

Animal Surgery and Modeling Solution



Animal Administration and Blood Sampling Solution



In Vivo Imaging Solution



Pathological Section Solution



Neural Signal Research Solution



Cellular and Molecular Biology Research Solution



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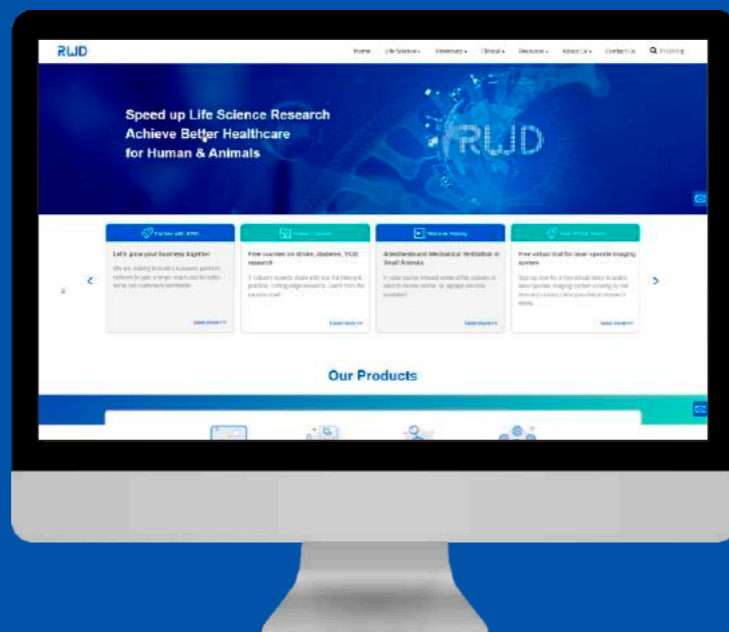
PRODUCT CATALOGUE

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Speed up Life Science Research Achieve Better Healthcare for Human & Animals



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Inhalation Anesthesia Solutions

Advantages of Inhalation Anesthesia:

- Can offer an improved level of control over depth and duration of anesthesia, especially for prolonged procedures.
- Relatively insolubility and faster elimination in blood enables rapid recovery.
- Be of rapid onset and offset with minimal side effects.
- Have little or no toxic effect thanks to non-metabolism characteristic of sevoflurane and isoflurane.
- Be safer and more efficient performance to reduce morbidity rates and increase the chance for successful outcomes.

Small Animal Anesthesia Machines



Compact



Multi-output



TAIJI Small
Anesthesia Machine



VentStar Ventilator

Veterinary Anesthesia Machine



Portable



Intelligent
animal ventilator



R420 Veterinary
Electric Turbo Ventilator

Complete Anesthesia and Respiration Solutions ▶

Multi-function Anesthesia Solutions



The experimental system is equipped with a gas recovery system to provide a safe experimental environment to maximize the protection of the operator; by replacing different types of anesthesia machines and masks to meet the needs of animal experiments, such as cerebral ischemia and myocardial ischemia model, osteoporosis model, tail vein injection, abdominal aorta blood sampling, heart blood sampling, ventricular injection, tissue / organ removal and other animal surgery experiments.

Stereotaxic Anesthesia Solutions



By changing the different types of stereotaxic instruments and adaptors to meet the needs of different animal experiments, such as the neurological disease models (such as Parkinson, Alzheimer's disease, craniocerebral injury, spinal cord injury, etc.), brain drug injection, Cannula Implantation (long term repeated administration), physiology experiment (such as nerve stimulation, signal recording, wireless telemetry, etc.), microdialysis experiments (probe implantation and short-term dialysis) and other experiments.

Combination Solutions of Ventilator to Anesthesia System

Small animals



This program is the combination of anesthesia machine and ventilator. While keeping the animal under anesthesia, it provides a certain volume (tidal volume) of oxygen and respiratory rate to support the normal breathing of animals.

It can meet the requirements of long surgeries or surgeries on animals suffering from certain diseases (such as cardiovascular and cerebrovascular diseases, hypertension, cerebral infarction, thrombosis), it's suitable for mice, rats, rabbits, cats and other animals within 1kg.

