

Fork Lift Grab STAZ

► Specially designed for heavy duty work with fork lift trucks.
Light-weight, yet with a high carrying capacity due to the use of high-tensile steel for load-bearing parts.

► Fully hydraulic parallel opening range.
► Low-maintenance steel-polyamide sliding guides.

Standard Specifications:

► Manually adjustable pressure relief valve.

► Oil Pressure Gauge

► Can fit all the usual packs of building materials due to a large opening range and to the exchangeable grippers which come in various lengths and designs.

(Supplied without connecting hoses to the fork-lift truck).

Polyamide sliding guides come with a 5 year guarantee.

All Forklift Grabs can also be used as cubing grabs in fully automatic cubers for blocks and pavers. Besides the hydraulically operated grabs also purely electrically operated grabs can be offered on request.

| Type | Opening Width W mm (in) | Height E mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------------------------|--|--|-------------------------------|-------------------------|--------------|
| STAZ-S-700 unigrip I | 550 - 1,230 (21 ³ / ₄ - 48") | 700 (27 ¹ / ₂ ") | 3,000 (6,600) | 340 (750) | 5700.0093 |
| STAZ-S-850 unigrip I | | 850 (33 ¹ / ₂ ") | 2,600 (5,700) | 360 (790) | 5700.0094 |
| STAZ-S-1000 unigrip I | | 1,000 (39") | 2,300 (5,100) | 380 (840) | 5700.0088 |
| STAZ-S-1200 unigrip I | | 1,200 (47") | 2,100 (4,650) | 450 (990) | 5700.0102 |
| STAZ-SS-850 unigrip I | 550 - 1,230 (21 ³ / ₄ - 48") | 850 (33 ¹ / ₂ ") | 4,000 (8,800) | 440 (970) | 5700.0095 |
| STAZ-SS-1000 unigrip I | | 1,000 (39") | 3,500 (7,700) | 460 (1,010) | 5700.0096 |
| STAZ-SS-1200 unigrip I | | 1,200 (47") | 3,000 (6,600) | 490 (1,080) | 5700.0097 |
| STAZ-S-700 unigrip II | 370 - 1,370 (14 ¹ / ₂ - 54") | 700 (27 ¹ / ₂ ") | 3,000 (6,600) | 400 (880) | 5700.0092 |
| STAZ-S-850 unigrip II | | 850 (33 ¹ / ₂ ") | 2,600 (5,700) | 420 (930) | 5700.0084 |
| STAZ-S-1000 unigrip II | | 1,000 (39") | 2,300 (5,100) | 440 (970) | 5700.0085 |
| STAZ-S-1200 unigrip II | | 1,200 (47") | 2,100 (4,650) | 480 (1,060) | 5700.0103 |
| STAZ-SS-850 unigrip II | 370 - 1,370 (14 ¹ / ₂ - 54") | 850 (33 ¹ / ₂ ") | 4,000 (8,800) | 500 (1,100) | 5700.0098 |
| STAZ-SS-1000 unigrip II | | 1,000 (39") | 3,500 (7,700) | 520 (1,150) | 5700.0099 |
| STAZ-SS-1200 unigrip II | | 1,200 (47") | 3,000 (6,600) | 550 (1,210) | 5700.0100 |

Larger or modified opening widths and heights are available on request.

Applications:

STAZ-S Series: Normal use for gripping stacks consisting of large elements or vertically steel strapped packs of stones, e.g. packs of pavers.

STAZ-SS Series: For gripping heavier loads, or packs produced on multi-layer production machines. In particular used in conjunction with steel finger grippers. Can also be used for gripping packs of pavers which are not vertically steel strapped.

STAZ-SSS Series: For heavy duty work, mostly used in conjunction with automatic cubing stations, also in multiple shift work. **Available on request.**

STAZ-Super S Series: Most heaviest design, similar as STAZ-SSS, used when additionally large inside height is required. **Available on request.**

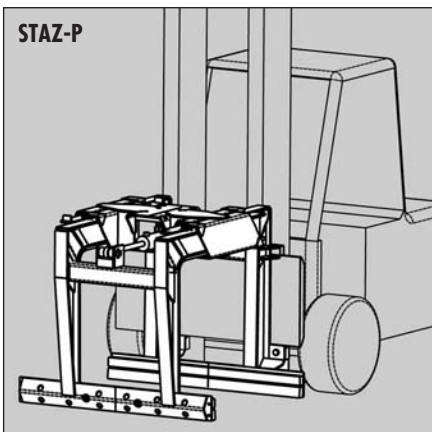
Recommended Accessories: (Description see pages 7.5 - 7.9)

| Type | |
|--|--------------|
| Gripping Elements: | |
| Rubber Grippers | see page 7.5 |
| Steel Finger Grippers, heavy duty design | see page 7.6 |
| Double Steel Finger Grippers, heavy duty design two rows, mounted on top by each other | see page 7.6 |
| Connections to the fork lift truck: | |
| Hydraulic Rotators | see page 7.9 |
| Hydraulic swing dampers | see page 7.9 |
| Fork Sleeves for Fork Peaks | see page 7.7 |
| Crane Boom | see page 7.8 |
| Telescopic V-equipment for crane boom | see page 7.8 |
| Hydraulic connection hoses | see page 7.9 |

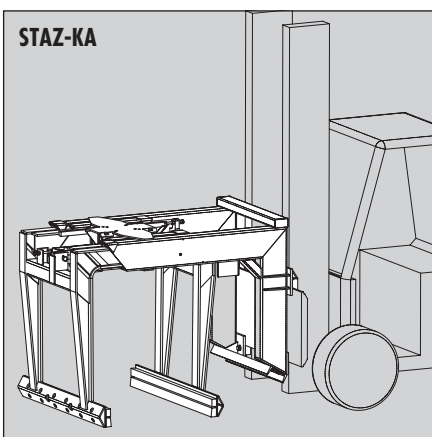
Special accessories available on request.

All forklift grabs can easily be equipped with an electro-hydraulic power pack on top of the grab to be used in conjunction with a bridge crane or similar. see Page 7.10

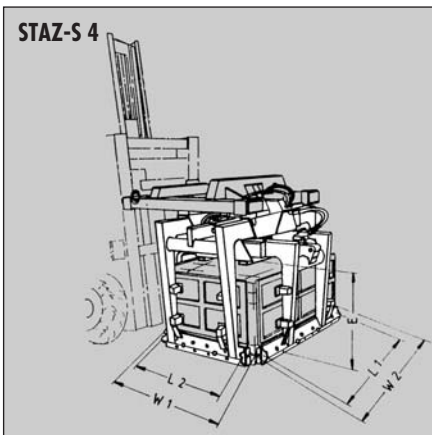
STAZ-P



STAZ-KA



STAZ-S 4



Polyamide sliding guides come with a 5 year guarantee!

All Forklift Grabs can also be used as cubing grabs in fully automatic cubers for blocks and pavers. Besides the hydraulically operated grabs also purely electrically operated grabs can be offered on request.

Fork Lift Grab STAZ-P/STAZ-KA

- ▶ Specially designed for the heavy duty work with forklift truck, directly fixed to the carriage plate of the forklift.
- ▶ **Type STAZ-P** grips the pack by pressing it towards the gripper close to the forklift. This achieves smallest possible load center of the pack.
- ▶ **Type STAZ-KA** moves both grippers synchronized towards the pack. Compact design due to integrated crane boom.
- ▶ Light-weight, yet with a high carrying capacity due to the use of high-tensile steel for load bearing parts.
- ▶ Fully hydraulic parallel opening range.
- ▶ Low maintenance steel polyamide sliding guides.

Standard specifications:

- ▶ Manually adjustable pressure relieve valve.
- ▶ Oil Pressure Gauge
- ▶ Can fit all the usual packs of building materials due to a large opening range and to the exchangeable grippers which come in various lengths and designs.
- ▶ We recommend the use of a side-shift built into the forklift.

Polyamide sliding guides come with a 5 year guarantee!

| Type | Opening Width Main Gripper W1 mm (in) | Height E mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|----------------------------|---|------------------------|----------------------------------|----------------------------|--------------|
| STAZ-SS/S-1000-unigrip I-P | 580 – 1,260 (22 ³ / ₄ – 50") | 1,000 (39") | 2,300 (5,100) | 440 (970) | 5700.0087 |
| STAZ-S-1000-unigrip II-KA | 370 – 1,370 (14 ¹ / ₂ – 54") | 1,000 (39") | 2,000 (4,400) | 590 (1,300) | 5700.0107 |

Larger or modified opening widths and heights are available on request.

Recommended Accessories:

| Type | (Description see pages 7.5, 7.6, and 7.9) |
|----------------------------|---|
| Gripping Elements: | |
| Rubber Grippers | see page 7.5 |
| Steel Finger Grippers | see page 7.6 |
| Hydraulic connection hoses | see page 7.9 |

Fork Lift Grab STAZ-S 4

- ▶ The same characteristics as the STAZ but equipped with a **four-sided clamping action**.
- ▶ Specially designed for the safe gripping of un-straped and un-compressed stacks of multi-layer production.

Because the main and the end gripping is hydraulically controlled separately, and by using pressure plates (accessory!), an exact compression of the stacks and the elimination

of any gaps are achieved.

To set the length of the grippers exactly, we need you to send us drawings of the mold layouts together with your order.

Two separate hydraulic circuits are necessary to be supplied by the fork lift truck.

(Supplied without connecting hoses to the fork lift truck).

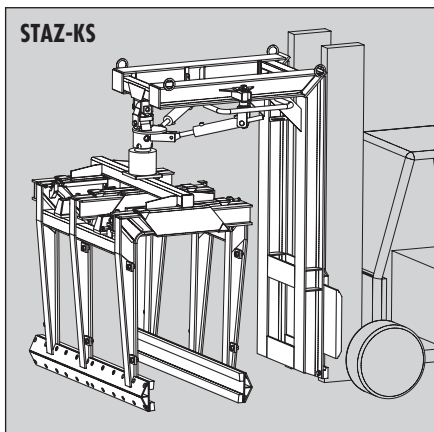
| Type | Opening Width Main Gripper W1 mm (in) | End Gripper W2 mm (in) | Height E mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|---------------|---|---|---|----------------------------------|----------------------------|--------------|
| STAZ-S 4-850 | 550 – 1,230 (21 ³ / ₄ – 48") | 900 – 1,400 (35 ¹ / ₂ – 55") | 850 (33 ¹ / ₂ ") | 2,600 (5,700) | 740 (1,630) | 5700.0106 |
| STAZ-S 4-1000 | 550 – 1,230 (21 ³ / ₄ – 48") | 900 – 1,400 (35 ¹ / ₂ – 55") | 1,000 (39") | 2,300 (5,100) | 780 (1,720) | 5700.0109 |

Larger or modified opening widths and heights are available on request.

Recommended Accessories:

| Type | (For descriptions see pages 7.5, 7.6, 7.7 and 7.9) |
|---|--|
| Gripping Elements: | |
| Rubber Grippers | see page 7.5 |
| Pressure plates size adapted to the cube size | see page 7.6 |
| Connections to the fork lift truck: | |
| Fork Sleeves ET III | see page 7.7 |
| Fork Sleeves ET III 90° | see page 7.7 |
| Hydraulic connection hoses | see page 7.9 |

Special accessories available on request.



Fork Lift Grab STAZ-KS

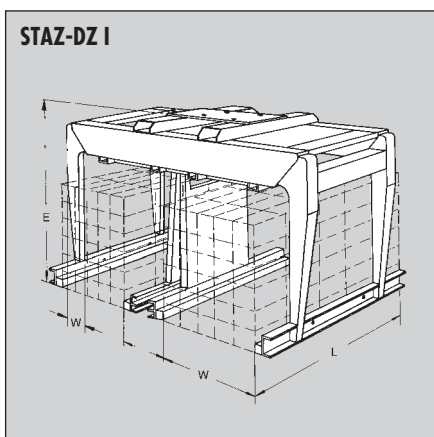
Specially designed for operation in silicate block factories.

With crane boom, hydraulic continuous rotator, hydraulic swing damper and rubber grippers for handling silicate blocks gently.

► Carrying capacity up to 6,000 kg!

Different models to cope with specific needs available on request.

Polyamide sliding guides come with a 5 year guarantee.



Fork Lift Grab STAZ-DZ I

► The same characteristics as the STAZ but, due to an additional hydraulically spreadable centre divider it can be used to lift 2 stacks at the same time if they are standing across on the conveyor belt.

The extremely slim build of the central divider (200 mm closed, 300 mm spreaded) means a lot of space can be saved when stacking goods.

► Only one hydraulic circuit is needed to be supplied by the fork lift truck to operate both, clamping and center divider due to a hydraulic sequence circuit.

(Supplied without connecting hoses to the fork lift-truck).

Polyamide sliding guides come with a 5 year guarantee.

All Forklift Grabs can also be used as cubing grabs in fully automatic cubers for blocks and pavers. Besides the hydraulically operated grabs also purely electrically operated grabs can be offered on request.

| Type | Opening Width W mm (in) | Height E mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|----------------|---|---|-------------------------------|-------------------------|--------------|
| STAZ-DZ-S-850 | 550 – 940 (21 ³ / ₄ – 37") | 850 (33 ¹ / ₂ ") | 3,200 (7,100) | 570 (1,260) | 5700.0050 |
| STAZ-DZ-S-1000 | 550 – 940 (21 ³ / ₄ – 37") | 1,000 (39") | 3,200 (7,100) | 620 (1,370) | 5700.0052 |

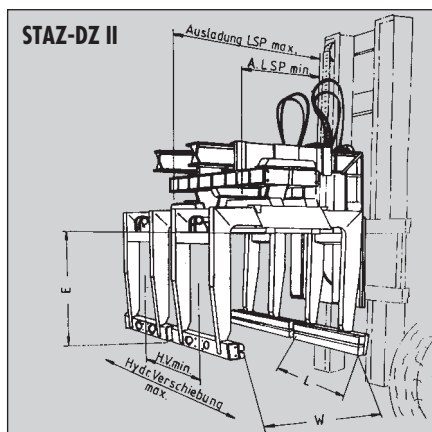
Larger or modified opening widths and heights are available on request.

