

### OVERVIEW APPLICATIONS FOR EPSILON CRANES

To guarantee adequate performance, it is necessary to use the crane for the intended applications. Using a crane incorrectly will lead to high repair costs after just a short time. In terms of the European EN 12999 standard, the "S" factor indicates the intensity level in the use of the crane. From this, it is possible to determine how many work cycles the crane needs to withstand without the main components being severely damaged.

Based on this standard, PALFINGER EPSILON cranes are classified in the S4 group of cranes and are ideal for long periods of work without interruption and quick (turning) movements.



#### **S3** – Loader cranes

- 2 hours per day; hook device, light clamshell grabber applications, pallets, etc.
- EPSILON cranes are oversized for this application.
- 200.000 cycles.



S4 - Cranes (EPSILON)

- 4–8 hours per day; timber, scrap, heavy clamshell grabber and glass container applications.
- Crane is mounted on a truck; timber machinery, recycling, tractor trailers, etc.
- The right application for EPSILON cranes.
- 630.000 cycles.

\$5 - Excavators / wheel loaders

- Continuous operation, excavations, heavy-duty handling.
- EPSILON cranes are not designed for this application.
- 1.200.000 cycles and beyond

### **EPSOLUTION**THE PROFESSIONAL CHOICE

With EPSCOPE, EPSLINK and EPSLIGHT, EPSILON has developed innovative concepts that clearly focus on the benefits for operators. PALFINGER EPSILON sees it as its duty to implement the requirements and feedback from customers in its designs, thus arriving at a sound solution that provides customers with a product that is tailored to their intended applications.



#### **EPSCOPE**

This allows safe working without the risk of damage from external sources thanks to an internally protected hose guide and internal telescopic cylinder.

Patented PALFINGER EPSILON system



#### **EPSLINK**

Extremely strong four-lug link with rotator and perfect hose guide. Suitable for EPSI-LON polyp grabs and clamshell grabbers.

Patented PALFINGER EPSILON system



#### **EPSLIGHT**

Thanks to the latest LED technology, the spotlights are considerably smaller with the same light output and are protected by a cover



#### Double slewing system

- Double slewing system with limit position damper
- Precise toothed rack slewing system
  Self-aligning roller bearing running in an oil bath
- Maximum slewing capacity



#### EASYFOLD

A Z-crane usually needs to be supported on the ground during extension in order to bridge the dead center of the outer boom ram — but not with the EASYFOLD system:

- Dead center is negotiated with the aid of an auxiliary cylinder
- Patented PALFINGER EPSILON system



#### KTL

In the individual dip tanks, the components are degreased, rinsed, activated and coated with zinc phosphating. Then they are rinsed again, passivated, rinsed with ultrapure water and coated by means of an electrostatic dip-coating process. Painting robots finish off the surface treatment.

### **L-CRANE** THE PERFORMER

#### **EPSILON L-cranes**

These crane models feature a design characterized above all by its outstanding performance. The long main boom and short knuckle boom ensure the perfect working geometry, because the longer the main boom and the shorter the knuckle boom, the less the knuckle boom has to be moved.



L-CRANES SCRAP

The maximum outreach of the EPSILON L-cranes is very well suited to scrap handling. The long main boom and the shorter knuckle boom result in a perfect working



L-CRANES CONTAINERS

Thanks to the long main boom, L-cranes can operate at high speed and boast excellent hook height, both of which in turn increase productivity. The parked position is usually inside a container. The ability of the telescopic main boom for the TR models to extend further means that the arm system can be stowed within the container.



L-CRANES CLAMSHELL GRABBER APPLICATIONS

Due to their performance and level of resistance with regard to loading and unloading, EPSILON L-cranes are ideal for the clamshell grabber applications. The various control methods ensure maximum



#### L-cranes are available for:

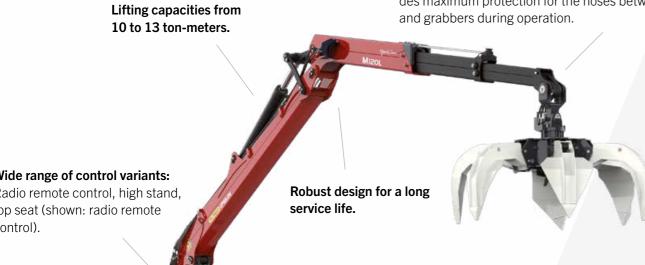
- » **M-Series** (Epsolution & Next Epsolution); medium-duty class covers lifting capacities of 10 to 13 ton-meters; pages: 8–11, 14–15.
- » **Q-Series** (Epsolution); upper end of the medium-duty class covers lifting capacities of 15 to 18 ton-meters; pages: 12–15.



#### **ML CRANES - EPSOLUTION**

#### **EPSLINK** (standard on all **EPSILON** crane models):

link/rotator combination with internally routed hoses provides maximum protection for the hoses between the crane and grabbers during operation.



