

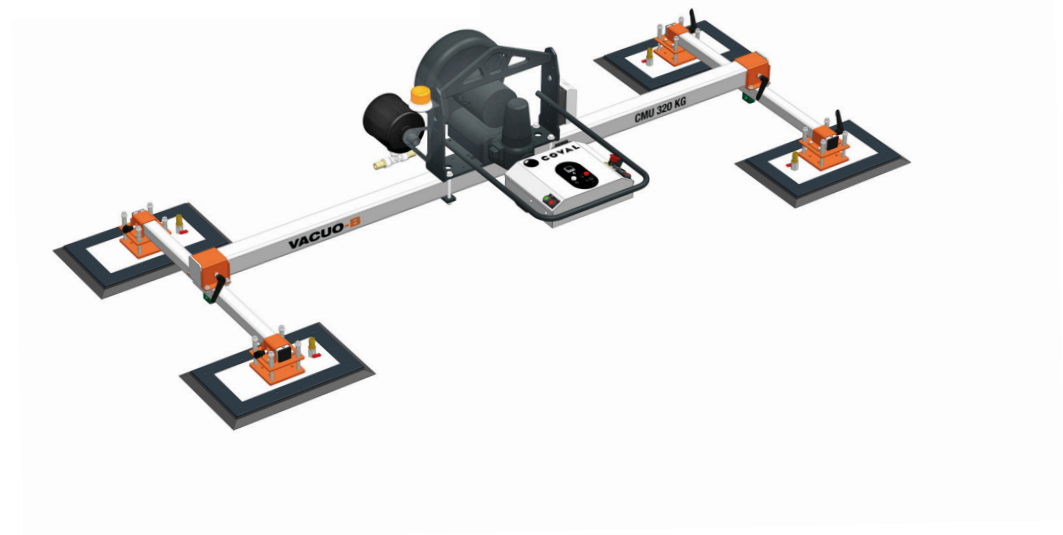


COVAL

vacuum managers

VACUO-B VBH / VBR

Vacuum lifting devices



VACUO-B

Vacuum lifting devices

Handling loads from 80 to 320 kg

For more than 35 years, COVAL – the vacuum handling experts specialized in heavy loads, an ISO 9001: V2015 certified company – has been designing and manufacturing a broad range of vacuum equipment, vacuum lifting devices and lifting tubes that can be adapted to your industrial context, help prevent MSDs and improve your productivity without sacrificing safety.

Our key strengths reside in our ability to provide advice, installation services, and operator training.

Bolstered by this extensive experience and our know-how on the vacuum handling market, COVAL is now offering you our full range of VACUO-B vacuum lifting devices, which are dedicated to handling heavy loads from 80 to 320 kg such as wooden panels (chipboard, plywood..) and porous panels.

The VACUO-B line of vacuum lifting devices is COVAL's standard product addressing such needs as horizontal handling and 90° swivelling of porous loads by one single operator.

They are easy to use, benefit from outstanding reliability and all-round ruggedness, and are available in electric version. The VACUO-B vacuum lifting devices are equipped with a blower allowing to generate a high air flow and ensuring the grip of porous materials. Besides, in case of power failure, the handling of the loads is maintained thanks to the blower's flywheel.

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

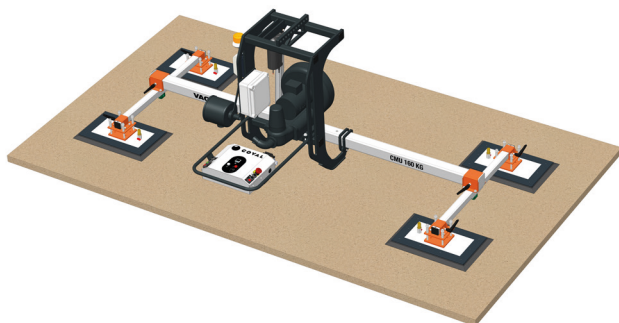
- Palletizing and depalletizing
- Feeding machinery
- Unloading conveyors

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

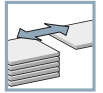
Using VACUO-B vacuum lifting devices allows you to improve working conditions by reducing operator's fatigue and accidents for all operations involving horizontal handling of porous panels weighing up to 320kg or 90° swivelling of panels weighing up to 250 kg.



