

probst
Handling and Laying Systems

Profitable Solutions



Unique Competence

and decades of experience
stand behind the worldwide
widest product range of handling
and laying equipment for the whole
construction industry.



To make working life easier and better!

Your Benefits:

- Rationalisation analysis
- Site advisory service
- Project consultancy
- Motivated staff
- Greater productivity
- Competitive advantage
- Higher profit

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General Sales Conditions

1. Preamble

The conditions stated in the following are valid for each order; they exclude the conditions of the Purchaser even if not contradicted expressly. Other Agreements and later modifications are in any case only valid by written confirmation.

2. Offer

All documents belonging to the offer like drawings, indications of weights and measures constitute an approximate guide. The data shall not be binding save to the extent that they are by reference expressly included in the offer. Any drawings or technical documents as well as preliminary quotations and other documents remain the exclusive property of the Vendor. These confidential documents may not, without the Vendors consent, be utilized by the Purchaser or copied, reproduced, transmitted or communicated to a third party. Orders and agreements of all kind need the written confirmation by the Vendor.

3. Prices

The prices are quoted ex works, packing excluded, without engagement. The prices stated in the order-confirmation are fixed, except there are agreed free prices due to long delivery times.

Invoiced will be the prices which are valid on the date of delivery.

4. Delivery

The agreed delivery time starts with the date of order-confirmation, however only if all details regarding the execution of the order will be clarified. Acts of God and other circumstances which are beyond the control of us and of our suppliers like transport disturbances or operating breakdown, lack of material or of parts from suppliers authorize us to claim an adequate extended term.

Purchaser's claims for damages due to failure to perform or delay are excluded if we are not willfully responsible for the damage.

The term of delivery is kept when the product has left the works or it is advised ready for dispatch within the agreed time.

Should delay in delivery be caused by the Purchaser, he will be charged for each month with at least 1/2 % of the total invoice amount beginning one month after dispatch date thus covering the costs which arise by storage in the Vendor's works.

The fulfilment of contract by the Purchaser is a precondition for the keeping of delivery times by the Vendor.

5. Packing, Transport, Risk

The kind of packing, way of despatch and shipping route is determined by the Vendor except if there is a special previous agreement.

The costs and risks for the transport of the goods are to be beared by the Purchaser. Provided that no other instructions are given by the Purchaser, we organize the transport by the way that seems best to us without taking responsibility for having chosen the utmost favourable and shortest way.

The Purchaser bears every risk as soon as the merchandise is handed over to the transport agent or carrier.

An insurance against transport damages will only be effected if it is expressly desired by the Purchaser and the costs will be invoiced to him.

In case of transport through the Federal Railway Company or a forwarding agent the Purchaser has to take care of the settlement of his claim by himself.

The maturity for our request of payment is not affected.

6. Subject of Contract

The statements regarding measurements, weights, material and services are carefully stated by the Vendor however not binding, except they are expressly determined to be binding. This is also concerning all statements on construction and suggestions for construction. The Vendor reserves the right for modifications due to technical progress. Any drawings, samples or documents of the Vendor remain the exclusive property of the Vendor. They may not without the Vendor's consent be passed on to a third party. This is to point out the Vendor's copyright. The contractual characteristics of the goods are only relating to our product-description and to the written agreements.

Unilateral expectations of the Purchaser as well as advertisements or other comments of the Vendor or his assistants are not taken into consideration.

Demonstration-products, tools and other equipment needed for the execution of an order, remain the Vendor's property, even if the Vendor partially invoices the costs.

7. Guarantee

Provided that it is not about insignificant fault, the Vendor performs under exclusion of other claims for faults of the delivery to which belongs also the absence of strictly guaranteed or guaranteed qualities, guarantee as follows: for all parts produced by us we take over the guarantee for 1 year in the normal use, 1/2 year in the shift work so far material defects or production mistakes or the absence of guaranteed qualities are proved. The guarantee begins with the day of the delivery. If the dispatch, the installation or the introduction is delayed without fault of the Vendor, the liability expires not later than 18 months after transmission of risk. Rubber bars used as gripping elements are wear articles and are not subject to the guarantee. Faults by incorrect assembly or initial start-up, unsuitable or inappropriate use or changes or repairs by the Purchaser or third persons, natural wear, incorrect or careless treatment, excessive strain, unsuitable methods of operation, exchange materials, chemical, electro-chemical or electric influences expels every guarantee, provided that they are not to be led back on a fault of the Vendor. Further rights, particularly claims to substitute of the losses which have not appeared in the subject of delivery themselves, are expelled.

Notices of defect within the above stated frame are only recognized if they are asserted within two weeks after reception of the goods, with first not recognizable fault immediately after knowledge by written statement. Objections on the amount are only considered if they are brought forward immediately on receipt of the consignment in written form. The examination and reprimand obligation also encloses operating instructions and assembly instructions.

Also damages which are subject to the guarantee have to be indicated immediately in writing. A claim to transformation or decrease does not exist, unless we are not able the lack to repair. To the realization of all repairs inevitably appearing to the Vendor and substitute deliveries the customer after communication with the Vendor has to give the required time and opportunity, otherwise the Vendor is freed from the liability for defects.

Only in pressing cases of the endangering of the operational safety and to avoid disproportionately big losses, whereby the Vendor is to be informed immediately, or if the Vendor is in delay with the removal of the lack, the customer has the right to allow to remove the lack by third persons and has a claim for reimbursement of wasted expenditure towards the Vendor. Further claims, e.g., substitute of wage or spoiled equipment, etc., are expelled.

Repair or substitute is our choice. If the parts are returned not free of charge so they will be sent back also not free, i.e. a freight way is carried by us with the cheapest way of dispatch.

General Sales Conditions

The guarantee expires if the subject of delivery is treated by foreign party, also with pressure of time an other treatment needs our consent in particular. We are not responsible for failures as a result of bad assembly by the customer or third persons, of bad maintenance or carelessness, of unsuitable or inappropriate use or of excessive use.

Precondition for the guarantee is the fulfillment of the contractual obligations by the Purchaser. Because of the notices of defect about which no doubt exists, payments may be held back only in the appropriate relation to the appeared lack. Particularly no compensations may take place against earlier or later deliveries. Returns need the previous agreement of the Vendor.

8. Right to rescind of the Purchaser and other liability of the Vendor

The Purchaser can withdraw from the contract if the whole performance is definitively impossible before risk transfer or the delivery within an appropriate term which may not remain under a month, did not take place, unless, the performance hindrance is to be represented from the Vendor at least mainly or it is about a case of point 6. paragraph 4. As far as partial performances are possible and for the Purchaser useful also after ending of the contract, the right to rescind limits itself to the parts not yet performed.

If the impossibility enters during the acceptance delay or by fault of the Purchaser, he remains obliged to do the settlement. If partial performances have already taken place for the purposes of the paragraph 1, a compensation claim also exists in this respect. The Purchaser has furthermore a right to rescind if the Vendor has passed inactively an adequate extension placed to him for the repairing or reworking due to a failure to be represented by the Vendor in the sense of these terms of delivery. If the Vendor decides on an extended elimination of the lack, the Purchaser only has a right to rescind if the elimination of the lack has failed two times. The appropriate extension does not begin earlier, than the lack and the representation obligation of the Vendor are determined and proved. The Purchaser can also assert reduction instead of his right to rescind. If the Purchaser or a third person makes inappropriate changes or repairs without previous approval of the Vendor, there is no liability of the Vendor for the consequences appearing from it.

The liability of the Vendor is determined exclusively according to the preceding points of this agreement. All not strictly admitted rights there, e.g., on delivery of a faultless product, resignation of the contract or decrease as well as on substitute of losses of every kind, namely also from such losses which have not appeared in the subject of delivery and regardless of any legal argument, are excluded. This exclusion of liability applies not with intention and gross negligence of legal representatives or fulfillment assistants and by culpable violation of main liability. The exclusion of liability finds no further application if qualities which are strictly guaranteed are missing, if the warranty has just aimed to safeguard the buyer against the losses which have not appeared in the subject of delivery themselves, as well as if the damage is based on a circumstance, for which the Vendor has taken over a guarantee. The same applies if a procurement risk realizes which the Vendor has explicitly taken over. Finally, the exclusion of liability applies not in that cases in which according to the country right valid in each case a damages obligation exists which can not be expelled by contract, particularly for product liability. Except for losses for life, body and health and for intention and coarse negligence of legal representatives and fulfillment assistants, the extent of the damage to be replaced is limited however, on foreseeable losses.

9. Payment

The settling place for payment and the currency are agreed especially.

A delay in payment or a setting off is only acceptable in case of undisputed or legally binding counter-claims.

If the financial situation of the Purchaser gets worse after agreement to the contract essentially and is thereby endangering the payment entitled to the Vendor, the Vendor is entitled to refuse the performance, until the settlement is effected or is performed safely for him.

10. Delay in Payment

If the Purchaser does not keep to the arranged term of payment, we charge from maturity for interests by the legal height according to German law. Before payment of payable amounts the Vendor is not obliged to do any other delivery, as far as the Purchaser does not perform safely for this. In case of outstanding overdue payment, indebted by the Purchaser, all unpaid invoices of the Vendor become immediately payable.

11. Retention of title of ownership

Up to entire satisfaction of all claims from the business connection remain the supplied goods property of the Vendor. The Purchaser has to keep the goods duly and to insure them. If the Purchaser is late with payable payments in more than 10 workdays the Purchaser is obliged on demand of the Vendor to return the supplied goods, without the Vendor must explain before the withdrawal of the contract.

12. Acceptance, call, right to rescind of the Vendor

On call bought goods are to be accepted within a month after demand to takeover. If the Purchaser is in acceptance delay, the Vendor can store the goods at the expenses and risk of the Purchaser and can invoice him all expenses appearing from it. The same applies if due to circumstances attributed to the Purchaser, goods ready for dispatch can not be dispatched. If the Purchaser continues to delay acceptance of the goods in spite of passed time-limit, is a payable payment more than 30 days in the delay or commits the Purchaser another weighty breach of the contract, the Vendor is entitled to the withdrawal of the contract and to claim for damages.

13. Arbitration board, place of delivery, other rights

The rights of the Purchaser are not transferable.

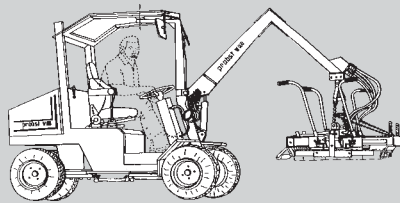
The legal ineffectiveness or change of single regulations do not touch the validity of the rest regulations.

To the place of an ineffective regulation that permissible regulation should step which comes to the economic thought of the ineffective regulation in the next. Place of delivery for all deliveries is the manufacturing work of the Vendor, in Erdmannhausen, as far as no divergent agreement has been met. The preceding conditions apply to every order. Other conditions are for the Vendor only bindingly if he has recognized them in writing.

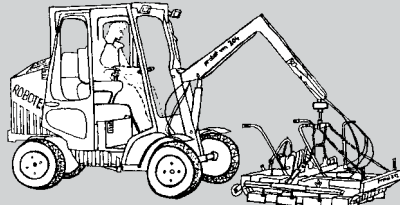
On the contract the right of the Federal Republic of Germany is applicable under exclusion of the agreement of the United Nations from the 11/04/1980 about contracts about the international goods purchase.

All disputes which arise in connection with the contract or about its validity, are decided according to the arbitration board order of the German Institution for Arbitration Board Ability Inc (DIS) under exclusion of the neat course of law finally. The arbitration board also can make a binding decision about the validity of this arbitration agreement.

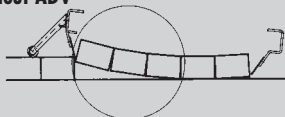
VM 203



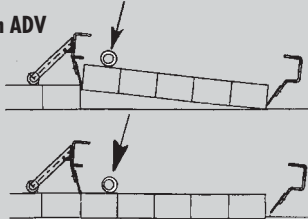
VM 204



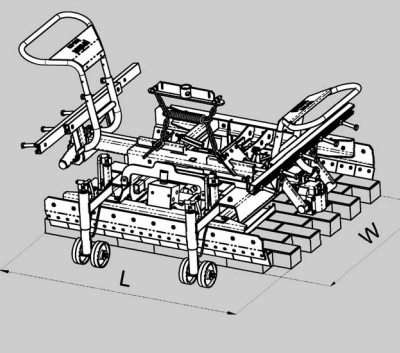
without ADV



with ADV



HVZ-uni



Mechanical Paver Installation, easy job with paver laying machines VM 203/204 ROBOTEC

Both laying machines, VM 203 and VM 204 ROBOTEC have principally the same working technique. They are only slightly different regarding modern working conveniences. The VM 204 has got a driver's cabin with scratch resistant safety glass, heating as well as a comfortable electronic joy-stick control. Both types of machine are maneuverable in narrow areas to allow fast paver installation. Due to the very compact dimensions of the machines the operators do have a perfect visibility forward as well as backwards.

The center of gravity stays always in the center of the machine. For this reason highest positional stability is achieved in any working position. The patented chassis of the laying machine has got a double center steering. Even driving narrow curves on freshly laid paver surface, no shifting is done to the pavers. The wheels do not twist the pavers, but roll on them. Different track widths of the front and rear axle ensure low degree of stress on uncompacted pavers.

Laying clamp HVZ uni with automatic pushing-off device guaranty for exact joint widths, to comply with the standards.

The laying machines of Probst are equipped with the hydraulic installation clamp HVZ including the automatic pushing-off device ADV S Standard. Layer after layer is pushed into the bedding sand. The pavers cannot cock during the installation process, but they are laid exactly. The manual repositioning of the pavers by hammering into a correct pattern is not required anymore. Some paver installers which have worked with laying clamps without ADV technology, tend to do the hammering even when working with the ADV technology now. This is unnecessary, costs a lot of labour, time and money and can even be harmful. Harmful because hammering means pressed joints which are not complying with the standards. The standards ask for joint widths between 3 and 5 mm. Concrete paving blocks are manufactured with the so called spacer bars all around the sides of the pavers having a thickness of 2.7 up to 3 mm.

The laying clamp compresses the layer from 4 sides so all pavers are pressed together, the spacer bars are touching the next block. Once the clamp is opened and the ADV presses the blocks down into the laying course, the pavers tend to creep apart a little bit. The joints are widened by this to about 0.4 to 1.0 mm in addition to the thickness of the spacer bar.

If the joints are driven together by unnecessary hammering, the spacer bars once more touch the next paver, the joint will be too narrow in this case and the specifications are not met. The stability of the pavement cannot be assured in this case.

Highest gripping security

Independent, spring loaded steel grippers are ensuring a firm grip on single blocks when carrying large layers of paving blocks.

The powerful side-clamping arms are able to easily shift for example rectangular pavers into the running bond by using the shifting adapter sets PA.

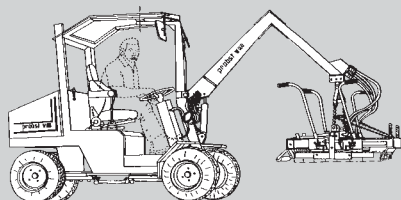
When laying layers in herring bone, the herring bone adapter FA can be used to avoid the necessity of half blocks on the side of the unit.

Probst laying machines, universal and future orientated

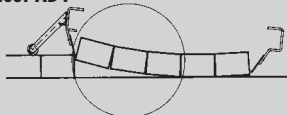
The VM 203 and VM 204 ROBOTEC are universal machines for a lot of attachments to carry out different works: Kerb laying clamps, sweeping and sand watering systems, vacuum laying systems for different concrete and natural stone slabs as well as a lot of special tools as shown in this catalogue.

Probst develops its products according to the construction set principal. This ensures that future new developments will fit in the already existing machinery.

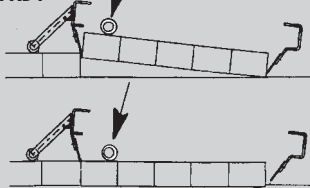
VM 203



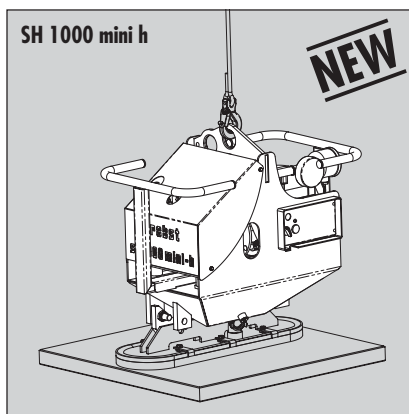
without ADV



with ADV



SH 1000 mini h



Installation Machine VM 203

Universally suitable for laying all paving stone installation units available on the market

Standard equipment, as follows:

- ▶ Hydraulic Installation Clamp HVZ-uni (see description page 1.3).
- ▶ Main and side clamp on the HVZ-uni can be adjusted independently of each other by means of a one lever 4-way valve.
- ▶ Positioning into the running bond is made possible by the side grippers.
- ▶ A 3-cylinder-Kubota-Diesel-engine 18.7 KW/ 25 hp means high performance reserves.
- ▶ **Advantage:** The machine can always be used in the middle RPM range (low noise level).
- ▶ Sensitive hydrostatic front wheel drive.
- ▶ Extra wide tyres and the differing track widths of the front and rear axle ensure a low degree of stress on the uncompacted pavers as well as a smooth drive.
- ▶ **Wide diameter** tyres and high ground clearance, therefore suitable also in rough terrain.
- ▶ **Wide pivoting range** of approximately 1,600 mm from a standing position is achieved solely by a steering movement – and without shifting of the pavement.
- ▶ **Double articulated steering** enables manoeuvrability in the tightest spaces. All

outer edges are adapted to the steering geometry which means that when there are obstacles there are **no protruding vehicle parts**.

▶ High lifting height enables the handling of double stacked packs up to a height of 1,600 mm, thus saving a considerable amount of driving-time.

▶ Narrow swing means that, even at a great lifting height, the positional stability of the machine is not affected. This, combined with a low overall height, is **important when operating in underground car parks**.

▶ High degree of stability, even in tight turns, is ensured by the low centre of gravity and the advantageous weight distribution achieved by a new arrangement of the chassis, beam and hydraulic unit system.

▶ Unlimited all-round-view for the driver, important when travelling backwards.

▶ Ergonomical positioning of the seat, steering wheel, operating lever and pedals.

▶ An exceptional driver's seat ensures great comfort for an 8-hour working day.

▶ Wide-diameter types and elastic clamp suspension give a smooth driving effect.

▶ Large transparent fuel tank with 20 l capacity.

The ADV makes it: Relaxed operation, exact joints, complying with the standards. No readjustment necessary any more. Ask for special info!

Technical Data:

3-cylinder-Diesel-engine, 18.7 kW / 25 hp. · Speed adjustment by hydrostat, max. speed approximately 20 km/h (15 m/ph) · Total height 1,980 mm (78") · Total width 1,220 mm (48") · Total length (without clamp) 3,610 mm (142") · Ground clearance 180 mm (7") · Total weight (without clamp) 1,025 kg (2,260 lbs) · Total weight (with clamp) 1,235 kg (2,720 lbs) ·

Maximum weight of stone formation 300 kg* (660 lbs*) · Lifting off height max. 1,600 mm (63") · Turning radius: front inside wheel 700 mm (27"), front outside wheel 1,900 mm (75"), overall 2,450 mm (96").

Main gripping width of the hydraulic clamp HVZ-uni: 600 mm – 1,240 mm (23 1/2" – 49")

Side gripping width of the hydraulic clamp HVZ-uni: 990 mm – 1,480 mm (39" – 58")

Type	Description	Carrying Capacity* kg (lbs)	Dead Weight kg (lbs)	Order-Number
VM 203	without Hydraulic Clamp HVZ-uni	500 (1,100)	1,025 (2,260)	5150.0002
VM 203	complete with Hyd. Clamp HVZ-uni with Pushing Off Device ADV without rotator	300 (660)	1,235 (2,720)	5150.0005

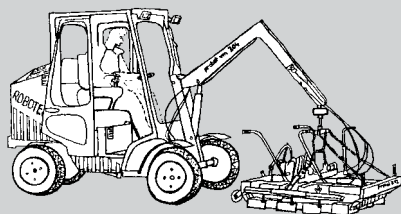
Accessories

VZ-HS-50/150 Hydraulic Kerb Stone Laying Clamp (see type list, page 1.7)	5160.0014
PC-VM uni Paver Cat (see type list, page 1.9)	5160.0030
EB 240 Sweeping Broom (see type list, page 1.7)	see page 1.7
Vacuum Lifting Device SH 1000 mini (for the attachment to the VM 203/VM 204 (see type list, page 2.4)	see page 2.4
VPM Vacuum Power Max (see type list, page 2.2)	5241.0002/4
Sweeping and Sand watering System KES VARIOKON	see page 1.10
Rotator Bini, incl. electromagnetic valve	5150.0015
Counter weight* to increase the carrying capacity by 80 kg (175 lbs) Only necessary for retrofitting HVZ-uni (instead of HVZ standard) at VM 203 up to year 2004 **.	4150.0319
Extra weight* to increase the carrying capacity by 35 kg	4150.0357

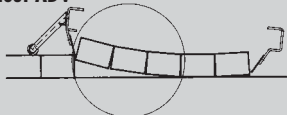
*At adequate driving speed and lowered load.

**Counter weight fitted and included as standard at VM 203 as of year 2005.

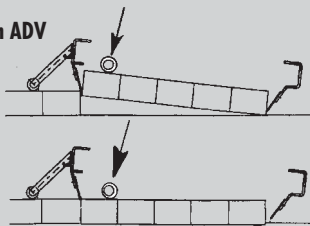
VM 204



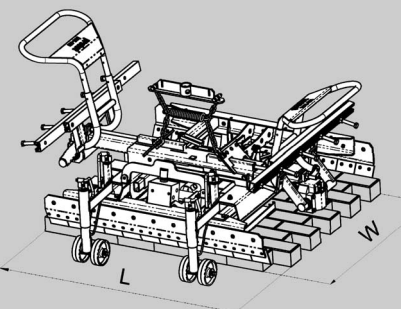
without ADV



with ADV



HVZ-uni



Technical Data:

3-cylinder-Diesel-engine, 18.7 kW/25 hp., speed regulation via hydrostatic drive, max. speed approximately 20 km/h, total height 1,980 mm (78"), total width 1,220 mm (48"), ground clearance 180 mm (7"), total weight (without clamp) 1,130 kg (2,508 lbs), total weight (with clamp) 1,340 kg (2,950 lbs), maximum weight of stone formation 300 kg* (660 lbs*), lifting off height max. 1,600 mm (63"), turning radius 700 mm (27"), front outside wheel 1,900 mm (75"), overall 2,450 mm (96").

Main gripping width of the hydraulic clamp HVZ-uni: 600 – 1,240 mm (23 1/2" – 49")

Side gripping width of the hydraulic clamp HVZ-uni: 990 – 1,480 mm (39 – 58")

Installation Machine VM 204 >ROBOTEC<

Future-orientated technology – modern design. Universally suitable for laying all common paving stone configurations.

Consequent modernization / improvement of the well-established installation machine VM 203.

► Big, large-scale driver's cabin with absolutely scratch-resistant safety glass, excellent all-round view and high comfort. Side walls can be removed, doors can be opened.

► Excellent view to the laying edge.

► Cabin heating for an adequate working climate.

► A control panel with futuristic joystick which is fixed firmly to the driver's seat always enables the ergonomic positioning of drivers of different size.

► Modern, sturdy electronic PLC-control system with switch to select the following processes:

Manual operation: All movements of the installation clamp can be controlled via joystick and pedals.

Semi automatic: Additionally all movements of the pushing-off device are controlled automatically.

Automatic: All movements of the clamp are controlled in their correct sequence via electronic control system. By the joystick any distinct movement can be controlled at any time.

Shifting automatic: Changed working process e.g. for shifting rectangular pavers from cross joint bond into stretcher bond.

► Counter for work cycles.

► Hydraulic rotator between clamp and boom for an exact adjustment of the installation clamp from the driver's seat.

► Stereo-radio with tape recorder.

► Working lights at front and rear.

► Integrated, i.e. absolutely damage-resistant wide angle rear view mirror, no "dead angle"!

► Optimized hydraulic system for a rapid, energy saving working process.

Well proven components have been kept:

► Hydraulic Installation Clamp HVZ-uni (see

discription page 1.3), automatic pushing-off device ADV for an exact and gapless installation – a saving of time without any further adjustments.

► Rapid manoeuvrability and absolute stability are achieved by a double-articulated steering and a favourable positioning of the centre of gravity.

► Unlimited all-round-view – also backwards, for installation machines drive 30% backwards.

► 3-cylinder-Kubota-Diesel-engine, 18.7 kW/25 hp. – for high capacity reserves. Advantage: it always enables an operation at a medium speed level (low noise level)!

► Emission-reduced according to ECE 24 and CARB 1 standards.

► Sensitive hydrostatic front wheel drive.

► Extra wide tyres and different track widths of the front and rear axle ensure a low degree of stress on the uncompacted pavers as well as a smooth drive.

► **Wide diameter tyres** and high ground clearance, therefore suitable also in rough terrain.

► **Wide pivoting range** of approximately 1,600 mm from a standing position is achieved only by a steering movement – and without shifting of the pavement.

► **Double articulated steering** enables manoeuvrability in the tightest spaces. All outer edges are adapted to the steering geometry which means that when there are obstacles there are **no protruding vehicle parts**.

► High lifting height enables the handling of double stacked packs up to a height of 1,600 mm, thus saving a considerable amount of driving-time.

► Narrow swing means that, even at a great lifting height, the positional stability of the machine is not affected. This combined with a low overall height, is **important when operating in underground car parks**.

► Wide-diameter tyres and elastic clamp suspension for a smooth driving effect.

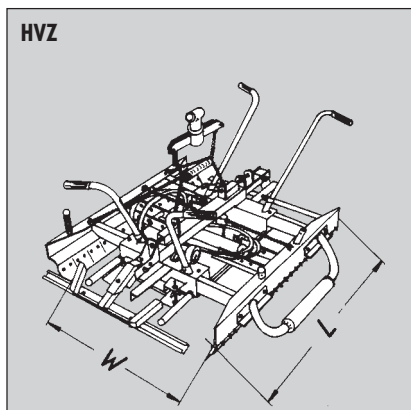
Type	Description	Carrying Capacity* kg (lbs)	Dead Weight kg (lbs)	Order Number
VM 204	without Hydraulic Clamp HVZ-uni	500 (1,100)	1,130 (2,490)	5150.0009
VM 204	Complete with Hydraulic Clamp HVZ-uni and Pushing Off Device ADV incl. Rotator Bini	300 (660)	1,340 (2,950)	5150.0011

Accessories

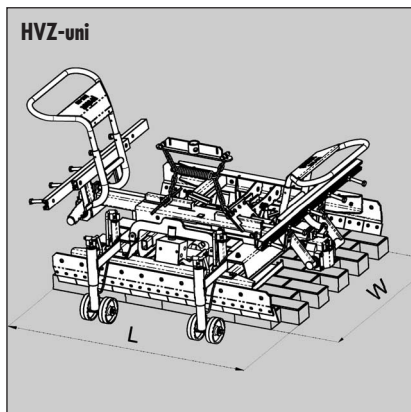
VZ-HS-50/150 Hydraulic Kerb Stone Laying Clamp (see type list, page 1.7)	5160.0014
PC-VM uni Paver Cat (see type list, page 1.9)	5160.0030
EB 240 Sweeping Broom (see type list, page 1.7)	see page 1.7
Vacuum Lifting Device SH 1000 mini (for the attachment to the VM 203/VM 204 (see type list, page 2.4)	see page 2.4
VPM Vacuum Power Max (see type list, page 2.2)	5241.0002/4
Sweeping and Sand watering System KES VARIOKON	see page 1.10
Counter weight* to increase the carrying capacity by 80 kg (175 lbs)	4150.0319
Extra weight* to increase the carrying capacity by 35 kg (can also be used in addition to the 80 kg counter weight).	4150.0357

* At adequate driving speed and lowered load.

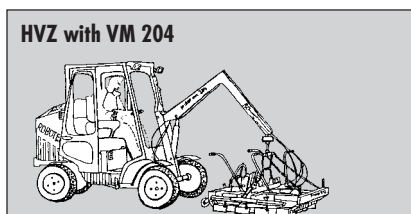
HVZ



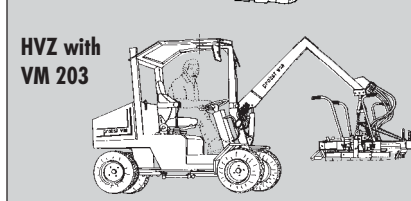
HVZ-uni



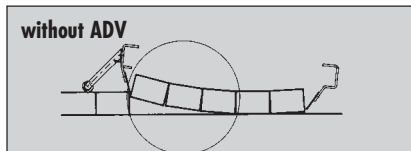
HVZ with VM 204



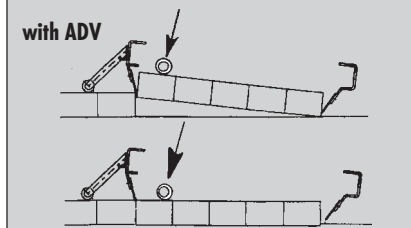
HVZ with VM 203



without ADV



with ADV



Hydraulic Installation Clamp HVZ and HVZ-uni

Both types are universally suitable for laying all paving stone installation units available on the market when combined with the various carriers

HVZ and HVZ-uni Standard Specifications:

- ▷ Universally adjustable main gripping width beared on a maintenance-free steel-polyamide guideway.
- ▷ Adjustable side gripper for the exact shaping of the installation pattern (shaping device).
- ▷ Height adjustable stops for adjusting the gripping depth for different thickness of blocks.
- ▷ 2-position-suspension with springs to lessen the swinging caused by the driving movement.
- ▷ Additional chain to move the clamp diagonally enabling easier positioning and a much more precise installation of the blocks.
- ▷ Manually operated turning device which locks place after 90°.
- ▷ Hydraulic pressure regulating valve to protect the parts from too much strain.
- ▷ Oil pressure gauge.
- ▷ Independent steel grippers — ensuring a

such as VM 203 (1.1) and VM 204 (1.2), hydraulic excavators, wheel loaders, backhoes, fork lift trucks, truck mounted cranes, special machines.

firm grip on single blocks when carrying large sets of blocks. The steel gripper length of 50 mm is variable up to about 1,350 mm.

▷ Handles for optimal guidance of the clamps by the operators. The handles are easily removed allowing the machine access to narrow places.

Only Type HVZ:

▷ Hydraulic System to operate main and side grippers independently when the carrier has only one hydraulic circuit available.

▷ The hydraulic system allows an optimum of movement: 1. Eliminates the diagonal gaps by the side grippers L. 2. Ensures safe gripping of the unit by the main grippers width W. 3. Swinging off the side grippers before the actual paving operation begins so that it is possible to pave directly to a surface already paved. 4. The main gripping width opens to lay down the paving blocks in the laying course.

Hydraulic Installation Clamp HVZ uni

The HVZ uni is the consistent development of the HVZ which is proven in several thousands of units. Even more universal in use, more robust in design and more easy to adjust this device incorporates the experience of

2 decades in mechanical installation. It can be used in conjunction with the laying machine VM 203 and VM 204 as well as other carriers which provide two hydraulic circuits to operate the clamp. All advantages of the HVZ are integrated in the HVZ uni.

HVZ uni/HVZ standard convenient design:

- ▷ Setting off the main and side clamping width made simple and easy without tools by using scale pointers.
- ▷ The side clamping arms swing up completely in order to allow laying close to a wall sideways without any gap.
- ▷ The powerful side clamp achieves easy shifting of undentated pavers into the running bond.
- ▷ Gripping depths and height of the support wheels can be adjusted without tools easy and quickly.

▷ Patented pushing-off technology ADV guarantees installation complying with the regulations: During the laying process the individual pavers creep apart by approx. 0.5 – 1 mm (in addition to the spacer bars). This joint distance must not be eliminated by hammering! Because the pavers can not cock during the laying process time consuming readjustment is avoided.

