

GE Healthcare

# EVERYTHING FLOWS TOGETHER

Avance\* CS<sup>2</sup> with ecoFLOW



# ANAESTHESIA REMASTERED. A CARESTATION FOR THE MODERN AGE.

How do you deliver the exciting potential of new technology and integrate it seamlessly into a familiar platform? You have to create a new, modern class of anaesthesia system and ground it with practical user-friendly features so that everything flows together.

Although redesigned from the ground up, we built the Avance CS<sup>2</sup>\*\* using familiar platform components from the original Avance Carestation\*, leveraging our 100-year expertise as a global leader in anaesthesia delivery. We then chose to enhance it even further with innovative technologies and intuitive workflow features for those who value sophisticated, high-acuity care.

Anchoring the Avance CS<sup>2</sup> is a sleek user-interface enabled by a beautiful 15-inch touchscreen display. See for yourself how it can help take the work out of your workflow.

With everything flowing together, the Avance CS<sup>2</sup> isn't just another anaesthesia delivery system. It's a Carestation.







INTRODUCING  
**ecoFLOW**





# LOW FLOW. HIGH IMPACT.

Clinicians skilled in the practice of low and minimal flow anaesthesia delivery understand that sometimes less is more. That's why we developed ecoFLOW, an efficient anaesthesia delivery technology that helps you avoid unnecessarily high fresh gas flow rates while providing visual guidance to help optimize patient oxygenation. Anaesthetic agents are not only costly, but scientific evidence suggests that excess inhaled agents released into the atmosphere have the potential to affect the environment<sup>1</sup>. Offered on the Avance CS<sup>2</sup>, ecoFLOW may have a positive impact on the environment when agent waste gases are reduced.

Bringing anaesthesia technologies like ecoFLOW to the forefront of your OR care has its benefits.

Our ecoFLOW technology brings a new way of displaying oxygen and agent flow tubes. Through an easy to understand digital display, the ecoFLOW option can show you your pre-set target and calculate cost per hour of agent used.



## PATIENT

ecoFLOW helps optimize patient oxygenation. Rapid wash-in and wash-out of oxygen and anaesthetic agent may help optimize time and workflow in the operating room.



## ECONOMICAL

Using less agent means spending less money, which can have a positive impact on your bottom line.



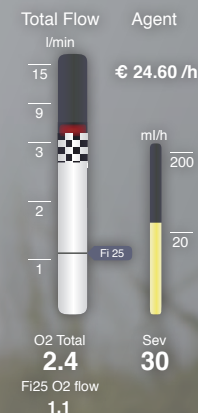
## ECOLOGICAL

Efficient, lower flow reduces agent and gas waste, addressing concerns about volatile greenhouse gas emissions<sup>2</sup>.

## ECOFLOW TECHNOLOGY

A new way to look at flow tubes with information to help you ensure adequate oxygenation guidance.

The illustration shows flows above the Fi25 target as potential waste gas or excess to the patient's consumption.



## ECOFLOW SAVINGS

ecoFLOW shows you a target and calculates cost per hour of liquid agent that corresponds to your set flow and vaporizer setting.

Use the information to adjust O<sub>2</sub> flow to help avoid hypoxic delivery or excess O<sub>2</sub> delivery.

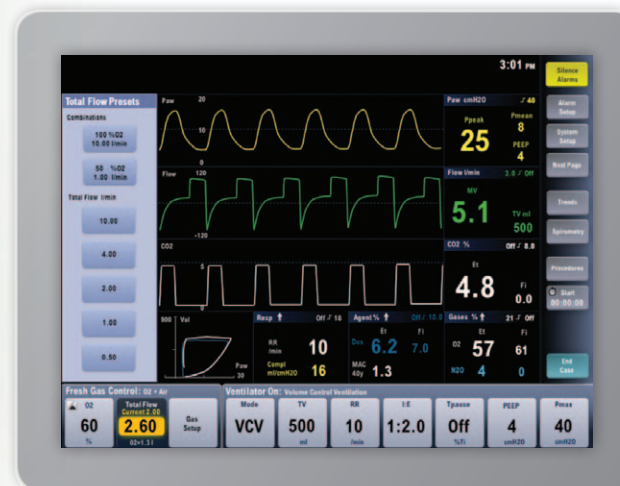




# PRECISE CARE. WITH A PERSONAL TOUCH.

We know how much time you spend working with anaesthesia systems. In fact, we analyzed countless Avance Carestation data logs reviewing keystrokes and menu interactions to design intuitive menus and alarms along with a user interface that truly fits the way you work.

