Anaesthesia workstation Specification
(BPL/Pentlon)

Anaesthesia Workstation completes with Anaesthesia gas delivery system, Vaporiser, Circle absorber system with built in Anaesthesia ventilator.

Anaesthesia Workstation
- Should have provision for delivery of oxygen, nitrous oxide and medical air with pressure gauges.
- Should have independent attachments for connecting central gas supply and pin indexed cylinders.
- Should have PIN indexed Yoke system for O₂ & N₂O, Diameter Indexed Safety System for O₂, N₂O.
- Should have Pressure gauges for O₂ & N₂O supply from Cylinder and for O₂, N₂O. The gauges should be colour coded should be conveniently placed for easy viewing.
- Oxygen and Nitrous oxide should be linked to ensure a minimum of 25% oxygen delivery at all times to avoid delivery of hypoxic mixture.
- Should have N₂O cut off facility if O₂ supply fails.
- Should have Oxygen failure alarm both Visual and Audible. Machine should give high priority alarm when O₂ pressure falls below preset limit. Preferably High priority alarm should be distinguishable from normal alarm by way of colour coded messages or alarm lights (Visual) and separate audible tone (Audible)
- Should have Oxygen Flush facility (25 – 75 LPM). O₂ flush switch should be conveniently placed for easy accessibility.
- Should have back bar (Selectatec compatible) with interlocking facility.
- Should have provision for connecting two vaporiser. Vaporizer must be isolated from the gas flow in the off position and prevent the simultaneous activation of more than one vaporizer. Vaporiser must be temperature, pressure and flow compensated.
- Should have selection switch for Open Circuit and Closed circuit operation.
- Should have leak proof compact and integrated circle absorber with Adjustable Pressure Limiting valve, Airway Pressure Measuring device and Bag/Vent switch for Bag to mechanical ventilation.
- Breathing system should have heater system to avoid water condensation.
- Circle absorber should have provision for attaching Oxygen Sensor. Galvanic Oxygen sensor should be supplied.
- Circle absorber should be easily removable without the help of any tools. Should alert the user in case improper fixing of absorber during start-up.
- Should have single soda lime canister of 1.5 litre capacity. Canister removal and fixing should be easy and takes minimum time.
- Should have provision for bypassing the CO₂ absorbent canister during surgical procedure without leaking the system.
- Should have Anaesthesia Gas Scavenging System port (AGSS)
- Should have ACGO Function (Auxiliary Common Gas Outlet)
- Automated pre-check with help menu at start-up for checking leakage and compliance. Test Bypass facility should be provided for emergency use.
• The workstation must have integrated built-in ventilator capable of delivering precise ventilation for Adult, Paediatric patients with advanced proportional solenoid valve technology.

• Single lever shift operation for manual to mechanical ventilation. Bag/Vent selection switch should be conveniently placed on Circle absorber. Should automatically turn on the ventilation when positioned to vent mode.

• Ventilator should be pneumatically driven and electronically controlled ventilator. Attached ventilator not preferred.

• Should have Modes of Ventilation: Volume Control (VCV), Pressure Control Mode (PCV), SIMV (V) + PS, SIMV (P) + PS Manual, Standby.

• Should have tidal volume setting 20ml-1500ml, Frequency 4-60 bpm, I:E 3:1-1:6, Inspiratory pause 5%-50%, Pressure control 5-70 cmH2O, Flow Trigger 1-15 LPM, Pressure Support 5-60 cmH2O

• Should have Electronic PEEP OFF, 4-20 cm H2O

• Should display both Inspiratory and expiratory tidal volume on display.

• Should have Minimum 8” inch colour TFT display with navigating wheel for easy operation. Short cut keys should be provided for emergency functions.

• Should display three waveforms Pressure -Time, Volume –Time, Flow-Time

• Should have Internal Battery backup for minimum 120 Mnts – Battery should be Lithium battery (Environment Friendly)

• Should have Alarm system – Audio/Visual with colour coded alarm lights and messages.

• Should have Alarm for Oxygen failure, Mains supply Failure, Low Battery, High Continuous Airway Pressure

• Anaesthesia Machine & vaporizer should be European CE Approved.