

MODERNIZATION OF AIRJET YARN PRODUCTION PROCESS AT **LUCKY YARN TEX** USING CARD LC636 S WITH CDS SYSTEMS

Lucky Group, Erode, India is an established fabric manufacturer since 1976 with over 40 years of experience in the textile value chain. The group expanded by backward integration with the setting up of Mothi Spinners which currently has installed capacity of one lakh spindles and 58 dedicated Vortex spinning machines.



Riding on their rich experience in textile industry, Lucky Yarn Tex, the Group's flagship company, was established in 2008, with a spindle capacity of 12,000. Dynamic leadership, coupled with a dedicated team, has garnered enormous growth to the Lucky Group. Currently, Lucky Yarn Tex India Private Limited is an integrated spinning and weaving unit having 41,000 spindles, 36 Vortex spinning machines, 350 Airjet looms, and 3 sizing units to cater to the ever-growing textile market. The Lucky Group specializes in producing high quality Airjet spun yarn with process counts ranging from Ne 20s to 60s. The company plans to add capacity by 70,000 spindles and 50 Airjet spinning machines during the year 2023-2024.

When LMW launched CDS (Card with Drafting System), an integrated 2 over 2 pneumatically loaded drafting system with servo control for shorter processes, it proved to be a great opportunity for Lucky Yarn Tex who was keen on increasing productivity by modernizing their existing cards. Lucky Yarn Tex subsequently modernized their conventional Airjet yarn production process with the installation of 5 numbers of Card LC636 S with CDS machines from LMW.

Though space was a constraint, we managed to position our wider width (1.5 mtrs) Card LC636 S with CDS without making many alterations to the existing set-up for 1 mtr width Cards. Post the installation, Lucky Yarn Tex was able to achieve approximately 11 tons/day compared to approximately 6.6 tons/day earlier which is an improvement of 67% in productivity

Mr. P Kumaraguruparan, VP said, "With Card LC636 S with CDS, we have been able to increase our productivity and deliver high quality yarn consistently. With the in-built auto levelling feature in CDS we have eliminated the conventional process of 2 passage breaker Draw Frame and now the Carded Sliver is directly fed into Auto Leveller Draw Frame resulting in huge savings of recurring cost and improvement in yarn realization as well".



Card LC636 S is a step forward in our journey of breaking barriers and setting new standards in achieving consistent quality with higher precision and output.

The Card LC636 S can process cotton, blends and manmade fibres with equal ease. With the highest active carding area of 1.95 sq. m. and a cylinder area of 3.95 sq. m., Card LC636 S rates high in delivering long-term value to the customer.

With a working width of 1.5 meters, the LC636 S ensures seamless production runs and helps achieve up to 50 percent higher output, thus ensuring optimal utilization of valuable resources. This meets the mantra of "achieving more with less" which drives the changing needs of modern spinners. Lucky Group is highly satisfied with this L636S model cards as they are having positive experience with it. So far, they are running 10 LC636 S cards in Airjet spinning preparatory successfully and are expected to add 30 more cards of the same model in their upcoming investments in near term.

CDS (Card with Drafting System)

Card LC636 S with CDS incorporates 2 over 2 pneumatically loaded drafting system with servo control. The Intelligent auto levelling system ensures the consistent quality of the sliver delivered from card. CDS is equipped with easy adjustment of load for drafting rollers and a maximum delivery speed of 700 MPM can be achieved. Preparation of sliver through LC636 with CDS ensures lowest A1 faults and minimum cuts in the Airjet spinning process.

The unique design of CDS ensures quicker and effective piecing which increases the machine efficiency. The levelling of sliver takes place through the speed change of the front drafting roller ensuring no disturbance in the card speed and setting parameters. An additional high accuracy monitoring sensor ensures delivery of the desired hank. It also consists of an in-built suction system with stripper arrangement for effective removal of micro-dust.

LMW's Card LC636 S helps achieve consistent quality with higher precision, seamless production and higher output with CDS (Card with Drafting system) which is a game changer in the preparatory spinning process for Airjet spinning. The innovative solutions for the spinning processes from LMW are developed with the objective of alleviating customer pain points and catering to the needs of today's global textile market.