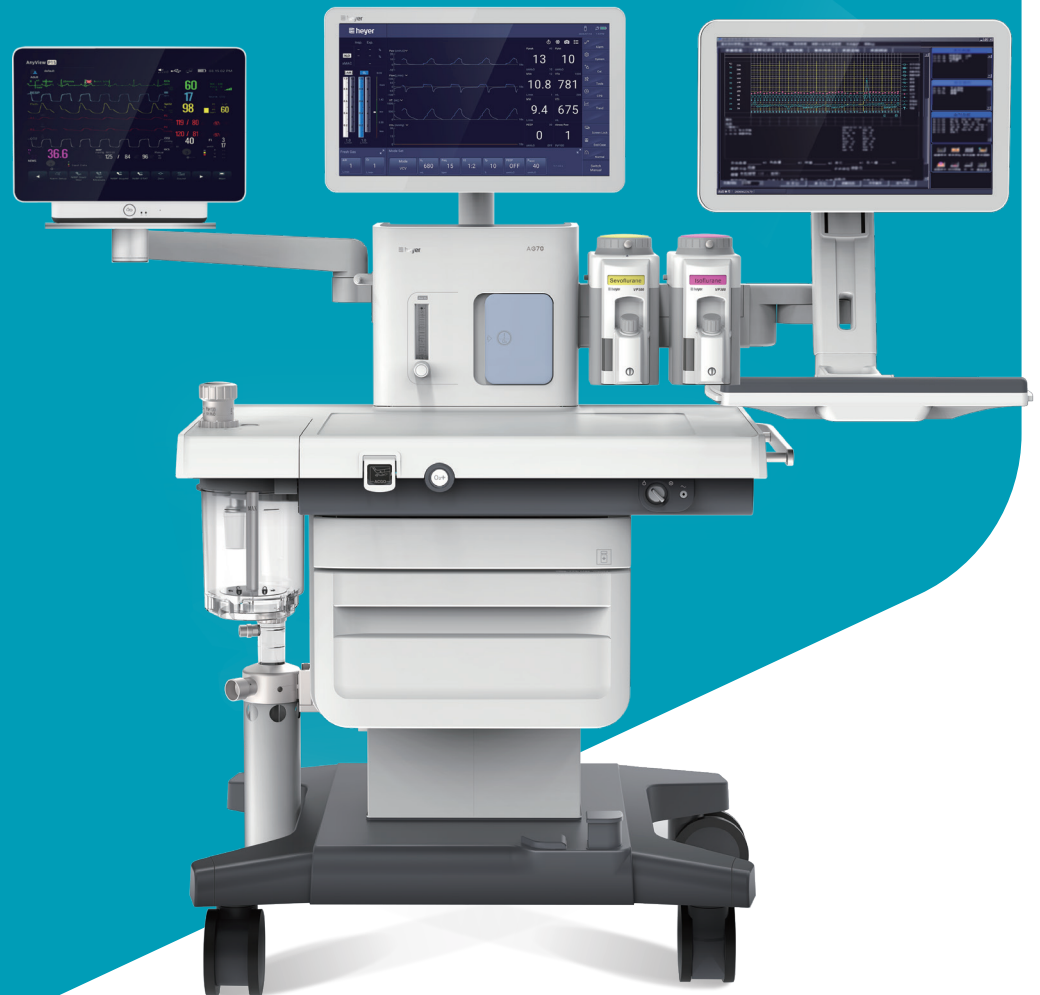


AG70

Larger, Smarter, Easier, Safer

A brand-new era of heyer coming from past, innovated from last.
The high-end anesthesia workstation launched for both clinicians
and patients to have a better experience perioperatively.



- Strong and advanced clinical tools, functions and parameters such as lung protective ventilation, anesthesia depth monitoring, diverse ventilation modes and induction, resuscitation tools to help clinicians get a better working experience also give patients a better outcome
- New ergonomic design balanced UI operating experience and clinical requirement
- Volume reflector breathing system, reducing the system capacity, ensures a faster response of agent concentration changing
- 18.5" high resolution touch screen for a more intuitive observation with showing more clinical information
- Gas-electricity isolated design for a clean, tidy and safe OR environment

Technical Specifications

BASIC UNIT

Dimensions(H*W*D)		Caster locking	
1405*870*760mm		Braking type	125mm, Central brake system
Weight and load		Power and battery backup	
Excluding vaporizers	110kg	Power input	AC 100~240 V, 50/60 Hz
Including vaporizers	130kg	Power output	4 sockets, 1.5A individual
Work surface load	25kg	Battery and operation time with fully charged	Lead-acid, 90 min

ANESTHESIA GAS SUPPLY MODULE

Gas supply	O ₂ , N ₂ O, Air; 280~600kPa	Cylinder yokes	Optional: O ₂ , N ₂ O, Air
Flowmeter	Electronically controlled mixer	O ₂ flush	25~75L/min
Auxiliary common gas outlet (ACGO)	Standard	Anesthetic Gas Scavenging System (AGSS)	Optional
Range of flowmeter	0~19L/min or set each gas independently: O ₂ , N ₂ O: 0~10L/min; Air: 0~12L/min		

Vaporizer

Agent	Sevoflurane, Halothane, Enflurane, Isoflurane	Installation mode	Selectatec with interlock
Filling type	Pour-fill, Key-fill, Quik-fil		

