

Vacuum Stonemagnet SM

Handy, powerful and cordless vacuum lifting device for laying of dense stone slabs, concrete elements, pipes and similar. Can be used on all kind of lifting equipment.

- ▶ Specially designed and equipped for heavy duty work on the construction site.
- ▶ For special purposes, there are different suction plates available, which can be attached to the SM easily.

Standard Specifications:

- ▶ Robust and compact main body, with integrated suspension for crane hook and quick change device for the suction plate.
- ▶ Powered by rechargeable, exchangeable 12 V battery. Power saving control system makes battery lasting for one whole working day. Battery can be exchanged within seconds. Battery charge indicator.

- ▶ Security features: Flashing light to warn on insufficient low pressure, automatic control system to start the vacuum pump after loss of pressure, manometer, high volume vacuum storage tank.

- ▶ Standard suction plate 580 x 280 mm with special seal system, exchangeable within seconds without the use of glue or tools. No damage to the seal when setting on sharp edges for long time (no "supports" necessary).

Special features:

The SM is equipped with 2 vacuum-pumps as standard. When handling dense products, only one pump is used. On slightly porous material, or when quick cycle time is required, the second pumpe can be switched on by the TURBO switch.

Vacuum Stonemagnet SM 200 - complete unit -

Type	Drive	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Suction Plate Dimension mm (in)	Order-Number
SM 200	by 12 V battery	200* (440)*	38 (85)	ca. 580 x 280 (22 ³ / ₄ " x 11")	S-5272.0001

Lifting device complete with suction plate SPS 200 SM for 200 kg (440 lbs) lifting capacity.

Vacuum Stonemagnet SM - basic unit -

Type	Drive	Dead Weight kg (lbs)	Suction Plate	Order-Number
SM	by 12 V battery	35 (78)	without suction plate	5272.0002

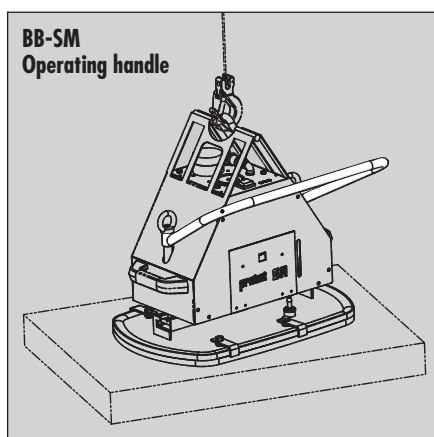
Basic unit without suction plate.

Accessories

Type	Description	Order-Number
SPS 75 SM	Suction plate, carrying approx. 75 kg* (165 lbs)* Dimensions approx. 300 x 200 mm (11 ³ / ₄ " x 7 ³ / ₄ "	4272.0009
SPS 200 SM	Suction plate, carrying approx. 200 kg* (440 lbs)* Dimensions approx. 580 x 280 mm (22 ³ / ₄ " x 11")	4272.0001
SPS 400 SM (for heavy loads)	Suction plate, carrying approx. 400 kg* (880 lbs)* Dimensions approx. 750 x 260 mm (29 ¹ / ₂ " x 10 ¹ / ₄ "	4272.0002
Spare storage battery	27 Ah, 12 V	2420.0008
Battery charging device LG	Battery charging device, 220 V/12 V Overload protection	2420.0009
Operating handle	(also for retrofitting)	4272.0063
Replacement seal	for SPS 200 SM	4272.0004
Easy to attach without glueing!	for SPS 400 SM	4272.0005

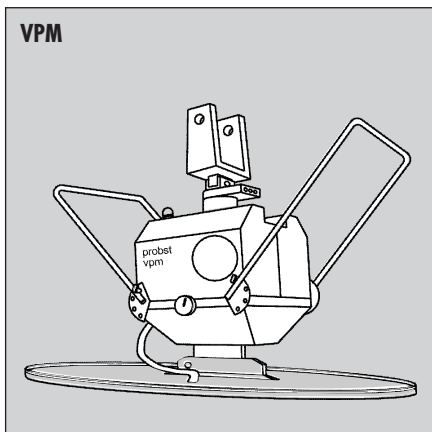
Special suction plates, for example for pipes, on request.

* Value at 500 mbar low pressure



Technical data contained in this catalogue can be modified without prior notice in the interest of progress.

VPM



Vacuum-Power-Max VPM

For easy handling (attaching, lifting, transporting, laying) of all kinds of concrete and natural stone elements. Carrying capacity 2,500 kg. The VPM can be quickly attached to all different types of lifting equipment just requiring one hydraulic circuit.

Advantage: No installation of electric cables necessary to control the function of "Gripping" / "Releasing".

The integrated automatic release operates the valve just by lifting and lowering the device. That means, no manual operation required, no installation of electric cables or even remote controls needed at all. The driver of the lifting equipment is able to position the VPM on the surface of the product which should be handled, lift up the product, lay down on its final position and release the vacuum. This means enormous time savings!

Standard equipment includes:

- ▶ Powerful robust hydraulic drive.

- ▶ Powerful vacuum pump, also for porous products.

Security features in 2 steps:

- Large vacuum storage tank with non-return valve.
- Large manometer well protected.
- ▶ Automatic release
- ▶ Foldable handle, also used for positioning on the ground.
- ▶ Body completely galvanised.
- ▶ Handy, compact design.

Requirements for hydraulic operation:

- Max. flow 80 l/min.
- Min. flow 20 l/min.
- Max. pressure 200 bar
- Min. pressure 120 bar
- Max. back pressure in return line 20 bar
- Operating lever in the cabin with lock pin to achieve continuous oil flow.

Different suction plates and spreader bar see type list 2.5.

Vacuum-Power-Max VPM 2500 h for Operation on Excavators

Type	Description (inklusive)	Power	Carrying Capacity kg (lbs)	Dead-Weight kg (lbs)	Order-Number
VPM 2500 h*	automatic release, battery-driven warning device with flashing light, extended, foldable handles	hydraulic	max. 2,500** (5,500)** depending on suction plate	98 (215)	5241.0002

Vacuum-Power-Max VPM 2500 h for Operation on Paver Laying Machine VM203/204 ROBOTEC

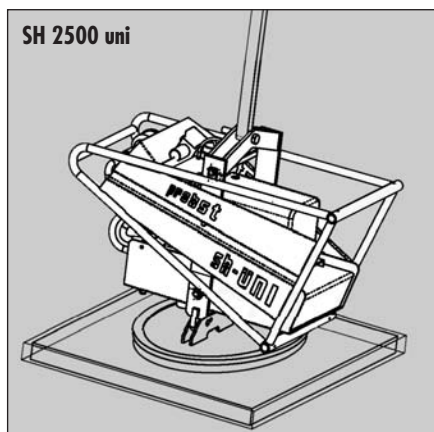
Type	Description (inklusive)	Power	Carrying Capacity kg (lbs)	Dead-Weight kg (lbs)	Order-Number
VPM 2500 h*	automatic release, short, foldable handles	hydraulic	max. 2,500** (5,500)** at VM 203/204 300** (660)** with counter-weight 350** (770)** depending on suction plate	98 (215)	5241.0004

UBA 3000					4140.0088
Rotator Indexator					2250.0001
Special hydraulic restrictor for Rotator Indexator					4190.0011
Chain suspension					4011.0123
HD connection-hose	2,500 mm long				2200.0014
HD connection-hose	600 mm long				2200.0093
Standard plate with ring for transport					4011.0076
Set for later equipment in permanent vacuum use – Extension of hydraulic at VM 203					4150.0275

Please take information on combinations from our data-sheet V050-V050D001. Ask for it !

* Device without suction plate and attachments

** Value at 600 mbar low pressure



Vacuum Lifting Device SH for Heavy Loads up to 2,500 kg

For the easy and efficient handling and laying of natural stone, concrete and marble slabs, pipes and steps, etc

- ▶ Specially designed and equipped for heavy-duty work on the building site.
- ▶ Can be hung from any carrier by means of load hooks, chains, cables and such like.
- ▶ Can be adapted by means of additional devices such as the Micro MJ and used to lay lighter slabs (such as patio blocks).

▶ Efficient, flexible operation with no compromise on safety.

▶ In seconds, various suction plates can be fitted to the SH via a quick release locating pin, enabling it to be used for many different purposes and with many different loads.

▶ A generator can be set directly onto the device by means of a special frame suspension.

Technical Data/Range of Delivery

▶ **Main Body** – robust and compact for use on the building site.

