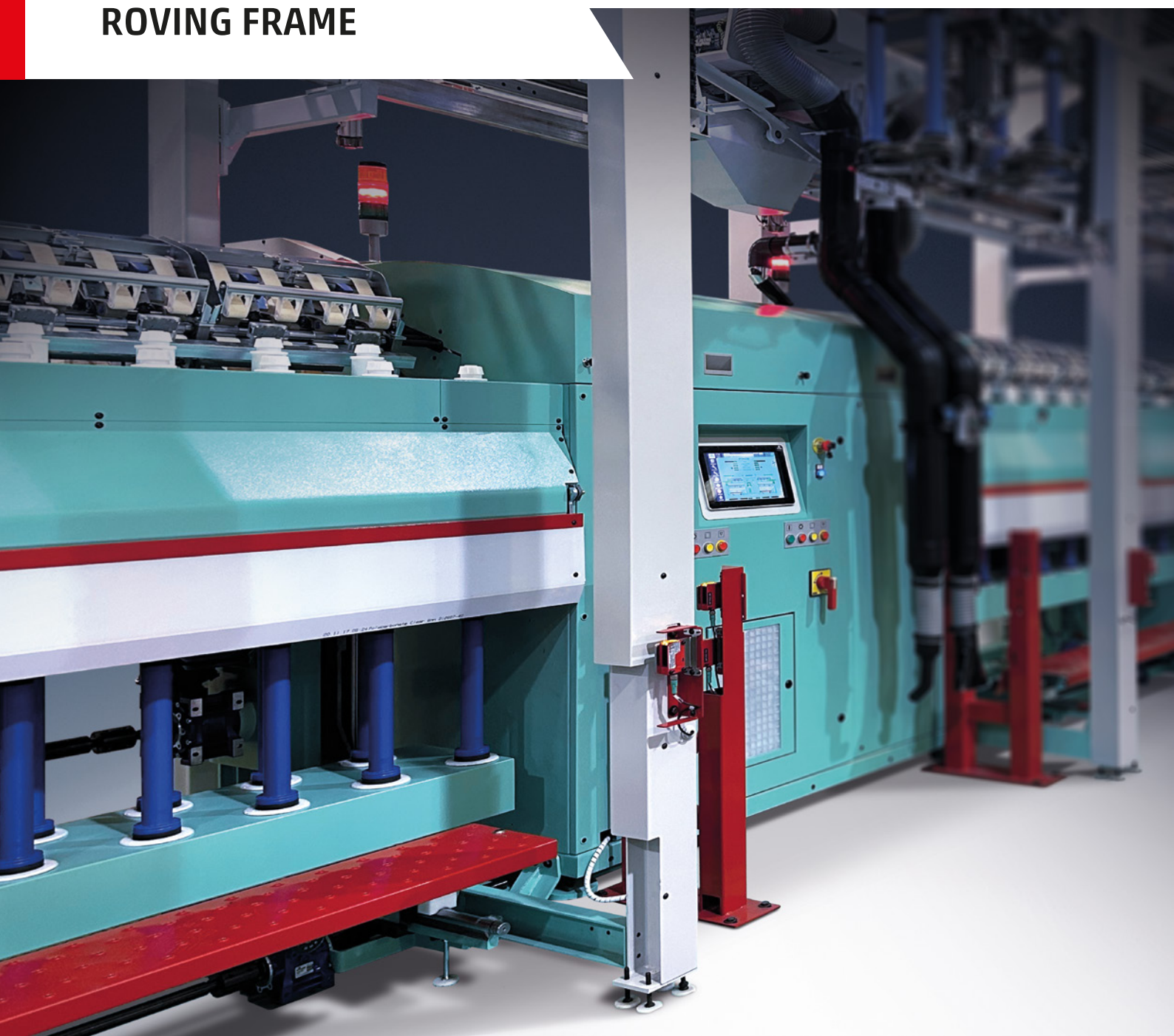
OVERVIEW

MARZOLI
Textile Engineering

GALILEO - FTM 320
ROVING FRAME



FTM320
ROVING FRAME

Productivity, efficiency and versatility

KEY POINTS

- SUPERIOR TECHNOLOGY
- WORK EFFICIENCY INCREASED
- DOFFING OPTIMIZATION & OUTSTANDING PRODUCTIVITY
- LOWER INVESTMENT AND OPERATIONAL COSTS
- FAST RETURN ON THE INVESTMENT
- TOP QUALITY ROVING

