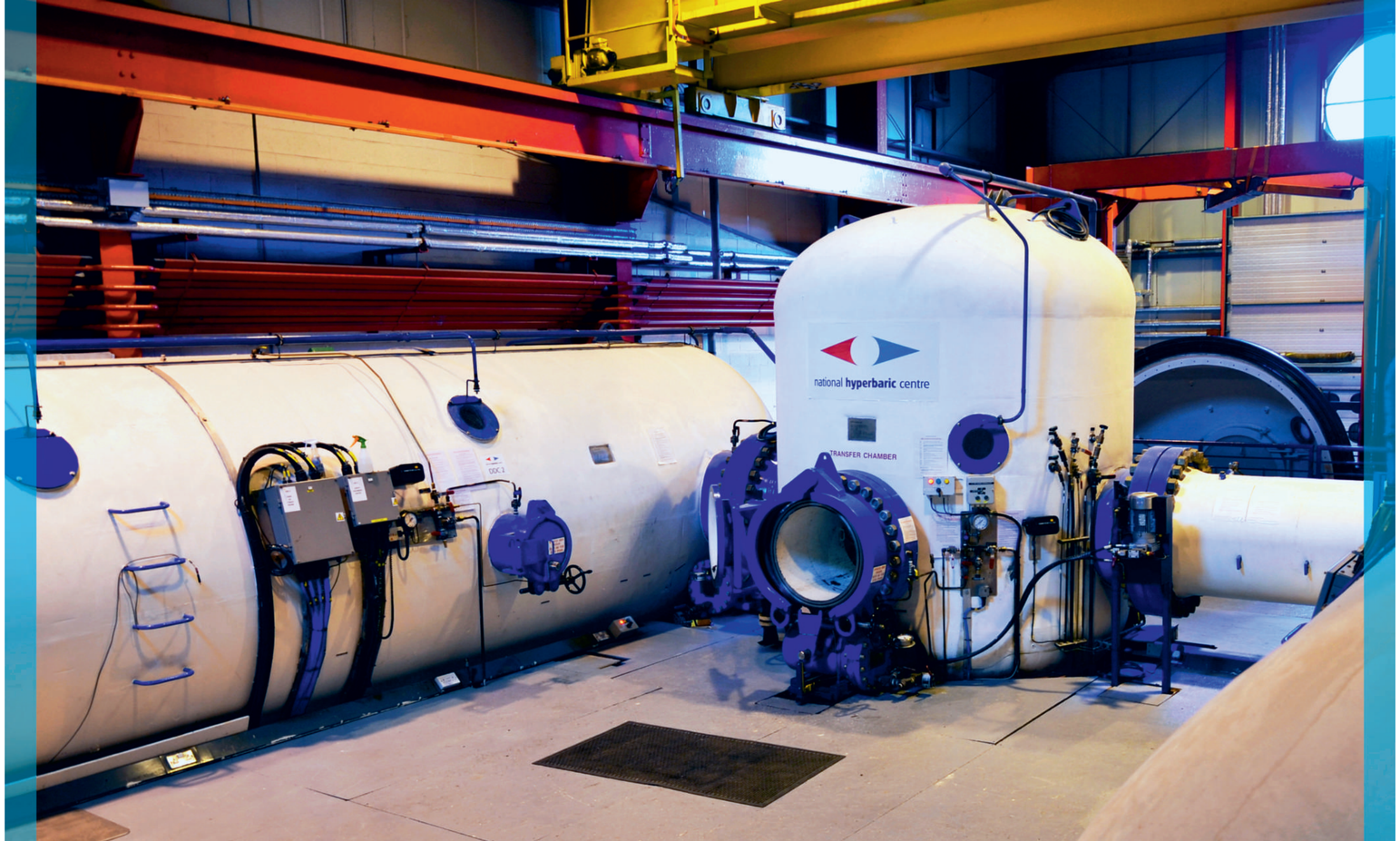
national **hyperbaric** centre

Centre of Excellence for Subsea Safety

Departments



Welcome to nhc

National Hyperbaric Centre (NHC) provides expertise and services to subsea and pressure-related industries. We offer a wide range of services from diving-related training, hyperbaric welding, pressure testing, consulting and emergency services to customers worldwide.

NHC has been at the forefront of the diving industry for many years and our understanding of extreme environments enables us to provide professional advice and services to customers of all industry markets.