▷ Pushing off device ADV* as a standard feature integrated in the type HVZ uni.

Type	Main Gripping Width W mm (in)	For paver thickness mm (in)	Side Gripping Width L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
HVZ*	570 – 1,180 (22 1/2 – 46 1/2")	60 - 200 (2 1/4 – 7 7/8")	990 – 1,300 (39 – 51")	400 (880)	190 (419)	5140.0001
HVZ-uni	600 – 1,240 (23 1/2 – 49")	60 - 200 (2 1/4 – 7 7/8")	990 – 1,480 (39 – 58")	400 (880)	210 (463)	5140.0017

* Equipped as standard for operation with 2 hydraulic circuits. That means, the carrier has to supply 2 hydraulic circuits. One circuit operation on request!

Pushing Off Device ADV

When laying pavers on the laying course without the ADV, the blocks often cock, once the clamp is opened.

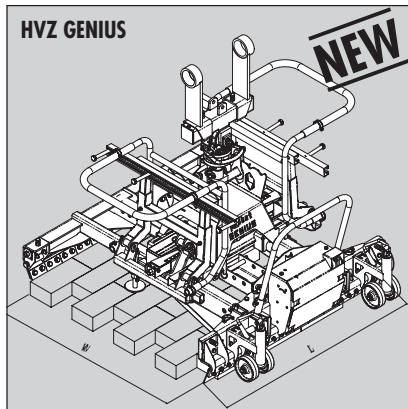
▷ The ADV presses the blocks into the laying course automatically, once the clamp is opened

and so avoids this cocking of the blocks.

Advantage: A lot of time is saved by not having to go back and reposition the blocks by hammering them into the correct pattern, a much more even pattern is achieved.

Type	Dead Weight kg (lbs)	Order-Number
ADV	8 (18)	4140.0007

The ADV can also be fitted to the HVZ already in use (only for two-circuit-hydraulics).



Hydraulic Installation Clamp HVZ GENIUS for universal use with excavators

The highly efficient excavator attachment grab powerful and ingenious.

With only one single hydraulic circuit required and the fully automatic selectable motion sequences the HVZ Genius is a powerful all-rounder without being dependent on electric current.

- Ingeniously simple to use.
- The excavator operator can pave alone!
- High laying performance for maximum demands.
- Enormous rationalisation benefit.
- Shifting the pavers into running bond is effected automatically and quickly. Thus no additional work is to be done for the excavator operator.
- No cost-intensive filter maintenance.

Standard Equipment:

- Specific, automatic pushing-off device ADV.
- Hydraulic rotator, freewheeling with 360° continuous rotation (a second hydraulic circuit has to be supplied by the excavator).
- Universal excavator suspension
- Hydraulic connection hoses and couplings.

➤ Flush laying without any gab along walls and kerbs.

➤ Overlaying handles are quickly removable.

➤ No retrofitting of the excavator.

The HVZ Genius can be fit to all types of excavators. Thus no additional investment in case the clamp is to be attached to different types of excavators.

➤ Gripping range can be easily adjusted from 580 to 1.470 mm in a few steps and without additional tools.

➤ The supporting wheels can be adjusted easy and quickly through a crank handle.

➤ Grab swing brake between hydraulic rotator and excavator suspension.

➤ First-class, electrogalvanised material components guarantee optimum operating safety and long life cycle.

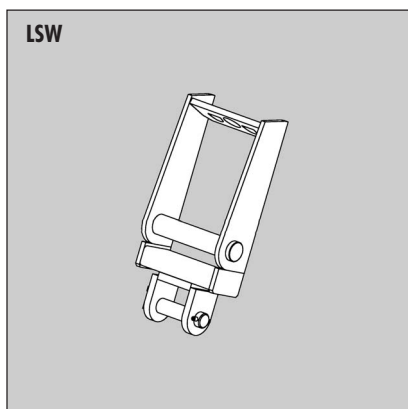
Type	Main Gripping Width W mm (in)	For paver thickness mm (in)	Side Gripping Width L mm (in)	Carrying Capacity kg (lbs)	Dead Weight approx. kg (lbs)	Order-Number
HVZ GENIUS	580 – 1,470 (23 1/2 – 49")	60 – 200 (2 1/4 – 7 3/4")	900 – 1,400 (39 – 58")	400 (880)	290 (750)	5140.0025

Accessories

Adapter suspension for "Lehnhoff" quick-change-device LSW

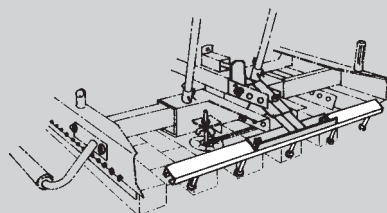
By using the SW, the HVZ GENIUS can be fitted to all kind of excavators which are

equipped with the Lehnhoff quick-change-device.

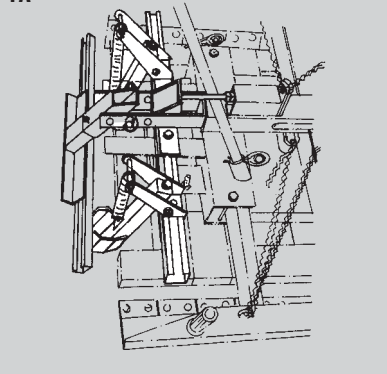


Type	Size	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
LSW 01	Suitable for Lehnhoff-Type MS 01	800 (1,760)	19 (40)	4011.0178
LSW 03	Suitable for Lehnhoff-Type MS 03	1,000 (2,200)	29 (64)	4011.0179
LSW 08	Suitable for Lehnhoff-Type MS/HM 08	1,000 (2,200)	75 (165)	4011.0180

PA



FA



Accessories

Hydraulic Installation Clamp HVZ and HVZ-uni

Adapter

For some installation units it can be advantageous or even necessary, predominantly for the side grippers, to use a special adapter in order to achieve optimal gripping.

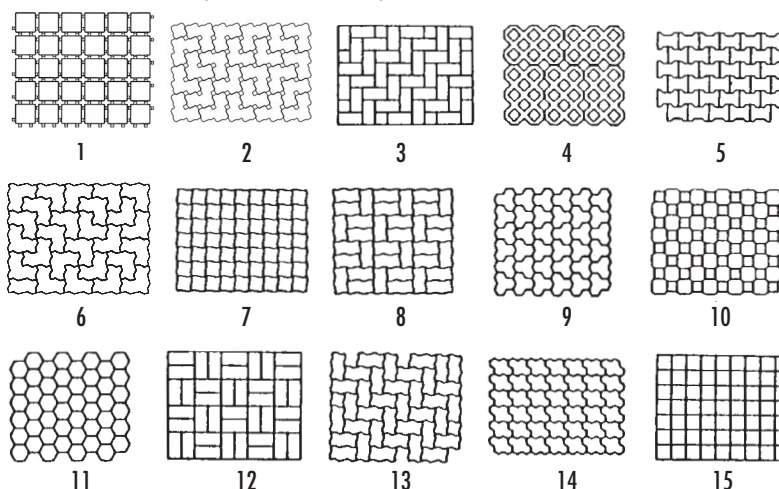
► The shifting adapter **PA** is used with rectangular stones, for instance, to shift pavers into the running bond. (Please, indicate stone formation).

► When laying installation units in the herring-bone pattern, it is better not to bother with the half stones on the sides and to use a herring-bone adapter **FA** instead (Please, indicate stone formation).

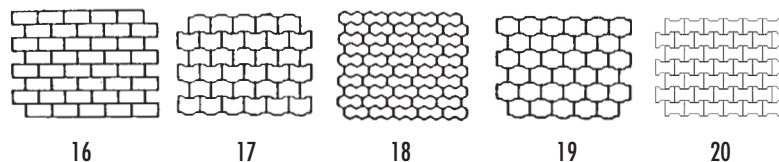
► Special adapters **SA** for installation units 21–24 or similar are available on request (please, indicate stone formation).

Type	Dead Weight kg (lbs)	Order-Number
PA , consisting of: 2 C-Profiles, 10 positioning adapters Please find further information on length of adapter, etc. in our data-sheet N230-4D005	5 (11)	S-4140.0003
FA-Adapter for HVZ if required: FA external bow for HVZ see stone formation No. 25	18 (40)	4140.0118
	4 (9)	4140.0119
FA-Adapter Version HVZ-uni (external bow not required)	10 (22)	4140.0277
Special adapter	—	4140.0009

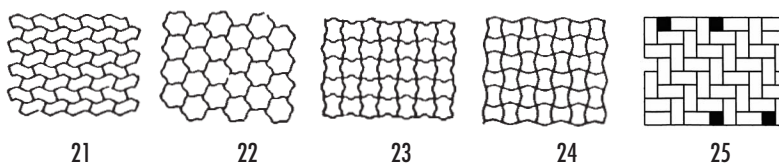
- The stone formations 1 – 20 shown below are suitable among others for mechanical installation. Other stone formations can also be laid by machines as long as the stones are packed in the correct formation ready for the machine to lay them.



- The stone formations 16 – 20 are suitable for mechanical installation by the special adapter.

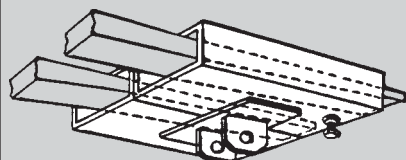


- The stone formations 21 – 25 are suitable for mechanical installation by special adapter.



- For other stone formations (not shown), please send in a mould layout.

ET-L



Accessories

Hydraulic Installation Clamp HVZ / HVZ-uni

Fork Sleeves ET-L

For fork lift trucks, with a lock screw and suspension for HVZ.

► Using this the HVZ can be quickly and easily fastened to any carrier (with a fork attachment).

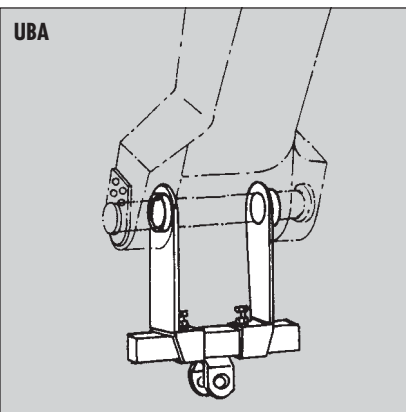
Type	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
ET-L	600 (1,320)	9 (20)	4140.0001

Hydraulic connection hoses to connect the HVZ to the carrier.

Connection: 12 L Cutting Ring.
2 Hoses are necessary per machine.

Type	Order-Number
HD connection hose 600 mm (24 inch) long for hydraulic rotator VZ-HS / Indexator 12 L	2200.0081
HD connection hose 1,100 mm (44 inch) long for hydraulic rotator HVZ 10 L	2200.0032
HD connection hose 1,700 mm (67 inch) long – HVZ 12 L	2200.0007
HD connection hose 2,500 mm (10 inch) long – HVZ/VZ-HS 12 L	2200.0014
HD connection hose 3,000 mm (10 inch) long – HVZ 12 L	2200.0312

UBA



Universal-Excavator-Suspension

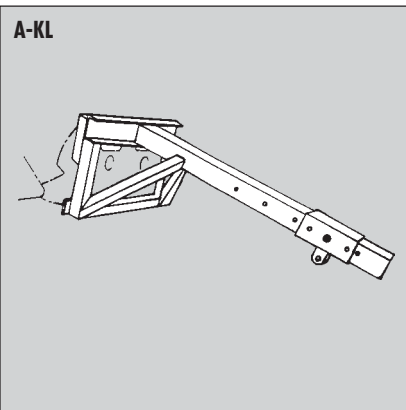
Suitable for most current excavators, maximum bolt diameter up to 60 mm.

► Advantage: The HVZ can be quickly and easily fastened to any excavator.

Type	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
UBA 400	400 (880)	9 (20)	4011.0114
UBA 600	600 (1,320)	12 (26)	4140.0002
UBA 3000	3,000 (6,600)	18 (40)	4140.0088

Type	Order-Number
Rotator Bini – for excavator incl. electromagnetic valve required:	5140.0004
Adapter for Rotator Bini	4011.0122

A-KL



Crane Boom A-KL

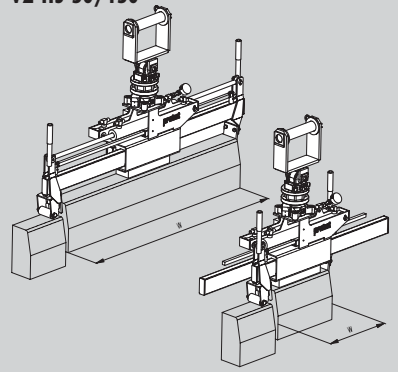
For skid steered loaders, with variable reach. This takes the weight off the back tyres of the skid steered loader and thus protects the new laid pavers from being shifted by steering movements.

It is also advantageous when using other attachments on the skid steered loader, eg. slab clamps, kerb stone laying clamps and such like.

Type	Reach max. mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
A-KL	1,350 (53")	500 (1,100)	40 (88)	4140.0006

When ordering, please state make and type of loader.

VZ-HS-50/150



Additional Equipment for the Installation Machine VM 203/VM 204 or other carriers

Hydraulic Kerb Stone Laying Clamp VZ-HS

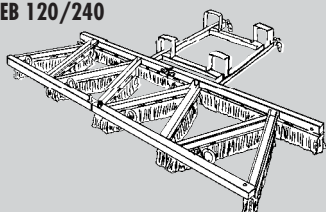
With this universal clamp heavy and different sized kerbstones (granite and concrete) can be transported and installed safely and efficiently. **Fits all kind of carries, supplying one hydraulic circuit.**

- Joint plate for mounting a hydraulic rotator, or quick change device for attachment to the VM 203/VM 204 incl. suspension.
- Rubber protected hight stop
- Steel finger grippers
- Manually adjustable pressure relief valve.
- Oil pressure manometer

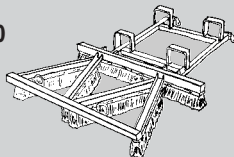
Type	Opening Width W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VZ-HS-50/150	460 – 1,460 (18 – 57 1/2")	400 (880)	75 (165)	5160.0014
Rotator Bini		1,000 (2,200)		2250.0013
Rotator Indexator				2250.0001
Adapter between UBA and Rotator Bini				4011.0122
Bypass restrictor for Indexator				4190.0011
Hydraulic hoses (see type list 1.6)				

Please ask for our data-sheet N 282 - 4D005 showing attachment variations.

EB 120/240



EB 120



Sweeping Broom EB

For efficient sand sweeping after the laying of block pavers. Fastest filling of the joints by innovative system of brush-arrangement.

► This sweeping broom does not only brush the sand horizontally into the joints, but also diagonally. So the sweeping is a one-way procedure.

► Surplus of sand can easily be shoved further on.

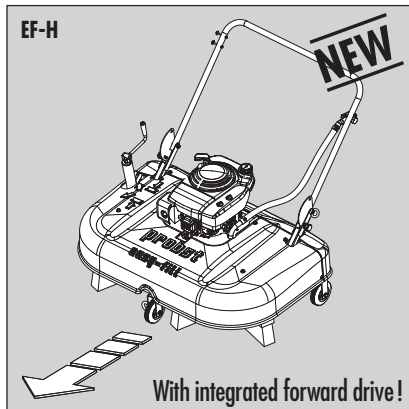
► Modular principle of design for flexible working width 1,200 and 2,400 mm (or for attachment to wheel-loaders 3,600 mm).

Standard Specifications:

► With attachment device for Probst laying machine VM 203/204 as well as for fork-gripping.

Type	Specification	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
EB 120/240	Sweeping Broom complete incl. linkage	1,200 or 2,400	105 (230)	5160.0021
EB 120	Sweeping Broom complete incl. linkage	1,200 (47")	64 (140)	5160.0019
AE 120	Attachment Device	1,200 (47")	41 (90)	5160.0020
Brush	Brush for EB per piece			4160.0002

The broom can easily be attached to any other carrier – wheel loader, for example.



Easy-Fill Paver Jointing Device EF-H

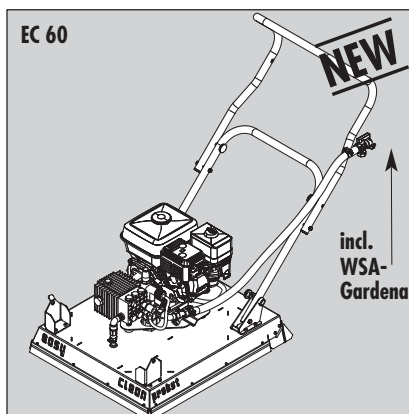
Easy, flexible, quick and thus cost-saving filling of paver joints for small and medium sized areas. Filling material can be filled in both dry or by adding water.

Your Advantages:

► **High Physical Relief of Staff**
80% less pushing force due to cleverly designed rotating brushes. This results in an integrated forward drive!

- Robust and Long-life Brushes
Up to 50mm of the bristle length can be worn before replacement.
- Continuous & Quick Adjustment of brushes in height through a spindle fixed to the machine.
- Compact Transport Size
A foldable handle reduces the size to (LxWxH) 800x1,170x635mm.
- Fine Dosing of Water
with tap integrated in handle.

Type	Working width mm (in)	Engine	Dead Weight kg (lbs)	Order-Number
EF-H	1,170 (46")	Honda, GXV 160, 4 KW at 3600 RPM	89 (195)	5170.0003
Brush for EF-H				4170.0002



Easy-Clean Paver Cleaning Device EC 60

Highly efficient, engine-equipped high pressure cleaner with splash guard. It enables fast and consistent cleaning of concrete pavers, slabs and natural stone pavement even during the trading hours in pedestrian areas!

Your Advantages:

- **Cleans Up to 5 Times More**
compared to lance-equipped pressure washers. 2 fast rotating special spray nozzles ensure that.
- New Looking Pavement
in colour and structure by even surface and joint cleaning in one go.
- Independent from Power Supply
due to powerful gasoline engine.
- Reduced Preparation Time
since the splash guard is an excellent protective measure. Thus no fouling of the surrounding area and the user. This modern design makes protective clothes for the user be antique.
- Save Cleaning of Joints

- High Safety for Surrounding Area
due to covered work space.
- Dirt is Flushed Aside
by an integrated flushing system.
- Improved Water Permeability
Sediment-free joints allow more water to pass.
- Easy Moving of Machine 4 big wheels below the splash guard allow easy handling.
- Handle with integrated stop cock for water supply cut-off.
- Compact Transport Size
A foldable handle reduces the size to (LxWxH) 800x600x500 mm which suits most car boots.
- Long-Life Splash Guard
Stainless steel protects against rust.

Including Water Hose Adapter WSA-Gardena as a standard feature
(adapter for connecting the EC 60 bayonet coupling to a Gardena water hose coupling).

Type	Working Width mm (in)	Engine	Dead Weight kg (lbs)	Order-Number
EC 60	600 (23 1/2")	Honda, GX 160 T 4 KW at 3600 RPM	50 (110)	5170.0004

Accessories

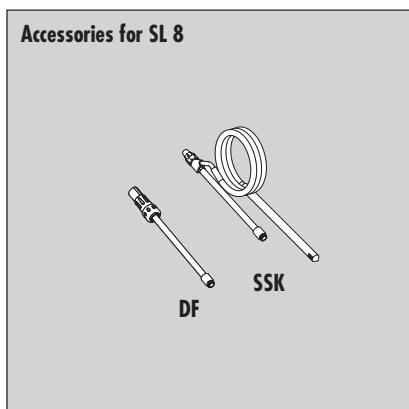
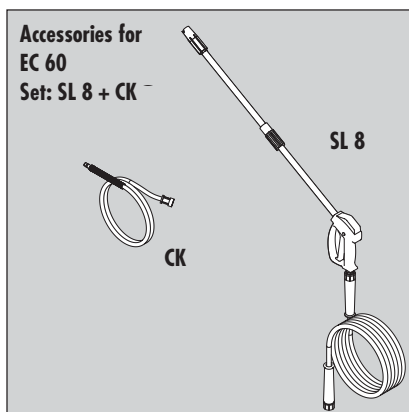
Set: Spray Lance SL 8 and Chemical Kit CK

Spray Lance SL 8: Complete spray lance, nozzles adjusted to the high pressure pump, lance head with integrated switch for high/low pressure, including high pressure hose with 8 m length.

Chemical Kit CK: Our high pressure pump is equipped with a metering unit for chemical additives. The CK enables the intake and the dosage of such additives from containers.

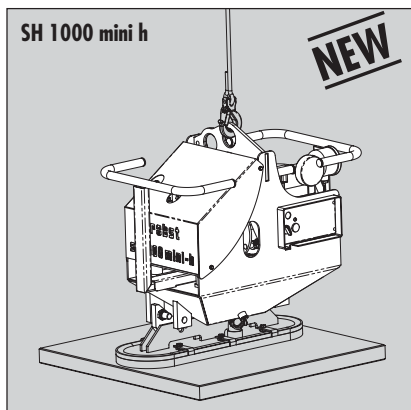
Dirt Drill DF: Spray lance head with integrated dirt drill for erasing heavy dirt. Can be fixed within seconds to the SL 8.

Sand Blasting Kit SSK: For erasing persistent dirt up to derusting and similar applications. This kit allows intake and dosage of sand for blasting (sand is not included in kit).



Type	Order-Number
Spray Lance SL 8 and Chemical Kit CK	S-2611.0032
Dirt Drill DF	2611.0026
Sand Blasting Kit SSK (0.1 – 0.5 mm grain quartz sand)	2611.0033

SH 1000 mini h

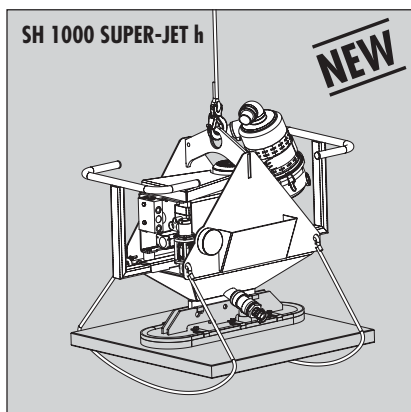
NEW

Additional Equipment for the Installation Machine VM 203/VM 204 or other carriers

Hydraulic Vacuum Lifting Device SH 1000 mini

(Detailed description as per type list 2.4)

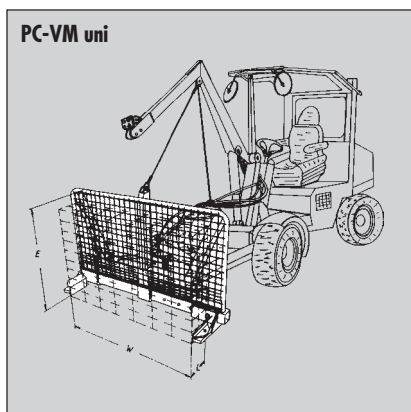
SH 1000 SUPER-JET h

NEW

Hydraulic Vacuum Lifting Device SH 1000 SUPER-JET

(Detailed description as per type list 2.4)

PC-VM uni



Paver Cat PC-VM uni

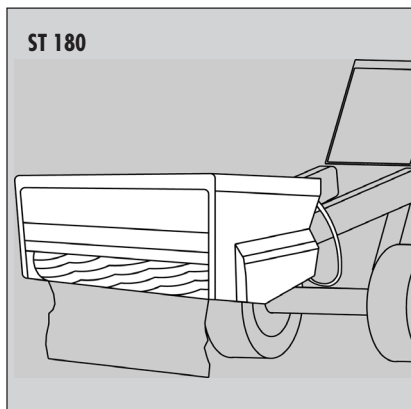
Special version for use with the VM 203/VM 204.
Enables the quick and secure distribution of a row of paving blocks.

The wide opening range allows the transportation of other concrete products such as paving slabs, kerb stones and blocks for building walls.

Type	Gripping Width W mm (in)	Stack Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PC-VM uni	400 – 1,300 (15 ³ / ₄ – 51")	850 (33 ¹ / ₂ ")	200 (7 ³ / ₄ ")	500 (1,100)	120 (265)	5160.0030

(see page 1.14 for Paver Cat for skid compact loader).

ST 180



Profi-Spreading-Bucket ST 180

This powerful attachment device for wheel-loaders increases the productivity and lowers the costs.

► Versatile use – for sand, chipping, gravel, peat or topsoil up to a graining of 100 mm.

A surface of 5.000 sqm can be spread per hour!

► Before joint-filling of freshly laid pavers and slabs, the time-intensive work of sand-distribution has to be done. Here the ST 180 saves time, working potential and costs.

► Quick loading of the bucket: The hydraulically driven ST 180 is fitted to a wheel-loader. Like with a normal wheel-loader-bucket the

operator drives into the sand-heap and tilts the bucket backwards. The bucket holds 900 litres.

► High working quality and spreading efficiency, with adequate rates: The spreading width of the ST is 1,800 mm. In the full width the spreading quantities can be adjusted between 5 and 100 kg per sqm.

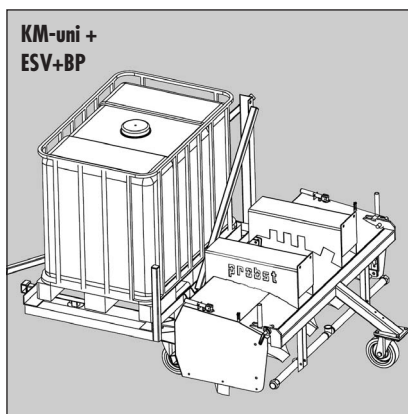
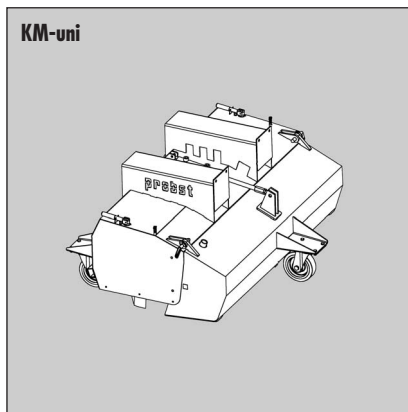
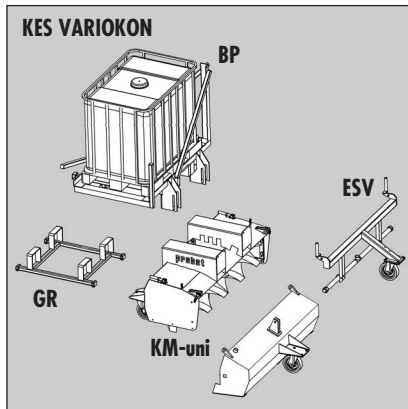
► An absolutely one-man-device. The driver of the wheel-loader can do all operations by himself!

► Innovative spreading technology

► Self-cleaning spreading roller

► Highest Working Security

Type	Spreading Width mm (in)	Power	Loading Capacity (liter)	Spreading Quantity (kg)	Spreading Material mm (in)	Dead Weight kg (lbs)	Order-Number
ST 180	1,800 (71")	hydraulically	approx. 900	adjustable 5 to 100 kg/m ²	versatile up to a grain- size of 100 (4")	480 (1,060)	5160.0022
Universal-attachment-device for attachment to lifting plate of wheel-loader							5100.0049
Quick-change-device for wheel-loader (please indicate type)							5100.0050



Sweeping and Sand Watering System KES VARIOKON

Variable and convertible, covers the whole process of joint sanding and cleaning on paver jobs.

Consistent conversion of the well proven strategy, to offer multi functional modules instead of lots of individual devices.

The system can be extended at any time in order to cover each individual required application such as:

➤ Sweeping device for loaders, fork lifts and/or laying machine VM, to do the joint sanding as well as the cleaning on paver jobs.

➤ Sand watering device für paver jobs, to be operated with wheel loaders, forklifts or laying machine VM, with integrated water container or with direct water connection.

➤ Quick jointing of ecological pavers with wheel loaders, fork lift or laying machine.

Modules:

Sweeping Machine KM-uni

➤ Hydraulically driven brush, hydraulic motor integrated, no parts sticking out sideways.

➤ Special brush with spiral design, with integrated height adjustment for exact setting for the different working procedures such as cleaning, joint sanding or sand watering.

➤ Large volume dirt collecting box can be emptied-out hydraulically.

➤ Only one hydraulic circuit to operate both sweeping and opening and closing of the dirt collector box.

➤ Integrated suspensions for forks.

➤ Water spraying pipe integrated in dirt collector to avoid dust.

➤ With extra wide wheels for not getting stuck in wide ecological joints.

➤ For operation on laying machine VM the following modules are necessary: AH-KM, GR.

Water Flushing Attachment ESV

➤ Large water distributing pipe with spraying holes, for water supply through container or direct water supply, connection 3/4".

➤ Simple and quick exchange against the dirt collecting box by three pins.

Suspension AH-KM

➤ Suspension between attachment and laying machine VM to lift-up the sweeping machine with or without container attachment BP.

Frame GR

➤ To adapt the KM-uni to the laying machine VM, also suitable to attach the sweeping broom EB 120/240, (see page 1.7) to VM.

Container Attachment BP

➤ BP including large volume, exchangeable water container, 640 liter, directly attachable to laying machine VM or forks of loader or forklift.

Water Automatic Element WAE

➤ To open and close the water supply by using the hydraulic circuit for rotation. Makes specially sense when using water supply out of the container.

Recommended combinations:

➤ Wheel loader or fork lift operation with direct water supply for sweeping and sand watering: KM-uni, ESV

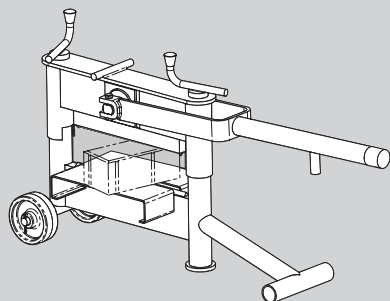
➤ Laying machine, wheel loader or forklift operation without direct water connection for sweeping and sand watering operation, KM-uni, ESV, BP, AH-KM, WAE

➤ The same as above, but with direct water supply, KM-uni, ESV, AH-KM, GR

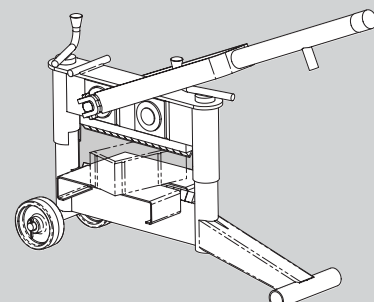
➤ Sweeping machine for wheel loader or forklift: KM-uni.

Type	Description	Dead Weight kg (lbs)	Order-Number
KM-uni	Sweeping machine, working width 1.600 mm	270 (595)	5160.0026
ESV	Water flushing attachment ESV	38 (84)	4160.0067
BP	Container attachment BP incl. water container	150 (331)	4160.0068
AH-KM	Suspension for laying machine operation	5 (11)	4160.0072
GR	Frame for laying machine operation	15 (33)	4160.0047
WAE	Water automatic element	2 (4)	4160.0070
KES VARIOKON	Consisting of KM-uni, ESV, BP	463 (1,020)	5160.0027

AL 33



AL 33/S



Block Cutters AL

High stability, yet light weight, exact cutting ability.

Fast manual operation due to the favourable transmission of the eccentric lever.

► Simple and quick adjustment of the cutting height by the height adjustment screws.

► Suspended upper blade even cuts materials with a conical cross-section (such as kerb stones).

Type AL 43/U cuts kerb stones up to 300 mm high.

► Spring loaded suspending table ensures an exact cut.

► Both blades, top and bottom, have 4 cutting edges, thus ensuring a long life.

► The blades can be turned quickly and easily.

