Meditec Neptune^PLUS

Anaesthesia Workstation

Precision and Performance Redefined in Anesthesia Care

We recognize the demands and requirements of the Anaesthetist in the Operating Theatre and have taken these into consideration when developing the all-new NeptunePLUS Anaesthesia Workstation. The NeptunePLUS excels in performance and offers complete flexibility to the Anaesthetist

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.

- Cascaded 6 tube flow meter
- Twin Selectatec mounting for agent specific temperature and pressure compensated vaporisers
- NIST inlets for piped medical gases for O_2, N_2O & Air as standard
- Single Bi-stable system ON / OFF switch for gases & power supply
- Secure Pull-Out Writing Table with Raised Edges
- Open/Close change over switch for convenient switch-over from open to closed system

- Common gas outlet (CGO)
- Suitable for open, semi-open & closed circuit system application
- Electrical outlets for running other medical equipment
- Auxiliary O_2 outlet with flowmeter as standard
- Rotameter backlit illumination
- Work surface lighting
- Supports Low-Flow Anaesthesia
- Ventilatory parameters trends of 72 Hours

Optional Features

- 10.1" display electronic gas mixing screen
  - Electronic Hypxia guard that maintains minimum 25% of O_2 digitally
  - Virtual flowmeters for O_2, N_2O and Air
  - Custom Presets
  - Digital basal flow with an option for activation and deactivation
  - Digital display of pipeline pressures
- Aspirator suction (Gas Powered)
- AGSS system (Active or Passive)
- One additional pin indexed yokes for O_2 /N_2O

- Side arm for patient monitor
- Basal flow for oxygen
- Electronic gas mixing with virtual flowmeter
- Anaesthetic gas with MAC value and N_2O monitoring
- $EtCO_2$ monitoring
- Air / N_2O interlock
- Event log up to 1000 events
- Waveform freeze
- Ventilator driving gas - Medical Air
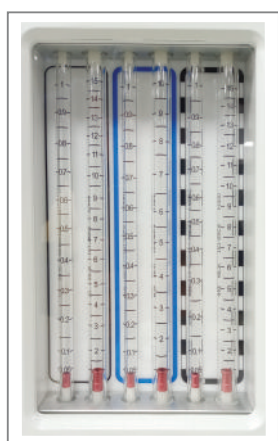
Mechanical Flowmeter
(Standard)

Separate electronic flowmeter
with 10.1 inches display (optional)

Vaporiser (Optional)

- Calibration range : 0 to 5%, 0 to 6% and 0 to 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
- Interlock mechanism to lock in series with other Vaporisers
- Individually calibrated for each specific anesthetic drug
- Agent Capacity: 250±25ml
- Available in Screw fill, Quik Fil™ and Meditec Fill™
- Available for Halothane, Isoflurane, Sevoflurane, Desflurane

Meditec ME-SORB™ CO_2 absorbent is recommended for use with Allied Meditec Neptune Plus.

*Quik Fil® is a registered trademark of Abbott Laboratories.

Integrated Ventilator

An integrated microprocessor-based ventilator, pneumatically driven and electronically controlled, combining simplicity with the advanced features of modern ventilators. Designed for optimal patient care, it includes a built-in battery backup for uninterrupted operation during power failures.

Features

- High-luminance and wide display
- 12.1" capacitive touch screen with encoder knob
- Ventilation Modes : V-CMV, P-CMV, V-SIMV, P-SIMV, CPAP/PSV, Manual/SPONT and PCV-VG
- Comprehensive parameter monitoring featuring more than 20 measured values
- Multiple Screen layouts
- Volume compensation and electronic PEEP. Automatically compensates for system leak and the compliance change in the circuit
- Fresh gas flow compensation
- Ascending bellows provides immediate visual information on the adequacy of fresh gas flow and gives an indication of any system leak

- HLM: Heart Lung Machine mode
- Integrated CO_2 and Anaesthetic agent with MAC monitoring (optional)
- Self test, leak test and compliance test
- Adult, pediatric and neonatal mode
- Waveforms: Flow-Time, Volume-Time, Pressure-Time
- Spirometry Loops: Flow-Volume, Volume-Pressure, Pressure-Flow
- Setting Parameters
  VT (Tidal Volume), Frequency, I:E ratio, Tip (Inspiratory pause time), Pmax, PEEP, SIGH, PLimit, Psupp., Trigger: Flow and Pressure Triggers Settings
- Alarm Parameters
  Sustained pressure, Airway pressure (high & low), FiO_2 (high & low), MV (high & low), Frequency (high & low), Apnea, A/C failure, Battery low, Self-test failure, O_2 failure alarm

