

**iONTRON**

  
**Putzmeister**



# iONTRON – Plug & Pump

Minimum environmental impact, efficient, flexible – made by Putzmeister

Putzmeister iONTRON – a world first

**FOR AN  
ENVIRONMENTALLY  
FRIENDLY CON-  
STRUCTION SITE**

**ZERO CO<sub>2</sub> EMISSIONS\***  
**MAX. NOISE PROTECTION**  
**FLEXIBILITY**  
**TRUCK-MOUNTED**  
**CONCRETE PUMPS**

**MADE BY  
PUTZMEISTER**



**#1**

**Pumping concrete  
with zero emissions**

Putzmeister iONTRON makes it possible to pump concrete on construction sites without producing any emissions. Depending on the local electricity mix, CO<sub>2</sub> emissions can be reduced by up to 100 %\*.

**#2**

**Sound level  
cut in half**

Low-noise machines are required wherever it is important to protect residents. With iONTRON, the noise level can be reduced by up to 50 %.

**#3**

**Plug &  
Pump**

Working in electric mode is very straightforward: Simply plug the connector into the site power supply (125 A) and start pumping – no additional batteries required!

**#4**

**Perfect for  
typical site use**

The powerful electric motor of the iONTRON covers typical site use applications with a delivery rate of up to 100 m<sup>3</sup>/h in electric operation.

**#5**

**Less weight,  
more space**

The iONTRON hybrid is a world first thanks to the new solution integrated in the pump train, which saves space and reduces the weight. Patent pending.

**#6**

**One switch for  
maximum flexibility**

The pump can be powered with diesel or electricity. All it takes to switch between the two during operation is the press of a button.

**#7**

**Ready for  
series production**

A standardised range is already available in the 20 to 40-metre class.

\* Depending on local electricity mix.

# Putzmeister iONTRON – simply better added value

## Concrete pumps with reduced CO<sub>2</sub> emissions

The requirements you are facing are constantly changing. And only those who are agile will remain competitive. Environmental protection and the efficient use of resources are at the centre of attention, specifically reducing CO<sub>2</sub> emissions and fuel consumption. With Putzmeister, you are well prepared for the future.



## Powerful performance for all typical jobs

Environmental protection is an important factor these days when it comes to tendering and awarding of contracts. With our iONTRON, you'll be at the very top and can cover virtually any application with the powerful 92 kW electric motor in electric operation – with a delivery rate of up to 100 m<sup>3</sup>/h\*\*.

## Less weight, more space

The iONTRON hybrid is a world first, characterised by the solution integrated in the pump train. This solution saves space, weight and fuel – and offers additional load reserve.



## Focus on noise protection

The noise level is another increasingly important factor. There are strict regulations to protect residents, particularly in urban areas. Noise protection is also a question of responsibility with regard to site personnel.

The iONTRON cuts the noise level nearly in half: 115 dB(A) in diesel operation compared to 107 dB(A) in electric operation. This means that the iONTRON can reduce the sound level while pumping concrete by 50 %, which in turn reduces the risk of hearing damage threefold.<sup>1</sup>



## Always a good choice: Electric or diesel power

Big effect – small switch: You can switch from diesel operation to electric mode at any time. Simply press a button to utilise the full iONTRON power – from the support configuration right through to pumping concrete.

Operation always remains the same for the machine operator, whether the machine is running in diesel or electric mode. Controlling the concrete pump with the electric motor running is just as easy and intuitive as always.

## Reducing CO<sub>2</sub> made easy: Plug and pump

In addition to the familiar and reliable diesel drive, our iONTRON also comes with a powerful electric motor that is easy and quick to connect to the construction site power supply (125 A) – simply unwind the cable, plug it in and utilise the full power of the electric motor.

Machine operators only need to be instructed once and can then connect the power supply themselves.



## iONTRON – fit for the future as standard

We want to do all we can to support you on your path to a successful future. At the same time, we are keen to secure a better future for our children. As part of this, we can already offer iONTRON in the 20 to 40-metre class.

# iONTRON

\* Depending on local electricity mix.

