

RWD

Introduction

Established in 2002, RWD Life Science has been dedicated to being a leading manufacturer in veterinary and research equipments worldwide. We specialize in anesthesia, physiological and surgical equipments, used by veterinarians and pre-clinical researchers. Our mission is to provide high quality products and integrated solutions for our customers with prompt and professional support.

For more information about our supplies, such as Laser Speckle Perfusion Imager, Anesthesia Machine, Ventilator, Stereotaxic Instrument, Syringe Pump, Cannula System and Surgical tools, please check our website:

www.rwdstco.com.



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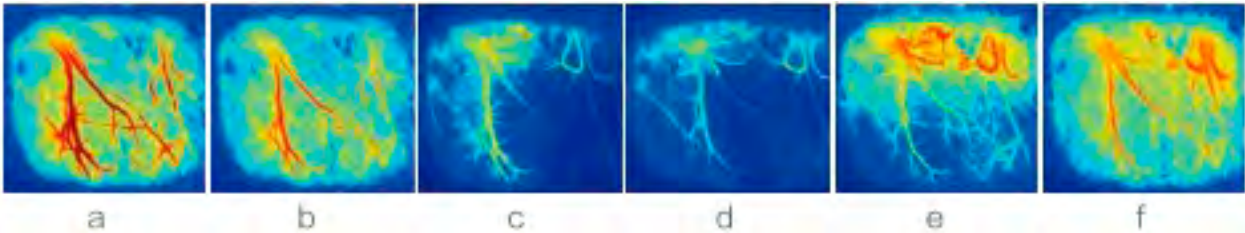
RFLSI Pro Laser Speckle Perfusion Imager new

- Rapid •High-resolution •Large area •Non-contact •No damage

RFLSI Pro Laser Speckle Perfusion Imager is based on the latest LSCI technology (Laser Speckle Contrast Imaging/LSCI, Laser Speckle Ratio Analysis). With the advantages of the unique non-contact, high time and spatial resolution, rapid imaging, it provides a new recording way for the life sciences basic research and clinical medical, which can achieve real-time dynamic blood flow monitoring and video imaging, it is the vital basis for understanding the organization, organ pathology and physiological indicators. The instrument does not need any contrast agent, the time resolution can be in milliseconds, the spatial resolution can be in microns. It also achieves the requirements of real-time observation of microvascular blood flow distribution and relative changes in values.



- High time&spatial resolution, High contrast • Continuous imaging, No need to scan
- Non-contact, No contrast agent • Multi-output: Video, Image, Blood flow data, Diameter analysis
- Product Features



► Performance Advantages

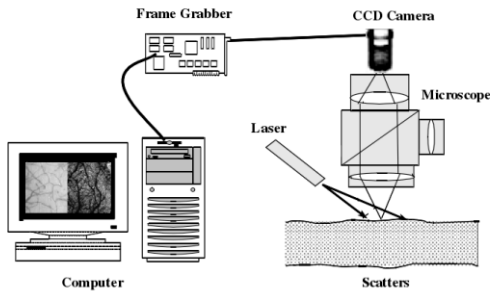
- Real-time monitoring of two-dimensional blood flow images in microns. Use corrected static tissue structure interference and multiple scattering effects algorithm to quantitatively analyze blood flow changes and improve the accuracy of blood flow monitoring in vessels of different diameter
- With the function of real-time online and off-line analysis of mean flow-rate and the vascular diameter in ROI (Region of Interest), and off-line analysis of mean and standard deviation of TOI (Region of Interest), supporting the selection, copy, and deletion of ROI for any shape and quantity, and the ROI position and size can be adjusted with the mouse by free dragging and dropping
- Maintain a high imaging speed of not less than 60fps under Full-Frame state (the camera's area array is all used)
- Real-time focal length adjustment, read the magnification directly, no calculations required.
- Select multiple vessels, online/off-line analysis of vascular diameter and its changes to meet the requirements of hemodynamics research
- Multiple data storage format: Original blood flow-rate data /Standard images in various formats (jpg, bmp, png) /.avi format video / etc.
- Multiple blood flow image acquisition methods: flexible continuous acquisition, designated time interval acquisition, designated frame number acquisition, etc.
- Highly coherently stable laser light source and low noise 12bit fast camera ensure the stability of excellent flow-rate measurement
- All-inclusive supporting solutions and after-sales service

► Application Areas

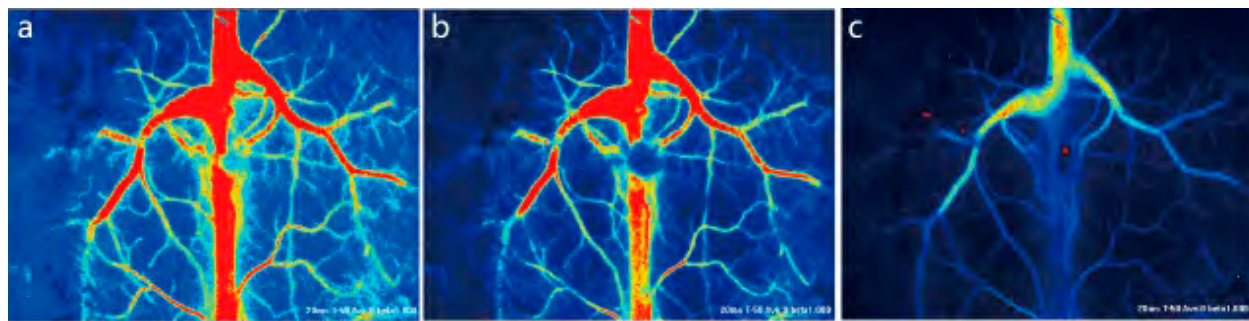
- ☑CBF ☑MCAO model ☑Gastrointestinal blood flow ☑Lower limb ischemia / Angiogenesis
- ☑Burns assessment ☑Skin patch test ☑Cerebral cortex diffusion inhibition

► Technical Parameters

- The range of the blood flow monitoring is from zero to infinity. The spatial resolution of the blood flow imaging is 3.3μm/pixel, and the maximum is 2μm/pixel;
- Laser type: laser diode, wavelengths 785nm, monitoring camera power 90mW;
- Highly coherently stable laser light source and low noise 12bit fast camera ensure the stability of excellent flow-rate measurement;
- Monitoring distance: 110mm, directly read the magnification, no autofocus measurement distance calibration;
- In the recording process, choose any number of blood vessels, real-time display diameter changes and angle;
- The effective pixels in the unit area are no less than 1800000 pixels/cm²; the monitoring pixel is 656*494 pixels;
- With two modes of continuous recording and interval recording;
- The image monitoring area is 14.4*10.9-2.15*1.62mm, and the imaging speed is not less than 60 fps in full amplitude state;
- ROI area and vessel diameter measurements are added arbitrarily during the recording process or off-line analysis to support any shape and number of ROI choices;
- Optical magnification: conventional 0.67-4.5 times, 0.071NA, optional 0.5 times, 2 times auxiliary objective lens; increase the auxiliary objective lens, the monitoring area and blood flow imaging spatial resolution will be adjusted accordingly;
- The monitoring records can be exported to AVI format video files, including curves, blood flow, experimental process records, the output video can be adjusted as required;

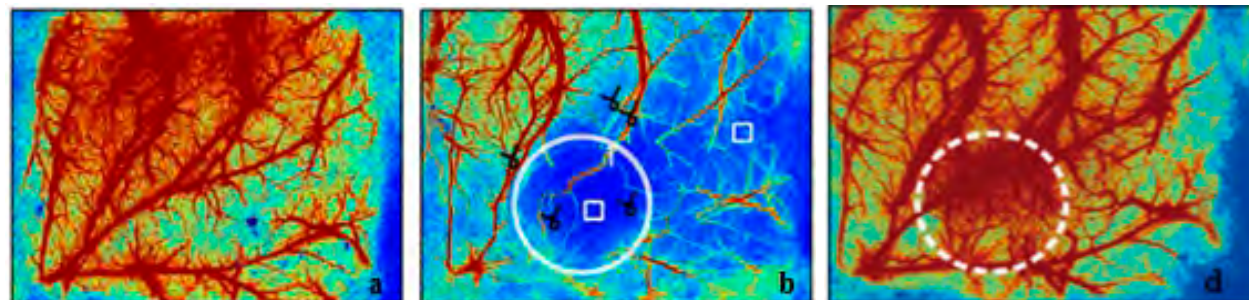


Tree shrew (nonhuman primate) cerebral cortical blood flow imaging ►



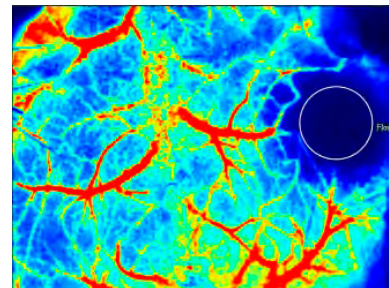
(a) Normal cerebral cortical blood flow distribution of tree shrew; (b) The distribution of cerebral cortical blood flow when start to over anesthesia; (c) The distribution of dying cerebral cortical blood flow when severe overdose of anesthesia.

Cerebral cortical blood flow distribution of the rat mini-stroke model ►

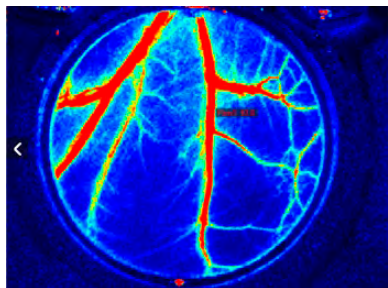


(a) Normal cerebral cortical blood flow distribution; (b) Cortical blood flow distribution after established the mini-stroke model; (c) Cortical blood flow distribution after removal of the mini-stroke model for 24h

Photochemical induction of mouse cerebral cortex ischemia model ►



The blood flow imaging of the rat dorsal skin window model ►



Brain and Spinal Cord Impactor new

68099 Precise Brain and Spinal Cord Impactor for Rat/Mouse

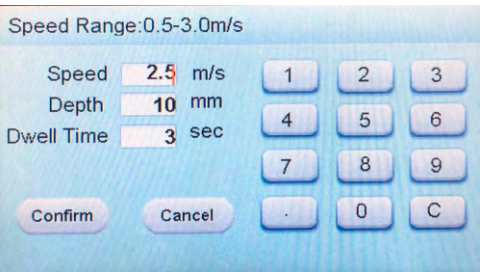
68099, the precise brain and spinal cord impactor is a very friendly tool for assessing brain and spinal cord injury mechanisms in basic medical research. The integration of U frame mounting bracket of our stereotaxic instrument greatly guarantee the good fixation effect of the head and spinal cord.

This system uses pneumatic standard pure electric control, touch screen operation, user-friendly interface, easy to master. Using standard cylindrical metal flat heads to impact small rodents' heads and spinal cords, the sunken depth of the cortex can be precisely controlled. Show the speed of the impact moment, the dwell time and the sunken depth of the cortex.

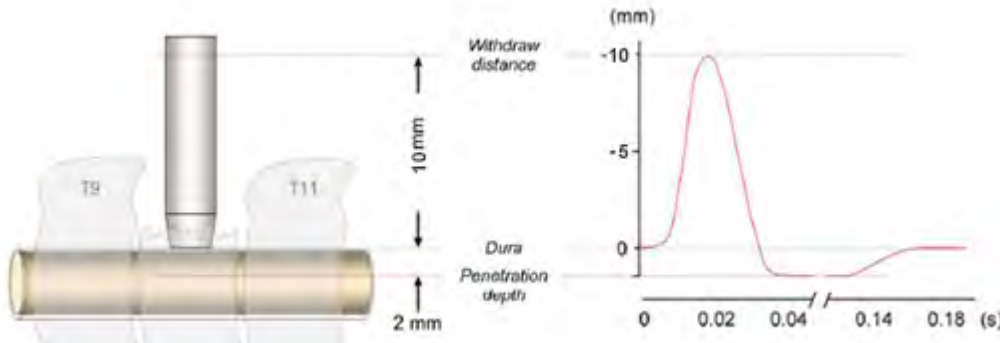
In addition, a unique sensor contact mechanism is used to accurately and reliably auto-detect the cortical surface datum point before the impact process. Reducing the cumbersome process of manual zeroing helps to produce accurate and reproducible brain injury models. It is an accurate tool with high efficiency, high repeatability and good stability, effectively guarantees the reproducibility of injury model.

Features:

- Pneumatic pure electric control, color LCD touch screen interface, the software interface is friendly and easy to operate;
- Strike speed is up to 3m/s, speed range: 0.5-3m/s, accuracy: 0.1m/s;



- Control the dwell time and strike depth, the time range: 0-60s, accuracy: 1ms, the depth range: 0-10mm, accuracy: 0.01mm
- A variety of cylindrical flat head hammers, the outer diameters are 1mm, 1.2mm, 1.5mm, 2mm, 2.5mm, 3mm, 4mm and 5mm



- High efficiency, automatic detection of zero interface, avoid the cumbersome manual process before the strike;
- Same platform for brain and spinal cord strike, use ball screw to control displacement, stable and reliable rotation, large screw handle, easy operation;
- Support a variety of gas supply, containing 9/16 "and ϕ8 quick connection, easy to connect oxygen tanks or aerostatic press ;
- Solid and heavy U-shaped frame, stable, effective against air recoil.

Application

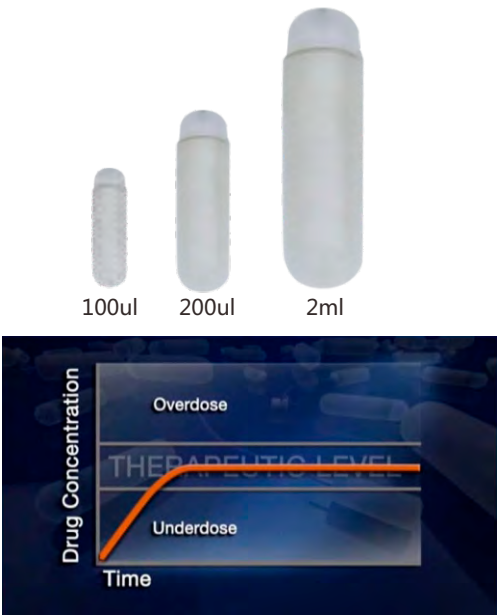
- | | | | |
|--------------------|-------------|-------------------|---------------------|
| ☑Neurology | ☑Surgery | ☑Chinese Medicine | ☑Emergency Medicine |
| ☑Pediatrics | ☑Psychiatry | ☑Pharmacy | ☑Endocrinology |
| ☑Clinical Medicine | ☑Biology | ☑Oncology | ☑Psychology |
| | | | ☑Related Researches |

Implantable Osmotic Release Pump

The implantable osmotic release pump is a micro device that uses osmotic pressure as a power to pump liquid stored in the capsule at a constant rate and release it into a specific site or blood.

The implanted osmotic release pump has been the best tool for the delivery of drugs in the life sciences study. It can be implanted into the subcutaneous or abdominal cavity of experimental animals, and the test agent is delivered continuously and accurately through the catheter at a rate of $\mu\text{l/h}$, up to four weeks. Multi-disease animal models can be established by continuous administration of osmotic pump, such as hypertension and Parkinson's diseases animal models. It is widely used in drug and molecular screening, pharmacodynamics and other fields of research.

- Simple, convenient, reliable, low cost
- No battery, no power supply, no mobile module
- High repeatability and continuity
- minimal side effects on animals and stress interference



The catheter can be introduced into different sites, such as: the cranial cavity and spinal cord, intravascular, liver, spleen and other organs and trauma.

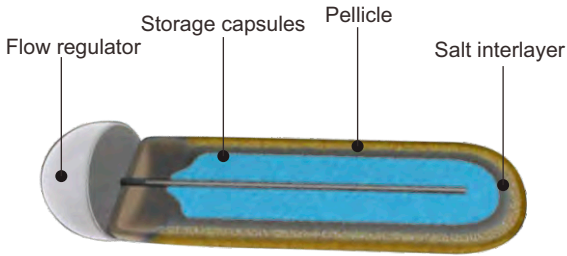


Features:

- Ensure continuous and uninterrupted administration, maintaining the preset speed for the administration of the animal;
- Storage capsules have good drug compatibility, and protection for short half-life drugs;
- Capsules have good biocompatibility and do not affect the physiology of animals;
- Easy to use, an experiment requires only one administration, no longer need night or weekend experiment;
- Avoid the stress caused by repeated administration, reducing the impact of non-experimental factors on the experimental results;
- Small size, can be applied to experiments on mice, neonatal rats and other small animal ;
- Ensure that the drug is delivered to the target site accurately;

Specifications:

Capsule	Drug capacity	100uL				200uL				2mL			
	Cycle	3d	7d	2w	4w	10d	1w	2w	4w	6w	1w	2w	4w
	Injection rate (ul/hr)	1.0	0.5	0.25	0.11	8.0	1.0	0.5	0.25	0.15	10.0	5.0	2.5
Flow regulator	Cap	PE material, a variety of colors optional, remove the air and prevent leakage											
	Draft tube	304 stainless steel material											
Infusion tube	Syringe	Flat head for the injection of liquid											



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



Tabletop(see P08)



Multi-output(see P09)



Portable(see P10)



VentStar Ventilator(see P20)

Veterinary Anesthesia Machine



Tabletop(see P13)



Portable(see P11)



Smart Wall-hung(see P12) Smart Portable(see P12)



R409plus Ventilator(see P21)

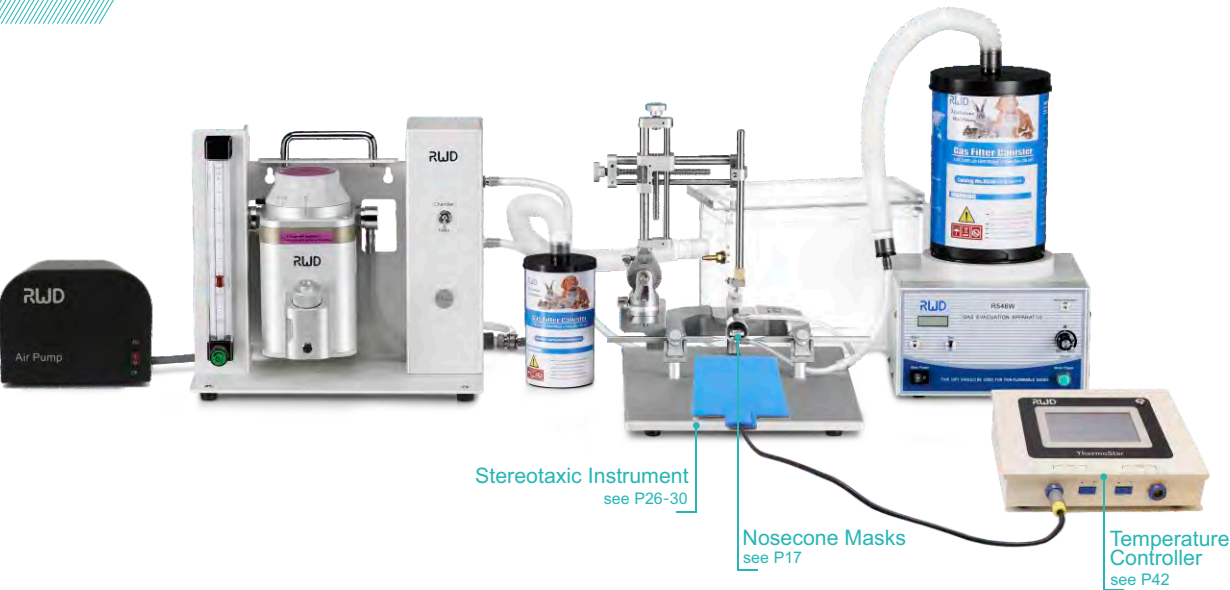
Complete Anesthesia and Respiration Solutions

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 the different types of anesthesia machines and masks to meet the needs of animal operation 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

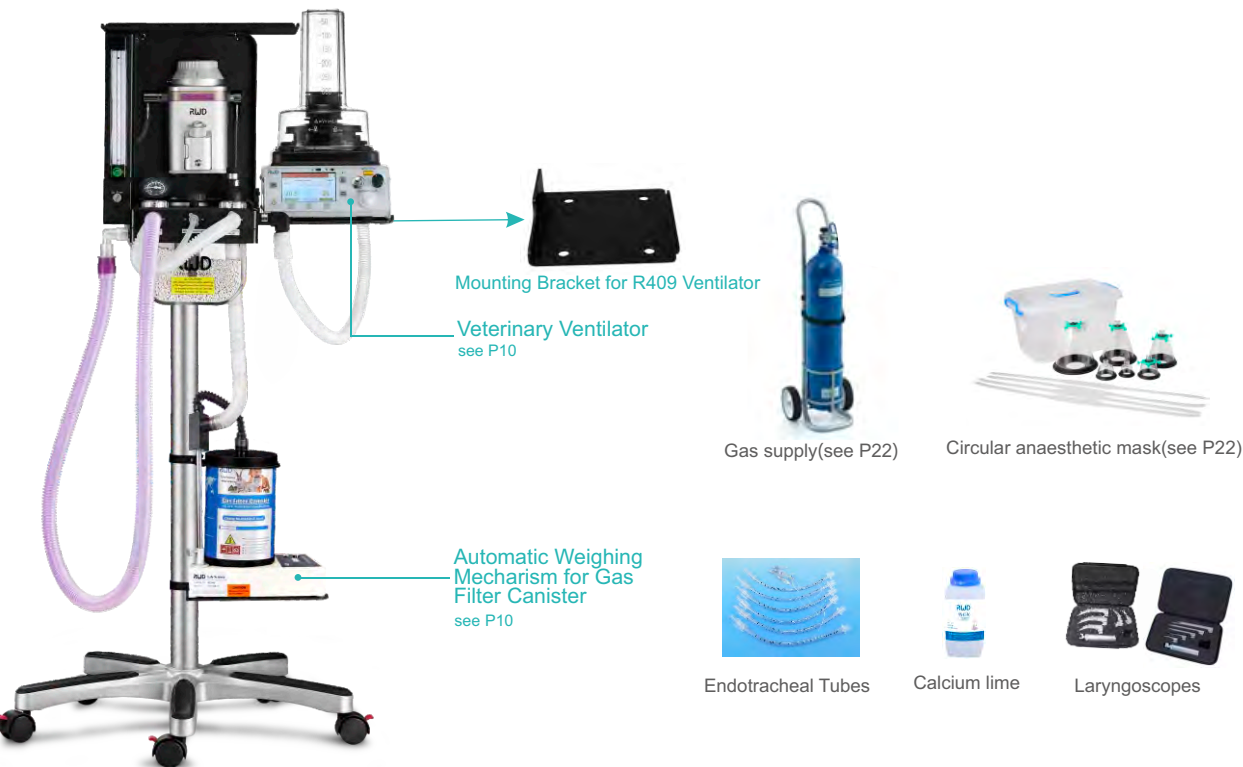
Small animals



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), and suitable for mice, rats, rabbits, cats and other animals within 5KG.

Large animals



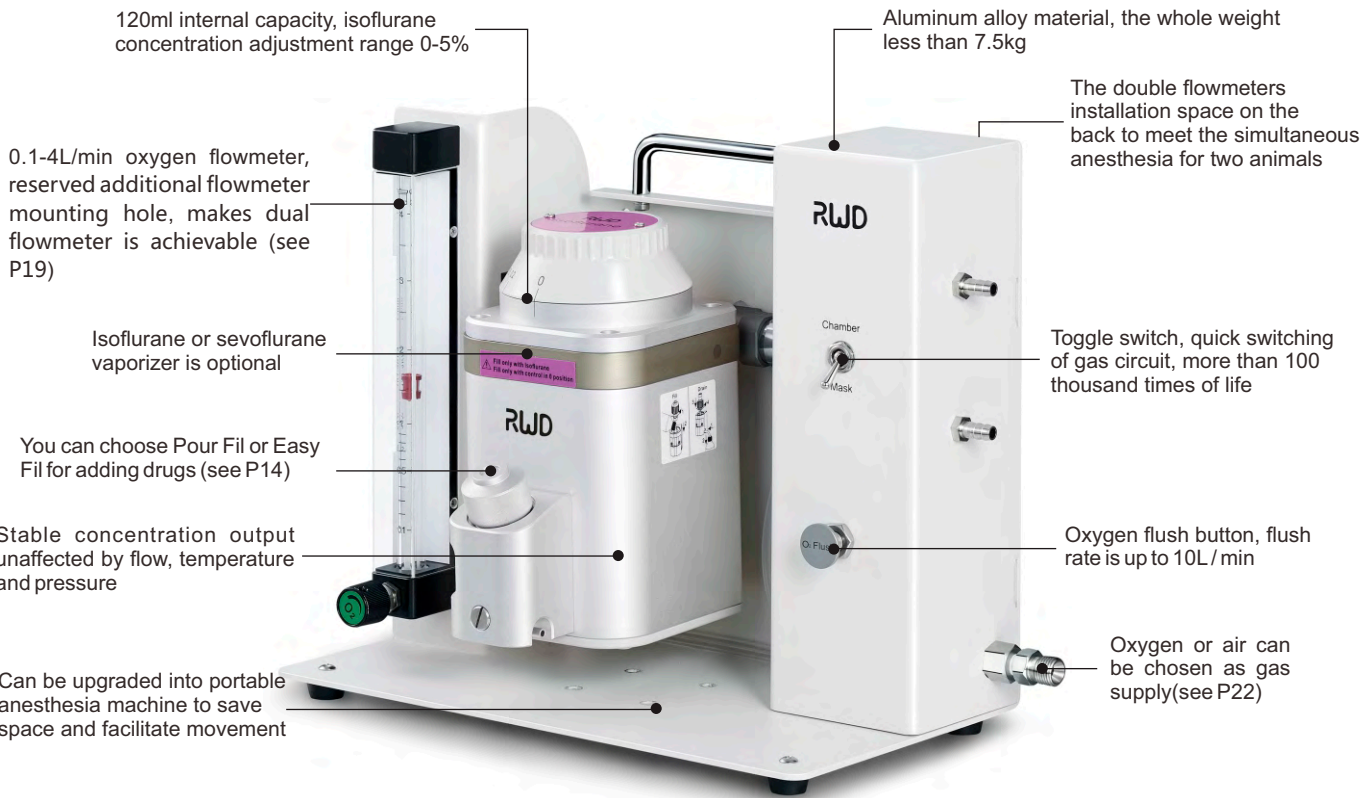
This program is suitable for the anesthesia and auxiliary respiration of animals within 50kg, such as pigs, monkeys, dogs and cats.

Small Animal Anesthesia Machines ▶

R540 Enhanced Anesthesia Machine

Regular assembly (R540-A), vaporizer(R580), Inlet/Outlet End Caps(R580-IO) and tube accessory kit are included in the R540 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

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



Note: Oxygen flush is commonly used to flush anesthetic gas to the filter canister before opening the induction chamber to avoid the escape of anesthetic gas into the personnel

Order Information:

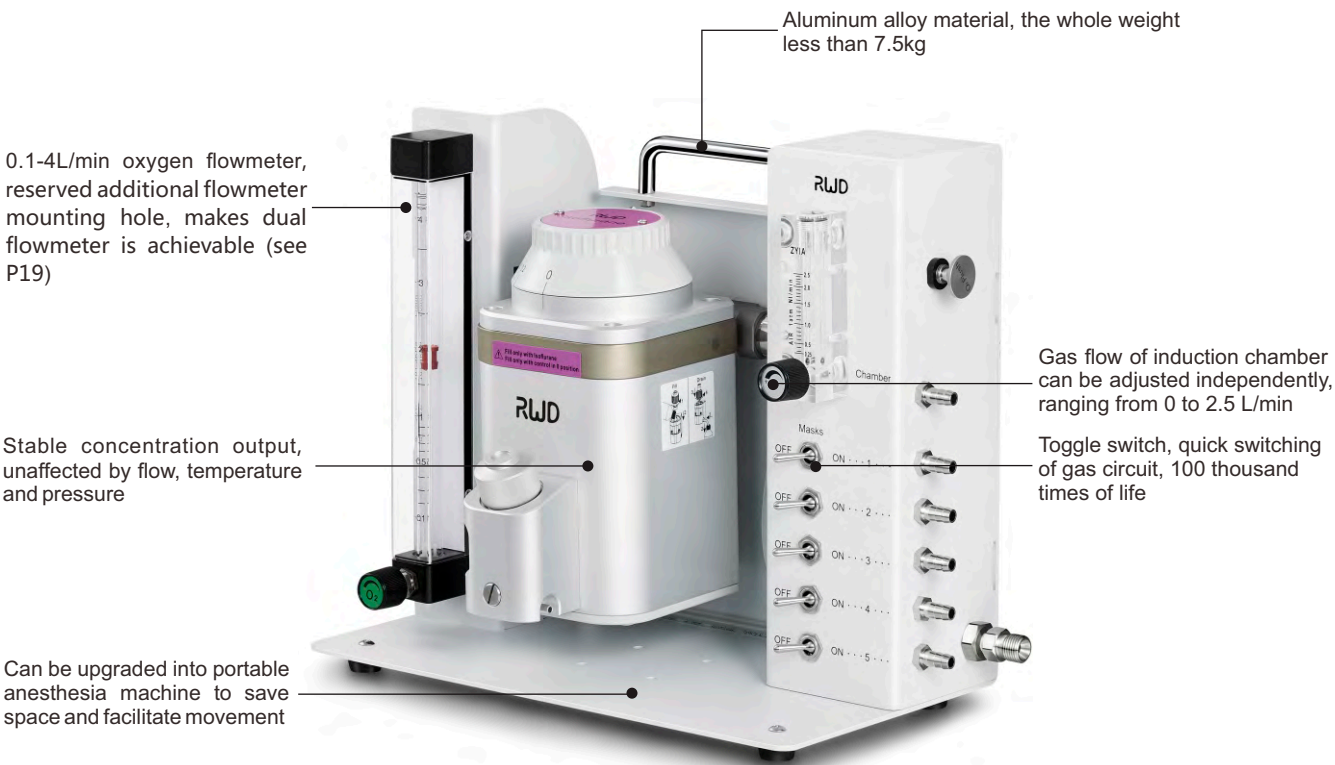
Cat No.	Product Description	Configuration	Remarks
R540IE	Enhanced Small Animal Anesthesia Device-Isoflurane,Easy Fil	●	Contains connection tubing for mask induction chamber
R540IP	Enhanced Small Animal Anesthesia Device-Isoflurane,Pour Fil	●	
R540SE	Enhanced Small Animal Anesthesia Device-Sevoflurane,Easy Fil	●	
R540SP	Enhanced Small Animal Anesthesia Device-Sevoflurane,Pour Fil	●	
R510-S	Portable Stand for R510 Series Anesthesia Machine	○	Upgrade to portable type
R600-N2O-4E	Expansion Assembly with 0.1-4LPM N ₂ O Flowmeter	○	
R510-09	2ch Flowmeter for Anesthesia, range 0.1-1.0L/min each	○	Simultaneous anesthesia for two animals (adjusted independently)

Note: ●Recommended configuration ○ Optional

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



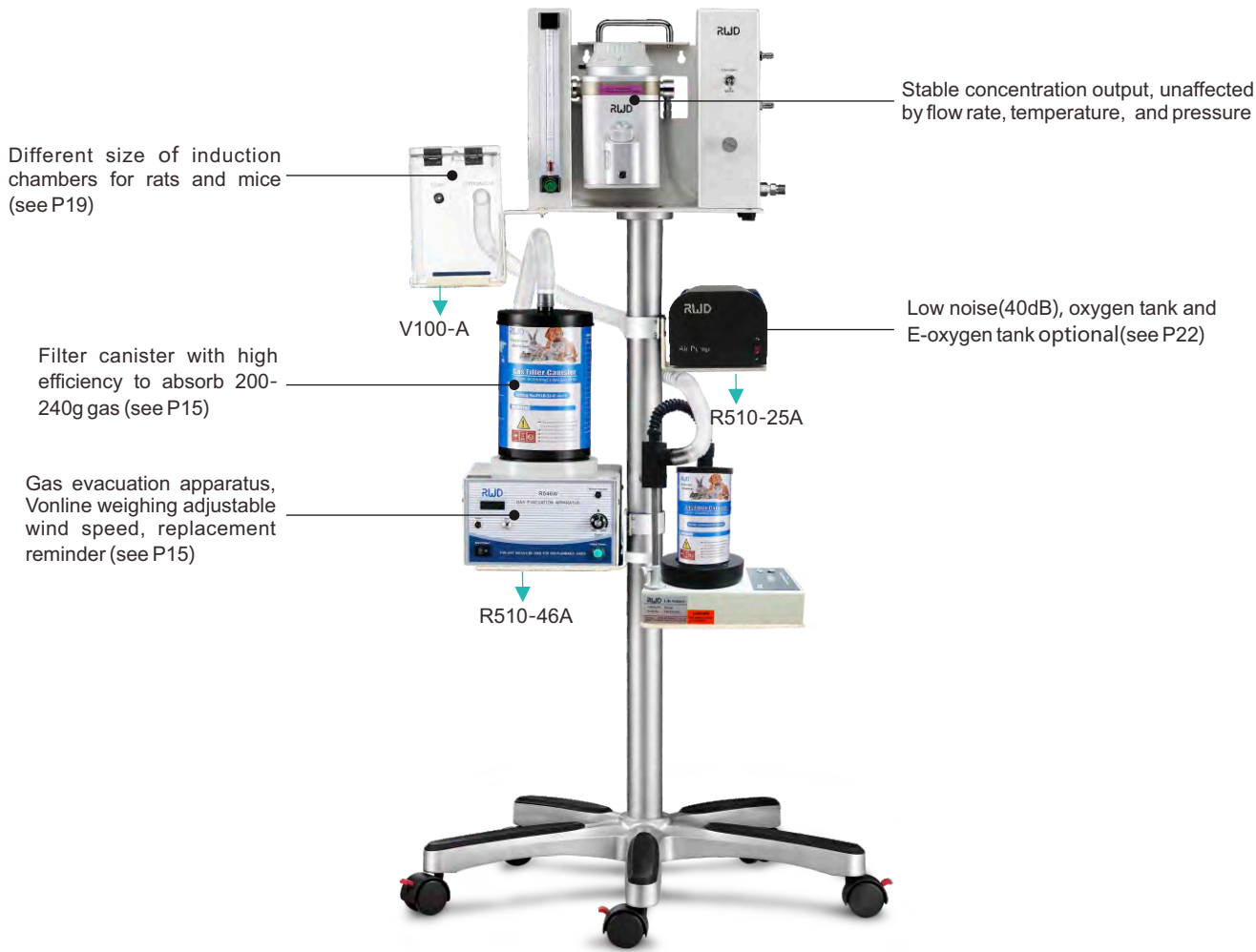
Order Information:

Cat No.	Product Description	Configuration	Remarks
R550IE	5ch Small Animal Anesthesia Machine-Isoflurane,Easy Fil	●	Contains connection tubing for mask & induction chamber
R550IP	5ch Small Animal Anesthesia Device-Isoflurane,Pour Fil	●	
R550SE	5ch Small Animal Anesthesia Machine-Sevoflurane,Easy Fil	●	
R550SP	5ch Small Animal Anesthesia Machine-Sevoflurane,Pour Fil	●	
R510-S	Portable Stand for R510 Series Anesthesia Machine	○	Upgrade to portable type
R600-N2O-4E	Expansion Assembly with 0.1-4LPM N ₂ O Flowmeter	○	

Note: ●Recommended configuration ○ Optional

R520 Portable Anesthesia Machine

Regular assembly (R540-A), vaporizer(R580), Inlet/Outlet End Caps(R580-IO), induction chamber, fixed bracket for gas evacuation apparatus, air pump, and portable assembly(R510-S), tubing are included in the R520 anesthesia machine. Different air supply, induction chambers, small animal masks, filter canisters and gas evacuation apparatus should be purchased separately.



