

Training and Support

VIASYS® offers a full range of training and support with dedicated clinical application specialists. Our training centers are located worldwide and include hands-on training, applications and labs taught by experienced clinicians and engineers. We offer extensive courses at premiere medical centers with skilled, published users. On-site training is also available.



Superior Performance and Warranty

Performance

The SensorMedics 3100B has a long-standing reputation for high quality, performance and reliability. Thousands of our ventilators are used worldwide and exemplify superior performance with a rugged and simple design.






Warranty

VIASYS offers standard and extended warranties customized to fit your needs. You may be assured that your devices are covered and that we have a full-service customer support department available whenever you require assistance. Our technical support technicians are available around-the-clock for your urgent clinical and technical questions.



VIASYS Healthcare seeks to improve patient care by delivering innovative, high quality respiratory products and services to patients and clinicians worldwide. VIASYS exceeds the expectations of customers by providing the highest standards in customer care. VIASYS shapes the future of medical technology through collaborative investigation and development of advanced technologies, providing continued support for clinical research and education.

Product Areas

-  Ventilation
-  Pulmonary Diagnostics
-  Sleep Medicine
-  Spirometry
-  CPET/Nutritional Assessment

References

1. High-frequency oscillatory ventilation for acute respiratory distress syndrome in adult patients. Derdak, S. Crit Care Med 2003;31:317-323
2. Using High-Frequency Oscillatory Ventilation to Treat Adults with Acute Respiratory Distress Syndrome. Hynes-Gay P et al. Crit Care Nurse 2001;21(5):38-47.
3. Prospective, Randomized Comparison of High Frequency Oscillatory Ventilation and Conventional Mechanical Ventilation in Pediatric Respiratory Failure. Arnold JH et al. Crit Care Med. 1994;22:1530-1539.
4. High Frequency Oscillatory Ventilation in Pediatric Respiratory Failure. Arnold JH et al. Crit Care Med. 1993;21:272-278
5. High Frequency Ventilation for Acute Pediatric Respiratory Failure. Rosenberg RB et al. Chest. 1993;104:1216-1221.
6. Ventilation with lower tidal volumes as compared with traditional tidal volumes for acute lung injury and acute respiratory distress syndrome. Brower R, et al. NEJM 2000; Vol 342 No 18; 1301 - 1308
7. Hemodynamic Effects of High Frequency Oscillatory Ventilation in Severe Pediatric Respiratory Failure. Gutierrez JA et al. Inten Care Med. 1995;21:505-510.
8. Flexible Fiberoptic Bronchoscopy in Pediatric Patients Receiving High Frequency Oscillation. (Abstract) Maggi JC. 1994 Society of Critical Care Medicine - 23rd Educational and Scientific Symposium
9. High-frequency oscillatory ventilation in adult acute respiratory distress syndrome. David M et al. Intensive Care Med Oct 2003;29(10):1656-1665.
10. Multiple System Organ Failure. Slutsky A, Tremblay L, ARCCM 1998; 157: 1721 - 1725
11. Lung Volume Recruitment During High Frequency Oscillation in Atelectasis Prone Rabbits. Byford U et al. J Appl Physiol. 1988; 64:1604-1614.
12. Understanding the pressure cost of ventilation: Why does high-frequency ventilation work? Venegas JG et al. Crit Care Med 1994;22(9):549-57
13. Pillow J. High Frequency Oscillatory Ventilation: Mechanism of Gas Exchange and Lung Mechanics. Crit Care Med 2005; Vol 33 No. 3; 135 - 141.
14. Imai Y, et al. Comparison of Lung Protective Strategies Using Conventional and High Frequency Oscillatory Ventilation. J Appl Physiol 2001 91; 1836 - 1844.
15. Carney D, DiRocco J, Nieman G. Dynamic Alveolar Mechanics and Ventilator Induced Lung Injury. Crit Care Med 2005; Vol 33 No. 3; 122 - 128.
16. High Frequency Oscillatory Ventilation: Lessons from the neonatal/pediatric experience. Froese A, Kinsella J. Crit Care Med 2005; Vol 33 No 3; 115 - 121
17. Mechanisms of gas transport during ventilation by high-frequency oscillation. Chang HK et al. J App Physiol 1984;56(3): 553-563
18. Care of the Child Supported on High Frequency Oscillatory Ventilation. Curley MA. AACN Clinical Issues in Critical Care Nursing 1994;5(1):49-58
19. Comparison of lung protective ventilation strategies in a rabbit model of acute lung injury. Rotta AT et al. Crit Care Med 2001;29(11):2176-2184

