



Breathe More
NATURALLY

The Puritan Bennett™ 980 ICU Ventilation System



COVIDIEN

positive results for life™

Simple

Our innovative user interface features a highly customizable display with intuitive screen navigation.

Safe

The newly designed Puritan Bennett™ 980 ventilator provides a unique ventilator assurance feature and an integrated expiratory filtration system.

Smart

Advanced synchrony tools help clinicians set the ventilator to adapt to their patients' unique needs and help provide the appropriate level of support throughout the breath.



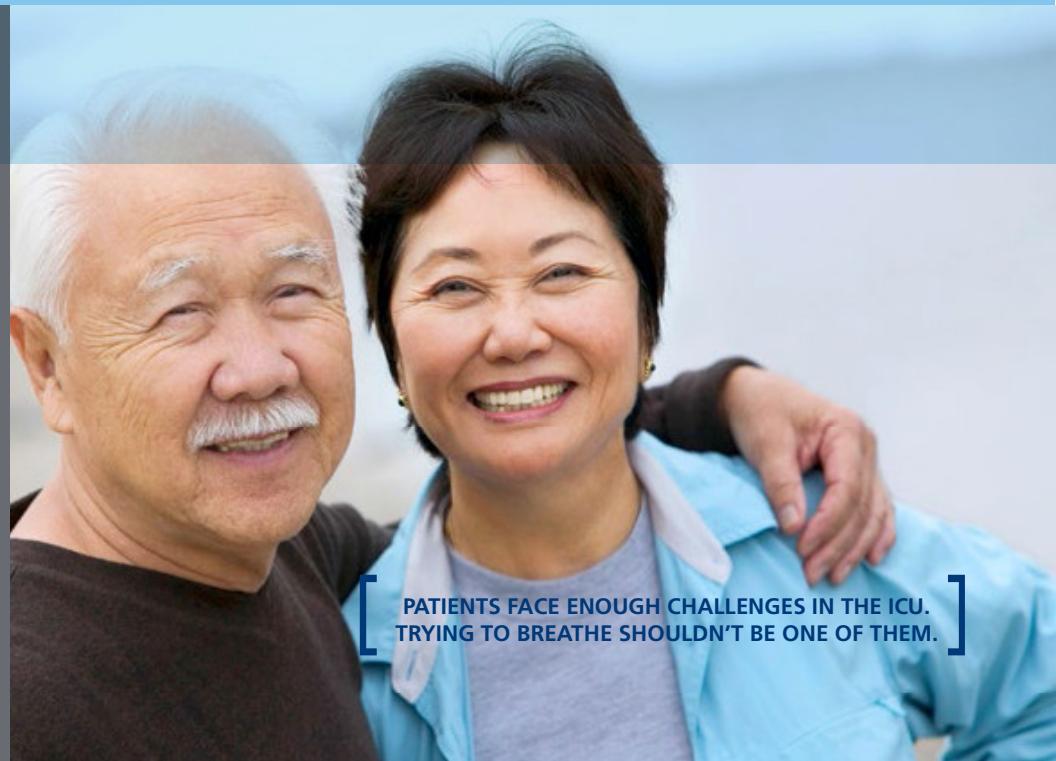
Engineered to Help Patients Breathe More Naturally

The all new Puritan Bennett™ 980 ventilator was designed to advance the Puritan Bennett brand's legacy of providing more natural ventilation* that may allow clinicians to improve patient comfort.

Advanced synchrony tools adapt to your patient's unique needs and provide the appropriate level of support throughout the breath, from initiation to completion.

The ventilator conducts hundreds of calculations every five milliseconds to stay in tune with patients' demand; helping to ensure that patients receive the flow and volume they want—when they want it—from breath to breath.

* compared to conventional mechanical ventilation (VC, VC+, PC, PS and PSV-based modes)



**PATIENTS FACE ENOUGH CHALLENGES IN THE ICU.
TRYING TO BREATHE SHOULDN'T BE ONE OF THEM.**

PAV™* + software

PAV™*+ breath type enables the patient to dictate the breath he or she receives, and helps clinicians more clearly understand the work required by the patient to complete each breath.

- With PAV™*+ breath type, the patient defines rate, depth and timing of breathing.
- Flow is an indicator of demand. It tells the ventilator when the patient wants to begin inspiration, how deep the breath should be, when to end the breath and how often the patient needs to breathe.
- PAV™*+ software continuously measures patient demand by measuring flow and pressure every 5 milliseconds.
- As patient demand changes, PAV™*+ software changes ventilatory support to meet the patient demand within the same breath.

WHEN THE %SUPPORT IS SET BY THE CLINICIAN WITHIN THE PAV™*+ SOFTWARE, THE PATIENT AND THE VENTILATOR ARE SHARING THE TOTAL WORK OF BREATHING.

Measures R (resistance) and C (compliance)

Calculates work of breathing with R (resistance) and C (compliance) data

Provides visual indicator of patient's WOB

PAV™*+ software measures resistance and compliance every 4-10 breaths

When R (resistance) and C (compliance) are known, it's possible to calculate patient-generated pressure (P_{MUS}) and work of breathing in real time using the equation of motion

$$P_{MUS} + P_{VENT} = (\text{flow} \times \text{resistance}) + (\text{volume}/\text{compliance})$$

Once %Support is set, clinicians can use the work of breathing (WOB) bar for real-time feedback on how much work the patient is doing

Providing real-time feedback on work of breathing enables the clinician to keep the patient at a sustainable level of work—reducing the risk for respiratory muscle atrophy, while potentially off-loading enough work to avoid fatigue.¹⁰

