



Putzmeister



Truck-mounted concrete pump M31

Manoeuvrability in every dimension

Solid quality with excellent slip characteristics



Flexible right down to the ground – the new M31

Its flexible 5-arm boom ensures maximum manoeuvrability in all directions, making the M31 the perfect machine for restoration and smaller job sites. Additionally, it has a particularly robust design and comprehensive standard equipment, including Ergonic® 3 and extended support options, among other things. This means that our smaller truck-mounted concrete pumps are 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 flexibility when working with the machine.



The Putzmeister promise

The name Putzmeister stands for machines that enable you to work with extreme productivity and go beyond purely being competitive. To this end, we provide extraordinarily innovative technologies alongside top quality and excellent service. We are fully dedicated to supporting you both around the world and around the clock. And this is because every Putzmeister employee recognises that your machine has important jobs to do.

Your Putzmeister Team

The placing boom – extremely flexible for use indoors

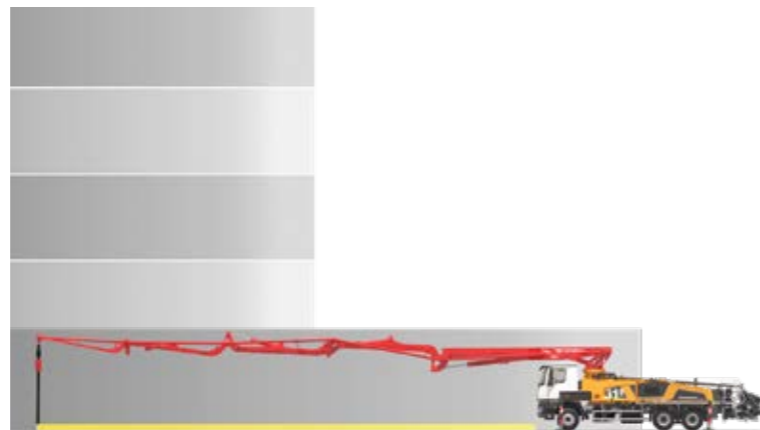
Approx. 31 m vertical reach using 5 arms optimally

The boom of the M31 is incredibly agile. This benefit comes in particularly handy when working in low buildings and under bridges. Optimum slip characteristics, 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 M31 unbeatable for many jobs, particularly for renovation work.



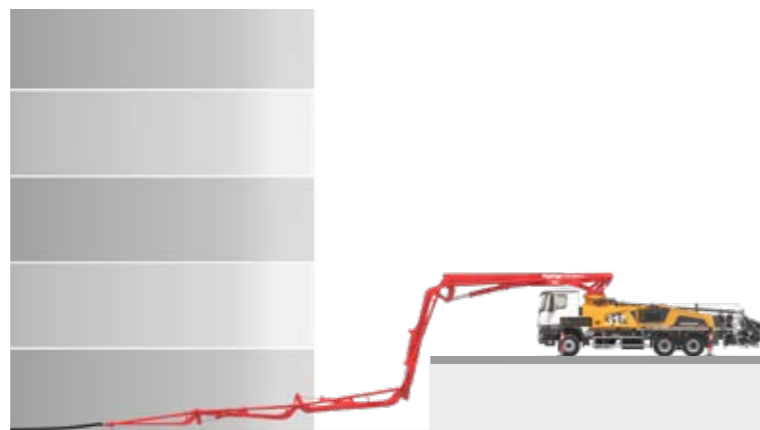
Work precisely and conveniently, right down to the last detail

The boom control's fast response characteristics, the sophisticated routing of the delivery lines and the robust steel structure ensure precise work. The boom only swings minimally, even at high outputs.



Even more comfort with iBC (Intelligent Boom Control)

The fully electronic control system with integrated vibration damping enables the end hose to be guided continuously. The boom can be moved even more smoothly using the joystick in one-handed operation. Limiting the working area or locking arm positions increases occupational safety.



ergonic[®] 3
inside

The boom at a glance

- Optimum slip characteristics
- Approx. 31 m vertical reach with 5 arms in multi-Z-roll fold system
- No dead space, more flexibility
- Lower unfolding height
- Fast response characteristics of boom control
- Safety thanks to reduced boom vibration
- iBC for vibration damping, one-handed control and limitation of workspace (optional)
- Slewable with folded arm assembly
- Standard 90° and 45° elbows, with lengthened collars for a longer service life
- Electrical centralised lubrication system for hopper, A hinge and four-point bearing



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 to save considerable amounts of both time and money. The electrical centralised lubrication system for the hopper, A hinge and four-point bearing additionally ensures that the service life of components that are subject to high stress is maximised without any additional work or expense.

