

## DUOCLEANER B390L

Excellent cleaning at twice  
the production rate



## **Marzoli**

Complete spinning line,  
components and digitalized  
solutions for the best performance  
of the spinning process



# THE ONE SOURCE FOR A FULLY-AUTOMATED AND DIGITALIZED SPINNING MILL



Marzoli, one of the major brands of the textile sector worldwide, is a unique European manufacturer of the complete line of machines for the opening, preparation and spinning of short-staple fiber. From the bale opener to the ring spinning frame, Marzoli offers the most advanced technology for a completely-automated spinning mill. Through its global sales and service network, its expertise on each type of fiber and application and the competence on the entire process, Marzoli represents a competent and reliable partner. And through its experience, know-how and commitment, it provides its customers with:

- Advanced spinning solutions through a careful activity of textile engineering. Marzoli assists its customers from the study of the spinning plan, throughout sourcing, erection and commissioning, up to maintenance of the resulting turnkey spinning plant, which can comprise Marzoli but also third-party machinery. The customer can rely on the competence and capability of a unique partner, responsible for the quality and productivity of the entire spinning mill.
- The advantages of smart spinning. No matter what the brand(s) of the machinery is, Marzoli can install its software platforms, YarNet and MRM, its hardware applications for gathering data on waste percentages and its composition, quality values, productivity indexes and other kpi data to let the customer build on the potential of Industry 4.0, optimize the entire spinning process through well-informed decisions and reach the highest performance in production operations.

OVER  
**170** ■ YEARS  
OF SUCCESSES

OVER  
**70** ■ COUNTRIES  
WITH ACTIVE CLIENTS



## OPENING SECTION

- Openers & Cleaners
- Mixers & Blenders
- Card



## COMBING SECTION

- Draw Frames
- Lap Winder
- Comber
- Lap Transport



## SPINNING SECTION

- Roving Frame
- Ring Spinning Frame
- Bobbin Transport System

# DUOCLEANER B390L

## Excellent cleaning at twice the production rate

The B390L Duocleaner is a very efficient cleaner that can reach 1,600 kg/h while granting outstanding quality standards thanks to its innovative working concept. The material enters at the center of the first beater and it is split into two flows that are processed separately by the two halves of the two beaters. Each flow of material, thanks to special deviators, rotates four times around the first semi-beater and another four times around the second semi-beater. The two flows of material then rejoin at the center of the second beater. The B390L Duocleaner allows to achieve outstanding cleaning and productivity outcomes because:

- The material is split into two flows which entails that each section of the two beaters process a relatively small amount of material in the time unit.
- The material makes eight turns around the beaters which is the highest number among competitor openers.
- The first and the second beater have different point densities, different speeds and different settings of the grids. This entails a progressive opening action for a more gentle treatment of the fibers and a thorough cleaning activity.

### Machine features

- Production up to 1,600 Kg/h depending on the processed fiber;
- beaters with different rotating speeds and tips numbers (faster and more populated the second one);
- independent speed setting of the beaters;
- grids with a different number of segments with a total area of 2.24 m<sup>2</sup>;
- independent setting of the four grids;
- total dedusting area of 1.6 m<sup>2</sup>;
- two different waste chambers;
- working width of 1,600 mm for each beater

### KEY POINTS

- PROGRESSIVE OPENING AND EXCELLENT CLEANING
- GREAT PRODUCTIVITY (1,600 Kg/h)
- LOW FIBER STRESS
- NO NEPS FORMATION
- EFFICIENT DEDUSTING



