

Stealth CDLSE Mk2 / Mk2-ED

MCM-EOD closed-circuit mixed gas underwater breathing apparatus



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INTRODUCTION

Stealth CDLSE is available in two variants: Mk2 and Mk2-ED. These are the latest variants of JFD's highly successful Clearance Diver's Life Support Equipment rebreather.

Used primarily for MCM-EOD operations, Stealth CDLSE MK2 and Mk2-ED features new and improved O₂ sensors along with an option of cylinders from 15 years to non-lifed.

The Mk2-ED includes an extended duration scrubber thereby providing a dive time of 6-8 hours.

PROVEN DESIGN

The system boasts a proven track record in a range of operational and environmental conditions.

With competitive evaluations conducted by independent government defence agencies and end user organisations, Stealth CDLSE is in service with a number of prominent navies.

With over 600 sets operational globally, Stealth CDLSE is one of the most popular MCM-EOD rebreathers in service.

KEY FEATURES



Max depth
100msw



Hours duration
(Mk2-ED variant)



24kg Weight
(Mk2-ED variant)



Non-
magnetic

PERFORMANCE

- 100msw using Heliox or Trimix as a diluent gas
- 40msw using Air, Heliox or Trimix as a diluent gas
- 15msw "no decompression depth" (using Air as the diluent gas)
- 3-5 hour maximum dive time Mk2 variant
- 6-8 hour maximum dive time Mk2-ED variant
- Storage temperature -30°C to +70°C
- Air temperature operation -20°C to +50°C
- Sea temperature operation -2°C to +38°C
- Fresh water temperature operation +1°C to +38°C
- Non-magnetic to NATO STANAG 2897 A / AEODP-7
- Low noise to NATO STANAG 1158 / AMP 15
- Shock and vibration tested to relevant defence standards
- Environmentally tested to relevant defence standards
- 300 bar safe working pressure non-magnetic class A composite cylinders





Weight and dimensions	Mk2	Mk2-ED
Height	587mm	683mm
Width	375mm	385mm
Depth	170mm	190mm
Weight	19kg	24kg

NON-MAGNETIC AND LOW ACOUSTIC DESIGN

The requirement to meet NATO AEODP-7 Class A (STANAG 2897) without compromise is an operational necessity. Stealth CDLSE fully meets the requirements of AEODP-7 Class A (STANAG 2897) under both static and dynamic test conditions in all attitudes and for all components that may come into contact with magnetically sensitive ordnance.

Sea mines continue to increase in sophistication; in response Stealth CDLSE surpasses the low acoustic test requirements of NATO STANAG AMP15.

Stealth CDLSE functions by analysing the breathing gas and through the automatic addition of 100% Oxygen, the Partial Pressure of Oxygen (PO₂) is accurately maintained at a pre-set level dependent upon the depth.

Using three independent oxygen sensors, CDLSE's control system rapidly and accurately responds to changes in life support system status.

A Diluent gas (Air, Heliox or Trimix) provides gas volume within the closed-circuit primary breathing system, whilst Carbon Dioxide (CO₂) from exhaled gas is absorbed by the scrubber unit.

SYSTEM FEATURES

- Fully closed-circuit mixed gas electronically controlled constant oxygen partial pressure
- Front mounted counterlungs for minimal breathing resistance
- Downloadable dive log providing a detailed record of the dive
- Rechargeable main and reserve battery - long life
- Sealed electronics unit
- Water tolerant breathing circuit and water dump systems
- Oxygen sensors protected from moisture and water entry
- Composite 300 bar cylinders
- Backlit LCD hand display showing essential dive data
- High pressure DIN fittings
- Three independent oxygen sensors
- Automatic "bad sensor" removal and advanced oxygen sensor voting logic
- Various bailout options available

OPERATIONAL VERSATILITY

Stealth CDLSE Mk2 and Mk2-ED are multi-mission underwater life support rebreathers that provide a common platform to meet a range of operational roles throughout the water column.

Operational capability includes:

- Very Shallow Water operations (VSW)
- Deep Mine Countermeasure Explosive Ordnance; disposal to a depth of 100msw using Heliox/Trimix
- Mine Countermeasures Explosive Ordnance; disposal to a depth of 40msw using an air diluent
- Special Operations Forces (SOF)

CONFIGURATION OPTIONS

Stealth CDLSE variants Mk2 and Mk2-ED can be tailored to suit specific mission requirements via the use of the following accessories:

- Simple harness
- Buoyancy compensation device
- Bite mouthpiece and half mask
- Full face Dual Mode Mask (DMM)
- Dual mode bite mouthpiece assembly
- Open circuit bail-out options
- External Breathing System (XBS) bailout option
- Surface supply bailout options
- Cylinder options; 15 years or non-lifed
- Transport case
- Diver tool and test kit
- Maintenance tool and test kit
- Spares package

INTEGRATED LOGISTICS SUPPORT



Documentation



Training



Equipment
safety



Spares and
repairs

As a result of the sustained engagement with militaries worldwide, JFD has identified the most effective and sustainable in-service support model which has evolved over many years. This service is managed and delivered by a dedicated defence Integrated Logistics Support (ILS) department, comprised of subject matter experts, and can be fully adapted to individual requirements.

The ILS department has project managers, technical authors, training officers, commodities management and engineering support.

To meet the additional challenges of supporting more complex equipment types, JFD has embedded first line maintenance facilities within defence establishments, with the primary objective of providing immediate technical support to the equipment.

JFD offers through life support for all equipment up to, and including, full safety case management and associated activities.

JFD is currently under contract with a selection of navies with a full MCM ILS capability by offering exceptionally high rates of equipment availability of purchased kit; 24 hours a day, 365 days of the year.

