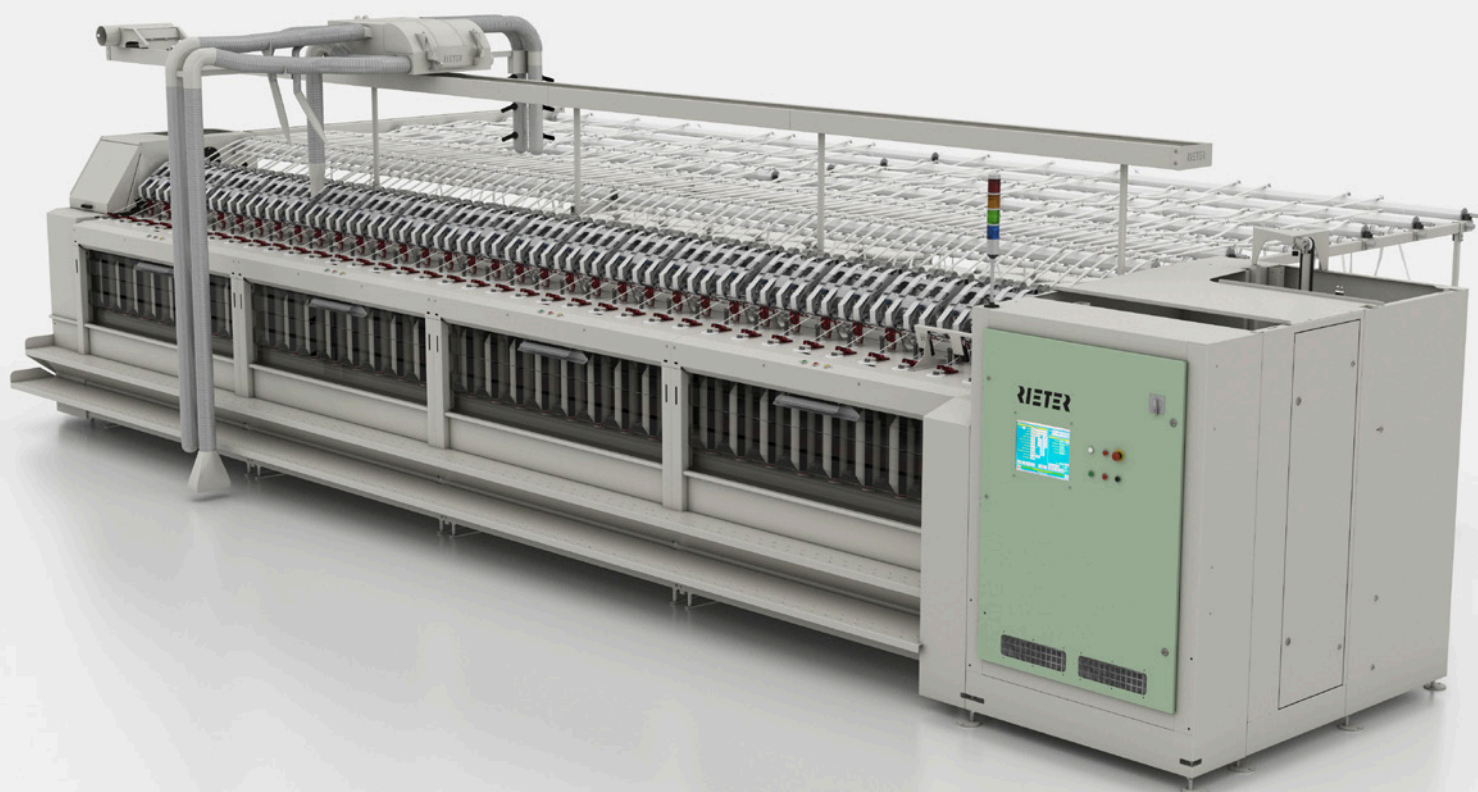


Spinning Preparation
Roving Frame F 20/F 40

RIETER

F 20/F 40

Fully Automated Roving Frame F 40
Semi-Automated Roving Frame F 20



High efficiency with
low production costs

OUTSTANDING ADVANTAGES

Efficient Doffing, also with the F 20

Doffing aid enables a fast removal of the full bobbins

Lower Production Costs

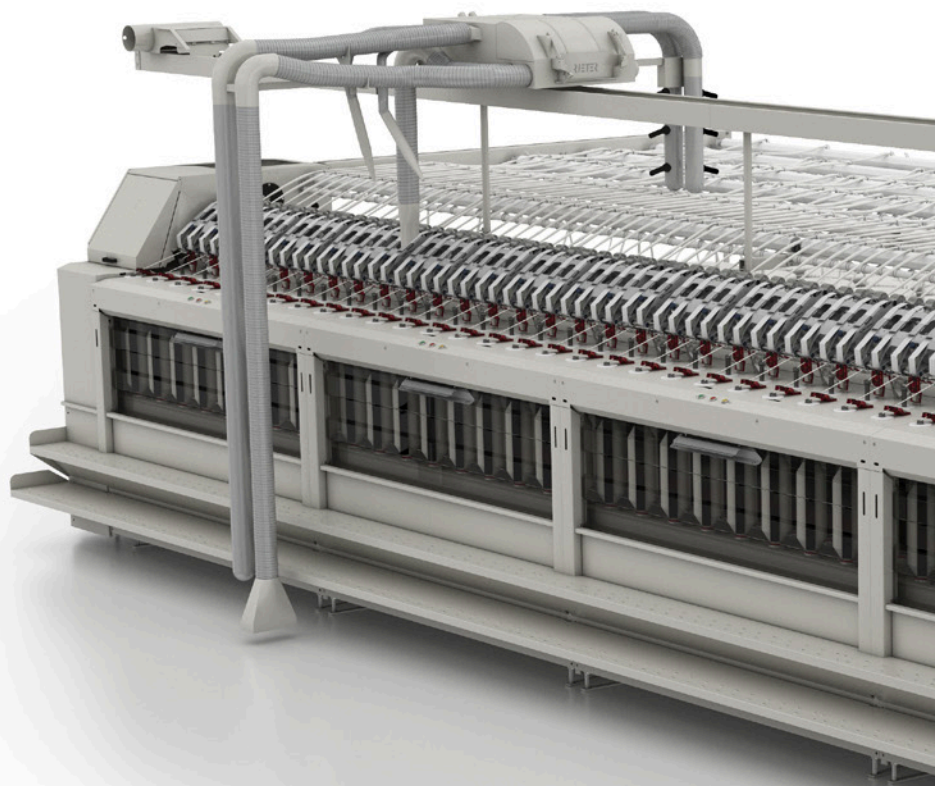
With up to 252 positions, the roving frame is ideally suited to long ring spinning machines

