



SREE AVITOM THIRUNAL HOSPITAL HEALTH EDUCATION SOCIETY

(Registered under Travancore - Cochin Literary Cultural and Charitable Society Act - 1955 (Reg. No. 791-93)
SAT Hospital, Medical College P.O. Thiruvananthapuram - 11. PHONE: 0471-2528343

No.43/A1/2026/SATHHES

13.05.2026

TENDER NOTIFICATION

Sealed competitive tenders are invited in two cover system by Sree Avittom Thirunal Hospital Health Education Society (SATHHES) for supply & installation of Advanced Neonatal Ventilator for the Neonatology Department (NICU) at SAT Hospital, Medical College, Trivandrum as per the following specification and terms and conditions.

SUPPLY OF ADVANCED NEONATAL VENTILATOR - 1 No.

Technical Specifications :

1. Advanced microprocessor based continuous flow, pressure limited, time cycled ventilator for very low body weight infants (premature, new borns) and/or paediatrics based on ideal body weight input setting on start-up.
2. Should be a four in one device for high flow oxygen therapy, non-invasive, invasive and upgradation of high frequency ventilation if required for use on premature, neonatal and paediatrics patients
3. Should have mains/battery operation with battery operation of minimum 30 minutes.
4. Should have USA FDA and CE approval for ventilator.
5. The neonatal ventilator should have the following ventilation modes: CMV, Assist control, SIMV, CPAP and PSV Volume Guarantee, PRVC or equivalent (alternate modes are not acceptable) should possible in Assist control and SIMV or equivalent mode, MMV or equivalent.
6. Ventilator should have integrated device check with user prompt via screen messages
 - For determination and display of system compliance
 - Inspiratory and expiratory resistance
 - Leakage of patient hose system
 - Checking of valves, gas supply system, flow sensors, expiratory valve
7. Should have inbuilt 15 inch TFT colour touch screen with for real time simultaneous display of three wave forms and values. Should display minimum 3 graphs and 2 loops and may not simultaneously. Should have user configurable graphical trends and screen layouts. Should be possible to rotate the screen for viewing from any angle.
8. The ventilator should be supplied with heated servo-controlled humidifier with suitable hoses for high flow oxygen, invasive, non-invasive and high frequency ventilation if available. Preferable same manufacturer.
9. The PMKIT shall be replaced at free of cost during the warranty and CMC period whenever required as per the recommendation of manufacturer.

10. Special procedures to be available such as:

- Suction Mode – User adjustable FiO₂ and time period
- Manual Inspiratory Hold
- Inbuilt Nebulisation Port-inspiration synchronized, volume compensated with adjustable time intervals or Ultrasonic Nebuliser / electronic micro pump with <5 μ particle size.

11. Should have automatic compliance and leak compensation for circuits and ET tubes.

12. Should have back up ventilation/apnea alarm in CPAP/PSV

13. Expiratory Transducer/sensor/valves should be sterilizable and reusable.

14. Should have settings for :

Volume Guarantee	2-300ml
Peak Inspiratory Pressure	1-80 cm H ₂ O
PEEP	0-30 cm H ₂ O
Inspiratory Time	0.1-3 sec
Rate	0-150 bpm
Inspiratory flow	2-30 lpm
Slope control/Rise Time	0-2 sec.
FiO ₂ (integrated blender without bleed flow)	21-100%
Flow Trigger	0.2-5 lpm
O ₂ flow (O ₂ therapy)	2-50 lpm with FiO ₂ from 21-100%

15. Should have real time data should be monitored at Y-piece for:

- Pressure – Peak, Plateau, Mean, CPAP/PEEP, P min (Minimum airway pressure)
- Volume – Total Minute Volume, Spont. MV, Inspired Tidal Volume, Expired Tidal Volume, Spontaneous Tidal Volume.
- Leakage – Leakage MV, Leakage as %
- Frequency/Rate – Set (Inspiratory), Spontaneous, total
- FiO₂
- Lung Mechanics – Resistance, Compliance, C₂₀/C, Time constant T_c, RVR
- Integrated short term and long term graphical trend of all monitored data up to 7 days
- Integrated alarm log of up to 500 events on First in First out basis; data export through USB port should be possible
- Should have proximal sensor for real time monitoring of flow at Y-piece with heated wire anemometer type sensor. It should be easily replaceable without disassembling the machine or disassembling the expiratory valve.

16. Should have automatic alarm settings for all alarms with clear text messages/ corrective action for :

- Disconnection
- Tube blocked

- Ventilation hose kinked
- High/low Pressure
- High/low Minute Volume
- High Rate
- High Tidal Volume
- Apnoea / apnoea alarm time
- High/low O₂ % (automatic settings)
- Oxygen line failure
- Compressed air failure
- Total electronic failure

17. HFOV

- It should be possible to combine HFOV as below:
 - Control + HFOV / Sign + HFOV
 - CPAP + HFOV
 - VG (Volume Guarantee) in HFOV
- The HFOV function should be integrated in same machine and NOT as an external facility / add on.
- The HFOV function should control :
 - Frequency in Hz : 5 -20 Hz.
 - Pressure Amplitude : 1- 90 cmH₂O.
 - MAP : 5 – 50 cmH₂O
 - 1:E Ratio : 1 : 1 to 1 : 3
- It should be possible to use HFOV WITHOUT disconnecting the patient by simply switching the mode to HFV in the same machine. If HFOV is offered, separate patient tubings for same to be offered.
- Should measure parameters in HFOV such as DCO₂, VtHF (tidal volume in HFOV), MVim (MV in IMV strokes in inspiration), VTim (MV in IMV strokes in expiration)

