

LOADER CRANES

CRANE TOOLS

LIFETIME EXCELLENCE



OVERVIEW CONTENTS

A - General

PALFINGER Crane Tools – Equipment for professionals	04-05
Express tools	06-07

B - Workman baskets

Workman basket CE - EN280	8-9
Retrofitting	10
Matrix for workman baskets	11
Workman basket NON-CE	12
Dimensioning	13
Emergency drive	14
Pull-in profiles	14
Personal safety device	15

C - Multifunctional adapter (MFA)

Overview	16-17
MFA-Matrix / Options	18-19
MFA-Jib	20-21

D - Rotators

Overview	22-23
Possible combinations	24-25

E - Grapples

Overview	26-27
HPX-grapple configuration options	28-29
Grapple configuration options	30-31

F - Brick stack grapples

Overview	32-33
Configuration options	34-37

G - Pallet fork

Overview pallet fork	38-39
Pallet fork configuration options	40-41
Overview universal fork	42
Universal fork configuration options	43

H - Bottle bank discharge unit

Overview	44-45
Configuration options	46-47

I - Earth auger

Overview	48-49
Configuration options	50-51

J - Lifting equipment

Hydraulic hook	52-53
Lifting accessory package	54
Barrier lifter	55
Car lifting devices	56-57
Manipulators	58-59
Special load attachment	60

PALFINGER CRANE TOOLS EQUIPMENT FOR PROFESSIONALS

We know - our customers are professionals, and professionals are only satisfied with the best tools.

Our mission is to give you the tools that make your job faster, more efficient and safer. We want you to enjoy working with your crane and tools, and to be happy when you get into your vehicle when the job is done.

This feeling can only be achieved with a reliable tool that is perfectly matched to the loader crane and application. The Palfinger loader crane equipped with the tools from this catalog - the perfect package



VERSATILE APPLICATIONS

Equipped with the right tool, the crane is multifunctional and economical. Whether hydraulically or mechanically - PALFINGER offers a comprehensive range of additional equipment to make the loader crane a flexible and versatile tool.



EXPRESS TOOLS

You need quickly a crane tool for a job? From now on you can order selected tools from our stock with a very short delivery time.



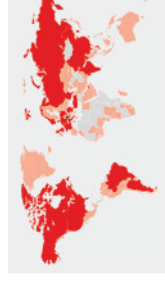
INDIVIDUAL SOLUTIONS

Special jobs require special tools. To ensure your success - no matter how complex your job is - we offer not only numerous established special equipment but also the opportunity for individual solutions. Contact us and we will find the best solution together.



MAXIMUM SAFETY

Since years we have been the only supplier in the market who offers a complete crane and workman basket package that fulfill the high safety requirements of the EN 280 standard. Furthermore you save costs on the acceptance of the complete vehicle.



SERVICE AND TECHNICAL SUPPORT

With around 4.500 sales and service centers worldwide, PALFINGER offers a nationwide service network. The highly trained staff of our service partners provide prompt help.



SPARE PARTS SUPPLY

Several spare parts centers worldwide guarantee a complete supply of spare parts. All original-spare parts are tested and fulfill the PALFINGER quality standard.

EXPRESS TOOLS

You want to retrofit your loader crane with a crane tool and need it as quickly as possible?
Or something has broken down and you urgently need a quick replacement to accept the next job?
To help you in such situations, you now have the option of purchasing selected attachments and suspension elements from stock.
Quick and easy.

DIGGING GRAPPLE 350 L – PZG350G

Compact design and very good immersion behavior due to optimized shell

- Load capacity 3000 kg
- Nominal capacity 350 l
- Max. operating pressure 320 bar
- Incl. Excavator teeth

HIGH VOLUME CLAMSHELL BUCKET 500 L – PZG500S-1

High handling capacity for all bulk materials

- Load capacity 3000 kg
- Nominal capacity 500 l
- Max. operating pressure 320 bar
- Incl. 2 welding hooks for hanging slings or chains

PALLET FORK 2 T – PZP200

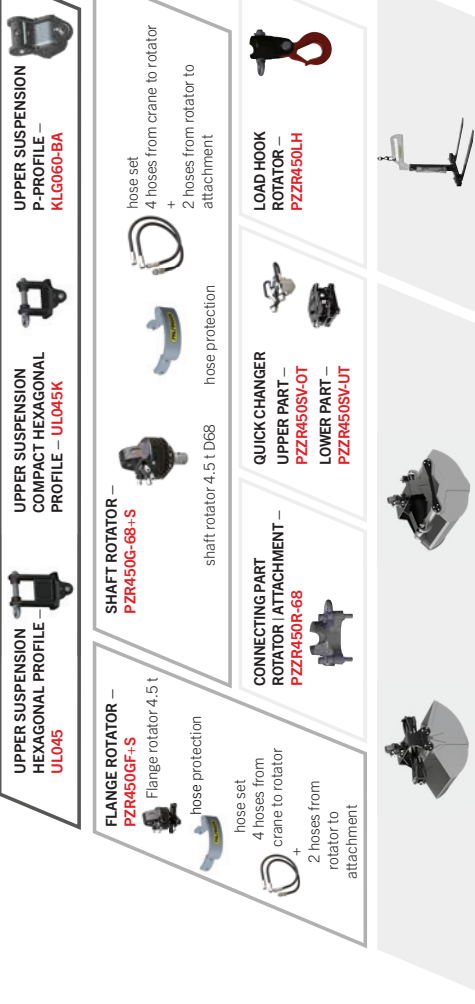
Robust and economical crane fork

- Load capacity 2000 kg
- Tine length 980 mm
- Usable height 1050 - 1650 mm
- Easy adjustment of effective height and tine distance

Further technical information of our express tools can be found in the product chapters in detail



CONNECTION PARTS



WORKMAN BASKET CE-EN 280

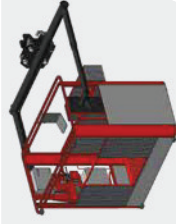
The PALFINGER - EN 280 workman basket was specially developed for the use on SH and TEC loader cranes. Through the use of innovative technology, your PALFINGER crane becomes an aerial work platform and thus considerably expands the field of application of your crane vehicle. For years, we have been the only supplier on the market to offer the crane and work basket as a complete system that complies with the EN 280 standard. This considerably simplifies the release process of the complete vehicle and saves you money. You don't know yet, if you will use workman baskets at a later stage? You can order your crane with a workman basket preparation and retrofit the work basket if necessary – uncomplicated and without costly adaptation work.

Advantages

- PALFINGER and TÜV approved crane and workman basket system according to the EN 280 standard
- Low dead weight for maximum reach
- Fast and ergonomic installation due to quick-change system
- Protected handrail on all sides
- Safe working with the optionally available personal safety device
- Lowering in an emergency with the available emergency drive



BB040



Comfortable

- Comfort and safety at the highest level for **two people**
- Fine-controlling automatic leveling for the perfect balance
- Integrated toolbox for safe storage
- largest possible workspace

BB042



Economical

- Easy working for **two people**
- **Innovative and patented** valve control for damped pendulum motion
- Optional Toolbox

BB041



Compact

- Comfort and safety at the highest level for **one person**
- Slim design
- Fine-control automatic leveling for the perfect balance
- Integrated toolbox for safe storage
- largest possible workspace

TECHNICAL DATA

BB040

BB041

BB042

Load capacity	[kg]	200	140	200
Permitted persons		2	1	2
Leveling		electro-hydraulic	electro-hydraulic	gravitation
Working angle	[°]	360	360	135
Dimensions WxDxH	[mm]	1400x700x1160	850x700x1160	1400x700x1160
Floor space	[m ²]	0,98	0,6	0,98
Electrical system	[V]	24	24	24
Emergency stop		●	●	●
Quick change system		●	●	●
Toolbox		●	●	○ HX6959
Dead weight	[kg]	200	172	145

● Standard ○ Optional -- Not available

RETROFIT

If you would like to retrofit your SH or TEC crane with a workman basket according to EN 280, this is only possible with the preparation for workman basket operation, offered by PALFINGER. In addition to the pull in part and the electrical preparation on the crane, the preparation also includes the necessary assembly parts for setting up an emergency drive. Only the emergency drive, a cable drum kit depending on the crane execution and the workman basket itself are necessary for retrofitting.