Industry-specific applications



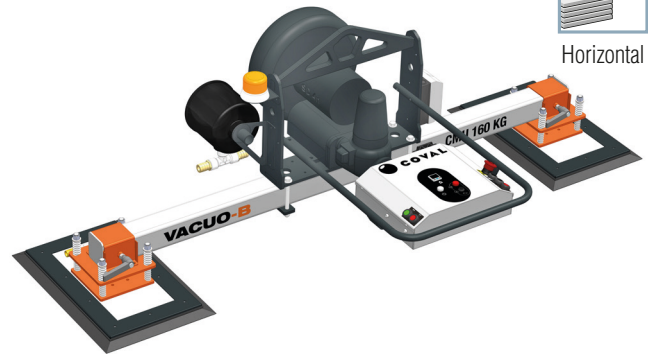
Movements



Horizontal

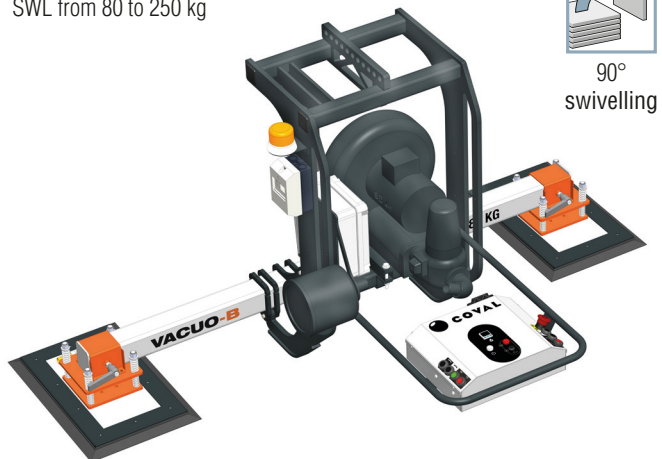
VACUO-B VBH

SWL from 100 to 320 kg



VACUO-B VBR

SWL from 80 to 250 kg



90°
swivelling

SAFETY

The VACUO-B line includes the following safety features:

- Flywheel blower allowing in case of power failure to maintain the vacuum in the suction cups, the time that the operator secures the station.
- Electronic colour display type vacuum switch indicating the vacuum level in suction cups
- Warning Alarm in case of power cut or drop of 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.

