

## Technical Specification

### Ventilation Modes

VCV(A/C)	PCV(A/C)	PRVC	SIMV(VCV)+PSV
SIMV(PCV)+PSV	SIMV(PRVC)+PSV	SPONT/CPAP+PSV	
BIVENT+PSV	NIV/CPAP	NIV-T	NIV-S/T

### Parameters

• Tidal Volume:	20~2000 ml
• Respiration Rate:	1~80 bpm
• T <sub>insp</sub> :	0.2~9 s
• T <sub>slope</sub> :	0~2 s
• T <sub>pause</sub> :	0~4 s
• I:E Ratio:	1:10~4:1
• FiO <sub>2</sub> :	21%~100%
• Trigger Sensitivity:	Pressure (-20~0 cmH <sub>2</sub> O, above PEEP) Flow (0.5~20 LPM)
• PEEP:	0~35 cmH <sub>2</sub> O
• P <sub>support</sub> :	0~70 cmH <sub>2</sub> O
• P <sub>insp</sub> :	5~70 cmH <sub>2</sub> O

### Special Procedures

Apnea Ventilation	Smart Suction	Manual Breath
Insp/ Exp Hold	ETCO <sub>2</sub> Measurement	
Nebulization	Waveform Freeze	

### Monitoring

• Pressure Value:	P <sub>peak</sub> , P <sub>plat</sub> , P <sub>mean</sub> , P <sub>min</sub> , PEEP
• Volume / Flow Value:	V <sub>ti</sub> , V <sub>te</sub> , MV, MV <sub>spont</sub>
• Time Value:	f <sub>total</sub> , f <sub>spont</sub> , I:E
• Real Time Curves:	Pressure-Time, Flow-Time, Volume-Time waveforms Pressure-Volume, Volume-Flow, Flow-Pressure loops
• Gas Monitoring:	FiO <sub>2</sub> , ETCO <sub>2</sub>
• Calculated Values:	Compliance(C) Resistance(R) MV <sub>leak</sub> RSBI WOB PEEP <sub>i</sub>

### Alarm

Paw high / low	MVe high / low	Circuit disconnect
FiO <sub>2</sub> high / low	Inspiration / Expiratory tidal volume low	
High Respiration Rate	Apnea AC Failure	Nebulizer On
Low Battery	Air /O <sub>2</sub> supply down	High / Low PEEP
Leakage out of range	Occlusion	

### Technical Data

• Screen:	12" TFT color touch screen (detachable)
• Supply Gas:	O <sub>2</sub> , 0.28~0.6 MPa
• Power Supply:	AC100~240 V, 50 Hz/60 Hz
• Communication Interface:	RS-232 Port, Nurse call Port, Ethernet Port
• Dimension (WxDxH):	322 mm x 375 mm x 366 mm (Main Unit) 547 mm x 675 mm x 950 mm (Cart)
• Weight:	12.5 kg (Main Unit) 25 kg (Cart)

Remark: Above configurations include standard and optional. Please check price with your Aeonmed sales representative.

**AEOMED**  
Reliable Quality Thoughtful Service

The information contained in this leaflet is correct at the date of publication. The policy of Beijing Aeonmed Co., Ltd. is one of the continued improvement to its products. Because of this policy, Aeonmed reserves the right to make any change, which may affect the information in this leaflet without giving prior notices.  
AVT70-1902



An Optimal Combination of Invasive and Noninvasive Ventilator

**VG70** Ventilator

CE 0123

**AEOMED**  
Reliable Quality Thoughtful Service

### Superior Mobile ICU ventilator

- Comprehensive ICU ventilator including BIVENT and PRVC
- Compact, big capacity battery, no air compressor, intra-hospital mobility
- Flexible device configuration: equipped on a trolley, bed or ceiling pendant

### Cost Effective Solution

- Unique metal-based, autoclavable, heated exhalation valve
- Built-in flow sensor, non-consumable design
- Upgradeable ventilation system software, with an available USB port



