

# NORDSEETAUCHER GmbH

Hyperbaric Tunnel Construction and Diving®

and

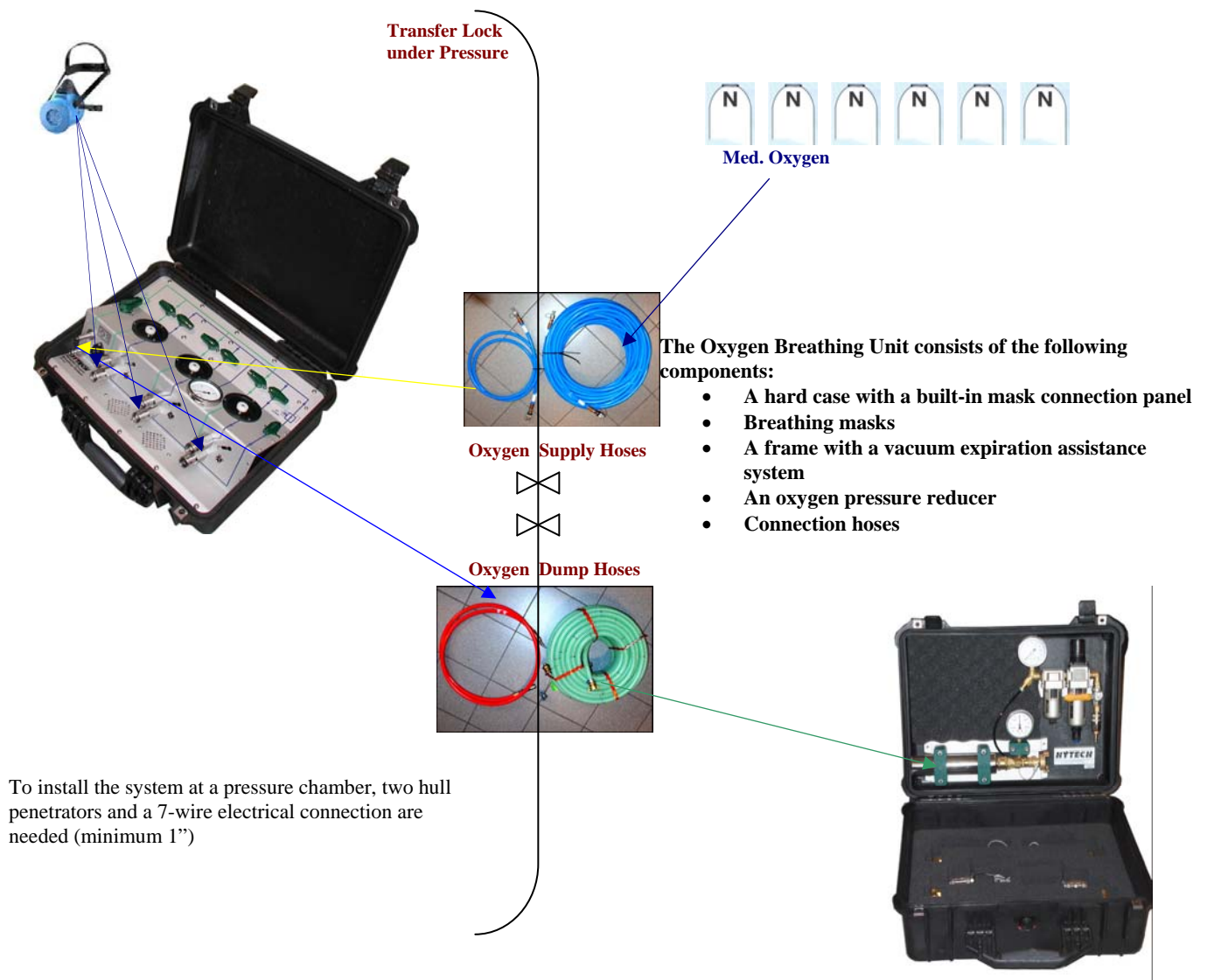
HYPERBARIC TECHNOLOGY  
**HYTECH**

presents

## POBS - Portable Oxygen Breathing System

(Utility Model DE 20 2005 014 078)

The portable oxygen breathing system is a solution for pressure chambers where fragile mask and communication connections are not permanently needed. For example locks built into tunnel boring machines, where the lock is mostly used to transfer materials into the head of the machine. The portable oxygen breathing system can easily be taken out of the pressure chamber when it is not in use for decompression. The system can provide up to three masks with oxygen, and has communication connections built in for a 3-channel communication set.



The Frame can be placed at a safe location to dump the exhaled oxygen. The frame is connected to the pressure chamber with a large diameter exhaust hose.

The frame has an expiration assistance system.

### **Portable Oxygen distribution system for 3 masks includes:**

- Heavy duty transport box, complete with integrated panel, consisting an aluminium anodized control panel, with line diagrams, pictograms, as well as 3 x inhalation and exhalation breathing regulators with a free flow adjustment knob, all with inhalation and exhalation isolation valves.
- The interface hoses between the oxygen inlet and the oxygen outlet system, length each hose 3 meters, and complete with phosphor bronze swaged fittings.
- The chamber wall penetrations with control valves
- Oxygen inhalation and exhalation hoses with a length of 45 meters
- 1 x high pressure oxygen regulator; 1 x oxygen BIBS vacuum controller; 1 x low pressure reducer in the control panel
- Exhaust vacuum system which makes it possible to exhale at shallow depths, and this exhaust vacuum control system will be installed in an ABS heavy duty transport case (identical to the oxygen panel which is used for the portable oxygen control panel)
- all quick connectors on the oxygen control- as well as vacuum panels-, as well as on the hoses-, will be provided with blind caps/protective caps

All fitted together to a full working system.

### **The breathing masks to be connected to the portable oxygen system**

- We supply "Sea Long" resuscitation masks with a soft wearing comfort, better than the most other masks on the market.
- The mask comes complete with a 90 degrees hose adaptor, and the headgear.
- Also masks are designed for long term use, and can be disinfected easily.

### **The communication system for the oxygen breathing masks:**

- The technician wearing a throat microphone, which has to be mounted around the neck / throat, by means of a small rubber strap

### **The communication box:**

- The communication box is a transportable box with handgrip, and front lid to be installed at the position of the lock attendant or supervisor.
- The communication box is provided with a 220 volt power supply, as well as a rechargeable battery.
- Further the system is provided with volume controls, electrical connectors for the power leads running from the chamber to the diver communication box.
- The length of the connection cable between the man lock and the communication system is up to 45 meters, and will delivered complete with a electrical through hull penetrator, which has to be installed in the chamber wall.