

tubetech International



Providing the most outstanding and professional specialist industrial cleaning service to clients across the globe.



Overview.

From the most simplistic to the most impossible global cleaning projects - Tube Tech International Ltd will "substantially" improve upon any current cleaning and inspection, methods or approaches, whatever your industry. From de-scaling heat exchangers and power plant condensers for IRIS or Eddy Current inspection, unblocking lengthy process pipe lines and cleaning vessels, to undertaking site shutdowns and turnarounds onshore and offshore. Tube Tech are recognised as leading specialist industrial cleaning contractors across all heavy industries. With over 40 different technologies and systems, we will find a quicker, more effective way.



Mission

To provide the most outstanding and professional specialist industrial cleaning serve to clients across the globe.

Vision

- To be regarded as the best specialist industrial cleaning company in the world
- To set up a global network of Tube Tech International Ltd companies
- To confidently send a fully trained individual or team to any country in the world trusting that they will maintain our mission, vision and values
- To recruit and retain the best specialist cleaning technicians available

Creed

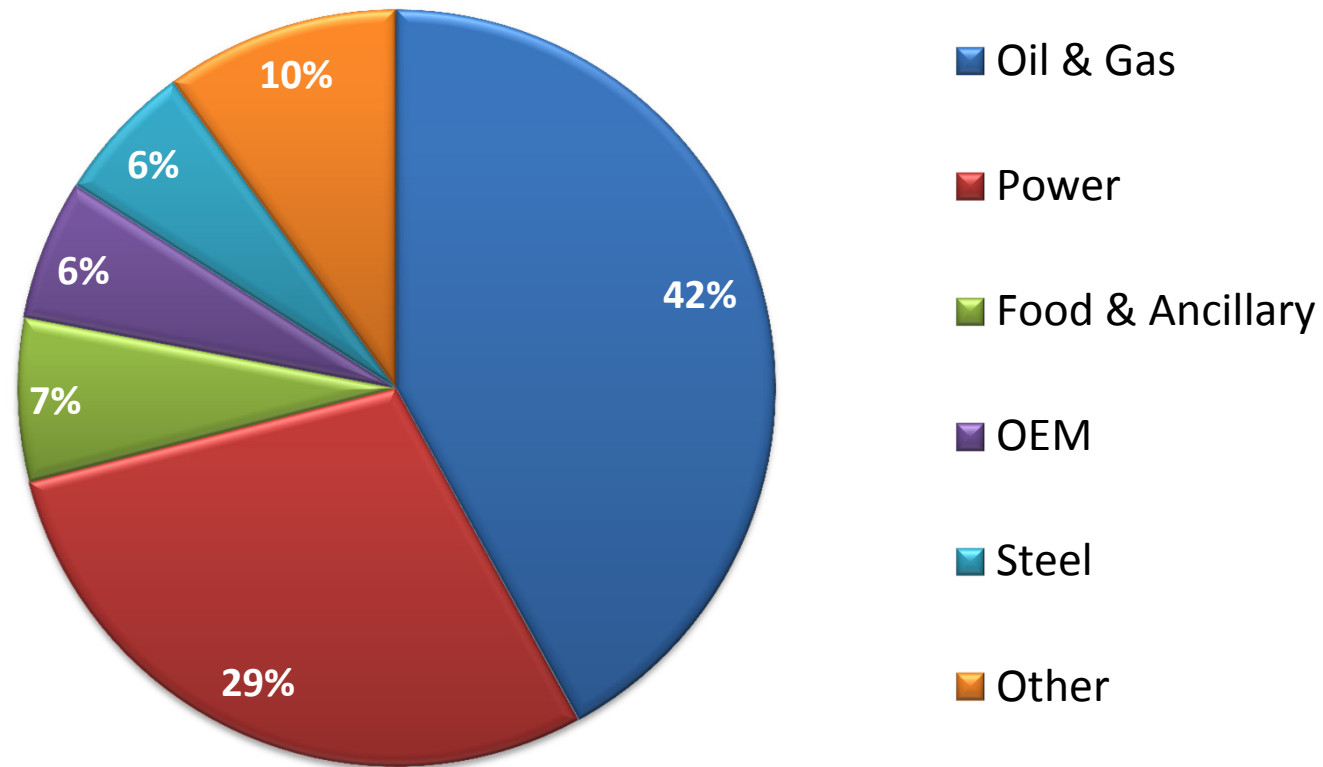
Failure is not an option!



