



Vacuum Handling Technology

Complete catalogue



FEZER – Simply move more.

A third generation family business Fezer belongs to the leading companies for vacuum handling with a worldwide outstanding reputation.

We keep a close contact with our customers to simplify and increase the safety of their production processes with innovative and economical solutions.

To ensure this we have a team of highly motivated, competent and totally reliable employees.

Our high grade of customer support is guaranteed with quality management as per DIN ISO 9001. Thus we can permanently analyse business processes and perfectly adjust them to the ever increasing requirements.

Decide in favour for us for

simple handling

efficient, economical production processes and

highest operational safety

true to our motto: simply move more.

Georg Komposch
Managing Director
Albert Fezer Maschinenfabrik GmbH

Michael Beisswenger
Shareholder and Chairman
Fezer Vacuum Products Ltd., Shanghai



FEZER – powerful and convincing

The name FEZER stands for the interaction of efficient high-quality products with extraordinary services and competent, cooperative advisory service.

Our products are designed for the multiple needs and requests of our customers.

With our know-how of many years we design technical masterstrokes that set standards.

We set the highest priority to operational safety, ergonomic handling and simplicity of the systems.

FEZER



1925

Albert Fezer and Gottlieb Stoll together found the company FESTO

1933

Albert Fezer leaves FESTO and founds Albert Fezer Maschinenfabrik

1935

First exhibition appearances make the company known to a wide clientele

1945

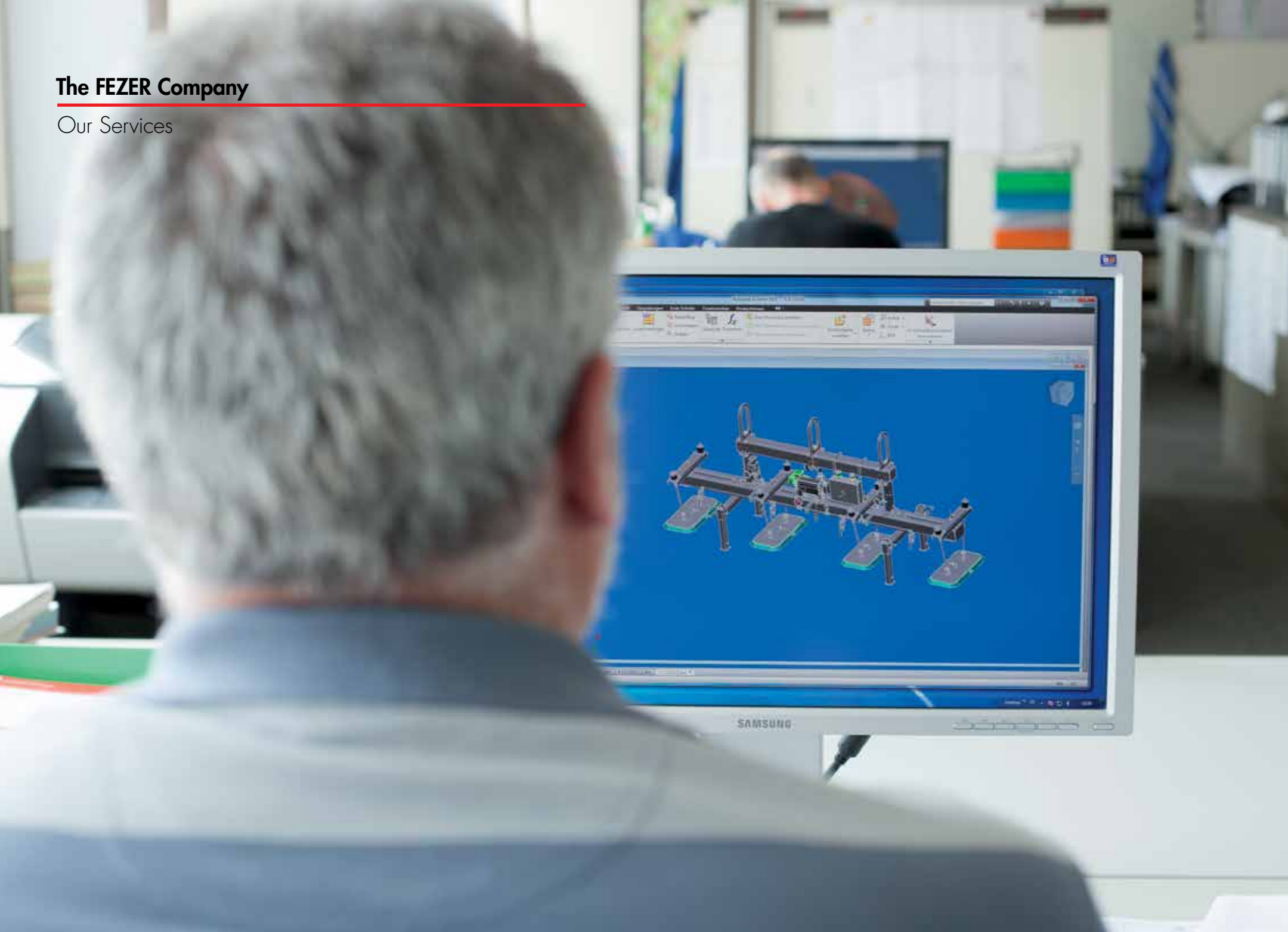
The wood handling field is expanded by cutting and trimming saws

1951

Federal minister Ludwig Erhard visits our booth on the Hannover Exhibition

1952

New building and relocation of the company to today's site at Esslingen-Zell



FEZER – innovative and competent

The highly motivated and competent FEZER employees have decades-long experiences in dimensioning and designing functional vacuum systems.

Constant internal training increases and optimizes this knowledge.

This helps to guarantee our customers a simple, efficient and economical system dimensioning based on state-of-the-art technology.



1957

Looking for solutions to fixate wooden plates leads to entering the vacuum technology

1958

Founder Albert Fezer honours the 25th company anniversary

1962

Expansion of the vacuum technology by working stands which are part of the Fezer range up to this date

1965

Production start for the first vacuum lifters with vacuum pump and safety tank

1975

The wood working field is expanded by machines to handle roof beams

1976

Fezer builds the first large vacuum lifters with a capacity of several tons



FEZER – focussed on your requirements

Whether it is about advice, delivery or service support – FEZER always helps you quickly and reliably.

We support you with the installation and setting into operation on site and by regular maintenance ensure a high level of operational safety and availability of the installed systems



1983

Managing director Hans Feder congratulates the proprietress Elisabeth Fezer for the 50th company anniversary

1987

The vacuum lifter VacuBoy is awarded the Bavarian State's Award for outstanding accomplishments

1988

Building of a fully automatic inspection line for aluminum sheets for our customer Hoogovens

1991

Introduction of the first coil lifters for the transport of split strip rings

1996

Georg Komposch, grandson of the founder, joins the company

2001

Presentation of the new tube lifter VacuPowerlift with its modular system

The FEZER Company

Worldwide a strong partner

FEZER
Simply move more.

FEZER – everywhere and always available

We have a wide sales structure to ensure that we are always available for our customers.

In Germany our field sales force covers the whole country so that they are always available to visit you personally.

Outside of Germany FEZER owns a daughter company in China and has long-term partners in more than 40 countries.

Germany

Albert Fezer Maschinenfabrik GmbH
Hauptstrasse 37-39, 73730 Esslingen/Zell

Phone: +49 711 36009 0
Fax: +49 711 36009 40
E-Mail: info@fezer.com

China

Fezer Vacuum Products (Shanghai) Co., Ltd.
Unit 309, Building 1, Lane 285 Tian Gong Road,
Jinshan Industrial Zone, Shanghai, PRC

Tel: +86 21 672962 00
Fax: +86 21 672962 11
E-Mail: info@fezer.com



2004

Fezer presents their own aluminum track system for column slewing jibs and suspension track systems



2006

Expansion of the international sales structure by new partners in Eastern Europe and Asia



2008

FEZER invites their staff to a sea cruise on the Neckar for the 75th anniversary



2009

A large order from Russia deals FEZER a full house



2010

Presentation of the compact tube lifter VacuQuicklift with patented quick-release system for fast and simple release of loads



2012

Foundation of the 100% daughter Fezer Vacuum Products Ltd. in Shanghai, China



Vacuum Handling

Overview



Vacuum Tube Lifters

13 - 30

VacuPowerlift for universal loads up to 200 kg
 VacuQuicklift for universal loads up to 35 kg



Vacuum Load Lifting Devices

31 - 78

VacuBoy for dense plates up to 2.000 kg
 VacuGiant for dense plates up to 40.000 kg
 VacuCoil for split strips and coils up to 10.000 kg
 VacuWood for planks and wooden beams up to 1.000 kg
 VacuPoro for porous plates up to 2.000 kg



Crane Systems & Manipulators

79 -94

Aluminum Track System
 Wall Slewing Jibs
 Column Slewing Jibs
 Suspension Track Systems
 Rigid Lifting System Liffix



Working Stands

95 - 104

Stationary Working Stand VacuStand I+II
 Stationary Turning Station VacuStand II-180E
 Mobile Working Stand Mobilift

Learn more at www.fezer.de

Just go online and visit our new website to receive further information on our products, applications and solutions.

At www.fezer.com you can find:

- Current News
- Exhibition Dates
- Detailed Product Information
- STEP files to download
- Worldwide Contacts

We are looking forward to your visit!



Vacuum Tube Lifters

There's a simple answer for the perfect way of handling - the tube lifters by FEZER.

The FEZER tube lifters provide intelligent solutions which are simple, ergonomic and child's play to operate. Suitable for lifting sacks, cardboard boxes, drums, plates and many more up to a weight of 200 kg.

No additional lifting aids like chain hoists or wire balancers are required as you can use the same medium for engagement and lifting – vacuum.

The FEZER tube lifters are a simple and safe handling device that provide an enormous extra benefit regarding economy, ergonomics and safety combined with comparably low investment costs.

Introduction	15/16
VacuPowerlift	17/24
VacuQuicklift	25/30

Vacuum Tube Lifters

Introduction

Engagement and Lifting rolled into one

The FEZER tube lifters provide intelligent, efficient and above all extremely simple-to-operate handling devices. With just one hand the devices can be lifted or lowered. The operator himself can decide what speed he wants for the handling process.

The FEZER tube lifters are an absolutely safe handling device to master engaged loads. Even in case of a power failure the loads are not just dropped off, but are lowered slowly to the ground. To achieve this an integrated non-return valve is installed in the upper turning head.

The required vacuum is built up by powerful, low-maintenance and robust vacuum generators like oilless vacuum pumps, belt-driven blowers or multi-stage ejectors that run on compressed air.

The unique modular system allows to adapt the FEZER tube lifters to your individual requirements in a simple way. A multitude of suction feet is available to allow the transport of different goods. Extensions for the control handle, turning and swivel features and various adaptations are available to adjust the tube lifters to personal needs and requirements.



FEZER
Simply move more.

Tube Lifters in Action

- 1 VacuPowerlift for handling sacks
- 2 VacuQuicklift for commissioning of beverage boxes
- 3 VacuQuicklift for handling cardboard boxes
- 4 VacuPowerlift for handling boxes up to 60 kg



VacuPowerlift – tireless and powerful

The VacuPowerlift convinces by its simple and easy operation. With a single hand loads of up to 200 kg can be moved and handled effortlessly.

Supported by powerful pumps and blowers lifting speeds of up to 50 m/min can be reached. This guarantees a high output when stacking and commissioning different kinds of transport goods.

The VacuPowerlift distinguishes itself not only by its easy operation and high functionality but also proves to be an ideal colleague. It relieves its operator the whole day long and thus guarantees a more humane and safer place of work where the job truly becomes fun.



VacuPowerlift in Action

- 1 Handling of sacks
- 2 Handling of large chipboards
- 3 Handling of steel blanks
- 4 With pneumatic gripper for coils

Vacuum Tube Lifters

VacuPowerlift VPL

VacuPowerlift – multifunctional and flexible

The application areas of the VacuPowerlift are almost limitless. It is being used in many industries and trade companies to simplify production processes and to increase the profitability.

- Packing and logistics for cardboard boxes
- Chemical and pharmaceutical industry for drums and containers
- Window and solar industry for window panes and prefab parts
- Wood, plastic and sheet metal industry for plate materials
- Construction industry for stones and concrete parts
- Loading of CNC machines of all sorts
- Handling of machines and machine parts
- Electrical industry for electrical appliances
- and many more



FEZER
Simply move more.

Carrying capacity		VPL 100	VPL 120	VPL 140	VPL 160	VPL 180	VPL 200	VPL 230	VPL 250
on dense/porous material	(kg)	30/25	40/35	50/45	65/60	85/80	110/100	140/120	200/160
Pump/blower									
on dense material		T 4.40	T 4.40	SKE 2,2	SKE 2,2	SKE 3,0	SKE 3,0	SKE 3,0	SKE 3,0
on porous material		SKE 2,2	SKE 3,0	SKE 3,0	SKE 3,0	SKE 4,0	SKE 4,0	SKE 4,0	SKE 4,0
Technical data									
Tube diameter	(mm)	100	120	140	160	180	200	230	250
Lifting speed	(m/min)	30 ... 50	30 ... 50	40 ... 50	40 ... 50	40 ... 50	40 ... 50	40 ... 50	40 ... 50
Tube length	(mm)	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
Total height	(mm)	2.750	2.750	2.750	2.750	2.750	2.750	2.750	2.750
Max. stroke of lifting tube:	(mm)	1.750	1.750	1.750	1.730	1.730	1.700	1.700	1.680
Noise level	dB(A)	< 73	< 73	< 73	< 73	< 73	< 73	< 73	< 73

VacuPowerlift in Action

- 1 Double tube lifter for 200 kg plastic plates
- 2 Handling of solar panels with pneumatic swivelling
- 3 Handling of sensitive glass panes
- 4 Handling of raw, large-sized chipboards

VacuPowerlift - manifold Selection of Suction Feet and Grippers

There is a multitude of standard suction feet which allows to adjust the VacuPowerlift to individual applications.

