

SuperTorque[®] 8Z Engine Starting System Delivers Reliability For Girtz Industries in Extreme Testing Conditions



ABOUT

Girtz industries is a pioneering designer and manufacturer of power modules and packaged industrial systems.

SOLUTION

SuperTorque[®]8Z

VERTICAL

Manufacturing & Testing

CORE THEMES

Improving genset engine starting reliability

Simplified system maintenance and installation

Cost savings

Overview

As a leader in turnkey power packaging solutions, Girtz rigorously tests its solutions, ensuring each custom-built, state-of-the-art design is ready to go the minute it's installed.

The facility tests 10 engines per day and start each one a minimum of two times per test. Batteries are moved between test cells and used both indoors and outdoors, in all kinds of Indiana weather.

For Girtz, starting up engines is central to operations. The reliability and ease of use of their starting system directly impact productivity and workflow.

Challenge

- » Heavy steel carts with four 8D batteries required forklifts to move, making operation inefficient.
- » Lead-acid batteries frequently failed under Girtz's extreme usage, requiring constant replacements and maintenance.
- » Outdoor test conditions caused additional reliability issues, especially in temperature extremes.
- » Missed charging sessions often delayed testing schedules, causing workflow disruptions and setbacks.



Before

QUOTES FROM THE GIRTZ PROJECT MANAGEMENT TEAM

"We save about 2 hours per test due to the ease of use."

"What deteriorated the traditional 8D lead acid batteries was the cold weather and forgetting to plug them in. The 8Z seems to be much more resilient to cold weather and accidental neglect."

"The 8Z battery chemistry is much more power dense than traditional lead acid. It's eye opening that you can get that many cranking amps from such a small footprint."

ABOUT SENS

Stored Energy Systems (SENS) is an industry leader in industrial DC power systems, battery chargers, and battery monitoring systems protecting critical infrastructure.

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[sens-usa.com/
case-study/girtz-
industries](https://sens-usa.com/case-study/girtz-industries)

Solution

- » Girtz implemented two SENS SuperTorque 8Z systems.
- » The 8Z uses a long-lasting, stable high-performance battery instead of traditional lead-acid, providing consistent reliability even under heavy use.
- » Compact and lightweight, the 8Z is mounted on a portable wheeled cart that two employees can move easily without a forklift.
- » The system's durability and integrated charger allow it to perform up to 80 weekly starts, maintaining reliability in both indoor and outdoor conditions.



"The battery use in our production cell is 40x the use a normal battery would see in the field. The production 8Z saw about 80 starts per week. A normal genset standby application would start maybe twice per week."

- Brent Beissler, Girtz Engineering Manager

The Final Results



The 8Z with integrated charger replaces 4 8D batteries at **¼ of the weight**.



They can now move the battery around with a small cart instead of a forklift, and **save 2 hours per test** due to ease of use.



Each 8Z system sees about 20 starts per day - **40 times normal use** - both indoors and outdoors.



The first 8Z lasted **six times** as long as a string of 8D batteries.