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## PRODUCT CATALOGUE 2017

-  Site Equipment
-  Building Material Plants – In-plant Handling
-  Truck Crane Attachments
-  Service

 made  
 in  
 Germany



# List of contents



<b>SITE EQUIPMENT</b>	1.1
1   Paver laying and transportation	1.3
2   Joint filling and surface cleaning	2.1
3   Screeding	3.1
4   Professional tools	4.1
5   Vacuum laying	5.1
– Vacuum Handheld Devices	5.3
– Vacuum Attachments	5.12
– Vacuum Hose Lifters	5.22
6   Laying of landscaping elements	6.1
7   Handling of concrete barriers	7.1
8   Civil Engineering: Manhole and Pipe Laying	8.1
9   Highrise and roof elements	9.1



<b>BUILDING MATERIAL PLANTS – IN-PLANT HANDLING</b>	10.1
10   Pavers and Blocks	10.3
11   Pipes and Manholes	11.1
12   Special clamps	12.1
13   Vacuum Technology	13.1
14   Fully Automatic Plants	14.1



<b>TRUCK CRANE ATTACHMENTS</b>	15.1
15   Attachments for truck cranes	15.3

<b>SERVICE</b>	16.1
----------------	------

# Alphabetical Index

## Listed by Acronym

Acronym	Product Name	Page
ABK-1,5	Push-on Jaws for Fork Clamp	8.8
AG	Setting up Device for Manhole Rings	11.2
AHW	Extraction Foot Lever	4.1
AKZ BF	Block loading grab Butterfly	15.3
AKZ UNIGRIP	Block loading grab with a fixed height	15.3
AKZ-H-UNIGRIP	Block loading grab with adjustable Height	15.4
AL	Block Cutters	4.6 - 4.8
<b>NEW</b> AL-EASY	Block Cutters - EASY	4.6
AL.../UT – AL.../KS	Limestone Cutter	9.3
ASSK	Pillar Swing Crane	13.11
ASZ	Sorting Clamp ASZ	12.2
ASZ-P	Pneumatic Sorting Clamp	12.2
ASZ-R	Sorting Clamp ASZ-R	12.2
ATZ-P	Pneumatic Cubing Clamp	10.13
AW-200	Aluminium Angle 200	4.4
AW-120	Aluminium Angle 120	4.4
AW-60	Aluminium Angle 60	4.4
AWSK	Wall Swing Crane	13.11
AZL-EP Set	Screeding Rail Kit for EASYPLAN	3.8
AZL-SET	Screeding Rail Kit for TAS/TAK (Alu)	3.8
AZL-S-Set	Screeding Rail Kit for TAS/TAK (Steel)	3.8
<b>NEW</b> BSZ-H-2.0	Concrete Highway Divider Clamp -H-2.0	7.1
<b>NEW</b> BSZ-H-5.1	Concrete Highway Divider Clamp -H-5.1	7.1
BSZ-KH	Concrete Highway Divider Clamp -KH	7.1
BSZ-KH-ULTRA	Concrete Highway Divider Clamp -KH-ULTRA	7.1
BVZ	Universal Handle	6.1
BZ	Kerb Stone Handles	6.1
BZSH	Site Fence Base Handle	4.9
DAK-VA	Double Clamp for Cones	11.1
DEZ-UNI	Roofing Element Clamp UNI	9.4
DZZ	Roof Tile Clamp	9.4
DZZ-II/2000	Roof Tile Clamp	9.4
EC-60	EASYCLEAN Paver Cleaning Device	2.3
EF-H	EASYFILL Paver Jointing Device	2.1
<b>NEW</b> EL-MULTI	Slab Handling Device - MULTI	6.8
<b>NEW</b> EL-SIMPLE	Slab Handling Device - SIMPLE	6.8
ENZ	Pin Extractor	4.2
EP-UNI	EASYPLAN Handscreeding System	3.5
ESP-SW-P-200-A	Pneumatic swivelling base frame for use with exchangeable suction plates	13.9
EXG	EASYGRIP Border Stone Handle	6.2
EXG-MAXI	EASYGRIP Border Stone Handle -MAXI	6.2
<b>NEW</b> FL	Joint Spacer	4.9
FMK	FLEXMARKER-KIT	4.5
FSZ	Hollow Slope Block Handles	6.7
FSZ-M	Hollow Slope Block Handles -M	6.7
FTZ-BB	Grab for Prefabricated Concrete Products -BB	6.4
FTZ-GBA	Grab for Prefabricated Concrete Products -GBA	7.2
FTZ-I	Grab for Prefabricated Concrete Products I	6.4
FTZ-MAXI-25	Grab for Prefabricated Concrete Products MAXI-25	6.4
FTZ-MAXI-50	Grab for Prefabricated Concrete Products MAXI-50	6.4
FTZ-MULTI-15	Grab for Prefabricated Concrete Products MULTI-15	6.5
<b>NEW</b> FTZ-MULTI-15-D	Grab for Prefabricated Concrete Products MULTI-15-D	6.5
FTZ-UNI-15	Grab for Prefabricated Concrete Products UNI-15	6.4
FTZ-UNI-25	Grab for Prefabricated Concrete Products UNI-25	6.4
FTZ-UNI-50	Grab for Prefabricated Concrete Products UNI-50	6.4
FUG	Small Pipe Turning Device	11.4
FVZ-UNI	Mechanical Boulder Grab	6.6
FZ	Flat Grab	6.6
GH	Rubber Hammer	4.1
GPZ	Plasterboard Grabs	15.11
GR-150	Slipform for Concrete Backfill of Precast Kerbs	6.9
H-FVZ-UNI	Manual Boulder Grab	6.6
HVZ-STANDARD	Hydraulic Installation Clamp STANDARD	1.9
HVZ-ECO	Hydraulic Installation Clamp ECO	1.14
HVZ-GENIUS	Hydraulic Installation Clamp GENIUS	1.13
HVZ-LIGHT	Hydraulic Installation Clamp LIGHT	1.9
HVZ-UNI	Hydraulic Installation Clamp UNI	1.8
<b>NEW</b> HVZ-UNI-II	Hydraulic Installation Clamp UNI-II	1.8
JM-VARIO	JUMBOMOBIL VARIO	5.23
JM Suction plates/accessoires	Suction plates and accessories	5.26 - 5.31
JUMBO-BV-VARIO	JUMBO Vacuum Kerb Stone Installation Machine	5.22
JUMBO-BV-VARIO plates/access.	Suction plates and accessories	5.26 - 5.31
JUMBOSELECT JS	Vacuum Picking Device for Forklift Trucks	13.4
JWK	Jumbo Traveling Crane	13.4
KES	VARIOKON Sweeping and Sand Watering System	2.2
KH	Combination Hammer	4.1
KIG	Cone Insert Clamp	11.1
KKT	Brick Handles	4.2
KKV-8/14	Cable Channel Clamp -8/14	6.10
KKV-200	Cable Channel Clamp -200	6.10
KSH	Kerb Slab Lifter	6.2
KSZ-300-UNI	Limestone Clamp	9.3
KT	Tilting Table	11.5
KVZ	Chimney Section Clamp	9.5
<b>NEW</b> LF	LEVELFIX Manual Screeding System	3.7
LG	Loading Fork with Security Chain	9.1/15.9
LK	LEVELKING Screeding Attachment	3.2
MAL	Measuring and Marking Tool	4.3
MFD	Multiple Forks	11.4
MJ	MICROJUMBO Vacuum Slab Layer	5.6
MJ Suction plates/accessoires	Suction plates and accessories	5.7
MJ-J	MICROJUMBO-JET Vacuum Slab Layer	5.15
MP-70	MINIPLAN 70 Sliding Finisher	3.6
MPG	Mechanical Slab Grab	6.11
MPVZ-V	Column Grap for mechanical operation	6.7
MPZ	Mechanical Scissor Grab	6.12
MRE	Multiple Alignment Bar	4.1
MRGA-80/250	Manhole Ring Grab Automatic	8.3
MSZ	Mechanical Slab Grab	1.16
P-WG	Pneumatic Rotating Clamp	10.14
Paver Set	Paver Set	4.1
PB-15/24-L	PAVERBOY 15/24-L	4.2
PB-15/24	PAVERBOY 15/24	4.2
PB-I	PAVERBOY I	4.2
PGA	Pallet fork/w/automatic centre-of-gravity-balance	9.2/15.10
PGE	Pallet fork/without centre-of-gravity-balance	9.1/15.9
PGH	Pallet Forks/w/hydr. Centre-of-gravity-balance	15.10
PJ Suction plates/accessoires	Suction plates and accessories	5.21
PJ-1650	POWERJET Vacuum-Lifting Device	5.17
PM	PAVERMARKER	4.3
PP	POWERPLAN Screeding Machine	3.1
PPH	Profi-Slab Handle	4.5
PPH-AA	Support adapter for Profi-Slab Handle	4.5
PPH-2-HG	2-man carrying handle for Profi-Slab Handle	4.5
PVZ	Column Handles	6.7
PVZ-V	Column Handles - adjustable	6.7
PW-III	Pallet+Cart III	1.18
PW-III-E	Pallet+Cart III - electrical	1.18
PWG-R	Gantry Crane Rotating Clamp for Concrete Pipes	11.5
PWG-S	Gantry Crane-Rotating Clamp for Manhole Rings and Basers	11.3
PZ	Slab Extractor	4.9
QD	QUICKDRAW	4.4
QJ Suction plates/accessoires	Suction plates and accessories	5.14
QJ-600-E	QUICKJET Vacuum Lifting Device	5.14
RE	Alignment Bar	4.1
RF-H	GUTTERFIX Screeding System for lean concrete	6.9
RG	Round Grab	8.3

<b>NEW</b>	<b>RG-75/125-SAFELOCK</b>	Round Grab 75/125-SAFELOCK	8.1
	RG-20/80	Round Grab 20/80	8.2
	RG-8/40	Round Grab 8/40	8.2
	RGV	Turf Stone Laying Clamp	6.3
	RK	Manhole Ring Clamp	11.1
	RK	Large Pipe Clamp	11.5
	RKG-S	Ring- and Cone Clamp	11.3
	RKZ	Ring- and Cone Clamp	11.2
	RLH	Pipe Laying Hook RLH	8.2
	RLH-A	Pipe Laying Hook RLH-A	8.2
	RLSH	Kerb and Strip Stone handle	6.3
	RSA-25	Radial Cut Adapter	4.8
	RSH	Plump Line Fixture	4.3
	RVD-4-ECO-F	Concrete Pipe Lifter	8.1
	RVH (Pair)	Turf Stone Handels	4.2
	RWC	Laying Clamp for retaining wall units	6.12
	RWPG	Retaining Wall Panel Grab	6.12
	SA	STRING ALONG	4.4
	SAH	Paver Lifter	4.1
	SAZ-UNI	Gully Clamp	8.6
	SB	STRINGTIGHT SB	4.3
	SDH-H-15	Manhole Cover Lifter H-15	8.7
<b>NEW</b>	<b>SDH-LIGHT</b>	Manhole Cover Lifter LIGHT	8.7
<b>NEW</b>	<b>SDH-M-10</b>	Manhole Cover Lifter M-10	8.7
	SG-40-UK	Scissor Grab 40-UK	6.11/9.2
	SG-60	Scissor Grab 60	6.11/9.2
<b>NEW</b>	<b>SG-80-PGL2</b>	Scissor Grab 80-PGL2	6.11/9.2
	SG-80-MAXI	Scissor Grab 80-MAXI	6.11/9.2
	SG-100	Scissor Grab 100	6.11/9.2
	SH Suction plates/accessoires	Suction plates and accessories	5.21
	SH-1000-MINI	Vacuum Lifting Device 1000-MINI	5.16
	SH-2500-UNI	Vacuum Lifting Device 2500-UNI	5.18
<b>NEW</b>	<b>SH-3500-UNI-B</b>	Vacuum Lifting Device 3500-UNI-B	5.19
	SHS	Laying Hook for Gullies	8.6
	SLS-8/20-G-VA	Stone Pillar Grab 8/20-G-VA w/Rubber grippers	6.7
<b>NEW</b>	<b>SM-600</b>	STONEMAGNET 600	5.12
<b>NEW</b>	<b>SM-600-POWER</b>	STONEMAGNET 600-POWER	5.12
	SM Suction plates/accessoires	Suction plates and accessories	5.13
	SP-H	Manhole Polyp hydraulically	8.7/15.11
	SP-I	Manhole Insert Clamp mechanical	8.8
<b>NEW</b>	<b>SPEEDY VS-140/200-XL</b>	SPEEDY Vacuum Hand Laying Device	5.8
	SPEEDY VS Suction plates/access.	Suction plates and accessories	5.9
<b>NEW</b>	<b>SPEEDY VS-140/200 Basic Device</b>	SPEEDY Vacuum Hand Laying Device	5.8
	SRF-900	Vertical Guide	10.13
	SRG	Manhole and Cone Chain Clamp	8.3
	SRZ-KOMBI	Manhole Frame Clamp -KOMBI	8.6
	SRZ-M	Manhole Frame Clamp -M	8.6
	SSP-300-600-25	Hydraulic Stonesplitter	12.1
	ST-180	Profi-Spreading-Bucket 180	2.1
	STAZ	Fork Lift Grab	10.3
	STAZ-DZ-II	Double Fork Lift Grab	10.6
	STAZ-SLC	Selective Layer Clamp	10.4
	SVZ-ECO	Manhole and Cone Installation Clamp ECO	8.5
	SVZ-ECO-L	Manhole and Cone Installation Clamp ECO-L	8.5
	SVZ-UNI	Manhole and Cone Installation Clamp UNI	8.4
<b>NEW</b>	<b>SVZ-UNI-VARIO</b>	Manhole and Cone Installation Clamp UNI-VARIO	8.4
	SWV-HE	Quick Change Device	5.26/13.5
	SXG	Bag and Sack Gripper	5.29/13.7
	SZ	Paving Block Extractor	4.1
	TAK	Telescopic Screeding Bucket	3.3
	TAS-UNI	Telescopic Screeding System UNI	3.4
<b>NEW</b>	<b>TG</b>	TWISTGRIP Kerb and Strip Stone handle	6.2
	TM Suction plates/accessoires	Suction plates and accessories	5.26 - 5.30
	TM-150-XL	TRANSMOBIL Installation Carrier 150	5.24
	TP	TELEPLAN Handscreeding System	3.6

TSV	Concrete Step Handles	6.3
TSZ-MAXI	Concrete Step Handles MAXI	6.3
TSZ-UNI	Concrete Step Handles UNI	6.3
UG	Turning Device for Concrete Pipes	11.4
UM	UNIMOBIL Laying dolly	5.10
UM-ECO-VZ	UNIMOBIL UM-ECO-VZ Laying dolly	6.8
UMG	Steel Pallet Grab	11.3
UNIPOSE UP-1204	UNIPOSE UP-1204 Vacuum Kerb Stone Laying Loader	5.25
UNIPOSE UP-1204/Suct. plates/access.	Suction plates and accessories	5.26 - 5.30
VACUSPEED VX5	Vacuum-Hose-Lifter	13.2
VAS-H-Set	Vacuum-AIRSPEED	13.1
VH-1/25	VACUUM-HANDY VH-1/25	5.3
VH-2/50	VACUUM-HANDY VH-2/50	5.3
VM-301	Installation Machine 301	1.6 - 1.7
VM-401	Installation Machine 401	1.4 - 1.5
VPE	Vacuum Pump Unit	5.6
VPE Suction plates/accessoires	Suction plates and accessories	5.7
VPH	VACUUM-POWER-HANDY	5.4
VPH Suction plates/accessoires	Suction plates and accessories	5.4/5.5
VPM Suction plates/accessoires	Suction plates and accessories	5.21
VPM-2500-H	VACUUM-POWER-MAX 2500-H	5.20
VTK-V	Adjustable Paver Transport Cart	1.17
VZ-I	Laying Clamp I	6.1
VZ-II	Laying Clamp II	6.1
VZ-III	Laying Clamp III	6.1
VZ-D	Laying Clamp for Hollow Core Slabs -D	9.3
VZ-H-UNI	Laying Clamp UNI	6.13
VZ-HS-50/150	Laying Clamp HS-50/150	6.13
VZ-M-UNI	Kerb Stone Clamp-M-UNI	6.1
WEZ-2	Grab for Angular Concrete Products 2	6.6
WEZ-6	Grab for Angular Concrete Products 6	6.6
WG-P	Stack Rotating Clamp	12.1
WG-R	Rotating Clamp for Concrete Pipes	11.4
WG-S	Turning Device for Concrete Basers	11.3
WT-P	Hydraulic Pallet Turning Device	12.1
ZM-G	Ziegelmax -G	9.5

# Alphabetical Index

Listed by Product Name

	Product Name	Acronym	Page		Product Name	Acronym	Page
	Adjustable Paver Transport Cart	VTK-V	1.17		NEW Hydraulic Installation Clamp UNI-II	HVZ-UNI-II	1.8
	Alignment Bar	RE	4.1		Hydraulic Pallet Turning Device	WTP	12.1
	Aluminium Angle 200	AW-200	4.4		Hydraulic Stonesplitter	SSP-300-600-25	12.1
	Aluminium Angle 120	AW-120	4.4		Installation Machine 401	VM-401	1.4 - 1.5
	Aluminium Angle 60	AW-60	4.4		Installation Machine 301	VM-301	1.6 - 1.7
	Bag and Sack Gripper	SXG	5.29/13.8		NEW Joint Spacer	FL	4.9
	Block Cutters	AL	4.6 - 4.8		Jumbo Traveling Crane	JWK	13.4
NEW	Block Cutters - EASY	AL-EASY	4.6		JUMBO Vacuum Kerb Stone Installation Machine	JUMBO-BV-VARIO	5.22
	Block loading grab Butterfly	AKZ BF	15.3		JUMBOMOBIL VARIO	JM-VARIO	5.23
	Block loading grab with a fixed height	AKZ-UNIGRIP	15.3		Kerb and Strip Stone handle	RLSH	6.3
	Block loading grab with adjustable Height	AKZ-H-UNIGRIP	15.4		Kerb Slab Lifter	KSH	6.2
	Brick Handles	KKT	4.2		Kerb Stone Clamp-M-UNI	VZ-M-UNI	6.1
	Cable Channel Clamp -200	KKV-200	6.10		Kerb Stone Handles	BZ	6.1
	Cable Channel Clamp -8/14	KKV-8/14	6.10		Large Pipe Clamp	RK	11.5
	Chimney Section Clamp	KVZ	9.5		Laying Clamp for Hollow Core Slabs -D	VZ-D	9.3
	Column Grap for mechanical operation	MPVZ-V	6.7		Laying Clamp for retaining wall units	RWC	6.12
	Column Handles	PVZ	6.7		Laying Clamp HS-50/150	VZ-HS-50/150	6.13
	Column Handles - adjustable	PVZ-V	6.7		Laying Clamp I	VZ-I	6.1
	Combination Hammer	KH	4.1		Laying Clamp II	VZ-II	6.1
NEW	Concrete Highway Divider Clamp -H-2.0	BSZ-H-2.0	7.1		Laying Clamp III	VZ-III	6.1
NEW	Concrete Highway Divider Clamp -H-5.1	BSZ-H-5.1	7.1		Laying Clamp UNI	VZ-H-UNI	6.13
	Concrete Highway Divider Clamp -KH	BSZ-KH	7.1		Laying Hook for Gullies	SHS	8.6
	Concrete Highway Divider Clamp -KH-ULTRA	BSZ-KH-ULTRA	7.1	NEW	LEVELFIX Manual Screeding System	LF	3.7
	Concrete Pipe Lifter	RVD-4-ECO-F	8.1		LEVELKING Screeding Attachment	LK	3.2
	Concrete Step Handles	TSV	6.3		Limestone Clamp	KSZ-300-UNI	9.3
	Concrete Step Handles MAXI	TSZ-MAXI	6.3		Limestone Cutter	AL.../UT - AL.../KS	9.3
	Concrete Step Handles UNI	TSZ-UNI	6.3		Loading Fork with Security Chain	LG	9.1/15.9
	Cone Insert Clamp	KIG	11.1		Manhole and Cone Chain Clamp	SRG	8.3
	Double Clamp for Cones	DAK-VA	11.1		Manhole and Cone Installation Clamp ECO	SVZ-ECO	8.5
	Double Fork Lift Grab	STAZ-DZ II	10.6		Manhole and Cone Installation Clamp ECO-L	SVZ-ECO-L	8.5
	EASYCLEAN Paver Cleaning Device	EC-60	2.3		Manhole and Cone Installation Clamp UNI	SVZ-UNI	8.4
	EASYFILL Paver Jointing Device	EF-H	2.1	NEW	Manhole and Cone Installation Clamp UNI-VARIO	SVZ-UNI-VARIO	8.4
	EASYGRIP Border Stone Handle	EXG	6.2		Manhole Cover Lifter H-15	SDH-H-15	8.6
	EASYGRIP Border Stone Handle -MAXI	EXG-MAXI	6.2	NEW	Manhole Cover Lifter LIGHT	SDH-LIGHT	8.7
NEW	EASYLIFT Slab Handling Device - MULTI	EL-MULTI	6.8	NEW	Manhole Cover Lifter M-10	SDH-M-10	8.7
NEW	EASYLIFT Slab Handling Device - SIMPLE	EL-SIMPLE	6.8		Manhole Frame Clamp -KOMBI	SRZ-KOMBI	8.6
	EASYPLAN Handscreeding System	EP-UNI	3.5		Manhole Frame Clamp -M	SRZ-M	8.6
	Extraction Foot Lever	AHW	4.1		Manhole Insert Clamp mechanical	SP-I	8.8
	Flat Grab	FZ	6.6		Manhole Polyp hydraulically	SP-H	8.8/15.11
	FLEXMARKER-KIT	FMK	4.5		Manhole Ring Clamp	RK	11.1
	Fork Lift Grab	STAZ	10.3		Manhole Ring Grab Automatic	MIRGA-80/250	8.3
	Gantry Crane Rotating Clamp for Concrete Pipes	PWG-R	11.5		Manual Boulder Grab	H-FVZ-UNI	6.6
	Gantry Crane-Rotating Clamp for Manhole Rings and Basers	PWG-S	11.3		Measuring and Marking Tool	MAL	4.3
	Grab for Angular Concrete Products 2	WEZ-2	6.6		Mechanical Boulder Grab	FVZ-UNI	6.6
	Grab for Angular Concrete Products 6	WEZ-6	6.6		Mechanical Scissor Grab	MPZ	6.12
	Grab for Prefabricated Concrete Products -BB	FTZ-BB	6.4		Mechanical Slab Grab	MSZ	1.16
	Grab for Prefabricated Concrete Products -GBA	FTZ-GBA	7.2		Mechanical Slab Grab	MPG	6.11
	Grab for Prefabricated Concrete Products I	FTZ-I	6.4		MICROJUMBO Vacuum Slab Layer	MJ	5.6
	Grab for Prefabricated Concrete Products MAXI-25	FTZ-MAXI-25	6.4		MICROJUMBO-JET Vacuum Slab Layer	MJ-J	5.15
	Grab for Prefabricated Concrete Products MAXI-50	FTZ-MAXI-50	6.4		MINIPLAN 70 Sliding Finisher	MP-70	3.6
	Grab for Prefabricated Concrete Products MULTI-15	FTZ-MULTI-15	6.5		Multiple Alignment Bar	MRE	4.1
NEW	Grab for Prefabricated Concrete Products MULTI-15-D	FTZ-MULTI-15-D	6.5		Multiple Forks	MFD	11.4
	Grab for Prefabricated Concrete Products UNI-15	FTZ-UNI-15	6.4		Pallet fork/w/automatic centre-of-gravity-balance	PGA	9.2/15.10
	Grab for Prefabricated Concrete Products UNI-25	FTZ-UNI-25	6.4		Pallet fork/without centre-of-gravity-balance	PGE	9.1/15.9
	Grab for Prefabricated Concrete Products UNI-50	FTZ-UNI-50	6.4		Pallet Forks/w/hydr. centre-of-gravity-balance	PGH	15.10
	Gully Clamp	SAZ-UNI	8.6		Pallet-Cart III	PW-III	1.18
	GUTTERFIX Screeding System for lean concrete	RF-H	6.9		Pallet-Cart III - electrical	PW-III-E	1.18
	Hollow Slope Block Handles	FSZ	6.7		Paver Lifter	SAH	4.1
	Hollow Slope Block Handles -M	FSZ-M	6.7		Paver Set	Paver Set	4.1
	Hydraulic Installation Clamp STANDARD	HVZ-STANDARD	1.9		PAVERBOY 15/24-L	PB-15/24-L	4.2
	Hydraulic Installation Clamp ECO	HVZ-ECO	1.14		PAVERBOY 15/24	PB-15/24	4.2
	Hydraulic Installation Clamp GENIUS	HVZ-GENIUS	1.13		PAVERBOY I	PB-I	4.2
	Hydraulic Installation Clamp LIGHT	HVZ-LIGHT	1.9		PAVERMARKER	PM	4.3
	Hydraulic Installation Clamp UNI	HVZ-UNI	1.8		Paving Block Extractor	SZ	4.1
					Pillar Swing Crane	ASSK	13.11

	Pin Extractor	ENZ	4.2
	Pipe Laying Hook RLH	RLH	8.2
	Pipe Laying Hook RLH-A	RLH-A	8.2
	Plasterboard Grabs	GPZ	15.11
	Plump Line Fixture	RSH	4.3
	Pneumatic Cubing Clamp	ATZ-P	10.13
	Pneumatic Rotating Clamp	P-WG	10.14
	Pneumatic swivelling base frame for use with exchangeable suction plates	ESP-SW-P-200-A	13.9
	Pneumatic Sorting Clamp	ASZ-P	12.2
	POWERJET Vacuum-Lifting Device	PJ-1650	5.17
	POWERPLAN Screeding Machine	PP	3.1
	Profi-Slab Handle	PPH	4.5
	Profi-Slab Handle, Support adapter	PPH-AA	4.5
	Profi-Slab Handle, 2-man carrying handle	PPH-2-HG	4.5
	Profi-Spreading-Bucket 180	ST-180	2.1
	Push-on Jaws for Fork Clamp	ABK-1,5	8.8
	QUICKDRAW	QD	4.4
	Quick Change Device	SWV-HE	5.26/13.5
	QUICKJET Vacuum Lifting Device	QJ-600-E	5.14
	Radial Cut Adapter	RSA-25	4.8
	Retaining Wall Panel Grab	RWPG	6.12
	Ring- and Cone Clamp	RKZ	11.2
	Ring- and Cone Clamp	RKG-S	11.3
	Roof Tile Clamp	DZZ	9.4
	Roof Tile Clamp	DZZ-II/2000	9.4
	Roofing Element Clamp UNI	DEZ-UNI	9.4
	Rotating Clamp for Concrete Pipes	WG-R	11.4
	Round Grab	RG	8.3
<b>NEW</b>	Round Grab 75/125-SAFELOCK	RG-75/125-SAFELOCK	8.1
	Round Grab 20/80	RG-20/80	8.2
	Round Grab 8/40	RG-8/40	8.2
	Rubber Hammer	GH	4.1
	Scissor Grab 40-UK	SG 40-UK	6.11/9.2
	Scissor Grab 60	SG-60	6.11/9.2
<b>NEW</b>	Scissor Grab 80-PGL2	SG-80-PGL2	6.11/9.2
	Scissor Grab 80-MAXI	SG-80-MAXI	6.11/9.2
	Scissor Grab 100	SG-100	6.11/9.2
	Screeding Rail Kit for EASYPLAN	AZL-EP Set	3.8
	Screeding Rail Kit for TAS/TAK (Alu)	AZL-SET	3.8
	Screeding Rail Kit for TAS/TAK (Steel)	AZL-S-Set	3.8
	Selective Layer Clamp	STAZ-SLC	10.4
	Setting up Device for Manhole Rings	AG	11.2
	Site Fence Base Handle	BZSH	4.9
	Slab Extractor	PZ	4.9
	Slipform for Concrete Backfill of Precast Kerbs	GR-150	6.9
	Small Pipe Turning Device	FUG	11.4
	Sorting Clamp ASZ	ASZ	12.2
	Sorting Clamp ASZ-R	ASZ-R	12.2
<b>NEW</b>	SPEEDY Vacuum Hand Laying Device	SPEEDY VS-140/200 Basic Device	5.8
<b>NEW</b>	SPEEDY Vacuum Hand Laying Device	SPEEDY VS-140/200-XL	5.8
	Stack Rotating Clamp	WG-P	12.1
	Steel Pallet Grab	UMG	11.3
	Stone Pillar Grab 8/20-G-VA w/Rubber grippers	SLS-8/20-G-VA	6.7
<b>NEW</b>	STONEMAGNET 600	SM-600	5.12
<b>NEW</b>	STONEMAGNET 600-POWER	SM-600-POWER	5.12
	STRING ALONG	SA	4.4
	STRINGTIGHT SB	SB	4.3
	Suction plates and accessories for JM	JM Suction plates/accessoires	5.26 - 5.31
	Suction plates and accessories for MJ	MJ Suction plates/accessoires	5.7
	Suction plates and accessories for PJ	PJ Suction plates/accessoires	5.21
	Suction plates and accessories for QJ	QJ Suction plates/accessoires	5.14
	Suction plates and accessories for SH	SH Suction plates/accessoires	5.21
	Suction plates and accessories for SM	SM Suction plates/accessoires	5.13
	Suction plates and accessories for SPEEDY VS	SPEEDY VS Suction plates/access.	5.9

	Suction plates and accessories for TM	TM Suction plates/accessoires	5.26 - 5.30
	Suction plates and accessories for UNIPOSE	UNIPOSE 1204/Suction plates/access.	5.26 - 5.30
	Suction plates and accessories for VPE	VPE Suction plates/accessoires	5.7
	Suction plates and accessories for VPH	VPH Suction plates/accessoires	5.4/5.5
	Suction plates and accessories for VPM	VPM Suction plates/accessoires	5.21
	Suction plates and accessories for JUMBO-BV-VARIO	JUMBO-BV-VARIO plates/accessoires	5.26 - 5.31
	TELEPLAN Handscreeding System	TP	3.6
	Telescopic Screeding Bucket	TAK	3.3
	Telescopic Screeding System UNI	TAS-UNI	3.4
	Tilting Table	KT	11.5
	TRANSMOBIL Installation Carrier 150	TM-150-XL	5.24
	Turf Stone Handels	RVH (Pair)	4.2
	Turf Stone Laying Clamp	RGV	6.3
	Turning Device for Concrete Basers	VG-S	11.3
	Turning Device for Concrete Pipes	UG	11.4
<b>NEW</b>	TWISTGRIP Kerb and Strip Stone handle	TG	6.2
	UNIMOBIL Laying dolly	UM	5.10
	UNIMOBIL UM-ECO-VZ Laying dolly	UM-ECO-VZ	6.8
	UNIPOSE UP-1204 Vacuum Kerb Stone Laying Loader	UNIPOSE UP-1204	5.25
	Universal Handle	BVZ	6.1
	Vacuum Lifting Device 1000-MINI	SH-1000-MINI	5.16
	Vacuum Lifting Device 2500-UNI	SH-2500-UNI	5.18
<b>NEW</b>	Vacuum Lifting Device 3500-UNI-B	SH-3500-UNI-B	5.19
	Vacuum Picking Device for Forklift Trucks	JUMBOSELECT JS	13.4
	Vacuum Pump Unit	VPE	5.6
	Vacuum-AIRSPPEED	VAS-H-Set	13.1
	Vacuum-Hose-Lifter	VACUSPEED VXS	13.2
	VACUUM-HANDY VH-1/25	VH-1/25	5.3
	VACUUM-HANDY VH-2/50	VH-2/50	5.3
	VACUUM-POWER-HANDY	VPH	5.4
	VACUUM-POWER-MAX 2500-H	VPM-2500-H	5.20
	VARIOKON Sweeping and Sand Watering System	KES	2.2
	Vertical Guide	SRF-900	10.13
	Wall Swing Crane	AWSK	13.11
	Ziegelmax -G	ZM-G	9.5

# SITE EQUIPMENT

## 1 PAVER LAYING AND TRANSPORTATION



Paver Installation Machine VM-401-MULTIMATIC



Paver Installation Machine VM-301-K PAVERMAX with cabine



QUICKJET QJ-600-E Vacuum Attachments



VACUUM-STONEMAGNET SM-400 Vacuum Attachments



Hydraulic Laying Clamp VZ-H-UNI



HVZ Herringbone 45 Degree



Pallet-Cart PW-III



HVZ-GENIUS Hydraulic Installation Clamp for universal use with excavators



Hydraulic Installation Clamp in combination with Mini-excavator



Adjustable Paver Transport Cart VTK-V



SH-2500-UNI with Multiple Suction Plate



VTK-V with Access ramp



Mechanical Slab Grab MSZ



VM-203: Shifting rectangular pavers into running bond



VM-203: Installation of large-format pavers

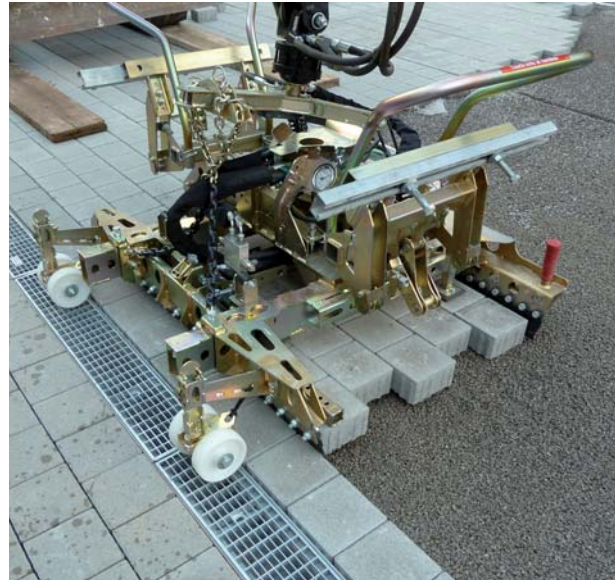


# SITE EQUIPMENT

## 1 PAVER LAYING AND TRANSPORTATION



Paver Installation Machine VM-301-PAVERMAX



HVZ-ECO Hydraulic Installation Clamp



VM-301-K-PAVERMAX with HVZ-UNI-II



VM-301-K-PAVERMAX with Diesel Particle Filter

## 2 JOINT FILLING AND SURFACE CLEANING



EASYFILL EF-H Paver Jointing Device



EASYCLEAN EC-60 Paver Cleaning Device



Sweeping Broom EB



Sweeping Machine KM-UNI



VARIOKON KES Sweeping & Sand Watering System



Profi-Spreading-Bucket ST-180

# SITE EQUIPMENT

3

## SCREEDING



POWERPLAN PP Screeding Machine



Telescopic Screeding Bucket TAK



Telescopic Screeding Bucket TAK with roof profile TAK-DP



Screeding Rails AZL



Screeding Rail Kit AZL-EP



Telescopic Screeding System  
TAS-UNI



EASYPLAN EP-UNI  
Handscreeding System



MINIPLAN MP Sliding Finisher  
with HV



TELEPLAN TP Handscreeding  
System



LEVELKING LK Screeding attachment with folding shovel KS



LEVELFIX LF-70/120 Manual Screeding System



LEVELFIX LF-120/210  
Manual Screeding System



LEVELFIX LF-170/310  
Manual Screeding System

# SITE EQUIPMENT

4

## PROFESSIONAL TOOLS



Block Cutter AL-33-EASY-V



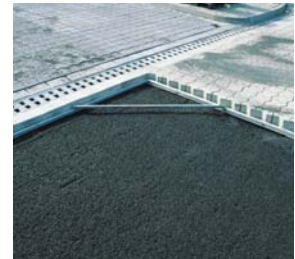
Radial Cut Adapter RSA



Aluminium Angle AW-60



Hydraulic Block Cutter AL-43/SH-21-V



Aluminium Angle AW-200



Pin Extractor ENZ



Turf Stone Handles RVH



Paver Extractor SZ



Paver Lifter SAH



Brick Handle KKT



Profi-Slab Handle Systems PPH



Alignment Bar RE



PAVERBOY PB-1 for 2 H-stones



PAVERBOY PB-15/24



PAVERBOY PB-15/24-L



Multiple Alignment Bar MRE



Rubber Hammer GH/GH-K



Extraction Foot Lever AHW/  
Combination Hammer KH

# SITE EQUIPMENT

## 4 PROFESSIONAL TOOLS



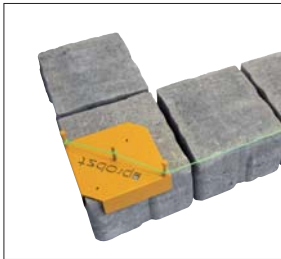
STRING ALONG SA



Slab Extractor PZ



FLEXMARKER-KIT FMK



STRINGTIGHT SB



PAVERMARKER PM



Site Fence Base Handle BZSH



Measuring and Marking Tool MAL



Plump Line Fixture RSH



QUICKDRAW QD

## 5 VACUUM LAYING



SPEEDY VS-140 Vacuum Hand Laying Device

### Vacuum Handheld Devices



SPEEDY VS-140/200-XL Vacuum Hand Laying Device



MIKROJUMBO MJ-I Vacuum Slab Layer



VACUUM-HANDY VH-1/25



VACUUM-POWER-HANDY VPH



UNIMOBIL UM-VS-S/SE complete version

5

## VACUUM LAYING

### Vacuum Attachments



STONEMAGNET SM-400 Vacuum Attachments



QUICKJET QJ-600-E Vacuum Attachments



Vacuum Attachments SH-2500-UNI



Wheelset QJ-RS for QUICKJET



Vacuum Attachments SH-1000-MINI-H



SH-2500-UNI with Multiple Suction Plate



SH-2500-UNI with Spreader Bar



POWERJET PJ-1650-B Vacuum Attachments



VACUUM-POWER-MAX VPM-2500 Vacuum Attachments



Vacuum Spreader Bar VT



Vacuum Attachments SH-1000-MINI-B



Vacuum Attachments SH-3500-B

# SITE EQUIPMENT

5

## VACUUM LAYING

### Vacuum Hose Lifters



JUMBO-BV-VARIO Vacuum Kerb Stone Installation



TRANSMOBIL TM Installation Carrier installing kerbs



JUMBO-BV-VARIO  
in Transportation Position



Combination BV + ZA-BV-MOBIL



TRANSMOBIL TM Installation  
Carrier transport position



TRANSMOBIL TM Installation  
Carrier installing slabs



JUMBOMOBIL JM-VARIO Vacuum Slab Laying Machine



UNIPOSE UP-1204 Vacuum Kerb Stone Laying Loader



Multiple suction plate for gutter  
blocks



Special suction plate for angular  
concrete products



Multiple Suction Plate for vacuum  
hose lifters



Turf Stone Handle RG-VZ

## 6 LAYING OF LANDSCAPING ELEMENTS



Concrete Step Handles TSZ-UNI



Concrete Step Handles TSZ-UNI-WB-SQ



Concrete Step Handles TSV



EASYGRIP EXG-MAXI Border Stone Handle



EASYGRIP EXG Border Stone Handle



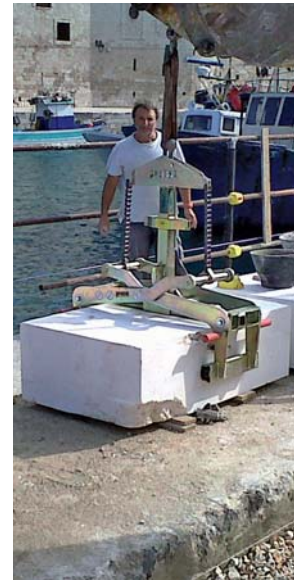
Stone Pillar Grab SLS-8/20-G



Column Handle PVZ



Grab for Prefabricated Concrete Products FTZ-UNI-50



Grab for Prefab Products FTZ-MULTI-15/WB-G-42



Grab for Prefabricated Concrete Products FTZ-UNI-15



Grab for Prefab Products FTZ-MULTI-15-WB-G-120



Hydraulic Laying Clamp VZ-H-UNI



Grab for Prefab Products FTZ-MULTI-15/SQ



TWISTGRIP TG Kerb and Strip Stone handle



TWISTGRIP TG Kerb and Strip Stone handle + Extension module TG-HGV



Concrete Step Handles TSZ-MAXI



Hydraulic Laying Clamp VZ-H-UNI

# SITE EQUIPMENT

## 6 LAYING OF LANDSCAPING ELEMENTS



Grab for Angular Concrete Products WEZ-2



Grab for Prefabricated Concrete Products FTZ-MAXI-25



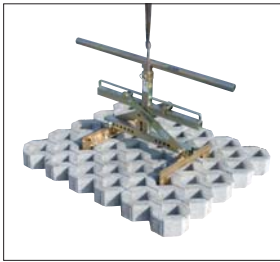
Mechanical Slab Grab MPG



Manual Bolder Grab H-FVZ-UNI



Bolder Grab FVZ-UNI



Turf Stone Laying Clamp RGV



Retaining Wall Panel Grab RWPG



Laying Clamp for retaining wall units RWC



Hollow Block Handle FSZ-M



Cable Channel Grab KKV



Scissor Grab SG



Hollow Slope Block Handl FSZ



Hydraulic Laying Clamp VZ-H-UNI



Laying Clamp VZ-I



Universal Handles BVZ



Kerb Stone Handles BZ



Laying Clamp VZ-III



Kerb Stone Clamp VZ-M-UNI



Slipform for Concrete Kerb Backfill GR-150



GUTTERFIX RF-H



## 7 HANDLING OF CONCRETE BARRIERS



Concrete Highway Divider Clamp BSZ-KH-4,5



Grab for Prefabricated Concrete Products FTZ-GBA-S

# SITE EQUIPMENT

## 8 CIVIL ENGINEERING: MANHOLE AND PIPE LAYING



Concrete Pipe Lifter RVD-4-ECO-F



Round Grab RG-8/40



Round Grab RG-75/125-SAFELOCK



Round Grab RG-20/80



Round Grab RG



Pipe Laying Hook RLH



Manhole and Cone Installation Clamp SVZ-UNI



Manhole and Cone Installation Clamp SVZ-UNI-VARIO



Manhole and Cone Installation Clamp SVZ-ECO



Manhole and Cone Installation Clamp SRG-3



Manhole and Cone Installation Clamp SRG-UNI



Manhole Cover Lifter SDH-LIGHT



Hydraulic Manhole Cover Lifter SDH-H-15



Manhole Cover Lifter SDH-M-10



Vacuum Spreader Bar VT



Manhole Frame Clamp SRZ-M



Gully Clamp SAZ-UNI



Laing Hook SHS

## 9 HIGHRISE AND ROOF ELEMENTS



Roofing Element Clamp DEZ-UNI



Roof Tile Clamp DZZ-II/2000



Laying Clamp for Hollow Core Slabs VZ-D



Roof Tile Clamp DZZ



Ziegelmax ZM



Limestone Cutter AL-UT



Chimney Section Clamp KVZ-I



Scissor Grab SG



Limestone Clamp KSZ-300-UNI



Loading Fork LG



Pallet Fork PG

# BUILDING MATERIAL PLANTS – IN-PLANT HANDLING

## 10 PAVERS AND BLOCKS



Double Grab with Telescopic Crane Boom STAZ-DZ-II



Single Grab with Telescopic Crane Boom STAZ+KA+VA



Single Grab with Fork Sleevers STAZ+ET



Fork Lift Grab STAZ-KA



Selective Layer Clamp STAZ-SLC



Fork Lift Attachment STAZ-KS



Double Grab STAZ-DZ-I, fixed to Overhead Crane



Pneumatic Cubing Clamp ATZ-P+Vertical Guide SRF



Four Way Grab STAZ-S-4



Limestone Grab PKZ-KS fixed to crane



Laying Clamp for Hollow Core Slabs VZ-D



Pneumatic turning grab



STAZ with KA and sideshift



Fork Sleevers ET-E-4 for single grabs



Stack Rotating Clamp WG-P



Mechanical Scissor Grab MPZ



Fork Lift Grab STAZ with 180° rotating grippers



Fork Lift Grab STAZ for precast elements

## PIPES AND MANHOLES



Manhole Ring- and Cone Clamp RKZ-H



Setting-up Device AG-S



Manhole Ring Clamp RK-US



Ring- and Cone Clamp RKG



Fork Lift Grab STAZ for Cover Plate



Turning Device for Concrete Pipes UG



Turning Device for Concrete Pipes Basers WG-S



Rotating Clamp for Concrete Pipes WG-R



Small Pipe Turning Device FUG



Hydraulically Adjustable Multiple Forks MFD-UNI



Multiple Forks MFD



Large Pipe Clamp RK-V



Tilting Table KT-15



Cone Insert Clamp KIG



Manhole Insert Clamp SP-I

# BUILDING MATERIAL PLANTS – IN-PLANT HANDLING

## 11 PIPES AND MANHOLES



Gantry Crane Rotating Clamp for Pipes PWG-R



Steel Pallet Grab UMG



Universal Pipe Grab System URS-ST



Mechanical Band Grab MBG



Double Clamp for Cones DKA



Concrete Pipe Handling Systems RUS



Manhole Ring Handling Systems RKUS



Push-on Jaws ABK for Fork Clamp



Manhole Ring Clamp RK

## 12 SPECIAL CLAMPS



Hydraulic Stonesplitter SSP



Mould Turning Device FW1



Hydraulic Pallet Turning Device WT-P



Setting-up device for noise protection walls



Special grab for T and L elements



Concrete sleeper grab

## 13 VACUUM TECHNOLOGY



Vacuum Spreader Bar VT-12000-E



Vacuum Spreader Bar VT for pipes



Vacuum Spreader Bar VT-6000-D for fork lift truck



Vacuum Lifting Device SH-1000-MINI with Spreader Bar



Vacuum Spreader Bar VT-6000-D for crane operation



Vacuum Lifting Device with 180° Turning Unit



Vacuum Turning Device for Fork Lift Trucks



Aluminium Pillar Swing Crane AWSK



VACUUM-AIRSPED VAS-H



VACUSPEED VXS Vacuum Hose Lifter



JUMBOSELECT JS Vacuum Selective Device



Vacuum Hose Lifter with Jumbo Travelling Crane JWK



Vacuum Hose Lifter with Pneumatic Clamp ASZ-P



Swivelling suction plate with pneumatic cylinder



Vacuum Hose Lifter Jumbo

# BUILDING MATERIAL PLANTS – IN-PLANT HANDLING

## 14 FULLY AUTOMATIC PLANTS



Vacuum Layer Gripper FSG-UNI



Vacuum Layer Gripper FSG



Cube Clamp STAZ



Cube Clamp STAZ with Hydraulic Divider



Cube Clamp STAZ with Three Side Arms



Cube Clamp STAZ with Gripper Length of 6 m



Electric Cubing Clamp ATZ-E-4-C



ROBOGRIP P-4 Pneumatic Robot Grab



Hydraulic Cubing Clamp with Rotating Grippers – Rotating Range 180°



Hydraulic Cubing Clamp ATZ-H-4

# TRUCK CRANE ATTACHMENTS

## 15 ATTACHMENTS FOR TRUCK CRANES



Block Loading Grab AKZ-H-UNIGRIP



Block Loading Grab AKZ-BF



Block Loading Grab AKZ-UNIGRIP



Plasterbord Grabs GPZ



Block Loading Grab AKZ-H-UNIGRIP



Loading Fork LG



Pallet Fork with Security Chain PGH-K



Scissor Grab SG







# SITE EQUIPMENT



The tools and machines from Probst make hard work on sites easier. Thereby it doesn't matter if it's road construction, civil engineering, high-rise- and roofing construction, landscape gardening or paver laying...

In the over 50-years history of Probst makes the hard working day much easier and more economic for everybody who works with pavers, pipes and concrete products. Probst offers complete service – starting with technical support and drivers training, up to logistics guidance at the site. Experienced sales representatives advice and surprise with easy solutions for time- and money saving operation.

Our policy is the durability of the range of products. With the regular maintenance the Probst products will last many times over decades, even on hard and daily operation. Of course you will get experienced service and spare parts for the complete product life.

The main reason for numerous sick days, loss of jobs and early retirement at the construction industry is back pain. Especially when laying kerb stones and slabs, it is a high risk for the workers, if not using the right equipment. You can prevent the strain of the back with the right technical equipment and the correct handling of heavy weights. The investment for ergonomic tools pays back very shortly. The ergonomic machines and tools from Probst take care of the back and increase the working speed.

The material composition, the production process and the forms of the building materials are going to be changed regularly. That's why the tools and machines need permanent upgrades. Besides this the customer has higher requirements for security, is more aware of the quality and does not want any damages. During development Probst already think of the future trends, experience reports and upcoming regulations. The result of this observation are robust machines and tools with an extreme durability and efficiency. As universal as possible – as special as needed!

Probst – the better solution: developed from the field for the field.  
Probst gets things moving – Innovative, Efficient, Ergonomic.







VM-401  
with HVZ-UNI



VM-301-K-PAVERMAX  
with HVZ-UNI



VM-301-PAVERMAX  
with HVZ-UNI



HVZ-UNI-II

**NEW!**

## Mechanical Paver Installation, easy job with paver laying machines VM-401 / VM-301

Probst paver installation machines offer simple handling, user-friendly operation, efficiency and first-class performance.

The modern and innovative concept of the VM-401 provides modern conveniences with many user-friendly features. The modular design offers customized configurations and upgrades.

Together with the established paver installation machine VM-401 as well as the new model VM-301, Probst offer a strong range of paver installation machine for the diverse requirements and exigencies.

Offering a compact design and double articulated steering, the VM paver installation machines provide excellent maneuverability in confined spaces and job sites. Operators appreciate the high visibility to both the laying edge and what is behind them, ensuring safety and quality work. A low center of gravity guarantees an optimal static stability at any operating position.

The 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-II with automatic pushing-off device guaranty for exact joint widths, to comply with the standards.

The Paver Installation Machines of Probst are mostly equipped with a hydraulic installation clamp with a pushing off device ADV. 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-401 and VM-301 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-401 with HVZ-UNI



VM-401 with HVZ-UNI

**Optional attachments:**

- HVZ-UNI-II (see page 1.8)
- VZ-H-UNI (see page 6.13)
- EB (see page 2.1)
- Vacuum (see page 5.12)
- VARIOKON KES (see page 2.2)

**Technical Data VM-401:**

4-cylinder-Diesel-engine, 26,5 kW/36 PS · speed regulation via hydrostatic drive, max. speed approximately 20 km/h, total height 1.980 mm (78") · total width 1.300 mm (51") · ground clearance 180 mm (7") · total weight (without clamp) 1.550 kg (3,400 lbs) · total weight 1.800 kg (4,000 lbs) · max. working load limit: 800 kg\* (1,760 lbs) · max. weight of stone formation 400 kg\* / 880 lbs (with extra weight 460 kg / 1,010 lbs\*) · lifting off height max. 1,600 mm (63") · turning radius 600 mm (1,320 lbs) · front outside wheel 1,950 mm (77") · overall 2,300 mm (91").

**Technical Data:**

**Hydraulic Installation Clamp HVZ-UNI-II:**  
Main gripping width 580 – 1,260 mm (23 – 50")  
Side gripping width 960 – 1,440 mm (38 – 57")

## Installation Machine VM-401

The innovative installation machine VM-401 sets new standards due to its special comfort, high working load limit and modular design. Established VM-features such as the robust chassis and the double articulated steering have also been integrated.

A powerful 4-cylinder diesel engine offers sufficient output reserve. The spacious driver's cabin is separated from the chassis and the joystick for sensitive operation was improved for driving comfort.

The modular configuration of the cabin and hydraulic system allow for customized solutions.

**The VM-401 is available two different configurations:**

**VM-401-K:**

Fully glazed cabin with scratch resistant security glass all around, including windscreen wiper, including cabin heating.

Seat cover: textile

**VM-401-MULTIMATIC:**

same as VM-401-K, additionally equipped with modern and sturdy electronic control system with preselector for the following motion sequences of the HVZ-UNI installation clamp:

**Manual operation:** All clamp operations can be controlled via joystick and foot pedals with proportional technology.

**Standard automatic:** All clamp movements are effected in the correct sequence.

**Speed standard automatic:** Even shorter cycle times by means of time-saving and half-way downwards foldable side grippers.

**Shifting automatic:** Allows for smooth and efficient shifting of rectangular pavers from cross into running bond.

**Semi speed:** Automatic resetting of the clamp – that means main and side gripping as well as pushing-off device ADV return to starting position.

**Control for vacuum operation via joystick on request.**

**Standard specifications for both configurations:**

▶ 4-cylinder Kubota diesel engine, 26,5 kW/36 PS with 3000 lit./min. Excellent running smoothness and high reserve capacity.

▶ Continuous hydraulic rotator With four hydraulic rotary joints.

▶ Double articulated steering and a low center of gravity allow for agile maneuverability and stability. No stress and misalign on the un-compacted paving stones.

Outer edges of the machine are adapted to the steering geometry which means that when there are obstacles there are no protruding vehicle parts.

▶ Adjustable height steering column. Each foot pedal tilt angle is independently adjustable. Excellent view to the laying edge.

▶ Damage resistant wide angle rear view mirror allows for no blind spots.

▶ Sensitive hydrostatic front wheel drive.

▶ Wide base tires and different track widths of front and rear axles ensure a low degree of stress on the un-compacted pavers as well as smooth drivability.

▶ All-terrain vehicle due to large diameter of tires and ground clearance.

▶ Wide pivoting range of approximately 1,600 mm from a standing position is achieved by steering lock only.

▶ Large lifting height for handling double stacked pallets up 1,600 mm high, saving a considerable amount of drive time.

▶ No adverse effect on the stability due to low outreach even with large lifting height. Low overall height of the VM machine allow for working at underground car parks.

▶ Unlimited all-round-view - also rearwards. As paver installation machines drive 30% at reverse speed!

Type**	Description	Working Load Limit WLL* kg (lbs)	Dead Weight Basic machine kg (lbs)	Order-Number
VM-401-K	Basic device Installation machine without laying clamp HVZ	max. 800 (1,760)	1,550 (3,400)	5150.0018
VM-401-MULTIMATIC	Same as VM-401-K, but additionally equipped with integrated sequence control system	max. 800 (1,760)	1,550 (3,400)	5150.0019

\*\* Basic device incl. hydraulic rotator, without attachment

\* At adequate driving speed and lowered load. Max. weight of paver layer as per technical data.



VM-401 with VZ-H-UNI



VM-401 with HVZ-UNI



VM-401 with POWERJET PJ-1650-H

**Accessories:**

Type	Description	Order-Number
<b>Sound package</b>	CD-radio, speakers, antenna	<b>4150.0566</b>
<b>Light package</b>	2 combi-headlights (near/far), 1 reversing light	<b>4150.0565</b>
<b>Turning Light</b>	With swing down foot inc. installation material	<b>4150.0618</b>
<b>Exterior mirror</b>	Retrofit kit ( no additional mounting bracket required)	<b>4150.0358</b>
<b>Extra weight</b>	To increase the working load limit by 60 kg*	<b>4150.0744</b>
<b>Diesel particle filter DPF</b>	Retrofit kit for VM-401	<b>4150.0796</b>
<b>Filter Cartridge</b>	for Diesel particle filter DPF	<b>2690.0034</b>
<b>Air conditioning</b>	Retrofit kit for VM-401	<b>4150.0762</b>
<b>Windscreen washer</b>	With adjustable wiping interval. Retrofit kit for VM-401	<b>4150.0786</b>
<b>Adapter QJ for Rotator Bini/Balrotor</b>		<b>4011.0319</b>

**NEW: Diesel Particle Filter DPF.**

- ▷ In stainless steel/aluminium casing with quick-release fastener for easy changing of the filter cartridge.
- ▷ Disposable filter cartridge (disposal: over-ground landfill, landfill class II, tied up in a plastic bag), service life > 400 operating hours depending on maintenance condition of the motor.
- ▷ Separation rate > 97% of all particles.
- ▷ Authorisation/certificates: Vert certificate: check no. B175/12.05, regulations according to TRGS 554 are fulfilled.

▷ Improvement of the exhaust gas sound insulation as the particle filter acts as an additional silencer.

▷ The filter casing is fitted with a pressure switch + electronic evaluation system => warning light on instrument panel is illuminated when differential pressure too high => filter change required.

▷ Delivery contents: filter casing with integrated change filter, pressure switch, electronic evaluation system, installed ready for use with supporting frame and perforated plate cover.

We recommend ordering an additional replacement filter cartridge.

**NEW: Air conditioning.**

- ▷ Cooling power: 4 kW.
- ▷ With an external temperature of 35°C and insulation into the VM => approx. 25°C inside temperature achievable in the cab.
- ▷ Not in conjunction with vacuum attachment.

**NEW: Windscreen washer.**

- ▷ With adjustable spray nozzles on the windscreen wiper arm.
- ▷ With adjustable wiping interval.

**Retrofit kits for hydraulically driven vacuum devices for VM-401**

The corresponding attachment set is required for attachment of the respective hydraulically powered vacuum device: (vacuum attachment not included)

Type	Order-Number
<b>PJ-1650-H / Retrofit kit</b>	<b>4150.0749</b>
<b>SH-1000-MINI-H / Retrofit kit</b>	<b>4150.0750</b>
<b>VPM-2500-H / Retrofit kit</b>	<b>4150.0751</b>
<b>SH-1000-SUPER-JET-H / Retrofit kit</b>	<b>4150.0752</b>

Combinations between these are possible, package prices on application.

\* At adequate driving speed and lowered load. Max. weight of paver layer as per technical data.

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**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) 3,692 mm (145") - Ground clearance 180 mm (7") - Total weight (without clamp) 1,080 kg (2,380 lbs), VM-301-K: 1,200 kg (2,650 lbs) - max. working load limit: 600 kg\* (1,320 lbs), VM-301-K: 650 kg\* (1,430 lbs) - Maximum weight of stone formation: VM-301: 320 kg / 710 lbs\* (380 kg / 840 lbs\* with extra weight, VM-301-K: 380 kg / 840 lbs\* (440 kg / 970 lbs\* with extra weight) - 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-II: 580 mm - 1,260 mm (23 - 50")  
Side gripping width of the hydraulic clamp HVZ-UNI-II: 960 mm - 1,440 mm (38" - 57")

## Installation Machine VM-301-PAVERMAX

The VM-301 originates from systematic enhancement and technical evolution of the VM-203 model. Apart from a facelift the VM-301 provides optional retrofit equipment: a sturdy tubular steel construction is used for the modern

designed and fully-glazed cabin sheltering the driver from draughts, rain and wind. Heating and windscreen wipers are available as optional accessory for retrofit too. (Standard equipment for VM-301-K-PAVERMAX). VM-301 furthermore obtains a more light-weight and attractive plastic hood.

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

#### Standard equipment, as follows:

- ▷ With Continuous hydraulic rotator
- ▷ A 3-cylinder-Kubota-Diesel-engine 18.7 KW/ 25 hp means high performance reserves.
- ▷ 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 tyres and elastic clamp suspension give a smooth driving effect.
  - ▷ Large transparent fuel tank with 20 l capacity.
- NEW: Electronic joystick with ergonomically comfortable arm support makes operation of the VM-301 installation machine much easier. To control the main gripping width, side gripping width, rotator and optionally also vacuum attachments.**

Type**	Description	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>VM-301-PAVERMAX</b>	Basic device Installation machine without laying clamp HVZ	max. 600 (1,320)	1.080 (2,380)	<b>5150.0020</b>
<b>VM-301-J PAVERMAX</b>	Like VM-301-PAVERMAX but with electronic joystick with arm support instead of mechanical cross control lever to control main/side gripping width and rotator. With vacuum function.	max. 600 (1,320)	1.080 (2,380)	<b>5150.0022</b>
<b>VM-301-K-PAVERMAX</b>	Same as VM-301-PAVERMAX, but additionally equipped w/complete cabin made of safety glass, heating and windscreen wipers.	max. 650 (1,430)	1,200 (2,650)	<b>5150.0021</b>
<b>VM-301-KJ-PAVERMAX</b>	Like VM-301-PAVERMAX-K, but with electronic joystick with arm support instead of mechanical cross control lever to control main/side gripping width and rotator. With vacuum function.	max. 650 (1,430)	1,200 (2,650)	<b>5150.0023</b>

\*\* Basic device incl. hydraulic rotator, without attachment

\*At adequate driving speed and lowered load. Max. weight of paver layer as per technical data.



VM-301-PAVERMAX with HVZ-UNI



VM-301-K-PAVERMAX with HVZ-UNI



DPF



**Accessories:**

Type	Description	Order-Number
<b>Cabin</b>	Retrofit kit for VM-301 W/glazing and heating (Retrofit only possible at Probst company)	<b>4150.0690</b>
<b>Light package VM-301</b>	2 combi-headlights (near/far), 1 reversing light	<b>4150.0738</b>
<b>Light package VM-301-K</b>	2 combi-headlights (near/far), 1 reversing light	<b>4150.0692</b>
<b>Turning Light</b>	With swing down foot inc. installation material	<b>4150.0737</b>
<b>Exterior mirror</b>	Retrofit kit	<b>4150.0358</b>
<b>Mounting bracket</b>	For light package and/or exterior rear-view mirrors (is only required once)	<b>4150.0739</b>
<b>Extra weight</b>	To increase the working load limit by 60 kg*	<b>4150.0357</b>
<b>Diesel particle filter DPF</b>	Retrofit kit for VM-301-K, VM-301 and VM-203	<b>4150.0784</b>
<b>Filter Cartridge</b>	for Diesel particle filter DPF	<b>2690.0034</b>
<b>Windscreen washer</b>	Without adjustable wiping interval. Retrofit kit for VM-301-K	<b>4150.0788</b>
<b>Adapter QJ for Rotator Bini/Baltrator</b>		<b>4011.0319</b>
<b>VM-301-JMS-V</b>	Electronic joystick and armrest incl. installation kit. To control the main gripping width, side gripping width, rotator and incl. vacuum function. (Retrofitting possible only at Probst) Incl. installation.	<b>4150.0820</b>

**NEW: Diesel Particle Filter DPF.**

- ▶ In stainless steel/aluminium casing with quick-release fastener for easy changing of the filter cartridge.
- ▶ Disposable filter cartridge (disposal: over-ground landfill, landfill class II, tied up in a plastic bag), service life > 400 operating hours depending on maintenance condition of the motor.
- ▶ Separation rate > 97% of all particles.
- ▶ Authorisation/certificates: Vert certificate: check no. B175/12.05, regulations according to TRGS 554 are fulfilled.

- ▶ Improvement of the exhaust gas sound insulation as the particle filter acts as an additional silencer.
  - ▶ The filter casing is fitted with a pressure switch + electronic evaluation system => warning light on instrument panel is illuminated when differential pressure too high => filter change required.
  - ▶ Delivery contents: filter casing with integrated change filter, pressure switch, electronic evaluation system, installed ready for use with supporting frame and perforated plate cover.
- We recommend ordering an additional replacement filter cartridge.

**NEW: Windscreen washer.**

- ▶ With adjustable spray nozzles on the windscreen wiper arm.
- ▶ No wiping interval switch.

**Retrofit kits for hydraulically driven vacuum devices for VM-301-K / VM-301:**

The corresponding attachment set is required for attachment of the respective hydraulically powered vacuum device: (vacuum attachment not included)

Type	Order-Number
<b>PJ-1650-H / Retrofit kit</b>	<b>on request</b>
<b>SH-1000-MINI-H / Retrofit kit</b>	<b>on request</b>
<b>VPM-2500-H / Retrofit kit</b>	<b>on request</b>
<b>SH-1000-SUPER-JET-H / Retrofit kit</b>	<b>on request</b>

Technical clarification required. Combinations between these are possible, package prices on application.

\*At adequate driving speed and lowered load. Max. weight of paver layer as per technical data.

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**Requirements for hydraulic operation:**  
(Operating hydraulics of the carrier)

**HVZ-UNI/HVZ-UNI-II/HVZ-STANDARD:**

- Volumetric flow (l/min), usable min. 15, optimal 25, max. 75
- Working pressure (bar), usable min. 180, optimal 200, max. 320
- Backflow pressure: max. 20 bar

## Hydraulic Installation Clamps HVZ-UNI/ HVZ-UNI-II and HVZ-STANDARD

All three types are universally suitable for laying all paving stone installation units available on the market when combined with the vari-

ous carriers such as installation machines VM , hydraulic excavators and wheel loaders.

### Type HVZ-UNI/HVZ-UNI-II und HVZ-STANDARD

#### 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.

- ▷ Hydraulic pressure regulating valve to protect the parts from too much strain.
- ▷ Oil pressure gauge.
- ▷ Independent steel grippers – ensuring a 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.

## Hydraulic Installation Clamp HVZ-UNI

It can be used in conjunction with the laying machine VM-203/204/301/401 as well as other carriers which provide two hydraulic circuits to operate the clamp.

- ▷ 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.

- ▷ 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.
- ▷ 2 C-Profiles 860 mm long and 10 Positioning Adapters to shift pavers by 100 mm.

## Hydraulic Installation Clamp HVZ-UNI-II

The HVZ-UNI-II is the consistent development of the HVZ-UNI 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.

▷ All the properties of the HVZ-UNI (see above) are also integrated into the HVZ-UNI-II.

#### Additional advantages:

- ▷ Low deadweight at 220 kg

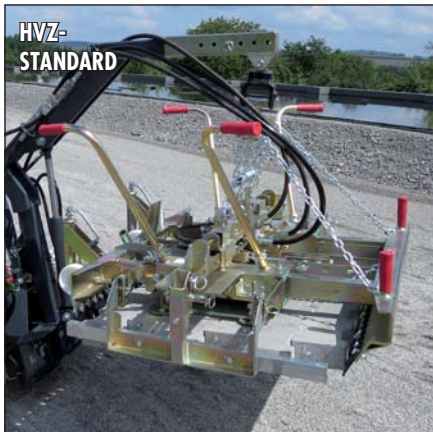
- ▷ Main gripping width can be set much more easily via a spindle with integrated spring assembly instead of the previous chain centring method.
- ▷ Significantly increased displacement force for problem-free movement into the running bond ( 3 x greater than with the HVZ-UNI.)
- ▷ New suspension – enabling the clamp to hang with less movement.

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

\*\* Dependent upon the condition of the spacers and the quality of the stones.

① Durable surface protection by galvanizing

Type ①	Main Gripping Width W mm (in)	For paver thickness** mm (in)	Side Gripping Width L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
HVZ-UNI	600 – 1.240 (23½ – 48¾")	50 – 160 (2 – 6¾")	990 – 1,480 (39 – 58")	400 (880)	250 (550)	5140.0017
HVZ-UNI-II* for VM-203/204/301	580 – 1.260 (23 – 50")	50 – 160 (2 – 6¾")	960 – 1.440 (38 – 57")	400 (880)	220 (485)	5140.0036
HVZ-UNI-II* for VM-401	580 – 1.260 (23 – 50")	50 – 160 (2 – 6¾")	960 – 1.440 (38 – 57")	400 (880)	220 (485)	5140.0037
HVZ-UNI-II-PEA	Set of PE supports for height adjustment				10,5 (23)	4140.0986



HVZ-STANDARD



HVZ-LIGHT

## Hydraulic Installation Clamp HVZ-STANDARD

- ▷ 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 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.
- ▷ Incl. 2 C-Profiles 860 mm long.
- ▷ As standard with no pushing-off device (ADV).

Type <sup>①</sup>	Main Gripping Width W mm (in)	For paver thickness** mm (in)	Side Gripping Width L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
HVZ-STANDARD*	570 – 1.180 (22½ – 46")	50 – 160 (2 – 6¾")	990 – 1,300 (39 – 51")	400 (880)	190 (419)	5140.0001

\* As standard with single-circuit hydraulics. This means that only one hydraulic control circuit is required by the support frame. Version for dual-circuit hydraulics on request!  
 \*\* Dependent upon the condition of the spacers and the quality of the stones..

