



**semmco**

life protection systems



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

## Semmco HEAD ESCAPE & WORKING RESCUE

Emergency chemical oxygen breathing device to protect from:

- Smoke
- Toxic contamination
- Oxygen deficiency

HEAD is a self-contained, short duration, chemical oxygen ( $O_2$ ) breathing apparatus. This revolutionary design provides a safe and constant supply of oxygen so that the wearer can breathe freely in a contaminated or oxygen deficient environment, ensuring a quick and safe escape.

The HEAD is quick to don and easy to position because of the oronasal mask. This, in conjunction with the latex neck seal negates the need for a face fit test. A panoramic visor provides optimum vision and the oronasal mask makes communication with others very easy.

All models are supplied in a bandolier carry case that is discarded when the set is removed.

The HEAD Escape Set is ideal for use in confined spaces because it is head worn with no bulky cylinder to carry.

### How the HEAD set works



- Exhaled breath passes through  $KO_2$  in the generators
- $KO_2$  scrubs the  $CO_2$  in the wearer's exhaled breath and liberates oxygen
- $O_2$  enters the breathing bag



- As the wearer inhales,  $O_2$  is drawn from the bag, through the tubes and into the oronasal mask
- The cycle repeats



The Alarm has 3 stages:

1. 5 beeps and lights flash on removal from bag
2. Intermittent beeps and light flashes at  $\frac{2}{3}$  duration
3. Continuous beep and lights at duration of set

### Main features and benefits

- Automatic start – instant  $O_2$  supply for up to 30 minutes
- Maintenance free for 12 years with revalidation at 6 and 9 years – low through life costs
- HEAD CSRE set - Maintenance free for 15 years
- Easy to move around when wearing the set – no bulky cylinder
- Quick and simple to don – only half day's training required
- Unique non allergenic latex neck seal and oronasal mask – no face fit test required
- Easy to communicate – no mouthpiece
- Lightweight – 1.6kg
- Panoramic visor providing optimum vision
- Clear visual indicator on the case confirms HEAD viability
- Audio and visual safety alarm indicating low oxygen level to user
- CE and UKCA Approval

### The range includes:

#### HEAD Escape Breathing Apparatus 10, 15 & 30 minutes duration

All models enable a simple, effective and safe means of escape in an emergency and each variant has an in-built safety alarm indicating, at three stages, the remaining duration of the set.

#### HEAD I5 Working/Rescue Breathing Apparatus 15 minutes duration

Providing emergency protection for people working in potentially hazardous environments or rescuing those already in danger. It provides 15 minutes wearer protection at a higher breathing rate and can be used for protection against smoke, toxic contamination and oxygen deficiency.

#### HEAD I5 RPE/CSRE Working/Rescue Breathing Apparatus – 15 minutes duration

Designed specifically to provide protection to those working in prisons, detention and immigration centres to maintain safe and decent regimes. It provides 15 minutes wearer protection at a higher breathing rate and protects from hazardous working environments including illegal substances, ammonia, oxygen deficiency and smoke.



