

EU Type Examination Certificate

This is to certify that:

3M United Kingdom Plc
3M Centre
Cain Road
Bracknell
RG12 8HT
United Kingdom

Holds Certificate Number:

CE 682155

In respect of:

Respiratory protective devices to EN 12941:1998+A2:2008
Powered filtering devices incorporating a helmet or hood
Models: Range based on the 3M™ Versaflo™ M-406/M-407 Helmets.

on the basis that BSI carried out the relevant Type Examination procedures under the requirements with the Regulation (EU) 2016/425 of the European Parliament and Council relating to Personal Protective Equipment Regulation (PPE) Annex V (Module B) and meets the relevant health and safety requirements specified in Annex II

For and on behalf of BSI, a Notified
Body for the above Regulation
(Notified Body Number 2797):



Denelise L'Ecluse, Managing Director Assurance - Continental
Europe

First Issued: 2018-08-07

Latest Issue: 2024-05-21

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Product Specification:

| | |
|--|--|
| Product Name: | Headtop based Powered Air Respiratory Protective Systems |
| Product Type: | Powered air filtering devices incorporating a Helmet/Visor combination to additionally provide head, eye and face protection |
| Models: (standard industrial products) | 3M™ Versaflo™ M-406/M-407 Helmets - TR-302E+ systems 3M™ Versaflo™ M-406/M-407 Helmets - TR-602E systems 3M™ Versaflo™ M-406/M-407 Helmets - TR-802E systems 3M™ Versaflo™ M-406/M-407 Helmets - TR-602E-CX systems |
| Technical Specification: | Harmonized European Standard EN 12941:1998+A2:2008 Harmonized European Standard EN 397:2012+A1:2012 Harmonized European Standard EN 166:2001 |

| | |
|----------------------------------|-------------------------|
| EN 12941 classifications: | TR-302E+ systems: TH3 |
| | TR-602E systems: TH3 |
| | TR-802E systems : TH3 |
| | TR-602E-CX systems: TH3 |

| | | |
|--------------------------------|--|-----------------------|
| EN 397 classifications: | Non Mandatory EN 397 Attributes | Marking Symbol |
| | Electrical properties | 440 V a.c. |
| | Lateral deformation. | LD |

| | | | |
|--------------------------------|----------------------------|--|---------------------------|
| EN 166 classifications: | Visor/ Surround | EN 166 Attribute | Marking symbol |
| | M-925 Visor (uncoated) | Optical class Protection against high speed particles, medium energy impact at extremes of temperature Protection against molten metal and hot solids | 1 BT 9 |
| | M-927 Visor (coated) | Optical class Protection against high speed particles, medium energy impact at extremes of temperature | 1 BT |
| | M-920 Surround | Protection against high speed particles, medium energy impact at extremes of temperature Protection against droplets and splashes of liquids Protection against molten metal and hot solids | BT 3 9 |

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Product Assessments:

The product assessments for the respiratory protection were based on BS EN 12941:1998+A2:2008, the English language version of EN 12941:1998+A2:2008, respiratory protective devices - powered filtering devices incorporating a helmet or hood.

The product assessments for the head protection were based on BS EN 397:2012+A1:2012, the English language version of EN 397:2012+A1:2012, industrial safety helmets.

The product assessments for the eye and face protection were based on BS EN 166:2002, the English language version of EN 166:2001 - personal eye protection.

Additional independently Certified characteristics of the systems:

Intrinsic Safety (IS)

TR-802E Powered Air Turbo

The TR-802E Powered Air Turbo Unit is an Intrinsically Safe (IS) Unit, consisting of the Turbo Unit and IS Battery Pack.

This configuration has been assessed by UL International Demko A/S and is referenced on ATEX Certificate Number Demko 17 ATEX 1911, assessed as follows:

EN 60079-11:2012, Explosive atmospheres. Equipment protection by intrinsic safety "i".

Certification code and marking

I M1 Ex ia I Ma

II 1 G Ex ia IIB T4 Ga

II 1 D Ex ia IIIC 135°C Da

-20°C ≤ Ta ≤ +55°C

Note: When assembled for an Intrinsically Safe configuration a BT-20S, BT-20L, BT-30 or BT-40 Breathing Tube may be used.