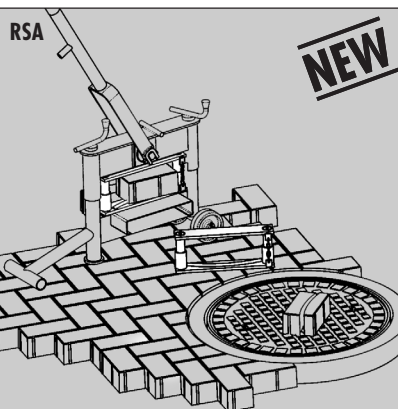
Type	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Order-Number
AL 33	330 (13")	10 – 120 ($1\frac{1}{2}$ – $4\frac{3}{4}$ ")	40 (88)	5120.0001
AL 43	430 (17")	10 – 120 ($1\frac{1}{2}$ – $4\frac{3}{4}$ ")	60 (130)	5120.0002
AL 43/U	430 (17")	10 – 300 ($1\frac{1}{2}$ – $11\frac{3}{4}$ ")	65 (145)	5120.0003
AL 65	650 ($25\frac{1}{2}$ ")	10 – 120 ($1\frac{1}{2}$ – $4\frac{3}{4}$ ")	80 (175)	5120.0004
AL 33/S	325 ($12\frac{3}{4}$ ")	10 – 135 ($1\frac{1}{2}$ – $5\frac{3}{8}$ ")	70 (155)	5120.0010
AL 43/S	430 (17")	10 – 135 ($1\frac{1}{2}$ – $5\frac{3}{8}$ ")	75 (165)	5120.0011
AL 65/U	650 ($25\frac{1}{2}$ ")	10 – 300 ($1\frac{1}{2}$ – $11\frac{3}{4}$ ")	87 (190)	5120.0006

AL 33/S and 43/S

For cutting clay pavers, natural stones and concrete pavers.

► With strengthened single spring-loaded cutting teeth which can adjust to cope with the unevenness of the blocks.

So clay pavers and natural stones also with uneven surfaces (differences up to 4 mm) can be cutted without any problems.



Radial Cut Adapter RSA

The RSA converts each standard block cutter into a radial cutter within seconds.

Simply brilliant:

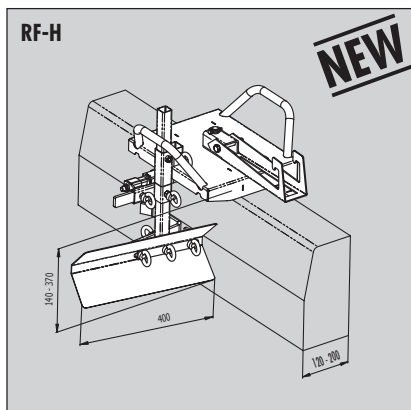
Now concrete pavers can also be cut with a radius. So connections around manhole covers can be done precisely, quickly and professionally without breaking the optics.

► Suitable for outside diameter of manhole covers of approx. 700 – 800 mm.

► Easy handling, RSA has only to be positioned between the two plates of the cutter. The RSA does not have to be rigidly fixed in this position.

Type	Cutting Length mm (in)	Required inside width of the cutter mm (in)	Cutting Height* mm (in)	Dead Weight kg (lbs)	Order-Number
RSA 25	250 ($9\frac{3}{4}$ ")	355 (14")	50 – 100 (2 – 4")	4,5 (10)	4120.0016

* Min. required distance between plates 140 mm



Gutter Fix RF-H Screeding System for lean concrete

The Gutter Fix RF-H is a professional device for road construction.

In one working step large paving blocks are installed in lean concrete to form this gutter. No more time consuming screeding work!

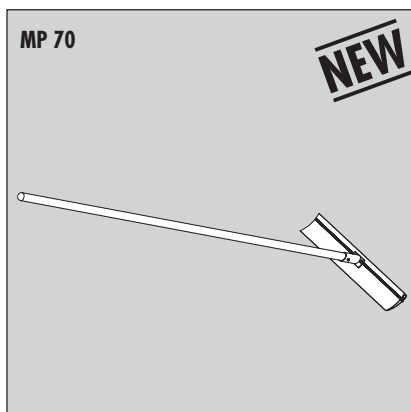
- Time saving due to easy handling.
- The RF-H can be pushed by one operator, if required a second operator can assist in pulling with an integrated standard hooking point for shovel.

► The adjustment of the ground level and the width of the kerb is done simply and quickly by using clamp bolts (no tools are necessary).

► Large rollers which are touching the top surface and the rear surface can be easily pushed.

► The plowshare is made of extremely high wear-resistant V2A stainless steel.

Type	Working Width max. mm (in)	Suitable for Kerb Thickness mm (in)	Ground Level from Top of Kerb mm (in)	Dead Weight kg (lbs)	Order-Number
RF-H	500 (19 3/4")	120 – 200 (4 3/4 – 7 3/4")	70 – 300 (2 3/4 – 11 3/4")	13 (30)	5100.0064



Mini-Plan sliding finisher MP

This lightweight, handy and smart tool allows effective finishing work on screeded areas. Especially suitable to clean up screed rail marks.

But also larger areas can be screeded very quickly, for example around gullies with different falls.

Depending on the angle, the operator can decide

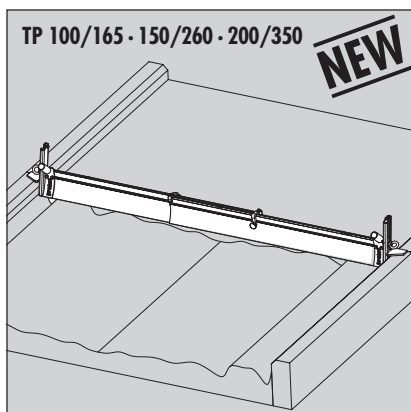
to let the tool: dig in, to move much material or to float to do only final finishing work.

► Aluminium hollow profile, very lightweight, 700 mm long.

► Robust, lightweight hardwood handle.

► Sturdy holder for handle fixed to the profile.

Typ	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
MP 70	700 (27 3/4")	1,7 (4)	5101.0004



Tele-Plan handscreeding system TP

The new Tele-Plan TP aluminium profile is sickle shaped. As a result the profile cuts itself into the bedding material and does not move upwards! No need for executing any force to push it down when pulling. Especially when screeding compacted sand, also in case of the screed bar cannot be moved sideways "sawing off" the bedding material due to lateral obstacles or boundaries, the advantages of the TP profile are enormous with regard to effort of energy, working speed and high-quality performance of the laying course. Two (2) TP profiles can be connected together in order to be telescopically adjusted in a simple and sturdy way. Thus one and the same tool can be used for various working widths. The lightweight aluminium hollow profile is extremely sturdy (high-tensile material - weight is 1,3 kg per meter).

Long Lifespan!

► Two fixed clamping units to connect both profiles, clamping units can not get lost.

► Side parts with height adjustable height stop (ST-TP) on both sides, range of adjustment 0 - 127 mm. Can be taken off quickly if required.

► Integrated fitting for additional pulling handles HG-TP included in the side parts.

► One level indicator incorporated inside the TP profile.

Accessories:

Handle HG-TP: Set of 2 pulling handles, allowing relaxed and ergonomically correct body position standing upright and not kneeling in the wet sand.

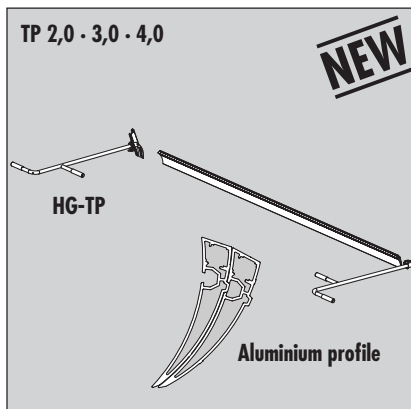
Special accessory, can be fixed and released quickly to the side parts.

Profile TP: 2,0 - 3,0 - 4,0

Aluminium profile only, without level indicators Prepared to fit the side parts ST-TP with height adjustable stops at any later time.

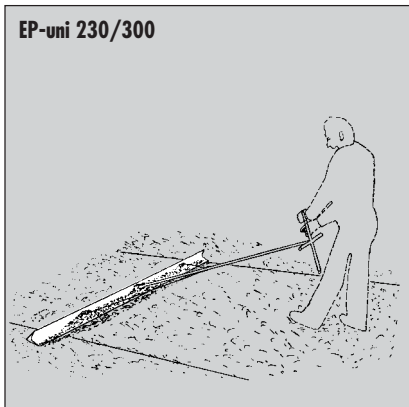
Side parts ST-TP:

Side parts with height adjustable supports, come as a pair. Range of adjustment 0 – 127 mm, can be fitted and taken off at any time. With integrated fittings for handle HG-TP.

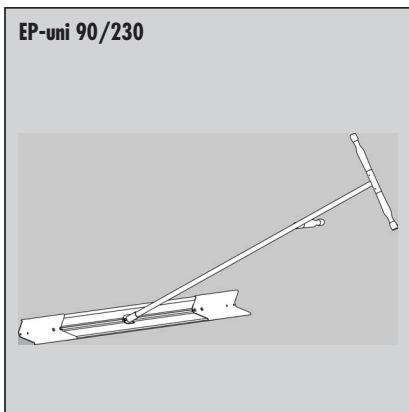


Type	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
TP 100/165	1.000 – 1.650 (39" – 65")	4,6 (10)	5101.0001
TP 150/260	1.500 – 2.600 (59" – 102")	6,0 (13)	5101.0002
TP 200/350	2.000 – 3.500 (79" – 138")	7,3 (15)	5101.0003
HG-TP		2,4 (5)	5101.0005
TP 2,0	2.000 (79")	2,7 (6)	4101.0014
TP 3,0	3.000 (118")	4 (9)	4101.0015
TP 4,0	4.000 (157")	5,4 (10)	4101.0016
ST-TP		1,5 (3)	4101.0019

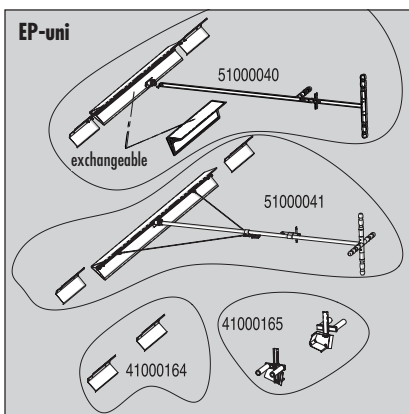
EP-uni 230/300



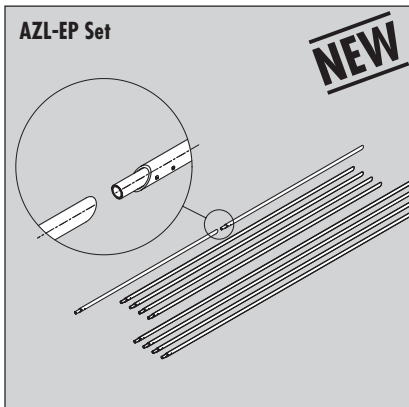
EP-uni 90/230



EP-uni



AZL-EP Set



Easy-Plan EP-uni The smart handscreeding system

The EP-uni is an optimal hand-tool for an economical performance of smaller and medium-sized sites. With this device you do it quicker, easier and better.

Continuously adjustable telescopic elements.

With only one system you can screed different working widths easily and exactly.

EP-uni is adjustable to the required working width between 900 and 2,300 mm respectively between 2,300 and 3,000 mm.

➤ With two telescopic elements the basic Alu-profile can be enlarged by maximum 700 mm.

➤ Set 90/230 for working width 900 up to 2,300 mm

➤ Set 230/300 for working width 2,300 up to 3,000 mm

➤ Flanged at the sides, height-adjustable roller units take the height off existing kerbs, pavers or similar. This is possible not only with the basic element but also with the telescopic elements. No further rail gauges are necessary, thus granting additional time-saving!

➤ Including special key for fast mounting of the telescopic elements and the roller units.

➤ No torsion with the strong Alu-profile, even at working-widths up to maximum 3 m!

➤ Due to special design, the profile does not leave the screeding rail even when working with large quantities of screeding material.

➤ The three-dimensional handle of EP 230/300 is adjustable to the required angle-positioning.

➤ The special design of the handle enables the operator to use the weight of his body to exert pulling force in every position of the EP-profile.

➤ With the 900 mm EP the screeding material can be carried and filled exactly into the gaps left by the screeding rails, for example water-pipes.

➤ Handle removable for transport.

Type	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
EP-uni-Set 90/230 consisting of: - 1 Alu-Profile each 900 mm and 1.600 mm - 1 handle - 2 telescopic units each 350 mm	900 – 2,300 (35 1/2 – 91")	15 (33)	5100.0040
EP-uni-Set 230/300 consisting of: - 1 Alu-Profile 2.300 mm - 1 three-dimensional handle - 2 telescopic units each 350 mm	2,300 – 3,000 (91" – 118")	15 (33)	5100.0041
EP-uni 900	900 (35 1/2")	6 (13)	5100.0044
EP-uni 1.600	1,600 (63")	8 (18)	5100.0045
EP-uni 2.300	2,300 (91")	11 (24)	5100.0046
Set of Roller Units for EP-uni (can be added later)		7 (15)	4100.0165
1 Set of Telescopic Units for EP-uni 2 x 350 mm (13 1/2")		3 (6,6)	4100.0164

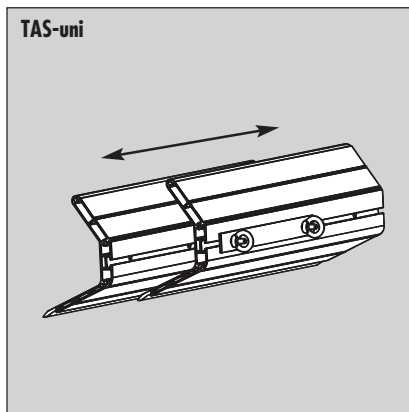
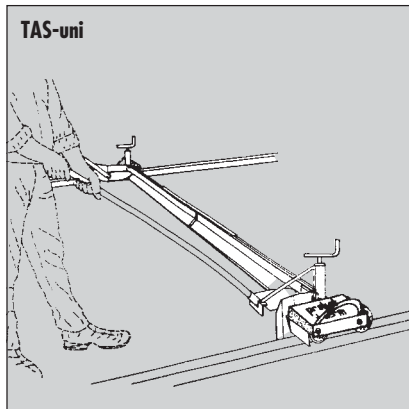
Screeding Rail Kit AZL-EP for Handscreeding System Easy-Plan EP-uni

Through integrated plug-in connections it is very easy to join these lightweight screeding rails together. A cubical inclined plane of section gives inlined joints in each direction. Impossible to hook in with the wipers.

➤ Non-corroding due to use of galvanized steel pipes.

➤ Simple, robust, integrated plug system. Undetachably!

Type	Number of Parts	Total Length m (feet)	Dead Weight kg (lbs)	Order-Number
AZL-EP Set	consisting of: 2 x 1,5 m, 4 x 2,5 m, 4 x 3 m	25 (82.5)	41 (90)	5100.0057



Telescopic Screeding System TAS-uni

Universally suitable for precise and flexible screeding of laying courses on both, large and small sites. Comfortable upright working position.

Consisting of the following components:
Telescopic aluminium screeding profiles, height adjustable roller units on either side, pulling elements.

The aluminium profile has been optimized. So the device does neither move upwards when pulled by hand nor when pulled with chains mechanically. In one run a clean and exact screed can be produced.

The profile was increased in order to be able to move more material when the pre-distribution of the screeding material is very rough.

Step above the roller unit on which the operator can stand to increase the pressure to the ground when using the TAS-M mechanically.

Working width up to 6,000 mm (20 feet) by duplicating the profile.

Special aluminium profiles, consisting of a low wear, high-tensile alloy are designed to be fully telescopic to one another, stepless. With integrated jam system to lock the telescopic parts in any desired position.

All metall parts are galvanized.

At each side equipped with height adjustable roller units, including screeding rail cleaning wiper as well as material turn-away metal sheet.

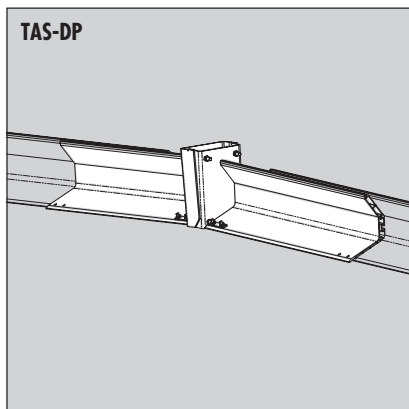
Proper height adjustment can be read from a scale (0 – 25 cm).

For mechanical operation 2 pulling chains are included in the standard equipment.

Particularly handy:

For hand operation the TAS can be easily pulled by means of standard shovels while standing in comfortable upright position!

Type	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
TAS-uni 450 recommended basic configuration: - 1 Aluminium-Profile each of 750, 1,000, 1,750, 2,000 mm long (30", 40", 69", 80") - with integrated clamping adjustment - 1 set = 2 side positioned, height-adjustable roller units with metal steps and sheet-metal wipers - with integrated fastener for the required segments with hook-in-system for shovel - 2 pulling chains, incl. hooks	750 – 4,500 (29 1/2" – 177")	78 (170)	5100.0042
TAS-uni 600 standard configuration as above, plus 1 Alu-Profile 3,000 mm long	750 – 6,000 (29 1/2" – 236")	100 (220)	5100.0043



Adjustable Adapter for Roof-/Pan Profile TAS-DP

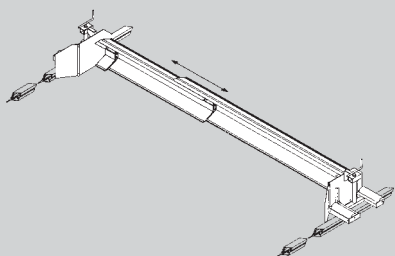
With this adjustable adapter any roof or pan profile of +/- 4% can be screeded.

The adapter can be adjusted exactly and directly above scale.

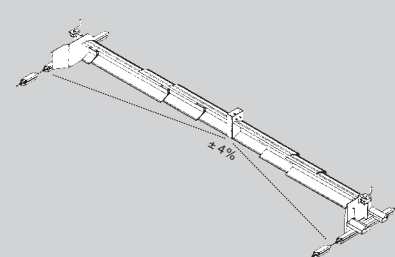
Type	Description	Dead Weight kg (lbs)	Order-Number
TAS-DP	1 adjustable adapter for roof and pan profiles (+/- 4 %) 2,000 mm long (6.5 feet)	12 (26)	4100.0173
TAS-DP Profi	Special complete devise for screeding of roof or pan profiles		Composition on request

Screeding Rails AZL see type list, page 1.15

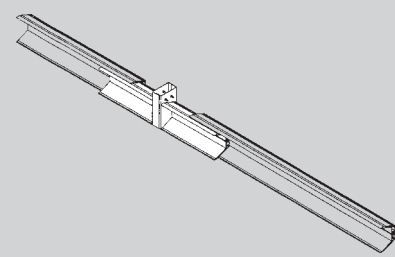
TAK



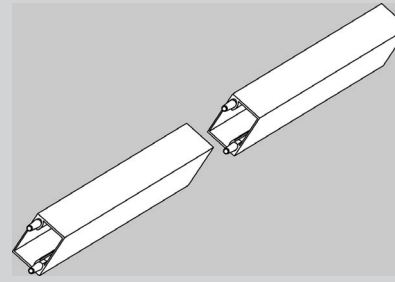
TAK



TAK-DP



AZL



Telescopic Screeding Bucket TAK

Universally suitable for precise preparation of the laying course. Specially designed for mechanical operation.

Consisting of the following components:

- Telescopic aluminium screeding profiles
- Height adjustable roller units on either side
- Special aluminium profiles - enormously stiff with low-wear and high-tensile alloy are designed to be fully telescopic and continuously variable. With integrated jam system to lock and release the telescopic segments in any desired position.
- Each side equipped with height-adjustable and smooth-running roller units with sliding metal sheets and deflectors.

➤ No height mismatch at the single telescopic junctions as all profiles are arranged at the same level.

➤ The skillfull design of the profile and its height of 300 mm allows the distribution of lots of material. By universally suitable handling attachment, the TAK can be lifted and transported.

➤ The bucket filled with screeding material can be picked-up with a wheel loader for accurate discharge.

➤ **With the recommended professional model TAK 750, each working width between 1,200 mm (4 feet) up to 7,500 mm (24.6 feet) can be covered.**

Type/Working Width	Dead Weight kg (lbs)	Order-Number
TAK 750 , recommended professional model, consisting of: 1 each Aluprofile 1,100, 1,700, 2,700, 3,000 mm long, with integrated jam system. 1 set = 2 units height adjustable roller units with wipers, with handling system for operating with loader 1 pair = 2 units pulling chains, incl. hooks each working width between 1,200 mm and 7,500 mm can be achieved.	190 (420)	5100.0013
TAK 350 , basic model, as described above, only with 2 Alu-Segments each 1,700 mm long, achieving each working width between 1,750 mm and 3,500 mm	95 (210)	5100.0018

TAK-DP

Special complete device for screeding of roof or pan profiles.

Working width adjustable stepless from 2,500 mm (8 feet) until 7,500 mm (24.6 feet) length.

Type/Working Width	Dead Weight kg (lbs)	Order-Number
TAK DP adjustable adapter to screed any roof or pan profile (+/- 2 %) · Length: 1,500 mm	22 (48)	4100.0042
TAK-DP Profi consisting of 2 segments each 1,200 mm + 1,300 mm + 2,000 mm, 1 adjustable adapter for roof or pan profiles, 1 set of side parts and 1 pair of pulling chains	215 (470)	5100.0021

Screeding Rails AZL

Special aluminium profile, achieving highest strength and low dead weight.

Particularly handy:

A cubical inclined plane of section gives inlined joints in each direction. Impossible to hook in with the wipers!

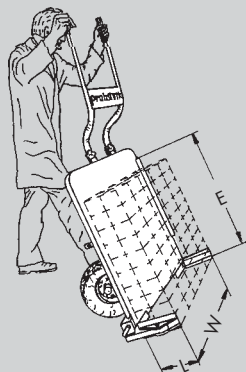
➤ Simple, strong, integrated plug system by 2 conical bolts, plugs cannot be lost!

➤ AZL-Set 24: for the daily use on both, small and medium sites.

➤ AZL-Set 60: recommended set for bigger sites and mechanical installation.

Type	Number of Parts	Total Length m (feet)	Dead Weight kg (lbs)	Order-Number
AZL-Set 20	6x3 m, 2x1 m	20 (66)	40 (90)	S-5100.0039
AZL-Set 24	6x3 m, 2x2 m, 2x1 m	24 (79)	48 (115)	S-5100.0014
AZL-Set 60	12x4 m, 4x2 m, 4x1 m	60 (197)	120 (265)	S-5100.0015
AZL-4	1 piece, 4 m long	4 (13)	8 (18)	5100.0019
AZL-3	1 piece, 3 m long	3 (10)	6 (14)	5100.0016
AZL-2	1 piece, 2 m long	2 (6.5)	4 (9)	5100.0020
AZL-1	1 piece, 1 m long	1 (3)	2 (4)	5100.0017

VTK-V



Adjustable Paver Transport Cart VTK-V

For the effortless transportation of bound or loose pavers, kerb stones, slabs, etc.

► Clamping is done by bending a lever 90° (maximum pressure 15 kp).

► An integral protection device prevents overloading of the clamping mechanism.

► A favourable load distribution and the light-weight-nature of the device (68 kg) ensures optimal operating.

► Its narrow build (115 cm/45") means it can be used on the smallest building sites.

► Blocks can easily be loaded from the pallet without the need of a ramp.

► Fully mechanical

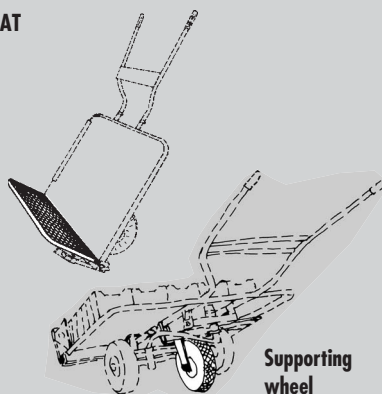
► Adjusts smoothly and without the need for tools.

► Adjustable gripping width from 550 mm – 1,050 mm.

► Durable galvanized surfaces.

► The minimum and maximum gripping widths can be altered using special grippers.

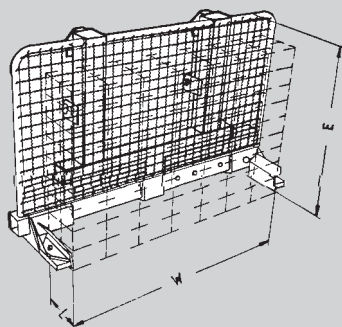
AT



Supporting wheel

Type	Gripping Width W mm (in)	Block Height max. E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VTK-V	550 – 1,050 (21 ³ / ₄ – 41")	900 (35 ¹ / ₂ ")	200 (7 ³ / ₄ ")	400 (880)	68 (150)	5110.0004
VTK-V with supporting wheel technical data see above					74 (160)	5110.0010
Supporting wheel, for easy handling on even ground. Can be additionally attached at any time.					7 (15)	4110.0041
Retrofit Kit: Special grippers and wider load support max. 1,350 mm						4110.0056
AT insertable storage tray for transporting tools, small compactors, etc.					5 (11)	4110.0010

PC-uni



Paver Cat PC-uni

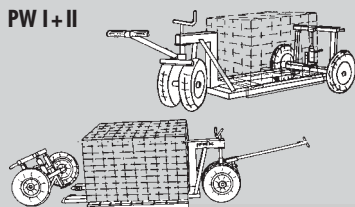
An attachment for skid steered loaders, this device enables the quick and secure transport of one or more rows of paving blocks, whether on pallets, strapped up or loose.

► The wide open range means many other products such as paving slabs, kerb stones and blocks for walls can also be transported.

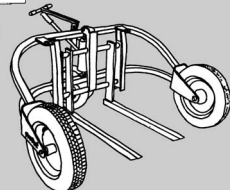
A special version – the PC-VM – has been developed for use with the Probst Installation Machine VM 203 and VM 204.

Type	Gripping Width W mm (in)	Stack Height max. E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PC-uni	400 – 1,300 (15 ³ / ₄ – 51")	850 (33 ¹ / ₂ ")	200 (7 ³ / ₄ ")	500 (1,100)	80 (175)	5160.0029
PC-VM-uni	400 – 1,300 (15 ³ / ₄ – 51")	850 (33 ¹ / ₂ ")	200 (7 ³ / ₄ ")	500 (1,100)	120 (265)	5160.0030

PW I + II



PW III



Pallet-Cart PW

For the transportation of palletized products on the building site.

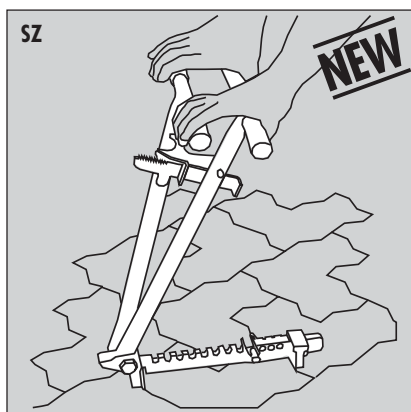
► With large rubber wheels for easy movement.

► On slopes, the PW cart can be slowed down.

► PW III: The pallets are approached sideways.

► The forked end of the cart PW I and PW II is positioned under the pallet, then the rear wheel set is placed back on the forked end and the whole lot is lifted by means of a hydraulic jack. The front piston is equipped with a spindle.

Type	max. Pallet Length mm (in)	Distance between forks mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PW I	1,250 (49")	380 (15")	1,400 (3,100)	100 (220)	5110.0002
PW II	1,250 (49")	380 (15")	2,000 (4,400)	168 (370)	5110.0003
PW III	1,250 (49")	adjustable	1,500 (3,300)	195 (430)	5110.0009



Paving Block Extractor SZ with Locking Device

An essential tool for any contractor who lays paving blocks or carries out repairs to paved surfaces. Adjustable to fit any size and shape of paver.

► New: Locking Device!

The operator does not need to continually squeeze the SZ-handles together!

The spring steel blades can be driven into the joints of existing pavements without problems by the combination hammer KH.

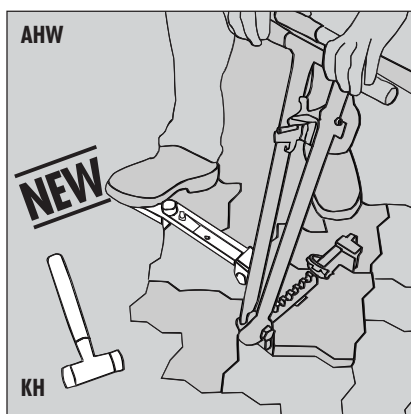
► The gripping width can be adjusted without tools.

► Easily exchangeable, high quality profiled spring steel blades.

Type	Surface protection	Gripping Range W mm (in)	Dead Weight kg (lbs)	Order-Number
SZ	galvanized	90 – 330 (3½ – 13")	4 (9)	5180.0030
SZ-Set consisting of Paving Block Extractor, Extraction Foot Lever, Combination Hammer				5180.0048

Accessories:

See page 3.8 for a special device for removing slabs – the PZ.



Extraction foot lever AHW for quick loosening of pavers – including 2 spare blades + wire brush.

(When pavers are extremely interlocked the vibration of a hammer drill can be used).

Type	Dead Weight kg (lbs)	Order-Number
Extraction Foot Lever AHW	1.5 (3.3)	4180.0036
Combination Hammer KH (with a hard steel side and a "soft" Nylon side)	0.8 (2)	4180.0037
Spare blade for SZ short per piece		4180.0001
Spare blade for SZ long per piece		4180.0003

Alignment Bar RE

For aligning the paving stones before they are permanently set.

► With two handles, a foot bar and a hammering surface to drive it into the paver joints using a hammer.

► With exchangeable, robust, sharp-edged hardened spring steel blade for driving into the hinge joints.

► Durable galvanized surfaces.

Type	Dead Weight kg (lbs)	Order-Number
RE	1.5 (3.3)	5180.0011
Spare blade for RE/MRE	per piece	4180.0002

Multiple Alignment Bar MRE

The "Turbo Accelerator" for alignment work: Instead of moving only one row of pavers, the MRE can move 4 or up to 5 rows at the same time. Alignment work is done 4 - 5 times quicker!

► Especially suitable for alignment work on mainly rectangular shaped pavers.

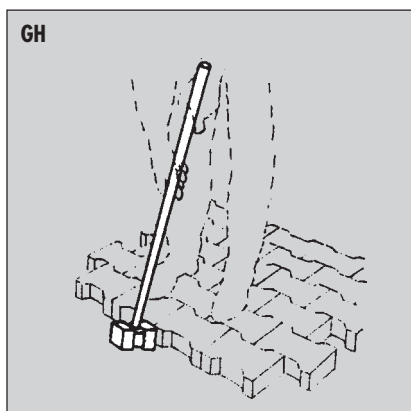
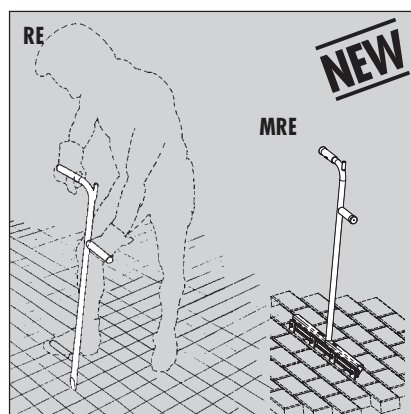
► With 4 exchangeable, adjustable, sturdy, sharp edged hardened spring steel blades.

► With 2 handles and one hammering surface to drive it into the paver joints by hammer.

► Durable galvanized surfaces.

Type	approx. Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
MRE	650 (25½")	5 (10)	5180.0045

Adapter or special designs for dentated pavers (e.g. Uni pavers) on request.



Rubber Hammer GH

For aligning the paving stones before they are permanently set.

Light-weight (2.5 kg) and with a long handle, it is ergonomically easy to work with it in an upright position.

