

Focusing on sustainability in patient care solutions



Carestation™ 600 Series
Anesthesia Delivery System



GE HealthCare

Creating a more sustainable future requires us to care for the planet and its inhabitants

It is essential that we continue to drive progress toward early, precise, and accessible diagnosis and treatment of more patients. For the planet, it is critical that we do so with a reduced impact on precious and rare resources that are imperative to life. We believe that the advancement of precision medicine, greater digitization of healthcare, and increased access to quality care are fundamental to accomplishing this goal.

We support carbon policies that reduce greenhouse gas emissions and promote sustainable development. GE HealthCare is committed to achieving net zero by 2050 and we have signed up to the Science Based Targets initiative (SBTi) business ambition for 1.5C, a group of visionary corporate leaders taking ambitious climate action, and we have committed to implementing science based targets. This includes a public goal to reduce operational emissions (scope 1 and 2) by 50% by 2030 against a 2019 baseline. As a result of these efforts, we want to enable a more sustainable health system by addressing not only the environmental impacts of our products, but also the challenges healthcare professionals and their patients face with resilient, digital solutions.



We are committed to achieving net zero emissions by 2050.

We've set a public goal to reduce operational emissions (scope 1 and 2) by 50% by 2030.

Leading a new era in sustainability for a more resilient tomorrow

We're creating a world where healthcare has no limits, helping to improve access to care and enable better patient outcomes.



Environmental

Using fewer resources for a healthier planet.

Digital

Transforming healthcare through innovation.

Resilience

Building flexibility and dependability across healthcare systems.

Carestation 600 Series helps create a more sustainable tomorrow

Our Carestation™ 600 Series Anesthesia Delivery System and its services help ensure clinicians and the patients they serve have the technology necessary to create a more sustainable and resilient tomorrow.

Reducing environmental impact

- Minimizing greenhouse gas emissions from agent waste
- Tracking inhalation anesthetic agent usage and cost
- Encouraging green, low-flow anesthesia practices gas emissions.

Improving care

- Helps prevent post-operative pulmonary complications (PPCs)^{1,2} with lung protective ventilation (LPV) tools
- Avoid delivery of hypoxic mixtures with ecoFLOW safeguards
- Self-guided equipment checkout helps prevent patient injury³
- Financial outcomes may improve by adopting low-flow anesthesia
- Operational efficiencies can be gained with automated maneuvers

¹ Futier E., Constantin J.M., Jaber S. Protective lung ventilation in operating room: a systematic review. *Minerva Anesthesiol.* 2014; 80: 726-735

² Guldner A., Kiss T., Serpa Neto A. et al. Intraoperative protective mechanical ventilation for prevention of postoperative pulmonary complications: a comprehensive review of the role of tidal volume, positive end-expiratory pressure, and lung recruitment maneuvers. *Anesthesiology.* 2015; 123: 692-713

³ Mehta SP, Eisenkraft JB, Posner KL, Domino KB. Patient injuries from anesthesia gas delivery equipment. *Anesthesiology* 2013; 119: 788-95.



Contributing to a healthier planet

More than half of the healthcare sector's climate footprint, approximately 53%, is attributable to energy use.⁴ As a result, we have strengthened our commitment to environmentally conscious design and we are implementing more sustainable practices across our product manufacturing, sourcing, distribution, installation, and service operations. This includes improving energy efficiency, optimizing the use of limited or rare materials, providing digitally enabled service throughout the product lifespan, and offering refurbishment and recycling options at the end of product life.

GE HealthCare environmental management system is ISO 14001 certified

Our production and service operations align to ISO 14001 standards.

We're committed to environmental product design

This product conforms with IEC60601-1-9:2007.⁵

⁴ Health care climate footprint report | Health Care Without Harm (noharm-uscanada.org), based on 2019 report
⁵ IEC 60601-1-9 Compliance Test Results for Carestation 600 series. Refer to GE HealthCare DOC1839715.

Materials

GE HealthCare reviews the environmental aspects of the material supply used within our products to increase recyclability and decrease the use of hazardous substances, when possible.

Recyclability

We're committed to high recyclability of our products and reuse when possible.

Carestation 600 Series materials are recycled according to the product WEEE Passport.⁶

Reduce the use of hazardous substances

EU RoHS directive 2011/65/EU.⁷

REACH (EC) 1907-2006.⁸

⁶ Waste Electrical and Electronic Equipment (WEEE) Passport for Carestation 600 series. Refer to GE HealthCare DOC1787581.

⁷ RoHS Compliance Report for Carestation 600 series. Refer to GE HealthCare DOC1607306.

⁸ ARC EU REACH Substance Compliance Information for Carestation 600 series. Refer to GE HealthCare DOC2798430.



Packaging materials

GE HealthCare anesthesia equipment has a robust and multi-sourced supply chain for systems and spare parts across our product portfolios.

Product packaging

Carestation 600 series packaging material in the Wuxi, China, site consists of the following materials (% per weight):

- Wood: 89%
- Cardboard: 6%
- Metal: 3%
- Other: 2%

Carestation 600 series packaging material in the Madison site consists of the following materials (% per weight):

- Cardboard: 41%
- Wood: 16% (Wood follow SFI)
- Metal: 3%
- Other: 40%

Manufacturing

Through our environmental reviews, we also focus on implementing more renewable energy and reducing waste, when possible.

