



ResMed

*Changing lives
with every breath*

➤ ResMed Air™ Solutions



⤵ a new beginning...

...in therapy choices.

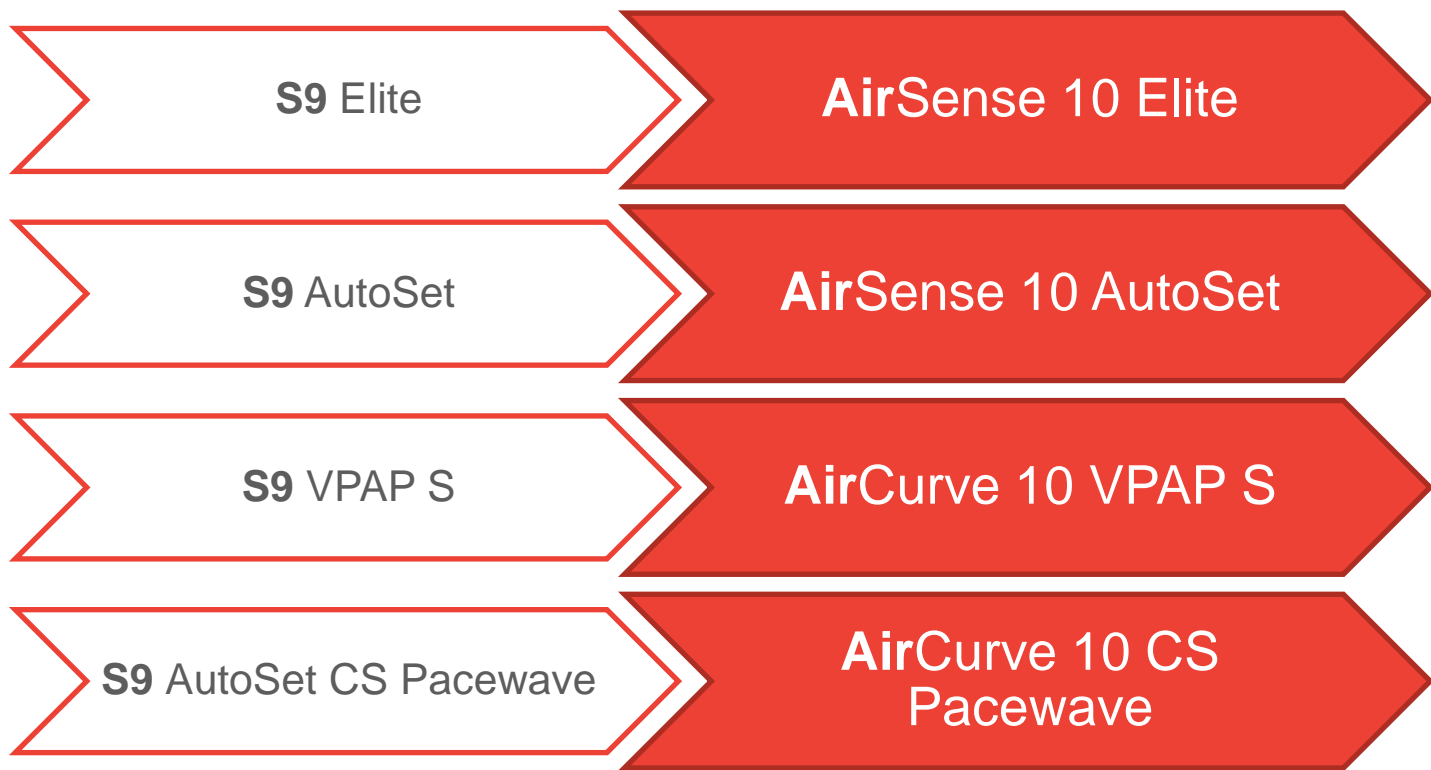
AirCurve™ 10

CS PACEWAVE



➤ Air Devices: What's new?