Breathing system

Type	Volume reflector	Heating system	32~40°C
Volume of CO ₂ absorber	1.5L for single canister	APL range	Spontaneous breathing (SP)~70 cmH ₂ O
CO ₂ bypass	Optional		

VENTILATOR OPERATING SPECIFICATIONS

Control input ranges				
Freq 2~100 bpm	I:E 4:1~1:8	Vt 10~1500 ml	T _{INSP} 0.2~5.0 s	P _{TARGET} 5~70 cmH ₂ O
P _{MAX} 10~100 cmH ₂ O	T _{SLOPE} 0.2~2 s	ΔP 3~60 cmH ₂ O	PEEP OFF, 3~50 cmH ₂ O	Trigger 0.5~15 L/min / -20~-1 cmH ₂ O
Compensation	Compliance and leakage compensation, fresh gas compensation, altitude compensation			
Ventilator	Pneumatically driven, Electronically controlled			
Ventilation modes-standard	VCV, PCV, Manual/Spontaneous			
Ventilation modes-optional	PCV-VG, SIMV-VC, SIMV-PC, SIMV-VG, PS/CPAP, BIVENT, APRV, VSV			

Ventilator monitoring & alarm

Monitoring	Vt, MV, Freq, Ppeak, Pmean, Pplat, DP, SI, FiO ₂ , FiCO ₂ , EtCO ₂ , PEEP, Battery status display
Screen	18.5" TFT color touch screen
Graph display	Waveforms of P-t, F-t, V-t, EEG, Agent, CO ₂ ; loops of P-V, V-F, P-F, V-CO ₂
Alarm	Excessive leakage, Low oxygen source pressure, High air source pressure, High airway pressure, Low oxygen concentration, Excessive output tidal volume, High concentration of N ₂ O inhaled, High concentration of ISO/SEV/ENF/HAL/DES inhaled, persistent high airway pressure, Bypass mode started(1 minute), Apnea, etc.



CORPORATE HEADQUATER

HEYER Medical AG
Carl-Heyer-Str. 1/3, 56130 Bad Ems, Germany
www.heyermedical.de

HEYER Medical AG

Carl-Heyer-Str. 1/3, 56130 Bad Ems, Germany
Tel: +49 2603 791 0
Fax: +49 2603 791 200
info@heyarmed.com

HEYER Medical Co., Ltd.

No.10, Chaobai Street, Yanjiao Development Zone
065201, Sanhe City, Hebei, China
Tel: +86 10 5841 1198
Fax: +86 10 6371 8989
marketing@heyarmed.com

