

ZONDA^{neo}

Ventilator

ventilation for neonatal patients.

Available for invasive and non invasive ventilation.

Continuous flow CPAP: NIV using nasal prong and with automatic leak compensation

Proximal flow sensor.

Respiratory mechanics menu.

Accurate tidal volumes from 2 ml.

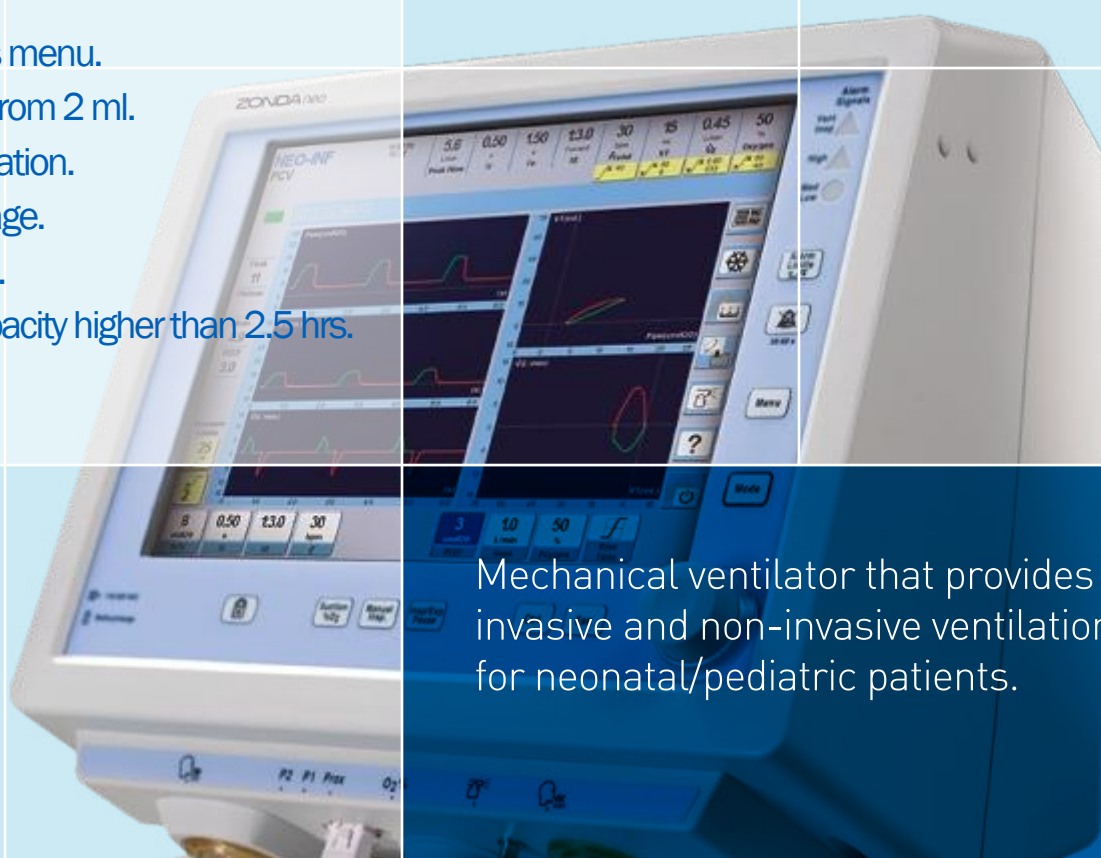
Intra-hospital transportation.

72 hours of trend storage.

Low cost maintenance.

Built-in battery with capacity higher than 2.5 hrs.

CE and FDA approve



Mechanical ventilator that provides invasive and non-invasive ventilation for neonatal/pediatric patients.

50 years of innovation and development in mechanical ventilators.

tecme
committed to life

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INTENDED USE

Ventilator designed to provide Invasive and Non-invasive ventilation for the critical care management of neonate-infant (including premature) patients.

OPERATIVE MODES

- VCV - Volume Control (Assist/Control).
- PCV - Pressure Control (Assist/Control).
- PSV - Pressure Support.
- CPAP - Continuous Positive Airway Pressure.
- SIMV (VCV) + PSV.
- SIMV (PCV) + PSV.
- TCPL - Time Cycled Pressure Limited.
- SIMV (TCPL) + PSV.
- CPAP with Continuous Flow (with leak compensation for NIV).
- APRV - Airway Pressure Release Ventilation.
- PRVC - Pressure Regulated Volume Control.

