



VPAP™

BILEVEL DEVICES

ResMed's latest VPAP bilevel devices are designed to deliver effective and comfortable therapy to a wide range of patients, including those with complex sleep apnea, those who are noncompliant with CPAP therapy and those with respiratory insufficiency.

Incorporating the stylish design and sophisticated comfort features of the award-winning S9™ platform, VPAP bilevel devices bring a new level of quietness and comfort to sleep-disordered breathing therapy for even your most challenging patients.



ResMed VPAP devices—bilevel therapy on the stylish, user-friendly S9 platform

One platform, a range of therapy devices

ResMed's latest range of bilevel therapy devices includes the VPAP Auto, VPAP Adapt, VPAP S, VPAP ST and VPAP ST-A. All these devices operate on a single platform with common menu structures, making patient management more efficient.

New motor technology—now quieter than ever

The Enhanced Easy-Breathe motor is exceptionally quiet, making it easy to integrate into the patient's (and bed partner's) lifestyle. No louder than normal breathing, the motor allows patients to experience quietness and comfort on a whole new level.

The sophisticated motor technology creates an axial airflow that is distributed evenly throughout the motor. Conducted noise transferred through the mask to the patient is reduced by 78%, compared to the S8™ Series II¹.

Quick and easy set-up and handling

- The color LCD screen offers intuitive menu layout; the push-and-turn dial offers simple navigation.
- Incredibly quick and easy to set up for excellent out-of-box therapy performance.
- Smart-fit cuff design makes tubing easier to attach and assemble.

The technology behind the therapy

- VPAP Auto: Enhanced AutoSet™ algorithm with central sleep apnea (CSA) detection automatically adjusts throughout the night for optimal therapy.
- VPAP Adapt: ASVAuto technology stabilizes the upper airway to treat obstructive apneas while maintaining stable minute ventilation and treating all forms of periodic breathing.
- VPAP ST-A: iVAPS (intelligent Volume-Assured Pressure Support) targets and maintains alveolar ventilation even as the patient's respiratory needs change.



Optimal comfort with Climate Control and ClimateLine™ MAX™

ResMed's H5i™ Heated Humidifier offers advanced humidification with Climate Control, which automatically regulates and maintains temperature and humidity levels as conditions change throughout the night (and from season to season).

VPAP bilevel therapy devices offer integrated heated wire tubing with the ClimateLine™ MAX, which supports higher bilevel pressures and works with the Climate Control algorithm to deliver a constant, comfortable temperature at the mask. This helps to reduce rainout while creating more comfortable treatment options for patients.

¹ ResMed internal testing

VPAP

BILEVEL DEVICES

PROFESSIONAL BENEFITS

- Comfortable therapy and user-friendly design help increase patient compliance
- Quick and easy to set up, resulting in fewer callbacks and reduced set-up time for excellent out-of-box performance
- Advanced clinical features and patient management options result in greater treatment efficacy to ensure success for a wide range of patients
- CSA detection allows you to identify patients who can benefit from CSA therapy²
- One common platform with interchangeable parts and accessories can reduce inventory costs

PATIENT BENEFITS

- Comfortable treatment leads to improved clinical results and a better night's sleep
- Stylish, user-friendly design is easily integrated into the patient's lifestyle
- Quiet therapy leaves the patient and bed partner undisturbed, thanks to Easy-Breathe motor technology
- Easy-Breathe waveform improves sleep comfort
- Ability to monitor patient progress for treatment efficacy and success

Product Codes

ClimateLine tube	36995
ClimateLine ^{MAX}	36997
S9 VPAP Auto	36006
S9 VPAP Auto + H5i	36016
S9 VPAP Auto + Climate Control ³	36026
S9 VPAP S	36004
S9 VPAP S + H5i	36014
S9 VPAP S + Climate Control ³	36024
VPAP ST	36038
VPAP ST + H5i	36048
VPAP ST + Climate Control ³	36058
VPAP ST-A	36009
VPAP ST-A + H5i	36019
VPAP ST-A + Climate Control ³	36029
VPAP Adapt	36037
VPAP Adapt + H5i	36047
VPAP Adapt + Climate Control ³	36057

² CSA detection available in S9 VPAP S and S9 VPAP Auto

³ Climate Control includes H5i and ClimateLine tube

GENERAL TECHNICAL SPECIFICATIONS

Power supply unit

90W power supply unit:
 Input range: 100–240V, 50–60Hz, 110V, 400Hz
 nominal for aircraft use
 Typical power consumption: 70W (80VA)
 Maximum power consumption: 110W (120VA)
 30W power supply unit:
 Input range: 100–240V, 50–60Hz, 110V, 400Hz
 Typical power consumption: 20W (30VA)
 Maximum power consumption: 36W (75VA)

Environmental conditions

Operating temperature: 41°F to 95°F (+5°C to +35°C)
 Operating humidity: 10–95% non-condensing
 Operating altitude: Sea level to 8,500' (2,591m)
 Storage and transport temperature: -4°F to 140°F
 (-20°C to +60°C)
 Storage and transport humidity: 10–95% non-condensing

Aircraft use

ResMed confirms that this device meets the Federal Aviation Administration (FAA) requirements (RTCA/DO-160G, section 21, category M) for all phases of air travel.

Electromagnetic compatibility

Product complies with all applicable electromagnetic compatibility requirements (EMC) according to IEC60601-1-2, for residential, commercial and light industry environments. Information regarding the electromagnetic emissions and immunity of this ResMed device can be found on www.resmed.com, on the Products page under Service and Support. Click on the PDF file for your language.

