

Shadow Seal

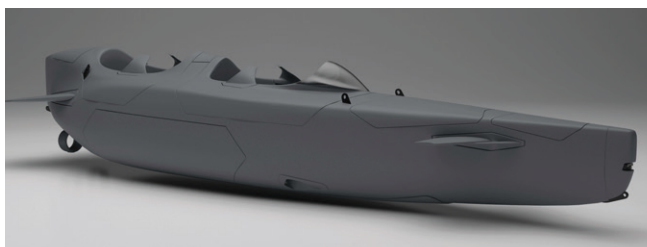


Shadow Seal is a unique Tactical Diving Vehicle (TDV) design that is able to operate in surface, semi-submerged and submerged modes, enabling the discrete and covert transportation of four Operators within the littoral environment.

Two personnel are seated in each of the two cockpits. The vehicle may be piloted by a single Operator located either in the front or rear cockpit, enabling the pilot's role to alternate between forward and aft located personnel.

The vehicle may be bottomed out in shallow water or secured mid-water to a fixed sub-surface structure such as a pier leg, then shut-down and secured, enabling the deployment of four tactical divers and equipment.

Shadow Seal is readily launched from its trailer down a slipway or across a suitable beach. Alternatively it may be launched by a small dockside crane and transported into the area of operations by small surface vessel, submarine, rotary wing aircraft or parachute.



CLOSED CIRCUIT BALLAST & TRIM SYSTEM

To optimise performance and control, Shadow Seal incorporates a Closed Circuit Ballast & Trim System enabling neutral buoyancy to be readily achieved in a range of operational environments.

BUOYANCY SYSTEM

To quickly achieve positive buoyancy for routine or emergency use, Shadow Seal incorporates a buoyancy system supplied by high pressure compressed air.

REMOTE CONTROL

The vehicle has the capability to be remotely controlled expanding its operational employment potential.

SPECIFICATION

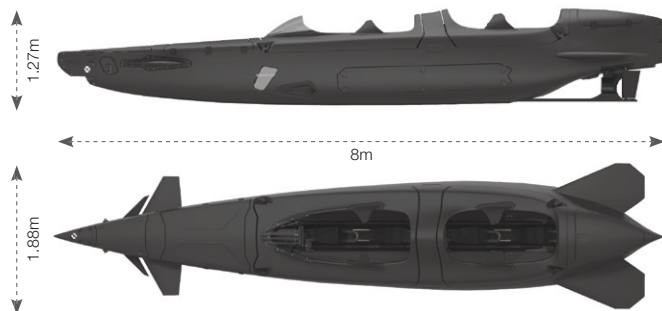
Overall length	800cm
Width	188cm
Height with mast	218 to 412cm (fully extended mast)
Weight	2,500kg
Total payload	220 litres
Operators	4
Total weight	2,500kg + 750kg (personnel and equipment)
Surface sea state	Sea state three (3)
Propulsion thrusters	2 x 9 kW
Battery pack	8 x 10 kWh
Maximum depth	24m
Range submerged	25 nautical miles or 7hrs at 3.5 knots
Range surface	80 nautical miles or 20hrs at 4.5 knots
Built-In-Breathing System	Approximately 120 minutes per Operator at a surface equivalent breathing rate of 20 l/min

BUILT-IN-BREATHING SYSTEM

When submerged, operators use personal life support systems such as oxygen rebreathers, however, Shadow Seal incorporates a Built-In-Breathing System for emergency use.

POWER SYSTEM

Shadow Seal is powered by 8 x 10kWh batteries that drive the propulsion system.



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CONCEPT OF OPERATIONS