▶ **Carrying Capacity**

Type SH 2500 uni up to 2,500 kg at -0.6 bar. The carrying capacity is dependent on the suction plate used. Higher carrying capacities available on request.

▶ **Safety Devices**

1. Vacuum gauge
2. Safety vacuum storage tank
3. Pressure relieve valve
4. Acoustic warning device

▶ **Various Means of Power**

eW = electric, 230 Volt, single phase

b = by integral petrol engine

▶ Operating handle in ergonomic position.

▶ Motor-protecting switch, "Schuko" connector including connecting plug (only for SH 2500 uni eW).

▶ Manually operated valve for vacuum "on/off".

Please note:

In no time the SH can be adapted using the Micro-Jumbo MJ attachments for laying slabs by hand. Smaller components of stone and concrete slabs, 15 up to 150 kg – can then be safely transported and laid (see page 2.6 + 2.7).

Type	Power	Carrying Capacity kg (lbs)	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH 2500 uni eW	electric, 230 Volt single phase	2,500* (5,500)*	92 (200)	5240.0012
SH 2500 uni b	integral petrol engine	2,500* (5,500)*	100 (220)	5240.0011

Vacuum Lifting Device SH 2500 uni b TURBO:

This type was specially designed for picking up very porous elements. The device is equipped with an extremely powerful vacuum pump.

Otherwise equipped as SH 2500 uni b, but with more powerful engine.

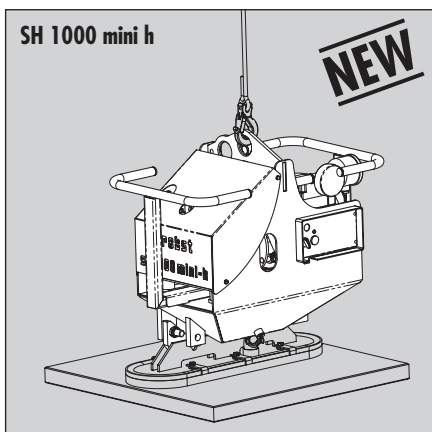
Type	Power	Carrying Capacity kg (lbs)	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH 2500 uni b TURBO	integral petrol engine	2,500* (5,500)*	110 (242)	5240.0014

▶ **Extended carrying capacity on request!**

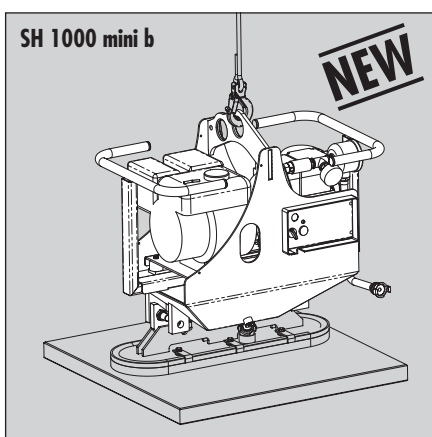
Suction plates and additional beneficial attachments see type list page 2.5 – 2.7

* Value at 600 mbar low pressure

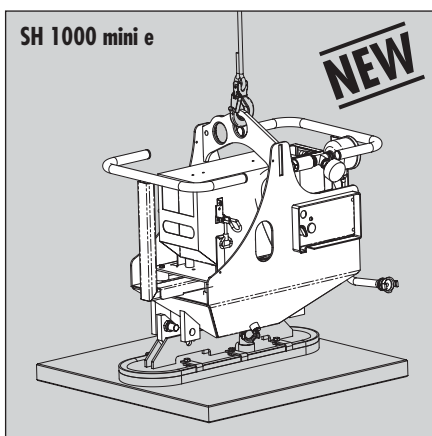
SH 1000 mini h



SH 1000 mini b



SH 1000 mini e



Vacuum Lifting Device SH 1000 mini For Loads up to 1,000 kg

For efficient and safe handling and laying of heavy loads up to 1,000 kg, such as granite slabs, dense concrete elements, marble slabs, kerb stones, steps, pipes etc.

- ▶ Can be hooked in to any carrier or laying machine VM by means of load hook, chain, hoisting cable or similar
- ▶ All-purpose lifting device
- ▶ Huge ease of work
- ▶ Enormous benefit in economization
- ▶ One-man operation
- ▶ Ingenious technology down to the smallest detail
e.g. the vacuum device can be positioned off-centre on the load, so that pins fixing the plumb line won't be displaced when laying kerb stones.
- ▶ By means of rapid change fasteners different suction plates can be attached to the SH within seconds for varying kinds of applications, various slab dimensions and weights.
- ▶ SH 1000 mini h - with integrated hydraulic switch over from suction to release actions to be effected directly from the driver's seat. For operation only one (1) hydraulic circuit is needed.

▶ SH mini b and e – are equipped with a manually operated valve for tripping suction and release sequences.

▶ Max. carrying capacity up to 1,000 kg at -0,6 bar. (always dependent on the size of suction plate attached).

▶ Central load balancing through two variable upper suspensions and adjustable attachment of suction plates

▶ Generation of suction through powerful vacuum pump 12 cbm/h.

▶ Operating handles are arranged in ergonomic position for convenient direction and handling. Handles can easily be rearranged into a rack to put down the device on the ground properly.

▶ Compact design

Engineered Safeguard:

Triple safety concept:

- integrated vacuum storage tank
- visual checking via pressure check valve with red-green-area
- battery powered acoustic warning device

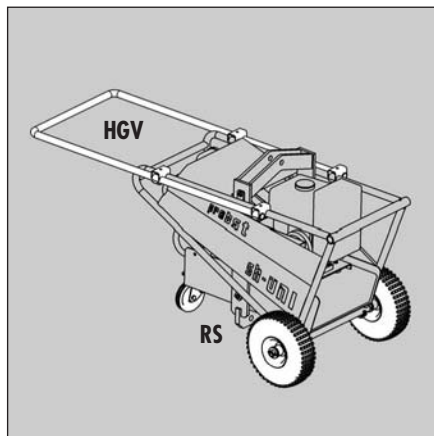
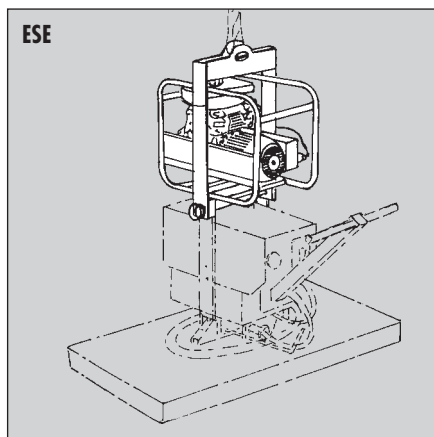
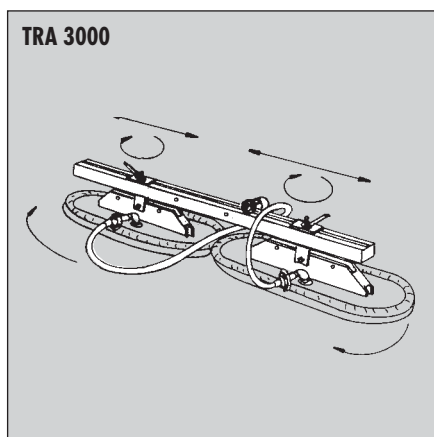
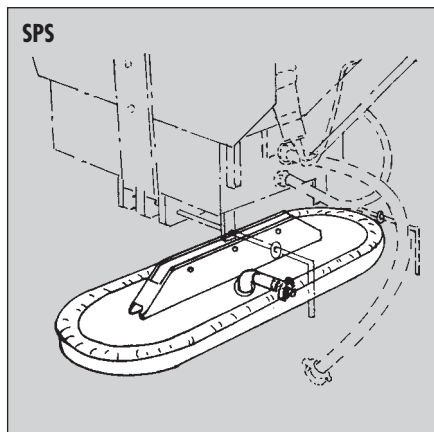
Type	Power	Carrying Capacity** kg (lbs)	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH 1000 mini h	hydraulic	1,000 (2,200)*	90 (200)	5240.0019
SH 1000 mini b	integral petrol engine	1,000 (2,200)*	115 (255)	5240.0018
SH 1000 mini e	electric, 230 Volt, 50 Hz, single phase	1,000 (2,200)*	83 (185)	5240.0020

* Value at 600 mbar low pressure · ** dependent on the size of suction plate

Suction plates and additional beneficial attachments see type list page 2.5 – 2.7

Please note:

SH mini h and SH mini b can be additionally equipped with a hydraulic rotator.
Advantage: loads can be laid down enormously easy and accurate directly from the driver's seat.



