

COVAL

vacuum managers

VACUUM HANDLING SOLUTIONS FOR PRODUCTS, PACKAGING AND PACKING



vacuum
management

ADVANCED VACUUM SOLUTIONS

www.coval.com

US4

We offer you much more than just vacuum

Around us, the world is changing: redefinition of family life, aging population, stronger awareness about health and individual well-being... All changes which directly affect our consumption habits and therefore everyday products, their design, their production, their packaging. Each company must seize, integrate and respond to these evolutions to keep pace with its market.

They must rely on capable partners, with flexibility to respond to their new challenges:

- Making production lines more versatile
- Manufacturing while respecting the environment and food safety
- Increasing productivity while maintaining a high level of quality
- Reducing production and maintenance costs

For more than 35 years, COVAL has developed ranges of vacuum pumps and suction cups which enable you to **grip and move products, as well as, primary and secondary packaging of all shapes, weights and materials, on production and packing lines.**

To respond to your challenges COVAL relies on:

- A strong capacity for development and innovation
- A team 100% dedicated to Packaging
- A full product range dedicated to handling, packaging and packing
- Experience and solid expertise acquired from world leaders

Our uniqueness is our capacity, via our products, service and expertise, to **not limit our customers or their project needs.** We are always able to analyze, offer, develop, produce and accompany THE perfectly adapted solution to their requirements.

We are Vacuum Managers, every day!



Vacuum Managers

At COVAL our goal is to contribute to the performance and safety of industrial processes by vacuum handling objects of all sizes, weights, and materials.

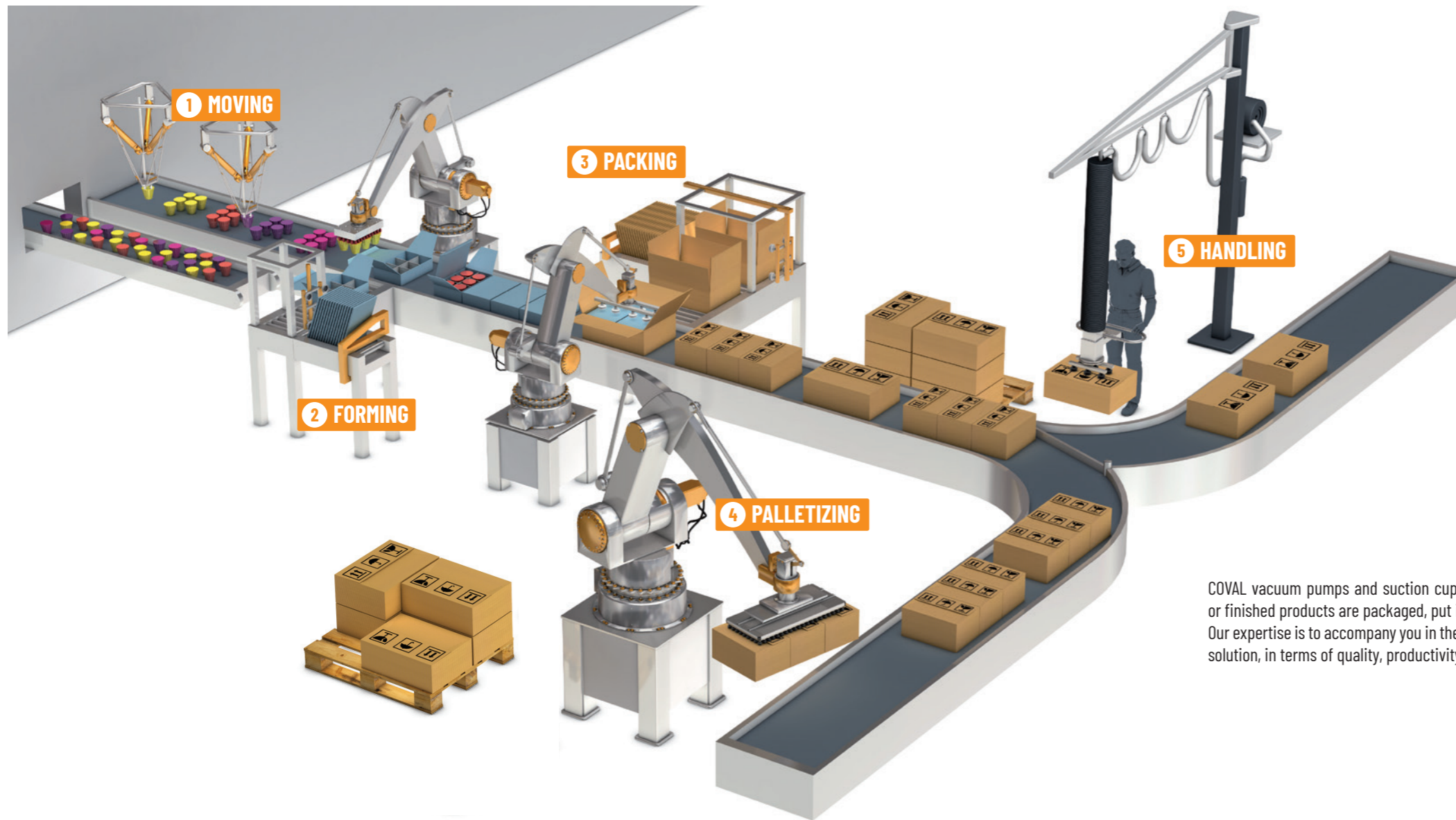
COVAL has focused our expertise in four complementary areas to achieve this goal:

- The development of technological solutions based on **'just innovation'**
- Manufacturing of vacuum pumps and suction cups in **France**,
- Distribution of the range by our **sales team, 5 subsidiaries, and a network of selected distributors**
- **Service before and after** the launch of the product to: analyze the application, aid in decision making, and train users.

COVAL is a company which shares with its customers its values of **technical know-how, productivity, commitment, flexibility, and responsibility.**

COVAL provides a comprehensive range of vacuum handling services for its customers - that's why COVAL employees are **Vacuum Managers.**

COVAL all along the line



COVAL vacuum pumps and suction cups are present wherever raw or finished products are packaged, put in boxes and palletized. Our expertise is to accompany you in the choice of the most efficient solution, in terms of quality, productivity and energy efficiency.

Industries that we work with:

- Food processing
- Health and Beauty
- Household equipment
- Technological equipment

Machines that we equip

- Pick and place
- Box forming
- Bagging
- Case packers
- Palletizers

Products that we handle

- Cardboard
- Paper
- Plastic
- FlowPack
- Aluminium
- Tin

1 MOVING



MVS / VSA / FPC / MVP suction cups
VR / GVR micro-ejectors
CVP / CVPC Vacuum Cartridges

- Suction cup design and materials for high output
- High reliability vacuum pumps and without maintenance

2 FORMING



VP / VSA suction cups
LEM / LEM+ / CMS HD vacuum pumps

- Vacuum pumps and suction cups adapted for porous materials
- Reduction in vacuum consumption

3 PACKING



VSA suction cup
LEM / LEM+ / LEMAX / LEMAX IO / LEMAX+ / LEMCOM / CMS HD vacuum pumps
CVGL / MVG / CVGC vacuum gripper

- A broad range of solutions for gripping and transferring packaging of all shapes and materials

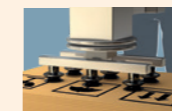
4 PALLETIZING



CVGL vacuum gripper
MVG modular vacuum gripper
CVGC Carbon Vacuum Gripper

- Gripping several cardboard boxes at a time
- Multi-formats
- Optimization of palletization plan

5 HANDLING



Lifting tube Cyclone

- Reduction in operator Repetitive Strain Injury
- Protection of the loads and operator even in the case of a power cut

A range of technologies as close as possible to the manufacturers requirements

→ Energy efficiency

Using less lowers the environmental impact of production and reduces production costs.

→ Reliability

Eliminating machine stops for maintenance thanks to the through-type silencer (anti-clogging) used in vacuum pumps, helps increase productivity of packaging lines.

→ Ergonomics

Accelerate the handling and use of products making operators more versatile.

→ Flexibility

Enabling a product to adapt itself to your production helps provide flexibility and reactivity.

→ Very high output

Combining suction cups and pumps developed specially for very high outputs, to meet the expectations of the most demanding customers.

→ Compact and lightweight

Compact, COVAL vacuum pumps integrate, in a reduced size, all necessary functions for an optimized vacuum management. Their reduced size and weight allow the suction cups to be positioned at minimum distance to achieve the shortest possible grip time without load loss.

→ Communication

Communication needs vary depending on the industry and application, but more and more, an efficient and real time communication system allows for increased flexibility of the machine. In addition, the simplification of wiring and configuration is a benefit for integrators, while expanding the possibilities of diagnosis and optimization.

→ ASR (Air Saving Regulator)



Whatever the pressure supplied by the compressed air network (between 4.5 and 7 bar), this is automatically optimized by ASR to 3.5 bar and generates energy savings of 40% on average. ASR technology avoids the need for an external pressure regulator and eliminates the risk of altering settings and of unnecessary consumption.

