Ultimo Technical Data

Basic installation

- · Differential e.m.f Detector for each Spindle
- · Individual Spindle and Section LED
- · Production and Doffing Sensors for each Ring Frame
- · Machine Station for each Ring Frame
- · End Break and Doff Indication Lamps
- · Communication: Wireless and TCP / IP
- · Network Switches and Connectivity
- · Machine Display Unit (MDU)
- · Ultimo Server

Additional Options

- Draft Monitoring
- · Energy Monitoring (kWh per kg)
- · Air Monitorina
- · End Break Indication Lamps for three Levels
- · Tab & Mobile App
- · Ultimo on Web
- · Roving Stop Motion
- · SpinBike
- · RH & Temp
- · Pneumafil Suction Control
- · Production & Energy Monitoring for Preparatory Machines

Measuring Principle

Individual Spindle : Differential emf Detection

· Production and Doff : Proximity Sensing

 Draft Monitoring : Proximity Sensing

Energy Monitoring

Key Technology

- · Detection of Roque and Slip Spindle
- · Twist Monitoring (TPI)
- · Draft Monitoring
- · Energy Monitoring
- · Air Monitoring

User Interface

- · Large TV Status Display
- · Real Time Dash Board View
- · Reports for Comprehensive Analysis
- · Mobile App for Live Information

Indication Lamps (Located at Head/End Stock, Section and Individual Spindle)

- · Normal End Breaks
- · Idle Spindles
- · Slip Spindles (Two Slip levels exceeding the Set Limit)
- · Rogue Spindles
- · Normal Breaks exceeding the Set Limit
- · Indication Lamp for pre-doff and doff

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Output Parameters

Numerical Results:

Off - Standard Positions and Deviations

- · Rogue and Slip Spindle
- · Deviation of Critical Parameters

End Breaks

- · End Breakage Rate
- · End Break Classification
- · End Mending Time

Production

- · Production
- · Utilisation%
- · Actual and Production Efficiency%

Stop

Stop%, Stop History and Summary

· Doffing%, min / doff and Doffing min

Energy Monitoring

- · kWh
- · kWh per kg (Ukg)
- · Power Factor
- · Frequency
- · 3 Phase Current & Voltage

Graphical Results:

- · Cop Analysis
- · Power Analysis
- · Trend and Comparison

Ambient Condition

Particulars

Server

· Temperature 20 to 27°C 20 to 50°C

Machine Station

Installed Power

- · Single Phase 220V AC
- · 500 VA for Server
- · 50 VA for Coordinator
- · 250 VA for Network Switch
- · 250 VA for Machine Station
- * Subject to change without Prior notice





Ultimo[®] **Ultimate Monitoring System** ISM RSM PMEM SpinBike



intelligent QUALITY

Ultimo ISM

Ultimate Monitoring System

Comprehensive Productivity and Quality Monitoring

Production

Utility Efficiency kWh

 Utilisation gpss

• Ukg • wpss

Reasons

Stops

• RH & Temp

• TPI Draft

Summary

Quality

• Slip

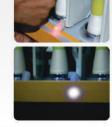
• Roque

• Comp.Air

and most importantly Exceptions...

Individual Spindle & Section LED Indications

- Easy to distinguish and indicates Yarn Break, Rogue, Slip and Idle Spindles with Multi Coloured LED
- End breaks are identified Instantaneously
- Differentiates the Ring Frame section that requires attention by the operator and maintenance staff



End Breaks

• eb/100sh

• em

Idles

Energy / Draft Monitoring

- All new Energy Monitoring with Comprehensive details
- The Intelligent Draft Monitoring system helps to highlight and alert draft deviations



Operator Friendly

- Yarn Break and Idle Spindles are distinguished by the flashing White Section LED
- Rogue and Slip Spindles are identified by the flashing **Green Section LED**



Machine Display

 Individual Machine display unit located at Head Stock provides the Number of End Breaks, Roque, Idle, Slip Spindle, End Mending Time, Spindle Speed and Efficiency for quick decision by the operator to decide the Machine side that needs immediate attention



Web based views

- Access **Ultimo** data online through web
- Requires registration

Information can be viewed from anywhere in the world



• Real Time Information • Easy Installation • Zero Maintenance · Ultimo on Web

Pneumafil motor suction control



• Pneumafil Fan Motor can be controlled based on end breaks to save power instead of running at constant speeds.

Air Monitoring

• To monitor abnormal airconsumption because of leakages and take remedial actions for reducing power cost.



