



AUTOMATED OVERHEAD TRANSPORT — IN SERVICE ON A CUSTOMER WINDING FLOOR

CORPORATE PROFILE

Automation, Inspection & AI for textile mills.

Engineering the automated spinning mill — from roving bobbin transport on the ring frame to sealed, labelled, dispatch-ready packages.

Automate and Inspect to Lead

2007

ESTABLISHED

150+

SYSTEMS INSTALLED

5+

COUNTRIES

40+

YEARS IN TEXTILES

INDO TECHNOLOGY PRIVATE LIMITED

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WWW.INDOTECHNOLOGY.COM

WHO WE ARE

We build the machines that take manual handling out of the mill.

Indo Texnology Private Limited is a Coimbatore-based engineering company specialising in automation and inspection systems for textile manufacturing.

We design, manufacture and commission complete material-handling and quality-inspection lines for spinning mills — bobbin transport between roving and ring frames, cone transport from winding to packing, AI-based cone inspection, automatic weighing and packing, and automated storage.

Everything is conceived, engineered and built in-house. That means the mechanical structures, the PLC and control architecture, the computer-vision models and the mill-IT integration all come from one accountable source — and one team stands behind the installed system for its working life.

Today more than 150 Indo Texnology systems run in mills across India and five other countries, in groups ranging from single-unit spinners to multi-plant textile majors.



“We look for problems which do not have solutions yet. And we conceive the cost-effective solution, evaluate, and then commercialize.”

COMPANY PHILOSOPHY

2007

YEAR ESTABLISHED

150+

SYSTEMS INSTALLED

5+

COUNTRIES SERVED

100%

IN-HOUSE DESIGN & BUILD

What we bring to a project

01

Whole-Line Thinking

We scope the complete process, not a single machine — so transport, inspection, weighing and packing arrive as one system.

02

In-House Manufacturing

Fabrication, assembly, controls and software are produced at our own facility in Coimbatore under one quality regime.

03

Computer Vision & AI

Vision-based inspection built and trained by our own engineering team, integrated directly into the handling line.

04

Retrofit-First

Systems are engineered around your existing frames, winders and floor plan — phased so production keeps running.

MANAGEMENT

Four decades on the mill floor, and a generation of AI engineering.

T

S. Thirupathi

MANAGING DIRECTOR

- Textile Engineer — B.Tech, 1984, Madras University
- Four decades in textile equipment and instrumentation
- Founder and conceptualiser of the product portfolio
- Extensive process exposure across major textile-producing nations

H

T. Harshavardhan

DIRECTOR — TECHNICAL

- B.Tech & M.Tech, Engineering Design — IIT Madras
- 10 years in computer vision and AI engineering solutions
- Leads inspection, controls and mill-IT integration
- Owns the AI cone-inspection and analytics platform

J

T. Jaivardhan

DIRECTOR — SALES (OVERSEAS)

- B.Arch, Architectural Design
- Established textile automation in 5+ international markets
- Leads overseas projects and layout planning
- Customer commissioning and after-sales coverage

How we develop a solution

STEP 01

Find the unsolved problem

We start with the losses a mill has learned to live with — mix-ups, weight give-away, contamination, absenteeism.

STEP 02

Conceive it cost-effectively

Solutions are engineered to an Indian cost base, so the payback stands on manpower and realisation alone.

STEP 03

Evaluate in a live mill

Every system is proven in production conditions — counts, shifts, seasons — before it is offered as a product.

STEP 04

Commercialise and support

Standardised, documented and supported — with remote diagnostics and spares from Coimbatore.

The problem we were built to remove

- **Accountability.** Manual weight and article recording leaves no reliable record of who did what, and no defensible basis for invoicing.
- **Mix-ups and defective packages.** Count mix-ups and defective cones pass through manual checks and reach the buyer.
- **Manpower dependency.** Output collapses during peak seasons, festivals and elections — exactly when despatch pressure is highest.
- **Physical damage and contamination.** Every human touch adds surface rupture, soiling and quality degradation.



PRODUCT RANGE

Six systems that automate the full length of the mill.

Each system is sold and commissioned on its own, and every one is designed to interlock with the others — so a mill can automate in phases and still end up with a single connected line.

BOBBIN HANDLING

iBTS

Intelligent automatic bobbin transport system linking roving frames to ring frames on an overhead track.

- Any roving frame to any ring frame
- First-in-first-out bobbin delivery
- PLC controls eliminate count mix-up

CONE HANDLING

CTS — Cone Transport System

Picks finished cones off autowinders, rotor and airjet/vortex machines and moves them to packing.

