



OFFSHORE SUPPORT SERVICES

Just Ask Us



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ISO: 18001

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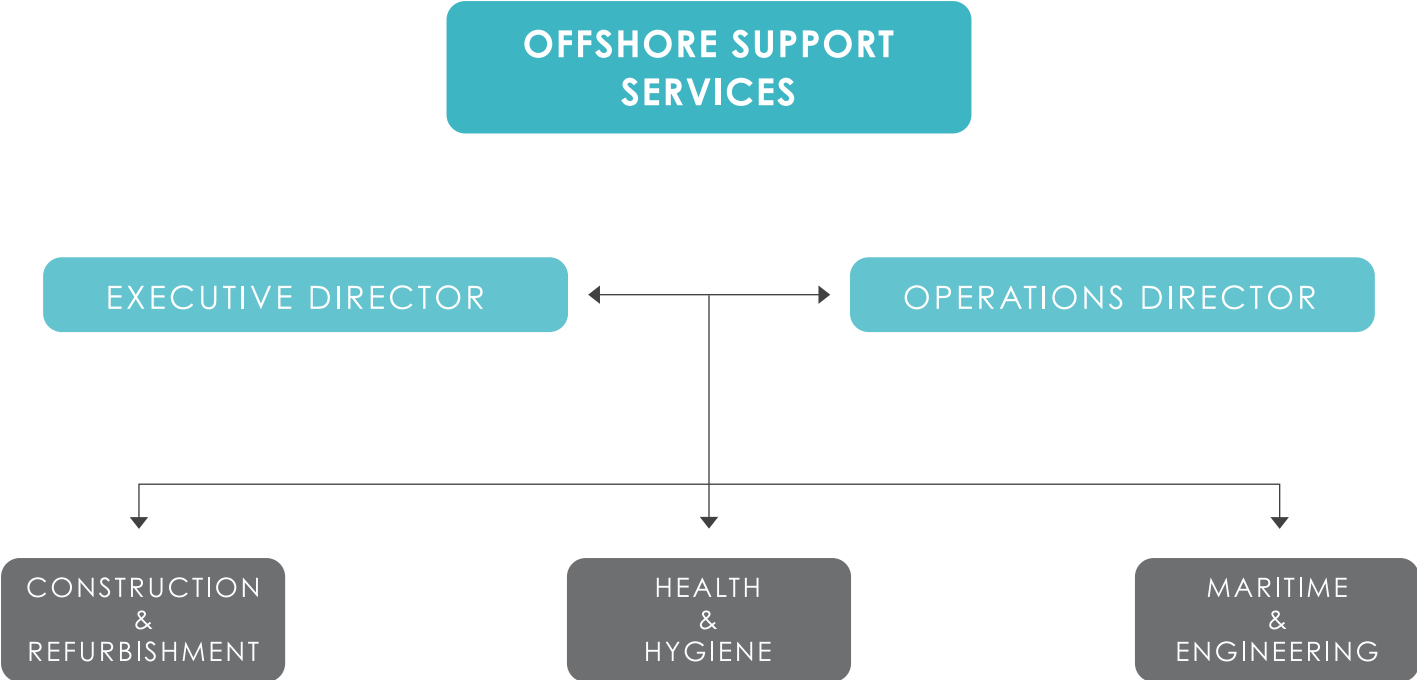
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Company Structure & Operating Organisation



DIRECTORS



Offshore Support Services – HSQE Policy

Offshore Support Services is a reputable, established international support company to the offshore, shipping, oil and gas industry. Our dedication “partner” in providing quality, on-time, incident-free services and products is total proof to our success. We conduct operations in a manner that ensures environmental protection and the health and safety of our personnel and stakeholders.

HSQE Policy

The top management of Offshore Support Services is fully dedicated to the implementation and continual improvement of its HSQE approach and makes the following commitment to its customers, employees and stakeholders through these HSQE policies;

- **Health Policy**

- conduct activities in a manner that occupational health is ensured;
- identify, implement, and improve measures to maintain health;

- **Safety Policy**

- endow every employee with the authority to “stop the job” and re-evaluate safety;
- never allow convenience or haste to sacrifice safety;
- make the evaluation of risks an integral component of job performance;

- **Quality Policy**

- set quality objectives that meet requirements of service and enhance customer satisfaction;
- provide consistent services on a sustainable basis, managed in an efficient and responsible manner;

- **Environment Policy**

- minimize waste by inventory control, monitoring product use, and reduction in consumption
- use products with the least negative environmental impact when possible.