#### **TECHNICAL DATA**

			1	M100I			M10	0LD			M110l				ı	W120I				M13	30L H	PLS	
		75	80V	80	83	97	80	97	75	80V	80	83	97	75	80V	80	83	97	75	80V	80	83	97
Number of extensions		2	2	1	2	2	1	2	2	2	1	2	2	2	2	1	2	2	2	2	1	2	2
Load torque (net)	[kNm]	100	97	97	95	92	89	85	111	108	108	106	103	119	117	116	114	112	132	129	129	127	124
Slewing torque (net)	[kNm]				24						27							2	8				
Slewing angle	[°]											425	5										
Max. outreach	[m]	7,5	8,0	8,0	8,3	9,7	8,0	9,7	7,5	8,0	8,0	8,3	9,7	7,5	8,0	8,0	8,3	9,7	7,5	8,0	8,0	8,3	9,7
Operating pressure	[bar]			215			20	0			235					250					280		
	1K [l/min]											1 x 8	80										
Pump capacity (max.)	2K [l/min]											2 x 7	0										
	1K LS [l/m]											1 x 13	30										
Dead weight without link/rotator incl. Classic Drive	[kg]	1990	2080	1990	2040	2110	2060	2180	2020	2110	2020	2070	2140	2060	2150	2060	2110	2180	2070	2160	2070	2120	2190





# Wide range of control variants: Radio remote control, high stand, top seat (shown: radio remote control).

#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.

#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

#### Variants:

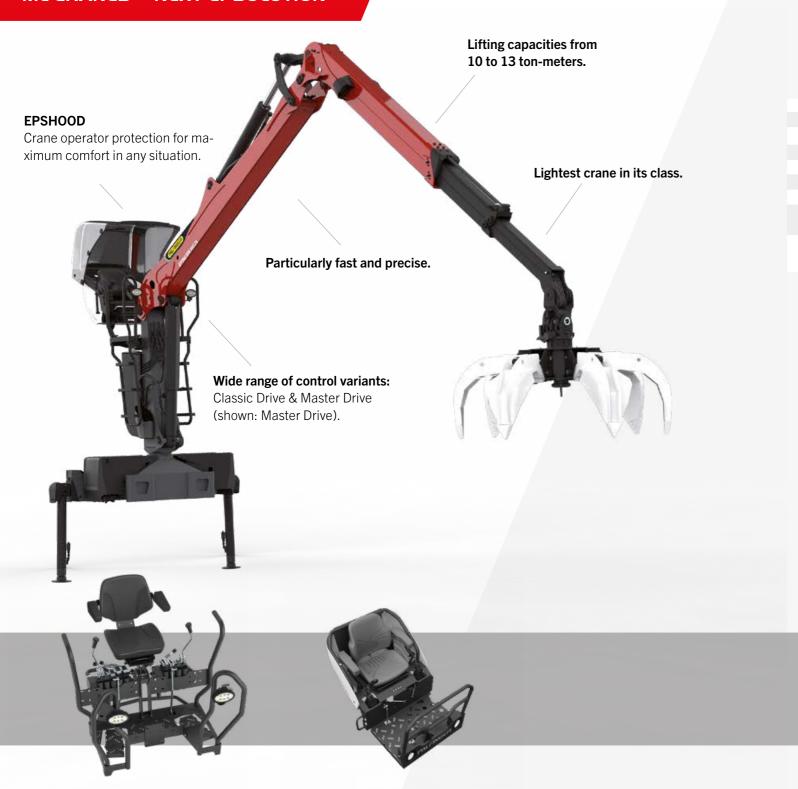
- High stand with manual control
- High stand with radio remote control and manual control

#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

#### **ML CRANES - NEXT EPSOLUTION**



#### Classic Drive

The lightweight standard top seat from PALFINGER EPSILON — lightweight, robust, reliable and proven to offer great performance.

Control: available with four-way control lever (JM) or linear lever (LM).

#### Master Drive

Master Drive gives the operator full control in any situation. The hydraulic servo-controlled joysticks help to achieve maximum precision and productivity in handling.

The ergonomic design of the mechanically suspended top seat ensures a high level of seat comfort, and all functions are immediately within reach with the multifunction armrest.

#### **TECHNICAL DATA**

			M10L			M10LI	D		M12L			M13I	
		80	83	97	80	83	97	80	83	97	80	83	97
Number of extensions		1	2	2	1	2	2	1	2	2	1	2	2
Load torque (net)	[kNm]	98	95	93	86	84	82	115	113	111	131	130	128
Slewing torque (net)	[kNm]		24			24			28			28	
Slewing angle	[°]						425						
Max. outreach	[m]	8,0	8,3	9,7	8,0	8,3	9,7	8,0	8,3	9,7	8,0	8,3	9,7
Operating pressure	[bar]		220			200			250			280	
D	1K [l/min]						1 x 80	0					
Pump capacity (max.)	2K [l/min]						2 x 7	0					
Dead weight without link/rotator including Classic Drive	[kg]	2070	2090	2160	2140	2160	2230	2140	2160	2230	-	-	-



#### **QL CRANES - EPSOLUTION**



#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.

