




# Vaculex and Microlex

Efficient, versatile and user-friendly vacuum tube lifters





Our vacuum tube lifters are designed for lifts between 5 and 200 kg. They are simple to install, very easy to use and can be adapted to lift virtually any object.

## Good ergonomics is good economics

Repeated lifts do not have to be heavy to be both dangerous and costly. Most often, vacuum tube lifters lead to an increased work rate and better productivity. Costs for extended periods of sick leave are reduced and rehabilitation periods are avoided. Our tube lifters minimize that type of problem and also reduce the risk of accidents that can injure the user as well as damage the goods.

## Lift almost everything

With a vacuum tube lifter you can lift boxes, sacks, drums, sheet metal, computers, crates, barrels, TVs and much more – depending on equipment and accessories. The design consists of a pump, vacuum hose, lift tube, control unit and finally a suction foot or possibly a gripping tool which is adapted to your needs.

## Very easy to use

A vacuum tube lifter uses vacuum to grab hold of and lift the load in a single action; the controls are very easy to use and the vacuum tube lifter gently follows your own body movements, as if the lifted object were weightless. With a bottom swivel or an angle adaptor you can rotate or turn the lifted object any way you like, for instance in assembly work.

*Vaculex as a lifting tool in window production.*

*Lifting vertical glass panes for placement in horizontal window frames. The panes are turned 90 degrees using an angle adaptor.*



## Unique safety

Since the suction foot is always dimensioned in accordance with the vacuum lift tube, you don't risk dropping lifted objects that are too heavy. If the weight is too much, the tube lift will simply not lift it. This reduces the risk of personal injury and damaged goods. If the vacuum pump should stop, the depression is retained so that the load can be lowered in a controlled manner. If you are lifting with fixed gripping tools, Vaculex can also be fitted with our patented protection valve.

## Easy to install and service

The power source can either be an electric vacuum pump or a pneumatic vacuum pump. The system is normally installed in a jib or bridge crane, such as our light profile system, AluRail.

The installation is simple and is adapted to your particular lifting needs.

The vacuum tube lifters are made of extremely hard-wearing parts which seldom require service and repair.

*Vaculex as a lifting tool at a bakery.  
Lifting sacks of wheat from pallet to mixer.*



*Microlex as a lifting tool in engineering industry.  
Lifting plastic crates with customized fork tool.  
The crate is turned over and emptied using a ball-bearing fitted swivel.*



*Microlex as a lifting tool at a foundry.  
Lifting metal ingots from conveyor belt to pallet.  
The suction foot has no problem holding against the uneven surface of the metal, thanks to a special sealing gasket.*



*Microlex as a lifting tool in the food industry.  
Stacking boxes on pallets with customized suction foot in combination with customized control unit.*



*Vaculex as a lifting tool in the auto industry.  
Handling of air pressure chamber for brake system in busses.  
Curved suction foot matches the radius of the chamber.*



# Vaculex and Microlex

**Vaculex is our most heavy-duty vacuum tube lifter – a strong, versatile and user-friendly model for use with two hands and for lifts between 30 and 200 kg.**

Vaculex is available in six lift tube sizes, between 100 mm and 200 mm, with five different vacuum pumps and many accessories and suction feet for a virtually infinite number of combinations.

Normally, Vaculex is driven by an electric vacuum pump for best performance and flexibility but we can also provide pneumatic vacuum pumps if required.

**Microlex is a small, handy model, very easy to use because it can be operated with one hand. For loads between 5 and 30 kg. With a pneumatic vacuum pump the unit is very easy to install, since the pump is mounted on the top swivel. A number of electric vacuum pumps are available, if required.**



**Control unit with sound insulation and ergonomic handles.**

Microlex is one-hand operated and Vaculex is two-hand operated.

**Vacuum pump - electric or pneumatic.**

Various sizes of electric or pneumatic vacuum pumps are available. Microlex is equipped with a top swivel integrated ejector pump. All vacuum pumps are equipped with an efficient silencer as standard. The electric vacuum pumps for Microlex are equipped with a sound reduction box as standard. Available as an option for Vaculex electric pumps.



