ENVIRONMENTAL & DECONTAMINATION

our capability focus

STORK DELIVER SAFE, ENVIRONMENTALLY FOCUSED SPECIALIST CLEANING SERVICES TO THE OIL & GAS INDUSTRY, ON AND OFFSHORE

ASSET INTEGRITY PARTNER

www.stork.com
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Introduction

Stork’s Environmental and Decontamination Services division is a leading provider of a range of specialist cleaning, sand management and asbestos management services in the UK and around the world.

With 30 years of industry experience, we have worked with major global Operators to safely deliver a range of integrated environmental and decontamination projects. Using a suite of innovative equipment and expert operatives, Stork delivers a wide range of services from routine cleaning and monitoring workscopes to complex decommissioning and destruct workscopes, in addition to major shutdown and turnaround projects.

We own and maintain our own fleet of specialist cleaning equipment, including over 50 water jetting units, all of which comply with ISO and ATEX Standards. Our extensive inventory of in-house equipment means we can mobilise at short notice and provide a solution matched to our client’s specific project needs.

How we add value:

- Our multi-disciplined approach means fewer personnel, safer operations and a cost effective approach to every project
- Full range of specialist cleaning services with a proven track record
- Fully compliant with industry standards including ISO, WJA and ATEX
Integrated Environmental & Decontamination support services:

Stork delivers integrated Environmental & Decontamination support services adding value throughout the asset lifecycle, ensuring a safe and cost effective focus.

Safety
Our first priority is always safety. Stork is committed to maintaining outstanding HSEQ performance throughout all stages of the asset lifecycle. At every level of our organisation, our award winning global safety initiative, REACH, ensures safety is paramount.

Environment
We work with major global Operators to deliver a range of integrated environmental and decontamination services, including complex remediation, decommissioning and destruct projects.

Economics
Stork fully understands that mitigating potential risks and driving significant cost savings are essential. To provide economies of scale, our Environmental & Decontamination services can be combined with other Stork services such as on-site bolting and machining, rope access and inspection to provide time and cost savings while maintaining operational and safety standards.

Innovation
Our continual drive to develop new technologies and solutions ensures Stork offer the most advanced specialist cleaning and services to the Oil & Gas industry.
Sand Management

Stork’s Advanced Online Desanding (AOD) units provide a safe, efficient and environment-friendly method for sand removal and treatment. Stork’s AOD solution allows us to fluidise and remove sand from a live production separator without causing undue process disturbance or production loss.

We remove sand from a live production separator at up to 60 bar operating pressure. Using a thermographic camera, we determine sand accumulation in a separator and carry out further inspections post-desanding to improve effectiveness. With Stork’s AOD, we can remove, clean and then discharge the sand into the sea with no deferred production.

The unique hydrocyclone-configured AODATEX is compliant for zone 2 hazardous areas, and recycles produced water back to the separator while discharging recovered oil to the drains system. The system needs less physical exertion and less confined space entry – providing a positive impact on health and safety.

Sand Wash Units

Using our in-house designed sand wash units, we can ensure any offshore sand disposals are in line with environmental discharge limits whilst eliminating the cost of onshore waste clean-up.

The sand wash unit removes oil contamination from recovered solids to less than 1% oil content prior to overboard discharge. Accurate measurement of waste and optimum chemical dosing via suction pump line is achieved using volumetric analysis.

Environmentally-friendly systems account for situations when zero discharges are allowed and we can remove and clean the sand offshore, discharging into skips. The costs of onshore clean-up are therefore minimised.
Experienced Crews
Our supervisors, fitters and operators have all completed an equipment-specific OPITO approved training course. Many of them began desanding with first generation equipment and are now operating second- and third-generation systems, giving them strong product knowledge.

For a typical project we supply a five-strong offshore crew supported by an operations manager dedicated to desanding operations, a technical manager who designed and supervised building the equipment, and our plant division which maintains and prepares the equipment for use.

Thermographic Inspection
Stork can complete inspection surveys utilising our thermal imaging cameras to produce temperature information from potential problem areas.

These surveys can identify hot spots, accumulations, blockages or flow restrictions in live systems producing images of invisible infrared or heat radiation. On completion, all images are captured and recorded within a survey report providing full recommendations and solutions.

What our clients say:

‘Again thanks to Desanding Supervisor and the crew for carrying out another successful sand cleaning exercise on Kittiwake. A few production issues on our front but the most important thing was the job was carried out safely. Pass my thanks onto to your team.’

‘A thoroughly professional and competent completion of this workscope.’

