

RESTRICTED

ANX D TO
DGDP TENDER NUMBER 216.07.496.25
DATED: 15 DECEMBER 2025

DESCRIPTION OF TECHNICAL SPECIFICATION OF ICU VENTILATOR ADULT TO PEADIATRIC WITH ALL ACCESSORIES, QUANTITY-20, (DP-5)

(Tenderer must fill up this format without changing its basic structure)

Ser no	Description	Technical specification	To be filled up by the Principal/ Manufacturer
(a)	(b)	(c)	(d)
1.	General Specification: General specifications are as under :		
	a. Nomenclature	ICU Ventilator Adult to Peadiatric with all Accessories, PVMS-020378,Qty-20 Nos	
	b. Brand	To be mentioned.	
	c. Model	To be mentioned. Model should be latest.	
	d. Name of Manufacture with Complete Address	To be mentioned.	
	e. Name of Principal with Complete Address	To be mentioned.	
	f. Name of Local Agent with Complete Address	To be mentioned.	
	g. Year of Production	Not before the calendar year of contract.	
	h. Country of Origin & Manufacturer	Group-A: Bangladesh, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Indonesia, Ireland, Japan, Luxemburg, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, Turkey, UK, USA, South Korea & Italy.	
	j. Port of shipment	Same country of manufacture for Main System. Other Items/ Equipments/ Accessories and Local supplied item to be mentioned specifically.	
2.	Function/Capability:		
	a. Display: 12 Inch or more Color Touch-Screen.		
	b. Built in air Compressor /Air turbine		
	c. Trends (up to 72 h)		
	d. Loops: Pressure vs Flow, Pressure vs Volume, Volume vs Flow.		
	e. Built in Capnograph.		
	f. Built in Nebulizer		
	g. Anti-suffocation inspiratory relief valve.		
	h. Internal battery backup minimum 2 hours		
	j. Automatic Gas switch-over function if O ₂ Supply fails.		
	k. Curv Display: Airway Pressure, Flow, Tidal Volume		
	j. Complementary Functions: Following are to be available		
	(1) ETCO ₂ Probe		
	(2) P 0.1 function		
	(3) PV flex (Inflection Points)		
	(4) PImax		
	(5) VD/VT Physiologic		
	(6) Spontaneous Breathing Trial (SBT)		
	(7) Altitude compensation for volume correction		
	(8) Body temperature volume correction (BTPS)		
	(9) Volume correction according to patient circuit compliance		
	(10) Leak compensation available in all operative's modes.		
	(11) Tidal volume setting based on Ideal Body Weight (IBW)		
	(12) Emergency Valve: Automatically enables spontaneous breathing with filtered ambient air if air and O ₂ supply fails.		



