

Axiom[®] IM Series
CASE/TRAY PACKERS



Maximum Speed Without Compromise.

With speeds up to 45 cases per minute and servo controlled precision, the Axiom IM case/tray packer combines the ultimate in dependable high speed operation with gentle product handling and unparalleled flexibility. The open frame modular design platform, innovative infeed technologies and simple, menu-driven changeovers allow effortless adaptation to evolving and uncertain product life cycles. Smart, simple and ready for anything, the Axiom IM series offers industry leading performance in a compact, low maintenance package.



Flexible Conveying and Product Handling

A variety of advanced infeed solutions are offered to optimize performance for specific product types while maintaining gentle product handling to ensure highest package integrity. Some commonly used systems include:

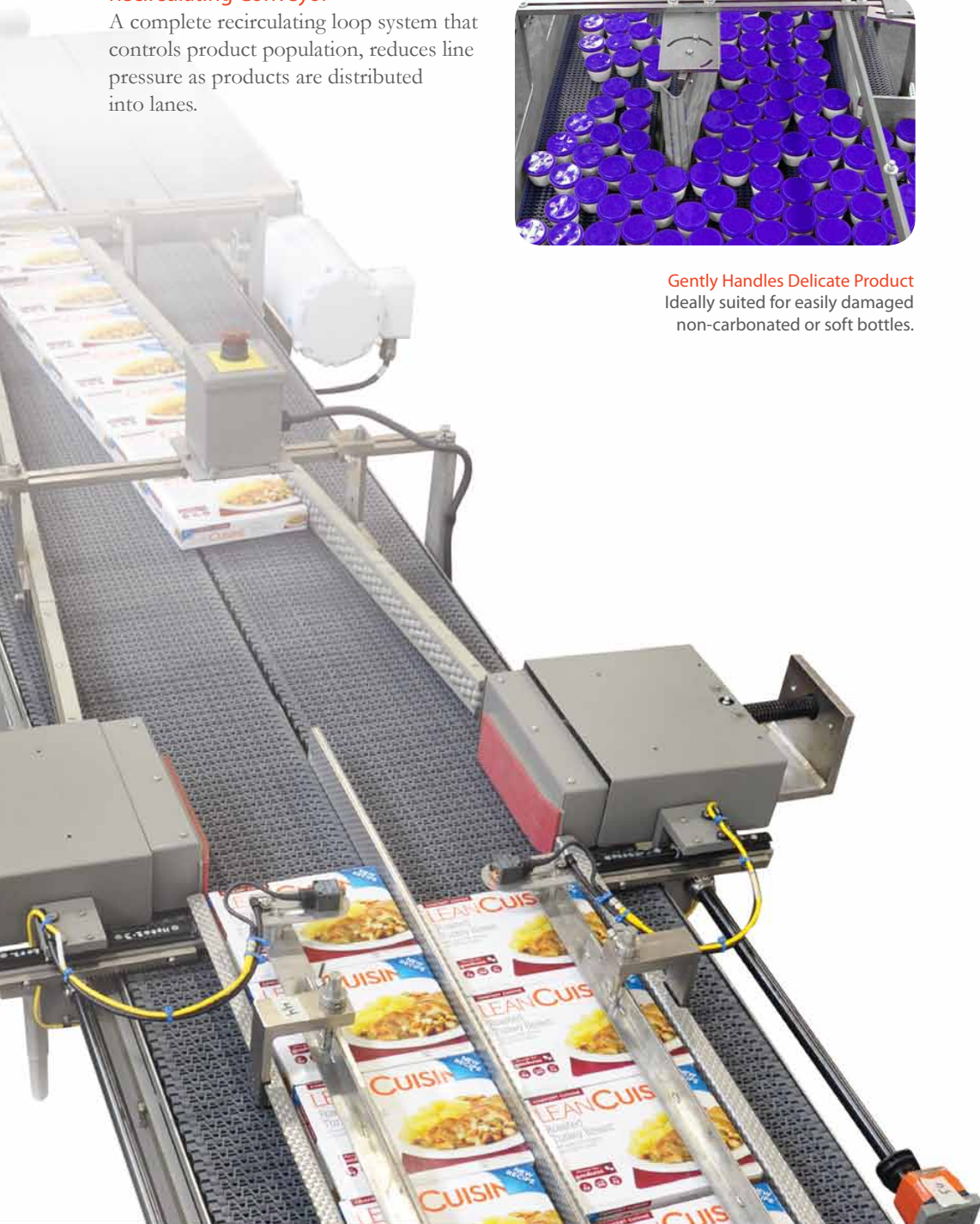
Servo Lane Mergers and Dividers – Perfect for applications where any shape or sized product cannot be flood or mass fed. A fixed number of products are smoothly fed to metering systems, where balanced product lanes are required.

