# **NESTLING**



# The world of infinite possibilities...

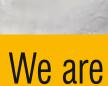




"NEST" - the world of infinite possibilities, where we think right, perform beyond limits, embrace the idea of endless possibilities and continuously learn to grow with you. We connect your aspirations with our abilities and expertise for creating healthy experience of fulfilment, success and growth.

"NEST" is the promise of Purity in cotton, Dignity in threads and Elegance in Fabrics!





# Committed to excel together...®

We see ourselves as a learning team of leaders, building bridges around infinite possibilities to create Healthy Customer Experiences. We, each one of us remain committed to excel with customers, through transforming the way we think and act.

Every act of ours is processed for understanding and organising before executing. We ensure Healthy Experience of our choices by timely evaluation and appropriate improvement plans.

#### **NEST Solutions:**

We not only understand your ever-growing aspirations; we bring together every resource at the right time and place - we do only what is right for you! we always come with the right solution that meets your present and future aspirations.

We build solutions in the form and means for creating Purity in cotton, Dignity in threads and Elegance in fabric... that work as a catalyst in your growth.

#### NEST Solutions @ Cotton

# i-Scan®

# NESTLING

#### Creating Purity in Cotton...

Creating purity in cotton is a challenge that every customer is looking at us to solve. i -  $Scan^{\circ}$  - a unique solution developed with our core values which transforms the ordinary cotton into purified cotton to ensure dignity in threads and elegance in fabrics.

For us *i*-Scan® is not a machine, it is an opportunity, a possibility and an experience built around understanding your specified and non-specified expectations. A lot of resources and efforts are organised in shaping up this opportunity as a healthy experience. It stands for our commitment to grow with your ever evolving demands and expectations through continual evaluation and improvement.





# NEST 3S Approach for Creating Purity in Cotton...

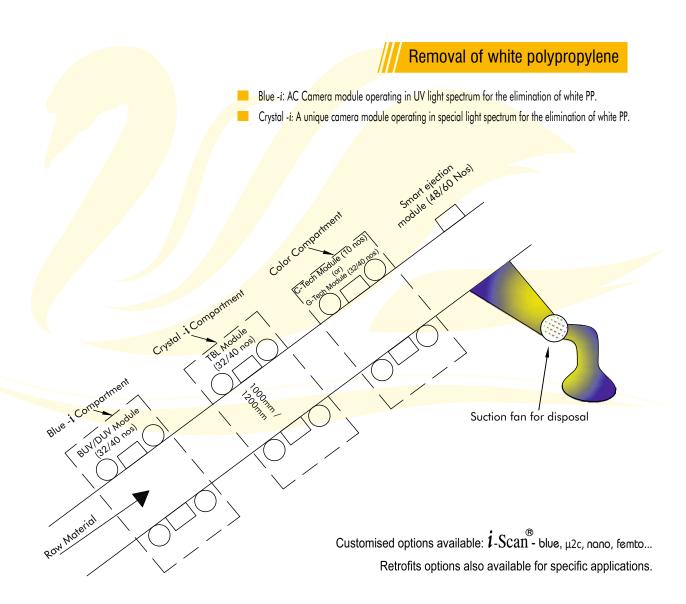
Study	Supply	Service
Defining the HCE with customer  ➤ Defining elegance in fabric for the context.	Execution Based on Time Line	Process Evaluation
Initiating Current State Value Curve we study:  ➤ Contamination level in cotton.	Conducting awareness program.	<ul> <li>Studying efficiency at blow room.</li> <li>Study of clearer cuts.</li> <li>Study of contamination level in yarn/fabric.</li> <li>Evaluating the HCE with present results.</li> </ul>
<ul> <li>Clearer cuts.</li> <li>Contaminations per Kg of Yarn / Fabric.</li> <li>Raw material mixing Composition.</li> <li>Customer's market requirement(Yarn/Fabric).</li> <li>Customer's expectation.</li> <li>Details of Blow room line sequence.</li> </ul>	Pre installation training to the relevant technical staffs.	Initiating Timely improvement Plans, based on customer experience.  Customer education program to address their specific needs and to update the technological developments.  Initiating ASC for continual performance.  Ensuring the consistency of performance by periodical engagements with customers.  Dedicated team engaging in spares support.
Initiating Future State Value Curve	Apprising the scope of work.	
<ul> <li>Identifying the specific opportunities of customized solution.</li> <li>Suggesting the right customized solution (Specification).</li> </ul>	Execution.  Post installation training.	Realizing the defined HCE



# The opportunities available for creating Purity in cotton...

#### Removal of colour contamination

- C-Tech High resolution RGB line scan camera module.
- G-Tech High resolution monochrome line scan camera module.





