



## **Evolution of battery assembly in Oskarshamn factory to respect the safety standard and the high protection against electric chocks**

We are pleased to announce that since beginning November 2005 all our products manufactured in Oskarshamn factory (whatever the trademark) are now in line with the standard “EN 50272-2” for the “Safety requirements for secondary batteries and battery installations”.

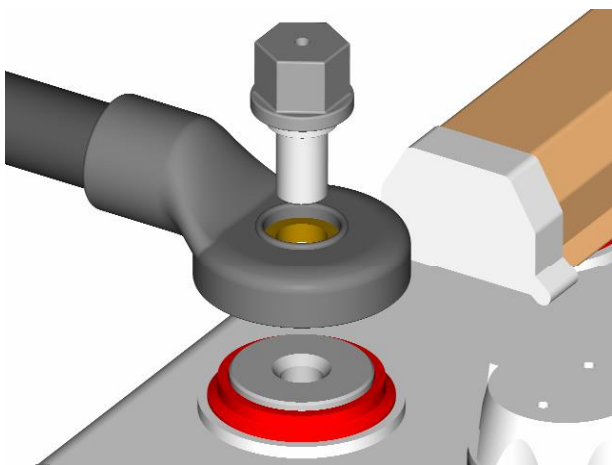
The standard EN 50272-2 includes among other things requirements for IP2X, ie requirements concerning protection against access to hazardous parts. This means that a standardised finger with 12 mm diameter shall not be able to reach live parts if it is pushed with 10 N force against the protection and a sphere with 12 mm diameter shall not be able to enter openings in the protection.

To reach this qualification, new insulated cable connectors, end lug covers for the outlet cable lugs, gable parts for the connector cover and new covers for the SLM (Ultra Low Maintenance) cells have been developed.

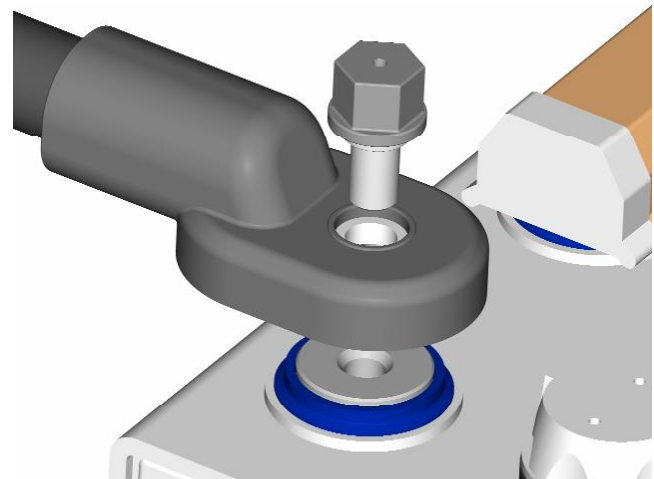
The numbers of different cable areas have been reduced for cable areas inside the battery (between the rows tiers and so on,..). We kept only the diameter cables 16, 35, 70, 95 and 120 mm<sup>2</sup>. The sizes of the end lugs for the connection cables are still the same.

The collecting bars in the row ends have been cancelled for the cell types without covers. Cell types with covers like SLM have still the collecting bars in the row ends.

**Since August 2005, the SBaSiCs software version 1.8** has been modified according to the new IP2X components.



**Insulate cable connector**



**End lug cover**

The production of the old cable connectors has been stopped.  
Today, this solution is not applicable for the SPH cells and not for the products manufactured in Raskovice.

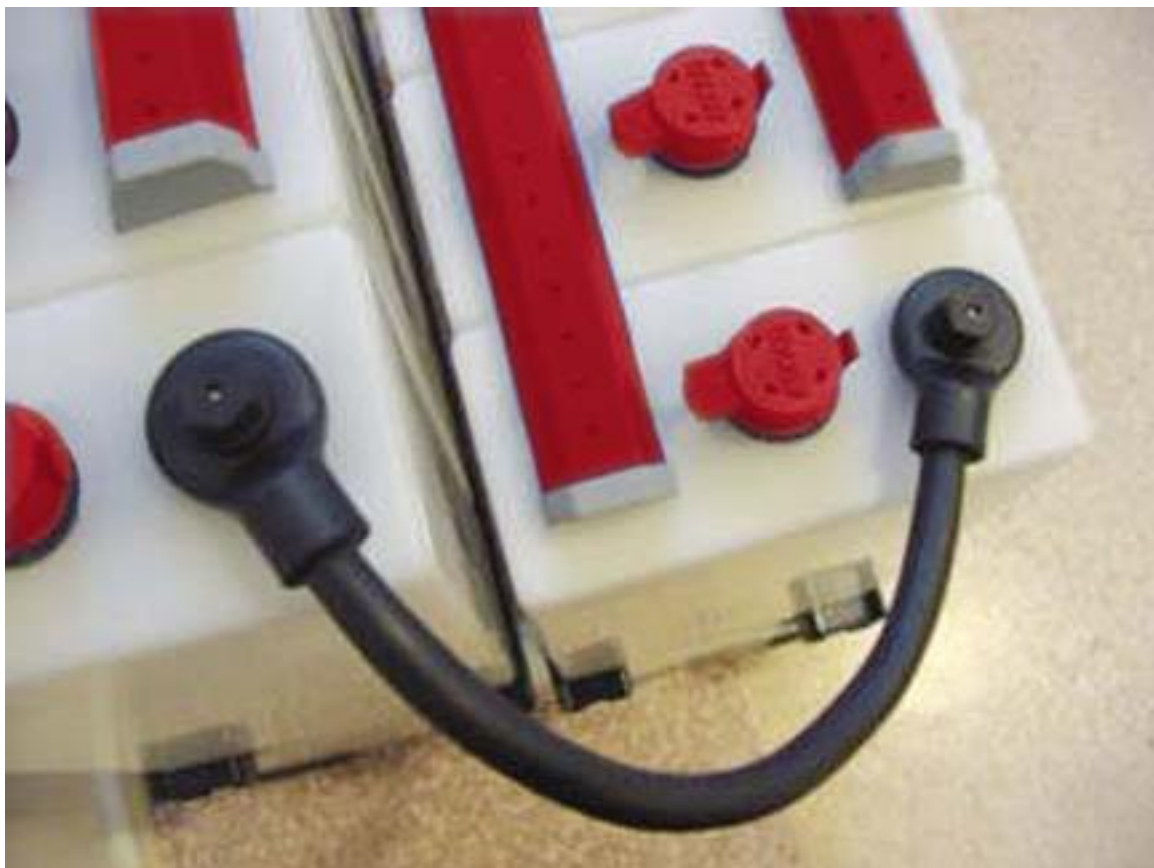
The conformity to the EN 50272-2 for a large part of our “standby” products is a **“plus”** compared to other competitors like Gaz, HBL or Hoppecke.

It is a **“real benefit”** for all our customers as there is no price increase for this additional advantage.

**Below you find some detail pictures of the IP2X components.**



**SBH battery on rack**



**Insulated cable connector**



**End lugs and end lug covers**

All the components have been tested and approved according to IP2X by Intertek Semko AB.