High Roving Quality Thanks to Precise Bobbin Build-Up

Equal upward and downward movements thanks to the centered bobbin rail drive

Ready for Production in No Time

Precisely preassembled sections for rapid commissioning of the machine



F 20/F 40

Maximum Productivity with the Fastest Doffer on the Market

Doffing with the F 40 takes just 90 seconds thanks to the unique doffing system

Uniform Bobbin Build-Up

A special spindle ensures that the roving bobbin runs smoothly

High Degree of Flexibility

Roving count can be set on the touchscreen *

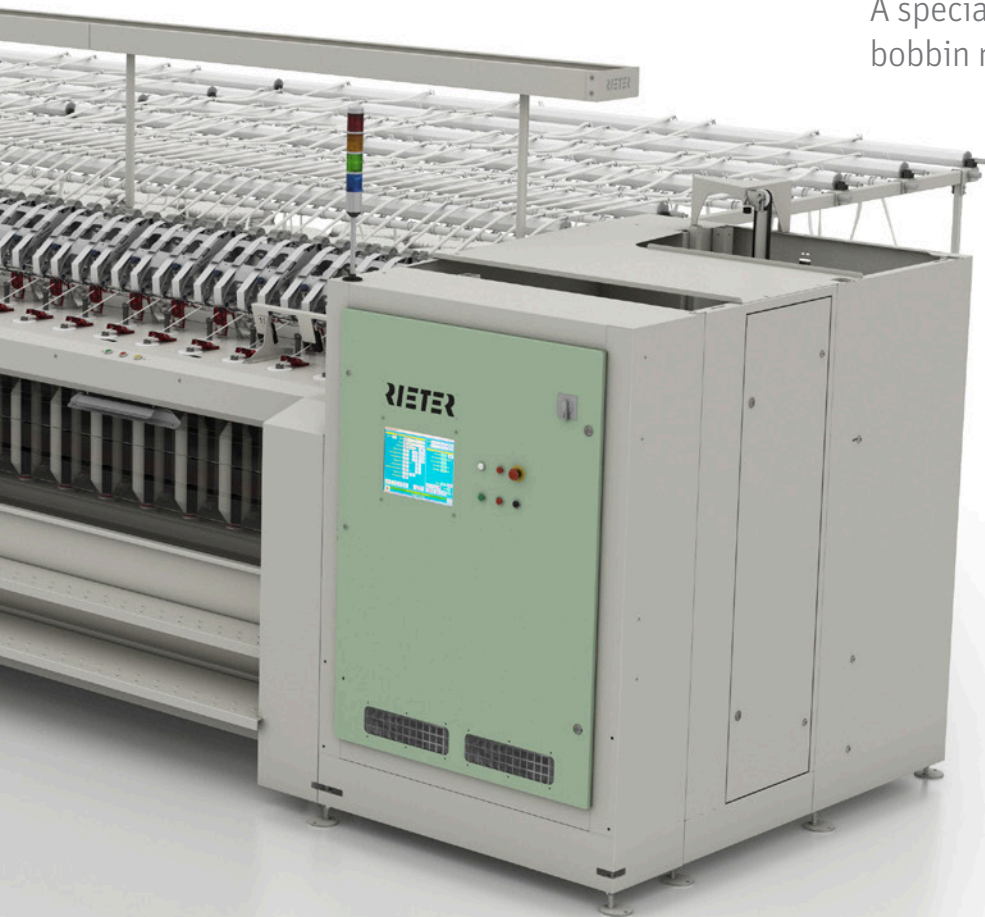
Reliable Bobbin Transfer

Transfer station with up to three working positions

High Efficiency

Individual roving monitoring * checks the running behavior of the roving

* Optional



Maximum Productivity with Minimal Production Costs

Fast doffing with the F 40

The roving frame F 40 with integrated doffer changes the bobbins within just 90 seconds. This fast change is made possible by a unique doffing process: Once the machine has stopped, the roving is automatically cut and the bobbin rail moves backwards into the machine.

Inside the machine, the full bobbins are exchanged by empty tubes. The bobbin rail then returns to the working position. The roving is positioned automatically on the empty tube and production starts automatically. The fast and simple movements of the machine allow the doffing process to run quickly.

Cost-effective doffing aid on the F 20

Like the fully automated F 40, the semi-automated roving frame F 20 has very short downtime during the doffing process. Before the machine is doffed, it stops automatically, cuts the roving and tilts the bobbin forward. Thanks to the tilting movement the operator can then easily remove the full bobbins and replace by empty tubes that have been prepared in advance. The roving frame positions the roving automatically and restarts production. This feature makes the semi-automated roving frame extremely efficient.



Reliable and fast commissioning

The sections are preassembled at the factory. This improves accuracy of assembly on-site and ensures high roving quality. The machines can be put into operation quickly and reliably. The requirements for time and staff are low.

Lower production costs

With as many as 252 roving positions, the roving frame is ideally suited to ring spinning machines with 1 824 spinning positions. The high number of spinning positions per machine reduces the investment and production costs.

