



# DIVEX

## Manufacturers of Quality Diving Equipment



### SHADOW EXCURSION



**Combined closed circuit oxygen/semi-closed circuit nitrox underwater breathing apparatus**



**Operationally proven and in service with various Special Operations Forces worldwide**



**Unique modular design enabling three different modes of operation**



**3-6 hour duration**



**Compact and lightweight**



**Very simple pre & post dive procedures**



**Non magnetic and acoustic design**



**Rugged field proven low maintenance design**

**SHADOW EXCURSION** is a combined Closed Circuit Oxygen (CC O<sub>2</sub>)/Semi Closed Circuit (SCC) nitrox Underwater Breathing Apparatus (UBA) that integrates a diver controlled gas supply change over facility enabling diving to 24 msw.

**Increased Operational Versatility:** The unique design of Shadow Excursion offers significant increases in operational versatility. To meet different mission requirements, within minutes the diver may quickly re-configure Shadow Excursion to either of the following modes of operation:

- Closed Circuit Oxygen
- Semi Closed Circuit Nitrox to a depth of 54msw
- Combined Closed Circuit Oxygen/Semi Closed Circuit Nitrox to a depth of 24msw

As a result of this unique versatility, Shadow Excursion may be employed in the following operationally profiles:

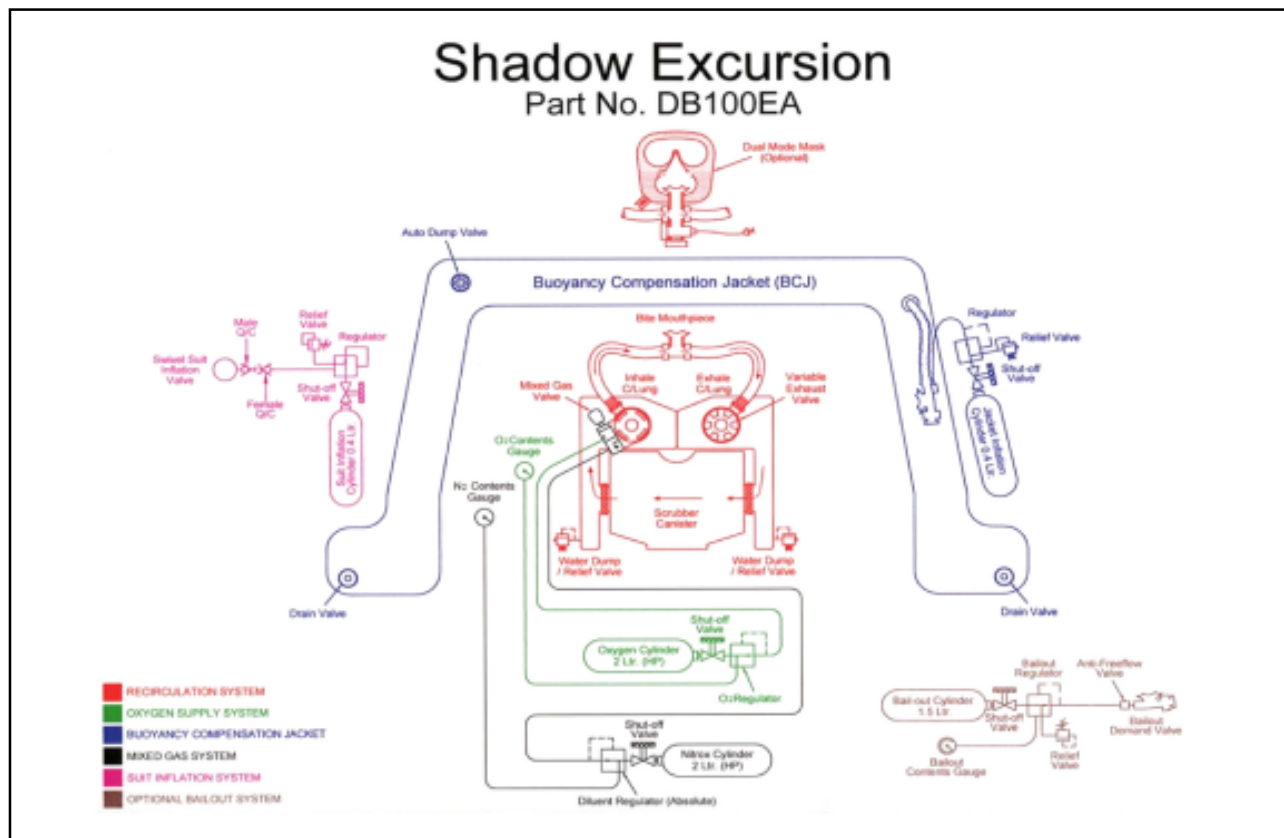
- Combat diving operations (Closed Circuit Oxygen mode)
- Combat diving operations below the safe depth of Oxygen (Combined Closed Circuit Oxygen/Semi Closed Circuit Nitrox mode)

