

# 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)**

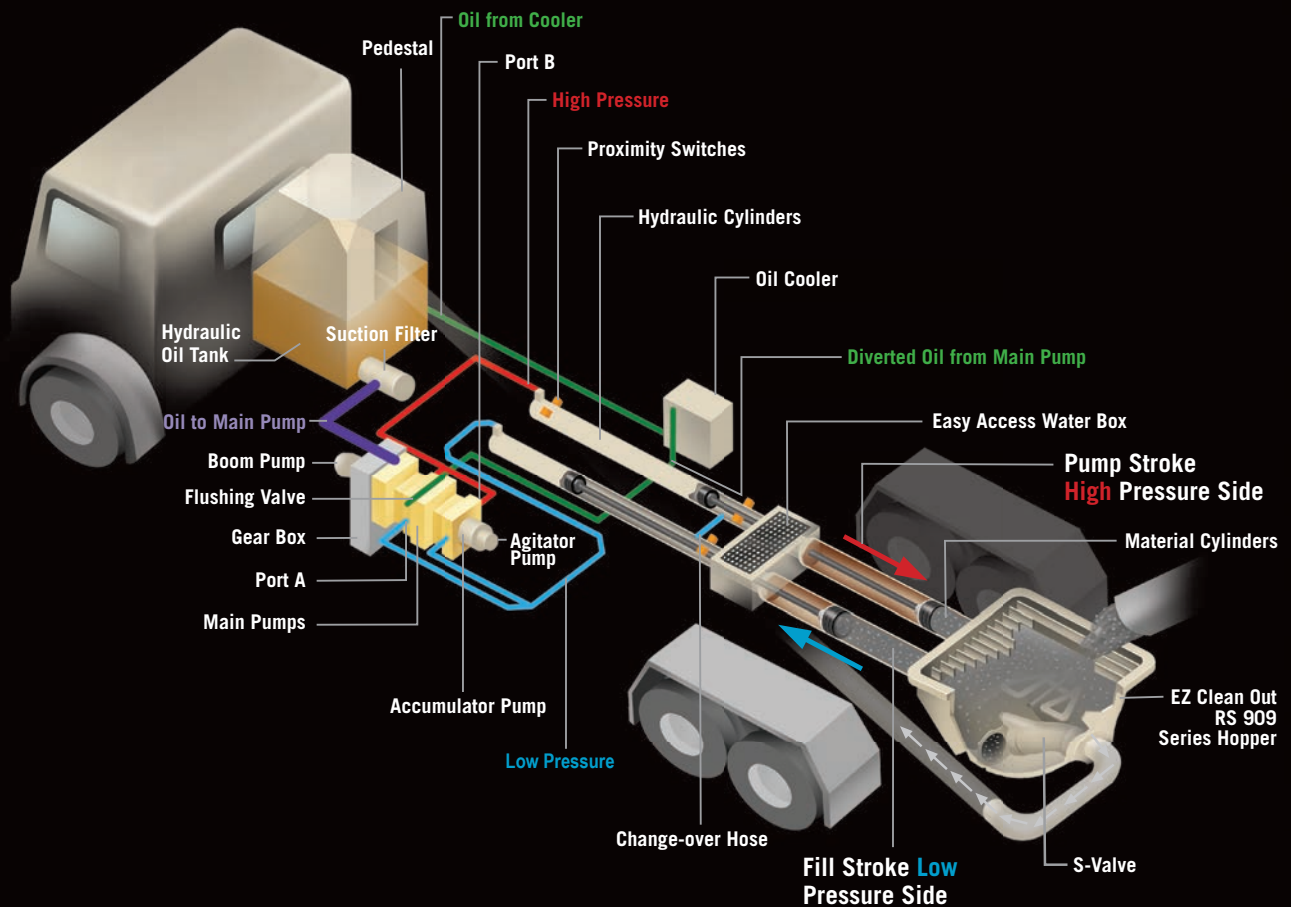
Integral to EPS, EOC reduces fuel consumption, wear and noise. EOC automatically adjusts the engine speed to the minimum required for the delivery rate specified by the operator on the remote control.



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.

