



**Putzmeister**

**iONTRON**

THE FUTURE. ZERO EMISSION.



# Together for tomorrow

Maximum efficiency, minimum emissions –  
the Putzmeister iONTRON family

# READY FOR TOMORROW? GET EFFICIENT WITH THE iONTRON FAMILY



We are aware that the construction industry is responsible for around 30 % of CO<sub>2</sub> emissions worldwide. That is why we focus our innovation strategy on sustainability, in particular the reduction of CO<sub>2</sub> and noise – with maximum efficiency, of course.

Less CO<sub>2</sub> and more efficiency through alternative drive concepts

**MIN. CO<sub>2</sub> EMISSION**  
**+ MAX. NOISE PROTECTION**  
**+ MAX. EFFICIENCY**  
**= MADE BY PUTZMEISTER**

With our Hybrid iONTRON, we were pioneers in construction site electrification. We are consistently pursuing this path, but remain open to technology: whether efficient, energy-saving diesel or hybrid drive, all-electric machines or CNG gas technology – your needs are decisive.

## iONTRON

### The Putzmeister eRoadmap

With the iONTRON product family, Putzmeister paves the way to an environmentally friendly construction site with the possibility of working completely self-sufficiently, independent of external energy sources. For almost every application situation, you will find the efficient and sustainable solution with up to zero CO<sub>2</sub> emissions.

**Become part of the revolution on construction sites worldwide!**



iONTRON Hybrid BSF  
2021



Introduction of the first hybrid truck-mounted concrete pump



iONTRON eMixer  
2022



Introduction of the first all-electric mixer with SANY substructure



iONTRON BSA  
2024



Introduction of the first battery-electric BSA



iONTRON Hybrid 2.0  
2024



Next generation with 15 – 40% higher efficiency



iONTRON lite Hybrid  
2025



Agitator, flushing water pump and high-pressure cleaner available as options in battery operation



GridExpress Mobile Power Station  
2025



Mobile charging station for energy supply in case of poor infrastructure



iONTRON eMixer Gen II  
2025



Further development of the all-electric mixer with the new generation of the SANY truck



iONTRON Hybrid & CNG  
2025



First iONTRON truck-mounted concrete pump on a CNG truck



iONTRON eBSF  
2025



First all-electric iONTRON truck-mounted concrete pump on electric truck

= Battery electric

= external power supply

= Gas drive



**iONTRON Lite Hybrid – the entry-level model**

- # 4 – 6 l/h less fuel consumption
- # Reduced costs during idle time
- # 6 kWh for agitator and wash mode
- # Charging with generator or 230 V on-board charger

6 kWh Battery



**iONTRON Hybrid 2.0 – the next generation**

- # Pumping concrete with up to zero CO<sub>2</sub> emissions, with half as much noise
- # "Plug and Pump" – all-electric pumping via the construction site current
- # 15 to 40 % more efficiency on the construction site

0 kWh Battery / Plug-In



**iONTRON Hybrid & CNG – hybrid pump with gas drive**

- # Compatible with gas trucks from various manufacturers
- # Switching between E-mode and CNG on the fly
- # Lower fuel costs, less noise

0 kWh Battery / Plug-In



**iONTRON eMixer 2.0 – 100 % electric**

- # 350 kWh battery for approx. 8 h
- # Fast intermediate charging thanks to CCS Combo2 connector
- # Comfort thanks to air-sprung cab and optional rear axle with air suspension
- # Safety with driver assistance systems

350 kWh Battery



**iONTRON GridXpress – mobile charging station**

- # Mobile 192 kWh lithium-ion battery
- # Perfect for all iONTRON models and other eMachines on the construction site
- # With CEE plugs (125 A) and CCS2 fast charging (120 kW)

192 kWh Battery



**iONTRON BSA 1005 – stationary and fully electric**

- # Battery-electric self-sufficient work for up to 8 h
- # Up to zero CO<sub>2</sub> emissions, half as much noise
- # Charging during pumping and overnight completely at the station
- # With 220 V Schuko, 400 V/16 A or 32 A at CEE socket or with the type 2 charging gun with max. 22 kW

