



**Putzmeister**



# Concrete technology

Machines for pumping and delivering concrete

# Leading technology for profitable business - worldwide

Welcome to one of the leading providers of solutions for pumping, mixing and transporting concrete. Our first-class products are setting the standard in the industry, especially in terms of sustained and profitable growth for our customers, because ultimately we develop technology that extends beyond conventional ways of thinking and find solutions beyond the capabilities of others that stand out from the competition in every respect.



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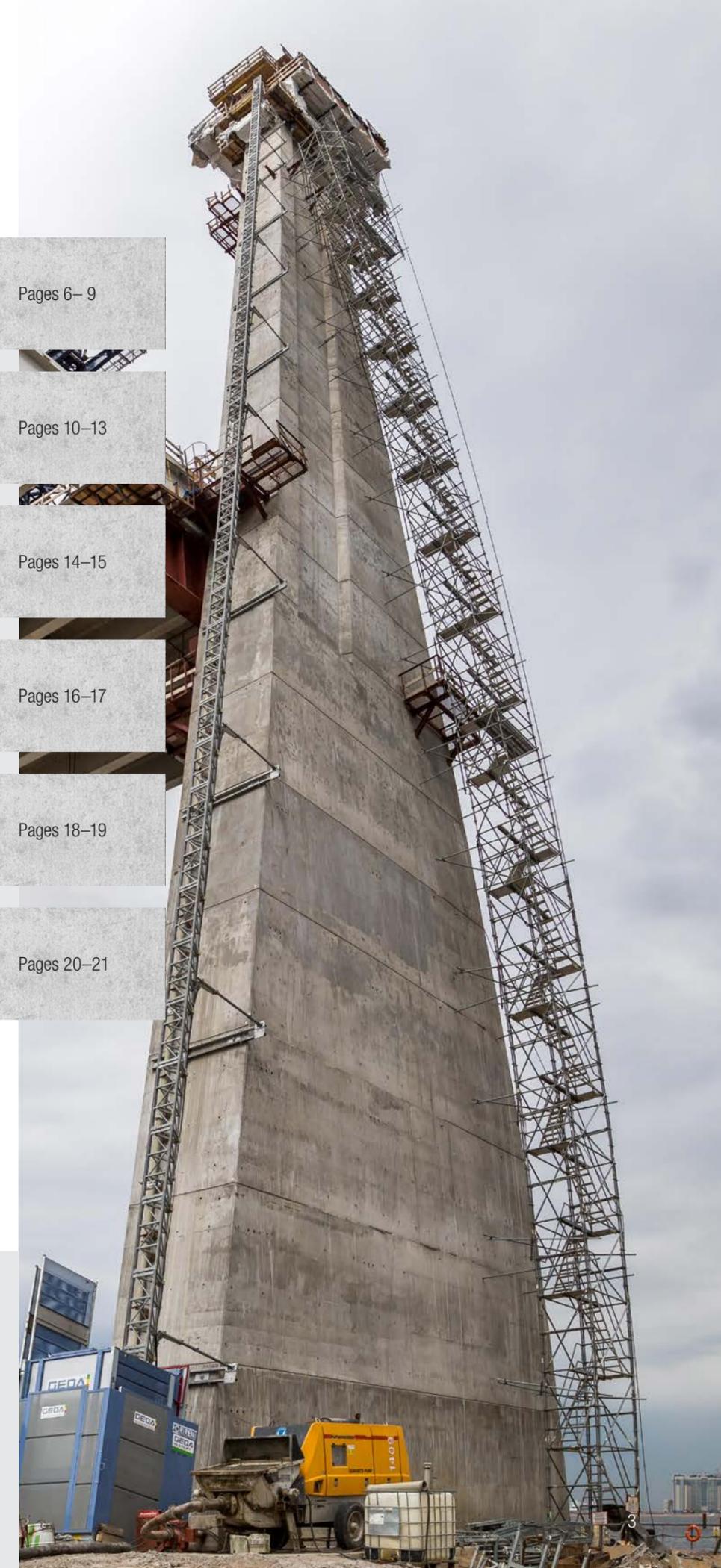
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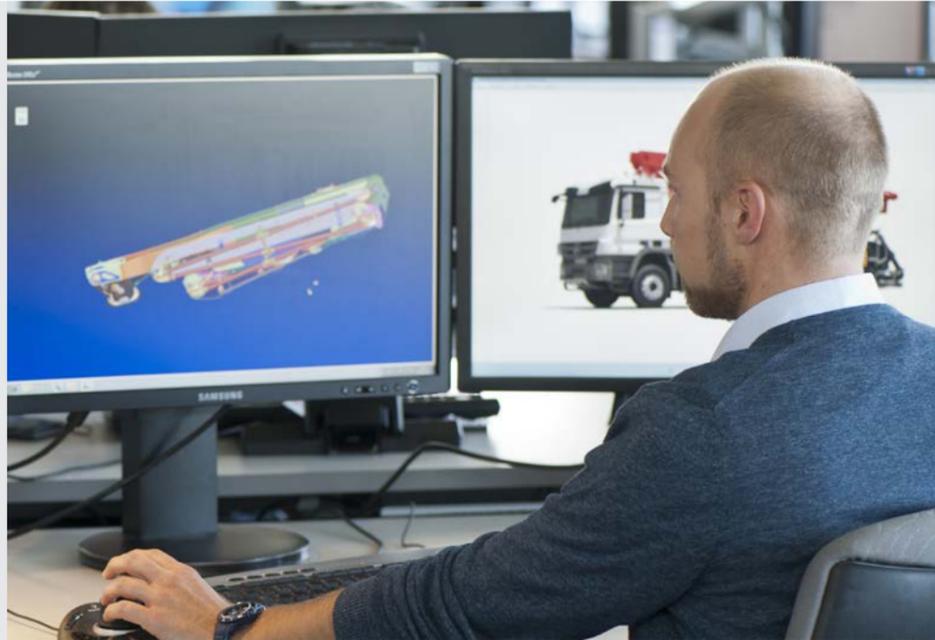
**Largest continuous concreting operation, recognised by the Guinness Book of Records (image left)**

