

Uncompromised

Uncomplicated

Unconstrained

Welcome to the future of anesthesia – Aisys\* Carestation\*



The way you practice today may be different from the past. Diverse patient types and co-morbidities make your world challenging. Intubating difficult airways, monitoring and treating neonates, understanding drug effects — it's all in a day's work.

Along with all those challenges, you're managing patients through the critical pre- and postoperative periods while trying to balance the cost pressures and drive operating efficiencies.

# Designed around you.



## Designed for you.

With total cost of ownership in mind, the Aisys Carestation is an anesthesia delivery management solution that is taking the clinical world by storm. Our most advanced Carestation, The Aisys Carestation performs like a vigilant partner, managing routine but critical perioperative tasks without tiring. This allows you to focus attention on your patient, use your time more efficiently and improve your workflow.

With the Aisys Carestation, you're planning for the future while protecting your investment. The Aisys Carestation's track record as a modular and upgradeable solution continues to bring emerging technologies like advanced ventilation modes, lung ventilation procedures, and neonatal/pediatric capabilities into everyday practice.



### Integrated

Our anesthesia delivery system's primary elements – ventilator, vaporizer, and gas delivery – are digitally controlled and measured, so you can fully integrate devices, therapies and information systems at the point of need.



### Intelligent

The Aisys Carestation provides measured information in real time and trended data to your information systems and patient electronic medical records. It also lays the groundwork for innovative patient care solutions, such as GE Healthcare's Navigator<sup>®</sup> Applications Suite.



### Precise

The Aisys Carestation precisely measures gases and agents, alarming for low agent levels on all supported agents and accurately records agent consumption which, along with the low volume and architecture of the breathing system, helps provide rapid response to setting changes.



### Comprehensive

The Aisys Carestation meets the needs of a variety of patient types with SmartVent<sup>®</sup> critical perioperative advanced ventilation. The latest 7900 SmartVent is dynamic and flexible enough to accommodate a broad range of patients.

# The Aisys Carestation

Designed with low cost of maintenance and workflow efficiency in mind



**Ventilation Management**  
Ventilation to meet the needs of a variety of patient types, including those that require intensive ventilation, such as older, heavier, and even neonatal patients. GE brings premium digital flow valve technology similar to its critical care ventilator as standard to all of its current anesthesia ventilation solutions.



**Advanced Breathing System (ABS)**  
At a small volume of 2.7 liters, the advanced breathing system of the Aisys Carestation helps drive rapid wash-in, wash-out times, and fast-response times.



Neonatal Ventilation

**Electronic Gas Mixing**  
GE raises the bar for electronic anesthesia gas mixing systems by offering a 500 millisecond mixer response time, even during dramatic flow changes. Dual flow sensing technology helps ensure reliable operation as gas flow is checked up to 200 times per second



Lung Ventilation  
PROCEDURES

**Service and support**  
Simplified, reliable, and predictable service and support that helps protect your investment.



### Patient Monitoring

Scalable, modular and flexible, GE's broad portfolio of patient monitors was designed to provide the right decision support at the point of need and throughout the continuum of care. Advanced parameter technologies help you tailor anesthesia settings while optimized screen layouts enable fast decision-making whenever potential problems occur. Intelligent alarms offer preset limits for essential parameters and can be adapted to suit critical situations.

### Navigator Applications Suite\*

Navigator Applications Suite software is a smart technology that analyzes drug therapy information to help model and predict the effect of supported anesthesia-related drugs and drug interactions. It helps provide valuable information to support you in optimizing patient management based on your clinical judgment. Navigator provides quick access to a continuous flow of centralized, relevant information.

### Low Agent Alarm

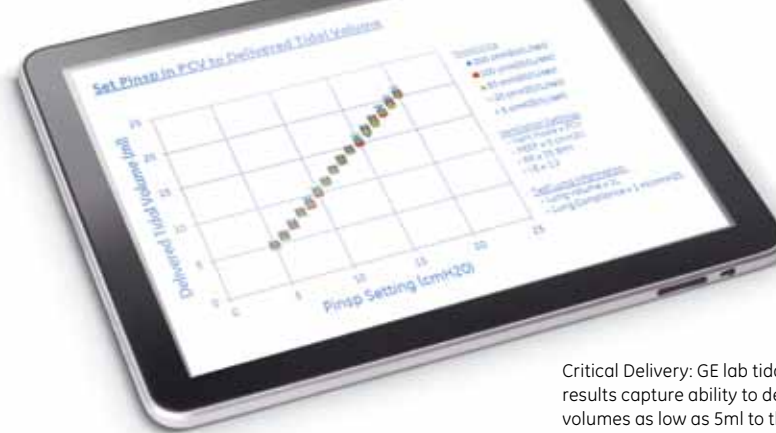
The Aisys alerts you when you are getting low on anesthetic agent, allowing you to swap on the fly and manage your cases without interruption.

