

Alderley

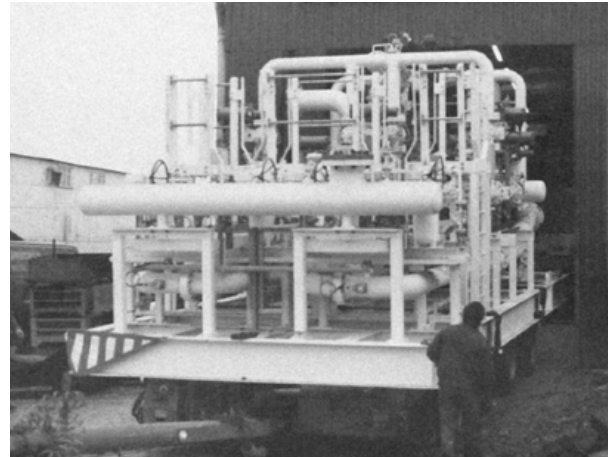
Technical excellence: delivered



Services

**360° support to optimise performance throughout
the life of your assets**

About Alderley



A leading provider of skid-mounted, integrated solutions for the global energy industry.

Since 1959, the companies that today make up Alderley™ have been at the forefront of providing expertly engineered and fully integrated solutions for the global energy industry.

Initially established to deliver innovative metering systems for the challenging North Sea environment, we now apply our vast experience and unrivalled technical capabilities across our entire range of skid-mounted solutions.

Repeatedly partnering with some of the biggest names in the industry, our solutions – including Metering, Produced Water Treatment, Wellhead Controls, Modular Wellsite Skids, Chemical Injection Systems, Surge Relief and Control Systems – have been installed in onshore, offshore and floating applications throughout the world.

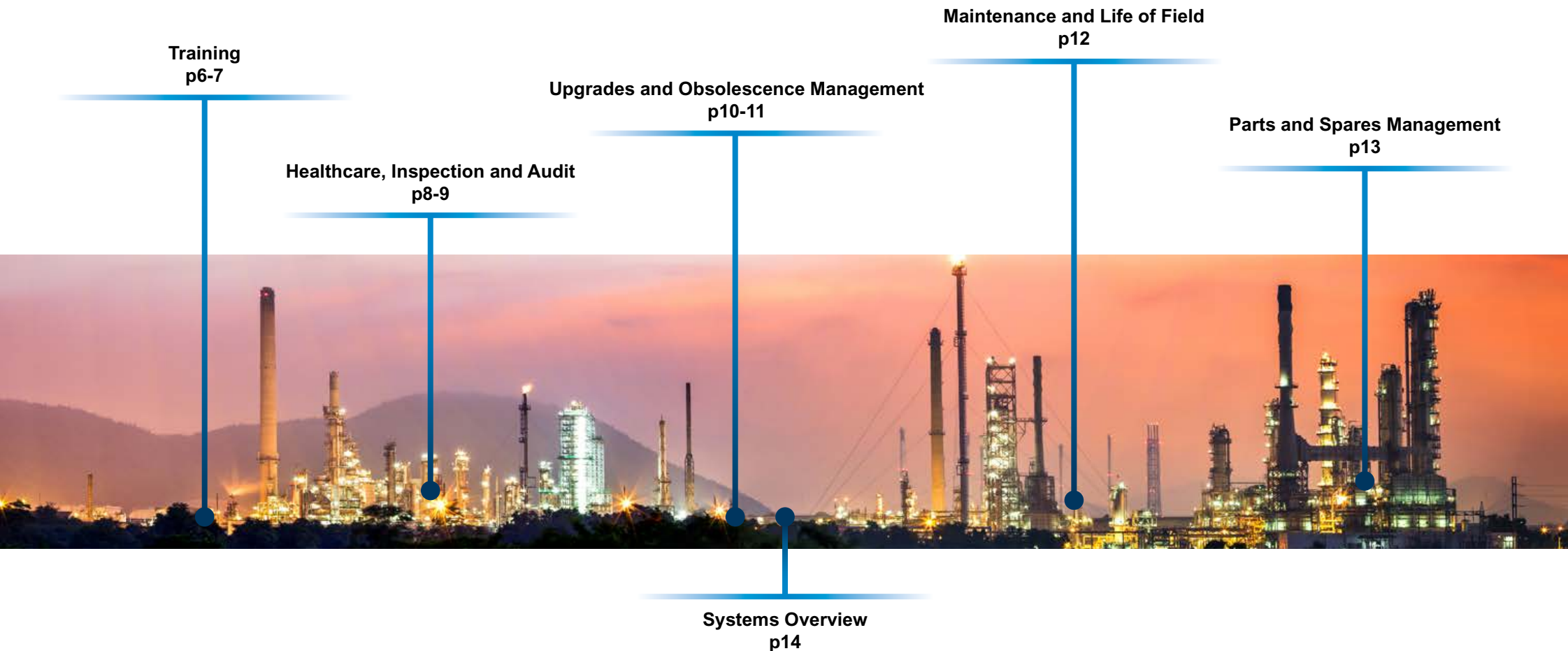
As a family business, our reputation is paramount; one founded upon family values, strong engineering roots, uncompromised quality, and technical and service excellence proven throughout our longstanding heritage.

