

Users manual

GZ

HVG-3 Duplex air breathing filter



Applies to:

Art. no.: 05-1011 HVG-3 Duplex air breathing filter 1/4" with 1 outlet

Art. no.: 05-1012 HVG-3 Duplex air breathing filter 1/4" with 2 outlets

Art. no.: 05-1013 HVG-3 Duplex air breathing filter 3/8" with 3 outlets

Contents:

1. INTRODUCTION	3
2. INSTALLATION.....	3
3. COMMISSIONING.....	3
4. MAINTENANCE	4
5. TROUBLESHOOTING.....	5



HVG-3 air breathing filter with regulator, manometer and 1 outlet. 2 or 3 outlets are also available.



Charcoal filter element type E381 AC f/1/4" og 3/8"



Oil filter element type E361 XA f/1/4" and E371 XA f/3/8"

Clemco Norge AS

Tvetenveien 156 – Postboks 104 Tveita, 0617 Oslo

Tel. 23 12 51 20 – Fax 23 12 51 40 – E-mail: clemco@clemco.no – Internet: www.clemco.no

1. Introduction

HVG 3 Duplex breathing air filter is designed to remove odor, oil mist, moisture and particles in compressed air to be used for breathing air. The compressed air is purified in two stages (duplex system). First, air passes through an oil filter element type XA (color code blue) of 0.01 micron where oil content is reduced to 0.01 mg / m³ (0.01 ppm). In stage two the air is purified in an active carbon filter element type AC (color code black) that removes odor and taste as well as the oil content further down to 0.003 mg / m³ (0003 ppm). The unit comes fully assembled on a floor stand with sockets for one, two or three operators. Floor stand can be turned around and used as wall bracket. The filter complies with EN 12021: 1998 with the following exceptions.

***NB!** This filter-unit does not remove **carbon monoxide (CO)** and **carbon dioxide (CO₂)** or other dangerous gases in the breathing air. The air inlet to the compressor must be installed so that it does not suck in the above type contaminants. Furthermore, the compressed air having a sufficiently low dew point so that condensation and icing avoided*

The air introduced into the device through the claw coupling on the side of the filter. Moisture separated by expansion in the filter lower part and is drained off through the valve in the bottom of the filter. The air is then forced through an oil filter element where the oil cleaned out. Finally, the air is purified in a carbon filter element disposed in the filter uppers for removal of taste and odor. On the clean air side there is mounted a regulator with manometer for adjustment of air pressure to the breathing mask (s) and safety quick couplings. The maximum permissible inlet pressure of the device is 16 bar.

2. Installation

HVG-3 comes pre-assembled and can be used immediately. The unit is standard fitted with floor stand. Floor stand can be turned around and used as a wall bracket. Ensure that the compressed air supply is closed. Connect a compressed air hose with standard claw coupling at the inlet of the filter. We recommend a minimum of 3/8 "tubing or larger. It makes sense to blow compressed air hose clean of moisture and dirt before this is connected to the filter. Ensure that the compressor used to feed the filter with air is positioned so that it does not suck in contaminants such as carbon monoxide (CO) and carbon dioxide (CO₂) or other hazardous gases. Connect the breathing hose on the outlet and into the breathing mask to be used.

***Important!** Ensure that the filter is not accidentally connected gas lines as oxygen, acetylene, nitrogen, etc. as this will lead to an immediate danger to the user's health and life.*

3. Commissioning

Start the compressor and open to allow air into the filter. Adjust the cleaned air pressure on the filter unit between 4-6 bar, depending on how long breathing hose. The most comfortable pressure in this area is found by experience. Now the breathing filter is ready for use.

4. Maintenance

NB! No maintenance should be done on the filter while it is under pressure. Shut off the air supply, exhaust the air filter pressure and then disconnect the compressed air hose before maintenance begins. The manometer should show 0 bar.

Replacement of filter elements: The filter cover and base must be removed. Remove the elements and insert new ones. Reinstall cover and base. Tighten to prevent air leak.

The filter elements should be changed in this accordance with the following intervals if the filter is operating approximately 37.5 hours per week:



Charcoal filter element
E381 AC for 1/4" and 3/8"
Every **6 months** or after
2000 hours of operation.



Oil filter element E361 XA for 1/4"
or E371 XA for 3/8"
Every **12 months** or after
6000 hours of operation.

The filter elements must be replaced before when:

- Unpleasant odors is detected by user
- Humidity starts to penetrate the breathing mask(s)
- The differential pressure falls by 0.35 bar

5. Troubleshooting

Problem	Probable cause	Action
Unpleasant odor and flavor penetrates breathing mask	The filter elements are saturated	Replace the filter element
The pressure cannot be adjusted	Defective pressure regulator and / or manometer	Replace regulator

Clemco Norge AS

Tvetenveien 156 – Postboks 104 Tveita, 0617 Oslo

Tel. 23 12 51 20 – Fax 23 12 51 40 – E-mail: clemco@clemco.no – Internet: www.clemco.no