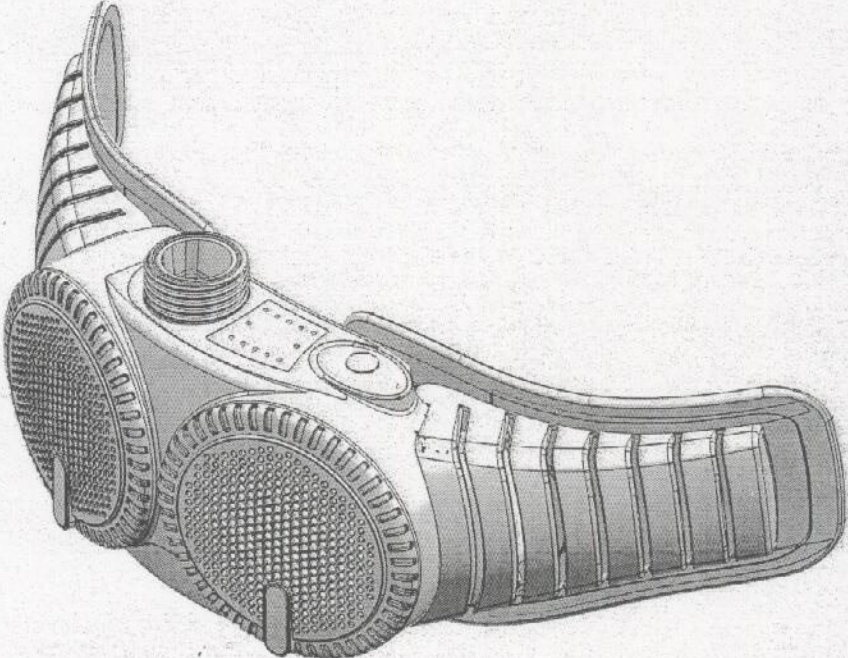


CleanAIR®

motorized respiratory systems

CleanAIR AerGO®



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EN

1. Introduction

CleanAIR® – powered air purifying respirators

CleanAIR® is a system of personal respiratory protection based on the principle of overpressure of filtered air in the breathing zone.

The respirator is placed on the wearer's belt and filtrates the air which is taken in from the surrounding environment and then delivers it through a breathing tube into a protective mask or hood. The overpressure prevents contaminants from entering the breathing zone. This mild overpressure at the same time ensures the wearer's comfort, even with long-term use, as the wearer does not have to struggle in their breathing to overcome the resistance of the filter.

To ensure the required efficiency, an appropriate combination of the right powered air purifying respirator (hereinafter referred to as the "PAPR unit") and protective hood must be selected. Moreover, filters should be chosen which are appropriate to the type of contamination.

2. Approval, certification

The AerGO® respiratory system is approved in compliance with the requirements of the European standard EN 12941 Class TH2 / TH3. All the components of the system must be approved by the manufacturer and used in compliance with the instructions provided in this manual. Not following these instructions could be dangerous to the user's health or life.

The AerGO® respiratory system complies with the requirements of the European standard EN 12941. It provides protection against both non-toxic and toxic particles retainable by a filter of P R SL quality.

3. Instructions for use

Please carefully read and follow the instructions in this user manual. The user must be perfectly familiar with the correct way of using this protective device before beginning.

- The AerGO® respiratory system must not be used if the unit is switched off! In this case the respiratory system, incorporating a hood, gives little or no respiratory protection. Also there is a risk of a high concentration of carbon dioxide (CO₂) building up and of oxygen deficiency occurring inside the headpiece.
- The AerGO® respiratory system must not be used if the respirator does not supply a sufficient amount of air. (The user is warned of low air flow by the unit's warning system.)
- The AerGO® respiratory system must not be used in environments immediately dangerous to life or health (IDLH)!
- The AerGO® respiratory system must not be used in environments with a concentration of oxygen lower than 17%.

- The AerGO® respiratory system must not be used in environments in which the user does not know the type of contamination or its concentration.
- The AerGO® respiratory system must not be used in environments with a danger of explosion or fire hazard.
- The AerGO® respiratory system must not be used in confined spaces such as closed tanks, tunnels, or channels.
- Each time, before using the respiratory system, check that the air flow is within the standard range.
- If, during use, the PAPR unit stops working for any reason, the user must leave the contaminated area immediately.
- During strenuous work, if the user's breathing becomes too intensive, the positive pressure inside the hood may decrease and result in a decrease in the protection factor.
- The protective head piece must fit tightly to the face to assure the perfect level of protection for the user. If a beard or long hair gets into the sealing line, penetration will increase and the protection provided by the system will decrease.