78 kWh Battery

# FOR YOUR MISSIONS, FOR OUR FUTURE

The perfect eMatch for every challenge

# iONTRON



360 kWh Battery

**iONTRON eTruck-mounted concrete pump – The "game changer"**

- # Compatible with electric chassis from various truck manufacturers
- # Fully electric driving and pumping thanks to fast charging function and WWC
- # Less operating costs, less maintenance
- # Up to zero CO<sub>2</sub> and noise emissions

iONTRON Lite Hybrid – the entry-level model

# iONTRON LITE HYBRID SMOOTH ENTRY INTO THE E-WORLD

## E-ENERGY FOR IDLE AND WASH MODE:

- # 6 kWh battery capacity
- # Self-sufficient 48 V electrical system
- # Charging process while pumping with generator or 230 V on-board charger
- # Flushing water pump and high-pressure cleaner also run on the electric drive



OPTIONAL  
FOR ALL  
DIESEL-BSF

## CONVINCING ARGUMENTS

Work as usual with a diesel engine – and yet environmentally friendly and cost-saving with start-stop function! In the iONTRON Lite, the diesel engine stops automatically during downtimes – just like in modern passenger cars. An additional battery drives the agitator to prevent the concrete from drying, as well as other ancillary consumers.

## # ECONOMICAL – through less fuel and costs in idle times

The start-stop function saves between 4 – 6 l of diesel per hour during idle times in conjunction with an additional battery for the auxiliary consumers.

## # RELIABLE – thanks to intelligent battery management system

During the pumping process, the battery is charged – with the generator or with the 230 V on-board charger.

## # ECO-FRIENDLY – with start & stop into a clean future

Electrification during waiting and cleaning times contributes to lower emissions and thus to a more environmentally friendly construction site.

**TOP  
PERFORMANCE  
+ REDUCED  
CONSUMPTION  
= COST SAVINGS**

## SAVINGS PER YEAR DUE TO START-STOP AT 30 % IDLE\*

~ 2000 l diesel  
~ 3000 €  
~ 5,150 kg CO<sub>2</sub>

\* Calculation based on German customer data at - 4 l/h diesel consumption in idle time.

# iONTRON BSF HYBRID 2.0 THE FIRST IN TERMS OF SUSTAINABILITY AND EFFICIENCY



## # EMISSION-FREE CONCRETE PUMPING

Depending on the local electricity mix,  
up to 100 % CO<sub>2</sub> emission reduction.

## # NOISE LEVEL HALVED

Maximum noise level of 107 dB  
-> 50% lower than diesel engines

## # PLUG & PUMP

Simply connect the plug to the  
construction site supply – optionally  
with 63 A or 125 A.

Simple and efficient –  
two modes for count-  
less construction sites

Innovative, sustainable, sophisticated:  
The Putzmeister hybrid approach combines  
electric and conventional or other drives and  
makes it possible to operate the concrete  
pump via the truck engine as well as from  
the power grid.

## DIESEL MODE

## ELECTRIC MODE

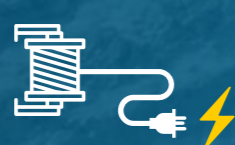
#1

Activate the transfer gearbox  
at the construction site



#2

Unwind cable and connect to  
125 A / 63 A socket



#3

Deactivate the transfer  
gearbox again



#4

Switch the main switch  
to E-mode



#5

Start the electric motor with  
the radio remote control



#6

Work environmentally friendly  
with less noise and CO<sub>2</sub>



iONTRON BSF Hybrid 2.0 – the next generation

# iONTRON BSF HYBRID 2.0

## ALWAYS ONE STEP AHEAD



You have the choice,  
we have the performance

# 63 A +12%

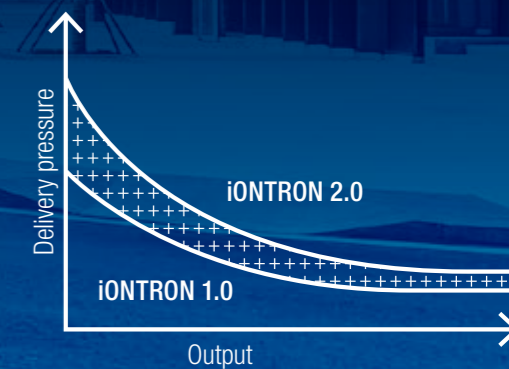
Up to 12 % increase\* in output and a maximum output of just under 82 m³/h

