



COVAL

vacuum managers

VACUUM HANDLING SOLUTIONS FOR PRODUCTS, PACKAGING AND PACKING



ADVANCED VACUUM SOLUTIONS

Vacuum Managers

COVAL's vocation is to contribute to the performance and safety of industrial processes by vacuum handling objects of all sizes, weights and materials.

For this, we have developed expertise in four complementary lines of business:

- 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: analyse the application, to help decision making and to 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**.

PACKAGING

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 30 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.**

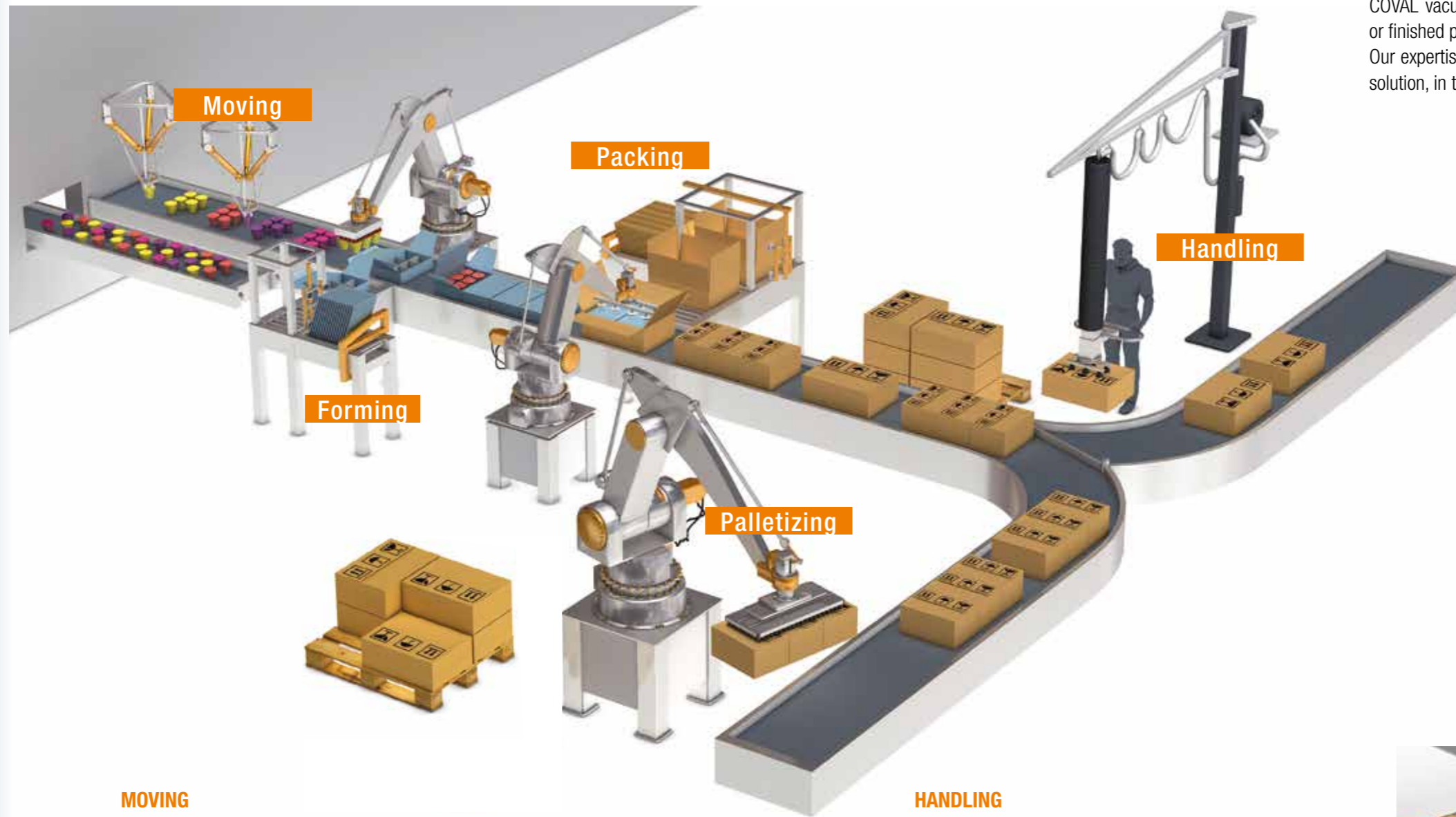
To respond to your constant challenges in the field, COVAL relies on:

- 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!**



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 | ■ Flow pack |
| ■ Paper | ■ Aluminium |
| ■ Plastic | ■ Tin |

MOVING



MVS / VSA suction cups
CIL / VR / GVR micro-ejectors

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

FORMING



VP / VSA suction cups
LEM / LEM+ / GEM vacuum pumps

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

PACKING



VSA suction cup
GEM, LEM, LEM+, LEMAX and LEMAX+ vacuum pumps
MVG vacuum gripper

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

HANDLING



Lifting tube
Cyclone

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

PALLETIZING



CVG series vacuum gripper
MVG modular vacuum gripper

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



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.

■ Twintech™*

Integrates all the functions (control valve, pressure regulation, 'product gripped' control thanks to the vacuum switch) in a single compact and light module. The vacuum pump is placed closer to the suction cups, reducing the cycle duration and limiting energy loss during handling.

■ 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

LEM and LEM+ series

Mini vacuum pump integrated with intelligence dialogue

- Plug & Play installation
- Very compact
- Wide range with many accessories
- Optimal ergonomics for adjustment, operation, maintenance
- ASR : 40% energy savings

Use

Handling all porous or airtight pieces



NEW

LEMAX and LEMAX+ series

Mini vacuum pump with « ASC » integrated

- Very compact and light
- More than 90% energy savings
- Operational silence
- Auto-adaptation depending on the material to be handled

Use

Handling all airtight or low porosity pieces



NEW

GEM series

Vacuum pumps with integrated pressure regulators

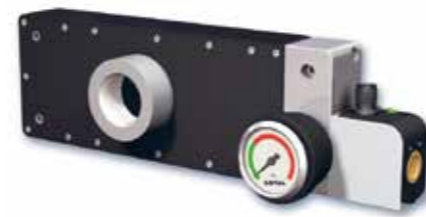
- Very compact 'all-in-one' solution
- M12 connector simplifying installation and use
- 2 vacuum levels available : 60% and 85%
- 5 nozzle diameters (1.2; 1.5; 2.0; 2.5 and 3.0 mm)



CMS series

Multi-stage vacuum generators

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



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



Vacuum grippers

MVG

Modular vacuum gripper

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

NEW



CVG

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



Spring systems

1/8G – 1/4G – 3/8G Standard or anti-rotation 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



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

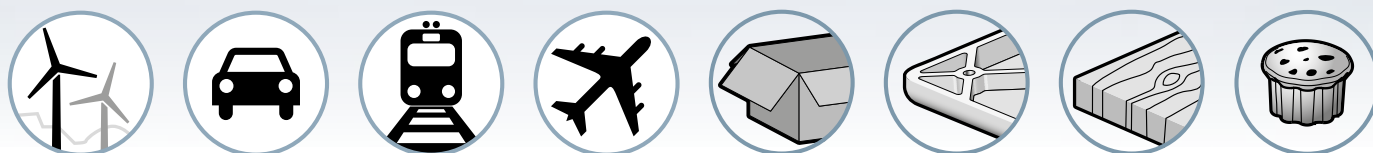
- Flexible, high speed suction cups, MVS series
- Bakery suction cups, VSD - VSE - VSP series
- Suction cups for egg handling, VSO series



COVAL, as close as possible to your production



- Factory
- ▲ Head office
- Subsidiaries
- Distributors



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