#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

#### Variants

- High stand with manual control
- High stand with radio remote control and manual control

#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

#### **TECHNICAL DATA**

		Q	130LI	)			Q1	50L					Q1	70L				Q18	OL HF	LS	
		80	97	104	80V	80	83	97	104	115	80V	80	83	97	104	115	80V	80	83	97	104
Number of extensions		1	2	2	2	1	2	2	2	2	2	1	2	2	2	2	2	1	2	2	2
Load torque (net)	[kNm]	119	116	111	142	142	138	136	131	122	156	156	153	150	145	136	177	177	174	171	166
Slewing torque (net)	[kNm]					30										32					
Slewing angle	[°]											125									
Max. outreach	[m]	8,0	9,7	10,4	8,0	8,0	8,3	9,7	10,4	11,5	8,0	8,0	8,3	9,7	10,4	11,5	8,0	8,0	8,3	9,7	10,4
Operating pressure	[bar]		210				2	40					2	60					290		
Dump consoity (may )	1K[l/min]										1	x 90									
Pump capacity (max.)	2K [l/min]										2	x 80									
Dead weight without link/rotator including Classic Drive	[kg]	2450	2630	2690	2550	2410	2490	2590	2650	-	2590	2450	2530	2630	2690	-	2600	2460	2540	2640	2700





#### TRIPLE-L CRANES - EPSOLUTION

#### Lifting capacities

ML TR: 10 to 13 ton-meters QL TR: 15 to 18 ton-meters

Maximum outreach with minimum stowed length.



#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.

#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

- High stand with manual control
- High stand with radio remote control and manual control

#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

		M1	00L	M1	10L	M1	20L	Q1	50L	Q1	70L
		81TR	95TR	81TR	95TR	81TR	95TR	82TR	95TR	82TR	95TR
Number of extensions		2	2	2	2	2	2	2	2	2	2
Load torque (net)	[kNm]	92	90	103	100	111	109	134	131	148	145
Slewing torque (net)	[kNm]	2	4	2	7	2	8		30	3	2
Slewing angle	[°]			4	25				42	25	
Max. outreach	[m]	8,1	9,5	8,1	9,5	8,1	9,5	8,2	9,5	8,2	9,5
Operating pressure	[bar]	21	15	23	35	25	50	2	40	26	50
	1K [l/min]			1>	< 80				1 x	90	
Pump capacity (max.)	2K [l/min]			2)	< 70				2 x	80	
(IIIax.)	1K LS [I/min]			1 x	130				1 x 1	150	
Dead weight without link/rotator incl. Classic Drive	[kg]	2330	2400	2360	2430	2400	2470	2780	2880	2820	2920





# Z-CRANE THE TRANSFORMER

#### **EPSILON Z-cranes**

Compared with the L-crane, the Z-crane is much more compact and so can be folded up transversely to the direction of travel. This means that it is possible to load the vehicle fully up to the legally permissible total height and operate the tipper / hook device.



**Z-CRANES** SCRAP

The parking concept enables the vehicle to be loaded up to the legally permissible total assembly height even with grabs mounted. Asymmetrical polyp grabs mean that the vehicle width of 2.55 m is not exceeded.



**Z-CRANES** CONTAINERS

Further crane models such as the Triple Z enable the best possible loading options thanks to their geometries and hook heights. Furthermore, the additional EASYFOLD equipment offers an enormous advantage in daily use.

