

Putzmeister

47Z-METER | TRUCK-MOUNTED CONCRETE BOOM PUMP

47Z-METER



A NEW STANDARD OF INNOVATION AND EXCELLENCE

LARGE ON REACH, SMART IN DESIGN

Congested job sites are no match for the maneuverable, five-section Z-Fold boom design of the 47Z-Meter. The boom's well-designed layout of components incorporates fewer bends for easier service, a smoother concrete flow, a longer service life and greater parts commonality.

Its rotation bearing pedestal handles higher levels of torque. In addition to the unit's already compact outrigger footprint, the 47Z-Meter features Putzmeister's One-Sided Support (OSS) system as standard, to further minimize the space required when pumping.



2

ERGONIC® SYSTEM BENEFITS



3

**ERGONIC PUMP
CONTROL SYSTEM (EPS)**

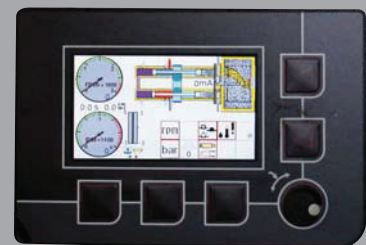
The computer-aided EPS constantly monitors and regulates the operation of the concrete pump and truck engine. The electronic regulation of this system means the pump always runs at peak performance. EPS results in more productivity and greater efficiency with less for the operator to worry about.



4

ERGONIC OUTPUT CONTROL (EOC)

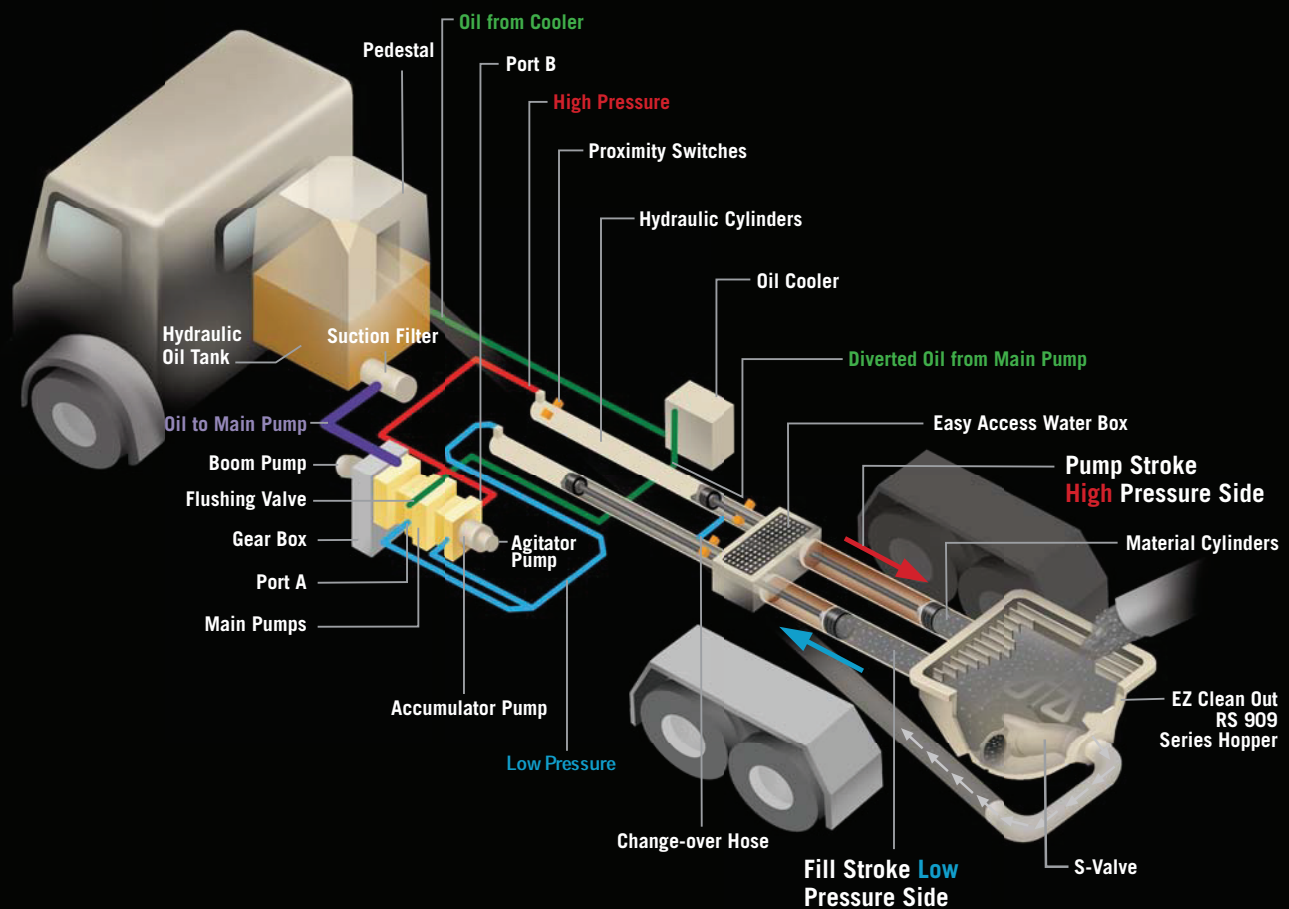
Integral to EPS, EOC reduces fuel consumption, wear and noise. EOC automatically adjusts the engine speed to the minimum required for the delivery rate specified by the operator on the remote control.