- Article-wise sorting to pallets or bins
- No human touch, no dirt contamination
- Auto-feeds the packing line

PACKING

Auto Cone-Pack

Automatic cone packing into bags, cartons or pallets with smart weight control and barcode labelling.

- Bag, box and pallet configurations
- Net and gross weight logging
- Integrated to mill IT / ERP

INSPECTION

CONE-i

Computer-vision powered cone inspection — as an add-on to Auto Cone-Pack or as a standalone station.

- Cone-tip identification for count mix-ups
- UV contamination defect analysis
- Instant stop and alert on detection

SORTING

Sortlink Magic

AI-vision based empty-bobbin colour sorting, attached directly to auto winders.

- Six-way sorting, four colours plus remnants
- Links to all models — Murata, Savio, Schlafhorst
- No extra floor space; auto colour teaching

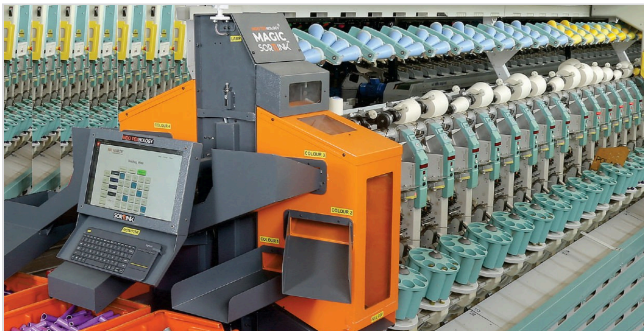
STORAGE

ASRS

Automated storage and retrieval for packed yarn — removing intermediate manual warehousing.

- High-density storage of packed goods
- Live inventory and despatch traceability
- Eliminates intermediate storage handling

Built and proven in-house



SORTLINK MAGIC — AI BOBBIN COLOUR SORTING ON AN AUTO WINDER

Beyond spinning — Knit-i, AI fabric inspection

An AI vision platform for knitted fabric inspection, developed by our technical team and deployed as a separate product line at **kniti.ai**. It applies the same inspection core used in cone inspection to greige and finished fabric — detecting defects in-line, at production speed, with a full digital record per roll.

In-line defect detection

Roll-wise digital record

Grading assistance



Cone Transport System
Scan to watch it running



Sortlink Magic
Scan to watch it running

AUTO CONE-PACK · CONE-I

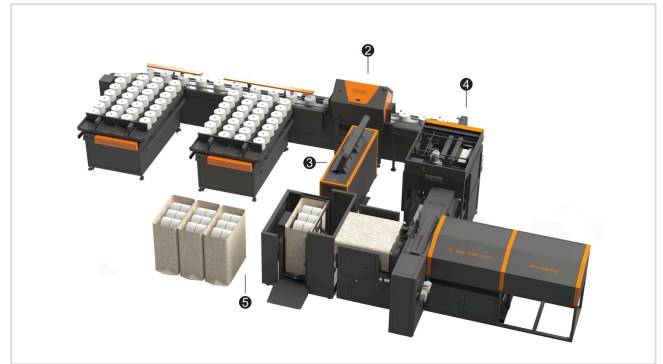
Automated packing, with every cone weighed and inspected.

Cones arrive from the winder and leave as sealed, strapped, barcoded packages — weight-controlled to your standard, inspected for mix-ups and UV defects, and logged to your ERP without a manual entry.

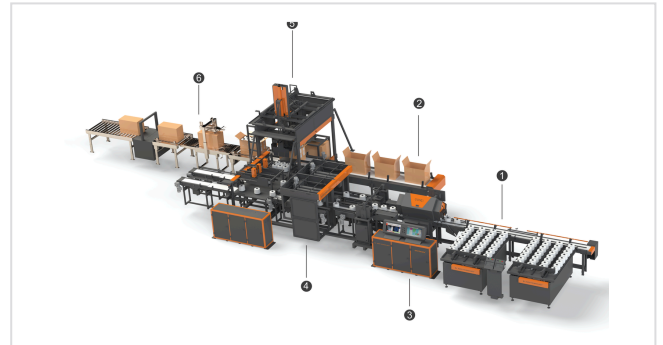
Process sequence

- 1 Loading & smart weighing**
Individual cone weight measured; cones outside the tolerance band are rejected.
- 2 AI cone inspection**
Every cone is checked for count mix-up and UV contamination, with instant stop on detection.
- 3 Group weighing & auto shuffling**
Sets are shuffled automatically so each bag or box lands inside weight tolerance.
- 4 Cone orientation**
Cones tilted to the correct attitude for the bag or carton configuration.
- 5 Polythene wrapping**
Each cone individually wrapped and sealed — consistent, repeatable quality.
- 6 Bag / box / pallet packing**
Polypropylene sack, corrugated carton or full pallet — sizes and configurations to suit.
- 7 Taping, strapping & gross weighing**
Automatic sealing and strapping, with gross weight recorded.
- 8 Barcode labelling**
Label generated and printed from captured data — no manual input.

