



CASE  
STUDY



## 1 | Challenge : Power optimization for professional cleaning equipment

**Thousands of people pass through shopping centres every day. This dynamic environment requires the highest standards of cleanliness and hygiene to be maintained around the clock, especially in common areas such as corridors, food courts and underground car parks. To meet these demands, shopping centre operators use professional cleaning equipment that is not only efficient but also reliable.**

A large European shopping centre had a problem with insufficient cleaning machine capacity. The machines required frequent recharging breaks, which caused delays in cleaning schedules and increased operating costs. The shopping centre operator approached a cleaning machine manufacturer to develop a solution that would allow the machines to run longer and more efficiently.

The machine manufacturer, which supplies equipment for applications such as cleaning large floor areas or hard-to-reach areas, approached HOPPECKE with this challenge. A key objective was to develop a power system that would keep the machines running longer on a single charge, minimize maintenance costs and

withstand intensive use in demanding conditions. This solution would not only improve operational efficiency but also ensure that cleaning operations could be completed on time, improving overall customer satisfaction.

An additional aspect of the challenge was to reduce the environmental impact of the cleaning operations. The shopping centre wanted to implement a sustainable solution that would reduce the carbon footprint associated with running the machines. Traditional batteries did not meet these requirements - they required frequent maintenance and were less energy efficient.

**Charging interruptions**  
disrupting cleaning schedules

**High maintenance**  
increasing operating costs

**Short working hours**  
hindering efficiency

**Battery failure rate**  
in harsh conditions

**Maintenance-free**  
eliminating  
the need to refill  
water

**High capacity**  
for 20% more  
energy

**Resistance**  
to extreme  
working  
conditions

**Longer life**  
guaranteeing up  
to 1,000 cycles  
of use

## 2 | Solution : **Performance optimization with AGM technology**

**HOPPECKE has introduced advanced trak | bloc batteries designed for professional cleaning equipment operating in intensive conditions. These state-of-the-art batteries offer exceptional performance, long life and maintenance free operation, making them the ideal choice for large commercial centers where reliability and efficiency are key.**

The **trak | bloc** batteries use AGM (absorbent glass mat) technology, which keeps the electrolyte in solid form. This eliminates the risk of leakage, which is particularly important in environments where hygiene and safety are paramount. These batteries are completely maintenance free over their lifetime, meaning there is no need for regular electrolyte replenishment or complex maintenance. A key result of the introduction of these batteries has been a significant increase in the running time of the cleaning machines - they can now run for a full shift without recharging.

Thanks to AGM technology, it has also been possible to improve battery performance. The **trak | bloc** batteries have a higher capacity, up to 20% more than traditional systems, which allows the equipment to run longer. In addition, these batteries are shock and temperature resistant, ensuring reliability in harsh

environments such as underground car parks and warehouses. Their robust design contributes to a longer service life, further enhancing operational efficiency.

The **trak | charger HF mini** adapted to these batteries were also an important part of the solution. These high-tech devices allow batteries to be charged quickly and efficiently, further increasing efficiency and reducing downtime. Thanks to intelligent solutions, these chargers automatically adapt the charging parameters to the actual needs of the battery, minimizing the risk of damage.

By implementing the **trak | bloc** battery, the shopping centre has achieved its objectives: increased cleaning efficiency, reduced machine operating costs and reduced environmental impact.

This innovative solution proves that modern energy technologies can support the realization of sustainability, which is crucial in today's world. The seamless integration of these advanced batteries not only enhances operational capabilities but also reinforces a commitment to environmentally friendly practices.

### Key Benefits

- Extend machine uptime with an efficient power system
- Savings on operating costs with maintenance-free AGM batteries
- Improved efficiency of cleaning operations by eliminating charging interruptions
- Resistant to harsh working conditions in car parks and warehouses
- Green solution to support sustainable development goals

## 3 | Products :

- ▶ **Battery:** **trak | bloc**
- ▶ **Chargers:** **trak | charger HF mini**



POWER FROM INNOVATION

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