AG70

High-end Anesthesia Workstation

International Product Marketing Department/Charlie
2022.09.28



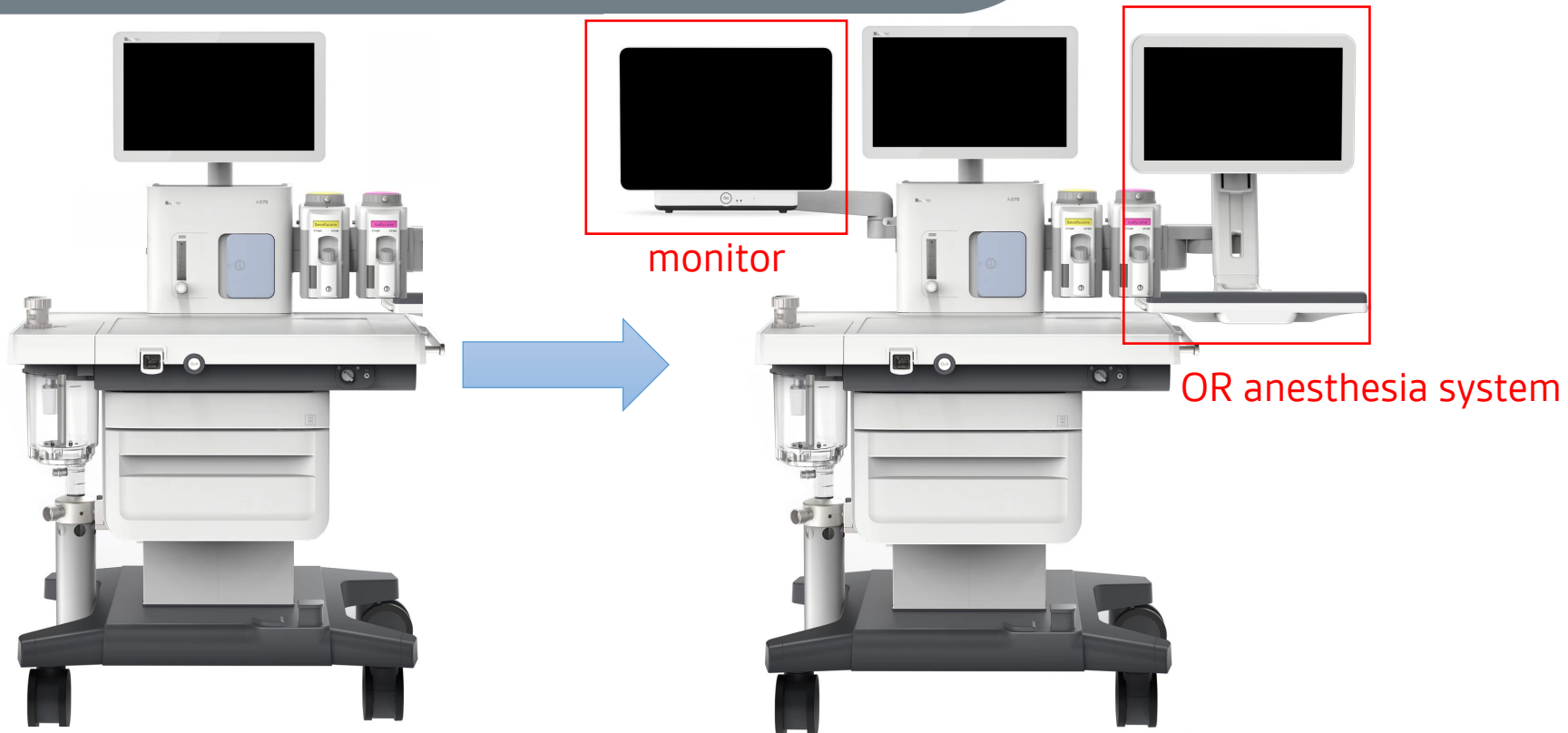
Contents

- Ergonomic design for a better experience
- Modern electrical indicator for a quicker response and green planet
- Intelligent clinical tools to make it easy



