

VELA[®] ventilator

Comprehensive specifications



Setup	
Humidifier	Active and passive humidification
Patient setup	Alphanumeric patient ID
Leak compensation	ON, OFF

Mode	
Mode type	A/C, SIMV, CPAP/PSV, NPPV (AC, SIMV, CPAP/PSV), PRVC
Breath type	Volume, pressure, APRV/BiPhasic
Apnea backup	Volume, pressure

Primary settings	
Rate	2 to 80 bpm
Tidal volume	50 mL to 2.0 L
Inspiratory pressure	1 to 100 cmH ₂ O
Peak flow	10 to 140 L/min, (180 L/min spontaneous maximum)
Inspiratory pause	OFF, 0.1 to 2.0 seconds
Inspiratory time	0.3 sec to 10.0 seconds
Pressure support ventilation (PSV)	OFF, 1 to 60 cmH ₂ O
PEEP	0 to 35 cmH ₂ O
Flow trigger	1 to 20 L/min
%O ₂	21% to 100% FiO ₂
Pressure high/pressure low	0 to 60 cmH ₂ O/0 to 40 cmH ₂ O

Primary settings (continued)	
Time high/time low	0.3 to 30 seconds/0.3 to 30 seconds
NPPV P _{insp}	1 to 40 cmH ₂ O
NPPV PSV	OFF, 1 to 40 cmH ₂ O

Advanced settings	
Bias flow	10 to 20 L/min
Volume limit (available in PRVC/Vsync only)	50 mL to 2.5 L
Assured volume	OFF, 50 mL to 2.0 L
PC flow cycle	OFF to 70%
PSV cycle	5% to 70%
PSV T _{max}	0.3 to 3.0 seconds
Waveform	Decelerating, square
T high sync	0% to 50%
T high PSV	ON, OFF
T low sync	0% to 50%
Sigh	ON, OFF
Vsync	ON, OFF

Manual controls	
Manual breath	One breath
Expiratory hold	Maximum 6 seconds
Inspiratory hold	Maximum 6 seconds
Increase O ₂	100% O ₂ for 3 minutes
MIP/NIF	Maximum 30 seconds
Nebulizer	1 to 60 minutes, synchronized

Alarms	
High pressure	5 to 120 cmH ₂ O
Low pressure	OFF, 2 to 60 cmH ₂ O
Low minute volume	OFF, 0.1 to 99.9 L
High breath rate	OFF, 3 to 150 bpm
Apnea interval	10 to 60 seconds

Alarms continued on next page

Alarms (continued)	
Alarm volume	65 to 85 db at one meter
Low EtCO ₂ ¹	OFF, 1 to 150 mmHg (0.1 to 20 kPa)
High EtCO ₂ ¹	OFF, 5 to 150 mmHg (0.7 to 20 kPa)

Monitored parameters	
Vte	0 to 4,000 mL
Vti	0 to 4,000 mL
Spon Vt	0 to 4,000 mL
Mand Vt	0 to 4,000 mL
Ve	0 to 99.9 L
Spon Ve	0 to 99.9 L
Spon rate	0 to 250 bpm
Rate	0 to 250 bpm
Ti	0.01 to 99.99 seconds
Te	0.01 to 99.99 seconds
I:E	99:1 to 1:99
Ppeak	0 to 140 cmH ₂ O
Pmean	0 to 99 cmH ₂ O
PEEP	0 to 99 cmH ₂ O
O ₂ inlet	40 to 95 psi

Specifications subject to change without notice.
¹ Software activated, hardware to be purchased

WARNING: U.S. Federal Law restricts this device to sale by or on the order of a physician.

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Monitored parameters (continued)	
FiO ₂	21% to 100%
f/Vt	0 to 500 (b2/min/L)
EtCO ₂ ¹	0 to 150 mmHg (0 to 20 kPa)

Connectivity
Printer port, video output (VGA), nurse call, Generic Serial Protocol (GSP) and VOXP communication protocol

Battery power
6 hours of ventilator operation from the standard internal battery

Electrical/pneumatic	
Oxygen input	
High pressure	40 to 85 psig (2.8 to 5.9 bar)
Low pressure	0.5 psig (0.03 bar) maximum
Electrical A/C	90 to 264 VAC, 47 to 65 Hz

Physical/environmental	
Temperature	
Storage	-20° to 60° C (-4° to 140° F)
Operating	5° to 40° C (41° to 104° F)
Barometric pressure	760 to 545 mmHg

Physical	
Weight	38 lb (17.2 kg)
Size	13''w x 12''h x 14.5''d (33.0 cm x 30.5 cm x 36.8 cm)

Advanced features
NPPV leak compensation

Graphics	
Waveforms	Volume, pressure, flow
Loops	Flow / volume, pressure / volume

Gas blending system	
Air/oxygen blending	21% to 100%

Optional features
Capnography