### Low fiber stress

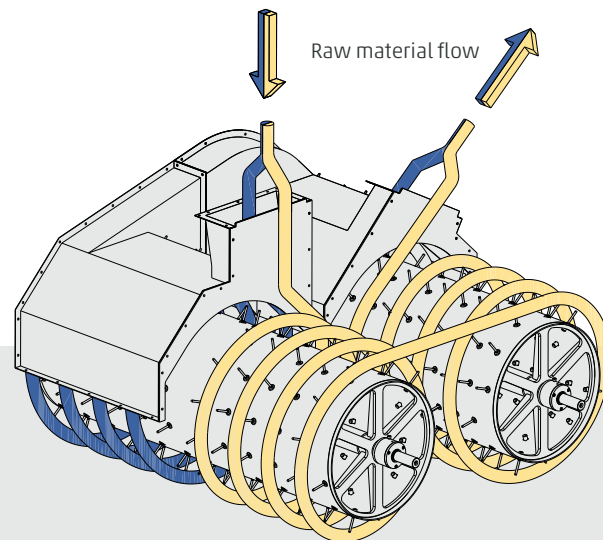
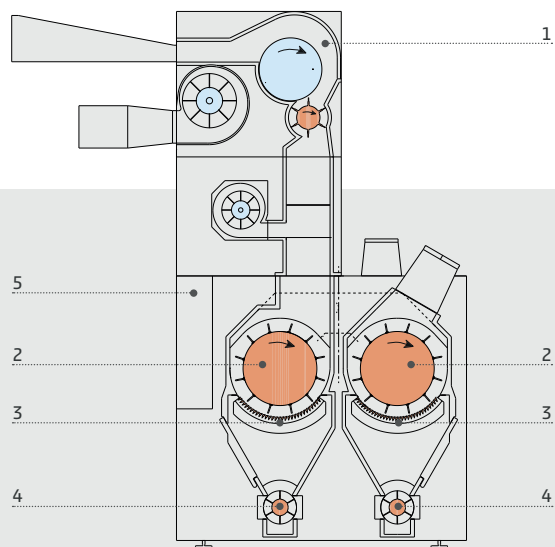
Excellent cleaning is possible only after effective opening: the Superblender provides the mini tufts; the Duocleaner removes trash particles, fiber fragments and dust. Since the Duocleaner has no nipping point, low fiber stress and no neps formation are achieved.

### Optimized cleaning

The waste accumulated after the four grids is transferred through the two bucket wheel locks to a continuous centralized suction system.

### Efficient dedusting

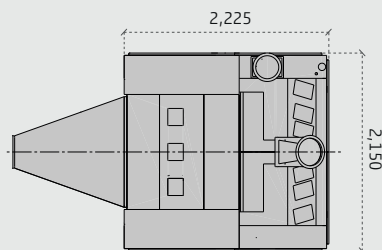
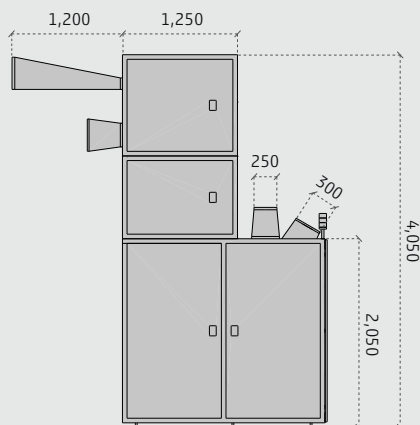
Dust causes many problems in the spinning mill. The B450L, placed on the top of B390L, efficiently dedusts all the flocks coming from the bale plucker, thanks to its suction system.



#### MACHINE DESCRIPTION - LEGEND

- 1 Dust Separator B450L
- 2 Double cleaning rolls
- 3 Independent adjustable grid
- 4 Bucket wheel lock
- 5 Control Panel

## TECHNICAL DATA



### B390L

|                        |                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Processed raw material | Cotton, cotton waste, gin motes and blends up to 65 mm length<br>Production up to 1,600 kg/h depending on the processed raw material |
| Installed power        | 12.25 kW                                                                                                                             |
| Working width          | 1,600 + 1,600 mm                                                                                                                     |
| Cleaning rolls         | 700 mm dia.                                                                                                                          |
| Speed range            | Cleaning roll in 400 - 600 rpm   Cleaning roll out 600 - 900 rpm                                                                     |
| Net weight             | B390L 3,400 kg   B450L 1,000 kg                                                                                                      |

|                                                     |         |
|-----------------------------------------------------|---------|
| Power Consumption to process 100 kg of raw material | 0.76 kW |
|-----------------------------------------------------|---------|

