

RESTRICTED
TENDER SPECIFICATION OF ANESTHESIA MACHINE
BNS PATENGA

1. **Name of Equipment.** **ANESTHESIA MACHINE.**
2. **Purpose.** To be used in OT Department.
3. **Quantity.** 01 (One) complete set.
4. **Make /Model.** To be mentioned.
5. **Brand:** To be mentioned.
6. **Name of Manufacturer.** Name and full address of manufacturer is to be mentioned.
7. **Country of Origin:** USA/ Canada/ UK/ EU/ Japan/ Australia/ South Korea.
8. **Manufacture of Country:** USA/ Canada/ UK/ EU/ Japan/ Australia/ South Korea.
9. **Port of shipment:** Shipment to be made from the manufacturing Country.
10. **Qualification of Bidders:** Bidders must be enlisted in NSSD Dhaka.
11. **Year of Manufacture.** 2022 or later.
12. **Source of Supply:** Bidders/Suppliers are to be mentioned the name, address and contact details of original source from where goods would be imported. Any software required for installation or proper operation of the equipment is to be provided with original CD.
13. **Price without import duties:** Quoted price is to excluded all import duties as those will be consigned against BN.
14. **Ambient Condition.** The **Anesthesia** will be operated and maintained in the following ambient conditions:

a	Ambient air temperature	5°C - 45°C
b	Relative humidity	Up to 95%
15. **Scope of Supply:** 01 (one) complete set of **Anesthesia Machine** will have to be supplied with all attachments, accessories etc and complete in all respect for immediate operation.
16. **Technical features /facilities:** Anesthesia Machine with Ventilator 3 Gases, O2, N2O, Air, from Central Pipe line as well as from Gas cylinder & 2 Pin-Index for O2 & N2O. With at least two Vaporizer position.

Structural

- a. Shelves: One number for monitor at 135-200 cm height, minimum 20 kg weight bearing capacity.
- b. Trolley : Fitted with 4 nos. (min.100mm) anti-static rubber castors two of which are lockable for braking & easy maneuverability with hand / foot operated brake provisions.
- c. Frame: Frame made of non-rusting stainless steel or epoxy painted (non-glare) mild steel frame/stand or light aluminum Alloy.
- d. Pull handle: Conveniently placed to maneuver the machine
- e. Drawer unit 2 Nos. drawers placed near the bottom.
- f. Working surface One working top of non-glare, non-magnetic material at 80-100cm height. One surface at the top for monitor accommodation.

Gas source

- a. Yokes : one O2 (Oxygen) and one N2O (Nitrous-oxide) pin-indexed color coded yokes for pin-indexed 24 cft cylinders. Each yoke should have its own colour coded pressure gauge assembled in the front panel.
- b. Pipe line : Provision for central medical piped gases (one for O2 and one for N2O and one for compressed Air) should be available with separate non-interchangeable inlet (threaded), coupled with separate colour coded pressure gauge.

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- c. Pressure regulators : Each yoke should be fitted with its own pressure regulator, Outlet pressure, 45-60 psig 2.5-6 psig
- d. Pneumatic switch: Pneumatic switch conveniently placed so as to make the gas flow optional during use and cut off during off hours. This cuts off the high pressure from the system.
- e. Rota meter : Double tube for O₂ & N₂O and single tube for air flow meter block. Flow control knobs colour coded and each physically different from the other, anti-hypoxic guard incorporated to provide at least 25% oxygen at any time, O₂ preferably on the right, Each section colour coded.

Double tubular flow meter for:

O₂ : 0.1 – 10L /min.

N₂O: 0.1 – 12 L/min. & single tubular flow meter for :

Air : 0.1 – 15 L/min.

Anti static coating on the inner side of the Rota meter tubes.

- f. Halothane/Isoflurane Vaporizer: any one vaporizer.
§ Must be from same manufacturer and compatible with the offered Anesthesia Machine. Temperature and flow compensated, Flow compensation over 100 ml to 10 L per min. Vapor deliver 0.00 to 5% v/v. Tray/Screw filling, " 0 " position dial lock. Back bar mounting 'screw or selectatec.'

Temp range: 15-35°C,

Pressure range: 1000-1400 mbar

EU-CE & US-FDA certificate to be submitted against offered model of Vaporizer

- g. Back bar : Interlock or selectatec mounting type. Fitted with pressure relief valve (at 70 cm H₂O), Vaporizer, flow meter & pop-off valve interconnected with male/female interlock variety
- h. Common gas outlet : 15/22 mm male/female bayonet type fitting.
- j. O₂ flush : O₂ bypass placed on easy access area on front of the machine, push-on switch. Should provide at least 35L-75 l/min O₂, when used.
- k. Anti hypoxic guard : Built-in to cut off N₂O in the event of O₂ supply failure or low pressure. In case of only N₂ O flows actuation, at least 25% O₂ automatic flow.
- l. Warning device: Audible and visual Oxygen failure warning device.
- m. CO₂ circle absorber with canister of 2 kg soda lime , autoclavable
- n. Ventilator – i) Ventilator color display should be > 8 " touch screen interface
 - (1) Mode – Volume Control, Pressure Control, Pressure support, SIMV,
 - (2) Waveform – Airway pressure waveform, Flow Waveform & Spirometry Loops
 - (3) Anesthetic Gas Scavenging System should be provide
 - (4) Tidel Volumn – 20- 1500ml
 - (5) BPM – 2-99bpm
 - (6) PEEP-3-20cm/H₂O
- p. Accessories: All accessories should be same manufacturer as well.
 - (1) Circuits: Bain circuit –Adult 1no.
 - (2) Oxygen Hose-Minimum – 4m.
 - (3) Nitrous Oxide – Minimum – 4m
 - (4) Air Hose –Minimum 4m (in case of compressor type).
 - (5) Patient Circuit support Arm – 1 set.
 - (6) Patient Breathing Circuit Adult – 1 Set (Re –usable) autoclavable.
 - (7) Filter element – 02Nos.
 - (8) Operation manual and service manual – 1 sets each.
 - (9) Anesthesia Trolley , Vaporizer & Ventilator from same Manufacturer.
 - (10) Cardiac Monitor – 01 sets with Accessories same manufacturer.
 - (11) UPS-220 Volt – 01 in no.

