



ESM+ PF50 PAPR

All-in-One Head Mounted Powered Air Purifying Respirator. Enhanced for Maximum Mobility and Protection in Light Duty Industries.

This all-in-one, head mounted PAPR is the next generation of the industry leading PureFlo ESM PAPR, offering all the same features plus more battery life, improved self monitoring, lighter weight, a higher flow rate, greater adjustability for maximum comfort, fit and stability, and much more. Ideal for light duty industries, such as Pharmaceutical and Laboratory, this next generation system is enhanced for maximum mobility and protection. As with all PureFlo products, you're assured of superior performance, durability, and a great value.



KEY FEATURES

- Can be worn in tight spaces as there is no trailing leads, belts, hoses, cables, or other snag hazards which provides maximum mobility, reliability, and less maintenance.
- No belt mounted blower unit required, which improves comfort and makes the PAPR ideal for use with a range of protective workwear.
- Can be worn with fall protection harness without interference.
- Unique air circulation system creates a smooth continuous flow of air that draws air from surrounding environment through filter located at rear of helmet.
- Advanced electronics package continually monitors all functions and provides a self-diagnostic system check to ensure proper functioning.
- Refined, built-in Electronic System Management (ESM) includes simple LED user interface with an audio alarm. During use, the LED will remain green if the unit is operating normally; if it flashes red fast, and you hear three fast tones, this indicates low airflow or that there is no filter fitted; if it slowly flashes red, with two slow tones, it means the battery is low.
- Improved electronics provide an increased flow rate at 8.1 CFM/230Lpm.
- Contains a fully capsuled blower module with a single 7-way IP67* connector between the sidebars and blower/motor unit with a standard internal on/off switch, in addition to having an external power switch option like the standard ESM.
- Four adjustable flame retardant Neck Capes (see back). When sealed, they create self-contained positive pressure environments, providing additional protection to the lower face and neck area.
- APF of 1000** shown by a Simulated Workplace Protection Factor (SWPF) study.
- Wide vision face shield manufactured from high-impact resistant polycarbonate with anti scratch coating on both sides (ANSI Z87.1+ :2015 face and eye protection third party certified and listed SEI). The securely sealed shield provides protection against impact, high impact, and splashes.

*IP67 = 6 – protection against dust / 7- protection against the effect of immersion between 15 cm and 1m

(Continued on back)

Approvals	PureFlo Hard Hat PF50 ESM+
System Classification	Powered Air-Purifying Respirator (PAPR)
Head Protection	N/A
Face Shield/ Eye Protection	ANSI Z87.1+ :2015 Certified; SEI Certified and Listed
Respiratory	NIOSH 42CFR84
Filter Type	HEPA (HE) or HEPA/HF/HC *Nuisance OV
Flow Rate	8.1 CFM or 230 Liters/Min
Noise Level	Under 70dB
Weight	PF50 ESM+ without filter and batteries = 2.482 lbs. PF50 ESM+ w/ filter (no batteries) = 2.910 lbs. PF50 ESM+ complete w/ batteries and filter = 3.657 lbs
Assigned Protection Factor (APF)	APF 1000 Neck Cape demonstrated by SWPF study/testing
FM Nonincendive US and Canada	Class I, II, III, Div 2, Groups ABCDEFG
Head Size Range	6 3/8" - 7 7/8" or 54 - 61cm
Charger Specifications	110V/240V AC/50 or 60 Hz/200 mA
Battery Type	5 Cell Nickel Metal Hydride 6v 2.2 Ah per pack
Battery Duration	Up to 7 Hours with Two Batteries
Recharge Time	2.5 Hours from Full Discharge

** The employer must have evidence provided by the respiratory manufacturer that testing of these respirators demonstrates performance of a level of protection of 1,000 or greater to receive an APF 1,000. This level of performance can best be demonstrated by performing a workplace protection factor (WPF) or simulated workplace protection factor (SWPF) study or equivalent testing.



