



## Rajasthan Medical Services Corporation Limited, Jaipur

Gandhi Block, Swasthya Bhawan, Tilak Marg, C-Scheme, Rajasthan, Jaipur

Phone No.-2223887, Fax no.-0141-2228065

CIN:U24232RJ2011SGC035067

E-Mail: [edepmrmsc-ri@nic.in](mailto:edepmrmsc-ri@nic.in)

Website: [www.rmhc.health.rajasthan.gov.in](http://www.rmhc.health.rajasthan.gov.in)

F-80) RMSC/EPM/M-4/NIB-600/1706

Date:- 22/02/2022

### Clarification/Corrigendum/Addendum

**Subject:-Amendment in technical specification**

**F-80 1. Transport Incubator 2. Advance Transport Incubator for under NIB No. F-80) RMSC/EPM/M-4/NIB-600/2021-22/738 Date 26.05.2021**

In Reference to subject cited above and NIB-600, 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 as below:-

**(A) Revised Technical Specification:-**

#### Technical Specifications of Transport Incubator

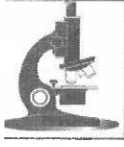
1. Double wall Acrylic transparent canopy with mattress.
2. Size of the incubator canopy should not more than 900 mm (L) X 500mm (w) X 500mm (H) to baby bed Size. Baby bed should be 60 x 30 cm. (±5) cm with mattress thickness 25mm (±5mm).
3. Front and head end access doors with access portholes with elbow operated flip doors and lock chips, cuff tubing access ports and iris port for ventilator tubing.
4. Incubator should have sliding acrylic baby tray to resuscitate baby and to take X-rays.
5. Incubator should have re-usable mattress.
6. Should have a slide-out mattress tray with baby restraining Straps.
7. Should have humidification system, inlet for oxygen and intravenous tubing.
8. Should have soft-touch keys to set the desired parameter values.
9. Should have inbuilt resuscitation console with suction unit for neonatal use.
10. Should have soft-touch keys to set the desired parameter values.
11. Should have microprocessor – based servo – control temperature control system with digital display of actual and set temperature of air and skin.
12. Range of temperature
  - i. For skin control: 34°C to 38°C
  - ii. For air control: 22°C to 39°C
  - iii. Resolution: 0.1°C



- iv. Accuracy: 0.2°C- 0.5°C within set temp
- v. Air / Skin temperature display range : 20°C to 45°C
13. Should have heater output display in %.
14. Air velocity <20cm/sec. Oxygen input flow rate 0 to 25 liters/min or oxygen concentration range 21 to 60% or above.
15. Audio – visual alarms: high/low air temperature ( $\pm 0.1^\circ\text{C}$ ), high and low skin temperature ( $\pm 0.5^\circ\text{C}$ ), temperature sensor failure, A.C. power failure and low battery, skin mode of + 0.5 C of temperature, system failure, air circulation, Skin probe.
16. Internal noise level <60dB.
17. Green indicator light should be provided for its ready to be in normal use.
18. Infant's straps should be provided to rusticate baby movement.
19. Skin temp probe should be small in size to fix the probes firmly on the infants. Baby contact material should be biocompatible.
20. Safety cut off at 38°C for skin and 39 C for air with audio and visual alarms.
21. Examination light should be provided.
22. Should have heater power indication.
23. Warm-up time should be 30-40 minute and shall not differ by more than 20%.
24. Mounted on autoloading Collapsible stretcher trolley with adjustable height.
25. Trolley should be light weight (40kg or less without cylinders) on four locking castors with handles.
26. System must be capable of being securely installed in ambulance.
27. Should have forced air circulation system with HEPA filter to Remove air born particles.
28. Battery and AC supported.
29. Indicators for Mains and Battery Modes of Operation.
30. Indicators for Battery Power Capacity.
31. Should have internal light for illumination.
32. Should have options of Wall Gas Supply or Cylinder Supply.
33. Should have inbuilt IV stand.
34. Should have space provision for mounting syringe pumps, multipara monitor and other patient monitoring and accessories.
35. Power requirements : 220v , 240v / 50Hz
36. Built-in sealed rechargeable batteries capable of working for at least 2-4 hours when fully charged. (Protection for overcharging.)
37. All metal parts of the equipment should be corrosion resistant and epoxy/power coated.
38. All consumables required for installation and standardization of system to be given free of cost.
39. Should be European CE (Notified body)/USFDA approved.

