

Structural Sections Packaging System



Ingot Packaging System



►►► Scope of Automation

- Input from pile forming system to packing line conveyor
- Online pile weighing
- Compacting
- Strapping with (or) without tag application
- Exit conveyors
- Bundle accumulation

►►► Our Installations at...

- JSPL
- TISCO

►►► Benefits

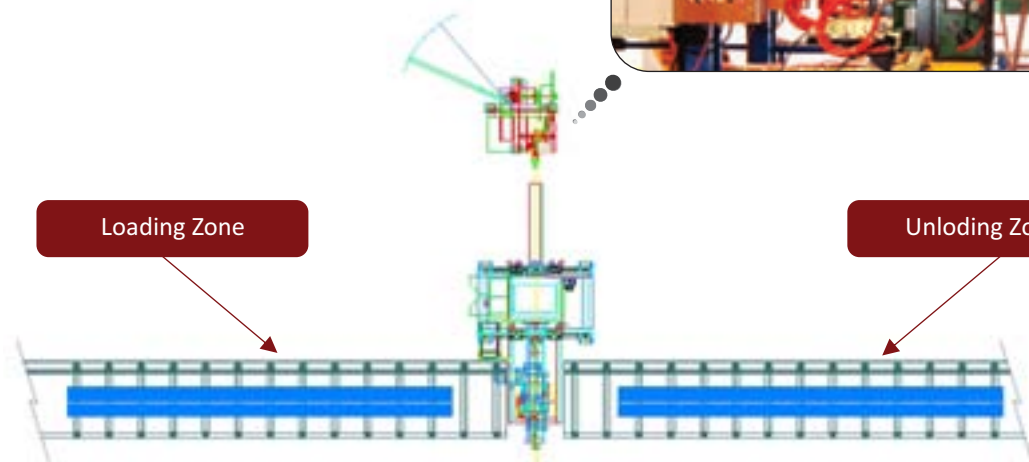
- Bundle integrity and identification
- Improved productivity and safety in forming and handling bundles
- Operator-less and error-free strapping and label printing
- Branding
- Tracking of bundles from production to finished goods warehouse
- Integrated with crane automation

Strapping Zone



Loading Zone

Unloading Zone



►►► Scope of Automation

- Input from the furnace conveyor
- Automatically stacked by a robot
- Matrix formation
- Pneumatic compacting
- Longitudinal and cross Polyester strapping
- Online weighing
- Automated bar code label application
- Accumulation of the packed ingot bundles
- 3 Axis manipulator for unloading
- Transfer to the warehouse based on bar code data

►►► Benefits

- Higher Productivity
- Improved handling
- Secure access - eliminated man power involvement in the hazardous furnace environment
- Organized stacking and high tension strapping for better bundle integrity

►►► Our Installations at...

- HZL
- BALCO
- Veergurjar

Robotic Stacking Zone



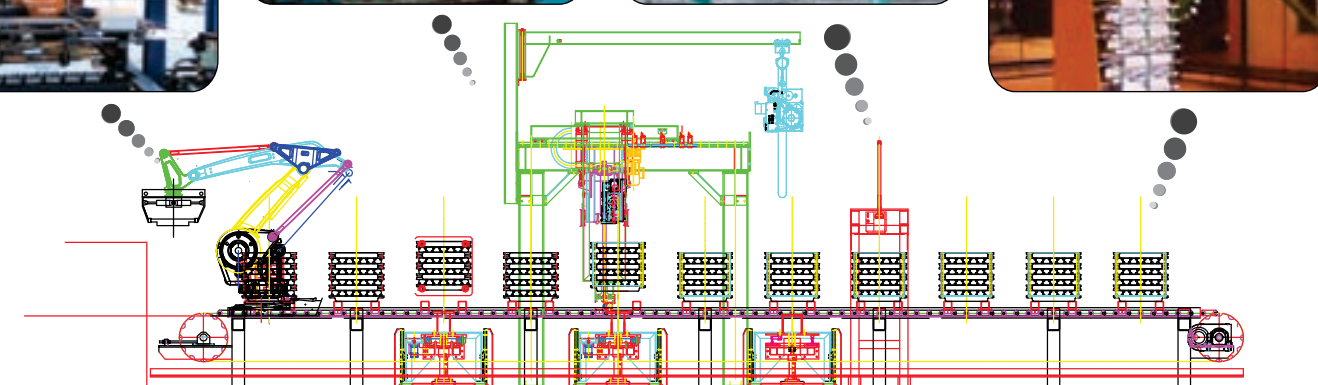
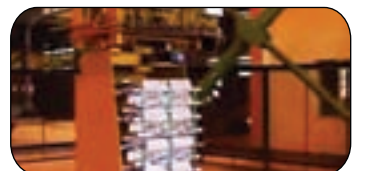
2 X 2 Strapping Zone



