

# WILAméd

*Equipment for Professionals*



## WILAflow Elite Neonatal Ventilator

[www.wilamed.com](http://www.wilamed.com)

Non-invasive treatment for  
the most delicate patients.



# Infant nCPAP Ventilation redefined

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## A new generation in Infant nCPAP Ventilation

In Germany, about 65,000 children are born prematurely every year - that is about 7% of all newborns. Worldwide, every tenth baby is a premature baby. Premature babies are now the largest group of patients in the neonatal medical care. Particularly in the case of early development-related pulmonary dysfunctions, the selection of an appropriate respiratory therapy in the first weeks and months of life is of great importance in order to prevent chronic lung damage.

**WILAflow Elite** is a microprocessor controlled, non-invasive infant ventilator, providing most advanced and diversified non-invasive nasal ventilation modes, including apnea wake-up function and automatic leakage compensation.

## Direct pressure setting

**WILAflow Elite** directly sets the value of pressure for fully automatic pressure control.



## Direct Oxygen concentration setting

**WILAflow Elite** uses electronic air/oxygen blender technology with one simple button to set precisely the value of the needed oxygen concentration and can auto-proportionate oxygen and airflow. High-precision flow sensor and proportional valve equipped enable real-time feedback and oxygen concentration precision with +3%.

## Precise levels of Oxygen

**WILAflow Elite** delivers precise levels of  $O_2$  at positive pressure, which helps to keep alveoli open and thus improving oxygenation, while the infant breathes spontaneously. The variable WILAflow CPAP Generator helps to reduce the imposed WOB (work of breathing) during inhalation and exhalation.

## Accurate and safe fresh gas delivery by iFlow

The Intelligent Closed-Loop Control System (iFlow) was designed to protect the most fragile patients. iFlow intelligently adjusts fresh gas flow and airway pressure in a closed loop. Proximal pressure monitoring (under the nose) and real-time leakage compensation enable stable pressure output. In case of leakage, iFlow will compensate gas in real time to guarantee stable positive airway pressure. It can compensate leakage up to a maximum of 25%, which is incomparable by traditional CPAP devices.

## Safe ventilation weaning

**WILAflow Elite** features SNIPPV / NIPPV, NCPAP and HFNC modes for safe ventilation weaning.

# WILAflow Elite

# WILAflo Elite – especially designed for the non-invasive ventilation of preterm infants or newborn infants predisposed with lung disease.

## Safe and reliable

**WILAflo Elite** allows proximal pressure monitoring without being affected by mechanical dead space in the closed loop and compliance. The device accurately measures patient's airway pressure. This is the most recognizable method in the industry.

## Optional Abdominal Respiratory Sensor available

The respiratory abdominal sensor enables the clinician to monitor for apnea/low breath rate in both nCPAP and BiPhasic modes. The accessories include the reusable transducer and single-patient-use abdominal sensor. In the BiPhasic trigger mode, the respiratory abdominal sensor and transducer allow patient-triggered pressure assists with breath rate monitoring.



*“Adequate humidification is essential to maintain airway clearance, optimize ventilation and improve patient comfort.”*

## Heated humidification is recommended for nCPAP therapy

The normal functions of the nose and air passages of the respiratory tract are to warm, moisten and filter the inhaled gases before they reach the lungs. In normal respiration, the nasal mucosa and upper airways provide 75% of the heat and moisture supplied to the smaller airways and alveoli. By the time air reaches the alveoli, the inspired gas warms to 37°C at 100% relative humidity (RH).

With nCPAP, the upper airways are not bypassed, but the high gas flows may be drying to the airways, especially to a neonate's underdeveloped lung.

