

What's NEW In Innovative Products For Bioresearch...

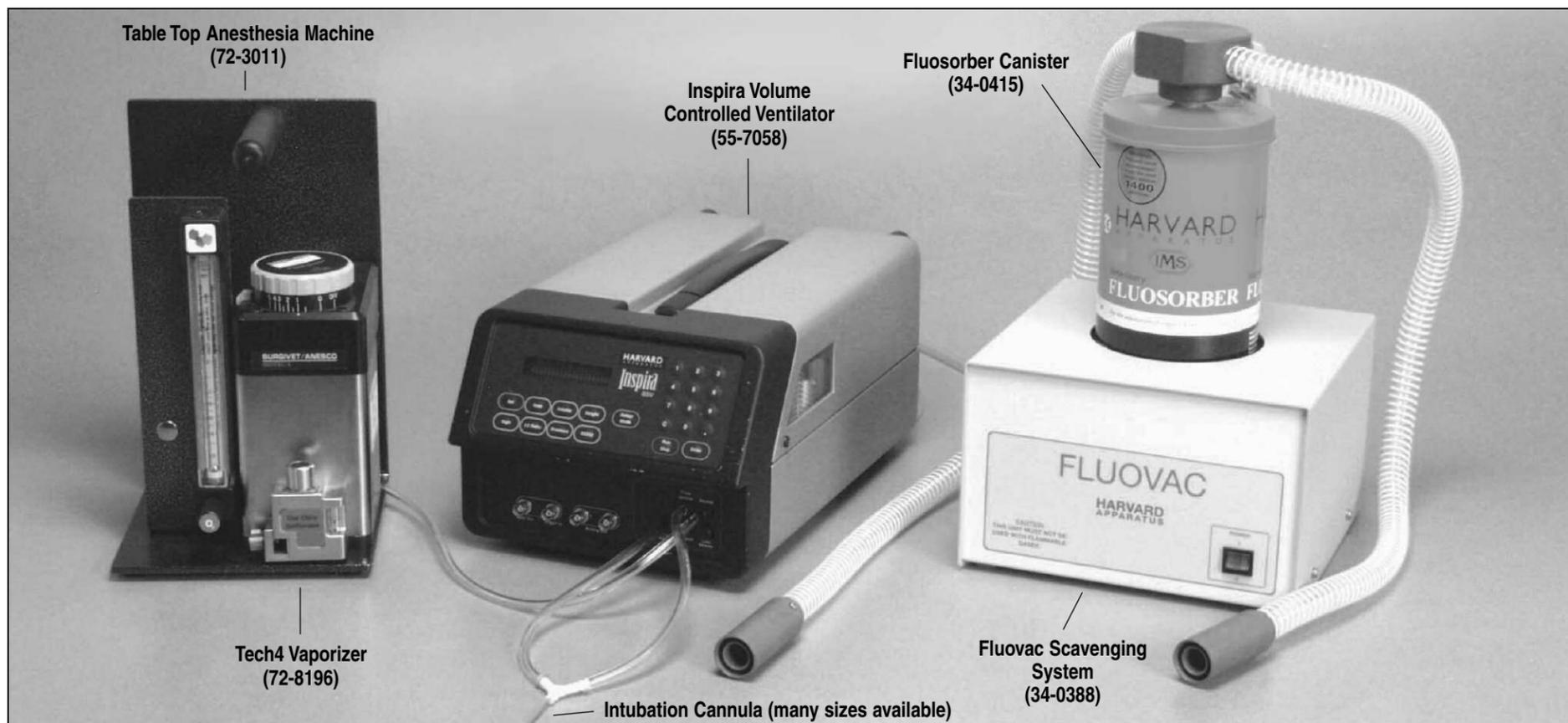
Volume 3, Series 55

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Since 1901

SPECIAL ANESTHESIA EQUIPMENT EDITION

Complete Small Animal Table Top Anesthesia System with Ventilator and Gas Scavenging



Basic Table Top Anesthesia Machine



FEATURES

- Economical benchtop anesthesia system
- Dedicated system for non-rebreathing circuits
- Accepts Tech4 and 100 Series vaporizers
- Can be upgraded to a rebreathing system with the addition of a freestanding CO₂ absorber system

The Basic Table Top Anesthesia Machine is a single flow meter non-rebreathing system. It is an extremely compact anesthesia machine, L x W x H, 8 x 8 x 13 inches.

