

# Vitalograph

## ResusBag

### User Instructions



**Important:** the ResusBag should only be used by persons who have received adequate training in resuscitation techniques.

#### 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 affected by the victim breathing in through the intake-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.

#### Commissioning Instructions

The ResusBag is supplied with a facemask, O<sub>2</sub> reservoir and O<sub>2</sub> 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.

#### 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.

#### 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 L/min.

#### Warning

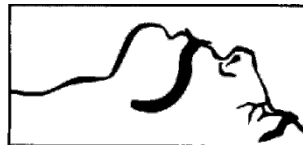
There is an increased risk of fire or explosion when oxygen is used in flammable or explosive atmospheres. Avoid smoking, naked flames or sources of ignition. Use no oil or grease. Do not dump or drop cylinders. Keep cylinders cool. Turn off oxygen cylinders when not in use.

#### 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.



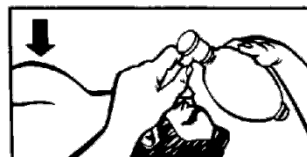
To assist ventilation it may be beneficial to insert an artificial airway. Be careful that it does not push the tongue back and thus obstruct the throat.



Hold mask tightly to victim's face, covering mouth and nose, tilt head fully backwards, with the 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).

#### 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 H<sub>2</sub>O, 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 CO<sub>2</sub> is re-breathed.

#### Maintenance And Storage

For Autoclavable ResusBags, a routine annual check including visual inspection and functional testing should be carried out. A log recording the maintenance record should be kept, as well as affixing a label to the equipment indicating check date and next due date. After use the ResusBag should be disassembled for cleaning & disinfection. When dry, re-assemble and conduct visual & functional checks. Update the maintenance log. To prolong the resuscitator life, it is advisable to store it away from sunlight, ozone, and extremes of heat and cold. The design life of this product is 5 years, after which it should be replaced.

For Single-Use ResusBags, a basic functional test (see below) should be carried out to check operation. 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 5 years. The Single-Use ResusBag is to be disposed of after use.

All components should be disposed of by a Medical Devices Disposal Company.

#### Dismantling and Re-Assembly (Autoclavable ResusBag only)

The ResusBag may simply be dismantled for disinfecting, sterilisation and/or replacement of parts as shown in Fig (1). Re-assembly is simply a reversal of the dismantling procedure.

#### Basic Functional Test

Two simple functional checks should be carried out to check operation (in the case of Autoclavable ResusBags, after re-assembly and visual inspection).

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 and should be performed regularly.

#### Disinfecting And Sterilisation (Autoclavable ResusBag only)

The ResusBag may be completely dismantled for disinfecting/sterilisation or part dismantled as required. Dry before re-assembly.

Part	Material	Recommendation
Patient-valve	Polysulphone	Wash in warm water mild detergent. Rinse in clean water. Autoclave*.
Intake-valve	Polysulphone	Wash in warm water mild detergent. Rinse in clean water. Autoclave*.
Diaphragms	Silicone	Wash in warm water mild detergent. Rinse in clean water. Autoclave*.
Silicone Bag	Silicone	Wash in warm water mild detergent. Rinse in clean water. Autoclave*.
Mask	Polysulphone & Silicone	Wash in warm water mild detergent. Rinse in clean water. Autoclave*.
O <sub>2</sub> Drive Line & Reservoir	Polyvinyl Chloride	Dispose

\*For sterilisation, Vitalograph recommends that all parts of the Autoclavable ResusBag device be autoclaved at 134°C for 4 minutes, except the O<sub>2</sub> Drive Line and Reservoir, which are disposable.

