

**Optimas<sup>®</sup> Vacuum**

# LIFTING-TECHNOLOGY



Optimal for professionals!

## For the really heavy cases ...

„Nothing is too difficult for the engineer“... that's what our tinkerers thought and that's how we came up with our ingenious system for lifting and laying the heaviest stones and slabs as easy as child's play - as if by magic!

The integrated vacuum tube lifting technology enables the setting of heavy concrete and natural stone elements (e.g. curbs and gutters, concrete and natural stone slabs, paving stones, wall stones ... etc.)

The Vacu-Pallet-Mobil even takes care of pallet transport (1,600 kg). With the material in place, you can get started: with floating ease, meticulous and extremely economical. This com-

ination of transport and laying technology guarantees optimal logistics and thus effective work. **On top of that, this is the best health care for your employees.**

Due to its compact design, this device can be transported on a car trailer.



**Main purpose of use**  
Road construction - for installing curbs and gutters.

### Advantages of Optimas Vacu-Pallet-Mobil

- Pallet transportation up to 1600 kg weight and 1320 mm width.
- Compact design and low weight ensure easy transport.
- The undercarriage with rubber tracks makes it easy to maneuver even in difficult terrain.
- The mast can be hydraulically balanced in a flash.  
**Optional: Automatic mast alignment**
- **Duo system as standard:** Vacuum pump unit can be easily dismantled and used independently as a Vacu-Magnet. Simply mounted in the Vacu-Magnet frame (optional) and lift weights up to 1000 kg.

### Optionally available:

With our pallet loading device we offer an easy loading and fast transportation possibility. Due to the mobile mounting on the forks, the Vacu-Pallet-Mobile can be picked up easily and moved quickly.



## Suction power for all loaders!

Optimal for saving foxes!

You have a wheel loader and need to lift and install heavy slabs? Perfect, then all you need is the Optimas Vacu-Lift to make your employees life easier!

The attachment is suitable for all loader types with fork carrier plate and forks and is the affordable alternative to the Vacu-Pallet-Mobil. In cooperation with the wheel loader, the Vacu-Lift not only takes care of pallet transportation - with the tube lifting technology, material installation becomes a profitable business. Because vacuum is not nothing, even if working with this system feels like it.

Paving stones, sidewalk slabs, large elements made of concrete or natural stone - with the Optimas Vacu-Lift, many things can be moved from A to B and also installed directly there.



**Main purpose of use**  
Road construction - for installing curbs and gutters.

### Advantages of Vacu-Lift

- Optionally with hydraulic drive, gasoline or diesel engine.
- Suitable for all loader types with fork carriage plate and forks
- Transport of pallets
- **DUO system as standard (only with Vacu-Lift H):** vacuum pump unit can be easily dismantled and used independently as a Vacu-Magnet. Simply mounted in the Vacu-Magnet frame (optional) and lift weights up to 1,000 kg.



Optimal for landscaper!

## Completely weightless ...

„The earth’s gravity has been overcome.

Vacu-Mobil Allrounder is the perfect partner for smaller construction sites and garden landscape construction.

Our Allrounder copes with rough terrain and cramped sites with ease.

Take off with the integrated technology: Curbs, concrete slabs, natural stone slabs, paving stones, large pavers, gutter slabs, wall stones ...

The material to be processed is laid completely weightlessly with the vacuum tube lifter. This almost ensures workflows at the speed of light and

takes the strain off your employees’ backs. Gardeners and landscapers in particular appreciate the compact design.

With this colleague at their side, your employees will set new records.

The Optimas Vacu-Mobil Allrounder can be easily transported by car on a trailer to the next job.

### Main purpose of use

Ideal for confined construction sites in the garden and landscaping sector. For installing up to 12 paving stones per operation and placing concrete and natural stone slabs and elements.



### Advantages of Optimas Vacu-Mobil Allrounder

- The undercarriage with rubber tracks allows the unit to be manoeuvred easily in rough terrain.
- Due to the compact design (width 920 mm) no passage is too narrow.
- Due to the 4 hydraulically controllable support feet, the device can be easily balanced and offers a safe stand.

Technical data, accessories and general advantages of the tube lifters see page 6 + 7. Suction pads see page 10 + 11.

Optionally available: Protective shoes for support legs (30 x 30 cm)



Super-silent!

## Suction almost noiseless...

You won't believe your eyes and ears: whirring quietly, the electrically powered Optimas Vacu-Mobil lifts heavyweight stones and slabs and deposits them elegantly where you want them.

