

# THERMAL DIAGNOSIS & DATA ACQUISITION SYSTEM

All types of cooling towers



PRODUCT SUPPORT

Precise performance report  
Technical and thermal improvement solutions  
Turnkey renovation proposal  
Experienced diagnostic technicians



# Thermal diagnosis & data acquisition system

By taking into account the evolution of your process and the general condition of your cooling towers, the on-site heat assessment provides a **detailed view of the current performance of your installation**. This diagnosis helps you project yourself towards **performance improvement**.

## Strengths of the thermal diagnosis & data acquisition system of JACIR

- ∞ Delivery of the necessary equipment, installation and cabling,
- ∞ Preparation of instruments settings and application on PC,
- ∞ Measurements taken by our experienced technicians,
- ∞ Exploitation and export of data,
- ∞ Report of the results by our technical department and manufacturer recommendations.

## Analysis equipment: mobile data center



A Panametrics ultrasonic flowmeter to measure process water flow on pipes from 15 to 750mm in diameter.

Measurements of the dry and wet temperatures of the ambient air with Vaisala weather shelter.



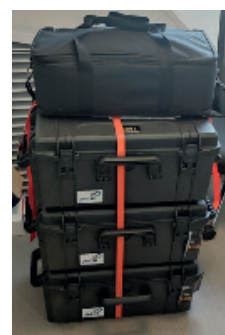
A Keysight acquisition unit to collect all the data measured every 20 seconds for 20 to 30 minutes.

A Keysight BenchVue operating system to consolidate all thermal measurements.

## Complementary analysis equipment

- ∞ Contact thermocouples or thermocouples to be inserted in thermowell on the piping for cold and hot temperature measurements (these measurements are doubled),
- ∞ A Fluck clamp wattmeter to measure the power consumed.

The methodology is the one used for the tower certification tests by the CTI  
(certification body for cooling equipment)



## Details about the material used

The equipment is calibrated in COFRAC, ISO 9001 and ISO/IEC 17025 certified laboratories.

The measurement accuracies are:

- ∞  $\pm 1\%$  for the flow meter.
- ∞  $\pm 0,2^{\circ}\text{C}$  for dry/wet air temperature.
- ∞  $\pm 0,04^{\circ}\text{C}$  for immersive water temperatures.