### An Optimal Combination of Invasive and Noninvasive Ventilator

- As noninvasive ventilation is used increasingly in a wide range of clinical situations, we offer a dual solution
- VG70 combines the advantages of a flexible noninvasive ventilator with a full-featured invasive ventilator for the ICU

### Optimal patient-ventilator synchrony, increase patient comfort

- **The Unique Leak Compensation System** - Keep precise control on the tidal volume of each breath delivered to the patient by adjusting compensation dosage automatically
- **Advanced Trigger Technique** - Enhance sensitivity, avoid spurious triggering

Auto-detect and Adjust Leak Compensation

Automatically Adapt to Patient's Breathing Pattern

Multi-parameter Monitoring

### Safe Ventilation Through Whole Treatment Phase

#### Initial Treatment Phase

- Noninvasive ventilation mode associated with decreased intubation rates, shortened patient stays, improved patient comfort, and a reduced risk of cross infection
- Preset patient's height and IBW. Reduce clinician's workload

#### Stable Condition Phase

- PRVC and BIVENT employ lung-protective strategies, delivering intelligent ventilation
- Comprehensive lung mechanics monitoring include compliance, airway resistance, PEEPi and time constant
- Three waveforms & three loops with user-friendly display provide a continuous monitoring of the patient's condition

#### Weaning Phase

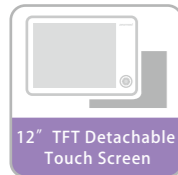
- Various ventilation modes enhance the weaning process
- The unique trigger and leakage compensation system safeguards each and every patient breath resulting in smooth and comfortable breathing, avoiding extra workload on the patient and promoting recovery
- RSBI and WOB provide accurate reference for weaning

#### Rehab Phase

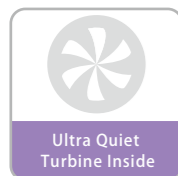
- Data export port provides connection to hospital monitors and Patient Data Management Systems
- Provides pressure support for the patient when spontaneous breathing is present



360° Visible Alarm Lamp



12" TFT Detachable Touch Screen



Ultra Quiet Turbine Inside



Integrated Power Supply Solution



Built-in Battery, With Extended Backup Option





# VG70

Ventilator

TECHNICAL  
DATA

**AEO MED**  
Reliable Quality Thoughtful Service

VG70 is a critical care ventilator suitable for intra-hospital transport and sub-acute care of infants, children and adults. VG70 combines the advantages of a flexible noninvasive ventilator with a full-featured invasive ventilator. It has comprehensive functionality and a user-friendly design. VG70's internal turbine provides needed air pressure with a low sound level and, along with its internal batteries, prepare it fully for mobile use.



### Patient Type

Adult, Child (>3 Kg)

### Ventilation Modes

VCV	SIMV(VCV)+PSV
PCV	SIMV(PCV)+PSV
PRVC	SIMV(PRVC)+PSV
SPONT/CPAP+PSV	BIVENT/APRV+PSV
NIV-T	NIV/CPAP
NIV-S/T	

### Parameter Setting

Tidal volume (Vt)	50-2000 mL (Adult) 20-300 mL (Child)
Compliance compensation	ON/OFF
Pinsp	5-70 cmH <sub>2</sub> O
Psupp	0-70 cmH <sub>2</sub> O
CPAP in NIV	2-20 cmH <sub>2</sub> O
PEEP	0-35 cmH <sub>2</sub> O
PEEP in NIV	2-20 cmH <sub>2</sub> O
Phigh	5-60 cmH <sub>2</sub> O
Plow	0-35 cmH <sub>2</sub> O
Psens	-20-0 cmH <sub>2</sub> O
Vsens	0.5-20 L/min
Tube compensation (%)	0-100
ATC tube type	ET/TT
Esens	5-80 %
Inspiratory time (Ti)	0.2-9 s (Adult) 0.2-5 s (Child)
Backup ventilation Tinsp	0.2-9 s (Adult) 0.2-5 s (Child)
Pause time (Tpause)	0-4 s (Adult) 0-2.5 s (Child)
Rising time (Tslope)	0-2 s
Thigh	0.2-30 s
Tlow	0.2-30 s
Frequency (f)	1-80 bpm
NIV ventilation rate	4-20 bpm (Adult) 4-40 bpm (Child)
SIMV ventilation rate	1-40 bpm
I:E ratio	1:10-4:1
Nebulizer time	30 min or 45 min
O <sub>2</sub> concentration	21-100 %

