

# ASPIRE EXCEL AUTO DOFFER

Aspire Excel Auto Doffer manufactured from the house of Aspire Grand Excel Automation formerly Aspire Automation and Technologies is a much needed answer for a reliable, precise and cost effective doffing system for the Ring spinning machines. This Doffing system has been retrofit LR6/LR60, KTTM, Toyoda, Rieter, Zinser, Jingwei and Shanghai Erfangji Ring Spinning Frames for over 7,00,000 spindles all over India and Bangladesh. We offer good after sales support, which enhances the performance of the machine. Our continuous growth is testimony to the above and customers have acknowledged the above through their letters of appreciation.





Aspire Excel's motto is to Provide a precise Spinning Machine Automation and Deliver it on time at a fair Pricing.

### **Auto Doffer Retrofit Features**

- No need to change the spindles and if the empties are not very tight and non telescopic, no need to change them either.
- Nylon, Fail safe Gripper mechanism.
- Pegs are mounted on Steel Conveyor belt ensuring free and trouble free movement.
- The doffer is controlled by state of art PLC system and Touch screen display. The positions are marked by the proximity switches.
- Provision for Auto start of doffer, Auto Restart of Ring frame and adjacent machine

- interlock in our PLC. In case you opt to utilize interlock facility, the same can be done by connecting the ring frames and necessary 2 core/4 core cable has to be provided by the customer.
- Doffing time is 2 mins, under ideal condition.
- Easy Load, dumping type tube loader for medium counts with cops preparation time of 45 mins for 1200 spindles.
- Stacking type tube loader for coarser counts with cops preparation time of 30 mins for 1200 spindles.

- Space required from OFFEND is 1.1 metres plus space for cops collection and free movement.
- Installed power is 4.5 Kw and power consumption is 0.8 Units per doff including the power for Air consumed for 1200 spindles.
- Startup breaks can be tuned to be less than 3% and there is no need for VFD for Ring frame main motor.
- The design and operation is simple and easy for technicians to understand and maintain.

# The Factor which no one can Ignore



#### **AIR CONSUMPTION**

Air consumption is 2-3 CFM/doff and power consumed is 0.02 units/doff the least in the market.



#### **CENTRE TO CENTRE**

Centre to Centre distance required is 1.750 m, which is the least in market.



#### DISPLAY

The display will be informative and can display the fault messages for easy troubleshooting; 10 days doff history and 7 days of fault history.



#### **TUBE LOADER**

Empties can be dumped in the tube loader at OFF END/GEAR END, No need to stack the tubes.



#### **PLANETARY GEARBOX**

Planetary gear box is used for doffer beam which gives higher torque and maintenance is cheaper.



#### **YARN CUTTER**

The weight of yarn cutter is only 5-7 grams, which is the least in the market and hence Ring frame consumes less power during running.



# BOBBIN TRANSPORT SYSTEM

Aspire Excel is a renowned name in textile spinning Industry with over two decades of working experience. Aspire Excel has installed Retrofit Auto Doffers for more than 7 lakhs spindles and has established as pioneers in the spinning Industry. After successful installations, we are offering the State of the Art Bobbin Transport System. Bobbin Transport System (BTS) is the need of the hour and helps in reduction in man power and reduction in yarn faults.

# Why BTS?

- 1. Helps in man power reduction.
- 2. Easy handling of roving bobbins.
- 3. Avoids accidents in ring frame auto doffing machine.
- 4. Proper handling of roving bobbins.
- 5. Ensures better yarn quality.

# **Bobbin Transport System Features**

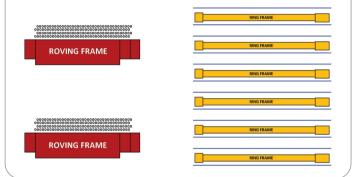
- German Technology adapted to suit vigorous conditions.
- Perfect aluminium alloy rigid rails.
- Perfect uniform profiles and rails for smooth movement and long life.
- Good quality acetate wheel for frictionless and free movement.
- Flexible design to suit customer's specific requirements.
- Backed by renowned Aspire Excel after sales support

# **Types of BTS**

- 1. Manual Bobbin Handling
- 2. Manual BTS
- 3. Semi Automatic BTS
- 4. Flexi Type Fully Automatic

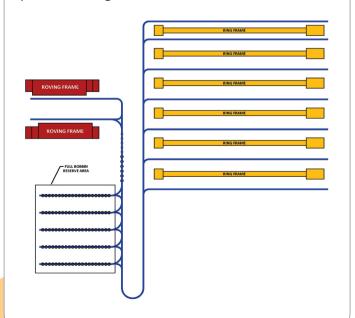
# **Manual Bobbin Handling**

The Bobbin rails will extend 2 to 3 meters from the ring frame. One rail on each side of ring frame. Empty roving Bobbins from ring frame will be loaded to the rails, manually and after removing the empty Bobbins, the full roving Bobbins will be loaded to the rails and moved inside the ring frame manually. This is the simplest and very cost effective system.