Integrated Circle Breathing System

- Bypass 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 sodalime canister system

- Fully calibrated APL valve (Range 0-70 cmH$_2$O)
- Built-in oxygen monitor sensor port
- Automatic ventilator switching from circle absorber
- Autoclavable
- Heated breathing module to prevent moisture buildup

Patient Monitoring (Optional)

The Neptune range offers a wide choice of Monitoring Systems with availability of optional extended parameters such as AGM, BIS, ICG, CO, 4 x IBP, EEG, Para-magnetic O_2, NMT
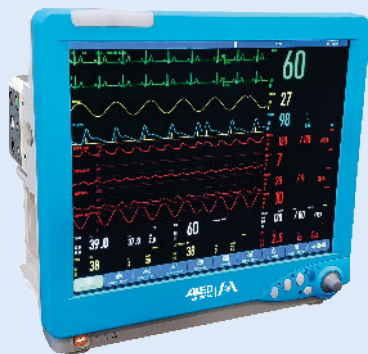
ECG | NIBP | SpO$_2$ | 2xTEMP | RESP | EtCO$_2$ | AGM | CO | IBP | BIS | NMT | ICG | EEG

TECHNICAL SPECIFICATIONS

Storage Space	Two spacious drawers to hold essential anaesthesia kit and 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 1 (One) for O_2 and 1 (One) for N_2O, 5 Ltr. water capacity cylinder
Non-return / Pressure Relief Valve	Minimises risk of back flow of gases, blows off when pressure exceeds 125 CmH_2O (customisable)
Regulators	Designed for higher efficiency, long service life and reliability for O_2 and N_2O
Oxygen Flush	Oxygen flush switch at table level to give 25–75 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 (Mechanical)	Mixing device to proportion the N_2O in such a way that minimum of 25% O_2 is always delivered in the gas mixture
Common Gas Outlet (CGO)	Conveniently located CGO with ISO tapers for 22 & 15mm connections
Basal flow with On/off Switch	250 $\pm$ 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_2O 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 angle 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
Communication port	RS232, LAN, USB and Upgradable with Anaesthesia electronic charting system

CASCADE FLOWMETER

Oxygen Flow	0.05–1 Lpm (Low)	1–10 Lpm (High)
N_2O Flow	0.05–1 Lpm (Low)	1–12 Lpm (High)
Air Flow	0.05–1 Lpm (Low)	1–15 Lpm (High)

ELECTRONIC FLOWMETER (Optional)

O_2 Concentration	21-100% (O_2 / Air) 25-100% (O_2 / N_2O)
Total Flow Range	0-15 Lpm
Accuracy	$\pm$5% (total flow)
Basal Flow	0.2 Lpm
Fresh Gas Mixture	O_2 + Air / O_2 + N_2O
Pipeline Pressure	Digital display
Alarms	O_2, N_2O & Air failure

PHYSICAL SPECIFICATION

Dimensions (H x W x D)	1430 x 760 $\times$ 720 mm
Top Shelf	560 mm $\times$ 370 mm
Work Surface	560 mm $\times$ 120 mm
Drawer	2 Drawers - 460 mm $\times$ 430 mm
Weight	95 kg

VENTILATOR TECHNICAL PARAMETERS

Tidal Volume	10–1600 ml
Frequency	1–100 bpm
I : E Ratio	4:1–1:10
PEEP	OFF, 1.0–30 cmH_2O
Patient Flow Trigger	0–15 lpm
Patient Pressure Trigger	0 to (-)20 cmH_2O
Alarm Mute	120s
Compliance	<4ml/100Pa
Inspiratory Pause	0–60% of Ti
Flow	$\leq$180L/min
Pressure Limiting (Pmax)	5–100 cmH_2O
Drive Gas	Oxygen (Standard) / Air (Optional)
Drive Mode	Pneumatically driven electronically controlled
Power	100–240vAC, 50/60Hz, 6.5A (Max.)
Power Consumption	110W
Battery Backup on Ventilator	120 minutes
Temperature	Operation: 10°C–40°C Storage : (-)20°C–55°C
Humidity	Operation : <80% Storage : <93%

Manufactured in India by
Allied Medical Limited
76-77, Udyog Vihar, Phase IV,
Gurugram - 122 015, Haryana, INDIA
E-mail   : sales@alliedmed.co.in
Website : www.alliedmed.co.in

Design & Technology Partner

Meditec International England Limited

Available at:

Xavier Med Pvt. Ltd.

16-2-741/9, Andhra Bank Colony,
Rishi Arcade, Moosarambagh, Hyderabad.
Ph: 8008895079, 8008895680