



Kelvion Service | Air Cooled Heat Exchanger Audit

DEBOTTLENECKING | OPTIMISE YOUR PLANT

WE OFFER TWO TYPES OF AUDITS:
BASIC AUDIT (MARKED BOLD)
ADVANCED AUDIT



MORE THAN 30 SERVICE LOCATIONS WORLDWIDE

Kelvion Service starts from our first contact with you and continues after your order has been delivered, with us as your reliable service partner. Thanks to our worldwide service centers, we are always close to you.



AUDIT STEPS

SITE VISIT & MEASUREMENTS

- ▶ Air flow
- ▶ Static pressure
- ▶ Fan & motor speed
- ▶ Air temperature / humidity measurements
- ▶ Air temperature measurements (inlet/outlet)
- ▶ Belt tension & pulley alignment check
- ▶ Blade angle measurements
- ▶ Bundle and tube measurements
- ▶ Infrared images / thermography



PROPOSAL BASED ON OUR RECOMMENDATIONS



1

2

3

4

REPORT & RECOMMENDATIONS

- ▶ Perform analysis
- ▶ As-is condition report (finned tubes, chambers, drives, contaminations, etc.)
- ▶ Cooling capacity
- ▶ Noise measurement
- ▶ Vibration analysis
- ▶ Flow rate / Power rate



KELVION SOLUTION IMPLEMENTATION



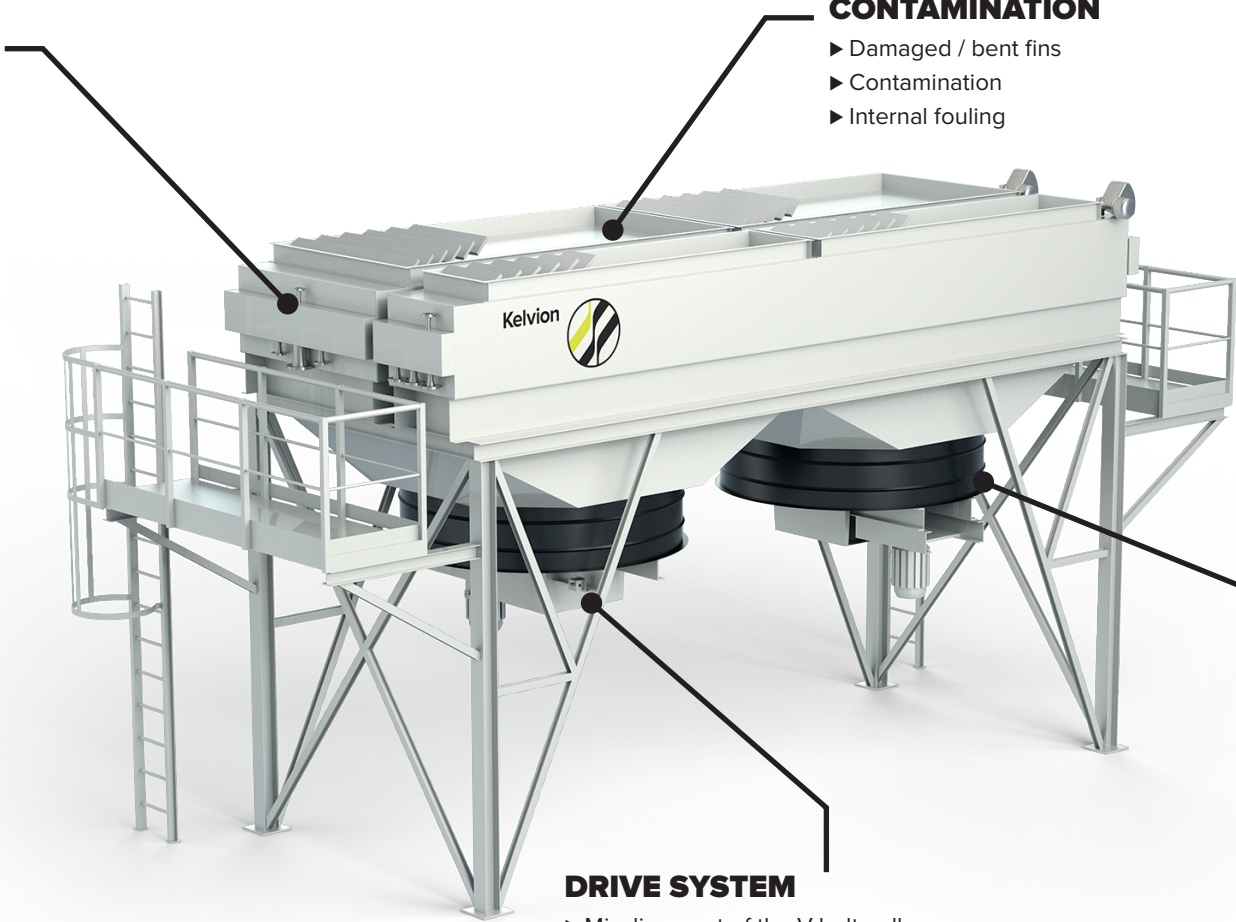
TYPES OF AUDIT

INSPECTION

- ▶ Air loss due to leaks or missing enclosures (air gaps)
- ▶ Air duct corrosion / defects
- ▶ Environmental constrains
- ▶ Plant design changes
- ▶ Need of the capacity increase
- ▶ New governmental regulations

CONTAMINATION

- ▶ Damaged / bent fins
- ▶ Contamination
- ▶ Internal fouling



DRIVE SYSTEM

- ▶ Misalignment of the V-belt pulleys
- ▶ Damaged V-belts
- ▶ Worn pulleys

FAN

- ▶ Inspection of inclination angle (too high / too low / inconsistent)
- ▶ Fans are dragging on the casing ring
- ▶ Vibrations
- ▶ Stalling
- ▶ Noise
- ▶ Reduced performance

KELVION SOLUTION

FAN REPLACEMENT



ADIABATIC SYSTEM



REPLACEMENT



CLEANING



DRIVE SYSTEM MAINTENANCE