\*\* Based on construction site tests. The electric power may be restricted depending on the conditions of use. The output volume depends on the pressure and site conditions.

<sup>1</sup> Guaranteed sound power level "pump – piston-side drive". 10 dB(A) less = half the noise, 3 dB(A) less = half the risk of hearing damage.

Working with Putzmeister iONTRON

# SO SIMPLE, SO EFFICIENT TWO MODES FOR ANY AND ALL CONSTRUCTION SITES



## DIESEL MODE

#1

Drive to the construction site and activate the transfer gearbox

Optional support in diesel mode

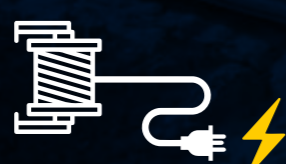


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#2

Simply unwind the cable and plug it into a 125 A socket

Unwinding can be done by hand. As an option, unwinding the 35 m cable can also be supported hydraulically in diesel mode.



#3

Deactivate the transfer gearbox

In diesel mode



#4

Switch the main switch to electric mode

Electric mode can be selected or switched to as required during operation.



#5

Start the electric motor with the radio remote control

Activate the electric motor by pressing the "Start engine" button on the radio remote control.



#6

Environmentally friendly work with less noise and CO<sub>2</sub>

Electric mode supports the positioning of the support, the boom movements and concrete pumping. Operation always remains the same for the machine operator, whether the machine is running in diesel or electric mode. Controlling the concrete pump with the electric motor running is just as easy and intuitive as always.



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# Putzmeister iONTRON – environmentally friendly and efficient



Putzmeister enables environmentally friendly construction sites

A world first: For the first time ever, you can efficiently and economically work on a construction site with a truck-mounted concrete pump with minimum CO<sub>2</sub> emissions and a significantly reduced noise level. We call this economic environmental awareness.



## Pumping concrete in diesel mode

Efficiency in two versions – whether diesel or electricity. You can even switch over in running operation.

~ **26.53 kg CO<sub>2</sub> / h**  
 ~ **115 dB(A)<sup>1</sup>**  
 ~ **10.2 LITRES OF DIESEL / h**



## Pumping concrete in electric mode

High performance without an additional battery. Simply via a cable and the site power supply (125 A). This is pumping with minimum environmental impact.

~ **UP TO ZERO kg CO<sub>2</sub> / h<sup>\*</sup>**  
 ~ **107 dB(A)<sup>1</sup>**  
 ~ **ZERO LITRES OF DIESEL / h**

Hourly savings in electric pump operation provided as an example based on the German electricity mix in 2019\*

- Reduced CO<sub>2</sub> emissions:  
**28.5 % (7.58 kg) per hour**
- Reduced sound level:  
**8 dB(A) less**  
**Noise level cut roughly in half!**
- Reduced fuel consumption  
**10.2 l diesel per hour**
- Savings as a share of the total costs  
**6.15 € per hour**

### Diesel engine:

■ Efficiency	45 %
■ CO <sub>2</sub> emissions	2.6 kg CO <sub>2</sub> per litre
■ Diesel heating value	9.8 kWh per litre
■ Assumption	1.30 € per litre

### Example calculation:

Performance / efficiency × CO <sub>2</sub> factor	=	CO <sub>2</sub> emissions/h
45 kW / 0.45 / 9.8 kWh/l × 2.6 kg CO <sub>2</sub> /l	=	26.53 kg CO <sub>2</sub> /h
45 kW / 0.45 / 9.8 kWh/l	=	10.2 l/h
10.2 l/h × 1.30 €/l	=	13.26 €/h

### E-Motor:

■ Efficiency	95 %
■ CO <sub>2</sub> emissions	0.4 kg CO <sub>2</sub> /kWh
■ Costs	0.15 €/kWh

