SPECIFICATIONS FOR DIGITAL ANAESTHESIA WORK STATION WITH ELECTRONIC CHARTING SYSTEM

1. Electronic Anaesthesia Workstation with integrated ventilator and monitor IEC/ISO and BIS compliant.

2. Anesthesia machine should have inbuilt Ventilator, Vaporizer, Gas delivery system and Multipara Monitor.

3. Should be trolley mounted.

4. Material of the Anesthesia Work Station should be Epoxy powder painted steel/rust-proof ABS plastic with metal reinforcements.

5. Mode of integrated scavenging system should be active and passive.

6. Minimum battery backup time for Anesthesia Work Station, ventilator and Monitor should be one hour.

7. Should have facility of manual ventilation in case of electricity & battery failure.

8. Should have facility of gas & agent delivery in case of electricity and battery failure.

9. All components of the Anesthesia Machine including integrated Ventilator, monitor and vaporizer from the same manufacturer.

10. Patient monitor make must be from the same company.

11. Workstation should have minimum of two drawers to keep accessories, good mobility, anti-static caster wheels with locking facility & conveniently placed handles for easy movement of the machine.

12. Should have fully electronic controlled anaesthesia ventilator.

13. Anesthesia Work Station should have Electronic mode of gas mixing.

14. Anesthesia Work Station should have electronic type of hypoxic Guard.

15. Anesthesia Work Station should have Air:: N2O interlock

16. Digital display of pressure value for cylinder and pipeline pressure. (oxygen, nitrous oxide, air)

17. Availability of audible and visual oxygen failure alarms, low pressure alarms for (oxygen, nitrous oxide, air) pipeline and cylinder.

18. Machine should be compatible to vaporizer like Isoflurane, Sevoflurane and Desflurane of same company.

19. Volume capacity of breathing system should be 1.5 liters or more.

20. Ventilator should have modes of ventilation like VC, PC, SIMV and PS.

21. Breathing system should have fresh gas de-coupled / compensation.

22. Single step change from close to open system.

23. Device should have safety feature that while delivery of additional oxygen by using O2 Flush facility, there should be no increment in peak inspiratory pressures to patient.

24. The machine should have facility for display of ongoing uptake & consumption for oxygen & anesthetic agents.

25. Ventilator should be able to ventilate with atmospheric air in case of total gas supply failure.

26. Independent port for open circuit.

27. Anaesthesia ventilator should be electronically operated and electronically controlled with either bellow/piston/volume reflector technology. Integrated ventilator should not require any change in component for adults or infants.

28. Minimum range of tidal volume should be from 20 ml to 1400 ml, RR from 4-60.

29. Single chamber soda lime canister with a capacity of 0.6 kg or higher and should be auto cleavable.

30. Screen size of the Ventilator Monitor should be 15" or more.

31. Multipara Monitor should be TFT/ LCD/ LED monitor with screen size of 15" or more.

32. The monitor should have an optical knob as well as touch screen option for the ease of operation.

33. Integrated multi-para monitor should display parameters like HR, SpO2, NIBP, ECG, Temperature, BIS, NMT. MAC/ agent identification, EtCO2 to be displayed in either integrated or ventilator monitor or both.

34. Two channel ECG display- ECG 3 lead system and ECG 5 lead system with ST segment and arrhythmia analysis.

35. System to be supplied with Oxygen Analyzer with para magnetic technology.

36. System should display IBP1 and IBP2, temperature, EtCO2 and dual temperature.

37. SpO2 technology should be Nellcor /MASIMO.

38. Warranty of 5 years and CMC for 5 years after expiry of warranty.

39. Digital work station with all software updates should be provided free of cost during Warranty and CMC period.

40. System should be BIS certified.

41. Manufacturer should have good quality certification –ISO 9001/ISO 13485.

42. Confirmity to medical electrical safety standards IEC60601-2-13 and BS EN 6060-1-1 or latest

43.Integrated Electronic charting facility of patient vital parameters.

Accessories to be supplied with the system/Unit:

- Reusable patient circuit (Adult & Paed.) 02 each
- Reusable masks (Adult & paed.)= One of each size 0,1,2,3,4 &5
- Circuit holder – 02
- Hoses and compatible connectors with central pipeline system.
- SpO2 sensor (Neonate, Paed. & Adult) = 02 each
- Disposable IBP transducer= Minimum 20
- Reusable IBP interface cable= Minimum 02
- ETCo2 sample lines= Minimum 50
- Skin & Nasopharyngeal Temperature probe= Minimum 02each
- Reusable NIBP Cuff (Neonate & Paed.) = 02 each
- Reusable NIBP Cuff (Adult-Large & Extra Large)= 02 each § No. of Vaporizer (Sevoflurane & Isoflurane)= One each with each machine
- ECG cable -1 Nos., 5 Lead ECG - 2 Nos.
- Water trap 10 No. § Disposable breathing circuit 10 No. for adult and 10 nos. for Pediatric
- BIS sensor-10, BIS cable-02
- Integrated NMT
- Sevoflurane and Isoflurane vapourizer (Desflurane - optional)
- Bidder should supply all necessary hardware, software, cables, etc required for successful installation and commissioning of the entire system.
- Bidder has to provide onsite demonstration of the whole system along with all components, if desired by the Technical Specification committee.
- Onsite demonstration of the quoted model should be provided