Emergency drive (3 kW , max. 270 bar)
EP1982

To ensure safe lowering of the workman basket in case of failure of the conventional hydraulic system, an emergency operation of the workman basket is provided. This emergency drive is required for EN 280 cranes. Parts such as pressure compensator, check valve and battery switch are already included in the scope of delivery of the crane workman basket preparation. However, it is also possible to obtain a complete kit including these parts. (see page 14)

ATTENTION: The drive is exclusively designed for emergency and not for standard operation. The hydraulic and electrical connection must be made in accordance with the installation guidelines of PALFINGER. Please make sure that the specifications of the carrier vehicle are adhered to! When making electrical connections, pay attention to the appropriate cable cross-sections.



cable drum-kit
KKF00028A

If there are no hose trays mounted on the crane, the electrical supply to the workman basket must be additionally ensured with a cable drum. All necessary parts for the assembly including the cable drum itself are included in this kit.

MATRIX FOR WORKMAN BASKETS

CRANE TYPES

Hydraulic extension on the crane

Hydraulic extension on the fly-jib

	A	B	C	D	E	F	G	H	A	B	C	D	E	F
PK 10002 SH	●	●	●	●*										
PK 12502 SH	●	●	●	●**										
PK 14502 SH	●	●	●	●	●*									
PK 14502 SH B PJ 060									●**	●*				
PK 18502 SH	●	●	●	●	●									
PK 18502 SH B PJ 060									●	●				
PK 18502 SH C PJ 060									●	●				
PK 23002 SH	●	●	●	●	●									
PK 23002 SH B PJ 060									●	●				
PK 23002 SH C PJ 060									●	●				
PK 27002 SH	●	●	●	●	●	●	●							
PK 27002 SH C PJ 060									●	●				
PK 27002 SH C PJ 080									●	●				
PK 27002 SH D PJ 060									●	●				
PK 27002 SH E PJ 060									●	●*				
PK 34002 SH	●	●	●	●	●	●								
PK 34002 SH C PJ 080													●	
PK 34002 SH D PJ 060									●	●				
PK 34002 SH D PJ 080									●	●				
PK 34002 SH E PJ 060									●	●				
PK 42002 SH	●	●	●	●	●	●								
PK 42002 SH C PJ 100													●	
PK 42002 SH D PJ 125													●	
PK 42002 SH D PJ 100													●	
PK 42002 SH E PJ 080													●	
PK 42002 SH F PJ 060													●	
PK 53002 SH	●	●	●	●	●	●	●							
PK 53002 SH D PJ 125													●	
PK 53002 SH D PJ 100													●	
PK 53002 SH E PJ 125													●	
PK 53002 SH E PJ 080													●	
PK 53002 SH F PJ 080													●	
PK 65002 SH	●	●	●	●	●	●	●							
PK 65002 SH D PJ 170													●	
PK 65002 SH E PJ 125													●	
PK 65002 SH F PJ 125													●	*
PK 65002 SH F PJ 100													●	
PK 78002 SH	●	●	●	●	●	●	●							
PK 78002 SH D PJ 170													●	
PK 78002 SH E PJ 170													●	
PK 78002 SH E PJ 125													●	
PK 78002 SH F PJ 125													●	
PK 92002 SH	●	●	●	●	●	●	●	●						
PK 92002 SH E PJ 170													●	
PK 92002 SH F PJ 170													●	
PK 92002 SH F PJ 125													●	
PK 92002 SH G PJ 125													●	
PK 92002 SH G PJ 100													●	
PK 110002 SH	●	●	●	●	●	●	●	●						
PK 110002 SH F PJ 170													●	
PK 110002 SH G PJ 170													●	
PK 110002 SH G PJ 125													●	
PK 135.002 TEC 7	●	●	●	●	●	●	●	●						
PK 135.002 TEC 7 F PJ 240													●	
PK 135.002 TEC 7 G PJ 190													●	
PK 135.002 TEC 7 H PJ 150													●	
PK 165.002 TEC 7	●	●	●	●	●	●	●	●						
PK 165.002 TEC 7 F PJ 300L													●	
PK 165.002 TEC 7 G PJ 240													●	
PK 200.002L SH	●	●	●	●	●	●	●	●						
PK 200.002L SH G PJ 300L													●	

* only BB041 possible ** only BB041 and BB042 possible

WORKMAN BASKET NON-CE

The NON-CE version of the simple and robust PALFINGER workman baskets have been especially developed for use on hydraulic loader cranes and are used exclusively in countries where the EN 280 standard is not required.

Advantages

- Expand the range of operation of loader cranes
- Robust construction
- The optional quick-change system allows quick installation of the workman basket



BB004

Economical

- Robust construction for two people
- Reduced to the essential
- Integrated toolbox for safe storage



BB004B

Robust

- Robust construction for **two people**
- Safety required due to built-in emergency stop button power supply necessary)
- Integrated toolbox for safe storage

TECHNICAL DATA

BB004

BB004B

Load capacity	[kg]	280	280
Permitted persons		2	2
Leveling		gravitation	gravitation
Working angle	[°]	360	360
Dimensions WxDxH	[mm]	1000x694x1192	1000x694x1192
Floor space	[m²]	0,6	0,6
Electrical system	[V]	--	24
Emergency stop		--	•
Quick change system		O BZ456	O BZ456
Toolbox		•	•
Weight	[kg]	190	190

• Standard O Optional -- Not available

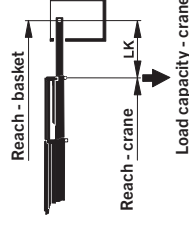
GENERAL DIMENSIONING

PALFINGER recommends that the following calculation should be considered in order to determine the required minimum load capacity of the NON-CE crane.

$$\frac{\text{reach - basket}}{\text{reach - crane}} \times \left(\frac{\text{weight}}{\text{pull in part}} + \frac{\text{weight work- man basket}}{\text{Load capacity}} + \frac{\text{Load capacity}}{\text{workman basket}} \times 1,5 \right) = \text{Required minimum load capacity of the crane during workman basket operation}$$

total weight - basket [kg]
RW-Korb [m]
Load capacity - crane [kg]
LK [m]

weight basket + load capacity basket + weight pull in part
Reach of the crane with workman basket
Maximum reach of the crane without workman basket
Load capacity of crane acc. Load capacity/label
Distance from the load hanger of the last extension boom to the center of gravity of the workman basket. This distance depends on the workman basket + pull in



In order to ensure safety during workman basket operation, it is also recommended to fully support the crane and to ensure stability throughout the working area. The **maximum crane speed** in work basket operation prescribed in EN 280 should also **not be exceeded!**

Speed	Movement
max. 0,4 m/s	Vertical- and horizontal movements
max. 0,7 m/s	Slewing movements (measured in the working basket at maximum reach)

EMERGENCY DRIVE



To ensure a safe lowering of the workman basket in case of failure of the conventional hydraulic system, an emergency operation of the workman basket is also recommended for NON-CE cranes.

The emergency drive is available as a hydraulic kit for constant or variable pump for 24V. The hydraulic kit contains all necessary hydraulic components such as check valve, pressure compensator, etc.

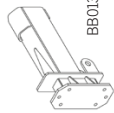
Code	Description
KWG00210A	workman basket emergency-drive kit for constant-pump cranes 24 V – 3 kW – max. 270 bar
KWG00211A	workman basket emergency-drive kit for variable-pump cranes 24 V – 3 kW – max. 270 bar
The emergency unit is also available as a loose part	
Code	Description
EP1982	Emergency drive 24 V – 3 kW – max. 270 bar
EP2022	Emergency drive 12 V – 3 kW – max. 270 bar

ATTENTION: The drive is exclusively designed for emergency and not for standard operation. The hydraulic and electrical connection must be made in accordance to the installation guidelines of PALFINGER. Please make sure that the specifications of the carrier vehicle are adhered to! When making electrical connections, pay attention to the appropriate cable cross-sections.

PULL IN PARTS

PALFINGER offers suitable pull in parts for the mechanical connection of a NON-CE workman basket on the crane. The quick-change system allows a convenient coupling and uncoupling of the workman basket on the crane.

Code	Quick change device for workman basket	Quick change device with	Quick change device without	Inside dimensions A [mm]	Extension boom B [mm]	Use	Weight [kg]
BB040ES01AU	+BZ456	•		123	62		23
BB013-10V1			•	123	62		22
BB040ES02AU	+BZ456	•		155	79		26
BB013-15V1			•	155	79		22
BB040ES03AU	+BZ456	•		188	98	crane > 30mt	26
BB040ES04AU	+BZ456	•		188	98	crane > 30mt	26
BB013-16V1			•	188	96		28
BB040ES05AU	+BZ456	•		224	120	crane	29
BB040ES13AU	+BZ456	•		224	120	fly-jib	42
BB013-17V1			•	224	116		30
BB040ES06AU	+BZ456	•		260	138	crane	30
BB040ES14AU	+BZ456	•		260	138	fly-jib	43
BB013-18V1			•	260	138		33
BB040ES08AU	+BZ456	•		296	158		34
BB040ES09AU	+BZ456	•		237	146		38
BB040ES15AU	+BZ456	•		282	170		41
BB040ES16AU	+BZ456	•		327	198		43



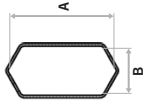
BB013...