- Robust components**
 - + Maintenance-free components**
 - + Centralized lubrication system**
 - + High wear resistance**
-
- = Maximum service life**

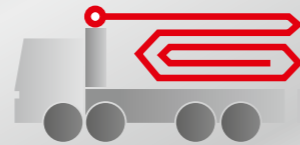
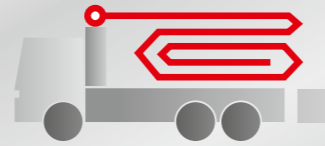
The pedestal – built on intelligent solutions

Spoilt for choice

The M31 is available as a version with three or four axles.

On small job sites or in the city – that is to say, in locations with only a small working area – choosing the compact, manoeuvrable M31 with three axles is the right decision.

In comparison, the M31 with four axles is suitable for a significantly increased total load and is ideal for working on job sites which require more accessories.



The new pedestal at a glance

- Plenty of storage space thanks to long swinging support legs
- Flexible, space-saving TRDI support system
- Significantly reduced support widths with use of OSS* and iSC**
- Fewer obstacles in the surrounding area such as traffic
- Saves money thanks to maintenance-free components, comprehensive screw concept, standard components and I-frame concept for improved distortion characteristics

Space-saving and quick to set up and take down

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

Narrower support with OSS and iSC

With OSS* (One-Side-Support) narrow support and iSC (Intelligent Setup Control)**, the small support width is reduced even further. An advantageous side effect: Full use is made of the net reach for the fully supported side.

* OSS – Assistance device for One-Side-Support, optional.

** iSC – Safety system for One-Side-Support (as per EN 12001:2012).



Economy with a long expected service life

TRDI is particularly impressive when it comes to force distribution. If the machine is correctly supported on its legs, the forces acting on it are completely distributed over the support legs, protecting the vehicle. The I-frame and connection concept also ensures a longer service life than that of rigid frames. Maintenance-free components, a comprehensive screw concept as well as a wide range of standard components additionally help to keep operating and maintenance costs low and easy to calculate.

