1. DESCRIPTION AND FUNCTION

The ResusBag is a portable, manually operated resuscitator, available in three sizes designed for adults, children and infants. The resuscitator is operated by squeezing the bag which forces air out through the patient-valve. On release the bag self-inflates, drawing air through the intake-valve. During exhalation, the patient-valve directs the exhaled gases to the atmosphere. Spontaneous breathing can be effected through the patient-valve.

If oxygen enrichment is required, the intake-valve incorporates a nozzle for the attachment of oxygen tubing. When higher oxygen concentrations are necessary, the Oxygen Reservoir can be fitted to the intake-valve.

The patient-valve has a standard 15/22mm taper for attachment of an E.T. tube or a facemask.

2. COMMISSIONING INSTRUCTIONS

The ResusBag is supplied with a facemask, O2 reservoir and O2 drive line. On receipt check out and familiarise yourself with the equipment. Check connectors for compatibility with other equipment that may be used, especially oxygen cylinders/regulator tubing.

3. TOXIC ATMOSPHERES

The ResusBag should not be used in toxic atmospheres. The casualty should be moved away from fumes, smoke and gases before ventilation commences. If these recommendations are not followed, the toxic vapours and gases may enter the casualty’s lungs.

During breathing, this resuscitator does not prevent inspiration of toxic vapours and gases present in the atmosphere.

4. USE WITH OXYGEN

Where oxygen is available connect the oxygen drive line to the nozzle on the intake-valve and fit the reservoir bag. Concentrations of up to 95% are attainable, see technical specification.

Oxygen from a cylinder should be supplied through a suitable regulator.

IMPORTANT: TO AVOID FREEZING THE INTAKE-VALVE, OXYGEN FLOW RATE SHOULD NOT EXCEED 10 LITRES/MIN.

5. RESUSCITATION GUIDELINES

Open mouth, clear airway of all foreign matter and fluids. The use of an Emergency Aspirator is recommended. Tilt head fully backwards and push the jaw upwards with neck stretched to open the airway.

To assist ventilation it may be beneficial to insert an artificial airway. Be careful that it does not push the tongue back and thus obstruct the throat.

Hold mask tightly to victim’s face, covering mouth and nose, tilt head fully backwards, mask-holding hand lifting jaw forward. Squeeze the bag smartly and watch chest expand.

Release pressure on the bag suddenly and allow the chest to deflate. Repeat 12-20 times per minute, or 30 times in the case of infants.

If adequate ventilation is not achieved with the resuscitator, immediately revert to expired air ventilation (mouth-to-mouth, or mouth-to-nose).

6. CAUTIONS WITH CHILDREN

Hazards of over-inflation

Over-inflation of the lungs can occur, especially in children, if an excessive tidal volume is delivered and/or when an endotracheal tube is used. Inflation of the stomach can occur if an excessive tidal volume is delivered or if the airway is partially obstructed. The infant and child resuscitator feature a non-re-breathing valve with a special pressure-limiting device mounted on the upper valve housing. If inspiration meets with pulmonary resistance of approximately 45cm H2O, the device opens, reducing the risk of stomach distension. A hissing sound can be heard when the device opens.

Spontaneously breathing patients

It is important, particularly with spontaneously breathing children, to keep the dead space to a minimum by using the correct size facemask. This ensures the minimum amount of exhaled CO2 is re-breathed.

7. MAINTENANCE AND STORAGE

Basic Functional Test

Two simple functional checks may be carried out to check operation.

1. Squeeze the bag, ensuring that the bag deflates and then inflates without hesitation (within 1 second).

2. Obstruct the 15/22mm outlet and squeeze the bag firmly, a resistance should be felt. This test ensures correct function of the valves.

Affix a label to the equipment indicating disposal date. Store away from sunlight, ozone, and extremes of heat and cold. The design life of this product is 1 year, after which it should be replaced (See table for disposal information).