As standard, the CA AerGO® unit is equipped with a highly efficient P R SL filter against particles, which protects the user in environments contaminated by particles.

- Filters designed for filtering solid and liquid particles do not protect users against any gases.
- Filters designed for filtering gases do not protect users against any solid and liquid particles
- Combined filters must be used for working environments contaminated by both types of contaminants.
- Replace filters any time you feel a change in the smell of the air coming out of the unit.
- Only use certified original filters designed for your filtration unit.

NOTICE! Failure to follow the principles of using the respiratory system will void the guarantee!

4. Unpacking / Assembling / Use and function

4.1. Unpacking

Check that the delivery is complete and that no damage was caused during transport.

A complete system including accessories contains the following components:

1. PAPR unit CA AerGO® with belt and P R SL particle filters	1 pc
2. Battery	1 pc
3. Battery charger	1 pc
4. Air flow indicator	1 pc
5. User manual	1 pc

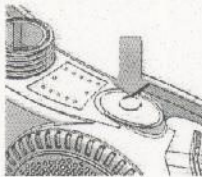
4.2. Assembling

1. Take the filtration unit out of the package and connect the battery to the unit.
2. Check the filters and tighten them if necessary.
3. Attach the air hose to the filtration unit.
4. Connect the hose to the head part.

4.3. Use and function

CA AerGO®

The unit is switched on and off by pressing the button on the PAPR unit's control panel for at least 2 seconds.



By briefly pressing the button it is possible to switch between two air flow levels: 160 L/min and 210 L/min. The maximum air flow mode provides a higher protection level for the user. However, a higher flow rate may be unpleasant at low temperatures.

The AerGO® unit contains a control system ensuring a constant air flow and an advanced electronic system to warn the wearer in case of a sudden decrease in airflow or low battery.

The control system keeps the selected flow rate constant even if the battery gradually becomes lower and regardless of the level of filter clogging.

If the system is no longer able to maintain the selected flow rate, it will automatically switch over to the low air flow mode. If the system still is not able to maintain the required flow rate, the audio-visual and vibration alarm is started. The user must then interrupt work immediately, leave the contaminated area and replace the filters or the battery.

The user is informed of the current state of the battery's charge and the level of filter clogging by illuminated LEDs on the control panel.

Red LEDs indicate the battery's charge. Five illuminated LEDs indicate the battery is at the maximum state of charge, one illuminated LED indicates the minimum state of charge and the user will be warned by an alarm if the battery is low. Then, the battery must be replaced or charged.

Yellow LEDs indicate the current level of filter clogging. More LEDs light up as the filters become more clogged. When all five LEDs are illuminated, the filters are completely clogged and the user will be warned by an alarm that there is insufficient air flow. Then, the filters must be replaced!

Before use

4.4. Check before each use

Make sure that:

- all the components are in order, without any visible impairment or damage (in particular no cracks, holes, or leaks should appear). Replace damaged and worn parts. Ensure the good condition of the air hose and sealing elements;
- the hose is connected to both the PAPR unit and the head part correctly;
- after the PAPR unit is switched on, air is supplied to the head part;
- there is sufficient air flow in the hose (Section 4.5.).

Charge the battery before using the unit for the first time, see Section 6.2.1.

4.5. Air flow test

CA AerGD*

1. Disconnect the air hose from the PAPR unit.
2. Connect the air flow indicator to the unit.
3. Switch on the PAPR unit. The flow rate is insufficient if the top edge of the cone is in the red zone. Then, the filter must be replaced. If the fault persists, follow the instructions for troubleshooting (see Chapter 7).

5. Maintenance and cleaning

Each time you have finished working with the CleanAIR* AerGD*, clean and check each component, and replace damaged parts.

- Cleaning must be done in a well-ventilated room. Avoid inhaling harmful dust deposited on individual parts of the filtration unit and accessories!
- Never use cleaning agents with solvents or abrasive cleaning agents.
- The external surface of the PAPR unit can be cleaned with a soft cloth dampened in water with common dish detergent. After cleaning, wipe all parts dry.
- Neither water nor any other liquid should enter the filtration unit!
- The air hose, after being disconnected from the unit, can be rinsed with clean water.

6. Spare parts and their replacement

6.1. FILTER

As standard, the CA AerGD* unit is equipped with a highly efficient P R SL particle filter. The level of filter clogging must be checked regularly with an air flow test, as described in Section 4.5, and the filter must be replaced if necessary.

