

# ESM+ PF23

## Intrinsically Safe Powered Air Purifying Respirator



## Data Sheet

The ESM+ PF23 is a self-contained, modular powered air purifying respirator designed for light duty industries including pharmaceutical, chemical, laboratory & healthcare.

The PureFlo ESM+ Intrinsically Safe respirator is approved for use in certain types of gas and dust environments where there are potentially explosive atmospheres.

The modular design enables it to be configured to exactly match the required application.



## TECHNICAL SPECIFICATION

Weight	1.5kg (nominal)
Head Size Range	54 - 61 cm
Protection Factor	Assigned Protection Factor (APF) - 40 Nominal Protection Factor (NPF) - 500
Humidity	0-90% (store out of direct sunlight)
Regulated Airflow	P3 filter - 220 l/m initial, 170 l/m minimum ABEP3 filter - 205 l/m initial, 170 l/m minimum
Temperature Range	Charging: +5°C to +40°C Use: -5°C to +40°C Storage: +5°C to +40°C
Power Supply	Battery: 4-cell, nominal 4.8V, capacity 2.2AH per pack Battery Life: 8 hrs (normal air flow, two fully charged battery packs fitted). Battery Charging: Includes 8-hour NiMH batteries and smart chargers, plus optional 16 station smart multi-charger.

## APPROVALS

Respiratory Protection	EN 12941:1998+A2:2008 TH3P AS/NZS 1716:2012
Head Protection	EN 812
Environmental Protection	IP Rating/Class: IP54Cat2;IP44 ATEX Certificate: CML 18ATEX2404X IECEX Certificate: IECEX CML 18.0213X ATEX Classification: II 3 G D Gas Code: Ex ic IIC T4 Gc Dust Code: Ex ic IIIC T135° Dc Ambient Temperature Range: -5°C ≤ Ta ≤ +40°C
Eye/Face Protection	EN 166:2002 1B39

## PRODUCT CONFIGURATION

The PureFlo ESM+ PF23 is configurable for use in a variety of applications. Choose from the accessories below to configure to your specific needs.

### FILTER OPTIONS



P3 High Efficiency  
(PR01020SP)



P3 Nuisance Odour  
(PR01500SP)



ABEP3  
(PR01025SP)

### NECK CAPES



Black  
(PR01475SP)



White  
(PR01470SP)



Tychem Yellow  
(PR01461SP)

### BATTERY OPTIONS



ESM+ Battery  
(PR05618SP)



ESM+ Battery Charger  
(PR01040SP)

## ELECTRONIC SYSTEMS MANAGEMENT (ESM)

### SYSTEM INDICATOR

- Power On:** Constant red visual indicator for approximately 30 seconds changing to constant green when the operating point is reached.
- Low air flow warning:** Fast audible alarm, visual indicator flashing red.
- Normal operation:** Constant green visual indicator.

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# ESM+ PF33

## Intrinsically Safe Powered Air Purifying Respirator



## Data Sheet

The ESM+ PF33 is a self-contained, modular powered air purifying respirator designed for use in medium and heavy-duty industries including smelting, construction, metal recycling and welding.

The PureFlo ESM+ Intrinsically Safe respirator is approved for use in certain types of gas and dust environments where there are potentially explosive atmospheres.

The modular design enables it to be configured to exactly match the required application.



## TECHNICAL SPECIFICATION

Weight	1.5kg (nominal)
Head Size Range	54 - 61cm
Protection Factor	Assigned Protection Factor (APF) - 40 Nominal Protection Factor (NPF) - 500
Humidity	0-90% (store out of direct sunlight)
Regulated Airflow	P3 Filter - 220 l/m initial, 170 l/m minimum ABEP3 Filter - 205 l/m initial, 170 l/m minimum
Temperature Range	Charging: +5°C to +40°C Use: -5°C to +40°C Storage: +5°C to +40°C
Power Supply	Battery: 4-cell, nominal 4.8V, capacity 2.2AH per pack Battery Life: 8-hrs (normal air flow, two fully charged battery packs fitted). Charging Method/Rate: Mains charger, 2.5 hrs from fully discharged.

## APPROVALS

Respiratory Protection	EN 12941:1998 + A2:2008 TH3P AS/NZS 1716:2012
Head Protection	EN 397:2012+A1:2012
Environmental Protection	IP Rating/Class: IP54Cat2;IP44 ATEX Certificate: CML 18ATEX2404X IECEX Certificate: IECEX CML 18.0213X ATEX Classification: II 3 G D Gas Code: Ex ic IIC T4 Gc Dust Code: Ex ic IIIC T135° Dc Ambient Temperature Range: -5°C ≤ Ta ≤ +40°C
Eye/Face Protection	EN 166:2002 1B39

## PRODUCT CONFIGURATION

The PureFlo ESM+ PF33 is configurable for use in a variety of applications. Choose from the hard hat shells and accessories below to configure to your specific needs.

