

# SPM 500

WETKRET



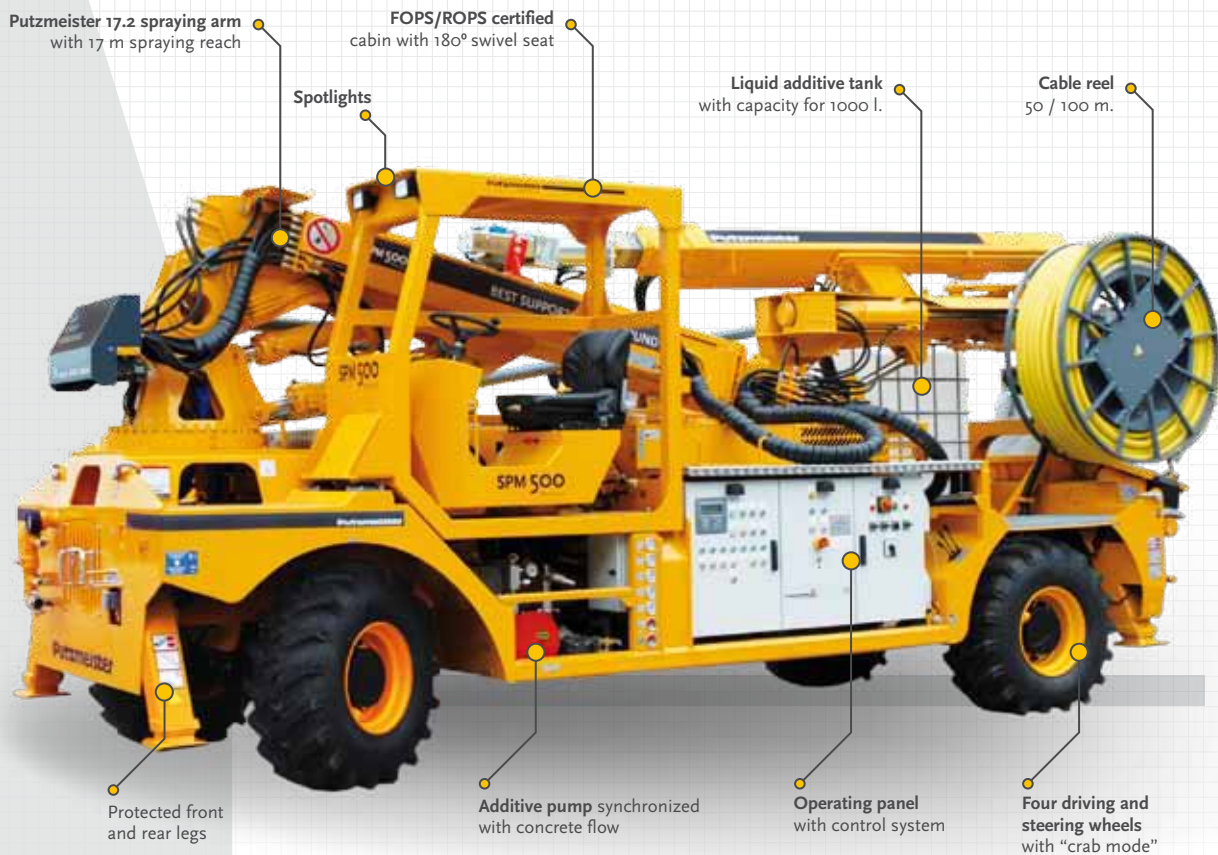
CONCRETE SPRAYING EQUIPMENT



BEST  
SUPPORT  
UNDERGROUND

**Putzmeister**  
UNDERGROUND ●

# SPM 500 WETKRET



## SPM 500 WETKRET

The SPM 500 WETKRET series has proven its efficiency and reliability in a large number of projects all over the world. With a vertical spraying reach of 17 m and a concrete flow of 30 m<sup>3</sup>/h, the machine is suitable for both medium and large section tunnels, galleries and slopes.

The standard version of the SPM 500 WETKRET series is operated electrically and is optionally available with an electric air compressor built into the chassis.

