

# SOS Hyperlite Equipment List

All Hyperlite Hyperbaric Stretchers & Treatment Systems are supplied as fully operational units. Being of modular construction, the following ancillary equipment is either included or available as optional extras. Please refer to the key to determine which items are included with each model.



## The Folding Braid Technology Tube

The three part tube comprises an internal PU coated nylon pressure retaining bladder enclosed within the Vectran® braided tube. The protective cover is a fire retardant PU coated polyester woven fabric.

- ✓ Military
- ✓ Yacht
- ✓ Standard



## Two Acrylic Windows

ASME/PVHO-1 approved 2.5cm (1in) inch thick acrylic windows, one fitted an anodised aluminium penetrator plate, the other with either a medical lock or a blanking plate. The windows are surrounded by nylon protection rings that seal on the flexible tube. The internal penetrator plate is anodised aluminium.

- ✓ Military
- ✓ Yacht
- ✓ Standard



## Built-in-Breathing System

Each Hyperlite is supplied with an Avox (formerly Scott) PressurVak II mask that attaches to the inside of the penetrator plate. The face seal is removable with five sizes available (Extra-small, Small, Medium, Large and Extra-large). Normally an extra-large face seal is supplied. The patient has a control to adjust the inlet gas supply sensitivity for easy inhalation. All exhaled gases are exhausted from the chamber.

- ✓ Military
- ✓ Yacht
- ✓ Standard



## Control Box

The comprehensive control box provides simple controls to increase chamber pressure, decrease chamber pressure and control which breathing gas is supplied to the patient. The control box also indicates the pressures of the gas supplies and is equipped with an oxygen valve for emergency oxygen shut-off.

- ✓ Military
- ✓ Yacht
- ✓ Standard

## Air & Oxygen Regulators



Standard Air Regulators (A-Clamp or DIN) and Oxygen Regulators (CGA 540, Pin Index or DIN) provide gas supplies at low pressure to the control box. In order to allow full system redundancy, a second set of regulators are supplied with the military version.

Standard	✓	Military	✓	Yacht	✓	Standard
Back-Up	✓	Military	✗	Yacht	✗	Standard

## Remote Air Inlet Hose



The Remote Air Inlet Hose with a silencer connects to the inside of the penetrator plate and runs along the inside of the vessel to the opposite end. This allows an effective method for venting/flushing the chamber

✓	Military	✓	Yacht	✓	Standard
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## Lifting Handle Straps with D-Rings



The Lifting Handle Straps are equipped with multipurpose D-Rings to attach the control & ancillary boxes on top of the unit when the system is operational as well as to attach a horizontal lifting sling and for tying down the unit during transportation. The straps are also equipped with nylon chocks, positioned underneath to offer additional rigidity to the system.

✓	Military	✓	Yacht	✓	Standard
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## Ancillary Equipment Case



The Ancillary Equipment Case is suitable for storing the air/oxygen adaptors, monitors, operational manuals, comms headsets and other loose items when the unit is packed. In operation the case can be secured on top of the inflated stretcher.

✓	Military	✓	Yacht	✓	Standard
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## Travel Case Mobility Kit

The Travel Case Mobility Kit includes four removable wheels that can be quickly fitted to the base of the large box allowing the system to be manoeuvred easily. Two wheels are fitted with brakes and two with swivels. A pull strap is also supplied.

✓ Military ✓ Yacht ✓ Standard



## Sprung Hoops (3 Supplied)

The hoops provide the unpressurised tube with a more cylindrical shape, allowing easier entry for the patient along with considerable gas saving. After placing a hoop well inside each end and one in the centre, the slip mat is laid inside the unit. With the tube bladder now well away from the patient's face, facemask and communications headset, the patient may be placed inside with ease on the drag mattress, prior to insertion of the end windows and system pressurisation.

✓ Military ✓ Yacht ✓ Standard



## 2 Way Duplex Intercom System

The Two Way Duplex Intercom System allows operators to stay in constant contact with the patient throughout the treatment. The operator wears a headset with boom microphone, which is hardwired to the battery pack. The battery pack is fitted with two PP3 9 Volt batteries each on a separate circuit, one for normal use and the other, an emergency back-up circuit.

✓ Military ✓ Yacht ✓ Standard



## LCD Dual Timer Count Up & Down

This dual timer is an extremely useful adjunct to anyone carrying out a transfer/treatment in the stretcher, especially when both air and oxygen are provided alternately to the patient and pressures need to be altered at set intervals, as in most diving therapy tables.

✓ Military ✓ Yacht ✗ Standard

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## Thermometer



These compact LCD electronic digital units indicate chamber temperature (in °F or °C) when viewed from outside the chamber through the window. It also has a clock mode.

✓ Military ✓ Yacht ✗ Standard

## Medical Lock



The medical lock permits the transfer of food, drink, medication and other items for the wellbeing of the casualty, into or out of the stretcher, through a two door arrangement in the head end dome. Whilst the chamber is in operation, one of the two doors is always in position to maintain chamber pressure. The other door may be removed for access to the lock. Bleed screws on both sides of the lock allow pressures to be equalised between the lock and either the chamber or the environment. The internal dimensions are 12.5 cm. (5") dia. x 14 cm. (5 1/2") long and the volume of the lock is 1720 ml. (105 cu. in.)

✓ Military ✓ Yacht ✗ Standard

## Central Handle Strap



This handle strap provides additional handles for a six person lift (rather than four) during the movement of a patient under pressure (TUP). The strap fits around the stretcher tube through the two central loops of the outer cover and need not to be removed when folding the chamber.

✓ Military ✓ Yacht ✗ Standard

## Horizontal Lifting Sling



A lifting sling, complete with a central ring and four lockable snap hooks is recommended for winching the Hyperlite complete with accessories up & into a hovering helicopter. All lifting slings are supplied with labels listing performance criteria.