The low-noise vacuum generation with electric motor makes the device particularly suitable for locations where the lowest possible noise emissions are required, such as in pedestrian zones. Increasingly, e-mobility is also becoming a criterion in municipal tenders. With the Optimas Vacu-Mobil E, you'll be well ahead of the game when it comes to awarding your next contract.

The Vacu-Mobile E takes over the precise and economical installation of one concrete element after the other as quiet as a whisper and as light as a feather, while protecting the joints and hearing of your employees.



Quickly stowed on the car trailer, the Vacu-Mobile E doesn't make much fuss during transport either.

### Main purpose of use

Pedestrian zone and Residential areas

### Advantages of Vacu-Mobil E

- Very quiet due to electric motor.
- Due to the 4 hydraulically controllable support feet, the device can be easily balanced and offers a safe stand.

Technical data, accessories and general advantages of the tube lifters see page 6 + 7. Suction pads see page 10 + 11.

Optionally available: Protective shoes for support legs (30 x 30 cm)



# Worldwide on construction sites since 2009

## General advantages

- Weightless, accurate, economical installing of curbs, concrete slabs, natural stone slabs, large pavers, gutter slabs, wall stones, concrete pavers, etc.
  - Paving of up to 12 stones in one go.
  - Very robust and dirt-resistant control unit (maintenance-free).
  - The foldable boom arm allows smooth laying on confined construction sites, e.g. along house walls or rows of trees.
  - The boom can be folded very easily by one person in just a few minutes.
- Almost no set-up time is required, resulting in a very compact unit for transport and storage.
- The suction pads can be replaced very quickly and conveniently thanks to a simple quick-change system.

## Convincing arguments

- **Versatility!**  
Regardless of type, size, weight - a huge variety of stones, slabs, curbs, elements can easily be handled. Ideal for many industries, such as road construction and civil engineering, gardening and landscaping, paving and many more.
- **Simple operation!**  
After 5 minutes of training on the device your employee is already in top form.
- **Fast amortization!**  
With e.g. 60 meter curbs per hour, the value of the machines is quickly paid off. No matter what material is to be laid, cycle times of less than one minute are no problem.
- **Healthy work!**  
Fewer days of absence due to less physical exertion.
- **Motivated employees!**  
Your team will enjoy lifting weights with ease and really getting things done.
- **Modern technology = Attractive employer!**

**Health and safety bonus on curb stone installation equipment!**

In many countries, there are significant public investment subsidies from health insurance companies or associations for the use of back-friendly equipment.

# Paving and slab laying

## Joint spacing aid

The Optimas joint spacing aid enables large formats to be laid with vacuum at a precisely predetermined spacing. The time-consuming use of jointing irons or other aids is no longer necessary. Another positive effect is that the joint spacing aid can be used as a stop when suctioning the slabs from the package. The suction pad is therefore always centered on the slab. Depending on the plate size, 2 - 3 pieces are needed.



Each set joint spacing aid is supplied with 3 spacers in the following thicknesses: 3, 4 and 8 mm. These spacers are very easy to replace.

Maintaining correct joint widths and a permanently complete joint filling are the most important conditions for a load-bearing and stable pavement.

Depending on the nominal thickness of the paving stone, the following joint dimensions are valid:

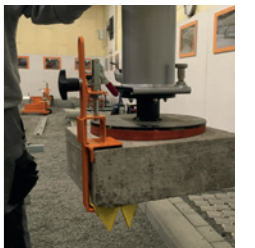
Nominal thickness < 120 mm: minimum 3 mm, maximum 5 mm.

Nominal thickness ≥ 120 mm: at least 5 mm, maximum 8 mm

## Ankerfix „Solo / AP“

(Utility model protection No. No. 20 2014 009 734.8)

Clamping device to install displacement protection anchors directly during the laying of large slabs made of concrete or natural stone.



The installer who lays large format slabs with mechanical clamps simply uses the „Optimas - Ankerfix Solo“ clamping device and clamps the displacement lock (anchor) directly to the slab before laying.

If the installer is laying large format slabs with Optimas vacuum equipment, he uses the „Optimas-Ankerfix AP“ device.

This is mounted directly on the suction pad and holds the displacement lock (anchor) by means of a magnet. With both devices, the anchor is placed in the specified position by the effect of gravity directly when the slab is laid.

