

MACS

Mask CPAP System

Real CPAP for EMS

The **MACS CPAP System** uses a demand flow system similar in function to critical care ventilators. This produces a CPAP that has very low work of breathing for the patient. In addition, MACS has a 65% oxygen setting, thus allowing for extended patient transport times (45 minutes on a D cylinder).



How do the other CPAP systems used in EMS stack up to MACS?



Emergent Port O₂ Vent CPAPs:

- This is an uncalibrated demand valve system with higher work of breathing than **MACS**.
- The delivered oxygen varies with patient effort from 75% to 95%.
- Usual run time is 30 min on a D cylinder



Boussignac CPAP:

- This is a disposable mask / valve system which creates CPAP using gas turbulence. The more flow into the mask, the higher CPAP.
- The maximum flow delivered to the patient is the flow that is set to enter the mask, up to 30 L/min. If patient inspiratory effort is greater than the set flow, the actual delivered CPAP will drop and patient effort increases.
- The delivered oxygen varies depending on the input flow rate and the patient's inspiratory flow. It can range from <50% to 100%.
- Usual run time is 14 min of a D cylinder



Respironics Whisperflow:

- This is a simple high flow system. There are 3 different generators to choose from, each with different features.
- The flow delivered to the patient is based upon the generator used and it's setting. The maximum flow is 140 L/min. Patient inspiratory effort is low, but expiratory work is high to exhale against the generator's high continuous flow.
- Non-adjustable PEEP valves are used to generate CPAP. If a different CPAP level is required, a different PEEP valve must be used.
- The generators come in fixed (30%) or variable (28 – 100%) oxygen models.
- Usual run time is 4 to 30 min on a D cylinder

The Bottom Line: **MACS** is part of a family of respiratory support products, all designed around the same CPAP technology. The **pNeuton** model S ventilator is a CPAP system with a ventilator in one device. **MACS** is a stand alone CPAP system. Both are simple to use with the same CPAP and oxygen controls. Both use the same patient circuit. Both are built EMS tough.



Airon

Airon Corporation
751 North Drive, Unit 6, Melbourne, Florida 32934 USA
telephone 888-448-1238 (USA toll free) 321-821-9433 fax 321-821-9443
CD-M-025 Rev A