Flexible Production



Efficient bobbin changing

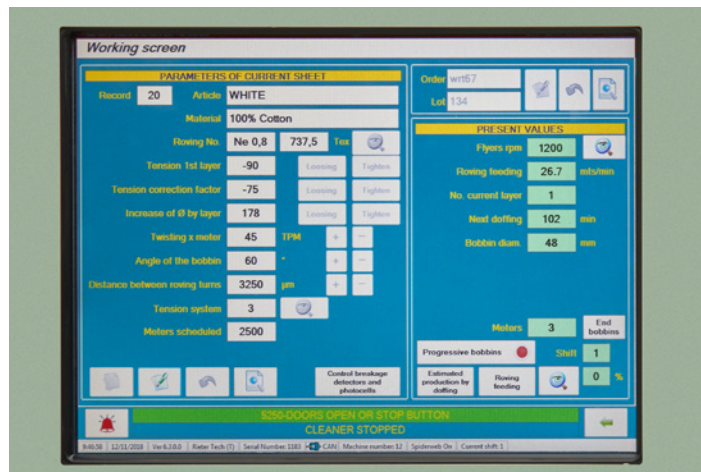
A transport system inside the machine transports the full bobbins to the transfer station at the end of the machine. The transfer station lifts the full bobbins into the roving bobbin transport system and takes the empty tubes. Before the tubes are put in place, the machine cleans the roving fixing tape. This ensures that the roving is securely positioned when the machine restarts.

The transfer station can operate with up to three working positions depending on the length of the machine. This guarantees that all full bobbins have been changed before the next doffing cycle.

Optimal adaptation to raw materials

The electronic drafting system drive* enables the raw material and the roving count to be changed easily. The parameters for the main draft and break draft can be set on the machine's touchscreen. This allows for optimal adjustments and fine tuning to suit any raw material, which makes it possible for manufacturers of small lots to react quickly to market requirements.

The creel can also be set to any speed to ensure that the slivers are fed in with high precision.



