



# Merlin

*One ventilator for all your small animal practice needs*

**WOULDN'T IT BE nice to have one ventilator that you could use for all your patients, from small rodents to large dogs?**

*Well, the new Merlin veterinary ventilator has been designed with just this 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 provides:**

- ✔ One ventilator for use with all your patients
- ✔ A ventilator for use in rebreathing and non-rebreathing circuits
- ✔ A ventilator to monitor patient's lung compliance
- ✔ Safe, reliable ventilation

**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



**Ventilation Equipment**

## Ventilation Equipment

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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 deliver 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. These 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.



### Technical Specification

#### 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 USA versions available
Supply current	250mA
Power consumption	60W
Rear panel fuse rating	1A antisurge
Plug fuse rating	5A

#### 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 25.0 L/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 -10 cm 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 Visual: Flashing red LED and screen message
Gas connections	Front fixing 22mm O/D, 15mm I/D, stainless steel ports
Power failure mode	All valves open. Manual IPPV can be performed.