5

ERGONIC GRAPHIC DISPLAY (EGD)

Putting the operator in control of success, the color EGD provides EPS monitoring from one convenient location. The simple-to-use EGD shows a quick and clear visual display of important system information and allows the operator to set individual pumping performance parameters.



PUTZMEISTER | FREE FLOW HYDRAULICS

FREE FLOW HYDRAULICS IN A CLOSED LOOP SYSTEM

The pumps at the heart of Putzmeister's free flow pumping system are bi-directional, variable displacement piston pumps. Depending on stroke, oil flows in a closed loop from either port A or port B on the pump to the hydraulic cylinders.

Depending on the specific pump cell size, up to 20% of the oil leaves the simple closed loop system during each stroke through a flushing valve on the main pump and cycles to a cooler before it returns to the hydraulic oil tank. Removing and cooling only this minimal amount of oil is possible because, unlike an open loop system, the oil flows freely without passing through any unnecessary valves that can generate heat.

The closed loop also requires far less oil to run the system, as a larger reservoir is not necessary to cool all of the oil.

Speed and timing are also critical to superior performance. Quicker and more responsive than a hydraulic signal, the electrical system on a Putzmeister pump minimizes the time it takes to change direction at stroke end.

An electrical signal precisely synchronizes the drive cylinders with the accumulator system that controls the S-Valve in the hopper. Reserved energy stored in a nitrogen bladder is sent as a supercharged blast of oil at precisely the right moment to facilitate a smooth and fast shift of the S-Valve from one position to another.

KEY ADVANTAGES OF PUTZMEISTER'S FREE FLOW HYDRAULICS

- Changes in material pressure in the delivery line are reduced to ensure smooth pumping and a consistent concrete flow.
- The intelligent design minimizes wear-inducing pressure peaks, increases service life and makes our pumps extremely powerful.
- Rapid change-over of the stroke means higher outputs, a smoother flow of concrete and less boom bounce.
- There is greater pump output due to the efficient use of all available energy.

BOOM

- 151' 3" (46.10m) vertical reach
- Versatile 5-section Z-Fold boom
- Manual lubrication
- Integrated work lights

BOOM OPERATION AND CONTROL

- Fully proportional HBC radio remote
- Ergonic® Boom Control (EBC) for smooth and precise boom positioning at greater distances
- Fully proportional cable remote with 130' (40m) cable
- Gauge Port Central (GPC)
- Modular Boom Controls (MBC)
- 24V control box

DELIVERY LINE

- Equipped with 5" (125mm) twin-pipe delivery line on all boom sections providing efficient concrete delivery
- ESSER 900 twin-pipe deck pipe with 900 turret elbow
- Easy lift-out brackets for simple delivery line replacement
- Standardized elbows and straight pipe sections
- Common component availability and easy replacement

PEDESTAL

- Rotation bearing and access openings simplify turret pipe changes
- Fully integrated pedestal design absorbs all forces
- Easy access large single-suction filter with indicator gauge
- Efficient hydraulic system
- Condensation trap in the hydraulic tank for water collection
- Two spacious decks for convenient pipe and hose storage
- Manual lubrication
- Side-mounted aluminum toolboxes
- Integrated work lights
- Breakaway rear steps