- Very Shallow Water Mine Countermeasures Explosive Ordnance Disposal (Combined Closed Circuit Oxygen Semi Closed Circuit Nitrox mode)
- Swimmer Delivery Vehicle (SDV) operations (Combined Closed Circuit Oxygen/Semi Closed Circuit Nitrox mode)
- Submarine Exit and Re-Entry Casing Diving (Semi Closed Circuit Nitrox mode)

**Principle of Operation:** When in oxygen mode, oxygen is supplied via the automatic demand valve, which also serves as a manual bypass facility. When in nitrox mode, a constant mass flow orifice supplies nitrox to the breathing circuit together with the automatic demand valve, which provides adequate counterlung gas volume during descent and a manual bypass facility. The standard 200 bar, 2 litre oxygen cylinder is augmented with an additional 200 bar 2 litre nitrox (60%O<sub>2</sub>/40%N<sub>2</sub>). Both the oxygen and nitrox cylinder pressures may be monitored by easily accessible pressure gauges.

**Performance:** The O<sub>2</sub> endurance exceeds 3 hours with a charge pressure of 200 Bar assuming a VO<sub>2</sub> of 1.78 lmin (40 RMV). The nitrox endurance is 60 minutes at a constant mass flow rate of 6 lmin when charged to 200 Bar. The CO<sub>2</sub> scrubber is a long endurance canister design based on the field proven Stealth Closed Circuit Mixed Gas Underwater

Breathing Apparatus providing extended endurance that out performs the oxygen supply. This increased 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.



TECHNICAL DATA		ACCESSORIES
<b>Depth Oxygen Mode</b>	to maximum safe depth limitations	<ul style="list-style-type: none"> <li>• Transport case</li> <li>• Stealth Full Face Dual Mode Mask (DMM)</li> <li>• Open circuit quick connect bailout hose for use with the DMM</li> <li>• Buoyancy Compensation Jacket with oral inflation and direct HP or LP inflation</li> <li>• Divex Digicom 3000m Diver Through Water Communications System</li> <li>• Diver Tool and Test Kit</li> <li>• Maintenance Tool and Test Kit</li> <li>• Spares package to suit customer requirements</li> <li>• Oxygen mode accessories</li> <li>• Semi closed circuit mode accessories</li> </ul>
<b>Depth Nitrox Mode</b>	0-24 msw (upgrade to 54msw)	
<b>Nitrox</b>	60% Oxygen / 40% Nitrogen	
<b>Nitrox Flow Rate</b>	6 lmin	
<b>Weight</b>	14 kgs in air complete with buoyancy control jacket	
<b>Work of Breathing</b>	Exceeds international standards	
<b>Oxygen System</b>	Automatic demand with manual bypass	
<b>Nitrox System</b>	Constant mass flow orifice	
<b>Change Over Valve</b>	Multi-turn actuated spool valve with visual/tactile indicator	
<b>Non Magnetic</b>	to NATO standards	
<b>Low Acoustic</b>	to NATO standards	
<b>Scrubber Canister</b>	3.5 kgs double skin carbon fibre	



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