BB040...



BZ456



It is possible that adaptations are necessary on the pull in part on some crane versions.

WORKMAN BASKET PERSONAL SAVETY EQUIPMENT

Complete your workman basket with our personal safety system, which is mandatory in many countries. The fall protection device and the safety harness recommended by PALFINGER offer optimum protection and wearing comfort.



PZBB03

Fall protection device (length 1.8m) according to EN 360

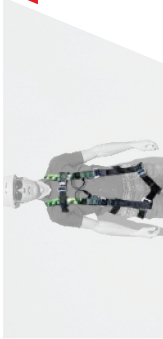
- Revision-free in the whole EU
- With fall-indicator
- Especially for workman basket operation according to EN 280



PZBB04

Comfort security harness in H-design according to EN 361

- 2-point system (front and rear connection possible)
- Elastic DuraFlex belt
- Quick-release buckles on leg loops and chest belt



MULTIFUNCTIONAL ADAPTER

The PALFINGER loader crane has always been a multifunctional working tool and is successfully used by our customers for a wide range of tasks. A variety of available attachments support this feature, as the crane can be perfectly equipped for the job. In order to facilitate the change between the various applications and to make them more ergonomic, PALFINGER has developed MFA, short for multifunctional adapter.

The advantage for the user is the standardized interface at the crane tip. As a result, a lesser manual effort is necessary for changing attachments, which significantly increases safety, efficiency and comfort.

Advantages

- Efficient change between different tools
- Minimum effort is required when changing attachments
- Expansion of the application possibilities of the crane
- Standardized mechanical interface



MFA - PULLEY HEAD

Ideally, the appropriate pulley heads are ordered with the crane and the MFA. The individual components can also be ordered later. There is a variety of matching pulley heads available for the MFA, allowing easy and time-saving docking.



MFA - INSTALLATION TIP

The perfect tool for crane operations in confined spaces. Whether machine handling or the loading of goods through windows or doors - with the PALFINGER MFA mounting tip, you can expand the possible applications of your crane. As with any MFA attachment, simple and time-saving docking is possible.



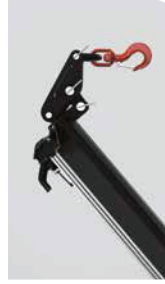
MFA - JIB

The MFA-JIB is available in a fixed and a tiltable version. The use of this MFA connection increases the range of your crane and allows you to work over interfering edges and allows exceptional operations. The new software function "TOOL" ensures the integration of the MFA-JIB into the electronic stability control system HPSC.



MFA - LOAD ATTACHMENT

The MFA load attachment is suitable for the simple connection of hooks, rotators and other crane tools. The increased distance to the extension boom ensures trouble-free working in all arm positions.



MFA - WORKMAN BASKET

To ensure quick and easy coupling with the PALFINGER-EN280 workman baskets, the workman baskets BB040 / BB042 are also available with the connection for the MFA.



MFA – SELECTION

The standardized P-profile extension boom of the TEC crane series now also enable a standardized mechanical interface (MFA). There is only one MFA per extension boom dimension, which serves as an interface for all applications!

Please select the required MFA for your crane – based on the extensions on the crane or JIB. The colored background is necessary for the selection of further attachments.

Example: You want to retrofit your PK 165.002 TEC 7 on the F-extension with an MFA and the 4.5 t pulley head. In that case, please select the MFA KLG030-BA and the pulley head KUR224-BA.

CRANE TYPES

Hydraulic extension on the crane

	A	B	C	D	E	F	G	H
PK 135.002 TEC			KLG032-BA		KLG030-BA	KLG029-BA	KLG021-BA	KLG027-BA
PK 165.002 TEC				KLG032-BA	KLG031-BA	KLG030-BA	KLG029-BA	KLG021-BA

FLY-JIB TYPES

Hydraulic extension on the fly-jib

A	B	C	D	E	F	G
PJ 150				KLG020-BA		
PJ 190				KLG071-BA		
PJ 240				KLG054-BB		
PJ 300					KLG054-BB*	

* 4.5 t MFA-pulley head not allowed for this combination

MFA



KL020-BA	KL071-BA	KL021-BA
	KL054-BB	KL029-BA
	KL024-BA	KL030-BA
	KL025-BA	KL031-BA
	KL026-BA	KL032-BA
	KL027-BA	

MFA – OPTIONS

Load attachment



Trouble-free working in all arm positions.
For connecting hooks, rotators and other crane tools.

11,5 t	KL051-BA	KL051-BA	KL051-BA
18,0 t	--	--	KL052-BA

Workman basket connection



You can already order your PALFINGER EN 280 work basket with the suitable MFA connection ex factory under the option -P.

For any retrofits, we offer the connection console as a single part.

BB040/041	BB040K01-BA	BB040K01-BA	BB040K01-BA
BB042	BB042K01-BA	BB042K01-BA	BB042K01-BA

Installation tip



Ideal for working through window or door openings due to the offset load-bearing point.

The MFA installation tip is an interchangeable load handling attachment acc. to EN 13155 and not involved in the overload system of the crane.

The maximum permissible load of 3 t that is indicated on the installation tip must not be exceeded.

3,0 t		KL075-BA	KL075-BA
-------	--	----------	----------

Pulley heads



Ideally, the winch application is configured with the crane.
Alternatively, the MFA pulley heads can also be ordered separately.

2,5 t 2-lines	KUR222-BB	KUR222-BB	KUR222-BB
3,5 t 2-lines	--	KUR233-BA	KUR233-BA
4,5 t 2-lines	--	--	KUR224-BA

MFA – JIB

"More reach" is probably the most requested customer requirement that reaches us. We are doing our best with the new MFA-Jib to expand your application possibilities.

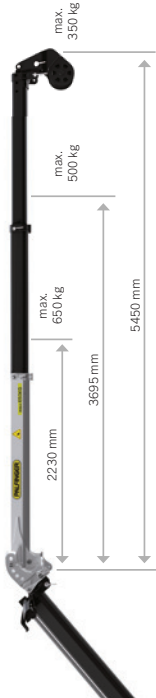
The main advantages of the PJM020 are more than 5 meters of additional reach and the ability to get over additional interference edges . If you equip the MFA-Jib with an own MFA at the top and a pulley head, it is possible to work in winch operation mode.

The MFA-JIB is an interchangeable load handling device and complies with EN 13155. It can be easily and conveniently retrofitted and integrated into the electronic stability system of the crane with the new software function "TOOL".

PJM020

TECHNICAL DATA		PJM020
----------------	--	--------

Lifting moment	[mt]	1,84
Max. reach	[m]	5,25
Max. load	[kg]	650
Painting		RAL 7001
Weight	[kg]	100



OPTIONS

OPTIONS	DESCRIPTION
S2.5-MFA	prepared for winch operation 2.5 t incl. MFA load attachment 11,5 t
S3.5-MFA	prepared for winch operation 3.5 t incl. MFA load attachment 11,5 t
S4.5-MFA	prepared for winch operation 4.5 t incl. MFA load attachment 11,5 t



ADJ manual angle adjustment
+20° / 0° / -20° / -40° / -60°

The optionally available angle adjustment device makes it possible to overcome interference edges for special operations.



KMG07490A Parking console for easy, space-saving and secure storage of the MFA-JIB, above the crane base mounted crane tank. For the cranes PK 135.002 TEC / PK 165.002 TEC



ROTATORS

Rotators from PALFINGER impress with their high performance and durability combined with a compact design. Combined with the crane attachments offered by PALFINGER, you receive a perfectly coordinated total solution - optimum safety and maximum efficiency.

The applied "gerotor" principle makes it possible to build very compact and effective rotators that impress with their precise start and stopping behavior. This prevents, for example, a rotation of the grapple when digging or makes a counter-control when manipulating long goods unnecessary.



PRODUCT FEATURES

- Precise start and stop behavior (without countersteering)
- Payloads from 3t up to 10t
- Integrated pressure relief valves to prevent overloading
- High torque at low speed for precise positioning of loads and crane tools
- Two swivel ball bearings for safe absorption of compressive, tensile and bending loads
- Forged, one-piece flange shaft
- Endless rotary motor with integrated oil passage

CRANE CONNECTION VARIANTS

In order to make it easier for you to choose the connection between crane and tool, we have put together various connection packages. You can simply select these with your additional device.

