

## LMW AND JAT TECHNO SPINTEX MILLS

SMART AUTOMATION SOLUTIONS TO SPIN SUCCESS



*Mr NK Nandhagopal – Managing Director | Ms N Janani Keerthika – Director*

The **JAT TECHNO SPINTEX MILLS** (A unit of Sathy Silks Private Limited) located at Karur established in the year 2022 is a part of the renowned Chennai Silks Group. From a humble beginning as weavers and entering retail trade in 1962 in Madurai, the group over the years ventured into several retail textile showrooms and jewellery showrooms. Their first spinning mills was established in the year 2004 at Thekkalur Village, Avinashi, Tamil Nadu with 100% LMW machinery from Blowroom to Ring Spinning.

In this competitive and challenging environment, higher productivity with consistent quality has become the key to success. As the availability of manpower has become dearer and the costs have increased to several notches, **Mr NK Nandhagopal, Managing Director**, felt that the new spinning unit must be a state-of-the-art automated plant that would deliver the expected results.

**Mr NK Nandhagopal, Managing Director, “When we decided to put up a new spinning mill, we planned to have maximum automation in the unit. As we were very much satisfied with the performance of LMW machines in our existing mill, we decided to go with the latest state-of-the-art smart automated machines from LMW”.**

## Smart Automated Spinning Mill - M/s. Jat Techno Spintex Mills

The new plant was commissioned in Oct 2022 with a total spindleage of 34,656 Spindles (1824 spindles x 19 R/f's) spinning counts 16s to 40s Ne, comprising of Blow room Bale plucker LA23/S line - 1 no., Card LC363/361 - 30 nos., Breaker Autoleveler Draw Frame LDB3 - 7 nos., Lap former LHZ - 3 nos., Comber LK69 M/S - 18 nos., Finisher Draw Frame LDF3 S - 8 nos., Speed Frame LF 4280/SX, 240 Sp. - 6 nos., Ring Frame LRJ 9/SX, 1824 Sp. - 19 nos., **Ring Frame Auto Piecing (RAP)**, Yarn Breakage Sensor (YBS) and Spin Connect.



**Compact Ring frame LRJ 9/SXL with Ring frame Auto Piecing (RAP)**

The Gentle Blowroom Line is fully Automated with Bale plucker LA23/S, Varioclean LB9/2, Unimix LB7/6 and Supremoclean LB10/2. The Blowroom Line is designed with the flexibility to process different materials. The machines come with different options of opening elements which are required to ensure effective handling of fibres.

Card LC361/363 with the highest active carding area with 36 working flats ensures effective fibre individualization. The licker-in zone has a pair of arcual combing segments which helps in better opening and removal of fused fibres in licker-in zone. Linear can changer gives increased machine efficiency.

“ Mr NK Nandhagopal, “The building was constructed with precast structures by our building construction division TEEMAGE PRECAST IN. The construction of 3,75,00 Sq. Ft. was completed in record time within 120 days (4 months).”



The **Breaker Draw frame LDB3** with single delivery performs at the highest efficiency. The higher delivery speed is achieved with a unique drafting system with shorter travelling length of sliver to coiler. The machine has a lifetime lubricated top roller end bush which reduces machine downtime. The programmable oscillating TR strip coupled with inverter-controlled fan motor ensures a clean working environment.

The **Lap Former LHZ** and **Comber LK69** are a perfect combination for higher productivity and consistent quality.

The **Finisher Draw Frame LDF3 S** with precise servo-driven operation and mechanically synchronized drive system enables impressive speeds of up to 1100 m/min. The Duo Digital Levelling Principle sets new standards for sliver quality.

**Auto Doffer Speed Frame LF 4280/SX** with 240 Spindles, is the most advanced and the longest Speed frame available in the market and provides highest value to the customer. Benchmark productivity is achieved through robust design and modular belt drive arrangement that supports higher delivery speeds up to 50 m/min.



***Speed frame LF 4280/SX***



ATC (Automatic Tension Control), the dynamic tension sensing & control arrangement, Bottom cleaning device and Dual drive arrangement ensures consistent high-quality roving. Energy efficiency is achieved through 4 segment drive arrangement, Unique CQ duct and 40 spindles modular drive for flyers and bobbins.

Features like change of draft & twist from touch screen, wider platform and bobbin lifting safety enhance user friendliness. The machine is linked to a Roving Transportation System that reduces personnel requirements and increases machine efficiency.

Mr NK Nandhagopal, adds, "The new machinery performance is highly satisfactory and the quality of the yarn delivered is well accepted by the downstream process and is appreciated by the market".

### ***Smart Compact Ring frame LRJ 9/SXL with YBS & Ring frame Auto Piecing (RAP)***



with 1824 Spindles is a smarter and more sustainable spinning solution that guarantees unparalleled spinning success. Consistent and superior quality is ensured through the Direct Loading System (DLS), a unique top-suction arrangement and the Uni-compact nozzle crafted from specially alloyed aluminum. Integrated with benchmarking compact system, specially designed for a wide range of applications, including recycled fibers ensures optimal spinning quality, while the compact roller's simple drive system and the HPM (High-Performance Module) facilitate ease of operation.

**Ring Frame Auto Piecing (RAP)** - "As Human Piecing (AHP), the fully automated yarn piecing system for Ring spinning machine consistently works 24 x 7 throughout the year, receives information on yarn break through YBS (Yarn Breakage Sensor) and travels to the spindle and automatically pieces the yarn instantly. It captures the broken end from the package in a unique way without lifting the package, then inserts the yarn into the traveler and gets over pieced. The immediate attention to the broken end ensures shorter auto piecing cycle time around 35s.

> 80% Piecing efficiency

Piecing cycle time ~ 35s

Reduced manpower

Improved productivity

Precise quality



**Mr Selvakumar, Factory Manager**

Mr Selvakumar, "The automated machine performance and the deliverables are very much satisfactory in terms of productivity, quality, user friendliness and manpower savings".

## Spin Connect

LMW Spin Connect, the web-based monitoring and control application networks the various machinery in the spinning mill. The system captures and displays parameters like Speeds, Production Stoppages, Quality, Power etc.



The system helps in close monitoring of Plant Utilization and Productivity levels and provides information on production, quality, maintenance etc. for the management team, technical team and operators thus enabling them to optimize processes and effectively utilize resources resulting in cost saving and increased profits.

## “LMW Smart Automation Solutions”