Recirculating Conveyor –

A complete recirculating loop system that controls product population, reduces line pressure as products are distributed into lanes.

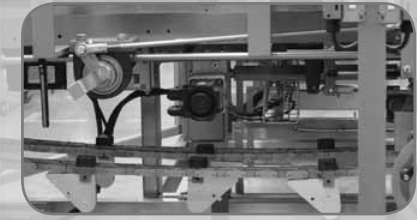


Gently Handles Delicate Product
Ideally suited for easily damaged non-carbonated or soft bottles.



Designed for Efficient Sanitation

- Minimal mechanism below product
- Walk-in frame design
- Stainless steel tubular frame
- Heavy and light washdown options



Built for Simplified Maintenance

- Direct drives minimize the use of chains, belts, and gears that require maintenance.



- “Virtual handwheel” feature allows maintenance personnel to precisely cycle and test various machine sections.



- Designed for exceptionally reliable 3-shift operation, Axiom incorporates extensive drive and load testing, more robust electronics and heavy-duty stainless steel construction.

Efficient Pack Pattern Collating and Loading

Douglas redefines the role of product pattern collating in high efficiency lines. Patented technologies offer dramatic improvements to line throughput and production volume while providing remarkably stable product handling.

Velocity II High Speed Stacker – Gently forms stacked-product patterns without interruption, providing continuous product flow at speeds to 600 products/min. Patented techniques include an increased flexibility for running different product heights while still providing tool-free changeovers with an intuitive control panel.

Pick and Place – Ideal for products such as tapered cups that cannot be pushed one against the other. We use a variety of vacuum or mechanical techniques depending on the application.

Raise on Return Loading – This high-speed loading technique starts to accumulate product for the next pack pattern as soon as the loader clears the accumulation section.



Additional engineered product pack pattern collating and loading options include:



Up stacker,
Down stacker



Slipstream™
pinless metering



Cross-push staging



Pouch collator

All Axiom loading techniques are designed to provide superior performance and reliability.

The Axiom IM servo technology delivers smooth, harmonious performance during case loading, while maintaining accurate product control with a wide variety of pack patterns. Patented design and precise servo control contributes to:

- Quick and repeatable changeovers
- Greater speed
- Gentler product handling
- Increased flexibility

Touch screen selectable product “recipes” automatically control precise adjustments throughout the machine.



Automated changeovers offer dramatic improvements to line efficiencies and reduce operator errors.

Most changeovers are accomplished through a simple menu-driven process on the HMI. Operators simply select from pre-programmed “recipes” for specific products, and servo motors precisely make the required adjustments.

Recipe control of machine motions makes changeover precise and repeatable, minimizing ramp-up time.



