Airon

Part of the Inspiration Healthcare Group

The Airon pNeuton Mini

One Ventilator Across the Neonatal Continuum of Care

Introduction

The Airon pNeuton Mini is a fully pneumatic neonatal and pediatric ventilator designed to provide reliable respiratory support across the continuum of care. Unlike conventional electronic ventilators, the pNeuton Mini operates without batteries or electricity, utilizing a pneumatic design that delivers dependable ventilation wherever care is required. Supporting patients from 400 grams to 25 kilograms, the ventilator provides CPAP, IMV + CPAP ventilation, adjustable oxygen concentrations from 21% to 100%, audible and visual alarms, and MRI compatibility up to 3 Tesla. Its portability and simplicity allow a single device to move seamlessly from the delivery room to transport environments and ultimately into the NICU.

Alignment with AAP Neonatal Resuscitation Program (NRP) Guidelines

The American Academy of Pediatrics (AAP) Neonatal Resuscitation Program (NRP) identifies effective ventilation as the most important intervention for newborns requiring respiratory support after birth. The 2025 American Heart Association and American Academy of Pediatrics Neonatal Resuscitation Guidelines emphasize that establishing and maintaining adequate lung inflation is the cornerstone of successful neonatal resuscitation and recognize Continuous Positive Airway Pressure (CPAP) as an effective noninvasive respiratory support strategy for spontaneously breathing preterm infants experiencing respiratory distress (Lee et al., 2026).

The pNeuton Mini aligns closely with these evidence-based recommendations by providing both CPAP-only support and pressure-limited IMV + CPAP ventilation. In the delivery room, clinicians can initiate CPAP for spontaneously breathing infants who require assistance maintaining functional residual capacity while avoiding unnecessary intubation. For infants requiring additional respiratory support, the pNeuton Mini can provide controlled ventilation with blended oxygen concentrations from 21% to 100%, enabling clinicians to titrate oxygen delivery according to NRP recommendations and pulse oximetry targets. The ventilator's simple pneumatic operation allows providers to focus on patient care while delivering the respiratory support required during the critical first minutes of life.

Seamless Transition from Delivery Room to NICU

Respiratory support requirements often continue beyond initial stabilization. Many newborns require transport from the labor and delivery suite to the neonatal intensive care unit while maintaining consistent respiratory support. The pNeuton Mini allows clinicians to continue CPAP or mechanical ventilation without changing devices, minimizing interruptions in care and reducing risks associated with multiple ventilator transitions.

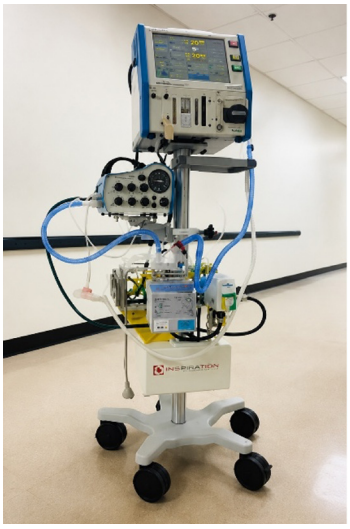
For hospitals with on-site NICUs, the ventilator can accompany the infant directly from the delivery room to intensive care. For facilities without neonatal intensive care capabilities, the same ventilator can remain with the patient during interfacility transport to a regional neonatal center. Designed for both ground and air transport, the pNeuton Mini provides continuity of respiratory support throughout stabilization, transfer, and admission.

Supporting Neonatal Transport Anywhere Care is Needed

The pNeuton Mini was specifically designed to support neonatal patients beyond the walls of the NICU. Its compact pneumatic design and independence from batteries make it ideally suited for ambulance, helicopter, and fixed-wing aircraft transport. Because ventilation settings and respiratory support remain consistent throughout transport, clinicians can avoid unnecessary equipment changes while maintaining continuity of care.

Whether transporting a premature infant to a tertiary care center, transferring a critically ill newborn for surgery, or supporting a patient during retrieval from a community hospital, the pNeuton Mini provides reliable respiratory support across a variety of transport environments.

