

The standard for broken filament monitoring.

Fibrevision Fraytec FV2

Fibrevision Fraytec FV2 is the industry standard for broken filament monitoring, providing proven performance on all technical and industrial yarns. Fraytec FV2 has a range of improvements over the existing FV sensor and substantial improvements over earlier generation Fraytec systems.

Sensors

The Fraytec FV2 sensors operate with the established Fraytec technology identifying individual broken filaments down to 5 µm diameter at speeds up to 8 000 m/min. The broken filament faults are measured above and below the yarn with fault size options available for 3 mm, 4.5 mm and 6 mm from the yarn which are software selectable. A 3 colour display is used to indicate which fault size option has been selected and ensures security of production.

The compact Fraytec FV2 sensor has a fully sealed IP67 design with improved electrical noise immunity that can be fitted to almost all types of machine. Installation and threadguides are provided to suit the machine and threadpath arrangement.

The sensors automatically monitor their own health and compensate for contamination. In the event of faults an alarm is raised on the PC. For operation in particularly dirty or dusty environments an automatic sensor cleaning system is available.



Features and benefits

→ **Full characterisation of the size of broken filaments and slubs utilising both central and trigger optics**

Enabling quality grading to be based on fault magnitude instead of a simple count.

→ **Interlace and denier variation measurement**

Enabling grading of yarns based on interlace level and diameter variation. These advances have a substantial impact on downstream performance with Fraytec FV2 Plus providing grading based on all parameters that affect technical yarn performance.

Section module

The Fraytec FV2 sensors are connected to a Fraytec section module which is normally located in an IP54 enclosure adjacent to the position. However, in some situations the section modules can be built into the sensor mounting arms.

The Fraytec section modules carry out data acquisition, signal processing, analysis and fault identify. In the case of the Fraytec FV2 Plus system, additional processing capability in the section module provides digital capture and analysis of the broken filament faults as well as measurement on interlace level.

Software

Fraytec PC Software provides a graphical display of the machine layout with a high degree of flexibility and an unlimited number of threadlines per machine or system.

The top level screen provides an overview of both threadline running status and quality grade by the colour of the package icons.

Clicking on a winder icon displays details of the current readings and clicking on individual threadlines provides:

- Current readings
- Summary data for the package to date
- Details of off quality events
- Real time view graph
- Analysis tools to aid troubleshooting
- Quality reports from previous packages
- Access to historical trend data

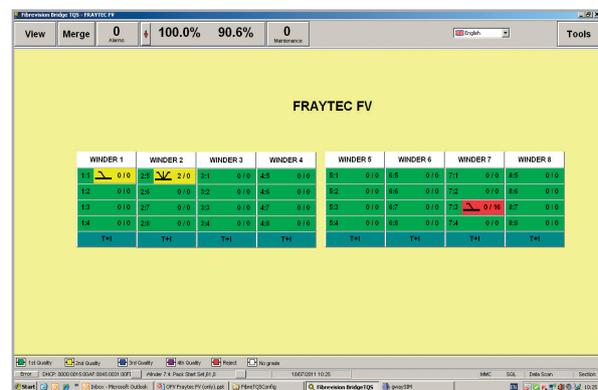
Plant integration

Saurer FibreVision offer a range of plant integration options for Fraytec Monitoring system that offer substantial operational benefits, these include:

Multi Machine Controller (MMC)

Provides the facility to control multiple machines from a single computer as well as for multiple computers to view the status of single or multiple machines. A top level screen indicates the status of the machines installed, with the ability to click through on to the current displays for each machine, with full access current data. Merge settings can also be controlled from the MMC.

Sections can be configured to operate with a maximum of 12 Fraytec sensors, but due to the high data acquisition and processing rates the maximum cable length between the section module and the sensors is 4 m. Position indicator modules (PIMs) are connected to each section module and can be mounted in a convenient location adjacent to the winder. The PIM provides a direct visual indication of the quality and running status of the current package as well as the quality of the doffed package, allowing segregation at doffing without reference to the PC.



Data export

Fraytec data is stored in a SQL database which can be queried by plant systems to extract data as required. Alternatively Fraytec can export files to the local disc that can be imported to a data base.

Doff numbers

Doff numbers can be synchronised with plant number in a variety of ways.

Fraycam 2

Provides the facility to detect and photo display broken filaments and slubs. These options will be quoted for specific installations and are subject to an annual maintenance charge for upgrades and support.

Upgrades

Saurer FibreVision are pleased to be able to offer attractive part exchange packages to update earlier generation Fraytec systems to Fraytec FV2.