Large animals



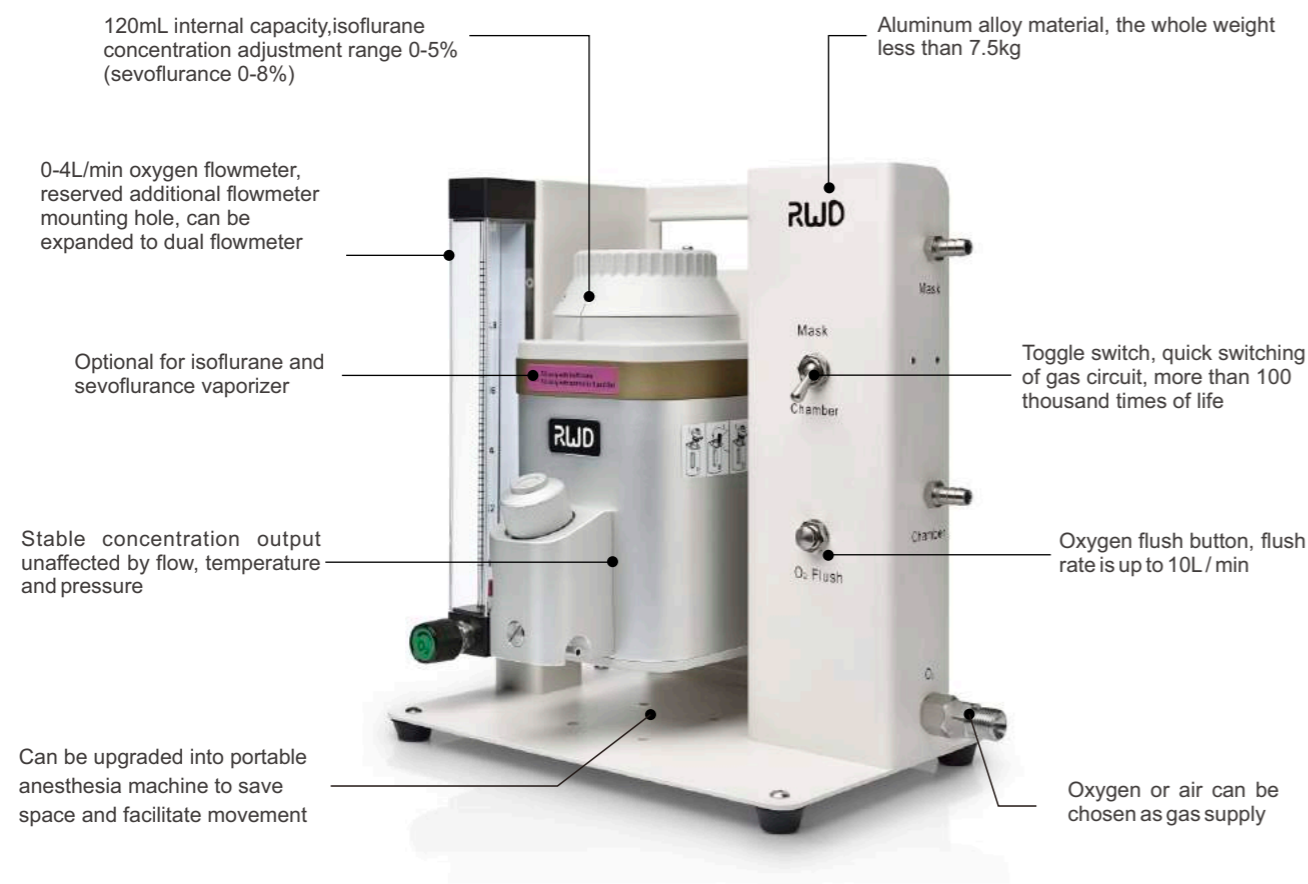
This program is suitable for the anesthesia and auxiliary respiration of animals within 100kg, such as pigs, monkeys, dogs and cats.

Small Animal Anesthesia Machines ▶

Suitable for rats, mice, hamsters, guinea pigs, rabbits, cats and other animals within 7kg

R500 Compact Anesthesia Machine

Regular assembly (R500-A), vaporizer(R580), Inlet/Outlet End Caps(R580-IO) and tube accessory kit are included in the R500 anesthesia machine. Different air supply, induction chambers, small animal masks, filter canisters and gas evacuation apparatuses can be selected for anesthesia recovery of different animals.