OUTRIGGERS

- Quick setup on restrictive job sites
- Fully hydraulic outriggers with integral cylinders
- "X" brace outrigger system
- Front outriggers extend diagonally out and down
- Rear outriggers swing out and extend down
- Auxiliary fuel tank in outrigger
- Auxiliary water tank in outrigger
- Four outrigger pads in two side compartments
- One-Sided Support (OSS) system featuring a 120° working range
- Bubble level indicators

CONCRETE PUMP

- Choose from high pressure or high volume with the same setup
- Free flow hydraulic system for smooth, controllable pumping
- Multi-piece piston cup design
- Hard-chromed material cylinders
- Redundant proximity sensor system with function indicators
- Fully adjustable volume control for very slow pumping with full concrete pressure and boom speed
- Modular pump control box
- Ergonic Pump System (EPS) with color Ergonic Graphic Display (EGD)

EZ CLEAN OUT RS 909 HOPPER

- Large 19.4 ft³ (550L) capacity
- Hard-faced remixer paddle
- Grate-mounted vibrator
- Multi-piece grate featuring bolted connections
- Hopper grate RFID safety switch
- Hinged splash guard covers hopper during transit
- Low hopper height allows easy discharge from a mixer truck
- Automatic lubrication
- Hopper work light

S-VALVE

- Ideal for high pressure applications and harsh mixes
- Hard-faced S-Valve
- Gradual 9" to 7" (230 to 180mm) reduction
- Thick-walled valve construction
- Lasting wear over years of use

CLEAN OUT

- Fast and easy clean out
- 406 psi (28 bar) hydraulically-driven water pump
- Wash out kit and hose
- Integrated 40 gallon (145L) water tank in pedestal, 153 gallon (580L) water tank in outrigger



The PRO-VANTAGE® Warranty Plan extends the coverage on all Putzmeister BSF boom pumps for a total of 36 months or 6,600 hours at no extra charge. Domestic only.



BETTER BOOM DESIGN

7

Robust and more resilient, Putzmeister's "smart design" boom incorporates welding seams below the edge of maximum stress. The boom is engineered to offer the flexibility to adapt to different loads and features more straight pipe for a less stressful concrete flow and longer wear on parts. The Z-Fold configuration handles space restrictive areas and can pump even if the boom is not fully extended.



CONVENIENCE AND CONTROL

8

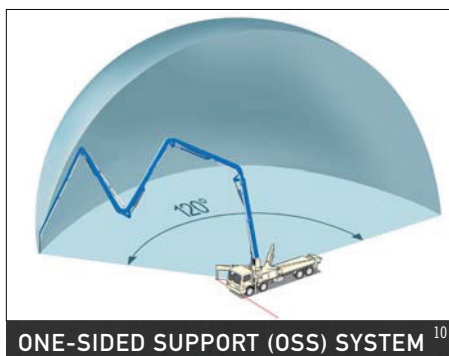
The Frequency Hopping system on the standard HBC proportional radio remote ensures minimal interference with other frequency transmitters. Radiomatic Power Boost further enhances reception quality with a 50-100% increase in signal power. A fully proportional cable remote is also standard. Unlike other remote control systems, the radio and cable remote systems are independent, offering redundancies to ensure proportional operation with either the radio or cable remote.



RS 909 HOPPER

9

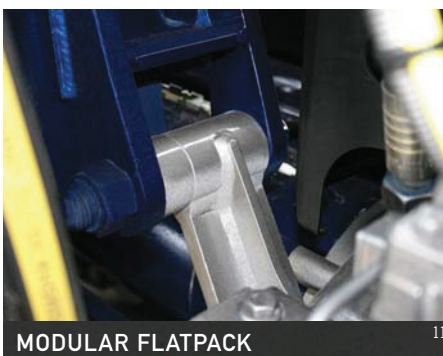
Putzmeister's robust, yet lightweight EZ Clean Out RS 909 hopper is engineered for performance and durability. Offering 19.4 ft³. (550L) capacity, the hopper uses one hard-faced remixer paddle motor and grate-mounted vibrator. The multi-piece grate features bolted connections that allow for easy maintenance. An innovative RFID safety switch incorporated in the hopper disables the machine when the grate is opened.