### AIMS Ready

Effective EMRs like GE's Centricity Perioperative Anesthesia\* are only as good as the data they gather. That's why our current fleet of GE anesthesia systems offer high-quality integration with data collection from medical devices and seamless integration with hospital information systems.

Aisys Carestation shown featuring CARESCAPE® Monitor B850 and Centricity Perioperative Anesthesia\*. Also available with Navigator Applications Suite\*, software that analyzes drug therapy information to help model and predict the effect of supported anesthesia-related drugs and drug interactions.

- Delivering tidal volumes as low as 5ml in PCV mode
- Precision volume and pressure delivery to the patient wye, breath by breath, to help reduce the challenges in managing neonatal and pediatric patients
- Pause Gas feature simplifies temporary circuit disconnects any time. One button stops all gas flows and suspends alarms, agent delivery, and ventilation, allowing time to focus on the patient
- Circuit Compliance Compensation ensures that what you set is what you get — showing precisely what is delivered to the patient, taking into account volume in the patient circuit



Critical Delivery: GE lab tidal volume test results capture ability to deliver tidal volumes as low as 5ml to the patient in PCV mode<sup>1</sup>

# Uncompromised neonatal and pediatric ventilation

Aisys with 8.x software



A neonatal patient's physiology and small physical size make effective mechanical ventilation much more challenging.<sup>2</sup> With the Aisys Carestation—designed and specified for neonatal patients—you can confidently deliver volumes as low as 5ml to the patient.

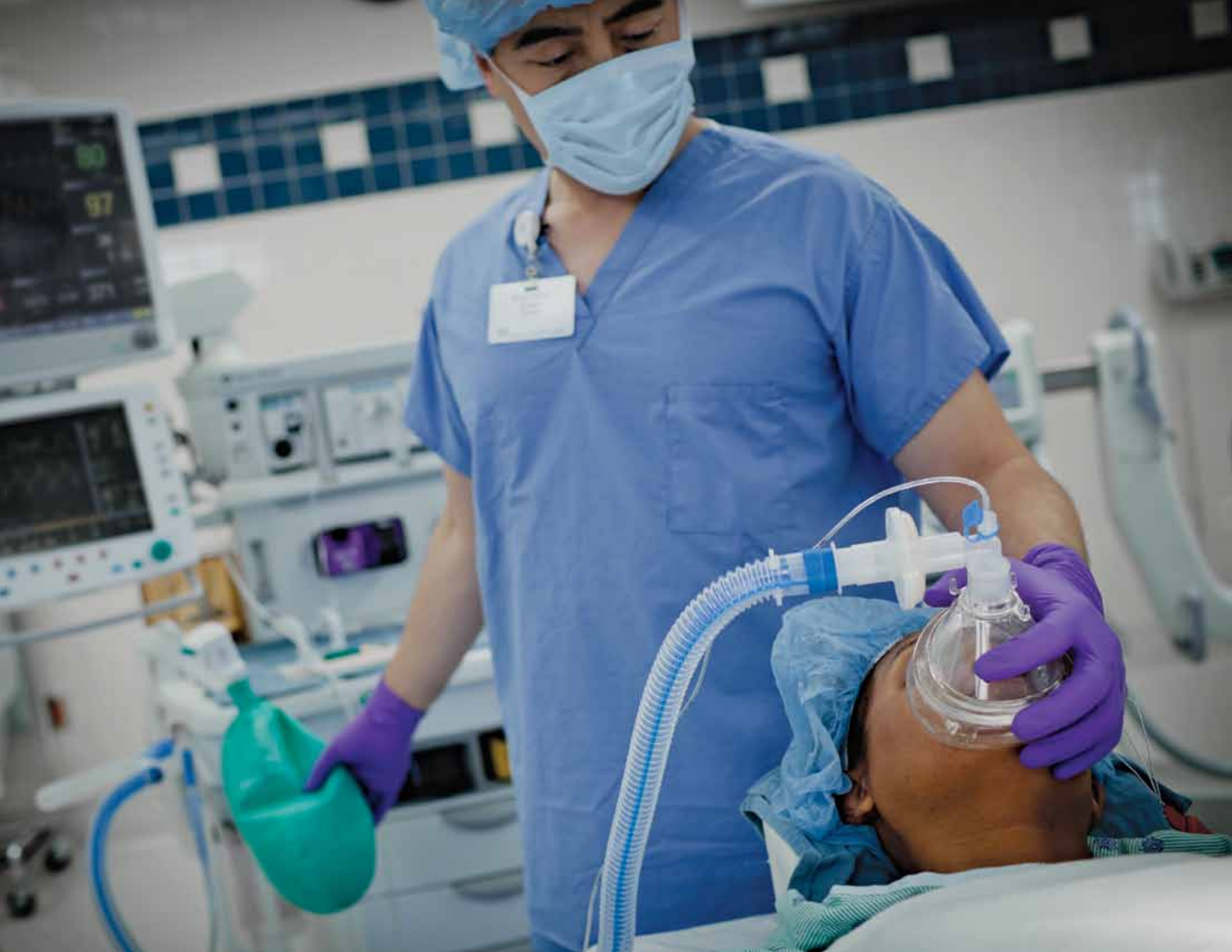
## **Fast & Accurate: What you set is what you get**