## Hydraulic Installation Clamp HVZ-LIGHT

- The light and reasonably priced entry-level clamp for mechanical stone laying, also suited to laying large slabs.
- ▷ Equipped as HVZ-STANDARD, but with no side clamping. Stone positions that are not interlocked can therefore not be displaced into the stretch bond.
  - ▷ Because of its light own weight, the HVZ-LIGHT is particularly suitable for attachment to mini wheel loaders and mini excavators as well as for VM laying machines.
  - ▷ The clamp can be retrofitted with the ADV pushing-off device to improve laying quality (see ADV on page 1.9).
  - ▷ The ET-L insert pocket is available optionally for attachment to carriers with lifting forks (see page 1.16).
  - ▷ For attachment to a carrier, only a hydraulic circuit is required.
  - ▷ Requirements in the case of a hydraulic drive, such as HVZ-STANDARD and HVZ-UNI-II (see page 1.8).

Type <sup>①</sup>	Main Gripping Width W mm (in)	For paver thickness* mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
HVZ-LIGHT	570 – 1,180 (22½ – 46")	50 – 160 (2 – 6¾")	400 (880)	approx. 160 (350)	5140.0035
ET-L Fork sleeves for fork lift trucks			600 (1320)	9 (20)	4140.0001
Lifting eye for attaching to crane hook			max. 1000 (2200)	0,9 (2)	3101.0004

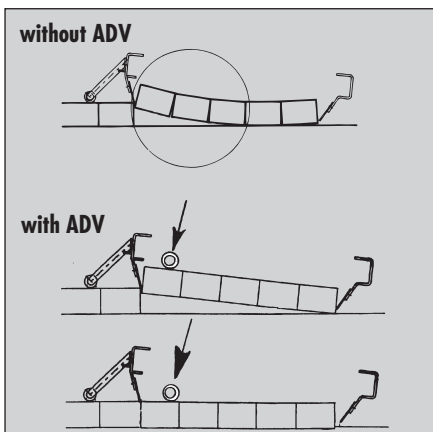
\* Dependent upon the condition of the spacers and the quality of the stones.

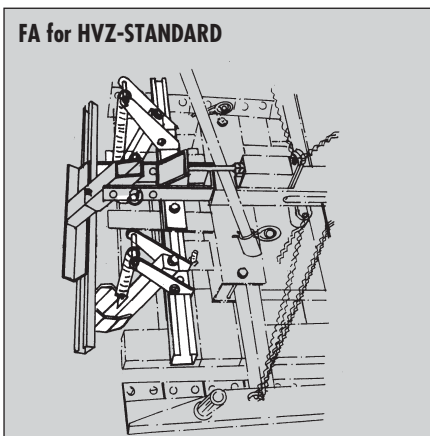
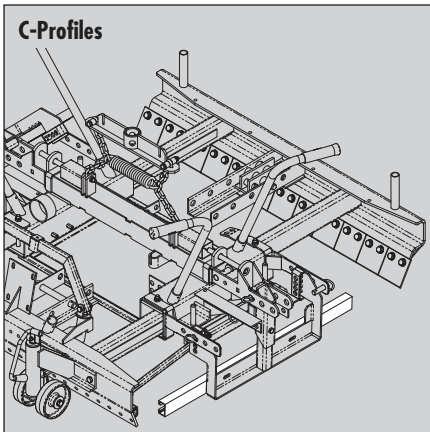
## Pushing Off Device ADV for HVZ-STANDARD and HVZ-LIGHT

- 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 <sup>①</sup>		Dead Weight kg (lbs)	Order-Number
ADV	The ADV can also be fitted to the HVZ-STANDARD and HVZ-LIGHT already in use (only for two-circuit hydraulics).	8 (18)	4140.0007

① Durable surface protection by galvanizing





Accessories

Hydraulic Installation Clamp HVZ

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.

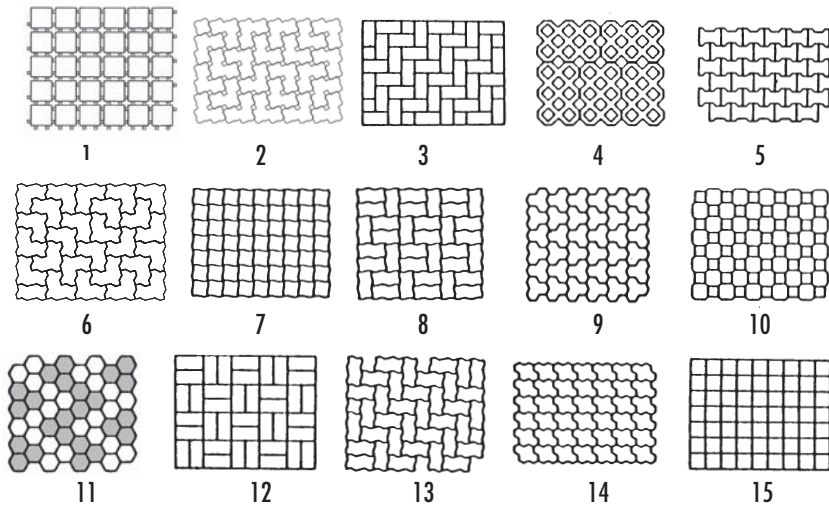
► The shifting adapter is used with rectangular stones, for instance, to shift pavers into the running bond. (Please, indicate stone formation).

► 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).

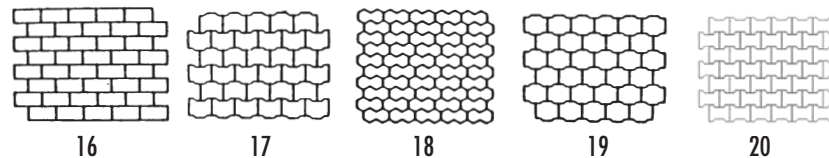
► Special adapters SA for installation units 21–24 or similar are available on request (please, indicate stone formation).

Type	Dead Weight kg (lbs)	Order-Number
<b>C-Profiles</b> , 2 pieces, 50 x 30 x 950 mm (B x H x L)	6 (13)	<b>3401.0018</b>
<b>C-Profiles</b> , 2 pieces, 50 x 30 x 860 mm (B x H x L)	5,5 (12)	<b>3401.0046</b>
<b>Positioning adapters</b> , different lengths between 40 – 160 mm		see page 16.6
<b>FA-Adapter for HVZ-STANDARD</b> <sup>Ⓢ</sup> if required:	18 (40)	<b>4140.0118</b>
<b>FA external bow for HVZ-STANDARD</b> <sup>Ⓢ</sup> see stone formation No. 25	4 (9)	<b>4140.0119</b>
<b>FA-Adapter for HVZ-UNI</b> <sup>Ⓢ</sup> (external bow not required)	10 (22)	<b>4140.0277</b>
<b>FA-Adapter for HVZ-UNI-II/HVZ-ECO</b> <sup>Ⓢ</sup>	10 (22)	<b>4140.0847</b>
<b>Special adapter</b>		<b>4140.0009</b>

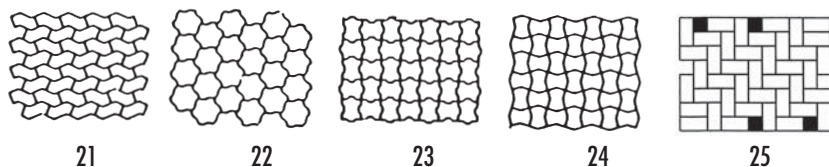
1. The stone formations 1 – 20 shown below are suitable among others for mechanical installation. Other stone formations can also be laid by machines as long as the stones are packed in the correct formation ready for the machine to lay them.



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

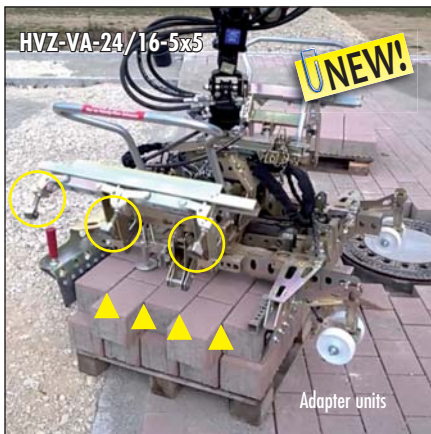


3. The stone formations 21 – 25 are suitable for mechanical installation by special adapter.



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

<sup>Ⓢ</sup> Durable surface protection by galvanizing



## Shifting Adapter HVZ-VA

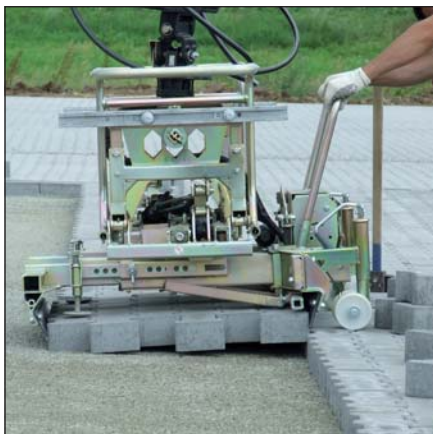
Paving stone manufacturers are moving increasingly these days towards „anti-shift pavers“. The spacers are thus enlarged in order to prevent the pavers from shifting when heavy vehicles drive over them. This increases the difficulty of shifting the pavers into the running bond during mechanical installation. Simply increasing the displacement force causes spalling in the pavers. With the new Probst HVZ-VA shifting adapters even „anti-shift pavers“ can be shifted easily and without damage.

► **Operating principle:** The individual rows of pavers are spread apart a few millimetres in a V-shape before they are actually shifted.

- The pavers can then be shifted **without damage**; the spacers are undamaged and there is no spalling on the pavers themselves.
- The HVZ main gripping width moves each individual row of pavers back together again after it has been shifted. This takes place in one operation.
- The shifting adaptor can be easily retro-fitted onto the C-profiles on the side gripping width of the hydraulic installation claws of the HVZ-ECO, HVZ-GENIUS, HVZ-UNI and HVZ-UNI-II (with automatic programming on the VM-401).

Type <sup>①</sup>	Dimensions of stones mm (in)	Rows x Stones/rows	Dead Weight kg (lbs)	Order-Number
HVZ-VA-20/10-8x6	200 x 100 (8 x 4")	8 x 6	20	4140.0923
HVZ-VA-24/16-5x5	240 x 160 (9½ x 6¼")	5 x 5	16	4140.0924
HVZ-VA-20/10-10x4-90°	200 x 100 (8 x 4")	10 x 4	30	4140.0951

Further stone dimensions on request.



## Your excavator can lay paving blocks as well ...

### ... with the hydraulic excavator add-on clamp unit made by Probst

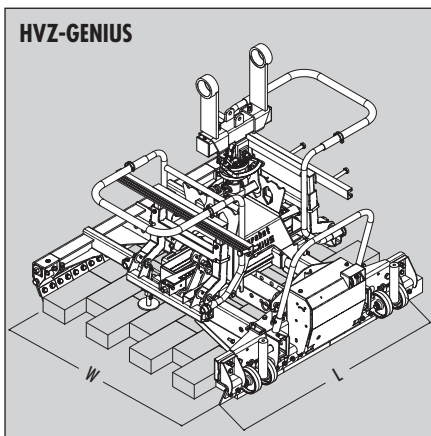
**Mechanical installation using an excavator with a hydraulic installation clamp has many advantages:**

- ▶ A reduction in downtime as the excavator can be used more frequently on-site.
- ▶ Fully automated movement sequences equals easy operation for experienced excavator operators. Both grab and laying processes are governed by one control lever.
- ▶ The excavator can lay blocks efficiently and quickly without moving its position because of its broad reach and swivel movement.
- ▶ Low acquisition costs.
- ▶ Even a mini-excavator with more than 2,5 tons can install pavers.
- ▶ Increased profitability for the excavator.
- ▶ Areas particularly suitable for excavator slab laying are: footpaths and cycle tracks, parking spaces and agricultural road construction.
- ▶ High-quality installation thanks to ADV pushing-off device. Comes as standard on the HVZ-GENIUS (see Page 1.13) and HVZ-ECO (see Page 1.14).
- ▶ Clamp can be adjusted quickly and easily to the dimensions of the units to be installed; no additional tools needed.
- ▶ Clamp can be applied easily via the pendulum-mounted set-down rollers.
- ▶ Increased utilisation thanks to the hydraulic continuous 360° rotary motor with free-wheel capability, fitted as standard.



Slab grab used in combination with excavator

German Patent



**Requirements for hydraulic operation:**  
(Operating hydraulics of the carrier)

**HVZ-GENIUS:**

- Volumetric flow (l/min), usable min. 25, optimal 35 – 40, max. 80
- Working pressure (bar), usable min. 180, optimal 200, max. 320
- Backflow pressure: max. 10 bar

**Minimum excavator operating weight**

- HVZ-GENIUS from approx. 3.5 t  
(Operating weight may vary depending on excavator type and form. No binding specifications: must be co-ordinated in the individual case)

## Hydraulic Installation Clamp HVZ-GENIUS

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 rectangular pavers into running bond is effected automatically and quickly. Thus no additional work is to be done for the excavator operator.
  - ▶ Equipment for shifting other stone formats e.g. such as H-stones on request.
  - ▶ No cost-intensive filter maintenance.
  - ▶ 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.

**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.
- ▶ 2 C-Profiles 860 mm long and 10 Positioning Adapters to shift pavers by 100 mm.

Type ❶	Main Gripping Width W mm (in)	For paver thickness* mm (in)	Side Gripping Width L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight approx. kg (lbs)	Order-Number
<b>HVZ-GENIUS</b>	580 – 1,470 (22¾ – 58")	50 – 160 (2 – 6¾")	990 – 1,400 (39 – 55")	400 (880)	290 (640)	<b>5140.0026</b>

\* Dependent upon the condition of the spacers and the quality of the stones.

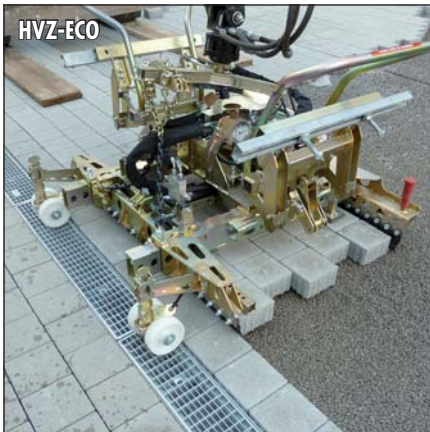
❶ Durable surface protection by galvanizing

PAVER LAYING AND TRANSPORTATION

1

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German Patent



## Hydraulic Installation Clamp HVZ-ECO

The high-performance attachment for mini excavators – now even more powerful and reduction of dead weight at the same time.

HVZ-ECO – especially designed for mechanical paver installation with smaller mini excavators. Multifunctional with high performance and cleverly thought out hydraulic control: only one hydraulic circuits is required to run all motion sequences including the automatic shifting of rectangular pavers into the running bond. (Equipment for shifting H-stones on request)

► Due to high-tensile material and innovative design the dead weight of the HVZ-ECO clamp is reduced to approx. 210 kg.

► For standard equipment see HVZ-GENIUS.

### Further Advantages:

- The slim construction offers a good overall view.
- Better pick up and installation due to the adjustment possibilities at the attachment.
- Absorbing the swivellings by damping springs.
- In just a few simple steps and without additional tools adjustable to gripping width from 580 to 1260 mm.

### Requirements for hydraulic operation: (Operating hydraulics of the carrier)

#### HVZ-ECO:

- Volumetric flow (l/min), usable min. 25, optimal 35 – 40, max. 80
- Working pressure (bar), usable min. 180, optimal 200, max. 320
- Backflow pressure: max. 10 bar

#### Minimum excavator operating weight

- HVZ-ECO from approx. 2 t  
(Operating weight may vary depending on excavator type and form. No binding specifications: must be co-ordinated in the individual case)

Type <sup>①</sup>	Main Gripping Width W mm (in)	For paver thickness* mm (in)	Side Gripping Width L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight approx. kg (lbs)	Order-Number
<b>HVZ-ECO</b>	580 – 1,260 (22¾ – 49¾")	50 – 160 (2 – 6¾")	960 – 1,440 (37¾ – 57")	400 (880)	210 (460)	<b>5140.0034</b>

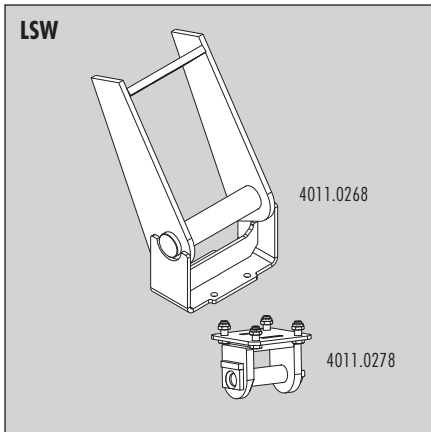
\* Dependent upon the condition of the spacers and the quality of the stones.

## Accessories

Type	Description	Dead Weight kg (lbs)	Order-Number
<b>HVZ-ABA</b>	Support for excavator adapter	5,3 (10)	<b>4140.1008</b>
<b>HVZ-ECO-PEA</b>	Set of PE supports for height adjustment	0,8 (2)	<b>4140.1004</b>

① Durable surface protection by galvanizing



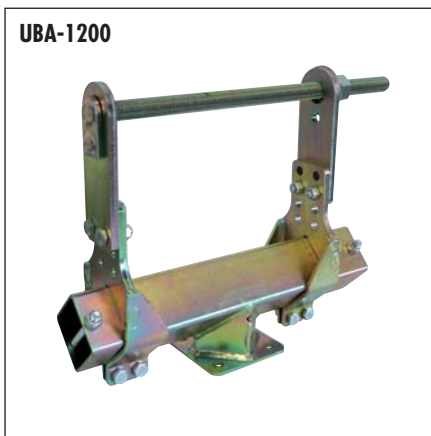


**Accessories**

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

By using the SW, the HVZ-GENIUS/HVZ-ECO can be fitted to all kind of excavators which are equipped with the Lehnhoff quick-change-device.

Type	Size	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
LSW-MS-01	Suitable for Lehnhoff-Type MS 01	800 (1,760)	19 (40)	4011.0178
LSW-MS-03	Suitable for Lehnhoff-Type MS 03	1,000 (2,200)	29 (64)	4011.0268
LSW-MS-08	Suitable for Lehnhoff-Type MS/HM 08	1,000 (2,200)	75 (165)	4011.0269
Fork to LW 86 universal joint for LSW 03 + LSW 08 Lehnhoff adapter				4011.0278

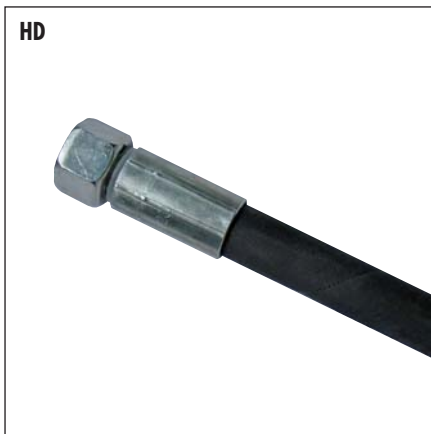


**Accessories**

**Hydraulic Installation Clamp HVZ**

**Universal-Excavator-Suspension**  
 Suitable for most current excavators, maximum bolt diameter up to 70 mm, incl. adapter set of spacer sleeves.  
 ► **Advantage:** The HVZ can be quickly and easily fastened to any excavator.

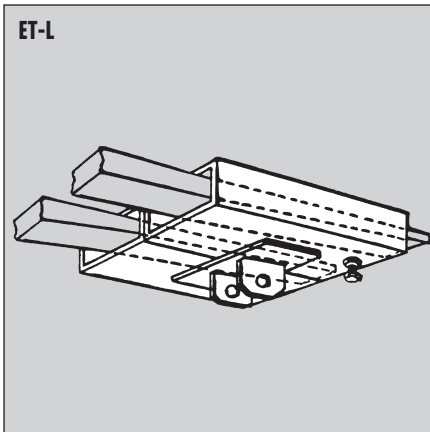
Type	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
UBA-1200	1,200 (2,640)	15 (35)	4140.0571
UBA-3000	3,000 (6,600)	18 (40)	4140.0088



**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

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Accessories

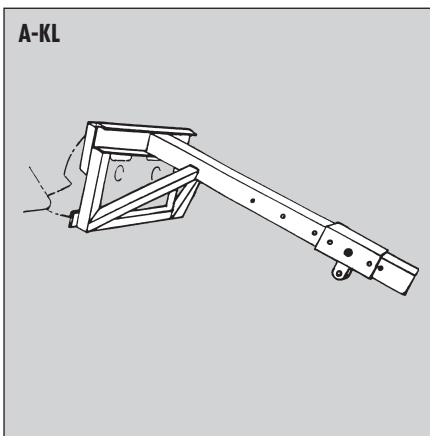
### Hydraulic Installation Clamp HVZ

**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	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
ET-L	600 (1,320)	9 (20)	4140.0001



**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)	Working Load Limit WLL 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.



### 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:**

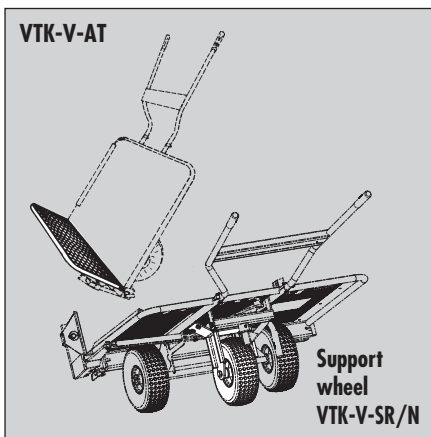
- Lifting eye for attaching to crane hook.
- Fork sleeves for fork lift trucks.
- Automatic release for fully automatic switch over from "full" to "empty".
- Highly durable, exchangeable rubber metal bars as gripping elements.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL 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

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

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02/017



## 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.

\* **NEW**

Type	Gripping Width W mm (in)	Block Height max. E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
VTK-V <sup>Ⓞ</sup>	550 – 1,050 (21¾ – 41")	900 (35½")	200 (7¾")	400 (880)	68 (150)	5110.0015
VTK-V-SR <sup>Ⓞ</sup>	VTK-V with supporting wheel (technical data see above)				74 (160)	5110.0016
* VTK-V-AR	Access ramp for VTK-V, to make picking up interlocking paving stones on the pallet easier. L = 700 mm, W = 850 mm, H = 160 mm				10 (22)	5110.0014
VTK-V-SR/N <sup>Ⓞ</sup>	Supporting wheel for easy handling on even ground. Can be additionally attached at any time.				7 (15)	4110.0041
VTK-V-AV <sup>Ⓞ</sup>	Retrofit Kit: Special grippers and wider load support max. 1, 350 mm				10 (22)	4110.0056
VTK-V-AT <sup>Ⓞ</sup>	Insertable storage tray for transporting tools, small compactors, etc.				5 (11)	4110.0010

Ⓞ Durable surface protection by galvanizing

PW-III



### Pallet-Cart PW-III

For the transportation of palletized products on the building site.

- ▶ With large rubber wheels for easy movement.

▶ The fork ends are driven under the pallet, the two main wheels are then located on the pallet's left and right sides. The load is raised using the hand pump and hydraulic cylinder

Type	max. Pallet Length mm (in)	Distance between forks	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
PW-III	1,250 (49")	adjustable	1,500 (3,300)	195 (430)	5110.0011
Drawbar	Retrofit kit with braking function				4230.0038

PW-III-E



### Pallet-Cart PW-III-E

Pallet cart with electrical drive for easy transport of stone packs with pallets on the construction site.

- ▶ Powered by rechargeable battery with integrated charger.

▶ Drive motor 24 V / 500 W.  
▶ Lifting hydraulics 24 V / 800 W.

Type	max. Pallet Length mm (in)	Distance between forks	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
PW-III-E	1,250 (49")	adjustable	1,200 (2,650)	226 (500)	5110.0012

RAS-90



### Roller adapter kit RAS-90

Large slabs with decorative surfaces are becoming increasingly popular and are often used in public areas and facilities.

A roller compactor is the perfect solution for gentle compaction of these large slabs and for gentle compression of concrete pavers and slabs into the bedding.

- ▶ With the RAS-90 roller adapter kit, any plate compactor that is commercially available as standard can now be retrofitted as a full roller compactor.

▶ The RAS-90 can thus be rolled gently over the material. This prevents the slabs from shifting or even corners and edges from breaking out.

▶ Leading manufacturers of large slabs recommend roller compactors.

Type	Description	Order-Number
Roller adapter kit RAS-90 complete unit	For mounting on conventional plate compactors. Is simply attached to the plate compactor by means of 2 clamping claws. For plate compactor sizes ranging from 450 to 650 mm.	5135.0004

German Patent



## EASYFILL EF-H Paver Jointing Device

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 50 mm 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) 800 x 1,170 x 635 mm.

▷ **Fine Dosing of Water with tap integrated in handle.**

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



## 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.

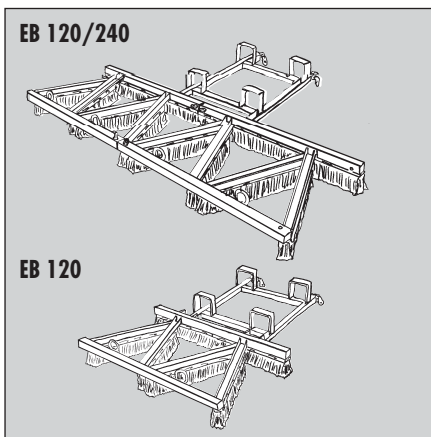
▷ Modular principle of design for flexible working width 1,200 and 2,400 mm (or for attachment to wheel-loaders 3,600 mm).

**Standard Specifications:**

▷ With attachment device for laying machine VM 203/204/301/401 as well as for fork-gripping.

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

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



## 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/m²)	Spreading Material mm (in)	Dead Weight kg (lbs)	Order-Number
<b>ST 180</b>	1,800 (71")	hydraulically	approx. 900	adjustable 5 to 100	versatile up to a grain-size of 100 (4")	480 (1,060)	<b>5160.0022</b>
<b>Universal-attachment-device for attachment to lifting plate of wheel-loader</b>							<b>5100.0049</b>
<b>Quick-change-device for wheel-loader (please indicate type)</b>							<b>5100.0050</b>

<sup>Ⓞ</sup> Durable surface protection by galvanizing

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VARIOKON KES



## VARIOKON KES Sweeping and Sand Watering System

**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 2.1) 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.

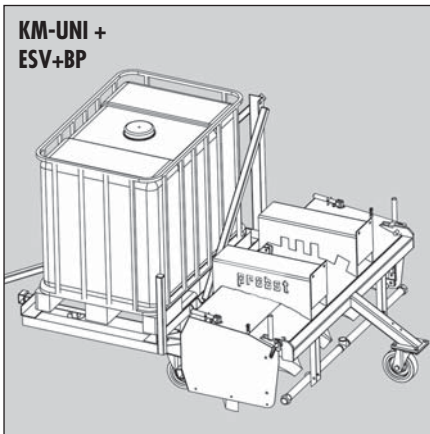
### Recommended combinations:

- ▷ 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.

KM-UNI



KM-UNI + ESV+BP



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



## EASYCLEAN EC-60 Paver Cleaning Device

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.

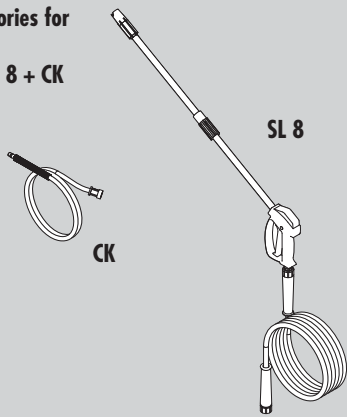
▶ **Easy Moving of Machine** 4 big wheels below the splash guard allow easy handling.

▶ **Handle with integrated stop cock** for water supply cut-off.

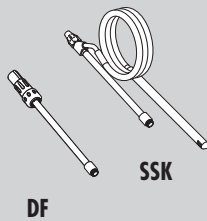
▶ **Compact Transport Size**  
A foldable handle reduces the size to (LxWxH) 800 x 600 x 500 mm which suits most car boots.

▶ **Long-Life Splash Guard**  
Stainless steel protects against rust.

Accessories for EC-60  
Set: SL 8 + CK



Accessories for SL 8



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

Typ	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	51 (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
<b>Spray Lance SL 8 and Chemical Kit CK</b>	<b>2611.0032</b>
<b>Dirt Drill DF</b>	<b>2611.0026</b>
<b>Sand Blasting Kit SSK (0.1 – 0.5 mm grain quartz sand)</b>	<b>2611.0033</b>

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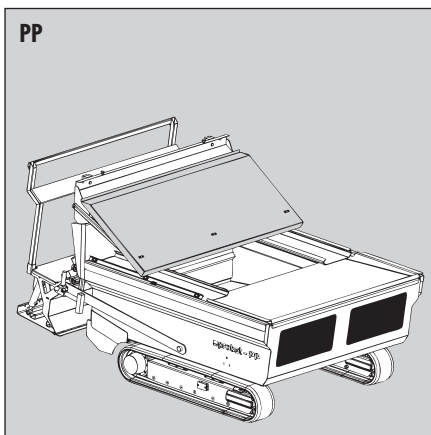




PP



PP



PP



PP

## POWERPLAN PP Screeding Machine

Standard Asphalt Paving Machines, (Finisher) are working with scratch conveyors and worm shafts to distribute the material. When screeding sand or schipping for the bedding of concrete-pavers, this abrasive material is wearing away these components very fast, which is causing high maintenance costs.

The Screeding Machine POWERPLAN PP was specially designed to screed such bedding material without major wear on the machine. Enormous daily rates of up to 10,000 sqm (108,000 sqft) are achievable.

### Standard Specifications:

- ▶ Quick filling of the hopper reservoir with a wheel loader shovel up to 2,500 mm (98") wide, from the front or sideways.
- ▶ Hydraulic liftable front chute.
- ▶ Sideways foldable chutes to avoid that material is spilling over the side of the hopper.
- ▶ Two independently hydraulically operated lids at the bottom of the hopper to perfectly control the material flow.
- ▶ Basic width of the screed board 2,050 mm (81"). By using one board extension on either

side extendable to 2,400 mm (94") or even 2,750 mm (108").

- ▶ On either side one smoothing board can be fixed to extend the full working width to 3,450 mm (136").
- ▶ Simple operation by well arranged instruments. Perfect visibility to relevant spots.
- ▶ Smooth-running adjustable cantilevers for holding the sonic sensors (sonic ski), complete scanning width up to 6,500 mm (256"). So a 6,000 mm (236") wide road can be screeded scanning from kerb to kerb.
- ▶ Compact transportation measurements HxBxL 1,900 x 2,050 x 3,400 mm (75" x 81" x 134") can be transported on a car trailer.
- ▶ Height control system optional via:
  1. Sonic sensors (sonic ski)
  2. Laser sensors
  3. Inclination sensors

Type	Description	Dead Weight kg (lbs)	Payload kg (lbs)	Power (kW)	Order-Number
PP	Screeding Machine	2,500 (5,500)	3,500 (7,700)	26,5	5130.0001
Principally required for operation of the POWERPLAN PP:					
S/US-PP	Levelling Kit: 2 x regulator, 2 x ultrasonic sensor, cable set, case				4130.0005

### Accessories:

Type	Description	Order-Number
LS-PP	Laser Kit: 2 x laser receiver & case	4130.0006
LXS	Laser Set, consisting of: Leica Rugby 410 DG (Rotating Construction Grade Laser), with charger, batteries, hardcase, binoculars, handreceiver	2429.0002
FS-LXS	Remote Control for Laser transmitter	2429.0003
TL-LXS	Telescopic Leveling Post	7115.0003
ST-LXS	Tripod for Laser transmitter	7115.0002
NS-PP	Slope Sensor, installed in the middle of the machine	4130.0007
FSD-PP	Foldeable and detachable sun/rain roof for the operator	4130.0004
RFW-PP	Reversing Alarm	4130.0108
RKL-PP	Flashing Beacon	4130.0109
	Diesel particle filter DPF*. Retrofit kit for POWERPLAN PP	4130.0192

\*For detailed description, see page 1.5

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## LEVELKING LK Screeding Attachment

As against conventional screeding blades the LEVELKING work with integrated smoothening board. With this function it is possible to screed not only the sub-base, rather the top bedding for paver laying. The LEVELKING screed fully automatic controlled, accurate, fast and efficient and is a real alternative to our well-known POWERPLAN PP.

Due to the fact of the fully automatic height adjustment the screeding is much faster as compared with regular rail-guided systems. The LEVELKING is attachable to wheel loaders, skid-steer- and telescopic loaders. The special advantage is the already integrated „floating position“. There is no need for this function for the carrier machine.

Applications: construction for streets, alleys and paver laying. Screeding of hall floors, sports- and industrial areas.

### Standard specifications:

➤ Complete control system, incl. 2 Laser Sensors and 1 Two-Axle Slope Sensor. Within 2 minutes the control elements can be connected in the cabin into the cigarette lighter. All components (laser/cross slope/optional ultrasonic) can be combined depending on the situation of the site.

- Hydraulic adjustment of the side wings via joystick.
  - High precision control of all functions by proportional valves.
  - The shovel form can also be used to carry the material forward.
- Special advantage: no additional loader needed!
- The attachment is equipped with a universal flange plate for the connection. It fits to all common carriage plate sizes and profiles.

### Optional version:

- **Tri-Sonic Sensor LK-MUS-1300:**  
This sensor can be attached to the left or right side. The sensor fully-automatically controls the height as well as the relevant hydraulically pivoting side wings. Thus keeping the ultrasonic sensor in proper reference position (string or edge) and consequently compensates driving inaccuracies.
- Standard ultrasonic sensor LK-SH2: in combination with the tri-sonic-sensor left and right side heights can be controlled.
- **Optionally available: Hydraulic folding shovel with holding capacity of approx. 0.6 to 0.7 m<sup>3</sup> for even better material take-up and material distribution.**

Type	Description	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
LK-2200	Basic version without Sonic Sensor and without Side-Shift-function 2 Laser Sensors incl. hard case 1 Two Axle Inclination Sensor 1 Machine Control and control box inc. all cables, 2 hydraulic hoses	2,200 (86½")	900 (1,980)	5130.0007

Other working width on request

### Accessories:

Type	Description	Dead Weight kg (lbs)	Order-Number
LK-MUS-1300	1 Tri-Sonic Sensor incl. bracket, hence automatic Side-Shift-Function of the side wings. Please note: only one (1) Tri-Sonic Sensor can be used with the LEVELKING LK!	2,5 (6)	4130.0121
LK-KS	Hydraulic folding shovel for LK-2200	50 (110)	4130.0188
LK-SH2	1 standard ultrasonic sensor w/o side-shift function, incl. holder.		4130.0162

### Requirements for hydraulic operation:

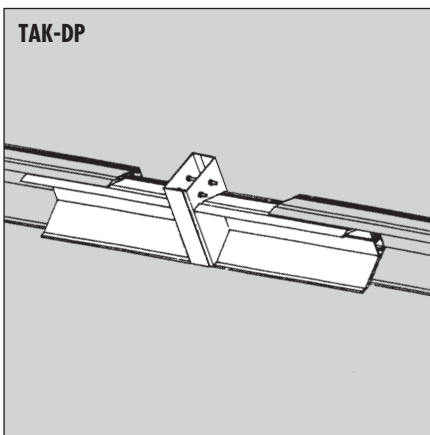
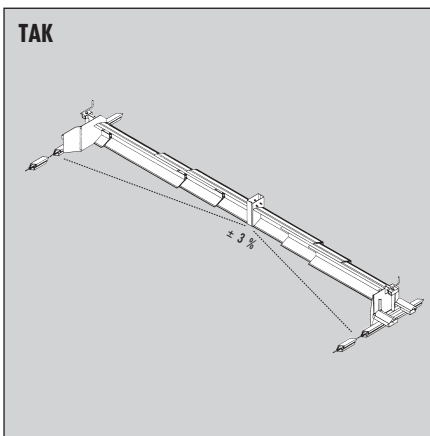
Operating hydraulics of the carrier

- Volumetric flow (l/min), usable min. 30, optimal 50 – 80, max. 100
- Working pressure (bar), usable min. 180, optimal 200, max. 250
- Lockable control lever for operating hydraulics (continuous oil flow)
- Backflow pressure: max. 20 bar

Electrical connection

- 12 V – socket for power supply of machine control

Further accessories, such as Laser Set LXS, Remote Control FS-LXS, Telescopic Leveling Post TL-LXS, and Tripod for Laser ST-LXS see page 3.1



## 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
<b>TAK 750</b> , 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.	285 (630)	<b>5100.0013</b>
<b>TAK 350</b> , 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	200 (440)	<b>5100.0018</b>

## TAK-DP

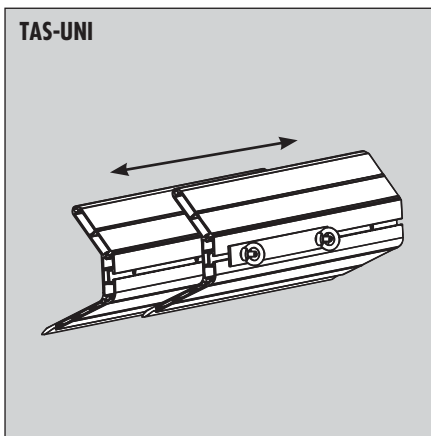
Special complete device for screeding of roof or pan profiles.

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

Type	Description	Dead Weight kg (lbs)	Order-Number
<b>TAK-DP</b>	adjustable adapter to screed any roof or pan profile (+/- 3 %) · Length: 1,500 mm	22 (48)	<b>4100.0042</b>
<b>TAK-DP Profi</b>	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	331 (730)	<b>5100.0021</b>

Screeding Rails AZL see type list, page 3.8

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## 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:

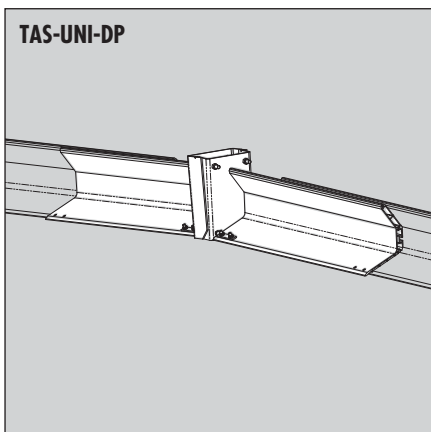
For hand operation the TAS can be easily pulled by means of standard shovels while standing in comfortable upright position!

Type	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
<b>TAS-UNI-450</b> 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
<b>TAS-UNI-600</b> 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-UNI-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-UNI-DP	1 adjustable adapter for roof and pan profiles (+/- 4 %) 2,100 mm long (7 feet)	25 (55)	4100.0173

Screeding Rails AZL see type list, page 3.8



## EASYPLAN EP-UNI 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, optionally available 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!

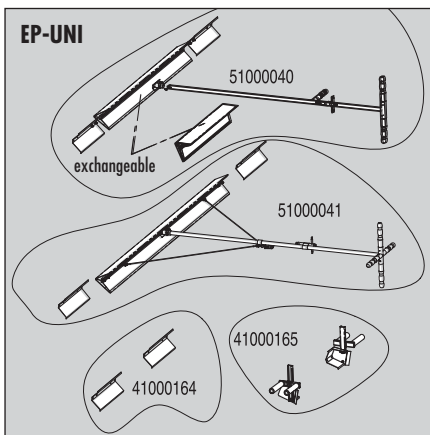
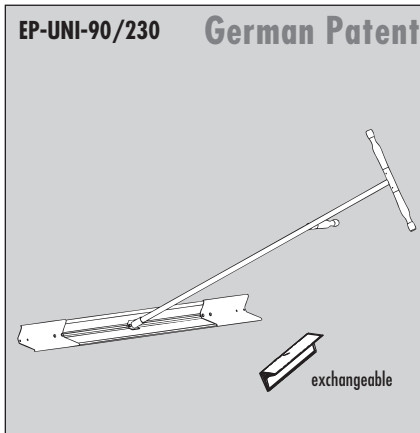
▶ Due to special design, the profile does not leave the screeding rail even when working with large quantities of screeding material.

▶ 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.

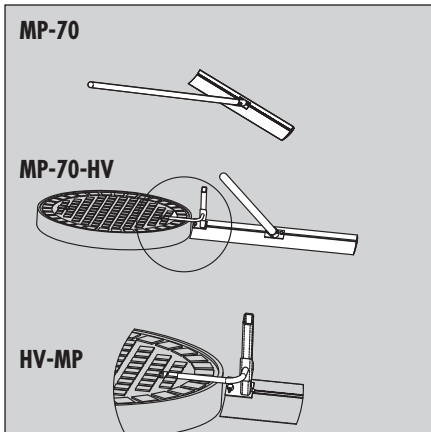


Type	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
<b>EP-UNI-Set 90/230</b> consisting of: - 1 Alu-Profile each 900 mm and 1,600 mm - 1 handle - 2 telescopic units each 350 mm	900 – 2,300 (35 1/2 – 91")	15 (33)	<b>5100.0040</b>
<b>EP-UNI-Set 230/300</b> consisting of: - 1 Alu-Profile 2,300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

Screeding Rails AZL see type list, page 3.8

● Durable surface protection by galvanizing

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## MINIPLAN MP Sliding Finisher

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.

**Fast and easy - preparation of accurate alignments:**

**MP-70-HV provides perfect performance. Simply set the height adjustment to the required measure and the level will fit automatically. The height adjustment can be fixed either at the right or left side of the aluminium profile.**

No problem to fit the height adjustment HV-MP to your existing MP-70 later.

Simple attachment to the aluminium profile either right- or left-hand.



## TELEPLAN TP Handscreeding System German Patent

The new TELEPLAN 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.

### Optional extra equipment:

**Handle HG-TP:** Set of 2 pulling handles, allowing relaxed and ergonomically correct body position standing upright and not kneeling in the wet sand. Handles HG-TP can easily be fixed through plug-in connectors to the side parts ST-TP.

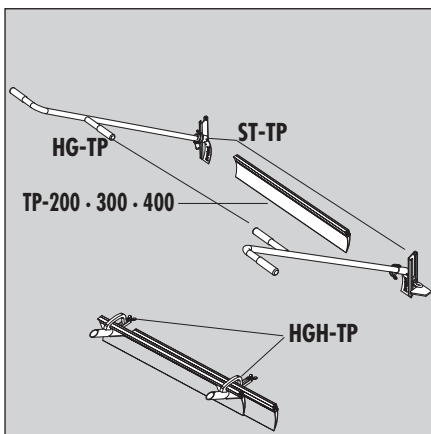
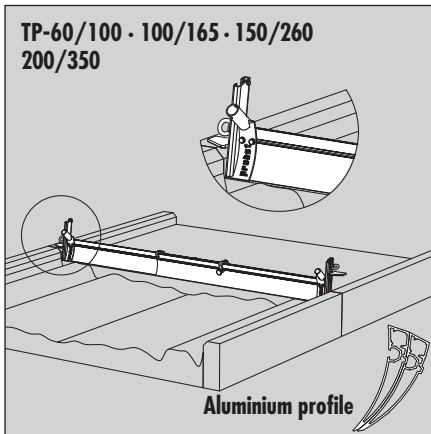
**Handle fastener HGH-TP:** one set consisting of two (2) pieces. Can be fixed easily in any position at the profile even at the overlapping sections to fasten the two handles HG-TP. Enables just one person to screed larger working widths in upright position easy-going and quickly.

### Profile TP: 200 - 300 - 400

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:

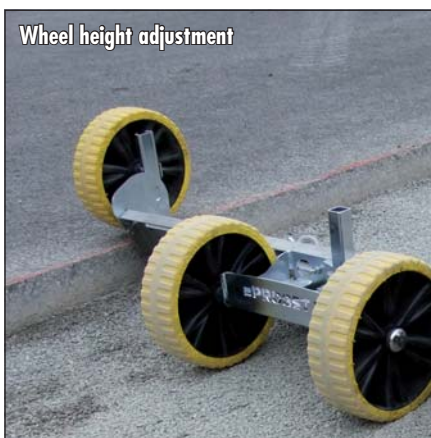
Side parts with height adjustable supports, come as a pair. Range of adjustment 0 - 127 mm, can be fitted and taken off at any time. With integrated fittings for handle HG-TP.



Type	Number of	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
TP-60/100*	1 piece	600 - 1.000 (24" - 39")	3,7 (8.2)	5101.0006
TP-100/165*	1 piece	1.000 - 1.650 (39" - 65")	4,6 (10)	5101.0001
TP-150/260*	1 piece	1.500 - 2.600 (59" - 102")	6,0 (13)	5101.0002
TP-200/350*	1 piece	2.000 - 3.500 (79" - 138")	7,3 (15)	5101.0003
HG-TP <sup>Ⓢ</sup>	1 pair		2,4 (5)	5101.0005
HGH-TP <sup>Ⓢ</sup>	1 pair		0,8 (1.8)	5101.0008
TP-200	1 piece	2.000 (79")	2,7 (6)	4101.0014
TP-300	1 piece	3.000 (118")	4 (9)	4101.0015
TP-400	1 piece	4.000 (157")	5,4 (10)	4101.0016
ST-TP <sup>Ⓢ</sup>	1 pair		1,5 (3)	4101.0019

Ⓢ Durable surface protection by galvanizing

\*Side parts ST-TP already included.



## LEVELFIX LF Manual Screeding System

**The universal manual screeding system – move a large amount of material easily in a short time, on large wheels.**

The LF system is an efficient tool for landscape contractors who are looking for a tool for spreading and also screeding bedding material for paved areas quickly, flexibly and precisely, while maintaining ergonomically sound posture. Suitable for gardener for preparation of planting beds, lawn areas and similar. Also suitable for levelling wood chip or gravel paths.

Level surfaces can be created in a very short space of time and the process, which uses plastic wheels with flat rubber tread, leaves hardly any traces in the surface.

- ▶ Comes in 3 different infinitely adjustable working widths:
  - 700 to 1,200 mm (LEVELFIX LF-70/120)
  - 1,200 to 2,100 mm (LEVELFIX LF-120/210)
  - 1,700 to 3,100 mm (LEVELFIX LF-170/310)
- ▶ A large amount of material can be moved in a very short time (pre-distribution), and then screeded precisely (finish).
- ▶ On both sides infinitely height adjustable wheels, with height indicator for adjusting the

surface level to the kerb for instance. Adjustment range -40 / +170 mm..

- ▶ Infinitely adjustable roof profile integrated as standard: LF-70/120: 7%, LF-120/210: 4%, LF-170/310: 2.5 %.
- ▶ Scraper sheets made from non-rusting stainless steel.
- ▶ Cutter with sharp edge on the lower scraper edges allows materials to be excoriated even where there is compacted sand.
- ▶ Lasting surface protection on all other components thanks to galvanic zinc plating.
- ▶ Handle adjustable for optimum ergonomics.
- ▶ Spirit level bubble fitted on the top right edge of the scraper sheet.
- ▶ Universal tool holder and sweeping broom (recommended primarily for LF-70/120) available as an option.
- ▶ Second handle for wide working width for 2 people operation for LF-170/310 available as an option.

Type ①	Description	Working Width mm (in)	Dead Weight kg (lbs)	Order-Number
LF-70/120	Consisting of: 1 pair of stainless steel scraper sheets, 1 x central rolling unit, 1 x handle with holder, 2 x height-adjustable external roller sets	700 – 1,200 (28 – 47")	22 (50)	5100.0084
LF-120/210	As LF-70/120, but 2 x roller units	1,200 – 2,100 (47 – 83")	32 (70)	5100.0085
LF-170/310	As LF-70/120, but 2 x roller units	1,700 – 3,100 (67 – 122")	42 (90)	5100.0086
LF-HG	Complete handle. incl. bracket for LF-170/310		3 (7)	4100.0317
LF-ZH	Complete accessory holder		0,5 (1)	4100.0318
LF-EB	Complete sweeping broom	800 (31")	3 (7)	4100.0319

① Durable surface protection by galvanizing

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## Screeding Rails AZL for Screeding Systems TAK and TAS-UNI

Special aluminium profile (60 x 60 mm), 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!

▷ AZL-Set 20 and 24: for the daily use on both, small and medium sites.

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

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

Type	Number of Parts	Total Length m (feet)	Dead Weight kg (lbs)	Order-Number
AZL-Set-20	6 x 3 m, 2 x 1 m	20 (66)	40 (90)	5100.0039
AZL-Set-24	6 x 3 m, 2 x 2 m, 2 x 1 m	24 (79)	48 (115)	5100.0014
AZL-Set-60	12 x 4 m, 4 x 2 m, 4 x 1 m	60 (197)	120 (265)	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



## Screeding Rails AZL-S for Screeding Systems TAK and TAS-UNI

Hollow profiles (80 x 60 mm) made of galvanized steel for accurate guidance of screeding systems. Set at the desired level, they allow easy and clean screeding.

▷ AZL-S-Set-20: for the daily use on both, small and medium sites.

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

▷ Simple plug system using integrated fastening cross. Impossible to lose!

Type	Number of Parts	Total Length m (feet)	Dead Weight kg (lbs)	Order-Number
AZL-S-Set-20	10 x 2 m	20 (66)	88 (194)	5100.0082
AZL-S-Set-60	12 x 4 m, 4 x 2 m, 4 x 1 m	60 (197)	260 (573)	5100.0081
AZL-S-1	1 piece, 1 m long	1 (3)	4,5 (10)	5100.0078
AZL-S-2	1 piece, 2 m long	2 (7)	8,8 (20)	5100.0079
AZL-S-3	1 piece, 3 m long	3 (10)	13 (30)	5100.0083
AZL-S-4	1 piece, 4 m long	4 (13)	17,5 (38)	5100.0080



## Screeding Rail Kit AZL-EP for Handscreeding System EASYPLAN 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 (Diameter 26,9 mm).

▷ Simple, robust, integrated plug system. Undetachably!

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

① Durable surface protection by galvanizing





## 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.

### With 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.

## Paver Lifter SAH

To lift out uncompacted pavers quick and easy,

for example when marker pavers in different colour should be laid in.



### Accessories:

See page 4.8 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	Surface protection	Gripping Range W mm (in)	Dead Weight kg (lbs)	Order-Number
<b>SZ</b> ①	galvanized	90 – 330 (3 1/2 – 13")	4 (9)	<b>5180.0030</b>
<b>SAH</b> ①	galvanized	90 – 400 (3 1/2 – 15 3/4")	4,9 (11)	<b>5180.0050</b>
<b>SZ-Set</b> consisting of Paving Block Extractor, Extraction Foot Lever, Combination Hammer				<b>5180.0048</b>

## Alignment Bar RE

For aligning the paving stones before they are permanently set.

joints using a hammer.

▷ With two handles, a foot bar and a hammering surface to drive it into the paver

▷ 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
<b>RE</b> ①	1,5 (3,3)	<b>5180.0011</b>
Spare blade for RE/MRE		<b>4180.0002</b>

## 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
<b>MRE</b> ①	650 (25 1/2")	5 (10)	<b>5180.0045</b>

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.

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

Light-weight, available with long or short handle for work in optimal position.

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

Type	Length of handle mm (in)	Dead weight kg (lbs)	Best.-Nr.
<b>GH</b>	800 (31 1/2")	2,2 (5)	<b>5180.0012</b>
<b>GH-K</b>	400 (15 3/4")	1,8 (4)	<b>5180.0051</b>
<b>Rubber cover for GH/GH-K</b>		per piece	<b>4180.0006</b>

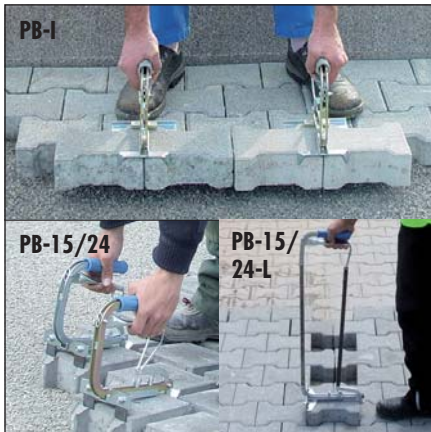
## Paver Set

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

① Durable surface protection by galvanizing

German Patent





## PAVERBOY 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 laid at the same time.

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

**NEW: PB-15/24-L.** With long handles for effortless installation of various types of stones, such as double-T-bricks or large-size paving stones.

**Core benefit:** At mechanical installation often times single paving stones have to be laid into the gaps to complete the stone bonds. This succeeds easily with the PB-15/24-L in upright body position without bending down.

Type <sup>①</sup>	Gripping Range W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>PB-I</b>	100 – 170 (4 – 6¾")	10 (22)	1 (2.2)	<b>5180.0001</b>
<b>PB-15/24</b>	150 – 240 (6 – 9½")	10 (22)	1 (2.2)	<b>5180.0004</b>
<b>PB-15/24-L</b>	150 – 240 (6 – 9½")	10 (22)	2 (4.4)	<b>5180.0079</b>



## Turf Stone Handles RVH

Used in pairs and designed specially for laying turf stones.

► Suitable for hollow sections measuring approx. 80 mm x 80 mm (3 x 3").

► **Other sizes on request.**

Type	Dead Weight kg (lbs)	Order-Number
<b>RVH (Pair)<sup>①</sup></b>	3 (6.5)	<b>5180.0021</b>



## Brick Handles KKT

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

Type	Gripping Range W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>KKT<sup>①</sup></b>	400 – 670 (15¾" – 26½")	50 (110)	1,5 (3.2)	<b>5180.0025</b>



## 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
<b>ENZ<sup>①</sup></b>	10 – 30 (½ – 1½)	0,8 (2)	<b>5180.0038</b>

① Durable surface protection by galvanizing



### Plumb Line Fixture RSH

The plumb line fixture RSH allows for precise guidance of the plumb line in vertical and horizontal direction in combination with a pin extractor.

▶ Enormous time-savings for preparation of straight lines and right angles.

▶ Accurate alignment of the plumb line providing simple readjustment if required.

▶ The plumb line can be tightened precisely such as on rocky grounds or with pipe lines as the pin extractor can be moved.

▶ Pin extractor  $\varnothing$  from 5 to 20 mm.

Type	Specification	Dead Weight kg (lbs)	Order-Number
RSH	Set consisting of: 1 clamping joint, 2 wing nuts and 1 cross rod with a length of 500 mm	0,8 (2.0)	5180.0081



### 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



### PAVERMARKER PM

The smart marker for horticulture and landscaping, par excellence.

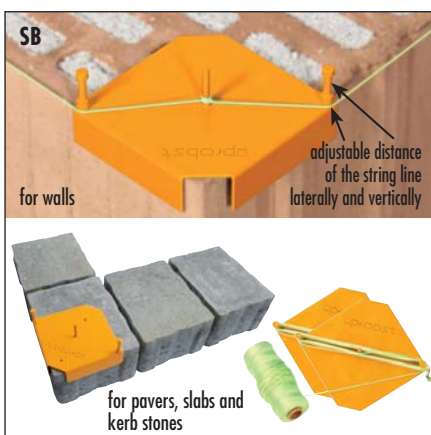
▶ Marks nearly all materials with a line thickness of constant, pavers can be cut to fit perfectly.

▶ Suitable for dry and wet surfaces, leaves no permanent marks, weathers itself after a short while.

▶ Unbreakable, crayon is reinforced with embedded glass fibers.

▶ Wear-resistant, one PM marks thousands of paving stones.

Type	Dimensions mm (in)	Packaging unit	Order Number
PM	120 x 30 x 2 (4¾" x 1¼" x ¼")	Pieces 5	5180.0069



### STRINGTIGHT SB

German Patent

The innovative new STRINGTIGHT SB for the horticulture, landscaping, building and construction industry.

Straight and square edges are required when installing paving stones, kerbs, slabs and bricks. Conventional plumb lines often catch against the stone thus not giving an accurate straight line reading.

The STRINGTIGHT SB provides a clearance of approx. 4 – 5 mm between stone and string line – giving great results every time!

▶ The practical tool for paver laying and masonry work.

▶ The kit contains 2 metal brackets, 1 roll of Nylon line: thickness 1,4 mm with a length of 100 m.

▶ Made of robust steel, powder coated.

▶ Adjustable distance of the string line laterally and vertically.

▶ With string line take-up and functional slot to place a level on.

▶ Comes in a decorative promotional display rack each with 12 kits.

Type	Dimensions mm (in)	Packaging unit/kit	Order-Number
SB	120 x 120 (4¾" x 4¾")	Pieces 12	5180.0072
Spare line	1 roll of Nylon line: thickness 1,4 mm with a length of 100 m		2540.0012

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### 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	Specification	Dead Weight kg (lbs)	Order-Number
QD	incl. wax crayon and felt crayon	1,8	5180.0034



### STRING ALONG SA

The brilliantly simple and flexible line holder for all setup work performed with a plumb line.

The STRING ALONG SA is simply placed over the ground pin (max. diameter 25 mm) and fixed on the ground pin at the desired height using the wing nut. The line can now be looped around the line holder at any time and settled firmly into the teeth in the two grooves of the SA. If required, the line can therefore also be removed again at any time without losing the height setting as a result.

- ▷ 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.
- ▷ Errors are avoided!
- ▷ No more string line knots, or confusing marks on the pins.

Type	Specification	Packaging unit/bag	Order-Number
SA	suitable for pin diameters max. 25 mm	Pieces 6	5180.0062



### Aluminium Angle AW-200

Adjustable to 45°, 60° and 90°.  
Foldable.

Type	Side Length mm (in)	Dead Weight kg (lbs)	Order-Number
AW-200	2,000 x 2,000 (79" x 79")	6,5 (14)	5180.0018



### Aluminium Angle AW

Operating angles: 45° and 90°.  
Foldable.

\* NEW

Type	Side Length mm (in)	Dead Weight kg (lbs)	Order-Number
AW-60	600 x 600 (24" x 24")	0,6 (1.3)	5180.0052
* AW-120	1,200 x 1,200 (47" x 47")	1,2 (2.6)	5180.0085



## FLEXMARKER-KIT FMK

The FLEXMARKER-KIT FMK is a complete system to shape and mark tailor-made curves. Creating dynamically shaped paths without visual interruptions.

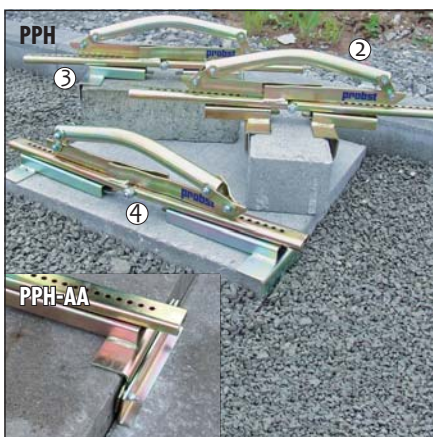
- ▶ Harmonious curves can be prepared quickly and with enormous time savings.
- ▶ The kit contains 10 fiberglass rods with 1 meter length and 10 binders for pins 5 fixing claws.
- ▶ Smallest bending radius 15 cm

**Work mode 1:** The connectable fiberglass rods can be securely fixed on the existing pavement with the fixing claws. The curve can be marked by spray paint or chalk (e.g. PAVER-MARKER PM of Probst). Weighted by paving stones, the claws are immovably fixed.

**Work mode 2:** For paths and bed edges, the so-called one-liner, are laid in dry concrete. For that purpose the FLEXMARKER-KIT FMK can be fixed at the pins with the binders. It doesn't only show the curve, it also shows the vertical profile.



Type	Specifications	Dead Weight kg (lbs)	Order-Number
FMK	Consists of: 10 fiberglass rods, 5 fixing claws and 10 binders	2,7 (6)	5180.0074



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

▶ Support adapter for retrofit at any time PPH-AA allows for quick and more accurate fit in. (1 unit required per PPH)

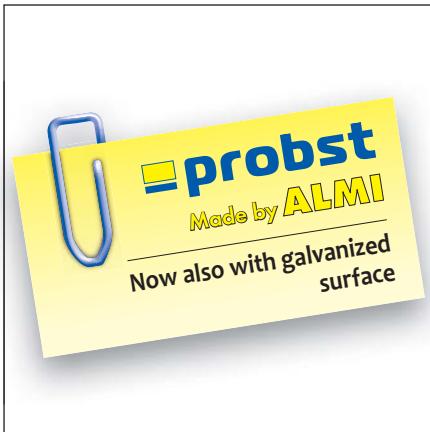
▶ 2-man carrying handle PPH-2-HG for all PPH models. With one wing nut, the handle can be turned through 90° as required.



Type <sup>①</sup>	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
PPH-10/37 ②	100 – 370 (4 – 14½")	60 (130)	1.5 (3.2)	5320.0053
PPH-22/50 ③	220 – 505 (7½ – 19½")	60 (130)	1.5 (3.2)	5320.0052
PPH-33/62 ④	330 – 620 (13 – 24")	60 (130)	1.5 (3.2)	5320.0054
PPH-S-10/62	100 – 620 (4 – 24")	60 (130)	3 (7)	5320.0055
PPH-AA			0,1 (0.2)	4320.0079
PPH-2-HG			2,3 (5)	4320.0085

① Durable surface protection by galvanizing

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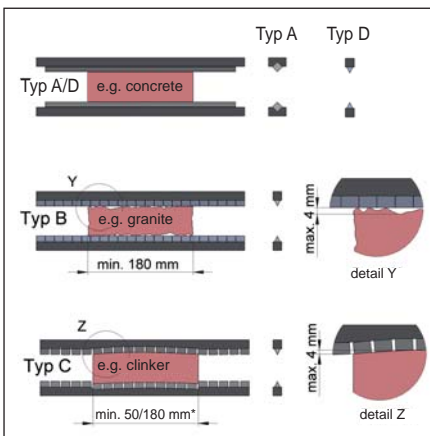
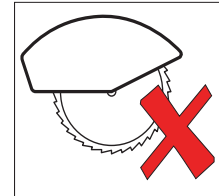
## Block Cutters AL – for paving work, garden and landscape construction, and building construction

The tried and tested block cutter from ALMI now also in tried and tested, galvanized quality, exclusively at PROBST.

- ▶ Snap blocks without great force: easy! With the perfect combination of lever and eccentric transmission, huge splitting force with minimal operating force is generated with all mechanical block snappers. Blocks can therefore be cut cleanly **without**

dust, noise or wastewater. No particulate emissions occur, which are harmful to health.

Both the staff and the environment are therefore protected.



Various types of stone separators with optimal cutting blades for every task.

**Type A+D:** Fixed, continuous blades with 3 or 4 cutting edges in hardened tool steel.

- ▶ For everyday tasks and particularly for concrete paving stones.
- ▶ Blade type A: 4 cutting edges.
- ▶ Blade type D: 3 cutting edges.

**Type B:** Fixed-mounted, split triangular reversible carbide blade.

- ▶ E.g. for granite stones, max. 4 mm height difference, minimum stone length 180 mm.
- ▶ Blade has 3 cutting edges.

**Type C:** Flexibly mounted, split triangular reversible carbide blade.

- ▶ For slightly concave or convex stone elements, e.g. such as clinker and large stone slabs with max. 4 mm height difference, \*minimum stone length 50 mm or 180 mm, depending on the model.
- ▶ Blade has 3 cutting edges.



## Block Cutters AL-EASY

with blade type A

- ▶ Cut blocks with significantly reduced effort.
- ▶ Clean cuts with precisely guided, square, reversible blade.
- ▶ Suitable for cutting concrete paving.

**NEW: AL-33-EASY-V / AL-43-EASY-V:**

- ▶ The required height of the stones can be set easily and quickly using a smoothly-operating hand-crank.
- ▶ Improved technology resulting in effort saving of up to 20% when cutting blocks.
- ▶ Blade has 4 cutting edges.

▶ Tilting, spring-mounted supporting table allows clean undercut for precise laying without uneven large gaps.

▶ Size indicator in cm and inches as well as 45-degree angle on both support plates speed up the work enormously!

▶ **AL-33-D/EASY-V:** With tilted, rigid supporting table, so that the block is cut at a constant angle.

Type	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Surface	Order-Number
AL-33-EASY-V	330 (13")	10 – 120 (½ – 4¾")	40 (88)	Galvanized	5120.0059
AL-33/D-EASY-V	330 (13")	10 – 120 (½ – 4¾")	42 (95)	Galvanized	5120.0060
AL-43-EASY-V	430 (17")	10 – 120 (½ – 4¾")	57 (125)	Galvanized	5120.0061

AL-33-V



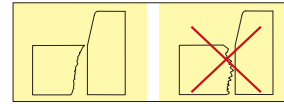
## Block Cutters AL with blade type A

High rationalisation effect, as clean snapping of the blocks can often replace time-consuming and expensive cutting with masonry saws.

- ▶ Clean cuts with precisely guided, square, reversible blade.
- ▶ Tilting, spring-mounted supporting table allows clean undercut for precise laying without uneven large gaps.
- ▶ **AL ... /U (-V):** Designs also suitable for concrete kerbstones or limestones up to height 300 mm.

▶ **AL-33-D-V:** With tilted, rigid supporting table so the block is cut continuously at an angle.

▶ **New with AL-33-V and AL-43-V:** Size indicator in cm and inches as well as 45-degree angle on both support plates speed up the work enormously!



AL-43/U-V



Type	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Surface	Order-Number
AL-33	330 (13")	10 – 120 (½ – 4¾")	41 (90)	Painted	5120.0001
AL-33-V	330 (13")	10 – 120 (½ – 4¾")	41 (90)	Galvanized	5120.0042
AL-33/D-V	330 (13")	10 – 120 (½ – 4¾")	41 (90)	Galvanized	5120.0049
AL-43-V	430 (17")	10 – 120 (½ – 4¾")	57 (125)	Galvanized	5120.0043
AL-43/U-V	430 (17")	10 – 300 (½ – 11¾")	66 (145)	Galvanized	5120.0046
AL-65-V	650 (25½")	10 – 120 (½ – 4¾")	88 (195)	Galvanized	5120.0047
AL-65/U-V	650 (25½")	10 – 400 (½ – 15¾")	98 (215)	Galvanized	5120.0048

## Block Cutters AL-15-V

with blade type D

- ▶ Suitable for cutting slabs, concrete slabs and masonry blocks.
- ▶ Improved technology resulting in effort saving of up to 34% when cutting blocks.
- ▶ Blade has 4 cutting edges.
- ▶ The required height of the stones can

be set easily and quickly using a smoothly-operating knurled screw.

▶ With a machine weight of 19 kg, it is very light and therefore easy to transport.

▶ With supporting table with indicators for a 45 degree cutting angle on both sides.

AL-15-V



Type	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Surface	Order-Number
AL-15-V	170 (6½")	40 – 100 (1 ½ – 4")	19 (42)	Galvanized	5120.0037

## Block Cutters AL/S

with blade type C

- ▶ Ideal for cutting slabs and clinker and concrete blocks.
- ▶ Cutting teeth adapt optimally to the surface of the block.
- ▶ The even pressure on the break line allows a much better cutting result with less force.

▶ Clinker with a height difference of up to 4 mm in surface can therefore be snapped with no problem.

▶ **AL-43/S-V:** Ideally suited to snapping slabs due to its large cutting width.

AL-33/S-V



Type	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Surface	Order-Number
AL-33/S-V	50 – 320 (2 – 12½")	20 – 135 (¾ – 5¼")	53 (115)	Galvanized	5120.0044
AL-43/S-V	180 – 440 (7 – 17¼")	20 – 135 (¾ – 5¼")	63 (140)	Galvanized	5120.0045



## 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 ①	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 <sup>3</sup> / <sub>4</sub> ")	355 (14")	50 – 100 (2 – 4")	4,5 (10)	4120.0016

\* Min. required distance between plates 140 mm

## Hydraulic Block Cutters AL-43/SH range

with blade type A, B or C

Snap electrohydraulically at the touch of a button – entirely without dust, noise or wastewater. The environmentally friendly alternative to block sawing.

ness, e.g. such as burnt clinker, crooked slabs, uneven concrete blocks and concrete paving. Not suitable for natural stone, e.g. such as granite blocks!

