

ELECTRIC FORKLIFTS: Driving sustainability and profitability

For the past few decades, companies have been increasingly switching from Internal Combustion (IC) lift trucks to electric forklifts to reduce CO₂ emissions, water consumption and operating costs.

EnerSys® has helped customers switch 5,000+ forklifts from IC to electric power. **The resulting benefits for just those vehicles is significant – keeping 240,000+ short tons (217,724+ metric tonnes) of onsite CO₂ emissions out of the atmosphere, and saving \$126 million (€115+ million) in fuel costs alone.**


Electric forklift benefits

Every forklift that converts to electric keeps 12 short tons (10+ metric tonnes) of CO₂ and CO out of the atmosphere and saves on average \$6,300 (€5,750) in fuel every year. Other environmental and economic benefits include:

- Eliminate onsite CO₂, CO and NO_x emissions
- Cut maintenance costs by 40%
- Eliminate disposal of oil, transmission fluid and filters
- Increase uptime and productivity
- Eliminate exhaust soot and fumes
- Create a cleaner, safer workplace

COMPARATIVE CARBON FOOTPRINTS

28.9
SHORT
TONS*
CO₂



HYDROGEN

25
SHORT
TONS
CO₂



PROPANE / LPG

10.7
SHORT
TONS**
CO₂



ELECTRIC



RECYCLABLE

Did you know that up to 99% of the components in a battery can be recycled?
It makes them one of the most sustainable products on Earth!

* Short tons of greenhouse gas emissions. Average estimate per truck, per year based on 4,000 hours of operation. 1 short ton = 0.9 metric tonnes.

** Based on average US grid emissions. Use of renewable energy for electricity lowers emissions more.

SOURCE: U.S. EPA (2019). Emissions & Generation Resource Integrated Database (eGRID)





NEXSYS® BATTERIES: Push sustainability and profitability even further

Flooded lead acid batteries provide a much more economically friendly forklift power source than IC engines. But because their operation involves time-consuming watering, changing and charging, EnerSys® developed their virtually maintenance-free line of NexSys® batteries

More uptime and productivity

Featuring our recyclable lithium-ion and proprietary Thin Plate TPPL Lead (TPPL) technology, sealed NexSys® batteries never need watering, cleaning, or long equalize charges. In fact, they charge so efficiently that they allow many operations to switch to an opportunity-charging routine that eliminates battery change-outs entirely.

Less resource consumption

Along with cutting maintenance and operating costs vs. flooded lead acid batteries, NexSys® batteries also cut water and electricity use, making them an even more sustainable option.



Water Savings

Depending on their charging routine, flooded lead acid batteries may require a little over 13 gallons (49 litres) of distilled water every week. NexSys® batteries save the water, plus the energy (and CO₂ emissions) needed to distill it.



Energy Savings

NexSys® batteries charge so efficiently that they can cut the electricity consumption per charge up to 17.3% vs. flooded batteries. That energy savings would translate to several tons of CO₂ over the lifetime of the battery***.

*** Exact amount may vary depending geographic location.



Help reduce ownership costs and CO₂ emissions with EnSite™ modeling software

Selecting the optimal power system for your equipment fleet can be complex and risky. Fortunately, our EnSite™ modeling software takes the guesswork out of the decision-making. After considering multiple site-specific factors, EnSite™ modeling software compares different battery and charger options to find the lowest ownership costs and CO₂ solution for every application.

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