In February 2014, Putzmeister truck-mounted concrete pumps poured 16200 m<sup>3</sup> of concrete for the foundation slab of the New Wilshire Grand Center in Los Angeles, USA.



# Delivering success for your company

How do we do it? We ask the right questions and find the best possible answers so that we can work together constructively as a team to develop tailored solutions that meet the needs of our customers. Our customer and future-oriented employees are conscious of the fact that our machines will need to perform a number of important tasks – your tasks.



## Quality standards offer security

Innovations must be proven in practice and they therefore undergo a series of endurance tests so that you can place your full trust in quality "made by Putzmeister" in harsh everyday operations on the construction site:

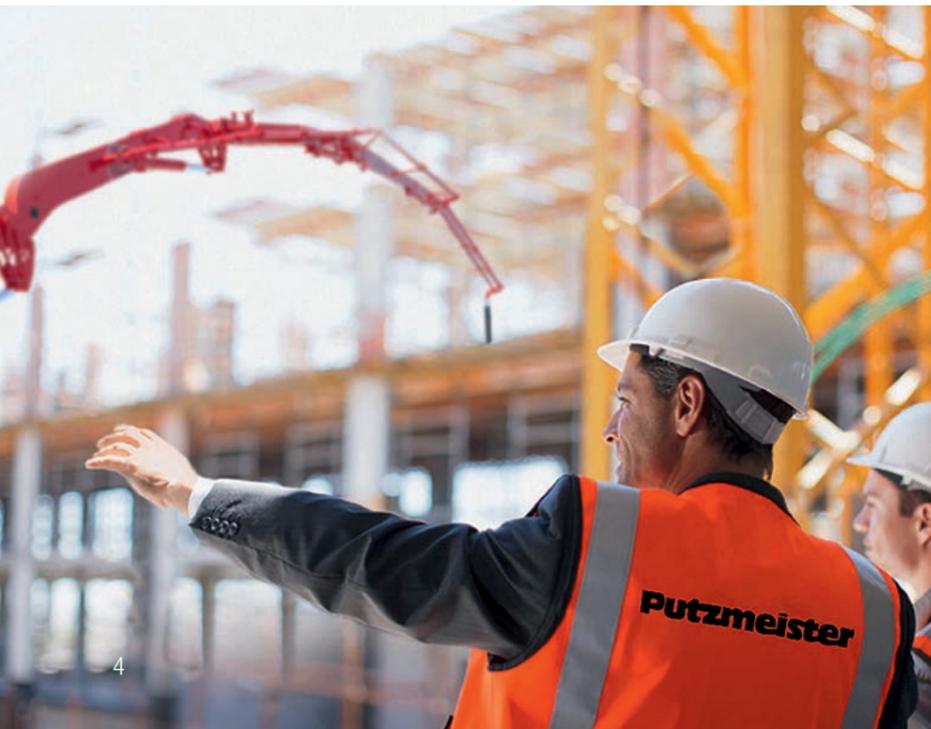
- Pulse tests and burst pressure tests for delivery and hydraulic hoses
- Climate, temperature and spray water tests for all machines and their components
- Comprehensive field tests for the entire machine
- Lifetime simulations for placing booms
- Wear tests for delivery lines, spectacle wear plates, etc.



## Proximity to the customer helps optimise practical technology

Putzmeister's basic philosophy is to develop products that make structural, underground and civil engineering easier, more economical and more ecologically sustainable. In other words:

- Our products make sure that our customers are able to work highly effectively and efficiently with machines that cut building costs and remain profitable in the long term.
- Our permanent benchmark is the high level of quality that customers associate with the Putzmeister brand.
- We have a preference for local manufacturing bases, which means that we construct machines at the site where they will eventually be used to combine high Putzmeister quality standards with applicable national requirements.
- Our innovative strength is based around a team of highly motivated employees who maintain close contact with customers to listen to their wishes, requirements and suggestions and implement them effectively.