Key Points of Difference.

- Technology lead solutions to provide better cleanliness, safety and speed.
- Specialist service provider.
- Knowledge of all cleaning systems and technologies available in the market.
- Wide ranging experience based on previous specialist applications and solutions.
- Research &Development to modify, adapt & innovate solutions to overcome obstacles.

Key Industries



World Firsts



World First VCFE mechanical shell side clean



World First ON-LINE flare line cleaning



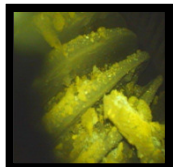
World First ONLINE furnace decoking



World First IN-SITU cleaning of WHRU's on offshore oil platform



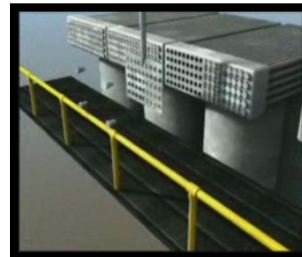
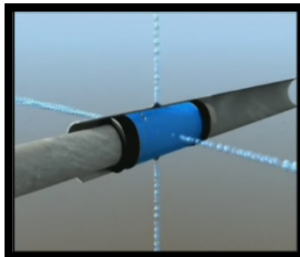
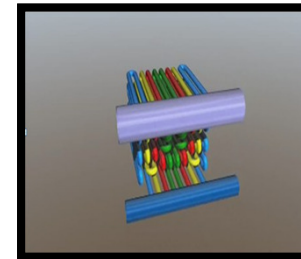
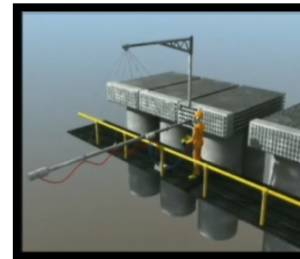
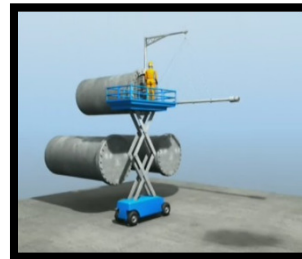
World First DRILLING around U BEND exchanger



World First Robotic Cleaning of Furnace Convection Fins

3D Capabilities

Tube Tech is one of very few specialist cleaning contractors able to provide full scale mock ups and 3D animations to demonstrate their inventive and unique cleaning techniques.



Recognising Safety.



Tube Tech beat off nationwide competition to win an 'outstanding contribution to safety performance' award from E.ON, the world's largest investor-owned power and gas company.

"From the moment we contacted Tube Tech and received their safety documentation it was obvious that they took safety as seriously as we do and as a result their teams' safety practises on site were exemplary". Phil Woodridge, Site Manager, E.ON Stoke

Safety Statistics

Number of lost-time accidents (1988 – 2009)	2
Number of medical treatment cases (excluding first aid)(1988 – 2009)	4
Number of fatalities (1988 – 2009)	0

Key Affiliations and Memberships



43+ Innovative Cleaning Techniques

Tube Side Exchanger cleaning

- HP remote single flexing of exchanger tubes
- HP triple multi flex lancing of exchanger tubes
- UHP remote flexing of tube
- Robotic and remote tube cleaning technology
- 1000 bar Hydro whip rotating jetting hose device lengths of up to 500m
- Pipe cat – pneumatic, hydraulic pipeline crawlers
- 1000 bar and 3000 bar HP Jetting hydro whip up to 4 km
- Super UHP (60,000 psi)
- Dry Ice / water jet
- Polymeric water jetting
- Pulsed power spark erosion tube cleaning
- Ultrasound tube cleaning (shell and tube side)
- Ultra sonic tube cleaning (shell and tube side)
- Rotary variable speed mechanical, polishing, descaling, decoking, drilling up to 30m lengths
- Darting technologies (5 systems)
- Turbine darting
- Tube Trak combination system HP or UHP – worlds lightest - no scaffold nor crane required
- 8 lance Multi lancing system
- Hairpin exchanger drilling rig
- Brown fin Twisted tube Koch design shell side and tube side cleaning
- Hydro drilling (4 versions)
- VCFE Texas Tower remote vertical drilling rig (top down over)
- VCFE Texas Tower remote vertical drilling rig (bottom up over)
- Dry drilling rig for alky fin fan exchangers
- Online flame eye cleaning /drilling
- Waste Heat Recovery Unit cleaning system

