

Calorimetric Radiator Testing

Young Calibration's Radiator Calorimetric Test Facility offers thermal performance characterisation for automotive, marine and industrial heat exchangers worldwide.

Although the facility is predominantly aimed at the automobile market, the wind tunnel and plant can cover low temperature/ low flow coolers, high performance motorsport and medium-size truck installations.

The laboratory is the only UK test facility offering UKAS accredited tests to ISO 17025, for Radiator performance calorimetric testing.

Test reports present all the data in tabular and graphical formats, covering air-side pressure drop, coolant side pressure drop, heat rejection performance and heat dissipation.

Laboratory Facilities

Extensive capabilities exist within the laboratory to cover radiators, cab heaters, low temperature radiators and industrial coolers.



Radiator Coolant Specification

- Flow 1 – 260 lpm (400 lpm)
- Pressure < 2 bar dP
- Temperature 40 - 95°C
- Coolant Texaco 50/50 or (Water)

Cooling Air Specification

- Size 900 x 800 mm
- Flow 30 – 4000 l/s
- Face Velocity 1 – 15 m/s
- Pressure 10 – 1800 Pa (5000 Pa)
- Temperature 20 - 35 ±1°C

Recent Applications

Other recent testing applications have included:

- CFD Model validation
- Thermal Imaging
- Production line sensitivity
- Cooler Pack Assessment
- Supplier Benchmarking Exercises