Note: Oxygen flush is commonly used to flush out anesthetic gas to the filter canister before opening the induction chamber to prevent the operators from anesthetic gas.

Order Information:

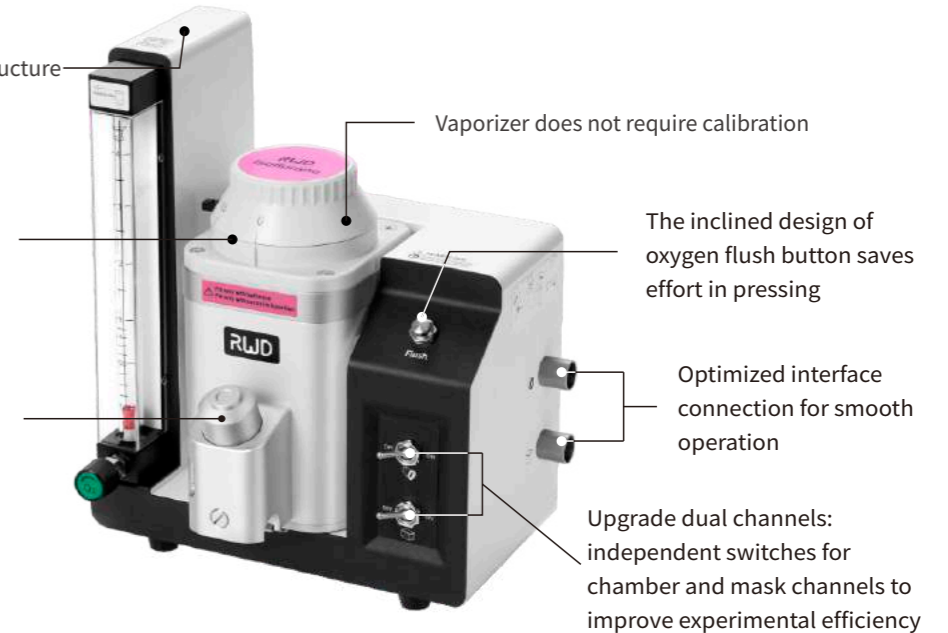
Model	Product Description	Remarks
R500IP	Compact Small Animal Anesthesia Device-Isoflurane, Pour Fill, 0-4L	Contains connection tubing for mask&induction chamber
R500SP	Compact Small Animal Anesthesia Device-Sevoflurane, Pour Fill, 0-4L	

TAJI Small Anesthesia Machine

Integrated design and compact structure

Each vaporizer is independently debugged, with reliable quality and stable concentration output, independent of changes in flow, temperature, and pressure

Easy Fill dosing method with strong sealing performance



Order Information:

Model	Product Description
TAJI-IE	Compact Small Animal Anesthesia Machine, Isoflurane, Easy Fill, 0-4L

R550 Multi-output Anesthesia Machine

Regular assembly (R550-A), vaporizer (R580), Inlet/Outlet End Caps (R580-IO) and tube accessory kit are included in the R550 anesthesia machine. Different air supply, induction chambers, small animal masks, filter canisters and gas evacuation apparatuses can be selected to form the experimental platform for anesthesia recovery of different animals.

With the latest design, it can be applies to simultaneous anesthesia of multiple mice, rats, cats, rabbits and other animals (1-5 small animals), and every channel can be controlled independently.



Order Information:

Model	Product Description	Remarks
R550IE	Enhanced Small Animal Anesthesia Device-Isoflurane, Easy Fill, 0-4L	Contains connection tubing for mask & induction chamber.
R550SE	Enhanced Small Animal Anesthesia Device-Sevoflurane, Easy Fill, 0-4L	

Mobile Trolley

- Integrating gas supply, anesthesia induction, and waste gas recovery, convenient loading and unloading, saving space
- Universal belt lock casters for convenient mobile operation

Order Information:

Model	Product Description
R510-T	Compact Small Animal Anesthesia Machine Trolley



VentStar Small Animal Ventilator

Animal ventilator is the most commonly used equipment to assist animal respiration. It is widely used in basic medicine, clinical medicine, animal medicine and other scientific research experiments (such as myocardial ischemia model making, lung function evaluation), respiratory management, animal first aid and respiratory treatment in clinical surgery. Small animal ventilator suitable for 10g-1kg mice, rats and guinea pigs and other small animal.

