PHILIPS

RESPIRONICS

DreamStation

Sound performance

Quiet comfort

Give everyone peace and quiet with DreamStation.

DreamStation: Quiet. Comfortable. Sleep.
We all want a little peace and quiet at bedtime. For users of CPAP devices, a good night's sleep can sometimes be hard to come by, resulting in lower levels of compliance. With the quiet DreamStation therapy device, more CPAP patients have the potential for restful, peaceful sleep, reducing the likelihood of complaints to providers and clinicians.

Quiet when it matters most — when patients are using it
Many CPAP devices are quiet when they're simply turned on but not actually in use by a patient. In contrast, our enhancements to DreamStation make it one of the quietest devices on the market when it matters: when patients are breathing on it and actively using it to improve their ability to get a restful night's sleep.

Peak-to-peak performance
The sound level from a PAP device varies during inhalation and exhalation. If this change in sound level is large, it may become noticeable and make it more difficult to fall asleep. That's why we designed DreamStation to reduce "peak-to-peak" noise.
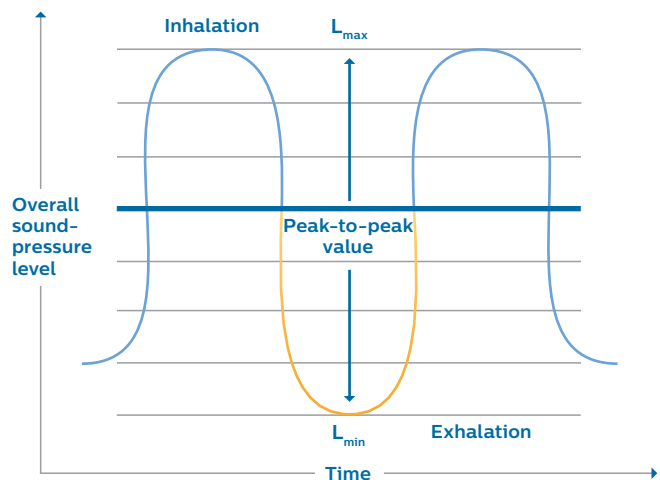
Orfield Laboratories, Inc., an independent, third-party laboratory, performed dynamic sound testing under conditions that simulated patient breathing cycles to establish the "peak-to-peak" value.

DreamStation was proven to be 63% quieter than the ResMed AirSense 10.*

*Based on the average change in sound level during simulated patient breathing, across a range of pressure, expiratory relief, and humidifier conditions.

Inhalation L_{max}

Overall sound-pressure level — Peak-to-peak value
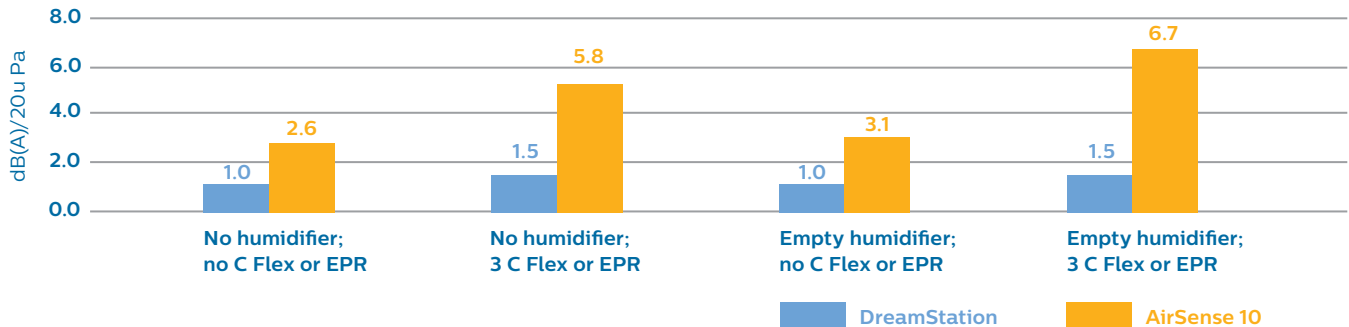
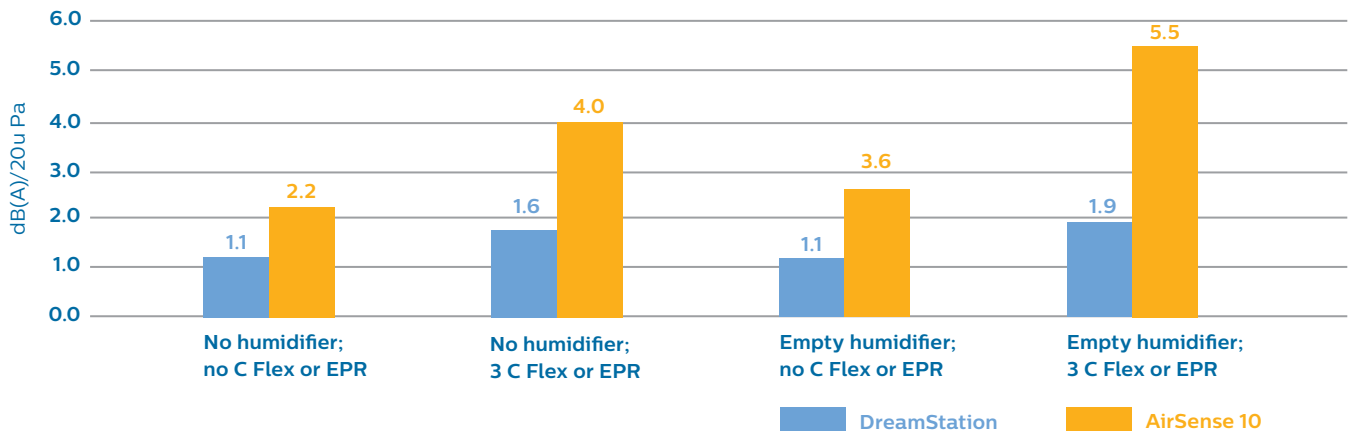L_{min} Exhalation

