



CE

At Meditec England we recognize the demand and requirements of the anaesthetist in the operation theater which have been taken in to consideration while developing the all new Neptune Anaesthesia Workstation. High flow or Low flow, circle or semi-open system, the Meditec England Neptune adapts. Cascaded flow tubes and a convenient drain valve absorber offers exceptional precision and control at low flow.

Advanced Technology, Modular Design, Open architecture, Ease of use

With an integrated design and excellent quality, each anaesthesia system is custom built to meet your requirements

- Integrated ventilator with CMV, PCV, SIMV & Manual modes
- Twin Selectatec Mounting for Agent Specific Vaporiser
- Pin Indexed Yokes for O₂ and one for N₂O
- NIST inlets for piped medical gases
- Single Bi-stable System ON / OFF Switch for gases & power supply
- Backlit Lowflow Flowmeters (optional)
- Pull out writing table
- Common Gas Outlet
- Open to close change over switch for convenient switchover from open to closed system
- Suitable for open, semi-open & closed circuit system application
- Electrical outlets for running other medical equipment



Backlit Lowflow Flowmeter (Optional)

Patient Safety Features

- Anti Hypoxic Device allows a minimum of 25 % O₂ at all times and cuts of N₂O supply if O₂ Fails
- Audio Visual Alarm for Oxygen Failure
- Oxygen Flush 35 To 70 Lpm Oxygen Flow
- System Pressure Relief at 125 cmH₂O

Optional Features

- **Auxiliary Flowmeter** : O₂ flowmeter which can be used to deliver oxygen via a facemask or nasal canula to the sedated patient
- **Suction Unit** : Suction unit to run from O₂ or Air supply with a 600ml collection jar
- AIR/N₂O interlock switch
- Air Entrainment Valve
- AGSS System Accessories
- Backlit Flowmeter
- Basal Flow
- Additional Pin Indexed O₂/N₂O yoke
- Monitoring arm

Vaporiser

- Calibration range : 0 to 5% and 0 to 8% using a Laser refractometer.
- 8% using a Laser refractometer.
- Easy to turn dials for Safety Lock to prevent accidental turn on.
- Agent specific vaporisers designed to provide constant output.
- Available Screw fill, Keyfill or Quik fill Interlock mechanism to lock in series with other Vaporisers.
- Individually calibrated for each Specific Anesthetic Drug.
- Agent Capacity: 250 ± 25ml
- Available for Halothane, Isoflurane, Sevoflurane and Enflurane.



Meditec England Pisces

Monitoring Options



M747

- ECG
- NIBP
- SPO2
- 2xTEMP
- RESP



M751

- ECG
- EtCO2
- NIBP
- AGM
- SPO2
- CO
- 2xTEMP
- IBP
- RESP
- BIS

Neptune Integrated Ventilator

Meditec Neptune has an integrated microprocessor based sophisticated ventilator incorporating simplicity with all the advantages of a modern ventilator. It provides optimum patient care. It has an inbuilt battery backup in case of mains failure.

Features

- Suitable for adult and pediatric
- High-luminance and wide visual angle TFT LCD display of 6.4"
- CMV, PCV, SIMV and Manual ventilation modes
- Accurate differential pressure flow sensor
- Combines sophistication and ease of use
- Com-Wheel Control
- Electronic PEEP
- Leakage & compliance test
- **Monitoring Parameters (Measured Values)**
 V_T , Frequency, FiO_2 , P_{peak} , MV, PEEP
- **Waveforms**
Flow-Time waveform, Volume-Time waveform, Flow-Volume loop, Volume-Pressure loop
- **Setting Parameters**
 V_T (Tidal Volume), Frequency, I:E, T_{ip} (Inspiratory pause time), P_{max} , PEEP, Vsens (Triggering flow sensitivity)
- **Alarm Parameters**
Continuous positive airway pressure, Airway pressure (high & low), FiO_2 (high & low), MV (high & low), V_T (high & low), Frequency (high & low), Apnea, A/C failure, Battery low, Self-test failure



MODES

CMV

Constant mandatory ventilation is possible from all standard circuits.

PCV

Time cycled pressure ventilation can be selected in both adult and paediatric mode to provide optimum pressure control. This is of particular advantage when ventilating paediatrics, as volume can be lost when using non-cuffed tubes.