Inspection systems

- Eddy Current
- IRIS
- DIN search
- Video Probe

Shell Side Cleaning

- Mechanical, Off line Shell side cleaning of square pitch tubes (plate jet™)– world first proprietary – patent pending
- Mechanical, Off line Shell side cleaning of Tri-angular pitch tubes (Shell jet™)– world first patent pending
- Mechanical, On-Line Shell side cleaning world first patent pending
- Mechanical, On-Line ACC Fin side cleaning - World first proprietary – patent pending
- Pyro blast – Pyrolysis

Pipe work

- Turbine furnace decoking
- Bio degrade-able pigging
- Studded pigging for decoking
- Flare line cleaning (Online)
- Vertical Pipeline crawler / decoking inside bore
- Vertical Pipeline crawler / decoking external pipe surface

Vessel / Surface Cleaning

- Remote vessel cleaning (HP/UHP) wall crawling blast and inspection unit
- Surface blasting wall crawler
- Liquid Ice blasting 60,000 psi
- Bio de-gradeable chemical cleaning
- Remote and robotic Floor cleaning
- Fast Laser blasting
- Sponge blasting

Coating

Fast cure coating (20 second fully cure poly)

Miscellaneous

- Cold Cutting - zero waste
- Fast Laser blasting



Research projects pending / seeking investment or underway:

Underway:

- On-Line cleaning of Crude Exchangers (Tube Side) - Substantial multi million Euro funding (FP7) secured.
3 year project with a consortium of 4 including Shell Global.
- Robotic technology for cleaning and inspecting all types of heat exchanger tubes simultaneously without manual interference
So far self funded. Prototype works.

Pending – additional research funding required:

- On-Line cleaning of blocked sub-sea (Platform to Platform / shore) pipe lines (25km) to remove wax blockages/scale/stuck pigs.
- On-Line cleaning of Furnace Convection / Radiant Tube Sections (Fin side)
- On-Line cleaning of ACC Fin Fan condensers (Fin side)
- On-Line cleaning of ACC Fin Fan condensers (Tube Side)
- In-Situ cleaning of Crude Exchangers (Shell side)
- In-Situ cleaning of floating head exchangers (Design modify)
- On-Line cleaning of Crude Exchangers (Shell side)
- On-Line and Fast cleaning of vertical falling film evaporators / Desalination tubes

