Automatic Gas Control (AGC)  
FLOW-i Anesthesia Delivery System

Performance Redefined
Safe

Automatic Gas Control\textsuperscript{1} (AGC\textsuperscript{TM}) is designed to reach the target end-tidal anesthetic agent you set, at the speed desired. Whether the target is 3 minutes or 15. This helps adapt administration of agent to the patient’s status or surgical incision time, and reduces the risk of under– and overdosing. The risk of hypoxia is also reduced as AGC will reach the target \textit{FiO}_{2} as quickly as possible independent of the speed setting.

Convenient

AGC can be prepared during standby or manual ventilation. All you need to do once the airway is secured, is to switch to AGC and adjust speed and \textit{end-tidal anesthetic agent} (EtAA) concentration accordingly. AGC automatically adjusts fresh gas delivery, giving you more time to focus on other responsibilities during the most intense phases of your work. Meanwhile the \textit{prediction tool} clearly visualizes trends and time to target.

Cost effective

Once the end-tidal target is reached, AGC automatically reduces the fresh gas flow and agent delivery to minimal levels, enabling safe \textit{low flow anesthesia}. By using less anesthetic agent, MAQUET FLOW-i\textsuperscript{®} reduces the well-known negative environmental impact of inhalational anesthesia\textsuperscript{2}. At the same time, you can benefit from cost savings and an improved workflow.

Performance redefined in safety, convenience and cost.

“After securing the airway, a single twist of the knob has you cruising in low flow mode. Low flow anesthesia cannot be made any easier.”

– Anesthetic Clinician
Speed and Prediction
AGC features a unique EtAA speed control and prediction tool which is displayed directly on screen in real-time. Users can now determine time to end-tidal target, thus allowing more efficient gas delivery.

You can benefit from:
• Improved estimation, forecast and control of anesthetic agent during induction and emergence of anesthesia.
• Automatic titration of anesthetic agent administration (including speed) according to the patient’s physiological status or surgical incision time.
• Facilitating the workflow by optimizing the end of anesthesia in line with operating room (OR) timings and the forward planning for the next cases.

Finer control for less effort
The AGC settings are always available allowing quick and easy access.

Control Target FiO₂
AGC facilitates the control of oxygen delivery in all anesthesia situations by a single FiO₂ target setting. This FiO₂ target setting has priority and is unaffected by anesthetic agent speed selection, reducing the risk of hypoxia.
Control Target EtAA

AGC automatically controls the fresh gas flow (FGF) and anesthetic agent supply in order to reach the end-tidal anesthetic agent (EtAA) target for the desired time. This removes the need for continuous manual adjustments of FGF, O₂ and anesthetic agent, giving you more time for other tasks.
How AGC supports your workflow

“AGC smoothens my workflow by freeing up time that can be devoted to other aspects of the clinical care of my patient.”
– Anesthetic Clinician

Pre-induction

Start by pre-programming AGC between cases, when the FLOW-i is in standby or manual ventilation. You can now set target FiO₂, end-tidal anesthetic agent (EtAA) and speed based on the patient’s clinical needs and other OR inputs.

The settings are grouped and easily pre-programmed.

Display of MAC level corresponding to the target end-tidal anesthetic agent concentration.

Induction

With the settings pre-programmed you can now start AGC. During induction AGC allows you time to monitor the patient’s status and complete other responsibilities. If needed adjust the speed to target or target EtAA with a single maneuver. FLOW-i will adjust FGF and anesthetic agent delivery accordingly.

Induction with low speed setting, resulting in a corresponding prediction of 17 minutes to target.

Induction with high speed setting, resulting in a corresponding prediction of 2 minutes to target.
Maintenance

Once your target EtAA is reached, AGC automatically reduces the fresh gas flow, allowing you to safely ventilate your patient with a fresh gas flow down to 0.3 liters per minute.

Furthermore, FLOW-i’s unique active O₂GUARD™ function is designed to reduce the risk of hypoxia.

Automatic adjustment of FGF and other relevant values improves convenience and safety at low and minimal flow anesthesia.

Emergence

Change your target EtAA and adjust the speed, if you need a fast or slow emergence as per surgical requirements. This can also help maintain the OR schedule.

AGC lets you set the speed of emergence, clearly visualizing present point and time to target.
References

1. Automatic Gas Control (AGC) is optional and not included in the basic package of FLOW-i


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

The views, opinions and assertions expressed in the brochure are strictly those of the interviewed and do not necessarily reflect or represent the views of Maquet Critical Care AB.

The product FLOW-i with AGC may be pending regulatory approval to be marketed in your country. Contact your local Maquet representative for more information.

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