



28Z-METER | TRUCK-MOUNTED CONCRETE BOOM PUMP

28Z-METER



# A NEW STANDARD OF INNOVATION AND EXCELLENCE

## A BOOM WITH ALL THE RIGHT MOVES

Offering excellent maneuverability, the 28Z-Meter features a low unfolding height and Multi-Z boom design that makes negotiating congested job sites effortless. The unit's optimized design allows the user to efficiently maneuver and place concrete in hard-to-reach areas. The boom can even unfold inside a building when necessary.

Additionally, convenient fold-down side panels offer easy access to deck storage. This model travels easily, sets up quickly, and performs reliably pour after pour.



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)

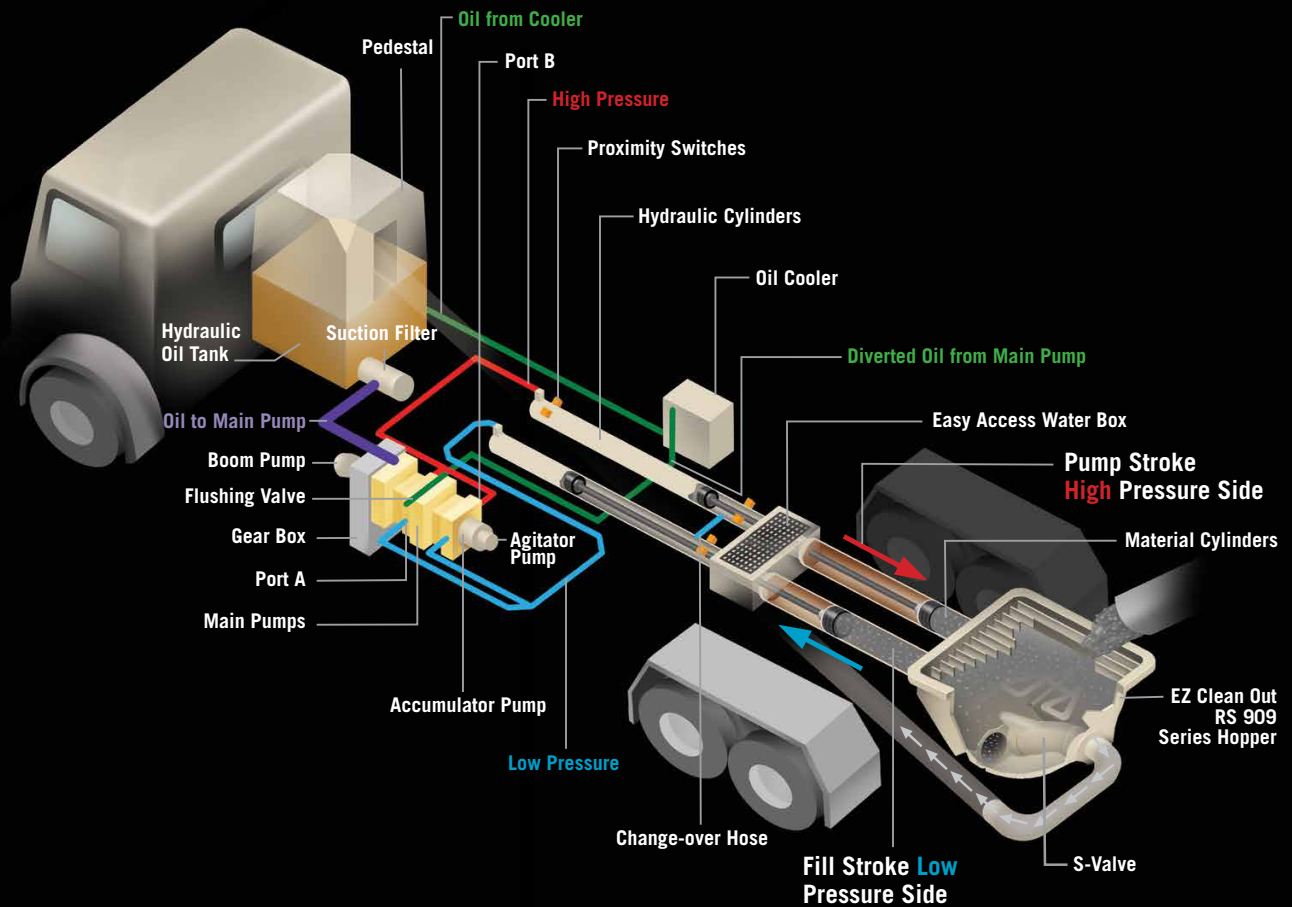
Integral to EPS, EOC reduces fuel consumption, wear and noise. EOC automatically adjusts the engine speed to the minimum required for the delivery rate specified by the operator on the remote control.



