

Atlas

Bundle Turnover/Part Inverter Systems





Overview

Atlas Part Inverters (Bundle Turnovers) automate the process of rotating an entire stack of materials 180°. This process is utilized in pressrooms to create opposite handed parts while eliminating the need for a second die. Part Inverters are also utilized to reorient stacks of blanks to a specific location on a pallet for specialized destacking operations. A Bundle Turnover eliminates the difficult task of reorienting blanks by hand or by crane and reduces the likelihood of damage to blank or material quality. This technology has also been utilized to turn dies over and separate them for cleaning and maintenance.

Bundle Turnovers may be utilized with any type of material, such as stacks of steel blanks, steel plate, aluminum, marble, corian, etc. or objects such as molds or dies or crates.



Bundle Turnover Styles – C Frame

Atlas C Frame Bundle turnovers (Part Inverters) are designed for loading and unloading via fork truck or AGV. Items are placed in one side, rotated and are delivered to the opposite side. The C Frame style of inverter requires no peripheral automation such as in-feed conveyors. Its load opening spans the entire length of the clamping platen and can accommodate a wide variety of stack sizes. Design is based upon customer specified lengths and weights. The “soft touch” clamping feature ensures gentle handling for surface finish quality. The C frame style turnover may be used with steel or wood pallets. All stacks are loaded and removed from the inverter on pallets.

Sequence of Operation:

1. After a palletized stack of blanks with a second pallet on top, has been loaded into the turnover, the operator initiates the rotation.
2. The upper platen will lower and clamp the stack
3. The unit will then rotate the stack 180° and lower the platen
4. The operator will then remove the inverted bundle and two pallets from the opposite side
5. The turnover is then rotated back to the load position and is ready for the next load.

Cycle time for the above sequence is less than 3 minutes.



Bundle Turnover Styles – Barrel In/Out Same Location

A load table will accept a stack of blanks loaded onto one of 2 different sizes of steel pallets. All stacks and pallets are loaded and removed from the turnover on subplates. The subplates are used to sit the pallets onto. This provides a common size plate to move the stack on the pallets into and out of the turnover. An in-feed conveyor moves the pallet into the inverter, the platens raise and then the bundle of parts will rotate 180°. The rotated pallet will exit from the same locations as it entered



Bundle Turnover Styles – Barrel Enter Front, Exit Rear

A load table will accept a stack of blanks loaded onto one of 2 different sizes of steel pallets. All stacks and pallets are loaded and removed from the turnover on subplates. The subplates are used to sit the pallets onto. This provides a common size plate to move the stack on the pallets into and out of the turnover. An in-feed conveyor moves the pallet into the inverter, the platens raise and then the bundle of parts will rotate 180°. The rotated pallet will exit through the rear of the turnover.



Features & Available Options

FEATURES

- Modular design
- Quick, safe, productive turnover of heavy or stacked items
- PC based remote access diagnostics via modem
- HMI user interface
- Electric, hydraulic or pneumatic power
- Multiple sized part capability

OPTIONS

- Fully automatic, one button cycle
- Extreme lengths for frame dies
- Touch screen user interface
- Programmable pressure sensors
- Powered in/out loading
- Automatic weighting feature
- Stack counting
- Die separator



The Benefits

Eliminates the need for a 2nd die for opposite handed parts

Safely and efficiently turns over a stack of material

Can be used with or without pallets

Safe & Controlled Process

Can be designed to separate molds or die sets

Barrel, "C" frame or side load styles available

Manual operation is standard, automatic "one button" cycle is available as an option

Gentle blank handling with "soft touch" clamping feature

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.



3100 Copper Avenue
Fenton, Michigan 48430 USA
Phone: +1 810.629.6663
Fax: +1 810.629.8145
www.atlastechnologies.com