

OPERATORS' MANUAL



Stealth-G

**Grinding Helmet and
PAPR System**

Part No. **5044**

IMPORTANT NOTICE

Please read these instructions carefully before using this unit

Failure to comply with the instructions may void your warranty and adversely affect your health and safety

1. INTRODUCTION

The Stealth-G is designed to provide protection when the wearer is working in a contaminated environment. The system is designed to supply clean air via the blower filter through a breathing tube to the welding faceshield, so that the user can continue working. It is a combined face and powered air purifying respirator (PAPR) system for increased safety and comfort during welding. Please read these instructions carefully before unpacking. For proper use, see User Instructions or contact your supplier for help.

2. APPROVALS

The system complies with the requirements of PPE Regulation 2016/425 and European Standard EN 12941: 1998+A2:2008 class TH3 P R S L. The PAPR is designed to provide a supply of filtered air via a breathing tube to a welding headpiece. The equipment can be used in environments that requires a class TH3P breathing protection device and protects against particulate contamination. All components used in this respiratory system must be manufacturer approved parts and must be used in accordance with the instructions in this manual.

Notified Body: Vyzkumny ustav bezpecnosti prace, v. v. i., Jeruzalemska 9, 116 52 PRAHA 1, Country : Czech Republic (Notified body number 1024).

- **The approval is not valid if the product is incorrectly used together with non-approved parts or components.**
- **Only the particle filter and pre-filter can be used together with this system. Filters from other manufacturers should under no circumstances be used.**

3. WARNINGS AND LIMITATIONS OF USE

Before each use, inspect the Stealth-G for damage and check it is fully operational and test the air flow to verify it is providing an adequate volume of air.

Always wear the Stealth-G when working in a contaminated environment and do not remove the head top or turn off the air filter unit until outside.

If you are not sure about the concentration of pollution, or about equipment performance, ask the industrial safety engineer.

The manufacturer is not responsible for injury due to the following incorrect use or incorrect choice of equipment.

WARNING:

This respiratory system should be used by experienced and qualified personnel only.

Before using, ensure you understand that at very high work rates the pressure in the system may become negative at peak inhalation flow.

Before and during use, be aware of the possibility of looped hoses and/or cables becoming caught up.

If the system is in the power-off state little or no respiratory protection is to be expected. Leave the work place and remove the headgear when the system is in the power-off state – a rapid build-up of carbon dioxide and depletion of oxygen within the hood may occur.

The filters shall only be fitted to the turbo unit and not directly to the helmet/hood.

The user should not confuse the markings on a filter relating to any standard other than EN 12941 with the classification of this device when used with this filter.

DO NOT use Stealth-G:

- With the blower unit switched off.
- In an atmosphere that is immediately hazardous to user hygiene or health and/or has oxygen content of less than 19.5% or contains unknown substances.
- In an explosive atmosphere.
- In confined spaces or areas of poor ventilation.
- In high winds.

DO NOT:

- Alter or modify in any way.
- Touch any of the moving parts.
- Allow water or other liquids to enter the impeller chamber, the filter or battery compartment.

4. UNPACKING/ASSEMBLY

Check that correct number of components has been supplied as in FIGURE 1.

Check that the apparatus is complete, undamaged and correctly assembled.

Any damaged or defective parts must be replaced before use.



FIGURE 1

The package must include:

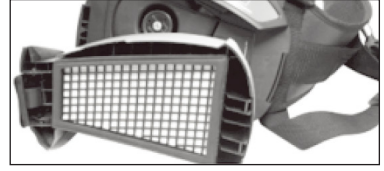
1. The air fed welding + welding hood
2. The respiratory protection system (turbo unit + filter + waist belt)
3. Lithium-ion battery
4. The tube, its anti-fire cloth and both end fittings
5. The shoulder harness
6. The air flow tester
7. The lithium-ion battery charger
8. The carrying bag

If any of the above components are not included in your kit, please contact the supplier immediately.

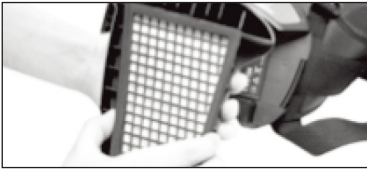
4.1 Filter replacement



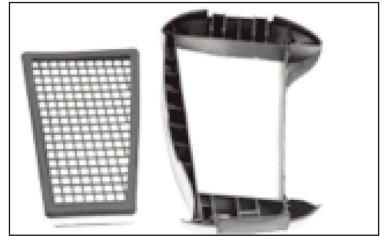
4.1.1 Remove the filter cover by pressing in the latch of the filter cover.



