

# HIGH VOLTAGE LEAKAGE TEST MACHINE

Automatic final dielectric test of automotive car and truck batteries with best and high technology



# The Advantage:

- Location of the smallest leakage
- Test of cover seal line and bottom of the battery box
- Side terminals battery contact (option)
- Marking of leak point by local burning
- RS232 to read out test data
- Reject table for failed batteries
- Fully automatic test process
- Short change-over time
- Adaptable to discharge test machine as combination unit



# **Basic machine**

The basic machine accommodates the individual components and contains the pneumatic and electric control system of the machine. The basic structure accommodates the operating console which is vertically adjustable. The latter serves to accommodate the testing station, the different heights of the batteries are adjusted via the vertical spindle movement.

# Test unit

The test unit accommodates the probe with a four corresponding test strips. For testing, the positive Electrode will be moved onto the one of the terminals of the battery, while the negative electrode will be Positioned around the sealing line of the battery cover.

### **Test strips**

The self-adjusting test strips are opened and closed by pneumatic cylinders and enclosed the battery in the test Position, so that a superb and smooth connecting is guaranteed.

#### Battery positioning unit

For testing, the batteries are exactly positioned under the testing station. This performed by a system, which always guarantees an exact centre-positioning and does not require any change of positioning in machine direction.

### 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.

### **Reject unit**

Following the HVT Test unit the machine is equipped with an eject unit. If there is a failure, the battery will be rejected at the end of the machine on a table.

#### Battery conveyor unit

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

# **Description of function**

The machine is designed for high voltage controlling for leakage of batteries in a finishing line. The individual batteries supplied through the conveyor of the finishing line are positioned exactly. By especially digital electrical test device system, batteries will be controlled. Onto one of the battery terminals the positive electrode will be pressed. The negative electrode will be positioned round the sealing line of the battery cover to the battery box and on the bottom of the battery box. While testing a high voltage (max.12 kV) is fed. If there is an electric potential between the electrodes it indicates a leakage of the battery. By a special function, the leakage point can be shown by burning.

# **Technical specifications**

Battery type	:	automotive car and truck batteries
Capacity	:	up to 8 batteries/min dep. on test time
Weight of batteries	:	20 – 70 kg
Dimension of machine	:	L = 2500 mm W = 1525 mm H = 2200 mm
Construction	:	Stainless steel 304, with aluminum profiles
Electric	:	230/400V, 3-Phase, 50/60 Hz, 4 Wire
Control voltage	:	24 DC
Power consumption	:	2,0 kW
Operating pressure	:	6 bar (90 psi)
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