DATASHEET



HEAD Escape Sets

HEAD¹⁰

ESCAPE SET



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The Semmco HEAD is a self-contained, short duration oxygen (O₂) rebreather that is available in three different versions:

- HEAD IO IO-minutes duration
- HEAD15 15-minutes duration
- HEAD30 30-minutes duration

The revolutionary design of the HEAD products uses potassium superoxide (KO₂) to provide a safe and constant supply of oxygen so that the wearer can breathe in a contaminated or potentially dangerous atmosphere without having to carry a bulky, compressed air cylinder. As the wearer breathes into the front port, their exhaled breath is directed into the canisters mounted either side of their head. These canisters contain the KO₂ that 'scrubs' the CO₂ from the wearer's exhaled breath and liberates fresh oxygen. This oxygen is delivered to the wearer and so the process continues.

The HEAD Escape Sets are contained in a sealed, sturdy carry case that includes an indicator that provides a constant, visual indication of the validity of the escape set – blue indicates the set is viable; pink indicates the set may be compromised and should be returned to the manufacture for revalidation.

Features & Benefits

- Automatic start instant O2 supply
- Maintenance free for 12 years; revalidation at 6 & 9 years
- Ideal for confined spaces no bulky cylinder to carry
- Lightweight (1.6kg) & easy to operate
- Integral oronasal mask and latex neck seal
- No face fit test required
- Panoramic visor providing optimum vision
- No mouthpiece to restrict communication
- Visual safety alarm indicating low oxygen level
- Minimal training required
- Option to buy or hire the equipment



Additional benefits

Instant oxygen supply	The HEAD Escape Set is automatically activated as it is removed from its packaging. A chlorate starter candle boosts the initial oxygen supply, delivering oxygen into the breathing bag.	
High levels of protection	The moulded oronasal mask and latex neck seal provide high levels of protection and negate the need for a face fit test.	
Visual, audible alarm	The alarm provides the wearer with a three-stage audible and visual alarm sequence: Stage I: initiated on start up. Stage 2: initiated after 2/3 of the effective duration. Stage 3: initiated when the effective duration of the set has been reached.	
Lightweight	The HEAD Escape Set weighs 1.6kg (2.4kg with carry case). The HEAD Escape Set is practical and easy to wear because it is head mounted with the generators positioned either side of the wearer's head, leaving the wearer free to move quickly and easily.	
Storage integrity indicator	The HEAD Escape Set is contained in a vacuum sealed container that incorporates an indicator providing constant, visual awareness of the unit's integrity. Blue indicates the set is viable; pink indicates the set may be compromised and should not be used.	

HEAD 10, 15 & 30 Technical Information		
1	Over pressure valve fitted to back of hood	
2	Pressure relief valve	
3	Oxygen starter	
4	Reservoir bag	
5	Oxygen Generator	
6	Supply tube	
7	Oro-nasal mask and harness	
8	Warning LED	
9	Heat Sink	
10	Front Port	
П	Visor	
12	Hood	



Approvals

The CE and UKCA marked apparatus has been designed and tested in accordance with:

• EN 13794 • DIN 58639 • DIN 58652-1 where applicable, to demonstrate compliance with the essential safety requirements of PPE Regulation (EU) 2016/425



Technical Data

HEAD 10, 15 & 30 Technical Information	HEAD10	HEAD15	HEAD30
Part Number	802.000.19	802.001.15	802.003.01
Weight with case (kg) approx.	2.4kg	2.4kg	2.4kg
Weight without case (kg) approx.	1.6kg	1.6kg	1.6kg
Case dimensions (mm) approx. (all variants)	330 × 190 × 140	330 × 190 × 140	330 × 190 × 140
Breathing bag volume	6 litres	6 litres	6 litres
CO2 content (inhaled gas)	<3% volume	<3% volume	<3% volume
Operating time according to EN 13794	10 minutes	15 minutes	30 minutes
Storage temperature	-20°c - +50°c	-20°c - +50°c	-20°c - +50°c
Operating temperature	-6°c - +50°c	-6°c - +50°c	-6°c - +50°c

Supporting products	Part no.
HEAD Training Set	802.000.15
HEAD Alarm Trainer	802.001.26

Storage and conditions for use:

The HEAD Escape Set can be stored for up to 12 years with no maintenance costs, except for an inspection at 6 and 9 years. If the set is used it can be returned to Semmco for refurbishment and/or revalidation.

Before use and during a visual check the following should be carried out:

- The carry case isn't damaged
- The security tag is in place and not damaged
- The status indicator is blue.

N.B. If these conditions are not met the unit must not be used and must be returned to Semmco LPS for refurbishment, revalidation or to be replaced with a new unit.

Through life costs

The HEAD Escape Set can be stored for up to 12 years with no maintenance costs, except for an inspection at 6 and 9 years. Unlike compressed air breathing apparatus that has to be serviced and re-certified regularly and because of the nature of the design of the HEAD Escape Set, a simple, visual inspection at 6 years and 9 years is all that is required to ensure the viability of the Set. Over a period of 12 years, this 'no maintenance' benefit provides extensive cost saving.

Return conditions

The HEAD Escape Set can be returned to Semmco LPS for refurbishment, revalidation or disposal. The HEAD Escape Set contains potassium superoxide (KO₂) and therefore transportation hazard regulations apply when in transit. The device can only be transported by road, rail or air cargo and should be double bagged, sealed and marked with the appropriate hazard identification label.

The HEAD Escape Set should be returned to:

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Goldsworth Park Industrial Estate Woking

Surrey GU21 3BA

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