

# 3M™ Jupiter™ Powered Air Turbo

## Technical datasheet



### Description

The 3M™ Jupiter™ Unit is a belt-mounted powered air purifying device. When combined with one of the 3M approved headtops, it forms a power-assisted system for respiratory protection against particles, gases and vapors as well as particles and gases combined.

The 3M™ Jupiter™ Powered Air Turbo Unit can be used with the 3M™ Versaflo™ S-Series Hoods and Headcovers, 3M™ Versaflo™ M-Series Faceshields and Helmets or 3M™ Speedglas™ 9100FX Air, 9100 Air and 9100MP Welding Headtops.

- ▶ Electronic alarm gives visual and audible warning of low airflow and/or low battery
- ▶ Choice of 4 filter types: P, A2P, A1B1E1P, A2B1E1K1P
- ▶ Filter covers reduce the amount of dust and sparks entering the filter body
- ▶ Choice of 3 NiMH rechargeable batteries: 4 hr, 8 hr, Intrinsically Safe (4 hr)
- ▶ Suitable for use in decontamination shower (IP 53)

### Standards and approvals

The 3M™ Jupiter™ Powered Air Turbo Unit, in combination with 3M approved headtops, has been tested and approved to EN 12941:1998+A2:2008.

The 3M™ Jupiter™ Powered Air Turbo system also meets the dust protection and spraying water requirements (IP 53) of EN 60529.

When the 3M™ Jupiter™ Turbo Unit is fitted with the Intrinsically Safe (IS) Battery and IS Cover and a 3M approved headtop, it meets the following additional requirements:

- ▶ Dust protection and protection against spraying water requirements of EN 60529 (IP 63)
- ▶ Intrinsically Safe requirements of EN 60079-0, EN 60079-11 and EN 61241-1 (Ex ib IIB T3 Gb, Ex tb IIIC T55°C Db and II 2 G D)

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

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



### Applications

The 3M™ Jupiter™ turbo unit, when used as an approved system with appropriate filters, provides protection against:

- ▶ Particles, e.g. fine dusts, mists and metal fumes
- ▶ Gases and vapours
- ▶ Particles, gases and vapours combined

The 3M™ Jupiter™ Turbo Unit, when used with an appropriate 3M headtop and filters, may be used in various applications including:

- ▶ Pharmaceutical
- ▶ Chemical mixing/handling
- ▶ Laboratories
- ▶ Paint spraying
- ▶ Welding
- ▶ Metalworking
- ▶ Agrochemical spraying
- ▶ Health care services

### Use limitations

The 3M™ Jupiter™ Turbo Unit should not be used in the following conditions:

- ▶ Asbestos stripping
- ▶ Oxygen deficient atmospheres
- ▶ Confined spaces, i.e. spaces with poor ventilation
- ▶ Where the hazard is regarded as Immediately Dangerous to Life or Health (IDLH)
- ▶ Where the contaminant concentration is above the Occupational Exposure Limit defined for the headtop used (see the relevant User Instructions for the headtop)



## 3M™ Jupiter Powered Air Respirator

The Jupiter Powered Air Respirator is comfortable, easy-to-use and provides protection against particulates, gases or vapours, or against a combination of these contaminants depending on the type of filters used.

- ✓ Modern, ergonomic design
- ✓ Suitable for shower decontamination
- ✓ High comfort decontamination belt
- ✓ Electronic **audible and visual alarm** in case of low battery and/or low air flow
- ✓ “Intrinsically Safe” (IS) kit available for use in potentially explosive atmospheres

Approved to EN12941 class TH2 or TH3 dependent on headtop

- ✓ Assigned Protection Factor (APF) of 40 with 3M Versaflo S-Series & M-400 Headtops, APF of 20 with all others



### Available either as a starter kit or as individual items



### 3M™ Jupiter™ Powered Air Starter Kit

This Starter Kit includes a standard 3M™ Jupiter™ Powered Air Turbo including Decontamination Belt and Clip, Filter Gaskets, Air Flow Indicator and Calibration Tube as well as a pair of Organic Vapour and Particulate (A2P) Filters, Pre-filters, Length-adjusting Breathing Tube, 8 hour Rechargeable Battery (NiMH) and a Battery Charger.