Attachments for Vacuum Lifting Device SH

For different jobs we recommend special suction plates. All suction plates can be changed by means of a quick release coupling (modular

principle). The carrying capacities depend on the size of the suction plate.

Suction Plate SPS for Lifting Device SH/Power Max VPM

The Probst special foam-rubber seal is suitable for all types of materials:

▶ Particularly good with uneven surfaces.

▶ Extremely durable.

▶ Changed in a flash: take the old one off, put on the new one – finished!

Type	Length mm (in)	Width mm (in)	Shape	Carrying Capacity kg (lbs)	Order-Number
SPS 2500-137/72	1,370 (54")	720 (28 3/4")	oval	2,500* (5,500)*	5250.0158
SPS 1500-96/58	960 (37 3/4")	580 (22 3/4")	oval	1,500* (3,300)*	5250.0162
SPS 1000-79/52	790 (31")	520 (20 1/2")	oval	1,000* (2,200)*	5250.0001
SPS 500-67/40	670 (26 1/2")	400 (15 3/4")	oval	500* (1,100)*	5250.0002
SPS 400-75/27	750 (29 1/2")	275 (10 3/4")	oval	400* (880)*	5250.0003
SPS 200-37/37	370 (14 1/2")	370 (14 1/2")	round	200* (440)*	5250.0005

Replacement seal	Order-Number
Easy to attach without glueing!	
for SPS 2500	4250.0039
for SPS 1500	4250.0004
for SPS 1000	4250.0001
for SPS 500	4250.0002
for SPS 400	4250.0002
for SPS 200	4250.0003

Suction plates for profiled surfaces (e.g. pipes) are available on request. Suction plates are obtainable in all sizes on request.

* Value at 600 mbar low pressure

Other Recommended Accessories:

Type	Description	Order-Number
ESE Generator	Petrol engine 2,000 VA, 230 V (made by Endress) made especially for Probst	5250.0132
Frame Suspension	For attaching the generator directly over the vacuum device including electric connecting cable	5250.0012
TRA 3000 Spreader Bar	For multiple use of the suction plates single plates adjustable. Suction plate turnable by 90°. Carrying capacity 3,000 kg. Distance between centres of suction plates adjustable from max. 1,450 mm to min. 560 mm.	5250.0166
RS Wheelset	For all models SH 2500 uni	4250.0071
HGV Handle Extension	For all models SH 2500 uni	4240.0088

Further range of uses in conjunction with the Micro Jumbo MJ (see page 2.6 + 2.7) – especially suitable for laying lighter slabs (such as those for patios) by hand.

Wheelset RS

To extend the working radius of Micro Jumbo MJ at any time, we recommend the solid set of wheels for later equipment. Easy mounting to the lifting unit SH 2500 uni.

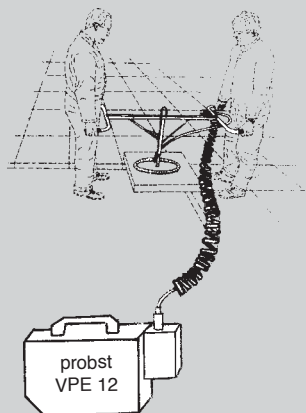
The wheelset consists of two attachable main wheels, diameter 300 mm, one foldable support-wheel and one swivelling wheel. Later attachment to the basic device SH is no problem.

Handle Extension HGV

Should be used when laying elements wider than 1 meter, in order to keep operators feet in safe distance from load.

▶ Handle Extension HGV can be fitted at any time later to the structure of SH 2500 uni by bolting it on with brackets.

VPE



Vacuum Pump Unit VPE for Vacuum Slab Layer Micro Jumbo MJ

This Vacuum pump unit was specially designed for operating the vacuum slab layer Micro Jumbo MJ system. If there is no vacuum lifting device Jumbo SH available or if it is too clumsy, the VPE is a cheap and handy alternative.

▶ Handy size, can be handled by one person easily.

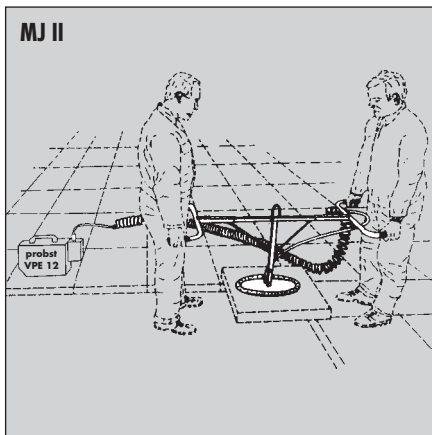
- ▶ Fits in most car boots.
- ▶ Mobile by rubber wheels (only VPE 12 B).
- ▶ Equipped with vacuum bajonett coupling system.
- ▶ Driven by quiet electric engine or by petrol engine.

Type	Drive	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VPE 12 E 230/50	electric, 230 V single phase 50 Hz	in tune with MJ-use, approx. 150 kg (330)	19 (42)	4280.0003
VPE 12 E 110-115/50-60	electric, 110-115 V single phase 50-60 Hz	in tune with MJ-use, approx. 150 kg (330)	19 (42)	4240.0021
VPE 12 B	petrol engine	in tune with MJ-use, approx. 150 kg (330)	26 (57)	4240.0019

Special voltage on enquiry.

VACUUM-LAYING TECHNOLOGY

MJ II



Vacuum Slab Layer Micro Jumbo MJ

With these devices, all kind of manual laying and handling of slabs can be done in conjunction with the Vacuum Lifting Device SH or the Vacuum Pump Unit VPE.

▶ Simply connect the Micro Jumbo MJ I (for 1 man operation) or MJ II (for 2 men operation) by means of a bajonett coupling with the SH or VPE. Immediately all kind of dense material, such as concrete or natural stone slabs, step elements or similar can be laid efficiently and gently. The Micro Jumbo allows manual work in ergonomical position.

▶ Suction plates, varying in size, shape and design can be adapted easily.

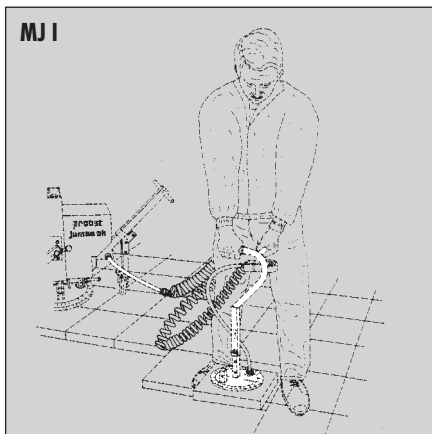
Only a finger tip is necessary to operate a simple valve to switch on or off the suction force.

The device is build up using the following separate components:

- ▶ Handle HTG I or HTG II with finger operated release.
- ▶ Different suction plates.
- ▶ Vacuum supply spiral hose.

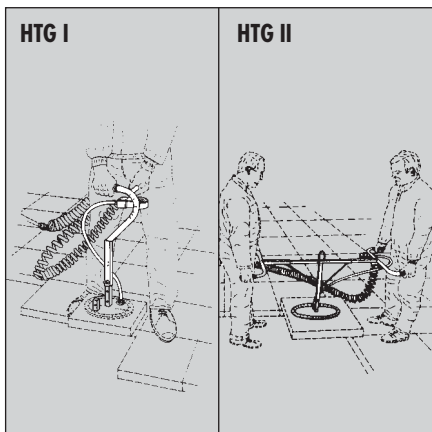
**Awarded with the
"Price of Innovation"**

MJ I



Type	Specifications	Dead Weight kg (lbs)	Order-Number
Micro Jumbo MJ I 75	Complete, consisting of: – 1 handle HTG I including vacuum switch and gauge – 1 suction plate SPS 75 (75 kg* carrying capacity) (165 lbs)* – 1 vacuum supply spiral hose	5 (11)	5260.0001
Micro Jumbo MJ II 150	Complete, consisting of: – 1 handle HTG II including vacuum switch and gauge – 1 suction plate SPS 150 (150 kg* carrying capacity) (330 lbs)* – 1 vacuum supply spiral hose	10 (22)	5260.0002

* Value at 600 mbar low pressure



Components:

Lifting Handle HTG I

A one-man carrying handle with lifting grip and guiding grips, integral height adjustment (from 500 mm – 650 mm) safety gauge, vacuum

control valve, vacuum safety quick-release coupling.