With operations in the UK, United Arab Emirates and Kingdom of Saudi Arabia, our customers benefit from a local presence with the ability to leverage our global strengths.

Complementing our advanced design and engineering capabilities, our dedicated Services team – including commissioning, technical, training, inspection, maintenance and upgrades experts – provides 360° support to enhance performance throughout the life of our customers' assets.

Overview Services

From installation and commissioning to system enhancement regardless of OEM, our technical service experts will advise and deliver the right solution to optimise your operation.



What We Do

360° Support

Optimise performance throughout the life of your assets

As an independent services provider, we can always advise and deliver the best-for-application/ best-for-business solution, without bias towards a single system or OEM. And with extensive experience across a wide range of process areas, we are the single-source solutions provider for both proactive and rapid-response reactive services – optimising performance whilst minimising your total cost of ownership.

Installation and Commissioning

Expertly commissioned equipment – whether supplied by Alderley or another provider

- Dedicated technical team providing installation, pre-commissioning and commissioning services
- Full Site Acceptance Testing (SAT) and personnel introductory training
- Advice on operating and maintenance documentation, spares and fault finding
- Delivering an effective start-up and maximum efficiency

Parts and Spares Management

Minimise costs and reduce downtime through a simplified supply chain

- Just-in-time spares management or a single source for reactive parts
- Global supply chain network delivering the right quality at the best value
- Obsolescence mitigation through inventory storage / sourcing alternative components
- Helping you plan and reduce your OPEX through effective parts and spares management solutions





Training

Benefit from the Alderley experience; optimise safety and performance

- Online or face-to-face; on-site, in the classroom, or both with Virtual Reality
- Specialists in Flow Measurement, Produced Water Treatment and Modular Wellsite Skids training
- Including standardised or customised Virtual Reality skid and control system simulators
- Enhancing system awareness and operator safety before start-up and during operation

Healthcare, Inspection and Audit

Ensure the ongoing integrity, performance and safety of your assets

- Condition Based Monitoring utilising Dynamic Uncertainty and remote diagnostic services
- Flow measurement calibration and certification, consultancy, audits and uncertainty calculations
- Hazardous area inspection and design services using CompEx or IECEx certified technicians
- All remedial actions completed by the Alderley Services team for a prompt resolution

Upgrades and Obsolescence Management

Proactively manage your risks from system failure and obsolescence

- Site surveys including full health and criticality assessments of your assets
- Assess obsolescence probability based on component lifecycle stage and stock availability status
- Brownfield metering and process system upgrades including control systems, interface management and cyber security solutions
- Delivering the right engineering solution for continued performance, including repair, refurbishment, replacement or upgrade

Maintenance and Life of Field

Ensure your operations continue to perform efficiently and compliantly

- Dedicated Services team with flexible arrangements, including guaranteed call-out times
- Supporting both preventative and corrective maintenance routines
- Reinforced by our in-house expertise and back-office functions
- Including: long-term service agreements; full vendor maintenance contracts; dedicated technicians; 24/7 support; mechanical, controls and software support; on-site assessments; management of calibration and revalidation; and electrical and instrumentation site audits

Services Training

- Flow Measurement
- Produced Water Treatment
- Operations and Maintenance
- Modular Wellsite Skids
- Hydraulic and Electrical Control Systems
- Bespoke

Online or face-to-face; on-site, in the classroom, or both with Virtual Reality – our dedicated training team will provide the right solution for your operational needs.



