

# 3M™ Powered Air Turbo PF-602E+

## Technical datasheet



### Description

The 3M™ Powered Air Turbo PF-602E+ is a certified belt-mounted air purifying device that can be combined with an approved headtop or facepiece to form a power-assisted system for respiratory protection against particles and gases and vapours (depending on the filter that is approved and fitted). A range of approved breathing tubes are available depending on which headtop or facepiece is selected.

- Display shows battery status (A) and motor status (P), where P represents how hard the motor is working
- Automatic monitoring feature checks that the unit is operating as designed, warns the user of low battery and compensates for changes in filter resistance (i.e. as the filter loads with particulate)
- Audible and visual alarm
- Factory Calibrated
- Integral NiMH battery
- Suitable for cleaning by showering/water spray (IP65) with filters or decontamination plugs fitted in filter ports & hose or hose port plug fitted.
- Serviceable by Authorised Service Centre

### Limitation

The 3M Powered Air Turbo PF-602E+ 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 Occupational Exposure Limit defined for the headtop or facepiece used (see relevant user instructions for the headtop or facepiece)
- Asbestos Removal

### Standards and Approvals

The 3M™ Powered Air Turbo PF-602E+ has been tested and approved to the following standards:

- EN 12941:1998 + A2:2008 with approved headtops
- EN 12942:1998 + A2:2008 with approved facepieces

The Certificate and Declaration of Conformity are available at the following website [www.3M.com/Respiratory/certs](http://www.3M.com/Respiratory/certs) and [www.3M.com/Welding/certs](http://www.3M.com/Welding/certs)

Note: This product also complies with the European EMC Directive 2014/30/EU

### Technical Specifications

	160 l/min when tested to EN 12941:1998 + A2:2008 and EN 12942:1998 + A2:2008
MMDF (manufacturer's minimum design flow rate)	<i>The PF-602E+ can be affected by atmospheric air density. Therefore, atmospheric conditions such as air temperature and air pressure can increase or decrease the volumetric airflow provided by the Powered Air Turbo.</i>
Battery Specification	4/3A size NiMH. 8 cells providing 9.6V/4.1Ah 4 hours*
Battery Duration	<i>* Battery durations are based on a fresh battery, appropriately charged with new filters being used at room temperature. Battery durations are affected by many factors, for example: Operating temperature; the age of the battery; charge status and filter clogging.</i>
Battery charger	Specification: Mains Operated. Primary:100-240V AC, 50-60Hz 14VA Secondary: 4.8/9.6V DC. Max: 700mA 6.72VA Size: 90×60×38mm
Charge time	Approximately 7 hours
IP Rating	IP 65 - suitable for cleaning by showering/water spray with filters or decontamination plugs fitted in filter ports & hose or hose port plug fitted.
Operating range	-10 to +30°C, < 75% RH
Storage Conditions	-10 to +30°C, < 75% RH 5 years from date of manufacture
Shelf life*	<i>*The shelf life as defined above remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as a warranty.</i>
Materials	Turbo housing – Polyurethane Body Tensioner – Thermoplastic Elastomer
Weight	1.6kg (Powered Air Turbo without filters)

## System Classifications and Protection Factors

	FF-300 / FF-600 (EN 12942:1998 + A2:2008)	S-655 / S-657/ S-757/ S-855E (EN 12941:1998 + A2:2008)	M-200 / M-300 / M-400 (EN 12941:1998 + A2:2008)	FH-51 * (EN 12941:1998 + A2:2008)
<b>Classification</b>	TM3	TH3	TH2	TH3
<b>NPF</b>	2000	500	50	500

The 3M™ Half Facepiece Respirators 7500 Series and 3M™ Full Facepiece Respirators 6000 Series are not approved for use with the PF-602E+ Powered Air Turbo.

\* The FH-51 is approved with the PF-602E+ and DT-1135E and DT-1235E particulate filters only. Other gas and vapour filters in the range are not approved when used with the PF-602E+ Powered Air Turbo.

Note: The Nominal Protection Factor (NPF) is a number derived from the maximum percentage of total inward leakage permitted in relevant European Standards for a given class of respiratory protective device. This may not be the level of respiratory protection that can be realistically expected in the workplace by wearers. Many countries apply Assigned Protection Factors (APFs) for example UK and Germany. Employers may apply a value lower than the NPF/APF if deemed applicable. Please refer to EN 529:2005 and National workplace protection guidance for application of these numbers in the workplace. Please contact 3M for further information.

