

zero emission Our emission-free solutions.



Your challenges – Our answers

As the pioneer within the field of the battery-electric construction machines, Wacker Neuson has been continuously expanding their portfolio since 2013, and is not stopping at machine development. With offers of zero emission, Wacker Neuson is working to provide the customers with the full eco-system: from the charging infrastructure through the service provision, finance options, and different usage models through to the cyclic business models. With additional products, such as the Charging Box and Systainer Boxes for transporting batteries, Wacker Neuson offers simple solutions for switching to emission-free working. Ready to think differently? Then make the "switch" with Wacker Neuson.





zero emission

Different charging options

- With our Charging Box we have created a solution for charging e-machines on construction sites, which do not have a direct access to a power source.
- At the Charging Box, you can charge both compact machines and construction equipment batteries.
- Our emission-free construction machines are equipped with the most common power connections, such as e.g. Schuko/CEE and Type 2 plugs and we continue to work on designing the charging procedure to be as easy as re-fueling.

Service solutions

- Our solutions support you with your zero emission machines and we continue to develop our services surrounding batteries and machines.
- With the telematics solution EquipCare, we provide, for example, real-time data, maintenance advice, and fleet management for efficient and preventative servicing.

Simple operation

- Our battery-operated construction equipment is easy to operate. The Battery One battery can be easily started at the press of a button.
- The Battery One battery not only fits more than ten machines of Wacker Neuson construction equipment, but it also fits the equipment of further manufacturers.
- Full performance is available at the press of a button with all zero emission models generally throughout an entire working day, without recharging.



100% CO₂-free operation on the construction site: This means zero emission machines make a valuable contribution to climate protection. There is also less stress in the construction site environment, as machine operation is very quiet and there are no CO₂ emissions.

Five reasons why it's worth switching.



#switchtosilence

Our zero emission products work with very little noise. Already 10 decibels less mean the sound level perceived is cut in half. The electrically-operated construction machines by Wacker Neuson are even up to 20 decibels guieter than conventional machines. This also has a tangible economic advantage, because work is often in noise-sensitive environments or at night to complete construction sites promptly or to not impact the day shift.



#switchtoeasy

Our zero emission products are easy and intuitive to operate, and can be charged at any socket and/or immediately put to use with a battery. The construction equipment starts in the truest sense at the push of a button. Full performance is immediately available with all zero emission models - as a rule throughout an entire working day, without recharging.



#switchtozero

The construction industry benefits from electric drive systems, just like the automotive industry. With many construction machines, there is great savings potential in terms of fuel, even when working under a full load. And even the maintenance costs are clearly lower than with the fuel-powered machine. So that our construction machines are always charged, and so that their full performance can be provided, they are equipped with the most common power connections, like Schuko/CEE and Type 2 plugs. Additionally, with Battery One and the Charging Box, we offer initial infrastructural solutions for e-construction sites.



#switchtoeconomical

Electric motors are more efficient than combustion engines, and particularly low-maintenance. The extended range of applications also increases the utilization and therefore the economic efficiency of the machines. Even the CO₂-reduction has financial benefits,

because to achieve the specified climate goals, many countries will significantly increase the already implemented CO2-taxes in the coming years.

WACKER

A particularly green construction project.

On one kind of terrain, electric construction equipment isn't just your first choice, it's the only choice most of the time: that is, interiors. This is even truer in particularly sensitive environments, such as on a construction project for the National Garden Show in Erfurt, where, in the vicinity of exotic plants, work was done.

The emission-free construction machines and equipment by Wacker Neuson not only work without exhaust emissions and extremely quietly, but were able to score points thanks to their



compact dimensions even in the confined spaces of the work environment.

The mini-excavator EZ17e was responsible for the excavation work and moving natural stones. The electric wheel loader WL20e impressed with its versatility in material transport.

A battery-powered rammer and a battery-powered vibratory plate were used to compact the soils. This way, all the work was finished quickly and, especially, cleanly in the "green construction site" in both senses of the word.