With the FTM320 roving frames, Marzoli does not only offer a product of excellent quality, efficiency and outstanding productivity, but also aims at innovating the concept of **spinning section** (roving frame, bobbin transport system and spinning frame).
In fact, the FTM320 roving frames are based on an innovative engineering concept of **full mechanical and logical integration of every machine of the spinning unit.** From the mechanical point of view, the empty trains of Marzoli block creeling transport system (MTT) move to the revolver exchanger (MRE) placed in the middle of FTM320 roving frame and, after having been loaded with full roving bobbins, they are sent to the creel of any spinning frame installed inside the plant.

No human operation, beside roving piecing at the spinning frame, is required. This guarantees full automation, no poor handling of the roving bobbins and top flexibility as the trains can enter any roving frame and can be sent to any spinning frame.

The electronic draft installed on the FTM320 roving frames allows an easy setup of the machine without any mechanical modification: this further boosts the flexibility of the FTM320 roving frames that hence represent the perfect solution for spinning mills.

FTM320 it's a roving frame with headstock in middle position and independent double side modules that works simultaneously.

A single revolver exchanger (MRE) with integrated bobbin cleaner, that exchange and clean 2 bobbins per time. The single revolver exchanger for both sides coupled to an innovative patented scheme of trains in creel allow to get a optimized transport layout and an easier maintenance. It's specially designed to erect a single OHTC for both sides which allow to get a reduction of cleaning and maintenance cost.

The headstock with HMI, MRE and the OHTC parking all placed in the middle allows an easy view of the whole machine and guarantee a simple management. This layout also entails a shortening of machine lenght.

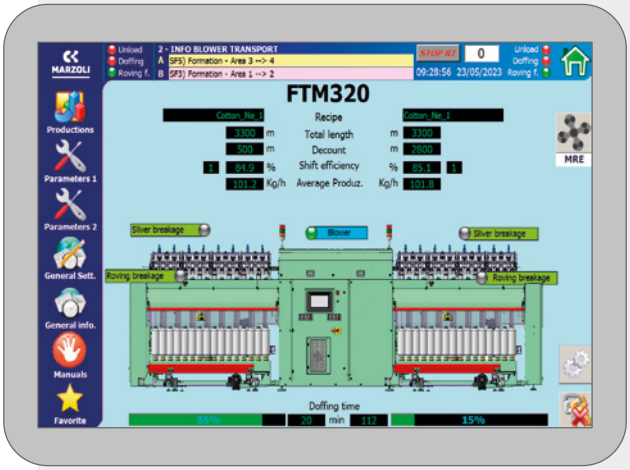
Machine downtime reduced to one of the two modules entails an increase in work efficiency. So, a roving frame with 256/288 or 320 spindles has the same working efficiency of roving frames with 128/144 or 160 spindles.