Only install new original filters designed for this type of unit.

~~Cleaning or blowing clear the filter in any way is forbidden!~~

For reasons of hygiene it is not recommended to leave the filter in the unit for longer than 180 working hours.

In the CA AerGO® unit, a pre-filter for filtering coarse particles can be used with the particle filter, which considerably extends the life of the main filter. A spark arrester can also be used, which prevents possible damage to the main filter from flying sparks and welding spatter.

REPLACING CA AerGO® FILTERS

The AerGO® PAPR unit uses a set of two P R SL particle filters. When using the unit, both filters must always be attached to the unit.

6.1.1. Replacing the filters

The filters are removed from the unit by unscrewing each filter separately counter-clockwise. New filters are attached to the unit one after the other by screwing the filters into the unit body clockwise. Tighten properly to ensure that the connection is tight (see pictorial supplements 1A, 1B).

6.1.2. Pre-filter and spark arrester installation

Remove the pre-filter holder from the filter body by pulling at the lip. Place the pre-filter and spark arrester in the recess in the filter body (first place the pre-filter and then the spark arrester, otherwise the spark arrester will not fulfil its function!). Secure the new pre-filter and spark arrester by snapping the pre-filter holder (see pictorial supplements 2A, 2B)

6.2. BATTERY

IMPORTANT! Batteries are supplied uncharged. Always charge the battery before the first use. The battery charger is not designed for use outside – only use in an environment protected from rain and moisture. Do not charge the battery in a potentially explosive atmosphere. Using the battery charge for purposes other than those specified by the manufacturer is forbidden.

6.2.1. Battery charging

1. Check that the mains voltage is suitable for the battery charger.
2. Plug the charger into the mains – the red LED will start blinking.
3. Connect the battery to the charger. The charging connector is at the rear of the battery. The red LED will light up and remain lit to indicate that the battery is charging.
4. After charging, first disconnect the battery and then unplug the charger from the mains. The green LED will light to indicate that charging has finished and that it has switched over to maintenance mode.

Always unplug the charger from the mains once charging is finished!

6.2.2. Battery replacement

Grip the filtration unit by both hands with the battery facing up and the rear away from you. With one thumb release the latch holding the battery in the lock position and at the same time take the battery out of the unit body with your other hand.

Battery installation

Steadily reinsert the battery into the unit body until the battery is locked in place by the latch.

(see pictorial supplements 3A, 3B)

6.3. Belt replacement

The CleanAIR AerGO® system is equipped with a mechanism allowing you to replace the belt easily and quickly.

Bend the belt at the joint to its limit position (towards the rear of the unit) until the locking mechanism is exposed. After releasing the lock (by pulling outwards from the unit), you can remove the belt freely. Repeat the same procedure for the other half of the belt.

When installing a new belt, simply push the belt axis into the clamping mechanism of the unit until it is locked by the latch. Repeat the same procedure for the other half of the belt.

Caution! You cannot interchange the belt sides!

(see pictorial supplements 4A, 4B)

7. Possible faults

If any fault occurs or if the air supply decreases or increases suddenly and the user is in a contaminated area, they must leave the area and check the following:

- that the unit is assembled correctly;
- the battery condition;
- the battery charger function;
- the level of the clogging of the filters;
- that the air hose is not damaged. It is crucial to ensure that the hose cannot catch on protruding objects at work and that a crack cannot occur;
- that the face sealing on the protective hood is in order.

Fault	Possible cause	Recommendation
The PAPR unit does not work at all	Flat battery (check: does the unit start with another, working battery?)	Charge the battery (if the problem persists, check the battery)
	Fault in the motor, electronics or power connector	Return to manufacturer for repair
The PAPR unit does not supply a sufficient amount of air (low air flow)	Air hose or air line clogged	Check and remove the possible obstruction
	Air leaks	Check all sealing elements and connections and check that the hose is not damaged and has no leaks
The PAPR unit only runs for a short time	The filter is clogged	Replace the filter
	The battery is low	Charge the battery (if the problem persists, check the battery)
The battery cannot be charged	Fault in the charger	Contact supplier
	Damaged battery connector	Check the battery contact
The battery cannot be fully charged	The battery life is over	Install a new charged battery

8. Storage

All components of the CleanAIR® systems must be stored at a temperature between -10°C and +50°C and a relative air humidity of between 20% and 80%. The maximum storage period in the original package is two years.

Batteries will self-discharge during storage.

