

**ADVANCED  
BATTERY  
SOLUTIONS**

**NEXSYS™  
BATTERIES**

POWER WHEN  
YOU NEED IT



**EnerSys**

*Power/Full Solutions*

# ADVANCED BATTERY SOLUTIONS



## THIN PLATE PURE LEAD. THE MOST INNOVATIVE MAINTENANCE FREE LEAD-ACID TECHNOLOGY WITH INCREASED FLEXIBILITY, FAST CHARGE CAPABILITIES AND WIDER APPLICATIONS.

EnerSys® launched their first range of 12 volt Thin Plate Pure Lead (XFC™ Flex Bloc range) into the Floor-Care sector in November 2007 and extended this to cover Class 3 trucks in September 2008. Subsequently, EnerSys launched a successful range of 2 volt cells in 2012 under the Hawker® XFC brand. Recognized as the most advanced lead-acid battery technology on the market, Hawker XFC batteries have satisfied a wide range of material handling equipment requirements over the years.

Hawker XFC has now become a global brand with the name NexSys™.



NexSys batteries range from EnerSys have transformed the way customers operate their truck fleets. Fast charging, opportunity charger, zero battery change (ZBC™) and no maintenance, all provide operational benefits and save money. We have made further technical advancements during 2015, increasing cycle life expectancy, application flexibility and charging profile. With increased energy density and fast charge capability, these virtually maintenance free batteries can be used at any time and recharged whenever it is possible. Advanced communication with Hawker Modular chargers, Lifetech® Modular, Life iQ™ Modular and LifeSpeed iQ™, ensures long and high performance and energy cost savings.

## UNIQUE PLATE CONSTRUCTION

The NexSys™ 2 volt cells are constructed using pure lead plates that are much thinner than lead calcium/ antimony grids. Pure lead grain structure makes the grid far more resistant to corrosion. Positive and negative plates are low impedance enabling high current flow in both discharge and recharge modes. The electrolyte is absorbed in a superior quality microporous glass mat separator with high absorption and stability designed to enhance cyclic capability. Cell boxes are highly resistant to shock and vibration.

**NexSys is the only range of Valve Regulated Lead Acid batteries to provide equivalent or higher ampere hour capacity to traditional flooded batteries.**

NexSys batteries are available in two different packages depending on the application needs.



## NEXSYS™ STANDARD PACKAGE

### FULL FLEXIBILITY WITH VIRTUALLY NO MAINTENANCE

With the Standard package, you can fulfill your standard duty applications, where you need a robust battery up to 100% energy throughput per day with a limited amount of opportunity charging. You will also have the benefits of virtually no maintenance, extremely reduced gas emissions and the best cyclability available from lead-acid batteries, up to 1450 cycles @ 60% depth of discharge. All this added to 7-day operation per week. The Standard package comes with both Lifetech® Modular and Life iQ™ Modular chargers, making it the most flexible and adaptable energy pack on the market.



## NEXSYS FAST PACKAGE FAST CHARGE PACKAGE

Unlike conventional lead-acid batteries where the state of discharge reaches a specified level and then requires recharging for 8-12 hours, NexSys with Fast package is totally flexible giving increased autonomy to the user. The specific charging profile allows a rapid recharge in less than 4 hours from 60% DOD and opportunity charging as often as needed, without damaging NexSys batteries (From 40% to 80% state of charge in 1h and to 98% in 2h). These specialized charging capabilities are standard features in the Hawker® chargers Life iQ Modular and LifeSpeed iQ™.



## TOTAL CONNECTIVITY

The other integral part of the NexSys system is the Wi-iQ® monitoring device, which precisely manages the charging profile to suit the state of charge and operating conditions of the battery as well as storing complete data of the battery's service life. Wi-iQ enables temperature control, making possible to work in cold environments, and meaningful fleet management reports.

## EVEN MORE APPLICATIONS

NexSys batteries are suitable for use in the following Material Handling Equipment:

- Counterbalance trucks
- Reach trucks
- Pallet trucks
- Order pickers
- AGV/LGV







The state-of-art technology of NexSys™ batteries allows exceptional performances, the most efficient lead-acid system in the market and a long list of benefits compared to conventional gel batteries and to Lithium-ion batteries.



## CUSTOMER BENEFITS

- Superior and stable performance even at high discharge rates (high energy density)
- Operating in PSOC (Partial State of Charge) – machine availability optimization
- Opportunity charging whenever the truck is not used- can minimize the need for spare batteries and battery changing
- ⌚ • Short recharge time – less than 4 hours from 60% DOD with matched Hawker® Life iQ™ & Lifespeed iQ™ chargers\*
- Virtually maintenance free – no topping up
- Suitable for multi-shift operations
- Excellent cycle life (up to 1450 cycles at 60% DOD)
- High energy throughput (up to 160% of C5 per 24 hours)\*\*
- Minimum gassing-ideal for use in sensitive manufacturing areas
- Environmentally friendly – reduced carbon footprint and electricity consumption due to very low charge factor

The designated charging rate for NexSys™ is between 0.2-0.4 C5 giving optimum performance, recharge time and cycle life.

\* for 0.4 C5 charging rate

\*\* maximum DOD must be observed

**THE ENERSYS® BRANDED BATTERY RANGE, MATCHED CHARGERS AND SYSTEMS PROVIDE TROUBLE FREE PERFORMANCE UNDER THE MOST DEMANDING SERVICE CONDITIONS.**

Wherever you do business, EnerSys® can support you with motive power energy. The EnerSys branded battery range, matched chargers and systems provide trouble free performance under the most demanding service conditions. Our strategically located manufacturing plants are efficient and responsive with a culture of continuous improvement and added value for our business partners. EnerSys has an enviable position in technology leadership and with significant investment in research and development we intend to stay at the leading edge in product innovation. The recently developed energy solutions: NexSys™, Water Less® 20 batteries, Lifetech® Modular, Life iQ™ Modular and LifeSpeed iQ™ HF chargers, have defined new benefits for our customers: faster recharge, more machine availability, lower operating and investment costs, reduced carbon footprint. Our team of development engineers is driven by the desire to build the best energy solutions and works closely with our customers and suppliers to identify development opportunities.

Our bias for rapid innovation means we get new products to market fast. EnerSys integrated sales and service network is dedicated to providing our customers with the best solutions and after-sales support for their business. Whether you require 1 battery or a complete fleet of batteries, chargers, a battery handling system and a state of the art fleet management system, you can count on us.

EnerSys is the world's largest industrial battery manufacturer and we are dedicated to being the best.

**WHEREVER YOU DO BUSINESS, ENERSYS® CAN SUPPORT YOU WITH MOTIVE POWER ENERGY.**





# **EnerSys**<sup>®</sup>

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