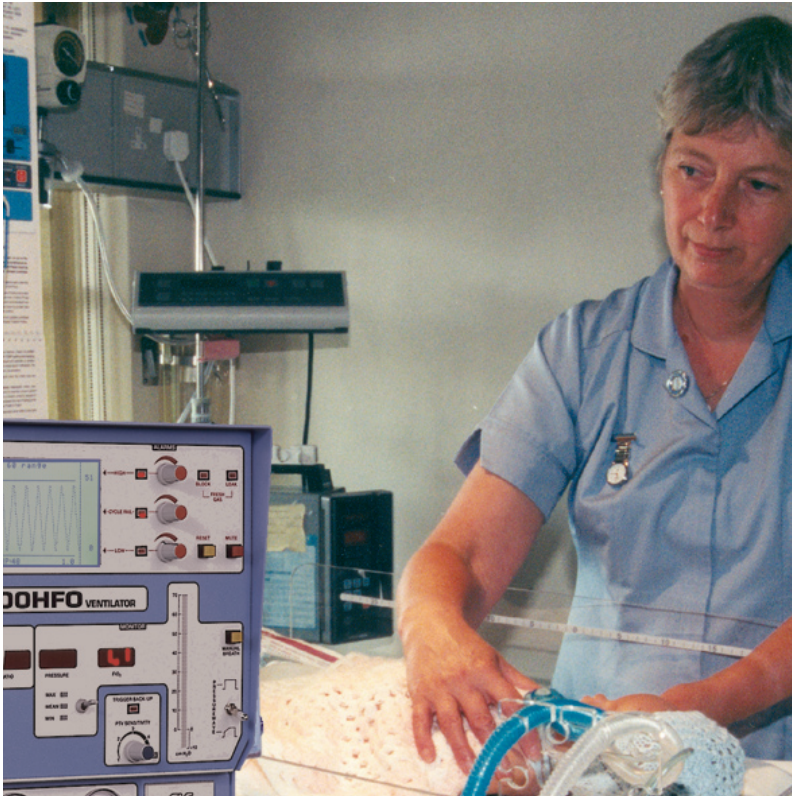




SLE2000 HFO

High Frequency Ventilator



When the smallest thing matters

The SLE2000 HFO - High Frequency Infant Ventilator



SLE is a world leader in the design and manufacture of neonatal ventilators. Years of ventilation experience have given the company an understanding of the challenges facing clinicians when caring for the tiniest and most critical babies.

From being pioneers of neonatal Patient Triggered Ventilation (PTV) in the 1980's, to the introduction of combined HFO (High Frequency Oscillation) in the 1990's, SLE has maintained a position of leadership in neonatal ventilation.

The company's guiding principle is to support clinical and nursing staff in their everyday work. SLE has developed close relationships with leading universities, hospitals and other specialists and has created a ventilator that meets the highest standards using innovative solutions to clinical challenges.

The knowledge and experience gained during years of development is evident in the SLE2000 HFO ventilator: the result of SLE's ongoing commitments to innovation, reliability and care.

The SLE2000 HFO is specifically designed for use on neonatal and infant patients. It allows the user to deliver conventional ventilation i.e. CPAP, CMV, PTV or SIMV as well as HFOV. It can also be used for nasal CPAP.

The patented valveless principle ensures effective ventilation in all modes, in addition to offering active expiration in HFOV.

- Exceptional pneumatic performance
- The operation of the unique valveless system eliminates the need for exhalation valves, diaphragms etc. meaning less to clean and easier, safer assembly.
- The simple patient circuit (suitable for all modes of ventilation), together with the valveless system, reduces problems of resistance and compliance
- The principle of operation of the valveless system eliminates inadvertent PEEP, and aids in the total clearance of expired gases
- Automatic gas flow adjustment
- Ability to maintain pressure waveforms at all rates
- Sensitive airway pressure trigger
- Comprehensive alarm system
- Built in oxygen analyser with continuous digital readout
- Clear and easily set controls, including tamper-proof pneumatic controls
- High pressure dump on alarm
- Exhaled gases can be filtered
- Optional auxiliary blended flow outlet
- Choice of square or slow rise time, switch selectable
- Ability to use other gases e.g. Nitric Oxide

Ventilator and Accessories

Ordering Information

SLE2000 HFO H*

Stand-mounted ventilator complete with a servo-controlled humidifier - typically a Fisher & Paykel (or equivalent), air and oxygen hoses and manual (3 single-use patient circuits included for user start up).

SLE2000 HFO SH*

As above, but for shelf mounting.

SLE2000 HFO RH*

As above, but for rail mounting.

*Omit suffix 'H' for no humidifier

Options (Please state if required)

Option 1

N2200 Reusable circuit, start-up kit

Option 3

0-15LPM Blended output

Manuals

N2005 Service manual

N2006 User manual

Air Compressors

SLE500 Suitable for one ventilator

Patient Circuits and Accessories

BC2188/400

Patient circuit - Single-use* (box of 30)

N2200

Patient circuit - Re-usable (kit)

N2387

Patient circuit - Re-usable (15 mm Infant)

N2187

Bacteria filter - Single-use

N2029

Bacteria filter - Autoclavable

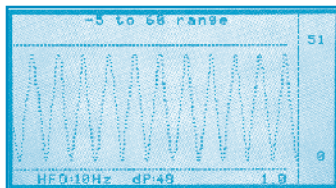
N0635

Exhalation block - Autoclavable

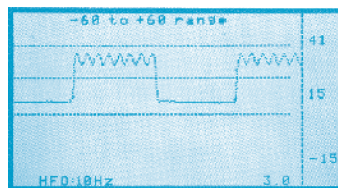
*Other types available on request

Screen Displays

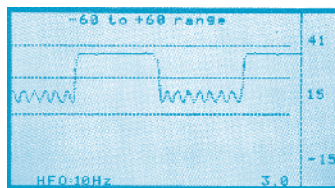
The high-resolution LCD (Liquid Crystal Display) is capable of showing exact waveforms, even in high frequency modes.



