



ADVANCED POWERED RESPIRATORY HELMETS



INTEGRATED EYE, FACE AND HEAD PROTECTION THAT IS EASIER AND MORE COMFORTABLE TO WEAR THROUGHOUT THE WORKING DAY

- Eye Protection: ANSI Z87.1 - 2003, basic (low energy) impact personal eye and face protection.
- Low noise motor provides initial rate airflow of 7.4 cubic feet per minute (cfm) (5.3 cfm minimum at end of battery life). Low battery audible alarm.
- Lightweight 2.2lbs with easily adjusted headband to fit range of head sizes and for wear over protective clothing and hoods.
- Polycarbonate faceshield with nylon elasticated faceseal-tinted and clear overlays are available for the faceshield.
- On-off switch easily operated with gloved hand.
- Pair of particulate filters not approve-able by NIOSH under 42CFR part 84.*
- Air flow indicator pre-checks battery and filter performance and condition.*
- Wide range of applications including - woodworking and pottery, craft design and technology, DIY and building maintenance, food preparation and processing, fitting and application of insulation, dental laboratories, horticulture and pest control.



ULTIMATE PERSONAL SAFETY SOLUTION FOR INDUSTRIAL ENVIRONMENTS PROVIDING ALL-IN-ONE HEAD, EYE, FACE, AND RESPIRATORY PROTECTION



- Sophisticated Electronic Systems Management (ESM) continually monitors all functions and provides preuse self diagnostic systems check.
- Unique Head Mounted Display (HMD) incorporates LED and audio signals to warn the wearer when battery is low or filter needs replacement.
- Dedicated, high efficiency HE P100 particulate filter has three times more filtration area than normal, lasting longer and reducing operating costs – no prefilter needed.
- Face-shield is manufactured from high impact-resistant polycarbonate with anti-mist, anti-scratch coating.
- Choice of hard-hat or bump cap versions with fixed or flip up face-shields.
- Face-shield seals securely against the helmet frame for optimum protection against impact or splashes and when locked reduces entry of external contaminants from outer surface.
- Unique 4-point adjustable cradle and fail-safe ratchet control system enables the helmet to be quickly and easily adjusted for different head sizes and shapes, achieving optimum comfort, balance and fit.
- Power is delivered by two environ-mentally safe, rechargeable nickel hydride batteries that clip snugly into position to deliver about 6 hours of continuous use.
- Batteries can be charged in place or externally out of the helmet in approximately 2.5 hours using our lightweight multi-pin smart charger.
- Innovative design allows easy replacement of parts and accessories reducing the annual maintenance and operating costs.

**CONTACT LOCATIONS:
NASHVILLE, TN (615.254.0851) • ROCK HILL, SC (803.366.5131)
www.frhamsafety.com**

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Pair of particulate filters

Polycarbonate faceshield

Fan motor

Replaceable on-off switch

Eight hour battery pack



Brow and head protector

Headband adjuster

Vented elasticated face seal

Slot for ear defenders (optional)



Pureflo ESM works by drawing air from the surrounding environment through a high efficiency, HE P100 filter located at the rear of the helmet, which removes any liquid or solid based contaminants. The system enables the wearer to use a decontamination shower as the design inhibits water ingress.

An external head mounted switch activates the helmet's battery powered operation. Operational noise level is reduced by the advanced filter housing and fan design to below 70 dB internal noise level.

Clean, breathable filtered air is then channeled directly to the interior of the face shield at a constant flow rate of 7.6 cf/min or 210 liters/min and exits through an innovative exhalation patch located in the rear of the attached neck cape.

This unique air circulatory system creates a smooth, continuous flow pattern, delivering the optimum air supply to the wearer with the minimum of resistance.

A booster switch can be manually activated to increase the airflow to 8.2 cf/m or 230 liters/min to meet the demands of hotter and more extreme working conditions.

