

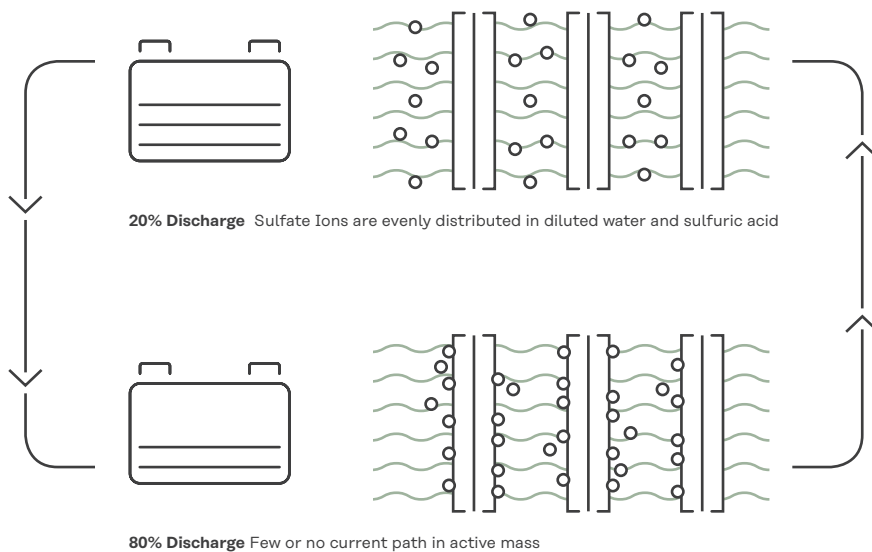
# Desulfation

of lead-acid batteries  
with Selectiva 4.0



Is the performance of your lead-acid batteries continuously decreasing? Are you struggling with shorter running times between charges?

The reason may be a sulfation of your lead-acid batteries.

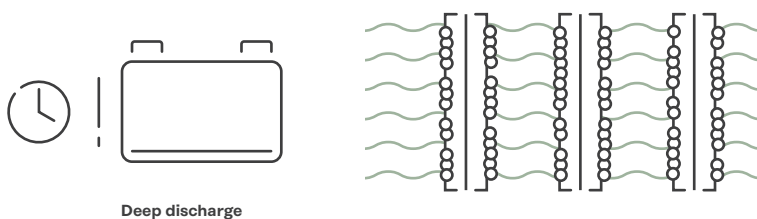


## Sulfation

**the number one cause of early battery failure**

Sulfation, or the formation of coarse crystalline lead sulfate, is a natural chemical process of lead-acid batteries.

When batteries are in low state-of-charge for a long time and too much sulfation occurs, it can negatively impact the capacity and service life of your batteries. Lead sulfates act like an insulator, reducing the charging capacity and with it the availability of your electric forklift fleet.



## Deep discharge

a common problem

When the residual capacity of a lead-acid traction battery falls below 20 percent, we speak about a deep discharge. This can significantly damage the battery or render it unusable. In many cases a regeneration is no longer possible with conventional chargers and operators need to buy new batteries.

# Our solutions

## Preventing

battery sulfation

Battery sulfation prevention doesn't have to be a complicated process. Our Selectiva 4.0 chargers offer several possibilities for this:



### **Equalizing charges**

On weekends or extended holidays, a time-controlled automatic equalizing charge can be set to prevent the batteries from cooling down and to ensure they are fully charged before the start of the shift.



### **Trickle charges**

Trickle charges automatically supply energy to connected batteries when not in use. The voltage of the battery is monitored and a trickle charge is initiated as soon as the voltage falls below a certain limit. This prevents the batteries from discharging.

