



## Notice Inviting e-Tender

**West Bengal Medical Services Corporation Limited**  
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**Supply and Commissioning of Medical equipment at Paediatric wards for Clinical management of Children suffering from MIS-C**

2<sup>nd</sup> call of the bid reference no. WBMSCL/NIT-57/2022 (Schedule-I ), Dated- 21.02.2022

<b>Bid Reference No: WBMSCL/NIT-107/2022</b>
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<b>Dated –23.03.2022</b>
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**The following amendments has been made in the tender document,**  
**Amendment – I**

### Schedule – I Heart Lung Machine

1. Should have 4 pump on console (2 Single and 1 twin) and a Mast pump
2. Should have Rotatable Pump Heads-Each Head can be controlled individually
3. Double Head pumps should be rotatable in different directions with master-slave control
4. Pump Head raceway should have:
  - a) Accuracy 0.03mm
  - b) Occlusion accuracy- 0.03mm
  - c) Occlusion rollers accuracy- 0.015mm
  - d) Maximum flow up to 11LPM
5. Should have integrated centrifugal pump , including double pressure module and temperature module with cables with non-invasive flow sensor
6. Should have inline haematocrit and saturation monitor for venous / arterial circuit of heart lung machine

7. Should have precise Occlusion / locking Mechanism
8. Should have level sensor
9. Should have a gradual Venous line occluder
10. Should have Timer for Cardioplegia delivery
11. Pump start time should be 3 sec minimum
12. Should have blender for air, O<sub>2</sub> mixer
13. Should be direct drive or belt drive
14. Should be modular
15. Should have master control display (Pressure, Cardioplegia and temperature monitor) for control
16. Should have display of all pump conditions on the pump panel
17. Should have minimum 90 mins battery backup
18. Sensor and control modules should be easily interchangeable
19. Mast system
20. Electric field motor driven system
21. EUROPEAN CE (4 digit) or US FDA approved product.

## Heater cooler unit

1. Separate heating and cooling line with 2 tanks for Oxygenator and Cardioplegia delivery system respectively
2. Setting for keeping temperature gradients between blood and water temperature
3. To work with power supply of 220-240V / 50-60Hz
4. Pressure regulated blanket ports maintaining the temperature of the arterial port
5. Temperature display range of 1-41° Celsius; remote accuracy of  $\pm 0.3^{\circ}$  Celsius
6. Microprocessor based unit of control, cool, re-warm and maintain temperature
7. Water outlet temperature of heat exchanger and blanket range 3-41°C
8. Maximum flow performance of Oxygenator heat exchanger supply port 21-LPM for fast cooling; 2.4 bar maximum pressure for Oxygenator + blanket circulation; and 0.4 bar for Cardioplegia circulation with water flow of 7 LPM
9. Should be capable of providing ice water for Cardioplegia independently with variable cooling rate
10. Re-warming or cooling facility with venous difference mode settable at 6 to 10

°C gradients to hold the water bath temperature at higher or lower than the venous blood temperature

11. Should be provided blanket Adult –1 no. & paediatric–1 no.
12. EUROPEAN CE (4 digits) or US FDA approved product.