Order Information:

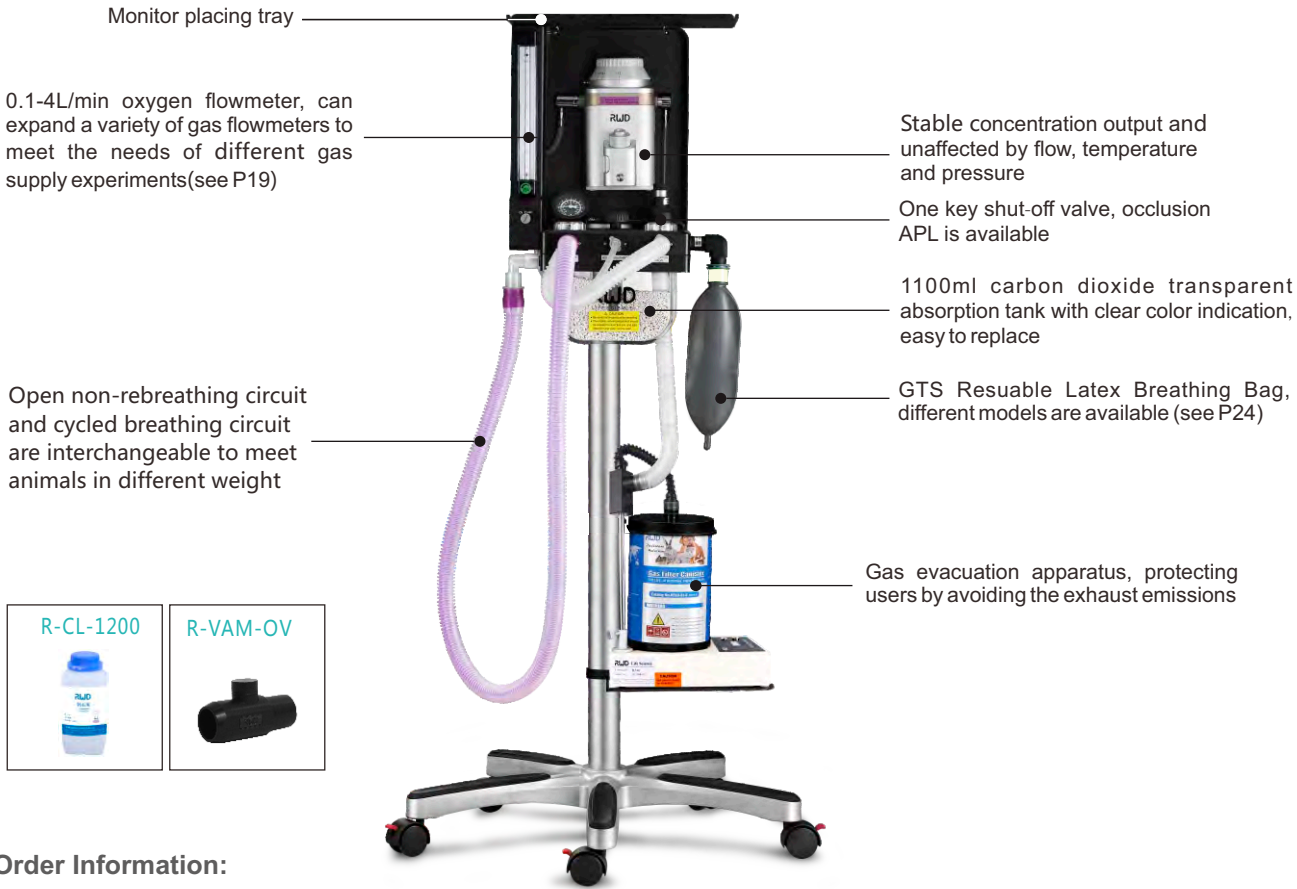
Cat No.	Product Description	Configuration	Remarks
R520IE	Movable Small Animal Anesthesia Machine-Isoflurane,Easy Fil	●	Including fixed bracket for induction chamber, evacuation apparatus, filter canister.
R520IP	Movable Small Animal Anesthesia Machine-Isoflurane,Pour Fil	●	
R520SE	Movable Small Animal Anesthesia Machine-Sevoflurane,Easy Fil	●	
R520SP	Movable Small Animal Anesthesia Machine-Sevoflurane,Pour Fil	●	
R600-N2O-4E	Expansion Assembly with 0.1-4LPM N ₂ O Flowmeter	○	simultaneous anesthesia for two animals (adjust independently)
R510-09	2ch Flowmeter for Anesthesia, range 0.1-1.0L/min each	○	

Note: ●Recommended configuration ○ Optional

R620 Portable Anesthesia Machine

Applicable to the inhalation anesthesia of cat, dog, monkey, pig and other animals within 50 kg, save space, easy to move.

Oxygen tube (R-AH-80), anesthesia machine mounting kit (R620-A), vaporizer(R580 Series), Inlet/Outlet End Caps(R580-IO), breathing circuits (Circulating R-BC-DL and acyclic R-NBC-F (JR)), endotracheal tube(R600-ET), the gas filter canister (R510-31) are included in the R620 anesthesia machine. And the anesthetics, gas supply, calcium lime, laryngoscope, mask should be purchased separately.



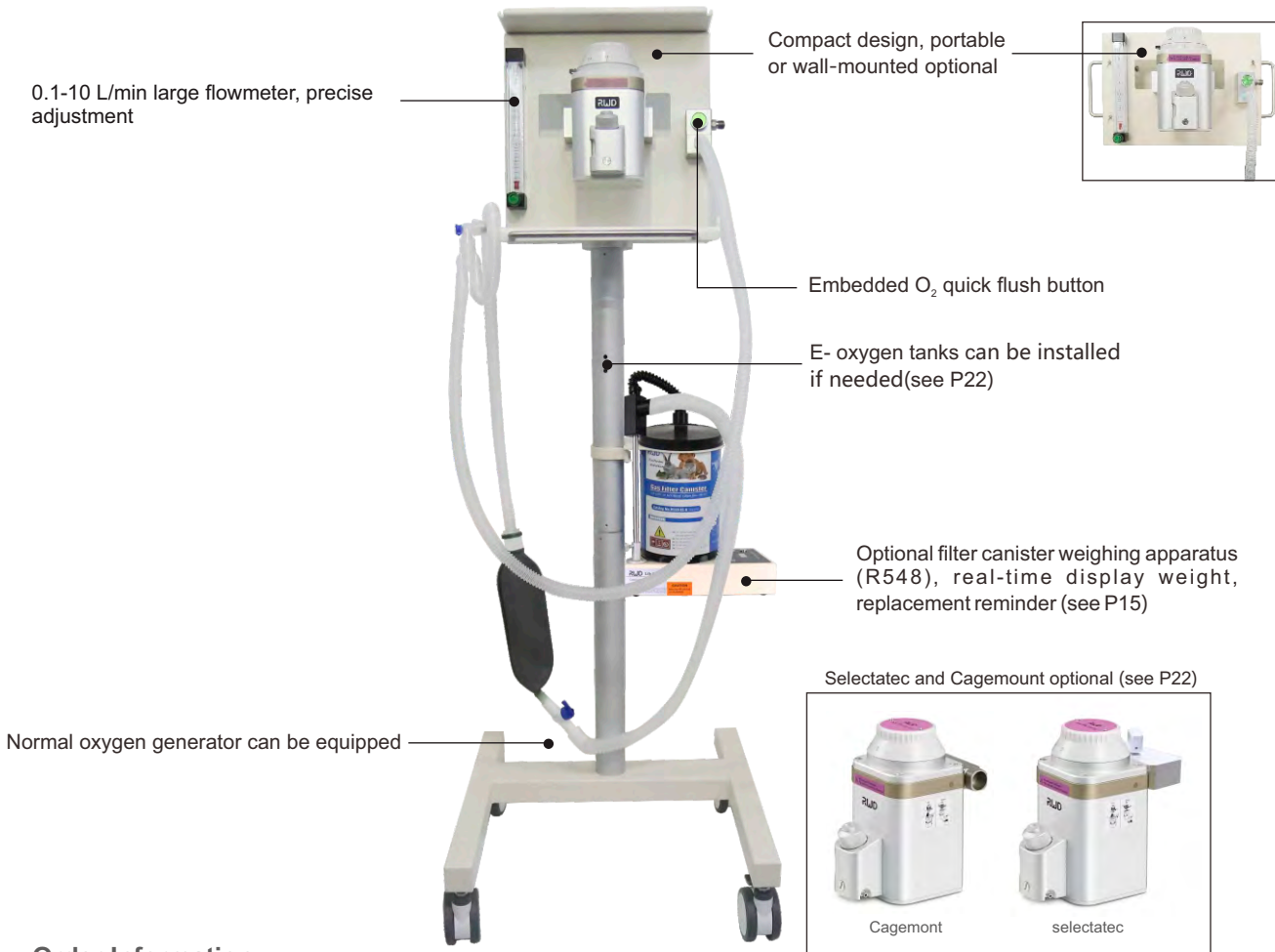
Order Information:

Cat No.	Product Description	Configuration	Remarks
R620IE	Veterinary Anesthesia Machine -Portable,Isoflurane,Easy Fil	●	Basic package, including one trial filter canister. And the isoflurane, gas supply, calcium lime, laryngoscope, masks, filter canister should be purchased separately.
R620IP	Veterinary Anesthesia Machine-Portable,Isoflurane,Pour Fil	●	
R620SE	Veterinary Anesthesia Machine-Portable,Sevoflurane,Easy Fil	●	
R620SP	Veterinary Anesthesia Machine-Portable,Sevoflurane,Pour Fil Fil	●	
R620IES	Veterinary Animal Anesthesia Machine - Portable , Isoflurane , Easy Fil	●	Super package, compared with the basic package, with an additional oxygen valve, calcium lime and a bottle of trial isoflurane
R620IPS	Veterinary Animal Anesthesia Machine - Portable,Isoflurane, Pour Fil	●	
R620SES	Veterinary Animal Anesthesia Machine - Portable , sevoflurane , Easy Fil	●	
R620SPS	Veterinary Animal Anesthesia Machine - Portable , Sevoflurane , Pour Fil	●	
R620IEP	Veterinary Animal Anesthesia Machine - Portable , Isoflurane , Easy Fil	●	Luxury package, compared with the super package, with an extra mask kit 68643 and lamp laryngoscope C45001-00 (see P23)
R620IPP	Veterinary Animal Anesthesia Machine - Portable , Isoflurane , Pour Fil	●	
R620SEP	Veterinary Animal Anesthesia Machine - Portable , sevoflurane , Easy Fil	●	
R620SPP	Veterinary Animal Anesthesia Machine - Portable , Sevoflurane , Pour Fil	●	
R-VAM-OV	one button shut-off valve	○	
R-CL-1200	Calcium Lime (1.2Kg / barrel)	○	

Note: ●Recommended configuration ○ Optional

R640 Smart Animal Anesthesia Machine

The R640 is a non-circulating inhalation anesthesia system designed for small animals and is a newly launched product based on the extensive collection of customer needs. With the advantages of stylish, compact design, and simple operation, suitable for the anesthesia application of small dogs, cats, rabbits, monkeys and other animals. Oxygen tube (R-AH-80), anesthesia machine bracket(portable or Wall-mounted), vaporizer(R580 Series), vaporizer accessories, breathing circuit (non-circulating R-NBC-F (JR)), endotracheal tube(R600-ET), gas filter canister (R510-31) are included in the R640 anesthesia machine. And the anesthetics, gas supply, calcium lime, laryngoscope, mask and filter canister weighing mechanism should be purchased separately.



Order Information:

Cat No.	Product Description	Configuration	Remarks
R640IES	Veterinary Anesthesia Machine - Portable / Isoflurane / Easy Fil / Selectatec	●	
R640IEC	Veterinary Anesthesia Machine - Portable / Isoflurane / Easy Fil / Selectatec	●	
R640IESS	Veterinary Animal Anesthesia Machine - Portable / Isoflurane / Easy Fil / Selectatec	●	
R640IECS	Veterinary Animal Anesthesia Machine - Portable / Isoflurane / Easy Fil / Cagemont	●	
R640IESP	Veterinary Animal Anesthesia Machine - Portable / Isoflurane / Easy Fil / Selectatec	●	
R640IECP	Veterinary Animal Anesthesia Machine - Portable / Isoflurane / Easy Fil / Cagemont	●	
R640-H	R640 Animal anesthesia machine bracket - Wall-mounted	○	
R640-EP	R640 Loop extensions (Portable)	○	
R640-EH	R640 Loop extension (wall-mounted)	○	

Note: ●Recommended configuration ○ Optional

Veterinary Anesthesia Machines

R610 Tabletop Anesthesia Machine (customized)

Apply to the inhalation anesthesia of cats, dogs, monkeys, pigs and other animals within 50 kg.

Note:oxygen tube (R-AH-80), Manifold with 4LPM O₂ flowmeter, vaporizer (R580), Inlet/Outlet End Caps(R580-IO), endotracheal tubes, gas filter canister, (R510-31) are included in R610 anesthesia machine. And the anaesthetic, calcium lime laryngoscope, mask should to be purchased separately.



Note: Non-rebreathing circuit (for animals within 7kg)
Cycled breathing circuit (for animals above 7kg)

Order Information :

Cat No.	Product Description	Configuration	Remarks
R610IE	Veterinary Anesthesia Machine-Tabletop,Isoflurane,Easy Fil(customized)	●	
R610IP	Veterinary Anesthesia Machine-Tabletop,Isoflurane,Pour Fil(customized)	●	
R610SP	Veterinary Anesthesia Machine-Tabletop,Sevoflurane,Pour Fil(customized)	●	
R610SE	Veterinary Anesthesia Machine-Tabletop,Sevoflurane,Pour Fil(customized)	●	

Note: ●Recommended configuration ○ Optional

Anesthesia Machine Accessories

(Anesthesia Machine) Vaporizer

R580 series vaporizer adopts the most advanced design, which can accurately control the output concentration of anesthetics. and be widely used in scientific research, human and pet clinical. RWD offers Pour Fil and Easy Fil, Cagemont and Selectatec.

Two kinds of vaporizers, two dosing methods, two kinds of installation options



- Feature:
- 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 $\Delta P \leq 2.5kPa$
 - 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

Order Information:

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

Cat No.	Product Description
R580SS	Vaporizer - Isoflurane /Pour Fil/Selectatec
R581SS	Vaporizer - Sevoflurane /Pour Fil/Selectatec
R582SS	Vaporizer - Sevoflurane /Easy Fil/Selectatec
R583SS	Vaporizer - Isoflurane /Easy Fil/Selectatec
R580-SA	Vaporizer Suspension Assembly - R640

Note: When purchasing a Cagemont vaporizer, vaporizer endcaps (model: R580-IO) should be purchased separately;
When purchasing a Selectatec vaporizer, the vaporizer mount assembly(model:R580-SA) should be purchased separately;
Vaporizer of Easy Fil includes adapter R582-01 or R583-01.

Isoflurane & Sevoflurane



Order Information:

Cat No.	Product Description
R510-22-16	Isoflurane -100ml (16 bottles / box)
R511-22	Sevoflurane- 100ml

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.

- No venting hood is required while using.
- Powerful capture allows to accommodate waste gas supply from 1 to 5 masks.
- The velocity of "pull" or "draw" can be adjusted depending on the stations (masks).
- Great remove effectiveness to replace the traditional exhaust fan with remove ability less than 5g.
- Small Size 215mm (W)*215mm (D)*170mm (H).
- Easy to connect to your vaporizer system and insert a activated charcoal canister.
- Online weighing, get the weight of canister directly from the display.
- Two level overweight alarm: 990g and 1010g.



R546W, with the latest design of weighing, will be additionally used to weigh the activated charcoal canister at any time to check its saturation. Two levels alarm (990g and 1010g), indicator light and buzzer remind to change the canister and maintain it's effectiveness.

Order Information:

Cat No.	Product Description
R546W	Gas Evacuation Apparatus with Weight Monitoring, 110-240V

Automatic Weighing Apparatus



- One key to reset, real-time display the weight of filter canister, accurate to 1g;
- Two level saturation alarm to remind, replace filter canister ;
 - ◆ Level I : large canister reaches 1000-1020g, small canister reaches 300-310g
 - ◊Audible and visual alarm, 0.5hz (0.5 time/s)
 - ◆Level II: large canister reaches 1020-1500g, small canister reached 310-500g
 - ◊Audible and visual alarm, 2hz (2 time/s)
 - ◆Overweight alarm: more than 1500g, stable 1 second
 - ◊Audible and visual alarm, lasting lighting and buzzing
- Auto identify the size of RWD's filter canister;
- Long press the mute button to suspend alarm;
 - ◆Short press the mute button, restore alarm after 5min of mute
 - ◆Long press the mute button 3s, restore alarm after 30min of mute
- Compact size, save space;
- Mounting bracket (R548-MB) is optional, to mount on the mobile stand.

Cat No.	Product Description
R548	Automatic Weighing Mechanism for Gas Filter Canister
R548-MB	Weighing Bracket

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:

Cat No.	Product Description
R510-31-6	Gas Filter Canister, Large, pkg of 6pcs
R510-31S-6	Gas Filter Canister, Small, pkg of 6pcs

Small Animal Anesthesia Mask

Concentric Tubing Masks

Using Concentric Tubing design, sturdy and durable, can be placed arbitrarily on the desktop;
The entire mask (including tubing) is made of non-metallic material suitable for MRI environments;

- The mask can be fixed by fixed bracket (68625) or the fixed platform (68626), height of the mask is adjustable, and it can also be fixed and placed in MRI, PET and SPECT imaging systems



- Simultaneous experiments can be performed on 2--5 rats or mice with five channels of anesthesia mask

- Universal bracket (R510-55) can be used to fix the R510-32, R510-33 Tubing mask.



Order Information:

Cat No.	Product Description	Cat No.	Product Description
R510-86	SGL MRI Compatible Mask for Mouse	R510-87	SGL MRI Compatible Mask for Rat
R510-88	Dual MRI Compatible Masks for Mouse	R510-89	Dual MRI Compatible Masks for Rat
R510-54	Five-channel Tubing Anesthesia Mask Kits - rat/mouse		
68625	MRI Compatible Mounting Bracket for Tubing or Cone Mask, optional	68626	MRI Compatible Mounting Platform for Tubing or Cone Mask-rat/mouse
R510-32	Mouse Mask-Dia.9mm-Evacuation System W/ SGL.Tube	R510-33	Rat Mask-Dia.18mm-Evacuation System W/ SGL.Tube
R510-55	Universal Stand for Tube Anesthesia Mask		

Cone Masks(Bowl Masks)

- Clear cone for full visualization of muzzle;
- The Cone Masks can be installed onto 68620 anesthesia operation platform(300*210*75mm) to secure the animal in it;
- Height of the mask can be adjusted to meet different experimental needs;
- Special semi-enclosed mask design, coordinating with the evacuation apparatus to absorb and remove the waste gas outside the mask completely.

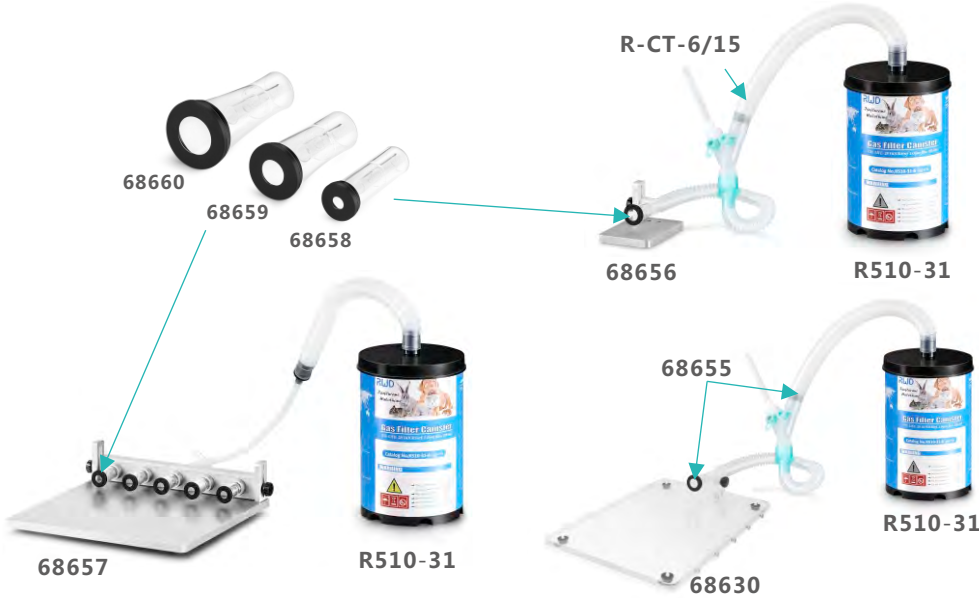
Order Information:

Cat No.	Product Description
68620	Small Animal Anesthesia Operation Plarform (bellows(R-CT-18))
68634	Juvenile Rat mask -44mm OD*5mm ID*24mm depth
68635	Mouse mask -44mm OD * 10mm ID * 24mm depth
68636	Rat mask -44mm OD * 15mm ID * 24mm depth



Cone Masks

- Special designed with inlet tubing inside make the animal anesthesia exhaust gas can be absorbed by gas filler canister;
- Allows access to eyes, ears and top of head;
- The cone masks can be installed onto 68630 operation bed for single cone mask (300*210*75mm) or 68657 manifold for five cone masks



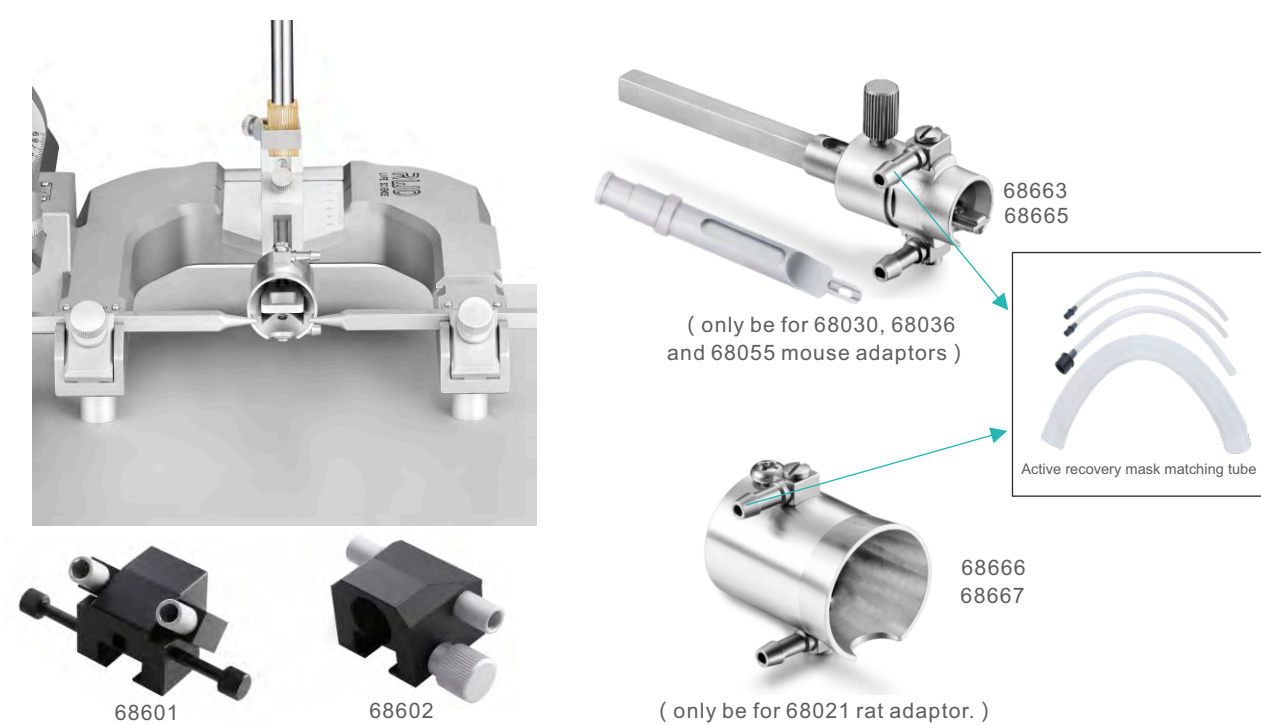
Order Information:

Cat No.	Product Description	OD (size)	ID(size)	D(size)
68653	Cone Mask with Tubing for Mouse or Rat (<70g)-Tube	13mm	5mm	24mm
68654	Cone Mask with Tubing for Rat (150-250g)-Tube	20mm	10mm	28.5mm
68655	Cone Mask with Tubing for Rat (250-350g)-Tube	25mm	15mm	38mm
R-CT-6/15	Concentric Tubing, 6mm Inlet/15mm Outlet, 45cm			
68656	Manifold for Single Cone Mask			
68657	Manifold for Five Cone Masks			
68630	Anesthesia Operation Platform			
68658	Cone Mask for Mouse or Rat (<70g)	13mm	5mm	24mm
68659	Cone Mask for Rat(150-250g)	20mm	10mm	28.5mm
68660	Cone Mask for Rat(250-350g)	25mm	15mm	38mm

● Stereotaxic Frame Nosecone Masks

This type of anesthetic masks is 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. Tthe “passive” mask is used with charcoal canister only, and the “active” mask can be used with evacuation apparatus.

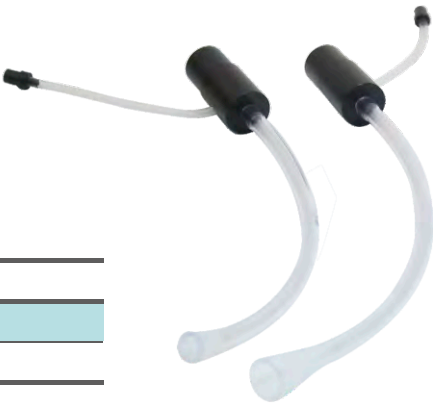


Order Information:

Cat No.	Product Description	Remarks
68601	Stereotaxic Mask-mice or neonatal rat (<70g)	For Passive Scavenging
68602	Stereotaxic Mask-rats (<300g)	
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)	

● Imaging Mask

This mask mainly works with ultrasound animal imaging heating platform and the anesthetic mask for the actual operation of ultrasound imaging to ensure that animals are quiet, fixed, to meet the needs of special environmental imaging.



Order Information:

Cat No.	Product Description
68669	Anesthesia mask - mouse and neonatal rat (<70g)
68670	Anesthesia Mask - rat (<300g)

Induction Chambers

For rapid induction of anesthesia before animal surgery, takes only 2-5 minutes; Animal status can be observed in real time during anesthesia.

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:

Cat No.	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)	
V103	Induction Chamber- large animal (50cm*30cm*30cm)	

Flowmeters

Multi-output flowmeter



R510-07 five-output flowmeter and R510-09 can be used in conjunction with R520 and R540 series small animal anesthesia machines to meet the simultaneous anesthesia of 5 or 2 animals, and each port can adjust the flow rate independently.

Extended flowmeter



RWD anesthesia is equipped with an extended flow meter mounting position, which expands a variety of gas flowmeters to meet the experimental needs of a variety of gas supply.

Order Information:

Cat No.	Product Description	Remarks
R510-07	Five-output flowmeter - range 1L / min	Standard contains 5.3 meter silicon tube (ID:6.0mm)
R510-09	Dual Channel Flowmeter - Range 0.1-1L / min	Standard contains 2.2 meter silicon tube (ID:6.0mm)
R500-N2O-1E	Expansion Assembly with 0.1-1LPM N ₂ O Flowmeter	Silicone tube and Y-three way and other accessories
R600-O2-4E	Expansion Assembly with 0.1-4LPM O ₂ Flowmeter	Silicone tube and Y-three way and other accessories

Ventilator

VentStar Small Animal Ventilator

Animal ventilator is the commonest instrument for assisting animal respiration, which is widely used in scientific researches of preclinical medicine, clinical medicine and veterinary medicine (such as myocardial ischemia model), as well as respiratory management in animal surgery, emergency treatment and respiratory therapy.

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

Small size, compact layout, flexible operation

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

7 inches LCD touch screen, wide-angle visual

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

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

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

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

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

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

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

Cat No.	Product Description
R415	Small Animal Ventilator

Small Animal Ventilator

Tubing and gas cannula

R510-27

- Application: rats, hamsters, rabbits, cats, puppies and other animals within 5kg
- The digital LED panel shows the respiratory rate in real time
- Tidal volume and respiratory rate are linear controlled, can be adjusted while the ventilator is running
- R407: equipped with two sizes of pistons (large piston: tidal volume of 3-30cc, adjustment accuracy of 3cc; small piston: tidal volume of 0.5-5cc, adjustment accuracy of 0.5cc)
- Respiratory rate range: 18-150 beaths / min
- Control positive end expiratory pressure (PEEP)

Order Information:

Cat No.	Product Description	Remarks
R407	Small Animal Ventilator, 220V	Including Ventilator, connecting silicon tube and trachea cannula (14G)- 1.85mm OD
R510-27	Accessory Package for Anesthesia and Ventilator	

Veterinary Ventilator

R409 Plus is a pneumatic control ventilator which is particularly suitable for animal laboratories, pet hospital, clinics etc. clinics etc, is specially designed to help the respiration of animals within 100 kg including rabbits, dogs, monkeys, pigs, sheep etc, and can be used in conjunction with various anesthesia systems;

One key to operate, quickly select the respiratory rate, respiratory ratio and airway pressure etc

Respiratory rate (6 ~ 40 BPM) linear adjustable, respiratory ratio (1: 1.5 ~ 1: 4) real-time adjustable and airway pressure rate (10 ~ 60cmH₂O) real-time adjustable to meet the respiratory demand of different kinds of animals

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

Equipped with two different sizes of bellows, the output tidal volume 20 ~ 300ml and 300 ~ 1500ml

LED airway pressure acousto-optic alarm, intelligent triggering, timely exhaust decompression, real-time monitoring of respiratory rate

Real-time adjustable tidal volume (coarse and fine tune)

shuttle knob flexible and adjustable, quickly set the respiratory rate, respiratory ratio and airway pressure etc.

1500ml bellows and bellows cover

- 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:

Cat No.	Product Description
R409 PLUS	Veterinary Ventilator - Color Screen/ Battery (100-240V)
R409-MB	Mounting Bracket for R409 Ventilator

Anesthesia and Respiration Accessories

Gas Supply



Oxygen or air can be chosen as gas supply of small animal anesthesia machines. Air pump(R540-48) can provide air as gas supply; medical oxygen and E-oxygen tanks can provide oxygen as gas supply (you need to buy oxygen relief valve (R-GM-ET(S)) for Oxygen tanks, E-oxygen tanks are only suitable for portable anesthesia machines and need to purchase E-oxygen tank (R-GM-ET(S)) or double tanks (R-GM-ET (D)) mounting bracket, (as shown above), oxygen is provided by the user.

Breathing Circuits



Order Information:

Cat No.	Product Description
R-NBC-F(JR)	Mapleson F Non-rebreathing Circuit (Jackson-Rees)
R-BC-DL	Breathing Circuit Duo-Limb, 22mm(M)/15mm(F), 1.5m

Feline/Canine Masks

Apply to the anesthesia induction, breathing rescue of felines, canines and the same size of animals.



Order Information:

Cat No.	Product Description
68637	Feline Mask, 44mm(OD)*22mm(ID)*24mm(Depth)
68638	Feline Mask, 57mm(OD)*30mm(ID)*29mm(Depth)
68639	Feline Mask, 60mm(OD)*33mm(ID)*35mm(Depth)
68640	Canine Mask, 87mm(OD)*30mm(ID)*73mm(Depth)
68641	Canine Mask, 110mm(OD)*42mm(ID)*97mm(Depth)
68642	Canine Mask, 130mm(OD)*54mm(ID)*121mm(Depth)
68643	Feline/Canine Mask Set of 6 pcs

Laryngoscopes

Apply to medium or large animals' laryngeal examination and tracheal intubation.

Type	Specification	Technical Parameter
Handle		Length L: 150mm, diameter D: 23mm
Curved lens (Bulb and fiber)	1#	Length L1: 80mm, width W1: 8mm
	2#	Length L1: 95mm, width W1: 10mm
	3#	Length L1: 105mm, width W1: 13mm
	4#	Length L1: 135mm, width W1: 15mm
	5#	Length L1: 155mm, width W1: 15mm
Straight lens (Bulb and fiber)	1#	Length L2: 80mm, width W2: 11mm
	2#	Length L2: 105mm, width W2: 11mm
	3#	Length L2: 155 mm, width W2: 14 mm
	4#	Length L2: 195 mm, width W2: 14 mm
	5#	Length L2: 205 mm, width W2: 17 mm



Order Information:

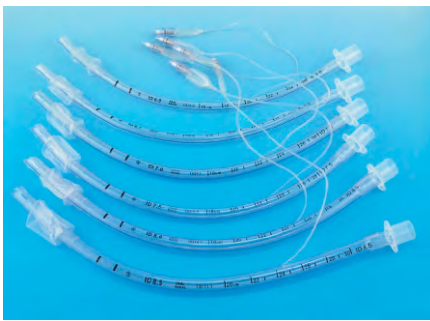
Cat No.	Product Description
C45001-00	Miller Lamp Laryngoscope, 5 Blades+Handle+Case
C45002-00	Miller F.O. Laryngoscope, 5 Blades+Handle+Case
C45003-00	Macintosh Lamp Laryngoscope, 5 Blades+Handle+Case
C45004-00	Macintosh F.O. Laryngoscope, 5 Blades+Handle+Case

Endotracheal Tubes

Medical non-toxic PVC design, suitable for the obstruction of animal throat, respiratory dysfunction and respiratory obstruction. After tracheotomy, the trachea is inserted to keep breathing, with features of smooth/firm tube design, feeling comfortable after intubation etc; ISO standard interface (OD: 15mm), and can be connected with breathing circuit.

