

ECO AUTOMATIC ACID FILLING MACHINE

Technology
[made in Germany]

Initial acid filling of automotive car and truck batteries with automated process and semiautomated handling, including CMWTEC technology



The Advantage:

- Automatic filling process
- Adjustment by toggle bolt
- High precision filling volume by flow meter
- 100% acid resistance

Basic machine

The basic unit has been designed for housing the individual assemblies and contains the Pneumatic and electrical machine controls. The base frame houses the working console that is Vertically adjustable. The filling unit is mounted onto the working console and the various battery heights are adjusted via the vertical spindle movement. Acid proof stainless steel material is used for both the base frame and the working console.

Filling unit

The filling unit houses the individual heads. The heads are lowered into the filling holes of the battery cover. The heads can be adjusted according to the distance of the Battery cover holes. Each head is connected to a flow meter system for monitoring and controlling the filling process. In addition, a manual or test Functions can be triggered at the control panel. The unit control is also integrated into a main system using program pre-selection.

Acid supply unit

The supply unit consist of elements to connect the machine to the acid supply system of the factory.

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 filling unit. A clamping mechanism ensures the adjustment to be executed exactly and fast.

Battery conveyor unit

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

Description of function

The machine is designed for filling sulphuric acid into automotive batteries by volume. Controlled by flow meter with pre-selected fill volume. The individual batteries supplied through the conveyor of the finishing line are positioned exactly. The fill stroke moves down, and the individual filling heads are lowered into the filling holes of the battery. The flow meter facilitates a quick and exactly volume achievement. Whenever the pre-selected volume is reached the fill stroke raised up and the battery is feed out of the machine and the next batteries are feed into the exact filling position under the fill stroke.

Technical specifications

Battery type	:	automotive car and truck batteries
Capacity	:	up to 6 batteries/min (depending on fill volume)
Filling level	:	+/- 1% of the volume
Weight of batteries	:	20 – 70 kg
Dimension of machine	:	L = 2000 mm W = 1400 mm H = 2200 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	:	3,1 kW
Operating pressure	:	6 bar (90 psi)