

# CAREvent CA Auto Resuscitator



# Company Profile



MineARC Systems is the global leader in the manufacture and supply of emergency safe refuge solutions for the mining, tunnelling, chemical processing and disaster relief industries.

With 20 years' experience, our dedication to ongoing research and development is driven by our key focus to continually offer the best and most advanced safety solutions on the market.

Our team of qualified engineers, electrical designers and technical experts form a global network across several international locations including;

- Perth, Western Australia
- Johannesburg, South Africa
- Dallas, Texas
- Santiago, Chile
- Beijing, China
- Hamburg, Germany
- Guanajuato, Mexico



Since 1971 O-Two Medical Technologies has produced state-of-the-art products for the provision of Emergency Respiratory Care and Inhalation Analgesia.

Exporting to over 60 countries and possessing more than 40 patents worldwide, O-Two offers solutions in Automatic and Manual Ventilation, Inhalation Analgesia and Oxygen Administration.

Their manufacturing and research-and-development facilities are registered to the ISO 13485 Quality system (MDSAP) as well as Health Canada (HC), European (CE) and US (FDA) medical device requirements.

This allows MineARC to provide 24 hour service and engineering support to our expanding list of clients in over 60 countries across the globe.

All MineARC Refuge Chambers and Safe Havens comply with the highest international regulations and recognised 'world's best practice' industry guidelines. Our key focus on quality control and product advancement has meant that MineARC Refuge Chambers have successfully saved lives in multiple real life industrial emergencies around the globe.

[www.minearc.com](http://www.minearc.com)

O-Two's innovative thinking, leading-edge engineering concepts and high-quality manufacturing capabilities make them a valuable partner for MineARC Systems and the clients we serve.

[otwo.com](http://otwo.com)

# CAREvent CA Auto Resuscitator



The O-Two CAREvent is a pneumatically powered, time/volume cycled ventilatory resuscitator with the added feature of a Manually Actuated, Automatic Ventilation Override Button (manual button) to allow the operator to control the ventilations at a rate and volume they desire.

The ventilator allows the breathing operator to 'demand breathe' through the device, enabling them to inhale and exhale comfortably and at their own pace. The operator's own inspiratory effort then causes the automatic cycling to stop. In the event that the operator should suddenly stop breathing once again, the ventilator will automatically restart cycling breathable air in the setting selected.

The 'pneumatic logic circuit' can be run on either compressed breathing air or medical oxygen. The unit is self-contained and simply requires attachment to a regulated oxygen or air supply (as specified) for immediate use.



# CAREvent CA Auto Resuscitator

The threat of chemical-agents and toxic gasses released in crowded, confined areas has presented new challenges for emergency response procedures. With dangerous working environments becoming more common, especially in the mining industry, it is crucial to have to

appropriate equipment on hand in order to be able to act quickly in life threatening situations. The CAREvent auto resuscitator has been specifically developed to meet these challenges.

- ✓ Easy to use
- ✓ 2 L/min mask purge, bleed flow
- ✓ Simplified external control
- ✓ Automatic ventilation to operator
- ✓ Self-regulated oxygen flow for resuscitation
- ✓ Batteryless due to micro-pneumatic circuitry
- ✓ 'Demand breathing' feature allows operators to inhale and exhale at their own rate
- ✓ Automatic circuit shut-off once operator breaths independently and adequately

Tidal Volume (Vt):	500 ml
Frequency (1 setting):	10 BPM
Automatic Flow Rate Range:	15 L/min
Manual Flow Rate Range:	15 L/min
Demand Valve Trigger Pressure:	-2 cm H <sub>2</sub> O
Demand Flow Rate Range:	0 – 120 L/min
Mask Purge Bleed Flow:	2 L/min
Operator Dead Space:	8 ml.
Weight (approx.):	0.45 kg/16 oz
Dimensions (approx. in inches):	5.5 x 2.5 x 2.9



# CAREvent CA Auto Resuscitator

The CAREvent has a single external control to emphasise ease-of-use.

The mining environment is considered to be so hazardous that the less the rescuer has to do to ventilate and transport the operator, the quicker the operator can be resuscitated and the greater chance for the operator's survival.

With the CAREvent auto resuscitator, all that is required is to turn on the oxygen/air supply, apply the mask to the operator's face and secure the airway. The CAREvent will provide automatic ventilation to the non-breathing operator at a rate and volume designed to provide adequate oxygenation while reducing the risk of gastric insufflation, in accordance with the current guidelines for resuscitation.



A two litre per minute constant 'bleed flow' is provided to ensure a positive pressure remains in the mask throughout the ventilation cycle; decreasing the risk of entraining potentially toxic atmospheric air into the mask.



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## CAREvent Accessories

Accessories available for the CAREvent include a head harness system, which assists in maintaining a mask-to-face seal during extrication and transport and to provide hands-free operation.

Also available are the deluxe transport ventilator circuit with positive end expiratory pressure (PEEP) port and a gurney clip, which allows the device to be attached to the handrail of the gurney or emergency stretcher during transport.



Deluxe Transport Ventilator Circuit (PEEP)



Head Harness



Gurney Clip

## Maintenance and Servicing

To ensure proper operation of the resuscitator, regular inspection and checking of the resuscitator and accessories for correct function should be undertaken by a trained member of staff on a routine basis.

resuscitator is in working order. Regulator working pressure, suction (if equipped), and ventilator limiting pressures should be checked at least every six months, and more frequently in high use applications.

This check is to ensure that all of the accessories and resuscitator components are present, the air or oxygen cylinder is full and that the

For further guidance on maintenance procedures, refer to the product manual provided by MineARC.

*The O-Two CAREvent has been specifically designed with extreme durability in mind. It is ideal for use in the military and industrial sector due to its hard wearing components.*

# Related Products

## ZOLL Defibrillators

- Lowest total cost of ownership compared to other AEDs
- Measures chest compressions with Real CPR Help technology
- Back-lit display with audio visual prompts
- One-size fits all one-piece electrode pads to simplify placement
- Five-year shelf life
- Ruggedised case



## Rugged Oxygen Generator (ROG)

- Self contained chemical oxygen generator requires no maintenance during storage
- Unit activated via an integrated phosphorous match
- Produces a minimum of 90 litres of breathable oxygen @ NTP over approximately 15 minutes
- Associated with a high degree of safety due to the absence of pressurised gases
- Resistant to shock and vibration
- Suitable for use at altitudes of up to 20,000 feet
- Portable and easy to use - handheld operation



## MineSAFE Ambulance

- Purpose-designed vehicle for the underground mining environment
- Advanced braking and tramming, with hydraulic wheel drive
- 2-person carrier plus secure stretcher compartment with anchor points
- Five-point seat belt for rear cabin passengers
- Medical grade oxygen cylinder with flow meter and therapy masks
- Internal storage compartments for first aid equipment







MineARC Systems - Built for Safety.

[www.minearc.com](http://www.minearc.com)

