



# DIVEX

## Manufacturers of Quality Diving Equipment



### SHADOW

**6 hour duration**

**Compact and Lightweight**

**Very simple pre & post dive procedures**

**User maintained**

**Low magnetic to NATO standards**

**Comfortable breathing in all attitudes**

**Full face mask or bite mouth piece**

**Optional emergency open circuit bailout facility**

**Significant operational and logistic advantages**

**Divex Shadow** is a long endurance, chest mounted, oxygen rebreather with a potential 6 hour duration, dependent upon the divers oxygen consumption.

This significant increase in performance has not resulted in an increase in size or weight when compared to other systems on the market. This has been achieved through careful design and the use of modern high technology lightweight materials that provide strength and ruggedness.

Limited duration, either as a result of insufficient oxygen supply or limited scrubber canister performance has been an operational restriction on previous generations of closed circuit rebreathers. Due to the ready availability of surveillance equipment such as Night Vision Equipment and Infra Red Sensors, to avoid detection, the combat diver has to be dropped off at an ever-increasing distance from the

objective resulting in him having to swim further. Also the increasing use of Swimmer Delivery Vehicles (SDV) requires the need for an extended duration oxygen rebreather for use by the Combat Swimmer passengers and/or SDV Crew. As a result an extended duration oxygen rebreather is required.

To meet the evolving demands of the modern Combat Swimmer mission, in close cooperation with former UK Special Forces personnel, Divex has developed Shadow, a unique design that is extremely easy to prepare, operate and maintain and is easily broken down and stored in a field pack (Bergen) for carriage over land or for storage in confined spaces such as submarines.

Shadow is Non Magnetic to NATO STANAG 2897 Class A enabling the system to be used for Beach reconnaissance and Very Shallow Water Mine Counter Measures (VSW MCM) operations as well as combat swimmer missions.

To enable the diver to breath comfortably under all anticipated



SHADOW in carrying case

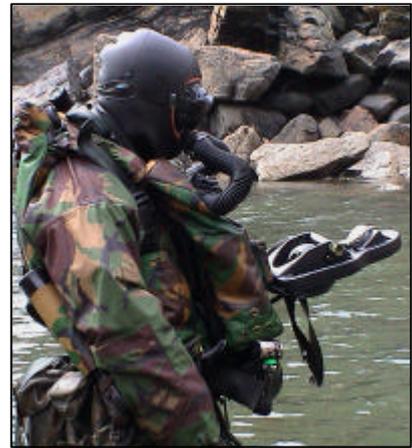
conditions, diving physiologists now stipulate a very low Work of Breathing (WoB) level combined with a minimum hydrostatic imbalance between the diving set counterlung and the diver's own lungs; conventional oxygen rebreathers that position the counterlung within a chest mounted carapace often fail to meet these requirements. However Shadow meets these breathing performance specifications through the use of over the shoulder counterlungs, which provide a streamlined swimming configuration and comfortable breathing in all diver attitudes, even under very high workloads.

Oxygen is supplied on demand and the oxygen cylinder pressure is monitored by an easily accessible pressure gauge. Shadow comes complete with an integrated

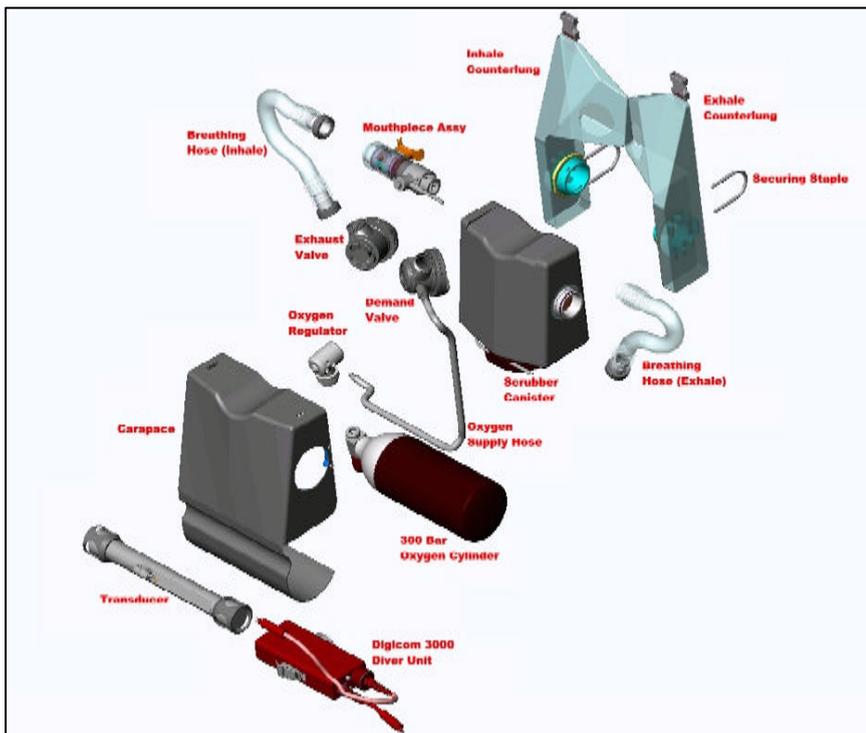
Buoyancy Control Device (BCD), which may be worn as a separate item providing a buoyancy aid when not used with the diving set.

Shadow may either be used with a bite mouthpiece or the Stealth Full Face Dual Mode Mask which enables the user to alternate between the closed circuit mode or an open circuit mode. When in open circuit mode the gas supply may either be from an SDV on-board open circuit gas supply or from the actual oxygen cylinder within Shadow thus providing a unique emergency open circuit bale-out capability that significantly increases Diver safety.

Shadow is easily interfaced with the Divex Digicom Diver Through Water Communications (DTWC) system enabling diver to diver or diver to surface communications in excess of 3000m.



Future stretch potential includes an integrated Carbon Dioxide (CO<sub>2</sub>) and Oxygen (O<sub>2</sub>) monitoring and alarm, 300 bar composite cylinder and increased scrubber canister size.



Exploded Diagram of SHADOW with the Divex Digicom 3000m Through Water Communications System

#### Technical Data

Depth	-	0-15 msw
Duration	-	Max 6 hours
Weight	-	12 kgs in air. neutral in water
Work of Breathing	-	Below NPD/HSE preferred level
Oxygen System	-	Automatic demand activated
Oxygen Supply	-	2 litre 200 bar or optional 2 litre 300 bar cylinder
Canister	-	3.5kg Scrubber

#### Accessories:

- Transport case
- Stealth Full Face Dual Mode Mask (DMM)
- Open circuit quick connect bale out hose for use with the DMM
- Buoyancy control jacket with emergency inflation cylinder
- Divex Digicom 3000m Diver Through Water Communications System
- Maintenance Tool Kit
- Spares Package



Enterprise Drive, Westhill Industrial Estate, Westhill, Aberdeen, AB32 6TQ, UK  
 Tel: + 44 (0) 1224 740145, Fax: + 44 (0) 1224 740172  
 E-MAIL: info@divex.co.uk, Web Site: www.divex.co.uk