HFPV® or High Frequency Percussive Ventilation

... is an advanced ventilatory strategy, by which small subtidal volumes, or percussions, are administered at higher than conventional frequencies (200-800 BPM) and at three selectable dynamic pressure levels, for optimal diffusive oxygenation and convective ventilation at LOW MEAN AIRWAY PRESSURE.

HFPV shows evidence for complex ventilatory challenges and respiratory diseases, and this equally well with adults, children, newborns or neonates

... all with the same Phasitron® sliding venturi circuit.

Advantages:
- open circuit: patient can breathe or cough on top of percussions
- reduces preferential airway, offering a lung protective approach
- step-up inflation of the lung up to oscillatory equilibrium
- facilitates secretion mobilisation (and smoke inhalation debris)
- actively reduces lung oedema by vesicular peristalsys
- active lung recruitment without high static pressures
- strategic ventilatory protocol based on BGA and cardiopulmonary feedback
- allows for inverse ratio ventilation with subtidal gas exchange during inspiration
- subtidal gas exchange during dynamic PEEP
- allows for rescue ventilation down to total weaning

Severe Hypoxemic Respiratory Failure Part I—Ventilatory Strategies
CHEST May 2010 vol. 137 no. 5 1203-1216, Adebayo Esan et al.
IPV® or Intrapulmonary Percussive Ventilation

... is an advanced therapeutic respiratory technique, by which very small subtidal volumes, or percussions, are administered at higher than conventional frequencies (80-400 BPM), eventually combined with other manual respiratory techniques, like autogenic drainage, for optimal mobilisation and recruitment.

IPV-percussion therapy shows evidence for acute and chronic respiratory diseases, both obstructive and restrictive, and this equally well with adults, children, newborns or neonates, whether cooperative or not, or even ventilated ...

... all with the same Phasitron® sliding venturi circuit.

Advantages:
- open circuit: patient can breathe or cough on top of percussions
- reduces preferential airway, offering a lung protective strategy
- facilitates periferal secretion mobilisation
- thorax mobilisation / lung recruitment
- enables extended expiration by dynamic PEEP
- permits expiratory volume breathing for non-cooperative or ventilated patients
- allows for pre- and post-surgical respiratory therapy (thoracal/abdominal/...)
- provides oxygenation and ventilation during the therapy (RT supervised)
- 5μ MMD particle impact nebuliser for periferal humidification
- treatment of COPD, CF, Asthma, Bronchiectasis, Atelectasis, Hypoxemia, ...

Patient interfaces: mouthpiece, mask, tracheal or ventilator tube