Compacting, excavating, and transporting the environmentally friendly way.

witchtogreen

The Danakil Desert and Jungle House of the National Garden Show 2021 in Erfurt showed the desert and jungle habitats and how the plants adapted to the respective environment. Building the Danakil House necessitated the implementation of a great variety of work steps with the emission-free construction machines and equipment. Here, the broad product portfolio of Wacker Neuson scored points, as almost the entire zero emission range was used.

#switchtogreen Even while setting up the garden show, all lights were green.

Material transport without exhaust emissions.

The mini-excavator EZ17e, the newest addition to the zero emission series, was available for the excavation works, to be able to move the plants to the right places. The moving of natural stone was among the tasks. No problem for the 1.7-ton electric excavator, because thanks to the high-quality lithium ion battery, it has the same power as the conventional model.



Emission-free, to protect the plants.

When planting the jungle house, it was particularly important that To prepare the paths in the Danakil House, the ground in particuno exhaust emissions were created when the trees and flowers larly confined areas was compacted with a battery-powered were being set. Because due to the sensitive plants, it was not rammer; a battery-powered vibratory plate was used in larger areas. possible to open windows and doors or use fans when planting. Both units of compaction equipment can be operated with the Through the use of the WL20e electric wheel loader, the sensitive same modular lithium ion battery, which can be replaced in no time - specially designed for the hard work applications in the plants were not exposed to the exhaust emissions. construction industry.



Transport materials efficiently, easily and free of emissions - here, the electric wheel loader WL20e and the electric wheel dumper DW15e are perfect. The wheel loader could be used in many ways in this project: For one, with a shovel volume of 0.2 cubic meters, it loaded the dumper with earth. For another, equipped with a pallet fork, it proved a worthy transport helper.



Pssssst: The quiet night construction site.

How do you lay cables in the middle of a pedestrian zone without disturbing the residents? The astonishing answer: by working at night and in the early hours of the morning. The low-noise, zero emission machines make it possible, like here in Copenhagen.

On the construction site, almost the entire zero emission portfolio by Wacker Neuson was put to work on excavating and filling, material transport and compaction. To have as little of an effect as possible on shop opening hours, work was mainly done at night. No problem with the whisper-quiet electric drive systems.

the local distance and the second

This way to all the zero emission video

EZ17e



A construction site process without CO₂ emissions!

Typical infrastructure measures in inner cities are connecting and replacing pipes. In Copenhagen too, this task was in the plan. First, the paving stones were broken up with the fully electric Zero Tail excavator EZ17e; then the soil was excavated. Here, the very compact design of the battery-powered machine also paid off: no tail overhang, which might have restricted freedom of movement.



#switchtosilence

A construction site in the middle of the pedestrian zone, here, zero emission is the best choice.

Material transport, quietly.

The excavated material was transported away by the electric Also, the wheel loader WL20e was used for material transport on wheel dumper DW15e with a 1.5-metric ton payload - and, the construction site. The wheel loader is equipped with a highthanks to its quiet and emission-free working principle, was barely quality lithium ion battery, which is characterized by particularly noticed by the residents and pedestrians in the area surrounding simple handling and low maintenance effort. With a variety of the construction site. The dumper was also impressive in the possible attachments, it is a flexible helper – for example, the pallet area of performance. When braking the machine or when driving fork and a light materials bucket were ideal for the construction downhill, the energy is fed back into the battery and used to charge site in Copenhagen. the battery, which minimizes energy consumption. The integrated battery charger is easily connected by plug to the power grid.



Cable laying in day-to-day operations.

After the cables were laid, the soil was compacted. For larger Thus, the businesses in Copenhagen could keep running, the areas, the the battery-powered vibratory plate AP1850e was used, residents could sleep and the cables - almost unnoticed - could for confined spaces the battery-powered rammer AS50e. Both are be laid. A nice confirmation of this: the city of Copenhagen's noise operated with the same Battery One lithium ion battery that is measurements were unable to record noise emissions of any kind deployable as a module, which can be changed in no time. One produced by the zero emission products – only garbage trucks battery charge is sufficient for typical applications in the course of with conventional engines driving past produced measurable a workday and, for the nighttime applications in Copenhagen, it values. provided enough energy.





Impressive in practice.

Are battery-powered machines only for special applications? Far from it! In the inner city of Barcelona, the battery-powered compaction equipment and compact electric machines by Wacker Neuson are proving that they too are perfectly suited for daily practical use and ideal for teamwork.