Optimise Safety and Performance

Equipment that is operated incorrectly is not only likely to fall short of its potential, but more importantly, it also poses a potential hazard to your employees and other assets on site.

By providing employees with a sound understanding of how to handle equipment effectively, operational performance can be enhanced while the risk of accidents caused by unsafe work practices is reduced.

Learn from the Experts

Our experts have accumulated a wealth of knowledge and experience from years of developing, operating and maintaining various Metering and Produced Water Treatment Systems across the world. We take all of this expertise, and neatly package it into concise and informative training courses for our customers.

From operator basics to in-depth technical content across our entire product range, our training courses can be tailored to your specific requirements.



On-site, Off-site, or Both with Virtual Reality

Using a combination of theoretical underpinning and real-world examples, our training modules can be delivered either on-site to enhance system familiarity, or off-site, in a convenient location.

Embracing the latest technologies, our Virtual Reality training offers operators a detailed and immersive experience, combining the advantages of hands-on training with the safety and comfort of a classroom environment. Furthermore, the Virtual Reality simulator can be customised to your equipment, giving your operators the chance to familiarise themselves with the skid and enhancing system awareness and safety before start-up.

Control System Training Simulators

Either standardised using common interfaces and scenarios, or customised to your system and controls, our training simulators provide operators with real-life scenarios to best prepare them for full operation. Training can be conducted online or face-to-face, depending on your objectives.

Training Courses Include:

- Flow Measurement Basics
- Flow Measurement: Gas
- Flow Measurement: Liquid
- Flow Metering Calculations
- Proving and Calibration Techniques
- Operations and Maintenance
- Produced Water Treatment
- Skid / System Familiarisation
- Bespoke Courses

Certification

Alderley will provide in-depth information and guidance to assist engineers and technicians in the best operation of their system. A certificate of competency will be issued to attendees upon successful completion of the course and subsequent assessment.



Services

Healthcare, Inspection and Audit

- Condition Based Monitoring
- Inspection
- Hazardous Area Inspection
- Process Systems Review
- Hydraulics
- Electrical and Instrumentation
- Calibration and Certification



Ensure the ongoing integrity, performance and safety of your assets with our specialised solutions, underpinned by certified inspection and service experts.

Asset Integrity Management

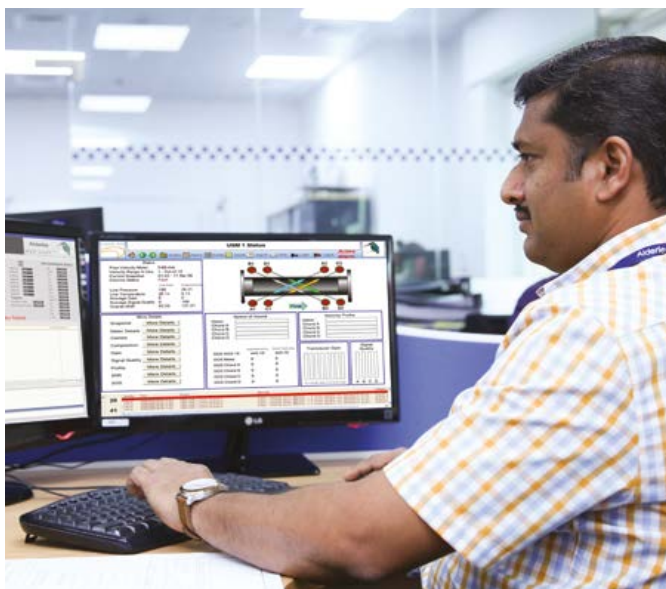
Ensuring asset integrity is vital for the safety of your staff and the reliability of your operations.

Failure of your equipment could lead to unplanned downtime, millions of dollars of lost production, or even worse, result in serious injury and environmental damage.

Accordingly, HSE experts recommend that regular inspection and maintenance are planned for as a critical part of your operations.

Inspection Services

Through visual, close and detailed inspections of your assets – regardless of original equipment manufacturer – our inspection experts can conduct thorough site surveys and checks to ensure the safety and efficiency of your operations. And with fully integrated capabilities, we can provide prompt remedial services to reduce unplanned downtime.