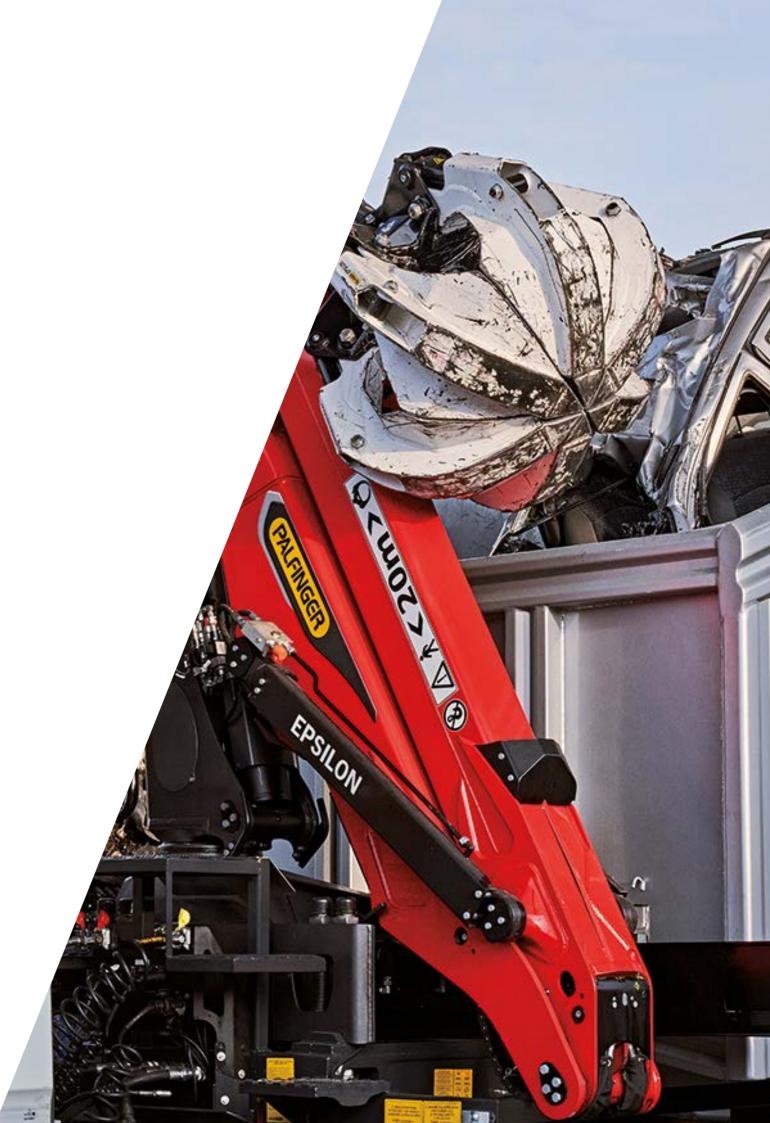


**Z-CRANES** CLAMSHELL GRABBER APPLICATIONS

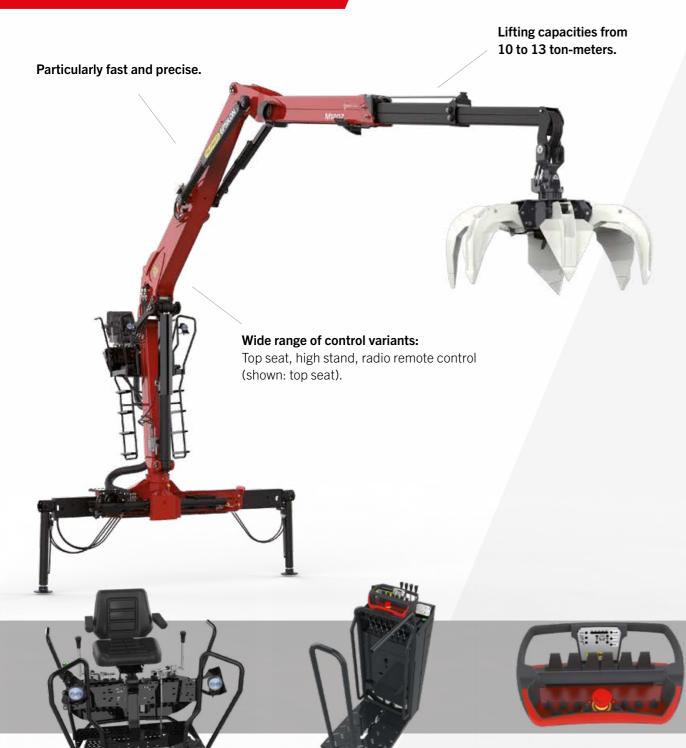
TIPPER Z — the crane for clamshell grabber applications on tipper trucks. Ideal working geometry for mounting on a tipper truck chassis for clamshell grabber applications. Thanks to the low height of the tipper truck's side walls, it is possible to forgo an elbow lever between the crane column and the main boom, thereby saving weight.



- » M-Series (Epsolution & Next Epsolution); medium-duty class covers lifting capacities of 10 to 13 ton-meters; pages: 18–21, 24–27.
- » **Q-Series** (Epsolution); upper end of the medium-duty class covers lifting capacities of 15 to 18 ton-meters; pages: 22–27.



#### **MZ CRANES - EPSOLUTION**



#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.

#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

#### Variants

- High stand with manual control
- High stand with radio remote control and manual control

#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

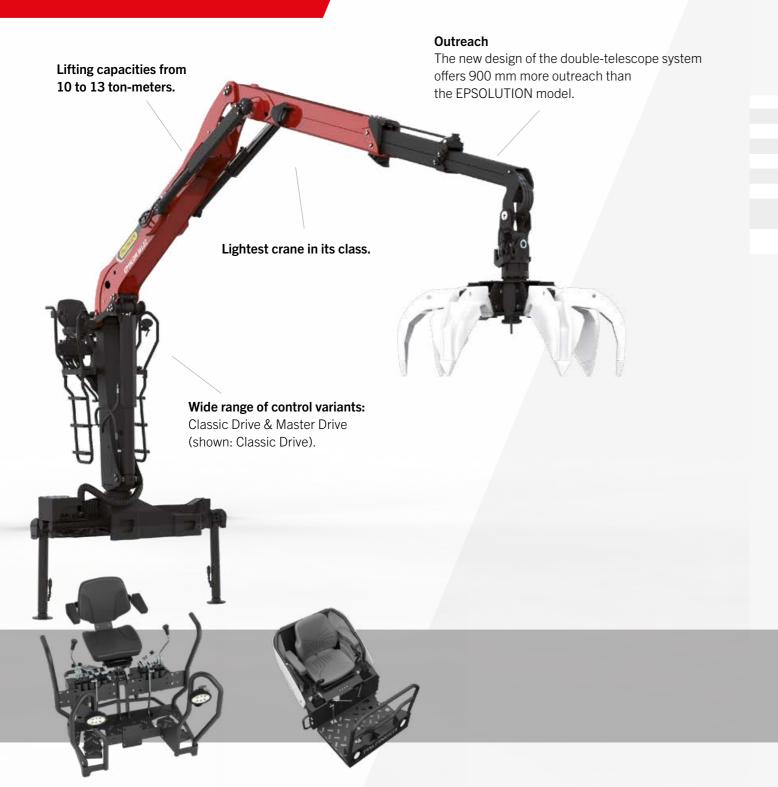
Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

