



# Apex™ series SERVO SLEEVERS

Designed for versatile performance, Apex™ Servo Sleeveers provide solutions for a variety of product types and sizes, sleeve styles, and pack configurations. With speeds up to 300 sleeves per minute, solutions are available for a variety of applications including: prepared foods to health drinks and dairy products. Sleeveers offer a variety of features to help your operators get production lines up and running fast.



## DURABILITY-----

## EFFICIENCY-----

## PRECISION-----

## FLEXIBILITY-----

**Efficient Product Metering:** Douglas' industry-proven product metering techniques ensure minimal surge pressure and stable product handling. From soft to semi-rigid to rigid containers, our creative concepts easily adapt to your application.

**Creative Sleeve Introduction and Loading:** Creative techniques introduce sleeves from either the top or bottom, depending on your product type. A variety of methods are used to keep the sleeve in its proper position throughout the loading process.

**Effective Sleeve Closing:** To ensure consistently formed sleeves, effective concepts are used to minimize sleeve friction.

**Innovative Sleeve Solutions:** Innovative sleeve servo designs provide simple solutions for wraparound, drop-through, or neck-through sleeve applications.

**Sanitary Construction:** For washdown applications, our stainless steel construction with washdown components maximizes machine durability in environments requiring sanitation.





Innovative solutions for wraparound, drop-through, or neck-through sleeves.

### INNOVATIVE SLEEVER SOLUTIONS:

Whether your application calls for wraparound, drop-through, or neck-through sleeves, Douglas Apex™ Sleeveers are innovative solutions. The majority of Apex™ Sleeveers are designed using small footprints (application dependent), maintaining flexible solutions for your plant layout. Typical sleeveer solutions include:

**Wraparound Sleeveer:** An ideal solution for single or multiple pack containers. Our creative concepts easily adapt to bottom center, bottom offset, side, or top closures.

**Drop-Through Sleeveer:** Perfect for those applications requiring tapered cylindrical containers in single or multiple packs. This application generally requires the use of a top closure concept.

**Neck-Through Sleeveer:** When your products are bottles with necks, the sleeve is precisely placed over the top of single or multiple pack bottles. Bottom closures are typical for this application.



Simple infeeds enhance line efficiency.

### SIMPLE PRODUCT INFEEED:

Our functional product infeeds receive product in one to four balanced lanes, depending on configuration. Infeed surge control enhances line efficiency by slowing or speeding the machine to keep pace with product delivery.



Industry-proven metering techniques easily adapt to a variety of product types.

### EFFICIENT PRODUCT METERING:

Douglas' industry-proven product metering techniques ensure reduced surge pressure, stable product handling, and minimal product damage. Our methods include the use of:

**Timing Screws:** This metering method is beneficial for surgeable, semi-rigid containers requiring grouping, spacing, or separation prior to sleeve introduction.

**Side Selectors:** This metering method is beneficial for soft products, with little surface contact area, that are susceptible to varied surge conditions.

**Star Wheels:** This metering method is beneficial for soft products requiring surge control and spacing prior to sleeve introduction.

### UNIQUE PRODUCT ORIENTATION:

For orientating products, our unique live belt turning process easily turns the product until it reaches the appropriate position. When the product is in position, it stops turning and continues to the sleeve introduction station.



Live belt turning process easily orientates products.

### CONVENIENT POWERED MAGAZINES AND BLANK PLACEMENT:

Maximum convenience is assured with our powered magazines. Excellent features, such as warning signals for low or empty magazines, blank guide rails to ensure proper blank loading and orientation, and optional air-assist to separate blanks prior to picking, equals less downtime.



Powered magazine features ensure less downtime.

### CREATIVE SLEEVE INTRODUCTION AND LOADING:

Creative techniques introduce sleeves from either the top or bottom, depending on your product type. Sleeve flight lugs, air-assist, and a sleeve capture rail system are used to help keep the sleeve in its proper position prior to entering the sleeve closing and sealing section.



Creative sleeve loading techniques introduce sleeves from either the top or bottom.

### EFFECTIVE SLEEVE SEALING AND CLOSING:

When closing and sealing your sleeve, the Apex™ Sleever utilizes a combination of live closures and static plows. This concept minimizes sleeve friction, sleeve resistance, and ensures consistently formed sleeves.

