Our Policy

Quality of a product is what separates the best from the rest. We, at Raj Industries, strive to achieve the optimum gains by employing the most appropriate technology. The feedback from our existing clients helps in constantly innovating and ensuring an ever improving over the years.

Our Team

Supported by a team of professionals holding expertise in all aspects of this line of work, we have surpassed all benchmarks set for the textile machinery manufacturing industry. Our personnel possess vast industry knowledge and work in tandem to develop the products as per highest standards. We have with us-

- Designers • Engineers • Technicians • Quality Control Experts • Researchers
- Warehousing personnel • Packaging Experts • Clearance and Forwarding Agents
- Sales and Marketing Executives

ISO 9001 : 2015

RAJ INDUSTRIES

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Marketed by :

ISO 9001 : 2015

Cost effective
Roving Transport System for Ring Frame

Most used product across all its classes

Our latest advancement in the textile sector

MOTORISED LOOPED RTS

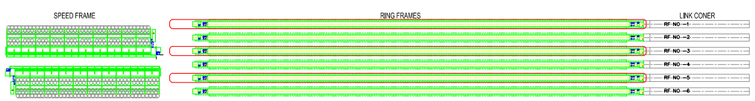
ISO 9001 : 2015

The Need

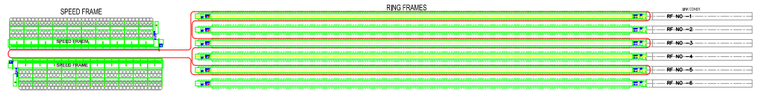
Roving trolleys, generally 800-1000 mm in width, transports Roving frame bobbins to ring frame creel in Indian mills. With the advent of auto doffing in ring frames, Indian mills are finding this transportation difficult as the trolleys may damage the auto doffer especially the doffer beams. Furthermore, manually transporting the roving bobbins to the ring frame creel is tedious, time consuming, causes more end breaks eventually degrading the quality of the roving.

Looking into these aspects and on demand from the users of Ring Frame, M/s Raj Industries, Baramati has come out with a simple and cost effective Roving Transport System (manual & motorised looped system.)

MANUAL RTS / BTS ON RING FRAME

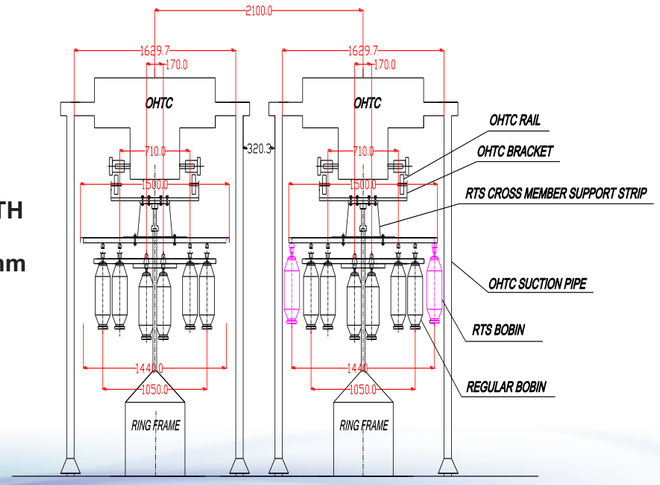


MOTORISED RTS / BTS FOR RING FRAMES & SPEED FRAMES



RTS SPINDLE DISTRIBUTION RATIO 1 SF BOBBIN : 25 RF SPINDLE TO 1:30
(CAN BE MANAGED WITH DRAFT IN SF & RF)

RING FRAMES WITH RTS & OHTC, Creel width 1440 mm



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An Overview of Raj Industries Motorised RTS, the sturdiest RTS available in the market

Our RTS has a potential of carrying 72% more bobbins compared to other RTS systems competing in the market, which provides you the capability of keeping an 8 hour shift production on the RTS well and clean, which will further boost up your Ring frame tender productivity. No need of storing material on floor, Separate Bay or trolleys.