			M1	00Z		M100ZD		M1	10Z			M1	20Z		ı	И130Z	HPLS	;
		77	79	82	96	96	77	79	82	96	77	79	82	96	77	79	82	96
Number of extensions		2	1	2	2	2	2	1	2	2	2	1	2	2	2	1	2	2
Load torque (net)	[kNm]	94	93	92	90	79	101	99	99	97	109	109	107	105	123	123	121	119
Slewing torque (net)	[kNm]			4	24			2	7			2	28			28	3	
Slewing angle	[°]								42	25								
Max. outreach	[m]	7,7	7,9	8,2	9,6	9,6	7,7	7,9	8,2	9,6	7,7	7,9	8,2	9,6	7,7	7,9	8,2	9,6
Operating pressure	[bar]		23	30		210		2	45			2	60			29	0	
	1K [l/min]								1 x	80								
Pump capacity (max.)	2K [l/min]								2 x	70								
(IIIdx.)	1K LS[I/min]								1 x 1	130								
Dead weight without link/rotator incl. Classic Drive	[kg]	2140	2100	2150	2200	2270	2170	2130	2180	2230	2210	2170	2220	2270	2220	2180	2230	2280





#### **MZ CRANES - NEXT EPSOLUTION**



#### Classic Drive

The lightweight standard top seat from PALFINGER EPSILON — lightweight, robust, reliable and proven to offer great performance.

Control: available with four-way control lever (JM) or linear lever (LM).

#### Master Drive

Master Drive gives the operator full control in any situation. The hydraulic servo-controlled joysticks help to achieve maximum precision and productivity in handling.

The ergonomic design of the mechanically suspended top seat ensures a high level of seat comfort, and all functions are immediately within reach with the multifunction armrest.

			M10Z			M12Z		ı	W132	7
		83	91	105	83	91	105	83	91	105
Number of extensions		1	2	2	1	2	2	1	2	2
Load torque (net)	[kNm]	93	91	87	109	107	104	109	107	104
Slewing torque (net)	[kNm]		24				28			
Slewing angle	[°]				4	125				
Max. outreach	[m]	8,3	9,1	10,5	8,3	9,1	10,5	8,3	9,1	10,5
Operating pressure	[bar]		230			260			290	
D	1K [l/min]				1	x 80				
Pump capacity (max.)	2K [l/min]				2	x 70				
Dead weight without link/ rotator including Classic Drive	[kg]	2220	2270	2350	2260	2310	2390	-	-	-



#### **QZ CRANES - EPSOLUTION**



#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.

#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

#### Variants:

- High stand with manual control
- High stand with radio remote control and manual control

#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

Q130ZD		Q150Z	7	(	Q170Z	7	Q18	30Z HF	PLS
96	79	82	96	79	82	96	79	82	96
2	1	2	2	1	2	2	1	2	2
120	145	142	140	163	160	158	185	181	180
	30						32		
				425					
9,6	7,9	8,2	9,6	7,9	8,2	9,6	7,9	8,2	9,6
210		235			260			290	
				1 x 90	)				
				2 x 80	)				
			. 1	1 x 150	0				
2720	2550	2600	2680	2590	2640	2720	2600	2650	273
	96 2 120 9,6 210	96 79 2 1 120 145 30 9,6 7,9 210	96 79 82 2 1 2 120 145 142 30 9,6 7,9 8,2 210 235	96     79     82     96       2     1     2     2       120     145     142     140       30       9,6     7,9     8,2     9,6       210     235	96	96         79         82         96         79         82           2         1         2         2         1         2           120         145         142         140         163         160           30         425           9,6         7,9         8,2         9,6         7,9         8,2           210         235         260           1 x 90         2 x 80         1 x 150	96         79         82         96         79         82         96           2         1         2         2         1         2         2           120         145         142         140         163         160         158           30         425           9,6         7,9         8,2         9,6         7,9         8,2         9,6           210         235         260         1 x 90         2 x 80         1 x 150	96         79         82         96         79         82         96         79           2         1         2         2         1         2         2         1           120         145         142         140         163         160         158         185           30         32           425           9,6         7,9         8,2         9,6         7,9         8,2         9,6         7,9           210         235         260         1 x 90         2 x 80         1 x 150	96         79         82         96         79         82         96         79         82           2         1         2         2         1         2         2         1         2           120         145         142         140         163         160         158         185         181           30         32           425           9,6         7,9         8,2         9,6         7,9         8,2         9,6         7,9         8,2           210         235         260         290           1 x 90         2 x 80         1 x 150         1 x 150





#### TRIPLE-Z CRANES - EPSOLUTION



#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.