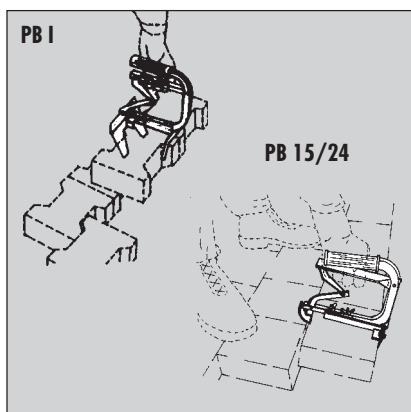
► With easily exchangeable, highly wear resistant replaceable rubber caps.

► The hammer remains vertical after use because of the rectangular shape of the rubber caps.

Type	Dead Weight kg (lbs)	Order-Number
GH	2.5 (5.5)	5180.0012
Rubber cover for GH	per piece	4180.0006

Paver Set

Consisting of Paving Block Extractor, Alignment Bar and Rubber Hammer **S-5180.0014**



Paver Boy PB

For the efficient laying of paving blocks directly from the stack.

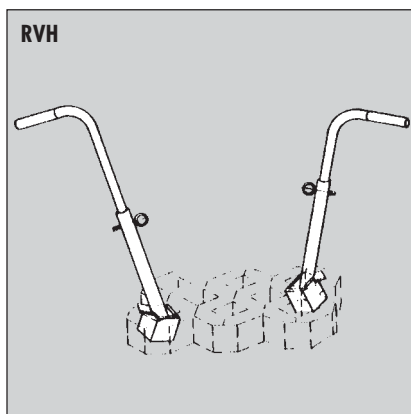
Particularly suitable for large blocks.

► Ergonomical working position.

With the **PB I**, two double-T-stones can be picked up and then layed at the same time.

With the **PB 15/24** hexagonal slabs and similar blocks which cannot be lifted with one hand, can be laid.

Type	Gripping Range W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PB I	100 – 170 (4 – 6 ³ / ₄ "	10 (22)	1 (2.2)	5180.0001
PB 15/24	150 – 240 (6 – 9 ¹ / ₂ "	10 (22)	1 (2.2)	5180.0004



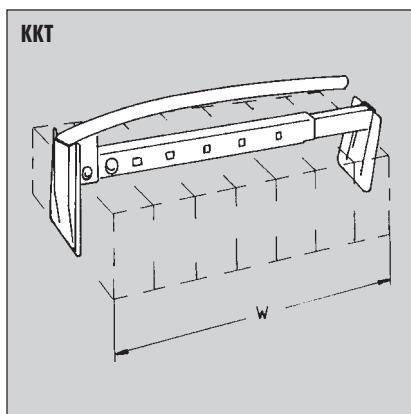
Turf Stone Handles RVH

Used in pairs and designed specially for laying turf stones.

► Suitable for hollow sections measuring approx. 100 mm x 100 mm (4 x 4").

► Other sizes on request.

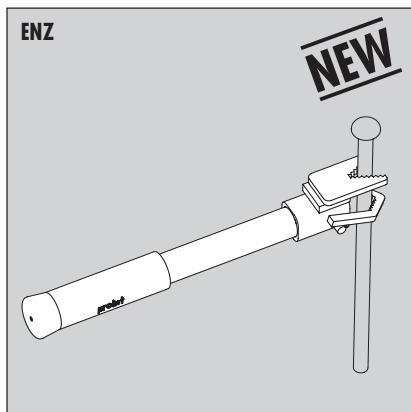
Type	Dead Weight kg (lbs)	Order-Number
RVH (Pair)	3 (6.5)	5180.0021



Brick Handles KKT

For the efficient transportation of bricks from the pallet to the laying surface. Adjustable.

Type	Gripping Range W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KKT	400 – 670 (15 ³ / ₄ – 26 ¹ / ₂ "	50 (110)	1.5 (3.2)	5180.0025



Pin Extractor ENZ

Simple but very efficient tool to pull out string line pins used on construction sites.

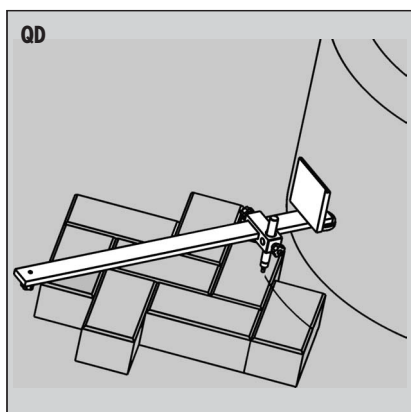
The previous time consuming and often injuring method, to pull out pins just by hand or using pliers, hammer and such are gone now.

► Suitable for all pin diameters between 10 mm and 30 mm.

► Without using the ENZ, pins often get bent. Simply the straightening of 50 pins costs more than the Pin Extractor itself!

► When lifted up, the V shaped clamping system locks to the pin. Now pulling and turning movements to loosen the pin can be exerted without any real physical effort.

Type	Suitable for Diameters mm (in)	Dead Weight kg (lbs)	Order-Number
ENZ	10 – 30 (1/2 – 1 1/2)	0.8 (2)	5180.0038



Quickdraw QD

A clever paver-marking tool for concrete and paving stones.

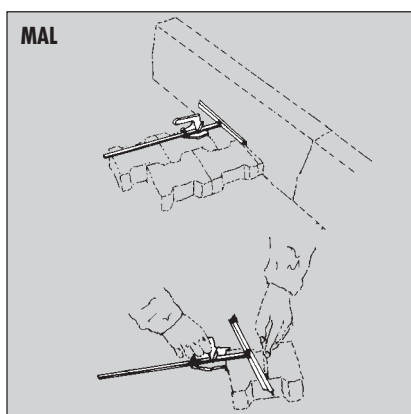
- No problems with the marking of distances of kerbstones, walls, etc. for later stone cutting.
- 400-600 % time saving with marking works.
- Especially effective with soldier course.

➤ Tough construction made of aluminium and stainless steel.

➤ Roller guide for quick and accurate marking.

➤ Set includes wax crayon and felt crayon.

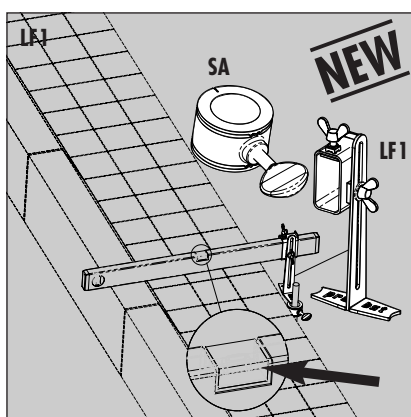
Type	Dead Weight kg (lbs)	Order Number
QD	1.8 (4)	5180.0034



Measuring and Marking Tool MAL

An essential aid for the exact measuring and marking of lengths and angles on pavers.

Type	Dead Weight kg (lbs)	Order-Number
MAL	0.5 (1.1)	5180.0026



Level-Fix LF 1

Who has not thought this before: Two hands are not enough for some type of work, one should have three hands.

If for example marks for the correct height should be transferred in relation of the kerb level to string line pins (stakes) for installation of gutter pavers, the Level-Fix LF 1 replaces this third hand completely.

This simple but effective tool is fixed to any standard level by sliding it onto the required

position and clamp it tight without leaving marks on the level. Now the measurement, how much deeper the gutter block should be installed in relation to the kerb level is set on the LF 1. Now everybody can mark the right height onto the string line pins with pen or similar by just paying attention to have the level in the leveled position.

Afterwards the string line can be pulled allong the pins in the correct height.

Type	Height between level and marking part mm (in)	Suitable for level profile mm (in)	Order-Number
LF1	5 – 150 (1/4" - 6")	50 x 25 (2" x 1")	5180.0044

String-Along SA

Even more easy in this case it would be to use the String-Along SA. Then even the marking of the pins is not needed any more, just slide the SA over the pin, tuching the LF 1 height measure and tighten the thumb screw. Done. Now the string line can be pulled around the SA and the gripping teeth will hold the string line in place at any time.

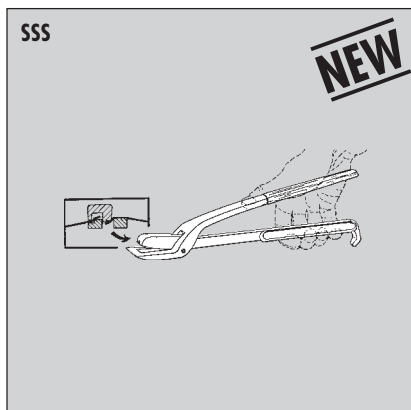
➤ Generally the SA can be used for all kind of layouts where string lines are used, especially beneficial if the string line has to be taken away temporarily and repositioned afterwards at the same position.

➤ Gripping teeth hold the string line safely under tension at any time.

➤ No more string line knots, or confusing marks on the pins.

➤ Comes in a bag, 12 collars.

Type	Height between level and marking part mm (in)	Suitable for level profile mm (in)	Order-Number
SA	suitable for pin diameters 10 – 25 mm (1/2" – 1")	1 bag contains 12 collars	5180.0047



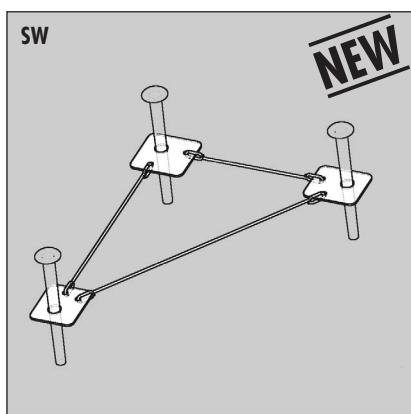
Safety Steel Strap Scissors SSS

For cutting steel straps safely. When cutting, the ends of the straps are held securely by a special clamping system.

► No more dangerous steel-straps snapping around.

► The sharp-shaped design of the lower blade means it is easy to place the SSS even under very tight steel straps.

Type	Dead Weight kg (lbs)	Order-Number
SSS	0.9 (2.0)	5180.0013



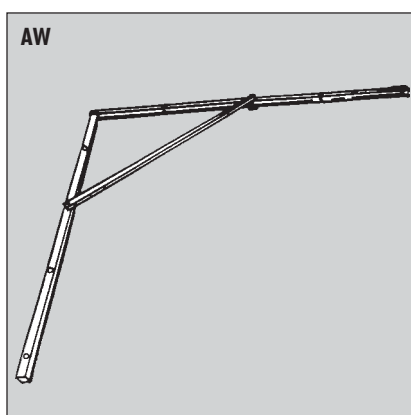
Rope angle SW

Simple and compact tool to lay out a 90° right angle, using three sticks mainly for paver laying purposes.

Large measurements (3 m x 4 m x 5 m) allow very precise layout of the 90° right angle.

► Standard sticks with maximum diameter 20 mm can be used. (Sticks not included in the tool).

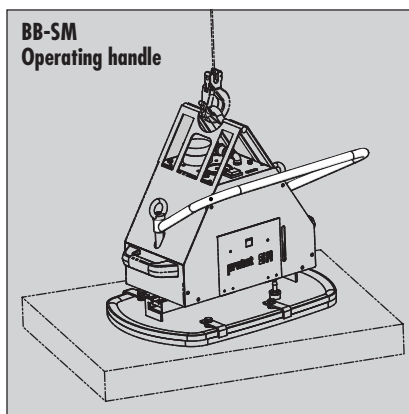
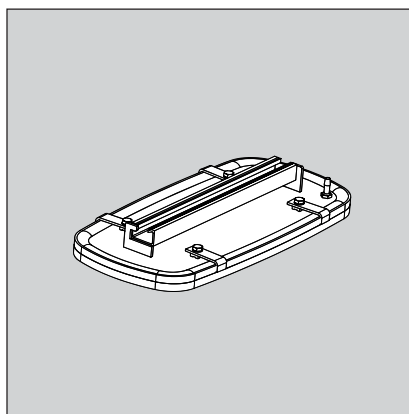
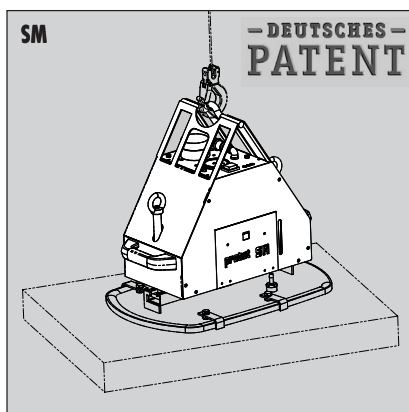
Type	Dead Weight kg (lbs)	Order-Number
SW	1 (2.2)	5180.0035



Aluminium Angle AW

Adjustable to 45°, 60° and 90°.
Can also be adjusted to angles in between.
Foldable, length: 2 m x 2 m.

Type	Dead Weight kg (lbs)	Order-Number
AW	6.5 (14)	5180.0018



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 pompe can be switched on by the TURBO switch.

Vacuum Stonemagnet SM - basic unit -

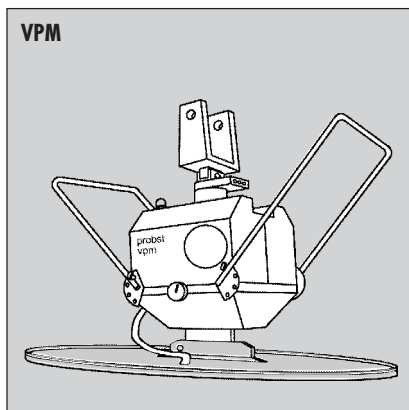
Type	Drive	Dead Weight kg (lbs)	Suction Plate	Order-Number
SM	by 12 V battery	35 (78)	without suction plate	5272.0002

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 220 V/12 V	Battery charging device, Overload protection	2420.0009
Operating handle	(also for retrofitting)	4272.0063
Replacement seal	for SPS 200 SM	4272.0004
	for SPS 400 SM	4272.0005

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

* Value at 500 mbar low pressure



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 (inclusive)	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

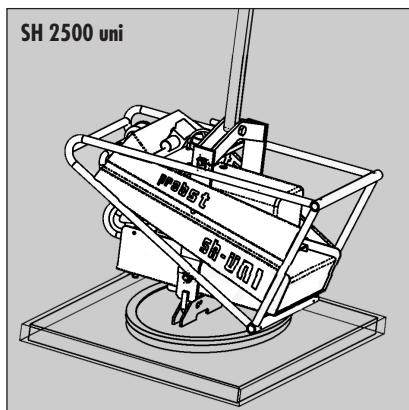
Type	Description (inclusive)	Power	Carrying Capacity kg (lbs)	Dead-Weight kg (lbs)	Order-Number
VPM 2500 h*	automatic release, short, foldable handles	hydraulic	max. 2,500** (5,500)** at VM 203/204 300** (660)** with counter-weight 350** (770)** depending on suction plate	98 (215)	5241.0004

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)*	96 (210)	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.

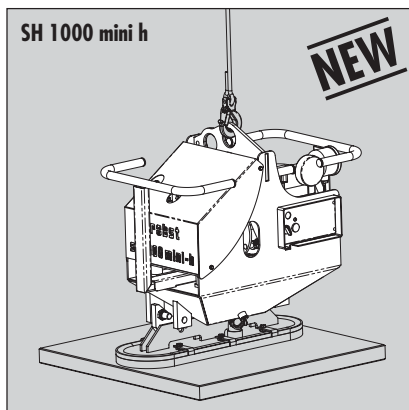
Type	Power	Carrying Capacity kg (lbs)	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH 2500 uni b TURBO	integral petrol engine	2,500* (5,500)*	110 (242)	5240.0023

► **Extended carrying capacity on request!**

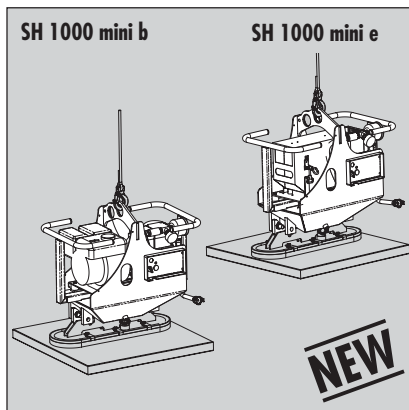
Suction plates and additional beneficial attachments see type list page 2.5 – 2.7

* Value at 600 mbar low pressure

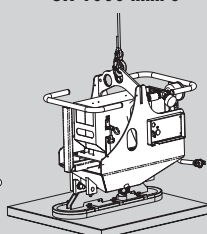
SH 1000 mini h


NEW

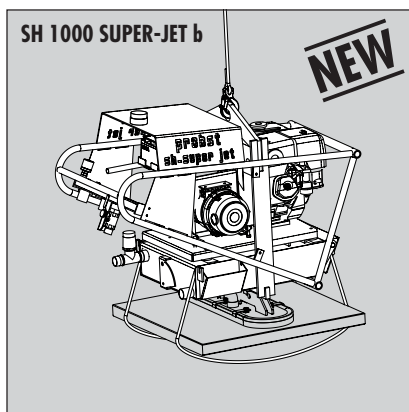
SH 1000 mini b



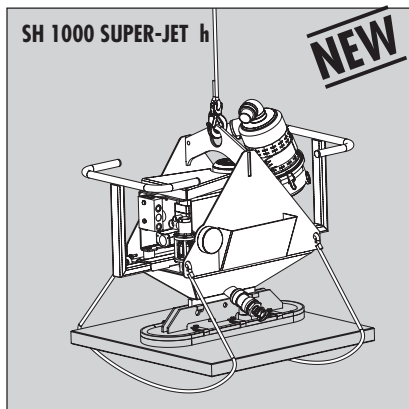
SH 1000 mini e


NEW

SH 1000 SUPER-JET b


NEW

SH 1000 SUPER-JET h


NEW

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 - One-man operation
- Huge ease of work
- Enormous benefit in economization
- 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 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

Triple safety concept:

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

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.

Type	Power	Carrying Capacity** kg (lbs)	Dead Weight kg (lbs) (without suction plate)	Order-Number
SH 1000 mini h	hydraulic	1,000 (2,200)*	91 (200)	5240.0019
SH 1000 mini b	integral petrol engine	1,000 (2,200)*	90 (200)	5240.0018
SH 1000 mini e	electric, 230 Volt, 50 Hz, single phase	1,000 (2,200)*	89 (195)	5240.0020

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

Vacuum Lifting Device SH 1000 SUPER-JET

Large-sized concrete slabs with decorative surface finish as well as sandstone slabs may sometimes be very porous. The SH 1000 SUPER-JET is especially designed for this kind of slabs. The enormous suction capacity of the SUPER-JET series makes an efficient and safe installation of such porous slabs up to a weight of 1,000 kg possible now. This enormous suction capacity is produced by a special vacuum blower for vacuum generating.

➤ Can be attached to any proper carrier by means of load hook, chain, ropes etc.

➤ Can be equipped with a hydraulic rotator as an add-on if requested.

➤ Maximum carrying capacity 1,000 kg (subject to the attached suction plate).

➤ With battery powered acoustic alarm unit as well as integrated vacuum safety reservoir.

➤ Two-fold chain retainer - due to safety regulations both chains have to be put around

the load (form-fitting) after being lifted-up by 15 to 20 cm.

➤ Ergonomic handles for guiding the SH.

SH 1000 SUPER-JET b Drive: Petrol Drive

➤ With integrated, powerful petrol engine with electro starter.

➤ Equipped with a hand slide valve for regulating suction and release procedures directly.

SH 1000 SUPER-JET h Drive: Hydraulically

➤ An integrated hydraulic switch over from suction to release process provides for executing these operations directly and comfortably from the driver's seat.

An ingenious device for one-man-operation!
 ➤ For operation only one hydraulic circuit is needed.

➤ Extremely compact design!

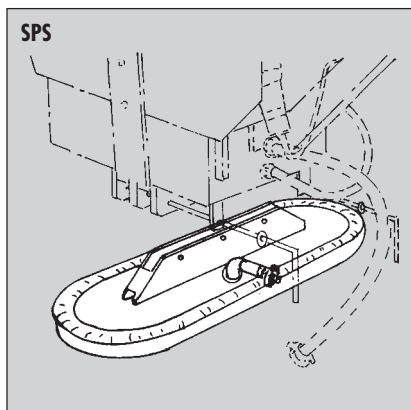
Please note: Standard suction plates from the SH series can generally be used. However, their nominal carrying capacity does not apply to the SH 1000 SUPER-JET series - actual carrying capacity deviates due to the lower underpressure. Please contact the manufacturer on this issue!

Type	Power	Carrying Capacity** kg (lbs)	Dead Weight kg (lbs) (without suction plate)	Order-Number
SH 1000 SUPER-JET b	integral petrol engine	1.000 (2,200)**	228 (500)	5240.0024
SH 1000 SUPER-JET h	hydraulic	1.000 (2,200)**	110 (245)	5240.0026

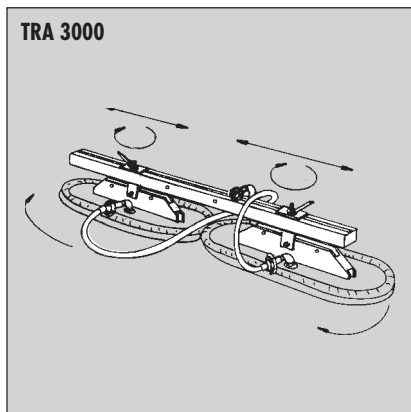
** dependent on the size of suction plate

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

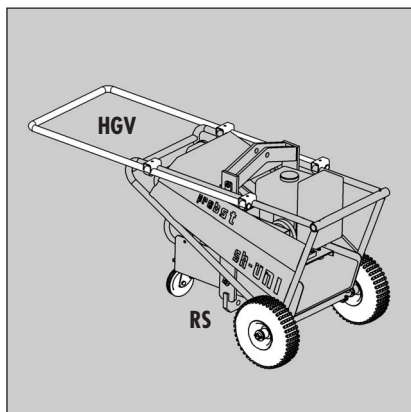
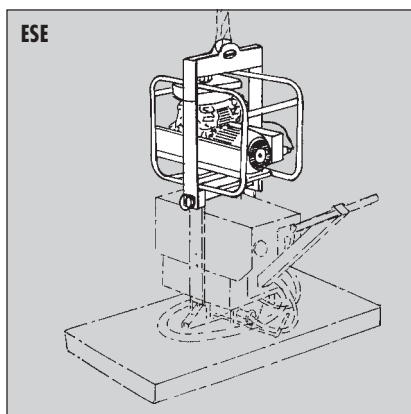
SPS



TRA 3000



ESE



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) Value at 600 mbar low pressure	Carrying Capacity kg (lbs) Value at 400 mbar low pressure	Order-Number
SPS 2500(1650)-143/78	1,430 (56")	780 (30 ³ / ₄ "	oval	2,500 (5,500)	1,650 (3,650)	5250.0239
SPS 1200(800)-96/58	960 (37 ³ / ₄ "	580 (22 ³ / ₄ "	oval	1,200 (2,650)	800 (1,760)	5250.0162
SPS 1010(670)-84/57	840 (21 ¹ / ₄ "	570 (22 ¹ / ₂ "	oval	1,010 (2,230)	670 (1,480)	5250.0238
SPS 500(330)-67/40	670 (26 ¹ / ₂ "	400 (15 ³ / ₄ "	oval	500 (1,100)	330 (730)	5250.0002
SPS 400(260)-75/27	750 (29 ¹ / ₂ "	275 (10 ³ / ₄ "	oval	400 (880)	260 (570)	5250.0003
SPS 200(130)-37/37	370	370	round	200	130	5250.0005
Replacement seal						
Easy to attach without glueing!				for SPS 2500 (5250.0239 + 5250.0158)		4250.0111
				for SPS 1200 (5250.0162)		4250.0004
				for SPS 1010 (5250.0238)		4250.0006
				for SPS 1000 old (5250.0001)		4250.0001
				for SPS 500 (5250.0002)		4250.0002
				for SPS 400 (5250.0003)		4250.0002
				for SPS 200 (5250.0005)		4250.0003

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

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

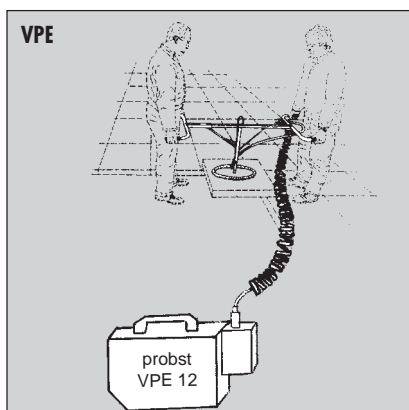
To extend the working radius of Micro Jumbo MJ at any time, we recommend the solid set of wheels for later equipment. Easy mounting to the lifting unit SH 2500 uni.

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.



Vacuum Pump Unit VPE for Vacuum Slab Layer Micro Jumbo MJ

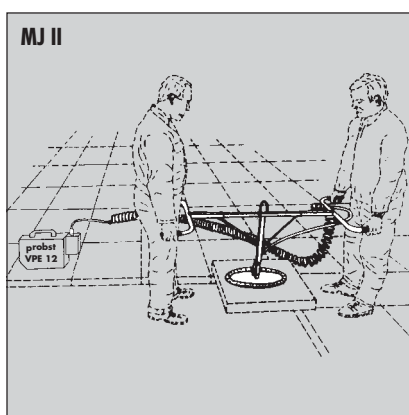
This Vacuum pump unit was specially designed for operating the vacuum slab layer Micro Jumbo MJ system. If there is no vacuum lifting device Jumbo SH available or if it is too clumsy, the VPE is a cheap and handy alternative.

- 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)	4240.0346
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)	4240.0347
VPE 12 B	petrol engine	in tune with MJ-use, approx. 150 kg (330)	26 (57)	4240.0019

Special voltage on enquiry.



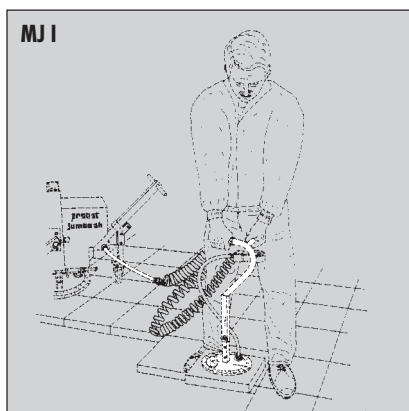
With these devices, all kind of manual laying and handling of slabs can be done in conjunction with the Vacuum Lifting Device SH or the Vacuum Pump Unit VPE.

- 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:

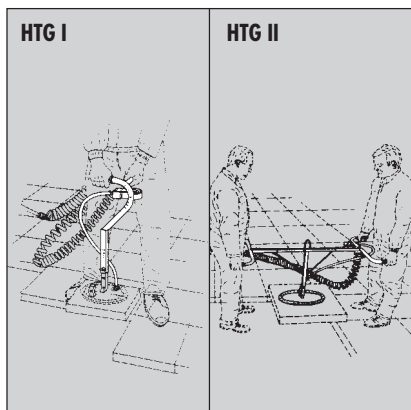
- Handle HTG I or HTG II with finger operated release.
- Different suction plates.
- Vacuum supply spiral hose.

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



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.

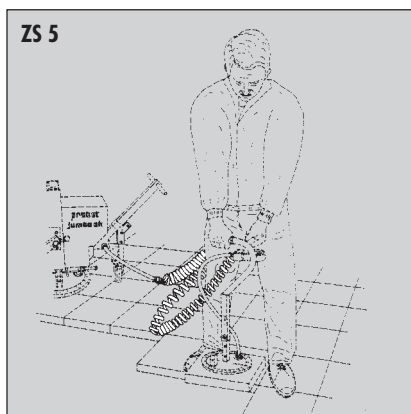
► Cold galvanised

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.

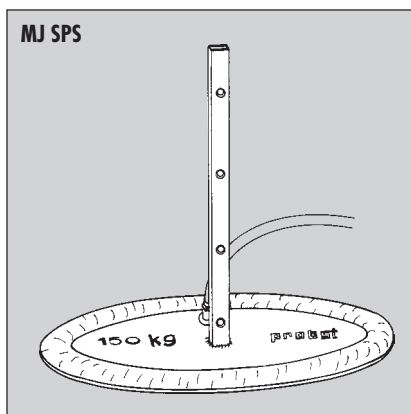
► Cold galvanised



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

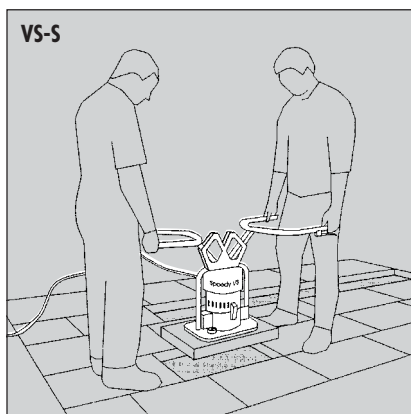
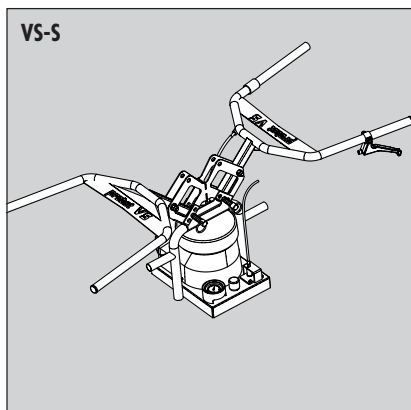
or

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



Advanced Design
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 or 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 Basic Device

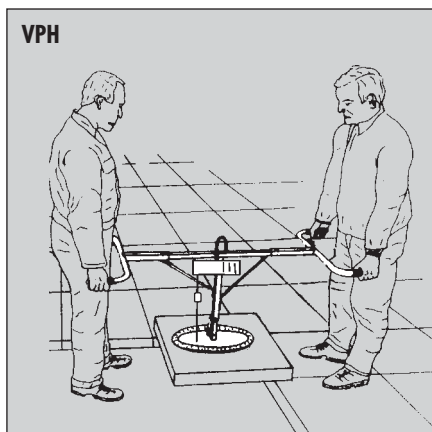
Type	Power	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Description	Order-Number
VS-S Basic Device	electrically 230 Volt single phase 50 Hz	depending on size, of suction plate	14 (31)	without suction plate	5270.0007
VS-S Basic Device	electrically 110 Volt single phase 50/60 Hz	depending on size, of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

► Highly wear-resistant seal!

► Delivery includes high tech battery charger.

► 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 accomodate with different laying tasks.

► 1 Suction plate

► Galvanised

► The seal can be exchanged without glue and any tool within 1 minute.

► 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 for VPH 100				4270.0051
SPS 150-44/25 for VPH 150				4270.0050
Spare storage battery for VPH 100 and VPH 150				2420.0007
Battery charger for VPH 100 and VPH 150				2420.0004
Replacement seal for VPH 100				4273.0004
Replacement seal for VPH 150				4273.0005

* Value at 400 mbar low pressure

Vacuum-Handy VH

This is a cheap solution to install non porous slabs using vacuum. The vacuum suction force is produced by only pressing the device down onto the surface of the slab. Afterwards the slab can be lifted by hand.

To release the slab, just a finger tip is necessary to open a simple valve.

Attention: Can only be used on non porous materials nearby the ground level. Device must never be set down onto edges, as this can damage the seal. Either set it down to an even surface or lay it down sideways for storage.

Vacuum-Handy VH 1/25

One-man operation for lightweight slabs and short transportation distance

► Accurate and quick installation with no gap in-between slabs.

► Reduced suitability for two-men operation.

► Ergonomically good working position for installation.

► Also already layed slabs can be picked up again.

► Robust seal ring, can be exchanged within seconds without glueing.

► By purchasing of an additional two-men handle HG-VH2 the VH 1/25 can be used for two-men operation.

