



Glostavent

Providing safe anaesthesia in low resource settings

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 timely anaesthesia care...

Saving lives

- The Glostavent® range delivers safe inhalational anaesthesia, with or without electricity or compressed gases
- Designed with integrated safety systems, the Glostavent® range has won numerous international technology awards
- Suitable for adult and paediatric patients

An asset, not a cost

- Save the expense of compressed oxygen and air – the Glostavent® range 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 Diamedica engineers have worked in limited resource environments and understand the challenges very well
- The Glostavent® range is designed for simplicity of use
- Backup power is integral to the Glostavent® range
- 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 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

Glostavent® Helix Duo

Vaporisers

- Supplied with two vaporisers
- The unique 'vaporiser select technology' permits the safe delivery of a gaseous induction using Sevoflurane before switching to Isoflurane to maintain the anaesthetised state
- Safe and precise changeover between vaporisers, with no possibility of both units in use simultaneously
- Low resistance vaporisers enable seamless transition from continuous flow to draw over
- Thermally stable and functions accurately even in hot or humid theatre conditions
- Calibrated for Halothane and Isoflurane and Sevoflurane (select 2)
- Minimal maintenance-free and easy to clean

Oxygen analyser

- Measures and displays % inspired oxygen concentration
- Internal 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 and paediatric patients
- The Helix 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® range
- 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® range for 30 minutes
- 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® range 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

Glostavent® Helix

The Glostavent® Helix with pneumatic ventilator and single dual agent vaporiser



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 Duo	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 or Halothane or Sevoflurane (select 2) 150ml 0 - 5% (0-8% for Sevoflurane)	Yes Yes Isoflurane or Halothane (dual agent) or Sevoflurane (select 1) 150ml 0 - 5% (0-8% for Sevoflurane)	Yes Yes Isoflurane or Halothane (dual agent) or Sevoflurane (select 1) 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 Time cycled, volume limited, pressure generator Pneumatic Driven by oxygen from the concentrator with cylinder back-up 100 - 1200ml 1 : 2 High and low with LED indicators 5 - 40°C Approx 300 hours 6 to 40 breaths/min 90% within 3 hours 8-50cm water Triggerred 1-5cm H ₂ O >20psi: 1/6 minute volume	Adult/paediatric Time cycled, volume limited, pressure generator Pneumatic Driven by oxygen from the concentrator with cylinder back-up 100 - 1200ml 1 : 2 High and low with LED indicators 5 - 40°C Approx 300 hours 6 to 40 breaths/min 90% within 3 hours 8-50cm water Triggerred 1-5cm H ₂ O >20psi: 1/6 minute volume	N/A
Manual Ventilation	Self inflating bag	Self inflating bag	Self inflating bag
Integral Oxygen Concentrator <ul style="list-style-type: none"> Maximum litres of oxygen per minute Maximum litres of air Notification/warning system Hours meter Power requirement 	0 to 10 l/pm at 95% 10 l/pm Audible failure alarm, low oxygen light Yes 590W	0 to 10 l/pm at 95% 10 l/pm Audible failure alarm, low oxygen light Yes 590W	0 to 10 l/pm at 95% 10 l/pm Audible failure alarm, low oxygen light Yes 590W
Alternative oxygen supply option <ul style="list-style-type: none"> Regulator with connection for oxygen cylinder Whip hose for pipeline oxygen 	Yes - 4 Bar Yes - 3 metres	Yes - 4 Bar Yes - 3 metres	Yes - 4 Bar
Emergency backup if power fails <ul style="list-style-type: none"> Full functional UPS Compressor for ventilator backup Battery backup for ventilator 	Yes - 30 minutes Yes - Air only, more than 12 hours Yes - 300 hours	Yes - 30 minutes Yes - Air only, more than 12 hours Yes - 300 hours	Yes - 30 minutes
UPS <ul style="list-style-type: none"> Type Circuit breaker Operating input range Power backup (mins) 	2 KVA double on-line Yes 110-330 VAC 45/65Hz 30	2 KVA double on-line Yes 110-330 VAC 45/65Hz 30	2 KVA double on-line Yes 110-330 VAC 45/65Hz 30
Oxygen Flush	Yes	Yes	Yes
Scavenger for exhaled gas	Yes	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	Yes, autoclavable Yes Anodised aluminium with 4 antistatic castors and brakes
PEEP	0-20 cm H ₂ O	0-20 cm H ₂ O	0-20 cm H ₂ O
Patient Monitoring	Optional	Optional	Optional
Power supply	230 VAC, 50 Hz	230 VAC, 50 Hz	230 VAC, 50 Hz
Machine dimensions and weight	54 x 66 x 145cm 120kg	54 x 66 x 145cm 102kg	54 x 66 x 145cm 74kg