### Core strengths

Proprietary designed scanning zones for identifying each type of contaminations

- G-Tech Module: For detection of color contaminations.
- C-Tech Module: For detection of color contamination exclusive for femto model.
- Independently programable for identifying the right type of contamination.





Blue-*i* module: The challenge of identifying the synthetic contaminations, which otherwise merges with cotton color, is solved with our Blue-*i* module. It identifies the contamination based on the light absorption at a particular light spectrum.



Crystal-i module: For all other type of white synthetic and polypropylene contaminations, the crystal-i employs special detection principle for identifying the contaminants.

#### Incorporating Worlds' renowned core components

- Monochrome / RGB line scan cameras with bidirectional scanning are used covering the visible and non visible spectrum range for detection of color and white synthetic contaminants.
- These cameras have long service life and have very less replacement cost.







MSIP Image Processing: Camera data is processed using Multi-level advanced heterogenous MSIP technology for very high identification and elimination efficiency of all colored and white synthetic contaminations.

Specially designed smart ejection valve sourced from worlds' renowned suppliers, for accurate performance with minimum good fiber loss.



#### Future Upgrades:

Thanks to the versatile machine design keeping in mind the need for future technological upgrades in hardware and software. All future upgrades can be incorporated in the same basic structure.

#### Intelligent functions for enhanced performance

- Dust level monitor Controls the sensitivity of the scanning process and adjusts the sensitivity in real time according to the dust levels for consistent ejections.
- Lux level monitor Regulates the sensitivity to optimize the ejection even at reducing lux of lamps.
- "Auto sensitivity" corrections for ejection level depending on the level of contamination in the cotton.
- Light source: Universally available lamps are used and with longer service life. Thanks to the Auto Lux regulation programs. Lamps life upto 15000 hrs.

## NEST Solution @ Threads





Creating dignity in threads beyond spindle monitoring...

*i*-Spin ensures right value creation at right context and right quantity by understanding, organising and monitoring value creating abilities of spindles. It empowers, monitors and ensures spindles to create nothing but healthy experience - all the time.

#### Real-time monitoring of spindle performance

- To reduce dependency of skilled man power towards achieving the excellence in spinning process.
- To improve operator's efficiency by minimizing non-productive movements and providing a comfort zone.
- Understanding the need of comprehensive reporting, accessible anywhere any time.
  - Understanding the need for round the clock monitoring of:

	Ring Spinning		Preparato	ry
<ul> <li>Production</li> </ul>	• Power	• RH and Dry Bulb	<ul><li>Production</li></ul>	Power Stoppage detection
• Individual Sp	oindle sta <mark>tus - End B</mark>	reak, Id <mark>le,</mark> Rogue an <mark>d Slip s</mark> pindles	<ul> <li>RH and dry bulb</li> </ul>	<ul> <li>Utilities Power Monitoring</li> </ul>

