



**Traction Batteries**  
**Hawker Water Less® 20**

 **HAWKER**  
*Water Less® 20*

**Water Less® 20**  
**Low maintenance**  
**power package**



**EnerSys**  
*Power/Full Solutions*



Weeks

**More operating time –  
Longer topping up intervals**



Water Less® 20 Plug

## Less is More – More Benefits

Building on the success of the Hawker Water Less® range of low maintenance batteries, EnerSys® has developed a power package providing even longer intervals between topping up.

Hawker Water Less® 20 is capable of operating for up to 100 cycles (approx. 20 weeks in normal duty applications) before topping-up is required. Standard batteries with 50 Hz chargers would normally need topping up on a weekly basis so moving to 20 weeks could reduce your labour costs by as much as 90%! The Hawker Water Less 20 traction batteries provide the level of power and reliability needed for low – moderate heavy duty industrial truck applications. Hawker Water Less range is at the leading edge of battery technology and brings added efficiency to your business. A low electrolyte level indicator fitted on the battery informs the user of the battery when water topping up is needed.

### Cell construction

All Hawker Water Less® cells use proven PzS technology. The positive electrodes are diecast tubular plates (PzS) and advanced components used in their manufacture provide increased efficiency. The negative plates are flat pasted plates. High grade separator of the polyolefine/silica type, constructional specifications like a larger electrolyte capacity, a reduced prism height ensure added value for our customers.

### Standard equipment

**Electrolyte circulation:** Provides optimum performance, reduces recharge time, helps keep the battery cooler and maximizes battery service life in more arduous operations.

**Wi-iQ®:** An electronic device will provide data on the battery: identity, capacity, temperature, voltage, current. It will also give an indication if the battery develops

a voltage imbalance and requires service intervention.

When used with our software program- Wi-iQ Reporting Suite, a range of management reports can be accessed. HF chargers (IQ range) are capable of communication with the battery via the Wi-iQ.



**Hawker Aquamatic™:** The Aquamatic water refill system makes it possible to top up all the cells from one central point through an integrated system. Hawker Water Less - Less is More. Less Watering - More Benefits.

### Option

- **Battery Fleet Management:** EnerSys® has a solution that makes managing the battery fleet straight forward and affordable.

### Advantages

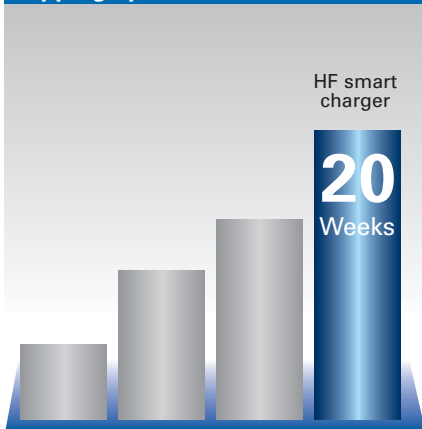
- More Time: Longer topping up intervals
- More Flexibility: Suitable for 50 Hz and Hawker HF chargers (with suitable profile)

- More Savings: Reduced electricity costs when used with Hawker HF
- Lower carbon footprint
- More Dimension: Full DIN range; 4 BS sizes
- More Capability: Many options

Low duty	Normal duty	Heavy duty
Hawker perfect plus™		
Hawker perfect plus with electrolyte circulation		
Hawker Water Less®		
Hawker Water Less® with electrolyte circulation		
<b>Hawker Water Less® 20</b>		
Hawker evolution™		

- **Low duty:** single-shift with light operation and discharge lower than 60% C<sub>5</sub>. Electrolyte T °C about 30 °C
- **Normal duty:** single-shift with discharge up to 80% C<sub>5</sub>. Electrolyte T °C 30 °C
- **Heavy duty:** single-shift with discharges of 80% C<sub>5</sub> and high discharging currents; opportunity charging to augment the useable capacity; multi-shift operation with or without battery changes; high ambient temperature

### Topping up intervals



### More Flexibility

The Water Less® 20 can be supplied as a complete package (battery, Wi-iQ & HF charger). It can also be supplied as battery & Wi-iQ when the customer has a compatible existing charger – therefore, Water Less 20 is an ideal solution to replace Hawker WF200 batteries, that may have reached the end of their service life.

- The topping up interval of 20 weeks (based on 80%DOD C<sub>5</sub>, 1 cycle per day, 5 days per week) can be achieved when the battery is recharged using a compatible charger equipped with a pump for electrolyte circulation and 1.04 charging factor.

- Contact Hawker to check the suitability of your existing charger.
- The charging profile also uses a 33% lower end-of-charge current (compared to standard regimes) which reduces ventilation requirements and gives opportunities for de-centralised charging of Water Less 20 batteries.

### Electrolyte circulation (EC)

The Hawker® electrolyte circulation system, using the AirLift principle, consists of a pipe system which is fitted in the cells. A diaphragm pump sends a low rate airflow into the cell which creates a circulating air stream inside the cell box. This system prevents electrolyte stratification and the battery charging is optimized.





Wherever you do business, EnerSys® can support you with motive power energy. The Hawker® 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: Hawker XFC™ and Water Less® 20 batteries, Lifetech 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's 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.



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