

# FIBREVISION® UNITENS.

## ONLINE MONITORING SYSTEMS.

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THE STANDARD FOR DTY MONITORING.

Fibrevision Unitens has been the recognised Industry Standard for DTY Tension Monitoring on Barmag machines for many years. Unitens takes Tension Monitoring of the DTY process to new levels, by offering this market leading system for all DTY machines. Unitens is different from all other Tension Monitoring systems in almost every area – providing higher levels of performance and reliability.

### The Unitens Difference

- ▶ **More Accurate Measurement**
  - High Frequency response providing better measurement of faults at high speeds
  - Not sensitive to yarn friction, measures only real tension fault
  - Wide Range - ZERO to 150 cN allowing processing of a much wider range of yarns without changing the sensor
  - Higher Sampling Rates enables better fault analysis.
- ▶ **Less Yarn Damage**

Low Guide Wrap results in lower tensions especially important for fine, micro deniers and Cationic Yarns.
- ▶ **Better Reliability**

Rail Mounted Sensors and Electronics - provides both durability of installation as well as excellent shielding from electrical noise that can affect measurements.
- ▶ **Full Integration**

Machine Interface Modules provide Unitens with the same performance on all machine types as achieved with fully integrated OEM solutions.
- ▶ **Doff Timing**

Either Gang or Random Doff Timing with accurate package length measurement.
- ▶ **Historical Data**

Extensive storage of historical data for individual thread-lines, merge groups and machine to aid process trouble shooting and maintenance.
- ▶ **Plant Integration**
  - Multi Machine Controller (MMC) provides remote access to current status, reports and historical data from multiple PCs
  - Data Export - Configurable facility for export of data in files for database import.



### Unitens Sensor Technology

The Unitens tension sensor is the heart of the tension monitoring system and completely differentiates fibre vision Unitens from any competitive system. The well proven Unitens 5 sensor technology features:

- Accurate and stable measurement system that operates from 0 to 150cN and does not require sensor calibration and is not affected by yarn friction.
- Minimum of guide wrap (less than half of competitive systems) and low guide contact pressure - ensures suitability for processing at high speeds or with sensitive yarns and minimises guide wear even when processing abrasive yarns.

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# Fibrevision® Unitens

## Unitens Section Electronics

The Unitens sensors are connected to Section Modules which are normally located in the sensor rail and this ensures:

- Quick and simple installation
- No exposed sensor cables
- Excellent screening from electrical noise

These Section Modules carry out Data Acquisition, Signal Processing, Analysis and Fault Identification and Capture. Each section operates with up to 12 threadlines and can be configured to operate with 24 sensors when operating in Double Density mode.

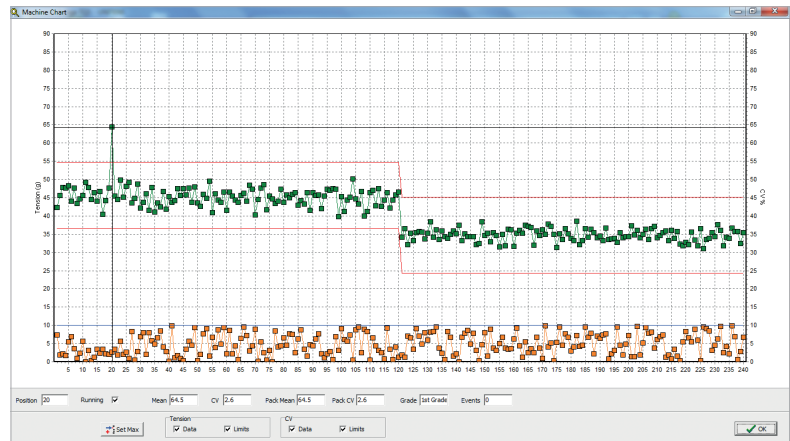
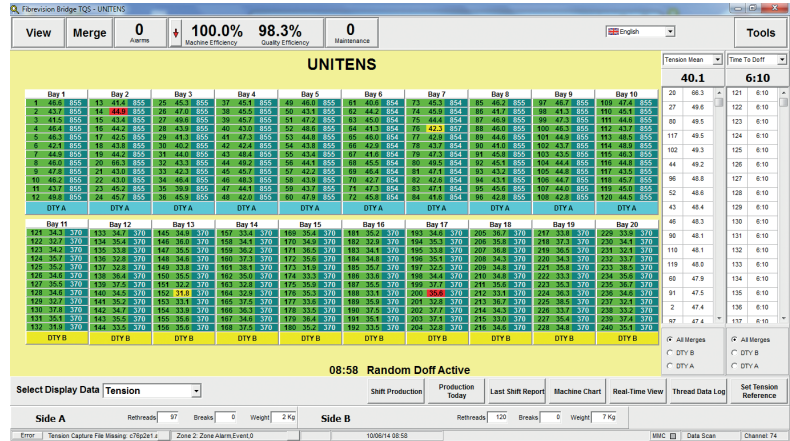
Machine Interface Modules are connected to each Section Module and these provide the system with power, pack building status and cutter control for Quality and Ply Cuts.

## Unitens Software

Unitens 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 and indicates either mean tension or time to doff.

Clicking on a section/bay icon displays details of the current readings and provides access to:

- Summary data for the package to date
- Details of off quality events
- Real Time View graph
- Extensive Shift, Doff and Production Reports
- Analysis tools to aid troubleshooting
- Access to historical trend data



## Unitens Plant Integration

Fibrevision offer a range of Plant Integration options for Unitens Monitoring system that offer substantial operational benefits and these include:

### Multi Machine Controller

Provides the facility to control multiple machines from a single computer as well as (FibreMMC) 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 and Reports
- Merge Settings
- Historical Readings Data

### Data Export

Unitens data is stored in a SQL Database which can be queried by plant systems to extract data as required.

Unitens can also export files to the local disc for import into a database.

### Doff Numbers

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