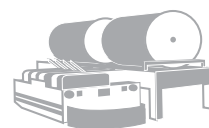




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**Traction batteries**  
**Hawker**  
**perfect ATEX**

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**The Technology**

- The Hawker ATEX batteries are a specialist range of motive power batteries using a battery container designed, patented and certified for use in Zone areas where flammable gas or dust may occur.

Group I Category M2

Group II Category 2 and 3

[Zone 1 and 2 (Gas), 21 and 22 (Dust)]

They are conceived to power electrical materials handling equipment working in potentially explosive environments.

- The new compact design of the battery container permits the O.E. manufacturers recommended maximum capacity cells to be fitted, thus eliminating the previous necessity of reduced capacity and working patterns noted with alternative designs.

**Features and benefits**

- New container design now allows capacities enjoyed in non EEx applications
- Screw flexible terminal connections for easy of maintenance
- Available in both IEC 254-2 series L and E (DIN and BS)
- Available in wf200 plus: vented batteries with pneumatic air mixing, low maintenance
- Specially designed ventilation avoid hydrogen concentrations
- Battery can be fitted with automatic topping up system (Hawker aquamatic)
- Battery changing accomplished by utilising DIN standard lifting holes (alternative available)
- Batteries comply with ATEX Directive 94/9/EC
- These batteries can be manufactured in one or several crates; each being considered as an independent battery with certification plate
- The crate is equipped with a lid ensuring an IP23 protection and includes ventilation slots
- This ventilation is designed to keep hydrogen concentrations below 2 %,

thereby conforming to the EN 50019 standard

- The crate is covered with a hermetic insulated coating giving a high level of electrical and chemical resistance

**Standards**

- The complete Hawker ATEX ranges carry the type certifications EEx e I T6 and EEx e II T6 and are manufactured and designed to EN 50014, EN 50019 and EN 50281-1-1 standards
- They are homologated by the Sira
- The cells and terminals comply with IP66 and the crate with IP23 – vital for use within zone 21 and 22 dust atmosphere
- Motive power Hawker ATEX batteries conform with the relevant provision of directive 94/9/EC of 23 March 1994. Conformity has been demonstrated with reference to the following documentation:

**EC type-examination certificate:**

Sira 01 ATEX 3019U dated 01/11/01

Sira 01 ATEX 3016U dated 01/11/01

Sira 01 ATEX 3022 dated 01/11/01

Sira 01 ATEX 3025 dated 01/11/01

**Quality Assurance Notification:**

Sira 01 ATEX M103 dated 15/06/01

Sira 03 ATEX M281 dated 05/08/03

Sira 01 ATEX M101 dated 24/05/01

Sira 01 ATEX M104 dated 15/06/01

**Field of applications**

The certified battery can be used in various applications:

- Mining
- Factories using flammable powders
- Oil refineries, storage depots of hydrocarbons
- Aerosol can filling and storage
- Distilleries
- Paint making factories
- Perfumes, cosmetics factories ...

Group I Category M2

Group II Category 2

Zone 1 and 2

Zone 21 and 22

Group II Category 3

Zone 2

Zone 22

M2 = Mining

Zone 1 and 2 = Gas

Zone 21 and 22 = Dust

**Battery size**

Special patented features within the battery container have eliminated the need to produce batteries of lower ampere hour capacities to accommodate the extra space required to maximise ventilation. Hawker ATEX batteries give the same capacity for use in EEx operations as those recommended by truck manufacturers for non-hazardous applications.

**Accessories**

To achieve optimal battery life and performance, electrolyte levels in each cell need to be maintained by the periodic addition of demineralised water. The Hawker aquamatic battery filling system can be fitted to this new design, this option was not available on previous Zoned battery designs.

**Electrolyte mixing** (available as an option on Hawker perfect plus range and fitted in series on Hawker wf200 plus range): 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 optimised.

**Optional:** the battery/charger plugs are manufactured to a same exacting standards as the batteries. Certified plugs offer protection when operating in EEx hazardous areas. They have been designed and constructed to accept a wide range of cables. All cabling must be fed with flameproof EEx d gland entries.



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