Recommended Accessories:

(Description see pages 7.5 – 7.9)

| Type | |
|--|--------------|
| Gripping Elements: | |
| Rubber Grippers | see page 7.5 |
| Connections to the Fork Lift Truck: | |
| Hydraulic Rotators | see page 7.9 |
| Hydraulic Swing Dampers | see page 7.9 |
| Fork Sleeves for Fork Peaks | see page 7.7 |
| Crane Boom KA-II SS | see page 7.8 |
| Hydraulic connection hoses to the lifting unit | see page 7.9 |

Special accessories available on request.



Fork Lift Grab STAZ-DZ II

Consisting of two single clamps (see STAZ for technical data). Connected by a spreader bar. Suitable for lifting 2 stacks at the same time if they are stacked longitudinally on the conveyor belt. The same unit can be equipped with a hydraulically operated distance adjuster bar which can remove any gaps between the stacks, thus saving space in the storage area.

► Only one hydraulic circuit is needed to be supplied by means of the fork lift truck, if both clamps are operated together. To operate the clamps individually, see page 7.9 ELMV-DZ. (Supplied without connecting hoses to the fork lift truck).

Polyamide sliding guides come with a 5 year guarantee.

All Forklift Grabs can also be used as cubing grabs in fully automatic cubers for blocks and pavers. Besides the hydraulically operated grabs also purely electrically operated grabs can be offered on request.

Recommended Accessories:

(Description see pages 7.5 – 7.9)

| Type | |
|--|--------------|
| Gripping Elements: | |
| Rubber Grippers | see page 7.5 |
| Steel Finger Grippers, heavy duty design | see page 7.6 |
| Double steel finger grippers, heavy duty design 2-rows mounted on top of each other | see page 7.6 |
| Connections for both clamps: | |
| Spreader bar fixed | see page 7.9 |
| Spreader bar with hydraulic distance adjustment | see page 7.9 |
| Connections to the fork lift truck: | |
| Fork Sleeves for Fork Peaks | see page 7.8 |
| Crane Boom KA-II SS | see page 7.8 |
| Crane Boom with hydraulic extending suspension with distance adjuster bar KA-II SS VA | see page 7.8 |
| Hydraulic connection hoses to the fork lift | see page 7.9 |
| Electrical Connection-Kit between STAZ-DZ II and forklift | see page 7.9 |

See pages 7.5 – 7.9 for further accessories.

Special accessories available on request.

The drawing above shows a standard unit consisting of the following components:

- 2 x STAZ-S-1000 maxi
- 2 x rubber grippers, 1,250 mm long
- 1 x spreader bar with hydraulic distance adjustment
- 1 x crane boom with hydraulic extending suspension KA-II-SS-VA
- 2 x electro-magnetic change-over-valve ELMV-DZ
- 1 x electro-magnetic change-over valve ELMV
- 2 pairs of hydraulic connection hoses to the fork lift

Accessories for Fork Lift Grabs

Grippers

To make the fork lift grabs as versatile as possible there are grippers available for every type of use.

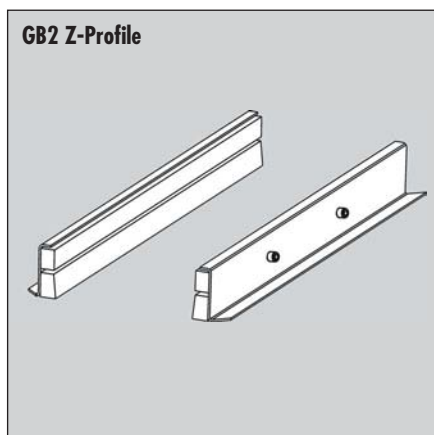
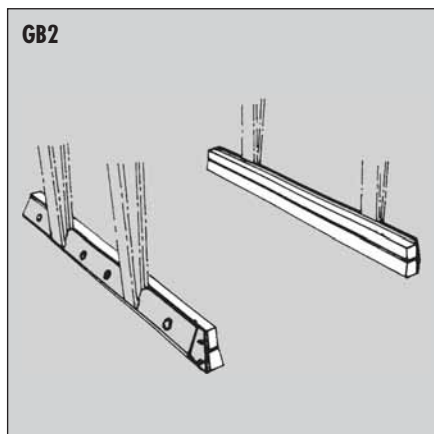
The following grippers are available for standard usage:

Rubber Grippers GB2

- ▶ Light-weight, suitable for all models and available in various lengths.
- ▶ Thick rubber linings ensure a careful handling of delicate concrete products.
- ▶ The gripping element consists of highly durable exchangeable rubber-metal bars screwed to a substructure.
- ▶ 2 rows of rubber metal bars and a conical lower rubber surface strengthen the gripping pressure on the lowest row of blocks.

Applications:

- ▶ Stacks of large concrete elements.
- ▶ Stacks of paving blocks, each row vertically steel-strapped.
- ▶ Stacks of paving blocks which are either not, or only partly, vertically steel-strapped and which are produced on a single layer machine with gripping width up to 700 mm and a minimum thickness of 60 mm.
- ▶ Limited use for stacks of paving blocks which are either not, or only partly, vertically steel-strapped and which are produced on a multi-layer machine, with a gripping width above 700 mm and a minimum thickness of 80 mm.



| Type | Length mm (in) | Dead Weight per Pair kg (lbs) | Order-Number |
|-----------------|---------------------------------------|-------------------------------|------------------|
| GB2-0720 | 720 (28 ¹ / ₄ " | 25 (55) | 4000.0005 |
| GB2-0850 | 850 (33 ¹ / ₂ " | 30 (65) | 4000.0248 |
| GB2-1000 | 1,000 (39") | 33 (75) | 4000.0022 |
| GB2-1100 | 1,100 (43") | 37 (80) | 4000.0041 |
| GB2-1200 | 1,200 (47") | 40 (90) | 4000.0053 |
| GB2-1250 | 1,250 (49") | 42 (95) | 4000.0056 |
| GB2-1300 | 1,300 (51") | 44 (95) | 4000.0062 |

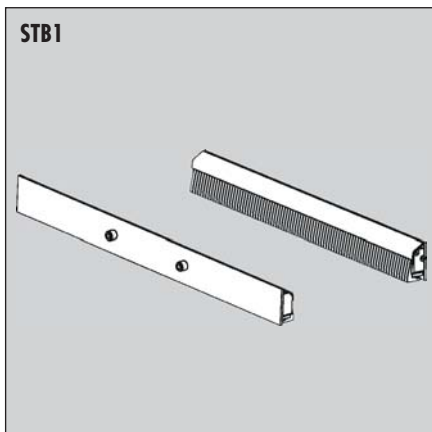
Rubber grippers with quick change system

- ▶ Design and utilization as described above, but in this case the rubber elements are secured to a Z-shape steel carrier.
- ▶ The complete gripper is fixed to the body of the grab by means of 2 pins.
- ▶ When different length of grippers are needed, they can be exchanged quickly by this quick change system.

| Type | Length mm (in) | Dead Weight per Pair kg (lbs) | Order-Number |
|-------------------|---------------------------------------|-------------------------------|------------------|
| GB2-0720 Z | 720 (28 ¹ / ₄ " | 31 (70) | 4000.0417 |
| GB2-0850 Z | 850 (33 ¹ / ₂ " | 36 (80) | 4000.0414 |
| GB2-1000 Z | 1,000 (39") | 43 (95) | 4000.0270 |
| GB2-1100 Z | 1,100 (43") | 48 (105) | 4000.0271 |
| GB2-1200 Z | 1,200 (47") | 52 (115) | 4000.0272 |
| GB2-1250 Z | 1,250 (49") | 54 (120) | 4000.0273 |
| GB2-1300 Z | 1,300 (51") | 56 (125) | 4000.0274 |

Further gripper lengths available on request.

STB1



Accessories for Fork Lift Grabs

Steel Finger Grippers STB1

A heavy-duty design, especially developed for fork lift grabs with extra-deep gripping for transporting not vertically steel strapped pavers.

Quickly exchangeable against rubber gripper bars GB2Z with 2 bolts, secured by screws.

Single spring-steel fingers are suitable for almost all block shapes which means the safe handling of most products.

► Please pay attention to the fact that the opening width (W) of fork lift attachment grab STAZ is reduced for 60 mm towards the rubber gripper bars.

Applications:

► Stacks of paving blocks which are either not, or only partly, vertically steel-strapped and which are produced on a single layer machine with a gripping width up to 850 mm and a minimum block thickness of 60 mm.

► Limited use for stacks which are either not or only partly vertically steel strapped and which are produced on a multi-layer machine with a gripping width up to 850 mm and a minimum block thickness of 80 mm.

| Type | Length L mm (in) | Dead Weight per Pair kg (lbs) | Oder-Number |
|--------------|------------------|-------------------------------|-------------|
| STB1-1000 S2 | 1,000 (39") | 65 (145) | 4000.0532 |
| STB1-1200 S2 | 1,200 (47") | 75 (165) | 4000.0541 |
| STB1-1250 S2 | 1,250 (49") | 80 (175) | 4000.0521 |
| STB1-1300 S2 | 1,300 (51") | 85 (185) | 4000.0533 |

Further gripper lengths are available on request.

Double Steel Finger Grippers STB2

These have the same characteristics and design as the steel finger grippers, but with 2 grippers on top of each other mounted on a limited spreader bar.

The grippers are arranged so that with 60 mm high pavers the lower gripper grips the lowest row of blocks and the upper gripper grips the 3rd row of blocks from the bottom.

Applications:

► Stacks of paving blocks which are either not, or only partly, vertically steel-strapped and which are produced on a single layer machine,

with a gripping width up to 1,050 mm (850) and a minimum block thickness of 80 mm (60).

| Type | Length L mm (in) | Dead Weight per Pair kg (lbs) | Order-Number |
|-------------|------------------|-------------------------------|--------------|
| STB2-1200 S | 1,200 (47") | 170 (375) | 4000.0150 |
| STB2-1250 S | 1,250 (49") | 180 (400) | 4000.0151 |
| STB2-1300 S | 1,300 (51") | 190 (420) | 4000.0152 |

Further gripper lengths are available on request.

Further models of gripping elements, e. g. with colourless rubber or specially adjusted shaped grippers are available on request.

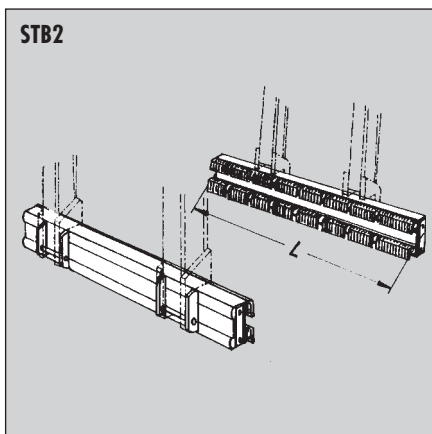
Pressure Plates

Used for compressing stacks of paving blocks (to remove any gaps between the blocks) as they are actually gripping them. Usually installed on the STAZ-S 4.

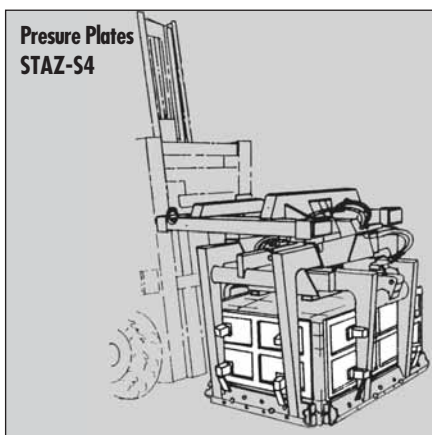
Solid surface, measurements adjusted to fit the gripper length and the height of the clamp. Spring-loaded, mounted on 4 suspension points.

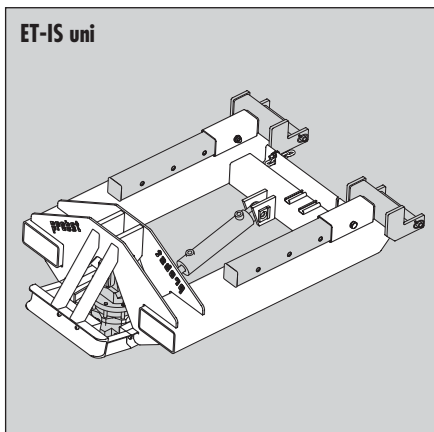
| | Order-Number |
|-------------------------------------|--------------|
| Pressure Plates (delivery in pairs) | 4705.0059 |

STB2



Pressure Plates
STAZ-S4





Accessories for Fork Lift Grabs

Fork Sleeves for Forks ET

For fixing onto the fork peaks, with locking device on the forks.

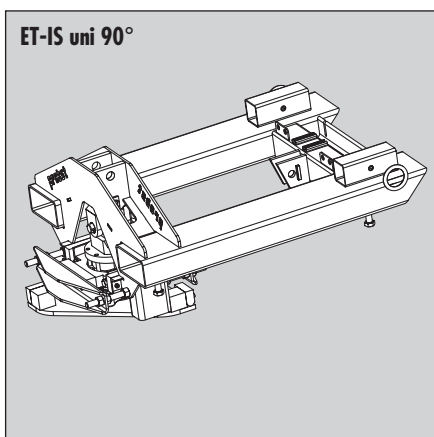
► **Advantage:** short change-over time when adding other attachments to the fork lift.

► **Attention:** loss of lifting height (= Clamp inside height E + approx. 495 mm, according to the model).

Various types of fork sleeves are available, depending on the jobs in hand or the attachment device.