The Cost of Mismeasurement

Understanding and controlling your flow measurement system uncertainty is of paramount importance.

Many operators adopt a time-based approach to maintenance and instrument calibration. However, this costly practice – in terms of both time and money – can prove unnecessary and leave you exposed.

If the instrument sent for calibration has no deviation in its performance between intervals, sending it to be calibrated is ineffective and inefficient. But if the system has a fault or the instrument sent for calibration displays drift, different concerns arise: How long has the system been misreading? What are the financial implications? And what are the contractual or regulatory risks resulting from this period of mismeasurement?

Condition Based Monitoring

Through continuous assessment of your equipment, our innovative Condition Based Monitoring (CBM) solution supports the early detection of potential problems with your assets.

This means you can schedule maintenance exactly when it is needed – ensuring ongoing performance and reducing the unnecessary costs incurred through time-based or reactive maintenance practices.

Furthermore, an optional Dynamic Uncertainty module can be incorporated into every CBM solution. With uncertainty calculations automatically triggered by an event or detected parameter changing, you can gain real-time uncertainty performance updates – including a tangible uncertainty deviation – informing the potential financial exposure from mismeasurement and supporting decision-making.

Peace of Mind

Utilising CBM with Dynamic Uncertainty, our experts can deliver complete peace of mind. Remote monitoring and diagnostic capabilities coupled with flexible maintenance agreements allow our dedicated technical team to react swiftly to any detected deviation and maintain your operational performance (see Maintenance and Life of Field Services, p12).



Services

Upgrades and Obsolescence Management

- Obsolescence Management Support
- Electrical and Instrumentation Services
- Hydraulic Services
- Brownfield Metering and Control System Upgrades
- Brownfield Process Systems Review and Upgrades
- Software and Cyber Security Upgrades



Through health and criticality assessments of your equipment, our experts help to proactively manage your risks of system failure due to faults and obsolescence.

Ageing Assets

Ageing and inefficient assets pose a risk to your operations. Sudden failure of your equipment could lead to unplanned downtime, operator injury or environmental damage.

Proactive management of ageing equipment means that assets can be repaired, refurbished, replaced or upgraded prior to the point of failure – supporting operational continuity and negating the high costs associated with reactive measures.

Brownfield Upgrades: Metering and Control Systems

Maintaining flow measurement system performance and controlling uncertainty is an essential prerequisite for any successful operation. Therefore, we work closely with you to fully assess your existing systems and understand your operational requirements to provide the best possible support.

Our team of technical experts will conduct detailed site surveys, and will analyse your historic metering reports and log files to obtain a fine grasp of your system. This includes assessment of how your system's



productivity fluctuates in different conditions, as well as establishment of the upper and lower flow rates that move through the application.

With an intimate knowledge of the latest industry codes and standards, metering technologies and control systems, our dedicated technical team can recommend the best brownfield metering and control systems upgrade solution for your needs: optimising performance whilst minimising disruption. This includes fast-track project services in the event of a shutdown.

Brownfield Upgrades: Produced Water Treatment Systems

With a wide range of services all managed in-house by our dedicated team, we can assess your current process performance versus the required standards and make recommendations to modify, update or upgrade existing process treatments.

Delivering fit, form and function, our experienced engineers will work closely with you to design, manufacture and install the right solution for your needs – meeting your separation and produced water treatment requirements whilst keeping your operations running smoothly.



Obsolescence Management

Equipment obsolescence can have a severe impact on the availability of your instrumentation and systems, especially if your incumbent system fails. Regardless of OEM, our experts can provide a high standard of timely support to meet your obsolescence management requirements.

Adhering to the best practice guidelines set out by the International Standard for Obsolescence Management (IEC 62402), our service specialists will assess your equipment's impact criticality and its probability of obsolescence to inform required actions. Furthermore, we can offer mitigation and resolution strategies for different scenarios.

In cases where the equipment is or will soon become obsolete, we can assist by conducting equipment purchase analyses, investigating other off-the-shelf sources and even storing discontinued equipment with our Parts and Spares Management Services (see p13).