The concrete pump – clever interaction of all components

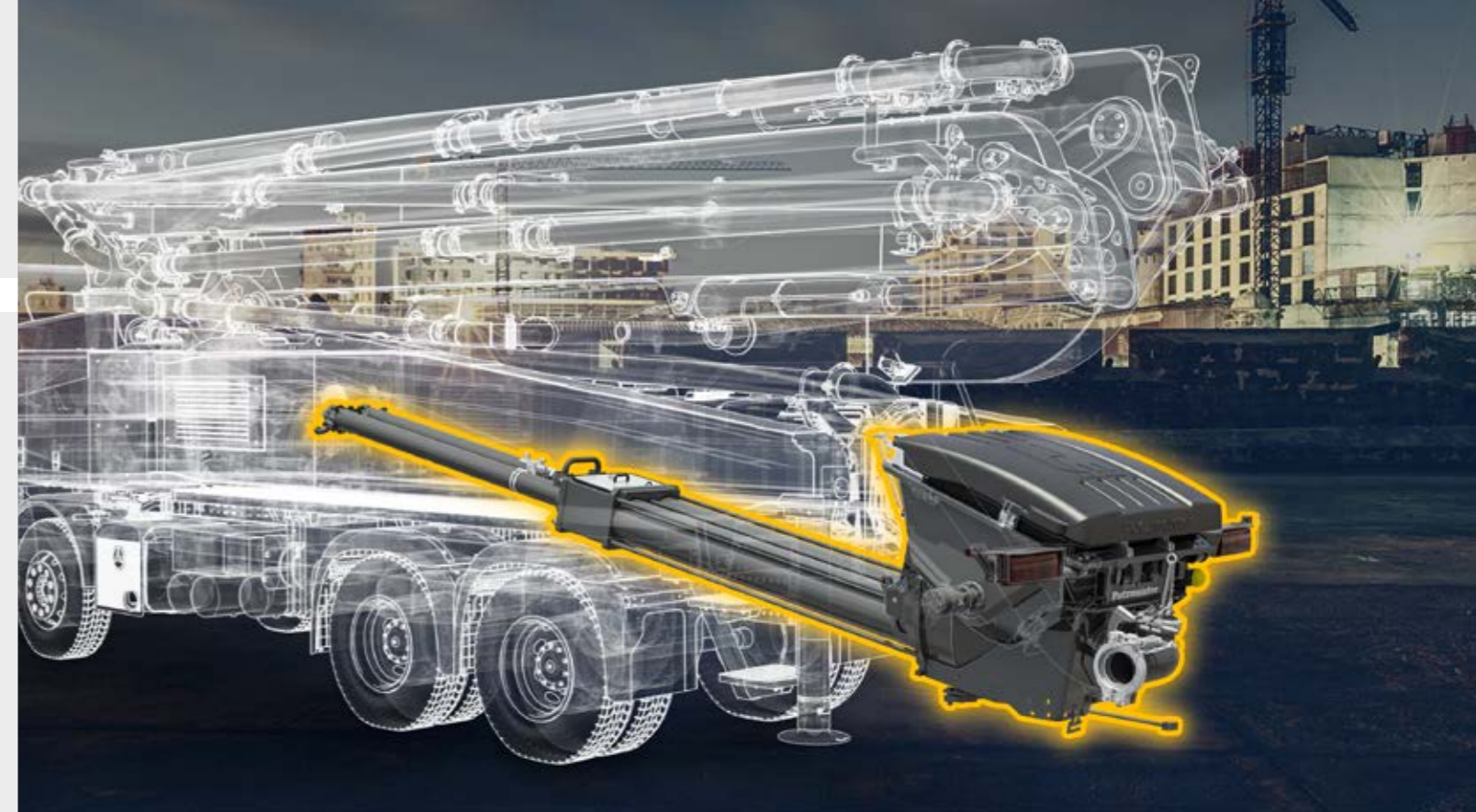


Strong unit for every type of concrete

Concrete pumps from Putzmeister are designed for all common types of concrete with their coordinated geometry. On the one hand, this is thanks to the closed free flow hydraulic circuit. The drive transfers more power and saves resources because the oil reaches the cylinder with minimal losses.

In addition, the Ergonic® blue, the new Putzmeister concept for improved sustainability, integrates a new hydraulic fluid management system into the control system.

This new technology not only enables the necessary quantity of hydraulic fluid to be reduced by up to 50% – it also allows the use of environmentally friendly organic fluid. A further success factor is the S transfer tube point, which has a long service life even with wear-intensive materials because the S transfer tube was reinforced with build-up welding.



Optimal coordination thanks to EPS

The computer-aided control system of the pump ensures a better performance via EPS (Ergonic® Pump System). EPS controls the pumping process using computers, so that it is smoother overall and the boom vibrations are reduced. Besides EPS, EOC (Ergonic® Output Control) is an effective module to work efficiently.

Because EOC controls the engine speed with lower fuel consumption, wear and noise. Unfavourable areas are automatically avoided. The same applies to the SN control system and Push Over. They ensure that the concrete column is pushed very gently and wear-intensive pressure peaks are avoided.

You choose the power

Like all Putzmeister truck-mounted concrete pumps, the M31 is available with different pumps with a delivery pressure of 85 bar: The 16H with two chromium-plated delivery cylinders (dia. 230 mm), which is cheaper in comparison, and the smoother 16HLS resp. 17iLS (dia. 250 mm). They both offer a delivery rate of 160 m³/h resp. 170 m³/h, but the LS version has a lower number of strokes and is thus subjected to less wear.



