ROVEMA

FLEXIBLE-MACHINERY
WHERE IS IT GOING AND WHY?
CHANGES IN PACKAGING MACHINERY REQUIREMENTS - PAST AND PRESENT

Past
- Packaging Machinery was single purpose i.e. pillow bags (dedicated Machines)
- Change parts for different sizes: Change-over repeatability was questionable
- Packing lines were dedicated to a single type of package

Present
- Packaging Machinery is now flexible; with the capability of handling virtually all styles of flexible bags and sizes
- Case Packing is also now flexible and capable of handling all of the bag styles and pack patterns on one machine
- Packaging lines are flexible to handle present and future bag styles as the market demands change
PACKAGING CHANGES IN THE MARKETPLACE

- Quad Seal bags to replace Bag N Box
- Flex Can Package to replace Canister, Cans, Bottles, and Bag N Box
- Doy-style Bags (VFFS) to replace traditional Doy Bags. (Horizontal)
- Liquid Bags with and without Fitment's to replace the number 10 cans
- Packaging machinery purchase: drivers are reutilization of the asset.
- The ability to change sizes and formats and the ability to have standup presence to create a billboard for graphics.
- Case packing must be capable of traditional cases, small formats and display ready.
TRENDS THAT AFFECTING THE INDUSTRY

- **Demographics Factors in the US:** Millennials recently surpassed baby boomers as the largest generation. Product preference and subsequent packaging solutions, between the two generations vary significantly, supporting demand for new and Flexible machinery.

- **Environmental:** Growing attention to depletion of natural resources-social, regulatory and tax pressures have driven demand for environmentally friendly solutions from leading companies. This has increase the focus on optimizing machinery which can run environmentally friendly films.

- **Retail Pressure:** within the food and beverage sectors is forecast to be the highest of any industry. A large portion of foods and beverage sales are through large retail outlets such as Walmart and Target which have formidable purchasing power. Such retailers are squeezing the profits from their suppliers and reducing their overall number. Pushing Machinery and material suppliers to be more innovative.

- **E-Commerce:** The market for e-commerce has expanded rapidly in recent years, especially in the US. This shift in purchasing habits will continue to drive demand for packaging machinery as e-commerce differs from traditional retail outlets due to increased touchpoints to reach the customer, increase packaging and supply chain challenges.
NEW TRENDS IN THE MARKET PLACE

Flexible Packaging:
The market for flexible packaging is growing quickly and at the expense of ridged packaging such as cartons and bottles. While there are advantages of flexible packages over ridged packaging, however, throughput rates of ridged packaging is still significantly higher than those of pouches.

Sustainability:
The push has been on to reduce the amount of material going into the landfill or the recycle bin. Packaging materials are becoming thinner and final packaging has to be reduced.

Package Shelf Impact:
The package must become a billboard for Graphics and increase shelf life

More Sku’s:
Variety and ever changing variety

Frequency of Packaging Changes:
Pillow, Quad seal, stand up pouch, zipper, hole punch, single serve, 6 count, 12 count. It never ends! Machinery not only needs to be flexible but capable of reduced change over times that are repeatable.
WHAT DOES THAT MEAN FOR BAGGING

Make a Flexible Machine that is:

- Capable of all bag styles
- Both Small and Large Format machines
- Repeatable and quick change over
- With an intuitive HMI (make it like a smart phone)
BVC 260/400 FLEX CONTINUOUS MOTION MACHINE
ALL BAG STYLES

Pillow bag

3-side sealed pouch

Stabilo Seal

RoPack bag
Easypack top

Ropack bag with Zip or Hook-in-Hook

Flat bottom bag
BVC 260/400 FLEX

  - General design features
  - 0° & 90° degree jaw positions
  - Quad Seal edges
  - Technical data
  - Options
  - Customer Benefits
GENERAL DESIGN FEATURES

- Continuous motion vertical packaging machine with interchangeable 0° & 90° cross seal drive position for highest bag style flexibility.