Comparison **Air10** series vs **S9** series



➤ Intuitief gebruikersscherm

Intutief gebruikersscherm

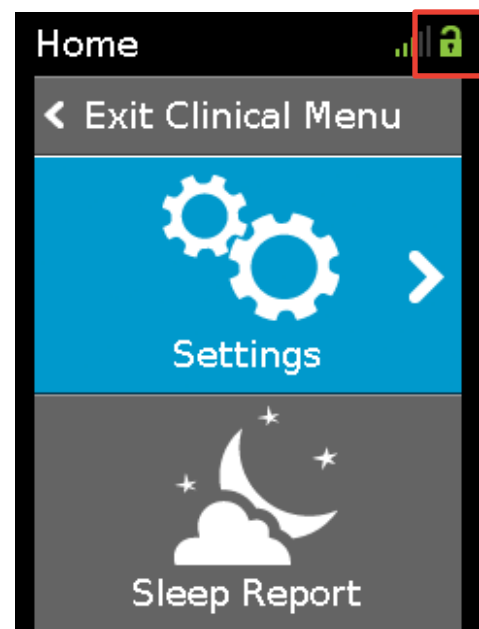
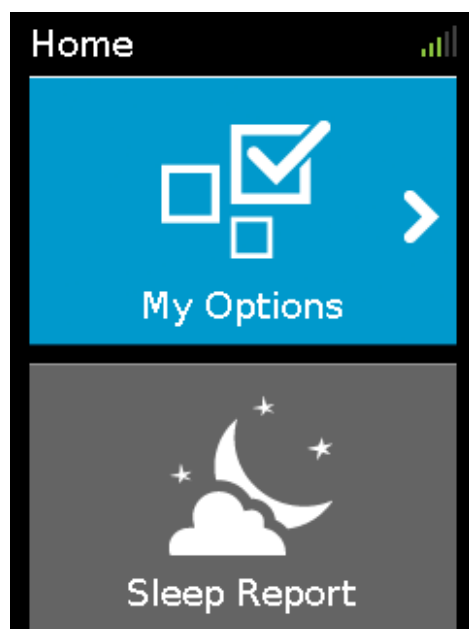




Klinisch menu

> Klinisch menu en schermen

- Het klinische scherm bestaat uit 2 hoofd menu's:
 - **Instellingen**
 - **Slaap Rapport**
- Activatie met Home button + draai-druk knop gedurende 3 seconden

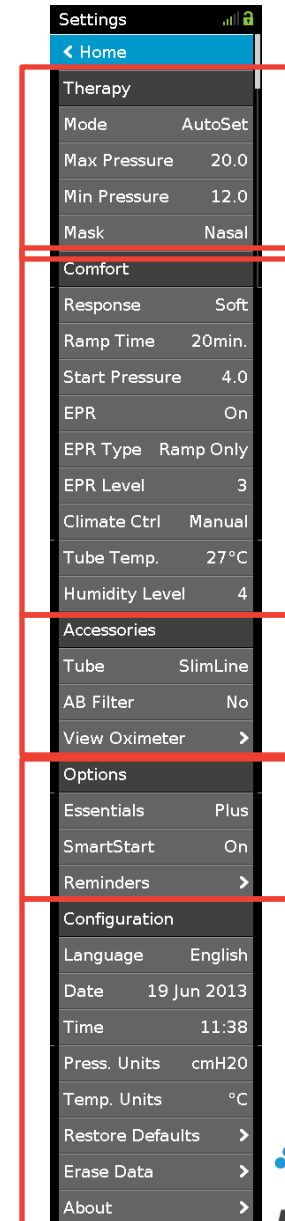


- Verlaat het klinische menu met  of druk “verlaat klinisch menu”

➤ Klinisch menu en schermen

Instellingen

- Eenvoudige en directe toegang tot de therapie instellingen
- Ons unieke scherm waarin omlaag gescrolled kan worden naar alle instellingen georganiseerd per categorie. Volgorde van het menu is gebaseerd op wat artsen hebben aangegeven wat voor hen het meest belangrijk is
 - **Therapie** incl. Modus, Min/Max druk, en Masker type
 - **Comfort** incl. Response optie, Aanlooptijd, EPR, Climate Control en Bevochtigings level
 - **Accessoires** met slang type, AB filter, en oximetrie
 - **Opties** met Essentials, SmartStart en Herinnerings instellingen
 - **Configuratie** incl. taal, Datum/Tijd, Units, software versie, etc...



