

Atmosphere Control Services

Atmosphere Control Advice & Guidance

Providing advice and guidance on the complex and inter-related problems associated with maintaining a safe, viable atmosphere in enclosed environments, for example submarines, fighting vehicles, ships, trains, and spacecraft, and on the technology solutions to solve those problems.

Air Purification System Assessment

Installing a new air purification system is a big investment and it is not normally practical to trial a full system. Using a combination of proprietary software (BREATH) and computational fluid dynamics QinetiQ can model full air purification systems and assess their effectiveness prior to procurement, thus potentially saving the customer both time and money..

Once installed, the burden placed on an air purification system or the users requirements can change. Users want assurance that their existing systems can cope with such changes. QinetiQ is able to model the effects of changes to air purification systems. Using the results from the modelling, QinetiQ can produce an impact assessment to enable customers to make informed decisions about the development of their air purification system.

In addition to modelling system changes, QinetiQ has used its modelling software and experience to aid the UK Royal Navy in the development of incident planning and procedures for when something goes wrong. QinetiQ has modelled emergency scenarios in order to assess their effectiveness. Using this information and a deep understanding of the air purification system, developed through close customer relationships, QinetiQ is able to offer advice on the best action to take in an emergency.

In-service Equipment Support

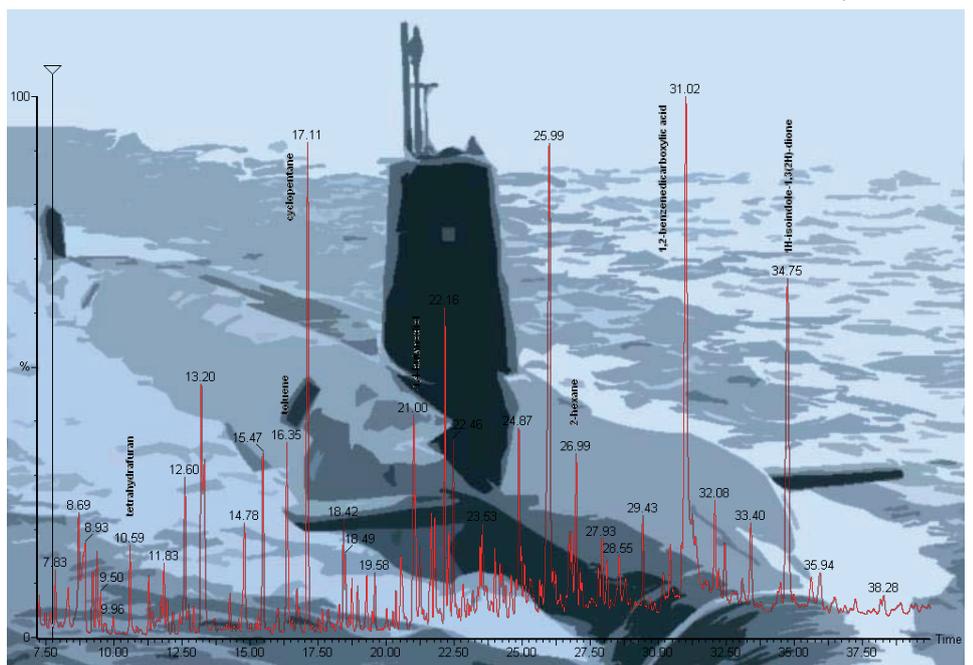
In order to get the most out of current atmosphere control equipment it is necessary to ensure that those using it are well trained and it is properly maintained. QinetiQ uses its deep customer and supplier knowledge to offer both training and maintenance services.

Our experts work with customers to fully understand their training requirements for equipment. This knowledge allows the development of a fully tailored training package that can be offered in-situ, at

a customer site or at QinetiQ Haslar. By targeting training on key aspects of operation and maintenance, it can be optimised with more time to be spent on areas of interest and importance.

