

MCM100™

MULTI-ROLE REBREATHER

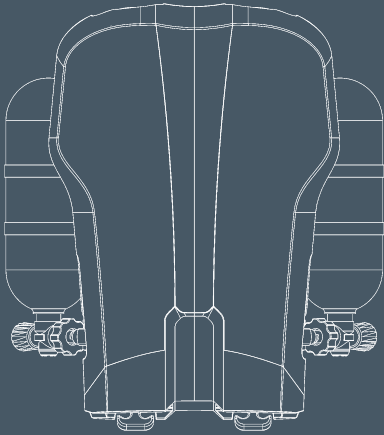


Military Rebreather

AVON
PROTECTION

MCM100™

MULTI-ROLE REBREATHER



OPERATIONAL CAPABILITY

Avon Underwater Systems Mine Counter Measures (MCM100) rebreather is a multi-capability under water life support system (LSS) which acts as a flexible platform to meet many Underwater Breathing Apparatus (UBA) usage requirements.

The MCM100 rebreather is suitable for a large range of diving disciplines:

- Very Shallow Water Mine Countermeasure Explosive Ordnance Disposal
- Shallow (nitrox) Mine Countermeasures Explosive Ordnance Disposal
- Deep (HELIOX/TRIMIX) Mine Countermeasure Explosive Ordnance Disposal
- Mine Investigation and Exploitation (MIE)
- Special Operations Forces (SOF)

SYSTEM FEATURES

- Fully closed circuit mixed gas electronically controlled constant oxygen partial pressure
- CO₂ cartridge options (User packed and Factory packed)
- Automatic activation
- Semi-automated pre-dive
- Software updates
- Extremely low breathing resistance
- Long life rechargeable internal batteries
- Sealed electronics unit
- Water tolerant breathing circuit and water dump systems
- Oxygen sensors and circuitry protected from moisture and water ingress
- Composite cylinders as standard
- A discreet head up display (HUD) indicating equipment status
- Back-light LCD display with command based alarm systems
- Automatic diluent gas addition valve
- Manual gas addition valves
- High pressure DIN fittings
- 3 independent digital oxygen sensors
- Advanced digital oxygen sensor voting logic and automated 'bad sensor' removal
- Data acquisition 'black box' facility with Bluetooth capability
- On-board decompression algorithm
- Digital carbon dioxide sensor
- Digital HP gas monitoring



MULTI-ROLE REBREATHER



PERFORMANCE

- 100m (326ft) using HELIOX or TRIMIX as a diluent gas
- 40m (131ft) using air as a diluent gas
- 4-6 hour duration at extreme work rates and depths
- Tested in accordance with EN14143
- Air temperature operation -20°C to +55°C (-4°F to +131°F)
- Sea temperature operation -1°C to +35°C (+30°F to +95°F)
- Low magnetic, tested to NATO AEODP-7
- Low noise emittance, tested to NATO STANAG 1158/AMP15
- Shock and vibration tested
- Environmentally tested
- Avon Protection has been accredited to ISO 9001:2015

COST EFFECTIVENESS

When employed across the range of capabilities mentioned the Avon MCM100 rebreather offers the following Through Life Cost (TLC) savings:

- Reduced (common) spares stocks
- Common support infrastructure
- Common technical documentation and training

CONFIGURATION OPTIONS

- Harness options
- Buoyancy compensation device with weight pockets
- Bite mouthpiece (half/full mask)
- Open circuit bailout options for bite mouthpiece and full-face mask
- LP gas links to external gas supplies or additional breathing systems
- Counterlung configuration options
- Alternative decompression algorithms

MCMIOO Technical Data

Rebreather type	Closed circuit electronic
Maximum operating depth range	100m (326ft)
Maximum duration	4hrs @ 40m in 4°C (4hrs @ 131ft in 39°F) (extreme work rate 1.6l/min)
Weight	27kg (60lb) without Bailout System
Height	500mm (19.69in)
Width	480mm (18.90in)
O ₂ Sensors	Digital
CO ₂ Sensor	Digital
Cartridge Compatibility	User and pre-packed granules
Stand-off (from divers body)	260mm (10.24in)
AEODP-7 tested	Yes
AMP-15 tested	Yes

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