Suitable for mice, rats and guinea pigs and other animals weighing 10g-1kg

Input power range: 100 ~ 240V, 50/60Hz, 24V, 40W, 1.67A adapter DC power supply, safe and effective

Small size, compact layout, flexible operation

Provide safe and effective intermittent positive pressure ventilation (IPPV), volume and pressure modes are available.

7 inches LCD touch screen, wide-angle visual

The pressure-time graph can be displayed in real time in volume and pressure modes

Sound, intelligent text, error code and other fault alarm alerts

R415-AP

10 groups of different respiratory parameters can be stored and called, which is convenient and efficient

The breathing frequency can be switched between 10 ~ 300bpm

Tidal volume range: 0.05ml ~ 5ml

Airway pressure range: 1~50cmH₂O, the accuracy range: ±0.7 cmH₂O; positive end expiratory pressure (PEEP) range is 0~10cmH₂O

Set the respiratory parameters such as PIP/PEEP/Sigh/INSP.Hold/EXP.Hold

After submitting the animal weight, and the device automatically sets the reference breathing parameters

The adjustable range of I:E ratio is from 20% to 80%; the sigh increases the tidal volume from 0 to 20%, and can set auto-sigh once after every 10 to 999 breaths or manual control

Model	Product Description
R415	Small Animal Ventilator
R415-AP	Accessory package for Anesthesia and Ventilator

RE20 Animal Endotracheal Intubation Kit

Noninvasive endotracheal intubation kit for animals guided by cordless optic fiber to support mouse, rat and other similar small rodents in a stable and comfortable position for experimenters to perform endotracheal intubation, drug infusion and other operations, effectively reducing animal damage, and enhancing the experimental efficiency and precision of the experiment results.



Features:

- PU material, moderate soft and hard, comfortable and not harmful to animals;
- The cordless portable optic fiber lighting system, which has been patented for an invention, improves the visibility of the airway and facilitates users to quickly and accurately finish endotracheal intubation;
- The stand angle can be adjusted, including: 45°, 60°, 90°, to meet the requirements of users with different operation habits;
- An endotracheal magnifier with auxiliary positioning function and a tracheoscope mirror that helps to confirm intubation result are more user-friendly.

Order Information:

Model	Product Description
RE20-R	Endotracheal intubation tube for rat (length 50mm)
RE20-M	Endotracheal intubation tube for mouse (length 25mm)

Veterinary Anesthesia Machines ▶

R620-S1 Universal Veterinary Anesthesia Machine

R620-S1 universal veterinary anesthesia machine is applicable to clinical anesthesia of dogs, cats, pigs, monkeys, rodent, reptiles, birds etc. With "one-click" operation mode, it would be easy, safe and reliable to perform surgery on pets.

User-friendly design

Blocking bar design for breathing circuit, wheel brake for Universal wheel, and tray shelf for placing monitor

Rail-mounted CO₂ absorber

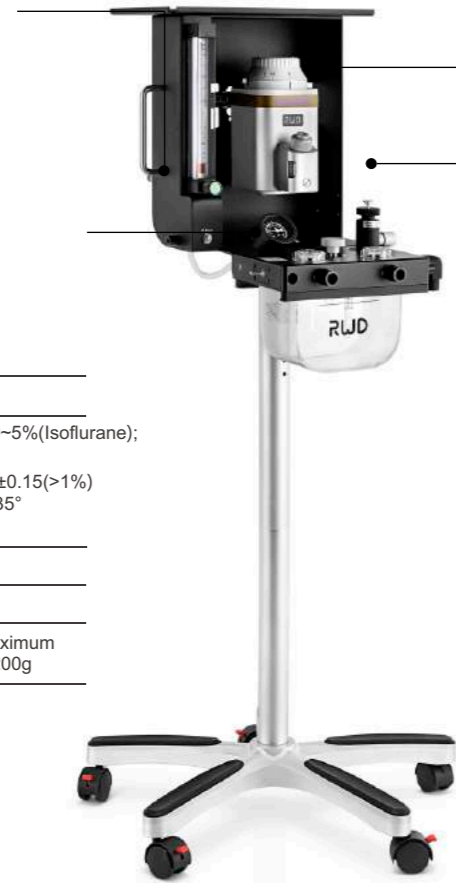
One step to assemble and disassemble, save time and effort to a great extent