## Product Range

Part number	Description
PF-602E+	3M™ Powered Air Turbo Unit PF-602E+, 3M™ Battery PF-630 and 3M™ Airflow Indicator PF-972
PF-619E+	3M™ Powered Air Turbo Starter Kit PF-619E+ including 3M™ Powered Air Respirator PF-602E+, 3M™ Airflow Indicator PF-972, 3M™ Battery PF-630, 3M™ Battery Charger PF-641E, 3M™ Versaflo™ Length Adjusting Breathing Tube BT-30, 2 x 3M™ Particulate Filter PF10 P3 R D DT-1135E, 2 x 3M™ Pre-filters & Holders SS-6601 and 3M™ Comfort Belt SS-626
PF-600E+ LIK	The 3M™ Powered Air Turbo Light Industry Ready Kit PF-600E+ LIK including 3M™ Powered Air Respirator PF-602E+, 3M™ Airflow Indicator PF-972, 3M™ Battery PF-630, 3M™ Versaflo™ Faceshield M-206, 2x 3M™ Particulate Filter PF10 P3 R D DT-1135E, 2x 3M™ Pre-filters & Holders SS-6601, 3M™ Battery Charger PF-641E, 3M™ Comfort Belt SS-626 and 3M™ Versaflo™ Length Adjusting Breathing Tube BT-30

## Breathing Tubes approved with 3M™ Powered Air Turbo PF-602E+

Part number	Description
BT-20S/L	Lightweight Breathing Tube (Short/Medium or Medium/Long) for use with S-655, S-657, S-757, S-855E, M-200, M-300 and FH-51* Headtops
BT-30	Length-adjusting Breathing Tube for use with S-655, S-657, S-757, S-855E, M-200, M-300 and FH-51* Headtops
BT-40	Heavy-Duty Breathing Tube for use with S-655, S-657, S-757, S-855E, M-200, M-300 and FH-51* Headtops
BT-54	Breathing Tube for use with FF-300 & FF-600 Series Full Face Respirators

\*Requires FH-934 Adaptor when used with FH-51 Headtop

## 3M™ DT-Series™ filter options approved with 3M™ Powered Air Turbo PF-602E+

Colour code	Part number	Description	Protection	For use against
	DT-1135E	3M™ Particulate Filter PF10 P3 R D DT-1135E	P R SL	Solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-1235E	3M™ Particulate Filter PFR10 P3 R D DT-1235E (reduced opening)	P R SL	Solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-4031E	3M™ Combination Filter CF22 A2P3 R D DT-4031E	A1P R SL	Organic gases and vapours, e.g. solvents with a boiling point above 65°C, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-4032E	3M™ Combination Filter CF22 B2P3 R D DT-4032E	B2P R SL	Inorganic gases and vapours, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-4035E	3M™ Combination Filter Cartridge CF22 A2B2P3 R D DT-4035E	A1B2P R SL	Organic, inorganic gases and vapours, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-4036E	3M™ Combination Filter CF22 A2B2E1P3 R D DT-4036E	A1B2E1P R SL	Organic, inorganic and acid gases and vapours, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-4045E	3M™ Combination Filter CF32 A2B2E2K2P3 R D DT-4045E	A1B2E2K2P R SL	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.
	DT-4046E	3M™ Combination Filter CF32 A2B2E2K2HgP3 R D DT-4046E	A1B2E2K2HgP R SL	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, mercury and mercury compounds, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.

A1 gas classification on relevant DT-Series filter. Hg filters only approved with TH3 and TM3 systems. DT-4031E, DT-4032E, DT-4035E, DT-4045E, DT-4036E and DT-4046E are not approved for use with the 3M™ Powered Air Turbo PF-602E+ connected to 3M™ Full Facepiece Reusable Respirator FF-600 Series.

## Accessories for 3M™ Powered Air Turbo PF-602E+

Part number	Description
PF-972	Airflow Indicator
PF-641E	Battery Charger
SS-6600	Pre-filters
SS-6601	Pre-filter holder
PF-651	Disposable protective cover
PF-654	Shower Plugs
SS-625	Standard belt
SS-626	Comfort Belt
SS-629	Harness

### Important notice

The use of the 3M product described within this document assumes that the user has previous experience of this type of product and that it will be used by a competent professional. Before any use of this product it is recommended to complete some trials to validate the performance of the product within its expected application. All information and specification details contained within this document are inherent to this specific 3M product and would not be applied to other products or environment. Any action or usage of this product made in violation of this document is at the risk of the user.

Compliance to the information and specification relative to the 3M product contained within this document does not exempt the user from compliance with additional guidelines (safety rules, procedures). Compliance to operational requirements especially in respect to the environment and usage of tools with this product must be observed. The 3M group (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control.

Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation. Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to respiratory contaminants. 3M offers advice on the selection of products, and training in the correct fitting and usage.

For more information on 3M products and services please contact 3M.

### Personal Safety Division

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