SPINNING

World's Longest Ring Frame in Operation - LMW Ring Frame LRJ 90 (2400 Spindles with 65 mm gauge) at Pongalur Pioneer Textiles

In a spinning industry where productivity, space efficiency and energy optimization define competitiveness, Pongalur Pioneer Textiles has commissioned fourteen LRJ 90 Series ring frames from LMW Limited, each configured with 2400 spindles. The total addition of 33,600 spindles sets a new global benchmark in modern ring spinning.

A Strategic Expansion – Not Just a Machine Installation

Pongalur Pioneer Textiles, with about 1.4 lakh spindles, is known for its focus on premium combed compact yarns and strong process discipline are aimed to,

- Increase output per machine
- Improve productivity per square meter
- Reduce infrastructure intensity
- Enhance energy efficiency and to
- Maintain uncompromised yarn quality

Ring Frame LRJ 90 – The Engineering Differentiator

What truly differentiates is the breakthrough engineering innovation in achieving the longest Ring frame that redefines mills economics mainly on OPEX, Higher productivity with lesser UKG and consistency in quality.

- 2400 spindles, with 65 mm gauge
- Smart spinning geometry enabling better twist flow, increase in spindle speeds upto 1500 to 2000 rpm with lesser end breaks.
- Rugged design of spindle rail ensures higher speeds with less vibration
- 8% higher productivity & 8% space savings.
- Up to 10% power savings with HLED spindles + HK RYC along with lower vibration and sound.
- Rugged design of Head stock, drafting drive with Quadro T flex and dual drive ensures torsion free drafting load and production of slub yarns.
- New Energy efficient suction system – stationary pneumafil suction system equipped with AWES group suction as an option & Compact suction.
- Auto doffer: Peg movement - 4 pegs / stroke & pegs / min in the range of 45 – 50
- Longer maintenance intervals due to design of gripper rail up & down movement (Similar technology used in Computer Numerical Control (CNC) machines)
- Savings in OPEX – Building cost, Humidification and Lightening & Operator fatigue.
- Least cost per kilogram of yarn produced
- With optimal design of drives & rigid construction, the 65 mm gauge Ring frame achieves an at par performance with regular Ring frame with respect to Ballon control, Fly generation and Heat loads. 30,000 rpm is practically possible due to the above features.

Performance from the Mill Floor - Innovative Engineering at an Unprecedented Scale



- Stable high-speed running
- Improved manpower utilization
- Reduced operator movement (two-side operation concept)
- Faster stabilization during commissioning
- Optimized auxiliary and winding investment

SPINNING

Management Perspective:



Mr. S Aravind, Managing Director,

M/s Pongalur Pioneer Textiles

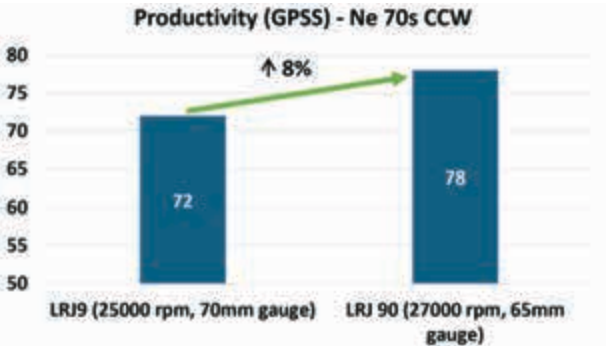
"The decision to install Ring Frame LRJ 90 configuration was taken to improve productivity, space utilization and operational efficiency while maintaining yarn quality.

The successful stabilization of the machine reflects the technical capability of the mill team and close collaboration with LMW during commissioning.

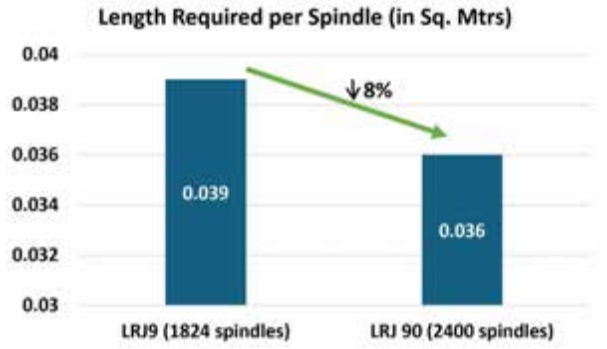
This installation strengthens the mills strategy of combining advanced technology with strong process management to remain competitive in premium yarn segments".

Since commissioning, Pongalur Pioneer Textiles has experienced strong satisfaction with the machine's performance in terms of :

✓ **Productivity:** Machine runs at a maximum speed of 27000 rpm for Ne 70s CCW, producing a remarkable 78 GPSS, 8% productivity gain compared with existing model Ring frame.



✓ **Space Savings:** 65 mm gauge concept has led to a space savings of nearly 8%, helping mills to accommodate 8% higher spindles per machine, leads to savings in OPEX.



✓ **User Friendliness**

2400 spindles machine layout allows operators to comfortably attend to just two sides of the machine instead of three. This significantly reduces unnecessary walking & operator fatigue. The result is improved worker comfort, higher efficiency, and better productivity per operator.

✓ **Auxiliary and other benefits**

Ring Frame LRJ 90 enables significant savings in auxiliary & winding investments. Increased winding drums per machine, lead to lower investment costs on the winding equipment. Also, significant savings in building cost, humidification, lightening, power distribution & OHTC etc.

Mr S Aravind adds, "This collaboration reinforces LMW's engineering leadership in longer Ring frame configurations (2400 Spdls / mc) and strengthens Pongalur Pioneer Textiles' position as a forward looking, technology driven spinning enterprise".



"Crafting Future Ready Spinning Mills"