## Enhancements

Apnea back-up ventilation	
Automatic tube compensation (ATC)	
HFT	Suction
Standby	Screen lock
Print screen	Alarm silence
Nebulization	Expiratory hold
Lung mechanics	Lung recruitment
Manual breath	Waveform freeze
Inspiratory hold	EtCO <sub>2</sub> measurement
Non-invasive ventilation	Leakage compensation

## Monitoring Data

Ppeak	Vti	Rexp	Tispont
Pplat	Vte	Cdyn	FiO <sub>2</sub>
PEEP	MVe	RSBI	FiCO <sub>2</sub>
Pmean	MVespont	Vdaw	EtCO <sub>2</sub>
Pmin	ftotal	I:E	Leak <sub>NIV</sub>
fspont	WOB		

## Lung Mechanics

Rinsp	PEEPi	Cstatic
Elastance	Tc	

## Parameter Monitoring Range

VTi/VTe	0-4000 mL
MVi/MVe	0-60 L/min
FiO <sub>2</sub>	18-100 %
Paw	-20-80 cmH <sub>2</sub> O

## Alarm Setting

High Paw	5-80 cmH <sub>2</sub> O
High MVe	1-60 L/min, OFF
Low MVe	OFF, 0.1-40 L/min
Apnea time	10-60 s, OFF
Frequency (f)	10-80 bpm, OFF
Low PEEP	OFF, 1-35 cmH <sub>2</sub> O
High EtCO <sub>2</sub>	0.1-13.3 %
Low EtCO <sub>2</sub>	0.1-13.2 %, OFF

## Waveform Display

Flow-T	Paw-T	Volume-T	EtCO <sub>2</sub> -T
V-F Loop	P-V Loop	F-P Loop	

## Other Settings

Alarm volume	20, 40, 60, 80, 100 %
Trend	72 H
Log	3000 messages
Screen brightness	Day, Night

## Language

Chinese	English	Other languages
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## Environmental Requirements

Temperature	
Operating condition	5 °C-40°C
Storage condition	-20°C-60°C
Relative humidity	
Operating condition	5-95%
Storage condition	≤95 %
Barometric pressure	
Operating condition	70-106 kPa
Storage condition	70-106 kPa

## Electrical

AC voltage	100-240 V, 50/60 Hz
DC voltage	12-24 V,
One battery run time	Minimum 2 hours
Two batteries run time	Minimum 4 hours

## Gas Supply

Supply pressure (O <sub>2</sub> )	280-600 kPa (41-87 psi)
Connection standard	DISS, NIST
Low-flow oxygen inlet	≤600 kPa (pressure) ≤15 L/min (flow)

## Physical Specifications

Dimension (main unit)	322*375*366 mm
Main unit weight	12.5 kg
Cart weight	25 kg
Screen size	12" color touch screen
Communication ports	Nurse call port Ethernet port RS-232 port CO <sub>2</sub> port USB port VGA port

