

Curriculum Vitae
of
Malcolm J Robins
Chartered Mechanical Engineer

Occupation :
Director, Dove Thermal Engineering Limited
The company incorporates Dove Associates, a design and engineering consultancy established 1978.

Specializations :
Areas of heat transfer, thermodynamics and fluid mechanics relating to thermal engineering topics
Forensic engineering, Expert Witness, Capital plant design and construction

Activities :
Fault investigation, systems development, thermal design, and expert witness in related fields

Professional :
Member, Institution of Mechanical Engineers (MIMechE)
Member, Institution of Engineering Designers (MIED)
Member of the Heat Transfer Society
late Fellow, Institution of Plant Engineers (FIPlantE)
late Fellow, Society of Operations Engineers (FSOE)

Awards :
Design Council Award for "Consistent High Standards of Project Management & Design Capability"

Academic :
MITB Diploma in Mechanical Engineering with Marine Endorsements
Chartered Engineer, Engineering Council registration reference 655388
Foundation degree, Open University Mathematics and Technology (distinction)

Skills :
Forensic Analysis
Thermal Sciences
Engineering Design
CAD Solid Modelling
Mathematical Modelling

Experience :
Biothermal, Process & Environmental Engineering
Plant Design and Engineering Manufacturing
Plant and Factory Services Product Design
Development and Testing Process Plant
Heat pumping and HVACR Systems
Design & Project Management

Extra-mural :
IMechE Area Management Committee
Heat Transfer Society National Committee

ACCREDITATIONS

London University Examinations Board/BTEC/City & Guilds :	Examination Writer-Editor in Engineering & Manufacturing from 1996
Industrial Development Board for Northern Ireland :	Member of Interim Management Panel from 1996
NatWest-BP Awards for Technology :	Project Assessor from 1992
British Engineering Design Awards :	Industrial Awards Adjudicator from 1991
Production Engineering Research Association :	Production Plant & Machinery Advisor from 1983
Design Council :	Engineering Design Consultant from 1983
Departments of: Trade & Industry/Energy/Environment :	Various Accreditations from 1980

PRIOR EMPLOYMENT

Heenan & Froude Limited (1970-78) :	Regional Manager (from Area Engineer); Engineer-in-Charge (Extended Surface Equipment) Activities: Evaporative cooling towers; gas/air coolers; engine test plant; drives & couplings
Hydronyl Limited (1968-70) :	Engineer-in-Charge (from Technical Sales Engineer) Activities: Heat & mass transfer consultancy to the petrochemical and process industries
Serck Heat Transfer (1966-68) :	Senior Project Engineer (from Project Engineer) Activities: Process & mechanical design of tubular heat transfer equipment and systems
Carter Thermal Engineering (1965-66) :	Applications & Development Engineer Activities: Product & plant project engineering; research & development
Royal Dutch Shell (1961-65) :	Student Marine Engineer, Alternative MITB Scheme for Engineer Officers

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Abridged list of projects undertaken to end-April 2026

Air blast radiator for HTF conditioning
Air preheater with flash steam recovery
Air rings for blown film extrusion
Air source heat pumps
Aircraft undercarriage spin-up system
Air-to-air plate recuperator
Alternative Dispute Resolution
Anaerobic digestate sterilization
Anti-ligature radiator enclosures
Aquaculture system design
Architectural acoustic doors
Arena air conditioning
Autoclave design & mathematical modelling
Automotive catalyser exhaust systems
Batch-fired biomass boiler operation
Biodiesel storage
Bio-fuel factory heating plants
Biogas process optimization
Bioheat reactor evaluation
Biomass boiler plant design & installations
Biomass boiler structural failure
Biomass boiler performance modelling
Biomass conditioner
Biomass fuel production
Biothermal modelling & engineering
Boiler fire investigation and refurbishment
Boiler plant investigations
Boiler upgrades
Boilerhouse and process plant installations
Bottling plant process services
Boundary layer extrudate cooling units
Calendering plant design and build
Carbonated drinks processing
Cash dispensing machine (ATM) cooling solutions
Causes & mechanisms of ships' funnel fires
Central services plant building for large site
CHP design and installation S
Chromium plating
Class 125 high speed diesel train systems
Class 158 DMU HVAC re-engineering
Commercial Cooking Appliances
Continuous casting process
Corrosion systems
Crude oil pump-out exchanger & pontoon
Cryogenic food processing plant
Diesel fuel and Biodiesel degradation
Diesel-electric nose-mount chiller
District and Central Heating
Disputed Water Supply
Domestic and office dehumidifier
Double-pipe heat exchanger designs
DTI energy network survey and analyses
DTI Renewable Heat Incentive consultancy
Dupont pressurized HFC plant
Electrical appliance prosecution
Environmental noise surveys
Essential oils plant investigation
Expert witness services
Factory services & plant installation
Factory ventilation plant
Flat-bed thermo-bonding
Food flavour application machinery
Fridge-freezer investigation & television appearance
Fuel oil heaters
Fuel test rig thermal systems
Furnace plant failure investigation & analysis
Furnace systems engineering
Gas fired heating module for baking ovens
Gas turbine test plant
Ground source heat pumps
Heat pumping systems design
Helicopter blade heating & vibration
High speed thermodynamic valve
Homebrew boiler failure mode investigation
Hospital and University CHP Installations
Hot box process heating
HVACR systems and equipment
Hydraulic press engineering
Hydraulics test cells
Hydrolyzation reactor tempering rig
Ice factory design & build
Ice rink design & operation
Ice-making plants
Immersion cooler design & prototyping
Large process steam condensers & systems
Legionnaires' disease outbreak
Liquid phase heating plant
Locomotive test bed systems
Marine air conditioning
Marine boilers and economizers
Medical dose metering unit
Military vehicle defence systems
Mineral colour milling & blending plant
Office and warehouse air conditioning
Offshore pipeline drying
Paper mill energy systems
Papermaking plant failure mode analysis
Peltier effect appliances
Personal accident investigation
Photovoltaic Panel Systems
Industrial Planning Appeal Management
Platen heat transfer & design
Power conversion control system
Pressure vessel explosion
Pressurized HTF plant rectification
Process control chiller
Product thermal evaluation
Production line induction heating
Production line product testing stage
Production process improvement
Production research facility
Production test stages
Rail vehicle aerodynamics for HVACR porting
Refrigerated laboratory immersion bath
Regenerative furnace design
Renewable Heat Incentive (RHI) consultancies
Retirement villages
Rivers physical & mathematical modelling
Rotary dryer and calciner thermal design
Salt refinery design
Salt bath heat transfer and storage
Sample rotary dyeing machine
Sintered component cooling
Site cooling services design and installation
Sludge Drying
Soft drinks manufacture
Solid state dynamic balancing system
Steam plant design and build
Steam systems fault investigation and rectification
Steam traction engine investigation
Steaming ovens for catering and food manufacture
Sugar boiling pan calandria section
Tempering incubator design & prototyping
Thermal break roof hatch design & prototyping
Thermal fluid heating plant
Thermic lance and rotary degasser
Thermodynamics laboratory
Thermodynamic Test Rig
Transformer oil recovery plant
Transport HVACR coils & systems
Trent 900 engine environmental test systems
Tube extrusion mill services
Vacuum furnaces and systems
Warehouse air conditioning design & installation