# 125 A +44%

Up to 44% increase\* in output and a maximum output of more than 100 m³/h

\* All values are theoretically possible and depend on operating point, machine type and boom movement.

iONTRON 2.0 –  
the plus in performance



### More efficiency on the construction site

Generation 2.0 of our iONTRON BSF Hybrid brings up to 40 % more efficiency to the construction site. This means that you have more energy available to achieve the same performance with less energy or to achieve a higher flow rate and pressure with the same energy consumption.

### What's new?

#### Low pressure reduction

Increased efficiency in partial load operation by reducing pressure in the low range, increases energy savings and thus reduces operating costs.

**ENERGY SAVINGS:  
UP TO 6 kW**

#### Optimisation of the storage loading pump

Further increase in efficiency through targeted adaptation to the actual system requirements enables energy-optimized performance.

**SYSTEM OPTIMIZATION:  
TARGETED**

#### eMotor speed optimization

Additional efficiency increases by lowering the minimum speed in partial load and idle mode lead to lower energy consumption and less wear.

**SPEED REDUCTION:  
OPTIMIZED**

#### Ergonic Output Control (EOC)

Improved efficiency through demand-based speed adjustment in the electric operation for minimized power losses and maximized output.

**SPEED CONTROL:  
VARIABLE**

## MORE DELIVERY PRESSURE

## + MORE OUTPUT

## = ENERGY- EFFICIENCY OPTIMIZATION

iONTRON BSF Hybrid 2.0 – the next generation

# iONTRON BSF HYBRID 2.0 COMPLETE SUCCESS SINCE 2021

Our iONTRON BSF has been on the market for more than three years, is in series production and has gained enormous construction site experience with over 100 machines in the field. All this experience has been incorporated into the further development over time.



**FINLAND**

- # OVER 100 IONTRON BSF\* SOLD
- # ON 4 CONTINENTS
- # IN OVER 15 COUNTRIES
- # OVER 30 SATISFIED CUSTOMERS

\*as of March 2025



**NEW ZEALAND**

**JAPAN**



**ICELAND**

iONTRON BSF – hybrid pump on gas-powered truck

# iONTRON BSF HYBRID 2.0 WITH CNG TRUCK WITH ANY DRIVE TECHNOLOGY IS A WIN

## Hybrid concrete pump meets CNG truck

The Putzmeister iONTRON Hybrid concrete pumps are deliberately open to technology, so that you can also use all the advantages in combination with an environmentally friendly CNG truck.

A big plus is the versatility: If there is a power connection on the construction site, the pump can be operated purely electrically. If this is not possible, the drive by a CNG truck offers a clean alternative.



## # MAXIMUM EMISSION REDUCTION

Minimum emissions from electric operation of the concrete pump and a gas-powered CNG truck.

## # FLEXIBILITY OF USE

Thanks to the hybrid solution with 125 A or 63 A power connection option – the concrete pump can be operated at any time without a power connection. Switching between electric mode and gas (CNG) is possible during operation!

## # PERFORMANCE

If there is no electricity on the construction site, the powerful CNG drive kicks in. A case study: driving 300 km and pumping up to 400 m<sup>3</sup>, with CNG alone.

\* All values are theoretically possible and depend on operating point, machine type and boom movement.

## # NOISE REDUCTION

With CNG drive and also with electric operation of the pump – an advantage especially in urban areas.

## # SUSTAINABILITY

By combining economical technologies that meet the requirements for environmentally friendly construction sites as well as the legal requirements for emission reduction.

