

# Rajasthan Medical Services Corporation Limited, Jaipur

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No. F-8(261) RMSC/EPM/M-3/17-18/NIB-235/ ろ 9 0 チ

Date: 15/9/12

## CLARIFICATION/CORRIGENDUM/ADDENDUM

Subject: -Revised Technical Specifications and other terms and conditions and Revised BOQ of Bid document for VENTILATORS F-8 (261) RMSC/EPM/M-3/17-18/NIB-235/3434 dated: 17.8.2017.

In Reference to subject cited above and NIB-235, the various representations received from the firms and issues raised by the Bidders are examined by the competent Authorities and technical committee. The following Corrigendum/Addendum is issued for inclusion in bid document & Technical Specification of items (Section-V, Schedule of Supply, Point no. 3) as below:-

## Technical Specifications for Basic Ventilator

- 1. It should have microprocessor based technology for adult and pediatric application.
- 2. It should have user friendly pop-up menu with rotary encoder.
- 3. It should have simultaneous display of waveforms & loops on screen, screen size should be 12 inch or more with Touch Screen.
- 4. It should have apnea backup ventilation.
- 5. It should have about 24 hour trend display.
- 6. It should have manual/auto nebulizer.
- 7. It should have standard ventilator modes:
  - a. CMV-V (Assist) and CMV-P (Pressure Support)
  - b. SIMV / V and SIMV / P
  - c. Bi-level Ventilation or equivalent.
  - d. CPAP and PEEP.
  - e. Facility for Non-Invasive ventilation
  - f. One optional advance ventilation mode: Any upgradable advance ventilation mode like ASV or MMV or PAV or equivalent, price to be quoted separately in BOQ.
- 8. It should have settings of:

- a. Tidal volume: --

20ml - 1500ml.

b. Inspiratory pressure:

 $5 - 70 \text{ cmH}_2\text{O}$ .

c. Pressure support:

 $0 - 30 \text{ cmH}_2\text{O}$ 

d. Respiratory rate:

2-80 bpm.

e. Inspiratory time:

0.2-10 sec.

f. PEEP:

0 - 30 cmH<sub>2</sub>O.

g. O2 delivery:

21-100%

- 9. Alarms should be user friendly, audio and visual with text message, system alarm should be for:
  - a. Pressure changes (high/low).
  - b. Tidal volume changes
  - c. Minute volume changes
  - d. High PEEP
  - e. High/Low O<sub>2</sub> Concentration
  - f. Power failure & Low Battery
  - g. Patient disconnection
  - h. Apnea

- 10. Monitoring data:
  - a. Flow vs Time, Pressure vs Time and Volume vs Time graphs.
  - b. Parameters: Rate, PIP, leakage, tidal volume, minute volume and Delivered O<sub>2</sub>%
  - c. Display of set and measured parameters
- 11. Should have integrated Air source of same make.
- 12. It should be compatible with central gas supply of air &  $O_2$  in ICU setup.
- 13. Battery backup for ventilator including air source should be minimum 2 Hours.

# System Configuration Accessories, spares and consumables:

- 14. Mounting Trolley/ cart mounting for easy transportation and Hinged Support Arm 1 no. All of same make.
- 15. Adult and Pediatric reusable silicone patient breathing circuits 02 nos. each complete set.
- 16. Hose for Oxygen and compressed Air with connector 01 no. each
- 17. Reusable Masks (Large & Medium) with each machine 01 set each
- 18. Humidifier Heated humidifier comprising of adult & paediatric chamber with all required accessories like temp. Probe, heating wire, draw, chamber - 1 no. each

## Standards, Safety and Training:

- 19. Ventilator should be USFDA / European CE approved.
- 20. Demonstration of quoted equipment model is must for final technical approval.
- 21. Firm should have service engineer network in Rajasthan. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.
- 22. Guarantee: for three years from the date of installation, including Oxygen Sensor.
- 23. CMC: CMC shall be given @ 4% of net rate (excluding GST as applicable) and yearly escalation of 5 % on last year's CMC price. The CMC may be awarded for five years (on yearly basis) after Guarantee period of three years.

# Technical Specifications for Advanced Ventilator

## Operational Requirements:

- It should be microprocessor Controlled ventilator with integrated facility for Ventilation monitoring suitable for Neonatal to adult ventilation.
- The unit should be compressor based of same make for precise gas delivery.

## Technical Specifications:

- 3. Should have integrated Colored Touch screen 12 inch or more
- It should have inbuilt facility to measure and display for all patient category (Adult to neonatal)
  - a) Should have End Tidal CO2 detection by Volumetric Capnography
  - 3 waves Pressure and Time, Volume and Time and Flow and Time.
  - b) 3 loops P-V, F-V, P-F with facility of saving of Loops for reference.
  - c) Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc.
  - d) Simultaneous display of set and exhaled parameter, waveforms and loops.
- 5. Should have Trending facility for 24 hours or more
- 6. Should have Automatic compliance & Leakage compensation for circuit
- 7. Should have following settings for all age groups.
  - a) Tidal Volume:
- 5 ml to 1500 ml
- b) Pressure (insp):
- 2 80 cmH<sub>2</sub>O
- d) Respiratory Rate:
- c) Pressure Ramp / Flow patterns 1 to 150 bpm.
- e) Insp. Time:
- 0.1 to 3 sec.
- f) I: E Ratio:
- 5:1 to 1:5
- g) CPAP/PEEP:
- 0-40 cmH2O
- h) Pressure support;
- 2-80 cm H<sub>2</sub>O
- i) FiO<sub>2</sub>:
- 21 to 100%
- j) Pause Time:
- 0 to 2 sec