**Suspension eye.**  
Available in various models, to suit most of the jib or bridge cranes on the market.

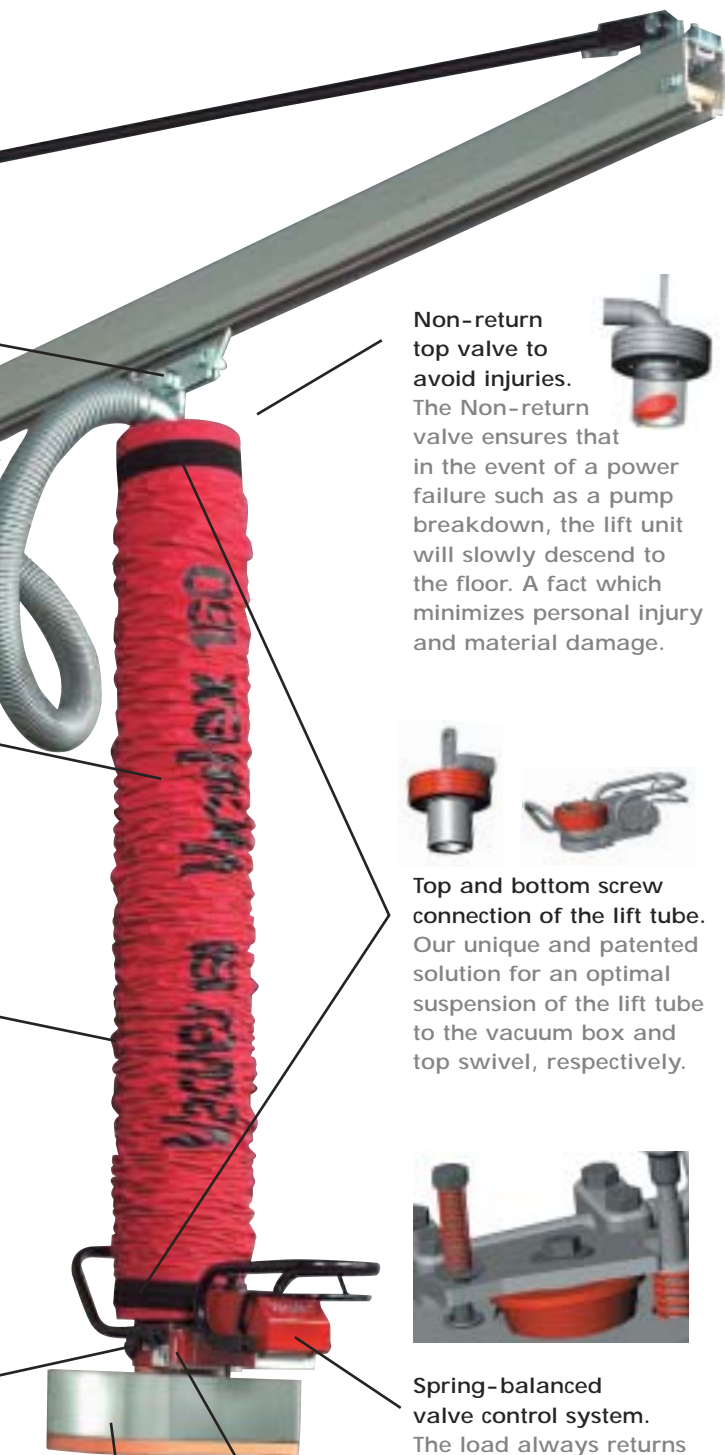
**Highest quality lift tube.**  
Our lift tubes, designed and manufactured to our own specifications, are of the highest quality. Long lasting and therefore supplied with a 3-year warranty.



**Effective protective stocking.**  
Our standard protective stocking is excellent protection against external abrasion of the lift tube.

**Efficient air filter.**  
Our standard filter canister increases the lifetime of the vacuum pump. As an option, an extra large air filter is available for dusty environments.





