

**TENDER FOR PURCHASE OF VENTILATOR UNDER ADP SCHEME 2022-23
CH. PERVAIZ ELAHI INSTITUTE OF CARDIOLOGY MULTAN**

ATTENDANCE OF TEC

A Meeting of (TEC) Technical Evaluation Committee for the purchase of Ventilator (QTY=20) held on 18-02-2023 @ 11:30 am in the Conference Room of this Institute.

Sr#	Name of Items	Date & Time
1	Purchase of Ventilator (QTY=20)	18-02-2023 @ 11:30 am


Prof. Dr. Muhammad Tahir Mohyuddin
 Professor of Cardiology
 CPEIC, Multan
 (Chairman TEC)


Dr. Mustafa Ali Siddique
 Associate Prof. of Radiology
 CPEIC, Multan
 (Member)


Dr. Aftab Haider
 Head of Anaesthesia & ICU / End-User
 CPEIC, Multan
 (Co-Member)


Dr. Fayyaz Ahmad Hashmi
 Additional Principal Medical Officer
 CPEIC, Multan
 (Member)


Dr. Muhammad Suhail Saleemi
 Asst. Prof. of Cardiology
 CPEIC, Multan
 (Member)


Dr. Usman Riaz
 Asst. Prof. of Paediatric Cardiac Surgery
 CPEIC, Multan
 (Member)


Dr. Muhammad Waqas
 D.M.S Technical
 CPEIC, Multan
 (Member)


Engr. Hussain Mujtaba
 Biomedical Engineer
 CPEIC, Multan
 (Member)

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MINUTES OF THE MEETING

A meeting of TEC "Technical Evaluation Committee" for the Purchase of Ventilator (QTY=20) for Ch. Pervaiz Elahi Institute of Cardiology, Multan was held under the chairmanship **Prof. Dr. Muhammad Tahir Mohyuddin** Professor of Cardiology & Chairman TEC, and Dated: 18-02-2023 @ 11:30 am in the Conference Room of this institute.

The following members were present in the meeting

		(Chairman TEC)
1	Prof. Dr. Muhammad Tahir Mohyuddin , Professor of Cardiology, CPEIC, Multan	
2	Dr. Mustafa Ali Siddique , Associate Prof. of Radiology, CPEIC, Multan	Member
3	Dr. Aftab Haider , Head of Anaesthesia & ICU / End-User, CPEIC, Multan	Co-Member
4	Dr. Fayyaz Ahmad Hashmi , Additional Principal Medical Officer, CPEIC, Multan	Member
5	Dr. Muhammad Suhail Saleemi , Asst. Prof. of Cardiology, CPEIC, Multan	Member
6	Dr. Usman Riaz , Asst. Prof. of Paediatric Cardiac Surgery, CPEIC, Multan	Member
7	Dr. Muhammad Waqas , D.M.S Technical, CPEIC, Multan	Member
8	Engr. Hussain Mujtaba , Biomedical Engineer, CPEIC, Multan	Member

AGENDA: TECHNICAL EVALUATION FOR THE PURCHASE OF VENTILATOR (QTY=20) FOR CPEIC, FOR THE FINANCIAL YEAR 2022-23

PROCEEDINGS:

Following 03 Nos. firms participated in the tender:

- M/S Vertex Medical (Pvt) Ltd
- M/S Eastern Medical Technology Services
- M/S Total Technologies (Pvt) Ltd



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BID EVALUATION SHEET

Name of The Equipment & Quantity: Ventilator Qty: 20, Estimated Cost. Rs. 75.840 Million Rupees /-

Part 1:

KNOCK DOWN CRITERIA (COMMERCIAL EVALUATION)

