❖ Ergonomics design anesthesia machine

- More convenient operating and display systems for clinical operations; Suitable for a wide range of anesthesia: adult and pediatric. (Tidal volume 50-1500mL)
- Electronic PEEP, Imported proportional valve, traditional 6 tubes flowmeter, all ensure the excellent performance, durable, long-term use.
- Highly integrated circuits, the overall heat auto circuit technology to avoid condensation circuit; by-pass bypass function, the canister can be replaced in the course of anesthesia, no harmful gas leakage.
- Sufficient monitoring parameter: Ppeak, Pmean, Pmin, Pplat, PEEP Compliance, Resistance, O_2%, $EtCO_2$, $FiCO_2$.
- Clinician's health concerns: Independent AGSS exhaust vent and active sewage systems avoid anesthesia gas pollution.
- Complete alarm function to make sure the operation accuracy and stability.

System Specifications

Technical parameters	Specification
Machine	
Size	1410 × 950 × 650 (H × W × D)
Weight	110kg
Top cover	30kg bearing weight
size	580 x 400mm
Display	
Type	Color TFT (touch screen)
Size	8' inches
Resolution	640 × 480 pixels
Work surface light	LED
LED indication	
	Alarm Indication
	AC power
	Battery
Audio instruction	
Speaker	Alarm sounds
Control	
	Button, Presskry
Interface	
	RS232, VGA, USB
	Three auxiliary output power interface
Moving means	
Castor	4 antisatic castors, diameter Φ125mm (2 brake infront)
Toolbox	
Drawer	200 × 392 × 398 (H×W×D)x2
Respiratory System	
Air bellow	1500mL
Absorption chamber	1500mL
Connection	Suction / ACGO ports: standard OD 22mm, ID 15mm, tapered connector; Exhalation ports: standard OD 22mm, ID 15mm, tapered connector. Manual breathing port: diameterΦ22cm
System leaks	< 40ml/min
System compliance	≤ 4 mL / cmH_2O
Resistance	Inspiratory < 0.6 kPa; Expiratory < 0.6 kPa

Vaporizer

Parameter	Discription
Technical Specification	
Flowrate range:	0.2-15L/min
Connector type:	Selectatec compatible, plug in, cagemount
Dosing methods:	Pour-fil, Easy-fil, Quik-fil (Sevoflurane)
Working environment	
Working temperature:	+15℃ ~ +35℃
Relative humidity:	≤93%
Atmospheric pressure	70kPa ~ 106kPa
Storage temperature:	-40℃ ~ +65℃
Concentration:	0~5.0%: Isoflurane, Enflurane,Halothane 0 ~ 8.0%: Sevoflurane

Main technical parameters

Parameter	Discription
Disply	8" TFT, Touch screen,Top light
Ventilation Model	VCV, PCV, Manual, Standby SIMV (Optional)
Tidle Volum	50—1500ml Electronic PEEP , Lung mechanics parameters
Wave form	Paw-T,Flow-T,V-T,CO_2-T
Loop	P-V,V-F
Trend graphs	24 hours
Pressure monitoring	Centrol: O_2, N_2O, Air Cylinder: O_2, N_2O
Monitoring parameter	Tidle Volum, MV, Frequency, I:E, Airway Pressue, Pmin, Compliance, Resistance
Application	Adult and Pediatric
Vaporizer	Selectic bar for two position
Gas supply	O_2, N_2O, Air
6 tubes flowmeter	O_2: 0～10LPM; N_2O: 0～12LPM; Air: 0～15LPM;
O_2%	O_2 sensor
Auxiliary O_2	Auxiliary O_2 Flow meter (O_2: 0～15LPM) (Optional)
ACGO	Yes (Optional)
Battery	NI-MH battery build in. >90mins
Yoke	2 (O_2, N_2O)(Optional)
Gas cylinder	O_2, N_2O (Optional)
Cycle absorber	Intergrade, bypass design, heating system.