Fork Sleeves ET-IS uni with cardanic suspension of the clamp

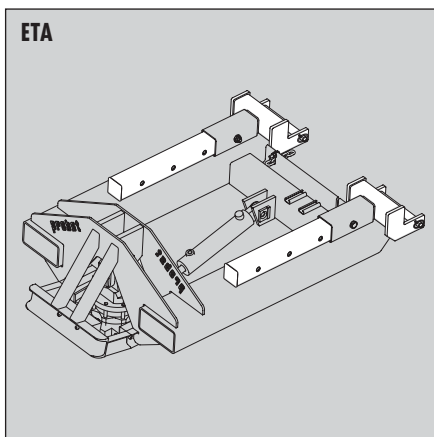
Designed for the installation of a hydraulic rotator damper (Only suitable for STAZ and STAZ-DZ I). With security chain to avoid slipping.



Fork Sleeves ET-IS uni 90°

Rotating area 90° by hydraulic rotator. (Also available with rotating area +/-45°)

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|---------------|-------------------------------|---------------------------|-------------------------|--------------|
| ET-IS uni | 4,000 (8,800) | variable | 140 (310) | 4711.0030 |
| ET-IS uni USA | 4,000 (8,800) | variable | 150 (330) | 4711.0023 |



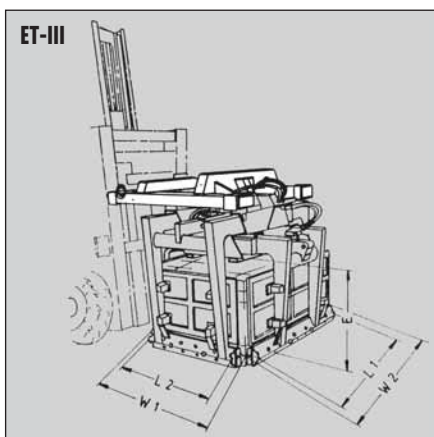
Fork Sleeves Fixation ETA for ET-IS uni

To avoid that the ET-IS uni slips off the forks. Different reach achievable by pin-adjustment.

| Type | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|--------------------------|---------------------------|-------------------------|--------------|
| Fork sleeve fixation ETA | 1,000 – 1,450 (39 – 57") | 20 (45) | 4711.0036 |

Fork Sleeves ET-II for double clamps, integrated into the spreader bar

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|-------|-------------------------------|---------------------------|-------------------------|--------------|
| ET-II | 5,500 (12,100) | variable | 140 (310) | 4710.0022 |

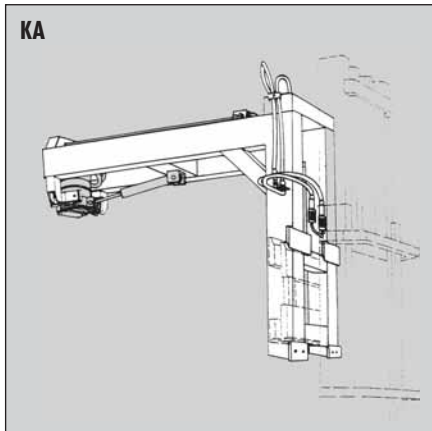


Fork Sleeves ET III for single clamps, mainly the STAZ-S 4, screwed tightly to the clamp

Can also be installed in a 90° turn position, due to the symmetrical flange plate.

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|-----------------------------|-------------------------------|---------------------------|-------------------------|--------------|
| ET-III uni for STAZ-S 4 | 3,000 (6,600) | variable | 130 (285) | 4711.0016 |
| ET-III uni for Single clamp | 3,000 (6,600) | variable | 130 (285) | 4711.0019 |

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



Accessories for Fork Lift Grabs

Crane Boom KA

With a fastening for fixing directly onto the lifting plate.

- ▶ 2-arm module for good visibility for the driver.
- ▶ Hydraulic connections installed up to the end of the boom.
- ▶ Including cardanic suspension of the clamp.

▶ **Advantage:** Full use of the lifting height of the fork lift.

▶ **Attention:** Change-over time to use with forks approx. 5 minutes. Different models are available depending on the use.

Crane Boom KA-I for single clamps

Designed for the installation of a hydraulic rotator and also for the installation of a hydraulic swing damper (only suitable for STAZ and STAZ-DZ I).

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|---------|----------------------------|------------------------|----------------------|--------------|
| KA-I S | 4,000 (8,800) | max. 1,500 (59") | 390 (860) | 4712.0033 |
| KA-I SS | 4,000 (8,800) | max. 1,800 (71") | 490 (1,080) | 4712.0034 |

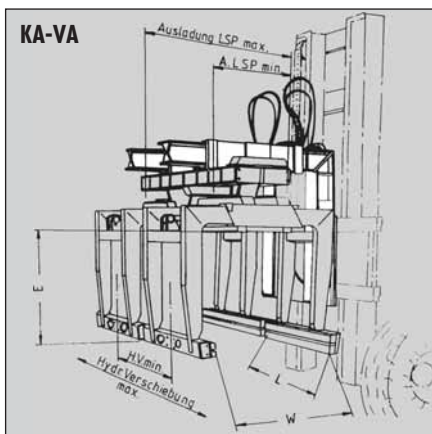
Crane Boom KA-II for double clamps

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|----------|----------------------------|------------------------|----------------------|--------------|
| KA-II SS | 5,500 (12,100) | approx. 1,100 (43") | 550 (1,210) | 4710.0038 |

Crane Boom KA with Distance Adjustment VA

A hydraulically extendable suspension point to extend the clamp forward of the fork lift truck.

▶ **Advantage:** Trucks can be loaded from one side alone which is especially useful in confined spaces.



Crane Boom KA-I for single grabs with distance adjustment

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|----------|----------------------------|--------------------------|----------------------|--------------|
| KA-IS-VA | 4,000 (8,800) | 1,120 - 1,800 (44 - 71") | 480 (1,060) | 4712.0035 |

Crane Boom KA-II for double grabs with distance adjustment

| Type | Carrying Capacity kg (lbs) | Load Extension mm (in) | Dead Weight kg (lbs) | Order-Number |
|-------------|----------------------------|--------------------------|----------------------|--------------|
| KA-II SS-VA | 5,500 (12,100) | 1,120 - 1,800 (44 - 71") | 690 (1,520) | 4712.0036 |

When using the V-Equipment, take note of the following points:

- ▶ The stability of the fork lift truck can be guaranteed only when the clamp is in its fully retracted position.
- ▶ The clamp must only be extended when the fork lift is stationary, as long as the clamp is of

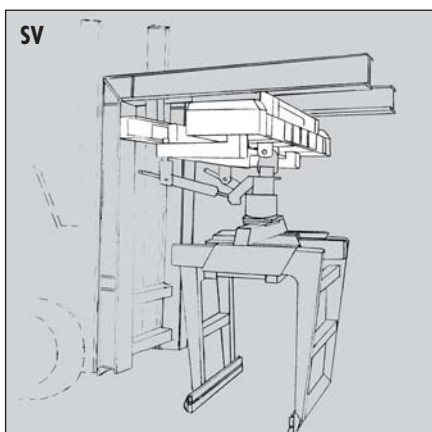
a maximum of 10 cm above the loading surface of the truck.

▶ The customer must fit an optical signal. (Flashing lights or such like) to the fork lift, to warn the driver when the load is not in its fully retracted position. (For this purpose an electric contact switch is supplied with the device).

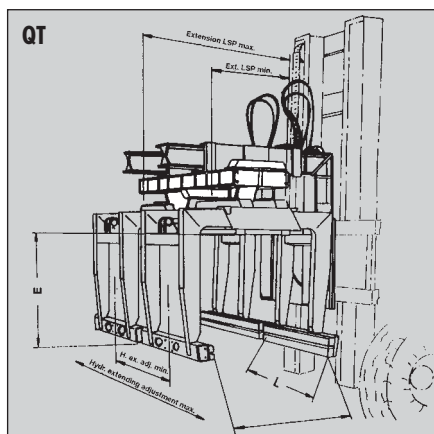
Site Shift for Crane Boom SV

Additional equipment to hydraulically move the suspending point of the clamp sideways.

▶ **Advantage:** Enables the driver of the fork lift to position the clamps exactly.



| Type | Carrying Capacity kg (lbs) | Site Shift mm (in) | Dead Weight kg (lbs) | Order-Number |
|------|----------------------------|--------------------|----------------------|--------------|
| SV | 5,500 (12,100) | ± 160 (6 1/4") | 150 (330) | 4710.0063 |



Accessories for Fork Lift Grabs

Spreader Bar QT

For double clamps, for fitting both single clamps. Fixed model with set distance between the two clamps (QT model).

The spreader bar is firmly bolted to the clamps, yet is flexible beared in the driving direction and is fixed with individual swing dampers via

rubber buffers.

► Also available with hydraulic distance adjustment of the two clamps so that the distance between the packs is reduced and space is secured in the storage area. (QT-H and QT-HL models).

| Type | Carrying Capacity kg (lbs) | Range of Displacement mm (in) | Dead Weight kg (lbs) | Order-Number |
|--------------|----------------------------|---|----------------------|------------------|
| QT | 5,500 (12,100) | 0 (0) | 190 (420) | 4710.0037 |
| QT-H | 5,500 (12,100) | 0 – 400 (0 – 15 ³ / ₄ "") | 300 (660) | 4713.0019 |
| QT-HL | 5,500 (12,100) | 0 – 640 (0 – 25 ¹ / ₄ "") | 320 (710) | 4713.0016 |

Hydraulic Rotator

Fitted between the clamp and the fork sleeves/crane boom, enabling stacks to be

lifted and deposited, according to requirements.

| Type | Carrying Capacity kg (lbs) | Rotation | Dead Weight kg (lbs) | Order-Number |
|---------------|----------------------------|----------|----------------------|------------------|
| DK 503 | 4,000 (8,800) | endless | 34 (75) | 4715.0067 |
| GV12-S | 7,500 (16,500) | endless | 56 (125) | 4715.0055 |

Hydraulic Swing Damper

Fitted to control the swinging movements of the clamp when the fork lift is in motion.

Damper is longitudinally to the direction of travel by means of a hydraulic damping cylinder and

diagonally to the direction of travel by means of rubber buffers. PD-V heavy-duty design with 2 damper cylinders arranged in V-stage.

| Type | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------------|----------------------------|----------------------|------------------|
| PD-S | 4,000 (8,800) | 30 (65) | 4714.0002 |
| PD-V | 5,000 (11,000) | 70 (155) | 4710.0042 |

Hydraulic Accessories

1 set = 2 hydraulic hoses including quick couplings between the fork lift and the fork sleeves or

crane boom, length each approx. 1,200 mm.

| Type | Order-Number |
|---------------------------|------------------|
| Hydraulic Hoses HD | 4710.0047 |

Fitted to the clamp, in case there is only one hydraulic circuit on the side of the fork lift for "clamping" and "turning". Supplied with the

required electrical relais and push button, but not the electrical connections to the fork lift truck.

| Type | Voltage (V) | Order-Number |
|---|-------------|------------------|
| Electromagnetic Change Over Valve ELMV | 12 V | 4710.0083 |
| Electromagnetic Change Over Valve ELMV | 24 V | 4710.0107 |

Fitted to each of both clamps of the fork lift double clamp attachment STAZ-DZ II, for the separate control of the two single clamps. This means that

the double clamp can be used to transport only one stack, as and when required. Supplied without electrical connections to the fork lift truck.

| Type | Voltage (V) | Order-Number |
|--|-------------|------------------|
| Electromagnetic Change Over Valve ELMV-DZ | 12 V | 4710.0084 |
| Electromagnetic Change Over Valve ELMV-DZ | 24 V | 4710.0108 |

Electrical connection-kit for double grabs, consisting of:

► Complete electric wiring of the attachment, installation of the components into the forklift has to be carried out by the customer.

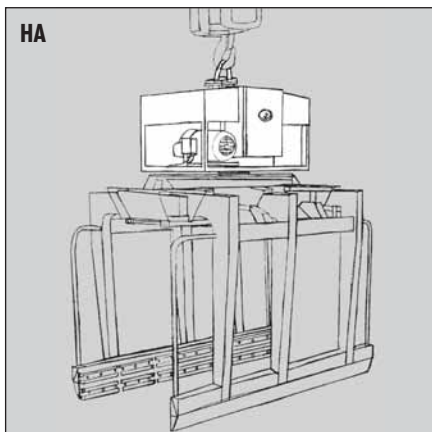
► Spiral cable between forklift and attachment, control box and control elements.

► Turning light for warning purpose for V-attachment on crane boom KA.

| Type | Order-Number |
|--|------------------|
| Electrical Connection-Kit between STAZ-DZ II and forklift | 4710.0085 |

All forklift grabs can easily be equipped with an electro-hydraulic power pack on top of the grab to be used in conjunction with a bridge crane or similar. see Page 7.10

HA



Accessories to clamps for overhead cranes

Electrohydraulic Power Pack HA

To produce the hydraulic energy to control clamp movements such as gripping, turning, swivelling.

▶ Electric cables for controlling the electric motor and the solenoid valves put together in a

control box, but without electrical installation for creating the movements.

▶ Including pressure switch to control the hydraulic clamping pressure.

| Type | Number of functions | Power consumption | Dead Weight kg (lbs) | Order-Number |
|--------|---------------------|-------------------|----------------------|------------------|
| HA I | 1 | 3-4 kW | 190 (420) | 4740.0014 |
| HA II | 2 | 3-4 kW | 200 (440) | 4740.0015 |
| HA III | 3 | 3-4 kW | 210 (465) | 4740.0016 |

Additional Attachment with Dual-Stage Hydraulic Pump

1. Stage: Low pressure, but high volume for quick movement of the grab without exerting clamping pressure.

2. Stage: High pressure, low oil flow for low movement, but exerting high clamping pressure.

The switch-over from stage 1 to stage 2 operates automatically.

| Type | Order-Number |
|-----------------|------------------|
| Dual-Stage Pump | 4740.0017 |

Electrical Installation EI

▶ Electrically installed ready to be plugged inside the control cabinet.