Time

● DreamStation

DreamStation is **63% quieter** than the ResMed AirSense 10[*]

The results of our noise-comparison test between DreamStation and the AirSense 10, depicted in the graphs below, reveal a measurable sound-pressure difference between the two systems while breathing is simulated. DreamStation is clearly quieter. In fact, on average, DreamStation is 63% quieter than the AirSense 10 during simulated breathing conditions.
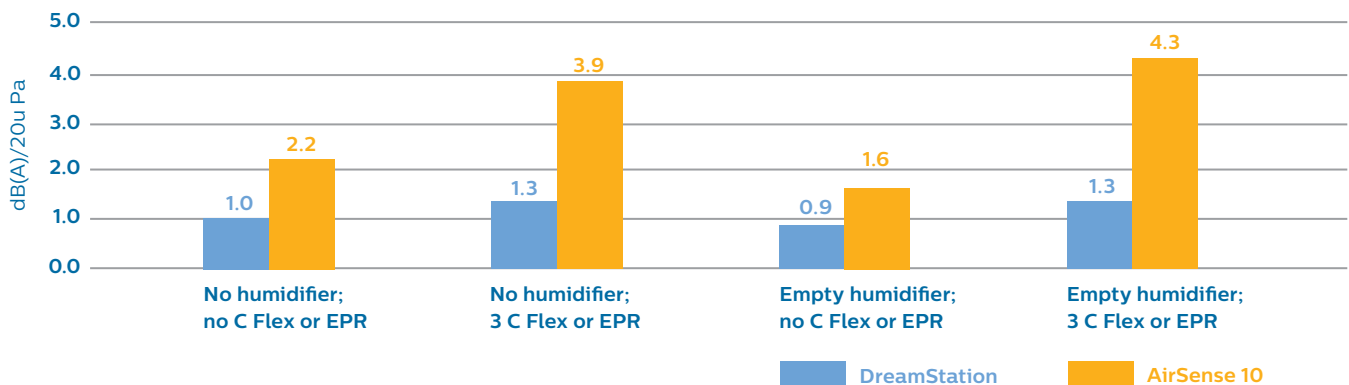
7cm H_2O, L_{Max}-L_{Min} dynamic sound-pressure level, Orfield Labs, n=10

dB(A)/20u Pa

	No humidifier; no C Flex or EPR	No humidifier; 3 C Flex or EPR	Empty humidifier; no C Flex or EPR	Empty humidifier; 3 C Flex or EPR
DreamStation	1.0	1.5	1.0	1.5
AirSense 10	2.6	5.8	3.1	6.7

■ DreamStation   ■ AirSense 10

10cm H_2O, L_{Max}-L_{Min} dynamic sound-pressure level, Orfield Labs, n=10

dB(A)/20u Pa

	No humidifier; no C Flex or EPR	No humidifier; 3 C Flex or EPR	Empty humidifier; no C Flex or EPR	Empty humidifier; 3 C Flex or EPR
DreamStation	1.1	1.6	1.1	1.9
AirSense 10	2.2	4.0	3.6	5.5

■ DreamStation   ■ AirSense 10

14cm H_2O, L_{Max}-L_{Min} dynamic sound-pressure level, Orfield Labs, n=10

dB(A)/20u Pa

	No humidifier; no C Flex or EPR	No humidifier; 3 C Flex or EPR	Empty humidifier; no C Flex or EPR	Empty humidifier; 3 C Flex or EPR
DreamStation	1.0	1.3	0.9	1.3
AirSense 10	2.2	3.9	1.6	4.3

■ DreamStation   ■ AirSense 10

[*]Based on the average change in sound level during simulated patient breathing, across a range of pressure, expiratory relief, and humidifier conditions.