‘I would like to commend the STS Specialist Cleaning Team for their exemplary attitude, workrate, vigilance, housekeeping and working practices displayed whilst carrying out the task of removing Passive Fire Protection coating from steelwork for inspection using the UHP Jetting Unit.’
High Pressure & Ultra High Pressure Water Jetting

Stork’s Environmental and Decontamination Services division provides a complete range of High Pressure and Ultra High Pressure Water Jetting services, using multi-disciplined teams which reduces manpower and increases flexibility onboard.

We deliver integrated water jetting services using an extensive fleet of in house equipment including Zone II ATEX compliant diesel driven jetting units and Zone I electric hot jet units. Our diesel units cover working pressures up to 2500 bar with flows of 20 to 320ltr/min.

All units are multi-functional and capable of pressure and flow changes via a build change. Our jetting accessories include RDR (pipemaster) systems as well as a range of jets including BJV jets, badger jets, combi jets, cutter jets and banshee jets.

Typical applications include:
- Vessel cleaning
- Deck cleaning
- Hydrocyclone cleaning
- Tube bundle cleaning
- Pipework retro jetting
- Caisson cleaning
- Surface coating removal
- Cold cutting
- Entrainment blasting / decontamination

The benefits include:
- The prolonging of asset life
- Improvements in asset availability
- Improvements in asset efficiency
- A reduction in asset costs

What our clients say:

‘I would like to compliment the attitude, work rate, vigilance, housekeeping and good working practices displayed while carrying out the task of removing paint coating from steelwork for inspection using the HP jetting unit. The standard of housekeeping was exemplary’
NORM Management & Disposal

Stork’s Environmental and Decontamination Services division delivers a complete Naturally Occurring Radioactive Material (NORM) management service covering the monitoring, removal, treatment and disposal of NORM.

All work is completed in line with Ionising Radiations Regulations 1999 and our Radiation Protection Supervisors are trained to the highest industry standards to ensure the appropriate controls are in place to manage the hazards associated with NORM scale and minimise exposure.

Stork’s skilled personnel and extensive suite of in-house equipment means we can mobilise at short notice and provide a solution matched to your specific project requirements.

Services delivered include:
• NORM monitoring, removal, treatment and disposal
• NORM hazard supervision and control
• Management within custom decontamination units
• Particle size reduction

The benefits include:
• Establish a restricted-access/controlled area when required
• Own and maintain all our equipment
• Utilise qualified Chemists to make recommendations

What our clients say:

‘Of particular note is the professionalism displayed by the Stork Specialist Cleaning Team during the clean out of NORM contaminated waste from de-salter T20A. The work was carried out in a very professional manner. Despite very difficult conditions the worksite was kept in a very clean and orderly state and the work was progressed very efficiently. The work party is to be commended for the professional approach taken and pleasant way in which they went about their work.’
Vacuum Waste Removal

Stork’s vacuum systems are compact, easy to operate and powerful enough to transfer fluidised materials effectively in industrial environments.

The vacuum system is compact, easy to operate, and powerful enough to perform effectively in industrial environments. Removing up to eight times more waste per hour than traditional methods, the system reduces physical exertion and the requirement for confined space entry. The system can vertically lift up to 23 metres, is ATEX compliant for zone 2 hazardous areas and certified to DNV 2.7 - 1.

Typical applications include:
- Vessel waste sludge removal
- Cargo oil tank cleaning
- Waste transfer and transportation

The benefits include:
- Reduced requirement for confined space entry
- Minimised manual handling requirements in comparison with traditional waste removal techniques
- Reduced occupational health hazards such as Mercury and Benzene exposure
- Waste removal at a rate of up to 16 tonnes per hour
- Ability to lift up to 40 metres vertically

What our clients say:

‘The team have been forever helpful and worked to a high standard of safety ensuring all procedures and safe working practices were adhered to’
Full Vessel Management

A key differentiator for Stork is our ability to complete full vessel management activities from isolation to de-isolation.

We take complete ownership of vessel programmes, which allows us to provide multi-disciplined, competent personnel. This minimises bedding and crew change requirements, which are critical during asset shutdown periods.

Vessel management activities include:

- Bolting services
- Scaffolding
- Cleaning and removal of waste
- Flange management
- Internal inspection
- Initial rescue response
- Internal modifications – removal/ replacement
- Hazardous substance monitoring – NORM, Benzene, Mercury
- Coatings inspection/ repair/ removal/ reapplication

The benefits include:

- Multi-skilled teams delivering a complete vessel management service
- Managing potential conflicts between safety, non-routine tasks and high manning levels
- Multi-discipline teams reducing POB
- Best use of innovative technologies such as Hot Bolt Clamp (HBC) & I Bolt
- The provision of one focal point to cover all provided services
- Working in partnership with each client to efficiently manage the services required
Chemical Treatment

Stork offers a complete range of chemical cleaning and decontamination services working in partnership with qualified chemists to provide the best and most environmentally friendly solution.