Order Information:

Cat No.	Product Description	Remarks
R600-ET	Cuffed Endotracheal Tubes 2.0-10.0mm (1 set)	
R600-ET-20	Uncuffed Endotracheal Tubes-I.D.2.0mm*O.D.3.3mm(Without airbag)	10/ box
R600-ET-25	Cuffed Endotracheal Tubes-I.D.2.5mm*O.D.3.7mm	10/ box
R600-ET-30	Cuffed Endotracheal Tubes-I.D.3.0mm*O.D.4.0mm	10/ box
R600-ET-35	Cuffed Endotracheal Tubes-I.D.3.5mm*O.D.4.7mm	10/ box
R600-ET-40	Cuffed Endotracheal Tubes-I.D.4.0mm*O.D.5.3mm	10/ box
R600-ET-45	Cuffed Endotracheal Tubes-I.D.4.5mm*O.D.6.0mm	10/ box
R600-ET-50	Cuffed Endotracheal Tubes-I.D.5.0mm*O.D.6.7mm	10/ box
R600-ET-55	Cuffed Endotracheal Tubes-I.D.5.5mm*O.D.7.3mm	10/ box
R600-ET-60	Cuffed Endotracheal Tubes-I.D.6.0mm*O.D.8.0mm	10/ box
R600-ET-65	Cuffed Endotracheal Tubes-I.D.6.5mm*O.D.8.7mm	10/ box
R600-ET-70	Cuffed Endotracheal Tubes-I.D.7.0mm*O.D.9.3mm	10/ box
R600-ET-75	Cuffed Endotracheal Tubes-I.D.7.5mm*O.D.10.0mm	10/ box
R600-ET-80	Cuffed Endotracheal Tubes-I.D.8.0mm*O.D.10.7mm	10/ box
R600-ET-85	Cuffed Endotracheal Tubes-I.D.8.5mm*O.D.11.3mm	10/ box
R600-ET-90	Cuffed Endotracheal Tubes-I.D.9.0mm*O.D.12.0mm	10/ box
R600-ET-95	Cuffed Endotracheal Tubes-I.D.9.5mm*O.D.12.7mm	10/ box
R600-ET-100	Cuffed Endotracheal Tubes-I.D.10.0mm*O.D.13.3mm	10/ box
R-ET-WHF	Wall Hanging Frame for Endotracheal Tubes(ID 2.0-13.0mm)	



Wall Hanging Frame for Endotracheal Tubes



Breathing Bags

Order Information:

Cat No.	Product Description	Cat No.	Product Description
R600-RL-0.5L	GTS Resuable Silicone Breathing Bag, 0.5L	R600-RL-3L	GTS Resuable Silicone Breathing Bag, 3L
R600-RL-1L	GTS Resuable Silicone Breathing Bag, 1L	R600-RL-5L	GTS Resuable Silicone Breathing Bag, 5L
R600-RL-2L	GTS Resuable Silicone Breathing Bag, 2L		



Tubing Connector



Order Information:

Cat No.	Product Description	Cat No.	Product Description
R-LCM-1/8	Luer Connector - Male, 1/8"	R-RC-3/8-1/4	Reduced Connector - T-type, 3/8" x 3/8" x1/4"
R-Y-1/4	Y-three Way Valve - PP-1/4"	R-RC-1/4-3/8	Reduced Connector -1/4"-3/8"
R-Y-1/8	Y-three Way Valve - PP-1/8"	R-T-1/4	Three way Valve-MFF
R-Y-1/16	Y-three Way Valve - PP-1/16"	R-Y-7/8	Y-connector -OD:22mm
R-LCF-1/4	Luer Connector - Female, 1/4"	R-TC-22-22/15	Reduced Connector-15mm(M)-22mm(M)/15mm(F)
R-LCM-1/4	Luer Connector - Male, 1/4"	R-RC-15-15/22	Reduced Connector-15mm(M)-15mm(F)/22mm(M)
R510-25-86	9/16 TO Φ8 Cone Connector	R409-TC	T-connector – 9/16
R-AH-C	Oxygen Tube Connector-9/16(F)-M16*1.5(F)		

Tubes



Order Information:

Cat No.	Product Description	Cat No.	Product Description
R-PT-80	PVC Tubing - ID: 8.0mm	R-CT-18	Corrugated Tube - ID 22.0mm, L1.2m
R-ST-15	Silicone Tubing - ID:1.5, OD:4.5mm	R-CT-22-03	Corrugated Tube - ID 22.0mm, L0.3m
R-ST-30	Silicone Tubing - ID:3.0, OD:6.0mm	R-AH-80	O ₂ Hose - ID8.0- M16*1.5-9/16 Connector, 2m
R-ST-60	Silicone Tubing - ID:6.0, OD:9.0mm	R409-AH-80	O ₂ Hose - ID8.0-2*9/16 Connector, 1m
R-ST-60A	Silicone Tubing - ID:6.0,OD:10.0mm		

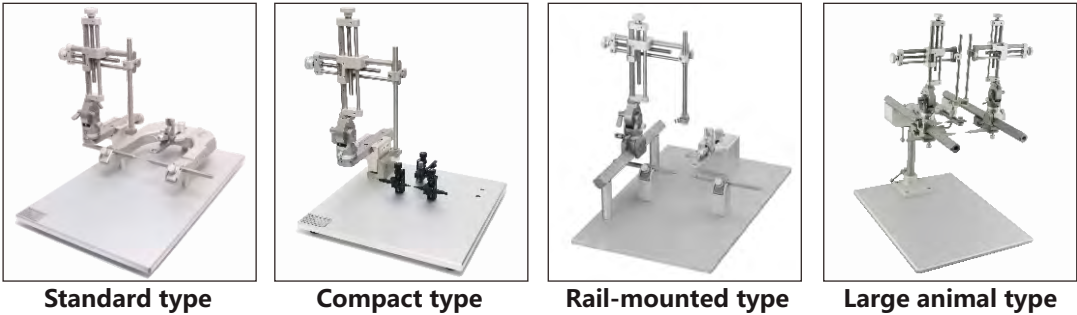
Stereotaxic Instrument Solutions

Stereotaxic instruments are widely used in many fields such as neuroanatomy, neurophysiology, neuropharmacology and neurosurgery etc.

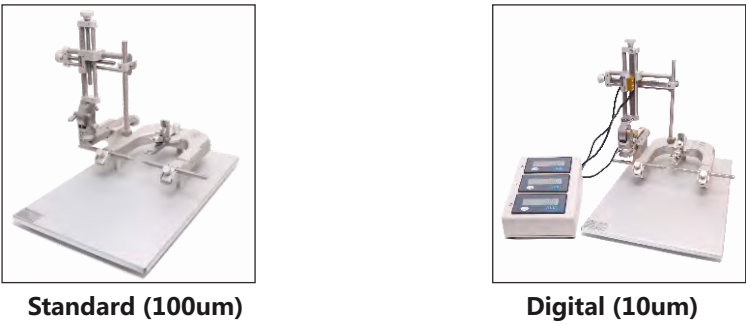
RWD offer a series of stereotaxic instruments to meet the experimental needs of rat, mouse, guinea pig, tree shrew, cat, rabbit, dog, monkey and other different animals . Moreover, RWD stereotaxic instrument is fully equipped (see P33-39), which greatly improves the applicability and application of each stereotaxic instrument.

So, how to choose a most suitable stereotaxic instrument?

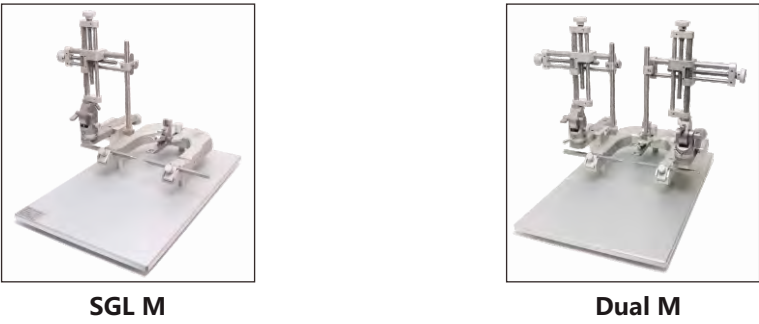
First of all, according to the experimental object and the type of experiment, you can choose the following type, like: standard version, compact version rail rat like version, large animal version etc. (the following figure shows the basic version, see P26-32).



Secondly, according to the preferred experimental accuracy to choose the stereotaxic instruments with different accuary 100um, 10um, two different precision readings are available.

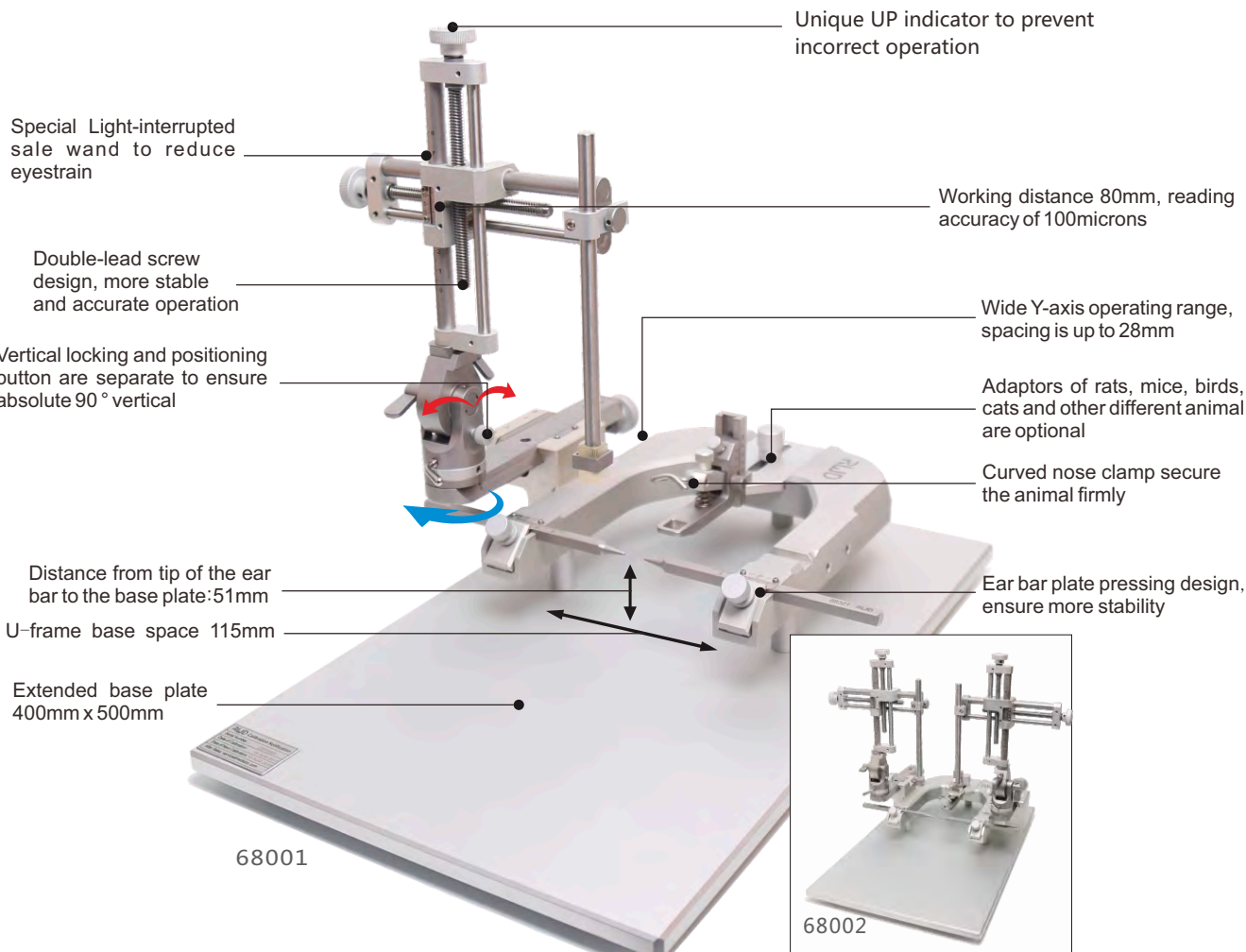


In addition, all of the manual stereotaxic instruments can be upgraded into digital stereotaxic instruments, while the single manipulator can be upgraded into double-manipulator and can be converted freely.



Standard Stereotaxic Instruments

Classical U-type base design, professional services in the laboratory for 15 years!



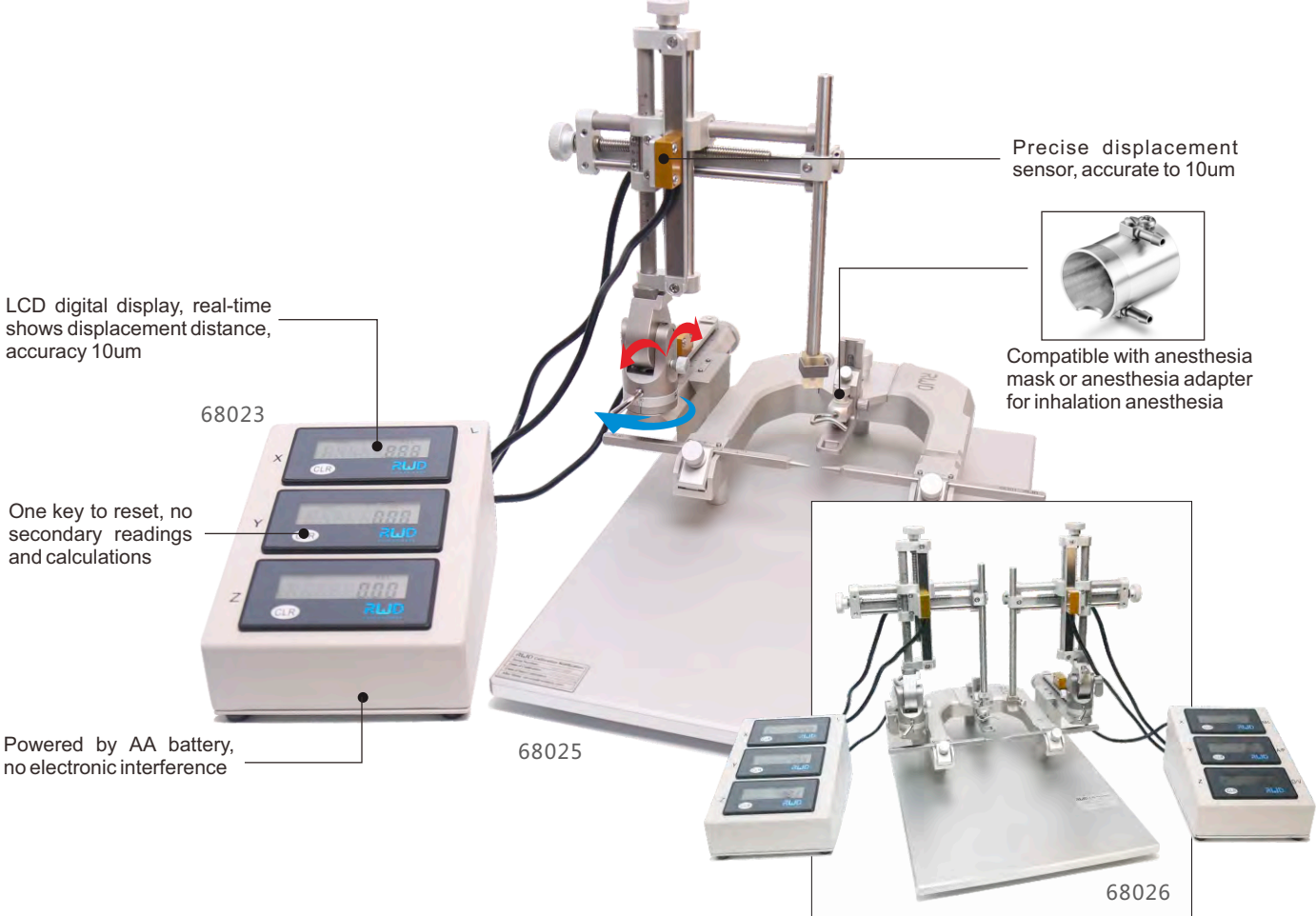
composition:
68001 and 68002 are complete sets of tereotaxic (see figure), both containing 68861N base plate, 68401 three-dimensional manipulator - left, 68021 rat adaptor, 68301 rat 18 ° ear bar, 68201 standard holder, and 68002 includes an extra 68402 three-dimensional manipulator - right.

Order Information:

Cat No.	Product Description	Remarks
68001	Stereotaxic for Rat, SGL M, 18 Deg.	
68002	Stereotaxic for Rat, Dual M, 18 Deg.	
68005	Stereotaxic for Rat, SGL M, 45 Deg.	
68006	Stereotaxic for Rat, Dual M, 45 Deg.	
68037	Stereotaxic for Mouse, SGL M, 68030 Adaptor Incl.	
68038	Stereotaxic for Mouse, Dual M, 68030 Adaptor Incl.	
68043	Stereotaxic for Rat, SGL M, 68055 Adaptor,60 Deg.	
68044	Stereotaxic for Rat, Dual M, 68055 Adaptor,60 Deg	
68535	Stereotaxic for Mouse, SGL M, 68077 Adaptor,60 Deg	
68536	Stereotaxic for Rat, SGL M, 68078 Adaptor,18 Deg	
68861N	Stereotaxic Base Plate, Standard	

Desktop Digital Stereotaxic Instruments

Digital displacement display, higher accuracy, higher efficiency!

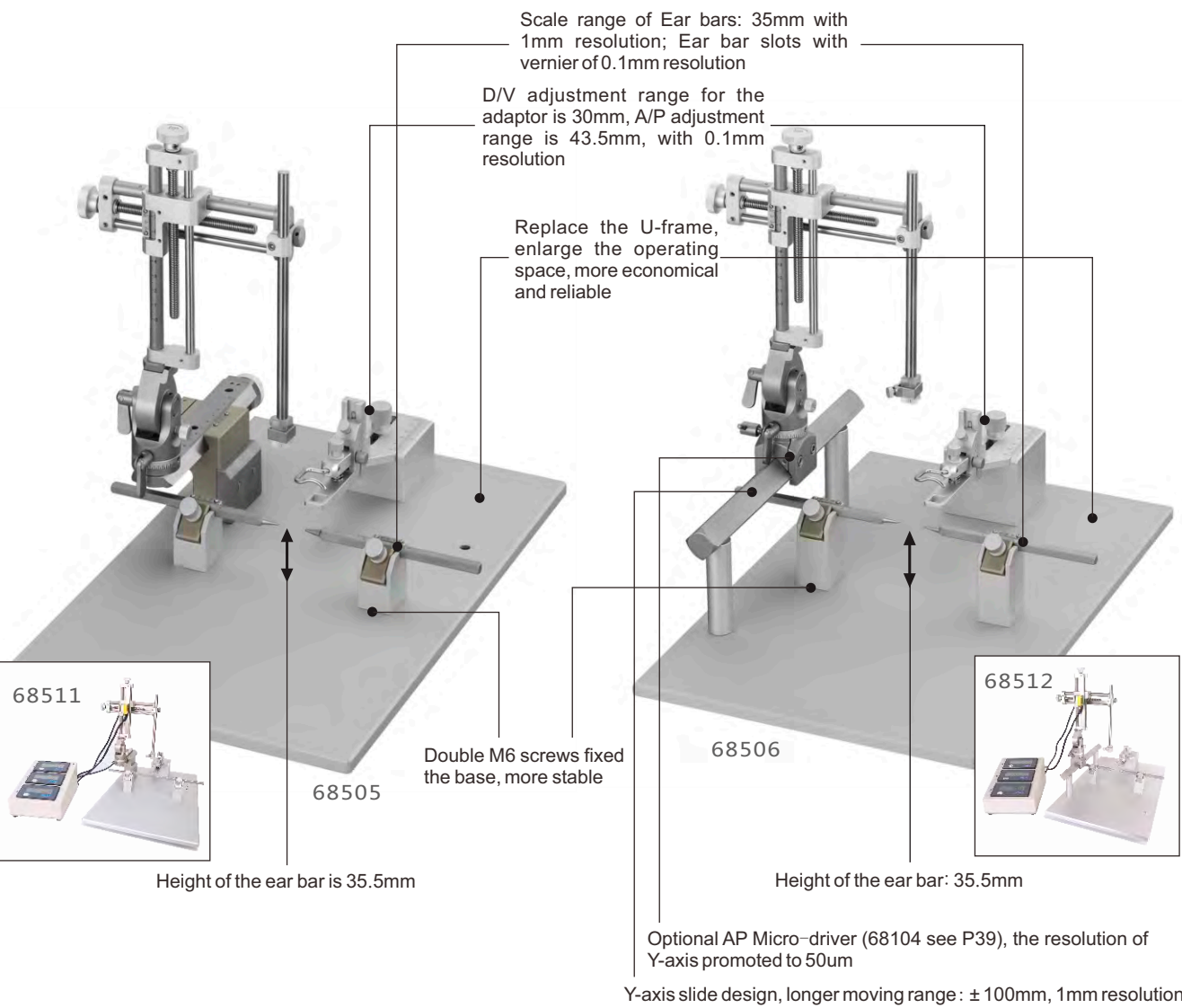


composition:
68025 and 68026 are complete sets of stereotaxic (see figure), both containing 68861N base plate, 68401 three-dimensional manipulator - left, 68021 rat adaptor, 68301 rat 18 ° ear bar, 68201 standard holder, 68026 includes an extra 68402 three-dimensional manipulator - right and 68023 digital display module.

Order Information:

Cat No.	Product Description	Remarks
68025	Stereotaxic for Rat, SGL M, Digital, 18 Deg.	
68026	Stereotaxic for Rat, Dual M, Digital, 18 Deg.	
68027	Stereotaxic for Rat, SGL M, Digital, 45 Deg.	
68028	Stereotaxic for Rat, Dual M, Digital, 45 Deg.	
68018	Stereotaxic for Mouse, SGL M, Digital, 68030 Adaptor Incl.	
68019	Stereotaxic for Mouse, Dual M, Digital, 68030 Adaptor Incl.	
68045	Stereotaxic for Mouse, SGL M, 68055 Adaptor,60 Deg	
68046	Stereotaxic for Mouse, Dual M, 68055 Adaptor,60 Deg	
68537	Stereotaxic for Mouse, SGL M, 68077 Adaptor,60 Deg	
68538	Stereotaxic for Rat, SGL M, 68078 Adaptor,18 Deg	
68861N	Stereotaxic Base Plate, Standard	
68023	3-axis Digital Readout for Upgrade-68000	With digital base and displacement sensor

Portable/Rail Rat Stereotaxic Instruments



Composition:
68505 and 68506 are a complete sets of stereotaxic (see figure), both containing 68021 rat adaptor, 68301 rat 18 ° ear bar, 68201 standard holder, 68505 with the 68864S base plate and a 68401 three-dimensional manipulator - left, 68506 with the 68865S base plate and 68851 two-dimensional manipulator - left.

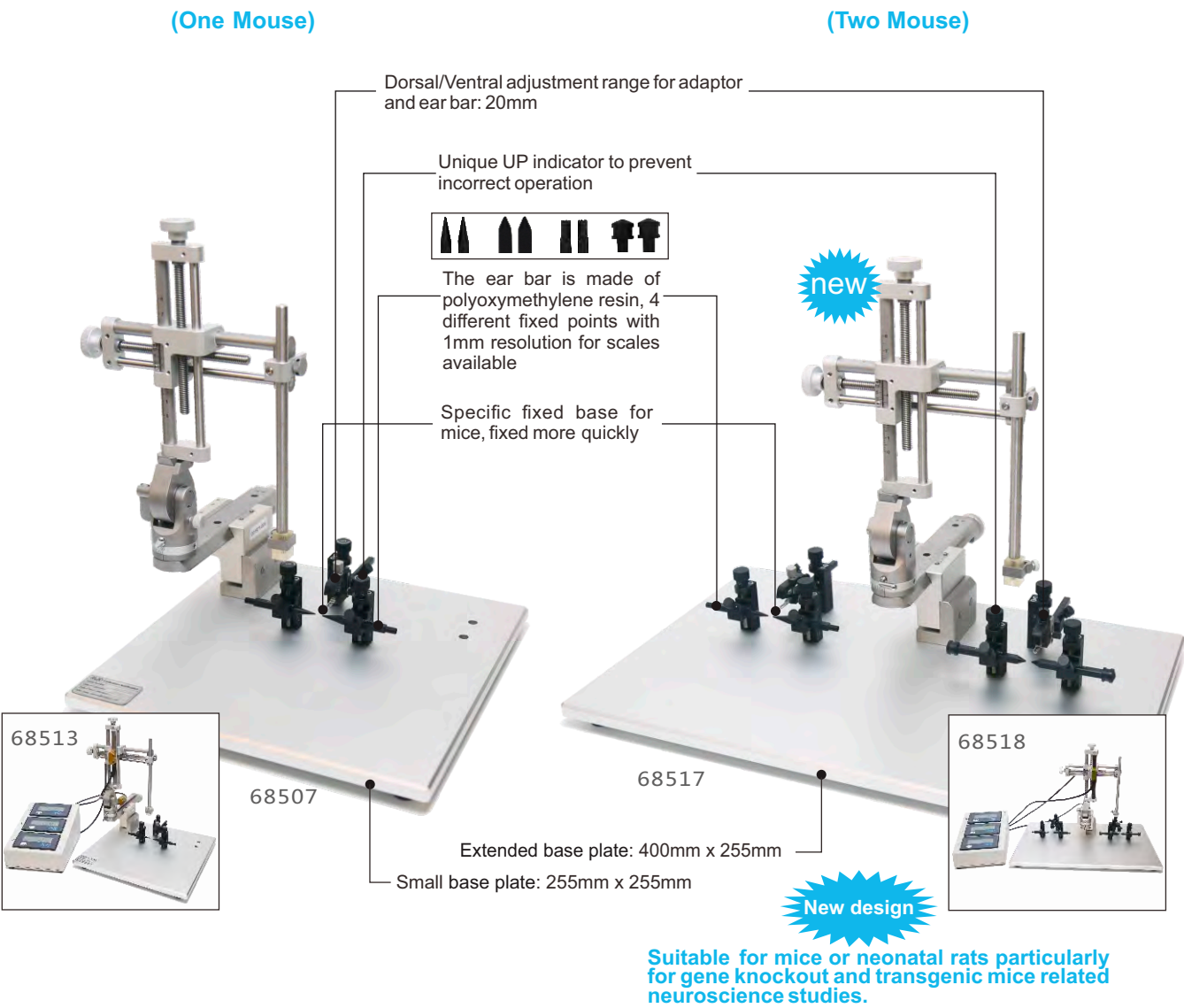
Order Information:

Cat No.	Product Description
68505	Stereotaxic for Rat, SGL M, Portable
68508	Stereotaxic for Rat, Dual M, Portable
68511	Stereotaxic for Rat, Digital and Portable, SGL M
68514	Stereotaxic for Rat, Digital and Portable, Dual M,
68864S	Stereotaxic Base Plate for Rat, Portable, SGL. M
68864D	Stereotaxic Base Plate for Rat, Portable, SGL. M

Order Information:

Cat No.	Product Description
68506	Stereotaxic for Rat, SGL M, Rail-type
68509	Stereotaxic for Rat, Dual M, Rail-type
68512	Stereotaxic Frame for Rat, Portable, SGL. M
68515	Stereotaxic for Rat, Digital and Rail-type, Dual M
68865S	Stereotaxic Base Plate for Rat or Mouse, Rail-type, SGL. M
68865D	Stereotaxic Base Plate for Rat or Mouse, Rail-type, Dual M
68941	2-axis Manip for Rat Stereotaxic, Left Hand

Compact Mouse Stereotaxic Instruments



Composition:
68507 and 68517 are complete sets of stereotaxic (see figure), both containing 68033 mouse nose clip, 68034 and 68313 mouse 18 ° and 45° ear bars, 68201 standard holder, 68401 three-dimensional manipulator - left, 68507 with 68863S base plate, while 68517 with 68866N base plate, Digital version 68513 and 68518 adds 68023 three-dimensional digital display module.

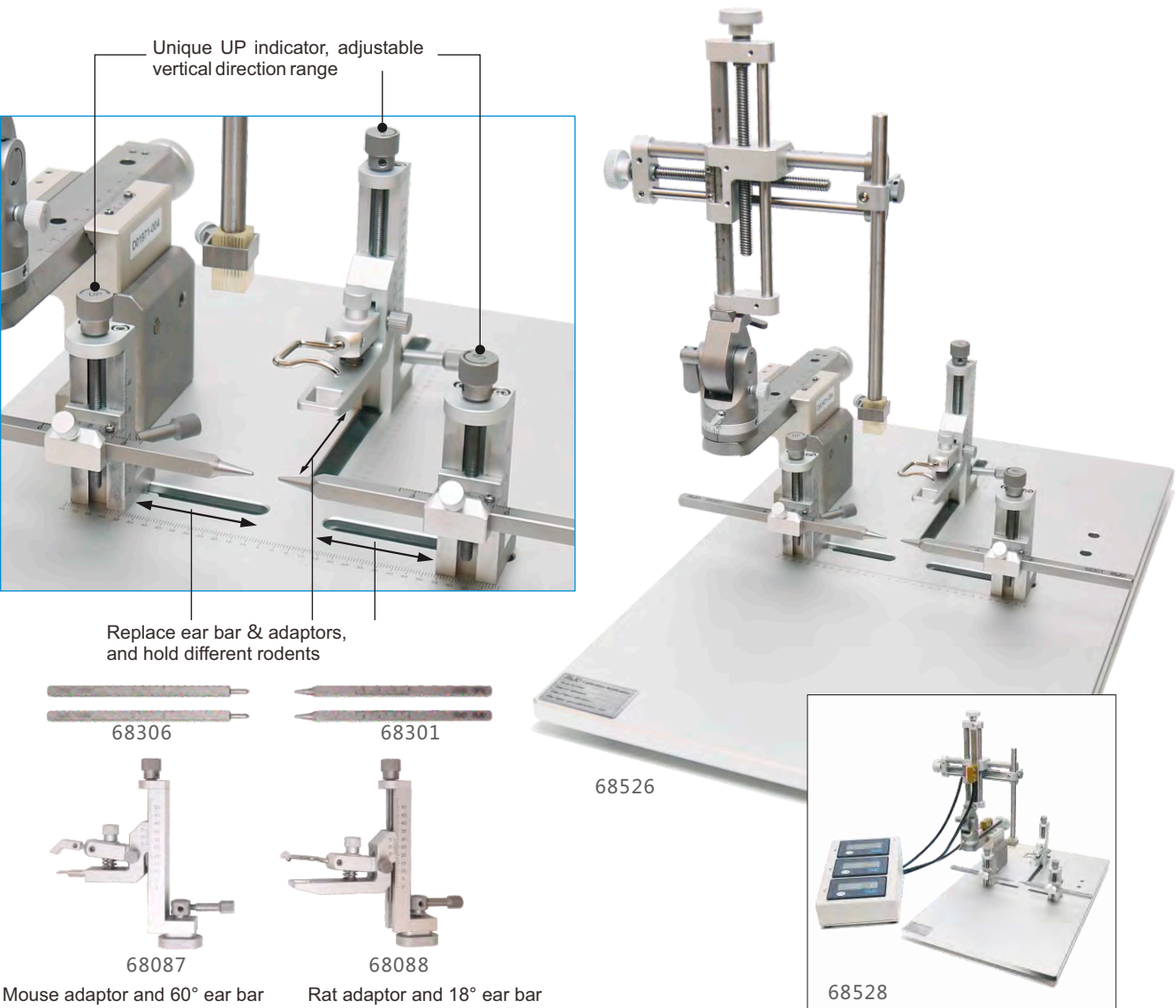
Order Information:

Cat No.	Product Description
68507	Stereotaxic for Mouse, SGL M, Portable
68510	Stereotaxic for Mouse, Dual M, Portable
68513	Stereotaxic for Mouse, Digital and Portable, SGL M
68516	Stereotaxic for Mouse, Digital and Portable, Dual M
68863S	Stereotaxic Base Plate for Mouse, Portable, SGL. M
68863D	Stereotaxic Base Plate for Mouse, Portable, Dual M

Order Information:

Cat No.	Product Description
68517	Stereotaxic for 2 Mice, Portable, SGL.M
68518	Stereotaxic for 2 Mice, Digital & Portable, SGL.M
68866N	Stereotaxic Base Plate for Two Mice, Portable

Portable Rat & Mouse Stereotaxic Instruments

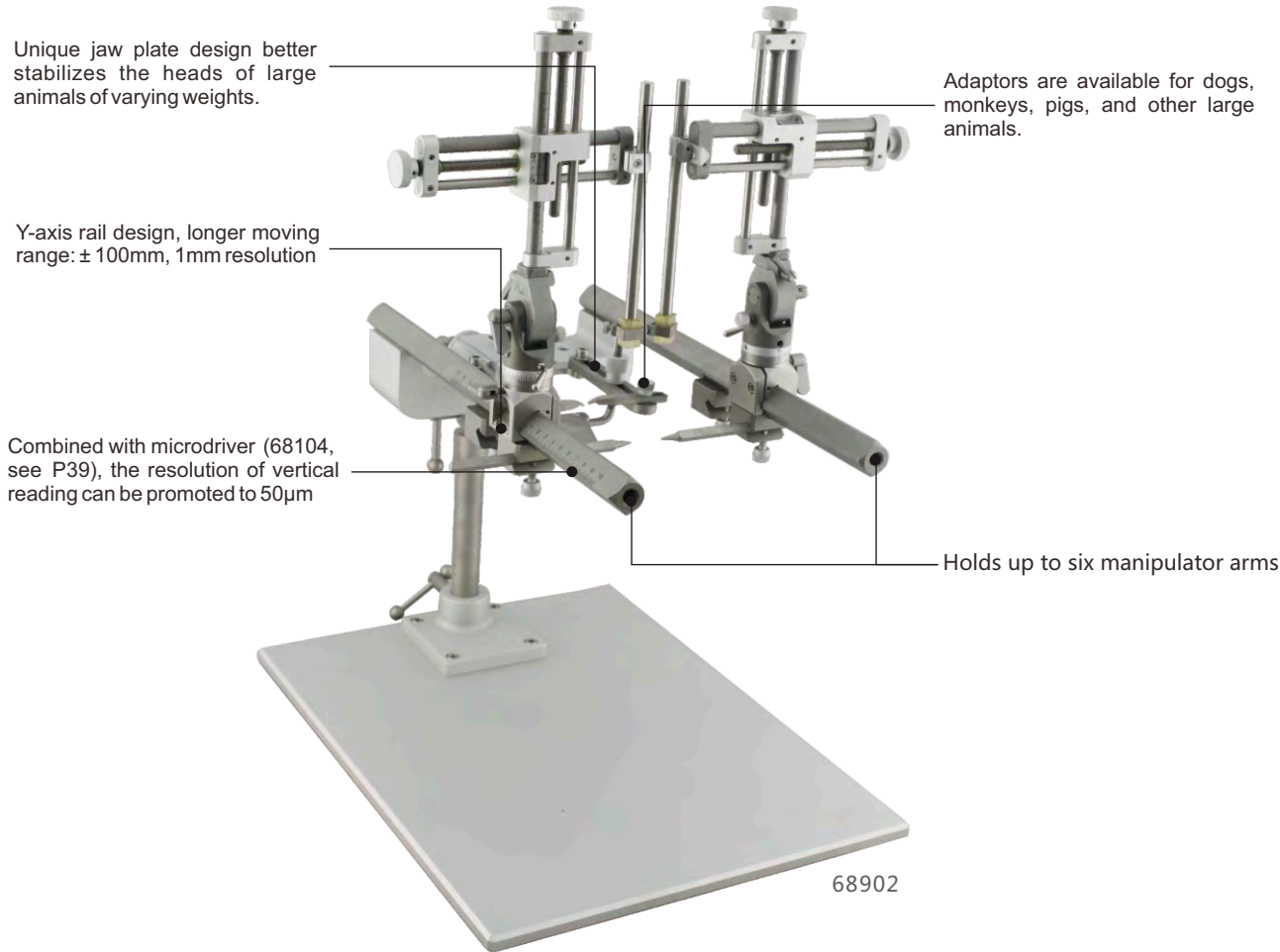


Composition:
68526 is a complete set stereotaxic configurations, containing 68867S base plate, 68401 three-dimensional manipulator - left, 68087 mouse adaptor and 68088 mouse adaptor, 68301 rat 18° ear bars and 68306 mouse 60 ° ear bars, 68201 standard holder; Digital version 68528 adds 68023 three-dimensional digital display module.

