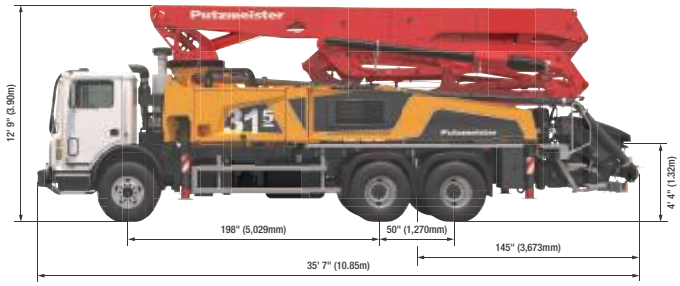
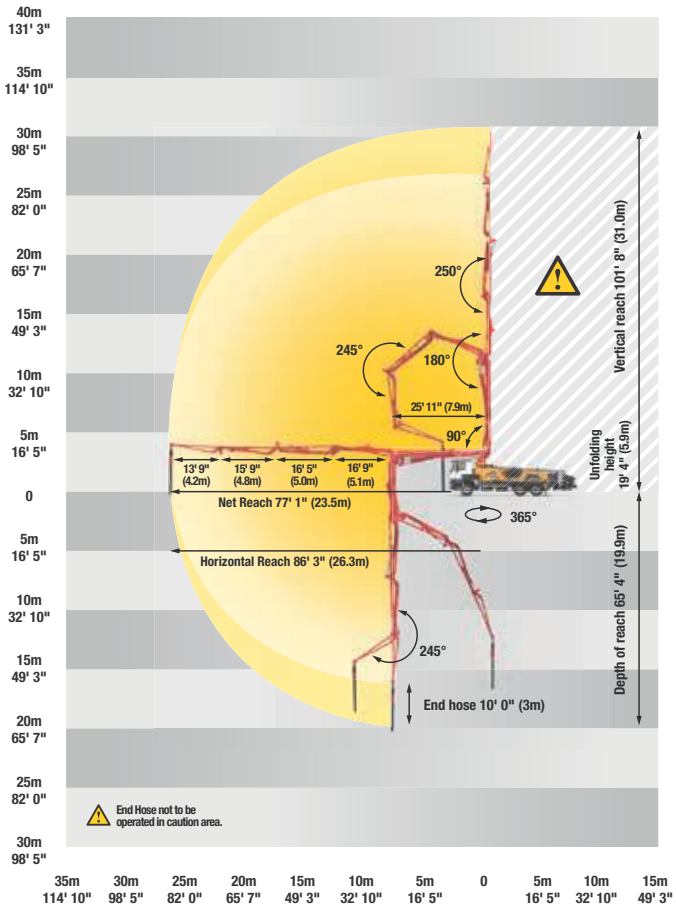
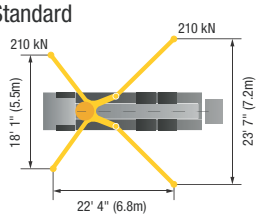


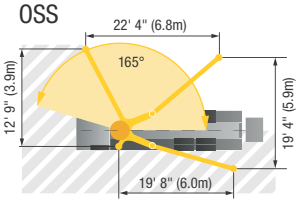
31Z-Meter Range Diagram



Standard



OSS



31Z-Meter Truck-Mounted Specifications

Length	35' 7"	(10.85m)
Width	8' 2"	(2.50m)
Height	12' 9"	(3.90m)
Wheelbase	198"	(5,029mm)
Front axle weight	19,200 lbs	(8,709kg)
Rear axle weight	37,040 lbs	(16,801kg)
Approx total weight	56,240 lbs	(25,510kg)

Based on Model MACK MRU 613 with .16H pump cell.
Weights are approximate and include pump, boom, truck, driver and full fuel tank.
Varies with options selected.
Dimensions will vary with different truck makes, models and specifications.

Boom Specifications | Z-Fold Design		
Height & Reach		
Vertical reach	101' 8"	(31.0m)
Horizontal reach	86' 3"	(26.3m)
Reach from front of truck*	77' 1"	(23.5m)
Reach depth	65' 4"	(19.9m)
Unfolding height	19' 4"	(5.9m)
5-Section Boom		
1st section articulation	90°	
2nd section articulation	180°	
3rd section articulation	250°	
4th section articulation	245°	
5th section articulation	245°	
1st section length	25' 11"	(7.9m)
2nd section length	16' 9"	(5.1m)
3rd section length	16' 5"	(5.0m)
4th section length	15' 9"	(4.8m)
5th section length	13' 9"	(4.2m)

General Specifications		
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 extended out & down	18' 1"	(5.5m)
Outrigger spread L-R — rear hydraulically swing out & extend down	23' 7"	(7.2m)

Pump Specifications	31Z.12H	31Z.16H
Output — rod side	144 yd³/hr (110m³/hr)	210 yd³/hr (160m³/hr)
— piston side	97 yd³/hr (74m³/hr)	141 yd³/hr (108m³/hr)
Pressure — rod side	1,233 psi (85 bar)	1,233 psi (85 bar)
— 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
— 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 cyllinder 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 max line pressure of 1,233 psi (85 bar)

Authorized Distributor

CT 4797 US

Photos and drawings are for illustrative purposes only.