SIMV

Choosing SIMV minimises patient reluctance to accepting mechanical breaths by ventilating in harmony with the patient's own attempts to breathe.

Neptune Circle System Absorber

- Bypass switch - Fast CO_2 build up when removed. Allows canister change during ventilation
- Bag/ventilator switch - Easy changeover from ventilator to bag & vice versa
- Integrated airway pressure manometer
- Moisture drain valve
- Quick release (lever operated) sodalime canister system
- APL valve
- Built-in oxygen monitor sensor port
- Excellent ergonomics with swivel breathing bag arm
- Double canister system with two canister of approx. 1kg each
- Autoclavable



Optional Upgrade to Neptune Plus

10.1" TFT Touch screen display with additional ventilation mode for PSV (Pressure Support Ventilation)



TECHNICAL SPECIFICATIONS

Storage Space	Spacious drawers 2 Nos. for keeping essential anaesthesia kit / accessories
Castors	Large roller bearing anti-static castors with front brakes
Writing Surface	Pull out writing table on top of the drawers
Monitor Shelf	Wide Monitor shelf at eye level with securing provision for extra monitor
Cylinder Yokes	Color coded gas specific (pin indexed) yokes with sliding stainless steel clamping bars for easy handling. Holding O ₂ and N ₂ O, 5Ltr water capacity cylinders
Non-return cum Pressure Relief Valve.	Minimises risk of back flow of gases, blows off when pressure exceeds 125 CmH ₂ O
Regulators	Designed for higher efficiency, long service life and reliability for O ₂ and N ₂ O
Oxygen Flush	Emergency oxygen flush switch at table level to give 35-70 Ltrs/min for emergencies
O ₂ failure warning alarm	Self activated electro-pneumatic audio visual warning device to indicate drop in O ₂ pressure below 2.5 Bar
Hypoxic Guard	Mixing device to proportion the N ₂ O in such a way that minimum of 25% O ₂ is always present in the breathing gas mixture
Common Gas Outlet (CGO)	Conveniently located CGO with ISO tapers for 22 & 15mm connections
Basal flow with On/off Switch	250 ± 50 ml basal flow of Oxygen as soon as machine is switched on. (optional)
Pipe Line Gas Inlets	Non-interchangeable screw threaded (NIST) pipeline inlets one each for O ₂ , N ₂ O and Air. In case of drop in piped gas pressure the pin index cylinders take over automatically
Pressure Gauges	Large diameter, color coded gauges fitted at convenient angel for better visibility and clarity. One for each of the pin indexed yokes and one each corresponding to piped gas inlet
Selectatec Brackets	Twin Selectatec Block
Breathing Circuits	Bains Circuit & Circle Absorber Y-Circuit provided as standard.

CASCADE FLOWMETER

Oxygen Low Flow	0.1 - 1 Lpm
Oxygen High Flow	1 - 10 Lpm
N ₂ O Low Flow	0.1 - 1 Lpm
N ₂ O High Flow	1 - 12 Lpm
Air Single Tube	0.2 - 15 Lpm

PHYSICAL SPECIFICATION

Height	1435 mm
Width	650 mm
Depth	650 mm
Weight	120 kg
Top Shelf Size (mm)	560 mm x 450 mm
Work Surface Size	560 mm x 120 mm
Draw Size Internal (mm)	2 Drawers - 460 mm x 430 mm
Temperature	Operation: 10 ~ 40° C Storage : -20 ~ 55° C
Humidity	Operation : 80% Storage : < 93%
Power	220 V + 22V, 50 Hz + 1Hz
Battery Backup on Ventilator	120 minutes

VENTILATOR TECHNICAL PARAMETERS

Tidal Volume	20 ~ 1500 ml
Frequency	1 ~ 100 bpm
I : E Ratio	9:1 ~ 1:9.9
Pressure Limit	10 ~ 65 cmH ₂ O
PEEP	OFF, 3.0 ~ 20 cmH ₂ O
Patient Flow Trigger (Fixed)	-2 kPa ~ PEEP
Alarm Mute	120s
Compliance	< 4ml/100Pa
Drive Mode	Pneumatically driven electronically controlled