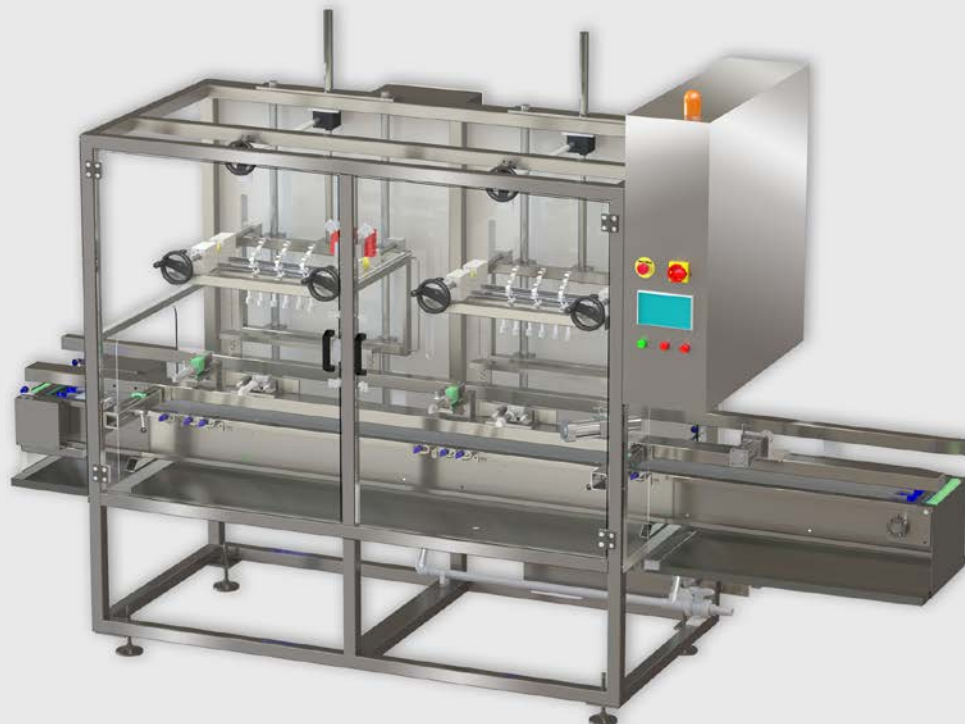


AUTOMATIC ACID FILLING MACHINE

Technology
[made in Germany]

Acid filling / levelling of automotive car and truck batteries with best and high technology



The Advantage:

- Fully automated filling process
- High precision filling volume by flow meter
- Filling and levelling in combination
- Exact levelling accuracy by fiber optic or sipping pump monitoring
- Short change over time
- 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 by means of 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 (according to the application). The heads are lowered into the filler holes of the battery covers. The heads can be adjusted according to the distance of the battery cover holes and are monitoring and controlling the filling process. In addition, 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 consists the 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 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 filling position.

Description of function

The machine is designed for filling sulphuric acid into automotive batteries by level and/or volume controlling onto the pre-selected level or volume. The individual batteries supplied through the conveyor of the finishing line are positioned exactly. The fill stroke move down and the individual filling heads are lowered into the filling holes of the battery. The level controlling by fiber optic sensors or sipping pumps, or volume controlling by flow meter, facilitates a quick and exactly level achievement. Whenever the pre-selected volume or level is reached the fill stroke raised up and the battery is feed out of the machine and the next batteries are feed in.

Technical specifications

Battery type	:	automotive car and truck batteries
Capacity	:	up to 8 batteries/min (single station) up to 12 batteries/min (double station)
Filling level	:	+/- 1% of the volume
Level accuracy	:	+/- 1 mm of the final level
Weight of batteries	:	20 – 70 kg
Dimension of machine	:	L = 2500 mm W = 1300 mm H = 2200 mm Single Station L = 3500 mm W = 1300 mm H = 2200 mm Double Station
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	:	5,1 kW
Operating pressure	:	6 bar (90 psi)