

SN	Purchaser's Specification	Bidder's Offer			
		Yes	No	Page no in sheet	Remarks
	PC Based Spirometer				
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	Description of Function				
1.1	Spirometer for lung function testing				
2	Operational Requirements				
2.1	Help diagnose and monitor the lung conditions by performing lung function test				
3	System Configuration				
3.1	PC Based Desktop Spirometer complete with PC And Printer with no calibration and no warm up time				
4	Technical Specifications				
4.1	Machine shall be based on the Ultrasound technology with parameters FVC, FEV1, FEV1/FVC, FEF25-75, FEF75, PEF, FET, MVV, SVC, etc.				
4.2	Highly accurate and precise ultrasound sensor				
4.3	Should be compact and portable				
4.4	Must be powerful intuitive software				
4.5	Should have single use flow tube the membrane of which allows only ultrasound to passthrough and not any bacteria				
4.6	Must be ultrafast and reliable, no warm-up time				
4.7	Program <ul style="list-style-type: none"> • User-friendly software(Test, Review) • Patient Data(Input/Edit) • Report Output(direct print, export as PDF) • Physician notes and interpretation • Technician Notes • Automatic Interpretation(Can be turned ON/OFF) • Customizable report templates • Input of offline paramaters(blood gas values etc.) • Log file viewer • Automatic checking and connection to database • Database maintenance/backup/restore 				
4.8	Flow measurement: Type: Ultrasound Method of measurement: Ultrasound transit time measurement (bi-directional)				

	Range: 0 to ± 18 L/s Accuracy: $\pm 2\%$ Resolution: 10 ml/s				
4.9	Volume measurement: Method: Digital integration Range: graphical display, 20L Accuracy: $\pm 3\%$ Resolution: 1 mL				
4.10	Breathing insert: Breathing resistance: <0.02 kPa/L/s Deadspace: 18 cm ³				
5	Accessories, spares and consumables				
5.1	Main Unit, PC and Printer with 50 pcs of single use tubes				
5.2	All standard accessories, consumables and parts required to operate the equipment including all standard tools, cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above)				
6	Operating Environment				
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions includes power supply, temperature, humidity, etc.				
6.2	Power Supply: 220-240 VAC, 50Hz fitted with appropriate plug. The power cable must be at last 3 metre in length				
7	Standards and Safety Requirements				
7.1	Must submit ISO 13485 and IEC 60601-2 Certificate				
7.2	CE and USFDA approved product certificate				
8	User Training				
8.1	Must provide user training (including how to use and maintain the equipment).				
9	Warranty				
9.1	Comprehensive warranty for 2 years after acceptance.				
10	Maintenance Service During Warranty Period				
10.1	During warranty period supplier must ensure corrective/breakdown, preventive maintenance whenever required.				
11	Installation and Commissioning				
11.1	Supplier must accomplish proper commissioning of equipment onsite.				
12	Documentation				
12.1	User (Operating) manual in English.				

12.2	Service (Technical / Maintenance) manual in English.				
12.3	Must Submit Valid Authorization document.				