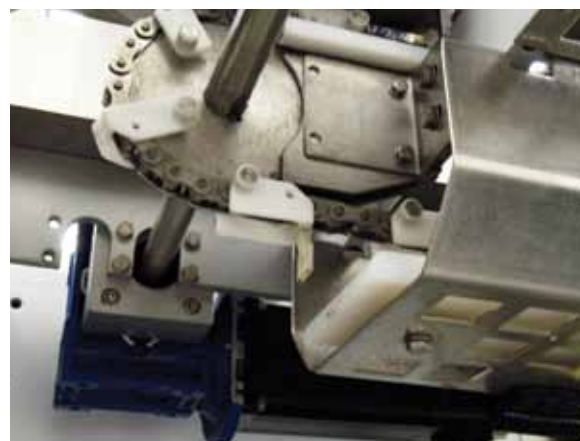




Graphic control panel provides preprogrammable product parameters



Sanitary Cantilevered infeed and hinged finwheel deck plates allow full access for cleaning and inspection



Servo Technology Direct drive design means fewer parts, lower inertia. Linium wrappers run smooth and consistent even under high-speed conditions



Flexibility The adjustable former option for the Linium 301 means fewer change parts for applications running a variety of products

Designed with the User in Mind

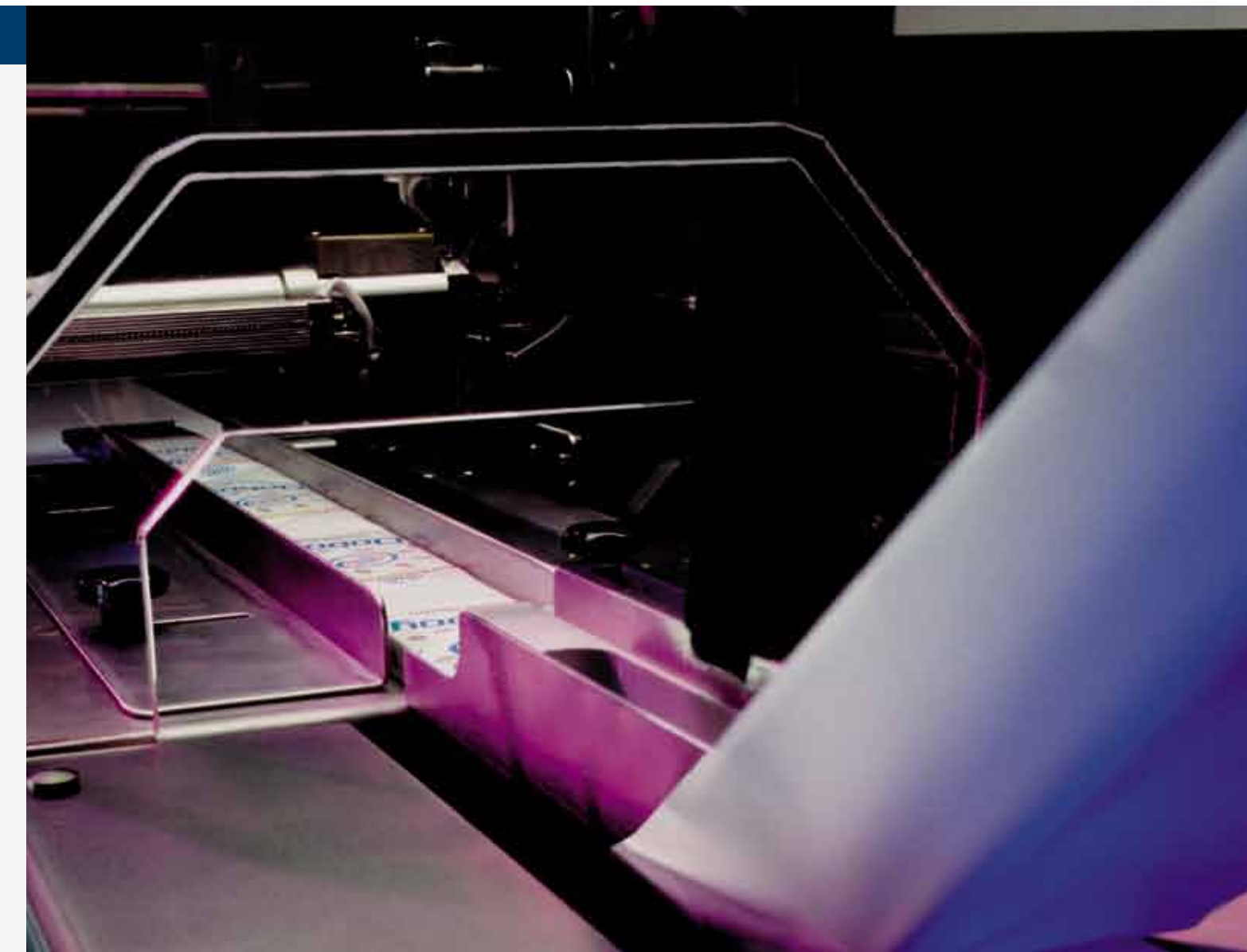
Each Linium model is remarkably simple to use. The graphic control panel is easy to understand. Messages quickly identify areas needing operator attention. Ergonomic design makes interacting with both the machine and other operators easy and comfortable.

