

# External Respiration Kit

The External Respiration Kit, also known as the ERK, is a simple rebreather mask connected to an oxygen tank that [Galactic Horizon](#) designed and developed in [YE 40](#) to help combat the constant dust storms on [Planet Osman](#) and hazmat work, with many other useful applications.

## Design

Below is information relating to the design of each ERK component:

### Mask

The ERK is a simple respiration system, a face mask that can be supplemented with filters or a larger [Durandium Alloy](#) air tank – the mask itself is constructed out of black polymer segments with a padded foam interior, some low-profile electronics and a LED indication strip underneath each eye, the mask comes bundled with a pair of polarized [Anti-Reflective Transparent Constructs \(ARTCs\)](#) goggles that have a groove for the indicators and are removable. The mouth piece of the mask has a bioelectric generator that converts heat into a small bit of electricity to power the indicators and some small sensors in the valves that monitor air quality. Padded and adjustable [Bulletproof Wool](#) straps run from either side of the mask and fasten it to the wearer's face.

Three valves line the outside of the mask, one on either cheek and one on the chin – these valves were made to be compatible with most filters and oxygen tanks, yet it is strongly recommended that [Galactic Horizon](#) made components are used if possible.

### Filter

Filters that are designed and produced by [Galactic Horizon](#) grey in color with an orange piece of material over the valve that is broken when the filter gets attached to a mask, indicating whether or not the filter is fresh. It uses a series of filtering layers to filter out harmful gasses and particulates, each filter has a 24 hour guaranteed lifespan once the orange seal has been broken, after which the quality of the filtration degrades exponentially.

### Bio Filter

This is a more premium version of the standard filter made by [Galactic Horizon](#), it has the same general shape but a green valve rather than an orange one – this valve is to indicate it is a bio-filter rather than a standard one. It uses a special kind of mold that is capable of filtering harmful gasses and particulates for up to 24 hours per filter before it begins to degrade exponentially.

Once in an environment with a safe atmosphere, the mold begins to regenerate it's filtration properties – the mould itself is odourless and harmless when ingested/inhaled.

## Tank

The ERK's oxygen tank is armored with [Durandium Alloy](#) to prevent punctures and any damage to the components, a meter long data and air line are bundled together inside a protective sleeve [Bulletproof Wool](#) that has been strengthened with [Stone Thread](#) to make it extra durable, these cables are easily replaceable and take power from the mask to power a sensor – indicating how much air remains in the tank. A charging and refill port sit on the opposite end to the cable, with a simple red handle to start or cease the trickle of air. A removable strap is attached to the side of the tank and can be used to help fasten it to various places, most common ones being on a hip or the back but many other options are available.

Each oxygen tank can hold enough air to provide the user with 72 hours of breathable air before a refill is required.

## Chem Hood

The hood that can be purchased from [Galactic Horizon](#) is black in color and has an elastic ring that is intended to be sealed around the ERK's mask and goggles, it is constructed from a plastic outer layer that has been padded with an inner core of [Bulletproof Wool](#) and can protect the user's head from noxious fumes as well as light acid and radiation to some degree.

## Chem Suit

A full body variant of the Chem Hood, with elastic for each limb, a pair of rubberized boots and gloves – it provides the same level of protection against fumes, light acid and radiation and is also meant to be paired with an ERK for maximum effectiveness. The suit also comes with a small roll of [Molecure Tape](#) to seal it up and any leaks that may occur.

<b>About the External Respiration Kit</b>	
<b>Name:</b>	External Respiration Kit
<b>Nomenclature:</b>	GH-G10-3E
<b>Price:</b>	Varies, read next section
<b>Manufacturer:</b>	<a href="#">Galactic Horizon</a>
<b>Designer:</b>	<a href="#">Galactic Horizon</a>
<b>Energy Source:</b>	Bioelectric Generator

## Price

This section details prices of the various ERK components:

- Mask: 75 **KS**
- 1x Filter: 15 KS
- 3x Filter: 35 KS
- 2x Bio Filter: 100ks
- Oxygen Tank: 100 KS
- Data/Air Line: 45 KS
- Chem Hood: 25 KS
- Chem Suit 75 KS

## Operation

To use the External Respiration Kit, fit the segmented mask to the lower face and fasten the straps around the back of the head, a blue strip should light up underneath each eye – this line shrinks as either the filtration quality decreases (filters) or the air supply depletes (oxygen tank).

If a filter requires attachment then line it up with a valve and twist it 90 degrees anticlockwise to fasten and seal the unit to the mask – to remove a filter, firmly grip the unit and twist 90 degrees clockwise before discarding the unit.

If an oxygen tank requires attachment then line the Air/Data line up with a valve and rotate it 90 degrees anticlockwise before gripping the red lever and rotating it 180 degrees to provide air – to remove a tank, firmly grip the data/air line and pull the line free, returning the valve to its original position is optional and often ignored in emergency situations.

## History

In [YE 40 Galactic Horizon](#) designed a high-quality respiration mask that could be used either with a filter or an oxygen tank, designed primarily to provide a clean source of oxygen and facial protection during [188's](#) devastating sand storms but more than capable of handling other more hazardous scenarios such as biological warfare and hazmat work.

## Systems

Below is additional information about the External Respiration Kit and its systems:

## Power

The mouth-piece of the mask contains a simple bioelectric generator that takes heat radiated from the wearer's face or expelled breath to provide its low-power systems with enough electricity to keep them going as long as the user is alive.

## Indication strips

A blue LED indication strip sits under each of the user's eye, this line shrinks as either the filtration quality decreases (filters) or the air supply depletes (oxygen tank) and is kept passively powered through radiated body heat.

## OOO Notes

[SirSkully](#) created this article on 2018/07/09 23:31.

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