## Outstanding customer care all over the world

Our global sales department is considered as the link connecting the market, customers and technology. We only deploy highly qualified technical engineers for this demanding role. We offer you:

- Continuous support from our sales staff, who receive assistance from our global dealer network
- Development of individual customer solutions in close collaboration with other departments on a national and international scale
- Process support from the planning stage to after-sales service

# Truck-mounted concrete pumps

## The intelligent power packages

We can provide first-class placing booms with a vertical reach of around 20 to 63 m for all your projects. The optimised fold system, compact dimensions of the vehicle, low-wearing materials and excellent processing capabilities ensure that your machine is well equipped for the most demanding requirements in the long term.



	Folding system	Reach height	Horizontal reach	Reach depth		Folding system	Reach height	Horizontal reach	Reach depth
<b>20-4</b>	4-arm RZ	19.5 m	16.1 m	11.1 m	<b>49-5</b>	5-Arm RZ	48.4 m	44.5 m	33.9 m
<b>24-4</b>	4-arm ZR	23.6 m	19.7 m	14.5 m	<b>52-5</b>	5-Arm Z	52.0 m	48.0 m	38.1 m
<b>28-4</b>	4-arm Z	27.7 m	23.8 m	17.0 m	<b>54-5</b>	5-Arm RZ	53.6 m	48.4 m	39.8 m
<b>31-5</b>	5-arm ZR	30.5 m	26.6 m	20.4 m	<b>56-5</b>	5-Arm RZ	55.1 m	49.9 m	40.3 m
<b>36-4</b>	4-arm Z	35.6 m	31.4 m	23.9 m	<b>58-5</b>	5-Arm RZ	57.6 m	53.6 m	42.4 m
<b>38-5</b>	5-arm RZ	37.5 m	32.8 m	25.3 m	<b>62-6</b>	6-Arm RZ	60.2/61.1 m*	56.1/57.1 m*	44.3 m
<b>42-5</b>	5-arm RZ	41.6 m	37.3 m	31.0 m	<b>63-5</b>	5-Arm RZ	62.1 m	58.1 m	46.3 m
<b>46-5/ 47-5</b>	5-arm RZ	45.5 m / 46.1 m	40.5 m / 41.1 m	32.8 m / 32.4 m					

\* With end hose elbow

## City pumps

	Max. output	Max. pressure
<b>RoLine</b>	58 m³/h	25 bar
<b>Saniermobile 1409 S</b>	90 m³/h	112 bar
<b>Moli 2110 HP</b>	106 m³/h	220 bar
<b>Moli 2116 H</b>	160 m³/h	130 bar

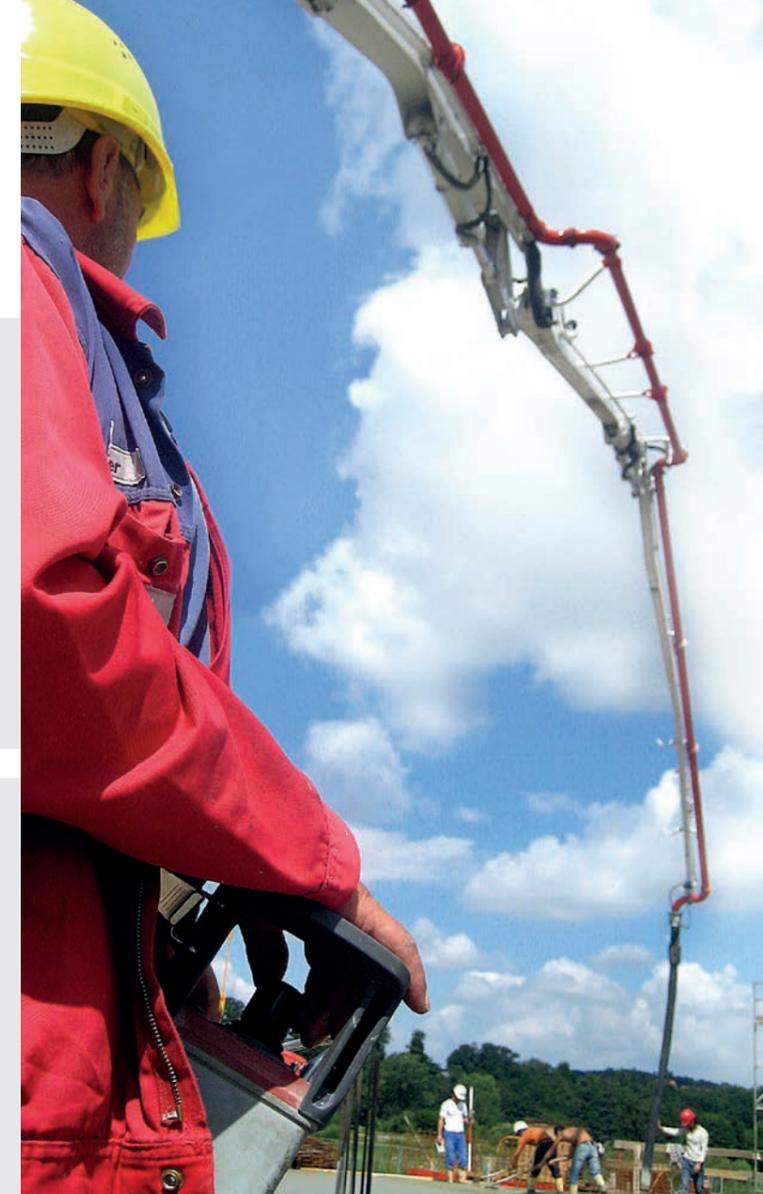
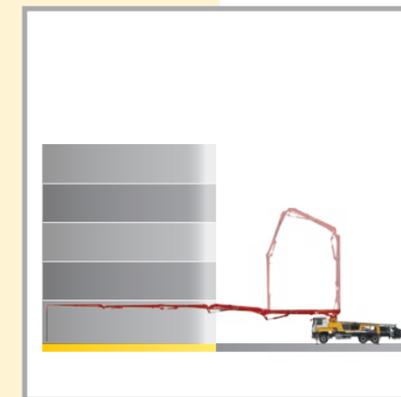
## Placing boom – user-friendly, low-wearing