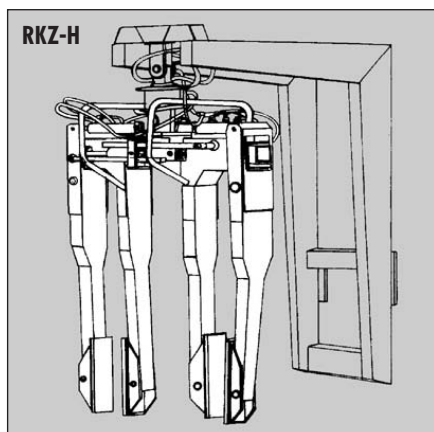
▶ Including automatical activation of the hydraulic pump when there is a loss of pressure when products are gripped.

▶ Including emergency stop-switch.

▶ Including motor protection-switch.

| Type | Number of functions | Operating voltage | Control voltage | Order-Number |
|--------|---------------------|-------------------|-----------------|------------------|
| EI-I | 1 | 400 V/50 Hz | 24 V DC | 4740.0010 |
| EI-II | 2 | 400 V/50 Hz | 24 V DC | 4740.0011 |
| EI-III | 3 | 400 V/50 Hz | 24 V DC | 4740.0012 |

Other voltages on request.



Ring- and Cone Clamp RKZ-H

A hydraulic grab attachment for transporting up to 3 manhole rings with a height of 500 mm.

- ▶ Can also be used for single manhole cones due to its swinging grippers.
- ▶ Ideal for clearing the manufacturing area and for loading trucks.
- ▶ By clamping onto the walls of the products no radial pressure is exerted on the rings and so fairly green products can be removed from the manufacturing surface at a much earlier stage.

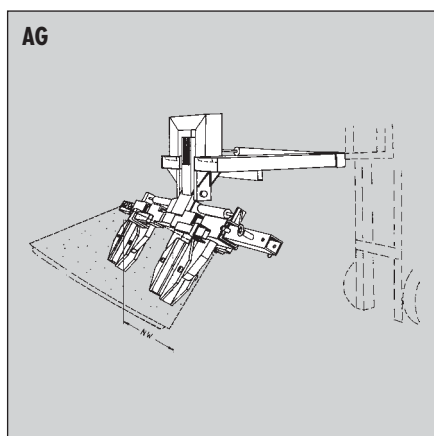
▶ An adjustment to the widths is done hydraulically prior to the clamping action. This hydraulic change-over means that to operate the clamping and diameter setting action, only one hydraulic circuit is needed on the side of the fork lift truck.

(Supplied without connecting hoses to the fork lift truck).

The RKZ-HS is a heavy-duty model for up to 4 manhole rings with a height of 500 mm.

| Type | Gripping Range for Rings and Cones ID mm (in) | Carrying Capacity kg (lbs) | Height E mm (in) | Dead Weight kg (lbs) | Order-Number |
|--------|---|----------------------------|------------------|----------------------|--------------|
| RKZ-H | 600 – 1,500 (23 1/2 – 59") | 1,750 (3,850) | 1,500 (59") | 680 (1,500) | 5720.0011 |
| RKZ-HS | 600 – 1,500 (23 1/2 – 59") | 2,300 (5,100) | 2,000 (79") | 790 (1,740) | 5720.0012 |

If possible the Ring- and Cone Clamp RKZ-H/HS should be fitted onto the fork lift truck with a crane boom (see pages 7.8 and 7.9) and a hydraulic rotator.



Setting Up Device for Manhole Rings AG

Makes the production of manhole rings more efficient and user-friendly, as the rings and cones are gripped and lifted and set up hydraulically.

- ▶ As no radial pressure is exerted on the rings, green products can be safely handled.
- ▶ The setting up device can be used to

transport and lift rings and cones with an internal width of up to 1,200 mm.

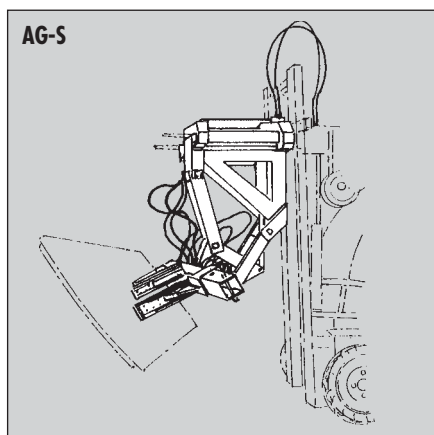
▶ Two separate hydraulic circuits are needed on the side of the fork lift truck.

(Supplied without connecting hoses to the fork-lift-truck).

| Type | Gripping Range for Rings and Cones NW mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|------|---|----------------------------|----------------------|--------------|
| AG | 625 (24 1/2") up to 1,200 (47") | 1,500 (3,300) | 370 (820) | 5720.0042 |
| AG-S | 625 (24 1/2") up to 1,200 (47") | 2,000 (4,400) | 680 (1,500) | 5720.0043 |

Special models available on request. See page 7.9 for hydraulic connecting hoses. If the fork lift truck only has one circuit, see electromagnetic change-over valve on p. 7.9.

| | |
|---|-----------|
| Additional cost for bolt-on extension for lifting rings up to 1,500 mm (59") inside diameter. | 5720.0044 |
|---|-----------|



Additional Equipment UAV

Fitted onto the Setting Up Device AG or the Turning Device UG to allow the steel pallets to be accurately removed when clearing the manufacturing area – e.g. to be placed into the magazine.

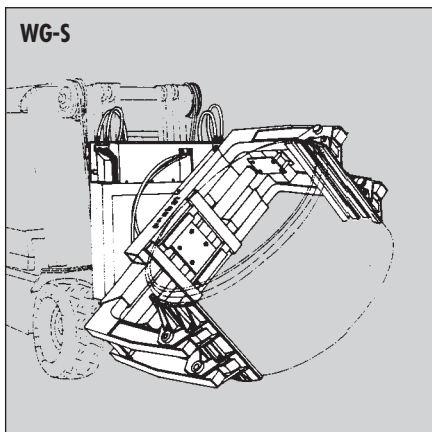
- ▶ The swingable device fits the outer contour of the manhole rings, cones and pins and pushes

the steel pallets on the outside protruding edge.

▶ The pushing process is steered hydraulically, the height adjustment is done manually by bolts.

| | |
|-----|-----------|
| UAV | 4720.0001 |
|-----|-----------|

WG-S



Turning Device for Concrete Basers WG-S

Enables concrete products such as manhole-basers to be turned around 180° after production (turning range 360° endless).

Because the products are turned at the longitudinal axle of the fork lift, there is very little extension so that the centre of gravity of the load and the device are very close to the fork lift.

Both, the gripping and turning manoeuvres are fully hydraulic.

Standard Specifications:

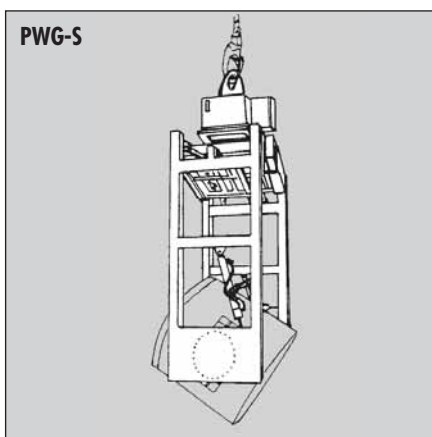
► Grippers lined with rubber metal bars and double-hinged so that they fit the various diameters well.

(Supplied without connecting hoses to the fork lift truck).

Larger or modified opening widths are available on request.

| Type | Suitable for Outer Diameter mm (in) | Minimum Height mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|------|-------------------------------------|---------------------------------------|----------------------------|----------------------|--------------|
| WG-S | 1,200 – 1,800 (47 – 71") | 680 (26 ³ / ₄ " | 4,200 (9,300) | 1,080 (2,380) | 5720.0112 |

PWG-S



Gantry Crane – Rotating Clamp for Manhole Rings and Basers PWG-S

Hydraulic clamp, suitable to lift and rotate large concrete manhole rings and basers by 180°.

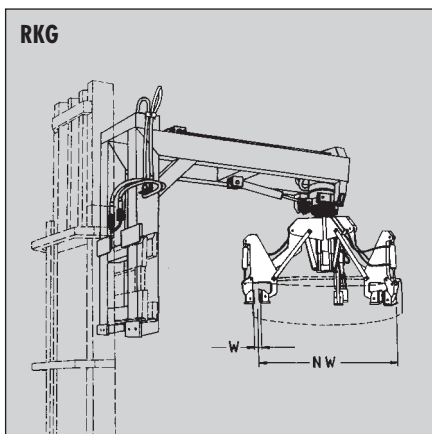
The grippers are specially adapted for manhole

rings and basers, 2 opposite surfaces without an inlet or outlet are needed.

| Type | Suitable for outer diameters mm | Turning Range | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-----------|---------------------------------|---------------|----------------------------|----------------------|--------------|
| PWG-S 4.5 | 1,200 - 1,800 (47 - 71") | 180° | 4,500 (9,900) | 1,800 (3,950) | 5740.0016 |
| PWG-S 7 | 1,200 - 1,800 (47 - 71") | 180° | 7,000 (15,400) | 2,800 (6,200) | 5740.0017 |

Recommended accessory: Electrical Installation EI-II, see typelist page 7.10

RKG



Ring- and Cone Clamp RKG

Hydraulically operated universal grab attachment for manhole rings and cones.

► Using only one hydraulic circuit the clamp firstly adjusts to the inner diameter and then clamps the ring wall by 3 hydraulically operated rubber-lined gripping claws.

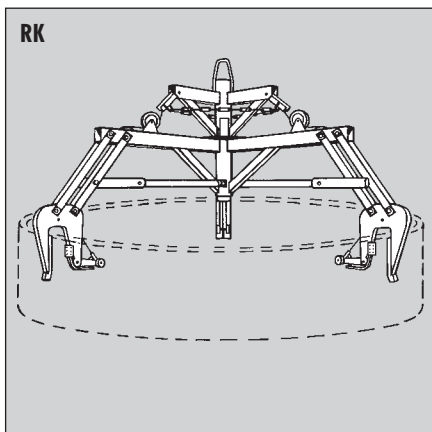
► As no radial pressure is exerted, it is possible to handle green products.

► Suitable for use with fork lift trucks as well as loading cranes.

(Supplied without connecting hoses to the fork lift truck).

| Type | Gripping Range for Rings and Cones ID mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-----------|---|----------------------------|----------------------|--------------|
| RKG-S 20 | 600 – 2,000 (23 ¹ / ₂ – 79") | 2,500 (5,500) | 600 (1,320) | 5720.0002 |
| RKG-S 25 | 600 – 2,500 (23 ¹ / ₂ – 98") | 2,500 (5,500) | 620 (1,370) | 5720.0003 |
| RKG-SS 25 | 600 – 2,500 (23 ¹ / ₂ – 98") | 4,000 (8,800) | 655 (1,445) | 5720.0110 |
| RKG-SS 30 | 600 – 3,000 (23 ¹ / ₂ – 118") | 3,000 (6,600) | 820 (1,810) | 5720.0094 |

If possible, the Ring- and Cone Clamp RKG S 20 / S 25 should be attached to the fork lift truck with a crane boom (see pages 7.8 and 7.9) and a hydraulic rotator.



Manhole Ring Clamp RK

Fully mechanical operation, so it can be used with any lifting equipment.

► Also suitable for manhole rings (DIN 4034 Part I) due to its extra-deep claws and rubber supports.

► Adjusted to the dimensions of the manhole ring by bolts. As only the side wall is gripped, no radial pressure is exerted. Making it suitable

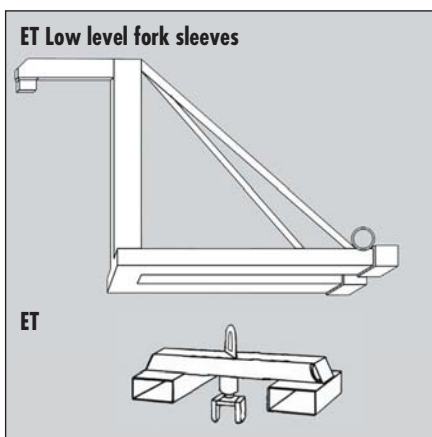
See page 7.8 for suitable crane boom for RK.

for handling green products.

