



3M™ Versaflo™ V-100E and V-200E Cooling/Heating Unit

Description

The 3M™ Versaflo™ V-100E/V-200E Cooling/Heating Units are belt-worn units that can be combined with one of the approved 3M™ Headtops to form a supplied air respiratory protection system. The V-100E/V-200E Units 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
- 3M™ HT-800 Series Helmets

The V-100E Unit can cool the supplied air by up to 28°C.
The V-200E Unit can heat the supplied air by up to 28°C.

- Temperature adjustment control allows temperature of airflow to headtop to be individually adjusted
- Integrated warning whistle warns the user of low supplied air pressure
- Comfort pad protects the user from cold/hot belt unit
- Can be used with 3M compressed air hoses up to a maximum length of 30 m
- Swivelling bayonet connector allows the breathing tube to move freely to the most comfortable position

Approvals

The V-100E and V-200E Units, when used as part of an approved 3M Respirator system have been shown to meet the Basic Safety Requirements under Article 10 and 11B of the European Directive 89/686/EEC and are 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

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

The V-100E/V-200E Units, 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

Limitations

The V-100E/V-200E Units 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-100E/V-200E Units, in combination with 3M approved headtops, have been tested and approved to EN14594.:

Materials

- Breathing tube connector – polycarbonate/polyester blend
- Rubber sleeve - Neoprene
- Warning whistle – Brass
- Control knob (V-100E) – zinc plated steel
- Ball valve (V-200E) – Brass/plastic
- Muffler outlet (V-200E) – Brass
- Comfort belt pad – Coated polyurethane
- 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: 4 – 6 bar
Maximum pressure: 10 bar
- Outlet Flow Characteristics
Manufacturer's Minimum Design Flow (MMDF) 170l/min
Maximum Flow 495 l/min (V-100E)
500 l/min (V-200E)
- Storage conditions
-10°C to +50°C
< 90 %RH
- Operating temperature
-5°C to +40°C and <90% humidity
- Weight (with comfort pad and belt)
650 g (V-100E)
750 g (V-200E)
- Inlet and auxiliary outlet port
¼ inch BSP thread
- Maximum temperature difference
V-100E (cooling) 28°C
V-200E (heating) 28°C
- The compressed air used to operate the V-100E/V-200E Units must comply with the quality requirements of EN12021.

Spare parts and accessories

Part No.	Description
023-06-50P5	Comfort pad
TR-325	Standard belt
TR-327	Easy-clean belt
023-06-30P	Muffler kit for V-100E unit
023-06-35P	Muffler kit for V-200E unit
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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