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VIASYS[®]
HEALTHCARE
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L2839-101 Rev A

VENTILATION

SensorMedics®
3100B HFOV
pediatric • adult

Ventilation Requires Perfect Balance



VIASYS[®]
HEALTHCARE

The True Meaning of Lung Protective Ventilation

A randomized, controlled trial comparing HFOV and conventional ventilation in an adult patient population with severe ARDS demonstrated that HFOV is both safe and effective and resulted in a 29% relative reduction in mortality.¹ Ongoing research will serve to broaden the use of HFOV, while streamlining its application.

FDA Information on the 3100B

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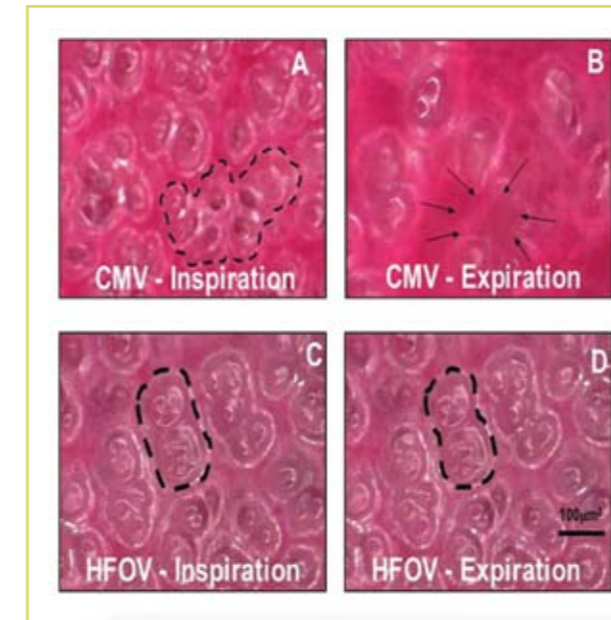
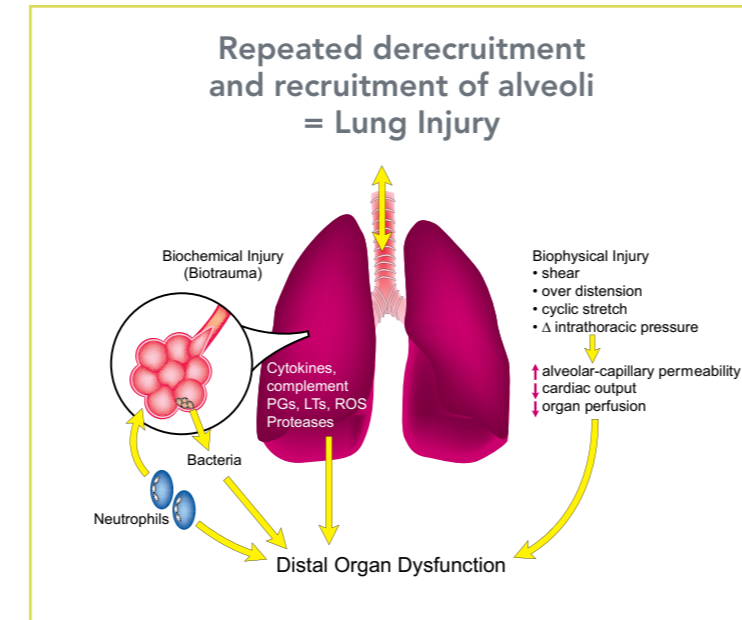
CDRH Consumer Information

“What will it accomplish?” Like all ventilators, this device will breathe for a patient by delivering oxygen to the patient’s lungs and removing carbon dioxide. However, this high-frequency ventilator may produce less injury than conventional ventilators. A clinical study showed better survival for patients treated with the high-frequency ventilator as compared to those treated with a conventional ventilator. Also, the high-frequency ventilator patients were more likely to successfully breathe on their own after six months....”