Established in 1987, our facility is based in Aberdeen, UK and attracts customers from around the world. Our Training and Consulting services are delivered regularly in global locations.

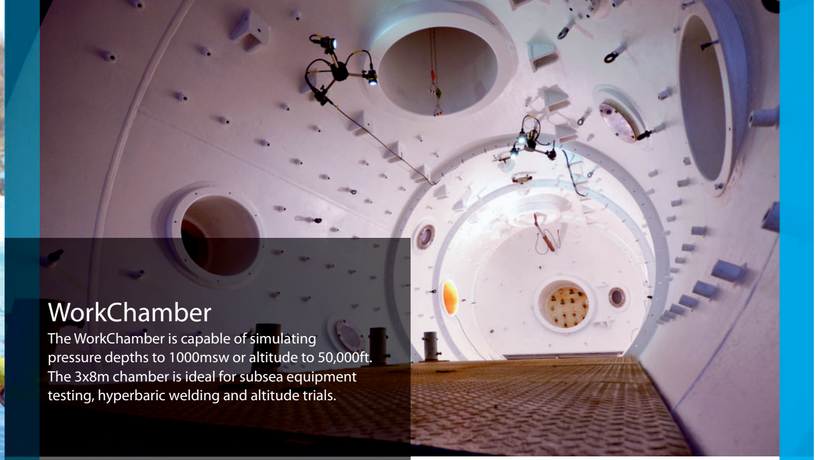
Facilities

National Hyperbaric Centre is renowned for its world-class facilities which play a part in each of the departments within the Centre.

Test Tank

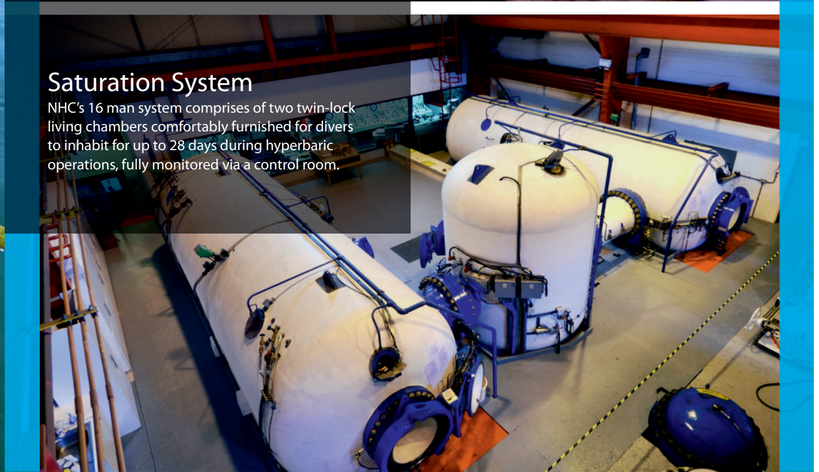
NHC's state-of-the-art outdoor Test Tank and control station provide testing facilities for a wide variety of subsea applications.

With a depth of 8 metres and a diameter of 12 metres, the 1 million litre steel tank is large enough to accommodate the deployment and operation of work class ROVs and to facilitate manned diving operations.



WorkChamber

The WorkChamber is capable of simulating pressure depths to 1000msw or altitude to 50,000ft. The 3x8m chamber is ideal for subsea equipment testing, hyperbaric welding and altitude trials.



Saturation System

NHC's 16 man system comprises of two twin-lock living chambers comfortably furnished for divers to inhabit for up to 28 days during hyperbaric operations, fully monitored via a control room.

NHC Training offers an extensive variety of industry respected subsea and diver training courses. These are designed to meet the needs of a range of clients throughout the subsea and diving industry and aim to improve the standard of subsea safety worldwide. NHC courses are delivered by highly qualified training staff with real industry experience to ensure our delegates are trained to the level the industry expects.

NHC Training benefits from having access to the on-site Saturation Diving System and Test Tank where students can learn and experience working within a realistic environment.

In addition to our time-tabled courses, we regularly arrange bespoke courses in locations around the world.