### Operation 2.0

The Ergonic® 2.0 radio remote control offers practical extended functions and maximum operating comfort with clearly laid out displays and setting options as well as our established fault management system.

## Our booms offer advantages in every direction

- **Different horizontal reaches** and fold systems for greater flexibility and versatility
- **Minimal to no dead space**
- **Low-wear, low-maintenance components**
- **Good accessibility**
- **Direct response characteristics** of boom control
- **Comfortable handling**
- Auxiliary EBC equipment (Ergonic® Boom Control) for **precision concrete distribution**, damping vibrations, restricting the working area and one-handed control





## Support system – flexible, space-saving, safe

Construction sites often only offer restricted set-up conditions because they are located in urban areas or along busy roads. The use of truck-mounted concrete pumps essentially depends on the support dimensions.

### Assistance system OSS\* (One Side Support)

- Used successfully since bauma 1995
- Extended options – through flexible support, high machine capacity utilisation and extended working areas
- Boom can be utilised fully in restricted working areas
- Single side support possible

## The base structure provides optimised force distribution that does not damage the vehicle

EN 12001:2012 stipulates the need for absolute control over interaction between the support, boom and pump, which is why we developed the ESC safety system. The system allows flexible operation in accordance with the applicable standards.

### ESC\*\* safety system (Ergonic® Setup Control)

- **Superstructure even more compact:** ESC offers new space-saving support variants in addition to the full support option
- **Extend working areas:** Positioning arm 1 vertically increases the slewing range
- **Assists the machine operator** in many areas
- **Safety for the operator** – machine incorporates all the latest safety technology currently available

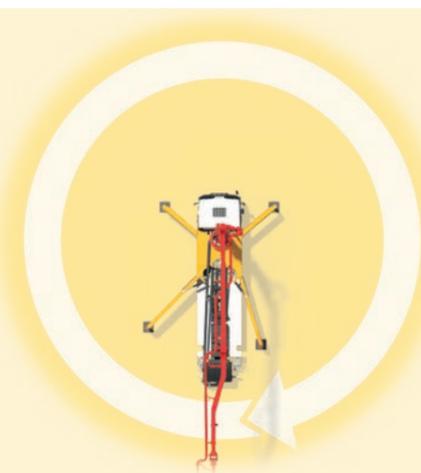
\* Availability depends on machine model.  
Not authorised for the European Economic Area (EEA)  
\*\* Availability and range of functions depend on machine model