- Single suction feet in flat or bellows design
- Single suction feet for handling sacks
- Double suction feet for handling cardboard boxes
- Fourfold suction feet for large-sized plates
- Special suction feet for individual tasks
- Mechanical grippers for parts that cannot be engaged by vacuum
- Pneumactical grippers to clamp workpieces
- Crate grippers



Pneumactical gripper for handling coils or tubes



Mechanical gripper as undergripper for glass panes



Special suction foot for lateral engagement of cardboard boxes



Mechanical gripper for crates with suspension clips



Special suction foot for simultaneous handling of several concrete stones



Pallet gripper with pneumatically adjustable undergrippers



Single suction foot in round design



Single suction foot in hexagonal design



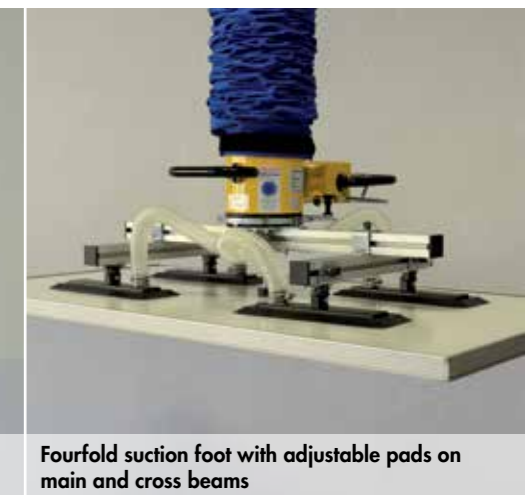
Single suction foot in bellows design



Single suction foot for sacks



Double suction foot with adjustable pads on main beam



Fourfold suction foot with adjustable pads on main and cross beams

VacuPowerlift – Accessories and Options

There is a multitude of standard elements available for various tasks. These elements allow to adjust the VacuPowerlift to individual requirements.

- Quick-change couplings for changing suction feet quickly without need to interrupt the operation process
- Extensions and joints for the control housing to adjust to workpiece dimensions and working heights
- Endless rotation feature to rotate engaged workpieces
- Suction head extension for dipping into crates or boxes
- Silencer box for vacuum generator to reduce the noise level
- Manual and pneumatical swivel and turn-over features
- Quick-ventilation for simple and quick disengagement of dense workpieces
- Remote control on control housing for switching the blower on and off



Control housing with tilting lever for intuitive and simple operation



Extension for control housing for large-sized workpieces



Joint for control housing for covering high stacking heights



Pneumatical swivelling to swivel workpieces by 90°



Pneumatical turn-over feature for flipping workpieces over by 180°



Silencer box to reduce the noise level



Suction head extension for dipping into boxes



Quick-change coupling to exchange suction feet without interruption of the operation



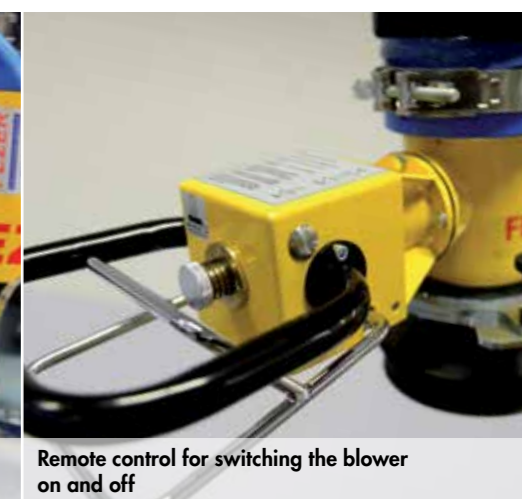
Endless rotation feature for rotating engaged workpieces



Balancer to balance an extended control handle



Quick-ventilation with lockable safety hook for easy disengagement of dense workpieces



Remote control for switching the blower on and off



VacuQuicklift – faster ain't possible

The new vacuum tube lifter VacuQuicklift unites many advantages. The control lever incorporates all functions – engagement, lifting, lowering and release

The unique „quick-release-system“ automatically lifts off the VacuQuicklift on release; tilting is no longer necessary.

This allows for the VacuQuicklift to work incredibly fast and guarantees shortest cycle times. Ideal if boxes, containers or crates have to be commissioned or restacked.



VacuQuicklift in Action

- 1 VacuQuicklift with double suction foot for cardboard boxes
- 2 Commissioning of boxes with the VacuQuicklift
- 3 VacuQuicklift with mechanical crate gripper
- 4 Handling moulded components with mechanical gripper

Vacuum Tube Lifters

VacuQuicklift

VacuQuicklift – just handy

The VacuQuicklift is available in two basic designs. On the one hand for strictly horizontal lifting, on the other hand with manual swivelling which allows to manually tip over workpieces. In both cases the VacuQuicklift is controlled with only one control lever which makes the handling very easy and ergonomic. With the free hand the loads can be manoeuvred to the required place. The VacuQuicklift not only relieves the daily work, but also increases the ergonomomy and the profitability in many areas.

- Commissioning, placing cardboard boxes in and out of storage
- Handling canisters, containers and small drums
- Handling baggage in airports
- Handling sacks and packages
- Handling plastic moulded parts



FEZER
Simply move more.

Carrying capacity		VPL 80	VPL 80-90	VPL 100	VPL 100-90
on dense/porous material	(kg)	25/20	25/20	35/30	35/30
Pump/blower					
on dense/porous material		T 4.25	T 4.25	T 4.25/T 4.40	T 4.25/T 4.40
Technical data					
Handling		horizontal	horizontal/swivelling	horizontal	horizontal/swivelling
Tube diameter	(mm)	80	80	100	100
Lifting speed	(m/min)	30 ... 50	30 ... 50	30 ... 50	30 ... 50
Tube length	(mm)	2.500	2.500	2.500	2.500
Total height	(mm)	2.750	2.750	2.750	2.750
Max. stroke of lifting tube:	(mm)	1.750	1.750	1.750	1.730
Noise level	dB(A)	< 65	< 65	< 65	< 65

VacuQuicklift in Action

- 1 Commissioning of beverage boxes
- 2 Unloading cardboard boxes
- 3 Handling crates
- 4 Handling plastic canisters with mechanical undergripper

VacuQuicklift - Accessories and Options

There is a variety of standard elements available that allow to adjust the VacuQuicklift easily to individual applications. See the multiplicity of the VacuQuicklift for yourself and find the proper solution for your handling task.

- Single suction feet in flat and bellows design as well as for sacks
- Double and fourfold suction feet with adjustable suction pads to adjust to different workpiece dimensions
- Special suction feet for special applications
- Quick-change couplings for fast exchange of various suction feet without need to interrupt the operation
- Vacuum generators with silencer for noise reduction by 5 dB(A)
- Remote control to switch the vacuum generator on and off, straight from the control housing
- Endless rotation feature for stacking workpieces at various angles



VacuQuicklift for horizontal handling



VacuQuicklift with swivelling



Quick-change coupling with bayonet connector and arrests



Endless rotation feature with arrest



Vacuum generator with silencer box to reduce the noise level



Remote control to switch the vacuum generator on and off



Canister gripper with balancer valve



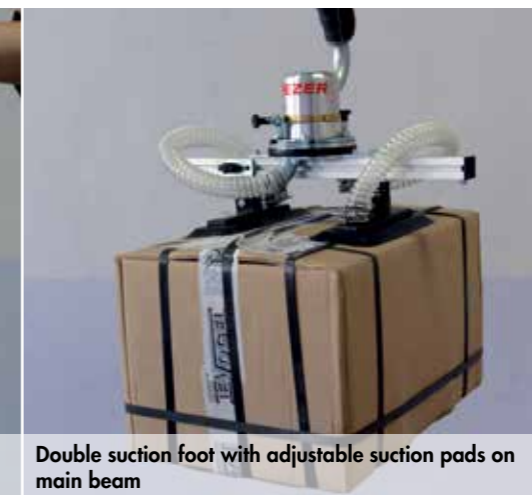
Special suction foot for tubes



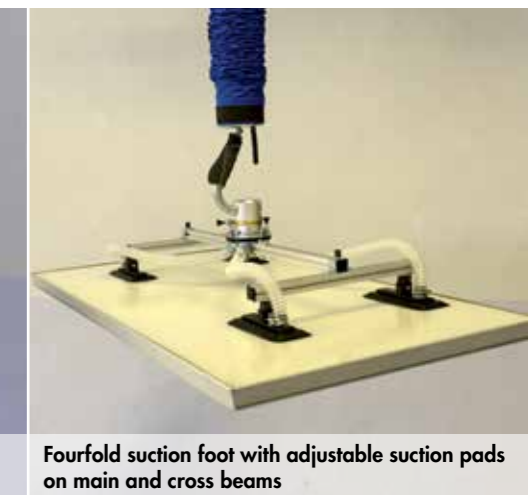
Single suction foot for sacks



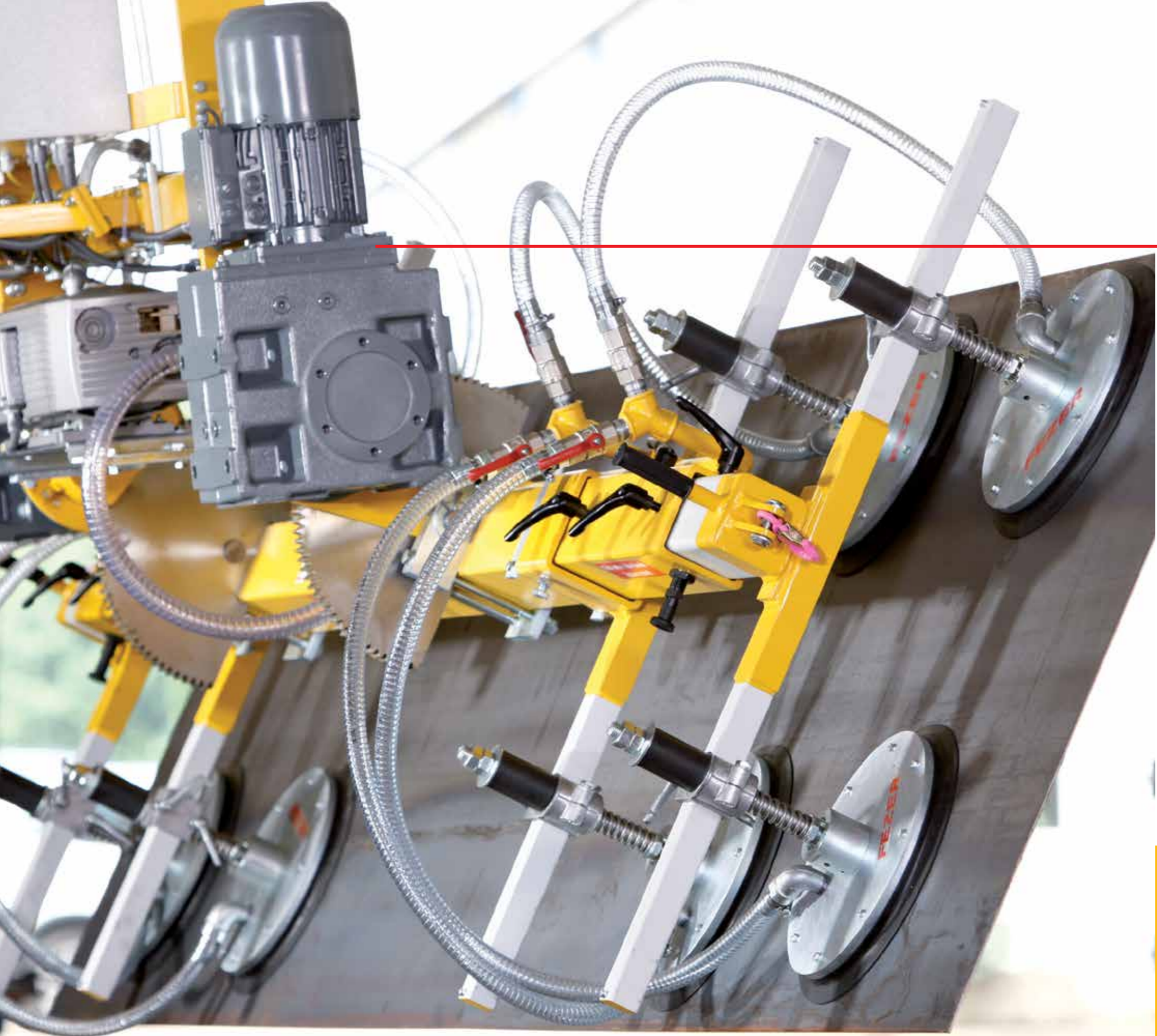
Single suction foot in bellows design



Double suction foot with adjustable suction pads on main beam



Fourfold suction foot with adjustable suction pads on main and cross beams



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 ergonomoy. 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.

