

The OXYLATOR[®] Resuscitator Range

Challenging situations demand Simple,
Effective, Reliable and Robust solutions



Introduction

Built to meet the demands of the most challenging environments, the Oxylator automatic resuscitator range are proven to be clinically effective, safe & cost effective.

OXYLATORS®

OXYLATORS® are patient-responsive, oxygen-powered resuscitation/inhalation devices intended to provide emergency ventilatory support for patients weighing more than 10 kg (22 lb). Utilizing patented technology, OXYLATORS® are simple, safe and effective and give the care giver the required flexibility in airway management during emergencies and attended short-term transport ventilation.

Cycle Method

OXYLATOR® uses **pressure** and **flow** cycling to determine the trigger points for the inspiratory and expiratory phases. By doing this, and unlike all time/volume cycled systems & Bag Valve Mask devices, the OXYLATOR® is the only resuscitator to offer the following benefits:

- Only cycles if adequate volumes of oxygen are being delivered to the patients lungs
- Substantially reduces the risk of gastric insufflation (and corresponding risk of regurgitation) when compared to time/volume cycled devices or Bag Valve Mask devices
- Automatically adjusts to changes in a patient's lung size and compliance
- Eliminates risk of 'breath stacking'
- Substantially reduces the risk of barotrauma when compared to time/volume cycled devices or Bag Valve Mask devices

Patient Responsiveness

OXYLATOR® provides immediate feedback to users for:

- Airway/Partial Airway Obstruction
- Inadequate mask seal (if using a face mask)
- Inadequate seal using a Supra-glottic airway device (LMA, i-Gel etc.)
- Misplaced ET Tube
- All OXYLATORS® can also be used in manual mode.

Other features and benefits

- In automatic mode, OXYLATORS® maintain a small positive end expiratory pressure (PEEP) of 2-4cm H₂O, preventing the alveoli from collapsing and maximising gaseous exchange
- OXYLATORS® automatically synchronise with mechanical chest compression devices (LUCAS, AutoPulse etc.), and manual chest compressions
- OXYLATORS® do not 'consume' any Oxygen in operating the device
- All OXYLATOR® models can be quickly and easily disassembled, allowing for thorough cleaning and disinfection
- OXYLATOR® EMX & HD models feature a free flow function, enabling the device to deliver up to 15lpm free flow oxygen to patients who have returned to spontaneous ventilation
- OXYLATORS® can be used with all current airway adjuncts; Endo-tracheal Tubes, Supra-glottic Airways (LMA, i-Gel etc.), Face Masks etc.
- OXYLATORS® require minimal training

Warranty & Maintenance

- All OXYLATORS® come with a 5 year warranty
- OXYLATORS® **do not** require any conventional routine servicing or calibration for the life of the device. This significantly reduces on-going maintenance costs associated with time/volume cycled devices

The OXYLATOR® Resuscitator Range



OXYLATOR® FR-300

The OXYLATOR® FR-300 is a one button operation device designed as a primary resuscitator for Emergency Responders.

The OXYLATOR® FR-300 is designed to significantly reduce the risk of complications associated with mouth-to-mouth and Bag Valve Mask manual ventilation methods, including gastric insufflation, barotrauma and breath stacking.



OXYLATOR® EMX

The OXYLATOR® EMX is designed as a primary resuscitation device and short term attended transport ventilator designed for Paramedic and Emergency Practitioners.

The OXYLATOR® EMX is designed to deliver emergency ventilations to non breathing patients, and initial ventilator support to patients immediately after return of spontaneous circulation.

A Military version of the OXYLATOR® EMX is also available, featuring available with Butyl parts which cope with chemical hazardous environments.





OXYLATOR® HD

Whilst suitable for use in Pre-Hospital Emergency Care, the OXYLATOR® HD was specifically designed for use during longer term resuscitation attempts, and in conjunction with continuous manual or mechanical chest compressions.

The OXYLATOR® HD features a lower inspiratory cycle pressure of 15cmH₂O which minimises the risk of impairing venous return, particularly during continual chest compressions over long periods.