Background and Introduction

Offshore Support Services – a backdrop

Offshore Support Services, a proudly South African owned company, is a leading solution builder in the Global Maritime Industry. Our expertise and offerings has enabled many of our clients to drastically improve their operations. We specialise in offering end-to-end solutions, creating, enhancing and maintaining a diverse specialised field of services and products to the offshore industry.



With head offices conveniently located in the major South African port city of Cape Town, Offshore Support Services (OSS) is a proudly independent, international company, specialising in the whole gamut of services related to offshore vessel support.

Established by Riaan and Anita Norval in 1998, to undertake commercial and industrial environmental surveys and cleaning services for major maritime enterprises. In 2005 the company expanded into the current field of expertise by providing turnkey solutions from accommodation design & refurbishment to the management of lagging in the engine room, accommodation insulation, A/C installation and the array of services mentioned. This expansion was another important milestone in the company's history. Today, with over a decade of experience, OSS handles everything from ship interior refurbishing and cleaning, to HVAC, hydraulics and general maintenance - a total solution.



Accommodation Construction Refurbishment / Upgrade

Teamwork and tailored solutions

We have established a stringent quality control system that covers all activities and processes, up to final delivery and operation of our products, of which most are approved and certified, in line with the latest IMO-SOLAS regulations, and with all major classification societies, including:

- DNV
- Lloyds Register of Shipping
- Germanischer Lloyds
- Bureau Veritas
- US Coast Guard
- ABS

Refurbishment

All work can be carried out in-situ offshore!

OSS has extensive knowledge in the offshore accommodation refurbishment area, and can undertake any project, from simple décor enhancement, to total refurnishing and redecoration, complete area clearance, and reconstruction.

Our experience and expertise extends from architectural and base services, to management and replacement of grey- and black-water drainage systems, fire and gas, PA systems, and satellite signal distribution networks.



Accommodation Construction Refurbishment / Upgrade

Refurbishment offerings include:

- Accommodation
- Recreation areas
- Catering & dining facilities
- Café's & retail outlets
- Commercial laundries
- Cabins
- Wet-units
- Makeovers & major reconstruction



Project management

We manage our own team, as well as all interfaces with clients and their suppliers, to ensure that the project is delivered – not only on time and within budget– but also according to your exact requirements.

We provide all:

- Project planning
- Risk assessment
- Work-pack generation
- Certification, to ensure minimal risk, during both installation and future operation of the finished project.



Accommodation Construction Refurbishment / Upgrade

Offshore Fire-rated Doors, Bulkhead-panelling And Carpeting

We are able to refit offshore facilities with:

- fire doors
- fire-rated bulkhead-panelling
- carpets
- fire-retardant, contemporary office furniture.

Offshore Facility Design And Construction Services

Our wide range of services for offshore facilities includes:

- Architectural design
- Floating ceilings
- Soundproofing
- Flooring
- Fixtures and hardware

Offshore Facility Repair Services

- OSS offers plumbing repairs to wet units and shower blocks.



Accommodation Construction Refurbishment / Upgrade



Fire Classes & Certificates

All products have been tested according to the latest international regulations and test procedures, are approved by the world's main certification bodies. Different fire classes are supported.

- **A-class**
- **B-class**

Service Provider

N We install and take care of;

- Demolition & disposal
- All sheet-metal work
- Fire & thermal insulations
- Piping
- Electricity
- Panel & partition installations
- Soundproofing
- Complete sanitary modules
- Required furniture
- Decking & flooring
- Fire Doors
- Installation, maintenance and renovation of the mess, galley, dry goods store and cold rooms.