ONE-SIDED SUPPORT (OSS) SYSTEM

10

For enhanced job site versatility, Putzmeister's unique OSS system allows the operator to reduce the outrigger extension on one side of the unit to create a smaller overall machine footprint. Utilizing a series of sensors, OSS enables the unit to maintain a defined and safe 120 degree working envelope on space restrictive sites that demand a larger boom.



MODULAR FLATPACK

11

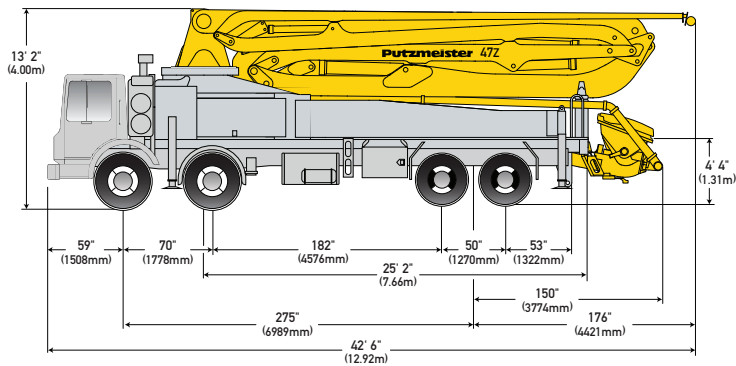
Fully removable, Putzmeister's modular bolt-on flatpack and hydraulic system combine versatility and servicing convenience. This simple design allows for cost-effective, minimally labor intensive pump cell replacement for upgrades, repairs or as part of a maintenance program.



FUEL ECONOMY

12

Switch gears and save with Putzmeister's patented Econo-Gear™. The exclusive design allows the Mack chassis engine to run at a lower rpm, achieving less stress on wear parts, lower noise levels and reduced fuel consumption. Econo-Gear makes a significant impact on job site safety and profitability with an estimated 10-15% savings.



47Z-METER TRUCK-MOUNTED SPECIFICATIONS

Length	42' 6"	(12.92m)
Width	8' 2"	(2.50m)
Height	13' 2"	(4.00m)
Wheelbase	275"	(6,989mm)
Front axle weight	34,500 lbs	(15,600kg)
Rear axle weight	43,600 lbs	(19,800kg)
Approx total weight	78,100 lbs	(35,400kg)

Based on Model MACK MRU 613 with .16H pump cell.

Weights are approximate and include pump, boom, truck, driver and some fuel. Varies with options selected.

Dimensions will vary with different truck makes, models and specifications.

BOOM SPECIFICATIONS | Z-FOLD DESIGN

Height & Reach

Vertical reach	151' 3"	(46.10m)
Horizontal reach	138' 1"	(42.09m)
Reach from front of truck*	128' 2"	(39.07m)
Reach depth	105' 8"	(32.21m)
Unfolding height	31' 2"	(9.50m)

5-Section Boom

1st section articulation	91°	
2nd section articulation	181°	
3rd section articulation	180°	
4th section articulation	245°	
5th section articulation	234°	
1st section length	29' 2"	(8.89m)
2nd section length	25' 11"	(7.90m)
3rd section length	24' 7"	(7.49m)
4th section length	27' 3"	(8.31m)
5th section length	31' 2"	(9.50m)

General Specs

Pipeline Size (ID) metric ends	5"	(125mm)
Rotation	365°	
End hose — length	10' 0"	(3.00m)
End hose — diameter	5"—4"	(125–102mm)
Outrigger spread L - R — front	26' 1"	(7.95m)
hydraulically extend out & down		
Outrigger spread L - R — rear	29' 6"	(8.99)
hydraulically swing out & extend down		