- ▶ Integrated battery with charger.
- ▶ AL-43/SH-14..., blade type C, flexible individual blade, for blocks with under 4 mm height difference in thickness.
- ▶ AL-43/SH-21..., blade type B, fixed individual blade, particularly suitable for natural stones such as granite with less than 4 mm height difference in thickness.

Type	Splitting Force t	Blade rigid flexible	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Surface	Order-Number
AL-43/SH-14-V	14	C	180 – 430 (7 – 17")	20 – 200 (3/4 – 8")*	125 (275)	Galvanized	5120.0051
AL-43/SH-14-V-110**	14	C	180 – 430 (7 – 17")	20 – 200 (3/4 – 8")*	125 (275)	Galvanized	5120.0056
AL-43/SH-21-V	21	B	180 – 420 (7 – 16 1/2")	20 – 200 (3/4 – 8")*	125 (275)	Galvanized	5120.0052
AL-43/SH-21-V-110**	21	B	180 – 420 (7 – 16 1/2")	20 – 200 (3/4 – 8")*	125 (275)	Galvanized	5120.0058
AL-43/SH-21-H-V	21	B	180 – 420 (7 – 16 1/2")	80 – 300 (3 1/4 – 11 3/4")	150 (330)	Galvanized	5120.0062
AL-90/NSH-40	40	B	400 – 900 (15 3/4 – 35 1/2")	40 – 370 (1 1/2 – 14 1/2")	500 (1,100)	Painted	5120.0054

\*\* 110 V rather than 230 V charger

\* Special height of 50 – 250 mm possible

① Durable surface protection by galvanizing





## 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.

► Galvanised finish

Type	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
PZ <sup>⓪</sup>	200 – 610 (7 <sup>3</sup> / <sub>4</sub> – 24")	70 (155)	6 (13)	5320.0006

See page 4.1 for the paving block extractor SZ



## Site Fence Base Handle BZSH

Move site fence bases quickly and ergonomically.

► Concrete or plastic site fence bases quickly reach a weight of 30 kg. Transporting them is awkward, takes a lot of strength and strains the back. With the BZSH site fence base handle, it is no longer necessary to bend down – this saves time and spares the back.

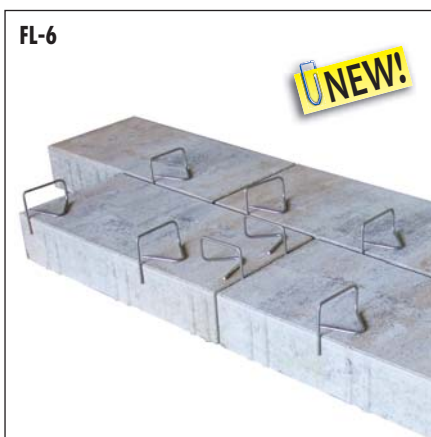
► Continuously adjustable adjustment bolts grip into the outer holes of the site fence base and catch there.

► With the adjustable handle, the site fence base hangs horizontally.

► Thin handle design for pushing into mesh boxes.

► With lifting eye for crane hook.

Type <sup>⓪</sup>	Hole distance min./max. mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
BZSH	65/132 (2 <sup>1</sup> / <sub>2</sub> " / 5 <sup>1</sup> / <sub>4</sub> ")	35 (75)	5 (10)	5180.0084



## Joint Spacer FL

Proper spacing is essential when laying slabs. The new Joint Spacer FL from Probst achieves this simply and easily.

► Available for spacing of 6 mm, 8 mm and 10 mm.

► 2 of these practical little helpers are simply laid on each of the slabs which have already

been laid. As soon as the next slab is laid, the correct spacing is produced automatically.

► The Joint Spacers are then simply pulled out upwards by the bracket handle and are laid on the next slab.

► Protected from corrosion as they are made from stainless spring steel.

Type	Diameter ∅ (mm)	Dead Weight kg (lbs)	Packaging unit/ bag	Order-Number
FL-6	6 (1/4")	0.1 (0.2)	5 piece	5180.0086-001
FL-8	8 (1/4")	0.1 (0.2)	5 piece	5180.0087-001
FL-10	10 (1/2")	0.3 (0.7)	5 piece	5180.0088-001

<sup>⓪</sup> Durable surface protection by galvanizing



## Vacuum Technology

### Benefits:

Compared to mechanical grabs, vacuum technology provides substantial and numerous benefits in handling and installation of building materials. This applies to in-plant handling and transport in concrete plants as well as to installation of material on site.

### Significant Advantages:

1. Installation without joints
2. No edge cracks and chipping
3. Higher laying quality; easy removal and readjustment, such as a slab was placed too deep into the laying course

### Porosity:

Failsafe function of the vacuum devices is decisively influenced and determined by the porosity of the elements. It is easy to imagine: if the incoming air from micro pores exceeds the capacity a vacuum pump or blower is able to exhaust, proper negative pressure between suction plate and construction material cannot be built up. These kind of products are not suitable to be lifted with vacuum devices. Unlike the surface characteristics and finish, porosity is not apparent or visible to the observer.

Probst therefore developed a "Porometer", metering device, to specify and define porosity.

Probst, the international market leader in that sector offers an tremendous wide range of most versatile devices and machines covering a huge variety of customer and market requirements. The following outline is to provide our customers with an initial selection guide choosing the suitable equipment. We are glad to help and would be pleased to assist you individually either by phone or e-mail (info@probst.eu).

Specification Material/Product	Appropriate Device	Vacuum Generation via Vacuum Pump						Vacuum Generation via Vacuum Blower								
		Vacuum Hand Laying Systems*				Vacuum Lifting Devices				Vacuum Hose Lifters						
		VH	VPH	VPE	MJ	SM	SH	SH TURBO	VPM	SPEEDY VS*	QUICKJET QJ	POWER JET PJ	JUMBO-MOBIL JM	JUMBO BY VARIO	UNIPOSE UP	TRANS-MOBIL TM
<b>Very dense/not porous:</b> - granite - marble - „WET CAST“ (molded wet concrete)																
<b>Dense/up to slightly porous:</b> - miscellaneous natural stones - specific sandstones - limestone - single layer concrete stones, highly compressed, manufactured with a high content of water/cement																
<b>Moderate porous:</b> - smaller concrete slabs w/facing produced on block making machines																
<b>Highly porous:</b> - larger concrete slabs w/facing produced on block making machines - aerated concrete blocks - exposed aggregate surfaces																
<b>Very highly porous:</b> - drain concrete - single drain concrete	<b>on request</b>															

Marginal conditions, test set-up might be necessary prior to final decision making

### Surface:

What really matters in practical application is not that much the surface finish but rather the porosity of the material.

1. Plane and smooth surfaces are optimal
2. Slight, not sharp-edged unevenness up to 5 mm is usually not a problem.

3. Products with severe, not sharp-edged unevenness of approx. 8 to 10 mm can be handled with specific vacuum devices and corresponding sealing systems.

4. Products with deep unevenness, such as exposed aggregate surfaces are easy to handle with vacuum devices operated by a vacuum blower.

5. Sharp-edged products, with uneven and graded top up to approx. 3 mm are, if at all, solely be handled with vacuum devices equipped with a vacuum blower

6. Other surface characteristics on request.

POR



## POROMETER POR

### Porosity Measuring Device for Concrete Materials

In order to check the suitability of Vacuum Handling Devices, the POROMETER was designed by the Probst engineers. It facilitates metering the air permeability of concrete products.

To take measurements, the POROMETER is connected to a powerful compressor with minimum suction volume about 400 l/min (14 ft<sup>3</sup>/min) and air tank approx. 100 l (3,5 ft<sup>3</sup>). After setting the POROMETER by using a steel plate as reference level, the suction plate of the metering device is put on the concrete element which should be measured.

Reading the volumetric flow rate, the concrete elements can be classified into 5 categories of air permeability (classification see chart below).

The readings are taken by checking the position of the upper end of a floating-type flow meter, which is floating in the transparent measuring tube according to the volumetric flow rate. The categories of air permeability provides indication about the type of Vacuum Handling Device which is best to use for installing these kind of elements.

Guidelines to assess the categories of air permeability:

Volumetric flow rate l/min (ft <sup>3</sup> /min)	Volumetric flow rate M <sup>3</sup> /h (ft <sup>3</sup> /h)	Specification Material/Product
0 – 5 (0 – 0,175)	0 – 0,3 (0 – 10,5)	Very dense/not porous
6 – 15 (0,8 – 0,525)	0,36 – 0,9 (10,5 – 31,5)	Dense/up to slightly porous
15 – 30 (0,525 – 1,05)	0,9 – 1,8 (31,5 – 63)	Moderate porous
30 – 60 (1,05 – 2,1)	1,8 – 3,6 (63 – 126)	Highly porous
> 60 (> 2,1)	> 3,6 (> 126)	Very highly porous

Type	Measuring range m <sup>3</sup> /h (ft <sup>3</sup> /h)	Dead Weight kg (lbs)	Order-Number
POR	0 – 6 (0 – 210)	4 (9)	5295.0001

UXP



## Device for Vacuum Test UXP

To check the different components of a vacuum system for leaks.

Measuring points for example: 1. Vacuum fan or vacuum pump outlet. 2. End of the vacuum hose. 3. End of the operating unit.

If the difference is not more than >0,04 bar, the vacuum system does not leak.

Type	Measuring range (bar)	Dead Weight kg (lbs)	Order-Number
UXP	0 bis -1	0.4 (1)	2213.0014



VH-1/25

## 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.



VH-2/50

## 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 VH-2-HG the VH-1/25 can be used for two-men operation.

Type	Suction Plate dimension $\varnothing$ mm (in)	Working Load Limit WLL kg(lbs)	Dead Weight kg (lbs)	Order-Number
VH-1/25 <sup>①</sup>	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 $\varnothing$ (mm)	Working Load Limit WLL kg(lbs)	Dead Weight kg (lbs)	Order-Number
VH-2/50 <sup>①</sup>	280 (11")	50 (110)	8 (18)	5260.0010

### Accessories

Type	Description	Dead Weight kg (lbs)	Order-Number
VH-2-HG <sup>①</sup>	Two-men handle	3 (7)	4260.0155

Replacement seal for Type VH 1/25 and VH 2/50			4273.0008
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① Durable surface protection by galvanizing



## 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!

- ▶ Powered by rechargeable battery 12 V. Special energy saving automatic allows a full day of laying operation without the need of recharging. Battery charger not included.

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

- ▶ With 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 <sup>①</sup>	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Suction Plate Dimension mm (in)	Order-Number
VPH-100	100 (220)	16 (35)	oval 260 x 210 (10 <sup>1</sup> / <sub>4</sub> " x 8 <sup>1</sup> / <sub>4</sub> "	5271.0002
VPH-150	150 (330)	16,5 (36)	oval 440 x 250 (17 <sup>1</sup> / <sub>4</sub> " x 9 <sup>3</sup> / <sub>4</sub> "	5271.0001

## Suction Plates

Type	Suction Plate Dimension mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number
VPH-SPS-HP-100-26/21 <sup>①</sup> for VPH 100	oval 260 x 210 (10 <sup>1</sup> / <sub>4</sub> " x 8 <sup>1</sup> / <sub>4</sub> "	100 (220)	3,0 (7)	4270.0051
VPH-SPS-HP-150-44/25 <sup>①</sup> for VPH 150	oval 440 x 250 (17 <sup>1</sup> / <sub>4</sub> " x 9 <sup>3</sup> / <sub>4</sub> "	150 (330)	6,0 (13)	4270.0050
ED-SPS-HP-100	Replacement seal for VPH-SPS-HP-100-26/21			4273.0004
ED-SPS-HP-150	Replacement seal for VPH-SPS-HP-150-44/25			4273.0012
<b>Special Suction Plates:</b>				
VPH-SPS-75-22-RD <sup>①</sup>	round 225 x 225 (8 <sup>3</sup> / <sub>4</sub> " x 8 <sup>3</sup> / <sub>4</sub> "	75 (165)	2,0 (4)	5250.0157
VPH-SPS-HP-40-38/9 <sup>①</sup>	380 x 90 (15" x 3 <sup>1</sup> / <sub>2</sub> "	40 (90)	4,0 (9)	4270.0052

\* Value at 500 mbar low pressure

① Durable surface protection by galvanizing



## Accessory

Type	Description	Order-Number
Battery-12V/6,5 Ah	Spare storage battery for VPH-100 and 150	2420.0007
VPH-LG-220 V/12V	Battery charger for VPH-100 and 150	2420.0004

## Wheel Set VPH-RS

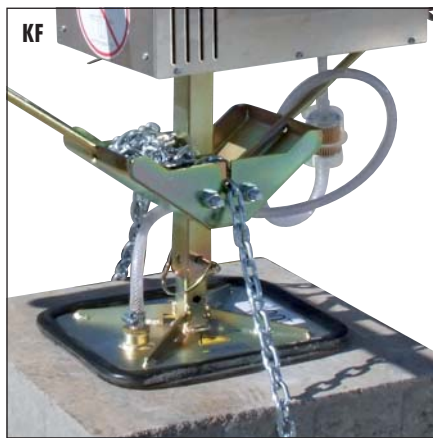
Retrofit with wheel set VPH-RS can be done at any time.

Thus dense slabs can be installed by just one person.

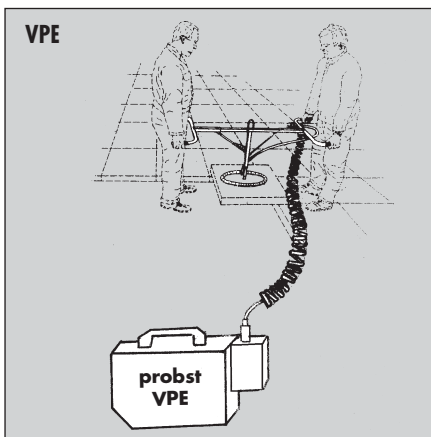
## Chain Box KF

The chain box with integrated safety chain is available as an optional extra.

For proper safety in hoist operation the chain has to be attached underneath the load.



Type ①		Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
VPH-RS		150 (330)	7,6 (17)	4271.0072
KF	Chain box with chain for MJ-II, VPH und MJ-J-II		3 (7)	4271.0098



## MICROJUMBO MJ Vacuum Slab Layer

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 MICROJUMBO 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 MICROJUMBO 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.

Type	Specifications	Dead Weight kg (lbs)	Order-Number
<b>MICROJUMBO MJ-I-75</b> <sup>Ⓛ</sup>	Complete, consisting of: – 1 handle HTG I including vacuum switch and gauge – 1 suction plate SPS-75 (75 kg* working load limit) (165 lbs)* – 1 vacuum supply spiral hose	5 (11)	<b>5260.0001</b>
<b>MICROJUMBO MJ-II-150</b> <sup>Ⓛ</sup>	Complete, consisting of: – 1 handle HTG II including vacuum switch and gauge – 1 suction plate SPS-150 (150 kg* working load limit) (330 lbs)* – 1 vacuum supply spiral hose	10 (22)	<b>5260.0002</b>

## Vacuum Pump Unit VPE for Vacuum Slab Layer MICROJUMBO MJ

This Vacuum pump unit was specially designed for operating the vacuum slab layer MICROJUMBO MJ system. If there is no vacuum lifting device 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-B).
- ▶ Equipped with vacuum bajonett coupling system.
- ▶ Driven by quiet electric engine or by petrol engine.

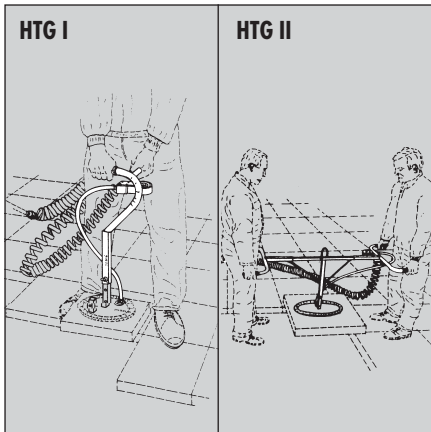
Type	Drive	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>VPE-E</b> <sup>Ⓛ</sup>	electric, 230 V single phase 50 Hz	in tune with MJ-use, approx. 150 kg (330)	19 (42)	<b>4240.0346</b>
<b>VPE-E-110</b> <sup>Ⓛ</sup>	electric, 110-115 V single phase 50-60 Hz	in tune with MJ-use, approx. 150 kg (330)	19 (42)	<b>4240.0347</b>
<b>VPE-B</b>	petrol engine	in tune with MJ-use, approx. 150 kg (330)	26 (57)	<b>4240.0019</b>

Special voltage on enquiry.

\* Value at 600 mbar low pressure

<sup>Ⓛ</sup> Durable surface protection by galvanizing





## 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.

um control valve, vacuum safety quick-release coupling.

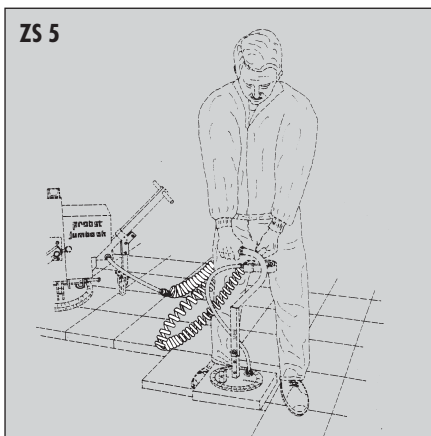
► Cold galvanised

### 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.

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

► Cold galvanised



### Supply Spiral Hose ZS 5

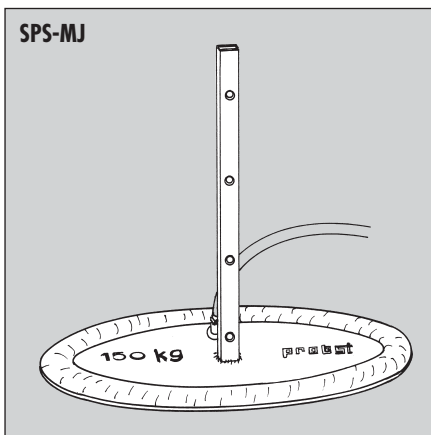
Spiral vacuum hose (no more tangled hose!): Extended length of max. 5 m.

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.

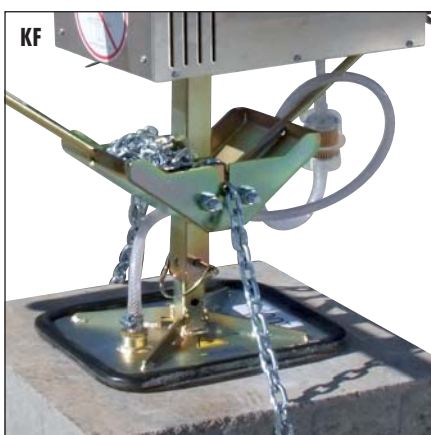
rying handles and the vacuum connector fitting.



### Chain box KF

The chain box with integrated safety chain is available as an optional extra.

For proper safety in hoist operation the chain has to be attached underneath the load.



Type	Specifications	Dead Weight kg (lbs)	Order-Number
<b>Single components</b>			
<b>HTG-I</b> ①	Handle for one-man-operation including vacuum switch + gauge	2 (4)	<b>4270.0001</b>
<b>HTG-II</b> ①	Handle for two-man-operation including vacuum switch + gauge	7 (15)	<b>4270.0002</b>
<b>Supply Hose ZS-5</b>	Vacuum supply hose (5 m) (17 ft) with vacuum-safety-quick release coupling and rotation fitting		<b>4270.0003</b>
<b>MJ-SPS-75-22-RD</b> ①	Suction plate w/working load limit 75 kg* (160 lbs)*, L x W 225 x 225 cm (9" x 9" in)	2 (4)	<b>4270.0005</b>
<b>MJ-SPS-150-44/25</b> ①	Suction plate w/working load limit 150 kg* (330 lbs)*, L x W 440 x 250 cm (17 1/4" x 93 1/4" in)	3 (7)	<b>4270.0006</b>
<b>ED-SPS-75</b>	Replacement Seal		<b>4270.0008</b>
<b>ED-SPS-150</b>	Replacement Seal		<b>4270.0009</b>
<b>KF</b>	Chain box with chain for MJ-II, VPH und MJ-J-II	3 (7)	<b>4271.0098</b>

Further special suction plates see page 5.4

\* Value at 600 mbar low pressure

① Durable surface protection by galvanizing

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**NEW: Working Load Limit 200kg**

Vacuum Handheld Devices

VACUUM LAYING

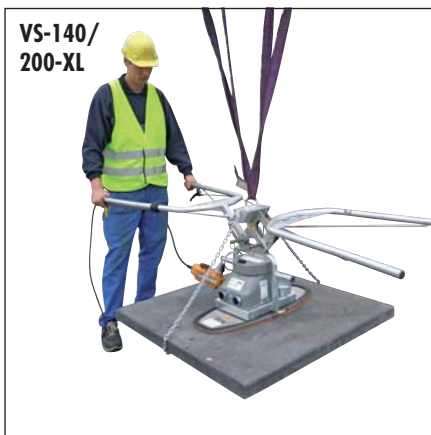
5



VS-140/200



VS-140/200



VS-140/200-XL



VS-140/200

mit VS-SWV-SPS-50-30/25 + VS-GH-SPS-140-70/30

## SPEEDY VS-140/200 Vacuum Hand Laying Device

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.

- ▶ **NEW:** Can now, when combined with the corresponding suction plate and lifting eye VS-EH safely lift and lay elements weighing up to 200 kg.
- ▶ The working load limit with handles is 140 kg.
- ▶ The construction of the SPEEDY has been reinforced throughout.
- ▶ 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.
- ▶ Special suction plate exchangeable for special elements with maximum weight of 200 kg.
- ▶ The handles can be folded down for easy transportation (see picture).
- ▶ Light weight design - only approx. 18 kg dead weight.
- ▶ Galvanised.

### SPEEDY VS-XL

- ▶ with long handles for safe installation of slabs
- ▶ with lifting eye and safety chain for risk-free lifting and handling

### NEW: Quick Change device with integral suction plate VS-SWV-SPS-50-30/25

- ▶ The SWV Quick Change device is simply screwed onto the SPEEDY VS-140/200 in place of the standard suction plate. This allows elements up to 50 kg weight to be lifted and laid. The former VS-SPS-50-30/25 suction plate then becomes superfluous as it is now integrated.
- ▶ The SWV Quick Change device allows all new standard suction plates to be mounted in seconds without using tools via 2 quick-change locks.
- ▶ The SWV can also be retro-mounted on the earlier SPEEDY-VS-140; existing suction plates must then be retro-fitted with 2 screw-fitted hooks.
- ▶ The SWV can also be moved through 90 degrees before being screwed onto the SPEEDY; thus allowing the standard suction plates to be used in any preferred alignment.

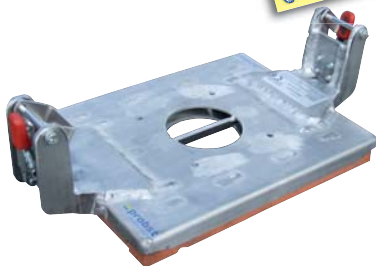
## Vacuum Hand Laying Device SPEEDY VS Basic Devices

Type <sup>①</sup>	Power	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Description	Order-Number
<b>VS-140/200 Basic Device</b>	electrically 230 Volt single phase 50 Hz	depending on size of suction plate	18 (40)	without suction plate with standard handle	<b>5270.0011</b>
<b>VS-140/200-XL Basic Device</b>	electrically 230 Volt single phase 50 Hz	depending on size of suction plate	23 (51)	without suction plate with long handle lifting eye, safety chain	<b>5270.0012</b>
<b>VS-140/200-110 Basic Device</b>	electrically 110 Volt single phase 50/60 Hz	depending on size of suction plate	18 (40)	without suction plate with standard handle	<b>5270.0013</b>
<b>VS-140/200-XL-110 Basic Device</b>	electrically 110 Volt single phase 50/60 Hz	depending on size of suction plate	23 (51)	without suction plate with long handle lifting eye, safety chain	<b>5270.0014</b>

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VS-SWV-SPS-50-30/25

**NEW!**



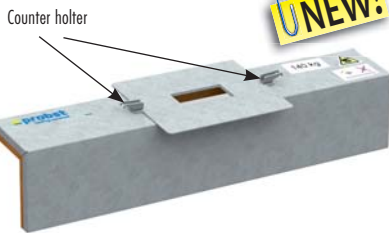
Quick Change device with integral suction plate



suction plate change

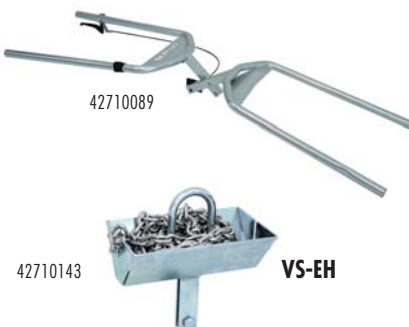
VS-GH-WSP-150-90/12-15,5-101°

**NEW!**



Counter holder

VS-140-XL-HG



42710089

42710143

VS-EH

## Suction Plates SPS for SPEEDY VS-140/200:

With counter holder for Quick Change device

Type	Suction Plate Dimension mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number
VS-SWV-SPS-50-30/25	300 x 250 (11¾ x 9¾")	50 (110)	2.0 (4)	4271.0126
VS-GH-SPS-80-40/30	oval 400 x 300 (15¾ x 11¾")	80 (175)	2.0 (4)	4271.0129
VS-GH-SPS-100-50/30	oval 500 x 300 (19¾ x 11¾")	100 (220)	2.5 (6)	4271.0130
VS-GH-SPS-140-70/30	oval 700 x 300 (27½ x 11¾")	140 (310)	3.0 (7)	4271.0131
VS-GH-SPS-200-85/34 <sup>Ⓢ</sup>	oval 850 x 340 (33½ x 13½")	200 (440)	11.5 (25)	4271.0132
VS-GH-SPS	Retro fit kit counter holder for existing suction plate consisting of: 2 x counter holder + screws, nuts.			4271.0127
Lamellar plugs	1 item; for plugging drilled holes in the suction plates			2107.0141

Without counter holder for Quick Change device  
(If SPEEDY VS is used without the quick-change device)

Type	Suction Plate Dimension mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number
VS-SPS-50-30/25	oval 300 x 250 (11¾ x 9¾")	50 (110)	1.4 (3)	4271.0013
VS-SPS-80-40/30**	oval 400 x 300 (15¾ x 11¾")	80 (175)	2.0 (4)	4271.0135
VS-SPS-100-50/30**	oval 500 x 300 (19¾ x 11¾")	100 (220)	2.5 (6)	4271.0136
VS-SPS-140-70/30**	oval 700 x 300 (27½ x 11¾")	140 (310)	3.0 (7)	4271.0137
VS-SPS-200-85/34 <sup>Ⓢ</sup> **	oval 850 x 340 (33½ x 13½")	200 (440)	11.5 (25)	4271.0133

\*\* but with drilled holes + dummy plugs

Suction plates with counter holder for kerb stones

Type <sup>Ⓢ</sup>	Suction Plate Dimension mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number
VS-GH-WSP-150-90/12-15,5-101°	900 x 120 – 155 35" x 5" – 6"	150 (330)	6.5 (15)	4272.0347
VS-GH-WSP-150-70/15,5-17-90°	700 x 155 – 170 28" x 6" – 7"	150 (330)	6.2 (15)	4272.0360
VS-GH-WSP-85-90/8-12-90°	900 x 80 – 120 35" x 3" – 5"	85 (185)	6.5 (15)	4272.0345

Replacement seals for all SPEEDY suction plates

Type	Order-Number
VS-ED-SPS-50	4271.0032
VS-ED-SPS-80	4271.0029
VS-ED-SPS-100	4271.0031
VS-ED-SPS-140	4271.0030
VS-ED-SPS-200	4271.0140

**Replacement Seal:**  
Easy to attach without gluing.  
incl. holding fixture.

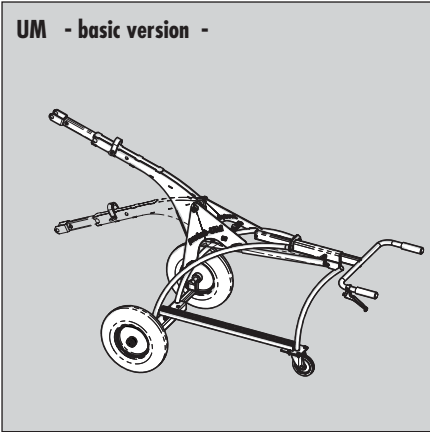
Retrofit Parts for SPEEDY VS

Type <sup>Ⓢ</sup>		Dead Weight kg (lbs)	Order-Number
VS-EH	lifting eye with safety chain for VS-140 and VS-140/200	2 (4)	4271.0143
VS-140-XL-HG	pair of long handles for VS-140 for slabs up to 1,2 m width	8 (18)	4271.0089

\* Value at 200 mbar low pressure

<sup>Ⓢ</sup> Durable surface protection by galvanizing

UM - basic version -



## UNIMOBIL UM Laying Dolly - Basic Version -

The UNI MOBIL UM is an installation dolly that can easily handle concrete and natural stone units up to 150 kg.

► Efficiency is noticeably increased, as it only requires one person to carry out the installation work.

► Physical strain is reduced significantly, as the load is transferred to the wheels of the UNIMOBIL UM.

► **Special feature:** The boom is lifted through a gas spring with integrated brake and is controlled by a lever on the operating handle. This way stone can be picked up from a pallet of approximately 900 mm height. By pressing the lever again the load is lowered gently into place. Pressing the lever once more lifts the boom up to pick up the next unit.

### Basic version, standard equipment:

- Big rubber wheels with a diameter of 400mm, makes manoeuvring the UM easy.
- Adjustable wheel distances (from 610 – 905 mm outside measurement) so that the UM can be adjusted to different slabs.
- Supported by a steering roller with a locking brake.
- Boom and handles are telescopic to adjust well to different weights and measures of the slabs.
- Gas spring with integrated brake with a control handle.

**Please note:** basic version has to be equipped with "Load Pick-up" module, in order to be used for laying slabs.

Type	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>UM basic version</b> ①	150 (330)	40 (90)	<b>4272.0235</b>

UM-SM



## UNIMOBIL UM-SM Laying Dolly - Basic Version -

Basic version (without suction plate) equipped with battery driven STONEMAGNET SM-600 (see Chart p. 5.12).

The UNIMOBIL UM-SM is the perfect vacuum laying system for slightly porous slabs and stone.

**Advantage:** The most gentle and the closest positioning of slabs as possible. Re-pick up possible. Also suitable for slightly porous stones.

► It is equipped with handles on the suction plate and a 90° turnable suspension for the perfect positioning of the slabs.

**Please note:** Suction plates have to be ordered separately. See Chart.

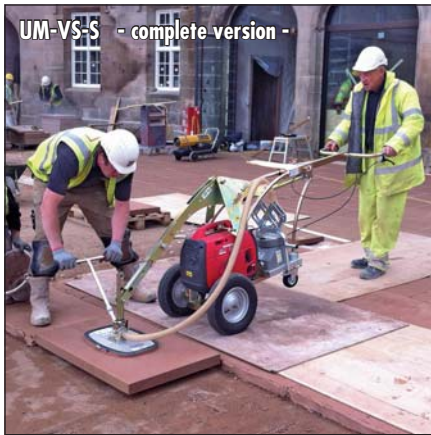
**Please note:** porous stones cannot be handled with this device.

Type	Load Pick-up	Dimension Suction Plate oval mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>UM-SM</b> ①	Vacuum		see suction plate	99 (220)	<b>4274.0011 + 5272.0006</b>
<b>SM-SPS-90-30/20</b> ①		300 x 200 (11¾ x 7¾")	90* (198)	5 (10)	<b>4272.0009</b>
<b>SM-SPS-200-58/28</b> ①		580 x 280 (22¾ x 11")	200* (440)	9 (20)	<b>4272.0001</b>
<b>Spare storage battery 26 Ah, 12V</b>					<b>2420.0008</b>
<b>Battery charger LG-220 V/12V</b>					<b>4272.0351</b>
<b>ED-SPS-90</b>	Replacement seal for SM-SPS-90				<b>4250.0023</b>
<b>ED-SPS-200</b>	Replacement seal for SM-SPS-200				<b>4272.0004</b>

If you are already using a SM please ask us for a quotation to upgrade it to a UM-SM!

\* Value at 500 mbar low pressure

① Durable surface protection by galvanizing



## UNIMOBIL UM-VS Laying Dolly - Basic Version

Basic version (without suction plate) equipped with SPEEDY VS-140/200 electrical operation 230 V or 110 V (see typelist page 5.8).

The UNIMOBIL UM-VS-140 is the perfect vacuum laying system for porous slabs and stone.

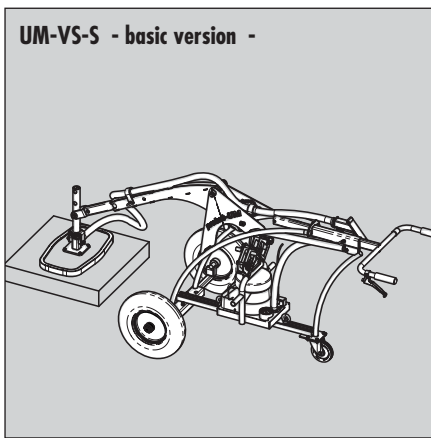
**Advantage:** Gentle and close positioning of slabs possible. Re-pick up possible. Also suitable for very porous stones.

- ▶ It is equipped with a 90° turnable suspension for the perfect positioning of the slabs.
- ▶ Including additional handle on the suction

plate for better positioning of the laying material.

- ▶ Releasing of the suction force very simple by pulling a lever.
- ▶ Quick adjustment of the arm in 3 different positions.
- ▶ Please note: Laying dolly has to be connected via electrical cable with the electrical network of 230V or 110V.

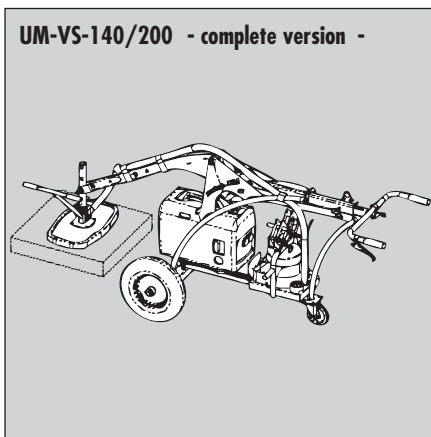
**Accessories: Suction Plates (SPS)**  
For different applications suitable suction plates are available (see chart).



## UNIMOBIL UM-VS/SE Laying Dolly - Complete Version

Same specifications as UM-VS, however with integrated generator\*\*\* totally independent from the mains.

Please note: Suction plate have to be ordered separately. See Chart.



Type	Load Pick-up	Power	Dimension mm (in) Suction plate oval	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number	
UM-VS-140/200 <sup>Ⓛ</sup> (230)	Vacuum	230V, 50HZ	see suction plate		64 (140)	4274.0012 + 5270.0011	
UM-VS-140/200 <sup>Ⓛ</sup> (110)	Vacuum	110V, 50/60HZ	see suction plate		64 (140)	4274.0012 + 5270.0013	
UM-VS-140/200/SE-H (230)	Vacuum	230V, 50HZ	see suction plate		84 (185)	4274.0012+5270.0011+5250.0240+4272.0238***	
UM-VS-140/200/SE-K (230)	Vacuum	230V, 50HZ	see suction plate		82,5 (181)	4274.0012+5270.0011+5250.0242+4272.0259***	
VS-SPS-50-30/25			300 x 250 (11 <sup>3</sup> / <sub>4</sub> x 9 <sup>3</sup> / <sub>4</sub> )	50*(110*)	1,4 (3)	4271.0013	
VS-SPS-80-40/30			400 x 300 (15 <sup>1</sup> / <sub>4</sub> x 11 <sup>3</sup> / <sub>4</sub> )	80*(175*)	2,0 (4)	4271.0135	
VS-SPS-100-50/30			500 x 300 (19 <sup>1</sup> / <sub>4</sub> x 11 <sup>3</sup> / <sub>4</sub> )	100*(220*)	2,5 (6)	4271.0136	
VS-SPS-140-70/30			700 x 300 (27 <sup>1</sup> / <sub>4</sub> x 11 <sup>3</sup> / <sub>4</sub> )	140*(310*)	3,0 (7)	4271.0137	
VS-ED-SPS-50	<b>Replacement Seal:</b> Easy to attach without gluing. incl. holding fixture.						4271.0032
VS-ED-SPS-80							4271.0029
VS-ED-SPS-100							4271.0031
VS-ED-SPS-140							4271.0030

If you are already using a Speedy VS-140/200 please ask us for a quotation to upgrade it to a UM-VS!

Now available with integrated generator, unlimited operating range, more flexible!

\* Value at 200 mbar low pressure    \*\*\* Pendular suspensions for generator

\*\*\*\* petrol tank empty    <sup>2)</sup> when operated with UNIMOBIL UM-SM working load limit is 150 kg only

Ⓛ Durable surface protection by galvanizing

German Patent

Vacuum Attachments

VACUUM LAYING

5

SM-600



## STONEMAGNET SM-600 Vacuum Lifting Device

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.
- ▶ Can be used with any hoist.

- ▶ Integral charger socket for charging.
- ▶ 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.

### Special features:

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

### Additional features of the

#### SM-600-POWER:

- ▶ Twice the pumping capacity compared with the SM-600, providing greater reserves for slightly porous materials.
- ▶ Built-in operating hours counter.
- ▶ Suction and release operation via comfortable button-activation.
- ▶ Optional retro-fitting of remote control for suction and release operations, enabling single-operator activation from the carrying device.

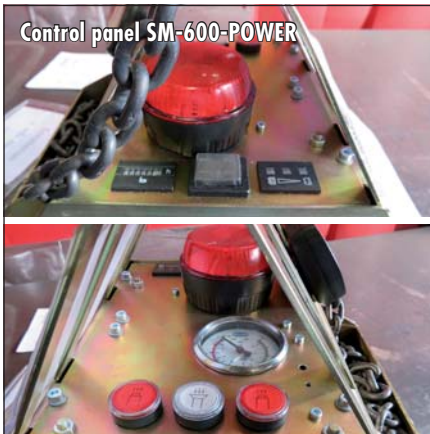
### Standard Specifications:

- ▶ Robust and compact main body, with integrated suspension for crane hook and quick change device for the suction plate.
- ▶ With integral chain-box and load-securing chain.
- ▶ Galvanized finish.
- ▶ 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. Battery charger not included.

SM-600-POWER



Control panel SM-600-POWER



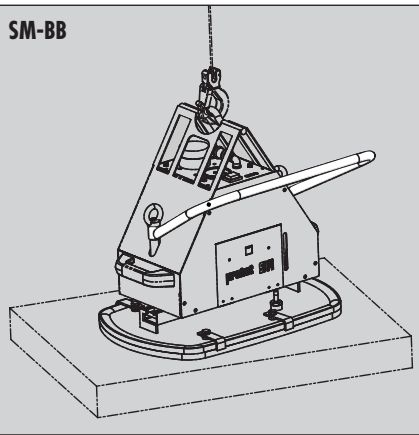
Type ❶	Description	Drive	Dead Weight kg (lbs)	Order-Number
SM-600	Basic device, without suction plate.	by 12 V battery	34 (75)	5272.0006
SM-600-POWER	Basic device, without suction plate.	by 12 V battery	35 (75)	5272.0007
SM-600-POWER-FFS	Basic device, without suction plate. With remote control.	by 12 V battery	35 (75)	5272.0008

❶ Durable surface protection by galvanizing

SM-SPS-200-58/28



SM-BB



SM-FFS



## Suction Plates SPS for STONEMAGNET:

Type	Suction Plate Dimension mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number
SM-SPS-90-30/20 <sup>①</sup>	approx. 300 x 200 (11¾" x 7¾")	90 (200)	5,0 (10)	4272.0009
SM-SPS-200-58/28 <sup>①</sup>	approx. 580 x 280 (22¾" x 11")	200 (440)	9,0 (20)	4272.0001
SM-SPS-400-75/27 <sup>①</sup>	approx. 750 x 270 (29½" x 10½")	400 (880)	10,0 (25)	4272.0002
SM-SPS-600-95/34 <sup>①</sup>	approx. 950 x 340 (37" x 13½")	600 (1,320)	15,0 (33)	4272.0349
ED-SPS-90	<b>Highly wear-resistant replacement seal:</b> Easy to attach without glueing.			4250.0023
ED-SPS-200				4272.0004
ED-SPS-400				4272.0005
ED-SPS-600				4250.0027
<b>Special Suction Plates:</b>				
SM-SPS-HP-100-90/9 <sup>①</sup>	900 x 90 (35½" x 3½")	100 (220)	7,0 (15)	4272.0115
SM-SPS-160-90/12 <sup>①</sup>	900 x 120 (35½" x 4¾")	160 (355)	7,0 (15)	4272.0047
SM-SPS-150-41/22 <sup>①</sup>	410 x 220 (16" x 8½")	150 (330)	5,0 (10)	4272.0018
SM-SPS-150-80/14 <sup>①</sup>	800 x 140 (31½" x 5½")	150 (330)	7,0 (15)	4272.0013
SM-SPS-120-80/12 <sup>①</sup>	800 x 120 (31½" x 4¾")	120 (265)	6,0 (13)	4272.0043

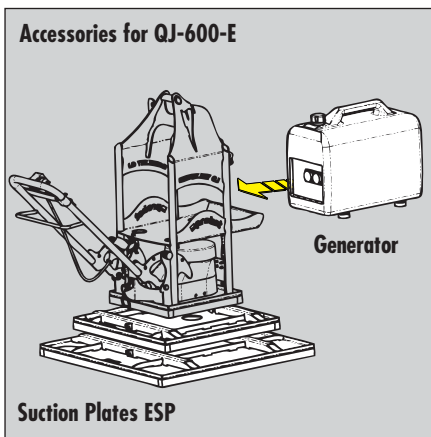
\* Value at 500 mbar low pressure

## Accessories

Type	Description	Order-Number
Battery-12V/26Ah	Spare storage battery, 24 Ah, 12 V	2420.0008
LG Battery charging device	Battery charging device w/overload protection and charging current limiting. Housing is water and dust-proof.	4272.0351
SM-BB Operating handle <sup>①</sup>	(also for retrofitting)	4272.0063
SM-FFS	Remote Control for gripping and releasing for SM-600-POWER (Retro-fitting available only in the Probst works)	4272.0346

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

<sup>①</sup> Durable surface protection by galvanizing



## QUICKJET QJ-600-E Vacuum Lifting Device

Lifts even very porous materials.

For efficient and safe handling even of very porous products up to 600 kg (1.320 lbs). The vacuum power is generated by a strong, electrically powered vacuum turbine. Besides highly porous slabs, also products with exposed aggregates and other rough surfaces can be handled safe and quickly.

The compact QUICKJET QJ-600-E can be attached to any carrier by means of load hook, chains, slings etc.

► The vacuum lifting device comes with a fixed suction plate QJ-ESP-120-38/38 QJ – max. working load limit 120 kg (265 lbs) – and a electrical power cable with on-off switch at the plug connector.

► The electric generator\*\* to operate the vacuum turbine is not included, however it is available as an optional accessory. This generator can be placed in frame of the QJ.

► To ensure proper function of the electric turbine when powering the QJ with a generator\*,

please be aware of the following facts:

The minimum continuous power production has to be 1.600 W. Exclusively generators with modern Inverter Technology, such as Honda EU 20 i model or Kipor IG 2000, should be used.

► Quick change fasteners allow for speedy attachment of different suction plates to the fixed plate QJ-ESP-120-38/38 within seconds. The different suction plates available are covering versatile kinds of application, various slab sizes and weights.

► A foldable handle ensures safe and accurate positioning of the slabs to be laid.

► The integrated chain guard assures additional safe operation.

► The QJ can be operated without generator at any time. In this case the QJ has to be connected to the electrical network by using a extension cable.

► Compact design

Type <sup>①</sup>	Description	Power	Working Load Limit WLL* (depending on the suction plate used) max. kg (lbs)	Dead Weight kg (lbs)	Order-Number
QJ-600-E	incl. Suction plate 120 kg (without generator)	electric 230 V 50 Hz, AC	600 (1,320)	41 (90)	5240.0033
QJ-600-E-110	incl. Suction plate 120 kg (without generator)	electric 110 V 60 Hz, AC	600 (1,320)	41 (90)	5240.0034

## Suction Plates

Type <sup>①</sup>	Suction Plate Dimension mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order Number
QJ-ESP-320-59/59	590 x 590 (23¼" x 23¼")	320 (719)	13 (30)	4242.0102
QJ-ESP-400-98/48	980 x 480 (38½" x 19")	400 (880)	19 (40)	4242.0104
QJ-ESP-600-78,5/78,5	785 x 785 (30¾" x 30¾")	600 (1,320)	22 (50)	4242.0106
QJ-ESP-350-151/29	1.510 x 290 (59" x 11½")	350 (772)	18 (40)	4242.0108
QJ-ESP-170-90/25	900 x 250 (35½" x 9¾")	170 (375)	13 (30)	4242.0110
QJ-ESP-250-90/35	900 x 350 (35½" x 13¾")	250 (552)	14 (31)	4242.0112
QJ-ESP-500-140/40	1.400 x 400 (55" x 15¾")	500 (1,102)	21 (46)	4242.0114

## Accessories

Type	Dead Weight kg (lbs)	Order Number
SE-H Generator Honda EU 20 i, 230 V 50 Hz petrol engine	21,5 (47)	5250.0240
SE-K Generator Kipor IG 2000, 230 V, 50 Hz petrol engine	23 (51)	5250.0242
Adapter QJ for Rotator Bini/Baltrotor	1,5 (3)	4011.0319

Other suction plates on request.

① Durable surface protection by galvanizing \* Value at 200 mbar low pressure \*\* petrol tank empty





### Wheelset QJ-RS for QUICKJET QJ-600-E

With its new wheelset QJ-RS the QUICKJET becomes the perfect, mobile vacuum generator for economic and accurate installation of natural stones, concrete slabs, large-size pavers etc.

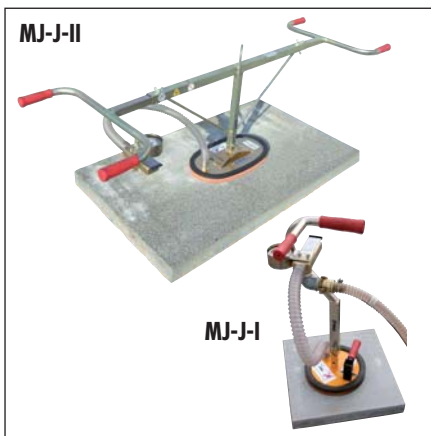
- ▶ Furthermore the wheelset protects the suction plate during storage and transport.
- ▶ The wheelset consists of a base plate with integrated wheels. The QUICKJET QJ and suction

plate are just fixed by means of quick release fasteners.

- ▶ MICROJUMBO-JET MJ-J-I and II can be connected easily via the vacuum connection of the carrier. By lifting-up the QUICKJET handle the unit can be moved like a wheelbarrow.

Even highly porous material can be handled safe and fast.

Type ①	Description	Dead Weight kg (lbs)	Order-Number
QJ-RS	Wheelset for QUICKJET	15 (33)	4242.0083



### MICROJUMBO-JET MJ-J Vacuum Slab Layer

Efficient and accurate installation of small-sized and lightweight slabs – this is the optimum application enhancement for the vacuum devices QUICKJET QJ-600-E, POWERJET PJ-1650 and SPEEDY VS-140/200.

- ▶ MJ-J-I (for 1-man operation) or MJ-J-II (for

2-man operation) are connected through a supply hose with GEKA coupling.

- ▶ Suction plates with various carrying capacities, shapes and designs are available for attachment in modular system.

Type ①	Dimension Suction plate mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
MJ-J-I	225 x 225 (9 x 9")	50 (110)**/25 (55)***	7 (15)	5260.0011
MJ-J-II	440 x 250 (17¼ x 9¾")	100 (220)**/50 (110)***	16 (35)	5260.0012

\*\* Value at 400 mbar low pressure. \*\*\* Value at 200 mbar low pressure.



SH-1000-MINI-E



SH-1000-MINI-H



SH-1000-MINI-B

## Vacuum Lifting Device SH-1000-MINI

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. working load limit 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	Working Load Limit WLL (depending on the suction plate used) max. kg (lbs)	Dead Weight kg (lbs) (without suction plate)	Order-Number
SH-1000-MINI-H	hydraulic	1.000 (2,200)*	91 (200)	5240.0040
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

### Requirements for hydraulic operation:

(Operating hydraulics of the carrier)

- Volumetric flow (l/min), usable min. 16, max. 80
- Working pressure (bar), usable min. 80, max. 320
- Backflow pressure: max. 10 bar
- Lockable control lever for operating hydraulics (continuous oil flow)

\* Value at 600 mbar low pressure.

For proper suction plates refer to type list 5.21



## POWERJET PJ-1650 Vacuum-Lifting Device

Large-sized concrete slabs with decorative surface finish as well as sandstone slabs may sometimes be very porous. The POWERJET is especially designed for this kind of slabs. The enormous suction capacity of this series makes an efficient and safe installation of such porous slabs up to a weight of 1,650 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 working load limit 1,650 kg (subject to the attached suction plate).
- ▶ With innovative, intelligent, battery powered warning system (service life of the battery is 1 year and even longer!).
- ▶ Highest safety at work due to integrated chain guard, thus even heavily porous products cannot fall off in case of power failure.
- ▶ Ergonomic handles for guiding the SH.
- ▶ Compact design.
- ▶ Including high-volume dust filter.

### POWERJET PJ-1650-B

- ▶ Powered by integrated petrol engine with electric start, with integrated manually operated suction release device.
- ▶ Optional features: radio remote control of the suction release device PJ-B-FFS or alternatively hydraulically operated suction release device PJ-B-HAE.

With one of these two options, the vacuum lifting device becomes fully one-man operation. The operator controls the activation and release of suction from the drivers seat.

### Transport Trolley PJ-RS

- ▶ Suitable for PJ-1650-B and -H
- ▶ For using the POWERJET device as mobile vacuum unit on site for powering the hand installation tool MICROJUMBO-JET MJ-J (s.p.5.15).
- ▶ Safe transport, suction plates are protected.

#### Requirements for hydraulic operation: (Operating hydraulics of the carrier)

- Volumetric flow (l/min), usable min. 16, max. 70
- Working pressure (bar), usable min. 200, max. 320
- Backflow pressure: max. 10 bar
- Lockable control lever for operating hydraulics (continuous oil flow)

### POWERJET PJ-1650-H

- ▶ Powered by the hydraulic system of the carrier, standard equipment includes hydraulically operated suction release device, the operator controls the activation and release of suction from the drivers seat.

Type	Power	Working Load Limit WLL** kg (lbs)	Dead Weight kg (lbs) (without suction plate)	Order-Number
PJ-1650-B <sup>Ⓢ</sup>	petrol engine 6,6 kW	1,650 (3,650)*	132 (290)	5240.0036
PJ-1650-H <sup>Ⓢ</sup>	hydraulically	1,650 (3,650)*	117 (258)	5240.0038

## Accessories

Type		Dead Weight kg (lbs)	Order-Number
PJ-RS <sup>Ⓢ</sup>	Transport trolley for PJ-1650-B and -H	20 (44)	4240.0497
PJ-B-FFS	Radio remote control for suction release for PJ-1650-B		4240.0502
PJ-B-HAE	hydraulic release device, carrier has to provide one separate hydraulic circuit for proper connection. Inclusive Hydraulic hose.	for operation w/ VM-401/301/203	4190.0122
		for operation w/excavator	4190.0123

Suction plates and additional useful attachments see type list page 5.21

\* Value at 400 mbar low pressure · \*\* dependent on the size of suction plate

Ⓢ Durable surface protection by galvanizing

021017 Technical data contained in this catalogue can be modified without prior notice in the interest of progress. Illustrations are exemplary and non-binding. No liability accepted for any misprints, mistakes and errors.



## Vacuum Lifting Device SH for Heavy Loads up to 3,500 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 MICROJUMBO 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.

## Vacuum Lifting Device SH-2500-UNI

- ▷ **Main Body** – robust and compact for use on the building site.
- ▷ **Working load limit**  
Type SH-2500-UNI up to 2,500 kg at -0.6 bar. The working load limit 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. **NEW**: Acoustic warning device with inbuilt intelligence. Batteries last approx. 1 year.
- ▷ **Various Means of Power**
  - E = 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-E).
- ▷ Manually operated valve for vacuum "on/off".

### Please note:

In no time the SH can be adapted using the MICROJUMBO 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 5.6 + 5.7).

Type	Power	Working Load Limit WLL kg (lbs)	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH-2500-UNI-E	electric, 230 Volt single phase	2,500* (5,500)*	96 (210)	5240.0012
SH-2500-UNI-B	petrol engine 2,9 kW	2,500* (5,500)*	100 (220)	5240.0011

## Vacuum Lifting Device SH-2500-UNI-B-TURBO:

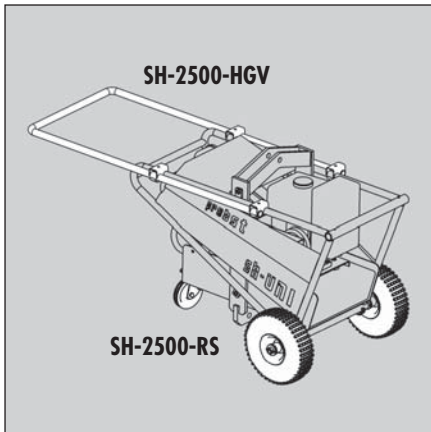
This type was specially designed for picking up porous elements. The device is equipped with an extremely powerful vacuum pump.

Otherwise equipped as SH-2500-UNI-B, but with more powerful engine and vacuum pump.

Type	Power	Working Load Limit WLL kg (lbs)	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH-2500-UNI-B-TURBO	petrol engine 4,0 kW	2,500* (5,500)*	110 (242)	5240.0023
<b>Remote Control for gripping and releasing</b>				<b>on request</b>

Suction plates and additional beneficial attachments see type list page 5.21

\* Value at 600 mbar low pressure



## Accessories for SH-2500

### Wheelset SH-2500-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 SH-2500-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.

Type	Description	Order-Number
SH-2500-RS <sup>①</sup>	Wheelset for all models SH-2500-UNI	4250.0071
SH-2500-HGV	Handle extension for all models SH-2500-UNI	4240.0088



## Vacuum Lifting Device SH-3500-B

- ▶ Threefold vacuum pump capacity compared with the previous standard SH-2500-UNI-B device; producing a significantly faster buildup of vacuum, also suitable for more porous elements.
- ▶ Complete autarkic drive via integral petrol engine with electric starter.
- ▶ With integral chain-box and load-securing chain.
- ▶ Suction and release operation via comfortable button-activation on the control console.

- ▶ Built-in operating hours counter.
- ▶ With fork sleeves for lifting forks for transportation and for laying.
- ▶ All available SH-suction plates are compatible with the SH-3500-B. (see page 5.21)

**Optional available:** Wheelset SH-3500-RS, support feet SH-3500-AF and remote control SH-3500-FFS.

Type	Power	Working Load Limit WLL kg (lbs)*	Dead Weight (without suction plate) kg (lbs)	Order-Number
SH-3500-B	Petrol engine 3,6 kW	3,500 (7,700)	approx. 180 (395)	5240.0041

## Accessories

Type	Description	Dead Weight kg (lbs)	Order-Number
SH-3500-RS <sup>①</sup>	Wheelset for SH-3500-B	11 (24)	4250.0256
SH-3500-AF	Support feet for SH-3500-B	11,4 (25)	4240.0579
SH-3500-FFS	Remote control for gripping and releasing (Retro-fitting available only in the Probst works)		4240.0578

\* Value at 600 mbar low pressure

① Durable surface protection by galvanizing



## VACUUM-POWER-MAX VPM-2500 Vacuum Lifting Device

For easy handling (attaching, lifting, transporting, laying) of all kinds of concrete and natural stone elements. Working load limit 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: (Operating hydraulics of the carrier)

- Volumetric flow (l/min), usable min. 20, max. 80
- Working pressure (bar), usable min. 120, max. 200
- Backflow pressure: max. 10 bar
- Lockable control lever for operating hydraulics (continuous oil flow)

Different suction plates and spreader bar see type list 5.21

## VACUUM-POWER-MAX VPM-2500-H for Operation on Excavators

Type	Description (inclusive)	Power	Working Load Limit WLL kg (lbs)	Dead-Weight kg (lbs)	Order-Number
VPM-2500-H* ⓪	automatic release, battery-driven warning device with flashing light, extended, foldable handles	hydraulic	max. 2,500** (5,500)** depending on suction plate	185 (410)	5241.0002

## VACUUM-POWER-MAX VPM-2500-H for Operation on VM-301/VM-401/VM-203/VM-204

Type	Description (inclusive)	Power	Working Load Limit WLL kg (lbs)	Dead-Weight kg (lbs)	Order-Number
VPM-2500-H* ⓪	automatic release, short, foldable handles	hydraulic	max. 2,500** (5,500)** at VM 301/203/204/401 300** (660)** with counter-weight 350** (770)** depending on suction plate	182 (400)	5241.0004

UBA-3000		4140.0088
Rotator		2250.0011-001
Special hydraulic restrictor for Rotator		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

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

⓪ Durable surface protection by galvanizing

SPS-2500(1650)-143/78



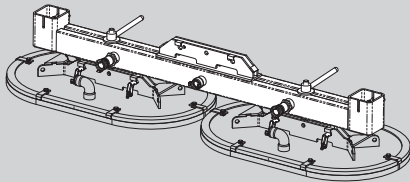
## Attachments for Vacuum Lifting Device SH

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/POWERJET PJ

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 !

SH-TRA-3500



Type	Length mm (in)	Width mm (in)	Shape	Working Load Limit WLL kg (lbs) Value at 600 mbar low pressure	Carrying Capacity kg (lbs) Value at 400 mbar low pressure	Order-Number
SPS-3500(2300)-174/92 <sup>①</sup>	1.740 (69")	920 (36")	oval	3,500 (7,700)	2,300 (5,100)	4240.0555
SPS-2500(1650)-143/78 <sup>①</sup>	1.430 (56")	780 (30¾")	oval	2,500 (5,500)	1,650 (3,650)	5250.0239
SPS-1500(1000)-80/75 <sup>①</sup>	800 (31½")	750 (29½")	oval	1,500 (3,300)	1,000 (2,200)	4240.0232
SPS-1200(800)-96/58 <sup>①</sup>	960 (37¾")	580 (22¾")	oval	1,200 (2,650)	800 (1,760)	5250.0162
SPS-1010(670)-84/57 <sup>①</sup>	840 (21¼")	570 (22½")	oval	1,010 (2,230)	670 (1,480)	5250.0238
SPS-500(330)-67/40 <sup>①</sup>	670 (26½")	400 (15¾")	oval	500 (1,100)	330 (730)	5250.0002
SPS-400(260)-75/27 <sup>①</sup>	750 (29½")	275 (10¾")	oval	400 (880)	260 (570)	5250.0003
SPS-200(130)-37/37 <sup>①</sup>	370 (14½")	370 (14½")	round	200 (440)	130 (285)	5250.0005
<b>Fixing bolt for suction plate</b>						<b>2039.0001</b>
ED-SPS-3500 (4240.0555)	<b>Highly wear-resistant replacement seal:</b> Easy to attach without glueing.					<b>4250.0154</b>
ED-SPS-2500 (5250.0239 + 5250.0158)						<b>4250.0111</b>
ED-SPS-1500 (4240.0232)						<b>4250.0004</b>
ED-SPS-1200 (5250.0162)						<b>4250.0005</b>
ED-SPS-1010 (5250.0238)						<b>4250.0006</b>
ED-SPS-500 (5250.0002)						<b>4250.0002</b>
ED-SPS-400 (5250.0003)						<b>4250.0002</b>
ED-SPS-200 (5250.0005)						<b>4250.0003</b>

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
SH-TRA-3500 Spreader Bar	For multiple use of the suction plates single plates adjustable. Suction plate turnable by 90°. Distance between centres of suction plates adjustable from max. 1,450 mm to min. 560 mm. Working load limit 3,000 kg	<b>4250.0260</b>

Further range of uses in conjunction with the MICROJUMBO MJ (see page 5.6 + 5.7) – especially suitable for laying lighter slabs (such as those for patios) by hand.

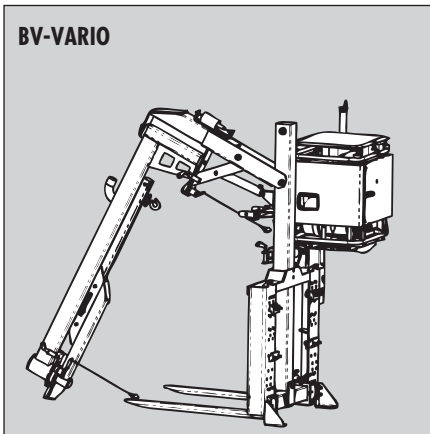
① Durable surface protection by galvanizing



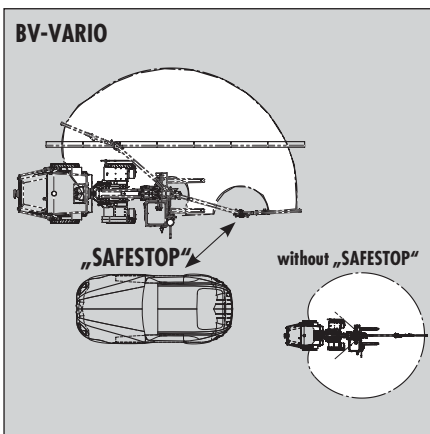
BV-VARIO

**Requirements for hydraulic operation:**  
(Operating hydraulics of the carrier)

- Volumetric flow (l/min), usable min. 16, max. 70
- Working pressure (bar), usable min. 200, max. 320
- Backflow pressure: max. 10 bar
- Lockable control lever for operating hydraulics (continuous oil flow)



BV-VARIO



BV-VARIO

## JUMBO-BV-VARIO Vacuum Kerb Stone Installation Machine

This BV-VARIO with knuckle boom jib is equipped with innovative Probst safety features, thus highest safety in the slewing range!

Mostly kerb stones are installed one side of the road, while on the other side vehicles are still allowed to drive. Existing knuckle boom jibs provide some advantages, such as space requirements, but usually they have disadvantages because it cannot be avoided that they might swing into the trafficked area. This could cause fatal accidents.

**NEW: Innovative Safety Feature: knuckle boom with shifting suspension SKVA with „SAFESTOP“**

JUMBO-BV-VARIO Kerb Stone Installation Machine: via two adjustment bolts, the operator can make sure, whether he only wants to install on the left side, the right side or on both sides of the loader. Now it is easy, fast and safe to do installation works up to 150 kg (330 lbs) also along-side walls, around trees or posts.

- SKVA with „SAFESTOP“ never reaches into the traffic area!

**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.

**Suction plate:**

- Incl. 1 kerb stone suction plate ESP 150 (Working load limit 150 kg).

**High benefits:**

- Installing heavy elements by vacuum lifting force light as a feather, combined with best logistic: distribution and installation in one go. Cost effective and health and safety conjus for your workers.
- The jib can be folded down for compact transportation measurements quick and easy via a hydraulic cylinder.
- Feeding the vacuum to the lifting unit by well thought out turning passage through the knuckle boom link.
- Easy and quick locking of both knuckle boom links by spring loaded bolt.
- Time saving: 7 kerbs, each 1,000 mm (39") long can be installed without moving the loader.
- Well proven quick change device for fitting different suction plates within less than one minute.

**Accessories:**

Due to the attendance on the market for several decades, Probst is the only supplier who has access to more than 1000 different suction plates, which have been manufactured and successfully used in the past (For proper suction plates refer to type list 5.27-5.30).

Type	Drive	Power (kW)	Reach mm (in)	Type of jib	Length of installation mm (in)	Working Load Limit WLL kg (lbs)	Dead-Weight kg (lbs)	Direction of folding the jib	Order-Number
JUMBO-BV-VARIO-B	Petrol engine	8,1	3,500 (138")	SKVA	7.000 (276")	150* (330)	520 (1,150)	forward	5220.0011
JUMBO-BV-VARIO-D	Diesel engine	5,5	3,500 (138")	SKVA	7.000 (276")	150* (330)	540 (1,190)	forward	5220.0013
JUMBO-BV-VARIO-H	hydraulic		3,500 (138")	SKVA	7.000 (276")	150* (330)	490 (1,080)	forward	5220.0012

\* Value at 420 mbar low pressure



JM-VARIO



## JUMBOMOBIL JM-VARIO Vacuum Slab Laying Machine

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.
- ▶ **Now with knuckle boom for safe and quick installation even along house walls or around trees, light posts or similar.**

### 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 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 CEE 32 A with integrated phase-switch, silencer, air-filter with pre-separator.

Type VGE-SB-L-e (details see page 5.32)

#### 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 5.32)

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 Plate

ESP 150-31/31 (see page 5.27)

Other suction plates on request.

All components are exchangeable via quick fasteners.

Type	Operating Radius mm (in)	Electrical Data	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
JM-VARIO-150-E	3,900 (154")	4 kW 50 Hz 3~190/255 V Δ or 330/440 V Y	150* (330)*	720 (1,590)	5200.0017
JM-VARIO-200-E	3,000 (118")	4,8 kW 60 Hz 3~190/290 V Δ or 330/500 V Y	200* (440)*	730** (1,610)**	5200.0019
JM-VARIO-150-B	3,900 (154")		150* (330)*	720 (1,590)	5200.0018
JM-VARIO-200-B	3,000 (118")		200* (440)*	730** (1,610)**	5200.0020

As the chassis, crane and the vacuum turbine are designed for a maximum working load limit of 200 kg, a lifting unit with a different working load limit can be added at any time (see page 5.26).

\* Value at 420 mbar low pressure

\*\* When working with a working load limit 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:

Due to the attendance on the market for several decades, Probst is the only supplier who has access to more than 1000 different suction plates, which have been manufactured and successfully used in the past.

For proper suction plates and accessories refer to type list 5.26-5.30

Awarded „Price of Innovation“

Up to 200 kg lifting capacity when fully extended and upgradeable up to 250 kg at reduced outreach!



## TRANSMOBIL TM Installation Carrier

A compact universal machine - transport and handling of palletized building material and vacuum installation all in one.

With a dead weight of about 1,300 kg (2,850 lbs) only, transportation is done easily with a standard trailer.

The powerful vacuum laying unit allows the immediate installation of heavy construction elements - effortless and without physical strain.

### Highest Safety Standards!

Mostly kerb stones are installed one side of the road, while on the other side vehicles are still allowed to drive. Knuckle boom jib with „SAFESTOP“ never reaches into the traffic area!

### Standard Specifications:

- ▶ Robust vacuum lifting unit 150 kg capacity HE-150 and Operating valve unit BE-Sprint-2, can be taken off the unit by quick release connections, for example during the night (protection against vandalism).
- ▶ The mast of the vacuum laying unit can be adjusted exactly vertically to allow positioning of the lifting unit light as a feather alongside the perfectly horizontal jib. Adjustment approx. +/- 5 degree sideways; +/- 10 degree in driving direction.
- ▶ Compact transportation measurements. The jib is lowered down without manual power with a hydraulic cylinder.
- ▶ Quick and simple locking of both knuckle boom links by operating just one lever.
- ▶ Hour meter and ignition switch (safeguard in regard of insurance).
- ▶ Large open box for tools and accessories.
- ▶ The lifting unit is equipped with 2 fork tines. Working length 1,090 mm (43"), horizontally adjustable. Lifting height of the lifting unit 340 mm (13 1/2"), lifting capacity 1,500 kg (3,300 lbs).

▶ For maximum pallet-width of 1,300 mm (51").

▶ Robust, powerful rubber crawler track - thus the TRANSMOBIL TM maneuvers well and unfailing even on rough terrain. Travel speed approx. 2,2 km/h.

▶ Dimensions: Overall width 1,910 mm (75"). Total height in transport position 2,280 mm (90"). Total length in transport position 2,300 mm (91").

▶ Driven by powerful vacuum turbine, also lifts porous materials.

