

# **ESV-640S**

**Anesthesia machine** 



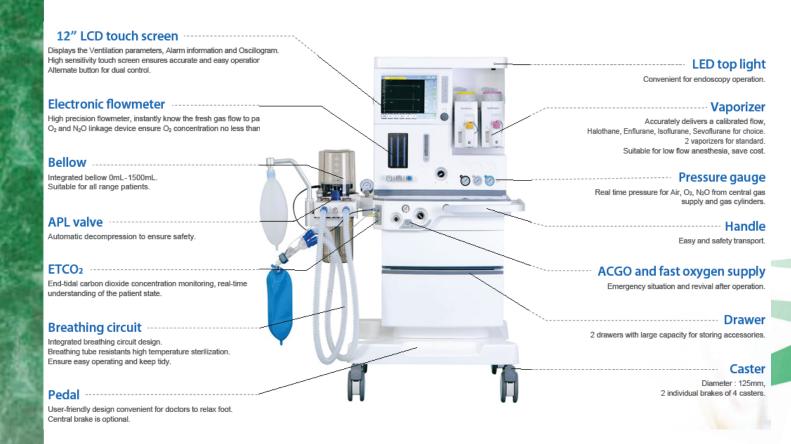


#### **APPLICATION**

The Anesthesia machine makes a good performance in Intensive Care Units (ICU), Operation room, Anesthesiology Department and other departments.

Professional design for adult, child and infant inhalation anesthesia and respiratory management, with advanced ventilation modes.

Outstanding ergonomic design, it ranks high level in safety, stability and convenience as well as user experiences This high-end model combine proven ventilation technology with the latest refinements in ergonomics and systems integration with an advanced, easy to use anesthesia table designed together with experienced experts to streamline your anesthesia workflow.



#### TRUST POINT

Patient Centered Ventilation: Precision in an anesthesia ventilator, from conventional ventilation to advanced modes and adapt to wide range patient.

Safety design: Vaporizer with temperature, pressure, flow compensation and self-lock function. Real time pressure-time, flow-time loop Oscillogram and high precision ETCO2, O2 concentration

detection function included.

Alarm: Three level alarm system, visual and sound alarm information.

Power: Built-in battery ensure 2-3 hours using when power failure.

Separate design of electric circuit and gas circuit ensure long using life.

Flexible configurations able to customize your requirements.



# TECHNICAL SPECIFICATION

Ventilation mode: IPPV, A/C, PVC, PSV, SIMV, SIGH, MANUAL

Flow meter: O2 (0.1 ~ 10 L/min) - N2O (0.1 ~ 10 L/min) - AIR (0.1 ~ 10 L/min)

Rapid oxygen supply: 25 L/min ~ 75 L/min Tidal volume (Vt): 0. 20 mL ~ 1500 mL Frequence (Freq): 1 /min ~ 100 /min

4: 1 ~ 1: 8 I:E:

0 cmH2O ~ 30 cmH2O PEEP:

Pressure triggering sensitivity (PTr): -20 cmH2O ~ 0 cmH2O (Based on PEEP)

Flow trigger sensitivity (FTr): 0.5 L/min ~ 30 L/min Pressure control (PC): 5 cmH2O ~ 60 cmH2=

SIGH:  $0 \text{ (off) } 1/100 \sim 5/100$ Apnea Ventilation: OFF,  $5 s \sim 60 s$ 

20 cmH2O ~ 100 cmH2O Pressure limit:

### Monitoring parameter

Frequency (Freq): 0 /min ~ 100 /min Tidal volume (Vt): 0 mL ~ 2000 mL

MV: 0 L/min ~ 100 L/min

Oxygen concentration: 15 % ~ 100 %

## Oscillogram

P-T (pressure – time) F-T (flow - time) V-T (volume - time)

ETCO2 -T (ETCO2 - time)

P-V loop (pressure - volume loop)



Flowmeter

#### Alarm and protection

The AC power failure alarm: Power failure or no connection

Low voltage alarm for battery backup:  $< 11.3 \pm 0.3 \text{ V}$ No tidal volume: ≤ 5 mL within 6 s High oxygen concentration alarm: 19% ~ 100%

18% ~ 99% Low oxygen concentration alarm: 20 cmH2O ~ 100 cmH2O High Airway pressure alarm: Low Airway pressure alarm: 0 cmH2O ~ 20 cmH2O

High Minute Volume alarm: Adult (5 L/min ~ 20 L/min) - Pediatric (1 L/min ~ 15 L/min,

Low Minute Volume alarm: 0 ~ 10 L/min

Continuous Pressure alarm: (PEEP+1.5 kPa) over 16s

Suffocation warning: 5 s ~ 60 s no spontaneous ventilation

The maximum limited pressure: <12.5 kPa Fan error: Show on screen

Oxygen deficit: Show on screen

# **Working condition**

Gas source: 02, N2O, Air 280 kPa ~ 600 kPa Pressure: 100 ~ 240 V Voltage:

Power frequency: 50/60 Hz



Pressure gauge

#### Packing size

Wooden case packing size: L 870 \* W 890 \* H 1510 mm - G.W.: 195 kg

1.17 m3 CBM: Anesthesia machine N.W.: 124 KGS



#### ANESTHETIC MONITOR OPTIONAL



AG5S

**Technical Specification:** 

Sample Rate: 50mL/min, ±10mL/min

Operation method: Non-dispersive infrared(NDIR), no moving parts

Initialization Time: 20 sec, full specification within 60 sec

Calibration: No routine user calibration required

Compensation: Automatic for atmospheric pressure, temperature

Rise Time: Co2<200ms, N2O, AA<350ms

Respiratory Rate: Range 3~150BMP Accuracy±1BMP

Breath Detect: Adaptive threshold, minimum 1% 2 value change

Agent Threshold Agent: 0.15%

Gases Accuracy:

Co2:  $0-10\% \pm (0.2 \text{ vol}\% + 2\% \text{ of reading})$ 

 $10-15\% \pm (0.3 \text{ vol}\% + 2\% \text{ of reading})$ 

N2O:  $0-100\% \pm (2 \text{ vol}\% + 2\% \text{ of reading})$ 

ISO:  $0-6\% \pm (0.2 \text{ vol}\% + 2\% \text{ of reading})$ 

ENF:  $0-6\% \pm (0.2 \text{ vol}\% + 2\% \text{ of reading})$ 

SEV:  $0-8\% \pm (0.2 \text{ vol}\% + 2\% \text{ of reading})$ 

Temperature & Humidity:

Operating: 0°C to 40°C, 10 to 90%RH, no-condensing

#### **VAPORIZER**