In case of high traffic loads caused by accelerating, braking, cornering or maneuvering vehicles on traffic areas with slabs and large paving stones, the FGSV research association permits displacement safety devices using anchor technology as the so-called state of the art. According to the FGSV information sheet MFG/R2 of 16.01.2014, displacement protections serve to protect against the forward displacement of row and mixed units in non-directional traffic.

## Technical Data:\*

	Optimas Vacu-Pallet-Mobil	Optimas Vacu-Lift	Optimas Vacu-Mobil Allrounder	Optimas Vacu-Mobil E
Outrigger arm load capacity (kg)	140 (with reduced range 200)	140 (with reduced range 200)	140 (with reduced range 200)	140 (with reduced range 200)
Length of outrigger arm (mm)	3.000	3.500	3.000	3.000
Working radius (mm)	6.000	7.000	6.000	6.000
Swivel range	360°	360°	360°	360°
Dead weight (kg)	1.300	H = 400 / P = 430 / D = 510 depending on drive	900	740
Drive	<b>Diesel engine:</b> noise-reduced Hatz Silent Pack, 1 cyl, 13 HP, 9.6 kW with electric starter and hour meter alternatively. <b>Petrol engine</b> Vanguard 3054 V-Twin 479cc, 16 HP	<b>Typ „H“ – hydraulic drive</b> <b>Typ „P“ – gasoline engine:</b> Honda GX 270, 6 kW, 8 HP, with electric starter <b>Typ „D“ – diesel engine:</b> Yanmar, 4,4 kW, 5,9 hp, with electric starter	<b>Gasoline engine:</b> Vanguard 400; 14 hp, 10.4 kW	<b>Electric motor</b> <b>Hydraulic pump:</b> 3 phases 400 volt, 0,37 kW, 210 bar max. <b>Vacuum pump:</b> 3 phases 400 volts, 2.2 kW, 0,65 bar max. vacuum
Optional	Automatic mast alignment			
Transport dimension	L = 2.260 mm, W = 1.850 mm, H = 2.100 mm	L = 2.230 x W = 1.330 x H = 2.100 mm	L = 2.800 x W = 1.050 (790) x H = 2.100 mm	L = 2.473 x W = 876,3 x H = 2.114 mm





### Traverse

Art.-No.	
54756	Multi-suction pad traverse without suction pads

### Suction pads (for traverse)

Art.-No.	
54774	Suction pad Ø 150 mm for multi-suction pad traverse
54784	Suction pad Ø 200 mm for multi-suction pad traverse
55290	Suction pad Ø 200 x 200 mm for multi-suction pad traverse
55272	Suction pad Ø 280 x 150 mm for multi-suction pad traverse
55229	Suction pad Ø 280 x 180 mm for multi-suction pad traverse

### Suction pad round

Art.-No.	
52232	Suction pad Ø 200 mm
52308	Suction pad Ø 420 mm
52518	Suction pad Ø 500 mm

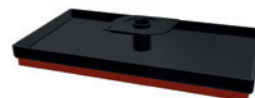
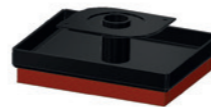
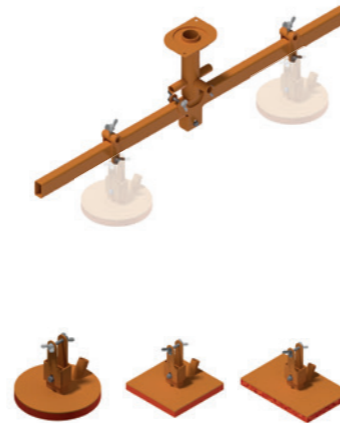
### Ansaugplatte quadratic

Art.-No.	
52378	Suction pad 290 x 290 mm
52243	Suction pad 370 x 370 mm

### Suction pad rectangular

Art.-No.	
53457	Suction pad 300 x 200 mm
53540	Suction pad 390 x 240 mm
55216	Suction pad 460 x 220 mm
53519	Suction pad 480 x 240 mm
52303	Suction pad 500 x 150 mm
52348	Suction pad 500 x 250 mm
52326	Suction pad 500 x 300 mm
52294	Suction pad 550 x 350 mm
105569	Suction pad 850 x 150 mm
54074	Suction pad 900 x 100 mm