Setting Parameter

Parameter	Discription
Tidle Volum	20～1500 mL
Frequency	1～100 bpm
Tinsp	0.1～10.0s
I:E	4:1～1:10
Pause	0～60%
PEEP	OFF, 3～30 cmH_2O
Psupp	0～70 cmH_2O
Pressure Control	5～70 cmH_2O
Flow Trigger	0.5～20 L/min
Pressure Tirgger	0～20 cmH_2O
Ramp	0～2s

Monitoring Parameter

Parameter	Discription
Tidle Volum Inspiration	0～2500 mL
Tidle Volum Expiration	0～2500 mL
MV	0～60 L/min
MVspont	0～60 L/min
Frequency	0～100 bpm
Ratespont	0～100 bpm
I:E	9:1～1:99
P_{peak}	0～100 cmH_2O
P_{mean}	0～100 cmH_2O
PEEP	0～100 cmH_2O
P_{plat}	0～100 cmH_2O
O_2%	15～100%
Compliance	0～300 mL/cmH_2O
Resistance	0～600 cmH_2O/(L/s)
$EtCO_2$ (Optional)	0～13.3 %
$FiCO_2$ (Optional)	0～13.3 %

Alarm Parameter

Parameter	Discription
Tidle Volum	
Upper limit	30～2000 mL
Lower limit	OFF, 20～1500 mL
MV	
Upper limit	1～99 L
Lower limit	0～98 L
O_2% (Optional)	
Upper limit	22～100%,OFF
Lower limit	20～99%
Airway Pressure	
Upper limit	10～99 cmH_2O
Lower limit	1～98 cmH_2O
Frequency	
Upper limit	1～100 bpm
Lower limit	0～99 bpm
$EtCO_2$ (Optional)	
Upper limit	0.1～13.3 % ;
Lower limit	0～13.2 %;
$FiCO_2$ (Optional)	
Upper limit	0.1～13.3 % ;
Continue pressure high	Airway pressure beyond (PEEP+15) cm H_2O, continuesly (15+1) s
APENA	10～60 s, Increase: 1s
O_2 supply down	< 0.28 MPa
Mains failure	Automatic switch battery
Battery low	< 10 min
Battery discharge	< 5 min
Mute	≤120 s
Pressure low	< -10cmH_2O
FiO_2 <18%	<18 Vol.%

Power Specifications

Parameter	Specification
External AC power	
Input voltage	100 - 240V
Input frequency	50/60Hz
Input power	<150 VA
Internal Battery	
Number of batteries	A battery pack
Battery type	NiMH batteries
Rated battery voltage	12VDC
Battery capacity	4200mAh
Shutdown delay	Less than 10min (usIng a new fully charged battery, low battery alert since the first post)
Shortest supply time	90min
Charging time	4h
Work Environment	
Temperature	10 ~ 40 °C
Humidity	5 ~ 95%, non-condensing
Environmental pressures	70 ~ 106 kPa
Storage Environment	
Temperature	-20 ~ 55 °C
Humidity	10 ~ 95%, non-condensing
Environmental pressures	50 ~ 106 kPa

X40
Anesthetic Workstation

Vitalife

- ICU Ventilator
- Emergency Ventilator
- Anesthesia Ventilator
- Anesthesia Machine
- Air Compressor

Anesthesia workstation X40

Focus on every patient's needs, Let life be more reliable

Three gas supply with 6 tubes flowmeter
O_2, N_2O, Air, fresh supply, with 5 Gas Supply Pressure Gauges easy monitoring of central gas supplies and gas cylinders status.

Dual DIN rail sys
Adapt patient monitor support arm, BIS SYS or syringe pump frame on both sides (Optional)

Monitoring interface
Overall parameters of setting, measurement and graphic trends data intuitive displays.

Cycle absorber assembly
Integrated bypass cycle absorber with heating system by mold manufacturing, 134℃ Sterilization, nature latex free.

Anesthesia Gas Scavenging System
Independent active AGSS exhaust, avoid anesthesia air pollution in the OR, concerns clinicians healthy (Optional)

Antistatic casters
Diameter 125mm, two brakes of four casters.