All Evaluation Parameters defined below are mandatory for Compliance

S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
1	Complete item with accessories and optional	Yes	Yes	Yes
2	Original Receipt of tender	Yes	Yes	Yes
3	Affidavit from Bidder (as per Supplier Declaration Template)	Yes	Yes	Yes
4	Bid Security	Yes	Yes	Yes
5	Bid Validity	Yes	Yes	Yes
6	Delivery Period	Yes	Yes	Yes
7	Sole agent certificate by the Manufacturer	Yes	Yes	Yes
8	Technical & Engineering Capability of firm	Yes	Yes	Yes
9	Certificate from the Manufacturer regarding after Sales Services and Installation	Yes	Yes	Yes
10	Past performance	Yes	Yes	Yes
11	Testing/Calibration equipment	Yes	Yes	Yes
12	Compliance of Warranty as per tender	Yes	Yes	Yes
13	Legal registered entity	Yes	Yes	Yes
14	Active Tax Payer (NTN & GST) as per clause 3 ITB	Yes	Yes	Yes
15	Balance Sheet, Financial Statement & Annual Turnover	Yes	Yes	Yes
16	One person One Bid	Yes	Yes	Yes
	REMARKS	Eligible for further evaluation of Part II	Eligible for further evaluation of Part II	Eligible for further evaluation of Part II

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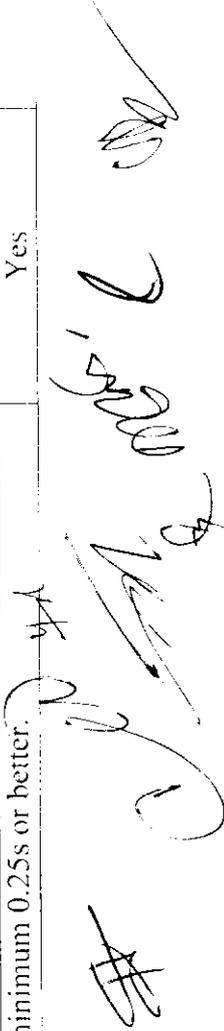
Part 2:
KNOCK DOWN CRITERIA (COMMERCIAL EVALUATION)
 All Evaluation Parameters defined below are mandatory for Compliance

S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
1	Brand	Drager	Event	Lowenstein Medical
2	Model	Evita V800	Inspiration 7i	Elisa 600
3	Country of Manufacturer	Germany	USA	Germany
4	Country of origin of product / Model Number	Germany	USA	Germany
5	Product Local Market Business History as mentioned in criteria	Yes	Yes	Yes
6	Compliance with defined quality standards (FDA 510k, MDD, Jp MHLW, CE as mentioned in the specifications)	CE	FDA	CE
S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
7	Microprocessor controlled powerful ventilation system mounted on trolley.	Yes	Yes	Yes
8	Color touch screen 17" Minimum LCD or TFT or better.	Yes (18.3")	Yes(17")	Yes(18.5")
9	Patient Range: Adult, Pediatrics and Neonates.	Yes	Yes	Yes
10	Breathing classification: Time-cycled, volume-control and pressure-controlled Ventilation.	Yes	Yes	Yes
11	Provision of communication port for sharing and transfer of data to HEMS or IHS through HL7 protocol or equivalent.	Yes	Yes	Yes

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S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
Modes of Ventilator:				
12	Volume control	Yes	Yes	Yes
13	Assisted CMV	Yes	Yes	Yes
14	Pressure control PC	Yes	Yes	Yes
15	Assist Pressure Control	Yes	Yes	Yes
16	CPAP.	Yes	Yes	Yes
17	SIMV with VC.	Yes	Yes	Yes
18	SIMV with PC.	Yes	Yes	Yes
19	Pressure support.	Yes	Yes	Yes
20	BI-PAP Ventilation	Yes	Yes	Yes
21	Mandatory Minute Volume or equivalent.	Yes	Yes	Yes
22	Volume guarantee or PRVC or equivalent.	Yes	Yes	Yes
23	Airway Pressure Release Ventilation	Yes	Yes	Yes
24	Non-invasive ventilation with PC, SIMV & PS.	Yes	Yes	Yes
25	High flow oxygen therapy.	Yes	Yes	Yes
Control:				
26	Set & measured parameters simultaneously.	Yes	Yes	Yes
Measurement Range/Specification:				
27	Inspiratory tidal volume: 2ml to 2000ml or better in any mode.	Yes	No(5 to 2000 ml)	Yes
28	Respiratory frequency: 5 to 120bpm or better	Yes	Yes	Yes
29	SIMV breath frequency: 1 to 50 bmp or better	Yes	Yes	Yes
30	Inspiratory pressure: 10 to 80 cmH2O or better	Yes	Yes	Yes
31	Inspiratory flow: 120 L/min or cmH2O or better.	Yes	Yes	Yes
32	I: E ratio: 1:4 / 4:1 inverse or better.	Yes	Yes	Yes
33	Inspiratory time: minimum 0.25s or better.	Yes	Yes	Yes