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	k. Respiratory Mechanics: To be mentioned.		
	l. Connectivity: RS-232C with DB-9 connector or better.		
3.	Technical Features/Facilities:		
	a. Operative Modes (Adults and Pediatrics):		
	(1) VCV, PCV(Assisted/Controlled), PSV, CPAP, SIMV(VCV)+PSV, SIMV(PCV)+PSV, MMV		
	(2) PSV, PSV+Tidal Volume Assured, APRV, NIV		
	b. Operative Modes (Neonates-Infants):		
	(1) VCV, PCV (Assisted/Controlled), PSV, CPAP, SIMV (VCV)+PSV, SIMV (PCV)+PSV, TCPL, PRVC		
	(2) SIMV (TCPL)+PSV, CPAP with Continuous Flow (with leak compensation for NIV)		
	c. Parameter:		
	(1) Inspiratory time : 0.1-3 seconds. (30 sec.in APRV) or better		
	(2) I:E ratio : 4 : 1, 1 : 599 or bigger range		
	(3) Respiratory Rate (Adult) : 1-100bpm		
	(4) Respiratory Rate (Ped/Neo) : 1-150bpm		
	(5) Tidal volume : 2 to 2500 mL or better		
	(6) PEEP/CPAP : 0-50 cm H ₂ O		
	(7) FIO ₂ : 0.21-1.0		
	(8) Inspiratory sensitivity (Flow Triggered) : 0.2-15 L/min		
	(9) Inspiratory sensitivity (Pressure Triggered) : 0.5-20 cmH ₂ O		
	(10) Pressure control Ventilation (PCV) : 2-100 cm H ₂ O		
	(11) Pressure Support Ventilation(PSV) : 0-100 cmH ₂ O		
	(12) Expiratory sensitivity for PSV : Adjustable in 5% to 80% or better.		
	(13) Auto leak measurement : 0-100%		
	(14) Safety valve opening pressure : 120 mbar		
	d. Alarms: Alarms are to activated following a priority order with a light signal, an audible signal and a message on the display indicating the cause and the possible solution :		
	(1) Maximum and minimum airway pressure.		
	(2) High and low exhaled tidal volume.		
	(3) High and low exhaled minute volume.		
	(4) Oxygen percentage to the patient, maximum and minimum.		
	(5) Continuous pressure in the airway.		
	(6) Apnea with adjustable time.		
	(7) Maximum respiratory rate.		
	(8) PEEP loss.		
	(9) Lack of main electric power.		
	(10) Low battery.		
	(11) Technical failure.		
	(12) Disconnection.		
	(13) Main Power Loss		
	(14) Any other, to be mentioned		
4.	Standard Accessories: Following standard accessories must be supplied with each ventilator:		
	a. Basic Ventilation Unit with Built in Air Source		
	a. Four-wheel cart (with breaks)		
	c. Patient circuit- 5 pcs		
	d. Adult Test lung- 2 pcs		
	e. Flexible arm with tubes holder		
	f. Water filter for compressed air inlet.		
	g. Two expiratory ensembles/vulve.		
	h. Air supply high pressure hose (min 3 meter)		



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Ser no	Description	Technical specification	To be filled up by the Principal/Manufacturer																
	j. Oxygen supply high pressure hose (min 3 meter)																		
	k. Nebulizer (complete kit)																		
	l. Power Cord																		
	m. Oxygen sensor- 2 pcs																		
5.	Optional accessories (if any) :To be mentioned																		
6.	Power Supply	Main Power: 100-240 VAC, 50/60 Hz Backup Power: Internal battery backup minimum 3 (Three) hours. Charge level should be indicated on screen.																	
7.	<u>Complete BOQ/BOM.</u> All Foreign & Local supplied items to be listed separately for full range of operation of the equipment as per following table:																		
	<table border="1"> <thead> <tr> <th>Ser</th><th>Name of item</th><th>Qty</th><th>Brand</th><th>Model</th><th>Country of Origin</th><th>Country of Manufacturer</th><th>Remarks</th></tr> </thead> <tbody> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Ser	Name of item	Qty	Brand	Model	Country of Origin	Country of Manufacturer	Remarks										
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8.	Local Training																		
	a. Operational Training	02x Operators for 01 week.																	
	b. Repair/Maintenance Training	02x EM Technician & 01x Rep of IE&I for 01 Week.																	
9.	Warranty	03 (Three) years warranty from the date of issuance Inspection Note (I/Note)																	
10.	After Sales Service	10 (Ten) years from the date of installation.																	
11.	Certificate of Quality	FDA/ CE/JIS Certificate must be submitted with offer.																	
12.	Books and Publication	Following books and publication will be supplied in English along with the stores free of cost. a. Operational manual – 03 Copies (01x Original & 02x Photocopies) b. Repair/Maint/Service manual including details circuit/ Schematic diagrams–03 Copies (01x Original & 02x Photocopies) c. Parts Catalogue/Master Parts list–03 Copies (01x Original & 02x Photocopies) d. 100% Spare Parts list with price – 02 x Original copies Note: In addition to hard copy, a soft copy CD/DVD containing all books and publications will be supplied by the supplier free of cost.																	
13.	If any other feature/items not listed above but required for full range of operation of the offered equipment to be mentioned and to be supplied free of cost with main equipment.																		

