

**TriVex Series**  
TOP LOAD CASE PACKERS & LOADERS



▲ TriVex RLi Top Load Case Packer pictured

**Production efficiency has been redefined with Douglas TriVex™.**

Offering the flexibility of the TriVex RL case loader and the unique ability to seamlessly erect, load, and close top load cases with the integrated TriVex RLi, TriVex brings a new class of performance to automatic, top load case packing. Innovative design features, advanced servo technology and simple menu-driven changeovers combine to accommodate a wide variety of product types with precise product handling and less maintenance.

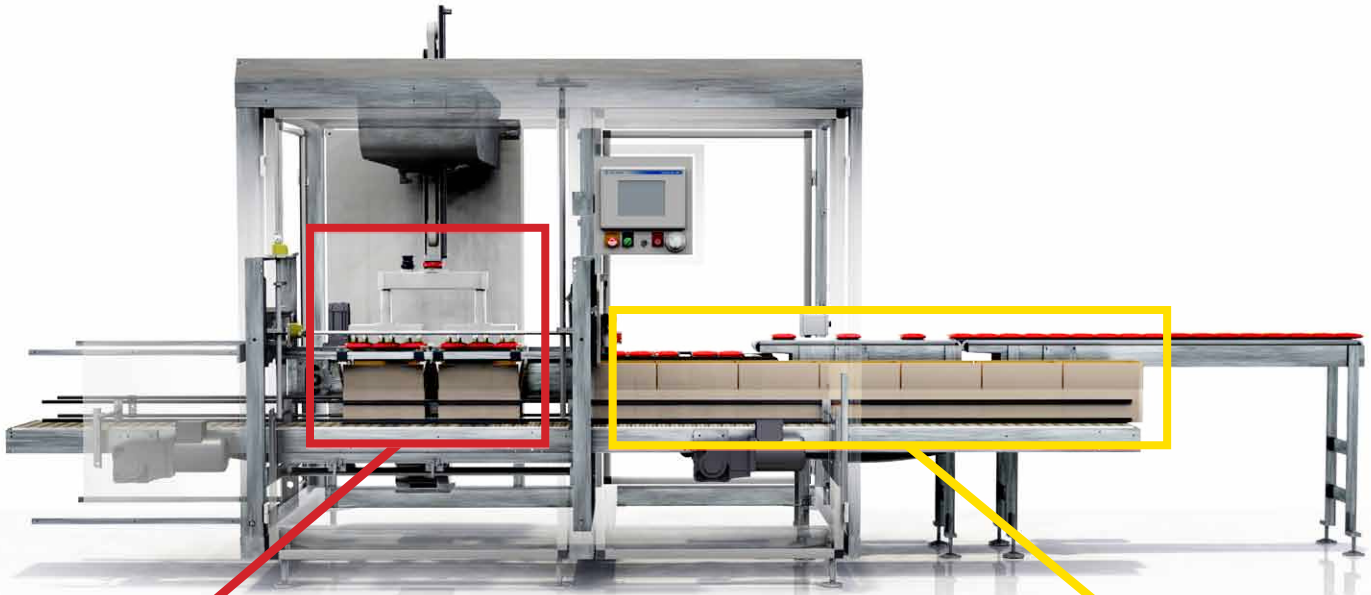
TriVex™, less complexity, more capability, more Douglas.



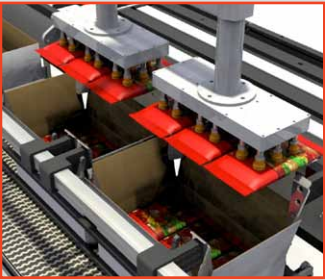
## TriVex<sup>TM</sup> RL Flexible High-Speed Top Loader

TriVex RL is a flexible automated robotic case loader and provides the optimum loading solution for the high demands associated with 3-shift production, frequent format changes, and high efficiencies.

Maximized flexibility provides efficient loading of products into almost any style of pre-erected top load case or tray. Automated infeeds collate products such as bags, pouches, cartons, trays, cups, cans, and bottles and position them for loading. Accurate case and flap control options assure that cases are properly prepared for loading and that they smoothly enter and exit the loader.



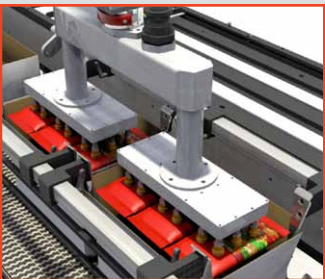
### CASE LOADING



The TriVex RL is easily configured to load single or multiple cases on each load cycle. When needed to meet your production speeds, loading multiple cases increases the effective layer or case rate while maintaining slower loader speeds.