We also offer a range of support services for in-service equipment. These range from telephone and email troubleshooting to site visits to correct more serious problems. A fully independent and tailored solution can be offered to each customer.

Submarine Atmosphere Control



Knowledge Transfer

QinetiQ provides independent and concise summaries of the latest trends and future challenges to users of atmosphere control technologies. This service allows users to stay up to date and not be faced with an insurmountable volume of information to digest when considering the future of their technology solutions.

Atmosphere control is a constantly evolving field, with a stream of new instruments, technologies and methods being introduced. QinetiQ currently participates in working groups such as the Gas Analysis and Sensing Group, professional bodies such as the Royal Society of Chemistry, and policy committees such as the Submarine Atmosphere Control Committee.

Combined with active participation at relevant conferences and strong relationships with industry and academia, QinetiQ is well placed to keep pace with change in the field of atmosphere control. Using its knowledge of key consumers in the field of atmosphere control, QinetiQ also provides manufacturers with advice and guidance in the development of products that solve new and emerging consumer problems.

Product Selection Advice & Guidance

Maintenance of the correct balance of gases within an environment is required for a multitude of applications such as sustaining life, maintaining product quality and ensuring safety. As such it is vitally important that users can rely on the technology that maintains this balance and the instruments that monitor it.

QinetiQ helps customers to understand their needs and develop these into

a comprehensive statement of requirements. Without a statement of requirements there is a risk that the customer may be convinced by a manufacturer to procure equipment that either does not meet their requirements or is overpriced because it offers functionality not required by the customer. Using a tightly defined statement of requirements QinetiQ is able to identify potential candidate equipment that meets the requirements of the customer and offers best value.

Where no products exist that meet a customer's needs, QinetiQ works in

collaboration with manufacturers and suppliers to develop a solution that will meet the requirements.

Once potential products have been identified, we will work with the customer to develop an evaluation procedure and arrange for potential candidate equipment to be made available for trial.

After procurement, QinetiQ combines its deep knowledge of the customer's requirements, and the selected technology, to offer advice on installation, user training and ongoing maintenance.

About QinetiQ Atmosphere Control Services

QinetiQ Atmosphere Control Services support defence and commercial organisations that operate in challenging enclosed environments including aircraft, submarines and submersibles, armoured fighting vehicles, ships, trains, spacecraft and pressurised tunnelling operations.

With over 30 years' experience, QinetiQ is a leader in the modelling and assessment of enclosed atmospheres. Based on our deep understanding of enclosed environments and associated safety issues we provide a comprehensive range of services that include:

- test and evaluation of air quality to identify issues and demonstrate compliance
- preparation and management of air quality field trials
- design and support of air quality equipment and systems
- advice on the removal of contaminants.

In the defence market we have supported a number of military services including those of the UK, Spain and Canada.

Specifically, for the UK Royal Navy we are the contracted test and evaluation partner for enclosed atmosphere control services. This includes providing a rapid response team to investigate urgent atmosphere control issues. We have also provided

support to the UK MOD for the design, testing and installation of equipment to facilitate the introduction of mixed manning into submarines.

QinetiQ is the only commercial organisation able to offer such a broad range of services, delivering advice and guidance on enclosed atmosphere control, independent of any supplier. Our services are supported by an extensive range of state of the art equipment, facilities and software. Our Environmental Sciences Laboratory has United Kingdom Accreditation Service (UKAS) accreditation for the analysis of compressed gases (e.g. air for breathing apparatus) and carbon dioxide absorbing materials.

We provide strategic support throughout the full lifecycle of an enclosed environment from design and acquisition through to operations and disposal. Our services are delivered by a team of scientists and engineers who are highly knowledgeable and experienced in the application of science and technology to all aspects of atmosphere control.

Maintaining a safe working environment is of critical importance to us in all testing and evaluation activities and we have a team of specialists with the expertise and resources to support major projects across all domains (land, sea, air and space).

Delivering world class Atmosphere Control Services to defence and commercial organisations operating in challenging environments

QinetiQ

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