### We offer four models:

**TM-150-B-XL:** with Honda petrol engine.

**TM-150-D-XL:** with sound insulated Hatz Silent Pack diesel engine.

The following two models are equipped with electronic, fully automatic boom alignment - makes work even quicker and particularly user-friendly. Positioning of laying elements without physical effort:

**TM-150-D-A-XL:** with sound insulated Hatz Silent Pack diesel engine.

**NEW: TM-150-D-A-SILENT-XL:** with sound insulated Hatz Silent Pack diesel engine with additional soundproofing measures. Noise emission < 80 dB.

### Accessories:

Due to the attendance on the market for several decades, Probst is the only supplier who has access to more than 1000 different suction plates, which have been manufactured and successfully used in the past (special information on request).

Type	Drive	Reach mm (in)	Lifting Capacity of Vacuum Laying Unit* kg (lbs)	Payload kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>TM-150-B-XL</b>	petrol engine 8,2 kW	3,000 (118")	150 (330)	1,500 (3,300)	approx. 1,300 (2,850)	<b>5222.0010</b>
<b>TM-150-D-XL</b>	diesel engine 9,6 kW	3,000 (118")	150 (330)	1,500 (3,300)	approx. 1,540 (3,400)	<b>5222.0011</b>
<b>TM-150-D-A-XL</b>	diesel engine 9,6 kW	3,000 (118")	150 (330)	1,500 (3,300)	approx. 1,540 (3,400)	<b>5222.0012</b>
<b>TM-150-D-A-SILENT-XL</b>	diesel engine 9,6 kW	3,000 (118")	150 (330)	1,500 (3,300)	approx. 1,550 (3,400)	<b>5222.0014</b>
<b>TM-GGP</b>	Essential add-on once the lifting capacity exceeds 150 kg. Installation material, such as kerb stones serve as counterweight.			250 (552)	10 (22)	<b>4222.0070</b>

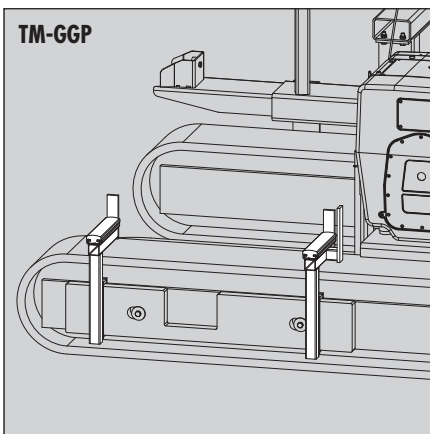
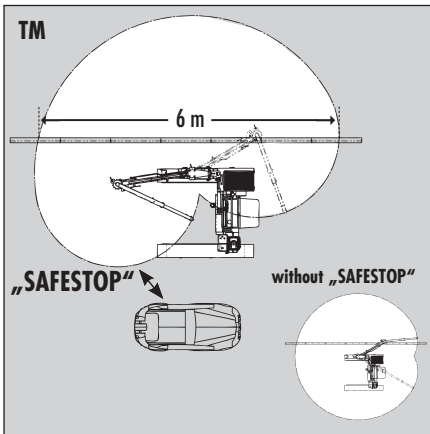
\* With more powerful lifting hose unit, proper suction plate etc. and platform for counterweight TM-GGP upgradeable to 200 kg lifting capacity when fully extended and up to 250 kg at reduced outreach of 500 mm.

For proper suction plates refer to type list 5.27, 5.28, 5.29, 5.30 or contact us for professional advice.

Vacuum Hose Lifters

VACUUM LAYING

5





## UNIPOSE UP-1204 Vacuum Kerb Stone Laying Loader

► The vacuum kerb stone laying loader UNIPOSE UP-1204 enormously streamlines the installation of kerb stones, prefabricated building elements, slabs, etc.

► The UNIPOSE UP-1204 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.

► By means of the 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 250 kg are suctioned and lifted by means of a suction plate (which is docked to a vacuum hose lifter). Special version with 300 kg lifting capacity on request.

► 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.

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

► 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 UNIPOSE UP-1204 can be changed over from load arm to bucket operation.

► Standard version of UNIPOSE UP-1204 is equipped with half-cabin (Front/rear window, mirror, windscreen wiper, each 2 working lights to front and rear), pallet forks, vacuum lifting unit (working load limit up to 150 kg), operating valve unit and a suction plate.

► The optional available radio remote control allows for driving at walking speed and positioning during installation process without a driver operating the UNIPOSE UP-1204 from the driver's seat. The radio remote control provides the supportive features: motion function, steering function, boom brake, horn and emergency stop.

► Compared to the previous model UNIPOSE UP-604 the UNIPOSE UP-1204 is about 1200 kg lighter due to reduction of its total weight and thus can be transported more easily. Operation is more comfortable due to joystick steering of the mast control.

### Accessories:

Due to the attendance on the market for several decades, Probst is the only supplier who has access to more than 1000 different suction plates, which have been manufactured and successfully used in the past (special information on request).

### Technical Data UNIPOSE UP-1204:

Engine: Kubota - 4 Cylinders - 60 PS · Speed: max. 25 km/h · max. lifting height of pallet forks: 2.67 m  
Working load limit of pallet forks: max. 2,000 kg · Total weight: approx. 4.100 kg · Dimensions L x W x H (m): 5.27 x 1.56 x 2.65 m

### Standard Specifications:

- ROPS/FOPS safetyroof with safety dors
- Hydraulic quick hitch
- Repture protection on lifting and tilting arm
- Pallet fork with protection
- Alarm for driving backwards
- Rotating Beacon light
- Traffic lights incl. 1 working light to the front

Type	Description	Working Load Limit WLL* kg (lbs)		Order-Number
UP-1204-W	Water-filled tires	150 (330)		5221.0003
UP-1204-PU	Tires filled with polyurethane foam	150 (330)		5221.0004
		max. 200 (440) at full boom length (approx. 2,175 mm / 85½")	max. 250 (550) reduced boom length (approx. 1,955 mm / 77")	

\* Working Load Limit kg (lbs) depends on the vacuum lifting hose unit used

Special version with 300 kg at reduced boom length approx. 1.570 mm on request

### Accessories

Type	Description	Order-Number
UP-1204-ST	Standard bucket: width 1,400 mm · capacity approx. 420 litre	4221.0084
UP-1204-KS	Multi-purpose bucket four in one width: 1,600 mm · capacity approx. 470 litre	4221.0048
UP-1204-K	Cabin Complete: Heating, radio, mirror, windscreen wiper front and rear, each to working lights to front and rear	4221.0051
UP-1204-FFS	Radio remote control for driving and steering the loader	4221.0066

For proper suction plates refer to type list 5.26, 5.27, 5.28, 5.30 or contact us for professional advice.

HE-35 – HE-250



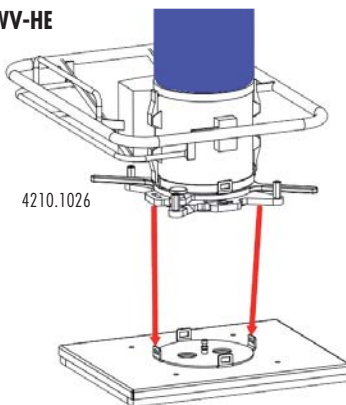
BE-Sprint-2



SZV



SWV-HE



4210.1026

## Vacuum Hose Lifter Components

### Lifting Hose Units HE

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	Working Load Limit WLL* 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	50*** (110)***	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")	1,500 (59")	4210.0132
HE-200	200*** (440)***	250 (9 3/4")	1,500 (59")	4210.1114
HE-250	250*** (550)***	300 (11 3/4")	1,500 (59")	4210.1115
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

### Quick Change Device SWV-HE

Suction plates are usually fixed to the operating valve unit BE or hose cylinder extension SZV through two hook latches.

In case suction plates have to be changed continually, the quick change device SWV-HE is highly recommended.

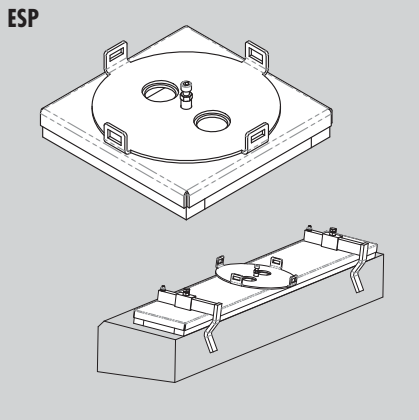
- ▶ Faster suction plate changing with a simple twisting motion.
- ▶ Suitable for all lifting hose units from HE-35 to HE-250.

- ▶ Easy operation, no inconvenient screwing of adapters required.

- ▶ Operating errors no longer possible.
- ▶ When using lifting hose units HE-200 and HE-250, the lifting hose unit is fitted directly to the lifting hose unit by means of 4 tension rods (threaded rods).

Type	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number	
SWV-HE	Quick change device	250 (550)	3,8 (8)	4210.1026

\* Caution: Take note of the working load limit of the crane equipment. \*\*\*Value at 420 mbar low pressure



### Suction Plates ESP

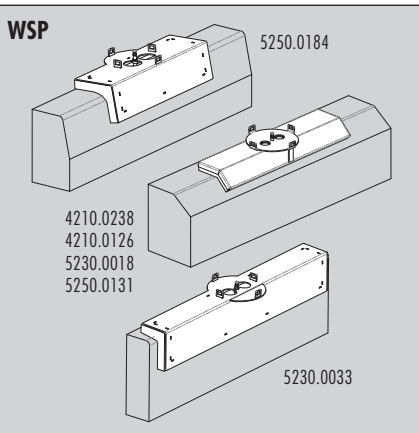
Consists of:

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

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

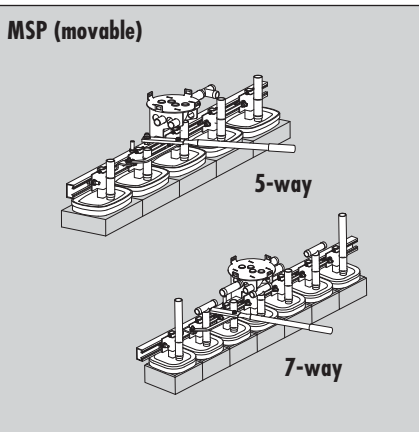
Type	Dimension mm (in)	Working Load Limit WLL kg** (lbs)	Order-Number
ESP-35-20/20	200 x 200 (7 <sup>3</sup> / <sub>4</sub> " x 7 <sup>3</sup> / <sub>4</sub> "	35*** (75)***	4210.0050
ESP-50-23/23	230 x 230 (9" x 9")	50*** (110)***	4210.0561
ESP-85-25,5/25,5	255 x 255 (10" x 10")	85*** (185)***	4210.0051
ESP-150-31/31	310 x 310 (12 <sup>1</sup> / <sub>4</sub> " x 12 <sup>1</sup> / <sub>4</sub> "	150*** (330)***	4210.0145
ESP-150-40/27,5	400 x 275 (15 <sup>3</sup> / <sub>4</sub> " x 10 <sup>3</sup> / <sub>4</sub> "	150*** (330)***	4210.0116
ESP-150-50/19	500 x 190 (19 <sup>3</sup> / <sub>4</sub> " x 7 <sup>1</sup> / <sub>2</sub> "	150*** (330)***	5230.0019
ESP-150-92,4/13,4	924 x 134 (36 <sup>1</sup> / <sub>2</sub> " x 5 <sup>1</sup> / <sub>4</sub> "	150*** (330)***	5230.0008
ESP-150-100/12,4	1000 x 124 (39 <sup>1</sup> / <sub>2</sub> " x 5")	150*** (330)***	5230.0007
ESP-200-33/33	330 x 330 (13" x 13")	200*** (440)***	4210.0331
ESP-250-40/40	400 x 400 (15 <sup>3</sup> / <sub>4</sub> " x 15 <sup>3</sup> / <sub>4</sub> "	250*** (550)***	4210.0054

For more suction plates contact us for professional advice, or refer to type list 13.5



### Angled Suction Plates WSP

Type	Dimension mm (in)	Working Load Limit WLL kg** (lbs)	Order-Number
WSP-150-52/15-12-98° ①	520x150-120 (20 <sup>1</sup> / <sub>2</sub> "x6"-4 <sup>3</sup> / <sub>4</sub> "	150*** (330)***	5250.0184
WSP-150-70/8-11-143°	700x80-110 (27 <sup>1</sup> / <sub>2</sub> "x3"-4 <sup>1</sup> / <sub>4</sub> "	150*** (330)***	4210.0238
WSP-150-70/11-17-143°	700x110-170 (27 <sup>1</sup> / <sub>2</sub> "x4"-6 <sup>3</sup> / <sub>4</sub> "	150*** (330)***	4210.0126
WSP-150-85/7-7-135°	850x70-70 (33 <sup>1</sup> / <sub>2</sub> "x2 <sup>3</sup> / <sub>4</sub> "-2 <sup>3</sup> / <sub>4</sub> "	150*** (330)***	5230.0018
WSP-150-70/13-10-143°	700x130-100 (27 <sup>1</sup> / <sub>2</sub> "x5"-4")	150*** (330)***	5250.0131
WSP-150-90/10-14-93° ①	900x100-140 (35 <sup>1</sup> / <sub>2</sub> "x4"-5 <sup>1</sup> / <sub>2</sub> "	150*** (330)***	5230.0033



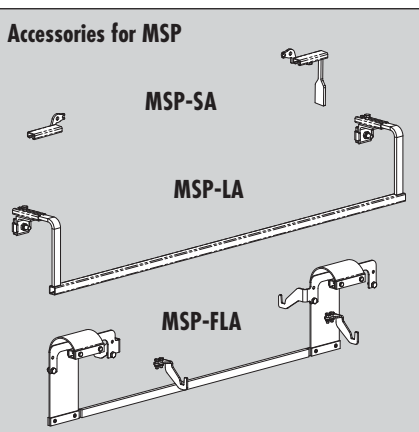
### Multiple Suction Plates MSP

A modular design system, working with mainly standardised elements. We can therefore produce the appropriate suction plates fast and cost efficient according to customers needs.

► **MSP-X-V... (movable):** multiple suction plate with distance control. If a certain distance between stones is needed, you can fix the distance of the suction pad with a lever at a set distance e.g. 10 mm, so the stones will always have the correct spacing

► Exchangeable rubber seals with low wearing material, quick and easy to change and without the need for gluing.

► **MSP-X-S... (rigid):** multiple suction plate with fixed spacing of the suction pads.



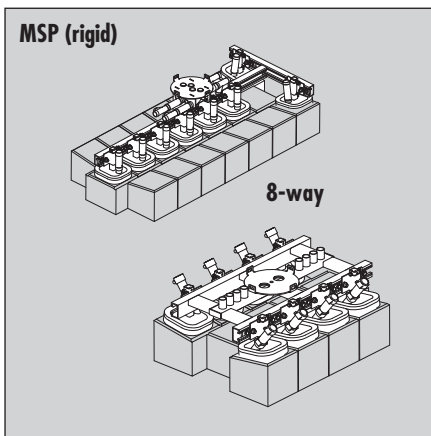
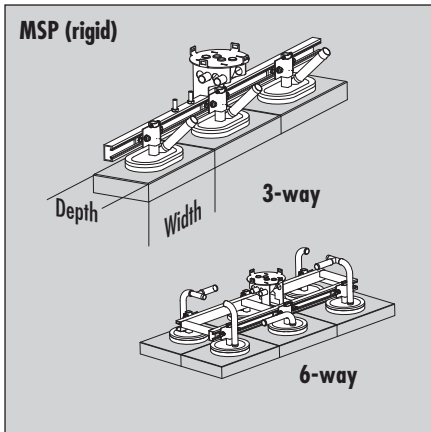
Type ①	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-5-V-150-5 x SPS- 24/16-a-24	240 x 160 (9 <sup>1</sup> / <sub>2</sub> " x 6 <sup>1</sup> / <sub>4</sub> "	8	150*** (330)***	4210.1097
MSP-5-V-150-5 x SPS -24/16-a-25	240 x 160 (9 <sup>1</sup> / <sub>2</sub> " x 6 <sup>1</sup> / <sub>4</sub> "	5	150*** (330)***	4210.1077
MSP-5-V-150-5 x SPS -22/12-a-23,5	220 x 120 (8 <sup>1</sup> / <sub>2</sub> " x 4 <sup>3</sup> / <sub>4</sub> "	5	150*** (330)***	4210.1083
MSP-7-V-150-7 x SPS-17/16-a-16	170 x 160 (6 <sup>3</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> "	7	150*** (330)***	4210.1096
MSP-7-V-150-7 x SPS-16/14-a-16	160 x 140 (6 <sup>1</sup> / <sub>4</sub> " x 5 <sup>1</sup> / <sub>2</sub> "	7	150*** (330)***	4210.1078

\*\* Caution: It is forbidden to use suction plates with a smaller working load limit than the lifting unit HE!  
It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing

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Type ①	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-3-5-85-3 x SPS 23/13-a 35-40	230 x 130 (9" x 6")	3	85*** (185)***	4210.1058
MSP-6 (2x3)-5-200-6 x 19 Rd-a-40	∅ 190 (7 1/2")	6	200*** (440)***	4210.1087

### Accessories

► To speed up laying with high positioning accuracy and thus reduce alignment work, stops can optionally be attached to the multiple suction plates.

Type ①	Adjustment range mm (in) for	Dead Weight kg (lbs)	Order-Number
MSP-SA Lateral stop (usable on both sides)	Slab width 85 – 330 (3 1/4" – 13")	0,5 (1)	4210.1035
MSP-LA Longitudinal stop	Slab depth 120 – 280 (5" – 11")	3 (7)	4210.1036
MSP-FLA Flexible Longitudinal stop (For movable MSP only)	Slab depth 80 – 280 (3" – 11")	3 (7)	4210.1037

► Special multiple suction plates with fixed spacing. Specially designed to lay gutter stones.

Type ①	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-8-5-150-8 x SPS 13/15-a 15	130 x 150 (5" x 6")	8	150*** (330)***	4210.1088
MSP-8 (2x4)-5-150-8 x SPS 13/15	130 x 150 (5" x 6")	8	150*** (330)***	4210.1086

Additional suction plates on request.

### Large-Area Suction Plates FSP

A universal suction plate for the broadest range of stone configurations, regardless of the number of individual stones, regardless of how the joints run: the highly innovative FSP surface suction plate now covers this task for all devices and machines with vacuum tube lifters. The vacuum tube lifting devices such as JUMBO-BV-VARIO, JUMBOMOBIL JM-VARIO, TRANSMOBIL TM and UNIPOSE UP-1204 can therefore be used on a considerably wider scale for laying stone elements.

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

Comprising:

► Suction box with stuck-on sponge rubber mat. The sponge rubber layer is easy to replace. Careful handling of the vacuum seal is essential.

Type	Dimension mm (in)	Working Load Limit WLL kg (lbs)**	Order-Number
FSP-85-42/42	420 x 420 (16 1/2 x 16 1/2")	85 (185)***	4211.0030
FSP-100-110/14	1,100 x 140 (43 x 5 1/2")	100 (220)***	4211.0019
FSP-150-56/61	560 x 610 (22 x 24")	150 (330)***	4211.0017
FSP-150-82/20	820 x 200 (32 1/4 x 7 3/4")	150 (330)***	4211.0004

Additional suction plates on request.

\*\* Caution: It is forbidden to use the suction plates with a smaller working load limit than the lifting unit HE! It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing



## Bag and Sack Gripper SXG

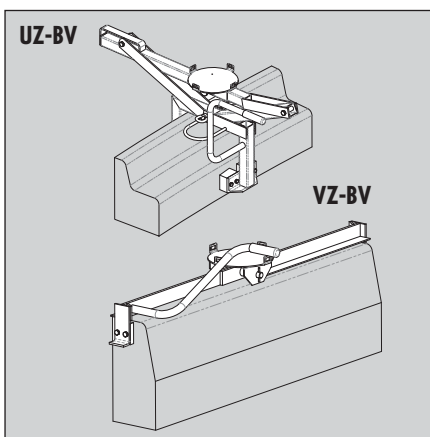
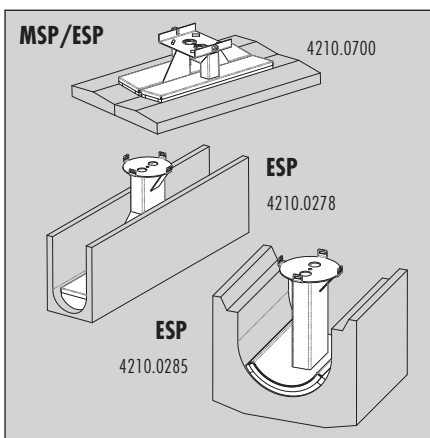
Safe and convenient transport of sand, granulate and concrete bulk bags. Bag grippers are specific suction plates for order-picking and transport of bags.

- ▶ Suitable for handling of paper bags with plastic film inside as well as for plastic bags.
- ▶ Implementation by attachment to a vacuum device - such as Jumbo travelling crane JWK.

Type	Carrier	Dimension mm (in)	Working Load Limit WLL kg (lbs)**	Order-Number
<b>SXG-150</b>	HE-150	420 x 250 (16½ x 9¾")	150 (330)	<b>4210.0093</b>
<b>SXG-85</b>	HE-85	350 x 250 (13¾ x 9¾")	85 (185)	<b>4210.0644</b>
<b>SXG-45/65-30/19</b>	HE-50	300 x 190 (11¾ x 7½")	35 (75)	<b>4210.0801</b>
<b>SXG-35-24/18</b>	VXS	242 x 160 (9½ x 6¼")	35 (75)	<b>4210.0856</b>

## Special Suction Plates

Type	Dimension mm (in)	Working Load Limit WLL kg** (lbs)	Order-Number
<b>MSP 2-250-2 x ESP 62/14-168°-SWA</b>	620 x 140 (24½" x 5½")	250*** (550)***	<b>4210.0700</b>
<b>ESP 150-92/13-R 75</b>	920 x 130 (36¼" x 5")	150*** (330)***	<b>4210.0278</b>
<b>ESP 150-39/25-R 150</b>	390 x 250 (15½" x 9¾")	150*** (330)***	<b>4210.0285</b>



## Grabs

Mechanical grippers can be mounted instead of vacuum suction plates onto the vacuum hose lifter. In this scenario, the vacuum energy is lifting the products whilst the mechanical gripper grabs the product. In this case, the sensitive speed control of lifting and lowering by the vacuum hose lifter is obtained.

▶ **VZ-BV:** this clamp has been specially designed to cope with the rare cases when kerb stones are too porous to be lifted with vacuum, so they therefore have to be lifted mechanically.

▶ **UZ-BV:** universal kerb stone clamp specially designed to grab the kerbs crossway. This is how curved kerb stones with different radii can be handled.

▶ **RG-VZ:** Special clamp for the laying of 1, 2 or 3 grass stone slabs in one movement.



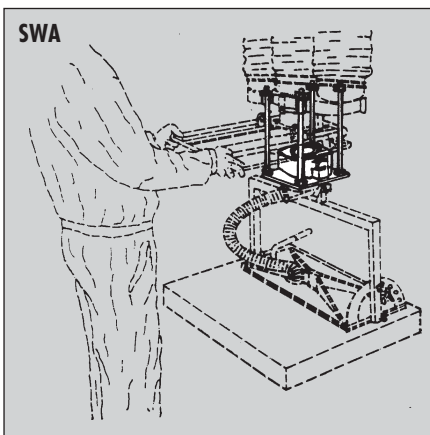
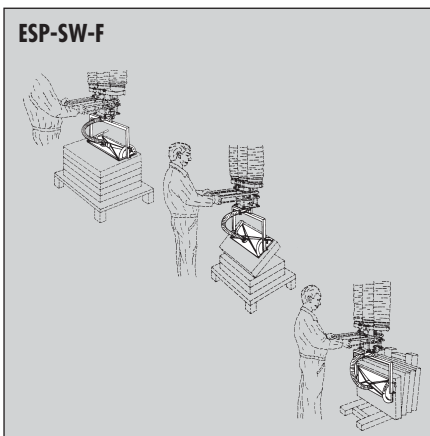
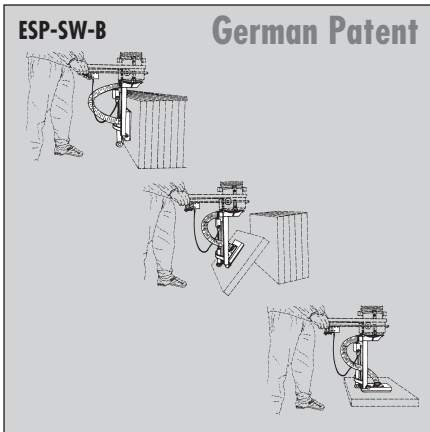
Type ①	Description	Gripping Range* W mm (in)	Working Load Limit WLL kg** (lbs)	Dead Weight kg (lbs)	Order-Number
<b>UZ-BV</b>	Radius Kerb Clamp	80 – 220 (3 x 8¾")	150 (330)	12 (26)	<b>5230.0031</b>
<b>RG-VZ</b>	Turf Stone Handle			12 (26)	<b>4200.0003</b>
<b>VZ-BV-98/100</b>	Mechanical Kerb Stone Handle	980 – 1,000 (38 ½ x 39 ½")	150 (330)	9 (20)	<b>4230.0001</b>
<b>VZ-BV-40/104</b>	Mechanical Kerb Stone Handle	400 – 1,045 (15¾ x 41")	150 (330)	7 (15)	<b>4230.0149</b>

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

\*\* Caution: It is forbidden to use the suction plates with a smaller working load limit than the lifting unit HE! It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing



## Vacuum Hose Lifter Components Tilteable suction plate ESP-SW

Suitable for different applications of vacuum hose lifting devices:

### with automatic retraction ESP-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)	Working Load Limit WLL 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)	Working Load Limit WLL kg (lbs)	Order-Number
ESP-SW-F-F-250-75/30-A	750 x 300 (29 <sup>1</sup> / <sub>2</sub> " x 11 <sup>3</sup> / <sub>4</sub> "	250* (550)*	4210.0095
ESP-SW-F-F-150-40/25-A	400 x 250 (15 <sup>3</sup> / <sub>4</sub> " x 9 <sup>3</sup> / <sub>4</sub> "	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 5.26), specially suitable for in-plant paketeize works in use with ESP-SW-F-F-250-75/30-A.

Type	Length mm (in)	Max. Working Load Limit WLL kg (lbs)	Order-Number
SWA 200 (long version)	300 (11 <sup>3</sup> / <sub>4</sub> "	250* (550)*	4210.0097
SWA 200 (short version)	100 (4")	250* (550)*	4210.0104

\* Value at 420 mbar low pressure



## Attachments for JUMBOMOBIL JM-VARIO / JUMBO-BV-VARIO

Description	Order-Number
<b>Cable drum 400 V, 16 A, 3 phase, L= 25 m</b>	<b>2410.0001</b>
<b>Replacement filter cartridge for airfilter</b>	<b>4210.0085</b>
<b>Replacement for rubber seal L = 1 m</b>	<b>4210.0024</b>
<b>Tin of adhesive for rubber seal (1 tin enough for 2 meters)</b>	<b>5210.0001</b>
<b>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</b>	<b>4220.0107</b>

## Hollow Forks for JUMBO-BV-VARIO

Description	Order-Number
<b>Hollow forks</b> for forks of the carrier with max. 155 x 55 x 1.060 (B x H x L)	<b>4220.0128</b>
<b>Hollow forks</b> for forks of the carrier with max. 160 x 60 x 1.200 (B x H x L)	<b>4220.0388</b>

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ZA-BV-Mobil with JUMBO-BV-VARIO

## ZA-BV-Mobil

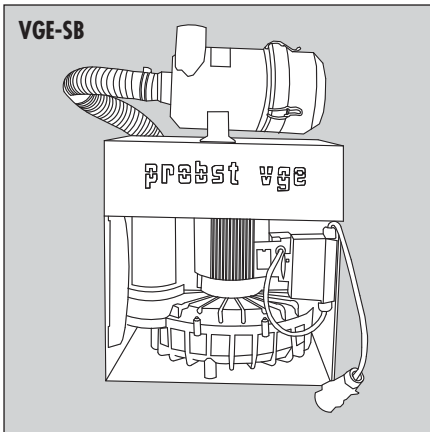
**To lay slabs**, the JUMBO-BV-VARIO can be easily attached to the **ZA-BV-Mobil**. With the Palette Truck PW III the complete unit can be moved from one position to the other by hand. No additional carrying machine like wheel loader is necessary. Another advantage of the system is the fact that the PW-III can be equipped with forks to move palettes around the site.

**The ZA-BV-Mobil consists of the following components:**

- ▶ Palette Truck PW-III with removable forks.
- ▶ Frame with four supports.

(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.)

Type	Order-Number
<b>ZA-BV-Mobil complete</b>	<b>5230.0020</b>



## Vacuum Turbine Units for JUMBOMOBIL JM

### Driven by electrical motor for JUMBOMOBIL JM

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 32 A with integrated phase-switch.
- ▶ Pressure relieve valve

**Application:**

Type VGE-SB-L-E: Standard turbine for JM-150-E, JM-VARIO-150-E + JM-200-E, JM-VARIO-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 60Hz 3~190/290 V Δ or 330/500 V Y	4210.0439
VGE-SB-V-E	4 kW 50Hz 3~ 400 V Y	4210.0450

### Driven by petrol engine for JUMBOMOBIL JM and JUMBO-BV-VARIO

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

Mainly used on JUMBO-BV-VARIO (see p. 5.22) and JUMBOMOBIL JM-B + JM-VARIO-B (see p. 5.23) Conversion kit required

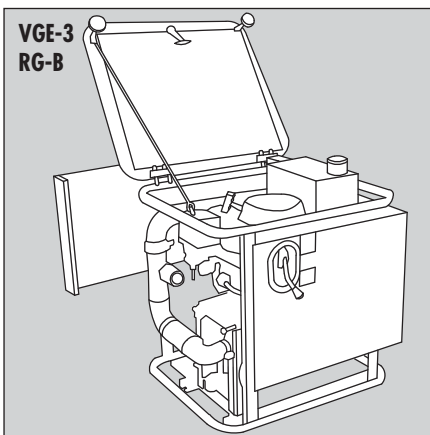
**Standard Specifications:**

- ▶ 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-VARIO

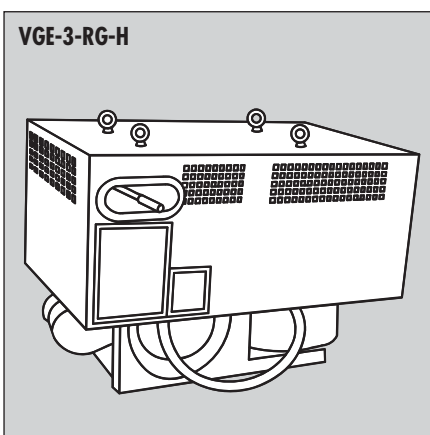
Complete, ready-to-run unit for production of vacuum energy by hydraulic motor, mainly for use on JUMBO-BV-VARIO (see page 5.22).

**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



## 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
VZ-M-UNI ①	900 – 1,065 (35½ – 42¼")	300 (660)	21 (45)	5310.0275

See page 6.13 for the Hydraulic Kerb Stone Clamp VZ-H-UNI



## 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
BZ ①	0 – 400 (0 – 15¾")	200 (7¾")	150 (6")	150 (330)	4 (9)	5320.0084
<b>Spare Rubbers BZ</b>						<b>4320.0006</b>



## Universal Handle BVZ

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

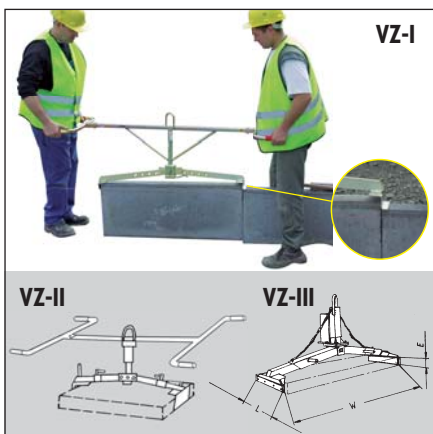
▷ Exchangeable rubber metal bars as gripping elements.

- ▷ 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
BVZ ①	0 – 550 (0 – 21¾")	210 (8¼")	200 (7¾")	200 (440)	12 (26)	5320.0020



## Laying Clamp 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 + II + III 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 ①	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
VZ-I	500 – 1,045 (19¾ – 41¼")	40 (1½")	100 (4")	100 (220)	12 (26)	5310.0140
VZ-II	700 – 1,000 (27½ – 39")	50 (2")	200 (7¾")	300 (660)	25 (55)	5310.0141
VZ-III	1,000 – 1,700 (39 – 67")	60 (2¼")	420 (16½")	1,000 (2,200)	60 (132)	5310.0142
<b>HVA-VZ-II: Adjustable Height Stop for VZ II, on one side only</b>						<b>4310.0846</b>

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

① Durable surface protection by galvanizing

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**NEW: with larger gripping range**



## EASYGRIP EXG Border Stone Handle

**Small, lightweight, easy to handle but nonetheless ultra-strong!**

EASYGRIP EXG is a mechanical grab suitable for handling parallel, plane and non-conical concrete elements, such as border stones, slabs, block steps and kerb stones.

► The compact and lightweight EASYGRIP EXG can be attached to a carrier (loading crane,

mini-excavator etc.) by means of hoisting belts or chains. Thus just one person is able to operate the grab mechanically.

► The grab comes with two handles and thus is also suitable for a two-man manual operation.

**\*NEW: EXG-MAXI** with larger gripping range and height-adjustable support as standard.

Type <sup>①</sup>	Gripping Range* W mm (in)	Inside Height ** E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
EXG	0 – 300 (0 – 11¾")	145 – 195 (5¾ – 7½")	235 (9¼")	550 (1,200)	12 (26)	5310.0370
* EXG-MAXI	0 – 400 (0 – 15¾")	165 – 215 (6½ – 8½")	235 (9¼")	600 (1,320)	15 (33)	5310.0392

\*\* depending on gripping range



## TWISTGRIP TG Kerb and Strip Stone handle

**The new TWISTGRIP TG series: Powerful grip with a simple turn of the handle.**

**Basic model TG-5/12:** virtually provides kerb and border stones with a "handle".

► Can be set to any grip width from 5 to 12 cm in seconds, without using a tool.

► It takes only 2.5 turns to achieve a full working load limit of 80 kg.

► Compact dimensions, low machine weight.

► Non-damaging grip thanks to highly wear-resistant, replaceable rubber elements.

**Extension module TG-HGV:** Handle extension for retro-fitting.

► Depending on the situation, achieves even better ergonomic position.

► Light as a feather, thanks to aluminium and wood.

**Extension module TG-GM-25/60:** Gripper module for laying slabs.

► Universally adjustable from 25 to 60 cm grip width.

► Particularly when combined with the TG-HGV handle extension, vastly improved posture for installer.

► Can be mounted and removed in seconds without using tools.



Type <sup>①</sup>	Gripping Range * W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
TG-5/12	50 – 120 (2 – 4¾")	80 (175)	3.0 (7)	5320.0102
TG-GM-25/60	250 – 600 (9¾ – 23½")	80 (175)	1.3 (3)	4320.0110
TG-HGV	Retro-fitted handle extension		0.5 (1)	4320.0108



## 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
KSH <sup>①</sup>	40 – 100 (1½ – 4")	170 – 400 (6¾ – 15¾")	50 (2")	60 (130)	1.3 (3)	5320.0080

<sup>①</sup>Gripping range indicates the minimum and maximum pack measurements of building materials, which can be picked-up with this grab.

<sup>①</sup> Durable surface protection by galvanizing



TSZ-UNI

## Concrete Step Handles TSZ

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 185 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 profiled rubber seals
- ▶ Galvanised finish

**TSZ-UNI-WB-SQ:** Special steelfinger grippers allow for safe installation of roughly-cut ashlar rocks. The steel-finger grippers can be screwed on the clamp (built in or after 2009, order number 5310.0338) in just a few simple steps.

**TSZ-UNI-ET:** Fork sleeve with lifting eye and manual turning device, engaging every 90°. Thus the TSZ-UNI can be picked-up with the fork lift truck tines.



TSZ-UNI-WB-SQ

Type <sup>①</sup>	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
TSZ-UNI	50 – 600 (2 – 23 1/2")	185 (7 1/4")	350 (13 3/4")	600 (1,320)	29 (64)	5310.0338
TSZ-MAXI	850 – 1.100 (33 1/2" – 43")	185 (7 1/4")	350 (13 3/4")	600 (1,320)	30 (65)	5310.0364

### Accessories

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
TSZ-UNI-WB-SQ <sup>①</sup>	50 – 550 (2 – 21 1/2")	210 (8 1/4")	600 (1,320)	6 (13)	4310.1110
TSZ-UNI-ET <sup>①</sup>			600 (1,320)	25 (55)	4310.1130
<b>Adjustable Height Stop HVA-FTZ/TSZ</b> for all versions FTZ-UNI/MAXI/MULTI and TSZ-UNI/MAXI. adjustable range approx. 50 – 140 mm (2 – 5 1/2")					4310.0867



TSV

## 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.
- ▶ Semi-automatic – for manual switch over

from "full" to "empty".

- ▶ Carrying handle
- ▶ Carrying handle turnable by 90° according to the working space.
- ▶ Exchangeable rubber grippers
- ▶ Galvanised finish

Type <sup>①</sup>	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL 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

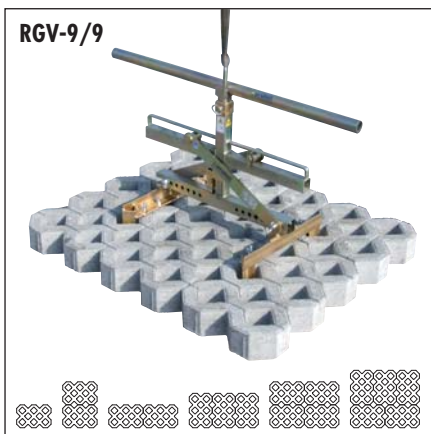
## Turf Stone Laying Clamp RGV

Laying Clamp for Turf Stones, versatil due to exchangeable adaptors.

- ▶ RGV-9/9 fits Turf Stones 60 x 40 cm, hole dim. 9 x 9 cm.
- ▶ Installs 1 to 5 units at once.

### Standard specifications:

- ▶ Automatic release for fully automatic switch-over from "full" to "empty".
- ▶ Lifting eye, handle, turnable by 90°.
- ▶ Screwable adaptors – not compatible with TSV!



RGV-9/9

Type <sup>①</sup>	Description	Gripping Range W mm (in) depending on adaptors	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RGV	Basic unit, without adaptors	ca. 70 – 500 (2 3/4 – 20")	250 (550)	15 (30)	4310.1154
RGV-AS-9/9	Adaptors for 9 x 9 cm		250 (550)	5 (11)	4310.1153
RGV-9/9	Complete unit, RGV+RGV-AS-9/9	300/500 (12 – 20")	250 (550)	20 (44)	5310.0372

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

① Durable surface protection by galvanizing

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FTZ-UNI-15



FTZ-MAXI-25



FTZ-UNI-50

## Grab for Prefabricated Concrete Products FTZ

**FTZ-I:** special compact clamp for laying heavy granit kerbs.

**FTZ-BB:** designed kerb stones with high concave section for bus stops („Kassel Kerb“)

**FTZ-UNI:** Universal clamp for all kind of pre-cast elements.

**Standard equipped:**

- ▶ Gripping width adjustment by spring loaded bolt. Bolt can not get lost.
- ▶ Suspension bolt for lifting device.
- ▶ Automatic release for fully automatic switch over from „full“ to „empty“.
- ▶ Exchangeable rubber grippers.
- ▶ With handles to guide the grab.

Type <sup>①</sup>	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL 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)	<b>5310.0120</b>
FTZ-BB	50 – 480 (2 – 19")	290 (11 1/2")	420 (16 1/2")	900 (2,000)	55 (120)	<b>5310.0202</b>
FTZ-UNI-15	0 – 750 (0 – 29 1/2")	255 (10")	420 (16 1/2")	1,500 (3,300)	85 (185)	<b>5310.0256</b>
FTZ-UNI-25	0 – 750 (0 – 29 1/2")	255 (10")	420 (16 1/2")	2,500 (5,500)	115 (255)	<b>5310.0313</b>
FTZ-MAXI-25	200 – 1,200 (8 – 47")	255 (10")	420 (16 1/2")	2,500 (5,500)	130 (285)	<b>5310.0344</b>
FTZ-UNI-50	0 – 850 (0 – 33 1/2")	200 (8")	720 (28 3/4")	5,000 (11,000)	245 (540)	<b>5310.0362</b>
FTZ-MAXI-50	400 – 1.250 (15 3/4 – 49")	240 (9 1/2")	720 (28 3/4")	5,000 (11,000)	260 (570)	<b>5310.0363</b>

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

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## Grab for Prefabricated Concrete Products FTZ-MULTI

Innovative, mechanical grab. Appropriate clamp configurations for versatile applications from a modular construction system. Same features as per FTZ-1/UNI.

► The individual modules are available separately and hence a huge range of applications can be covered at a reasonable price (base body + 3 sets of grippers cover the entire spectrum!)

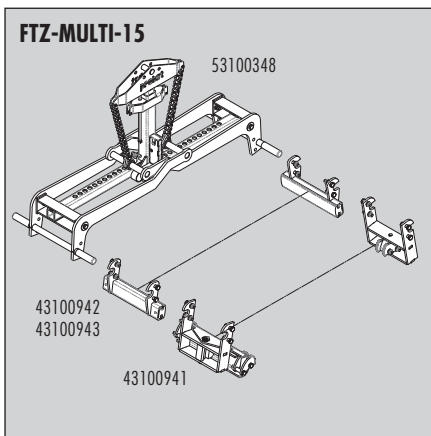
► Extraordinary large gripping range, thus suitable for gripping nearly all kind of standard concrete elements and natural stones.

► **FTZ-MULTI-15:** Basic unit without grippers

► **WB-G-42:** Large gripping range, short rubber grippers - preferably suitable for handling of single elements.

► **WB-SQ:** Special interlocking steelfinger grippers allow for safe installation of roughly-cut ashlar rocks.

► **WB-G-120:** Large gripping range, large rubber grippers - preferably suitable for handling of full layers, such as one layer of kerb stones etc.

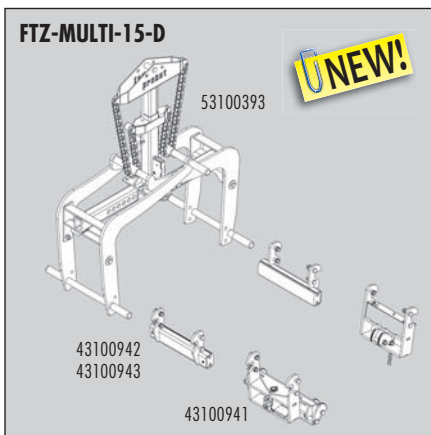


### Components for Optional Clamp Configuration

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FTZ-MULTI-15				1.500 (3,300)	96 (210)	5310.0348
FTZ-MULTI-15-WB-G-42 (pair)	200 - 1.250 (8 - 49")	255 (10")	420 (16 1/2")		14 (30)	4310.0942
FTZ-MULTI-15-WB-G-120 (pair)	200 - 1.250 (8 - 49")	255 (10")	1.200 (47")		46 (100)	4310.0943
FTZ-MULTI-15-WB-SQ (pair)	200 - 1.200 (8 - 47")	300 (12")			33 (75)	4310.0941

### Accessories

<b>Adapter for Kassel Kerb Stone A-FTZ-KB</b> for FTZ-UNI-15 to extend gripping depth on one side to 290 mm	4310.0575
<b>Adjustable Height Stop HVA-FTZ/TSZ</b> for all versions of FTZ-UNI/MAXI/MULTI and TSZ-UNI Adjustable range approx. 140 - 255 mm. Adjustable range FTZ-UNI/MAXI-15 and FTZ-UNI-25 approx. 120 - 255 mm. FTZ-UNI-40 approx. 55 - 155 mm. FTZ-MAXI-40 approx. 55 - 195 mm.	4310.0867



## Grab for Prefabricated Concrete Products FTZ-MULTI-D

**Modularly designed grab – with even larger inside height.**

► The FTZ-MULTI-15-D basic device can be fitted with the same clamps as are suitable for the FTZ-MULTI-15 (see description above).

A single clamp top with screw-on grippers for the broadest range of tasks. Maximum application options due to large gripping range with low acquisition costs.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FTZ-MULTI-15-D Basic Device				1,500 (3,300)	140 (310)	5310.0393
FTZ-MULTI-15-WB-G-42 (pair)	0 - 750 (29 1/2")	540 (21")	420 (16 1/2")		14 (30)	4310.0942
FTZ-MULTI-15-WB-G-120 (pair)	0 - 750 (29 1/2")	540 (21")	1,200 (47")		46 (100)	4310.0943
FTZ-MULTI-15-WB-SQ (pair)	0 - 750 (29 1/2")	585 (23")			33 (73)	4310.0941

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

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## 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 all prevalent products 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".
- ▶ Leaves no black marks.

Type <sup>①</sup>	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
WEZ-2	50 – 250 (2" – 9¾")	2,000 (4,400)	55 (120)	5310.0347
WEZ-6	50 – 300 (2" – 11¾")	6,000 (13,200)	160 (350)	5310.0375



## 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 gripping range from 0 to a maximum of 950 mm.
- ▶ With lifting eye for attaching to crane hook.

Type	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FVZ-UNI	0 – 950 (0 – 37½")	1,500 (3,300)	99 (218)	5310.0272



## Manual Boulder Grab H-FVZ-UNI

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

regarding the admissible working load limit.

- ▶ Additionally equipped with a ring-eyelet to be hooked onto any kind of lifting device,

- ▶ Equipped with a simple and fast gripping range adjustment.
- ▶ Galvanised finish

Type	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
H-FVZ-UNI ①	0 – 600 (0 – 23½")	200 (440)	18 (40)	5320.0086



## 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FZ	0 – 60 (0 – 2½")	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.

① Durable surface protection by galvanizing





## 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 <sup>①</sup>	Gripping Range* W mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
PVZ	200 (7¾")	80 (3¼")	150 (330)	6 (13)	5320.0030
PVZ-V	100 – 305 (4 – 12")	80 (3¼")	150 (330)	8 (18)	5320.0031

## Column Grab MPVZ-V

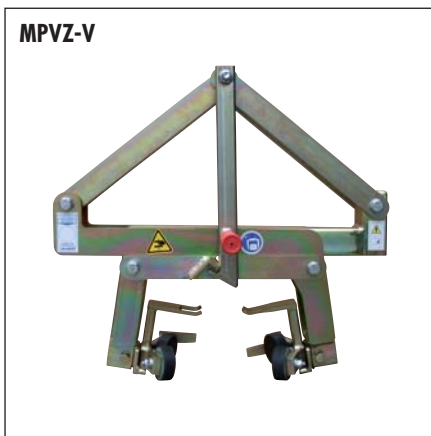
For use with a carrier and especially suitable for lifting concrete and wooden columns from a horizontal to a vertical position for installation. Clamping is independent of the length.

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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
MPVZ-V <sup>①</sup>	120 – 200 (4¾ – 7¾")	300 (660)	30 (66)	5310.0233

## Stone Pillar Grab SLS-8/20-G-VA

Available from  
spring 2017

Stone pillars and palisades, mainly made of attractive natural stone such as granite, become increasingly popular in horticulture and landscaping. For efficient installation the handy stone pillar grab SLS-8/20-G-VA was designed. Suspended to a lifting device, such as a mini excavator, the horizontal pillar is clamped through a crank handle. The gripping force automatically increases while lifting and the pil-

lar can be raised safely and installed easily.

After installation the crank is to be released.

▶ **NEW:** The lifting eye can be adjusted to the center of gravity of the product being lifted to let it hang vertically.

▶ Double-sided, non-marking rubber grippers, thus no claw marks or scratches on pillars and palisades.



Type	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SLS-8/20-G-VA <sup>①</sup>	80 – 200 (3 – 7¾")	300 (660)	11 (25)	5310.0409
GB-SLS <sup>②</sup>				4310.0997

## 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

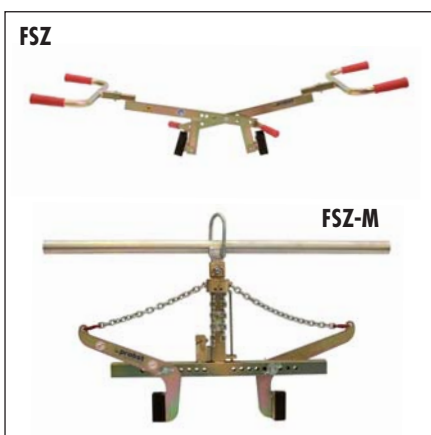
▶ Removable double handles

▶ 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FSZ <sup>①</sup>	180 – 580 (7 – 22¾")	150 (330)	8 (17)	5320.0001
FSZ-M <sup>①</sup>	180 – 580 (7 – 22¾")	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.

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UM-ECO-VZ



## UNIMOBIL UM-ECO-VZ Laying Dolly

Flexible hand laying system for almost all kind of kerb stones and slabs with a maximum weight of 125 kg and gripping range between 400 – 800 mm.

► Due to the usage of the UNIMOBIL-ECO-VZ hand laying device an enormous economical saving is reachable, because one single person can fast and comfortable lay slabs or kerb stones.

- Laying close to the previous kerb stones or slabs is possible with the one-sided angular support.
- Particularly easy to use: accurate lowering of the load and lifting up the empty grab again through integrated locking gas spring.

Type	Load Pick-up	Gripping Range mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
UM-ECO-VZ	mechanical grab	400 – 800 (15¾ – 31½")	125 (276)	37 (81)	5810.0002

EL-MULTI



Height-adjustable blade

## EASYLIFT EL-MULTI Slab Handling Device

Lift, transport and lay slabs easily and quickly. The vital slab lifter for any landscaper.

- Grab range of 300 – 800 mm adjustable in 5 steps, including extension then possible to 1,200 mm.
- Allows several slabs to be picked up simultaneously, then subsequent seamless laying of the individual slabs in succession.
- Height-adjustable blade serves as a stop at the back to clamp the slabs.

- Angle of the handle can be adjusted, which means that there is no "tilting moment" as with a sack truck. This ensures better control when positioning the slabs. Furthermore, as a result of this, amazingly little force is required when transporting larger slabs.
- With extension set, also suitable for transporting U elements and step treads.
- Solid design, indestructible.
- Easy installation of the handle with no tools, thus space-saving in transit.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
EL-MULTI	300 – 1,200 (11¾ – 47¼")	320 (12½")	150 (330)	39 (86)	5110.0018

EL-MULTI



## EASYLIFT EL-SIMPLE Slab Handling Device

The "packhorse" on 2 wheels for easy slab laying: small, light and exceptionally gentle on the back.

- User-friendly and handy device for seamless slab laying.
- For optimal posture when working. Through the lever effect, even heavy slabs can be laid without great effort.

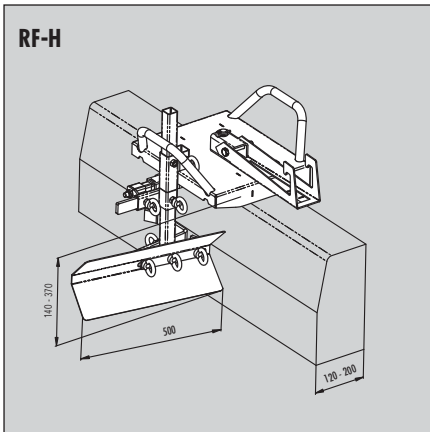
- The special wheel design makes the EASYLIFT EL-SIMPLE extremely manoeuvrable.
- Solid design, indestructible.
- Collapsible, thus space-saving in transit.

Type	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
EL-SIMPLE	300 – 600 (11¾ – 23½")	80 (175)	12 (25)	5110.0017

EL-SIMPLE



① Durable surface protection by galvanizing



## GUTTERFIX 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 <sup>①</sup>	500 (19 <sup>3</sup> / <sub>4</sub> " )	120 – 200 (4 <sup>3</sup> / <sub>4</sub> – 7 <sup>3</sup> / <sub>4</sub> " )	70 – 300 (2 <sup>3</sup> / <sub>4</sub> – 11 <sup>3</sup> / <sub>4</sub> " )	13 (30)	5100.0064



## Slipform for Concrete Backfill of Precast Kerbs GR-150

German Patent

When installing kerb stones it is mandatory to get them backfilled with concrete formwork as per DIN 18318.

To avoid time-consuming and expensive assembly of timber formwork at the construction site we developed a slipform with lots of clever features.

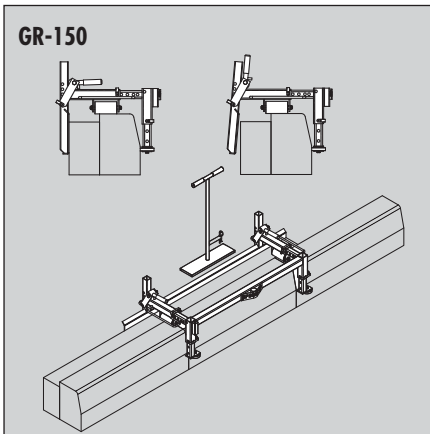
The slipform GR-150 adjusts to all prevalent precast kerb dimensions. Effortless sliding due to rollers equipped with ball-bearings.

Within seconds the slipform plate is removed from the formed concrete and put into working position again by 2 eccentric levers.

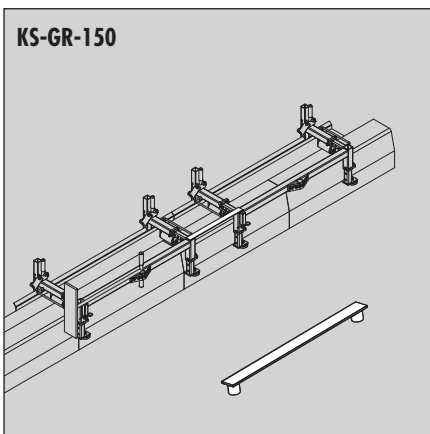
To compact the concrete backfill - according to DIN specifications - the GR-150 comes with a hand tamper including fastener.

▶ Applicable at not too narrow curves as well.  
▶ Significant saving of material to some extend compared to conventional concrete liner.

▶ Optional add-on: Link rod for slipform KS-GR-150. Even faster to the finish line! This connection rod links up two or more slipforms for formwork building.



Type <sup>①</sup>	Length of form sheet mm (in)	Thickness of backfill mm (in)	Thickness of kerb stones mm (in)	Dead Weight kg (lbs)	Order-Number
GR-150	1.500 (59")	150 (6")	80 - 200 (3 <sup>1</sup> / <sub>4</sub> - 7 <sup>3</sup> / <sub>4</sub> " )	31 (70)	5100.0066
KS-GR-150				1 (2)	4100.0241



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KKV-200

## Cable Channel Clamp KKV-200

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.
- ▶ Exchangeable rubber grippers respectively steel grippers as gripping elements.

### Standard Specifications:

- ▶ Lifting eye for crane hook.
- ▶ Automatic release for the fully automatic switch over from "full" to "empty".

Type	Gripping Range* W/ inner width min.-max. mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
KKV-200 <sup>Ⓢ</sup>	185 – 215 (7 <sup>3</sup> / <sub>4</sub> - 7 <sup>3</sup> / <sub>4</sub> " )	400 (15 <sup>3</sup> / <sub>4</sub> " )	500 (1,100)	50 (110)	4310.0739

### Accessories: Adapters KKV

Exchangeable adapter sets as gripping elements. Steel brackets for extra large cable channels.



KKV-8/14

Adapter Set	Description	Gripping Range* W/inner width min.- max. mm (in)	Order-Number
KKV-A-215/250 <sup>Ⓢ</sup>	Rubber Grippers	215 – 250 (7 <sup>3</sup> / <sub>4</sub> - 9 <sup>3</sup> / <sub>4</sub> ")	4310.0226
KKV-A-290/315 <sup>Ⓢ</sup>	Steel brackets	290 – 315 (11 <sup>1</sup> / <sub>2</sub> - 12 <sup>1</sup> / <sub>2</sub> ")	4310.0634
KKV-A-330/355 <sup>Ⓢ</sup>	Steel brackets	330 – 355 (13 - 14")	4310.0652
KKV-A-410/435 <sup>Ⓢ</sup>	Steel brackets	410 – 435 (16 <sup>1</sup> / <sub>4</sub> - 17")	4310.0653
KKV-A-470/495 <sup>Ⓢ</sup>	Steel brackets	470 – 495 (18 <sup>1</sup> / <sub>2</sub> - 19 <sup>1</sup> / <sub>2</sub> ")	4310.0625
KKV-A-520/545 <sup>Ⓢ</sup>	Steel brackets	520 – 545 (20 <sup>1</sup> / <sub>2</sub> - 20 <sup>1</sup> / <sub>2</sub> ")	4310.0646
KKV-A-540/565 <sup>Ⓢ</sup>	Steel brackets	540 – 565 (21 <sup>1</sup> / <sub>4</sub> - 22 <sup>1</sup> / <sub>4</sub> ")	4310.0654
KKV-A-575/600 <sup>Ⓢ</sup>	Steel brackets	575 – 600 (22 <sup>1</sup> / <sub>2</sub> - 23 <sup>1</sup> / <sub>2</sub> ")	4310.0633

## 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	Gripper Range* W mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
KKV-8/14 <sup>Ⓢ</sup>	80-140 (3 <sup>1</sup> / <sub>4</sub> -5 <sup>1</sup> / <sub>2</sub> " )	270 (10 <sup>3</sup> / <sub>4</sub> " )	100 (220)	12 (26)	5310.0061

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

<sup>Ⓢ</sup> Durable surface protection by galvanizing



## 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.

**NEW: SG-80-PGL2:** In the event of wear on the outer ends of the rubber grippers, it is also possible to replace only these end areas.

- 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-60/80/80-MAXI/100
- Automatic release for the fully automatic switch over from "full" to "empty".
- Highly durable, exchangeable rubber bars as gripping elements.

**\*\* NEW**

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SG-40-UK	500 – 970 (19¾ – 38¼")	400 (15¾")	1,200 (47")	1,800 (4,000)	188 (415)	<b>5310.0260</b>
SG-60	400 – 1,100 (15¾ – 43")	600 (23½")	1,200 (47")	1,800 (4,000)	190 (420)	<b>5310.0204</b>
** SG-80-PGL2	400 – 1,100 (15¾ – 43")	800 (31½")	1,200 (47")	1,800 (4,000)	230 (510)	<b>5310.0380</b>
** SG-80-MAXI	700 – 1,200 (27½ – 47")	800 (31½")	1,200 (47")	1,800 (4,000)	220 (485)	<b>5310.0387</b>
SG-100	700 – 1,200 (27½ – 47")	1,000 (39")	1,200 (47")	2,000 (4,400)	380 (840)	<b>5310.0284</b>

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

## 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 6.8).

► Joint plate for the installation of the fork sleeves ET-D).

### 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.

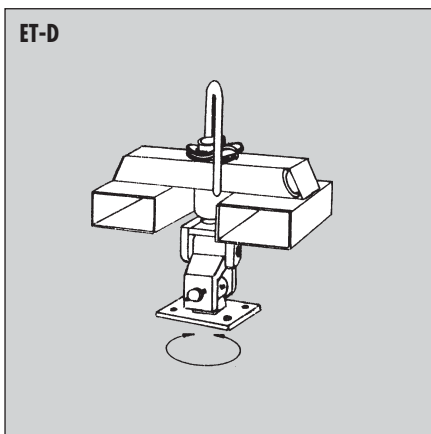
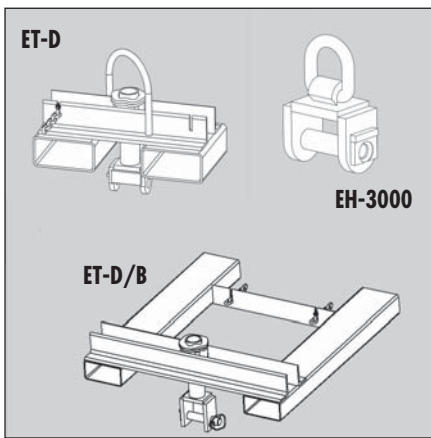
Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
MPG 30/100-100	300 – 1,000 (11¾ – 39")	130 (5")	1,000 (39")	1,000 (2,200)	110 (240)	<b>5310.0040</b>
MPG 30/100-120	300 – 1,000 (11¾ – 39")	130 (5")	1,200 (47¼")	1,000 (2,200)	140 (310)	<b>5310.0041</b>

### Accessory

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

Type	Working Load Limit WLL kg (lbs)	Order-Number
ET-D consisting of ET-D, incl. universal joint, mounting plate.	2,500 (5,500)	<b>4310.0238</b>

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



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MPZ

## 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.

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
MPZ 40/110-60-120	400-1,100 (15 <sup>3</sup> / <sub>4</sub> -43 <sup>3</sup> / <sub>4</sub> )	600 (23 <sup>1</sup> / <sub>2</sub> )	1,200 (47")	1,600 (3,530)	340 (750)	5310.0306
MPZ 60/100-80-120	600-1,000 (23 <sup>1</sup> / <sub>2</sub> -39")	800 (31 <sup>1</sup> / <sub>2</sub> )	1,200 (47")	1,800 (3,970)	350 (770)	5310.0022
MPZ 60/120-95-125	600-1,200 (23 <sup>1</sup> / <sub>2</sub> -47")	950 (37 <sup>1</sup> / <sub>2</sub> )	1,250 (49")	2,000 (4,400)	440 (970)	5310.0026

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



RWC

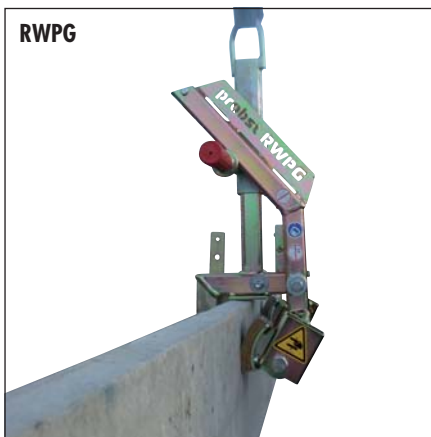
## Laying Clamp for retaining wall units RWC

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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RWC 25/61-11-215	250 - 610 (9 <sup>3</sup> / <sub>4</sub> - 24")	110 (4 <sup>1</sup> / <sub>4</sub> )	2,150 (85")	300 (660)	210 (460)	5310.0274



RWPG

## Retaining Wall Panel Grab RWPG

Easy to operate, light weight and slender – the ideal clamp for safe handling and installation of retaining wall panels!

Mechanical clamp for outdoor installation of retaining wall panels such as separating walls or noise barriers. Also elements stacked close to one another can be picked-up and set down due the compact and slim-line design of the RWPG clamp.

▶ The robust clamp with a dead weight of 16 kg only is attached to the carrier by means of a sling or chain and can be operated by one worker mechanically.

- ▶ The integrated, tilting out locking bow is adjustable to the heights of 200/300 and 500 mm.
- ▶ Secure clamping due to three-point contact; the clamp is equipped with one fixed gripper 160 mm length and two flexible grippers with a length of 60 mm each.
- ▶ Handles for optimal guide the clamp.
- ▶ Fully automatic trip mechanism for switch-over from „full“ to „empty“.
- ▶ Non-marking rubbers installed on both sides avoid marks and damage on the wall panels.

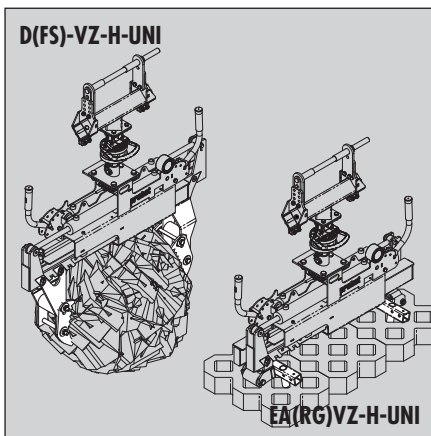
Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper-Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RWPG	35 (1 <sup>1</sup> / <sub>2</sub> )	100 (4")	160/2 x 60 (6 <sup>3</sup> / <sub>4</sub> /2 x 2 <sup>1</sup> / <sub>2</sub> )	150 (330)	16 (35)	5310.0334-001

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

① Durable surface protection by galvanizing



RWPG



## Advanced Application for Paver Installation Machines VM and other Carriers

### Hydraulic Laying Clamp VZ-H-UNI

A huge variety of building elements for road construction, civil engineering, horticulture and landscaping are handled and installed with this multifunctional clamp: precast kerb stones, granite kerb stones, slabs, L-shaped retaining walls, wall elements, natural stone blocks, grass stones etc. Infinitely adjustable - without changing any clamp settings, products within a gripping range from 40 – 1,500 mm are picked-up and installed. Full version VZ-H-UNI-KV comes with 1 set of rubber grippers and 1 set of steel finger grippers, clamping unit VZ-H-UNI, continuous hydraulic rotator, universal excavator suspension and set of hydraulic hoses (carrier has to provide 2 separate hydraulic circuits for operation of this full version).

Basic version VZ-H-UNI-BV includes a clamping unit VZ-h uni and 1 set of rubber grippers and 1 set of steel finger grippers.

► Standard grippers are replaced with special rock grippers D(FS)-VZ-H-UNI for installation of wall elements, rocks and boulders.

► Add-on: the multifunctional gripping adapter EA(RG)-VZ-H) for accurate installation of up to 6 grass pavers (according to the size of layer) in one go. The adapter can be reversed – thus bulky and large-seized slabs are installed by steel finger grippers with millimeter accuracy.

Type	Specification	Gripping Range mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>VZ-H-UNI-KV Full version</b>	incl. clamping unit, 1 set of rubber grippers and 1 set of steel finger grippers, continuous rotator, suspension, set of hydraulic hoses	40/570 (1½ – 22½") up to 1,000/1,500 (39 – 59")	500 (1,100)	170 (375)	<b>5160.0031-002</b>
<b>VZ-H-UNI-BV Basic version</b>	incl. clamping 1 set of rubber grippers and 1 set of steel finger grippers	40/570 (1½ – 22½") up to 1,000/1,500 (39 – 59")	500 (1,100)	140 (310)	<b>5160.0031-001</b>
<b>VZ-H-UNI-FG</b>	Rock grippers (in pairs)		500 (1,100)	22 (50)	<b>4160.0160</b>
<b>VZ-H-UNI-RG</b>	Gripping adapter for grass stones and large-seized slabs (in pairs)		500 (1,100)	14 (30)	<b>4160.0176</b>
<b>VZ-H-UNI-GBL</b>	Rubber gripper with larger inside height			4,4 (10)	<b>4160.0151</b>

For information on further accessories please contact us.

### Hydraulic Kerb Stone Laying Clamp VZ-HS-50/150

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.

Incl. joint plate for mounting a hydraulic rotator or quick change device, Rubber protected high stop, Steel finger grippers.

Type	Opening Width W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>VZ-HS-50/150 Basic unit</b>	480 – 1,430 (19 – 56")	400 (880)	75 (165)	<b>5160.0014</b>
<b>Rotator Baltrotor GR-10</b>				<b>2250.0026</b>
<b>Adapter between UBA and Rotator</b>				<b>4011.0270</b>
<b>Bypass restrictor for Baltrotor</b>	for operation w/VM-401/301/203/204			<b>4190.0080</b>
	for operation w/excavator			<b>4190.0101</b>
<b>Hydraulic hoses (see type list 1.13)</b>				

☉ Durable surface protection by galvanizing

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BSZ-KH

## Concrete Highway Divider Clamp BSZ-KH

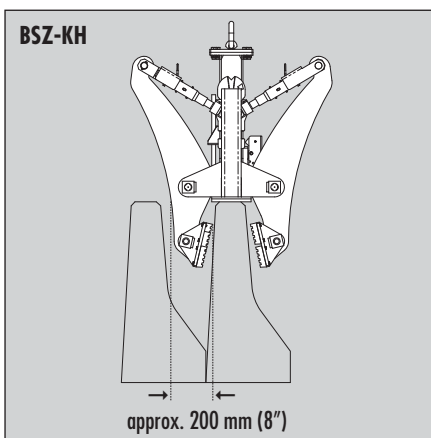
With this mechanical grab barrier walls can be gripped absolutely safe without leaving any marks on the concrete elements.