The enhanced 17iLS also offers numerous benefits and improvements:

- **Fuel saving of up to 25 % with EOC 2.0** (field tested with multiple pumps for international applications)
- **More efficient pumping:** Oil leaks prevented by improved sealing system
- **Better pump start-up behaviour**
- **Longer service life** thanks to robust S-tube bearing

Pumps

Type	Output m³/h	Pressure bar	Stroke mm	Cylinder Ø mm	Strokes/min
16 H	160*	85	2 100	230	31
16 H LS	160*	85	2 100	250	26
17 i LS	170*	85	2 100	250	27

All data represent theoretical maximum values.

* Rod/piston side. Max. outputs and max. delivery pressures cannot be operated at the same time.

The pump at a glance

- **Pump geometry is optimally** coordinated to all common types of concrete
- **Service-friendly control system** with free flow hydraulics and thus consistently high oil quality
- **Particularly wear-resistant** design of S transfer tube switch, which guarantees long service life
- **Optimised hopper** (screwed-in grille, improved shape and optimised S transfer tube storage)
- **Agitator safety shutdown via RFID** (Radio Frequency Identification), a detection system using electromagnetic waves, including start-up protection
- **Smooth, optimised pumping** with EPS and EOC, protects the pump and the vehicle
- **Optimised switchover procedure** with SN control system and Push Over avoids wear-intensive pressure peaks
- **Convenient and simple operation with Ergonic® 2.0**, the latest concept for control hardware and software from Putzmeister
- **Minimum operating costs** thanks to maintenance-free components, avoidance of special components and good accessibility
- **Easy replacement of components** due to screw concept, e.g. support cylinder
- **Automatic agitator direction of rotation corresponds to pumping direction**

Ergonic® 3 – precise, intuitive and reliable!

Dedication in every respect

Ergonic® inside means that the machines are quickly ready for use and they work with high power, fuel efficiency and low wear. And most importantly for machine operators: **Work becomes easy!**



Intelligent boom control – an unrivalled dimension of convenience and precision

The performance level of a truck-mounted concrete pump is evident in how precisely, quickly and safely the boom can be moved and positioned. As a pioneer in intelligent boom control systems, Putzmeister has already demonstrated how user-friendly a concrete pump can be with the EBC.

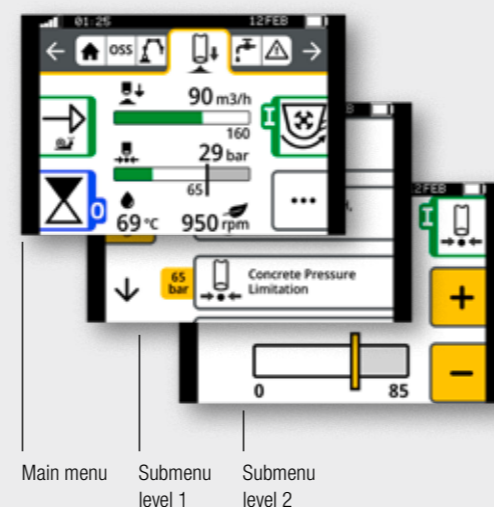
With **iBC (Intelligent Boom Control)**, this system is now improved again – setting new standards for convenience and precision.

The new Ergonic® 3 – clear, fast and safe

- Continuous operating concept for all Putzmeister products with the same functions and displays – whether on the radio remote control or the Ergonic Graphic Display (EGD).
- Intuitive work and quick reactions thanks to a clear menu structure and intuitively arranged functions.
- Full overview of machine status on the radio remote control and EGD (incl. valves, sensors, LEDs on fuses).
- Detailed fault management: Faults are easy to detect and rectify – even without a Putzmeister technician.
- Multi-level emergency operation keeps the machine running even in the toughest conditions and in virtually every case.

Keeping an overview – in every situation

- The “static” menu bar guides users through the menu – with no chance of “getting lost”.
- Neatly and intuitively arranged functions.
- Simple menu structure with a maximum of two submenu levels.
- Main menu with all standard functions and additional details in submenus.



