

FLOODED
LEAD ACID

IRONCLAD®

UNIQUE SQUARE TUBE TECHNOLOGY



EnerSys®
Power/Full Solutions



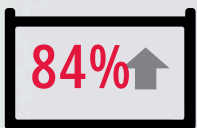
TOTAL
WAREHOUSE

 **IRONCLAD®****TOTAL**
WAREHOUSE

Featuring unique square tube technology, IRONCLAD® batteries have been outworking the competition since 1910. Square tubes provide up to 84% more surface area on the positive plate than round tubular and flat-plate design batteries.

More surface area means more usable power. Combined with industry-leading amp-hour capacity ratings, that added surface area allows IRONCLAD batteries to deliver higher sustained voltages than conventional batteries, extending lift truck run times well into the shift. IRONCLAD batteries will help your fleet work harder and make your operation more productive and profitable.

POWER AND PRODUCTIVITY SQUARED. EXCLUSIVELY FROM ENERSYS®.



SQUARE TUBE TECHNOLOGY

84% more positive plate
surface area for more power



AMP HOURS

Industry-leading
amp-hour capacity ratings



RUN TIMES

Extended run times
allow trucks to last
longer into the shift



LIMITED WARRANTY

Up to 5-year +1 warranty
depending on charging
applications



IRONCLAD® batteries are manufactured using proven square tube technology.

- Up to 84% more surface area versus competitive designs
- Industry-leading amp-hour capacity ratings
- Extended run times from higher sustained voltages

Exceptional design—any way you look at it.

IRONCLAD® batteries help your fleet work longer, harder and make your operations more productive and profitable.

Since 1910, these batteries have provided unmatched performance, helping thousands of operations optimize vehicle fleet efficiency.

IRONCLAD® LOADHOG® BATTERIES

Heavy-Duty Power for the Toughest Shifts

Developed for demanding applications and loads, IRONCLAD® Loadhog® batteries provide up to 18% higher energy storage capacity for longer shifts and heavy duty lift truck jobs.

- Fits 100 Amp-Hours into a Standard 85-AH Compartment
- Up to 18% More Capacity Compared to Conventional Batteries
- Available with 55, 75, 100, and 140 Amp-Hour Plates
- Engineered to Handle Demanding Shifts & Heavy Loads with Ease



IRONCLAD® DESERTHOG® BATTERIES

Work More, Water Less

Deserthog® batteries are built for higher performance with reduced maintenance. Compare watering 4x a month vs 1x a week.

- Hold Up to 132% More Water than Conventional Batteries
- Water 4x a Year vs 1x Per Week for Standard Batteries
- Built-In Monitor that Blinks Green when Water Levels are Adequate to Support Lift Truck Fleet Productivity and Profitability
- Available with 90, 100, and 125 Amp-Hour Plates



IRONCLAD® SUPERHOG® BATTERIES

Real Staying Power

When the job calls for super duty, Superhog® batteries are the supercharged performers in the IRONCLAD® battery product line -built to handle the fastest runs, quickest lifts and heaviest loads.

- Engineered for Fast Runs, Quick Lifts, and Heavy Loads
- Extends Battery Lifespan, Reducing/Eliminating Premature Change-Outs
- Available with 110 and 155 Amp-Hour Plates for Optimal Performance in Demanding Applications



BATTERIES FOR ALL APPLICATIONS



Deserthog®



Loadhog®



Superhog®

Traditional Flooded Lead Acid batteries

Increased water capacity for extended watering intervals	More amp-hour in the same space for medium and heavy duty applications	The highest Ah flooded capacity battery on the market - for heavy duty applications
Square tubular plate	Square tubular plate	Square tubular plate
Standard amp-hour capacity	Up to 17% more capacity in the same space	Up to 29% more capacity in the same space
Water 4-6 times per year	Check water weekly	Check water weekly
Standard demand applications	Standard to high demand applications	High demand applications
5 full plus 1-year pro-rata warranty	5 full plus 1-year pro-rata warranty	5 full plus 1-year pro-rata warranty
Up to 120% daily throughput in opportunity charging applications	Up to 120% daily throughput in opportunity charging applications	Up to 120% daily throughput in opportunity charging applications
Recharge rates up to 25% of nominal capacity	Recharge rates up to 25% of nominal capacity	Recharge rates up to 25% of nominal capacity

ENERSYS IMPAQ™ CHARGERS

BEST-IN-CLASS HIGH-FREQUENCY CHARGING

IMPAQ™

IMPAQ™ battery chargers feature the latest technology to maximize charging performance while maintaining peak efficiency.

This light and compact unit offers intelligent battery charging with advanced efficiency and flexibility for material handling equipment, floor cleaning machines and industrial electric vehicles.



RELIABILITY

- IMPAQ™ battery chargers deliver a better value in high frequency charging. They feature a standard flooded lead acid battery charge profile and include the proprietary standard charge profiles for NexSys® TPPL batteries.
- IMPAQ™ battery charger modules are automatically switched on and off to maintain peak efficiency and optimum charging performance at all times.

SIMPLICITY

- IMPAQ™ battery chargers can be used with a wide range of battery capacities, allowing a potential reduction of chargers in your fleet. Fewer chargers means more space.
- IMPAQ™ battery chargers feature a intuitive LCD screen and bespoke programmable menu with LCD indicators for ease of use.
- Possible faults can be detected using the self-diagnostics feature so that replacement modules can be performed easily if required.

EFFICIENCY

- IMPAQ™ battery chargers provide up to 94% efficiency for maximum performance and energy savings.
- With their flexible and modular design, IMPAQ™ battery chargers automatically maintain peak performance and efficient output.

