

## VETRONIC MERLIN SMALL ANIMAL VENTILATOR

VSL-MERLIN-BUNDLE



### PRODUCT DESCRIPTION

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## One ventilator for all your small animal practice needs, from small rodents to large dogs.

The Vetronic Merlin veterinary ventilator has been designed with just that in mind. Using the latest technology, Merlin is able to precisely control ventilation parameters to ensure your patient is as safe as can be during mechanical ventilation. Merlin doesn't require a compressed gas supply to operate, so is quiet and smooth. And, because Merlin is controlled by a state-of-the-art microcontroller, you can confidently set the independent ventilation parameters that you want, without compromise.

Merlin is a microprocessor-controlled ventilator, designed by vets for vets. We have done away with the conventional pressurised gas driving mechanism. This new ventilator uses a precisely-controlled piston that can accurately delivery volumes in the range 1ml to 800ml.

Merlin can be pressure cycled, volume cycled or time cycled and the inspiratory and expiratory times are fully and independently variable, without the need to re-adjust after changes in flow rates or volumes. A pressure control allows you to set the maximum allowable pressure during volume cycling, or the target pressure during pressure cycling.

A further added feature is the inspiratory assist control that will tune the ventilator to your patient during recovery and so assist weaning from the ventilator. On the front of the unit is a large, easily-readable display that shows all of your selected parameters. The parameters are continuously updated, reflecting every adjustment made.

In addition, we believe Merlin is truly innovative in being the first veterinary ventilator to calculate and display the compliance of the patient being ventilated.

**The MRI Viable Merlin Ventilator** has been adapted to be compatible with much longer tubing, allowing the ventilator to be further away from the patient and out of the MRI zone.

**The Merlin comes supplied with everything you need to use the unit out of the box, including:**

- 1 x IEC Power Lead: UK/ EU/ US/ AU
- 1 x Operating Manual
- 1 x Tidal Volume Chart / Flow Rate Chart
- 1 x "Exhaust gas setup for Merlin Ventilator" document
- 1 x MERL-0001 Merlin Common Scavenge set (Gas Out)

1 x MERL-0002 Merlin Gas Inlet set  
1 x MERL-0003 Merlin Low-dead space set  
1 x MERL-0006 Merlin Circle Connection kit  
1 x CIRSBC15 Smooth Bore Y-Circuit 15mm x 1.8m  
1 x CIRSBC222 Smooth Bore Y-Circuit 22mm x 1.8m  
1 x VS0230 22M-22F with one-way valve - to patient  
1 x VS0232 22M-22F with one-way valve - from patient

#### Helpful Links & Videos:

[Update your Vital Monitor software to the latest version here](#)

[How To Setup The Merlin Ventilator - Test, Setup & Run](#)

[The Merlin Ventilator - An In-Depth Guide](#)

[VitalMonitor Software - An In-Depth Guide](#)

[VitalStore Software - An In-Depth Guide](#)

[Introduction to the VitalMonitor Software](#)

[Introduction to the VitalStore Software](#)

[Merlin Small Animal Ventilator - Cleaning Procedure](#)

[Merlin Small Animal Ventilator - Leak Test](#)

[Merlin Small Animal Ventilator - Non-Rebreathing Setup](#)

[Merlin Small Animal Ventilator - Rebreathing Setup](#)

[Merlin Small Animal Ventilator - Parking, Unpacking & Packing](#)

[Merlin Small Animal Ventilator - Parking](#)

[Merlin Small Animal Ventilator - Volume & Pressure Cycling](#)

#### Key features:

- Precise, reliable control over all ventilation parameters
- Fits into rebreathing and non-rebreathing circuits
- Pressure cycled, time cycled or volume cycled IPPV
- Patient disconnect and over-pressure alarms
- 80-character screen and high-definition LEDs give full parameter information:
  - Tidal volume
  - Minute volume
  - Inspiratory and expiratory airway pressure
  - I:E ratio
  - Patient compliance
  - Respiratory rate
  - Inspiratory time
  - Expiratory time
  - Maximum allowed airway pressure
  - Assist effort
- Purpose-designed stainless steel and silicon valves for precise flow control
- Standard 22mm/15mm fittings
- Suitable for anaesthesia or ICU
- Mains powered with fail-safe operation
- Assist mode