4.1.2 The filter cover is released.



4.1.3 Remove the used filter by lifting it out from the filter cover.



4.1.4 Remove the pre-filter.



4.1.5 Clean the spark arrester if necessary.

The pre-filter and filter expected lifetime is 12 months. When under intensive use, check the filter cleanliness periodically and if needed, change them more often than every 12 months.

<p>If the filter is wet or heavily loaded with particles or damaged, it should be replaced. Never attempt to clean the filter by any means, it can damage the filter media easily. The pre-filter (if used) should be intact without any tears or cuts. Please replace the prefilter once it's wet or heavily loaded with particulate.</p>		
Prefilter	Once a week	Regular replacement of the prefilter extends the life of the HE particulate filter, saving money while also increasing the battery run-time.
HE particulate filter	At least every month	Do daily checks with air flow indicator and replace when airflow indicator falls below the minimum flow line.

4.2 Installing the Battery/Charging



4.2.1 Slide the battery towards the back of the filtration unit.



4.2.2 Make sure the battery is locked in position.



4.2.3 The battery can be charged on the filtration unit or separately.



The battery is partially charged when delivered. It must be charged to 100% (4 bars) before the first use.

It is recommended to charge the batteries to 100% before each use.



The charger must not be used for anything else than it was designed for.

Do not charge the battery in a potentially explosive area. The charger must only be used indoors.

The charger regulates the charge automatically. Once the battery is fully charged, it will maintain it at a 100% (floating charge).

The charge time is 3 to 4 hours.

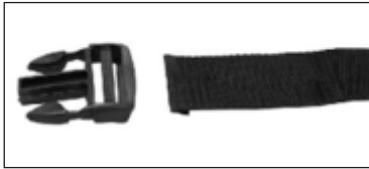


The battery will discharge itself after long storage periods. Always charge the battery if the device was stored for more than 15 days.

When the battery is new or has been stored for more than 3 months, charge it and discharge it at least twice in a row to reach the nominal/rated charge capacity.

Battery charge:

1. Connect the battery to the charger. The connector is above the battery.
2. Connect the charger to the mains.
3. The state of charge is displayed via a red LED on the mains charger.
4. Once the charge is finished, the floating charge becomes active; the red LED switches off and a green LED switches on.
5. Disconnect the charger from the mains (do not keep the charger plugged to the mains if it is not in use).

4.3 Installing the respiratory system on the belt

4.3.1 Remove the belt's release buckle.



4.3.2 Remove the fastening belt from the waist connector's 2 belt loops.



4.3.3 Make the fastening belt pass through the respiratory system's 2 belt loops.



4.3.4 Position the Velcro® between the 2 loops.



4.3.5 Flip the filtration system and attach the Velcro® on the belt.



4.3.6 Put the fastening belt back through the 2 belt loops.



4.3.7 Put the buckle back.

Make sure the belt is securely fastened.



4.3.8 Attach the harness to the belt's 4 plastic rings.

4.4 Connecting the tube



4.4.1 Connect the air tube to the respiratory system and twist it clockwise to lock its position.



4.4.2 Connect the other end of the tube to the headgear in the same way.

Check that the respiratory tube is strongly connected. If the tube is damaged, replace it.

⚠ All components must be installed/used in accordance with this manual if the equipment is to offer the specified protection. If any component is missing, or if anything is not clear, contact the supplier.

5. BEFORE USE/ FITTING

5.1 Air flow test



5.1.1 Connect the breathing tube to the turbo unit and twist it clockwise to lock it.



5.1.2 Insert the flowmeter at the tip of the tube



5.1.3 Press the ON button and maintain the tube in a vertical position at eyes' height.



5.1.4 The air flow is sufficient if the marble reaches the minimum flow level 0.



1. The airflow must be tested before use.
2. If the marble cannot reach the minimum flow level, don't use the system. Change the filter or the battery and retest the air flow.

5.2 Air flow alarm test



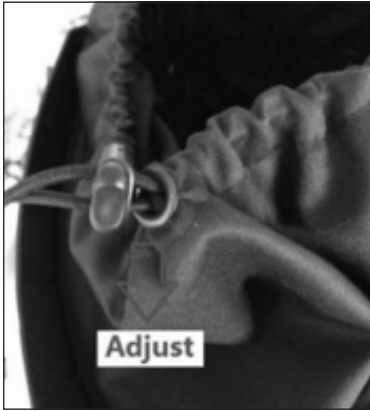
5.2.1 Remove the tube from the helmet and press the ON button.