➤ Optimaal Comfort met
HumidAir™ Verwarmde bevochtiger

➤ Introductie HumidAir verwarmde bevochtiger

Levert marktleidende bevochtigingsprestaties

Hogere
bevochtigings output

Eenvoudig te
verwijderen
waterkamer

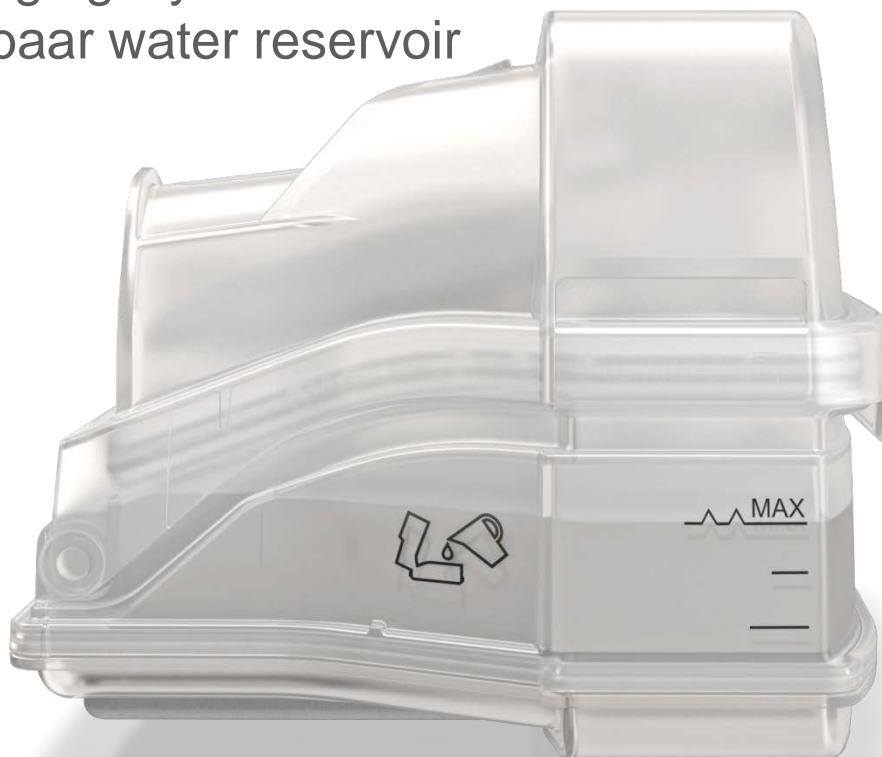


Verbeterde Climate
Control Auto

Geïntegreerde
bevochtiger

> HumidAir bevochtiger

Een bevochtigingssysteem middels een herbruikbaar water reservoir



Eenvoudig en volledig te openen voor eenvoudig schoonmaken

Doorzichtig water reservoir waardoor het eenvoudig is het waterniveau te controleren

➤ HumidAir, wat is nieuw: Loskoppelen om te vullen



3. HumidAir kan niet gevuld worden wanneer hij is aangesloten

De bevochtigingskamer dient verwijderd te worden om hem te kunnen vullen met water, dit reduceert het risico van waterschade aan het apparaat

➤ Superieure Bevochtiging met
Climate Control

Componenten van Climate Control

Maximaal ademhalingscomfort gedurende de nacht

Climate Control is enkel beschikbaar wanneer zowel de **HumidAir bevochtiger** als de **ClimateLineAir verwarmde slang** zijn aangesloten.



Temperatuur Sensor om er zeker van te zijn dat de optimale temperatuur wordt geleverd aan het masker

> ClimateLineAir™ Slang

- Behoudt automatisch de ingestelde temperatuur en RH wanneer deze gebruikt wordt samen met de HumidAir bevochtiger.
- Nieuwe draaibare aansluiting eenvoudig te manoevreren en hierdoor grotere bewegingsvrijheid voor de patient.