## SPM 500 WETKRET DIESEL DRIVE

The SPM 500 WETKRET DIESEL DRIVE version is equipped with a diesel drive system so that all the spraying operation components can be operated by the combustion engine, which means the machine works in places where no power supply is available.

### SPRAYING ARM:

#### STURDY, FAST AND PRECISE

Thanks to its articulated and telescopic design, the arm can be deployed in a minimum section. The hydraulic spray lance allows horizontal alignment to be maintained automatically, which facilitates handling the spraying arm. The automatic spray lance movement and nozzle oscillation facilitate the operators work, so that he can concentrate on spraying finish quality, while increasing productivity and efficiency. The anti-stick system of the telescopic arm extends the life of the components and facilitates cleaning.

### PUTZMEISTER CONCRETE PUMP: 30 m<sup>3</sup>/h

Putzmeister has been world famous as the manufacturer of concrete pumps par excellence for over 50 years. Putzmeister is synonymous with top quality, innovation and reliability. The concrete pump mounted on the equipment is specially designed for concrete spraying, guaranteeing high performance, low pulsations and a long life for the wear parts. The efficiency of the Putzmeister concrete pump is unique.

### AUTOMATIC SYNCHRONIZATION OF ADDITIVE DOSAGE AND CONCRETE FLOW

The SPM 500 WETKRET series is equipped with an automatic system for high precision synchronization between the concrete pump and the additive dosing unit.

The peristaltic additive pump is controlled electronically. It is equipped with an automatic dosing device proportional to the concrete flow, thereby assuring spraying accuracy and quality. This pump is built with wear- and corrosion-resistant components and is able to work with liquid additives of all kinds.

### ALL CONTROLS AVAILABLE IN REMOTE CONTROL

All the machine functions are available in the remote control, including automatic spraying sequence start and stop functions (air, concrete and additive), which facilitates the operator's work. The remote control permits full regulation of concrete output, as well as adjustments to the predefined additive dosage.

- 1 On-board compressor built into the chassis for fully autonomous machine operation.
- 2 Remote control for easy and precise handling of spraying arm movements. Optional proportional radio remote control.
- 3 The large diameter and long stroke minimize pulsations and lengthen the life of the concrete pump wear components.
- 4 Agitator in hopper and grill with electric vibrator. Steel or polymer fibre pumping. Easy to open for maintenance and cleaning.
- 5 Multilingual colour display, showing concrete flow, additive dosage, faults, diagnoses and alarms.
- 6 Centralized lubrication system for proper machine maintenance.



1 Built-in compressor



2 Cable remote control



3 Putzmeister concrete pump PM 1810



4 Hopper designed for concrete spraying



5 Control panel display



6 Centralized lubrication

## PUTZMEISTER CONCRETE SPRAYING TECHNOLOGY



### PUTZMEISTER CHASSIS. STRONG, COMPACT AND VERSATILE

The chassis is designed to work in the toughest conditions in line with the requirements in mines and tunnels. Over and above its compact dimensions, the four driving and steering wheels and the “crab mode” increase its perfect manoeuvrability in difficult driving situations even more. The machine has 2 front and 2 rear legs, protected against possible impacts, which permit the proper stabilization of the machine so as to proceed with operation on any kind of ground. Its optimum ground clearance permits agile driving over

uneven surfaces. The two-speed driving system allows the machine to travel quickly over level surfaces and climb gradients of up to 35% at low speed. Thanks to its positioning and design, the driver cabin assures perfect visibility in any situation.