# 47Z-METER | TRUCK-MOUNTED CONCRETE BOOM PUMP STANDARD FEATURES

## BOOM

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

## BOOM OPERATION AND CONTROL

- Fully proportional HBC radio remote
- Fully proportional cable remote with 130' (40m) cable
- Gauge Port Central (GPC)
- Modular Boom Controls (MBC)
- 24V electrical system

## DELIVERY LINE

- Equipped with 5" (125mm) twin pipe delivery line on all boom sections providing efficient concrete delivery
- P2W twin pipe deck pipe with PPT 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
- Condensation trap in the hydraulic tank for water collection
- Two spacious decks for convenient pipe and hose storage
- Manual lubrication, optional auto 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
- Four outrigger pads in two side compartments
- Bubble level indicators
- Auxiliary fuel tank in outrigger
- Auxiliary water tank in outrigger
- One-Sided Support (OSS) outriggers 120°

## CONCRETE PUMP

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

## EZ CLEAN OUT RS 909 HOPPER

- Large 19.4 ft<sup>3</sup> (550L) capacity
- Hardox remixer paddle
- Grate-mounted vibrator
- 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.



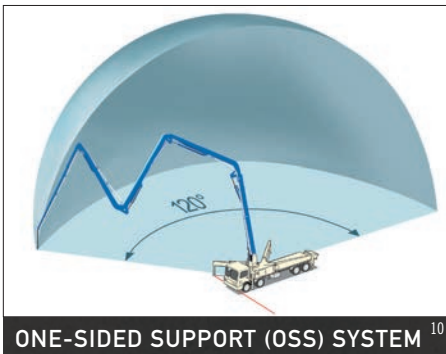
Robust and more resilient, Putzmeister's "smart design" boom incorporates welding seams below the edge of maximum stress. The boom is engineered to offer the flexibility to adapt to different loads and features more straight pipe for a less stressful concrete flow and longer wear on parts. The Z-Fold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



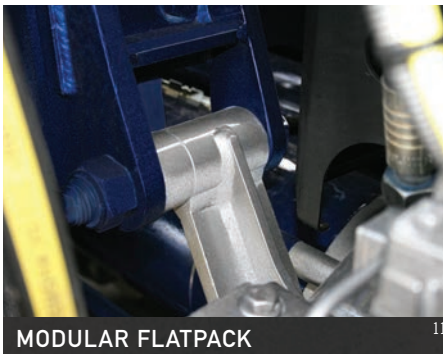
The Automatic Frequency Management (AFM) system on the standard HBC proportional radio remote ensures minimal interference with other frequency transmitters. A fully proportional cable remote is also standard. Unlike other remote control systems, the radio and cable remote systems are independent, offering redundancies to ensure proportional operation with either the radio or cable remote.



Putzmeister's robust, yet lightweight EZ Clean Out RS 909 hopper is engineered for performance and durability. Offering 19.4 ft<sup>3</sup>. (550L) capacity, the hopper uses one remixer paddle motor and grate-mounted vibrator. An innovative RFID safety switch incorporated in the hopper disables the machine when the grate is opened.



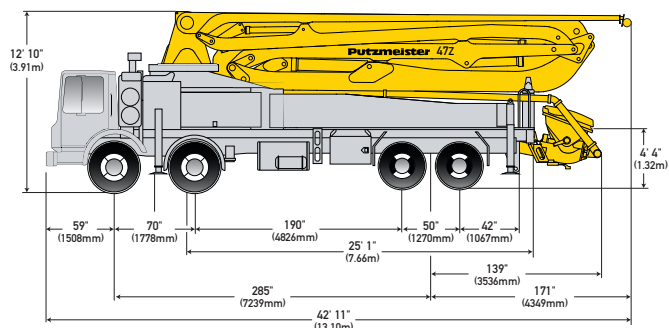
For enhanced job site versatility, Putzmeister's unique OSS system allows the operator to reduce the outrigger extension on one side of the unit to create a smaller overall machine footprint. Utilizing a series of sensors, OSS enables the unit to maintain a defined and safe 120 degree working envelope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



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.



