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# Meditec Neptune Prime

Anaesthesia Workstation



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With development in digital technology and automation in the medical field Allied Medical Limited brings the most brilliant solution for Anaesthesia procedures for the OTs and ORs. Neptune Prime is equipped with Electronic gas mixing for effective and accurate delivery.

Advanced, modular, robust design combined with simple user interface and conscientiousness reduces the man hours to great extent and increase the effectiveness of the anaesthesia procedure thus improving the patients health.

## Features

- 15.6 inches display with Touch operation for Anaesthesia settings and monitoring of parameters
- Electronic Flowmeter for the graphical representation of O<sub>2</sub>, N<sub>2</sub>O & Air with fresh gas flow optimization feature
- Backup manual O<sub>2</sub> control in case of Battery/Electricity failure
- Electronic and Mechanical Flush
- Electronic gas mixing with digital Hypoxia guard system
- Twin Selectatec mounting for agent specific temperature and pressure compensated vaporisers
- NIST inlets for piped medical gases for O<sub>2</sub>, N<sub>2</sub>O & Air
- Common gas outlet (CGO)
- Open/Close change over switch for convenient switch-over from open to closed system
- Suitable for open, semi-open & closed-circuit system application
- Electrical outlets for running other medical equipment
- Auxiliary flowmeter for Oxygen and Medical Air
- Work surface illumination with digital ON/OFF feature
- Supports Low-Flow Anaesthesia
- Large Workbench
- One touch operation for FiO<sub>2</sub> settings from 21-100%.
- Anaesthetic Gas monitoring (optional)



Tiltable and Rotatable display with swivel arm



Quick increment and decrement Parameters setting bar



Augmented Loops Display

## Patient Safety Features

- Electronic gas mixing with electronic Hypoxia guard
- Audio Visual alarm for O<sub>2</sub> failure
- Electronic and mechanical O<sub>2</sub> Flush 30-70 Lpm O<sub>2</sub> Flow
- System pressure relief at 125 cmH<sub>2</sub>O
- Optional AGSS system (Active or Passive)



ACGO



Emergency Fresh Gas



Auxiliary Outlet

## Integrated Ventilator & Monitor

- High-luminance and wide display
- 15.6" Touch Screen
- Ventilation Modes - V-CMV, P-CMV, V-SIMV, P-SIMV, PCV-VG, PSV & Manual/ Spont
- Monitoring Parameters (Measured values) VT, Freq, FiO<sub>2</sub>, Ppeak, MV, PIF, PEF, PEEP, Pplat, Pmean, Compliance and Resistance
- Tidal volume range from 5ml to 1600ml suitable for Adult, Pediatric & Neonates
- 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
- 500 alarms/ events logs
- Heart Lung Machine (HLM) mode
- Fresh gas optimization bar graph tells the efficient use of fresh gas flow
- Dedicated flow sensor for measurement at inspiratory and expiratory ports
- Integrated Pressure, Volume and Oxygen monitoring
- Self test, leak test and compliance test
- Adult, pediatric & 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, Vtr (Triggering flow sensitivity), SIGH, Tapn, Ptrig (Pressure trigger) PLimit, Psupp.
- Alarm Parameters  
Sustained pressure, Airway pressure (high & low), FiO<sub>2</sub> (high & low), MV (high & low), Frequency (high & low), Apnea, A/C failure, Battery low, O<sub>2</sub> failure alarm



Big Font display



Fresh Gas optimizer



Allied Meditec 700 Series

## Patient Monitors (Optional)

Allied Medical Neptune Prime machines can be used with a wide range of Allied Meditec Monitoring options varying from basic to multi-parameter monitors.

## Integrated Breathing System

- Bag/Ventilator switch -Easy changeover from ventilator to bag
- Integrated airway pressure manometer
- Moisture drain valve
- Quick release sodalime canister system
- Autoclavable
- Fully calibrated APL valve (range 0–70cmH<sub>2</sub>O)
- Built-in O<sub>2</sub> monitor sensor port
- Automatic ventilator switching from circle absorber
- Single canister system
- Heated circuit



## TECHNICAL SPECIFICATIONS

Storage Space	Three spacious drawers to hold essential anaesthesia kit and accessories
Castors	Large roller bearing anti-static castors with front brakes
Cylinder Yokes	Color coded gas specific (pin indexed) yokes with sliding stainless steel clamping bars for easy handling. Holding 1 (One) each for O <sub>2</sub> and N <sub>2</sub> O, 5Ltr water capacity cylinders
Non-return / Pressure Relief Valve	Minimises risk of back flow of gases, blows off when pressure exceeds 125 CmH <sub>2</sub> O
Oxygen Flush	Electronic and mechanical O <sub>2</sub> flush 30-70 LPM O <sub>2</sub> flow
Common Gas Outlet (CGO)	Conveniently located CGO with ISO tapers for 22 & 15mm connections
Pipe Line Gas Inlets	Non-Interchangeable Screw Threaded (NIST) pipeline inlets one each for O <sub>2</sub> , N <sub>2</sub> O and Air. In case of drop in piped gas pressure the pin index cylinders take over automatically
Hypoxia Guard	Electronic/ Digital Hypoxia guard
Gas Mixing	Electronic flowmeter for the graphical representation of O <sub>2</sub> , N <sub>2</sub> O and Air.
Selectatec Brackets	Twin Selectatec Block
Breathing Circuits	Bains Circuit & Circle Absorber Y-Circuit provided as standard

## VENTILATOR SPECIFICATIONS

Tidal Volume	5-1600 ml
Frequency	1-100 bpm
I : E Ratio	4:1-1:8
PEEP	OFF, 1.0 - 30 cmH <sub>2</sub> O
Inspiratory Pause	0-60% of Ti
Flow	<180L/min
Fresh Gas Flow	0.2~20L/min Accuracy : 0.2~0.4L/min ±0.04L/min >0.4L/min: ±10%
Power	100-240vAC, 50/60Hz, 6.5A (Max.)
Battery back-up Ventilator	120mins

## ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	5°C~40°C
Operating Pressure	70kPa~106kPa
Operating Humidity	<80%, non-condensing
Storage Temp.	(-)40°C~55°C
Storage Pressure	50kPa~106kPa
Storage Humidity	10%~93%, non-condensing

Meditec ME-SORB™ CO<sub>2</sub> absorbent is recommended for use with Allied Meditec Neptune Prime



## 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
- Available Screw fill, Meditec Fill® or Quik Fil™
- 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

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



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