SUCCESS STORY

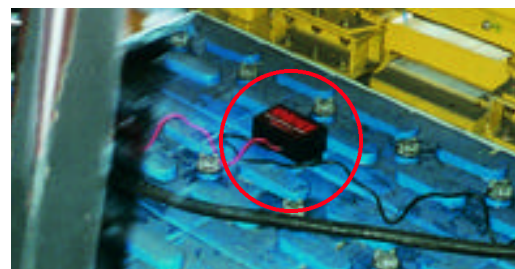# Grocery Company Increases Forklift Run Time 300% with PowerPulse

Like other material handling companies, Industrial Distributors, a grocery distribution provider located in East Bernstadt, Kentucky, relies heavily on their forklifts to make sure their trucks are loaded and shipped on time. That's why they started using the PowerPulse Battery Maintenance System from PulseTech to maintain peak forklift battery performance.

Problem: Industrial Distributors operates 89 battery-powered forklifts and other pieces of warehouse equipment that use batteries that cost between $3,100 to $4,800 each. Due to heavy sulfation buildup (lead-sulfates on the battery plates), the forklift batteries would only last a short time during a shift before they had to be recharged.
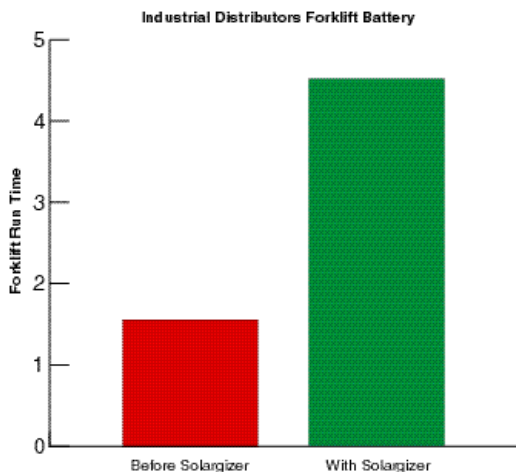
Solution: They installed a 36-Volt PowerPulse on a forklift with a 36-volt battery. PowerPulse uses patented ReNew-IT Pulse Technology® to prevent the buildup of lead-sulfate deposits on the battery plates.

Results: In just over a week and a half, the voltage had already risen to an average of 2.12 volts per cell, and the specific gravity was up to 1.275. The run time on the battery also increased from 1-1/2 to 4-1/2 hours. That's a 300% improvement.

"The battery runs in a freezer at zero to -15° temperatures," explains Melvin Winberry, fleet maintenance manager for Industrial Distributors. "Before we installed PowerPulse...we were about to junk this battery, and now it is performing better than

Photos: (Top) Industrial Distributors, a major grocery distribution company in East Bernstadt, Kentucky, used the PowerPulse® Battery Maintenance System to increase forklift battery run time from 1-1/2 to 4-1/2 hours. (Bottom) A 36-Volt PowerPulse installed on a forklift battery.

Industrial Distributors Forklift Battery

(Bar chart: Y-axis "Forklift Run Time" from 0 to 5. "Before Solargizer" ≈ 1.5, "With Solargizer" ≈ 4.5)

our new batteries that are only four months old. We are going to install a PowerPulse unit on every piece of equipment we have."

LEARN MORE: See your local PulseTech dealer to see how our products can help increase your battery reliability. For a dealer near you, call **1-800-580-7554**. Or visit **www.pulsetech.net** .

SAMPLE INSTALLS

A

B

C

D
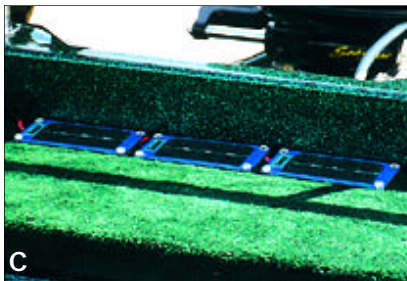
Installing PulseTech products is easy and well worth the time. Shown above are examples of actual customer installations:

A. The solar panel of a 10-Watt Solargizer Solar Charger *(735X 605)* mounted on a railroad ballast car.

B. An Industrial 12-Volt Solargizer *(735X130) solar panel* mounted on a plane mover at a private airport.

C. Three Industrial 12-Volt Solargizer *(735X130)* solar panels installed on a bass boat.

D. A battery-powered trailer with an Industrial 12-Volt Solargizer *(735X130) circuit box*.

**Visit this local
PulseTech
dealer today:**

TECHTALK FAQ

Presenting a series of frequently-asked questions regarding the benefits of PulseTech products and how they can help your customers:

What makes PulseTech products different from other battery chargers and maintenance systems on the market?

RediPulse®, PowerPulse®, Solargizer® and other battery maintenance systems from PulseTech are the only products in the world that utilize our patented *ReNew-IT Pulse Technology®*. And this technology has been scientifically proven (see below for more) to be the most effective method of preventing the main cause of battery problems and failure — *sulfation buildup*.

Some products may claim to provide the same benefits as ours, but most of them merely try to "maintain" the battery by charging them on a constant basis. The problem is too much charging will ultimately overheat and damage the lead plates. In other words, the "cure" could be worse than the disease.

Other products even claim to remove lead sulfate deposits from the plates. But, this too is usually done by over charging the plates in order to literally knock the sulfates loose. In this situation, only a few sulfates are removed as active plate material sheds and falls useless to the bottom of the battery. It's sort of like blowing up the house just to get rid of the termites.

On the other hand, PulseTech products enable the embedded sulfates to leave the plates and converts them to active electrolyte. They also help prevent them from building up again and won't harm the battery in any way.

What are the benefits of using ReNew-IT Pulse Technology ®?

The main benefit of our technology is to ensure battery performance so you can rely on your battery any time you need it. As we said above, by cleaning the battery plates ReNew-IT Pulse Technology provides the following benefits:

- Stops the main cause of battery problems and failure: *sulfation buildup*
- Prevents dead batteries and helps your batteries work harder than ever
- Batteries last up to 3X longer
- Batteries charge deeper and maintain greater reserve capacity so they last longer between recharges and provide more *available* power
- Prevents the loss of battery power on vehicles no matter how long they sit unused — even months at a time
- Renews dead, sulfated batteries and helps bring them back to life
- Helps protect the environment by reducing the number of discarded batteries
- Works with all lead-acid batteries including sealed, gel cell and AGM.

Scientifically-Proven Technology

Independent studies by researchers at Oakland University and Ohio State University recently confirmed that ReNew-It Pulse Technology increases battery efficiency and battery life dramatically. These two-year studies showed that our technology allowed a more even distribution of lead-sulfate crystals over the surface area of the battery plates. It also revealed a significant reduction in the size of crystals. These changes greatly improve a battery's ability to store and provide energy.

Our technology also prevents sulfate-induced corrosion that is the primary cause of shedding of active material on the plates. As a result, the life span of the battery is increased dramatically.

(Left) A battery plate covered in heavy sulfation buildup which reduces the battery's ability to accept, store and release energy. (Right) ReNew-It Pulse Technology™ cleans these lead-sulfate deposits off the plates and converts them to active electrolyte. This process exposes the active material on the battery plates which means batteries are stronger so you get up to three times longer life and maximum performance.

**PulseTech®
Products Corporation**