Preprogrammable length, speed and dwell simplify changeover for up to 20 products. Product and film positioning are servo controlled. Messaging functions guide the user through each operation.

Designed to Take on Your Future

As your needs change, this modular machine can grow with your business. Options include automatic film splicing, reject stations, air evacuation, package gusseting, no product-no bag, no gap-no seal, validation assistance, modified atmosphere packaging, wide product options and more. Often starting in hand-fed applications, Linium wrappers can be modified to run higher speeds and integrated with product feeding and downstream cartoning.

Model/Solutions	Product Size Range (mm)	Typical Applications
CB-2 CB-3 Cross Belt Feeders	50 – 150 L 20 – 75 W 6 – 50 H	Angled delivery for smooth transfer. Manual or automatic. Rectangle or round products. Moderate to high speeds.
IL-2 IL-3 IL-4 LP-IL2 LP-IL3 Inline Feeders	30 – 300 L 30 – 140 W 6 – 50 H	Smoothest handling possible. Servo driven smart belts position products into the infeed wrapper flights. Ideal for various applications.
CTS-1 Cross Transfer Slug Feeder	120 – 280 L 25 – 85 W 25 – 85 H	Delivers on-edge biscuits or crackers to the Linium 302 slug/on-edge wrapper. Cross-chain conveyor for manual or automatic slug loading. Cam-driven transfer for gentle delivery.
LPF Low Pressure Feeder	40 – 160 L 30 – 80 W 4 – 30 H	Gently stacks biscuits or crackers and conveys them to the wrapper infeed. Products enter horizontally and are stripped vertically to minimize pressure on the products. Handles a range of process, product and speed variations. Fed manually or integrated with fully automated vibratory delivery equipment.
Overhead Magazine or Gravity Hopper	40 – 120 L 30 – 120 W 5 – 20 H	Feeds singles or stacks of biscuits, crackers, cookies, bars and non-food items economically.
<ul style="list-style-type: none"> ▶ Row solutions ▶ Random flow solutions ▶ Robotic solutions 		Bosch offers a broad line of product handling solutions. Proven components combine to suit specific applications.



Linium® 300 Series Horizontal Flow Wrapping Solutions

Doboy



BOSCH
Invented for life

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Packaging Machines

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03/09

Linium 300 Series

A New Dimension in Horizontal Flow Wrapping

Revolutionizing the packaging world with innovative engineering, versatility and ease-of-use, Bosch has ushered in a whole new generation of horizontal flow wrappers.

- ▶ Direct drive for dependability
- ▶ Compact design saves floor space
- ▶ Package recipe storage
- ▶ Speeds changeovers
- ▶ Servo technology increases
- ▶ Flexibility and speed
- ▶ Modular for custom applications

A Great Performer Now and in the Future

Value & Performance

Linium Series wrappers are high-value, high-performance wrapping machines. Dependable operation, fast changeovers and ease-of-use are proven advantages.

Durability, Simplicity

Package quality and machine performance start with the Linium's solid steel plate frame and finish with high-quality film handling and sealing components. The quality of these critical components, innovative machine control and ease-of-use are what make Dobby Linium wrappers a productive part of any packaging operation.

Less Maintenance

Fewer parts and easier access make the Linium Series very amenable to maintenance technicians. Quality engineering means more uptime. Traditional cams and clutches are replaced with independent servo drives. Extras such as hinge-open, finwheel deck plates, interlocked hinge-open guarding and cantilevered product track provide easy access for servicing and cleaning.



Linium 301

The most versatile Linium model for typical horizontal wrapping applications

Features

- ▶ Flexible to handle large and small product sizes
- ▶ Versatile and economical for small production runs
- ▶ Durable to handle high-speed production
- ▶ Simple to operate and maintain with existing staff
- ▶ Fast delivery

Configurations

- ▶ Hand load or automatically fed
- ▶ Painted steel or stainless steel for meat and dairy applications

Applications

- ▶ Food or non-food items
- ▶ Single or multi-packs
- ▶ Trays
- ▶ Biscuits and bakery
- ▶ Cookies
- ▶ Sandwich crackers
- ▶ Donuts
- ▶ Confection
- ▶ Pharmaceutical and healthcare
- ▶ Hardware and personal care items