Accommodation Construction Refurbishment / Upgrade

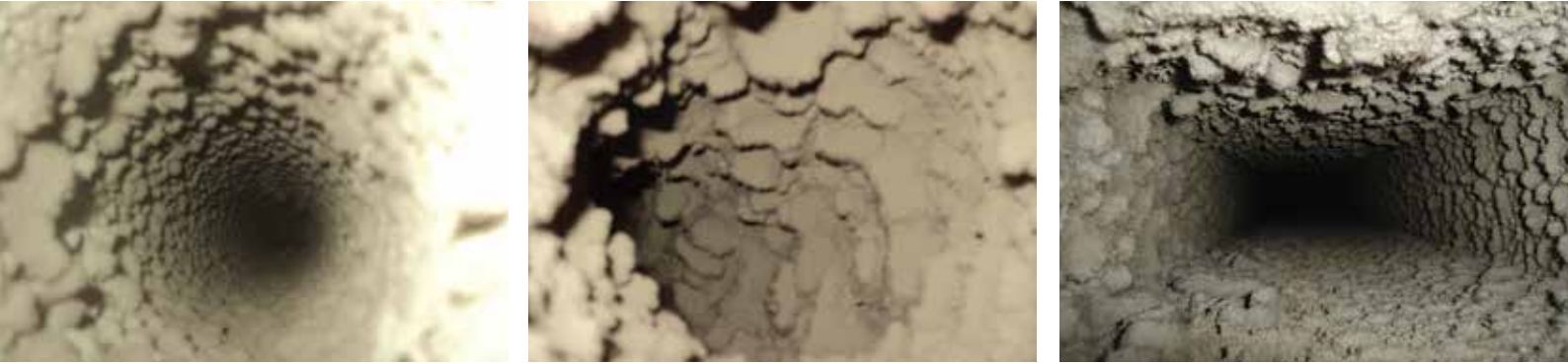
Service Provider

- N**
- Watertight Doors
 - Hatches
- O**
- Installation and/or maintenance of blower and cooling requirements.
 - Plumbing
 - Cabin supplies
- I**
- Towels
 - Bedding example sheets, duvet inter and outers, pillow and pillow cases.
- T**
- Blankets
 - Fire Retardant Mattresses
- U**
- Shower Curtains
- L**
- Duct works - Fabrication & installaion
 - Cleaning duct work
 - Cleaning accommodation
- O**
- Cleaning of engine rooms
 - Wooden decking
 - Sound proofing
- S**
- Insulation and lagging



B. Health and Hygiene

HVAC & Ducting (Cleaning; Repair; Lagging)



All work can be carried out in-situ offshore!

• Ductwork Fabrication, Modification & Repair

SOLUTION

- Custom fabrication of maritime ducting
- Retro-fit ducting modification
- Replacement and repair of damaged/rusted ducting **in-situ**
- Sheet metal square ducting with reducers / elbows
- Spiral FlexiDuct
- Custom diffuser distribution panels

• Ducting Cleaning & Sterilisation

SOLUTION

- Indoor air quality measurement and consultation
- Remove accumulated biological hazards
- Remove dirt effortlessly, cleanly & effectively
- Provide efficient balanced HVAC (AHU) system
- Internal ducting surface sterilisation and sanitisation
- Survey footage and photo recorded prior and after
- Report afterwards with photo's
- Certificate (12 months)

• Ductwork Insulation & Lagging

SOLUTION

- Insulation (lagging) for efficiency (hot and cold)
- Creates exoskeleton with increased stability
- Seals all leakages effectively and permanently
- Radiant barrier wrap
- Discourages internal moisture build-up
- Minimises conductive heat (cold) loss

B. Health and Hygiene

Laundry Extraction System

Whenever coveralls, towels and bedding are washed and dried in a Laundry, large amounts of fibre and dust is generated. This is vented into the laundry extract system, where a significant proportion of this material can get through the filters and settle on the inside of the extract duct. This reduces the area in your vents leading not only to less efficient removal of the hot, moist air, but also to a significant fire risk.

It is surprising how often laundry extraction systems catch fire!

These extraction systems are designed to remove the hot, moisture-laden air from dryers and exhaust it outdoors through the bulkheads. This hot air is filled with lint particles that, over time, deposit inside the duct, especially within the bends and elbows of the duct. Lint can stack up until it is several inches thick.

