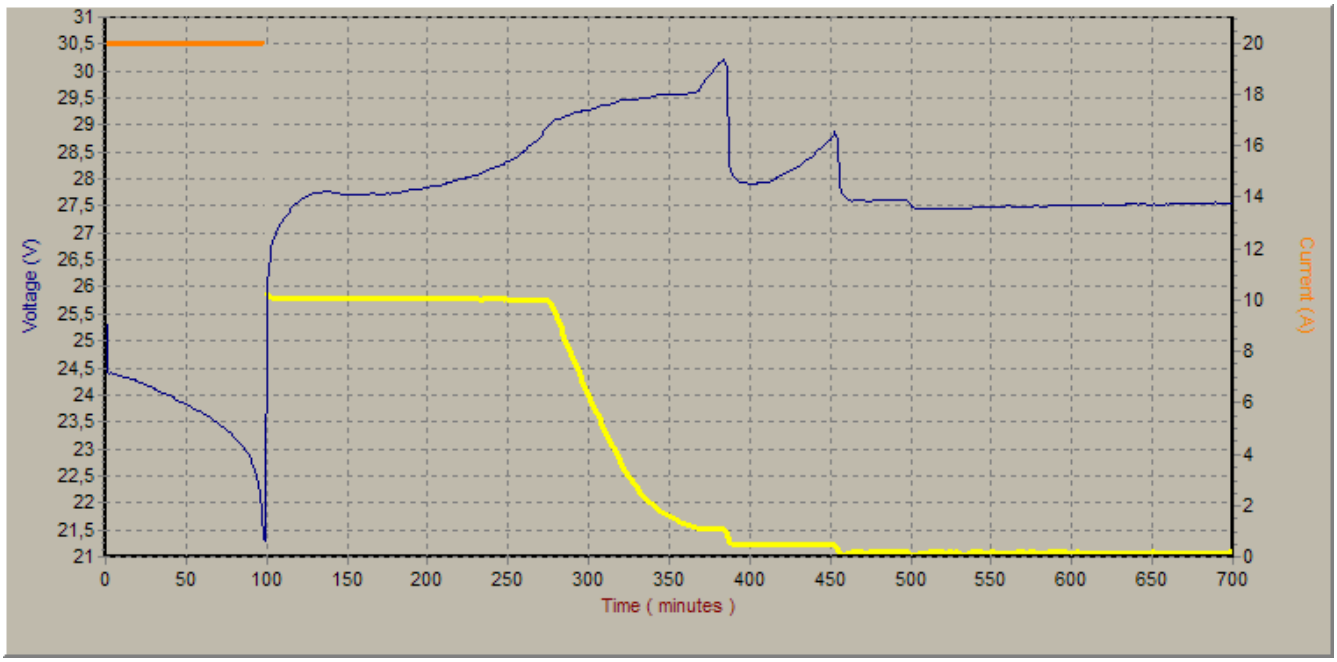
Our patented charging method named TCS
- an exampel and an explanation

A too short driving distance and a limited battery-life time are most annoying for the end-users. These, as well as frequent battery replacements are putting a strain on the operating budgets of the devices. The cause of this is often an incorrectly or insufficiently charged battery.

J.K. Medico has developed and patented a charging process to meet these challenges. The charging process has proved through practical use that it is capable of providing a noticeable prolonging of the life-time of the batteries, while the user can experience full driving distance during the life-time of the batteries.

Thus, with J.K. Medico's TCS charging process, user comfort is improved while total maintenance costs are minimized.



Example:
Battery: MK M24SLGT
The battery set had been discarded (because of sulphation) by a customer

- **The battery could not be charged within 8 hours and the battery was heating during charging.**
- **The charging time with falling current was much too long**

A competitors “standard charger” without TCS had been used.

The chart above shows one cycle for the same battery after having been regenerated in 10 cycles during which the J.K.Medico CCC410, TCS was used for charging.
The capacity has been degraded, but the battery function is normal.

TCS – the patented charging method invented by J.K. Medico. - A short explanation:

When an ordinary charging method is used, it takes a very long time (a time which is not available to the wheelchair user) to charge the last few percent of the battery capacity. As a result the service life and capacity of batteries are reduced due to the formation of lead sulphate deposits on the battery plates. Wheelchair users experience this as a reduction in driving range and the need to replace batteries more often.

The TCS charging process performs an adaptively controlled overcharging of the battery at low current in the end of the charging process, to charge the last few percent of the battery capacity.
ThusTCS is minimizing the two major problems regarding wheelchair batteries :

1. **Lead sulphate deposits are removed from the battery plates .**

2. **Cell voltages are equalizied. Equalization of cell voltages is vital — especially when batteries are stacked for 24 V or higher voltages**

Thus TCS has the advantage of always providing the wheelchair user with batteries that have the longest possible discharge time, minimising unwanted interruptions of activities.

Practical tests of TCS with the types of battery most often used in wheelchairs (Gel and AGM) have demonstrated that they achieve the full cycle life specified by their manufacturers.

Medico
BATTERY CHARGERS

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