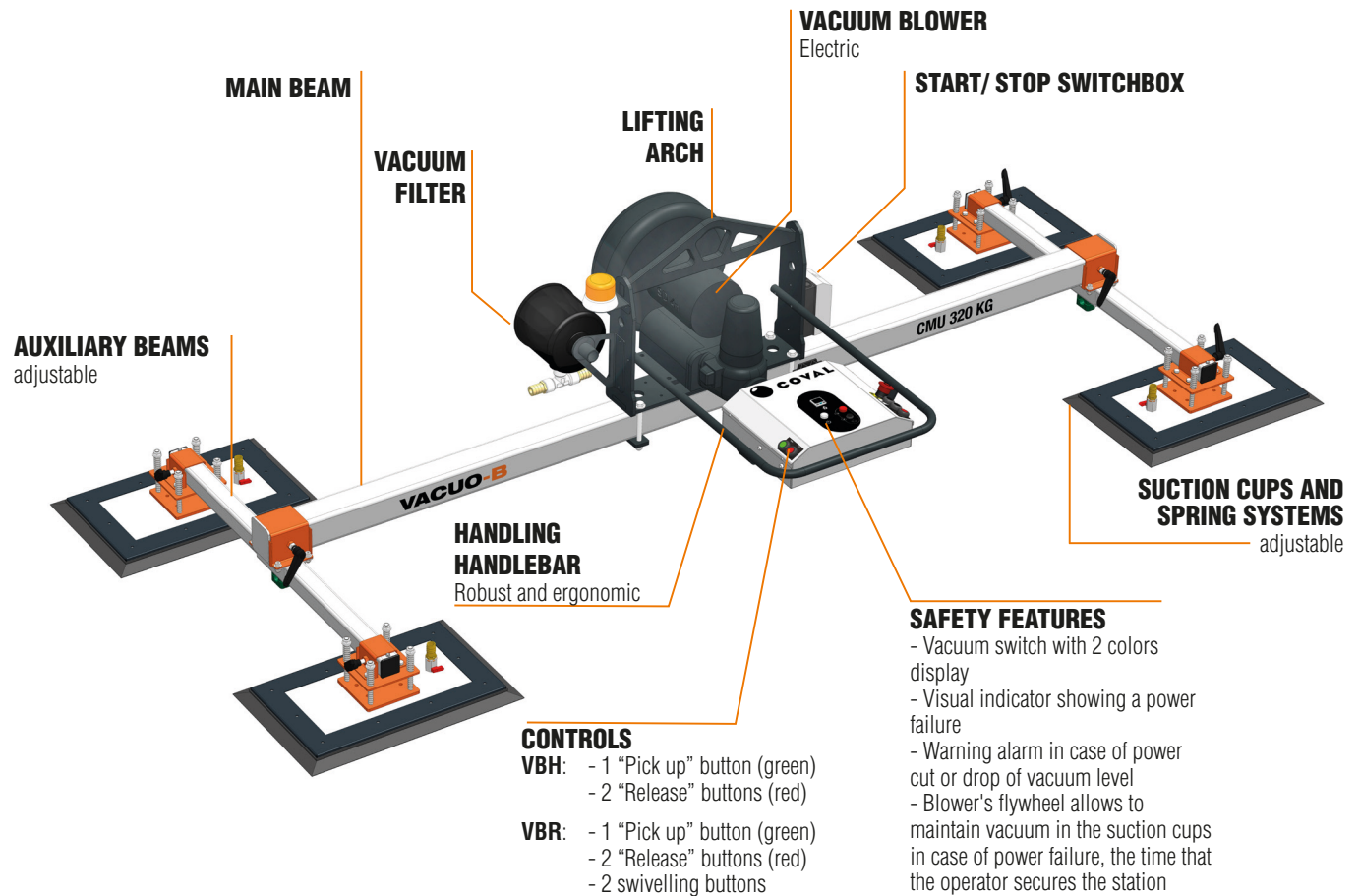
COVAL vacuum lifting devices comply with the EU Machinery 2006/42/EC and Low voltage 2014/35/EU directives as well as with European standard EN 13155.



VACUO-B

Vacuum lifting devices

General information



Power

The VACUO-B vacuum lifting devices are available in electric version for optimal integration in the handling workstation. The vacuum is generated by a dry rotary vane vacuum pump, flow rate: 150 m³/h.

- Available voltages: - Three-phase 230 V (2.35 A – 1.3 KW)
- Three-phase 400 V (1.35 A – 1.3 KW)
- VBR version: Swivelling by electric cylinder

General features

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

CUSTOM-MADE VERSIONS

Your business might sometimes bring you to situations for which our standard versions are not perfectly adapted to your needs.

COVAL can provide custom-made solutions that meet your specifications, by integrating custom functions or by offering tailor-made vacuum lifting devices (adjusted in size or with a different type of suction cup).

ACCESSORIES (on request request)

We have several accessories available on request request that will enable you to further integrate your VACUO-B in your facility:

- Coiled power cable
- Coiled cable for integration of hoist controls, etc.

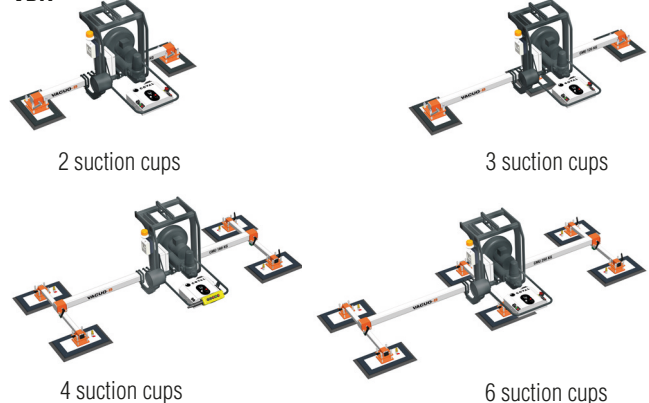
Number of suction cups

The VACUO-B vacuum lifting devices are available in versions equipped with 2, 3, 4 or 6 suction cups in order to adjust the dimensions and thickness of the sheet metal to be handled and ensure an optimal grip without any risk of deforming or damaging the loads.