#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

#### Variants

- High stand with manual control
- High stand with radio remote control and manual control

#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

#### **TECHNICAL DATA**

			M10	00Z	M1:	LOZ	M1	20Z	Q1	50Z	Q17	70Z	Q18	0Z
			79TR	95TR	79TR	95TR	79TR	95TR	79TI	95TR	79TR	95TR	79TR	95TR
	Number of extensions		1	2	1	2	1	2	1	2	1	2	1	2
	Load torque (net)	[kNm]	91	88	98	94	104	101	143	138	156	150	175	170
	Slewing torque (net)	[kNm]	2	4	2	7	2	8	3	80			32	
	Slewing angle	[°]			42	5			42	25				
	Max. outreach	[m]	7,9	9,5	7,9	9,5	7,9	9,5	7,9	9,5	7,9	9,5	7,9	9,5
	Operating pressure	[bar]	26	60	27	75	29	90	240					
		1K [l/min]			1 x 8	30					1>	(90		
	Pump capacity (max.)	2K [l/min]			2 x i	70					2>	(80		
		K LS [l/min]			1 x 1	30					1 x	150		
li	Dead weight without nk/rotator incl. Classic Drive	[kg]	2360	2460	2390	2490	2430	2530	2820	2920	2860	2960	2870	2970





#### **TIPPER-Z CRANES - EPSOLUTION**



MZ TI: 10 to 13 ton-meters QZ TI: 15 to 18 ton-meters

Thanks to its short stowed length, the crane including grab can be stowed within the width of the vehicle.

Wide range of control variants:
Radio remote control, high stand, top seat (shown: high stand).

Ideal for front-mounting thanks to its compact, lightweight design.

Perfect for clamshell grabber applications on tipper trucks and construction site vehicles.



#### Top seat

Whether behind the column as standard or as a side-mounted arrangement, controlling the crane from the top seat guarantees optimum functionality and ergonomics.

The side top seat, mounted either on the left or right, provides the best possible view of the working area.



#### High stand

Perfect view into the tipper; can also be combined with radio remote control.

#### Variants

- High stand with manual control
- High stand with radio remote control and manual control



#### Radio remote control

Highly precise and easy operation with the best possible view of the load.

Available as linear lever, four-way control lever, four-way control lever with twist function or joystick.

#### **TECHNICAL DATA**

		M100Z	M110Z	M120Z	Q150Z	Q170Z
		84TI	84TI	84TI	84TI	84TI
Number of extensions		2	2	2	2	2
Load torque (net)	[kNm]	93	101	107	141	160
Slewing torque (net)	[kNm]	24	27	28	30	32
Slewing angle	[°]		425		42	25
Max. outreach	[m]		8,4		8	,4
Operating pressure	[bar]	230	245	260	240	260
	1K [l/min]		1 x 80		1 x	90
Pump capacity (max.)	2K [l/min]		2 x 70		2 x	80
(пил.)	1K LS [l/min]		1 x 130		1 x	150
Dead weight without link/rotator incl. Classic Drive	[kg]	2210	2240	2270	2560	2600

#### Download App "PALFINGER XR"



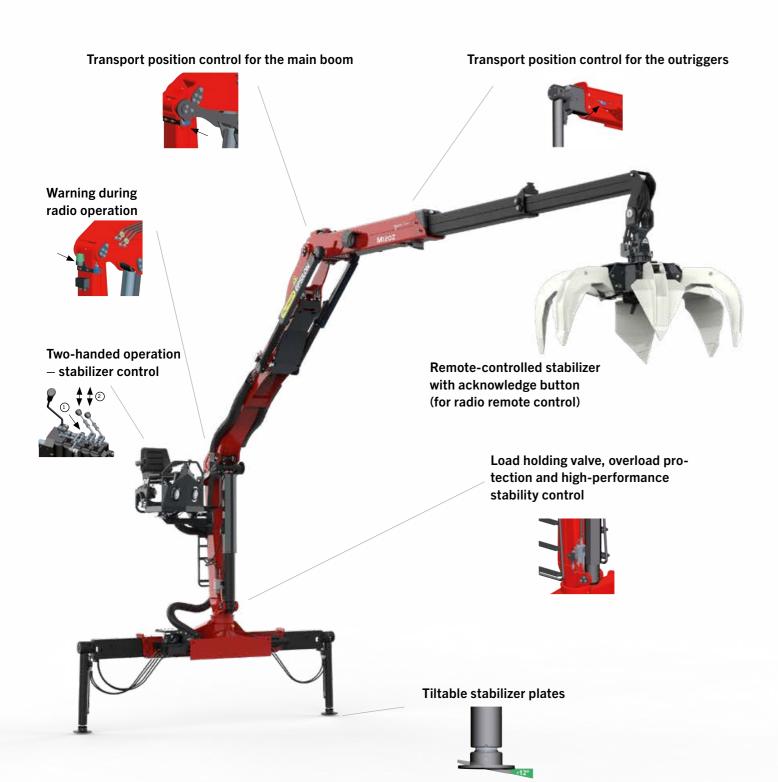
- 1. Open the PALFINGER XR app and click "Scan marker".
- **2.** Scan the video clip to start playback of the product video.