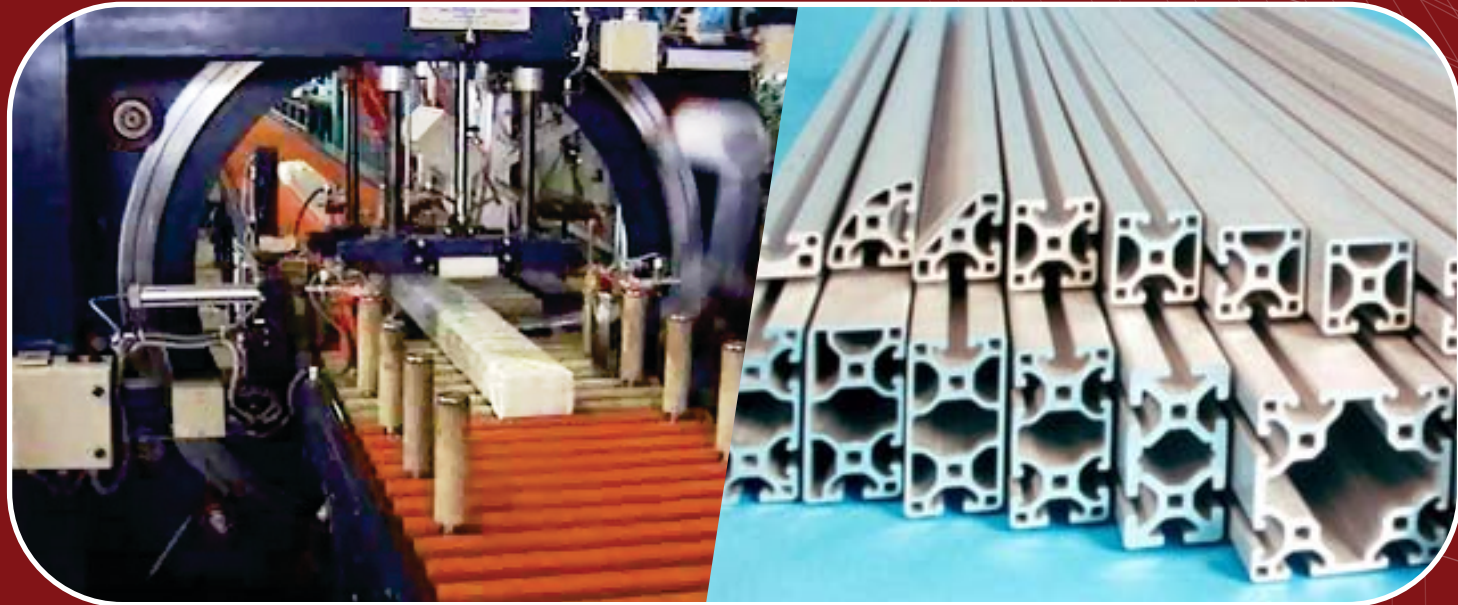
Label Application Zone



Unloading Zone (Manipulator)



Aluminum Extrusion Packaging System



►► Scope of Automation

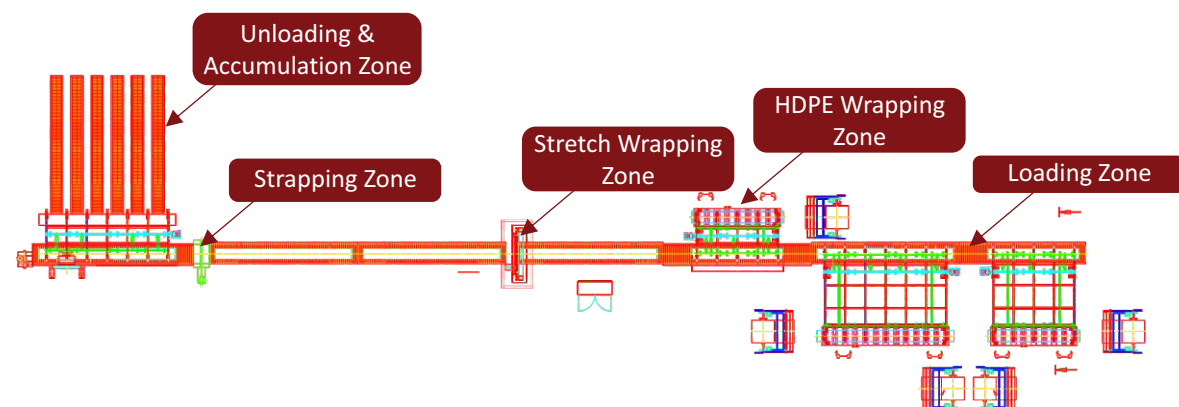
- Input from the storage racks
- Bundle formation as per specified bundle weight
- Wrapping with HDPE fabric
- Bundle transfer to the main line by transfer conveyor
- Spiral wrapping with stretch film
- Plastic strapping or BOPP taping at multiple locations along the length of the bundle
- Automatic label application
- Bundle transfer to the accumulation conveyor through transfer station
- Bundle unloading and storage in the warehouse