Even densely stacked asymmetrically elements can be lifted and installed easily due to the slim design of gripper arms. Thus more barrier elements can be loaded and transported on the truck, which results in a considerable reduction in costs!

- ▷ 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.



BSZ-KH

approx. 200 mm (8")

Type	Gripping Range* W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
BSZ-KH-4.5	150 + 210 (6 + 8 1/4")	4.500 (9,900)	430 (950)	5310.0298
BSZ-KH-6.0	150 + 210 (6 + 8 1/4")	6.000 (13,200)	450 (990)	5310.0341

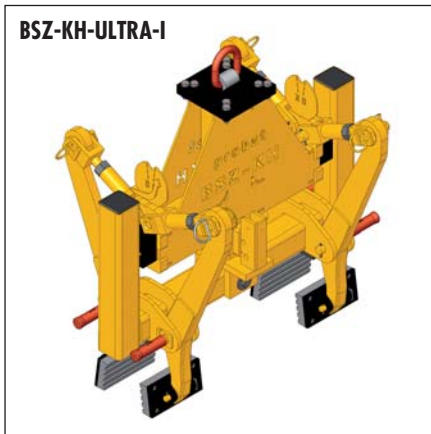
## Concrete Highway Divider Clamp BSZ-KH-ULTRA

Suitable for gripping and transporting barrier walls of the type "BSWF-ULTRA" in connection with any carrier machine.

**BSZ-KH-ULTRA-I:** for gripping individual elements.

**BSZ-KH-ULTRA-II:** With central bar, coated entirely with rubber – for transport of 2 elements simultaneously.

- ▷ Purely mechanical operation.
- ▷ Automatic release for the fully automatic switch over from "full" to "empty".
- ▷ With lifting eye for hoists.



BSZ-KH-ULTRA-I

Type	Element	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
BSZ-KH-ULTRA-I	BSWF-ULTRA	1,500 (3,300)	280 (620)	5310.0330
BSZ-KH-ULTRA-II	BSWF-ULTRA	3,000 (6,600)	361 (800)	5310.0329

The use of additional element types must be tested, and this can be requested.

## Hydraulic Concrete Highway Divider Clamp BSZ-H

Suitable for gripping and transporting single-sided and double-sided barrier walls of the type "New Jersey" in connection with any carrier machine such as diggers or truck loading cranes.

- ▷ Slim design for picking up closely arranged elements.
- ▷ Equipped with a hydraulic accumulator for perfectly reliable gripping.



BSZ-H-5.1

Type	Element	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
BSZ-H-2.0	DB 50 + DB 65 S	2,000 (4,400)	200 (440)	5640.0003
BSZ-H-5.1	DB 80, DB 80 AS, DB 80 AS-A, DB 80 AS-E, DB 80 AS-F, DB 80 AS-R, DB 80 E, DB 80 F, DB 100, DB 100 AS-R, DB 100 S	5,100 (11,200)	ca. 400 (approx. 880)	5640.0002

The use of additional element types must be tested, and this can be requested.

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

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## Grab for Prefabricated Concrete Products FTZ-GBA

With the FTZ-GBA grab for prefabricated products, you can move special protective wall elements quickly and effectively with parallel or specially formed side faces.

- ▶ Protective wall elements can be moved with conically tapering side walls only to a limited extent and after individual approval.
- ▶ Cost savings through short cycle times.
- ▶ FTZ-GBA-S: Essentially designed as above but specific design principally for Swedish

guide wall elements GPLINK 1.5 and GPLINK 2.0. Equipped with interlocking steel profile clamp.

### Standard equipped:

- ▶ Suspension bolt for lifting device.
- ▶ Automatic release for fully automatic switch over from „full“ to „empty“.
- ▶ Exchangeable rubber grippers (only FTZ-GBA)

Type <sup>①</sup>	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FTZ-GBA	150 (6")	255 (10")	1,200 (47")	2,600 (5,700)	120 (265)	5310.0356
FTZ-GBA-S	240 (9")	295 (12")	1,200 (47")	2,750 (6,100)	119 (260)	5310.0356-001

Hydraulic versions are available on request.

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

① Durable surface protection by galvanizing



## Concrete Pipe Lifter RVD-4-ECO-F

The universal installation device for unloading, transport and installation of steel reinforced concrete pipes (such as sewer pipes) w/diameters from 300 to 1,200 mm and a maximum weight of 4 tons.

There is no need for using slings or chains. By means of the mechanical clamping mechanism pipes cannot slip off thus accurate placement can be easily effected.

The excavator driver positions the spigot end of the pipe to be installed with the pipe installation mandrel on the bell end of the pipe already in the trench. The pipes are then joined together with the relevant force.

➤ **NEW:** Now with insert pocket for fork arms for transport

➤ **Flexible:** The pipe lifter RVD-4-ECO-F can be simply attached to any excavator via the integrated, universal flange plate, using a quick-hitch coupling.

➤ **Simple to use:** autonomous, simple pick-up of the pipe lifter through the digger driver, requires no mounting procedure, short training time for employees.

➤ **Safe:** no personal needed for pick-up and put down the pipes, thus heavy reduction in potential hand-injuries.

➤ **Profitable:** very short payback period and excellent return on investment due to 50% saving on installation time.

Type	Inner Pipe Diameter mm (in)	Maximum Length of Pipes mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RVD-4-ECO-F	300 – 1,200 (12 – 47¼")	3,000 (118")	4,000 (8,800)	770 (1,700)	4400.0144

A minimum pipe weight of 600 kg is mandatory for proper operation of the clamp.



## Round Grab RG-75/125-SAFELOCK

**Mechanical pipe grab with safety catch. The clamping force of the claws is maintained fully in all cases, even if the carrier is operated incorrectly.**

The RG-75/125-SAFELOCK mechanical pipe grab is a complete new development and expands the Probst product range to include a grab for laying concrete pipes with external diameters from 720 mm to 1,280 mm.

➤ **Safety catch:** When lifting the product, the grab generates tension on the pipe, which is maintained even when the product is set down. This is achieved by internal interlocking, which is released only if the operator of the carrier deliberately initiates it.

➤ The eye runs in a setting with 2 hanging positions. One is used for locked grabbing, the other for releasing the catch and for empty lifting. This allows operation with only one person.

➤ Easy, continuous adjustment of the external diameter by means of a scale from 720 mm to 1,280 mm using threaded spindles. Crank included in the delivery.

➤ With adjustable height supports, which can be adjusted with a scale using the external pipe diameter. This guarantees an optimum grab position.

➤ Slim design allows joint-sleeve pipes lying close together to be picked up onto the lorry loading area and used in very narrow trenches.

➤ Replaceable steel grab clamps with a reliable grip.

➤ With handles to guide the claw.

➤ Optionally available: rubber gripper jaws for gripping plastic-coated pipes.



Type	Outside Diameter of Pipe D mm (in)	Gripper Length mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RG-75/125-SAFELOCK ①	720 – 1,280 (28½ – 50")	440 (17½")	4,000 (8,800)	370 (820)	5450.0005
Steelfinger gripper*	60 x 60 x 15 mm				3401.0108
GMT Rubber track, black*	60 x 15 x 200 mm				4310.1377

\* 4 pieces per Round Grab necessary

① Durable surface protection by galvanizing

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## Round Grab RG

Due to the ultra slim design the grab can be used in very slender trenches.

Exchangeable gripping elements 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)	Gripper Length mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RG-20/80 <sup>Ⓢ</sup>	200 – 800 (7 <sup>3</sup> / <sub>4</sub> – 31 <sup>1</sup> / <sub>2</sub> "	420 (16 <sup>1</sup> / <sub>2</sub> "	1,500 (3,300)	92 (205)	5450.0002
RG-8/40 <sup>Ⓢ</sup>	80 – 400 (3 <sup>1</sup> / <sub>4</sub> – 15 <sup>3</sup> / <sub>4</sub> "	500 (19 <sup>3</sup> / <sub>4</sub> "	430 (950)	45 (100)	5450.0004



## Pipe Laying Hook RLH

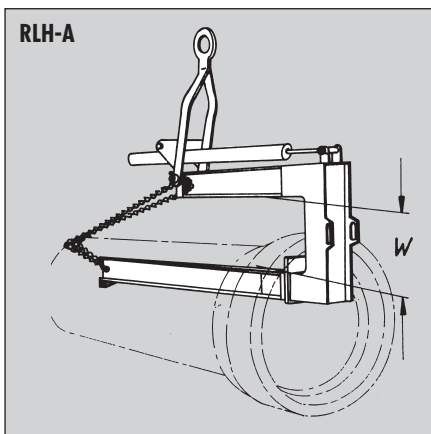
Ensures greater safety and saves time when laying pipes.

- ▶ 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RLH-1	190 (7 <sup>1</sup> / <sub>2</sub> "	1,000 (2,200)	24 (55)	5400.0001
RLH-3	260 (10 <sup>1</sup> / <sub>4</sub> "	3,000 (6,600)	45 (100)	5400.0002



## Pipe Laying Hook RLH-A

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)	Working Load Limit WLL 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.

<sup>Ⓢ</sup> Durable surface protection by galvanizing



## 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.

- 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)	Gripper Length mm (in)	Working Load Limit WLL 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



## 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-1,5 for manhole rings as per DIN 4034, part 2 and cones.

► SRG-UNI-3 for manhole rings as per DIN 4034, part 1 + 2 and cones.

► SRG-1,5, SRG-3, SRG-3-L and SRG-4 are equipped with robust high-tensile lifting chains. Suitable for manhole rings as per DIN 4034 part 2.

Type	Lifting Strap	High-tensile Lifting Chain	Nominal Value ID of cones and manholes mm (in)	Number of Claws	Gripping Range of Claws mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SRG-UNI-1,5	x		800 – 2,000 (31 1/2 – 79")	3	40 – 120 (1 1/2 – 4 3/4")	1,500 (3,300)	28 (62)	5440.0015
SRG-UNI-1,5-K		x	800 – 1,200 (31 1/2 – 47 1/4")	3	40 – 120 (1 1/2 – 4 3/4")	1,500 (3,300)	33 (73)	5440.0018
SRG-UNI-3	x		800 – 2,000 (31 1/2 – 79")	3	60 – 180 (2 1/4 – 7")	3,000 (6,600)	40 (88)	5440.0014
SRG-UNI-3-K		x	800 – 2,000 (31 1/2 – 79")	3	60 – 180 (2 1/4 – 7")	3,000 (6,600)	45 (99)	5440.0019
SRG-1,5	x		400 – 2,000 (15 3/4 – 79")	3	40 – 120 (1 1/2 – 4 3/4")	1,500 (3,300)	31 (70)	5440.0001
SRG-3	x		400 – 2,000 (15 3/4 – 79")	3	50 – 180 (2 – 7")	3,000 (6,600)	53 (115)	5440.0002
SRG-3-L	x		400 – 3,000 (15 3/4 – 118")	3	50 – 180 (2 – 7")	3,000 (6,600)	57 (125)	5440.0003
SRG-4	x		1,000 – 3,000 (39 1/2 – 118")	4	50 – 180 (2 – 7")	4,000 (8,800)	82 (181)	5440.0020



## Manhole Ring Grab Automatic MRGA-80/250

The one-man device for quick, gentle and safe handling of concrete shaft rings (DIN 4031 part 1).

► Universally adjustable for shaft rings of nominal diameter from 800 to 2,500 mm and for wall thicknesses from 90 to 200 mm.

► Can be used on any lifting device, such as a crane, forklift or similar.

### Standard Specifications:

- Lifting eye for attaching to crane hook.
- Automatic release for fully automatic switch over from "full" to "empty".

Type	Nominal Value ID of cones and manholes mm (in)	Number of Claws	Gripping Range of Claws mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
MRGA-80/250	800 – 2,500 (31 1/2 – 98")	3	90 – 200 (3 1/2 – 7 3/4")	3,000 (6,600)	205 (450)	5720.0195





## Manhole and Cone Installation Clamp SVZ-UNI-VARIO

With the new SVZ-UNI-VARIO manhole and cone installation clamp, even cones now hang exactly level.

Some sealing systems absolutely require the installation of cones in an precisely vertical position. This is possible for cones of every shape and size thanks to Integral centre of gravity adjustment.

Manhole rings and centric cones are laid horizontally without shifting the suspension point. By switching via the guides on the suspension, the excavator driver can control the automatic shift of the suspension point for laying asymmetric cones.

- ▷ Fully automatic trip mechanism for switch-over from „full“ to „empty“.
- ▷ A rearrangement of the settings is not necessary when handling manhole rings and cones, as the SVZ-UNI-VARIO has got two gripping levels.
- ▷ Universally suitable for manhole basers, rings (height 500 mm or larger) and cones.
- ▷ Ultimate safety in gripping by means of self-tensioning steel claws.

Type <sup>①</sup>	Surcharge for nominal width (ID) mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SVZ-UNI-VARIO	625 – 1,500 *1 (24¾" – 59")	2,500 (5,500)	148 (326)	5400.0041

\*1 adjustable in degrees as follows: 625/700/800/1,000/1,050/1,200/1,250/1,350/1,500 mm

## 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 (height 500 mm or larger) 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.
- Fork Sleeves SVZ-UNI-ET for Fork Lift Trucks:**
  - ▷ With securing chains and supporting rod on the back of the forks.
  - ▷ With suspension for SVZ-UNI.
  - ▷ Fork sleeves 205 x 105 mm.

Type <sup>①</sup>	Country-Specific Version	Surcharge for nominal width (ID) mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SVZ-UNI	global	625 - 1,500 *1 (24¾" – 59")	2,500 (5,500)	102 (225)	5400.0021
SVZ-UNI-UK	UK	900 - 1,500 *2 (35¼" – 59")	2,500 (5,500)	96 (210)	5400.0020
SVZ-Set for adaptors	surcharge for nominal width	1,800 (71")			4400.0064
SVZ-UNI-AS	Set of Adaptors for height support, in order to also grip rings with 250 mm height.			5,4 (12)	4400.0079
SVZ-UNI-ET	Inner Dimensions Fork Sleeves 205 x 105 mm / 8 x 4" (in)		3,000 (6,600)	58 (125)	4710.0119

\*1 adjustable in degrees as follows: 625/700/800/1.000/1.050/1.200/1.250/1.350/1.500 mm

\*2 adjustable in degrees as follows: (725/800) 900/1.000/1.050/1.200/1.250/1.350/1.500 mm

① Durable surface protection by galvanizing



## Manhole and Cone Installation Clamp SVZ-ECO

The SVZ-ECO is the right choice for sole installation of manhole bases and rings with a nominal diameter of 800 und 1000 mm (round and square) and cones 625 mm or round well rings with a nominal diameter of 900 mm up to 1700 kg.

- ▶ Can be operated solely by the excavator

driver due to integrated trip mechanism for fully automatic switching between gripping and release.

- ▶ Self-tensioning steel claws ensure secure gripping.
- ▶ Light-weight and budget-priced

Type <sup>❶</sup>	Manhole Bases + Rings + Cones (Cover Hole ∅ 625 mm /24¾") Nominal Value mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SVZ-ECO	800 + 1,000 (31½ + 39")	1,700 (3,700)	55 (120)	5400.0032

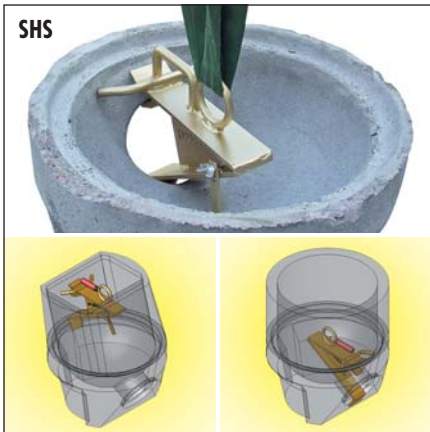
## Manhole and Cone Installation Clamp SVZ-ECO-L

Compact and extremely robust manhole installation clamp for manhole rings with a nominal diameter of 700, 800, 900, 1,000, 1,050 or 1,200 mm and cones (cover opening 625 mm). Moreover, rectangular manholes with internal dimensions of 1,200, 1,000 and 800 mm can also be transported and installed.

- ▶ With positioning aid for quick and reliable positioning of the clamp in the manhole elements.
- ▶ Manhole elements, even cones, hang completely level due to movable suspension.
- ▶ Automatic release for fully automatic switch over from „full“ to „empty“.
- ▶ Safe gripping due to autonomously retensioning steel grip clamps.

Type <sup>❶</sup>	Manhole Bases + Rings + Cones (Cover Hole ∅ 625 mm /24¾") Nominal Value mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SVZ-ECO-L	700/800/900/1.000/1,050/1,200 (27½"/31½"/35½"/39"/41"/47")	2,000 (4,400)	80 (175)	5400.0034

❶ Durable surface protection by galvanizing



## Laying Hook for Gullies SHS

It's as simple as that - for effortless installation of bulky and heavy bottom parts and cones for gullies: no need to purchase costly special clamps, just use the ingenious laying hook SHS. Well-priced and compact - safe and fast handling with any lifting device for simple installation with millimeter precision.

- ▷ Suitable for bottom parts with drain and for cones as per DIN 4052-3.
- ▷ Lightweight shaft element can be piled on top of the bottom part already on the pallet, thus both parts are installed together in one run.
- ▷ A tool so handy to fit into each road builders' toolbox.

Type		Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SHS <sup>①</sup>	Suitable for bottom parts with drain and for cones as per DIN 4052-3	100 (220)	4 (9)	5400.0024



## Gully Clamp SAZ-UNI

The small and light clamp for cumbersome and heavy concrete sections for road gullies.

- ▷ For base and intermediate sections in accordance with DIN 4052 with diameter Ø 550 mm.
- ▷ By undoing the spring bolt and turning the swivel arm, sleeve sections of external size 625 mm can also be gripped and laid.

- ▷ One-man operation due to adjustable lock position in hanging eye for releasing the product.
- ▷ With oval ring, can be used as a supporting surface and handle.
- ▷ Because of the limited dead weight of only 4 kg, the clamp can also be used on small carrying devices.

Type <sup>①</sup>	Gripping Range W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SAZ-UNI	550/625 (21½" / 24½")	165 (365)	4 (9)	5400.0035



## Manhole Frame Clamp SRZ-M

**Lightweight, efficient and profitable – Ideal for repair and maintenance of manhole frames and compensation rings.**

- ▷ Grips from the inside, with removable handles.

- ▷ Automatic release for fully-automatically switch over from „full“ to „empty“.
- ▷ With lifting eye for attaching to crane hook.

Type <sup>①</sup>	Opening Width W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SRZ-M	200 – 620 (7¾ – 24½")	150 (330)	ca. 20 (44)	5400.0033



## Manhole Frame Clamp SRZ-KOMBI

**A clamp for frame and cover! Easy and safe transport and installation of manhole covers in accordance with EN 124/DIN 1229.**

- ▷ Both the frame and the cover can be lifted and installed safely.
- ▷ The lifting eye on the shaft frame clamp is attached to the load hook on the digger/loader and placed on the manhole cover. After releasing the safety catch, the frame is lifted with the cover and placed on the shaft cone.

- ▷ When the manhole cover is put down, the safety catch clicks into place by itself and the clamp opens automatically.
- ▷ By turning through 180°, the covers can also be effortlessly lifted out of the frame with the shaft frame clamp and the 2 A hooks and 2 B hooks included as standard.

Type <sup>①</sup>	Housing Diameter Ø mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SRZ-KOMBI	750/785 (30/31")	200 (440)	15 (35)	5310.0373

<sup>①</sup> Durable surface protection by galvanizing





## 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.

Keys and spreader bars are not included at SDH-H-15.

Type <sup>①</sup>	Max. wheel-span mm (in)	Hook centres min./max. mm (in)	Lifting height mm (in)	Pulling force kg (lbs)	Dead Weight kg (lbs)	Order-Number
SDH-H-15	1,050 (41")	260/950 (10¼" / 37½")	310 (12¼")	1,500 (3,300)	36 (80)	5480.0002
SDH-H-15-UK*	1,050 (41")	260/950 (10¼" / 37½")	310 (12¼")	1,500 (3,300)	55 (120)	5480.0006

\* incl. Set of keys and spreader bars UK, Art.-Nr. 5480.0004



## Manhole Cover Lifter SDH-M-10

Mechanical manhole cover lifter for lifting manhole covers up to diameter Ø 900 mm.

► Optionally available: SDH-M-10-LHM-400 permanent lifting magnet with slot on SDH-M-10 for lifting loose cast steel and cast iron manhole covers.

► Seized covers can be loosened easily with 2 foldout feet (lifting spindles) on the sides.

► Handle length and angle can be adjusted. It can be dismantled entirely for transport.

Type	Hook centres min./max. mm (in)	Pulling force kg (lbs)	Dead Weight kg (lbs)	Order-Number
SDH-M-10 <sup>②</sup>	100/590 (4" / 23¼")	1,000 (2,200)	34 (75)	5480.0009
SDH-M-10-LHM-400	Permanent lifting magnet with slot for attachment to SDH-M-10		11(24)	4480.0055



## Manhole Cover Lifter SDH-LIGHT

Small and light mechanical manhole cover lifter for lifting manhole covers up to diameter Ø 800 mm.

► Can be combined with crosspieces (cf. table above) for lifting split covers.

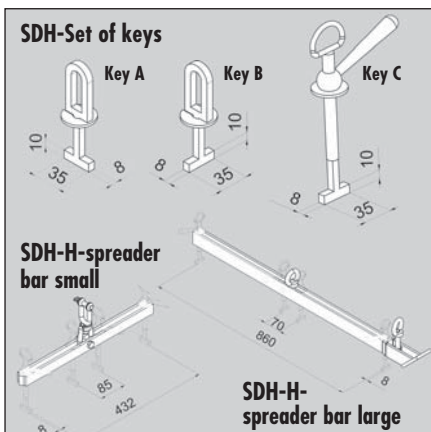
► The manhole cover is lifted by tilting the SDH with the handle. Optimal lifting position adjustable by chain.

► The crosspiece of the SDH-LIGHT can be pushed forward and back by approx. 120 mm.

► Optionally available: Permanent lifting magnet SDH-LIGHT-LHM-400

Type	Hook centres min./max. mm (in)	Pulling force kg (lbs)	Dead Weight kg (lbs)	Order-Number
SDH-LIGHT <sup>②</sup>	100/740 (4" / 29")	200 (440)	18 (40)	5480.0010
SDH-LIGHT-LHM-400	Permanent lifting magnet with slot for attachment to SDH-LIGHT		11(24)	4480.0065

<sup>2</sup> Key not included in the delivery. See table below for relevant accessories.



### Accessories:

Type	Description	Order-Number
Keys and spreader bars <sup>①</sup>	Key A	4480.0019
	Key B	4480.0020
	Key C	4480.0017
	Spreader bar small	4480.0008
	Spreader bars large	4480.0018
	Gatic manhole key	4480.0069
Set of keys and spreader bars UK <sup>①</sup>	2 keys A, 2 keys B, 4 keys C, 1 Spreader bar small, 2 Spreader bars large	5480.0004
Tool and Equipment Box WZK	Size 1.200 x 550 x 630 mm to stow the complete SDH-H including all accessories.	4220.0107

<sup>①</sup> Durable surface protection by galvanizing



### Push-on Jaws ABK for Fork Clamp

With the push-on jaws ABK your fork squeezer grips manhole elements gentle and safe.

against slip off automatically pivots in and out.

- ▶ Just fit the two jaw profiles by pushing them to the fork tines of your fork squeezer.
- ▶ Gripping and releasing of the push-on jaws without leaving the driver's seat, protection

▶ Suitable for handling of round and square manhole elements.

Type	Opening Width W mm (in)	Inner Dimensions Fork Sleeves mm (in)	Carrying Capacity (depending on Fork Squeezer) kg (lbs)	Dead Weight kg (IBS)	Order-Number
ABK-1,5	depending on Fork Squeezer	187 x 87 (7¼ x 3½")	1,500 (3,300)	120 (265)	5720.0171



### Manhole Insert Clamp SP-I

- ▶ Mechanical clamp for internal gripping, can be operated at each lifting device.
- ▶ Comes with highly durable, exchangeable rubber bars as gripping elements.
- ▶ No additional worker required due to integrated trip mechanism for fully automatic switching between gripping and release.
- ▶ Equipped with height-adjustable support – thus one, two or three manhole rings with a height of 500 mm can be picked up in a single step.
- ▶ Settings of nominal width through socket pins.

**Typ SP-I:** grippers are cranked, that means keeping the same setting for manhole rings with DM 1000 mm a single cone with a cover opening of 625 mm can alternatively be lifted.

**Typ SP-I-F:** straight down grippers from top to bottom, especially developed for installation of several well rings in one single step.



Type	Gripping Range for Rings NW mm (in)	Grippers	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SP-I	800/900/1000/1200/1500 (31½ / 35½ / 39½ / 47¼ / 59") and for cones with cover hole Ø 625 (24¾")	cranked type	2,000 (4,400)	165 (365)	5720.0055
SP-I-F-80/150	800/900/1000/1200/1500 (31½ / 35½ / 39½ / 47¼ / 59") not for cones	straight type	2,000 (4,400)	170 (375)	5720.0055-001
SP-I-F-100/200	1000/1200/1500/1800/2000. (39 / 47¼ / 59 / 71 / 79") not for cones	straight type	2,000 (4,400)	180 (395)	5720.0055-002



### Manhole Insert Clamp SP-H

Grips from the inside for the transportation of manhole rings and cones. Manually presetting and hydraulically adjustable for internal diameters up to 2,000 mm. Allows up to 3 rings to be lifted at the same time.

#### Standard Specifications:

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

Not suitable for green products.

Type	Gripping Range ID mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SP-H	500 – 2,000 (19¾ – 79")	2,000 (4,400)	165 (365)	5720.0056



## Loading Forks LG with Security Chain

With automatic center-of-gravity balance for lifting and transport by crane.

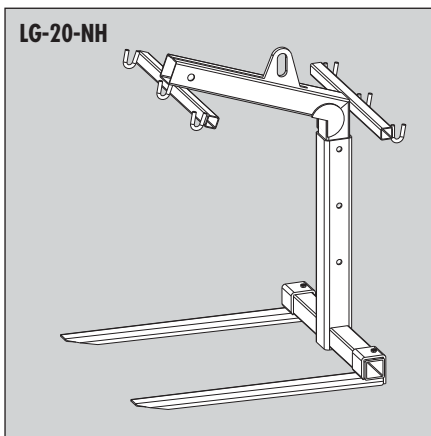
### Automatic-Centre-of Gravity-Balance due to a spring-loaded slide.

- ▶ Continuously adjustable fork distance from 395 to 965 mm with LG-15 and from 415 to 965 mm with LG-20 (outer).
- ▶ Nominal height is adjustable from 1100 to 1700 mm via locking pins.

▶ With security chain to prevent the load from slipping off and tipping over.

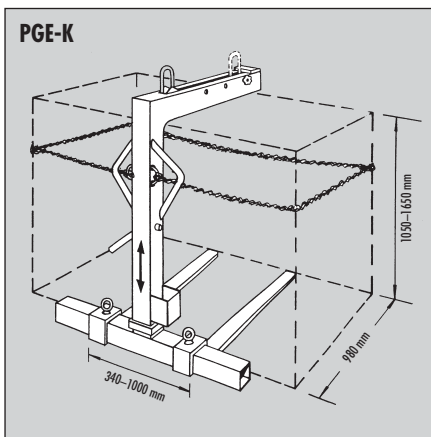
▶ Hollow Forks with conical tapered tips for optimal insert underneath the pallets.

**LG-20-NH:** Configuration as like as LG-20 with additional permanently installed net holder for increased safety.



Type	Fork Lengths mm (in)	Fork Dimension mm (in)	Working Load Limit WLL kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
LG-15	1,000 (40")	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	1,500 (3,300)	120 (265)	5600.0059
LG-20	1,150 (45")	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	2,000 (4,400)	150 (330)	5600.0060
LG-20-NH	1,150 (45")	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	2,000 (4,400)	approx. 165 (360)	5600.0061
SSN-1,3 x 1,3 x 1,85	Security net				5500.0025

For the function of the Automatic-Center-of Gravity-Balance the minimum load of 25 % of nominal load necessary



## Pallet Forks PGE-K with Security Chain

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

#### Standard Specifications:

- ▶ Crane eye
- ▶ Height adjustable from 1,050–1,650 mm (41<sup>1</sup>/<sub>2</sub>–65").

▶ Adjustable fork distance from 340–1,000 mm (13<sup>1</sup>/<sub>2</sub>–39<sup>1</sup>/<sub>2</sub>") (external).

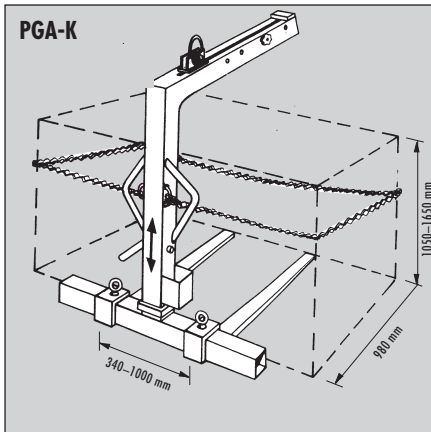
▶ Security chain with eyelet and chain box for securing the load against slipping off.

▶ Length of forks 980 mm (38<sup>1</sup>/<sub>2</sub>")

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

Larger fork lengths on request.

021017 Technical data contained in this catalogue can be modified without prior notice in the interest of progress. Illustrations are exemplary and non-binding. No liability accepted for any misprints, mistakes and errors.



## Pallet Forks PGA-K with Security Chain

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

▶ Adjustable fork distance from 340–1,000 mm (13 1/2 – 39 1/2").

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

**Standard Specifications:**

- ▶ Crane eye
- ▶ Adjustable height from 1,050–1,650 mm (41 1/2 – 65").

Typ	Length of forks mm (in)	Fork Dimension mm (in)	Working Load Limit WLL kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
PGA-15-K	730 (28 3/4")	100 x 40 (4 x 1 1/2")	1,500 (3,300)	125 (275)	5600.0050
	880 (34 1/2")	100 x 40 (4 x 1 1/2")	1,500 (3,300)	131 (290)	5600.0051
	980 (38 1/2")	100 x 40 (4 x 1 1/2")	1,500 (3,300)	134 (295)	5600.0006
	1,080 (42 1/2")	100 x 40 (4 x 1 1/2")	1,500 (3,300)	138 (305)	5600.0052
	1,180 (46 1/2")	100 x 40 (4 x 1 1/2")	1,500 (3,300)	141 (310)	5600.0053
PGA-20-K	730 (28 3/4")	120 x 40 (4 3/4 x 1 1/2")	2,000 (4,400)	141 (310)	5600.0057
	980 (38 1/2")	120 x 40 (4 3/4 x 1 1/2")	2,000 (4,400)	152 (335)	5600.0007
	1,080 (42 1/2")	120 x 40 (4 3/4 x 1 1/2")	2,000 (4,400)	156 (345)	5600.0054
	1,180 (46 1/2")	120 x 40 (4 3/4 x 1 1/2")	2,000 (4,400)	160 (355)	5600.0055
	1,380 (54 1/4")	120 x 40 (4 3/4 x 1 1/2")	2,000 (4,400)	169 (375)	5600.0056
PGA-25-K	980 (38 1/2")	100 x 45 (4 x 1 3/4")	2,500 (5,500)	160 (355)	5600.0008
PGA-30-K	980 (38 1/2")	125 x 45 (5 x 1 3/4")	3,000 (6,600)	180 (395)	5600.0009

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



## Scissor Grab SG

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

- ▶ 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.

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

**Standard Specifications:**

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

▶ Quick height adjustment for SG-60/80/80-MAXI/100

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

**NEW: SG-80-PGL2:** In the event of wear on the outer ends of the rubber grippers, it is also possible to replace only these end areas.

▶ Highly durable, exchangeable rubber bars as gripping elements.

\*\* NEW

Type	Gripping Range* W mm (in)	Inside Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SG-40-UK	500 – 970 (19 3/4 – 38 1/4")	400 (15 3/4")	1,200 (47")	1,800 (4,000)	188 (415)	5310.0260
SG-60	400 – 1,100 (15 3/4 – 43")	600 (23 1/2")	1,200 (47")	1,800 (4,000)	190 (420)	5310.0204
** SG-80-PGL2	400 – 1,100 (15 3/4 – 43")	800 (31 1/2")	1,200 (47")	1,800 (4,000)	230 (510)	5310.0380
** SG-80-MAXI	700 – 1,200 (27 1/2 – 47")	800 (31 1/2")	1,200 (47")	1,800 (4,000)	220 (485)	5310.0387
SG-100	700 – 1,200 (27 1/2 – 47")	1,000 (39")	1,200 (47")	2,000 (4,400)	380 (840)	5310.0284

**You will find optional accessories such as fork sleeves and security nets on page 6.11**

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

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## 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
- ▷ Semi-automatic – for manual switch over 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)	Working Load Limit WLL 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 AL

Clean cutting instead of dusty sawing! For splitting limestone with a cutting table and support on both sides.

Stones can also be split diagonally.

- ▷ With crane eye for transport by crane.
- ▷ Both upper and lower blades have four cutting edges ensuring long life.
- ▷ Easy adjustment of the cutting height.

- ▷ AL-43/UT-V and AL-65/UT-V: with large cutting width and cutting height as well as an extra-large supporting table.
- ▷ AL-50/KS-V: the lightweight yet stable limestone cutter.
- ▷ AL-65/KS-V: comes complete with roller track and cutting table to make easy work of splitting larger blocks.
- ▷ AL-90/KSH-20: the hydraulic powerhouse with high splitting force.



Type	Cutting Length mm (in)	Cutting Height mm (in)	Dead Weight kg (lbs)	Surface	Order-Number
AL-43/UT-V	430 (17")	10 – 400 (1/2-15 3/4")	75 (165)	Galvanized	5530.0007
AL-65/UT-V	650 (25 1/2")	10 – 400 (1/2-15 3/4")	95 (210)	Galvanized	5530.0008
AL-50/KS-V	500 (19 3/4")	40 – 120 (1 1/2 – 4 3/4")	23 (50)	Galvanized	5530.0005
AL-50-V Rack				Galvanized	4530.0001
AL-65/KS-V	650 (25 1/2")	10 – 400 (1/2-15 3/4")	125 (275)	Galvanized	5530.0006
AL-90/KSH-20	400 – 900 (15 3/4 – 35 1/2")	40 – 370 (1 1/2 – 14 1/2")	400 (880)	Painted	5120.0053

## 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)	Working Load Limit WLL 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)	5740.0134

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.



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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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
DZZ <sup>Ⓞ</sup>	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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
DZZ-II/ 2000 <sup>Ⓞ</sup>	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, two rows of clay roof tiles or three rows of concrete roof tiles in horizontal position can be transported quickly and safely on the roof.

Suitable also for large tiles.

**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.**

### 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.

**NEW: DEZ-UNI-BIG.** Now even suitable for triple row upright big packs.

Type	Gripping Range* W mm (in)	Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
DEZ-UNI	660 – 1,000 (26 – 43½")	140/210 (5½ – 8¼")	1,140 (45)	600 (1,320)	75 (165)	5510.0034
DEZ-UNI-BIG	840 – 1,095 (33 – 43")	140/210 (5½ – 8¼")	1,140 (45)	700 (1,540)	85 (187)	5510.0035

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

Ⓞ Durable surface protection by galvanizing



## 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)	Working Load Limit WLL 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



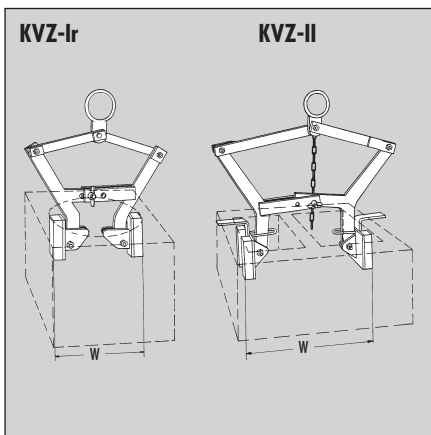
## Chimney Section Clamp KVZ-I

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

Type <sup>①</sup>	Gripping Range W mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
KVZ-I	200 – 300 (7 3/4 – 11 3/4")	120 (4 3/4")	150 (330)	5.5 (12)	5540.0001

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

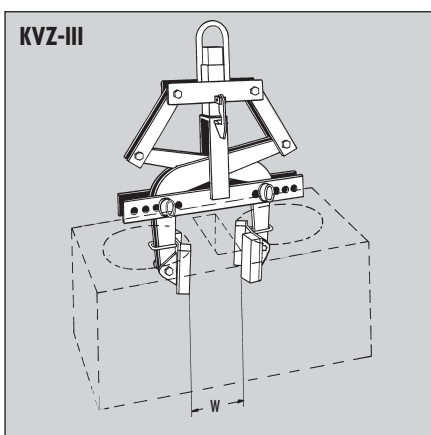
Type <sup>①</sup>	Gripping Range W mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
KVZ-Ir	200 – 300 (7 3/4 – 11 3/4")	120 (4 3/4")	150 (330)	6 (13)	5540.0002



## Chimney Section Clamp KVZ-II

For chimney section with two-square or round holes.

Type <sup>①</sup>	Gripping area W mm (in)	Gripper Length L mm (in)	Working Load Limit WLL 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 <sup>①</sup>	Gripping Range W mm (in)	Gripper Length L mm (in)	Working Load Limit WLL 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

① Durable surface protection by galvanizing

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HIGHRISE AND ROOF ELEMENTS





# BUILDING MATERIAL PLANTS – IN-PLANT HANDLING



## **Clever solutions for suppliers of construction materials and building material plants**

In addition to a broad range of devices and tools for use at construction sites Probst also provides clever solutions for in-plant handling. Speed up material flow and open up significant streamlining potential in your plant.

## **Storage and retrieval, order picking and transport**

For in-plant transport of construction materials you will find efficient solutions designed for special requirements of the strenuous use in continuous operation. Such as fork lift grabs STAZ and ring and cone clamp RKZ-H.

Ergonomic and efficient working – a case for vacuum technology, which is one of the key specialties at Probst for versatile use with in-plant applications.

## **Practical solutions – individually tailored**

Apart from the broad standard range of products, Probst also offers special solutions tailored to customers' individual needs.

In early stages often times the demand of a single customer provides the impetus for developing a mass-produced item.

Due to physical proximity of R & D department and production at Probst headquarters appropriate concepts can be tested directly and modified as required.







## Fork Lift Grab STAZ

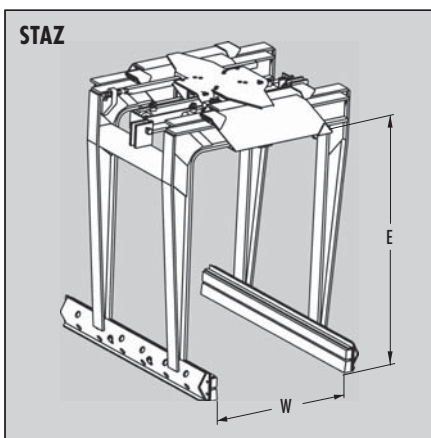
- ▷ Specially designed for heavy duty work with fork lift trucks. Light-weight, yet with a high carrying capacity due to the use of high-tensile steel for load-bearing parts.
- ▷ Can fit all the usual packs of building materials due to a large opening range and to the exchangeable grippers which come in various lengths and designs.
- ▷ Fully hydraulic parallel opening range.
- ▷ Low-maintenance steel-polyamide sliding guides. (Supplied without connecting hoses to the fork-lift truck).

### Standard Specifications:

- ▷ Manually adjustable pressure relief valve.
- ▷ Oil Pressure Gauge

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.



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

Type	Opening Width W mm (in)	Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
STAZ-S-700-UNIGRIP-II	370 – 1,370 (14½ – 54")	700 (27½")	3.500 (7,700)	400 (880)	5700.0092
STAZ-S-850-UNIGRIP-II	370 – 1,370 (14½ – 54")	850 (33½")	3.250 (7,200)	420 (930)	5700.0084
STAZ-S-1000-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,000 (39")	3.000 (6,600)	440 (970)	5700.0085
STAZ-S-1200-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,200 (47")	2.500 (5,500)	480 (1,060)	5700.0103

**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.

Type	Opening Width W mm (in)	Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
STAZ-SS-850-UNIGRIP-II	370 – 1,370 (14½ – 54")	850 (33½")	4.000 (8,800)	500 (1,100)	5700.0098
STAZ-SS-1000-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,000 (39")	3.750 (8,300)	520 (1,150)	5700.0099
STAZ-SS-1200-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,200 (47")	3.250 (7,200)	550 (1,210)	5700.0100
STAZ-SS-1300-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,300 (50")	3.000 (6,600)	560 (1,230)	5700.0141
STAZ-SS-1350-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,350 (53")	3.000 (6,600)	570 (1,260)	5700.0140
STAZ-SS-1400-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,400 (55")	2.750 (6,100)	580 (1,280)	5700.0146
STAZ-SS-1550-UNIGRIP-II	370 – 1,370 (14½ – 54")	1,550 (60")	2.500 (5,500)	590 (1,300)	5700.0130

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

**Recommended Accessories:** (Description see pages 10.7 – 10.11)

Type	
<b>Gripping Elements:</b>	
Rubber Grippers	see page 10.7
Steel Finger Grippers, heavy duty design	see page 10.8
Double Steel Finger Grippers, heavy duty design two rows, mounted on top by each other	see page 10.8
<b>Connections to the fork lift truck:</b>	
Hydraulic Rotators	see page 10.11
Hydraulic swing dampers	see page 10.11
Fork Sleeves for Fork Peaks	see page 10.9
Crane Boom	see page 10.10
Telescopic V-equipment for crane boom	see page 10.10
Hydraulic connection hoses	see page 10.11

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 10.12



## 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-strapped 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.

Two separate hydraulic circuits are necessary to be supplied by the fork lift truck. (Supplied without connecting hoses to the fork lift truck).

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

Type	Opening Width Main Gripper W1 mm (in)	End Gripper W2 mm (in)	Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
STAZ-S-4-850	550 – 1,230 (21¾ – 48")	900 – 1,400 (35½ – 55")	850 (33½")	3,000 (6,600)	740 (1,630)	5700.0106
STAZ-S-4-1000	550 – 1,230 (21¾ – 48")	900 – 1,400 (35½ – 55")	1,000 (39")	3,250 (7,150)	780 (1,720)	5700.0109
STAZ-S-4-1200	550 – 1,230 (21¾ – 48")	900 – 1,400 (35½ – 55")	1,250 (49")	3,500 (7,700)	890 (1,960)	5700.0149

Pressure Plates see page 10.8

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

## Selective Layer Clamp STAZ-SLC

Specially designed to help select one or several layers of stones with a fork lift truck.

- ▶ Has an integrated, adjustable height stop, controlled by the gripping function, only one hydraulic circuit is necessary.
- ▶ Adjustable height stop is being controlled by a scissor system – it therefore reduces the necessary space required.

▶ Low maintenance Steel–Polyamide–Sliding Guide (without connecting hoses to the fork lift truck, without fork sleeves and without rubber grippers, see accessories).

**Standard specification:**

- ▶ Manually adjustable pressure relieve valve
- ▶ Oil Pressure Gauge

Type	Opening Width W1 (mm) (in)	Height E (mm) (in)	Working Load Limit WLL kg (lbs)	Dead Weight (kg) (lbs)	Order-Number
STAZ-SLC	370 – 1.370 (14½ – 54")	500 (700) (19¾) (27½")	1.500 (3.300)	310 (680)	5705.0015

### Recommended Accessories:

Type	(Description see pages 10.7, 10.8, and 10.11)
<b>Gripping Elements:</b>	
<b>Rubber Grippers</b>	see page 10.7
<b>Steel Finger Grippers</b>	see page 10.8
<b>Hydraulic connection hoses</b>	see page 10.11



STAZ-KS

### Fork Lift Grab STAZ-KS

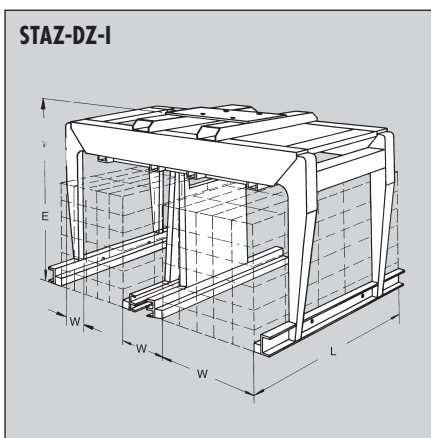
Specially designed for operation in silicate block factories. With crane boom, hydraulic continuous rotator, hydraulic swing damper and rubber grippers for handling silicate blocks gently.

- ▷ working load limit up to 6,000 kg!

Different models to cope with specific needs available on request.

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.



STAZ-DZ-I

### Double 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 spread) 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.

Type	Opening Width W mm (in)	Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
STAZ-DZ-S-850	550 – 940 (21 <sup>3</sup> / <sub>4</sub> – 37")	850 (33 <sup>1</sup> / <sub>2</sub> ")	3,200 (7,100)	570 (1,260)	5700.0050
STAZ-DZ-S-1000	550 – 940 (21 <sup>3</sup> / <sub>4</sub> – 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 10.7 – 10.11)

### 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 working load limit 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
STAZ-SS/S-1000-UNIGRIP-I-P	580 – 1,260 (22 <sup>3</sup> / <sub>4</sub> – 50")	1,000 (39")	2,300 (5,100)	440 (970)	5700.0087
STAZ-S-1000-UNIGRIP-II-KA	370 – 1,370 (14 <sup>1</sup> / <sub>2</sub> – 54")	1,000 (39")	2,000 (4,400)	590 (1,300)	5700.0107

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

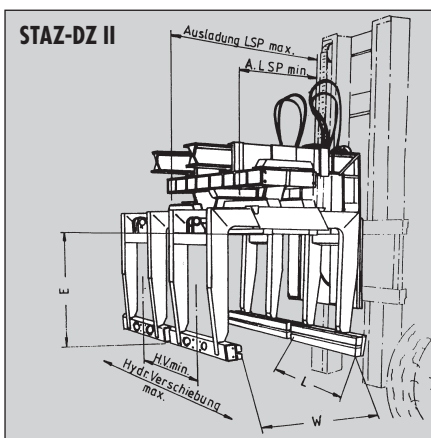


STAZ-P



STAZ-KA

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## Double 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.

### Recommended Accessories:

(Description see pages 10.7 – 10.11 )

Type	
<b>Gripping Elements:</b>	
<b>Rubber Grippers</b>	see page 10.7
<b>Steel Finger Grippers, heavy duty design</b>	see page 10.8
<b>Double steel finger grippers, heavy duty design 2-rows mounted on top of each other</b>	see page 10.8
<b>Connections for both clamps:</b>	
<b>Spreader bar fixed</b>	see page 10.11
<b>Spreader bar with hydraulic distance adjustment</b>	see page 10.11
<b>Connections to the fork lift truck:</b>	
<b>Fork Sleeves for Fork Peaks</b>	see page 10.9
<b>Crane Boom KA-II-SS</b>	see page 10.10
<b>Crane Boom with hydraulic extending suspension with distance adjuster bar KA-II-SS-VA</b>	see page 10.10
<b>Hydraulic connection hoses to the fork lift</b>	see page 10.11
<b>Electrical Connection-Kit between STAZ-DZ II and forklift</b>	see page 10.11

See pages 10.7 – 10.11 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 unigrip
- 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.

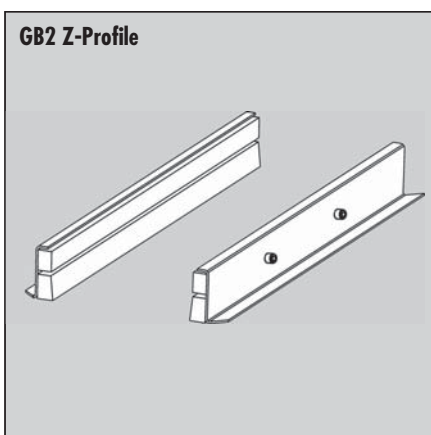
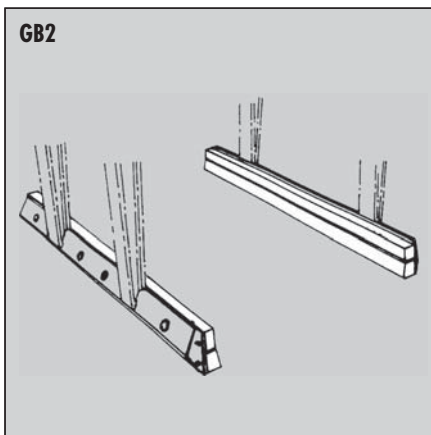
The following grippers are available for standard usage:

### 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
GB2-0780	780 (30 3/4")	33 (75)	4000.0386
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

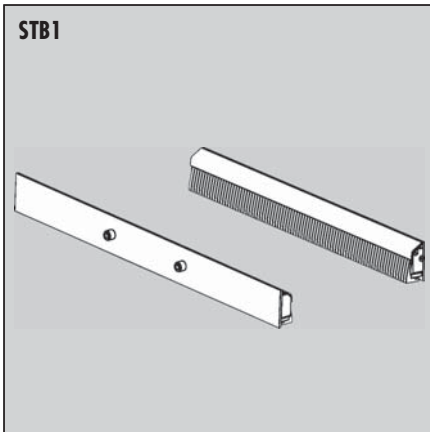
### Rubber grippers with quick change system

- ▶ 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
GB2-0780 Z	780 (30 3/4")	34 (75)	4000.0403
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.

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## 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 GBZ2 with 2 bolts, secured by screws.

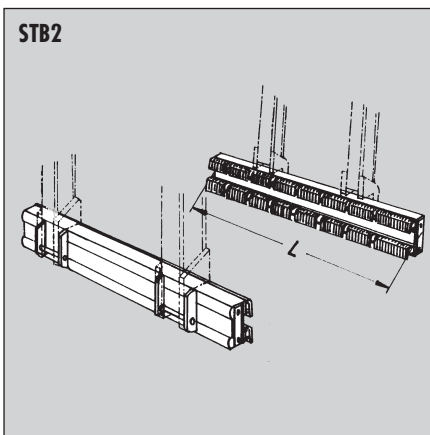
Single spring-steel fingers are suitable for almost all block shapes which means the safe handling of most products.  
 ▶ Please pay attention to the fact that the opening width (W) of fork lift attachment grab STAZ is reduced for 60 mm towards the rubber gripper bars.

### 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)	Order-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.

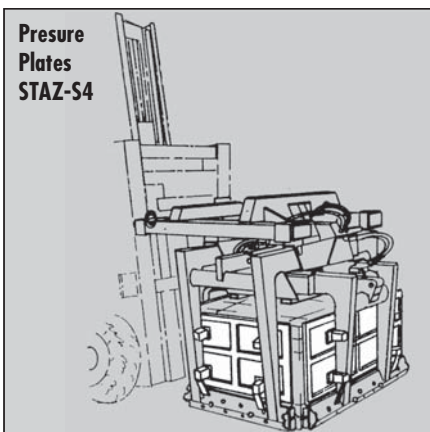
### Applications:

- ▶ 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

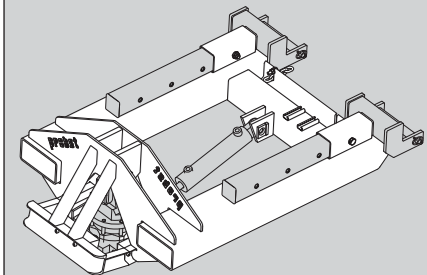
Used for compressing stacks of paving blocks (to remove any gaps between the blocks) as they are actually gripping them. Usually installed on the STAZ-S 4.

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

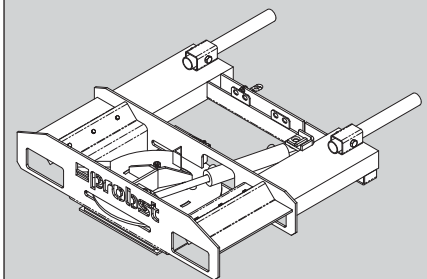
	Order-Number
Pressure Plates (delivery in pairs)	4705.0059



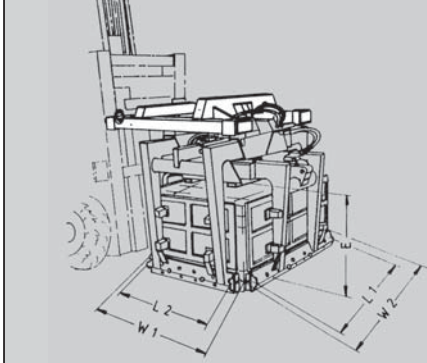
ET-IS-UNI + ETA



ET-E-D-H



ET-III



ET-E-4



## 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 as well as for the installation of a hydraulic swing damper (Only suitable for STAZ and STAZ-DZ-I). With security chain to avoid slipping.

### Fork Sleeves ET-E-D-H:

Simple and budget-priced add on for forklift grabs with 90° hydraulic turning device.

Type	Working Load Limit WLL kg (lbs)	Load Extension mm (in)	Dead Weight kg (lbs)	Order-Number
ET-IS-UNI-506	4,000 (8,800)	variable	140 (310)	4711.0074
ET-IS-UNI USA	4,000 (8,800)	variable	150 (330)	4711.0023
ET-E-D-H	4,000 (8,800)	ca. 950	130 (290)	4711.0046

### 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	Working Load Limit WLL 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-UNI for single clamps

► Screwed fix to the clamp to be picked up by the forks of the fork lift truck.

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

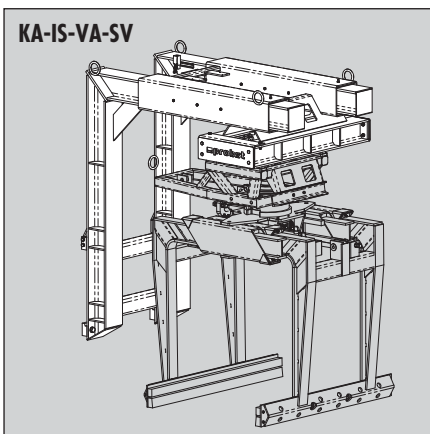
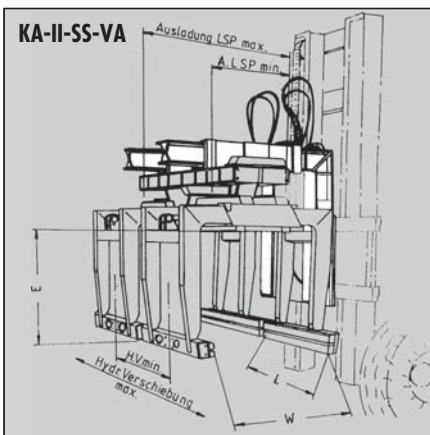
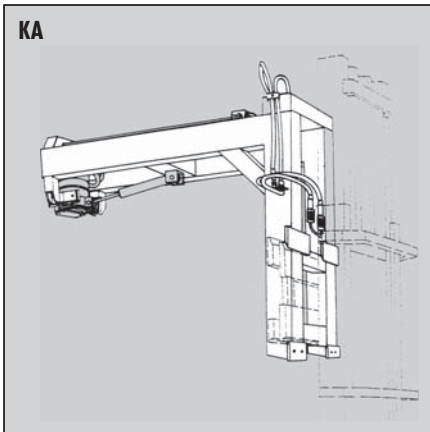
Type	Working Load Limit WLL kg (lbs)	Load Extension mm (in)	Dead Weight kg (lbs)	Order-Number
ET-III-UNI for STAZ-S-4	3,000 (6,600)	variable	130 (285)	4711.0016
ET-III-UNI for STAZ-S/SS	4,000 (8,800)	variable	130 (285)	4711.0019

### Fork Sleeves ET-E-4 for single clamps

► Screwed fix to the clamp to be picked up by the forks of the fork lift truck.

► As the fork sleeves can be picked up from the front and from the side it is possible to place the STAZ grippers either lengthwise or across to the fork lift.

Type	Working Load Limit WLL kg (lbs)	Load Extension mm (in)	Dead Weight kg (lbs)	Order-Number
ET-E-4	4,000 (8,800)	variable	98 (215)	4711.0052



## 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.

- ▶ **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-ECO-1200 for single clamps:** rigidly fitted to carriage plate, clamping direction across driving direction. No loss of lifting height.

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

**Crane Boom KA-I for single clamps:** Designed for the installation of a hydraulic

**Crane Boom KA-II for double clamps:** Prepared to be fitted with spreader bar for double grabs.

Type	Working Load Limit WLL kg (lbs)	Load Extension mm (in)	Dead Weight kg (lbs)	Order-Number
KA-ECO-1200	3,000 (6,600)	770 (30")	165 (365)	4712.0078
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
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	Working Load Limit WLL 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	Working Load Limit WLL 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:

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

- ▶ 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

- ▶ 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).

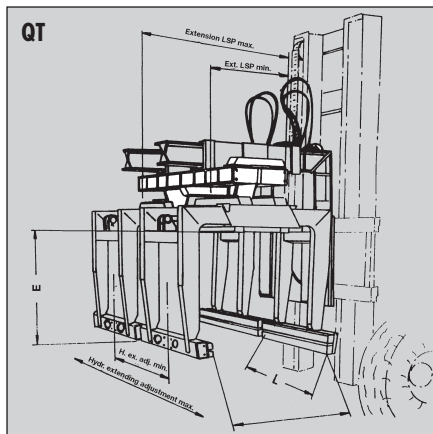
### Crane Boom KA with Distance Adjustment VA and Side Shift SV

For hydraulic shifting of the clamp's suspension point in and across direction of travel.

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

#### Crane Boom KA-I for single grabs with distance adjustment + side shift

Type	Working Load Limit WLL kg (lbs)	Load Extension mm (in)	Site Shift mm (in)	Dead Weight kg (lbs)	Order-Number
KA-IS-VA-SV	4,000 (8,800)	1,120 - 1,800 (44 - 71")	±160 (61/4")	150 (330)	4712.0080



## 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	Working Load Limit WLL 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 <sup>3</sup> / <sub>4</sub> "	300 (660)	4713.0019
QT-HL	5,500 (12,100)	0 – 640 (0 – 25 <sup>1</sup> / <sub>4</sub> "	320 (710)	4713.0016

## Hydraulic Rotator DK/GV

Fitted between the clamp and the fork sleeves/crane boom, enabling stacks to be lifted and deposited, according to requirements.

Type	Working Load Limit WLL kg (lbs)	Rotation	Dead Weight kg (lbs)	Order-Number
DK-506	6,000 (13,200)	endless	42 (95)	4715.0080
GV-12-S	7,500 (16,500)	endless	56 (125)	4715.0055

## Hydraulic Swing Damper PD

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	Dead Weight kg (lbs)	Best.-Nr.
PD-S-506	25 (55)	4714.0009
PD-V	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	Length mm (in)	Order-Number
Hydraulic Hoses HD	1.200 ( 47")	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 relays 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
Set of Electromagnetic Change Over Valve ELMV-DZ	12 V	4710.0152
Set of Electromagnetic Change Over Valve ELMV-DZ	24 V	4710.0153

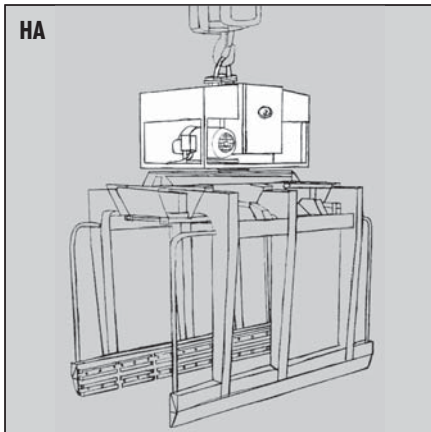
Electrical connection-kit for double grabs, consisting of:  
 Complete electric wiring of the attachment, installation of the components into the forklift has to be carried out by the customer.

- Spiral cable between forklift and attachment, control box and control elements.
- Turning light for warning purpose for V-attachment on crane boom KA.

Typ	Voltage (V)	Order-Number
Electrical Connection-Kit between STAZ-DZ-II and forklift	12 V	4710.0085
Electrical Connection-Kit between STAZ-DZ-II and forklift	24 V	4710.0154

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 10.12

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## 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.



## 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.

- ▷ Pneumatic cylinder and additional manual adjustment enables a large opening range.
- ▷ Height adjustment facility.
- ▷ Fitted with manual control valve on the guiding handle.

**NEW:** if required, a compressor for operation of pneumatic cubing clamp ATZ-P4 could be delivered as optional extra equipment.

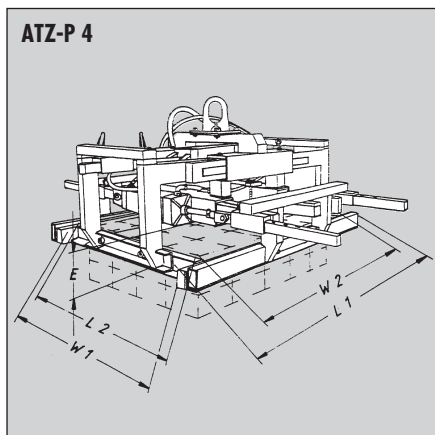
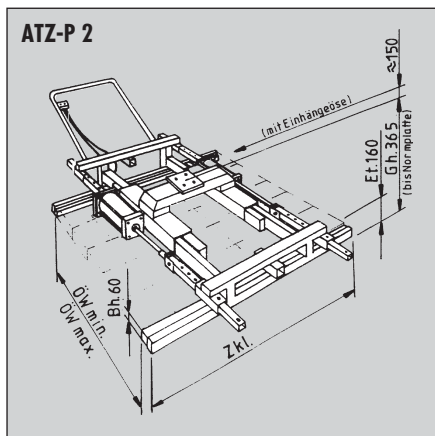
### Standard Specifications:

- ▷ Crane eye for attaching to crane hook.

Type	Opening Width Main Gripper W1 mm (in)	Opening Width End Gripper W2 mm (in)	Height E mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
ATZ-P-2	500 – 1,100 (19¾ – 43")		160 (6¼")	1,250 (49")	400 (880)	120 (265)	5750.0148
ATZ-P-4	660 – 1,420 (26 – 56")	760 – 1,360 (30 – 54")	160 (6¼")	1,250/540 (49/ 21¼")	400 (880)	260 (570)	5750.0097
<b>Connection spiral hose</b> , length approx. 5,000 mm (200") / Connection 12 L.							2300.0001
<b>Compressor basic version</b> for ATZ-P-2 and/or ATZ-P-4.					400 V 3~50 Hz		5750.0501
Suction flowrate 460 l/min (16 ft <sup>3</sup> /min), pressure tank 90 l (3,2 ft <sup>3</sup> ), max. pressure 10 bar (145 psi), engine output 2,2 kW.					230 V 1~50 Hz		5750.0502

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 GB

Type	Length mm (in)	Working Load Limit WLL per pair kg (lbs)	Order-Number
GB1-540-L	540 (21¼")	12 (25)	4000.0220
GB1-650-L	650 (25½")	14 (30)	4000.0223
GB1-700-L	700 (27½")	15 (33)	4000.0225
GB1-760-L	760 (30")	17 (35)	4000.0227
GB1-800-L	800 (31½")	18 (40)	4000.0230
GB1-850-L	850 (33½")	19 (40)	4000.0231
GB1-900-L	900 (35½")	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).

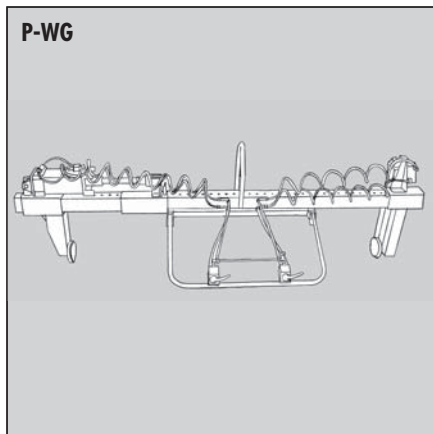
- ▷ Control bulb for 4 functions, with electroflex cable.

▷ 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	Working Load Limit WLL kg (lbs)	Order-Number
SRF-900	900 (1,980)	5750.0008

When ordering, please state the type of crane runway.



## 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>P-WG</b>	600 - 2,000 (23½ - 79")	285 (11¼")	500 (1,100)	200 (440)	<b>5740.0109</b>

Special designs on request!



### 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
KIG I	625 (24 1/2") – 800 (31 1/2")	2,000 (4,400)	210 (465)	5720.0020
KIG I-USA	625 (24 1/2") – 800 (31 1/2")	2,000 (4,400)	220 (485)	5720.0106
KIG II	625 (24 1/2") – 1,000 (39")	2,000 (4,400)	300 (660)	5720.0067
Lower price without fork sleeves				on request



### Double clamp for cones DAK-VA

When using the DAK-VA for handling 100 cones, the time saving is approx. 2,5 hours!

Efficient transport of 2 asymmetric manhole cones in one go with the Double-Clamp for Cones DAK-VA can be done.

- ▷ Because of the hydraulically operated distance adjuster the manhole cones can be placed close to each other without wasting storage space.

Device for other dimensions and weights on request.

- ▷ The DAK-VA is easily fixed to the forklift by inserting the forks into the fork sleeves.

Type	Gripping Range* for rings and Cones ID mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
DAK-VA	625 (24 1/2")	2,000 (4,400)	400 (880)	5720.0180



### Manhole Ring Clamp RK

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

- ▷ Also suitable for manhole rings (DIN 4034 Part 1 and 2) 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

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.

See page 10.10 for suitable crane boom for RK.

Type	Gripping Range for Rings ID mm (in)	Number of Grippers	Gripping Range of Claws mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RK I	800 – 1,500 (31 1/2 – 59")	2	80 – 160 (3 – 6 1/4")	2,000 (4,400)	150 (330)	5720.0030
RK I US	36 – 60"	2	3 – 6"	3,200 (7,100)	240 (530)	5720.0032
RK II	1,500 – 2,500 (59 – 98")	3	80 – 160 (3 – 6 1/4")	3,000 (6,600)	320 (710)	5720.0033
RK III	2,000 – 3,000 (79 – 118")	3	80 – 160 (3 – 6 1/4")	3,000 (6,600)	350 (770)	5720.0036

### Fork Sleeves for Fork Lift Peaks ET-RK

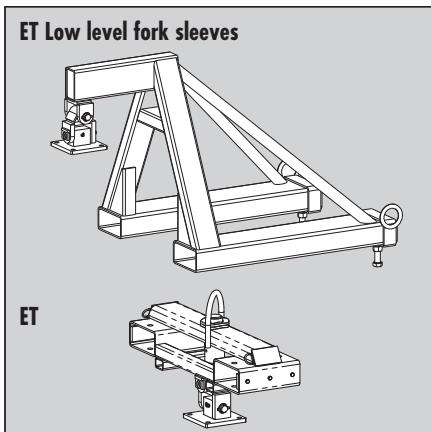
Suitable for the RK, off set design to save lifting height.