Introduction.....	33/38
VacuBoy	39/54
VacuGiant	55/64
VacuCoil	65/72
VacuWood	73/76
VacuPoro	77/78

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:

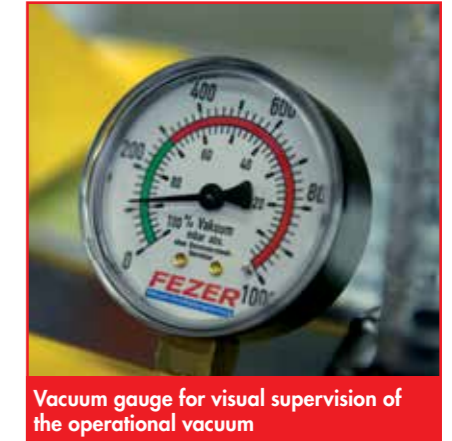
- Push-buttons with emergency-off on lifters with electrical movements (swivelling, turning over, or rotation)
- Various suction pads for smooth, rough or grooved surfaces
- Movable suction pads to adjust to varying workpiece dimensions



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



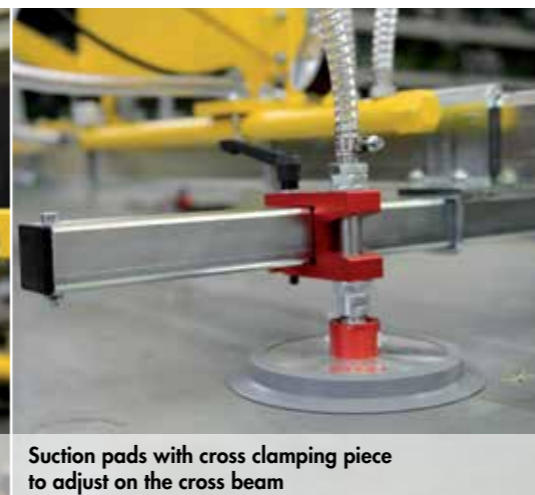
Manual vacuum control via handslide valve with arrest



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:

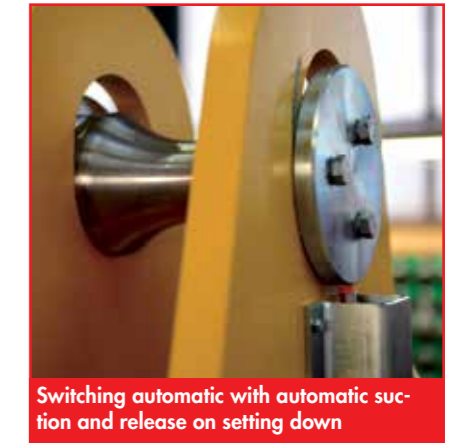
- Swivel feature with angle adjustment of the manipulating handle
- Water separator for use on water jet machines
- Battery pack for operation independant of power
- Air pack with pneumatical warning unit for compressed air operation



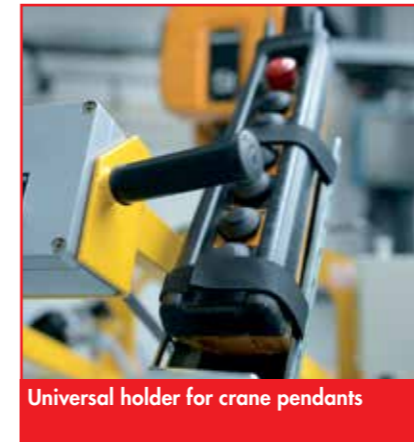
Optical warning unit with green and red lamp and howler for power failure



Electrical vacuum control via solenoid valve



Switching automatic with automatic suction and release on setting down



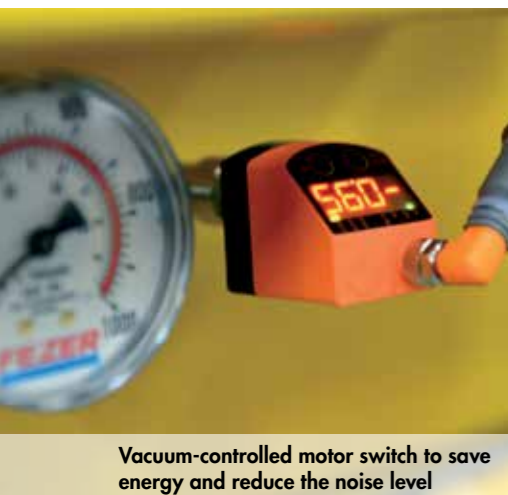
Universal holder for crane pendants



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



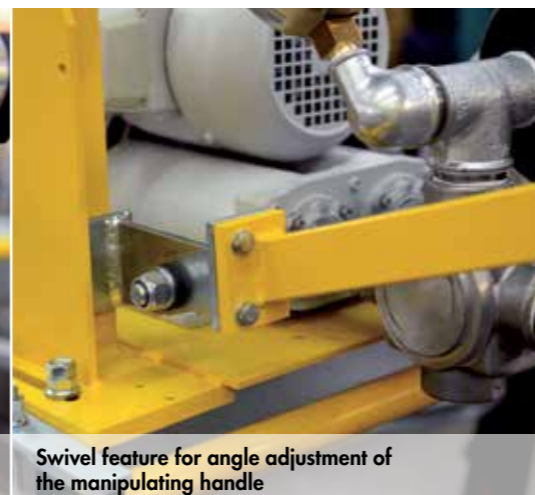
Disposal stands for safe parking of the lifter and protection of the suction pads



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



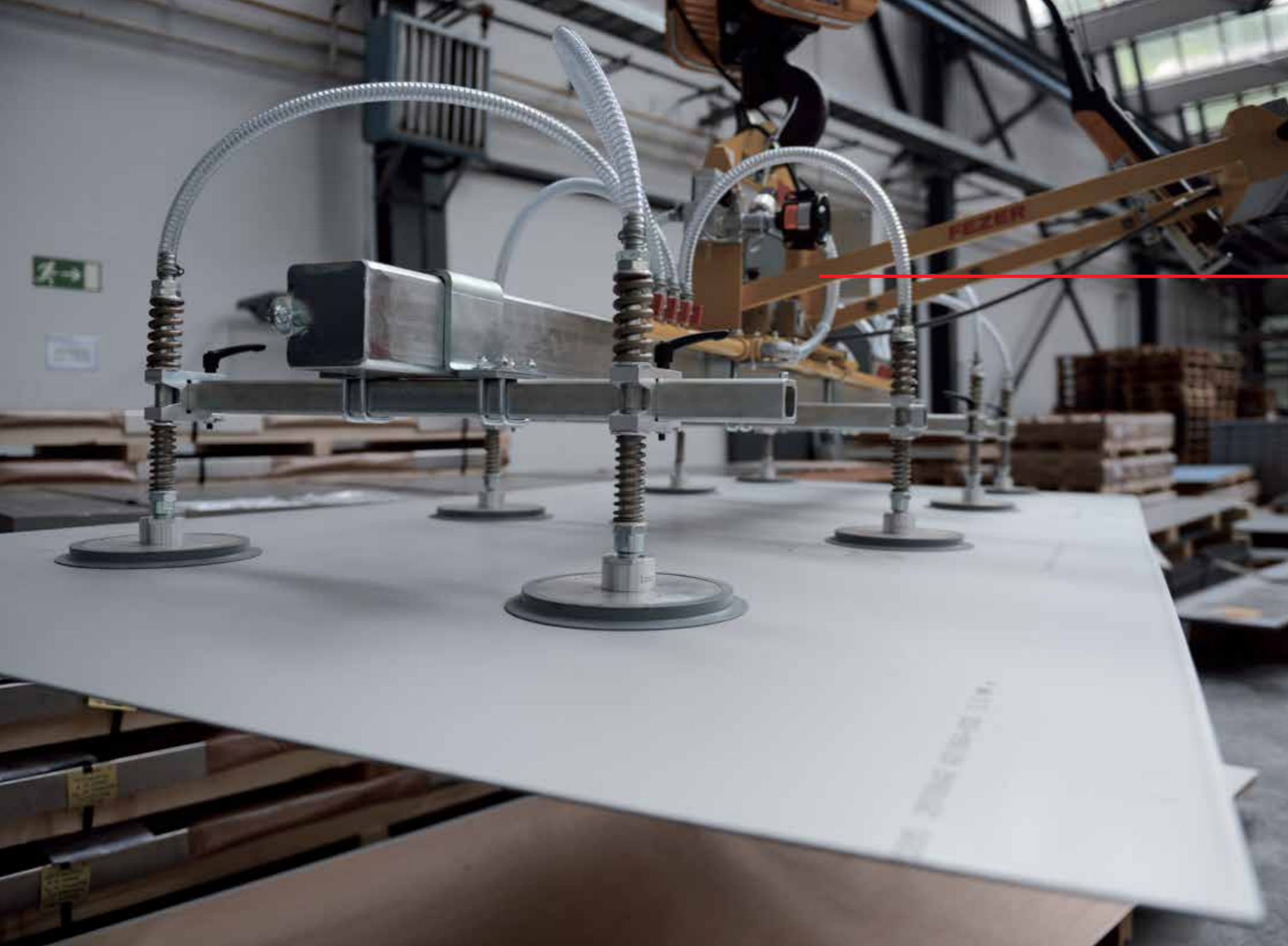
Ball valves to switch individual suction pads on and off



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



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



VacuBoy

Standard vacuum lifters for handling plate materials with dense, flat or structured surfaces and a weight of up to 2.000 kg.

Depending on the requirements the designs vary from strictly horizontal, swivelling or turning over of workpieces as well as special designs for individual solutions.



VacuBoy	41/42
VacuBoy90E	43/44
VacuBoy180E	45/46
VacuBoyMini	47/48
VacuBoyVario	49/50
VacuBoyAkku	51/52
Application Examples	53/54

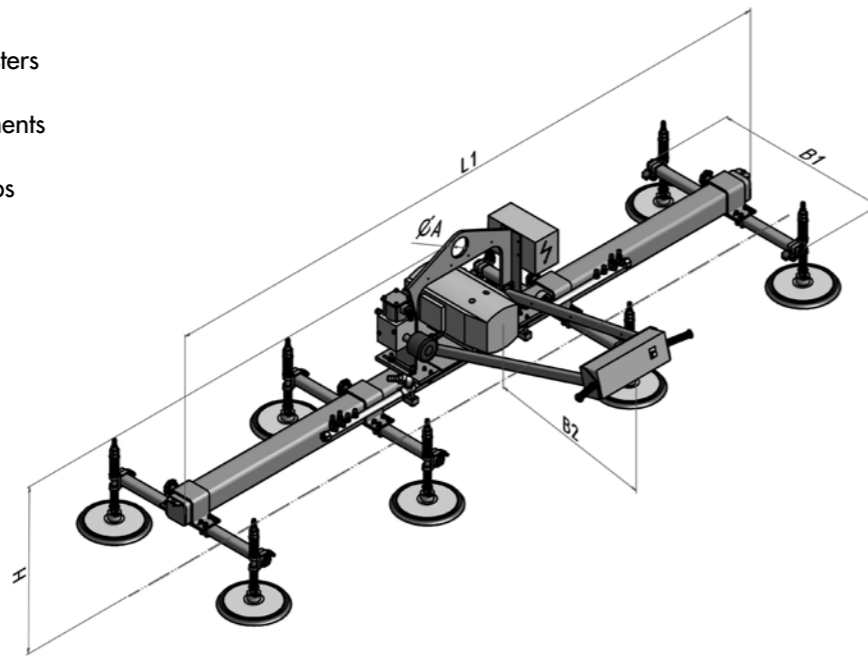
Vacuum Load Lifting Devices

VacuBoy VB

Horizontal Transport up to 2.000 kg

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



FEZER
Simply move more.

Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
125	VB 80	4.000 x 2.000	600 x 400	T 4.8	4 ... 6	1.800	800	650	470	80	40 ... 50
250	VB 80	4.000 x 2.000	600 x 400	T 4.8	4 ... 8	1.800	800	650	470	80	45 ... 55
500	VB 80	4.000 x 2.000	600 x 400	T 4.8	4 ... 8	1.800	800	650	470	80	50 ... 70
750	VB 100	4.000 x 2.000	1.000 x 600	T 4.8	4 ... 8	2.400	800	650	470	80	60 ... 80
1.000	VB 100	4.000 x 2.000	1.000 x 600	T 4.8	4 ... 10	2.400	800	650	570	80	80 ... 100
1.250	VB 100	4.000 x 2.000	1.000 x 600	T 4.16	6 ... 12	2.400	800	650	570	80	120 ... 180
1.500	VB 100	4.000 x 2.000	1.000 x 600	T 4.16	6 ... 12	2.400	1.200	900	570	80	180 ... 220
1.750	VB 100	4.000 x 2.000	1.000 x 600	T 4.16	8 ... 14	2.400	1.200	900	570	80	200 ... 240
2.000	VB 100	4.000 x 2.000	1.000 x 600	T 4.16	8 ... 14	3.000	1.200	900	570	80	240 ... 300

VacuBoy VB in Action

- 1 VacuBoy while handling steel plates up to 2.000 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

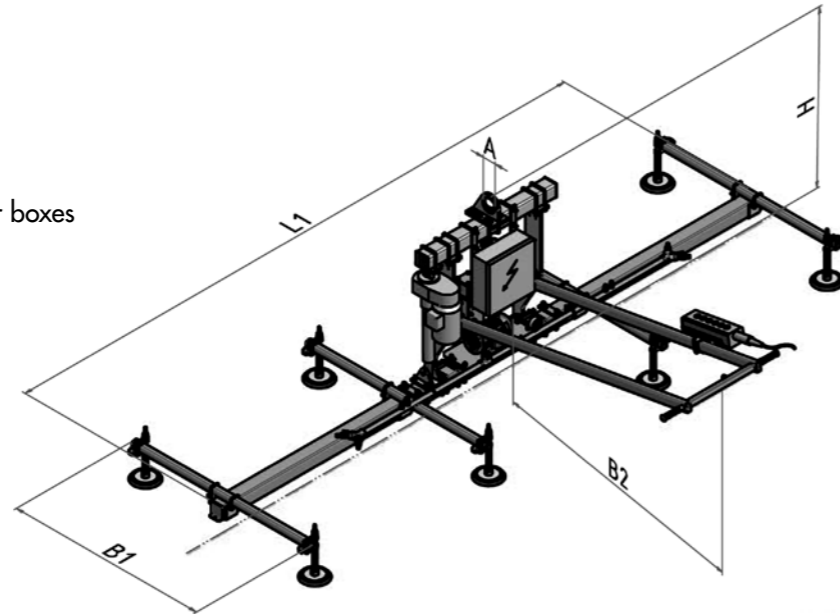
Swivelling up to 1.500 kg

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



Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
125	VB 80-90	4.000 x 2.000	1.000 x 400	T 4.8	4 ... 8	1.800	800	650	1.050	80	60 ... 80
250	VB 80-90	4.000 x 2.000	1.000 x 400	T 4.8	4 ... 8	1.800	800	650	1.050	80	70 ... 90
500	VB 80-90	4.000 x 2.000	1.000 x 600	T 4.8	4 ... 12	2.400	800	650	1.050	80	80 ... 110
750	VB 100-90	4.000 x 2.000	1.000 x 600	T 4.8	8 ... 16	2.400	800	650	1.050	100	140 ... 160
1.000	VB 100-90	4.000 x 2.000	1.000 x 600	T 4.8	8 ... 16	2.400	800	650	1.050	100	150 ... 170
1.250	VB 100-90	4.000 x 2.000	1.000 x 600	T 4.16	10 ... 20	3.000	1.200	900	1.050	100	300 ... 350
1.500	VB 100-90	4.000 x 2.000	1.000 x 600	T 4.16	10 ... 20	3.000	1.200	900	1.050	100	320 ... 370