Standard Specifications:

- Crane eye for attaching to crane hook.
- Equipped with 2 or 3 grippers, according to model.
- Fully automatic change-over from "full" to "empty", making it an absolute one-man machine.

| Type | Gripping Range of Claws ID mm (in) | Number of Grippers | Gripping Range mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|---------------|------------------------------------|--------------------|------------------------|----------------------------|----------------------|------------------|
| RK I | 800 – 1,500 (31½ – 59") | 2 | 60 – 180 (2½ – 7") | 2,000 (4,400) | 150 (330) | 5720.0030 |
| RK IUS | 36 – 60" | 2 | 2½ – 7" | 3,200 (7,100) | 240 (530) | 5720.0032 |
| RK II | 1,500 – 2,500 (59 – 98") | 3 | 60 – 180 (2½ – 7") | 3,000 (6,600) | 320 (710) | 5720.0033 |
| RK III | 2,000 – 3,000 (79 – 118") | 3 | 60 – 180 (2½ – 7") | 3,000 (6,600) | 350 (770) | 5720.0036 |



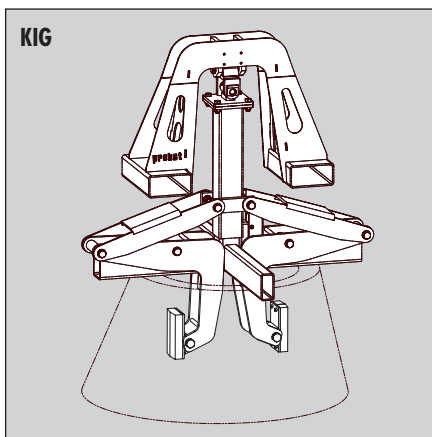
Fork Sleeves for Fork Lift Peaks ET-RK

Suitable for the RK, off set design to save lifting height.

| Type | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|------------------------------|----------------------------|----------------------|------------------|
| ET-RK with cross link | 3,500 (7,700) | 130 (285) | 4720.0002 |
| ET-RK swivel hook | 3,500 (7,700) | 140 (310) | 4720.0028 |

Suitable for RK or other devices, mounted directly above the gripper including lifting eye for attaching to crane hook. ET 90° design with manual turning device which arrests itself every 90°.

| Type | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|--------------------------------|----------------------------|----------------------|------------------|
| ET with cross link | 4,000 (8,800) | 30 (65) | 4710.0010 |
| ET with cross link USA | 4,000 (8,800) | 32 (70) | 4711.0106 |
| ET 90° incl. cross link | 4,000 (8,800) | 35 (75) | 4711.0002 |



Cone Insert Clamp KIG

Fully mechanical operation, thus making it universally suitable for cranes or fork lifts.

► Universally suitable for symmetrical and unsymmetrical cones with a cover hole diameter of 625 and 800 mm.

Standard Specifications:

- Low level fork sleeves to save lifting height.
- Exchangeable rubber metal bars for the gentle handling of cones.
- Fully automatic change-over from "full" to "empty".
- Eyelet for cranehook to forksleeve can be fitted later on.

| Type | Gripping Range for Rings and Cones ID mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|----------------------------------|---|----------------------------|----------------------|-------------------|
| KIG I | 625 (24½") – 800 (31½") | 2,000 (4,400) | 210 (465) | 5720.0020 |
| KIG I-USA | 625 (24½") – 800 (31½") | 2,000 (4,400) | 220 (485) | 5720.0106 |
| KIG II | 625 (24½") – 1,000 (39") | 2,000 (4,400) | 300 (660) | 5720.0067 |
| Lower price without fork sleeves | | | | on request |

Manhole Insert Clamp SP

Fully mechanical operation making it suitable for use with any lifting equipment.

► Suitable for lifting up to 3 rings at once with an internal diameter of 800 – 1,500 mm as well as individual rings and cones due to a height-adjustable facility.

► As the clamping is done by radial pressure from the inside, it has a limited use with green products.

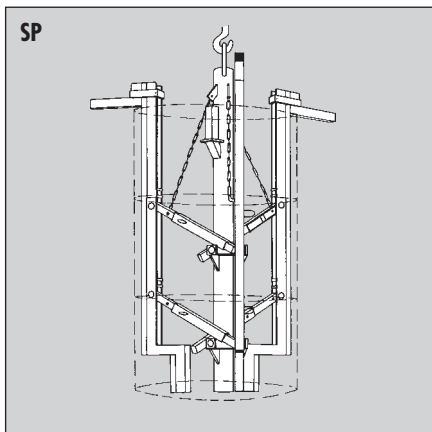
Adjusted to the dimensions of the rings by bolts. Offset grippers make it possible to handle cones without changing from a 1,000-internal-diameter.

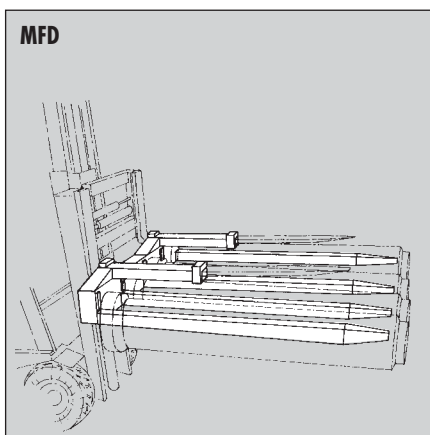
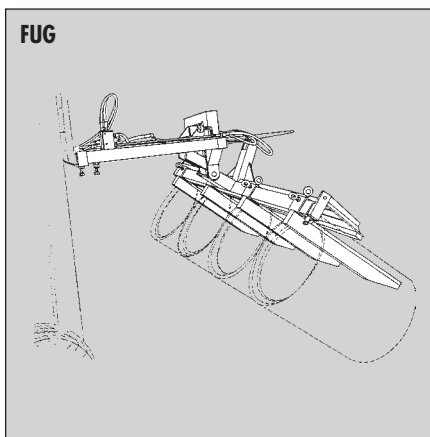
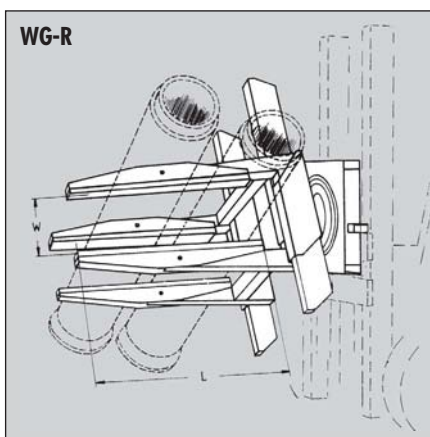
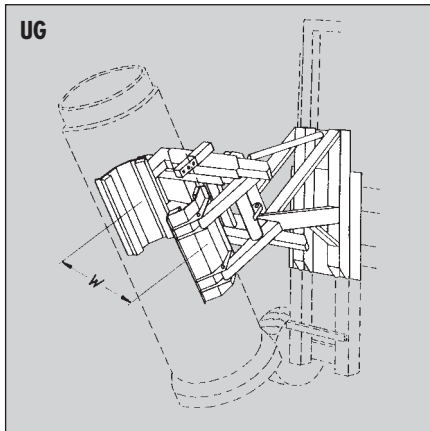
Standard Specifications:

- Crane eye for attaching to crane hook.
- Highly durable exchangeable rubber metal bars as gripping elements.
- Fully automatic change-over from "full" to "empty", making it an absolute one-man machine.

| Type | Gripping Range for Rings and Cones ID mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------------|---|----------------------------|----------------------|------------------|
| SP I | 800 – 1,500 (31½ – 59") | 2,000 (4,400) | 165 (365) | 5720.0055 |

Hydraulic operated Manhole Insert Clamp SP-H, for completely cured manhole rings see page 6.7.





Turning Device for Concrete Pipes UG

- Makes the handling of concrete pipes after production far more efficient.
- Due to large surfaced pressure pads, little pressure is exerted onto the pipe, meaning that green products can be safely handled.
- As the pipes are turned in a raised position,

there is no danger of damaging the joints or the steel pallets.

- The parallel movement of the gripping arms means little space is required between the pipes. (Supplied without connecting hoses to the fork lift truck).

| Type | Suitable for outer diameters mm (in) | Usual trade opening range ID mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|---------------|--|--|----------------------------|----------------------|------------------|
| UG 3.5 | 380 – 1,320 (15 – 52") | 300 – 1,000 (11 ³ / ₄ – 39") | 3,500 (7,700) | 820 (1,810) | 5730.0004 |
| UG 4.5 | 400 – 1,580 (15 ³ / ₄ – 62") | 300 – 1,200 (11 ³ / ₄ – 47") | 4,500 (9,900) | 1,200 (2,650) | 5730.0025 |
| UG 6.5 | 400 – 1,580 (15 ³ / ₄ – 62") | 300 – 1,200 (11 ³ / ₄ – 47") | 6,500 (14,300) | 1,560 (3,450) | 5730.0013 |

Special models eg. for moving 2 pipes at once, available on request. See page 7.9 for hydraulic connection hoses. If the fork lift truck only has one hydraulic circuit, see page 7.9 for the electromagnetic change-over valve ELMV.

Rotating Clamp for Concrete Pipes WG-R

A novel method for rotation of several pipes in one operational sequence, regardless of accuracy of individual pipes interspace. Length of rubber grippers L = 1,650 mm. The clamp attachment enables the rotating of the pipes by ± 90° (rotating range 360°

endless) – without shunting the forklift.

It is possible to pick up 3 pipes with an ID width of 300 – 400 mm, 2 pipes with ID 500 – 600 mm or 1 pipe up to 1,000 mm ID.

(Supplied without connecting hose to the forklift-truck).

| Type | Opening Width W mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------------|--|----------------------------|----------------------|------------------|
| WG-R | 300 – 1,300 (11 ³ / ₄ – 51") | 4,000 (8,800) | 930 (2,050) | 5730.0007 |

Special model available on request. If only one hydraulic circuit is available, see page 7.9 for electromagnetic change-over valves ELMV.

Small Pipe Turning Device FUG

Makes the handling of small pipes after production more efficient.

- Up to 5 small pipes with an ID width of 300 mm and a length of 1 m can be gripped at once. There is a manual adjustment to accommodate other widths. In one manoeuvre the pipes are transported from the production site and, by means of the inbuilt tilting

mechanism, are then layed flat for storage.

- As the pipes are gripped on their walls, no radial pressure is exerted on them, meaning that green products can be safely handled.
- 2 separate hydraulic circuits are needed on the side of the fork lift truck.

(Supplied without connecting cables to the fork lift truck).

| Type | Gripping Range | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|------------|--|----------------------------|----------------------|------------------|
| FUG | up to 5 pipes with a width of 300 mm (11 ³ / ₄ " | 1,500 (3,300) | 450 (990) | 5730.0006 |

Multiple Forks MFD

For picking up several concrete pipes at the same time.

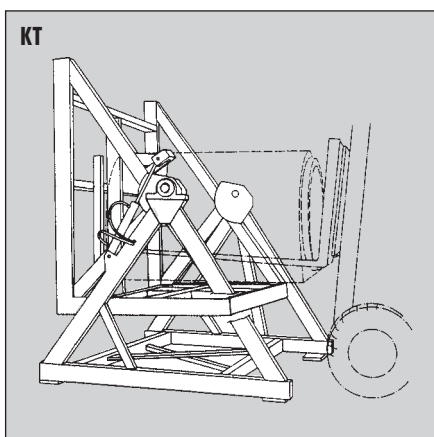
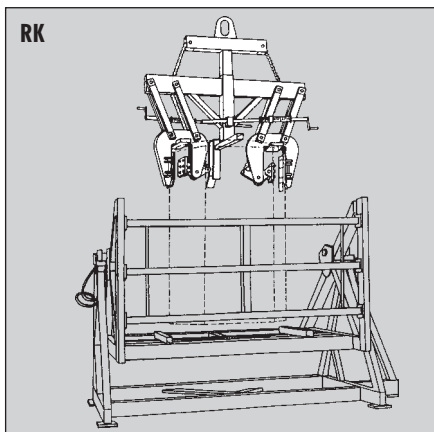
- The device is lifted using the fork lift truck forks, with a lockpin on the forks.

- The spreader bar is lined with rubber so that the pipes cannot be damaged.
- Distance between the bells of the pipes: 20 mm.
- Ideal for stacking the storage area and for loading trucks.

| Type | ID of pipe mm (in) | No. of pipes | Length of pipes mm (in) | Dead Weight kg (lbs) | Order-Number |
|-----------------|---------------------------------------|--------------|---------------------------|----------------------|------------------|
| MFD 25-5 | 250 (9 ³ / ₄ " | 5 | 2,500 – 3,000 (98 – 118") | 300 (660) | 5740.0001 |
| MFD 30-5 | 300 (11 ³ / ₄ " | 5 | 2,500 – 3,000 (98 – 118") | 300 (660) | 5740.0085 |
| MFD 40-4 | 400 (15 ³ / ₄ " | 4 | 2,500 – 3,000 (98 – 118") | 350 (770) | 5740.0086 |
| MFD 50-4 | 500 (19 ³ / ₄ " | 4 | 2,500 – 3,000 (98 – 118") | 400 (880) | 5740.0025 |
| MFD 60-3 | 600 (23 ¹ / ₂ " | 3 | 2,500 – 3,000 (98 – 118") | 400 (880) | 5740.0026 |

On request additional price for polyamid lining of forks to protect the pipes.

Other widths and numbers available on request.



Large Pipe Clamp RK

Using the mechanical Large Pipe Clamp, concrete pipes up to 2,800 mm ID width can be safely gripped once manufactured and then placed on a tilting table.

- ▶ Fully mechanical operation, making it suitable for use with any lifting equipment.
- ▶ Adjustable to the dimensions of the pipe in a hand crank.

Standard Specifications:

- ▶ Crane eye for attaching to crane hook.
- ▶ Fully automatic change-over from "full" to "empty", making it an absolute one-man machine.

| Type | Gripping Range for Rings ID mm (in) | Number of Gripping Claws | Opening Width of Gripping Claws mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------|-------------------------------------|--------------------------|---|----------------------------|----------------------|--------------|
| RK IV | 1,000 – 1,800 (39 – 71") | 2 | 85 – 220/ 135 – 270 (3 ¹ / ₄ – 8 ³ / ₄ "/ 5 ¹ / ₄ – 10 ³ / ₄ " | 7,500 (16,500) | 600 (1,320) | 5730.0001 |
| RK V | 1,500 – 2,600 (59 – 102") | 2 | 80 – 240/ 140 – 300 (3 ¹ / ₄ – 9 ¹ / ₂ "/ 5 ¹ / ₂ – 11 ³ / ₄ " | 15,000 (33,100) | 1,700 (3,750) | 5730.0002 |
| RK VI | 1,500 – 2,800 (59 – 110") | 2 | 90 – 255/ 165 – 330 (3 ¹ / ₂ – 10"/ 6 ¹ / ₂ – 13") | 25,000 (55,100) | 3,200 (7,100) | 5730.0009 |

Designed in the same way as the Manhole Ring Clamp RK, but measurements are to suit concrete pipes.