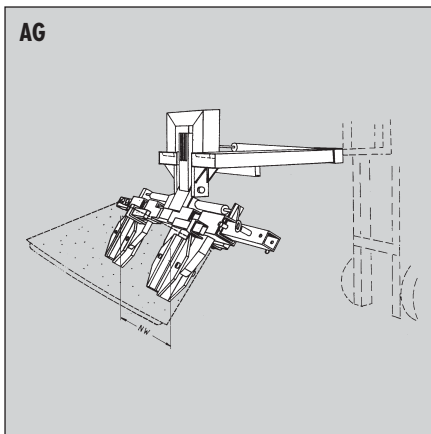
Type	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
ET-RK with cross link	3,500 (7,700)	130 (285)	4720.0002
ET-RK swivel hook	3,500 (7,700)	140 (310)	4720.0028

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	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
ET with cross link	4,000 (8,800)	30 (65)	4710.0010
ET 90° incl. cross link	4,000 (8,800)	35 (75)	4711.0002
ET with cross link USA	4,000 (8,800)	32 (70)	4710.0106

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





## 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
AG	500 (19 <sup>3</sup> / <sub>4</sub> " up to 1,200 (47")	1,500 (3,300)	425 (940)	5720.0042
AG-S	625 (24 <sup>1</sup> / <sub>2</sub> " up to 1,200 (47")	2,000 (4,400)	680 (1,500)	5720.0043

Special models available on request. See page 10.11 for hydraulic connecting hoses. If the fork lift truck only has one circuit, see electromagnetic change-over valve on p. 10.11.

Additional cost for bolt-on extension for lifting rings up to 1,500 mm (59") inside diameter.	5720.0044
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## 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)	Working Load Limit WLL kg (lbs)	Height E mm (in)	Dead Weight kg (lbs)	Order-Number
RKZ-H	600 – 1,500 (23 <sup>1</sup> / <sub>2</sub> – 59")	1,750 (3,850)	1,500 (59")	680 (1,500)	5720.0011
RKZ-HS	600 – 1,500 (23 <sup>1</sup> / <sub>2</sub> – 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 10.10 and 10.11) and a hydraulic rotator.





### 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RKG-S-20	600 – 2,000 (23½ – 79")	2,500 (5,500)	600 (1,320)	5720.0002
RKG-S-25	600 – 2,500 (23½ – 98")	2,500 (5,500)	620 (1,370)	5720.0187
RKG-SS-25	600 – 2,500 (23½ – 98")	4,000 (8,800)	655 (1,445)	5720.0110
RKG-SS-30	600 – 3,000 (23½ – 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 10.10 and 10.11) and a hydraulic rotator.

### Turning Device for Concrete Basers WG-S/WG-SS

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.

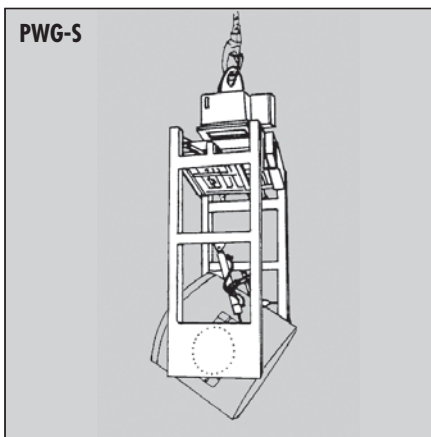
#### Standard Specifications:

► 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
WG-S	1,200 – 1,800 (47 – 71")	900 (35½")	3,000 (6,600)	1,500 (3,300)	5720.0165
WG-SS	1,200 – 2,200 (47 – 87")	900 (35½")	4,500 (9,900)	1,900 (4,200)	5720.0169



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

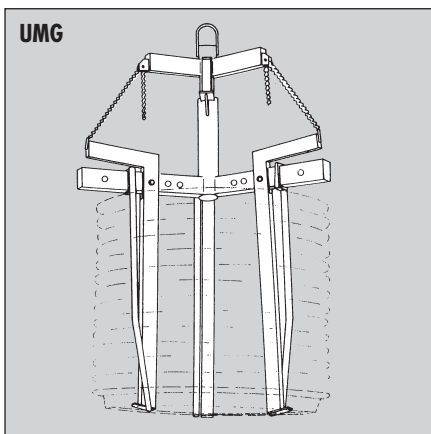
Hydraulic clamp, suitable to lift and rotate large concrete manhole rings and basers by 180°.

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 (in)	Turning Range	Working Load Limit WLL 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 – 2,200 (47 – 87")	180°	7,000 (15,400)	2,800 (6,200)	5740.0017

Recommended accessory: Electrical Installation EI-II, see typelist page 10.12



### 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:

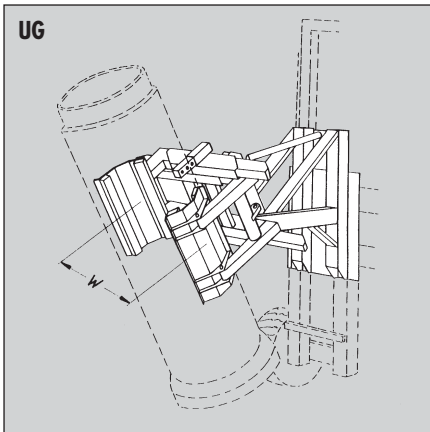
► Crane eye for attaching to crane hook.

► Fully automatic change over from "full" to "empty".

Type	Opening Range for Steel pallet ID mm (in) *	Number of Grippers	Height E mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
UMG-30/80	300 – 800 (11¾ – 31½")	3	1,200 (47")	1,000 (2,200)	90 (200)	5720.0051
UMG-60/150	600 – 1,500 (23½ – 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

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

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### Turning Device for Concrete Pipes UG

- ▶ Makes the handling of concrete pipes after production for 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
UG 3.5	380 – 1,320 (15 – 52")	300 – 1,000 (11 <sup>3</sup> / <sub>4</sub> – 39")	3,500 (7,700)	820 (1,810)	5730.0004
UG 4.5	400 – 1,580 (15 <sup>3</sup> / <sub>4</sub> – 62")	300 – 1,200 (11 <sup>3</sup> / <sub>4</sub> – 47")	4,500 (9,900)	1,200 (2,650)	5730.0025
UG 6.5	400 – 1,800 (15 <sup>3</sup> / <sub>4</sub> – 71")	300 – 1,500 (11 <sup>3</sup> / <sub>4</sub> – 59")	6,500 (14,300)	1,970 (4,350)	5730.0030

Special models eg. for moving 2 pipes at once, available on request. See page 10.11 for hydraulic connection hoses. If the fork lift truck only has one hydraulic circuit, see page 10.11 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 fork-lift-truck).

Type	Opening Width W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
WG-R	300 – 1,300 (11 <sup>3</sup> / <sub>4</sub> – 51")	3,000 (6,600)	930 (2,050)	5730.0007
WG-SR	300 – 1,300 (11 <sup>3</sup> / <sub>4</sub> – 51")	4,500 (9,900)	1,050 (2,310)	5730.0036

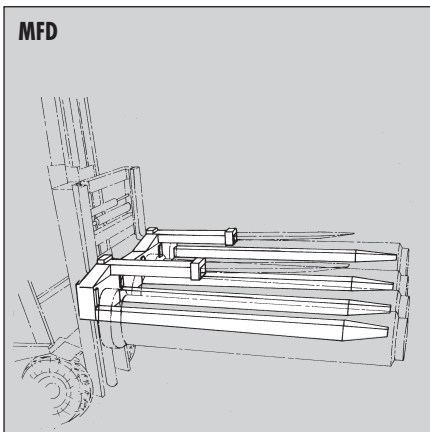
Special model available on request. If only one hydraulic circuit is available, see page 10.11 for electromagnetic change-over valves ELMV.



### 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	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
FUG	up to 5 pipes with a width of 300 mm (11 <sup>3</sup> / <sub>4</sub> ")	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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
MFD-25-5	250 (9 <sup>7</sup> / <sub>8</sub> ")	5	2,000 – 3,000 (79 – 118")	2,600 (5,750)	300 (660)	5740.0001
MFD-30-5	300 (11 <sup>3</sup> / <sub>4</sub> ")	5	2,000 – 3,000 (79 – 118")	2,000 (4,400)	330 (730)	5740.0085
MFD-40-4	400 (15 <sup>3</sup> / <sub>4</sub> ")	4	2,000 – 3,000 (79 – 118")	2,200 (4,850)	350 (770)	5740.0086
MFD-50-3	500 (19 <sup>3</sup> / <sub>4</sub> ")	3	2,000 – 3,000 (79 – 118")	2,500 (5,500)	375 (830)	5740.0104
MFD-60-3	600 (23 <sup>1</sup> / <sub>2</sub> ")	3	2,000 – 3,000 (79 – 118")	4,300 (9,450)	400 (880)	5740.0026
MFD-UNI*	300(11 <sup>3</sup> / <sub>4</sub> ")-600(23 <sup>1</sup> / <sub>2</sub> ")	5	2,000 – 3,000 (79 – 118")	5,000 (11,000)	1,200 (2,650)	5740.0067

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

Other widths and numbers available on request. \*w/hydraulic adjustment of the forks.



## 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	Gripping Range of Claws mm (in)	Working Load Limit WWL kg (lbs)	Dead Weight kg (lbs)	Order-Number
RK-IV	1,000 – 1,800 (39 – 71")	2	85 – 280/ 135 – 250 (3 <sup>1</sup> / <sub>4</sub> – 8" 5 <sup>1</sup> / <sub>4</sub> – 10")	7,500 (16,500)	600 (1,320)	5730.0001
RK-V	1,500 – 2,600 (59 – 102")	2	85 – 240/ 135 – 300 (3 <sup>1</sup> / <sub>4</sub> – 9 <sup>1</sup> / <sub>2</sub> " 5 <sup>1</sup> / <sub>4</sub> – 10")	15,000 (33,000)	1,700 (3,750)	5730.0002
RK-VI	1,500 – 2,800 (59 – 110")	2	100 – 230/ 175 – 300 (4 – 9" 7 – 11 <sup>3</sup> / <sub>4</sub> ")	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.

### Standard Specifications:

- ▷ 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)	Working Load Limit WLL 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

## 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
- ▷ Incl. electric installation, connection 400 V/50 Hz



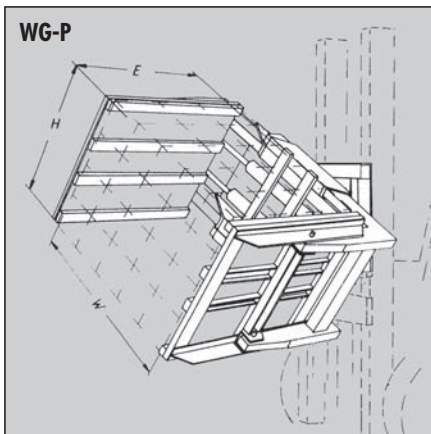
Type	Suitable for outer diameters mm (in)	Turning Range	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order Number
PWG-R 3	400 – 1,200 (15 <sup>3</sup> / <sub>4</sub> – 47")	100°	3,000 (6,600)	1,500 (3,300)	5745.0004
PWG-R 7	400 – 1,850 (15 <sup>3</sup> / <sub>4</sub> – 73")	100°	7,000 (15,400)	2,800 (6,200)	5745.0006
PWG-R 13	1,080 – 2,750 (42 <sup>1</sup> / <sub>2</sub> – 108 <sup>1</sup> / <sub>4</sub> ")	100°	13,000 (28,700)	9,200 (20,300)	5745.0008
PWG-R 20	1,800 – 3,550 (71 – 139 <sup>3</sup> / <sub>4</sub> ")	100°	20,000 (44,100)	15,000 (33,000)	5745.0007

Other opening widths, electric voltages and load capacities are available on request!

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

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### 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 forklift-truck).

Type	Opening Width W mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
WG-P	300 – 1,300 (11 <sup>3</sup> / <sub>4</sub> – 51")	3,000 (6,600)	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)	Working Load Limit WLL 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)	5740.0137
Lower price without remote control				on request

### Hydraulic Stonesplitter SSP 300-600-25

The Stonesplitter SSP is a good alternative in cases where expensive, automatic splitting lines for the production of decorative stones and concrete products cannot be justified.

of the working area, two hand operation, and a transparent safety curtain.

The SSP is suitable for splitting special or trial elements, small series or large runs, as it is extremely flexible. The unit is very powerful, reliable and safe.

- Best used for small series and trials, but also for large series with manual operation.

The unit can be located anywhere, as it is easily transported by forklift. Therefore this unit has a very good benefit-cost ratio.

- Adjustable, retractable stop
- Compact size (refer to table)
- Robust construction
- Heavy duty roller conveyor
- Quick and easy change of splitting blades

- Efficient, simple splitting of elements up to a width of 600 mm (23<sup>1</sup>/<sub>2</sub>" ) and a height of 50 to 300 mm ( 2" to 11<sup>3</sup>/<sub>4</sub> " ).

#### Standard specifications:

- Perfect splitting quality

- Hydraulic power pack, electric control box, splitting unit, everything integrated into the main frame.

- Simple operation, stone is easily moved by roller conveyor

- Electric cable with plug for 16 Ampere 3 phase socket.

- High splitting force, adjustable up to 25 t (55,100 lbs).

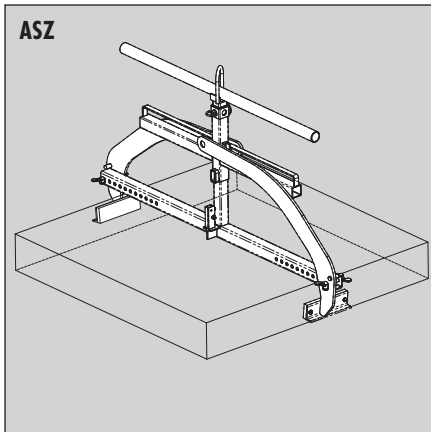
- Hardened special blades
- Integrated tool box

- The unit is very safe to operate, it has accident protection, by ensuring good visibility



Type	Measurements L x B x H mm (in)	max. Splitting Force t (t)	max. Width of Element mm (in)	Height of Element mm (in)	Dead Weight kg (lbs)	Order-Number
SSP 600-500-25	1.800 x 1.050 x 1.600 (71" x 41" x 63")	25 (25)	600 (23 <sup>1</sup> / <sub>2</sub> )	50-300 (2"- 11 <sup>3</sup> / <sub>4</sub> ")	860 (1,900)	5800.0001

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## 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.

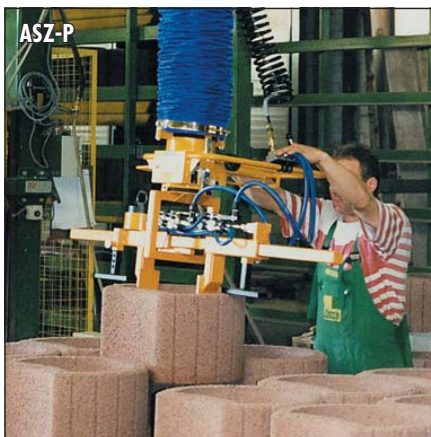
### Standard Specifications:

- ▶ 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 automatical switch-over from "full" to "empty".

### Please note:

Designed and suitable to grip single stones or elements only. This is not the proper equipment for handling a complete row of stones.

Type	Pack width W mm (in)	Inside Height mm (in)	Gripper Length L mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>ASZ</b> ①	600 – 1,200 (23 1/2 – 47")	120 (4 3/4")	200 (7 3/4")	250 (550)	26 (55)	<b>5310.0259-005</b>
<b>Additional adapters for ASZ</b> (to be mounted on the basic grippers of the outsourcing clamp).						
<b>A 50</b>			50 (2")			<b>4310.0376</b>
<b>A 100</b>			100 (4")			<b>4310.0377</b>
<b>ASZ-R</b> ①	∅ 620 – 1,200 (23 1/2 – 47")	120 (4 3/4")	300 (11 3/4")	250 (550)	25 (55)	<b>5310.0281</b>



## 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:

- ▶ 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>ASZ-P</b>	270 - 600 (10 3/4 - 23 1/2")	220 - 1,050 (8 3/4 - 41")	120 (265)	18 (40)	<b>5740.0023</b>

Other opening widths and heights are available on request.

① Durable surface protection by galvanizing



## VACUUM-AIRSPED 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.

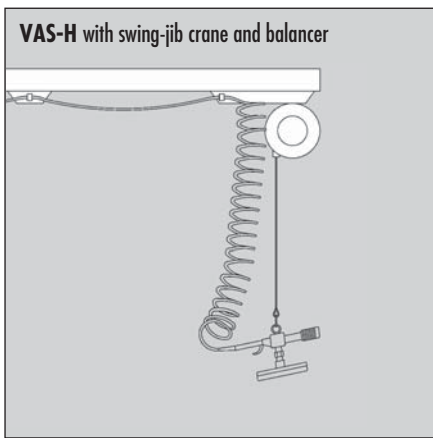
► Seal exchangeable within seconds.

► Suction plates exchangeable by quick coupling.

► Low dead weight.

### Set consisting of:

- 1 Operating unit
- 1 Suction plate SPS VAS 18
- 1 Suction plate SPS VAS 9



Type	Suction Plate	Suction Plate Dimension mm (in)	max. Suction Volume NL/min	air consumption NL/min	Working Load Limit WLL kg (lbs)	Dead Weight (incl. 1 Suction Plate) kg (lbs)	Order-Number
VAS-H-Set ①	SPS VAS 18	110 x 180 (4 1/4" - 7")	370	392	18*(40)*	2 (4)	5740.0035
	SPS VAS 9	103 x 153 (4" - 6")			9*(20)*	2 (4)	

\* Value at 400 mbar low pressure

## Accessories

Type	Description	Order-Number
Replacement seal Easy to attach without glueing!	for SPS VAS 18	4250.0142
	for SPS VAS 9	4250.0037
Spring-load balancer	load working load limit 3 - 5 kg (7 - 10 lbs)	4200.0059

① Durable surface protection by galvanizing

VACUSPEED VXS



## VACUSPEED VXS Vacuum-Hose-Lifter

The new, innovative VACUSPEED VXS vacuum hose lifter ensures best ease of working combined with highest productivity when handling pavers, slabs etc. Ideal for quality control work!

- ▶ The vacuum energy is used for holding the material as well as for lifting and lowering it.
- ▶ Can be operated easily, exactly and quickly.
- ▶ No manual lifting force necessary.
- ▶ Precise one hand operation, suitable for left- and right-hander.
- ▶ Dense/not porous materials of all types and weight up to max. 35 kg (75 lbs) or 50 kg (110 lbs) can be easily lifted, sorted, packed or laid.
- ▶ Advantage: No need to get access side-ways to the products to be sorted for gripping, Access from the top is fully sufficient!

- ▶ High lifting speed of up to 50 m/min (54.7 ft/min)
  - ▶ Lifting and lowering speed is continuously.
  - ▶ Suction plate can swivel by 90 degrees in order to pick up and handle products vertically.
  - ▶ With quick change system for different suction plates (SPS).
- Suction plate see chart.
- ▶ The VACUSPEED VXS-35-P and 50-P can be suspended to any crane system within seconds and is ready to work (see page 13.3).
  - ▶ With electrical glanded pump for vacuum generation.

### Standard specifications:

Electricity driven vacuum pump, motor protection switch, dust filter, lifting unit and operating unit without suction plate and quick-change device for suction plate.

Type	Power	Electrical Data AC	Lifting Height mm (in)	Working Load Limit WLL* kg (lbs)	Order-Number
VXS-35-P	1,25 kW / 40 m³/h	(50HZ)190-255V/330-440V AC3	1.500 (59") +/- 50 mm (2")	35 (75)	5760.0034
	1,5 kW / 48 m³/h	(60HZ)190-290V/330-500V AC3			
VXS-50-P	2,4 kW / 67 m³/h	(50HZ)190-255V/330-440V AC3	1.500 (59") +/- 50 mm (2")	50 (110)	5760.0041
	3,0 kW / 77 m³/h	(60HZ)190-290V/330-500V AC3			

## Accessories

### Suction Plate

Type	Dimension mm (in)	Working Load Limit WLL kg* (lbs)	Order-Number
VXS-SPS-35	175 x 175 (7 x 7")	35* (75*)	4761.0026
VXS-SPS-35	240 x 160 (9½ x 6¼")	35* (75*)	4761.0022
VXS-SPS-50	194 x 194 (7½ x 7½")	50* (110*)	4761.0024

\* Value at 600 mbar low pressure

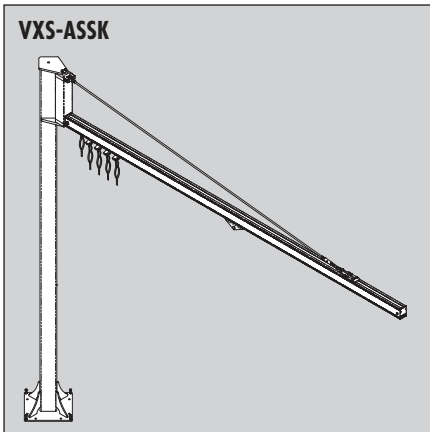
Other dimensions and shapes on request.

- ▶ For connecting vacuum pump unit to the lifting unit.

Type	Diameter mm (in)	Lenght m (ft)	Order-Number
Supply Hose for VXS-35-P	25 (1")	cut goods	4761.0008
Supply Hose for VXS-50-P	32 (1¼")	cut goods	2520.0011
Dust filter cartridge for VXS-35-P			4250.0120
Dust filter cartridge for VXS-50-P			2500.0027



VXS-ASSK



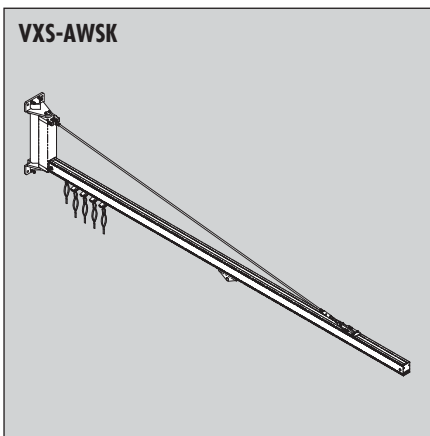
## Aluminium Smooth Running Cranes for VACUSPEED VXS

The Probst aluminum wall and pillar swing cranes are particularly designed for operation with vacuum hose lifter VACUSPEED VXS.

The vacuum hose lifters eliminate the manual lifting job completely, but swinging the crane arm around or pulling the suspension along the jib can be very burdening when using standard heavy crane systems.

The new aluminium crane systems of Probst are now offering ergonomically advantages by smooth running and lightweight design.

VXS-AWSK



## Pillar Swing Crane VXS-ASSK-65-4

Same specifications as Wall Swing Crane AWSK, but slewing range 270°, length and working load limit see table.

Optional accessories:

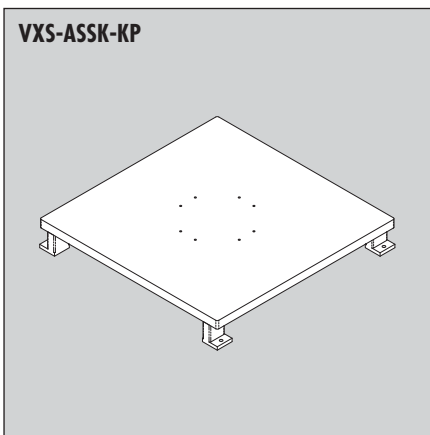
Set of dowels DS-ASSK, consisting of the following components:

**Important notice:**

The assumption for mounting the pillar swing crane using the set of dowels is minimum thickness of the concrete floor of 200 mm (7<sup>3</sup>/<sub>4</sub>"") and a concrete quality C20/25. (Simple installation, no flange plates needed).

Special Anchor with mortar cartridge and bushes, 8 times threaded M 12, thickness of plate min. 8 mm (1/3") max 25 mm (1").

VXS-ASSK-KP



## Wall Swing Crane VXS-AWSK-65-4

The equal load distribution of the rollers of roller suspension eliminates cocking of the suspension, even when pulled sideways.

▶ Slewing range 180°

▶ Optimized height of the jib.

▶ Special bearings of the swinging arm and the use of lightweight aluminium are ensuring easy and smooth operation.

▶ The static for fixing the crane to the wall has to be checked by the customer.

▶ Special, long lasting rollers

▶ Comes with adjustable stop, carrier for pipe or cable, roller suspension for hose lifter.

▶ Modern design

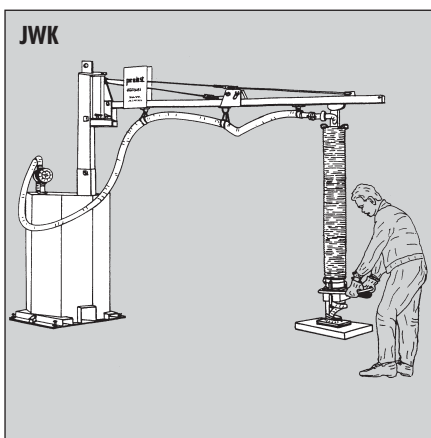
▶ CE approved

▶ Innovative geometrie of the jib profile.

▶ Adjustable stops to restrict the the movement along the jib if required.

Type	Slewing Range	Reach mm (in)	Working Load Limit WLL kg (lbs)	Order-Number
VXS-ASSK-65-4	270°	4,000 (157")	65 (143)	4200.0137
VXS-AWSK-65-4	180°	4,000 (157")	65 (143)	4200.0138
VXS-ASSK-KP-65-4	For crane 65 kg, reach 4 m			4200.0157
DS-ASSK	Set of dowel for pillar swing crane			4200.0100

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## 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 can be easily lifted, sorted and layed.
- ▶ The vacuum is used for holding the materials as well as for lifting 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 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).

### 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. 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 13.10) incl. pressure regulating valve DBV, motor protector switch and socket "CEKON" 32 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.

### To complete your Jumbo Travelling Crane JWK you need:

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

Type	Max. Working Load Limit WLL kg (lbs)	Reach mm (in)	Dead Weight kg (lbs)	Max. ballast weight 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

## JUMBOSELECT JS Vacuum Picking Device for Forklift Trucks

More than ever, customers ask for prepacking of multiple products in specified quantities, thus concrete manufacturers cannot just supply complete packs and pallets of their concrete products. Piece picking has to be done – sometimes even quite heavy concrete products have to be selected and handled.

The vacuum picking device JUMBOSELECT JS can be attached to any fork lift truck for easy, quick and effortless order picking – making it a really efficient one-man operation. By means of a vacuum hose lifter, different kinds of concrete products are taken off from stocks and put down onto the pallet carried by the forklift.

- ▶ Compact design for any forklift truck. The vacuum picking device JUMBOSELECT JS comes with hollow forks 150 x 55 cm. Ready for use within less than 2 minutes: fit the forks of the forklift truck, fasten slip-off fixture and plug in hydraulic couplings for vacuum blower.

Quick and efficient pick/pack operations even with most versatile goods from large storage areas - requires just one driver.

The vacuum blower is driven by the hydraulics of the forklift truck. Technical requirements: volumetric flow min. 16 l/min; 200 bar, continuous hydraulic oil flow, lockable control lever, hydraulic lines fully installed up to carriage plate. Optional extra equipment – drive system by petrol / diesel engine or electric motor.

Standard equipment: lifting hose unit w/150 kg lifting capacity; suction plate 310 x 310 mm. Optional extra equipment: lifting capacity up to 250 kg and additional suction suction plates.

Including swivel boom, which can be locked to travel direction, when moving the forklift truck. Reach of 3 m, other booms are optionally available.

Type	Power	Working Load Limit WLL kg (lbs)	Reach mm (in)	Dead Weight kg (lbs)	Order-Number
JS-H	hydraulically	150 (330)	3,000 (118")	470 (1,040)	5760.0021
JS-B	petrol engine	150 (330)	3,000 (118")	510 (1,120)	5760.0038

HE-35 – HE-250



## Vacuum Hose Lifter Components

### Lifting Hose Units HE

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	Working Load Limit WLL* 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	50*** (110)***	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")	1,500 (59")	4210.0132
HE-200	200*** (440)***	250 (9 3/4")	1,500 (59")	4210.1114
HE-250	250*** (550)***	300 (11 3/4")	1,500 (59")	4210.1115
If necessary: roller suspension for C-beam				4220.0042

BE-Sprint-2



### 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

SZV



### 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

### Quick Change Device SWV-HE

Suction plates are usually fixed to the operating valve unit BE or hose cylinder extension SZV through two hook latches.

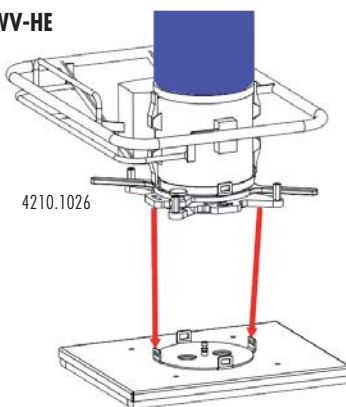
In case suction plates have to be changed continually, the quick change device SWV-HE is highly recommended.

- ▶ Faster suction plate changing with a simple twisting motion.
- ▶ Suitable for all lifting hose units from HE-35 to HE-250.

- ▶ Easy operation, no inconvenient screwing of adapters required.

- ▶ Operating errors no longer possible.
- ▶ When using lifting hose units HE-200 and HE-250, the lifting hose unit is fitted directly to the SWV-HE quick change device by means of 4 tension rods (threaded rods).

SWV-HE

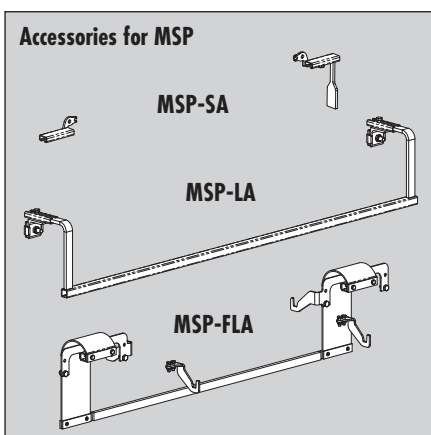
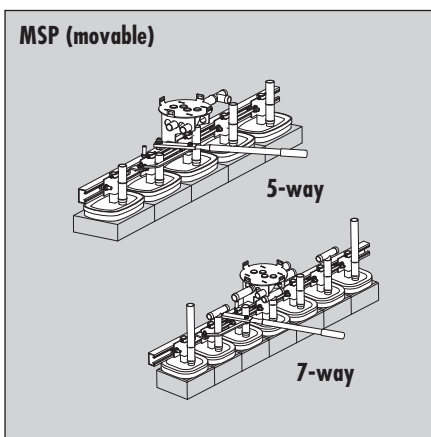
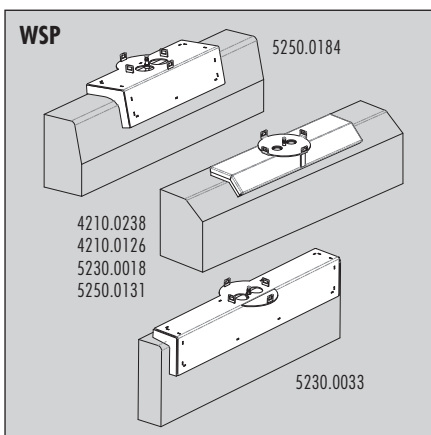
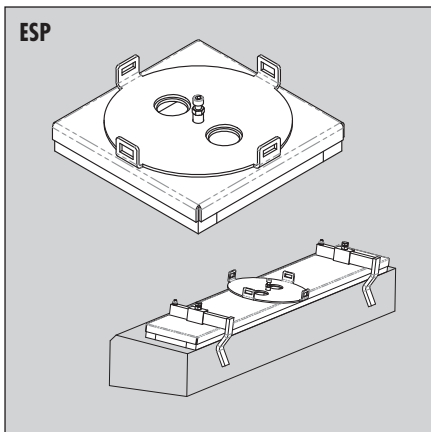


4210.1026

Type		Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
SWV-HE	Quick change device	250 (550)	3,8 (8)	4210.1026

\* Caution: Take note of the working load limit of the crane equipment. \*\*\*Value at 420 mbar low pressure

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## Suction Plates ESP

► 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		Working Load Limit WLL		Order-Number
	mm	(in)	kg**	(lbs)	
ESP-35-20/20	200 x 200	(7 <sup>3</sup> / <sub>4</sub> " x 7 <sup>3</sup> / <sub>4</sub> "	35***	(75)***	4210.0050
ESP-50-23/23	230 x 230	(9" x 9")	50***	(110)***	4210.0561
ESP-85-25,5/25,5	255 x 255	(10" x 10")	85***	(185)***	4210.0051
ESP-150-31/31	310 x 310	(7 <sup>3</sup> / <sub>4</sub> " x 7 <sup>3</sup> / <sub>4</sub> "	150***	(330)***	4210.0145
ESP-150-40/27,5	400 x 275	(15 <sup>3</sup> / <sub>4</sub> " x 10 <sup>3</sup> / <sub>4</sub> "	150***	(330)***	4210.0116
ESP-150-50/19	500 x 190	(19 <sup>3</sup> / <sub>4</sub> " x 7 <sup>1</sup> / <sub>2</sub> "	150***	(330)***	5230.0019
ESP-150-92,4/13,4	924 x 134	(36 <sup>1</sup> / <sub>2</sub> " x 5 <sup>1</sup> / <sub>4</sub> "	150***	(330)***	5230.0008
ESP-150-100/12,4	1000 x 124	(39 <sup>1</sup> / <sub>2</sub> " x 5")	150***	(330)***	5230.0007
ESP-200-33/33	330 x 330	(13" x 13")	200***	(440)***	4210.0331
ESP-250-40/40	400 x 400	(15 <sup>3</sup> / <sub>4</sub> " x 15 <sup>3</sup> / <sub>4</sub> "	250***	(550)***	4210.0054

For more suction plates contact us for professional advice, or refer to type list 13.5

## Angeled Suction Plates WSP

Type	Dimension		Working Load Limit WLL		Order-Number
	mm	in	kg**	lbs	
WSP-150-52/15-12-98° ①	520x150-120	(20 <sup>1</sup> / <sub>2</sub> "x6"-4 <sup>3</sup> / <sub>4</sub> "	150***	(330)***	5250.0184
WSP-150-70/8-11-143°	700x80-110	(27 <sup>1</sup> / <sub>2</sub> "x3"-4 <sup>1</sup> / <sub>4</sub> "	150***	(330)***	4210.0238
WSP-150-70/11-17-143°	700x110-170	(27 <sup>1</sup> / <sub>2</sub> "x4 <sup>1</sup> / <sub>4</sub> "-6 <sup>3</sup> / <sub>4</sub> "	150***	(330)***	4210.0126
WSP-150-85/7-7-135°	850x70-70	(33 <sup>1</sup> / <sub>2</sub> "x2 <sup>3</sup> / <sub>4</sub> "-2 <sup>3</sup> / <sub>4</sub> "	150***	(330)***	5230.0018
WSP-150-70/13-10-143°	700x130-100	(27 <sup>1</sup> / <sub>2</sub> "x5"-4")	150***	(330)***	5250.0131
WSP-150-90/10-14-93° ①	900x100-140	(35 <sup>1</sup> / <sub>2</sub> "x4"-5 <sup>1</sup> / <sub>2</sub> "	150***	(330)***	5230.0033

## Multiple Suction Plates MSP

A modular design system, working with mainly standardised elements. We can therefore produce the appropriate suction plates fast and cost efficient according to customers needs.

► Exchangeable rubber seals with low wearing material, quick and easy to change and without the need for gluing.

► **MSP-X-V... (movable):** multiple suction plate with distance control. If a certain distance between stones is needed, you can fix the distance of the suction pad with a lever at a set distance e.g. 10 mm, so the stones will always have the correct spacing

► **MSP-X-S... (rigid):** multiple suction plate with fixed spacing of the suction pads.

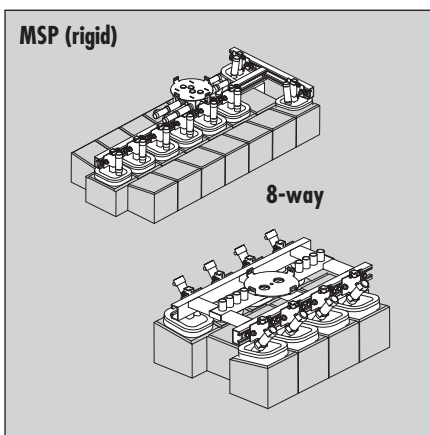
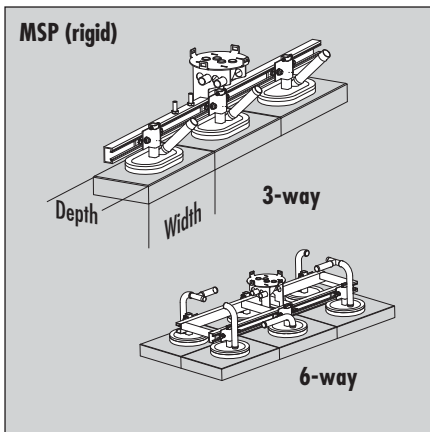
Type ①	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-5-V-150-5 x SPS-24/16-a-24	240 x 160 (9 <sup>1</sup> / <sub>2</sub> " x 6 <sup>1</sup> / <sub>4</sub> "	8	150*** (330)***	4210.1097
MSP-5-V-150-5 x SPS-24/16-a-25	240 x 160 (9 <sup>1</sup> / <sub>2</sub> " x 6 <sup>1</sup> / <sub>4</sub> "	5	150*** (330)***	4210.1077
MSP-5-V-150-5 x SPS-22/12-a-23,5	220 x 120 (8 <sup>1</sup> / <sub>2</sub> " x 4 <sup>3</sup> / <sub>4</sub> "	5	150*** (330)***	4210.1083
MSP-7-V-150-7 x SPS-17/16-a-16	170 x 160 (6 <sup>3</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> "	7	150*** (330)***	4210.1096
MSP-7-V-150-7 x SPS-16/14-a-16	160 x 140 (6 <sup>1</sup> / <sub>4</sub> " x 5 <sup>1</sup> / <sub>2</sub> "	7	150*** (330)***	4210.1078

\*\* Caution: It is forbidden to use suction plates with a smaller working load limit than the lifting unit HE!

It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing



Type ①	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-3-5-85-3 x SPS 23/13-a 35-40	230 x 130 (9" x 6")	3	85*** (185)***	4210.1058
MSP-6 (2x3)-5-200-6 x 19 Rd-a-40	∅ 190 (7 1/2")	6	200*** (440)***	4210.1087

## Accessories

► To speed up laying with high positioning accuracy and thus reduce alignment work, stops can optionally be attached to the multiple suction plates.

Type ①	Adjustment range mm (in) for	Dead Weight kg (lbs)	Order-Number
MSP-SA Lateral stop (usable on both sides)	Slab width 85 – 330 (3 3/4" – 13")	0,5 (1)	4210.1035
MSP-LA Longitudinal stop	Slab depth 120 – 280 (5" – 11")	3 (7)	4210.1036
MSP-FLA Flexible Longitudinal stop (For movable MSP only)	Slab depth 80 – 280 (3" – 11")	3 (7)	4210.1037

► Special multiple suction plates with fixed spacing. Specially designed to lay gutter stones.

Type ①	Dimension mm (in)	Number of suction plates	Working Load Limit WLL kg (lbs)	Order-Number
MSP-8-5-150-8 x SPS 13/15-a 15	130 x 150 (5" x 6")	8	150*** (330)***	4210.1088
MSP-8 (2x4)-5-150-8 x SPS 13/15	130 x 150 (5" x 6")	8	150*** (330)***	4210.1086

Additional suction plates on request.

## Large-Area Suction Plates FSP

A universal suction plate for the broadest range of stone configurations, regardless of the number of individual stones, regardless of how the joints run: the highly innovative FSP surface suction plate now covers this task for all devices and machines with vacuum tube lifters. The vacuum tube lifting devices such as JUMBO-BV-VARIO, JUMBOMOBIL JM-VARIO, TRANSMOBIL TM and UNIPOSE UP-1204 can therefore be used on a considerably wider scale for laying stone elements.

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

Comprising:

► Suction box with stuck-on sponge rubber mat. The sponge rubber layer is easy to replace. Careful handling of the vacuum seal is essential.

Type	Dimension mm (in)	Working Load Limit WLL kg (lbs)**	Order-Number
FSP-85-42/42	420 x 420 (16 1/2 x 16 1/2")	85 (185)***	4211.0030
FSP-100-110/14	1,100 x 140 (43 x 5 1/2")	100 (220)***	4211.0019
FSP-150-56/61	560 x 610 (22 x 24")	150 (330)***	4211.0017
FSP-150-82/20	820 x 200 (32 1/4 x 7 3/4")	150 (330)***	4211.0004

Additional suction plates on request.

\*\* Caution: It is forbidden to use suction plates with a smaller working load limit than the lifting unit HE!

It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing



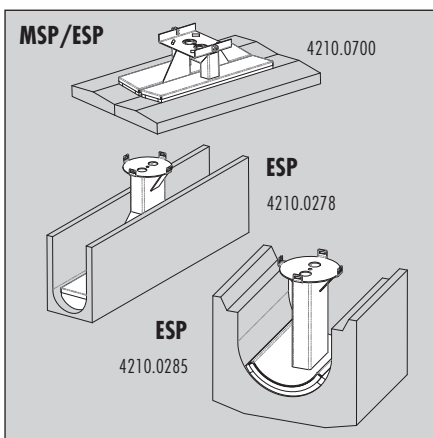
## Bag and Sack Gripper SXG

Safe and convenient transport of sand, granulate and concrete bulk bags. Bag grippers are specific suction plates for order-picking and transport of bags.

- ▶ Suitable for handling of paper bags with plastic film inside as well as for plastic bags.
- ▶ Implementation by attachment to a vacuum device - such as Jumbo travelling crane JWK.

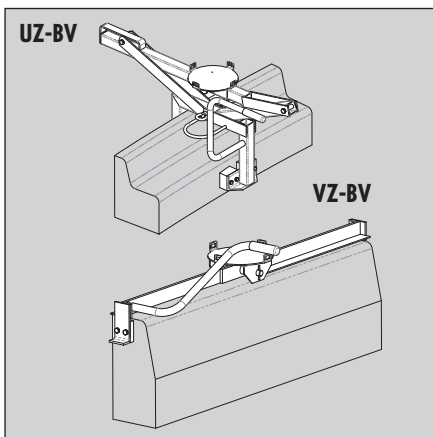
Type	Carrier	Dimension mm (in)	Working Load Limit WLL kg (lbs)**	Order-Number
<b>SXG-150</b>	HE-150	420 x 250 (16½ x 9¾")	150 (330)	<b>4210.0093</b>
<b>SXG-85</b>	HE-85	350 x 250 (13¾ x 9¾")	85 (185)	<b>4210.0644</b>
<b>SXG-45/65-30/19</b>	HE-50	300 x 190 (11¾ x 7½")	35 (75)	<b>4210.0801</b>
<b>SXG-35-24/18</b>	VXS	242 x 160 (9½ x 6¼")	35 (75)	<b>4210.0856</b>

## Special Suction Plates



Type	Dimension mm (in)	Working Load Limit WLL kg** (lbs)	Order-Number
<b>MSP 2-250-2 x ESP 62/14-168°-SWA</b>	620 x 140 (24½" x 5½")	250*** (550)***	<b>4210.0700</b>
<b>ESP 150-92/13-R 75</b>	920 x 130 (36¼" x 5")	150*** (330)***	<b>4210.0278</b>
<b>ESP 150-39/25-R 150</b>	390 x 250 (15½" x 9¾")	150*** (330)***	<b>4210.0285</b>

## Grabs



Mechanical grippers can be mounted instead of vacuum suction plates onto the vacuum hose lifter. In this scenario, the vacuum energy is lifting the products whilst the mechanical gripper grabs the product. In this case, the sensitive speed control of lifting and lowering by the vacuum hose lifter is obtained.

- ▶ **VZ-BV:** this clamp has been specially designed to cope with the rare cases when kerb stones are too porous to be lifted with vacuum, so they therefore have to be lifted mechanically.
- ▶ **RG-VZ:** Special clamp for the laying of 1, 2 or 3 grass stone slabs in one movement.

▶ **UZ-BV:** universal kerb stone clamp specially designed to grab the kerbs crossway. This is how curved kerb stones with different radii can be handled.



Type ①	Description	Gripping Range* W mm (in)	Working Load Limit WLL kg** (lbs)	Dead Weight kg (lbs)	Order-Number
<b>UZ-BV</b>	Radius Kerb Clamp	80 – 220 (3 x 8¾")	150 (330)	12 (26)	<b>5230.0031</b>
<b>RG-VZ</b>	Turf Stone Handle			12 (26)	<b>4200.0003</b>
<b>VZ-BV-98/100</b>	Mechanical Kerb Stone Handle	980 – 1,000 (38½ x 39½")	150 (330)	9 (20)	<b>4230.0001</b>
<b>VZ-BV-40/104</b>	Mechanical Kerb Stone Handle	400 – 1,045 (15¾ x 41")	150 (330)	7 (15)	<b>4230.0149</b>

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

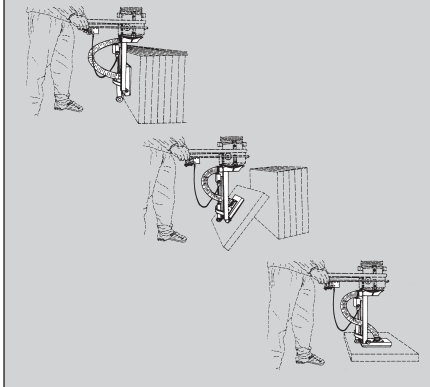
\*\* Caution: It is forbidden to use the suction plates with a smaller working load limit than the lifting unit HE! It is permissible to use suction plates with a higher working load limit than the lifting unit.

\*\*\* Value at 420 mbar low pressure

① Durable surface protection by galvanizing

ESP-SW-B

German Patent



## Vacuum Hose Lifter Components

### Tilteable suction plate ESP-SW

Suitable for different applications of vacuum hose lifting devices:

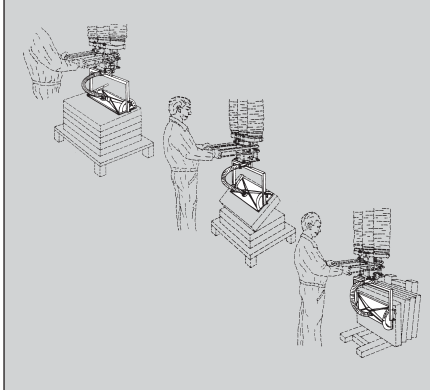
#### with automatic retraction ESP-SW-B

- ▷ 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)	Working Load Limit WLL kg (lbs)	Order-Number
ESP-SW-B-H-VH-150-33/33-0	330 x 330 (13" x 13")	150* (330)*	4210.0096

ESP-SW-F



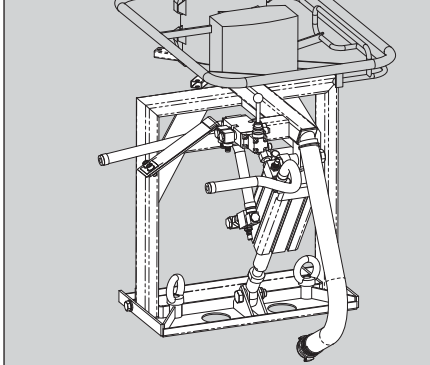
#### with free swiveling action ESP-SW-F

- ▷ 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)	Working Load Limit WLL kg (lbs)	Order-Number
ESP-SW-F-F-250-75/30-A	750 x 300 (29 1/2" x 11 3/4")	250* (550)*	4210.0095
ESP-SW-F-F-150-40/25-A	400 x 250 (15 3/4" x 9 3/4")	150* (330)*	4210.0190

ESP-SW-P-200-A



### Pneumatic swivelling base frame for use with exchangeable suction plates

- ▷ Developed specifically for handling plate-shaped elements and kerbstones with pneumatic swivelling from vertical to horizontal position and vice versa.
- ▷ Swivel range of 90° with pneumatic cylinder.

- ▷ Can be used on HE-200 and smaller lifting units.
- ▷ To improve ergonomics, possibly use handle extension 4230.0124.
- ▷ Without suction plate.

\*\* NEW

Type	Dimension mm (in)	Working Load Limit WLL kg (lbs)	Order-Number
ESP-SW-P-200-A	base frame	max. 200* (440)	4210.1000

For proper suction plates contact us for professional advice

### Quick Change Adapter SWA

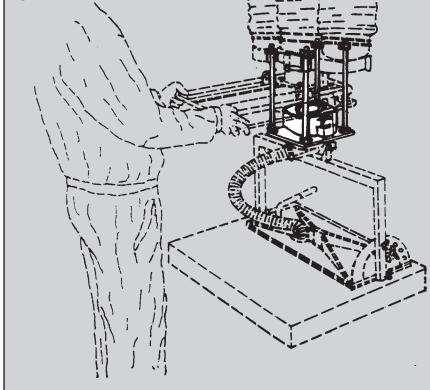
- ▷ Allows exchange of different suction plates within seconds.
- ▷ Essentially necessary for lifting loads of 200 kg and more.

- ▷ Short design as against SZV (page 7.23), specially suitable for in-plant paketrize works in use with ESP-SW-F-F-200-75/30-A.

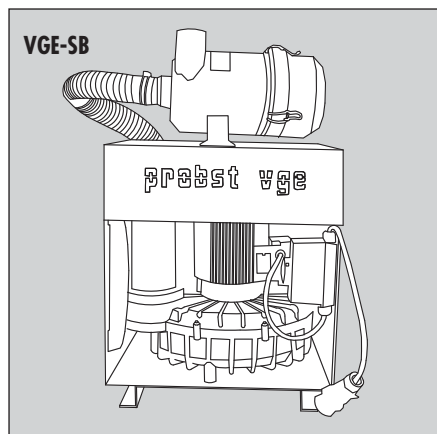
Type	Lenght mm (in)	Max. Working Load Limit WLL kg (lbs)	Order-Number
SWA 200 (long version)	300 (11 3/4")	250* (550)*	4210.0097
SWA 200 (short version)	100 (4")	250* (550)*	4210.0104

\* Value at 420 mbar low pressure

SWA



021017 Technical data contained in this catalogue can be modified without prior notice in the interest of progress. Illustrations are exemplary and non-binding. No liability accepted for any misprints, mistakes and errors.



## 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 32 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 13.5)

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

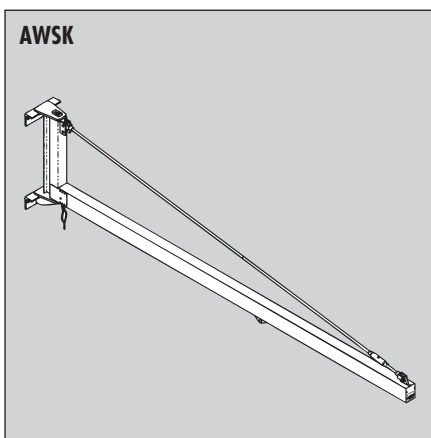




## Aluminium Smooth Running Cranes for Vacuum Hose Lifters

The vacuum hose lifters eliminate the manual lifting job completely, but swinging the crane arm around or pulling the suspension along the jib can be very burdening when using standard heavy crane systems.

The new aluminium crane systems of Probst are now offering ergonomically advantages by smooth running and lightweight design.



## Wall Swing Crane AWSK

The equal load distribution of the rollers of roller suspension eliminates cocking of the suspension, even when pulled sideways.

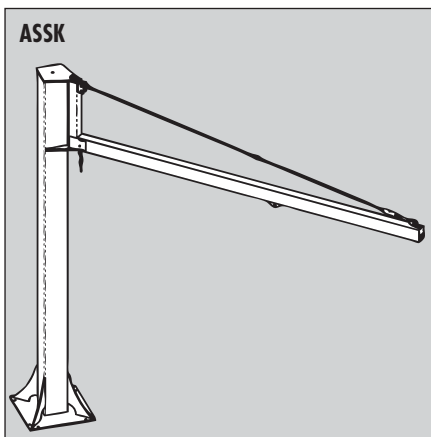
plate ESP about 0 to 85 mm (0 to 3 1/4") when the lifting hose is fully extended, depending on the type of suction plate.

- Special bearings of the swinging arm and the use of lightweight aluminium are ensuring easy and smooth operation.
- Special, long lasting rollers
- Modern design
- Innovative geometrie of the jib profile.
- Adjustable stops to restrict the the movement along the jib if required.
- Slewing range 180°
- Optimized height of the jib.

Thus the complete lift of the hose lifter of 1,800 mm (71") can be used.

- If special suction plates, such as tiltable suction plates are used, the lifting height can be less.
- The static for fixing the crane to the wall has to be checked by the customer.
- Comes with adjustable stop, carrier for pipe or cable, roller suspension for hose lifter.
- CE approved

Measurement from ground level to the suction



## Pillar Swing Crane ASSK

Same specifications as Wall Swing Crane AWSK, but slewing range 270°, lenth and working load limit see tabel.

Optional accessories:

Set of dowels DS-ASSK, consisting of the following components:

Special Anchor with mortar cartridge and bushes, 8 times threaded M 12, thickness of plate min. 8 mm (1/3") max 25 mm (1").

### Important notice:

The assumption for mounting the pillar swing crane using the set of dowels is minimum thickness of the concrete floor of 200 mm (7 3/4") and a concrete quality C20/25. (Simple installation, no flange plates needed).

Type	Slewing Range	Reach mm (in)	Working Load Limit WLL kg (lbs)	Dead Weight / crane jib kg (lbs)	Total Weight kg (lbs)	Order-Number
<b>AWSK-150-3</b>	180°	3.000 (118")	150 (330)	31 (70)	46 (101)	<b>4200.0132</b>
<b>AWSK-150-4</b>	180°	4.000 (157")	150 (330)	37 (80)	52 (115)	<b>4200.0126</b>
<b>AWSK-150-5</b>	180°	5.000 (197")	150 (330)	60 (132)	81 (180)	<b>4200.0127</b>
<b>AWSK-300-4</b>	180°	4.000 (157")	300 (660)	52 (115)	73 (160)	<b>4200.0128</b>
<b>AWSK-300-5</b>	180°	5.000 (197")	300 (660)	60 (132)	81 (180)	<b>4200.0129</b>
<b>ASSK-150-4*</b>	270°	4.000 (157")	150 (330)	37 (80)	167 (368)	<b>4200.0146</b>
<b>ASSK-150-5*</b>	270°	5.000 (197")	150 (330)	60 (132)	222 (489)	<b>4200.0147</b>
<b>ASSK-300-4*</b>	270°	4.000 (157")	300 (660)	52 (115)	327 (720)	<b>4200.0124</b>
<b>ASSK-300-5*</b>	270°	5.000 (197")	300 (660)	60 (132)	414 (910)	<b>4200.0125</b>
<b>DS-ASSK</b>	Set of dowel for pillar swing crane					<b>4200.0100</b>

\* Crane height up to bottom edge of crane boom 3200 mm.

## Accessories

Such as lifting unit HE, operating valve unit BE, vacuum turbines and different suction plates see page 13.5 - 13.7.





## Grabs for fully automatic plants

Various types of grabs are needed for the efficient handling of construction materials at the concrete plant .

Pavers, porous concrete, sand-lime bricks and many more construction materials in various shapes have to be transported, turned and packed.

The product range of probst grabs for fully automatic plants can be configured individually to fit to the user-specific challenges! Suitable for multi shift operation and short cycle times.

## Vacuum Layer Gripper FSG-UNI

One complete layer of blocks, no matter which shape and which configuration of blocks can be picked up by suction. This allows for complete new design possibilities of shapes. Made

to be attached to a hydraulic cubing clamp, a robot or by a lifting unit. Suitable to transport and pack already compacted layers of stone.



## ROBOGRIP P-4 Pneumatic Robot Grab

Pneumatic, foursided grab for fully automatic cubing in the concrete stone industry by using an industrial robot. High tensile steel as well

as light weight design are minimizing the dead weight of the grab.

## Cube Clamp STAZ and Cube Clamp STAZ with Three Side Arms

Extreme stable hydraulic grabs for fully automatic transfer stations. Any configuration in terms of inside height of grab, gripping range, length of gripper, working load limit etc. is

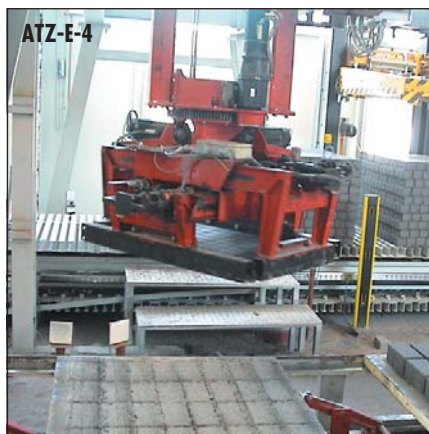
possible. Spring loaded pressure plates can stabilize the cube of blocks if required. Also available with swiveling or rotating grippers.



## Electric Cubing Clamp ATZ-E-4 and Hydraulic Cubing Clamp ATZ-H-4

Electric or hydraulic two- or foursided cubing clamps for fully automatic cubers in the concrete stone industry. If required available with

rotation of the grippers, with distance adjustment of grippers, as double grab, with different kind of grippers etc.





# TRUCK CRANE ATTACHMENTS



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.

**Block loading grabs w/adjustable height: four different inside height settings can be made via pre-selector lever. A floating position can be pre-selected as an option too.**





## 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.

#### Standard Specifications:

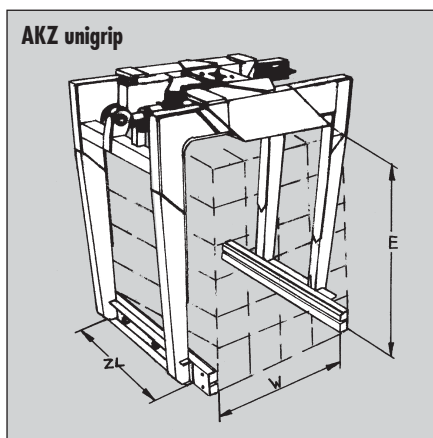
- ▷ Large, low-maintenance polyamide sliding guides.
- ▷ Manually adjustable pressure-reducing valve.
- ▷ Oil pressure gauge.
- ▷ Robust gear rack balance for the absolute synchronous running of the hydraulic cylinders.
- ▷ 4 Hooks for attaching slings or straps.

**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).

All our truck loading grabs can be fitted with our Quick Change Device (see page 15.7 Accessories).

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



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



## Block loading grab with a fixed height E

### AKZ BF

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

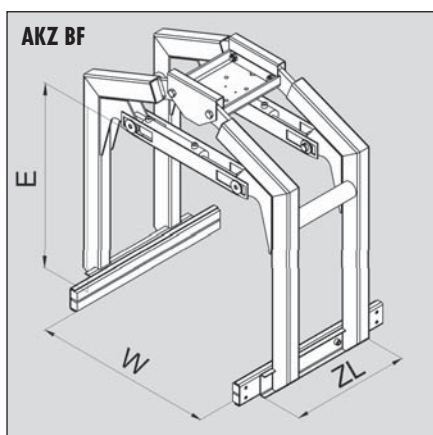
Wide field of application for loading and unloading of most common block packs.

- ▷ 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)	Working Load Limit WLL*** kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>AKZ BF 1000</b>	100 (4")–1,250 (49")	1,000 (39")	720 (28 <sup>1</sup> / <sub>4</sub> "	2,500 (5,500)	270 (600)	<b>5610.0058</b>
<b>AKZ BF 1100</b>	80 (3 <sup>1</sup> / <sub>4</sub> ")–1,280 (50")	1,100 (43")	720 (28 <sup>1</sup> / <sub>4</sub> "	2,400 (5,300)	280 (620)	<b>5610.0070</b>
<b>AKZ BF 1200</b>	50 (2")–1,300 (51")	1,200 (47")	720 (28 <sup>1</sup> / <sub>4</sub> "	2,300 (5,100)	290 (640)	<b>5610.0071</b>

\* Different opening range possible - Price available on request.

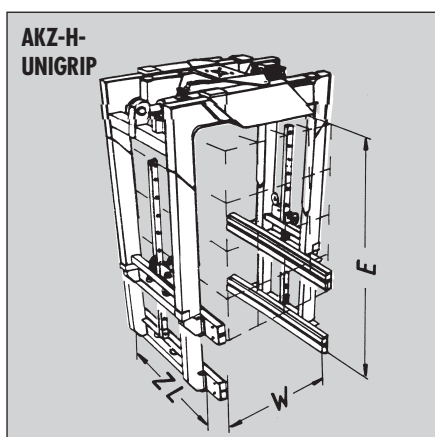
\*\* The height E can be varied at no extra cost. The price paid will then be for the next model up.

\*\*\* The working load limit 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 working load limit does not apply!

See page 15.5 – 15.7 for Accessories.



AKZ-H-UNIGRIP



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.

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

### 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.

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")

### 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.

- ▶ 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.\*\*
- \*\*Working load limit 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.

Type	Opening Width* W mm (in)	Grab Length ZL mm (in)	Height E mm (in)	Working Load Limit WLL* kg (lbs)	Dead Weight kg (lbs)	Order-Number Prices without Quick Change Grippers
AKZ-H-UNIGRIP	370 (14½") up to 1,370 (54")	720 (28¼")	at 1,100 (43")	1,900 (4,200)	360	5610.0057
			at 1,650 (65")	1,350 (3,000)	(790)	
AKZ-N-UNIGRIP	370 (14½") up to 1,370 (54")	720 (28¼")	at 900 (35½")	2,200 (4,850)	320	5610.0062
			at 1,400 (55")	1,600 (3,550)	(710)	
AKZ-S-UNIGRIP	370 (14½") up to 1,370 (54")	720 (28¼")	at 1,100 (43")	2,300 (5,100)	380	5610.0061
			at 1,650 (65")	1,900 (4,200)	(840)	

Other opening widths, heights, grab lengths and working load limits are available on request.

For heavy-duty use, eg. in conjunction with fork-lift trucks, we recommend our STAZ range on page 10.3 – 10.6.

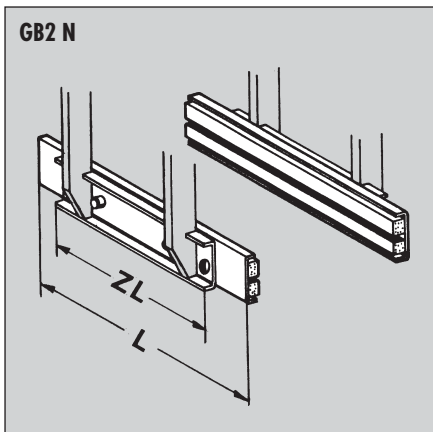
See page 15.5 – 15.8 for Accessories.

\* The working load limit 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 working load limit does not apply!

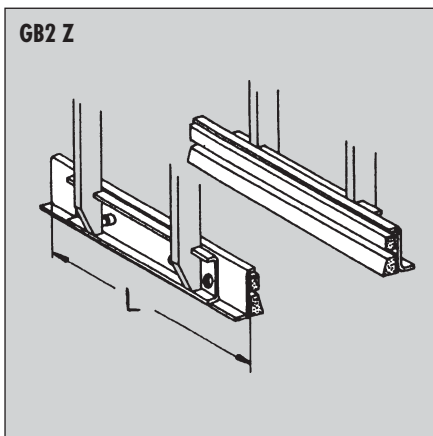
\*\* The positive working pressure control, which is integrated serially, effects an increase of the working load limit when positioning the lowest possible insert height E (retracted position).



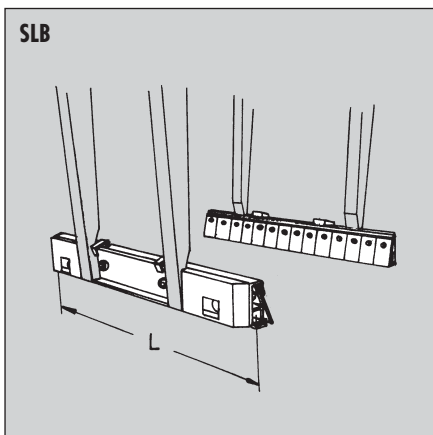
**GB2 N**



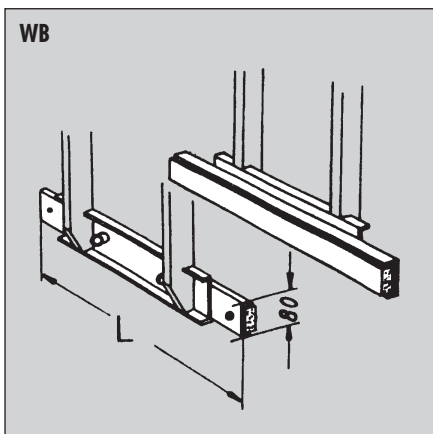
**GB2 Z**



**SLB**



**WB**



## 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

## Steel Finger Grippers SLB

Extra deep gripping, for transporting unstrapped 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

## Rubber Grippers WB

Rubber Grippers specially for the Transport of Tiles.

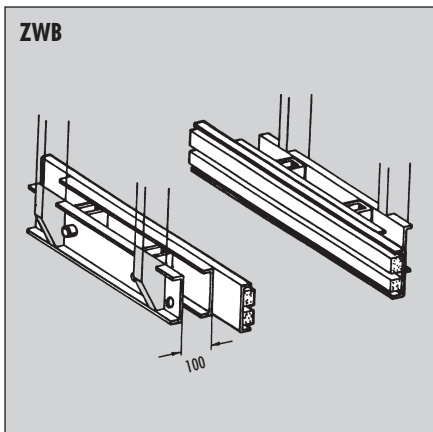
► Lower shape, so that the pallet can be gripped.

► Rubber 60 mm high including fixing 80 mm. Length: 800 and 1,000 mm.

Type	Length L mm (in)	Weight per Pair kg (lbs)	Order-Number
WB-800	800 (31 1/2")	18 (40)	4000.0011
WB-1000	1,000 (39")	23 (50)	4000.0021

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ZWB

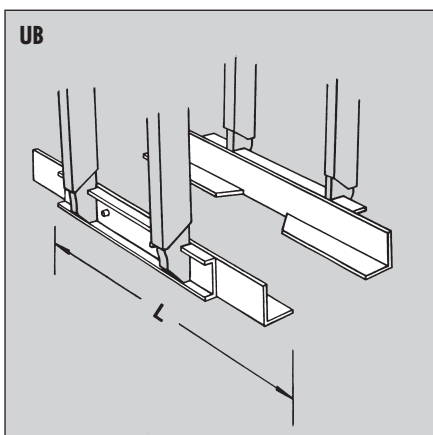


## Intermediate Grippers ZWB

For reducing the gripping range by 200 mm. ▶ Other sizes available on request. However, the need for a larger working space must be taken into account.

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

UB

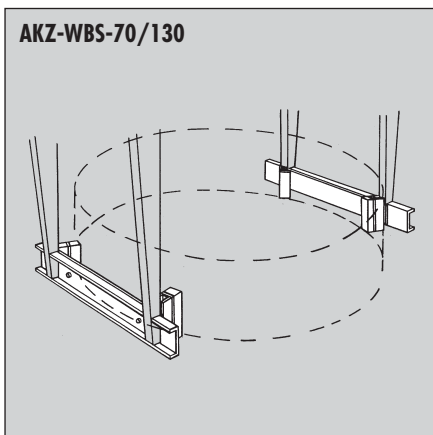


## Accessories for the AKZ Pallet Grippers UB

For lifting pallets by gripping underneath the pallets.

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

AKZ-WBS-70/130

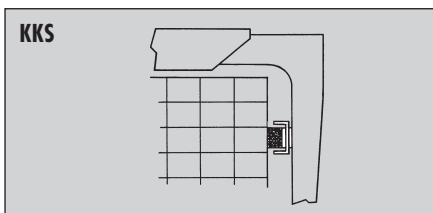


## Special Grippers for Manhole Rings WBS

Suitable for gripping manhole rings.

