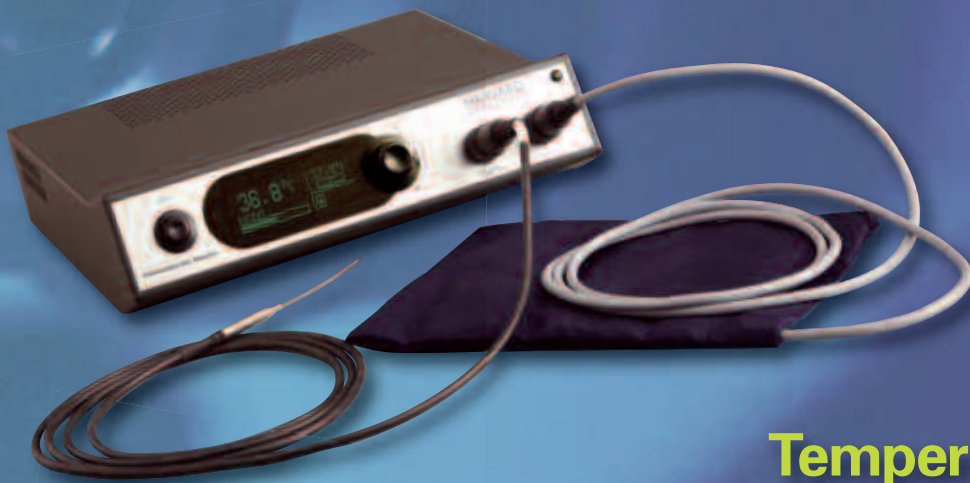


HARVARD
APPARATUS

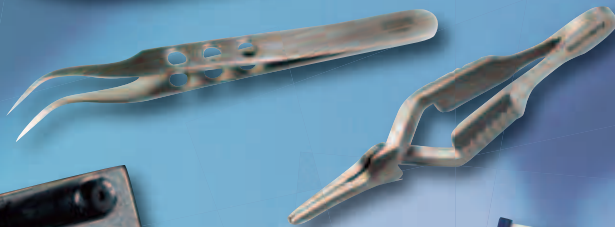
superior tools for **Small Animal Surgery**

Increase Your Small Animal Survival Rate



Anesthesia
Ventilation

Temperature Control



Physiological Monitoring

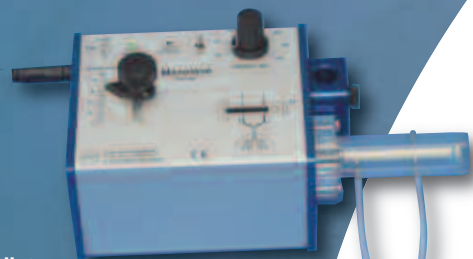
Animal Surgery



www.harvardapparatus.com

Ventilation

For over 100 years, we have been providing quality lab products to all facets of laboratory research.



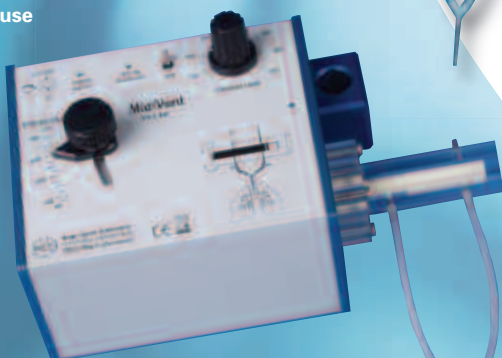
MicroVent Ventilator



Mouse Ventilator Model 687



MiniVent Mouse Ventilator



MidiVent Mouse Ventilator

MicroVent Ventilator

- Designed for prenatal mice with minimal dead space
- Tidal volumes from 0 to 130 μ l
- Respiration rate from 60 to 400 bpm
- Valveless piston pump – continual use with no clogged valves

product #	model	description
73-3591	848	MicroVent Ventilator, 110 VAC
73-3590	848	MicroVent Ventilator, 230 VAC

