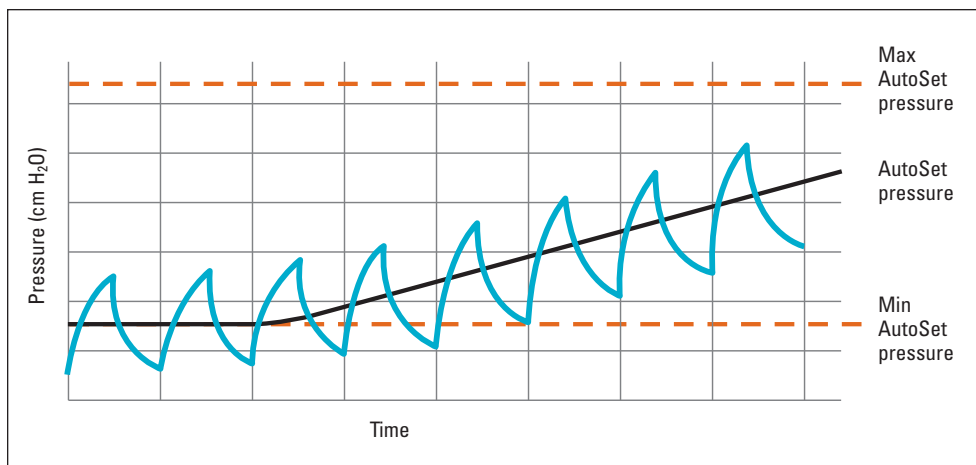


## VPAP™ Malibu Auto-adjusting Bilevel

### Technology Fact Sheet

ResMed's new VPAP™ Malibu with VSet™ auto-adjusting bilevel mode features our clinically proven AutoSet™ technology for the most comfortable and effective auto bilevel treatment available. This new mode combines the best of VPAP and AutoSet technology in one complete package. The AutoSet algorithm automatically adjusts pressure to prevent most snore and apnea events. AutoSet is the only technology that responds to inspiratory flow limitation on a breath-by-breath basis.



#### Simple to use—out-of-the-box settings are right for most patients

The VPAP Malibu's default settings were selected to be ideal for most patients. The primary VSet mode settings are Pressure Support, AutoSet Min and AutoSet Max.

#### What does AutoSet pressure represent?

AutoSet pressure represents the median or midpoint pressure of the whole bilevel breath, between the inspiratory pressure (IPAP) and expiratory pressure (EPAP). AutoSet pressure (95<sup>th</sup> percentile) is reported on the LCD of the device or in a ResScan™ patient management software report.

Example: Assuming Pressure Support (PS) is set to 4 cm H<sub>2</sub>O and the reported AutoSet pressure is 10 cm H<sub>2</sub>O, then it can be inferred that the IPAP is equal to AutoSet Pressure + ½ times PS, or  $10 + 2 = 12$ . The EPAP is equal to AutoSet pressure - ½ times PS, or  $10 - 2 = 8$ .

#### What are AutoSet Min and AutoSet Max settings?

AutoSet Min/Max will limit the AutoSet pressure changes within these bounds. Since the AutoSet pressure is the median bilevel pressure, the maximum inspiratory pressure (IPAP) will be greater than the AutoSet Max setting. How much greater is dependent upon the PS setting. For example, at default settings, the AutoSet Max pressure is 20 cm H<sub>2</sub>O, but a PS of 4 cm H<sub>2</sub>O means the IPAP could reach 22 cm H<sub>2</sub>O.

#### When should I adjust AutoSet Min and AutoSet Max limits?

The default settings for AutoSet Min and Max are 5 cm H<sub>2</sub>O and 20 cm H<sub>2</sub>O, respectively, to allow the AutoSet algorithm to fully respond to detected events. It may be desirable to start the patient at a higher AutoSet Min pressure to eliminate significant sleep onset events. Alternatively, there may be a medical reason to limit the AutoSet Max pressure.