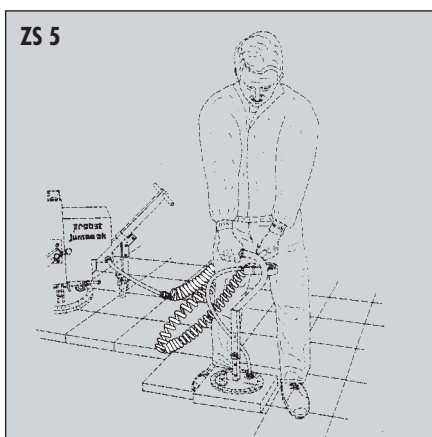
► Cold galvanised

Lifting Handle HTG II

Two-man carrying handle with integral height adjustment (from 450 mm – 750 mm), distance adjustment (from 1,300 mm – 1,600 mm),

suspension hook for use with lifting device, of safety gauge, vacuum valve and vacuum quick release coupling.

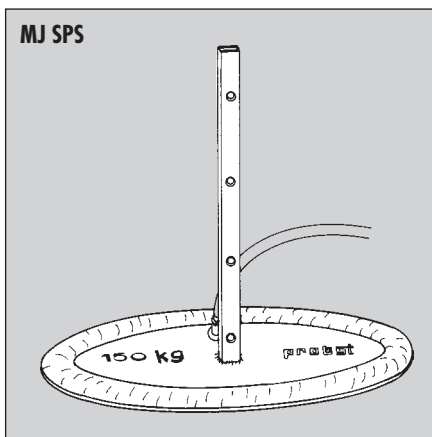
► Cold galvanised



Supply Spiral Hose ZS 5

Spiral vacuum hose (no more tangled hose!): Extended length of max. 5 m.

With vacuum safety quick-release coupling and rotating fitting.



Suction Plates MJ SPS

► With reliable, durable foam rubber seal which can be changed without the need for tools, in seconds, and with a connector for the

carrying handles and the vacuum connector fitting.

Special suction plates on request.

Vacuum power supplied by:

Vacuum Lifting Device SH

see page 2.3

or

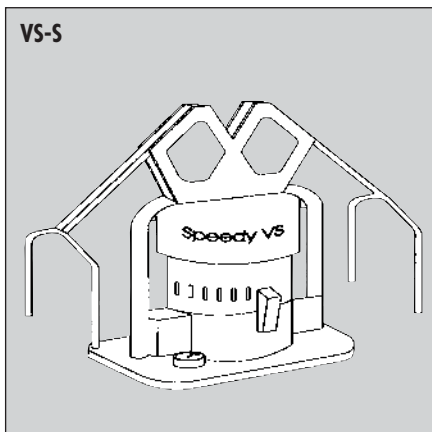
Vacuum Pump Unit VPE

see page 2.6

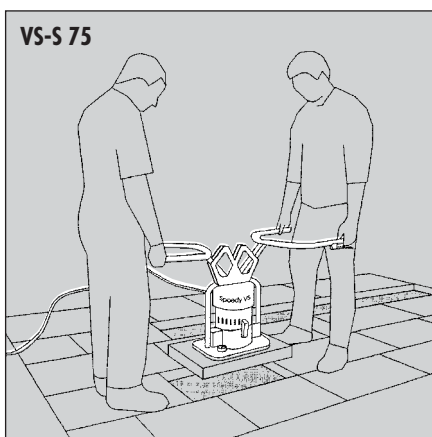
Type	Specifications	Dead Weight kg (lbs)	Order-Number
Single components:			
HTG I	Handle for one-man-operation including vacuum switch + gauge	2 (4)	4270.0001
HTG II	Handle for two-man-operation including vacuum switch + gauge	7 (15)	4270.0002
Supply Hose ZS 5	Vacuum supply hose (5 m) (17 ft) with vacuum-safety-quick release coupling and rotation fitting		4270.0003
Suction Plate MJ SPS 75	Carrying capacity 75 kg* (160 lbs)*, L x W 225 x 225 cm (9" x 9" in)	2 (4)	4270.0005
Suction Plate MJ SPS 150	Carrying capacity 150 kg* (330 lbs)*, L x W 440 x 250 cm (17 1/4" x 9 3/4" in)	3 (7)	4270.0006
Replacement Seal for SPS 75			4270.0008
Replacement Seal for SPS 150			4270.0009

* Value at 600 mbar low pressure

VS-S



VS-S 75



Advanced Design
NEW Type VS-S ›SILENT‹
 Low noise level!

Vacuum Hand Laying Device SPEEDY VS-S

With this new inexpensive hand laying tool all kinds of slabs can be laid quickly and above all, ergonomically.

The powerful single phase powered vacuum turbine also allows the quick and safe handling of very porous material as well as material with exposed aggregate surface.

- ▶ Quick positive suction action (0.5 sec).
- ▶ Handles individually height adjustable. Important for users of different heights and for laying steps.
- ▶ Two short handles (in lower position) make easier the taking-off from high stacks of slabs.
- ▶ Working method takes care of health!

- ▶ Time saving techniques, simple handling.
- ▶ Universal suction plate size 400 x 300 mm (carrying capacity 75 kg) suitable for most applications.
- ▶ Special suction plate exchangeable for special elements with maximum weight of 120 kg.
- ▶ The suction-plates are equipped with a special low-wear seal which is - if necessary after a very long period of use - exchangeable within seconds (without tools ore glue).
- ▶ The handles can be folded down for easy transportation (see picture).
- ▶ Light weight design - only approx. 16 kg dead weight.
- ▶ Galvanised

Vacuum Hand Laying Device SPEEDY VS-S 75 - Complete -

Type	Power	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Suction Plate Dimension mm (in)	Order-Number
VS-S 75	electrically 230 Volt single phase 50 Hz	75* (165)*	16 (35)	400 x 300 (15 ³ / ₄ x 11 ³ / ₄)	S-5270.0009
VS-S 75	electrically 110 Volt single phase 50/60 Hz	75* (165)*	16 (35)	400 x 300 (15 ³ / ₄ x 11 ³ / ₄)	S-5270.0010

Device completely equipped with suction plate SPS 75 for 75 kg (165 lbs) carrying capacity!

Vacuum Hand Laying Device SPEEDY VS-S Basic Device

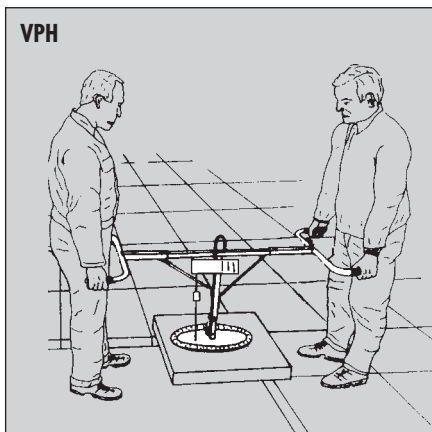
Type	Power	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Description	Order-Number
VS-S Basic Device	electrically 230 Volt single phase 50 Hz	depending on size, of suction plate	14 (31)	without suction plate	5270.0007
VS-S Basic Device	electrically 110 Volt single phase 50/60 Hz	depending on size, of suction plate	14 (31)	without suction plate	5270.0008

Suction Plates SPS for VS-S

Type	Length mm (in)	Width mm (in)	Carrying Capacity kg (lbs)	Order-Number
SPS 40 VS	300 (11 ³ / ₄ "	250 (9 ³ / ₄ "	40* (90)*	4271.0013
SPS 75 VS	400 (15 ³ / ₄ "	300 (11 ³ / ₄ "	75* (165)*	4271.0008
SPS 90 VS	500 (19 ³ / ₄ "	300 (11 ³ / ₄ "	90* (200)*	4271.0012
SPS 120 VS	700 (27 ¹ / ₂ "	300 (11 ³ / ₄ "	120* (265)*	4271.0011
Replacement Seal Easy to attach without glueing!	for SPS 40 VS**			4271.0032
	for SPS 75 VS**			4271.0029
	for SPS 90 VS**			4271.0031
	for SPS 120 VS**			4271.0030

** incl. holding fixture

* Value at 175 mbar low pressure



Vacuum Power Handy VPH

Flexible and powerful hand operated laying device for dense products, such as granite or high quality concrete elements up to 150 kg weight.

Consisting of the following components:

▶ Vacuum pump unit with manometer and suction force indicator, battery charging indicator and on/off switch. Complete unit detachable, can also be mounted on other devices.