➤ Ergonomic design for a better experience

Look

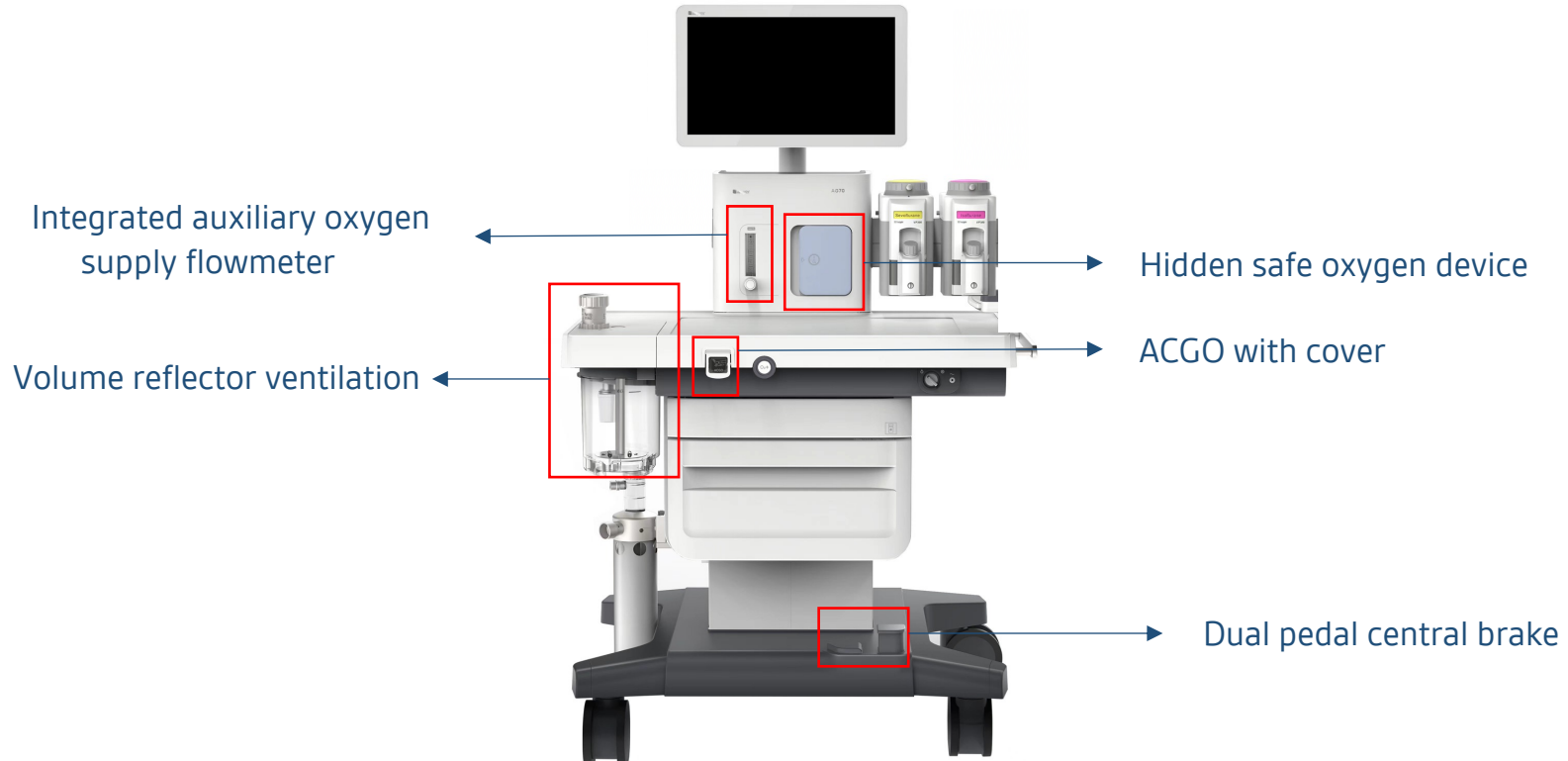


Hardware

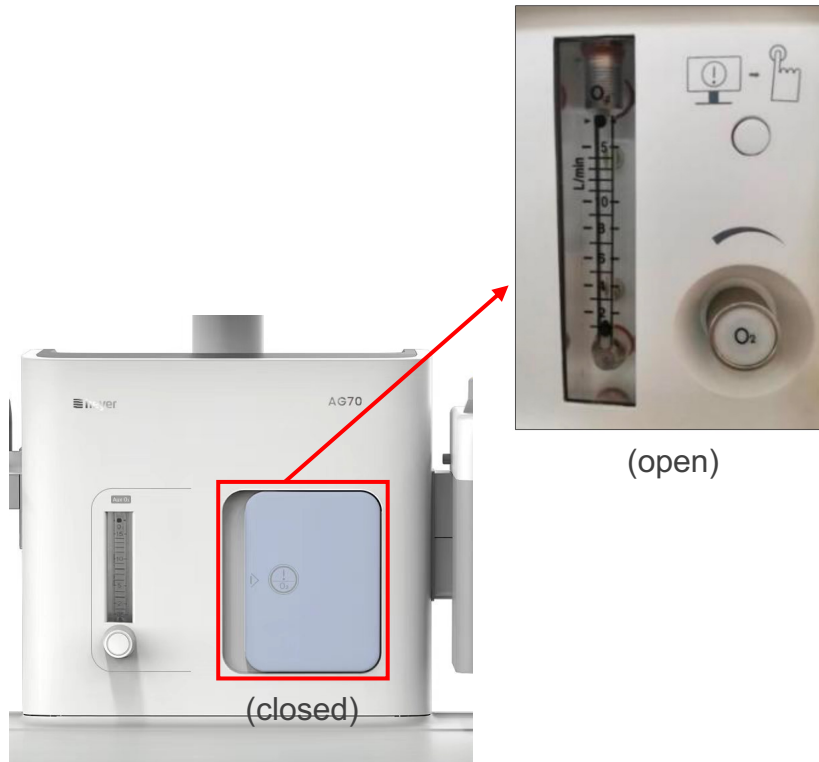


- **18.5 inch Capacitive Touch Screen**
Can achieve 180° horizon rotation and 30° vertical pitch adjustment.
- **Oversize Workbench**
The usable area can be tiled 3 sheets of A4 paper.
- **Double Drawer Design**
The upper drawer can be used as medication box, no handle design, press to pop out. The lower drawer as a large.

Hardware

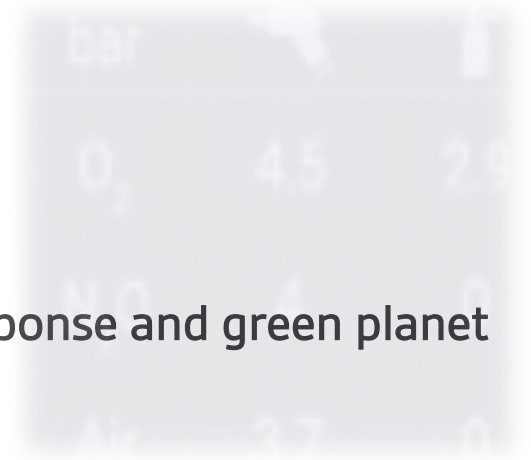
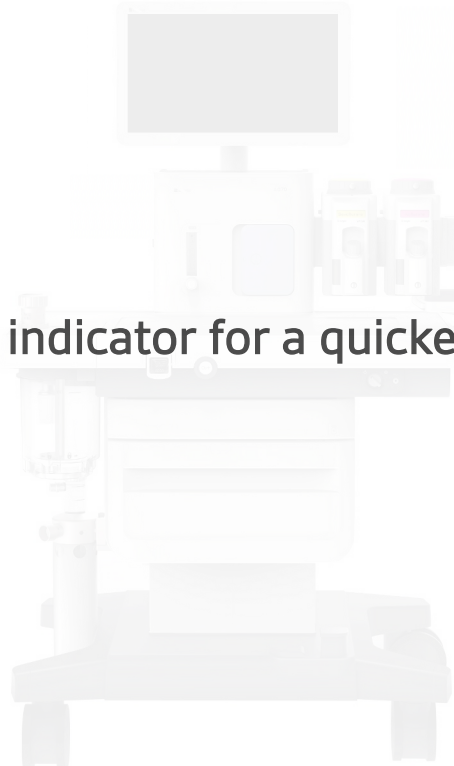
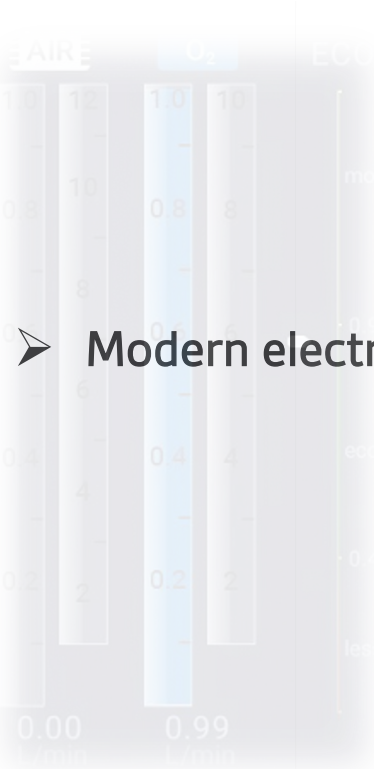


