

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

Product 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 3M™ Versaflo™ S-Series Headcovers and Hoods and 3M™ Versaflo™ M-Series Faceshields and 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 m¹
- 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

Standards and Approvals

The V-100E and V-200E Units, in combination with 3M approved headtops, have been tested and approved to EN14594:2018.

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

Applications

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

Table 1: V-100E/V-200E Units Applications

Application	Typical Industry
Spray Painting	General transport
	Automotive & Aerospace
	Metal fabrication
	Shipbuilding
Powder coating	Metal fabrication

¹ If the system meets the A requirements of EN14594:2018 e.g. when using 3M™ Versaflo™ S-Series Headtops, a maximum compressed air hose length of 10m applies.

Application	Typical Industry
Material handling	Pharmaceutical Food processing Chemical Agrochemical Laboratory
Grinding & deburring	Metal fabrication Automotive
Welding	Metal fabrication Shipbuilding

Materials

Table 2: V-100E/V-200E Units Materials

Component	Material
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

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

Technical Data Specifications

Nominal Protection Factor (NPF):

Protection Class 3A/3B²: NPF = 200

Inlet Pressure:

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

Pressure Range: 4 – 6 bar

Maximum Pressure: 10 bar

Outlet Flow Characteristics:

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

Maximum Flow 495 l/min (V-100E) / 500 l/min (V-200E)

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)

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

Compressed air

The compressed air used to operate the V-100E/V-200E 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-100E/V-200E Units Parts and Accessories

Part Number	Description
023-06-50P5	Comfort pad
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 Coiled CAST

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
308-00-72P	10m Standard duty, anti-static, high temperature CAST
530-12-81P3	Socket and plug – Rectus 95/96
530-12-82P3	Socket and plug – 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)
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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