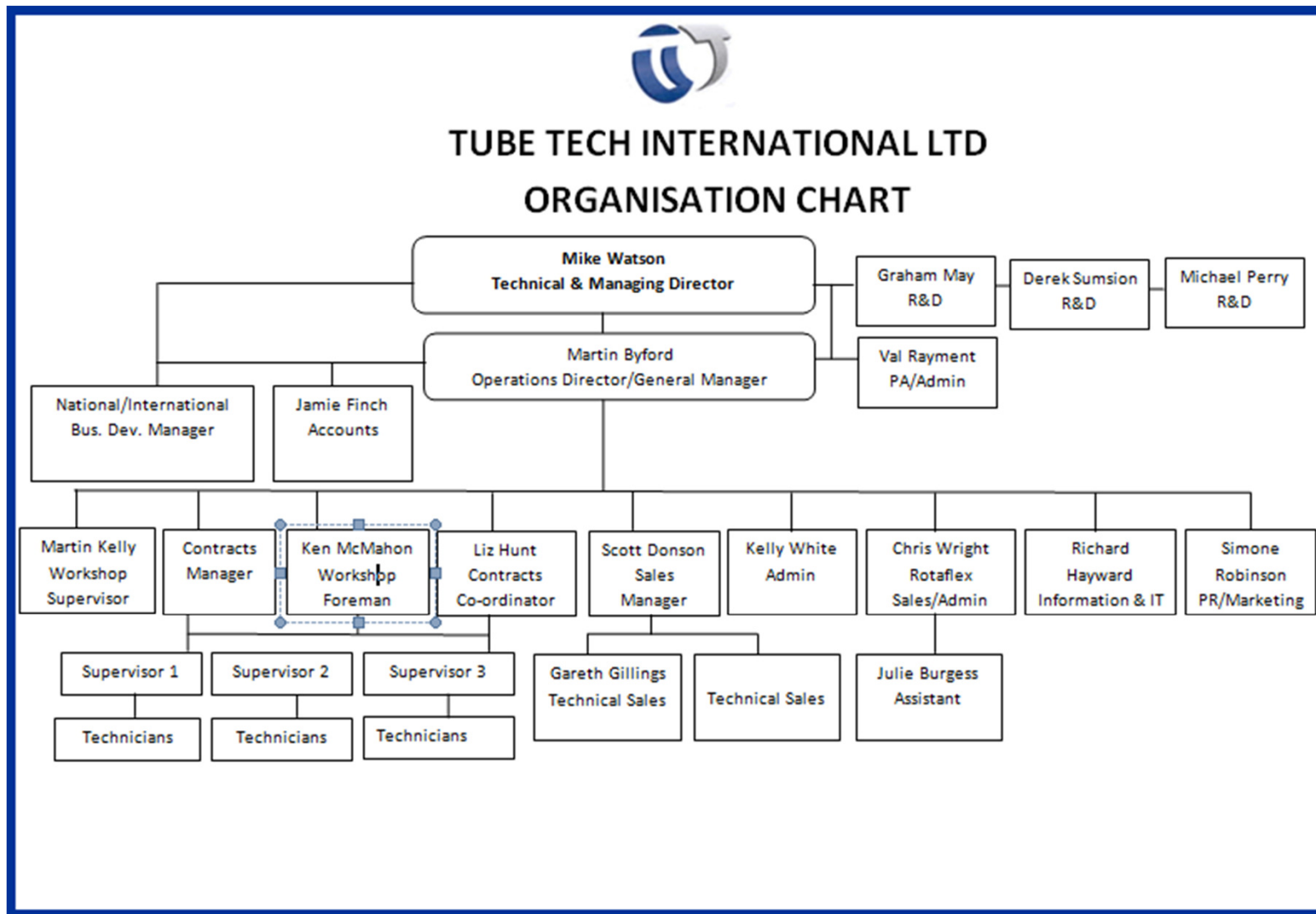


Other Research and Development projects pending:

- On-Line cleaning of Reactor Furnace Tubes to keep tubes clean and avoid any coking, improve Co2 and production.
- World leading furnace tube fabricator confirmed participation in a consortium
- On-Line cleaning of WHRU's (off/on-shore waste heat recovery units. To avoid coking of serpentine coils
- On-Line cleaning of Distillation columns (Trays etc)
- Inspection:- Development of Miniature Intelligent Pig for 1" to 3" diameter serpentine pipes of heat transfer plant
- Inspection:- IRIS and Eddy Current Inspection capability of Koch twisted tube and "hairpin" bend exchangers
- Inspection:- Mass - fast IRIS ultrasonic tube inspection method –reduced from 3 minutes per tube to 3 seconds per tube
- Heat Recovery Coating to store and re-use energy from all hot surfaces e.g. exchanger shells, fin fan, pipe work surfaces
- Multi Bolt remover (20 bolts at the same time) from exchanger headers to minimise mechanical blind to blind downtime compared to 2 bolts at a time
- Sealing technology – to self seal all manner of plant steam leaks
- Remove Epoxy Coatings from ships hull, recover the waste created, simultaneously inspect standard of clean and metal integrity and re-paint with new fast cure permacoat™ proven to outlast epoxy on bow thrusters of ship). All work performed below the water line at 10 knots without the need for dry dock.

All projects above are unique and many patents applied.

Company Structure.