# WILAflow Elite

Parameter	Adjustable Range	Step	Ventilation Mode
CPAP	1–13 cmH <sub>2</sub> O	1–3 cmH <sub>2</sub> O; 0,2 cmH <sub>2</sub> O 3–13 cmH <sub>2</sub> O; 0,5 cmH <sub>2</sub> O	nCPAP
PEEP	1–13 cmH <sub>2</sub> O	1–3 cmH <sub>2</sub> O; 0,2 cmH <sub>2</sub> O 3–13 cmH <sub>2</sub> O; 0,5 cmH <sub>2</sub> O	NIPPV SNIPPV
Pinsp	3–20 cmH <sub>2</sub> O	3–8 cmH <sub>2</sub> O; 0,5 cmH <sub>2</sub> O 8–15 cmH <sub>2</sub> O; 1 cmH <sub>2</sub> O	NIPPV SNIPPV
Papnea	3–20 cmH <sub>2</sub> O	3–8 cmH <sub>2</sub> O; 0,5 cmH <sub>2</sub> O 8–15 cmH <sub>2</sub> O; 1 cmH <sub>2</sub> O	nCPAP
Manual Ventilation	3–20 cmH <sub>2</sub> O	3–8 cmH <sub>2</sub> O; 0,5 cmH <sub>2</sub> O 8–20 cmH <sub>2</sub> O; 1 cmH <sub>2</sub> O	NIPPV SNIPPV nCPAP
	3–25 L/min.	3–10 L/min; 0,5 L/min 10–25 L/min; 1 L/min	HFNC
Manual ventilation time	1–20 s	1 s	nCPAP NIPPV SNIPPV HFNC
Flow	0,5–20 L/min.	0,5–2 L/min; 0,1 L/min 2–10 L/min; 0,5 L/min 10–20 L/min; 1 L/min	HFNC
O <sub>2</sub> %	21–100 %	1 %	NCPAP NIPPV
Flush O <sub>2</sub>	23–100 %	1 %	NCPAP NIPPV SNIPPV HFNC
Flush oxygen ventilation time	30 - 120 s	30 s	nCPAP NIPPV SNIPPV HFNC
Ti	0,1–20 s.	0,01 s	nCPAP NIPPV SNIPPV HFNC

# Parameters and Ranges

Parameter	Adjustable Range	Step	Ventilation Mode
Respiratory Rate	1–120 bpm	1 bpm	NIPPV
Tapnea	OFF; 10–30 s.	5 s	nCPAP SNIPPV
Rb	1–120 bpm	1 bpm	SNIPPV
Pressure		280–600 kPa	
Fresh gas Flow		40 L/min	
Monitoring			
O <sub>2</sub> %		0–100 %	
CPAP/EPAP Ppeak Pmean		-10–100 cmH <sub>2</sub> O	
I:E		1:1–1:10	
Te		0,4–30 s	
Rsp		0–200 bpm	
Flow		0–40 L/min	



# WILAflow Elite

Part Number	Item	Box / Qty.
101.300	WILAflow Elite Neonatal Ventilator; including Vent Cart	1
100.663	O2 Medical Gas Hose, NIST/DIN, white, 3 m	1
100.664	O2 Medical Gas Hose, NIST/DIN, white, 5 m	1
100.666	Air Medical Gas Hose, NIST/DIN, black, 3 m	1
100.667	Air Medical Gas Hose, NIST/DIN, black, 5 m	1
101.302	Signal Box	1
101.301	Body Sensor	5
101.304	Circuit Support Arm	1
101.554	Water Bag Pole	1
<b>Respiratory Humidification</b>		
100.900	AIRcon Humidifier 230 V	1
270.777	Heated Wire Breathing Circuit System, including Auto-Fill Humidifier Chamber and WILAflow CPAP Generator with three nasal Prongs, Size S, M and L	10
<b>CPAP Accessories</b>		
300.710	WILAflow CPAP Mask, Size S	10
300.711	WILAflow CPAP Mask, Size M	10
300.708	WILAflow CPAP Mask, Size L	10
300.709	WILAflow CPAP Mask, Size XL	10
300-712	WILAflow Nasal Prong, Size S	10
300.713	WILAflow Nasal Prong, Size M	10
300.714	WILAflow Nasal Prong, Size L	10



# Order Information

Part Number	Item	Box / Qty.
300.720	WILAbonnet, White, Size 000, 18–20 cm	10
300.721	WILAbonnet, Grey, Size 00, 20–22 cm	10
300.722	WILAbonnet, Pink, Size 0, 22–24 cm	10
300.723	WILAbonnet, Brown, Size 1, 24–26 cm	10
300.724	WILAbonnet, Yellow, Size 2, 26–28 cm	10
300.725	WILAbonnet, Blue, Size 3, 28–30 cm	10
300.726	WILAbonnet, Lite Orange, Size 4, 30–32 cm	10
300.727	WILAbonnet, Green, Size 5, 32–34 cm	10
300.728	WILAbonnet, Red, Size 6, 34–36 cm	10
300.729	WILAbonnet, Orange, Size 7, 36–38 cm	10
300.730	WILAbonnet, Turquoise, Size 8, 38–40 cm	10
300.731	WILAbonnet, Dark Blue, Size 9, 40–42 cm	10





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