

Lithium iron phosphate technology

At Wetrok, the energy revolution is our reality

Back in 2012, Wetrok said goodbye to the leaden past of energy. Wetrok was the first provider worldwide in the cleaning sector to harness advanced lithium iron phosphate technology for use in scrubber-driers. Not all types of lithium are created equal: for safety reasons, Wetrok uses lithium iron phosphate instead of lithium manganese oxide.



Lithium iron phosphate: used in thousands of Wetrok machines



Optimal utilisation of battery capacity

Lithium iron phosphate batteries offer around 20% greater capacity than lead batteries. This reduces the machine downtimes required for charging batteries and increases the efficiency of the work process. As a result, the machines can be operated for longer periods of time before needing to be recharged.



One battery will last for the entire service life of one machine

The lithium iron phosphate batteries used by Wetrok last for more than 2000 charging cycles. This means they generally last as long as the service life of the machine. The significant costs associated with replacement batteries can be eliminated. The same is true for the costs of battery maintenance: lithium iron phosphate batteries require no maintenance.



Optimal safety for the environment

Lithium iron phosphate is currently the only safe type of lithium battery. In contrast to other types, it is not possible for the battery interior to overheat. Both cleaning personnel and the environment are protected from unpleasant or even dangerous surprises.



Minimal energy loss during downtimes

Lithium iron phosphate batteries exhibit very low self-discharge even when the machine is not used for a longer period of time. For the next use, the battery charge level will be practically the same as before. Partial charges have no adverse effect on this type of battery.

Generous guarantee benefits – 5 years/2000 charging cycles

Wetrok believes in lithium iron phosphate technology and offers comprehensive guarantees to underline this conviction: 5 years or 2000 charging cycles for all scrubber-driers, 2 years or 2000 loading cycles for all other devices. The guarantees are conditional on proper use of the power packs.

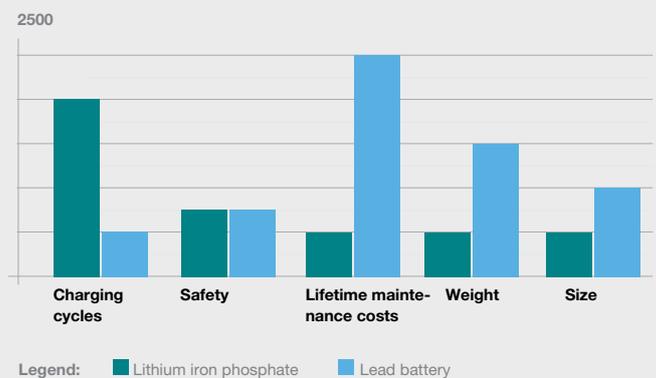
Lithium iron phosphate: a battery technology with electrifying advantages

- Record-breaking battery life: more than 2000 charging cycles
- No risk of overheating, fire or explosions
- Nearly one-hundred percent utilisation of charging capacity
- Half the size and three times lighter than conventional lead batteries
- No adverse effects of partial charging
- Low self-discharge
- Lower life-cycle costs

Lithium iron phosphate vs. lead batteries

Lithium batteries have a high energy density. This means that they deliver more energy than other battery types, even though they are smaller in size and lighter. Wetrok recognized this advantage early on, and now uses lithium iron phosphate batteries as compact and safe energy sources in scrubber-driers, Monovac Freedom dry vacuum cleaners and other equipment.

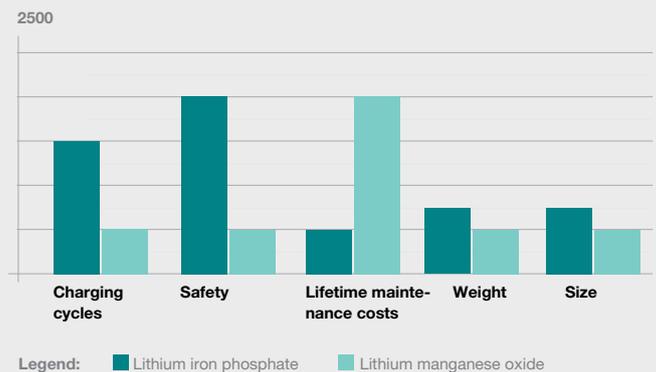
Lithium batteries occupy only half as much space as typical lead batteries and are around three times lighter. The smaller dimensions of these power packs make it possible to construct more compact and lighter machines and equipment. These are easier to handle and transport. What's more, they are also more flexible. For instance, low ground clearance is only achieved thanks to the compact design of the lithium iron phosphate battery.



Lithium iron phosphate vs. lithium manganese oxide

Innovative lithium iron phosphate batteries last for more than 2000 charging cycles. There is no possibility of explosions resulting from overheating due to high ambient temperatures or overcharging. These types of batteries do not contain any toxic heavy metals, which significantly reduces their environmental impact.

Typical lithium manganese oxide batteries reach the end of their service life after about 700 charging cycles. Since many machines and equipment have a significantly longer service life, it is not possible to avoid costly battery exchanges. With this technology, there is also a risk of overheating that could result in fire or explosions.



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