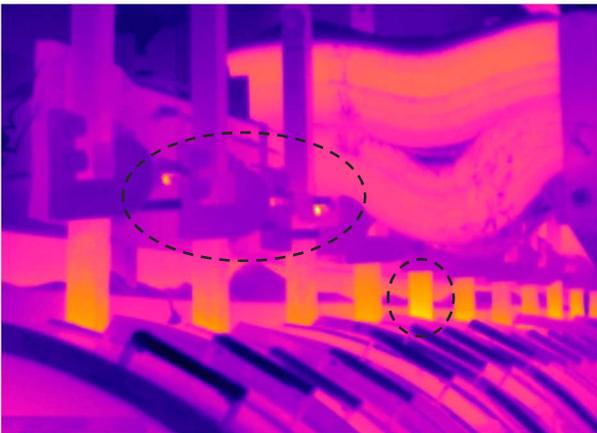


Thermal Imaging & Analysis for Aluminium Smelters

AluCellTech provides Thermal Imaging (Infrared Thermography) services, and training for smelter technicians to identify problems with:

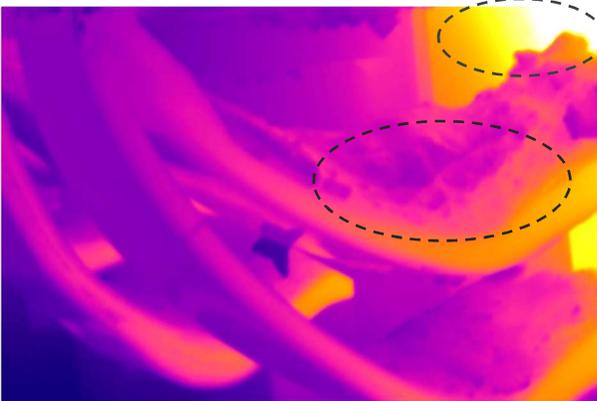
- Electrical connections and conductors, and electrical current imbalance
- Worn refractory lining – early warning of pot failure
- Poor operating conditions or poor operating practises



Anode Beam & Stems:

Identify hot and cold spots in electrical contacts and conductors that may indicate:

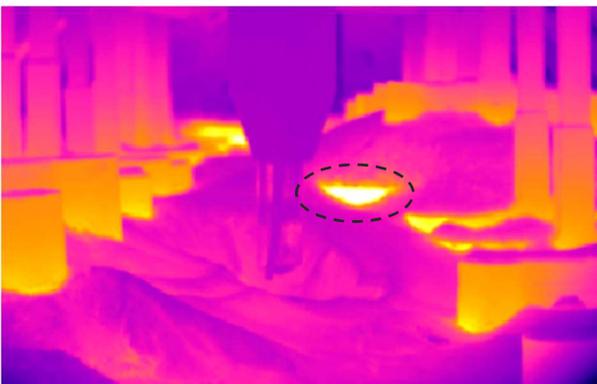
- High resistance/Low current
- Low Resistance/High current
- Poor anode stem cleaning
- Short circuits, failing conductors



Upper sidewall & flexes:

Identify hot spots on pot-shell, flex connectors caused by:

- Worn refractory on sidewalls
- Poor airflow and low convective cooling
- Accumulation of alumina cover on conductors
- Cold connectors may indicate poor connection

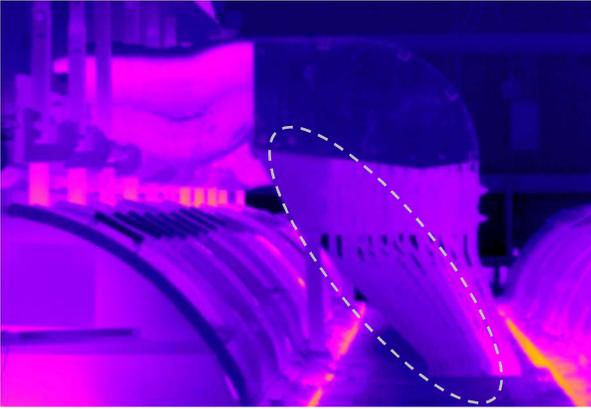


Anodes & rods:

Demonstrate the temperature effects of poor operating practise or conditions:

- Air burn from insufficient anode cover
- Overheated stubs from excess anode cover
- Anode burnoffs, anode spikes
- Anode effect

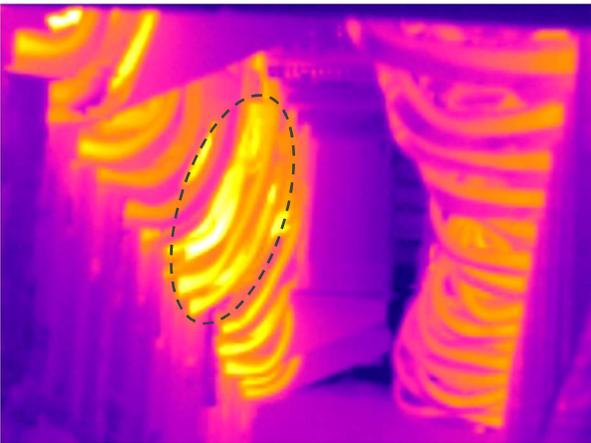
AluCellTech



Bus & riser:

Identify low amperage carrying conductors that may indicate:

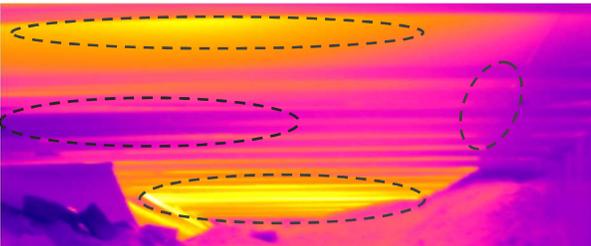
- Deteriorating conductor splice connections
- Current imbalance



Flex Connectors & lower Sidewall:

Identify collector bars & flexes and buss sections with high or low current that can indicate:

- Poor flex connection
- Uneven wearing of cathodes or potholes
- Cold potshell corners



Bottom-side of Potshell:

Identify

- Hot: Areas of worn pot-lining, pot holes
- Cold: Excess frozen bath toe over cathode
- Cold: Poor flex/collector bar connection

AluCellTech provides certified Infrared Thermography services. Audits can include pot conditions, busses and electrical distribution systems, off-gas ducts, cast house furnaces, rotating equipment, and other smelter systems.

AluCellTech can also assist your technicians on how to use thermal imaging, and how to use external cooling fins and insulation to resolve hot and cold regions of the potshell.

Please contact Will Berends for further information.

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