#### What is Pressure Support?

Pressure Support (PS) is the pressure difference between IPAP and EPAP for any given breath. For example, if IPAP is 12 cm H<sub>2</sub>O and EPAP is 8 cm H<sub>2</sub>O, PS is equal to 4 cm H<sub>2</sub>O.

#### When should I adjust Pressure Support?

Since the AutoSet algorithm will determine the correct treatment pressure on a breath-by-breath basis, you do not set IPAP or EPAP. Instead, the PS setting will determine the IPAP to EPAP differential as the AutoSet algorithm responds to detected events. The default PS setting of 4 cm H<sub>2</sub>O is ideal for most OSA patients.

However, for patients who have a hypoventilation disorder such as obesity hypoventilation syndrome, it may be beneficial to increase the PS setting to guarantee a minimum tidal volume throughout the night. Tidal volume is measured by the device to aid in determining the best PS setting.

## How do I prescribe VSet for my patients?

Ideally, the prescription would include:

Rx

**ResMed VPAP Malibu**

Pressure Support: 4 cm H<sub>2</sub>O

AutoSet Min: 5 cm H<sub>2</sub>O

AutoSet Max: 20 cm H<sub>2</sub>O

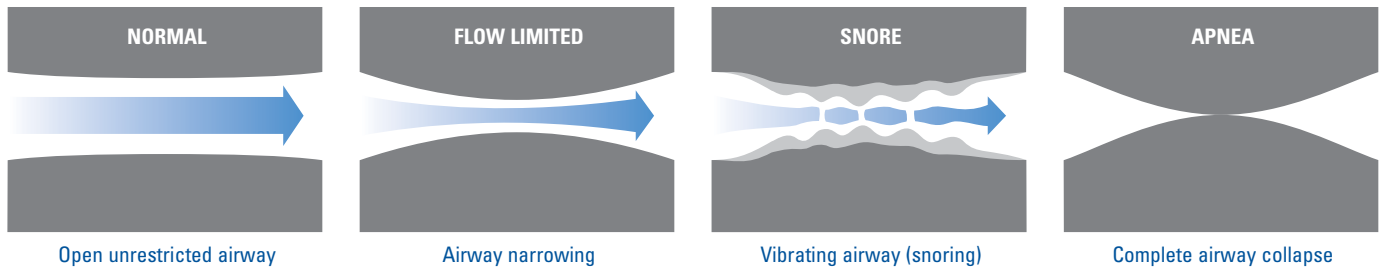
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If it is necessary or desirable to order using standard IPAP and EPAP terminology, at default settings:

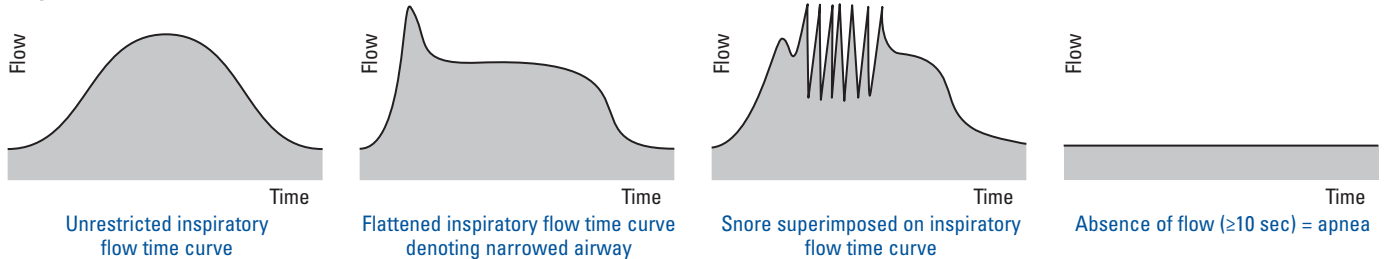
IPAP range = 6-22 cm H<sub>2</sub>O

EPAP range = 4-18 cm H<sub>2</sub>O

### Patient airway



### Inspiratory flow curve



### Pressure response

