



Technical excellence: delivered

Forms Part of

Alderley



Aftermarket Services

Innovative engineering solutions for the global energy industry

About SMS

The leading provider of hydraulic and electrical control systems for the global energy industry.

Initially established as a single-source hydraulic services provider for operators in the Southern North Sea, SMS' extensive range of solutions are now utilised on offshore, floating and onshore developments around the world.

Repeatedly partnering with some of the biggest names in the energy industry, our customers benefit from unrivalled customer service, market-leading solutions and complete through-life support.

From front-end engineering, manufacturing and testing at our state-of-the-art facilities, to installation, commissioning and aftermarket services to optimise asset performance, SMS is your trusted partner for hydraulic and electrical control systems.



A single-source provider



Delivering innovative engineering solutions



Best-for-application and best-for-business solutions



Ensuring asset integrity and optimised performance



Throughout the life of your assets

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What We Do

360° Support

Innovative engineering solutions for the global energy industry.

Competency assured, trained to internationally recognised standards, and working in accordance with the latest industry regulations and guidelines, our dedicated team of inspection experts, project managers and technicians are committed to reducing downtime, improving performance and ensuring safety throughout the life of your assets.

Genuine Parts and Spares

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 delivering genuine parts at the best value
- Obsolescence mitigation through inventory storage / sourcing alternative parts

Including in-house hose assembly. Visit www.sms-alderley.com/hoses for more information.

Training*

Optimise safety and performance through expert-led training courses

- Online or face-to-face; on-site, in the classroom, or both with Virtual Reality
- Enhancing system awareness and operator safety

Visit www.alderley.com/training for more information.





Asset Integrity and Inspection

Ensure the ongoing integrity, performance and safety of your assets

- Next generation inspection services, powered by Inspection Manager™
- Hazardous area inspection using CompEx certified technicians
- Proactively managing your risks from system failure and obsolescence

Services include

ATEX/IECEx inspection; instrument and small bore tubing inspection; hose management; obsolescence surveys. Visit www.sms-alderley.com/inspection-services for more information.

Condition Based Monitoring*

Assured flow measurement system performance and complete peace of mind

- 24/7 remote performance monitoring for prompt fault identification
- Real-time measurement uncertainty updates to support decision-making

Visit www.alderley.com/condition-based-monitoring for more information.

Modifications and Upgrades

Innovative solutions to enhance efficiency and performance

- Hydraulic and electrical control system upgrades
- System re-rates and modifications to best suit the latest process conditions
- Modifications to retro-fit the latest technologies, such as IoT and remote monitoring

Available across the full range of SMS and Alderley systems. Visit www.sms-alderley.com/systems for more information.

Field Services

Ensure your operations continue to perform efficiently and compliantly

- Dedicated Field Services teams supporting preventative and reactive maintenance
- Reinforced by our in-house experts and back-office support functions

Services include

Offshore installation and commissioning; long-term service agreements; asset management contracts; full vendor maintenance contracts. Visit www.sms-alderley.com/field-services for more information.

Aftermarket Services

Asset Integrity and Inspection

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

- ATEX/IECEX
- Instrument and small bore tubing
- Hose management
- Hydraulic systems and fluid cleanliness
- Obsolescence surveys and reports
- Hazardous area inspection
- Electrical and instrumentation
- Metering and produced water treatment systems



Proactive assessment

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

This is especially true for safety critical systems such as hydraulic and electrical controls, and high-pressure components including hoses and small bore tubing.

Failure of your equipment could lead to unplanned shut-down, millions of dollars of lost production, or serious injury and environmental damage.

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



Asset integrity and inspection

Effective inspection is essential to:

- Ensure asset integrity and safety
- Adhere to statutory regulations and prove compliance
- Reduce environmental impact
- Enhance operational performance
- Prevent shut-downs
- Reduce costs



Obsolescence management

Through health and criticality assessments of your equipment, our experts help to proactively manage your risks of unplanned downtime and obsolescence.

Adhering to the best practice guidelines set out by the International Standard for Obsolescence Management (IEC 62402), our service specialists will assess the probability of equipment obsolescence and will conduct an obsolescence impact criticality assessment to inform required actions.