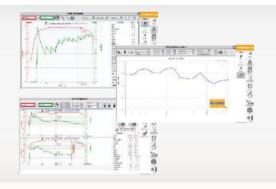
Large TV - Status Board

- Large Flat TV at vantage points to view exceptions
- Real Time Display of Shed performance can be visualised instantly



Central Dash Board and Information System

- Extended and Comprehensive **Information** of Ring frame viz. Count, Spindles, Machine & Machine Group, Operator etc.,
- Highlight Exceptions for all set parameters exceeding defined



Analysis

- Cop Stage View to analyse the effect of speed pattern on yarn breaks and other parameters
- Trend and Comparison Charts for analysing long term data
- Comprehensive analysis of Power related information

Mobile App



- Support for Apple & Android
- Available as Management and Maintenance App
- *Ultimo* Benchmark[™] for all counts

Instant Alerts

- Receive SMS Alerts for any deviations
- eMail reporting to user defined **Executive personnel**





RH & Temperature Monitoring

- Average and position wise RH/ Temperature value as live views and reports
- Helps to identify RH / Temperature deviations due to Various Ambient Conditions

Ultimo SpinBike

Unique Features

Adding convenience to operator at work place motivates and increases productivity.

SpinBike integrated with **PREMIER Ultimo** is an essential tool for spinning mills which helps operator to

- Patrol quickly and directly reach the break positions based on spindle light indications,
- Prioritise the ring frame side to be attended,
- Reduce end mending time and
- Increase operator efficiency.

Head Light for Navigation



Auto illumination on Spindles

Ring frame spindle area illuminated automatically on both sides for attending breaks.



Patrol as you wish

Highly convenient to patrol in spinning mills. Suitable for Ring frame operators, maintenance personnel and supervisors



Ultimo Data Integrated

Ultimo data Integrated through Wi-Fi TAB. Helps Ring frame operator to monitor breaks and prioritize patrolling



Ergonomic seating

Ergonomically designed seat with back rest and adjustable seat height adds comfort.



Music on-the-go

Music system provided with wire-

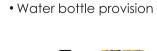
free head phones reduces fatigue to operators

• Waste basket









Inching provision



- Rear view mirror
- High capacity battery



Adjustable Speeds

• Electric & disc Brake

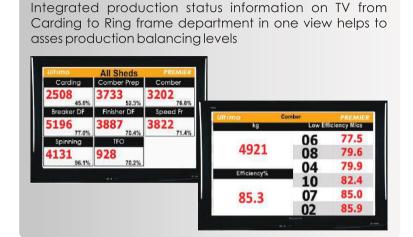
Ultimo PMEM

Ultimo RSM

For Preparatory

- Preparatory Dashboard provides production of the preparatory departments in one snap view with other key information like Utilisation etc..,
- Detailed reports on preparatory department performance with user configurable parameters.





Power Factor

Ultimo PM in Mobile App

Integrated information of preparatory machine performance in mobile app











(18-9-2015 s1 🥏 🍖 Ultimo BenchMarks

18-09-2015 S1

132.5 148.6

97.2

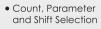
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POME STY BREAKS POWER STOPS SPANIS

%Loss-Breaks

%Loss-Idle

eb/100sh



- BenchMarks Table with Achieved and Standard values
- •gpss
- Doff%
- AEF •eb/100sh •% Loss – Normal breaks
 - End mending time
- •% Loss Idle
- Ukg
- Ultimo BenchMark[™] available on Ultimo Main App
- Ultimo BenchMark[™] available for all Popular counts (Carded and Combed)
- Automatic Ultimo BenchMark[™] updation online

RSM for Ring Spinning



- •Stops the Supply of roving when yarn breaks
- Huge savings in **Pnuemafil Waste**
- Elimination of Roller lapping and its subsequent problems like difficulty in Lap removal, Top roller and Apron damages, etc.,
- Available for Double Roving/Injection Slub
- Precise module for stopping the roving supply when yarn breaks
- Activates immediately after a yarn
- Easier lock removal for starting the roving supply
- Very minimum maintenance required

RSM for Double Roving

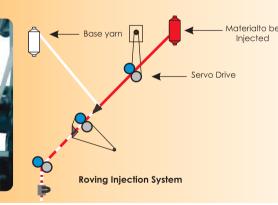


- Innovative technology by Premier for double roving feeding mechanism
- Stopmotion sensor Module Positioned in-between Back and Middle
- Two Rovings passed over the sensor. If single Roving or Yarn Breaks, the sensor will stop the supply of both the Rovings with an LED indication

RSM for Injection Slub

- No solution to stop base roving when yarn breaks until now... PREMIER has
- Simultaneous activation for both Injection & base roving material
- Helps to save expensive raw material
- Add-on module to RSM





ROI Benefits

Area of improvements	Achieved levels by mills
Man Power reduction	25%
Component damages	100%
Waste% reduction	67%
Lighting reduction	22%
Productivity increase	20%
Energy savings	Rs.110/spindle/year
Pay Back period	9 months
Autowinder Efficiency increase	2%
Reduction in second quality yarn sales	33%