Compensation for tube caused airway resistance throughout the respiratory cycle

Increased patient comfort with improved patient-ventilator synchrony

Continuous display of calculated tracheal pressure

**Compensation Tube Caused Airway Resistance**

During mechanical ventilation, the resistance imposed by the artificial airway makes breath delivery and spontaneous breathing more difficult. ATC® Automatic Tube Compensation adds support to eliminate the effects of the airway resistance and continuously adapts this level of support throughout the respiratory cycle. This results in decreased work of breathing (WOB) and restoration of a more natural breathing cycle.

The use of pressure support as a simple method of helping the patient overcome this artificial airway resistance is fraught with fundamental disadvantages due to the fact that airway resistance depends on the current gas flow. Conventional pressure support therefore often leads to undercompensation of the tube resistance at the start of an inspiration (high gas flow), and to over-compensation at the end of an inspiration (low gas flow). ATC, on the other hand, continuously adapts the degree of compensation to the current gas flow and throughout the entire respiratory cycle takes over precisely the additional work of breathing generated by the tube (WOB₀₄₈).

**Patient Comfort and Synchronization**

Reduction of WOB leads to improved spontaneous breathing efforts. ATC regulates the pressure in the patient circuit to effectively eliminate added resistance during both the inspiratory and expiratory phases. ATC gives the clinician a “virtual” or an “electronic extubation” to use as a predictor of the breathing pattern after extubation. In certain disease states such as Chronic Obstructive Pulmonary Disease (COPD), ATC can be modified to work during the inspiratory phase only. Patient-ventilator synchrony is further enhanced by improving breath triggering sensitivity.

* Standard for Evita® Infinity® V500 and Evita® XL.
  Option for Evita® V300, Savina® 300 Select,
  Evita® 4 edition, Evita® 2 dura

** not for suitable for Savina® 300 ventilators
FACILITATED WEANING
The decreased WOB and an improved patient-ventilator synchrony offered by ATC are key components in enhancing the weaning process. The flexibility of ATC allows the clinician to tailor ATC for more disease-specific applications. These features enhance the potential successful weaning outcomes.

EXTENDED MONITORING
Continuous display of the tracheal pressure curve and the Ptrach-V loop (with the MonitoringPlus option in Evita 2 dura) allows the clinician to assess tracheal pressure without the use of an esophageal catheter.

UNIVERSALLY APPLICABLE
ATC is an additional function which can be applied in all ventilation modes. ATC enhances the spontaneous breathing efforts of the patient regardless of the level of support required. ATC provides reliable and comfortable weaning, and also achieves a further improvement in both pressure-controlled ventilation with PC-BIPAP**/PC-PCV+ and PC-APRV as well as in volume-controlled ventilation with AutoFlow*.

ORDER LIST

| ATC® conversion kit for Evita® V300 (for retrofitting on site) | 84 20 420 |
| ATC® conversion kit for Savina® 300 Select (for retrofitting on site) | 84 22 624 |
| ATC® conversion kit for Evita® 4 edition and Evita® 2 dura (for retrofitting on site) | 84 14 240 |

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References
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