How can you be assured that the tidal volume delivered by your anesthesia system matches the tidal volume delivered to the patient? GE's advanced flow valve technology brings ICU style ventilation technology into the operating room to measure precise and accurate volumes delivered directly to the patient. GE's digital flow valve technology helps clinicians reach targeted pressures quickly, maximizing time available for gas exchange across a wide range of patient types. Fast, accurate, and powerful, GE's digitally controlled flow valves respond to changes in the patient's airway pressure or respiratory efforts up to 250 times per second.





Delivering tidal volumes as low as  $5\text{ml}^1$  to the patient







Lung oxygenation issues may occur during anesthesia and can persist postoperatively, potentially contributing to significant complications and adding additional, unnecessary costs<sup>3</sup> to an already squeezed budget. Clinicians have relied on manual lung recruitment procedures in anesthesia to address patient complications such as atelectasis.

### There's a lot of ability in the Aisys Carestation.

Aisys with 8.x software features the ability to arm clinicians with tools they can use to automate lung procedures helping increase positive pressure in the airways for improved ventilation.

The lung ventilation procedures of Vital Capacity and Cycling may be useful in helping clinicians with patients experiencing lung complications during anesthesia.

### Vital Capacity

The Vital Capacity procedure automates the manual bag 'squeeze and hold'. PEEP can be programmed at the end of the procedure to help sustain an open lung.<sup>4</sup>

### Cycling

Cycling is a procedure that allows the clinician to configure a lung ventilation maneuver. Programmable steps allow for increasing and decreasing PEEP levels during mechanical ventilation.

### Compliance trending

The Aisys Carestation provides compliance measurements that show real time effectiveness of automated lung procedures.

# Uncompromised lung ventilation



Vital Capacity



Cycling Procedures



Spirometry Loop and Compliance Trending

# Anesthesia Drug Delivery Management

## Addressing your most pressing challenges.

Whether you practice inhalational anesthesia, intravenous anesthesia or regional anesthesia, it is important to optimize the delivery of the volatile, hypnotic, and opiate drugs to the patient. GE Healthcare's new product innovations are specifically designed to assist the caregiver with this vital task.

The Aisys Carestation is supported by all the strengths and benefits of GE. With breadth and depth across healthcare, energy, sensing and information technology and more, GE leverages expertise in a broad spectrum of technologies to innovate solutions that anticipate your specific needs today, tomorrow, and beyond.



### 1. Digital Delivery, Vaporization, and Data

Gas and agent consumption measurements help you track usage and improve efficiency



### 2. Advanced Breathing System (ABS)

The compact (2.7 l) breathing circuit ensures that the patient receives changes to fresh gas flow and anesthetic agent immediately.



### 3. Navigator Applications Suite

Navigator helps provide valuable predictive drug modeling and synergistic interaction information to support you in optimizing patient management based on your clinical judgment. Navigator provides quick access to a continuous flow of centralized, relevant information.



### 4. Adequacy of Anesthesia

Advanced GE technologies like Entropy\* are helping to broaden the scope of anesthesia delivery and patient care that reinforces our commitment to provide clinical measurements for the components required for general anesthesia



### 5. Uncompromised Ventilation

GE's digital flow delivery technology helps clinicians reach targeted pressures quickly, maximizing time available for gas exchange across a wide range of patient types



### 6. Investment Protection

The Aisys Carestation is modular and upgradeable, yet maintains the same familiar user interface fresh gas delivery as our traditional flow tube-based anesthesia machines



### 7. Venue\* 40

Precision and exceptional image quality in an intuitive and affordable system for ultrasound-guided regional anesthesia



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## About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at [www.gehealthcare.com](http://www.gehealthcare.com).

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imagination at work

## Sources:

- 1 GE benchmark studies from 2011: GE Healthcare PCV to Tidal Volume Data Collection Test Results. Actual results may vary and are dependent on the patient. DOC0933949/DOC0970424
- 2 Pulmonary compliance in healthy neonates is 20-25 times lower (<05 ml/cm H2O) than in healthy adults (100-150 ml/cm H2O). In addition, a healthy neonate lung shares many characteristics with the lungs of an adult with diffuse pulmonary distress syndrome (low FRC and high close volume with tendency to atelectasis). Source: Carlo WA, Greenough A and Chantburn RL. Advances in conventional mechanical ventilation At: New therapies for neonatal respiratory failure: a physiological approach. New York 1994. Cambridge University Press. P 131-151.
- 3 British Journal of Anaesthesia 2003; 91: 61-72. New concepts of atelectasis during general anaesthesia.
- 4 Anesthesiology 2003; 98:14-22 Effects of recruitment maneuver on atelectasis in anesthetized children.