►► Benefits

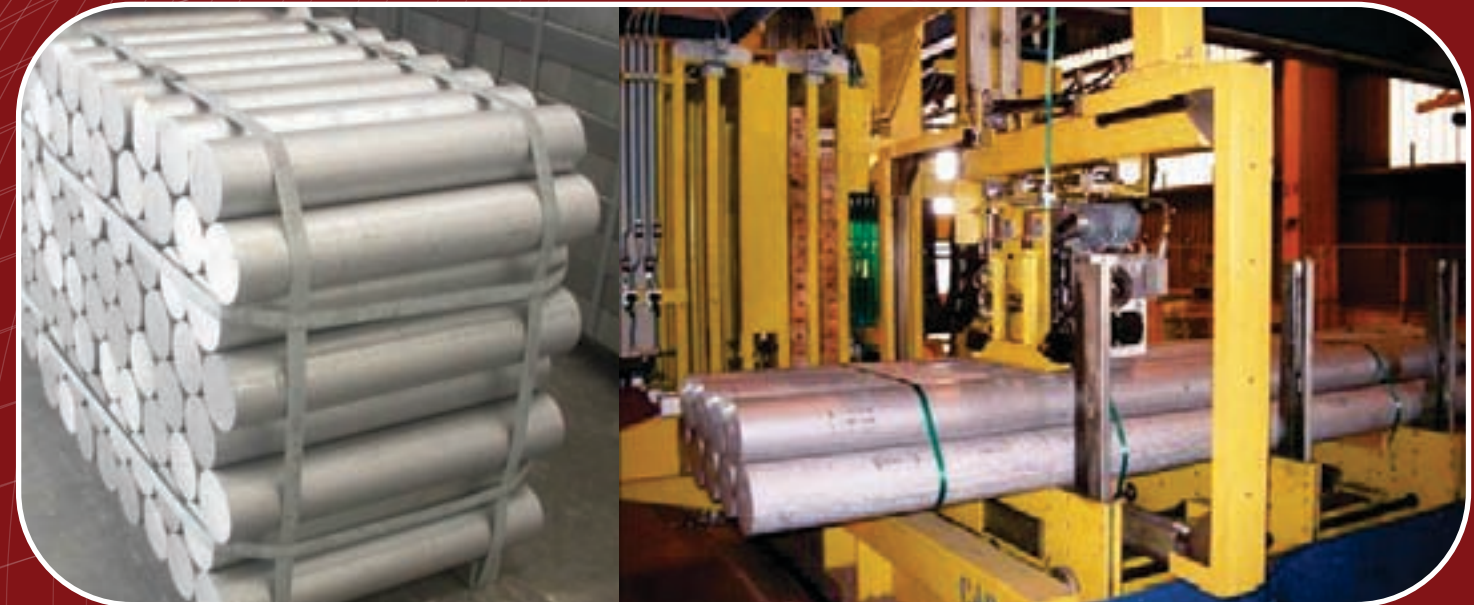
- No relative movement between the aluminum profile and PU coated conveyors, hence no scratches
- Operator-less and error-free strapping and label printing
- Higher throughput can be achieved due to multiple bundling stations and in-lining
- Better pack consistency due to ease of handling
- Branding is possible on HDPE wrapper
- Manpower saving as gunny stitching operation eliminated

►► Our Installation at...