### Arm 1 horizontal



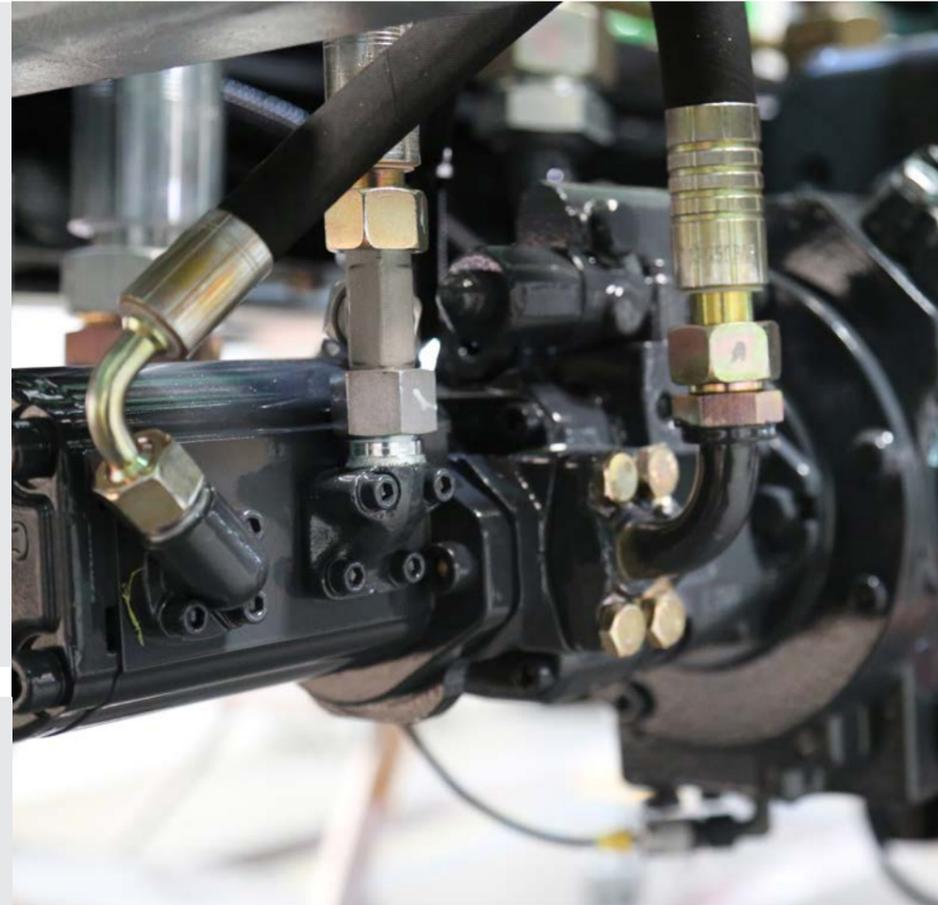
LF/RF support (front left/front right)

### Arm 1 vertical



LF/RF support (front left/front right)

All images are schematic diagrams and dependent on the machine model. The details can be taken from the operating instructions.



## The pump – efficient, smooth-running, wear-resistant

### Piston pumps with free-flow hydraulics

In a closed circuit, the oil goes from the pump to the drive cylinder with minimal losses. For more efficiency and significantly less oil consumption.

### EPS (Ergonic® Pump System)

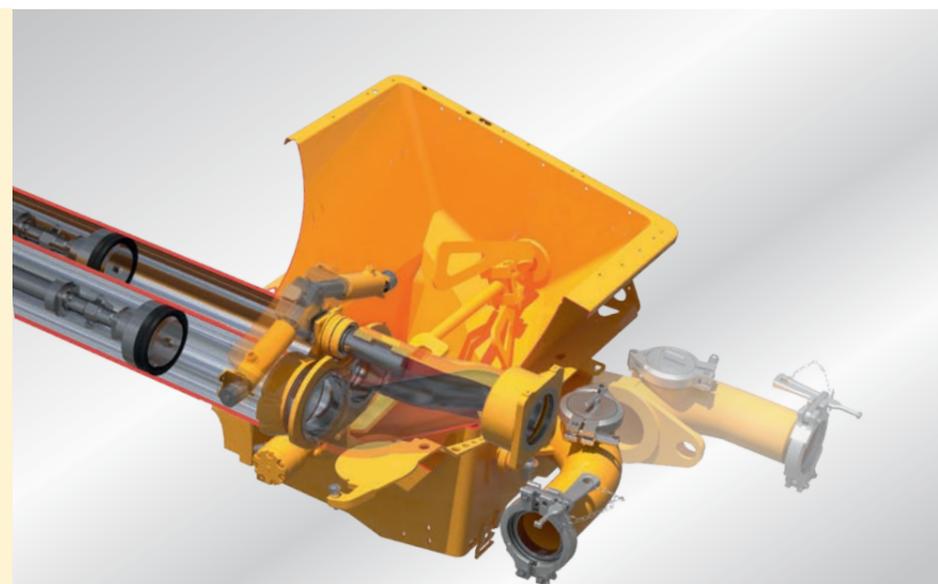
EPS regulates operation of the concrete pump, engine and placing boom fully electronically.

- High-quality low-wearing components guarantee a high degree of machine availability
- Minimal noise during the optimised pumping process
- Vibrations in the machine and boom are reduced
- EOC (Ergonic® Output Control) Engine operates at the perfect speed for minimising fuel consumption, wear and noise
- Fault management via EGD (Ergonic® Graphic Display) or EGD-RC (Radio Control)
- Convenient radio remote control with display (information at the workplace)

## The S transfer tube keeps even the coarsest of mixes flowing

The S transfer tube operates quickly and quietly even on viscous, wear-intensive and coarse-grained mixes.