Mouse Ventilator Model 687

- New design enhances accuracy and precision with quiet operation
- Small volume delivery adjustable in 0.1cc increments
- Ability to monitor PEEP
- Can be combined with inhalation anesthesia

product #	model	description
55-0001	687	Mouse Ventilator

MiniVent Mouse Ventilator

- Minimal system dead space makes this the perfect choice for mice!
- Precise & accurate delivery tidal volume: 30 to 350 μ l
- Respiration rate from 60 to 400 bpm
- Simple adjustment while unit is running

product #	model	description
73-0043	845	MiniVent Ventilator, 110 VAC
73-0044	845	MiniVent Ventilator, 230 VAC

MidiVent Ventilator for Large Mice and Small Rats

- Ideal ventilator for large mice & small rats up to 100 g
- Stroke volume range from 60 to 700 μ l
- Ventilation rate from 60 to 400 breaths/minute
- Simple adjustment of stroke volume while running
- Valveless piston pump, no valves to clog
- Very small instrument/circuit dead space volume
- Compact, easy to install close to animal
- No vibrations, very low noise

product #	model	description
73-4120	849	MidiVent Ventilator for Mice, 115 VAC
73-4119	849	MidiVent Ventilator for Mice, 230 VAC

683 Small Animal Ventilator

- Quiet, new design for more accurate tidal volume delivery
- Two piston and cylinder assemblies to accommodate tidal volumes from 0.5 to 30cc
- Ability to monitor PEEP
- Ideal for animals from 250g to 5kg

product #	model	description
55-0000	683	Small Animal Ventilator



Small Animal Ventilator Model 683



Inspira Advanced Safety Ventilator

- NEW Inspriary Hold
- Harvard Apparatus' most versatile ventilator – can accommodate animals from mice to cats with one unit
- Both volume and pressure controlled models available
- Continuous airway pressure monitoring
- Sigh breath feature to maintain optimal lung function
- Adjustable I:E ratio
- Assist mode to help wean animal post-surgery

product #	model	description
55-7058	ASV _v	Inspira Advanced Safety Ventilator Volume Controlled
55-7059	ASV _p	Inspira Advanced Safety Ventilator Pressure Controlled
55-7061	ASV _v -IH	Inspira Advanced Safety Ventilator with Inspiratory Hold Volume Controlled
55-7062	ASV _p -IH	Inspira Advanced Safety Ventilator with Inspiratory Hold Pressure Controlled



Inspira Advanced Safety Ventilator

613 Large Animal Ventilator

- Accommodates animals from 1.5 to 50 kg
- Volume controlled
- Tidal volume adjustable from 30 to 750 cc/stroke

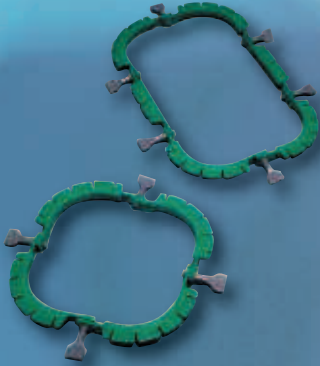
product #	model	description
55-0715	613	Large Animal Ventilator, 115 VAC
55-0723	613	Large Animal Ventilator, 230 VAC



Large Animal Ventilator Model 613

Your Complete

Small Animal Retractor System and Surgical Tray



Rodent Operating Table

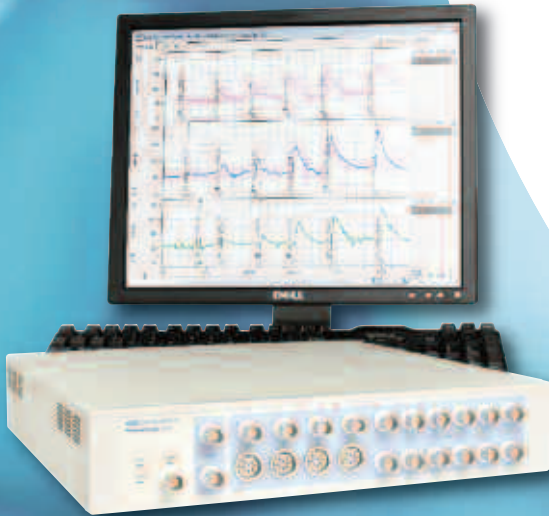
- **System configurations are available to meet application specifications for any research animal model**
- **Our technical support representatives are experts on anesthesia delivery and ventilation**