Type	Suction Plate dimension Ø mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VH 1/25	280 (11")	25 (55)	5 (10)	5260.0009

Vacuum-Handy VH 2/50

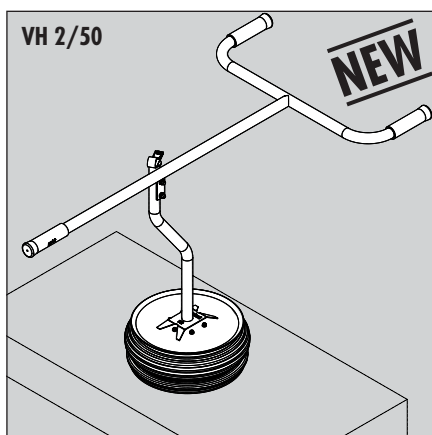
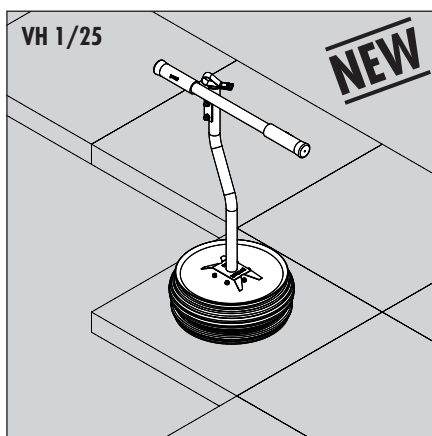
► As VH 1/25, but equipped with screw-on type two-men handle instead of the one-men handle.

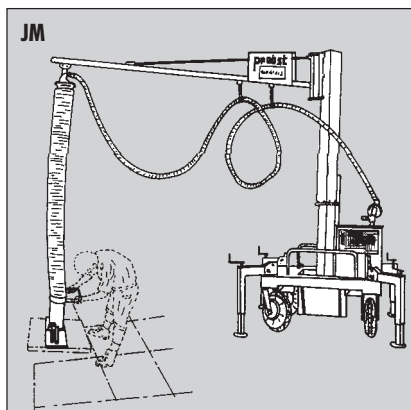
► Especially suitable for more heavy loads and for transportation at longer distances by two men.

Type	Suction Plate dimension Ø (mm)	Carrying Capacity (kg)	Dead Weight kg (lbs)	Order-Number
VH 2/50	280 (11")	50 (110)	8 (18)	5260.0010

Accessories

Type	Dead Weight kg (lbs)	Order-Number
HG-VH2 Two-men handle	3 (7)	4260.0155
Replacement seal for Type VH 1/25 and VH 2/50		4273.0008





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).

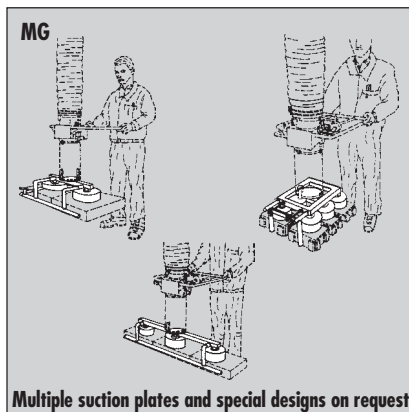
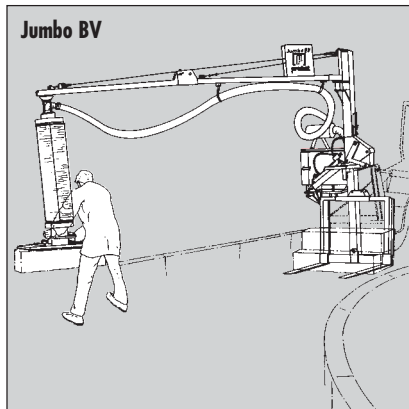
* Value at 420 mbar low pressure

** 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!



Multiple suction plates and special designs on request.

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.
- 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!

We offer three models:

I. BV b with integral fuel engine

Operates independent of the wheel loader. It can easily be fixed to various wheel loaders.

II. BV with diesel engine and electric start

Can also easily fixed to various wheel loaders. Makes refuelling easier, as diesel fuel is mostly in place at the construction sites. Additional ease of use through electric starter.

III. BV h with hydraulic drive

Less noise emission, no need to fill with fuel.

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 d	Diesel engine	4,000 (157")	150* (330)*	540 (1,080)	S-5220.0005
Jumbo BV h	hydraulic	4,000 (157")	150* (330)*	490 (1,080)	S-5220.0002

Vacuum Components

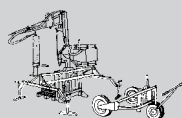
- Petrol engine and vacuum turbine unit with silencer.
- Alternatively: hydraulically powered.
- Supply hose and lifting hose.
- Lifting height from fork prong level up to approximately 1,100 mm.
- Operating Valve unit with handle, dust filter.
- Kerb stone suction gripper with durable foam rubber seal, 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).

Extended application:
ZA-BV-Mobil
for slab laying, see
page 2.12

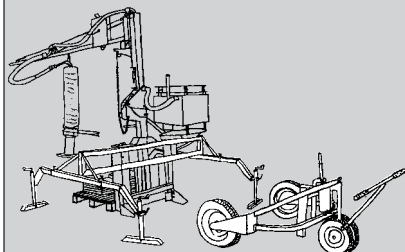


Kerb stone grippers (suction plates) Type	Dimension LxB / Opening Width (mm)	Carrying Capacity kg (lbs)	Order-Number
WSP-150-52/15-12 for concrete kerb-stones 500-1000 mm	520 x 150 - 120	150*(330)*	5250.0184
ESP-150-924/134 for concrete and granite kerb-stones	924 x 134	150*(330)*	5230.0008
WSP-150-90/10-14 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

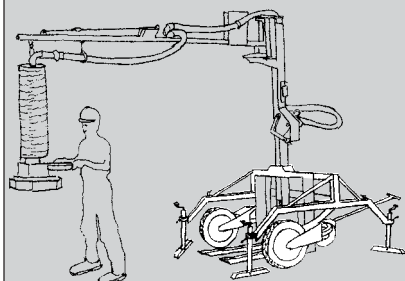
Tool and Equipment Box WZK-BV , suitable to store a complete lifting unit, operating valve unit including suction plates and tools safely. Box size: 1,200 x 550 x 630 mm	4220.0107
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* Value at 420 mbar low pressure

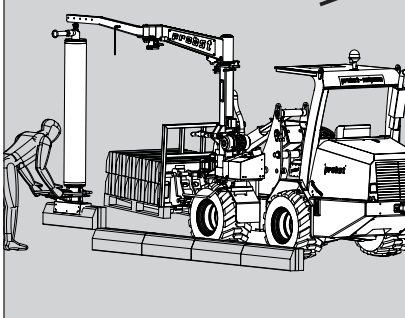
ZA-BV-Mobil with Jumbo BV



ZA-BV-Mobil with Jumbo BV



Unipose 604



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

(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.)

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

Vacuum Kerb Stone Laying Loader Unipose 604

▶ The vacuum kerb stone laying loader Unipose 604 enormously streamlines the installation of kerb stones, prefabricated building elements, slabs, etc.

▶ The Unipose 604 is equipped with an innovative vacuum installation system and can additionally be used as a compact all-wheel-drive wheel loader for many applications.

▶ This unique combination makes hard work so effortless, easy and first of all profitable. Optimal logistics!

▶ On-board transport of the complete kerb-stone package on the pallet forks of the loader. Thus the kerbs can be taken from the pallet, lifted, transported and installed by means of vacuum in one go.

The cost-intensive laying out of the kerb stone packets along the road is completely saved.

▶ With the aid of the 2.25 m long boom, the operator guides the "suction trunk" along with the kerbstone to the installation position.

▶ Kerb stone installation works as light as a feather. Granite or concrete kerb stones weighing up to 150 kg are suctioned and lifted by means of a suction plate (which is docked to a vacuum hose lifter).

▶ The high-precise bearing of the double articulated-boom contributes to minimization of labor input.

▶ Electronic sensors constantly monitor the position of the mast. If it deviates by just a fraction of a degree from the vertical position, it is brought back within seconds into a precise upright position by means of two hydraulic cylinders. Advantage: the operator does not need to exert virtually any force for accurate positioning of the kerbstones.

▶ The high working and operational safety guarantees trouble-free and fast flow of work. The operators' back, knees, fingers and hands are protected.

▶ To avoid a time-consuming locking of both mast joints when driving the loader, both mast joints can be blocked in any position at the push of a button. This contributes for a large improvement in safety, since the boom cannot drift away in an uncontrolled manner.

▶ The machine is extremely compact and thus can be used on narrow construction sites as well.

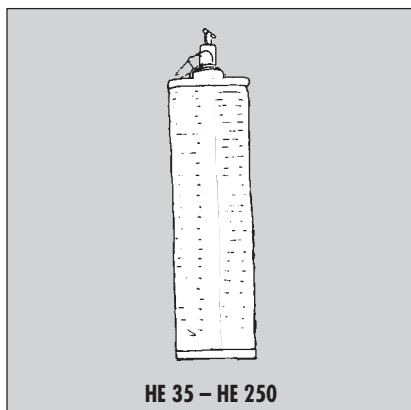
▶ The Unipose 604 can be changed over from load arm to bucket operation.

▶ Standard version of Unipose 604 is equipped with pallet forks, vacuum lifting unit (carrying capacity up to 150 kg) and a suction plate.

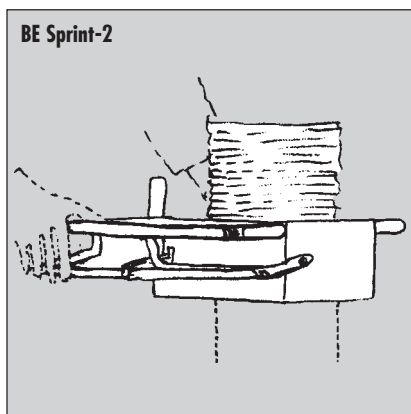
▶ Equipped as standard with rubber-filled tyres to avoid punctures - permanent protection against tyres getting flat!

Engine: Kubota - 4 Cylinders - 60 PS · Speed: max. 20 km/h · max. lifting height of pallet forks: 2.67 m
 Carrying capacity of pallet forks: 1,800 kg · Carrying capacity of the boom: max. 250 kg
 Total weight: 5,300 kg · Dimensions L x W x H (m): 4.9 x 1.65 x 2.5 m

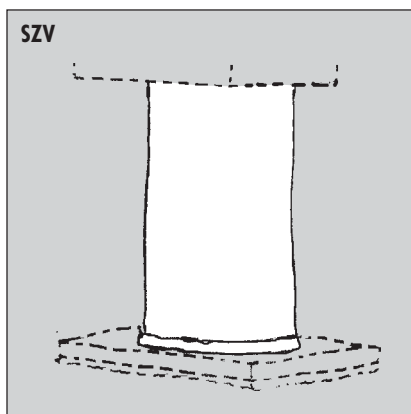
Type	Carrying capacity of the vacuum lifting unit - standard version kg (lbs)	Order-Number
UNIPOSE 604	150 (330)	S-5221.0001
Multi-purpose bucket	four-in-one width: 1,750 mm - capacity approx. 500 litre	4221.0004



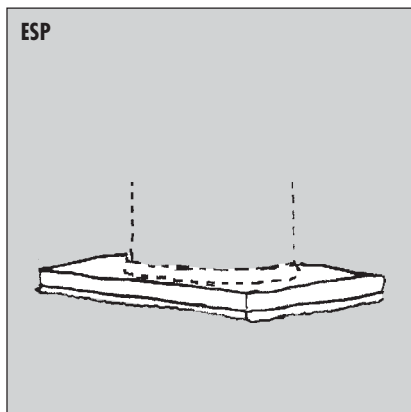
HE 35 – HE 250



BE Sprint-2



SZV



ESP

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 (5 1/2")	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 (9 3/4")	1,700 (67")	4210.0134
HE 250	250*** (550)***	300 (11 3/4")	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
ESP 35	200 x 200 (7 3/4" x 7 3/4")	35*** (75)***	4210.0050
ESP 50/65	230 x 230 (9" x 9")	65*** (145)***	4210.0561
ESP 85	255 x 255 (10" x 10")	85*** (185)***	4210.0051
ESP 150	310 x 310 (12 1/4" x 12 1/4")	150*** (330)***	4210.0145
ESP 200	330 x 330 (13" x 13")	200*** (440)***	4210.0331
ESP 250	400 x 400 (15 3/4" x 15 3/4")	250*** (550)***	4210.0054
Special Grippers, such as multiple grippers, profiled grippers or mechanical clamps for attaching to the vacuum-hose lifter			on request

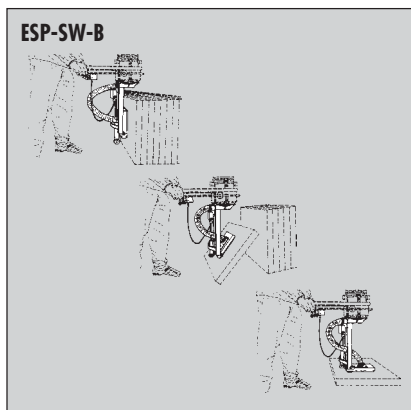
* Caution: Take note of the carrying capacity of the crane equipment.

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

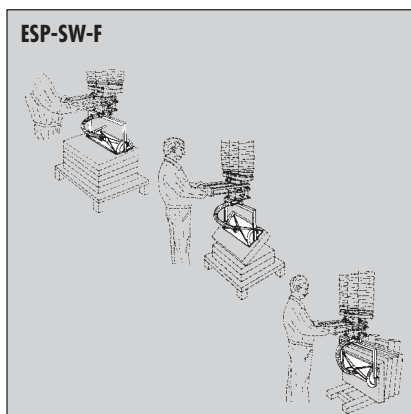
It is permissible to use grippers with a higher carrying capacity than the lifting unit.

*** Value at 420 mbar low pressure

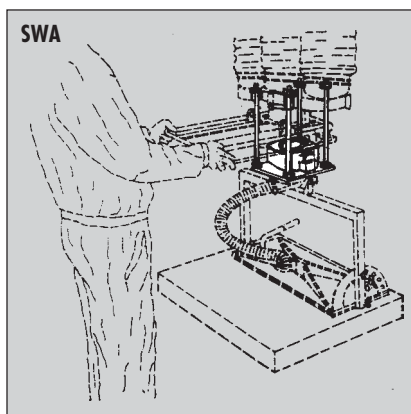
ESP-SW-B



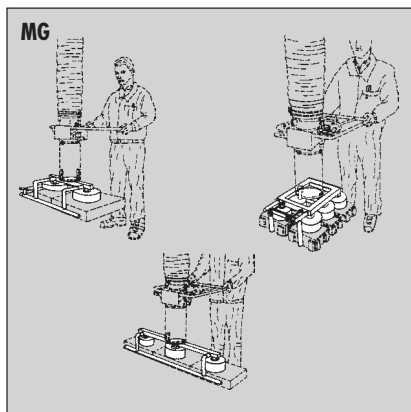
ESP-SW-F



SWA



MG



Vacuum Hose Lifter Components

Tiltable suction plate ESP-SW

Suitable for different applications of vacuum hose lifting devices:

with automatic retraction EPS-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
ESP-SW-B-H-VH 150-33/33-0	330 x 330 (13" x 13")	150* (330)*	4210.0096

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
ESP-SW-F-F-200-75/30-A	750 x 300 (29 1/2" x 11 3/4")	200* (440)*	4210.0095
ESP-SW-F-F-150-40/25-A	400 x 250 (15 3/4" x 9 3/4")	150* (330)*	4210.0190

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 ESP-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

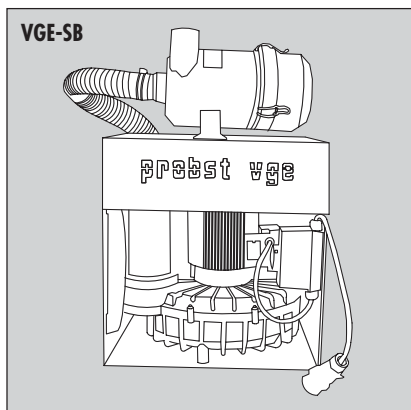
Multiple Suction Grab MG

► 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 Turbine Units for Jumbomobil

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.
- ▶ Pressure relieve valve

Application:

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

VGE-SB-V-e: with frequency-control
Also for handling of small weights (up to 10% of the nominal load).

- ▶ Suitable for elements with differential 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 4.8kW 60 Hz 3~190/290 V Δ or 330/500 V Y	4210.0439
VGE-SB-V-e	4 kW 50 Hz 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.

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

Standard Specifications:

- ▶ Strong housing with foldable cover and

noise protection.

- ▶ Powerful vacuum turbine with max. under-pressure 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.

Type	Power Petrol Engine (kW)	Order-Number
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).

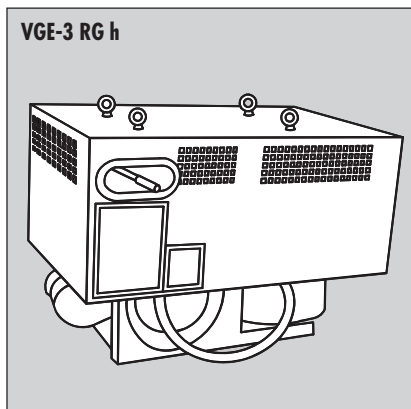
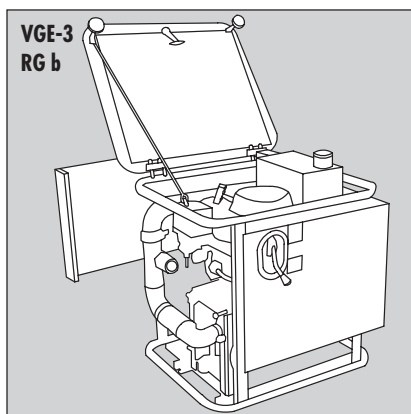
Standard specifications:

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

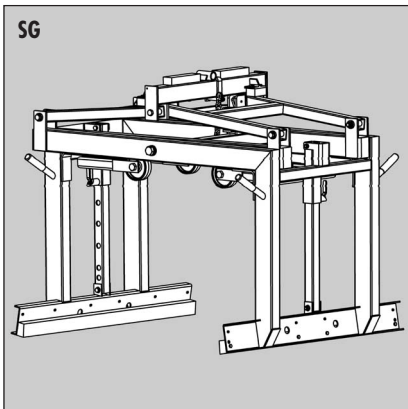
Requirements of hydraulic operation:

- 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



SG



Scissor Grab SG

A mechanical grab universally suitable for use on building sites engaged in civil engineering work and paving work.

► The SG grab handles pack sizes as show in the data below without any gripping width adjustment.

► Safe and easy transport of un-palletised building materials such as vertically steel-strapped paving blocks, slabs, kerb stones, etc.

► Large variable gripping range

► Fork sleeves with manual turning device ET-D (with additional lifting eye for crane hook), ET-D/B as well as EH 3000 for crane hook operation to be ordered additionally as accessories.

Standard Specifications:

► Quick height adjustment for SG 60/80/95.
 ► Automatic release for the fully automatic switch over from "full" to "empty".
 ► Highly durable, exchangeable rubber bars as gripping elements.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
SG 20	700 – 1,100 (27½ – 43")	200 (7¾")	1,200 (47")	1,800 (4,000)	160 (355)	5310.0190
SG 40-UK	500 – 970 (19¾ – 38½")	400 (15¾")	1,200 (47")	1,800 (4,000)	188 (415)	5310.0260
SG 60	400 – 1,100 (15¾ – 43")	600 (23½")	1,200 (47")	1,800 (4,000)	190 (420)	5310.0204
SG 80	400 – 1,100 (15¾ – 43")	800 (31½")	1,200 (47")	1,800 (4,000)	200 (440)	5310.0200
SG 95	400 – 1,100 (15¾ – 43")	950 (37½")	1,200 (47")	1,600 (3,550)	215 (470)	5310.0207
SG 100	700 – 1,200 (27½ – 47")	1,000 (39")	1,200 (47")	1,800 (4,000)	280 (620)	5310.0284

Accessories

Fork sleeves: manual turning device which engages itself every 90°. With security chain to avoid slipping.

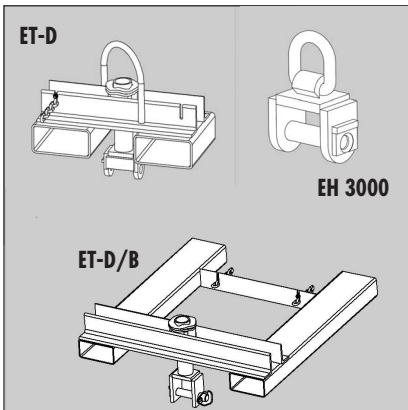
ET-D/B with wider distance between the sleeves and with longer sleeves, specially suitable for

SG grabs.

► Security Net SSN (optional, see below) for operation of SG grabs in high-rise construction, is suspended underneath the load by hooking it into the handles of the SG grab.

Type	Carrying Capacity	Order-Number
ET-D, with additional lifting eye for crane hook	2,500 kg (5,500 lbs)	4310.0411
ET-D/B	2,500 kg (5,500 lbs)	4310.0373
EH 3000, lifting eye for crane hook operation	3,000 kg (6,600 lbs)	4011.0086
Suspension adapter AH-A to use the SG 40-UK grab in combination with the forksleeves ET-D/B		4310.0442
SSN - 1,2/1,4/0,9 for SG 40 UK	1,800 kg (4,000 lbs)	4520.0010
SSN - 1,5/1,3/1,0 for SG 60, SG 80, SG 95, SG 100	1,800 kg (4,000 lbs)	4520.0061

ET-D



EH 3000

ET-D/B

Mechanical Scissor Grab MPZ

A mechanical grab for different uses. It can also be used with fork lift trucks. On adjustable models there are no awkward projecting dops.

Suitable for lifting packs of building materials of the appropriate sizes and dimensions.

Adjustment of the gripping width by spring loaded, self catching pins.

Cubes of pavers can only be gripped when vertically steel strapped!

Standard Specifications:

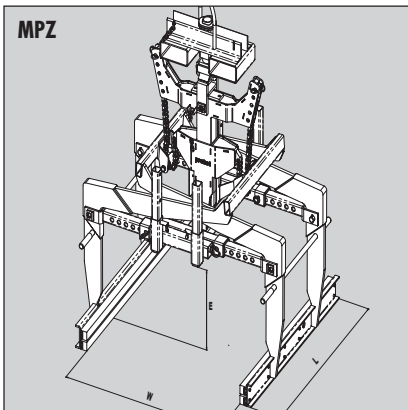
► Fork sleeves, ET-D with manual turning device and lifting eye for crane hook.

► Manual turning device which engages itself every 90°.

► Automatic release for the fully automatic switch over from "full" to "empty".

► Highly durable exchangeable rubber metal bars as gripping elements.

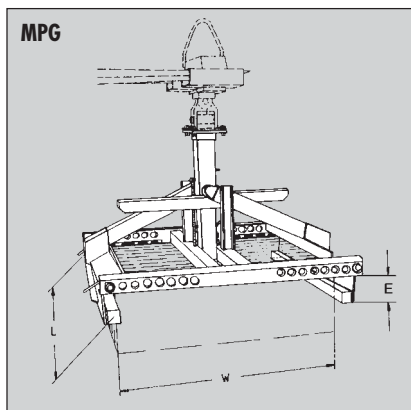
MPZ



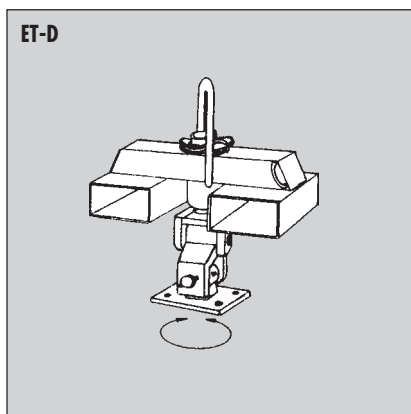
Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
MPZ 40/110-60-120	400 – 1,100 (15¾ – 43")	600 (23½")	1,200 (47")	1,600 (3,530)	340 (750)	5310.0306
MPZ 60/100-80-120	600 – 1,000 (23½ – 39")	800 (31½")	1,200 (47")	1,800 (3,970)	350 (770)	5310.0022
MPZ 60/120-95-125	600 – 1,200 (23½ – 47")	950 (37½")	1,250 (49")	2,000 (4,400)	440 (970)	5310.0026
Lower price without fork sleeves						5310.0030

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

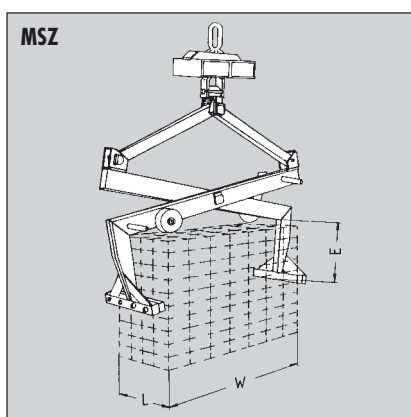
MPG



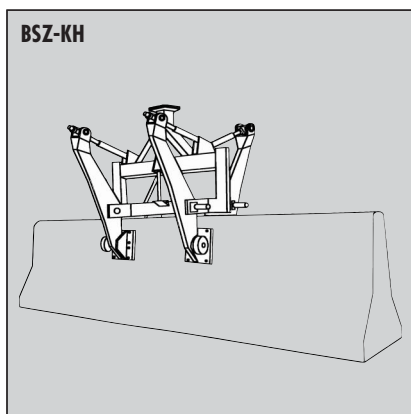
ET-D



MSZ



BSZ-KH



Mechanical Slab Grab MPG

Especially suitable for the transport of paving slabs and kerb stones due to a low inside height.

Otherwise equipped in the same way as the MPZ (see page 3.1).

► Joint plate for the installation of the fork sleeves ET-D (see page 3.1).

Standard Specifications:

- Lifting eye for attaching to crane hook.
- Standard flange plate for assembly of fork sleeves.
- Automatic release for the fully automatic switch over from "full" to "empty".
- Highly durable, exchangeable rubber metal bars as gripping elements.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
MPG 30/100-100	300 – 1,000 (11 ³ / ₄ – 39")	130 (5")	1,000 (39")	1,000 (2,200)	110 (240)	5310.0040
MPG 30/100-120	300 – 1,000 (11 ³ / ₄ – 39")	130 (5")	1,200 (47 ¹ / ₄ ")	1,000 (2,200)	140 (310)	5310.0041

Accessory

Fork sleeve with lifting eye and manual turning device, engaging every 90°.

Type	Carrying Capacity kg (lbs)	Order-Number
ET-D consisting of ET-D, incl. universal joint, mounting plate.	2,500 kg (5,500 lbs)	4310.0238

Mechanical Slab Grab MSZ

For the easy transport of vertically steel-strapped pavers, kerb stones, etc.

Suitable for attaching to skid steered loaders which cannot transport a complete pack of pavers.

Standard Specifications:

- Lifting eye for attaching to crane hook.
- Fork sleeves for fork lift trucks.
- Automatic release for fully automatic switch over from "full" to "empty".
- Highly durable, exchangeable rubber metal bars as gripping elements.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
MSZ	750 – 1,000 (29 ¹ / ₂ – 39")	330 (13")	420 (16 ¹ / ₂ ")	800 (1,750)	80 (175)	5310.0267

Concrete Highway Divider Clamp BSZ-KH

With this mechanical grab barrier walls can be gripped absolutely safe without leaving any marks on the concrete elements.

- High rationalisation of staff costs.
- Rapid repetitive sequences

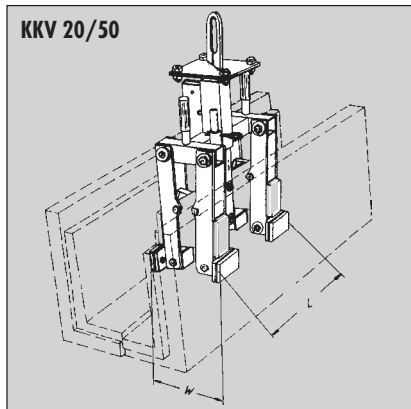
Standard Specifications:

- Lifting eye for attaching to crane hook.
- Automatic release for the fully automatic switch over from "full" to "empty".
- Leaves no black marks.

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
BSZ-KH	150 + 210 (6 + 8 ¹ / ₄ ")	4,500 (9,900)	430 (950)	5310.0298

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

KKV 20/50



Cable Channel Clamp KKV 20/50

For cable channels II-IF, III-IF, IIIa-IF, IV-IF.

- Fully mechanical grip which means it can be used at any carrier.
- Grips from the inside, so that it is extremely suitable for small spaces.

Standard Specifications:

- Lifting eye for crane hook.
- Automatic release for the fully automatic switch over from "full" to "empty".
- Exchangeable rubber bars as gripping elements.

Type	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KKV 20/50	400 (15 3/4")	500 (1,100)	50 (110)	4310.0739

Accessories: Additional Adapters KKV

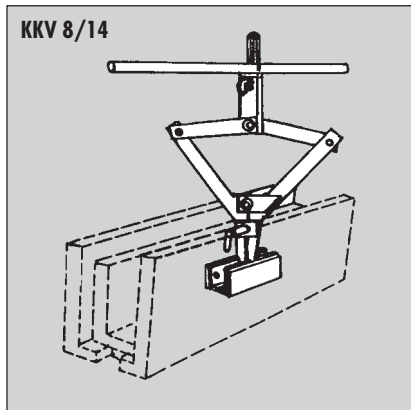
Optional available: exchangeable rubber adapter sets (A1 - A5) as gripping elements.

Optional available: exchangeable adapter sets with steel brackets A 6 + A 7 for extra large cable channels.

List of Additional Adapters for the KKV

Adapter	Observation	Gripping Range* W min. - max. mm (in)	Standard	Size	Order-Number
KKV20/50		185 - 215 (7 1/4 - 8 1/2")			Standard
A1	extra price	215 - 250 (8 1/2 - 9 7/8")	II-IF/II-IF	240/230 / 240/220	4310.0226
A2	extra price	340 - 375 (13 1/2 - 14 3/4")	IIIa-IF	355/345	4310.0227
A3	extra price	520 - 555 (20 1/2 - 22")	IV-IF	540/530	4310.0228
A4	extra price	270 - 305 (10 3/4 - 12")	II	300/270	4310.0010
A5	extra price	370 - 405 (14 1/2 - 16")	III	400/370	4310.0011
A6	extra price	470 - 505 (18 1/2 - 19 3/4")	IV	500/470	4310.0625
A7	extra price	570 - 605 (22 1/2 - 23 3/4")	V	600/570	4310.0633

KKV 8/14



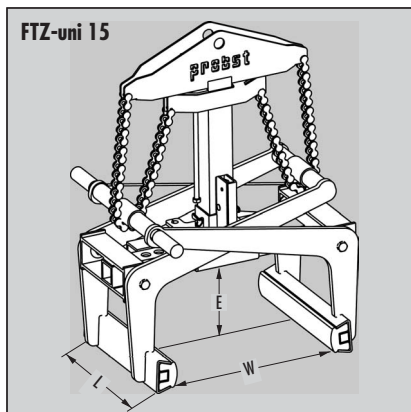
Cable Channel Clamp KKV 8/14

- For cable channels size I - IF
- Grips from the inside
- Fully mechanical operated, with handles and lifting eye.

- Handles turnable to 90°
- Exchangeable rubber metal bars as gripping elements.
- Galvanised finish

Type	Gripping Range* W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KKV 8/14	80 - 140 (3 1/4 - 5 1/2")	270 (10 3/4")	100 (220)	12 (26)	5310.0061

FTZ-uni 15



Grab for Prefabricated Concrete Products FTZ

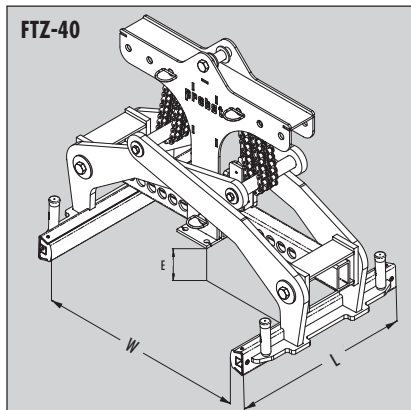
Suitable for handling concrete components, prefabricated concrete wall units, steps, kerb stones, natural stones etc.