# NEST 3S Approach for Creating Dignity in Threads...

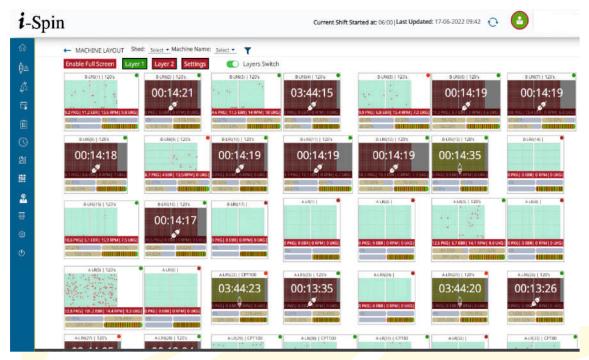
Study	Supply	Service	
Defining HCE  Ensuring elegance in fabric for the context with dignified yarn by maximising productivity along with enhanced quality.  Initiating current state value curve we study:  End breaks level.  Rogues and Idles level.  End mending time.  Cop rejections per shift in autoconer.  Identifying customer expectations.  Initiating future state value curve  Empowering the customers by providing critical data to relevant users.  Assisting customers to eliminate the quality defects.  Enhancing productivity by optimising the resources.  Magnify losses and reasons for losses.  Future ready, IoT enabled machine terminal.  Revolutionised panoramic spin view.  Highly informative dash board.  Intelligent spindle view.  Unique management reports.  Customizable reports.	Execution  Execution based on timeline.  Educating front line people for creating sense of ownership.	Evaluation and improvements  Customised performance evaluation.  Enable prognosis, than diagnostics.  Evaluating the present results are meeting customer expectations.  Assisting customers to initiate improvement plans, as and when required.  Assisting customers by continual monitoring of the process.  Conducting customers training program to address their service needs.  Initiating timely improvements plans based on customer experience.	

## Core strengths



## Revolutionised Panoramic Spin View

Enables prognosis study of defective spindles at real time



The bird's eye view of complete ring spinning facility of 50,000 spindles indicating end breaks, Idle, Rogue, Slip, production details ,UKG, doff status and maintenance status

#### Machine Terminal touch screen display



#### **Highly Informative Dashboard Reports**





#### Multi color indications for each spindle.





- Red color to indicate breaks.
- Red flashing to indicate rogue spindles.
  - Green color to indicate idle breaks.
- Green flashing to indicate slip spindles.

#### Defective cops identification

The rogue and slip spindles are identified during doffing for easy segregation and control.

#### **Key Differentiators**

- First of its kind to implement cloud based system, which facilitates huge data storage, artificial intelligence based analysis and access any time anywhere in the world.
- loT enabled Wi-Fi technology assures 100% data safety and security.
- Panoramic spin view enables prognosis study of defective spindles at real time.
- All critical data is displayed in a single screen.
- Highly functional touch screen display at each machine to analyze machine data.
- Highly informative dashboard, TV screen, mobile app.
- Video reports of panoramic view.
- Unique Add-Ons for further value creations to meet customer's specific requirements.

#### **Basic Installation**

- Optic / Inductive sensor at each spindle as per customer choice.
- Multicolor LED for each spindle.
- Production & Doffing sensors.
- Touch screen machine terminal on each machines.
- Side lamps for End Breaks, Doff and maintenance information (optional).
- Wireless communication on TCP/ IP protocol.
- Network switches for internet connections.

#### User Interface

- Touch screen machine terminals at each machine.
- Score board at customer request points.
- Operator kiosk for operators at customer request points.
- High End industrial PC for mill reports.
- Cloud connectivity for mill reports from any part of the globe.

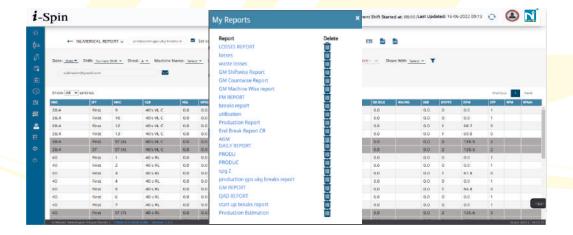
# NESTLING

#### **Customised Performance Evaluation**

# Management Information System



#### **Customised My Reports**



#### **Cloud Based system**

- Huge data storage facilities.
- Al based analysis.
- AWS cloud system.
- Three tier data safety and security provides high degree of redundancy.
- 99.99% up time.
- Customer can opt for cloud or server or both for data management.

# IoT Enabled Wi-Fi Technology

- Accessible from anywhere at anytime.
- Enabling to control the machine to optimise the performance from remote.
- Software updates possible from remote.
- 100% data safety and secured.



#### Unique add-ons.

- Preparatory monitoring system (PMS).
- Roving stop motion (RSM).
- Filament stop motion.
- SIRO stop motion.
- Bobbin run out indication.
- Draft monitoring.
- Relative humidity RH %.

