



# Personalized Anesthesia Delivery

When every measure matters



Complexity made easy. Advanced tools with an intuitive interface – to facilitate true personalization.



# Personalization measure by measure

Anesthesia delivery the Getinge way puts you in control. With our innovative technologies, the Flow Family anesthesia machines provide you with the tools to ensure an efficient flow and fine-tune personalized delivery even for the most challenging patients, from neonates and pediatric to the morbidly obese. The Flow Family machines are designed for ease of use and a streamlined workflow — when every measure matters.

"O<sub>2</sub>Guard is the only commercially active inspired hypoxic guard available."<sup>1</sup>



### Better agent dosing

For more precise control of depth of anesthesia, we now present a *MAC Brain* indicator. A unique tool that visualizes the difference in agent concentration between the lungs and the target organ, the brain. The reliability of the data puts you in control, letting you plan and deliver more efficient dosing of agents with ease.



### Active hypoxia prevention

Our *O<sub>2</sub>Guard* is the world's only system for active hypoxia prevention<sup>1</sup>. Should the inspired oxygen level drop below 21%, the *O<sub>2</sub>Guard* automatically overrules the settings and increases the flow of oxygen. The risk of hypoxia is minimized.<sup>3</sup>



### Ventilation to ICU standards

Innovative *Flow Core Technology* is designed to promote efficient agent usage, providing the power and precision to ventilate even the most challenging patients. This is due to the combination of our patented *Volume Reflector* with its smart re-breathing system and our proven *Servo* gas modules, adjusting pressure and flow constantly within every breath.<sup>2</sup>



### Gentle steps against atelectasis

Lung *recruitment maneuvers* have become the tool of choice to counter atelectasis, to improve oxygenation and help prevent postoperative complications. What once was considered complex and time consuming is now seamlessly integrated into your workflow<sup>4</sup>. Available for *Flow-i* and *Flow-e*.

The *Flow Family*, intended for use in administering Anesthesia while controlling the entire ventilation of patients with limited or no ability to breathe, except within MRI environments, is now available in the US.



### Screen

Tilttable 15" screen with same intuitive and user-friendly interface for all Flow models.<sup>5</sup> Quick access presets for key functions such as agent, oxygen and FGF adjustments.

### Innovative tools

Our proprietary technical solutions for true personalization. *MAC Brain* and *O<sub>2</sub>Guard* are standard features on all Flow Family machines. *Lung Recruitment Maneuver* is optional for Flow-i and Flow-e.

### Ventilation performance

The innovative *Volume Reflector* rebreather and *Servo* gas modules ensure efficient gas delivery — it adjusts pressure and flow constantly for ventilation performance across patient categories.<sup>2</sup>

### Electronic vaporizers

Fast and precise delivery of anesthetic agents. Lightweight, easily refillable and exchangeable. Holds 300 ml. No heating time for Desflurane.

### LED-lights and USB ports

Data transfer and USB power outlet easily accessible. Dimmable LED-lights for the workspace.