# SOFTWARE PLATFORMS

## END2END PRODUCTION MANAGEMENT PLATFORM: YARNET

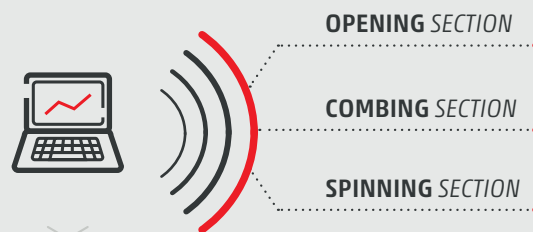
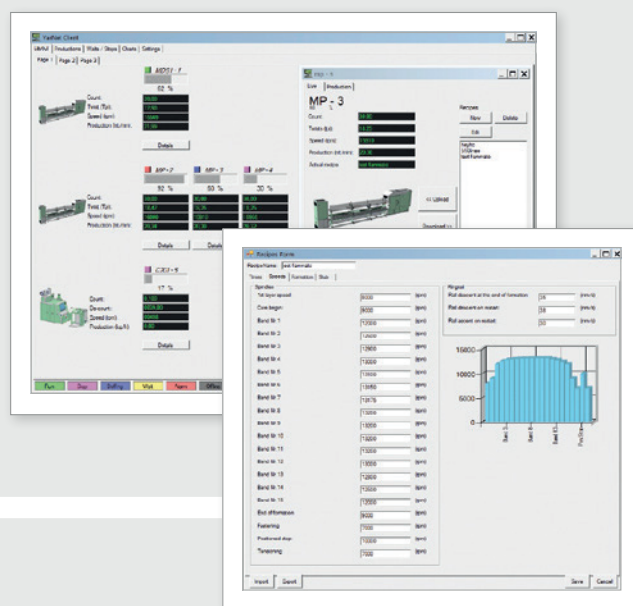
YarNet is Marzoli production management software. It enables the monitoring of production levels, efficiency rates and downtime for both individual machines and the entire spinning mill. Comparisons between machines on selected periods of time are made very simple so that improvement opportunities can be easily identified. YarNet enables the operator to edit production recipes, downloading and uploading them between any machine and their computer. He can also export them in Excel format to share with colleagues as necessary. YarNet gathers and analyses data about production and energy consumption, giving a visual representation of the tradeoffs (kW/kg).

## MRM

MRM is Marzoli software to continuously monitor the operating conditions of textile machines. It can identify developing malfunctions before a fault occurs and highlight improvement opportunities on efficiency rates and energy consumption levels. Data about temperature, power consumption, speed and vibration are collected from PLCs (programmable logic controllers) and sensors installed on each machine. The software verifies the monitored parameters are within the nominal operating ranges; it can even adjust for room temperature variations to ensure continuous optimisation. If any parameter is out of tolerance, an automatic email alert is sent to the customer. The customer can also access the dedicated online portal to see information for predictive maintenance and of the overall efficiency of the plant. Through dedicated modules (Optimisation Tools) it is possible to optimise the performance of every machine, in particular on energy consumption and levels of efficiency. If required, Marzoli's customer service team can access the data to diagnose actual and developing problems and recommend appropriate actions.

## KEY POINTS

- EASY & FAST CONTROL OF EVERY STAGE OF THE SPINNING PROCESS
- IMPROVED SPEED OF RESPONSE IN PRODUCTION OPERATIONS
- EASY MANAGEMENT OF PRODUCTION RECIPES
- SUPERIOR, EASIER AND FASTER MAINTENANCE



## BENEFITS

- Higher productivity
- No machines unplanned downtimes
- Prevention from major machine failures
- Longer plant lifespan
- Higher efficiency
- Complete reliability
- Trouble free spinning experience
- Better maintenance planning



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[marzoli.com](https://marzoli.com)

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