

R²F SENSORS

Smart monitoring for maximum spinning efficiency



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

R²F SENSORS

The smart solution to boost productivity on the spinning frame

KEY POINTS

- LOWER SPINDLES DOWNTIME
- PROMPT DETECTION OF SLIPPING SPINDLES
- INFORMATION FOR EFFECTIVE MAINTENANCE OF THE SPINNING FRAME



Marzoli R²F is an innovative sensor, installed on the ring rail of the spinning frame, that continuously monitors the speed of the ring traveler. If a yarn breaks the R²F sensor immediately detects the traveler's stop and the related LED (one LED every 8 spindles, or one every spindle) signals it to the operator, that is passing by, through a flashing light. Furthermore, on the head stock of the spinning frame there are two lamps, one per side, that assume a different color depending on the number of yarn breakages that there are on that side of the spinning frame, so that the operator knows if intervention is required.

On long spinning frames the R²F sensors substantially reduce the number of unnecessary passages of the operator between the spinning frames and the average time on which a spindle is not working therefore boosting the production levels of the spinning frames in a very simple, efficient and effective way.

Beside identifying an idle ring traveler, the R²F also detects the speed of the traveler. This information is very important because it can highlight slipping spindles and twist losses, allowing for a prompt intervention of the maintenance team. In particular the R²F sensors can give, with the

greatest level of accuracy, the following information:

- Status of the spindle (running or idle);
- Which spindles have the highest number of yarn breakages (spindle identification and statistic);
- Which spindles have irregular rotation (spindle slippage);
- Twist (TPM / TPI) of every spindle;
- Speed of every spindle.

All this information is centralized in the machine control unit and is accessible through the MDS1 touch screen display and on the YarNet management system.

Thanks to the installation of the R²F sensors in combination with the YarNet management system the operator can obtain a valuable statistic: number of yarn breakages according to the spinning frame setting, external operating conditions, types of raw materials, types of traveler and traveler's life. This information can help the client to set the machine in order to reduce yarn breakages and slipping spindles while maximizing production.



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