NEW! Panlab/Harvard Apparatus Non-Invasive Blood Pressure Monitor



Intubation and Tracheal Cannulae



PowerLab Data Acquisition and Analysis Systems



Regulators and Gas Hoses

Surgical Solution

• **Contact us to configure your system and ensure safe and efficient surgeries**



Instrument Sterilizers



NEW! K-LED Illumination System



Lights and Magnifiers



Pulse Oximeters



Anesthesia Machines



Evacuation



Ventilators

Vaporizers

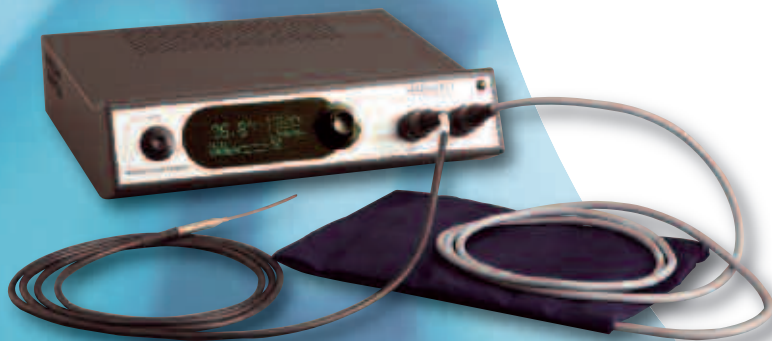
Circuits and Masks

Temperature Control

Harvard Apparatus has multiple options for small animal post-surgery recovery.



Harvard Apparatus
Small Intensive Care Units



NEW! Harvard Apparatus
Homeothermic Monitoring System

Intensive Care Units

- Speeds recovery for post-operative animals
- Fluid heating method eliminates hot spots
- Constant temperature maintained
- Models available for rodents, dogs and primates

product #	description
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52-4777	Small Intensive Care Unit, 115 VAC
52-4793	Medium Intensive Care Unit, 115 VAC
52-4819	Large Intensive Care Unit, 115 VAC
52-4785	Small Intensive Care Unit, 230 VAC
52-4801	Medium Intensive Care Unit, 230 VAC
52-4827	Large Intensive Care Unit, 230 VAC



Homeothermic Monitoring System

- Accurate to within 1°F
- Maintains animal's core body temperature with feedback loop
- Displays set and actual temperatures continuously on screen
- Models available for mice, rats, cats or dogs
- Analog output

product #	description
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50-7220-F	Small Homeothermic Blanket System, 115 VAC
50-7222-F	Medium Homeothermic Blanket System, 115 VAC
50-7224-F	Large Homeothermic Blanket System, 115 VAC
50-7221-F	Small Homeothermic Blanket System, 230 VAC
50-7223-F	Medium Homeothermic Blanket System, 230 VAC
50-7224-F	Large Homeothermic Blanket System, 230 VAC

See website for accessories and full product details.

Maintaining the animal's body temperature during procedures is critical.



Heat Therapy Pump

- Accurate to within 1°F
- Ideal for animal surgery and recovery
- Safeguards against overheating
- Mercury free
- Uses tap water

product #	description
72-9710	Heat Therapy Pump with Clik-Tite® Connectors 120 VAC with one 15 x 22 in pad
72-9712	Heat Therapy Pump with Clik-Tite® Connectors 120 VAC
72-9711	Heat Therapy Pump with Clik-Tite® Connectors 220 VAC
60-3413	Heat Therapy Pump Stand with 4 Casters and Basket
60-3414	Disposable Polymer/Fabric Temperature Therapy Pad with Clik-Tite® Connectors, 7.6 x 58.4 cm (3 x 23 in), pkg. of 10
60-3415	Disposable Polymer/Fabric Temperature Therapy Pad with Clik-Tite® Connectors, 33 x 45.7 cm (13 x 18 in), pkg. of 20
72-2582	Disposable Polymer/Fabric Temperature Therapy Pad with Colder Connectors, 33 x 45.7 cm (13 x 18 in), pkg. of 10
60-3416	Disposable Polymer/Fabric Temperature Therapy Pad with Clik-Tite® Connectors, 38.1 x 55.9 cm (15 x 22 in), pkg. of 20
72-2583	Disposable Polymer/Fabric Temperature Therapy Pad with Colder Connectors, 38.1 x 55.9 cm (15 x 22 in), pkg. of 10
60-3417	Disposable Polymer/Fabric Temperature Therapy Pad with Clik-Tite® Connectors, 45.7 x 66 cm (18 x 26 in), pkg. of 10
72-2584	Disposable Polymer/Fabric Temperature Therapy Pad with Colder Connectors, 45.7 x 66 cm (18 x 26 in), pkg. of 10
60-3420	Reusable Heavy Duty Pliable All Polymer Pad with Clik-Tite® Connectors, 38.1 x 55.9 cm (15 x 22 in), pkg. of 1