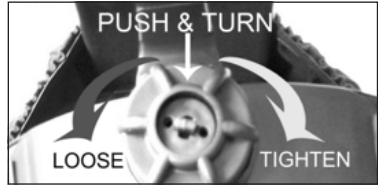
5.2.2 Cover the air output with your hand and wait approximately 15 seconds.

If the alarm does not work, repair or change Respiratory System.

5.3 Fitting



5.3.1 Adjust the tightness of the face seal and put on the head top.



5.3.2 Adjust the headgear to suitable tightness (push and turn left to loosen, turn right to tighten)

Make sure the face seal is positioned properly, otherwise you cannot achieve sufficient sealing needed to provide the correct protection factor.

6. LCD AND OPERATION

6.1 LCD display screen

There is a LCD display screen on the PAPR unit to display the air working condition (FIGURE 2).

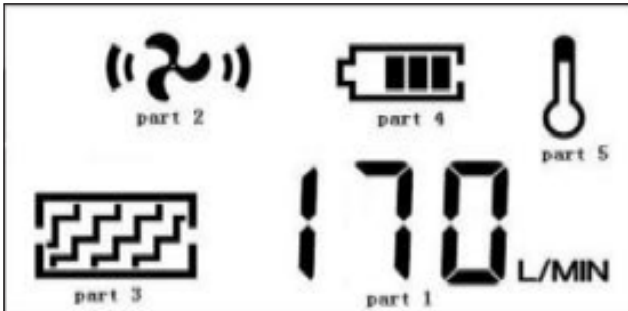


FIGURE 2

Part 1 displays the data of current air flow. **Part 2** displays the level of the airflow.

Part 3 displays the filter condition. (If the icon is as above, it means filter is clean and no need to replace. If the icon becomes 3, 2 or 1 it means the filter may need replacing)

Part 4 displays the battery.

Part 5 displays the temperature of the battery.

Any of them will flash if there are disfunctions.

6.2 Operation

1x ON Switch the device on by pressing the ON button once.



2x ON Press the ON button once again, the air flow is at level 1 (~170L/min).



3x ON Press the ON button once again, the air flow is at level 2 (~200L/min).



4x ON Press the ON button once again, the air flow is at level 3 (~230L/min).

