Vacuum Load Lifting Devices

FEZER vacuum load lifting devices are recognised by their robust design, their long-life cycle and above all by their easy handling combined with high safety features.

They increase the efficiency and profitability of production processes as well as working safety and ergonomically. Using vacuum load lifting devices relieves the operators and prevents fatigue caused by overwork.

FEZER vacuum load lifting devices support your daily operations, increase the productivity and workplace safety with comparably low investment costs. Look and see!
Vacuum Load Lifting Devices

Introduction

Areas of Application

The individual device series is designed for various applications and ensure a safe process and economical production. With the help of vacuum technology, workpieces can not only be easily and quickly engaged but also be transported without damage. For these reasons the lifters are being used in many fields of industry:

- Handling of aluminum, steel, glass, chipboard and plastic plates
- Handling of coils and split strips
- Transport of wood, glue-laminated beams, chipboards, MDF and OSB plates
- Feeding of CNC, punching and ripple machines
- Commissioning, putting into and out of storage
- Used in roller mills, automobile industry, wind energy, aeronautics, stone and concrete industries

Unique Safety Concept

All device series are absolutely safe, and correspond to the current safety standards. Large dimensioned vacuum safety tanks and integrated warning units ensure the highest operational safety in case of a power failure. Additionally all manually operated lifters are equipped with the unique "Main Switch Supervision". This feature sends out a warning signal should loads become engaged solely by the residual vacuum in the tank while the main switch is off. This supervision sets new standards on vacuum load lifting devices when it comes to operational safety.

VacuBoy in Action

1. Feeding a laser cutter with the help of a VacuBoy
2. Transport of metal sheets by a VacuBoy Mini in power-independent battery design
3. VacuBoy for commissioning steel sheets
4. VacuBoy VB-180E for turning over furniture parts
Vacuum Load Lifting Devices

Introduction

Basic Equipment

FEZER vacuum lifters create confidence by their clever design. The lifters can be adjusted to individual requirements easily and problem-free. The devices have very high safety and comfort features as a standard:

Safety:
- Main switch supervision on lifters with handslide valves
  (warning signal when loads are engaged with turned-off main switch)
- Large dimension safety tank integrated in the lifter's main beam
- Non-return valve between vacuum generator and safety tank
- Manual vacuum control by handslide valve with safety latch
- Vacuum gauge with "red-green" zone for visual supervision
- Audible warning unit for decrease of vacuum and/or power failure
- Large vacuum filter to protect the valves and pumps

Comfort:
- Push-buttons with emergency off on lifters with electrical movements (swelling, turning over, or rotation)
- Various suction pads for smooth, rough or grooved surfaces
- Movable suction pads to adjust to varying workpiece dimensions
Vacuum Load Lifting Devices

Introduction

Options
The lifters can be additionally equipped with a multitude of options to meet your individual safety and comfort requirements:

Safety:
- Optical warning unit with large green and red lamp to indicate "ready for operation" and "malfunction" with audible alarm if power failure
- Set-down stands to protect the suction pads when lifter is set down

Comfort:
- Electrical vacuum release with two-hand operation via push-buttons
- Switching automatic with alternate suction and release activation
- Universal holder for crane pendants with Velcro fastener
- Electrical control functions by push-buttons for crane movements
- Vacuum-controlled motor switch to save energy and reduce the noise level

Further Options:
- Swivel feature with angle adjustment of the manipulating handle
- Water separator for use on water jet machines
- Battery pack for operation independent of power
- Air pack with pneumatic warning unit for compressed air operation
Vacuum Load Lifting Devices

VacuBoyMini VBM

The Lightweight up to 500 kg

The compact design and low mass make the VacuBoyMini the ideal partner for handling stable loads. Available with single suction pad or attachments with several pads which covers a large application spectrum.

Additionally the lifter can be equipped with a quick-change coupling that allows a fast exchange of suction pads and attachments.

- Feeding of CNC machines
- Handling of drums and crates
- Handling of glass and window elements

<table>
<thead>
<tr>
<th>Capacity (kg)</th>
<th>Type</th>
<th>Workpiece dimensions max/min (mm)</th>
<th>Pump</th>
<th>Number of suction pads</th>
<th>L1 (mm)</th>
<th>B1 (mm)</th>
<th>B2 (mm)</th>
<th>H (mm)</th>
<th>A (mm)</th>
<th>Overweight (kg)</th>
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<tbody>
<tr>
<td>125</td>
<td>VBM-1</td>
<td>2,500 x 1,250 / 400 x 400</td>
<td>T 4.8</td>
<td>1</td>
<td>250</td>
<td>250</td>
<td>270</td>
<td>450</td>
<td>60</td>
<td>20</td>
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<td>2, 4</td>
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<td>400</td>
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<td>60</td>
<td>25, 30</td>
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<td>400</td>
<td>270</td>
<td>550</td>
<td>60</td>
<td>30, 35</td>
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</table>

VacuBoyMini VBM in Action

1. Handling of aluminum blocks up to 250 kg
2. With four fold attachment for the transport of steel sheets
3. With single suction pad for aluminum plates up to 1,50 kg
4. With air pack and pneumatic warning unit for handling drums
Vacuum Load Lifting Devices

VacuBoy VB Akku (battery)

Power-independent Operation

The VacuBoy Akku guarantees an absolutely self-sufficient operation around the clock. The power supply is via exchangeable batteries. No longer is it necessary for the lifter to remain idle while the battery is charged. As a standard the lifter is equipped with a vacuum-controlled motor switch that conserves the battery power and increases their operation time. Vacuum control is by hand slide valve with safety latch.