**Non-return top valve to avoid injuries.**  
 The Non-return valve ensures that in the event of a power failure such as a pump breakdown, the lift unit will slowly descend to the floor. A fact which minimizes personal injury and material damage.



**Top and bottom screw connection of the lift tube.**  
 Our unique and patented solution for an optimal suspension of the lift tube to the vacuum box and top swivel, respectively.



**Spring-balanced valve control system.**  
 The load always returns to the set height level, irrespective of where the operator leaves the control unit or in case of the control unit being accidentally handled.

**Suction foot with optimal safety.**  
 The tube lifters do not drop a load that they can lift and the lift tube will not lift if the load is too heavy. All standard suction feet are size-adapted to the lift tube that is being used, with a safety factor of at least 2.5. This means that the goods are attached to the foot with a suction force 2.5 times greater than the lifting capacity of the lift tube.

**Bottom protection valve for optimal safety.**  
 In case a load should break, the valve in the bottom of the vacuum head minimizes the risk of injury or damage, by opening instantaneously and thus decreasing the lifting force to a minimum.



## Life of the units

Vaculex and Microlex are basically impossible to wear out. We offer a three-year guarantee on all parts, including lift tube, except for wearing parts such as rubber sealing gaskets, filter inserts, drive belt for pump etc. Our first tube lift was installed more than ten years ago and is still in daily use.

## Safety

User safety is a key issue for us. For instance, we have a patented separate protection valve for fixed tools such as hooks or scissor grips. The valve prevents the lift from moving upward at high speed. Instead it stops almost immediately if the load breaks or is inadvertently released.

## Modular system for a secure investment

The tube lifters are based on a modular system for maximum flexibility and a secure investment. For instance, the lift tube can be changed depending on the lifting capacity required. With the Vaculex you can also change between an extended control unit and a short, normal one. It's currently the only vacuum tube lifter on the market with this option.

## High-demand environments

We have adapted our lift units to function in the most varied environments. They are available in acidproof versions in class A4 for chemical, food or pharmaceutical industry. For work in explosive environments we have specially-adapted vacuum pumps or as an alternative we also offer a pneumatic vacuum pump.



# Vaculex

A selection of accessories



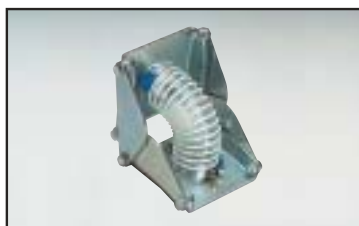
Yoke foot with two adjustable feet. Suitable for cardboard boxes with divided lid, materials in sheet form, etc. A large range available.



Yoke foot with four adjustable feet. Suitable for long, thin materials like steel sheets, board sheets etc. A large range available.



Curved suction foot. For lifting tubular frames, axles, drums etc. Available in customized sizes.



Angle adaptor. Suitable for moving, for instance, sheet metal from a horizontal to a vertical position or vice versa.



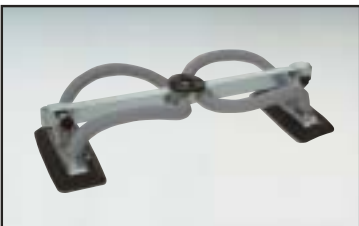
Sound reduction box. Available for all electric pump sizes.



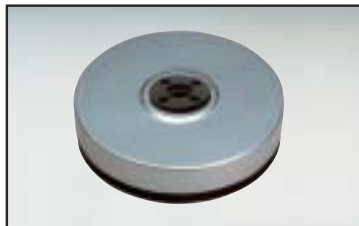
Large dust filter. Useful in dusty environments.

# Microlex

A selection of accessories



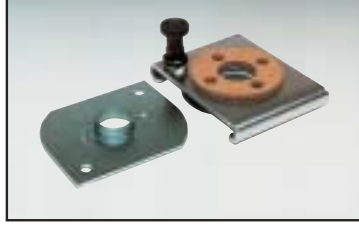
Yoke foot with two adjustable feet. Suitable for cardboard boxes with divided lid, sheets etc. A large range available.