Type	Suitable for outer diameters ID Ø mm (in)	Weight per Pair kg (lbs)	Order-Number
AKZ-WBS-70/130	700 – 1,300 27 <sup>1</sup> / <sub>2</sub> – 51"	20 (45)	4000.0130

KKS

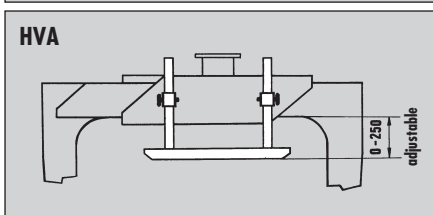


## Top Rubber Guide Rails KKS

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

Type	Order-Number
KKS	4620.0070

HVA

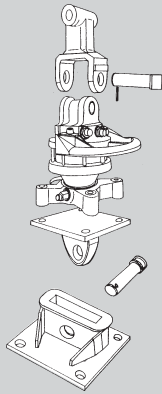


## Adjustable Height Stop HVA

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
<b>SWV below the rotator</b> (The rotator remains on the cranes in normal circumstances)	10 (20)	<b>4620.0001</b>
<b>SWV above the rotator</b> (rotator remains in clamp)	10 (20)	<b>4620.0002</b>

**Always state the type of rotator and crane when ordering!**

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

**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)	<b>4620.0071</b>
Rotator Tilting Device (rotator for flange-connection)	8 (20)	<b>4620.0082</b>

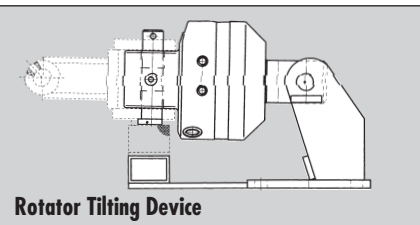
Rotator with hydraulic rotation plus 2 connection hoses to the clamp	Dead Weight kg (lbs)	Order-Number
Continuous Rotator - Baltrotator, 4.5 tons capacity Rotator also available with pivot.	34 (75)	<b>4620.0056-001</b>

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
<b>ET-D</b> consisting of ET-D, incl. universal joint, mounting plate.	23 (50)	<b>4310.0238</b>

Not turnable lifting hook DLH	Order-Number
for mounting under DK with pin	<b>4011.0077</b>
for mounting under SWV top	<b>4011.0073</b>

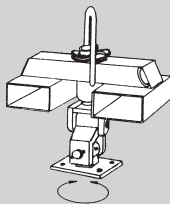
Hydraulic Accessories	Order-Number
Manually operated pressure relief valve	<b>Standard</b>
Oil pressure gauge	<b>Standard</b>
Hydraulic Quick-Coupling Complete	<b>2202.0001</b>
Hydraulic Quick-Coupling Female	<b>2202.0002</b>
Hydraulic Quick-Coupling Male	<b>2202.0003</b>
Hydraulic Screw-Coupling Complete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

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).	<b>2219.0001</b>

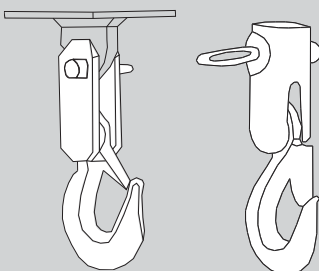


**Rotator Tilting Device**

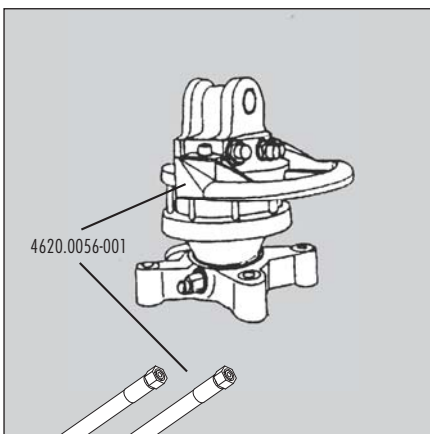
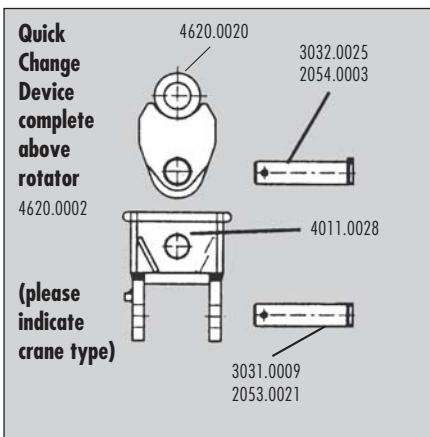
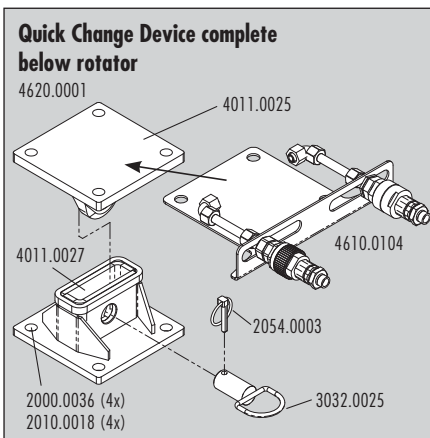
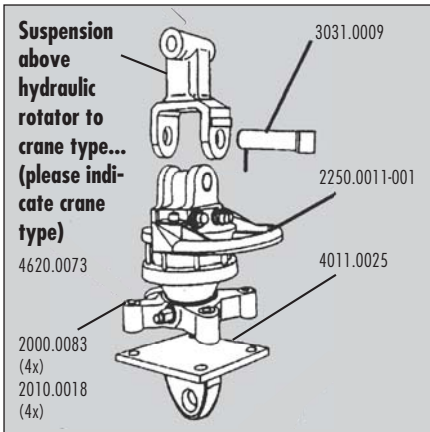
**ET-D**



**DLH**



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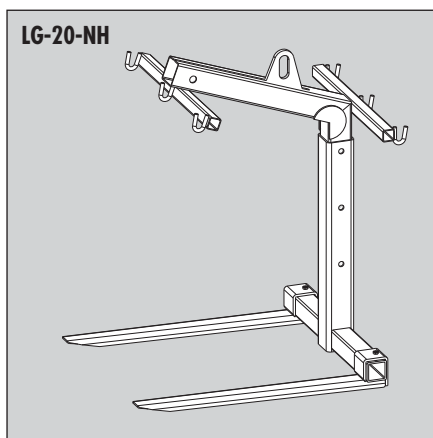


## Selection of Suspension Links and Rotators

Description	Order-Number
Suspension above rotator (crane type to be indicated)	<b>4620.0073</b>
Bolt with plate $\varnothing$ 30 mm, hole distance 121 mm, length 130 mm, bore 8 mm	<b>3031.0009</b>
Hydraulic rotator. Infinite turning range.	<b>2250.0011-001</b>
Quick Change Device top below rotator (plate with tongue)	<b>4011.0025</b>
Hexagonal bolts 8.8 Din 931 with shaft galvanised M 16 x 80 (4 pieces are required)	<b>2000.0083</b>
Quick Change Device below rotator completely	<b>4620.0001</b>
Connecting plate under rotator. With hydraulic quick connect couplings.	<b>4610.0104</b>
Quick Change Device bottom below rotator (plate with house)	<b>4011.0027</b>
Clip pin, 8 mm, galvanised, Ring-Dm 42	<b>2054.0003</b>
Hexagonal bolts 8.8 DIN 933 galvanised M 16 x 45 (4 pieces are required)	<b>2000.0036</b>
Hex nut, DIN 985 galvanised M 16 x 8 (4 pieces are required)	<b>2010.0018</b>
Bolt with halfring $\varnothing$ 30 mm, hole distance 51 mm, length 60 mm, width 8.5 mm for SWV	<b>3032.0025</b>
Quick Change Device complete set above rotator (crane type to be indicated)	<b>4620.0002</b>
Quick Change Device top above rotator (crane type to be indicated)	<b>4620.0020</b>
Quick Change Device bottom above rotator Thumm	<b>4011.0028</b>
Spring pin DIN 1481, Dm 8 x 45	<b>2053.0021</b>
Rotator incl. 2 connection hoses (crane type to be indicated)	<b>4620.0056-001</b>



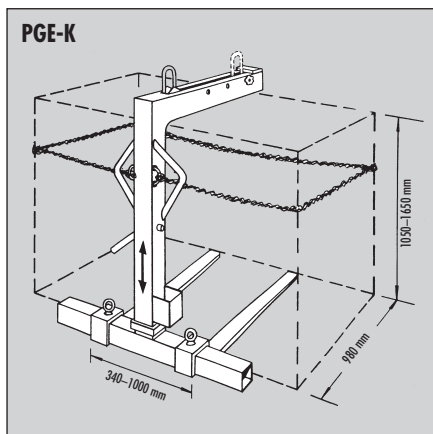
LG



LG-20-NH



PG



PGE-K

## Loading Forks LG with Security Chain

With automatic center-of-gravity balance for lifting and transport by crane.

### Automatic-Centre-of Gravity-Balance due to a spring-loaded slide.

- ▶ Continuously adjustable fork distance from 395 to 965 mm with LG-15 and from 415 to 965 mm with LG-20 (outer).
- ▶ Nominal height is adjustable from 1100 to 1700 mm via locking pins.

▶ With security chain to prevent the load from slipping off and tipping over.

▶ Hollow Forks with conical tapered tips for optimal insert underneath the pallets.

**LG-20-NH:** Configuration as like as LG-20 with additional permanently installed net holder for increased safety.

Type	Fork Lengths mm (in)	Fork Dimension mm (in)	Working Load Limit WLL kg (lbs) at 500 mm (20" in)	Dead Weight kg (lbs)	Order-Number
LG-15	1,000 (40")	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	1,500 (3,300)	120 (265)	5600.0059
LG-20	1,150 (45")	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	2,000 (4,400)	150 (330)	5600.0060
LG-20-NH	1,150 (45")	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	2,000 (4,400)	approx. 165 (360)	5600.0061
SSN-1,3 x 1,3 x 1,85	Security net				5500.0025

For the function of the Automatic-Center-of Gravity-Balance the minimum load of 25 % of nominal load necessary

## 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. Loading forks LG can be equipped with a safety net for this purpose. Pallet forks PGE-K-15/20 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.

## Palett Forks PGE-K with Security Chain

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

#### Standard Specifications:

- ▶ Crane eye
- ▶ Height adjustable from 1,050–1,650 mm (41<sup>1</sup>/<sub>2</sub>– 65").

▶ Adjustable fork distance from 340–1,000 mm (13<sup>1</sup>/<sub>2</sub>–39<sup>1</sup>/<sub>2</sub>") (external).

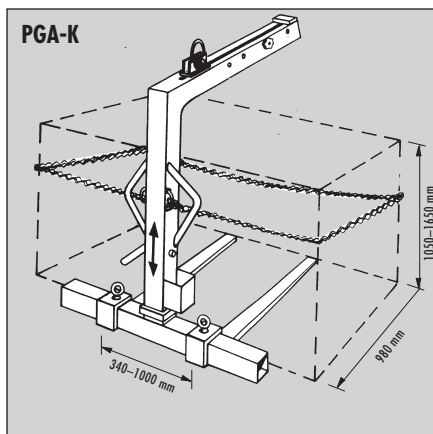
▶ Security chain with eyelet and chain box for securing the load against slipping off.

▶ Length of forks 980 mm

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

Larger fork lengths on request.

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## Pallet Forks PGA-K with Security Chain

**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 (41<sup>1</sup>/<sub>2</sub>– 1<sup>1</sup>/<sub>2</sub>”).

- ▶ Adjustable fork distance from 340–1,000 mm (13<sup>1</sup>/<sub>2</sub>– 39<sup>1</sup>/<sub>2</sub>”).
- ▶ Security chain with eyelet and chain box for securing the load against slipping off.
- ▶ Length of forks 980 mm

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

\* Additional fork lengths see page 9.2

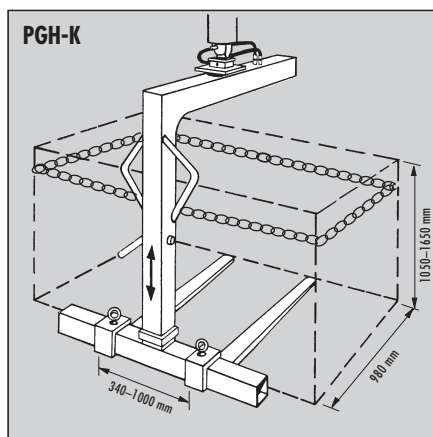
Minimum loading weight is approx. 25 % of the load.

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 PGH-K with Security Chain

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<sup>1</sup>/<sub>2</sub> – 39”) (external).
- ▶ Forks have long taper for optimal engagement.
- ▶ Length of forks 980 mm (38<sup>1</sup>/<sub>2</sub>”).

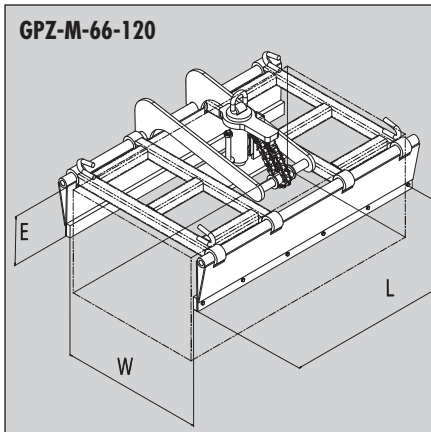
Type	Fork Dimension mm (in)	Working Load Limit WLL kg (lbs) at 500 mm (20")	Dead Weight kg (lbs)	Order-Number
PGH-15-K	100 x 40 (4 x 1 <sup>1</sup> / <sub>2</sub> ")	1,500 (3,300)	120 (265)	5600.0010
PGH-20-K	120 x 40 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> ")	2,000 (4,400)	125 (275)	5600.0011
PGH-25-K	100 x 45 (4 x 1 <sup>3</sup> / <sub>4</sub> ")	2,500 (5,500)	165 (365)	5600.0025
PGH-30-K	125 x 45 (4 <sup>3</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub> ")	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 15.7) for use with truck loading cranes with a hydraulic rotator.

See page 9.1 and 9.2, for pallet forks being used on tower cranes, with additional safety features.



## 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 15.7)

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)	Working Load Capacity kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>GPZ-M-66-120</b>	670 (26 1/2")	220 (8 3/4")	1,200 (47")	600 (1,320)	115 (255)	<b>5630.0008</b>

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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>GPZ-H</b>	480 – 870 (19 – 34 1/4")	140 (5 1/2")	1,200 (47")	600 (1,320)	140 (310)	<b>5630.0007</b>

\* 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.



## Manhole Polyp SP-H

Grips from the inside for the transportation of manhole rings and cones. Manually presetting and hydraulically adjustable for internal diameters up to 2,000 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)	Working Load Limit WLL kg (lbs)	Dead Weight kg (lbs)	Order-Number
<b>SP-H</b>	500 – 2,000 (19 3/4" – 79")	2,000 (4,400)	165 (365)	<b>5720.0056</b>





# SERVICE

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[service@probst-handling.com](mailto:service@probst-handling.com)



## Basic Spare Parts for Installation Machines VM



Item	Description	Order-Number
Wheel hub	Wheel hub preassembled with wheel bolts M12 x 1.5 / 35 long	4150.0500
Complete wheel	Complete wheel 23 x 8.5-12 10PR Kenda K500	2185.0018
Rim	Rim for VM wheel 7.00-12 steel rim	2188.0001
Wheel	Casing for VM wheel 23 x 8.50-12; 4 PR Multi, Multi Tractl DICO	2185.0004
Wheel engine	Wheel engine for laying machine	4150.0589
HD base plate valve	HD base plate valve	3203.0002
Adjusting screw	Adjusting screw for HD base plate valve (requirement: 2 units)	2009.0027
Piston pin	Guide bush incl. piston pin for HD base plate valve (requirement: 2 units)	2209.0017
Oil tank cap	VM-401 oil tank cap	2699.0011
Battery master switch	Master switch for vehicle electrics	2411.0009
Rear-view mirror	Hella rear-view mirror	4150.0286
Battery power block	12 V 70 Ah 640 A battery	2410.0226
Seal kit	Seal kit for steering cylinder	2151.0007
Seal kit	Seal kit for lifting cylinder turning head	2151.0032
Seal kit	for wheel motor OMSW 315 (type 151 F 0534)	2151.0052
Hand throttle	Hand throttle standard	2160.0003
VM mirror	Exterior mirror add-on kit with swivel joint for VM-203 and VM-204	4150.0358
Exterior mirror	Exterior mirror VM203/204	4150.0223



## Spare Parts for Installation Machine VM-401

Item	Description	Order-Number
<b>Slide bearing</b>	AMV-K-slide bearing 30/34 x 25 with PTFE_PB_running surface	<b>2140.0032</b>
<b>CentaFlex-A-coupling</b>	Coupling for V-450 hydrostat	<b>2202.0037</b>
<b>Fuel pump</b>	Fuel pump for engine Z600, D850, V1505	<b>2612.0005</b>
<b>Turning head</b>	Baltrator turning head of type GR-10-02, axial load 1t	<b>2250.0032</b>
<b>Tank cap</b>	RV160/60A tank cap	<b>4150.0035</b>
<b>Stainless steel hose exhaust</b>	Exhaust without particulate filter 420 mm long. DN 35mm	<b>4150.0327</b>
<b>Coolant hose</b>	NW 31.5 coolant hose by the metre	<b>2692.0016</b>
<b>Damping plate</b>	SL300-25 damping plate	<b>2639.0001</b>
<b>Seat cushion with fabric cover</b>	Black seat cushion for driver's seat	<b>4150.0516</b>
<b>Cam belt</b>	8M V-belt powergrip GT3	<b>2111.0044</b>
<b>Filter set</b>	Set comprising: fuel prefilter, fuel filter insert, engine oil filter, air filter insert; with no air filter safety cartridge	<b>4150.0770</b>
<b>Filter</b>	Safety cartridge for air filter	<b>2500.0019</b>
<b>V-belt</b>	V-belt 9.5 x 950	<b>2110.0005</b>
<b>Valve cover seal</b>	Valve cover seal, head cover	<b>2159.0073</b>
<b>Diesel particle filter DPF</b>	Retrofit kit for VM-401	<b>4150.0796</b>
<b>Filter cartridge</b>	cartridge for diesel particle filter DPF	<b>2690.0034</b>
<b>Steering bolt</b>	Steering bolt with anti-twist protection (requirement: 4 units)	<b>3033.0064</b>
<b>Steering bush</b>	Slide bearing steering bolt 20 x 23 x 20 (requirement: 4 units)	<b>2140.0025</b>

## Spare Parts for Installation Machine VM-203/204/301

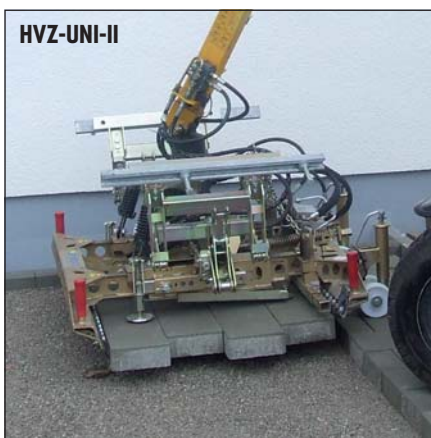


Item	Description	Order-Number
Viton sleeve	Petrol-resistant D5 Viton sleeve (black)	2620.0002
Viton sleeve	Petrol-resistant Viton sleeve for tank VM-203/301	2620.0001
Electric fuel pump	Fuel pump for Kubota D1105	2612.0002
Mechanical fuel pump	D950 mechanical fuel pump (VH-203 old)	2614.0007
Gear pump	2SPA11 gear pump	2260.0007
Tank cap	RV160/60A tank cap VM-203/301	4150.0035
Tank cap	Tank cap VM-204	2699.0016
Cross-lever repair kit	Repair kit for cross-lever 2-way control valve VM203/301	4160.0008
Push button	Rafi push button for VM-203, VM-301 turning head	2411.0025
Push button Retrofit kit	Retrofit kit relay for for turning head push button	4150.0678
Rotator	Rotator Baltrotor	2250.0032
VM ball joint	Ball joint, 20 x 1.5 - 18.1/20, for VM steering cylinder	2161.0002
Bini VM turning head	Bini turning head incl. VM-203, VM-204,	2250.0013
Seal set	complete for BINI, T1, 300°, 1 t	2151.0044
Filter	Felt air filter insert for D1105 engine	2500.0019
Filter set for motor D1105	Comprising: fuel filter, hydraulic oil filter insert, engine oil filter, air filter insert	4150.0452
Filter set for motor D950	Comprising: fuel filter, hydraulic oil filter insert, engine oil filter, air filter insert	4150.0771
Stainless steel exhaust	Exhaust pipe particle filter for VM-203	4150.0327
Air filter cover	Cover for air filter housing D1105	2500.0032
Seal	Valve cover seal D950	2159.0002
Seal	Valve cover seal D1105	2159.0026
Diesel particle filter DPF for VM-204	Retrofit kit	4150.0797
Diesel particle filter DPF for VM-301/VM-203	Retrofit kit	4150.0784
Filter cartridge	for diesel particle filter DPF	2690.0034

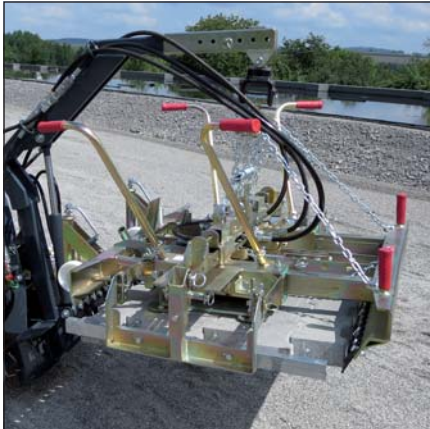
## Spare Parts for Installation Machine VM-203/204/301

Item	Description	Order-Number
<b>Silencer</b>	Silencer reinforced to D1105. Complete with threaded bolts and seals	<b>4150.0818</b>
<b>Handbrake cable</b>	Handbrake cable for VM-203 with brake on one wheel	<b>2609.0005</b>
<b>Handbrake cable</b>	As above but with break on both wheels for VM-203 and VM-301	<b>2609.0002</b>
<b>Handbrake cable</b>	As above but for VM-204 with break on both wheels	<b>2609.0004</b>
<b>V-belt</b>	9,5 x 900. LA=900, Lw=884 for D950	<b>2110.0001</b>
<b>V-belt</b>	V-belt for D1105 for VM-203 / VM-301	<b>2110.0006</b>
<b>V-belt</b>	V-belt for VM-204	<b>2110.0005</b>
<b>Fuel tank</b>	Tank for VM-203/301, pre-assembled complete	<b>4150.0795</b>
<b>Joystick switching element</b>	Contact element blue for joystick VM-204	<b>2411.0070</b>
<b>Push button</b>	Push button Joystick for turning / beeping / automatic mechanism VM-204	<b>2411.0100</b>

## Basic Spare Parts for Hydraulic Installation Clamps HVZ



Item	Description	Order-Number
HD hose	HD 1,700 mm connecting hose	2200.0007
HD hose	HD 2,500 mm connecting hose	2200.0014
HVZ position adapter	80 mm HVZ position adapter with tenon block and screws	4140.0123
HVZ position adapter	100 mm HVZ position adapter with tenon block and screws	4140.0036
HVZ position adapter	110 mm HVZ position adapter with tenon block and screws	4140.0121
HVZ position adapter	120 mm HVZ position adapter with tenon block and screws	4140.0128
HVZ position adapter	130 mm HVZ position adapter with tenon block and screws	4140.0129
HVZ position adapter	140 mm HVZ position adapter with tenon block and screws	4140.0130
HVZ position adapter	160 mm HVZ position adapter with tenon block and screws	4140.0132
Threaded plate Position adapter	Threaded plate for position adapter	2019.0004
HVZ Position adapter roller	Position adapter with 120 mm roller	4140.1020
HVZ Position adapter roller	Position adapter with 100 mm roller	4140.1010
HVZ Position adapter roller	Position adapter with 80 mm roller	4140.1019
Digger mounting	UBA-1200	4140.0571
UBA adapter set	Sleeve set for UBA 1200	4140.0683
Halfen anchoring system	760 mm Halfen anchoring system to side tensioning	3401.0065
Halfen anchoring system	860 mm Halfen anchoring system to side tensioning	3401.0046
Halfen anchoring system	950 mm Halfen anchoring system to side tensioning	3401.0018
Threaded plate Halfen anchoring system	Threaded plate for Halfen anchoring system	2019.0003
Seal set	for all HVZ. Main voltage	2151.0041
Rib standard	Slotted rib for HVZ, 5x95x100 slotted	3401.0097
Rib standard	Rib half-width, 5x50x95 slotted	3401.0099
Rib standard	Rib wide, 5x150x95 slotted	3401.0100
Rib long	Rib 5x120x100 slotted	3401.0059
Rib long	Rib long, half-width, 5x120x100/50	3401.0060
Rib long	Rib long, wide 5x120x100/150	3401.0061
Plate springs	Plate spring set comprising 144 units	4140.0013
Set-down roller	Polyamide wheel 125/40	2180.0001
Manometer	HVZ-Manometer 400 bar	2213.0002



## Spare Parts for Hydraulic Installation Clamp HVZ-STANDARD

Item	Description	Order-Number
Cylinder	Cylinder side gripping	2220.0001
Cylinder	Cylinder main gripping	3220.0021
Bolt	Side gripping 16 x 139	3032.0036
Bolt	Side gripping 20 x 79	3032.0037
Bolt	Side gripping 16 x 53	3032.0002
Bolt	Side gripping 20 x 71	3035.0009
Bolt	Linchpin	2054.0036
Sliding rail	Polyamide sliding guide	3641.0026
Suspension	Tension spring 9 x 35 x 226 x 19	2171.0004
Suspension	Chain 10 links	2100.0164
Suspension	Chain 12 links	2100.0088
Suspension	Screw M10 x 45 10.9	2000.0239
Suspension	Screw M10 x 65 10.9	2000.0261

## Spare Parts for Hydraulic Installation Clamp HVZ-UNI



Item	Description	Order-Number
Sliding guide	PE sliding guide bottom	3640.0207
Sliding guide	PE sliding guide top	3640.0208
Handle	Top handle complete	4140.0252
ADV	ADV guide	4140.0489
ADV	Adjustable pressure rail complete	4140.0245
ADV	ADV compression spring	2170.0030
Rubber Set-down roller	O-ring, 100 x 6 for set-down roller	2155.0058
Set-down roller	Set-down roller complete	4140.0313
ADV valve	Pressure sequence valve, short	2203.0032
ADV valve	Pressure sequence valve, long	2203.0033
Chain on cheeks	DIN 5685 chain 23 links	2100.0179
Chain on suspension	DIN 5685 chain 38 links	2100.0180
Height adjustment	Height adjustment complete left	4140.0258
Height adjustment	Height adjustment complete right	4140.0259
Shackle suspension	Shackle high-tensile 0.75 t	2103.0006
Shackle chain cheek	Shackle galvanised 0.25 t	2103.0002
Side gripping	Welded piece on toothed rack	4140.0314
Side gripping	Bolt short	3331.0006
Side gripping	Bolt long	3331.0003
Main gripping	Cylinder complete for main gripping	3220.0021
Side gripping	Cylinder complete for side gripping	2221.0046
Valve block	Valve block incl. pressure retaining valve	2204.0015





## Spare Parts for Hydraulic Installation Clamp HVZ-UNI-II

Item	Description	Order-Number
Sliding guide	PE sliding guide bottom	3640.0390
Sliding guide	PE sliding guide top	3640.0391
Handle	Handle top complete	3312.0049
ADV	Adjustable pressure rail complete with no expansion	4140.0975
Expansion	Expansion for pressure rail	4140.0240
ADV	ADV rubber stop, 10 mm wide	2107.0138
ADV	ADV hydraulic cylinder	2221.0041
ADV	ADV pressure spring	2170.0069
Set-down roller	Set-down roller complete	4140.0962
Set-down roller	Spring for set-down roller	2171.0011
Chain on suspension	Chain with protective hose for suspension	4140.0945
Spring suspension	Spring on suspension	2171.0010
Height adjustment	Height adjustment left complete	4140.0969
Height adjustment	Height adjustment right complete	4140.0970
Side gripping	Stop rubber buffer cylindrical	2107.0009
Side gripping	Cylinder complete for side gripping	2220.0090
Main gripping	Cylinder complete for main gripping	3220.0021
Handle	Cheek handle red	2160.0016
Support	Polyamide support for suspension	3640.0377



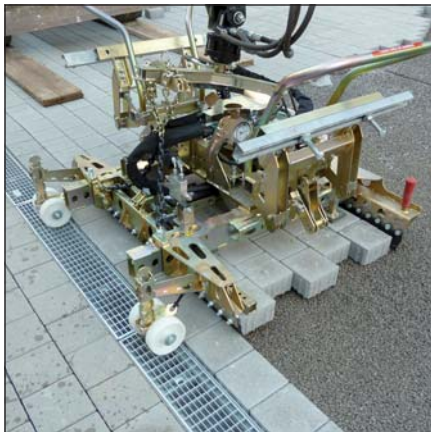
## Spare Parts for Hydraulic Installation Clamp HVZ-GENIUS-BASIC

Item	Description	Order-Number
ADV	Guide for ADV	4140.0489
Height adjustment	Height adjustment complete left	4140.0258
Height adjustment	Height adjustment complete right	4140.0259
Sliding guide	PE sliding guide top	3641.0124
Sliding guide	PE sliding guide bottom	3641.0123



## Spare Parts for Hydraulic Installation Clamp HVZ-GENIUS

Item	Description	Order-Number
<b>Sliding guide</b>	PE sliding guide top	<b>3641.0124</b>
<b>Sliding guide</b>	PE sliding guide bottom	<b>3641.0123</b>
<b>ADV</b>	ADV guide	<b>4140.0489</b>
<b>Handle</b>	Handle Top	<b>3312.0017</b>
<b>ADV</b>	ADV rail expansion	<b>4140.0240</b>
<b>ADV</b>	pressure spring	<b>2170.0030</b>
<b>Rubber Set-down roller</b>	O-Ring zu Absetzrolle	<b>2155.0058</b>
<b>Set-down roller</b>	Set-down roller complete	<b>4140.0646</b>
<b>Hydraulic valve</b>	Flow regulating valve for bowl speed (forwards/backwards)	<b>2223.0023</b>
<b>Spring suspension</b>	Spring for suspension	<b>2171.0010</b>
<b>Turning head holder</b>	Rubber rail for turning head holder (suspension adjustment)	<b>3672.0053</b>
<b>Height adjustment</b>	Height adjustment left	<b>4140.0258</b>
<b>Height adjustment</b>	Height adjustment right	<b>4140.0259</b>
<b>Side gripping</b>	Cylinder complete for side gripping	<b>2220.0089</b>
<b>Main gripping</b>	Cylinder complete for main gripping	<b>3220.0021</b>
<b>Support</b>	Polyamide support for suspension	<b>3640.0276</b>
<b>Cheek expansion</b>	Expansion back (machine side) complete	<b>4140.0870</b>
<b>Cheek expansion</b>	Expansion front (planum side) complete	<b>4140.0871</b>
<b>Bowl control</b>	Drive motor for bowl control	<b>2240.0004</b>
<b>Bowl control</b>	Bowl control preinstalled, complete with no cam	<b>4140.0507</b>



## Spare Parts for Hydraulic Installation Clamp HVZ-ECO

Item	Description	Order-Number
<b>Sliding guide</b>	Sliding guide machine side	<b>3640.0340</b>
<b>Sliding guide</b>	Sliding guide planum side	<b>3640.0339</b>
<b>ADV</b>	ADV rail complete without expansion	<b>4140.0937</b>
<b>Expansion</b>	Expansion for pressure rail	<b>4140.0632</b>
<b>ADV</b>	ADV pressure spring	<b>2170.0069</b>
<b>ADV</b>	ADV rubber stop 10 mm	<b>2107.0138</b>
<b>ADV</b>	ADV hydraulic cylinder	<b>2221.0041</b>
<b>Set-down roller</b>	Set-down roller complete	<b>4140.0962</b>
<b>Rubber set-down roller</b>	O-ring for set-down roller	<b>2155.0048</b>
<b>Spring suspension</b>	Spring for suspension	<b>2171.0010</b>
<b>Chain on suspension</b>	Chain with protective hose on suspension	<b>4140.0945</b>
<b>Height adjustment</b>	Height adjustment complete left	<b>4140.0969</b>
<b>Height adjustment</b>	Height adjustment complete right	<b>4140.0970</b>
<b>Side gripping</b>	Rubber buffer stop cylindrical	<b>2107.0009</b>
<b>Side gripping</b>	Cylinder for side gripping	<b>2220.0090</b>
<b>Main gripping</b>	Cylinder for main gripping	<b>3220.0021</b>
<b>Support</b>	Polyamide support for suspension (for art. no. 5140.0031)	<b>3640.0349</b>
<b>Support</b>	Polyamide support for suspension (for art. no. 5140.0034)	<b>3640.0377</b>
<b>Bowl control</b>	Drive motor for bowl control	<b>2240.0004</b>
<b>Bowl control</b>	Bowl control complete preinstalled with no cam	<b>4140.0507</b>
<b>Handle</b>	Cheek handle front	<b>2160.0016</b>
<b>Shackle suspension</b>	Shackle chain suspension	<b>2103.0019</b>

## Spare Parts for Adjustable Paver Transport Cart VTK-V



Item	Description	Order-Number
<b>VTK layer enlargement</b>	Layer enlargement on large span widths	<b>4110.0056</b>
<b>VTK jaws</b>	Jaws for VTK-V	<b>4110.0069</b>
<b>VTK operating lever</b>	Operating lever with bearing to VTK-V	<b>4110.0084</b>
<b>VTK wheel</b>	4.00 - 4.V76 air wheel for SH and VTK-V casing made by KENDA	<b>2185.0005</b>
<b>VTK swing lever</b>	Swing lever with jaw holder to VTK-V	<b>4110.0085</b>
<b>VTK support wheel</b>	Support wheel for VTK-V	<b>4110.0041</b>
<b>VTK overload protection</b>	Overload protection for VTK-V	<b>4110.0080</b>
<b>Bolt with washer</b>	Dm 20, hole spacing 37, length 45, width 5	<b>3030.0054</b>
<b>Clip pin</b>	4.5 mm, galvanised. Shaft length 40/Ring-Dm 40	<b>2054.0001</b>
<b>VTK-Hose</b>	Hose for wheel	<b>2185.0007</b>
<b>VTK tyre</b>	Cover for wheel	<b>2185.0006</b>
<b>Handle</b>	Handle for VTK-V	<b>4110.0067</b>
<b>Handle</b>	Handle rubber red	<b>2160.0016</b>



### Spare Parts for Pallet-Cart PW-III (Old, Order-Nr. 5110.0009)

Item	Description	Order-Number
Wheel	Small wheel, complete with rim and sleeve	2185.0021
Wheel	Large wheel, complete with flange/bearing	2185.0020
Wheel	Hub for wheel, large	4231.0007
Seal kit	Seal kit for HD cylinder	2151.0053
HD-Cylinder	HD cylinder complete with lever	2680.0003



### Spare Parts for Pallet-Cart PW-III (New, Order-Nr. 5110.0011)

Item	Description	Order-Number
HD-Cylinder	HD cylinder complete with lever	2680.0007
Draw bar	Draw bar complete	4230.0038
Wheel	Wheel large	2185.0039
Wheel	Wheel small, complete	2182.0025
Wheel	Hub for wheel, large	2187.0004



## Spare Parts for EASYFILL EF-H Paver Jointing Device

Item	Description	Order-Number
<b>Brush for EF-H</b>	Brush for EF-H w/poly 1.5 plywood base body, waterproof glued, 300 mm long	<b>4170.0002</b>
<b>Wheel</b>	125-37 solid rubber wheel	<b>2182.0008</b>
<b>Pedestal bearing</b>	Pedestal bearing housing unit diameter 20	<b>2138.0002</b>
<b>V-belt</b>	XPZ-1287 (10 x 8) V-belt	<b>2110.0009</b>
<b>Chain wheel</b>	Chain wheel ready to install, drilled 114 z. large	<b>2120.0025</b>
<b>Chain wheel</b>	Chain wheel with collar for roller chain	<b>2120.0006</b>
<b>Roller chain</b>	Simple roller chain length 1276 mm	<b>2100.0188</b>
<b>Bowden cable</b>	Bowden cable with operating panel	<b>2160.0026</b>
<b>KFE ball valve</b>	KFE ball valve with wing handle	<b>2711.0002</b>
<b>Spring lock</b>	Spring lock with M 18 x 1 nut	<b>2054.0024</b>
<b>Castor</b>	PU castor	<b>2184.0001</b>
<b>Airfilter</b>	Air filter insert, L = 180 mm	<b>2500.0041</b>
<b>Spark plug</b>	Spark plug for Honda GXV 160	<b>2691.0007</b>

## Spare Parts for EASYCLEAN EC-60 Paver Cleaning Device



Item	Description	Order-Number
<b>Spark plug</b>	Spark plug	<b>2691.0007</b>
<b>Airfilter</b>	Airfilter	<b>2611.0034</b>
<b>Top section</b>	Top section for rotor housing, incl. anti-twist device	<b>2145.0015</b>
<b>Bottom section</b>	Bottom section of the rotor duct complete with nozzles	<b>4170.0029</b>
<b>Seal rotary transmission</b>	For existing top in V2A stainless steel	<b>2800.0041</b>
<b>Seal rotary transmission</b>	For existing top in brass (old)	<b>2800.0029</b>
<b>Nozzle</b>	1/4 nozzle	<b>2719.0001</b>
<b>Set of mink brushes</b>	Mink brushes for EC-60	<b>2723.0010</b>
<b>Replacement splash flaps</b>	Splash flaps for EC-60	<b>3660.0012</b>
<b>PVC hose and pressure hose</b>	PVC hose with fabric lining colourless 960 long	<b>2300.0027</b>
<b>Connecting hose</b>	Connecting hose from pump to rotary joint	<b>2800.0022</b>
<b>PVC hose</b>	PVC hose with fabric lining	<b>2300.0020</b>
<b>Wheel</b>	Wheel sealed 100 x 34	<b>2182.0014</b>
<b>Water coupling sleeve</b>	280 bar 3/8 water coupling sleeve	<b>2800.0023</b>
<b>Water coupling plug</b>	Water coupling plug, 280 bar, 3/8	<b>2800.0024</b>
<b>Water hose adapter</b>	WSA Gardena water hose adapter from bayonet to Gardena	<b>2800.0018</b>
<b>Spring lock</b>	Spring lock with M18 x 1 nut	<b>2054.0024</b>
<b>KFE ball valve</b>	KFE ball valve with 1/2 - 3/4 wing handle	<b>2711.0002</b>

See overleaf for more replacement parts.

## Spare Parts for EASYCLEAN EC-60 Paver Cleaning Device

Item	Description	Order-Number
<b>Flow restriction</b>	Flow limiter for cross flushing	<b>3350.5453</b>
<b>Feather key</b>	Spring between motor and pump	<b>2175.0018</b>
<b>Pressure switch</b>	Membrane pressure switch, 0.3 bar	<b>2290.0008</b>
<b>Handle</b>	Soft grip for handlebars (pair)	<b>2160.0034</b>
<b>High-pressure pump</b>	High-pressure pump (Interpump)	<b>2611.0022</b>
<b>SET wearing parts</b>	Comprising inlet and outlet valve, oil seal set, piston seal set and 20 x 3 mm Dm O-ring	<b>4170.0033</b>
<b>High-pressure pump</b>	High-pressure pump with add-mixer	<b>2611.0038</b>
<b>ET for Comet Pumpe</b>	Kit A: Valve set complete (6 units)	<b>2800.0032</b>
<b>ET for Comet Pumpe</b>	Kit B: Piston seal set	<b>2800.0033</b>
<b>ET for Comet Pumpe</b>	Kit C: Piston set	<b>2800.0034</b>
<b>ET for Comet Pumpe</b>	Kit D: Pump seal set	<b>2800.0035</b>



## Spare Parts for POWERPLAN PP Screeding Machine

Item	Description	Order-Number
<b>Filter set</b>	comprising: engine oil filter, fuel prefilter, fuel filter set, air filter, return suction filter	<b>4130.0179</b>
<b>V-belt</b>	V-belt 9.5 x 950	<b>2110.0005</b>
<b>Pressure button</b>	IP65	<b>2411.0072</b>
<b>Accelerator cable</b>	complete with PVC pipe and end cap	<b>4130.0178</b>
<b>A-wheel (standard) Z14/72</b>	internal DM 204 mm, for rubber crawler track, black	<b>2120.0017</b>
<b>Cylinder screw</b>	DIN 7984, M12 x 20 – 8.8 galvanised with low head	<b>2002.0146</b>
<b>Rubber crawler belt</b>	250 x 57 x 72 mm (Dongil)	<b>2120.0015</b>
<b>Roller</b>	for linear guide	<b>4130.0051</b>
<b>Battery</b>	power block. 12 V, 70 Ah, 640 A	<b>2410.0226</b>
<b>Valve cover seal</b>	Valve cover seal Head cover	<b>2159.0073</b>
<b>Fuel pump</b>	Fuel pump	<b>2612.0005</b>
<b>Filter</b>	Air filter safety cartridge	<b>2500.0019</b>
<b>Tank suction connection</b>	Suction connection with filter strainer	<b>2620.0016</b>

## Spare Parts for Telescopic Screeding Bucket TAK



Item	Description	Order-Number
<b>TAK terminal adjustment</b>	Terminal adjustment with 2 ring nuts for TAK profile n. ZNr N187-452	<b>4100.0080</b>
<b>Ring bolt</b>	M 10 x 80 ring bolt galvanised, Side part long	<b>2008.0008</b>
<b>Ring nut</b>	M 10 ring nut terminal adjustment	<b>4100.0101</b>
<b>Support rollers</b>	Support rollers of type 89/20	<b>2181.0001</b>
<b>Drive chain</b>	Drive chain, 263 links	<b>4100.0260</b>
<b>Ring bolt</b>	Ring bolt side part, short	<b>2008.0005</b>

## Spare Parts for Telescopic Screeding System TAS-UNI



Item	Description	Order-Number
<b>TAS-UNI wheel</b>	Polyamide wheel 125-40, 20 mm slide bearing, 45 mm hub, loading capacity 250 kg	<b>2180.0001</b>
<b>TAS-UNI terminal adjustment</b>	TAS-UNI terminal adjustment, terminal rail, incl. 2 ring nuts	<b>4100.0157</b>
<b>Flap / grit deflector</b>	Flap / grit deflector left	<b>4100.0249</b>
<b>Flap / grit deflector</b>	Flap / grit deflector right	<b>4100.0250</b>
<b>Flap / grit deflector</b>	Pin bolt for flap / grit deflector	<b>4100.0068</b>
<b>Tappet nut</b>	M 12 tappet nut	<b>4100.0253</b>
<b>Wiper</b>	Wiper left	<b>3370.0668</b>
<b>Wiper</b>	Wiper right	<b>3370.0667</b>
<b>Ring bolt</b>	M 10 x 50 ring bolt with washer	<b>2008.0011</b>
<b>Ring nut</b>	M 10 ring nut with washer	<b>2011.0006</b>



## Spare Parts for EASYPLAN EP-UNI Handscreeding System

Item	Description	Order-Number
Handle	Handle complete with wooden grip from 230 (4-way handle)	3375.0047
Handle	Wooden grip	2160.0017
Handle	Handle complete with wooden grip (2-way) up to 200	3375.0048
Clamping ring	Clamping ring	3375.0049
Tension cable	Tension cable	2100.0113
Tenon block	Tenon block Tension cable ring bolt	2019.0014
Tenon block	Tenon block complete profile expansion	4100.0152
Ring bolt	Ring bolt tension cable fixing	2008.0004



## Spare Parts for TELEPLAN TP Handscreeding System

Item	Description	Order-Number
Support height right	TP tenon block right	4101.0028
Support height left	TP tenon block left	4101.0027
Ring bolt	Ring bolt	2008.0002
Square nut	M 6 square nut	2015.0006
Fixing terminal set left	Bracket left complete	4101.0054
Fixing terminal set right	Bracket right complete	4101.0055
Handle	PVC handle 1/2"	2160.0005



## Spare Parts for LEVELFIX LF Manual Screeding System

Item	Description	Order-Number
Wheel	Wheel with rim, yellow	2182.0024
Wheel	Axle cap	2187.0006
Wheel	End cap for wheel fixing handle	2107.0142
Wheel	Wheel fixing	4100.0316
Wheel	Threaded plate wheel fixing	2019.0003
Handle	PVC-handle 3/4"	2160.0016
Ring bolt	Ring bolt M10 x 35	2008.0019

SPARE PARTS





### Spare Parts for Paving Block Extractor SZ

Item	Description	Order-Number
Blade short	Replacement blade for SZ block lifter and PZ tile lifter und SAH block excavator, 55 mm	4180.0001
Blade long	Replacement blade for SZ block lifter, longer design, 65 mm	4180.0003
Displacing unit	Displacing unit for SZ (welded component)	4180.0015
Displacing unit	Wing screw M 10 x 35	2006.0021
Displacing unit	Wing nut M 10	2016.0011
Blade fixing	Cylinder screw M 8 x 25	2002.0007
Blade fixing	Hex nut	2010.0015
Handle	PVC-handle 1/2"	2160.0005



### Spare Parts for Paver Lifter SAH

Item	Description	Order-Number
Blade short	Replacement blade for SZ block lifter and PZ tile lifter und SAH block excavator	4180.0001
Wing screw	Wing screw M 10 x 50	2006.0004
Wing nut	M 10 Wing nut	2016.0004
Blade fixing	Cylinder screw M 8 x 50	2002.0082
Blade fixing	Hex nut M 8	2010.0015
Handle	PVC-handle 3/4"	2160.0016



### Spare Parts for Alignment Bar RE / Multiple Alignment MRE

Item	Description	Order-Number
Blade	Replacement blade for RE / MRE	4180.0002
Blade fixing	Hex screw M 10 x 25	2000.0017
Blade fixing	Hex nut M 10	2010.0016
Handle	PVC-handle 3/4"	2160.0016

### Spare Parts for Rubber Hammer GH/GH-K

Item	Description	Order-Number
Rubber cover for GH/GH-K	Rubber for GH rubber mallet, screwable, 2 M8 threads	4180.0006
Handle, long	Wooden handle for rubber mallet GH, ash, 800 mm	4180.0005
Handle, short	Wooden handle for rubber mallet GH-K, ash, 400 mm	4180.0052
Rubber fixing	Hex screw M 8 x 20	2000.0009

### Spare Parts for Block Cutters AL

	AL-33	AL-33/D	AL-43	AL-43/U	AL-43/UT	AL-65	AL-65/U	AL-65/UT	AL-65/US	Order-Number
Item										
Replacement blade 33 cm	2	2				4	4	4	4	4120.0001
Replacement blade 43 cm			2	2	2					4120.0002
Bolt for blade holder	8	8	8	8	8	16	16	16	16	4120.0028
Spare wheel around 125 mm	2	2								2182.0001
Spare wheel around 160 mm			2	2	2	2	2	2	2	2182.0003
Support plate	2		2							2110.0033
Support plate				1						4120.0025
Spring for support plate	4		4	2		4	4			4120.0009
Needle bearing	1	1	1	1	1	1	1	1	1	2136.0003
Ball bearing	2	2	2	2	2	2	2	2	2	2135.0003
Weld nut	2	2	2	2	2	2	2	2	2	4120.0029
Nut	2	2	2	2	2					4120.0030
Spindle	2	2	2							4120.0031
Spindle				2	2					4120.0032
Ring	2	2	2	2	2					4120.0033
Lever	2	2	2	2	2					4120.0037

	AL-33/S	AL-43/S	AL-43/SH-14	AL-43/SH-21	Order-Number
Item					
Bolt for blade holder	30	38	38	42	4120.0028
Blade for blade holder	30	38	38	42	4120.0005
Blade holder with blade/bolt 33/S	2				2110.0054
Blade holder with blade/bolt 43/S		2	2		2110.0057
Blade holder with blade/bolt SH-21				2	4120.0026
Spare wheel around 160 mm	2	2			2182.0003
Spare wheel around 200 mm			2	2	2182.0020
Jockey wheel around 125 mm			2	2	2182.0021
Support plate	2	2			2110.0033
Support plate			2	2	4120.0025
Spring for support plate	4	4	4	4	4120.0009
Weld nut	2	2			4120.0029
Nut	2	2			4120.0034
Spindle	2	2			4120.0035
Ring	2	2			4120.0036
Lever	2	2			4120.0037
Spindle			2	2	4120.0038
Ring			2	2	4120.0039
Chain wheel			2	2	4120.0040
Complete battery box			1	1	4120.0041
Plug (grey)			1	1	4120.0042
Battery			1	1	2420.0121
Complete 230 V battery charger			1	1	4120.0043
Complete 110 V battery charger			1	1	4120.0044
Cable lug for 110 V charger			2	2	2410.0389



### Spare Parts VACUUM-HANDY VH-1/25 and VH-2/50

Item	Description	Order-Number
Replacement seal	Replacement seal for VACUUM-HANDY	4273.0008
Sealing strip	Sealing strip for VACUUM-HANDY in Vulkolan	3660.0019
Handle	PVC-handle 3/4"	2160.0016



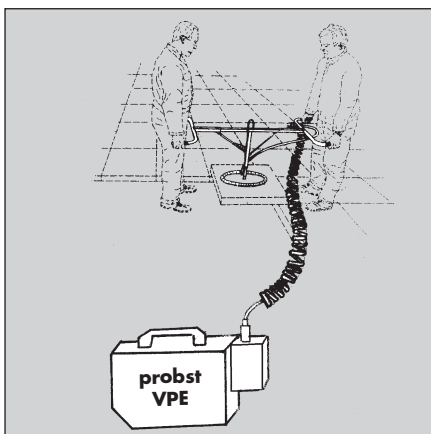
### Spare Parts for VACUUM-POWER-HANDY VPH

Item	Description	Order-Number
VPH battery	GIV block battery, 6.5 Ah, 12 V, 151 x 65 x 99 mm, for VPH	2420.0007
VPH filter	Suction filter for VPH/SM-2, Dm 42 mm	4271.0004
VPH charger	220 V/12 V/6 V/600 mA plug-in charger for VPH vacuum power handy	2420.0004
Vacuum manometer	Vacuum manometer	2213.0025
Rocker switch	1-part with sprayed protective cap	2412.0018
Protective cap	for rocker switch VPH/SM	2410.0162
VPH sealing ring	VPH-ED-SPS-100	4273.0004
Sealing ring	ED-SPS-HP-150	4273.0012
Sealing ring	Sealing ring with sponge 15 x 10 no. 1375	4271.0041
Vacuum pump	Vacuum pump 12 V	2530.0030



### Spare Parts for MICROJUMBO MJ-I-75 and MJ-II-150 Vacuum Slab Layer

Item	Description	Order-Number
MJ-HTG-I	HTG-I - carry handle for MJ-I	4270.0001
MJ-HTG-II	HTG-II - carry handle for MJ-II	4270.0002
MJ feed hose	Feed hose for MJ	4270.0003
MJ-SPS	MJ-ED-SPS-75	4270.0008
MJ-SPS	MJ-ED-SPS-150	4270.0009



### Spare Parts for Vacuum Pump Unit VPE

Item	Description	Order-Number
Repair set	Piston seal and cylinder bush	4240.0029
Air filter complete with casing	3/4" for JUMBO SH and VPE incl. polyester Filter cartridge C 75 Poly	4250.0121
Air filter	Air filter insert	4250.0120



## Spare Parts for SPEEDY VS Vacuum Hand Laying Device

Item	Description	Order-Number
<b>Speedy Bowden cable</b>	Bowden cable complete for SPEEDY VS	<b>2100.0157</b>
<b>Rocker switch</b>	Rocker switch 1-piece	<b>2412.0018</b>
<b>Condenser</b>	Condenser for Speedy	<b>4271.0062</b>
<b>Vacuum manometer</b>	Vacuum manometer	<b>2213.0016</b>
<b>Ventilation flap</b>	Ventilation flap, with reinforcement	<b>4271.0147</b>
<b>Velcro fastener</b>	for EP-UNI / SPEEDY	<b>2106.0014</b>
<b>Actuating lever</b>	Actuating lever as ventilation for SPEEDY VS	<b>4271.0036</b>
<b>Spring plug bolt</b>	1/2" for SPEEDY VS, handle adjustment Sword pin	<b>4271.0052</b>
<b>Mains cable</b>	with plug for SPEEDY VS	<b>2410.0369</b>
<b>Compression spring 1.50</b>	for SPEEDY VS	<b>4271.0058</b>
<b>VS-sealing ring</b>	VS-ED-SPS-50	<b>4271.0032</b>
<b>VS-sealing ring</b>	VS-ED-SPS-80	<b>4271.0029</b>
<b>VS-sealing ring</b>	VS-ED-SPS-100	<b>4271.0031</b>
<b>VS-sealing ring</b>	VS-ED-SPS-140	<b>4271.0030</b>
<b>VS-sealing ring</b>	VS-ED-SPS-200	<b>4271.0140</b>
<b>Cover cap</b>	Cover cap round for hose connection	<b>2107.0118</b>
<b>Fan fixing set fan</b>	Fixing set comprising: 4 screws / 4 plastic covers	<b>4271.0115</b>
<b>SPEEDY fan</b>	Fan/motor with housing incl. fixing set	<b>4271.0144</b>
<b>SPEEDY fan</b>	Fan/motor with no housing incl. fixing set	<b>4271.0145</b>
<b>Fixing set suction plate</b>	Fixing set comprising: 4 screws / 4 plastic covers / 4 washers	<b>4271.0112</b>
<b>SPEEDY conversion set suction plate</b>	Retrofit kit comprising: counter-holder, screws, nuts and template for quick change device	<b>4271.0127</b>
<b>Cover stoppers suction plate</b>	Lamellar stoppers for suction plate	<b>2107.0141</b>
<b>Sponge rubber Quick change device</b>	Sponge rubber red, 30/25 goods by the metre (adhesive required)	<b>4210.0024</b>
<b>Adhesive for Sponge rubber</b>	Double-sided adhesive tape, 50 m roll	<b>2905.0103</b>
<b>Chain</b>	Chain for Kettensicherung	<b>2100.0261</b>

**SPARE PARTS**



SM-400



SM-600



SM-600-POWER

## Spare Parts for STONEMAGNET SM-400 / SM-600 / SM-600-POWER Vacuum Lifting Device

Item	Description	Order-Number
<b>Battery</b>	Replacement battery 12 V / 26 Ah	<b>2420.0008</b>
<b>Flashing light</b>	Warning light 12 V	<b>2418.0009</b>
<b>Pressure switch</b>	Pressure switch black for pump control	<b>2290.0003</b>
<b>Pressure switch</b>	Pressure switch red for warning device	<b>2290.0004</b>
<b>Vacuum pump</b>	Pump complete with installation set for SM-400 / SM-600	<b>2530.0054</b>
<b>Vacuum pump</b>	Pump for SM-600-POWER FFS / SM-600-POWER	<b>2530.0061</b>
<b>Suction filter</b>	Suction filter	<b>4271.0004</b>
<b>Silicone hose</b>	Silicone hose goods by the metre 6 x 3	<b>4272.0027</b>
<b>Switch</b>	On/off switch, 2-stage	<b>2411.0032</b>
<b>Button</b>	Push button white for suction SM-600-POWER FFS / SM-600-POWER	<b>2411.0054</b>
<b>Button</b>	Push button red for release SM-600-POWER / SM-600-POWER FFS	<b>2411.0181</b>
<b>LED charging voltage display</b>	Charging voltage display for SM-400 until 04/2010 (round LEDs)	<b>2436.0007</b>
<b>LED charging voltage display</b>	Charging voltage display for SM-400 from 04/2010 + all SM-600 variants	<b>2436.0013</b>
<b>Chain</b>	Chain for all SM-600 variants	<b>2100.0009</b>
<b>Battery lead</b>	Battery lead red 15 cm complete for SM-400	<b>4272.0333</b>
<b>Battery lead</b>	Battery lead black 15 cm complete for SM-400	<b>4272.0334</b>
<b>Battery lead</b>	Battery lead with plug for all SM-600 variants	<b>4272.0355</b>
<b>Sealing ring</b>	Replacement sealing ring SPS-90 (1375)	<b>4250.0023</b>
<b>Sealing ring</b>	Replacement sealing ring SPS-200 (1376)	<b>4272.0004</b>
<b>Sealing ring</b>	Replacement sealing ring SPS-400 (1381)	<b>4272.0005</b>
<b>Sealing ring</b>	Replacement sealing ring SPS-600 (1072)	<b>4250.0027</b>
<b>Rubber band</b>	Rubber band battery fixing for SM-400	<b>4272.0251</b>
<b>Sight glass</b>	Sight glass for vacuum tank	<b>4272.0195</b>
<b>Exhaust filter</b>	Exhaust silencer for SM-400	<b>2308.0002</b>
<b>Manual slide valve</b>	Manual slide valve for SM-600	<b>2307.1001</b>
<b>Manual slide valve</b>	Manual slide valve for SM-400	<b>2307.0007</b>



## Spare Parts for QUICKJET QJ-600-E Vacuum Lifting Device

Item	Description	Order-Number
<b>Cover cap</b>	Cover cap round for hose connection	<b>2107.0109</b>
<b>Fan fixing set</b>	Fixing set comprising: 4 screws / 4 plastic covers	<b>4271.0115</b>
<b>Suction strainer</b>	Wire netting 120 x 120	<b>3308.0100</b>
<b>QJ fan</b>	Fan/motor with housing incl. fixing set	<b>4271.0144</b>
<b>QJ fan</b>	Fan/motor with no housing incl. fixing set	<b>4271.0145</b>
<b>Vacuum manometer</b>	Vacuum manometer	<b>2213.0016</b>
<b>Cable</b>	Cable extension with on/off switch	<b>4242.0015</b>
<b>Mounting hook</b>	Mounting hook for closing tensioner	<b>2106.0008</b>
<b>Mounting hook</b>	Mounting hook incl. closing tensioner	<b>2106.0023</b>
<b>Chain</b>	Safety chain 3.8 m	<b>2100.0285</b>



## Spare Parts for Vacuum Lifting Device SH-1000-MINI

Item	Description	Order-Number
<b>Alarm</b>	Alarm 12 x 8 x 7	<b>4250.0190</b>
<b>Alarm</b>	Alarm 24 x 12 x 11	<b>4250.0056</b>
<b>Spring lock</b>	Spring lock with nut M 18 for all SH-1000-Mini versions	<b>2054.0024</b>
<b>Vacuum feed hose</b>	Vacuum feed hose DN 13, goods by the metre for all SH-1000-Mini versions	<b>2521.0008</b>
<b>Air filter vacuum</b>	Filter cartridge C75 for air filter for all SH-1000-Mini versions	<b>4250.0120</b>
<b>Manometer</b>	Vacuum Manometer for all SH-1000-Mini versions	<b>2213.0018</b>
<b>Protection switch for E-versions</b>	Motor protection switch incl. master switch and housing	<b>4240.0001</b>
<b>Connection coupling</b>	Geka connection coupling for suction plate for all SH-1000-Mini versions	<b>2322.0008</b>
<b>Spark plug for B-Version</b>	Spark plug for SH-1000-MINI-B	<b>2691.0001</b>
<b>Airfilter for B-Version</b>	Airfilter for SH-1000-MINI-B	<b>2500.0044</b>



### Spare Parts for POWERJET PJ-1650-B Vacuum Lifting Device

Item	Description	Order-Number
<b>Manometer</b>	Vacuum manometer	<b>2213.0007</b>
<b>Filter</b>	Vacuum filter insert replacement filter element	<b>2690.0020</b>
<b>V-belt</b>	10 x 1060 narrow V-belt	<b>2110.0068</b>
<b>Feed hose</b>	Feed hose by the metre	<b>2520.0014</b>



### Spare Parts for POWERJET PJ-1650-H Vacuum Lifting Device

Item	Description	Order-Number
<b>Manometer</b>	Vacuum manometer	<b>2213.0007</b>
<b>Filter</b>	Vacuum filter insert replacement filter element	<b>2690.0020</b>



### Spare Parts for Vacuum Lifting Device SH-2500-UNI-B

Item	Description	Order-Number
<b>Filter</b>	Air filter C 75 filter cartridge	<b>4250.0120</b>
<b>Battery</b>	6V dry battery	<b>2420.0010</b>
<b>V-belt</b>	V-belt	<b>2110.0002</b>
<b>Feed hose</b>	Vacuum feed hose (by the metre)	<b>2521.0008</b>
<b>Spark plug</b>	Spark plug	<b>2691.0001</b>
<b>Air filter</b>	Air filter insert for GX120	<b>2500.0029</b>
<b>Air filter</b>	Air filter insert (oval) for GX120	<b>2690.0039</b>
<b>Manometer</b>	Vacuum Manometer	<b>2213.0008</b>
<b>Alarm</b>	for SH acoustic-electronic 8 x 12 x 7	<b>4250.0190</b>
<b>Alarm</b>	Alarm 12 x 24 x 11	<b>4250.0056</b>
<b>Pump</b>	Vacuum pump TFK12	<b>2530.0021</b>
<b>Carbon gate valve</b>	Carbon gate valve set, 6 units, 70 mm long	<b>2535.0006</b>

Replacement seals for suction plates SH/PJ on page 16.29





### Spare Parts for Vacuum Lifting Device SH-2500-UNI-E

Item	Description	Order-Number
<b>Filter</b>	Filter for pump	<b>2500.0010</b>
<b>Filter</b>	Air filter C 75 filter cartridge	<b>4250.0120</b>
<b>Manometer</b>	Vacuum manometer	<b>2213.0008</b>
<b>Feed hose</b>	Vacuum feed hose (by the metre)	<b>2521.0008</b>
<b>SH-UNI-motor switch</b>	CGFM2TB S-no. 21.01.02.00034 motor circuit breaker	<b>4240.0001</b>
<b>Alarm</b>	Alarm 8 x 8 x 8,5	<b>4250.0086</b>



### Spare Parts for Vacuum Lifting Device SH-2500-UNI-B-TURBO

Item	Description	Order-Number
<b>Manometer</b>	Vacuum manometer	<b>2213.0005</b>
<b>Feed hose</b>	Vacuum feed hose (by the metre)	<b>2520.0011</b>
<b>Filter</b>	Filter insert for Micro Top E vacuum filter	<b>2500.0048</b>
<b>Filter</b>	Air filter insert for Honda engine	<b>2611.0034</b>
<b>Alarm</b>	Alarm 12 x 24 x 11	<b>4250.0056</b>
<b>Alarm</b>	Alarm 8 x 12 x 7	<b>4250.0190</b>



### Spare Parts for VAKUUM-POWER-MAX VPM-2500 Vacuum Lifting Device

Item	Description	Order-Number
<b>Automatic changer</b>	Insert for automatic changer compl.	<b>4011.0183</b>
<b>Filter</b>	Oil filter cartridge	<b>2500.0016</b>
<b>Filter</b>	Vacuum filter insert	<b>2500.0048</b>
<b>Feed hose</b>	Vacuum feed hose (by the metre)	<b>2520.0011</b>
<b>Alarm</b>	for SH acoustic-electronic	<b>4250.0190</b>

Replacement seals for suction plates SH/VPM on page 16.29



## Spare Parts for JUMBO-BV-VARIO Vacuum Kerb Stone Installation Machine

Item	Description	Order-Number
<b>Support leg protection</b>	Support leg protection bolt DM 30mm	<b>2035.0001</b>
<b>V-belt</b>	V-belt GXV 340	<b>2110.0008</b>
<b>V-belt</b>	V-belt GXV 270	<b>2110.0002</b>
<b>Filter</b>	Air filter cartridge GXV 340	<b>4210.0085</b>
<b>Filter</b>	Fuel filter GXV 340	<b>2690.0001</b>
<b>Filter</b>	Air filter for GXV 270	<b>2500.0020</b>
<b>BV air filter</b>	Euro-Piclou air filter for JUMBO-BV, incl. filter cartridge front for HE	<b>2500.0008</b>
<b>Spark plug</b>	Spark plug for GXV 270/340	<b>2691.0001</b>
<b>Battery</b>	12 V Battery	<b>2420.0008</b>
<b>BV feed hose Folding boom</b>	Vacuum feed hose in polyurethane, 60 mm, 2.0 m	<b>4220.0017</b>
<b>BV feed hose Folding boom</b>	Vacuum feed hose in polyurethane, 60 mm, 1.5 m, middle hose	<b>4220.0019</b>
<b>BV feed hose Folding boom/vario</b>	Vacuum feed hose in polyurethane, 60 mm, 2.35 m	<b>4220.0101</b>
<b>BV carriage</b>	Carriage compl. for HE lift unit	<b>4220.0042</b>
<b>BV-Vario</b>	feed hose 1.00 m	<b>4220.0034</b>
<b>Bush</b>	Taper lock bush	<b>2141.0002</b>
<b>Spring</b>	Feather key	<b>2175.0002</b>
<b>Wire clip</b>	for hose	<b>2105.0017</b>



## Spare Parts for UNIPOSE UP-1204/UNIPOSE UP-604 Vacuum Kerb Stone Laying Loader

Item	Description	Order-Number
<b>Filter</b>	Engine oil filter insert	<b>2611.0094</b>
<b>Filter</b>	Fuel filter insert	<b>2690.0032</b>
<b>Filter</b>	Air filter insert small (3202750), only UP-1204	<b>2500.0064</b>
<b>Filter</b>	Air filter insert	<b>2500.0050</b>
<b>Filter</b>	Combi filter element	<b>2500.0051</b>
<b>Filter</b>	Replacement filter element	<b>2500.0036</b>
<b>Filter</b>	Vent filter, only UP-1204	<b>2690.0044</b>
<b>Filter</b>	Fuel filter insert, only UP-604	<b>2690.0033</b>
<b>Filter</b>	Hydraulic oil suction filter, 1¼", only UP-604	<b>2690.0041</b>
<b>Filter</b>	Hydraulic oil suction filter, 1", only UP-604	<b>2690.0040</b>
<b>Filter</b>	Vent filter, only UP-604	<b>2690.0045</b>

SPARE PARTS

16



## Spare Parts for TRANSMOBIL TM-150-B-XL Installation Carrier

Item	Description	Order-Number
Spark plugs	Spark plugs	2691.0009
Air filter	Air filter for Honda GX390	2500.0060
Filter	Hydraulic oil filter	2611.0102
O-Ring	O-Ring for hydraulic oil filter housing	2155.0114
Filter	Vacuum air filter	4210.0085
V-belt	V-belt	2110.0001

## Spare Parts for TRANSMOBIL TM-150-D-XL and TM-150-D-A-XL Installation Carrier

Item	Description	Order-Number
Air filter	Air filter insert for Hatz	2500.0061
Filter	Hydraulic oil filter	2611.0102
Filter	Engine oil filter	2611.0101
Seal	Valve cover seal	2159.0064
Filter	Fuel filter	2690.0022
O-ring	O-ring for dipstick	2155.0111
O-ring	O-ring for oil filter	2155.0109
O-ring	O-ring for hydraulic oil filter housing	2155.0114
Filter	Vacuum air filter	4210.0085
V-belt	V-belt	2110.0001
TM feed hose	Vacuum feed hose in polyurethane, 60 mm, 2.35 m	4220.0101
TM feed hose	Vacuum feed hose in polyurethane, 60 mm, 2.0 m	4220.0017
TM carriage	Carriage compl. for HE lift unit	4220.0042

## Spare Parts for TRANSMOBIL TM-150-WD-A-SILENT-XL Installation Carrier

Item	Description	Order-Number
Filter	Hydraulic oil filter	2611.0102
Filter	Engine oil filter	2690.0019
Filter	Fuel filter	2690.0006
O-ring	O-ring for hydraulic oil filter housing	2155.0114
Filter	Vacuum air filter	4210.0085
V-belt	V-belt	2110.0001

HE-35 –  
HE-250



## Vacuum Hose Lifter Components

### Spare Parts for Lifting Hose Unit HE-35

Item	Description	Order-Number
Replacement lift hose	for HE-35 2.5 m long, $\varnothing$ 120 mm	2527.0008
Tape corset	for HE-35 lift hose, $\varnothing$ 120 mm	2527.0016
Protective cover	for HE-35 vacuum hose	2529.0042
Sealing tape	for Lift hose	4210.0090

### Spare Parts for Lifting Hose Unit HE-50

Item	Description	Order-Number
Replacement lift hose	for HE-50 2.5 m long, $\varnothing$ 140 mm	2527.0003
Protective cover	for HE-50 vacuum hose	2529.0006
Tape corset	for HE-50 lift hose	2527.0017
Sealing tape	for Lift hose	4210.0090

