



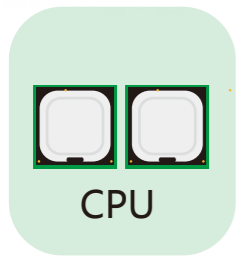
The pressure gauge uses 60° tilt angle design, easy for observation, and the rounded corners reflect high-end texture.

# COMEN

## NV8 Neonatal Ventilator



Specially designed for neonates, NV8 provides the most professional and diversified noninvasive nasal ventilation modes with advanced apnea wakeup function and automatic leakage compensation function. Accurate and safe fresh gas delivered by iFlow Intelligent Closed-loop Control System to protect vulnerable new life; User-friendly operating system closely integrated with clinical practice to facilitate medical staff; Integrated ventilation solutions providing SNIPPV/NIPPV, NCPAP and HFNC modes for safe ventilator weaning.



CPU

- Double CPUs: double protection



- When setting key parameters like pressure and oxygen concentration, intelligently give out safety signs to avoid maloperation.



- Built-in lithium battery, with over 4hrs working time, guarantee normal operation during power failure and transportation.

- Proportional valve: Norgren valve, with stable performance.

- Electronic flow sensor: Flow sensor provided by Honeywell.

- Oxygen sensor: City sensor, long service life, high precision, quick response.

## User-friendly design

15° tilt screen, bigger viewing angle, more ergonomic, better practicability.



Pushing hands with circle design, rounded with no edges, specialized design for grip area, using skin-friendly material with more comfortable holding feeling.

360° type of alarm light design, striking and graceful, easy for medical staff to notice the alarm condition timely.



### Oxygen concentration one-button auto-calibration

avoid incorrect operation due to human error, provide accurate and reliable oxygen concentration data.



### Self-check function when start up

ensure ventilation safety, reduce medicare providers' waiting time and get ready to use machine.



### LED touch screen

8" LED-backlit LCD, touch screen; clear and bright from multiple angles, monitoring data highlighted; intuitive setting design reducing human errors, enabling doctors focusing on neonates.

## Safe and reliable

The complete machine supported by all aluminium alloy material, portable and firm, Specially designed pedestal for using Comen air compressor can reduce the resonance and noise.

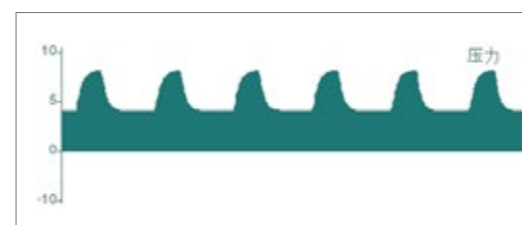




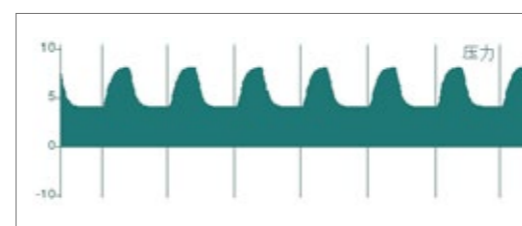
The world's leading ventilation modes



NCPAP (Nasal continuous positive airway pressure) + apnea wakeup function



NIPPV waveforms



SNIPPV+ Synchronous trigger waveforms



HFNC Pressure monitoring waveform

### Exceptional apnea wakeup function

Sleep apnea occurs among 50% to 60% preterm babies. The shorter the gestation is, the higher incidence could happen. Abdomen attached respiration sensor provides reliable apnea monitoring and wakeup function, effectively lowering the incidence.

- Abdomen attached respiration sensor: Neonates conduct abdominal breathing. Attach the sensor to the abdomen, obvious abdomen up and down movements squeeze the sensor and transforms respiratory signals to electric ones for the system to collect and identify.

### NIPPV (Nasal intermittent positive pressure ventilation)

- Through increasing the pressure of the upper respiratory tract by intermittently increasing pharyngeal pressure, and through encouraging respiratory movements by intermittent laryngeal expansion, NIPPV can produce higher average airway pressure than CPAP and can increase alveolar filling. This would effectively improve oxygenation and ventilation, reduce patient's work of breathing (WOB), and increase functional residual capacity (FRC).
- Maximum 15 seconds long inspiratory time, ensuring smooth and spontaneous breathing under bilevel pressure.

### SNIPPV (synchronized nasal intermittent positive pressure ventilation) + backup ventilation)

- Synchronization with breathing: when patient inhales, its abdomen goes up and triggers the sensor to send out inspiratory pressure synchronically, reducing man-machine confrontation and WOB, smoothing the breath.
- Abdomen attached respiration sensor: accurately identify respiratory waveform, synchronically be triggered and precisely monitor respiratory rate (RR).
- Backup ventilation: when patient stops breathing for longer than the preset apnea interval, NV8 will automatically switch to backup ventilation and ventilate patient as per preset RR to prevent sleep apnea.

### HFNC (High flow nasal cannula) + pressure monitoring function

- Compared with traditional oxygen therapy instrument, NV8 makes real-time pressure monitoring and waveform display possible, guaranteeing ventilation safety under HFNC mode and preventing unpredicted consequences due to overpressure.
- Comes standard with Fisher&Paykel humidifier, offering warm and fresh gas for neonates.