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In the heart of Barcelona, work was done on water pipelines – where exclusively machines that worked emission-free were used. This way, contaminating the sensitive areas with fuel, for example when filling up, could be avoided.



Sustainable pioneering work in Barcelona.

The city of Barcelona takes great interest in operating construction sites free of local CO_2 -emissions and thus also in a climate-friendly and sustainable way. The e-machines and equipment by Wacker Neuson were used throughout the entire construction process: from breaking and excavating to backfilling and compacting. In Barcelona, a holistic infrastructure solution for e-construction sites was also tested for the first time.

HOMS

#switchto**zero** Repairs of water pipelines.

Mobile power supply with the Charging Box.

The EZ17e Zero Tail excavator was used for excavation and demolition work. Thanks to its generous battery capacity, the hydraulic functions are available for an entire workday at full output. The DW15e dumper was on site for the transport of material. It is equipped with one electric motor for the drive system and another for the work hydraulics, in order to take on output as required and minimize energy consumption.



The environment-friendly construction site.

Particularly practical: All battery-powered compaction equipment, including various models of vibratory rammers and vibratory plates, are operated with the same high-performance Battery One lithium ion battery. This saves investment costs as well as transport costs.



For interim charges of the excavator EZ17e as well as the construction equipment such as the battery-powered rammer, the Charging Box – the "powerbank for the construction site", was in use on the construction site in Barcelona. It allows flexible recharging or interim charging of construction equipment batteries but also compact machines on construction sites that have no access to the power grid.

Emission-free compaction made easy.

Wacker Neuson has, for every kind of soil compaction, the perfect equipment – also including many emissionfree solutions. How does this work in practice? Like here, on a construction site in the heart of Stuttgart.

In the course of the renovations of the Stuttgart marketplace the e-machines by Wacker Neuson impressed in a field test. Besides electric compact machines such as excavators and dumpers, the entire portfolio of battery-powered compaction equipment was used. The different battery-powered rammer- and vibratory plate models and the internal vibrator-system for concrete consolidation have one thing in common: they are powered by the same ultra-modern lithium ion rechargeable battery. It is designed for the tough everyday work on construction sites: impact-proof, dirt-resistant and with a running time sufficient for all typical activities on a workday.

#switchtoeasy

Renovation in the middle of the city.

In the heart of inner city Stuttgart, between the Town Hall and the Collegiate Church, the marketplace was renovated to be brighter, friendlier and more modern. A challenge: the renovation should be done with as little noise and as emission-free as possible. For this reason, almost all the electric construction machines of the zero emission family were in use on site.

Battery One.

#switchto**easy** All zero emission compaction equipment in use.

Be it vibratory plates or vibratory rammers, for every subbase the proper battery-electric construction equipment.

The battery-powered rammers that have been tried and tested as well as battery-powered plates from the APS series for soil compaction were used at the construction site in Stuttgart. Meanwhile, the three vibratory rammers and seven vibratory plates in the Wacker Neuson zero emission portfolio can be operated with the same high-performance and sturdy lithium ion battery, Battery One. The idea: A battery standard simplifies construction site operations enormously, as only one battery and one charging system need to be considered in construction site logistics. The battery can be exchanged in no time at all or put into another model. The battery can be used not only in all battery-electric equipment from Wacker Neuson, but also in construction equipment from other manufacturers.



One battery for all makes working easier.

The Battery One battery can also be used in the internal vibrator backpack ACBe, which was used for smaller compaction work in in-situ concrete at the Stuttgart marketplace. The DT10e track dumper, DW15e wheel dumper, and WL20e wheel loader enabled efficient transport of material without direct exhaust emissions and with extremely low noise emissions. Especially with brisk



#switchtoeconomical

Our zero emission machines impress in many areas less friction and heat loss in the overall system. This - even in the case of costs

Lower energy costs: electric motors are considerably more efficient than combustion engines. In practice, this means: energy cost savings of up to 65% on battery-powered rammers and up to 75% with our compact machines.

Lower maintenance costs: our time-tested and proven electric motors are particularly low-maintenance. Less moving parts in the drive train creates means less time spent in maintenance and more time remaining for productive applications.