Data of Package

Type : Aeonmed VG70 ICU Ventilator

2 Carton Box Per Unit

**Main Unit** Dimension: 650\*530\*940, Gross Weight 29KG

**Trolley** Dimension: 800\*700\*1150, Gross Weight: 37KG



<b>VG70 Ventilator Configuration List (European Std 112000079)</b>			
<b>Standard</b>			
<b>Part Number</b>	<b>Name</b>	<b>Description</b>	<b>Qty</b>
<input type="checkbox"/> 112000079	VG70 Ventilator	Include VG70 Ventilator Main Unit and Accessory	1
<input type="checkbox"/> 121000675	VG70 Ventilator Main Unit	Electronically driven and controlled, built-in flow and pressure sensor, built-in oxygen blender, Include Screen	1
<input type="checkbox"/> 122009883	Accessory	European Standard	1
<input type="checkbox"/> 130013843	VG70 Ventilator User Manual	User manual	1
<input type="checkbox"/> 210002134	Power cable	European standard,5M	1
<input type="checkbox"/> 130000231	Diaphragm		2
<input type="checkbox"/> 130009651	Water Trap		1
<input type="checkbox"/> 130004094	Cover		1
<input type="checkbox"/> 130001347	One-way diaphragm		1
<input type="checkbox"/> 130015084	Tool to disassemble exhalation valve		1
<input type="checkbox"/> 130010423	Fan filter		1
<input type="checkbox"/> 130004358	Filter Core		1
<input type="checkbox"/> 130003930	Filter		1
<input type="checkbox"/> 230000728	Nebulizer		1
<input type="checkbox"/> 210003734	Internal battery RRC2024	Lithium Battery	1
<input type="checkbox"/> 210001975	Oxygen sensor		1
<input type="checkbox"/> 210003856	Fuse T3.15AH250V		2
<input type="checkbox"/> 230000934	Adult breathing circuit kit	Include : five Silicone threaded circuit $\Phi$ 22、one Y-piece、two Water traps、one L-tie-in	2
<input type="checkbox"/> 230000951	800-21001Adult Test lung		1
<input type="checkbox"/> 230001094	Face Mask (L)	RAP-422 Adult ,English, with head band, NIV silicone mask	1
<input type="checkbox"/> 230001187	Elbow(inner diameter 22mm)	Must choose when face mask is chosen	1
<input type="checkbox"/> 230000952	800-51900-11Bacterial filter	Reusable	2
<input type="checkbox"/> 122006184	Oxygen inlet filter		1
<input type="checkbox"/> 122000048	Oxygen pipe line	European Standard	1
<input type="checkbox"/> 240001190	VH3000 humidifier	220V,European standard	1
<input type="checkbox"/> 122007662	Cart assembly (220V)	Include cart, power supply unit and etc. European standard.	1
<input type="checkbox"/> 240000030	Arm		1
<b>Total price</b>			



Benannt durch/Designated by  
Zentralstelle der Länder  
für Gesundheitsschutz  
bei Arzneimitteln und  
Medizinprodukten  
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Product Service

## EC Certificate

Full Quality Assurance System

Directive 93/42/EEC on Medical Devices (MDD), Annex II excluding (4)  
(Devices in Class IIa, IIb or III)

**No. G1 065725 0019 Rev. 01**

**Manufacturer:**

**Beijing Aeonmed Co., Ltd.**

Room 405  
Basement 1 to 4th Floor of 901 Unit  
Building 9, No.26 Outer Ring West Road  
Fengtai District  
100070 Beijing  
PEOPLE'S REPUBLIC OF CHINA

**EC-Representative:**

**Shanghai International Holding Corp. GmbH  
(Europe)**

Eiffestraße 80, 20537 Hamburg, GERMANY

**Product Category(ies): Anaesthetic Workstation, Vaporizer,  
Ventilator, Medical Air Compressor,  
Infusion Pump, Ceiling Pendant,  
Multi-Parameter Patient Monitor,  
Videoscope System, Patient Warming  
System.**

The Certification Body of TÜV SÜD Product Service GmbH declares that the aforementioned manufacturer has implemented a quality assurance system for design, manufacture and final inspection of the respective devices / device categories in accordance with MDD Annex II. This quality assurance system conforms to the requirements of this Directive and is subject to periodical surveillance. For marketing of class III devices an additional Annex II (4) certificate is mandatory. See also notes overleaf.