Should a lint build-up occur there is every possibility that an explosive combination of flammable material in an enclosed space and oxygen easily permeates to it. Build-up of lint can also lead to blockages within the extraction system, putting a load on the extraction fan which could lead to blown motors and increased energy consumption.



B. Health and Hygiene

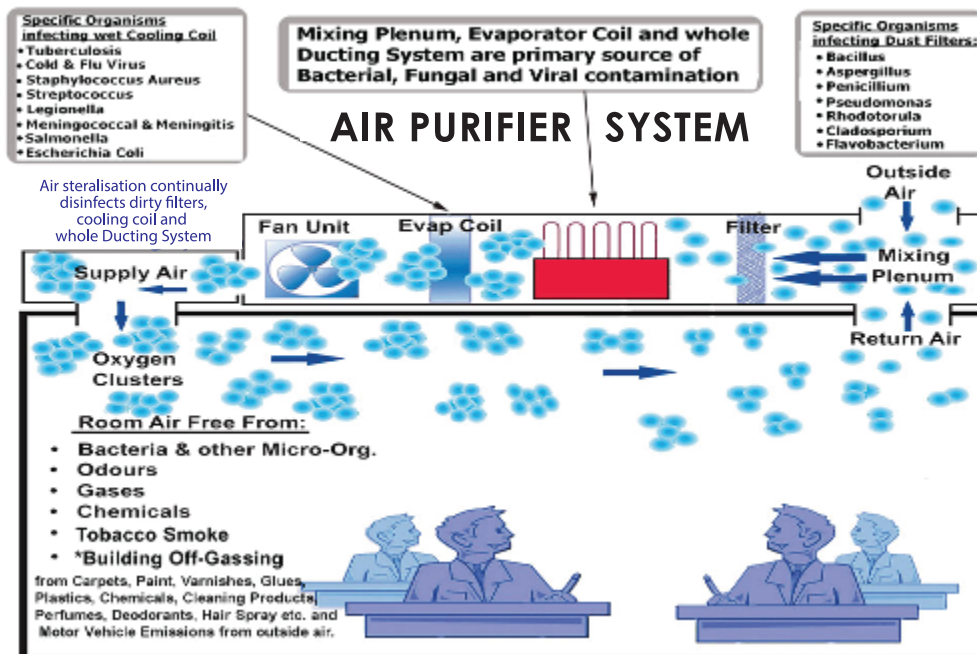
Air Sterilisation



One of the problems associated with living and working in confined spaces that are reliant on recycled air supplies, is the risk of cross-infection by a variety of noxious viruses and pathogens.

Offshore Support Services provide, install and maintain air purification equipment, designed to disinfect and sterilise ducted air conditioning systems.

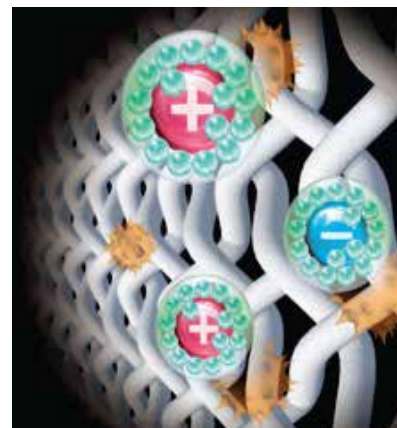
By installing air sterilisation units inside the mixing plenum of air handling unit, supply air is disinfected, as it mixes and flows through the mixing plenum.



We achieve up to 99% total air sterilisation, through an entirely natural, biological process (that works by bombarding oxygen molecules with negatively-charged ions) and requires no perfumes, disinfectants, chemicals or catalysts – only clean, ambient air.

B. Health and Hygiene

Smoking Rooms & Odour Elimination



In the offshore environment, cigarette smoking is virtually an occupational hazard. Unfortunately, smoking is also a malodorous and potentially lethal habit, not only for smokers themselves, but for those around them, because the combination of poisonous gases, liquids and breathable particles in second-hand smoke is harmful to health.

