CONCRETE SPRAYING

SPM 500
Thanks to its long spraying reach, the SPM 500 WETKRET concrete spraying system is ideal for shotcreting medium and large tunnels, caverns and slopes. With its optimal ground clearance, the carrier is suitable for steep slopes.

AVAILABLE AS DUAL DRIVE VERSION

SPM 5314
SPM 5314 WETKRET is the versatile and flexible solution for medium to large sections of tunnels, caverns and slopes. Designed to be mounted on a 2 or 3 axle truck, the equipment provides a high degree of mobility.

AVAILABLE AS DUAL DRIVE VERSION

SPM 4210
With heavy-duty axles and a repositionable turning system, the SPM 4210 WETKRET is ideal for thorough working conditions in mining. The dual, proportional remote control allows an easy control of the spraying arms movements.

AVAILABLE AS DUAL DRIVE VERSION

WETKRET 3
Designed for shotcreting in small tunnel sections with difficult access, it is mounted on a compact crawler chassis with support legs and an optional +/-30º tilting system.

CONCRETE TRANSPORT

MIXKRET 5
The low-profile concrete mixer line (1 or 3 m³) for mining provides great climbing and driving capacity. With the option of an additive discharging system, MIXKRET is the perfect complement for the concrete spraying process in mining.

MIXKRET 4
In addition to its concrete spraying range, Putzmeister offers low-profile concrete transporting equipment and batching plant for underground mining operations, designed and developed to complement the concrete spraying process. Mixkret powerful engines provide great driving power, and the ICVD drive system (Integrated Continuously Variable Drive) is it possible to drive through the entire speed range without interrupting the trowel, the carriers of the equipment are extremely robust and durable. In order to provide the best possible configuration according to the working environment, the equipment is completed by a range of optional equipment in accordance with customers’ requirements.

PUTZMEISTER COMPLEMENTOS PARA SHOTCRETE

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EFFICIENCY AND RELIABILITY PROVEN AT MINING AND TUNNELLING JOB-SITES WORLDWIDE

Putting together our 50 years of experience and our complete range of concrete spraying and transport equipment, we can cover any shotcreting project.

PUTZMEISTER CONCRETE SPRAYING TECHNOLOGY

Spraying arms specially designed by Putzmeister for concrete spraying provide the operator with the best operability and highest degree of ergonomics. The heart of the equipment is a Putzmeister concrete pump of superior quality - no other brand has pumped the same amount of m³ of concrete worldwide. With its large diameter and long stroke, pulsations are minimized and the lifetime of the wear parts increased. The additive dosing of the concrete spraying equipment allows the synchronization of additive and concrete flow, guaranteeing a homogeneous, high-quality shotcrete mixture. An ideal mix-ratio of shotcrete and additives reduces the rebound and thus enhances productivity. Specially designed for the rough working conditions in mining and tunnelling, the carriers of the equipment are extremely robust and durable. In order to provide the best possible configuration according to the working environment, the equipment is completed by a range of optional equipment in accordance with customers’ requirements.

FULLY INTEGRATED SOLUTIONS FOR SHOTCRETE APPLICATION IN UNDERGROUND MINES

The plant has a compact footprint, combined with an elevated production capacity of up to 30 m³/h. It can be configured with three different feeding systems, including a big bag, silo or bag cutter, optimizing the logistics of underground mining.

TRAINING
In order to train your staff to use shotcreting equipment more efficiently, Putzmeister technicians are certified as ‘Nozzlemen’ by the European Federation for Specialist Construction Chemicals and Concrete Systems (EFNARC). Our qualified technicians provide your operators and maintenance staff with the required knowledge and skills, on site or at our premises, to increase the productivity and working life of your concrete spraying and transport equipment.

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EFNARC CERTIFIED PUTZMEISTER STAFF TO TRAIN YOUR OPERATORS AND TECHNICIANS

TECHNICAL HELPLINE
TELEPHONE ASSISTANCE AND SUPPORT 24-HOURS A DAY / 7 DAYS A WEEK
+34 91 428 81 00

Putzmeister offers 24-hour / 7 days technical service hotline, available to all customers worldwide requiring troubleshooting or technical assistance. A qualified technician is available to provide telephone assistance and support 24 hours a day / 7 days a week / 365 days per year. With an extensive worldwide network of after-sales service technicians, Putzmeister quickly responds if assistance is required on the job site. The qualified staff of our subsidiary or partner located closest to you provides you with a fast and reliable service. Putzmeister’s worldwide warehouses guarantee the availability of spare parts at the moment they are needed.

SPECIALIZED IN CONCRETE SPRAYING FOR 50 YEARS

Putzmeister is committed to ensuring that every customer, including mining and tunnelling companies, receives the optimal support. Putzmeister has been providing machinery, equipment and solutions for 50 years, helping to shape the world of concrete spraying and transport equipment.
## PRODUCT RANGE
Putzmeister offers the right equipment for concrete spraying work in underground mines and all kinds of tunnel constructions. Our concrete spraying equipment applies scoops into mines and tunnels all over the world, with spraying reaches of up to 17m and output rates of up to 30 m³/h. 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 customers’ needs and the toughest working conditions.

The concrete spraying range is complemented by concrete transporting equipment and batching plant to optimize the logistics of underground mining operations.

### CONCRETE SPRAYING

#### Dimensions
<table>
<thead>
<tr>
<th>MIXKRET5</th>
<th>MIXKRET4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>7,800 mm</td>
</tr>
<tr>
<td>Width</td>
<td>2,450 mm</td>
</tr>
<tr>
<td>Height</td>
<td>3,050 mm</td>
</tr>
</tbody>
</table>

#### Spraying Arm
- Max. spraying reach: Vertical / horizontal: 17.9 / 41 m
- Min. spraying sections: Vertical / horizontal: 3.6 / 2.4 m

#### Concrete Pump
- Pump: Double-axle, hydraulic drive
- Output (theor.): 4 - 50 m³/h
- Max. pressure: 75 bar

#### Additive Pump
- Adjustment range: 30 - 100 %
- Pump: Double-axle, hydraulic drive
- Output (theor.): 4 - 50 m³/h
- Max. pressure: 60 bar

#### Vehicle
- Chassis: Off-road, rigid
- Engine: Diesel, 4 cylinders, 75 kW
- Max. speed: 20 km/h
- Climbing ability: 35 %

### CONCRETE TRANSPORT

#### Dimensions
<table>
<thead>
<tr>
<th>MIXKRET5</th>
<th>MIXKRET4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>7,345 mm</td>
</tr>
<tr>
<td>Width</td>
<td>2,020 mm</td>
</tr>
<tr>
<td>Height</td>
<td>2,550 mm</td>
</tr>
</tbody>
</table>

#### Concrete Drum
- Mixer: with electric vibrator
- Capacity: 5 m³

#### Diesel Engine
- Type: Turbo diesel, 4 cylinders
- Power: 184 HP / 135 kW
- Rpm: 2,400 / 1,800 rpm

#### Transmission
- Type: Hydraulic with continuous variable (CVT)
- Drive: 4WD / 4WS

#### Axles
- Type: Heavy duty planetary
- Front: Fixed and directional
- Rear: Swinging and directional

#### Performance
- Maximum speed: 20 km/h
- Climbing ability: 35 %

#### Water dosing
- Water feed system: With 1,1 kW pump and pressure control system
- Connection with concrete mixer: By a 1" galvanized pipe
- Water tank: 500 l

#### Options
- Big bag filling hopper: 1,050 kg
- Hose: 2,000 kg
- Bag filling hopper: 200 kg