The line



Bag packing (sack). 1 Cone weighing station · 2 Cone inspection · 3 Control panel · 4 Polythene wrapping · 5 Bag packing



Box packing (carton). 1 Cone weighing station · 2 Cone inspection · 3 Control panel · 4 Polythene wrapping · 5 Box packaging · 6 Taping & strapping



Watch the bag line
Scan for video

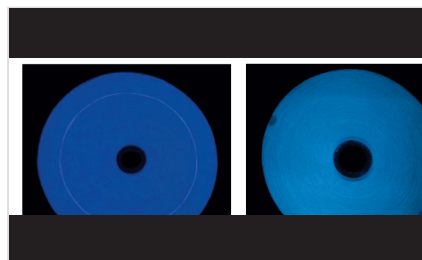


Watch the box line
Scan for video

CONE-i — what the AI inspection catches



CONE-TIP IDENTIFICATION — COUNT & COLOUR VARIATION



UV IMAGE ANALYSIS — CLEAN VS CONTAMINATED

- **Cone tip identification.** Any variation in design or colour is flagged and the line alerted for instant stopping.
- **Wrong count or variety.** Cones from another count or variety are stopped before they reach the bag.
- **UV defects.** Within-cone contamination and mix-up detected under UV.
- **Cross winding / stitches.** Detected and rejected in line.

IBTS

Intelligent automatic bobbin transport system.

Roving bobbins move from any roving frame to any ring frame on an overhead track, in strict first-in-first-out order — no trolleys, no floor storage, no count mix-up, no manual lifting.



IBTS — OVERHEAD ROVING BOBBIN DELIVERY AT THE RING FRAME CREEL

Core features

- **Flexible grouping.** Any roving frame can be grouped to any ring frame — mix and match as the count plan changes.
- **First-in-first-out delivery.** Bobbins are delivered in FIFO order, so roving does not sit and age on the floor.
- **Quality issues eliminated.** The damage and soiling that come with manual handling and trolley storage are removed.
- **Foolproof PLC control.** Controls eliminate count mix-up between roving and ring frame by design, not by supervision.

Intelligence & reliability built in

- Central control system with the fastest communication protocol
- De-centralised control stations across the trackway
- Built-in self-diagnostics
- GUI made simple for operation and service functions
- Intelligent systems — decides and operates automatically when necessary
- Visual indicators on machines showing system status and operation
- Remote diagnostics enabled
- Hard-anodised aluminium alloy profiles for trackways

Benefits

Ground space freed

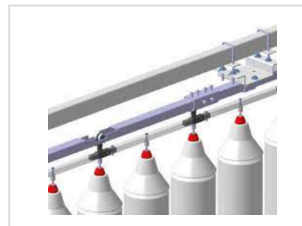
Bobbin storage moves overhead, releasing floor area for production.

Manpower redeployed

Effective utilisation of manpower — no dedicated bobbin carrying crew.

Lower power draw

Reduced power consumption against equivalent handling methods.



CARRIER & TRACKWAY DETAIL



IN SERVICE — RUNNING MILL

Options & models

Roving bobbin **stripping**

Roving bobbin **exchanger**

Interface with roving frame **autodoffer**

Buffer storage

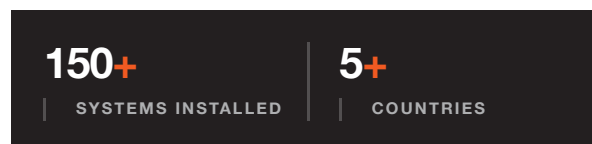
Mini automatic system

Bobbin transport and automated packing are the two ends of the same problem. Automate both and the mill runs on a continuous, traceable material flow — from the roving frame to the despatch dock.

CUSTOMERS

150+ installations, India and overseas.

Our systems run in single-unit spinners and in multi-plant textile groups — several of whom have standardised on Indo Texnology across every unit they own.



