PREMIER

iQ5™

More than an Evenness tester. The Quality Expert
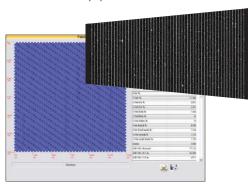

intelligent QUALITY

Fabric Simulation - For post spinning analysis

- Easy to use: A single click after completing the test simulates the fabric of desired structure

- Simulation of size 6" x 6" for the virtual feel of the fabric

- Simulation of widely used structures of Woven and Knitted fabrics. Black board simulation for earlier process correction

- Comprehensive simulation covering Regular, Slub and Fancy yarn

Slub and Fancy Yarn

- The comprehensive measurement provides important information on No. of Slubs, Slub Length, Slub Distance, Mass increase %, Mass decrease % (Left and Right), T/B ratio, Ramp, Count and Outliers

- A scatter plot helps to understand the distribution of Slubs with respect to length and mass increase

- The expected Slub distance can be entered by user and after testing, the actual Slub occurrence can be compared

- Two Slub Reports can be compared based on distribution by superimposing Histograms

---

Specifications

iQ5™
Technical Data*

Basic installation

- Single Module to test all Evenness properties
- Slub and Fancy yarn measurement & Simulation
- Hairiness Index (Hi)
- RH and Room Temperature measurement
- Fabric & Yarn board Simulation
- Lab App - Mobile App for Smart Phones
- Automatic Cop Changer

Additional Options

- Hair Count (Hc) / Hair Severity (HS)
- Diameter Module
- Coarser Sliver Measuring Slot
- 800 m/min

Application range

- Spun Yarn, Roving & Sliver : 3.3 tex to 40 ktex

Measuring principle

- Evenness and Slub Measurement   : Capacitance
- Hairiness Index   : Optical
- Hair Count and Hair Severity   : Optical
- Diameter Measurement   : Optical

* Subject to change without prior notice

Sample Presentation

- Yarn - Automatic
- Roving / Sliver - Manual

Analysis Reports

- Spectrogram (Peak & Drafting Wave) analysis
- VL Curve analysis
- Super imposing of Slub distribution
- Statistical Analysis Tool
- Trend & Comparison

Ambient Condition

- Relative Humidity : 65 ± 2%
- Temperature   : 21 ± 1°C
  (27 ± 1°C for Tropical Conditions)

Power consumption

- Single Phase 1.25 kVA, 1.5 kVA UPS
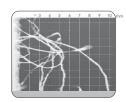
Compressed air consumption

- 18 m³/hr at 6 bar

---

premier evolvics pvt. ltd.
SF No. 79/6, Kulathur Road
Venkitapuram Post
Coimbatore - 641 062, India

Phone : +91 422 6611000
Fax   : +91 422 6611005
E mail : sales@premier-1.com

www.premier-1.com

05000118

"Unique" features

3 Hairiness Parameters

Hc: Hair Count distribution helps to optimise the compact spinning process with H3 and distribution of hairs between 3 - 10mm

Optional

HS: Hair Severity (HS), the contemporary tool represents the "severity of long length hairs", truly representing various process stages viz; Spinning, Singeing, Knitting and Weaving

Hi: The traditional Hairiness Index is used for trading purpose, which measures hairs irrespective of length over 1cm yarn length

Hyper Sensitive Imperfections

3 additional sensitivity levels, viz;

Thin -25%, Thick +25% and Neps +100% apart from the current extra sensitivity level opens up new process control possibilities

Test No.	Um	CVm	Thin (-25%)	Thick (+25%)	Neps (+100%)
	%	%	/ km	/ km	/ km
1 / 1	13.58	17.46	7860	4533	8683
2 / 1	12.45	15.93	6408	3748	7280
3 / 1	12.25	15.63	6055	3580	6980
4 / 1	11.86	15.15	5213	3088	6535
5 / 1	12.73	16.23	6833	3765	7940
6 / 1	11.90	15.24	5475	3348	6670
7 / 1	12.11	15.48	5808	3548	7463
8 / 1	11.53	14.74	5165	2973	6410
9 / 1	12.89	16.42	6898	3848	7603
10 / 1	12.44	15.89	6448	3710	7558
Mean	12.37	15.82	6216.30	3614.10	7312.20
Median	12.35	15.76	6231.50	3645.00	7371.50
S.D.	0.59	0.77	849.27	436.29	697.84
C.V. %	4.78	4.87	13.66	12.07	9.54
Q95	0.42	0.55	606.95	311.80	498.73
M.S.P. %	-	-	-	-	-

Imperfection Distribution

Independent distribution charts for Thin, Thick and Neps enable the user to visualise whether the fault is clustered or spread across the test length

The entire test length can be viewed in a single window. Flexibility to distribute the faults into 7 levels between 4 and 20
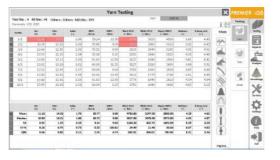

Quick Testing

Intelligent software for rapid testing and instantaneous retrieval of Reports for analyzing machine, count and lot performances
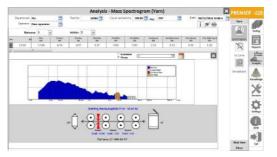
Exceptions and Alerts

The Quality expert equips the user with knowledge by highlighting the exceptions during testing which prompts the user to look into specific areas

Drafting Wave

The draft zone responsible for the drafting wave is tracked automatically, with details of draft enabling the user to initiate corrective action viz; draft setting, draft distribution etc.,
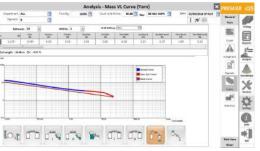

Lab App

Lab App is a smart platform for consolidating the quality status of the spinning mill in one application. This is available in smartphones from which one can get update of test results, quality trends and quality exception alerts online.
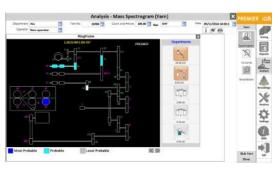

Variance Length Curve

The deviation in Variance Length curve is marked and the specific department which is responsible for the high CV is highlighted automatically

Spectrogram Analysis

Automatically identifies faulty machinery component and back tracks faults in the process upto Carding department with more than 470 gearing plans for Cotton, Man-made fibre and Worsted machinery

Trend and Comparison

The unique comparison chart enables to compare all machines in a department and machines allocated to a Count group

Statistical Comparison

Statistical analysis tool helps users to compare between test results statistically and make more accurate decisions.