OSS supply, install and maintain **air purification systems** that will cleanse the muggy, stale air, eliminate unpleasant odours, and restore a fresh smell to even the most closed and pungent environments, including smoking rooms, cold storage, change rooms, dry goods, and the entire ducting system.

All work can be carried out in-situ offshore!

SOLUTIONS

- The purification system is centrally installed
- Smoke and unpleasant odours are permanently removed, within minutes of installation
- Odour-causing particles are destroyed, and air is simultaneously sterilised
(Proven via stringent laboratory testing.)
- No spraying, unit top-ups, or monitoring is involved; the system simply requires an electrical circuit, to work 24/7, instantaneously
- The unit has been used with 100% success in sewerage treatment plants, abattoirs, smoking rooms, hospitals, hotels, kitchens, and a range of similar environments

B. Health and Hygiene

Galleys

Kitchen Extraction Hood Cleansing

Even the cleanest kitchens are breeding grounds for a vast array of microbial life forms, some of which are potentially lethal, which is why it is recommended that galleys be deep-cleansed at intervals not exceeding six months.

Thorough cleaning involves not only the removal of caked matter from surfaces, and the buffing and sterilisation of stainless steel, but also of a largely-neglected, less visible area of the kitchen – the extraction hood.

The most feared hazard at sea is undoubtedly fire, and - although galley staff clean the extraction filters at regular intervals - the extraction ducting remains saturated with fatty and oily residue that is often centimetres thick. With just one flashback from a frying pan, or naked flame, this residue will ignite instantaneously, causing a formidable conflagration in the ductwork. (Even with fire dampers, the chances of fighting this will be minimal, due to intense heat generated by the fats and oil.)

To avoid this frightening scenario developing, OSS includes thorough inspection, sterilisation and repair of extraction hoods as part of its regular galley-cleaning regimen. **This cleaning can be carried out in-situ offshore!**

- Hygienically clean
- Fire hazard removal
- Automatic pest control
- Germ-free sterilisation
- Appliance cleansing
- Certificate of hygiene



SOLUTION

- De-greasing of galley exhaust ducting & fans
- Thorough cleaning and sanitising of griller filters
- Pest control
- Certificate issue



B. Health and Hygiene

Cabins: Deep Cleansing



Extensive cleaning of the entire cabin interior is carried out, focusing on the removal of harmful substances from the bulkheads, floors, bunks, bedding and heads/toilets, which can be carried out **in-situ offshore**.

Special attention is directed towards the mattresses, as this is where many organisms accumulate and breed. In many instances, mattresses are replaced with custom-fitted, heavy-duty, fire-retardant mattresses.

- Bulkheads, deckheads & carpets.
- Showers & toilets.
- Recreation areas/TV lounges.
- All galley appliances & surfaces.
- Dry goods store & freezer/chiller.

Steam Cleaning

Revolutionary steam cleaning system sets new hygiene standards

Offshore vessels are a haven for pathogenic bacteria, fungi and other harmful micro-organisms, many of which are, increasingly, showing signs of chemical resistance. In order to combat the risk of infectious diseases, OSS uses the most effective, hygienic form of elimination and sterilisation available: dry steam vapour.

B. Health and Hygiene

Cabins: Deep Cleansing



OSS favours a high-end, industrial steam vapour device, supplied by a top UK-based manufacturer of decontamination equipment. The controlled application of superheated, dry, steam vapour, delivered via purpose-designed delivery tools and accessories, to quickly dry-clean, and sanitise a wide range of surfaces, including plastic laminate, stainless steel, vinyl and wood.

Guaranteed to eliminate 99.99% of hazardous extracted germs and other bio-contamination, dry vapour steam cleaning also combats mould, and kills dust mites in carpets, bedding and upholstery, providing a spotlessly clean, hygienic atmosphere.



B. Health and Hygiene

Custom & Fire Retardant Fittings



We supply custom-made:

- Mattresses (fire-retardant)
- Duvet covers (fire-retardant)
- Shower curtains (non-toxic)
- Pillows (non-collapsing/non-toxic)
- Shower and toilet accessories – soft and hard items
- Pillow cases
- Cabin curtains
- Every item is custom made for the client and an MSDS is provided, indicating the non-toxic and fire-retardant specification.