→ ASC (Air Saving Control)



is a regulation system which stops air consumption when the set vacuum level is attained. It provides up to 90% energy savings and a significant reduction in noise level.

Vacuum pumps

Plug & Play installation, very compact, wide range with many accessories, optimal ergonomics for adjustment, operation, maintenance

LEM and LEM+ series

Mini vacuum pump with «ASR» integrated



LEMAX, LEMAX+ and LEMAX IO series

Mini vacuum pump with «ASC» integrated



IO-Link

+ LEMAX, LEMAX+ and LEMAX IO series

- ASC: More than 90% energy savings
- Auto-adaptation depending on the material to be handled
- Communication protocol IO-Link (LEMAX IO)
- Handling all airtight or low porosity pieces

+ LEM and LEM+ series

- ASR: 40% energy savings
- Handling all porous or airtight pieces

LEMCOM series

Vacuum pump with fieldbus communication (EtherNet/IP or PROFINET):

- 1 "master" module controls from 1 to 15 secondary modules
- The master module is a full-fledged pump
- Remote configuration, control, and diagnostics: integrated web server, configuration software, and more
- Additional communication port



CMS HD series

Heavy Duty Multi-stage Vacuum Pumps

- High volume tank drainage
- Handling porous pieces
- Supply to the CVGL and MVG series vacuum grippers



IO-Link (NFC I))

Suction cups

Standard suction cups

VP, VPG, VSA, VS, VSP, VPO, VPU, VPF, VSAG, VSAJ, VSAB, VSG

Compatible with numerous materials : cardboard, glass, hard and soft plastic, flow pack...

- 4 standard materials: nitrile, natural rubber, silicone, Siton®
- Ø 5 mm to 88 mm.
- Round, oblong, flat shapes, 1.5 and 2.5 bellows



FPC Series Suction Cups

The universal FlowPack suction cup. Designed and optimized for handling packaging from 100g to 5 kg. FlowPack, DoyPack, etc...

- 4 dimensions available: Round, Ø 45 and Ø 60 mm, 1.5 bellows suction cups Ø 35 mm and Elliptical: 120 x 100 mm
- Materials : **Suction Cups:** food grade silicone in blue color, the material and color recommended for food applications. FPC cups are compatible with FDA food standards (FDA 21 CFR 177.2600.) and comply with EU Directives 1935/2004. **Inserts :** Food compatible plastic
- 2 levels of flexibility: 35 and 50 Shore



Vacuum grippers

MVG series

Modular vacuum gripper

- Customized sizes
- Selection of gripping zones
- Compact and lightweight



CVGL series

Vacuum gripper

- Many possible combinations
- Integration of all functions
- Adapted to a large number of industries.



Accessories

Vacuum switches

electronic, electric, or pneumatic
PSD, PSK, PSA100, PSE, PSP



Systèmes Ressorts

1/8G - 1/4G - 3/8G Standard ou antirotation TS - YS - TSOP - TSOG



Vacuum filter

1/8G - 1/4G - 3/8G - 3/4G - 2" Filtering cartridge: paper, stainless steel, or polyamide
FVI - FVU - FVUM - FVG



You will find our catalog and 3D CAD Models of all our products, on our website www.coval.com, or via our free downloadable Mobile apps.

COVAL at the heart of the food processing industry

Located in France, second exporting country of food processing products in the world, COVAL has a continued relationship with the Food Processing Industry sector.

- Strong presence at the heart of the food processing sector
- Ranges of silicone suction cups, compatible with FDA food standards and European directives
- Specific suction cups for optimized product gripping
- Vacuum pumps and suction cups for all packing

Suction cups in touch with your products

Silicone suction cups

- Diameter 1 mm to 88 mm
- Round and oblong shapes
- Flat, 1.5 and 2.5 bellows
- Metal detectable silicone version

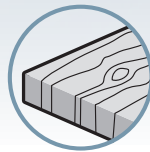
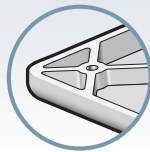
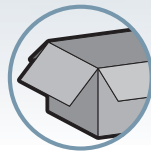


Specific suction cups

- MVP Series, Packaging Suction Cup
- Flexible, high speed suction cups, MVS series
- Bakery suction cups, VSD - VSE - VSP series
- Suction cups for egg handling, VSO series
- FPC Series suction cups, FlowPack optimized



COVAL, as close as possible to your production



Distributed by:



COVAL VACUUM TECHNOLOGY INC.

901 Jones Franklin Road

Suite 100

Raleigh, NC 27606

Phone : (919) 233-4855

Fax : (919) 233-4854

www.coval-inc.com