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.

# 28Z-METER | TRUCK-MOUNTED CONCRETE BOOM PUMP STANDARD FEATURES

## BOOM

- 89' 7" (27.31m) vertical reach
- Low 21' 4" (6.50m) unfolding height
- Versatile 4-section Multi-Z boom
- Manual lubrication, optional auto lubrication
- Integrated work lights

## BOOM OPERATION AND CONTROL

- Fully proportional HBC radio remote
- Smooth and precise boom positioning at greater distances
- Fully proportional remote with 130' 0" (40m) cable
- Gauge Port Central (GPC)
- Modular Boom Controls (MBC)
- 24V electrical system

## DELIVERY LINE

- Equipped with 5" (125mm) single-layer delivery line on all boom sections providing efficient concrete delivery
- P1IH single-layer 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

- Rack and pinion slewing system for better weight distribution, smoother boom rotation and the potential for greater net reach
- Fully integrated pedestal design absorbs all forces
- Access opening simplifies changing of turret pipe
- Easy access large single-suction filter with indicator gauge
- Condensation trap in the tank for water collection
- Two spacious decks with fold-down side panels 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 extend down
- Four outrigger pads in two side compartments
- Bubble level indicators
- Optional auxiliary fuel tank
- Optional auxiliary water tank
- Optional 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
- 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
- Lower hopper height allows easy discharge from ready mix 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 185 gallon (700L) water tank



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

Lighter 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, features more straight pipe for a less stressful concrete flow and longer wear on parts. The Multi-Z configuration handles space restrictive areas and can pump even if the boom is not fully extended.



**CONVENIENCE AND CONTROL** 8

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.



**RS 909 HOPPER** 9

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.



**RACK AND PINION SLEWING** 10

The 28Z-Meter boom features a simple mechanical rack and pinion design for improved weight distribution and easy serviceability. Specially designed teeth in the system offer smooth rotation and prevent backlash in the swing gears.



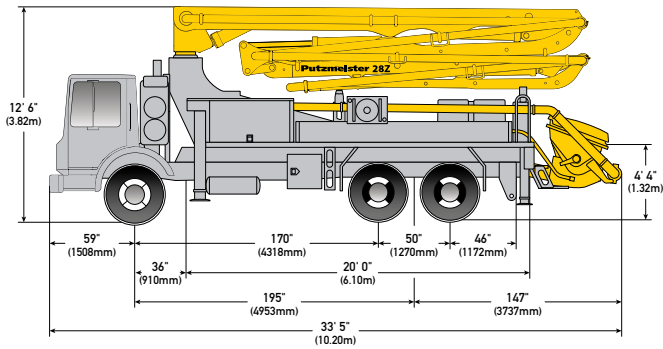
**MODULAR FLATPACK** 11

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.



## 28Z-METER TRUCK-MOUNTED SPECIFICATIONS

Length	33' 5"	(10.20m)
Width	8' 2"	(2.50m)
Height	12' 6"	(3.82m)
Wheelbase	195"	(4,953mm)
Front axle weight	15,900 lbs	(7,200kg)
Rear axle weight	30,500 lbs	(13,800kg)
Approx. total weight	46,400 lbs	(21,000kg)

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 | MULTI-Z DESIGN

### Height & Reach

Vertical reach	89' 7"	(27.31m)
Horizontal reach	78' 1"	(23.80m)
Reach from front of truck*	69' 2"	(21.08m)
Reach depth	54' 6"	(16.60m)
Unfolding height	21' 4"	(6.50m)

### 4-Section Boom

1st section articulation	90°	
2nd section articulation	180°	
3rd section articulation	250°	
4th section articulation	248°	
1st section length	23' 0"	(7.00m)
2nd section length	18' 4"	(5.59m)
3rd section length	18' 4"	(5.59m)
4th section length	18' 4"	(5.59m)

### General Specs

Pipeline Size (ID) metric ends	5"	(125mm)
Rotation	365°	
End hose — length	10' 0"	(3.00m)
End hose — diameter	5"	(125mm)
Outrigger spread L - R — front hydraulically extend out & down	20' 5"	(6.22m)
Outrigger spread L - R — rear extend down	8' 7"	(2.62m)