## Direct pressure setting

Traditional CPAP devices with low degree of automation requires manual repetitive observation and airflow adjustment to control pressure. Also, remote pressure monitoring (in the device) fails to truly reflect patient's airway pressure.

**NV8 pressure control method:** uses direct way to set pressure value, truly achieved automatic pressure control.

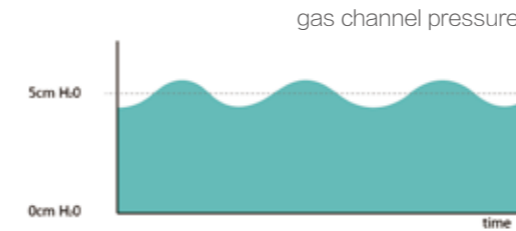
## Direct oxygen concentration setting

Traditional CPAP devices use mechanical air/oxygen blender, or oxygen flowmeter and air flowmeter combination, complicated to operate, easy to affect accuracy due to mechanical wear.

**NV8 uses electronic air/oxygen blender:** with one button to set the value of oxygen concentration and can auto-proportionate oxygen and air flow. High-precision flow sensor and proportional valve equipped enable real-time feedback and oxygen concentration precision within  $\pm 3\%$ .

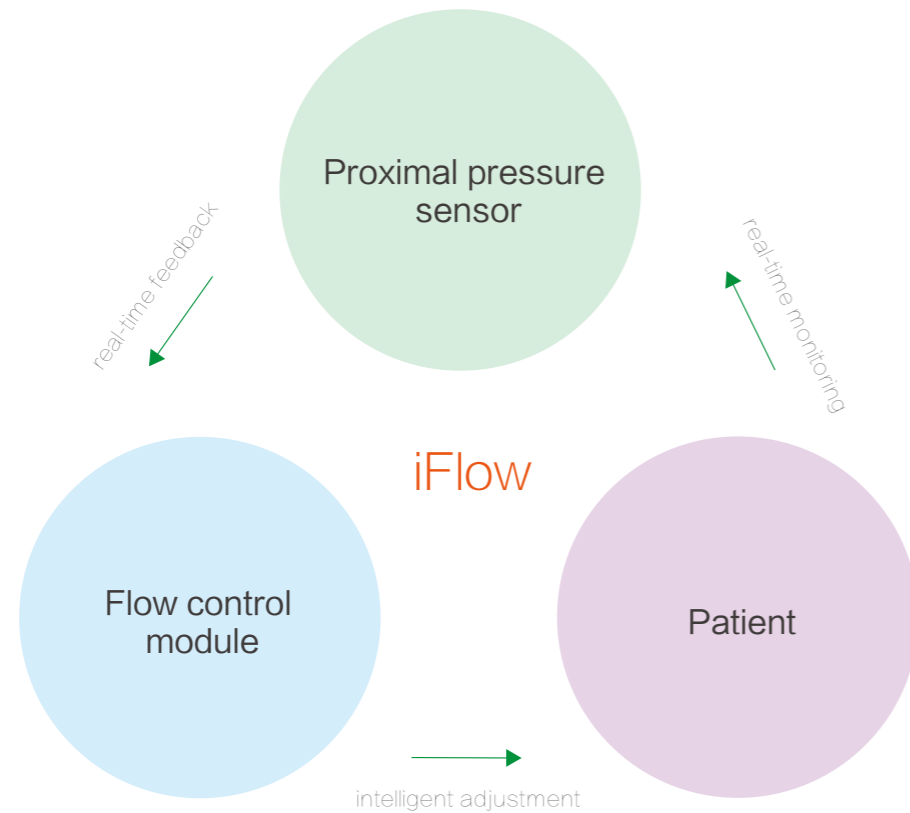
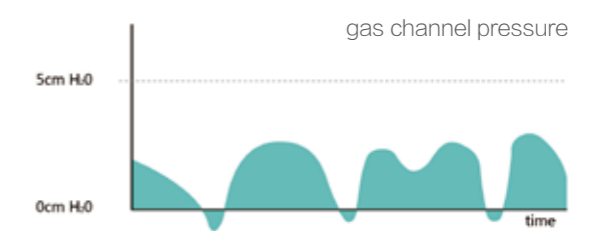
## Pressure generator with Coanda effect

NV8 system



The most stable respiratory waveform

regular CPAP facility



**iFlow Intelligent Closed-loop Control System:** intelligently adjusts fresh gas flow and airway pressure in a closed loop. Also, proximal pressure monitoring (under the nose) and real-time leakage compensation enable stable pressure output.

**Automatic leakage compensation:** In case of leakage, iFlow Intelligent Closed-loop Control System will compensate gas in real time to guarantee stable positive airway pressure. Its maximum 25% compensation is incomparable by traditional CPAP devices.

- Incorporates with Medin company's Medijet pressure generator; Patented technology using Coanda effect; Produce proximal positive airway pressure.

- Exhaled air vented out proximally, reducing CO2 residual more effectively and also reducing at most 75% WOB compared with traditional CPAP devices.

- Multisize soft silica gel nasal pillows, masks and cotton bonnets, suitable for preterm as low as 500g, easy to wear.



- **Proximal pressure monitoring:** without being affected by mechanical dead space in the closed loop and compliance, accurately measure patient's airway pressure, the most recognizable method in the industry.