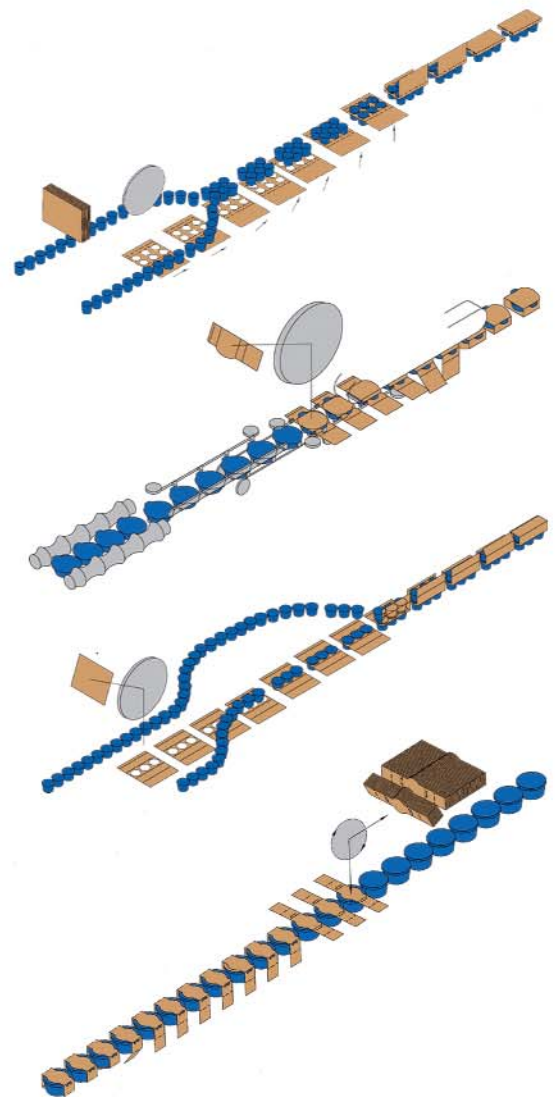
An optional innovative servo reject system senses open flaps, conveniently rejecting the product. This maintains continuous product flow.



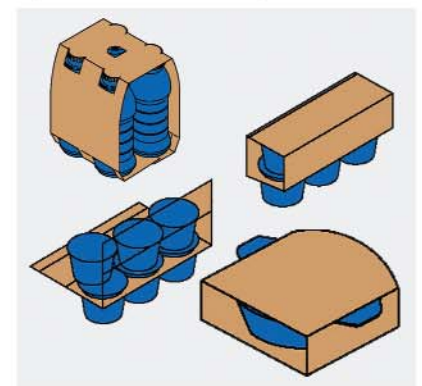
Live sleeve closures and static plows ensure consistently formed sleeves.

## SPECIFICATIONS:

- DRIVE:** Servo drive motors.
- PITCH:** Application dependent.
- FLIGHT CHAINS:** Application dependent.
- SPEED:** Variable to 300 sleeves per minute or 800 products per minute (pitch, product, and sleeve design dependent).
- PRODUCT SIZE RANGE:** Per project specification.
- PACKAGE SIZE RANGE:** Per project specification.
- MAGAZINE CAPACITY:** 4 ft. (1.2 m.).  
Shorter or longer capacities (optional).
- FRAME:** Stainless steel or bar stock carbon steel.
- LEGS:** Threaded.
- ADJUSTMENTS:** Threaded screws, handwheels, scales, and pointers. Digital scales, phase adjustments, and tool-free packages (application dependent) optional.
- SLEEVE SETUP/FEEDER:** Rotary placer (application dependent).
- SLEEVE POSITIONING:** Traveling flights.
- SLEEVE CLOSURES:** Glue or locks.
- GLUE SYSTEM:** NORDSON series or per project specification.
- COMPRESSION:** Timing belt drive.
- GUARDING:** Interlocked full length, lift off polycarbonate guards. Other guard packages per project specification.
- ELECTRICAL:** Allen Bradley SLC series programmable logic controller or per project specification.  
Touch screen operator interface panel.  
NEMA 12 wiring and enclosures.  
Sleeves per minute readout.  
Jog control.  
Delay start with alarm.  
NEMA 4 or 4X wiring and enclosures (optional).
- FINISH:** Stainless steel or bar stock carbon steel with Steel-it epoxy painted surfaces. All parts in contact with product are stainless steel, and/or food grade plastic. OEM parts are manufacturers' standard.
- COMPONENTS:** Vacuum system.  
Air filter regulator/lubricator.
- INSTALLATION REQUIREMENTS:** Power: One drop 230/480 VAC, 50/60 Hz, 3PH.  
Other power sources available.  
Air: One drop 80 to 100 PSI (3 to 5 CFM).



Typical Pack Styles



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