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Illustration							
Typical Industries /uses	Pharmaceutical; non-hardhat manufacturing, sanding, grinding, powder mixing	Manufacturing; Sanding; Grinding; Rubber, plastics, cement, steel, & aluminum mfg.	Metal fabrication; Welding areas (not direct welding), cutting, grinding	Metal fabrication; Welding	Metal fabrication; Welding	High radiant heat fabrication; Welding	Light fabrication, sanding, grinding; Wood working; Agriculture
Model	PF50 ESM	PF60 ESM	PF60 ESM with secondary protective visor	PF60 ESM Welding-fixed shade 10	PF60 ESM Welding-auto darkening filter (ADF)	PF60 ESM Heat shield-Welding (ADF)	Purelite Xstream
All-in-one design ¹	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Available Particulate filter	NIOSH approved HE	NIOSH approved HE	NIOSH approved HE	NIOSH approved HE	NIOSH approved HE	NIOSH approved HE	Not NIOSH Approved use against solid particulates only
Available Particulate + Gas/vapor filter	NIOSH approved HE/HF + Nuisance ² OV/AG/Ozone/ Inorganic Vapors	NIOSH approved HE/HF + Nuisance ² OV/AG/Ozone/ Inorganic Vapors	NIOSH approved HE/HF + Nuisance ² OV/AG/Ozone/ Inorganic Vapors	NIOSH approved HE/HF + Nuisance ² OV/AG/Ozone/ Inorganic Vapors	NIOSH approved HE/HF + Nuisance ² OV/AG/Ozone/ Inorganic Vapors	NIOSH approved HE/HF + Nuisance ² OV/AG/Ozone/ Inorganic Vapors	Not Available
ESM ³	Yes	Yes	Yes	Yes	Yes	Yes	Low battery indicator alarm
Assigned Protection Factor ⁴	1000	1000	1000	1000	1000	1000	20 per EN 12491
Air flow rating	7.6 CFM standard mode 8.2 CFM boost mode	7.6 CFM standard mode 8.2 CFM boost mode	7.6 CFM standard mode 8.2 CFM boost mode	7.6 CFM standard mode 8.2 CFM boost mode	7.6 CFM standard mode 8.2 CFM boost mode	7.6 CFM standard mode 8.2 CFM boost mode	7.6 CFM
ANSI Z89.1-2003 Industrial Head Protection	Bump Cap	Compliant Type 1 Class C	Compliant Type 1 Class C	Compliant Type 1 Class C	Compliant Type 1 Class C	Compliant Type 1 Class C	Bump Cap
ANSI Z87.1 2003 Eye & Face Protection	High Impact Compliant Z87.1 +	High Impact Compliant Z87.1 +	High Impact Compliant Z87.1 +	High Impact Compliant Z87.1 +	High Impact Compliant Z87.1 +	High Impact Compliant Z87.1 +	Basic Impact Compliant Z87.1
Respiratory Approvals	NIOSH 42CFR84	NIOSH 42CFR84	NIOSH 42CFR84	NIOSH 42CFR84	NIOSH 42CFR84	NIOSH 42CFR84	EN 12491
FM Non-incendive NI Class I, II, III / Div 2 / Groups A, B, C, D, E, F, G	Yes	Yes	Yes	Yes	Yes	Yes	No
Typical run time (charged batteries)	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	6 hrs.	8 hrs.
Battery recharge time	2.5 hrs	2.5 hrs	2.5 hrs	2.5 hrs	2.5 hrs	2.5 hrs	14 hrs.

¹ All-in-one design means that there are no wires, hoses, straps, etc. running down the user's back and there is no belt harness needed. All components (blower, battery, etc.) are built into the helmet.

² Nuisance level removal of most Organic Vapors, Inorganic Vapors, Acid Gases and Ozone. Nuisance level refers to concentrations not exceeding the OSHA PEL or other applicable government occupational exposure limits, whichever is lower. NIOSH does not approve filters for Nuisance level protection.

³ Electronic Systems Management monitors both the filter state and battery power assuring continuous airflow above 6 CFM (170 lpm) for the entire use period. Should airflow or power drop, these units will alert the user.

⁴ Per OSHA Assigned Protection Factor, Federal Register Notice 71:50121-50192, Dated 8/24/2006. Supporting test data is available upon request from Interactive Safety Products.

