

# SEMI AUTOMATIC ACID FILLING MACHINE

Technology  
[made in Germany]

Acid filling / levelling of industrial batteries and battery cells with best and high technology



## The Advantage:

- Filling and levelling in combination
- High precision levelling by fiber optic sensor
- No acid overflow
- Clean filling, no acid dripping
- Short change-over time
- 100% acid resistance

### **Supply unit**

The supply unit consists of a stainless steel welded base frame carrying the pneumatic, electric, acid valves and the pump unit.

### **Filling unit**

The Filling and levelling unit houses 3 filling heads with integrated fiber optic sensor. This system is mounted on a manipulator system (option)

### **Pump unit**

The pump unit contains the acid pump. This pump conveys the acid to the filling nozzle.

### **Acid supply unit**

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

### **Description of function**

This machine was designed and developed for the purpose of filling industrial batteries with sulphuric acid. The volume of acid to be filled in is dosed by a levelling system. The acid is supplied to the individual filling heads through the distribution system. The filling heads can be adjusted according to the distance of the battery cover holes. The filling unit contents filling heads with integrated fiber optic sensor. Whenever the acid level is reaching the fiber optic sensor the valve is immediately closing the supply unit and also the valve which is integrated in each filling head to prevent a dripping after filling/levelling.

### **Technical specifications**

Battery type	:	industrial batteries, traction cells
Capacity	:	up to 25 liters /min (depending on pump speed)
Filling level	:	+/- 1% of the volume
Level accuracy	:	+/- 1,5 mm of the final level
Weight of batteries	:	20 – 70 kg
Dimension of basic machine	:	L = 1000 mm W = 1000 mm H = 1600 mm
Dimension of Filling unit	:	L = 650 mm W = 550 mm H = 750 mm
Dimension of manipulator (option)	:	H = 3890 mm Working Area Ø 2100 mm
Construction (Filling Machine)	:	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	:	2,5 kW
Operating pressure	:	6 bar (90 psi)