

## TE-04 Water Vapour Permeability Tester

### Purpose:

Apparatus for determining the water vapor permeability through the leathers is applied to all types of leather especially for leather uppers and lining of footwear or other types of materials for making uppers and lining of footwear such as all kinds of textile and lining of other materials such as waterproof textile laminates and etc .. Also, result of testing the water vapor permeability together with the result of water vapor absorption is necessary to calculate the water vapor coefficient as an important physical quality indicators.

### Apparatus is made according to the requirements and apply for the tests according to the following standards:

- EN ISO 14268** Leather – Physical and mechanical tests – Determination of water vapour permeability
- EN 13515** Footwear – Test methods for uppers and lining – Water vapour permeability and absorption
- EN ISO 20344** Personal protective equipment – Test methods for footwear
- 6 Test methods for upper, lining and tongue
  - 6.6 Determination of water vapour permeability (WVP)
  - 6.8 Determination of water vapour coefficient

### Description of the device:



The device consists of six (6) test glass bottles and screw cap with the prescribed circular opening, which with the help of a klik – clak system is positioned on vertically mounted turntable. Turntable turning at 75 rpm  $\pm$  5 rpm and fan unit turning at 1400 rpm  $\pm$  100 rpm in the opposite direction of turntable. The space in which occurs rotation of the test bottles is closed with a sliding door, with a magnetic safety contact switch. The device has a control unit with an alpha numeric LCD screen to adjust the time period of the testing and a sound signal for the end of the test.

**Dimension:** (L) 550 x (W) 300 x (H) 300 mm;

**Weight:** 25 kg

**Power supply:** 230 V~50 Hz

### Operating principle:

Into the test glass bottles place dry silica gel, then set test samples on a opening of the bottles and fix with cap. Place bottles in the device, adjust the time duration of the test, close the sliding door and start the device. The device must be located in the area with the prescribed conditions of temperature 23  $\pm$  2 °C and relative humidity of 50  $\pm$  5%

