

MULTI-OCCUPANCY FLEXIBLE RECOMPRESSION CHAMBER SYSTEM (MOFRC)

A Lightweight, Dual-lock, 6 ATA, 3-person rated, portable Hyperbaric Chamber System

PCCI Hyperbaric Systems is the single source for supply of the Multi-Occupancy Flexible Recompression Chamber (MOFRC) to U.S. Government agencies.

The MOFRC was developed by PCCI and SOS Group through an extensive research and development effort that spanned over the period of 10 years, and under multiple contracts from the Navy and the National Oceanic and Atmospheric Administration. The MOFRC is a 42 inch inside diameter, lightweight, foldable, dual-lock hyperbaric chamber system rated for up to 3 (plus one spare) occupants in the Main Lock, and 2 occupants in the Entry Lock. The system is rated for 6 ATA (5 Bar) working pressure and is capable of conducting dives using Navy Table 6A. The system is designed for quick-deployment in remote and challenging environments that require immediate medical attention for diving, submarine escape or other rescue applications. The MOFRC offers a 1,000-lb advantage over similar metallic transportable recompression chambers and much easier to transport, handle and deploy.

The MOFRC meets the requirements of ASME PVHO-1 (Safety Standard for Pressure Vessels for Human Occupancy), Case 18 (Use of Nonmetallic Braid Reinforced Flexible Membrane Multiple Occupancy Vessels under PVHO-1), and redundancy requirements for US Navy GENSPEC requirements for Design, Fabrication and Certification of flexible recompression chambers.

System Overview

2 x Foldable Modular Chambers

MAWP: 5 Bar
42"/106cm Diameter
ML: 100"/254cm
EL: 40"/100cm.

Interlock

To allow medic to enter the chamber during the treatment

Lifting Eyes

For overhead lift

Optional Emergency Gas

Bottles Back up Breathing & Pressurization Gas Bottles Available upon request



CDRS System

Real time data which displaying Pressure/Time graph, O₂, CO₂, Temperature and Humidity levels with built-in alarms.

Vertical Mounted Control Panel

The Control Panel provides front-mounted chamber & breathing gas controls plus combined chamber monitoring in two stacked modules, in a single case. Hoses are inserted through the panel at the back of the Control Panel.

Palletised Feet

For pallet truck or fork-lift.

Modular Gas Storage System

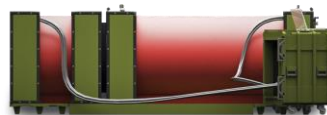
Stacked in banks of 3 or 4, the gas storage systems provide pressurisation and breathing gas to the chamber. Each bank is separable to allow for human lift.

Key Features



Modular Construction

The MOFRC is designed to facilitate rapid transportation and assembly to manage hyperbaric emergencies on scene and without delay. The system is capable of parachute or helicopter delivery.



Dual Compartment

The MOFRC is a dual compartment chamber – a 2.5/3 metre Main Lock for patient treatments and an Entry Lock, to allow medical personnel to enter and exit the chamber during operation.

6 Reasons To Choose MOFRC System

1

WEIGHT

The world's lightest multiple occupant hyperbaric chamber

The MOFRC utilizes the patented lightweight pressure vessel technology, reducing weight when compared to traditional transportable hyperbaric chambers. This benefits the end user by making the system light enough for to transport by pallet truck, crane or (with certain models) multiple-person human lift capability.



2

PACKAGED SIZE

Foldable tube with small packaged volume

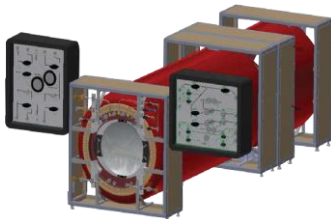
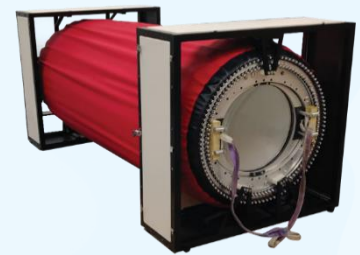
The small packaged volume and smart design of the Hyperlite MOFRC Case is intended to provide the end-user with multiple options for mobilization through base lift – through base lift, overhead lift or using a wheeled option. The external frame support, termed the exoskeleton, allows for multiple fixture and fitting options to be added, making the case highly versatile for additional subsystems and transport options.