Extremely precise boom movements – iBC (Intelligent Boom Control)

- **Unrivalled convenience**
The patented iBC control system makes it easy for machine operators to control the boom with the joystick using just one hand. As a result, the end hose can be moved forwards, backwards or diagonally at the preselected height with a great deal of precision.
- **Unrivalled precision**
The latest Putzmeister development is a big hit with machine operators: iBC made it possible to improve the boom's response characteristics and precision by another 80%. The advanced boom damping delivers a stable, steady arm assembly at high delivery rates.
- **Unrivalled ease of folding**
Folding and unfolding the arm assembly has never been this easy. With iBC, the boom movements are optimised for the exact machine model. Standard movements are carried out quickly and easily.

Our most supportive system ever – iSC (Intelligent Setup Control)

With the iSC (Intelligent Setup Control), Putzmeister is raising the stability of concrete pumps to a whole new level. The successor to the proven ESC system offers a significant improvement in terms of machine reach and flexibility.

On the safe side – now more than ever

- **Maximum versatility** Optimum support options to suit the space available on-site. Even in the most difficult of conditions.
- **Maximum reach** Perfect interaction – the reliable reach prediction allows machine operators to utilise the robust steel structure of Putzmeister machines to their fullest potential.
- **Maximum safety** 100% safety, no small print. Guaranteed stability in any situation. The patented drop warning and the possibility of providing additional support help machine operators in difficult conditions.

Consistent concept on all “switching centres”

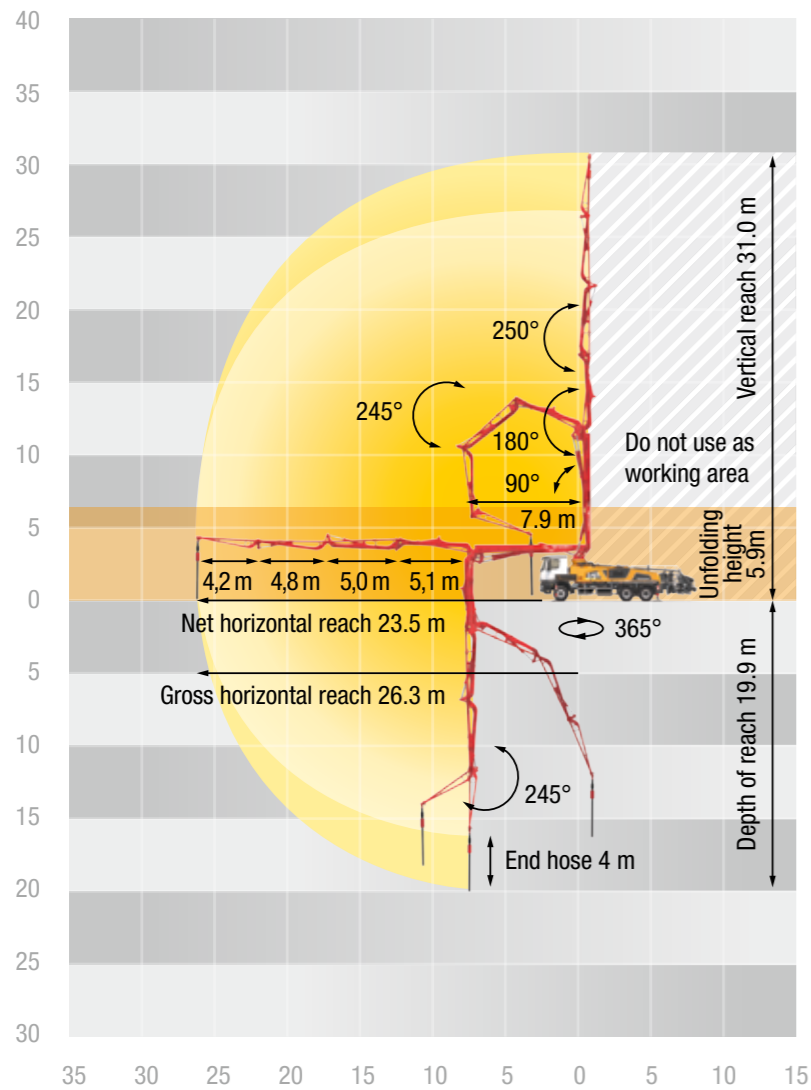
- The menu structure is nearly identical on the remote control and the graphic display.
- Hardware and software are perfectly matched at all operating positions.
- The same intuitive operation on all Putzmeister products – without requiring a lot of training.