9. Guarantee

A guarantee of 12 months is given for manufacturing defects from the date of sale to the customer. A guarantee of six months is given for batteries from the date of sale to the customer. A claim must be filed with the sales organization and proof of purchase (invoice or delivery note) must be submitted.

The guarantee will only be recognized if the PAPR unit and charger have not been interfered with.

The guarantee does not cover faults occurring as a result of the late replacement of the filter or from using a filter damaged by cleaning and blowing out.

10. Technical data

Notified body for CE testing:

Výzkumný ústav bezpečnosti práce, v.v.i. – ZL
**[Occupational Safety Research Institute, public
 research institution – TL]**
 Testing Laboratory No. 1024
 Jeruzalémská 9, 116 52 Prague 1
 Authorized Body 235, Notified Body 1024

CA AerGO*	
Air flow rate	160 L/min and 210 L/min
Unit operation time	up to 10 hours [at flow rate 160 L/min] *)
Weight including filters and battery	980 g
Unit noise	Max. 82 dB
Battery type	Li-Ion 14.4 V / 2.6 Ah
Battery life span	500 charging cycles
One charging cycle	< 3 hours
Belt size	80 cm to 150 cm around waist
Recommended temperature range at work	+10°C to +40°C
Recommended air humidity range at work	20% to 80% R.H.
Recommended storage conditions	-10°C to +50°C

*) Measured acc. to the procedure in EN 12941

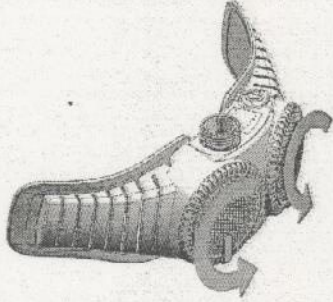
11. List of parts and accessories for CleanAIR AerGO *

Ordering No.:	Description:
30 00 00PA	CA AerGO* with belt, charger, battery, and flow indicator
30 00 10/2	Filter CA AerGO* P R SL (2 pairs)
30 00 13	Battery CA AerGO 14.4 V / 2.6 Ah LI-ION
30 00 15	Pre-filter CA AerGO* (10 pcs)
30 00 15/50	Pre-filter CA AerGO* (50 pcs)
30 00 20	Spark arrester (10 pcs)
30 00 30	Pre-filter holder, spark arrester, pre-filter – a set of 2+2+2 pcs
30 00 92	Comfort belt for CA AerGO*
51 00 30AUS	Charger LI-ION 14.4 V AUS
51 00 30EUR	Charger LI-ION 14.4 V EUR
51 00 30UK	Charger LI-ION 14.4 V UK
70 00 60	Flexible hose, light CA40x1/7"
70 00 60Q	Flexible hose, light CA40x1/7" 25°
70 00 62F	Non-flammable hose cover
70 00 82CA	Flexible hose, heavy CA40x1/7"
70 00 86CA	Rubber hose CA40x1/7"
70 00 86Q	Rubber hose CA40x1/7" 25°
70 00 90RD	Flow Indicator

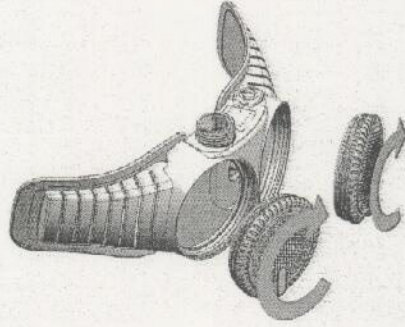
Pictorial supplement

Filter replacement

1A



1B

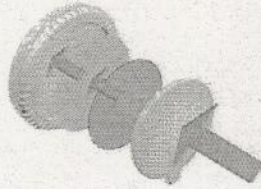


Installation of pre-filter and spark arrester

2A

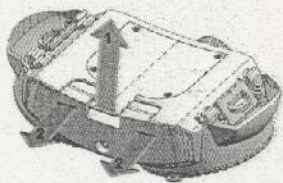


2B

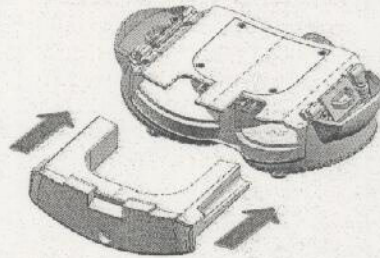


Battery replacement

3A

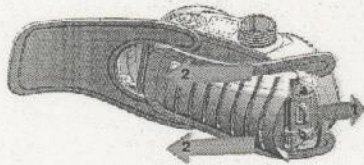


3B



Belt replacement

4A



5B