### Spare Parts for Lifting Hose Unit HE-85

Item	Description	Order-Number
Replacement lift hose	for HE-85 2.5 m long, $\varnothing$ 178 mm	2527.0002
Protective cover	for HE-85 vacuum hose	2529.0004
Tape corset	for HE-85 lift hose	2527.0018
Sealing tape	for Lift hose	4210.0090

### Spare Parts for Lifting Hose Unit HE-150

Item	Description	Order-Number
Replacement lift hose	for HE-150 2.5 m long, $\varnothing$ 230 mm	2527.0010
Protective cover	for HE-150 vacuum hose	2529.0007
Tape corset	for HE-150 lift hose	2527.0005
Sealing tape	for Lift hose	4210.0090

### Spare Parts for Lifting Hose Unit HE-200

Item	Description	Order-Number
Replacement lift hose	for HE-200 2.5 m long, $\varnothing$ 250 mm	2527.0007
Protective cover	HE-200 vacuum hose	2529.0024
Tape corset	for HE-200 lift hose	2527.0009
Sealing tape	for Lift hose	4210.0090

### Spare Parts for Lifting Hose Unit HE-250

Item	Description	Order-Number
Replacement lift hose	for HE-250 2.5 m long, $\varnothing$ 300 mm	2527.0015
Protective cover	for HE-250 vacuum hose	2529.0039
Tape corset	for HE-250 lift hose	2527.0021
Sealing tape	for Lift hose	4210.0090

SPARE PARTS



## Spare Parts for Operating Valve Unit BE-Sprint-2

Item	Description	Order-Number
Filter mat	for BE	2505.0010
Valve flap	with mounting for BE	4210.0558
Tension spring	0.7 x 7.5 x 38 for BE	2171.0008
Tension spring	0.9 x 10 x 36 for BE	2171.0009
Manometer	Vacuum manometer	2213.0007
Tension hook	for tension lock on BE	2106.0011
Tension lock		2106.0004
Tension hook	reinforced	4210.0952
Slotted rubber	for valve unit	4210.0091
Friction lining	white	4210.0613
Control washer	Stainless steel	4210.0614
Cover	for valve casing	4210.0488
Knurled screw	for valve casing	2009.0038
Perforated plate casing		4210.0570

Replacement seal – example

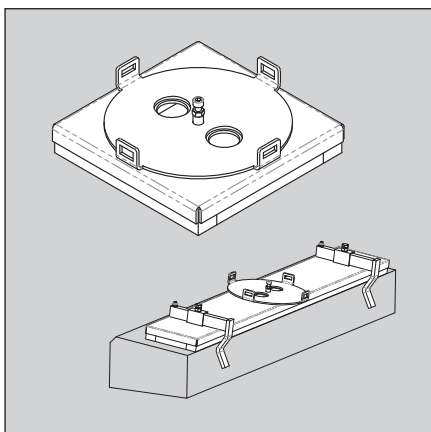


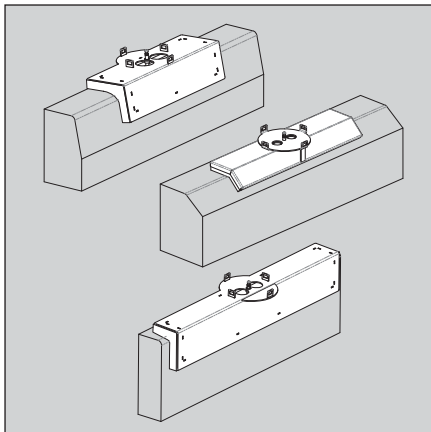
## Replacement Seals for Suction Plates SH / VPM / PJ

Item	Description	Order-Number
SH/VPM/PJ sealing ring	Replacement sealing ring for SPS-2500 (no. 1499)	4250.0111
SH/VPM/PJ sealing ring	Replacement sealing ring for SPS-1500 (no. 1090)	4250.0004
SH/VPM/PJ sealing ring	Replacement sealing ring for SPS-1200 (no. 1070)	4250.0005
SH/VPM/PJ sealing ring	Replacement sealing ring for SPS-1010 (no. 1072)	4250.0006
SH/VPM/PJ sealing ring	Replacement sealing ring for SPS-500 and 400 (no. 1068)	4250.0002
SH/VPM/PJ sealing ring	Replacement sealing ring for SPS-200 (no. 1066)	4250.0003

## Spare Parts for Suction Plates ESP – all types

Item	Description	Order-Number
Sponge rubber	for ESP/WSP (by the metre)	4210.0024
Glue	For sponge rubber (requirement approx. 1 can for 2 m)	5210.0001





### Spare Parts for Angeled Suction Plates WSP

#### WSP-150-52/15-12-98°

Item	Description	Order-Number
Sponge rubber	Side section for WSP	4210.0200
Sponge rubber	for ESP/WSP (by the metre)	4210.0024
Glue	For sponge rubber (requirement approx. 1 can for 2 m)	5210.0001

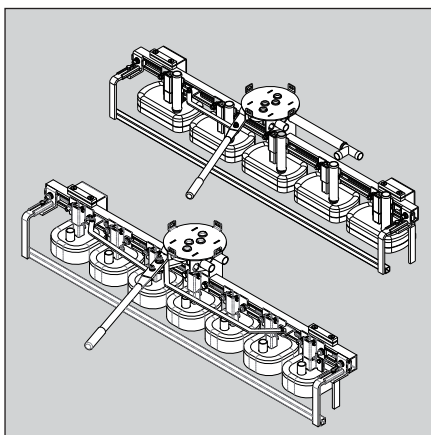
#### WSP-150-70/8-11-143° – WSP-150-70/11-17-143°

#### WSP-150-85/7-7-135° – WSP-150-70/13-10-143°

Item	Description	Order-Number
Sponge rubber	for ESP/WSP (by the metre)	4210.0024
Glue	For sponge rubber (requirement approx. 1 can for 2 m)	5210.0001

#### WSP-150-90/10-14-93°

Item	Description	Order-Number
Sponge rubber	Side section for WSP	4210.0200
Sponge rubber	for ESP/WSP (by the metre)	4210.0024
Glue	for sponge rubber (requirement approx. 1 can for 2 m)	5210.0001



### Spare Parts for Multiple Suction Plates MSP (From 2015)

#### MSP-5-V-150-5 x SPS 24/16-a-24

#### MSP-5-V-150-5 x SPS 24/16-a-25

Item	Description	Order-Number
Replacement sealing ring	Sealing ring no. 1540	4250.0066
Vacuum feed hose	By the metre	2520.0026

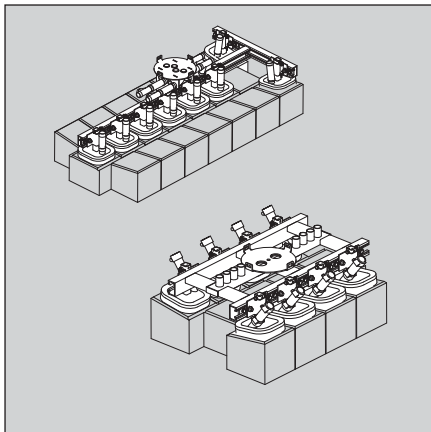
#### MSP-5-V-150-5 x SPS-22/12-a-23,5

Item	Description	Order-Number
Replacement sealing ring	Sealing ring no. 1187	4250.0152
Vacuum feed hose	By the metre	2520.0026

#### MSP-7-V-150-7 x SPS-17/16-a-16

Item	Description	Order-Number
Replacement sealing ring	Sealing ring no. 1495	4250.0109
Vacuum feed hose	By the metre	2520.0026

SPARE PARTS



**MSP-7-V-150-7 x SPS-16/14-a-16**

Item	Description	Order-Number
<b>Replacement sealing ring</b>	Sealing ring no. 1494	<b>4250.0231</b>
<b>Vacuum feed hose</b>	By the metre	<b>2520.0026</b>

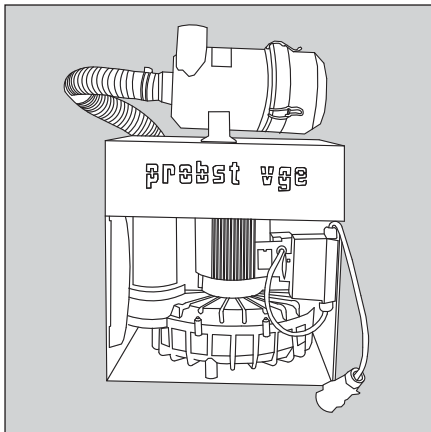
**MSP-3-S-85-3 x SPS 23/13-a 35-40**

Item	Description	Order-Number
<b>Replacement sealing ring</b>	Sealing ring no. 1187	<b>4250.0152</b>
<b>Vacuum feed hose</b>	By the metre	<b>2520.0026</b>

**MSP-8-S-150-8 x SPS 13/15-a 15**

**MSP-(2x4)-8-S-150-8 x SPS 13/15**

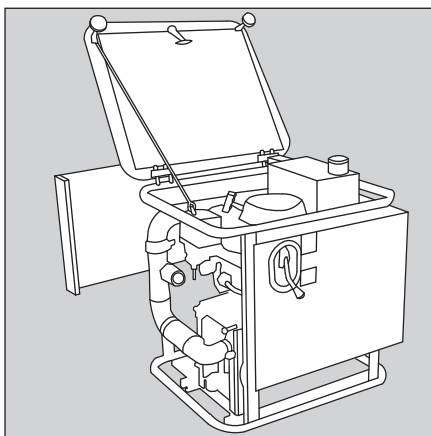
Item	Description	Order-Number
<b>Replacement sealing ring</b>	Sealing ring no. 1491	<b>4250.0047</b>
<b>Vacuum feed hose</b>	By the metre	<b>2520.0026</b>



**Spare Parts**  
**Vacuum Turbine Units for JUMBOMOBIL**

**Vacuum Fan VGE-SB-V-E / VGE-SB-L-E**

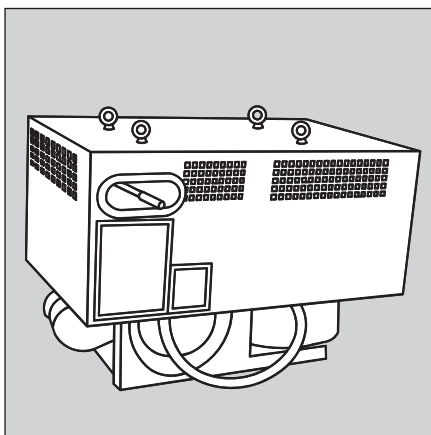
Item	Description	Order-Number
Air filter cartridge	MicroTop Mann-C-15-300 air filter cartridge	4210.0085
Air filter	Euro-Piclon	2500.0008
Vacuum feed hose	By the metre	2520.0008



**Spare Parts**  
**Driven by petrol engine for JUMBOMOBIL / JUMBO-BV-VARIO**

**Vacuum Fan VGE-3-RG-B-E**

Item	Description	Order-Number
V-belt	AVX 10 x 865 V-belt	2110.0008
Air filter cartridge	MicroTop Mann-C-15-300 air filter cartridge	4210.0085
Air filter	Euro-Piclon	2500.0008
Vacuum feed hose	Vacuum feed hose in PUR-H for BV 475 mm long with 2 x 90 degree curve	4220.0277
Vacuum feed hose	Vacuum feed hose in PUR-H for BV 260 mm long with 1 x 90 degree curve	4220.0055
Fuel filter	M&H fuel filter	2690.0001
Bowden cable	Bowden cable with regulating lever	2100.0199
Battery	12V/26Ah battery	2420.0008



**Spare Parts – Driven by hydraulic energy from Loader/Forklift for JUMBO-BV-VARIO**

**Vacuum Fan VGE-3-RG-H**

Item	Description	Order-Number
Manometer	0-60 bar manometer	2213.0023
Manometer	0-250 bar manometer	2213.0001
V-belt	AVX 10 x 865 V-belt	2110.0008
Euro Piclon housing	Euro-Piclon housing bottom section	2505.0013
Air filter cartridge	MicroTop Mann-C-15-300 air filter cartridge	4210.0085
Air filter	Euro-Piclon	2500.0008
Vacuum feed hose	By the metre	2520.0008
Fuel filter	M&H fuel filter	2690.0001

SPARE PARTS





### Spare Parts for Kerb Stone Clamp VZ-M-UNI

Item	Description	Order-Number
<b>Automatic changer</b>	Insert for automatic changer	<b>4011.0040</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 8 x 30	<b>2053.0019</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 16 x 30	<b>2053.0035</b>
<b>Handle</b>	Handle galvanised	<b>4310.0016</b>
<b>Tension spring</b>	1.25 x 10 x 170 tension spring	<b>2171.0003</b>
<b>GMT rubber track, black</b>	GMT rubber for 60 x 15 x 150mm VZ-M-UNI	<b>3633.0057</b>



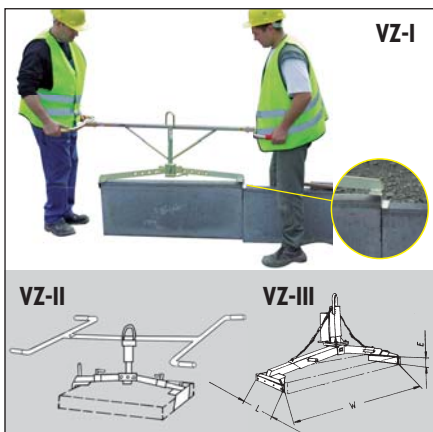
### Spare Parts for Kerb Stone Handles BZ

Item	Description	Order-Number
<b>BZ rubber, grey</b>	Rubber for BZ	<b>4320.0006</b>
<b>Handle</b>	Plastic handle red	<b>2160.0016</b>



### Spare Parts for Universal Handle BVZ

Item	Description	Order-Number
<b>BVZ rubber, black</b>	50 x 35 x 200 mm BVZ rubber	<b>3671.0200</b>
<b>BVZ rubber, grey</b>	50 x 35 x 200 mm BVZ rubber	<b>3676.0200</b>
<b>Bolt</b>	Bolt with half ring	<b>3032.0001</b>
<b>Handle</b>	Handle galvanised	<b>4310.0016</b>
<b>Handle</b>	Plastic handle red	<b>2160.0016</b>



### Spare Parts for Laying Clamp VZ

Item	Description	Order-Number
<b>Handle</b>	Handle galvanised	<b>4310.0016</b>
<b>Handle</b>	Plastic handle red	<b>2160.0016</b>
<b>Bolt</b>	Bolt with half ring	<b>3032.0001</b>
<b>Rubber track, black</b>	GMT (VZ-I) 60 x 15 x 100 mm	<b>3633.0160</b>
<b>Rubber track, black</b>	GMT (VZ-II) 60 x 15 x 200 mm	<b>3633.0040</b>
<b>Rubber track, black</b>	GMT (VZ-III) 40 x 35 x 1000 mm	<b>3630.0050</b>
<b>Handle</b>	Screw for handle	<b>2000.0013</b>
<b>Handle</b>	Nut for screw	<b>2000.0015</b>



### Spare Parts for EASYGRIP EXG / EXG-MAXI Border Stone Handle

Item	Description	Order-Number
<b>Bolt</b>	Bolt with half ring, $\varnothing$ 20 mm, length 44 mm	<b>3032.0150</b>
<b>Bolt</b>	Bolt with half ring, $\varnothing$ 16 mm, length 126 mm	<b>3032.0152</b>
<b>Clip pin</b>	6 mm clip pin	<b>2054.0002</b>
<b>Rubber strip profile, black</b>	PGL3/R62 235 mm long	<b>3637.0048</b>
<b>Rubber strip profile, grey</b>	PGL3/ 235 mm long	<b>3637.0051</b>
<b>Handle</b>	PVC-handle red 3/4"	<b>2160.0016</b>



### Spare Parts for TWISTGRIP TG-5/12 Kerb and Strip Stone handle

Item	Description	Order-Number
<b>Rubber track grey</b>	Rubber track grey, 60 x 15 x 90	<b>3633.0309</b>
<b>Rubber rail fixing</b>	Countersunk screw M 6 x 12	<b>2004.0043</b>
<b>Gripper fixing</b>	Wing screw M 8 x 110	<b>4320.0106</b>
<b>Gripper fixing</b>	Wing nut	<b>2016.0003</b>
<b>Handle</b>	Wooden handle	<b>2160.0051</b>
<b>Handle fixing</b>	Hex screw M 8 x 150	<b>2000.0360</b>
<b>Handle fixing</b>	Hex nut M 8	<b>2010.0015</b>



## Spare Parts for Concrete Step Handles TSZ-UNI / TSZ-MAXI

Item	Description	Order-Number
<b>Automatic changer</b>	Insert for automatic changer	<b>4011.0040</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 8 x 30	<b>2053.0019</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 16 x 30	<b>2053.0038</b>
<b>Spring lock</b>	SG 15/14 spring lock	<b>2054.0033</b>
<b>Rubber strip profile, black</b>	PGL 350 mm long, for TSZ-UNI and -MAXI	<b>3637.0019</b>
<b>Rubber strip profile, grey</b>	Art.-Nr. 5310.0338 and 5310.0364	<b>3637.0030</b>
<b>GMT Rubber track, black</b>	50 x 35 x 350, with 4 M 8 thread for old TSZ design item no. 5310.0224	<b>3632.0015</b>
<b>GMT Rubber track, black</b>	50 x 350 x 350, with C-Profil,	<b>3671.0350</b>
<b>GMT Rubber track, grey</b>	for old TSZ design item no. 5310.0251	<b>3676.0350</b>
<b>Handle</b>	Handle red	<b>2160.0002</b>



## Spare Parts for Concrete Step Handles TSV

Item	Description	Order-Number
<b>Bolt</b>	Bolt with half ring	<b>3032.0060</b>
<b>Spacer bush</b>	20 x 4 x 9 spacer bush	<b>3310.0001</b>
<b>Wing screw</b>	GT wing screw	<b>2006.0005</b>
<b>Wing nut</b>	GT wing nut	<b>2016.0005</b>
<b>Clip pin</b>	4.5 mm clip pin	<b>2054.0001</b>
<b>Rubber track, black</b>	GMT 60 x 15 x 200 mm	<b>3633.0040</b>
<b>Rubber track, grey</b>	GMT 60 x 15 x 200 mm	<b>3633.0110</b>



FTZ-UNI-15

## Spare Parts for Grab for Prefabricated Concrete Products FTZ

### FTZ-I

Item	Description	Order-Number
Rubber track, black	GMT 60 x 35 x 420 mm	3673.0420
Spring lock	S22 spring lock	2054.0022
Chain lock	Chain lock with split pin fastening	2100.0226
Roller chain	Simple roller chain	2100.0152
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Handle	Handle red	2160.0002

### FTZ-BB

Item	Description	Order-Number
Spring lock	S22 spring lock	2054.0022
Chain lock	Chain lock with split pin fastening	2100.0226
Roller chain	Simple roller chain	2100.0265
Rubber track, black	GMT 60 x 35 x 420 mm	3673.0420
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Handle	Handle red	2160.0002



FTZ-GBA

### FTZ-GBA

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Roller chain	Simple roller chain	2100.0134
Chain lock	Chain lock with split pin fastening	2100.0226
Rubber strip profile, black	PGL2/R62 1200 mm long	3637.0018
Handle	Handle red	2160.0002
Chain	Chain top	2100.0244

### FTZ-UNI-15

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Spring lock	S22 spring lock	2054.0022
Roller chain	Simple roller chain	2100.0166
Chain lock	Chain lock with split pin fastening	2100.0226
Rubber strip profile, black	PGL 420 mm long	3637.0001
Rubber strip profile, grey	PGL 420 mm long	3637.0007
Handle	Handle red	2160.0002



FTZ-MAXI-25

## FTZ-UNI-25 / FTZ-MAXI-25

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Roller chain FTZ-UNI-25	Simple roller chain	2100.0166
Roller chain FTZ-MAXI-25	Simple roller chain	2100.0205
Chain lock	Chain lock with split pin fastening	2100.0226
Bolt	Bolt with half ring	3032.0129
Clip pin	6 mm clip pin	2054.0002
Rubber strip profile, black	PGL 420 mm long	3637.0001
Rubber strip profile, grey	PGL 420 mm long	3637.0007
Handle	Handle red	2160.0002



FTZ-UNI-50

## FTZ-UNI-50

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0042
Bolt	Bolt with half ring	3032.0087
Roller chain	Simple roller chain	2100.0225
Clip pin	Clip pin galvanised	2054.0013
Rubber strip profile, black	PGL2/R62 720 mm long	3637.0038
Handle	Handle red	2160.0016

## FTZ-MAXI-40

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0042
Bolt	Bolt with half ring	3032.0087
Roller chain	Simple roller chain	2100.0134
Chain lock	Chain lock with split pin fastening	2100.0226
Clip pin	Clip pin galvanised	2054.0013
Rubber strip profile, black	PGL 720 mm long	3637.0004
Rubber strip profile, grey	PGL 720 mm long	3637.0014
Handle	Handle red	2160.0016

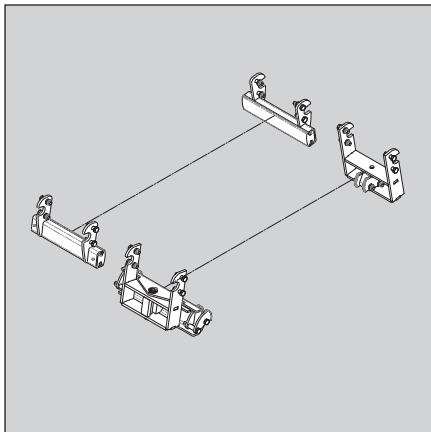
## Spare Parts for Grab for Prefabricated Concrete Products FTZ-MULTI



FTZ-MULTI-15

## FTZ-MULTI-15 (Basic unit without grippers)

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Spring lock	S22 spring lock	2054.0022
Roller chain	Simple roller chain	2100.0205
Chain lock	Chain lock with split pin fastening	2100.0226
Handle	Handle red	2160.0002



## Grippers for FTZ-MULTI-15

### FTZ-MULTI-15-WB-G-42

Item	Description	Order-Number
Rubber strip profile, black	PGL2/R62 420 mm long	3637.0031

### FTZ-MULTI-15-WB-G-120

Item	Description	Order-Number
Rubber strip profile, black	PGL2/R62 1200 mm long	3637.0018

### FTZ-MULTI-15-WB-SQ

Item	Description	Order-Number
Gear segment	Gear segment for claw 3	3350.0683
Claw	Preassembled	4400.0039



## Spare Parts for Grab for Angular Concrete Products WEZ-2

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0040
Spring pin	for automatic changer, DIN 1481, Dm 8 x 30	2053.0019
Spring pin	for automatic changer, DIN 1481, Dm 16 x 30	2053.0038
Clip pin	4.5 mm clip pin	2054.0036
Bolt	Bolt with half ring	3032.0050
Rubber track, white	GMT white 110 x 31 x 220 mm	3635.0002
Handle	Handle red	2160.0002
PE layer	Light	3641.0154

## Spare Parts for Grab for Angular Concrete Products WEZ-3

Item	Description	Order-Number
Automatic changer	Insert for automatic changer	4011.0042
Rubber track, white	GMT white 110 x 31 x 220 mm	3635.0002



## Spare Parts for Mechanical Boulder Grab FVZ-UNI

Item	Description	Order-Number
Sliding guide	Sliding guide 90 x 200	3640.0204
Sleeve	Sleeve from pivot 30 x 5 x 128	3350.7490
Chain	Chain strand with hook	4310.0432
Suspension link	Suspension link form A	2101.0018
Handle	Handle red 1/2"	2160.0005
Handle	Handle red 3/4"	2160.0016



## Spare Parts for Stone Pillar Grab SLS-8/20-G (-VA)

Item	Description	Order-Number
Rubber jaw	GB-SLS light	3633.0254
Rubber track	GMT 60 x 15 x 100 mm	3633.0215
Handle	Handle red	2160.0005
GB-SLS	Rubber grippers to retrofit stone pillar grab SLS-10/20 (Order-Nr. 5310.0321) equipped as standard with steel pads. Rubber grippers will not cause damages to the stone elements – gripping range is then reduced from 80 to 180 mm.	4310.0997
Gear segment	Gear segment from SLS-10/20	3350.2453



## Spare Parts for Mechanischer Scherengreifer SG-80

Item	Description	Order-Number
Rubber track	Rubber track C-Profile Gripping jaw 1,200 mm long	3675.1200
Handle	Handle 3/4"	2160.0016
Rubber track	Rubber track 80 mm long	3675.0080
Rubber track	Rubber track 200 mm long	3671.0200
Automatic changer	Automatic changer insert	4011.0042
Polyamide wheel	Polyamide wheel, 45 mm hub width	2180.0001
Chain	Chain for suspension, 31 links	2100.0245
Screw	Hex screw M 8 x 16 for C profile	2000.0008
Threaded plate	Threaded plate 30 x 24 x 6	2019.0018



## Spare Parts for Hydraulic Laying Clamp VZ-H-UNI

Item	Description	Order-Number
<b>Rubber grippers</b>	Rubber grippers 60 x 25 x 100 with screws	<b>4160.0173</b>
<b>Rib</b>	Rib with crews	<b>4160.0172</b>
<b>Roller</b>	Roller for gripper	<b>2186.0002</b>
<b>Manometer</b>	Manometer 250 bar	<b>2213.0001</b>
<b>Handle</b>	Handle red 3/4"	<b>2160.0016</b>
<b>Valve block</b>	Valve block	<b>2204.0015</b>
<b>Bolt</b>	Bolt with disc gripper fixing	<b>3030.0220</b>





## Spare Parts for Concrete Highway Divider Clamp BSZ-KH

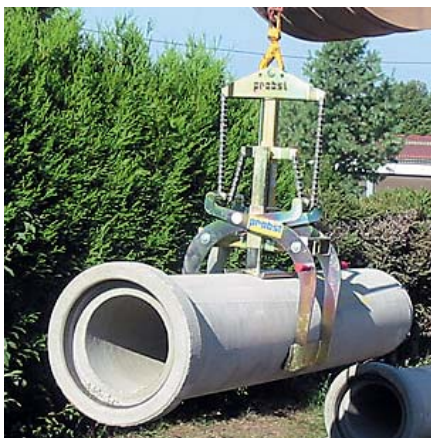
Item	Description	Order-Number
Rubber track	GMT white track 110 x 31 x 220 mm	3635.0002
Handle	Handle red	2160.0016





## Spare Parts for Round Grab RG-75/125-SAFELOCK

Item	Description	Order-Number
<b>Grippers</b>	Steelfinger gripper 60 x 60 x 15	<b>3401.0108</b>
<b>Chain</b>	High-strength round steel chain, goods by the metre	<b>2100.0110</b>
<b>Chain</b>	Connecting links for round steel chain	<b>2100.0014</b>



## Spare Parts for Round Grab RG-20/80

Item	Description	Order-Number
<b>Automatic changer</b>	Insert for automatic changer	<b>4011.0040</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 8 x 30	<b>2053.0019</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 16 x 30	<b>2053.0038</b>
<b>Spring lock</b>	S22 spring lock	<b>2054.0022</b>
<b>Chain lock</b>	Chain lock with split pin fastening	<b>2100.0226</b>
<b>Roller chain</b>	Simple roller chain	<b>2100.0134</b>
<b>Spring lock</b>	SG 15/14 spring lock	<b>2054.0033</b>
<b>Rubber track</b>	GMT 60 x 15 x 420 mm	<b>3633.0146</b>
<b>Handle</b>	Handle red	<b>2160.0016</b>



## Spare Parts for Round Grab RG-8/40

Item	Description	Order-Number
<b>Automatic changer</b>	Insert for automatic changer	<b>4011.0040</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 8 x 30	<b>2053.0019</b>
<b>Spring pin</b>	for automatic changer, DIN 1481, Dm 16 x 30	<b>2053.0038</b>
<b>Spring lock</b>	SG 15/14 spring lock	<b>2054.0033</b>
<b>Spring lock</b>	Spring lock compl. galvanised	<b>2054.0024</b>
<b>Roller chain</b>	Simple roller chain	<b>2100.0251</b>
<b>Chain lock</b>	Chain lock with split pin fastening	<b>2100.0081</b>
<b>Rubber track</b>	GMT 60 x 15 x 500 mm	<b>3633.0027</b>
<b>Handle</b>	Handle red	<b>2160.0002</b>



## Spare Parts for Manhole and Cone Installation Clamp SVZ-UNI

Item	Description	Order-Number
<b>Bolt</b>	Bolt with pin for claw 3	<b>3332.0076</b>
<b>Wiper ring</b>	50/55 wiper ring	<b>2157.0053</b>
<b>Gear segment</b>	Gear segment for claw 3	<b>3350.0683</b>
<b>Gear segment with bolt</b>	Right side	<b>4400.0100</b>
<b>Gear segment with bolt</b>	Left side	<b>4400.0101</b>
<b>Slide bearing</b>	Slide bearing middle section set	<b>4400.0056</b>



## Spare Parts for Manhole and Cone Installation Clamp SVZ-UNI-VARIO

Item	Description	Order-Number
<b>Claw</b>	Steelfinger gripper pre-installed bottom	<b>4400.0039</b>
<b>Claw</b>	Steelfinger gripper pre-installed top incl. counterweight	<b>4400.0038</b>
<b>Pin bolts</b>	Pin bolts with grip for claws	<b>4400.0052</b>
<b>Slide bearing set</b>	Slide bearing set in middle section	<b>4400.0056</b>
<b>Automatic changer</b>	Insert for Automatic changer	<b>4011.0042</b>
<b>Pin bolts</b>	Pin bolts for slides	<b>4400.0169</b>
<b>Sliding guide</b>	PE-Sliding guide slides	<b>3640.0387</b>

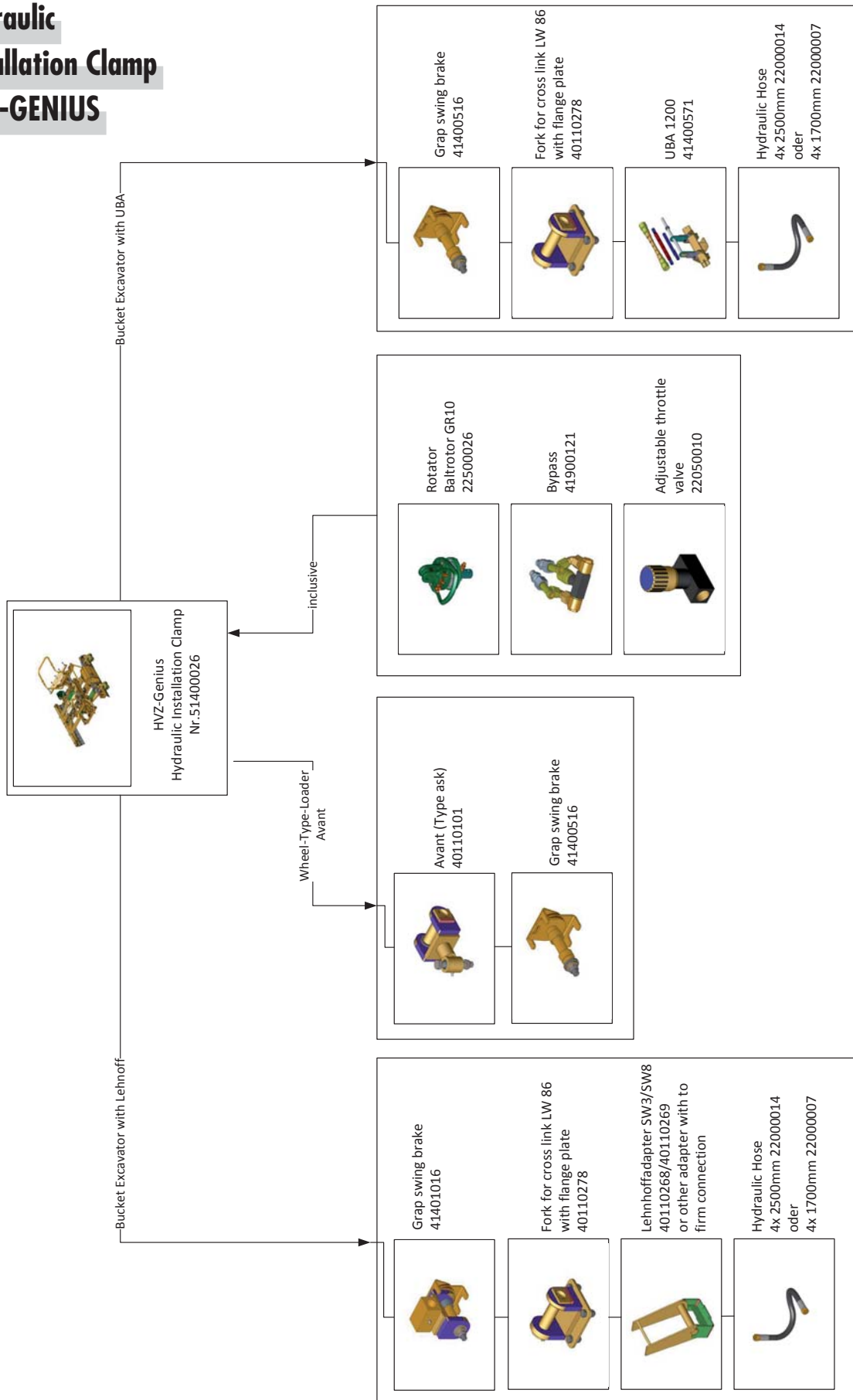


## Spare Parts for Limestone Clamp KSZ-300-UNI

Item	Description	Order-Number
<b>Handle</b>	Small, ribbed	<b>2160.0005</b>
<b>Handle</b>	Medium, ribbed	<b>2160.0016</b>
<b>Handle</b>	Large, smooth	<b>2160.0002</b>
<b>GMT Rubber</b>	Grey, 50 x 45 x 1000, old design	<b>3632.0032</b>
<b>Hex head screw</b>	For GMT rubbers	<b>2000.0008</b>
<b>Protective netting</b>	for KSZ-300-UNI	<b>4520.0010</b>
<b>Fixing</b>	To new protective netting	<b>4510.0044</b>
<b>Fixing</b>	To protective netting with old design	<b>4510.0007</b>
<b>Rubber strip profile</b>	1000 mm long, grey	<b>3637.0010</b>



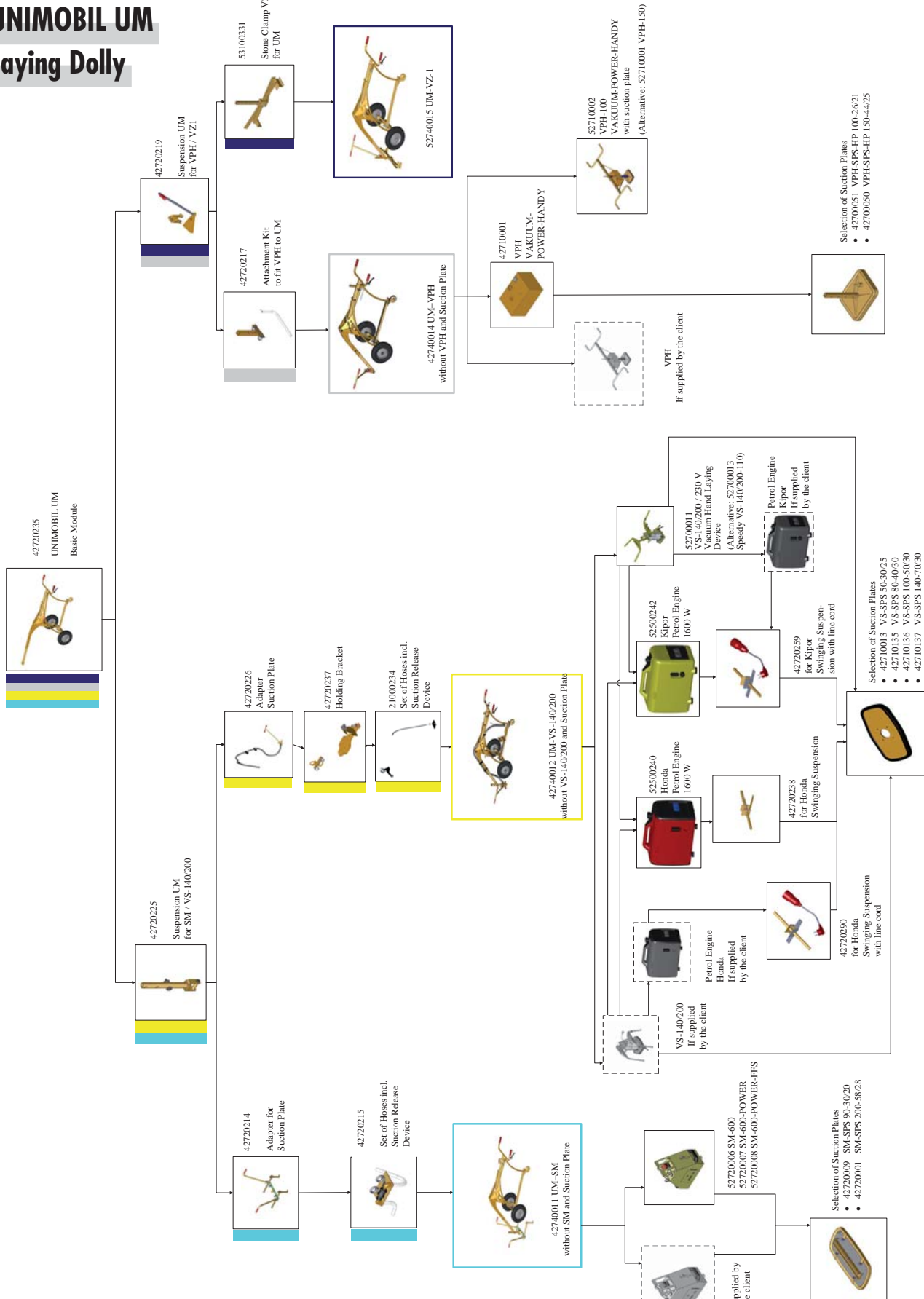
# Hydraulic Installation Clamp HVZ-GENIUS



PRODUCT CONFIGURATOR

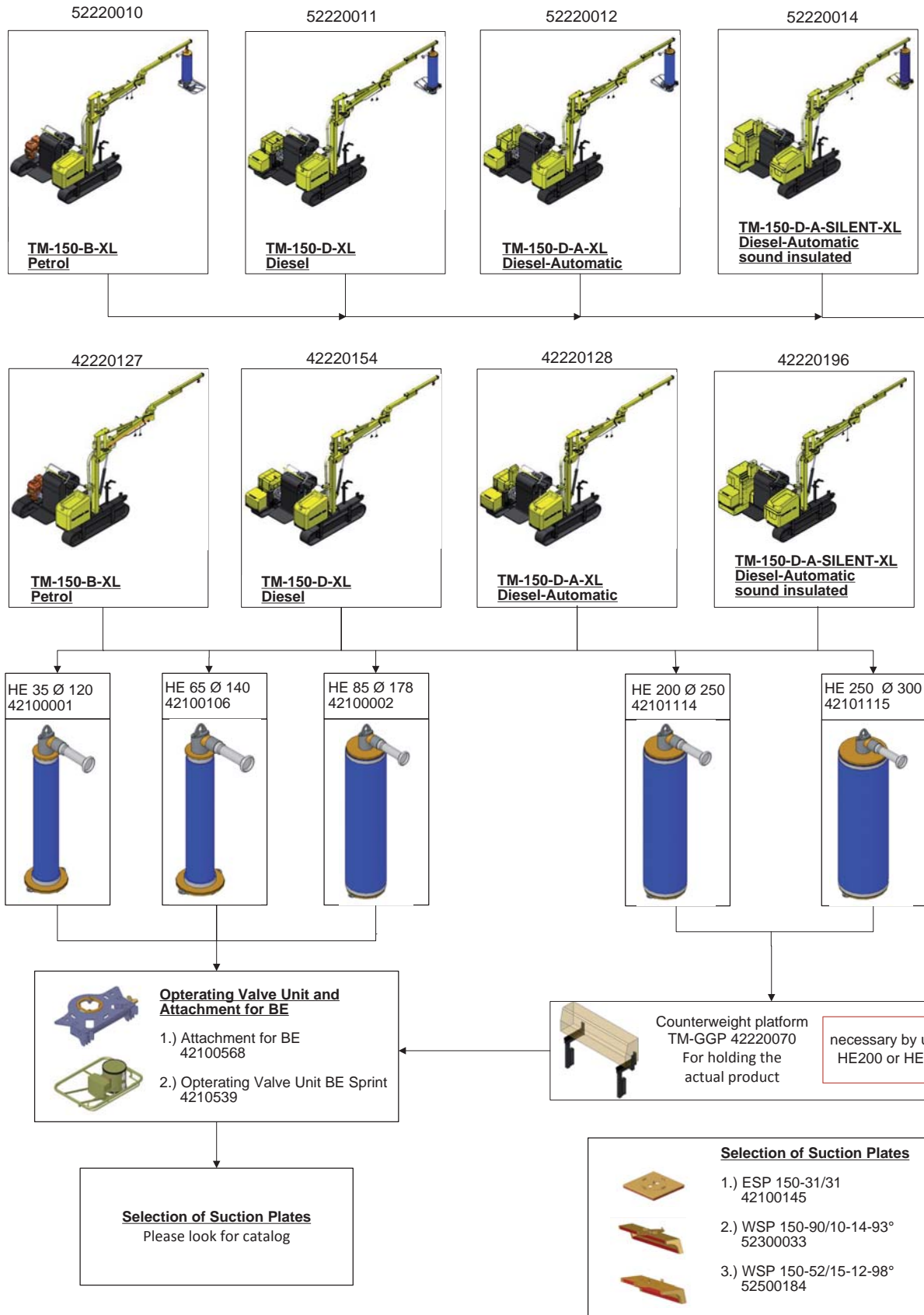
PRODUCT CONFIGURATOR

# UNIMOBIL UM Laying Dolly

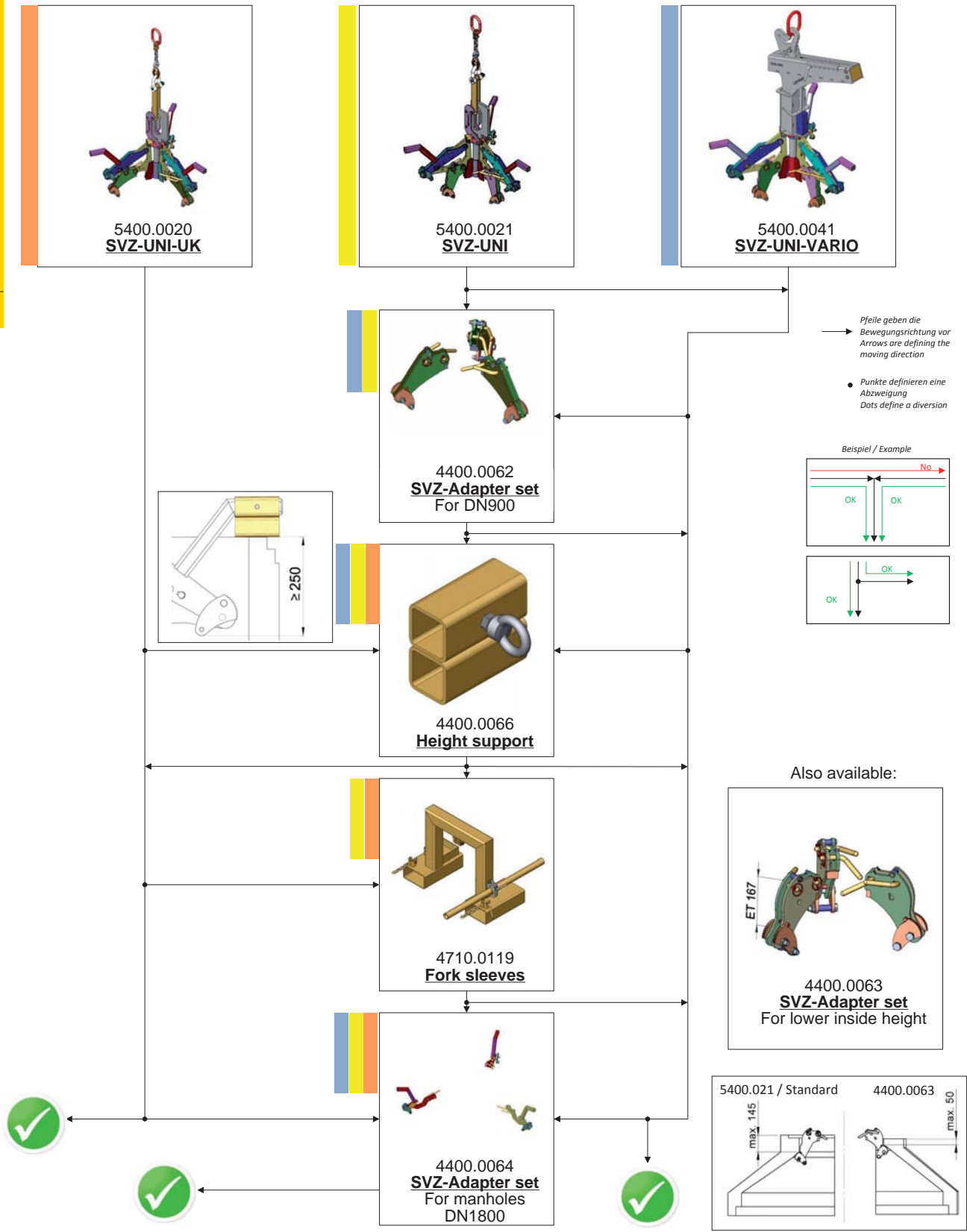




## TRANSMOBIL TM Installation Carrier



# Manhole and Cone Installation Clamp SVZ-UNI





## Sales Support

### Technical advisors in the office and in the field

Competent technical advisors are always ready to answer your questions either by telephone or during an on-site visit. From performance requirements to choice of product and from processing your order to offering service advice.



## Demonstrations

You and your customers can find out more about our machinery with a live demonstration. Our service technicians will come direct to you or to your designated site and go through all the reasons why it is worthwhile to invest in Probst products.



## Technical support

We supply an operating manual for all products that need explaining and where necessary you can also find the relevant parts list in our catalogue. If an unexpected problem arises, simply contact our service team.

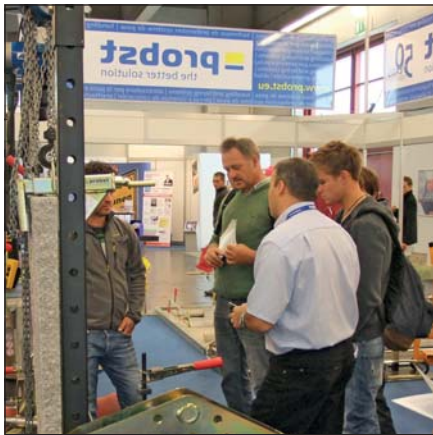
We provide maintenance services, customer service, accident prevention guidelines (UVV) and repairs.



## Product and dealer training

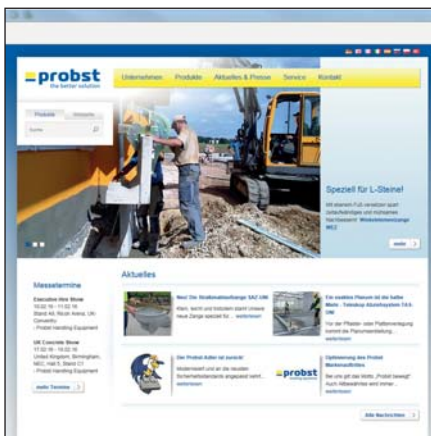
So that you can offer your customers the best possible advice, we provide individual training – tailored to your personal product range. In addition to this, you can also try out various additional products in the test area of the showroom of our Erdmannhausen parent factory.

Let our service technicians demonstrate all the fields of application of our products and convince you of their advantages over competitors' products.



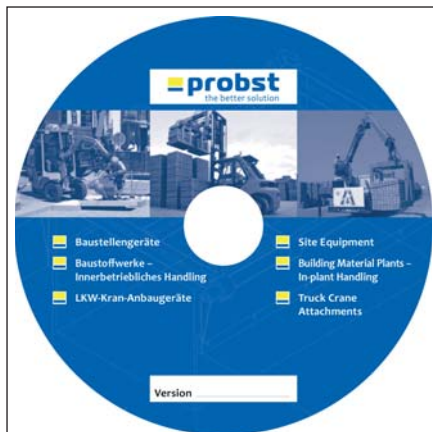
## Trade fairs and in-house shows

The Probst trade stand can be seen at both national and international trade fairs. This reinforces recognition of the Probst brand and gives visitors to the trade fair an opportunity to test products and be given one-to-one advice. Probst is represented in Germany at bauma, GaLaBau, Nordbau, demopark and numerous smaller trade fairs and in-house shows. All our national and international trade fair activities can be found on our website.



## Probst On-line

- ▶ On our website [www.probst-handling.com](http://www.probst-handling.com) each product has a dedicated web page where its field of application, technical data, illustrations and video clips can be viewed. This is where you will find details of all our new developments.
- ▶ On our YouTube channel you can see clips of many of the Probst products in use.



## Catalogues, brochures, flyers and DVDs

We have produced a whole range of printed material to support your sales activities.

We are happy to send you whichever of these you would like.

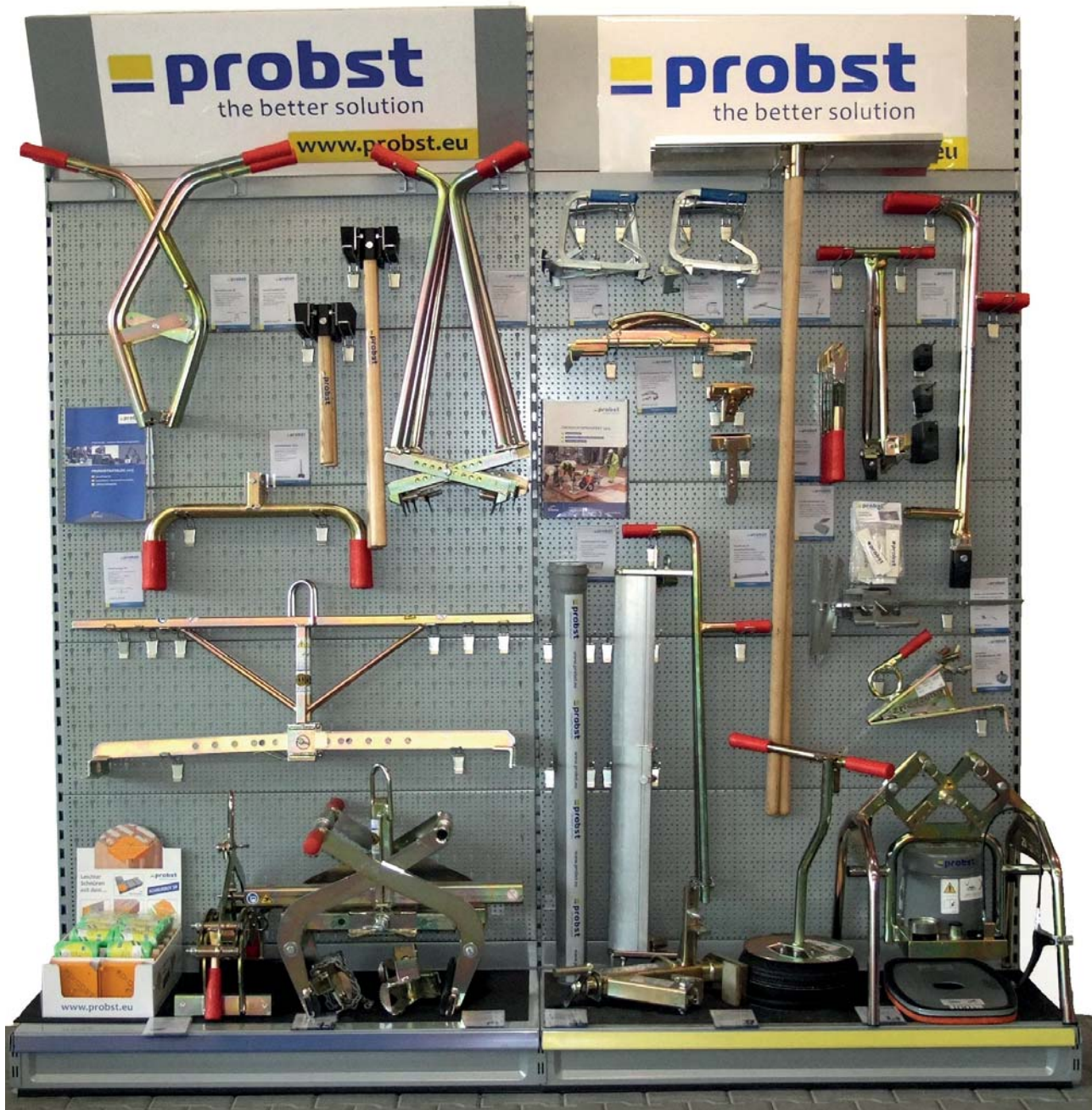
Type	Content	Order-Number
<b>Dealer`s Catalogue 2017 (with prices)</b>	Technical data, fields of application, handling and advantages of our products	<b>2902.0209 -2017</b>
<b>Product Catalogue 2017 (without prices)</b>		<b>2902.0453 -2017</b>
<b>Site Equipment 2016/2017</b>	Handier than the catalogue: our best-seller for sites presented in detail	<b>2902.0550 -2016</b>
<b>General View 2016/2017</b>	A great illustrated overview of the product range on just a few pages	<b>2902.0087</b>
<b>DVD</b>	Films of products are a quicker and simpler way to show off products than any manual. Clips on the use of our products on-site. Matches the films on our Probst YouTube channel	<b>2902.0537</b>
<b>Flyer: Block Loading Grab AKZ</b>	Din A4 flyer on the AKZ truck crane, LG pallet fork and PGH-K pallet fork	<b>2902.0116</b>
<b>Flyer: FLEXMARKER-KIT FMK</b>	Din long flyer with customer comments and possible uses for creating curved paths with the FLEXMARKER-KIT FMK	<b>2902.0516</b>
<b>Flyer: Manhole and Cone Installation Clamp SVZ-ECO</b>	The long flyer with technical data and fields of application for the SVZ-ECO installation clamp	<b>2902.0517</b>
<b>Flyer: Loading Fork LG</b>	Din long flyer on the various versions of pallet fork and their respective data	<b>2902.0548</b>

Other languages on request

# THE PROBST DEALER DISPLAY UNIT

DEALER DISPLAY UNIT

20



Show your customers the Probst product range at a glance using the dealer display unit, which comes either as a single element or as a double pack. Easy to see and high quality.



## Your individual Probst dealer display shelf

Strong presence at trade fairs, a wide variety of advertising measures and not least the word-of-mouth publicity of satisfied customers, give the brand Probst a high reputation. With your Probst shelf you can count on the

recognition effect and increase your sales figures. Our sales team will be glad to support you with the individual arrangement and stocking of your Probst shelf – optimally tailored to your customers.

## Suggested display – This is what your unit could look like

Type	Quantity	Order-Number
MINIPLAN MP Sliding Finisher	1	5101.0004
TELEPLAN TP-60/100 Handscreeding System	1	5101.0006
Fittings for handle HG-TP Pair	1	5101.0005
Rubber Hammer GH	2	5180.0012
Rubber Hammer short GH-K	2	5180.0051
Paver Lifter SAH	2	5180.0050
Paving Block Extractor SZ	1	5180.0030
Alignment Bar RE	3	5180.0011
Spare blade for SZ/SAH short	12	4180.0001
Spare blade for SZ/SAH long	12	4180.0003
Spare blade for RE/ME	12	4180.0002
PAVERBOY PB-15/24	2	5180.0004
PAVERBOY PB-I	2	5180.0001
Profi-Slab Handle PPH-S-10/62	2	5320.0055
PAVERMARKER PM - 5 pieces per packing unit	5	5180.0069
Measuring and Marking Tool MAL	3	5180.0026
FLEXMARKER-KIT FMK	2	5180.0074
STRING TIGHT SB - 12 Sets - counter display	1	5180.0072
STRING ALONG SA	5	5180.0062
Pin Extractor ENZ	2	5180.0038
VCUUM-HANDY VH-1/25	1	5260.0009
SPEEDY VS-140/200 Vacuum Hand Laying Device	1	5270.0011
VS-SWV-SPS-50-30/25 for SPEEDY VS-140/200	1	4271.0126
Suction plate VS-GH-SPS-100-50/30 für SPEEDY VS-140/200	1	4271.0130
Kerb Stone Handles BZ	2	5320.0084
Kerb Stone Handles VZ-I	1	5310.0140
EASYGRIP EXG-MAXI Border Stone Handle	1	5310.0392
Concrete Step Handles TSZ-UNI	1	5310.0338
Steelfinger grippers TSZ-UNI-WB-SQ	1	4310.1110
Stone Pillar Grab SLS 8/20-G-VA	1	5310.0409
TWISTGRIP TG-5/12	2	5320.0102
Handle extension TG-HGV (for TG-5/12)	2	4320.0108
Laying Hook for Gullies SHS	1	5400.0024
Gully Clamp SAZ-UNI	1	5400.0035







## AFTER SALES / WARRANTIES

By purchasing a Probst product you have chosen a quality product which has been developed and tested as a result of over 50 years' experience. We provide a 1-year warranty for normal use on all new components manufactured by us or a 6-month warranty for shift operation, provided there is evidence of material or manufacturing fault or that a warranted feature is missing. For used parts the warranty is reduced by half in each case. Wearing parts are excluded.

If, despite thorough controls, a fault should occur in your Probst product, the complete device should be sent to us, together with the invoice or delivery note and a completed returns form:

**Probst GmbH**  
Service Centre  
Gottlieb-Daimler-Str. 6  
71729 Erdmannhausen  
Tel: +49 7144 3309 0  
E-Mail: [service@probst-handling.com](mailto:service@probst-handling.com)

The returns form can be found on our website [www.probst-handling.com](http://www.probst-handling.com)

An overview of spares can be found in our current operating manual which is supplied with each Probst product. We are happy to send you another copy of this.

If the repair is carried out after the warranty has expired or is due to improper handling, we will send you an estimate of cost together with a request for your approval. Overview of the Probst service terms and conditions:

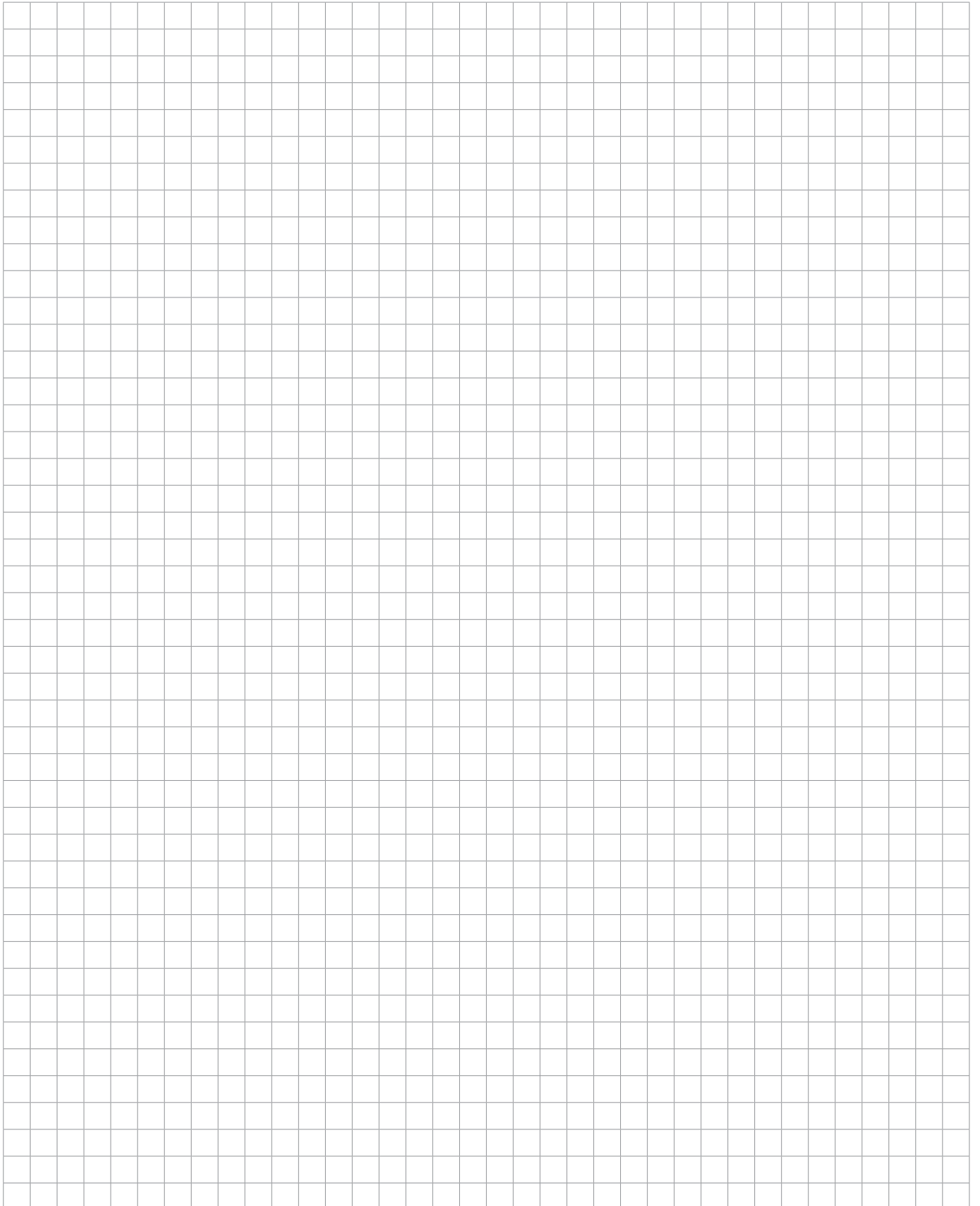
Service provision	Order-Number	Pice in Euro
<b>UVV test Probst small appliances flat rate*</b>	<b>9001.0001</b>	<b>79 *</b>
<b>UVV test Probst large appliances including Probst accessory *</b>	<b>9001.0002</b>	<b>149 *</b>
<b>Inspection of electrical work equipment according to VDE 0701-0702</b>	<b>9001.0020</b>	<b>29 *</b>
<b>Customer service high (for Probst large appliances)*</b>	<b>9001.0003</b>	<b>350 *</b>
<b>Customer service low (for Probst large appliances)*<sup>1)</sup></b>	<b>9001.0004</b>	<b>180 *</b>
<b>Customer service low (for Probst small appliances)*<sup>1)</sup></b>	<b>9001.0005</b>	<b>99 *</b>
<b>Service pack 1 large appliances (CS high + UVV) *</b>	<b>9001.0006</b>	<b>449 *</b>
<b>Service pack 2 large appliances (CS low + UVV) *</b>	<b>9001.0007</b>	<b>279 *</b>
<b>Service pack 3 small appliances (CS low + UVV)</b>	<b>9001.0008</b>	<b>148 *</b>
<b>Travelling expenses for service technician visit</b>	<b>9001.0009</b>	<b>0,95/km</b>
<b>Journey time</b>	<b>9001.0012</b>	<b>65/h</b>
<b>Working time</b>	<b>9001.0011</b>	<b>65/h</b>
<b>Overnight costs for service technician</b>	<b>9001.0010</b>	<b>60/Night</b>

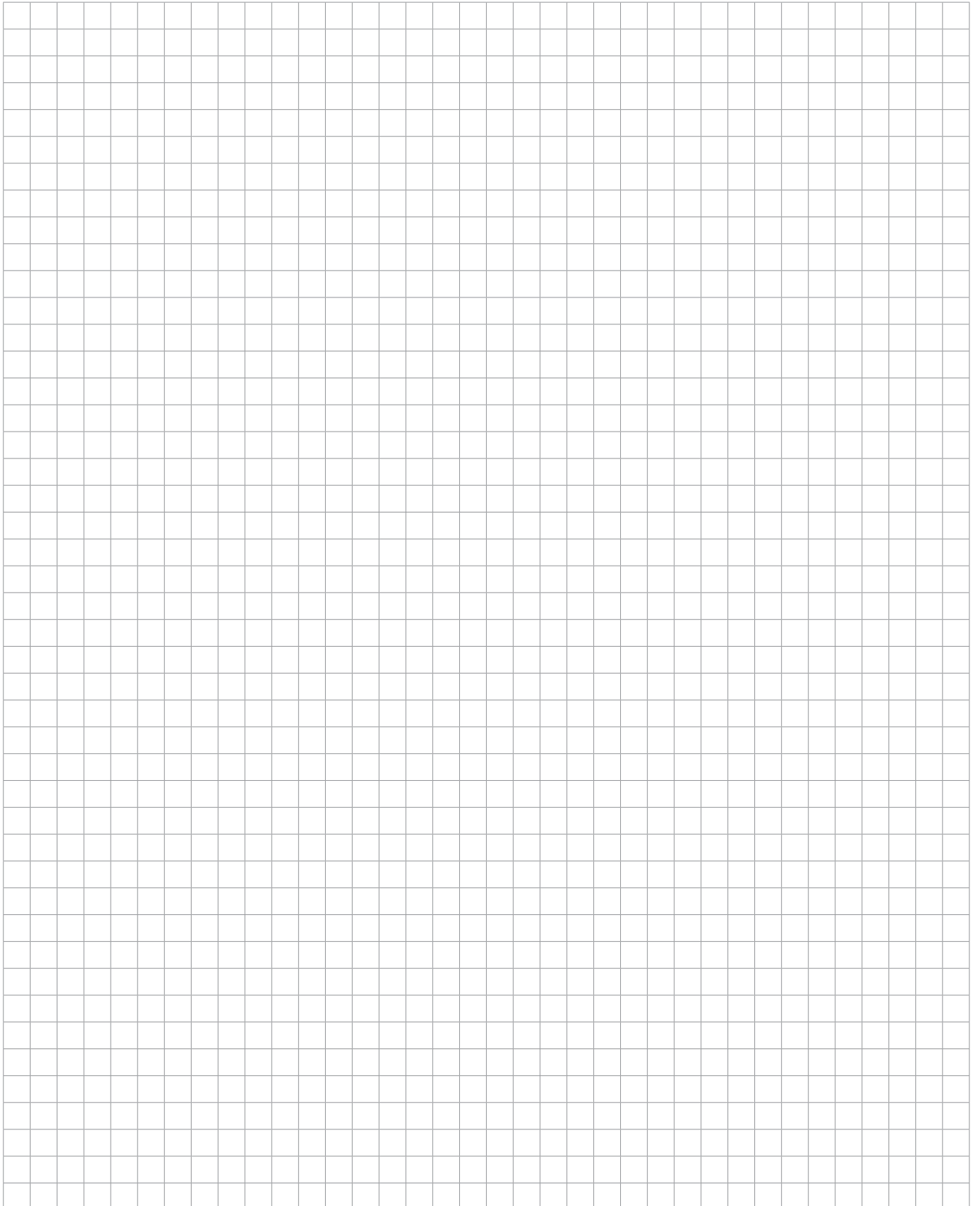
<sup>1)</sup> For Probst Unipose and Powerplan laying machines, we make a surcharge of 150 EURO (customer service high) and a surcharge of 80 EURO (customer service low).

For on-site service the journey will also be charged.

\* Without spare parts and any possible repair costs incurred.







# 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 borne 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 brand new 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. For used parts the warranty is reduced by half in each case. The warranty period is 6 months commencing with delivery (Wearing parts are excluded). 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

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 sence 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 safety 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 safety 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.





## Probst gets things moving – innovative, efficient and ergonomic

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[info@probst-handling.com](mailto:info@probst-handling.com)

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[info@probst-handling.fr](mailto:info@probst-handling.fr)  
[www.probst-handling.fr](http://www.probst-handling.fr)

Please contact your local dealer

[www.probst-handling.com](http://www.probst-handling.com)

