Experience the Flow

Streamlined workflow with the compact Flow-c

This document is intended to provide information to an international audience outside of the US.

GETINGE

A smoother workflow for busy ORs

Crowded workspaces. Packed schedules. Different patients. Complex techniques. These are the challenges you face every operation, every day.

That is why we've developed the Flow-c: a compact anesthesia machine where every detail has been designed to ease your daily work.

With innovation and smart design, Flow-c helps you to create an efficient working environment to ensure the highest standards of care.

Experience the Flow.

Designed with you
– to get work flowing

Every detail of the Flow-c has been thoughtfully designed in collaboration with clinicians to ease your daily work in the fast-paced OR.

Easy to use
The intuitive touch screen gives you one point of control for all functions. The system's simplicity of operation saves time and contributes to safety in busy ORs. Tools are right where you want them, so you can work in an ergonomic and comfortable position.

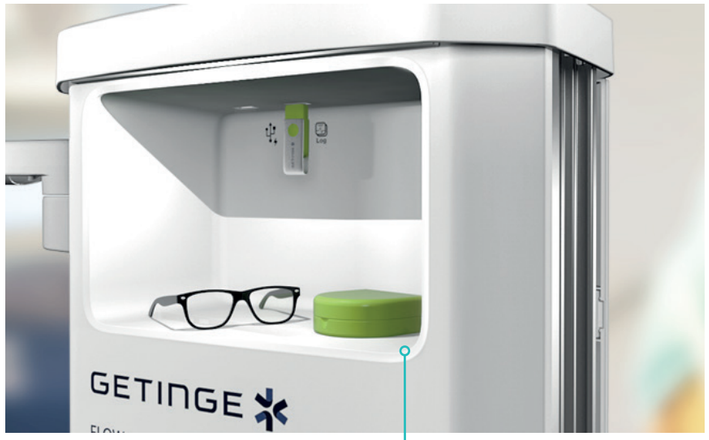
Flexible mounting
Mounting capabilities are one area where our focus on design innovation stands out. Despite its compact footprint, Flow-c packs in a greater rail length than other machines on the market. We were determined that its compact form should add flexibility, not limit it, and we have used every millimeter of space to the full. Rails are stepless, so you can personalize your Flow-c, adding monitors, tables and other accessories where it best suits you.

Cable management without clutter
The back of the Flow-c minimizes the clutter of hoses and cables. These are neatly routed and covered by specially designed panels, contributing to improved hygiene and safety.

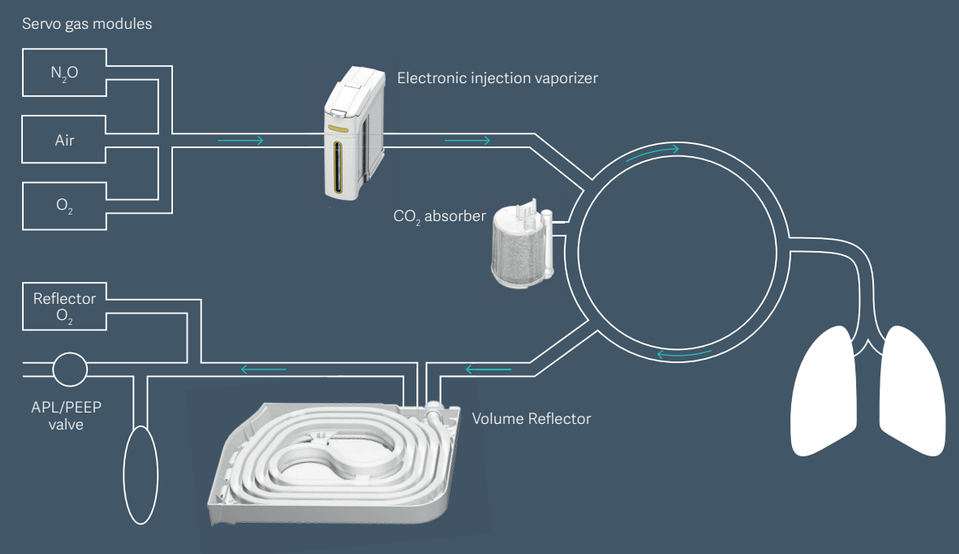
Convenient details
Small features often have a big impact on the experience of using a machine every day. After listening carefully to users, we've introduced some details that will make a difference to your workflow. We know your hands are often full, so we've added practical hooks for convenient placement of tubes and more. You'll also find surprisingly generous table and drawer space, as well as USB ports for data transfer and charging.