Furthermore, SMS offer mitigation and resolution strategies for each scenario, including:

- Buying stock / storing inventory for life of system
- Engineering alternative solutions using new components

SMS Inspection Services

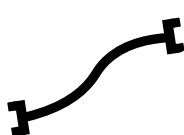
Through visual, close and detailed inspection of your assets – regardless of original equipment supplier – SMS deliver all the benefits of a well-executed inspection. But, we go one step further.

We utilise the next generation in inspection software:

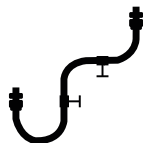
Our most popular Inspection Services include:



ATEX / IECEx



Hose
management



Instrument and
Small bore tubing



Fluid cleanliness



Obsolescence
surveys and reports



SMS Inspection Services Powered by Inspection Manager™



Electrical Component Inspection Checklist Detailed Ex "e" - SMS-583ExeD [In Progress] LPI-3

Flow switch is installed and correctly set, if required

OK N/A P/L

Punch

INSTALLATION MOTORS

Motor protection devices operate within the permitted TE or tA time limits

OK N/A P/L

Punch

ENVIRONMENT

Equipment is adequately protected against corrosion, weather, vibration and other adverse factors

OK N/A P/L

Punch

No undue accumulation of dust and dirt

OK N/A P/L

Punch

Electrical insulation is clean and dry

OK N/A P/L

Punch

- Improve efficiency
- Enhance effectiveness
- Reduce costs
- Prove compliance
- Maximise up-time

Visit www.sms-alderley.com/inspection-manager for more information.

Next generation inspection

Inspection Manager is an intuitive, fully digital application used to support inspectors and administrators in completing their inspection tasks.

Developed in-house and used exclusively by the SMS Services team, Inspection Manager enhances the benefits of a traditional inspection by enabling our experts to deliver a more efficient, faster and more reliable inspection service.

Using a tablet application for inspectors and a desktop application for administrators, Inspection Manager provides near real-time inspection results through a secure syncing mechanism.

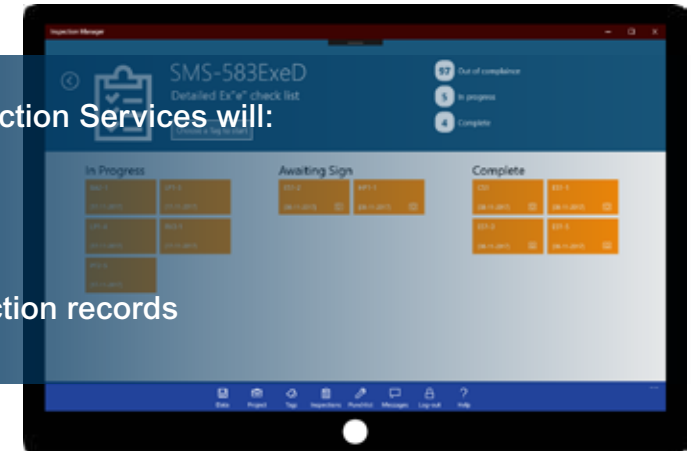
This provides:

- Rapid feedback from the inspectors
- Prompt and actionable insight for any faults
- Secure, traceable and auditable data
- Completion rates to track progress and support better forward planning
- Dashboard reporting to reduce administration and support decision-making



Powered by Inspection Manager, SMS Inspection Services will:

- Maximise operational uptime
- Ensure system safety and asset integrity
- Minimise disruptions
- Provide secure and fully auditable inspection records



Optimised performance, reduced downtime

Powered by Inspection Manager, our inspection team will fully assess all your hydraulic, electrical and hose systems whilst providing instant and actionable insights to support any remedial activities – all of which can be completed by the SMS Services team for a prompt resolution.

Asset Integrity Management

Utilising Inspection Manager, SMS can provide complete asset integrity management support for your hydraulic and electrical control systems, including their key components.