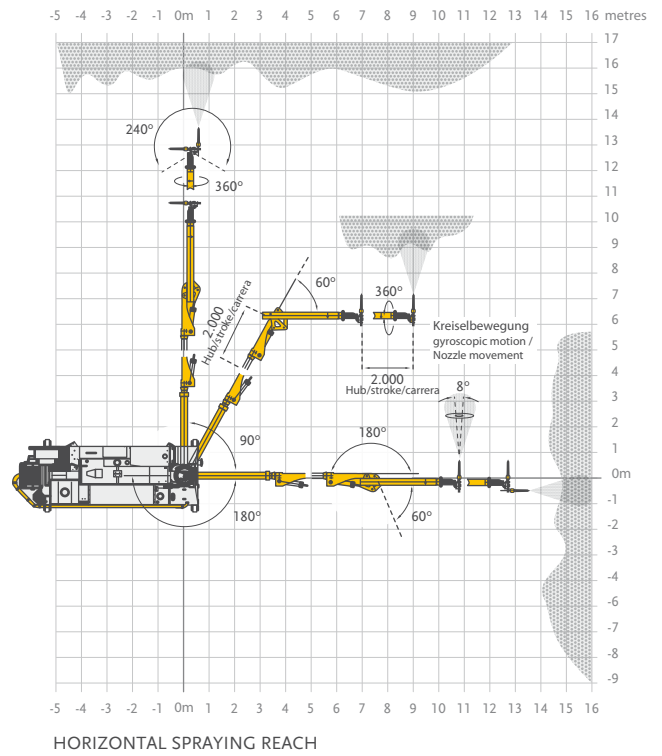
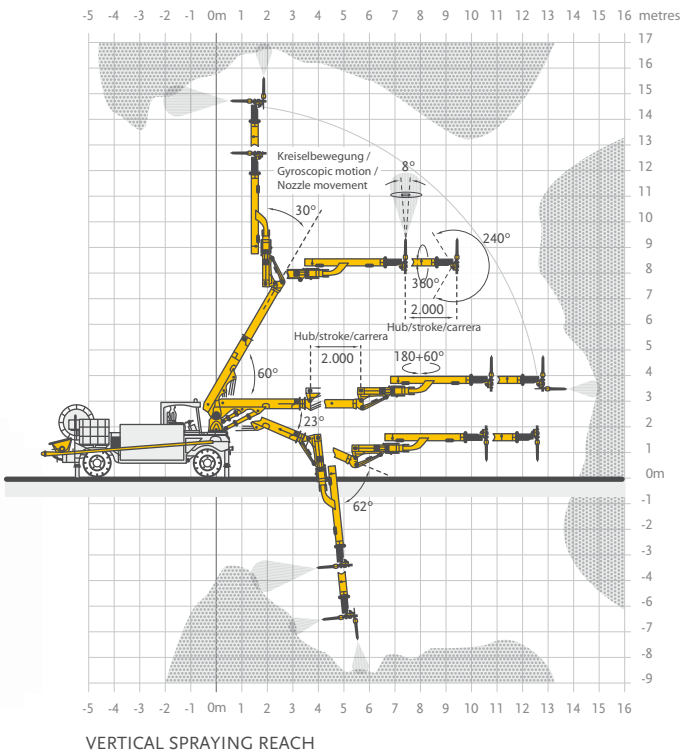
### ON-BOARD COMPRESSOR. FOR TOTAL AUTONOMY

Despite its compact size, the SPM 500 WETKRET series includes the option of an electric worm compressor built into the chassis, which endows it with high mobility and the possibility to work au-

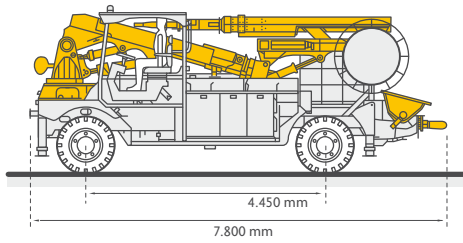
tonomously. The air flow of 11 m<sup>3</sup>/min permits efficient high quality spraying.

**THE SPM 500 WETKRET  
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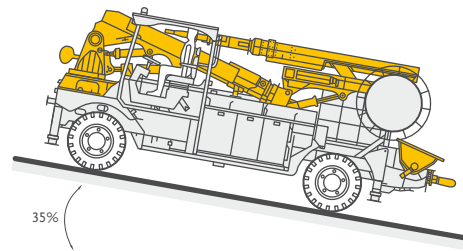
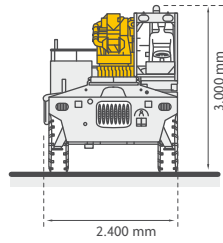
## SPRAYING ARM REACH DIAGRAMS