HEAD<sup>10</sup>

HEAD<sup>15</sup>

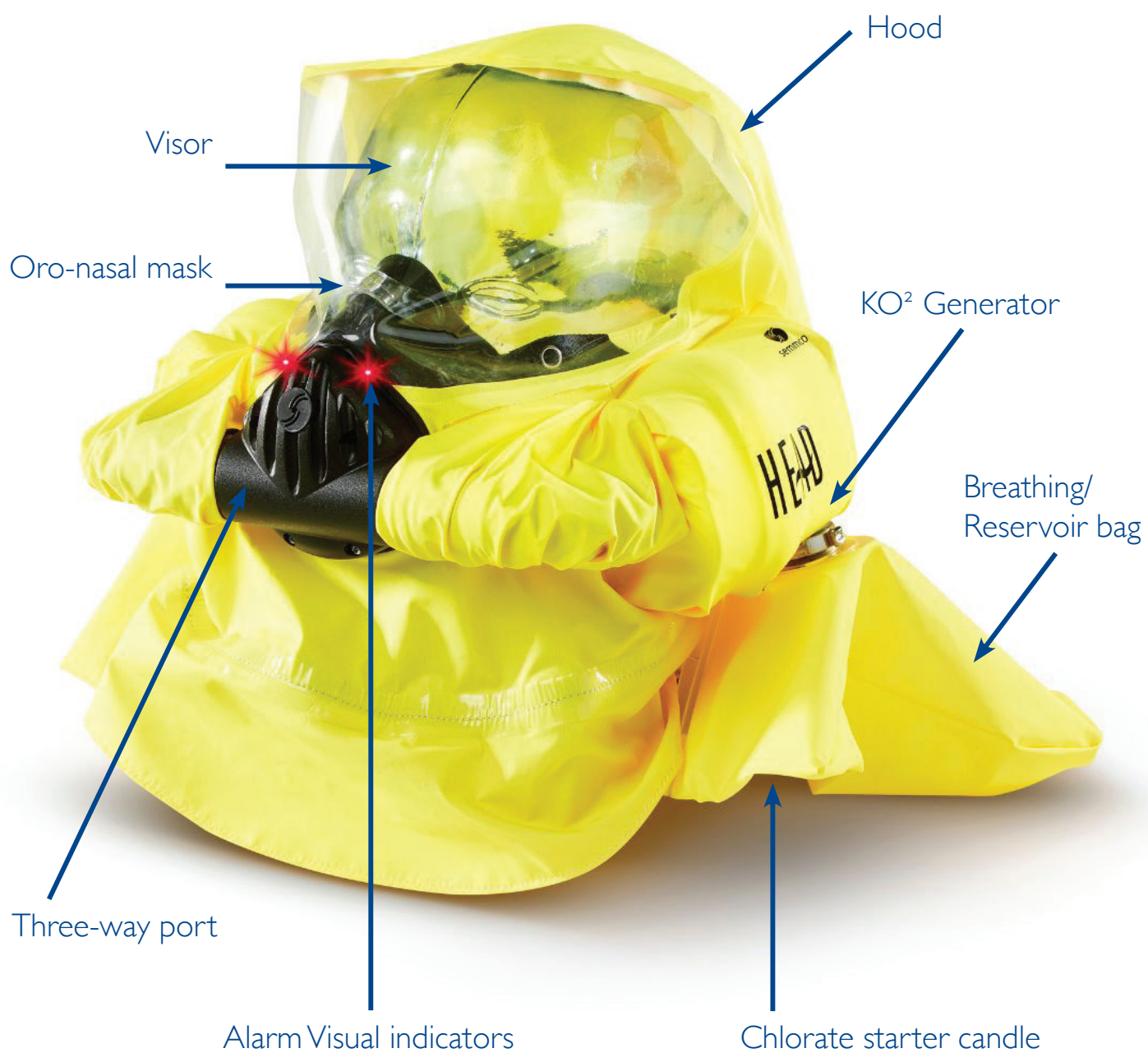
HEAD<sup>30</sup>

HEAD<sup>15</sup>

WORK/RESCUE SET

HEAD<sup>15</sup>

RPE/CSRE SET



## Technical Data:

Feature	HEAD Escape	HEAD Working/Rescue	HEAD CSRE
Duration	10, 15 or 30 mins	15 mins	15 mins
Weight with case (approx.)	2.4kg	3kg	3kg
Weight without case (approx.)	1.6kg	1.6kg	1.6kg
Case dimensions (mm) approx.	330 x 190 x 140	335 x 300 x 165	335 x 300 x 165
Breathing Bag Volume	6 litres	6 litres	6 litres

## Storage and through life costs:

The HEAD range of Escape and Working/Rescue Breathing Apparatus can be stored for up to 12 years (15 years for the RPE/CSRE set) with no maintenance costs, except for an inspection at 6 and 9 years. If the set is used it can be returned to Semmco LPS for refurbishment and/or revalidation.

Unlike compressed air breathing apparatus that has to be serviced and re-certified regularly 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 range of Escape and Working/Rescue Breathing Apparatus can be returned to Semmco LPS for refurbishment, revalidation or disposal. The set contains potassium superoxide ( $KO_2$ ) and therefore hazard transportation regulations apply. 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.



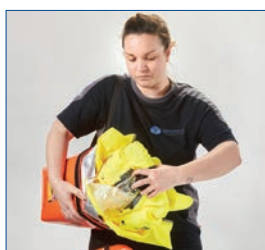
## Donning the HEAD Escape and Working/Rescue Breathing Apparatus



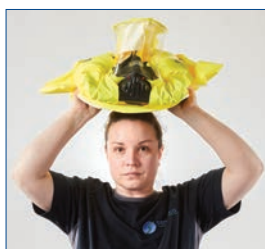
1. Open the carry case by pulling on the corner of the lid.



2. Hold the red tag and tear open the foil bag.



3. Hold the front port and pull the HEAD set from the carry case (this action automatically activates the chlorate candle to fill the reservoir bag with oxygen).



4. Take a deep breath, place fingers inside the neck seal and pull open. Then pull the set over your head.



5. Hold the front port and ensure the mask is fitted over the nose and mouth. Exhale into the set.



6. Make a safe escape. When the alarm sounds in the constant mode you should be in a safe place and remove the set. Oxygen generation is ending.

## Regulations and Approvals:

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

- EN 13794
- DIN 58639
- DIN 58652-1

and PPE Regulation (EU) 2016/425 as brought into UK law.

## Training Equipment and Courses: HEAD Training Set



To provide realistic training for the HEAD range, Semmco Life Protection Systems provides a training set made from durable, orange materials that is packed in a simulated vacuum container with velcro opening so that the set can be used multiple times.

## HEAD Alarm Trainer

The HEAD Alarm Trainer provides trainers and users with an easy to use version of the audio and visual alarm that features in all HEAD Breathing Apparatus. It enables familiarisation of the three stages of alarm so that the warning signals are fully understood.



## Training Courses

Training courses will ensure users can confidently and quickly don the sets when required and be fully protected. Semmco Life Protection Systems offers full or half day training sessions depending on the number of attendees and 2 year refresher courses.

Further details of our training services can be found on our website – [www.semmcolps.com](http://www.semmcolps.com)



### 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 Breathing Apparatus

In April 2000, Semmco LPS launched the 10 minute HEAD Escape Breathing Apparatus. 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.

So popular was this Escape Set 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 Working/Rescue Set is now installed in every Government and private prison in England, Wales, Northern and Southern Ireland.

### Semmco EEBD

The latest addition to the escape and working rescue breathing apparatus range, the Semmco EEBD is a self-contained, single use, short duration chemical oxygen ( $O_2$ ) breathing device specifically for use in the Maritime and 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.



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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