* Optional

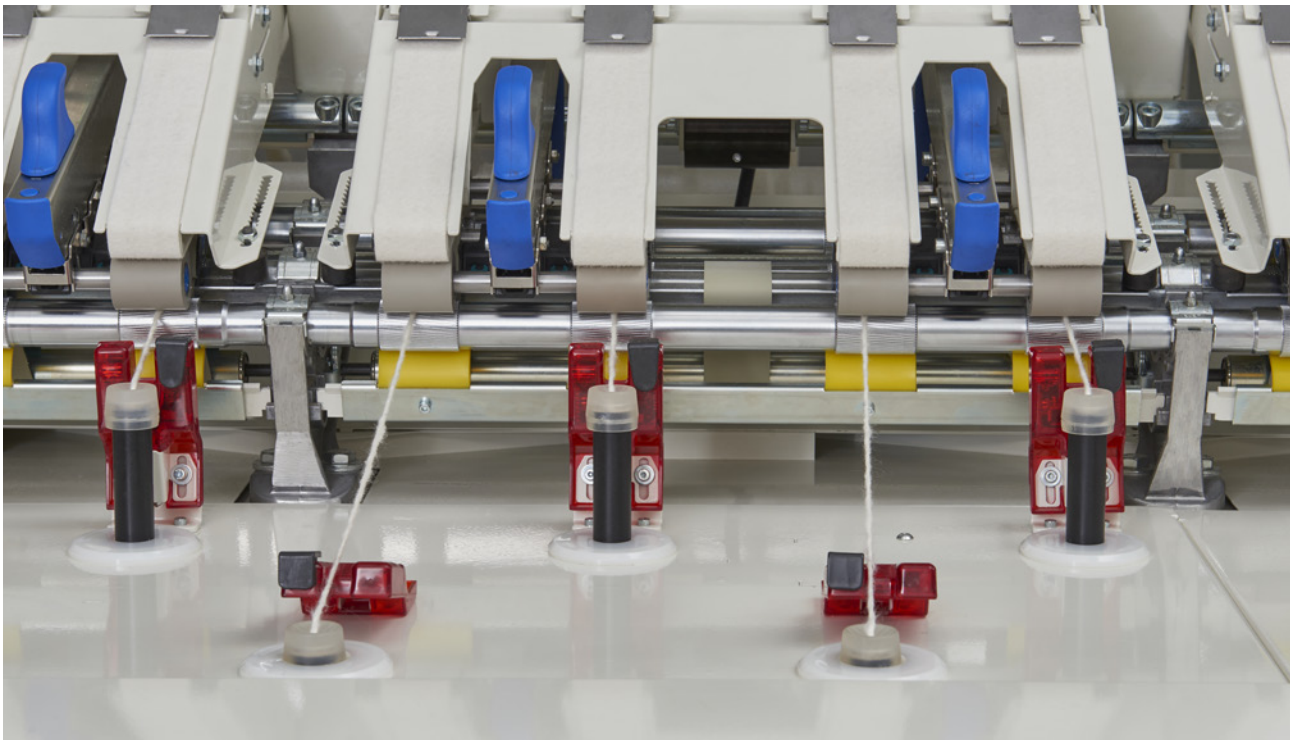
Running Behavior Monitoring

Roving is monitored to ensure high efficiency

Individual roving monitoring checks the running behavior of the roving. Spinning positions that are not running correctly can be detected quickly by an evaluation unit. Operations personnel can initiate any efficiency measures as they see fit.

Additional sensors in the machine show any roving breakages as well as other causes of downtime such as sliver breakages.

Values based on past experience can be programmed into the system to help rectify these faults. The machine continuously determines the current value. If the current value deviates significantly from the experience based values, the operating personnel can intervene. In this way, the machine always runs at the highest efficiency level.



Maximum Roving Quality

Perfect bobbin build-up

