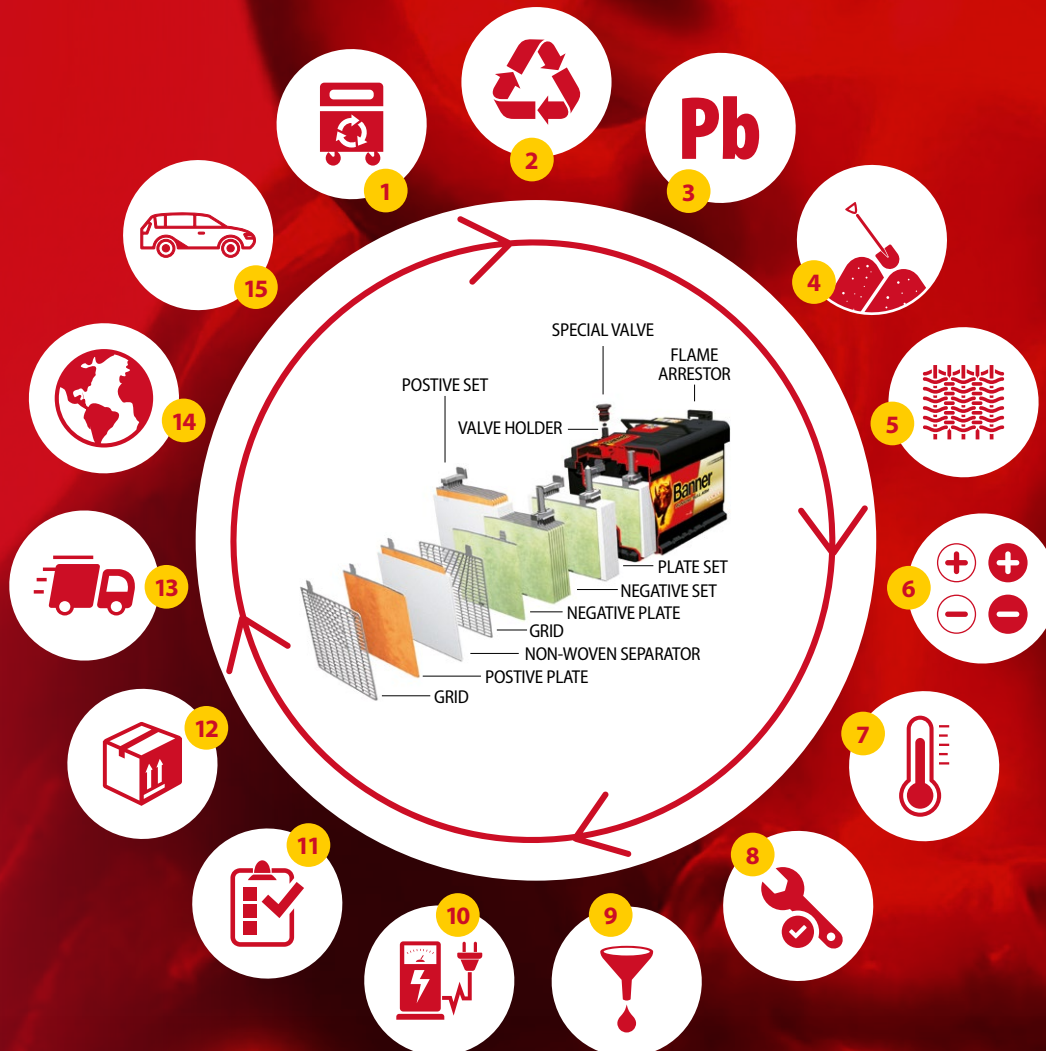


# Production, Distribution & Recycling Process

## Full Power for Environment Friendly Mobility



- Pioneering EFB and AGM technology for start/stop vehicles.
- Certification pursuant to ISO 9001:2015 and IATF 16949:2016.
- Certified sales according to ISO 14001:2015.

- 95-98 per cent recycled lead is used in the production process.
- Battery boxes are manufactured using 80 per cent recycled polypropylene.

- Since 2015, Banner has obtained its electricity from renewable sources.
- 60 per cent of the electricity used is employed for battery charging.

- USED BATTERIES:** The return of used batteries is stipulated by law. Banner collects used batteries free of charge for regulated recycling at its plant.
- RECYCLING:** Used batteries are 100% suited to recycling and most new parts are manufactured from recycled materials. This keeps prices stable, conserves resources and protects the environment.
- LEAD:** Pure lead is the basic raw material employed in Banner batteries. is delivered in 45 kg bars with a recycled lead content of 90%.
- LEAD OXID:** In our reactors, lead is combined with oxygen to form lead oxide and is then placed in interim storage in silos prior to further processing.
- MESH PRODUCTION:** Lead alloys are used for the production of positive and negative charged mesh, which transfers the electricity in the battery to the electrodes in optimum fashion.
- PLATE PRODUCTION:** Positive and negative plates are manufactured from lead powder and various additives, and then attached to the mesh.
- MATURATION:** In order that the finished battery can store power to an optimum extent, the electrodes must mature in an atmosphere with a defined temperature and humidity.
- BATTERY ASSEMBLY:** The electrodes are "jacketed" to form sets and then welded into the battery box, which is subsequently sealed with a lid.
- ACID FILLING:** During this production phase, the battery is filled with a precisely measured amount of electrolyte, which in this case consists of diluted sulphuric acid.
- CHARGING:** The power is now added to the Banner batteries. These are placed in cooling baths to prevent overheating and then charged with direct current (DC).
- FUNCTION TESTING:** 100% OK! Following production, every battery is subjected to thorough testing and no battery leaves the Banner plant without a functional check.
- PACKAGING:** Our miniature power plants are labelled and packed in precise quantities in accordance with customer requirements and orders.
- TRANSPORT:** We attach great value to quality, personal customer service and quick delivery, which are ensured by our tightly knit branch network.
- SALES NETWORK:** Europe-wide sales offices; worldwide network.
- APPLICATIONS:** with Bull Power.