## Reversing

battery sulfation

In the event that a deep discharge has already occurred, Selectiva 4.0 chargers can provide a remedy to reverse battery sulfation:



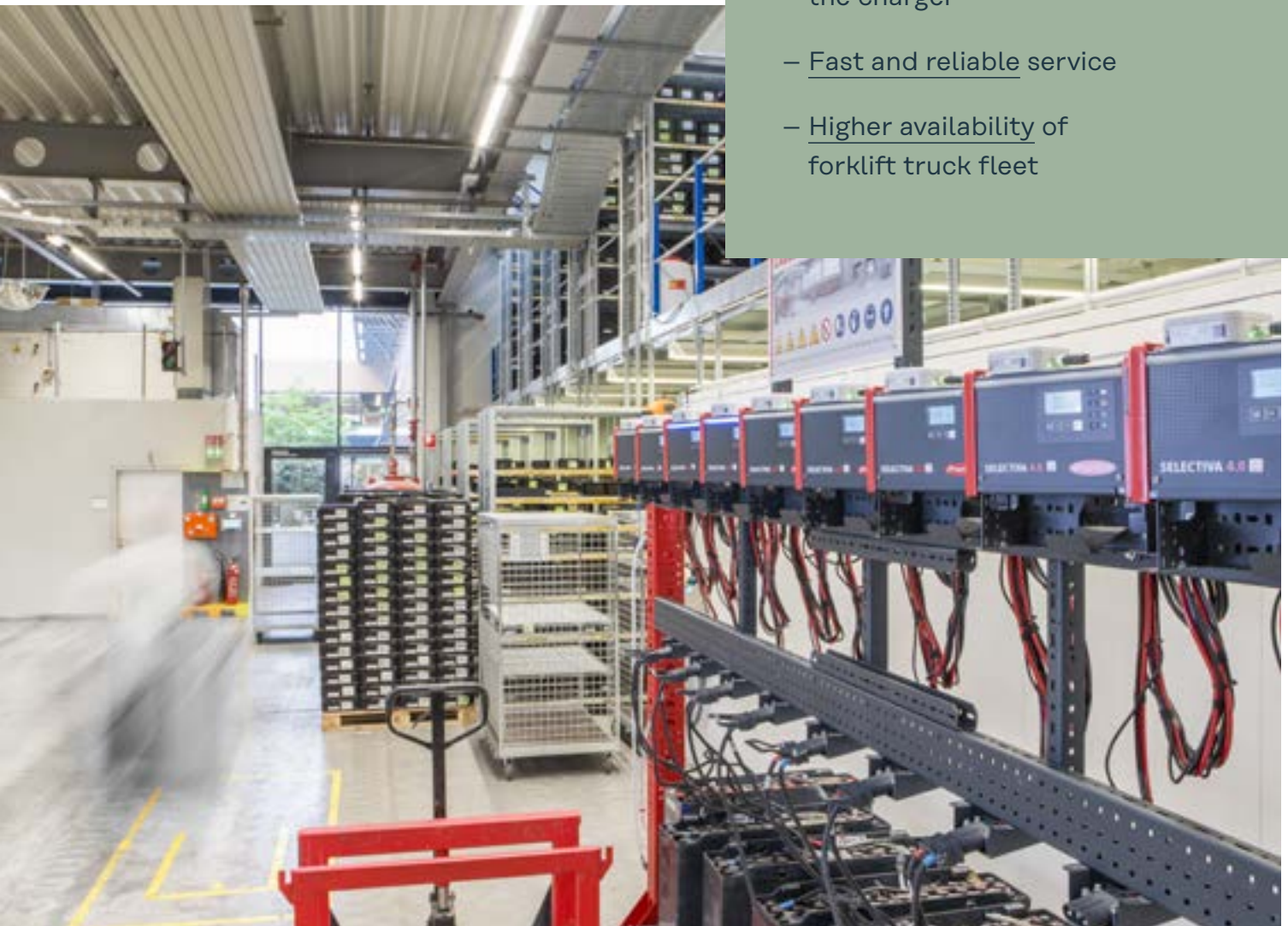
### **Deep discharge characteristic**

Thanks to a special characteristic, the capacity and performance of deep discharged batteries can be regenerated. The characteristic enables a breakdown of coarse crystalline lead sulfate making normal charging possible again. It can also be used to refresh your lead-acid batteries from time to time and thus increase their performance.

# Your advantages

with Selectiva 4.0

- Extension of battery life in everyday use
- Save costs for new batteries
- No additional equipment necessary
- Protection against battery damage
- Intuitive operation of the charger
- Fast and reliable service
- Higher availability of forklift truck fleet



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