

**TENDER SPECIFICATION OF SYRINGE PUMP**  
**BNS PATENGA AND UPASHAM**

1. **Name of Equipment:** SYRINGE PUMP.
2. **Purpose:** To be used in ICU, Post OP/Ward OT Department.
3. **Quantity:** 12 (Twelve) complete sets.
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. **Manufacturing Country:** USA/ Canada/ UK/ EU/ Japan/ Australia/ South Korea.
9. **Port of shipment:** To be mentioned.
10. **Qualification of Bidders:** Bidders must be enlisted in NSSD Dhaka.
11. **Year of Manufacture.** From 2021 to 2023.
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 **Syringe Pump** 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:** 12 (Twelve) complete sets of **Syringe Pump** will have to be supplied with all attachments, accessories etc and complete in all respect for immediate operation.

16. **Technical features /facilities**

a.	Compatible syringes	10 mL, 20 mL, 30 mL and 50 mL.
b.	Range of flow rate setting	0.1- 300.0 mL/h for 10 mL, 20 mL and 30 mL syringes (0.1 mL/h steps) 0.1 - 1200 mL/h for 50 mL syringes (0.1 - 999.9 mL/h: 0.1 mL/h steps) (1000 - 1200 mL/h: 1 mL/h steps)
c.	Display range of volume delivered	0.1 - 999.9 mL (0.1 mL steps).
d.	Accuracy	Mechanical accuracy: Within $\pm 1\%$ Accuracy including syringe: Within $\pm 3\%$ Accuracy measured during the second hour after the start of infusion using any brand syringe at flow rate of 1.0 ml/hr or above.
e.	Occlusion detection pressure	Selectable from three levels (III, II and I) III 106.7 $\pm$ 26.7 kPa (800+200 mmHg) II 66.7 $\pm$ 13.3 kPa (500+100 mmHg) I 40.0 $\pm$ 13.3 kPa (300+100 mmHg)
f.	Purge	Approx. 1200 mL/h for 50 mL syringes Approx. 500 mL/h for 30 mL syringes Approx. 400 mL/h for 20 mL syringes Approx. 300 mL/h for 10 mL syringes



g.	Setting ranges of body weight mode	Dose rate: 0.01 to 99.99 µg/kg/min (0.01 µg/kg/min steps) or 0.01 to 99.99 mg/kg/h (0.01 mg/kg/h steps) Body weight: 0.1 to 300.0 kg (0.1 kg steps) Drug mass: 0.1 to 999.9 mg (0.1 mg steps) Solution volume: 0.1 to 999.9 ml (0.1 ml steps)
h.	Alarms	Occlusion, Nearly empty, Low battery, Plunger/Clutch disengaged, Syringe disengaged, AC/DC cable disconnection, etc.
j.	Other functions	Other functions should be as follows: Stand-by: Temporarily disables start - reminder alarm ΣmL clear: Should clear the volume infused by ΣmL clear switch Alarm volume setting: Should be selectable from three volume levels Shut down: Should shut down the pump when the battery is dead History: Should store history of 500 events Start - reminder. Repeat alarm.
k.	<b>Special Functions.</b>	
	(1) Delivery limit	Range: 0.1 to 999.9 mL (0.1 mL steps) Infusion completion alarm: To notify the infusion completion. KOR (Keep - Open - Rate): To switch the flow rate to 0.1 mL/h at infusion completion
	(2) Nearly empty alarm setting	Programmable by the time till the syringe empties
l.	Storage conditions (Original packing)	Ambient air temperature: 5 <sup>o</sup> to 45 <sup>o</sup> C and Relative humidity up to 95% (No condensation)
	Storage conditions (Syringe pump unit alone)	Ambient air temperature: 5 <sup>o</sup> to 60 <sup>o</sup> C Relative humidity up to 95% (No condensation)
m.	Power supply	100 to 240 V AC, 50/60 Hz. 12 to 15 V DC operable duration using internal battery is to be 5 hours/or more.
n.	Power consumption	To be mentioned
p.	Computer interface connector	To be mentioned
q.	Nurse-call connector	To be mentioned
r.	Classification	Class 1 and internally Powered equipment, Type CF, Continuous Operation, IPX4 (Protected against splashing fluid)
s.	Dimensions	To be mentioned
t.	Weight	To be mentioned

17. **Standard Accessories:** Must include all items and accessories with Brand, Model and Country of Origin including following which are required for installation and operation the **Syringe Pump** 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 AND UPASHAM** free of cost:

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

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

- Operation manual – 03 copies (1 x Original & 2 x Photocopies).
- Repair/maintenance/service manual including detail circuit/schematic diagram-03 copies (1x Original & 2 Photocopies).
- 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 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 AND UPASHAM** where the supplier's representative will be present. After the satisfactory test/trial, with certificate the acceptance certificate will be given by the **CINS NSD Chattogram & ACINS Khulna**.
23. **Warranty/Guarantee:**
- 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 arise 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).
  - 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 & OIC NSD Khulna**.
25. **Validity of Offer:** Up to 30 June 2024.
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.
- One certificate/document by the manufacture in favour the supplier (in case of manufacture as direct source (Original)
  - FDA/EC Certificate /JIS must be submitted.
  - Manufacturer Authorization Certification for the specific tender (original)
  - Trained Bio Medical Engineer list with update CV.
27. **Users List:** User List in Bangladesh with contract details along 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 **Syringe Pump**. 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.



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 incompliance 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.

*Bahen* 12.10.23  
A H M HABIBUR RAHMAN  
Surg Cdr BN  
DDMS (Navy)  
Member Secy  
Dt.

*M NADIM CHOWDHURY SAZIB* 12.10.23  
DNT (Rep)  
Member  
Dt.

*M FAHIM KABIR* 12.10.23  
DNO (Rep)  
Member  
Dt.

*Mason* 12.10.23  
MD MAHMUDUL HASAN  
DNT (Rep)  
Member  
Dt.

*এম আব্দুল কাদের*  
DTS  
Member  
Dt. 15-10-23

*M GOLAM HOSSAIN*  
Commodore BN  
Director Naval Stores  
Member  
Dt.

*AHMED RAFI* 15.10.23  
DMS (Navy)  
President  
Dt.