Order Information:

Cat No.	Product Description	Remarks
68526	Stereotaxic for Rat and Mouse, SGL M, Portable	
68527	Stereotaxic for Rat and Mouse, Dual M, Portable	
68528	Stereotaxic for Rat and Mouse, SGL M, Digital and Portable	
68529	Stereotaxic for Rat and Mouse, Dual M, Digital and Portable	
68867S	Stereotaxic Base Plate for Rat and Mouse, Portable, SGL. M	
68867D	Stereotaxic Base Plate for Rat and Mouse, Portable, Dual M	
68087	Mouse adaptor (Stereotaxic for Rat and Mouse)	
68088	Rat adaptor (Stereotaxic for Rat and Mouse)	

Large Animal Stereotaxic Instruments

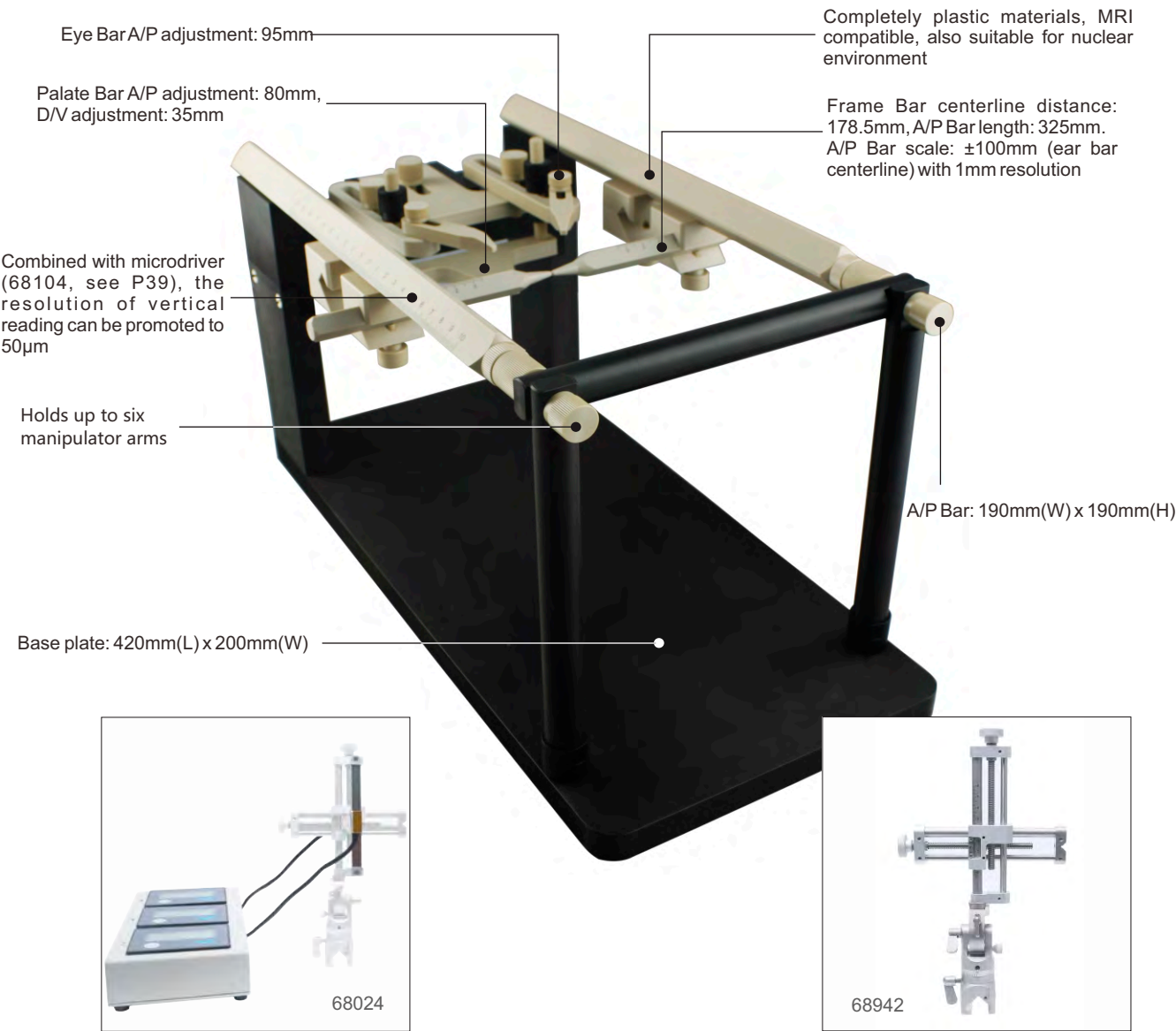


Composition:
68902 is a complete set of stereotaxic, containing 68868N base plate, 68941 two-dimensional manipulator - left, 68942 two-dimensional manipulator - right, 68081 dog/monkey adaptor, 68303 cat/ monkey 18 ° ear bar, 68201 standard holder; Digital version 68916 adds 68024 two-dimensional digital display module.

Order Information:

Cat No.	Product Description	Remarks
68901	Stereotaxic for Dog/Monkey, SGL M, 68081 Adaptor Incl.	
68902	Stereotaxic for Dog/Monkey, Dual M, 68081 Adaptor Incl.	
68911	Stereotaxic for Cat/Monkey, SGL M, 68041 Adaptor Incl.	
68912	Stereotaxic for Cat/Monkey, Dual M, 68041 Adaptor Incl.	
68916	Stereotaxic for Dog/Monkey, Digital, SGL M, 68081 Adaptor Incl.	
68917	Stereotaxic for Dog/Monkey, Digital, Dual M, 68081 Adaptor Incl.	
68920	Stereotaxic for Cat/Monkey, Digital, SGL M, 68041 Adaptor Incl.	
68921	Stereotaxic for Cat/Monkey, Digital, Dual M, 68041 Adaptor Incl.	
68868N	Stereotaxic Base Plate for Dog, Pig, Monkey etc.	Adaptor/ear bar see P27-39
68941	2-axis Manip for Dog/Monkey Stereotaxic, Left Hand	
68942	2-axis Manip for Dog/Monkey Stereotaxic, Right Hand	
68944	2-axis Digital Manip for Dog/Monkey Stereotaxic, Left Hand	
68945	2-axis Digital Manip for Dog/Monkey Stereotaxic, Right Hand	

Dog/Monkey MRI Stereotaxic Instruments (Customized)



Order Information:

Cat No.	Product Description	Remarks
68915	MRI Compatible Stereotaxic for dog/monkey/68081/Base Plate (Customized)	manipulator is not included
68941	2-axis Manip for Dog/Monkey Stereotaxic, Left Hand	Adaptor/ear bar see P27-39
68942	2-axis Manip for Dog/Monkey Stereotaxic, Right Hand	
68024	2-axis Digital Readout for Upgrade-68000	
68944	2-axis Digital Manip for Dog/Monkey Stereotaxic, Left Hand	
68945	2-axis Digital Manip for Dog/Monkey Stereotaxic, Right Hand	
68104	AP-Microdriver (50 μ m)	

Stereotaxic Instruments Accessories

Holders

RWD offers various holders to fix different shapes and ranges of electrodes, needles, cannulas, headstages, probes, drills, injectors etc.

Standard Probe Holder

68201 Standard Probe Holder-Corner
V-groove design, widely used for syringe needles or electrodes with diameter 0.3mm-1.5mm.

68213 Standard Probe Holder-Side Clamp
With a similar structure to the standard Probe Holder 68201; holds syringe needle or electrode with diameter 0.4mm-4.0mm

Cannula Holders

68217 Cannula Holder

Suitable for holding the single cannula or double cannula with the outer diameter of 3.5mm plastic base

68211 Cannula Holder

Compatible with stereotaxic instruments with dual manipulators. Holds electrodes or cannulas of 2.1mm to 5.0mm in diameter. It can place them within a distance of 0.3mm.

68221 Cannula Holder

Threaded locking mode is used to specifically hold RWD 3.5mm cannula system.

Electrode Holder

68210 Electrode Holder

Holder is specifically designed for electrophysiological experiments. Two electrodes, controlled individually, can be located very close to each other. Holds thin electrodes with diameter from 0.7mm to 2.5mm.

68220 Electrode Holder

Head of the holder is wedge-shaped and holds electrodes with 0.9mm to 3mm diameters.

68216 Electrode Holder

Holder is designed for the dualoperating electrophysiology experiments. Distance between two electrodes can be as close as 200 μ m. Holds electrodes with 0.4mm to 1.5mm diameters.

Multi-function Holders

68202 Large Probe Holder



Lateral fixation, holds micro syringe needles, large diameter electrodes and flexible drill handles etc, V-groove design with 6mm-12mm diameters.

68106 Headstage Holder



Holder is designed for holding micro amplifier or headstage (Such as TBSI headstage and Plexon microelectrode amplifier). C-shaped head and suitable for diameter from 0.1-7.0mm.

68218 Syringe Holder



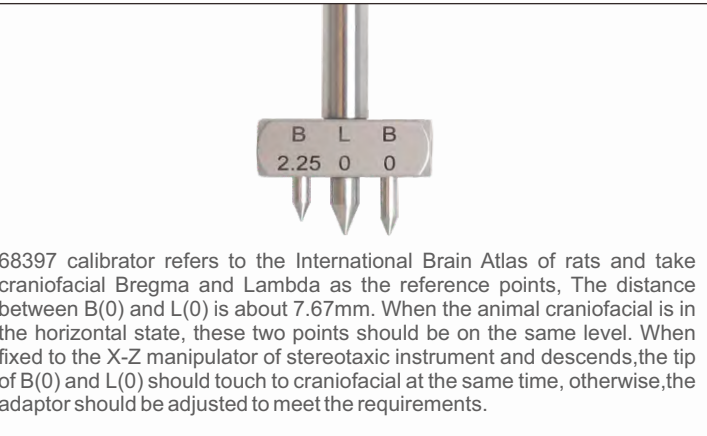
Holder is applicable for micro-injection, which holds syringe and needle simultaneously, and the clamping of the syringe is more stable, the syringe holding range is 3mm to 12mm and needle's is 0.3mm to 1.5mm.

68605 Microdrill Holder



Holder secures the microdrill to stereotaxic instruments. Controls the depth of drilling by the manipulator. Easy and accurate operation protects brain tissue from damage caused by excessive drilling.

68397 Level Calibrator - Rat

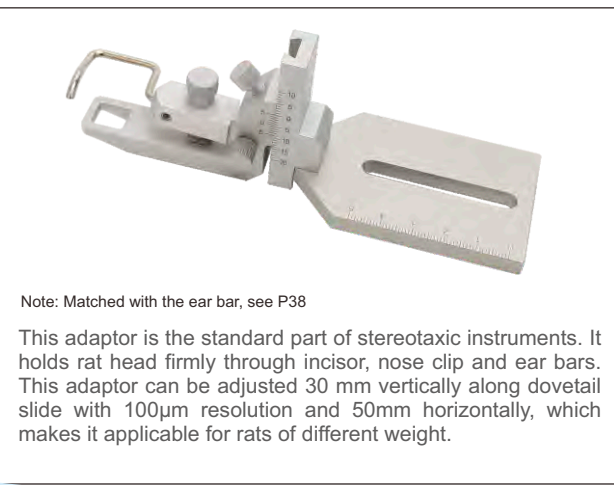


68397 calibrator refers to the International Brain Atlas of rats and take craniofacial Bregma and Lambda as the reference points. The distance between B(0) and L(0) is about 7.67mm. When the animal craniofacial is in the horizontal state, these two points should be on the same level. When fixed to the X-Z manipulator of stereotaxic instrument and descends, the tip of B(0) and L(0) should touch to craniofacial at the same time, otherwise, the adaptor should be adjusted to meet the requirements.

Adaptors

Rat Adaptors

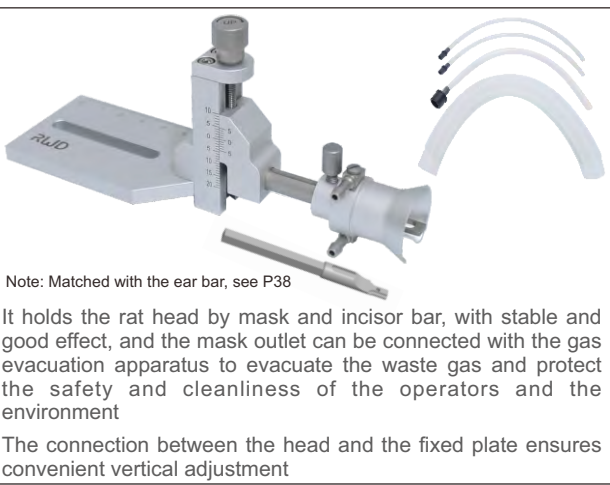
68021 Rat Adaptor



Note: Matched with the ear bar, see P38

This adaptor is the standard part of stereotaxic instruments. It holds rat head firmly through incisor, nose clip and ear bars. This adaptor can be adjusted 30 mm vertically along dovetail slide with 100µm resolution and 50mm horizontally, which makes it applicable for rats of different weight.

68078 Rat Anesthesia Adaptor (Tubing included)



Note: Matched with the ear bar, see P38

It holds the rat head by mask and incisor bar, with stable and good effect, and the mask outlet can be connected with the gas evacuation apparatus to evacuate the waste gas and protect the safety and cleanliness of the operators and the environment

The connection between the head and the fixed plate ensures convenient vertical adjustment

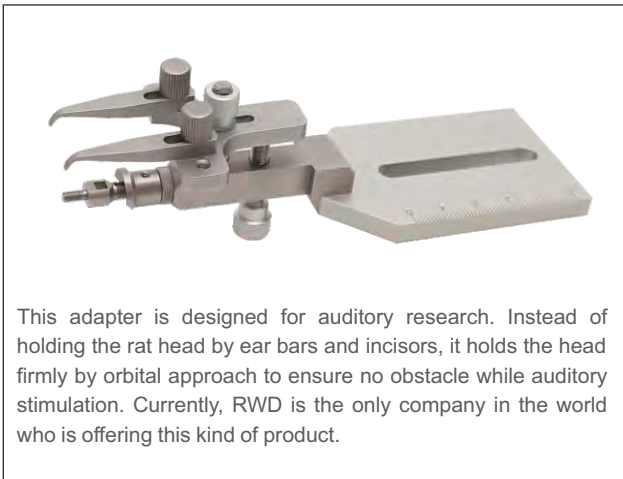
68011 MRI Rat Adaptor (customized)



This adaptor is designed for MRI equipments, with special materials to avoid magnetic interference. The fixation of animal is convenient and stable

size: 360mm(L)x 125mm(W)x 96mm(H)

68022 Rat Adaptor-Aural (customized)



This adapter is designed for auditory research. Instead of holding the rat head by ear bars and incisors, it holds the head firmly by orbital approach to ensure no obstacle while auditory stimulation. Currently, RWD is the only company in the world who is offering this kind of product.

68063 Rat Rotation Adaptor (with 18° ear bar 68310)(customized)

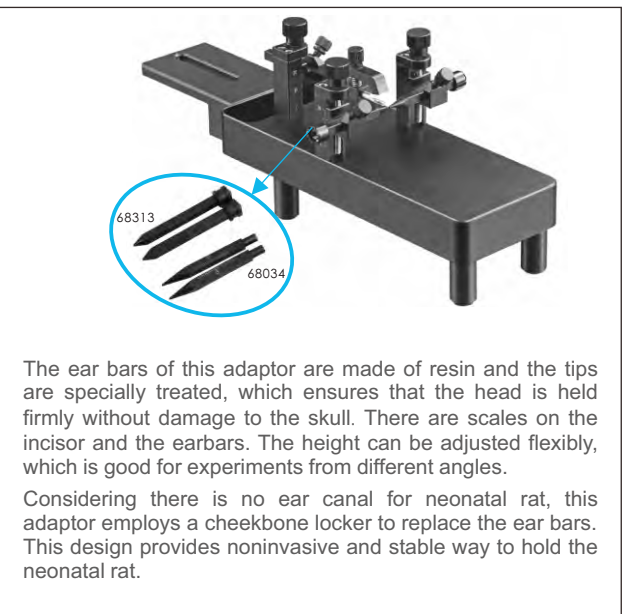


This adaptor is specifically designed for some special applications. The head of the rat will be fixed by a pair of ear bars, nose and incisors, and can be rotated according to the experimental requirements to facilitate the operation of different parts of the rat head in different directions. The vertical adjustable range of the adaptor is 30mm (-20mm ~ +10mm), the adjustment accuracy is 100µm; Horizontal adjustable range of the adaptor is 43.5mm; the rotation angle of the head is 60° (-30° ~ +30°)

68065 Mouse Rotation Adaptor (with 60° ear bar 68312).

Mouse Adaptors

68030 Mouse/Neonatal Rat Adaptor (with 18° ear bars 68034 and 45° ear bars 68313)



The ear bars of this adaptor are made of resin and the tips are specially treated, which ensures that the head is held firmly without damage to the skull. There are scales on the incisor and the earbars. The height can be adjusted flexibly, which is good for experiments from different angles.

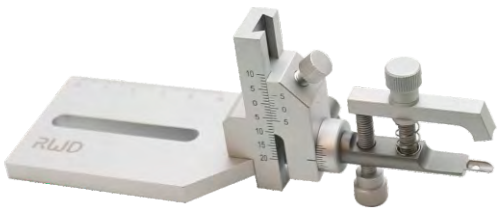
Considering there is no ear canal for neonatal rat, this adaptor employs a cheekbone locker to replace the ear bars. This design provides noninvasive and stable way to hold the neonatal rat.

68036 Mouse Warm Water Adaptor (with 18° and 45° ear bars)



This unique stereotaxic adaptor is upgraded with water-cycled heating platform to use with warm water recirculator. The temperature of the platform surface is stable, uniform and comfortable. Warm water recirculator should be purchased separately(see P42).


68055 Mouse Adaptor



Note: Matched with the ear bar, see P38

It holds the mouse head by a palate and incisor, and offers vertical regulation to make the head level or at certain angle. The Vertical adjustable range from +10mm to -20mm, with 100μm resolution; Horizontal adjustable range of 43.5mm; Horizontal rotatable range of 35°

68077 Mouse Anesthesia Adaptor (Tubing included)



Note: Matched with the ear bar, see P38

It holds the mouse head by mask and incisor bar, with stable and good effect, and the mask outlet can be connected with the gas evacuation apparatus to evacuate the waste gas and ensure the safety and cleanliness of the operators and the environment. The screw connection between the head and the fixed plate ensures convenient vertical adjustment.

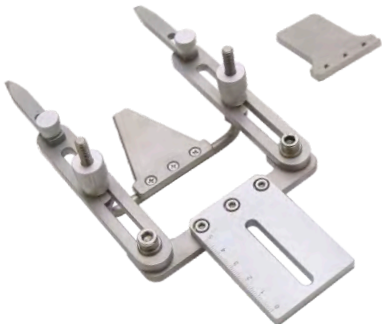
Other Adaptors

68041 Cat/Monkey Adaptor




This adaptor includes ear bars and raising block (65mm). It holds the head through ear canal and eye socket. The adaptor can be used with standard stereotaxic instruments and large animal stereotaxic instruments.

68081 Dog/Monkey/Pig Adaptor



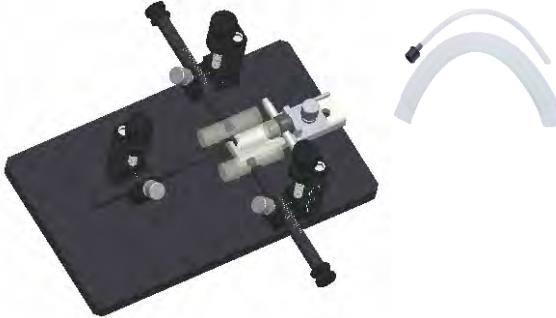
This adapter is used for large animal stereotaxic instrument, and it is ideal for dogs, monkeys and pigs around 10kg. The extended palate and screw is convenient to hold the animal firmly.

68014 Neonatal Mouse Adaptor (with 20°ear bars 68315 and 45°ear bars 68316)



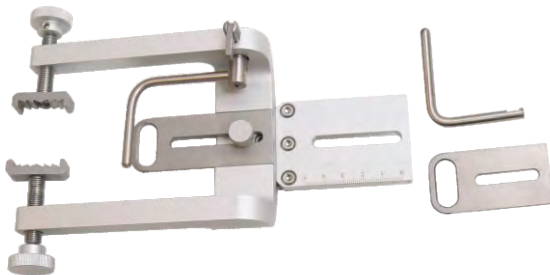
This adaptor is specifically for neonatal mice. It has extended base plate (150mm(L) x 100mm(W)) and provides more operating space for researchers. It can be easily placed on the RWD stereotaxic instruments. The incisor, nose clip and ear bars can be adjusted up and down in 20mm range to ensure the skull level.

68072 Neonatal Mouse Anesthesia Adaptor




After repeated testing and validation, RWD researchers developed the neonatal mouse anesthesia adaptor suitable for stereotaxic instruments in conjunction with the needs of multiple laboratories. It can achieve lasting gas anesthesia and fixation on neonatal mice without affecting the physiological function. And it's easy to implement long-term brain experiments.

68085 Rabbit Adaptor (customized)



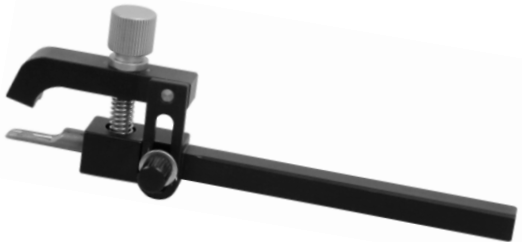
It holds the rabbit head by special malar clamp, adjustable incisor buckle and nose bar. The distance between the two zygomatic clamps can be precisely adjusted by the screw knob. Ward and backward adjustable range of adult rabbit is 43.5mm, neonatal rabbit is 26.5mm and the adaptor is 40mm.

68076 Tree Shrew Anesthesia Adaptor Kit (with tubing/ customized)



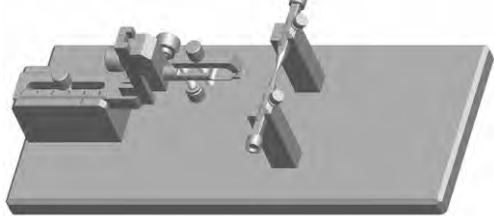
According to the brain three-dimensional structure of tree shrews, RWD specially developed a adaptor that can be worked with stereotaxic apparatus, to solve the problem of tree shrew three-dimensional positioning (with a real-time anesthesia inhalation structure)

68033 Nose Bar For Mouse/Neonatal Rat



This nose bar is available for 68030 and 68036 adaptors, and portable mouse stereotaxic instruments (like 68507, 68510, 68513, 68516, 68517 and 68518 portable stereotaxic instruments). The arch design fits for the mouse nose to make head-holding more stable.

68069 MRI Mouse Adaptor (customized)



Vertical adjustable range: 30mm (+10mm~-20mm), with 100μm accuracy.
Horizontal adjustable range: 45mm.
Ear bars laser engraved scale, good for operation.
Two ear bar fixing modes for preventing damage to skull.

Plate dimension: 280mm(L) x 120mm(W) x 93mm(H)

68075 MRI Adaptor for Tree Shrews (customized)



For PET/CT brain imaging of animals, it is difficult to hold the head firmly while anesthetized status. Based on PET/CT imaging requirement, RWD specifically developed this adaptor for holding the head of tree shrew with high quality non-metallic materials. Moreover, this adaptor has gas anesthesia mask. The tree shrews can wake up in 2-5 minutes after the experiment. Since the PET/CT system varies in different brands, RWD provides customized adaptors for different PET/CT system. The applicable animals include rat, mouse, rabbit, cat etc.

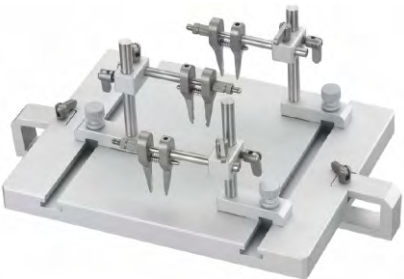
Multi-function Adaptor

68091 Spinal Cord Adaptor for Rat & Mouse

The adaptor is ideal for spinal securing of rat and mouse. The base plate is 210mm(L) x 165mm(W) x 15mm(H), which can be attached to RWD 68000 series small animal stereotaxic instruments. There are 3 vertical bars and locking blocks. which can be easily disassembled through the T slots without wrench. The adjustment range of vertical bar is 56mm. The height of locking block can be easily adjusted by screw. This adaptor can be adjusted in Vertical/Lateral, Anterior/Posterior and Ventral/Dorsal directions. Standard accessories contain: Base plate, 3 vertical bars and locking blocks and spinal cord clamp (3 pairs).

Specifications:

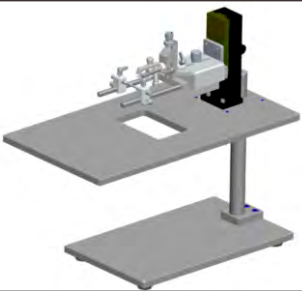
- Accurate and reliable positioning.
- Wide various components and accessories can be used in module.
- Simple, fast and effective clamping and locking.
- Compatible with small animal stereotaxic instruments.



68073 Head Rotation Platform for Rats and Mice

The height of the platform can be adjusted according to the specific experimental requirements; the head holder can be adjusted in the vertical direction and 360° rotation in the horizontal direction, the platform below the head is suspended, especially for rats and mice that require 180° rotation in the head and body during surgery, such as, the experimental study on cerebral ischemia by thread embolism, real-time monitoring the changes of the blood flow in animals' head(fixed fiber on the skull surface) to determine whether the model is successful or not.

- 68071 Animal rotation platform - Mouse (with mouse rotation adaptor and 60° ear bar)
- 68074 Animal rotation platform - Rat (with rat rotation adaptor and 18° ear bar)
- 68073 Animal rotation platform - Rat/Mouse (with rat and mouse rotating adaptor and ear bar)



Ear Bars

RWD ear bar with the scale of 35mm,1mm resolution, square 6.15mm

68301



Ear Bars, Rat, 18 Deg.
(0.8mm radius tip)

68302



Ear Bars, Rat, 45 Deg (for guinea pigs, prairie rats, birds, squirrel monkeys 0.8mm tip)

68305



Ear Bars, Rat, Hollow, 45 Deg (for grassland birds, rats, guinea pigs, monkeys 1.0mm aperture tip, 3.0mm aperture)

68306



Ear Bars, Mouse, 60 Deg

68307



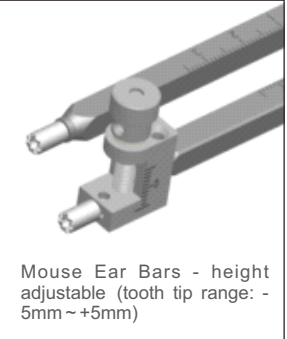
Ear Bars, Mouse, Non-Rupture, Cuff
(Suitable for neonatal rats are available)

68308



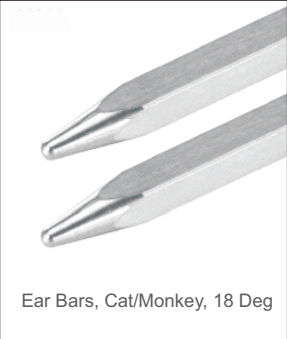
Ear Bars, Mouse, Non-Rupture, Rubber
(Suitable for neonatal rats are available)

68314



Mouse Ear Bars - height adjustable (tooth tip range: -5mm ~ +5mm)

68303



Ear Bars, Cat/Monkey, 18 Deg

68304



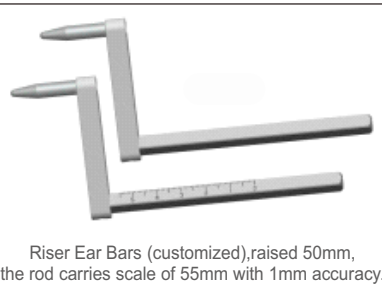
Ear Bars, Cat/Monkey, 45 Deg

68060



Ear Bar Adaptor - Rat
(with 18° ear bar)

68413



Riser Ear Bars (customized), raised 50mm,
the rod carries scale of 55mm with 1mm accuracy.

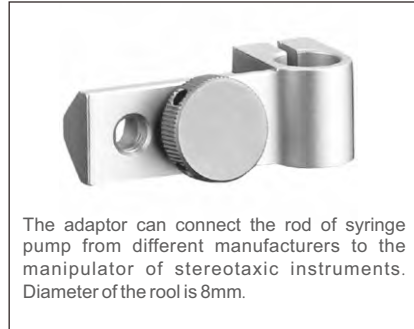
Other Accessories

68104 AP-Microdriver (50µm)



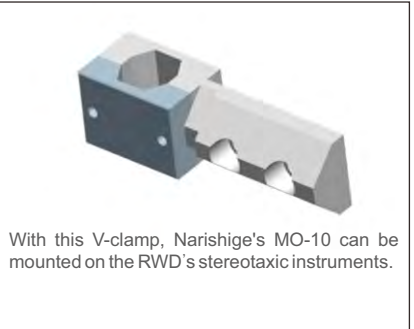
This microdriver can be fine-tuned in the range of 25mm with 50µm step. It makes the travel of manipulators more accurately on the rails of MRI compatible stereotaxic, large animal stereotaxic and rail-mounted stereotaxic instruments.

68207 V attachment



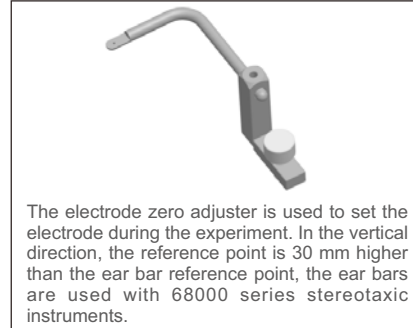
The adaptor can connect the rod of syringe pump from different manufacturers to the manipulator of stereotaxic instruments. Diameter of the rod is 8mm.

R-VTA-08 V-clamp



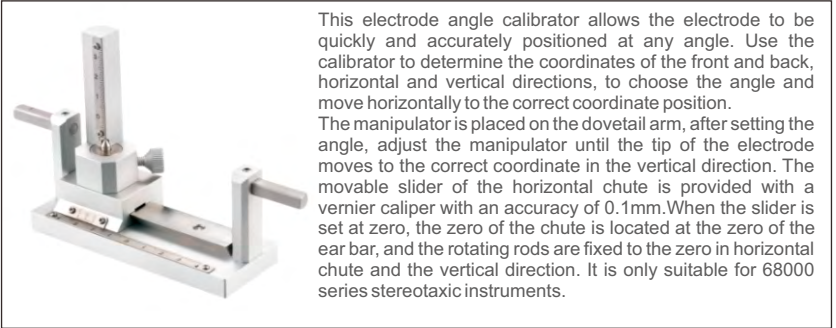
With this V-clamp, Narishige's MO-10 can be mounted on the RWD's stereotaxic instruments.

68399 Electrode Zero Adjuster (customized)



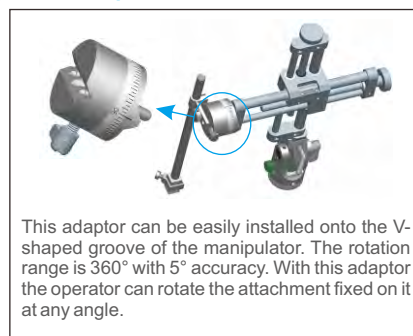
The electrode zero adjuster is used to set the electrode during the experiment. In the vertical direction, the reference point is 30 mm higher than the ear bar reference point, the ear bars are used with 68000 series stereotaxic instruments.

68400 Electrode Calibrator (customized)



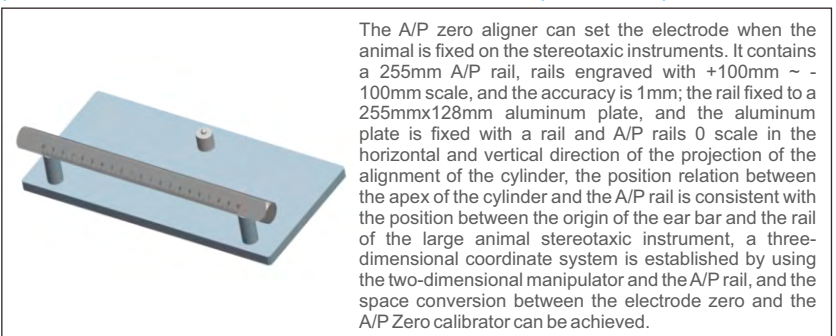
This electrode angle calibrator allows the electrode to be quickly and accurately positioned at any angle. Use the calibrator to determine the coordinates of the front and back, horizontal and vertical directions, to choose the angle and move horizontally to the correct coordinate position. The manipulator is placed on the dovetail arm, after setting the angle, adjust the manipulator until the tip of the electrode moves to the correct coordinate in the vertical direction. The movable slider of the horizontal chute is provided with a vernier caliper with an accuracy of 0.1mm. When the slider is set at zero, the zero of the chute is located at the zero of the ear bar, and the rotating rods are fixed to the zero in horizontal chute and the vertical direction. It is only suitable for 68000 series stereotaxic instruments.

68412 D/V Rotation Adaptor (2-axis Manipulator not included customized)



This adaptor can be easily installed onto the V-shaped groove of the manipulator. The rotation range is 360° with 5° accuracy. With this adaptor the operator can rotate the attachment fixed on it at any angle.

