

# Interactive Catalogue

## Trick #1



**Industry Solutions: PACKAGING**

**COVAL** vacuum managers

Packaging plays an important role in industrial production. Vacuum applications in this field range from grasping small bags to handling large-sized cardboard boxes. Their extremely various size, shapes, weights, and materials also as a result of the many functions they need to fulfil: hold, transport and store products, but also inform, promote, and facilitate use, etc.

Regardless of the type of packaging, the handling constraints are always the same:

- Safety of goods and operators.
- Handling throughput.
- Versatility.
- Energy savings.

**COVAL All Along the Line**

**SUCTION CUPS**  
Suction cups meet a wide variety of specifications thanks to the large choice of shapes, diameters, and materials. COVAL offers a complete line of fastening fittings that are suitable for suction cups and compatible with all types of applications.

- Flat and anti-flat suction cups
- Clamping suction cups
- Non-perforated suction cups

→ See chapters 2 and 3.

**VACUUM PUMPS**  
COVAL vacuum pumps all have compactness, embedded intelligence, and low energy consumption in common.

- Micro-electronics
- Modular vacuum pumps
- Smart vacuum pumps

→ See chapters 5 to 9.

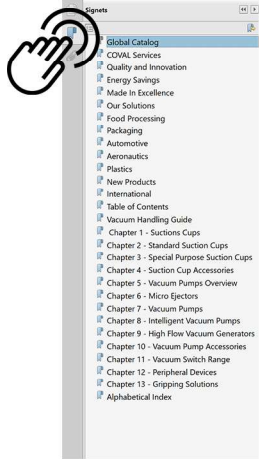
**VACUUM GRIPPERS**  
Vacuum grippers are used to grip several products (flow packs, film cans, etc.) or packages (palletization) at once.

- MVG: fully configurable vacuum gripper
- CIVE: vacuum gripper with many possible combinations

→ See chapter 13.



## Trick #2



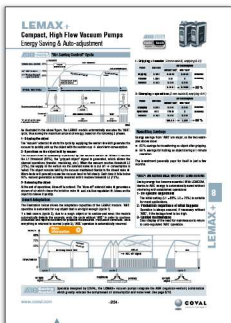
**Table of Contents**

General Points About Suction Cups	Chapter 1
Standard Suction Cups	Chapter 2
Special Purpose Suction Cups	Chapter 3
Suction Cup Accessories	Chapter 4
Vacuum Pumps Overview	Chapter 5
Micro Ejectors	Chapter 6
Modular Vacuum Pumps	Chapter 7
Intelligent Vacuum Pumps	Chapter 8
High Flow Vacuum Generators	Chapter 9
Vacuum Pump Accessories	Chapter 10
Vacuum Switches	Chapter 11
Peripheral Devices	Chapter 12
Gripping Solutions	Chapter 13
Alphabetical Index	

**Standard Suction Cups**  
Chapter 2

VSAG	Suction Cups with 1.5 Bellows Ø 10 to 100 mm	P. 212
VSAS	Suction Cups with 1.5 Bellows Ø 10 to 100 mm	P. 212
VSASJ	Suction Cups with 1.5 Bellows Ø 15 to 28 mm	P. 212
VS	Suction Cups with 2.5 Bellows Ø 5 to 60 mm	P. 212
VSG	Suction Cups with 2.5 Bellows Ø 5 and 7 mm	P. 212
VSD	Long Stroke Suction Cups	P. 216
C	High-performance Suction Cups	P. 251
VSA-VS BM VSBM	Teach Rings	P. 259

## Trick #3



**Intelligent Vacuum Pumps**  
Chapter 8

LEMAR	Intelligent Micro vacuum Pump with ABS (Air Saving Control)	P. 212
LEMAR	Compact High Flow Vacuum Pump with ABS	P. 212
LEMAR	Intelligent Micro vacuum Pump with ABS (Air Saving Control)	P. 212
LEMAR	Compact High Flow Vacuum Pump with ABS	P. 212
LEMAR	Micro vacuum Pump (Automatically Settable Vacuum Flow Rate)	P. 212

**LEMAR+ Compact, High Flow Vacuum Pumps**  
General Information

LEMAR+ Series, compact, high flow vacuum pumps, integrate ACS (Air Saving Control) technology that allows up to 90% of energy savings. They are specifically designed for drying, air-lift or vent-out applications.

For gripping porous products or those with a rough surface, it is recommended to use the LEMAR+ Series (see page 251).

**Advantages**

- Easy implementation: Plug & Play, multiple choices, every type of application.
- Maximum automatic energy savings.
- Compactness: LEMAR+ vacuum pumps are the most compact on the market.
- Short response times: Possible installation very close to vacuum ports.
- Automatic slow-off: Reduced PLC I/O requirement thanks to the automatic slow-off function (slow-off time configurable from 1 to 10s).
- Used resistant: Non-viscous through-hole sensor.
- Safety: Product gripping is maintained even during power failure.

**Components**

- 25% of moisture vacuum.
- AC or DC, depending on safety.
- ACS (Automatic Control System).
- High visibility display.
- Integrated vacuum sensor.
- Vacuum non-return valve.
- Combined ACS "return regulator".
- External slow-off signal or automatic slow-off function.
- Powerful slow-off as option.
- Sensor with 0 or 1/2 VDC connectors.
- Slow-on flow rate (liters/min):

Flow rate	85%
2.5 bar	125
2.0 bar	200

**Integration**

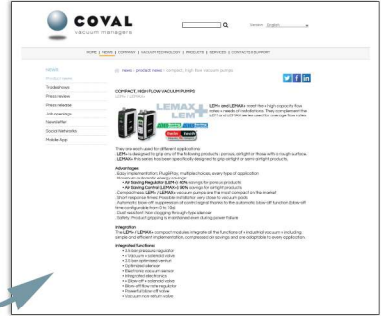
LEMAR+ compact modules integrate all functions on a single PCB, including ACS, ACS, efficient, economical compressor, etc. They will be designed for every application:

- 0.5 bar pressure regulator
- "Vacuum" solenoid valve
- 0.5 bar optimized vent
- Optional device
- Electronic vacuum sensor
- Integrated electronics
- "Slow-off" solenoid valve
- Slow-off flow rate regulator
- Powerful slow-off valve
- Vacuum non-return valve

Combination of non-return valve and advanced electronics ACS ensures the automatic re-pressurization.

Once vacuum is established, the porous area and continues to suck some air to hold the product.

90% energy savings (on average, see p. 8/16).



**Table of Contents**

General Points About Suction Cups	Chapter 1
Standard Suction Cups	Chapter 2
Special Purpose Suction Cups	Chapter 3
Suction Cup Accessories	Chapter 4
Vacuum Pumps Overview	Chapter 5
Micro Ejectors	Chapter 6
Modular Vacuum Pumps	Chapter 7
Intelligent Vacuum Pumps	Chapter 8
High Flow Vacuum Generators	Chapter 9
Vacuum Pump Accessories	Chapter 10
Vacuum Switches	Chapter 11
Peripheral Devices	Chapter 12
Gripping Solutions	Chapter 13
Alphabetical Index	