VacuBoy VB-90E in Action

- 1 Swivelling of large-size steel plates
- 2 Swivelling of side panels for campers
- 3 Handling of glass panes 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

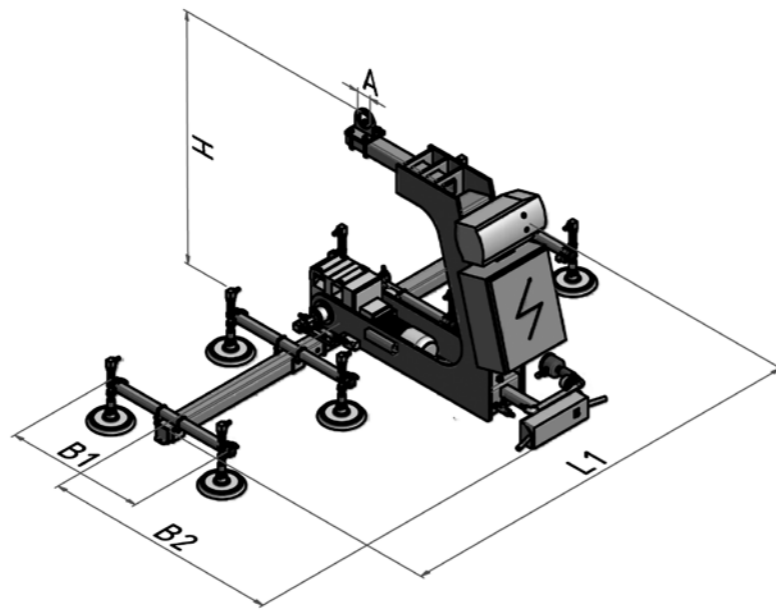
Turning over Loads up to 1.000 kg

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 to stop engaged loads 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. 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



Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
125	VB 80-180	2.000 x 1.000	600x400	T 4.8	4 ... 8	1.800	800	1.200	850	80	180 ... 220
250	VB 80-180	2.000 x 1.000	600x400	T 4.8	4 ... 8	1.800	800	1.200	850	80	180 ... 230
500	VB 80-180	4.000 x 2.000	1.000x600	T 4.8	4 ... 12	2.400	1.200	1.500	1.500	100	250 ... 300
750	VB 80-180	4.000 x 2.000	1.000x600	T 4.8	8 ... 16	2.400	1.200	1.500	1.500	100	300 ... 330
1.000	VB 100-180	4.000 x 2.000	1.000x600	T 4.8	8 ... 16	2.400	1.200	1.500	1.500	100	330 ... 360

VacuBoy VB-180E in Action

- 1 Turning over steel plates up to 500 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

Vacuum Load Lifting Devices

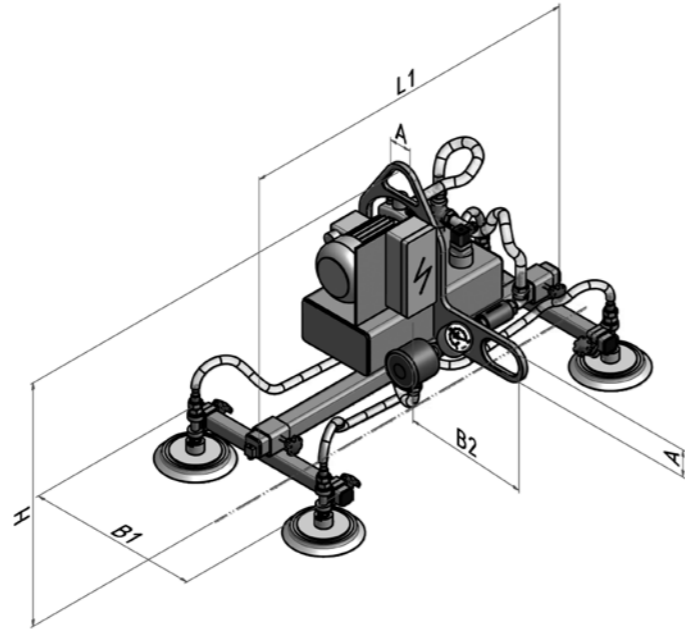
VacuBoyMini VBM

The Lightweight up to 500 kg

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

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

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



Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
125	VBM-1	2.500 x 1.250	400 x 400	T 4.8	1	250	250	270	450	60	20
125	VBM-2/4	2.500 x 1.250	1.000 x 400	T 4.8	2 ... 4	1.200	400	270	550	60	25 ... 30
250	VBM-1	2.500 x 1.250	400 x 400	T 4.8	1	250	250	270	450	60	22
250	VBM-2/4	2.500 x 1.250	1.000 x 400	T 4.8	2 ... 4	1.200	400	270	550	60	27 ... 32
500	VBM-1	2.500 x 1.250	400 x 400	T 4.8	1	250	250	270	450	60	30
500	VBM-2/4	2.500 x 1.250	1.000 x 400	T 4.16	2 ... 4	1.200	400	270	550	60	30 ... 35

VacuBoyMini VBM in Action

- 1 Handling of aluminum blocks up to 250 kg
- 2 With fourfold attachment for the transport of steel sheets
- 3 With single suction pad for aluminum plates up to 150 kg
- 4 With air pack and pneumatical warning unit for handling drums

Vacuum Load Lifting Devices

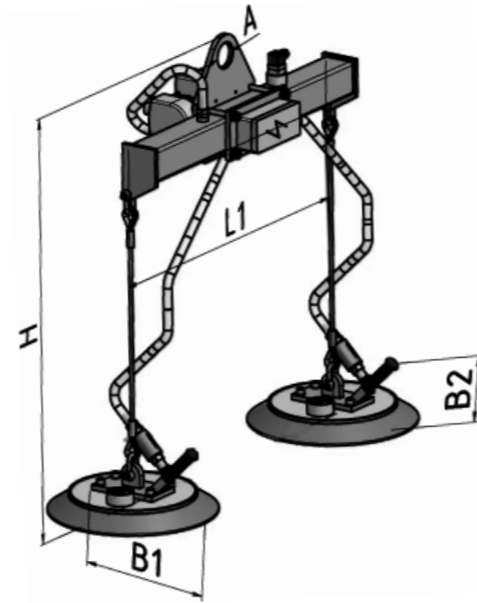
VacuBoyVario VBV

The Variable One up to 500 kg

The VacuBoyVario is a universally suitable lifter. Loads can both be lifted horizontally and vertically, or else lying loads can be uprighted. The suction pads, which can be individually switched on and off, only need to be placed correspondingly.

The rope suspension of the suction pads and the resulting narrow design make the VacuBoyVario a very variably suitable device.

- Horizontal and vertical handling
- Handling and installation of glass and window elements
- Handling of large-size sandwich elements
- On construction sites with 2-circuit-system



Capacity hor. / vert. (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
125/75	VB 100-2	2.500 x 1.250	400 x 800	T 4.8	2	800	125	150	800	60	40 ... 45
250/125	VB 100-2	3.000 x 2.000	600 x 1.200	T 4.8	2	800	220	150	800	60	50 ... 55
500/250	VB 100-2	3.000 x 2.000	600 x 1.200	T 4.8	2	800	290	150	800	60	60 ... 70

VacuBoyVario VBV in Action

- 1 Lifting steel sheets up to 200 kg
- 2 VacuBoyVario while handling the glass dome of a submarine
- 3 Handling terminal box elements for the electronic industry
- 4 Transporting steel containers up to 150 kg

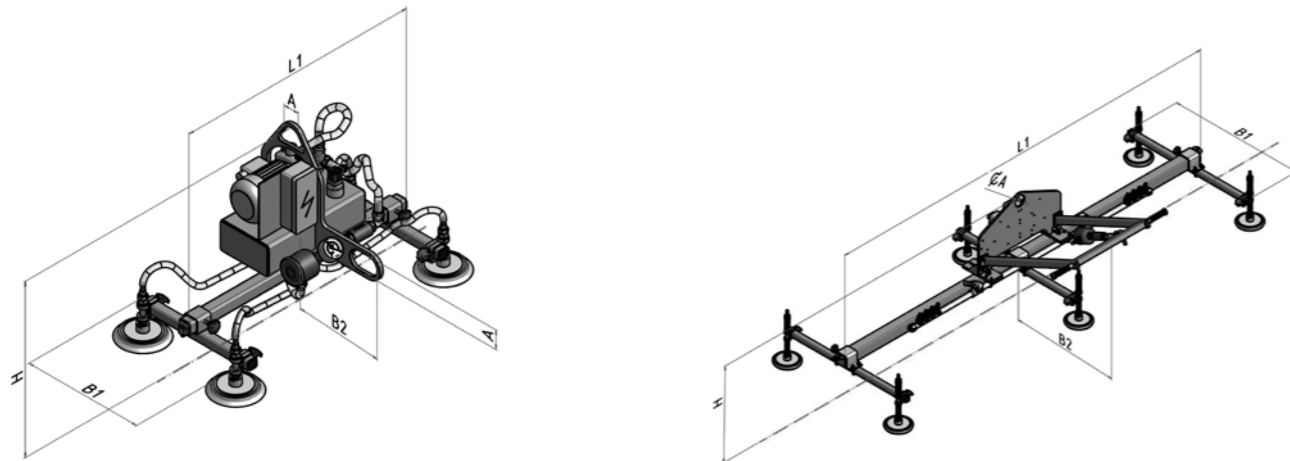
Vacuum Load Lifting Devices

VacuBoyAkku VB-Akku

Power-independent Operation

The VacuBoyAkku guarantees an absolutely self-sufficient operation around the clock. The power supply is via exchangeable batteries. A standstill of the lifters, to re-charge batteries, is no longer necessary. As a standard the lifters are equipped with a vacuum-controlled motor switch which saves the batteries and increases their operation time. Vacuum control is done by handslide valve with arrest.

- Vacuum supply by 24V pump
- Work capacity for approx. 150 suction operations
- Constant operational readiness by exchangeable batteries
- Option with electrical vacuum control or switching automatic



Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
125	VBM-1/2/4	2.500 x 1.250	400 x 400	T 4.2	1 ... 4	250	250	270	450	60	20 ... 30
125	VB 80	4.000 x 2.000	600 x 400	T 4.2	4 ... 6	1.800	800	650	470	80	40 ... 50
125	VBM-2/4	2.500 x 1.250	1.000 x 400	T 4.2	1 ... 4	1.200	400	270	550	60	25 ... 30
250	VB 80	4.000 x 2.000	600 x 400	T 4.2	4 ... 8	1.800	800	650	470	80	45 ... 55
500	VBM-1/2/4	2.500 x 1.250	1.000 x 400	T 4.2	1 ... 4	1.200	400	270	550	60	30 ... 35
500	VB 80	4.000 x 2.000	600 x 400	T 4.2	4 ... 8	1.800	800	650	470	80	50 ... 70

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

Vacuum Load Lifting Devices

Application Examples



VacuBoy for feeding a laser cutting machine



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



VacuBoy for commissioning steel plates up to 2.000 kg



1



2



3



4

FEZER
Simply move more.

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-independent operation via batteries for transporting small aluminum blocks
- 4 Strictly vertical lifter for handling camper fronts



VacuGiant

The VacuGiants are FEZER's heavy-duty lifters. They stand for highest carrying capacities, hardest operating conditions and the most robust design.

They can effortlessly and absolutely safely move the longest and widest sheets with weights of several tons.



VacuGiant VG	57/58
VacuGiant VG-90E	59/60
VacuGiant VG-180E	61/62
Application Examples	63/64

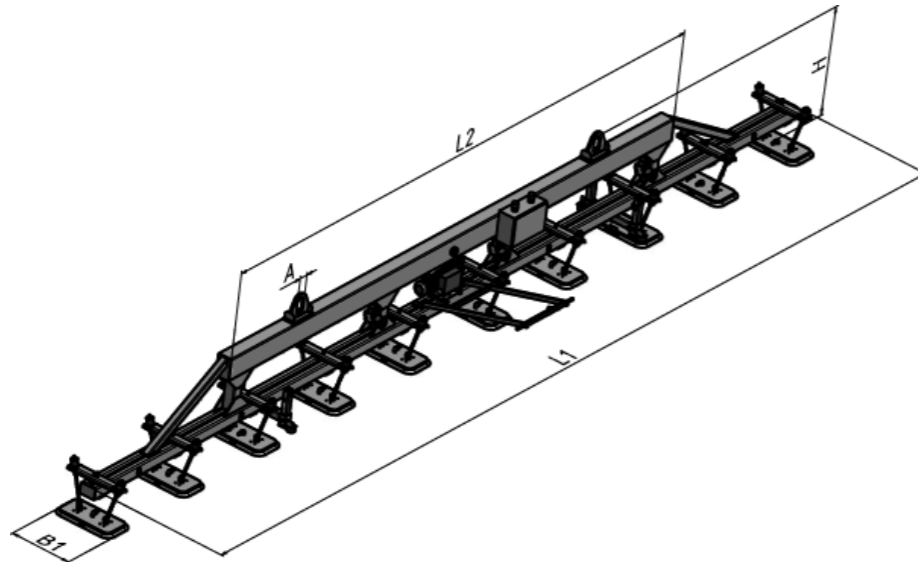
Vacuum Load Lifting Devices

VacuGiant VG

Horizontal Transport up to 40.000 kg

The lifter series VG brings movement into the heavy-duty area. The simple but very robust design and the intelligent safety features of these giants guarantee an absolutely safe and reliable handling of metal sheets with lengths of up to 30m, widths over 4 m and several tons of weight.