Safe Oxygen



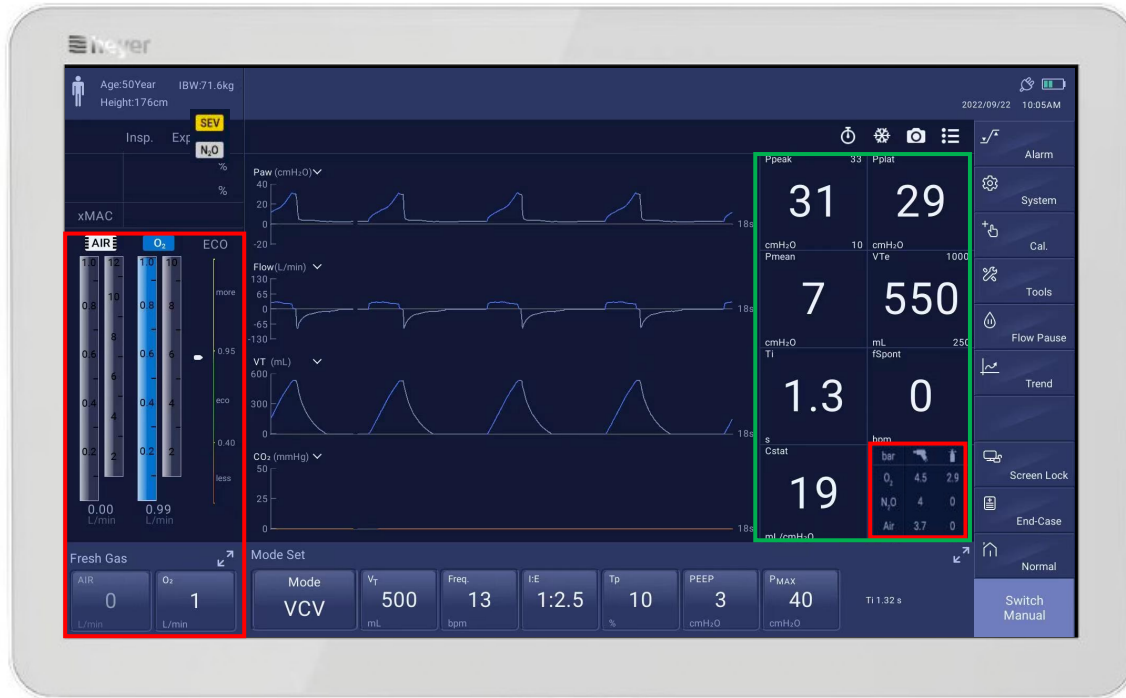
Safe Oxygen

- When the display screen fails or the power supply fails, the safety oxygen device may be used to enable manual ventilation.
- The output of oxygen is controlled by regulating the safe oxygen flowmeter.



➤ **Modern electrical indicator for a quicker response and green planet**

User-friendly UI Interface



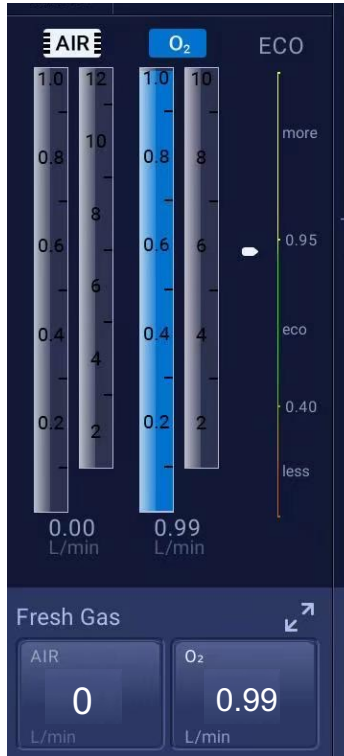
➤ Monitoring Parameters

- 30+ monitoring parameters
- Can display maximum 16 parameters at the same time

➤ Electronical Indicators

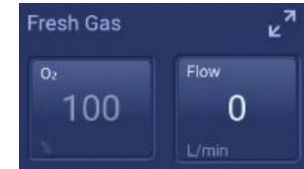
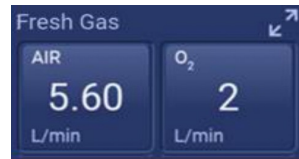
- Flowmeter
- Pressure gauge

Electronically-Controlled Flowmeter



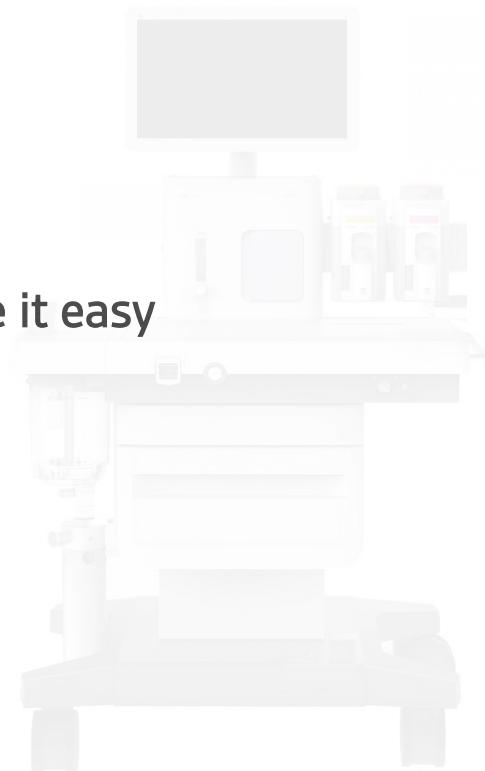
High Precision Electronically-Controlled Flowmeter

