



# PRVT—optimum ventilation

a lung-protective ventilation mode

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sense and simplicity

# From intensive care to protective anesthesia

A well-known ventilation mode from the intensive care unit is available with anesthesia machines, bringing important benefits to patients and operators.

## PRVT—Pressure Regulated Volume Target

PRVT is a lung-protective ventilation mode that combines the advantages of volume controlled ventilation (VCV) and pressure controlled ventilation (PCV).

This means inspiratory pressure is continuously adjusted according to the functioning of the patient's airways, lungs and thorax. In this way, pressure is maintained at the lowest possible level in order to guarantee the preset tidal volume.

Optimum ventilation is achieved through inspiratory flow control, maintaining inspiratory pressure while the patient is under anesthetic. The required tidal volume set by the operator is achieved by automatic, breath-by-breath pressure regulation.

PRVT assures the patient optimum ventilation and oxygen delivery during surgery - believed to reduce the risk of post-operative complications and promoting faster recovery. For operators, PRVT is a particularly user-friendly ventilation mode that maximises patient care.

## VCV—Volume Control Ventilation

VCV delivers a constant preset tidal volume regardless of the amount of pressure required. The operator has direct control over the tidal volume delivered to the patient unlike with PCV, where the delivered tidal volume depends on patient compliance and resistance.

If compliance or resistance changes during anesthesia, the ventilator will still deliver the preset tidal volume (only limited by the high pressure alarm setting). This guarantees life-giving oxygen delivery to patients undergoing surgery.



## PCV—Pressure Control Ventilation

PCV delivers pressure-limited breath at a set rate. The tidal volume is determined by the preset pressure limit, which represents Peak pressure rather than Plateau pressure. The benefits are:

- Improved gas distribution to the patient compared to VCV as maximum inspiratory pressure is maintained
- Lower Peak airway pressure for a certain tidal volume compared to VCV
- Easier inflation of stiff lungs and lungs that are difficult to ventilate due to the combination of decelerating flow and maintenance of airway pressure during inspiration
- Constant pressure delivered to the airway, overcoming volume lost due to leakage in patients where adequate cuffing is not possible

PRVT is also known as pressure regulated volume control (PRVC) or pressure regulated volume guarantee (PRVG).

PRVT is an additional option available for purchase with the Siesta i TS, Siesta i Whispa and Dameca MRI 508. To run the ventilation mode, the 3.1.0 software version for Siesta i TS, and the 2.1 software version for the Siesta i Whispa and Dameca MRI 508 are required.



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