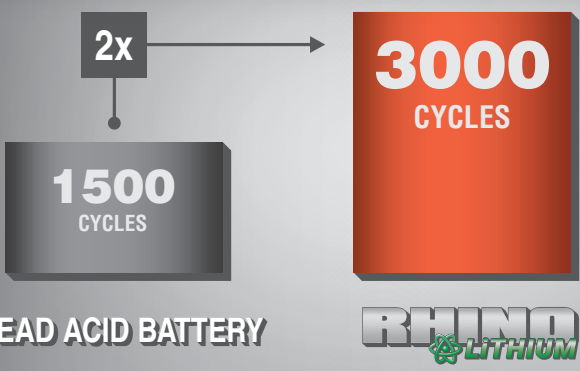




RHINO LITHIUM

MADE WITH
En SOL
technology

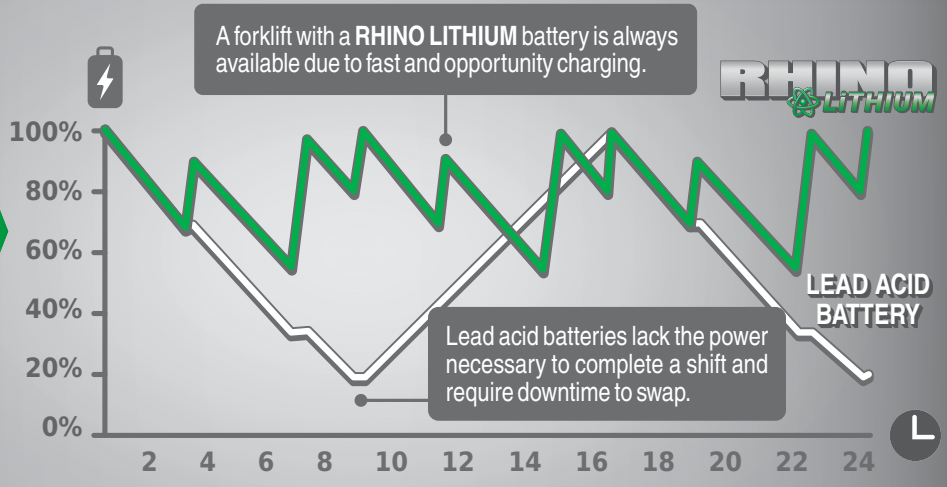


2 MORE CHARGING CYCLES

Zero emission RHINO LITHIUM batteries can be charged anywhere in a warehouse where an opportunity or fast charge station is available.

As lead-acid batteries emit explosive hydrogen when charging and because of sulfuric acid spills during their replacement, cumbersome battery rooms with expensive equipment are required.

BATTERIES THAT ARE ALWAYS AVAILABLE





ACTIVE BATTERY MANAGEMENT SYSTEM



RHINO LITHIUM batteries are made by EnSol Technology, a developer and manufacturer of energy-efficient solutions based on lithium batteries and their technology allows you to save on battery operation. In 2012, EnSol developed an active battery management system (BMS) that transfers energy between cells, thus significantly increasing the lifetime and available power of their batteries.

SOLUTIONS

FUNCTIONS

EFFECTS

BATTERY EQUALIZER

Actively transfers power between cells, equalizing voltage

- Increases available capacity at no extra cost
- Reduces full charge time to 1.5 hours



VIRTUAL CELL EFFECT

Supports weak or fully discharged cell using power from other cells.

Assures battery function even if some cells have malfunctioned



ENERGY SAVING MODE

Minimizes power consumption of all electric systems during battery down time

- Charge is preserved during extended storage
- Self-discharge of no more than 3% per month



SOLID STATE CONTACTOR

Disconnects current flow from charger and to truck under maximum load up to 1 000 000 times

- Ability to use legacy chargers
- Complete battery protection

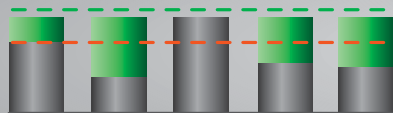


HOW THE BATTERY EQUALIZER WORKS

STANDARD LITHIUM-ION BATTERY

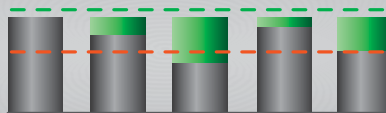
RHINO LITHIUM

EQUIPMENT DOWNTIME



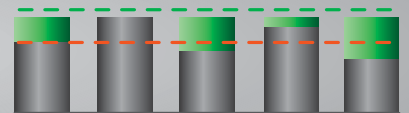
Unbalancing of the cells is unavoidable
The equalizer keeps the cells balanced

CHARGING



Balanced cell capacity not obtainable
Maximum capacity is always available

EQUIPMENT OPERATION



Unconsistent power distribution
Maximum power is always available