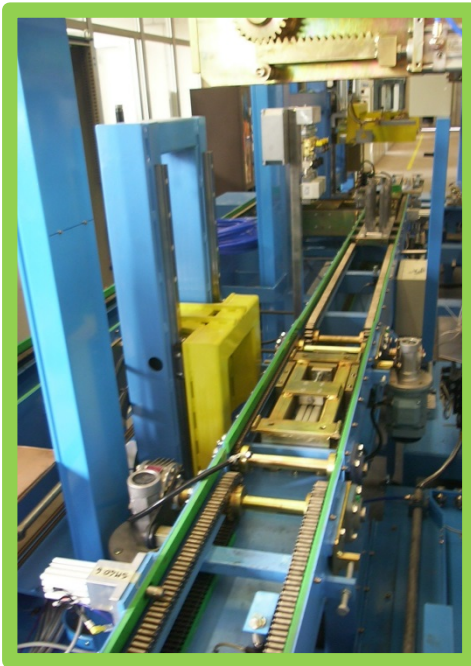




CONSTRUCTION
BATTERY
EQUIPMENT

ALS

ASSEMBLY LINE STARTER



Semi-automatic line



**CONSTRUCTION
BATTERY
EQUIPMENT**

ALS ASSEMBLY LINE STARTER



Semi-automatic line

ASSEMBLY LINE STARTER mod. 4L2T-E

This assembly line is able to process both car batteries and truck batteries, and it has a productivity of N° 4 batteries type L, and N° 2 truck batteries. The assembly line is composed by: Mainframe made with carbon steel tubulars, electro-welded to one another and painted, completed with safety doors and safety devices realized in compliance with European safety standards. The frame is one and supports three units.

Discarding bench, placed at the end of the conveyor. Electrical panel for management of the machine, completed with PLC Siemens S7, keyboards and operator interface panel.

- FIRST SHORT CIRCUIT TESTER

It has the purpose of detecting the electrical short circuit among positive plates and negative plates of one group. Easy adjustment of metal points in order of type of battery to process.

Special control device is adjustable in voltage supply (0/3000 V) and in current (0/100 mA); an electronic circuit connected to PLC recognizes the short circuit of group.

- ELECTROWELDING WITH TWO HEADS

It has the purpose of welding the straps of positive plates to the straps of negative plates inside the box. Welding head holder frame placed on guides that runs along the axles and moved by motor controlled by PLC for a correct set point of movements. N° 2 welding heads. Every head is moved along the Z axle by a pneumatic cylinder and motor for correct height regulation. Every head has a beryllium bronze pliers placed on bronze bushes and started by hydraulic actuators with straps centering. Transformer of 35 Kw integrated on the head and connected to the pliers by means of short copper cables. After the welding, the device controls the quality of the welding electrically and automatically set parameters.

- SHORT CIRCUIT TESTER OPT. With our special settings, we can detect if the plates are wet, so not to discard good batteries.

LID & THERMO-WELDING MACHINE:

- LID PLACING UNIT option + Lid stores with capacity of 30 pieces each. The number of stores is 3, in order to place lids automatically

- POLE ALIGNMENT DEVICE. option

- HEAT SEALING MACHINE

It has the purpose of welding the lid to the box, using the heat generated by a plate that deep/sinks a determined quantity of plastic of both superficial profiles (welding trucks). The unit has a productivity of N° 2 batteries type L per cycle and N° 1 truck battery per cycle. Machine is realized to avoid manual regulations. In fact it's possible to set the machine through the command panel in order to type of battery to work. The only manual operation consists to change of tools, very simple thanks to mechanical references.

- Electrical device for the regulation of depth of fusion and pasting.

- Inside the conveyor, has lifting bench, to move lid and to fuse and paste.



**CONSTRUCTION
BATTERY
EQUIPMENT**

ALS ASSEMBLY LINE STARTER



Semi-automatic line

AUTOMATIC POST WELDING MACHINE FOR TRUCK BATTERIES and CAR

This machine has the purpose of building the form of poles of batteries, and it has a productivity of 4 batteries type 6x1 / per minute and 2 batteries type 3x2 / per minute.

Mainframe made of carbon steel, with safety doors and safety devices realized in compliance with European safety standards. The welding head group is made of aluminium. A sliding system for negative and positive welding groups is attached on the head.

The two welding groups are realized with a double slide system that allow the running of shells separately from the welding torch. The welding shells can be inverted in order of polarity of battery and they are cooled by water. Electrical panel for management of the machine, completed with PLC Siemens S7, keyboards and operator interface panel.

PRESSURE & HEIGHT CONTROL, MARKING

Mainframe made of carbon steel tubulars, which are electro-welded to one another and painted, completed with safety doors and safety devices realized in compliance with European safety standards. The frame is one and supports the three units. Chain conveyor with stoppers for a correct feeding of batteries and containing guides for the batteries. Discarding bench, for non-complying batteries, stopper Electrical panel for management of the machine, completed with PLC Siemens S7, keyboards and operator interface panel.

LEAKAGE TESTER

It has the purpose of checking the welding between the lid and the box, done by heat sealing machine. The head control is positioned on spheres, and moved by a pneumatic cylinder. Height regulation obtained by motor with position control device N° 01 spout holder plate, especially realized for a fast regulation of spouts. Head checks cells 1 – 3 – 5, then it checks cells 2 – 4 – 6. The pressure is adjustable till 0,6 bar. All parameters for pressure control, pressure leakage settings and battery control timers are adjustable.

POLE HEIGHT CONTROL UNIT, option

HOT MARKING UNIT or NEEDLE PRINTING option

MAGIC EYE PLACING option

Labelling line option