Packaging Materials

- ▶ Heat or cold seal films
- ▶ Polypropylenes
- ▶ Laminates

Linium 302

Packages length slug, on-edge products

Features

- ▶ Durable and sanitary design
- ▶ Servo driven (infeed, finwheels, side chains and cutting head) enhancing functionality
- ▶ Easy to load with cam open infeed flights or optional cross conveyor

Configurations

- ▶ Hand load or integrated with automatic loading
- ▶ Right or left hand orientation

Applications

- ▶ Biscuits
- ▶ Wafers
- ▶ Cookies
- ▶ Sandwich crackers
- ▶ Donuts
- ▶ Non-food items

Packaging Materials

- ▶ Heat seal films
- ▶ Polypropylenes



Linium 303

Used for hermetic high-integrity wrapping applications



Features

- ▶ Hermetic end-seals: Long dwell end-seal unit extends sealing time
- ▶ High sealing pressure, throughout the sealing cycle, optimizes dwell effectiveness
- ▶ Hermetic fin-seal: Two heated finwheel sets extend sealing time

Configurations

- ▶ Basic configuration for difficult to seal films
- ▶ Pharmaceutical/medical configuration with options to aid validation
- ▶ Modified atmosphere packaging configuration (MAP or gas flush)
- ▶ Painted steel or stainless steel for meat and dairy applications

Applications

- ▶ Pharmaceutical items
- ▶ Medical items
- ▶ Extended shelf life bakery packaging
- ▶ Moist towels
- ▶ Photographic film
- ▶ Coffee packets
- ▶ Meat and cheese items

Packaging Materials

- ▶ Foil laminate structures
- ▶ Heavier gauge polypropylenes
- ▶ Gas or vapor barrier films



Linium 304, 305

Versatile polyethylene and shrink wrappers

Linium 304 Features

- ▶ Long dwell end-seal knife providing quality seals on heavier polyethylene films
- ▶ Inlet and outlet conveyors oscillate with the dwell head giving a smooth product transfer, even with small products

Linium 305 Features

- ▶ High-speed rotary end-seal knife, simple design
- ▶ Speeds up to 350 packages per minute

Common Features

- ▶ Smooth bottom lap seal (static or hot shoe seal) without trim waste
- ▶ Power film unwind optimizes the film tension of thin gauge films
- ▶ Completely wrapped and sealed packages

Configurations

- ▶ Hand load or integrated with automatic loading
- ▶ With or without a shrink tunnel
- ▶ Standard static or combination static/hot shoe lap seal
- ▶ Painted steel or stainless steel construction

Applications

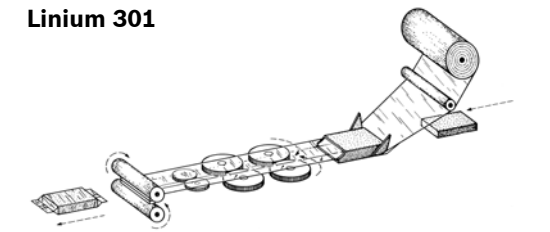
- ▶ Retail display cartons
- ▶ Paper and literature items
- ▶ Video tapes, CDs and DVDs
- ▶ Confection boxes
- ▶ Candles
- ▶ Soap
- ▶ Food items

Packaging Materials

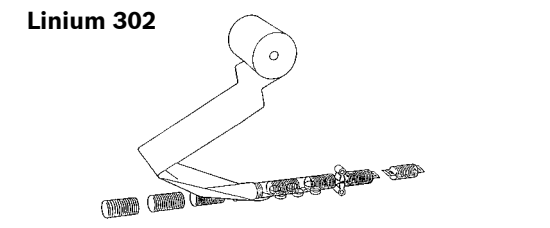
- ▶ Polyolefin
- ▶ Polyethylene
- ▶ PVC
- ▶ Blended polypropylene/polyethylene

Operational Schematics

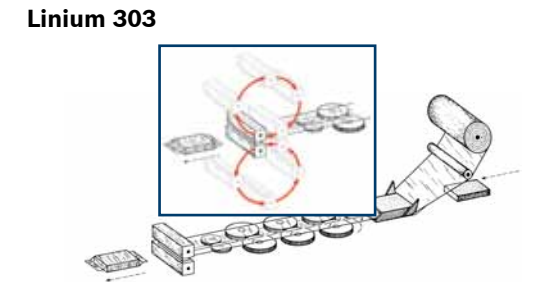
Linium 301



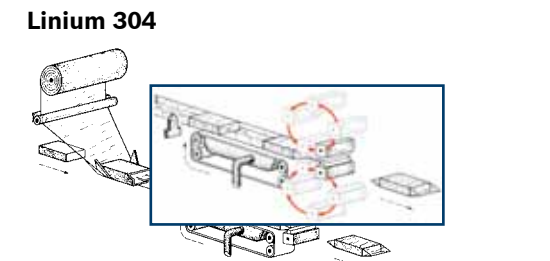
Linium 302



Linium 303



Linium 304



Linium 305