## CONVINCING ARGUMENTS

The first mobile concrete pump iONTRON hybrid technology on a CNG truck from Scania – an innovation that sets new standards for low-emission and efficient construction sites. Here, too, iONTRON Hybrid 2.0 means: simply "Plug and Pump" – optionally in two power levels with 125 A or 63 A power connection on the construction site.

**iONTRON  
HYBRID  
+ GAS TRUCK  
= SUSTAINABLE  
FLEXIBILITY**



iONTRON eBSF – game changer

# iONTRON eBSF “GAME CHANGER” FOR THE FUTURE



**iONTRON**  
COMPATIBLE WITH  
ELECTRIC  
TRUCKS

## First all-electric iONTRON truck-mounted concrete pump on eChassis

The Putzmeister iONTRON is deliberately kept open to technology and is now also compatible with electric trucks, as the example of the cooperation with Volvo eTrucks shows. This means that the Putzmeister body can be connected to eChassis from various manufacturers. The first e-truck concrete pump, an M42-5 iONTRON, will soon be on its way to conquer the (environmentally friendly) construction sites of the world.

## # RELIABLE ENERGY FOR A LONG WORKING DAY

The Putzmeister charging concept reliably provides energy\* for a long working day:

- # Thanks to intelligent integration in trucks, the usual performance, e.g. for 15iLS pumps with up to 150 m<sup>3</sup>/h
- # The truck has a fast charging function with CCS2 combo charging plug
- # The battery can also be charged while the machine is pumping ('work while charge' (WWC))

\* depending on the different parameters and conditions on the construction site

## The best of both worlds: Putzmeister iONTRON plus Volvo eTruck

Two that go well together: the all-electric Volvo truck 'FM Battery-Electric 8x4 Tridem' and Putzmeister iONTRON. The truck on four axles with a total weight of 32 t consumes an average of 1.6 to 2.0 kWh per kilometre while driving. The vehicle's electric motors have a continuous output of 330 kW with a usable battery capacity of 250 kWh. A specially developed energy storage system provides a total of 360 kWh of power. The iLS pump thus has the full 220 kW of power at its disposal.

## # EMISSION-FREE TRANSPORT AND PUMPING

- # Protects the environment and increases competitiveness
- # Enables the use of government subsidies
- # Contribution to achieving ESG goals – in terms of sustainability

## # A WIN-WIN FOR EVERYONE – MINIMAL NOISE LEVEL

- # Ideal for urban and residential construction sites
- # Pleasant for machinists and site personnel

## # LOWER OPERATING COSTS WITH HIGH EFFICIENCY

- # Optimized energy consumption
- # Reduced operating costs during ongoing operation due to construction site electricity
- # Less maintenance effort

**UP TO ZERO CO<sub>2</sub> & ZERO NOISE EMISSIONS**

**+ 360 KWH BATTERY**

**= ALL-ELECTRIC FUTURE**

iONTRON eMixer 2.0 – 100 % electric driving and mixing

# iONTRON eMIXER 2.0 E-MOBILITY MEETS CONCRETE TRANSPORT



## 100 % ELECTRIC IN URBAN AREAS

CO<sub>2</sub> and noise emissions are a burden on the environment, especially in urban environments. A perfect solution is the iONTRON eMixer of the second generation: It combines the best of iONTRON technology, the Putzmeister truck mixer model P 9 G UL and the SANY eTRUCK e435 8x4. The result: 100% electric concrete transport – clean, quiet, comfortable.



**iONTRON  
+ BATTERY PACK**  
**= 100 % FULLY  
ELECTRIC DRIVE**



### MORE POSSIBILITIES WITHOUT NOISE AND CO<sub>2</sub>

Today, environmental protection is a decisive factor in tenders and the awarding of contracts. With the iONTRON eMixer, you can drive to various construction sites in urban areas at any time of the day. In addition, you drive on the safer, more economical side – regardless of the availability and costs of fossil fuels. So you are well positioned for a successful and clean future.



