

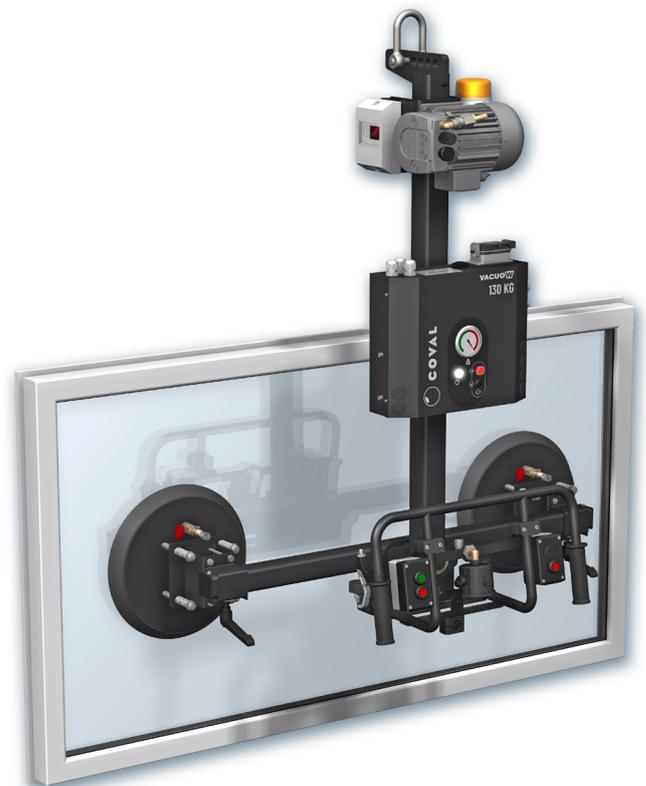
COVAL

vacuum managers

VACUOW

VWV

Vertical vacuum lifting devices
for glass panes, windows, and doors



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ADVANCED VACUUM SOLUTIONS

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EN2

VACUO-W

Vertical vacuum lifting devices for glass panes, windows, and doors - Handling loads from 130 to 260 kg

For over 35 years, COVAL - experts in vacuum handling for heavy loads, and an ISO 9001: V2015 certified company - has been designing and manufacturing a comprehensive range of vacuum handling equipment, including vacuum lifting devices. Our vacuum handling devices, tailored to your industrial environment, help prevent musculoskeletal disorders (MSDs) while boosting productivity and maintaining the highest safety standards.

Building on our extensive experience and expertise in the vacuum handling market, COVAL now offers the full range of VACUO-W vacuum lifting devices, specially engineered for the vertical handling of glass panels and joinery weighing between 130 kg and 260 kg.

These devices allow manual swiveling of loads to the left or right at a 90° angle, with suction pads that can be adjusted to accommodate various formats. Additionally, the auxiliary beams on VACUO-W models with four suction pads are also adjustable. The VACUO-W line is COVAL's standard solution for vertical handling and swiveling of smooth, non-porous loads up to 90°, designed to be easily operated by a single operator.

Our lifting devices combine ease-of-use with high reliability and all-round ruggedness, and are available in both electric and pneumatic versions.

The VACUO-W vacuum lifting devices are specifically designed for the following applications:

- Handling of glass panes for window and door assembly
- Handling of windows and doors

Advantages

- Fast and easy to implement
- Humanizes the most strenuous physical labour
- Productivity gains
- Loads can be handled by a single operator
- Will not cause any deterioration of handled loads
- Improves working conditions
- Easy to use
- Quick return on investment
- Complies with EC directives

Ergonomics

Using VACUO-W vacuum lifting devices improves working conditions by reducing operator fatigue and minimizing accidents during all vertical handling operations involving glass panes, windows, and doors.



Industry-specific applications



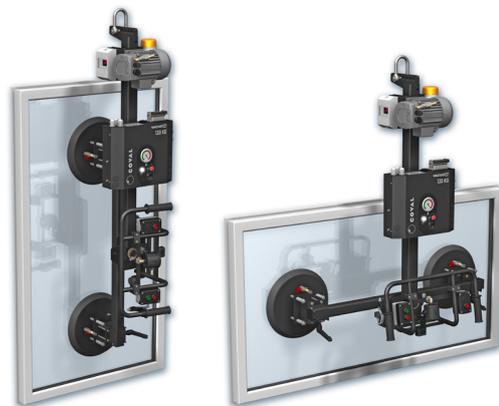
Vertical



displacement



Left/right swiveling



SAFETY

The VACUO-W line includes the following safety features:

- Vacuum tank in main beam
- Check valve
- Vacuum gauge with red/green operating ranges, pointer indicates the vacuum level in suction pads
- Audible alarm in the event of a power failure or drop in vacuum level
- Power on indicator
- 2 red "Release" buttons that force the user to use both hands

According to your applications and needs, additional features can be selected from the Option Packs.