IMCA

- Client Representative
- Introduction to Subsea Isolations
- Dive System Auditing & Assurance
- ROV System Auditing & Assurance
- Dive Technician
- Life Support Technician (IMCA)
- Air/Bell Diving Supervisor (IMCA)
- Subsea Rigging & Lifting
- Diver Medic Technician (IMCA)
- Introduction to Diving

NHC's Testing facilities are amongst the biggest in the world and permit rigorous testing and trials of equipment as well as personnel within a controlled environment.

NHC houses five pressure chambers varying in size and pressure ratings between 8000msw in depth and 50,000ft in altitude. We conduct daily operations for a variety of industries and applications including assuring the functionality of equipment for use in subsea environments and areas of high altitude, manned hyperbaric welding trials and hypobaric oxygen therapy.

All our chambers can be precisely controlled and monitored giving incredibly accurate test results.

UKAS TESTING 0654

ISO 9001 SYSTEM CERTIFICATION SGS

- Hyperbaric Testing
- Hypobaric Testing
- Hydrostatic Testing
- Nitrogen Testing
- Helium Testing
- Altitude Testing
- Harsh Environment Testing
- Deep Water Simulation
- Gas Leak Detection
- Buoyancy Testing

50,000ft

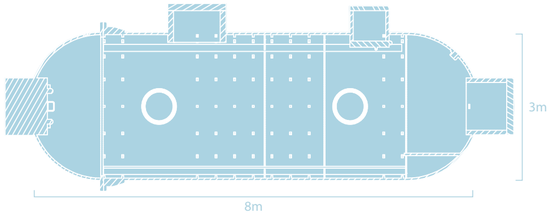
8000msw

WorkChamber

The large 3m x 8m WorkChamber is capable of simulating pressure depths to 1000msw or altitude to 50,000ft within wet, dry or gas filled environments.

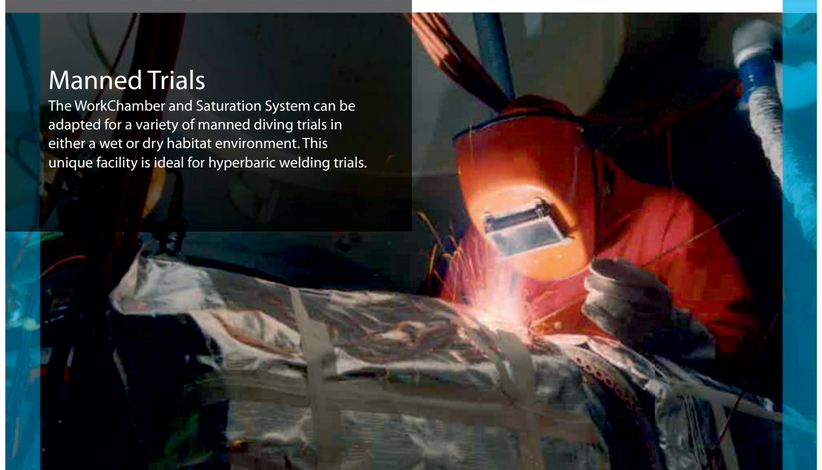
Hydraulic and electrical penetration ports are built into the chamber allowing remote intervention during a trial.
All tests and trials can be fully monitored and recorded as per customer requirements.

The chamber door is mechanically raised permitting easy access for large equipment. There is also access via a 500mm man-way which connects the chamber to the 16-man Saturation System via a Transfer Under Pressure Chamber (TUP).



Equipment Testing

The WorkChamber can pressure test a range of equipment such as Subsea Control Modules, Valves, Actuators, ROV & Submersible Vehicles, Buoyancy Control Devices and Underwater Housings.



Manned Trials

The WorkChamber and Saturation System can be adapted for a variety of manned diving trials in either a wet or dry habitat environment. This unique facility is ideal for hyperbaric welding trials.

Other Test Chambers

100bar Chamber

Working pressure of 1000msw. Ideal for pressure testing power supplies, cable assemblies, small electrical housings, underwater cameras and lights.