MOTIVE POWER CHARGING BENEFITS



**AUTOMATIC BYPASS
OF FAULTED MODULE**

Continues charging
process for uninterrupted
operations



**UP TO 94%
EFFICIENCY**

For maximum
performance and
energy savings



**<10W CONSUMPTION
IN STAND-BY**

Complies with latest
global efficiency
standards



**FLEXIBLE
MODULAR DESIGN**

Maintains peak
performance and output

FEATURES	CONVENTIONAL CHARGE	OPPORTUNITY CHARGE	FAST CHARGE
CHARGE TIME	8 Hrs + 8 Hrs of Cooling 16 Total Hrs Per Day	10 to 30 Min Increments 4 to 6 Total Hrs per Day	10 to 30 Min Increments 2 to 3 Total Hrs per Day
CHARGE RATE	16 to 18 A/100	25A/100 Ahrs	40+ A/100 Ahrs
BEST FOR	Single-Shift Operations	Two-Shift Operations	Multi-Shift Operations





IRONCLAD®



Deserthog®

With an industry-leading water reserve for reduced maintenance, Deserthog® batteries only need to be watered four to six times per year vs. once a week.



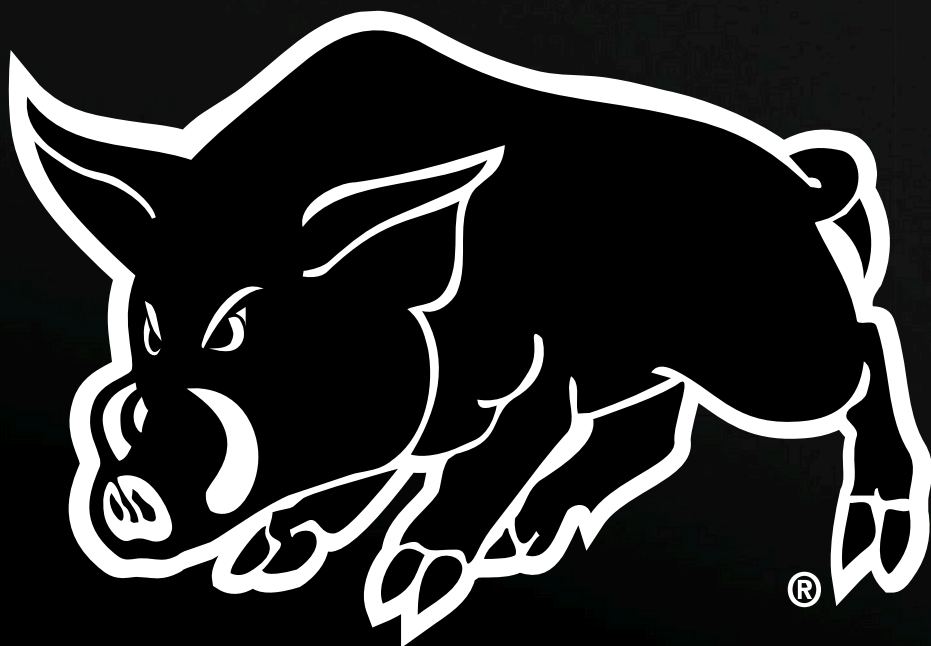
Loadhog®

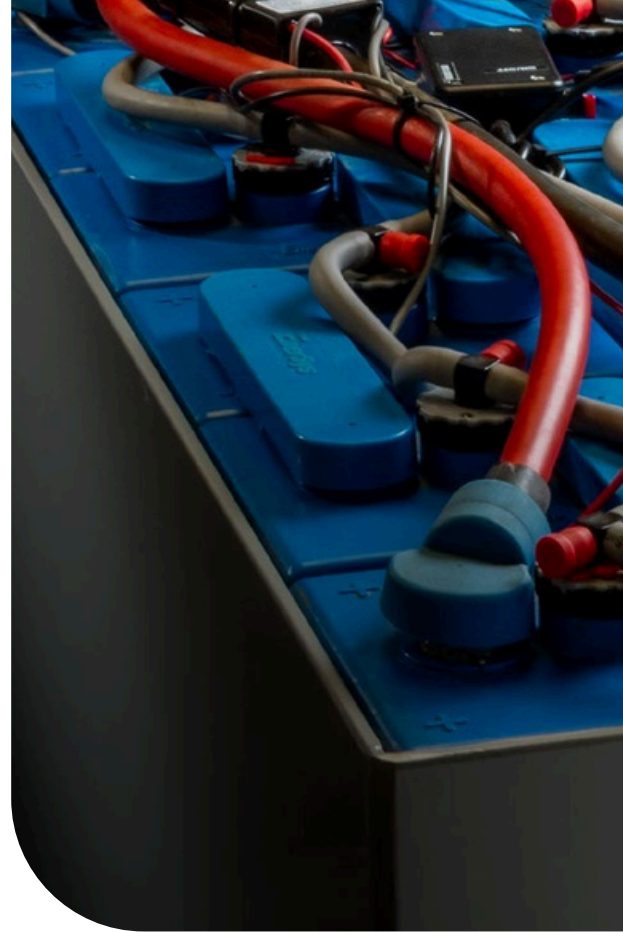
Designed for more demanding shifts and loads, Loadhog® batteries provide up to 18% higher capacity than similarly sized conventional batteries to keep running strong through the toughest shifts.



Superhog®

Superhog batteries deliver increased amp-hour capacity and extended run times compared to conventional batteries, for the fastest runs and the quickest lifts in the most demanding applications.





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