

iNDUSTRIAL PLANTS

May 2015

ITALIAN ENGINEERING, CONTRACTING AND PLANT COMPONENTS SUPPLIERS



ITALIAN ASSOCIATION
OF INDUSTRIAL
PLANT ENGINEERING





Fig. 1 –Sanco's headquarters in Galliate, Italy

Italian Fire Extinguishing Technologies Around the World

Sanco SpA has been sharpening its focus on delivering consistent and high quality products and services by giving priority to proper project management

Nico Zorzetto
Sanco SpA

Extinguishing a fire is not only a simple intervention but it also requires a lot of skill. For this reason, project management for the supply of fire detection and fire suppression systems has to be the

result of numerous decisions made by every single person of the organization day by day. In order to align decisions, employees and directors need a shared vision: a customer experience strategy even in case of users that are poles apart.

Sanco SpA, an Italian company, successfully operates not only in design and construction of fire suppression systems and equipment but, above all, in the research and development of new technologies for a highly specialised sector in which the human factor still has a very important value, where the capability and experience of the people are fundamental factors to face new global challenges everyday **figure 1**).

Sanco has been sharpening its focus on delivering consistent and high quality products and services by giving priority to proper project management. This has been made by planning in appropriate way projects, by meeting objectives on time and on budget. The goal is defining in an accurate way requirements and objectives by thinking about the user needs and environment, by preparing functional

specifications and providing training and implementation.

To meet customer experience ease-of-use and time-to-delivery objectives, resources with experience in user-focused design and rapid development methodologies are especially important.

Sanco has been recently turning out to be the largest

Italian company in the fire fighting field both for its dimensions (28,000 m² of which half is covered) and its annual turnover, reaching about 50 millions euros and this could be done thanks to its experience all around the world, at different latitudes, touching Norway down to South Africa, crossing over the Middle East till the Empire of the Rising Sun.

Its two different production lines, namely the electronic one for fire & gas detection control panels and relevant accessories and the other one relevant to mechanical fire

suppression systems, equipment and fire trucks, have been growing thanks also to recent projects. For these reasons Sanco's continuous growth has led the company to increase its production range; among the traditional fire fighting systems included in its program, it provides to its clients the following:

- fire & gas detection systems;
- deluge and water mist systems;
- foam systems (low, medium and high expansion);
- twin agent systems;
- dry chemical powder systems;

Sanco SpA, an Italian company, successfully operates not only in design and construction of fire suppression systems and equipment but, above all, in the research and development of new technologies for a highly specialised sector

- remote controlled monitor systems;
- gas fire fighting systems: CO₂ (high and low pressure), argon, IG541 (Inergen), IG 55, HFC227ea (FM-200);
- mobile equipment;
- fire fighting vehicles (water, water/foam/powder, twin agent, multi-purpose etc.);
- special equipment/systems.



Fig. 2 - Deluge valves on skid



Fig. 3 - Deluge valve units for low temperatures

In particular, there are four countries that have to be mentioned in relation to recent projects: Japan, Iraq, Uzbekistan and Algeria.

The first case: Japan

Japan might never enjoy the oil and gas production that Middle East has, but it is reforming its energy markets. In few years, Japan's energy markets will have a whole new look. Thanks to the remarkable design work in the Research & Development Department of Sanco, new models have been planned and constructed in particular for this technologically advanced and competitive market, such as:

- trailer-mounted monitor, Red Typhoon, capable of discharging 30,000 l/min at 12 bar with a throw of up to 150 m, particularly indicated to fight massive fires that cannot be met with traditional means;
- container-type trailer-mounted units (40') holding the Red Hurricane pumping station, capable of discharging 30,000 l/min at 12 bar, a special mobile unit mainly made up of a system complete with generator, motor-pump and other equipment;
- other mobile and vehicle means.

Sanco got this job thanks to the experience that has been demonstrated to a most demanding customer, who would usually make numerous obstructions and restraints to non Japanese suppliers, favouring local constructors. Nevertheless, the contract was awarded to Sanco by recognizing the special quality of its products and services: Sanco's staff demonstrated its professionalism by following both the specifications and, above all, keeping to the contractual delivery date.