NEW: The FTZ-uni 15/FTZ-maxi 15 can be used among other things for handling uneven natural kerb stones, due to high gripping force.

Standard Specifications:

- Easily adjustable opening width by a spring loaded bolt.
- Lifting eye for attaching to crane hook.
- Automatic release for the fully automatic switch over from "full" to "empty".
- Exchangeable rubber metal bars as gripping elements.

FTZ-40



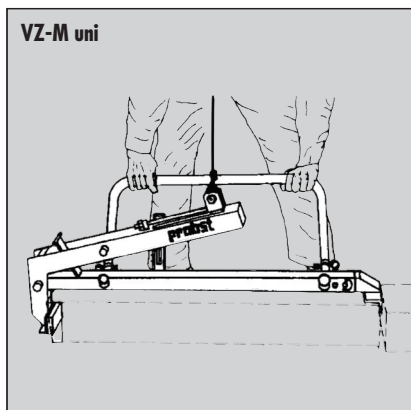
Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
FTZ-I	50 - 520 (2 - 20 1/2")	170 (6 3/4")	420 (16 1/2")	900 (2,000)	55 (120)	5310.0120
FTZ-uni 15	0 - 750 (0 - 29 1/2")	255 (10")	420 (16 1/2")	1,500 (3,300)	85 (185)	5310.0256
FTZ-maxi 15/42	200 - 1,200 (7 3/4 - 47")	255 (10")	420 (16 1/2")	1,500 (3,300)	105 (230)	5310.0300
FTZ-uni 25	0 - 750 (0 - 29 1/2")	255 (10")	420 (16 1/2")	2,500 (5,500)	115 (255)	5310.0313
FTZ-uni 40	0 - 850 (0 - 33 1/2")	160 (6 3/4")	720 (28 3/4")	4,000 (8,800)	230 (510)	5310.0317
FTZ-maxi 40	400 - 1,250 (15 3/4 - 49")	200 (7 7/8")	720 (28 3/4")	4,000 (8,800)	260 (570)	5310.0316

Accessories

Adapter for Kassel Kerb Stone A-FTZ-KB for FTZ-uni 15 to extend gripping depth on one side to 290 mm	4310.0575
Adjustable Height Stop HVA-FTZ-uni/maxi for FTZ-uni 15/maxi 15/42, adjustable range approx. 140 - 255 mm	4310.0483

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

VZ-M uni



Kerb Stone Clamp VZ-M uni

Fully mechanical operation for use with any wheel loader, excavator or other carriers.

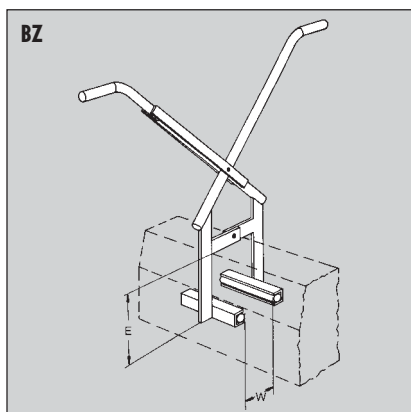
Standard Specifications:

- Lifting eye for attaching to crane hook.
- Handles for optimal guidance of the clamp.
- Automatic release for the fully automatic switch over from "full" to "empty".

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VZ-M uni	900 – 1,065 (35 1/2 – 42 1/4")	200 (440)	21 (45)	5310.0275

See page 1.7 for the Hydraulic Kerb Stone Clamp VZ-H

BZ



Kerb Stone Handles BZ

For the handling of kerb stones, edging stones, gutters and similar. Also for natural kerb stones.

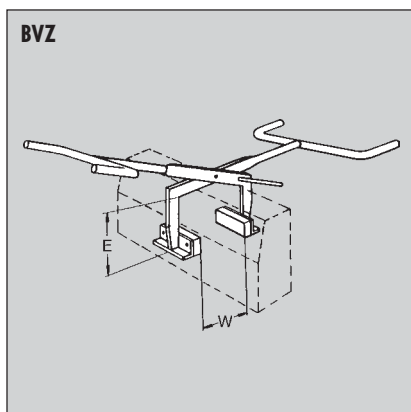
The plumb line remains completely free through a short intervening.

We recommend, using the kerb stone handles in pairs.

- Galvanised finish
- Exchangeable rubber grippers

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
BZ	0 – 400 (0 – 15 3/4")	200 (7 3/4")	150 (6")	150 (330)	4 (9)	5320.0084
Spare Rubbers BZ						4320.0006

BVZ



Universal Handles BVZ

A large adjustable opening range means the BVZ can be universally used for all gardening- and landscaping-design products.

➤ Exchangeable rubber metal bars as gripping elements.

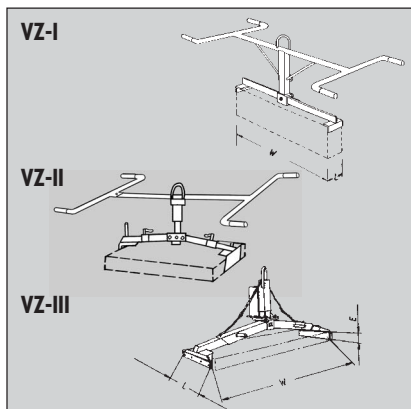
- Galvanised finish
- Pin bolts to adjust the opening width.

Standard Specifications:

- Removable handles

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
BVZ	0 – 550 (0 – 21 3/4")	210 (8 1/4")	200 (7 3/4")	200 (440)	12 (26)	5320.0020

VZ-I



Kerb Stone Handles VZ

Especially suitable for handling concrete kerb stones. The one-sided angular supports which are placed on the kerb stone already in place enable an extremely narrow joint.

➤ Grips longitudinally so that it can be used in tightest spaces.

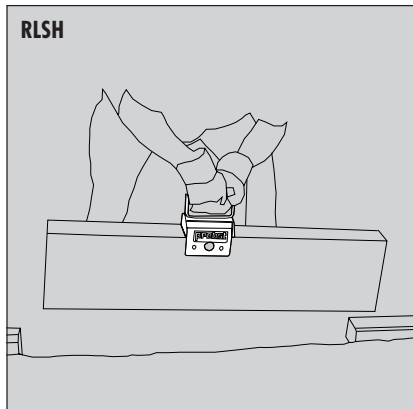
- No deflection of the plumb line.
- All models are equipped with a lifting eye.
- The VZ I has a galvanised finish.
- The VZ II and VZ III come complete with rubber grippers, suitable for moving large slabs. The VZ III is also equipped with automatic release.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VZ I	500 – 1,045 (19 3/4 – 41 1/4")	40 (1 1/2")	100 (4")	100 (220)	12 (26)	5310.0140
VZ II	700 – 1,000 (27 1/2 – 39")	50 (2")	200 (7 3/4")	300 (660)	25 (55)	5310.0141
VZ III	1,000 – 1,700 (39 – 67")	60 (2 1/4")	420 (16 1/2")	1,000 (2,200)	60 (132)	5310.0142

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

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

RLSH



Kerb and Strip Stone handle RLSH

The perfect and clever handle for small kerbs and strips. Easy handling features quick, efficient and safe laying.

Lifting and laying of stones in ergonomic posture.

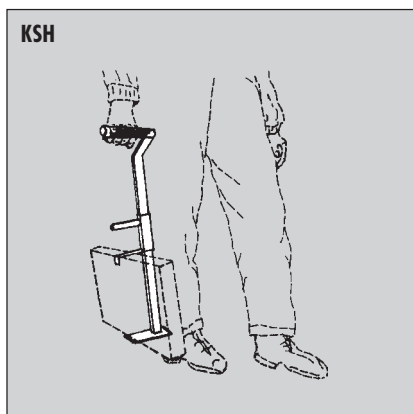
- compact size and und little dead weight
- easy jamming and release by just twisting the handle

► LSH 80 – suitable for kerb and strip stones with a width of 80 mm (3.15 inch)

► LSH 120 – suitable for kerb and strip stones with a width from 60 to 120 mm (from 2.36 to 4.72 inch)

Type	for Width of Stones mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
RLSH 80	80 (3 1/4")	80 (175)	2,5 (5)	5320.0091
RLSH 120 uni	60 – 120 (2 1/4" – 4 3/4")	80 (175)	3,0 (7)	5320.0092

KSH



Kerb Slab Lifter KSH

For transporting lawn edging stones, slabs, etc. The device grips the slab from underneath while at the same time the gripper bar at the top prevents the slab from slipping off.

- Universally suitable for all kerb slabs up to

400 mm in height and 40 mm to 100 mm thickness.

► We recommend using these in pairs when lifting parts of 1 m in length.

- Galvanised finish

Type	Gripping Range W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KSH	40 – 100 (1 1/2 – 4")	170 – 400 (6 3/4 – 15 3/4")	50 (2")	60 (130)	1.3 (3)	5320.0080

Concrete Step Handles TSV

Universal handles due to a large adjustable opening range. Suitable for steps, kerbs, L-stones, etc.

Standard Specifications:

- Lifting eye for attaching to crane hook.

- Carrying handle

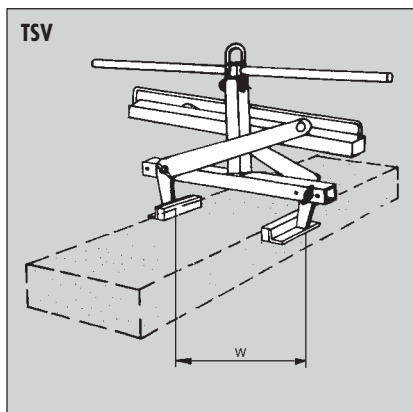
► Carrying handle turnable by 90° according to the working space.

- Exchangeable rubber grippers

- Galvanised finish

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
TSV	70 – 500 (2 3/4 – 19 3/4")	125 (5")	200 (7 3/4")	250 (550)	18 (39)	5310.0130

TSV



Concrete Step Handles TSZ-uni

Suitable for handling steps, kerb stones, L-stones, etc. in conjunction with a lifting device. Easily adjustable opening width by means of a spring-loaded bolt.

- Considerable inside height

Conical kerb stones are also gripped securely, as the gripper has an inside height of 180 mm thus being able to grip underneath the conical form.

Standard Specifications:

- Lifting eye for attaching to crane hook.

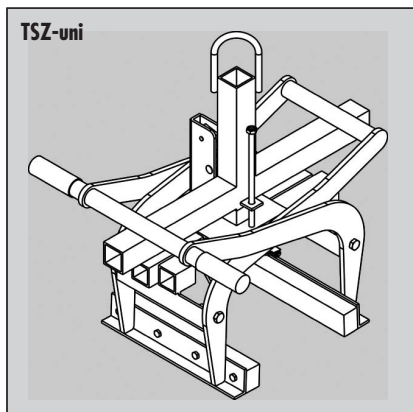
► Automatic release for fully automatic switch-over from "full" to "empty".

- Exchangeable rubber grippers

- Galvanised finish

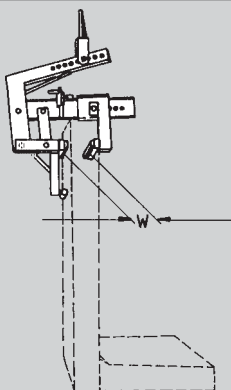
Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
TSZ-uni	50 – 570 (2 – 22 1/2")	185 (7 1/4")	350 (13 3/4")	500 (1,100)	29 (64)	5310.0251

TSZ-uni



*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

WEZ



Grab for Angular Concrete Products WEZ

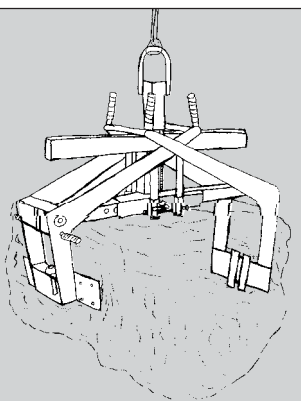
Specially developed for handling L-stones and similar products. The lifting eye can be adjusted to the center of gravity of the product being lifted to let it hang vertically.

Standard Specifications:

- Lifting eye for attaching to crane hook.
- Highly durable and exchangeable rubber grippers.
- Automatic release for the fully automatic change over from "full" to "empty".

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
WEZ 1	15 – 245 ($1\frac{1}{2}$ – $9\frac{3}{4}$ ")	1,000 (2,200)	50 (110)	5310.0171
WEZ 3	100 – 300 (4" – $11\frac{3}{4}$ ")	3,000 (6,600)	180 (395)	5310.0304

SQZ



Rock-Clamp SQZ

The Universal Laying Clamp for all kinds of ashlar rock in the landscaping contracting. Equipped with two special, swivelling steel-finger grippers to adapt to the irregular shape of the rocks to provide highest gripping security. Quick adjustment of the opening range by spring loaded bolts.

Standard Specifications:

- Lifting eye for attaching to crane hook.
- Handles to guide the clamp
- Height adjustment
- Automatic release for the fully automatic switch over from "full" to "empty".

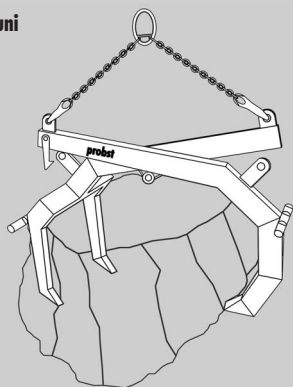
Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
SQZ	200 – 850 ($7\frac{3}{4}$ – $33\frac{1}{2}$ ")	300 ($11\frac{3}{4}$ ")	1,000 (2,200)	98 (215)	5310.0125

Accessory

The SQZ clamp can be additionally equipped with rubber grippers in order to handle delicate concrete elements gently.

Type	Description	Order-Number
Set of Rubber Grippers for SQZ	to be exchanged against the standard steel finger grippers (exchange without the need of tools).	4001.0078

FVZ-uni



Mechanical Boulder Grab FVZ-uni

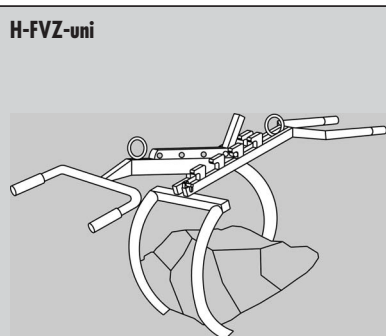
Suitable for handling boulders. Stones of almost all shapes can be lifted and laid to the exact millimetre.

the clamp can be lifted after setting of the stone).

- With chains (by changing the chain-position,
- Automatically adjustable opening width from 0 to a maximum of 950 mm.
- With lifting eye for attaching to crane hook.

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
FVZ-uni	0 – 950 (0 – $37\frac{1}{2}$ ")	1,500 (3,300)	85 (189)	5310.0272

H-FVZ-uni



Manual Boulder Grab H-FVZ-uni

A manual boulder grab for smaller boulders which can be carried by two men.

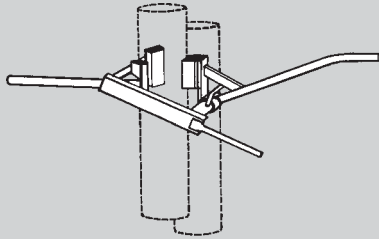
regarding the admissible carrying capacity.

- Additionally equipped with a ring-eyellet to be hooked onto any kind of lifting device,
- Equipped with a simple and fast opening range adjustment.
- Galvanised finish

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
H-FVZ-uni	0 – 600 (0 – $23\frac{1}{2}$ ")	200 (440)	18 (40)	5320.0086

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

PVZ



Column Handles PVZ

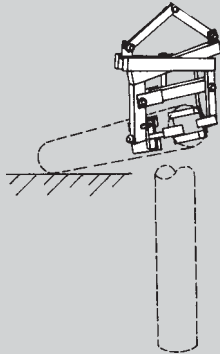
Especially suitable for the carrying and laying of round and rectangular concrete or wooden columns. Diameter: 180 – 200 mm.

- ▶ Clamping is independent of the length.

- ▶ Constructed in such a way that the columns can be set close enough to touch one another.
- ▶ The PVZ-V is an adjustable model.
- ▶ Galvanised finish

Type	Gripping Range* W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PVZ	200 (7 3/4")	80 (3 1/4")	150 (330)	6 (13)	5320.0030
PVZ-V	100 – 305 (4 – 12")	80 (3 1/4")	150 (330)	8 (18)	5320.0031

MPVZ-V



Column Grab MPVZ-V

For use with a carrier and especially suitable for lifting concrete and wooden columns from a horizontal to a vertical position for installation. Clamping is independent of the length.

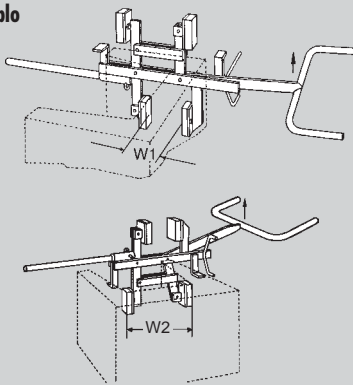
The MPVZ-V is for the use of rectangular columns and round palisades. Adjustable gripping width.

Standard Specifications:

- ▶ Swivelling grippers
- ▶ Highly durable, exchangeable rubber pads.

Type	Gripping Range* W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
MPVZ-V	120 – 200 (4 3/4 – 7 3/4")	—	300 (660)	30 (66)	5310.0233

Duplo



U-Stone Handle „Duplo“

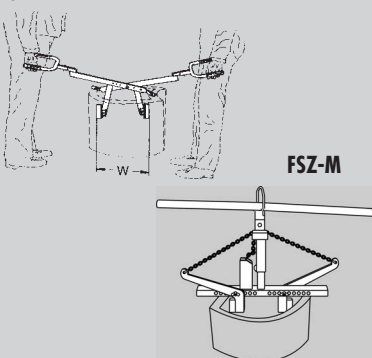
Specially suitable for the carrying and laying of U-stones. Depending on the gripper space

available, the blocks can be gripped from the inside or the outside.

- ▶ Galvanised finish

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
Duplo	W1 0 – 150 (0 – 6") W2 240 – 390 (9 1/2 – 15 1/4")	100 (220)	9 (20)	5320.0040

FSZ



Hollow Slope Block Handles FSZ

Especially suitable for the handling of hollow slope blocks and similar elements which can be lifted by hand.

- ▶ Grips from the inside
- ▶ Removable double handles
- ▶ Galvanised finish FSZ/FSZ-M

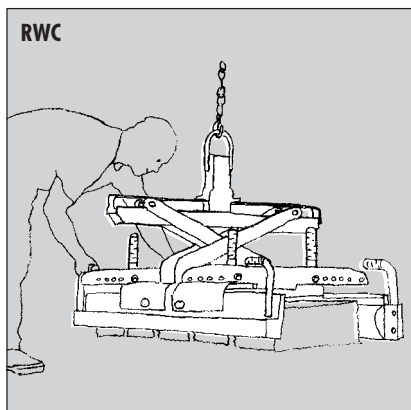
- ▶ Large adjustable gripping range to match all current hollow slope blocks.

FSZ-M for Lifting Devices

with lifting eye, handle, automatic release for fully automatic switch-over from "full" to "empty".

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
FSZ	180 – 580 (7 – 22 3/4")	150 (330)	8 (17)	5320.0001
FSZ-M	180 – 580 (7 – 22 3/4")	250 (550)	16 (35)	5320.0002

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.



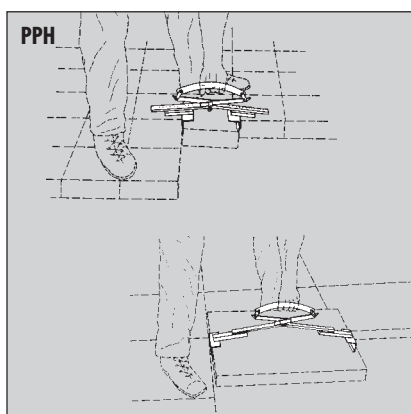
Laying Clamp for retaining wall units RWC

Several retaining walls can be picked up and laid at the same time by this universal clamp. Depending on the size of the blocks, 4-8 blocks can be picked up at the same time (length of gripper 2,150 mm). Even split blocks which vary in width up to 25 mm can be securely gripped due to the use of a very special gripper which adapts perfectly to surface.

Standard Specifications:

- Lifting eye for attaching to crane hook.
- Handles to guide the clamp.
- Automatic release for the fully automatic switch-over from "full" to "empty".
- Special gripper to adapt to variable sizes of blocks.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper-Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
RWC 25/61-11-215	250 – 610 (9 ³ / ₄ – 24")	110 (4 ¹ / ₄ ")	2,150 (85")	300 (660)	210 (460)	5310.0274



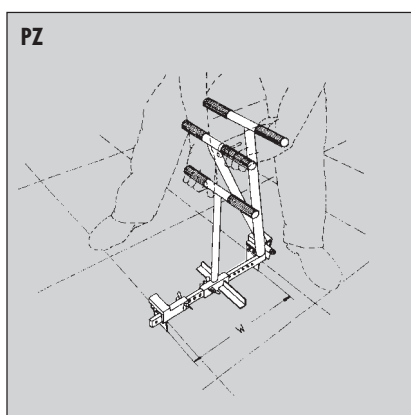
Profi-Slab Handle PPH

For laying concrete and natural stone slabs.
Large adjustable range for all slabs.
➤ With large leverage

- Very stable professional design.
- Galvanized finish
- Exchangeable grippers

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PPH 7/37	70 – 370 (2 ³ / ₄ – 14 ¹ / ₂ ")	60 (130)	1.5 (3.2)	5320.0053
PPH 19/50	190 – 505 (7 ¹ / ₂ – 20")	60 (130)	1.5 (3.2)	5320.0052
PPH 30/62	300 – 620 (10 – 24")	60 (130)	1.5 (3.2)	5320.0054
PPH-S 7/62	70 – 620 (2 ³ / ₄ – 24")	60 (130)	3 (7)	5320.0055

PPH-S comes as a set with a basic unit and 3 sets of grippers.



Slab Extractor PZ

For extracting single slabs, it has a robust construction so that the blades can be hammered into the joints.

➤ New: Locking Device!

The operator does not need to continually squeeze the SZ-handles together!

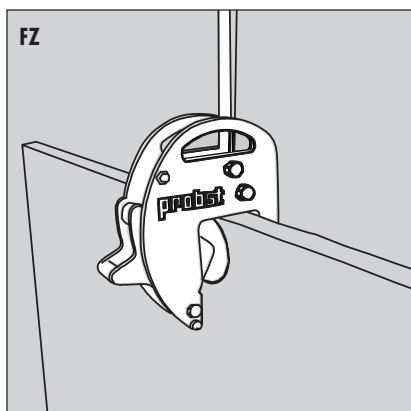
Adjustable without tools from 200 – 610 mm. Complete with easily exchangeable high-quality-special double spring-steel blades.

- Galvanized finish

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
PZ	200 – 610 (7 ³ / ₄ – 24")	70 (155)	6 (13)	5320.0006

See page 1.17 for the paving block extractor SZ

* Possible distance between the grippers. The product measurements must be within approx. ± 30 mm of the stated range.



Flat Grab FZ

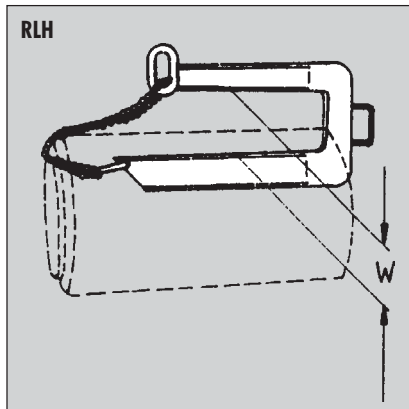
FZ for transport of slabs.

- Narrow grippers turn standing slabs or erect laying slabs.
- No problem to grip even tight standing slabs.
- No damage to the surface of the slabs due to gentle handling with rubber grippers.

- High security by enormous transmission of 5:1.
- A spring tension prevents from unintentional slipping off the clamp.
- Lifting band instead of chain or rope: low dead weight, no squeezing, no hurts.
- Suitable for nearly all kinds of material.

Type	Gripping Range* W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
FZ	0 – 60 (0 – 2 ¹ / ₂ ")	800 (1,760)	6 (13)	5310.0278

*Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.



Pipe Laying Hook RLH

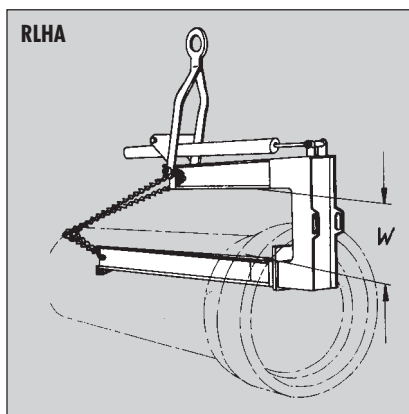
Ensures greater safety and saves time when laying pipes.

- For pipes up to 1 m length.

Standard Specifications:

- Eyelet for attaching to crane hook.
- Safety chain
- Handle for safer insertion into the pipe.

Type	Width W mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
RLH 1	190 (7 1/2")	1,000 (2,200)	24 (55)	5400.0001
RLH 3	260 (10 1/4")	3,000 (6,600)	45 (100)	5400.0002



Pipe Laying Hook RLHA

With automatic center-of-gravity balance and adjustable stop buffer.

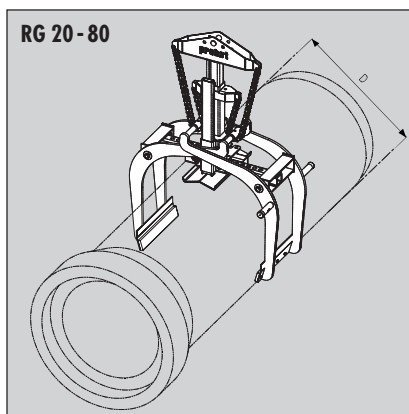
- For pipes up to 3 m.

Standard Specifications:

- Safety chain
- Handle for safer insertion into the pipe.

Type	Width W mm (in)	Carrying Capacity kg (lbs)	Minimum Load kg (lbs)	Dead Weight kg (lbs)	Order-Number
RLH 1 A	300 (12")	1,000 (2,200)	350 (770)	180 (395)	5400.0010
RLH 3 A	460 (18")	3,000 (6,600)	1,000 (2,200)	310 (680)	5400.0011
RLH 7,5 A	500 (20")	7,500 (16,500)	3,000 (6,600)	730 (1,610)	5400.0012

The stated minimum load is necessary if the automatic center-of-gravity balancer is to function.



Round Grab RG 20 - 80

For pipe outside diameter 200 – 800 mm.

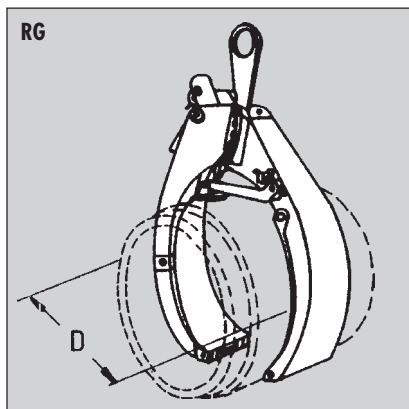
Exchangeable rubber metal bars to prevent coated or stoneware pipes from damage.

- With adjustable opening width by spring loaded bolts.

Standard Specifications:

- With crane eye for attaching to crane hook.
- With automatic release mechanism which means no additional operating personnel are needed.
- With height adjustment bars.

Type	Outside Diameter of Pipe D mm (in)	Gripping Range mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
RG 20-80	200 – 800 (7 3/4 – 31 1/2")	420 (16 1/2")	1,500 (3,300)	92 (205)	5450.0002



Round Grab RG

Specially for laying sewer pipes.

Wider gripper arms mean that coated pipes are not damaged.

- Can be used in narrow ditches as little room is needed on either side for the grab to work.

Specially designed to lay small diameter sewer pipes.

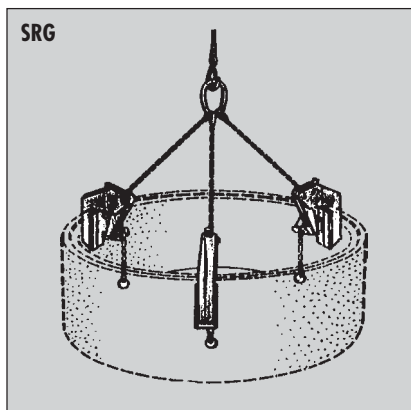
- Large opening range
- Mechanically operated

Standard Specifications:

- Crane eye for attaching to crane hook.
- No additional operating personnel are needed.

Type	Outer Diameter of Pipes D mm (in)	Gripping Width mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
RG 1,5-47	200–470 (7 3/4 – 18 1/2")	430 (17")	1,500 (3,300)	56 (125)	5430.0009
RG 1,5-80	300–800 (11 3/4 – 31 1/2")	350 (13 3/4")	1,500 (3,300)	90 (200)	5430.0007
RG 5-150	600–1,500 (23 1/2 – 59")	500 (19 3/4")	5,000 (11,000)	390 (860)	5430.0008
RG 10-200	1,000–2,000 (39 – 79")	750 (29 1/2")	10,000 (22,000)	1,080 (2,380)	5430.0006
RG 12-250	1,500–2,500 (59 – 98")	750 (29 1/2")	12,000 (26,450)	1,450 (3,200)	5430.0004

SRG



Manhole and Cone Chain Clamp SRG

For transporting manhole rings and cones.

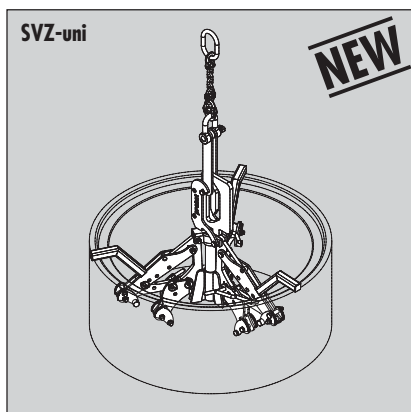
New: Manhole and Cone Chain Clamp SRG-uni, especially easy handling and light-weight. Automatically adjustable clamping range of the claws to the thickness of the pipe walls.

► SRG-uni 1 and SRG-uni 3 comply with the requirements as per DIN 4034, Part 2 and are equipped with lifting straps.

► SRG 1,5, SRG 3 and SRG 3L comply with the requirements as per DIN 4034, Part 1 and are equipped with chains.

Type	Nominal Value ID of cones and manholes mm (in)	Number of Claws	Gripping Range of Claws mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
SRG-uni 1,5	800–2,000 (31½ – 79")	3	40–120 (1½ – 4¾")	1,500 (3,300)	21 (45)	5440.0015
SRG-uni 3	800–2,000 (31½ – 79")	3	60–180 (2½ – 7")	3,000 (6,600)	40 (88)	5440.0014
SRG 1,5	400–2,000 (15½ – 79")	3	40–120 (1½ – 4¾")	1,500 (3,300)	31 (70)	5440.0001
SRG 3	400–2,000 (15½ – 79")	3	50–180 (2 – 7")	3,000 (6,600)	53 (115)	5440.0002
SRG 3 L	400–3,000 (15½ – 118")	3	50–180 (2 – 7")	3,000 (6,600)	57 (125)	5440.0003

SVZ-uni



Manhole and Cone Installation Clamp SVZ-uni

This universal manhole and cone clamp SVZ-uni enormously rationalizes transport and installation of manhole elements.

Especially suitable for manhole basers, rings and cones with inner diameters of: see table *1 and *2.

► An additional operator is not necessary as the driver of the lifting machine "switches" the SVZ-uni from gripping to releasing by a slight movement of the lifting hook.

