
- Flanged-bobbin form, traverse and traverse variation individually programmable
- Electronically controlled anti-patterning device
- Highest take-up speeds
- Oil-free, low-maintenance construction

Your advantages:

- Up to 30% higher productivity due to delivery speeds of up to 120 m/min
- Operating costs reduced thanks to low energy, space and maintenance costs
- Drive of up to 400 spindles via a common tangential belt
- Reduced friction over the entire force progression
- Highest twist constancy in the twisted yarn when starting and stopping the machine
- Possibility of using a second, energy-optimised drive motor on long machines
- Frequency inverters enable fast, customer-specific settings of
 - Spindle speed
 - Amount of twist
 - Package building
- Yarn contamination is avoided by consistently isolating the textile contact area from the spindle drive area.



Control

The central operating and control unit, PowerPanel, registers, controls and monitors the entire production process. It manages machine and batch parameters as well as your production data.

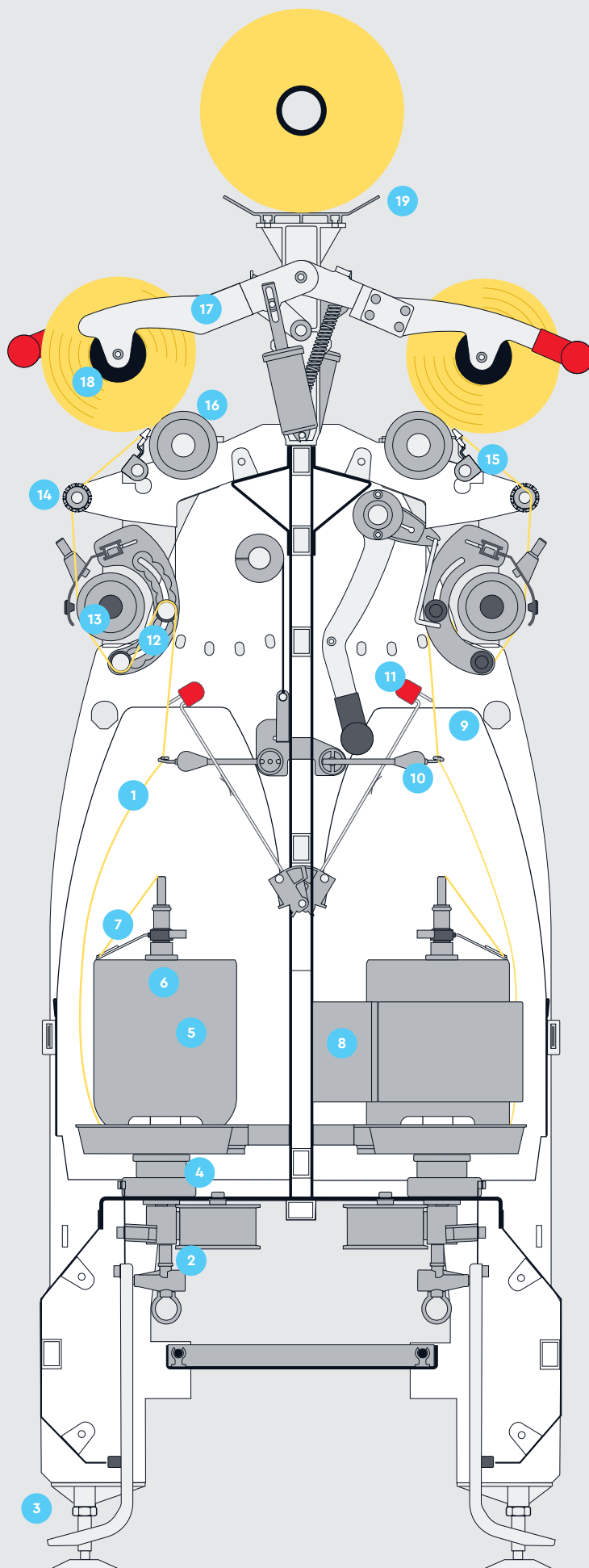
Your advantages:

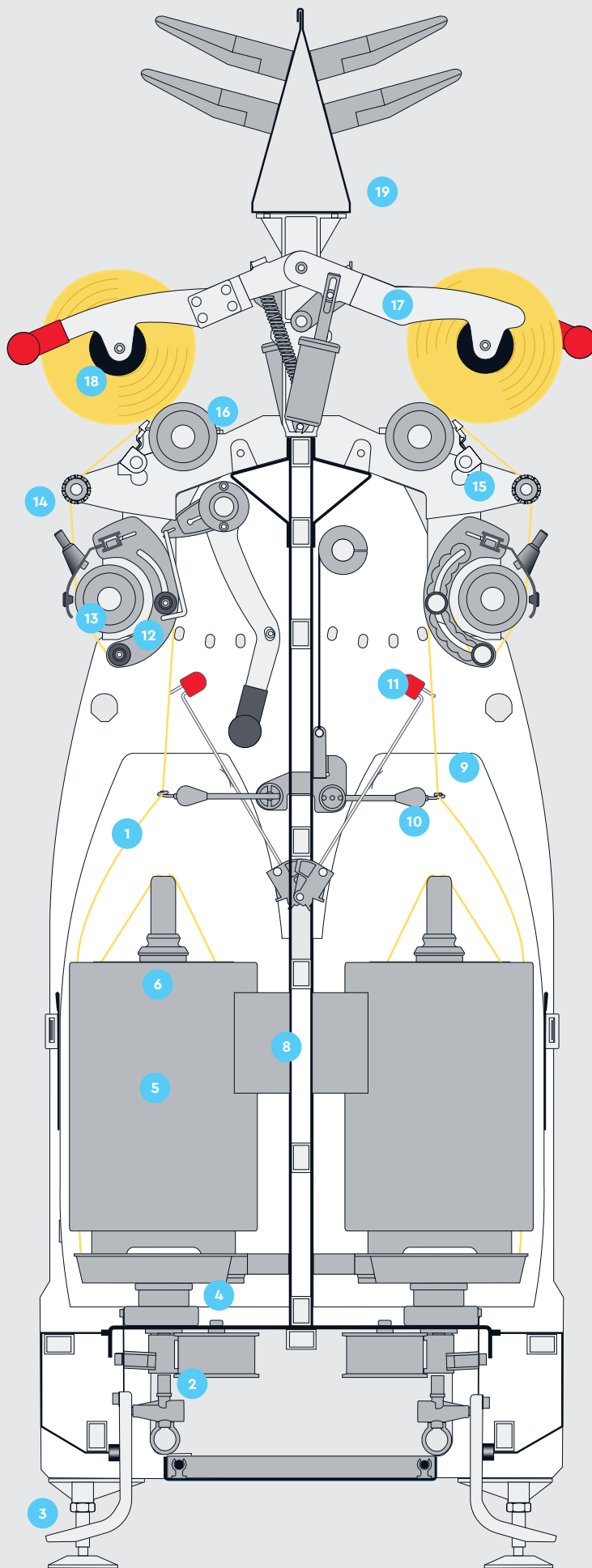
In up to 50 internal batch data sets

- Spindle speed including programmable approach ramp
- Amount of twist and twist direction
- Crossing angle
- Stop according to length and time
- Transfer tail length and yarn position
- Yarn material
- Parameters for flanged-bobbin form and package density

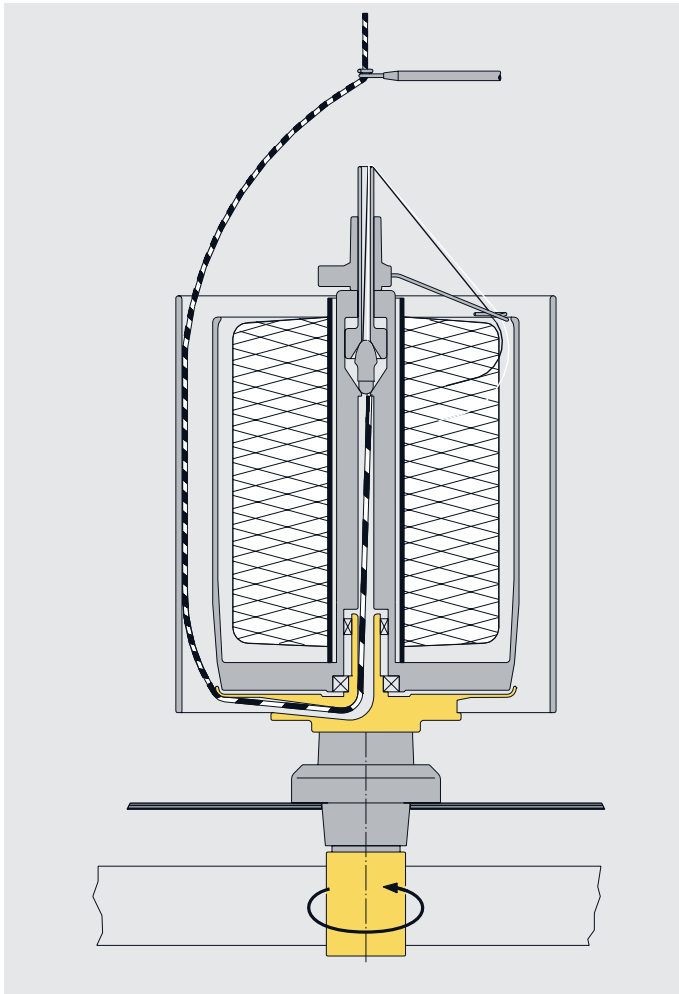
are stored and retrieved.

