

Experience Summary

Thomas is a professionally qualified MEP Engineer/Expert with over 40 years in the domestic and international MEP construction industry with experience working in the Far East and Middle East Regions for over 25 years.

He has worked as an independent consultant for over 15 years and has been commissioned by several leading UK and international law firms, consultants and contractors on some of the most prestigious projects in the world in the capacity of expert, project consultant and project management roles.



He is experienced in both design and construction matters, addressing multi-disciplined items across mechanical, electrical, plumbing and drainage (hydraulics), ELV, control and monitoring networks (BMS/SCADA), security and fire protection and detection works.

Thomas also has extensive experience in the development of project management procedure strategies and in compiling technical reports, defence reports and dispute resolution matters. In addition to the preparation of technical reports, he also has experience in planning and programming and has undertaken the preparation of quantum assessments and has been involved in several high-profile MEP disputes compiling technical reports into various design and construction activities.

Thomas has extensive experience in investigation, negotiation and resolution of technical and construction related claims, counter claims, mitigation, arbitration and as an expert witness with responsibilities including surveys, investigations, technical reports, cross examinations and presentations.

Highlights

- Over 40 years' experience in managing highly complex construction projects.
- Sectoral experience includes international airports, data centres, retail, mixed-used high rise developments, hotels and leisure centres, rail and metro stations, roads, infrastructure, refineries, pharmaceutical, medical and process facilities.
- Geographical experience in the United Kingdom, Europe, MENA Region, Far East and America.

Qualifications and Associations

- MIET (Member of the Institution of Engineering and Technology).
- MIEEE (Senior Member of the Institute of Electrical and Electronics Engineers).
- Underwriters Laboratories, UL.
- Registered Chartered Institute of Arbitrators.
- Registered Chartered Institute of Building Services Engineers.
- National Fire Protection Association (NFPA).
- Institute of Directors.
- Former Central Liaison with the Green Building Association, Dubai.
- Former Central Liaison for the British University, Dubai.

Projects

Transportation

- **Muscat International Airport, Oman.**
Engaged as the expert, representing the JV consortium, addressing multiple claims and counterclaims related to all MEP activities, including airport terminal and airside operations. Conducting surveys, investigations and preparation of technical MEP expert reports to ICC Standards.
- **Jeddah International Airport, Saudi Arabia.**
Full design analysis and preparation of claim documents for the new international cargo facility. Services included HVAC, HV/LV electrical and hydraulic systems, including irrigation and site and storm drainage. Expert for final negotiations.
- **Northern India Rail Network.**
Expert witness for full design analysis and preparation of claim documentation for station and network security and power systems. The investigations included an analysis into the network SCADA security system.
- **London City Airport.**
Construction analysis for the baggage handling systems. Engaged as the Expert to address contractual claims related to the mechanical and electrical works. Prepared a Part 35 technical defence claim report with representation for mediation hearings.
- **Taif Airport and Airbase, Saudi Arabia.**
Conducted a full design analysis of the mechanical, electrical and P&D for the Typhoon Jet Simulator facility including 12 support buildings. The support buildings comprised of data centres, central power centres including 33/11kV power generation (N+1) and district cooling plant and boilers. Prepared claim documentation and quantum assessments related to various design failures, including electrical, HVAC ELV and network integration (SCADA) between all buildings and the operation of the flight simulator. Tom also represented the client for mediation hearings.
- **Qatar Education City.**
Expert Witness for full appraisal into claims regarding the power and network systems for the new people mover tram system. Assessments also included fire protection and storm water damage assessments.
- **Gothenburg New Station Development, Sweden.**
Engaged to undertake a full MEP design review and produce a new bill of quantities (BoQ) assessment highlighting design changes, quantity assessment and cost increases for a cost claim preparation.

- North West Rail Link, Sydney, Australia.
Engaged as the MEP Technical Expert to opine on several MEP issues ranging from computer rooms A/C systems, BIM implementation, project wide deficiencies and overall MEP design deficiencies.
- Nam Cheong and Tsing Yi Stations, Hong Kong.
MEP Manager for the complete design and build of the new fast-link station including system signalling (rail side) and commuter control systems.
- Dubai International Airport, UAE.
Engaged as MEP/Engineering Manager for the design and build of an 11kV temporary ring network for the construction of Terminal 3 together with the construction of CUC3 and 5 (Central Utility Centres) for the airport infrastructure. The CUC's housed centralised/ring networked power and standby facilities, boilers and chiller plants.
- Kowloon Station, Hong Kong.
MEP Manager for the complete design and build of the new fast-link airport terminal, including the electrical generation plant, both mains and standby, together with the main heating and cooling plants comprising of dual/redundant boiler facilities and chiller yards.
- Sheikh Jaber Al-Ahmad Al Sabah Causeway.
- Engaged as the MEP Expert to carry out a full investigation into the SCADA system and to produce an advisory report into the findings.