Alternatively, with our leading systems integration knowledge and experience, our technical experts can advise suitable substitute equipment, engineer alternative solutions including system redesigns to accommodate any superseding parts, or provide comprehensive upgrade options.



Services

Maintenance and Life of Field

- Maintenance and Support Services
- Hazardous Area Inspection Services
- Site Surveys
- Calibration Services
- Electrical and Instrumentation Services
- Software Support

With an in-depth industry and regulatory knowledge, our dedicated Services team will ensure your operations continue to perform efficiently and compliantly.

Ongoing Asset Integrity

The long-term integrity of your assets is our priority.

To yield the greatest benefit from your initial capital expenditure, it is vital to ensure your assets are performing as per their original design parameters, and that they are appropriately maintained to maximise their operational life.

Being at the forefront of systems integration, our experts have an exceptional understanding of a wide range of assets – whether supplied by Alderley or another manufacturer.

With regular assessment of your equipment at predefined intervals, Alderley's engineers will promptly carry out all required proactive and/or reactive maintenance work to maximise your uptime.



Long-term Service Agreements

For complete peace of mind, our long-term service agreements can be fully customised to your requirements – be it proactive maintenance scheduling and regular system health checks, guaranteed call-out times, 24/7 support, or contracted deployment of our technical experts to your facility for comprehensive support – all reinforced by our back-office support functions.

Combined with an intimate knowledge of operational best practice and avoiding/resolving common pitfalls, Alderley are your trusted partner for ongoing support services.

Services

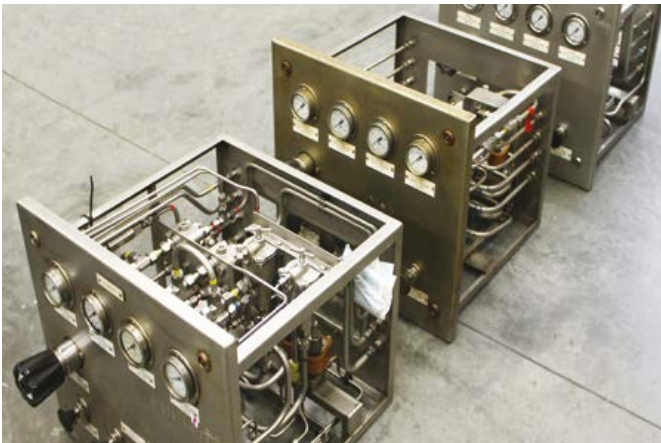
Parts and Spares Management

- Metering and Control System Spares
- Produced Water Treatment Spares
- Installed Equipment Spares

Just-in-time spares management or a single source for reactive parts supply; leverage the purchasing power from our global supply chain network.

Global Strength, Local Expertise

The costs of unplanned downtime due to a faulty or missing part can be greatly reduced by implementing a sound parts and spares management strategy. However, excess inventory can be costly to manage, and may take up valuable space in your storage facilities.



Alderley offer dedicated spares management services, allowing you to access parts as and when needed. Drawing upon their intimate knowledge of the equipment, our technicians are able to help with any maintenance planning and scheduling to ensure you only exchange parts when you need to – further maximising your uptime. And in the event that a spare part is no longer available, you can trust our expertise to advise you on suitable alternatives.

Our global purchasing network, rigorous vetting process of suppliers and assured quality of spare components ensure that all parts are compliant with international standards – keeping your equipment safe and within its designed parameters – and available at the best value.



Alderley Systems Overview

Whether customised or standardised, developed as a single skid or structured across multiple skids, an Alderley integrated solution always delivers the optimum fit, form and function at the lowest total cost of acquisition.



Flow Measurement

- Gas, Liquid and LNG Metering Systems
- Provers
- Sampling and Analysis
- Control and Supervisory Systems



Separation and Produced Water Treatment

- Separation and Primary Treatment
- Solids and Sand Removal
- Flotation and Secondary Treatment
- Filtration and Tertiary Treatment



Flow Control and Safety

- Oil and Gas Modular Wellsite Skids
- Hydraulic Power Units and Control Systems
- Wellhead Control Panels
- Emergency Shutdown Systems



Processing and Recovery

- Chemical Injection Systems



Transfer and Storage

- Truck Loading Skids
- Truck Unloading Skids



Alderley

Technical excellence: delivered



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