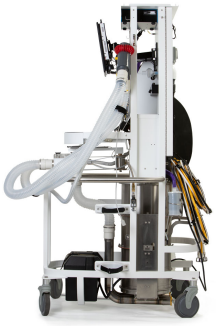
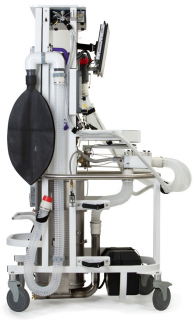
TAFONIUS LARGE ANIMAL VENTILATOR

VSL-TAF-000A4630-BUNDLE*





PRODUCT DESCRIPTION

Tafonius is the leading, state-of-the-art, fully integrated large animal ventilator, anaesthesia machine and patient monitoring system.

Designed for the demanding veterinary environment, the Tafonius has no need for a driving gas supply and has an uninterruptable power supply that means it can continue running for up to six hours in the event of a power failure – that is all your monitoring and ventilation with no interruptions.

Controlled via a large 15” touch-screen computer, the ventilator is simple to set up and control. There is reporting feedback on ventilation parameters, as well as fully configurable patient monitoring, giving you more control. Set up which parameters you would like to show, where you would like to see them and even set the colour that you are used to working with. These configurations can be saved per user, so you can simply switch on the machine, choose a saved configuration, and get started. Patient data is recorded and stored for later retrieval and analysis.Additional features include PEEP, where the ventilator applies a pressure at the end of each breath to ensure that the alveoli are not prone to collapse, improving oxygenation. CPAP – continuous, positive airway pressure to overcome hypoxaemia, the insufficient oxygenation of arterial blood. Assist mode – helping get oxygen into a patient that is not taking in regular breaths and a buffer volume controller.

With its cutting-edge ability to employ advanced respiratory cycles, Tafonius supports both ARM (Alveolar Recruitment Manoeuvres) and FLEX (Flow Controlled EXpiration), providing full control and management of virtually any respiratory pattern, either directly or via the Phase Editor. In addition to standard CMV (Continuous Mandatory Ventilation) or Assist-mode ventilation, FLEX can be used to improve gas exchange, while the Phase Editor software allows complete customisation of a patient’s breath cycle through individually designed respiratory patterns. All patient data is recorded for later retrieval, and Tafonius can also be programmed and personalised for different operators. Large animal ventilation has never been so versatile.

With TAFONIUS you can:

• Ventilate anywhere

- Control ventilation at the touch of a button
- Fully monitor your patient's physiological status
- Improve gas exchange via e.g. CPAP, PEEP, FLEX, ARM
- Design and manage your patient's respiratory cycle via the Phase Editor
- Record all data for later retrieval

What makes the Tafonius different from any other ventilator?

Tafonius does not use any pressurised gas to drive the ventilator. Instead a precision motor system controls piston movement. This results in silent operation, reduced running costs and precise control. The advanced motor system and motor control means that the piston can behave like a virtual bag during spontaneous ventilation and during the expiratory phase of controlled ventilation.

It also means that any part of the respiratory cycle can be executed as a series of phases of varying lengths. Any phase can have a resolution of less than 1/100th second. During normal IPPV for example, only one phase is used during inspiration and this lasts the full length of inspiration. During expiration multiple phases are used each one lasting 5ms (200 times per second). In each of these phases the airway pressure is measured and the piston moved accordingly. Not only does this system provide very smooth control of breathing but allows the implementation of an Airway Servo System to control patient airway pressure.

Airway Servo Pressure

If the Servo Airway pressure is set to 0 cm H_2O then the patient experiences no resistance to breathing out, significantly reducing the work of breathing. To the patient it feels like exhaling to ambient with no machine attached. If the Servo Airway pressure is set to 5cm H_2O then the patient experiences 5cm of CPAP or PEEP. With the combination of multiple phases and an Airway Servo System, any pattern of breathing can be designed and implemented. In time, researchers will develop a library of ventilating modes, patterns, sequences and manoeuvres that can be used to ventilate your patient. No longer will you need to buy a machine to obtain new features.

Key Features:

Ventilation:

- 20L maximum tidal volume capacity
- No pressurised gas required.
- Independent control of tidal volume, inspiratory time, and respiratory rate
- Reported values for minute volume, inspiratory flow rate, expiratory time, and I:E ratio
- Servo mode for spontaneously breathing patients, prior to IPPV.
- Adjustable FiO_2
- Adjustable CPAP & PEEP
- FLEX enabled
- ARM enabled
- Phase Editor design and management of respiratory patterns
- Robust stainless steel construction
- Fully portable

Anaesthesia:

- Closed circle system with 3kg CO_2 absorber
- 0-10L/minute Oxygen control
- Selectatec (TM) system for easy agent change
- Supports Halothane, Isoflurane, Sevoflurane, Desflurane and Enflurane
- Active or passive scavenging facility
- Oxygen flush

Monitoring:

- Single-lead ECG
- End-tidal and inspired CO_2, oxygen, and anaesthetic agent
- Nitrous oxide and oxygen
- Pulse-oximetry

- Invasive blood pressure
- Airway pressure
- Dual temperature

Technical Specifications:

General	
Size:	72 x 36 x 33"
Weight:	140kg (fully fitted)
Construction material:	Powder-coated stainless steel
Wheels:	8" pneumatic

Electrical	
Power input:	90-240v AC 50/60Hz
Power consumption:	400W
Operational voltage:	12/24v DC sealed lead-acid (SLA) batteries
Auxiliary outputs:	4 x mains supply outlets (fused)
Battery charging:	In-built lead-acid chargers @ max 5A charge

Computer Interface	
Display:	15" touch screen, resistive technology
Processor:	1Ghz
Memory:	512MB
HDD	30GB

Gas Inputs/Outputs	
Oxygen:	Piped gases or E cylinders (max 2)
Nitrous oxide:	Optional piped gas
Air:	From environment and internally blended
Scavenging:	Active (flow controlled) or passive

Ventilator	
Tidal volume:	Maximum 20L, minimum 20mL
Flow rate:	Maximum 1,000L/minute
Ventilaton rate:	Maximum 30, minimum 2 (IPPV mode)
Maximum working pressure:	80cm H2O

Volatile agents supported:	All common agents using Selectatec(TM) mounts

Monitoring	
ECG:	Single channel +/- 10mV
IBP:	Single channel, systolic/diastolic/MAP
Pulse-oximetry:	Single channel, transmission and reflectance probes available
Volatile agents:	Inspired and expired values for: Isoflurane, Halothane, Sevoflurane, Desflurane, Enflurane
Capnography:	Single channel expired/inspired values (%, mmHg or kPa)
Oxygen:	Inspired/expired values (mmHg)
Nitrous oxide:	Inspired/expired values (mmHg)
Temperature:	Two channels. Absolute and delta (T1-T2) readings
Airway pressure:	Continuous display (cm H2O)

ADDITIONAL INFORMATION

Animal	Mixed
SKU	VSL-TAF-000A4630-bundle*
Colour/Style	White
Gas Type	Various Options
Gas Supply	'E' Size Cylinder (s), Piped Gas
Flowmeter Type	Graduated Rotameter
Concentrator	No
Optional O2 Alarm	No
Optional N20	Yes
Emergency 02 Flush	Yes

Good to know...

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