18. Scope of supply should include.

1. Each machine should be supplied with following accessories with each unit of same manufactures make.
 - Modular corrosion free Original Trolley
 - Servo controlled humidifier with heated wire type and 10 nos Dual heated disposable patient circuits.
 - Heated Flow sensor - 10 nos.
 - Permanent O₂ cell
 - Expiratory Valve Reusable - 2 Nos
 - Oxygen connecting Hose 5 meter - 1 No.
 - Air connecting Hose 5 meter - 1No.
 - Original Hinged arm support for patient circuit
 - Integrated RS232C Interface

- Neonatal test lung
- Instruction Manual

Quality Standards and Support requirements :

- The offered unit should have CE and FDA certificate
- EN ISO 9001, EN ISO 13485
- The unit should comply with relevant IEC Certification
- Indian subsidiary/dealer should have nationwide network, support offices and must be also ISO 9001 certified.


Estimated cost Rs.29 lakhs (including GST)

Date of issue of Tender form with document	:	From 19.05.2026 to 18.06.2026 12 Noon
Date & Time for submission of tender document	:	From 19.05.2026 To 18.06.2026 upto 2.00 pm
Date & time for opening of Tender document	:	On 18.06.2026 at 2.30 pm
Cost of Tender fee	:	Rs.1000 + 18% GST

The details of tender is available in www.tmc.kerala.gov.in

1. Tenders in sealed cover only will be accepted. The tenders received after the scheduled date and time will be rejected outrightly.
2. Delivery period : Delivery period for supply of machine would be a period of maximum one month from the effective date of contract.
3. The tender is in two bid system i.e. Technical Bid & Financial Bid. The technical bid will be opened on the date mentioned above by the purchase committee. The financial bid containing the rate of various item(s) will be opened on a suitable date and time to be intimated later by the purchase committee to the bidders who qualify the technical bid.
4. The bidder should seal the technical bid and the financial bid in separate covers superscribed "Technical bid for Tender for Advanced Neonatal Ventilator" and "Financial Bid for Tender for Neonatal Ventilator". The "Technical Bid" will be analyzed and "Financial Bid" of only those firms who are found eligible in "Technical Bid" will be opened in due course and the eligible firms would be intimated there of accordingly.
5. The bidder has to arrange a demonstration of the instrument after technical bids are opened, before the final evaluation and financial bids are opened. Demonstration shall be arranged at the purchasers premises and the cost of the demonstration is borne fully by the bidder.
6. **Signing of Tender**
All the duly filled/completed pages of the tender should be given serial/page number on each page and signed.
7. Offers not complying with all the given clauses in this tender document are liable to be rejected.

8. Technical bid shall contain all the information and documents in the same serial order as shown in the tender document.
9. Financial bid shall contain the rates / prices of the items duly filled in (schedule of rates) and signed and stamped.
10. Price should not be indicated in any of the documents enclosed in the technical bid.
11. The machine supplied should be as per the stipulated specifications.
12. Tenders will be opened at the above date and time in the presence of tenderers or their authorized representatives arrived at that time.
13. Notification number of tender, name of instrument and type of bid (whether technical or financial) should be written on the top of the envelope containing the tender.
14. The rate quoted by the tenderer should be inclusive of all applicable taxes.
15. All the envelopes shall indicate the name and address of the bidder to enable the bid to be returned, if required.
16. A preliminary agreement as required in the store purchase manual should be submitted along with the tender in Kerala stamp paper worth Rs.200/-
17. The tender should be addressed to the Secretary, SATHHES, SAT Hospital, Medical College PO, Thiruvananthapuram - 695 011.
18. Tender without EMD shall be summarily rejected.
19. Performance guarantee/Security deposit 5% of contract value (agreed PAC) should be deposited on finalization of contract.
20. If the last date for submission of bids or the date of the opening of bids happens to be holiday declared by Government, the bids will be submitted and opened on the next working day in the same order and at the same time.
21. Warranty for the items other than specified shall be for a period of 3 years.
22. CAMC : 7 years (Rate should be quoted separately with the cost of the machine).
23. EMD amount of Rs.29,000/- should be in the form of DD in favour of Secretary, SATHHES payable at Trivandrum. **EMD exemption will not be accepted.**
24. EMD and documents like copies of GST registration certificate, Income Tax PAN etc. along with technical bid should be submitted by all the tenderers.
25. The undersigned (The Secretary cum Treasurer, SATHHES) will have the right to cancel the tender at any stage without assigning the reason thereof.
26. Any other details regarding tender can be obtained from the office of the SATHHES (SAT Hospital Golden Jubilee Block, Govt. Medical College, Trivandrum) during office hours.
27. Any change / corrigendum on this tender notification will be given in the site (www.tmc.kerala.gov.in) only.


Dr. BINDU.S
Secretary cum Treasurer
SATHHES