

HYPERBARIC OXYGEN THERAPY CHAMBERS RELY ON SWAGELOK PRODUCTS

Although hyperbaric oxygen therapy (HBOT) has been used to treat decompression illness in deep sea divers for many years, the therapy is now gaining exposure as a viable treatment for a variety of conditions, including carbon monoxide poisoning, severe burns, and diabetic ulcers.

As a part of this growing trend in HBOT treatment, hospitals are looking to mobile hyperbaric chambers. The concept behind a mobile unit is that it allows two hospitals to share a single system. For example, two groups of 10 people could be treated at Hospital A in the morning, and two more groups of 10 people could be treated at Hospital B in the afternoon.

HyperTec, Inc., located in Olney, Texas, is the manufacturer of the first truly mobile hyperbaric chamber and is a long-time customer of Texas V & F, an authorized Swagelok sales and service center. The mobile HBOT unit is a 10-patient hyperbaric chamber that fits snugly inside a typical 96-inch van. And, the mobile unit is loaded with Swagelok® components—mainly 1/4, 1/2, and 1 inch brass Swagelok tube fittings.

Phil Janco, owner of HyperTec, Inc., says he never considered using anything but Swagelok components to outfit the unit. More than 35 years ago, Janco started his career in the diving industry and purchased his first Swagelok product—a helium-tight check valve. He was impressed with the reliability of Swagelok products and liked the versatility of Swagelok port connectors and tube stub adapters. In addition, Janco appreciates the range of services available from Texas V & F, including a vendor managed inventory with consignment program. But, Janco says that his primary concern is product reliability.

The chamber's instrumentation system, which is built with 1/2-inch brass Swagelok tube fittings, delivers pure oxygen to the chamber and directly to the patient. Within 12 minutes of entering the chamber and breathing pure oxygen at pressures higher than atmospheric pressure, every gas except oxygen is shifted out of the patient's body. This super-oxygenation offers several benefits, including enhancing circulation and the body's ability to heal. As the patient exhales, gases are vented to atmosphere outside the chamber through a sophisticated 1/2-inch system that is also outfitted with Swagelok tube fittings. Outside the chamber walls, a one-inch system helps eliminate the risk of backpressure.

Janco is so familiar with Swagelok products that he trains his own installers. He notes the biggest challenge is changing the mindset of installers who want to tighten the fitting as hard as possible when a 1 and 1/4 turn provides leak-tight service. When asked about his commitment to Swagelok products, Janco said, "My life depends on it. Simple as that."



Quarter-inch lines run to an analyzer system that senses chamber depth and carbon monoxide levels and is monitored by the chamber attendant.