Every Avance CS<sup>2</sup> represents a convergence of our premium anaesthesia and patient monitoring heritage. We've seamlessly integrated patient monitoring and data management through a user interface similar to our CARESCAPE<sup>®</sup> monitors. Featuring the same engaging touch screen technology found on most consumer digital devices today, the 15-inch ventilator display makes navigation, monitoring and operation easy and intuitive. With time-saving quick pick choices, flat menus and tunneling alarms, the Avance CS<sup>2</sup> can help you deliver precise care with a personal touch every day.



# TURN WORKFLOW INTO CAREFLOW.

The advanced features and technologies built into the Avance CS<sup>2</sup> were thoughtfully designed to work together to make your workflow easier. We engineered each piece of hardware, software and technology to not only be innovative on their own merit, but to fit together in harmony so everything just works.

We've built our ventilation engine around the electromagnetic proportional flow valve that precisely controls delivered volumes and pressures similar to those found in ICU ventilators like our Engström\* Carestation. This helps you ventilate the most difficult patients, from neonates, to the lung compromised to the morbidly obese.

## ADEQUACY OF ANAESTHESIA\*

The Adequacy of Anaesthesia (AoA) concept is our commitment to provide clinical measurements for the components required for general anaesthesia. These measurements help you deliver tailor-made anaesthesia to each patient. The components of the Adequacy of Anaesthesia concept are Entropy\*, Surgical Pleth Index\*\*, Neuromuscular Transmission and Haemodynamic Parameters.

## NAVIGATOR\* APPLICATIONS SUITE

The Navigator Applications Suite provides PK/PD modeling for clinical decision support to help you balance drug delivery. Predictive drug modeling, including synergistic interaction with total drug effect display can support you in optimizing patient management based on your clinical judgment.



Neonatal Ventilation



Lung Ventilation  
PROCEDURES



Advanced Breathing  
System (ABS)



Adequacy of  
Anaesthesia







# GREATER THAN THE SUM OF ITS PARTS.

- 1 FLEXIBLE 15-INCH TOUCH SCREEN DISPLAY
- 2 CENTRAL BRAKE
- 3 TWO OR THREE VAPORIZER OPTION
- 4 DUAL-LEVEL ILLUMINATED DESKTOP
- 5 ERGONOMIC GRIPS AND HANDLES
- 6 ADVANCED BREATHING SYSTEM
- 7 INNOVATIVE GE HEALTHCARE GAS MONITORING TECHNOLOGY
- 8 CARESCAPE MONITOR B650 WITH ADEQUACY OF ANAESTHESIA (AoA) SOFTWARE SPECIFICALLY DESIGNED FOR YOUR OPERATING ROOM NEEDS





# SAFETY IN NUMBERS. OVER A CENTURY OF ANAESTHESIA INNOVATION.

From Thomas Edison's first commercially viable light bulb to our first fully digital<sup>3</sup> anaesthesia Carestation, we've continued to redefine what's possible. Today, we provide anaesthesia technologies in nearly every country in the world, collaborating closely with clinicians like you to impact the lives of your patients.

OVER  
**100**  
YEARS  
IN ANAESTHESIA

OVER  
**100**  
CURRENTLY  
ACTIVE PATENTS<sup>4</sup>

OVER  
**100**  
THOUSAND UNITS  
SOLD WORLDWIDE<sup>5</sup>

1 There are several online resources available to learn more about the environmental impact of anaesthetic agents including:

General Anesthetic Gases and the Global Environment (author Yumiko Ishizawa, MD, MPH, PhD) Anesth. Analg. September, 2010  
Global Warming Potential of Inhaled Anesthetics: Application to Clinical Use  
(authors: Susan M. Ryan, MD, PhD, and Claus J. Nielsen, CSc) International Society for Anaesthetic Pharmacology July 2010  
[www.anesthesia-analgesia.org](http://www.anesthesia-analgesia.org)

2 Schober P, Loer SA. Closed system anaesthesia—historical aspects and recent developments. Eur J Anaesthesiol 2006;23:914–20

3 Aisys Carestation primary elements including ventilator, vaporizer and gas delivery are digitally controlled.

4 As of May 2012, active GE Healthcare anaesthesia and respiratory patents issued in the United States.

5 Anaesthesia machine shipments over the past 25 years based on GE Healthcare shipping data.

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\*\* Not available for sale in all markets. Not available for sales in the United States. Not cleared or approved by the U.S. FDA.

Please check with your sales representative.

Always refer to the complete instructions manuals before use.

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GE imagination at work