

## *AirBridge EBAS* *[Emergency Breathing Assistance System]* *A Wipro 3D - Chitra Product*

The AirBridge EBAS (Emergency Breathing Assistance System) has been jointly developed by Wipro 3D and Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST), based on know-how and initial design provided by SCTIMST (Dept. of Science & Technology, Government of India).

It is a device that employs motorized compression and natural decompression of a Bag Valve Mask (BVM) to provide positive pressure and volume-controlled ventilation to a patient requiring immediate assistance or support in breathing.

It provides sustained but temporary breathing/ventilation support in emergency situations, to patients with varying lung compliances. The device is not a replacement for mechanical ventilators.

- For Hospitals – For patients requiring emergency ventilation, patients being transported inside a hospital, patients in an ambulance etc.
- For Industries, Corporate Campuses, Educational Institutions – As a part of the First Aid kit, for use in emergency situations
- Low-cost & portable solution to assist patients in breathing



Design of the AirBridge EBAS



## AirBridge EBAS

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### Specifications:

Sr. No.	Parameter	Technical Specification Rating
1	Breath Rate	10 - 30 BPM
2	Tidal Volume	200 - 500 mL
3	I:E Ratio	1:1 To 1:5
4	Minute Volume	6 - 15 LPM
5	Flow Rate	12 - 55 LPM

### Key features:

- Compact, portable design
- Full control over Tidal Volume, Inspiratory and Expiratory times, I:E Ratio, Breaths per Minute, Minute Volume and Flow Rate
- Alarms for changes in Tidal Volume, BPM, I/E Times from the set values
- 2.8" TFT screen display
- Easy access to Bag for emergency intervention (SOS)
- Fully 17 Volt DC controlled circuit inside the unit
- Voltage Adapter (AC to DC)
- 3-hour Battery backup
- Compliance as per ISO 10651-3, IS 10796 and MHRA - UK guidelines for RMVS

### DISCLAIMERS:

- Features of the device are subject to change post testing and clinical trials.
- Design of the device shown in the image on the previous page is for representation purposes only. The design is subject to change.



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### Testing Data:

Device performance waveforms on laboratory testing with test lung are shown below.

Test conditions:

- Tidal volume = 500 ml
- BPM = 20
- I:E Ratio = 1:2
- PEEP = 5 cmH<sub>2</sub>O