✓ Military ✓ Yacht ✗ Standard

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## Exhaled Gas Exhaust Hose

In restricted spaces, such as in an ambulance, aircraft cabin or helicopter, it is important to pipe away the exhaled breathing gases (which contain high oxygen levels) to the cabin vent for fire safety reasons. The hose connects to the breathing gas outlet of the stretcher.

✓ Military    ✓ Yacht    ✗ Standard



## External Analog Back-Up Pressure Gauge

The back-up pressure gauge provides the operator with pressure information during transfer of a patient (TUP) into a multi-place chamber when the control box is disconnected, and as a back-up gauge in all other situations. Adjustment calculations may need to be made when the ambient pressure is not at 1 ata at sea level.

✓ Military    ✓ Yacht    ✗ Standard



## Air and/or Oxygen Adapters

In view of the different valves fitted to air and oxygen cylinders in use around the world, the supply regulators may require further adapters, just in case of additional gas needs (others may also be requested). These adapters are stored in the ancillary items case.

✓ Military    ✓ Yacht    ✗ Standard

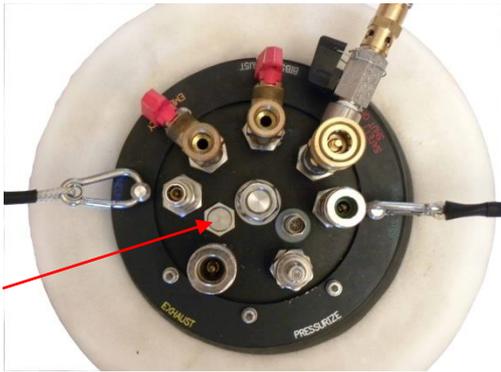


## Oxygen or Carbon Dioxide Monitors

These units may be supplied to monitor the stretcher gases and the patient's exhaled gases at the penetrator plate. They display, on an LCD screen, the gas partial pressure as a percentage of the gases present. As they are not used on a continuous basis, there is no requirement for alarms as found on more sophisticated devices.

Oxygen	✓	Military	✓	Yacht	✗	Standard
CO <sub>2</sub>	✗	Military	✗	Yacht	✗	Standard

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## Additional Mechanical and/or Electrical Connections

Customers may require additional pneumatic and/or electrical connections at the penetrator plate for intensive patient monitoring and critical care. E.g.: ECG, O2 pulsometer, Ventilator etc. After several requests from experts in the medical field, SOS Hyperlite has now added the capability of a penetrator specifically designed to connect to an IV line.

Military
  Yacht
  Standard



## Drag Mattress & Slip Mat

The fire retardant drag mattress has been specifically designed to provide quick and easy insertion and removal of the patient, whilst providing a comfortable mat on which to lie. The slip mat facilitates a smooth transfer over the entry lip and reduces the wear and tear on the non slippery tube lining.

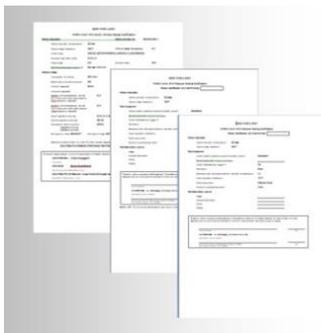
Military
  Yacht
  Standard



## Military Spec. Documentation Package

The military documentation package includes comprehensive traceability including records of material sourcing, purchasing, production, cleaning, inspection and testing. These are normally maintained at the assembly and test facility. PVHO certificates are provided to the customer with every chamber manufactured.

Military
  Yacht
  Standard



## Independent Third Party Witnessing

When the purchaser or his/her agent does not attend the final proof testing of a unit prior to delivery, independent third party witnessing can be arranged on your behalf. It is not a requirement that each unit, built to the US National Standard ASME/PVHO-1 (ASME/Pressure Vessels for Human Occupancy) and Case 12, needs such witnessing.

Military
  Yacht
  Standard

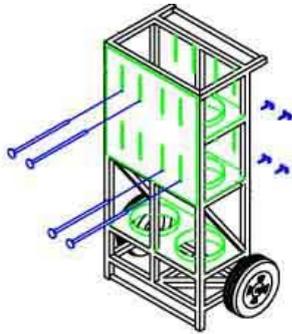
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## Gas Storage Cylinders

This package comprises three 15 litre oxygen cylinders and two 15 litre air cylinders rated at 232bar (3360psi) all with boots and one backpack each for air and oxygen. This is sufficient to complete a 4 hours 45 minute *US Navy Table 6* therapy, subject to minimal flushing. Cylinder regulators supplied for use with the Hyperlite are normally DIN or International for air, and are DIN, Pin Index or CGA for oxygen. Alternatively lighter aluminium cylinders may be needed, where lower oxygen refills cannot achieve 200bar.

- ✗ Military
- ✗ Yacht
- ✗ Standard



## Gas Storage Rack

Often requested by the military, gas storage racks hold much larger oxygen cylinders and enable simple wheeled transportation. A full US Navy treatment table 6 (4 hrs 45 mins) requires two racks each with one oxygen and one air cylinder. The racks can be adjusted to hold different sized cylinders.

- ✗ Military
- ✗ Yacht
- ✗ Standard



## Vitalink<sup>3</sup> Patient Monitoring Device

The Vitalink<sup>3</sup> Monitoring System provides vital signs analysis of ECG, pulse oximetry and temperature via Bluetooth™ or hardwire, to a main console that can transmit the information in real-time via satellite or the internet to a medical doctor anywhere in the world. Blood pressure can also be monitored, but only when the patient is outside the chamber.

- ✗ Military
- ✗ Yacht
- ✗ Standard