

## Vacuum Load Lifting Devices

The FEZER vacuum load lifting devices convince 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 work safety and ergonomy. Using vacuum load lifting devices relieve the operators and prevent a high illness rate caused by overwork.

FEZER vacuum load lifting devices support your daily work, increase the productivity and work safety combined with comparably low investment costs. Look and see.

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# Vacuum Load Lifting Devices

## Introduction

### Areas of Application

The individual device series is designed for various applications and ensure a process-safe and economical production run. With the help of vacuum technology workpieces can not only be easily and fast engaged but also be transported damage-free and safely. 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, gluelam beams, chipboards, MDF and OSB plates
- Feeding of CNC, punching and nipple 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, reliable and correspond to the current DIN EN 13155. Largely dimensioned vacuum safety tanks and integrated warning units ensure the highest operational safety, also in case of a power failure.

Additionally all manually operated FEZER lifters are equipped with the unique „Main Switch Supervision“. This feature sends out a warning signal should loads become engaged solely by the remaining 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.



**FEZER**  
Simply move more.

### VacuBoy in Action

- 1 Feeding a laser cutter with the help of a VacuBoy
- 2 Transport of metal sheets by a VacuBoyMini in power-independant battery design
- 3 VacuBoy for commissioning steel sheets
- 4 VacuBoy VB-180E for turning over furniture parts



### Basic Equipment

FEZER vacuum lifters convince by their clever design. The lifters can be adjusted to individual customer's requirements and desires 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-dimensioned safety tank integrated in the lifter's main beam
- Non-return valve between vacuum generator and safety tank
- Manual vacuum control by lockable handslide valve
- Vacuum gauge with „red-green“ area for visual supervision
- Acoustic warning unit for decrease of vacuum and power failure
- Large-dimensioned vacuum filter to protect the valves and pumps

#### Comfort:

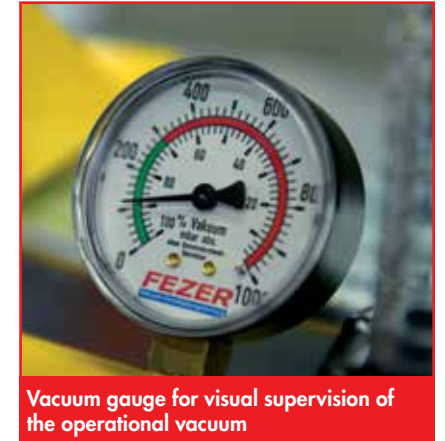
- Push-buttons with emergency-off on lifters with electrical movements (swivelling, turning over, or rotation)
- Various suction pads for smooth, rough or grooved surfaces
- Movable suction pads to adjust to varying workpiece dimensions



Main switch surveillance by vacuum switch in distribution line



Acoustic warning unit goes off in case of vacuum decrease or power failure



Vacuum gauge for visual supervision of the operational vacuum



Non-return valve to prevent a venting via the pump in case of a power failure



Vacuum safety tank for short suction times and safety in case of power failure



Manual vacuum control via handslide valve with arrest



Large-dimensioned dust filter with exchangeable filter cartridge



Manipulating handle with push-buttons and emergency-off on lifters with electrical movements



Suction pads with cross clamping piece to adjust on the cross beam



Mounting element with clamping screw to adjust the cross beam



Manifold selection of suction pads for different surfaces



Powerful, robust and low-maintenance pumps for highest safety



### 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 for „ready for operation“ and „malfunction“ and acoustic howler on power failure
- Disposal stands to protect the suction pads when lifter is set down

#### Comfort:

- Electrical vacuum control 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 independant of power
- Air pack with pneumatical warning unit for compressed air operation



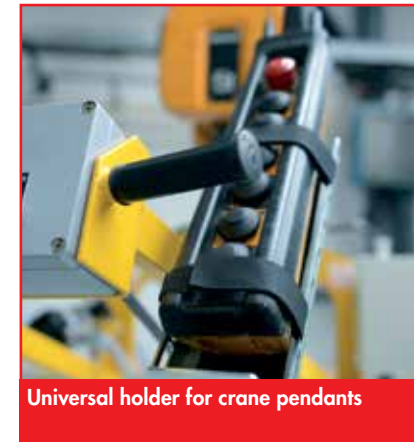
Optical warning unit with green and red lamp and howler for power failure



