

COMeN

COMeN Share with the World



AX-800
Anesthesia Machine



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Raw material



Proportional valve

The performance of a ventilator directly affects the function of an Anesthesia Machine. It needs not only an outstanding software system but also high-performance hardware as its carrier. As the core component of ventilator, Proportional Valve is of great importance. Comen's ventilator adopts the British NORGREN's proportional valve, which possess the World's leading technology in ventilator field.

- Accurate and stable gas delivery with 15ml minimum tidal volume
- Perfect aerodynamic and airflow performance, airflow speed up to 120L/min
- ~5ms rapid response time; Multiple ventilation modes satisfy various clinical demands
- High stability and long service life
- Excellent gas circuit tightness 0.6ml/min



PPSU

Breathing circuit is an important part of an Anesthesia Machine, in which air source flowing inside and deliver to patients. Modern medical requirements put forwards higher demand on the performance of breathing circuit of Anesthesia Machine. Comen's Anesthesia Machine has adopted the "golden plastic" PPSU materials from Solvay.

- HDT up to 207 °C
- Excellent toughness and impact strength
- Outstanding longtime hydrolytic stability
- Better chemical resistance than PSU and PEI
- More than 1000 times steam sterilization
- Intrinsic flame resistance

PU tube and connector

The internal tube and connector of an Anesthesia Machine will be applied in different complexity situations, in order to satisfy those high demands, Comen choose to cooperate with French LEGRIS Company, which has a history of 150 years and was the first inventor of Quick Connector.

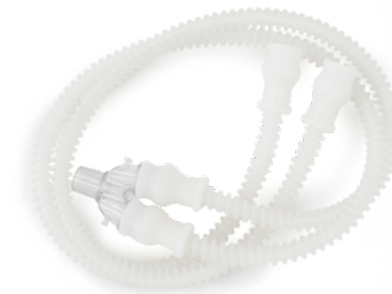
- Excellent flexibility, small bending radius
- Wide range of working temperature and working pressure
- Perfect chemical properties
- Constant hardness, long service life
- Anti- vibration and anti U.V. capability



Caster

The Caster in Comen's Anesthesia Machine originated from STEINCO Company in Germany, which has a history of 86 years. It is the World's leading company in caster production; what's more, it had cooperated with many famous brands such as Mercedes Benz and BMW, to provide them with high-precision metal casting. STEINCO has become a top priority of some leading medical equipments providers such as GE, SIMENS and PHILIPS.

- Electrical conductivity
- Supreme Quiet
- Smooth braking performance
- Long service life



Breathing Circuit

The quality of breathing tube directly affects patients' breathing condition, its materials and technique have close relationship with anesthesia machine's performance and service life. The breathing tube of Comen's Anesthesia Machine was imported from Saint-Gobain group. It is a World's leading plastic enterprise established in 1665.

- No side effects on the human body
- Good biocompatibility and anti-bacteria
- Low flow resistance and smooth inner wall greatly reduce fluid resistance, strength the effect of washing and purification
- High temperature resistance (up to 180°C / 356°F) with a wide range of hardness (SHORE A 10-80) . These products can withstand repeated steam sterilization (30 minutes disinfection under 134°C / 273°F)
- Low surface tension, high chemical and thermal stability, it is able to withstand a variety of disinfection methods, including dry heat sterilization and gamma ray radiation

Vaporizer

It is universally acknowledged that the vaporizer not only marks the level of Anesthesia machine but also closely related to anesthesia gas breathing effects. Comen's Anesthesia Machine adopts Dräger Vapor 2000.



- Dedicated anesthesia gas vaporizer
- Extraordinary performance, designed particularly for operation room in the army
- Easy to use
- The Vapor 2000 has been designed to accommodate 300 ml of liquid anesthetic. That is more than the entire volume of a standard bottle. You can even add 250 ml if the Vapor is not quite empty. This means you can easily refill a Vapor and have it back in service quickly without having to worry about where to store the remainder of the anesthetic you are using
- When set in transport position, the Dräger Vapor 2000 can withstand tipping or even being turned upside down without any ill effects. The anesthetic agent remains safely contained within the vaporizer. After connecting the vaporizer and releasing the transport position, they are immediately ready for operation according to specification
- Automatic compensation of temperature, pressure and volume

Performance

The minimum tidal volume down to **5ml** under PCV mode

- Incredible Digital Proportional Valve , imported from NORGREN
- Closed-loop control and real-time feedback
- Automatic tidal volume compensation technology, including fresh gas flow rate, system compliance and system leakage compensation
- With calibration system, heating system and drainage system, the transducer is more accurate, with longer service life
- A Wide range of clinical applications: It can be used on all kinds of complicated diseases form neonates to adults

7% high-precision sensor

- The majority of manufacturers only use one sensor to monitor aspiration, while Comen's Anesthesia Machine adopts high precision flow sensor to monitor both inspiration and aspiration at the same time with its accuracy reaches to 7%, guarantee monitoring accuracy and reliability

Below to **65ml/min** low breathing circuit leakage

- Integrated design, more compact and light weighted
- Compact and integrated breathing circuit, easy to install and sterilize
- Leakage rate is less than 65ml/min; fully satisfy the requirement of the low flow rate anesthesia surgery and reduce environmental pollution



Configuration



Screen

- 15" four-way rotating touch screen, more comfortable for doctors of different heights in different positions to observe and operate, reducing work fatigue

Ventilator

- Proportional Solenoid valve control technology and precise volume sensor detection technology
- SIMV/SIMV+PS simplify the monitoring of patient with spontaneous breath and extend clinical applications
- Advanced pressure support ventilation (PSV+ apnea backup) determines inspiratory velocity based on patient's condition
- Compliance, fresh air and leakage compensation functions ensure exact tidal volume transferred as preset
- Comprehensive respiratory mechanics monitoring, real-time display of waveforms and P-V, F-V and P-F loop
- Electronic PEEP



Electronic Flow Meter

- Instantly know the fresh gas flow to your patient.
- Identifying key information quickly and easily is critical to your practice.

