

VACUUM & PRESSURE PRODUCTS FOOD & PRODUCT PACKAGING

Packaging Industry

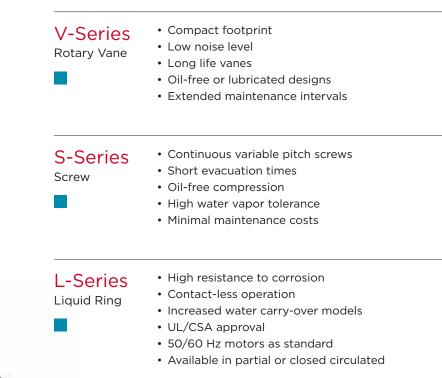




Food Vacuum Packaging

Tray Forming/Sealing

- Food trays are formed under vacuum molding from rolls of plastic film
- Food product (ground beef for example) is placed in the formed tray for sealing
- Clear plastic sealing is applied and vacuum is used to extract the air from the package
- Often times certain gas mixtures are introduced back into the tray to extend shelf life
- This process is known as Modified Atmospheric Packaging (MAP)
- Special "oxygen rated" vacuum pumps must be used for this MAP process









Vacuum Packaging

Package Evacuation

- Meat, fish, cheese portions are placed into a vacuum bag for consumer packaging
- Bags are placed in a vacuum chamber machine, chamber lid closes and a vacuum applied
- When air is removed from the bag and the final vacuum is reached, bag is then heat sealed closed
- Removal of the air ensures the longest shelf life and appearance for the consumer
- Vacuum packaging use has now been extended to many other consumer products

V-Series

- Rotary Vane
- Compact footprintLow noise level
- Long life vanes
- Oil-free or lubricated designs
- Extended maintenance intervals

• Continuous variable pitch screws

S-Series

- Screw
- Short evacuation times
- Oil-free compression
- High water vapor tolerance
- Minimal maintenance costs







Vacuum Packaging

Trim Removal

- Food packaged via continuous plastic roll stock (blocks of cheese for example) are individually cut
- After one package is cut away from the continuous roll, there is a scrap plastic strip remaining
- Vacuum is used to suction the plastic trimmings away from the packaging machine
- Elmo Rietschle has a vacuum blower solution which provides the vacuum and collects the scrap

F-Series

Radial

- Aluminum cast housing and impellers
- Cost efficient and robust
 - Life-time lubricated bearings
 - Process safe and resilient
 - Quiet and low vibration operation





Packaging

Filling & Closing Machines

- Vacuum filling is used for such products as beverages, cosmetics & pharmaceuticals
- Air is removed simultaneously as the product is filled into the container
- Removal of the air speeds up the filling process and extends the shelf life of the product
- Air is removed from pharmaceuticals and cosmetics to ensure product purity

Labeling

- Automated machines place adhesive labels to products and packaging
- Vacuum is used in conjunction with suction cups to pick and place labels

Volume Reduction

- Foam type products and clothing are reduced in volume by means of vacuum
- Vacuum bagged items take up less space for transport and storage

G-Series Side Channel	 Contact-less operation Quiet operation Tolerant to dust ingestion UL/CSA approved Service intervals up to 40,000 hours 50/60 Hz motors as standard
L-Series Liquid Ring	 High resistance to corrosion Contact-less operation Increased water carry-over models UL/CSA approval 50/60 Hz motors as standard Available in partial or closed circulated
V-Series Rotary Vane	 Compact footprint Low noise level Long life vanes Oil-free or lubricated designs Extended maintenance intervals
C-Series _{Claw}	 Long up-times Maintenance friendly Dry running and contact free operation Targeted discharge of cooling air Process safe and resilient High efficiency
S-Series Screw	 Continuous variable pitch screws Short evacuation times Oil-free compression High water vapor tolerance Minimal maintenance costs



Packaging

Packaging Materials

- Many common packaging materials are formed using vacuum
- Examples include bubble wrap and inflatable bag packaging materials

Blister Packaging

• Vacuum is often used to assist with the formation of consumer packaged goods

G-Series

- Side Channel
- Contact-less operation
- Quiet operation
 - Tolerant to dust ingestion
 - UL/CSA approved
 - Service intervals up to 40,000 hours
 - 50/60 Hz motors as standard





G-BH1



G-BH2



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