

Tempering and contacting of electronic components to perform a hot function test (HFT)



The modular tempering and contacting system for HFT was made for the functional check of electric contacts of components in different thermal conditions during the production process. In order to perform a hot function test in a thermal environment between 75 °C and 150 °C, IMAK designed an air circulation chamber system. After continuous heating of the component in the three thermal chambers (basic configuration) the test piece is transported into the contacting station.

The contacting device is quickly interchangeable to allow testing of multiple component types. During the entire testing process the components are constantly monitored without contact.

The basic configuration of the HFT is equipped with a conveyor, a tempering conveyor, a contacting system, a cooling- and run out conveyor. Test pieces that have failed the test are automatically separated from the production line.

Tempering-Station

Temperature control variable from 75 °C up to 150 °C

Chain conveyor system in the hot area

Low heating-up time due to air-recirculation

Contacting device

Interchangeable contacting adapter

IR-controlled component temperature

Contacting from top side and bottom side possible

Performance of the tempering and contacting system (basic specification)

Modular testing system, upgradeable as required

Multi component testing due to interchangeable test adapter (,needle beds')

Adjustable gauge, manually or automatically operated for quick conversion and refitting

Contactless monitoring of the test pieces by IR-sensors

Component discharging by ionizers

Control via S7-interface

Operation independent of external voltage supply

ESD-conform design

Variable temperature control and short heating up time

Customized solutions for all requirements available



Air circulation chamber for HFT



Contacting system for HFT



Chain conveyor system