- HINDALCO



Billet Packaging System



►► Scope of Automation

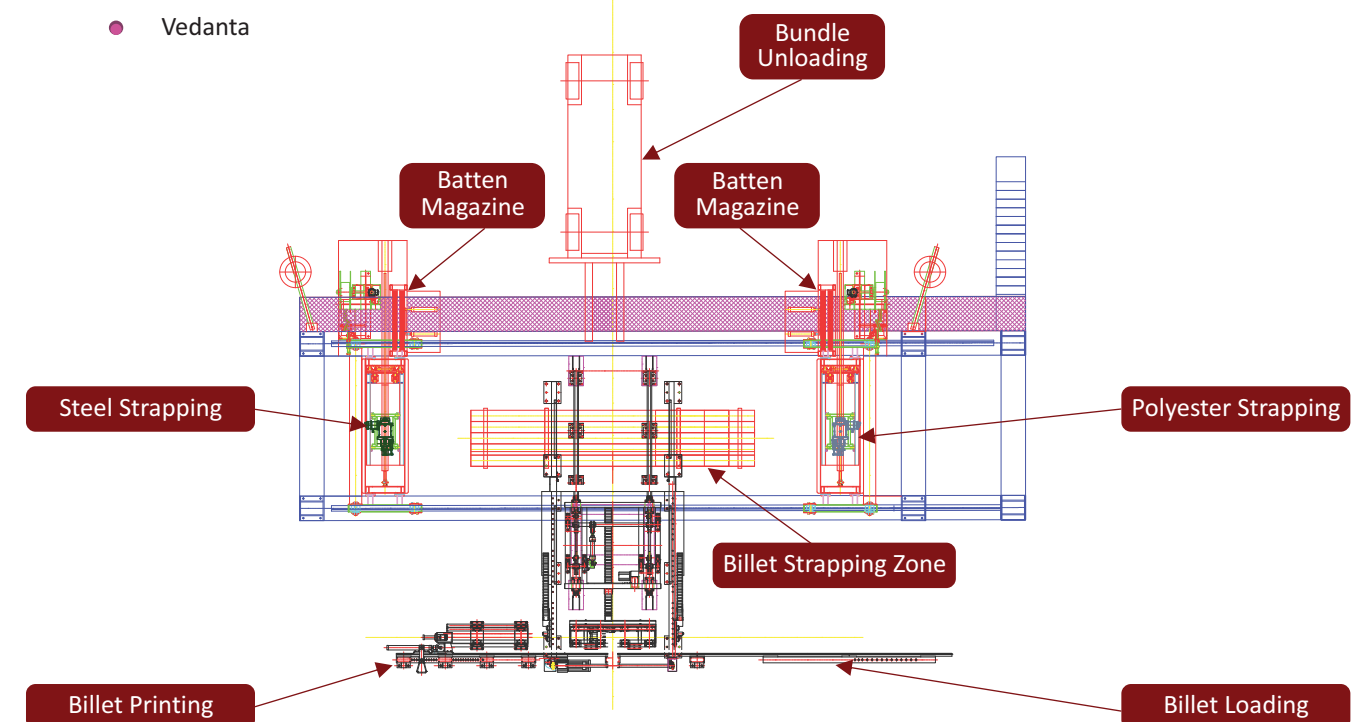
- Billets are received online
- Automatic stack formation
- Polyester/Steel strapping
- Online weighment
- Label generator and applicator
- Bundle accumulation

►► Benefits

- Bundle integrity
- Fully automated
- Branding with customized tag
- Tracking of bundles from production to finished goods warehouse
- Freight cost reduction

►► Our Installation at...