Round suction foot. Suitable for handling cans, drums, stones, bricks etc. Several diameters available.



Bottom Swivel. To rotate the goods 360° while keeping the control unit in a fixed position. Useful when placing cartons in a certain pattern on a pallet etc.



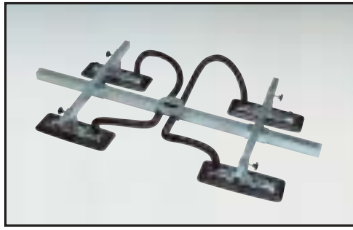
Quick disconnection. Bayonet joint type. Upper and lower part. For fast and simple change of suction feet/tools.

## Accessories.

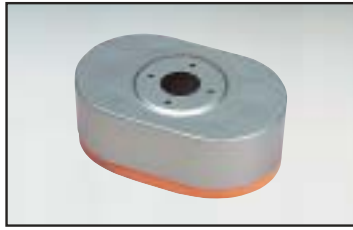
Vaculex have a large selection of standard accessories, which allows us to customize an appropriate solution to the most varied requirements. Since our systems are modular, it is also easy to make additional acquisitions at a later stage.

## Suction Feet

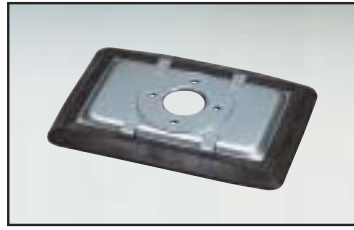
The suction foot is one of the most important parts of the complete solution. Vaculex have a large number of different suction feet to suit most types of materials. If a standard suction foot is not suitable, we can always offer a customized solution.



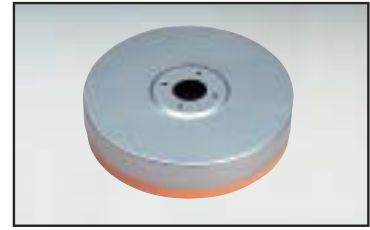
Cross yoke foot, (H-shaped), with four adjustable feet. Suitable for large steel sheets, board sheets etc. A large range available.



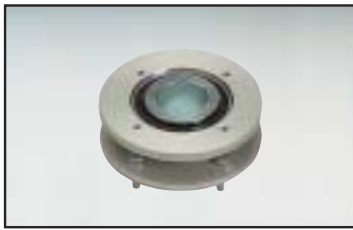
Oval suction foot. Principally for handling sacks but also suitable for plastic shrink-wrapped goods. Available in several sizes.



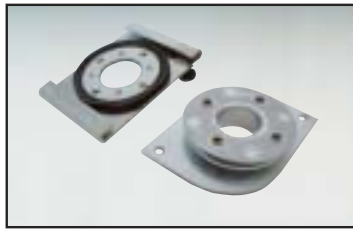
Rectangular suction foot. For handling goods with sealed surfaces such as cardboard, sheet metal, plate, etc. Many sizes available.



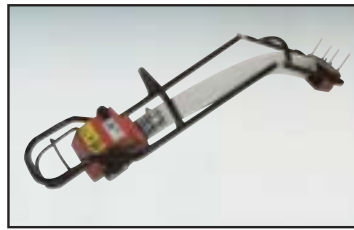
Round suction foot. Suitable for handling cans, drums, stones, bricks etc. Several diameters available.



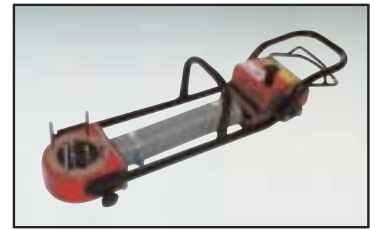
Bottom Swivel. To rotate the goods 360° while keeping the control unit in a fixed position. Suitable when placing boxes in a certain pattern on a pallet.



Quick disconnections. Bayonet joint type. Upper and lower part. For fast and simple change of suction feet/tools.



Flexible extended control unit. Useful when stacking goods high up on a pallet etc. Available in various lengths.