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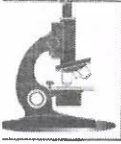
40. Manufacturer/ supplier should have ISO 13485 certificate for quality standards.
41. Electrical safety confirms to standards for electrical safety IEC-60601-1. Shall meet IEC-60601-1-2 (General requirements for safety – electromagnetic compatibility, shall comply with IEC 60601-1-20 transport incubator standard requirement. )
42. List of essential spares and expendables consumables should be provided and quoted separately. Prices so quoted to be frozen for 5 years.
43. Guarantee should be provided for 3 years (starting from date of installation at hospital).
44. Should be provided with original user manual and troubleshooting, certificates of calibration.
45. At the time of installation training to the staff should be provided.
46. Accessories to be supplied :
  1. Reusable skin temperature probes: 05 nos.
  2. 5 Ltr. Oxygen cylinders: 2 nos. (with regulator and flow meter.)
  3. Reusable mattress: 2 nos.
  4. Washable and removable straps and binders. : 10 nos.
47. Should be supplied with T-piece infant resuscitator with following specifications, along with reusable T-piece with tubes 10 nos., face masks 3size – 5 sets, test lung-2 nos. gas supply hose pipe line with connector.
  - I. PIP at 8 Ltr/min: 4 to 75 cmH<sub>2</sub>O
  - II. PEEP at 8 Ltr/min : 0 to 9 cmH<sub>2</sub>O
  - III. Safety provision with adjustable pressure relief Valve (PRV) for maximum pressure relief at 8 Ltr/min : 5 to 70 cmH<sub>2</sub>O
  - IV. Resuscitator should be gas powered by flow source, no electrical/battery operation.

**Revised Technical specification of Advance Transport Incubator:-**

1. Double wall Acrylic transparent canopy with mattress.
2. Size of the incubator canopy should not more than 900 mm (L) X 500mm (w) X 500mm (H) to baby bed Size. Baby bed should be 60 x 30 cm. (±5) cm with mattress thickness 25mm (±5mm).
3. Front and head end access doors with access portholes with elbow operated flip doors and lock chips, tubing access ports and iris port for ventilator tubing.
4. Incubator should have sliding acrylic baby tray to resuscitate baby and to take X-rays.
5. Incubator should have re-usable mattress.
6. Should have a slide-out mattress tray with baby restraining Straps.
7. Should have servo-control humidification system with humidity indicator, inlet for oxygen and intravenous tunings.

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8. Should have soft-touch keys to set the desired parameter values.
9. Should have resuscitation console with suction unit for neonatal use.
10. Should have soft-touch keys to set the desired parameter values.
11. Should have microprocessor – based servo – control temperature control system with digital display of actual and set temperature of air and skin.
12. Range of temperature
  - i. For skin control: 34°C to 38°C
  - ii. For air control: 22°C to 39°C
  - iii. Resolution: 0.1°C
  - iv. Accuracy: 0.2°C - 0.5°C within set temp
  - v. Air / Skin temperature display range : 20 to 45°C
13. Should have heater output display in %.
14. Air velocity <20cm/sec.  
Oxygen input flow rate 0 to 25 liters/min or oxygen concentration range 21 to 60% or above.
15. Audio – visual alarms: high/low air temperature ( $\pm 0.1^\circ\text{C}$ ), high and low skin temperature ( $\pm 0.5^\circ\text{C}$ ), temperature sensor failure, A.C. power failure and low battery, skin mode of + 0.5 C of temperature, system failure, air circulation, Skin probe.
16. Internal noise level <60dB.
17. Green indicator light should be provided for its ready to be in normal use.
18. Infants straps should be provided to restrict baby movement.
19. Skin temp probe should be small in size to fix the probes firmly on the infants. Baby contact material should be biocompatible.
20. Safety cut off at 38°C for skin and 39°C for air with audio and visual alarms.
21. Examination light should be provided.
22. Should have heater power indication.
23. Warm-up time should be 30-40 minute and shall not differ by more than 20%.
24. Mounted on auto loading Collapsible stretchable trolley with adjustable height.
25. Trolley should be light weight (40 kg or less without cylinders) on four locking castors with handles.
26. System must be capable of being securely installed in ambulance.
27. Should have forced air circulation system with HEPA filter to remove air born particles.
28. Battery and AC supported.
29. Indicators for Mains and Battery Modes of Operation.
30. Indicators for Battery Power Capacity.
31. Should have internal light for illumination.
32. Should have options of Wall Gas Supply or Cylinder Supply.