#### Warning

The Single-Use ResusBag is to be disposed of after use

## Spares, Accessories & Consumables (Autoclavable ResusBag only)

Cat No.	Adult	Child	Infant
Autoclavable ResusBag	22400	22401	22402
Single-Use ResusBag	22403	22404	22405
Autoclavable Mask (10)	22503	22504	22505
Single-Use Mask (10)	22468	22469	22496
O2 Reservoir Bag with PSF Connector	22509	22509	22510
Oxygen Drive Line	22508	22508	22508

## Technical Specification

ResusBag	Adult	Child	Infant
Patient Weight (Kg):	30+	7-30	4-6*
Max Frequency (BPM):	85	168	180
Stroke Volume (ml):	850	280	110
Holding Volume:			
ResusBag (ml):	1600	500	240
Reservoir Bag (ml):	1000	1000	600
Conforms to Safety & Performance Standards:	ISO8382	ISO89382	ISO8382
Patient Connection (ISO5356):	15/22mm	15/22mm	15/22mm
Storage Temperature Range:	-40°C to 60°C	-40°C to 60°C	-40°C to 60°C
Operating Temperature Range:	-18°C to 50°C	-18°C to 50°C	-18°C to 50°C
Carton Dimensions	146 x 146 x 308mm	230 x 170 x 140mm	230 x 170 x 140mm
Net Weight (autoclavable bag)	350g	215g	175g
Net Weight (single-use bag)	360g	195g	175g

## Oxygen Concentration

Oxygen flow rate – Litres/min:	3	5	10	10	4
Rate of ventilation (Breaths per minute) – giving an inflation volume of (ml):	12	12	12	20	30
Oxygen delivered – With Reservoir (%):	68	85	95	98	98
Without Reservoir (%):	34	47	66	70	85

\* The Infant ResusBag is not designed for use with Neonates.

## 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.

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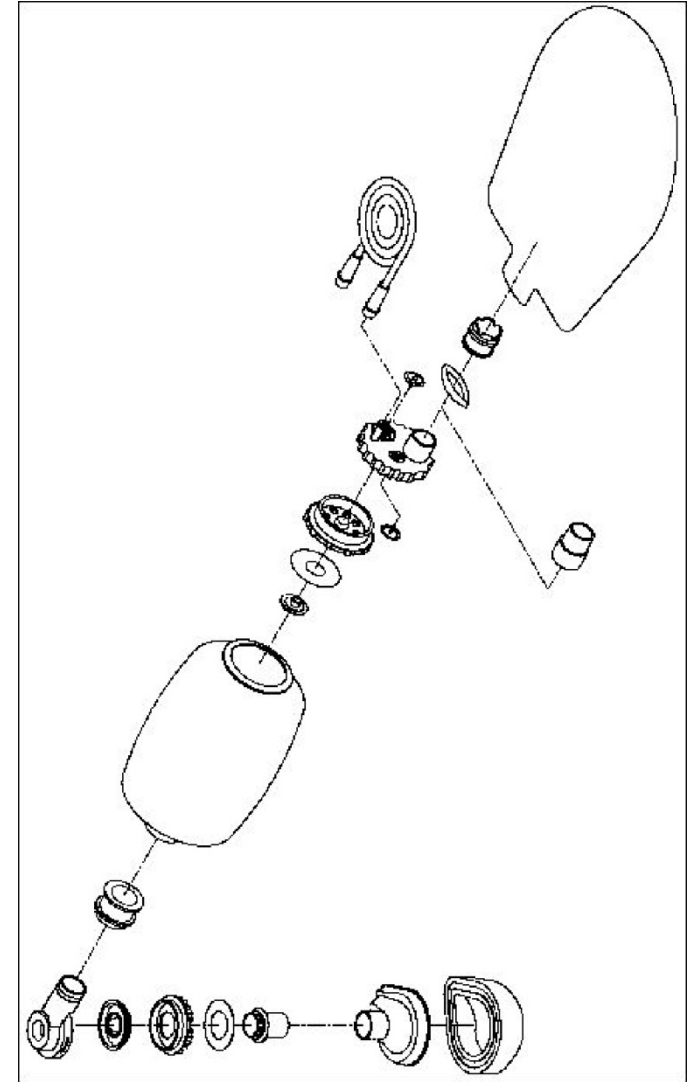


Figure 1.