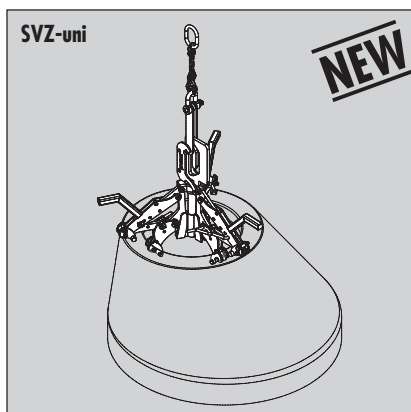
► The settings to the required diameters of the products is done very quickly through plug bolts. A rearrangement of the settings is not necessary when handling manhole rings and cones, as the SVZ-uni has got two gripping levels.

► Efficient and economic handling of all kinds of manhole elements.

Standard Specifications:

► High-tensile chain suspension with eyelet.

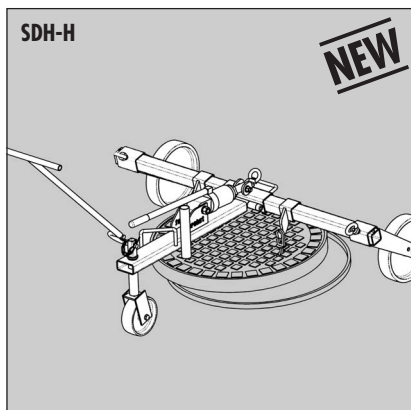
SVZ-uni



Type	Country-Specific Version	Surcharge for nominal width (ID) mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
SVZ-uni-F	global	625 - 1.500 *1 (24 ¾ – 59)	2.500 (5,500)	102 (225)	5400.0021
SVZ-uni-UK	UK	900 - 1.500 *2 (35 ½ – 59)	2.500 (5,500)	96 (210)	5400.0020
Set of adaptors	surcharge for nominal width	1.800			4400.0064

*1 adjustable in degrees as follows: 625/800/1,000/1,050/1,200/1,250/1,350/1,500 mm

*2 adjustable in degrees as follows: 900/1,000/1,050/1,200/1,250/1,350/1,500 mm



Hydraulic Manhole Cover Lifter SDH-H

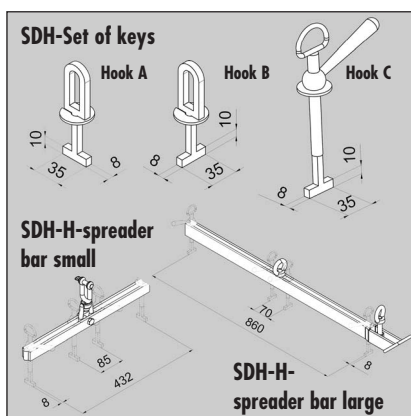
Heavy duty professional device. Universally suitable to lift and move away all common sizes of covers.

► Can be taken to pieces within seconds in order to be stowed in each car boot.

► High break-out force up to 1,500 kg.

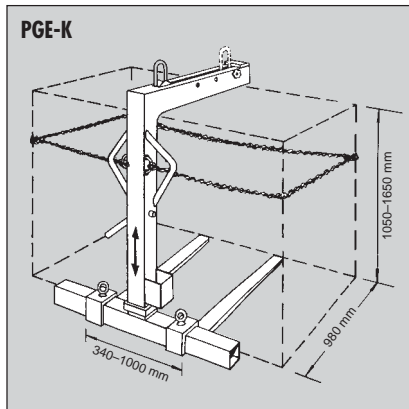
Basic device, keys and spreader bars have to be ordered separately.

Type	Max. wheel-span mm (in)	Hook centres max./min. mm (in)	Lifting height mm (in)	Pulling force kg (lbs)	Dead Weight kg (lbs)	Order-Number
SDH-H 15	1,050 (41")	260/950 (10 1/4"/37 1/2")	310 (12 1/4")	1,500 (3,300)	36 (80)	5480.0002



Accessories:

Type	Description	Order-Number
Set of keys and spreader bar/s	2 hooks A	4480.0019
	2 hooks B	4480.0020
	4 hooks C	4480.0017
	1 Spreader bar small	4480.0008
	2 Spreader bars large	4480.0018
Set of keys and spreader bars UK	2 hooks A, 2 hooks B, 4 hooks C, 1 Spreader bar small, 2 Spreader bars large	5480.0004
Aluminium Tool Box	Size 1.195 x 305 x 203 mm to stow the complete SDH-H including all accessories. Box made of aluminium.	5480.0003



Pallet Forks with Security Chain

For use with truck loading cranes, tower cranes, fork lift trucks or gantry cranes.

Equipped as standard with security chain, thus approved as per rule EN 13155 for transport of individual loads (such as plastic coated, palletized loads).

► Forks with long, conical taper for optimal insert underneath the pallets.

► Light-weight construction due to use of high-tensile fine-grain steel.

For transport with pallet forks of not fixed building materials (such as building blocks and roof tiles) on construction sites an additional form-fitting equipment, for example a security net, is mandatory as per rule EN 13155. Pallet forks PGE-K 17/20 and PGA-K 15/20 can be additionally equipped with a net holder (NH) as well as with a security net (SSN) at any time.

► NH + SSN optional available, see accessories.

PGE-K

Basic Model without Automatic-Centre-of-Gravity-Balance

Standard Specifications:

► Crane eye

► Height adjustable from 1,050–1,650 mm (41¹/₂–65").

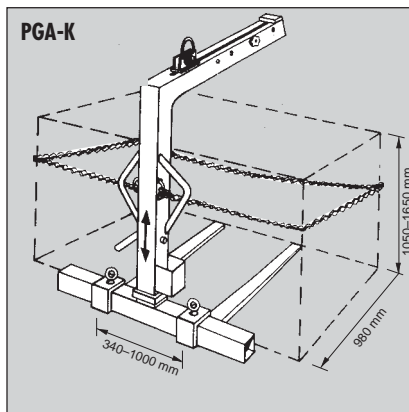
► Adjustable fork distance from 340–1,000 mm (13¹/₂–39¹/₂") (external).

► Security chain with eyelet and chain box for securing the load against slipping off.

► Length of forks 980 mm

Type	Fork Dimension mm (in)	Carrying Capacity kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
PGE 15-K	100 x 40 (4 x 1 ¹ / ₂ ")	1,500 (3,300)	90 (200)	5600.0002
PGE 20-K	120 x 40 (4 ³ / ₄ x 1 ¹ / ₂ ")	2,000 (4,400)	115 (255)	5600.0003
PGE 25-K	100 x 45 (4 x 1 ³ / ₄ ")	2,500 (5,500)	150 (330)	5600.0004
PGE 30-K	125 x 45 (5 x 1 ³ / ₄ ")	3,000 (6,600)	180 (395)	5600.0005

Larger fork lengths on request.



PGA-K

Automatic-Centre-of-Gravity-Balance due to a spring-loaded slide mounted on a maintenance free steel-polyamide-slide-bearing.

Standard Specifications:

► Crane eye

► Adjustable height from 1,050–1,650 mm (41¹/₂–1¹/₂").

► Adjustable fork distance from 340–1,000 mm (13¹/₂–39¹/₂").

► Security chain with eyelet and chain box for securing the load against slipping off.

► Length of forks 980 mm

Type	Fork Dimension mm (in)	Carrying Capacity kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
PGA 15-K	100 x 40 (4 x 1 ¹ / ₂ ")	1,500 (3,300)	95 (210)	S-5600.0006
PGA 20-K	120 x 40 (4 ³ / ₄ x 1 ¹ / ₂ ")	2,000 (4,400)	120 (265)	S-5600.0007
PGA 25-K	100 x 45 (4 x 1 ³ / ₄ ")	2,500 (5,500)	160 (355)	5600.0008
PGA 30-K	125 x 45 (5 x 1 ³ / ₄ ")	3,000 (6,600)	180 (395)	5600.0009

Larger fork lengths on request.

Minimum loading weight is approx. 25 % of the load.

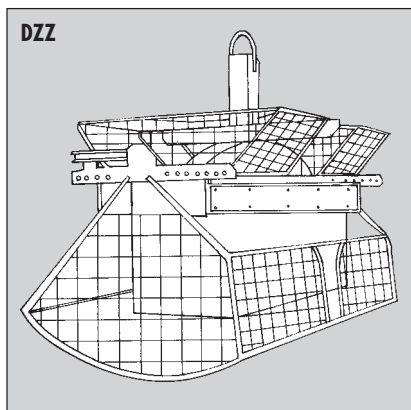
Stated minimum loading weight is necessary for the automatic gravity function to work.

Optional with standard flange plate mounted on the PGA-K for the direct assembly of the rotator or the Quick Change Device SWV.

Accessories

Type	Order-Number
NH-PGE 15/20 Net Holder incl. Security Net SSN for PGE	4500.0021
NH-PGA 15/20 Net Holder incl. Security Net SSN for PGA	4500.0008

DZZ



Roof Tile Clamp DZZ

Suitable for lifting one bundle of roof tiles or concrete roofing slabs (loose, bound or shrink-wrapped).

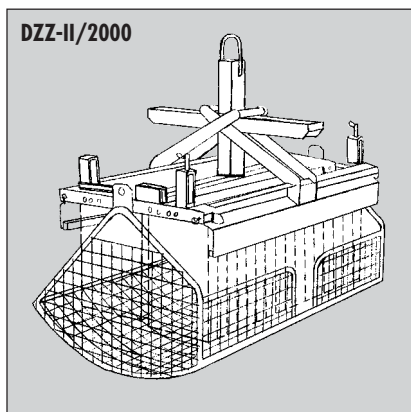
Standard Specifications:

- Crane eye
- Exchangeable rubber grippers.
- Light weight by use of fine grained steel.

- Automatic release for the fully automatic switch over from "full" to "empty".
- Protection basket
- 2 storage compartments for accessories.
- Adjustable gripping width to 240, 330, 420, 460 and 480 mm.

Type	Gripping Range* W mm (in)	Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
DZZ	240 – 480 (9½–19")	110 (4¼")	1,150 (45")	200 (440)	73 (160)	5510.0029
Additional price for inlay basket						5510.0004

DZZ-II/2000



Roof Tile Clamp DZZ-II/2000

To pick up one or two rows of concrete roof tiles.

For direct charging with truck loading crane on the roof.

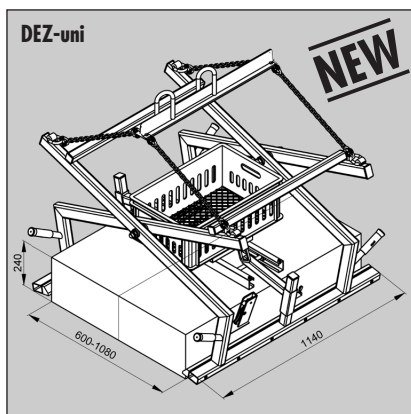
The DZZ-II/2000 is equipped with removable central divider, therefore no damaging of the roof tiles when picking up two rows.

Standard Equipment includes:

- Crane eye
- Exchangeable rubber grippers.
- Easily removeable central divider.
- Light weight
- Automatic release for the fully automatic switch over from "full" to "empty".
- Protection basket
- Gripping range widely adjustable.

Type	Gripping Range* W mm (in)	Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
DZZ-II/ 2000	280 – 770 (11–30¼")	110 (4¼")	1,040 (41")	400 (880)	110 (245)	5510.0011

DEZ-uni



Roofing Element Clamp DEZ-uni with Security Net

The universal clamp for clay and concrete roof tiles.

With only one device, either two rows of clay roof tiles or two or three rows of concrete roof tiles can be transported quickly and safely on the roof.

Suitable also for large tiles.

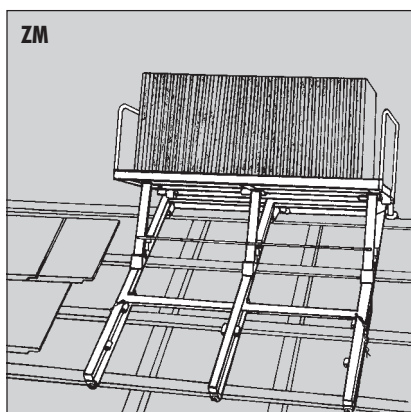
With the following standard features:

- Security net to be hooked into the handles for guiding the clamp.
- Plastic basket to store the security net. Basket can also be used for transportation of special tile elements on the roof
- Additional lifting point to hang the loaded clamp on an angle to position the rows of roof tiles directly on the roof. (Not suitable for steep roofs).
- Ring-eyelet for crane hook
- Adjustable height-support
- Automatic release for the fully automatic switch-over from "full" to "empty".
- Exchangeable rubber grippers as gripping elements.

Due to light weight construction and using of high-tensile steels only 75 kg dead weight. That way this sturdy steel device is more light weight than some comparable aluminium devices with the same technical specifications.

Type	Gripping Range* W mm (in)	Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
DEZ-uni	660–1,000 (26–39")	140/210 (5½"/8¼")	1,140 (45)	600 (1,320)	75 (165)	5510.0034

* The gripping range indicates the minimum and maximum pack measurements, which can be handled with this clamp.



Ziegelmax ZM

The Ziegelmax moves on maintenance-free rollers, using in the existing rafters or supports.

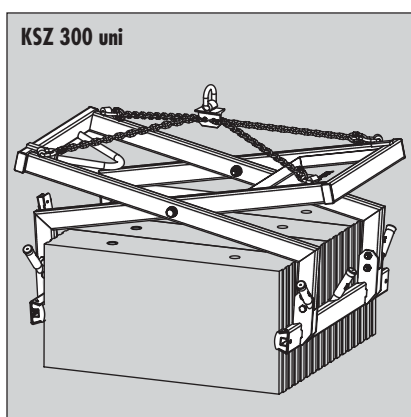
ZM to pick up two rows of roof tiles.

ZM-G suitable for special large roof tiles.

► Light weight, due to its aluminium construction.

► Adjustable for roof slopes from 15° to 55°.

Type	Storage Surface mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
ZM	1,350 x 750 (53 x 29 1/2")	360 (790)	25 (55)	5510.0030
ZM-G	1,350 x 900 (53 x 35 1/2")	420 (930)	28 (60)	5510.0032



Limestone Clamp KSZ 300 uni

Especially designed for the transport of limestone elements by a tower crane. The clamp is variably gripping all packs up to the indicated opening width safely. An adjustment of the gripping width is no longer necessary. The security net can be hung easily underneath the load.

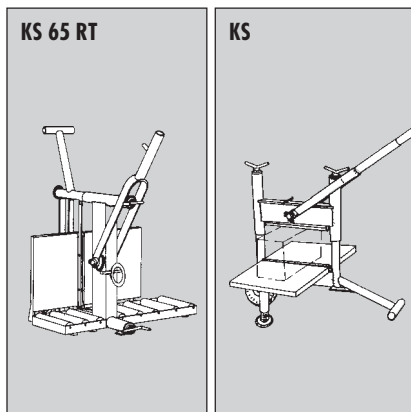
(Safety net also suitable for blocks with height 625 mm).

Standard Specifications:

- Crane eye
- Safety net
- Fully automatic release from "full" to "empty".
- Rubber metal bars as gripping elements (bright model – no marks left on visible brick work).

Type	Gripping Range* mm (in)	Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KSZ 300 uni	750 - 1,000 (29 1/2 - 39")	300 (11 3/4")	1,000 (39")	1,250 (2,750)	95 (210)	5520.0033

* The gripping range indicates the minimum and maximum pack measurements, which can be handled with this clamp.



Limestone Cutter KS

For splitting limestone with a cutting table and support on both sides.

Stones can also be split diagonally.

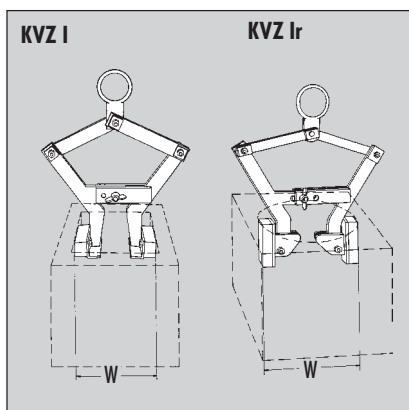
- With crane eye for lifting by crane.
- Both upper and lower blades have four cutting edges ensuring long life.
- No more time consuming and expensive

sawing, thus saving a considerable amount of time and money.

► The machine can be placed directly at site. Easily adjustable cutting height.

► The **KS 65 RT** comes complete with roller track and cutting table to make easy work of splitting larger blocks.

Type	Cutting Width mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Order-Number
KS 43 UT	430 (17")	10 - 400 (1 1/2 - 15 3/4")	75 (165)	5530.0001
KS 65 UT	650 (25 1/2")	10 - 400 (1 1/2 - 15 3/4")	95 (210)	5530.0002
KS 65 RT	650 (25 1/2")	10 - 400 (1 1/2 - 15 3/4")	125 (275)	5530.0003



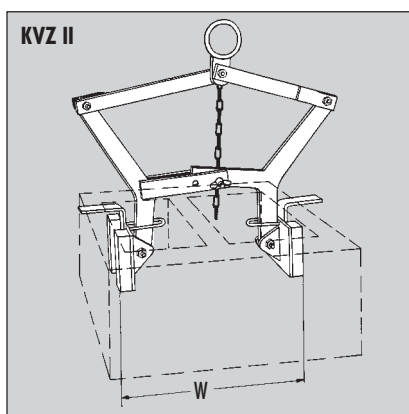
Chimney Section Clamp KVZ

For chimney sections with an internal width of 20 – 30 cm.

Type	Gripping Range W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KVZ I	200 – 300 (7 ³ / ₄ – 11 ³ / ₄ "	110 (4 ¹ / ₄ "	150 (330)	5.5 (12)	5540.0001

For round chimney sections with an internal width of 20 – 30 cm.

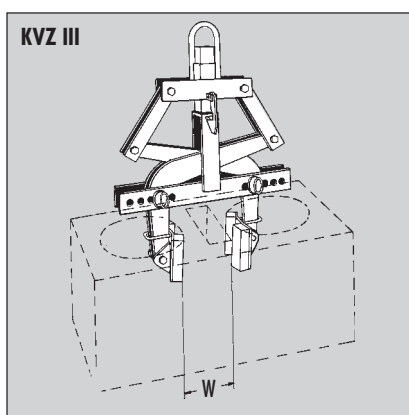
Type	Gripping Range W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KVZ Ir	200 – 300 (7 ³ / ₄ – 11 ³ / ₄ "	120 (4 ³ / ₄ "	150 (330)	6 (13)	5540.0002



Chimney Section Clamp KVZ II

For chimney section with two-square or round holes.

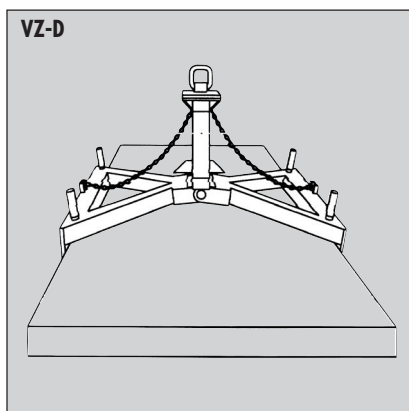
Type	Gripping area W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KVZ II	340 – 640 (13 ¹ / ₂ – 25 ³ / ₄ "	140 (5 ¹ / ₂ "	250 (550)	15 (32)	5540.0005



Chimney Section Clamp KVZ III

For two- or three-round-holed chimney sections.
Grips at the middle section.

Type	Gripping Range W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
KVZ III	60 – 350 (2 ¹ / ₄ – 13 ³ / ₄ "	150 (6"	500 (1,100)	38 (82)	5540.0010



Laying Clamp for Hollow Core Slabs VZ-D

Suitable for gripping and laying hollow core slabs.

Opening range suitable for width of slabs 1,200 mm.

Mostly this type of grab is used as a pair, suspended on a spreader bar.

Standard equipment:

- Lifting eye for attaching to crane hook.
- Automatic release for fully automatic switch-over from "full" to "empty".
- Handles to guide the clamp.
- Security chain for the use with the crane.

Type	Gripping Range W mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
VZ-D-2,5	1,200 (47")	1,000 (39")	2,500 (5,500)	106 (230)	5740.0036
VZ-D-6	1,200 (47")	1,000 (39")	6,000 (13,200)	230 (500)	5740.0037

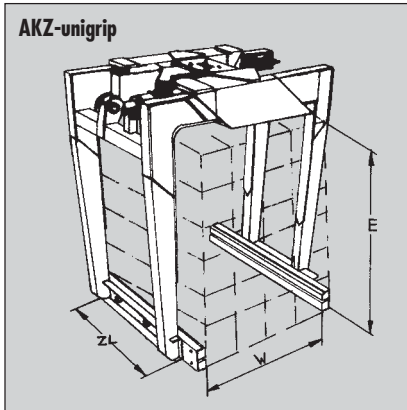
Versions more favourable in price, without automatic release, with manual locking, on request.

Spreader bar for laying of long and heavy elements on request.

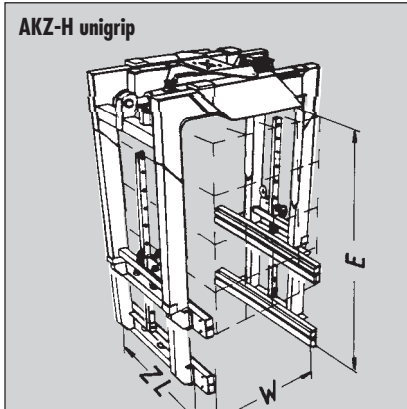
* The gripping range indicates the minimum and maximum pack measurements, which can be handled with this clamp.

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

AKZ-unigrip



AKZ-H unigrip



General Product Information

Block Loading Grabs for Trucks

We have developed various types of Block Loading Grabs specially equipped for your needs and loads:

- I. with fixed height
- II. with adjustable height

For all types we use only the best quality and most reliable components.

- ▷ Light weight construction in high tensile steel.
- ▷ Large, low-maintenance polyamide sliding guides.

The parallel-moveable legs of the clamp are mounted on large dimensioned polyamide sliding surfaces. This saves you from having to adjust the bearings and means you only have minimal wear and tear!

5 Year Guarantee on Sliding Guides!

Probst products have been renowned worldwide for decades for their class workmanship and quality. For example we use a highly durable natural rubber with bearing height of 1000 mm for the rubber lining on the grippers. This high quality material ensures less wear and tear which results in **fewer operation costs!**

The rubbers are fixed onto the grippers by means of a robust screw connection. Changing the linings – when they need renewing – is very quick – about 10 minutes.

As the clamp legs are so well constructed and extremely stable, our AKZs only need a small grab between the packs of materials they have to lift. This can be very advantageous when the packs are stacked very close to each other.

All types come with these standard specifications:

- ▷ Operated hydraulically, smoothly and in parallel.
- ▷ Manually adjustable pressure reducing valve.
- ▷ Oil pressure gauge.
- ▷ 4 Hooks for attaching cables or straps.
- ▷ Robust gear rack balance for the absolute synchronous running of the hydraulic cylinders.

For those models with an adjustable height we also include as standard:

- ▷ Height adjustment with two settings.

1. Extending the legs to the required height (floating position).

The desired height is set by means of the star handles. Once the grab has been raised, the legs extend to the required measurements, once the grab is put back down, the legs revert to their lowest position.

Advantage:

Once the goods have been unloaded, the grab height does not need to be adjusted manually to return to the optimal low resting height.

Time savings:

The driver does not need to leave the cab to set down the grab.

2. Locking the grab onto position (Locking Mechanism).

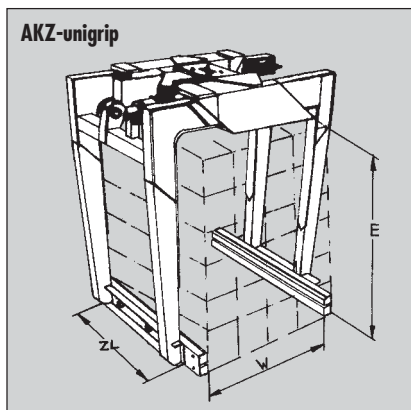
The desired height is set by means of the practical star handles. Once the grab has been raised, the height adjustment locks into position automatically when it has reached the required height.

Advantage:

The grab can be squeezed in between tightly-packed blocks of goods.

All of our crane devices can be fitted with our Quick Change Device.
(See Accessories on page 6.5).
In certain cases the opening width can be fixed to the needs of the customer.

AKZ-unigrip



Block Loading Grabs – with a Fixed Height E

AKZ unigrip

Specially designed for use with truck loading cranes. For the transportation of palletised and unpalletised packs of blocks.

- ▶ Light weight construction in high tensile steel.
- ▶ Fully hydraulically adjustable opening range.

All our truck loading grabs can be fitted with our Quick Change Device (see page 6.5 Accessories).

In special cases the opening width can be adjusted to suit the customers requirements.

Standard Specifications:

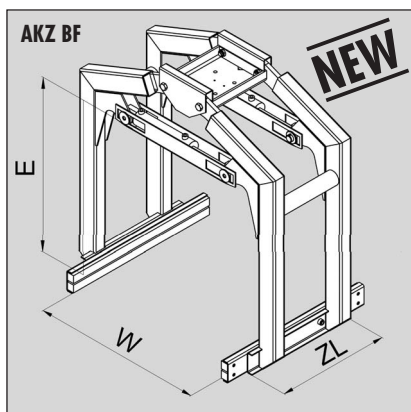
- ▶ Large, low-maintenance polyamide sliding guides.
- ▶ Manually adjustable pressure-reducing valve.
- ▶ Oil pressure gauge.
- ▶ Robust gear rack balance for the absolute synchronous running of the hydraulic cylinders.
- ▶ 4 Hooks for attaching slings or straps.

The slide bearings carry a 5 year guarantee.

- ▶ The generous opening range and the quick change grippers of various lengths and design make the AKZ adaptable to carry all the usual packs of building materials (see Accessories).

Type	Opening Width* W mm (in)	Height** E mm (in)	Clamp Length ZL mm (in)	Carrying Capacity*** kg (lbs)	Dead Weight kg (lbs)	Order-Number
AKZ unigrip 850		850 (33 3/4")		3,000 (6,600)	310 (680)	5610.0050
AKZ unigrip 1.000	370 (14 1/2")	1,000 (39")	720 (28 1/4")	2,500 (5,500)	320 (710)	5610.0051
AKZ unigrip 1.100	up to	1,100 (43")	or	2,500 (5,500)	325 (715)	5610.0052
AKZ unigrip 1.230	1,370 (54")	1,230 (48")	1,000 (39")	2,000 (4,400)	345 (760)	5610.0053
AKZ unigrip 1.300		1,300 (51")		1,800 (4,000)	350 (770)	5610.0054

AKZ BF



Block loading grab with a fixed height E

AKZ BF

Low budget alternative to the standard, parallel squeeze block loading grabs.

Wide field of application for loading and unloading of most common block packs.

- ▶ Extremely low overall height
- ▶ Strong protection all around the hydraulic cylinders to avoid damage.

- ▶ Integrated, robust synchronizing of both clamping arms.

- ▶ Slim design of the gripping arms to achieve low clearance between the packs.

- ▶ Hand-adjustable pressure relieve valve, security valve against loss of pressure and manometer.

Type	Opening Width* W mm (in)	Height** E mm (in)	Clamp Length ZL mm (in)	Carrying Capacity*** kg (lbs)	Dead Weight kg (lbs)	Order-Number
AKZ BF 1000	100 (4")–1,250 (49")	1,000 (39")	720 (28 1/4")	2,500 (5,500)	270 (600)	5610.0058
AKZ BF 1100	80 (3 1/4")–1,280 (50")	1,100 (43")	720 (28 1/4")	2,400 (5,300)	280 (620)	5610.0070
AKZ BF 1200	50 (2")–1,300 (51")	1,200 (47")	720 (28 1/4")	2,300 (5,100)	290 (640)	5610.0071

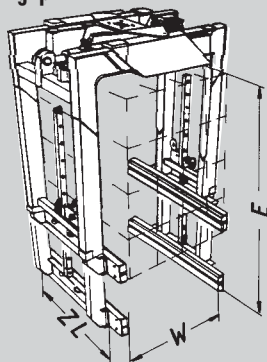
* Different opening range possible - Price available on request.

** The height E can be varied at no extra cost. The price paid will then be for the next model up.

*** The carrying capacity is dependent on: the surface quality of the goods to be lifted, the size of the individual stones, the pack size and the way the goods are packed. For unstrapped packs of low, loose stones, e. g. paving stones, the carrying capacity does not apply !

See page 6.3 – 6.5 for Accessories.

AKZ-H unigrip



AKZ-H unigrip – the recommended universal model for the building trade and haulage contractors.

Block Loading Grabs – with Adjustable Height

AKZ-H unigrip / AKZ-N unigrip / AKZ-S unigrip

This has the same design and characteristics like the AKZ-unigrip but comes with adjustable height for differing pack heights.

This universal type of grab is suitable for the transport of building materials of all types and sizes.

By the adjustable height and the large opening width it can be used for all building materials on pallets and without pallets.

► Now even more simple handling of the height adjustment - just move one lever.

► Higher pressure – finely adjustable, for example to grip material which is sensitive against pressure.

► Low overall height of equipment.

Standard Specifications:

► Hydraulically and smoothly operable and works in parallel.

► Robust gear rack balance for the absolute synchronous running of the hydraulic cylinders.

► Large low-maintenance polyamide sliding guides with 5-year guarantee.

► Automatic pressure control. ***

***Carrying capacity of height-adjustable versions in retracted position will be increased as per positive working automatic pressure control up to the respective figure indicated in brackets.

► Manually adjustable pressure-reducing valve.

► Oil pressure gauge.

► 4 hanging eyes for cables or straps/belts.

► Light-weight construction in high-tensile steel.

- A choice of various heights.
- The vertical height adjustment bar is equipped with 4 drillings which are situated on different height levels, each shifted by 90°.

The different levels are for the following heights:

level 1 (turning 0°) → 1,100 mm (43")

level 2 (turning 90°) → 1,280 mm (50")

level 3 (turning 180°) → 1,470 mm (58")

level 4 (turning 270°) → 1,650 mm (65")

- Height Adjustment with a choice of fixed or floating position.

Type	Opening Width* W mm (in)	Height E mm (in)	Grab Length ZL mm (in)	Carrying Capacity** kg (lbs)	Dead Weight kg (lbs)	Order-Number Prices without Quick Change Grippers
AKZ-H unigrip	370 (14 1/2") up to 1,370 (54")	1,100 (43") up to 1,650 (65")	720 (28 1/4") or 1,000 (39")	(1,800) - 1,300 [(4,000)](2,850)	360 (790)	5610.0057
AKZ-N unigrip	370 (14 1/2") up to 1,370 (54")	900 (35 1/2") up to 1,400 (55")	720 (28 1/4") or 1,000 (39")	(2,200) - 1,600 [(4,850)](3,550)	320 (710)	5610.0062
AKZ-S unigrip	370 (14 1/2") up to 1,370 (54")	1,100 (43") up to 1,650 (65")	720 (28 1/4") or 1,000 (39")	(2,300) - 1,900 [(5,100)](4,200)	380 (840)	5610.0061

For heavy-duty use, eg. in conjunction with fork-lift trucks, we recommend our STAZ range on page 7.1 – 7.4.

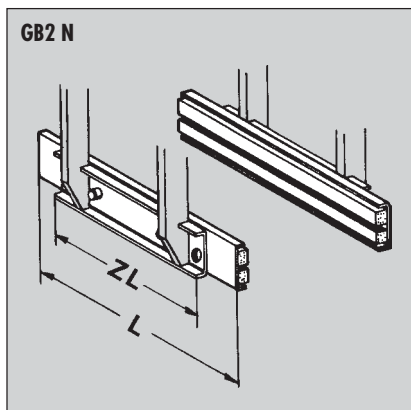
See page 6.3 – 6.5 for Accessories.

* Different opening range possible. Price available on request.