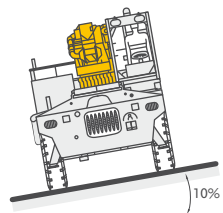
## DIMENSIONS AND TURNING RADIUS



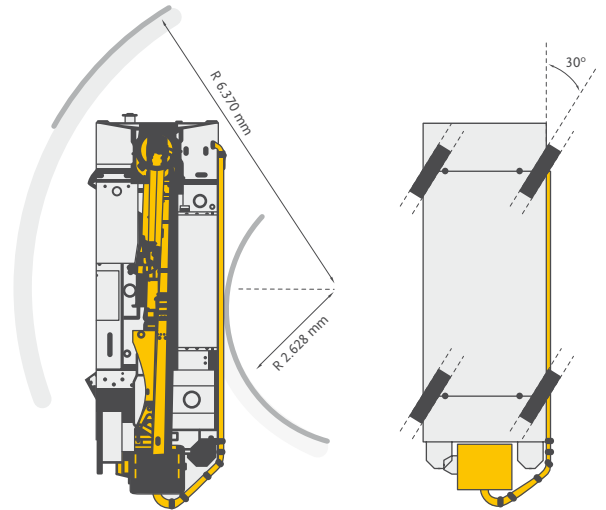
TRANSPORT DIMENSIONS



MAXIMUM LONGITUDINAL GRADIENT WHILE DRIVING



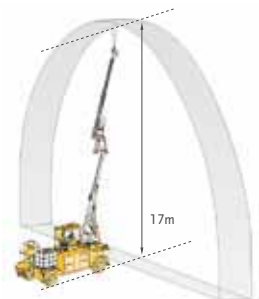
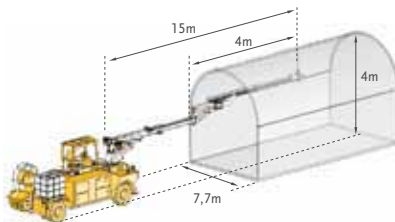
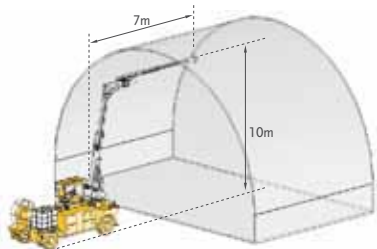
MAXIMUM TRANSVERSE GRADIENT WHILE DRIVING



TURNING RADIUS

4-WHEEL STEERING WITH CRAB MODE

## SPRAYING AREA



## DATA SHEET

### PUTZMEISTER TELESCOPIC SPRAYING ARM SA 17,2

Maximum spraying reach vertical / horizontal	17 m / 15 m
Minimum unfolding section vertical / horizontal	4 m / 7,7 m
Number of arm extensions	2 telescopic
Telescopic stroke	2 x 2.000 mm
Number of axles / degrees of freedom	9
Maximum arm angle	+60° / +30° -23° / -62°
Lights	2 spotlights 750 W, halogen

### SPRAYING HEAD

Rotation	360°
Inclination	+120° / -120°
Nutation	8°
Nozzle	DN40 / DN50

### PUTZMEISTER CONCRETE PUMP PM 1810

Type	Double-piston, hydraulic drive
Max. flow (theor.)	4 – 30 m³/h
Transport cylinder diameter	180 mm
Max. pressure (theor.) on concrete	75 bar
Max. aggregate size	16 mm
Electric motor power	55 kW
Power	at 400 V 50 Hz, 440V 60 Hz or at 480 V 50/60 Hz

### HOPPER

Full hopper capacity	350 l
Filling height	1.440 mm
Spotlight	Spotlight 24 V / 70 W

### ADDITIVE PUMP SYNCHRONIZED WITH CONCRETE PUMPING

Adjustment range	30 - 700 l/h
Maximum working pressure	10,5 bar
Additive tank	1.000 l
Control system	PLC

### CABLE REEL

Operation	Hydraulic
Collector	4 x 300 A, 36 rpm
Cable length	50 m / 100 m optional
Cable diameter	53-61 mm
Power	at 400 V 50 Hz or at 440 V 60 Hz
Diameter	1.400 mm
Brake	Hydraulic