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Dust and Water Ingress Protection

In Use Configuration

BS EN 60529:1992, Degrees of protection provided by enclosures (IP code).

| Powered Air Turbo Unit | Protection Code Description | Code |
|------------------------|--|------|
| TR-302E+ | Dust protected | IP5X |
| | Protected against spraying water | IPX3 |
| TR-602E and TR-602E-CX | Dust protected | IP5X |
| | Protected against spraying water in all directions | IPX4 |
| TR-802E | Dust protected | IP5X |
| | Protected against spraying water in all directions | IPX4 |

Decontamination configuration

BS EN 60529:1992, Degrees of protection provided by enclosures (IP code).

| Powered Air Turbo Unit | Protection Code Description | Code |
|---|---|------|
| TR-602E and TR-602E-CX Turbo fitted with cleaning and storage plugs (no Filter or Battery Pack) | Dust tight | IP6X |
| | Protected against temporary water immersion | IPX7 |
| TR-602E and TR-602E-CX Battery Packs fitted with cleaning cover | Protected against temporary water immersion | IPX7 |
| TR-802E Turbo fitted with cleaning and storage plugs (no Filter or Battery Pack) | Dust tight | IP6X |
| | Protected against temporary water immersion | IPX7 |
| TR-802E Battery Packs fitted with cleaning cover | Protected against temporary water immersion | IPX7 |

Electromagnetic Compatibility (EMC)

The Powered Air Turbo Units also comply with the requirements of the Electromagnetic Compatibility Directive 2014/30/EC.

Systems Components

The major components of each system are a 3M Versaflo Headtop with a 3M Breathing Tube and, as standard, a 3M Waist Belt mounted Powered Air Turbo complete with Battery and Filter(s).

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Components common to all systems:

Headtops

The Versaflo M-406 and M-407 Headtops comprise of an Industrial Safety Helmet complete with a lift-up Visor Carrier incorporating a clear coated or clear uncoated Visor and with an Inner Collar and High Durability or Flame Resistant Outer Shroud.

The models are identical except that as standard the M-406 and M-407 are fitted with High Durability and Flame Resistant Outer Shrouds respectively. In use the Outer Shrouds are interchangeable.

Breathing Tubes (see Note)

Each system can be fitted with the BT-Series Breathing Tubes consisting of the BT-20S (lightweight, short/medium), BT-20L (lightweight, medium/long), BT-30 (self-adjusting) or BT-40 (heavy duty rubber) Breathing Tubes.

The Breathing Tubes incorporate a quick release connector which allows easy connection/disconnection to the Headtops.

Note: It is not intended for the BT-30 to be used in systems incorporating the Headtops and the TR-602E Turbo and TR-600 Filters.

Connected Sensor Kit Headtop Accessory

The 3M Connected Sensor Kit HTP-1-KIT-CX for M-Series (Visor Sensor) is available for use as a retrofit accessory in M-Series Headtops with Powered Air Turbo Units TR-302E+, TR-602E and TR-602E-CX.

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Components of specific systems:

| Systems incorporating a TR-302E+ Turbo Unit | |
|--|------------------|
| Batteries | |
| Description | Part No. |
| Standard Economy | TR-330 |
| High Capacity | TR-332 |
| | |
| Filters | |
| P R | TR-3712E |
| P R plus nuisance level Organic Vapour | TR-3802E |
| P R plus nuisance level Acid Gas (HF 10xTLV) | TR-3822E |
| | |
| Belts, Braces and Backpack | |
| Standard Belt | TR-325 |
| Leather Belt | TR-326 |
| Easy Clean Belt | TR-327 |
| Backpack | BPK-01 |
| Backpack | BPK-HD |
| Backpack | TR-927 |
| Braces | TR-329/022-25-10 |