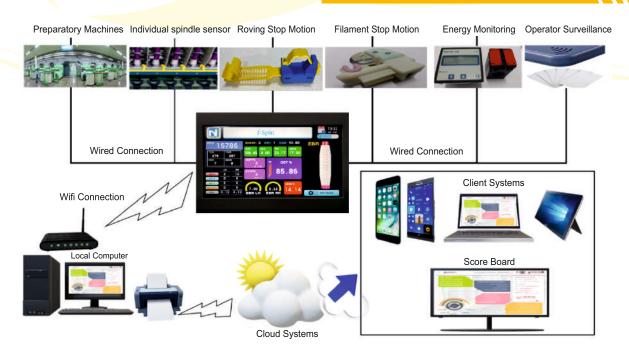
- Energy monitoring.
- Air monitoring.
- Automatic pneumafil control.
- Motor temperature monitoring.
- Operator surveillance and RF ID system.
- Automatic illumination control.
- Automatic break control system.

#### **Created Values**

- Empowering customers.
- Reduction in second quality yarn Rogue and slip spindles.
- Improvement in end mending time (Operator efficiency).
- Future ready with industry 4.0.
- 30% Energy saving by optimising shop floor lighting.
- Improvement in autowinder performance.

- Payback period of less than 9 months.
- Significant increase in productivity.
- Waste reduction more than 50%.
- Energy saving.
- 100% Eliminates Component damages with RSM.
- 5% lighter ring rail (15 kg lesser weight for 1200 spindles).

#### **Functional Architecture**





#### Sleek Sort

- ML & AI based cop sorting system



#### **Any Device**

Compatible with any autoconers and has variants of crate model for manual doffing machines and trolley for auto doffing machines.

## **Complete Solution**

4 colour bobbins can be segregated.
Other colour bobbins can be rejected.
Remanence are separated.

#### Sleek but Efficient

Sleeker design - occupies less space while offering more functionalities.

#### **Fully Automated Controls**

Machine learning and artificial intelligence enables, easy teaching and error free measurement and segregation.

- Even yarn colours can be taught and segregated.
- No special installation/ civil work required.
- One time assignment of complete colour range in mills.
- Remote assignment and remote diagnostics possible.
- Machines can be cascaded.



#### Digital Conti-feed system

- Consistency in hanks.
- Continuous feeding even while running single card.
- 20 to 30 % improvement in card sliver CV%.
- Frequent corrections in breaker draw frame can be totally avoided.
- Improvement of overall efficiency in blow room and cards.
- Supports to improve the elimination efficiency of contamination cleaning machines.
- More than 300 happy customers.
- Fully automatic smart regulation of feeding directly from chute pressure.

#### **Smart PIV System**

- Technological upgradation system for conventional open end spinning machines to improve machine efficiency and minimize machine maintenance.
- Suitable for models of BDRN/RC, BD200/200SN, BDA10N/20N, BDSD, BDD1, BD903 & LRM1/2.
- 10 30% improvement in machine efficiency.
- Power savings benefits.
- Reduction in count CV from 3.5% to below 2% without autolevelling.
- Considerable reduction in thin places and TPI variation.
- 30% reduction in warping breaks.
- Reduced maintenance.
- Flexible, easy to operate and reliable working.
- Direct reading of count and stroke.
- More than 3000 successful installations across India.





Everyone with us is engaged in bridging solutions wherever a potential creek exists. We are in continuous motion and in search of challenges. We are in search of challenging opportunities to deliver"NEST Solutions", in terms of Purity in cotton, Dignity in threads and Elegance in fabric.

We remain connected with you continuously to understand your aspirations and make them happen at the right time and place. "NEST" solutions are created with a certain roadmap, that includes,

- A right understanding of your present and future aspirations.
- Identifying and bringing together all resources required to make your aspiration to happen in time.
- Performing to create what is right for you and your customers.
- Continuously questioning the way, we think and perform.
- Facilitating the right improvement plan in time.
- Learning to create value for you continuously.

Our associates in Value Creation

For technical data sheet please contact our customer relationship Cell at sales@nestlingtech.com; info@nestlingtech.com



# **NESTLING TECHNOLOGIES INDIA PRIVATE LIMITED**

Committed to Excel together...®

"VEL'S GARDEN", No:108/6A, Kadambadi Village, Sulur, Coimbatore - 641 401, India. Phone: +91-94431 29882 / 94431 29884 / 94431 29885 www.nestlingtech.com E-Mail: info@nestlingtech.com, sales@nestlingtech.com.