### FILTER OPTIONS

				
P3 High Efficiency (PR01020SP)	P3 Nuisance Odour (PR01500SP)	ABEP3 (PR01025SP)	ESM+ Battery (PR05618SP)	ESM+ Battery Charger (PR01040SP)

### BATTERY OPTIONS

### HARD HAT SHELLS

				
Standard Yellow (PR01447SC)	Carbon Print, Black (PR01440SC)	White (PR01448SC)	Hi Viz (PR01449SC)	Aluminised High Radiant Heat (PR01446SC)

### VISORS/SHIELDS

					
Gold Visor Shade 4/5 (PR01101SP)	Mesh Visor (PR01090SP)	Green Visor Shade 3 - Half (Polycarbonate) (PR01092SP)	Green Visor Shade 3 - Full (Polycarbonate) (PR01093SP)	Green Visor Shade 5 - Full (Acetate) (PR01094SP)	Welding Shield (PR01100SP)

### ACCESSORIES

					
Black Neck Cape (PR01475SP)	Spark Shield Neck Cape (PR01105SP)	Aluminised Neck Cape (PR01097SP)	Molten Metal Neck Cape (PR01109SP)	Fire Retardant Face Seal (PR01720SP)	Face Shield Attachment Bar (PR01153SP)

## ELECTRONIC SYSTEMS MANAGEMENT (ESM)

### SYSTEM INDICATOR

<b>Power On:</b>	Constant red visual indicator for approximately 30 seconds changing to constant green when the operating point is reached.
<b>Low air flow warning:</b>	Fast audible alarm, visual indicator flashing red.
<b>Normal operation:</b>	Constant green visual indicator.

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# STANDARDSMARK LICENCE

SAI Global hereby grants:

## Helmet Integrated Systems Limited

Unit 3, Focus Four, Fourth Avenue, Letchworth, Hertfordshire United Kingdom

### StandardsMark Licence

Manufactured to:

**AS/NZS 1337.1:2010 - Personal eye protection - Eye and face protectors for occupational applications**

"the StandardsMark Licensee" the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licensee or on behalf of the Licensee\* and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.

**Licence No:** SMK1633

**Issued :** 26 April 2022  
**Expires :** 31 March 2027

**Originally Certified :** 1 April 1997  
**Current Certification :** 26 April 2022

Calin Moldovean  
President, Business Assurance  
SAI Global Assurance



\* For details of manufacture, refer to the licensee

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 050 644 642) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 669) ("SAI Global") 680 George Street, Sydney NSW 2000, GPO Box 5420 Sydney NSW 2001. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to [www.saiglobal.com](http://www.saiglobal.com), for the list of product models.



# SCHEDULE TO STANDARDSMARK LICENCE

SAI Global hereby grants:

## Helmet Integrated Systems Limited

Unit 3, Focus Four, Fourth Avenue, Letchworth, Hertfordshire United Kingdom

StandardsMark Licence

Manufactured to:

**AS/NZS 1337.1:2010 - Personal eye protection - Eye and face protectors for occupational applications**

Model identification of the goods on which the STANDARDSMARK may be used:

Model Name	Model ID.	Brandline	Impact Capability	Product Type	Product Description	Lens Tint	Lens Type	Special Features	Lens Coating	Date Endorsed
Airshield Pro	PL03105	Airshield Pro	High 'V' or 'B'	Visor	Polycarbonate lens. See licence number SMK1607 for PAPR units this product is certified with.	Clear - Cat 0	Outdoor Untinted (O)	Splashproof (C or 3)	Antifog	29 Oct 2020
PF 3000H	PR08058	Pureflo	High 'V' or 'B'	Face Shield	Clear faceshield mounted on PAPR PF3000H	Clear Cat. 0	Outdoor Untinted (O)	Splashproof (C or 3)	.	25 Sep 2020
PF 3000W	PR08073	Pureflo	High 'V' or 'B'	Welding Helmet	Welding faceshield mounted on PAPR PF3000W	AWF variable shade 4/9-13 (PF3000-04-012)	Welding lens-active-complies with AS/NZS1338.1	Splashproof (C or 3)	.	25 Sep 2020
Pureflo ESM	PR01052	Pureflo	High 'V' or 'B'	Visor	Polycarbonate lens. See licence number SMK1607 for PAPR units this product is certified with.	Clear - Cat 0	Outdoor Untinted (O)	Splashproof (C or 3) & Molten metal or hot solids (M or 9)	.	26 Apr 2022
Purelite Xstream	PL03105		High 'V' or 'B'	Visor	Polycarbonate lens. See licence number SMK1607 for PAPR units this product is certified with.	Clear - Cat 0	Outdoor Untinted (O)	Splashproof (C or 3)	Antifog	29 Oct 2020

End of Record

**Licence No:** SMK1633

**Issued Date:** 26 April 2022

This schedule supersedes all previously issued schedules



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SAI Global hereby grants:

## Helmet Integrated Systems Limited

Unit 3, Focus Four, Fourth Avenue, Letchworth, Hertfordshire United Kingdom

### StandardsMark Licence

Manufactured to:

**AS/NZS 1716:2012 - Respiratory protective devices**

"the StandardsMark Licensee" the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licensee or on behalf of the Licensee\* and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.

