FIBREVISION® LABTEX.

QUALITY CONTROL.

PRODUCT CHARACTERISATION AND QC.

The Labtex range of dedicated laboratory instruments provides both product Characterisation and high volume QC testing.
All Labtex instruments provide state of the art analysis of the running yarn, with detailed quality data produced in a database format that can be exported into a plant QC system.

A wide range of parameters can be tested on Labtex instruments with up to 4 parameters being tested on one Labtex unit. This provides extensive data on key quality parameters that is not available on any other testing equipment.

Range	
Labtex P	Package Unwinding
Labtex PI	Package Unwinding, Interlace, Broken Filaments
Labtex I	Interlace, Broken Filaments
Labtex IR	Interlace Retention, Broken Filaments
Labtex PIR	Package Unwinding, Interlace Retention, Broken Filaments

Technology

The Labtex instruments are made up of a range of advanced technology components including:

Optical Sensors
Used to measure Interlace and Broken Filaments. Measurement accuracy is assured with fully digital analysis and automatic calibration checking.

Tension Sensors
Used for Package Unwinding analysis. These ultra high frequency response sensors are sampled at 1000 times per second allowing the shortest-term variation to be identifi ed.

Yarn Feeds
Transport the yarn accurately at speeds between 200 and 2000 m/min and allow very accurate dynamic control of yarn stretching.

Signal Processing
Dedicated processing and communication card handles the signal processing, allowing a standard Windows XP PC to be used. State of the art signal processing and data analysis software ensures extremely accurate measurements and provides a wide range of statistical data that can be exported to plant QC management systems.

Cost and Quality Benefits

- **Reduced Process Costs**
  Process optimisation by full product characterisation
- **Multi Function Testing**
  Up to 4 parameters tested on one unit
- **Product Characterisation**
  Ensures products are fully optimised for application
- **Extensive Data Analysis**
  On all Key Quality parameters

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Fibrevision® Labtex

Labtex Applications

Labtex Type	Analysis	Main Components	
		Drives	Sensor
Labtex P	Package Unwinding	1	Tension
Labtex PI	Package Unwinding, Interlace Analysis, Broken Filaments	1	Tension & Optical
Labtex I	Interlace Analysis, Broken Filaments	1	Optical
Labtex IR	Interlace Retention, Broken Filaments,	2	Optical
Labtex PIR	Package Unwinding, Interlace Retention, Broken Filaments	2	Tension & Optical

Labtex Applications

Sensor Type	Analysis Options	Range	Measurement	Frequency Response	Calibration
Interlace Sensor	Interlace, Broken Filaments	20 to 1 500 denier	Data acquisition at up to 50 kHz		ISO Calibration, including automatic contamination compensation with automatic condition monitoring and warning when recalibration is required
Tension Sensor	Package Unwinding	0 to 200 g with 0.1 g resolution		450 Hz with Data acquisition at 1 kHz	The sensor is automatically zeroed prior to each test and facilities for software checking and calibration of gain are provided

Labtex Yarn Drives

Yarn Transport
Godets with capstan wrap, the two godets are driven by a 0.37 kW inverter controlled synchronous motor.

Speed Range
200 to 2 000 m/min (normal test speed 400 m/min), digital set-points downloaded to inverter from PC

Waste Disposal
A high efficiency compressed air suction system delivers the waste yarn to the rear of the unit for collection.

Wrap Protection
A non-contact end break detector is located between the godet and the suction system. When a yarn break is detected the drive motor is stopped.

Dimensions
780 mm wide (including Creel) + Suction (about 250 mm), 530 mm deep x 500 mm high (excluding Creel), weight 56 kg.

Creel
400 mm diameter x 300 mm long, different tube diameters are accommodated with an adjustable balloon eyelet.

Labtex Services – minimum requirements

Hardware
- A PC running Microsoft® Windows® 2000 or XP Pro is required to run the application software
- Pentium 2-gigahertz (GHz) processor or faster
- At least 512 megabytes (MB) of RAM
- XVGA graphics
- One free PCI slot

Power
- 110 or 240 Volt AC 50 - 60 Hz
- Connected Load = 1 000 W
- Typical Running Load = 200 W

Compressed Air
- Clean dry compressed air should be supplied at a minimum of 5 bar
- The volume of air used will be approximately 40 m^3/hr