- Digital gas mixture and electronic setting, more precise.
- Two setting methods:
 1. Set each flow of air and O₂.
 2. Set total flow and O₂ concentration

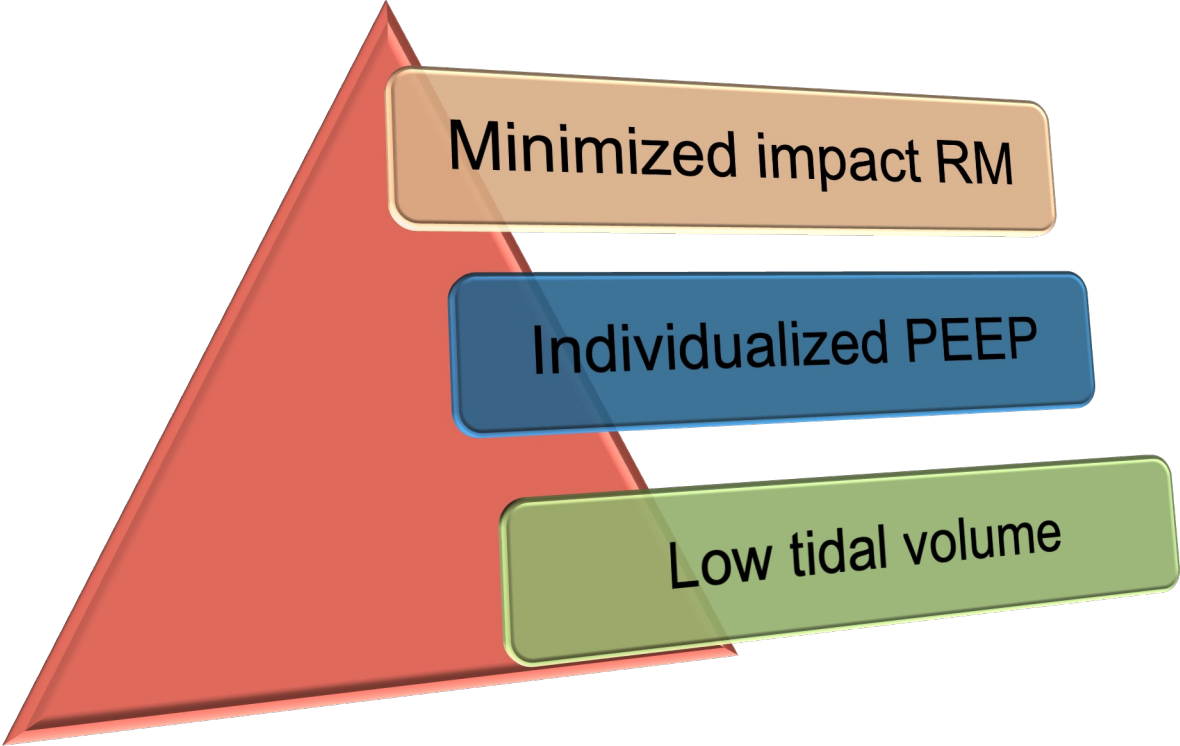


- With Eco-optimizer to tip if the flow is appropriate, ensuring patients' safety and reducing gas waste.

