o_two controlled™ ventilation

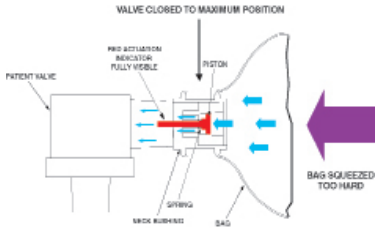
SMART BAG®

“Improving ventilation, one breath at a time!”

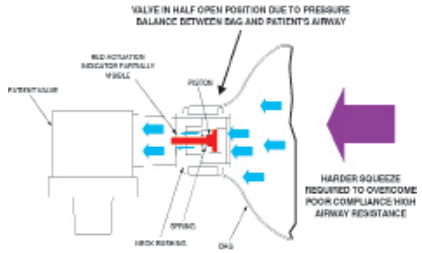
Since its introduction, the Bag-Valve-Mask resuscitator (or BVM) has been the mainstay of emergency ventilation in both the pre-hospital and hospital environments. However, the use of these devices has been shown to have clinically detrimental effects on the patient. Decreased venous return to the heart, decreased coronary perfusion pressure, gastric insufflation and increased brain ischemia in the traumatic brain injured patient are all issues created by what is called **"Inadvertent Hyperventilation"** (the accidental delivery of an excessive minute volume).

SMART BAG® provides controlled ventilations while virtually eliminating the risks associated with conventional BVM ventilation and "inadvertent hyperventilation". The patented actuating mechanism inside the neck bushing actively responds to the rescuer and the patient!

By responding to the rescuer's squeeze and release of the BVM, the **SMART BAG®** limits the excessive flow of gas into the patient's airway, lowering the airway pressure generated and significantly reducing the risks of "inadvertent hyperventilation". If the bag is squeezed too hard the ***SMART Valve*** moves to lower the flowrate and the bag becomes stiff to squeeze. The airway pressure is kept to the minimum required to achieve adequate ventilation. The **SMART Valve** movement is visible through the patient valve body providing a visual, as well as the tactile and audible warning of improper technique. At no time is the flow of gas into the patient compromised.



If the patient's airway is less compliant or more restrictive (as in patients with COPD or asthma), higher airway pressures may be required to provide adequate ventilation. In responding to this increased pressure requirement, the **SMART BAG®** will allow you to apply higher flowrates generating higher airway pressures to overcome the resistance/compliance problem but only when the patient's airway condition requires them. By pressure balancing the ***Smart Valve*** to provide adequate ventilation you will "feel" this change in compliance and resistance as the **SMART BAG®** allows the higher flowrates to be generated.



Specifications

Bag Volume:	Adult 1700 ml
	Child 470 ml
Reservoir Volume:	Adult 2700 ml
	Child 2700 ml

Inspiratory Resistance: 3.3 cmH_2O
Expiratory Resistance: 2.2 cmH_2O
Storage Temp. Range: -40 to 60°C (-40 to 140°F)
Operating Temp (approx.): -18 to 50°C (0 to 122°F)
Patient Valve
Dead Space: 8.0 ml

By "self-adjusting" to both the patient and the rescuer, the **SMART BAG®** optimizes the Ventilations, controlling the inspiratory time and keeping the delivered flowrate and subsequent airway pressure to the minimum required for adequate ventilation. This results in a significant reduction in the risks associated with "inadvertent Hyperventilation" and its associated complications.

Available in both single use and re-usable silicone versions the **SMART BAG®** provides the controlled ventilation necessary for improved outcomes for patients in respiratory and/or cardiac arrest.

NOTES:

[1] Because of the unique nature of the SMART BAG®, new users will require minimal orientation in the use of the device.

[2] The resuscitator is not intended for use during spontaneous breathing. Due to the nature of these devices, they may only provide a restricted flow of air to the patient and little or no supplemental oxygen.

[3] In the unprotected airway, as with any resuscitation device, the risk of gastric insufflation will increase if the delivered flowrate increases the airway pressure generated above the Lower Esophageal Sphincter opening pressure.

Ventilation Timing Lights

To further assist the rescuer optional CPR Ventilation Timing Lights are available. Calibrated to provide a respiratory rate of 10 breaths per minute for adults and 20 breaths per minute for infants (in line with the current resuscitation guideines), the Ventilation Timing Lights guide the rescuer to deliver the correct inspiratory and expiratory timing.

Ordering information:

01BM3201-Cs Disposable SMART BAG® (Adult)
incl., Cuffed Facemask and Reservoir System (Case/12)
01BM3211-Cs Disposable SMART BAG® (Child)
incl., Cuffed Facemask and Reservoir System (Case/12)
01BM3100 Silicone SMART BAG® (Adult)
incl., Silicone Universal Resuscitation Mask and Oxygen Reservoir System in Cardboard Carton
01BM3110 Silicone SMART BAG® (Child)
incl., Silicone Universal Resuscitation Mask and Oxygen Reservoir System in Cardboard Carton

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