Corrugated pick arm motion



Case flap traps



Flight spacing (optional) and motion



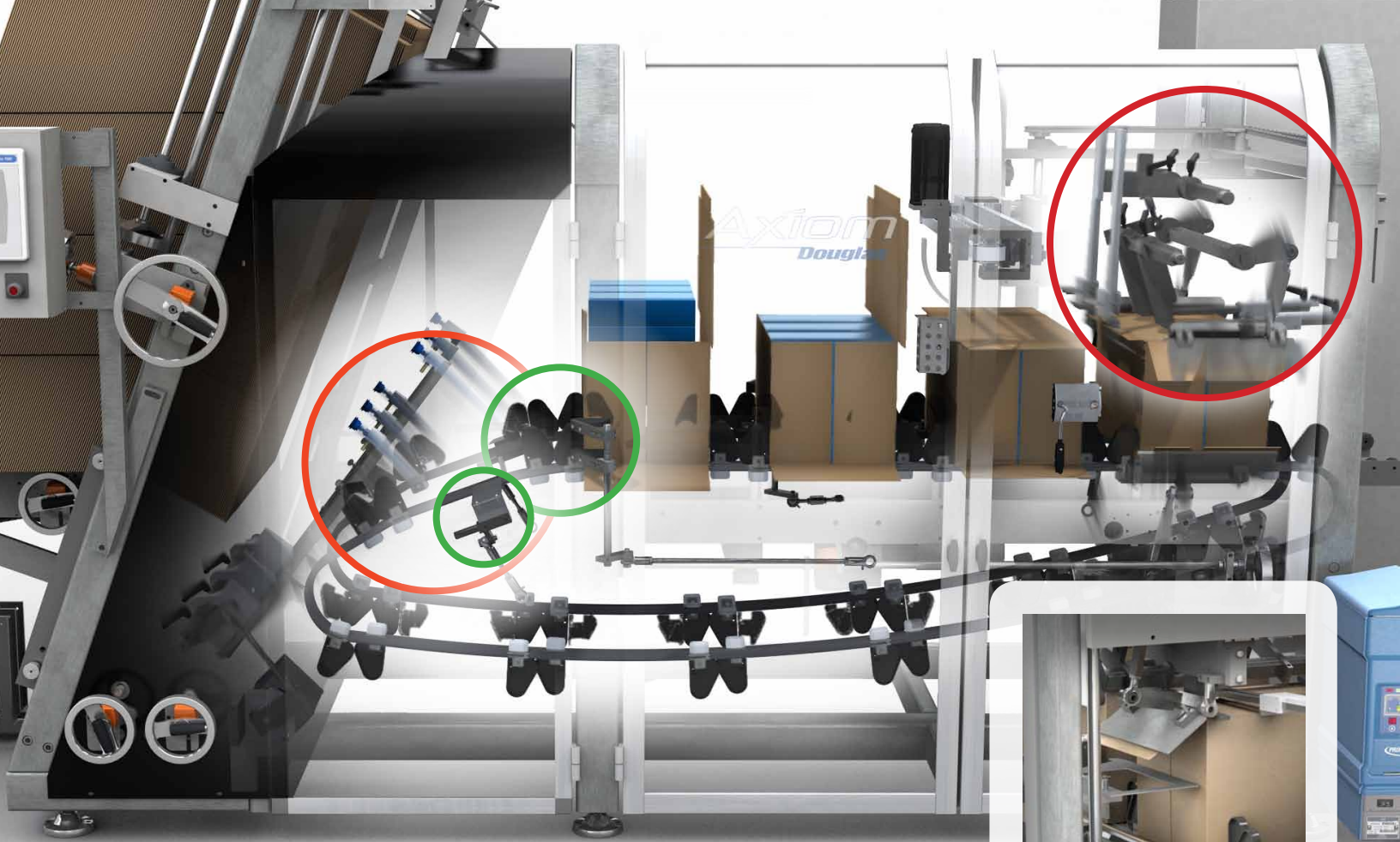
Flap tucker timing and motion



Timing and motion of case squaring and compression for sealing the case.



Handwheel control offers greater material tolerance



Maximizing Speed and Efficiency

From infeed, through product handling to compression, Axiom is designed from the ground up to ensure accurate, streamlined production. Our walk in frame design, patented blank loading features and compression functions further increase speed and efficiencies.



ASU - Angled Setup

Setup corrugate magazine design offers immediate machine access. The lower corrugate loading position reduces the blank travel distance for maximum efficiency.



FLAP TRAPS AND TUCKERS

Another contributor to increased efficiency and speed is the ability to consistently control and fold case flaps. Flap traps and minor flap tuckers are servo driven to control their speed and timing. Servo driven flap traps operate consistently at all speeds to capture the case during setup, one of the most critical areas impacting efficiency. Precise control of tucker speed and timing is the best method for folding at the flap score line.