200bar Chamber

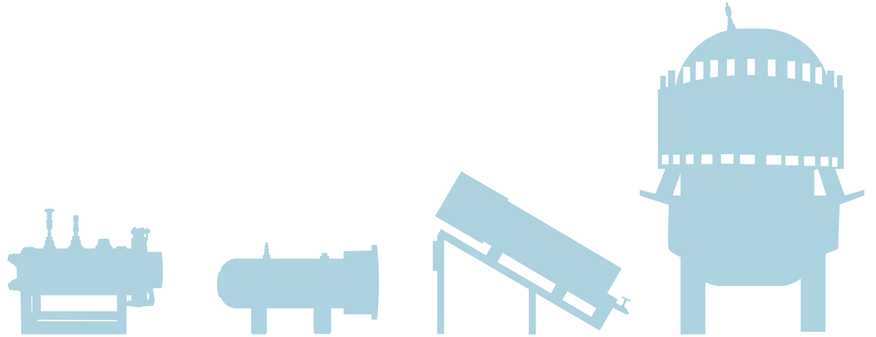
Working pressure of 2000msw. The chamber has 14 multi-way penetration ports which allow access for monitoring equipment testing.

800bar Chamber

Much higher pressure rating of 8000msw. Like the other small chambers, equipment can be tested in a wet, dry or gas filled environment.

220bar Chamber

Large equipment chamber, capable of pressure testing to 2200msw. With internal access of 900mm wide and 1540mm deep, this chamber is ideal for valves, actuators, pumps, flow meters and cable assemblies including connections and penetrators.



NHC has developed a team of trained and highly skilled individuals to ensure safe and efficient subsea operations, as well as offering our clients a full range of technical and operational support for the oil and gas industry.

All our personnel are selected for each client project by the Subsea Consulting Team to ensure the correct specialist is provided. The decision to allocate personnel to project is based on a review of the project summary, submitted by the client prior to the selection of a consultant.

Our services are carried out in accordance with best industry practice and in compliance with industry legislation and can be conducted anywhere in the world.

FPAL empowered by Achilles Registered

Dive & ROV System Auditing & Assurance

Competent auditors are provided for diving and ROV system technical audits, where each audit is carried out as per the client's specific requirements as well as in accordance with IMCA and IOGP guidelines and recommended practices.

Diving Technical & Operational Support

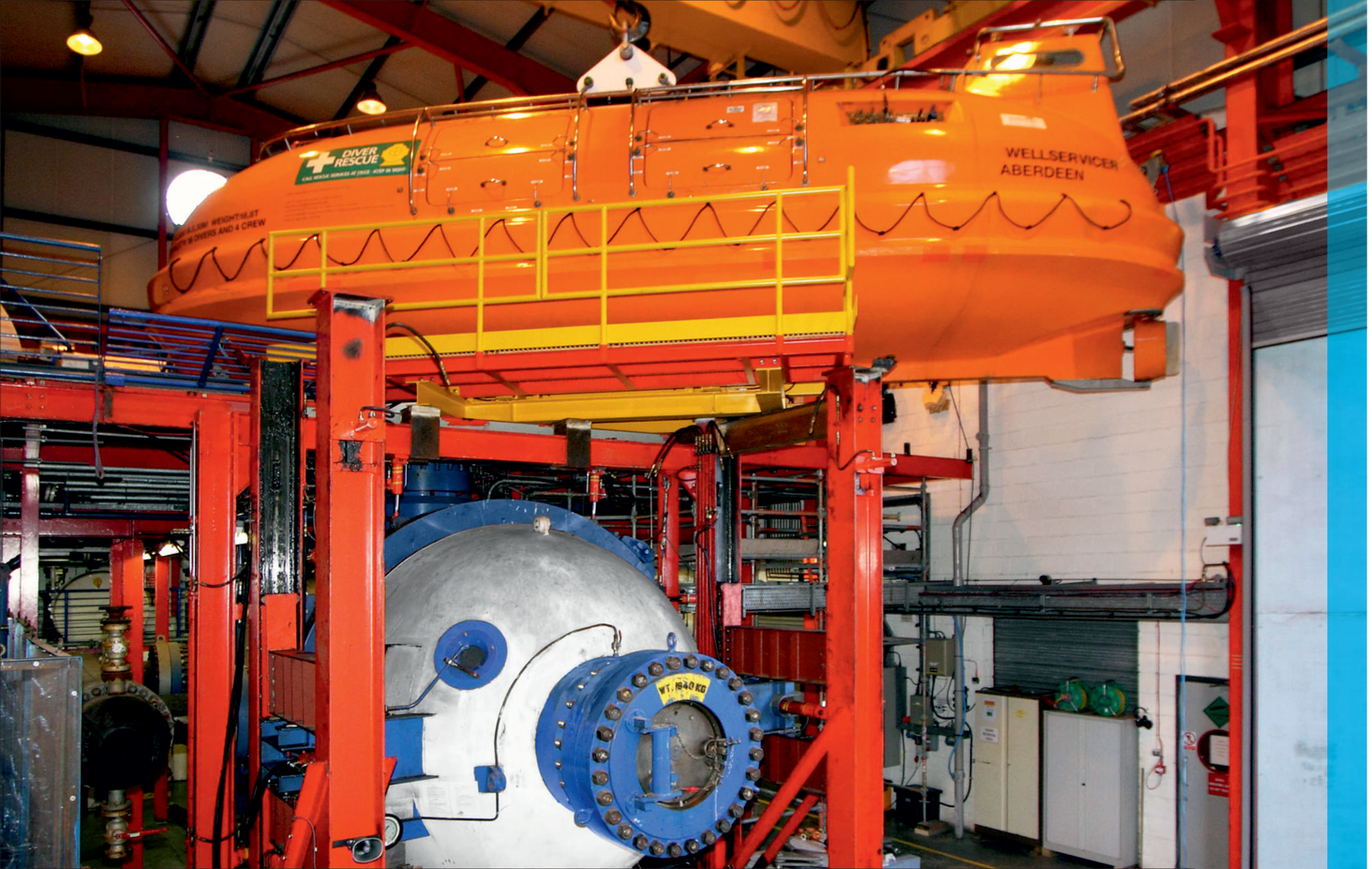
We offer technical and project managerial support in the process of new build or re-fit DSV, saturation dive systems and air/nitrox dive systems.