68398 A / P Zero Calibrator (customized)



The A/P zero aligner can set the electrode when the animal is fixed on the stereotaxic instruments. It contains a 255mm A/P rail, rails engraved with +100mm ~ -100mm scale, and the accuracy is 1mm; the rail fixed to a 255mmx128mm aluminum plate, and the aluminum plate is fixed with a rail and A/P rails 0 scale in the horizontal and vertical direction of the projection of the alignment of the cylinder, the position relation between the apex of the cylinder and the A/P rail is consistent with the position between the origin of the ear bar and the rail of the large animal stereotaxic instrument, a three-dimensional coordinate system is established by using the two-dimensional manipulator and the A/P rail, and the space conversion between the electrode zero and the A/P Zero calibrator can be achieved.

Manual Syringe Pumps(68606)

Compatible with RWD stereotaxic instruments, simple installation, with 10μm displacement accuracy and up to 25mm distance, it is an economical and practical microinjection pump!



Compatible with domestic and foreign micro-syringes

Microdrill

It takes only one second to drill the skull, easy to operate and control. It can also be used for grinding the skull



Specifications:

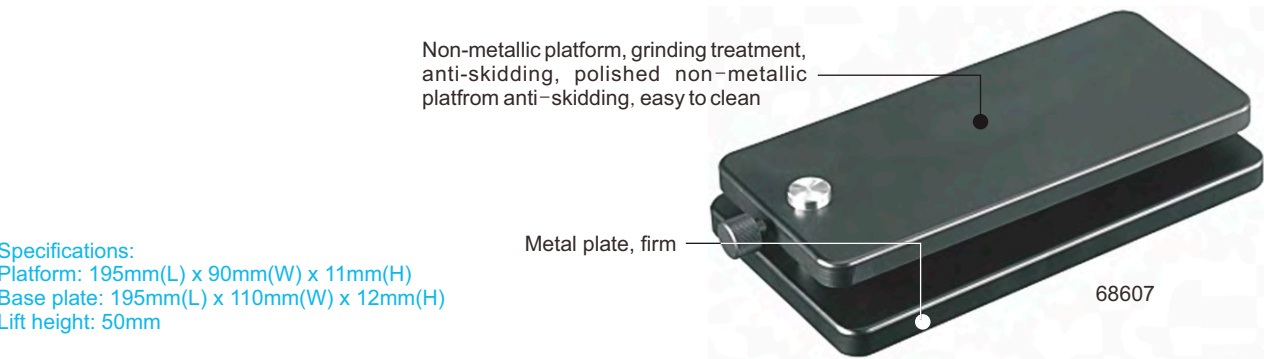
- Speed up to 38,000rpm.
- Forward or reverse available.
- Controlled manually or by foot pedal.
- Can be installed onto the stereotaxic instrument by the microdrill holder (Model: 68605) and controlled by the manipulator.
- Various drill bits available, diameter from 0.5-2.3mm.

Order Information:

Cat No.	Product Description	Cat No.	Product Description
78001	Microdrill (bits not included)	68605	Microdrill Holder
78040	Drill Bits HM1005 0.5mm, Round Tip, pkg of 5		
78041	Drill Bits HM1006 0.6mm, Round Tip, pkg of 5		
78042	Drill Bits HM1008 0.8mm, Round Tip, pkg of 5	78060	Drill Bits HM31008 0.8mm, Flat Tip, pkg of 5
78043	Drill Bits HM1010 1.0mm, Round Tip, pkg of 5	78061	Drill Bits HM31010 1.0mm, Flat Tip, pkg of 5
78044	Drill Bits HM1012 1.2mm, Round Tip, pkg of 5	78062	Drill Bits HM31012 1.2mm, Flat Tip, pkg of 5
78045	Drill Bits HM1014 1.4mm, Round Tip, pkg of 5	78063	Drill Bits HM31014 1.4mm, Flat Tip, pkg of 5
78046	Drill Bits HM1016 1.6mm, Round Tip, pkg of 5	78064	Drill Bits HM31016 1.6mm, Flat Tip, pkg of 5
78047	Drill Bits HM1018 1.8mm, Round Tip, pkg of 5	78065	Drill Bits HM31018 1.8mm, Flat Tip, pkg of 5
78048	Drill Bits HM1021 2.1mm, Round Tip, pkg of 5	78066	Drill Bits HM31021 2.1mm, Flat Tip, pkg of 5
78049	Drill Bits HM1023 2.3mm, Round Tip, pkg of 5	78067	Drill Bits HM31023 2.3mm, Flat Tip, pkg of 5
78050	Drill Bits HM1027 2.7mm, Round Tip, pkg of 2		

Stage Platform

Balance the animal's body and head to ensure that the animals breathe freely during the operation.



Specifications:

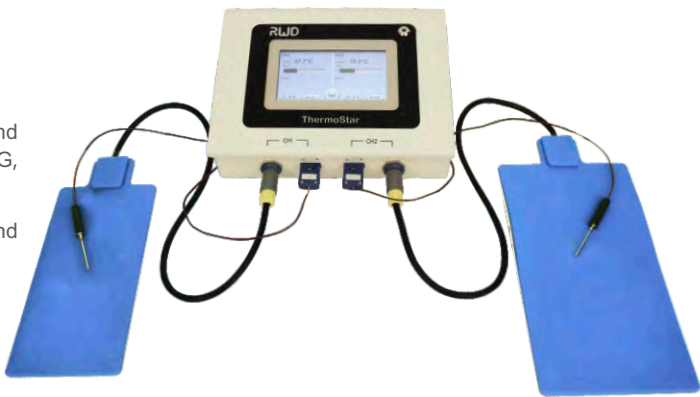
Platform: 195mm(L) x 90mm(W) x 11mm(H)
Base plate: 195mm(L) x 110mm(W) x 12mm(H)
Lift height: 50mm

ThermoStar Homeothermic Monitoring System

During the process of animal surgery or acute anesthetized animal experiment, maintaining animals' body temperature is very important for the accuracy and reliability of results, furthermore, it is an important way to reduce the mortality of the animals. In order to fulfill this need, RWD launched a new generation of homeothermic monitoring system "Thermostat", the control unit acquired a 4.3 inch color LCD touch screen, allows users to clearly view the subject's real-time body temperature, set the target temperature, view the heating state and set audible alarms when subject's body temperature turns abnormal. A specific control separate circuit for heating pad and rectal probe, respectively to ensure the stability and safety of the system.

Specifications:

- Real-time display of the working status of the heating pad, and monitor the working state of every channel, show: IDLE, WARNING, STANDBY, and WORKING
- Heating range: 20-45°C, 0.1°C resolution, Degrees Celsius and Fahrenheit can be switched
- Power supply: 100-240V, 50/60Hz
- Control unit size: L205 x W148 x H80 mm
- Control unit weight: 1.3kg



Order Information:

type	Cat No.	Product Description	Remarks
Complete system	69020	ThermoStar Temperatuere Controller, 69023 pad incl.	A heating pad (69023) and a temperature probe (69022) are included
	69026	ThermoStar Temperatuere Controller, 69024 pad incl.	A heating pad (69024) and a temperature probe (69022) are included
	69027	ThermoStar Temperatuere Controller, 69025 pad incl.	A heating pad (69025) and a temperature probe (69022) are included
Temperature probe	69022	Temperature Probe	1.5mm diameter, 30mm rod length, 150cm line length (suitable for rat/mouse)
Heating pad	69023	Heating Pad -12.0*20.5cm	
	69024	Heating Pad -9.0*17.0cm	
	69025	Heating adP-7.0*10.0cm	

Water Circulation System

During anesthesia, the animal surgical operation platform can choose the water circulation system to keep the animals warm.

Water circulation pump:

- High-resolution LED displays real-time water temperature.
- Water temperature setting from room temperature to 55°C.
- Intelligent keys, easy to operate, simple and intuitive.
- Alarm and off-power due to water depletion and over temperature protection assure safety.
- Power: 110v/220v, 50/60Hz, 60W;
- Dimension: 236mm*160mm*115mm.

Order Information:

Cat No.	Product Description
68662	Warm Water Recirculator, 220V
68664	Water Heated Surgical Bed, Flat Type, 360*300*25mm
68036	Mouse Warm Water Adaptor with 18°and 45°Ear Bars



LED Fiber-lite Illuminator

(Halogen Fiber-lite Illuminator and LED Fiber-lite Illuminator are available in RWD)

The halogen fiber-lite illuminator adopts dual-piple pipe optic coaxial lighting, provide better field of view, with good brightness; stable output voltage, safe and reliable light bulb; size is about 280 x, 100 x 165mm, and the light intensity can be adjusted continuously , with color temperature 3200K.

LED Fiber-lite Illuminator using high-power single-chip LED as the light source, with the advantages over the halogen illuminator like high light efficiency, energy saving, true “cool light” source, long life, low noise(<42db) and small size: 210mm*100mm*150mm



Halogen fiber-lite illuminator LED Fiber-lite Illuminator

Order Information:

Cat No.	Product Description	Remarks
76301	Fiber-Lite Illuminator(150W)	Dual-Pipe Fiber Optic, Bulb and Main Engine
76304	Main Engine	
76310	Dual-Pipe Fiber Optic(Included in illuminator)	
76306	Bulb(21V 150W)-Philips	
76312	LED Fiber Optic Illuminator, 20W, 90-260V	Include Main unit, Dual Pipe and Focus End for Fiber Optic Pipe(1 pair)
76313	LED Fiber Optic Illuminator Controller, 20W, 90-260V	
76314	Double Fiber	
76315	Kohler Condenser (1)	

Microscope

77001 Desktop Binocular Stereo Microscope equips with universal support; researchers can observe in high resolution and three-dimension.

Order Information:

NO.	Products Name	Products Detail
1	Eyepiece	10X Eyepieces, View field diameterφ20mm
2	Objective Lens	0.7X-4.5X Objective lens ratio 1:6.4
3	Binocular Drawtube	Pupil Distance 55-77mm Diopter adjustment±5 ,Diopter 45°Incline 360°Spin
4	View field Range	31.2 mm -5.1mm
5	Total Magnification	7X-45X(10X Eyepiece),3.5X-22.5X(10X Eyepiece +0.5X Assist lens)
6	Working Distance	Working distance 100mm(10X Eyepiece),Working distance 170mm (10X Eyepiece +0.5X Assist lens).
7	Focusing Mechanism	Focusing hand wheel is adjustable.
8	Universal Support	360°Spin, Retractable

Standard Configuration: Universal support(1 unit), Binocular drawtube (1 unit), 10X Eyepiece(1pair), 0.5X Objective Lens (1 unit), Blinder (1 unit), Dust cover (1 unit), Instruction Manual (1 unit)

Configuration :

NO.	Specification	Product name
1	77025	Ring Fluorescence Illumination, one piece
2	77026	Ring LED Illumination, one piece

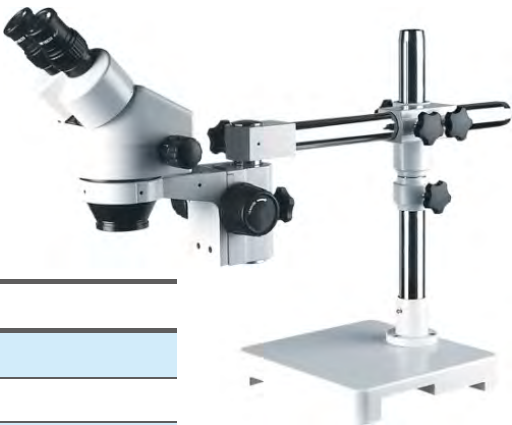
On the basis of the binocular microscope, 77008 Trinocular Zoom Stereo microscope increase the interface, so that the camera, video camera can be installed in the microscope to achieve real time observing of the objects.

77002 Binocular Surgical Microscope

77002 Binocular Surgical Microscope is a simple binocular coaxial illumination surgery microscope, with compact design and high flexibility to meet the requirements of general animal microsurgery.

Features:

- Eyepieces: 12.5X Focus length of objective: 200mm
- Working distance: 190mm Total magnification: 5.3X, 8X, 12X
- Visual field(mm): 38mm, 25mm, 17mm
- Diopter adjustment range: +5D
- Pupil distance range: 50mm~70mm
- Bulb: 12V/100W (Medical halogen lamp Bulb with coldreflection)
- Type of Illumination: 6°+ 0°cold light source coaxial illumination
- Intensity of Illumination: 20000Lx or up
- Maximum stretching radius of arm: 870mm
- Vertical movement range (from floor to front surface of big objective): 700mm~1100mm
- Range of fine focusing adjustment: 30mm
- Input voltage: AC220V±10%, 50Hz±1Hz Input power: 120VA
- Fuse: AC250V T1.25A Net weight: 41kg



77001

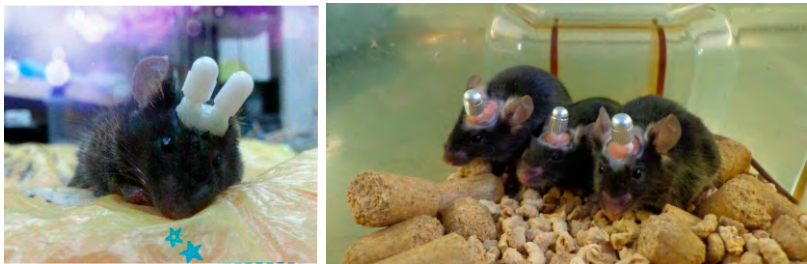


77002

Microinjection

Single Cannula

Cannula implantation is the international general method for acute and chronic intracranial drug administration in animal experiments. RWD offers customized services for users, the users can customize according to specific experimental requirements.



Single Cannula

Components:

Guide cannula



Guide cannula consists of a threaded cylindrical plastic pedestal and a stainless steel tube. It has to be preimplanted into brain and fixed with dental cement. Both dummy cannula and internal cannula can be inserted into guide cannula individually.

Dummy cannula



Stainless steel wire and threaded plastic cap make a dummy cannula. It can be inserted into guide cannula and fixed by screw to seal the guide cannula and prevent outflow of tissue fluid after injection. The length of the stainless steel wire can be customized

Metal Cannula



The metal materials avoid biting after the cannula implantation.

Internal cannula



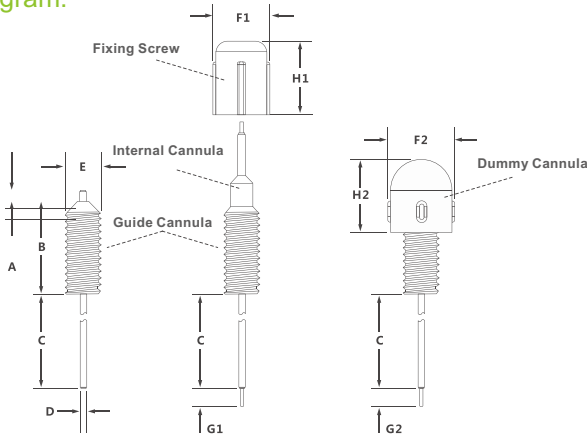
Internal cannula can be fixed into guide cannula through fixing screw and its tail end is connected with PE tube for injections. The length can be customized.

Fixing screw



Fixing screw fixes internal cannula to guide cannula.

Cording Diagram:



Single-Cannula connection

Diagrams:

- A - The length of the stainless steel tubing below the plastic pedestal.
- B - The height of the cylindrical plastic base.
- C - The length of the stainless steel tubing below the plastic pedestal, can be customized.
- D - External diameter of stainless steel guide cannulas.
- E - External diameter of cylindrical plastic base.
- F1 - External diameter of Lock nut.
- H1 - Height of Lock nut.
- F2 - External diameter of Dummy Cannulas.
- H2 - Height of Dummy Cannulas.
- G1- The internal cannulas projection length beyond the guide cannulas tip, can be customized.
- G2- The dummy cannulas projection length beyond the guide cannulas tip, can be customized.

Guide cannula	Dummy cannula	Internal cannula	Fixing screw	A	B	C	D	E	F1	H1	F2	H2
62001	62101	62201	62501	1	9	20	0.64	3.5	5.5	7.5	5	7
62002	62102	62202	62502	1	7	22	0.56	3.5	5.5	7	5	6.5
62003	62102	62203	62502	1	6	15	0.48	3.5	5.5	7	5	6.5
62004	62104	62204	62502	1	6	13	0.41	3.5	5.5	7	5	6.5
62005	62523	62205	62501	0	9	32	0.71	3.5	5.5	7.5	5.5	7

Ordering Instructions:

1.D-outer diameter of the Guide Cannula, five sizes 0.64, 0.56, 0.48, 0.41 and 0.71mm are available.

2.C-length (Unit: mm) of the metal tube below the plastic pedestal (B), that is, also the vertical distance from the skull to Target Nuclei.

3.G1-length (Unit: mm) of the protrudent Injector through the Guide Cannula, 0.5 or 1.0mm is recommended.

4.G2-length (Unit: mm) of the protrudent Dummy Guide, 0.5 or 1.0mm is recommended.

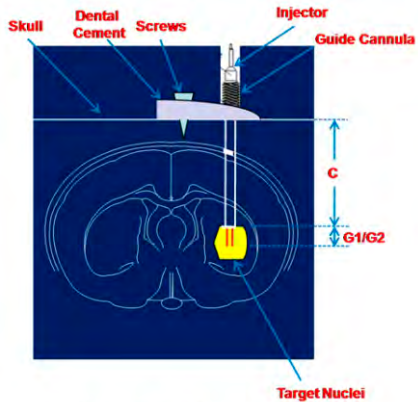


Diagram for Customization

Order information (Unit: mm):

Cannula

Matching	Guide Cannula	Dummy Cannula (plastic)	Dummy Cannula (metal)	Internal Cannula	Fixing Scre	PE Tube
1	62001	62101	62106	62201	62501	62320
	OD 0.64 x ID 0.45	OD 0.40	OD 0.40	OD 0.41 x ID 0.25	OD 5.5 x L7.5	OD 0.85 x ID 0.42
2	62002	62102	62107	62202	62502	62320
	OD 0.56 x ID 0.38	OD 0.30	OD 0.30	OD 0.36 x ID 0.20	OD 5.5 x L7.0	OD 0.85 x ID 0.42
3	62003	62102	62107	62203	62502	62320
	OD 0.48 x ID 0.34	OD 0.30	OD 0.30	OD 0.30 x ID 0.14	OD 5.5 x L7.0	OD 0.85 x ID 0.42
4	62004	62104	62108	62204	62502	62320
	OD 0.41 x ID 0.25	OD 0.20	OD 0.20	OD 0.21 x ID 0.11	OD 5.5 x L7.0	OD 0.85 x ID 0.42
5	62005	62101	62106	62205	62501	62320
	OD 0.71 x ID 0.45	OD 0.40	OD 0.40	OD 0.41 x ID 0.25	OD 5.5 x L7.5	OD 0.85 x ID 0.42

Notes:

- Plastic or mental dummy cannula is optional.
- 62320 PE tubes could be connected to syringes with needle size 0.45-0.65mm in outer diameter.
- 62523 Dummy cannula should be used together with Dummy cannula 62105.

Screws



Cat No.	Product Description
62513	Screw-M1.0xL2.0mm
62514	Screw-M1.2xL2.0mm
62515	Screw-M1.4xL2.5mm

Double Cannula

Introduction:

RWD has launched I, II, III and IV series double cannula systems for acute and chronic intracranial drug administration in animal experiments.

Series I: Recommended for rat or mouse use, 0.48mm (outer diameter) x 0.34mm (internal diameter).

Series II: Recommended for rat use, 0.64mm (outer diameter) x 0.45mm (internal diameter).

Series III: Specifically for mouse use, 0.48mm (outer diameter) x 0.34mm (internal diameter).

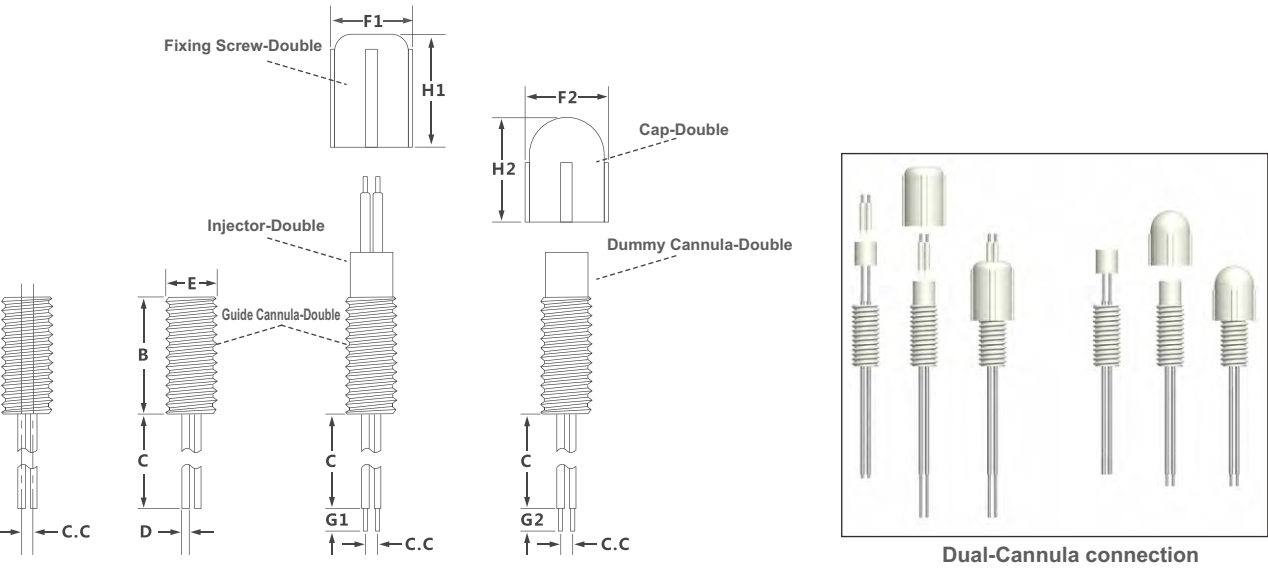
The height of cylindrical plastic pedestal of Guide cannula is different from Series I.

Series IV: 0.41mm (outer diameter) x 0.25mm (internal diameter).

Application:

Double cannula system is used for bilateral implantation, suitable for injecting one or two drugs into two different brain regions.

Cording Diagram:



Comments:

- B - Height of cylindrical plastic pedestal, which is 7.8mm for Series I, II & IV and 5.5mm for Series III.
- ★C - Length of stainless steel tube below the cylindrical plastic pedestal. The default value is 13.7mm for Series I & III, 20.0mm for Series II and 10.0mm for Series IV. The length can be customized with default value as maximum.
- ★C.C - Center distance between double guide cannulas, double dummy cannulas and double injectors. These 3 values should be the same in one system. It can be customized (range: 0.5mm-3.0mm, the minimal increment 0.1mm).
- D - Outer diameter of stainless steel tube and it has 3 sizes: 0.48mm for Series I & III, 0.64mm for Series II and 0.41mm for Series IV.
- E - Outer diameter of the cylindrical plastic pedestal and it comes with 3.5mm or 5.0mm. It is related to the outer diameter and centre distance between double guide cannulas.
- F1 - Outer diameter of fixing screw and it comes with 5.5mm (when E=3.5mm) or 7.0mm (when E=5.00mm).
- H1 - Height of the fixing screw which is 7.5mm.
- F2 - Outer diameter of guide cannula cap and it comes with 5.5mm (when E=3.5mm) or 7.0mm (when E=5.0mm).
- H2 - Height of guide cannula cap and it comes with 7.00mm (when E=3.5mm) and 7.5mm (when E=5.0mm);
- ★G1 - Length of protruding part after internal cannula is inserted into guide cannula. The default value is 5.5mm for Series I, 3.5mm for Series II, 7.5mm for Series III and 4.0 mm for Series IV. This length can be customized.
- ★G2 - Length of protruding part after dummy cannula is inserted into guide cannula. The default value is 3.0mm for Series I, 4.0mm for Series II, 5.5mm for Series III and 4.0 mm for Series IV. This length can be customized.

Ordering Instructions:

Determine the target brain region for drug administration and then determine target values of C, C.C, G1 and G2. These values can not exceed the default ones. Please refer to :

★ part of comments of cording diagram for more detail.

★C: Maximal customized length is 13.7mm for Series I & III, 20.0mm for Series II and 10.0mm for Series IV.

★C.C : Customized range is 0.5mm-3.0mm with minimal increment 0.1mm.

★G1 : Maximal customized length is 5.5mm for Series I, 3.5mm for Series II, 7.5mm for Series III and 4.0mm for Series IV.

★G2 : Maximal customized length is 3.0mm for Series I, 4.0mm for Series II, 5.5mm for Series III and 4.0mm for Series IV.

Order Information:

Series I:

Guide Cannula: O.D.0.48mm x I.D.0.34mm Dummy Cannula: O.D.0.30mm Injector: O.D.0.30mm x I.D.0.14mm Cap: F2 5.5mm x H2 7.0mm (62523) F2 7.0mm x H2 7.5mm (62524) Fixing Screw: F1 5.5mm x H1 7.5mm (62521) F1 7.0mm x H1 7.5mm (62522) Plastic Pedestal of Guide Cannula: Height B = 7.8mm Diameter E = M3.5mm	C.C	Guide Cannula	Dummy Cannula	Injector	Cap	Fixing Screw
	C.C 0.5mm	62021	62121	62221	62523	62521
	C.C 0.6mm	62022	62122	62222		
	C.C 0.8mm	62023	62123	62223		
	C.C 1.0mm	62024	62124	62224		
	C.C 1.2mm	62025	62125	62225		
	C.C 1.3mm	62026	62126	62226		
	C.C 1.4mm	62027	62127	62227		
	C.C 1.5mm	62028	62128	62228		
	C.C 1.6mm	62029	62129	62229	62524	62522
	C.C 1.8mm	62030	62130	62230		
	C.C 2.0mm	62031	62131	62231		
	C.C 2.2mm	62032	62132	62232		
	C.C 2.4mm	62033	62133	62233		
	C.C 2.6mm	62034	62134	62234		
	C.C 2.7mm	62035	62135	62235		
	C.C 3.0mm	62036	62136	62236		
Plastic Pedestal of Guide Cannula: Diameter E = 5.0mm						

Series II:

Double Cannula: O.D.0.64mm x I.D.0.45mm Dummy Cannula: O.D.0.40mm Injector: O.D.0.41mm x I.D.0.25mm Cap: F2 5.5mm x H2 7.0mm (62523) F2 7.0mm x H2 7.5mm (62524) Fixing Screw: F1 5.5mm x H1 7.5mm (62521) F1 7.0mm x H1 7.5mm (62522) Plastic Pedestal of Guide Cannula: Height B = 7.8mm Diameter E = M3.5mm	C.C	Guide Cannula	Dummy Cannula	Injector	Cap	Fixing Screw
	C.C 0.8mm	62037	62137	62237	62523	62521
	C.C 1.0mm	62038	62138	62238		
	C.C 1.2mm	62039	62139	62239		
	C.C 1.3mm	62040	62140	62240		
	C.C 1.4mm	62041	62141	62241		
	C.C 1.5mm	62042	62142	62242		
	C.C 1.8mm	62043	62143	62243		
	C.C 2.0mm	62044	62144	62244	62524	62522
	C.C 2.2mm	62045	62145	62245		
	C.C 2.4mm	62046	62146	62246		
	C.C 2.5mm	62047	62147	62247		
	C.C 2.8mm	62048	62148	62248		
	C.C 3.0mm	62049	62149	62249		
Plastic Pedestal of Guide Cannula: Diameter E = M5.0mm						

Series III:

Guide Cannula: O.D.0.48mm x I.D.0.34mm	C.C	Guide Cannula	Dummy Cannula	Injector	Cap	Fixing Screw
Dummy Cannula: O.D.0.30mm	C.C 0.5mm	62050	62121	62221	62523	62521
Injector: O.D.0.30mm x I.D.0.14mm	C.C 0.6mm	62051	62122	62222		
Cap: F2 5.5mm x H2 7.0mm (62523)	C.C 0.8mm	62052	62123	62223		
F2 7.0mm x H2 7.5mm (62524)	C.C 1.0mm	62053	62124	62224		
	C.C 1.2mm	62054	62125	62225		
	C.C 1.3mm	62055	62126	62226	62523	62521
Fixing Screw: F1 5.5mm x H1 7.5mm (62521)	C.C 1.4mm	62056	62127	62227		
F1 7.0mm x H1 7.5mm (62522)	C.C 1.5mm	62057	62128	62228		
Plastic Pedestal of Guide Cannula: Height B = 5.5mm	C.C 1.6mm	62058	62129	62229		
Diameter E = M3.5mm	C.C 1.8mm	62059	62130	62230		
	C.C 2.0mm	62060	62131	62231		

Series IV:

Guide Cannula: O.D.0.41mm x I.D.0.25mm	C.C	Guide Cannula	Dummy Cannula	Injector	Cap	Fixing Screw
Dummy Cannula: O.D.0.20mm	C.C 0.5mm	62061	62161	62261	62523	62521
Injector: O.D.0.21mm x I.D.0.11mm	C.C 0.6mm	62062	62162	62262		
Cap: F2 5.5mm x H2 7.0mm (62523)	C.C 0.8mm	62063	62163	62263		
Fixing Screw: F1 5.5mm x H1 7.5mm (62521)	C.C 1.0mm	62064	62164	62264		
Plastic Pedestal of Guide Cannula: Height B = 5.5mm	C.C 1.2mm	62065	62165	62265		
Diameter E = M3.5mm	C.C 1.3mm	62066	62166	62266		
	C.C 1.4mm	62067	62167	62267		
	C.C 1.5mm	62068	62168	62268		
	C.C 1.6mm	62069	62169	62269		
	C.C 1.8mm	62070	62170	62270		
	C.C 2.0mm	62071	62171	62271		

Notes : For Dummy Cannula, plastic or metal is optional, 68525 is for mental Dummy while 68523 is plastic Dummy. The difference between Class I and Class III is the height of the pedestal, the former is 7.8mm and the later is 5.5mm, and Class III is specially designed for mice.

PE & Silicone Tubings

PE (polyethylene) tube, with good fluidity, high thermal stability and good flexibility, is widely used in the field of life science. Currently, RWD has 9 types of PE tube and 1 type of silicone tube, including the international standard tubes PE10, PE20 and PE50, which can be used in microdialysis, animal artery intubation, venous cannula, bile duct intubation, subcutaneous implantation of buried pipe, lateral ventricle buried pipe, portal vein intubation and so on. These tubes can be used together with syringe, guide cannula, microdialys connector and luer stubs.

Order Information:

No.	Cat No.	Product Description
1	62320	PEDAX Tubing-0.85*0.42mm,pkg of 10m
2	62321	PE Tubing (HDPE)-0.85*0.42mm, pkg of 10m
3	62322	PE Tubing-0.50*0.25mm, pkg of 10m
4	62323	PE Tubing-1.00*0.50mm, pkg of 10m
5	62324	PE10 Tubing-0.61*0.28mm, pkg of 10m
6	62325	PE20 Tubing-1.09*0.38mm, pkg of 10m
7	62326	PE25 Tubing-0.91*0.46mm, pkg of 10m
8	62327	PE50 Tubing-0.97*0.58mm, pkg of 10m
9	62328	PE60 Tubing-1.20*0.80mm, pkg of 10m

Note: Except 62322,other PE tube can be High-pressure steam sterilization(121°C,30min).



Syringe Pumps

Multi-channel Syringe Pumps

This multi-channel syringe pump is specifically designed for those applications that require constant flow rates and precise injection delivery. It can be used for single or chronic, repeated microinjections through a cannula system.

Features:

- Easy to install syringes.
- Straightforward operation: simply enter syringe diameter, injection rate and Volume to start injection.
- Storage of customized parameters.
- Display of real time injection status on LCD screen.
- Built-in standard syringe parameters, for convenient use.

Specifications:

- Accuracy: <1%,
- Repeatability: ±0.1%.
- Syringe range: 0.5µl - 140ml.
- Flow rate: 0.001µl/min -138.7ml/min.
- Stroke distance: 0.039µm/step.
- Stroke rate: 0.0094mm/min-87.211mm/min.
- Dimension: 27cm×25cm×12cm.
- Linear force: 18Kg.
- LCD screen: 128×64px.
- Five customized parameters can be stored.
- RS232 interface is used to communicate with the computer
- RS485 interface is used for the communication between machines
- Interface: RS232, Rs485.
- Running temperature: 20-40°C.



Order Information:

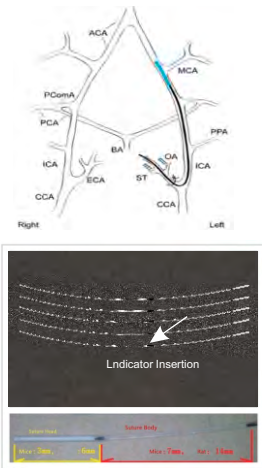
Cat No.	Product Name	Remarks
R404	4ch Syringe Infusion Pump	Single motor, simultaneous injection of four syringes(10µl-10ml)
R452	2ch Syringe Infusion/Withdrawal Pump	Single motor, simultaneous injection or withdrawal of two syringes(10ul-140ml)

Physiological And Pharmacological

MCAO Sutures

To meet the need for novel therapeutic approaches, experimental stroke research frequently employs rodent models of focal cerebral ischaemia. Proximal occlusion of MCAO via the intraluminal suture technique (so called Middle Cerebral Artery Occlusion filament or suture model) is probably the most frequently used model in experimental stroke research. A silicon coated filament is introduced into the common carotid artery and advanced along the internal carotid artery into the Circle of Willis, where it blocks the origin of the middle cerebral artery. Therefore, MCAO Sutures are the key materials for the stroke modeling on rats, mice and other animals.

RWD MCAO suture utilizes high-quality silicon rubber-coated monofilaments to induce ischemic stroke model. The within-group variation of stroke models can be maximally reduced by the super smooth surface and evenness of RWD suture. And without rupturing the vesicle, RWD suture makes its insertion into the animal brain much easier. The stability is also greatly increased for the cerebral ischemia modeling and more consistent data. RWD sutures are available in nylon monofilament material, diameters of silicone-rubber coated part range from 0.21 mm to 0.50 mm; Length of suture from 3-5cm.



Specifications:

- 1. Soft silicon rubber-coated monofilaments effectively reduced the occurrence of the insufficient occlusion by increasing the suture dimension but not rigidity. This results the blood vessel to be completely occluded and ensures the success of cerebral ischemia modeling.
- 2. Surgeon can easily sense the inserting resistance when reach its targeted position, because of the softness of RWD suture. Insert the suture until the position close to the bifurcation of external carotid artery and carotid artery show in the picture.
- 3. RWD suture has been ultraviolet sterilized thoroughly, therefore, it can be use directly upon open the package.
- 4. The suture can be customized according to specific demands.