IEC 60601-1 classification

Class II (double insulation), Type BF

DEVICE TECHNICAL SPECIFICATIONS

Pressure and flow state

Operating pressure range:
 VPAP Auto, VPAP ST, VPAP S: 3–25 cm H₂O
 VPAP ST-A: 3–30 cm H₂O
 VPAP Adapt: 4–25 cm H₂O
 Maximum single fault steady state pressure: 40 cm H₂O
 Pressure measurement tolerance: ±0.5 cm H₂O ± 4% of the measured reading
 Flow measurement tolerance: ±6 L/min or 10%* of reading, whichever is greater, at 0 to 150 L/min positive flow
 (*Note: 20% for VPAP ST and VPAP ST-A)

Mode reading

CPAP mode, Set Pressure: 4–20 cm H₂O
 S, ST and T modes, IPAP: 4 to 25 cm H₂O (VPAP ST), PAC, S, ST and T modes, IPAP: 4 to 30 cm H₂O (VPAP ST-A)
 EPAP: 3 to 25 cm H₂O
 VAuto mode, Min EPAP: 4 cm H₂O;
 Max IPAP: 25 cm H₂O; Pressure support: 0 to 10 cm H₂O
 ASVAuto and ASV modes, EPAP: 4 to 15 cm H₂O;
 Max PS: 5 to 20 cm H₂O; Min PS: 0 to 6 cm H₂O
 iVAPS mode, EPAP: 3 to 25 cm H₂O;
 Pressure support: 0 to 27 cm H₂O

Physical

Nominal dimensions (L x W x H)
 VPAP ST, VPAP Adapt and VPAP Auto:
 6.0" x 5.5" x 3.4" (153 mm x 140 mm x 86 mm)
 VPAP ST-A: 6.0" x 6.8" x 3.4" (153 mm x 172 mm x 86 mm)
 Weight: VPAP ST, VPAP Adapt and VPAP Auto:
 1.84 lb (835 g) VPAP ST-A: 2.3 lb (1045 g)
 Housing construction: Flame retardant engineering thermoplastic
 Air outlet: 22 mm conical air outlet
 (complies with ISO 5356-1:2004)
 Hypoallergenic air filter: Acrylic and polypropylene fibers in a polypropylene carrier
 Standard air filter: Polyester non-woven fiber air outlet

Sound

Declared dual-number noise emission values in accordance with ISO 4871:1996
 Pressure level (CPAP mode) with SlimLine™ tube: 26 dBA with uncertainty of 2 dBA as measured according to ISO 17510-1:2007
 With Standard tube: 27 dBA with uncertainty of 2 dBA as measured according to ISO 17510-1:2007
 With either SlimLine or Standard tube and H5i: 28 dBA with uncertainty of 2 dBA as measured according to ISO 17510-1:2007
 Power level (CPAP mode)
 With SlimLine tube: 34 dBA with uncertainty of 2 dBA as measured according to ISO 17510-1:2007
 With Standard tube: 35 dBA with uncertainty of 2 dBA as measured according to ISO 17510-1:2007
 With either SlimLine or Standard tube and H5i: 36 dBA with uncertainty of 2 dBA as measured according to ISO 17510-1:2007

Supplemental oxygen

Recommended maximum supplemental oxygen flow
 VPAP Auto, VPAP ST-A, VPAP ST, VPAP S:
 4 L/min (VAuto and iVAPS modes);
 15 L/min (S, ST, T and PAC modes)
 VPAP Adapt: 4 L/min (ASVAuto mode); 15 L/min (ASV mode)

H5i TECHNICAL SPECIFICATIONS

Maximum heater plate temperature: 150°F (65°C)
 Temperature cut-out: 165°F (74°C)
 Maximum gas temperature: ≤ 106°F (≤ 41°C)
 Physical dimensions (L x W x H): 6.0" x 5.7" x 3.4"
 (153 mm x 145 mm x 86 mm)
 Weight (water tub): Docking station and unfilled water tub 1.5 lb (670 g)
 Weight (cleanable water tub): Docking station and unfilled water tub 1.7 lb (770 g)
 Water capacity: To maximum fill line 380 mL
 Materials docking station: Flame retardant engineering thermoplastic, aluminium
 Cleanable water tub: Injection molded plastic, stainless steel and silicone seal
 Water tub: Injection molded plastic, aluminium and thermoplastic elastomer

AIR TUBING TECHNICAL SPECIFICATIONS

ClimateLine^{MAX} /

ClimateLine heated air tubing

Material: Flexible plastic and electrical components
 Maximum recommended pressure: 30 cm H₂O/ 20 cm H₂O
 Length: 6'2.8" (1.91 m) / 6'6" (2 m)
 Inner diameter: 0.75" (19 mm) / 0.6" (15 mm) Heated tubing temperature cut-out: ≤ 106°F (≤ 41°C).

SlimLine air tubing

Material: Flexible plastic
 Maximum recommended pressure: 20 cm H₂O
 Length: 6' (1.8 m)
 Inner diameter: 0.6" (15 mm)

Standard air tubing

Material: Flexible plastic
 Maximum recommended pressure: 25 cm H₂O
 Length: 6'6" (2 m)
 Inner diameter: 0.75" (19 mm)

3 m air tubing

Material: Flexible plastic
 Maximum recommended pressure: 25 cm H₂O
 Length: 9'10" (3 m)
 Inner diameter: 0.6" (15 mm)