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Components of specific systems:

| Systems incorporating a TR-602E Turbo Unit and TR-602E-CX Connected Turbo Unit | |
|--|------------------|
| Batteries | |
| Description | Part No. |
| Standard Economy | TR-630 |
| High Capacity | TR-632 |
| Filters | |
| P R | TR-6710E |
| A1P R | TR-6110E |
| A1B1E1P R | TR-6130E |
| A2P R | TR-6310E |
| P R plus nuisance level Organic Vapour and Acid Gas | TR-6820E |
| A2B2E2K1HgP R | TR-6580E |
| A2B2E2K1HgP R | TR-6581E |
| Belts, Braces and Backpack | |
| High Durability Belt | TR-626 |
| Easy Clean Belt | TR-627 |
| Backpack | BPK-01 |
| Backpack | BPK-HD |
| Backpack | TR-927 |
| Braces | TR-329/022-25-10 |

| Systems incorporating a TR-802E Turbo Unit | |
|---|------------------|
| Batteries | |
| Description | Part No. |
| Standard | TR-830 |
| | |
| Filters | |
| P R | TR-6710E |
| A1P R | TR-6110E |
| A1B1E1P R | TR-6130E |
| A2P R | TR-6310E |
| P R plus nuisance level Organic Vapour and Acid Gas | TR-6820E |
| A2B2E2K1HgP R | TR-6580E |
| A2B2E2K1HgP R | TR-6581E |
| Belts, Braces and Backpack | |
| High Durability Belt | TR-626 |
| Easy Clean Belt | TR-627 |
| Backpack | BPK-01 |
| Backpack | BPK-HD |
| Backpack | TR-927 |
| Braces | TR-329/022-25-10 |

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Packaged variants

In addition to the products referenced on this Certificate the standard industrial products may also be sold as market specific packaged variants. Such variants will be differentiated and the Technical File(s) will be updated with the appropriate information.

Kits and packouts

The products referenced on this Certificate may also be combined with other 3M products into a kit or packout. There will be no change to the product but the User Information may vary, in such instances the applicable Technical File(s) will be updated with the appropriate information.

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Certificate Administration Details

Technical File References:

| System Component | Technical File |
|--|----------------|
| 3M Versaflo M-406/M-407 Helmets | TF0215 |
| 3M BT-20S/BT-20L, BT-30 & BT-40 Breathing Tubes | TF0137 |
| 3M Versaflo TR-302E+ Powered Air Turbo & Filters (1) | TF0211 |
| 3M Versaflo TR-602E Powered Air Turbo and TR-602E-CX Connected Powered Air Turbo | TF0405 |
| 3M Versaflo TR-600 Filters | TF0429 |
| 3M Versaflo TR-802E Powered Air Turbo | TF0476 |
| 3M Connected Sensor | TF0662 |

- (1) Technical File from Amendment 6 – 24.10.2016 onward references the 3M TR-302E+ model, prior to this Amendment the File referenced the 3M TR-302E model.

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Certificate Amendment Record:

| Issue date | Comments | BSI Review No. |
|--------------|---|---|
| August 2018 | First issue under PPE Regulation (EU) 425/2016. M-406/M-407 based systems were initially Certified to Article 10 of the PPE Directive 89/686/EEC, BSI issued Certificate CE 557352 refers. The Certification of the industrial safety helmet used in the systems is now to EN 397:2012+A1:2012. Items incorporating the TR-302E have not been transitioned to the PPE Regulation and systems incorporating the TR-802E have been introduced. | 0086:18:8697666 and 0086:18:8846008 |
| August 2020 | Add Module C2 certificate CE 732641 to Certificate Validity Section. | 2797:20:3257093 |
| October 2020 | Comments updated in Certificate Amendment Record for August 2020 (for Administrative Description only) | 2797:20:3310504 |
| January 2021 | Addition of the TR-602E-CX Connected Powered Air Turbo Unit and 3M Connected Sensor Kit HTP-1-KIT-CX | 2797:21:3164149 |
| October 2022 | Administrative changes to EN 166 claims | 2797:22:3582439 |
| August 2023 | Administrative changes to remove all reference to Jupiter systems, add BPK-HD and TR-927 Backpacks. Removal of cancelled module C2 CE 732641 certificate from certificate validity | 2797:23:3918166 |
| August 2023 | 5-year certificate renewal under PPE Regulation (EU) 2016/425 | 2797:23:3964682 |
| May 2024 | Addition of new filter, TR-6581E (A2B2E2K1HgP R) for use with TR-602E and TR-802E Powered Air Turbo Units. | 2797:24:30162853 |

Certificate validity

The Certificate holder 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 to do so could invalidate the Certificate in respect of product manufactured following the introduction of such changes.

The validity of the Certificate for the products is also dependent on the maintenance of the EU Conformity to Type Based on Quality Assurance of the Production Process, Annex VIII (Module D), as referenced on BSI issued Certificate CE 595701.

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