B. Health and Hygiene

Carpet and Upholstery Cleaning

Carpeted areas exposed to regular high traffic rapidly reveal unsightly dirt and grime. Major carpet manufacturers recommend professional cleaning at least once a year, and it stands to reason that the higher the traffic, the more often the carpet will need cleaning.

We use:

- A dry chemical powder, which cleans and degreases even the most stubborn marks, and allows almost immediate use of the area (often within under a day).
- Steam dry vapour

OUR METHOD

- Dry chemical application
- Same day usage of fabrics
- Non-waterlogged material
- Fresh, revived look, smell & feel
- Anti-static treatment
- Dry vapour steam



B. Health and Hygiene

Pest Control



One of the many problems associated with offshore living is that of pests. Some are merely a minor irritation (such as bedbugs), while others can have a more serious impact on human health by spreading diseases, making effective pest control a significant community concern. However, the methods used must be assessed in terms of minimising impact on crew members and day-to-day operations.

Effective pest management requires sound knowledge about the pest, its habitat, and its habits. While various forms of elimination are available, OSS has excellent experience in this field, and we favour sanitation, and mechanical methods of treatment and prevention (such as vacuuming, removing or sealing areas where pests lurk and breed).

A thorough cleaning may need to be done more than once, to properly exterminate all traces of the infestation.

WE OFFER

- Air purification system
- Deep sanitation of common areas
- Application of short term control – chemical application
- Introduction of long term elimination – growth regulators
- Advice on sanitation practises
- Certificate issued

B. Health and Hygiene

Non-slip step replacement

- **Metal checkerboard**

The traditional metal checkerboard and expanded mesh steps traditionally used throughout the maritime industry become slippery when wet, and offer no firm footing, whilst rolling and pitching.

Given the nature of the offshore industry, a wet surface is expected! It's not surprising, therefore, to discover that the majority of injuries to crew members on their ascent/descent via steps are due to an inability to secure adequate footholds!

- **Bolt-on / bolt-off**

A simple, ingenious, cost-effective solution (which will help to prevent avoidable accidents) is to clad conventional steps with “bolt-on/bolt-off”, slip-resistant fibreglass covers.

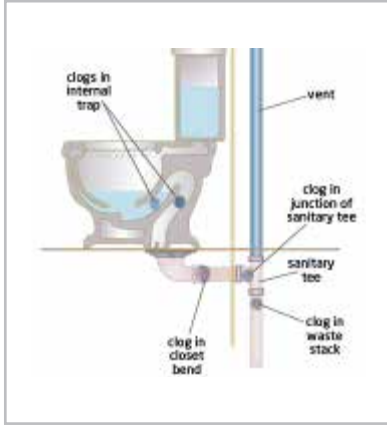
These durable, lightweight, add-on step covers are bolted universally, to fit all types of decking and stairways, and can be replaced with ease, when worn.

ADVANTAGES

- Non-slip “add-on” fibreglass strips
- Durable & light
- Universally installed on all types of steps
- Custom made to exact shape and size
- Replaceable within minutes when worn
- Firm foothold throughout ascent/descent on steps
- Eliminates a potential LTA



Sanitary Tubes – Unblock, Service & Fabrication



The servicing of sanitary plumbing (piping linked to waste-elimination from toilets, bathrooms and kitchens) is rendered more complex, due to the offshore situation.

Over time, the efficacy of sanitary tubing can become compromised, as a result of scaling caused by calcium deposits, which reduces pipe diameters, resulting in blocked sanitary lines.

Due to the vulnerable nature of mild steel sanitary tubing, OSS utilises diverse (largely mechanical) methods, to remove physical blockages, and reduce scale and residue.