- Same design principles as the BVC Series
  - Modular design
  - Solid body frame
  - Drive components enclosed
  - Hygienic design
  - Easy access
  - Servo Guessting
  - Product scrapping

- Commonality of subcomponents from the BVC series machine: Cross seal drive, film draw down, film reel carriage, etc. Means implementation of standard technologies.
- Machines more readily able to Market.

- Enables implementation of Zip or Velcro closures on a continuous motion platform.

- Maintaining BVC technological advantages:
  - Programmable sealing pressure via touchscreen up to 8000 N-NO SPRINGS
  - Premium Seal
  - Ultrasonic film tracking
GENERAL DESIGN FEATURES

• **Flexibility**: Greatest variety of bag styles and sizes

• **Repeatability of change overs**: Adjustments by means of digital-spindles, scales or fixed adjustment points

• **Ergonomics**: Easy format changeover and good access to the machine for cleaning and daily operation. Tool-free swivel of the complete housing of the machine

• **Hygienic construction**: Without hollow bodies, plain surfaces and a separated driving area which ensures that the machine satisfies even to the most stringent hygiene demands

• **Smooth operation and longer machine lifetime**: Through motion profile calculation for all drives, especially the main cross seal drive planned for continuous motion vertical seal device.
GENERAL DESIGN FEATURES

• **HMI and Set up of new recipes:** New user friendly HMI with the intuitive dashboard functionality and the intelligent control make it a machine which is simple to operate and support to set up new formats and recipes

• **Higher efficiency:** Reduction of downtimes, wear of knife and cleaning due to Sense&Seal product detection

• **High seal quality:** Rovema Premiumseal functionality for higher seal stream strength and reduced stress to the film layers

• **Filling degree:** Software Stripping of the bag by stripping with the sealing jaws enables a higher bag filling degree, higher efficiency and reduces machine downtimes

• **Footprint:** Third of footprint compared to a horizontal form fill and seal machine
MAKE A MACHINE THAT CAN REPLACE BAG AND BOX - BVC 260 QUAD BAGGER

• Continuous motion Vertical Form Fill and Seal machine for maximum performance

• Ideal for different attractive packaging styles

• Best seam quality by special sealing technologies

• Ideally adaptable to various applications
BVC 260 QUAD BAGGER MACHINE ALL BAG STYLES

Pillow bag

Gusseted bag

Pillow chain bag

RoPack

RoPack with Tape

FlexCan

Stand-up pouch

Stabilo Seal
GENERAL DESIGN FEATURES

- Reduction of downtimes, wear of knife and cleaning due to Sense&Seal product detection

- High seal quality through Rovema “Premiumseal” functionality for higher seal stream strength and reduced stress to the film layers

- Hygienic design without hollow bodies and a separated driving area which ensures that the machine satisfies hygienic demands

- Easy format changeover and good access to the machine for cleaning and daily operation

- Ideal for different attractive packaging styles

- New user friendly HMI with intuitive dashboard functionality

- Easy to set up and store recipes by HMI
MAKE A MACHINE THAT REPLACES SMALLER CANISTERS - FLEX CAN

• Continuous motion Vertical Form Fill and Seal machine for maximum performance

• Ideal for different attractive packaging styles

• Best seam quality by special sealing technologies

• Ideally adaptable to various applications
MAKE A BAG THAT REPLACES SMALLER CANISTERS - FLEXCAN

- The „can“ from the flat reel

Lift and break seal  
Peel flap back  
Open
GENERAL DESIGN FEATURES

- Ideal for food products consumed directly from the pack
- Easy opening due to laser perforated film
- Reclosable by flap or tape
- Wide opening supports easy pouring out
- High filling level
- Printable on all four sides (good presentation)
- Low investment risk as machine is able to produce many other bag styles too
MAKE A MACHINE THAT HANDLE LIQUIDS VERSUS LARGER CANISTERS - BVC 260 LIQUIDS