#### Mechanical

Overall dimensions:	45 x 20 x 34cm
Weight:	17kg
Construction:	Enamelled steel box with feet

## Electrical

Power supply:	230 Volts AC 50Hz mains only, European and US versions available
Supply current:	250mA
Power Consumption:	60 watts
Rear panel fuse rating:	1 amps antisurge
Plug fuse rating:	5 amps

## General

Mode of operation:	Microprocessor-controlled precision piston
Capacity:	1mL to 40mL, in 1mL increments
	40mL to 120mL, in 5mL increments
	120mL to 800mL, in 10mL increments
Flow rates:	0.1 to 3.5L/minute, in 0.1L increments
	3.5 to 25.0L/minute, in 0.5L increments
Inspiratory/expiratory times:	0.5 to 9.0 seconds, in 0.1 second increments
Pressure settings:	1 to 57cm H <sub>2</sub> O pressure, in 1cm H <sub>2</sub> O increments
Inspiratory assist setting:	-1 to -10cm H <sub>2</sub> O pressure, in 1cm H <sub>2</sub> O increments
Valves:	Electrically-operated solenoid valves, stainless steel and silicon construction
LCD module:	Backlit 80-character, four-line display
Alarm mode:	Audible: 2kHz buzzer
Gas connections:	Front fixing 22mm O/D, 15mm I/D, stainless steel ports
Power failure mode:	All valves open. Manual IPPV can be performed

## Merlin FAQ's

**Q.** What patient range does Merlin Support?

**A.** 150g to 80kg

**Q.** What modes does Merlin support?

**A.** Merlin supports volume cycle, pressure cycle, and time cycle modes.

**Q.** What happens if there is a power cut?

**A.** All valves will fail open. The Patient can then breathe spontaneously on the ventilator in the normal way.

**Q.** What is the maximum and minimum flow rates that Merlin can deliver?

**A.** Max 25.0L per min, Min 0.1L per min.

**Q.** Does Merlin have alarms?

**A.** Yes. The Merlin will alarm because:

- 1) Inspiratory pressure not reached (volume cycling)
- 2) Max pressure exceeded (volume cycling)
- 3) Target pressure not reached (pressure cycling)
- 4) Gas inlet blocked (all modes)

**Q.** How do I clean or disinfect Merlin?

**A.** Follow the 'Merlin Cleaning Procedure' document found in the attachments on this page. There is also a video showing this procedure.

**Q.** How do I test the Merlin for leaks?

**A.** Follow the 'Merlin Leak Test' document found in the attachments on this page. There is also a video showing this procedure.

**Q.** Can I use the Merlin on a Circle System?

**A.** Yes. Merlin can be used with rebreathing and non-rebreathing systems.

**Q.** Can I use Merlin without an anaesthetic machine?

**A.** Yes. Merlin can take any gas into the chamber, so Merlin can use room air taken into the gas port or any other introduced gas.

**Q.** Can Merlin be used with varying FiO2?

**A.** Merlin cannot change the FiO2 but the single intake port allows air to be easily enriched with oxygen or blended externally and fed into Merlin.

## ADDITIONAL INFORMATION

<b>Animal</b>	Small Animal
<b>SKU</b>	VSL-MERLIN-bundle

### Good to know...

At Burtons we know you have a choice to shop with us, that is why we always aim to delight our customers with a fast, easy, shopping experience. Making and sourcing only the best products we can find to fit your needs.  
**Price Matching:** We regularly check all our prices against competitors so you don't have to. If you do find a like for like product cheaper we will aim to not just match it, but beat it!  
**Backorders:** All back ordered items will be ordered and shipped as quickly as we can to you. Special order items may take up to 4 weeks. Once ordered a member of our team will be in contact to keep you informed of estimated delivery dates.  
**Returns Policy:** You may return new, unworn or unused products within fourteen (14) days of delivery for a full refund of the cost of the goods, or an exchange if preferred. This is on top of your statutory rights