- Long life limit and service intervals, high machine availability
- Welded wear layer extends the working life
- Gate valve uncomplicated to replace
- Optimised switchover process and fewer vibrations on the machine and boom



# Stationary concrete pumps

## Pent-up power – incredible stamina

No two jobs are the same. Requirements such as the delivery rate, delivery range, special ambient conditions and concrete quality must be calculated for each individual site. We manufacture perfectly engineered pumps in all performance and price categories.



Swing doors provide easy access and protection from the weather



Good access for service work



Mini measuring panel: hydraulic measuring points read from a central point



Clearly laid out EGD (Ergonic® Graphic Display)

## Advantages in terms of operation, cleaning and maintenance

- **The position of hydraulics and changeover cylinder outside the concreting area prevents pollution**
- **External gate valve connection** (series from stroke of 1 400 mm)
- **Easy to change** all components on the S tube
- **Rapid piston replacement** thanks to water box with open top, easy access to water drain cock and automatic Piston Pull System (type HP)
- **Lubrication supplied quickly to all essential lubrication points** via central lubrication system
- **Streamlined hopper design** for ease of cleaning and fewer concrete deposits and residues
- **Smooth outer surface** simplifies the job of cleaning
- **Enlarged support area** and longer service life through angled support legs
- **Practical hand winch**
- **Additional lashing fasteners** on the machine, e.g. using clamping locks (from 2 100 mm stroke)

BSA 1000	Max. output	Max. pressure	BSA 2100	Max. output	Max. pressure
1005 E C	47 m³/h	70 bar	2108 HP E	79 m³/h	220 bar
1005 D3B C	52 m³/h	70 bar	2109 H E	85 m³/h	152 bar
<b>BSA 1400</b>			2109 H D/D4*	95 m³/h	152 bar
1405 E	55 m³/h	106 bar	2110 HP D/D4*	102 m³/h	220 bar
1408 E	79 m³/h	106 bar	<b>BSA 14000</b>		
1407 D/D4*	71 m³/h	106 bar	14000 HP D	84 m³/h	231 bar
1409 D/D4*	97 m³/h	106 bar	14000 HP D/D4*	102 m³/h	220 bar
			14000 SHP D	71 m³/h	250 bar

\* Available with engine emission Stage IV or US EPA Tier 4 final



# Stationary booms



## The MX system – perfect ratio between set-up time and performance

The comprehensive, modular range of MX stationary booms makes different horizontal reaches available on the Putzmeister tubular column system RS-850 or lattice towers from well-known manufacturers. Arms which can be moved from the truck-mounted concrete pump to the tubular column and from there to the next tubular column in minimal time thanks to the rapid disconnection systems not only provide massive scope in the height, but also in the area. A ballast is not required up to a horizontal reach of 36 m despite a maximum permitted freestanding height of 20 m.



## Overview of MX booms

Type	Delivery line – DN (mm)	End hose max. (m)	Max. height without ballast (m)	Arms	Folding system	Horizontal reach (m)	Quick disconnect point
MXR 24-4	125	4	25.5	4	Z	23.8	–
MXR 32-4	125	4	19.5	4	Z	31.6	–
MXR 36-4 Multi	117	3	19.5	4	Z	35.1	Multi
MXG 42-5*	125	4	–	5	RZ	42.1	–
MXG 50-4*	125	3	–	4	R	49.9	–

Products installed on rectangular tubular column RS 850 as standard, also optionally available on lattice tower.

\* On request. MXG 42-5 and MXG 50-4 only available on lattice tower

## MX stationary booms

- **With or without counterweight\***
- **Comfortable transport** and set-up and minimal set-up times thanks to rapid disconnection devices
- **Secure handling**
- **Many set-up and attachment variants** on the base plate, at the structure or on a climbing formwork adapt to each construction site situation
- **Automatic climbing process** with hydraulic climbing device allows the boom to grow with the structure
- **Minimal space requirement**
- **Remote control via cable or radio** ensures precise, comfortable working
- **Simple, 1 m<sup>2</sup> square ceiling recess** is sufficient for the access passage
- **Maintenance-free components**

## Systems RS-850

- **Tubular columns in standard lengths 1.5 m, 3 m, 6 m, 9 m and 10.5 m**
- **Climbing columns are available as 10.5 m or 1.5 m elements** for super-structure projects with self-climbing device
- **Ejection feet** hold the tubular columns securely at the ceiling
- **Simple column connection** with bolts, which are manually inserted, ensure quick assembly
- **Adapter between tubular column RS-850 and boom pedestal R-750** ensures compatibility with predecessor model
- **Separable work platform** for easier transport and secure set-up

\* Without counterweight, horizontal reach of up to 36 m only allowed, optional depending on the design

# Truck mixer concrete pumps

## PUMI® – the profitable all-rounder

A smart calculation: truck mixer, concrete pump plus placing boom equals PUMI®. If truck-mounted concrete pumps are too expensive or large for certain applications but a long horizontal reach is required, the PUMI® is the most economical alternative, in particular on small sites where a maximum delivery rate of around 20 m³ is needed and space is extremely restricted.