Electrical vacuum control via solenoid valve



Switching automatic with automatic suction and release on setting down



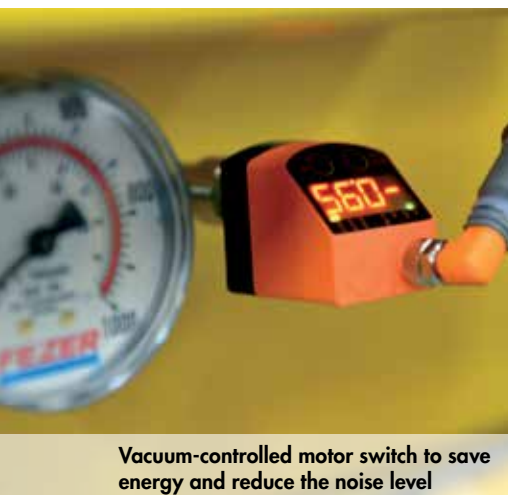
Universal holder for crane pendants



Direct control of crane movements via push-buttons on the manipulating handle



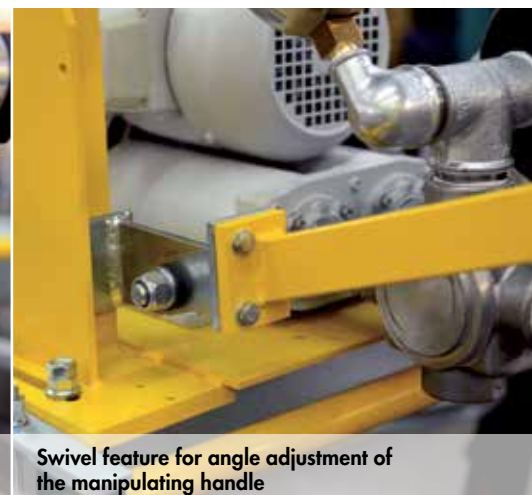
Disposal stands for safe parking of the lifter and protection of the suction pads



Vacuum-controlled motor switch to save energy and reduce the noise level



Water separator with manual drain for outdoors use or on water jet machines



Swivel feature for angle adjustment of the manipulating handle



Ball valves to switch individual suction pads on and off



Air Pack: strictly running on compressed air via ejector and pneumatical warning unit



Battery Pack: power-independant operation via 24V pump and batteries



## VacuCoil

This lifter series is specially designed for the handling of coils, split strips and paper rolls with weights of several tons. The VacuCoil guarantees an absolutely gentle, safe and above all very rational transport, even on slightly porous workpieces.



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Vacuum Load Lifting Devices

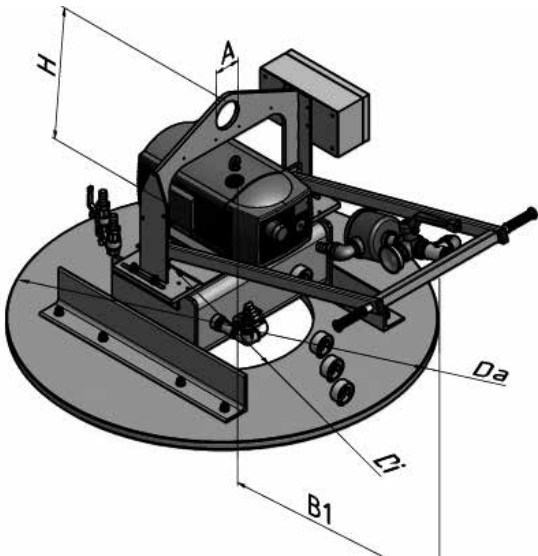
VacuCoil VC

Horizontal Transport up to 10.000 kg

These lifters work with a steel, aluminum or plastic base plate, equipped with suction chambers that are exactly adjusted to your products. The lifters can be additionally equipped with individual chamber supervision, automatic switch-on of required suction chambers, or undergrippers if the loads have to be transported across large production halls.

FEZER can offer you also system solutions to flange coil suction plates straight onto robots or linear axes. A data exchange of important signals guarantees highest operational and process safety.

- Commissioning of coils and split strips
- Repositioning, putting into and taking out of storage
- Operation in automatic stores in paper industries
- System solutions for robot operation and linear axes



Capacity (kg)	Type	Diameters		Number of chambers	Pump (m³/h)	B1 (mm)	H (mm)	A (mm)	Own weight (kg)
		inside Di min (mm)	outside Da max (mm)						
250	VC-	100 ... 250	400 ... 1.500	1 ... 4	16 ... 60	900	700 ... 1.000	100	200 ... 400
500	VC-	100 ... 250	400 ... 1.500	1 ... 4	16 ... 60	900	700 ... 1.000	100	200 ... 400
750	VC-	100 ... 250	400 ... 1.500	1 ... 4	16 ... 60	900	700 ... 1.000	100	300 ... 500
1.000	VC-	100 ... 250	400 ... 1.500	1 ... 4	16 ... 60	900	700 ... 1.000	100	300 ... 500
2.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	40 ... 100	1.500	1.000 ... 2.500	160	1.000 ... 1.500
3.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	40 ... 100	1.500	1.000 ... 2.500	160	1.000 ... 1.500
4.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	40 ... 160	1.500	1.000 ... 2.500	160	1.000 ... 2.000
5.000	VC-	150 ... 400	650 ... 3.000	3 ... 10	40 ... 160	1.500	1.000 ... 2.500	160	1.000 ... 2.000
7.500	VC-	150 ... 400	650 ... 3.000	3 ... 10	40 ... 160	1.500	1.500 ... 3.000	160	2.000 ... 3.500
10.000	VC-	150 ... 400	650 ... 3.000	3 ... 10	40 ... 160	1.500	1.500 ... 3.000	160	2.000 ... 3.500

VacuCoil VC in Action

- 1 Paper lifter for paper rolls with a weight of up to 5.000 kg
- 2 VacuCoil for brass split strips with mechanical undergripper
- 3 Handling aluminum split strips used in automatic process
- 4 Horizontal handling of aluminum split strips with a weight of 1.200 kg



Details

There is a multitude of additional equipment for the VacuCoil series that improve the operation.