FEATURES

- INDEPENDENT DOUBLE SIDE MODULE
- DOUBLE EXCHANGER IN THE MIDDLE
- SINGLE TRACK

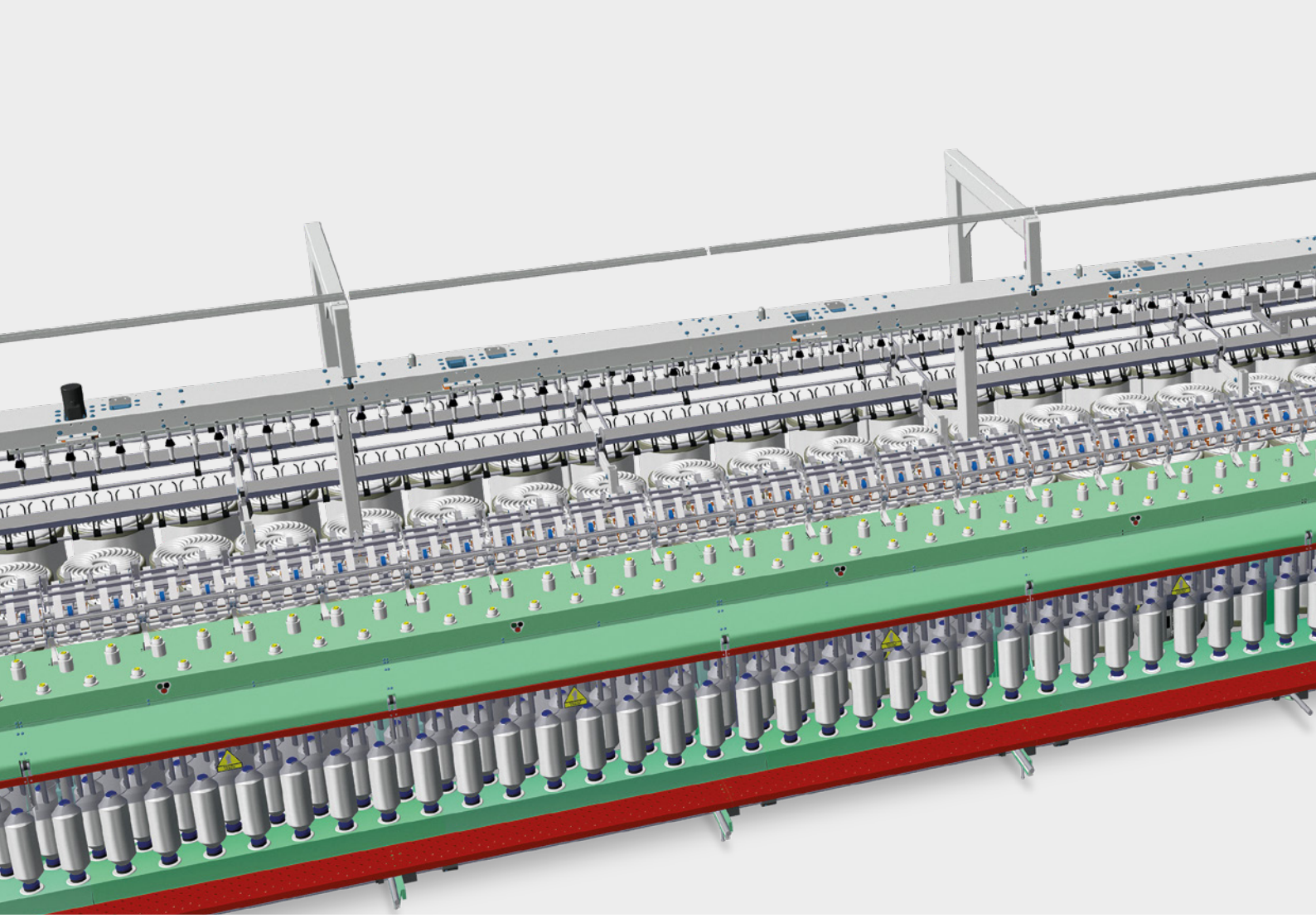
USER-FRIENDLY INTERFACE

The FTM320 roving frames are managed by a modern PC microprocessor: all the production data and working parameters are controlled and saved during the production cycle.
The multilanguage touch screen is userfriendly and permits a simple use with clear diagrams, detailed monitoring pages and step by step troubleshooting procedures.