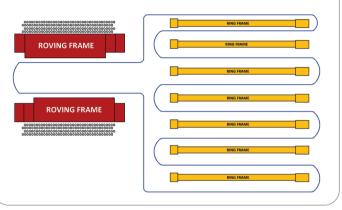
# **Manual Reserve BTS**

The rails will be fitted in the speed frame and ring frames. The Bobbins will be stored in a reserve area. The empty Bobbins and full Bobbins will be changed manually using handles, pulling from the buffer area to that particular ring frame.



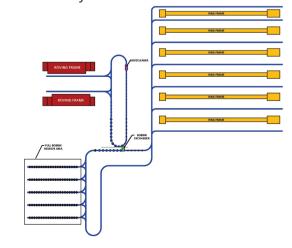
### **Semi Automatic BTS**

This is a closed loop BTS. All the speed frames and ring frames will be looped as shown. The rails will be slowly running in the loop and the Bobbin changes can be done manually, wherever required by the sider. This is Semi Automatic Bobbin transport system.



# **Fully Automatic BTS**

This is Fully Automatic System. From the speed frame rails will be connected to the buffer area, which has number of reserve tracks. The full Bobbins will be stored in the reserve area, which is managed by PLC system. Whenever full Bobbins are required in a ring frame, the sider can push a button, which automatically drives the full Bobbin from the buffer area to that ring frame, which is through pre programmed PLC system. The empties Bobbins also from the ring frames will be moved to the buffer area automatically





# EXCELspin COMPACT

EXCELspin Compact is designed and manufactured from the house of Aspire Excel Automation where all the components are made indigenously with comprehensive after sales support.



# **EXCELspin Compact Features**

#### **→ PRECISE EXCEL TUBE**

An inbuilt slot and Individual Tensioner for uniform tension to mesh aprons.

#### → COMPACTING ZONE

Positive drive for mesh apron by properly designed delivery roll drive.

#### → UNILOAD

Loading arrangement for delivery top roller to achieve excellence in compacting.

#### → STRETCH CONVERSION

Spinning angle conversion for better spinnability and performance.

#### **→ SUCTION FOR EXCEL TUBE**

Transparent and effective suction arrangement from central ducting system for easy monitoring and cleaning.

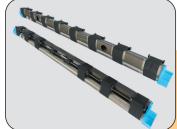
#### $\rightarrow$ CDS

Central ducting system with inverter to achieve required uniform suction throughout machine in suction tube.

- Better Raw Material Utilisation
- Increase in Yarn Strength CSP / RKM upto 15%
- Reduction in Hairiness index upto 15% (Uster)
- Improvement in IPI value











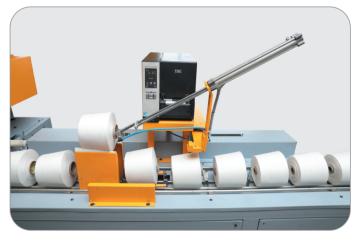
of working experience. Aspire Excel has installed Retrofit Auto Doffers for more than 7 lakhs spindles and has established as pioneers in the spinning Industry. Built on the trust and name gained motivated us to develop the Auto Cone Packing System.

# **Working Principle**

Automatic Cone Packing system weighs the Individual Cones, Paste Cone Weight in the Cone, automatically wraps the cylindrical/conical cones with Thin Polythene Paper, Places the cones in a predetermined matrix and packs them in HDPE Bags and or Carton Boxes.

# **Advantages**

- → Completely Automatic System
- → Reduces Manual Material Handling
- → Reduction in Man Power
- → Customised linking from Autoconer to Cone Packing - Optional
- → UV Inspection Optional
- → Individual Cone Weight Stickering
- → Overall Package Weight
- → Cost Effective and Reliable







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