Hotels

- Atlantis Hotel and Waterpark, The Palm, Dubai, UAE.
MEP Manager for the complete project from tender to hand-over. The project was the first development on the Palm Dubai and as such required construction and commissioning of two of the 33kV power and centralised mechanical services (heating and cooling) network plants.
- Peninsula Hotel, London.
Expert Witness for full design and installation analysis in conjunction with programming interface. Preparation of claim documentation into various mechanical, electrical and hydraulic systems.
- Yas Marina F1 Hotel, Abu Dhabi, UAE.
Commissioning to undertake a design appraisal together with preparation of technical reports into construction failures. Represented the contractor and conducting presentations.
- Atlantis The Royal, The Palm, Dubai, UAE.
Engaged as the MEP Expert for preparing and presenting a technical report to DIAC standards into the complete MEP design and installation for the residence towers, apartments and villas from tender to completion.

- Atlantis Hotel, Bahamas.
Assessment into hurricane damage to the hotel guest rooms. Preparation of report into damages and assessment of repairs. Resultant claim documentation prepared.
- Royal Bay and Royal Lagoons, Dubai, UAE.
Engaged as the consulting MEP Engineers for the scheme and detailed design for two bespoke hotel developments built as part of Jebel Ali Palm, UAE. Undertook the complete design for the mechanical, HV/LV electrical, ELV, plumbing, drainage, storm and effluent farm, 11kV transformer network and district cooling facilities.

Hospitals

- Sheikh Mohammed Hospital, Healthcare City, Dubai, UAE.
MEP Manager including value engineering and pre-fabrication. Continued in the capacity of advisory consultant with guidance into potential claims.
- US Army Bagram Military Camp.
Design and build of a bespoke prefabricated mobile frontline hospital unit. Services included operating theatre HVAC, HV/LV electrical, medical gas, potable water and containerised waste systems. The containerised facility included generator plants, boilers and chiller units, all designed for quick mobilisation and adopting a 'plug and play' scenario.
- GSK Vaccine Facilities.
Design and build of two facilities, in UK and USA for the development of a flu vaccine. Building included clean rooms, intrinsic airlocks, ultra-clean areas and contaminated effluent systems.
- King Abdullah Specialist Children's Hospital, Riyadh, Saudi Arabia.
Full design review, value engineering and 3D/BIM presentation into complete hospital operations. Preparation of technical reports and quantum assessments.
- Vessel Conversion to Floating Hospital, UAE.
To conduct surveys and report on the potential design for converting a ship (vessel) into a floating hospital on behalf of the UAE Government.
- Queen Elizabeth Hospital, Scotland, UK.
Engaged as the MEP Technical Expert to opine on a number of varying MEP matters, including the electrical distribution and standby power configuration and the HVAC chiller plant and CHW distribution network.

Commercial Facilities.

- 22 Bishopsgate, London, UK.

Engaged as the MEP Expert to investigate and opine on issues related to the infrastructure drainage and power supply power factors and harmonics.

- **Abraj Quartier Towers 1 and 2, Doha, Qatar.**
Engaged as the MEP Technical Expert, representing the client for various claims and counterclaims into numerous MEP design and installation issues. Preparation of technical reports for ICC Arbitration.
- **London Business School, London, UK.**
Engaged as the MEP Expert, representing the claimant for various claims related to the MEP works. Preparation of CPR35 compliant technical reports for arbitration.
- **Major bank, Riyadh, KSA.**
Engaged as the MEP Expert, representing the client on a number of matters providing support related to delay and quantum. Addressing over 200 issues with extensive forensic investigations.
- **Burj Al Arab, Dubai, UAE.**
Design appraisal into external light failures. Prepared technical reports into failures and lines of contractual responsibility.
- **Burj Khalifa, Dubai, UAE.**
External lighting review. Carried out investigations and prepared technical reports into equipment failures.

Heavy Industry/Process Facilities.