Wider spectrum of application: electric machines can also be used in noise- and exhaust-sensitive environments. This way, you ensure additional lucrative jobs.

The higher procurement price is quickly amortized. So it's worthwhile to be on the move electrically!

Did you know?

Purchasing electrically-driven equipment machines is often eligible for financial awards or grants. Find out more from your local sales partner!

Battery One.

Battery One is a standardized and user-friendly battery system that focuses on CO₂-free and sustainable use of construction equipment. The battery can be used not only in all battery-electric equipment from Wacker Neuson, but also in construction equipment from other manufacturers. The idea: A battery standard simplifies construction site operations enormously, as only one battery and one charging system need to be considered in construction site logistics.



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	Unit	BOBS	BOE	310	80814
Mounted capacity	Wh	504	1,0	08	1,425
Weight	kg	6.4	9.	3	9.6
	Unit	BOC	7	E	80013
Charging current	A	7			13
Charging time (BOB5/BOB10/BOB14)	min	90/160/2	255	50)/95/140

Battery converter backpack: goodbye to cables.

Our battery-powered internal vibrator can be easily connected to the battery-powered converter backpack ACBe, thus making concrete consolidation completely mobile.

	1	
	Unit ²	ACBE
Local CO ₂ emissions	g/Bh	0
Charging time, standard/fast battery charger	min	90/50
Battery running time ¹	h	up to 2
Noise emissions reduced by ⁵	dB	20
Operating weight with/without BOB5	kg	10.25/4.2
Operating weight with/without BOB10	kg	13.5/4.2
Rated current	Α	20
Input/output voltage	v	51 (3~)/34 (3~)
Output performance	kW	0.79
Output frequency	Hz	200

Charging Box: The powerbank for the construction site.

The Charging Box extends the capacity of zero emission products, prevents peak loads in the network and can provide the entire construction site with electricity.



	Unit	CB250
Weight	kg	650
Dimensions	mm	1,480 x 820 x 1,105
Class rating	-	IP54
Temperature range	°C	-20 – +40 ambient temperature
Cooling	-	Air cooled
Electr. frequency	Hz	50
Rated power	kVA	50
Charging time	h	< 4.5 (16 A)
Capacity	kWh	25

Tandem roller with electric drive: compaction power, fully electric.

The electric rollers RD24e and RD28e are, with an operating weight of barely 2.5–2.8 metric tons and a drum width of 111–125 centimeters, the all-rounders for the emission-free construction site.

	Unit	RD24e	RD28e	
Local CO ₂ emissions	g/Bh	0	0	
Operating weight (max.)	kg	3,000	3,410	and the second se
Drum width	cm	111	125	RD28e
Max. travel speed	km/h	11	12	A
Centrifugal force, front Level I / Level II	kN	25 / 16	46 / 28	
Battery capacity	kWh	16.8	24	
Operating time under full load	h	3.5	3.5	
Battery charging time 110 V/230 V/400 V	h	15/7.5/4	15/7.5/4	
Projection, right/left	mm	55 / 55	55 / 55	
Inside turning radius	mm	2,470	2,370	
Center distance	mm	1,700	1,700	

¹ Average reference value, the actual value may differ depending on application conditions.
² All information refers to the battery model BOB14.



Battery-powered rammers: from the inventor of the original.

Our vibratory rammers are writing history once more: compacting at full output, but without emissions - an invaluable advantage, especially in trenches.



	Unit ²	ASBOE	ASSOE	AS60e
Local CO ₂ emissions	g/Bh	0	0	0
Charging time, standard/fast battery charger	h	4.6/ 1.87	4.6/ 1.87	4.6/ 1.87
Battery running time ¹	min	70	40	30
Reach per battery charge ¹	m	770	352	312
Ramming shoe size (width)	mm	150	280	280
Operating weight	kg	41.7	71	71
Stroke at ramming shoe	mm	40	44	61
Max. impact force	(rpm)	820	680	680
Type of drive	kW		Electric motor	

Single-direction vibratory plates: real economic miracles.

Maintenance-free electric motor, up to 50% less energy costs and starts with a push of a button: Compaction doesn't get any more comfortable or affordable.