NEW! Harvard Apparatus Heat Therapy Pump



Heating Plate and Temperature Controller

- Accurate temperature control
- Maintain body temperature
- Feedback sensor prevents overheating
- Models available for mice and rats

product #	description
72-7563	Large Heating Plate*
72-7617	Small Heating Plate*
72-7560	TCAT-2LV Temperature Controller for Plate
72-7561	TCAT-2DF Temperature Controller for Plate or Lamp

* Requires one of the TCAT-2 Temperature Controllers



NEW! Harvard Apparatus Heating Plate and Temperature Controller

Surgical Instruments

These new Harvard Apparatus brand surgical tools are designed to give you maximum performance at affordable prices.

We offer the new tools in four different high quality materials: Tungsten Carbide, Titanium, Diamond-Coated, and "Ultra-edge".

The Harvard Apparatus brand surgical tools are forged and finished in a German ISO 9001 facility. They are made from certified German surgical-grade steel. These superior quality tools are highly resistant to corrosion and maintain their sharp cutting surfaces for a long time.

Rat Surgery Surgical Kit

Harvard Apparatus' Rat Surgical Kit is an ideal starting point for surgical procedures commonly performed on laboratory rats.

product #	description
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72-8942	Rat Surgical Kit
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Mouse Surgical Kit

This convenient surgical kit is ideally suited for basic procedures and minor surgery on mice.

product #	description
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72-8943	Mouse Surgical Kit
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Minor Surgery Surgical Kit

This convenient surgical kit is ideally suited for basic procedures and minor surgery.

product #	description
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72-8940	Minor Surgery Surgical Kit
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Deluxe Major Surgical Kit

The savings, convenience and top Germany quality continue in this kit assembled for more extensive procedures and major laboratory animal surgeries.

product #	description
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72-8941	Deluxe Major Surgical Kit
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Many other surgical instruments are available – please see our website for full product offering.



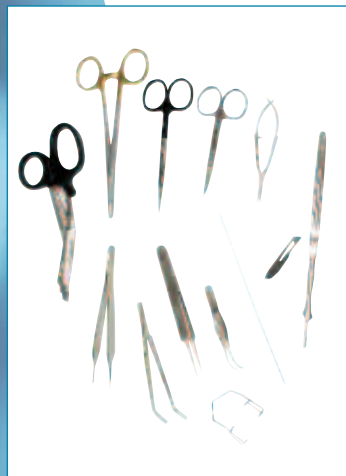
Rat Surgical Kit



Mouse Surgical Kit



Minor Surgery Surgical Kit



Deluxe Major Surgical Kit

Harvard Apparatus offers the following common surgical instruments:

- Scissors
- Operating scissors – including Mayo
- Eye scissors – including Castroviejo
- Spring scissors – including Vannas
- Forceps
- Tweezers
- Needle Holders
- Bone Rongeurs
- Vessel Clips and Bulldog Clamps

Glass Bead Dry Sterilizer

- Fast and easy to use
- Ideal for sterilizing surgical instruments
- No messy chemicals
- No open flame in laboratory



Surgical Instruments



Instrument Sterilizers

Anesthesia Delivery

- **Custom configurations to meet any set up requirements!**
- **Many options available to meet your needs**
- **Safe delivery of anesthetic gas to:**
 - Induction chamber
 - Mask
 - Ventilator
 - Stereotaxic frame
 - Any combination of the above and more!

Contact our Technical Support Specialists – experts on anesthesia delivery and ventilation!



Contact our Technical Support Specialists today!
1-800-272-2775 • techsupport@harvardapparatus.com

HARVARD APPARATUS

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