# STANDARD EQUIPMENT FOR RECYCLING

### **EN 12999 STANDARD**



# STANDARD EQUIPMENT FOR RECYCLING

**EN 12999 STANDARD** 

Besides the "S" factor explained on page 4, the European EN 12999 standard defines the minimum requirements for the design, calculation, inspection and testing of hydraulic loader cranes and their mounting on vehicles.

On the following pages, you will find the measures required by EN 12999 listed together with the solutions that PALFINGER EPSILON has found to meet these requirements.

#### Requirements of EN 12999

#### Transport position control for the main boom

- EN 12999 requirement: Monitoring of the transport position for the main boom to prevent collisions with objects such as bridges.
- PALFINGER EPSILON solution: A limit switch
  on the crane column indicates whether the
  main boom has been parked at an angle of less than 90°.
  The mounting specialist must install a visual
  and audible warning system in the cab to warn the driver.

#### Transport position control for the outriggers

- EN 12999 requirement: Monitoring of the transport position for manually and hydraulically actuated outriggers.
- PALFINGER EPSILON solution: A limit switch on each transverse spar indicates whether the outriggers are retracted. The switches must be cabled up to the crane base and the mounting specialist must install a visual and audible warning system in the cab to warn the driver if either of the outriggers is not in the transport position.

#### Two-handed operation — stabilizer control

- **EN 12999 requirement:** The stabilizer must be secured against inadvertent actuation by means of e.g. two-step activation "two-handed operation" on the top seat.
- PALFINGER EPSILON solution: Hand lever for stabilizer control on the mechanically controlled top seat with two-step control:
  - 1.) Overcome the spring travel and 2.) Operate the stabilizer. Alternatively, switch from crane to stabilizer operation via a changeover switch for the Master Drive and radio remote control.

#### Load holding valves

- **EN 12999 requirement:** In the event that a hose breaks, the arm system must not lower in an uncontrolled manner.
- PALFINGER EPSILON solution: Load holding valves installed on slewing and lifting cylinders and outer boom rams.

#### Tiltable stabilizer plates

- **EN 12999 requirement:** The stabilizer plates must compensate for surface unevenness of up to 10° in all directions.
- **PALFINGER EPSILON solution:** Stabilizer cylinders with plates that tilt by up to 12°, also available in extended 170 mm design.

### Overload protection & high-performance stability control

- **EN 12999 requirement:** Depending on the control method used, cranes must be protected against overloads by electrical or mechanical means.
- PALFINGER EPSILON solution: Three different recycling packages: CERM, HPSC, HPSC-L.

#### Warning during radio operation

- EN 12999 requirement: Cranes must show a warning signal during radio operation.
- PALFINGER EPSILON solution: Green warning light flashes on the crane during radio operation.

### RECYCLING PACKAGES CERM AND CE RECYCLING MINI

This simple variant is ideal when there are no restrictions on the stabilization width of the crane. The crane can be operated only when the outriggers are fully extended and with full stabilization. While the crane is not fully stabilized, or the stabilizer is being actuated, the crane switches to overload, meaning that the functions for raising/lowering the main boom and knuckle boom are blocked. At the same time, the terminal on the top seat is equipped with a capacity utilization indicator that informs the operator visually and audibly when capacity utilization of 90 percent is reached. This recycling package was designed exclusively for the standard top seat variants of the EPSOLUTION series and the Classic Drive in the NEXT EPSOLUTION series.

#### Operation:

A crane cannot be operated until the outriggers are fully extended and the stabilizer rams are down.

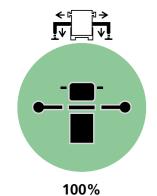
#### **Function description:**

Slide rods of the stabilizer are monitored. As soon as the stabilizer is actuated, the crane switches to overload. The RAISING/LOWERING functions for the main boom as well as RAISING for the knuckle boom and telescope OUT are blocked.

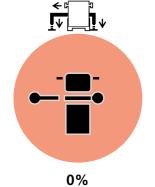


Overload protection on the top seat is provided by lock cylinders, slide rod monitoring for the stabilizer, only in conjunction with the standard top seat, HSCJ, not Paltronic.

#### **STABILIZER SUPPORT**



The stabilizer is fully extended and supported on both sides. **Full lifting power** 



Both stabilizer rams down. Only one outrigger extended. **No lifting power** 



Both stabilizer rams down. Both

outriggers retracted.