- Aluminum and steel mills
- Sheet commissioning
- Wind power plants
- Aeronautics
- Shipbuilding and dockyards
- Lorry superstructures



FEZER
Simply move more.

Capacity (kg)	Type	Workpiece dimensions			Number of suction pads	Pump	L1 (m)	L2 (m)	B1 (m)	H (m)	A (mm)	Own weight (t)
		Length (m)	Width (m)	Thickness (mm)								
2.500	VG-	4 ... 20	0,5 ... 3	> 2	2 ... 6	016	3 ... 18	1 ... 10	0,9 ... 2,2	0,8 ... 1,4	120	0,4 ... 0,5
5.000	VG-	4 ... 20	0,5 ... 3	> 2	4 ... 10	025	3 ... 18	1 ... 10	0,9 ... 2,2	0,8 ... 1,4	120	0,7 ... 0,8
7.500	VG-	4 ... 20	0,5 ... 3	> 2	6 ... 12	040	3 ... 18	1 ... 10	0,9 ... 2,2	0,8 ... 1,4	120	1,0 ... 1,2
10.000	VG-	4 ... 20	0,5 ... 3	> 2	8 ... 16	040	3 ... 18	1 ... 10	0,9 ... 2,2	0,8 ... 1,4	120	1,4 ... 1,6
15.000	VG-	8 ... 30	1,0 ... 4,5	> 3	12 ... 24	063	6 ... 26	6 ... 16	0,9 ... 3,4	1,2 ... 2,6	160	2,0 ... 2,6
20.000	VG-	8 ... 30	1,0 ... 4,5	> 3	16 ... 32	063	6 ... 26	6 ... 16	0,9 ... 3,4	1,2 ... 2,6	160	2,6 ... 3,2
25.000	VG-	8 ... 30	1,0 ... 4,5	> 3	20 ... 40	0100	6 ... 26	6 ... 16	0,9 ... 3,4	1,2 ... 2,6	160	3,2 ... 3,8
30.000	VG-	8 ... 30	1,0 ... 4,5	> 3	24 ... 48	0100	6 ... 26	6 ... 16	0,9 ... 3,4	1,2 ... 2,6	160	3,8 ... 4,4
35.000	VG-	8 ... 30	1,0 ... 4,5	> 3	28 ... 56	0160	6 ... 26	6 ... 16	0,9 ... 3,4	1,2 ... 2,6	160	4,4 ... 5,0
40.000	VG-	8 ... 30	1,0 ... 4,5	> 3	32 ... 64	0160	6 ... 26	6 ... 16	0,9 ... 3,4	1,2 ... 2,6	160	5,0 ... 5,6

VacuGiant VG in Action

- 1 Handling 8.000 kg steel sheets
- 2 VacuGiant for transporting aluminum blocks up to 4.000 kg
- 3 Lifting large-size steel sheets with a weight of up to 12.000 kg
- 4 Handling aluminum plates with a length of 12 m and a weight of up to 8.000 kg

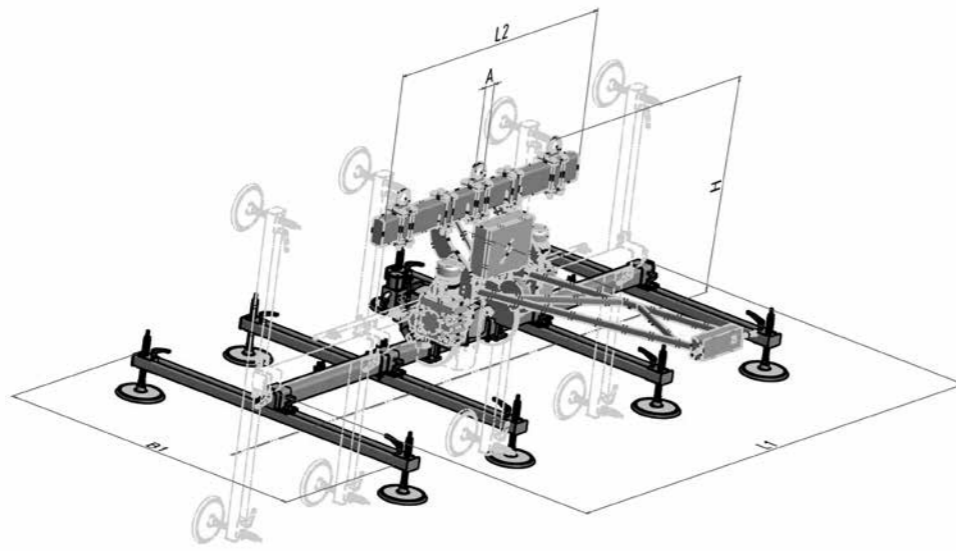
Vacuum Load Lifting Devices

VacuGiant VG-90E

Swivelling Design up to 15.000 kg

In many areas heavy loads must be set upright or taken out of upright storage. For these applications the lifter series VG-90E is available with a swivel feature. Usually hydraulic linear drives, secured by non-return valves, swivel the load. This allows to stop the workpieces at any point.

- Commissioning of steel sheets
- Aeronautics
- Shipbuilding and dockyards
- Lorry superstructures



FEZER
Simply move more.

Capacity (kg)	Type	Workpiece dimensions			Number of suct. pads	Pump	Swivel drive	L1 (m)	L2 (m)	B1 (m)	H (m)	A (mm)	Own weight (t)
		Length (m)	Width (m)	Thickness (mm)									
2.500	VG90-	4 ... 20	0,5 ... 3	> 2	4 ... 24	025	hydr.	3 ... 18	1 ... 12	0,9 ... 2,2	1 ... 1,8	120	0,8 ... 1,2
5.000	VG90-	4 ... 20	0,5 ... 3	> 2	8 ... 36	025	hydr.	3 ... 18	1 ... 12	0,9 ... 2,2	1 ... 1,8	120	1,2 ... 1,6
7.500	VG90-	4 ... 20	0,5 ... 3	> 2	12 ... 48	040	hydr.	3 ... 18	1 ... 12	0,9 ... 2,2	1 ... 1,8	120	1,6 ... 2,0
10.000	VG90-	6 ... 20	1 ... 3	> 3	16 ... 48	040	hydr.	4 ... 18	1 ... 12	0,9 ... 2,2	1 ... 2,4	160	2,0 ... 2,4
12.500	VG90-	6 ... 20	1 ... 3	> 3	20 ... 48	063	hydr.	4 ... 18	1 ... 12	0,9 ... 2,2	1 ... 2,4	160	2,4 ... 2,8
15.000	VG90-	6 ... 20	1 ... 3	> 3	24 ... 48	063	hydr.	4 ... 18	1 ... 12	0,9 ... 2,2	1 ... 2,4	160	2,8 ... 3,6

VacuGiant VG-90E in Action

- 1 Both-sided swivelling VacuGiant for 16 m long side panels weighing 2.000 kg
- 2 Swivelling VacuGiant with load compensation adjustment for handling plane calottes
- 3 Handling sandwich elements weighing 2.500 kg
- 4 VacuGiant in extremely flat design for vertical storage of 8.000 kg steel sheets

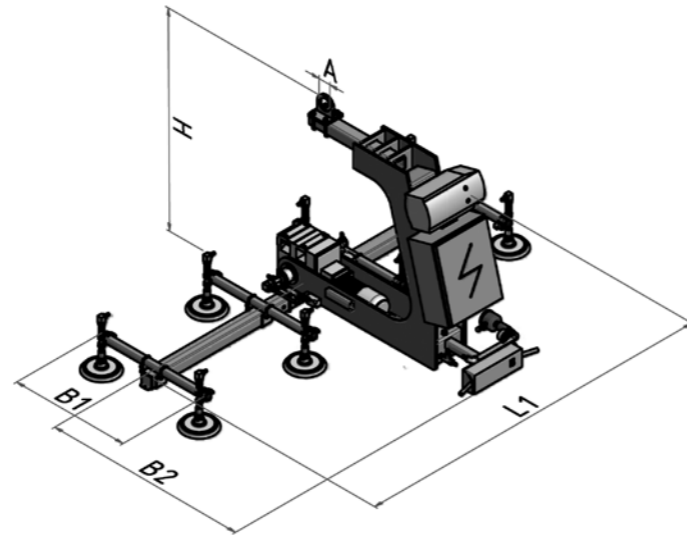
Vacuum Load Lifting Devices

VacuGiant VG-180E

Turnable Design up to 2.500 kg

In some cases heavy loads need to be turned over. The right choice for this is the lifter series VG-180E. The robust design and the large-dimensional safety tanks guarantee an adequate and calming safety when turning over those heavy loads. The operation is carried out by powerful gear motors with brakes and automatic end position arrest

- Aeronautics
- Shipbuilding and dockyards
- Lorry side and roof elements
- Plastic manufacture



Capacity (kg)	Type	Workpiece dimensions			Number of suct. pads	Pump	Turning drive	L1 (m)	B1 (m)	B2 (m)	H (m)	A (mm)	Own weight (t)
		Length (m)	Width (m)	Thickn. (mm)									
1.000	VG90-	4 ... 20	0,5 ... 3	> 2	4 ... 24	025	electr.	2 ... 18	0,5 ... 2	1 ... 2,5	1 ... 2,5	120	0,6 ... 0,8
1.500	VG90-	4 ... 20	0,5 ... 3	> 2	8 ... 36	025	electr.	2 ... 18	0,5 ... 2	1 ... 2,5	1 ... 2,5	120	0,8 ... 1,0
2.000	VG90-	4 ... 20	0,5 ... 3	> 2	12 ... 48	040	electr.	2 ... 18	0,5 ... 2	1 ... 2,5	1 ... 2,5	120	1,0 ... 1,2
2.500	VG90-	4 ... 20	0,5 ... 3	> 2	16 ... 48	040	electr.	2 ... 18	0,5 ... 2	1 ... 2,5	1 ... 2,5	120	1,2 ... 1,4

VacuGiant VG-180E in Action

- 1 Extendable VacuGiant for turning over 16 m long carbon wings with a weight of 1.000 kg
- 2 VacuGiant for turning over 12 m long special plastic plates up to 750 kg



VacuGiant on a bending machine with chain suspension



VacuGiant with 12.000 kg carrying capacity and electrically extendable main beam from 8 to 12 m



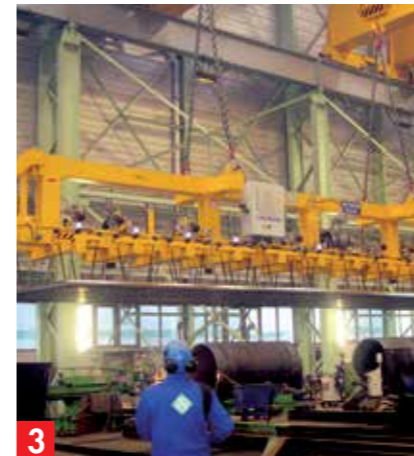
Transport of 36 m long aluminum sheets weighing 4.500 kg for the manufacture of wing parts for the Airbus A380



1



2



3



4

VacuGiant in Action

- 1 VacuGiant with forklift truck attachment and carrying capacity of 5.000 kg
- 2 Combination lifter for the transport of steel sheets which are formed to tubes
- 3 VacuGiant for the transport of steel sheets with a weight of up to 40.000 kg
- 4 Outdoor operation of a VacuGiant with self-sufficient pump for transporting concrete plates



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.



VacuCoil.....	67/68
VacuCoil 90	69/70
Details	71/72

Vacuum Load Lifting Devices

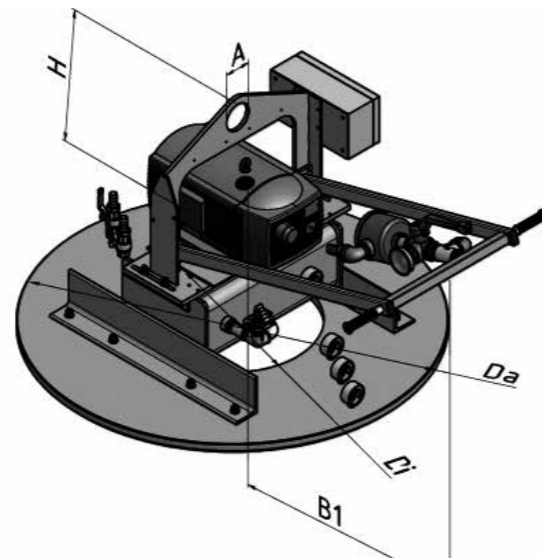
VacuCoil VC

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

Vacuum Load Lifting Devices

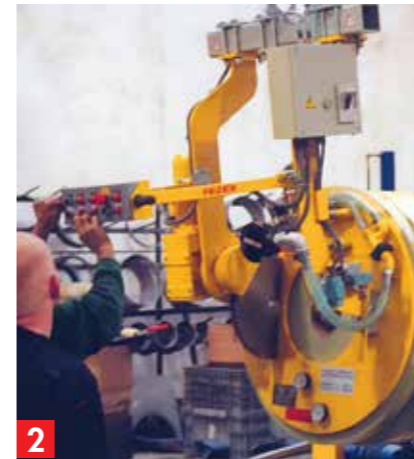
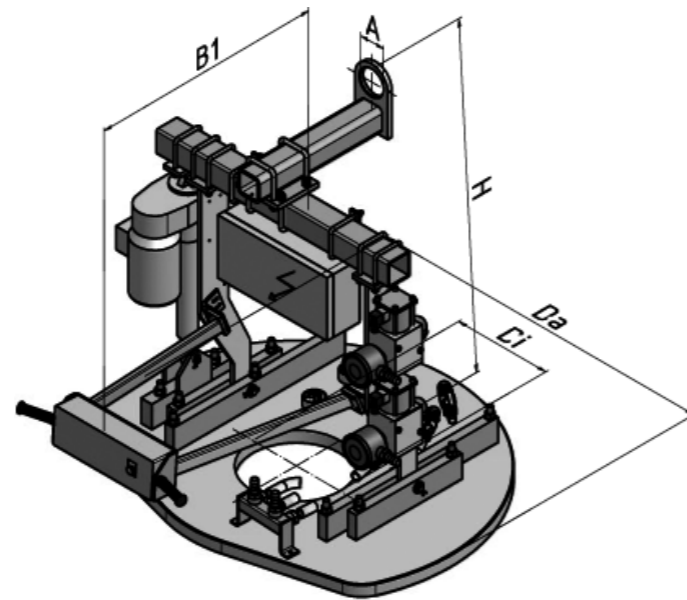
VacuCoil VC-90

Swivelling up to 5.000 kg

Formerly chains or ropes were being used to hoist up split strips; now you can leave this job to the VacuCoil VC-90. Just place it on, engage the load and swivel it.