3

CERTIFICATIONS & COMPLIANCE

Global certifications, the most extensive testing & compliance

Our multiplace chamber systems have completed a rigorous prototype test program, witnessed by Lloyds Register and in compliance with ASME PVHO Case 18. In addition, at the request of a military customer, the MOFRC underwent a damage tolerance test with one (1) .762 FMJ fired from an M16 assault rifle. This demonstrated that the MOFRC is inherently safe even in austere environments. MOFRC complies with Navy Genspec gas redundancy requirements.



4

OPERATIONAL CAPABILITIES

High pressure and highly durable

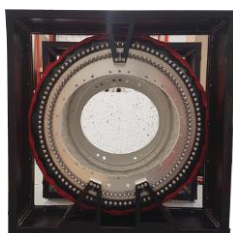
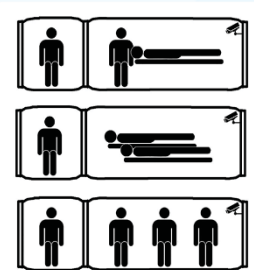
The MOFRC pressure vessels exceeded all previous known pressure limits for textile hyperbaric chambers anywhere in the world. Our maximum prototype pressure test reached an impressive 246 msw (24.6 Barg / 25.6 ATA) without failure, allowing the system to be rated up to 50 msw (5 Bar/6 ATA). These pressures allow the the system to be operated using some mixed gas dive tables.

5

OCCUPANTS

Multi occupant double-lock providing hand-on medical care

The MOFRC System is equipped with a large Main Lock (appr. 250cm) and a smaller Entry Lock (appr. 100cm) providing ample room inside the chamber for multiple patients or for a patient and a tender to provide hands-on medical attention. The Entry Lock allows for a patient to move in and out of the Main Lock during a



6

AFTER SALE SUPPORT AND CUSTOMER SERVICE

Supporting you throughout the product life cycle

At PCCI Hyperbaric Systems, we are committed to supporting you from project inception to all the way to end of product life cycle. We provide you with training, servicing, and customer support throughout. PCCI in collaboration with our vessel supplier SOS are the only hyperbaric chamber manufacturers able to offer spare components delivered to you and minimize down time.

Technical Specifications

Exact specification can be altered to customer preference

Description	Imperial	Metric
Main Lock (ML) Length	100 in.*	254 cm*
ML Diameter	42 in.	107 cm
ML Pressure Vessel Volume	80 ft ³ *	24.4 m ³ *
Entry Lock (EL) Length	40"	100cm
EL Diameter	42 in.	107 cm
EL Pressure Vessel Volume	94 ft.3	2,662 litres
Window Thickness	1.7 in.	4.31 cm
Bladder Thickness	22.19 in.	56.36 cm
Max. Allowable Working Pressure	165 fsw	50 msw
Production Test Pressure	248 fsw	76 msw
Prototype Test Pressure Achieved	809 fsw	246 msw

CASES	VOLUME	DIMS IN INCHES	DIMS IN CM	WEIGHT LB	WEIGHT KG
MAIN LOCK	1.58m	297 x 264 x 330	117 x 104 x 130	506*	230*
ENTRY LOCK	1.58m	297 x 264 x 330	117 x 104 x 130	469*	213*
Control box and ancillary cases are variable based on required specification					

DESIGN CODES & STANDARDS	
DESIGN CODES	ASME PVHO-1 (2012) & Case 18
TEST WITNESSING	LLOYD'S REGISTER
QUALITY ASSURANCE	COMPLIES WITH ISO 9001 REQUIREMENTS

PROTOTYPE TESTING	
OVERPRESSURE TEST	10 x PVHOs at 360 psi for 30 minutes @ 38°C
EXTENDED DURATION CREEP TEST	10 x PVHOs at 300 psi for 300 hours @ 38°C
CYCLIC PRESSURE TEST	4000 CYCLES - 0 to 80 psi
CYCLIC FOLDING TEST	1100 CYCLES
COLD STORAGE TEST	2 x PVHOs @ - 18° C
DAMAGE TOLERANCE TESTING	Controlled depressurisation after .762 round from 91 meters



Head Office
300 North Lee St., Suite 201
Alexandria, VA 22314 USA,

+ 1 (703) 229-1096
www.PCCIHyperbarics.com
info@PCCIHyperbarics.com