Key Staff

Mike Watson, Managing and Technical Director

Founder and inventive visionary Mike's belief is that convention should always be challenged in order to find a better way to achieve improved results. This "never say never" approach, led to him founding Tube Tech in the 1980s. "If people say it can't be done, it's like a red rag to a bull to me. I will always find a solution" says Mike. "We will continue to invest in new technology development, leading the world in new cleaning methodology".

Martin Byford, Operations Director

Martin Byford joined Tube Tech in 1999, bringing his extensive industrial PLC experience to the company. Martin manages the entire operational side of the company. Martin works closely with Mike on international contracts ensuring complex contracts and logistics are organised with military precision and that each client's requirements are met.

Ken McMahon, Workshop Manager

Once a cleaning job has been surveyed or quoted, Ken and his team help select or design the right solution for the job. Ken ensures all equipment that is or might be required is assembled, calibrated, run up before every project and dispatched. Ken ensures that all team members have the correct visas, immunizations, work permits, safety certificates, qualifications and documentation to comply with the client's site and country requirements

Liz Hunt, Contracts Administrator

With many years' experience of managing large teams of contractors, Liz is the expert when it comes to the administration and supply for each Tube Tech contract, wherever in the world it takes place. Nothing moves in or out of Tube Tech without Liz knowing about it, and she ensures all contracts are recorded accurately.

Scott Donson, Sales Manager

Scott is walking encyclopedia on all things oil, gas and power and for the past 10 years has been sharing his expert knowledge with leading companies in these industries across the world. Scott will work with clients from start to finish, often working on site with the Tube Tech operatives, to ensure that contracts are completed effectively, quickly and safely.

Derek Sumsion, R&D, CleanEx Project

Derek has recently joined Tube Tech as the research and development lead for the Clean Ex – Online Heat Exchanger Cleaning project. Derek joined Tube Tech following an earlier career in mechanical design engineering within a variety of industries. Derek holds a First Class Honors Degree in Computer Aided Product Design.

Simone Robinson, PR & Marketing

As the Tube Tech 'wordsmith' Simone ensure that Tube Tech's achievements are visible to potential clients via press releases, editorials in industry publications and case studies on the website. Simone has worked in PR and marketing on three continents and is always on the look out for a good story.



Client Feedback.



To whom it may concern

Shell Global Solutions International B.V.
P.O. Box 38000
1030 BN Amsterdam
The Netherlands
Tel +31 20-630 2029
Fax +31 20-630 2335

I would estimate the financial savings to Shell, as a direct result of Tube Tech's input, could be as much as \$ 200 million dollars. Their service value is such that they could have a positive impact on a companies bottom line or indeed their survival. I cannot therefore emphasise enough, the importance of encouraging and nurturing a working relationship with a Company such as Tube Tech International.

Client Feedback.



Nigeria LNG Limited

RC. 130.849

REGISTERED OFFICE: C & C TOWERS, PLOT 1684, SANUSI FAFLAWA STREET, VICTORIA ISLAND, PMB 12774 (MARINA), LAGOS, NIGERIA.
☎ (01) 2624190 - 4, 2624556, 2617180, 2617223, 2617305, 2617029, 2611026 FAX: 01-2617541, 01 - 2617146 TELEX: 28350, 28185.

On commencement of the shutdown, deposition was found to be substantially worse than anticipated, however, Tube Tech were well prepared for such eventualities and responded well, attempting to utilize a range of technology.

Once the work was underway, it soon became apparent that more specialized equipment was needed and again Tube Tech responded in a very short space of time. Considering the circumstances and pressures surrounding this project, Tube Tech demonstrated a high level of willingness, innovation in completing this work.

Yours sincerely,



Andrew Jamieson
Managing Director/Chief Executive



Client Feedback.

As you may already be aware we have been using Tubetech recently, although our cleaning costs will go up our other costs will be going down (gaskets, maintenance, craneage, scaffolding, down time and costs in lost production). This is all down to their equipment and the fact that we do not have to completely strip and blind of the entire exchanger.

This is already showing results on the FCC.

Regards,
Daniel Edmunds
FCC Planner
x:3727



To review
Case Studies
please visit

www.tubetech.com



www.tubetech.com

Tel: +44 (0)1268 786999

Fax: +44 (0)1268 786 998

Email: innovativecleaning@tubetech.com