**ergonic**<sup>®</sup>  
inside

Ergonic® inside is a computer-controlled system that regulates the concrete pump, placing boom, mixer drum and truck engine perfectly. Your machine is ready to use more quickly, achieves a higher placement speed, operates extremely economically and is resistant to wear.

Work with precision, even in restricted spaces

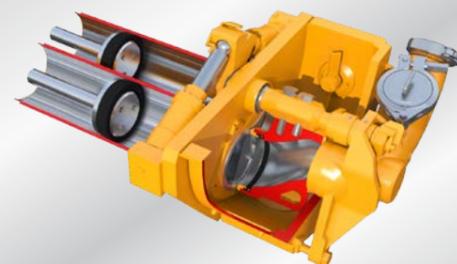
The direct response characteristics of the optimised boom control, the low weight and minimal boom vibrations, even at high delivery rates, make handling easier and ensure a high degree of safety.

## Advantages of the PUMI®

- **Steel placing booms: lightweight, robust and durable**
- **Mixer drums made from special high-strength steel** are particularly wear-resistant and have a long service life
- The space-saving **hydraulic fluid reservoir is integrated in the boom pedestal**
- **Particularly wear-resistant delivery lines** adapted to the load
- **Balanced axle load distribution** and compact design
- Pumi 25-4 and 28-4: **New infinitely variable support**, extremely space-saving design and safe operation with ESC (Ergonic® Setup Control) provide greater flexibility
- **All core components have a rugged structure designed for continuous operation**
- **Lower gross weight** through the optimisation of components using state-of-the-art calculation methods
- **Variety of different pumps** available, depending on the relevant application



	Folding system	Reach height	Horizontal Reach	Reach depth
PUMI® 21-3	3-arm Z	20.6 m	14.5 m	9.9 m
PUMI® 25-4	4-arm Z	24.5 m	17.3 m	13.6 m
PUMI® 28-4	4-arm Z	27.5 m	20.3 m	16.9 m



## The piston pump

- **High output**
- **Easy use of long hose lines**
- **Compact, easily accessible design**
- **Silent pumping characteristics**

## The rotor pump

- **Quick and easy cleaning**
- **Virtually no concrete residues**
- **Fewer wear parts compared to the piston pump**
- **Delivers even the most difficult materials**



# Shotcrete and tunnel concrete pumps

## Concreting in a system

We offer a wide range of equipment suitable for underground, mining and tunnel engineering worldwide. We design, develop and produce the main components ourselves. The result is a synchronised system for the efficient concreting of tunnel linings as well as the stabilisation of slopes and rock faces.



## Our product range

- Concrete spraying systems
- Concrete and cement transportation machines
- Tunnel formwork distributors
- Reservoirs for intermediate concrete storage (Jumbotrog JT 5000)
- Practical accessories (e.g. Twistip – fitting for truck-mounted concrete pumps)



## Overview of concrete spraying systems

	Spraying range, horizontal	Spraying range, vertical
<b>SPM 500 WETKRET</b> The long reach is ideal for concrete spraying jobs in medium to large tunnels, galleries and hillsides	17 m	15 m
<b>SPM 5314 WETKRET</b> Versatile, flexible and mobile solution mounted on 2 or 3-axle vehicles for medium to large tunnel sections, galleries and hillsides	14 m	14 m
<b>SPM 4210 WETKRET</b> Heavy-duty axles, reinforced turning system and simple control of the spraying arm are all ideal for mining applications	10 m	8 m
<b>WETKRET 3</b> Easy, safe operation in areas with limited access	9 m	7 m

## For optimised logistics in mining applications

Concrete and cement transportation machines, tunnel formwork distributors, reservoirs for intermediate concrete storage and practical accessories round off our product range. Ideal for optimising logistics for your underground mining ventures.

- MIXKRET
- CEMKRET 8



# Truck mixer

## Convenient concrete transportation

Truck mixers must be both economical and durable to overcome the challenges of day-to-day operation on the construction site. Decisive factors for success include a low unloaded weight and a high resistance to wear, particularly when working with coarse concrete, resulting in high load capacities and low costs.



