Helix Portable Ventilator

a versatile ventilation system assisting breathing around the world

First choice
Ideal as first response in disaster situations

Flexible
Portable and driven by air or oxygen

Sustainable
No electricity required - functions when power fails

A robust, reliable, respiratory solution
Helix Portable Ventilator

**Versatile**
- Can be used as standalone equipment, or in conjunction with Diamedica’s Portable Anaesthesia systems
- Suitable for adult and paediatric patients
- For use in theatre, post-operative ventilation or in ICU or PICU
- Provide effective and efficient ventilation in difficult environments
- Ideal as first response ventilator for disaster and conflict situations or remote outreach work
- Will use drive gas from any suitable source including oxygen concentrator, cylinder or air compressor
- Suitable for low resource settings

**Cost effective**
- Do not require the use of high flow rates of expensive compressed gases
- A single 10 l/min oxygen concentrator can run three Helix Adult/Paediatric Ventilators
- Very low running costs
- Require minimal maintenance

**Reliable**
- Function in the absence of electricity
- Internal battery life of 100hrs

**Optional extra: Helix Compressor Pump**
- A battery powered air compressor pump can be supplied that will power the Helix Portable Ventilator for emergencies and remote situations where there is no electricity to operate an oxygen concentrator and there are no compressed gas cylinders
- Packed in a small Peli case weighing less than 3kg, the Helix Compressor Pump contains internal battery, battery charger and pump which will run the ventilator for up to 20 hours continuously on a single charge

**Design highlights**
- Use only low flow rates of gas
- Recycles drive oxygen to patients
- Optional shockproof and waterproof Peli case

See over for technical information
# Helix Portable Ventilator

## Specifications

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
<th>Inspiratory pressure range</th>
<th>Breaths per minute</th>
<th>Triggered breathing control</th>
<th>Drive pressure/volume</th>
<th>PEEP depending on circuit used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires electricity to function</td>
<td>No</td>
<td>8 - 40 cm H₂O</td>
<td>4 - 40</td>
<td>1 - 5 cm H₂O</td>
<td>&gt;20 psi 1/4 minute volume</td>
<td>0 - 20 cm H₂O</td>
</tr>
<tr>
<td>Mode of operation</td>
<td>Time cycled, volume limited, pressure generator</td>
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<tr>
<td>Ventilator type</td>
<td>Pneumatic piston driven</td>
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<tr>
<td>Drive gas</td>
<td>Any suitable gas source: oxygen concentrator, cylinder or air compressor</td>
<td></td>
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<tr>
<td>Suitable for non-invasive ventilation</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Suitable for invasive ventilation</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Tidal Volume</td>
<td>50 - 1200 ml</td>
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<td></td>
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<tr>
<td>Inspiratory/expiratory ratio</td>
<td>1: 2</td>
<td></td>
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<tr>
<td>Alarms</td>
<td>High and low pressure with LED indicators, disconnect, mute</td>
<td></td>
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<td></td>
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<tr>
<td>Power supply</td>
<td>A/C, vehicle D/C, battery backup</td>
<td></td>
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<tr>
<td>Internal rechargeable battery backup</td>
<td>&gt;100 hours</td>
<td></td>
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<tr>
<td>Weight and dimensions</td>
<td></td>
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<tr>
<td>Weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.8 kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Height: 40 cm, Diameter: 23 cm</td>
</tr>
<tr>
<td>CE certified by an internationally recognised notified body</td>
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<td>Yes</td>
</tr>
</tbody>
</table>

## Training and support

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