### ENVIRONMENTALLY FRIENDLY

- # Low noise level: 57.3 dB at 50 km/h
- # Halving of the perceived noise level while driving by up to 10 dB
- # Reduction of CO<sub>2</sub> emissions up to 0 – depending on the local electricity mix

### HIGHLY EFFICIENT

- # Battery charge sufficient for a day with up to 6 tours
- # 350 kWh battery power
- # Consumption (empty/mixed): 130 to 170 kWh per 100 km
- # SOC charging time from 20 to 80 %: approx. 50 minutes
- # Fast charging with up to 250 kW

### SAFE & COMFORTABLE

- # Safety on the road with the latest ADAS driver assistance systems
- # Stable, smooth handling thanks to air suspension
- # Spacious and user-friendly driver's cab
- # Driving comfort thanks to air-sprung cab and rear axle

iONTRON eMixer 2.0 – 100 % electric driving and mixing

# iONTRON eMIXER 2.0 WITHOUT NOISE AND CO<sub>2</sub>



## ICELAND



## FRANCE

## GERMANY

The eMischer is a milestone on the way to becoming an environmentally friendly construction site. However, it is not only a benefit for the environment, but also a bull's eye from an economic point of view. This is already confirmed by many satisfied customers from more than 15 countries.



- > 15 EUROPEAN COUNTRIES
- > 200,000 MISSIONS COMPLETED
- > 2,900,000 KM COVERED
- > 1,290,000 m<sup>3</sup> OF CONCRETE DELIVERED

\* as of March 2025

iONTRON BSA 1005 – stationary and battery-electric

# iONTRON BSA 1005 EFFICIENCY AND FLEXIBILITY FOR ECO-FRIENDLY OPERATIONS

## Volle Leistung für die Baustelle

Batterieelektrisch autark arbeiten – unabhängig von fossiler Energie: Eine Akkuladung reicht für einen typischen 8 h Arbeitstag, je nach spezifischen Bedingungen.



## # WELL THOUGHT-OUT CHARGING CONCEPT

### Charge overnight or while working

- # 220 V Schuko
- # 400 V/16 A or 32 A CEE socket
- # With wallbox type 2 charging gun with max. 22 kW (~3.5 h) approx. 2 h charging time from 10 % to 80 % SoC (State of Charge)
- # Optional mobile charger available

## # EMISSION-FREE ON THE CONSTRUCTION SITE

Emission-free concrete pumping on the construction site – with up to 100 % CO<sub>2</sub> reduction, depending on the local electricity mix.

## # QUIET CONCRETE PUMPING

Protects residents and workers on the construction site – the BSA 1005 iONTRON can drastically reduce noise levels.

## # PERFORMANCE AS USUAL

iONTRON as a full-fledged replacement with easy changeover, as the operation and performance are comparable to the diesel-powered models of the BSA 1000 series.

**100 % ELECTRIC  
+ 100 % SELF-SUFFICIENT**

**= 100 % FLEXIBLE**

iONTRON BSA 1005 – stationary and battery-electric

# iONTRON BSA 1005 SUCCESSFUL IN THE FIELD

Since August 2023, the prototypes of the BSA 1005 iONTRON (EU and US version) have been in field testing in Germany, Belgium, Holland, Sweden, Canada, Texas and California. With positive feedback: The operators were able to switch to the iONTRON BSA without any problems. Pumping behavior and operation would hardly differ from diesel-powered BSAs of the 1000 series. In a wide variety of applications, concrete qualities and conveyor line lengths – and under sometimes adverse climatic conditions – the machine met all expectations.



# FIELD TESTS WITH  
TWO PROTOTYPES  
# IN 6 COUNTRIES  
(EU & USA & CANADA)

iONTRON GridXpress – mobile charging station

# iONTRON GridXpress FULL AUTONOMY, FLEXIBILITY AND PERFORMANCE ON CONSTRUCTION SITES

## Maximum independence from external power sources

The flexible GridXpress iONTRON power bank with a whopping output of 192 kWh supplies your electrically powered machines with energy – whether iONTRON BSF, BSA 1005 iONTRON, eMixers or even excavators – and even your electric car.