	Unit ²	AP2560e	APS1030e	APS1135e	AP51340e	APS1550e	AP52050e
Local CO ₂ emissions	g/Bh	0	0	0	0	0	0
Charging time, standard/ fast battery charger	h	4.6/ 1.87	4.6/ 1.87	4.6/ 1.87	4.6/ 1.87	4.6/ 1.87	4.6/ 1.87
Battery running time ¹	min	55	92	92	92	80	80
Reach per battery charge ¹	m²	695	610	765	920	960	1,065
Operating weight (without/with water tank)	kg	133	51/53*	61 / 63*	73/75*	77/82	87/92
Centrifugal force	kN	25	10	11	13	15	20
Operating width	mm	600	300	350	400	500	500
Frequency	Hz	98	98	98	98	98	98
Engine		Electric motor					

* Weight depends on the additional options selected

Reversible battery-powered plate APU3050e: unbeatably efficient thanks to direct drive.

The emission-free drive and the low overall height make the APU3050e the ideal compaction equipment in trenches and shoring.

	Unit ²	APU3050
Local CO ₂ emissions	g/Bh	0
Charging time, standard/fast battery charger	h	4.6/ 1.87
Battery running time ¹	min	35
Reach per battery charge ¹	m²	333
Operating weight	kg	212
Centrifugal force	kN	30
Operating width	mm	500
Frequency	Hz	90
Engine		Electric motor



DireX is the direct drive of the battery-electric vibratory plates and ensures more efficiency and longer running times. Direct energy transmission without V-belt minimizes output loss, resulting in a longer running time for the

machine.



Battery-electric telehandler: Compact and going beyond.

The TH412e guarantees more flexibility in application, environmental protection and significant savings with operating costs.

Electric wheel loader: do everything, miss nothing.

Our wheel loaders have been versatile forever. Now they are also expanding your spectrum of application. And without sacrificing performance.



WL2OE	_

	Unit	тнч12е
Local CO ₂ emissions	g/Bh	0
Motor drive hydraulics/work hydraulics	kW	33.1/21.2 (ECE R085)
Battery capacity (gross)	kWh	18/28
Charging time ¹	h	3.2-11.5
Best possible charging time (from 20% to 80%) ¹	h	1.8-2.7
Running time (uninterrupted) ²	h	up to 5.2
Height x width	mm	1,995/1,564
Operating weight	kg	2,750-3,100*
Travel speed (optional)	km/h	0-15 (20, 25)
Payload (max.)	kg	1,250
Max. height of the bucket pivot point / max. dumping height with telescopic arm extended	mm	4,537/3,630
Radius on the outer edge	mm	2,695

* Values with optional equipment

¹ The charging time is dependent on the different charging options. On-board charger 3 kW (standard), with additional on-board charger total 6 kW (option).

The following charging plug options are available: 230 V/10 A Shuko, 230 V/16 A CEE (blue, 3-pole), 400 V/16 A CEE (red, three-phase, 5-pole), 400 V/16 A (Type 2 plug Wallbox, IEC 62196) and other adapter plugs.

	Unit	WL20e	WL28e
Local CO ₂ emissions	g/Bh	0	0
Motor drive hydraulics/work hydraulics	kW	6.5/8.5 (EN60034-1)	33.1/21.2 (ECE R085)
Battery capacity (gross)	kWh	14.1/18.7/23.4	14.1/18/28
Charging time ¹	h	3-10	3.2–11.5
Best possible charging time (from 20% to 80%) ¹	h	1.9–2.9	1.8–2.9
Running time (uninterrupted) ²	h	Up to 7.3	Up to 5.3
Bucket capacity	m³	0.19	0.42
Height x width	mm	1,939 – 2,336 x 1,052	1,931 – 2,418 x 1,251
Operating weight	kg	2,170-2,350*	2,800-3,300*
Travel speed (optional)	km/h	0-15	0–15 (20, 25)
Bucket tipping load (horizontal loading frame – machine straight)	kg	1,550-1,620*	1,860–2,510*
Pallet fork tipping load (horizontal loading frame – machine straight)	kg	1,110-1,160	1,550–2,070
Max. height of the bucket pivot point / max. dumping height	mm	2,710/2,017	2,584/ 1,718
Radius on the outer edge	mm	2,379	2,774

* Values with optional equipment

² The running times of the battery are dependent on the respective application conditions, the work tasks and the driving style. This can result in achieving longer running. The specified running times may also be undercut in extreme cases. The specified running times relate to the uninterrupted operation and working of the machine.