ACCESSORIES & OPTIONS



Pureflo
ESM



Radiant heat kit/tinted gold visor option



Fixed or flip visor options available



Unique Head Mounted Display (HMD)



Easy to fit accessories



Lamp bracket attachment option



Mesh visor option

THE NEW STANDARD For Various Hexavalent Chromium Protection



16 Battery Multi-Charger



5.0 Green visor option



Gold on Clear visor option



- The Pureweld ESM powered air purifying respirator (PAPR) helmet is the ultimate personal safety solution for welding applications and industrial environments providing an all-in-one respiratory, eye, face and head protection against airborne particulate contaminants including hexavalent chromium applications, flying debris, sparks, cutting, chemical and molten metal splashes.
- With no belt pack, down hose or trailing leads to get in the way, the Pureweld ESM is completely self contained, easy to use and convenient allowing the wearer to be able to move freely without restrictions even in tight spaces.
- With an APF of 1000, the highest allowed for a PAPR helmet unit, the Pureweld ESM combines a hard hat with the welding shield accessory into a user friendly helmet system that significantly cuts annual operating and maintenance costs.
- The high efficiency HE P-100 filter prevents the inhalation of harmful and hazardous particulates while the face-shield and helmet combination protects the wearer from impact, head, eye and face hazards.
- The Pureweld ESM incorporates an on board CPU system that constantly monitors filter usage, battery life and airflow to ensure optimum performance at all times.
- With an APF of 1000, the Pureflo ESM was independently tested to a minimum average of 31,000 in accordance with NIOSH Testing Procedure No. CET-PAPR-STPCBRN- 552.

SPECIFICATIONS

APPROVALS	Purflow Bump Cap PF50 ESM	Pureflor Hard Hat PF60 ESM
System Classification	Powered Air Purifying Respirator	Powered Air Purifying Respirator
Head Protections	*	ANSI Z89.1-2003
Face-Shield/Eye Protection	ANSI Z87.1-2003	ANSI Z87.1-2003
Respiratory	NIOSH 42CFR84	NIOSH 42CFR84
Filter Type	HEPA	HEPA
Initial Design Flow Rate	7.6 cfm or 210 liters/min	7.6 cfm or 210 liters/min
Boost Mode Flow Rate	8.2 cfm or 230 liters/min	8.2 cfm or 230 liters/min
Noise Level	Under 70 dB (based on OSHA 29 CFR 1910.95 Subpart G)	Under 70 dB
Weight	3.2 lbs with batteries	3.3 lbs with batteries
Assigned Protection Factor (APF)	1000 APF * *	1000 APF * *
FM nonincendive US and Canada	Class I, II, III, Div 2, Groups ABCDEFG	Class I, II, III, Div 2, Groups ABCDEFG
Head Size Range	6 3/8" - 7 7/8" or 54-61 cm	6 3/8" - 7 7/8" or 54-61 cm
Charger Specifications	110V / 240V ac / 50 or 60 Hz / 200 mA	110V / 240V ac / 50 or 60 Hz / 200 mA
Battery Type	5 Cell Nickel Metal Hydride 6V 1.8 Ah per pack	5 Cell Nickel Metal Hydride 6V 1.8 Ah per pack
Battery Duration	Up to 6 hours with two batteries	Up to 6 hours with two batteries
Recharge Time	2.5 Hours from full discharge	2.5 Hours from full discharge

Electronic System Management (ESM)

LED/Audio pre-use check	Audible warning, 1 Red LED on 20 seconds, changes to green LED on
LED/filter OK	3 Green on - New filter
LED/filter OK	2 Green on - Indicates filter usage
LED/filter OK	1 Green on - Indicates short filter life
LED/filter alert	1 Red on - Filter life exhausted (followed by audible tone)
LED/filter alert	1 Red on - Audible warning after 40 seconds. Change filter immediately
Airflow Boost Mode	3rd Green LED flashing
Low Battery Alert	All LED's flashing, Audible Alert

* Per OSHA Assigned Protection Factor, Federal Register Notice 71:50121-50192, Dated 8/24/2006

* Independently tested with a minimum factor of 31,600 according to NIOSH Testing Procedure No. CET-PAPR-STP-CBRN-552



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