### Ergonomic workspace

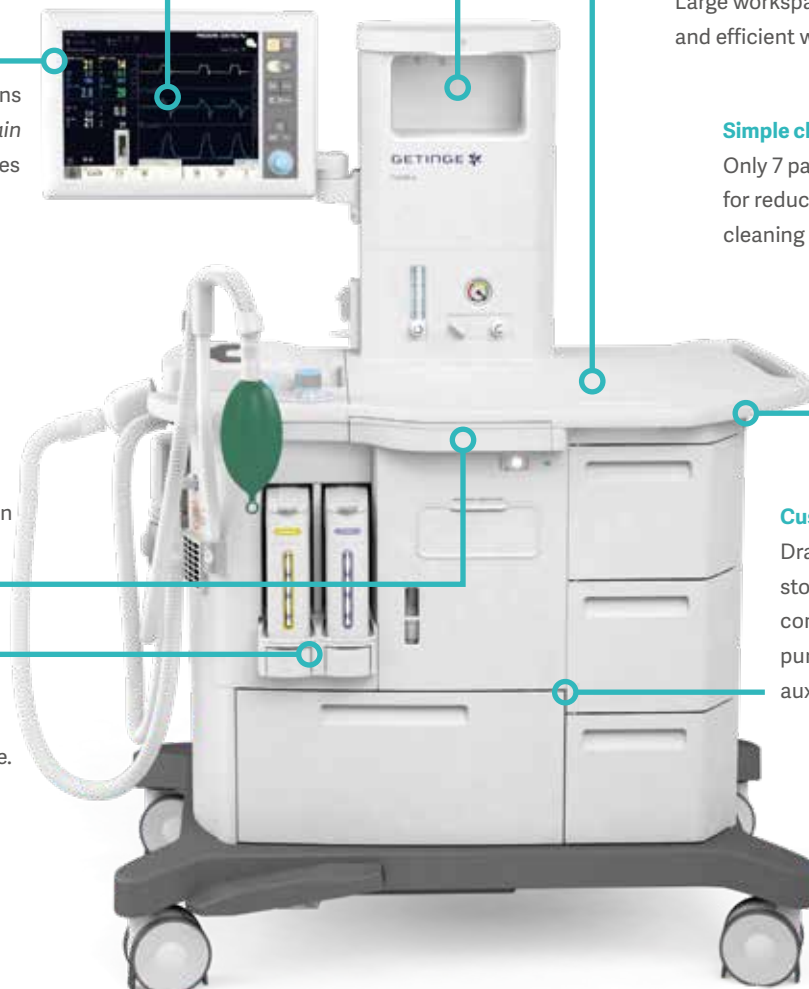
Large workspace for convenience and efficient workflow.

### Simple cleaning

Only 7 parts to be dismantled for reduced complexity and easy cleaning maintenance.

### Customizable

Drawers offer generous storage space and lockable compartment. Multi-purpose rails for mounting auxiliary equipment.



# Staying in control

## User-friendly workstations for Personalized Anesthesia Delivery

The Flow family is our line up of anesthesia machines designed to cover the needs of all type of surgeries. Developed together with clinicians, they are designed to facilitate personalization with patient safety in mind. With an intuitive interface and emphasis on ease of use, they ensure a streamlined workflow and efficiency that offers enhanced cost control and resource management.

With smart design and a high level of automation, the Flow Family brings smooth workflows to a stressful OR situation, making the clinician confident, responsive and proactive. The ergonomics, Connected Services, and simplified routines and settings allow the clinician to focus full attention to the patient. This translates into higher efficiency and a better work environment.



### Flow-i

Flow-i is the intelligent workstation, a highly advanced anesthesia machine offering efficient ventilation performance, decision support features, and a wider range of settings of flows and pressures. Flow-i provides personalized and cost-efficient care. Available in three versions, including a height-adjustable model, and a pendant model for suspending from the ceiling.

### Flow-e

Flow-e is the extended, flexible workstation for personalized anesthesia delivery. Featuring Getinge's proprietary innovations, the machine ensures efficient ventilation performance and personalized care for a wide range of patients. With a larger worktop, more storage space, and generous mounting possibilities for auxiliary equipment, Flow-e can be customized to match your needs and preferences.

### Flow-c

Flow-c is the compact, easy-to-use dynamic workstation, enabling cost-efficient treatment. The compact design is an advantage in a crowded OR with a busy schedule. Despite its small size, it has Flow Family advantages such as high-performance ventilation, precision agent dosing, hypoxia prevention technologies, an intuitive user interface, and several mounting possibilities.

	Flow-i	Flow-e	Flow-c
Volume Reflector	x	x	x
Tidal volume	20–2000 ml	50–1600 ml*	50–1600 ml*
Pressure	0–120 cm H <sub>2</sub> O	0–80 cm H <sub>2</sub> O†	0–80 cm H <sub>2</sub> O†
Gas backup (option)	2+1	1+1+1	1+1
MAC Brain	x	x	x
Recruitment Maneuver	Option	Option	–
Active vaporizer slots	2	2	1
Workspace (number of 300 ml vaporizers to fit on the worktop)	44	80	45
Drawers	1–3	1 + 3	1
Connected Services, Getinge Online	Option	Option	Option

\* 20–2000 ml as option.