**Now choose your headtop from pages 11-14**

If you have specific system requirements you can make up your own system with the following components:

Turbo Unit	
<b>3M™ Jupiter™ Turbo Unit</b>	
Includes Decontamination Belt, Air Flow Indicator and Calibration Tube	
	(085-00-10P)

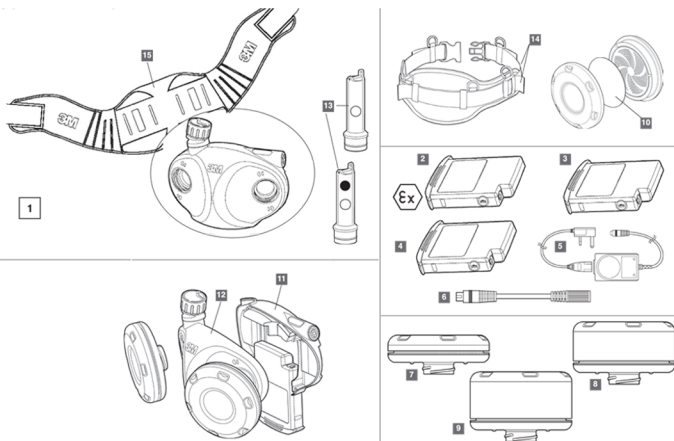
Filters	
P Filter	(450-00-25P2)
A2P Filter	(453-00-25P2)
A2BEK1P Filter	(453-09-25P2)
ABE1P Filter	(456-18-25P2)
Pre-filter Pack	(461-00-02P24)

Batteries (NiMH)	
Battery Pack - 8 hour	(007-00-64P)
Battery Pack - 4 hour	(007-00-63P)
Battery Pack - 4 hour (intrinsically safe with pouch kit)	(085-12-00P)

**Note:** A Jupiter™ Turbo Unit that has been used in a dust environment without an intrinsically safe pouch fitted, should never be used for intrinsically safe applications.

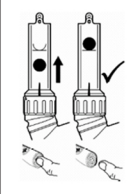
Charger	
10 Station Charger	(003-00-59P)
Intelligent Battery Charger	(CHG-02)

Breathing Tubes	
Length Adjusting Breathing Tube	BT-30
Heavy Duty Rubber Breathing Tube	BT-40
Short Lightweight Breathing Tube	BT-20S
Long Lightweight Breathing Tube	BT-20L



#### Calibration

- Ensure the battery is fully charged
- Remove Filters and insert Calibration Tube (black ball) into the turbo outlet
- Hold turbo with the line on the tube at eye level
- Press and hold the switch
- After approximately 3 seconds the turbo will beep and enter calibration mode
- The ball will drop to the bottom of the tube
- As the fan speed increases, the ball will begin to rise
- Release the switch when the bottom of the ball is on the line



## Materials

Turbo unit body	Polyphenylene
Belt	PVC coated Polyester and EVA
Clips	Polypropylene
Filter casing	Polystyrene
Filter cover	Polypropylene
Battery casing	Polyphenylene
Airflow indicator/calibration tube	Polycarbonate

## Technical data

Nominal Protection Factor: depends on 3M headtop used.

Protection class TH2

▶ NPF = 50

Protection class TH3

▶ NPF = 500

Note: The Nominal Protection Factor 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.

### Outlet flow characteristics

Stated Manufacturer's Minimum Design Flow: 150l/min

### Battery packs

4 hr battery = 5.2V NiMH rechargeable

8 hr battery = 5.2V NiMH rechargeable

IS battery = 7.8V NiMH rechargeable

### Intrinsic safety

EN 60079-0, EN 60079-11 Ex ib IIB T3 Gb

EN 61241-1 Ex tb IIIC T55°C Db

SIRA Ex09Y2202X

ib = intrinsic safety for Equipment protection level Gb

IIB = Gas apparatus group (EN 60079-0)

T3 = Max. surface temperature 200°C (Ta = -20°C to +40°C)

tb = Protection by enclosure for Equipment protection level Db

IIIC = Dust apparatus group (EN 60079-0)

T55°C – Max. surface temperature (Dust Zones)

SIRA Ex09Y2202X – Certification Number.

X = the battery must be charged in a safe area

## 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.

### Ingress Protection code (IP)

IP53 as specified in EN60529 or IP63 when used with the IS Cover and IS Battery Kit

5X = Dust protection,

6X = Dust tight,

X3 = Spraying water.

### Operating temperature

-5°C to + 40°C and < 90% humidity

### Shelf life\*

5 years from date of manufacture

### Weight

815g (including 4 hour battery but excluding belt and filters)

\*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.

Part number	Description
085-00-10P	Turbo blower module
085-06-10P	Control module
BLT-12	Decontamination belt
BLT-15	Jupiter belt clip
022-25-10P4	Braces
021-14-12P	Calibration tube and airflow indicator
450-00-25P2	P filters
453-00-25P2	A2P filters
453-09-25P2	A2B1E1K1P filters
456-18-25P2	A1B1E1P filters
461-00-02P24	Prefilter pads
105	Disinfectant wipes
007-00-63P	4 hour battery
007-00-64P	8 hour battery
085-12-00P	IS battery (4hr) & IS cover kit
085-11-00P	IS cover
CHG-02EU	Battery charger
CHG-04	10 Station battery charger
BT-20S	Lightweight breathing tube (Short)
BT-20L	Lightweight breathing tube (Long)
BT-30	Self-adjusting breathing tube
BT-40	Heavy duty breathing tube
BT-926	Flame resistant breathing tube cover
BT-922	Disposable breathing tube cover



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