➤ Climate Control – Modi

- Climate Control **Auto** (*default; aanbevolen*)
 - Slang **temperatuur door de patient bepaald**
 - **85%** relatieve luchtvochtigheid
 - Bescherming tegen condensvorming

- Climate Control **Manueel**
 - **Onafhankelijke** controle van de slang temperatuur en bevochtigings levels
 - Slang temperatuur tussen **16–30°C**
 - **Acht** bevochtigings levels (uit, 1-8)
 - Bescherming tegen condensvorming is **NIET** gegarandeerd



- Climate Control wordt enkel weergegeven in het menu met de volgende instelling:
 - Humid**Air** water reservoir geïnstalleerd
 - ClimateLine**Air** slang aangesloten

➤ Climate Control Auto Mode

Automatische levering van 85% RH op een constante temperatuur voorziet in:

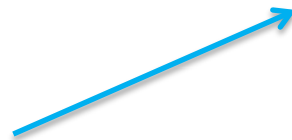
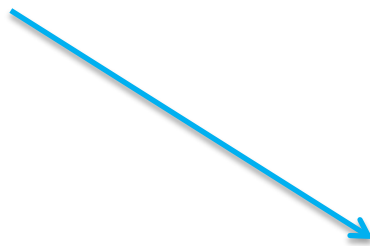
- Bescherming tegen condensvorming ✓
- Consistente absolute luchtvochtigheid ✓
- Eenvoud: eenvoudig te begrijpen en aan te passen ✓
- Klinisch voldoende levering van luchtvochtigheid ✓



Others

> Key features

- Integrated connectivity: telemonitoring



- Oxymetry



Aircurve

➤ Adaptive Servo-Ventilation (ASV)

AirCurve™ 10

CS PACEWAVE



with **Minute Ventilation*** **Adaptive Servo-Ventilation (MV ASV)** therapy

* Minute ventilation = respiratory rate (per minute) x tidal volume of each breath

➤ Indications for use post Serve-HF

- Indications for ASV use have changed as a result of the SERVE-HF study findings. ASV therapy is still indicated to stabilise ventilation in adult patients with CSA, mixed sleep apnoea and periodic breathing, with or without OSA.
- In alignment with regulatory authorities, ASV therapy is now **contraindicated** in patients with chronic, symptomatic heart failure (NYHA 2-4) with reduced left ventricular ejection fraction (**LVEF \leq 45%**) and moderate to severe predominant CSA.

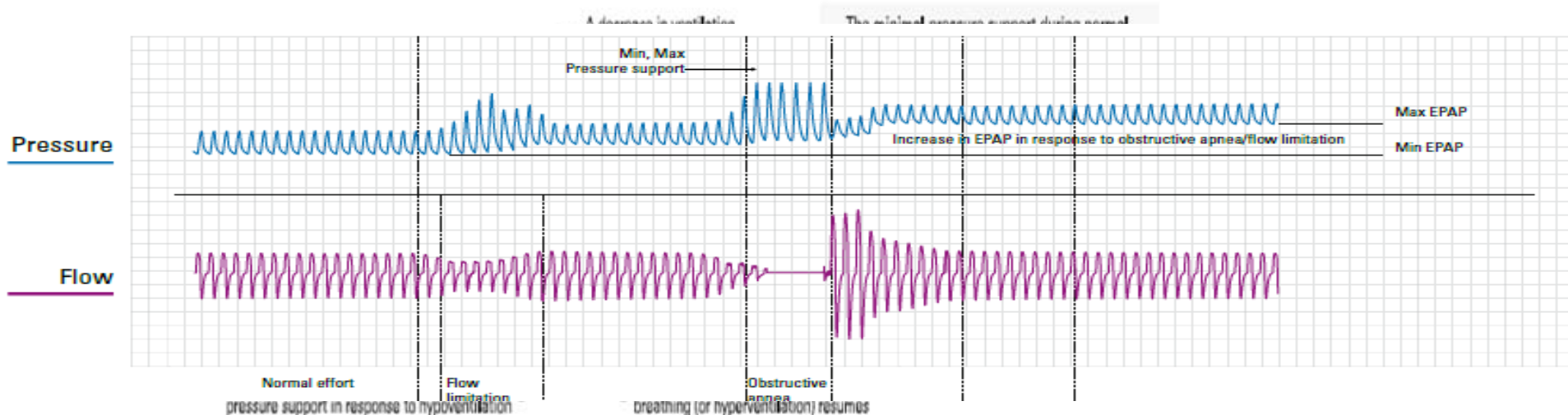


➤ AirCurve 10 CS PaceWave

Overview

The AirCurve 10 CS PaceWave rapidly stabilises breathing because it responds to:

- central apneas, stabilizing ventilation (and therefore blood gases)
and
- obstructive events, stabilizing the upper airway (and therefore maintaining airway patency)





AirCurve 10 CS PaceWave: learns, responds, predicts, optimises



Learning continuously for
personalised therapy

The only ASV therapy to target
the patient's own recent MV



Responding rapidly for
effective therapy

ResMed's most responsive
ASV therapy



Predicting each patient's
unique needs for ease-of-care

Treating your challenging patients
has never been easier



Optimising comfort and
synchrony for compliance

Boost compliance with natural breathing
comfort and advanced synchrony

➤ 1. AirCurve 10 CS PaceWave: learns continuously

To stabilise blood gases it is necessary to stabilise ventilation. To do this AirCurve 10 CS PaceWave **continuously** measures minute ventilation (MV).

- MV target set to 90% of the patient's own ventilation*
- Target MV is continually adjusted to reflect changes in patient's own MV.
- No over-ventilation at any time.

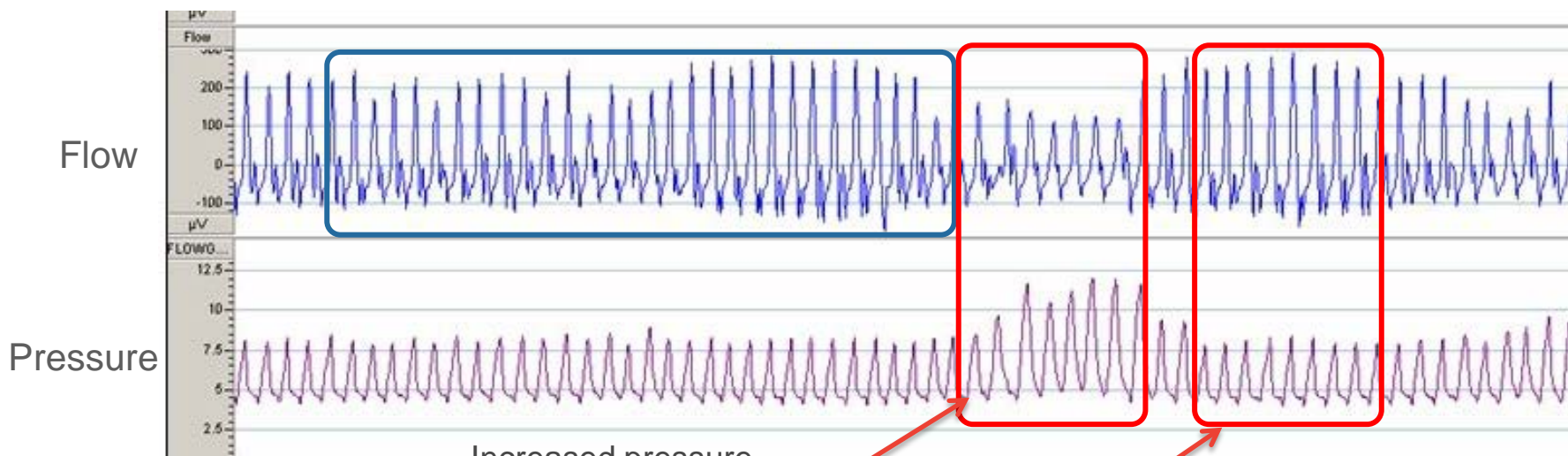
* At the beginning, MV is set to 4l/min and the respiratory rate is set to 15bpm