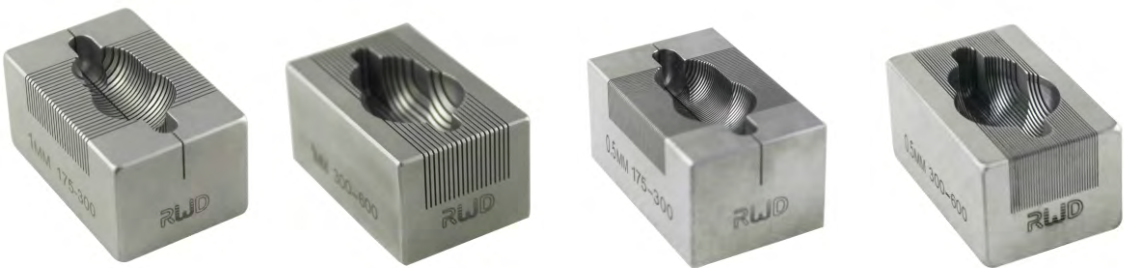
Order Information:

No.	Specification	Diameter of Head end (mm)	Diameter of suture body (mm)	Length (cm)	Animal' s weight (g)	Packing (pcs)	
1	MSMC21B102PK50	0.21±0.02	0.102	3	19-20.5	50	Mouse
2	MSMC21B102PK100					100	
3	MSMC22B104PK50	0.22±0.02	0.104	3	20.5-22	50	
4	MSMC22B104PK100					100	
5	MSMC23B104PK50	0.23±0.02	0.104	3	22.5-24	50	
6	MSMC23B104PK100					100	
7	MSMC24B104PK50	0.24±0.02	0.104	3	24-26	50	
8	MSMC24B104PK100					100	
9	MSMC25B104PK50	0.25±0.02	0.104	3	26-29	50	
10	MSMC25B104PK100					100	
11	MSMC27B104PK50	0.27±0.02	0.104	3	30-35	50	Rat
12	MSMC27B104PK100					100	
13	MSRC35B235PK50	0.35±0.03	0.235	5	190-210	50	
14	MSRC35B235PK100					100	
15	MSRC40B260PK50	0.40±0.03	0.26	5	235-255	50	
16	MSRC40B260PK100					100	
17	MSRC43B260PK50	0.43±0.03	0.26	5	270-280	50	
18	MSRC43B260PK100					100	
19	MSRC47B260PK50	0.47±0.03	0.26	5	300-310	50	
20	MSRC47B260PK100					100	
21	MSRC50B260PK50	0.50±0.03	0.26	5	350-400	50	
22	MSRC50B260PK100					100	

Note: Customized service is available.

Brain Matrix

RWD Brain matrices are adopted stainless steel material, through precision machining and highly polished, strong durability, which can be heated, chilled, autoclaved scrubbed and use in variety of harsh conditions. There have coronal sections and sagittal sections, each section can be as thin as 0.5 mm or 1 mm. Widespread use in preparing pathological tissue section and cut out TTC dyeing organization.



68709

68712

68715

68718

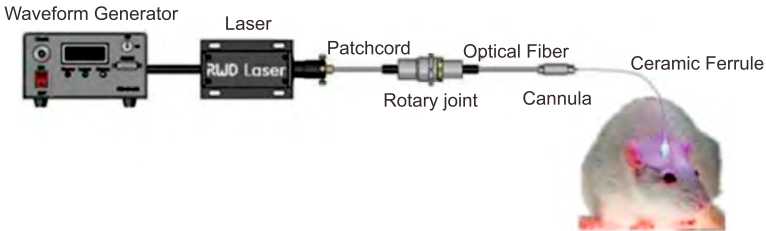
Order Information:

Cat No.	Product Description	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Depth (mm)	Diagram
68707	Brain Matrix, Mouse 40-75g, Coronal, 1mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68708	Brain Matrix, Mouse 40-75g, Sagittal, 1mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68709	Brain Matrix, Rat, 175-300g, Coronal, 1mm, Stainless steel	4.76	15.9	12.7	36.6	24.5	7.61	
68710	Brain Matrix, Rat, 175-300g, Sagittal, 1mm, Stainless steel	4.76	15.9	12.7	36.6	24.5	7.61	
68711	Brain Matrix, Rat, 300-600g, Coronal, 1mm, Stainless steel	4.76	19.8	14.7	36.6	25.7	10.91	
68712	Brain Matrix, Rat, 300-600g, Sagittal, 1mm, Stainless steel	4.76	19.8	14.7	36.6	25.7	10.91	
68713	Brain Matrix, Mouse, 40-75g, Coronal, 0.5mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68714	Brain Matrix, Mouse, 40-75g, Sagittal, 0.5mm, Stainless steel	3.18	11.1	8.73	19.1	12.5	7.40	
68715	Brain Matrix, Rat, 175-300g, Coronal, 0.5mm, Stainless steel	4.76	15.9	12.7	36.6	24.5	7.61	
68716	Brain Matrix, Rat, 175-300g, Sagittal, 0.5mm, Stainless steel	4.76	15.9	12.7	36.6	24.5	7.61	
68717	Brain Matrix, Rat, 300-600g, Coronal, 0.5mm, Stainless steel	4.76	19.8	14.7	36.6	25.7	10.91	
68718	Brain Matrix, Rat, 300-600g, Sagittal, 0.5mm, Stainless steel	4.76	19.8	14.7	36.6	25.7	10.91	

Electrophysiologic

Optogenetics Stimulation

The application of optogenetics has been rapidly developing since 2010, it's research field covers several classical experimental animal species, such as flies, C. elegans, mice, rats, zebrafish, primates (Monkey, cynomolgus monkey, rhesus monkey, etc.). These animals generally have the advantages of short developmental and reproductive cycle and easy integration of foreign genes, thus facilitating the introduction of Photosensitive Protein Gene and the screen of the state of expression.



Common configuration options:

No.	Product Name	Cat No.	Quantity	Remarks
1	Arbitrary Waveform/Function Generator-20MHz	AFG2021-SC	1	Optical
2	473nm Blu-ray Laser-200mW/power adjustable/stable<1%	R-LG473-200-A1	1	
3	532nm Green Laser-200mW/power adjustable/stability<5%	R-LG532-200-A5	1	
4	593nm Yellow Laser-200mW/power adjustable/stability<10%	R-LG593-200-A10	1	
5	200um Fiber (including FC/PC connector)-Unit: m	R-OF-200	1	
6	FC / PC Fiber Patchcords-200um (m)	R-PC-FC-200	1	
7	Ceramic Ferrule-Ø2.5mm/200um/0.37NA (20/pkg)	R-FOC-F200C-37NA	10	
8	FC Fiber Ceramic Cannula-2.5mm (packageX20/package)	R-FOC-F200C-22NA	10	
9	FC Fiber Ceramic Cannula-Ø2.50mm, pkg of 20pcs	R-MS-FC-2.5	5	
10	FC/PC Ceramic Ferrules Protective Cap-Ø2.50mm, pkg of 200pcs	R-DC-FC-250	1	
11	Laser Goggles Against Blue and Green Light	R-LS-G	1	
12	1x1 FC-FC Rotary Joint	R-LC-1x1	1	
13	Fiber Stripper- suitable for 100um - 600um fiber	R-OFT-600	1	
14	Laser Power Meter-0-2W	R-LP-2	1	



Application: Accurately measure the power of continuous laser stable temperature.



Laser Power Meter

- Features:
- Adopt pyroelectric probe, applicable to multiband measurement with broad spectrum range;
 - Short response time, good thermal stability, small volume, convenient installation and fixation;
 - Convenient to operate with digital display, applicable to the measurement on a variety of laser power.

Application	CW & Pulse laser			
Spectral range	200-1100nm			
Models	R-LP-200	R-LP-2	R-LP-10	R-LP-20
Measure range	0-200mW	0-2W	0-10W	0-20W
Measurement accuracy	10uW	0.1mW	1mW	1mW
Probe caliber	10mm10mm18mm18mm			
Withstand density	100mW/cm2 @ (1064nm, 10ns)			
Measurement error	< ±3%			
Display	4 and 1/2 bits			
Consumption Power	<10W			

Optical Fiber and Patchcord

- Low insertion loss
- Good Repeatability
- High return loss
- Stable temperature
- Good mutual insertion performance
- Optional fiber
- Applicable wavelength: 320nm-2200nm

Model No.	Product Description
R-OF-LC-100	Optic Fiber(m),100 um,LC/PC Adapter
R-OF-LC-200	Optic Fiber(m),200 um,LC/PC Adapter
R-OF-100	Optic Fiber(m),100 um,FC/PC Adapter
R-OF-200	Optic Fiber(m),200 um,FC/PC Adapter
R-PC-LC-100	LC/PC Optic Fiber Patch Cables(m)-100um
R-PC-LC-200	LC/PC Optic Fiber Patch Cables(m)-200um
R-PC-FC-100	FC/PC Optic Fiber Patch Cables(m)-100um
R-PC-FC-200	FC/PC Optic Fiber Patch Cables(m)-200um

Fiber Optic Rotary Joint

Applicable to long time stimulation and observation experiments on awake and free moving animals, avoids twining of the fiber optic

Model No.	Product Description
R-LC-1x1	1x1 FC-FC Commutator

Fiber optic adaptor

Fiber optic adaptor, also known as fiber optic flange, fiber optic coupler, is the connecting component of the fiber optic connectors.

Type	Operating Temperature	Repeatability	Interchangeable	Insertion times	Storage Temperature	Insertion Loss
FC	-25°C~+70°C	≤0.10	≤0.2	≥1000	-25°C~+85°C	≤0.20
No.	Model No.	Product Description				
1	R-OC-FC-1x1	FC / PC Fiber Optic Adaptor - 1x1 (pcs)				
2	R-OC-FC-2x2	FC / PC Fiber Optic Adaptor - 2x2 (pcs)				

Waveform Generator

Adjusting and controlling the output of Laser, like frequency of output, duty ratio, etc.



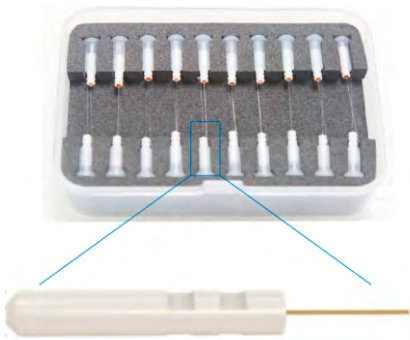
Laser

- Features:
- Wavelength: Blue Light 473nm, Green Light 532nm, Yellow Light 593nm;
 - Stability: <5%、<3% and <1%;
 - Output power:0-50mW, 0-100mW and 0-200mW;
 - Connect a variety of fibers, FC-PC connectors;
 - Connect the waveform generator or stimulator to control the light output;
 - Reliable performance, long lifetime, average life expectancy is more than 10 thousand hours;
 - Exquisite appearance, compact size, portable;



Ceramic Ferrule

- Specifications:
- Material: Ceramic;
 - Applicable wavelength: 400-2200nm
 - Core diameter: 100um, 200um, 300um, 400um
 - Numerical aperture: 0.22, 0.37
 - Outer diameter: 1.25mm, 2.5mm
 - Core-inserting length: 10.5mm (customized)
 - Optical fiber length: 2mm, 5mm, 10mm, 20mm, (customized)



Order Information:

No.	Model No.	Product Description	No.	Model No.	Product Description
1	R-FOC-L200C-37NA	Ceramic Ferrule-Ø1.25mm/200um/0.37NA (20/pkg)	8	R-FOC-L200C-22NA	Ceramic Ferrule-Ø1.25mm/200um/0.22NA (20/pkg)
2	R-FOC-L300C-37NA	Ceramic Ferrule-Ø1.25mm/300um/0.37NA (20/pkg)	9	R-FOC-L300C-22NA	Ceramic Ferrule-Ø1.25mm/300um/0.22NA (20/pkg)
3	R-FOC-L400C-37NA	Ceramic Ferrule-Ø1.25mm/400um/0.37NA (20/pkg)	10	R-FOC-L400C-22NA	Ceramic Ferrule-Ø1.25mm/400um/0.22NA (20/pkg)
4	R-FOC-F200C-37NA	Ceramic Ferrule-Ø2.5mm/200um/0.37NA (20/pkg)	11	R-FOC-F100C-22NA	Ceramic Ferrule-Ø2.5mm/100um/0.22NA (20/pkg)
5	R-FOC-F300C-37NA	Ceramic Ferrule-Ø2.5mm/300um/0.37NA (20/pkg)	12	R-FOC-F200C-22NA	Ceramic Ferrule-Ø2.5mm/200um/0.22NA (20/pkg)
6	R-FOC-F400C-37NA	Ceramic Ferrule-Ø2.5mm/400um/0.37NA (20/pkg)	13	R-FOC-F300C-22NA	Ceramic Ferrule-Ø2.5mm/300um/0.22NA (20/pkg)
7	R-FOC-L100C-22NA	Ceramic Ferrule-Ø1.25mm/100um/0.22NA (20/pkg)	14	R-FOC-F400C-22NA	Ceramic Ferrule-Ø2.5mm/400um/0.22NA (20/pkg)

Ceramic Cannula & Ceramic Ferrules Protective Cap

- Ceramic Cannula:** With Ø1.25 mm and Ø2.5 mm two specifications, suitable for temporary connections of two optical fibers, to build a simple, quick release connection structure, standard length is 11.5mm.
- Ceramic Ferrules Protective Cap:** Use to protects the Ceramic Ferrules PC/UPC end face, as well as the ST/SC/FC patch cord.



Order Information:

Model No.	Product Description
R-MS-LC-1.25	LC Mating Sleeves, Ø1.25mm (pkg of 20pcs)
R-MS-FC-2.5	FC Mating Sleeves, Ø2.50mm (pkg of 20pcs)
R-DC-FC-250	FC/PC Ceramic Ferrules Protective Cap-Ø2.50mm (pkg of 200pcs)
R-DC-LC-125	LC/PC Ceramic Ferrules Protective Cap-Ø1.25mm (pkg of 200pcs)

Fiber Tongs

- Product Features:
- Suitable for 100um-600um fiber for stripping fiber coating;
 - Does not damage the fiber;
 - All cutting surfaces have precision mechanical tolerances to ensure clean, smooth operation;
 - According to the ergonomic design of the handle, comfortable grip;
 - When not working, the blade lock is closed.



R-OFT-600

Laser Goggles

- Features:
- Comfortable shape • Wide frame • Wide viewing angle
 - High-definition • Anti-extrusion deformation material

R-LS-Y Laser Goggles against Green and Yellow Light
Transmittance T<1%, Applicable wavelength range: 528 nm-561 nm and 572nm-584nm

R-LS-G Laser Goggles against Blue and Green Light
Transmittance T<1%, Applicable wavelength range: 200nm-550nm.



To prevent or reduce the damage to human eye from laser.

Animal Surgical Instruments

RWD surgical instruments cover surgical scissors, surgical forceps, orthopedic instruments, scalpels and blades, vascular forceps, needle forceps, with more than 1,000 kinds of models.

Surgery Instrument Kit

SP0001-G
General Surgery Instrument Kit for Rodents

Cat.No.	Product Description	Qty
S11001-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S11002-08	Spring Scissors (Triangular)-S/S Cvd/5*0.1mm/8.5cm	1
S12009-11	IRIS-Fine Scissors (Round Type)-S/S Str/11.5cm	1
S12010-11	IRIS-Fine Scissors (Round Type)-S/S Cvd/11.5cm	1
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/S Cvd/9.5cm	1
F11001-11	Micro Forceps-Str, 0.2mm Tips, 11cm	1
F11004-11	Micro Forceps-Cvd, 0.2mm Tips, 11.5cm	1
F12010-10	Dressing Forceps-Str, 1.9mm Tips, 10.5cm	1
F12011-10	Dressing Forceps-Cvd, 1.9mm Tips, 10.5cm	1
F21001-12	HALSTED Artery Forceps-Str, 2.0mm Tips, 12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd, 2.0mm Tips, 12.5cm	2
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	2
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
S13029-14	MAYO-STILLE Dissecting & Operating Scissors-B/B Str/14cm	1
S15001-11	SPENCER Ligature Scissors (Slender Type)-11cm	1
S21010-15	BOHLER Rongeurs (Double)-Light Cvd/2mm Cup/15.5cm	1
S22004-11	Bone Cutters with Flat Blades (SGL)-11.5cm	1
S14014-12	Operating Scissors (Round Type)-S/S Str/12.5cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S33009-06	Scalpel Blade Remover-6.5cm	1
F13019-12	ADSON 1x2 Teeth Tissue Forceps, 1.5mm, 12cm	1
R21027-12	STEVENS Hooks, 1 Angled Tooth (5mm long), 12.5cm	1
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 7cm	1
R22005-45	3x3 Teeth Retractors-Blunt, 4.5cm	1
R51003-11	Micro Spatula w/tip W. 2mm x Thk. 0.3mm - Cvd/11cm	1
F35205-60	Sutures w/Needle-3/8/2.5x7/30cm/6-0	10
F35305-50	PGA Sutures w/Needle-1/2/4x10/90cm/5-0	10
R31006-06	SS Micro Clamps-Cvd/L*W 6*1mm/17mm	5
R31005-06	SS Micro Clamps-Str/L*W 6*1mm/15mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-14cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1

SP0003-R
Microsurgery Instrument Kit for Rat, Cat, Rabbit etc.

Cat.No.	Product Description	Qty
S12009-11	IRIS-Fine Scissors (Round Type)-S/S Str/11.5cm	1
S12010-11	IRIS-Fine Scissors (Round Type)-S/S Cvd/11.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
F11001-11	Micro Forceps-Str, 0.2mm Tips, 11cm	1
R31005-06	SS Micro Clamps-Str/L*W 6*1mm/15mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-14cm	1
S11001-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S11002-08	Spring Scissors (Triangular)-S/S Cvd/5*0.1mm/8.5cm	1
F22006-12	HALSTED Mosquito Forceps-Str, 1.0mm Tips, 12.5cm	1
F22007-12	HALSTED Mosquito Forceps-Cvd, 1.0mm Tips, 12.5cm	1
F35401-50	Needle-3/8/3x10/90mm/5-0 (50/Box)	10
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1

SP0003-M
Microsurgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/S Cvd/9.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
F11001-11	Micro Forceps-Str, 0.2mm Tips, 11cm	1
R31005-04	SS Micro Clamps-Str/L*W 4*0.75mm/13mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-14cm	1
S11001-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S11002-08	Spring Scissors (Triangular)-S/S Cvd/5*0.1mm/8.5cm	1
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	1
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	1
F35401-50	Needle-3/8/3x10/90mm/5-0 (50/Box)	10
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0004-M
Brain Microdialysis Surgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S33007-12	ZIEGLER Knives-4mm Cutting	1
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/S Cvd/9.5cm	1
S14014-11	Operating Scissors (Round Type)-S/S Str/11.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	2
F12006-10	Forceps-Light Cvd, 0.8mm Tips, 10cm	1
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	2
F31047-12	Needle Holders with Scissors-Str, 12cm	1
F35205-60	Sutures w/Needle-÷3/8/2.5×7/30mm/6-0 (50/Box)	10
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	2
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0002-G
General Ophthalmic Surgery Instrument Kit for Rodents

Cat.No.	Product Description	Qty
S11001-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S11002-08	Spring Scissors (Triangular)-S/S Cvd/5*0.1mm/8.5cm	1
S11003-08	Spring Scissors (Triangular)-S/S Angled/5*0.1mm/8.5cm	1
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/10.5cm	1
S12006-10	IRIS-Fine Scissors (Round Type)-S/S Cvd/10.5cm	1
S15006-09	O'BRIEN Stitch Scissors-S/S Angled/9.5cm	1
F12013-10	Dressing Forceps w/o Serrations-45°Cvd, S/S, 10cm	1
F13019-12	ADSON 1x2 Teeth Tissue Forceps, 1.5mm, 12cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm'	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, 0.8mm Tips, 10cm	1
F18011-09	Forceps w/5mm Platform-Str, 0.4mm Tips, 9cm	1
F31047-12	HEGAR Needle Holders with Scissors-Str, 12cm	1
F35401-50	Needle-÷3/8/3×10/90mm/5-0 (50/Box)	10
R21027-12	STEVENS Hooks, 1 Angled Tooth (5mm long), 12.5cm	1
R22029-04	Colibri Eye Specula-1.5cm spread, 4cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0005-R
Brain Microinjection Surgery Instrument Kit for Rat

Cat.No.	Product Description	Qty
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/10.5cm	1
S12006-10	IRIS-Fine Scissors (Round Type)-S/S Cvd/10.5cm	1
F12010-10	Dressing Forceps-Str, 1.9mm Tips, 10.5cm	2
F12011-10	Dressing Forceps-Cvd, 1.9mm Tips, 10.5cm	2
F22006-12	HALSTED Mosquito Forceps-Str, 1.0mm Tips, 12.5cm	2
F22007-12	HALSTED Mosquito Forceps-Cvd, 1.0mm Tips, 12.5cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
S14014-12	Operating Scissors (Round Type)-S/S Str/12.5cm	1
F35205-60	Sutures w/Needle-÷3/8/2.5×7/30mm/6-0 (50/Box)	10
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 7cm	1
R51003-11	Micro Spatula w/tip W. 2mm x Thk. 0.3mm - Cvd/11cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0004-R
Brain Microdialysis Surgery Instrument Kit for Rat

Cat.No.	Product Description	Qty
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S33007-12	ZIEGLER Knives-4mm Cutting	1
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/10.5cm	1
S12006-10	IRIS-Fine Scissors (Round Type)-S/S Cvd/10.5cm	1
S14014-12	Operating Scissors (Round Type)-S/S Str/12.5cm	1
F12010-10	Dressing Forceps-Str, 1.9mm Tips, 10.5cm	2
F12011-10	Dressing Forceps-Cvd, 1.9mm Tips, 10.5cm	1
F22006-12	HALSTED Mosquito Forceps-Str, 1.0mm Tips, 12.5cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
F35205-60	w/Needle-÷3/8/2.5×7/30mm/6-0 (50/Box)	10
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 7cm	1
F22007-12	HALSTED Mosquito Forceps-Cvd, 1.0mm Tips, 12.5cm	2
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0007-M
Univeral dissecting Surgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/S Cvd/9.5cm	1
S13003-11	Fine Dissecting Scissors (Flat Type)-B/B Str/11.5cm	1
S13004-11	Fine Dissecting Scissors (Flat Type)-B/B Cvd/11.5cm	1
S15001-09	SPENCER Ligature Scissors (Slender Type)-9cm	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31015-01	15# Scalpel Blades (Box of 100pcs)	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	2
F12006-10	IRIS Dissecting Forceps-Light Cvd, 0.8mm Tips, 10cm	2
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	2
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	2
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, 0.8mm Tips, 10cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
F35305-50	PGA Sutures w/Needle-÷1/2/4×10/90mm/5-0 (50/Box)	10
R22005-45	3x3 Teeth Retractors-Blunt, 4.5cm	1
R31005-04	SS Micro Clamps-Str/L*W 4*0.75mm/13mm	5
R42002-12	Spinal Cord Hook - Tip Dia. 3mm/12cm	1
R34001-14	Clip Applicator for R31005- and R31006-Clamps-14cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0005-M
Brain Microinjection Surgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/S Cvd/9.5cm	1
S14014-11	Operating Scissors (Round Type)-S/S Str/11.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	2
F12006-10	IRIS Dissecting Forceps-Light Cvd, 0.8mm Tips, 10cm	2
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	2
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
F35205-60	Sutures w/Needle-÷3/8/2.5×7/30mm/6-0 (50/Box)	10
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	2
R51003-11	Spatula w/tip W. 2mm x Thk. 0.3mm - Cvd/11cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0006-M
Bone Surgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S14014-11	Operating Scissors (Round Type)-S/S Str/11.5cm	1
S16014-09	NAIL Scissors (Broad Type)-S/S Str/9cm	1
S21020-14	Friedman-Pearson Rongeurs (SGL)-Str/0.7mm Cup/14cm	1
S22004-11	Bone Cutters with Flat Blades (SGL)-11.5cm	1
S21023-14	Friedman-Pearson Rongeurs (SGL)-Cvd/0.7mm Cup/14cm	1
S23007-12	LAMBOTTE Osteotomes - 4mm Cutting Edge/12.5cm	1
S33006-13	GRAEFE Scalpels-22mm Cutting Edge/13cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0007-C
Univeral Dissecting Surgery Instrument Kit for Cat, Rabbit

Cat.No.	Product Description	Qty
S12009-11	RIS-Fine Scissors (Round Type)-S/S Str/11.5cm	1
S12010-11	IRIS-Fine Scissors (Round Type)-S/S Cvd/11.5cm	1
S12031-11	Standard Scissors (Round Type)-S/S Full Cvd/11.5cm	1
S13005-14	Dissecting Scissors (Round Type)-B/B Str/14.5cm	1
S13006-14	Dissecting Scissors (Round Type)-B/B Cvd/14.5cm	1
F12010-13	Dressing Forceps-Str, 2.1mm Tips, 13cm	2
F12011-13	Dressing Forceps-Cvd, 2.1mm Tips, 13cm	2
F21001-12	HALSTED Artery Forceps-Str, 2.0mm Tips, 12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd, 2.0mm Tips, 12.5cm	2
S15001-11	SPENCER Ligature Scissors (Slender Type)-11cm	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31015-01	15# Scalpel Blades (Box of 100pcs)	1
F13014-12	1x2 Teeth Tissue Forceps-Str, 1.0mm Tips, 12.5cm	1
F31047-14	OLSEN-HEGAR Needle Holders with Scissors-Str, 14cm	1
F35305-50	PGA Sutures w/Needle-÷1/2/4×10/90mm/5-0 (50/Box)	10
R22015-02	WULLSTEIN 3x3 Teeth Retractors-Blunt, 13cm	1
R31008-26	Schwartz Micro Clamps-Str/26mm	5
R42002-12	Spinal Cord Hook - Tip Dia. 3mm/12cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0008-M
Cardio-cerebral Perfusion Surgery Instrument Kit for Mice

Cat.No.	Product Description	Qty
S14014-11	Operating Scissors (Round Type)-S/S Str/11.5cm	1
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S11001-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, 0.8mm Tips, 10cm	1
F12010-09	Dressing Forceps-Str, 1.8mm Tips, 9cm	2
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	2
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	2
F35305-50	PGA Sutures w/Needle-÷1/2/4×10/90mm/5-0 (50/Box)	10
F35205-60	Sutures w/Needle-÷3/8/2.5×7/30mm/6-0 (50/Box)	10
R21027-12	STEVENS Hooks, 1 Angled Tooth (5mm long), 12.5cm	1
R22005-45	3x3 Teeth Retractors-Blunt, 4.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
R31005-04	SS Micro Clamps-Str/L*W 4*0.75mm/13mm	5
R34001-14	Clip Applicator for R31005- and R31006-Clamps-14cm	1
R42002-12	Spinal Cord Hook - Tip Dia. 3mm/12cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0006-R
Bone Surgery Instrument Kit for Rat, Cat, Rabbit etc.

Cat.No.	Product Description	Qty
S14014-14	Operating Scissors (Round Type)-S/S Str/14cm	1
S16014-09	NAIL Scissors (Broad Type)-S/S Str/9cm	1
S21021-14	Pearson Rongeurs (SGL)-Str/1.0mm Cup/14cm	1
S22005-12	Bone Cutters with Flat Blades (SGL)-12.5cm	1
S23007-12	LAMBOTTE Osteotomes - 4mm Cutting Edge/12.5cm	1
S23002-16	FREER Chisels - Cvd/4mm Cutting Edge/16cm	1
S33006-13	GRAEFE Scalpels-22mm Cutting Edge/13cm	1
S21024-14	Pearson Rongeurs (SGL)-Cvd/1.0mm Cup/14cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0007-R
Univeral Dissecting Surgery Instrument Kit for Rat

Cat.No.	Product Description	Qty
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/10.5cm	1
S12006-10	IRIS-Fine Scissors (Round Type)-S/S Cvd/10.5cm	1
S12010-11	IRIS-Fine Scissors (Round Type)-S/S Cvd/11.5cm	1
S13005-14	Dissecting Scissors (Round Type)-B/B Str/14.5cm	1
S13006-14	Dissecting Scissors (Round Type)-B/B Cvd/14.5cm	1
F21001-12	HALSTED Artery Forceps-Str, 2.0mm Tips, 12.5cm	2
F21002-12	HALSTED Artery Forceps-Cvd, 2.0mm Tips, 12.5cm	2
F12010-10	Dressing Forceps-Str, 1.9mm Tips, 10.5cm	2
F12011-10	Dressing Forceps-Cvd, 1.9mm Tips, 10.5cm	2
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, 0.8mm Tips, 10cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
S15001-11	SPENCER Ligature Scissors (Slender Type)-11cm	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31015-01	15# Scalpel Blades (Box of 100pcs)	1
F35305-50	PGA Sutures w/Needle-÷1/2/4×10/90mm/5-0 (50/Box)	10
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 7cm	1
R31005-06	SS Micro Clamps-Str/L*W 6*1mm/15mm	5
R42002-12	Spinal Cord Hook - Tip Dia. 3mm/12cm	1
R34001-14	Applicator for R31005- and R31006-Clamps-14cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0008-R
Cardio-cerebral Perfusion Surgery Instrument Kit for Rat

Cat.No.	Product Description	Qty
S14014-12	Operating Scissors (Round Type)-S/S Str/12.5cm	1
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/10.5cm	1
S11002-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, 0.8mm Tips, 10cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	2
F22006-12	HALSTED Mosquito Forceps-Str, 1.0mm Tips, 12.5cm	2
F22007-12	HALSTED Mosquito Forceps-Cvd, 1.0mm Tips, 12.5cm	2
F35305-50	PGA Sutures w/Needle-÷1/2/4×10/90mm/5-0 (50/Box)	10
F35205-60	Sutures w/Needle-÷3/8/2.5×7/30mm/6-0 (50/Box)	10
R21027-12	STEVENS Hooks, 1 Angled Tooth (5mm long), 12.5cm	1
R22005-45	3x3 Teeth Retractors-Blunt, 4.5cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
R31005-06	SS Micro Clamps-Str/L*W 4*0.75mm/13mm	5
R42002-12	Spinal Cord Hook - Tip Dia. 3mm/12cm	1
R34001-14	Clip Applicator for R31005- and R31006-Clamps-14cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0009-R
General Surgery Instrument Kit for Rat

Cat.No.	Product Description	Qty
F11020-11	Micro Forceps-Str, 0.05mmx0.01mm Tips, 11cm	1
F11021-11	Micro Forceps-45°Angled, 0.10x0.06mm Tips, 11cm	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
F35401-50	Needle-ø3/8/3×10/90 /5-0 (50/Box)	10
F35205-60	Needle-ø3/8/2.5×7/30 /6-0 (50/Box)	10
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
S11001-08	Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S11002-08	Spring Scissors (Triangular)-S/S Cvd/5*0.1mm/8.5cm	1
R22009-01	ALM 4x4 Teeth Retractors-Blunt, 7cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, 0.8mm Tips, 10cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, 0.8mm Tips, 10cm	1
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, 0.8mm Tips, 10cm	1
S12009-11	IRIS-Fine Scissors (Round Type)-S/S Str/11.5cm	1
S12010-11	IRIS-Fine Scissors (Round Type)-S/S Cvd/11.5cm	1
F21001-12	HALSTED Artery Forceps-Str, 2.0mm Tips, 12.5cm	1
F21002-12	HALSTED Artery Forceps-Cvd, 2.0mm Tips, 12.5cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0009-M
General Surgery Instrument Kit for Mouse

Cat.No.	Product Description	Qty
F11020-11	Micro Forceps-Str, 0.05mmx0.01mm Tips, 11cm	1
F11021-11	Micro Forceps-45°Angled, 0.10x0.06mm Tips, 11cm	1
S32001-12	Scalpel Handles 3# Solid-12cm	1
S31011-01	11# Scalpel Blades (Box of 100pcs)	1
F35401-50	NA Terylene Sutures w/Needle-ø3/8/3×10/90/5-0 (50/Box)	10
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
S11001-08	VANNAS Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S11002-08	VANNAS Spring Scissors (Triangular)-S/S Cvd/5*0.1mm/8.5cm	1
R22029-04	Colibri Eye Specula-1.5cm spread, 4cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, 0.8mm Tips, 10cm	1
F12007-10	IRIS Dissecting Forceps-Large Cvd, 0.8mm Tips, 10cm	1
F13029-10	IRIS 1x2 Teeth Tissue Forceps-Str, 0.8mm Tips, 10cm	1
S12003-09	IRIS-Fine Scissors (Round Type)-S/S Str/9.5cm	1
S12004-09	IRIS-Fine Scissors (Round Type)-S/S Cvd/9.5cm	1
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	1
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



SP0010-B
Basic Surgical Instrument Kit for Rat & Mice

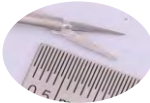
Cat.No.	Product Description	Qty
S11001-08	VANNAS Spring Scissors (Triangular)-S/S Str/5*0.1mm/8.5cm	1
S12005-10	IRIS-Fine Scissors (Round Type)-S/S Str/10.5cm	1
F12005-10	IRIS Dissecting Forceps-Str, 0.8mm Tips, 10cm	1
F12006-10	IRIS Dissecting Forceps-Light Cvd, 0.8mm Tips, 10cm	1
F11020-11	Micro Forceps-Str, 0.05mmx0.01mm Tips, 11cm	1
F22002-10	HARTMAN Mosquito Forceps-Str, 1.0mm Tips, 10cm	1
F22003-10	HARTMAN Mosquito Forceps-Cvd, 1.0mm Tips, 10cm	1
F31047-12	OLSEN-HEGAR Needle Holders with Scissors-Str, 12cm	1
S33007-12	ZIEGLER Knives-4mm Cutting Edge/1.5mm Width/12cm	1
R31005-06	SS Micro Clamps-Str/L*W 6*1mm/15mm	1
R31006-06	SS Micro Clamps-Cvd/L*W 6*1mm/17mm	1
SP0000-P	Instrument Storage Portfolio, 31*21cm	1



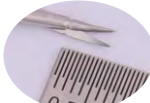
Surgical Instruments ▶

Note: the price of the surgical instruments as noted in this product manual will fluctuate with the market price, and the final price will be subject to the quotation of the company


Micro Spring Scissors



S11001-08




S11002-08




S11003-08


Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11001-08	Straight Sharp&Sharp	7.5mm	1.7mm	8.5cm	\$99.00
S11002-08	Curved Sharp&Sharp	6mm	1.4mm	8.5cm	\$102.00
S11003-08	Curved Sharp&Sharp	5mm	1.3mm	8cm	\$106.00



S11035-08




S11036-08



S11037-08


Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11035-08	Straight Sharp&Sharp	3.5mm	1.3mm	8cm	\$92.00
S11036-08	Straight Sharp&Sharp	9mm	2.0mm	8.5cm	\$118.00
S11037-08	Curved Sharp&Sharp	8mm	1.9mm	8.5cm	\$118.00

Micro Spring Scissors



S11005-09

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11005-09	Curved Blunt&Blunt	10mm	2.6mm	9cm	\$88.00



S11029-12

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11029-12	Curved Blunt&Blunt	11mm	1.8mm	11cm	\$89.00

sterilizer

In animal experiments, surgical instruments are easy to be contaminated, rapid sterilizatic of surgical instruments allows the operation to continue, but the traditional sterilizatic methods (such as high-pressure steam sterilization) sterilization process and cooling time longer, delay and affect the experimental process. Rapid sterilizer can solve this problem f customers. It can kill germs, pathogens and other microorganisms on the surface of surgic instruments in a very short period of time (about 15-20 seconds), so as to achieve th purpose of disinfection and sterilization.

