



Glostavent[®]

Anaesthesia systems for limited resource environments

Saving lives

Battery backup power, ensuring delivery of safe anaesthesia

Innovation and development

Precision engineered for low maintenance and easy servicing

An asset, not a cost

The Glostavent[®] produces its own oxygen from the surrounding atmosphere



5 billion people have no access to safe, affordable surgical and anaesthesia care...

Glostavent[®] Helix

Saving lives

- The Glostavent[®] delivers safe inhalational anaesthesia, with or without electricity or compressed gases
- Designed with integrated safety systems, the Glostavent[®] has won numerous international technology awards
- Suitable for adults, paediatrics and neonates

An asset, not a cost

- Save the expense of compressed oxygen and air – the Glostavent[®] produces its own oxygen from the surrounding atmosphere
- Soda lime not needed
- Minimal maintenance needed by hospital's own technical staff

Innovation and development

- Since 1995 Glostavent[®] engineers have worked in limited resource environments and understand the challenges very well
- The system is designed for simplicity of use
- Backup power is integral to its design
- Engineered and manufactured in the UK, it's robust and built to last
- CE Certified by an internationally recognised notified body

Training and support

- Full training available in its use and maintenance
- Free technical support for the lifetime of the machine
- Each unit is supplied with a comprehensive user manual and training demonstration videos

Vaporiser

- Our unique low resistance vaporiser enables seamless transition from continuous flow to drawover
- Thermally stable and functions accurately even in hot or humid theatre conditions
- Calibrated for Halothane and Isoflurane or Sevoflurane
- Maintenance free and easy to clean

Oxygen analyser

- Measures and displays % inspired oxygen concentration
- More than 300 hours on battery backup

Patient circuit

- Each Glostavent[®] is supplied with a complete set of patient circuits for adult, paediatric and neonatal use, including all tubing and valves required for anaesthetic delivery.
- Easy to clean and maintain. Many Glostavent[®] Helix components are autoclavable, while others are reusable after disinfection

Manual ventilation

- Self-inflating adult and paediatric bags supplied as standard for manual ventilation

Scavenger

- Used for removing exhaled gases



Helix Ventilator

- Pneumatic ventilator for adult, paediatric and neonate patients.
- The new design ventilator is integral to the Glostavent[®] Helix
- Suitable for longer term ventilation post-operatively
- Triggered breathing control for pressure support
- Pressure or volume controlled

Emergency backup if power fails

- In the event of a power failure, both the UPS (uninterruptible power supply) and backup compressor provide emergency power for the Glostavent[®].
- Full functionality with UPS for 30 mins including oxygen concentrator
- Compressor for ventilator backup, air only, more than 12 hours
- Battery backup for ventilator with external oxygen source, more than 300 hours

Uninterruptible power supply (UPS)

- Provides backup power to the Glostavent[®]
- It also acts as a voltage stabiliser to provide a constant, safe power supply, protecting against power surges that can damage equipment

Oxygen supply

- The integral oxygen concentrator makes a continuous, inexhaustible supply of up to 10 l/pm each of 95% oxygen and medical air.
- The Glostavent[®] automatically uses the oxygen concentrator, but alternative connections for oxygen cylinder and wall pipeline are also included
- The Glostavent[®] Helix can also be run from Diamedica's oxygen reservoir storage system

Oxygen analyser



Glostavent[®] ECO2

A low cost inhalational anaesthesia system with manual ventilator using high quality Glostavent[®] components

For use where the patient is breathing spontaneously or only requires manually assisted ventilation



See over for technical information ►

Pressurised oxygen supplies can be scarce, expensive or non-existent
Frequent power cuts are common in many countries





| Specifications | Glostavent [®] Helix | Glostavent [®] ECO2 |
|---|--|---|
| Vaporiser <ul style="list-style-type: none"> Low resistance Suitable for drawover and continuous flow Anaesthetic agent Capacity Agent percentage | Yes Yes Isoflurane/Halothane or Sevoflurane 150ml 0 - 5% (0-8% for Sevoflurane) | Yes Yes Isoflurane/Halothane or Sevoflurane 150ml 0 - 5% (0-8% for Sevoflurane) |
| Ventilator function <ul style="list-style-type: none"> Mode of operation Ventilator type Drive gas Tidal volume Inspiratory/expiratory ratio Alarms Operating temperature range Battery backup life Respiratory rate Battery recharge Inspiratory pressure range Weaning/Pressure support Drive pressure/volume | Adult/paediatric/neonate Time cycled, volume limited, pressure generator Pneumatic Driven by oxygen from the concentrator with cylinder back-up 35 - 1200ml 1 : 2 High and low with LED indicators 0 - 40°C >300 hours 4 to 40 breaths/min 90% within 3 hours 5-50cm water Triggered 1-5cm H ₂ O >20psi: 1/6 minute volume | N/A |
| Manual Ventilation | Self inflating bag | Self inflating bag |
| Oxygen analyser <ul style="list-style-type: none"> Calibration Measuring range Response time Battery back up | Atmospheric oxygen concentration of 20.95%, (room air) 0 - 100% oxygen concentration 90% in <10 sec, depending on temperature 300 hours | N/A |
| Integral Oxygen Concentrator <ul style="list-style-type: none"> Maximum litres of oxygen per minute at 95% Maximum litres of air Notification/warning system Hours meter Power requirement | 10 l/pm 10 l/pm Audible failure alarm, low oxygen light Yes 590W | 10 l/pm 10 l/pm Audible failure alarm, low oxygen light Yes 590W |
| Alternative oxygen supply option <ul style="list-style-type: none"> 4 bar regulator with connection for oxygen cylinder 3 metre whip hose for pipeline oxygen | Yes Yes | Yes Yes |
| Emergency backup if power fails <ul style="list-style-type: none"> Full functionality with UPS for 30 mins including oxygen concentrator Compressor for ventilator backup, air only, more than 12 hours Battery backup for ventilator with external oxygen source, >300 hours | Yes Yes Yes | Yes Yes Yes |
| UPS <ul style="list-style-type: none"> Type Circuit breaker Operating input range Power backup (mins) | 2 KVA double on-line Yes 160-300 volts 50Hz +/- 4% 30 | 2 KVA double on-line Yes 160-300 volts 50Hz +/- 4% 30 |
| Oxygen Flush | Yes | Yes |
| Scavenger for exhaled gas | Yes | Yes |
| Additional standard items <ul style="list-style-type: none"> Adult, paediatric and neonatal circuits Autoclavable drugs tray Workstation | Yes, autoclavable Yes Anodised aluminium with 4 antistatic castors and brakes | Yes, autoclavable Yes Anodised aluminium with 4 antistatic castors and brakes |
| PEEP | 0-20 cm H ₂ O | 0-20 cm H ₂ O |
| Patient Monitoring | Optional | Optional |
| Power supply | 160-300 Volts | 160-300 Volts |
| Machine dimensions and weight | 54 x 66 x 145cm 102kg | 54 x 66 x 145cm 74kg |