## iONTRON GridXpress Key Facts

- # 192 kWh lithium-ion battery (usable 128 kWh)
- # Fits perfectly with the iONTRON portfolio
- # MCEE plug with 32 A, 63 A or 125 A or fast charging with CC2 combo (120 kW)
- # Trailer on 2 axles and < 3.5 tons



## # NEVER AGAIN WITHOUT ELECTRICITY ON THE CONSTRUCTION SITE

Easily and flexibly bring electricity to any construction site by trailer in order to be prepared for inner-city emission regulations.

## # PERFORMANCE EVEN WITH POOR CHARGING INFRASTRUCTURE

Autonomous working without additional external energy sources, whether on a CEE plug with 32 A, 63 A or 125 A or via CC2 combo plug.

## # MOBILE POWER BANK FOR THE FLEET

With a mobile charging station, your eMachines work autonomously, whether iONTRON, EVs or other electrically powered vehicles.

**192 kWh  
+ 2-AXLE  
TRAILER**

**= SELF-SUFFICIENT  
PERFORMANCE  
PROVIDER**

# CREATE FUTURE WITH INNOVATION

A world where housing and infrastructure are affordable and sustainable.

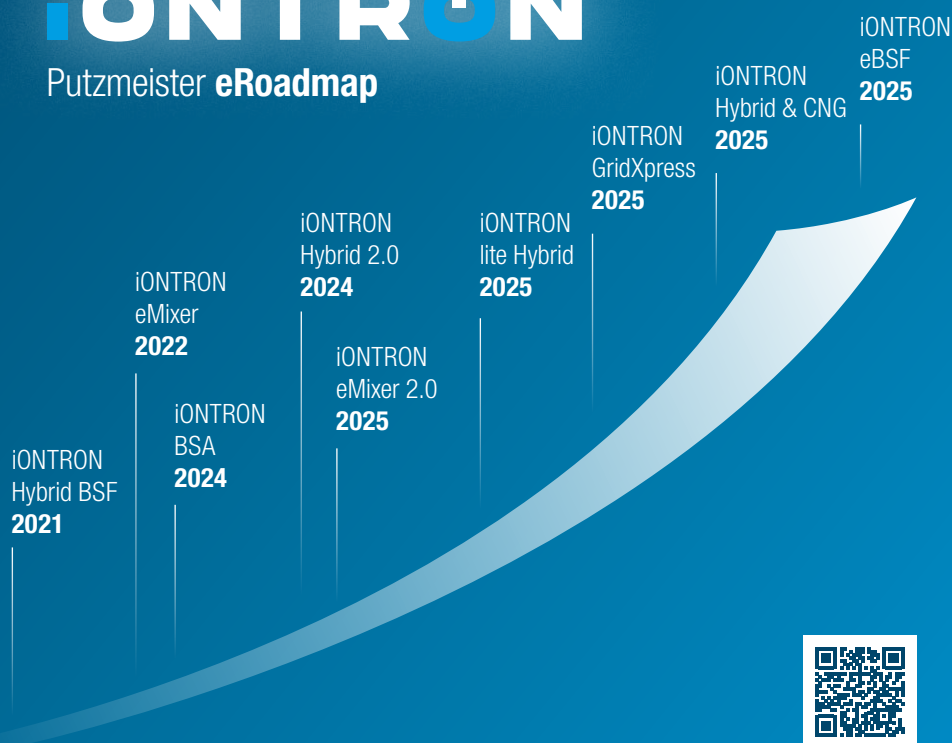
## The Putzmeister path to greater efficiency and sustainability

We think long-term, always with the goal of CO<sub>2</sub> neutrality – and we clearly see our responsibility here as the number one in the electrified concrete value chain. Whether efficient, energy-saving diesel engines with additional batteries, fully electric construction machinery or the combination with alternative drives such as CNG gas technology – we offer solutions. And we leave it up to our customers to decide which technology they choose.

**With Putzmeister "TOGETHER FOR TOMORROW", so that housing and infrastructure become affordable and sustainable.**

## iONTRON

Putzmeister eRoadmap



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