

MAQUET SERVO-I



ABOUT

The **Maquet Servo-I** is an intensive care ventilator used to provide mechanical ventilation for neonatal, pediatric, and adult patients. It supports both invasive and non-invasive ventilation in critical care settings. The system uses electronically controlled gas delivery and integrated monitoring to manage respiratory support across a wide range of clinical conditions. Its modular configuration allows the ventilator to be set up based on patient size and required ventilation modes.

FEATURES

- **Ventilation Modes:** Features intelligent modes like Automode, Adaptive Support Ventilation (ASV), and Pressure Regulated Volume Control (PRVC).
- **Neonatal to Adult Capability:** Offers a comprehensive range of ventilation for all patient categories.
- **Touchscreen Interface:** Provides a user-friendly, color touchscreen display with clear waveforms, loops, and trending data.
- **Safety Systems:** Includes extensive monitoring and alarm suites with tools like the Lung Toolbox, Otis+ tracheal pressure measurement, and configurable alarm priorities.
- **Modular Platform:** Designed with a modular architecture, allowing for hardware and software upgrades to add new features, modes, and monitoring capabilities as technology evolves.
- **Gas Delivery:** Utilizes the Servo Turbo Blower and an active exhalation valve for rapid response, accurate triggering, and consistent volume delivery even with changing lung compliance.



SPECIFICATIONS



DIMENSIONS

Height: 51.8 In (131.5 cm)

Width: 22 In (56 cm)

Depth: 25.2 In (64 cm)

Weight: 44.1 lbs (20 kg)

GENERAL

Method of triggering: Flow, pressure, and Edi (optional)

Max. operating pressure: Approximately 115 cmH₂O

Bias flow: 2 l/min

SCREEN

Type: TFT-LCD module

Size: 31 cm (12.1") diagonal

Viewing area: 246.0 x 184.5 mm

EXPIRATORY CHANNEL

Pressure drop: Max. 3 cmH₂O at a flow of 1 l/s

Internal compressible factor: Max. 0.1 ml/cmH₂O

PEEP regulation: Microprocessor-controlled valve

Rise Time, Expiratory Flow Measurement: <12 ms for 10 – 90 % response at the flow of 0.05 – 3.2 l/s

Expiratory flow range: 0 to 3.2 l/s

OPERATING CONDITIONS

Operating temperature: +10 to +40°C

Relative humidity: 15 to 95% non-condensing

Atmospheric pressure: 660 to 1060 hPa

The lowest pressure in breathing system: –400 cmH₂O

INSPIRATORY CHANNEL

Pressure drop: Max. 6 cmH₂O at a flow of 1 l/s

Internal compressible factor: Max. 0.1 ml/cmH₂O

Gas delivery system: Microprocessor-controlled valve

Inspiratory flow range:

- **Adult:** 0 to 3.3 l/s
- **Infant:** 0 to 0.55 l/s

POWER SUPPLY

Power supply, automatic range selection

- 100 – 120 V AC ±10%
- 50 – 60 Hz
- 220 – 240 V AC ±10%
- 50 – 60 Hz

Plug-in battery module

- **Battery backup:** Two battery modules
- 50 – 60 Hz
- 220 – 240 V AC ±10%
- 50 – 60 Hz

Battery capacity: Rechargeable, 12 V, 3.5 Ah each

Recharge time: Approximately 3 h/battery

Battery backup time: At least 3 h, when using six batteries.

External 12 V DC: 12.0 V – 15.0 V DC, 10 A

Max power consumption

- At 100 – 120 V: 2 A, 190 VA, 140 W
- At 220 – 240 V: 1 A, 190 VA, 140 W

SPECIFICATIONS



INVASIVE VENTILATION

Inspiratory tidal volume

- Adult 100–4000 ml
- Infant 2–350 ml

Inspiratory flow =200 l/min

PEEP 0–50 cmH₂O

Pressure above PEEP

- Adult 0– (120-PEEP) cmH₂O
- Infant 0 –(80-PEEP) cmH₂ O

NON-INVASIVE VENTILATION

PEEP 2–20 cmH₂O

Pressure above PEEP 0– (62-PEEP) cmH₂ O

Adult Leakage compensation

- Inspiratory, up to 200 l/min
- Expiratory, up to 65 l/min

Infant Leakage compensation

- Inspiratory, up to 33 l/min
- Expiratory, up to 25 l/min
- Nasal CPAP, up to 20 l/min

CONNECTIVITY

External device interfaces 2xRS232, remote alarm,
MCare remote service

IHE technical framework MSync HL7 converter