➤ Intelligent clinical tools to make it easy



Lung Protective Ventilation

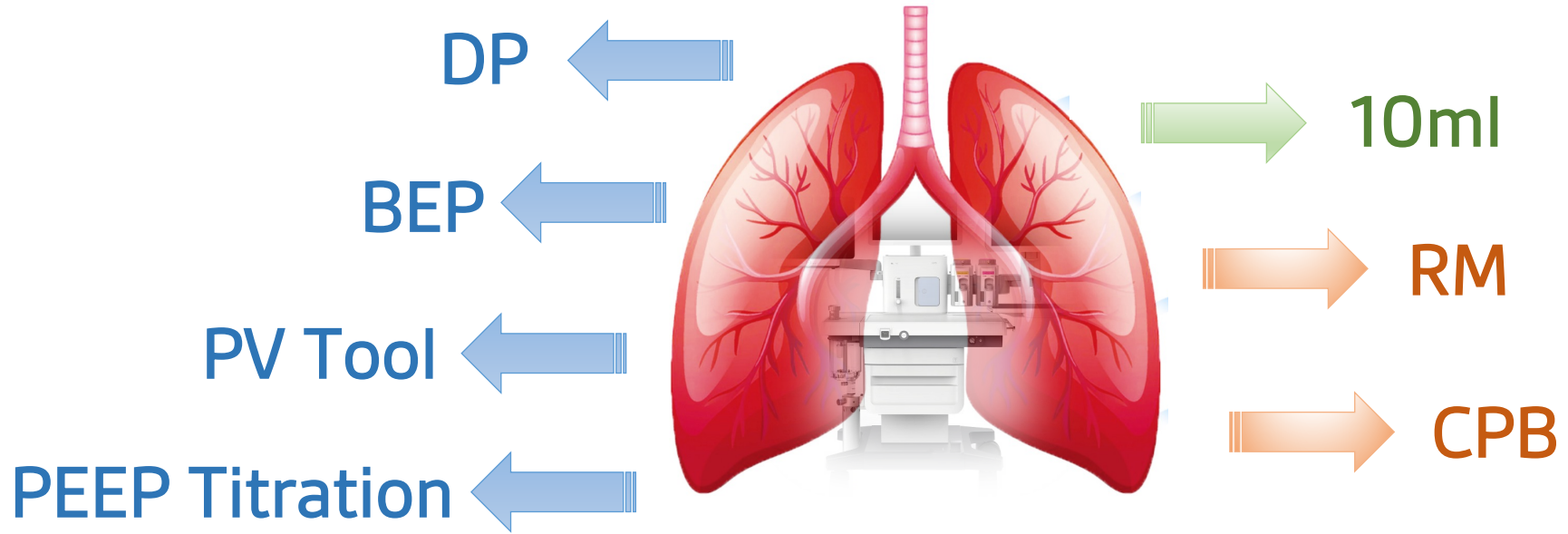


Minimized impact RM

Individualized PEEP

Low tidal volume

Lung Protective Ventilation



Ventilation modes



Comprehensive Ventilation Modes :

10-1500ml

Manual/Spontaneous

Volume control (VCV)

Pressure control (PCV)

Pressure Controlled Ventilation Volume Guaranteed (PCV-VG)

Synchronized Intermittent Mandatory Ventilation in Volume (SIMV-VC)

Synchronized Intermittent Mandatory Ventilation in Pressure (SIMV-PC)

Synchronized Intermittent Mandatory Ventilation in PCV-VG (SIMV-VG)

Pressure Support (PS) / Continuous Positive Airway Pressure (CPAP)

Bilevel Positive Airway Pressure Ventilation (BIVENT)

Airway Pressure Release Ventilation (APRV)

Volume Support Ventilation (VSV)

MANUAL

VCV

PCV

SIMV-VC

SIMV-PC

SIMV-VG

PCV-VG

BIVENT

PS/CPAP

VSV

APRV

Waveforms & Loops



Waveforms:

P-t (Paw)

F-t (Flow)

V-t (Volume)

CO₂ waveform

Agent waveform

...



Loops:

P-V (Pressure-Volume)

V-F (Volume-Flow)

P-F (Pressure-Flow)

V-CO₂ (Volume-CO₂)

Monitoring parameters

➤ DP (Driving Pressure)

- * The DP is defined as V_T divided by respiratory system compliance Lower DP.
- * Lower PPCs, Lower mortality.

➤ BEP=SI (Stress Index)

- * The SI shows in $>1 <1$, it could give a different suggestion to decrease or increase PEEP and V_t .
- * Indicator that whether alveolar recruitment with or without overdistension.

Clinical Tools

- Set the tool shortcut key as your need

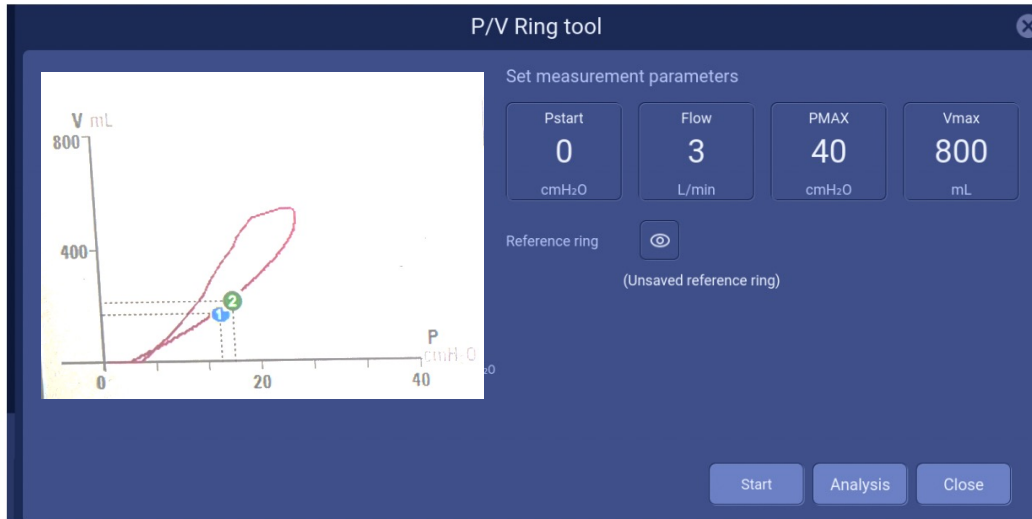


- Clinical tools

- APA**
Use the stretch index to titrate PEEP to help you determine the PEEP that is appropriate for your patient.
- RM Tool**
Help alveolar reinflation
- PV Tool**
Tracing the pressure-volume loop select appropriate PEEP of patient.
- CPB**
provide lung protection ventilation during CPB turn off alarm.
- Flow Pause**
Turn off fresh gas flow and stop ventilation for 60 sec. turn off alarm.