COVAL vacuum lifting devices comply with the EU Machinery **2006/42/EC** and low voltage 2014/35/EU directives as well as with European standard **EN 13155**.



VACUO-W

Vertical vacuum lifting devices for glass panes, windows, and doors - General information



ELECTRIC VERSION:

- Start/stop switchbox

PNEUMATIC VERSION:

- 1/4 turn valve

MAIN BEAM

The main beam serves as a vacuum tank to retain the load in the event of a power failure.

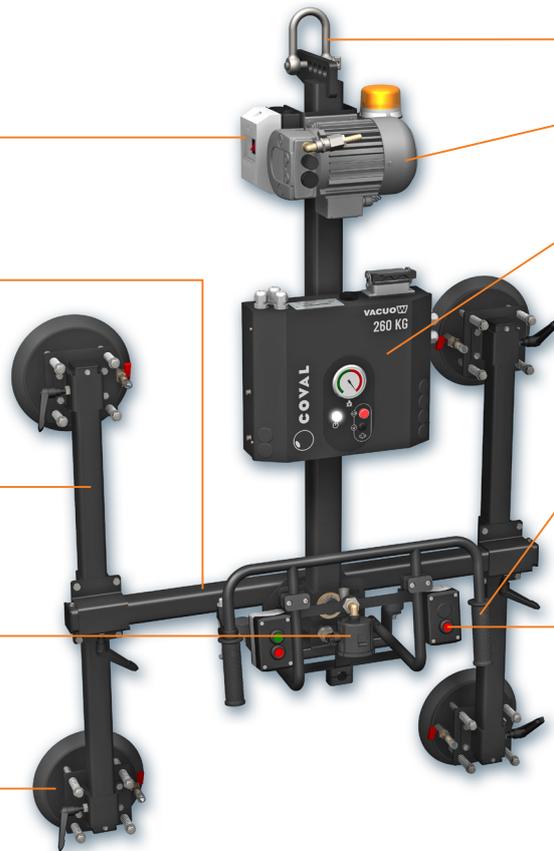
AUXILIARY BEAMS

Adjustable on VACUO-W with 4 suction pads

VACUUM FILTER

SUCTION PADS AND SPRING SYSTEMS

Adjustable



ADJUSTABLE LIFTING SHACKLE

POWER

Electric or pneumatic

SAFETY FEATURES

- Vacuum gauge with (red/green) usage ranges
- Visual indicator showing a power failure
- Audible alarm in the event of a power failure and/or drop in vacuum level

HANDLING HANDLEBAR

- Robust and ergonomic design
- Manual left/right rotation of up to 90°
- Indexing control handle with a range of 0 to 90°

CONTROLS

- 1 "Pick up" button (green)
- 2 "Release" buttons (red)

| Lifting capacity | Max. load (kg) | | |
|---------------------|----------------|-----|-----|
| | 100 | 200 | 300 |
| Model | | | |
| with 2 suction pads | → | | |
| with 4 suction pads | →→→ | | |

Power

An electric version of the VACUO-W vacuum lifting devices is available for optimal integration in handling workstations.

PNEUMATIC

The vacuum is generated by a single-stage venturi equipped with a silencer.



- Supply: non-lubricated air, filtered to 5 microns, according to standard ISO 8573-1:2010 [4:5:4]
- Operating pressure: from 6 to 7 bar
- Flow rate: 7.5 m³/h.
- Air consumption: 3.2 l/s at 5 bar.

ELECTRIC

The vacuum is generated by a dry rotary vane vacuum pump.



- Flow rate: 8 m³/h.
- Available voltages:
 - Three-phase 230 V (2.35 A - 370 W)
 - Three-phase 400 V (1.35 A - 370 W)

Number of suction pads

The VACUO-W vacuum lifting devices are available in versions with 2 or 4 suction pads, tailoring to the dimensions of a load and ensuring an optimal grip without the risk of deforming or damaging it.

VACUO-W with 2 suction pads



VACUO-W with 4 suction pads



General Characteristics

- Frame: machine-welded steel
- Beams: steel
- Clamps: steel
- Powder-coated epoxy paint for industrial environments

VACUO-W

Vertical vacuum lifting devices for glass panes, windows, and doors - Horizontal handling of loads from 130 to 260 kg



Control box with safety features in vertical position for better visibility.