Special features:

- ▶ Special seal, consisting of 2 components for optimised sealing. Even when the suction plate is sitting on sharp edges for a long time, no permanent marks are left in the seal.
- ▶ Therefore no "foldable rests" are necessary to save guard the seal.
- ▶ The seal can be exchanged without glue and any tool within 1 minute.

▶ Powered by rechargeable battery 12 V. Special energy saving automatic allows a full day of laying operation without the need of recharging.

▶ Handle for 2 men operation, handles height and width adjustable to accommodate with different laying tasks.

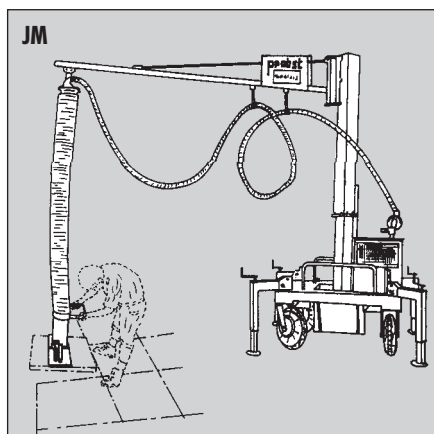
▶ Suction plate.

▶ Delivery includes high tech battery charger to avoid overcharging (plug for connecting the battery charger fixed in the housing of the pump unit).

▶ Additionally equipped with lifting eyelet for crane hook (only allowed to work near the ground!).

Type	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Suction Plate Dimension mm (in)	Order-Number
VPH 100	100 (220)*	16 (35)	oval 260 x 210 (10 ¹ / ₄ " x 8 ¹ / ₄ "	5271.0002
VPH 150	150 (330)*	16.5 (36)	oval 440 x 250 (17 ¹ / ₄ " x 9 ³ / ₄ "	5271.0001
SPS 100-26/21 VPH for VPH 100				5250.0135
SPS 150-44/25 VPH for VPH 150				4270.0010
Spare storage battery for VPH 100 and VPH 150				2420.0007
Replacement seal for VPH 100				4271.0041
Replacement seal for VPH 150				4271.0002

* Value at 400 mbar low pressure



Vacuum Slab Laying Machine Jumbomobil JM

For the easy, exact and economical laying of slabs up to 200 kg.

► Suitable for concrete slabs, natural stones, slabs with exposed aggregates, large pavers, petrol station pavers, environmental pavers, gutters and much more.

► Extremely easy and light laying as the lifting and setting down are done by a vacuum hose lifter.

► Give your workers a better way of working!

► Exact positioning of the slabs by means of a smooth-running pillar swing crane with very low dead weight.

► Slabs which have already been laid can easily be lifted again.

► Quiet vacuum generation using an electrical motor, or alternatively a fuel engine.

► Can easily lay up to 300 square metres a day.

Technical Data and Components:

► Chassis:

Rugged undercarriage (L x W = 1,300 mm x 1,300 mm), 1 steering axle, 1 axle with hand brake, 4 pneumatic heavy duty wheels, compartments for counter weights, foldable supports.

► Swing Crane:

Telescopic in height via a hand operated winch (alternatively electrical driven), crane jib 4 m in length and able to turn 350° with 4 different stopping points.

Foldable down to 2 m in length and 2 m in height for easy transport.

► Vacuum turbine unit VGE

electrically driven (e):

Powerful vacuum turbine with 3-phase electrical motor, maximum underpressure 520 mbar, incl. motor protection switch, plug CEKON 16 A with integrated phase-switch, silencer, air-filter with pre-separator.

Type VGE-SB-L-e (details see page 2.15)

Petrol driven (b):

Powerful vacuum turbine with integrated petrol engine, silencer, service hourmeter, air-filter with pre-separator.

Type VGE-3 RG b including conversion kit (details see page 2.15)

On request also available with electrical start.

► Vacuum Hose Lifter

Supply hose, lifting unit, operating valve unit, hose-cylinder extension.

Lifting height -250 mm (below ground level) to +1250 mm.

► Suction Gripper

For concrete, natural stone and washed-out-concrete slabs. With foamed rubber seal.

Special shaped gripper and multiple grippers available on request!

All components are exchangeable via quick fasteners.

Type	Operating Radius mm (in)	Electrical Data	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
JM 150 e	4,000 (157")	4 kW 50Hz 3~ 190 / 255 V Δ or 330 / 440 V Y	150* (330)*	720 (1,590)	S-5200.0008
JM 200 e	3,000 (118")	4.8 kW 60Hz 3~ 190 / 290 V Δ or 330 / 500 V Y	200* (440)*	730** (1,610)**	S-5200.0009
JM 150 b	4,000 (157")		150* (330)*	720 (1,590)	S-5200.0011
JM 200 b	3,000 (118")		200* (440)*	730** (1,610)**	S-5200.0012

As the chassis, crane and the vacuum turbine are designed for a maximum carrying capacity of 200 kg, a lifting unit with a different carrying capacity can be added at any time (see page 2.13).

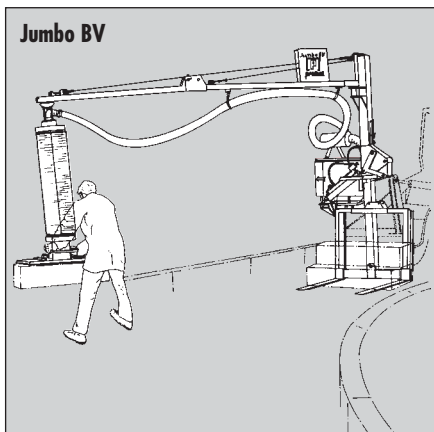
* Value at 420 mbar low pressure

** When working with a working capacity of 200 kg, the operating radius of the boom will be limited to 3,000 mm. Furthermore the chassis must be loaded with counterweights (supplied by the customer).

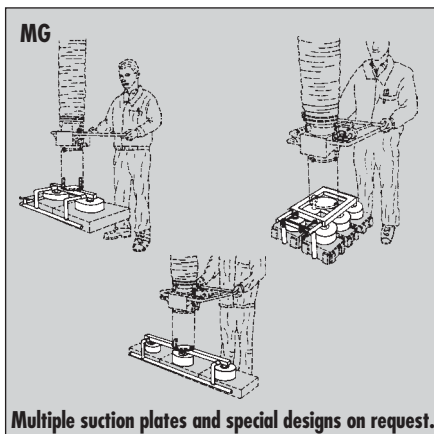
Accessories

Description	Order-Number
Cable drum 400 V, 16 A, 3 phase, L= 25 m	2410.0001
Replacement filter cartridge for airfilter	4210.0085
Replacement for rubber seal L = 1 m	4210.0024
Tin of adhesive for rubber seal (1 tin enough for 2 meters)	5210.0001
Tool and Equipment Box WZK-BV, suitable to store a complete lifting unit, operation valve unit including suction plates and tools safely. Box size: 1,200 x 550 x 630 mm	4220.0107

Further accessories on request!

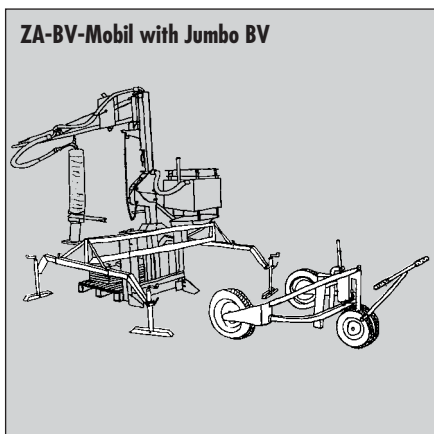


Jumbo BV

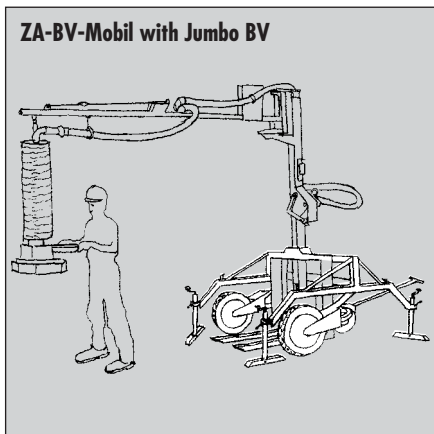


MG

Multiple suction plates and special designs on request.



ZA-BV-Mobil with Jumbo BV



ZA-BV-Mobil with Jumbo BV

Vacuum Kerb Stone Installation Machine Jumbo BV

For extremely easy kerb stone installation and optimal logistics. Distribution and installation in one manoeuvre means efficient working practice as well as a healthier one for your workers.