The rear of an anesthesia machine often becomes a tangled mess. But not with the Flow-c. Cables and hoses are routed inside panel arms and behind the back covers.

The interface presents key information at a glance, and requires minimal training – so you can focus on the patient.



The Flow-c has a convenient shelf, giving easy access to the USB ports. The workspace is lit by a dimmable LED lamp.



Next-generation technology at the core

– for effective and gentle treatment

The Flow family was created by the engineers behind the world-class Servo ventilator platform. The innovative technology at the heart of your Flow-c ensures superior ventilation performance.

The power to care

Ventilation performance is not only about modes. Most importantly, it's about ensuring the power and precision needed to ventilate all patient categories. Power when you need it, yet gentle on the lungs – that's a key strength of our next-generation Flow core technology.

Servo gas modules

The Servo gas modules enable ICU-quality ventilation. They deliver up to 200 l/min inspiratory flow and are capable of adjusting pressure and flow several times within every breath, according to each patient's needs.

Volume Reflector rebreathing system

Our patented Volume Reflector is a smart rebreathing system. In combination with Servo gas modules, it enables accurate tidal volumes down to 5 ml, providing better ventilation performance compared to bag-in-bottle, turbine and piston-operated systems.[1]

The rigid Volume Reflector is never empty, ensuring uninterrupted ventilation, and compensates effectively for any leakage. The Volume Reflector is oxygen driven, minimizing the risk of hypoxic mixtures. It has a small system volume for fast wash-in and wash-out and a rebreathing fraction of 98%. These features make ventilation safe and precise, with significantly reduced anesthetic agent usage.[2]

Electronic injection vaporizers

Electronic injection technology enables precise delivery of agents, primarily during the inspiratory phase, with minimal waste. The lightweight and maintenance-free vaporizers can be refilled and exchanged while the machine is running, and do not require annual calibration.

Low flow the safest[4] way

– unique hypoxic guard protects your patients

Low-flow anesthesia greatly reduces the use of the expensive and hazardous anesthetic agents. It is now a standard practice in many ORs. Increased rebreathing also improves patient comfort. However, low flows can increase the risk of hypoxia.

Active inspired O_2Guard

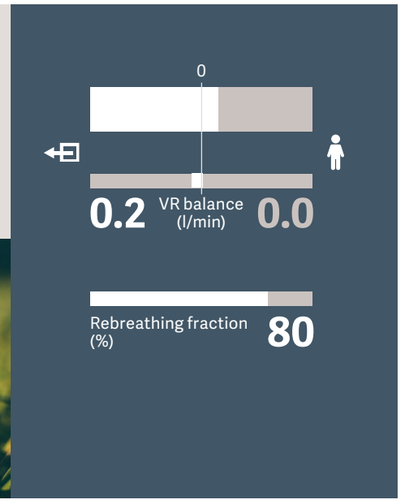
With patient safety always in focus, we have created the unique O_2Guard to prevent hypoxia.[3] This safety mechanism overrules the clinician´s settings and increases the flow of fresh gas and oxygen should the O_2 level drop below 21%. Conventional guards will only trigger an alarm. The O_2Guard is a standard feature on all Flow models.

» O_2Guard is the only commercially active inspired hypoxic guard available.[4] «

Watch video explaining O_2Guard
How does the O_2Guard work, and why is there a risk for hypoxia during low flow?
http://wi.st/2inpHKR

Visual guidance when lowering the flows

The VRI (Volume Reflector Indicator) is a useful visual guide that enables you to optimize the rebreathing fraction and thus save anesthetic agent. This tool makes it simple to set the optimal Fresh Gas Flow (FGF) and minute volume ratio. Agent consumption can be easily monitored via the interface.



Optimizing uptime and efficiency

– ownership with less stress and easier flow

Minimizing your long-term costs

We understand that the purchase price is just a small part of the total cost of owning an anesthesia machine over time. With Flow-c, we have designed every detail to minimize the overall cost of ownership. From an intuitive interface that optimizes workflows and minimizes staff training time, to innovations that reduce consumption of anesthetic agents.

Getinge Care: protecting your investment

Optimizing equipment services is an excellent way to boost productivity and reduce costs. A Getinge Care service plan ensures your equipment always performs to its full potential, allowing you to focus on saving lives.

