

Extend Air Cartridge (EAC) CO2 Absorbent for Incursion Military Rebreathers

FEATURES

- Removes CO2 from the rebreather loop.
- Operating temperature range -30°C to +40°C.
- Provides 4 hours of diving, to any O2 or Nitrox depth, based on US NEDU diver metabolic rates.
- Instant operation: no requirement to pre-breathe.
- Safe for repeat dives.
- Flood tolerant.
- Immune to channelling.
- No dusting.
- Fast change-out: like fitting a battery.

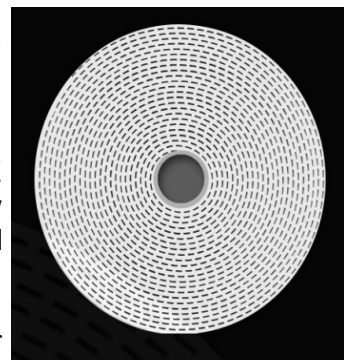


DESCRIPTION

The Incursion-MIL uses only Micropore EAC scrubber cartridges, supplied in boxes of four.

The EAC removes carbon dioxide from the rebreather loop. It has an operating life of 4 hours at the NEDU 1.35 lpm of CO2 metabolic rate, regardless of the depth being dived.

The EAC is Calcium Hydroxide and Sodium Hydroxide stabilised in a PE plastic matrix. The cross-section shown on the right, allows gas to flow along channels in the EAC, in which the Carbon Dioxide is absorbed, and the gas is warmed.



The EACs offer the following benefits over the more common granular scrubber material:

1. No channelling: being rigid, the EAC does not settle, so gas cannot channel around it. Instead the flow is designed to be linear, to give optimum performance. The Incursion seal for the EAC can accept up to 5mm deformity of the EAC.
2. Water tolerance: whilst not recommended, if flooded for <5 minutes and then drained of water the EAC is still usable with minimal effect on Work of Breathing or efficacy.
3. Easy to fit: just slide in the EAC. With granules, the right packing is an art: too much, and the Work of Breathing is too high; too little, and excessive channelling occurs. The EAC is as simple to change as a battery in a home appliance.
4. Uniform scrubber endurance. Endurance does not depend on packing, and can even be regarded as constant over changes of temperature, depth and gas mixture.
5. Good cold temperature operation: EACs in air can work even at minus -30°C to +40°C, which is why they are used on Mt Everest expeditions - they do not require any pre-breathing to warm them up.
6. Caustic risks are greatly reduced: the EAC contains a built-in hydrophobic membrane so water draining from an EAC has a low concentration of caustic molecules. In comparison, water from granular scrubbers is a saturated caustic solution.
7. No dust: a caustic dust cloud comes from granules as they are poured into a scrubber – this does not happen with EACs because the active material is held within a porous plastic matrix.
8. Ease of airline shipping: EACs can be taken as cabin carry-on baggage, while granular material is generally forbidden.

9. Repeat dives are possible, as there is no clumping. For example, a diver may do four one hour dives up to one month apart on an EAC, subject to the EAC being stored in accord with the rebreather operating instructions between dives. In contrast, granular scrubber media are not suitable for multiple dives with anything other than a very short gap between the dives because it clumps, and the clumps change both work of breathing and the surface area of the absorbent.

TECHNICAL SPECIFICATION

Net Weight: 2.2kg per EAC

Nominal Diameter: 120mm.

Nominal Length: 195mm.

Central bore type: Large bore.

Certification: CE

Duration:

- 4 hours at NEDU 1.35 lpm @ 21°C CO₂ production, at 40m depth.
- 2 hours 45 minutes at CE 1.76 lpm @ 21°C CO₂ production (1.6 lpm @ 0°C), at 40m depth.
- Usage: The EAC requires a scrubber cannister specifically designed for the EAC.

Packaging: EACs are shipped in individual sealed canisters. The canisters must remain sealed until use. Canister printing is updated periodically to comply with regulations.

Four EACs are shipped per box. Pallets contain a maximum of 64 boxes (256 EACs).

A safety data sheet (SDS, formerly known as a MSDS), is supplied with each shipment.

ORDERING

Model number – **OSEL-EAC-SR0801C Pack of 4.**

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