

# TECHNICAL DATASHEET

## DURAFLOW POWERED AIR RESPIRATOR

### DESCRIPTION

The DURAFLOW powered air respirator is designed with end user comfort in mind. Its sleek, modern ergonomic profile allows the user to experience enhanced comfort while working in the most demanding environments. DURAFLOW features a durable body to withstand arduous environments and a range of design features including: real-time air flow control; audible/visual alarms; standard/extended duration battery options (IP65 rated), LED operation displays. Decontamination kit available for blocking filter and hose ports for showering; Important: DO NOT submerge the Duraflow PAPR or battery. DURAFLOW battery must be fitted when showering. DURAFLOW is available with a wide range of approved Scott Safety headtops and filters for a variety of applications.



### BATTERY

A lithium ion rechargeable battery connects to the DURAFLOW unit. Two batteries are available; a standard battery providing up to 8 hours operation\* or an extended duration battery providing up to 16 hours duration\* more than satisfying the minimum 4h run time of the EN 12941/12942 Standards. Both batteries are IP65 rated.

The standard battery has 4 cells; providing 14.8 V nominal (16.8V max), 3.4 Ah. The extended battery has 8 cells; providing 14.8 V nominal (16.8V max), 6.8 Ah. The battery includes an internal overcurrent protection and temperature protection.

\*IMPORTANT: DO NOT SUBMERGE THE DURAFLOW BATTERY

Battery operating times quoted are provided as an estimate, based on a fresh battery, appropriately charged with new filters, being used at room temperature and moderate workrates.

Extremes of temperature, the age and cycle of the battery, charge status, filter clogging, and high workrates may negatively impact operating time. If the application is sensitive to operating time it is recommended that the end user consult Scott Safety to determine which type of battery should be used.

### CHARGER

The microprocessor-controlled charger features an automatic recharging system including signal lights. The signal lamp on the charger indicates charging status.

### BLOWER UNIT DISPLAY

An automatic monitoring feature checks that the unit is operating correctly, warns the user of low battery and quickly compensates for changes in airflow and ensures correct airflow. Battery levels and flow rate alerts are displayed on the simple LED display.

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DURAFLOW	
TECHNICAL DATA	
Approvals:	EN 12941 CE 0086 (see below for headtop approvals) / EN 12942 (pending)
Air flow:	Min 160 l/min with automatic adjustment
Standard battery:	Rechargeable, Li-ion 14.8 V nominal (16.8V max), 3.4 Ahr battery. Internal overcurrent and temperature protection. Size 181.8mm x 54.2mm x 34mm, Weight approx 340 g
Extended battery:	Rechargeable, Li-ion 14.8 V nominal (16.8V max), 6.8 Ahr battery. Internal overcurrent and temperature protection. Size 181.8mm x 54.2mm x 50mm, Weight approx 540 g
Battery operating time (Standard Battery)	Up to 8 hours depending upon Headtop/filter combination
Battery operating time (Extended Battery)*	Up to 16 hours depending upon Headtop/filter combination
Unit display	Power status; battery gauge; alarm status
Alarms	Audible alarm sounds for Low flow or Low battery.
Alarm Sound Level	>75 dB (audible level dependant on headtop)
User notification	3 beeps when correct airflow reached on start up
Weight of unit without filters or battery:	600g approx.
Weight of unit with standard battery and no filters	950g approx.
Operating Sound level:	< 75 dB (A)
Operating Temperature range:	-10 °C ... +50 °C (Factory sealed -10 °C ... +50°C)
Humidity:	< 95%
Recharging temperature:	Recommended recharging temperature approx + 20 °C
Ingress Resistance:	IP65 shower resistance (battery & filters fitted, without decon plugs fitted); IP67 (Battery fitted, with hose & filter decon plugs fitted)
MATERIAL DATA	
Blower body	Polycarbonate / ABS blend. Chemically resistant, resistant to impact, chemicals and wear and tear.
Gasket	Thermoplastic Elastomer
Motor body	PC / ABS blend; good resistance to abrasion, impact and good mechanical properties.

\* Operating times are based on a fresh battery, appropriately charged with new filters being used at room temperature and moderate workrates. Extremes of temperature, the age and cycle of the battery, charge status, filter clogging, and high workrates may negatively impact operating time. If the application is sensitive to operating time it is recommended that the end user consult Scott Safety to determine which type of battery should be used.