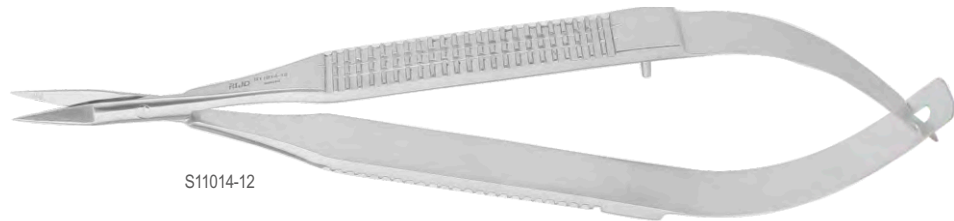
- 1.Glass bead heating from room temperature to target temperature (240-270 DEG C) tim no more than 20 minutes
- 2.With power indicator light, power 110V and 220v;





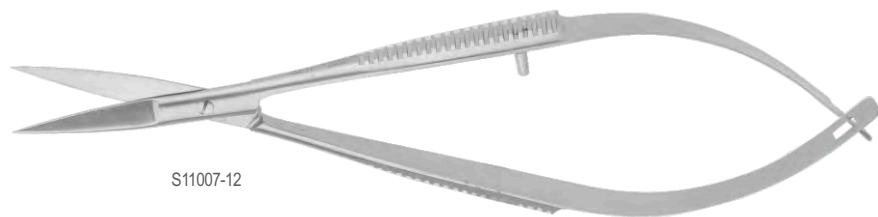
S11024-11

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11024-11	Curved Sharp&Sharp	18mm	3.7mm	11.5cm	\$92.00



S11014-12

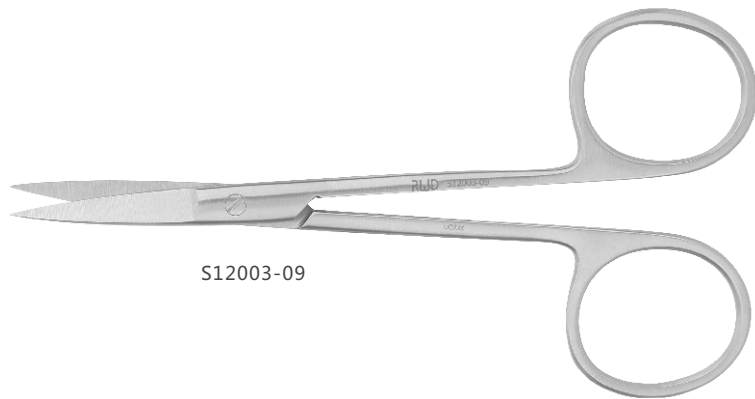
Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11014-12	Straight Sharp&Sharp	10mm	3.2mm	12.5cm	\$103.00



S11007-12

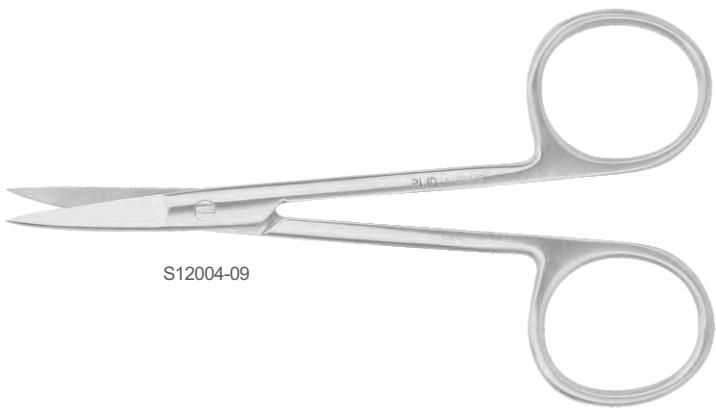
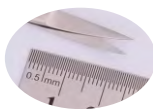
Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S11007-12	Straight Sharp&Sharp	20mm	3.8mm	11.5cm	\$91.00

Delicate Scissors



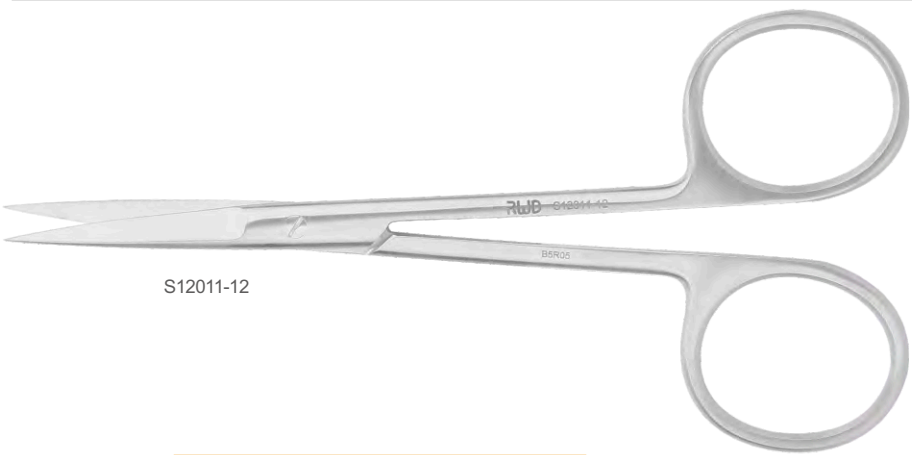
S12003-09

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S12003-09	Straight Sharp&Sharp	25mm	5.0mm	10cm	\$24.00
S12005-10	Straight Sharp&Sharp	22mm	4.8mm	10.5cm	\$24.00
S12009-11	Straight Sharp&Sharp	25mm	5.8mm	11.5cm	\$24.00
S12014-13	Straight Sharp&Sharp	31mm	8mm	13cm	\$25.00

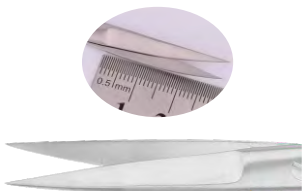


S12004-09

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S12004-09	Curved Sharp&Sharp	20mm	4.9mm	9.5cm	\$25.00
S12006-10	Curved Sharp&Sharp	18mm	4.3mm	10.5cm	\$25.00
S12010-11	Curved Sharp&Sharp	24mm	5mm	11cm	\$25.00
S12015-13	Curved Sharp&Sharp	26mm	7.2mm	13cm	\$26.00

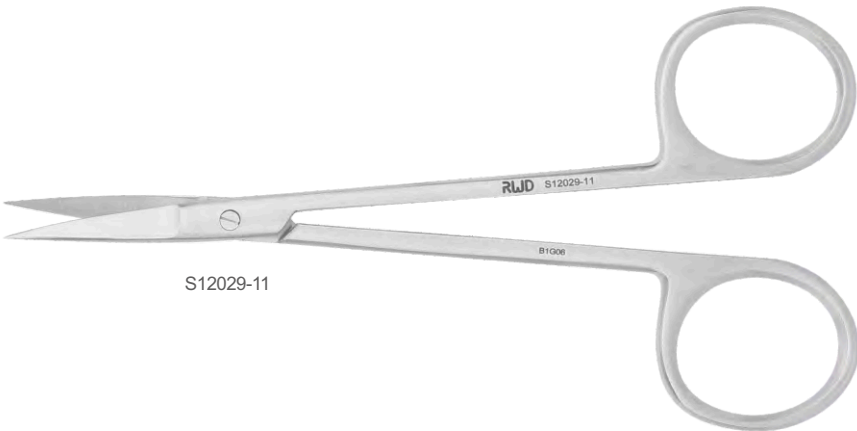


S12011-12

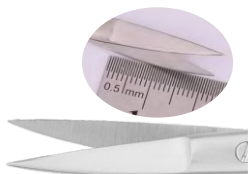


S12012-12

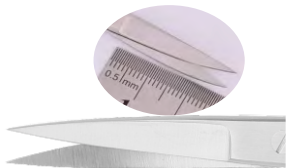
Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S12011-12	Straight Sharp&Sharp	31mm	5.6mm	12cm	\$24.00
S12012-12	Curved Sharp&Sharp	31mm	5.6mm	12cm	\$25.00



S12029-11

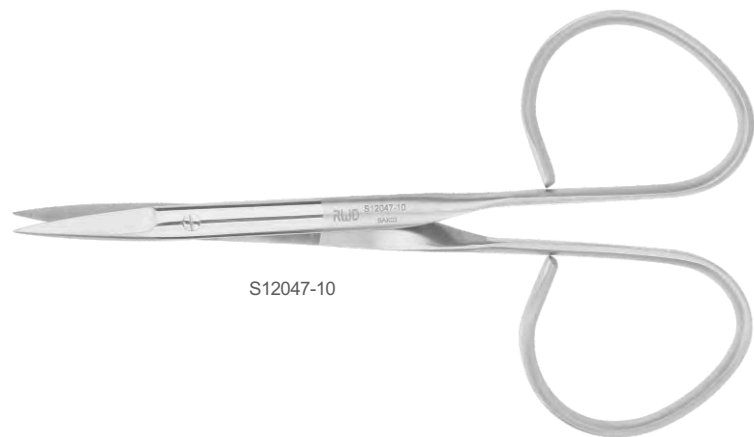


S12030-11



S12031-11

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S12029-11	Straight Sharp&Sharp	23mm	5mm	11.5cm	\$24.00
S12030-11	Curved Sharp&Sharp	23mm	5.3mm	11.5cm	\$25.00
S12031-11	Curved Sharp&Sharp	28mm	5.9mm	11.5cm	\$29.00
S12034-12	Straight Sharp&Sharp	16mm	5.5mm	12.5cm	\$25.00



S12047-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S12047-10	Straight Sharp&Sharp	18mm	4.5mm	10cm	\$27.00



S18001-09



S18002-09

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S18001-09	Straight Sharp&Sharp (Teeth)			9cm	\$35.00
S18001-10	Straight Sharp&Sharp (Teeth)			10.5cm	\$36.00
S18001-11	Straight Sharp&Sharp (Teeth)	25mm	5mm	11.5cm	\$36.00
S18002-09	Curved Sharp&Sharp (Teeth)	20mm	4.9mm	9cm	\$38.00
S18002-10	Curved Sharp&Sharp (Teeth)	22mm	5mm	10.5cm	\$38.00
S18002-11	Curved Sharp&Sharp (Teeth)	23mm	5mm	11.5cm	\$39.00

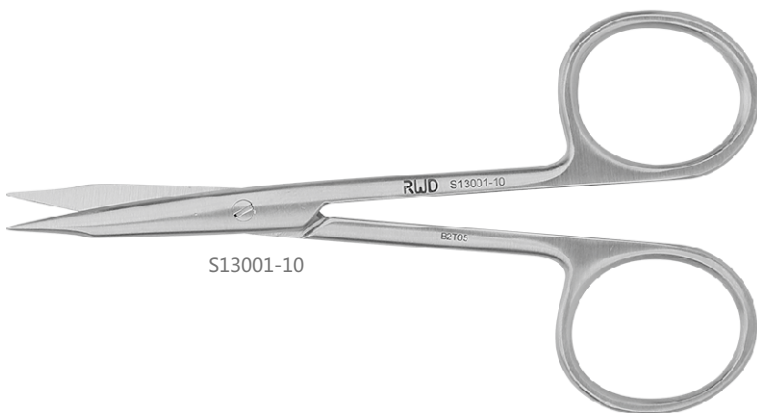


S18004-09



S18005-09

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S18004-09	Curved Sharp&Sharp	21mm	4.8mm	9cm	\$59.00
S18004-10	Curved Sharp&Sharp	22mm	5mm	10.5cm	\$61.00
S18004-11	Curved Sharp&Sharp	22mm	5.2mm	11.5cm	\$62.00
S18005-09	Straight Sharp&Sharp	20mm	4.5mm	9cm	\$56.00
S18005-10	Straight Sharp&Sharp	22mm	5mm	10.5cm	\$57.00
S18005-11	Straight Sharp&Sharp	22mm	5mm	11.5cm	\$58.00



S13001-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13001-10	Straight Sharp&Sharp	26mm	5.8mm	10cm	\$28.00

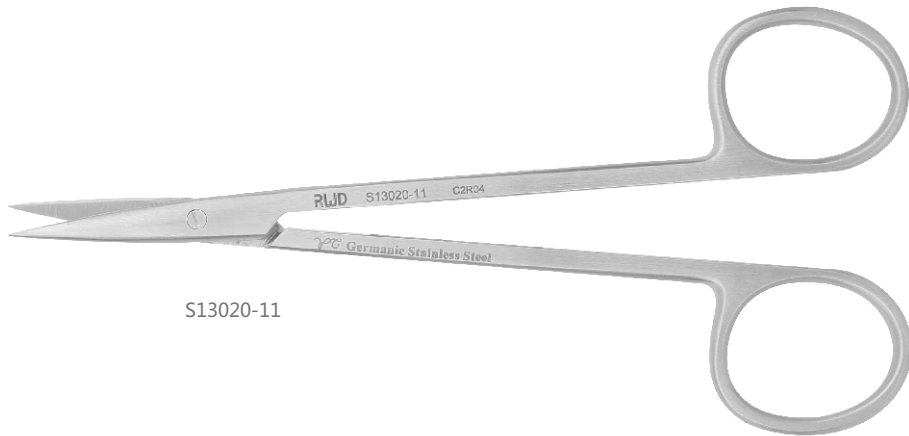


S13003-11



S13004-11

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13003-11	Straight Blunt&Blunt	25mm	6.4mm	11.5cm	\$27.00
S13004-11	Curved Blunt&Blunt	28mm	6.6mm	11.5cm	\$29.00



S13020-11

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13020-11	Straight Sharp&Sharp	20mm	5.2mm	12cm	\$24.00

Dissecting Scissors

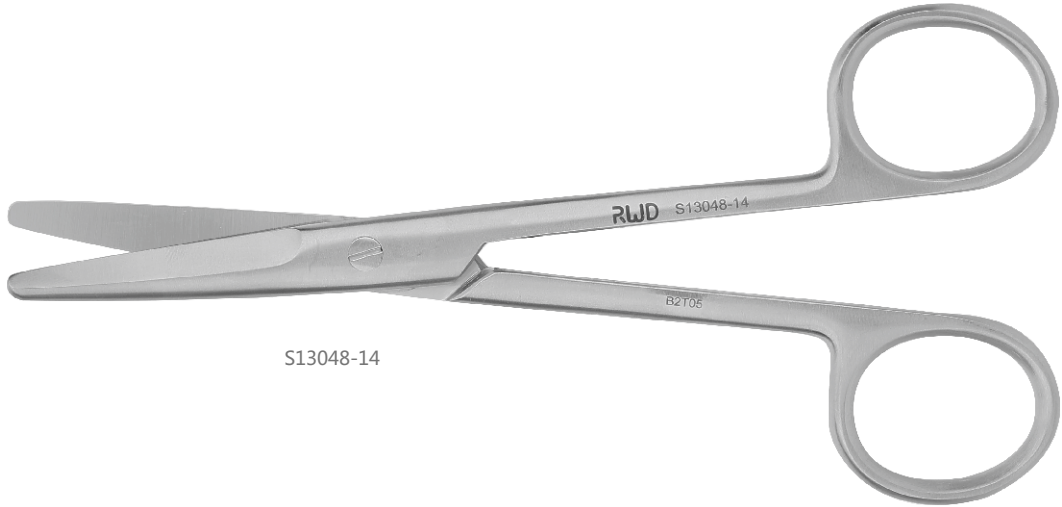


S13019-12

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13019-12	Curved Blunt&Blunt	25mm	4.6mm	12.5cm	\$36.00



Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13027-18	Straight Blunt&Blunt	32mm	7mm	18cm	\$44.00



S13048-14

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13048-14	Curved Blunt&Blunt	32mm	9mm	14cm	\$25.00



S13035-16

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13035-16	Straight Blunt&Blunt	45mm	9.5mm	16.5cm	\$31.00



S13047-14

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13047-14	Straight Blunt&Blunt	40mm	9.8mm	14.5cm	\$22.00



S13029-14

S13030-14

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13029-14	Straight Blunt&Blunt	39mm	9.2mm	14cm	\$21.00
S13030-14	Curved Blunt&Blunt	41mm	9.4mm	14cm	\$23.00



S13031-17

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13031-17	Straight Blunt&Blunt	44mm	14mm	17cm	\$28.00



S13038-14

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S13038-14	Straight Blunt&Blunt	41mm	10mm	14.5cm	\$23.00

Surgical Scissors



S14011-13

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14011-13	Straight Sharp&Sharp	28mm	10mm	13cm	\$22.00



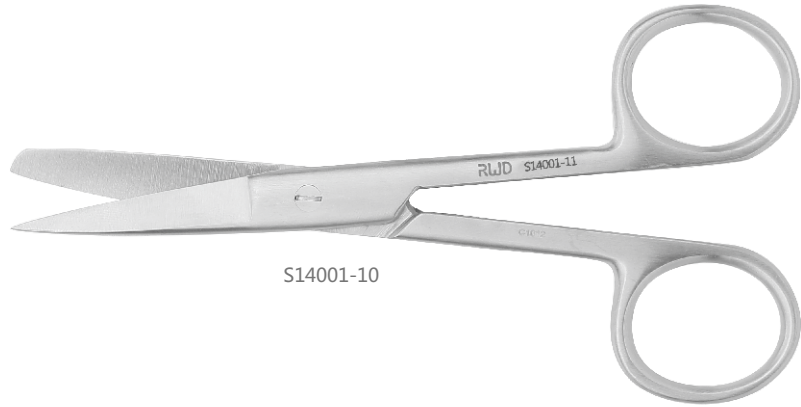
S14016-11

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14016-11	Curved Sharp&Sharp	34mm	7.5mm	11.5cm	\$18.00



S14002-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14002-10	Curved Sharp&Blunt	30mm	7.2mm	10cm	\$17.00
S14002-13	Curved Sharp&Blunt	42mm	8.7mm	13cm	\$18.00
S14002-14	Curved Sharp&Blunt	47mm	9.8mm	14.5cm	\$20.00



S14001-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14001-10	Straight Sharp & Blunt	30mm	7.3mm	10.5cm	\$14.90
S14001-11	Straight Sharp & Blunt	35mm	8.7mm	11.5cm	\$16.00
S14001-13	Straight Sharp & Blunt			13cm	\$17.00
S14001-14	Straight Sharp & Blunt	48mm	9.8mm	14.5cm	\$18.00
S14001-15	Straight Sharp & Blunt	48mm	9.8mm	15cm	\$19.00
S14001-16	Straight Sharp & Blunt	53mm	10mm	16.5cm	\$20.00



S14014-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14014-10	Straight Sharp&Sharp	34mm	7.2mm	10.5cm	\$14.30
S14014-11	Straight Sharp&Sharp	35mm	8.2mm	11.5cm	\$14.50
S14014-12	Straight Sharp&Sharp	38mm	8mm	12.5cm	\$17.00
S14014-13	Straight Sharp&Sharp	42mm	8mm	13cm	\$18.00
S14014-14	Straight Sharp&Sharp	43mm	8.9mm	14cm	\$19.00
S14014-15	Straight Sharp&Sharp	48mm	10mm	15.5cm	\$21.00
S14014-16	Straight Sharp&Sharp	52mm	10mm	16.5cm	\$21.00
S14014-17	Straight Sharp&Sharp	55mm	10.7mm	17.5cm	\$24.00



S14015-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14015-10	Straight Blunt&Blunt	33mm	7.5mm	12cm	\$13.40
S14015-11	Straight Blunt&Blunt	36mm	8.2mm	11.5cm	\$14.30
S14015-12	Straight Blunt&Blunt	37mm	8.7mm	12.5cm	\$14.50
S14015-14	Straight Blunt&Blunt	46mm	9.75mm	14.5cm	\$17.00
S14015-16	Straight Blunt&Blunt	54mm	11.3mm	16.5cm	\$19.00
S14015-17	Straight Blunt&Blunt	53mm	12mm	17.5cm	\$21.00



S14017-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14017-10	Curved Blunt&Blunt	33mm	7.5mm	10.5cm	\$14.90
S14017-16	Curved Blunt&Blunt	51mm	10.3mm	16cm	\$21.00



S14003-14

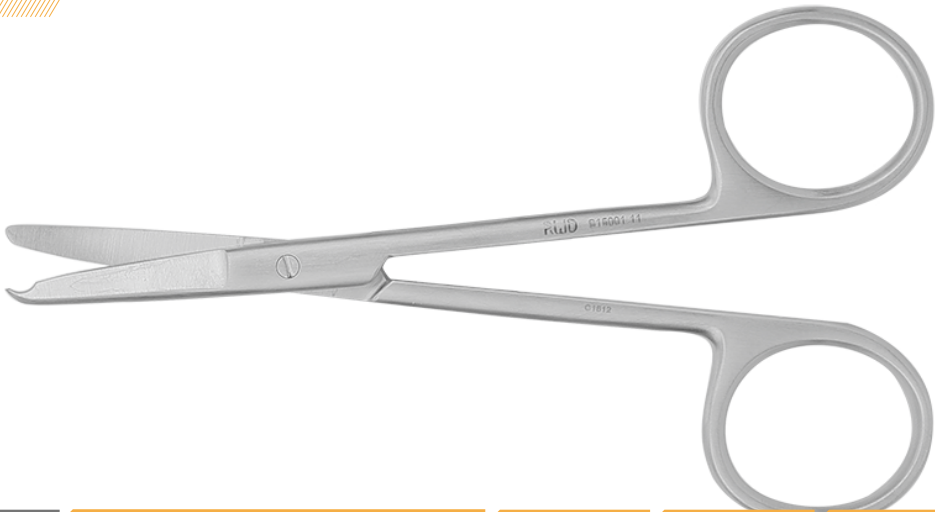
Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S14003-14	Straight sharp & blunt	47mm	9.7mm	14.5cm	\$20.00



S15006-09

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S15006-09	Curved sharp &sharp	23mm		9.5cm	\$30.00

Ligature Scissors



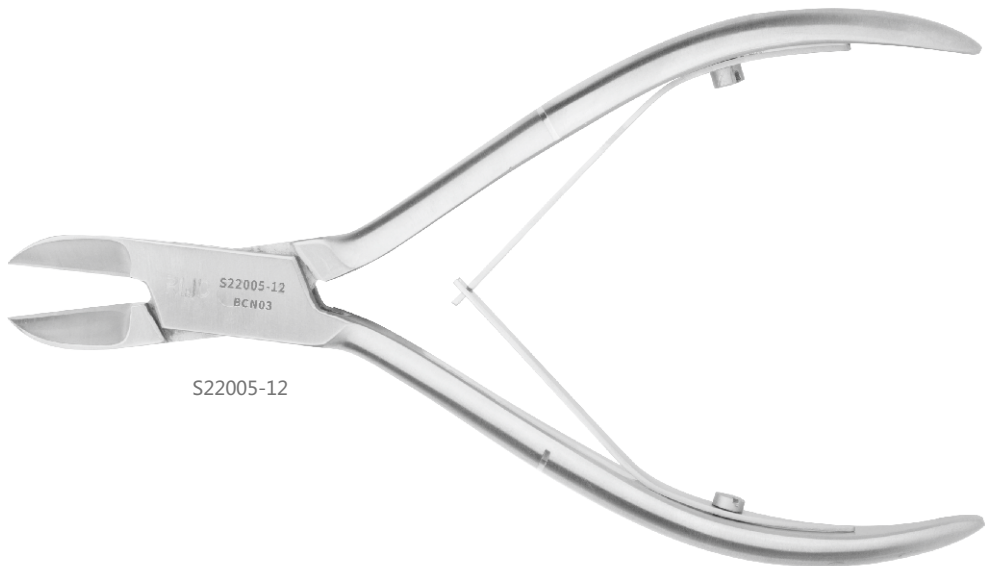
Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S15001-09		22mm	5mm	9cm	\$21.00
S15001-11				11cm	\$24.00

Bone Cutters



S16001-10

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S16001-10	Straight	2mm	9.9mm	10.5cm	\$20.00



S22005-12

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S22005-12		11.5mm	20mm	13cm	\$47.00
S22004-11	plane	16mm		11cm	\$46.00

Bone Chisel



S23002-16



S23007-12

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S23002-16			4mm	16cm	\$24.00
S23007-12			4mm	12.5cm	\$38.00

scalpel



S33007-12



S33006-13

Cat No.	Description of Blade	Cutting Edge (Length)	Cutting Edge (Width)	Total Length	Price
S33007-12		1.5mm	6mm	12cm	\$40.00
S33006-13		25mm	25mm	13cm	\$33.00

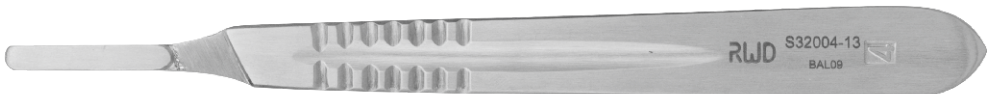
Surgical Handles



S32001-12 (matches 10#, 11#, 12#, 15# blades)



S32003-12 (matches 10#, 11#, 12#, 15# blades)



S32004-13 (matches 10#, 11#, 12#, 15# blades)



S32005-12 (matches 10#, 11#, 12#, 15# blades)

Cat No.		Total Length	Price
S32001-12	3#(Standard)	12cm	\$8.90
S32003-12	3#(Ruler)	12cm	\$12.30

Cat No.		Total Length	Price
S32004-13	4#(Standard)	13cm	\$8.90
S32005-12	7#	12.5cm	\$13.40

Surgical Blades



Cat No.			Price
S31010-01	10#	Box of 100pcs	\$25.00



Cat No.			Price
S31011-01	11#	Box of 100pcs	\$25.00



Cat No.			Price
S31012-01	12#	Box of 100pcs	\$25.00



Cat No.		Total Length	Price
S31015-01	15#	Box of 100pcs	\$25.00



Cat No.			Price
S31023-02	23#	Box of 100pcs	\$23.00



Cat No.		Total Length	Price
S33009-06	Blade Remover	6.5cm	\$12.00

Delicate Forceps



F11001-11

Cat No.	Tip Shape	Tip Length	Tip Width	Tip Thickness	Total Length	Price
F11001-11	Straight		0.20mm		11cm	\$24.00
F11002-11	Straight		0.15mm		11cm	\$25.00
F11001-13	Straight		0.15mm		13cm	\$27.00
F11020-11	Straight	28mm	0.05mm	0.1mm	11cm	\$37.00



F11003-11

Cat No.	Tip Shape	Tip Length	Tip Width	Tip Thickness	Total Length	Price
F11003-11	45°Curved	8mm	0.3mm		11cm	\$29.00
F11021-11	45°Curved	8mm	0.10mm	0.06mm	11cm	\$44.00
F11003-13	45°Curved	8mm	0.15mm		13cm	\$33.00



F13002-11

Cat No.	Tip Shape	Tip Length	Tip Width	Tip Thickness	Total Length	Price
F13002-11	Straight		0.30mm		11cm	\$22.00



F13004-11

Cat No.	Tip Shape	Tip Width	Tip Thickness	Total Length	Price
F13004-11	Curved	0.3mm		11.5cm	\$29.00
F11004-11	Curved	0.2mm		11.5cm	\$32.00
F11022-11	Curved	0.07mm	0.03mm	11cm	\$42.00



F11008-09

Cat No.	Tip Shape	Tip Width	Tip Thickness	Total Length	Price
F11008-09	1x2Teeth 5mm Platform	0.28mm		9.5cm	\$72.00



F11014-11



F11019-11



F11016-11

Cat No.	Tip Shape	Tip Width	Tip Thickness	Total Length	Price
F11014-11	Straight	0.15mm		11cm	\$96.00
F11019-11	Straight	0.3mm		11cm	\$87.00
F11016-11	Straight	0.3mm		11cm	\$85.00



F11027-13

F11028-13

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F11027-13	Straight	26mm		13cm	\$90.00
F11028-13	Curved	32mm		13cm	\$90.00



F11029-11



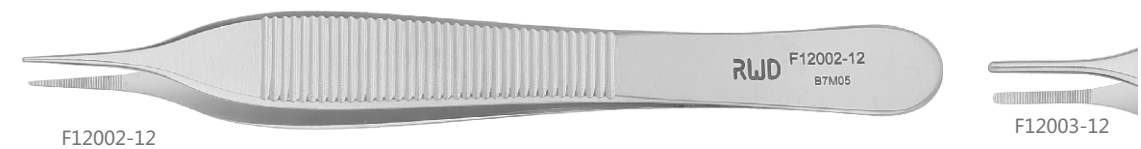
F11030-11



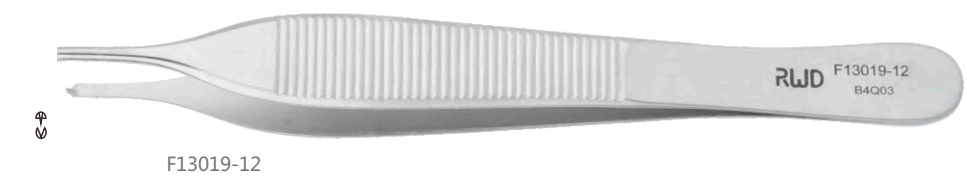
F11031-11

Cat No.	Tip Shape	Tip Width	Tip Thickness	Total Length	Price
F11029-11	Straight Titanium Alloy	0.05mm	0.01mm	11cm	\$44.00
F11030-11	45°Curved Titanium Alloy	0.10mm	0.06mm	11cm	\$55.00
F11031-11	Curved Titanium Alloy	0.07mm	0.03mm	11cm	\$53.00

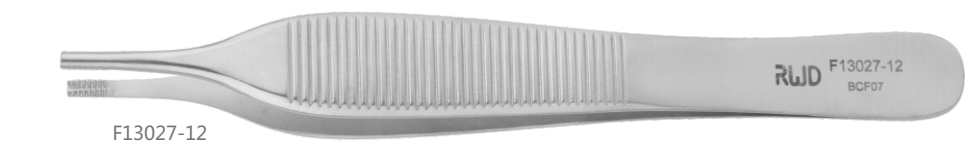
Dissecting Forceps



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12002-12	Dissecting Forceps	13mm	0.6mm	12cm	\$22.00
F12003-12	Dissecting Forceps	18mm	1.5mm	12cm	\$22.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F13019-12	Straight 1x2Teeth		1.8mm	12cm	\$21.00



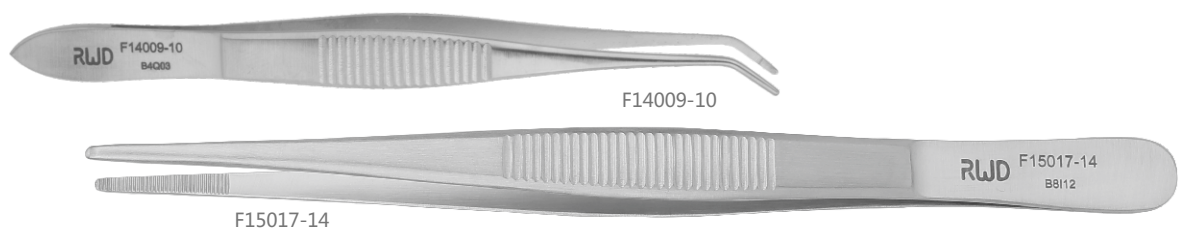
Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F13027-12	7x7Teeth Straight		3.0mm	12cm	\$27.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12012-10	Straight Not Teeth		0.4mm	10cm	\$11.40
F12013-10	45°Curved Not Teeth	7mm	0.5mm	10cm	\$14.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F15007-15	50°Curved	15mm	1.2mm	15cm	\$14.30



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F14009-10	Curved		8mmx3.3mm	10.5cm	\$26.00
F15017-14	Straight	18mm	2.0mm	14.5cm	\$26.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12010-09	Straight	12mm	1.8mm	9.5cm	\$11.40
F12010-10	Straight	15mm	1.8mm	10.5cm	\$12.90
F12010-11	Straight	16mm	2.5mm	11.5cm	\$14.50
F12010-13	Straight	17mm	1.3mm	13cm	\$17.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12011-09	Curved	11mm	1.8mm	9.5cm	\$13.60
F12011-10	Curved	18mm	1.9mm	10.5cm	\$16.00
F12011-13	Curved	16mm	1.2mm	13cm	\$18.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12019-11	Straight	16.5mm	1.9mm	11.5cm	\$13.80
F12019-13	Straight	17.5mm	2.0mm	13cm	\$16.00
F12019-16	Straight	19mm	12.1mm	16cm	\$20.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F13029-10	Straight		1.3mm	10.5cm	\$28.00
F13030-10	Curved		1.2mm	10.5cm	\$30.00
F13009-11	Straight		1.1mm	9cm	\$65.00

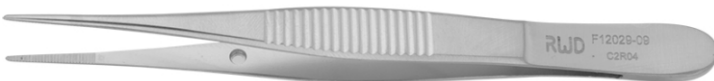


F12018-10

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12018-14	Straight	19mm	3.3mm	14.5cm	\$14.30



F12016-15



F12029-09

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12016-15	Straight	19mm	1.4mm	15.5cm	\$19.00
F12029-09	Straight	12mm	0.8mm	9.5cm	\$11.40



F13014-12

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F13014-12	Straight 1x2Teeth		1.0mm	13cm	\$32.00

眼科镊



F12005-10



F12006-10



F12007-10



F14012-10

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F12005-10	Straight	13mm	1.0mm	10cm	\$23.00
F12006-10	Curved	12mm	1.0mm	10cm	\$25.00
F12007-10	Curved	10mm	0.9mm	10cm	\$25.00
F14012-10	Curved		0.5mm	10cm	\$30.00

Tissue Forceps



F13023-10

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F13023-14	Straight 1x2Teeth		1.8mm	14cm	\$39.00



F13023-15

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F13028-15	Straight circinal	9.5mm	7.0mm	15cm	\$23.00



F18003-12

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F18003-12	Straight		0.5mm	12cm	\$34.00



F18011-09

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F18011-09	Straight	16mm	0.4mm	9cm	\$53.00