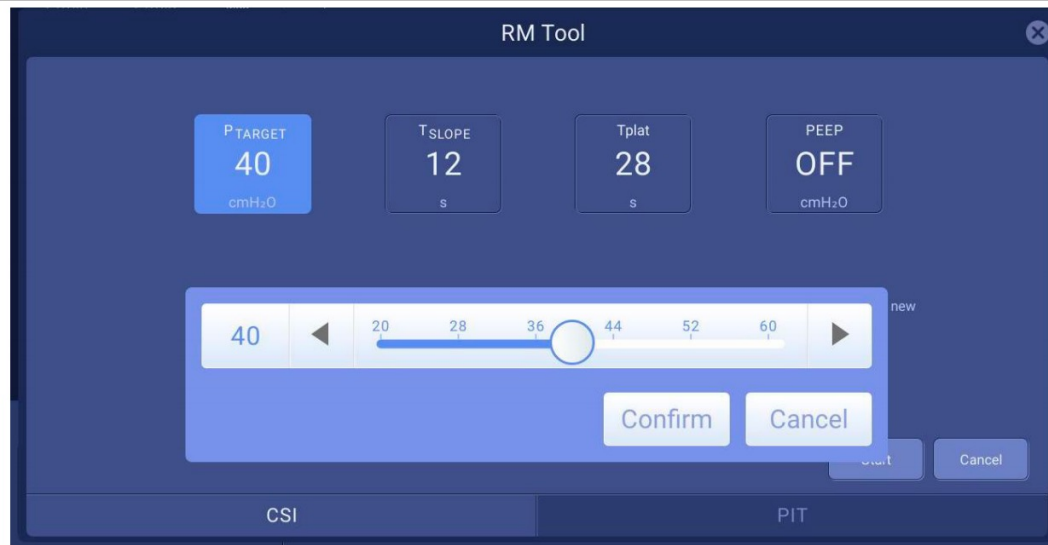
...

PV Tool



- To help set individualized PEEP determine if the lung is recruitable and the lower and upper inflection points also where to set your PEEP level.
- To help set suitable tidal volume

RM Tool



➤ Recruitment Maneuver

➤ Two ways

- Controlled pulmonary inflation
- PEEP increment

CPB Tool



- Cardiopulmonary Bypass
- To achieve lung protection during chest-open surgery
- Window contents
 - VCV or PS/CPAP
 - Pause ventilate
 - Alarm off

Looking up at the stars
Moving forward with dreams



Product Service

Certificate

No. Q5 002954 0004 Rev. 00

Holder of Certificate: **HEYER Medical Co., Ltd.**

No.2 Factory, Block B
No.10 Chaobai Street
Yingbin Road West, Yanjiao Development Zone
065201 Sanhe, Langfang City, Hebei Province
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Scope of Certificate: **Design and Development, Production, Distribution, Installation and Service of Anesthetic Workstation, Ventilator, Medical Air Compressor, Operating Table, Delivery Table, Surgical Light, Vaporizer, Respiratory Humidifier.**

The Certification Body of TÜV SÜD Product Service GmbH certifies that the company mentioned above has established and is maintaining a quality management system, which meets the requirements of the listed standard(s). All applicable requirements of the testing and certification regulation of TÜV SÜD Group have to be complied with. For details and certificate validity see:

www.tuvsud.com/ps-cert?q=cert:Q5 002954 0004 Rev. 00

Report No.: BJ21041701_2

Valid from: 2021-12-06

Valid until: 2024-07-08

Date, 2021-12-06

Christoph Dicks

Head of Certification/Notified Body

See Scope of Certificate



Benannt durch/Designated by
Zentralstelle der Länder
für Gesundheitsschutz
bei Arzneimitteln und
Medizinprodukten
www.zlg.de
ZLG-BS-244.10.08



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 002954 0002 Rev. 01

Manufacturer:

HEYER Medical Co., Ltd.

No.2 Factory, Block B

No.10 Chaobai Street

Yingbin Road West, Yanjiao Development Zone

065201 Sanhe, Langfang City, Hebei Province

PEOPLE'S REPUBLIC OF CHINA

Product Category(ies): Anesthetic Workstation, Ventilator, Medical Air Compressor, Vaporizer, Respiratory Humidifier.

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.:

BJ19041702

Valid from:

2020-02-25

Valid until:

2023-07-08

Date,

2020-02-25

Christoph Dicks

Head of Certification/Notified Body



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 002954 0002 Rev. 01

Facility(ies):

HEYER Medical Co., Ltd.

No.2 Factory, Block B, No.10 Chaobai Street, Yingbin Road West,
Yanjiao Development Zone, 065201 Sanhe, Langfang City, Hebei
Province, PEOPLE'S REPUBLIC OF CHINA



Benannt durch/Designated by
Zentralstelle der Länder
für Gesundheitsschutz
bei Arzneimitteln und
Medizinprodukten
www.zlg.de
ZLG-BS-244.10.08



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 002954 0002 Rev. 01

Manufacturer:

HEYER Medical Co., Ltd.

No.2 Factory, Block B

No.10 Chaobai Street

Yingbin Road West, Yanjiao Development Zone

065201 Sanhe, Langfang City, Hebei Province

PEOPLE'S REPUBLIC OF CHINA

Product Category(ies): Anesthetic Workstation, Ventilator, Medical Air Compressor, Vaporizer, Respiratory Humidifier.

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.:

BJ19041702

Valid from:

2020-02-25

Valid until:

2023-07-08

Date,

2020-02-25

Christoph Dicks

Head of Certification/Notified Body

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



Benannt durch/Designated by
Zentralstelle der Länder
für Gesundheitsschutz
bei Arzneimitteln und
Medizinprodukten
www.zlg.de
ZLG-BS-244.10.08



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 002954 0002 Rev. 01

Facility(ies):

HEYER Medical Co., Ltd.
No.2 Factory, Block B, No.10 Chaobai Street, Yingbin Road West,
Yanjiao Development Zone, 065201 Sanhe, Langfang City, Hebei
Province, PEOPLE'S REPUBLIC OF CHINA