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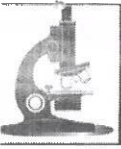
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33. Should have inbuilt IV stand.
34. Should have space provision for mounting syringe pumps, multipara monitor and other patient monitoring and accessories.
35. Power requirements : 220v , 240v / 50Hz
36. Built-in sealed rechargeable batteries capable of working for at least 2-4 hours when fully charged. (Protection for overcharging.)
37. All metal parts of the equipment should be corrosion resistant and epoxy/power coated.
38. All consumables required for installation and standardization of system to be given free of cost.
39. Should be European CE (Notified body)/USFDA approved.
40. Manufacturer/ supplier should have ISO 13485 certificate for quality standards.
41. Electrical safety confirms to standards for electrical safety IEC-60601-1. Shall meet IEC-60601-1-2 (General requirements for safety – electromagnetic compatibility, shall comply with IEC 60601-1-20 transport incubator standard requirement. )
42. List of essential spares and expendables consumables should be provided and quoted separately. Prices so quoted to be frozen for 5 years.
43. Guarantee should be provided for 3 years (starting from date of installation at hospital).
44. Should be provided with original user manual and troubleshooting, certificates of calibration.
45. At the time of installation training to the staff should be provided.
46. Accessories to be supplied :
  1. Reusable skin temperature probes: 05 nos.
  2. 5 ltr. Oxygen cylinders : 2 nos. (with regulator and flow meter.)
  3. Reusable mattress: 2 nos.
  4. Washable and removable straps and binders. :10 nos.
47. Should be supplied with Neonatal transport Ventilator
  1. Basic compact neonatal ventilator unit well mounted in the system.
  2. Turbine/Pneumatic based ventilator that does not require air cylinders to function.
  3. Should be able to run with oxygen cylinders to provide high FiO<sub>2</sub> during transport.(21 to 100%)
  4. Should have a independent battery backup of up to 3-4hours.
  5. Should have modes -Apnea, Assist Control-Pressure, Assist Control-Volume, CPAP-Pressure, Backup, SIMV-Pressure, SIMV-Volume
  6. Other parameters- Rate (Neonatal) 10- 150 BPM, Expiratory Time 0.2 – 4.0 seconds, Inspiratory Time 0.2 – 3.0 seconds, Flow (Neonatal) 0.1 - 15 LPM, PEEP (Neonatal) 0 - 20 cmH<sub>2</sub>O, PIP (Neonatal) 3 - 60 cmH<sub>2</sub>O, Tidal Volume (Neonatal) 2- 200 ml.
  7. Should have alarms for:- Rate, Oxygen (O<sub>2</sub>), PEEP, IPAP, Peak Pressure, Mean Pressure, Low Battery, I:E Rate

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8. Should be European CE (notified body)/usfda certified.
9. Should be supplied with following accessories
  - Re usable Infant Circuit
  - Infant Test Lung
  - Infant Flow Sensor
  - Disposable Patient Filter
  - O2 High Pressure Supply Hose
  - Device is safety certified according CE(Notified body)/USFDA certified.
  - Device is produced by ISO 9001 certified manufacturer
48. Should be supplied with a well mounted neonatal multipara monitor with MESIMO/Nellcor/SET technology, battery operated for 3-4 hours (With neonatal Accessories each-2 Nos) .CE (Notified Body)/USFDA certified.
49. Should be supplied with well mounted syringe pump battery operated for 3-4 hours. CE (Notified Body)/USFDA certified.

**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.**

**Executive Director (EPM)  
RMSCL, Jaipur**