Some Salient Features of Our RTS:

- We don't use any Plastic components in our systems, hence no breakages or system failures.
- Our flexible links are precision steel cast which last a life time of continued rough and tough application.
- Connecting links used in our system are made of Stainless steel providing much higher strength and aesthetic in look.
- 348 mm links: Shortest in the RTS market, helps make turns smoothly.
- 5 Bearing Sliding Unit System at every 348 mm are much superior to 3 bearing unit System provided in other RTS; serves to give smooth movement so that life is extended for Sliding Unit and Aluminium Rail along with lesser power consumption.
- Curves used in our system are made by the largest and well known manufacturer in Mysore, with utmost accuracy to our design.
- Four-point holding spring cushioned bobbin holders are provided at every 174 mm, from the most reputed Bobbin Holder manufacturer in Coimbatore.
- 87 Watt 4-pole motors in the system consume lesser than a 100 W Bulb and still work at half load in the loop.
- Planetary Gear Boxes : Much superior in terms of functioning and life time than the conventionally used worm gears in other RTS suppliers
- Gear Boxes used in our system are lifetime-lubricated and maintenance-free.

Safety Aspects:

- For ensuring our customers receive top-notch quality products, we pass every lot Bearings through “Destructive Testing Method / Destructive Physical Analysis”, so that they get years of trouble-free productivity.
- Each individual motor is separately connected and protected by MPCB and PLC controlled.

Slider movements are monitored by highly precise sensors, which protect the sliders and motors against any type of disruptions in the movement.

- Our Supports and Pillars are zinc plated and further powder coated lasting a life time, and procured essentially from India`s largest and most reputed Galvanised Tube Manufacturer.
- To ensure the utmost quality in our system, all our aluminium rails are precision designed in-house by our team and manufactured in the most advanced and largest aluminium extruding company in Mysore, exclusively for Raj Industries.
- Fasteners in our system are procured only from India's top fastener manufacturer.
- We use Form drilling and Tapping technology sourced from Belgium, to ensure that all the fasteners are auto locked in position.

Our well established, Legacy Manual System is also available for your service.

WITH OUR FIT-AND-FORGET SYSTEM, WE OFFER DECADES OF TROUBLE FREE SERVICE

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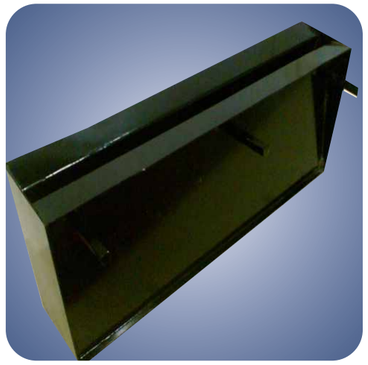
Other Products



Floor Slit

Generally, most of the Textile mill humidification plants use MS Plate fabricated hot dip galvanized floor grating. Other floor gratings available in the market are -

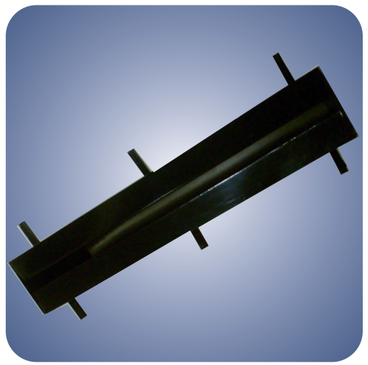
- MS angle fabricated single slit floor grating
- MS fabricated electro forged and hot dip galvanized floor grating

However, these are general engineering purpose gratings, whereas the needs of a textile spinning mill is entirely different, where climate control and air changes affect yarn production a lot.

Problems of GP floor grating

- Chokes up gradually, affecting the performance of the Humidification plant.
- Regular slit cleaning is tedious, labour oriented and practically, isn't done regularly or properly for a variety of reasons.

Advantage of our floor slit



- Self-cleaning : Since our gratings have proprietary surface treatment, it does not need any cleaning and can be installed concealed under the machine even where human reach for cleaning is difficult. Therefore, the floor gratings will remain clean and choke up free forever. This will contribute to a better climatic condition of the mill thereby increasing its productivity.
- Better environment (Humidity / climate control) : On account of sustained air changes as per the programme, the air inside the spinning hall will remain dust and fibre free and, the employees will be healthy and more productive.

Our Import substitute products and spares for Spinning

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Features

Bearing assembly :

The Roving Transport System comes with a bearing assembly exclusively designed by us for a dusty, fluffy textile Industry. All the other manufacturers use standard ball bearings available in the market. The special bearings used in our bearing assembly are dust protected. The bearings have a primary rubber seal protection and, enclosed in a double mechanical seal for dust and fluff protection. The bearing assembly does not have any component that the user can replace. The bearing assembly is totally maintenance free and does not need any blow air cleaning.

