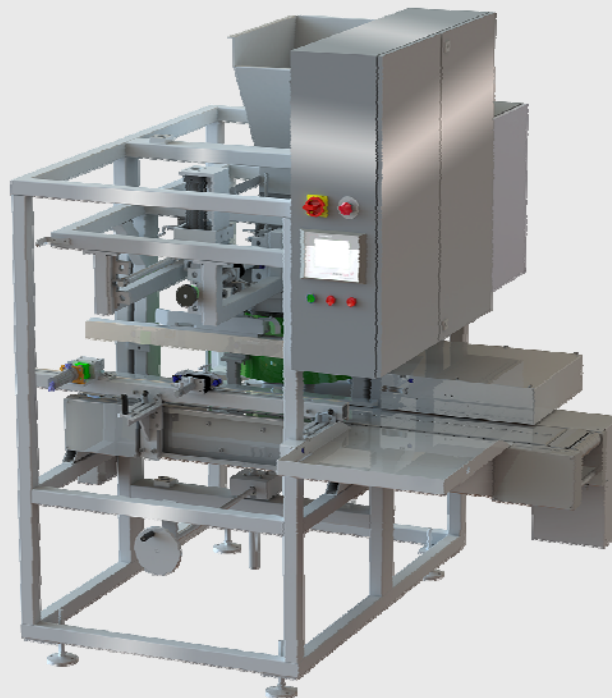


AUTOMATIC CHARGE EYE INSERTION MACHINE

Technology
[made in Germany]

Charge Eye setting of automotive car and truck batteries with best and high technology



The Advantage:

- Setting of push-type and screw-type plugs
- Automatic alignment of charge eye plugs with cage, before setting
- Precise positioning
- Fully automatic setting process
- Short change-over time
- 100% acid resistance

Basic machine

The basic machine consists of a welded base frame carrying the individual assemblies. It consists the vibration sorter to bring plugs to the correct position. Adjustments can be made through adjustment motors and through spindles. Also, electrical and pneumatically cabinet is installed.

Setting unit and plug tools

The setting station is positioned in a way that batteries can be positioned exactly under it. Screw-type plugs are screwed into the battery by means of a pneumatic screwdriver with adjustable torque. Push-type plugs are pushed into the battery by means of a pneumatic cylinder. All functions are plc monitored.

Plug storage unit

Plug storage is realized by means of a storage funnel. The funnel is equipped with an output unit releasing a specified quantity of plugs into the vibration sorter.

Plug height control unit (option)

The plug height control unit is checking each single plug after setting to achieve a 100% setting. If there is a failure, the battery will be rejected at the end of the machine, on a table.

Reject unit

The reject unit collect the failed batteries at the end of the machine. It contains max. 3 batteries of failed batteries to assure a continuous production even if a battery setting failed.

Battery positioning unit

The batteries are positioned exactly underneath the filling unit, by a fixed stopper system.

Lateral guide unit

The lateral guide including the battery separation and the exit monitoring device is designed for laterally adjusting the battery below the working station. A clamping mechanism ensures the adjustment to be executed exactly and fast.

Battery conveyor unit

A PP chain transports the batteries through the machine and, at the same time, ensures them to be adjusted smoothly and exactly at the setting position.

Description of function

The machine has been designed for a finishing line following the battery container formation. The batteries filled with sulphuric acid are sealed simultaneously by means of single plugs with an electronic servo motor. Plugs will be screwed in with torque control or pushed in depending on the charge eye design and finally checked if plugs missing in a separate plug height control test station, before approaching the washing machine

Technical specifications

Battery type	:	automotive car and truck batteries
Capacity	:	up to 7 batteries/min
Weight of batteries	:	20 – 70 kg
Dimension of machine	:	L = 3000 mm W = 1700 mm H = 2300 mm
Construction	:	Full acid proof Material, Stainless steel 316Ti Plastic PP and PVC Pieces not acid resistant with special protection
Electric	:	230/400V, 3-Phase, 50/60 Hz, 4 Wire
Control voltage	:	24 DC
Power consumption	:	4,0 kW
Operating pressure	:	6 bar (90 psi)