Flow meter back light

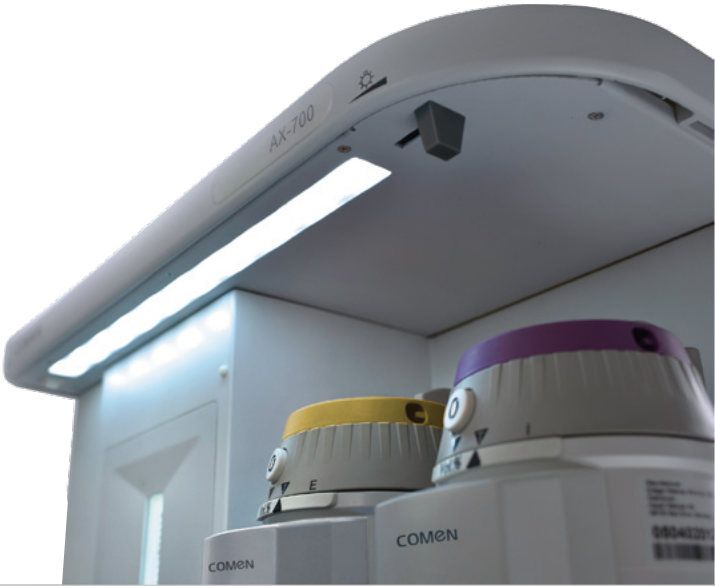
- Providing a quick reference even in a darkened environment.

Excellent breathing system

- Compact and integrated design; Closed and semi-closed system
- PPSU plastic circuit, corrosion resistance, long service life and fully autoclavable at 134°C
- Easy to disassemble and convenient to clean, save more maintenance time
- Built-in heater and the medium copper plate eliminate the condensation of the internal water vapor effectively
- CO₂ bypass facilitates soda lime exchange during operating without any care about leakage

One-hand installation and dismount of soda lime canister

- Can be replaced during operation
- Quick, convenient and hygienic
- Directly pull the handle without rotation
- Compared with double-hand, one-hand operation keeps doctors further away from the canister waste



Brightness adjustable deck light

- Provides work area illumination.

Roomy workbench

- 1170cm² working space, fully satisfy various kinds of needs

Modular design

- Incorporate anesthesia related monitoring functions like AG, EtCO₂, BIS; Modular design in anesthesia machine to achieve resources sharing; Plug and play, flexible configuration; Reduce medical costs, facilitate clinical work



Rotatable and lockable roomy drawer



Auxiliary Oxygen supply





Anaesthetic Gas Scavenging System (AGSS)

- Effective removal of anesthesia gases from the working area.

Integration and promotion

- Support external GCX bracket
- Comen's modular monitor optional, such as C90
- Auxiliary power supply, easier and more convenient



ACGO

- The cover has the function of a switch, once it was open, the gas would flow automatically

Quick O₂

- The pressure against evaporator is less than 1.6kPa under quick O₂ supply condition, no influence to anesthetic gases concentration hence to guarantee stability and safety



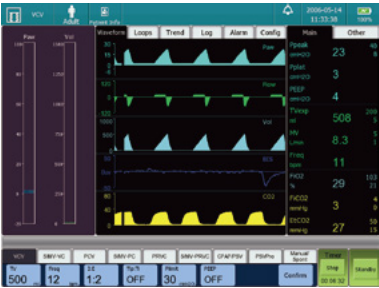
Central brake system

- Time-saving, convenient and easy to use



Clean and neat interface

- Bookmark menu
- Easy to read and operate
- Reasonable division of parameter setting and parameter monitoring zone;
Max 2-level menu to complete all observation and operation



Comprehensive ventilation mode, including VCV, PCV, SIMV-VC, SIMV-PC, CPAP/PSV, PRVC, SIMV-PRVC and PSVPro. Five waveforms display, including Paw, Flow, Vol, EEG and CO2. Anesthesia Gas Monitoring, auto gas identification and Mac calculation



2000 event records of settings, technical and physiologic alarm



Alarm setting interface



60 Hours trends review

Real time measuring for airway pressures, flow, volumes, compliance and resistance of breath offer a intuitive tool to detect leaking, airway obstruction and optimal ventilated parameters adjustment



Easy to observation by Big Font Display

Quality control management

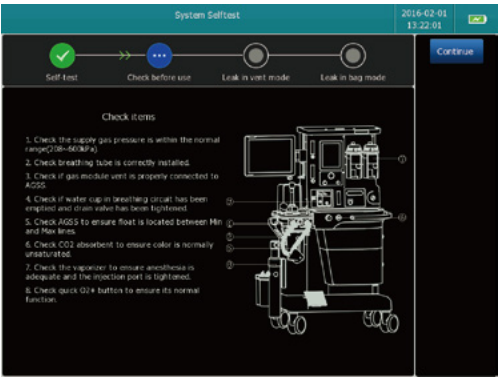
Quality control of anesthesia surgery is an important part in the hospital. In order to improve the quality of anesthesia surgery, AX-900 has made multiple risk quality control in equipment's inspection and operation. In case of misoperation, equipment failure, exhaustion of gas source/consumables, etc., early warning will be given to urge the anesthesiologist to check and handle the hidden dangers before the alarm occurs.



Anesthetic use record



Soda lime use record



Self- test



Risk parameter change reminder