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' 11"	(13.10m)
Width	8' 2"	(2.50m)
Height	12' 10"	(3.91m)
Wheelbase	285"	(7,239mm)
Front axle weight	35,448 lbs	(16,079kg)
Rear axle weight	41,937 lbs	(19,022kg)
Approx total weight	77,385 lbs	(35,102kg)

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

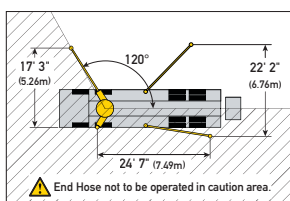
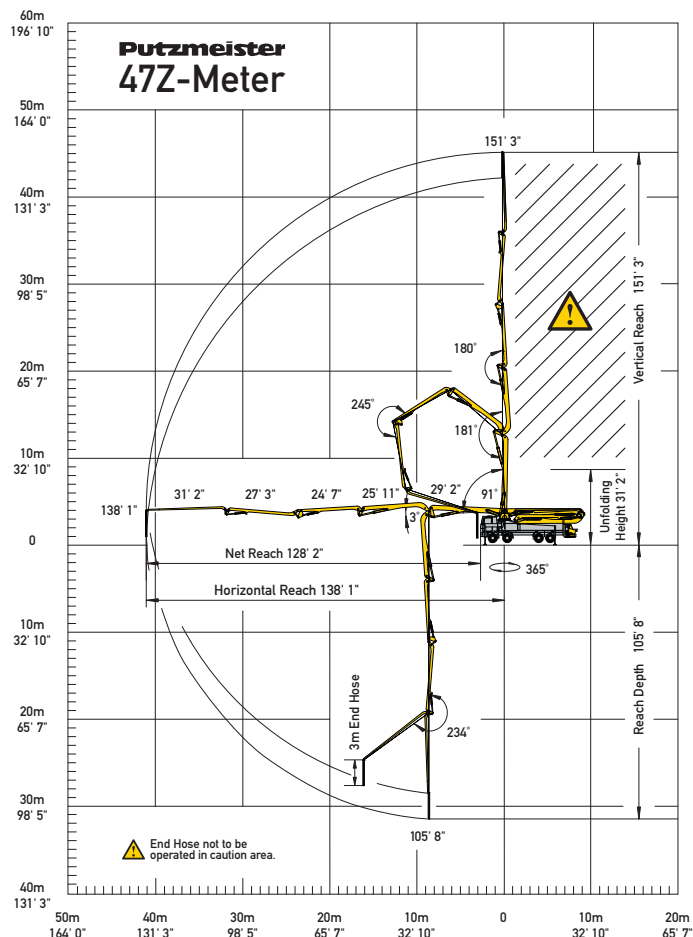
### 47Z.18H LS

Output — rod side	210 yd <sup>3</sup> /hr (160m <sup>3</sup> /hr)	—
— piston side	141 yd <sup>3</sup> /hr (108m <sup>3</sup> /hr)	238 yd <sup>3</sup> /hr (182m <sup>3</sup> /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)	10" (250mm)
Stroke length	83" (2,100mm)	83" (2,100mm)
Maximum strokes per minute — rod side	31	—
— piston side	21	29
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" (125mm)
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 gal (580L)	153 gal (580L)

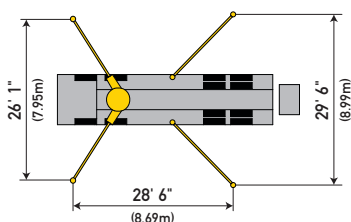
Maximum theoretical values listed.

\* 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)

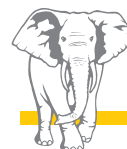
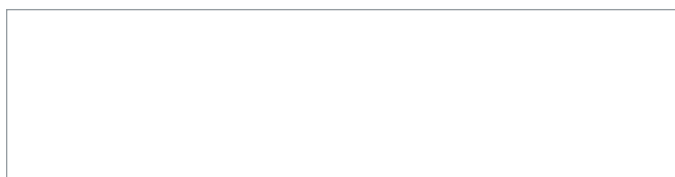


With One-Sided Support (OSS) 120°



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