



ES-7000 ANESTHESIA WORKSTATION



Pulse Healthcare Technology
House: 11/1, Shahid Minar Road
Kallyanpur, Dhaka-1216, Bangladesh.
Mobile: +8801708008061
e-mail: info@pht.com.bd
web: www.pht.com.bd



TECHNICAL FEATURES

- > CE marked.
- > Applicable to Neonate(>5kg) , pediatric and adult.
- > Electronic flowmeter
- > Highly integrated absorber, autoclavable in 134°C to avoid cross-infection(optional)
- > The standard absorber could be automatically heated, to avoid water condensation.
- > 15 inch touch screen & big font display for easy review.
- > Touch screen + navigation wheel for simple operation.
- > Powerful extended function: Optional plug-in anesthesia agent monitoring, CO2 module, and SpO2 module;

Optional AIMS.

- > AGSS(Anesthesia Gas Scavenging System) is optional

Reliable Quality

- > Vaporizer with CE mark and with automatic compensation for temperature, pressure and flow. Interlock for two positions to ensure anesthetic accuracy.
- > World leading brands of flow sensors, differential pressure sensors, pressure regulating valves and proportional valves to ensure accurate ventilation.
- > Close-loop control to offer real-time compensation for fresh gas, absorber compliance and system leakage.
- > Patented technology of proportional valve, simultaneous monitoring of inspiration and expiration
- > Safe valves for gas supply, driving gas and fresh gas; multiple pressure and volume protection.
- > Audio and visual alarms with three levels.

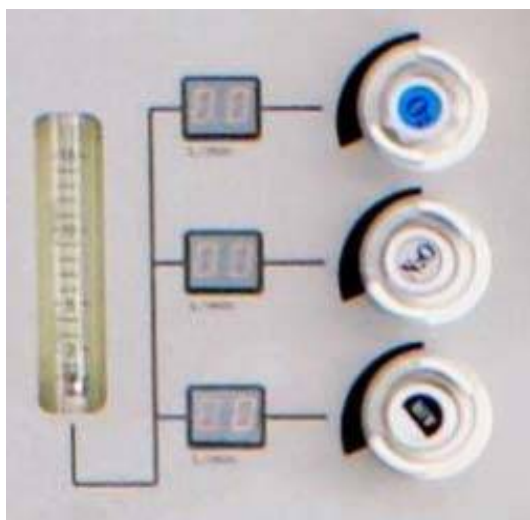
Electronic flow meter with high accuracy

Independent AGSS connector

- Deal with exhaust gas to reduce pollution.
- Meet requirements of laminar flow clearing operation rooms.

Highly integrated absorber

- Patented automatic absorber heating technology to avoid water condensation.
- By-pass to change CO2 canister during operation.





Large user interface

- 15 inch TFT touch screen & big font for distance review.
- With parameters setting/display and graphic display in the screen.

Easy operation

- Touch screen + navigation wheel; convenience & simple
- “Choose-set-confirm” to realize function and avoid mis-operation.

Comprehensive Function

Excellent anesthesia ventilator

- > For patients at different ages, neonate(>5kg)、 pediatric and adult.
- > Various ventilation modes: VCV, PCV, SIMV+VCV+PSV ,SIMV+PCV+PSV, Manual, Standby

Powerful extended function (optional)

- > Swedish PHASEIN Pug-in anesthetic agent modules (mainstream/side stream); 5 anesthetic agent + CO₂+N₂O automatic identification and concentration monitoring; anesthetic agent curve.
- > Based on side stream anesthetic agent module, you could also choose magnetic oxygen sensor for high accurate monitoring.
- > Swedish PHASEIN plug-in CO₂ module (mainstream/side stream) for inspiratory and expiratory monitoring.
- > Plug-in SpO₂ module.



Sophisticated monitoring

- > Respiratory parameter monitoring
- > Resistance(R), Compliance(C), PEEP, I:E
- > (optional) SpO₂, PR, FiO₂
- > (optional) CO₂, N₂O, anesthetic agent
- > Waveform: P-T, F-T, V-T, SpO₂-T (optional), CO₂-T(optional).
- > Loop: V-P, F-V, F-P; Optional: V-CO₂.

Anesthesia information management system (optional)

- Advanced electronic pathology.
- Fully record operation events and dosages.
- Standard medicine statistics and analyzer for anesthesia control and clinical research.

Specification	ES-7000
Anesthesia ventilator	
Ventilation mode	VCV, PCV, SIMV+VCV+PSV, SIMV+PCV+PSV, Manual, Standby
Tidal volume(V_T)	20~1500 mL
Frequency (f)	1~100 bpm
I:E	4:1~1:10 (Increment: 0.5)
T_i	0.1~10 s (Increment: 0.1 s)
Inspiratory pause (T_p)	OFF, 5%~50%
E-PEEP	Integrated electronic PEEP OFF, 4~30 cmH ₂ O
Flow trigger (F_{TRIG})	1~15 L/min
Pressure control	5~70 cmH ₂ O
Pressure support	5~60 cmH ₂ O
Pressure Limit	PEEP+5~PEEP+70 cmH ₂ O
Vaporizer	2 stations
Pneumatically	
Gas supply	Pipeline: O ₂ , N ₂ O and Air; Yoke: 1x O ₂ ; 1x N ₂ O;
Pressure gauge	3 pipeline pressure gauges and 2 cylinder pressure gauges.
Flowmeter	electronic flow meters for O ₂ , N ₂ O and air; O ₂ and N ₂ O linkage and N ₂ O cutoff function
Bellows volume	Adult, 0~1500 mL, pediatric(optional), 0~300 mL
APL valve	2~70 cmH ₂ O
CO ₂ Canister Volume	1.5 L (1.35 Kg)
By-pass	Automatic; change soda lime during operation.
Bag/vent switch	switch for manual ventilation and mechanical ventilation
ACGO connector	22mm
Monitoring modules(plug-in)	
Anesthetic agent monitoring (optional)	Swedish PHASEIN module; 5 anesthetic agents+N ₂ O+CO ₂ automatic identification and concentration monitoring (mainstream or side stream).
FiO ₂ (optional)	Swedish PHASEIN paramagnetic oxygen sensor(Based on side stream anesthetic agent module)
CO ₂ (Optional)	Swedish PHASEIN CO ₂ modules (mainstream or side stream).
SpO ₂ module (optional)	plug-in SpO ₂ module
Waveform	P-T, F-T, V-T, SpO ₂ -T (optional), CO ₂ -T (optional).
Loops	Loops: V-P, F-V, F-P; Optional: V-CO ₂ .
Trend	P_{peak} -t, f-t, FiO ₂ -t, MV-t, PEEP-t, VT-t
Monitoring parameter	C, R, V_{TF} , V_{TI} , MV, MV_{SD} , f, f_{SD} , I:E, P_{peak} , P_{mean} , P_{plat} , P_{mini}
AIMS (optional)	ADVANTECH medial computer terminal; 17inch LCD with touch screen
Physically	
Screen	15 inch TFT touch screen,
Dimension	1450×1000×1330 mm ³ (H×W×D)
Net weight	90 Kg (including framework, absorber and screen)
Power	100 to 240 VAC, 50/60 Hz, 10A(Max.)
Lithium Battery	120 minutes
Communication connector	VGA, RS232, RJ45, debugging interface



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 web: www.pht.com.bd



ESSE 3 Via Garibaldi 30
 14022Castelnuovo D.B. (AT)
 tel +39 011 99 27 706
 fax +39 011 99 27 506
 e-mail esse3@chierinet.it
 web : www.esse3-medical.com