A special spindle with the patented drive crown drives the bobbins reliably. The crown enables the tube to securely click into place on the spindle, thus ensuring that the tube remains in the correct position and rotates at the same speed as the spindle. As the tube is held and guided at the head, the bobbin runs very smoothly. The roving is wound up precisely throughout the entire bobbin build-up process.

The bobbin build-up is monitored at all times. Optical sensors measure the tension at the first three spinning positions. If the tension is too high or too low, the winding speed is adjusted accordingly. This ensures that the roving is even and the bobbin is built up precisely. The roving subsequently runs faultlessly on the ring spinning machine.

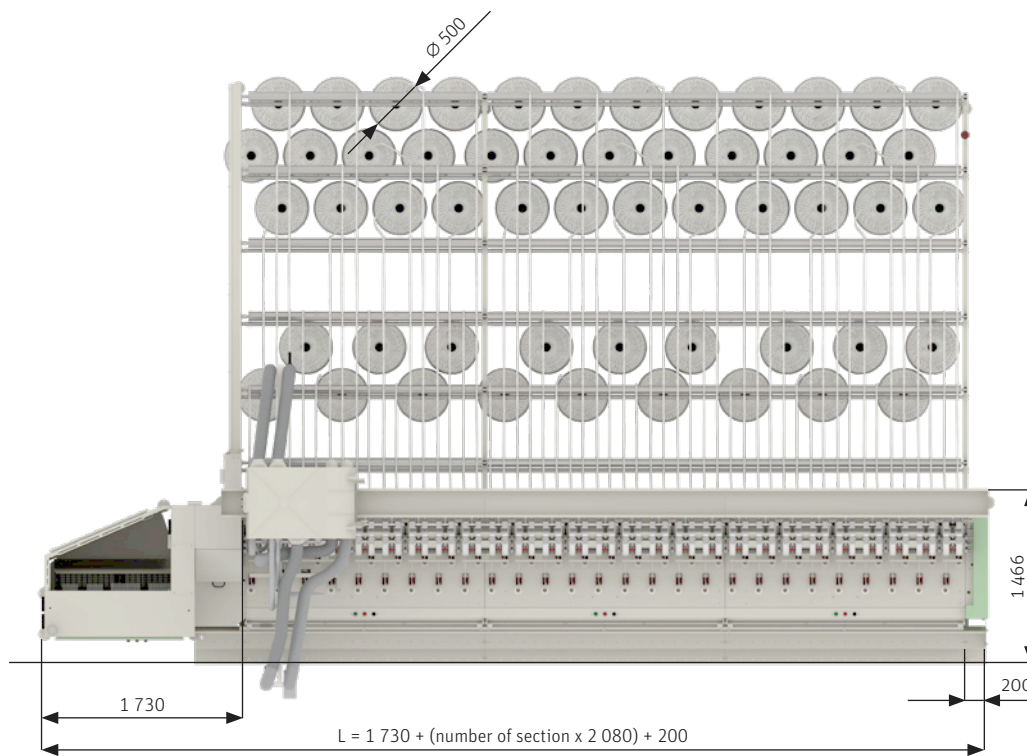
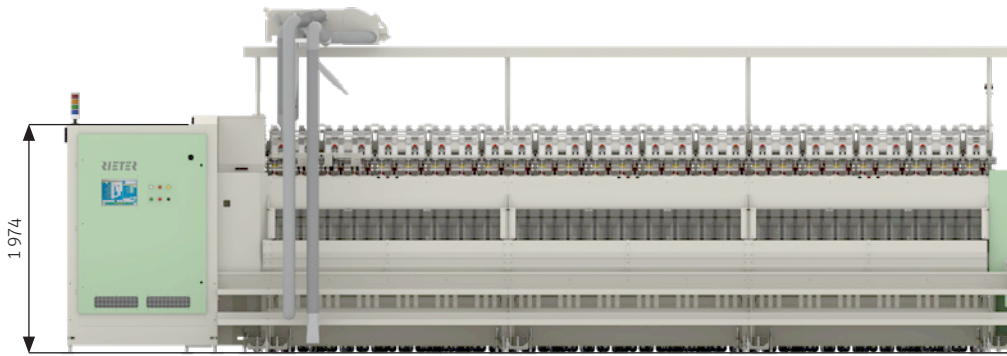
Precise bobbin build-up is facilitated by the bobbin rail drive units in the center of the rail. There is a threaded spindle for two sections. The central position ensures even amounts of load and movement. It therefore facilitates accurate bobbin build-up, even on long machines.



