

# EC Certificate



## Type-Examination

No. 81976

Issued to:

**Helmet Integrated Systems Limited**  
**Commerce Road**  
**Stranraer**  
**DG9 7DX**  
**Scotland**

In respect of:

**Powered respiratory devices incorporating a helmet – to EN 12941:1998.**

**Model range: Pureflo ESM.**

**For details see pages 2 to 4.**

On the basis of our examination, under the requirements of Council Directive 89/686/EEC "Personal Protective Equipment" Article 10, EC Type-Examination.

For and on behalf of the British Standards Institution,  
a Notified Body for the above Directive (Notified Body Number 0086):

Anne Boyd, Divisional Director Product Services Operations

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### PRODUCT SPECIFICATION.

Device type: Powered air respiratory devices incorporating a helmet – to EN 12941:1998.

Model range name: Pureflo ESM.

Model range details: PF23ESM, PF23ESML, PF33ESM and PF33ESML.

### Basic description:

The range of Pureflo ESM systems are lightweight self-contained powered air respirators intended to offer respiratory protection against solid and liquid aerosols and, additionally, eye protection and two different categories of head protection dependent upon the specific model from the range.

The main section of the helmet consists of a 'framework' to which an adjustable cradle and ratchet adjustable headband are attached. Within this framework are fitted the motor, two lightweight batteries and an Electronic Systems Management (ESM) unit. The ESM monitors filter usage, fan delivery and battery performance to ensure that optimum airflow is maintained at all times. It also provides the input for the Head Mounted Display LED's that indicate the overall condition of the system and the input for the audio signals that indicate battery and/or filter condition.

Also fitted to the framework are a neck cape and a visor, dependent upon the model this can be either fixed or mounted in such a manner that it can be moved from the line of sight.

The replaceable filter screws into the back of the framework.

The required head protection element of the system is affixed to the top section of the framework.

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### PRODUCT ASSESSMENTS:

The product assessments were based on the English language versions, BS EN's, of the following harmonised European standards:

EN 12941:1998, respiratory protective devices – powered filtering devices incorporating a helmet or hood,

EN 166:2001, personal eye-protection and

EN 397:1995, industrial safety helmets or EN 812:1997, industrial bump caps.

### PROTECTION CHARACTERISTICS:

Respiratory protection:

EN 12941:1998, Class TH3P (for use against solid and liquid particulates only)

Head protection: (dependent upon the model)

EN 812:1997 or EN 397:1995

Eye protection:

EN 166:2001, optical class 1, protection from high speed particles-medium energy impact, liquid droplets and molten metal and hot solids. EN 166 categorisation – 1B39.

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### Model Details:

Part Number	Description	Head protection category of model
PF23ESM	Fixed position visor.	EN 812
PF23ESML	Moveable position visor.	EN 812
PF33ESM	Fixed position visor.	EN 397
PF33ESML	Moveable position visor.	EN 397

### CERTIFICATE ADMINISTRATION DETAILS.

Technical File Reference: PUREFLO ESM

Certificate Amendment and related confidential BSI Report Record

Issue date	Comments	Report Number
13 February 2004	First issue: models Pureflo ESM PF23ESM, PF23ESML, PF33ESM and PF33ESML	0086:03:1363

### Certificate validity

The manufacturer is responsible for ensuring that the Notified Body is advised of changes to any aspect of the overall processes utilised in the manufacture of the product, failure so to do could invalidate the Certificate in respect of production following the introduction of such changes.

### Monitoring of Manufactured Personal Protective Equipment.

The EC Quality of Production by Monitoring requirements, Article 11B, for the product are referenced on BSI Certificate 1259.

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