- Vedanta



Continuous Copper Rod Coil Packaging System



Wire Rod Coil Packaging System



►► Scope of Automation

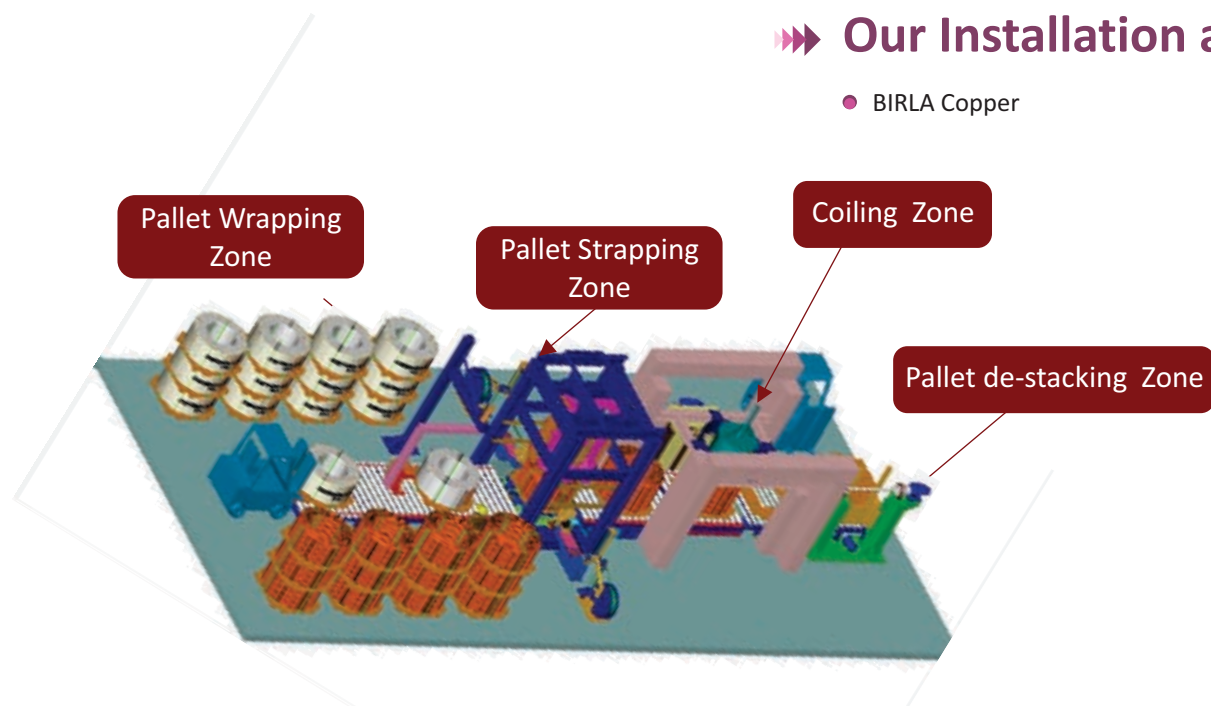
- Pallet de-stacker releases empty pallet to the line
- Coil loading on the pallet from the coiler
- Pallet weighing
- Hydraulic compacting
- Twin head polyester strapping with pallet
- Label printing and application
- Stretch wrapping
- Pallet accumulation

►► Benefits

- Coil receiving on a lowering platform thereby reducing coil damage during loading
- Retention of coil shape due to uniform compression during strapping
- Higher throughput due to online compacting and strapping
- Optimum packaging cost
- Minimization of transportation cost due to optimum space utilization after compacting

►► Our Installation at...

- BIRLA Copper



►► Scope of Automation

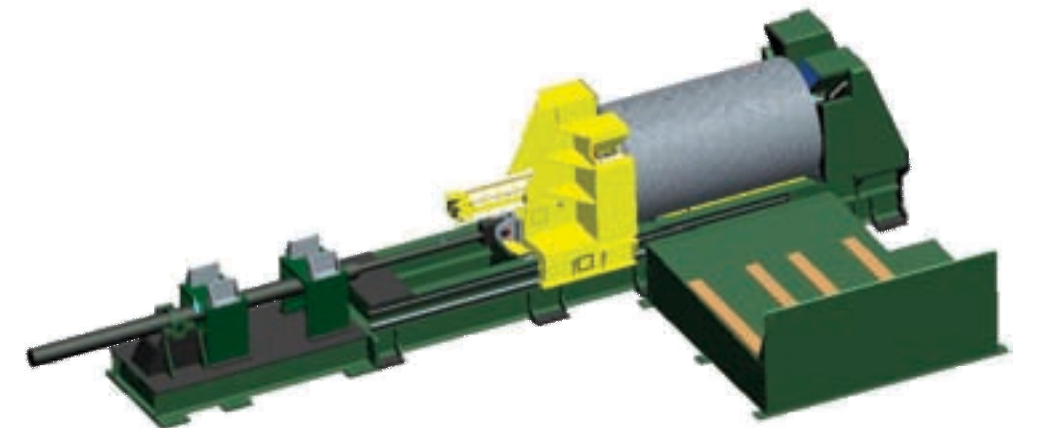
- Coil placement on the packaging machine by C-Hook
- Hydraulic compacting
- Simultaneous 4 eye-strap application
- Printing on strap/auto tag application
- Coil wrapping (optional)
- Offloading by C - Hook Conveyor

►► Benefits

- Freight cost reduction due to better space utilization post compacting
- Online printing and labeling on strap
- Wire rod coil identity ensures there is no rejection due to misplaced labels
- Higher productivity due to integration of compactor/strapping with hanger conveyor
- Uniform tension across the length of the strap

►► Our Installations at...