- **NAQA'A Desalination Facility, Umm Al Quwain, UAE.**
Engaged to survey, investigate and opine on the HVAC systems in several of the main buildings, including an investigation into the chiller plants and CHW networks.
- **Desalination Facility, Doha, Qatar.**
Engaged as the MEP Expert, representing the claimant for various claims and counterclaims. Conducting surveys, investigations and preparation of technical reports for ICC Arbitration. The facility included the main reverse osmosis plant, electrical powerhouse and several specialist buildings such as DAF (dissolved air filtration).
- **Precious Metals Refinery, Sohar, Oman.**
MEP Consultant/Expert commissioned to identify and report on the potential failings into the MEP design for this specialist 'one-off' facility. The facility comprised of several specialist processes including rotating boilers arranged in series. The facility/plant had a central power plant comprising of 33/11kV transformers and distribution, standby 11kV generators, 400kV generators, mains UPS systems, SCADA and bespoke fire protection systems for plant rooms. Acting as MEP Expert for ICC Arbitration.
- **Falkirk Crematorium, Scotland.**
Engaged as the MEP Expert to opine on the existing design, historical plant failures, cremator (boilers) design and investigate the operational values of the whole facility.
- **District Heating, London, UK.**
Engaged as MEP Expert regarding the primary and secondary district heating network for a central London council. Full design analysis and preparation of expert report to Part 35 of the UK Ministry of Justice. Also, investigating system corrosion issues and producing an expert report.

- Water Treatment Facility – Part of the High Speed Rail Link (HS2), UK.
Engaged as MEP Expert to investigate a number of matters, including control failures, installation conflicts/coordination and water quality deliverables.

Special Projects

- Dubai Mall, UAE.
Independent design and installation report into quality and standards at the request of Dutco CEO.
- Dubai Mall, Fountains, UAE.
Design development and project management.
- Dubai Mall, Fashion Avenue Extension, UAE.
Contracted by the CEO of Dutco Balfour Beatty, Dubai to manage the close out and handover of the one million square foot Fashion Avenue extension to the Dubai Mall/Burj Khalifa Reception.
- Yas Marina F1 Hotel, The Gridshell, Abu Dhabi, UAE.
Research and development for the exterior 'gridshell' show piece lighting feature. One of the first buildings in the world to use a programmable LED light system. The system has bespoke R&D design and built light fittings.
- Royal Palaces, Jeddah and Riyadh, KSA.
Full design and installation review and reports.
- King Abdullah University of Science and Technology (KAUST), Jeddah, Saudi Arabia.
Development of 500 luxury villas and infrastructure. Engaged as Expert to report on numerous MEP installation and commissioning issues.
- Precious Metals Refinery, Sohar, Oman.
Contracted by the CEO of Dutco Balfour Beatty, Dubai to manage the close out and handover of a new R&D Precious Metals Refinery in Sohar, Oman. Tom had overall management of the MEP works, including terms and conditions, design variations, full close out documentation and undertaking a full appraisal with regards design based claims.
- Taif Airbase, KSA.
Commissioned by Vinci Taylor Woodrow to undertake a complete review of the MEP design for the Typhoon (Eurofighter) fighter Jet Simulator Facility in Taif, KSA. To investigate and compile a detailed report into MEP design failures, presentation and representation for arbitration. The project was part of the major British Government/MOD/BAES development programme for the RSAF (Royal Saudi Air Force). The opposing lawyers and quantum experts cross-examined Tom. Ongoing arbitration process.
- Oil Platform, Arabian Gulf.
Commissioned to conduct surveys and report on the condition of the platform with recommendations for either de-commissioning or re-instating the platform for normal use.

- Industrial Robotics Consultant.
Engaged as Consultant for the research and development of an on-site setting out and drilling robot.
- Jebel Ali Training Facilities, UAE.
Commissioned to prepare a design evaluation report into various M&E issues for the bespoke football training facilities in Jebel Ali, UAE. Report was prepared for, but not limited to, the changing and welfare centre, floodlights and irrigation systems.
- Al Bawani, KSA.
Contracted as MEP Director for a leading construction firm in Riyadh/Jeddah, KSA to develop and restructuring the whole business for future growth. Current projects included data centres, airport handling systems, royal palaces, housing projects and numerous others.

Career History

February 2021 - Present

MEP Technical Expert – Quantum Global Solutions, MENA Region

Thomas is a member of a 200-strong and growing team providing contractual, commercial and planning support services to global contractors. He currently works out of Quantum's MENA offices.

2015 – January 2021

Owner/Managing Director – MEP Engineering and Expert Consultant Ltd

2007 – 2015

Owner/Managing Director – Accessline LLC

2003 – 2007

Group Engineering Manager – BK Gulf LLC, Dubai

2001 – 2003

Senior Electrical Design Manager – Bovis Lend Lease Pharmaceutical

1995 – 2001

Senior Electrical and Controls Manager – Balfour Beatty, London and Hong Kong

1987 – 1995

Company Director/Partner – Allen and Hastings Associates Ltd

1985 – 1987

Lead Electrical Manager, International Department – Ellis Mechanical Services (Aster International)



1982 – 1985

Associate – Tweensana Ltd

1981 – 1982

Electrical Design Engineer – ECP Services Ltd

1979 – 1981

Intermediate Design Engineer – Balfour Kilpatrick Ltd

1974 – 1979

Apprentice/Contract Design Engineer – ECP Ltd/DoE PSA