17. Standard Accessories. Must include all items and accessories including following which are required for installation and operation the **Anesthesia Machine** whether those are mentioned in the specification or not. A list of such items/accessories is to be provided with the quotation indicating item wise price separately.

18. Local Training. The supplier will arrange following training at BNS PATENGA free of cost:

- a. Operational Training: 02 x Operator for 01 week.
- b. Repair/Maintenance Training: 02 x EM Tech (01x Navy & 01x Civ) for 01 week.

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19. **Publication:** Following brochure/catalogue in English language showing detailed particulars of the quoted items should be supplied along with the offer.

- a. Operation manual – 03 copies (1 x Original & 2 x Photocopies).
- b. Repair/maintenance/service manual including detail circuit/schematic diagram-03 copies (1x Original & 2 Photocopies).
- c. Parts Catalogue/Master Parts list – 03 copies (1x Original & 2 Photocopies).

20. **Spare Parts:** Adequate number of fast moving spare parts and other recommended spare parts required for 5 years operation are to be quoted indicating item wise price from which buyer will select as per requirement. The supplier should provide guarantee for supplying spare parts for a minimum period of 10 years.

21. **After Sales Service:** The supplier should have requisite after sales service facilities at home to render necessary services as and when required by BN. Necessary agreement will be signed if required. Details of workshop facilities of the supplier should be mentioned.

22. **Test, Trial and Acceptance:** The supplier will carry out installation, test and trial of the supplied machine at his own cost. The acceptance of the supplied items will be carried out by BNS PATENGA where the supplier's representative will be present. After the satisfactory test/trial, with certificate the acceptance certificate will be given by the CINS.

23. **Warranty/Guarantee:**

a. The supplier must ensure that all items are new and unused. The supplier must provide warranty at least for 02 (two) years from the date of acceptance of the item(s) after satisfactory inspection, test, trial etc as applicable. If any defect/discrepancy of any item arises within the period of warranty, the specific period from the date of notification of the defect/ discrepancy to the supplier upto the date of rectification of defect/resolve of discrepancy will have to be deducted from the warranty period for that particular item(s).

b. If any defect/discrepancy arises, within warranty period, then the respective item(s) is/are to be replaced free of cost including freight within 03 (three) months from the date of notification of the same to the supplier. In this regard, the supplier must furnish an undertaking with the offer by stating, "I do hereby assure that we take the liability to replace all spare parts/item(s) free of cost including freight within three months from the date of notification about the defect/discrepancy of the spare parts/item(s) by the buyer, if it occurs within the period of warranty".

24. **Delivery:** The supplied items are to be delivered within 03 (three) months from the date of signing contract to The Commanding Officer NSD Chattogram.

25. **Validity of Offer:** Up to 30 Jun 2023.

26. **Certificate/Document of Authentication:** The local supplier must provide following original certificate(s)/document(s) with the offer/quotation to ascertain the genuinity of source and item(s) in order to establish chain of links from the original source of supply items.

- a. One certificate/document by the manufacturer in favour of the supplier (in case of manufacturer as direct source (Original)).
- b. FDA/EC Certificate /JIS must be submitted.
- c. Manufacturer Authorization Certification for the specific tender (original).
- d. Trained Bio Medical Engineer list with update CV.

27. **Users List:** User List in Bangladesh with contract details along with user's certificate of the quoted machine is to be provided along with the offer.

28. **Terms of Payment:** 100% payment will be made after satisfactory test, trial and acceptance by BN in local currency.

29. **Condition for Acceptance of Quotation:** Quotation has to have supporting documents (booklets, leaflet, catalogue, brochure etc) having detailed particulars of the offered **Anesthesia Machine**. The quotation will not be accepted if detailed information regarding specifications, maker's books and catalogue about the same model of the machine quoted, list of spare parts and accessories, etc are not provided.

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30. Compliance statement. A compliance statement fulfilling all requirements of the tender is to be submitted for evaluation of the quotations, Stating mere 'Yes' or 'No' will not suffice and detailed description/ information's as required are to be given. An in compliance statement may attribute to cancellation of the offer. If any clause of this specification does not commensurate with the offered item, the deviation has to be spelt out clearly.

Balam

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DDMS (Navy)
Member Secy
Dt.

[Signature]

DNT (Rep)
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