Swivelling is done by electrical or hydraulic linear units that can work around the clock. They are controlled by push-buttons on the manipulating handle.

- Commissioning of coils and split strips
- Repositioning, putting into and taking out of storage
- Feeding of CNC machines



FEZER
Simply move more.

Capacity (kg)	Type	Diameters		Number of chamb.	Pump (m³/h)	Swivel drive	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 ... 6	16 ... 40	electr.	900	700 ... 1.000	100	200 ... 400
500	VC-	100 ... 250	400 ... 1.500	1 ... 6	16 ... 40	electr.	900	700 ... 1.000	100	200 ... 400
750	VC-	100 ... 250	400 ... 1.500	1 ... 6	25 ... 60	electr.	900	700 ... 1.000	100	300 ... 500
1.000	VC-	100 ... 250	400 ... 1.500	1 ... 6	25 ... 60	electr.	900	700 ... 1.000	100	300 ... 500
2.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	40 ... 100	hydraulic	1.500	1.000 ... 2.500	160	1.000 ... 1.500
3.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	40 ... 100	hydraulic	1.500	1.000 ... 2.500	160	1.000 ... 1.500
4.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	60 ... 160	hydraulic	1.500	1.000 ... 2.500	160	1.000 ... 2.000
5.000	VC-	150 ... 400	650 ... 3.000	2 ... 8	60 ... 160	hydraulic	1.500	1.000 ... 2.500	160	1.000 ... 2.000

VacuCoil VC-90E in Action

- 1 Swivelling of plastic split strips
- 2 VacuCoil for loading a mandril with split strips
- 3 VacuCoil with transparent coil suction plate for split strips
- 4 Swivelling system coil plate to swivel aluminum split strips

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 telescoping mandril for varying core diameters



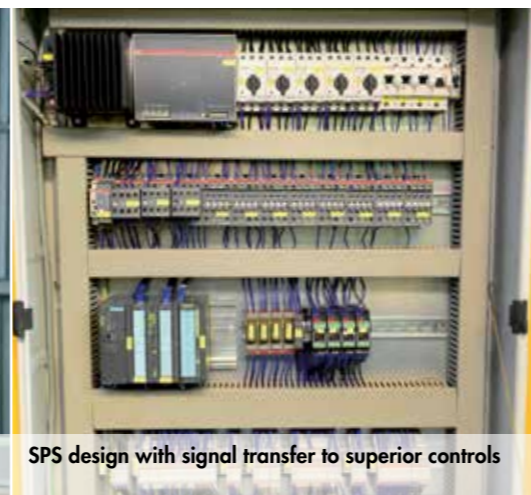
Single suction chamber control via impulse valve



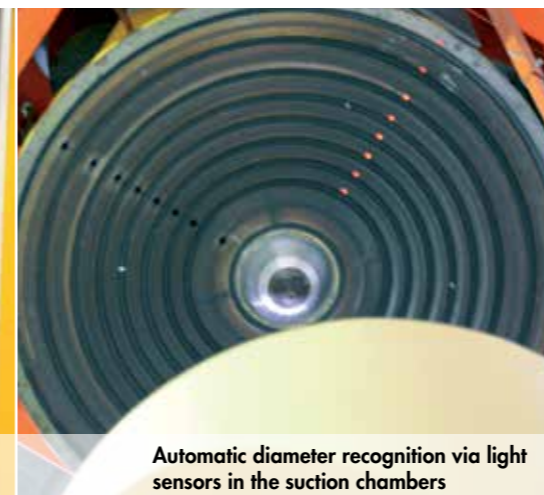
Mechanical undergrippers for long transport ways over work areas



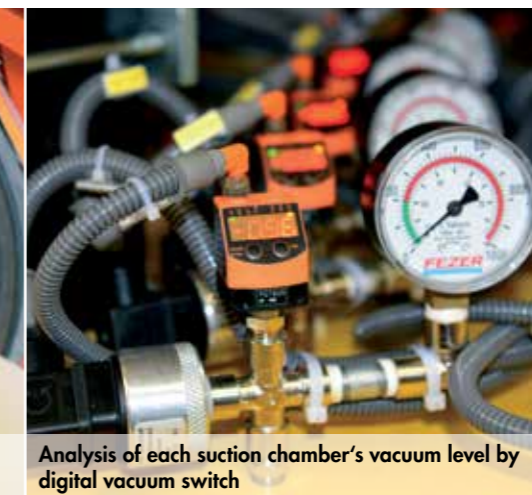
Automatic recognition of paper-unwrapping during the transport



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



VacuWood / VacuPoro

Rough planks, heavy boards, meter-long gluelam beams or porous plates of all kinds - the lifter series VacuWood and VacuPoro have everything under control



VacuWood	75/76
VacuPoro	77/78

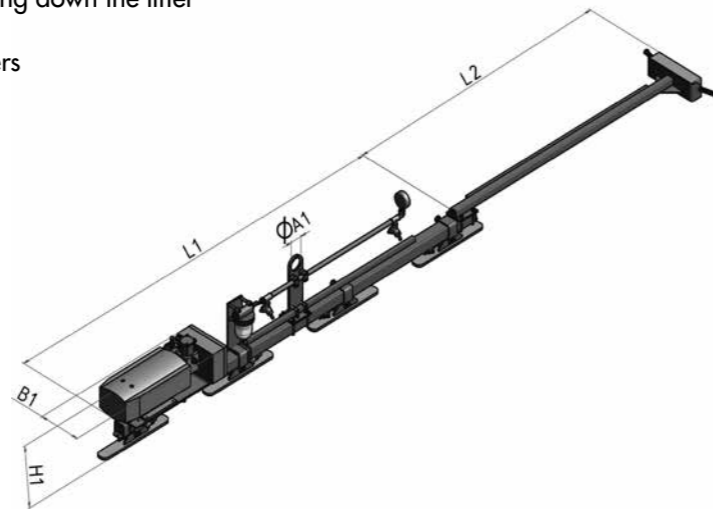
Vacuum Load Lifting Devices

VacuWood VV

Horizontal Transport of Floorboards, Planks and Gluelam Beams

With the lifter series VacuWood rough boards and planks can be handled safely and gently. Even gluelam beams with lengths of over 24 m can be engaged and transported. Special suction plate suspensions are available to adjust to the bending of the gluelam beams. For „extreme“ boards with knotholes or cracks special suction plates are available that close automatically and keep up the vacuum. As a standard the lifters are equipped with handslide valve, adequately large safety tank and an acoustic warning unit.

- For rough and smooth surfaces
- Automatic switch-off of suction pads on cracks and knowholes
- Special suction plate suspension for the transport of long gluelam beams
- Suspension eyes with pre-load to stabilize when putting down the lifter
- Special solutions and individual adjustment of the lifters



Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	L2 (mm)	B1 (mm)	H1 (mm)	A1 (mm)	Own weight (kg)
		max (mm)	min (mm)								
125	VWB-80/2	6.000 x 800	1.500 x 120	T 4.25	2	3.000	1.800	300	530	80	125 ... 135
250	VWB-80/2	6.000 x 800	1.500 x 190	T 4.25	2	3.000	1.800	300	530	80	130 ... 140
500	VWB-80/2	6.000 x 1.000	1.500 x 270	T 4.25	2	3.000	1.800	300	530	80	135 ... 145
750	VWB-100/4	6.000 x 1.000	2.500 x 270	T 4.40	4	3.000	1.800	300	530	80	165 ... 175
1.000	VWB-100/4	6.000 x 1.000	2.500 x 270	T 4.40	4	3.000	1.800	300	530	80	165 ... 175

VacuWood VWB/VWBL in Action

- 1 Gluelam beam lifter VacuWood VWB for handling sawed boards up to 500 kg
- 2 VacuWood VWB with electrical width-adjustment to pick up 2 boards at the same time
- 3 Gluelam beam lifter VWLB to handle 20 m long gluelam beams
- 4 VacuWood VWB used at a horizontal saw

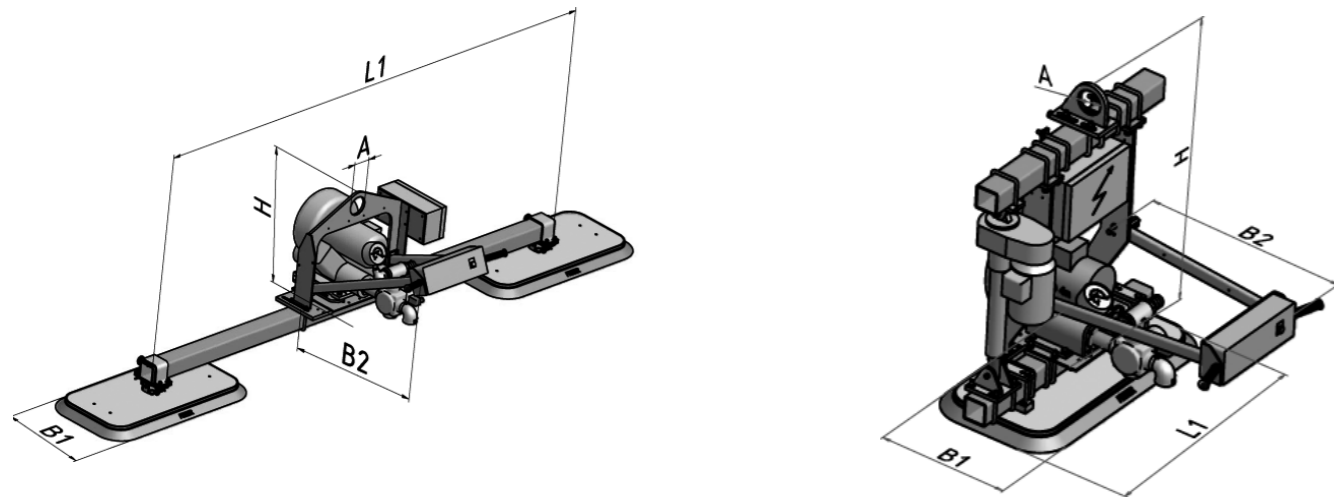
Vacuum Load Lifting Devices

VacuPoro VP, VP-90

Horizontal and swivelling Design

The lifter series VacuPoro is specially designed for handling porous materials like raw chipboards, MDF- or OSB-boards. A powerful blower with flywheel safely engages these materials and even keeps them suspended for an adequate time period after a power failure. Loads can also be swivelled by 90° to put them into upright saws or storage. As a standard the lifters are equipped with electrical vacuum control and acoustic warning unit

- Handling when stored upright
- Loading of upright machinery
- Highest operational safety by special blowers with flywheel



FEZER
Simply move more.

Capacity (kg)	Type	Workpiece dimensions		Pump	Number of suction pads	L1 (mm)	B1 (mm)	B2 (mm)	H (mm)	A (mm)	Own weight (kg)
		max (mm)	min (mm)								
250	VP-80/1	4.100 x 2.100	900 x 500	SD 400	1	850	450	1.050	650	80	105 ... 115
250/125	VP-80-90E/1	4.100 x 2.100	900 x 500	SD 400	1	850	450	1.050	1.100	80	140 ... 150
500	VP-80/2	5.600 x 2.600	2.000 x 500	SD 400	2	2.400	450	1.050	650	80	155 ... 165
500/250	VP-80-90E/2	5.600 x 2.600	2.000 x 500	SD 400	2	2.400	450	1.050	1.100	80	190 ... 210

VacuPoro VP in Action

- 1 VacuPoro while loading a CNC machine
- 2 VacuPoro VP-80-90E/1 with swivelling for raw chipboards
- 3 Special flat design for handling wall elements up to 1.200 kg
- 4 VacuPoro VP-80-90E/2 with swivelling for handling chipboards up to 250 kg



Crane Systems & Rigid Lifting Guides

To go with the vacuum and tube lifters FEZER offers you as well suitable crane systems and guarantees a perfectly adjusted complete system from one source only.

For loads up to 500 kg we offer our own aluminum tracks, a fully developed and extremely smooth system which can be adapted to almost any space conditions.

Aluminum Track System	81/82
Wall Slewing Jibs	83/84
Column Slewing Jibs	85/86
Suspension Crane System	87/90
Liffix - Rigid Guiding System	91/94

Complete Systems based on Modular Design

The extruded aluminum profiles convince by their robust design and low own weight. They move very smoothly which improves the handling. The large range of accessories covers almost any requirement and guarantees a high operational safety while keeping the investment costs in check.

