



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...

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

Glostavent® Helix

Patient monitor options

There is a range of patient monitors to suit customer preferences.

- Can be powered via the UPS to protect the electronics
- Choice of measurement parameters
- Choice of screen size and functionality

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

Patient circuit

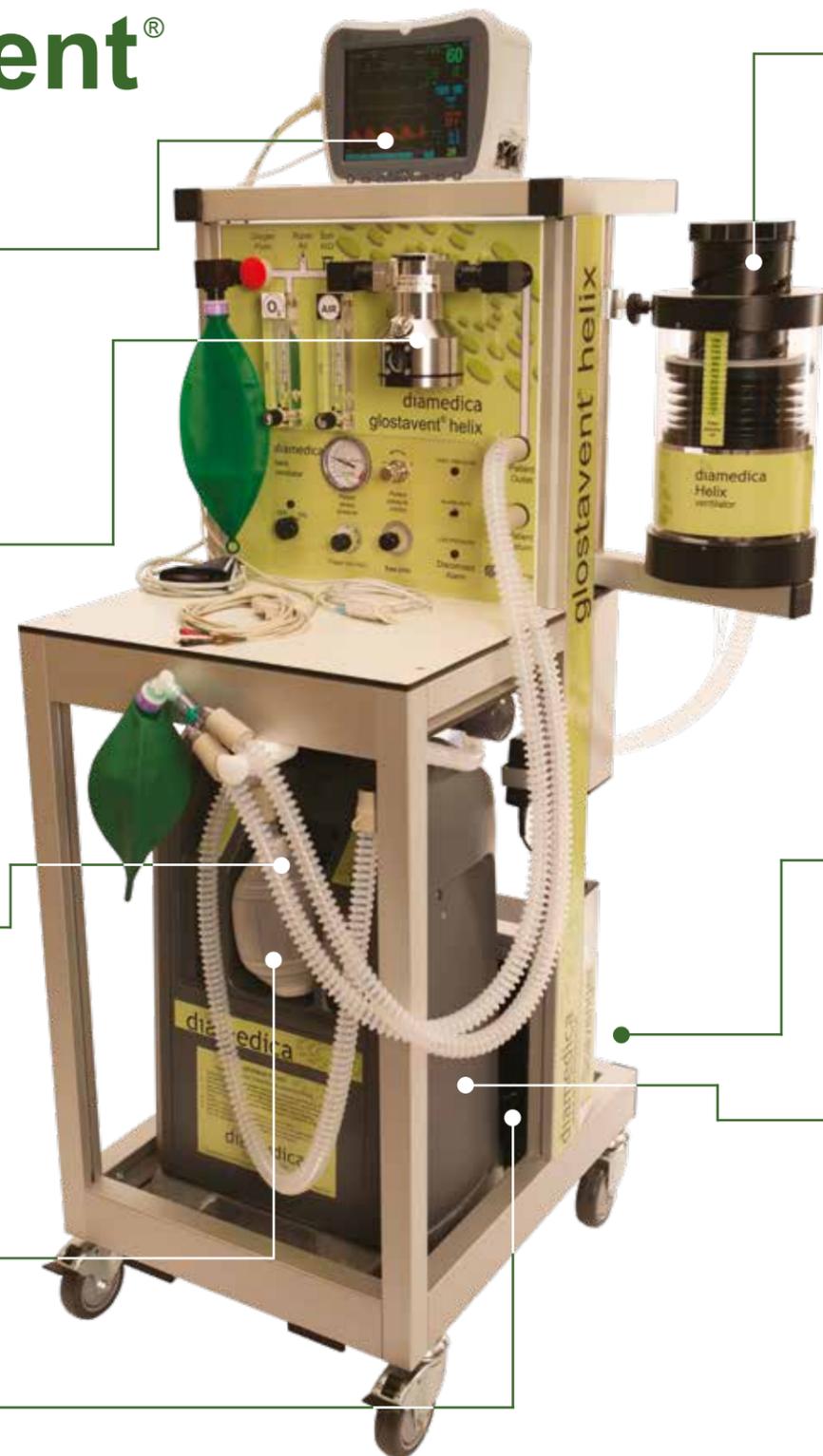
- Each Glostavent® is supplied with a complete set of patient circuits for adult, paediatric and neonatal use, including all tubing and valves required for anaesthetic delivery.
- Easy to clean and maintain. Many Glostavent® Helix components are autoclavable, while others are reusable after disinfection

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

Glostavent® Standard

The original Glostavent® with pneumatic ventilator



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[®] Standard

Glostavent[®] ECO2

Vaporiser

- 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
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Ventilator function

- 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 H₂O
>20psi: 1/6 minute volume

Adult/paediatric/neonate
Time cycled, volume limited, pressure generator
Pneumatic
Driven by oxygen from the concentrator with cylinder back-up
35 - 1000ml
1 : 2
High and low with LED indicators
0 - 40°C
>100 hours
4 to 40 breaths/min
90% within 3 hours
8-50cm water
Triggered 1-5cm H₂O
>20psi: 1/7 minute volume

N/A

Manual Ventilation

Self inflating bag

Self inflating bag

Self inflating bag

Integral Oxygen Concentrator

- 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

10 l/pm
10 l/pm
Audible failure alarm, low oxygen light
Yes
590W

Alternative oxygen supply option

- 4 bar regulator with connection for oxygen cylinder
- 3 metre whip hose for pipeline oxygen

Yes
Yes

Yes
Yes

Yes

Emergency backup if power fails

- 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 - 100 hours

Yes

UPS

- 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

2 KVA double on-line
Yes
160-300 volts 50Hz +/- 4%
30

Oxygen Flush

Yes

Yes

Yes

Scavenger for exhaled gas

Yes

Yes

Yes

Additional standard items

- Adult, paediatric and neonatal circuits
- Autoclavable drugs tray
- Workstation

Yes, autoclavable
Yes
Anodised aluminium with 4 antistatic castors and brakes

Yes
Yes
Anodised aluminium with 4 antistatic castors and brakes

Yes, autoclavable
Yes
Anodised aluminium with 4 antistatic castors and brakes

PEEP

0-20 cm H₂O

0-20 cm H₂O

0-20 cm H₂O

Patient Monitoring

Optional

Optional

Optional

Power supply

160-300 Volts

160-300 Volts

160-300 Volts

Machine dimensions and weight

54 x 66 x 145cm 102kg

54 x 66 x 145cm 112kg

54 x 66 x 145cm 74kg