Tilting Table KT

Using the Large Pipe RK, the concrete pipes up to 3 m in length are placed on the tilting table. Then the pipes are tilted hydraulically by 90°. The pipes, now lying flat, are then removed by a fork-lift truck or crane.

- ▶ Electro-hydraulically operated tilting table.
- ▶ Tilting table equipped with fork sleeves for fork lift trucks so that the whole device can be moved easily.

| Type | Internal Table Width mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------|------------------------------|----------------------------|----------------------|--------------|
| KT 15 | 3,450 (136") | 15,000 (33,100) | 6,000 (13,200) | 5740.0008 |
| KT 25 | 3,600 (142") | 25,000 (55,100) | 15,000 (33,100) | 5740.0007 |

Standard Specifications:

Gantry Crane Rotating Clamp for Concrete Pipes PWG-R

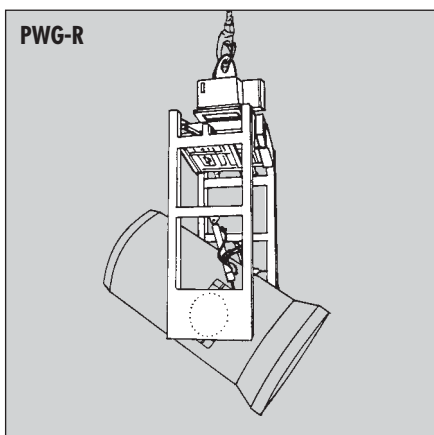
A special hydraulic clamp designed to lift and rotate large concrete pipes by 90°.

- ▶ Space saving use on gantry crane. Fully hydraulic clamp, adjustable to various diameters.
- ▶ Large surface pressure pads with swinging rubber grippers ensure a good pressure distribution all over and so enable the production area

to be cleared more quickly.

- ▶ The parallel movement of the gripping arms means that little space is required between the pipes.

- ▶ Hydraulically powered by means of an electro hydraulic pump unit, electrical connection approx. 4 kW, V 3 phase.

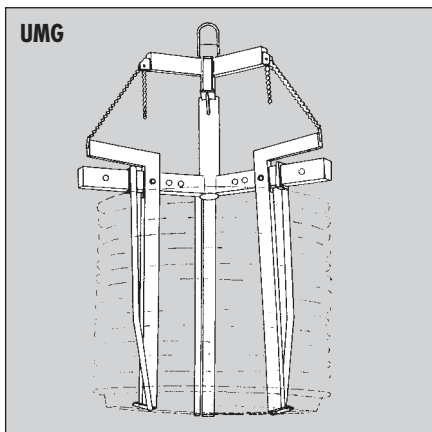


| Type | Suitable for outer diameters mm (in) | Turning Range | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order Number |
|----------|---|---------------|----------------------------|----------------------|--------------|
| PWG-R 3 | 400 – 1,200 (15 ³ / ₄ – 47") | 100° | 3,000 (6,600) | 1,800 (4,000) | 5740.0013 |
| PWG-R 7 | 1,200 – 1,900 (47 – 75") | 100° | 7,000 (15,400) | 2,800 (6,200) | 5740.0014 |
| PWG-R 13 | 1,800 – 3,100 (71 – 122") | 100° | 13,000 (28,700) | 7,000 (15,400) | 5740.0021 |
| PWG-R 20 | 1,800 – 3,100 (71 – 122") | 100° | 20,000 (44,100) | 8,600 (19,000) | 5740.0015 |

Recommended accessory: Electrical Installation EI-II, see type list page 7.10

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

UMG



Steel Pallet Grab UMG

For lifting stacks of steel pallets and loading them into the magazine of the manhole manufacturing machine. Universally adjustable.

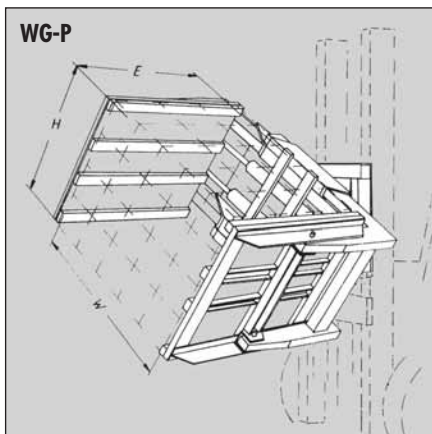
- Fully mechanical operation.

Standard Specifications:

- Crane eye for attaching to crane hook.
- Fully automatic change over from "full" to "empty", making it an absolute one-man machine.

| Type | Opening Range for Steel pallet ID mm (in) | Number of Grippers | Height E mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------------|---|--------------------|------------------|----------------------------|----------------------|--------------|
| UMG 30/80 | 300 – 800 (11 ³ / ₄ – 31 ¹ / ₂ " | 3 | 1,200 (47") | 1,000 (2,200) | 90 (200) | 5720.0051 |
| UMG 60/150 | 600 – 1,500 (23 ¹ / ₂ – 59") | 3 | 1,200 (47") | 1,500 (3,300) | 150 (330) | 5720.0050 |
| UMG 150/300 | 1,500 – 3,000 (59 – 118") | 3 | 1,200 (47") | 2,000 (4,400) | 290 (640) | 5720.0063 |

WG-P



Stack Rotating Clamp WG-P

Turns packs of building hollow blocks by 180° so that the blocks do not have to be turned on site by hand (turning range 360° endless). Can also be used for stacking products produced on an egglayer machine. The large opening range means many other products can also be turned

quickly and safely through 360°.

- The dimensions of the rubber grippers depend on the range of goods to be lifted. (Supplied without connecting hoses to the fork-lift-truck).

| Type | Opening Width W mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|------|--|----------------------------|----------------------|--------------|
| WG-P | 300 – 1,300 (11 ³ / ₄ – 51") | 4,000 (8,800) | 1,000 (2,200) | 5740.0006 |

Hydraulic Pallet Turning Device WT-P

Suitable to pick up and turn a complete pack on a pallet by 180°. Turning speed approx. 10 seconds for 180° rotation.

- Integrated fork sleeves for internal transport of the complete unit within the factory.

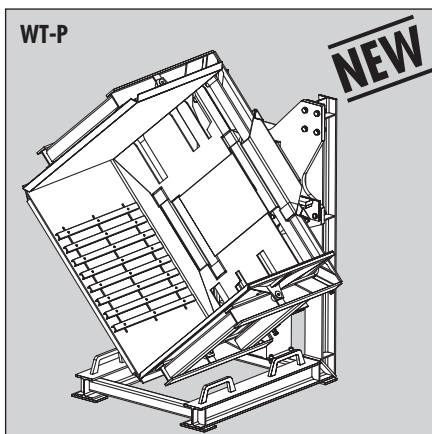
- Radio remote control for "gripping" and "rotation".

Standard specifications:

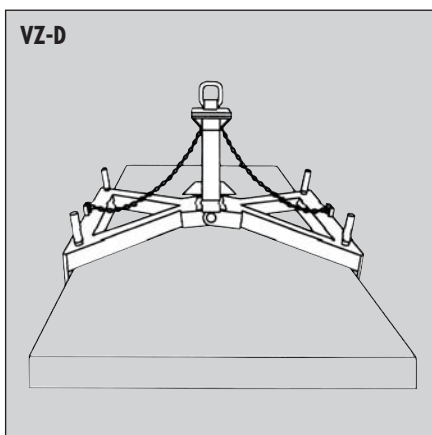
- Electro hydraulic power pack, ready to be plugged into the electrical power supply.

| Type | Pack Dimension mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|------------------------------------|--|----------------------------|----------------------|--------------|
| WT-P | 1,300 x 1,000 x 1,000 (51" x 39" x 39") | 3,000 (6,600) | 1,300 (2,850) | 5740.0070 |
| Lower price without remote control | | | | on request |

WT-P



VZ-D



Suitable for gripping and laying hollow core slabs on site or for internal use.

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

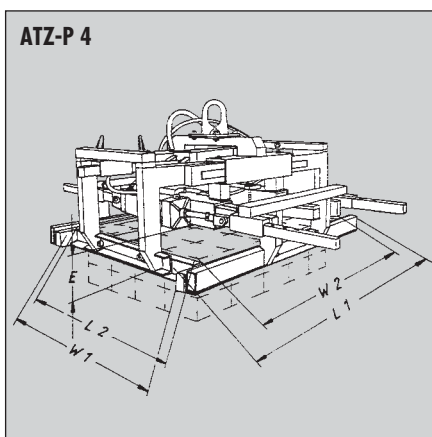
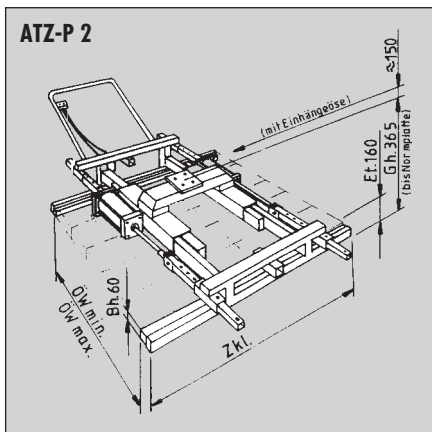
Mostly this type of grab is used as a pair, suspended on a spreader bar.

Standard Specifications:

- 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 | Suitable for elements 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 (235) | 5740.0036 |
| VZ-D-5/3000 | 1,200 (47") | 3,000 (118") | 5,000 (11,000) | 250 (550) | 5740.0055 |
| VZ-D-6 | 1,200 (47") | 1,000 (39") | 6,000 (13,200) | 230 (510) | 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.



Pneumatic Cubing Clamp ATZ-P

Available with 2 or 4 sided clamping, depending on the size and shape of the paving blocks. Universally suitable for destacking or restacking of one or two layers of paving blocks at a time. Mostly applied in conjunction with sandblasting machines.

Standard Specifications:

- ▶ Crane eye for attaching to crane hook.
- ▶ Pneumatic cylinder and additional manual adjustment enables a large opening range.
- ▶ Height adjustment facility.
- ▶ Fitted with manual control valve on the guiding handle.

| Type | Opening Width Main Gripper W1 mm (in) | Opening Width End Gripper W2 mm (in) | Height E mm (in) | Gripper Length L mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|---|---------------------------------------|--------------------------------------|------------------|---------------------------|----------------------------|----------------------|--------------|
| ATZ-P 2 | 500 – 1,100 (19 1/4 – 43") | | 160 (6 1/4") | 1,250 (49") | 400 (880) | 120 (265) | 5750.0148 |
| ATZ-P 4 | 560 – 1,320 (22 – 52") | 760 – 1,360 (30 – 54") | 160 (6 1/4") | 1,250/540 (49/21 1/4") | 400 (880) | 260 (570) | 5750.0096 |
| Connection spiral hose, length approx. 5,000 mm (200") / Connection 12 L. | | | | | | | 2300.0001 |

Other opening widths and heights are also available.

Reinforced type on request, for example to install in automatic transfer station for concrete blocks. As an alternative to the pneumatic impulsion there are also pure electrical impulsions available.

Rubber Grippers

| Type | Length mm (in) | Carrying Capacity per pair kg (lbs) | Order-Number |
|------------|----------------|-------------------------------------|--------------|
| GB1-540 L | 540 (21 1/4") | 12 (25) | 4000.0220 |
| GB1-650 L | 650 (25 1/2") | 14 (30) | 4000.0223 |
| GB1-700 L | 700 (27 1/2") | 15 (30) | 4000.0225 |
| GB1-760 L | 760 (30") | 17 (35) | 4000.0227 |
| GB1-800 L | 800 (31 1/2") | 18 (40) | 4000.0230 |
| GB1-850 L | 850 (33 1/2") | 19 (40) | 4000.0231 |
| GB1-900 L | 900 (35 1/2") | 20 (45) | 4000.0234 |
| GB1-1000 L | 1.000 (39") | 22 (50) | 4000.0236 |
| GB1-1100 L | 1.100 (43") | 24 (55) | 4000.0238 |
| GB1-1200 L | 1.200 (47") | 26 (60) | 4000.0240 |
| GB1-1250 L | 1.250 (49") | 27 (60) | 4000.0242 |
| GB1-1300 L | 1.300 (51") | 28 (60) | 4000.0243 |

Vertical Guide SRF

Telescopic Guide for stationary equipment to lift the various devices (eg. pneumatic cubing clamp, rotating clamp or similar).

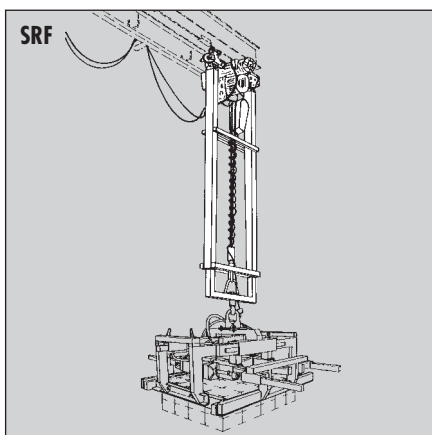
For fitting onto the available crane runway to be supplied site-wise.

Work is made easier due to the electrical travelling operation and the electric chain hoist, particularly when moving paving stone equipment. (Stock- and sand-blasting equipment) or when cubing concrete products by hand, using the appropriate device.

Standard Specifications:

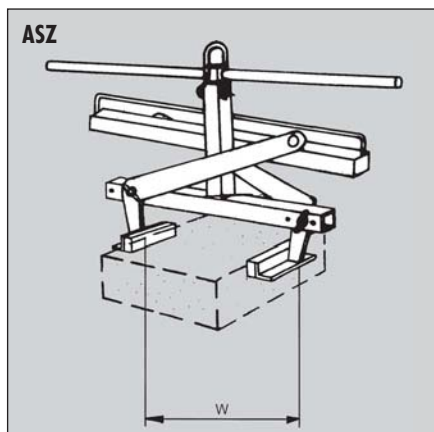
- ▶ Electric chain hoist (choice of lifting power), with 2 lifting speeds (electrical installation to be done by the customer).