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S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
34	PEEP: off; 3 to 30cm H2O or better.	Yes	Yes	Yes
35	FIO2 or O2 delivery: 21 to 100%	Yes	Yes	Yes
Monitoring/ Measured Parameters:				
36	Total breath rate.	Yes	Yes	Yes
37	Intrinsic PEEP or equivalent.	Yes	Yes	Yes
38	Oxygen concentration FIO2 (Through Paramagnetic or Non consumable sensor).	Yes	Yes	Yes
39	Occlusion pressure P0.1.	Yes	Yes	Yes
40	Rapid Shallow Breathing Index RSB or equivalent.	Yes	Yes	Yes
41	Expired minute volume.	Yes	Yes	Yes
42	Negative Inspiration Force NIF or equivalent.	Yes	Yes	Yes
43	I: E ratio	Yes	Yes	Yes
44	Residual Volume	Yes	Yes	Yes
45	Peak Pressure	Yes	Yes	Yes
46	Mean pressure	Yes	Yes	Yes
47	Upper & Lower inflection point measurement through Low Flow PV Loop or graph.	Yes	Yes	Yes
48	Lung Recruitment Maneuvers (Prolonged & Maximal Lung Recruitment).	Yes	Yes	Yes
49	Automated weaning mode (Programmed weaning off trial).	Yes	Yes	Yes
50	Lung resistance and compliance dynamic visualization.	Yes	Yes	Yes
51	Lung Mechanics with pressure and volume loops	Yes	Yes	Yes



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S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
Capnography Monitoring				
52	Built-in EtCO2 monitoring.	Yes	Yes	Yes
53	Monitoring of VCO2 and VTCO2.	Yes	Yes	Yes
54	Waveform should be display on the ventilator screen.	Yes	Yes	Yes
55	Supplied with cuvettes for adult & paed.	Yes	Yes	Yes
Others Control & Functions:				
56	Back up ventilation	Yes	Yes	Yes
57	Sigh function.	Yes	Yes	Yes
58	Microprocessor gas delivery system.	Yes	Yes	Yes
59	Expiratory hold or Inspiratory hold	Yes	Yes	Yes
60	Pressure or flow trigger sensitivity	Yes	Yes	Yes
61	Triggered breaths should be indicating in pressure or volume curve.	Yes	Yes	Yes
62	Suction Maneuver.	Yes	Yes	Yes
63	Patient data, monitoring parameters data, alarms and trend data can be transfer in USB/equivalent and it should be readable and printable through laptop or PC.	Yes	No (Through Ethernet)	Yes
64	Trend Data storage and export via USB or equivalent.	Yes	No(Through Ethernet)	Yes
Alarms				
65	Apnea	Yes	Yes	Yes
66	AC power failure	Yes	Yes	Yes
67	High and low Expired minute volume	Yes	Yes	Yes
68	High and low peak air way pressure	Yes	Yes	Yes
69	High and low breath rate.	Yes	Yes	Yes
70	FiO2 variation	Yes	Yes	Yes

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S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Lfd
71	Gas supply source failure.	Yes	Yes	Yes
72	Low battery	Yes	Yes	Yes
Nebulizer:				
73	Built in nebulizer of the patient during ventilation	Yes	Yes	Yes
Air Compressor:				
74	Air compressor should be supplied by same manufacturer for better compatibility.	Yes (Model: GS500) (Make: Drager)	Yes (Make: EKOM-AIR) (Model: DK 50 DE)	Yes (Make: EKOM-AIR) (Model: DK 50 DE)
75	In case of central air supply pressure failure, air compressor should be automatically switch on & Off	Yes	Yes	Yes
76	Air compressor should be mounted on same ventilator trolley.	Yes	Yes	Yes
Compressed Air Supply:				
77	The ventilator should be driven on central medical pipeline system of the hospital and should have the capability to connect with external medical grade Air Source compressor for powerful ventilation.	Yes	Yes	Yes
Humidifier:				
78	Automatic compensation (Servo) controlled heated humidifier with temperature monitoring at airway and Humidification chamber with alarm for low or high limits with water tarp in the patient circuit.	Yes (Model: MR-850) (Make: Fisher & Paykel)	Yes (Model: MR-850) (Make: Fisher & Paykel)	Yes (Model: MR-850) (Make: Fisher & Paykel)
79	Supplied by same manufacturer.	Yes	Yes	Yes