FTM 320 ROVING FRAME

The longest machine. The latest in greatness

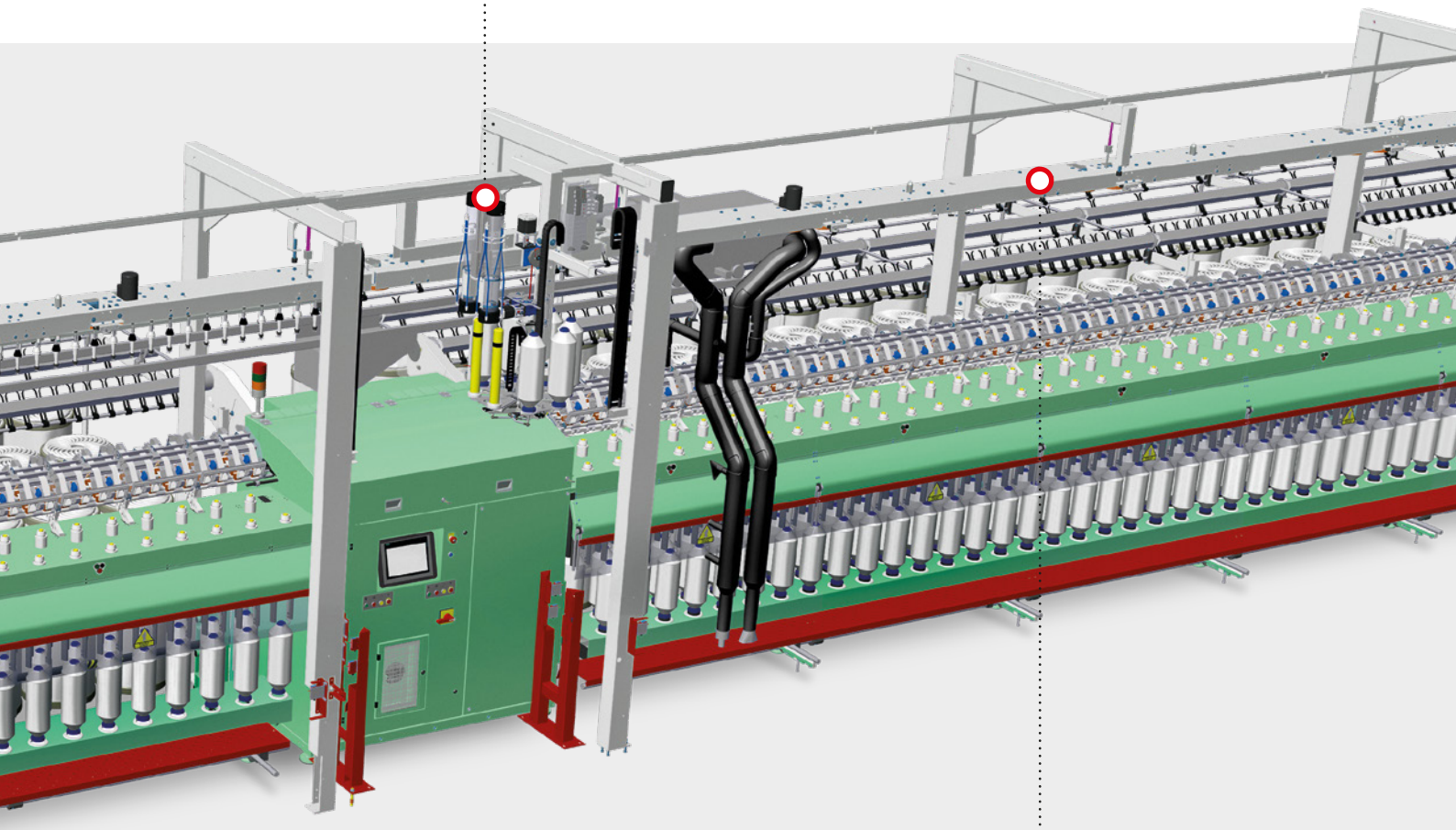


Operating costs: -10%

Energy saving: up to 6,5%

Productive area: +5%

1 Overhead cleaner
for both sides



Innovative doffing:
independent
and sincronized

Efficiency:

+5%

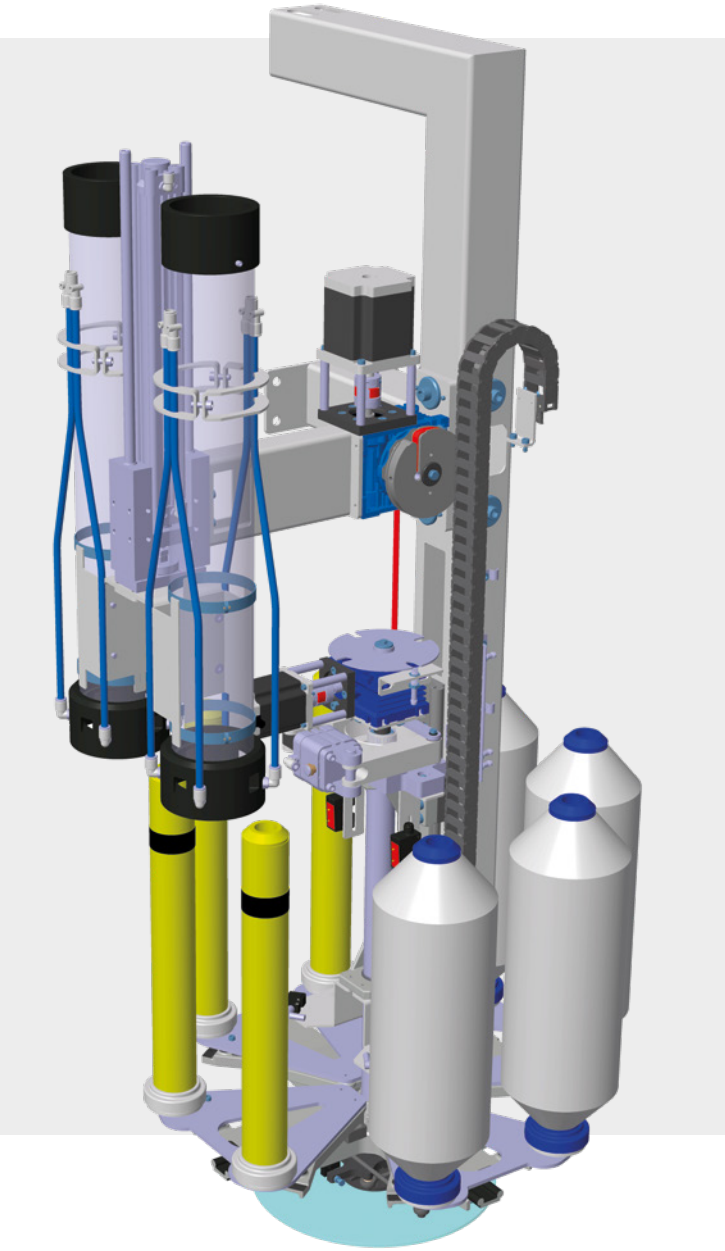
Exchanging &
cleaning time:

-29%

MARZOLI REVOLVER EXCHANGER (MRE)

KEY POINTS

- CLEANING & EXCHANGING OF 2 BOBBINS AT A TIME
- 360 BOBBINS/HOUR (2 TIMES FASTER THAN SINGLE EXCHANGERS)
- INSTALLABLE ON ROVING FRAMES OF EITHER GAUGE 110 mm OR 130 mm OR AS A STAND ALONE PRODUCT
- AVAILABLE FOR TRANSPORT SYSTEMS WITH ANY OF THE MAIN AVAILABLE GAUGES