For the operation of an additional device

FLANGE ROTATOR PACKAGE FLANGE

- The package consists of:
- Flange rotator PZR450GF payload 4500 kg torque 850 Nm bending moment 3000 Nm
 - Upper suspension according to the crane version
 - Hose protection to prevent damage of the hydraulic connections
 - Connecting hoses to the crane incl. screw couplings



Ideally suited for the operation of several additional devices

SHAFT ROTATOR PACKAGE SHAFT

The use of a shaft rotator makes it easy to switch between different accessories such as crane fork, brick stack grapples or clamp shell buckets.

- The package consists of:
- Shaft rotator PZR450G-68 payload 4500 kg shaft diameter 68 mm torque 850 Nm bending moment 3000 Nm
 - Upper suspension according to the crane version
 - Hose protection to prevent damage of the hydraulic connections
 - Connecting hoses to the crane incl. screw couplings

PRE-SHAFT

Preparation for shaft rotator

Mounted on the attachment, allows operation with a shaft rotator. The mechanical coupling and closing is effected by the rotary motion of the rotator. To disconnect, the operator only has to manually open the locking device of the quick-change system and operate the rotary motor. You can change easily and fast between e.g. grapple and brick stack grapples.

If the rotator on the crane is already equipped with a quick-change system, the attachment can only be equipped only with the preparation.



QUICK-KIT

Quick change device (load 4000 kg)

For an even more efficient switching between different tools, a quick-change device is also available to the shaft rotator. The mechanical coupling and closing is effected by the rotary motion of the rotator. To disconnect, the operator only has to manually open the locking device of the quick-change system and operate the rotary motor. You can change easily and fast between e.g. grapple and brick stack grapples.

If the rotator on the crane is already equipped with a quick-change system, the attachment can only be equipped with PRE-QUICK preparation.



QUICK-HOOK

Load hook Payload 4000 kg

Rigid load hook. The perfect tool for positioning all your loads.



SHAFT-HOOK

Load hook Payload 4500 kg

Rigid load hook. The perfect tool for positioning all your loads.



ROTATORS COMBINATIONS

OPTION	DESCRIPTION	CODE	3 t	4,5 t	6 t	10 t	
			PZR300G	PZR450G-68	PZR601G	PZR601GF	PZR1000GF
Basic data	Connection		shaft Ø 49,5 mm	shaft Ø 68 mm*	shaft Ø 68 mm	flange □ 140 mm	flange □ 140 mm
	Working pressure max. [bar]		370	370	370	370	370
	Overpressure protection		• 25 – 40	• 25 – 40	• 25 – 40	• 25 – 40	• 25 – 40
	Recommended rate of flow [l/min]		850	850	1000	1000	2000
	Torque [Nm]		1750	3000	4500	8500	12000
Upper suspension	Bending moment [Nm]		229	242	286	254	313
	Installation height A [mm]		24	26	32	34	65
	Weight [kg]		depending on crane	depending on crane	depending on crane	depending on crane	depending on crane
		H25 H30 H42	UL167 (B 170 mm) UL168 (B 170 mm) –	UL045 (B 253 mm) UL045K (B 173 mm) UL045-42 (B 253 mm)	UL135 (B 278 mm) UL135K (B 245 mm) UL135-42 (B 268 mm)	UL135 (B 278 mm) UL135K (B 245 mm) UL135-42 (B 268 mm)	– – UL153-42 (B 370 mm)
		P30 P42	– –	KL060-BA (B 150 mm) KL062-BA (B 150 mm)	KL063-BA (B 150 mm) KL064-BA (B 150 mm)	KL063-BA (B 150 mm) KL064-BA (B 150 mm)	– –
Additional equipment	Connection hoses		BL462-R BL462 BL513 BL463	BL462-R BL462 BL513 BL463	BL462-R BL462 BL513 BL463	BL462 BL462 BL513 BL463	– BL462 BL513 BL463
	Crane to rotator (2 pcs.) - length 900 mm						
	Crane to rotator (4 pcs.) - length 900 mm						
	Crane to rotator (4 pcs.) - length 1200 mm						
	Rotator to additional device (2 pcs.)						
Hydraulic quick couplings	Complete kit		BL981-PK BL981-L BL981-F	BL981-PK BL981-L BL981-F	BL981-PK BL981-L BL981-F		
	Mobile parts (2 pcs.)						
	Fixed part (2 pcs.)						
	Hose protection ⁴		–	PZZR450S	PZZR601S	PZZR601S	–
	Connecting piece ⁵		–	PZZR450R-68	PZZR601R-GA	–	–
Load hook ⁶	SHAFT-HOOK SHAFT-LINK ⁷		–	PZZR450LH-68 PZZR450-A	PZZR601LH-W –	–	–
	Quick changer - package		–	PZZR450SV-PK	PZZR601SV-PK	–	–
	Quick changer - upper part ⁸		–	PZZR450SV-OT	PZZR601SV-OT	–	–
	Quick changer - lower part ⁹		–	PZZR450SV-UT	PZZR601SV-UT	–	–
	Quick changer - hook ¹⁰		–	PZZR450-A/LH	PZZR601-A/LH	–	–

• Standard ○ Optional -- Not available * further diameters available on request

GRAPPLES

The classic crane tool. Regardless of whether handling or easy digging - we offer the right grab for every application. Proven technology ensures high reliability and efficiency. A multitude of options also gives you the opportunity to optimally equip your grapple to your daily requirements.



HPX GRAPPLE

The all-rounder

- Universal clamshell grab for daily use
- Easy shell changing within 10 min
- Constant clamping force over the entire gripping process
- Low maintenance
- Longer life at lower operating cost
- No protruding components



DIGGING GRAPPLE

Solid

- Maximum loading height due to compact design
- Very good immersion behavior due to optimized shell geometry
- Long life due to high strength cutting edge material

SPECIAL GRAPPLES

Individually

In addition to the standard models, Palfinger offers a large number of special solutions on request.



UNIVERSAL GRAPPLE

Versatile

- Clamshell grab with laterally open shells for universal use
- For simple digging, the handling of both bulk and bulky goods



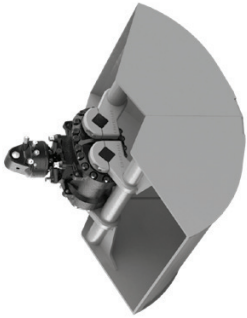
HIGH VOLUME CLAMSHELL BUCKET

Fast

- The clamshell bucket for all handling operations
- Good accessibility allows lateral filling by hand
- High turnover rate



HPX-GRAPPLE CONFIGURATION OPTIONS



HPX – DRIVE UNIT

OPTION	DESCRIPTION	CODE	HPX	HPX hd
Basic data	Load capacity [kg]	3000	3000	
	Working pressure max. [bar]	320	320	
	Overpressure protection	•	40 – 75	
	Recommended rate of flow [l/min]	20	40 – 75	
	Closing force max. [kN]	160	30	
Additional equipment	Weight [kg]		195	
	Central hook	CENTH	○	○
Additional equipment	grab extension	GREX	○	○
	length [mm]	450	length [mm]	2000

HPX – EXCHANGEABLE SHELLS

OPTION	BESCHREIBUNG	CODE	HPX	HPX hd
nominal volume	CLAMSHELL BUCKETS			
	095 L	G095	○	○
	150 L	G150	○	○
	200 L	G200	○	○
	250 L	G250	○	○
	325 L	G325	○	○
	350 L	G350	○	○
	450 L	G450	○	○
	550 L	G550	○	○
	UNIVERSAL CLAMSHELL BUCKETS			
nominal volume	250 L	U250	○	○
	300 L	U300	○	○
	400 L	U400	○	○
	450 L	U450	○	○
	500 L	U500	○	○
additional equipment*	FURTHER SHELLS			
	Screwable excavator teeth	DTEETH **	○	○
	Scrapers	EJECT	○	○
	Wear plates	WEARE	○	○
	Weld-on hook	WHOOK02	○	○
	Rail adapter	P-CR-AIL	○	○
	Compression rails	CR-AIL	○	○
	Side plates (only for universal shells)	SWALL	○	○
	Special color RAL	RAL_____	○	○
	FURTHER SHELLS			
Hay and forest 0,20 m² 0,40 m²	H020	○	○	○
	H040	○	○	○
Rock 0,16 m² 0,35 m²	S016	○	○	○
	S035	○	○	○
Timber 0,16 m²	T016	○	○	○
		○	○	○

HPX – CRANE CONNECTION



• Standard ○ Optional -- Not available
** Standard with Clamshell buckets
* details see page 31