The possibility of storing data records on external data carriers generates a comprehensive batch database and enables fast data transfer to other machines.





- | | |
|----|---|
| 1 | Yarn path |
| 2 | Spindle drive belt and belt guide roller |
| 3 | Foot pedal for spindle brake and Volcojet |
| 4 | Spindle rotor |
| 5 | Spindle pot |
| 6 | Yarn brake |
| 7 | Unwinding aids |
| 8 | Balloon limiter |
| 9 | Separator |
| 10 | Yarn balloon guide |
| 11 | Yarn stop device |
| 12 | Deflection roller |
| 13 | Overfeed roller |
| 14 | Transfer tail |
| 15 | Traversing mechanism |
| 16 | Friction roller |
| 17 | Cradle |
| 18 | Centring discs |
| 19 | Package and tube creel / conveyor belt |



Two-for-one twisting process

Two-for-one twisting process combines two or more single yarns by twisting them into one twisted yarn. Two twists are inserted into the yarn with a single spindle rotation.

The yarn receives the first twist between the yarn brake and the exit on the spindle rotor. The second twist is received in the yarn balloon between the spindle rotor and the yarn balloon guide.

The Two-for-One spindle is the heart of the machine. Here not only the yarn count range that can be processed is decisive, but also the quality of the twisted yarn produced and the energy requirement.

The broad-based spindle family of the new CompactTwister covers the entire yarn count range from Nm 5/2 to Nm 200/2 and includes the spindle type series VTS-07 / -08 / -09 / -10.

Your advantages:

- High energy savings due to the latest spindle technology
- High cost-effectiveness due to optimum drive equipment and matching spindle combinations
- Lower noise emissions by optimised balloon geometry thanks to a new spindle design
- Self-cleaning yarn channel in the spindle rotor
- Reserve disc with special, wear-resistant surface finish
- Low-vibration running due to high production precision



Spindle pots for various applications

Energy-efficient spindle pots

In order to be able to react to the most varied requirements on the market, the CompactTwister offers a large number of optimised spindle pots.

Your advantages:

- Yarn protection during guidance via high-grade, wear-resistant surface finish
- Large feed packages thanks to optimised spindle pot design
- Minimal vibrations thanks to damped spindle pot mounting
- Automatic pot bottom cleaning by specially directed airflow

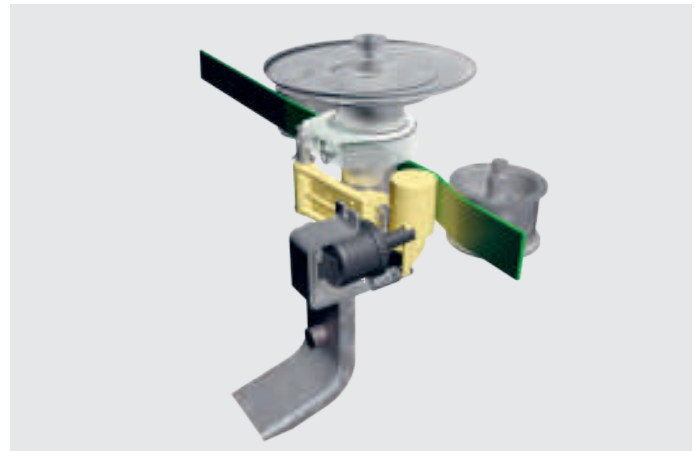
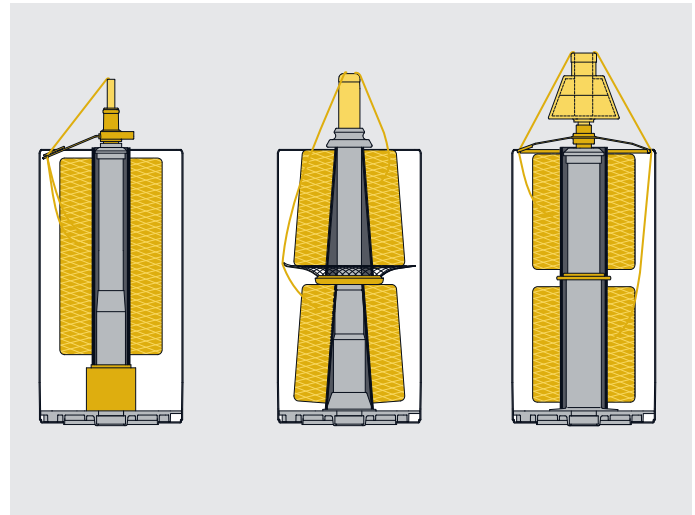
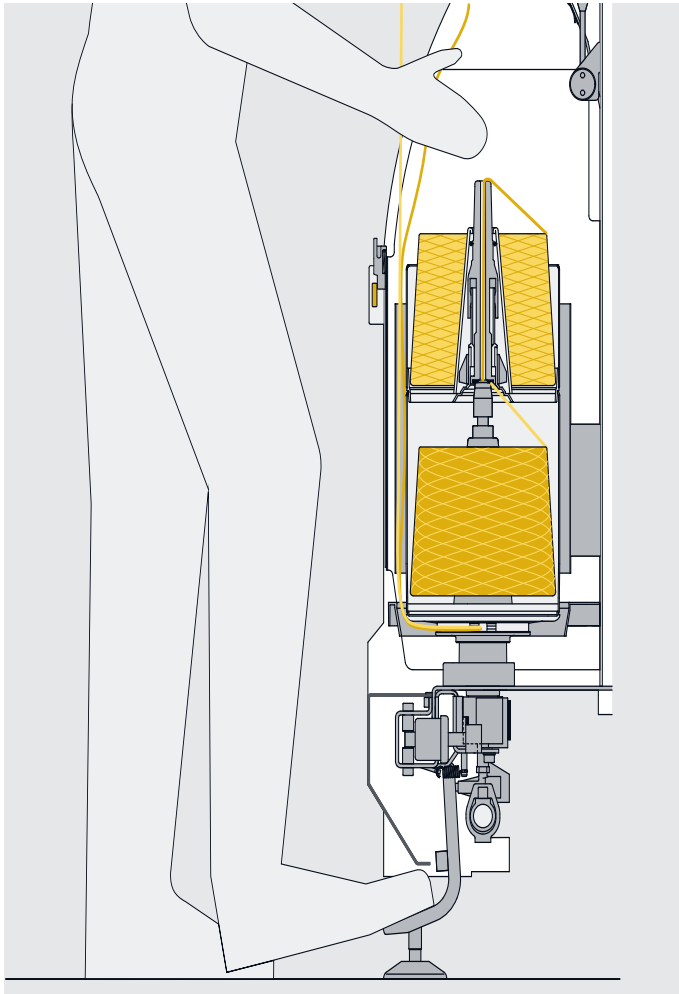
Balloon limiter