Designs for Lifting Devices

- Flattened suction plate design for upright engagement of split strips with varying outer diameters
- Suction plate with vision panel or in plexiglass design to allow exact positioning on varying coil inside diameters
- Design with rigid or telescoping mandrils for engagement of coils with varying core diameters
- Lifters with additional undergrippers

Designs for System Technology

- Required suction chambers are automatically switched on and off via electrical impulse valves
- Analog suction plates supervision with analysis function
- Mandrils with light sensors for finding the center automatically



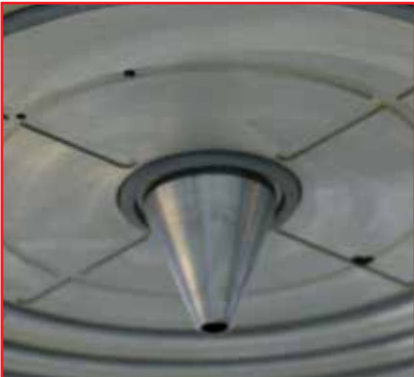
Flattened suction plate for engagement of upright coils with varying diameters



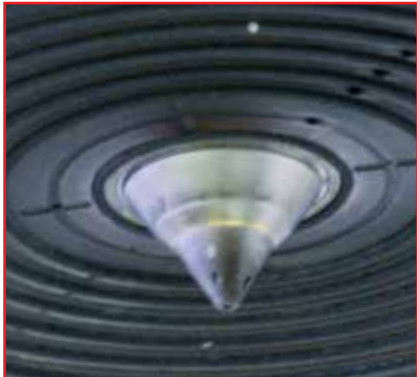
Look through: Suction plate with vision panel



Look through: Suction plate in plexiglass design



Suction plate with additional mandril for quick and easy centering



Suction plate with telescopic mandril for varying core diameters



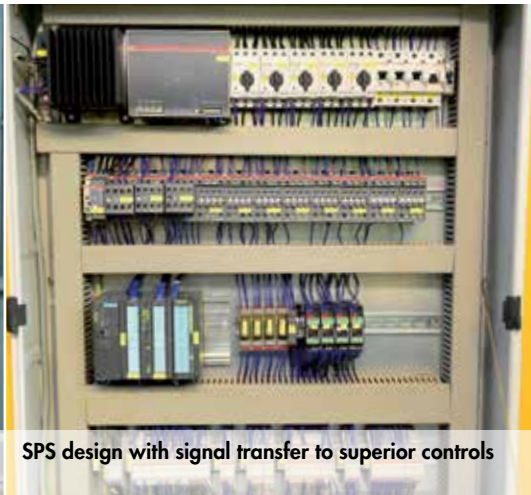
Single suction chamber control via impulse valve



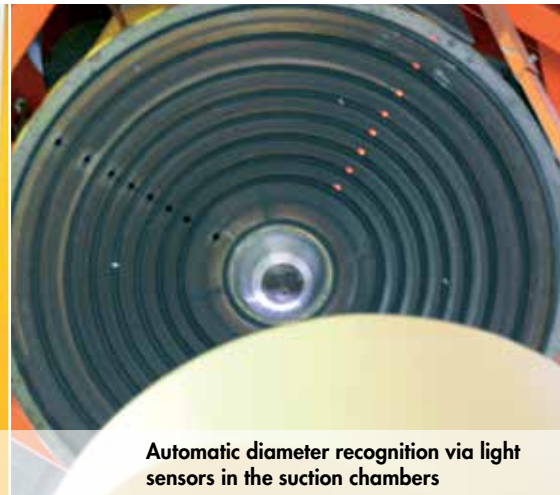
Mechanical undergrippers for long transport ways over work areas



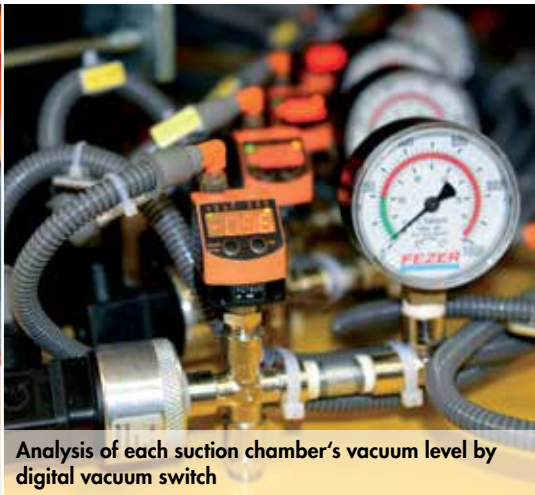
Automatic recognition of paper-unwrapping during the transport



SPS design with signal transfer to superior controls



Automatic diameter recognition via light sensors in the suction chambers



Analysis of each suction chamber's vacuum level by digital vacuum switch



Light sensors for automatic center recognition