GRAPPLE CONFIGURATION OPTIONS



OPTION	DESCRIPTION	CODE	CLAMSHELL BUCKET			HIGH VOLUME CLAMSHELL BUCKET			UNIVERSAL GRAPPLE	ADDITIONAL EQUIPMENT	
			PZG-G		PZG-G kg		PZG-S		PZG-S kg		
Basic data	Load capacity [kg]		3000		3000		3000		3000		DTEETH excavator teeth Easy to change, screwable excavator teeth
	Working pressure max. [bar]		320		320		320		320		
	Overpressure protection		--		--		●		--		
	Recommended rate of flow [l/min]		40 – 75		40 – 75		40 – 75		40 – 75		
	Closing force max. [kN]		20		30		20		28		
Nominal volume	150 L	150	weight [kg] ○ 185	overall width [mm] 325	weight [kg] --	overall width [mm] --	weight [kg] --	overall width [mm] --	weight [kg] --	overall width [mm] --	
	200 L	200	○ 195	400	○ 265	400	--	--	--	--	
	250 L	250	○ 220	500	○ 285	500	--	--	○ 340	570	
	300 L	300	--	--	--	640	○ 315	640	○ 370	500	670
	350 L	350	○ 240	650	○ 310	650	--	--	--	--	
	400 L	400	--	--	--	800	○ 345	800	○ 430	800	820
	450 L	450	○ 275	800	○ 340	800	--	--	○ 390	920	
	500 L	500	--	--	--	1000	○ 370	1000	○ 475	1000	1020
	550 L	550	○ 290	1000	○ 375	1000	--	--	--	--	
	600 L	600	--	--	--	--	--	--	○ 440	1220	
Additional equipment	650 L	650	--	--	○ 410	1200	--	--	○ 515	1200	--
	1000 L	1000	--	--	--	--	--	○ 595	1200	--	--
	Screwable excavator teeth		●		●		○	○	○	○	○
	Scrapers		○		○		--	--	--	--	--
	Wear plates		○		○		○	○	○	○	●
	Weld-on hook		○		○		●	●	●	●	●
	Compression rails		○		○		○	○	○	○	○
Crane Connection*	Side plates		--	--	--	--	--	--	--	--	○
	Special color RAL		○		○		○	○	○	○	○
	FLANGE		○ 39	weight [kg] 39	○ 39	weight [kg] 39	○ 39	weight [kg] 39	○ 39	weight [kg] 39	○ 39
	SHAFT		○ 40	weight [kg] 40	○ 40	weight [kg] 40	○ 40	weight [kg] 40	○ 40	weight [kg] 40	○ 40
	PRE-SHAFT		○ 3	weight [kg] 3	○ 3	weight [kg] 3	○ 3	weight [kg] 3	○ 3	weight [kg] 3	○ 3
Crane Connection*	SHAFT-HOOK		○ 12	weight [kg] 12	○ 12	weight [kg] 12	○ 12	weight [kg] 12	○ 12	weight [kg] 12	○ 12
	PRE-QUICK QUICK-KIT		○ 7	weight [kg] 7	○ 7	weight [kg] 7	○ 7	weight [kg] 7	○ 7	weight [kg] 7	○ 7
	QUICK-KIT		○ 12	weight [kg] 12	○ 12	weight [kg] 12	○ 12	weight [kg] 12	○ 12	weight [kg] 12	○ 12
	QUICK-HOOK		○ 7	weight [kg] 7	○ 7	weight [kg] 7	○ 7	weight [kg] 7	○ 7	weight [kg] 7	○ 7
	QUICK-HOOK		○ 14	weight [kg] 14	○ 14	weight [kg] 14	○ 14	weight [kg] 14	○ 14	weight [kg] 14	○ 14

FLANGE

SHAFT

QUICK-KIT

QUICK-HOOK

QUICK-KIT

QUICK-HOOK

QUICK-KIT

QUICK-HOOK

System for the bucket via adapter

System for the bucket via adapter

System for the bucket via adapter

System for the bucket via adapter

System for the bucket via adapter

System for the bucket via adapter

System for the bucket via adapter

System for the bucket via adapter

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For the bucket

For

• Standard ○ Optional -- Not possible * details see page 23



BRICK STACK GRAPPLES

The technically advanced brickstack grapples are the ideal attachments for the handling of palletized as well as unpalletized goods. Compared to the classic pallet fork, the unloading time, for example of a building material transporter, can be significantly reduced. The adjustable plunge depths and the optimized opening widths make it possible to load individual concrete elements as well as complete brick pallets. Due to the low-wear rubber inserts in the pressure rails, the pliers are particularly easy to maintain.



PARALLEL OPENING

Versatile
PZS

- Highest security
- Fixed or adjustable plunge depths
- Due to the large number of different pressure rails, the brick stack grapple can be perfectly matched to the material to be manipulated.



SCISSOR OPENING

Compact
PZS-S

- Compact design
- Fixed plunge depth
- Versatile use with opening widths from 40 – 1500 mm
- Pick up of single stones and big bags possible



PARALLEL OPENING

Simple
PZS321

- Simple, robust construction
- Flexibility because of adjustable plunge depth

Attention!
Not released for the CE countries

BRICK STACK GRAPPLES CONFIGURATION OPTIONS



OPTION	DESCRIPTION	CODE	PZS
Basic data	Working pressure max. [bar]	370	
	Overpressure protection	● 25 – 75	
Recommended rate of flow [l/min]		Load capacity [kg]** Opening width [mm] weight [kg]	
Plunge depth	fix		
	850 mm	FIX085	2200 400–1400 240
	1000 mm	FIX100	2000 400–1400 250
	1300 mm	FIX130	1600 400–1400 260
	variable		
Additional equipment	1100 / 1650 mm	VAR165	1900 / 1350 400–1400 295
	Opening width 1800 mm	OW1800	○
	Pendulum brake	PENDLB	○
	Tilting device for reducing the vehicle height	UKV	○
	Height reduction link for reducing the vehicle height	KA	○
Compression rail set	Spring-loaded guide rails to stabilize the upper row of stones	SGRAIL	○
	Gripping width narrowing by 200 mm	GV200	○
	Adapter for concrete pipes	ADRING	○
	Special color	RAL_____	○
	With smooth rubber insert	A29	720 1000 1250 ○ ● ○
Crane connection*	Spring-loaded guide rails for stabilizing the top layer of the stack	A32	- ○ ○ ○ ○
	With two rubber inserts blocked out at the top, smooth at the bottom	A39	○ ○ ○ ○ ○
	FLANGE		weight [kg] ○ 39
	SHAFT		○ 40
	PRE-SHAFT		○ 3
Crane connection*	SHAFT-HOOK		○ 12
	PRE-QUICK QUICK-KIT		○ 7
	QUICK-HOOK		○ 12
	QUICK-HOOK		○ 7



● Standard ○ Optional * details see page 23 ** depending on the condition of the load (size, bundling, surface)



ADDITIONAL EQUIPMENT

OW1800 Opening width 1800 mm

Increasing the opening width from 1400 mm to 1800 mm



UKV tilting device

To reduce the total vehicle height. Only available at SHAFT



ADRING Adapter for concrete pipes

With diameter from 800 – 1350 mm



PENDLB Pendulum brake

The pendulum brake dampens the swinging of the crane tool



KA height reduction link

To reduce the total vehicle height.



[RAL_____] Special color RAL

Color different from standard color RAL7001



COMPRESSION RAIL SET

A29

With smooth rubber
Ideal for pallets and
brick packages



A39

Blocked out with two
rubber inserts at the top,
smooth at the bottom
Ideal for pallets and brick
packages



A32

Slat rails with lever lock and
individually guided clamps
Ideal for paving stones



BRICK STACK GRAPPLES

CONFIGURATION

OPTIONS



OPTION	DESCRIPTION	CODE	PZS-S	PZS321 (NON-CE)
Basic data	working pressure max. [bar]		370	210
	Overpressure protection		•	•
	Recommended rate of flow [l/min]		25 – 75	25 – 75
			Load capacity (kg)	Load capacity (kg)
fix			Opening width (mm)	Opening width (mm)
			weight (kg)	weight (kg)
Plunge depth	1000 mm	FIX100	220 – 1420	315
	1100 mm	FIX110	160 – 1450	320
	1200 mm	FIX120	98 – 1475	325
	1300 mm	FIX130	40 – 1500	330
	variable			
variable	790 – 1310 mm	VAR131	•	• 2000 – 1500
			780 – 1400	401
Additional equipment	Weld-on hook (4 pcs.)	WHOOK04	○	–
	Pendulum brake	PENDLB	○	○
	Tilting device for reducing the vehicle height	UKV	○	○
	Height reduction link for reducing the vehicle height	KA	○	○
	Special color	RAL_____	○	○
Compression rail set	With smooth rubber insert	A40	length (mm) 720	length (mm) 1250
	With three-piece smooth rubber insert		–	–
Crane connection*			weight (kg)	weight (kg)
	FLANGE		○ 39	○ 39
	SHAFT		○ 40	○ 40
	PRE-SHAFT		○ 3	○ 3
	SHAFT-HOOK		○ 12	○ 12
	PRE-QUICK QUICK-KIT		○ 7	○ 7
	QUICK-HOOK		○ 12	○ 12
	QUICK-HOOK		○ 7	○ 7



• Standard ○ Optional – Not possible

* details see page 23 ** depending on the condition of the load (size, bundling, surface)

ADDITIONAL EQUIPMENT

UKV

tilting device

To reduce the total vehicle height.
Only available at SHAFT



KA

height reduction link

To reduce the total vehicle height



PENDLB

Pendulum brake

The pendulum brake dampens the swinging of the crane tool



WHOOK04

welding hooks

4 pcs. Welding hooks for hanging slings or chains.
(Max. load per hook is 1000 kg)



RAL_____

Special color RAL

color divergent from standard color RAL 7001



PALLET FORKS

Equipped with the right crane fork, your crane becomes an all-rounder for the handling of palletized and packaged goods. For classic pallet handling, we offer optional crane forks with mechanical, spring- or hydraulic-assisted center of gravity compensation.



