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**Product Name :**

Anaesthesia machine,closed circuit,w/acc

**Product Code :**

LBNY-0017-220006



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**Description :**

Anaesthesia units are highly complex devices requiring specific infrastructure provision to be able to operate. They need a scavenging system, piped medical air supply, and oxygen and nitrous oxide sources which can be piped or from cylinders. In addition, these machines require trained operators and technicians to carry out preventative maintenance so the units can operate safely.

The patient is anesthetized by inspiring a mixture of O<sub>2</sub>, the vapor of a volatile liquid halogenated hydrocarbon anaesthetic, and, if necessary, N<sub>2</sub>O and other gases. Because normal breathing is routinely depressed by anaesthetic agents and by muscle relaxants administered in conjunction with them, respiratory assistance is also provided via either an automatic ventilator or by manual compression of the reservoir bag.

Anaesthesia units dispense a mixture of gases and vapours and vary the proportions to control a patient's level of consciousness and/or analgesia during surgical procedures. Anaesthesia units primarily perform the following four functions:

- Blend gas mixtures, in addition to O<sub>2</sub>, that include air or nitrous oxide (N<sub>2</sub>O) along with an anaesthetic vapor.
- Facilitate spontaneous, controlled, or assisted ventilation while using these gas mixtures.
- Provide oxygen (O<sub>2</sub>) to the patient
- Reduce, if not eliminate, anaesthesia-related risks to the patient and clinical staff.

**Technical Specification :**

Suitable for adult, paediatric and newborn patients.

The unit is mounted on a trolley with minimum of four (4) anti-static swivel castors.

A side rail for mounting accessories is included.

The unit has an adjustable patient-circuit support arm.

The unit is provided with a minimum of three (3) gas inlets (O<sub>2</sub>, N<sub>2</sub>O and Air).

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A minimum of two of the castors are provided with breaks.  
The unit is equipped with an upper shelf.  
The cart has been proved with handles for manoeuvring.  
Gas inlet connections are compliant with DISS or NIST (needs to be specified when ordering).  
The unit are equipped with gas supply gauges with scales allowing easy readout.  
All pipeline connections have diameter-indexed safety systems (DISSs), or another means of preventing connection of dangerous gases.  
The unit is equipped with a minimum of four (4) analogue rotameters, two (2) for O<sub>2</sub>, one (1) for air and one (1) for N<sub>2</sub>O with programmed parameters visualization.  
The unit is provided with a minimum of two (2) gas cylinder yokes (O<sub>2</sub>, and N<sub>2</sub>O).  
Holders for bottles are to include a secure locking mechanism.  
The minimum gas supply input pressure range should be between 2.8 – 6 bar (41 - 87 psi).  
The O<sub>2</sub> and N<sub>2</sub>O flowmeters have a minimum range of 0.0 – 10 L/min, and a resolution of at least 0.2 L/min.  
The unit has the ability to carry out self-diagnosis and integrity testing, including a compliance and leakage test.  
The unit is equipped with a minimum of two (2) vaporizer slots with a Selectatec mounting system.  
The vaporizers are provided with an interlock system, preventing the use of more than one vaporizer simultaneously.  
One (1) Halothane vaporizer is included with the unit.  
Externally supplied N<sub>2</sub>O, O<sub>2</sub>, and air mixture ratios are fully controllable. There are separate controls for the flow of: O<sub>2</sub>, N<sub>2</sub>O, and anaesthetic agents.  
Flows and the mixture ratios determined from flowmeter settings are accurate to within ± 10% of set values or better.  
The unit basic is equipped with a passive scavenging system and optional allow for an active scavenging system.  
The unit is equipped with a soda lime CO<sub>2</sub> absorber.  
The unit will switch back and forth between battery and mains operation in case of power failures. Recharging resumes automatically when extern power becomes available.  
The unit is designed and constructed in such a way that it is able to withstand frequent disinfection with hospital-grade products.  
The unit is equipped with a non-return and a three-way valve, including the connection tube.  
A built-in rechargeable battery allows for an autonomy of at least one (1) hour.  
Fuses are fitted on both live and neutral supply lines.  
Power requirements: 100 - 240 Volts - 50/60 Hz (not necessarily in a single unit).

## VENTILATOR

The unit should be able to provide a minimum guaranteed tidal volume of 20 – 1,500 mL.  
The unit should be able to support a minimum ventilation frequency range between 1 – 100 bpm.  
The unit should be equipped with a ventilator suitable for adult, paediatric, and newborn patients and minimally supporting the following ventilation modes:  
- Stand-by Mode.  
- Volume Controlled Mode.  
- Manual Mode.  
The unit supports a peak inspiratory flow range of 1 – 70 L/min.  
The unit supports PEEP with a range of 3 – 30 cmH<sub>2</sub>O.  
The unit supports an I/E ratio 4:1 to 1:10.  
The unit supports pressure triggers in the range of 0 – 20 cmH<sub>2</sub>O.  
The unit supports an inspiration pressure of 5 – 70 cmH<sub>2</sub>O.  
Pressure gauges have a range of 0 – 100 cmH<sub>2</sub>O and an accuracy of: ±2.5 % or better.

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