Failure Modes & Effect Analysis (FMEA)

We conduct FMEAs to ensure that a systematic assessment is carried out on diving systems to identify any areas where a system may fail due to equipment operational reliability as well as lack of redundancy and critical spares required for safe operation.

Client Representatives

We provide trained Client Representatives to oversee onshore and offshore diving, construction or ROV subsea projects as requested by the client and provide daily updates as required.



NHC Emergency Services has over 27 years' experience responding to diving medical emergencies. We have developed strong contingency plans and NHC is prepared to respond quickly and efficiently in order to best deal with a situation.

We are ideally qualified to provide advisory services to all diving related emergency issues no matter how big or small.

NHC has been influential in the development of emergency response procedures and has invested in latest industry technologies in order to provide a first-class Hyperbaric Reception Facility for a large proportion of diving contractors in the North Sea.

Hyperbaric Reception Services

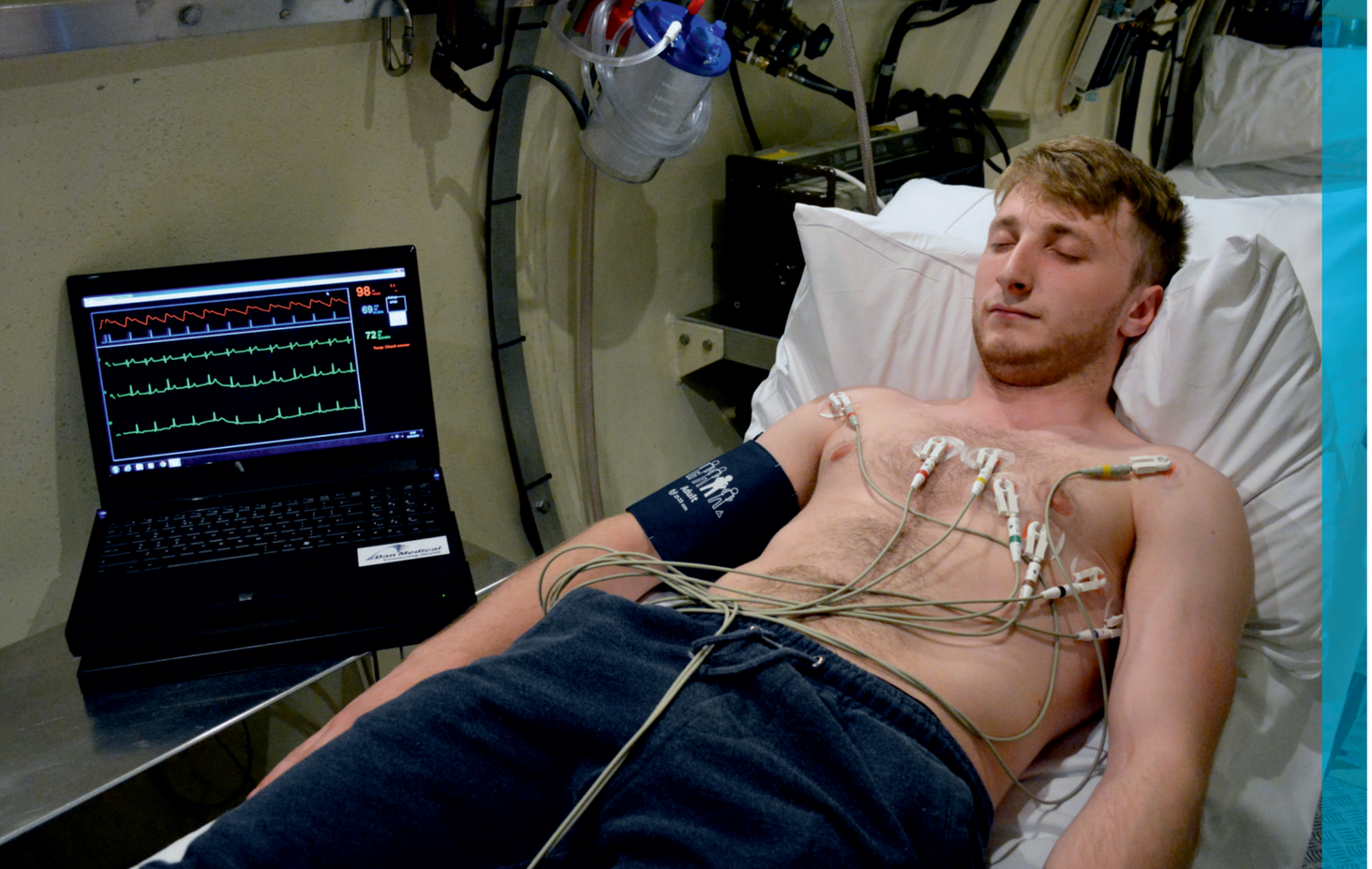
All saturation diving vessels working in the North Sea require a rescue contingency plan for their divers. NHC offers a superbly equipped Lifeboat Reception Facility connected to a Saturation System and hospital medical chamber. NHC offers a service to transport a HLB from any UK port and contracts are in place for lifting, transport and police convoy to NHC where decompression can then begin.

Bend Watch

At the end of a saturation decompression (which can take several days) a diving team is required to remain within the vicinity of a chamber for several hours which is the time they are most susceptible to decompression illness. NHC offers a facility to their clients to accommodate divers for this period. A Diving Support Vessel, which may have been in port for a mobilisation, can safely leave their 'Bend Watch' divers at NHC and return to sea, saving many hours of operational down-time.

