

Nuffield 200 Ventilator



The Nuffield 200 is a pneumatically driven time-cycled ventilator with preset volume and flow rate for adult or paediatric patients

- ◆ Compact, easy to use
- ◆ Multi-use capabilities
 - Co-Axial Circuit
 - Ayre's Tee Circuit
 - Circle System
 - Resuscitation
- ◆ Use with a Newton Valve to deliver ultra low tidal volumes for neonates and premature babies

Partnership for Life

Nuffield 200 Ventilator

Pneumatically driven time-cycled ventilator

Preset volume and flow rate for adult and paediatric patients

The Nuffield 200 Ventilator has an enviable reputation as a reliable compact, powerful and easy to use anaesthesia ventilator and is primarily for use with a Bain Co-Axial Circuit. In addition the ventilator is equally suitable for use with an Ayre's Tee Circuit for resuscitation, for High Frequency Positive Pressure Ventilation with the use of a bronchoscope injector, and in a closed circuit system incorporating a CO₂ absorber.

Replace the standard Patient Valve with a Newton Valve and the ventilator range is further extended to include ventilation of small infants, neonates and premature babies. A considerable achievement for a small inexpensive ventilator.

The Nuffield 200 is a pneumatically driven time-cycled ventilator with preset volume and flow rate for adult or paediatric patients. The four simple controls provide a wide range of settings that enable a constant flow during the inspiratory phase and infinite variability of I:E settings. A suitable ventilator alarm and pollution control system can be attached to the ventilator if required.



Nuffield 200 Ventilator



Simple Controls

A wide range of settings enable a constant flow during the inspiratory phase and infinite variability of I:E settings



IDP Alarm

A suitable ventilator alarm and pollution control system can be attached to the ventilator if required

Partnership for Life

Penlon's philosophy embraces commitment to a successful, long term relationship with all our customers



Manometer

Respiratory manometer with a range of -20 to 100 cmH₂O, with zero adjustment facility



Newton Valve

The Standard Patient Valve can be replaced with the Newton Valve for the ventilation of small infants, neonates and premature babies

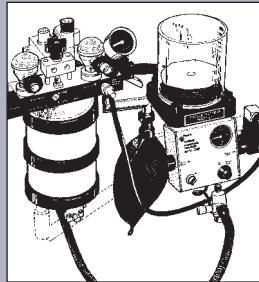
System Modules

Nuffield 200 CSM

A Circle System Module has been developed specifically for the Nuffield 200 to enable both existing and new users to use the ventilator in a closed circuit system with a CO₂ absorber. The CSM incorporates a bag-in-bottle bellows and is available with a wide choice of mounting systems to suit individual requirements.

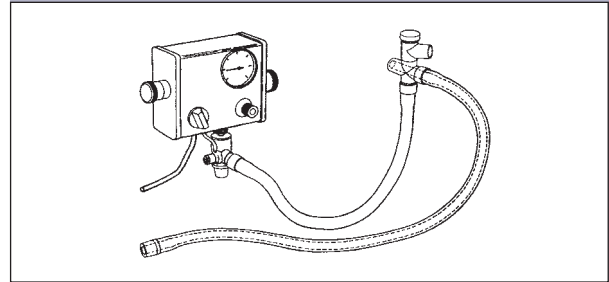
The CSM can, alternatively, be mounted to the Nuffield 200 from a wide choice of attachment fittings. This in turn allows the unit to be mounted onto your anaesthetic machine utilising existing mounting systems.

This option is available for both Penlon and other ISO compatible Circle Systems.



Co-Axial Circuit

The Penlon Co-Axial circuit is a partial rebreathing system. The circuit delivers fresh gases to the patient via the inner tube of two concentric tubes, whilst expired gases return through the outer tube. The circuit is suitable for adult and paediatric use and can be employed for spontaneous, manually aided or mechanically controlled breathing. With this system it is essential, in order to prevent dilution of the anaesthetic gases, that the ventilator is connected to the circuit via a one metre reservoir hose.

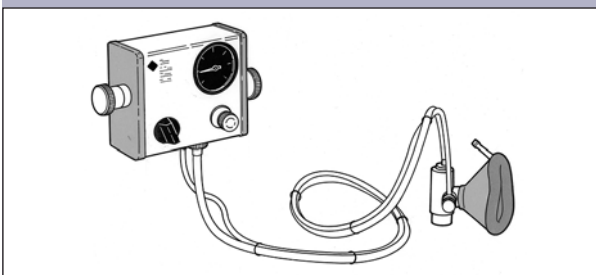


Resuscitation

The Nuffield 200 may be adapted for resuscitation by interposing a resuscitation hose assembly between the patient valve and the pneumatic control module. Using this system the patient may be ventilated with the patient valve remote from the control module, and the ventilator driven from a suitable source of compressed medical air or oxygen.