The entire Red Hurricane unit was, in fact, built and tested in less than 3 months and then the 27,000 kg unit was loaded onto the Antonov 129 airplane for delivery.

The second case: Iraq

Sanco has recently been involved to the engineering and construction of fire fighting packages including also many water-foam deluge units for an oil field development project located in Iraq. The project has been carried on in full compliance with the client's specifications and high quality materials have been used, such as nickelbronze valves special stainless steel alloys, thus granting high performances, low maintenance and a long life.

One of the dozens of deluge units is represented in figure 2.



Fig. 4 - Fire fighting trucks

The skids have been transported with special trailers since its dimensions were really out larger than overall road size. Anyway, the biggest project that have been carried on was the one for Baiji power plant, for which our engineers have been consulted for the design, manufacture and installation of all systems and equipment for a total amount of over 12,5 million euros.

Even if this project has involved significant financial and human resources, Sanco met all the contractual terms within the schedule times and within the scheduled budget.

The third case: Uzbekistan

Uzbekistan possesses significant oil and gas energy resources and recent investment by other countries in its gas and oil industry offers economic diversification and growth prospects for the country. Development of these energy resources will generate viable export opportunities and help reduce Uzbekistan's reliance on importation of hydrocarbon products.

Sanco has been supplying its systems and equipment in order to contribute to the broader development goals of the Republic of Uzbekistan through the expansion of the area to extract natural gas and subsequent gas processing for a total amount of about 3 millions USD. All the fire & gas detection systems and fire suppression systems and equipment into the buildings and on site have been selected in order to be supplied by Sanco that has been developing the whole package in order to be used at really low temperatures down till -32 °C.

All outdoor systems have been manufactured by

taking into account of wet and cold climate conditions in Uzbekistan. Really low temperatures demanded to use suitable special material, in order to grant the integrity of the systems, their good performance, a low maintenance and a long life (figure 3). The supply has been certified according to the local Authorities procedures (GOST-U).

All the fire & gas detection systems and fire suppression systems and equipment into the buildings and on site have been selected in order to be supplied by Sanco that has been developing the whole package in order to be used at really low temperatures down till -32 °C.

Algeria's power consumption has been increasing by about 10% annually in recent years, and large-scale investment program have been carried on in order to almost double electricity generation within the next years. For these reasons the presence of Sanco in this country has been

consolidated by recent projects for several power plants located in different sites such as Boufarik, Naama, Terga, Djasser, Labreg, Hassi Berkine etc. All systems and equipment that have been supplied, including all fire & gas detection control panels, related accessories, fire suppression systems as well as special fire trucks and ambulances have been planned to be used into particular plant environmental conditions (figure 4).

Presently Sanco can certainly be considered, in its field, a referenced company both in Italy and overseas, by directly and indirectly supplying in more than 70 countries.

Thanks to targeted actions, in the last 3-4 years Sanco has gained attention from important customers and organisations, who involved the company in the study of some subjects and problems that have been solved together with them.

Sanco objectives do not end with the increase of customers; quality, safety, reliability of the service, continuous improvement, confronting the market,

technological innovation, cost reduction, personnel growth through update courses, represent the pillars of Sanco's activity. For these reasons Sanco has recently got Lloyd's Register Quality Award: it was the only fire fighting company to win this prize, among 1500 selected Italian industrial manufacturers that were participating to this event.

Sanco is today at the top in the protection against fires and can satisfy any request on the International

market. Merit not only to its range of products, but also to the organisation which is cared for in detail. The evolution of Sanco is also fruit of a meticulous and detailed commercial organisation present in dozens of countries with representatives and its own managers. Priority is the study of customer needs. The Sanco team operates to the "customer satisfaction principle".



Nico Zorzetto

Nico Zorzetto, Export & Marketing Director as well as shareholder of Sanco SpA, has been working in the fire fighting field for the last 40 years. Even if he graduated in Economics, he has always been dedicating its interest to technological innovation for "reliable products".

He has been participating to the realization of several new products and systems; in particular he is co-creator

of airmobile fire fighting systems (fixed type and rotating wing) for the fire fighting of bushfires. He has been publishing several articles – national and International - relevant to fire fighting subjects.

He operates also with national and International organizations for the Civil Protection Organizations, as well as with security matters, with jobs also with NATO.