VBH



VBR



VACUO-B VBH

Horizontal vacuum lifting devices

Horizontal handling of loads from 100 to 320 kg



The VACUO-B VBH line of vacuum lifting devices is COVAL's standard product addressing such needs as handling horizontal handling of porous panels by one single operator. They are easy to use and stand out due to their reliability and all-round ruggedness.

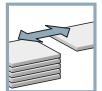
VBH VACUO-B vacuum lifting devices are specifically designed for the following applications:

- Palletizing and depalletizing
- Feeding machinery
- Unloading conveyors

Industry-specific applications



Movements



Horizontal

Lifting capacity	Max. load (kg)					
	100	150	200	250	300	350
VACUO-B VBH1	100	150	200	250	300	350
VACUO-B VBH1.6	100	150	200	250	300	350
VACUO-B VBH2.5	100	150	200	250	300	350
VACUO-B VBH3.2	100	150	200	250	300	350

PACK PK2_

Powerful warning light to warn the operator of a power failure.

SPRING SYSTEMS

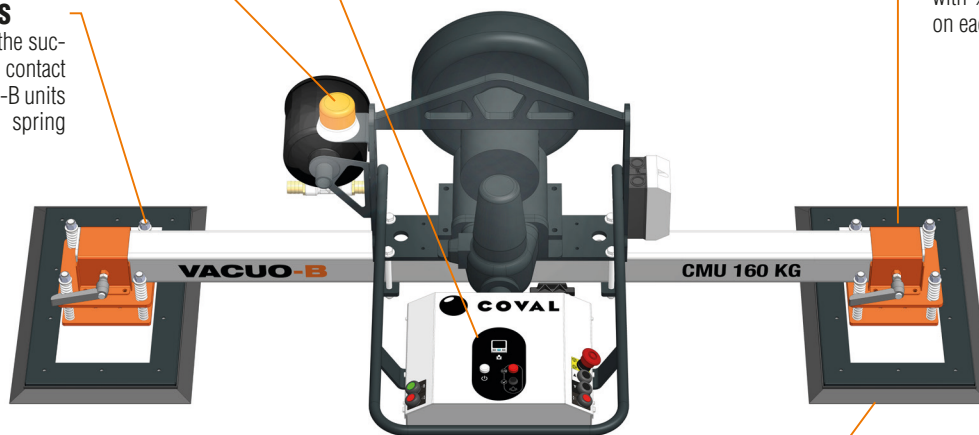
To guarantee that all the suction cups come into contact with the load, VACUO-B units are equipped with spring systems as standard:

PACK PK1_

Control panel including the Pick up / Release buttons as well as safety features.

1/4 TURN VALVE

For applications requiring frequent format changes, the VACUO-B lifting devices can be equipped with 1/4 turn shutoff valves on each suction cup.



SUCTION CUPS

570 X 370 mm suction cups equipped with a removable Nitrile seal.

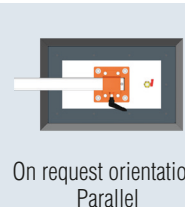
ON REQUEST

Direction of the suction cups

On standard version, the suction cups are oriented perpendicular to the beam on which they are mounted. (Main beam or auxiliary one depending on the number of suction cups). On request one, the suction cups can be oriented parallel to the beam.