SPRING-SUPPORTED PALLET FORKS

Comfortable
PZP-V | PZP-VS

- Low-maintenance and time-saving solution
- Easy and safe picking up of pallets because of the self-adjusting center of gravity compensation
- Multifunctional use for pallet handling thanks to simple adjustment of effective height and tine distance
- Easy threading through the narrow forged tines



MECHANICAL PALLET FORKS

Solid
PZP | PZP-MF

- Robust and economical solution
- Easy threading through the narrow forged tines
- Multifunctional use by simple adjustment of effective height and tine distance



HYDRAULIC PALLET FORKS

Precise
PZP-H

- The flexible premium product
- Fast and efficient picking up of different pallet sizes and weights
- Highest safety and precision thanks to the hydraulic balance compensation
- Simple 1 - person operation saves time and money



SPECIAL PALLET FORKS

Individually

- In addition to the standard models, Palfinger offers a large number of special solutions on request, such as: telescopic crane forks, which are particularly suitable for the handling of insulation materials.

● Standard — Optional * details see page 23	ADDITIONAL EQUIPMENT Increase of usable height EXT075 Increase the effective height of the crane fork by 750 mm with the simple installation of the extension. Ideal for manipulating insulation materials and similar. 
— Optional	Rigid link SHAFT-LINK Payload 4500 kg Torsionally stiff suspension link. "The" addition to the spring-loaded crane fork for a more comfortable positioning of the loads 
● Standard	protective cage On request, a protective cage for securing loose loads on the crane forks is available. When handling loose material, a protective cage or net for load protection is mandatory (EN 131.55). The maximum load capacity is 2000 kg. 

UNIVERSAL FORK

The universal fork is particularly suitable for feeding old and new buildings with construction panels and other horizontally delivered building materials. Different tine adjustment allows adjustment to the transported panels.

Of course, the universal fork can be used as classic crane fork.



SINGLE SPAR

Light
PZP-W

- Gentle handling of the plates with special tines
- Higher range due to lower weight



DOUBLE SPAR

Robust
PZP-WK

- Gentle handling of the plates with special tines
- Robust design
- Tilting cylinder protected from damage by the double spar

CONFIGURATION OPTIONS

OPTION	DESCRIPTION	CODE	PZP-W	PZP-WK
Basic data	Working pressure max. [bar]		370	370
	Overpressure protection		•	•
	Recom. rate of flow [l/min]		40 - 75	40 - 75
	Package height max. [mm]		1250	1250
	Package depth max. [mm]		460	460
	Tine length [mm]		1600	1600
			weight [kg]	weight [kg]
Load capacity	800 kg	TRAGL 800	—	—
	1000 kg	TRAGL 1000	—	—
	1500 kg	TRAGL 1500	○ 345	○ 340
	2000 kg	TRAGL 2000	○ 360	○ 390
	2500 kg	TRAGL 2500	○ 380	○ 400
Additional equipment	Clamping device	PZP001	○	○
	Park console	PZP002	○	○
	Special color	RAL_____	○	○
Crane connection*			weight [kg]	weight [kg]
	FLANGE		○ 39	○ 39
	SHAFT		○ 40	○ 40
	PRE-SHAFT		○ 3	○ 3
	SHAFT-HOOK		○ 12	○ 12
	PRE-QUICK QUICK-KIT		○ 7 ○ 19	○ 7 ○ 19
	QUICK-HOOK		○ 7	○ 7



• Standard ○ Optional -- Not available * details see page 23

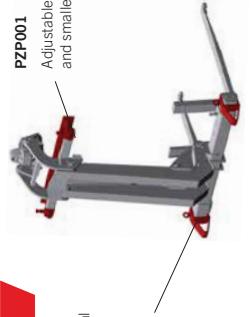
ADDITIONAL EQUIPMENT

PZP002

Rack for safe and easy handling of folded universal fork (for load over 1000 kg)

PZP001

Adjustable clamping device to secure single sheets and smaller packs (for load over 1000 kg)



CONTAINER DISCHARGE UNITS

The essential factor when discharging recycling bins include safety and speed. Through the precise handling of the crane, the automatic stroke limitation and the integrated pendulum brake, the driver receives a complete solution that allows him to keep an eye on the environment. This is a plus in terms of safety especially when careless passers-by are involved

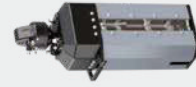
Efficient operation of the implement is made possible by economical one-person operation and short cycle times. The emptying devices are available for ring- and the mushroom-system.



MUSHROOM - AND RING SYSTEM

Universal PZC250PR

- The ideal solution for recycling companies that need to empty both conventional ring system containers and mushroom-type containers.
- Compact construction and therefore low overall height
- The standard pendulum brake and the flange rotator ensure precise positioning with minor fluctuations.
- The integrated pressure relief valve ensures safe working even at higher operating pressure of the crane.



MUSHROOM SYSTEM

Efficient PZC250P

- Robust mechanism with automatic centering and hydraulic locking
- The pendulum brake and the flange rotator ensure precise positioning with minor fluctuations...
- The integrated pressure relief valve ensures safe working even at higher operating pressure of the crane.



RINGSYSTEM

Conventional PZC220R | PZC250R

- PALFINGER offers two discharge units especially for containers with ring systems.
- On the one hand the compact PZC220R and the simpler PZC250R.
- Both are characterized by a robust and durable mechanism and, like all PALFINGER discharge units, also have an integrated pendulum brake and a flange rotator.



CONTAINER HOOK

see page 52

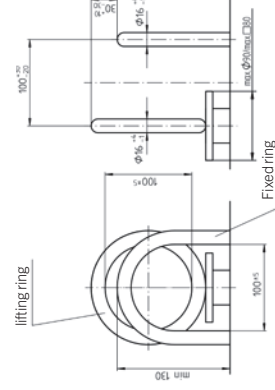
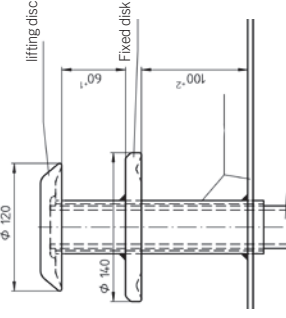


The figure displays four views of the 3D model of the mechanical assembly:

- Front View:** Shows the main body with a central vertical slot and a horizontal slot at the bottom.
- Top View:** Shows the top surface with a central vertical slot and a horizontal slot at the front.
- Side View:** Shows the side profile with a central vertical slot and a horizontal slot at the front.
- Back View:** Shows the back surface with a central vertical slot and a horizontal slot at the front.

RECYCLING CONTAINERS WITH RING SYSTEM

Safe operation of the bottle bank discharge unit can only be ensured if the containers are equipped with the rings in the appropriate distance and dimension.



EARTH AUGER

You need foundations for a carport, a mast or a street sign? With the earth auger as a tool for your loader crane, this work can be done in the shortest time and without any additional use of excavators. Whether earth, gravel or slightly rocky ground - with the right drill teeth, the auger becomes an all-rounder.

With minimal effort, you drill holes with the necessary diameter - without the annoying and material-intensive slope angle that results from classic digging work.



BEG



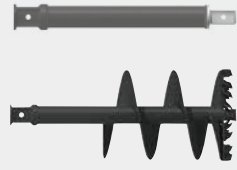
Auger drive

- Highest drilling performance and durability are the hallmark of the auger drives, which produce torque from 925 to 7500 Nm.
- The integrated NDS - Non-Dislodgement Shaft - prevents the shaft from falling out at any time. An absolute must for work safety.
- An integrated service port allows fast and easy oil changes.
- No leak oil necessary.

