
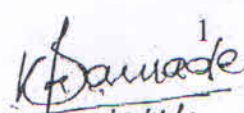


Critical Care ICU Ventilator for Central Hospital/ WCR, JBP


Technical Specifications -

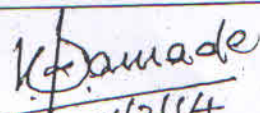
Major Parameters	No Deviation in Major parameters accepted. (Zero Tolerance).	
	International Standard	Critical Care ICU Ventilator must be CE marked & as per International standards IEC 60601-1-2 & IEC 60601-2-41 and should have US FDA approved. Proof of certificates should be attached.
	Critical Care ICU Ventilator must have Invasive & Non invasive ventilation for ventilation of adult, pediatric & neonate patients in all critical care therapy needs. Quick operation with ideal body weight setting. Operable on mains and battery & Battery should be integrated and should provide backup to ventilator with inbuilt turbine up to 3 hours. All component of ICU ventilator must be manufactured by single company only.	
	Technical Data	Critical Care ICU Ventilator
	Ventilation modes.	IPPV(CMV), IPPV Assist (CMV Assist), SIMV, SIMV/ASB (SIMV/PS), CPAP, CPAP/ ASB, (CPAP/PS), BIPAP (PCV +) (PCV+/PS) Non Invasive ventilation with automatic leakage compensation available in all modes from control to spontaneous. - Autoflow or equivalent for delivering tidal volume within a set PIP should be possible to combined in all volume control modes and should allow spontaneous breathing in all volume control modes.
	Apnea backup	Apnea backup ventilation mode with adjustable tidal volume and rate.
	Ventilation frequency	2 to 80 bpm.
	Inspiration time	0.2 to 10 seconds.
	Tidal Volume	0.05 to 2.0 litres.
	Inspiratory pressure	0 to 99 cm H2O
	Inspiratory flow	0 to 180 L/minute.
	PEEP	0 to 35 cm H2O
	ASB/Pressure support	0 to 35 cm H2O
	Oxygen concentration	21 to 100 volume %
	Flow acceleration	5 to 200 cm H2O/second.
	Trigger sensitivity	1 to 15 L/minute
	Measured value	Display
	1) Air way pressure Measurements.	1) Peak pressure, plateau pressure, mean airway pressure. PEEP- 0 to 100 mbar (cm H2O).
	2) Minute volume	2) Total MV, Spontaneous MV, 0 to 99 L/minute,
	3) Tidal volume VT	3) Inspiratory VT, expiratory VT 0 to 4000 ml, BTPS.
	4) Breathing frequency	4) Total & spontaneous breathing frequency 0 to 150 bpm.
	5) Inspiratory Oxygen Concentration	5) 21 to 100 volume %
	6) Breathing gas Temperature	6) 18 degree to 48 degree centigrade.


 Anoop Singh Yadav
 वरिष्ठ सामग्री प्रबंधक/सामान्य एवं निर्माण
 Senior Material Manager/G&C
 प. न. १, जवाहरपुर/W.C.R., JBP.

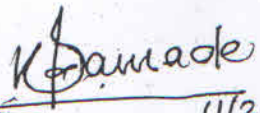

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Major parameters	7) Ventilation ratio (I:E) 8) Curve display	7) 150:1 to 1:150 8) Airway pressure/time, flow/time.
	Performance data 1) Maximum flow for pressure assist / ----- Spontaneous breathing. 2) Valve response time T0. 90 3) Control principle 4) Safety valve opening pressure. 5) Emergency valve 6) Automatic gas switch over function if oxygen supply fails. 7) Output for pneumatic Medicament nebuliser. 8) Oxygen Sensor	1) 180 liters /minute 2) < 5 millisecond. 3) Time cycled, volume-Constant, pressure controlled, 4) 100 mbar (cm H2O) 5) Automatically enables spontaneous breathing with filtered ambient air if air & Oxygen supply should fail. 6) Mandatory incorporated & required. 7) Synchronized with inspiration. 8) Should have permanent oxygen sensor
	Alarms. 1) Airway pressure 2) Expiratory minute Volume 3) Tidal volume 4) Apnea alarm time. 5) Inspiratory oxygen concentration. 6) Spontaneous breathing frequency. 7) Inspiratory Breathing Gas temperature.	1) High / low. 2) High / low. 3) High / low. 4) 15 to 60 seconds. 5) High / low. 6) High. 7) High.
	Gas supply- Air – Turbine technology. Oxygen gas supply – 3 bar (39 psi) to 10 % up to 6 bar (87 psi).	


 अनूप सिंह यादव
 Anoop Singh Yadav
 वरिष्ठ सामग्री प्रबंधक/सामान्य एवं निर्माण
 Senior Material Manager/G&C
 प.म.रे., जबलपुर/W.C.R., JBP.


 11/2/14

Minor parameters	Main Power Supply – 100 to 240 V, AC 50/60 Hz. 10 to 36 V, DC Power consumption – 100 Watts. Internal Battery. - Internal battery backup to ventilator with inbuilt turbine to 3 hours.	
	1. Digital machine output & input via RS 232 C interface. 2. Dimensions -H x W x D (without trolley). 3. Weight (basic device)	1. Inbuilt Screen – LED, 14" inch colored screen based operation with digital & graphic screen display. 2. 383mm x 380mm x 358mm. 3. Approximately 24 Kg.
Conditions	Any fault must be repaired within 24 hours by company.	Install at Intensive Care Unit of Central Hospital, WCR, Jabalpur (M.P.)
	Warranty period	Twenty four months after installation.
	Annual maintenance contract / ----- Comprehensive maintenance contract	Five years after warranty period. Rates must be quoted.


 Dr. K.K. Damade. 11/2/14.
 ACHD/Anesth/CH/ JBP


 अनूप सिंह यादव
 Anoop Singh Yadav
 सहायक सामग्री प्रबंधक/सामान्य वस्तु विभाग
 Senior Material Manager/G&C
 च. व. र., जयपुर/W.C.R., JBP.

Annexure-II

To be submitted by the firm along with offer-

Tender specification as per Annexure-I	Specification quoted by the firm	Deviation if any with clarification

Signature of firm's