### HIGH PRESSURE WATER PUMP FOR CLEANING

Motor output	5,5 kW
Max. pressure	200 bar
Flow	15 l/min
Hose	15 m

### PUTZMEISTER OFF-ROAD VEHICLE, 4-WHEEL DRIVE

Engine	Diesel, 4 cylinders
Engine power	70 kW a 2.200 rpm
Engine emissions	In line with EU-Stage III A / EPA-Tier 3
Transmission	Hydrostatic
Gearbox	2-speed in both directions
Steering	Four-wheel hydraulic steering (4WS), crab mode
Traction	4 WD
Speed	Max. 20 km/h
Braking system	Service brakes: 4-wheel hydraulic multi-disc brakes in oil bath Parking brake: 2-wheel independent, hydraulic multi-disc brakes in oil bath, manual. Emergency brake
Working lights	4 halogen spotlights 24V 70W H3
Driver cabin	FOPS/ROPS certified, with 180° swivel seat
Oil tank	390 l
Electrical equipment	2 x 12 V 110 A batteries
Diesel tank	150 l

### PUTZMEISTER REMOTE CONTROL

Drive	Cable / radio (optional)
Cable length	15 m

### WEIGHT

16.000 kg / 15.500 kg without compressor Brake Hydraulic

## OPTIONAL EQUIPMENT

### ELECTRIC OR DIESEL COMPRESSOR

Power	75 kW / 70 kW
Max. working pressure	7,5 bar / 7,0 bar
Max. air flow	11 m³ / min

### CATALYTIC CONVERTER

Max. reduction	CO -90%; HC -80%; black smoke -30%
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### PARTICLE FILTER

Max. reduction	CO: -90%; HC: 60-80%; black smoke/particles: -99%
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### COMPLETE SPARE WHEEL

Tyres	MITAS M PT-02
Rim size	18 x 19.5 "

### OTHER

Proportional radio remote control
Centralized concrete pump lubrication
100 m special cable for 1000 V
Fire suppression system, automatic / manual operation
Additive tank with stainless steel protection

### SPECIAL VOLTAGES

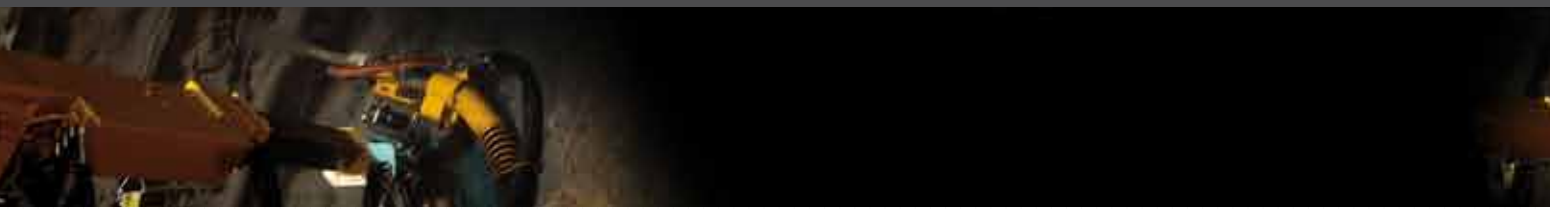
Power	at 660 V 50/60 Hz or at 1.000 V 50/60 Hz
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Consult Putzmeister for special configurations

## PUTZMEISTER: CONCRETE SPRAYING TECHNOLOGY

For over 30 years Putzmeister has been designing, developing and producing concrete spraying equipment for mines and tunnels. The experience acquired over these years together with ongoing investment in research and development have made Putzmeister a leading company in this field of application. It is this experience and search for added value for our customer that makes us different.

The main components of Putzmeister concrete spraying equipment, spraying arm, concrete pump, chassis and control software are designed, developed and produced in-house in order to offer perfectly synchronized equipment tailored to our customer's needs and the toughest working conditions.

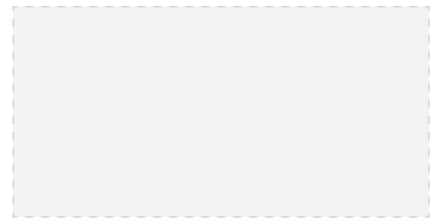


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EXPERIENCE IN SPRAYED CONCRETE

Strategic alliance for the development of concrete spraying technology

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