Different yarns require different solutions. When processing friction-resistant fibres, using the balloon limiter reduces energy consumption while simultaneously increasing productivity. A smaller yarn balloon also means a smaller space requirement. If necessary, by selecting a smaller spindle spacing, more spindles will fit in the same space overall.

Using the add-on balloon limiter is the alternative solution when processing natural fibres or using the lubrication system Constant-Lubritwist.

Your advantages:

- Simple handling
- Reduction of energy consumption
- Increase in production



2 × 6" direct feeds

Direct feeds with TwinPack

This proven device for processing 2×6" direct feeds with 2 spindle pots provides a number of advantages in addition to eliminating the assembly-wound process:

- Separate inlet of feed yarns with the same angle of inlet
- Even unwinding tension
- No yarn remnants on the stationary feed packages
- Process reliability through automatic spindle stop
- Easy handling, especially during the threading operation
- A short balloon limiter protects against yarn contamination
- Use for tube or cone types 3°30', 4°20' and 5°57' including bullnose
- Alternative use of the lower pot for 8" assembly-wound feed packages

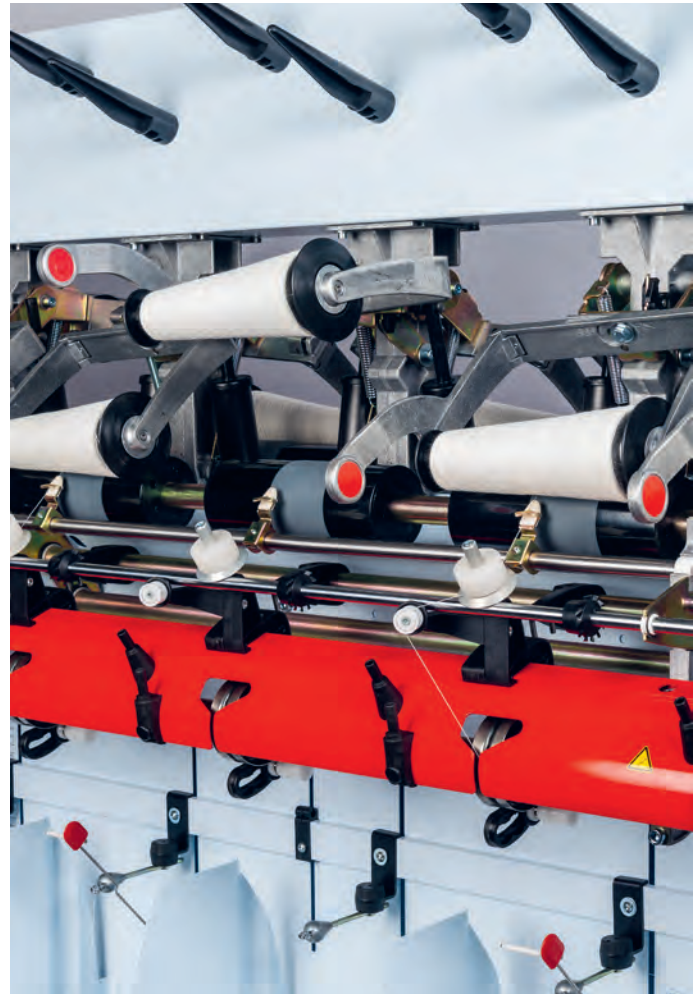
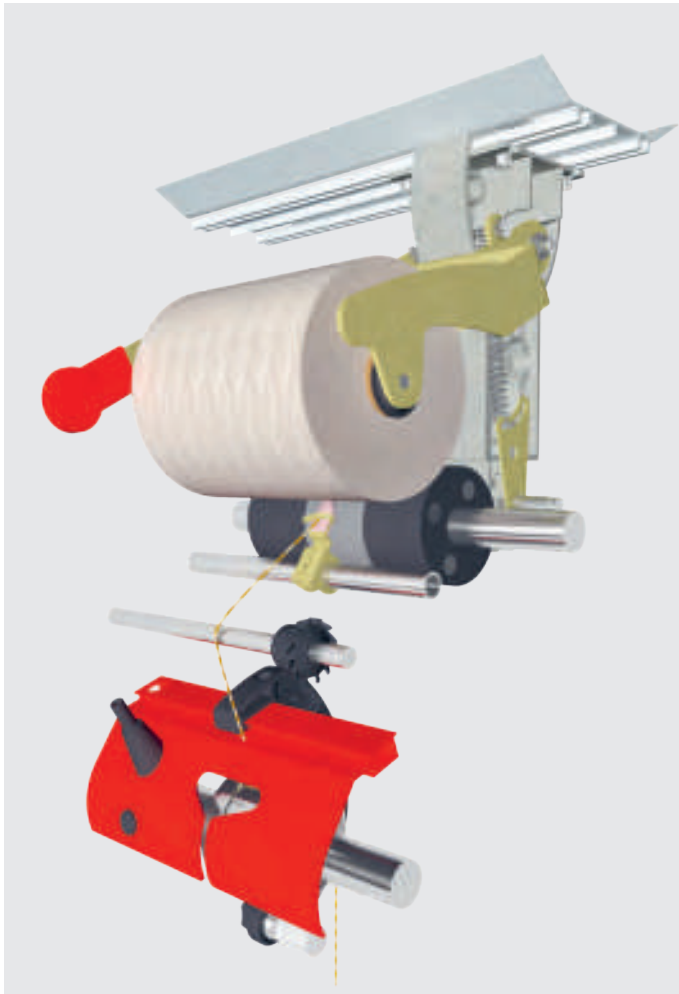
