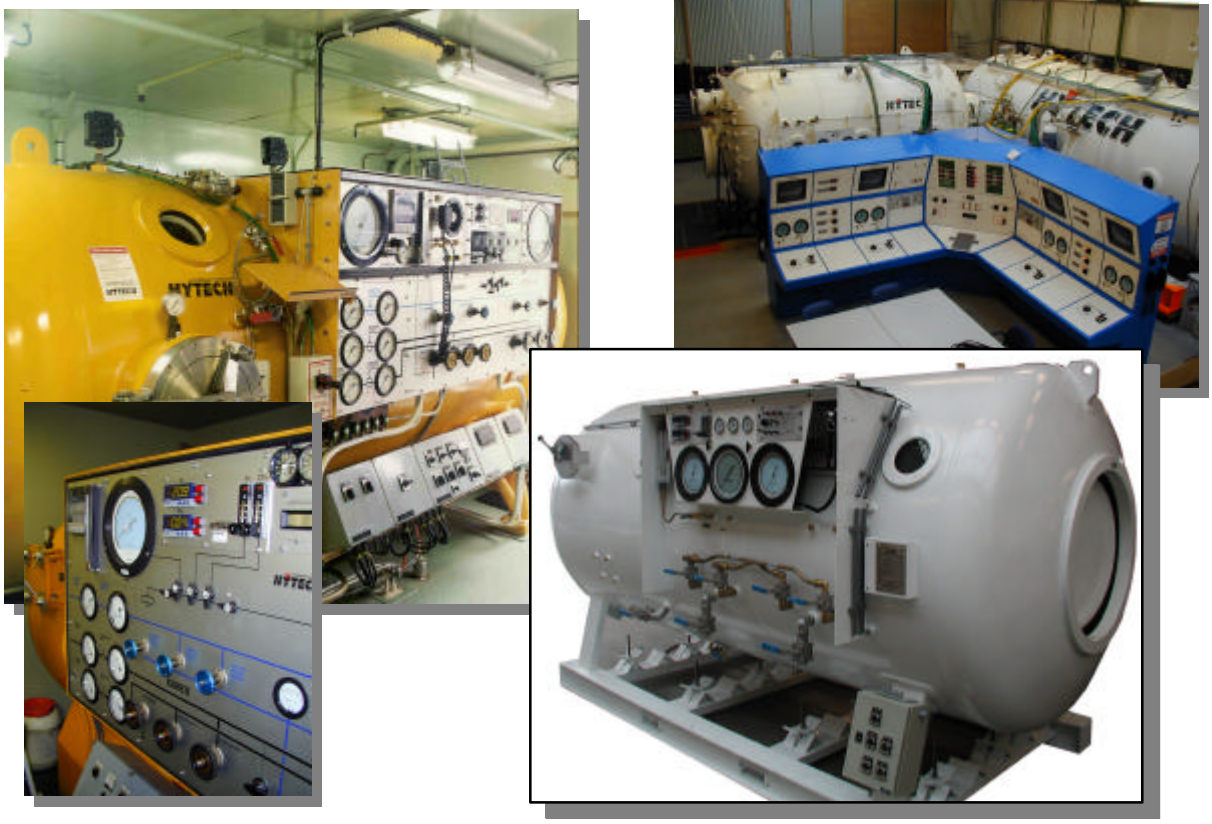
HYPERBARIC TECHNOLOGY
HYTECH

Decompression Chambers

Diving - Decompression Chambers

The Hytech built decompression chambers are generally considered among the best available today. For any application. This of course has its reasons. We have a lot of experience with deco's, also from within. At Hytech, decompression chambers are not designed on the drawing board, but in the field. Divers among divers, mixing seasoned experience from way back with the fresh points of view from today. We feel decompression chambers should be instantly simple to operate, to avoid possible errors or losing precious time.

We manufacture decompression chambers in all kinds of materials and configurations. Aluminum, steel, 2-person transportable or 10-person, you name it. We have standard tanks, but we are by no means stuck to one model.
All decompression chambers are custom-made, according to your specifications, to fit your applications precisely. Safety and reliability are of course important features of each chamber built by Hytech. We can build our decompression chambers according to any standard you choose: Lloyd's Register of Shipping, British Standard, IMCA, D.N.V., et-cetera.



Hytech Decompression Chambers

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General

A standard decompression chamber comes with two compartments, the main chamber and an airlock. The chamber is skid-mounted and has large lifting lugs for increased mobility. The tank will go wherever the diving action is.
Both the inside and the outside of the chambers are coated with a special coating. Working pressure is usually 5,5 bars (80 psi), but chambers up to 35 bars (515 psi) can also be provided. For integration in existing systems, the chambers can be supplied with connection flanges to fit any bell or auxiliary chamber. The skid can be used to integrate the oxygen and air cylinders required to provide a maximum operational independence. The pressure hull has a number of spare penetrators that allow additional systems to be installed. A large size medical lock is a standard feature. View ports with a diameter of 150mm allow observation of both compartments.

Air bank on skid

Valves, fittings and piping.

The pressure system is over dimensioned for structural strength and better flow. The pressure system starts at the compact Hytech "Pressure Master" high flow pressure regulator, that allows incredibly short pressurization times, well within any accepted standard.
Hytech decompression chambers are built for fast action. All relevant operational controls and valves are arranged logically on the control panel. No searching for controls, or following piping to see "where it comes from and where it goes".
Controlled decompression is nothing else than a medical therapy. It is meant to cure the diver from latent physical damage or to actually treat him for a barotraumatic disease. Decompression procedures should be handled with the greatest care. This leaves very little room for errors, so all instruments and controls should be completely reliable. That is why we only use the best components possible on our tanks. For chamber pressure control we use large (8,5") high precision (0,25%) therapeutic gauges. These gauges are zero-adjustable, and feature mirror-scales in both meters and feet divisions. The internal lighting is also a Hytech product. The light comes into the chamber, while heat and electricity are kept on the outside.
A large range of additional systems can be installed on the chambers. These include analyzers to monitor the chamber atmosphere, heating and cooling systems, mixed gas supplies, remote control, video monitoring of both compartments, and anything else you can think of. Try us!!

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Comms & Lighting

CO_2 Scrubber

The inside.

Let's have a look inside the tank now. The main chamber is accessible trough the entrance lock. Both have large diameter double hinged doors (Ø700mm). All compartments have flat floor-boards. The in-and outgoing lines are protected by safety skin valves. The pressurization system is provided with adequate silencers to reduce noise to an acceptable level. The air dump system has been constructed in such a way that it can not be accidentally blocked by hands, clothes etc.

An oxygen supply is available in both the main chamber and the entrance lock. Both compartments have a BIBS system, using overboard-dump masks. This means the exhaled oxygen is discharged outside the tank, to prevent a high oxygen level inside the chamber. A communication system is also provided in both compartments. In case all fails, a small hammer is available for communication by way of knocking signals. The heating system and the silent, but very effective Hytech CO2 scrubbers are mounted under the bunks.

Inside view of decompression chamber

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