8. DISPOSAL INFORMATION

<table>
<thead>
<tr>
<th>Part</th>
<th>Material</th>
<th>Disposal Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient-Valve</td>
<td>Polycarbonate</td>
<td>To be disposed of by a Medical Devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Company.</td>
</tr>
<tr>
<td>Intake-Valve</td>
<td>K-Resin</td>
<td>To be disposed of by a Medical Devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Company.</td>
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<tr>
<td>Diaphragms</td>
<td>Silicone</td>
<td>To be disposed of by a Medical Devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Company.</td>
</tr>
<tr>
<td>Blue Bag</td>
<td>Natural Rubber</td>
<td>To be disposed of by a Medical Devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Company.</td>
</tr>
<tr>
<td>Mask</td>
<td>Polyvinyl Chloride</td>
<td>To be disposed of by a Medical Devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Company.</td>
</tr>
<tr>
<td>O2 Drive Line &amp; Reservoir</td>
<td>Polyvinyl Chloride</td>
<td>To be disposed of by a Medical Devices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disposal Company.</td>
</tr>
</tbody>
</table>

9. TECHNICAL SPECIFICATION

<table>
<thead>
<tr>
<th>ResusBag</th>
<th>Adult</th>
<th>Child</th>
<th>Infant</th>
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<tbody>
<tr>
<td></td>
<td>1600</td>
<td>500</td>
<td>240</td>
</tr>
<tr>
<td>ResusBag (ml):</td>
<td>2600</td>
<td>2600</td>
<td>600</td>
</tr>
<tr>
<td>Holding Volume</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Patient Weight (Kg): | 30+ | 7-30 | 4-6* |
| Max. Frequency (BPM): | 85  | 168  | 180  |
| Stroke volume (ml):  | 900 | 360  | 175  |

* The Infant ResusBag is not designed for use with Neonates

Conforms to Safety & Performance Standards:

- ISO8382
- ISO8382
- ISO8382

Patient Connection (ISO5356):

- 15/22mm
- 15/22mm
- 15/22mm

Storage Temperature Range:

-40 to 60°C
-40 to 60°C
-40 to 60°C

Operating Temperature Range:

-18 to 50°C
-18 to 50°C
-18 to 50°C

Carton Dimensions:

- 146 x 146 x 308mm
- 146 x 146 x 308mm
- 146 x 146 x 308mm

Net Weight:

- 600g
- 410g
- 350g

Warning

There is an increased risk of fire or explosion when oxygen is used in flammable or explosive atmospheres. Avoid smoking, naked flames or sources of ignition. Use no oil or grease. Do not dump or drop cylinders. Keep cylinders cool. Turn off oxygen cylinders when not in use.
Guarantee

Terms of Guarantee

Subject to the conditions listed below, Vitalograph Ltd. and its associated companies, (hereinafter called the Company) guarantee to repair or at its option replace any component thereof, which, in the opinion of the Company is faulty or below standard as a result of inferior workmanship or materials.

The conditions of this guarantee are:-

1. This Guarantee shall only apply to defects which are notified to the Company or to its accredited distributor within 1 year of the date of purchase of the equipment, unless otherwise agreed in writing by the Company.

2. This Guarantee does not cover any faults caused by accident, misuse, neglect, tampering with the equipment, use of consumable items or parts not approved by the Company, or any attempt at adjustment or repair other than by personnel accredited by the Company.

3. If a defect occurs please contact the supplier from it was purchased for advice. The Company does not authorise any person to create for it any other obligation or liability in connection with Vitalograph® equipment.

4. This Guarantee is not transferable and no person, firm or company has any authority to vary the terms or conditions of this guarantee.

5. To the maximum extent permitted by law, the Company does not accept liability for any consequential damages arising out of the use of, or inability to use any Vitalograph® equipment.

This Guarantee is offered as an additional benefit to the Consumer's statutory rights and does not affect these rights in any way.

Note: Additional copies of these instructions are available upon request from the manufacturer.

Warranty

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Oxygen Concentrations

<table>
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<tr>
<th>Litres/min:</th>
<th>3</th>
<th>5</th>
<th>10</th>
<th>10</th>
<th>4</th>
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<tbody>
<tr>
<td>Breathing Frequency:</td>
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<td>12</td>
<td>12</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Inflation Volume (ml):</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>250</td>
<td>40</td>
</tr>
<tr>
<td>With Reservoir (%):</td>
<td>68</td>
<td>85</td>
<td>95</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Without Reservoir (%):</td>
<td>34</td>
<td>47</td>
<td>66</td>
<td>70</td>
<td>85</td>
</tr>
</tbody>
</table>

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