- JSW
- JSPL
- Mukund

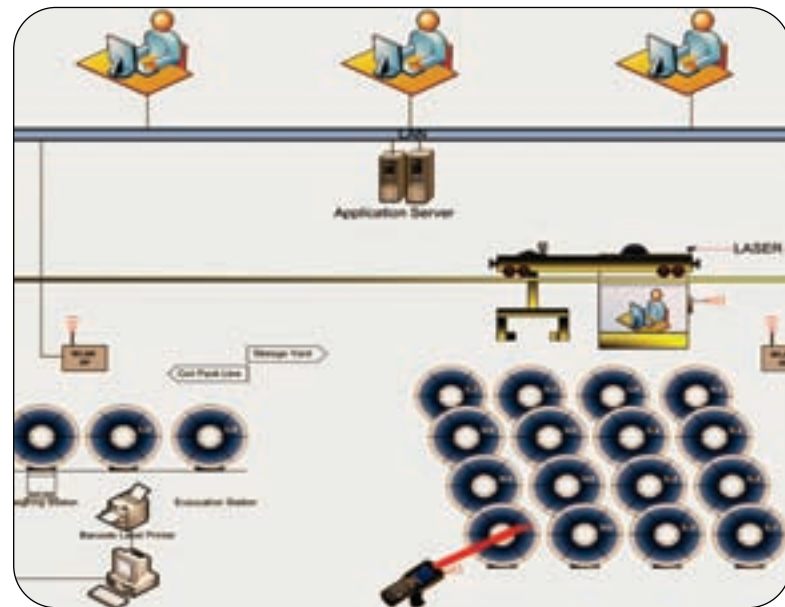


Patent pending

Warehouse Solutions-YMS (Yard Management System)



Warehouse Solutions-ASRS (Automatic Storage and Retrieval System)



80/20 Benefits

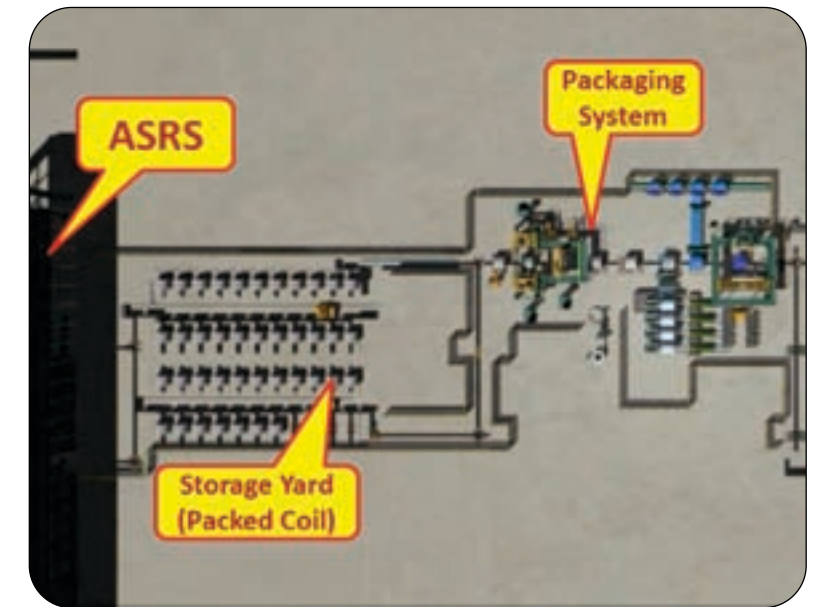
- Investment realization
- Optimum asset utilization, line utilization and crane utilization
- Savings on material losing identification and there by downgrading
- Reduced inventory carrying cost of finished goods due to well planned system
- Realization on better delivery compliance compared to manual system
- Saving on manpower resources
- Realization due to less material handling

WMS Scope of Work and Concept



Our Installations at...

- ESPF
- SAIL-Bokaro



80/20 Benefits

- Organized storage
- Proper tracking and faster inventory control
- Reduce excessive handling of product
- Requires less maintenance
- Increases response time to customer demand
- Improves labor productivity
- Increase productive capacity of existing floor space
- Reduces and maintains accurate records inventory
- Reduces product damage, location errors and shrinkage due to minimum product handling