Specification: AX500-V



SHENZHEN COMEN MEDICAL INSTRUMENTS CO.,LTD

No.2 of FIYATA Timepiece Building, Nanhuan Avenue, Gongming sub-district, Guangming New District, Shenzhen, P.R. China

Tel: +86-755-26408879 Fax:+86-755-26431232 Email: info@szcomen.com Web: www.comen.com



Anesthesia Machine AX500-V



Technical Specification

Physical Characteristics

Size 773.5mm×1380mm×598mm

Weight 90kg

Entire Machine

Maximum Bearing

Weight 160kg

Screen Size: 10.4" TFT touch screen

Resolution 800×600 Handrail Length 412mm

Caster wheel 4 wheels 5" brakes;

Operation Environment

Working Temp 10~40°C

Humidity ≤93%

Power Supply 100-240V~, 50/60Hz±1Hz

Battery Type Rechargeable Lithium-ion battery

Battery Capacity 4400mAh, 11.1VDC
Battery Recharging 4 hours for charging

Time

Battery backup 2 hours for continuous working

Trace Waveforms: Pressure-time; Flow

rate-time; Capacity-time

Optional: Pressure-volume Loops; Flow-volume Loops; Pressure- flow

Loops

Top Plate

Maximum supporting

capacity 50kg

Operational

dimensions 535mm×235mm

Dimensions with

Additional Accessory 508mm×313mm×380mm

Workbench

Maximum

supporting capacity 20kg

Operational

dimensions 465mm×275mm

Dimensions with

Additional Accessory 472mm×248mm×380mm

Interface:

USB port

RJ45

3 auxiliary power output

AC power interface

Equal-potential grounding

terminal

DB9 interface

Features

Drawers: Size: 416mm×395mm×170mm

Bearing Weight: 1Kg

Gas-bag Sway Brace: Length: 320mm; Height: 240mm
Anesthesia process Open, semi closed, closed circuit

Pet types Small, Large

Mode Manual, Mechanical, Standby

Compliance Correction

Configuration Possibility of configuration

observation

Optional Bypass; Heating; Oxygen sensor;

ACGO; AGSS;

Ventilator Specification

Ventilation Modes

VCV/VC Volume-Controlled Ventilation with

tidal volume compensation

Others Manual and automatic ventilation

Optional PCV/VPC, SIMV-VC, PSV/ CPAP,

SIMV-PC, PRVC

Ventilation principle Chronometric, volumetric and

barometric



Ventilation Electronically controlled&

pneumatically driven

Driven gas

O2(air: optional)

Breathing circuit

volume 1000 ml + bag

Ventilator Setting ranges

Monitoring Tidal volume, Inspiratory, expiratory

parameter flow, minute volume, frequency,

pressure (Pmean, Pplat, Ppeak,

PEEP), Oxygen, concentration,

Pressure, oxygen numerical values,

compliance and pets' resistance

Tidal volume range 15 ~1500 mL (VCV)

5~1500 ml (PCV)

MV (Per-minute

ventilation amount) 0~100 L/min

Pressure range

(limit) 10~100 cmH2O

Pressure range

3~60cmH2O (support) Respiratory rate 4~100bpm

Inspiratory

/Expiratory ratio

(I: E) range 4:1~1:10

Apnea I: E 4:1~1:8 10~30s Apnea time

Apnea pressure 3~60cmH2O

Freq. Min. (Min.

frequency for apnea-2-60 bpm

ventilation)

OFF, 5~60% of inspiratory time Inspiratory pause

0.2~5s Inspiratory time

5~70cmH2O Inspiratory pressure

PEEP OFF, 3~30cmH2O

Trigger pressure -20~-1cmH2O

Trigger window 5~90%

Trigger flow 0.2~15 L/ min

Flush oxygen 25~75 L/ min

Inspiratory stop level 5~80%

Pressure slope 0~2.0s

Ventilator Monitoring Ranges

TV (Inspiratory tidal

volume) 0~3000 mL

TV (Expiratory tidal

volume) 0~3000 mL MV (Per-minute

ventilation amount) 0~100 L/min

FiO2 (Oxygen

concentration) 18~100%

-20~120cmH₂O Airway pressure

PEEP 0~70cmH₂O

Ppeak

(Airway pressure) -20~120 cmH₂O

Pmean

(Mean pressure) -20~120cmH₂O

Pplat

(Platform pressure) 0~120cmH2O

I: E (Inspiratory-

expiratory ratio) 4:1~1:12

Freq

(Respiratory rate) 0~120 bpm

Compl (Compliance) 0~300 mL/cmH₂O

Resistance 0~600 cmH₂O/(s/L)

