

# ENERGY & COST SAVINGS

ENSURING YOUR LONG-TERM PEACE OF MIND.

## VALUE ADDED SERVICES

### EDDY CURRENT ANALYSIS

Predictive Services

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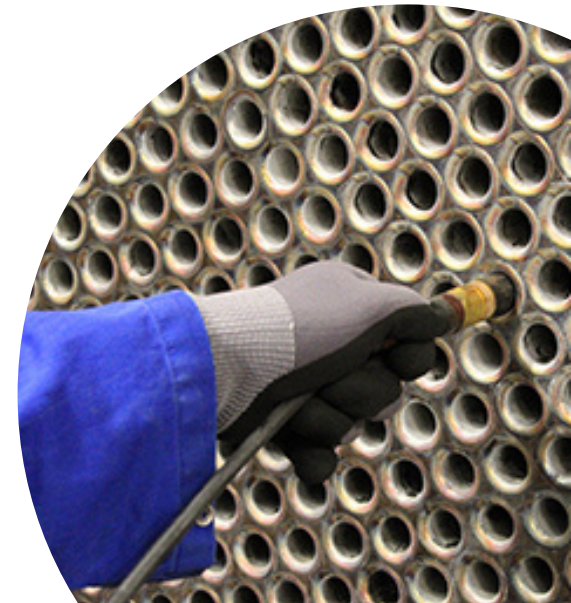
## ABOUT DAIKIN APPLIED ASIA & OCEANIA

Engineered for Performance and Flexibility

- Daikin Group is global leaders in the Air Conditioning sector.
- 96,000 employees globally.
- Over 100 Production manufacturing sites across the world.
- Providing technological solutions in more than 170 countries in the world.
- Daikin Applied Asia & Oceania is a subsidiaries under Daikin Industries Ltd Group ("Daikin") of companies.



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# DAIKIN APPLIED VALUE ADDED SERVICES

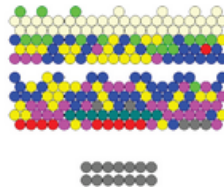


## EDDY CURRENT TUBE ANALYSIS



This is a cost-effective, non-destructive method for determining the condition of condenser and evaporator tubes. It determines the remaining wall thickness of tubes and can detect possible pitting, cracks and bulges that may result in tube leaks.

## RESULTS



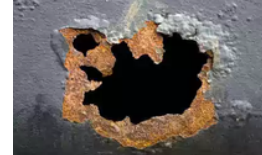
- Fewer time-based preventive maintenance services
- Fewer unplanned overhauls and more uptime
- Longer equipment life
- Reduced energy costs because your chiller will operate at optimal efficiency levels
- Lower operational costs and lower cost of ownership

## IDENTIFY ROOTS OF TUBE FAILURES

The condition of heat exchanger tubes is vital to efficient, reliable chiller operation. Tube failure (examples below) can result in catastrophic chiller failure. Repair can be expensive and time-consuming, as tube failure can contaminate the refrigerant system and cause hermetic motor burnout.



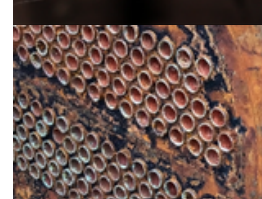
**Freeze Damage:** This evaporator tube ruptured due to a control failure. When water and refrigerant mix, corrosive hydrofluoric and hydrochloric acids are formed, leading to expensive downtime and costly hermetic motor repair.



**Internal Pitting:** This type of damage is caused by abrasive or corrosive products in the condenser water loop and will usually result in pinhole leaks.



**Erosion & Mental Deposits:** Caused by the electrolytic properties of water flowing through the tubes, and will eventually result in leaks.



**Support Wear:** Caused by the boiling action of refrigerant around the tube. Wear occurs where the tubes are supported, resulting in system leaks.

## Maximum reliability and minimal operating costs

Eddy current tube testing conducted on a regular basis can provide advanced warning of developing problems, allowing repairs to be scheduled during planned shutdowns. In addition, this method of tube testing requires considerably less time than physical inspections.