Standard orientation:
Perpendicular



On request orientation:
Parallel

OPTIONS: INTEGRATION OF ELECTRIC HOIST CONTROLS



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

PK_1

- 1 "emergency stop" button
- 1 "up" button
- 1 "down" button

PK_2

- 1 "emergency stop" button
- 1 "up" button
- 1 "down" button
- 1 "left" button
- 1 "right" button

PK_3

- 1 "emergency stop" button
- 1 "up" button
- 1 "down" button
- 1 "left" button
- 1 "right" button
- 1 "forward" button
- 1 "reverse" button

VACUO-B VBH

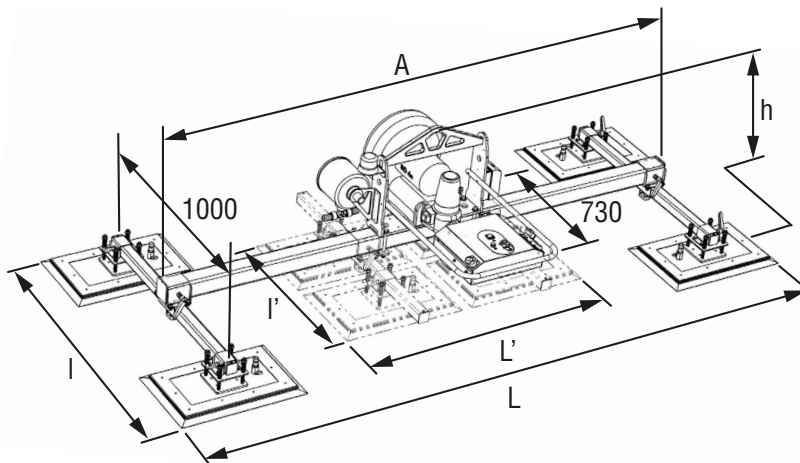
Horizontal vacuum lifting devices

Horizontal handling of loads from 100 to 320 kg



OPTION PACKS									
	VB	H	1		E2	3	X	PK	1 X
TYPE		POWER		1/4 TURN VALVE		VACUO-B CONTROL		HOIST CONTROL	
horizontal H		230 V tri E1 400 V tri E2		X Without valve V With valve		Control buttons on handlebar 1 Same as 1 + visual alarm via a warning light 2		X No hoist control 1 Integrated hoist control Up/Down 2 Integrated hoist control Up/Down + Left/Right 3 Integrated hoist control Up/Down + Bridge crane Left/Right Forward/Reverse	
SWL		NUMBER OF SUCTION CUPS							
100 kg 1		2 Suction cups 2							
160 kg 1.6		3 Suction cups 3							
250 kg 2.5		4 Suction cups 4							
320 kg 3.2									

See available configurations on the table list below.



2-suction cups VACUO-B VBH

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (Lxl)	Handled mini. format (L'xl')	Height (h)	Spring system	Weight	Part no.*
100	1700 mm	-	1970 x 940 mm	1000 x 600 mm	630 mm	RSC2	120 Kg	VBH1.E2X2DX17PK1X
	2500 mm		2770 x 940 mm				130 Kg	VBH1.E2X2DX25PK1X
	3000 mm		3270 x 940 mm				136 Kg	VBH1.E2X2DX30PK1X
160	1700 mm	-	1970 x 940 mm	1000 x 600 mm	630 mm	RSC2	120 Kg	VBH1.6E2X2DX17PK1X
	2500 mm		2770 x 940 mm				130 Kg	VBH1.6E2X2DX25PK1X
	3000 mm		3270 x 940 mm				136 Kg	VBH1.6E2X2DX30PK1X

3-suction cups VACUO-B VBH

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (Lxl)	Handled mini. format (L'xl')	Height (h)	Spring system	Weight	Part no.*
250	1700 mm	-	1970 x 940 mm	1200 x 600 mm	630 mm	RSC2	134 Kg	VBH2.5E2X3DX17PK1X
	2500 mm		2770 x 940 mm				144 Kg	VBH2.5E2X3DX25PK1X
	3000 mm		3270 x 940 mm				150 Kg	VBH2.5E2X3DX30PK1X

4-suction cups VACUO-B VBH

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (Lxl)	Handled mini. format (L'xl')	Height (h)	Spring system	Weight	Part no.*
320	1700 mm	2	2170 x 1270 mm	1200 x 800 mm	680 mm	RSC1	160 Kg	VBH3.2E2X4CX17PK1X
	2500 mm		2970 x 1270 mm				170 Kg	VBH3.2E2X4CX25PK1X
	3000 mm		3470 x 1270 mm				176 Kg	VBH3.2E2X4CX30PK1X

* Weight and part number are specified for VACUO-B VBH Electric 3-ph. 400 V, without 1/4 turn valve, with Pick up/Release controls on control panel, without hoist control integration option

VACUO-B VBR

90° rotating vacuum lifting devices

Handling loads from 80 to 250 kg



The VACUO-B VBR line of vacuum lifting devices is COVAL's standard product addressing such needs as handling and 90° swivelling of porous panels by one single operator. They are easy to use and stand out due to their reliability and all-round ruggedness.