► Suitable for attaching to any type of wheel loader with a fork-lift carrier.

► The Jumbo BV is secured to the fork-lift carrier by means of clamping prongs and is equipped with its own distance adjustable fork prongs.

We offer two models:

With integral fuel engine

Operates independent of the wheel loader.

It can easily be fixed to various wheel loaders.

Hydraulically operated

Less noise emission, no need to fill with fuel.

► The complete pack of kerb stones is carried on the machine.

► A simple movement of the vacuum switch activates smoothly and quickly the suction, lifting, lowering and laying of the kerb stones.

► Easily capable of installing 300 metres per day.

► It's as simple as that; give your workers the best in quality! It's good for their health!

Requirements of hydraulic operation:

- Backflow pressure: max 10 bar.
- Volume of flow of the wheel loader: 16 l/min.
- End pressure: 200 bar
- The steering lever of the additional hydraulics must be stoppable mechanically at 2 points.
 - a) Full oil flow - when laying the kerb stones.
 - b) 3/4 oil flow - when transporting the kerb stones.

Type	Power	Reach mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
Jumbo BV b	Petrol Engine	4,000 (157")	150* (330)*	520 (1,150)	S-5220.0004
Jumbo BV h	hydraulic	4,000 (157")	150* (330)*	490 (1,080)	S-5220.0002

Vacuum Components

- Petrol engine and vacuum turbine unit with silencer.
- Alternatively: hydraulically powered.
- Supply hose and lifting hose.
- Lifting height from fork prong level up to approximately 1,100 mm.
- Operating Valve unit with handle, dust filter.
- Kerb stone suction gripper with durable foam rubber seal, also suitable for natural kerbstones.
- All components can be changed using quick fasteners.

Pillar Swing Crane

- With hydraulic, vertical tilt capability, diagonal to the direction in which it is travelling.
- Capable of tilting in the direction in which it is travelling via the pivotal cylinder of the loading bucket.
- Swing range of the crane jib appr. 270°.
- Height of the jib appr. 2,800 mm.
- The jib can be folded hydraulically.

Incl. 1 kerb stone gripper (suction plate) (carrying capacity 150 kg).

Kerb stone grippers (suction plates) Type	Dimension LxB / Opening Width (mm)	Carrying Capacity kg (lbs)	Order-Number
BG-150-52/15-12 for concrete kerb-stones 500-1000 mm	520 x 150 - 120	150* (330)*	5250.0184
BG-150-924/134 for concrete and granite kerb-stones	924 x 134	150* (330)*	5230.0008
BG-150-90/10-14 for small kerb stones at lawn edges 80-100 mm	900 x 100 - 140	150* (330)*	5230.0033
UZ-BV versatile clamp for curved kerb stones etc.	150 - 200	150* (330)*	5230.0031

Multiple suction plate for channel pavers with integrated distance separator approx. 1 cm (1/2") **on request**

Tool and Equipment Box WZK-BV, suitable to store a complete lifting unit, operating valve unit including suction plates and tools safely. Box size: 1,200 x 550 x 630 mm **4220.0107**

Jumbo BV-Mobil

To lay slabs, the Jumbo BV can be easily attached to the **ZA-BV-Mobil**. With the **Palette Truck PW III** the complete unit can be moved from one position to the other by hand. No additional carrying machine like wheel loader is necessary.

(To drive with the wheel loader on the just laid slabs mostly creates quality problems: The slabs are settling down or are shifted; with the use of the ZA-BV-Mobil these problems don't occur.)

Another advantage of the system is the fact that the **PW III** can be equipped with forks to move palettes around the site.

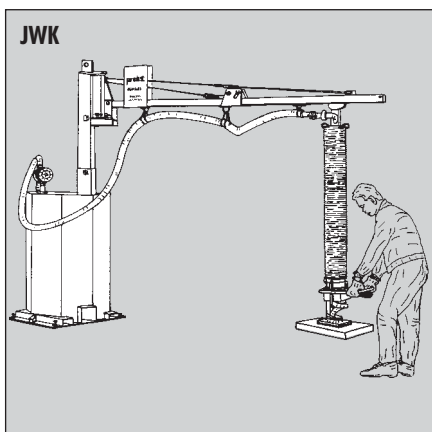
The ZA-BV-Mobil

consists of the following components:

- **Palette Truck PW III** with removable forks.
- **Frame** with four supports.
- **Extension handle** for operating unit BE.

Type	Order-Number
ZA-BV-Mobil assembly consisting of:	5230.0020
PW III Palette Truck with removable forks	5230.0022
Adapter frame with support legs for Jumbo BV	4230.0021
Operating handle extension upwards for operating valve unit	4230.0022
Manually operated hydraulic pump (as conversion kit, if Jumbo BV is not equipped yet with manual pump.)	4220.0053

* Value at 420 mbar low pressure



Vacuum Hose Lifter for Internal Use

- ▶ Why use it? Simple: The lifting and lowering speed can be controlled extremely smoothly.
- ▶ Can be operated easily, exactly and quickly.
- ▶ Materials of all types and weights can be easily lifted, sorted and layed.
- ▶ The vacuum is used for holding the materials as well as for lifting and lowering them.
- ▶ The result: efficient working practices and less stress on your workers.

Jumbo Travelling Crane JWK

Complete ready-to-use unit comprising crane, ballast, electrics and vacuum turbine.

Complete with socket.

▶ The Jumbo Travelling Crane JWK combines all the advantages of the stationary vacuum hose lifter with the moveable Jumbomobil JM!

▶ The machine can be moved easily by taking up with the fork prongs from a fork-lift truck for example.

▶ Various lifting units and grippers can be attached to the Jumbo Travelling Crane JWK (see specifications).

▶ Lifting unit, operating valve unit, grippers and special parts will suit any operation.

Standard Specifications:

▶ Ballast container, made of steel sheet, approx. 1.0 x 0.8 x 1.8 m height (40" x 31 1/2" x 71") should be filled with concrete, sand or steel scrap (approx. 1.45 m³, 1.9 cu yd). Thus ensuring the necessary stability.

▶ Adjusting screws for alignment.

▶ Light weight boom, 4,000/5,000 mm reach, height adjustable and with a displacement of about 270°.

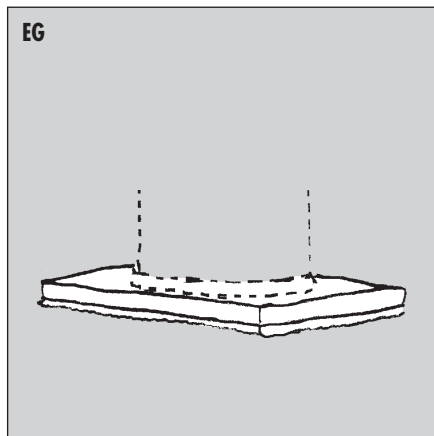
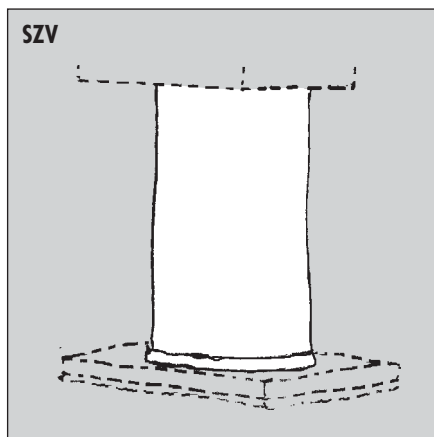
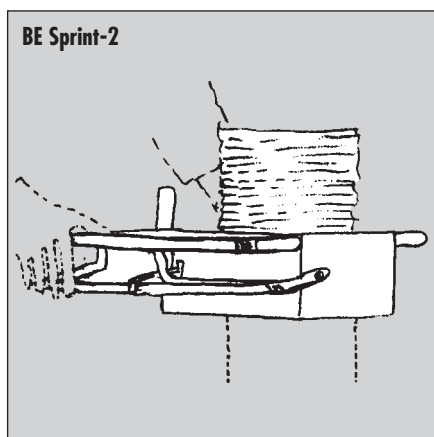
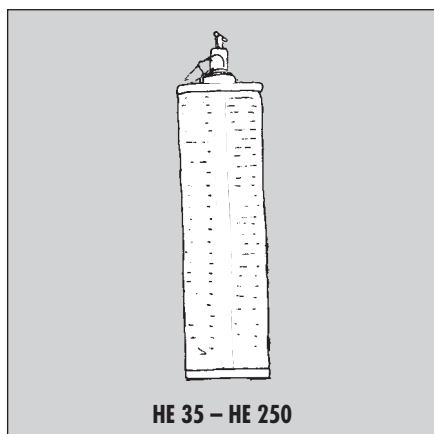
▶ Vacuum turbine VGE-SB-L-e-I with electric motor (electrical data see page 2.14) incl. pressure regulating valve DBV, motor protector switch and socket "CEKON" 16 A with integral phase switch, dust-filter with pre-separator and filter cartridge.