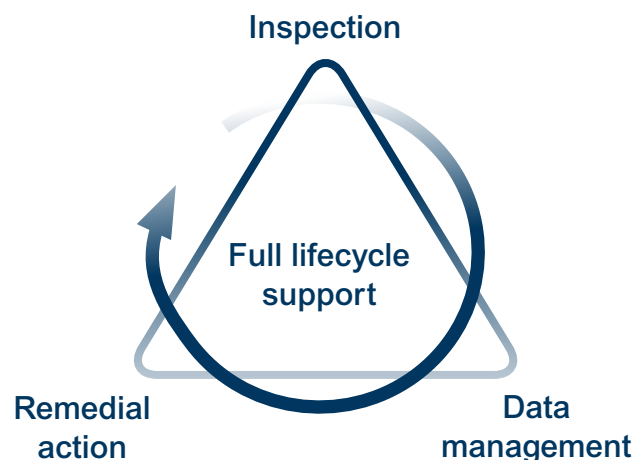
Our most popular asset management services include:

- Hose inspection and management: supported by our in-house hose assembly, testing and installation capabilities.
- Small Bore Tubing inspection, assessment, replacement and tagging.

Full lifecycle support

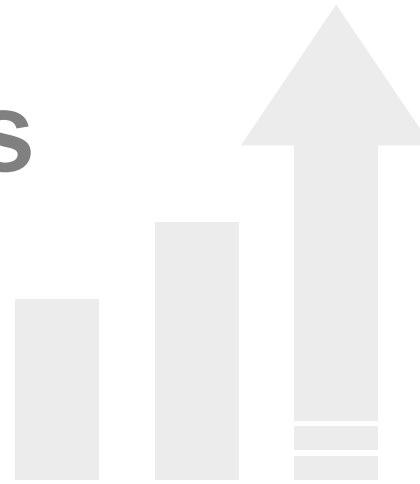
Furthermore, all SMS installed systems and components can be tagged and preloaded into Inspection Manager.

This enhances inspection and maintenance planning, supports prompt part identification and action in the event of obsolescence, and provides instant access to all relevant data and certification in the event of an audit.



Aftermarket Services

Modifications and Upgrades



- Hydraulic and electrical control system upgrades
- System repair, modification and replacement
- Re-rates to suit the latest process conditions
- IoT, remote monitoring and control updates
- Software and cyber security upgrades
- Produced water treatment*



Innovative engineering solutions to enhance system performance, improve efficiency and reduce operating costs while ensuring ongoing compliance and asset integrity.

Proactive management

Ageing and inefficient assets pose a risk to your operations.

As your equipment ages, it requires an increased frequency of proactive and reactive maintenance to sustain performance; experiences a reduction in efficiency / requires an increase in energy intensity; and may no longer be fit-for-purpose aligned to the latest process conditions.

Accordingly, our experts recommend a proactive approach to equipment assessment, modification and upgrade.

As well as resolving performance issues, a proactive approach also supports the scheduling of required activities at pre-planned intervals, helping to negate the high costs associated with reactive measures.



Enhancing performance

SMS will fully assess your equipment to ensure the ongoing integrity and performance of your assets - ensuring that they remain safe and fit for purpose aligned to the latest process conditions.

If the asset is performing as required, SMS can recertify your components and advise of forward maintenance scheduling.

However, if a deviation in performance is identified or if there is a risk of failure, our experts will advise on the best-for-application and best-for-business solution to meet your needs.

SMS can also advise on performance enhancing solutions, such as upgrades to support extension of equipment life or to improve process efficiency. This includes system enhancements to integrate state-of-the-art technologies, such as IoT, remote connectivity and control, and associated cyber security solutions.

One-stop-shop

SMS can provide modification and upgrade solutions across our full range of systems, including hydraulic power units, wellhead control panels, programmable logic computers and produced water treatment* (see pg. 14).

Our most popular repair, refurbishment, modification and upgrade solutions include:

- Drawer control modules
- Accumulator and actuators
- Reelers / winches
- Flushing units
- Pumps and valves
- Electrical control panels
- HV and LV systems
- Overload motor starters
- Software and cyber security
- Re-use and re-manufacturing of components, for example, enclosures



Aftermarket Services

Field Services

- Full vendor maintenance contracts
- Management contracts
- Hydraulic pressure testing and flushing
- Process instrumentation and calibration
- IWOCS operator provision
- Hazardous area services

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

Complete peace of mind

SMS have a wealth of offshore, floating and onshore operational experience, and continue to service the long-term maintenance requirements for some of the biggest names in the oil and gas industry.

