Technical
Datasheet



3M™ Versaflo™ V-500E Supplied Air Regulator

Description

The 3M™ Versaflo™ V-500E Regulator is a belt-worn supplied air regulator. When combined with one of the 3M approved headtops, it forms a supplied air respiratory protection system. The V-500E Regulator can be used with the following headtops: 3M™ Versaflo™ S-Series Headcovers and Hoods, 3M™ Versaflo™ M-Series Faceshields and Helmets, 3M™ HT-400 Series Visors, 3M™ HT-600 Series Welding Shields, 3M™ HT-700 Series Helmets and 3M™ HT-800 Series Helmets.

- Controlled, constant flow of air
- Locking control knob allows airflow to be adjusted to user's preference
- Integrated warning whistle warns the user of low supplied air pressure
- Integrated silencer reduces regulator's noise level to less than 65 dBA
- Integrated replaceable active carbon filter removes odours
- Auxiliary port allows air tools such as paint spray guns to be connected to the regulator without affecting airflow to the headtop
- Regulator unit can be positioned on the belt to accommodate right- and left-handed users
- Swivelling bayonet connector allows the breathing tube to move freely to the most comfortable position
- This product does not contain silicone components

Approvals

The V-500E Regulator, when used as part of an approved 3M Respiratory 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 product was examined at the design stage by: BSI, Maylands Avenue, Hemel Hempstead, Hertfordshire, HP2 4SQ, England (Notified Body number 0086).

Applications

The V-500E Regulator, when used with an approved 3M headtop, provides respiratory protection against:

- Particles e.g. fine dusts, aerosols, paint spray or metal fume.
- Gases and vapours
- Particles, gases and vapours combined

Application	Typical industry
Spray painting	General transport Automotive & Aerospace Metal fabrication Shipbuilding
Powder coating	Metal fabrication
Material handling	Pharmaceutical Food processing Chemical Agrochemical Laboratory
Grinding and deburring	Metal fabrication Automotive
Welding	Metal fabrication Shipbuilding

Limitations

The V-500E Regulator should not be used in the following conditions:

- Asbestos removal.
- 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 Threshold Limit Value defined for the headtop used (see relevant User Instructions for the headtop).

Standards

The V-500E Regulator, in combination with 3M approved headtops, has been tested and approved to EN14594.

Materials

Materials	
Housing and belt bracket	Noryl plastic (plolyphenylene oxide)
Warning whistle	Brass
Belts	Standard belt = polyester Easy-clean belt = polyurethane coated polyester



Technical specifications

- Nominal Protection Factor (NPF): Depends on 3M headtop used.
  Protection Class 2A/2B*
  - NPF = 50
  - Assigned Protection Factor (APF) = 20

  Protection Class 3A/3B*
  - NPF = 200
  - APF = 40

  * 3M provide a range of headtops and compressed air supply tubes that meet both A and B classification.
- Inlet Pressure
  Pressure range: 3.5 – 8 bar
  Maximum pressure: 10 bar
- Outlet Flow Characteristics
  Manufacturer's Minimum Design Flow (MMDF) 170l/min
  Maximum Flow 305 l/min
- Storage conditions
  -10°C to +50°C
  < 90 %RH
- Operating temperature
  -5°C to +40°C and <90% humidity
- Weight 514 g
- Inlet and auxiliary outlet port
  ¼ inch BSP thread
- The compressed air used to operate the V-500E Regulator must comply with the quality requirements of EN12021.

Spare parts and accessories

Part No.	Description
023-05-51P	Carbon filter
TR-325	Standard belt
TR-327	Easy-clean belt
530-12-53P3	Belt unit coupling plug – CEJN
530-12-52P3	Belt unit coupling plug – Rectus
308-00-30P	10m Standard duty CAST
308-00-31P	30m Standard duty CAST
308-00-40P	7.5m Coiled CAST
308-00-72P	10m Standard duty, anti-static, high temperature CAST
530-12-81P3	Socket and plug – CEJN
530-12-82P3	Socket and plug – Rectus
312-03-01P3	2-way manifold
312-03-00P3	3-way manifold
ACU-01	Aircare Filtration Unit – Wall mounted
ACU-02	Aircare Filtration Unit – Floor standing
BT-20S/L	Lightweight breathing tube (Small/Medium or Medium/Long)
BT-30	Self-adjusting breathing tube
BT-40	Heavy duty breathing tube
BT-922	Disposable breathing tube cover
BT-926	Flame resistant breathing tube cover

Important Notice
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3M

3M Occupational Health & Safety Division
EMEA Region

3M Centre
Cain Road
Bracknell
Berkshire RG12 8HT
United Kingdom
Tel: + 44 (0) 1344 858000
Web: www.3M.eu/Safety

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