

Pressure Support mode in anesthesia

It is an axiom in the anesthesia sector that standards and requirements imposed on anesthesia ventilation are constantly rising. There is also a strong market trend towards allowing patients to breathe spontaneously during anesthesia procedures. But no anesthesia systems currently available have been optimized to support long periods of spontaneous breathing, because the patient has to overcome the resistance of the tube (if intubated) or the Laryngeal Mask Airway, as well as the resistance of the breathing system.

Based on extensive experience and excellence in the fields of anesthesia and intensive care ventilation, Dräger Medical has put particular focus on this issue by introducing an automatic Pressure Support (PS) ventilation mode for the Fabius GS and Primus anesthesia workstations. PS is an ideal tool that allows the anesthetist to sustain spontaneous breathing as long as possible while increasing patient comfort, e.g., when using a laryngeal mask. PS can compensate for reduced respiratory drive, supports fast preoxygenation, reduces the work of breathing, and yields low physiological impact of ventilation.

Patient determines the frequency and length of inspiration

In PS mode, each breath is triggered by the patient's inspiratory effort and is provided with a preset level of pressure support. The patient determines the frequency and length of inspiration. Intelligent apnea ventilation is an integrated feature that enables a minimum level of ventilation to assure a minimum respiratory rate for the patient.

PS option in Fabius GS and Primus

Starting with the 2.1x software series,

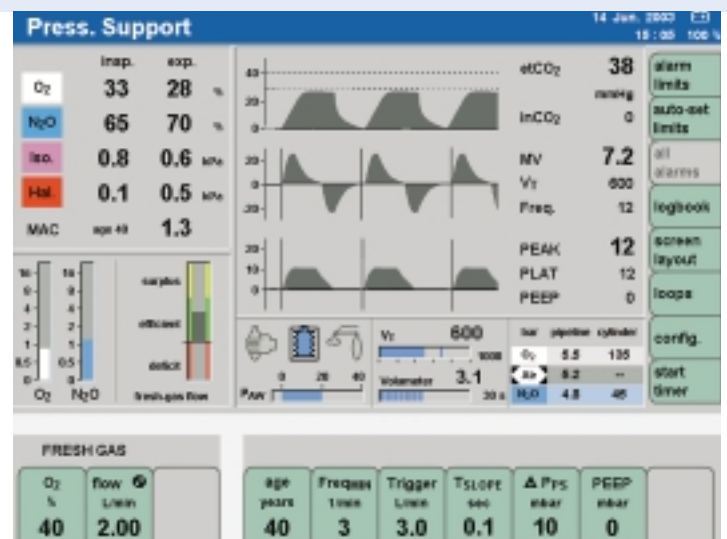
Dräger Medical is offering a PS option for the Fabius GS. The outstanding performance and upgradeability of the Dräger Medical-Vent™ ventilator allows in-the-field upgrades of all installed devices. These new ventilation capabilities are also available with the Primus 2.0 software, in which PS is the core of the new upgrade option.

Advanced ventilation upgrade package

Within the Primus 2.0 software, PS can be used in either standalone mode or in conjunction with all synchronized volume and pressure-controlled forms of artificial respiration. All Pressure Support parameters for artificial respiration, such as trigger, support pressure, time to reach support pressure, and minimal breathing frequency can be directly selected and adjusted. For volume controlled artificial respiration, the minimum setting range for the tidal volume to be administered has been reduced further (from 20 mL to 10 mL).

PS in Zeus®

PS is provided as standard in Zeus®. PS can be used as either a standalone mode or in conjunction with all other ventilation modes such as



CPAP (Continuous Positive Airway Pressure), SIMV (Synchronized Intermittent Mandatory Ventilation), and Autoflow BIPAP (trademark used under license).

Improved ventilation quality

For the spontaneously breathing patient, Pressure Support reduces the invasiveness of ventilation, prevents ventilatory muscle fatigue and failure, and reduces sedation and risk of atelectasis. PS allows for improved gas exchange in the anesthetized patient. Pressure Support ventilation will help anesthetists minimize the side effects of treatment in intensive care and anesthesia.