Direct feed 2×6"

The one-piece pot for use of the 2×6" direct feed not only eliminates the assembly-wound process but also has the following advantages:

- Optional use of the Constant Lubritwist system for yarn lubrication
- Use of both cylindrical and cone tube types
- Flexible use of assembly-wound packages with up to 10" winding traverse

Automatic spindle stop device

Monitoring of the yarn balloon tension automatically triggers the spindle stop device in the event of a yarn break or once the feed package has been unwound, stops the spindle and thus prevents further yarn take-up.



Take-up area

Optimised take-up geometry

The take-up geometry enables a more uniform twisted yarn quality and more homogeneous package building. The extended take-up triangle makes the package more even and optimises the quality of the twisted yarn.

Proven and successful

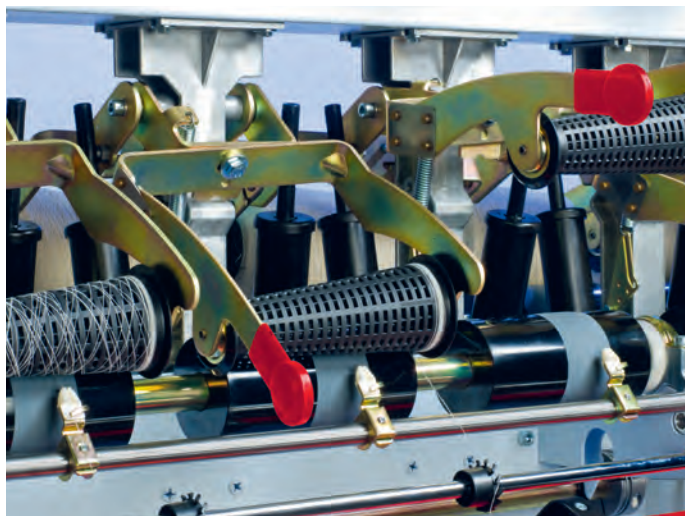
The CompactTwister makes no compromises when it comes to the quality of elements that come into contact with yarn. Proven elements like overfeed discs, the rotating transfer tail rod, the traversing guide and the friction roller have been taken over in the optimised geometry. The overfeed shaft cover has the storage facilities for the unwinding aids of the feed that have been successfully used for years.

