

## LabTEX Laboratory QC

The **LabTEX** range of dedicated laboratory instruments is designed for high volume dynamic 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 in to a plant QC system.

A wide range of parameters can be tested on **LabTEX** instruments with up to 4 parameters being tested for 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 Analysis, Broken Filament, ATY Quality
- **LabTEX I** Interlace Analysis, Broken Filaments, ATY Quality
- **LabTEX IR** Interlace Retention, Broken Filament, ATY Quality
- **LabTEX PIR** Package Unwinding, Interlace Retention, Broken Filament, ATY Quality

### Cost Benefits

<b>High Volume Dynamic Testing</b>	Fully automatic operation
<b>Reduced Process Costs</b>	Process optimisation by full product characterisation
<b>Multi Function Testing</b>	Up to 4 parameters tested on one unit

### Quality Benefits

<b>Full Product Characterisation</b>	Ensures products are fully optimised for application
<b>Extensive Data Analysis</b>	On all Key Quality parameters

### Technology

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

<b>Optical Sensors</b>	these are used to measure Interlace, Broken Filaments and ATY quality. Measurement accuracy assured by patented signal processing technology as well as ISO calibrated sensors.
<b>Tension Sensors</b>	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 identified.
<b>Yarn Transport</b>	yarn feeds transport the yarn accurately at speeds between 200 and 2,000 m/min and allow very accurate dynamic control of yarn stretching, allowing a wide range of sophisticated test techniques.
<b>Processing Hardware</b>	a dedicated processing and communication card handles the signal processing, allowing a standard Windows 2000 or XP PC to be used.
<b>Processing Software</b>	<b>LabTEX</b> instruments incorporate state of the art data analysis routines to provide extremely accurate measurements as well as a wide range of statistical data that can be exported to plant QC management systems

### Monitoring Excellence



<b>Applications</b>			
Labtex Type	Analysis	Main Components	
		Drives	Sensor
<b>LabTEX P</b>	Package Unwinding	1	Tension
<b>LabTEX PI</b>	Package Unwinding ,Interlace Analysis, Broken Filaments, ATY Quality	1	Tension & Optical
<b>LabTEX I</b>	Interlace Analysis, Broken Filaments ATY Quality	1	Optical
<b>LabTEX IR</b>	Interlace Retention, Broken Filament, ATY Quality	2	Optical
<b>LabTEX PIR</b>	Package Unwinding, Interlace Retention Broken Filament, ATY Quality	2	Tension & Optical

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

<b>Yarn Drives</b>	
<b>Yarn Transport</b>	Godets with capstan wrap. The two godets are driven by a 0.37kW inverter controlled synchronous motor.
<b>Speed Range</b>	200 to 2,000 m/min (normal test speed 400 m/min), Digital set-points down loaded to inverter from PC
<b>Waste Disposal</b>	A high efficiency compressed air suction system delivers the waste yarn to the rear of the unit for collection.
<b>Wrap Protection</b>	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
<b>Dimensions</b>	780mm wide (including Creel) + Suction (about 250mm), 530mm deep x 500 high (excluding Creel). Weight 56kg
<b>Creel</b>	400mm diameter x 300mm long, different tube diameters are accommodated with an adjustable balloon eyelet
<b>Auto Changer</b>	Compatible with Mesdan ACC Automatic Package Changer

<b>Services Required</b>	
<b>Computer</b>	A PC running Windows 2000 or XP Pro is required to run the application software; the minimum PC specification is Pentium 2Ghz with 512mb Ram, XvGA graphics. A free PCI slot is also required.
<b>Power</b>	110 or 240 volt AC 50-60 Hz, Connected Load = 1000W, Typical Running Load 200W
<b>Compressed Air</b>	Clean dry compressed air should be supplied at a minimum of 5 bar. The volume of air used will be approximately 40m <sup>3</sup> /hr.