**Report No.:**

BJ19859044

**Valid from:**

2019-07-16

**Valid until:**

2022-05-03

**Date,**

2019-07-16

Stefan Preiß  
Head of Certification/Notified Body

UV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD  
ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT





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Product Service

# EC Certificate

Full Quality Assurance System

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**No. G1 065725 0019 Rev. 01**

## Facility(ies):

Beijing Aeonmed Co., Ltd.  
 Room 405, Basement 1 to 4th Floor of 901 Unit, Building 9, No.26  
 Outer Ring West Road, Fengtai District, 100070 Beijing,  
 PEOPLE'S REPUBLIC OF CHINA

Beijing Aeonmed Co.,Ltd.  
 No. 10 Chaobai Street, Yingbin Road West, Yanjiao Development  
 Zone, 065201 Langfang City, Hebei Province, PEOPLE'S  
 REPUBLIC OF CHINA

TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD TÜV SÜD  
 ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT

Certificate Number CN19/41152

The management system of

# Beijing Aeonmed Co., Ltd.

Room 405, Basement 1 to 4<sup>th</sup> Floor of 901 Unit, Building 9,  
No.26 Outer Ring West Road, Fengtai District, Beijing, 100070, P.R. China

Dun & Bradstreet D-U-N-S identification number : 52-758-6284

has been audited against the criteria stated below and found to conform to those criteria for the scope  
contained in this certificate



## MDSAP (ISO 13485:2016)

Brazil:

RDC ANVISA n. 16/2013 / RDC ANVISA n. 23/2012 /RDC ANVISA n. 67/2009

United States:

21 CFR 820 / 21 CFR 803 / 21 CFR 806 / 21 CFR 807 – Subparts A to D / 21 CFR 821

For the following activities and devices

**See second page for the scope.**

The certificate is valid from  
Effective Date: 2019-12-12 until Expiry Date: 2022-12-11  
and remains valid subject to satisfactory surveillance audits.  
Re certification audit due before 2022-09-20  
Issue 1. Certified since 2019-12-12

Authorised by J Hall  
Business Manager



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SGS United Kingdom Ltd is an MDSAP authorized auditing organization

MDSAP M2

Page 1 of 2



Certificate Number CN19/41152, continued

The management system of

# Beijing Aeonmed Co., Ltd.

## MDSAP (ISO 13485:2016)

Issue 1

Detailed scope

**Design and Development, Production, Distribution, and Servicing of Anesthesia Workstation, Ventilators, Medical Air Compressors, Vaporizers, for the area of anesthesiology, intensive care, respiratory therapy. Contract manufacturing of Operating tables and contract manufacturing and installation of Surgical Lights, for use in the area of Operating Room, ICU**

**Facility Activities:**

**Design and Development of Anesthesia Workstation, Ventilators, Medical Air Compressors, Vaporizers, for the area of anesthesiology, intensive care, respiratory therapy.**



Additional facilities

**No.10 Chaobai Street, Yingbin Road West, Yanjiao Development Zone, Langfang City, Hebei Province, 065201, P.R. China**

Dun & Bradstreet D-U-N-S identification number : 55-448-8089

Detailed scope

**Production, Distribution, and Servicing of Anesthesia Workstation, Ventilators, Medical Air Compressors, Vaporizers, for the area of anesthesiology, intensive care, respiratory therapy.**

**Contract manufacturing of Operating tables and contract manufacturing and installation of Surgical Lights, for use in the area of Operating Room, ICU**