### PUMP SPECIFICATIONS<sup>†</sup>

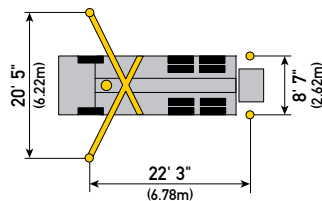
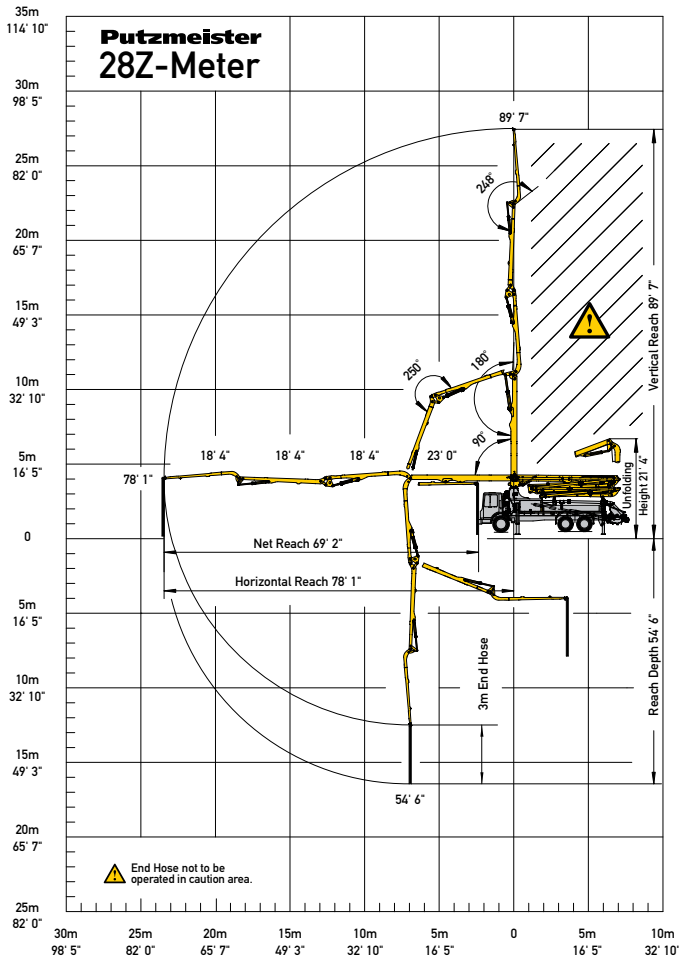
	28Z.12H	28Z.16H
Output — rod side	144 yd <sup>3</sup> /hr (110m <sup>3</sup> /hr)	210 yd <sup>3</sup> /hr (160m <sup>3</sup> /hr)
Output — piston side	97 yd <sup>3</sup> /hr (74m <sup>3</sup> /hr)	141 yd <sup>3</sup> /hr (108m <sup>3</sup> /hr)
Pressure — rod side	1,233 psi (85 bar)	1,233 psi (85 bar)
Pressure — piston side	1,885 psi (130 bar)*	1,885 psi (130 bar)*
Material cylinder diameter	9" (230mm)	9" (230mm)
Stroke length	83" (2,100mm)	83" (2,100mm)
Maximum strokes per minute — rod side	21	31
Maximum strokes per minute — piston side	14	21
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	5.1" (130mm)	5.5" (140mm)
Rod diameter	3.1" (80mm)	3.1" (80mm)
Maximum size aggregate	2.5" (63mm)	2.5" (63mm)
Water tank — pedestal	185 gal (700L)	185 gal (700L)

Maximum theoretical values listed.

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

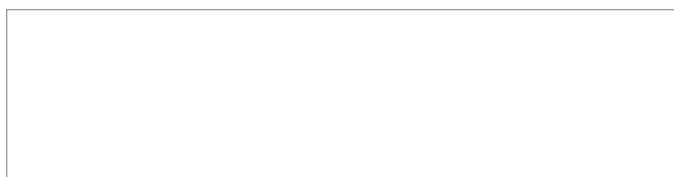
† Standard delivery line system rated at maximum line pressure of 1,233 psi (85 bar)

† .09 pump cell also available.



Photos and drawings are for illustrative purposes only.

Authorized Distributor



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