Cradle

The adjustable cradle designed for tapered and cylindrical tubes offers space for cross-wound delivery packages up to a diameter of 300 mm. The optimised clip connection of the centring discs and the protection against lap formation make for easier handling.

Die-cast cradle

The die-cast cradle is a proven alternative for higher take-up speeds.



Quick and easy handling

Automatic transfer tail

The transfer tail enables simple further processing of the package in the subsequent process by precise storage of the beginning of the yarn. With block doffing, the traversing guide moves to the preset position on machines with servo gearbox and winds the defined length onto the tube.

Automatic yarn stop feeler lock

In the event of machine stoppage or power failure, the yarn stop feelers are automatically locked in their working position. This prevents the yarn stop feelers from moving down when the machine is at a standstill.

The time-delayed unlocking of the yarn stop feelers when the machine restarts prevents yarn breaks and thus ensures the quality of the twisted yarn.

Package and tube creels

Different requirements require adapted solutions. Our storage devices for packages and empty tubes enable easy handling and reduce the distances that have to be covered.

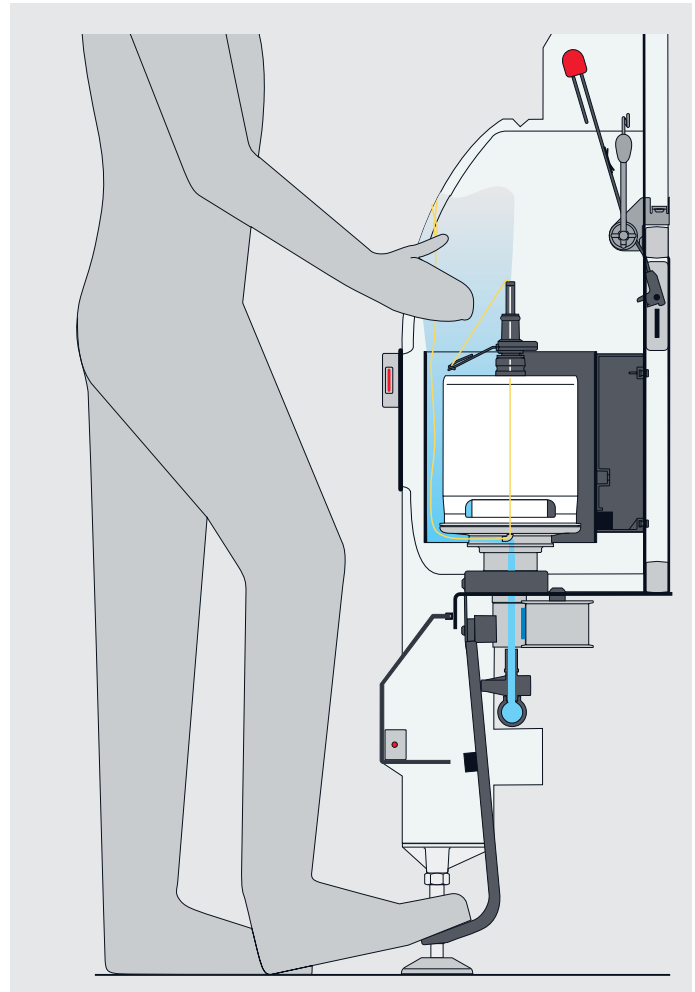
Package conveyor belt

The package conveyor belt conveys the finished packages to the end of the machine without damaging the yarn. The handling times are significantly shorter and the packages can be supplied for further processing. Either manually, or with our new automation system.

Automation

Ask us for solutions for your package transport:

- Simple
- Fast
- Optimised use of personnel



Reduction of the conversion times

Central adjustments – easy handling

The central adjustments of the yarn balloon guide and yarn guide rollers enable fast and even positioning along the entire machine side. The simple handling saves time, especially with frequent batch changes, and thus generates measurable added value.

By optimising the yarn balloon, up to 10% energy can be saved with the central adjustment of the yarn balloon guide, depending on the material and yarn count.

Ball yarn brake

The new, self-cleaning ball yarn brake offers convincingly easy handling. A single ceramic ball, adjustable by simply turning of the yarn inlet tube, covers a large braking range and replaces the time-consuming replacement of tension capsules.