The additional screen on the control cabinet uses the same concept and offers a variety of information, settings and options.



Technical data M31



Placing boom

Folding system	5-arm multi-Z roll fold (MZR)
Vertical reach	30.5 m
Horizontal reach	26.3 m gross
Depth of reach	20.4 m
Unfolding height	5.7 m
End hose length	4 m
Delivery lines	DN 125, max. 85 bar
Slewing circle	365°

General

Support width	front	/ rear
Standard	5.5 m	/ 7.0 m
OSS	4.0 m	/ 5.8 m
iSC	2.6 – 5.5 m	/ 2.6 m – 7.0 m
Overall length	10.85 m	
Height	3.9 m	

Support width based on center of support leg

Equipment lines

To make it easier to select from the numerous configuration options, three comprehensive equipment lines, as well as a few option packages, are available.

Standard line

This equipment includes components which Putzmeister considers to be an economic standard for working efficiently and safely. Combined with the "German/EU road use approval" option package, the machine is ready for use throughout Europe.

High line

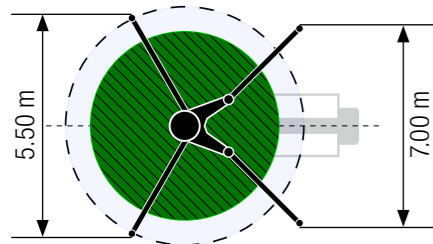
The high line provides easier operation, reduced maintenance costs and increased lighting comfort.

Exclusive line

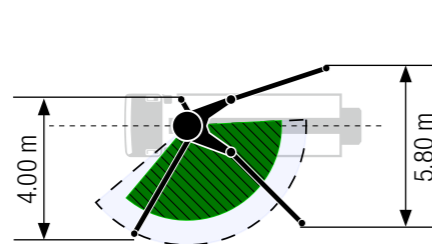
This line represents the highest equipment level offered by Putzmeister. It includes selected premium components.



Standard – Full support

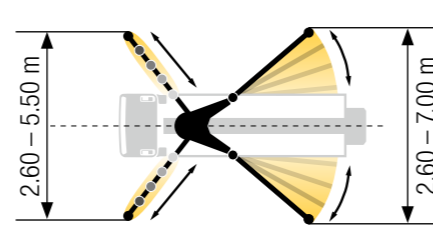


OSS* – One-side support



* non EEA, no CE marking

iSC** – Full-flexible support



** EEA, CE marking



Build on Putzmeister – in service, parts, training

Everything that sets service apart

Swift assistance, meaningful advice and a reliable supply of genuine Putzmeister accessories and parts - in over 120 countries worldwide. This is what we at Putzmeister understand as first-class service.

Ideally placed to support you

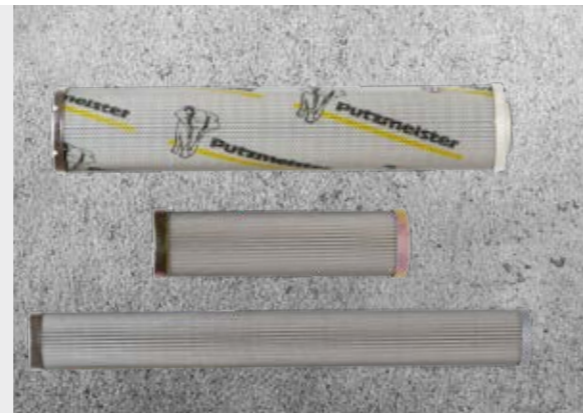
We train our service technicians continuously, provide a close-knit information network and the latest equipment and consistently strive to meet our customers' needs.

Thanks to state-of-the-art technology, our employees have all the relevant technical information about your machine at their fingertips, should the need arise. Allowing us to provide you with the best possible support for emergencies, repairs or preventive maintenance.



Genuine parts for maximum availability

It goes without saying that we use only genuine Putzmeister parts in our workshops. This is the only way to guarantee consistent quality, checked for interoperability. And you can be absolutely sure that your machine meets the tough requirements with maximum performance and availability.