- Aluminum tracks in 3 sizes with lengths up to 12 m
- Robust and smooth trolleys with lateral guiding castors
- Cable and hose trolleys in robust and smooth plastic design
- Standard suspensions for ceilings, T-beams or beam connections
- Robust steel consoles for wall and column connections
- Angle constraint for wall and column slewing jibs
- End arrests with rubber buffers
- Stable steel mounting elements to extend at will
- Conductor lines for integrated electrical supply
- Mobile base plates for column slewing jibs to install at any place
- Telescopic column slewing jibs for height adjustments
- Friction drive for electrical axis movements at the push of a button



Aluminum tracks in 3 sizes



Trolleys in stable steel design and with lateral guiding castors



Cable and hose trolleys for power and vacuum supply



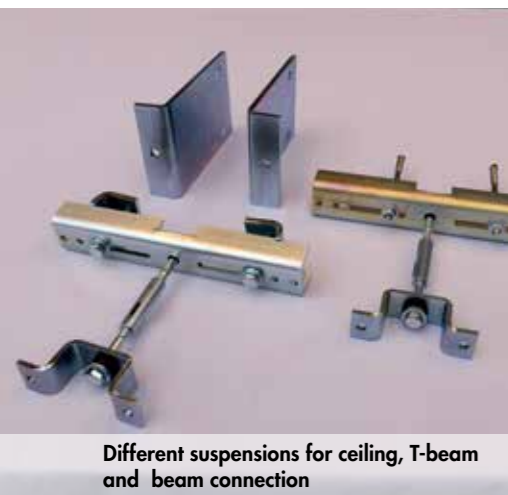
Robust and smooth steel console for wall and column slewing jibs



Angle constraint with rubber buffers for wall and column slewing jibs



Diagonal ties with male/female threads for adjustment of horizontal position



Different suspensions for ceiling, T-beam and beam connection



Stable steel connection elements to extend the aluminum tracks at will



Electrical friction drive



Steel base plate for mobile column slewing jibs



Telescopic column slewing jib with safety pin to fix the set height



Electrical conductor line as power supply

Crane Systems & Rigid Guiding Systems

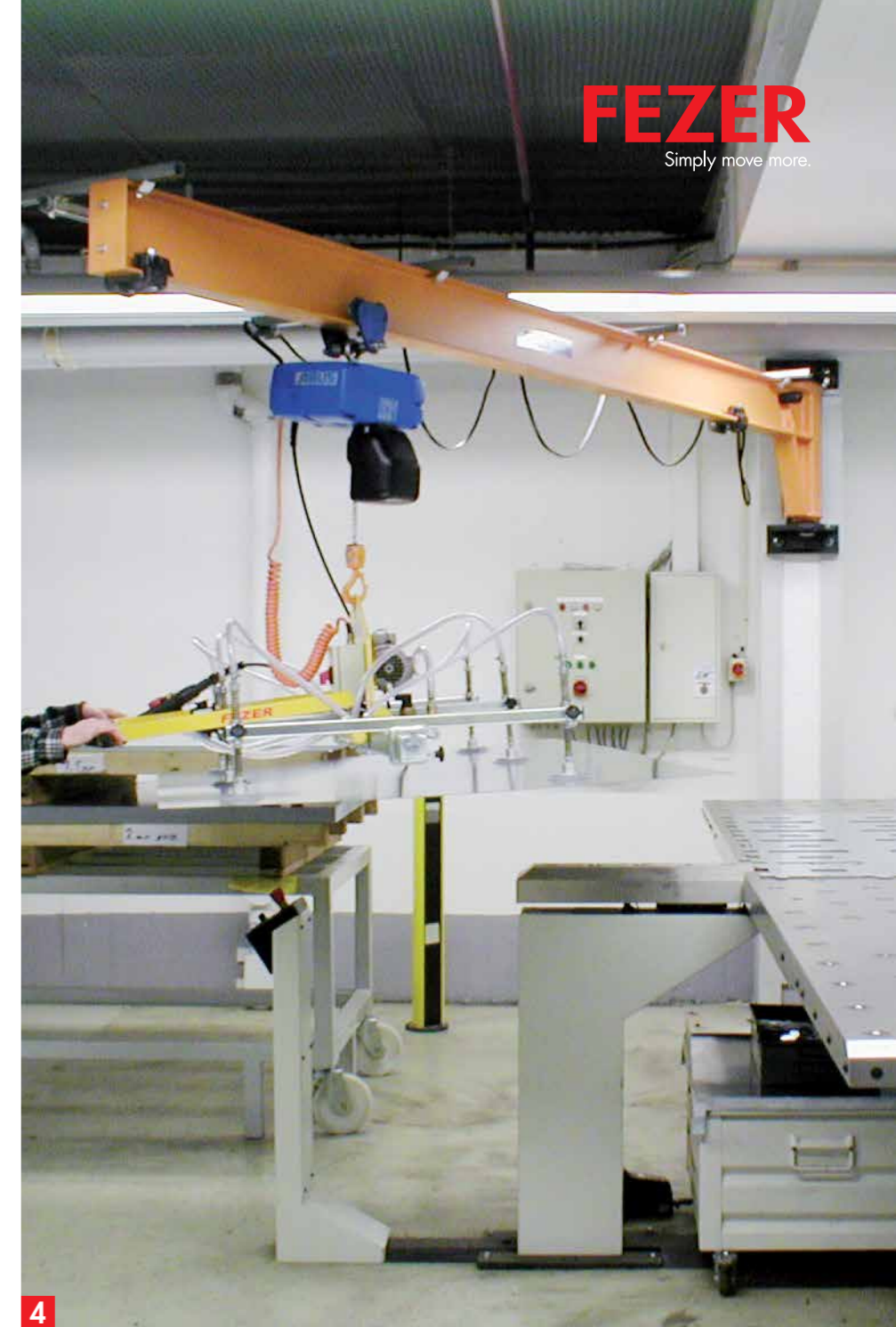
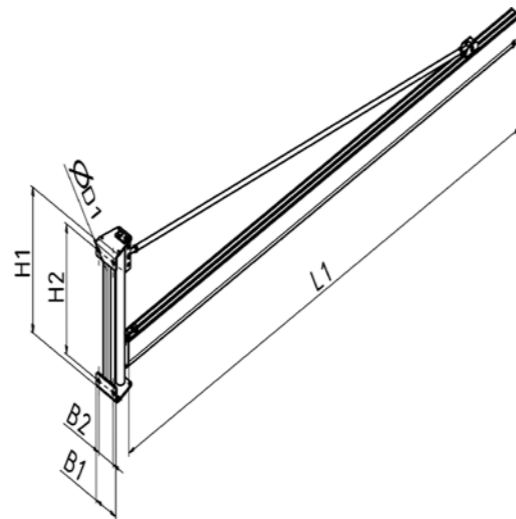
Wall Slewing Jibs

for Loads up to 1.000 kg and Jib Lengths up to 6 m

For loads up to 500 kg extremely smooth aluminum profiles are available. The robust steel consoles with bush bearings and the special transport trolleys with large-dimensioned castors move loads effortlessly and rationalize the work processes.

For higher loads stable steel tracks are being used which offer a high measure of stress with low bending.

- Smooth aluminum profile up to 500 kg
- Highest operational safety by perfectly attuned parts
- Stable and robust consoles with bush or ball bearings
- For higher loads electrical drives are available



Capacity (kg)	Type	Swivel range (°)	Jib length (mm)	Console height (mm)	Crab drive	Swivel drive	Own weight (kg)
50	WSK-	180	2.000 ... 6.000	590 ... 680	manual	manual	60 ... 120
75	WSK-	180	2.000 ... 6.000	590 ... 680	manual	manual	60 ... 120
100	WSK-	180	2.000 ... 6.000	590 ... 680	manual	manual	80 ... 160
125	WSK-	180	2.000 ... 6.000	590 ... 680	manual	manuell	80 ... 160
250	WSK-	180	2.000 ... 6.000	630 ... 820	manual/electr.	manual/electr.	220 ... 620
500	WSK-	180	2.000 ... 6.000	630 ... 820	manual/electr.	manual/electr.	220 ... 620
1.000	WSK-	180	2.000 ... 6.000	780 ... 980	manual/electr.	manual/electr.	530 ... 980

Wall Slewing Jibs in Action

- 1 Wall slewing jib with tube lifter VacuPowerlift
- 2 Slewing jib with ceiling suspension and aluminum jib
- 3 Wall slewing jib with 6 m of jib length and a carrying capacity of 250 kg
- 4 Wall slewing jib with 4 m of jib length and a carrying capacity of 500 kg

Crane Systems & Rigid Guiding Systems

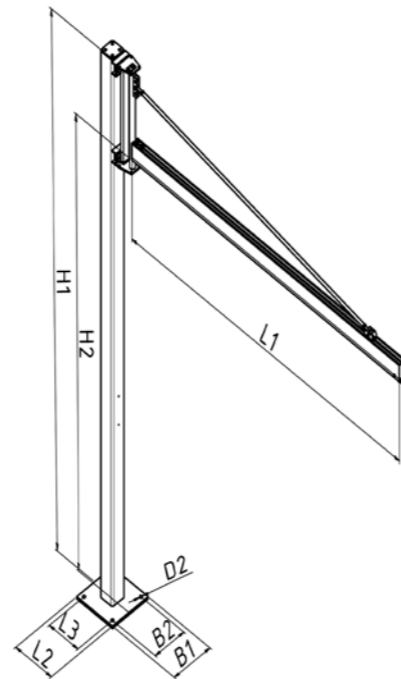
Column Slewing Jibs

for Loads up to 1.000 kg and Jib Lengths up to 6 m

For loads up to 500 kg extremely smooth aluminum profiles are available. The robust steel consoles with bush bearings and the special transport trolleys with large-dimensioned castors move loads effortlessly and rationalize the work processes.

For higher loads stable steel tracks are being used which offer a high measure of stress with low bending.

- Smooth aluminum profile up to 500 kg
- Highest operational safety by perfectly attuned parts
- Stable and robust consoles with bush or ball bearings
- For higher loads electrical drives are available
- Direct connection to the floor without intermediate plate
- Mobile base plate for free installation and positioning with a forklift truck
- Design with telescopic and arrestable column



Capacity (kg)	Type	Swivel range (°)	Jib length (mm)	Total height (mm)	Crab drive	Swivel drive	Own weight (kg)
50	SSK-	270	2.000 ... 6.000	3.650 ... 3.720	manual	manual	200 ... 300
75	SSK-	270	2.000 ... 6.000	3.650 ... 3.720	manual	manual	200 ... 400
100	SSK-	270	2.000 ... 6.000	3.650 ... 3.720	manual	manual	260 ... 800
125	SSK-	270	2.000 ... 6.000	3.650 ... 3.720	manual	manual	260 ... 1.100
250	SSK-	270	2.000 ... 6.000	3.650 ... 3.760	manual/electr.	manual/electr.	400 ... 1.350
500	SSK-	270	2.000 ... 6.000	3.650 ... 3.810	manual/electr.	manual/electr.	420 ... 1.600
1.000	SSK-	270	2.000 ... 6.000	3.560 ... 3.910	manual/electr.	manual/electr.	420 ... 2.250

Column Slewing Jibs SSK in Action

- 1 Column slewing jib with chain hoist and VacuBoy for loading a laser cutting machine
- 2 Column slewing jib with chain hoist for 500 kg and 3m jib length
- 3 Column slewing jib with aluminum profile for tube lifter VacuPowerlift
- 4 Column slewing jib with mobile base plate for positioning with forklift truck

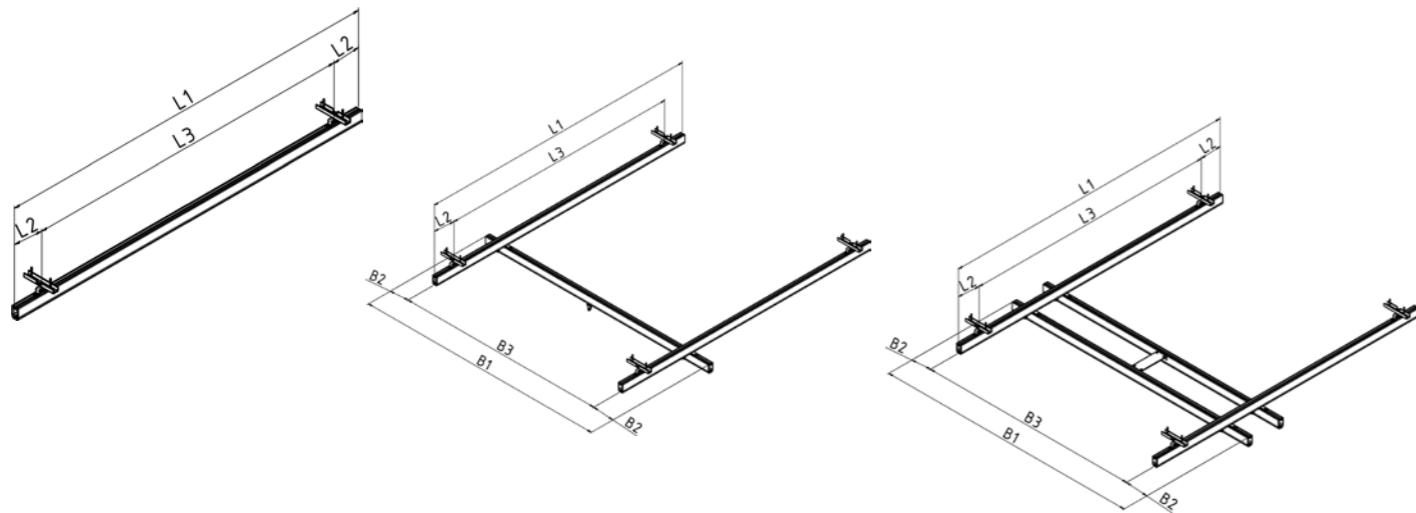
Crane Systems & Rigid Guiding Systems

Suspension Track Systems

for covering Areas of up to 50 x 12 m

in single track, single bridge or double bridge design. By perfectly attuned components the crane systems can be adjusted to your individual requirements. Whether ceiling, I-beam or timber beams - for all requirements the corresponding suspensions are available and guarantee a safe and ideal connection.