Consistent roving quality

The new weighting arm HP 4080 from Suessen keeps the roving quality consistent. All of the components in the weighting arm work in perfect sync with one another. The fibers are guided precisely with the new top apron cradle. The precise loading elements for the top rollers ensure consistent roving quality over the entire machine.

Machine Data F 20



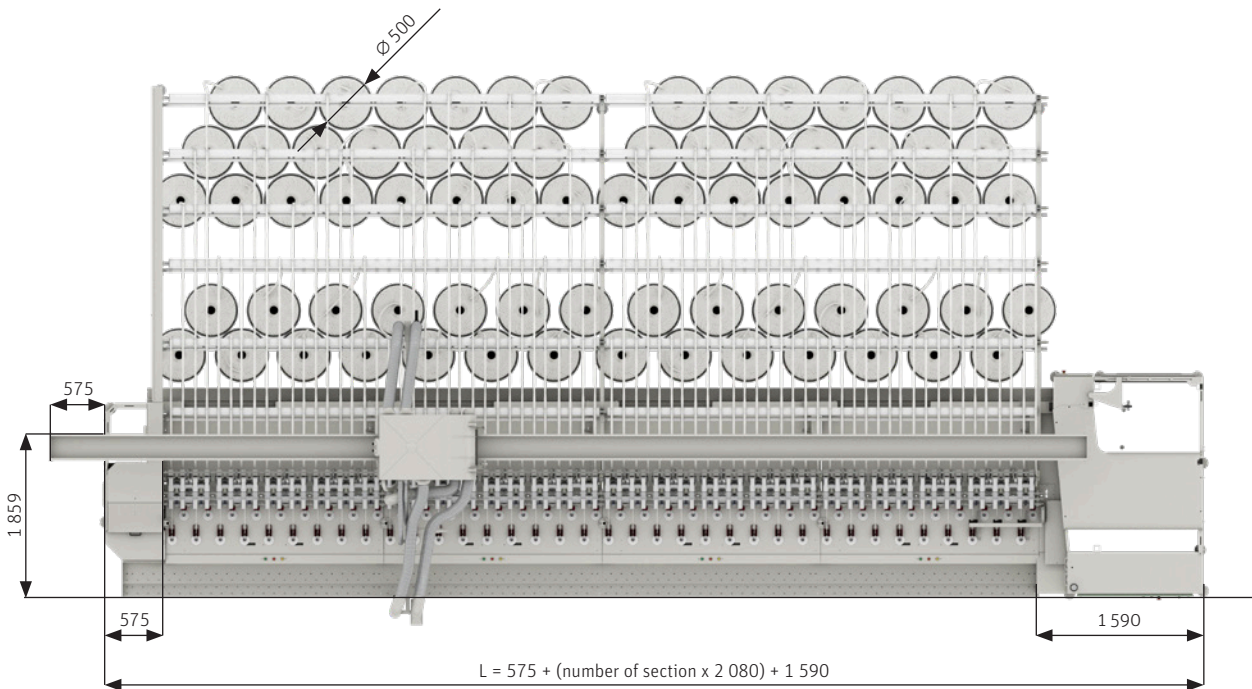
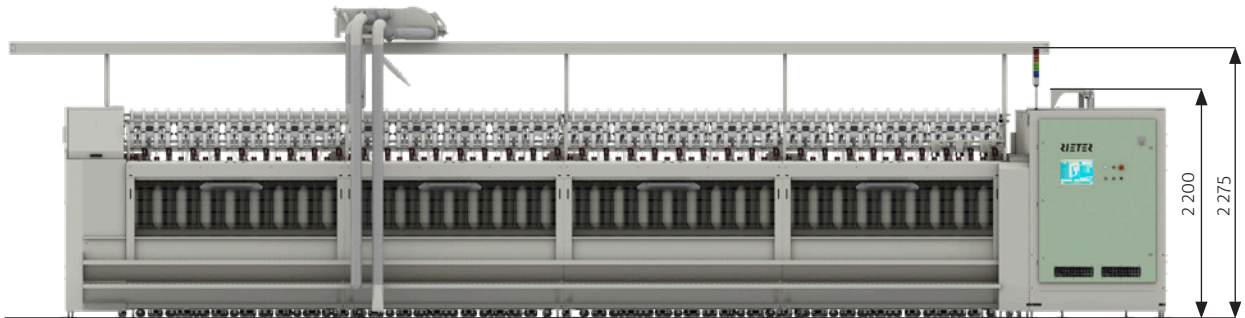
Machine length F 20