Excellent in quality and customer proximity

In case of need, you have two options: Either the service team visits you or you take your machine to one of our service workshops. The latest tools, software analysis solutions and genuine parts ensure that your machine is operable again immediately.

All Putzmeister workshops and the workshops of our international Putzmeister partners meet our high-quality standard. Especially when it comes to manufacturer's inspections and acceptance procedures in accordance with specifications.



Induction at handover – everything correct from the outset

So you and your machinist can adapt perfectly to all special features and innovations.

Customer training – benefit from expert knowledge

Practice-oriented learning offers many benefits: Your staff master the machine with all its special features, use the machine to optimum effect, reduce operating costs and avoid operating errors.

Our services for cost-effective work

The Putzmeister service support points offer you these services - all provided by our experienced service staff:

100 hours of customer service – avoid potential sources of error

With this customer service you receive a status report on your concrete pump as per the Putzmeister service plan.

Mandatory machine inspection – calculable costs instead of incalculable failures

Visual inspection and functional check of components for 100 % safety. The hydraulic system with cylinders, electrical system and core pump are also inspected.

500 hours of customer service – protect your investment, retain your value

Our technical customer service team is the number one choice for checking the safety and wear of your machine. You receive a status report for this, too.

Our range of training courses and seminars:

For concrete pump operators

- Training and development seminars on concrete pumps
- Training and development seminars on PUMI with piston and rotor pumps
- Regional/company seminars (in your region or on your premises)

For concrete pump mechanics

- Training and development seminars on concrete pump

For concrete pump machinists

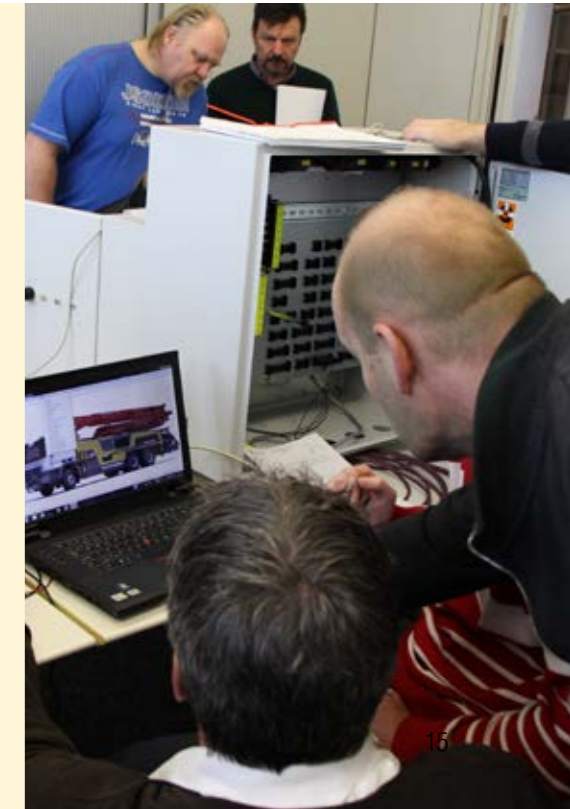
and mechanics

- Practical days in Aichtal
- Training: Handover and induction, on-the-job training

For workshop managers and foremen

- Overview of current developments in Putzmeister concrete pumps
- Qualification at the customer workshops for requisite maintenance work

Further information can be found at: www.pm-akademie.de



The M31 at a glance

Benefits for you at a glance

- **Maximum manoeuvrability thanks to five arms** and five hinges for optimum slip characteristics, in particular for renovation work in low buildings, inside buildings and under bridges
- **Smooth placing boom** thanks to intelligent laying of the delivery line and the harmonious development of the steel structure
- **Efficient working** thanks to logical, sophisticated ergonomics
- **Even better safety** thanks to comprehensive consideration of applicable standards and directives
- **Service-friendly** as a result of its optimised accessibility and consistent screw concept
- **Lower service costs** thanks to maintenance-free components, fewer different types of components (e.g. only three standard elbow types) and smaller quantities of functional fluids (fluid volumes reduced by 30 %)



Note: The diagrams in the brochure do not necessarily correspond to the full scope of standard equipment for the machines.
Further brochures: Ergonic® 3 CT 5013



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