- Vacuum supply by 24VDC pump
- One battery charge approx. 150 suction operations
- Constant operational readiness via exchangeable batteries
- Option with electrical vacuum control or switching automatic

VacuBoy VB Akku in Action

1. Feeding a laser cutting machine with steel sheets
2. Handling ceramic elements on a water jet machine
3. Transport of aluminium blocks up to 250 kg
4. Commissioning of steel sheets with four-pad attachment
VacuBoy

Standard vacuum lifters for handling materials with dense, flat or structured surfaces and a weight of up to 2000 kg.

Depending on the requirements the designs vary from strictly horizontal, swivelling or turning-over (flipping) of workpieces as well as special designs for individual solutions.
Vacuum Load Lifting Devices
VacuBoy VB

Horizontal Transport up to 2000 kg

The VacuBoy VB is the ideal helper for the horizontal handling of plate materials. Its robust design, easy adaptability to different dimensions and the ergonomic operation offers almost limitless application:

- Feeding of CNC laser and water jet machinery
- Loading of punching and bending machines
- Commissioning of plate materials
- Transport of drums and heavy canisters
- Handling of glass and window elements
- Transport of stone and concrete slabs

<table>
<thead>
<tr>
<th>Capacity (kg)</th>
<th>Type</th>
<th>Workpiece dimensions max (mm)</th>
<th>Workpiece dimensions min (mm)</th>
<th>Pump T</th>
<th>Number of suction pads</th>
<th>L1 (mm)</th>
<th>B1 (mm)</th>
<th>B2 (mm)</th>
<th>H (mm)</th>
<th>A (mm)</th>
<th>Overweight (kg)</th>
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<td>600 x 400</td>
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<td>650</td>
<td>470</td>
<td>80</td>
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<td>VB 80</td>
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<td>470</td>
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<td>50 - 70</td>
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<td>VB 80</td>
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<td>470</td>
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<tr>
<td>1000</td>
<td>VB 100</td>
<td>4,000 x 2,000</td>
<td>1,000 x 600</td>
<td>4.16</td>
<td>6 - 12</td>
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<td>VB 100</td>
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<td>1,000 x 600</td>
<td>4.16</td>
<td>6 - 12</td>
<td>2,400</td>
<td>1,200</td>
<td>900</td>
<td>570</td>
<td>80</td>
<td>120 - 180</td>
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<tr>
<td>1500</td>
<td>VB 100</td>
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<td>1,000 x 600</td>
<td>4.16</td>
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<td>1,200</td>
<td>900</td>
<td>570</td>
<td>80</td>
<td>240 - 300</td>
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VacuBoy VB in Action
1. VacuBoy while handling steel plates up to 2000 kg
2. VacuBoy for commissioning steel sheets
3. VacuBoy mounted on a suspension crane system for plate handling
4. Feeding of a laser cutting machine
Vacuum Load Lifting Devices
VacuBoy VB-90E

Swivelling up to 1,500 kg
The lifter series VacuBoy VB-90E can swivel loads by 90°. To achieve this, either electrical cylinders or gear motors are being used. Engaged loads can be swivelled effortlessly by 90° and stopped and held at any point.

Control of this function is via push-buttons mounted on the manipulating handle, as an option they can be integrated in crane pendants with spiral cables or a remote control. Swivel times are approx. 15 - 20 seconds.

This series is the ideal partner for:
- Feeding of upright machine tools
- Handling of loads in upright storage
- Handling of glass and window elements
- Raising of lying workpieces
- Taking standing loads out of magazines or boxes