Spindles	36	54	72	90	108	126	144	162	180	192	216	234	252
Sections	2	3	4	5	6	7	8	9	10	11	12	13	14
Length in mm	6 090	8 170	10 250	12 330	14 410	16 490	18 570	20 650	22 730	24 810	26 890	28 970	31 050

Machine width F 20

	20" cans (5 rows)	24" cans (6 rows)
Without corridor	5 025 mm	6 107 mm
With corridor	5 365 mm	6 512 mm

Machine Data F 40



Machine length F 40

Spindles	36	54	72	90	108	126	144	162	180	198	216	234	252
Sections	2	3	4	5	6	7	8	9	10	11	12	13	14
Length in mm	6 325	8 405	10 485	12 565	14 645	16 725	18 805	20 885	22 965	25 045	27 125	29 205	31 285

Machine width F 40

	20" cans	24" cans
With corridor	5 430 mm	6 610 mm
Without corridor	5 068 mm	6 150 mm

Machine Data F 20/F 40

Technological data	
Material	Cotton, man-made fibers and blends, up to 60 mm
Roving count	2 000 – 200 tex; Ne 0.3 – Ne 2.95; Nm 0.5 – Nm 5
Twist range roving	10 – 100 T/m ; 0.25 T/” – 2.54 T/”
Draft range	Mechanical 3 – 33-fold (technologically recommended draft depending on raw material and roving count)

Technical data	
Gauge	115 mm
Number of spindles	36, 54, 72, 90, 108, 126, 144, 162, 180, 198, 216, 234, 252
Bobbin diameter	6” (152 mm)
Winding height bobbin	16” (406 mm)
Can diameter	20” (508 mm) and 24” (610 mm)
Max. number of spindles	252
Max. flyer speed	Mechanical up to 1 500 rpm technologically possible speed depending on raw material and roving count)

Installed power	
Flyer drive	8 – 24 kW
Bobbin drive	8 – 24 kW
Drafting system drive	3.8 – 7.6 kW
Suction (optional)	4 kW – 8 kW
Bobbin rail movement	4.2 kW
Other drives including doffing	2.93 kW
Compressed air - min. pressure	7 bar
Compressed air consumption F 40	0.4 m ³ /hour
Compressed air consumption F 20	0.02 m ³ /hour



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