QUALITY SYSTEM CERTIFIED ISO 9001:2008

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Putzmeister

31Z-Meter

Truck-Mounted Concrete Boom Pump

Solid quality with excellent boom maneuverability

Flexible right down to the ground – the new 31Z

Its flexible 5-section boom ensures maximum maneuverability in all directions, making the 31Z the perfect machine for restoration and smaller job sites. Additionally, it has a particularly robust design and comprehensive standard equipment, including The Ergonic® 2.0 Control System. This means that our smaller truck-mounted concrete pump is now capable of completing tasks that were previously only possible using larger machines. This comes with its own advantages: more convenient operation, increased cost-effectiveness and efficiency in day-to-day use and flexiblity when working with the machine.

Minimal maintenance costs
The 31Z is engineered to save time and money. Its robust components stand up to wear. Necessary maintenance is simple, quick and kept to a minimum.

Easy to operate
The boom control's fast response characteristics, smooth pump operation, sophisticated routing of the delivery lines, and robust steel structure ensure precise concrete placement.

Genuine Parts. Expert Service. Putzmeister keeps you running.

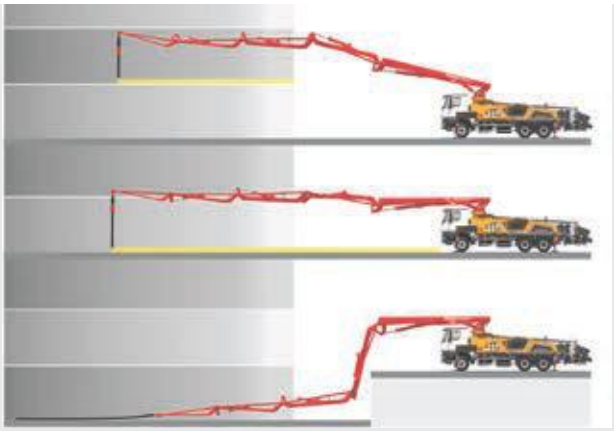
Not all parts and accessories are created equal. Putzmeister offers the longer-lasting, better-performing parts and accessories you need to stand up to increased wear conditions. This means greater savings and less downtime.

With a busy schedule and your reputation on the line, nothing is more critical than ongoing on-site support. Coast-to-coast and around the world, you can count on expert Putzmeister service to keep your project and jobsite moving. Our trained technicians are available 24/7 to deliver the help you need, when you need it.

Boom, control and support

The boom — extremely flexible for use indoors

The boom of the 31Z is incredibly agile. This benefit comes in particularly handy when working in low buildings and under bridges. Optimum maneuverability swinging with a folded arm assembly and its low unfolding height make working inside buildings no problem at all. The optimised kinematics ensure that the working area is maximised and there is no “dead space”. This makes the 31-5 unbeatable for many jobs, particularly for renovation work.



Maximum usability, minimum maintenance costs

Engineered to save time and money

- Robust components with high wear resistance
- Many maintenance-free and standard components
- Quick and easy maintenance access
- Bolt-on parts such as the pipe bracket

Optimum capacity utilisation thanks to maximum availability

Robust components with high wear resistance, many maintenance-free and standard components, simple and quick access, as well as screwed-on parts such as the pipe bracket help you save considerable amounts of both time and money.

Ergonic® 2.0: the brains behind the brawn

Putzmeister machines with Ergonic overcome the difficulties of day-to-day work on the job site to deliver increased efficiency, reduced costs and greater flexibility.

- **EPS – Ergonic® Pump System**
- **EOC – Ergonic® Output Control**
- **Ergonic® FFS**
- **EGD-RC — Ergonic® Graphic Display (Radio) Remote Control**
- **EBC — Ergonic® Boom Control**

Stands steady in every location

With TRDI support, developed by Putzmeister, you can save time and space without compromising on safety. Telescoping outriggers can be placed between obstacles and in the smallest of spaces. A huge advantage when working under restrictive setup conditions.

Narrower support with One-Sided Support (OSS)

With OSS, the outrigger footprint is reduced even further. This ensures that the boom’s total reach on the fully supported side is optimally used.

31Z-Meter — features at a glance

Benefits at a glance

- Smooth 5-section boom with Z-Fold design, and maximum maneuverability
- Versatile use on job sites, ideal for operating under low ceiling heights, congested sites, or under bridge work
- Efficient operation thanks to intuitive, innovative ergonomics
- Robust, calm and stable due to reinforced base structure, compact pedestal, and boom line installation
- Maintenance- and service-friendly with optimized accessibility and consistent bolt concept
- Lower service costs thanks to standardized, maintenance-free components and smaller quantities of operational fluids

The new boom at a glance

- 101' 8" (31.0m) vertical reach with 5-section in Z-Fold boom design
- No dead space, more flexibility
- Slewable while boom is folded
- Low unfolding height
- Fast response characteristics of boom control
- Improved safety, reduced boom vibration
- EBC for vibration damping, one-handed control
- Lubrication for first boom cylinder and the slewing bearing
- Standard 90° and 45° elbows, with lengthened collars for a longer service life

Putzmeister
PRO-VANTAGE®
WARRANTY PLAN

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.

