

Successful introduction of the fully automatic roving bobbin transport system SERVOrail Direct in the Indian market

High productivity and flexibility: The open rail system of the fully automatic roving bobbin transport system SERVOrail Direct satisfies Jay Jay Mills' needs at its best. The company benefits from the high level of automation of the system and the trouble free handling of the roving bobbins.

Jay Jay Mills India Private Limited was established in 1971 in Tirupur, South India, and has over 32 832 spindles. It uses compact-spinning machines K 42 to produce cotton yarns for hosiery and knitting applications with yarn counts of Ne 30 to 34 and Ne 40 to 44. The company also produces knitted fabrics using spin-knit technology. Jay Jay Mills supplies reputable brands and retailers in the USA and the EU. It operates plants in India, Sri Lanka and Bangladesh, as well as in Ethiopia.



Mr. B. Jaichand, Managing Director of Jay Jay Mills



SERVOrail Direct on Compact-Spinning Machine K 42 at Jay Jay Mills, India

The Challenge: High level of automation for the bobbin transport

Jay Jay Mills wanted to simplify and automate the handling of roving bobbins. The company had clear requirements for a new transport system:

- A high level of automation for transporting the roving bobbins between the roving frame and the compact-spinning machine
- Incorporation of the spin-knit machine into the roving bobbin transport system
- A simple control system for operating the roving bobbin transport
- A reduction in the amount of work performed by operating personnel and
- A controlled process sequence

The Solution: SERVOrail Direct

SERVOrail systems are available with different levels of automation and offer solutions to every customer need. The fully automatic system SERVOrail Direct is the answer to the requirements of Jay Jay Mills.

The trains can be moved into and out of the system independently at the head or the foot of the compact-spinning machines. This results in extremely short changeover times for the trains. The trains containing 152 roving bobbins move from the fully automatic roving frame directly into the bobbin creel of the compact-spinning machine K 42. There are six trains on each side of the compact-spinning machine, which enable the block to be exchanged directly from the train. The system also has a reserve rail with two reserve trains on each side of the machine. This makes it possible to avoid standstills.

Thanks to the lightweight construction of SERVOrail Direct with open aluminum rails, the system for Jay Jay Mills was designed to be entirely suspended from the roof. This keeps the footway completely clear, which makes work easier for the operating personnel and facilitates maintenance of the spinning room.

Since the SERVOrail Direct system is very flexible, the spin-knit machine could be integrated into the system. It is laid out to handle up to five assortments with a FIFO design.

The Benefits for Jay Jay Mills

The unique roving bobbin transport system SERVOrail Direct allows Jay Jay Mills to operate the system very efficiently. The open rail system enables high productivity and flexibility while also allowing energy savings to be made. The open rails mean that the trains do not have to be brought to the service station for maintenance. This keeps machine efficiency high.

With the SERVOrail Direct system, operating personnel do not need to attach the roving bobbins. The amount of work the operating personnel have to do is thereby significantly reduced. The roving bobbins are transported without being touched, and the risk of mixing up the bobbins is prevented. This guarantees that the yarn quality is always consistent and high.

The complete layout of the roving frames and compact-spinning machines, including all elements of the transport system, is visualized on the operating unit. This allows the operator to monitor the entire system and operate it with ease at a glance. If the customer needs technical assistance from Rieter, this can be provided in a straightforward manner via a VPN interface.

The proven elements of SERVOrail have a very long service life. This reduces the operating costs for the system in the long term.

Jay Jay Mills is very satisfied with the SERVOrail Direct system, which is equipped with the most advanced roving bobbin transport technologies on the market, and is benefitting from the system's many advantages. Choosing the SERVOrail Direct system has fulfilled company's mission statement of using advanced and state-of-the-art technologies.

The Customer's Statement

"Rieter SERVOrail Direct was the most suitable system for us. Once it was installed and made fully operational, we have had a trouble free experience and a very happy work force that resulted in consistently high productivity and quality from our mill.", says Mr. B. Jaichand, Managing Director of Jay Jay Mills India Private Limited.