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S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Shirazi Trading Company (Pvt) Ltd
80	Electric 220 V 50 Hz.	Yes	Yes	Yes
81	Built-in or integrated battery backup for main ventilator.	Yes	Yes	Yes
Additional Battery Backup:				
82	Built-in or integrated battery backup or pure sine wave UPS with dry batteries (mounted on same ventilator trolley) of one hour for complete system including the air compressor.	Yes (Model: PS500) (Make: Drager)	Yes (Imported UPS)	Yes (Imported UPS)
Note:				
83	The warranty of equipment will be including batteries, oxygen sensor, all kind of sensors and flow sensor.	Yes	Yes	Yes
Accessories:				
84	Hinged Arm (Qty. 01)	Yes	Yes	Yes
85	Test Lung for Adult (Qty. 01)	Yes	Yes	Yes
86	Test Lung for Peads (Qty. 01)	Yes	Yes	Yes
87	Reusable breathing circuit adult. (Qty. 01)	Yes	Yes	Yes
88	Reusable breathing circuit Peads (Qty. 01)	Yes	Yes	Yes
89	Reusable Expiratory Valve (Qty. 02)	Yes	Yes	Yes

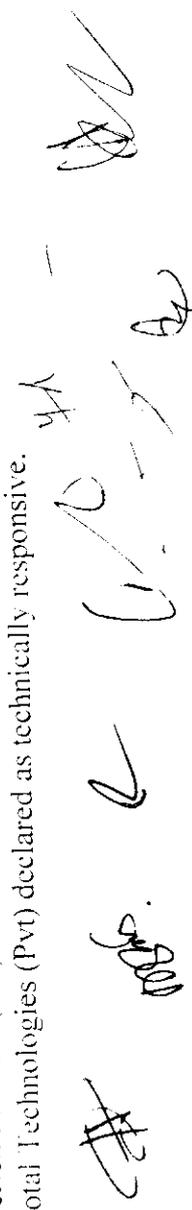


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S/N	Evaluation Parameters	M/S Vertex Medical (Pvt) Ltd	M/S Eastern Medical Technology Services	M/S Total Technologies (Pvt) Ltd
90	Nebulizer accessories.	Yes	Yes	Yes
91	NIV Mask Disposable (S. M. L) (Qty. 02 each)	Yes	Yes	Yes
92	Service Manual, Software Pack & Dongle Key (If any) should be supplied additionally.	Yes	Yes	Yes
Warranty:				
93	Five (05) year comprehensive warranty including all parts, oxygen sensor, all kind of sensors, flow sensor, all kind of Filters, Software Up-gradation & Battery Pack.	Yes	Yes	Yes
Trainings:				
94	The successful bidder shall provide a factory site training of quoted medical equipment to the Three (03) personals 1. Director Technical 2. Bio-Medical Engineer 3. End-User/Doctor.	Yes	Yes	Yes
95	The successful bidder shall also provide Clinical training of quoted medical equipment to the staff of the hospital at the installation site.	Yes	Yes	Yes
Technical Eligibility of Product		Eligible	Not Eligible	Eligible
Technical Eligibility of firm		Eligible	Eligible	Eligible
Bid Status		Responsive	Non-Responsive	Responsive

CONCLUSION: M/S Vertex Medical (Pvt) Ltd, M/S Eastern Medical Technology Services & M/S Total Technologies (Pvt) Ltd participated in this tender.

- M/S Vertex Medical (Pvt) Ltd declared as technically responsive.
- M/S Total Technologies (Pvt) declared as technically responsive.



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- M/S Eastern Medical Technology Services declared as technically non- responsive due to the following reasons:
 1. Inspiratory Tidal Volume of quoted product is 5 to 2000ml as mentioned in FDA Certificate & User Manual of Inspiration 7i?
Adult: (300 to 2000ml), Pediatric: (40 to 500 ml), Infant: (5 to 100 ml)
 2. Quoted product doesn't have provision to transfer Patient data, monitoring parameters data, alarms and trend data in USB/equivalent device?
 3. Trend Data storage and export via USB or equivalent device not available in quoted product?


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