# EC DECLARATION OF CONFORMITY

ACCORDING TO ANNEXII WITHOUT CHAPTER 4 OF COUNCIL DIRECTIVE 93/42/EEC AND EN ISO 13485: 2016

MANUFACTURER: BEIJING AEONMED CO., LTD.  
 ADDRESS: Room 405, Basement 1 to 4th Floor of 901 Unit, Building 9, No.26  
 Outer Ring West Road, Fengtai District, Beijing 100070, China.  
 FACILITY: BEIJING AEONMED CO., LTD.  
 ADDRESS: No.2 factory, Block B, 10 Chaobai Street, Yingbin Road West, Yanjiao  
 Development Zone, 065201, Langfang, Hebei, China  
 EC REPRESENTATIVE: SHANGHAI INTERNATIONAL HOLDING CORP. GmbH (EUROPE)  
 ADDRESS: EIFFESTRA ßE 80 20537 HAMBURG GERMANY

DECLARE ON OUR OWN RESPONSIBILITY THAT

MEDICAL DEVICE	NAME	TYPE/ MODEL	Serial Number
1	Ventilator	VG70	VG70 (E) xxxxxxxx
		VG60	VG60 (E) xxxxxxxx
		VG50	VG50 (E) xxxxxxxx

GMDN NAME AND CODE: Ventilator, Intensive Care 17429

CLASSIFICATION: II b, RULE 11

CONFORMITY ASSESSMENT ROUTE: ANNEX II WITHOUT CHAPTER 4

WE HEREWITH DECLARE THAT ABOVE MENTIONED PRODUCTS MEET THE PROVISIONS OF THE COUNCIL DIRECTIVE 93/42/EEC CONCERNING MEDICAL DEVICES. ALL SUPPORTING DOCUMENTATION IS RETAINED UNDER THE PREMISES OF THE MANUFACTURER.

THE MANUFACTUREER IS EXCLUSIVELY RESPONHSIBLE FOR THE DECLARATION OF CONFORMITY.

All APPLICABLE HARMONIZED STANDARD (PUBLISHED IN THE OFFICIAL JOURNAL OF THE EUROPEAN COMMUNITIES)

EN 60601-1: 2006/AC: 2013	EN1041:2013	ISO 13485:2016
EN 60601-1-2: 2015	EN ISO 14971:2012	ISO80601-2-12:2011
EN 60601-1-8: 2007/AC: 2013	EN 62366-1:2015	EN 62304:2015
EN 60601-1-6: 2015	ISO80601-2-55:2018	

NOTIFIED BODY: TÜV SÜD PRODUCT SERVICE GmbH

ADDRESS: RIDLERSTR Aß E65 80339 MÜNCHEN

IDENTIFICATION NUMBER: 0123

EC CERTIFICATE: G1 065725 0019 Rev.01

START OF CE-MARKING: 2013-11-30

QUALITY DIRECTOR: Wei Wang

PLACE: BEIJING

SIGNATURE:

DATE:

Wang Wei  
2019.7.26

# *EC DECLARATION OF CONFORMITY*

ACCORDING TO ANNEXII WITHOUT CHAPTER 4 OF COUNCIL DIRECTIVE 93/42/EEC AND EN ISO 13485: 2016

**TYPE : VG70/VG60/VG50**

Rev.	Description	Draft	Audit	Approve
1.00	the first edition	Li Wei 2013-12-10	Zhao Yanhui 2013.12.10	Tang Guohong 2013.12.10
1.01	change the No. of EC CERTIFICATE	Zhao yanhui 2015-5-4	Chen Jing 2015-5-4	Wang Wei 2015-5-4
1.02	Modify the EC CERTIFICATE	Wang Liping 2017-12-07	Zhao yanhui 2017-12-07	Wang wei 2017-12-07
1.03	Standard update Add facility information	Wang jijuan 2018-11-1	Zhao yanhui 2018-11-1	Wang wei 2018-11-1
1.04	Change Address and certification number	Wang Jijuan 2019-07-26	Zhao yanhui 2019-07-26	Wang wei 2019-07-26