Ventilator Performance

Pressure range at

0.28~0.6 MPa

inlet

Peak gas flow >100 L/min 1~100 L/min Flow valve range

Flow compensation

200 mL/min to 18 L/min range

Inspiratory flow Maximum inspiratory flow shall not

be smaller than 120L/min when gas

supply pressure is 280KPa.

Range of flow valve 3~100 L/min

Pressure limitation

Controlling means for

ventilator

PCV

Controlled by the electronic relief

valve fitted inside the ventilator;

Controlled by the mechanical relief

valve fitted inside the ventilator.

Ventilator accuracy

Control accuracy

TV 15~60 ml: ±10ml;

60~210 ml: ±15ml;

210~1500 ml: ±7% of set value.

Inspiratory pressure: ±2.5cmH2O or

±7% of set value, whichever the

greater.

Limiting pressure: ±2.5cmH2O or

±7% of set value, whichever the

greater.



High: 2~100L/min

	PEEP: OFF: undefined; 3~30cmH2O:		whichever is greater; Others:
	±2.0cmH2O, or ±8% of set value,		undefined.
	whichever is the greater.	PEEP	0 cmH2O~70 cmH2O: ±2.0 cmH2O
	Supporting pressure: ±2.5cmH2O or		or ± 4% of set value, whichever is
	±7% of set value, whichever the		greater; Others: undefined.
	greater.	Pmean	-20 cmH2O~120 cmH2O: ±2.0
	Apnea pressure: ±2.5cmH2O or ±7%		cmH2O or ± 4% of setting value,
	of set value, whichever the greater.		whichever is greater;
	Trigger pressure: ±2.0cmH2O.		Others: undefined.
Freq	±1 bpm or ±5% of set value,	Pplat	0 cmH2O~120 cmH2O: ±2.0 cmH2O
	whichever is the greater.		or ± 4% of set value, whichever is
I: E	2: 1~1: 4: ±10% of reading value;		greater; Others: undefined.
	Other ranges: ±25% of reading	Freq	±1 bpm or ±5% of set value,
	value.		whichever is the greater.
Apnea I: E	2: 1~1: 4: ±10% of set value;	I: E	2: 1~1: 4: ±10% of reading value;
	Other ranges: ±25% of set value.		4: 1~2: 1 and 1: 4~1: 12: ±25% of
Tpause	In the range of 20%~60%: ±15% of		setting value; Others: undefined.
	set value;	MV	0 L/min~30 L/min: ±1 L/min or
	Other ranges: undefined.		±15% of set value, whichever is
Inspiratory time	±0.2s		greater; Others: undefined.
Inspiratory pause	20%~60%: ±15% of set value;	Compliance	0 ml/cmH2O~250 ml/cmH2O: ±0.5
	Other ranges: undefined.		ml/cmH2O or ± 15% of reading
Trigger window	±10%		value, whichever is greater;
Trigger flow rate	±1 L/ min		Other ranges: undefined.
Inspiratory stop level	±10%	Resistance	0 cmH2O/(L/s) $^{\sim}$ 20 cmH2O/(L/s): \pm
O2/ N2O/ Air flow	10~100% of the full scale: ±10% of		10 cmH2O/(L/s); 20
control	the reading value. Other ranges:		cmH2O/(L/s) $^{\sim}$ 500 cmH2O/(L/s): \pm
	undefined.		50% of reading value; Other ranges:
Total flow control	Air balance gas: ≤±3%		undefined.
	N2O balance gas: ≤±3%	Oxygen sensor	±3%
Backup flow control	Pure Oxygen flow rate is 0~10	O2/ N2O/ Air flow	10~100% of the full scale: ±10% of
•	L/min: ≤±3%; Others: undefined.	control	the reading value. Other ranges:
Auxiliary flow control	10~100% of the full scale: ±10% of		undefined.
, ,	the reading value. Other ranges:	Total flow control	Air balance gas: ≤±3%
	undefined.		N2O balance gas: ≤±3%
Monitoring accuracy		Backup flow control	Pure Oxygen flow rate is 0~10
TV	0~60ml: ±10 ml; 60ml ~ 3000ml: ±		L/min: ≤±3%; Others: undefined.
(expiratory)	20ml or ± 7% of reading value,	Auxiliary flow control	10~100% of the full scale: ±10% of
,,	whichever is greater; Others:	•	the reading value. Other ranges:
	undefined.		undefined.
TV	60ml ~ 3000ml: ± 20ml or ± 7% of	Alarm Settings	
(Inspiratory)	reading value, whichever is greater;	Tidal volume	
, , ,	Others: undefined.	(expiratory)	High: 5~1600 ml
Paw	-20 cmH2O~120 cmH2O: ±2.0		Low: 0 ~1595 ml
			