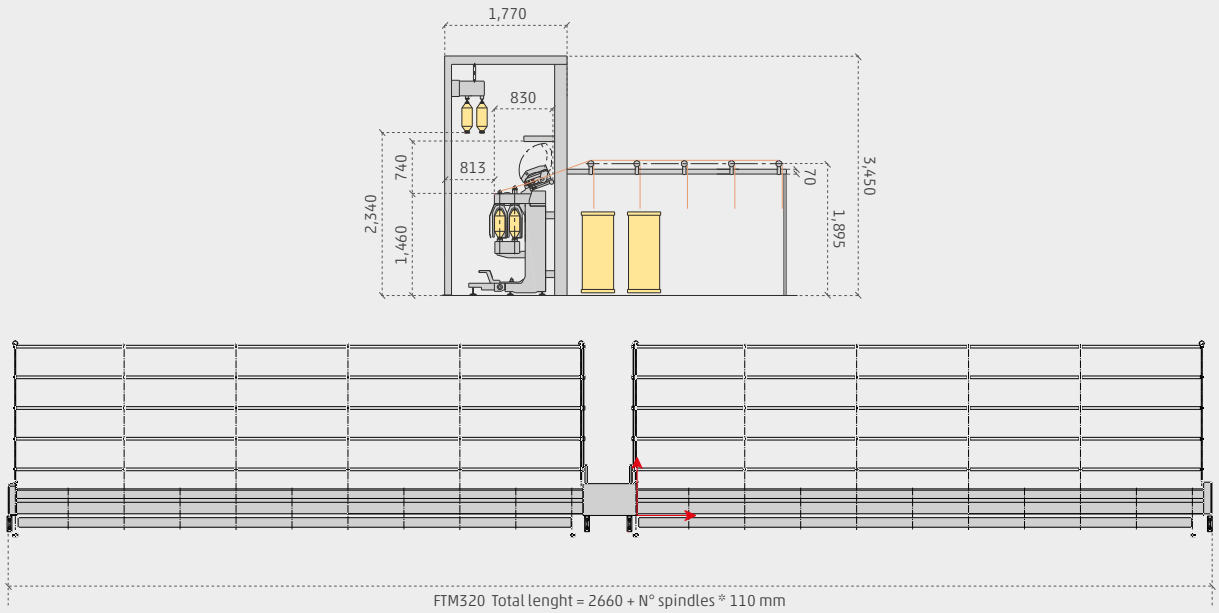


Marzoli MRE (Marzoli patent) represents a new solution to boost efficiency and flexibility in the exchange and cleaning of empty tubes with full bobbins on automated transport systems. With Marzoli MRE two full bobbins are taken from the doffer rail of the roving frame or from the trolley coming from the roving frame. At the same time two dirty tubes coming from the spinning frames are taken from the transport rail. After a rotation, in an intermediate step, dirty tubes are cleaned by 2 integrated IBCs. In the meantime, Marzoli MRE places the empty tubes on the doffer rail/ trolley to be sent to the roving frame and the full bobbins on the transport rail to feed the ring frames. Due to cleaning in parallel, Marzoli MRE has a considerable effect on the reduction of time wasted in exchanging and cleaning of bobbins. The process can be done two times faster than single exchangers, an aspect that can underpin higher efficiency rates on long roving frames and/or when coarse counts are produced.

Marzoli MRE can be installed on roving frames of either gauge, 110mm or 130mm, and exchange bobbins with transport systems of any manufacturer and of any gauge. Marzoli MRE entails the following benefits:

- Superior efficiency and easy handling (cleaning and exchanging of 360 bobbins /hour).
- Higher efficiency on long roving machines and/or with coarse roving counts.
- Minimum space required.
- Installable on either head stock or tail stock for an easier design of the transport rail and IBC suction duct.
- Full automation.
- Available on Marzoli FT60, and FTM320 or as a stand alone system.
- Gauge change during exchange.

TECHNICAL DATA



Roving Frame FTM 320 - Speed	
Flyer speed	(mechanical) up to 1,500 rpm
Delivery speed	up to 50 m/min

Roving Frame FTM 320 - Motor power	SEMIAUTOMATIC DOFFING		AUTOMATIC DOFFING	
	Mechanical draft	Electronic draft	Mechanical draft	Electronic draft
Cylinders drive motor	2x4 kW	2x5.5 Kw	2x4 Kw	2x5.5 Kw
Bobbin rail drive motor	2x3.77 kW	2x3.77 Kw	2x3.77 Kw	2x3.77 Kw
Bobbin rail outward motion drive motor	//	//	2x0.37 Kw	2x0.37 Kw
Doffing board drive motor	//	//	2x1.5 Kw	2x1.5 Kw
Train drive motor	//	//	4x0,06 Kw	4x0,06 Kw
Spindles	3 Kw every 32			
Flyers	1.8 Kw every 32			
With suction drive motor (OPTIONAL)	+ 4 Kw			
MRE	2x0.016 Kw			

Roving Frame FTM 320 - Technological data	
Material	Cotton, man-made fibers and blends, up to 60 mm
Roving count range	Ne 0.40 - 3.5 / Nm 0.7 - 5.9 / Tex 170 - 1,470
Roving twist range	Tw/" 0.30 - 3.55 T/M 12 - 140
Draft	4 - 20

Roving Frame FTM 320 - Technological data	
Gauge	110 mm
Spindles per section	16
Max. spindles	128/144/160
Bobbin size	6"
Doffer	no

Can Diameter (inches)	No. Rollers	Rows of cans	L1 (mm)
20"	4	5	4,670
	5		
	6		
24"	4	6	5,820
	5		
	6		

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