

3M™ Versaflo™ Powered Air Turbo TR-603E-ASB

Technical Data Sheet



Description

The 3M™ Versaflo™ Powered Air Turbo TR-603E-ASB, when combined with the 3M™ Full Face Mask 7900PF and 3M™ Versaflo™ Breathing Tube BT-50, forms a power-assisted system for respiratory protection against particles, organic gases and vapours. The system is specifically intended for use in asbestos/abatement environments.

Technical Features

Powered Air Turbo TR-603E-ASB:

- Controlled airflow delivers steady flow as battery discharges or filter loads with particulates
- Display shows battery charge status and particulate loading status during use
- No user calibration of the turbo is required
- Electronic audible, visual and vibratory alarm in case of low battery and/or low airflow
- Two-button operation
- Two filter options available:
 - P
 - A1P
- Lightweight lithium ion battery with LED to indicate charge status
- Easy-clean belt
- Suitable for shower decontamination (IP54) when using filter cover and temporary submersion (IP67) when fitted with cleaning plugs

Full Face Mask 7900PF:

- Double faceseal
- Quick release buckles
- Six-strap harness

Breathing Tube BT-50:

- DIN connection to face mask
- Bayonet connection to Powered Air Turbo
- Optional breathing tube retainer and disposable cover available



Approvals

The approved 3M respiratory system comprises the Powered Air Turbo TR-603E-ASB, Full Face Mask 7900PF and Breathing Tube BT-50.

The system has been shown to meet the Basic Safety Requirements under Article 10 and 11B of the European Directive 89/686/EEC and is CE marked.

The system was examined at the design stage by: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP, UK (Notified Body number 0086). The product complies with the European EMC Directive 2004/108/EC.

Standards

Respiratory Protection:

The Powered Air Turbo TR-603E-ASB, Full Face Mask 7900PF and Breathing Tube BT-50 have been tested and approved to EN 12942:1998+A2:2008

Dust and Water Ingress Protection:

- TR-603E-ASB (including battery) meets EN 60529 IP54 (5 = dust protected, 4 = protected against spraying water in all directions) when in use.
- TR-603E-ASB (without filter or battery) meets EN 60529 IP67 (6 = dust tight, 7 = protected against temporary water immersion) when fitted with cleaning and storage plugs.
- TR-632 high capacity battery (for use with TR-603E-ASB) meets EN 60529 IPX7 (7 = protected against temporary water immersion) when fitted with cleaning cover.

Applications

The Powered Air Turbo TR-603E-ASB (when fitted with the appropriate filter), Full Face Mask 7900PF and Breathing Tube BT-50, provides protection against:

- Particles e.g. fine dusts, mists and metal fume
- Organic gases and vapours (with boiling point > 65°C)
- Note: The system is specifically intended for use in asbestos/abatement environments

Limitations

The TR-603E-ASB Powered Air Turbo should not be used in the following conditions:

- In atmospheres containing less than 19.5% oxygen
- Confined spaces (lack of ventilation)
- When the risk is considered to be immediately dangerous for life or health (IDLH)
- Where the contaminant concentration is above the Exposure Limit defined for the system

Materials

Powered Air Turbo TR-603E-ASB:

- Turbo Body = Polycarbonate / Acrylonitrile Butadiene Styrene
- Battery Casing = Polycarbonate / Acrylonitrile Butadiene Styrene
- Easy Clean Belt = Ethylene vinyl acetate foam, polyurethane coated polyester web

Full Face Mask 7900PF:

- Face Mask = Silicone
- Lens = Polycarbonate

Breathing Tube BT-50:

- Tube = Ethylene propylene diene monomer (EPDM) rubber
- DIN/Bayonet Connector = Acrylonitrile Butadiene Styrene

Technical Specifications

EN 12942:1998+A2:2008

Nominal Protection Factor (NPF):

Protection Class TM3

- NPF = 2000 (Power On)
- NPF = 1000 (Power Off)

Outlet Flow Characteristics

- Manufacturer's Minimum Design Flow (MMDF) 160 l/min
- Nominal Flow = 180 l/min

Personal Safety Division

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Battery Duration (with new battery and clean filter at 20°C)

- When using P Filter = 9 hours
- When using A1P Filter = 7 hours

Battery Charge Time

- High Capacity Battery = Less than 4.5 hours

Storage Conditions

- -30°C to +50°C < 90%RH

Operating Temperature

- -10°C to +55°C

Spares & Accessories

Part No.	Description
TR-603E-ASB	Powered Air Turbo (including Airflow Indicator and Spark Arrestor x 2)
7900PF	Full Face Mask
BT-50	Breathing Tube
RTN-01	Breathing Tube Retainer
BT-922	Disposable Breathing Tube Cover
TR-6710E	Particulate Filter
TR-6110E	A1P – Organic gases & vapours (bp > 65°C) and particulates
TR-6100FC	Filter Cover for TR-6100 Series Filters
TR-6700FC	Filter Cover for TR-6700 Series Filters
TR-6600	Pre-Filter
TR-662	Spark Arrestor
TR-627	Easy Clean Belt
TR-632	High Capacity Battery
TR-640	Battery Charger Cradle
TR-641E	Single Station Battery Charger Kit (Europe)
TR-644E	4-Station Battery Charger Kit (Europe)
TR-651	Filter Latch Assembly
TR-972	Airflow Indicator
TR-653	Cleaning and Storage Kit
STC-01	Professional Carry Case
7893	Six-Strap Harness
7927	Lens
7992	Lens Covers
7991	Nose Cup Assembly
7925	Spectacle Kit
7283	Exhalation Valve
7895	Speaking Diaphragm Kit
7883	Neck Strap Assembly
7989	Green Head Harness Buttons