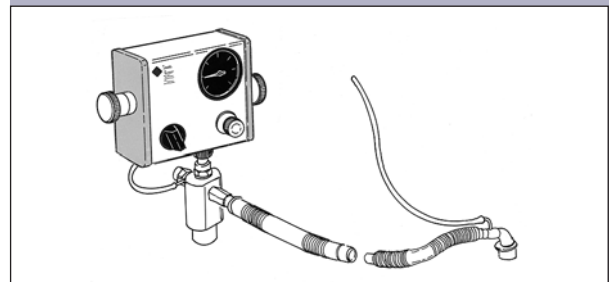
Bronchoscope Injectors

Where automatic ventilation is required during bronchoscopy, the ventilator may be connected to a Sanders pattern injector by removing the patient valve and interposing the bronchoscope injector hose assembly.



Newton Valve

The lowest tidal volume that can be achieved with the standard patient valve is 50 ml, delivered at an inspiratory flow rate of 15 L/min. For small infants, neonates and premature babies, however, smaller tidal volumes and lower inspiratory flow rates are required. The Newton Valve has been designed to replace the standard patient valve in order to convert the ventilator to a time-cycled pressure generator that is capable of delivering tidal volumes between 10 ml and 300 ml at flow rates between approximately 0.5 L/min and 18 L/min.



Ordering Information

The Nuffield 200 Ventilator is available with a variety of attachment brackets and drive gas hoses.

Nuffield 200 Model	Universal	Modura	MediRail	Mini Schraeder	Mk 3 Schraeder O ₂ Pipeline	Mk 3 Schraeder AIR Pipeline	DISS O ₂
57125	◆			◆			
57128	◆				◆		
57131	◆					◆	
57126		◆		◆			
57129		◆			◆		
57132		◆				◆	
57127			◆	◆			
57130			◆		◆		
57133			◆			◆	

NOTE

Universal - permits attachment to anaesthesia trolleys with round or square tubular legs
 Modura - permits attachment to a Modura type rail on an anaesthetic machines, or Simonsen & Weel rail system
 MediRail - permits attachment to all MediRail systems

Part No.	Description
57110	Adult Patient Valve
57050	Co-axial Circuit Complete ISO sequence
57150	Co-axial Circuit Complete BS sequence
57140	Newton Valve complete with hose assembly in case
57141	Newton Valve only
57142	Hose connector 15 mm male to 22 mm hose
57143	Hose connector 15 mm female to 22 mm hose
57144	Conductive breathing hose - 106 cm
57146	Ayre's Tee piece insert only
57108	Bronchoscope injector hose assembly - Luerlok
57109	Resuscitation hose assembly
57180	Circle System Module (CSM) including module and non-disposable hoses (requires mounting system)
57182	Modura Rail mount for Nuffield 200 and CSM
57186	Medi Rail mount for Nuffield 200 and CSM
57183	Pole mount for Nuffield 200 and CSM (not anaesthetic machine leg)
58470	Penlon Absorber mount
57184	Ohmeda Mk 5A Absorber mount for CSM

Technical Specification

Physical	
Size	270 x 210 x 100 mm (H x W x D)
Weight	3.25 kg
Drive Gas	Medical Air or Oxygen 340 kPa (50 lbf / in ²) to 410 kPa (60 lbf / in ²)
Gas Consumption	Minute volume plus 0.1 litre/cycle to power fluid logic circuit
Frequency (cycle/min)	10 to 85
Frequency for HFPVP (cycle/min)	60 to 125

Functional	
Tidal Volume (Vt)	10 to 300 ml (Newton Valve) 50 to 2000 ml (Standard Valve)
Minute Volume	1 to 30 litres
Inspiratory Time	0.2 to 2.0 seconds (independent and continuously variable)
Expiratory Time	0.5 to 4.0 seconds (independent and continuously variable)
Inspiratory Flow	0.25 to 1.0 litres / second (independent and continuously variable)
I:E Ratio	Continuously variable and dependent on chosen I:E settings
Inspiratory Pressure Relief	60 cmH ₂ O
Expiratory Resistance	2.5 cmH ₂ O
Respiratory Manometer	Range -20 to +100 cmH ₂ O with zero adjust facility

For further information please contact your local Penlon representative



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