trak® air

Traction energy systems with electrolyte circulation

Motive Power Systems
Reserve Power Systems
Special Power Systems
Service

Your benefits with HOPPECKE trak® air

- **Faster battery and vehicle availability**
- **Reduced energy costs** by up to 30 %
- **Reduced water consumption** by up to 70 %
- **Longer life expectancy**

Typical applications of HOPPECKE trak® air

- Light-duty operation
- Normal operation
- Heavy-duty operation
- Shift-plus operation without equalising charges

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trak® air

trak® air-System

Features and benefits

If you wish to minimise operating costs through reduced energy consumption and increased availability of your battery system, then HOPPECKE trak® air is the ideal solution for you.

The high-quality trak® air system comprises a HOPPECKE traction battery with electrolyte circulation and a microprocessor-regulated charger to ensure rapid and gentle charging of the battery.

HOPPECKE trak® air principle

When a battery is charged, concentrated suphuric acid is formed.

In comparison with “normal acid”, concentrated sulphuric acid is heavier, and sinks towards the bottom of the cell, resulting in acid stratification. To cancel out this stratification mixing of the electrolyte is usually achieved through rising gas bubbles. In standard systems, this gas is produced by defined overcharging of the electrodes. However, this deliberate overcharging means increased energy and water consumption, extended charging times and higher temperatures.

The HOPPECKE trak® air concept avoids these negative consequences.

Air is introduced into the battery right at the main charging stage. The rising air bubbles circulate the electrolyte, thereby preventing stratification of the acid.

In comparison with other mixing methods, mixing of the acid by in-blown air gives the greatest efficiency combined with minimal stress on the plate group, and eliminates the need for the otherwise necessary weekly equalising charges.

The singular trak® air principle

Up to 75% less overcharge

through trak® air electrolyte circulation and system-optimised charging technology

- **Reduced power consumption**
  - Lower energy costs
- **Charging times cut by up to 2.5 hours**
  - Higher battery availability
  - Fewer changeover batteries needed
- **Up to 70% less water consumption**
  - Lower water and topping up costs
- **Battery temperature level reduced by approx. 10 °C**
  - Longer life expectancy
- **Reduced mechanical load on the electrodes**
  - Longer life in cyclic use
- **Compensation for the effects of mains power fluctuations through the use of regulated chargers**
  - Avoidance of insufficient charging and of overcharging
- **Pressure-monitored charging factor adaptation to ensure full charging**
  - Enhanced safety in operation
- **Capacity for opportunity charging without equalising charges**
  - Extended duration of battery usage time
- **Compensation for varying battery charging performance through the IUIa characteristic**
  - Ensures optimal charging throughout the whole life of the battery

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