2. AirCurve 10 CS PaceWave: responds quickly

1. Maintaining MV target

- AirCurve 10 CS PaceWave responds rapidly to changes in minute ventilation
- Monitors recent average minute ventilation (~3-min window)
- Adjusts pressure support up or down as needed to achieve target

3-minute moving window



Increased pressure support when minute ventilation decreases

Decreased pressure support when minute ventilation increases. This prevents the risk of further hyperventilation

2. AirCurve 10 CS PaceWave: responds quickly

1. Stabilizing the upper airway

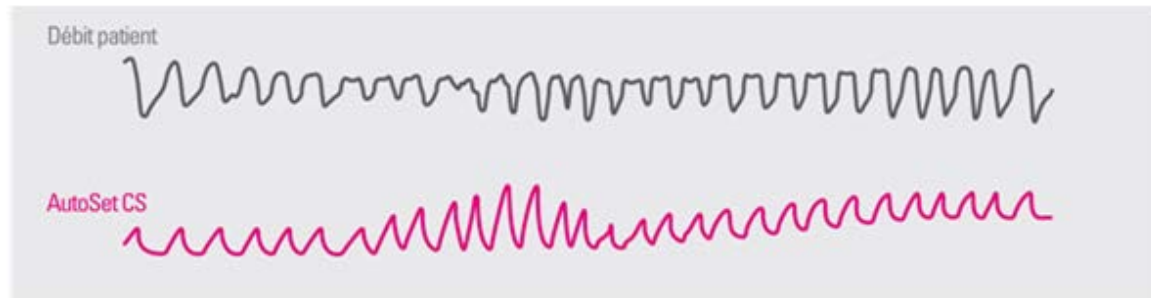
If the upper airway is closed, ventilation cannot be stabilised.

2 modes:

- In **ASV** mode, fixed EPAP to keep the airway open.



- In **ASV Auto** mode, the algorithm responds to obstructive events



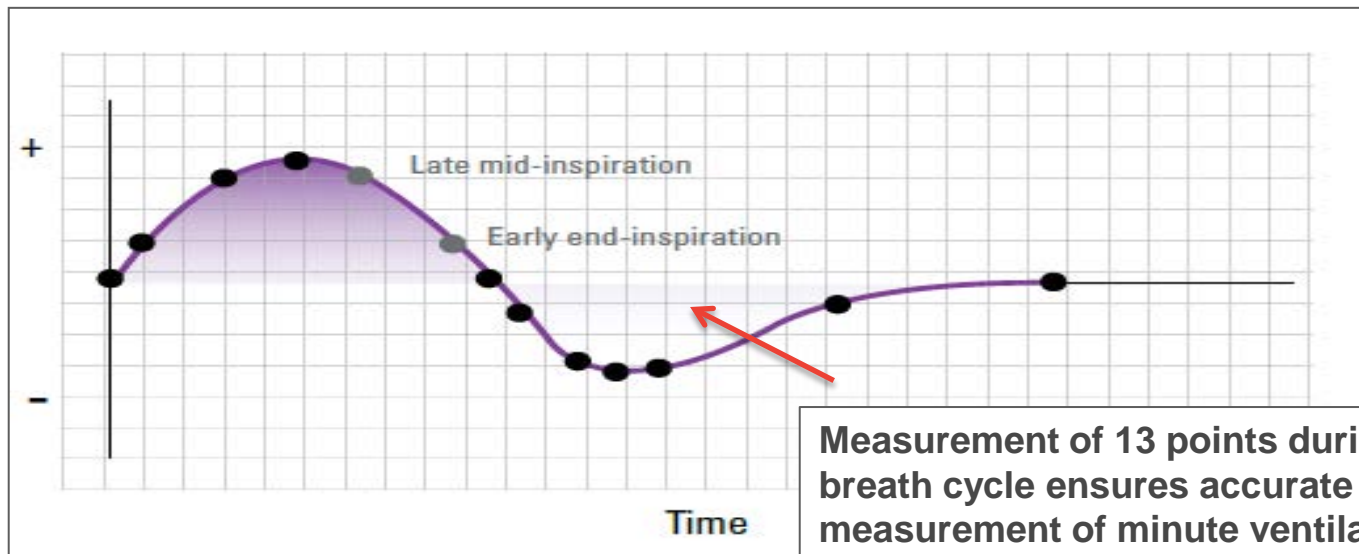
2. AirCurve 10 CS PaceWave: responds quickly