The bearing assembly has a load carrying capacity of 185 Kg whereas the maximum load during the normal working of the Roving Transport is 8 Kg per bearing assembly. The bearing assembly has a PU seating to run smoothly on Aluminium rail. All other RTS systems' bearing directly works inside the rail or use PVC wheels. Our bearing assemblies have a minimum assured service life of 5 years, and come with a one-year replacement guarantee.

Aluminium Rails :

The roving transport rails are proprietary design and have a load carrying capacity to match with our bearing assembly and give lifetime smooth service life. To avoid any misalignment and for uninterrupted movements, the rails are joined with special connectors.

Their high level delegation even visited our Premises to study our process as we were first in the industry to successfully implement the same.

Specially designed aluminium alloy rugged rails and trains for long life. Perfect profiles of rails and smooth finish ensures smooth running of trains, provides longer life and corrosion free. Highly versatile design which can be adapted to existing or new mills / frames . Can be custom designed to suit individual customers requirement.

Use of Belgian technology :

We use an exclusive Belgian Technology in our manufacturing process which enhances the Service life of our Product. We are the First Company in the Indian Sub Continent to adopt this technology and our implementation of the same was well appreciated by them.

In certain areas, manual operation is better!

RTS contribute by saving labour to a textile spinning mills and increase productivity of the operator. The main purpose of the system is to avoid taking the Bobbin trolleys into Ring frame alleys as it may cause serious damage to the Auto doffer. The repairing cost for this may run into hundreds of thousands. Our system achieves this perfectly without a hefty price tag and trivial maintenance bills. More often than not, the Hi-end RTS systems call for more maintenance than the base machine.

The simple task of moving the bobbins from the Speed frame to the Ring frame can be done automatically or in a manner less pleasing to the eye. The manual setup may not leave you commending the technology as an automated bobbin transfer system would but, it can boast of a negligible maintenance cost and the simplest of logics. The transfer is achieved in the automated system using a series of intricate steps involving sensors, pneumatic cylinders and many other high maintenance components whereas it can be done by a team of two workmen using trolleys in fifteen minutes. These trolleys use castor wheels which do not harm the floor. In case of a mechanical failure in the automated system (which is highly probable), the downtime is large and manually transferring the bobbins in the meantime is difficult as it is not designed for such a use case.

Roving transport system – variations available and their relevance in present Indian Textile

Roving transport systems available in the market are mainly of 3 types –

1) Manual 2) Semi automatic 3) Automatic

1) Manual Roving Transport -

These are with sliders generally on every alternate machine depending on machine length & customer requirement, these are creeled in alley between Speed frame and Ring frame from doff trolley and taken in the alley for batch creeling. These can be used for random need basis creeling also but detailed study shows that batch creeling is always preferable than need basis creeling. The rails for movement of sliders are retrofitted on the ring frame itself and no extra space is required. Also these systems are practically maintenance free.

2) Motorised looped RTS / BTS System -

This is the latest trend in the market and widely accepted. In this system few speed frames are looped with number of ring frames. This is continuously moving endless system.
Advantage of this system is that it can store several bobbins neat and clean. It is available for the operators easily. This system is very easy to maintain and manage.

3) Fully Automatic system -

These are fully automatic, power driven roving transport systems, needing highly sophisticated speed frames with auto doffer. The speed frame to ring frame spindle point transportation is also automatic with all inherent complications of an automatic system which are rarely maintainable in Indian spinning mills because of complicated technology, high maintenance cost, unavailability of competent personnel. As a result, after a short period, these transport systems along with highly complicated auto doffing of speed frames are left in the department as show pieces. The power cost of running this system is about 0.01 units per kg of yarn for 30 c yarn, i.e. for 30 cm bed conversion if the UKG is 3.6 the UKG will increase to 3.61 with fully automatic roving transport system. These systems cost 10 to 20 times the cost of a motorised looped roving transport system and still requires more creelers to meet time bound batch replacement.

Reference -

'Roving transport system – variations available and their relevance in present Indian Textile Scenario - A study' by Mr. A.K. Bhattacharya, B.Sc (Tech), Textiles published in the March-April 2013 edition of 'Spinning Textiles'