ESM+ PF50 PAPR

KEY FEATURES CONTINUED

- Bump cap and hard hat options for head protection, in a variety of colors. ANSI Z89.1:2014 Typ1 Class G head protection third party certified and listed (SEI) Black, White, Yellow, and HiViz colors available.
- Quick Release Headband makes the product simple to clean and allows the helmet to be adjusted quickly and easily for different head sizes and shapes, achieving optimum comfort, balance, and fit.
- Cable clamps securely connect cables to the sidebars for added relief of strain.
- Choice of HEPA (HE) filter or a combination HE/HF/HC filter (Hydrogen Fluoride and Hydrogen Chloride); both remove 99.97% of liquid or solid based contaminants; effective for removal of nuisance odors from organic vapors.
- Light weight at just over 4 lbs.
- Corrosion resistant gold-plated battery packs and updated rustproof hardware for added durability.
- Redesigned PCB with new electronics board and an altitude sensor that adjusts the flow automatically.
- Enhanced Blower/Motor assembly includes:
 - Integrated on/off switch with optional external on/off
 - Sealed electronics enclosure requires less maintenance and improves reliability
 - No user-serviceable parts
 - Decreased fan vibration which provides a quieter experience for the wearer
 - 5 cell battery pack provides long lasting battery life
 - Efficient blower motor design
 - Air duct profiled for low pressure drop, improved energy efficiency, directed into the shell comb, air will follow the inside of the shell into the breathing zone
 - Vent patch and audible warning sounder outlet
- Legacy PureFlo ESM PF50 and PF60 PAPRs may be upgraded to the new ESM+ configurations. Visit www.gentexcorp.com/PureFlo for details.

Optional Accessories

- Tychem 2000 (QC) Disposable Overhood, designed to help protect the head from limited liquid chemical splashes and dusts when worn with a PureFlo ESM+ PAPR.
- Four different neck capes—all with an APF 1000
- Secondary Visor Attachment that lets you attach a variety of different visors: gold coated, mesh, shades of green.
- Purewipes
- Multi-Charger
- Carry Bag

Available Neck Capes

Integrity 1800 Neck Cape

- Recommended for pharmaceutical, biotech and similar applications, class 10 (ISO Class 4) and higher.
- Made of densely woven continuous filament polyester fabric with an ESD stripe designed to meet the quality and performance standards in critical Cleanroom environments around the world.
- Highly fluid repellent (Teflon® HT treatment) and also contains a durable antimicrobial treatment (Aegis) to inhibit bacterial growth and reduce bioburden.
- Adjustable neck cord.
- Two Velcro attachments for securing free end of lanyard.
- Twelve snap fasteners for easy removal and attachment.

STEDPRENE® (flame retardant) Neck Cape

- Flame Resistant as per ASTM D6413
- Abrasion Resistant Flash Fire Protection as per ASTM F1930
- Chemical Penetration Resistance as per ASTM F903
- Adjustable neck cord
- Two Velcro attachments for securing free end of lanyard
- Twelve snap fasteners for easy removal and attachment

Tychem® Single and Double-Bib Disposable Neck Capes

- Dupont Tychem® 2000 fabric starts with Tyvek® brand fabric and adds a polyethylene coating for added chemical protection.
- Tychem 2000 fabrics are tested by a third party laboratory to assess its chemical penetration resistance.
- Protects against light liquid splash with at least 30 minutes of protection against more than 40 chemical challenges.
- Used by many in the petroleum, pulp and paper, food and chemical processing, and pharma industries.
- Protects against biological hazards, such as exposure to blood or blood-borne pathogens, pandemic preparedness response.

Backed by Gentex Corporation

Part of Gentex Corporation's line of industrial safety solutions, PureFlo products are supported by a global team of world-class engineers and design talent. Gentex is committed to designing innovative industrial safety solutions that protect people from immediate and long-term health and safety hazards present in their work environments, while enhancing workplace performance. Connect with us today for more information on PureFlo and our full line of industrial safety solutions.