EBG UND BEG12

Augers and extensions

- The augers are available with a diameter of 150 to 900 mm.
- The attachment to the auger drive is easy by means of bolts.
- Depending on the crane geometry, the corresponding extensions allow a drilling depth up to 7 m - with a diameter up to 600 mm.



EBG 077

Drilling teeth

- Optimum drilling properties due to subsoil-specific drill teeth for earth, gravel and stony soils.
- The connection between tooth and auger varies depending on the tooth and aims for maximum durability and easy serviceability.



BEGAV20

Docking device

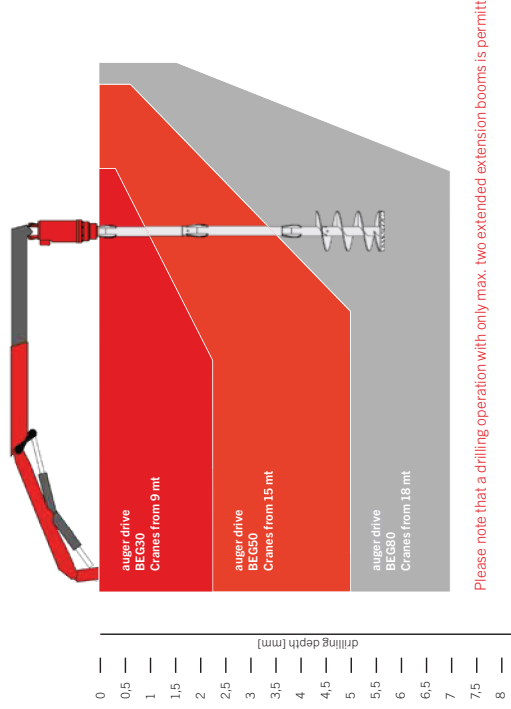
- The docking device with specially adapted augers drills facilitates the safe placement of the auger.
- It reduces downtime for dismantling and reinstalling the auger when changing tools or when hook operation in between.

This requires a technical clarification with PALFINGER!

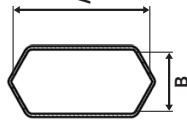
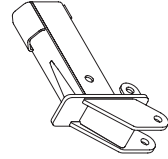


EARTH AUGER

SELECTION OF THE APPLICATION



PULL IN PARTS



Depending on the extension boom design,
adaption work may be required.

AUGER DRIVE

TECHNICAL DATA

	BEG30	BEG50	BEG80
For operation, one hydraulic circuit on the crane is necessary!			
drilling diameter [mm]	150 – 600	150 – 800	150 – 1000
Working pressure [bar]	80 – 260	80 – 260	80 – 260
Overpressure protection	●	●	●
Recommended rate of flow [l/min]	20 – 50	20 – 50	20 – 50
Drive torque* [Nm]	925 – 3007	1542 – 5012	2313 – 7517
Rotation speed [U/min]	27 – 68	16 – 41	11 – 27
Weight [kg]	73	94	97

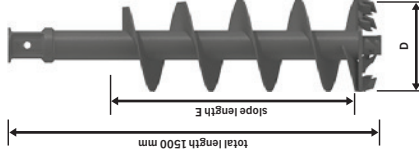
* The maximum drive torque must not exceed the half of the crane slewing torque.

● Standard ○ Optional -- Not available

AUGER EXTENSION

Length C [mm]	Shaft length [mm]	Shaft exit [mm]	Weight [kg]	Code
500	114	□ Vierkant 57	18	BEG12-500
1000	114	□ Vierkant 57	25	BEG12-1000
1500	114	□ Vierkant 57	26	BEG12-1500
2000	114	□ Vierkant 57	30	BEG12-2000

AUGER



Drilling diameter D [mm]	Slope length E [mm]	Weight [kg]	Code		
			Earth and clay	Dry and hard surfaces, gravel layers	Number of drilling teeth
150	1080	36	EBG150E	EBG150T	--
200	975	42	EBG200E	EBG200T	2
225	975	46	EBG225E	EBG225T	2
250	965	47	EBG250E	EBG250T	2
300	900	53	EBG300E	EBG300T	4
350	900	58	EBG350E	EBG350T	4
400	875	63	EBG400E	EBG400T	5
450	750	68	EBG450E	EBG450T	6
500	750	75	EBG500E	EBG500T	6
600	750	86	EBG600E	EBG600T	8
750	700	103	EBG750E	--	9
800	700	118	EBG800E	EBG800T	9
900	700	138	EBG900E	EBG900T	10

WEAR PARTS

Ground	Drilling tooth	Code	Auger pilot	Code
earth and clay		EBG 077E		EBG 077EH
dry and hard surfaces, gravel layers (Tungsten-Universal)		EBG077T		EBG 077TH
soft rock, asphalt		EBG 077R		EBG 077RH

HYDRAULIC HOOK

The PALFINGER hydraulic crane hooks allow the crane hook to be opened and locked using crane hydraulics and have been specially developed for applications in construction and transport as well as recycling applications.

In the installation use, they facilitate the positioning and suspension of loads in exposed areas.



PZHH05

- Save time by simply and safely releasing loads at exposed points
- Increase occupational safety by simplifying work processes, such as the possibility of attaching and detaching pallets or universal forks without having to climb onto the platform of the vehicle
- Optimum connection to the rotators, as well as to PALFINGER pallet and universal forks
- The weld-on hook makes it easy to attach bulky goods and big bags



PZC250CH

- Quick and accurate attachment and detachment of containers or loads with eyelets
- Thanks to the compact design a low overall height is reached
- The robust mechanism with hydraulic cylinder ensures the opening and closing of the load hook
- The V-shaped cut-out on the hook facilitates ring reception

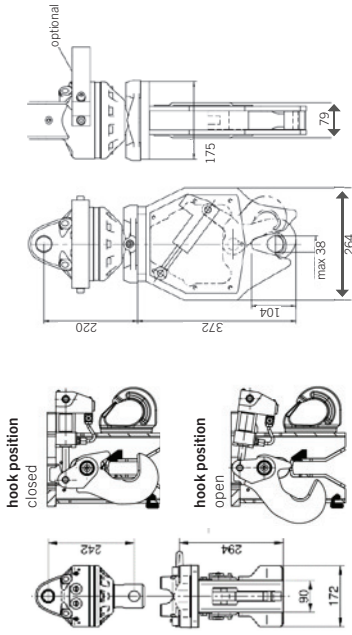


OPTION	DESCRIPTION	PZHH05	PZC250CH
Basic data	Load capacity [kg]	4500	2500
	Working pressure max. [bar]	370	200
	Overpressure protection	--	•
	Recommended rate of flow [l/min]	2 – 10	2 – 10
	Ring diameter max. [mm]	30	38
Additional equipment	Weight [kg]	21	46
	Hose protection	--	PZRH450S
Crane connection*	Adapter plate for universal fork	PZHH05	--
	Prepared for shaft rotator (PZZR450R-68)	•	--
	With flange rotator (PZR450GF)	--	•

• Standard ○ Optional -- Not available * details see page 24

TECHNICAL DATA

PZHH05



ADAPTER PLATE FOR UNIVERSAL FORK

If your universal fork is equipped with the adapter PZHH05 instead of a rotator, the universal fork can also be operated comfortably and highly efficiently with the hydraulic hook PZHH05.

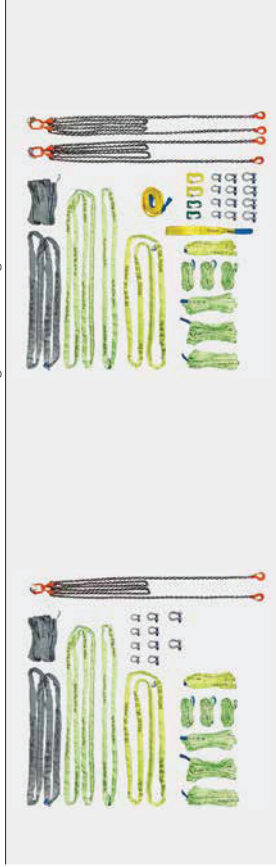


LIFTING ACCESSORY PACKAGE

Anyone moving loads with a loader crane every day, expects safety, comfort and efficiency. With one of our two special packages, made of components of the highest safety and long life, we fulfill these expectations 100%.