72-3011 Table Top Anesthesia Machine



FEATURES

- Vaporizers available for Isoflurane, Halothane, Sevoflurane
- Two different vaporizer styles from which to choose
- Key and Funnel Fill versions available for all vaporizers
- Annual service and vaporizer conversion available upon request

Harvard Apparatus now offers new and remanufactured anesthetic vaporizers. Two different styles are available: Tech4 (refurbished) and 100 Series (new) each with two different fill options, Key-Fill or Funnel-Fill. These vaporizers come with a two year (Tech4) and three year (100 Series) warranty, and with annual maintenance will offer a lifetime of service.

72-8196 Select-A-Tech Vaporizer (Isoflurane)
72-8125 Series 100 (New) Vaporizer (Isoflurane)

Inspira-Advanced Safety Ventilator (ASV)



FEATURES

- Ventilates mice to cats with one ventilator (15 g to 10 kg)
- Two models available, volume and pressure controlled

SAFETY FEATURES

- Airway pressure monitoring detects over/under pressurization of lungs
- Assist Mode helps wean animal off the ventilator
- Built in sigh breath maintains optimal lung functioning
- Adjustable I:E ration (4:1)
- Ability to ventilate with air or non-flammable anesthetic gases

This is Harvard Apparatus' first ventilator that can ventilate animals from mice to cats using the same machine. It provides respiration rates from 5 to 200 bpm. The tidal volume is adjustable from 0.1 ml to 100 ml. It is no longer necessary to purchase one ventilator for mice and another for large rodents. The Inspira can do it all.

55-7058 Volume Controlled Inspira
55-7059 Pressure Controlled Inspira

Fluovac Scavenging System



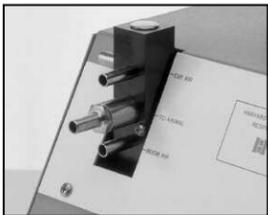
FEATURES

- Absorbs anesthetic vapors from the work area, protecting personnel from exposure
- Allows optimal access to the animal, particularly important when carrying out close-up or micro surgery
- A self-contained, portable unit requiring no extra ducting or ventilation
- Incorporates a special double mask which supplies the anesthetic and scavenges excess vapors simultaneously
- Easy to use: simply connect to your anesthesia system and insert a Fluosorber canister
- Each Fluovac is supplied with a dual rat mask

34-0388 Fluovac, 110V
34-0387 Fluovac, 230V
34-0415 IMS Fluosorber Canisters, pkg. of 6

LARGE ANIMAL VENTILATORS

Intermediate Animal (1 kg to 30 kg) Volume Controlled Ventilator



FEATURES

- For animals from 1 to 30 kg (2.2 to 66 lb) in body weight
- CE approved

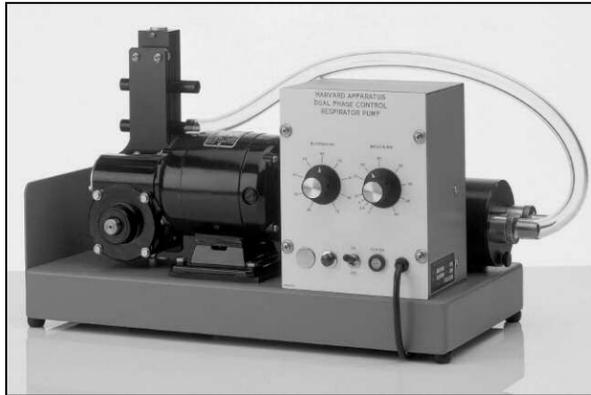
This Ventilator is supplied with two interchangeable brass piston and cylinder assemblies. The piston travels to the end of the cylinder regardless of volume setting minimizing dead air space.

The smaller piston and cylinder assembly adjusts from 4 to 25 ml per stroke. The larger assembly adjusts from 17 to 100 ml per stroke.

The rate is adjustable from 10 to 100 strokes/minute. The volume and rate are adjustable while the pump is running. Air/gas valving is by the four port system.