• BVC 260 machine for pillow bag liquid applications
• For hot and cold filling
• Stainless steel design, optionally available in Wash Down execution
  • Protection class IP 65
  • Special corrosion protection
• Servo driven liquid squeeze roller
• New intuitive user friendly HMI
NEW ROVEMA OPENING CONCEPT FOR LIQUID FILLED PILLOW BAGS

Characteristics of liquid bags produced on Rovema VFFS machines:

- Pallatable replacement of cans; economical in shipment and storage
- Can be directly heated in hot water, no decanting necessary
- Pre-fabricated laser perforation for an easy and tool free opening
- Easy pouring out in product flow direction
- No spout or fitment required for easy opening and pouring, cost-saving solution
- Easy-opening device only needs special heat sealing jaws, no further changes needed to produce on BVC 260 Liquid
NEW ROVEMA CARRY HANDLE CONCEPT FOR LIQUID FILLED PILLOW BAGS

Characteristics of the carry handle option:

- Easy handling
- Save handling, especially when heated
- Due to the centrally located carry handle, the pouring is improved and more economical
- Easy pouring
- Complete withdrawal of product possible, fewer residues compared to cans
GENERAL DESIGN FEATURES

- High efficiency and reduction of downtimes due to “Sense&Seal” product detection
- Hygienic design
- Easy and quick cleaning as the product area is separated from the drive area
- Tool free format change, quick and effective
- Very good machine accessibility as the front doors are fully to open
- High output for liquid application (up to 120 bags/min)
- High filling accuracy due to a special product displacement process
- High filling level of 100%
  - Less film consumption
  - Consistent bag shape for easy case packing
  - Improved product life time
- Not dependent on a specific film supplier
MAKE A MACHINE THAT MAKES A PACKAGE WITH ENCLOSABLE FEATURES AND IS SIMILAR TO A BOX - ROVEMA SBS

- Combination of a Form Fill and Seal machine with downstream system for bag and bag closure designs
- Excellent flexibility – 40 different bag top shapes possible
- Modular hygiene design
- Security of investment, as it can be extended flexibly
ROVEMA SBS FOR HIGHEST FLEXIBILITY IN BAG TOP DESIGNS

High flexibility in bag top design for future market requirements
GENERAL DESIGN FEATURES

• Due to the modular design the customer can extend the machine with further modules for other bag-styles and/or a second bagger for more capacity
  → high flexibility
  → low risk of investment

• Reduced footprint with the integrated electrical cabinet - improved accessibility for maintenance and cleaning

• The compact design shows a high output on a small floor space

• New HMI with intuitive dashboard

• Quick, reliable and tool-free format change through separately driven work stations
NEW ROVEMA IDEA FOR A COFFEE PACK - VELCRO ZIP-CLOSURE 180°

- Pre fabricated laser perforation for an easy and tool free opening
- Special contour top sealing

- Zip-application on the flat film tube inside the film carriage and positioning in the chute

- Zip- Reclosure functionality (velcro zip)
  - This is initially a study, whereby the technical feasibility has to be validated in an internal test (Zip stiffened the packaging material at the gusseting area)

- Reclosure costs over ca. 2-3 Cent/Bag
  - (costs depending on the amount of purchasing)
  - Small additional impact on the CO2 print
  - Forming of a lateral, reclosable pour out chute after separation the upper top seal
NEW ROVEMA IDEA FOR A COFFEE PACK - BEND SEAL

- Special contour top sealing
- Pre fabricated laser perforation for an easy and tool free opening

- After opening the pouring out chute is visible.
- A pouring out chute in product flow direction
- New reclosable functionality in combination with bent seal.
- No spilling out of the product after falling over of the bag

- Reclosure costs of approx. 1,6 Cent/Bag
- No changing on the down-stream line equipment is needed
- Can be implemented at the machine without any negative impact on the output for this application

- Perfect for powders, snacks, beans, bakery, frozen food, chilled products, etc…
- Works with pillow bag, stand up bag, tray in bag
- Simple, intuitive, reliable and ecologically with a small additional impact on the CO2 footprint
- Therefore an unique selling proposition due to the shape and the functionality
THANK YOU