<table>
<thead>
<tr>
<th>Capacity (kg)</th>
<th>Type</th>
<th>Workpiece dimensions (max/ min) (mm)</th>
<th>Pump</th>
<th>Number of suction pads</th>
<th>L1 (mm)</th>
<th>B1 (mm)</th>
<th>B2 (mm)</th>
<th>H (mm)</th>
<th>A (mm)</th>
<th>Overweight (kg)</th>
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<tbody>
<tr>
<td>125</td>
<td>VB 80-90</td>
<td>4,000 x 2,000 / 1,000 x 400</td>
<td>T 4.8</td>
<td>4 ... 8</td>
<td>1,800</td>
<td>800</td>
<td>650</td>
<td>1,650</td>
<td>80</td>
<td>60 ... 80</td>
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<tr>
<td>250</td>
<td>VB 90-90</td>
<td>4,000 x 2,000 / 1,000 x 600</td>
<td>T 4.8</td>
<td>4 ... 12</td>
<td>2,400</td>
<td>800</td>
<td>650</td>
<td>2,050</td>
<td>80</td>
<td>80 ... 100</td>
</tr>
<tr>
<td>500</td>
<td>VB 100-90</td>
<td>4,000 x 2,000 / 1,000 x 600</td>
<td>T 4.8</td>
<td>8 ... 16</td>
<td>2,400</td>
<td>800</td>
<td>650</td>
<td>3,050</td>
<td>100</td>
<td>140 ... 160</td>
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<tr>
<td>750</td>
<td>VB 100-90</td>
<td>4,000 x 2,000 / 1,000 x 600</td>
<td>T 4.8</td>
<td>8 ... 16</td>
<td>2,400</td>
<td>800</td>
<td>650</td>
<td>3,050</td>
<td>100</td>
<td>150 ... 170</td>
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<tr>
<td>1,000</td>
<td>VB 100-90</td>
<td>4,000 x 2,000 / 1,000 x 600</td>
<td>T 4.16</td>
<td>10 ... 20</td>
<td>3,000</td>
<td>1,200</td>
<td>900</td>
<td>2,000</td>
<td>100</td>
<td>320 ... 370</td>
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</tbody>
</table>

VacuBoy VB-90E in Action
1. Swivelling of large-size steel plates
2. Swivelling of side panels for campers
3. Handling of glass panels with a load of up to 500 kg
4. Taking out and swivelling 8,000mm long steel plates
Vacuum Load Lifting Devices

VacuBoy VB-180E

Turning over Loads up to 1000 kg

The lifter series VacuBoy VB-180E can turn loads by 180°. To achieve this the devices are equipped with a central gear motor which allows positioning of the load at any point in the rotation range.

Control of this function is via push-buttons mounted on the manipulating handle. As an option they can be integrated in crane pendants with spiral cables or a remote control. Turning times approx. 30 - 45 seconds.

This series is mainly used for:

- Working both surfaces of workpieces
- Feeding of CNC machines
- Visual control of sensitive surfaces

<table>
<thead>
<tr>
<th>Capacity (kg)</th>
<th>Type</th>
<th>Workpiece dimensions (max/min mm)</th>
<th>Pump</th>
<th>Number of suction pads</th>
<th>L1 (mm)</th>
<th>B1 (mm)</th>
<th>B2 (mm)</th>
<th>H (mm)</th>
<th>A (mm)</th>
<th>Overweight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>VB 80-180</td>
<td>2.000 x 1.000/600 x 400</td>
<td>T 4.8</td>
<td>4 x 8</td>
<td>1800</td>
<td>800</td>
<td>1200</td>
<td>650</td>
<td>80</td>
<td>190 - 220</td>
</tr>
<tr>
<td>250</td>
<td>VB 90-180</td>
<td>2.000 x 1.000/600 x 400</td>
<td>T 4.8</td>
<td>4 x 8</td>
<td>1800</td>
<td>800</td>
<td>1200</td>
<td>650</td>
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<td>190 - 220</td>
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<tr>
<td>500</td>
<td>VB 80-180</td>
<td>4.000 x 2.000/1000 x 600</td>
<td>T 4.8</td>
<td>4 x 12</td>
<td>2400</td>
<td>1200</td>
<td>1500</td>
<td>1500</td>
<td>100</td>
<td>230 - 300</td>
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<tr>
<td>750</td>
<td>VB 80-180</td>
<td>4.000 x 2.000/1000 x 600</td>
<td>T 4.8</td>
<td>8 x 16</td>
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<td>1200</td>
<td>1500</td>
<td>1500</td>
<td>100</td>
<td>300 - 330</td>
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<tr>
<td>1000</td>
<td>VB 100-180</td>
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<td>T 4.8</td>
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<td>2400</td>
<td>1200</td>
<td>1500</td>
<td>1500</td>
<td>100</td>
<td>330 - 360</td>
</tr>
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</table>

VacuBoy VB-180E in Action

1. Turning over steel plates up to 300 kg
2. Both-sided surface control of steel plates up to 750 kg
3. Handling of side elements for campers
4. Turning over laminated chipboards
VacuBoy in Action

1. VacuBoyMini mounted on a pallet truck with 4-pad attachment for simultaneous transport of 4 drums
2. Swivelling VacuBoy for handling foil-wrapped sandwich elements
3. VacuBoyMini for power-independant operation via batteries for transporting small aluminium blocks
4. Strictly vertical lifter for handling camper fronts

VacuBoy for feeding a laser cutting machine

Special design for lateral engagement of camper roofs with pneumatic adjustment and mechanical undergrippers

VacuBoy for commissioning steel plates up to 2,000 kg