

Atlas
End of Line Part Racking
Systems





Overview

Atlas End of Line Part Racking Systems were developed to improve part flow from the press and improve the AGV and/or fork truck traffic associated with the delivery and removal of part racking containers.

End of Line Systems are high speed conveyance devices that are located at the end of a transfer press or after the last press of a tandem line. The system services multiple racking stations simultaneously, delivering parts in close proximity to the associated container.

End of Line System configurations provide a zone between the racking personnel and the aisle utilized for fork truck traffic. A clear pathway for plant traffic allows efficient container delivery and removal, yet keeps a safe distance from the racking personnel, thereby preventing injury.

With an Atlas End of Line System, the press is able to run at optimal speed because the parts are equally distributed to personnel in an ergonomic fashion. This provides for higher throughput and higher safety associated with loading part containers.

How it Works....

Atlas End of Line Part Racking Systems may be implemented with Transfer Press Lines or after the last press of a Tandem Press Line and are configured to meet the customers requirements for line speed and the available footprint for the equipment.

The Transfer Press System will typically consist of the following:

A multiple lane exit conveyor having a fixed length, an adjustable height load end (fixed height discharge) and adjustable width using the outer belt conveyors. All motions are powered and programmable. The exit conveyor will deposit the parts onto one of two belt conveyor systems mounted to a cross shuttle mechanism. The cross shuttle will be used to position the conveyor in front of the pack out (part) tray. The operator manually removes the parts from the pack out tray and loads the racks.



How it Works....

The Tandem Press System will typically consist of the following:

A multiple lane exit conveyor having a fixed length and fixed height.

The exit conveyor deposits the parts onto one of two belt conveyor systems mounted to a cross shuttle mechanism.

The cross shuttle will be used to position the conveyor in front of one of the three pack out or part trays.

The operator manually removes the parts from the pack out trays and loads the racks or containers.





System Features

Atlas End of Line Systems are constructed of a modular design, allowing multiple configurations to suit our customers exact needs. Each system includes the runout conveyor, shuttle conveyor and packout (part delivery) trays. Part delivery trays include fluorescent lights for visual inspection and may include cup holders and fans for operator convenience and comfort.

End of Line Systems are capable of processing double unattached parts and are equipped with part sensors on the conveyors. Indexing of the conveyors is controlled by motion controllers and a PLC.

The runout conveyor can be adjustable for height and width and is constructed with a urethane belt, mounted to a steel slider frame that has a center drive pulley and take-up mechanism. The mounting brackets on each conveyor will accept the ridged mount for the linear bearing for adjustable width (18" per side).

Flush to the floor part rack turntables are available along with a more compact design which incorporates a shuttle that rotates slightly at the end of its travel. This permits rack turntables on the floor with a reasonable footprint in situations where space limitations are a concern.

As an option, a center part racking station may be added for flexibility in low and high speed operations.

Robotic part racking is available and may incorporate vision systems. Atlas can provide robotic simulations and reach studies for the customers choice of robot vendor



Specifications

In transfer press applications, a manual rack loading End of Line System is capable of managing 16 parts per minute (32 double unattached).

In tandem press line applications, a manual rack loading End of Line System is capable of managing 12 parts per minute (24 double unattached).

The actual production capacity is dependent on press speeds, number of racking stations implemented, dies and part sizes.





The Objectives

Our customers have based their equipment acquisition on the following three objectives:

First: Increase stamping capacity within the existing floor space. This provides more effective use of existing presses and eliminates the material handling bottle neck at the end of the line. The End of Line System also helps to ensure consistent part quality because each blank is hand inspected.

Second: Improve traffic and part flow through the plant. Open isles for material handling equipment and personnel allows easy pick-up and drop-off of containers. By having empty containers available for operators to utilize, production capacity increases because the press remains active at all times.

Third: Improve the ergonomics of part racking for the associated personnel which reduces lost time due to injury and insurance claims.

End of Line Systems accomplish all of these goals and increase throughput at the same time.



Manufactured in America with Pride

Atlas Transfer Carts are manufactured and assembled in Fenton, Michigan. We utilize only top of the line components from as many local suppliers as possible.

We take great pride in our ingenuity and engineering skills and are proud to say, without hesitation that we have the finest machine builders available. Our plant is full service, from mechanical and controls engineering to fabrication and machining...we offer it all under one roof.

Every Atlas project is spearheaded by a contract manager that is intimately familiar with your industry and requirements. We feel that one point of contact for all of your program needs ensures complete information and less hassle for you.

Our service department offers the best coverage in the industry...24-7-365 in the event you ever need it.

What does this mean to our customers? Quality. Durability. Satisfaction.



Die Handling Automation • Robotic Integration • Sheet Metal Handling • Tri-Axis Transfers
System Integration • AS/RS • Washer & Oiler Systems • Automation Tooling

Why Atlas?

Our Promise....Atlas listens to you, the customer.

We embrace your vision and understand your motivation.

It's our culture of total commitment that allows us to conceptualize solutions tailor made to fit your specific applications...creating world class material handling systems that will exceed your expectations.



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