What is it?

AutoFlow ensures that the set tidal volume (VT) is applied with the necessary minimum pressure for all mandatory breaths using a decelerating flow and allowing spontaneous breathing of the patient.

How is it applied?

AutoFlow is delivering a decreasing flow in order to reach the set tidal volume and to avoid pressure peaks in volume controlled modes. If the Resistance (R) or Compliance (C) changes, the pressure adapts gradually in order to administered the set tidal volume (VT). This means that both the pressure and the flow are adjusted automatically.

When AutoFlow is activated:
Three test breaths initially to source the required pressure for the requested tidal volume
1. The first test breath delivered as a standard volume control with small plateau
2. Second test breath delivered at 80% at the measured plateau pressure and tidal volume delivered is measured at the end of the breath
3. Third test breath will vary the Pressure by +/- 3 cm H2O and measure again the tidal volume

To determine the pressure required for the next breath the ventilator compares the previous breath pressure and the delivered tidal volume
Pressure will vary no more the +/- 3cm between breaths

Why is it relevant?

- Less mechanical invasiveness with less sedation and muscle relaxants
- Better gas exchange and secretion clearance
- Improved alveolar recruitment, due to constant pressures throughout inspiration, and patients spontaneous breathing
- Reduced peak pressures for the same tidal volume
- Able to set inspiratory times based on the inspiratory flow curve

Why is it helpful to improve the outcome?

**Patient benefit**
- No active exhalation
- No flow starvation - patient flow demands met by the ventilator
- Greater comfort and less patient distress
- Improved ventilation

**Staff benefit**
- Less nuisance alarms
- Better patient management
- Less stress