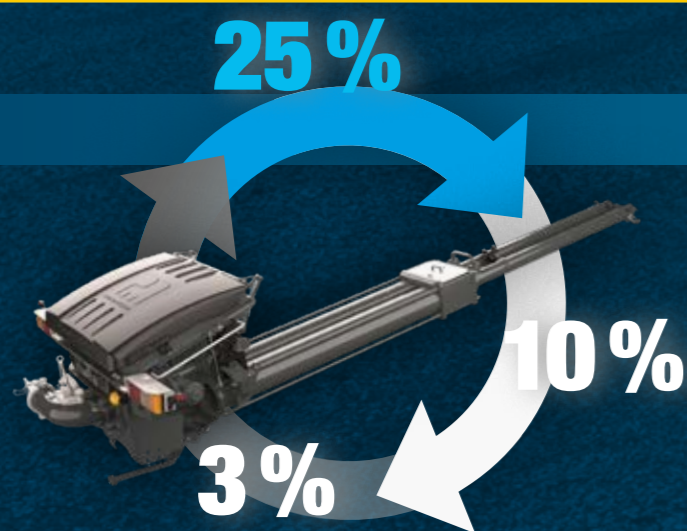
### Example calculation:

Performance / efficiency × CO <sub>2</sub> factor	=	CO <sub>2</sub> emissions/h
45 kW / 0.95 × 0.4 kg CO <sub>2</sub> /kWh	=	18.95 kg CO <sub>2</sub> /h
45 kW / 0.95 × 0.15 €/kWh	=	7.11 €/h

\* Depending on local electricity mix. Example calculation based on the German electricity mix in 2019 and the costs for industrial electricity  
 \*\* Based on construction site tests. The electric power may be restricted depending on the conditions of use. The output volume depends on the pressure and site conditions.  
 1 Guaranteed sound power level "pump – piston-side drive". 10 dB(A) less = half the noise, 3 dB(A) less = half the risk of hearing damage.

Efficiency and  
environmental protection:  
Order your iONTRON hybrid machine  
together with the iLS core pump

# iLS PUMP WITH PLUG-IN HYBRID



## When efficiency ...

- 3 % increase in efficiency by preventing leaks
- 10 % improvement in intake behaviour by removing bottlenecks in the concrete flow
- 25 % reduction in consumption through an intelligent control system and EOC 2.0

## ... meets environmental protection

- Up to 100 % reduction in CO<sub>2</sub> emissions\* enables a more environmentally friendly construction site
- 50 % reduction in sound level: Quieter machines are in demand to protect residents and workers.
- 125 A Simply connect to the site power supply and start pumping – no additional batteries required
- 100 m<sup>3</sup>/h Working in electric mode covers typical jobs with delivery rates of up to 100 m<sup>3</sup>/h\*\*

**iONTRON**

\* Depending on local electricity mix

\*\* Based on construction site tests. The electric power may be restricted depending on the conditions of use. The output volume depends on the pressure and site conditions.

# All the benefits at a glance

**PUTZMEISTER iONTRON –  
FOR MORE ENVIRONMENTAL  
AWARENESS ON  
CONSTRUCTION SITES**

- Truck-mounted concrete pumps ✓
- Stationary concrete pumps
- Truck mixers **NEXT TO COME**

## Why switch to Putzmeister iONTRON?

- **Efficiency with minimal CO<sub>2</sub> emissions**  
The powerful machines can be used universally in an environmentally friendly manner.
- **Less noise, more opportunities**  
Resident protection comes first, particularly in urban areas. With iONTRON, the sound level is around 50 % lower than in diesel operation.
- **Plug & Pump**  
Simply plug the connector into the site power supply (125 A) and start pumping concrete, without additional batteries and with very little effort. Operation always remains the same for the machine operator, whether the machine is running in diesel or electric mode.
- **For virtually all jobs**  
With the powerful 92 kW electric motor, most jobs can be covered in electric mode with a delivery rate of up to 100 m<sup>3</sup>/h.
- **Reduced space requirement, less weight**  
Thanks to the smart Putzmeister solution, the iONTRON technology occupies very little space and therefore offers more options for adding loads elsewhere.
- **Flexibility comes first**  
The concrete pump can be powered with diesel or electricity and can even be switched over in running operation.
- **Now available as standard**  
Machines in the 20 to 40-metre class are already available.



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