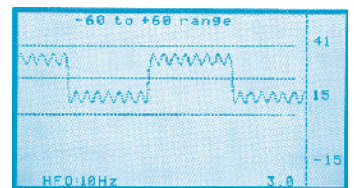
Pure Oscillator



Oscillations in inspiratory phase



Oscillations in expiratory phase



Oscillations in both

SLE3600 Inosys Nitric Oxide Therapy*

The SLE Inosys Inhaled Nitric Oxide delivery system delivers low concentration NO therapy with typical concentrations being in the range of 2-80 ppm. The Inosys is usable with any constant flow ventilator, and is an ideal add-on for the SLE2000, SLE2000HFO, SLE4000 and SLE5000 ventilators.



With user-settable alarms for high and low concentrations, the unit automatically reduces therapy if an alarm is triggered.

- Monitors both NO and NO₂
- Alarms for both NO and NO₂
- Extra long-life cells
- Internal printer

- Simple calibration
- Internal battery back-up
- Can be used on any constant flow ventilator

*Not available in the UK

Technical Specifications

Ventilator Controls

Conventional Ventilator:	Off/Alarm Test, CPAP, CMV, PTV, SIMV
Ventilator Breathing B.P.M.:	1-150
Ventilator Max Inspiratory Time (Insp Time):	0.1-3 sec
Ventilator I.E. Ratio:	9.9:1 to 1:9.9 calculated from BPM and MIT settings
HFO Operational Frequency:	3-20Hz
HFO Modes:	Off, Expiratory, Inspiratory, Continuous HFO Inspiratory Expiratory
Phase:	1-1
HFO Rate:	Controls oscillation rate also displayed on the screen
Pressure Wave Form:	Permits change of leading edge of pressure wave from square to slow rise
Manual Breath:	Gives single breath in CPAP, CMV and PTV modes to preset inspiration time
Graphic Display:	Controls sweep speed over the screen 0.5 to 6 sec
Screen Switch:	±60 cm for oscillation only mode -5 to +60 cm for ventilation/oscillation mode.
PTV Threshold:	Adjustable for patient effort required to trigger ventilator
Oxygen Blender:	21-100% O ₂ ± 3%
Pressure Display Switch:	Maximum - Mean - Minimum digital display of airway pressures (in both ventilator modes)
CPAP/PEEP Regulator:	Sets CPAP/PEEP level in circuit in oscillatory only mode this control will be used to set mean airways pressure 0-35 cm
Oscillator Pressure:	Sets oscillatory amplitude or Delta P of waveform ±40 cms, D 80 cm
Inspiratory Pressure:	Adjusts inspiratory pressure 0-60 cm

Alarms

HFO Fail:	Motor drive to oscillator failure
Fan Fail:	Motor fan failure
High/Cycle/Low:	User adjusted, visual and 7Hz intermittent audible
Block-Leak:	Of fresh gas visual and continuous audible
Mute:	60 seconds only
Reset:	Resets all alarms except system fail HFO and Fan Fail
Loss of Mains:	Battery powered audible
Loss of Air or Oxygen:	Pneumatic audible from blender

Indicators

Oscillator Module

Freeze:	Holds display on screen
Screen:	Superbright pressure display of all ventilation waveforms

Ventilator Module

Power:	Green LED indicates power on
System Fail:	Indicates main processor system fail - remove unit from service
BPM Display:	Breaths per minute
Insp Time Display:	Inspiratory time
IE Ratio:	Inspiration to expiration ratio
Pressure:	Range ±65 cm 3 modes, maximum, mean, minimum
FIO ₂ :	Oxygen percentage 21-100%
Trigger Back up:	Indicates a machine delivered breath if patient fails to trigger ventilator during user controlled back up time window
Pressure Bar Display:	Pressure gauge range -10 to +70 cm H ₂ O
CPAP/PEEP:	Indicator for set up of pressures
Oscillator Gauge:	Indicator for set up of pressures
Inspiratory Gauge:	Indicator for set up of pressures

Supplies, Dimensions and Weights

Air and O ₂ :	3-5 bar
Power:	100-120 V 50/60 Hz 1.0 A 220-240 V 50/60 Hz 0.5 A
Size, ventilator only:	37 cm W x 34 cm H x 32 cm D
Height on pole:	141 cm
Weight, ventilator only:	16 kg

Constructed to conform to:
Medical Devices Directive (93/42/EEC)
European conformity mark: CE 0120



SLE Limited.
Twin Bridges Business Park, 232 Selsdon Road,
South Croydon Surrey CR2 6PL UK
Telephone: +44 (0)20 8681 1414 • Fax: +44 (0)20 8649 8570
E-mail: sales@sle.co.uk • Web: www.sle.co.uk