Noise-reducing enhancements

The most significant DreamStation noise-reduction enhancements begin with mitigating noise from the blower system. The blower box is made from noise-attenuating material that creates a sealed, isolated structure to provide consistent airflow through the device. The soft blower isolation system was optimized to reduce vibrations – especially when changing speeds – resulting in reduced peak-to-peak dynamic noise.
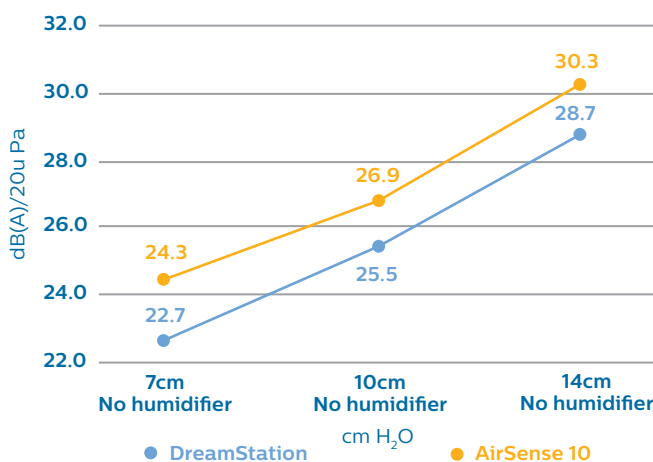
The sound of innovation
- The blower box is sealed and isolated to dissipate blower noise.
- A soft, sound-dampening material lessens vibrations, reducing sound-pressure levels.
- Tuned airflow paths allow air to travel through the system more quietly.

Thoroughly tested
With or without a humidifier, and at varying pressure and expiratory relief settings, DreamStation outperformed the AirSense 10 in an area critical to patient compliance: the ability to operate quietly when in use.

CPAP with no humidifier, [static] overall sound-pressure level, Orfield Labs, n=10

dB(A)/20u Pa

	7cm No humidifier	10cm No humidifier	14cm No humidifier
AirSense 10	24.3	26.9	30.3
DreamStation	22.7	25.5	28.7

cm H_2O

● DreamStation ● AirSense 10

So how noisy isn't it?
Every home has its own sounds and definition of quiet. The everyday use of household devices can be noisy. Sleep apnea PAPs are no different and some devices may be noisy enough to interrupt your sleep, reading, TV viewing, or talking with your bed partner. The graph below shows just how quiet DreamStation is compared to other household sounds.

Common sounds comparison graph
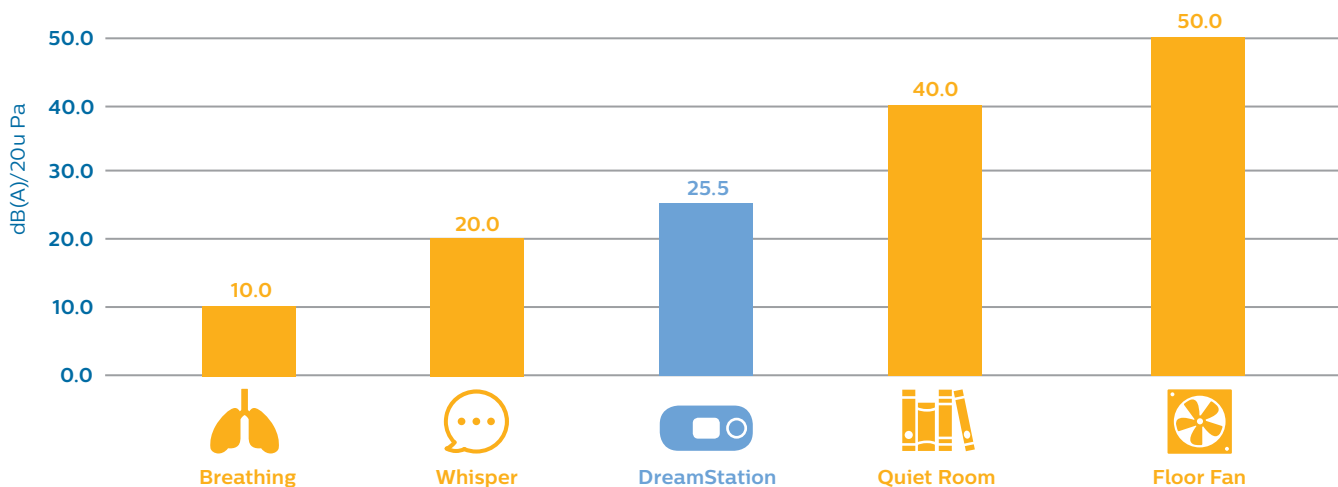
dB(A)/20u Pa

Breathing	Whisper	DreamStation	Quiet Room	Floor Fan
10.0	20.0	25.5	40.0	50.0

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Caution: US federal law restricts these devices to sale by or on the order of a physician.

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