Exerpt from:
<http://www.fda.gov/cdrh/mda/docs/p890057s014.html>

The Science Says It All

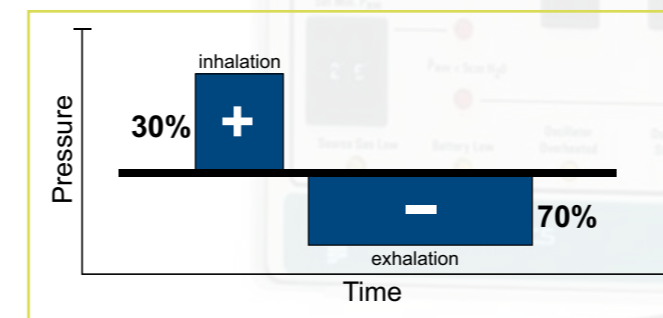
The SensorMedics 3100B signals the arrival of the next generation of High Frequency Oscillatory Ventilators. Based on the established technology of the Model 3100A ventilator, the 3100B HFOV adds the enhanced performance capabilities necessary for adult ventilation and is approved for the treatment of acute respiratory failure in adults and large children weighing more than 35 kilograms. The 3100B allows the application of continuous distending pressures up to 55 cmH₂O to recruit and normalize lung architecture while ventilating the patient with near deadspace tidal volumes for the ultimate in low stretch lung protection.



When the lung is damaged by conventional ventilation, it may lead to chronic changes. Other organs may be compromised by harmful cytokines and proteins released into the bloodstream.¹⁰ The SensorMedics 3100B can decrease the risk of these complications by maintaining a constant distending pressure and normalizing the end expiratory lung volume.¹⁴

Unique Technology

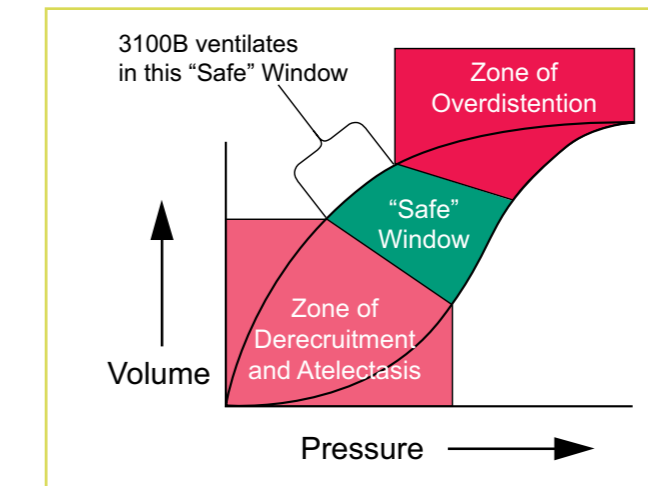
- SensorMedics 3100B produces an active exhalation.¹³ This is essential at high frequency respiratory rates to prevent air trapping that may occur with high frequency ventilators that utilize passive exhalation.
- Patented technology is distinguished from other high frequency ventilators by its highly-reliable electromagnetically driven piston.
- Design permits variable I:E ratios, which are desirable for managing ventilation.



3100B offers adjustable inspiratory time: 30 - 50%

Ventilation Requires Perfect Balance

The SensorMedics® 3100 series goes beyond convention. As the gold standard in high frequency oscillatory ventilation, the SensorMedics 3100B has changed the way clinicians around the world ventilate by setting the benchmark for open lung, low stretch, lung protective strategies. This unique technology was built upon the understanding that gentle lung recruitment and optimal ventilation require perfect balance.



Froese AB, Crit Care Med 1997; 25:906

There is no other high frequency device that can ventilate patients that are over 35 Kgs. According to the ARDSnet protocol, pediatric and adult patients with ARDS should be ventilated with small tidal volumes.⁶ The 3100B easily incorporates this philosophy. Utilizing less than deadspace tidal volumes, the 3100B makes small tidal volume management easier to achieve.¹⁶