Glass Cover Forceps



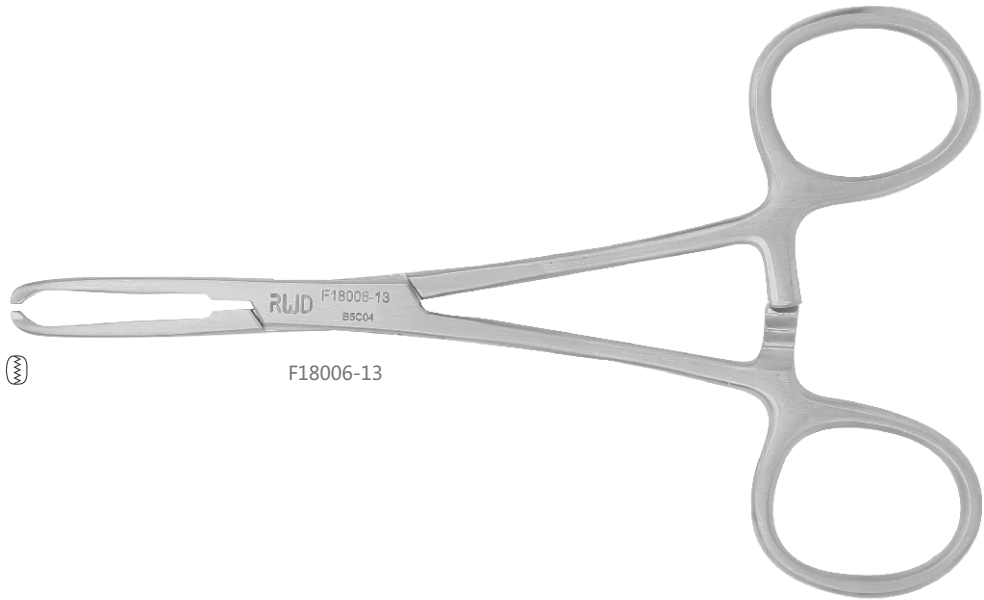
F18015-10



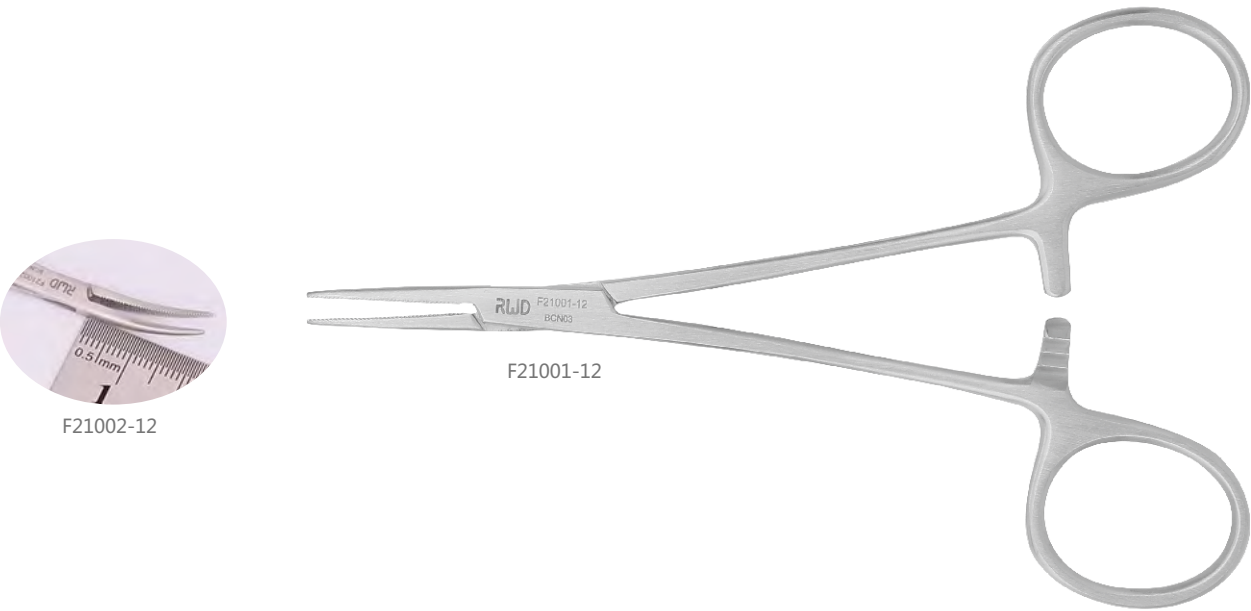
F18001-10

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F18015-10	Straight	11mm	4.0mm	10.5cm	\$14.90
F18001-10	Curved	12mm	4.7mm	10.5cm	\$19.00

Tissue Forceps

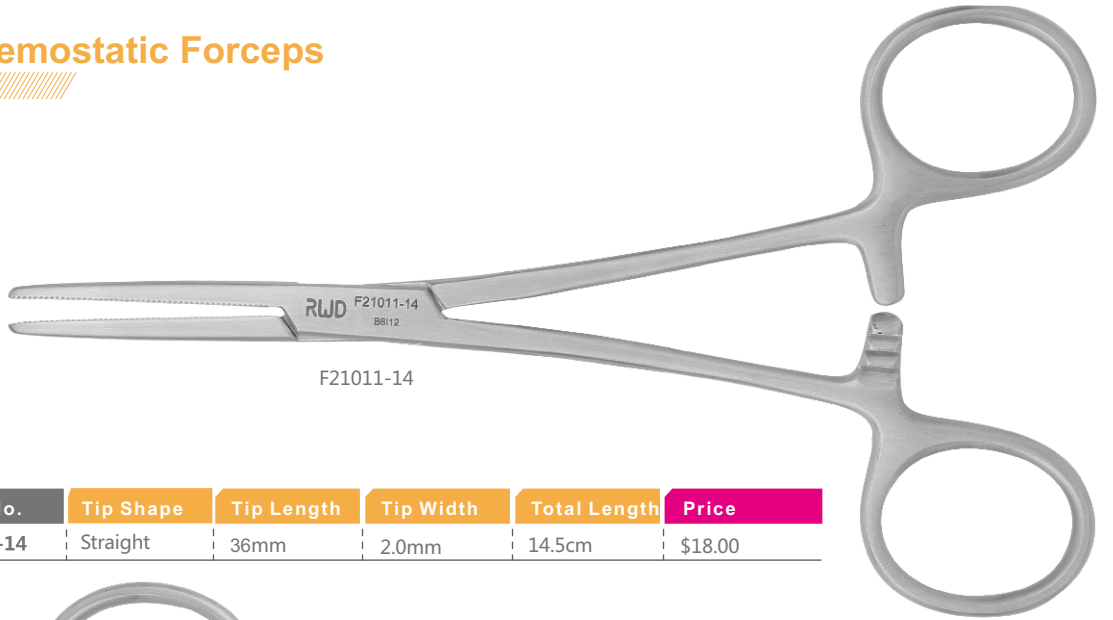


Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F18008-15	Straight 4x5Teeth	39mm	5.0mm	15.0cm	\$28.00
F18009-15	Straight 5x6Teeth	44mm	5.9mm	15.5mm	\$29.00

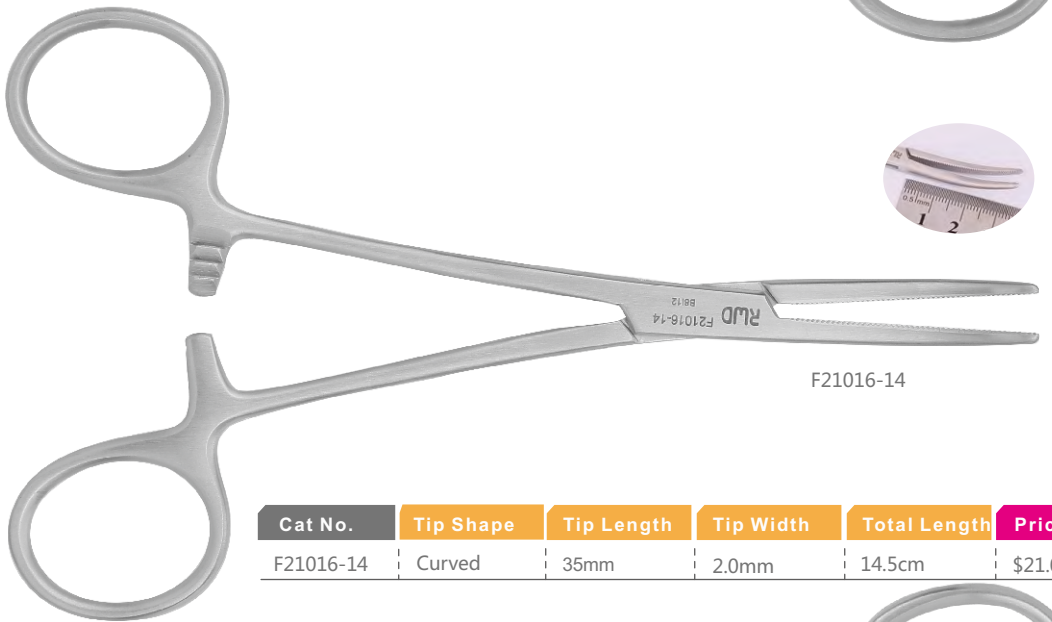


Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21001-12	Straight	21mm	1.0mm	12.5cm	\$14.30

Haemostatic Forceps



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21011-14	Straight	36mm	2.0mm	14.5cm	\$18.00



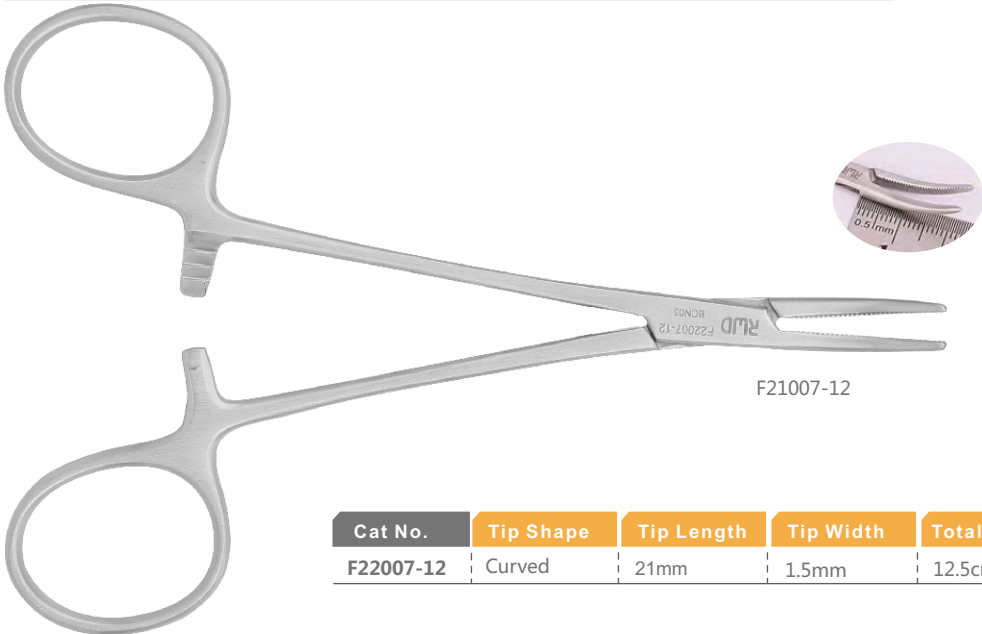
Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21016-14	Curved	35mm	2.0mm	14.5cm	\$21.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21019-16	Straight	37mm	1.5mm	16cm	\$22.00
F21020-16	Curved	37mm	1.5mm	16cm	\$24.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F22006-12	Straight	20mm	1.2mm	12.5cm	\$19.00



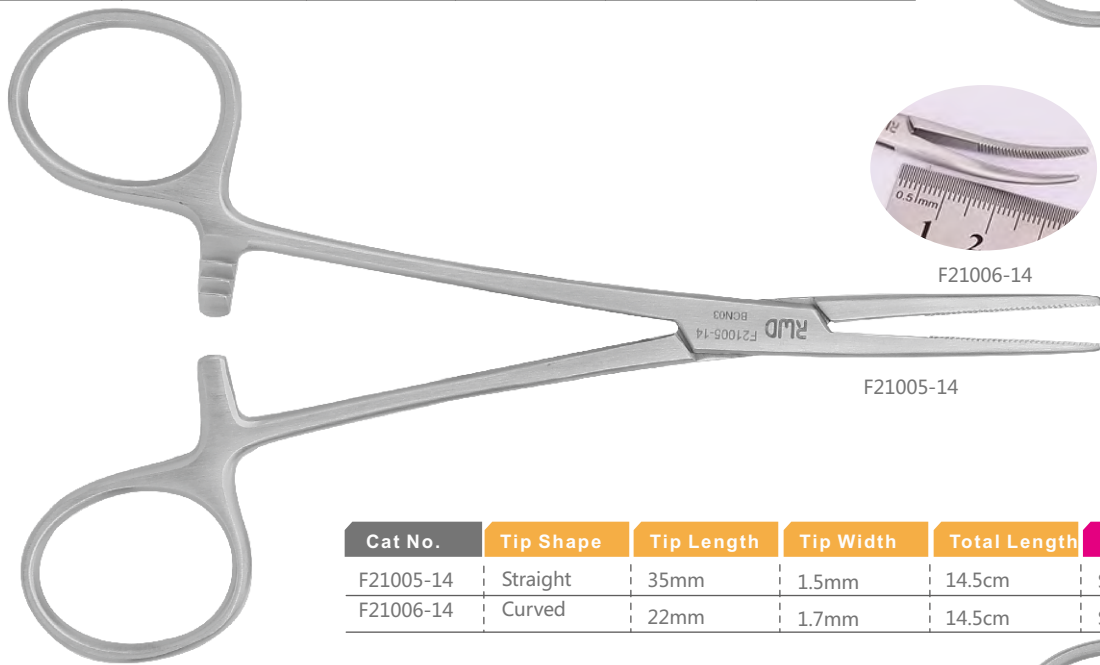
Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F22007-12	Curved	21mm	1.5mm	12.5cm	\$20.00



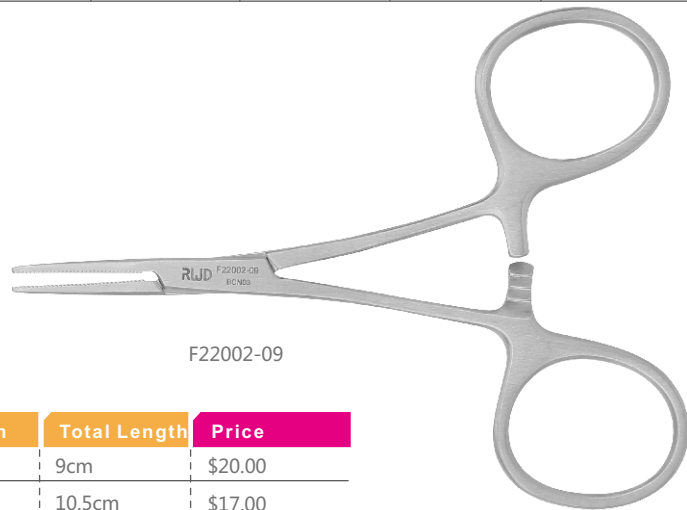
Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F22003-09	Curved	19mm	1.0mm	9cm	\$22.00
F22003-10	Curved	18mm	1.0mm	10cm	\$18.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21003-12	Straight 1x2Teeth	22mm	1.5mm	12.5cm	\$18.00
F21004-12	Curved 1x2Teeth	20mm	1.6mm	12.5cm	\$19.00

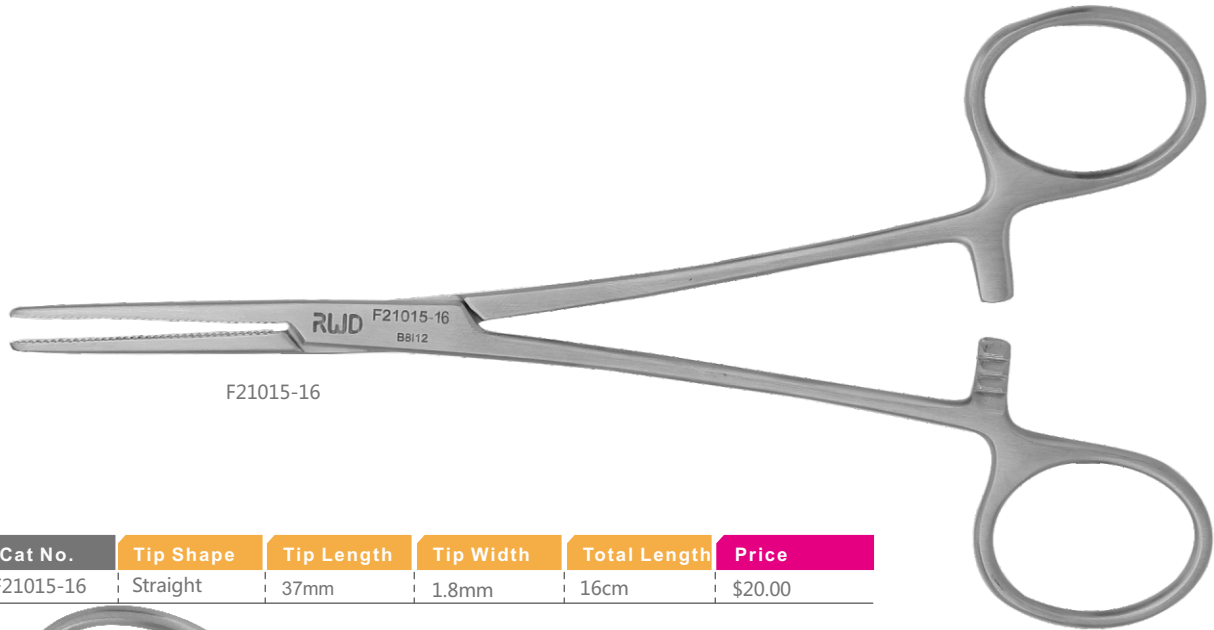


Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21005-14	Straight	35mm	1.5mm	14.5cm	\$21.00
F21006-14	Curved	22mm	1.7mm	14.5cm	\$22.00



Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F22002-09	Straight	19mm	1.0mm	9cm	\$20.00
F22002-10	Straight	19mm	1.4mm	10.5cm	\$17.00

Needle Holders



F21015-16

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F21015-16	Straight	37mm	1.8mm	16cm	\$20.00



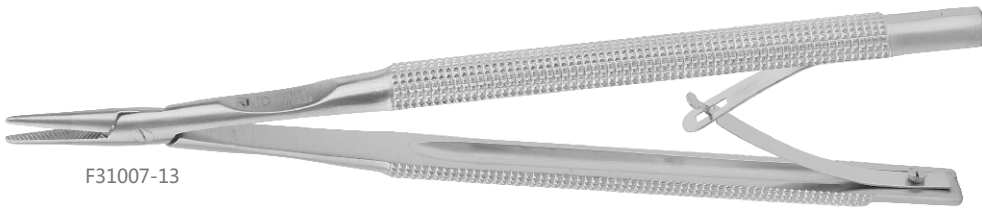
F23021-16

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F23021-16	Straight	25mm	1.7mm	16cm	\$27.00
F23022-16	Curved	36mm	1.5mm	16cm	\$29.00



F31047-12

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F31047-12	Straight	8mm	2.0mm	12cm	\$46.00
F31047-14	Straight	13mm	2.1mm	14cm	\$49.00



F31007-13



F31002-13

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F31002-13	Straight	14mm	1.0mm	13.5cm	\$94.00
F31007-13	Straight	13mm	1.2mm	13.0cm	\$129.00



F31031-15

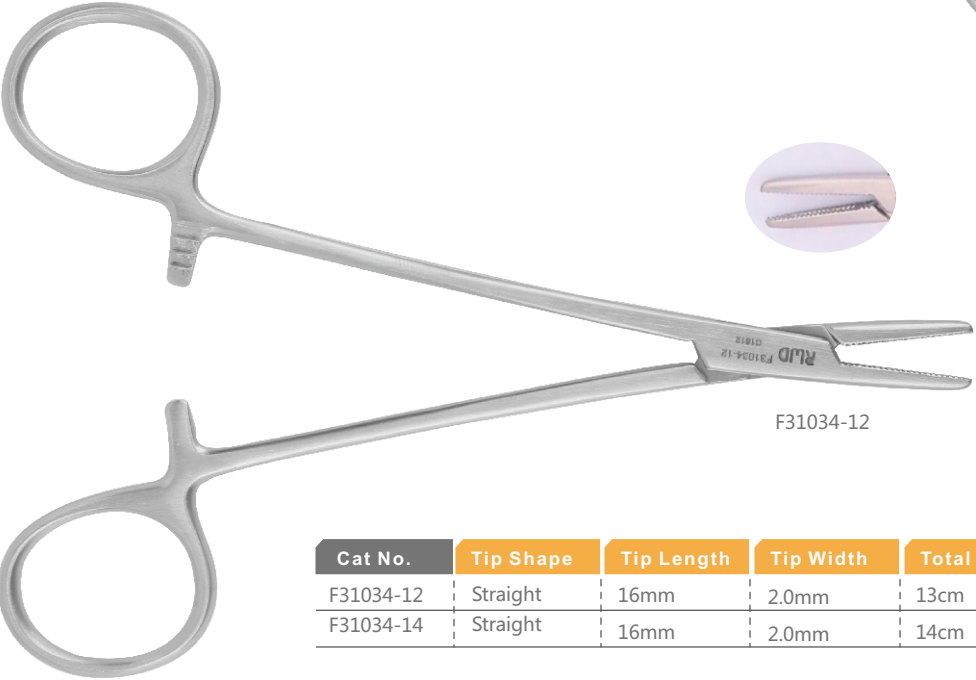


Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F31031-15	Straight	19mm	2.6mm	15.5cm	\$26.00



F31025-13

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F31025-13	Straight	16mm	2.0mm	13cm	\$23.00



F31034-12

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
F31034-12	Straight	16mm	2.0mm	13cm	\$23.00
F31034-14	Straight	16mm	2.0mm	14cm	\$24.00

suture



Sutures w/Needle-3/8/2.5x7/30cm/
6-0 (50/Box)
No. F35205-60 \$233



PGA Sutures w/Needle-1/2/4x10/90cm/
5-0 (50/Box)
No. F35305-50 \$370



Needle-3/8/3x10/90cm/5-0 (50/Box)
No. F35401-50 \$233

Bone Rongeurs



S21002-15

Cat No.	Jaw Shape	Jaw Size (Cup)	Jaw Length	Total Length	Price
S21002-15	Curved	3.5mm	11mm	15cm	\$124.00



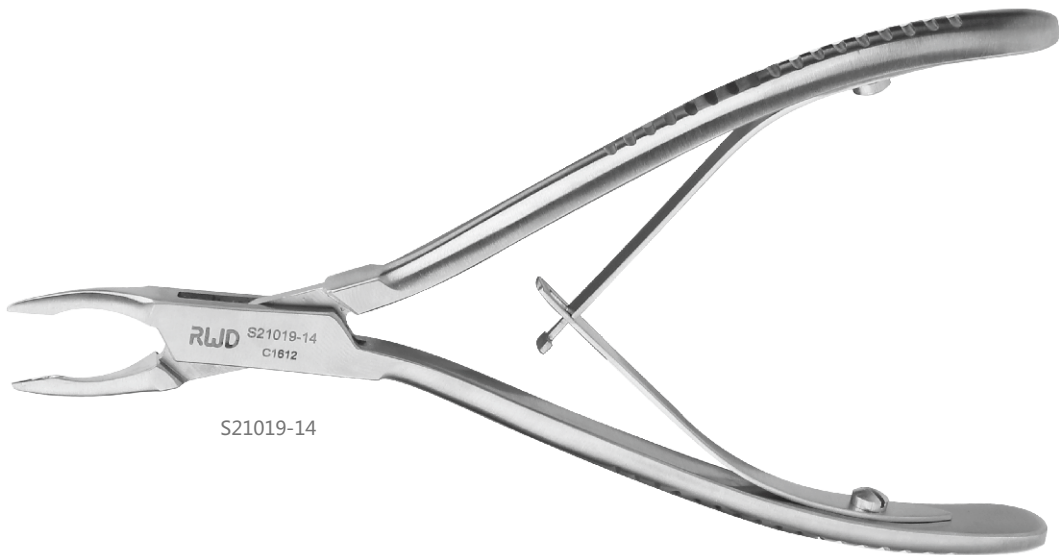
S21010-15

Cat No.	Jaw Shape	Jaw Size (Cup)	Jaw Length	Total Length	Price
S21010-15	Curved	2mm	18mm	15.5cm	\$202.00



S21027-17

Cat No.	Jaw Shape	Jaw Size (Cup)	Jaw Length	Total Length	Price
S21027-17	Straight	1.0mm	12mm	17cm	\$196.00



S21019-14

Cat No.	Jaw Shape	Jaw Size (Cup)	Jaw Length	Total Length	Price
S21019-14	Straight	0.5mm	7mm	14cm	\$203.00
S21020-14	Straight	0.7mm	6.1mm	14cm	\$193.00
S21021-14	Straight	1.0mm	9.5mm	14cm	\$170.00



S21022-14

Cat No.	Jaw Shape	Jaw Size (Cup)	Jaw Length	Total Length	Price
S21023-14	Curved	0.7mm	7mm	14cm	\$200.00
S21024-14	Curved	1.0mm	9mm	14cm	\$176.00

Blood Vessel Clamps



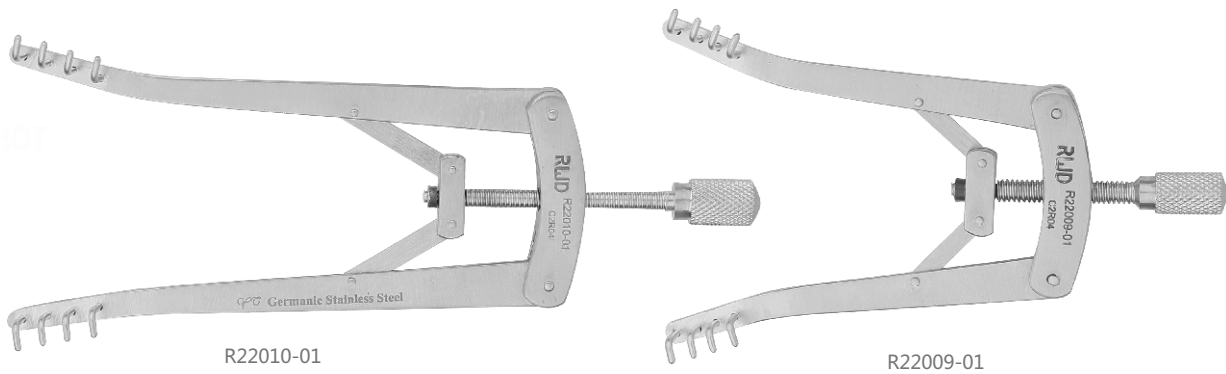
Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
R31005-04	Straight	4mm	0.75mm	16mm	\$36.00
R31005-06	Straight	6mm	1.0mm	19mm	\$36.00
R31005-08	Straight	8mm	2.0mm	17mm	\$36.00
R31005-10	Straight	10mm	2.0mm	20mm	\$36.00
R31006-04	Curved	6.3mm	1.0mm	16mm	\$45.00
R31006-06	Curved	6.6mm	1.0mm	17mm	\$45.00
R33001-38	Straight	11mm	3.5mm	38mm	\$30.00
R33001-48	Straight	14mm	3.7mm	48mm	\$27.00
R33002-38	Curved	11mm	3.75mm	38mm	\$30.00
R33002-48	Curved	15mm	3.7mm	48mm	\$37.00
R33003-01	Straight	17mm	3.7mm	58mm	\$36.00
R33003-02	Curved	18.5mm	4.0mm	58mm	\$36.00
R31008-26	Straight	11mm	2.0mm	28mm	\$32.00
R31009-26	30°Curved	14mm	2.4mm	28mm	\$32.00
R31010-26	45°Curved	15mm	2.5mm	29mm	\$32.00



R34001-14
Used only to clamp R31005, R31006 series vascular clamps

Cat No.	Tip Shape	Tip Length	Tip Width	Total Length	Price
R34001-14		8.4mm		14mm	\$41.00

Retraetors



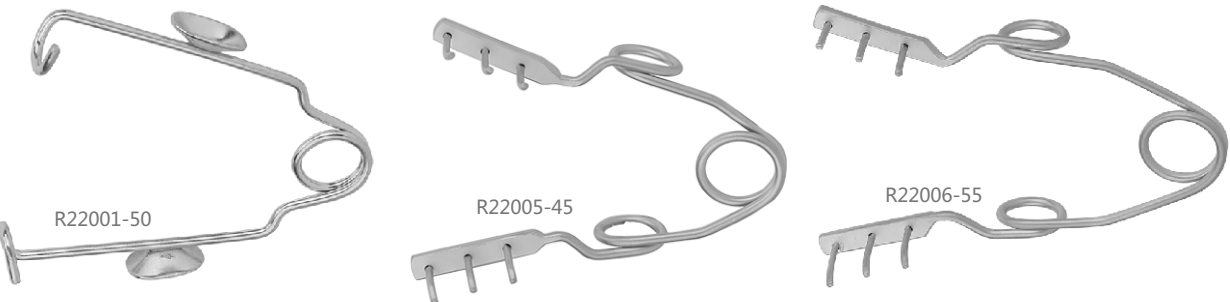
Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R22009-01	Blunt 4x4Teeth	9.5mm	1mm	4.5mm	60mm	7.5cm	\$47.00
R22010-01	Blunt 4x4Teeth	11.5mm	1mm	5.5mm	80mm	10cm	\$60.00



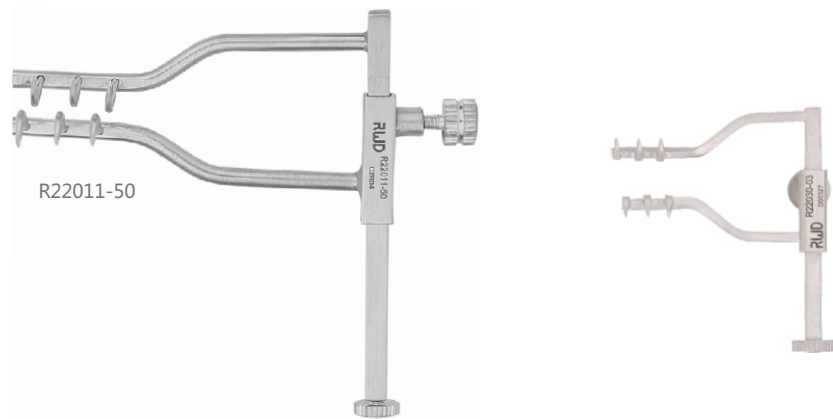
Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R21027-12		5mm	1.5mm	5mm		12.5cm	\$19.00



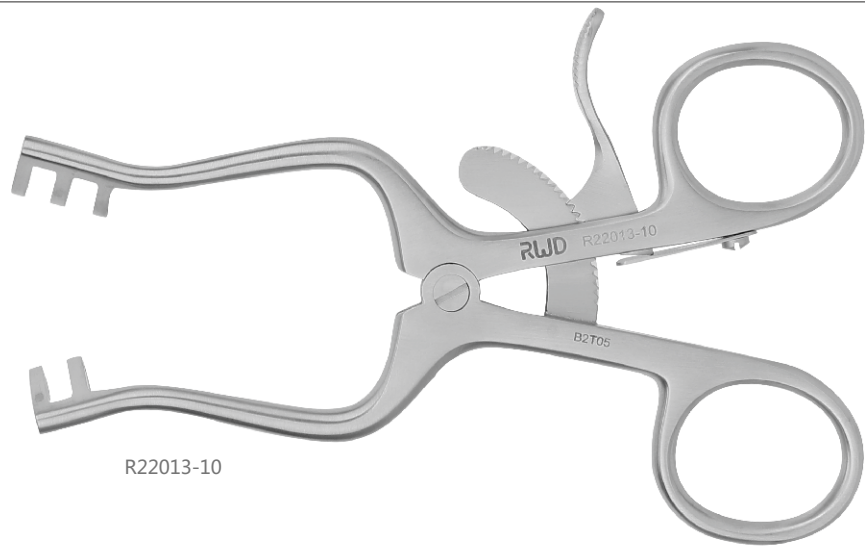
Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R22029-03		12mm	0.9mm	6mm	22mm	3cm	\$19.00
R22029-04		12.5mm		6.6mm	29mm	4cm	\$19.00
R22012-45		13mm		7.5mm	32mm	4cm	\$17.00



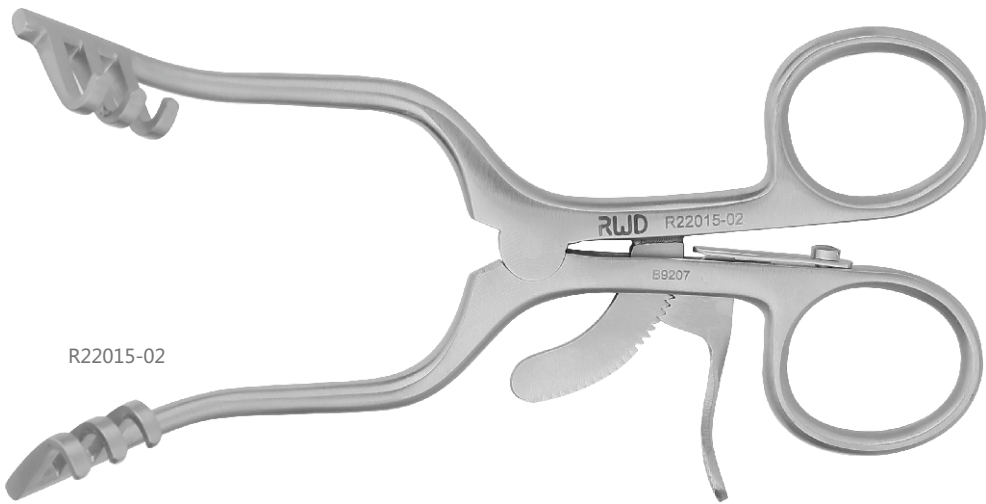
Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R22001-50	Blunt 1x1Teeth	7.5mm	1.5mm	8.9mm	40mm	5cm	\$20.00
R22005-45	Blunt 3x3Teeth	11mm	1mm	7mm	36mm	5cm	\$36.00
R22006-55	Blunt 3x3Teeth	12mm	1mm	8mm	35.5mm	5.5cm	\$38.00



Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R22011-50	Sharp 3x3Teeth	10.8mm		8mm	32mm	5.5cm	\$45.00
R22030-03	Sharp 3x3Teeth	4.5mm		2.2mm	21mm	3.5cm	\$106.00



Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R22013-11	Blunt 2x3Teeth		13.5x7.8mm	13mm	61mm	11.5cm	\$81.00



Cat No.	Teeth Shape	Teeth Length	Teeth Width	Teeth Depth	Maximum Spread	Total Length	Price
R22015-02	Blunt 3x3Teeth	13.5mm	13mm	0.5mm	62mm	13cm	\$103.00



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