PLUMBING SOLUTION

- Blockage clearance via mechanic, pneumatic and rotational means
- High-pressure inner-surface scale removal – water
- Residue contamination elimination – chemical
- Replacement of diameter-reduced piping

Lagging, Insulation & Cladding

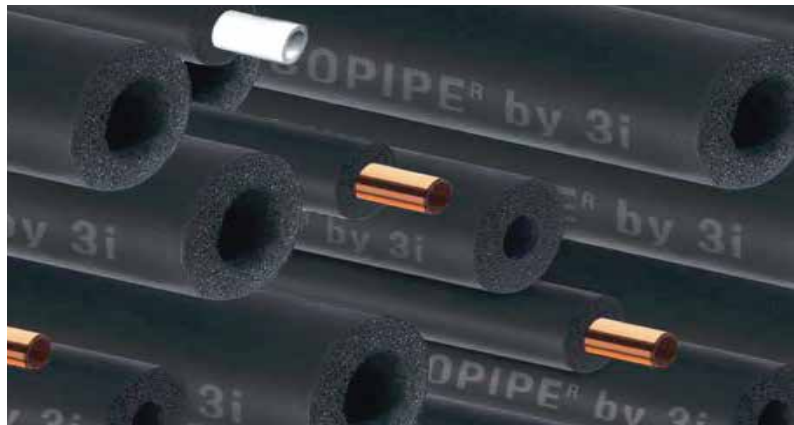
Thermal insulation from -20° C to 1000° C for ducts or equipment with isolating pipes to prevent energy loss.

We realise these benefits on the following networks:

- Exhaust systems
- Networks of ice water (6°C, 12°C, 20°C)
- HP-LP steam systems
- Ventilation ducts
- Networks of various fluids (oil, air, hot water, etc.)
- **All work can be carried out in-situ offshore**

We assist you with encompassing benefits, including:

- Manufacturing plans & sketches
- On-site facilities & maintenance
- Mechanical protection with formed sheet metal isoxale
- Epoxy polyester resin.



Lagging, Insulation & Cladding



Areas of insulation covered:

- Fire insulation:
Supply, installation and maintenance of fire materials, ensuring their integrity.
- Thermal insulation:
Supply, installation and maintenance of materials, providing thermal stresses.
- Sound insulation:
Soundproofing
Supply, installation and maintenance of materials, providing sound absorption.

SOLUTION

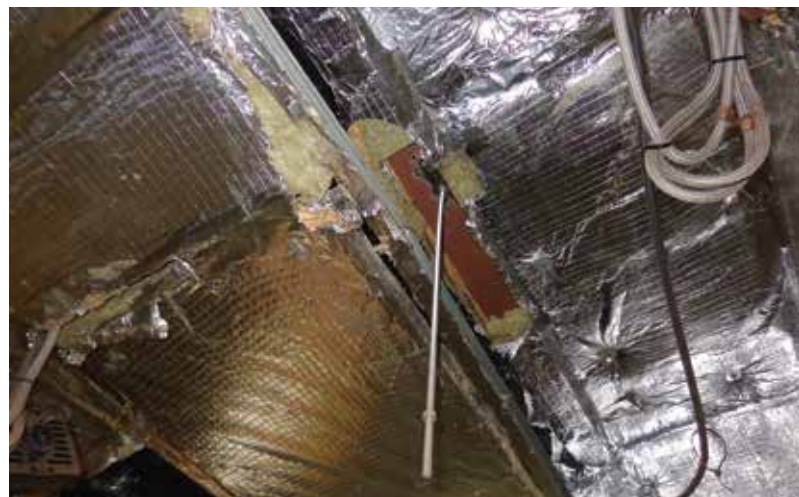
- Bandage, rope, bags lagging with top temperature ratings
- All jobs are treated as custom and performed on site
- Insulation for 1000 degrees C, zero and minus temperatures
- Synthetic and metal cladding for all surfaces & panels

Lagging, Insulation & Cladding

Lagging: Insulation Systems

Comparative insulation thickness, and the advantages of different systems for diverse applications, are available from our technical office. Depending on individual requirements, some of the more common systems are:

- **HOT INSULATION**
- **COLD INSULATION**
- **VAPOUR BARRIER**
- **INSULATION IS AVAILABLE IN VARIOUS FORMS**



C. Marine and Engineering

Dry Bulk System (P-tanks, Pipes, Valves, Hoppers)



Traditionally offshore units are provided with a set of pressure vessels (P-tanks) as a bulk handling system. Such a system uses dry bulk tanks to load, store- and offload the dry bulk cargo.