- **Response as and when required:**
 - In **ASV mode**,
 - pressure support (PS) is auto-adjusting and responds instantaneously to changes in minute ventilation
 - EPAP manually set
 - In **ASV Auto mode**,
 - Auto-adjusting PS and
 - Auto-adjusting EPAP that responds on the next breath to flow limitation, snore and obstructive apneas

Response:	Responds to:	Response time:
Pressure support	Minute ventilation	Instantaneously
EPAP	Flow limitation Snore Obstructive apneas	On the next breath

3. AirCurve 10 CS PaceWave: continually predicts

- The AirCurve 10 CS PaceWave algorithm looks at 13 points of each patient's breath, continually mapping the patient's respiratory rate and MV.
- This breath-phase mapping ensures that the AirCurve 10 CS PaceWave provides breaths synchronised with the patient's breathing when the patient's effort decreases.
- When the patient's MV deviates too much from the target, AirCurve 10 CS PaceWave will adjust PS. If target MV is not reached despite PS increase, back-up breaths at a rate of 15 bpm will be provided (if there is no patient RR in memory)

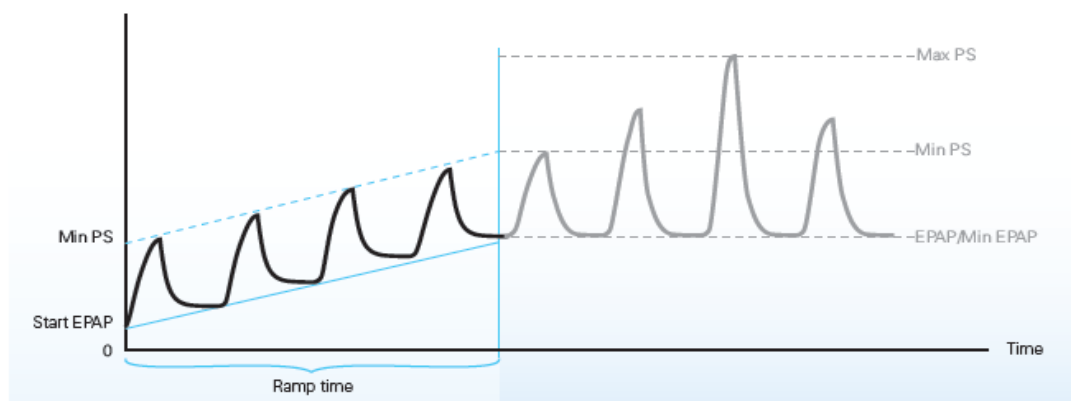


Measurement of 13 points during the breath cycle ensures accurate measurement of minute ventilation and patient-machine synchrony

4. AirCurve 10 CS PaceWave: optimises comfort

RAMP

- EPAP increases linearly over ramp period
 - Start EPAP \Rightarrow Min EPAP
- PS fixed at Min PS during ramp
- Time between 5 - 45 minutes



How does Ramp optimise comfort?

- Heart Failure patients often hyperventilate during treatment onset due to the physical effort exerted before going to bed.
- During Ramp there is no PS reaction to changes in MV and this allows the patient time to relax and lower their minute ventilation.

> The AirCurve 10 CS PaceWave is easy to set-up

Settings	
< Home	
Therapy	
Mode	ASV
EPAP	8.0
Min PS	4.0
Max PS	10.0
Mask	Nasal

3 settings

ASV mode:

- Only 3 therapy settings
- Same default settings provide seamless transition for current ASV users

Settings	
< Home	
Therapy	
Mode	ASVAuto
Min EPAP	4.0
Max EPAP	8.0
Min PS	4.0
Max PS	10.0

4 settings

ASV Auto mode:

- Only 4 therapy settings
- Self-titrating
- Appropriate for healthcare providers wishing to set patients up with auto-adjusting EPAP