- Smooth and robust aluminum profiles up to 12m long
- Extensive accessories like arresters, transport trolleys, connection and fastening elements
- Friction drives for electrical movements as option
- Special solutions for individual requirements



Single track system	L3 =	1.000 mm (kg)	2.000 mm (kg)	3.000 mm (kg)	4.000 mm (kg)	5.000 mm (kg)	6.000 mm (kg)	8.000 mm (kg)	L1 (max) (mm)	L2 (max) (mm)
AP 85		125	100	75	40	25	---	---	12.000	300
AP 125		250	250	250	140	90	65	---	12.000	350
AP 160		500	500	500	425	225	150	75	12.000	400
Single bridge system	L3, B3 =	1.000 mm (kg)	2.000 mm (kg)	3.000 mm (kg)	4.000 mm (kg)	5.000 mm (kg)	6.000 mm (kg)	8.000 mm (kg)	L1,B1 (max) (mm)	L2,B2 (max) (mm)
AP 85		125	100	75	40	25	---	---	12.000	300
AP 125		250	250	250	140	90	65	---	12.000	350
AP 160		500	500	500	425	225	150	75	12.000	400
Double bridge system	L3, B3 =	1.000 mm (kg)	2.000 mm (kg)	3.000 mm (kg)	4.000 mm (kg)	5.000 mm (kg)	6.000 mm (kg)	8.000 mm (kg)	L1,B1 (max) (mm)	L2,B2 (max) (mm)
AP 85		125	100	75	40	25	---	---	12.000	300
AP 125		250	250	250	250	180	130	40	12.000	350
AP 160		500	500	500	500	450	300	150	12.000	400



Single-bridge suspension with tube lifter VacuPowerlift



Two-bridge suspension crane system with electrical friction drive and a vacuum lifter VacuBoy



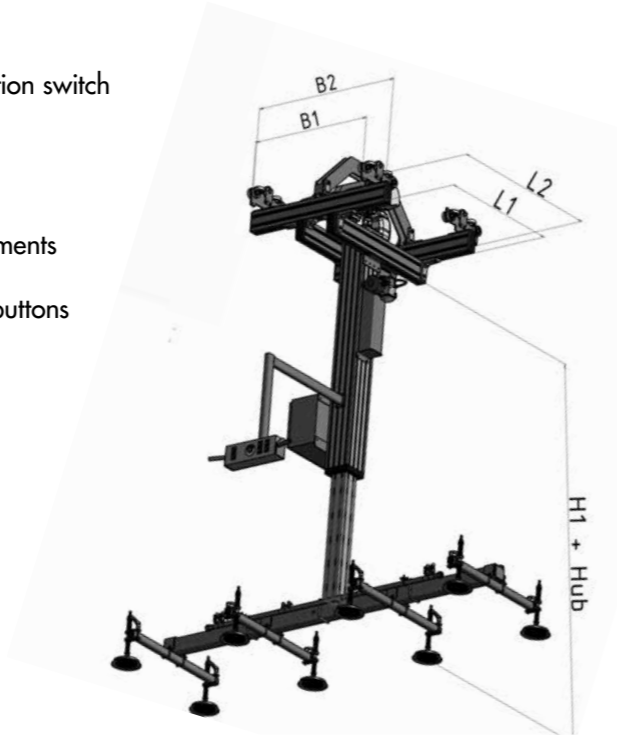
Crane systems in Action

- 1** Suspension crane system with movable and rotatable jib for tube lifter VacuPowerlift
- 2** Suspension crane system in steel design with vacuum lifter VacuBoyVario
- 3** Two bridge crane system for tube lifter VacuPowerlift with mounted blower

Rigid Guiding System for Loads of up to 500 kg

In combination with the smooth aluminum tracks FEZER offers a rigid guiding system which allows to pick and place loads accurately. Telescopic aluminum profiles with robust and precise sliding guides not only allow large strokes on low heights but also off-center load torques which permits to load overbuilt machines. The stroke is sensitively controlled by chain hoist with two speeds. A large number of options is available to realize almost any requirement.

- Telescopic Lifting System with Sliding Guides
- Drive by chain hoist with two speeds and adjustable final position switch
- Friction drives for electrical movement in X- and Y-direction
- Flangeable grippers with vacuum or mechanical clamping elements
- Ergonomical manipulating handles with all necessary control buttons



Capacity (kg)	Type	Stroke (m/min)	Max. momentum (Nm)	H1 (mm)	Hub (mm)	L1 (mm)	L2 (mm)	B1 (mm)	B2 (mm)	Own weight (kg)
125	LF-3	2 / 8	250	2.350	1.500	620	800	560	800	300
125	LF-3	2 / 8	125	2.350	2.000	620	800	560	800	325
125	LF-3	2 / 8	100	2.350	2.500	620	800	560	800	350
350	LF-2	2 / 8	750	2.350	1.000	620	800	560	800	250
350	LF-2	2 / 8	500	2.350	1.500	620	800	560	800	275
350	LF-2	2 / 8	250	2.350	2.000	620	800	560	800	300



Liffix with mechanical gripper for handling seat frames for automobile industry



Liffix with rotating assembly for handling copper sheets



1



2



3

Liffix LF in Action

- 1 Liffix with turnable suction frame for feeding a welding robot with solar elements
- 2 Liffix for taking out sheets from a high rack warehouse, with rotating assembly and video camera
- 3 Loading a laser cutting machine with steel sheets from horizontal plate storage

Take a Stand

The FEZER working stands are the ideal addition for your production process. Treat workpieces all around, move them, or work on them stationarily - the device series VacuStand offers the suitable solution.



VacuStand I+II	97/98
VacuStand 180E	99/100
Application Examples and Details	101/102
Mobilift	103/104

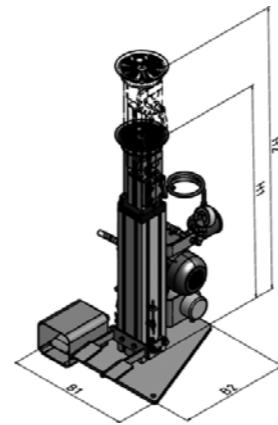
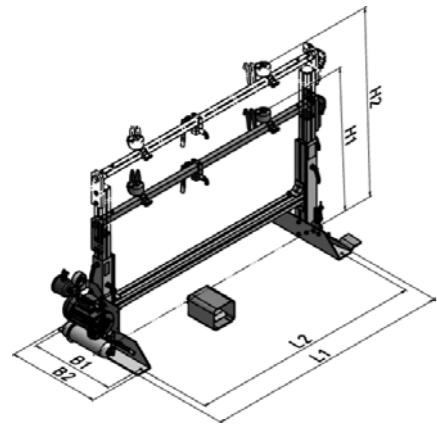
Working Stands

VacuStand VS-I and VS-II

Working Stands with Rotation and Swivel Unit

The working stands distinguish themselves by their light, but very robust design. When placing a workpiece on the stand it is automatically engaged by a touch valve. On the VS-I workpieces can be swivelled by 90° in one direction and rotated endlessly. On the VS-II both-sided swivelling by 90° is possible. The workpieces are released via foot control with safety cover. Different suction pads and attachments are available for both lifter designs.

- Single suction pad or attachment with up to 4 suction pads
- Eco Module for vacuum-controlled pump operation
- Arrest modules with foot control for swivelling and rotation
- Special designs with pneumatical drives for rotation and swivelling



FEZER
Simply move more.

Type	Design	Pump	Voltage (V, Hz)	Swivelling (°)	Rotation (°)	L1 (mm)	L2 (mm)	B1 (mm)	B2 (mm)	H1 (mm)	H2 (mm)	Own weight (kg)
VA I-AL-TV	Table attachm.	T 4.4	230, 50	90	endless	---	---	---	---	---	---	5 ... 15
VS I-AL	Single-foot	T 4.4	230, 50	90	endless	---	---	435	400	770	1.025	45 ... 65
VS II-AL 2	Double-foot	T 4.4	230, 50	90	---	1.175	1.265	460	500	1.000	750	65 ... 85
VS II-AL 3	Double-foot	T 4.4	230, 50	90	---	1.175	1.265	460	500	1.000	750	65 ... 85
VS II-AL 4	Double-foot	T 4.4	230, 50	90	---	1.175	1.265	460	500	1.000	750	65 ... 85

Suction pads/Attachment	FSRL 120	FSRL 170	FSRL 230	FSRL 290	FSL 100x200	FSL 100x300	Attachment II	Attachment IV
Suitable for:	VS I / VS II	VS I / VS II	VS I / VS II	VS I / VS II	VS I / VS II	VS I / VS II	VS I	VS I
Dimension:	D=120	D=170	D=230	D=290	100x200	100x300	820x200x110	820x400x150
Holding force (kg) hor.	25	50	100	150	40	65	depending on suction pad	
Holding force (kg) vertical	13	25	50	75	20	33	depending on suction pad	

VacuStand VS in Action

- 1 VacuStand VS-I with double attachment for treating aluminum diecast parts
- 2 VacuStand VS-I for treating stone slabs
- 3 Handling glass panes for installation on vehicle cabins
- 4 VacuStand VS-I with fourfold attachment and battery

Working Stands

VacuStand VS-II-180

Stationary Turning Station with Swivel Drive

For integration in running processes where loads have to be turned over the stationary turning stations by FEZER offer a multitude of advantages. The vacuum technology can safely engage workpieces within seconds and release them after swivelling. Depending on the requirements turning times of up to 30 seconds can be realized. Individual designs can adjust the turning stations perfectly to your production processes and guarantee a rational and efficient process optimization

- Electrical turning of workpieces
- Control of all functions by push-buttons on a control panel
- Turning process by electric motors with automatic final position switch-off
- Integration of tensioning, movement or clamping attachments
- Electrical height regulation for adjustment to different widths during the turning process
- Individual construction adjustment for perfect process optimization



Height adjustment and FU-regulated swivel drive of a turning station



Control panel with all function buttons, main switch, and emergency-off



Regulation axis with pneumatic cylinder and precision guide elements

VacuStand VS-180E in Action

- 1 with height adjustment, both-sided swivel drive and pneumatical width adjustment
- 2 for turning 16.000 mm long lorry side panels with a weight of up to 1.600 kg
- 3 with lifting adjustment for turning sandwich elements

Working Stands

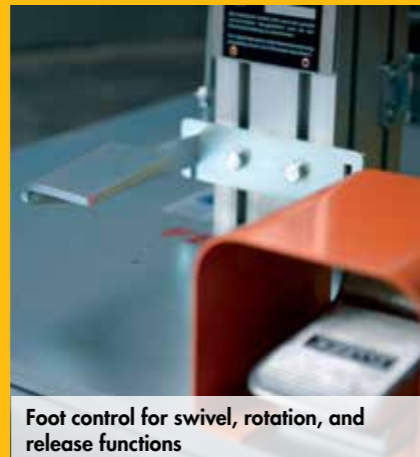
Application Examples and Details



VacuStand VS-I with pneumatical swivel attachment for installation of side and back windows on cars



VacuStand for power-independent operation with exchangeable batteries



Foot control for swivel, rotation, and release functions



Arrest module for swivelling and rotation motion

VacuStand VS in Action

- 1 VacuStand VS-I in mobile design with battery operation as power-independent assembly aid
- 2 Strictly pneumatically working VacuStand VS-I with ejector and pneumatical swivel attachment
- 3 VacuStand VS-I with glass pane in swivelled position
- 4 Mobile assembly aid for fenders with exchangeable batteries with electrical height and swivel attachment

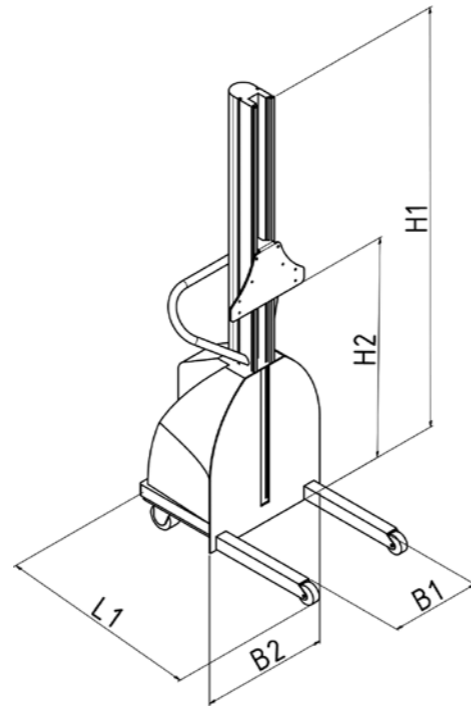
Working Stands

Mobilift ML

Mobile Working Stand with Lift Drive up to 200 kg

The new mobile working stands with lift drive have smooth load castors which allow an exact positioning of the device. By means of a rocking lever loads can be easily and comfortably lifted or lowered. Additionally the Mobilift devices can be equipped with vacuum technology and different movement axes; thus special handling operations can be carried out in a simpler and more rational way.

- Lifting aid for loads of all kinds
- Commissioning of workpieces
- Simple assembly aid
- Upgradeable with vacuum technology and different movement axes



Capacity (kg)	Type	Stroke H2 (mm)	Stroke (m/min)	Battery (VDC/Ah)	B1 (mm)	B2 (mm)	L1 (mm)	H1 (mm)	Own weight (kg)
100	MBL-125	80 ... 1.500	2	2x12 / 17	560	500	985	1.920	80
200	MBL-200	80 ... 1.500	2	2x12 / 40	560	500	985	1.920	100

Mobilift ML in Action

- 1 Mobilift for loading a welding machine with metal form parts
- 2 Handling of cover sheets with integrated vacuum technology and rotation attachment
- 3 Mobilift with integrated vacuum technology for fixation of steel containers



Vacuum Handling Technology, Issue 02/2013

The contents and technical details in this catalogue were compiled and verified with the greatest care. The information provided serves only the product description and is not to be regarded as confirmation of product characteristics or as a guarantee in the legal sense. Fezer is not liable for errors or typographical errors. All technical data were correct at the time of going to press.

All texts, illustrations, representations and drawings shown in this catalogue are the intellectual property of Fezer and subject to the protection of copyright. Any publication, duplication, translation or further processing in electronic systems is not allowed without the prior consent of Fezer. The designs are subject to changes serving technical progress.

Albert Fezer Maschinenfabrik GmbH
Hauptstrasse 37-39, 73730 Esslingen
Germany

Albert Fezer Maschinenfabrik GmbH
Hauptstrasse 37-39
73730 Esslingen/Zell
Telefon: +49 711 36009 0
Telefax: +49 711 36009 40
E-Mail: fezer@fezer.com

