

## IRC CENEMES

### IBERCO

(Ibérica de Suministros y Construcciones, S.A.)

# Experts in submarine

More than 20 years of experience and continual investment in R+D have made IBERCO one of the main submarine technology and research firms in Spain. As a specialist in multidisciplinary engineering, this company designs and manufactures deep-diving scuba systems for military applications, gas mixtures, pressure apparatuses and kits for thermal soldering treatments, as well as hyperbaric chambers, also known as compression chambers. The firm also provides direct service to the Spanish Navy, Army, shipyards and the naval industry. IBERCO is headquartered in Cartagena as one of the only ten hyperbaric chamber manufacturers in the world. This company has developed 25 of the 30 installations of its type located in Spain.



**Jacinto Paredes**  
General manager



**One of the main activities at IBERCO is the production of hyperbaric chambers. How and when did the firm begin developing these chambers?**

We began this activity in 1984 and since then have been able to offer general services to the Navy, Army and the naval industry. In order to produce the chambers, we must have the administrative authority to install pressure and gas equipment, and readapt hyperbaric chambers according to current legislation. Our experience with the chambers began 17 years ago when we won a Navy-sponsored public competition, which helped us establish relations with the Navy agency. Since then, we have continued developing this kind of equipment, which also allows us to contribute to the well-being of society.

**Has IBERCO developed its own technology for hyperbaric chamber production?**

Our hyperbaric chamber technology

has been 100% developed by IBERCO and we also make the majority of chamber components. All of our processes follow ISO 9001-2000 measures and we readapt existing hyperbaric chambers to keep up with legislation. Currently, we are finishing up some engineering and partial manufacturing projects for components of a hyperbaric chamber to be installed in Chile. We have sold the engineering and prefabricated parts so that when these components arrive in South America, they can simply weld them to an American chamber.





# technology



## What role do research and technology play in hyperbaric chamber production?

Now that most chambers are made up of similar primary components, research has become very important to gain an edge over competitors. The only difference is the approach to solving technical challenges, which are basically door locking and water-tightness systems, security systems for medicine dispensation, fire protection systems, solutions for accurate lighting as well as silent functioning. In addition, these techniques differentiate due to variables such as pressure, size and maximum patient capacity. We develop around 90% of our chambers with our own technology, the remaining 10% being based on client specifications. One example is the hyperbaric chambers designed for The Marine Research Center at the University of Port, who requested smaller sized chambers for raising shrimp and sole. This required us to tailor their chamber to meet specific characteristics.

## IBERCO developed the first non-magnetic hyperbaric chamber in Spain in collaboration with a German company. Tell us about that project.

This chamber was made for the Spanish Navy's minesweeper needs. We had to

make the chamber from 100% glass fiber and non-magnetic materials. In order to ensure scuba divers' safety, the Navy needed to carry onboard a chamber which did not attract magnetic mines. We signed a technology transfer agreement with a German company which, during this six-month project, sold us the welding process for the various chamber parts. Our company still did the rest of the chamber design and plans. We have made a total of 6 of these chambers to date, which have been installed in minesweepers across Spain. They are made with a substance called aluminum magnesium 4, which has a high resistance to corrosion by seawater and the marine environment.

## IBERCO also maintains a strong relationship with the IZAR shipyard. What is this relationship based on?

We give support to IZAR projects in local thermal treatments for submarine ring welding, or rather, we build the machinery necessary for this type of thermal treatment.

## What do you think of the Sea and Naval Technology Center that is being created?

This wonderful idea is a necessary project. I think its location in the Fuente

Álamo Technological Park will add to its success. We are certain that we will use support from this technology center in future developments, just as we are using it from the Metal Technology Center.



Hyperbaric chamber designed by IBERCO

## Recently you attended the Hannover Messe fair. What was the outcome of your trip?

We went to that event to make contacts and find companies who would be interested in technology transfer. The Hannover Institute of Naval and Subaquatic Technology became interested in our hyperbaric chamber technology and we have begun dialogue with them. In addition, at the fair we were able to find a series of materials from a German manufacturer, from whom we have made our first order. Although some of our materials are bought in the international market, our intention is to obtain as many materials as we can here in the Region of Murcia. In fact, our company uses more and more Murcia-made components each year.