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k) Flow Trigger:

0.2 to 15 lpm

- 8. Should have monitoring of the following parameters:
  - a) Airway Pressure (Peak & Mean)
  - b) Tidal volume (Inspired & Expired)
  - c) Minute volume (Expired)
  - d) Spontaneous Minute Volume
  - e) Total Frequency
  - f) FiO<sub>2</sub>
  - g) Intrinsic PEEP
  - h) Plateau Pressure
  - i) Resistance & Compliance
  - j) Use selector Alarms for all measured & monitored parameters
- 9. Should have following modes or equivalent modes of ventilation
  - a) Volume controlled
  - b) Pressure Controlled
  - c) SIMV (Pressure Control and volume control) with pressure support
  - d) CPAP/PEEP, PSV + assured tidal volume / guarantee
  - e) Any advance mode like pressure controlled volume guaranteed / PRVC / AUTOFLOW or equivalent
  - f) Non Invasive ventilation including Nasal CPAP for neonates.
- 10. Should have Apnea / backup ventilation.
- 11. Expiratory block: not requiring routine calibration and could be sterilized.
- 12. Should have monitoring of the following parameters
  - a. Occlusion Pressure (P0.1), Max Inspiratory pressure (Pi max)
  - b. RSBI, Imposed work of Breathing (WOBi)
- 13. Should have integrated (in-built) nebuliser or synchronized ultrasonic nebuliser with capability to deliver fine particle on line.
- 14. Should have integrated Battery backup for minimum 1 hour for main unit

#### System Configuration Accessories, spares and consumables:

- 15. Mounting Trolley/ cart mounting for easy transportation and Hinged Support Arm 1 no. All of same make.
- 16. Adult, Paediatric, Neonatal autoclavable silicone patient breathing circuits 02 nos. each complete set.
- 17. Reusable and autoclavable Flow sensor and exhalation valve / expiratory cassette 4 nos. each. The expiratory flow sensor and valve should have 5 years complete replacement (free of cost)
- 18. Hose for Oxygen and compressed Air with connector 01 no. each
- 19. Reusable Masks (Small, Medium, Large) with each machine 01 set each
- 20. Humidifier Servo controlled with digital monitoring of inspired gas temperature 01. All required accessories like temp. Probe, heating wire, draw, chamber each 1 no.

#### Standards, Safety and Training:

- 21. Should be USFDA / European CE approved product.
- 22. Demonstration of quoted equipment model is must for final technical approval.
- 23. Firm should have service engineer network in Rajasthan. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.
- 24. Guarantee: for three years from the date of installation, including Oxygen Sensor.
- 25. CMC: CMC shall be given @ 4% of net rate (excluding GST as applicable) and yearly escalation of 5 % on last year's CMC price. The CMC may be awarded for five years (on yearly basis) after Guarantee period of three years.

#### Revised BOQ

## Financial bid for Quoted Item

S. N.	Item Description	Approx Qty.	Packi ng Unit	Net rate per packing unit (In Rs.)	Rate of GST as applicable	Amount of GST as applicable	Rate of SGST	Rate of CGST	Rate of IGST	Brand/M odel	Total Amount In Rs. (5+7)
1	2	3	4	5	6	7	8	9	10	11	12
1.	Basic Ventilator	65	Each					-	-		
1.1	(Optional Item For Basic Ventilator) Rate for one optional advance ventilation mode like ASV or MMV or PAV or equivalent	1	Each	Do not quote rates here							
2.	Advanced Ventilator	65	Each								•
		Rates shall o	nly be fill	ed in BOQ l	ttps://eproc.rs	ijasthan.gov.in					

Note: - The rates of optional items / consumables shall not be included / considered for determining the lowest bidder.

Date

Signature

Name in Capitals Company /Firm Seal

#### Note: -

- 1. The rate quote should be exclusive of GST
- 2. SGST,CGST & IGST should be separately shown in column no. 9, 10 & 11 for further reference
- 3. Rate should be quoted only for packing units as mentioned in the bid
- 4. No quantity or cash discounts should be offered.
- 5. Read all the terms & conditions before filling the BF-IV.
- 6. Please quote rates in absolute amount only.

The last date for sale of bid, receipt of bid and date of opening of technical bid hereby extended as below:-

Extended dates								
Last Date for Sale of Bid Form	Last Date of Receipt of Bid Form	Date of Opening of Technical Bid						
3.10.2017	3.10.2017	3.10.2017						
11:00 AM	01:00 PM	03:00 PM						

Please note that all clarification/amendment/corrigendum in technical specifications/bid conditions is the integral part of the bid document. This corrigendum/ addendum should be signed and annexed with bid document.

All other terms & conditions remains the same.

This bears the approval of M.D., RMSCL, Jaipur.

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Executive Director (EPM)
RMSCL, Jaipur