Electric excavators: prepared for anything.

Our mini-excavators can do more than operate electrically: for example, without rear projection, working directly at walls or operating stationary directly at the plug receptacle. Our mini-excavator 803 with diesel engine can optionally be operated emission-free with an electro-hydraulic HPU power unit.

	Unit	EZ17e
Local CO ₂ emissions	g/Bh	0
Engine output	kW	16.5
Battery capacity	kWh	23.4
Battery charging time 110 V/230 V/400 V	h	15/7.5/4
Battery running time ¹	h	7.5
Battery voltage	v	48
Noise emission reduced by ²	dB	9
Shipping weight min.	kg	1,681
Operating weight min.	kg	1,797
Length x width x height	mm	3,584/3,554* x 900 – 1,300 x 2,489
Max. dumping height	mm	2,439/2,553*
Digging depth	mm	2,323/2,483*
Digging radius	mm	3,900/4,050*
Break out force	kN	20.5

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* Long dipper stick (option)

803 dualpower

	Unit	803 dualpower
Local CO_2 emissions	g/Bh	0
Engine output	kW/hp	9.6/13
Shipping weight min.	kg	932
Operating weight min.	kg	1,029
Length x width x height	mm	2,828 x 700-860 x 1,507*/2,261
Max. digging depth	mm	1,763
Max. digging radius	mm	3,090
Max. dumping height	mm	2,012
Break out force	kN	8.9

* Without ROPS frame

Electric wheel dumpers: material transport with a soft tread.

Off-road capable thanks to articulated pendulum joint, quiet thanks to electric motors and enduring thanks to energy recovery - you're welcome!

	Unit	DW15e	
Local CO ₂ emissions	g/Bh	0	
Engine output of drive system/ work hydraulics	kW	6.5/8.5	
Battery capacity	kWh/Ah	14.4/300	
Battery charging time	h	8	
Battery running time ¹	h	6.5	
Battery voltage	v	48	
Battery weight	kg	470	
Noise emission reduced by ²	dB	20	
Max. payload	kg	g 1,500	
Shipping weight	kg	kg 1,940	
Length x width x height	mm	3,300/3,214* x 1,322 x 2	
Gradeability (theoretical)	% 45		
Bucket (struck/piled)	I 650/800		

Basic machine with high tip skip *swivel tip skip option

Electric track dumpers: leave the wheelbarrow at home.

Our electric track dumpers take on material transport in interiors and noise-sensitive areas.

	Unit		
	Onic	01002	
Local CO ₂ emissions	g/Bh	0	0
Engine output	kW	5.5	2
Voltage / capacitance	V/Ah	3.6/72	12/5
Battery charging time	h	8	7.5
Battery running time ¹	h	4-5	4-9
Noise emission reduced by ²	dB		14
Max. payload	kg	500	1,00
Shipping weight	kg	540***	815-9
Length x width x height	mm	1,670* x 589 x 759*	1,803*/1, x 830* x
Travel speed	km/h	3	4
Gradeability when loaded	max. %	36	36
Skip capacity (struck)	I	273	367*/2
Skip capacity (heaped)	I	313	427*/2
Skip capacity (volume of water)	I	142	166*/1

*Front-tipping skip **High-tipping skip ***With SLE (self-loading equipment)

¹ Running time varies depending on the type of application. ²All decibel values in this brochure state the emission sound pressure level (LpA).

This states the sound level of the equipment at the place of work directly assigned to it, for example in the cabin.







Wacker Neuson – zero emission series.



Concrete technology



Generators



Vibratory rammers



Excavators



Vibratory plates



Wheel loaders



Rollers



Dumpers



Financial solutions

Repair & maintenance

Academy



Rental

Concrete specialists





Spare parts





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Used machines

ConcreTec













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