- ▶ Electric trolley with 2 speeds (electrical wiring done by the customer).
- ▶ 2 bottom boom carriages (unpowered), positioned suspended crossways to the direction of travel (to ease the handling of the attached devices and to improve the exact positioning of these devices).
- ▶ Control bulb for 4 functions, with electro-flex cable.
- ▶ Crane hook for lifting a piece of equipment (with manual turning device which stops itself after each 90°).
- ▶ Large polyamide slides for the telescopic action.



| Type | Carrying Capacity kg (lbs) | Order-Number |
|---------|----------------------------|--------------|
| SRF-900 | 900 (1,980) | 5750.0008 |

When ordering, please state the type of crane runway.



Sorting Clamp ASZ/ASZ-R

This universal outsourcing clamp has a wide adjustable opening width and can be used for a wide range of products.

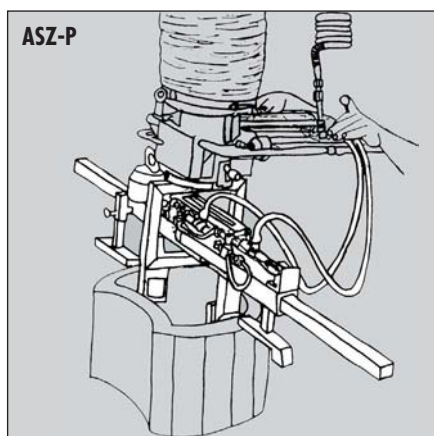
There are two different variations:

1. ASZ for the efficient outsourcing of concrete steps, kerb stones and similar.
2. ASZ-R for the handling of sewerage elements. The grippers are prism-shaped to grip the round contour of the rings.

Standard Specifications:

- ▶ Lifting eye for attaching to crane hook
- ▶ Lifting handle
- ▶ Handle with turning range 90° depending on space.
- ▶ Exchangeable rubber metal bars, to suit the requirements.
- ▶ Automatic release for fully automatic switch-over from "full" to "empty".

| Type | Pack width W mm (in) | Inside Height mm (in) | Gripper Length L mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|--|---|--|---|-------------------------------|-------------------------|------------------|
| ASZ | 600 - 1,200 (23 ¹ / ₂ - 47") | 120 (4 ³ / ₄ ") | 200 (7 ³ / ₄ ") | 250 (550) | 23 (50) | 5310.0259 |
| Additional adapters for ASZ (to be mounted on the basic grippers of the outsourcing clamp). | | | | | | |
| A 50 | | | 50 (2") | | | 4310.0376 |
| A 100 | | | 100 (4") | | | 4310.0377 |
| ASZ-R | ∅ 600 - 1,200 (23 ¹ / ₂ - 47") | 120 (4 ³ / ₄ ") | 300 (11 ³ / ₄ ") | 250 (550) | 25 (55) | 5310.0281 |



Pneumatic Sorting Clamp ASZ-P

This universal outsourcing clamp offers a versatile use due to large adjustable opening width. Optimum for slabs, kerb stones and wall-rings for plants, etc.

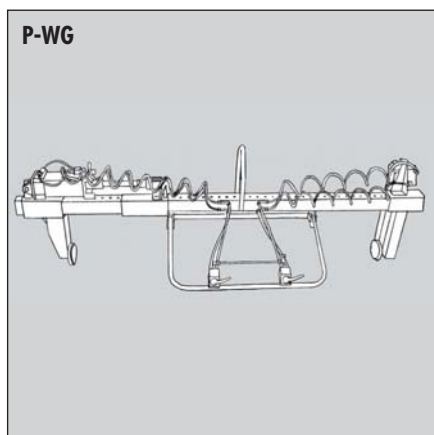
- ▶ Suitable for attachment to a vacuum lifting unit or to an overhead or jib crane.
- ▶ Cylinder lifting 150 mm: the further range of opening width is mechanically adjustable.

Standard Specifications:

- ▶ Crane eye for attaching to crane hook or alternatively with flange plate to attach to a vacuum lifting unit.
- ▶ Pneumatic closing cylinder and additional manual adjustment to achieve a larger opening width.
- ▶ Hand-guided valve with closing cylinder.

| Type | Opening Width gripping inside mm (in) | Opening Width gripping outside mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|--------------|---|---|-------------------------------|-------------------------|------------------|
| ASZ-P | 270 - 600 (10 ³ / ₄ - 23 ¹ / ₂ ") | 220 - 1,050 (8 ³ / ₄ - 41") | 120 (265) | 18 (40) | 5740.0023 |

Other opening widths and heights are available on request.



Pneumatic Rotating Clamp P-WG

For rotation by 90° or 180° of concrete products as for example slabs, side-angles, kerb stones.

Pneumatic clamping and rotating around the longitudinal axis.

Standard Specifications:

- ▶ Lifting eye for attaching to crane hook.

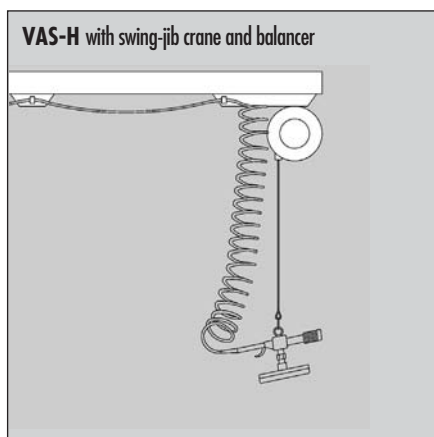
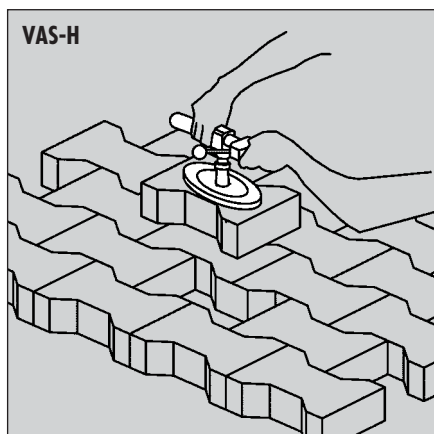
▶ Pneumatic closing cylinder and additional manual adjustment for a larger opening width.

▶ Manual-controlled valves for clamping and rotating at the guide handle.

▶ Grippers coated with exchangeable rubbers.

| Type | Opening Width mm (in) | Inside Height mm (in) | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-------------|--|--|-------------------------------|-------------------------|------------------|
| P-WG | 600 - 2,000 (23 ¹ / ₂ - 79") | 285 (11 ¹ / ₄ ") | 500 (1,100) | 200 (440) | 5750.0135 |

Special designs on request!



Vacuum-Airspeed VAS-H

► This innovative tool is driven by compressed air and saves a lot of time.

No painful and labor-intensive shifting of the pavers when one paver should be picked out of the middle of production unit.

Specially designed for the quick and simple handling of pavers during quality control. By using this tool, pavers can be picked up immediately after production or before cubing.

► Hand operated valve to switch off the compressed air flow in order to save energy.

► Seal exchangeable within seconds.

► Suction plates exchangeable by quick coupling.

► Low dead weight.

Set consisting of:

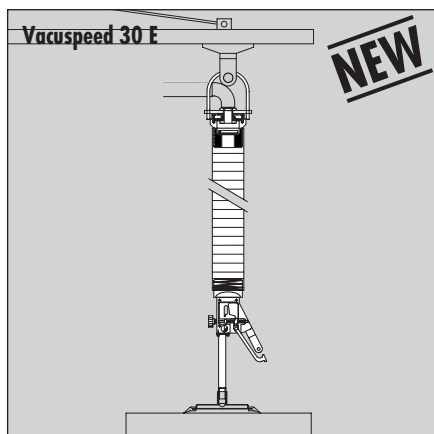
- 1 Operating unit
- 1 Suction plate SPS VAS 15
- 1 Suction plate SPS VAS 4,5

| Type | Suction Plate | Suction Plate Dimension mm (in) | Carrying Capacity kg (lbs) | Dead Weight (incl. 1 Suction Plate) kg (lbs) | Order-Number |
|-----------|---------------|---|----------------------------|--|--------------|
| VAS-H-Set | SPS VAS 15 | 120 x 200 (4 ³ / ₄ " - 7 ³ / ₄ " | 15* (35)* | 2 (4) | 5740.0035 |
| | SPS VAS 4,5 | 95 x 145 (3 ³ / ₄ " - 5 ³ / ₄ " | 4.5* (10)* | 2 (4) | |

| Type | Description | Order-Number |
|----------------------|--|--------------|
| Swing-jib crane | Load Extension 2 m (79") | 4200.0056 |
| | Load Extension 3 m (118") | 4200.0057 |
| | Load Extension 4 m (157") | 4200.0058 |
| Spring-load balancer | load carrying capacity 3 - 5 kg (7 - 10 lbs) | 4200.0059 |

| Type | Description | Order-Number |
|--|-----------------|--------------|
| Replacement seal Easy to attach without glueing! | for SPS VAS 15 | 4250.0036 |
| | for SPS VAS 4,5 | 4250.0037 |

* Value at 200 mbar low pressure



Vacuum Hose Lifter

Vacuspeed

The new innovative vacuum hose lifter **Vacuspeed** allows high increases in productivity during the handling of different elements, such as pavers and slabs.

- ▶ The vacuum is used for holding the materials as well as for lifting and lowering them.
- ▶ Can be operated easily, exactly and quickly.
- ▶ The result: efficient working practice and less stress on your workers.

▶ Materials of all types and weight to max. 30 kg (Vacuspeed 45 up to 45 kg) can be easily lifted, sorted, packed or laid.

Advantage: No need to get access sideways to the products for gripping. Access from the top is fully sufficient!

- ▶ Lifting and lowering speed stepless variable.
- ▶ The vacuum energy is used for holding as well as for lifting and lowering the load.
- ▶ The Vacuspeed 30 E / 30P / 45 can be easily and quickly hooked to any kind of wall swing crane or pillar swing crane or similar and can be used immediately.

Vacuspeed 30 E

Easy setup, operation only requires connection to the compressed air-system (vacuum production by means of ejector, driven with compressed air).

Standard specification:

Ejector, hose lifting unit, operating valve unit with bow-handle.

| Type | Max. Suction Volume | Air Consumption | Required Air Pressure | Lifting Height mm (in) | Carrying Capacity* kg (lbs) | Order-Number |
|----------------|---------------------|-----------------|-----------------------|------------------------|-----------------------------|--------------|
| Vacuspeed 30 E | 976 NL/min | 376 NL/min | 4-6 bar | 1,700 (67") | 30 (65)*** | 5760.0012 |

Accessories: Suction plate

| Type | Dimension mm (in) | Carrying Capacity kg (lbs)** | Order-Number |
|---------------------------|--|------------------------------|--------------|
| SPS 30 for Vacuspeed 30 E | 170 x 160 (6 ³ / ₄ " x 6 ¹ / ₄ "") | 30 (65)*** | 4761.0012 |

Other dimensions and shapes on request.

Vacuspeed 30 P

Vacuum production with this version by electrically operated vacuum pump. No need for a compressed air-line!

Standard specification:

Electric vacuum pump, vacuum hose lifter and operating valve unit with bow-handle.

| Type | Power (kW) | Electrical Data | Lifting Height mm (in) | Carrying Capacity* kg (lbs) | Order-Number |
|----------------|------------|-----------------|------------------------|-----------------------------|--------------|
| Vacuspeed 30 P | 1.25 | 3~346-420 50Hz | 1,700 (67") | 30 (65)*** | 5760.0013 |

Accessories: Suction plate

| Type | Dimension mm (in) | Carrying Capacity** kg (lbs) | Order-Number |
|---------------------------|--|------------------------------|--------------|
| SPS 30 für Vacuspeed 30 P | 170 x 160 (6 ³ / ₄ " x 6 ¹ / ₄ "") | 30 (65)*** | 4761.0012 |

Other dimensions and shapes on request.

Accessories: Supply Hose

| Type | Diameter mm (in) | Length m (ft) | Order-Number |
|--------------------------------|------------------|---------------|--------------|
| Supply Hose for Vacuspeed 30 P | 25 (1") | cut goods | 4761.0008 |

Vacuspeed 45

Vacuum production with this version by electrically operated turbine (see type list page 7.24).

Standard specification:

Vacuum hose lifting unit with operating valve unit with hand-lever.

| Type | Lifting Height mm (in) | Carrying Capacity* kg (lbs) | Order-Number |
|--------------|------------------------|-----------------------------|--------------|
| Vacuspeed 45 | 1,700 (67") | 45 (100)*** | 5760.0014 |

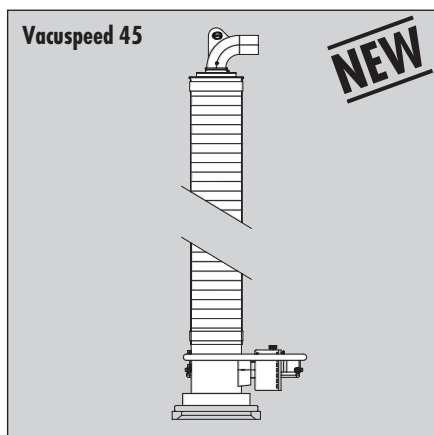
Accessories: Suction Plate

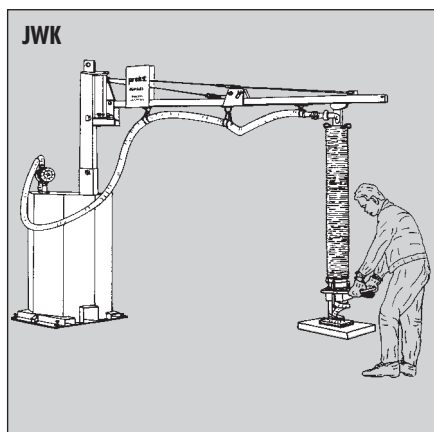
| Type | Dimension mm (in) | Carrying Capacity** kg (lbs) | Order-Number |
|------------------------|-------------------|------------------------------|--------------|
| EG 45 for Vacuspeed 45 | ∅ 230 (9") | 45 (100)*** | 4761.0014 |

Accessories: Supply Hose

| Type | Diameter mm (in) | Length m (ft) | Order-Number |
|------------------------------|---------------------------------------|---------------|--------------|
| Supply Hose for Vacuspeed 45 | 60 (2 ³ / ₈ "") | cut goods | 2520.0008 |

*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





Vacuum Hose Lifter for Internal Use

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

Jumbo Travelling Crane JWK

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

Complete with socket.

