

TECHNICAL SPECIFICATION

ONE (1) UNIT ANESTHESIA MACHINE

ABC: PHP 3,500,000.00

- 1 main unit
- 1 unit Vaporizer
- 1 Patient monitor basic
- Test lung
- O2 hose
- 1 pc reusable breathing circuit
- 5 pcs disposable breathing circuits
- 5 pcs bacterial filter

TECHNICAL SPECIFICATION:

Main Unit

- Can ventilate Adult, Pediatric and Neonates
- Screen size of 15" touch screen, configurable screen content smart alarm management with extensive support system
- Must have 3 gas configuration (O2, Air and N2O)
- Must have mechanically controlled gas mixer with electronic flow measurement.
- Must be Electronically driven piston ventilator, fresh-gas decoupled, ventilation without drive gas, i.e. no medical gases are consumed in operating the ventilator (regardless of gas supply).
- All patient-gas leading components are autoclavable.
- Must have a standard ventilation mode of:
 - Manual/Spontaneous (Man/Spon)
 - Volume Controlled (VC-CMV)
 - Pressure Controlled (PC-CMV)
 - Autoflow time Controlled (VC-CMV/AF)
 - VC-SIMV
 - PC-SIMV
 - VC-SIMV/AF
 - CPAP/PSV
- External Fresh Gas Outlet
- Standard Tidal Volume of 10 to 1500ml with an option for advanced neonatal support that is capable of 5ml minimum.
- Respiratory rate (RR) 3 to 100 /min

- Inspiratory time (Ti) 0.2 to 10 s
- Ratio of inspiratory time to expiratory time (I:E) 1:50 to 50:1
- Tidal volume (VT) must be between 10 to 1,500 mL with advanced neonatal support option capable of 5mL TV
- Trigger threshold (Trigger) 0.3 to 15 L/min
- Inspiratory fflow (Flow) Minimum 0.1 L/min, max ≥ 160 L/min
- Inspiratory pressure (P_{insp}) PEEP +5 to 80 hPa (cmH₂O)
- Pressure limitation (P_{max}) PEEP +10 to 80 hPa (cmH₂O)
- Pressure support above PEEP (Δ p_{supp}) Off, 3 to (80 - PEEP) hPa (cmH₂O)
- Must have integrated heated breathing system and capable of low flow and minimum flow application
- Must not need any tools for disassembly and assembly
- Breathing system can be reprocess/autoclavable and must have less than 11 individual components.
- Volume of breathing system is approximately 3.6L including CO₂ Absorber when applying maximum Tidal Volume of 1500ml
- Integrated patient Gas Module Auto ID for different anesthetic gases.
- Must have integrated device checklist and illustrated step-by-step instructions for daily machine preparation
- Must supports the safe and efficient application of low- and minimal-fflow anaesthesia by using its Econometer to make the user aware of fresh-gas flow deficits and surpluses
- Can ventilate and give anesthetic gas even the machine is switched off.
- Mechanical ventilation with ambient air in case of complete failure of the gas supply
- Automatic start-up and self-test of machine including calibration of all sensors and testing of all control valves; normally no user action necessary after start of test
- Autoset function for adjusting all alarm limits, CBM mode (cardiac bypass mode)
- Breathing bag as an indicator of fresh-gas deficiency and leaks
- Pause mode for short-term interruptions of ventilation
- Data storage on USB storage device (alarm history, self-test results, screen shots, trends and machine configurations)
- Time-saving transfer of device default settings and configurations to other devices (export and import of configuration data via USB storage device)
- Integrated, dimmable illumination of working and documentation surfaces
- The machine has at least two (2) built in drawers to organize supplies before, during, and after cases.
- Central brake, smooth running castors
- Power consumption must be <95 W, during mechanical ventilation, maximum 400 W
- Must have available active or passive anaesthetic gas scavenging system for operation with and without adequate scavenging system infrastructure; detection of excessive suction flows, with connector for sample gas disposal when using third-party patient gas measurement modules. With Anaesthesia Gas Scavenging System (AGSS) safety relief valve if passive system. Supplier must install

necessary infrastructure retrofitting works to accommodate the scavenging system requirement of the unit being supplied.

- Mains voltage 100 to 240 V AC (Line – Neutral) at 60 Hz, single phase with grounding
- Internal battery backup time At least 45 min, typically 120 min (with new and fully charged battery)

Patient Monitor

- Monitor for adult, pediatric or neonatal patient populations with one device without difficult or time-consuming modifications when moved from one patient group to another.
- Can support stand-by mode.
- Can support demo mode.
- Can support night mode.
- The monitoring solution is as fanless design to reduce hygienic risks of cross infection.
- The monitor can be used as a transport monitor with a bed hook.
- The monitoring solution can provide an anti-theft lock to better manage hospital assets.
- High resolution display 800x600 and 12" screen size.
- Can store 1200 NIBP measurement and alarm events.
- The monitoring solution can display up to 11 waveforms and provide 120 hours of trend and patient information at the patient's bedside.
- The monitoring solution can offer bed to bed view function.
- The color and position of waveforms or parameters should be adjustable based on user's preferences.
- Basic parameter: NIBP, 3/5lead ECG, Temperature, SPO2 and Respiration
- The monitoring solution can support up to at least 16 arrhythmia classifications for paced or non-paced patients, which includes ASYSTOLE, VFIB/VTAC, VT>2, COUPLET, BIGEMINY, TRIGEMINY, R ON T, PVC, TACHY, BRADY, MISSED BEATS, IRR, PNC, PNP, VBRADY, VENT.
- The monitoring solution can perform drug dosage calculations for a total of 15 drugs (5 of which can be user defined)
- The monitor can be connected with same brand designated anesthesia machine or ventilator to build a workstation for the OR or ICU with data and waveform flow.
- The monitor can show PAW, FLOW related waveforms and parameters transmitted from connected anesthesia machines and ventilators via Medibus/X protocol
- Defibrillation protection capable
- The monitoring solution's battery shall support a minimum of 350 minutes of continuous monitoring
- The monitoring's battery can be exchanged by customers without the need of a tool
- The monitoring solution will provide a standard built-in thermal recorder.
- The monitor can be connected with the central station via wireless.
- The monitor can meet wireless standards of IEEE 802.11 b/g/n

- Weighs not more than 5kg
- Power supply must be 100V to 240V 50/60hz

Technical Services as follows:

1. SYSTEM WARRANTY must be two years
2. CALIBRATION of the unit must be performed after installation with certificate.
3. SERVICE CALL within 24 hours maximum and must have repair facility in Mindanao Area.
4. PREVENTIVE MAINTENANCE for every quarter until warranty expires.
5. SERVICE KITS and consumables to be included for one year use.
6. Supplier must deliver and install the unit without cost to the owner.
7. Training of end-users must be done on-site with minimum of 7 days period.