Renewable energy

Solar power system generates 1,000,000 kWh/year which is 16.7% of total consumption

Reducing electricity

Through our environmental reviews, we are committed on implementing renewable energy and reducing waste in our manufacturing



Product utilization

Our anesthesia products are designed to help enable energy efficiency through dedicated features and advanced applications to reduce the environmental impact. Ergonomic design can help to enhance health and potentially reduce environmental impacts, such as reducing waste and saving energy.

Medical electrical equipment

Complies with IEC 60601-1-6 Collateral standard: Usability⁹

Medical devices

Part 1: Application of usability engineering to medical devices¹⁰

Power consumption

- Boot up time from press power switch to Checkout GUI display in system is 49.62 s¹¹
- Active Mode: 54.17 W¹²
- Standby Mode: 0.1 W¹²

⁹ IEC 60601-1-6 Compliance Test Results for Carestation 600 series. Refer to GE HealthCare DOC1561677.

¹⁰ IEC 62366-1 Compliance Test Results for Carestation 600 series. Refer to GE HealthCare DOC1605157.

¹¹ Boot up time Test Results for Carestation 600 series. Refer to GE HealthCare DOC2836217.

¹² Power Consumption Test Results for Carestation 600 series. Refer to GE HealthCare DOC1954308.

End of product life

We are increasingly putting our retired products' materials back into the supply chain to maximize efficient use and minimize unnecessary waste. This circularity model enables our anesthesia delivery products to extend their clinical impact through longer lifespans while reducing the environmental footprint. Additionally, we offer our customers support for upgrades and services throughout a product's lifespan, when available, to maintain optimal performance and help drive better patient outcomes.

Our refurbishment programs involve an extensive inspection and testing process, designed to bring equipment back to its original certified manufacturing specifications. If the system is not suitable for refurbishment, eligible parts are harvested for reuse after quality and performance testing, while the remaining parts are returned to dedicated recycling facilities.

Product utilization

Guidance for end of lifecycle

Equipment instructions are provided to minimize the environmental impact for disposal or recycling.

Guidance for product utilization

Disposal instructions in the User Manual 2076152-001 and product WEEE DOC1787581

Upgrades and updates to extend the product lifespan

Software and hardware upgrades are available to extend product life with new optional configurations.

Expected Service Life for Carestation 600 series is 7 years

Waste reduction

This system is in accordance with Waste Electrical and Electronic Equipment (WEEE) regulations¹³

Cybersecurity

GE HealthCare's Design Engineering Privacy and Security (DEPS) process follows GDPR, HIPAA, NIST 800-53, NIST 800-30, ISO 27001, and NIST CSF requirements

¹³ Waste Electrical and Electronic Equipment (WEEE) Passport for Carestation 600 series. Refer to GE HealthCare DOC1787581.

Digitizing healthcare through transformative innovations for a more resilient tomorrow

We are committed to investing in digital capabilities that help accelerate clinical decision making, optimize anesthesia delivery operations, and drive efficiencies in perioperative workflows, all of which can improve patient outcomes. Enabling digital transformation will further enhance our predictive and maintenance service operations for the life of your products.

We are also dedicated to driving a more resilient and sustainable future in healthcare. Many factors, including the pandemic, climate-related weather disasters, and supply-chain issues amplified this need. Managing operations through these challenges requires resilience and perseverance.

Optimizing anesthesia delivery

Our advanced software algorithms on the Carestation 600 anesthesia machines are designed to increase efficiencies in perioperative care without increasing the training or sustainability burden on healthcare providers.

Automated lung protective ventilation (LPV) software*

Programmable, step-by-step lung recruitment maneuvers help automate repetitive tasks used during lung ventilation procedures. An exit PEEP feature lets the clinician keep the lung open after the procedure is complete.

ecoFLOW anesthesia software

- With ecoFLOW clinicians can practice low-flow anesthesia by predicting how much O₂ is needed within the fresh gas flow for each patient to minimize the risk of delivering a hypoxic mixture.
- ecoFLOW allows clinicians to view anesthetic agent consumption and cost in real time on the machine display to help them adjust settings as needed.
- Using ecoFLOW software allows clinicians to practice low-flow anesthesia delivery with confidence and ease, helping to minimize volatile agent waste that contributes to greenhouse gas emissions.

* Available only on the Carestation 650 machine.



Optimizing anesthesia delivery

AMSORB® Plus CO₂ Absorbent

Enhance your positive impact on the environment when you use AMSORB® Plus CO₂ Absorbent with the Carestation 600 series anesthesia machine. This unique absorbent is designed to trap CO₂ from being emitted into the atmosphere, and its sustainable material does not harm the environment.

- **Eco-friendly**—Breaks down into harmless organic compounds, so it's easier on patients and staff and potentially simpler to dispose of
- **Efficient**—Violet color indicator lets you know when it's time to change the canister, improving confidence in clinical and purchasing decisions
- **Cost-effective**—Low-flow anesthesia delivery reduces consumption of the anesthetic agent and lowers overall cost of ownership

Cleanability

Our equipment is designed to be cleaned and disinfected easily. We continue to test and approve new cleaning and disinfecting agents. Visit [Cleaning.GEHealthCare.com](https://www.gehealthcare.com/cleaning) for updates.



Creating a healthy world to help enable better patient outcomes.

GEHealthCare.com/about/sustainability

Not all products or features are available in all geographies. Check with your local GE HealthCare representative for availability in your country. Commercial availability of GE HealthCare medical systems is subject to meeting local requirements in a given country or region. Not all features are included in the standard system configuration. Contact a GE HealthCare representative for more information. Intended for healthcare professionals only.

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