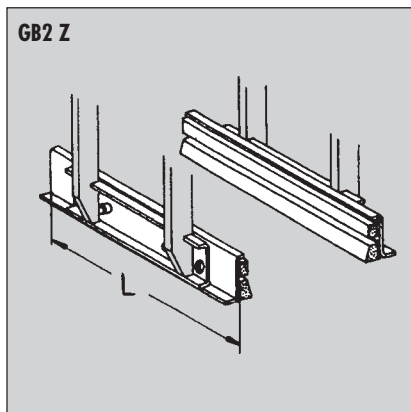
** The carrying capacity is dependent on: the surface quality of the goods to be lifted, the size of the individual stones, the pack size and the way, the goods are packed. For unstrapped packs of low, loose stones, e.g. paving stones, the carrying capacity does not apply!

*** The positive working pressure control, which is integrated serially, effects an increase of the carrying capacity when positioning the lowest possible insert height E (retracted position).
For the lowest possible insert height E the figure indicated in brackets is true for.

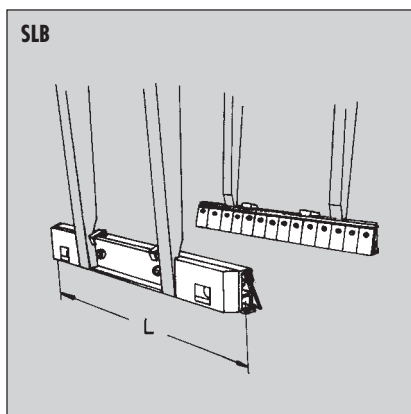
GB2 N



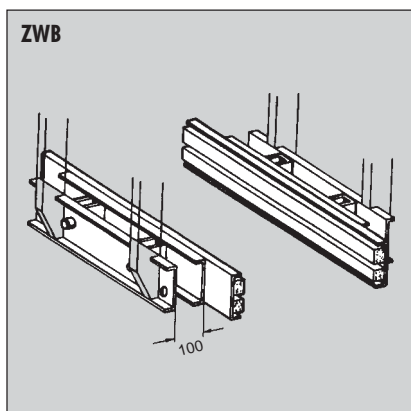
GB2 Z



SLB



ZWB



Accessories for the AKZ Rubber Grippers GB2

Light weight construction to fit all models. Choice of shape, lining and length, thus making the block loading grabs suitable to be used everywhere.

Highly durable exchangeable rubber metal bars are used as gripping elements. Standard models have 2 rows of rubber metal bars.

Type	Length L mm (in)	Weight per Pair kg (lbs)	Order-Number
GB2 720 N	720 (28 1/4")	22 (50)	4000.0003
GB2 1000 N	1,000 (39")	30 (65)	4000.0020
GB2 1100 N	1,100 (43")	34 (75)	4000.0040
GB2 1200 N	1,200 (47")	44 (95)	4000.0051
GB2 1250 N	1,250 (49")	48 (105)	4000.0055
GB2 720 Z	720 (28 1/4")	22 (50)	4000.0644
GB2 1000 Z	1,000 (39")	30 (65)	4000.0023
GB2 1200 Z	1,200 (47")	44 (95)	4000.0054
GB2 1250 Z	1,250 (49")	48 (105)	4000.0057

Ask for information regarding rubber grippers for the transportation of loose paver packs.

For lime stone blocks, there is a colourless rubber available (leaves no marks on visible brickwork).

Type	Order-Number
Extra price per metre Rubber Grippers, colourless	4000.0200

Equivalent version for Paver transport or further applications see type list page 6.10.

Steel Finger Grippers SLB

Extra deep gripping, for transporting unstrap-ped interlocking pavers, light weight design.

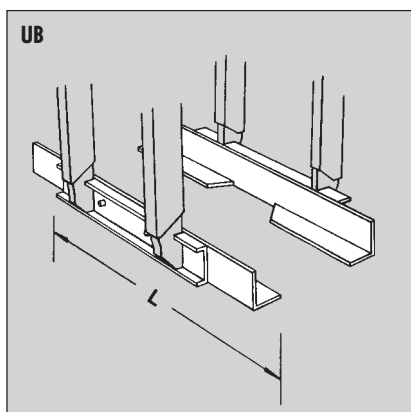
Type	Length L mm (in)	Weight per Pair kg (lbs)	Order-Number
SLB 1025 L	1,025 (40")	58 (130)	4000.0110
SLB 1225 L	1,225 (48")	68 (150)	4000.0111

Intermediate Grippers ZWB

For reducing the gripping range by 200 mm. However, the need for a larger working space must be taken into account.

► Other sizes available on request.

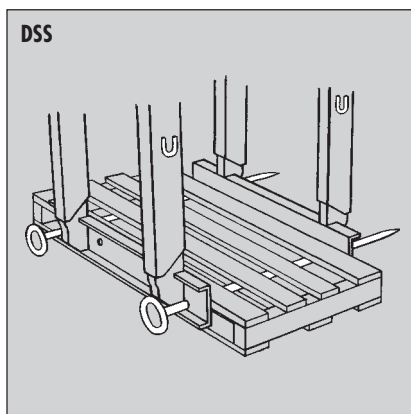
Type	Length L mm (in)	Weight per Pair kg (lbs)	Order-Number
ZWB 720	720 (28 1/4")	25 (55)	4000.0120
ZWB 1000	1,000 (39")	33 (75)	4000.0121



Accessories for the AKZ Pallet Grippers UB

For lifting pallets by gripping underneath the pallets.

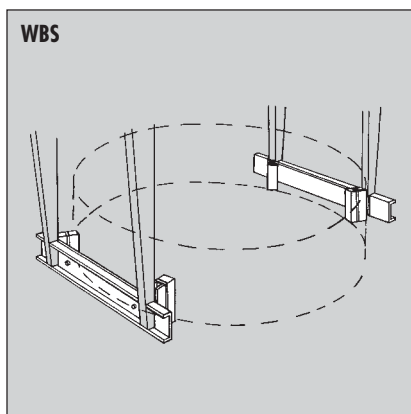
Type	Length L mm (in)	Weight per Pair kg (lbs)	Order-Number
UB 720	720 (28 ³ / ₄ "	16 (35)	4000.0122
UB 1000	1,000 (39"	21 (45)	4000.0123



Pallet Pins DSS

For lifting pallets.

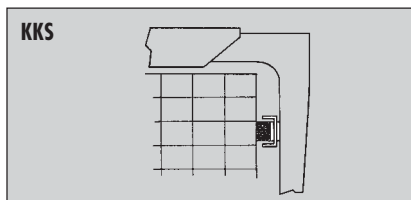
Type	Length L mm (in)	Weight per Pair kg (lbs)	Order-Number
DSS	1,400 (55"	10 (22)	5620.0001



Special Grippers for Manhole Rings WBS

Suitable for gripping manhole rings.

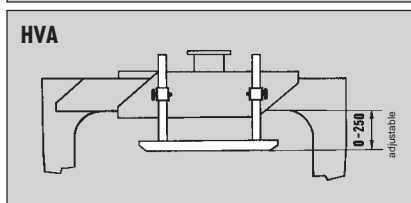
Type	Suitable for outer diameters ID Ø mm (in)	Weight per Pair kg (lbs)	Order-Number
WBS	700 – 1,300 (27 ¹ / ₂ – 51"	20 (45)	4000.0130



Top Rubber Guide Rails KKS

To prevent the outer blocks from tipping out when transporting wide or tall packs.

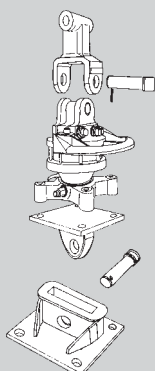
Type	Order-Number
KKS	4620.0070



Adjustable Height Stop HVA

Enables the grab to be lowered onto the stack of building materials whatever the height of the pack.

Type	Order-Number
HVA	4010.0001

Indexator
with SWV


Accessories for AKZ Quick Change Device

The Quick-Change-Device (SWV) simplifies the suspension of all types of grabs, including those already available, from one crane or from various cranes in a fleet.

An enormous amount of setting up time can be saved by using this device if the grab has to be taken down after each load.

By using the SWV the driver can change over the attachment without additional help.

When using the SWV quick coupling or screw coupling should be mounted on the rotator for the hydraulic hoses.

Type	Dead Weight kg (lbs)	Order-Number
SWV below the rotator (The rotator remains on the cranes in normal circumstances)	10 (20)	4620.0001
SWV above the rotator (rotator remains in clamp)	10 (20)	4620.0002

Always state the type of rotator and crane when ordering!

Suspension Link

	Dead Weight kg (lbs)	Order-Number
Below the rotator	4 (9)	4620.0072
Above the rotator for adapting various types of rotators to the grab and to the crane	4 (9)	4620.0073

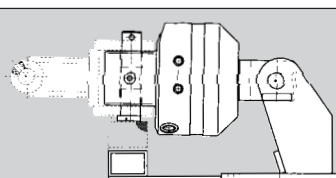
Always state the type of rotator and crane when ordering.

Rotator Tilting Device

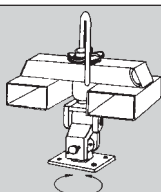
to limit the overall height of the vehicle

	Dead Weight kg (lbs)	Order-Number
Rotator Tilting Device (rotator for shaft)	5 (10)	4620.0071
Rotator Tilting Device (rotator for flange-connection)	8 (20)	4620.0082

Rotator Tilting Device



ET-D



Rotator with hydraulic rotation

plus 2 connection hoses to the clamp

	Dead Weight kg (lbs)	Order-Number
Continuous Rotator - Indexator, 4.5 tons capacity	34 (75)	4620.0056
Continuous Rotator - Archimedes, 4.5 tons capacity	26 (55)	4620.0121
Rotator also available with pivot.		

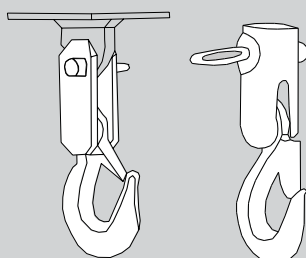
Fork Sleeves with lifting eye and manual device engaging in a hodge after 90°. Enables the AKZ to be lifted by the forks of a wheel loader or forklift

	Dead Weight kg (lbs)	Order-Number
ET-D consisting of ET-D, incl. universal joint, mounting plate.	23 (50)	4310.0238

Not turnable lifting hook DLH

	Order-Number
for mounting under DK with pin	4011.0077
for mounting under SWV top	4011.0073

DLH

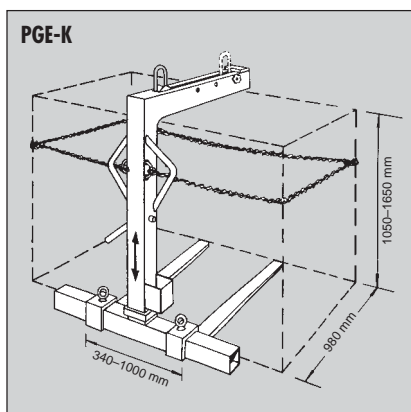


Hydraulic Accessories

	Order-Number
Manually operated pressure relief valve	Standard
Oil pressure gauge	Standard
Hydraulic Quick-Coupling Complete	2202.0001
Hydraulic Quick-Coupling Female	2202.0002
Hydraulic Quick-Coupling Male	2202.0003
Hydraulic Screw-Coupling Complete	2202.0004
Hydraulic Screw-Coupling Female	2202.0005
Hydraulic Screw-Coupling Male	2202.0006
Hydraulic Hose per meter	2200.0025
End Fitting, 1 set per hose	2210.0001

Hose Guide

	Order-Number
These are needed in pairs on the jib end to prevent the hoses hanging in the way of the clamp. (Please state length of extension).	2219.0001



Pallet Forks with Security Chain

For use with truck loading cranes, tower cranes, fork lift trucks or gantry cranes.

Equipped as standard with security chain, thus approved as per rule EN 13155 for transport of individual loads (such as plastic coated, palletized loads).

► Forks with long, conical taper for optimal insert underneath the pallets.

► Light-weight construction due to use of high-tensile fine-grain steel.

For transport with pallet forks of not fixed building materials (such as building blocks and roof tiles) on construction sites an additional form-fitting equipment, for example a security net, is mandatory as per rule EN 13155. Pallet forks PGE-K 17/20 and PGA-K 15/20 can be additionally equipped with a net holder (NH) as well as with a security net (SSN) at any time.

► NH + SSN optional available, see accessories.

PGE-K

Basic Model without Automatic-Centre-of-Gravity-Balance

Standard Specifications:

- Crane eye
- Height adjustable from 1,050–1,650 mm (41¹/₂–65").

► Adjustable fork distance from 340–1,000 mm (13¹/₂–39¹/₂") (external).

► Security chain with eyelet and chain box for securing the load against slipping off.

► Length of forks 980 mm

Type	Fork Dimension mm (in)	Carrying Capacity kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
PGE 15-K	100 x 40 (4 x 1 ¹ / ₂ ")	1,500 (3,300)	90 (200)	5600.0002
PGE 20-K	120 x 40 (4 ³ / ₄ x 1 ¹ / ₂ ")	2,000 (4,400)	115 (255)	5600.0003
PGE 25-K	100 x 45 (4 x 1 ³ / ₄ ")	2,500 (5,500)	150 (330)	5600.0004
PGE 30-K	125 x 45 (5 x 1 ³ / ₄ ")	3,000 (6,600)	180 (395)	5600.0005

Larger fork lengths on request.

PGA-K

Automatic-Centre-of-Gravity-Balance due to a spring-loaded slide mounted on a maintenance free steel-polyamide-slide-bearing.

Standard Specifications:

- Crane eye
- Adjustable height from 1,050–1,650 mm (41¹/₂–65").

► Adjustable fork distance from 340–1,000 mm (13¹/₂–39¹/₂").

► Security chain with eyelet and chain box for securing the load against slipping off.

► Length of forks 980 mm

Type	Fork Dimension mm (in)	Carrying Capacity kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
PGA 15-K	100 x 40 (4 x 1 ¹ / ₂ ")	1,500 (3,300)	95 (210)	S-5600.0006
PGA 20-K	120 x 40 (4 ³ / ₄ x 1 ¹ / ₂ ")	2,000 (4,400)	120 (265)	S-5600.0007
PGA 25-K	100 x 45 (4 x 1 ³ / ₄ ")	2,500 (5,500)	160 (355)	5600.0008
PGA 30-K	125 x 45 (5 x 1 ³ / ₄ ")	3,000 (6,600)	180 (395)	5600.0009

Larger fork lengths on request.

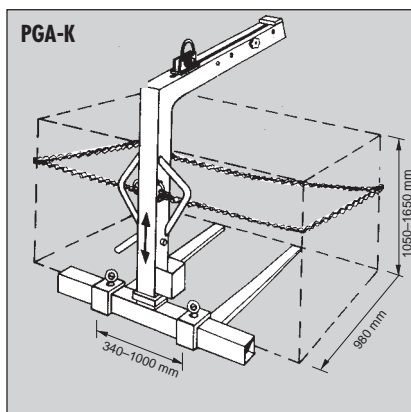
Minimum loading weight is approx. 25 % of the load.

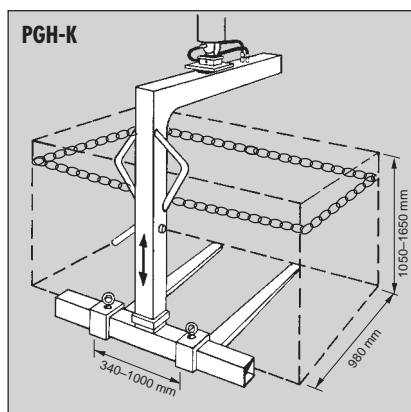
Stated minimum loading weight is necessary for the automatic gravity function to work.

Optional with standard flange plate mounted on the PGA-K for the direct assembly of the rotator or the Quick Change Device SWV.

Accessories

Type	Order-Number
NH-PGE 15/20 Net Holder incl. Security Net SSN for PGE	4500.0021
NH-PGA 15/20 Net Holder incl. Security Net SSN for PGA	4500.0008





Pallet Forks with Security Chain

PGH-K

Comes with hydraulically operated centre-of-gravity-balance, enabling the forks to tilt forward and backwards in the full and empty position.

Also with rotator making it a purely one-man machine on even ground.

► Equipped as standard with security chain, thus approved as per rule EN 13155 for transport of individual loads (such as plastic coated, palletized loads).

► Approved for use with truck loading cranes for unloading packs of building material at construction sites at near-ground areas without application of security chain.

Standard Specifications:

- Standard flange plate to mount the rotator or quick-change-device.
- Adjustable height from 1,050 – 1,650 mm (41 – 65").
- Adjustable fork width from 340 – 1,000 mm (13 1/2 – 39") (external).
- Forks have long taper for optimal engagement.
- Length of forks 980 mm (38 1/2").

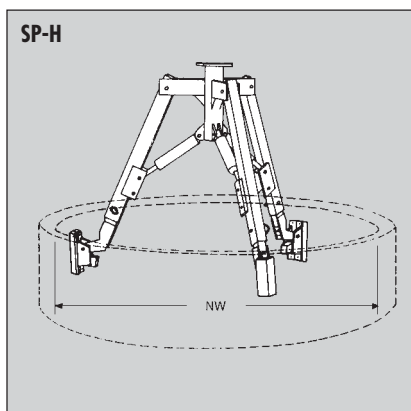
Type	Fork Dimension mm (in)	Carrying Capacity kg (lbs) at 500 mm (20")	Dead Weight kg (lbs)	Order-Number
PGH 15-K	100 x 40 (4 x 1 1/2")	1,500 (3,300)	120 (265)	5600.0010
PGH 20-K	120 x 40 (4 3/4 x 1 1/2")	2,000 (4,400)	125 (275)	5600.0011
PGH 25-K	100 x 45 (4 x 1 3/4")	2,500 (5,500)	165 (365)	5600.0025
PGH 30-K	125 x 45 (4 3/4 x 1 3/4")	3,000 (6,600)	185 (410)	5600.0024

Surcharge for modified effective fork length available of request.

Accessories for Pallet Forks

We recommend the Quick Change Device SWV (see page 6.5) for use with truck loading cranes with a hydraulic rotator.

See page 5.1, for pallet forks being used on tower cranes, with additional safety features.



Manhole Polyp SP-H

Grips from the inside for the transportation of manhole rings and cones. Hydraulically adjustable and suitable for internal diameters of 500 – 2,000 mm with mechanical adjustability up to nominal internal diameter of 2,500 mm. Allows up to 3 rings to be lifted at the same time.

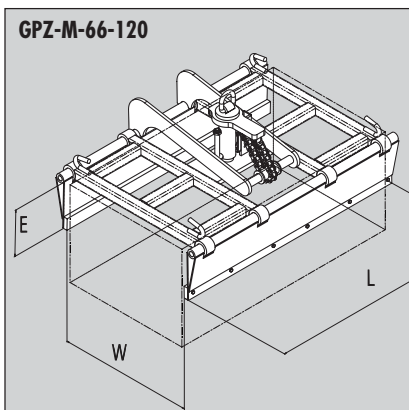
Not suitable for green products.

Standard Specifications:

- Manually adjustable pressure control valve.
- Exchangeable rubber grippers for the gentle handling of rings or cones.

Type	Gripping Range ID mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
SP-H	500 – 2,000 (19 3/4 – 79")	2,000 (4,400)	165 (365)	5720.0056

GPZ-M-66-120



Plasterboard Grabs GPZ

Specially designed for gripping and handling gypsum wall elements.

The grab type GPZ-M-66-120 is a fully mechanical operated unit and can be attached to any truck mounted crane (without hydraulic connections). An appropriate leverage produces high clamping force for safe handling. (Hydraulic rotator see type list, page 6.5)

Low profile construction so that the grab, along with the plasterboard wall sections, can be passed through the window opening.

► An appropriate leverage produces high clamping force for safe handling.

Height measurement from top of pack until top edge of crane-eyelet only 415 mm (16 1/2") (in clamped position).

► Low gap requirement on one side (25 mm).

Standard Specifications:

- Lifting eye for crane hook.
- Automatic release for the fully automatic switch over from "full" to "empty".
- Highly durable, replacable rubber metal bars for gripping.

Type	Suitable for pack width* W mm (in)	Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
GPZ-M-66-120	670 (26 1/2")	220 (8 3/4")	1,200 (47")	600 (1,320)	115 (255)	5630.0008

Other opening ranges and heights on request.

The Gypsum Block Grab GPZ-H is hydraulically adjustable (with additional mechanical bolt adjustment).

The strong rack equalizer guarantees a constant working of the hydraulic cylinders.

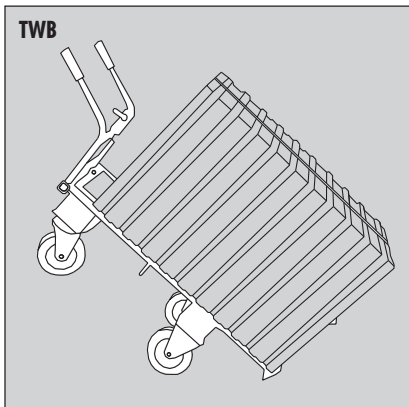
► The total height of hydraulic rotator incl. suspension is only ca. 450 mm.

Type	Opening Width* W mm (in)	Height E mm (in)	Gripper Length L mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
GPZ-H	480 – 870 (19 – 34 1/4")	140 (5 1/2")	1,200 (47")	600 (1,320)	140 (310)	5630.0007

* Possible measurement between the grippers. The product measurements must be within approx. ± 30 mm within the given range.

Grab can be equipped with security net on demand.

TWB



Carriage Wagon for Gypsum Elements TWB

Specially designed to be loaded with packs of gypsum wall elements by the plasterboard grabs described above.

Carriage wagon then allows safe and quick transportation and unloading of the packs within the building.

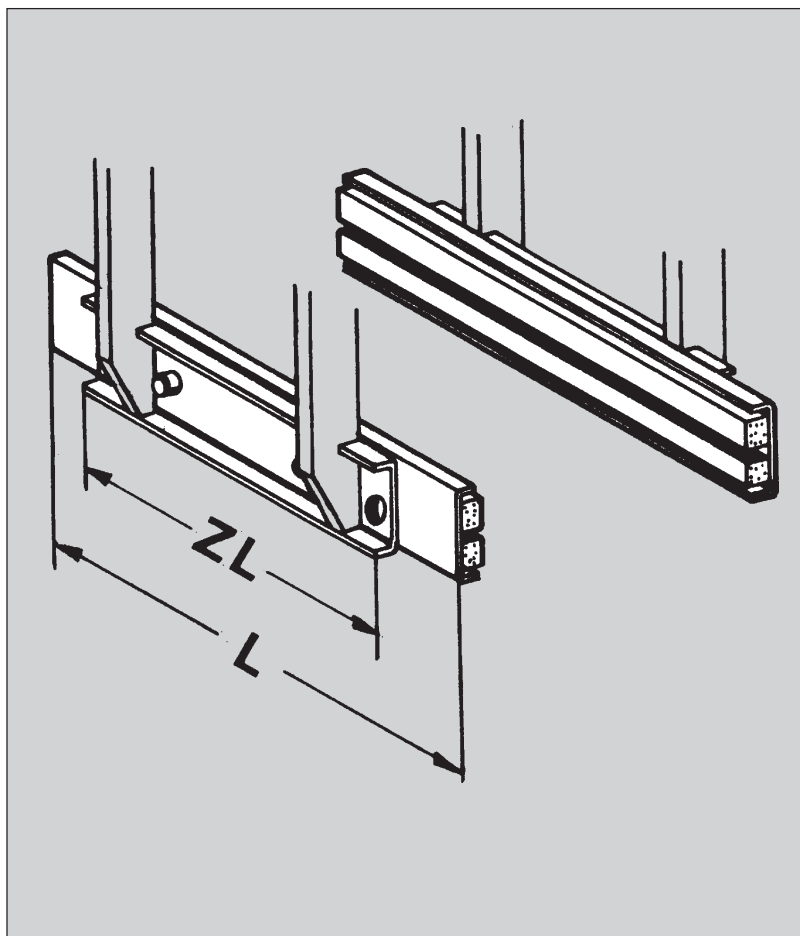
► The narrow design enables manoeuvring on tight sites.

► Optimized handling by favourable load distribution and low dead weight.

► Via retaining plate, the pack is safeguarded prior to the unloading process.

► The patented design as well as the positioning of the wheels allow a simple quick and gentle unloading of the pack by tipping over in forward direction.

Type	Platform Dimension L x B mm (in)	Carrying Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
TWB	1,080 x 400 (43 – (15 3/4"))	600 (1,320)	40 (90)	5630.0009



Increase of Economic Efficiency by Flexibility!

To use even more universally the block loading grab AKZ, we offer high-grade exchangeable grippers for the very various transports of building material.

The rubber of the exchangeable grippers is of highly low-wear natural caoutchouc and has a thickness of 100 mm. This high-class material guarantees minimal wear and tear.

Very low operating costs! The rubber is fixed to the grippers by means of a tough bolted connection. Changing the coat quickly - in case of renewing - in ca. 10 minutes.

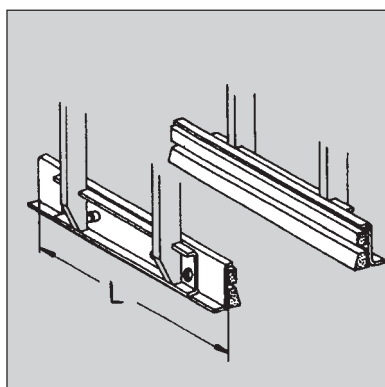
For limestone also rubbers in light colour available!
(No stripes at visible masonry.)

Rubber Grippers - Standard

with two highly resistable rubbers each, length variable.

Order-No. 4000.0003 ... 4000.0055 up to length

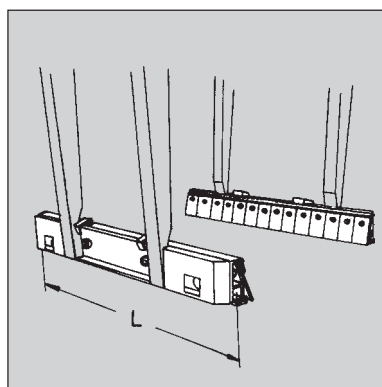
GRIPPERS FOR AKZ



Rubber Grippers Z-design specially for the Transport of Pavers

For extra deep gripping the lower rubber is in harder quality. Different stacks of building material can be gripped.

Order No. 4000.0023 ... 4000.0057 up to length

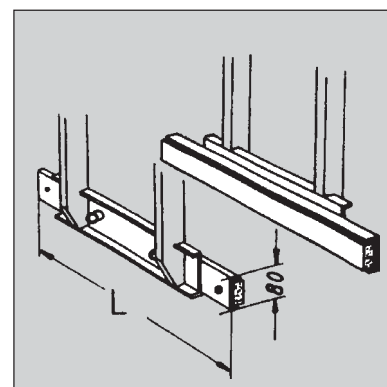


Steel Finger Grippers for the

Transport of Pavers

with single spring-loaded steel fingers. Usage: with bigger gripping width or when the strapping is missing completely or partially.

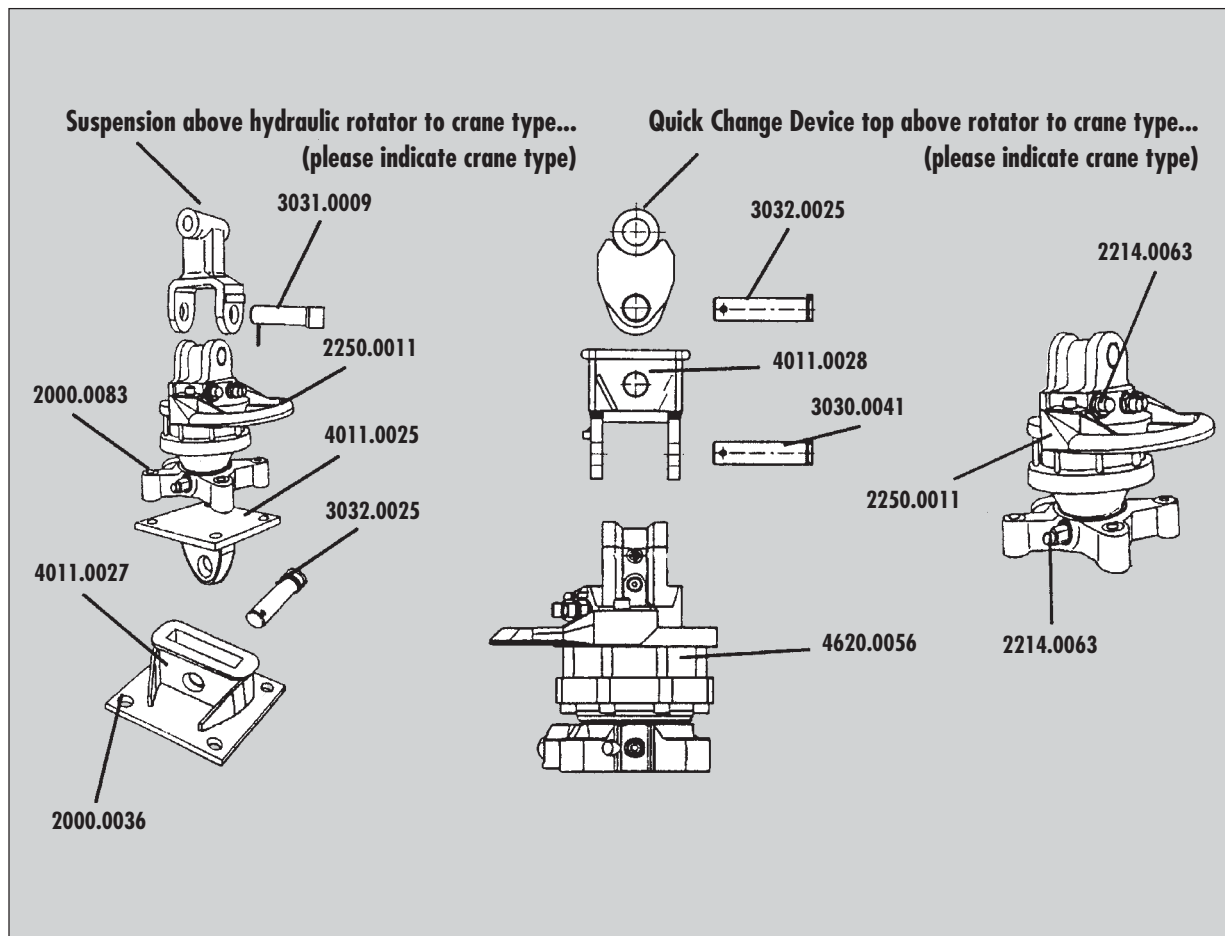
Order No. 4000.0110 ... 4000.0114 up to length



Rubber Grippers specially for the Transport of Tiles

lower shape, so that the pallet can be gripped. Rubber 60 mm high including fixing 80 mm. Length: 800 and 1,000 mm.

Order No. 4000.0011 and 4000.0021



SUSPENSIONS AND ROTATING HEAD GV 4 (INDEXATOR)

Quantity	Type	Order-No.
1	Suspension above rotator (crane type to be indicated)	4620.0073
1	Bolt with disk \varnothing 30 mm, hole distance 116 mm, length 128 mm, width 8 mm	3031.0009
1	Rotator indexator incl. 2 connection hoses (crane type to be indicated)	4620.0056
4	Hexagonal bolts 8.8 Din 931 with shaft galvanised M 16 x 80	2000.0083
1	Quick Change Device top below rotator (plate with tongue) ZNr. K008-4	4011.0025
1	Bolt with halfing \varnothing 30 mm, hole distance 51 mm, length 60 mm, width 8.5 mm for SWV	3032.0025
1	Quick Change Device bottom below rotator (plate with house) ZNr. K003-3	4011.0027
1	Quick Change Device below rotator completely with bolt	4620.0001
4	Hexagonal bolts 8.8 DIN 933 galvanised M 16 x 45	2000.0036
1	Quick Change Device bottom above rotator Thumm ZNr. K016-2	4011.0028
1	Quick Change Device top above rotator (crane type to be indicated)	4620.0020
1	Quick Change Device complete set above rotator (crane type to be indicated)	4620.0002
6	Straight thread joint 15-01 / L12 MB M 18 x 1.5 A3C	2214.0063