

## Appendix 6 :- Schedule of Requirements

### Technical Specifications

The purpose of the Technical Specifications (TS) is to define the technical characteristics of the Goods and Related Services required by the Purchaser. The TS, as a part of the schedule of Requirements (SR), constitute a Contract document and are, therefore, a part of the contract. The Purchaser must prepare the TS and include them as a part of the procurement document, as applicable to each Contract.

### Technical Specification of Portable USG Machine with TVS Probe – 4 Unit

Technical specification			
Name of the bidder:			
Manufacturer:			
Made in:			
Brand:			
Type /Model:			
S.N.	Purchaser's Required Technical Specification	Bidder's Option	Catalogue page No.
1	The weight of the equipment (without trolley) should be within 6 kilograms.		
2	The machine should have 3 probe connectivity		
3	The system must have a dedicated cardiac calculation, Gynecology, Obstetrics, Urology and Abdomen related software installed.		
4	The machine should have pen drive connection for storing images.		
5	Equipment should be able to give very high image quality with advance technologies like compound imaging with at least 5 sights of lines for better contrast resolution, tissue differentiation and edge detection, equivalent to high end cart-based systems.		
6	Equipment should be able to support speckle reduction imaging for better tissue differentiation and edge enhancement.		
7	Equipment should have both online (Read) as well as offline (Write) zoom facility.		
8	Imaging modes of Real time 2D, Color Doppler, Power Doppler, Pulsed wave Doppler, Continuous wave		

	Doppler (on cardiac transducers) and TDI must be available.		
9	System must have a fast start up to scanning in less than 30 seconds from off condition, for use in critical and emergency situations.		
10	System should support transducer technologies like phased array, convex, linear, transesophageal echocardiography Transcranial Doppler etc.		
11	Should have cine memory on all modes		
12	The system shall process a dynamic range that is at least 165 dB. The system must display at a maximum depth of 30 cm.		
13	The system must have dedicated cardiac calculation packages with IVC collapse Ratio, Atrial volume, TAPSE, Quick EF calculation, Access CO under LVOT VTI, PISA, TDI calculation packages, Lung scan and vascular calculations package and TCD software installed.		
14	The system shall provide Tissue Doppler (TD), Pulsed Wave Doppler (PW), CW doppler mode as standard.		
15	Flat LCD/TFT monitor of at least 12 inches having anti reflection coating with flicker free image and with minimum 85 degrees up/down viewing angle.		
16	Alphanumeric soft keys backlit and splash resistant silicon keypad with easy access scans controls, facility to sanitize the system keyboard to avoid cross contamination.		
17	The system must have the ability to function by AC/DC or battery power with the same degree of functionality, the battery life (run time) shall be at least two hours.		
18	The system must have archive capability for storage and retrieval of images and clips for up to 200 patients.		
19	The unit must be sturdy, resistant to breakage and damage on fall/hit against the wall or hard surface including special safety feature of transducer cables (armored cables).		
20	System should have software for Steep Needle Profiling to Track the needle clearly at the steep angles during the procedures while maintaining striking image quality of the target structures and the surrounding anatomy with simple On/Off functionality. This Facility should be available on both high frequency linear and curvilinear probes for superficial as well as deeper blocks.		
21	The system shall support all DICOM functionality, Storage, print, and work list, also ready to connect to PACS.		

22	Three transducers should be connectable at a same time (Triple Transduce Connect, TTC) and can be switched electronically.		
23	Transducers to be supplied as standard: 2-5 MHz multi-frequency broadband convex transducer for general abdominal and obstetric-gynae applications, 13-6 MHz 38 mm Linear array transducer for vascular access, small parts, musculoskeletal applications, 5-1 MHz phased array transducer for cardiac applications and TCD.		
24	The system must be supplied with a trolley for easy portability incorporated with medical grade thermal Printer.		
25	The system must be supplied with gel holder and transducer holder.		

**Terms and Conditions**

1	The unit should have valid USFDA certificate. The supplier must submit 39 the original brochure or e-copy.		
2	The supplier should fill the technical tender form and clearly mention the manufacturer, model no., and country of origin/Made in, else technically will be disqualified.		
3	If the technical team wants to examine physically bidders should manage for demonstration of the machine in our office. If the bidder can't demonstrate the machine within the requested time, bid will be automatically disqualified.		
4	The bidder must submit a valid authorization from the manufacture.		
5	Should have 3 years complete parts (Including Reusable accessories) & service warranty and additional 2 years' service warranty from the date of complete installation (delivery & Installation of machine of all the items as per tender).		
6	Operational training to the Marie stopes Center's Biomedical Engineer, Biomedical technicians and users.		
7	The machine supplied should be brand new with the date of manufacture mentioned and the country of origin should be clearly mentioned.		
8	One (Hard and soft) copy of Serve & Operating manual in English for each set should be provided at the time of installation.		
9	The supplier should provide the alternate machine (similar model) during the warranty period (5years) if the original machine's repair time will take more than 5 days.		