▶ Supply-hose D = 60 mm, 7,000 mm long. With quick coupling 2 inch. For coupling to a corresponding lifting unit.

Type	Max. Carrying Capacity kg (lbs)	Reach mm (in)	Dead Weight kg (lbs)	Max. Ballast kg (lbs)	Order-Number
JWK 80/250-4	250 (550)	4,000 (157")	600 (1,320)	3,600 (7,900)	5280.0012
JWK 80/250-5	250 (550)	5,000 (197")	600 (1,320)	4,600 (10,100)	5280.0013

To complete your Jumbo Travelling Crane JWK you need:

- ▶ Roller Suspension
- ▶ Lifting Unit
- ▶ Operating Valve Unit
- ▶ Suction Plate



Vacuum Hose Lifter Components

Lifting Hose Units

For use with the Jumbo Travelling Crane JWK, the Jumbomobil JM or on any other crane carrier.

(Application of lifting hose unit HE 250 is permissible at stationary crane facilities only, not to be operated with Jumbomobil, Jumbo BV and Jumbo Travelling Crane JWK).

Consists of:

- ▶ Transportation hook.
- ▶ Rotational Device and quick coupling, 2 inch.
- ▶ Lifting hose unit with protective fabric as well as a flange for fitting onto the operating valve unit.

Type	Carrying Capacity* kg (lbs)	Diameter Lifting Hose mm (in)	Lifting Height mm (in)	Order-Number
HE 35	35*** (75)***	120 (5")	1,700 (67")	4210.0001
HE 50/65	65*** (145)***	140 (5½")	1,700 (67")	4210.0106
HE 85	85*** (185)***	178 (7")	1,700 (67")	4210.0002
HE 150	150*** (330)***	230 (9")	1,700 (67")	4210.0132
HE 200	200*** (440)***	250 (9¾")	1,700 (67")	4210.0134
HE 250	250*** (550)***	300 (11¾")	1,700 (67")	4210.0320
If necessary: roller suspension for C-beam				4220.0042

Operating Valve Unit BE Sprint-2

- ▶ For direct coupling onto the lifting unit HE.

Consists of:

- ▶ Main body with handle 500 mm long, fixing screw for adjusting the hovering position, safety gauge.

Type	For use with	Order-Number
BE Sprint-2	HE 35 up to HE 250	4210.0539

Hose Cylinder Extension SZV

- ▶ Only to be used as and when required to enable ergonomic working conditions, at certain heights.

- ▶ Length 300 mm

Consists of:

- ▶ Vacuum pipe with quick fasteners and transmission bar for the steering of the operating valve unit.

Type	For use with	Order-Number
SZV	HE 35 up to HE 150	4210.0007
SZV-250	HE 200 up to HE 250	4210.0008

Suction Grab

- ▶ For the direct coupling to the operating valve unit or the hose cylinder extension.

Consists of:

- ▶ One or more suction plates with attached foam rubber seal, including lifter for tactile steering.

Type	Dimension mm (in)	Carrying Capacity kg** (lbs)	Order-Number
EG 35	200 x 200 (7¾" x 7¾")	35*** (75)***	4210.0050
EG 50/65	230 x 230 (9" x 9")	65*** (145)***	4210.0561
EG 85	255 x 255 (10" x 10")	85*** (185)***	4210.0051
EG 150	310 x 310 (12¼" x 12¼")	150*** (330)***	4210.0145
EG 200	330 x 330 (13" x 13")	200*** (440)***	4210.0331
EG 250	400 x 400 (15¾" x 15¾")	250*** (550)***	4210.0054

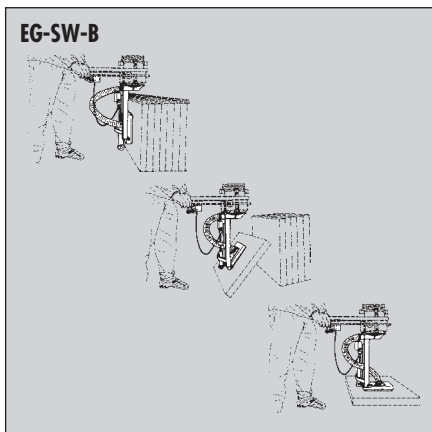
	Order-Number
Special Grippers , such as multiple grippers, profiled grippers or mechanical clamps for attaching to the vacuum-hose lifter	on request

* Caution: Take note of the carrying capacity of the crane equipment.

** Caution: It is forbidden to use the grippers EG with a smaller carrying capacity than the lifting unit HE! It is permissible to use grippers with a higher carrying capacity than the lifting unit.

*** Value at 420 mbar low pressure

EG-SW-B



Vacuum Hose Lifter Components

Tiltable suction plate EG-SW

Suitable for different applications of vacuum hose lifting devices:

with automatic retraction EG-SW-B

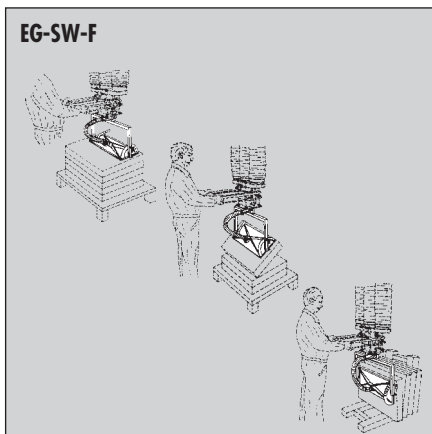
- ▶ Specially designed for the laying of slabs, which are delivered to site in vertical position, but have to be placed in horizontal position.
- ▶ Slabs can be lifted in vertical position.

▶ Tilting into the horizontal position controlled by pulling a hand lever.

▶ After the installation of the slab in horizontal position, the suction plate retracts itself into vertical position by a gas spring, when the hand lever is pulled once more.

Type	Dimension mm (in)	Carrying Capacity kg (lbs)	Order-Number
EG-SW-B-H-VH 150-33/33-0	330 x 330 (13" x 13")	150* (330)*	4210.0096

EG-SW-F



with free swiveling action EG-SW-F

- ▶ Specially designed for handling of slabs in natural stone processing factories.
- ▶ When positioning the suction plate out of the center of gravity on a horizontal slab, the slab is tilting itself into the vertical position when lifted. In this position, the slab can be stored vertically on a transportation pallet.
- ▶ When positioning in the center of gravity, the slab stays in the horizontal position when lifted.

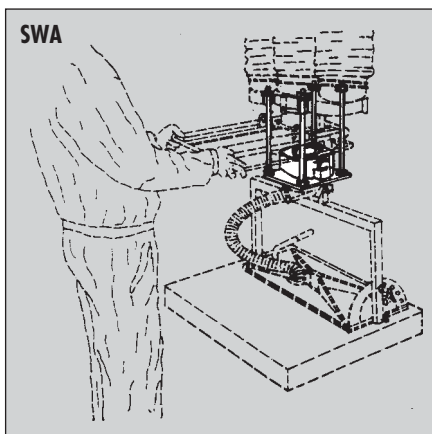
▶ Suction plate can be locked in different positions by spring loaded bolt.

▶ With integrated suction release device for easier release of the suction plate from the slab element. Operating of the suction release device only when no load is lifted!

▶ Fastening suitable for Quick Change Adapter SWA 200.

Type	Dimension mm (in)	Carrying Capacity kg (lbs)	Order-Number
EG-SW-F-F-200-75/30-A	750 x 300 (29 ¹ / ₂ " x 11 ³ / ₄ ")	200* (440)*	4210.0095
EG-SW-F-F-150-40/25-A	400 x 250 (15 ³ / ₄ " x 9 ³ / ₄ ")	150* (330)*	4210.0190

SWA



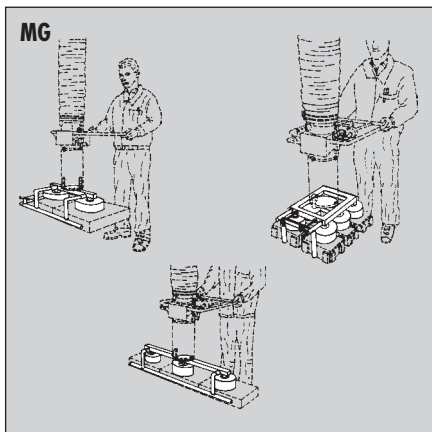
Quick Change Adapter SWA

- ▶ Allows exchange of different suction plates within seconds.
- ▶ Essentially necessary for lifting loads of 200 kg and more.

