

Automated Over and Under System



APPLICATION:

An Airfloat customer needed a safe solution to their material handling needs. A very limited amount of floor space was available for reusable, nestable dunnage to be presented to a robot for part loading and a full dunnage rack removed.

SOLUTION:

Airfloat designed and manufactured a fully Automated Over and Under Conveyor System with a programmable pick and place system. The over and under system allows queuing of two empty stacks (three pieces of dunnage in each) on the upper level and two full stacks on the lower level. The pick-and-place unit picks up one layer of empty dunnage and places it at the operator load station. This station consists of a hydraulic scissor lift table which is controlled to keep each dunnage layer at a consistent height for robot loading. The system even handles the optional, metal rack which can be run through the system (single layer only with a metal rack). Once the dunnage is full, the over and under powered conveyors advance the load to the discharge section. All system controls communicate with the robot controller to coordinate movements and loading status.

BENEFITS:

- Heavy duty system handles a 3,000 lbs dunnage capacity.
- Two stack queuing allows extremely high running efficiency.
- Consistent presentation of dunnage to robot
- Reliable Programmable Logic Controller, sensor verification, and safety features