Smart fleet management

We make it easy to manage a large fleet with different Flow models. The Flow-c and the Flow-i share the same user-friendly interface. They also have many components in common, e.g the Volume Reflector and vaporizers. The Getinge Care portal gives you a complete fleet status overview and can be accessed from wherever you are, even on a mobile device.

We also offer an extensive range of readily available consumables. These are designed for the highest possible level of patient safety and outstanding ease of use.

Extensive training programs

Keeping skills updated improves patient outcomes as well as boosting productivity. We tailor training to meet your needs, which includes e-learning in addition to hands-on training courses.

Connected services save time – for what's really important

Remote access
To improve uptime, the service technician can remotely access detailed information from your Flow-c. This makes it possible to resolve most issues immediately, saving time and costs.

Connectivity
Open serial protocols and MSync make it easy to connect your Flow-c to your patient monitor, HIS and patient data management system. Patient data is transferred via HL7 (MSync) in real time to support decision-making.

Flow-c at a glance

– everyday work that simply flows

15" tiltable and rotatable touch screen
Flexible and intuitive to use

USB ports and LED light
Data transfer and charging easily accessible. Three-step dimmable LED lights up the workspace

Open platform
Customize to match your needs

Flexible workspaces
Practical for your everyday needs

Electronic vaporizer
Precise and cost-efficient

Smart cable and hose management
Less clutter, easier cleaning and improved mobility

Central 4-wheel brake and cable pushers
Enhances device mobility

215 cm multipurpose rails
Extensive mounting options

Next-generation Flow core technology

Reduces the need for an ICU ventilator in the OR:

- Servo gas modules deliver up to 200 l/min inspiratory flow and adjusts pressure and flow several times within every breath.
- Innovative Volume Reflector rebreather ensures accurate and precise gas delivery.
- Small system volume (2.9 l) allows fast wash-in and wash-out, saving time and agent consumption.

Electronic injection vaporizer

- Fast and precise delivery of anesthetic agents.
- Lightweight and possible to fill during use. Holds 300 ml.
- No heating time for Desflurane.

Low-flow anesthesia

- Fresh Gas Flow (FGF) limit: 0.1 l/min
- VRI (Volume Reflector Indicator) displays the FGF and minute volume ratio to optimize the rebreathing fraction.

Active hypoxic guard

- O_2Guard actively intervenes when there is risk of hypoxia, providing added safety at low flows.

Pause function

- Temporarily stops gas flows and ventilation, giving you time to focus on the patient.

Space-saving design

- Compact and lightweight (86 x 68 cm, 115 kg).
- Easy to move and adapt to different situations.

Battery backup

- 90 minutes for added safety in case of power failure.

Easy cleaning and service

- Just seven parts need to be dismantled for cleaning, saving costs and supporting infection control.
- Preventive maintenance is optimized to reduce complexity with few and easy accessibility parts that are only changed every two years.

Low cost of ownership

- Modern, easily upgradable platform.
- Maintenance free components, the oxygen and flow sensors are non-consumptive.
- Lower anesthesic agent consumption.
- Reduced training requirements.

Smart clips, hooks and arms
For convenient placement of suction device, manual breathing bag and other accessories.

Large drawer
With slots for spare vaporizers and an optional lockable compartment.

References
1. Data from benchmarking testing, data on file.
2. Brattwall, M., Warrén-Stomberg, M., Hesselvik, F. et al. Brief review: Theory and practice of minimal fresh gas flow anesthesia. J Can Anesth (2012)
3. De Cooman, S., Schollaert, C., Hendrickx, J.F.A. et al. Hypoxic guard systems do not prevent rapid hypoxic inspired mixture formation. J Clin Monit Comput (2015)
4. Hendrickx JF, De Wolf AM, De Hert S. O2, anybody? Eur J Anaesth 2015, 32:371–373. Hypoxic guard systems – how safe are they? and interview with Dr Jan Hendrickx, Aalst Belgium, MX-6295, Rev03

GETINGE

Getinge is a global provider of innovative solutions for operating rooms, intensive care units, sterilization departments and for life science companies and institutions. Based on our firsthand experience and close partnerships with clinical experts, healthcare professionals and medtech specialists, we are improving the everyday life for people – today and tomorrow.

This document is intended to provide information to an international audience outside of the US. The assertions stated by the physician are strictly those of the physician and do not necessarily reflect the views of Getinge. Flow-c may be pending regulatory approvals to be marketed in your country. Contact your Getinge representative for more information.

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