

# HiCap™ CO<sub>2</sub>

Sofnolime® carbon dioxide large absorber cartridge



## Introduction

The HiCap™ CO<sub>2</sub> is designed to remove CO<sub>2</sub> produced by respiration of personnel in an enclosed sealed space. The units are designed to seal against the base plate cut-out of fan driven air supply equipment.

**DO NOT** remove the top and base blue seals until immediately before the unit is to be used.

## Operating instructions: carbon dioxide (CO<sub>2</sub>) removal

1. Remove the top and base blue seals by lifting the tags and pulling outwards. This will also tear the tamper evident seal and show that the unit has been opened.
2. Check that the base' seal gasket is in place and intact, then place the unit onto the base unit aperture.
3. **Warning: all the base (fan) unit apertures must have cartridges installed for correct operation.** If the base unit has more than one aperture ensure all the apertures are covered with installed cartridges. Use an exhausted cartridge if there are no fresh units available.
4. Start the airflow through the cartridge(s) – refer to the OEM base unit operating procedure.
5. Exhausted units should be removed and replaced with fresh units once they are incapable of removing the CO<sub>2</sub> at the rate it is being produced.
6. In a multi-aperture base unit, if some units are exhausted and fresh ones are not available the exhausted units should be left in place.
7. Exhausted units can be left in place. Used HiCap™ CO<sub>2</sub> units will continue to remove CO<sub>2</sub> for some time after the specified performance, but at much lower rates. **Warning: the enclosure CO<sub>2</sub> concentration will start to increase once the CO<sub>2</sub> removal rate falls below the production rate irrespective of the remaining capacity.**
8. If the top and base seals are replaced on used units (to facilitate storage), then they should be stored in such a way that the tamper evident seal (showing open/void) is clearly visible to prevent re-use of used exhausted units.

Sufficient cartridges need to be available to provide carbon dioxide control from the intended duration of stay for the rated number of people present in the enclosure or shelter. Refer to the HiCap™ CO<sub>2</sub> user manual or equipment manufacturer's manual for correct use of the system.

## Molecular Products Ltd

Parkway, Harlow Business Park  
Harlow, Essex, CM19 5FR, UK

**T** +44 (0)1279 445111  
**F** +44 (0)1279 401231

**E** sales@molprod.com  
**W** www.molecularproducts.com

## Storage, maintenance and condition checks

The units do not require any maintenance in storage, but do need to be stored in such a way that the top and base seals remain intact to prevent moisture or contamination entering the unit.

- The units need to be handled and stored under conditions that prevent damage to the blue seals.
- The units should be stored between 0 – 35°C (not frozen), out of direct sunlight and protected from wet conditions.
- Each unit is marked with a label on the outside of the unit that shows the original packed weight of the unit\*. If the weight changes by more than the weight allowed and shown on the label, then unit should be replaced.

\*The units gain weight (approximately 1 kg) in normal use. Therefore, if a unit is weighed, the label on the side of the cartridge can be used to check if units have been used.

*The data provided above is intended for general guidance and does not necessarily cover all the operational aspects of the units. Each individual case needs to be properly assessed for safe operation by the facility managers. Further advice and help in producing your own operational procedures for the safe deployment of the large absorber cartridges is available on request from the manufacturer.*

## Conditions of use and limit of liability – HiCap™ CO<sub>2</sub> – Sofnolime® filled large absorber cartridge

The units are designed to be used as part of a purpose built air purification system that can operate within the documented design parameters. No liability or guarantee of performance can be accepted for units operated outside these conditions.

The performance is guaranteed only if the units are used and stored within the declared operational limits set by the manufacturer and documented in the user manual.

The units are supplied with tamper evident seals. The base and top seal must not be removed until the unit is required for use, as the unit can lose or gain water from the atmosphere that can reduce its CO<sub>2</sub> removal performance. The performance of units that have been opened, but not used, for more than a few hours cannot be guaranteed or predicted.

Units with damage to the blue top and base seals should not be used. The units are supplied with a weight check and weight tolerance label that allows the user to establish if the units have remained sealed prior to use. The use of units that have failed this weight check requirement, or that have been damaged, cannot be guaranteed by the manufacturer as the performance may be affected.

The way that the units are used is the responsibility of the user and/or the facility operator. It is strongly recommended that the facility operator should carry out a risk assessment of the way in which the unit(s) are to be used before they are deployed.

The units comply with the essential safety requirements of the EU Mechanical Directive and are labelled accordingly.

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**F** +44 (0)1 279 401231

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**W** www.molecularproducts.com