Full inspection policy

Inspection would be made before shipment to make sure high accuracy

Minimal operation design

Just press to close APL valve; turn the switch to shift between rebreathing and non-rebreathing circuit; with only one action to install and uninstall the vaporizer; With one switch to turn, the smart weighing canister start to work



Item	Specification
Vaporizer	Output concentration: 0~5%(Isoflurane); 0~8%(Sevoflurane) Accuracy: ±0.1(0-1%); ±0.15(>1%) work temperature: 10~35° Volume>120ml
Flowmeter	0-4L/min
CO ₂ Absorber	1.8L
Filter canister	Self-weight is 800g, Maximum absorption capacity is 200g

Optinal: MRI Conditional Animal Anesthesia Machine are available for purchase.

Order Information:

Model	Product Discription	Remarks
R620-S1-IEC	Veterinary Anesthesia Machine-Pole Mount,Isoflurane,Easy Fill,Cagemount	Respiratory Circuit,Endotracheal Intubation,Gas Filter Canister,Breathing Bag are included.
R620-S1-SEC	Veterinary Anesthesia Machine-Pole Mount,Sevoflurane,Easy Fill,Cagemount	
R620-S1-IPC	Veterinary Anesthesia Machine-Pole Mount,Isoflurane,Pour Fill,Cagemount	
R620-S1-SPC	Veterinary Anesthesia Machine-Pole Mount,Sevoflurane,Pour Fill,Cagemount	
R620-MRI	MRI Conditional Animal Anesthesia Machine	Additional non-magnetic oxygen tube

R419 Intelligent Animal Ventilator

R419 intelligent animal ventilator as mechanical ventilation device, which is completely according with veterinary clinical practice. There are 3 modes of operation, including VCV, PIPCV and APNEA, to meet multiple clinical applications.

Three working modes:
Capacity control mode (VCV)
Pressure control mode (PIPCV)
APNEA mode

Equipped with two different sizes of bellows, the output tidal volume 20 ~ 300mL and 300 ~

Bellow-1500ml

Respiratory rate (2 ~ 60 BPM) linear adjustable, respiratory ratio (1: 1.0 ~ 1: 4.0) real-time adjustable and airway pressure rate (5 ~ 35cmH₂O) real timeadjustable to meet the respiratory demand of different kinds of animals

5-inch LCD color display, realtime display device power, air pressure column, tidal volume, respiratory rate, suction ratio, pressure peak, average and other parameters



R419

- Adjustable power supply (110 / 220V)
- Light weight, portable, user-friendly design, multi-parameter fixed platform, easy to operate
- Provides safe and effective intermittent positive pressure ventilation (IPPV)
- Provide internal battery power, which can work more than 4 hours

Order Information:

Model	Product Description
R419	R419 Intelligent animal ventilator
R409-MB	Mounting Bracket for R409 Ventilator

R420 Veterinary Electric Turbo Ventilator

With high-performance turbine drive, R420 ventilator no longer needs drive gas! As a mechanical ventilation device tailored for animals, this is a technological innovation. It is a good solution to the traditional ventilator driven gas consumption problem. In addition, its easy-to-use working modes and comprehensive monitoring of animal ventilation state ensure safe ventilation.

Features:

- Turbo Drive: Electronically driven by a high-performance turbine, no more driven gas.
- Smart preset: Once inputting animal weight, smart respiratory parameters can be called up.
- Guard "breathing" safety: Accurate and continuous monitoring of respiratory status, such as airway pressure time chart, minute volume, EtCO₂, and etc.
- Auto system leak test: Graphical guidance for quick start.
- Multiple alarms: Multiple alarms and clear handling prompts ensure the safety of mechanical ventilation.
- Remote control of inspiratory hold: During a CT scan of the chest or abdomen, help the animal to hold the inspiration and complete the CT scan.