The new pedestal at a glance

- Plenty of storage space on the deck
- A robust, calm and stable base structure
- Optimized full-deployment outrigger footprint
- Significantly reduced footprint with the use of one-sided support (OSS) outrigger system
- Saves money thanks to maintenance-free components, comprehensive bolt concept and standard components

The new pump at a glance

- Pump geometry is optimally coordinated to all common concrete types
- Service-friendly control system with exclusive free flow hydraulics
- Wear-resistant design of S-Valve for long service life
- Optimized hopper with optimized shape
- Hopper agitator safety shutdown via Radio Frequency Identification (RFID)
- Automatic agitator direction of rotation corresponds to pumping direction
- Smooth, optimized pumping with EPS and EOC, protects the pump and vehicle
- Optimized switchover procedure with SN control system and Push-Over avoids wear-intensive pressure peaks
- More convenient operation with Ergonic® 2.0, the latest concept for control hardware and software from Putzmeister
- Minimal operating costs thanks to maintenance-free common components and increased accessibility
- Easy replacement of components due to bolt-on concept

High-performing pump and pedestal

Free flow hydraulics in a closed loop system

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.

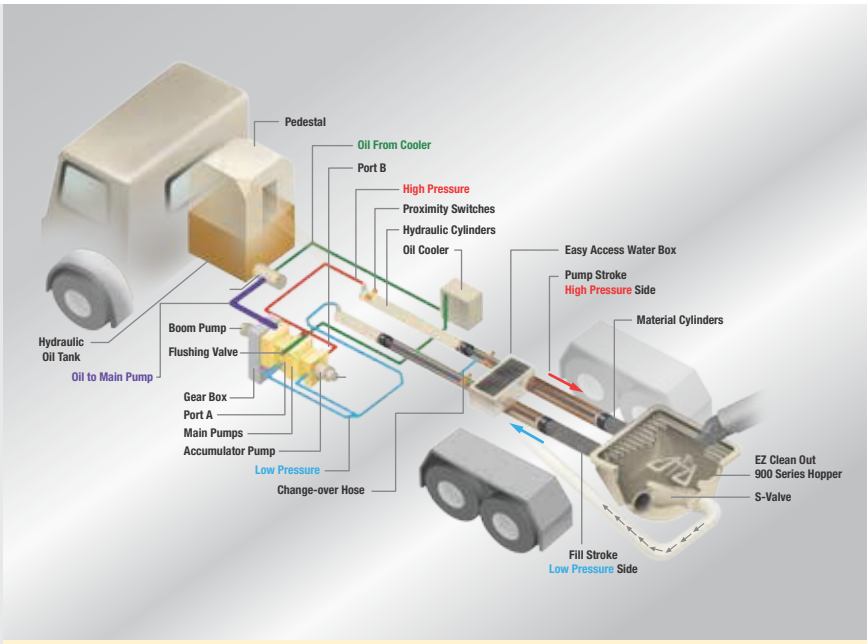
Depending on the specific pump cell size, up to 20% of the oil leaves the simple closed loop system during each stroke through a flushing valve on the main pump and cycles to a cooler before it returns to the hydraulic oil tank.

Unlike an open loop system, the oil flows freely without passing through any unnecessary valves that can generate heat. Thus, the closed loop requires far less oil to run the system, as a larger reservoir is not necessary to cool all of the oil. In addition, return oil can be cycled directly through the main kidney filter instead of going back to the tank, keeping it in the filtered state preferred by the hydraulic components for long life and dependable operation.

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.



The pedestal — robust, stable, reliable

The 31Z fulfills the most stringent weight regulations while offering plenty of additional payload for functional fluids and accessories. Sufficient storage is available due to the outrigger design and wide deck with anti-slip surface.

Additional details make the base structure particularly robust: the overlap length of the front telescopic support legs, the closed rear swinging outriggers, and the compact boom pedestal, which is made of a single piece of material.

The pedestal is particularly impressive when it comes to force distribution. The forces acting on it are completely distributed over the outriggers, protecting the chassis. The I-frame and connection concept also ensures a longer service life than that of rigid frames.

The concrete pump — enough power to fit your needs

Like all Putzmeister truck-mounted concrete pumps, the 31Z-Meter is available with different pump kits, each with a delivery pressure of 1,233 psi (85 bar). The cost-effective .12H and .16H feature two chromium-plated delivery cylinders and smooth operation. The .16H offers a high delivery rate, while the .12H has fewer strokes with less wear over time.