PUMP SPECIFICATIONS

47Z.16H

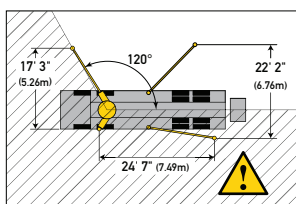
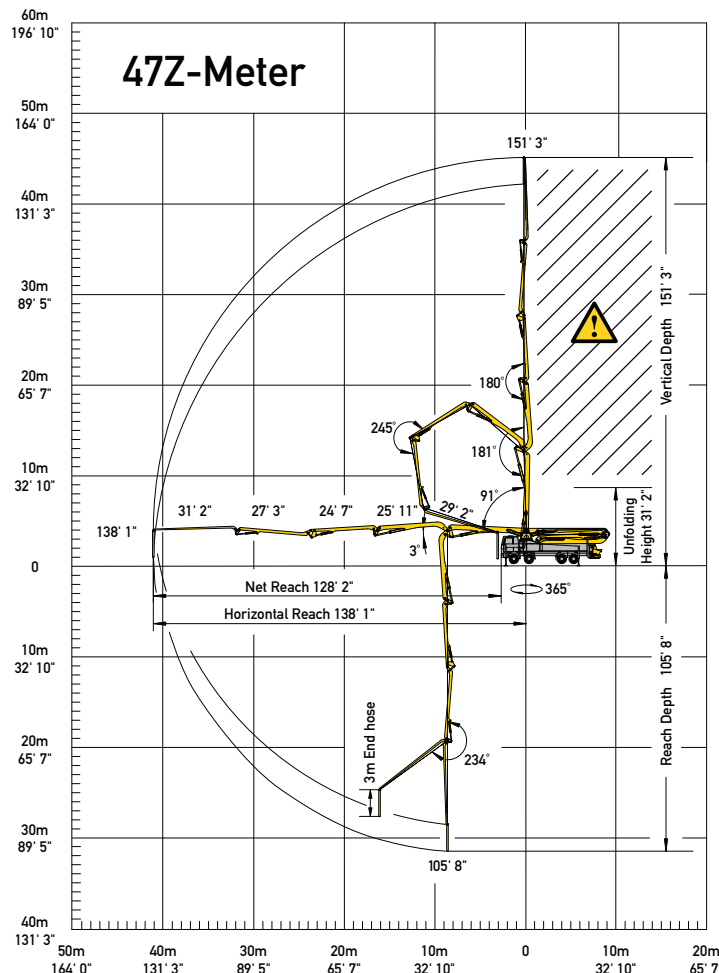
47Z.20H

Output	— rod side	210 yd ³ /hr (160m ³ /hr)	—
	— piston side	146 yd ³ /hr (112m ³ /hr)	260 yd ³ /hr (200m ³ /hr)
Pressure	— rod side	1,233 psi (85 bar)	—
	— piston side	1,885 psi (130 bar)*	1,233 psi (85 bar)
Material cylinder diameter		9" (230mm)	11" (280mm)
Stroke length		83" (2,100mm)	83" (2,100mm)
Maximum strokes per minute			
	— rod side	31	—
	— piston side	21	26
Volume control		0-Full	0-Full
Vibrator		Standard	Standard
Hard-chromed material cylinders		Standard	Standard
Hydraulic system		Free Flow	Free Flow
Hydraulic system pressure	5,075 psi (350 bar)		5,075 psi (350 bar)
Differential cylinder diameter	5.5" (140mm)		5.5" (140mm)
Rod diameter	3.1" (80mm)		3.1" (80mm)
Maximum size aggregate	2.5" (63mm)		2.5" (63mm)
Water tank — pedestal	40 gal (145L)		40 gal (145L)
— outrigger	153 (580L)		153 gal (580L)

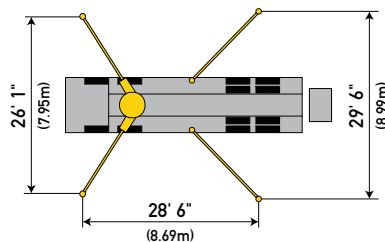
Maximum theoretical values listed.

* Applies to units mounted on PMA stock truck — MACK MRU 613

• Standard delivery line system rated at max line pressure of 1,233 psi (85 bar)



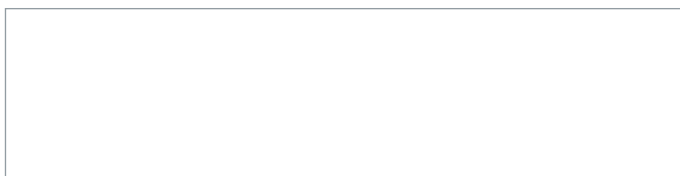
With one-sided support (OSS) 120°



⚠ End hose not to be operated in caution area.

Photos and drawings are for illustrative purposes only.

Authorized Distributor



Putzmeister

Putzmeister America, Inc. Phone (262) 886-3200
1733 90th Street Toll-free (800) 884-7210
Sturtevant, WI 53177 USA Fax (262) 884-6338

PutzmeisterAmerica.com

pmr@putzam.com