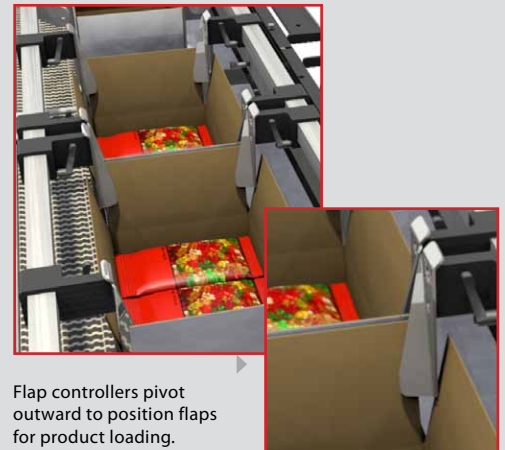
End effector technologies address a wide range of product and pack patterns.

- Vacuum end effectors
- Mechanical grippers
- Product rotate and load
- Nested product patterns
- Product spreading or shingling



### CASE HANDLING

Case infeed solutions provide exceptional case control and stage cases for loading. Flap control and product funneling options provide for smooth product loading into the case.

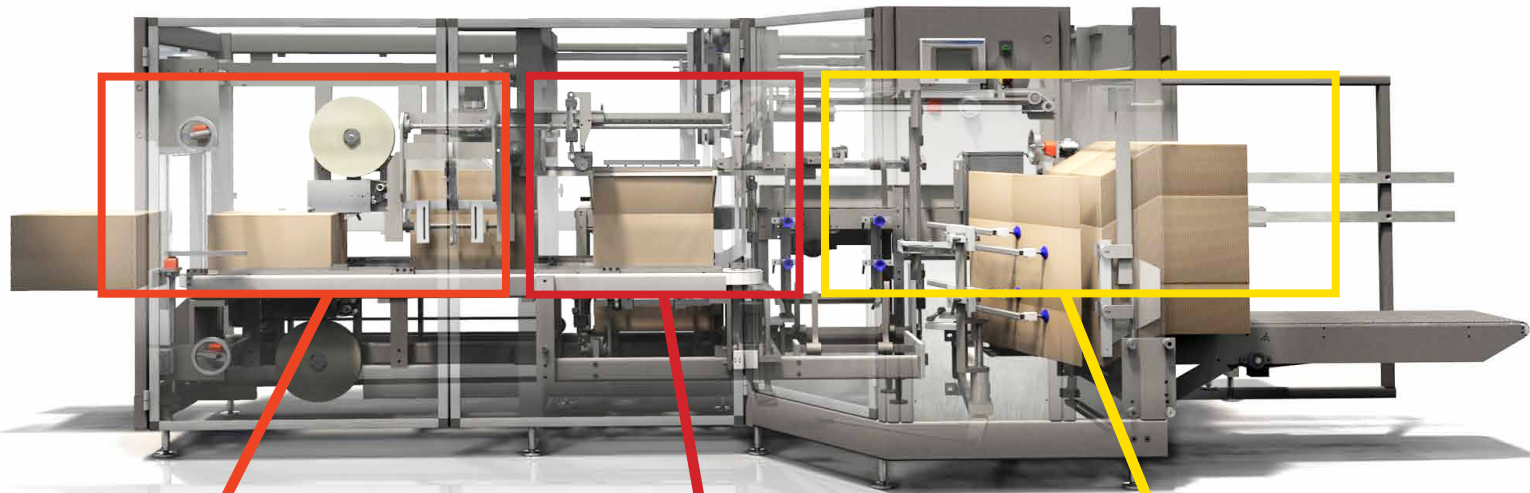


Flap controllers pivot outward to position flaps for product loading.

# TriVex RLi Complete System for Top Load Case Packing

TriVex RLi is designed to erect, load and seal cases in one compact machine. With complete integration comes less product handling, less case handling and less maintenance within its compact footprint.

The ultimate combination of efficiency and precision, TriVex RLi offers the ideal solution for flexible bags and pouches, semi-rigid and/or rigid trays, tubs, cartons and overwrapped products. Customized options are added to match your case patterns and speeds. Changeovers can be accomplished in just minutes.



## CASE CLOSING



Case flights positively square the case



Pivoting flap folders assure that flaps fold at the score line



Tape or glue sealing is available

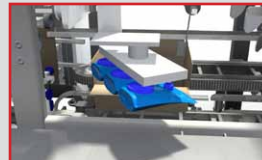
## CASE LOADING

TriVex's multi-axis servo loader can be configured to meet your needs.

- Vacuum (FIG 1)
- Mechanical grippers
- Pattern rotate and load (FIG 2)
- Product spreading or shingling



(FIG 1)



(FIG 2)

## CASE HANDLING

Opposing vacuum cups drive the case open when corrugate slots interlock or the manufacturer's glue joint tacks panels together.

