



**semmco**

life protection systems

Expert manufacturers  
of short duration  
breathing apparatus  
specialists in escape and working rescue



## Semmco EEBD

Emergency escape oxygen  
breathing device to protect from:

- Smoke
- Toxic contamination
- Oxygen deficiency

The Semmco EEBD is a self-contained short duration oxygen (O<sub>2</sub>) breathing apparatus that provides a supply of fresh oxygen so that the wearer can breathe freely in a contaminated or oxygen deficient environment, ensuring a quick and safe escape.

The Semmco EEBD is available in two different versions:

- 15 minute duration for Military, Maritime & Offshore
- 20 minute duration for Industrial

Each version is contained in an orange, rigid case, that is discarded once the Semmco EEBD is in use.

### How the Semmco EEBD works

The Semmco EEBD uses KO<sub>2</sub> (potassium superoxide) to provide oxygen to the user. As the EEBD is pulled from its carry case, a chlorate candle provides oxygen for the user's first breath. As the user exhales into the bag, moisture from their exhaled breath activates the KO<sub>2</sub> that then 'scrubs' the CO<sub>2</sub> and liberates oxygen. Oxygen continues to be generated while the EEBD is being used and depending on the version deployed, will last for 15 or 20 minutes.

### Main features and benefits

- Automatic start – instant O<sub>2</sub> supply once the EEBD is removed from the carry case
- Quick and simple to don
- Lightweight - 2kg (with case) 1.3kg (without case)
- Easy to move around when wearing the set
- Clear visual indicator on the case confirms EEBD viability
- Fits existing storage systems
- 15 year shelf-life

### Storage

The Semmco EEBD can be stored for up to 15 years but during its life, visual checks must be carried out on a regular basis to ensure that:

- The case is not damaged
- The anti-tamper label and seal are still intact
- The unit is within the expiry date
- The visual indicator is blue and not pink

If these conditions are not met the unit mustn't be used and must be replaced with a new unit.

### Technical Data

Temperature inhaled gas 35L/min	<50°C
Breathing Bag Volume	≥6 litre
CO <sub>2</sub> content (inhaled gas)	<3 vol%
Operating time according to ENI 3794	20 mins
Operating time at rest to ENI 3794	60 mins
Operating time according to ISO23269-1	15 mins
Weight with case (approx.)	2kg
Weight without case (approx.)	1.3kg
Case dimensions (approx.)	210 x 230 x 100mm
Temperature – storage	-20°C to +60°C
Temperature – in use	-6°C to +50°C









## Donning the Semmco EEBD



1.  
Lift yellow clip



6.  
Take a breath, put neck strap over head



2.  
Remove lid



7.  
Insert mouthpiece



3.  
Remove set from case by pulling on the base of breathing hose



8.  
Adjust neck strap, fit nose clip, exhale into mouthpiece



4.  
Remove set from case



9.  
If needed, don face shield and pull yellow loops to tighten around neck



5.  
On removal the bungs detach, starting initial oxygen generation



10.  
ESCAPE



## Regulations and Approvals

Semmco EEBD has been designed and tested in accordance with the following regulations:

- EN13794 and ISO 23269-1 – to demonstrate compliance with the essential safety requirements with PPE Regulation (EU) 2016/425
- SOLAS (International Convention For The Safety of Life at Sea) – Emergency Escape Breathing Devices
- Marine Equipment Directive 2014/90/EU

## Approvals – UKCA & CE (Industrial PPE & Marine SOLAS)

- Is in conformity with the Merchant Shipping (Marine Equipment) Regulations SI 2016/1025, as amended by SI 2019/470 & MSN 1874 Amend 4 and with the relevant requirements of the appropriate sections of the designated standards BS EN13794:2002, BS ISO23269-1:2008 for general, it is deemed to meet the basic safety and health requirements of the PPE Regulation.
- Is in conformity with the Marine Equipment Directive 2014/90/EU including Regulation (EU) 2021/1158 and with the relevant requirements of the appropriate sections of the harmonized standards EN13794:2002, ISO23269-1:2008 for general, it is deemed to meet the basic safety and health requirements of the PPE Regulation.
- Is in conformity to a Technical Specification to satisfy Annex II of the PPE Regulation (EU) 2016/425 as brought into UK law and amended with the relevant requirements of the appropriate sections of the designated standards EN13794:2002, ISO23269-1:2008 to meet the essential health and safety requirements (Annex II) of the PPE Regulation.
- Is in conformity to a Technical Specification to satisfy Annex II of the PPE Regulation (EU) 2016/425 with the relevant requirements of the appropriate sections of the harmonized standards EN13794:2002, ISO23269-1:2008 to meet the essential health and safety requirements (Annex II) of the PPE Regulation.

### Expert manufacturers of short duration breathing apparatus - specialists in escape and working rescue

Semmco Life Protection Systems specialises in the design and manufacture of escape and working rescue breathing devices to protect those working in irrespirable atmospheres. In such critical situations, escape and working rescue breathing devices must be easy to don, simple to use and totally reliable.

### HEAD Escape and Working/Rescue Devices

In April 2000, Semmco LPS launched the 10 minute HEAD Escape Device. This revolutionary, head-worn design provides a safe and constant supply of oxygen for the wearer so that they can escape from a contaminated or toxic atmosphere. The Device incorporates a unique alarm system so that the wearer knows the exact remaining duration of the device to enable them to complete a safe escape. (N.B. the alarm sounds at  $\frac{2}{3}$  the duration, indicating the wearer has  $\frac{1}{3}$  duration remaining).

So popular is this Device that 15 and 30 minute sets were developed and in 2009, Semmco LPS launched its HEAD CSRE Working/Rescue Device, specifically developed for use by correctional officers working in prisons and custody suits. This Device is now installed in every Government and private prison in England, Wales and Northern Ireland.

The HEAD range is maintenance free for 12 years, with revalidation at 6 and 9 years providing considerable through-life cost savings.

### Semmco EEBD

The latest addition to the escape and working rescue devices range, the Semmco EEBD is a self-contained, single use, short duration oxygen (O<sub>2</sub>) breathing device specifically for use in the Maritime & Offshore, Industrial, Military and Mining markets. It is available in the following configurations:

- Marine - 15 minute set
- Industrial - 20 minute set

Unlike the HEAD Devices, it is simpler in design with a mouth-piece, nose clip and face shield and can be stored for up to 15 years. During that time regular visual checks ensure its viability.

### RP100 Corpro Range – Mask & Filters

The Semmco LPS RP100 Corpro Full Face Mask and Half Mask are innovatively designed to provide high levels of protection while still being comfortable and lightweight to wear. Both masks are available in three sizes and the RP100 Corpro Filter Range includes nine different combinations, ultra-low breathing resistance, optimised capacity and easy fit connection design.

To find out more about our range of escape and working rescue devices please visit: [www.semmco.com](http://www.semmco.com)

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To discuss any requirements you may have or to request a quote, please get in touch with a member of our sales team at the following locations:

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