Down time caused by malfunctioning dry bulk systems directly influences penalties accrued to the operator. Blockages, stuck valves, water-condensate and contaminated dry bulk will cause barge engineers and marine staff to declare these costly matters to be an emergency.

Offshore Support Services (OSS) specialises in the maintenance, cleaning and refurbishment of entire systems. From periodic cleaning, descaling and servicing of the pipeline to the rebuilding of in-line valves, P-tank spider valves, flutter valves, NDT and corrosion control. Almost all of these services are available offshore through our experienced technicians, from silos to hoppers. Down time of the system is minimized through a unique descaling/cleaning system and performed during off-peak cementing/barite times.

The recovery units are installed **in-situ**, offshore.

SOLUTION

- Rotational brushing of entire piping system
- Pipe descaling
- Blockage clearance
- Valve service, repair & replacements
- P-tank interior complete descale & clean
- Non-destructive testing (NDT)
- Discharge bulk recovery

C. Marine and Engineering

R.O.V

Internal and External Inspection of Pipelines

The inspection and survey of underwater pipelines can be easily completed by ROV's. Our ROVs carry high torque thrusters which can pull long tether lengths with ease, and can easily out compete other ROVs in their class

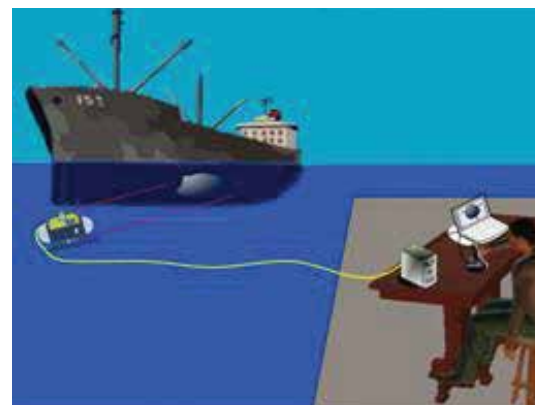
Clients traditionally use ROVs to perform steel storage vessel inspection, corrosion measurements of subsea pipelines, and similar work on support pilings. Our ROVs have a minimum penetration length of 1000m and can have a maximum of 4000m enabling even the longest pipeline to be inspected internally

Municipal potable water pipelines, desalinisation plants, and reservoir pipes can all be inspected internally enabling us to find the exact area where leaks may occur, potentially saving millions of litres of water.

Oil and Gas Offshore Surveys and Inspections

Remotely operated vehicles, are proving invaluable to the oil and gas industry for a variety of tasks including rig support, vessel-based IMR and construction, intervention and survey.

Our inspection-class ROVs are perfect for a wide range of underwater challenges to depths as great as 1000 metres (3,300 feet).



C. Marine and Engineering

R.O.V

Offshore applications of our ROV are varied and numerous, including:

APPLICATION

- search and recovery
- marine surveying
- offshore engineering
- pipe inspection
- salvage operations
- tank inspection
- hull inspection
- diver safety monitoring
- underwater security

R.O.V. (Remotely Operated Vehicle – Underwater Inspections)

USAGE

- inspection of potable water and deluge tanks
- marine biosecurity and detection of invasive marine species
- inshore surveys and inspection
- underwater forensics and search & recovery
- marine and port security

D. Our Client Portfolio

Projects / clients we have worked with:

1. Andrew Weir Shipping Limited
2. Blue Water Energy Services BV
3. BP
4. De Beers Group Services (Pty) Ltd
5. De Beers Marine (Pty) Ltd
6. Diamond Offshore
7. Dolphin Drilling
8. Dormac Durban
9. Dormac Cape Town
10. Ensco
11. Esso Exploration Angola
12. ExxonMobil
13. Exmar
14. KCA Deutag
15. Petroleum Consultant Services
16. Petroleum Supply Company
17. Petromar LDA
18. PetroSA
19. RNC Shipping
20. Saipem Contracting
21. Seadrill
22. Smit Amandla Marine (Pty) Ltd
23. Spt South Africa
24. Transocean



OFFSHORE SUPPORT SERVICES

Just Ask Us



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YouTube video: <http://youtu.be/ytKYeNMvO9o>