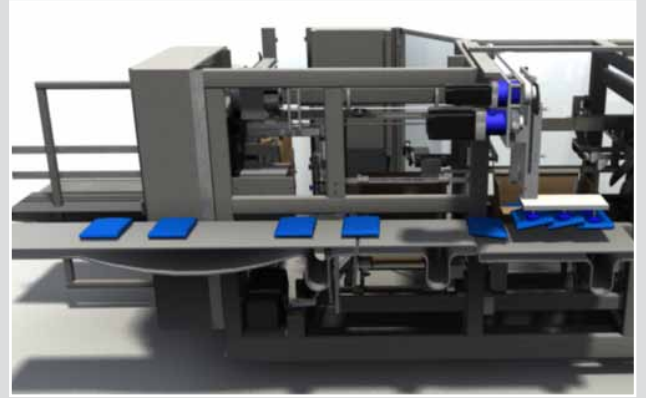


## The Technology and Experience To Optimize Your Case Packing Operation

Douglas offers a broad range of product handling and infeed systems designed to collate and load your product with unparalleled efficiency and reliability.

As with all Douglas case packing solutions, TriVex Series top loaders deliver maximum performance while maintaining gentle product handling to ensure the highest level of finished package integrity. Some commonly used systems include:

- Random Timing Infeed (RTI)
- Servo dual collation system
- Laning and grouping



**Random Timing Infeed (RTI)** - The RTI uses conveyors and controls to group and position products for picking and loading into cases. RTI is the ideal solution for bags, pouches, and semi-rigid products running at moderate speeds.



**Dual Servo Collation System** - Multiple collation sections, each with their own servo drive, isolate the collation of incoming products from the case load station. High speeds are achieved by precise indexing to receive incoming products while having extended dwell time at the pick point for case loading.



**Laning and Grouping** - Douglas's portfolio includes innovative laning and grouping solutions for cups, cans, cartons, bottles, and other rigid or semi-rigid products.

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.

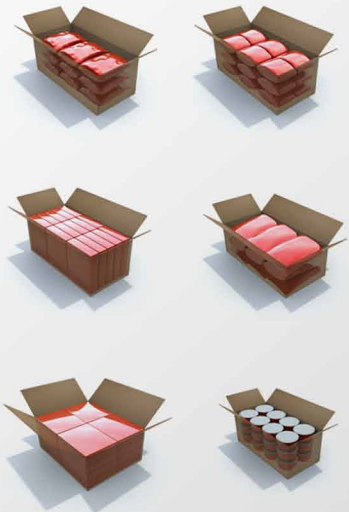


**TriVex Series** TOP LOAD CASE PACKERS & LOADERS

	<b>TriVex RL</b>	<b>TriVex RLi</b>
SPEEDS	Up to 30 loader cycles/min* Up to 25 cases/min* typical *Speeds dependent upon case size, flap control requirements, and product.	Up to 30 load cycles/min* Up to 15 cases/min* *Speeds dependent upon case size, flap control requirements, and product.
CASE SIZE RANGE (L = travel direction)	Min: 6"L x 5"W x 4"V Max: 30"L (one case) / 21"L (two cases) x 16"W x 13"V standard (16"V optional)	Min: 6"L x 5"W x 4"V Max: 21"L x 16"W x 13"V
CASE TYPES	Top load RSC, HSC, Bliss, Trays. Almost any top load style case or tray.	Top load RSC and HSC cases
CASE HANDLING	Pre-erected cases. Gate metering and staging standard. Optional flap control and funnels for loading.	6ft magazine. Opposing vacuum cup case setup. Flap control for loading.
CASE SEALING	Not applicable	Tape or Glue (Nordson ProBlue) versions
CASE SIZE RANGE (L = travel direction)	Min: 6"L x 5"W x 4"V Max: 30"L (one case) / 21"L (two cases) x 16"W x 13"V standard (16"V optional)	Min: 6"L x 5"W x 4"V Max: 21"L x 16"W x 13"V
ADJUSTMENTS	Tool-less changeover. HMI selectable recipes, threaded screws, handwheels, and handknobs with position pointers and digital scales.	
FRAME/ FINISH	Powder coated tubular cold rolled steel. Gray metallic, Dupont 616.	
GUARDING	Category 3 guarding. Full length polycarbonate with extruded anodized aluminum frames.	
DRIVE FUNCTIONS	Servo, pneumatic, and AC functions, DC magazine drive on TriVex RLi	
ELECTRICAL	Rockwell Automation (AB) programmable logic controller, servos, drives and PV+ HMI. NEMA 12 wiring and enclosures. NEMA 4 or 4X wiring and enclosures (optional).	
POWER:	480VAC, 50/60HZ, 3PH Second 480VAC drop for TriVex RLi glue machines.	
AIR	90 PSI (6.2 bar)	

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**Typical Pack Patterns**



More Than a Machine®

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