

冷凍空調與新興冷媒標準檢測驗證計畫(103-106)

執行單位

財團法人台灣電子檢驗中心

計畫主持人

林育堯

- 計畫研究空調機、熱泵熱水器、電冰箱、全熱交換器、壓縮機產品最新且與國際接軌的檢測標準與技術，並建立國家級產品檢測與驗證平台，協助產品研發測試，以及國內產業產品銷售驗證，幫助產品順利銷售。

- 建立國內唯一平衡型空調機性能實驗室，檢測技術與日本同等級。
- 建立我國可燃性冷媒電冰箱安規與性能檢測技術與能力。
- 建立我國可燃性冷媒空調機安規與性能檢測技術與能力。
- 導入全熱交換器產品國際標準(ISO 16464)，建立國際級的檢測能力。
- 完成我國首件R32可燃性冷媒空調機的實測，驗證產品的安全與品質。



平衡型空調機性能實驗室



熱泵熱水器性能實驗室

- 冷凍空調與新興冷媒分項計畫完成關鍵檢測能量的建置，包括71KW空調機實驗室、R600a電冰箱實驗室、熱泵熱水器實驗室、平衡型空調機實驗室，並完成檢測技術與國際檢測技術接軌，因空調機為我國主要大宗且耗能產品，因此與日本JATL進行檢測技術合作，引入平衡型空調機性能檢測技術，分年度完成空調機、熱泵熱水器、電冰箱、全熱交換器產品性能檢測技術與國際接軌的目標，將國際檢測技術導入我國，並協助廠商實驗室能力提昇，提高我國產品品質，創造更高經濟價值。



焓差式空調機性能實驗室



電冰箱性能實驗室



壓縮機性能實驗室

Inspection standards and certification of refrigerant, air-conditioning and emerging refrigerant (103-106)

Execution Unit

Electronics Testing Center, Taiwan

Project Director

Andrew Lin

- This project study international newest testing standard and technology covering air-conditioner, refrigerator, heat pump water heater, and energy recovery ventilator. After the study, we establish the national testing lab. to help industrial development.

- Balanced ambient calorimeter testing lab. is the only one lab. in Taiwan using heat balanced testing method.
- Establishing the testing technology and ability for air conditioner and refrigerator using flammable refrigerants.
- Establishing the testing technology and ability for energy recovery ventilator following ISO 16494.



Balanced ambient calorimeter



HPWH performance Lab.

- Critical testing capability was accomplished, covering laboratory of 71KW air-conditioner, laboratory of R600a refrigerator, laboratory of heat pump hot-water heater, and laboratory of balanced air-conditioner. For the phase two, testing techniques were intended to gear for the world. Cooperated with JATL, Japan, on that purpose, to broach performance testing techniques of balanced air-conditioner for our ruling energy-consuming products, air-conditioner. Besides, the target to link performance testing techniques of air-conditioner in line with the world would be achieved within four years, including completion of international proficiency testing this year and proceeding of domestic proficiency testing next year, bring international testing techniques to manufacturers' laboratories and increasing the quality as well as higher economic values of our home products.



Air-enthalpy calorimeter



Refrigerator Performance Lab.



Compressor Performance Lab.