CASE SQUARING

Four corner case control squares the leading and trailing walls of the case just prior to case sealing and compression. Again, servo control of the squaring guarantees precise operation. *One touch jam clearing* is accomplished through the HMI by automated manipulation of compression components to quickly and efficiently clear the affected area.

PIVOTING COMPRESSION PLATES

Major flap folding is done by pivoting compression plates that are servo controlled. The pivoting motion of the Axiom compression plates is the best method for folding flaps at the score line and avoiding crushed flaps. Flap compression plates cover the full width and height of the flap assuring glue compression.

There's a reason Douglas leads the industry in value-added offerings. It's not just our job... IT'S OUR COMPANY.

As a 100% employee owned company, you can rest assured that nobody works harder than Douglas to provide MORE for today's packagers.

As part of that commitment, we offer programs designed to keep your operation on the move and improve your bottom line.

Services like the **Reliability Assurance Program** provide comprehensive machine inspection, audit and analysis services to reach your maintenance goals and ensure maximum productivity.

Our **PartsDirect™ Program**, offers commercial OEM replacement parts at a guaranteed best price. See our web site for details and other value-add programs.

So when you choose Douglas, feel free to expect more. More knowledge, more innovation, more quality, more support. More of everything you need in a secondary packaging partner.

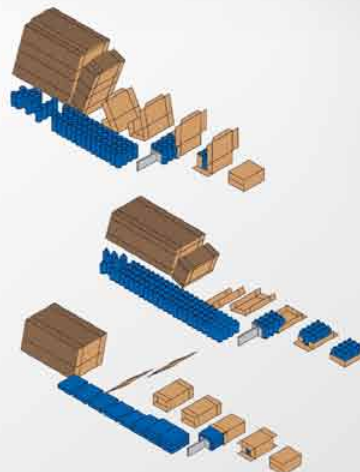


Axiom IM Series TOP LOAD CASE PACKER

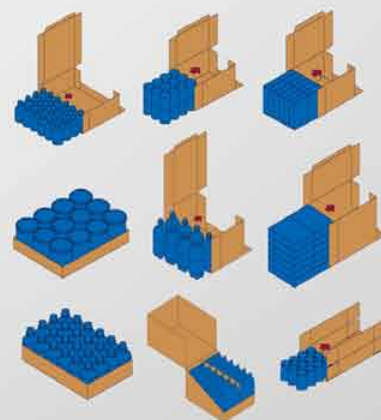
DRIVE:	Servo motors
PITCH:	Application dependent
FLIGHT CHAINS:	#60 series chain
SPEED:	Up to 45 cases/trays per minute (product and pack pattern dependent)
PRODUCT SIZE RANGE:	Per project specification
PACKAGE SIZE RANGE:	Per project specification
MAGAZINE CAPACITY:	6 ft. (1.85m)
FRAME:	Stainless steel
ADJUSTMENTS:	Threaded screws, handwheels and handknobs with position pointers and scales. Digital scales, phase adjustments and recipe control of servo motions and glue. (optional)
GLUE SYSTEM:	NORDSON ProBlue® or per project specification
FLAP CLOSING AND COMPRESSION:	Servo motors
GUARDING:	Full length polycarbonate with extruded anodized aluminum frames. Radius package available
ELECTRICAL:	Allen Bradley ControlLogix motion and logic control or per project specification. Allen Bradley Panelview NEMA 12 wiring and enclosures NEMA 4 or 4X wiring and enclosures (optional) Light or heavy washdown construction (optional)
FINISH:	Stainless steel frame. Some parts are gray metallic or charcoal gray epoxy powder coat. Other colors per project specification. All parts in contact with product are stainless steel, anodized aluminum, and plastic OEM parts are manufacturers' standard finish
INSTALLATION REQUIREMENTS	
Power:	One main drop and one glue drop. 480 VAC, 50/60HZ, 3PH Other power sources available
AIR:	One drop 90 PSI (6.2 bar)

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Typical Process Diagrams



Typical Pack Patterns



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More Than a Machine™