Decompression Chamber Standby Cover

The Diving at Work Regulations require inshore diving operations to have a Diver Decompression Chamber available within six hours travelling time from the site of operation.
NHC provides this cover for a large area of Scotland. One of our major clients is the Underwater Search Team of Police Scotland.



Medical Equipment

DiveDoctor (a division of NHC) supplies a range of medical equipment for both air and saturation diving to contractors around the world. Our medical equipment kits have been designed for practical use on any dive site whilst helping diving contractors to comply with guidance document DMAC 015 Rev 4 (Dec 2014).

Medical equipment has been carefully and strategically selected to ensure only high quality and well functioning products are included.

DiveDoctor specialises in an aftercare service ensuring expiry dates are monitored and alerts are given for re-purchasing.

DiveDoctor

- DMAC 015 Kits
- Medical Equipment Kits
- Chamber Kits
- Drug Kits
- Defibrillators
- D-MAS HyperSat
- Oxygen Kits
- Ventilators
- Confined Space Rescue Stretcher
- Diving Medical Support

JFD Services

Saturation Diving Systems

Submarine Escape & Rescue

Underwater Breathing Apparatus

Special Operations Vehicles

Diving Equipment

Marine Consultancy

A JFD Company

JFD is a world leader in the design, manufacture and operation of diving and subsea systems and an experienced provider of submarine escape, rescue and special operations capability.

JFD's Divex-brand dive systems and re-breathers set benchmarks for quality and safety.

Contact

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