TwinStream™ ICU

Pulsatile bilevel ventilation

for respiratory disease

CARL REINER®
Breathing Engineering

Pulsatile bilevel ventilation

Respiratory disease:

Pulsatile bilevel ventilation (p-BLV™) has been in clinical use for more than 10 years now. It provides high-frequency ventilation (50-1500/min) at two different pressure levels and is an established ventilation approach for respiratory disease in neonates, infants and adults in many European hospitals.

Improved gas exchange:

p-BLV™ is known to treat respiratory distress syndrome more successfully and more gently than ventilation at conventional breathing frequencies. Its pulsatile flow pattern enhances gas mixing in smaller airways and thus improves gas exchange[3,6].

Lower peak pressures:

At the same time p-BLV™ generates lower peak pressures compared to conventional ventilation, thereby also reducing the risk of barotrauma and volutrauma[1,2,5].

Clinical advantages:

- *Improved oxygenation*[3,6]
- *Improved CO_2 elimination*[3,6]
- *Increased FRC*[6]
- *Reduced atelectasis*[3]
- *Lower peak pressures*[1,2]
- *Reduced risk of barotrauma*[5]
- *Reduced risk of volutrauma*[5]
- *Haemodynamic stability*
- *Reinforced secretion clearance*[4]

TwinStream™ ICU

Technical specifications

10.4" touchscreen

Ventilation modes:

- *CPAP*
- *Pulsatile CPAP (p-CPAP)*
- *Bilevel ventilation (BLV)*
- *Pulsatile bilevel ventilation (p-BLV™)*

Frequency:

- *High frequency: 50 - 1500 /min*
- *Normal frequency: 1 - 100 /min*

Emission pressure:

- *High frequency: 0.1 - 2.0 bar*
- *Normal frequency: 0.1 - 3.5 bar*

Monitoring:

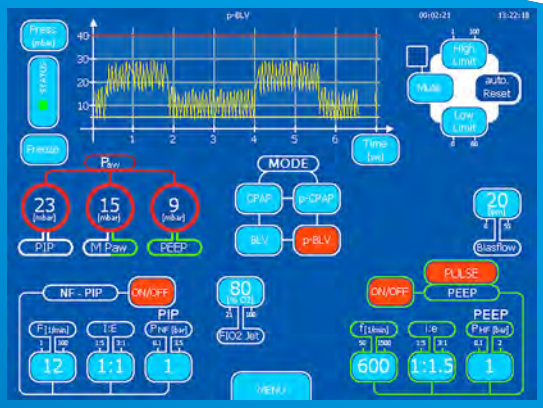
- *PIP, PEEP, MAP*
- *FiO_2*

Patient safety:

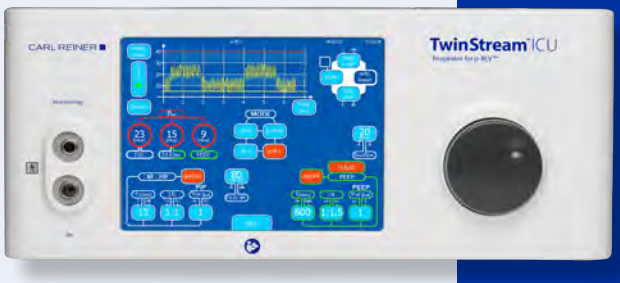
- *Automatic pressure limit*
- *Active humidification*

Clinical indications:

- *ARDS, ALI, VILI*
- *SARS, MERS, COVID-19*
- *Thoracic trauma, multi-trauma*
- *Severe burns*
- *Alternative to ECMO*



TwinStream™ ICU



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CARL REINER®

Manufactured by Carl Reiner GmbH, Mariannengasse 17, 1090 Vienna, Austria, +43 1 402 62 51 0

www.carlreiner.eu