

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

Product 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 3M™ Versaflo™ S-Series Headcovers and Hoods, 3M™ Versaflo™ M-Series Faceshields and Welding 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
- 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
- Includes an Airflow Indicator, to allow the user to check the flow rate exceeds the manufacturer's minimum design flow rate before each use
- Can be used with 3M compressed air hoses up to a maximum length of 30m¹
- This product does not contain silicone components

Materials

Table 1: V-500E Supplied Air Regulator

| Component | Material |
|--------------------------|--|
| Housing and belt bracket | Noryl plastic (polyphenylene oxide) |
| Warning whistle | Brass |
| Belts | Standard belt = polyester Easy-clean belt = polyurethane coated polyester |

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

¹ If the system meets the A requirements of EN 14594:2018 e.g. when using 3M™ Versaflo™ S-Series Headtops, a maximum compressed air hose length of 10m applies.

Table 2: V-500E Supplied Air Regulator Applications

| 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 & deburring | Metal fabrication Automotive |
| Welding | Metal fabrication Shipbuilding |

Use 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 requires a greater protection factor than that provided by the system (see relevant User Instructions for the headtop)

Standards and Approvals

The V-500E Regulator, in combination with 3M approved headtops, has been tested and approved to EN14594:2018.

The Certificate of Declaration of Conformity are available at the following website www.3M.com/Respiratory/certs.

Technical Data Specifications

Nominal Protection Factor (NPF):

Protection Class (depends on 3M headtop used) EN 14594 :2018 3A/3B²: NPF = 200

Inlet Pressure:

Pressure Range: 3.5 – 8 bar

Maximum Pressure: 10 bar

Outlet Flow Characteristics:

² 3M provide a range of headtops and compressed air supply tubes that meet both A and B classification.

Manufacturer's Minimum Design Flow (MMDF) 170 l/min

Maximum Flow 305 l/min

Storage Conditions:

-10 °C to + 50°C and < 90% RH

Operating Temperature:

-5°C to + 40°C and < 90% humidity

Weight (with comfort pad and belt)

514 g

Inlet and auxiliary outlet port

¼ inch BSP thread

Compressed air

The compressed air used to operate the V-500E Regulator must comply with the quality requirements of EN 12021:2014

Shelf Life³:

5 years from date of manufacture

Spare Parts and Accessories

Table 3: V-500E Supplied Air Regulator Parts and Accessories

| Part Number | Description |
|-------------|--|
| 023-05-51P | Carbon filter |
| TR-325 | Standard belt |
| TR-327 | Easy-clean belt |
| 530-12-53P3 | Belt unit coupling plug - Rectus 96 |
| 530-12-52P3 | Belt unit coupling plug – Rectus 25 |
| 308-00-30P | 10m Standard duty CAST |
| 308-00-31P | 30m Standard Duty CAST |
| 308-00-40P | 7.5m Light Duty CAST |
| 308-00-72P | 10m Standard Duty, anti-static, heat resistant CAST |
| 530-12-81P3 | Socket and Plug set – Rectus 95/96 |
| 530-12-82P3 | Socket and plug set– Rectus 25 |
| 312-03-01P3 | 2-way manifold |
| 312-03-00P3 | 3-way manifold |
| ACU-03 | Aircare Filtration Unit – Wall Mounted |
| ACU-04 | Aircare Filtration Unit – Free standing |
| BT-20S/L | Lightweight breathing tube (Small/Medium or Medium/Long) |

³ 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 |
|-------------|--------------------------------------|
| 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

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.



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