No lifting power

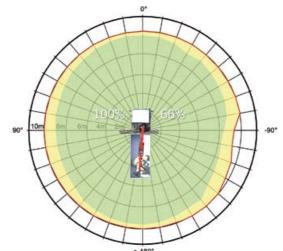
0%

Only one stabilizer ram down. **No lifting power** 

# RECYCLING PACKAGES HPSC AND HPSC-LIGHT (HIGH PERFORMANCE STABILITY CONTROL)

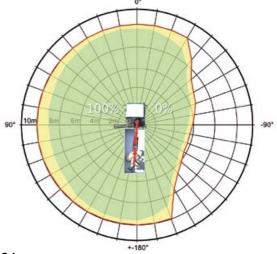
HPSC means that the crane operator benefits from the maximum level of comfort and safety — including during crane deployments in confined spaces. In heavily built-up areas, in flowing traffic or similar situations, the vehicle can often be stabilized only on one side, partially or not at all. HPSC guarantees that crane work can be carried out safely even in cases like these, because it is no longer necessary to ensure that the predefined stabilizer conditions are achieved.

Compared with conventional proportional systems, the HPSC system from PALFINGER EPSILON comes closest to true stability. HPSC and HPSC-L provide a real-time calculation of the lifting capacity depending on the support situation, slewing angle, etc.



#### HPSC

- Outriggers: left 100%; right 66%.
- Infinitely variable outrigger monitoring (retracted 0% **to** extended 100%).
- Control variants available: standard top seat, HSCJ, SCMD, SCRCD, RCE.
- Auxiliary support possible, but not cabled up.
- Ballast weights (LCA 03 and LCA 05) possible.



#### HPSC-L

- Outriggers: left 100%; right 0%.
- Two-step outrigger monitoring (retracted 0% or extended 100%).
- Control variants available: standard top seat, HSCJ, SCMD, SCRCD, RCE.
- No auxiliary support possible.
- Ballast weights (LCA 03 and LCA 05) possible.



#### Download App "PALFINGER XR"



- **1.** Open the PALFINGER XR app and click "Scan marker".
- 2. Scan the video clip to start playback of the product video.







### LIFETIME SERVICE A UNIQUE NETWORK

A high level of service quality demands speed and expertise. Hand in hand with our service partners, we form a powerful global service network. Together we develop solutions designed to enhance efficiency, safety and comfort. You can be confident that our entire service portfolio is designed specifically to ensure your long-term success.

To ensure that it can respond rapidly, PALFINGER has built a tightly knit network of general representatives and service partners. Globally, this translates to more than 5,000 service centers in 130 countries. For you, this means quick communication and speedy support.

For the extensive network of manufacturers, general representatives and service partners, we have developed a comprehensive certification structure. This ensures that every single partner within this system can help to ensure customer satisfaction as effectively as possible.

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### **ENVIRONMENT, QUALITY & SUSTAINABILITY**

**LIFTING SUSTAINABILITY** 

As a responsible employer, PALFINGER produces eco-efficient, sustainable products and is committed to doing business fairly. Sustainability management at PALFINGER comprises four areas: responsible employer, eco-efficient production, sustainable products and doing business fairly.

At PALFINGER EPSILON, dealing with environment and sustainability issues does not just take place at management level. It is very important to the company to involve every single employee and, as far as possible, every customer in the process.

In order to ensure that, PALFINGER EPSILON guarantees the following points from the area of environmentally friendly products / production processes / procurement:

#### EPSILON material -

reliability, short transportation routes and top quality

- 95 percent of the material volume made in the EU
- 60 percent of the material volume made by PALFINGER
- In-house manufacturing plants -1 in Austria, 2 in Bulgaria

#### ISO environmental certification

 EPSILON Elsbethen plant certified in accordance with ISO 14001:2015

#### LIGHTER, FASTER, STRONGER -

EVERY new product development must

- either: achieve a reduction in the resources used
- or: increase the efficiency of the products



# YOUR PARTNER FOR THE FUTURE

With PALFINGER EPSILON, every product is much more than the sum of its parts. Throughout the entire company, we work to ultra-modern requirements and always aim to create durable, innovative and customized solutions for our customers. Customer satisfaction is the top priority for us. That is why you can rely on long-lasting and low-maintenance products from PALFINGER EPSILON that are characterized by a high degree of cost-effectiveness and low energy consumption.

We are always striving for long-term solutions and our machines have their origins in the requirements of customers. We then implement these in terms of lifting capacity, installation height and arm geometry, for example. Together with our partners, we continue to pull out all the stops when it comes to supplying you with the best customized solutions by creating innovative products.

PALFINGER EPSILON.





#### KP-PR056M3+EN 12/2020

KP-PR056 is for international use. Standard and special equipment and the availability of some models may vary from country to country. EPSILON reserves the right to modify designs and technical implementation at any time and without advance notice without being obligated in any way to transfer these changes to units that have already been purchased. Specifications, descriptions and illustrations are up to date at the time of going to print but may also be modified without advance notice. Images may show particular designs for specific countries, special equipment as well as incomplete standard designs. Dimensions may vary. Load representations are standardized figures and do not correspond to the optimum boom position in which the maximum lifting capacity can be achieved.

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