OXYLATOR® FR-300/B with Demand Valve

The OXYLATOR® FR-300/B model, is designed for use within environments where the ambient air could be hazardous. For patients requiring continuous ventilation or breathing support during extrication/removal from the scene, full hands free operation can be achieved by using a head strap and extension tube.

For non-breathing (respiratory or cardio-respiratory arrest) patients, the device operates identically to the normal FR-300 device described above. For breathing patients, but where the ambient air may be hazardous, the demand valve enables the patient to breathe freely through a closed and clean circuit.

The total system can be used with Oxygen, Air or mixed supply (dependent on the specific connector specified).



OXYLATOR® Range Specifications



BOC part number	OXYLATOR® FR-300	OXYLATOR® EMX	OXYLATOR® HD	OXYLATOR® FR-300/B
Weight	0.18 kg	0.25 kg	0.25 kg	0.95 kg
Dimensions	48 mm x 100 mm	57 mm x 108 mm	57 mm x 108 mm	110 mm x 220 mm
Material (body)	Acetal	Acetal	Acetal	Acetal
Gas supply	Oxygen or air	Oxygen or air	Oxygen or air	Oxygen or air
Required source pressure	3.0 – 5.5 bar	3.0 – 5.5 bar	3.0 – 5.5 bar	3.0 – 5.5 bar
Required source flow	40 lpm min	40 lpm min	40 lpm min	40 lpm min
Dead space	20 ml	20 ml	20 ml	20 ml
Inspiratory flow rate	30 lpm max	30 lpm max	30 lpm max	30 lpm max
Minute volume	10-12 lmp (auto)	10-12 lmp (auto)	10-12 lmp (auto)	10-12 lmp (auto)
Cylinder run time	Cyl Vol ÷ 12	Cyl Vol ÷ 12	Cyl Vol ÷ 12	Cyl Vol ÷ 12
I:E ratio	1:1 to 1:2 auto	1:1 to 1:2 auto	1:1 to 1:2 auto	1:1 to 1:2 auto
PEEP (auto mode only)	2-4 cmH ₂ O	2-4 cmH ₂ O	2-4 cmH ₂ O	2-4 cmH ₂ O
Ventilatory rate (auto mode)	Auto-adjusting	Auto-adjusting	Auto-adjusting	Auto-adjusting
Pressure relief	20 cmH ₂ O	20-45 cmH ₂ O	15-30 cmH ₂ O	20 cmH ₂ O
Expiratory resistance	<5 cmH ₂ O	<5 cmH ₂ O	<5 cmH ₂ O	<5 cmH ₂ O
Body mass range	>10 kg	>10 kg	>10 kg	>10 kg
Oxygen concentration	100%	100%	100%	100%
Filter	Single use	Single use	Single use	Single use
Mask/airway connections	15 mm Int/22 mm Ext	15 mm Int/22 mm Ext	15 mm Int/22 mm Ext	15 mm Int/22 mm Ext
Inhalator free flow rates	n/a	0-15 lpm	0-15 lpm	n/a
Temperature range – use	-30°C to +60°C	-30°C to +60°C	-30°C to +60°C	-30°C to +60°C
Temperature range – storage	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Obstructed airway alert	Audible & visual	Audible & visual	Audible & visual	Audible & visual
Oxygen inlet connection	BS Probe	BS Probe	BS Probe	BS Probe
Approvals				
CE Mark	Yes	Yes	Yes	Yes
FDA	Yes	Yes	Yes	Pending
NATO stock number	Yes	Yes	n/a	n/a
Special model features				
Butyl parts option (replaces rubber/silicone parts)	Yes	Yes	No	Yes
Demand valve facility	No	No	No	Yes
Warranty	5 years	5 years	5 years	5 years

BOC is able to supply the OXYLATOR® as a complete kit, including Barrel Bag and accessories. For further details on these, or for any other assistance, please contact 08456 447 764 or for 24 hour support visit www.bochealthcare.co.uk

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