Suryalata Spinning Mills · Vardhman · RSWM Limited · Trident Group · GHCL Textiles · Nitin · GIMATex · Coats · Sudiva Spinners · Lagnam Spintex · Motherland · Sangam · Mahima · Suryaamba Spinning · DSM · Noman Group · Sagar Yarn (SMPL) · SB Rander Group · Sitaram Spinners · Suryalakshmi Cotton Mills · Lucky Groups · Baba Spinners · Chola Group · Sudhan Yarns · IndoRama Corporation · Pallavaa Group · SQ Group · Fabtech · Nahar · Pee Vee Textiles — and many more.

What our customers report

35 → 15 people

“With Indo Texnology, we reduced employee allocation in packing from 35 to 15. Weight measuring is very precise, simplifying accountability and invoicing.”

Mr. Muthu Lakshmanan, President
Pallavaa Group

+100 kg / day

“We can now pack confidently without mix-ups and UV defects with the AI powered cone inspection system. It is also helping us increase realisation up to 100 kgs per day by effectively controlling the weight.”

Management
Surya Spinners

Near-zero defects

“Defect reduction is down to almost zero after installing the Auto Cone Pack system. There is an increase in the trust from my buyers on the package quality.”

Management
Sudiva Spinners

5 units standardised

“We have installed Indo Tex ACP in all our units — five installations. SMPL is happy to have chosen ACP from Indo Texnology.”

Management
Sagar Yarn (SMPL)

Buyer appreciation

“The Auto Cone Pack System has revolutionized our yarn packing, minimizing manual handling and greatly enhancing the quality of our output. My customers started appreciating the packing quality.”

Management
Lucky Group

Accuracy up

“After installing the Auto Cone Packing System, we've seen a significant reduction in manpower requirements, alongside improved accuracy in our packing processes.”

Mr. Muthu Venkatesh
Birir Spinning Mills



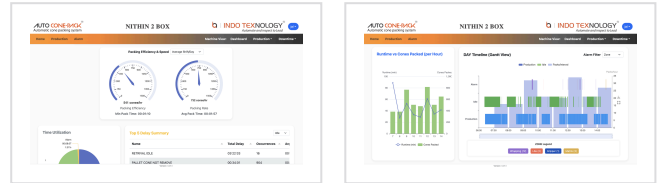
PACKED AND PALLETISED OUTPUT ON A CUSTOMER DESPATCH FLOOR

DATA & TRACEABILITY

Automation is only half of it. The other half is the data.

Every Indo Technology line is a data source. Weights, counts, inspection results, rejections, shift output and despatch records are captured at the point of handling and consolidated automatically — then pushed to your mill IT or ERP system.

- **Auto label printing.** The system captures the data and prints the label without manual input.
- **Packing reports.** Periodic and long-term analysis of packing data and statistics.
- **Real-time tracking.** Live inventory, despatch and traceability monitoring.
- **ERP integration.** Packing data by shift and by day, consolidated and integrated with mill ERP.



LIVE PACKING AND PRODUCTION ANALYTICS FROM THE INSTALLED LINE

Why Indo Technology

01

Proven in Production

More than 150 automation systems operating daily across India and five other countries, in mills including Vardhman, Trident, RSWM, GHCL, IndoRama and Nahar. Built for continuous production — not demonstrations or pilot projects.

02

Textile Expertise Comes First

We understand spinning before we design automation. Our founder brings 40 years in textile equipment and instrumentation, and we have been building mill automation since 2007. Every solution is engineered around mill operations, productivity and reliability — not generic industrial automation.

03

Engineering You Can Depend On

Mechanical design, controls, software, machine vision and electrical systems are developed by one engineering team — led by IIT Madras design engineers. Nothing critical is sub-contracted, so every part works together and the system can change when your process changes.

04

Service & Support — Online and On Call

Our relationship begins after commissioning. With built-in self-diagnostics and remote diagnostics enabled, our engineers can diagnose and help your mill engineers online — without waiting for a site visit. Several groups have since standardised on Indo Technology across every unit they own.

05

Technology That Solves Real Problems

AI cone inspection that catches count mix-ups and UV contamination before packing. Weight control that protects realisation. Packing data consolidated straight into mill ERP. We deploy technology only where it creates measurable operational value.

06

Built for the Long Run

Robust machines, documented and standardised builds, and readily available spares and service from the same Coimbatore team that built your line — dependable performance across the life of the equipment.

INDO TECHNOLOGY PRIVATE LIMITED

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FABRIC INSPECTION

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