VBR VACUO-B vacuum lifting devices are specifically designed for the following applications:

- Palletizing and depalletizing
- Feeding machinery
- Unloading conveyors

Industry-specific applications



Movements



90°
swivelling

Lifting capacity	Max. load (kg)					
Model	80	120	160	200	240	280
VACUO-B VBR0.8	80					
VACUO-B VBR1.2	120	120				
VACUO-B VBR1.6	160	160	160			
VACUO-B VBR2.5	250	250	250	250	250	250

PACK PK4_

Powerful warning light to warn the operator of a power failure.

90° SWIVELLING CYLINDER

(electric)

1/4 TURN VALVE

For applications requiring frequent format changes, the VACUO-B lifting devices can be equipped with 1/4 turn shutoff valves on each suction cup.

SPRING SYSTEMS

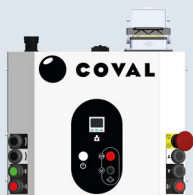
To guarantee that all the suction cups come into contact with the load, VACUO-B units are equipped with spring systems as standard:

PACK PK1_

Control panel including the Pick up / Release buttons as well as safety features.

SUCTION CUPS

570 X 370 mm suction cups equipped with a removable Nitrile seal.



OPTIONS: INTEGRATION OF ELECTRIC HOIST CONTROLS

PK_1

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

- 1 "Emergency Stop" button
- 1 "Up" button
- 1 "Down" button

PK_2

Controls of the electric hoist + cart are integrated in the removable control box (low-voltage control, 48 V max.):

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

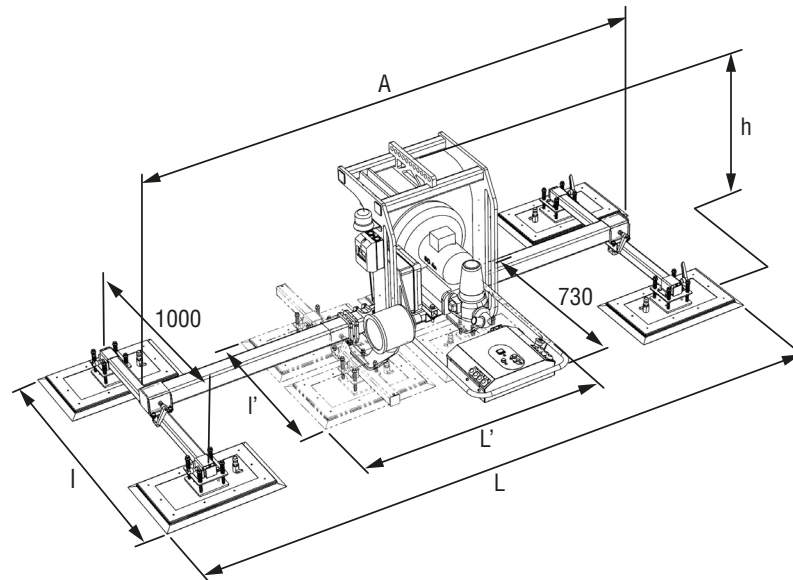
VACUO-B VBR

90° rotating vacuum lifting devices

Handling loads from 80 to 250 kg



OPTION PACKS									
	VB	R	1.2		E2	4	X	PK	1 X
TYPE		POWER		1/4 TURN VALVE		VACUO-B CONTROL		HOIST CONTROL	
90° rotating R		3-phase 230 V E1		X Without valve		Control buttons on removable control box (snappable onto handlebar)		X No hoist control	
		3-phase 400 V E2		V With valve		Same as 3 + visual alarm via a warning light		1 Integrated hoist control Up/Down	
SWL		NUMBER OF SUCTION CUPS						2 Integrated hoist control Up/Down + Left/Right	
80 kg 0.8		2 Suction cups 2							
120 kg 1.2		3 Suction cups 3							
160 kg 1.6		4 Suction cups 4							
250 kg 2.5		6 Suction cups 6							



