

OPTISPIN

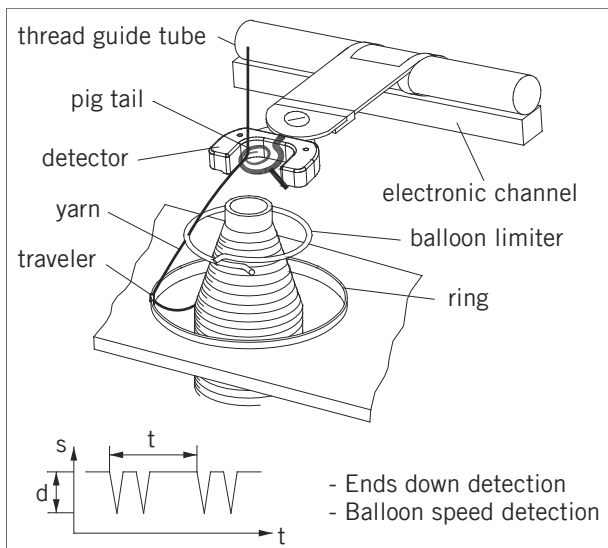


On-line quality monitoring on ring spinning frames

With **OPTISPIN**, BMSvision offers a sensor for each individual ring spindle, allowing accurate recording of the spindle speed and real-time detection of yarn breakages. The stops are always assigned to the correct spindle, regardless of the length of the machine.

Interfaces are available to the speed inverter of the ring frame, allowing to increase the speed in case the ends down level remains below a defined threshold. As a result, an optimum and consistent quality level is achieved at maximum efficiency.

All sensors are connected to a PC-based central unit. All information concerning production, efficiency, ends down and slipping spindles is available on the display or can be printed out on an external printer. Connected to BMSvision's **SPINMASTER** production management system, data from all machines is centralized in one database.



Principle of operation

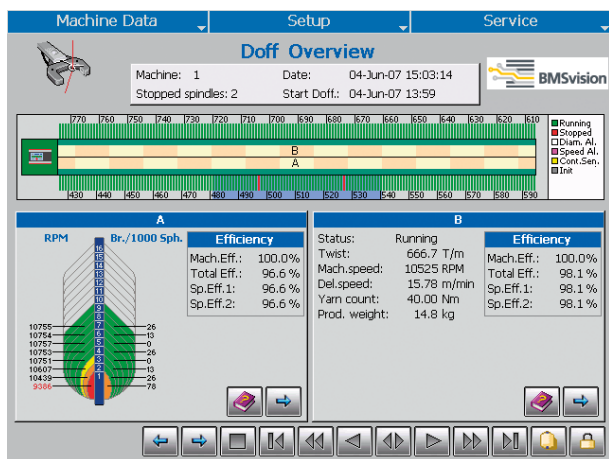
The **OPTISPIN** sensor is installed right below the pigtail. It consists of a photo receiver facing a light emitting diode. During each revolution, the yarn balloon interrupts the light beam twice. The time between two successive interruptions serves as the basis for the calculation of the balloon speed, while the amount of light obstructed during the interruption is used as a rough diameter measure.

SENSOR CONTROL UNIT (SCU)

All sensors on one machine are connected to the **SCU**. This unit offers a touch screen Windows-based user interface, USB interface and Ethernet connection. The integrated OPC server allows a PC to connect to the **SCU** via the **OPTISPIN BROWSER** allowing remote operation and service. The standard screen on the **SCU** shows a graphical machine view with color coded spindle status and side by side machine details.

SPINMASTER monitoring system

Through the OPC interface, all machines equipped with **OPTISPIN** can also be connected to the **SPINMASTER** production monitoring system. All connected twisters are shown in a color coded mill layout. Machines with off-standard conditions are automatically flagged.

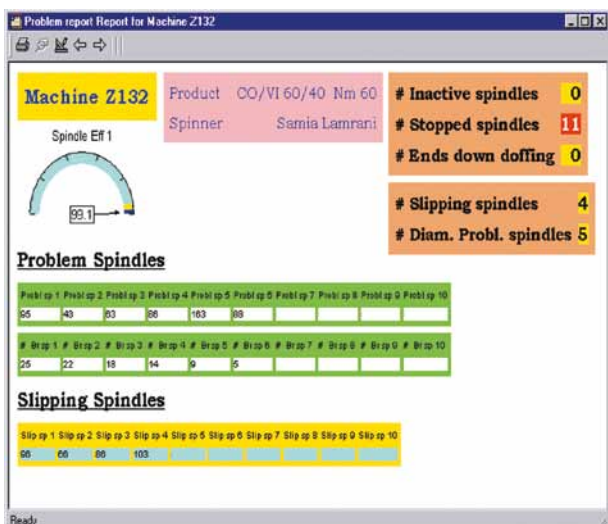


Functionalities

- Accurate real time spindle speed detection allowing identification of slipping spindles.
- Indication of twist level based on spindle speed and delivery speed.
- Immediate ends down detection.
- Classification of yarn breakages during up or down movement of the ring rail and exact location in the bobbin build-up.
- Continuous yarn diameter estimation allowing detection of additional sliver or wrapping on draft cylinders.
- Flagging of problem spindles with section lights and lamp tree.
- Link to speed inverter for optimum control of spinning speed based on breakage level, ring rail up-down movement and bobbin build-up.
- User friendly interface for setup and reporting.
- Monitoring: produced weight, efficiencies and down time analysis.

Benefits

- Consistent quality.
- Increased efficiency.
- Reduced labor cost.
- Optimized speed profile as function of the bobbin build-up.
- Can be installed on all ring spinning frames.
- Independent of yarn count and traveler type.
- Simple mounting and cabling.
- Low power consumption.
- No moving parts, hence no obstruction for operators or automation devices.
- Limited maintenance.



BMSvision

In Pursuit of Productivity



www.bmsvision.com

© Belgian Monitoring Systems
Member of the **Savio** Group

- BMS bvba** • Vlamingsstraat 16, 8560 Wevelgem, Belgium
☎ +32 56 262 611 ☎ +32 56 262 690 ✉ sales.bv@visionbms.com
- BMS Vision Ltd** • Capricorn Park, Blakewater Road, Blackburn, Lancashire, BB1 5QR, United Kingdom
☎ +44 1254 662 244 ☎ +44 1254 267 100 ✉ sales.bla@visionbms.com
- BMSVision LLC** • 4420 Taggart Creek Road, Suite 112, Charlotte, North Carolina 28208, United States
☎ +1 704 392 9371 ☎ +1 704 399 5588 ✉ sales@visionbmsusa.com
- BMSvision China** • Room 402, No.989, Dongfang Road, Pudong New District, Shanghai 200122, China
☎ +86 21 6048 2876 ✉ gordon.guo@visionbms.com