Top shelf and light
Load weight 30Kg, Height: 1410 mm, Width: 550 Depth: 350,LED light illuminates all work surfaces

Friendly interface
8" TFT touch screen, with rotary knob. Resolution 680 x 480

Anesthesia ventilator
Tidal volume: 50-1500mL. Easy to upgrade advance ventilation modes

Dual Vaporizer
Select bar support 2 vaporizers position for Enflurane, Isoflurane, Sevoflurane,Halothane VP10 vaporizer compensates for variances in pressure, temperature and flow and needs no annual recalibration.

Yoke (REAR)
PISS standard, optional max 3 cylinders (Optional)

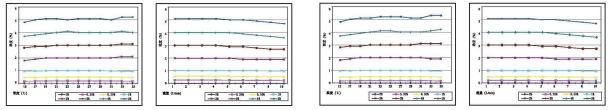
Drawer
Size: 200 x 392 x 398 (H x W x D) x 2, Optional max 3.

Suction
Patient suction system with a regulator and reusable canister (Optional)

❖ Vaporization:

- High precision anesthetic vaporizer, service free, dual position with Selectatec bar. Dosage: 300ml, available for Halothane, Enflurane, Isoflurane, sevoflurane vaporizer with interlock safe systems.
- Compensates for variances in pressure, temperature and flow for accuracy of transmitting concentration ensures patients receive adequate oxygenation, reliable vaporization of inhaled anesthesia drugs.

Isoflurane **Enflurane**



Variation of output with temperature (5L /min) | Variation of output with flow rate (Temperature: 20℃) | Variation of output with temperature (5L /min) | Variation of output with flow rate (Temperature: 20℃)

❖ Ergonomic integrated breathing circuit

Technology innovation:

- A closed and semi-closed circuit, PSU material, nature latex free, it is avoid allergic reaction. Fully 134℃ autoclavable to avoidcross infection, especially for certain respiratory disease operation.
- Embed design, flow sensor with variable orifice, suitable for different application from child to adult.
- Efficient, integrated heating system, optimized airway design and water trap design to ensure the air flue without affected by condensation. Also ensure the accuracy of operation for long term.
- Bypass design, replacement fo absorber canister fast and convenient, alarm function remind the doctor always and let the operation more safe and reliable.

Humanized design:

- Circuit heating system controls the temperature at 35℃ (±2℃) to avoid condensate water effect on the flow sensor lifetime and accuracy; also make the patient feel more comfortable.
- Bypass design enable fast and convenient replacement of CO_2 canister without stopping operation. Special designed chamber assembly monitoring to avoid misoperation.
- Easy for installing cleaning disinfecting and maintaining without any tools and training.

❖ Ventilation

- The large color LCD screen displays all ventilator's setting data, measurement information, loops and numeric / graphic trends. Standard Active Exhalation Valve, Electronic flowmeter.
- Sufficient modes of Ventilation, Volume Control, Pressure Control, SIMV (Volume and Pressure), CPAP / PSV and manual.
- With Tidal volume 20ml which could apply adults and infant.
- Optional Auxiliary oxygen flowmeter and famous brand SPO2 , $EtCO_2$ provide more monitoring reference for droctor.

PCV

SIMV

PSV(Optional)

❖ Features

Suitable for pediatric and adults
Tidal volume setting 20-1500mL
Friendly user interface
8" LCD color screen with touch screen
Knob and hard key input

Sufficient modes of Ventilation: VCV, PCV, SIMV-V, Manual
Gas supply: O_2 , N_2O, Air
Optional: SIMV-V, SIMV-P, CPAP/PSV, BACKUP, O_2, SpO_2, $ETCO_2$, AGSS, Suction
6 Tubes flowmeter more accurate and stable, auxiliary flowmeter Gas system, Hypoxic guard system, ORC, O_2, Flush
Vaporizer: Selectatec bar support 2 vaporizers
ACGO, 2 Yokes (O_2 & N_2O)

Good integration:

- Built-in active expiratory PEEP valve
- Built-in battery
- Lung mechanics parameters and loop (P-V, V-F)
- Integrated absorber system, with heated function, bypass design, easy assembly, less leaks, Autoclavable