2-suction cups VACUO-B VBR

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (LxI)	Handled mini. format (L'xI')	Height (h)	Spring system	Weight	Part no.*
80	1700 mm	-	1970 x 330 mm	1000 x 600 mm	1005 mm	RSC2	160 Kg	VBR0.8E2X2DX17PK1X
	2500 mm		2770 x 330 mm				170 Kg	VBR0.8E2X2DX25PK1X
	3000 mm		3270 x 330 mm				150 Kg	VBR0.8E2X2DX30PK1X

3-suction cups VACUO-B VBR

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (LxI)	Handled mini. format (L'xI')	Height (h)	Spring system	Weight	Part no.*
120	1700 mm	-	1970 x 330 mm	1000 x 600 mm	1005 mm	RSC2	174 Kg	VBR1.2E2X3DX17PK1X
	2500 mm		2770 x 330 mm				184 Kg	VBR1.2E2X3DX25PK1X
	3000 mm		3270 x 330 mm				190 Kg	VBR1.2E2X3DX30PK1X

4-suction cups VACUO-B VBR

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (LxI)	Handled mini. format (L'xI')	Height (h)	Spring system	Weight	Part no.*
160	1700 mm	2	2170 x 1680 mm	1200 x 800 mm	1050 mm	RSC1	200 Kg	VBR1.6E2X4CX17PK1X
	2500 mm		2970 x 1680 mm				210 Kg	VBR1.6E2X4CX25PK1X
	3000 mm		3470 x 1680 mm				216 Kg	VBR1.6E2X4CX30PK1X

6-suction cups VACUO-B VBR

Max. load (kg)	Length of main beam (A)	No. of auxiliary beams	Dimensions of the device (LxI)	Handled mini. format (L'xI')	Height (h)	Spring system	Weight	Part no.*
250	1700 mm	3	2170 x 1680 mm	1000 x 600 mm	1050 mm	RSC1	228 Kg	VBR2.5E2X6CX17PK1X
	2500 mm		2970 x 1680 mm				238 Kg	VBR2.5E2X6CX25PK1X
	3000 mm		3470 x 1680 mm				244 Kg	VBR2.5E2X6CX30PK1X

* Note: Weight and part number are specified for VACUO-B VBR Electric 3-ph. 400 V, without 1/4 turn valve, with Pick up/Release controls on control box, without hoist control integration option



COVAL

vacuum managers

COVAL SERVICES

A dedicated team, benefiting from many years of experience, stands by your side to define the handling device that is best suited and optimized for your application:

- Advice on workplace layout
- Optimization of workplace ergonomics

A TECHNOLOGICAL PARTNER ON A GLOBAL SCALE

Located in the southeast region of France, COVAL conceives, manufactures and globally distributes high performance, advanced vacuum automation components and systems for industrial applications in all branches.

COVAL is an ISO 9001: V2015 certified company which offers innovative solutions integrating reliable and optimized components with intelligent functionalities. The focus is to provide the most personalized and economic solution to a given application while assuring a significant improvement in the productivity and the safety for the vacuum users around the world.

COVAL has an ambition for technical excellence and innovation. As a specialist in vacuum automation, COVAL is reputed for offering reliable, personalized, cost effective and productive solutions.

JIB CRANES / HOISTS

COVAL offers a wide range of jib cranes and hoists to fully outfit workstations.



The references of COVAL can be found in several industrial sectors (Packaging, Automotive Industry, Plastic, Graphic, Aeronautic...) where vacuum handling is important for high efficiency and productivity.

COVAL markets its products and services all over Europe, in the United States and South America through its subsidiaries and authorized distribution network. COVAL strives to provide customer driven solutions and gives the best possible treatment to satisfy all its clients.

For all enquiries from Australia, Africa and Asia please kindly contact COVAL head office in France.

vacuum components



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COVAL S.A.S.
Head Office
ZA des Petits Champs
26120 Montélier France
Tel : +33 (0)4 75 59 91 91
Fax : +33 (0)4 75 59 91 05

www.coval.com