Gas Detection Systems
Reliable and Customized Solutions
Efficient gas alarm systems are of vital importance for the protection of lives and assets at sea. To meet these demands Consilium offers state of the art gas alarm systems, developed for the most demanding marine environments.

Consilium offers the widest variety of solutions in the market to care for all needs and requirements concerning the subject of gas detection. We have developed and produced our well known Salwico Gas Detection Systems since late 1950’s and have today the most competent and experienced staff of all makers.

We provide standard as well as custom-designed solutions for COT’s, CHEM/PC’s, LPG’s and LNG’s using our different system families:
- The compact GS-4 is used for continuous measurement of for instance HVAC.
- The SW2020 is used for scanning sampling detection in various applications.
- The GS3000 - our totally unique loop-configured analogue addressable system which has been the preferred choice for previous, current and future LNG installations.

Salwico Gas Detection Systems are designed and developed to meet the requirements of all major Classification societies as well as the EN-54 rules, which is applicable for the addressable type and in time the new European standard MED. The systems are designed with user-friendliness in mind and when software-based with self-instructing control panels with clear and easily understood menus on the display.

Customer orientation
Having been a major supplier of Fire and Gas Detection Systems for all these years has given us valuable experience how to best serve our customers; yards worldwide as well as ship owners operating all over the globe. Lessons learnt from working with yards in all parts of the world is very much based on local presence and support as these customers have high expectations on local service from their preferred suppliers, a service that is tried and proven year round still.

Consilium Marine & Safety’s expertise in equipment development is therefore focused on simplifying the work in the field, where the installation and commissioning work is done under time pressure with little margins for unwanted surprises.

Our belief is that if we are the most effective supplier to work with the yards will they by themselves find that the efforts necessary to put in when choosing a Salwico gas detection system for their projects are reduced when comparing us with others.

Some solutions made a real impact in these aspects and for instance our unique counter-pressure design for the scanning sampling Salwico SW2020 system, when released back in 1998, cut down radically on equipment as well as installation time, yet offering the highest level of system performance in the market.

This design is still the most sold worldwide as we have refined it over the years and even if some of its features have found their way into competing suppliers products it is still the most relied upon system around.
Typical applications

All things considered experience is an important factor and the difference between success and failure simply because one is learning from one's mistakes and the more experience you have gathered the lesser mistakes you are making.

As a natural result of all our installations in the past five decades, we have learnt lots of things and have also developed our equipment with that as the main basis together with valuable user inputs naturally always looking at current and coming rules and regulations adapting these to the systems.

We will below exemplify some typical designs for Salwico gas detection systems to give you an idea of how we can solve your needs; starting with a typical set up for a crude oil tanker followed by a couple of other examples.

COT

Here can a requirement demand the supplier in an effective way to monitor the air contents in the pump room together with a system for monitoring the atmosphere in the water ballast tanks and void spaces in the cargo area. Since regulations state that the p/r system shall be independent it will result in a solution with two separate systems, still mounted in the same cabinet for space saving reasons.

Our choice of equipment will be to have a scanning sampling Salwico SW2020 for each area, however slightly different even if based on the same type of system.

p/r: The pump room set up will most often nowadays have a requirement for detecting more than CxHy’s and we add the necessary detectors for O2 as well as H2S and will have a system that can analyze all gases in one air sample at the same time.

wbt: For the wbt area we will have a slightly simpler detection requirement, however now making full use of the counter-pressure function to keep the system at peak performance level.

By using the same system in both environments the user is facing exactly the same operator's panels hereby minimizing any mishaps in systems handling as well as reducing the number of system specific spare parts.

PC’s and other specialized tanker vessels

For these applications we have been asked to supply a number of different solutions, incorporating different detectors, individual designs for specialized cargoes and so on.

Here is a range where experience really is put to the test; you simply have to know what this is about to be able to propose a working solution. Typical for these specialized vessels are that the specifications are charterer/operator specific due to cargo types, range and operating area.

Cargo areas: Certain types of vessels have for instance a pipe tunnel on deck, which can require a gas detection system of continuous measuring type.

Here you can also find operator requirements for detecting hydrogen leakage, which is done through oxygen detectors.

wbt: For the wbt area we will use the proven SW2020, possibly with the addition of an O2 detector.

The recent boom in LNG and to a certain extent LPG orders has caused quite some concerns about safety.

This has for several reasons raised concerns about the design and performance of gas detection system solutions, as the older designs were bulky, noisy in some parts and less accurate also requiring a considerable amount of maintenance.

To meet the tough requirements we have specialized solutions purpose designed for these types of vessels. You will find this described in a separate brochure.