Our unique chemical treatment bath is ideal for decontaminating spools and valves by soaking/pickling. The system can also be adapted to decontaminate pipework and systems by circulating chemicals, heated up to 80°C, within a closed loop. Introducing our filtration units also allows us to filter particles during circulation.

Typical applications include:
- System commissioning
- Scale flushing
- Corrosion removal
- NORM decontamination

The benefits include:
- 100% removal of scale wax build up to allow optimal performance
- Chemical can be introduced online to minimise disruption to production
- The system can be adapted to decontaminate pipework and systems by circulating chemicals
- Circulation can be done at height within a closed loop system, minimising removal of pipework from height
- Systems or pipework can be removed from site and sent onshore for chemical cleaning
- Filtration units can be introduced to allow us to filter particles during circulation
- Can be heated up to 80°C for optimum cleaning performance
- Working in partnership with qualified chemists to provide the best and most environmentally friendly solutions
UHP Cold Cutting

Utilising ultra high pressure water entrained with a fine garnet, we have the capability to cut steel with a good profile up to 2” thick and for destruct purposes up to 12” thick.

As there is no flame risk, water abrasive cutting techniques enable modifications or upgrades to be carried out in hazardous areas where there is a risk of explosion. The system offers cutting times in line with flame cutting and the remote actuation and manipulation system means safety is never compromised.

Typical applications include:
- Cutting decks/bulkheads
- Cutting vessels
- Cutting pipework

The benefits include:
- The prolonging of asset life
- Improvements in asset availability
- Improvements in asset efficiency
- A reduction in asset costs

What our clients say:

‘A well led and supervised team. Sometimes flexibility and excellence can be taken for granted, however, the team could be trusted to deliver results in a safe and responsible manner.’
Asbestos Management

Stork has an extensive track record in successfully delivering asbestos management and asbestos abatement projects in both on and offshore environments.

We are fully licensed by the Health and Safety Executive (HSE) to undertake work with asbestos and are members of the Asbestos Removal Contractors Association (ARCA). We specialise in the removal of asbestos containing materials from hazardous environments whether it be routine gasket removal projects or complex decommissioning projects.

All asbestos projects are undertaken in accordance with the Control of Asbestos Regulations 2012 (CAR2012) and HSE Approved Codes of Practice & Guidance Notes.

We can also deliver impartial advice on the sampling, surveying and the management of asbestos containing materials (ACM’s) to support our client’s duty to manage asbestos on their premises.

What our clients say:

‘Stork’s asbestos team have been invaluable during their time onboard and have provided excellent support to myself and my back to backs. They have gone the extra mile, keeping the crew well informed and easing any fears.’
Stork is dedicated to being recognised as an industry leader in HSEQ; by our employees, clients and industry peers. REACH Beyond Zero, our value driven HSEQ engagement programme, will help us to achieve this goal.

REACH Beyond Zero is our HSEQ vision, to engage all Stork employees to challenge themselves, to think and do more to improve our HSEQ culture and performance. As an organisation we REACH Beyond Zero by functioning as one team with shared values, driving action to transform our HSEQ culture and performance.

Safety is our core value and we are committed to translating our HSEQ ethos into sustainable and effective actions. REACH Beyond Zero communicates on Environmental and Quality issues in addition to Health and Safety as a fully encompassing employee-led initiative.

Our three year REACH Beyond Zero Road Map defines a measurable programme of activities to provide direction and to actively engage all of our personnel at every level and location.

Through REACH Beyond Zero, we deliver for our clients by:

- Engaging with and positively impacting their HSEQ culture
- Improving HSEQ performance on their assets
- Providing transparent HSEQ reporting
- Enhancing communication through shared information
- Leading topical HSEQ campaigns, discussions transferring knowledge and best practice

REACH Beyond Zero is built on five core values, which we seek to demonstrate at every level of our organisation.

The values are:

- **Visibility** – acting as active champions of the REACH Beyond Zero values
- **Authenticity** - demonstrating personal commitment through action
- **Leadership** - taking personal ownership and responsibility for HSEQ in the workplace
- **Understanding** - understanding our HSEQ challenges and contributing to improvements
- **Engagement** - feeling empowered to intervene when a situation appears unsafe

For more information visit our website: [www.stork.com/reachbeyondzero](http://www.stork.com/reachbeyondzero)