



CONSTRUCTION BATTERY EQUIPMENT

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## VRLA - AGM- GEL ENVELOPING, STACKER, COS, ASSEMBLY LINE



### LINE FOR THE PRODUCTION OF VRLA- AGM - GEL BATTERIES.

Our lines, due to our experience on past years, can be used also on the production of VRLA, AGM and Gel batteries, with simple tricks on engineering phase and the assembly department.

These are necessary to produce a top quality battery capable to pass positively the quality control test.

Mainly the differences are on the enveloping station, the COS station and the assembly as the separator is in Glass matt that requires a particular attention on the handling.

Specially we have:

### **GRIDS PRODUCTION**

They should be in lead-calcium alloys to reduce the water consumption. For this reason the lead must be of first melting, not recycled. The same for the oxide production.

### **ENVELOPER, STACKER**

Our enveloper can work with the thick separator in glass matt and, after the enveloping of the plate, it can prepare the groups following the recipe on quantity of positives and negatives plates per group.

After the groups preparation there is a verticalization station where the groups are displayed on a chain that is also the feeding chain for the cos.

Important for the correct production of the groups, is the quality of alignment between positives and negatives plates, the tinning of the lugs, the compression group for the right production of gases inside the battery.

That is why our process is so well engineered and performed. The Line checks constantly the parameters to be simply adjustable, with no production stops or loss on production.

We can make it true, with solid and reliable stations, in order to maintain the quality on all phases of the assembly, during all the shift and all the shifts, and last for years!

### **COS AND BOXING.**

On the COS station we perform the correct operation process and with the best quality you can find on the market.

The automatic COS feeding station, brings the groups well prepared and aligned, it compress them to keep plates correctly on position and make the straps on the mould.



### **VRLA BATTERY ASSEMBLY**

Web: [www.cbeequipment.com](http://www.cbeequipment.com) email: [info@cbeequipment.com](mailto:info@cbeequipment.com)

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The correct tinning of the lugs, the right temperature of the pot feeding pipe and mould, allows the top quality strap production and the minimal dross production for a continuous high quality lead strap.

After the strap making, the automatic feeding arm, brings the groups and place them on the compression unit to be finally inserted on the box with no scratches or bad positioning.

### ASSEMBLY LINE

One note on the electrowelding station. As the alloy lead-tin is quite soft, the straps must have a correct temperature, for this reason we cool them down with the related device.

Also the use of ABS boxes needs a trick on the welding station. For the rest see our standard assembly line.



### 1. ENVELOPPING AND STACKING UNIT. Workable plates:

Sizes: Width from 125 up to 115; H from 180 up to 250;

Thickness from 1,5 to 4,5 mm

Plate number handled/ per minute : 50

Maximum thickness of the plates group : approx 170 mm

Plates group composition: by Electric control panel.

### 2. JIGS FEEDING UNIT. AUTOMATIC

### 3. COS + Electric control panel.

The machine consists of the following parts:

- load/unload unit; - brushing and fluxing unit; -tinning unit; -straps casting

Managed by a PLC Siemens S7 and by an Operator Control panel OP17.



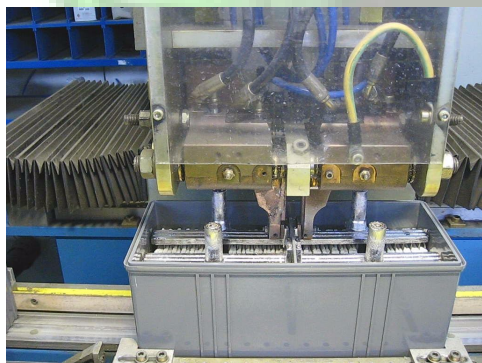
### 4. BOXING + ELECTRIC CONTROL PANEL

A robot withdraws the packages from the jig and inserted in the compression box by means of a tong. Every boxing unit handles two groups.

Operating stations:

No. 2 operating units for 2/4/6 V

No. 3 operating units for 12V 6x1 e 3x2



### 5. ASSEMBLY LINE

SHORT CIRCUIT TESTER.

SINGLE HEAD INTERCELL CONNECTION WELDER.

HEAT SEALING MACHINE

LEAKAGE TESTER.

HOT PRINTER