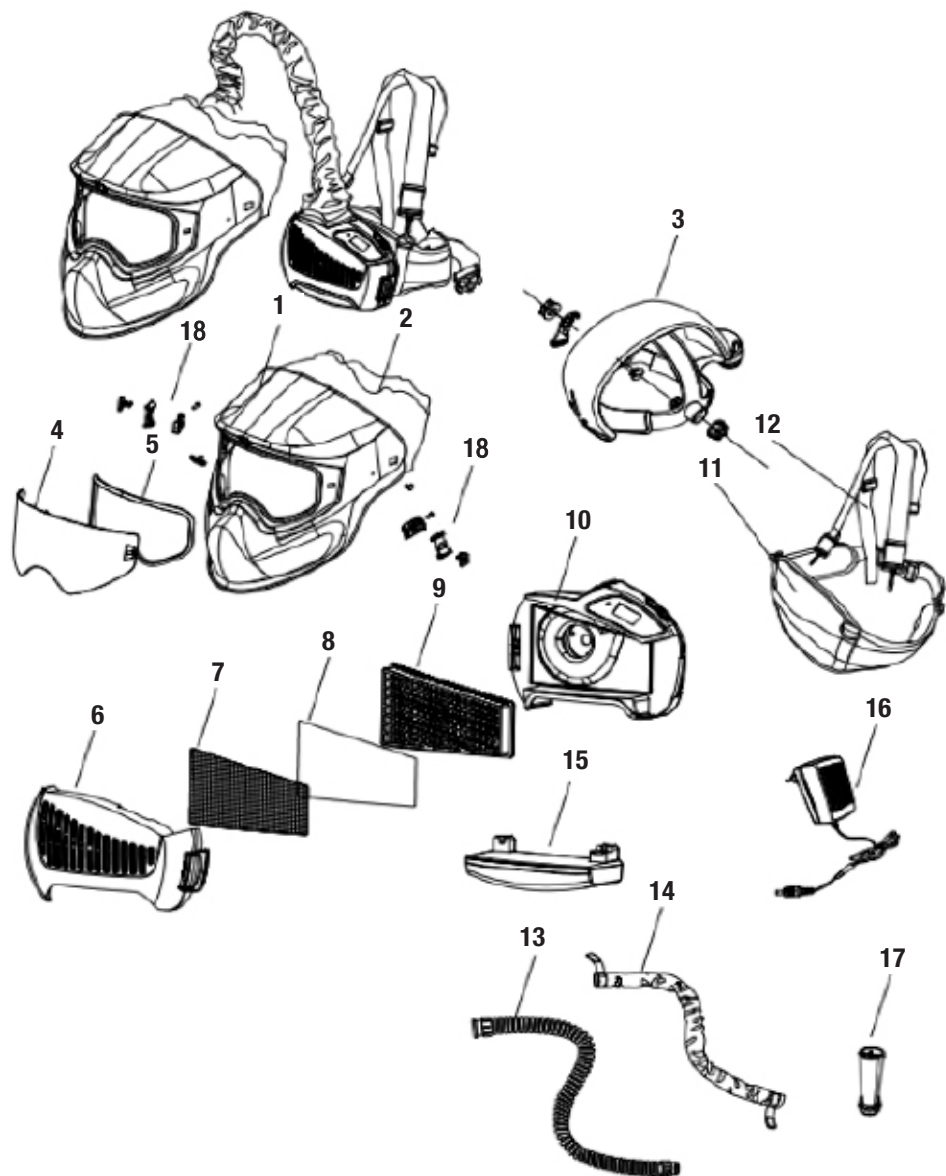


Press the ON button once again, the air flow reverts to level 1 (~170L/min).

1. The system will turn off the turbo unit when the OFF button is pressed for more than 3 seconds.
2. The system will cut off the entire circuit and switch to sleep mode if the turbo unit is turned off for more than 30 minutes. Pressing the ON button can activate the system.
3. The system must be operated in the temperature range of -5° to $+55^{\circ}$ and relative humidity less than 90%RH.

7. PARTS LIST

Figure	Part No.	Description
1	5044HEAD	Headtop only including face seal
2	6044SEAL	Face Seal
3	3044BAND	Air duct with Headgear
4	5024	Outer Protection Lens – Clear
	5023	Outer Protection Lens – Shade 3
5	5024SEAL	Outer lens sealing strip
6	5044COV	Filter Cover
7	3044GAU	Gauze Filter
8	3044PRE	Pre-filter
9	3044P3	TH3P Filter
10	5044BLOW	Turbo Unit with vibration
11	3044BLT	Waist Belt
12	3044HARN	Shoulder Harness
13	3044HOSE	Breathing Hose
14	3044HCOV	Breathing Hose Cover
15	3044BAT	Rechargeable Battery
16	3044CHA	Battery Charger
17	3044TEST	Air Flow Tester
18	5044BUCKLE	Lens Buckles x 2



8. MAINTENANCE & STORAGE

Inspect the equipment daily and regularly check for any sign of malfunction.

8.1 Maintenance

The blower unit must be checked regularly and must be changed if it is damaged.

Filters must be changed if damaged, or blocked and does provide sufficient airflow.

The breathing tube must be changed if it is broken or creased.

The battery must be charged when the low battery alarm sounds.

Use a soft cloth to wipe the external surfaces. Do not use water.

Wipe the equipment with a disinfectant such as Dettol. Dilute the disinfectant with water to a ratio of 1:99 and wipe the surface of the equipment with a clean lint-free tissue and the solution. Then wipe the surface of the equipment with another clean lint-free tissue or cloth and water.

The filter should be replaced together with the pre-filter.

8.1 Storage








The respiratory system must be stored in a dry, clean area in the temperature range of -10° to $+55^{\circ}$ and relative humidity less than 90%.

If the equipment is stored at temperature below 0° , the battery must be allowed to warm up to achieve full battery capacity. The equipment must be protected from dust, particles and other contamination.

If the equipment is not used for a long time, the battery should be fully charged, removed from respiratory system and stored separately.

Transport the equipment with original packaging box and away from direct sunlight.