Specification:

Item	Specification
Working principle	Turbo drive
Size	291mm×336mm×462mm
Net weight	8.5kg
Animal weight range	0.4 kg-150 kg
Respiratory rate	2~60bpm
I:E	1:1.0-1:4.0
Tidal volume	4-1500 ml
Peak inspiratory pressure	5-50 cmH ₂ O
PEEP	3~20 cmH ₂ O,OFF
Trig pressure	PEEP OFF: -10~ -1cmH ₂ O,OFF; PEEP ON: -10~ -4cmH ₂ O,OFF
Touch screen	7inch,1024*600px
EtCO ₂ measuring range	Measuring range :0mmHg – 114 mmHg
EtCO ₂ sample flow rate	75ml/min



Order Information:

Function	Model	R420	R420-Plus	R420-Pro
Smart preset		●	●	●
VCV ventilation mode		●	●	●
PCV ventilation mode		●	●	●
PEEP		●	●	●
Sidestream EtCO ₂ monitoring		○	●	●
INSP. HOLD remote control		○	○	●

Included ● Excluded ○

(Anesthesia Machine) Vaporizer

R580 series vaporizer adopts the most advanced design, which can accurately control the output concentration of anesthetics. RWD offers Pour Fill, Easy Fill and Key Fill Cagemont and Selectatec.

Two kinds of vaporizers

Three dosing methods

Two installation



Isoflurane vaporizer



Sevoflurane vaporizer

Features:

- The built-in temperature compensator ensures the stable concentration of anesthetic gas at different temperatures and flow rates, the flow range is 0.2-10L/min
- Mixed anesthetic gas output pressure range $\Delta P \leq 2.5\text{kPa}$
- Applicable temperature range: 10-35 °C
- Good tightness, internal 50kPa pressure can be maintained, zero leakage, safe and reliable
- Internal capacity is not less than 120ml, and the range of isoflurane vaporizer concentration is 0-5% (Sevoflurane: 0-8%)
- Anti-accident open lock structure and closed state security protection structure to ensure safety
- The average filling rate is greater than 2ml/s, and the dosing adapter can withstand the pressure of 0.1mpa without leakage (Key Fill)

Order Information:

Cat No.	Product Description
R580S	Vaporizer - Isoflurane/Pour Fill/Cagemont
R581S	Vaporizer - Sevoflurane/Pour Fill/Cagemont
R582S	Vaporizer - Sevoflurane/Easy Fill/Cagemont
R583S	Vaporizer - Isoflurane/Easy Fill/Cagemont
R584S	Vaporizer-Isoflurane/Key Fill/Cagemont
R585S	Vaporizer-Sevoflurane/Key Fill/Cagemont
R580-IO	Vaporizer Endcaps (1 pair)



Note: When purchasing a Cagemont vaporizer, vaporizer endcaps (model: R580-IO) should be purchased separately.
 Vaporizer of Easy Fill includes adapter R582-01 or R583-01.
 Vaporizer of Key Fill includes adapter R584-01 or R585-01.



Order Information:

Model	Product Description	Size
R510-M	Concentric Tubing Mask for rat and mouse - including pipe	/
R510-PGL	Anesthesia Operation Platform- Concentric Tubing type	300*210*10mm



• Cone Masks

- Small size, without interfering with head, ophthalmology and other related experimental operations.
- The exhaust gas will hardly leak from the mask to protect the experimental operators and the experimental environment. The exhaust gas can be recovered with the Gas Filter Canister (R510-31-6).
- The Anesthesia Operation Platform-Cone type (R510-PYZ) is optional for animal limb fixation.



Order Information:

Model	Product Description	O.D. (size)	I.D.(size)	D(size)
68680	Cone Mask with Tubing for Neonatal Mouse(<15g)	13mm	5mm	24mm
68681	Cone Mask with Tubing for Mouse or Neonatal Rat(15-40g)	20mm	10mm	28.5mm
68682	Cone Mask with Tubing for Rat(200-350g)	25mm	15mm	38mm

Model	Product Description	Size
R510-PYZ	Anesthesia Operation Platform-Cone type	300*210*10mm

Small Animal Anesthesia Mask

• Concentric Tubing Masks

- Using Concentric Tubing design, sturdy and durable; Compatibility between rat and mouse can be achieved by changing the mask core.
- The entire mask (including tubing) is made of non-metallic material suitable for MRI environments.
- It can be used with the Gas Filter Canister (R510-31-6) and the Gas Evacuation Apparatus (R546Pro) for waste gas recovery to protect the experimental operators and the experimental environment.
- Optional fixing Mounting Bracket (68625) can be used to fix the mask, and the height can be adjusted up and down, or it can be fixed on the Anesthesia Operation Platform-Concentric Tubing type (R510-PGL).