Rigid extended control unit. Useful when handling wide goods. Available in various lengths.



Protection valve. For safe lifts using fixed hooks/tools. Fitted between the lift tube and the vacuum head. Immediately eliminates the depression inside the lift tube, if the load is released inadvertently.



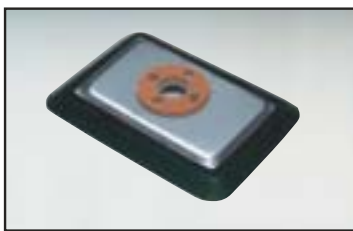
Universal joint. Fitted in between the lift tube and the vacuum head. Keeps the lift tube in a vertical position if load becomes unbalanced.



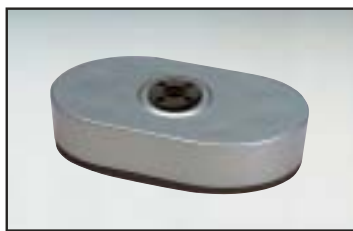
Release valve for standard control unit. Facilitates load releasing when large suction feet are used, for instance during vertical handling.



Release valve for extended control unit. Facilitates load releasing when large suction feet are used, for instance during vertical handling.



Rectangular suction foot. For handling goods with sealed surfaces such as cardboard sheet metal, plate etc. Many sizes available.



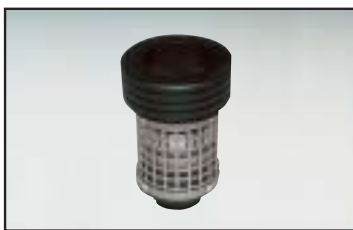
Oval suction foot. Principally for handling sacks but also useful for plastic shrink-wrapped goods. Available in several sizes.



Fixed yoke suction foot with bellow cups. Useful for rough surfaces or on surfaces with differences in levels. Various models available.



Angle adaptor. Suitable for moving, for instance, sheet metal from a vertical to a horizontal position or vice versa.



Protective valve. For safe lifts using fixed hooks/tools. Fitted between the lift tube and the vacuum box. Immediately eliminates the depression inside the lift tube if the load is released inadvertently.



Flexible extended control unit. Useful when stacking goods high up on a pallet etc. Available in various lengths.



Rigid extended control unit. Useful when handling wide goods. Available in various lengths.



Release valve. Facilitates load releasing when large suction feet are used, for instance during vertical lifts. Available for standard as well as extended control unit.

# Can you predict the risk of injuries<sup>1</sup>

Since Vaculex started operations almost twenty years ago, our aim has been to produce the most ergonomic, safe and dependable vacuum tube lifters in the world. We have focused on two things:

- Minimizing injuries caused by weights, poor working positions and high work rates.
- Increasing productivity.

Among other things, we have conducted a number of analyses on different types of lifts with the help of NIOSH (National Institute for Occupational Safety and Health – Michigan, USA), a method which analyses different lifts, weights and work rates. With the help of NIOSH we can easily predict where injuries will occur.

For instance it can be shown that light loads such as 10-15 kg (22-33 lbs), at a normal work rate, can cause serious repetitive strain injuries.

For detailed information on different lift analyses, contact your Vaculex distributor.



**Ex 1. From pallet to table with a twist**

10 kg (22 lbs) box, 1 lift/hour = 14% get injuries within 2 years.  
15 kg (33 lbs) box, 1 lift/hour = 41% get injuries within 2 years.



**Ex 2. Lifting box from table to high location with a twist.**

10 kg box (22 lbs), 1 lift/hour = 25% get injuries within 2 years.  
15 kg (33 lbs) box, 1 lift/hour = 58% get injuries within 2 years.

## What do we stand for<sup>1</sup>

Vaculex AB is a world-leading manufacturer of lifting aids based on vacuum technology.

Our aim is twofold: to facilitate your work in a purely physical sense - with a focus on efficiency, ergonomics and safety; and to make it easier for you, before, during and after purchase, by way of our knowledge, experience and positive approach.