9. TROUBLESHOOTING

Problem	Possible cause	Action
Fault code «E01»  + Warning blinks	<ol style="list-style-type: none"> 1. Motor is stuck 2. Motor is damaged 3. Blower structure failure caused by outer force 4. Circuit failure 	Check and remove physical failure and restart the system. Return to supplier if LCD still shows E01
Fault code «E02»  + Warning blinks	<ol style="list-style-type: none"> 1. Motor is damaged 2. Motor impeller rubs blower shell 3. Circuit has excessive current 	Check and remove physical failure and restart the system. Return to dealer if LCD still shows E02
  + Warning blinks + ALARM sounds	Low battery	Charge the battery
  + Warning blinks + ALARM sounds	Filter blocked Tube blocked	Remove obstruction Change filter Clean tube
 blinks + ALARM sounds	Battery high temperature	Stop working and shut down
No air flow, no alarm	<ol style="list-style-type: none"> 1. No power 2. Battery contact damaged 	Charge the battery Check battery contact
Battery run time is too short	<ol style="list-style-type: none"> 1. Battery is not fully charged 2. Filter is blocked 3. Battery is damaged 	Charge the battery Remove obstruction, change filter Change battery
Air supply to hood smells unusual	<ol style="list-style-type: none"> 1. Filter broken 2. Tube broken 3. ADF helmet broken 	Leave current area immediately <ol style="list-style-type: none"> 1. Change filter 2. Change tube 3. Change ADF helmet
Insufficient supply of air to hood	<ol style="list-style-type: none"> 1. Breathing tube broken off 2. Breathing tube broken 3. Filter is blocked 	<ol style="list-style-type: none"> 1. Check tube connection to hood and Respiratory system unit 2. Change breathing tube 3. Remove obstruction, change filter

10. SPECIFICATION

Size (Blower Assembly)	9-2/5 x 6-1/2 x 2-3/4 in. (240 x 165 x 70 mm)
Weight	2.4kg
Particle Filter	1*TH3 P R SL
Air Flow	Manufacturer minimum design flow rate: 165L/min Nominal airflow : Level 1: 170L/min Level 2: 200L/min Level 3: 230L/min
Noise Level	Max 75dB
Operate Temperature	23° to 131°F (-5°~55°C)
Storage temperature	14°F to 131°F (-10°C~55°C)
Battery Type	Rechargeable Li-ion 4400mAh
Expected Battery Operation Time	Level 1 >8h Level 2 >6h Level 3 >4h
Battery Charging Time	3.5 Hours
Battery Life	500 Charges Run Time Dependent On Air Flow Rate and Filter Load
LCD Display	Air flow level and data Battery capacity Filter status
Belt Size	35-2/5 x 51-2/5 in. (900 mm to 1300 mm)

11. MARKINGS EXPLANATION

Powered filtering device

- EN 12941:1998 Respiratory protective devices – Powered filtering devices incorporating a helmet or hood – Requirements, testing, marking.
- TH3 P R (SL) classification of the unit. ‘TH3’ defines the level of protection, ‘P R’ indicates the filter type (‘P’ = Particle filter, ‘R’ = Reusable type of particle filters) and ‘SL’ reflects the filter has been tested against particles of liquid and solid matter.

Warning indication

This Stealth-G PAPR has sound and vibration alarm function.

Each square equals a period of 100ms. Grey is a beep sound and a blank square is a quiet period. If several continued squares are in grey then there is a continuous beep sound.

Eg. When the current is overloaded, the system sounds like beep~beep~beep~::~.

100ms per grid											
	0	1	2	3	4	5	6	7	8	9	10
Install the battery	Grey										
Turn on the system	Grey										
Change the air flow speed	Grey										
Turn off the system	Grey	Grey	Grey	Grey	Grey						
Current overload	Grey		Grey		Grey	Grey	Grey	Grey	Grey		
Air outlet jam	Grey		Grey	Grey		Grey					
Over heating	Grey		Grey		Grey		Grey	Grey	Grey	Grey	Grey
Low battery	Grey		Grey								
Filter jam	Grey		Grey		Grey						

Symbols



= Read instructions before use



= CE mark followed by number of notified body who carried out module D inspection.

12. WARRANTY

The Stealth-G Air Blower unit is guaranteed for a period of 12 months from date of purchase against mechanical or electrical defects.

The Stealth-G battery is guaranteed for a period of 6 months from the date of purchase.

The company undertakes to exchange or repair without charge, any part found to be defective within this period alternatively and at its discretion, may replace.

This guarantee is subject to:

- The Stealth-G system has been used solely for the purpose for which it is intended.
- The Stealth-G system has not been subject to misuse, accident, modification or repair.
- In the event of a claim, contact the retailer from which the Stealth-G system was purchased.
- The guarantee does not cover normal wear and tear.



Specialised Welding Products Ltd

Head Office

Unit 1, Farringdon Industrial Centre
Farringdon, Nr Alton
Hampshire GU34 3DD, UK

National Distribution Centre

Unit 1, Withins Road
Haydock Industrial Estate
Haydock WA11 9UD, UK

Customer Service

T +44 (0)1420 588180
F +44 (0)1420 588184
E sales@swp.uk.net

www.specialisedwelding.co.uk

Quality ✓

Service ✓

Value ✓