Stereotaxic Frame Nosecone Masks

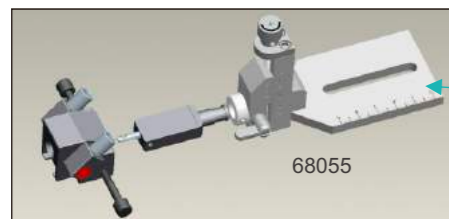
- This type of anesthetic masks are specifically designed to fit most stereotaxic frame and deliver anesthetic gases with minimal exposure during surgery. They are locked onto the adaptor with the cone opening toward the open "U". The animal's teeth is placed over the incisor bar.
- Two kinds of Stereotaxic Frame Nosecone Masks are available: one is "passive" mask with collinear inlet and outlet, and the other one is "active" mask with separate (non-collinear) inlet and outlet on both sides. the "passive" mask is used with charcoal canister only, and the "active" mask can be used with evacuation apparatus.



The mask contains round and square tooth bars for use with 68030,68036, 68055,68065,68087



The mask can be used with 68021,68063,68088



The mask contains round and square tooth bars for use with 68030,68036, 68055,68065,68087



The mask can be used with 68021,68063,68088

Order Information:

Model	Product Description	Remarks
68601	Stereotaxic Anesthesia Mask Kit -mice or neonatal rats (<70g, Canister & Tubing included)	For Passive Scavenging
68602	Stereotaxic Anesthesia Mask Kit - rats (<300g, Canister & Tubing included)	
68663	Stereotaxic Anesthesia/Evacuation mask- mice or neonatal rats (<30g)	For Active Scavenging
68665	Stereotaxic Anesthesia/Evacuation mask- mice or neonatal rats (30~70g)	
68666	Stereotaxic Anesthesia/Evacuation mask- rats (<300g)	
68667	Stereotaxic Anesthesia/Evacuation mask- rats (>300g)	

Induction Chambers

The anesthetic gas is inducted into the chamber, and exhausted to the connected charcoal canister. With following features:

- Transparent plexiglass material, durable, easy to clean, convenient to observe the anesthetic state of animals.
- Positive pressure gaskets at lids.
- Both ports on one side to reduce tubing in procedure area.

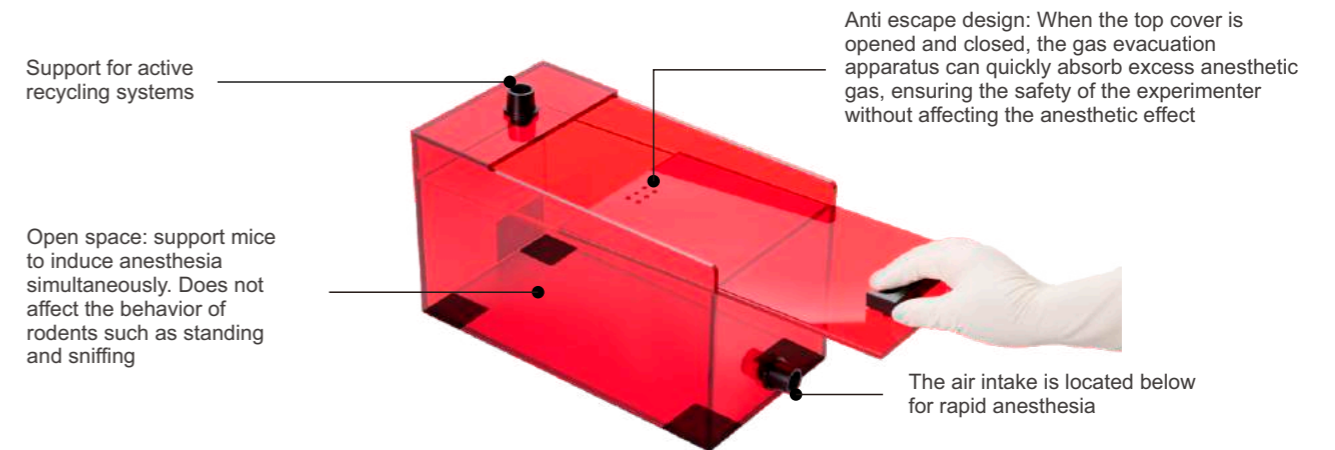


Order Information:

Model	Product Description	Remarks
V100	Induction Chamber-mouse (15cm*10cm*10cm)	Contains 1 plexiglass box, 1.2m bellows and 1 gas filter canister (R510-31S)
V101	Induction Chamber-rat (24cm*12cm*18cm)	
V102	Induction Chamber-rabbit/cat (40cm*18.5cm*25cm)	

Low Stress Anesthesia Induction Chamber

Low stress: Rodents lack cone cells that sense red light and are insensitive to red light. The red transparent appearance is convenient for the experimenter to observe the state of the animal while reducing the stress response of the animal and reducing the impact on the biological rhythm of the animal. Comply with animal welfare.



Order Information:

Model	Product Description	Remarks
V105	Low Stress Anesthesia Induction Chamber, for Mice and Rats (31cm*15cm*19cm)	The pipeline connecting the Gas Evacuation Apparatus is already included

Gas Evacuation Apparatus

The gas evacuation apparatus (GEA) was designed to safely and actively remove waste gas associated with everyday inhalation anesthesia. The waste gas from cone mask, concentric tubing mask and stereotaxic frame nosecone masks can be pulled through activated charcoal canister so that the air can be re-circulated into the room. The GEA will accommodate waste gas supply from at least 5 masks. The new one has been upgraded with a wider range of exhaust flow, Low noise, and Exquisite exterior design.



R546Pro

Features:

- New design make it more exquisite and easy to carry.
- A wide range of flow rate-8~60LPM, real-time display through LED screen.
- Small size 232mm (W)*200mm (D)*184mm (H).
- Noise reduction system within 50dB. One click set mute to prevent noise.
- Two level overweight alarm: 990g and 1010g.
- Power: 100-240V, 50/60Hz.
- Automatic temperature compensation system can help stably run even in 5°C-40°C.
- Integrated negative pressure recovery system and weighing alarm functions, can weigh and display the weight of the gas filter tank at anytime to confirm whether the adsorption is saturated.

Order Information:

Model	Product Description
R546Pro	Gas Evacuation Apparatus with Weight Monitoring, 110-240V

Gas Filter Canister



Used to absorb isoflurane, sevoflurane and enflurane and other gases, disposable, large and small size are available, large canister (net weight: 800g) absorb 200-240g gas; small canister (net weight: 250g) absorb 50g gas.

Order Information:

Model	Product Description
R510-31-6	Gas Filter Canister, Large, pkg of 6pcs
R510-31S-6	Gas Filter Canister, Small, pkg of 6pcs
R510-31S-16	Gas Filter Canister, Small, pkg of 16pcs

Air Pump

Provide an air source that can be used in conjunction with an inhalation anesthesia machine to provide a respiratory air source that meets the respiratory needs of animals during anesthesia.

Features:

- Light weight and compact size, low noise (<40dB), easy to use and safe.
- The flow rate is large, the supply is stable, and it can meet the respiratory source of multiple animals.



Technical parameters:

Item	Specification
Parameter item	Specification
Voltage	110-120V
Frequency	60Hz
Air Flow	18L/min
AMP(A)	0.36
WATT(W)	20
Maximum Size(mm)	163*128*111

Order Information:

Model	Product Description
R510-30	Anesthesia Air Pump

ROC-5A Veterinary Oxygen Concentrator

ROC-5A oxygen concentrator is designed specifically for veterinary use. The high purity oxygen is separated from air by molecular sieve pressure swing adsorption(PSA)technology.

Features:

- Flow rate: 5L/min.
- Generate medical oxygen (USP93%) from air, very cost effective.
- With air filter, build-in filter and humidifier bottle, 99.999% of bacteria, viruses and odor can be removed effectively.
- Low O₂ concentration alarm and abnormal alarm.
- Quiet design to offer you a silent and comfortable working environment.
- Suitable for supplying oxygen for anesthesia recovery, ICU, first aid etc.



Order Information:

Model	Product Description
ROC-5A	Veterinary Oxygen Concentrator