**Licence No: SMK1607**

**Issued :** 16 March 2022  
**Expires :** 31 March 2027

**Originally Certified :** 1 April 1997  
**Current Certification :** 16 March 2022

Calin Moldovean  
President, Business Assurance  
SAI Global Assurance



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## Helmet Integrated Systems Limited

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StandardsMark Licence

Manufactured to:

**AS/NZS 1716:2012 - Respiratory protective devices**

Model identification of the goods on which the STANDARDSMARK may be used:

Model ID.	Face Piece / Head Covering Type	Filter or Cartridge Type/Class	Filter or Cartridge Model Number	Facepiece/Headcovering Description	Model Name	Size Facepiece/Headcovering	Facepiece/Headcovering-filtration type	Accessories or Comments	Date Endorsed
PF23ESM+	Head covering	PAPR TH3P ABE1P3 PAPRP3	PR01025SP	Powered Air Purifying Respirator incorporating Eye Protection and Industrial bump cap Protection (TH3P filter fitted). Locked Visor.	PureFlo ESM	Universal	PAPR-Particle & Gas or Vapour	PR 01475SP-neck cape, PR 01052SP Visor assembly (complying with AS/NZS1337 high impact (V), molten metal (M), Splash proof (C), Outdoor unlined (O)see licence SMK 1633), PR 01030SP battery pack, PR 01042SP battery charger. Filter PR01025SP-ABE1P3, Filter PR01502SP incorporating HF, SO2 Nuisance odour	31 Jul 2018
PF3000H	Head covering	PAPR TH3/HEPA particulate	PF3000-02-001	PAPR with Faceshield (Certified to AS/NZS 1337.1:2010 - licence SMK1633) and Hard hat complies with the requirements of AS/NZS 1801:1997.	PureFlo	53.5 cm – 63.5 cm	PAPR-Particle	List of accessories described on User Instructions	14 Mar 2022
PF3000P	Head covering	PAPR TH3/HEPA particulate	PF3000-02-001	Slip over drawstring hood	PureFlo	53.5 cm – 63.5 cm	PAPR-Particle		25 Sep 2019
PF3000W	Head covering	PAPR TH3/HEPA particulate	PF3000-02-001	PAPR with Welding shield and Hard hat that complies with the requirements of AS/NZS 1801:1997	PureFlo	53.5 cm – 63.5 cm	PAPR-Particle	List of accessories described on User Instructions	13 Nov 2020

**Licence No: SMK1607**

**Issued Date: 16 March 2022**

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# SCHEDULE TO STANDARDSMARK LICENCE

Model ID.	Face Piece / Head Covering Type	Filter or Cartridge Type/Class	Filter or Cartridge Model Number	Facepiece/Headcovering Description	Model Name	Size Facepiece/Headcovering	Facepiece/Headcovering-filtration type	Accessories or Comments	Date Endorsed
PF33ESM+	Head covering	PAPRP3	PR01182 PR01025SP 10pk	PR 01442SC Black light weight plastic hood with integrally mounted fan blower and short duct. Industrial safety helmet (Complies with AS/NZS1801:19 97)and lifting visor. Alternate hard hat colours YE PR01447SC WH R001448SC AL PR01446SC HV PR01446SC	PureFlo ESM	Universal	Filter/Cartridge(Work) Particle	PR 01475SP-neck cape, PR 01052SP Visor assembly (complying with AS/NZS1337 high impact (V), molten metal (M), Splash proof (C), Outdoor untinted (O)see licence SMK 1633), PR 01030SP battery pack, PR 01042SP battery charger, Filter PR01025SP-ABE1P3 Filter PR01502SP incorporating HF, O2 Nuisance odour element. PR01100SP Welding Screen.	31 Jul 2018
PL03000-5 (PL03000-2 Aus Model)	Face shield	PAPR P2	PL01170-1SP	Faceshield with fixed visor	Purelite Xstream	Universal	PAPR-Particle	PL 01052SP Visor assembly (complying with AS/NZS1337 high impact (V), Outdoor untinted (O)see licence SMK 1633). PL03003 - Agricultural Pack PL0300-4 Commercial Pack	31 Jul 2018
PL03000-6	Face shield	PAPR P2	PL01170-1SP	Faceshield with fixed visor	Airshield Pro	Universal	Filter/Cartridge(Work) Particle	PL 01052SP Visor assembly (complying with AS/NZS1337 high impact (V), Outdoor untinted (O)see licence SMK 1633).	31 Jul 2018

**End of Record**

**Licence No: SMK1607**

**Issued Date: 16 March 2022**

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