## High payload and long life with lightweight design

We also always design our truck mixers to be robust, durable and lightweight. The drum wall and spirals as well as parts of the feeder container, filler opening and discharge chute are manufactured using 3 mm thick Hardox sheet steel. The benefits:

- **Up to 15 % lighter** compared to conventional steel constructions
- **Reduced consumption and operating costs**
- **The same, long service life**
- **Greater working load – higher payload**
- **Maximum availability** due to infrequent replacement of wear parts



	Nominal fill	Water volume	Weight*	S – Standard Drum 4.3 mm Spiral sheet 4.3 mm	L – Light Drum 3 mm Spiral sheet 4 mm	UL – Ultra Light Hardox Drum 3 mm Spiral sheet 3 mm	H R – Reinforced Reinforced frame and boom pedestal Drum / optional
<b>P 6</b>	6.00 m <sup>3</sup>	7.03 m <sup>3</sup>	3 300 kg	✓	✓	✓	-
<b>P 7</b>	7.00 m <sup>3</sup>	8.23 m <sup>3</sup>	3 520 kg	✓	✓	✓	-
<b>P 8</b>	8.00 m <sup>3</sup>	9.33 m <sup>3</sup>	3 840 kg	✓	✓	✓	✓
<b>P 9</b>	9.00 m <sup>3</sup>	9.8 m <sup>3</sup>	3 900 kg	✓	-	✓	-
<b>P 9 G</b>	9.00 m <sup>3</sup>	10.46 m <sup>3</sup>	4 120 kg	✓	✓	✓	✓
<b>P 10</b>	10.00 m <sup>3</sup>	11.16 m <sup>3</sup>	4 370 kg	✓	✓	✓	✓
<b>P 12</b>	12.00 m <sup>3</sup>	13.55 m <sup>3</sup>	4 840 kg	✓	✓	✓	✓

\* All weight specifications: mounted / ready for operation, deviations +/- 5 %.

-10 % from super-structure weight

-15 % from super-structure weight

+18 % from super-structure weight

## Putzmeister truck mixers offer the following advantages

- **Particularly user-friendly** e.g due to outstanding accessibility, working ergonomics and cleaning properties
- **Sophisticated design**, in particular the drum geometry, ensures easy, safe transportation
- **Maximum service life and stability** through the use of low-wearing steel
- **High load capacity** due to large drum geometry
- **New operating concept** with tested and approved components from concrete pump technology

# Telebelt mobile belt conveyors



## Conveying more material faster

Our Telebelt® can transport large quantities of material such as gravel, soil, wood chips, sand and concrete with a maximum grain diameter of 150 mm quickly and economically, particularly in projects such as dams, power stations, breakwaters and high-speed rail links all over the world.



## Global leader – the Telebelt® TB 200

The Telebelt® TB 200 is the most recent model from Putzmeister's mobile belt conveyor range. It conveys materials with a maximum diameter of 150 mm along a 610 mm wide belt at a flow rate of 4 m³/min. The TB 200 is therefore ideal for placing large volumes of mass concrete.

The TB 200 is easy to manoeuvre when retracted, with compact dimensions of 22.8 m. Approved for road use and suitable for all types of terrain, the chassis guarantees outstanding mobility and manoeuvrability on the road and at the construction site as well as an extremely long service life. With a large working range, optimised transport properties, low ballast requirements, more performance options and fewer wear parts, the new TB 200 guarantees maximum economic efficiency.



	Reach at 0°	Vertical reach at 30°	Max. Output at 0°
Telebelt® TB 110	3.2 m	28 m	275 m³/h
Telebelt® TB 130*	38.5 m	–	275 m³/h
Telebelt® TBS 130*	38.5 m	34 m	275 m³/h
Telebelt® TB 200	61 m	53 m	240 m³/h
Telebelt® TBS 600*	31 m	27 m	458 m³/h

\* Telebelt® 130 and 600 available as chassis version or semi-trailer

## Benefits that promote success

- **Minimal operating costs** twinned with maximum availability
- **Wide range of possible applications**
- **Quick to set up, dismantle and move**
- **Easy to maintain and service** due to robust, predominantly maintenance-free components
- **Compatible feeder containers and accessories**
- **Extremely sturdy, low-vibration, lightweight lattice boom** (horizontal with max. working angle of 30°)
- **U-rollers on belts with maintenance-free, enclosed roller bearings**
- **Impressive delivery rate**
- **Conveyor belt without clamps or mechanical splices**
- **Extremely efficient independent power unit with optimised fuel consumption**
- **Radio remote control with MBC (Modular Boom Control)**

# 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

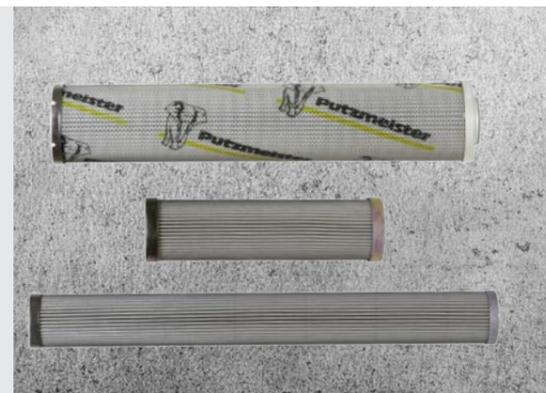
We train our service technicians continuously, provide a close-knit information network and the latest equipment and consistently strive to meet our customers' needs.

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.

### 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.

## Our services for cost-effective work

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

### 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](http://www.pm-akademie.de)





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