



Republic of the Philippines
Department of Health
MARGOSATUBIG REGIONAL HOSPITAL
Margosatubig, Zamboanga del Sur



(0981) 141-4419

mrh_gov@yahoo.com.ph/mrhgov@gmail.com

<http://mrh.doh.gov.ph>

Date: _____

Validity: 60 days

Minimum Technical Requirements for
MECHANICAL VENTILATOR

PRODUCT SPECIFICATIONS

- Ventilation
 - Types
 - Controlled volume
 - Controlled pressure
 - Inspiratory assistance
 - Spontaneous
 - Modes
 - (A)VCV, (A)VCV-NIV
 - (A)PCV, (A)PCV-NIV
 - VSIMV, VSIMV-NIV
 - PSV, PSV-NIV
 - CPAP-NIV
 - CPV (Cardio-pulmonary ventilation)
 - It is a solution dedicated to the care of adult patients in cardiac arrest. CPV combines ventilation, monitoring and functions adapted to cardiopulmonary resuscitation.
- Alarms
 - Patient disconnection
 - Expiratory obstruction
 - Flow sensor
 - Power supply, batteries
 - Gas inlet
 - Patient pre-oxygenation
 - Mains cable unplugged
 - Volume
 - 5 levels adjustments
- Parameters settings

PREPARED & REVIEWED BY

END USER: _____
DESIGNATION: _____

JAMES CARLTY D. LABADAN, ECE
CHAIRPERSON

KEVIN S. CATAGUE, ECE
VICE-CHAIRPERSON

JOEL L. LUNA
MEMBER

IVAN PAUL L. TANO, ECE
MEMBER

CRIS ABEL M. GUEVARRA, MPA
MEMBER

APPROVED BY:

RICHARD B. SISON, MD, MHA, FPCHA, FPSMS
Medical Center Chief II

Philhealth Accredited
REVISION: 7

FM-MCC-005

EFFECTIVITY DATE: APRIL 1, 2024



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- Patient category
 - Adult
 - Child
 - Infant (from 3 kg)
- Tidal volume
 - 20 – 2000mL
- Frequency
 - 1 – 80 bpm
- PEEP
 - 0 to 20 cmH₂O
- FiO₂
 - 20 – 100%
- I:E ratio
 - 1:1 to 1:9
- APRV
 - T.high: 0.3 to 30 s
 - T.low: 0.3 to 30 s
- Inspiratory flow rate trigger
 - Between 0.5 – 10 L/min
 - OFF
- Inspiratory pressure
 - 50 to 60 cmH₂O
- Pressure support
 - 5 to 40 cmH₂O
- Pressure rise slope
 - 60 to 120 cmH₂O/s.
- Expiratory trigger
 - 10 to 90% of peak flow

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- Inspiratory and expiratory pause
 - Inspiratory pause: 40s
 - Expiratory pause: 60s
- Ventilator peak flow
 - 2 to 150 L/min in volumetric mode
- Turbine peak flow
 - 230 L/min
- P work max
 - 70 cmH₂O
- P limit max
 - 90 cmH₂O
- Measurement parameters
 - Expired minute volume (MVe)
 - 0 to 99 L/min
 - Expired tidal volume (VTe)
 - 20 to 3000mL
 - Insufflated minute volume (MVi)
 - 0 to 99 L/min
 - Insufflated tidal volume (VTi)
 - 20 to 3000 mL
 - Respiratory rate
 - 0 to 120 c/min
 - Peak airway pressure (Ppeak)
 - 0 to 100 cmH₂O
 - Positive expiratory pressure (PEEP)
 - 0 to 100 cmH₂O
 - Mean airways pressure (Pmean)
 - 0 to 100 cmH₂O

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- Plateau pressure (Pplat)
 - 0 to 100 cmH₂O
- Leak index
 - 0 – 100%
- Ti/Ttot
 - 0 – 100%
- I:E ratio
 - 1:0 to 1:99.9
- FiO₂
 - 21 – 100%
- Curves
 - Pressure
 - Flow (inspiratory flow in all modes including CPV mode)
 - Volume
- Loop curves
 - P/V, P/D
 - D/V
- Trends
 - 80 hours of ventilation
- Power requirements
 - 220 – 240Vac
 - Battery
 - Lithium-ion
 - At least 5 hours with removable battery
 - At least 2.5 hours on internal battery
 - Charging time
 - Not longer than 6 hours if ventilating
- Display

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Minimum Technical Requirements for
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- Screen
 - LCD resistive touch panel
 - At least 8.4 inches
 - 640 x 480 pixels
- Standard compliance
 - ISO 14971
 - EN 13718-1

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STANDARD ACCESSORIES:

NOTE: accessories sets is per unit

- Removable/secondary battery
- 2 spare set Autoclavable expiratory valve set
- 2 spare set autoclavable expiratory flow sensor
- Oxygen gauge
- Fisher & Paykel humidifier
- Trolley

STANDARD REQUIREMENTS UPON SUBMISSION OF BIDDING DOCUMENTS

- Soft copy of user manual

REQUIREMENT/S IF AWARDED THE CONTRACT

- Unit must be **BRAND NEW**.
- Manual in English Language
 - 2 copy of Operation manual (Hard copy)
 - Service manual with soft copy
- Training Program
 - for end-user on equipment's operation with certificate

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MECHANICAL VENTILATOR

- Technical training with certificate (When necessary)
- Three (3) years warranty on parts and service after commissioning and acceptance
- Certification on the availability of spare parts for the next 5 years
- Down time of machine will be added as extension of the warranty.
- With calibration certificate (When necessary)
- Supplier must respond to a service call before 72 hours and should be onsite not more than 7 days.
- **Section V. Special Conditions of the Contract**
 - Delivery Place: Margosatubig Regional Hospital, Zamboanga del Sur
- **Section VI Schedule of Requirements**
 - Completion/Delivery Period: ____ calendar days upon receipt of the Notice to Proceed including the delivery, installation, testing and commissioning, Partial delivery allowed within the completion/delivery period.

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