▶ Short design as against SZV (page 2.12), specially suitable for in-plant paketize works in use with EG-SW-F-F-200-75/30-A.

Type	Length mm (in)	Max. Carrying Capacity kg (lbs)	Order-Number
SWA 200 (long version)	300 (11 ³ / ₄ ")	250* (550)*	4210.0097
SWA 200 (short version)	100 (4")	250* (550)*	4210.0104

MG



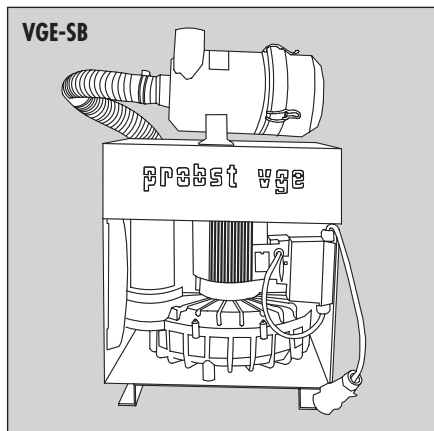
Multiple Suction Grab MG

- ▶ Out of a large range of different standard components a suitable suction plate can be designed to solve different handling requirements.

▶ Seal of suction plate can be exchanged within seconds.

Type	Order-Number
MG	on request

* Value at 420 mbar low pressure



Vacuum Hose Lifter Components

- ▶ As an alternative to the complete Jumbo Travelling Crane, you can put together a special vacuum-hose-lifter-station, according to your particular needs.
- ▶ Pillar and wall swing cranes or other types of cranes can be granted off site.
- ▶ **We will gladly advise you!**

Vacuum Turbine Unit VGE SB

Driven by electric motor

Complete, ready-to-run unit for the electrical production of vacuum with the following standard features:

- ▶ Strong, compact housing to be installed on the floor or against the wall.
- ▶ Powerful vacuum turbine with 3-phase electric motor, for maximum low pressure 520 mbar.
- ▶ With large volume dust-filter with pre-separation for rough conditions in construction industry, including filter-cartridge.
- ▶ Type VGE-SB-L-e-l and VGE-SB-V-e-l with motor-protection switch, pressure relieve valve and electrical plug CEKON 16 A with integrated phase-switch.

Application:

VGE-SB-L-e-l: for more difficult use, such as handling of porous elements and high lifting-speed requirements.

(Suitable for all lifting hose dimensions, see Type List 7.22)

VGE-SB-V-e-l: with frequency-control for handling also small weights (min. 10% of nominal lifting capacity).

- ▶ Suitable for elements with varying porosity.
- ▶ Energy-saving in part-load operational range.
- ▶ Extremely low noise level
- ▶ Low start-up current

Type	Electrical Data	Order-Number
VGE-SB-L-e-l	4 kW 50Hz 3~190/255 V Δ or 330/440 V Y 4.8kW 60Hz 3~190/290 V Δ or 330/500 V Y	4760.0009
VGE-SB-V-e-l	4 kW 50Hz 3~ 400 V Y	4760.0010

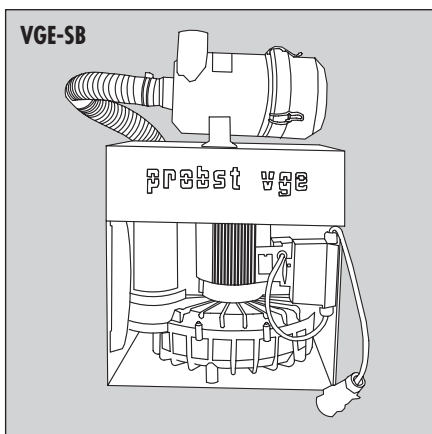
Other versions available on request.

Supply Hose

- ▶ For connecting the turbine unit to the lifting unit.
- ▶ With 2" coupling and 2 hose clamps.

Type	Material	Diameter mm (in)	Length m (ft)	Order-Number
Supply Hose	Polyurethane	60 (2 ¹ / ₄ ")	7 (23)	4210.0030

VGE-SB



Vacuum Turbine Units for Jumbomobil and Jumbo BV

Driven by electrical motor for Jumbomobil

Complete, ready-to-run unit for the electrical production of vacuum.

Standard specifications:

- ▶ Strong, compact housing to be installed on the Jumbomobil.
- ▶ Powerful vacuum turbine with 3-phase electric motor, for maximum low pressure 520 mbar.
- ▶ With large volume dust-filter with pre-separation for rough conditions in construction industry, including filter-cartridge.
- ▶ Type VGE-SB-L-e and VGE-SB-V-e with motor-protection switch, pressure relieve valve and electrical plug CEKON 16 A with integrated phase-switch.

Application:

Type VGE-SB-L-e: Standard turbine for JM 150e and JM 200e, suitable also for difficult tasks such as handling porous elements.

VGE-SB-V-e: with frequency-control for handling also small weights (min. 10% of nominal lifting capacity).

- ▶ Suitable for elements with varying porosity.
- ▶ Energy-saving in part-load operational range
- ▶ Extremely low noise level
- ▶ Low start-up current.

Type	Electrical Data	Order-Number
VGE-SB-L-e	4 kW 50Hz 3~190/255 V Δ or 330/440 V Y	4210.0439
	4.8kW 60Hz 3~190/290 V Δ or 330/500 V Y	
VGE-SB-V-e	4 kW 50Hz 3~ 400 V Y	4210.0450

Driven by petrol engine for Jumbomobil and Jumbo BV

Complete, ready-to-run unit for the production of vacuum energy by petrol engine.

Standard Specifications:

- ▶ Strong housing with foldable cover and noise protection.
- ▶ Powerful vacuum turbine with max. underpressure 520 mbar.

▶ With large volume dust-filter with pre-separation for rough conditions in construction industry, including filter-cartridge.

▶ Pressure relieve valve and service hour-meter.

▶ Mainly used on Jumbobile JM, petrol driven (see page 2.9) and Jumbo BV b (see page 2.10). Conversion-kit required.

Type	Power Petrol Engine (kW)	Order-Number
VGE-3 RG b	8.1	4220.0199
1 Conversion-Kit to fit VGE-3 RG b to Jumbomobil		4200.0048
VGE-3 RG b E	8.1 + Electro-Starter	4220.0276

Driven by hydraulic energy from Loader/ Forklift for Jumbo BV

Complete, ready-to-run unit for production of vacuum energy by hydraulic motor, mainly for use on Jumbo BV h (see page 2.10).

Standard specifications:

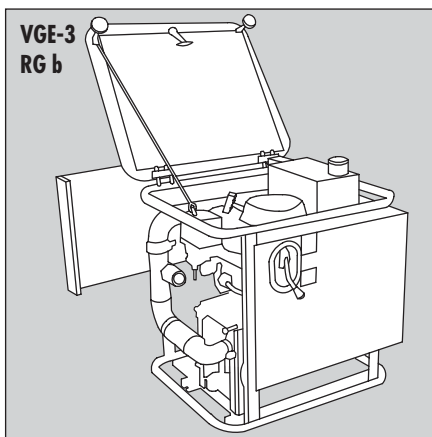
- ▶ Strong housing with detachable cover with noise protection, vacuum turbine with max. underpressure 520 mbar, large volume dust filter, pressure relieve valve.

Requirements of hydraulic operation:

- Backflow pressure: max 10 bar.
- Volume of flow of the wheel loader: 16 l/min.
- End pressure: 200 bar
- The steering lever of the additional hydraulics must be stoppable mechanically at 2 points.
 - a) Full oil flow – when laying the kerb stones.
 - b) 3/4 oil flow – when transporting the kerb stones.

Type	Order-Number
VGE-3 RG h	4220.0086
Conversion-Kit (only required if a petrol driven Jumbo BV has to be equipped with the VGE-3 RG h hydraulic turbine unit).	4220.0155

VGE-3 RG b



VGE-3 RG h