MV

cmH2O or ± 4% of set value,



Low: 0 ~98L/min

Inspired oxygen High: 20~105%

Low: 18 ~ 103%

Ppeak High: 2~100cmH2O

Low: 0 ~98cmH2O

Apnea alarm Two (2) triggering conditions are

satisfied simultaneously:

1. Airway pressure is continuously

lower than (PEEP +3) cmH2O for

more than 30 seconds. 2. Expiratory tidal volume is

continuously lower than 10ml for

more than 30 seconds.

Increase the set values of tidal volume and respiratory frequency,

or set it to Manual/spontaneous

mode.

Alarm Audible and visual alarm;

Alarm access Easy access by shortcut

Flow meters

Type Mechanical flow meter

Gas Supply

02 Pipeline gasses

Optional O2, Air; O2, N2O; O2, N2O, Air

Backup

gas-cylinder gasses 02, N2O, Air

Pipeline gas

connection NIST

Backup cylinder

YOKE-CGA connection

Pressure range at

inlet 280~600 kPa Filter 60-80um

Switch easily to the other gas **Features**

without interrupting the ventilation

O2(optional) Auxiliary gas supply

Breathing Circuit Specification

System Pressure Gauge

-20~100 cmH2O Range

± (4% of full scales reading + 4% of Accuracy

reading)

Adjustable Pressure Limiting (APL)valve

1~75 cmH2O Range

Tactile knob

indication at >30 cmH2O Accuracy: ±1.0 cmH2O

Minimum opening

0.3 cmH2O (dry), 0.5 cmH2O pressure

(humid)

Breathing Circuit Parameters

Compliance ≤4mL/100Pa

> Automatically compensates for compression loss with in the breathing circuit in mechanical

mode

Volume of CO2

canister 2000ml

Water Trap 7mL, easy to be disassembled Feature Heated at 134 degree, removable,

easy to dismantle and sterilize

Active AGSS

Feature High flow, low vacuum

Size 535mm×120mm×155mm

Weight 2.2kg

Applies ISO 80601-2-13 and YY 0635-2

Pressure relief device Atmospheric pressure

compensation port

Connector ISO9170-2 or BS6834 standard

connector

Flow of suction 50-80L/min

0.75KPa ,75L/min Resistance

Filter Stainless steel mesh, with pore size

≦2kPa

of 60~100µm

ACGO

Taper coaxial fitting of 22mm Connector

(outside) and 15 (inside)

Back pressure

generated at the rear

end of anesthesia

vaporizer and the frontend of ACGO during quick oxygen charging

Flush O2

100% fast oxygen

Vaporizer

Brand Drager and Penlon available

Locking Vaporizer with interlocking system

(Optional: Two vaporizers)



Automatic Anesthesia machine able to

recognition automatic recognize halogenated

gases

Power (No isolation transformer)

External AC power supply

Input voltage 100~240 V~/ 100~120V~

Input current 3.5~8.5 A/8.5 A

Input frequency 50/60 HzLeakage current $< 500 \mu\text{A}$

Auxiliary output supply

Output voltage 100~240 V~/ 100~120V~

Output frequency 50/60 Hz

Shipment (Freight)

Package size 1230*930*1610 mm

Gross Weight 181.5 kg

*Notice: Specifications subject to changes without prior notice. All rights reserved by COMEN