Sample views



### Suction pad for curbs

Art.-No.	
52198	Suction pad high kerbs (900 mm)
52178	Suction pad high kerbs (450 mm)
53945	Suction pad low kerbs (900 mm)
54059	Suction pad low kerbs (450 mm)
52241	Suction pad round kerbs R2-R5 (900 mm)
52205	Suction pad round kerbs R2-R5 (450 mm)
52179	Suction pad round kerbs R5-R9 (900 mm)
51984	Suction pad flat kerbs F10 (900 mm)
52262	Suction pad flat kerbs F15 (900 mm)

### Suction pad separable (for installing gutter stones with the desired distance)

Art.-No.	
55174	Suction pad separable for 5/7 gutter stones (160 x 160 mm = 7 stones   160 x 200 mm = 5 stones)

### Suction pad movable (lift 2 rows of stones and move them into 1/2 or 1/3 bond)

Art.-No.	
55362	Suction pad for 12 stones 200 x 100 mm (2 rows of 6 each) move in 1/2 bond
55361	Suction pad for 12 stones 200 x 200 mm (2 rows of 6 each) move in 1/2 bond
55330	Suction pad for 8 stones 300 x 150 mm (2 rows of 4 each) move in 1/2 bond
55363	Suction pad for 8 stones 300 x 200 mm (2 rows of 4 each) move in 1/3 or 1/2 bond

### Suction pad tiltable (lift concrete slabs vertically and install them horizontally)

Art.-No.	
105625	Suction pad Ø 390 mm with tilting mechanism for concrete slabs 500 x 500 mm

### Suction pad for troughs stone & L-stone - on request

### Other

Art.-No.	
53561	Holder including quick coupler for mechanical clamps
53750	Mechanical clamp including quick coupler for grass pavers

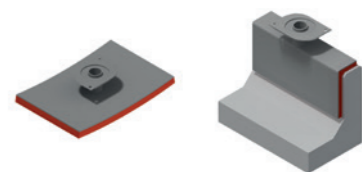
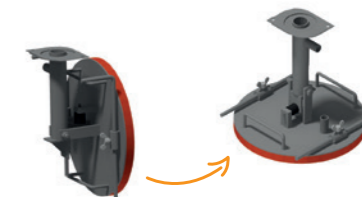
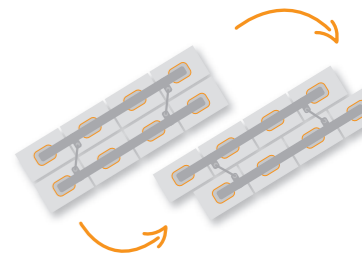
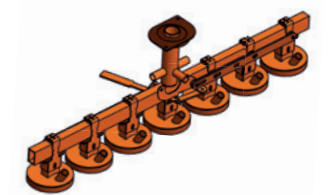
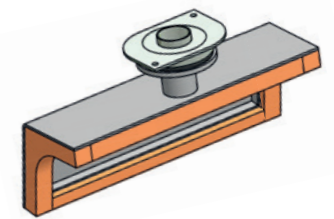
### Lifting tube

As standard, we use lifting tubes with a diameter of 230 mm. This is the ideal diameter for installing curbs. Almost each Lifting tube diameter is available. Which diameter is best suited for your application must be clarified during consultation.

### Possibilities „almost“ unlimited

Please tell us your desired application and we will clarify the technical details and possibilities. Special designs can usually be realized quickly after knowing the technical requirements.

Sample views



# Optimas® Paving Specialist

**Due to the consistent further development of innovative ideas, the use of state-of-the-art production technology and the holistic support of our customers, we are the world's No. 1 contact in our market segment!**

**Pioneering technology through visionary engineering since 1978.**

**Come visit us:**

**You would like to test Optimas vacuum technology?**

Experience our visitor and training center in Ramsloh or our experience world at Coreum. Here we will be happy to demonstrate Optimas equipment „live“ in operation!

Test Optimas equipment by yourself.



Optimas Visitor and Training Center Ramsloh



Model construction site at Coreum, Stockstadt a. R.

Represented by

*Contact us!*



**Optimas®**  
Over 40 years of inventiveness!

Paving Specialist

Optimas Maschinenfabrik · H. Kleinemas GmbH  
Industriestraße 12 · 26683 Saterland-Ramsloh

Tel.: +49-(0) 4498 / 92 42-0

Fax: +49-(0) 4498 / 92 42-42

e-mail: [info@optimas.de](mailto:info@optimas.de) · [www.optimas.de](http://www.optimas.de)



Visit us at    