

Amendment: Technical Specification for Advance Workstation with Cardiac Monitor and Charting system:-

Point Sl. No. :	Technical Specification as per NIT Document :	Amended Technical Specification as Requested :	Justification / Benefits / Remarks :	Remarks
Heading ~ A. Anesthesia Workstation :				
10.	Should have electronically controlled and electrically driven anaesthesia ventilator, should not require driving gas.	▪ "Should have electronically controlled and electrically / pneumatically driven anaesthesia ventilator".	Being " <u>electrically driven, should not require driving gas</u> " portion is of a specific company / brand and restricts competition.	Not amended as multiple OEMs are available
16.	Anaesthesia ventilator should have the following settings :			
j.	Tidal volume adjustment range 10 ml (in VCV) to 1500 ml and upgradeable to 5 ml in VCV.	▪ "Tidal volume adjustment range 10 ml (in VCV) to 1500 ml and 5 ml in <u>PCV</u> ".	PCV is frequently used for neonatal patients, where precise low tidal volumes (as low as 5 mL) are critical to avoid volutrauma and ensure patient safety.	Amended to :- Tidal volume adjustment range 10 ml (in VCV) to 1500 ml
k.	Adjustable PEEP: Off, 2 to 35 hPa (or cmH ₂ O); and CPAP: 0, 2 to 35 mbar.	▪ "Adjustable PEEP: Off, <u>3 to 30 cmH₂O</u> ; and CPAP: <u>3 to 60 cmH₂O</u> ".	For wider participation.	Amended to:- Adjustable PEEP – Off, (3 to 30 hPa/cmH ₂ O And CPAP (0, 2 TO 35 mbar /cmH ₂ O
m.	I:E : max 1:50 to 50:1.	▪ "I:E : <u>4:1 to 1:8</u> ".	For wider participation.	Amended to I:E = 4:1 to 1:8
n.	Should be able to ventilate with atmospheric air, in case of total fresh gas failure including oxygen.	▪ "Kindly <u>delete / remove this point completely from the existing prescribed Technical Specifications</u> ".	Being the " <u>ventilating with atmospheric air</u> " a company-specific point/ feature.	Amendment accepted. This point may be removed

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20.	Should have dual flow(hotwire —anemometry) sensing technology with flow sensor at inspiratory and expiratory side.	▪ "Should have dual flow sensing technology with flow sensor at inspiratory and expiratory side".	Specifying " <u>hotwire anemometry</u> " makes the point companyspecific.	Amendment accepted
36.	Should be possible to deliver oxygen and anesthetic agents in manual/spontaneous mode even when the machine is in switched off mode as an emergency back-up.	▪ "Should be possible to deliver oxygen and anesthetic agents in manual/spontaneous mode even when the machine is in switched off/ <u>power failure</u> mode as an emergency back-up".	Being " <u>electrically driven, should not require driving gas</u> " portion is of a specific company / brand and restricts competition.	Amendment accepted
Heading ~ Patient Monitor :				
08.	Monitor access should be with touch screen, rotary knob and fast access key for quick function.	▪ "Monitor access should be with touch screen, <u>rotary knob / fast access key</u> for quick function".	For wider participation.	Not amended As both rotary knob and fast access key are required to enhance clinical responsiveness
11.	96-hours of full disclosure.	▪ " <u>48 hours</u> of full disclosure".	For wider participation.	Amendment accepted
16.	Should have min of 300 mins of battery backup as standard in every monitor.	▪ "Should have min of <u>120 mins</u> of battery backup as standard in every monitor".	For wider participation.	Amendment accepted
22.	Should be European CE complying to European Directive 93/42/EEC for both Monitor and software to control physiologic monitoring systems.	▪ "Should be European CE complying to European Directive 93/42/EEC for both Monitor and software to control physiologic monitoring systems / <u>BIS approved</u> ".	For wider participation.	Amendment accepted

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26.	Anti-left lock facility should be possible for better hospital asset management.	▪ "Please <u>discard / erase the entire point from the given proposed Technical Specifications</u> ".	Being the said point is of a specific company / brand.	Amendment accepted
Heading ~ D. Scope of Supply :				
01.	Anesthesia workstation with integrated ventilator, integrated anaesthesia gas analyzer and monitor with end tidal control / target control anaesthesia.	▪ "Anesthesia workstation with integrated ventilator, integrated anaesthesia gas analyzer and monitor".	For wider participation.	Not amended As end tidal control / target control anaesthesia will enhance precision and safety in delivery of Anaesthesia
16.	Extra flow sensors – 10 Nos.	▪ " <u>Clarity required regarding this point</u> ".	-	Extra flow sensor are needed to ensure optimized functioning and short down time/non-operational time of workstation
17.	Anaesthesia monitor, 17 inch color touch-screen with 8 waveforms .	▪ "Anaesthesia monitor, <u>15 – inches</u> color touch-screen with <u>10 waveforms</u> ".	For better visibility.	Not amended As wider 17 inch screen has better visibility
26.	NMT cable and NMT adult mechanic sensor.	▪ "NMT cable and NMT adult mechanic/ <u>acceleromvography sensor</u> ".	As acceleromyography is the most accurate and reliable method of NMT measurement.	Not amended As mechanic sensor is more accurate method of NMT measurement
33.	Main stream or side stream ETCO2 module – 1 No. with sensor cable and adopter – 1 No.	▪ " <u>Clarity required, as requirement of Anesthesia Gas Monitoring is already mentioned in the prescribed</u>	-	The ETCO2 module, sensor cable and adaptor has to be supplied

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		<u>specifications".</u>		
34.	Flow sensor :-5 Nos.	▪ <u>"Clarity required regarding this point".</u>	-	This point may be removed
Heading ~ D. Standards, Safety and Training:				
01.	Should be US-FDA/European CE approved product.	▪ <u>"Should be US-FDA/European CE/ BIS approved product".</u>	For wider participation.	Amendment accepted
03.	Electrical safety conforms to standards for electrical safety IEC 60601-1(Or equivalent International / National standard) general requirement for electrical safety of medical equipment.	▪ <u>"Electrical safety conforms to standards for electrical safety IEC 60601-1 (Or equivalent International / National standard) general requirement for electrical safety of medical equipment or equivalent to BIS".</u>	For wider participation.	Amendment accepted

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