PZ-BASIC

4 round slings 3-layer – 2 t – length 2 m	4 round slings 3-layer – 2 t – length 2 m
4 round slings 3-layer – 2 t – length 4 m	4 round slings 3-layer – 2 t – length 4 m
2 round slings 3-layer – 3 t – length 3 m	2 round slings 3-layer – 3 t – length 3 m
2 round slings 3-layer – 4 t – length 3 m	2 round slings 3-layer – 4 t – length 3 m
2 load hooks for roundslings – 2 t	2 load hooks for roundslings – 2 t
2 load hooks for roundslings – 3 t	2 load hooks for roundslings – 3 t
4 bow shackles high strength cap. 3250 kg	4 bow shackles high strength cap. 3250 kg
4 bow shackles high strength cap. 4750 kg	4 bow shackles high strength cap. 4750 kg
4 bow shackles high strength cap. 6500 kg	4 bow shackles high strength cap. 6500 kg
1 chain sling 3.55 t – 4.5 m - shortenable	2 chain slings 3.55 t – 4.5 m - shortenable
	2 lifting belts - 3 t – length 5 m



Both packages contain surprise presents from our promotion assortment

(Pictures are just sample pictures)

Discover more products in our promotion online shop ballinger.com

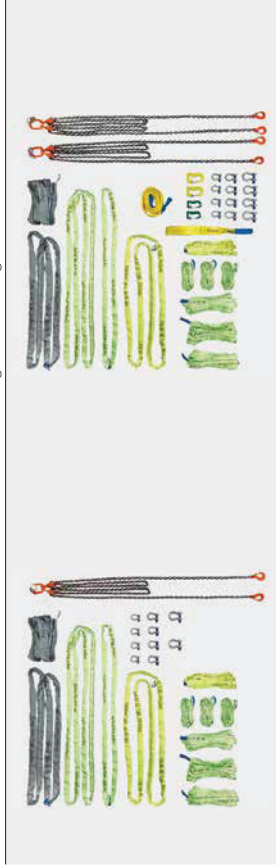
BARRIER LIFTER

The barrier lifter is the perfect tool for manipulating concrete barriers. The mechanical clamping system with gripping jaws made of diamond carbide enables efficient one-person operation. By simply repositioning the locking pin various clamping ranges can be adjusted. Since no oil supply is required for this system, it is cost-effective to retrofit almost every crane.



PZ-PREMIUM

4 round slings 3-layer – 2 t – length 2 m	4 round slings 3-layer – 2 t – length 2 m
4 round slings 3-layer – 2 t – length 4 m	4 round slings 3-layer – 2 t – length 4 m
2 round slings 3-layer – 3 t – length 3 m	2 round slings 3-layer – 3 t – length 3 m
2 round slings 3-layer – 4 t – length 3 m	2 round slings 3-layer – 4 t – length 3 m
2 load hooks for roundslings – 2 t	2 load hooks for roundslings – 2 t
2 load hooks for roundslings – 3 t	2 load hooks for roundslings – 3 t
4 bow shackles high strength cap. 3250 kg	4 bow shackles high strength cap. 3250 kg
4 bow shackles high strength cap. 4750 kg	4 bow shackles high strength cap. 4750 kg
4 bow shackles high strength cap. 6500 kg	4 bow shackles high strength cap. 6500 kg
1 chain sling 3.55 t – 4.5 m - shortenable	2 chain slings 3.55 t – 4.5 m - shortenable
	2 lifting belts - 3 t – length 5 m



Both packages contain surprise presents from our promotion assortment

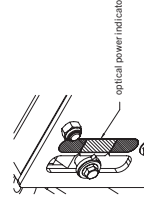
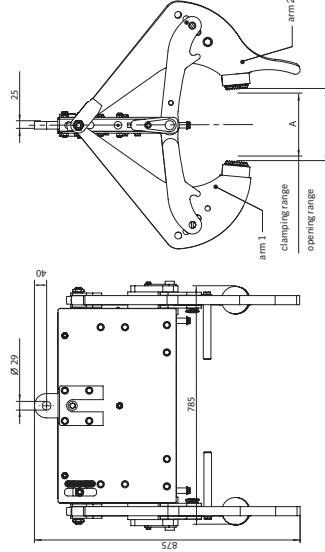
(Pictures are just sample pictures)

Discover more products in our promotion online shop ballinger.com

TECHNICAL DATA

PZB932-6/10

Clamping range A	[mm]	115 – 305	295 – 395
Load capacity	[kg]	6580	6580
Weight	[kg]	162	150



CAR LIFTING DEVICES

The car lifting devices which are designed for daily use ensure easy loading and unloading of vehicles up to max. 3.5 t. In addition, they offer optimum protection against damage due to the possibility of individual adaptability to the respective vehicle.



OPTION	DESCRIPTION	CODE	3,5 t	2,0 t
			PZLG35PK	PZLG20HPK
Basic data	Lifting system		With rotator connection for rotary motion and hydraulic center of gravity compensation (2 hydraulic circuits on the crane required)	With hook connection (no hydraulic circuit on the crane required)
	Load capacity [kg]		3500	2000
	Working pressure max. [bar]		210	—
Technical data	Overpressure protection		—	
	Weight [kg]		185	85
	Wheel clamp set for tire width 355 mm	PZTC01-1	•	•
Additional equipment	Hoisting sling set	PZLS01	•	•
	Bracket for mounting on the vehicle	PZLG35B PZLG20B	• —	— O
	Flange rotator package		• Sullable flange rotator, connecting hoses, upper suspension (UL045)	— (Crane hook)
Crane connection			transport position	transport position
• Standard O Optional — Not available			working position	working position

ADDITIONAL EQUIPMENT

Wheel clamp set consists of 4 wheel clamps

	PZTC01-1
Load capacity	900 kg / clamp
Tire width	355 mm
Wheel size	12 – 19 Zoll
Weight	17 kg



hoisting sling set consists of 4 hoisting slings

	PZLS01
Load capacity	892 kg / hoisting sling
Length adjustable	1,3 m 1,5 m 1,7 m
Width	50 mm



Bracket for mounting on the vehicle
PZLG35B / PZLG20B

MANIPULATORS

- The manipulator is ideal for lifting and positioning pipes and masts.
- Agility because of three hydraulic functions: gripping, turning and swiveling (third hydraulic control circuit or electric changeover valve required) and end-less swivel range for efficient operation
- High payloads from 500 kg to 3000 kg
- Precise positioning by the rotator with mechanically acting, hydraulically-releasable brake for rotary motion
- A combination of manipulator and auger is available on request.



TECHNICAL DATA

	PZM 500	PZM1000	PZM2000	PZM3000
We, at PALFINGER, are happy to assist you to create a complete system				
Load capacity	[kg] 500	1000	2000	3000
Working pressure max.	[bar] 200	200	250	250
Overpressure protection				
Recommended rate of flow	[l/min] 20 – 40	20 – 40	20 – 40	20 – 75
Closing force	[kN] 11	23	32	62
Number of gripper arms	1	2	4	6
Pipe diameter	[mm] 175 – 300	100 – 300	250 – 600	250 – 600
Overall width	[mm] 785	1300	1300	2560
Swivel range	continuous	continuous	continuous	continuous
Weight	[kg] 235	310	910	1360

Tubes or poles have to be grabbed always in the center of gravity!

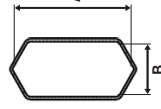
OPTIONS

Changeover valve for 3rd control circuit	PZMMV (24V) PZMMV-12V (12V)	PZMMV (24V) PZMMV-12V (12V)	PZMMV (24V) PZMMV-12V (12V)	PZMMV (24V) PZMMV-12V (12V)
45° adapter	PZMA45	PZMA45	PZMA45-2	PZMA45-2



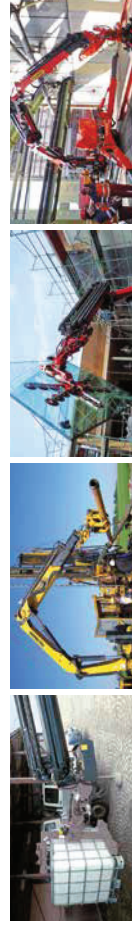
PULL IN PARTS

for hexagonal extension boom		weight [kg]	
A [mm]	B [mm]		
123	62	B804CES01AU	37
155	79	B804CES02AU	40
188	98	B804CES03AU	40
188	98	B804CES04AU	40
224	120	B804CES05AU	43
260	138	B804CES06AU	44
296	158	B804CES08AU	48
237	146	B804CES09AU	52
282	170	B804CES015AU	55
327	198	B804CES016AU	57



We offer pull in parts on request that are specially adapted to crane and manipulator

SPECIAL APPLICATIONS



Blank lined paper for writing.

Blank lined paper for writing.

KP-CRANETOOLS+EN

Die abgebildeten Krane sind teilweise mit Wunschausrüstung ausgestattet und entsprechen nicht immer der Standardausführung. Beim Kranaufbau sind länderspezifische Vorschriften zu beachten. Maßangaben unverbindlich. Technische Änderungen, Irrtümer und Übersetzungsfehler vorbehalten.