- ▶ The Jumbo Travelling Crane JWK combines all the advantages of the stationary vacuum hose lifter with the moveable Jumbomobil JM!
- ▶ The machine can be moved easily by taking up with the fork prongs from a fork-lift truck for example.
- ▶ Various lifting units and grippers can be attached to the Jumbo Travelling Crane JWK (see specifications).
- ▶ Lifting unit, operating valve unit, grippers and special parts will suit any operation.

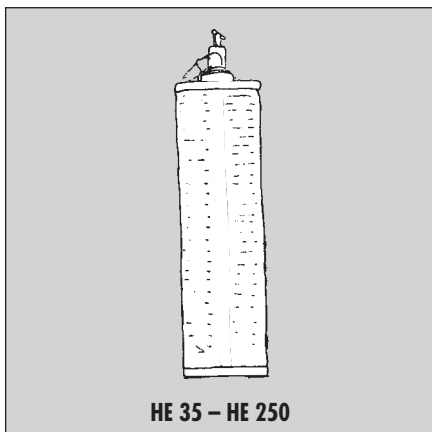
Standard Specifications:

- ▶ Ballast container, made of steel sheet, approx. 1.0 x 0.8 x 1.8 m height (40" x 31 1/2" x 71") should be filled with concrete, sand or steel scrap (approx. 1.45 m³, 1.9 cu yd). Thus ensuring the necessary stability.
- ▶ Adjusting screws for alignment.
- ▶ Light weight boom, 4,000/5,000 mm reach, height adjustable and with a displacement of about 270°.
- ▶ Vacuum turbine VGE-SB-L-e-I with electric motor (electrical data see page 7.24) incl. pressure regulating valve DBV, motor protector switch and socket "CEKON" 16 A with integral phase switch, dust-filter with pre-separator and filter cartridge.
- ▶ Supply-hose D = 60 mm, 7,000 mm long. With quick coupling 2 inch. For coupling to a corresponding lifting unit.

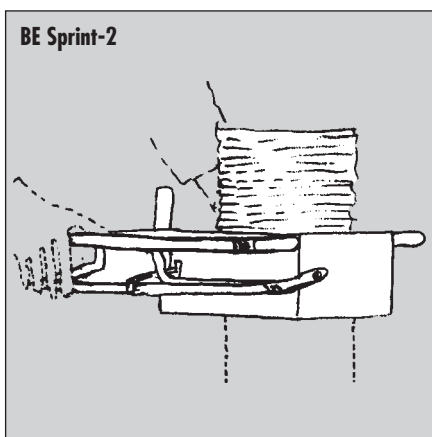
| Type | Max. Carrying Capacity kg (lbs) | Reach mm (in) | Dead Weight kg (lbs) | Max. Ballast kg (lbs) | Order-Number |
|--------------|---------------------------------|-----------------|----------------------|-----------------------|--------------|
| JWK 80/250-4 | 250 (550) | 4,000 (157") | 600 (1,320)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

To complete your Jumbo Travelling Crane JWK you need:

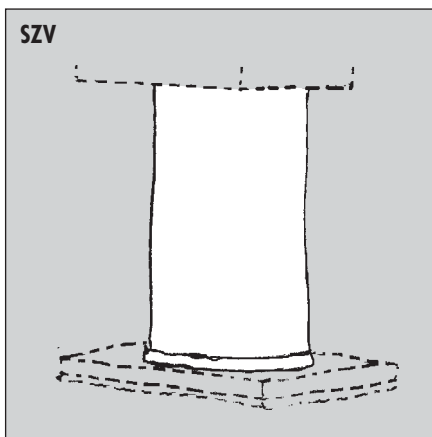
- ▶ Roller Suspension
- ▶ Lifting Unit
- ▶ Operating Valve Unit
- ▶ Suction Plate



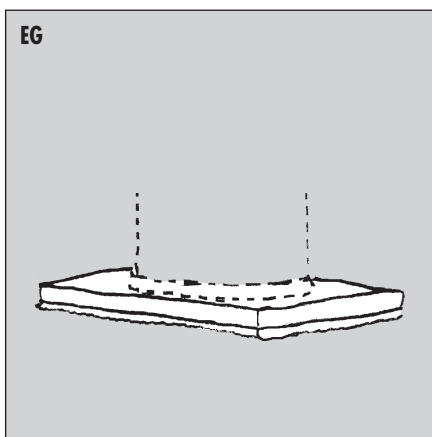
HE 35 - HE 250



BE Sprint-2



SZV



EG

Vacuum Hose Lifter Components

Lifting Hose Units

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

Consists of:

- ▶ 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*** (77)*** | 120 (5") | 1,700 (67") | 4210.0001 |
| HE 50/65 | 65*** (145)*** | 140 (5 1/2") | 1,700 (67") | 4210.0106 |
| HE 85 | 85*** (190)*** | 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.

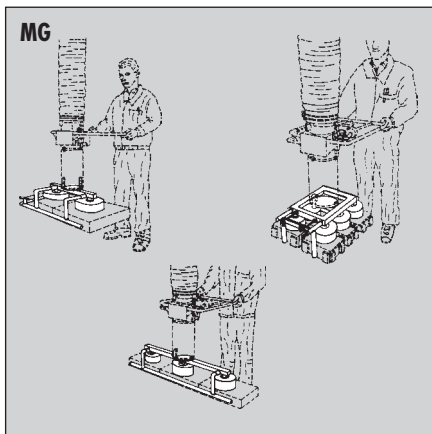
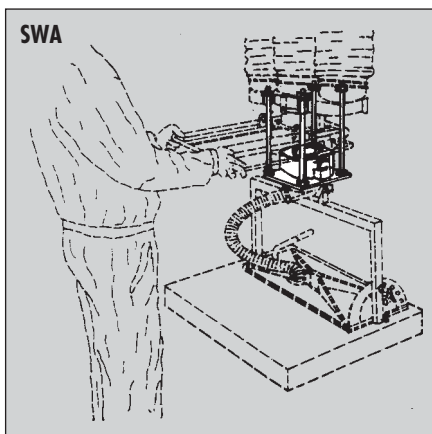
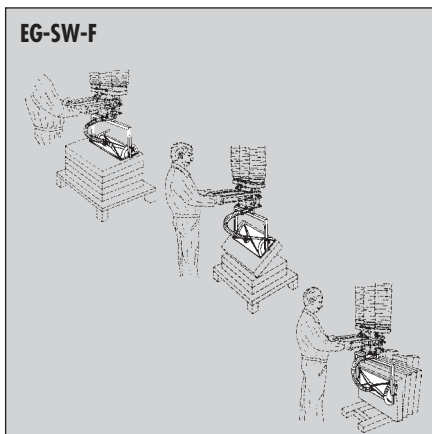
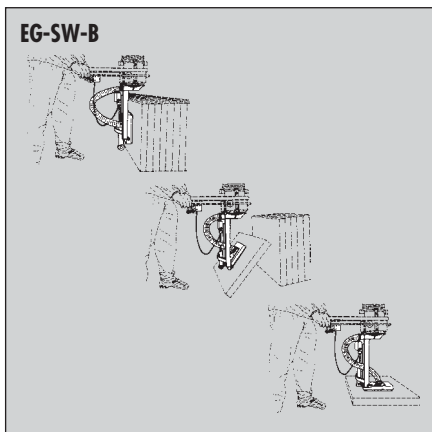
| Type | Dimension mm (in) | Carrying Capacity kg** (lbs) | Order-Number |
|----------|-----------------------------|---------------------------------|--------------|
| EG 35 | 200 x 200 (7 3/4" x 7 3/4") | 35*** (75)*** | 4210.0050 |
| EG 50/65 | 230 x 230 (9" x 9") | 65*** (145)*** | 4210.0561 |
| EG 85 | 255 x 255 (10" x 10") | 85*** (190)*** | 4210.0051 |
| EG 150 | 310 x 310 (12" x 12") | 150*** (330)*** | 4210.0145 |
| EG 200 | 330 x 330 (13" x 13") | 200*** (440)*** | 4210.0331 |
| EG 250 | 400 x 400 (16" x 16") | 250*** (550)*** | 4210.0054 |

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

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

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

*** Value at 420 mbar low pressure



Vacuum Hose Lifter Components

Tilteable suction plate EG-SW

Suitable for different applications of vacuum hose lifting devices:

with automatic retraction EG-SW-B

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

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

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

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

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 250.

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

Quick Change Adapter SWA

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

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

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

Multiple Suction Grab MG

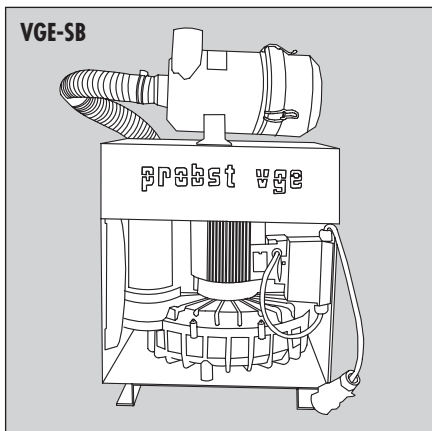
- ▶ Out of a large range of different standard components a suitable suction plate can be designed to solve different handling requirements.

▶ Seal of suction plate can be exchanged within seconds.

| Type | Order-Number |
|------|--------------|
| MG | on request |

* Value at 420 mbar low pressure

VGE-SB



Vacuum Hose Lifter Components

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

Vacuum Turbine Unit VGE SB

Driven by electric motor

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

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

Application:

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

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

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

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

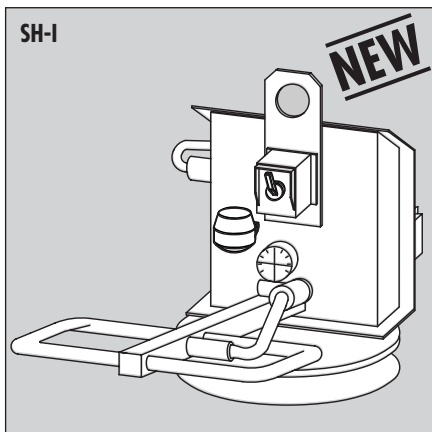
| Type | Electrical Data | Order-Number |
|--------------|---|--------------|
| VGE-SB-L-e-I | 4 kW 50Hz 3~190/255 V Δ or 330/440 V Y 4.8kW 60Hz 3~190/290 V Δ or 330/500 V Y | 4760.0009 |
| VGE-SB-V-e-I | 4 kW 50Hz 3~ 400 V Y | 4760.0010 |

Other versions available on request.

Supply Hose

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

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



Vacuum Lifting Device SH-I for internal use

Heavy, large concrete slabs, prefabricated concrete elements etc. can be handled, palletized, sorted, lifted with this device easily and quickly.

- ▶ Short working cycles - no lifting of heavy weights by hand required!
- ▶ Economical, flexible way of working with no compromise on security!
- ▶ To be hooked to any kind of lifting equipment by crane shackle, chain, sling or similar.

▶ For many different applications and load requirements, different versions of the vacuum lifting device are available.

▶ Optional spreader bar systems are available in order to adapt the positions of the suction plates to the products to be handled.

▶ Electrical supply to be carried out by the user.

Standard specifications:

- 1 Vacuum pump 16 m³/h (33.000 ft³/h)
- Basic body with handle

| Type | Power | Carrying Capacity kg (lbs) | Dead Weight kg (lbs) | Order-Number |
|-----------|------------------|-------------------------------|-------------------------|--------------|
| SH-I 250 | electrical | 250 (550) | 31 (70) | 5760.0015 |
| SH-I 500 | 230 Volt / 50 Hz | 500 (1,100) | 42 (95) | 5760.0016 |
| SH-I 1000 | single phase | 1,000 (2,200) | 70 (155) | 5760.0017 |

Other versions available on request.

Accessories

For different applications, special suction plates are recommended.

Carrying capacity depends on dimension of suction plate.

Suction Plate SPS-I for Vacuum Hose Lifter SH-I

Suction plates are equipped with the special Probst sponge rubber seal with rubber ring.

▶ Long lasting, low wear

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

Advantage:

- ▶ Adapts perfectly to surface uneven.

| Type | Dimension mm (in) | Carrying Capacity kg (lbs) | Order-Number |
|---------------------------------|--|-------------------------------|--------------|
| SPS-I 250 | 380 (15") 380 (15") round | 250 (550) | 4760.0013 |
| SPS-I 500 | 670 (26 ¹ / ₂ ") 400 (15 ³ / ₄ ") oval | 500 (1,100) | 4760.0014 |
| SPS-I 1000 | 790 (31") 520 (20 ¹ / ₂ ") oval | 1,000 (2,200) | 4760.0015 |
| Replacement seal | | | |
| Easy to attach without glueing! | for SPS-I 250 | | 4250.0003 |
| | for SPS-I 500 | | 4250.0002 |
| | for SPS-I 1000 | | 4250.0005 |

Other versions available on request.

Other Recommended Accessories:

| Type | Description | Order-Number |
|--|-----------------------------------|--------------|
| Lengthwise and crosswise spreader bar for SH-I | To suspend several suction plates | on request |