SPRING SYSTEMS

To ensure all suction pads make contact with the load, VACUO-W units come with standard RSC1 compensated spring systems:

SUCTION PADS

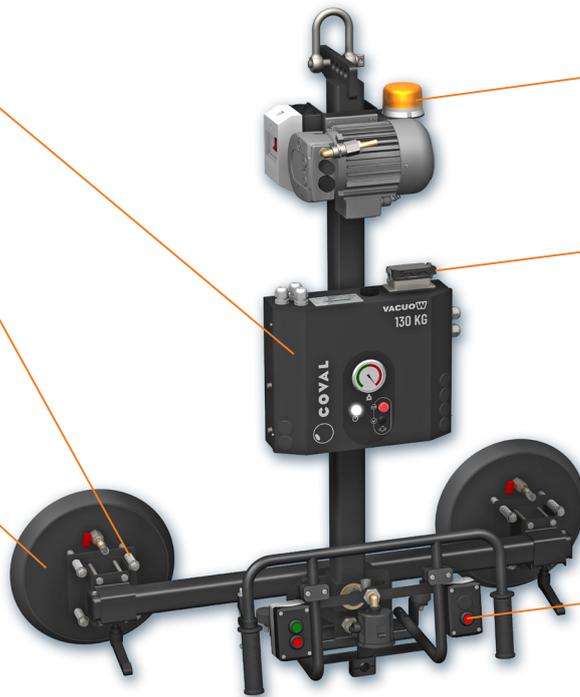
The suction pads are made of nitrile, ensuring damage-free handling and excellent resistance to hydrocarbons (oils).



Ø 240 mm
SPL240NBRG38RS1



Ø 340 mm
SPL340NBRWG38RS1



PACK PK2

Powerful warning light to alert the operator of a power failure and/or drop in vacuum level.

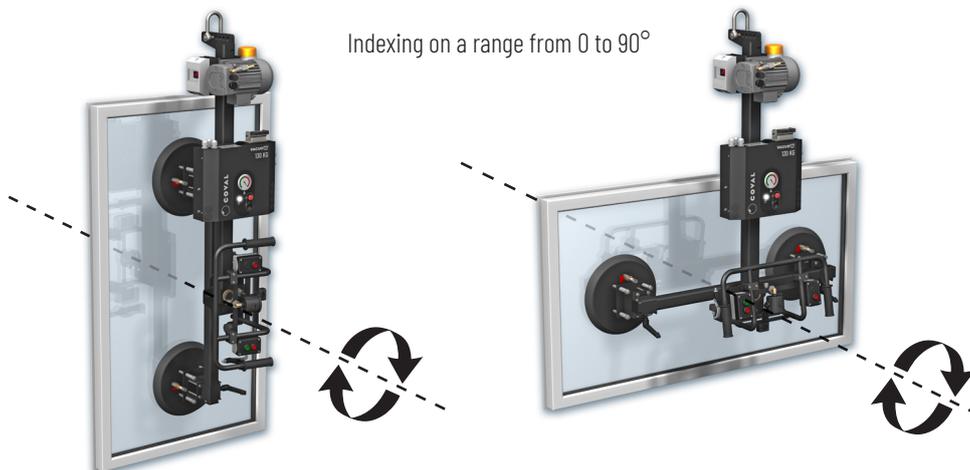
Quick-connector to connect hoist controls

PACK PK1

Control panel featuring Pick-up and Release buttons

MANUAL LEFT/RIGHT 90° ROTATION

Indexing on a range from 0 to 90°



OPTIONS: INTEGRATION OF ELECTRIC HOIST CONTROLS



Controls of the electric hoist and/or of the bridge crane are integrated in the removable control box (low-voltage control, 48 V max.):

PK_1

- 1 "E-Stop" button
- 1 "Up" button
- 1 "Down" button

PK_2

- 1 "E-Stop" button
- 1 "Up" button
- 1 "Down" button
- 1 "Left" button
- 1 "Right" button

PK_3

- 1 "E-Stop" button
- 1 "Up" button
- 1 "Down" button
- 1 "Left" button
- 1 "Right" button
- 1 "Forward" button
- 1 "Reverse" button



COVAL
vacuum managers

vacuum
components



A TECHNOLOGICAL PARTNER ON A GLOBAL SCALE

Located in the South of France, COVAL SAS designs, produces, and markets high-performance vacuum components and systems for industrial applications in all sectors worldwide.

An ISO 9001: V2015 certified company, COVAL innovates globally in vacuum handling. Our optimized components integrate intelligent and reliable functionalities, adapt to your industrial context, and safely improve your productivity.

With a strong spirit of innovation and technological advancements, the COVAL team is now recognized as an expert in developing reliable, economical, and productive custom solutions.

COVAL's references are found in major industrial sectors such as packaging, food processing, automotive, plastics, aerospace, and robotics, where vacuum handling is crucial for efficiency and productivity.

COVAL markets its products and services worldwide through its subsidiaries and authorized distributor network. Always attentive to its customers, COVAL supports the implementation of its solutions with a continuous and attentive relationship.

Visit the following section on COVAL's website:
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