A Versatile Platform for Neonatal Intensive Care



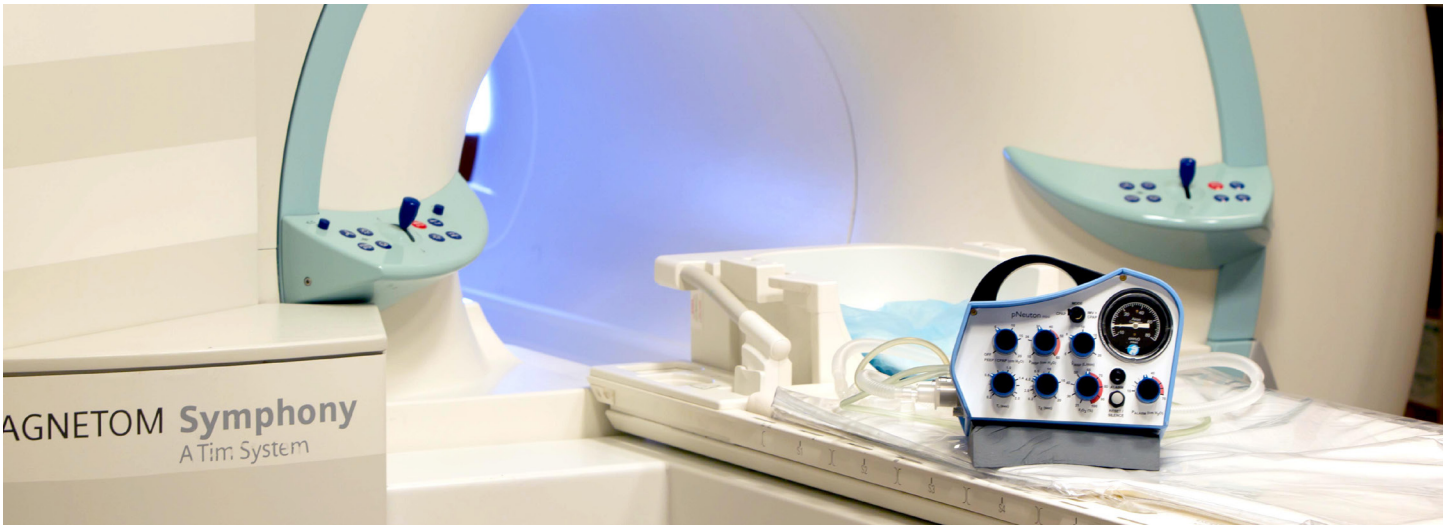
Within the NICU, the pNeuton Mini functions as both a conventional ventilator and a CPAP device, allowing clinicians to adapt respiratory support as patient conditions evolve. The ventilator can provide ongoing pressure-limited ventilation for critically ill infants or support noninvasive respiratory management through CPAP therapy as patients recover and transition toward spontaneous breathing.

The pNeuton Mini also serves as the conventional ventilator component when used in conjunction with the Bunnell LifePulse® High Frequency Jet Ventilator (HFJV). In this configuration, the Mini provides blended gas delivery, PEEP/CPAP regulation, supplemental IMV breaths, and lung recruitment support while the LifePulse HFJV delivers high-frequency jet ventilation. This capability enables neonatal clinicians to utilize advanced ventilation strategies while maintaining the simplicity and reliability of the pneumatic platform.

MRI Compatible Ventilation for Critically Ill Infants

Infants requiring advanced diagnostic imaging frequently present unique respiratory management challenges. The pNeuton Mini is MRI compatible up to 3 Tesla, allowing patients to remain on the same ventilator throughout transport to the MRI suite, during imaging procedures, and during return transport to the NICU.

Maintaining a single respiratory support platform throughout the imaging process reduces complexity, minimizes disruptions in care, and eliminates the need for ventilator changes during critical diagnostic evaluations.



Conclusion

The Airon pNeuton Mini embodies a unique approach to neonatal respiratory care by combining delivery room stabilization, NRP-aligned CPAP and ventilation support, neonatal transport capability, NICU respiratory management, HFJV compatibility, and MRI operation into a single pneumatic platform. From the first moments of life through transport, advanced imaging, and intensive care, the pNeuton Mini enables clinicians to provide consistent respiratory support while reducing equipment complexity and improving continuity of care. By supporting patients from 400 grams to 25 kilograms without dependence on batteries or electrical power, the pNeuton Mini delivers a simple, reliable, and highly versatile solution across the neonatal continuum of care.

References

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