Volcojet

The Volcojet pneumatic threading system sucks the yarn through the spindle and guides it upwards around the spindle pot so that the operator can quickly and easily pick up the yarn. Volcojet thus avoids the tedious manual threading process.

Your advantages:

- Up to 10% less time needed to operate the machines thanks to central settings and numerous handling aids
- Yarns can be quickly and easily threaded via the Volcojet system



Twisted yarn and package quality

Package lift-off feature

Following a time delay, the pneumatic package lift-off device takes the completed package off the drive drum, avoiding any unnecessary rubbing of the package surface.

Cradle load relief system

In conjunction with large wrap-around angles on the overfeed unit, a pneumatic cradle load relief system with central adjustment is used to produce soft-edge packages suitable for dyeing.

Waxing

Targeted application of paraffin wax significantly reduces yarn friction in further processing. The optimised yarn guidance guarantees an even application of the paraffin wax with a constant yarn tension. The clear design offers easy handling and is matched to a variety of different paraffin waxes.

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 yarn quality.

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

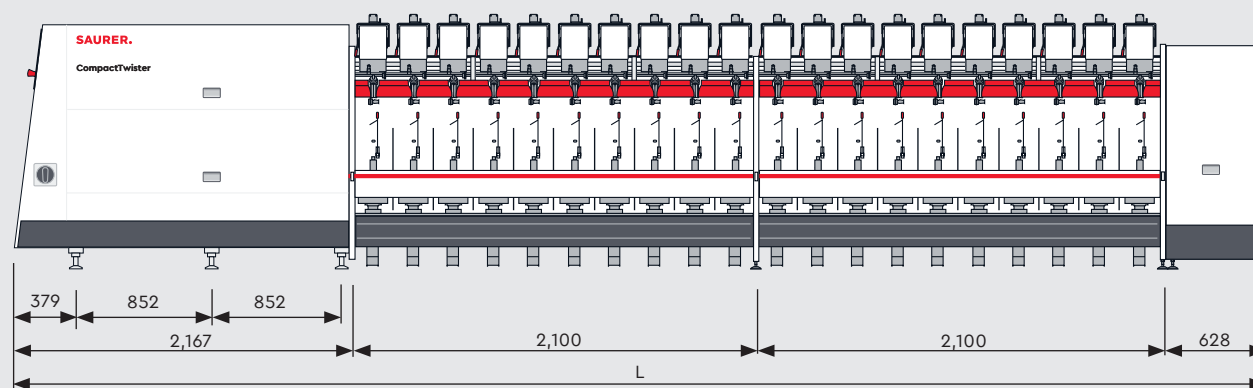
Recognise your optimisation potential!

**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.

Technical and textile data

Machines with a mechanical control unit



Spindle type *	VTS-07	VTS-08	VTS-09	VTS-10
Twist range:	77 – 1,925 T/m 1.95 – 48.83 T/inch	110 – 2,763 T/m 2.79 – 70.09 T/inch	110 – 2,763 T/m 2.79 – 70.09 T/inch	110 – 2,763 T/m 2.79 – 70.09 T/inch
Spindle speed:	up to 11,000 rpm	up to 12,500 rpm	up to 13,500 rpm	up to 14,000 rpm
effective:	up to 22,000 rpm	up to 25,000 rpm	up to 27,000 rpm	up to 28,000 rpm
Count range (max.):				
Partial ranges depending on spindle configuration with balloon limiter:	Nm 5/2 – 100/2	Nm 10/2 – 140/2	Nm 20/2 – 200/2	Nm 17/2 – 200/2
without balloon limiter:	Nm 16/2 – 100/2	Nm 12/2 – 140/2	Nm 16/2 – 200/2	Nm 27/2 – 200/2
Cylindrical feed package	Dia. up to 180 mm	dia. up to 135 mm	dia. up to 135 mm	Dia. up to 125 mm
Tapered feed package	Dia. up to 185 mm	Dia. up to 140 mm	Dia. up to 140 mm	
Tapered cross-wound delivery package	up to 5°57 Ø up to 300 mm	up to 5°57 Ø up to 300 mm	up to 5°57 Ø up to 300 mm	up to 5°57 Ø up to 300 mm

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

Machine dimensions

Machine width	620 mm
Machine height	Drive unit 1,540 mm / machine section 1,601 mm / end unit 1,400 mm
Spindle spacing / (spi./section)	207 mm (20) / 230 mm (18) / 259 mm (16) / 296 mm (14)
Spindle type series VTS	-07 / -08 / -09 / -10