With a dedicated team of skilled hydraulic and electrical Field Service engineers, supported by our back-office experts, SMS can promptly complete all necessary preventative and corrective maintenance requirements to reduce unplanned downtime and give you peace of mind.



Customised to your requirements, our ongoing support services typically include:

- Hydraulic services and maintenance contracts
- Electrical and instrumentation services and maintenance contracts
- Flexible hose management contracts
- Small bore tubing management contracts
- Hazardous area management contracts
- Vendor maintenance contracts
- Hydraulic pressure testing and flushing
- Process instrumentation and calibration
- Intervention workover control system operator provision

Whatever your requirements, SMS can deliver 360° support to optimise performance throughout the life of your assets.

Visit www.sms-alderley.com/field-services for more information.

Aftermarket Services

Genuine Parts and Spares

- Hose assemblies
- Pipe fittings
- Components



**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.

SMS offer dedicated spares management services, allowing you to access parts as and when needed.

Our global purchasing network, rigorous vetting process of suppliers and assured quality of spare parts ensure that all items are compliant to the latest standards and available at the best value - keeping your equipment safe while minimising your total cost of ownership.



Typical parts and spares include:

- Hose assemblies (all fully tested, tagged and certified)
 - Hydraulic hoses – Manuli / Alfagomma
 - Anti-static air hoses
 - Large bore industrial / bunkering hoses
 - Lloyds certified fire hoses
- Pipe fittings
 - Seamless and welded pipe and tube
 - Flanges
 - Stud bolts
 - Gaskets
- Components
 - Hydraulic and pneumatic valves and gauges
 - Hydraulic bladder and piston accumulators
 - Pre-charge equipment

Visit www.sms-alderley.com/genuine-parts for more information.

SMS and Alderley Systems Overview

Flow Control and Safety Systems



- Oil and Gas Modular Wellsite Skids
- Chemical Injection Units
- High-Integrity Pressure Protection Packages
- Emergency Shutdown Systems (ESDs)
- Surge Relief Systems
- Hydraulic Power Units (HPUs)
- Intervention and Workover Control Systems
- Wellhead Control Panels
- Testing and Flushing HPUs
- Topside Umbilical Termination Units
- Hydraulic Reelers
- Hydraulic Control Panels
- Ballast Control Systems
- Bunkering Hose Stations
- Electrical Control Panels
- Pressurised Control Cabins
- Hoses
Including: Hydraulic, High Pressure Subsea, Umbilical, Bunkering, Ship-to-Ship, Fire Safe, Drilling, Rotator and Cement Hoses

Flow Measurement and Transfer Systems



- Gas Metering Systems
Including: Hydrogen, Ammonia and Helium
- LNG Metering Systems
Operating at cryogenic temperatures -162°C
- Liquid Metering Systems
- Custody / Fiscal / Allocation Metering Systems
- Truck Loading and Unloading Systems
- Proving Systems
- Measurement and Control Instrumentation
- Gas Sampling and Analysis Systems
- Liquid Sampling and Analysis Systems
- Control and Supervisory Systems
- Condition Based Monitoring System

Global Standards

All systems are developed in-house and can be designed to meet various global standards, including:

- | | | | |
|----------------------------|---------------------------------|------------------------|--------------------------|
| • NORSOK | • SEGAL | • PED | • ANSI, MSS |
| • BP, Shell, Total, Maersk | • GOST, IECX, ATEX, CSA, FM, UL | • ASME | • API (Incl. 6A and 17F) |
| • Saudi Aramco | • ONML | • AISC, ASCE, Eurocode | • EN / ISO |
| | | | • DNV |

Separation and Treatment Systems



- Primary, Secondary and Tertiary Produced Water Treatment Solutions
- Separators
- Deoiling Hydrocyclones
- Induced Gas Flotation
- Degassers
- Compact Flotation Units
- Filtration
Including: Guard Filters, Cartridge Filters, Adsorption Filters and Media Filters
- Coalescence
- Chemical Injection Units
- Desanding Hydrocyclones
- Wellhead Desanders
- Solids and Sand Management





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