DURAFLOW	
HEADTOP COMBINATION APPROVALS	
EN 12941 APPROVAL RATING	
FH1 Half-Hood	TH3
FH2 Full-Hood	TH3
FH21 Anti-Static Full-Hood	TH3
FH22 Full-Hood	TH3
FH31 Faceshield	TH3
FH6 (FH61, FH62, FH63, FH65)	TH2
FM1.1 /AVIVA	TBD (Approval Pending)
FM3 / Promask	TBD (Approval Pending)
FM4 / Vision	TBD (Approval Pending)

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PRO2000 STANDARD FILTERS APPROVED FOR DURAFLOW			
Colour Code	Part Number	Filter Classification	For Use Against
	5052670	PF10 P R SL	Solid and liquid particles of toxic agents, radioactive substances and microorganisms, e.g. bacteria and viruses.
	5042670	CF22 AP R SL	Organic gases and vapours, e.g. solvents with a boiling point above 65°C, solid and liquid particles, radioactive and toxic particles and micro-organisms.
	5042671	CF22 BP R SL	Inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrogen cyanide, fluorine, cyanogen chloride, phosgene and solid and liquid particles, radioactive and toxic particles and micro-organisms.
	5542674	CF22 ABP R SL	Organic and inorganic gases and vapours, solid and liquid particles, radioactive and toxic particles and micro-organisms.
	5042678	CF22 ABEP R SL	Organic, inorganic and acid gases and vapours, solid and liquid particles, radioactive and toxic particles and micro-organism
	5042799	CF32 ABEKP R SL	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	5542798	CF32 ABEKHgP R SL	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, mercury and mercury compounds, solid and liquid particles, radioactive and toxic particles and micro-organisms.

DURAFLOW
BATTERYPACK AND CHARGER WARNINGS
Seek medical advice immediately if a cell or battery is swallowed.
In the event of a battery leaking, do not allow liquid to come into contact with the skin or eyes. If contact has been made, use water to wash the affected area thoroughly and seek medical advice.
Use only Scott Safety approved batteries for the Duraflow PAPR.
Use the battery only for the application for which it is intended.
Do not remove the battery from the original packaging until you intend to use it.
Do not short-circuit batteries.
Do not dismantle, open, or shred batteries.
Do not subject batteries to mechanical shock.
Do not expose batteries to heat or fire. Avoid storage in direct sunlight.
Never recharge in a potentially explosive environment.
Storing a battery that has depleted can damage the battery.
Do not charge the battery with any other charger except that which is specifically provided for use with the equipment.
Charge the battery only within the temperature range of 0°C to 40°C.
Do not store batteries haphazardly where they may short-circuit each other or be short-circuited by conductive materials.
The charger is suitable only for indoor use.
Use only an approved power supply
Do not use any charger other than the charger that is provided.
Do not attempt to charge non-rechargeable batteries.
Do not leave a battery on prolonged charge when not in use.

This information also relates to any secondary battery that you may use.

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## MAINTENANCE

**NOTE:** Only Scott Safety certified technicians can perform maintenance on the Duraflow PAPR.

Regular and scheduled maintenance is essential for safe use of the equipment. In addition to pre-use and storage checks, check the apparatus on a monthly basis, and replace any defective parts. A qualified service and maintenance operator must perform a service on an annual basis.

Scott Safety has an approved network of service centres for this purpose. A regular monthly maintenance schedule is performed as per the pre-use checks that includes a thorough visual inspection of all components. Perform a thorough inspection of all component parts before and after each use.

## CLEANING

Regular cleaning will keep the unit operational for a longer duration. To clean, carefully wipe the powered air unit. You can clean the unit with any of the following cleaning solutions: soap and water, Tristel plc's DISTEL™ solution, Ecolab USA Inc.'s INCIDUR™ solution and some dioxycyclohexane-based cleaning solutions.

DO NOT SUBMERGE DURAFLOW PAPR OR BATTERY.

A decontamination kit is available for purchase and comprises filter and hose plugs which prevent liquid entering the PAPR unit.

Duraflow has an IP65 rating for shower resistance. If you shower the PAPR, keep the battery and filters or decontamination plugs fitted.

Once clean, all components must be left to dry naturally.

## STORAGE

Ensure that the Duraflow is protected from damage during transport. When not in use, store the equipment in a clean, dry environment, away from direct heat sources between -10°C and +50°C, at a humidity of less than 75% RH.

## DISPOSAL

Dispose of the equipment in accordance with local regulatory requirements.