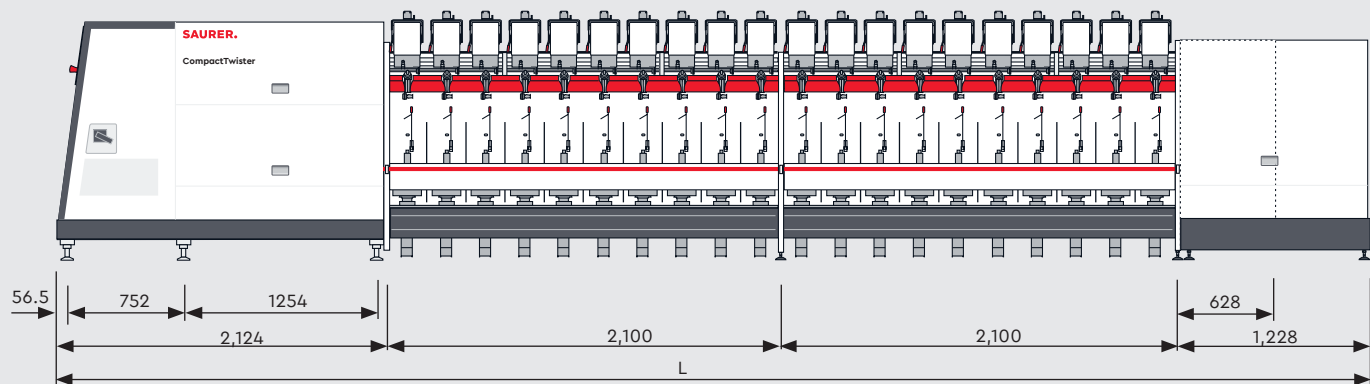
Number of sections	1	2	3	4	5	6	7	8	9	10	11	12
Spindles (296 mm)	14	28	42	56	70	84	98	112	126	140	154	168
Spindles (259 mm)	16	32	48	64	80	96	112	128	144	160	176	192
Spindles (230 mm)	18	36	54	72	90	108	126	144	162	180	198	216
Spindles (207 mm)	20	40	60	80	100	120	140	160	180	200	220	240
Total length L (mm)	4,895	6,995	9,095	11,195	13,295	15,395	17,495	19,595	21,695	23,795	25,895	27,995

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

Machines with Electronic Control Unit



Spindle type *	VTS-07	VTS-08	VTS-09	VTS-10
Twist range:	40 – 2,800 T/m 2.21 – 59.69 T/inch	100 – 2350 T/m 2.54 – 59.69 T/inch	100 – 2350 T/m 2.54 – 59.69 T/inch	100 – 2350 T/m 2.54 – 59.69 T/inch
Spindle speed: effective:	up to 11,500 rpm up to 23,000 rpm	up to 14,000 rpm up to 28,000 rpm	up to 14,000 rpm up to 28,000 rpm	up to 14,000 rpm up to 28,000 rpm
Count range (max.): Partial ranges depending on spindle configuration with balloon limiter: without balloon limiter:	Nm 5/2 – 100/2 Nm 16/2 – 100/2	Nm 10/2 – 140/2 Nm 12/2 – 140/2	Nm 20/2 – 200/2 Nm 16/2 – 200/2	Nm 17/2 – 200/2 Nm 27/2 – 200/2
Cylindrical feed package	Dia. up to 180 mm	Dia. up to 155 mm	dia. up to 135 mm	Dia. up to 125 mm
Tapered feed package	Dia. up to 185 mm	Dia. up to 160 mm	Dia. up to 140 mm	
Tapered cross-wound delivery package	up to 5°57 Ø up to 300 mm	up to 5°57 Ø up to 300 mm	up to 5°57 Ø up to 300 mm	up to 5°57 Ø up to 300 mm

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

Machine dimensions

Machine width	620 mm
Machine height	Drive unit 1,540 mm / machine section 1,601 mm / end unit 1,400 mm
Spindle spacing / (spi./section)	207 mm (20) / 230 mm (18) / 259 mm (16) / 296 mm (14)
Spindle type series VTS	-07 / -08 / -09 / -10

Number of sections	6	7	8	9	10	11	12	13*	14*	15*	16*	17*	18*	19*	20*
Spindles (296 mm)	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280
Spindles (259 mm)	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320
Spindles (230 mm)	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360
Spindles (207 mm)	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
Total length* L (mm)	15,352	17,452	19,552	21,652	23,752	25,852	27,952	30,652	32,752	34,852	36,952	39,052	41,152	43,252	45,352

* Overall length specifications for 2 drive motors / depending on the power required, the machine will be equipped with 1 or 2 drive motors

Optional additional devices:

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

Volcojet, conveyor belt, die-cast cradle, pneum. cradle load relief system, pneum. package lift-off, automatic spindle stop, central adjustment of balloon yarn guide and deflection roller, ball yarn brake, add-on balloon limiter, various adapters and unwinding aids, lubrication system, package creel, quality sensor, Senses.

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