† 0–120 cm H<sub>2</sub>O as option.



## One coherent offer

At Getinge, you will find the capabilities of a supplier who can look at the whole picture and be the single source for equipment, services and expertise you need to provide state-of-the-art treatment.

A single-supplier approach is reliable; everything is consistent, compatible, and complete to the last detail. You will know at all times where to turn for better tools, support whenever it is needed and continuous knowledge transfer. We are committed to efficiency in your truly personalized treatment and smooth workflows.

Every measure matters. And no detail is insignificant.



## Our unique technology makes the difference

The solutions developed by Getinge enable personalized treatment of the most demanding patients, from neonates to the morbidly obese. Anesthesia machines based on our technologies put the anesthesiologist in control — empowered and proactive. You get a more streamlined workflow, better cost control and resource management. This is the essence of personalized anesthesia the Getinge way.

## Comprehensive service & support

The prerequisite for personalized anesthesia delivery is 100% dedication and flexibility. *Getinge Care* maximizes uptime — reliable, uninterrupted performance. We provide a service plan with tools allowing you to focus on saving lives. And our service agreement is a long-term value for your investment.

### Protect your investment

Whether you have a full-service department on site, or limited in-house personnel, we can meet your needs. Our Getinge-certified field service representatives and Getinge original parts are a good investment to help maximize the life span of your equipment. All to boost productivity and reduce costs.

Your Getinge products will be monitored and maintained to ensure that they deliver effective performance whenever and wherever they are needed. By following a routine preventive maintenance schedule, *Getinge Care* keeps things running smoothly, with minimal interruption.

### Improve efficiency in your OR

Our latest connectivity solution *Getinge Online* offers digital access to equipment data, enabling you, your team and hospital to gain insights and maximize uptime. All to improve efficiency in the operating room. Connect your Flow Family anesthesia machines to be proactive, save valuable time and focus on the tasks that matters most.

Logging in to your personal web portal, *Getinge Online* makes it easier for service teams to quickly troubleshoot issues with access to remote expert support. It also gives you the possibility to reach data on how your units are used, i.e. viewing and analyzing fresh gas flow and monitoring the anesthetic agent usage to help you reduce the environmental footprint. Everything presented on a role-based dashboard.

### Expect seamless connectivity

*MSync* makes it easy to connect the Flow machine to patient monitor, HIS and patient data management system with no need for third party system. Patient data is transferred via the FCI protocol or HL7 (*MSync*).

### Quality consumables and accessories

The genuine Getinge consumables portfolio is specially developed for compatibility and ease of use within the Flow Family anesthesia delivery system.

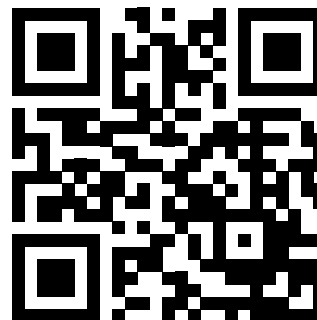
### Skills and knowledge

At Getinge we are happy to share our expertise. We offer tailored training programs, e-learning courses, and webinars. We publish and distribute whitepapers and case studies. You also have ready access to our representatives in the field and our clinical experts for assistance or information regarding our products and their performance. Contact us for your special requests.



## References

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2. Lucangelo U, Ajčević M, Accardo A, et al. Flow-i ventilator performance in the presence of a circle system leak. *J Clin Monit Comput.* 2017 Apr;31(2):273-280.
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4. Lindberg P, Gunnarsson L, Tokics L, et al. Atelectasis and lung function in the postoperative period, *Acta Anaesthesiol Scand* 1992; 36:546-53.
5. Internal report EVU-205592 NPS summary anesthesia 2019



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