PARAMETER SELECTION (according to operative mode and patient category)

- Tidal Volume: 2-350 mL.
- Resulting Minute Volume: 0.01-17 L/min.
- Inspiratory Time:
 - 0.1 – 10 s (in assist/control modes).
 - 0.2 – 30 s (Low time in APRV).
 - 0.5 – 30 s (High time in APRV).
- I:E Ratio: 5:1 - 1:599.
- Respiratory Rate: 1-150 bpm.
- FiO₂: 0.21-1.0.
- Inspiratory sensitivity:
 - Flow Triggered: 0.2-15 L/min.
 - Pressure Triggered: 0.5-20 cmH₂O below PEEP.
- Expiratory sensitivity for PSV: 5%-80% of the initial peak flow, in steps of 5%.
- PEEP/CPAP: 0-50 cmH₂O.
- Controlled Pressure (PCV): 2-100 cmH₂O.
- Support Pressure (PSV): 0-100 cmH₂O.
- Inspiratory Pause (programmable in VCV): 0-1 s.
- Inspiratory Flow Waveform (in VCV): Rectangular and Descending Ramp.
- Inspiratory Flow: 0.2-40 L/min.
- Continuous Flow (NEO-INF): 2-40 L/min.
- Limited Pressure in TCPL (NEO-INF): 3-70 cmH₂O.
- Maximum pressure limited (safety limits): up to 120 cmH₂O.

ALARMS

Light and audible signals according to priority and messages on the screen. The system keeps a record of the occurred events with name, date, and time. This record is printable and cannot be deleted.

- High and Low Inspiratory Pressure.
- Low Pressure of O₂ and Air, or one of them.
- Main Power Loss.
- Low Battery.
- Depleted Battery.
- High Continuous Pressure.
- Technical Failure.
- Disconnection.
- Oxygen not adequate.
- High and Low Minute Volume.
- High and Low Tidal Volume.
- High and Low O₂ percentage.
- Apnea.
- Leak (non-compensable).
- Fan Failure.
- High Respiratory Rate.
- PEEP Loss.

OTHER FEATURES AND CONTROLS

- 12" color Touch - Screen.
- Trends (up to 72 hs).
- Loops: Pressure vs Flow, Pressure vs Volume and Volume vs Flow. They can be saved as reference loops.
- Alarm sound volume regulation.
- Suction %O₂: for suction sequence with variable FiO₂.
- FiO₂ controlled nebulizer.
- Manual Inspiration.
- Inspiratory/Expiratory Pause (manual).
- Inspiratory O₂ sensor.
- Standby function.
- Watchdog.
- Inspiratory relief valve (antisuffocation).
- Pneumatic safety valve: 120 cmH₂O (±5).
- Reusable Expiratory Set (Exhalatory valve and exhalatory flow sensor).
- Proximal flow sensor for neonate category.

COMPLEMENTARY FUNCTIONS

- Altitude compensation.
- BTPS compensation.
- Volume correction according to patient circuit compliance.
- Pressure correction according to patient circuit resistance.
- Leak compensation available in all operative's modes.
- Tidal Volume Setting based on Ideal Body Weight (IBW).
- Possibility to set the VCV mode as Tidal volume + Inspiratory Time or Tidal Volume + Peak flow.
- Intra-hospital transport: facilitates the mobilization when the ventilator can only be supplied with oxygen bottles.
- Extended event log to record and search the following items:
 - Alarms / warnings: activated alarms during the ventilation and warnings shown during the self-test.
 - Adjustments: operative mode, settings and ventilatory adjuncts.
 - States: Turn on, turn off, Standby, transport, calibrations and battery charge.

RESPIRATORY MECHANICS

Selection by onscreen menu:

- AutoPEEP.
- Dynamic and static compliance.
- Inspiratory and Expiratory Resistance.
- Trapped volume measurement.
- Expiratory time constant (TCexp).

CONNECTIVITY

- RS-232C with DB-9 connector.
- VGA output for an external monitor connection.

ELECTRICAL REQUIREMENTS

- Main Power: 100-240 V / 50-60 Hz. Automatic voltage switching.
- Internal Battery: 11.1 V / 7.8 Ah. Automatic recharge. Estimated duration: 2.5 hours when fully charged. Charge level indicator onscreen.

PNEUMATIC REQUIREMENTS

- Gases supply:
 - Oxygen: Pressure 2.8-6 bar (approx. 40.61-87 psi). Connector: DISS 9/16"-18.
 - Air: Pressure 2.8-6 bar (approx. 40.61-87 psi). Connector: DISS 3/4"-16.
- Automatic gas switching when one of them is absent in order to allow patient ventilation with the remaining gas.

Distributor :

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Available from software version
N11 - NEO - 01.12.00

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