55-0798 Intermediate Ventilator, 115 V
55-0806 Intermediate Ventilator, 230 V

Large Animal Volume Controlled Ventilator



This is the workhorse of the Harvard Apparatus Volume Controlled Ventilators. There are literally thousands of these Ventilators in use in leading research laboratories throughout the world. Their design has been essentially unchanged over the years. There are dozens of examples of these Ventilators giving continuous service for more than thirty years with proper care and maintenance.

FEATURES

- For animals from 1.5 to 50 kg (3.3 to 110 lb) in weight
- Volume adjustable from 30 to 750 ccl/stroke
- Variable Inspiratory: Expiratory Ratio

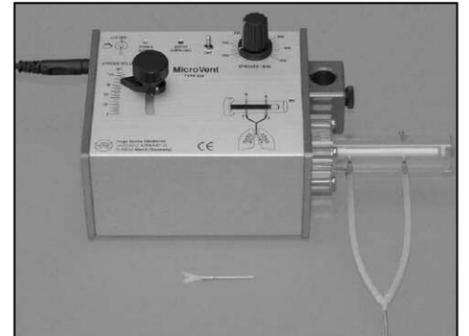
The rate and the I:E % can be varied while the ventilator is running. Note that the volume adjustment is made on the piston shaft, and that therefore accurate volume adjustment cannot be made while the ventilator is running. Air/gas valving is by the four port system with separate ports for gas inlet, gas outlet (to animal), gas return (from animal), and ventilator exhaust.

The gas inlet can be used to supply air or any non-flammable gas supply. Like the other Harvard mechanical ventilators, attachment of the ventilator exhaust to a column of water can be used to produce a positive end expiratory pressure (PEEP).

55-0715 Large Ventilator, 115 V
55-0723 Large Ventilator, 230 V

MOUSE VENTILATORS

NEW MicroVent Ventilator for New Born Mice



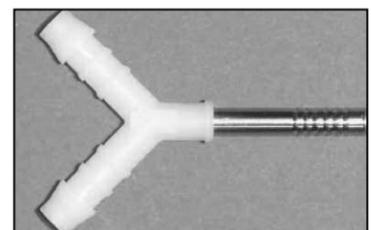
FEATURES

- Ultra low volume for newborn mice
- Stroke volume range from 0 to 130 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 construction, easy to install close to animal
- No vibrations, very low noise
- Includes one 1.0 mm Tracheal Cannula and one 1.0 mm Intubation Cannula

73-3591 MicroVent, 110 VAC
73-3590 MicroVent, 220 VAC

ACCESSORIES

Tracheal Cannulae

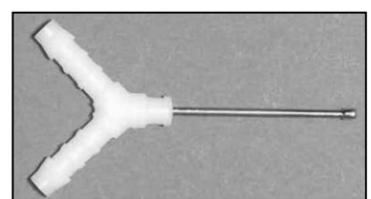


Tracheal Cannula with Y-Adapter

The tracheal cannula is used for general ventilation or respiratory mechanics studies. It is used in the case of a tracheotomy for acute studies. The outside diameter of the cannula must ensure a tight fit to the inside diameter of the animal's trachea. These cannulae are available in 3 versions:

- cannula only, for your own assembly
- with Y-adapter for connecting to a ventilator, the outside diameter of the Y-adapter matches to most of the ports diameter of the ventilators.
- with Luer-adapter for connecting to ventilation head of the multivent.

Intubation Cannulae

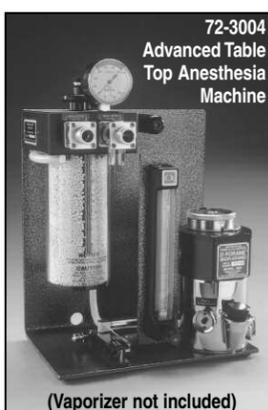


Intubation Cannula with Y-Adapter

The intubation cannula is used in chronic studies. The outside diameter of the cannula must ensure a tight fit to the animal's trachea. These cannulae are also available in the 3 versions.

LARGE ANIMAL ANESTHESIA EQUIPMENT

Advanced Table Top Anesthesia Machine



FEATURES

- Economical benchtop anesthesia system
- Suitable for rebreathing and non-rebreathing circuits
- Accepts Tech4 and 100 Series vaporizers

The Advanced Table Top Anesthesia machine is a compact table top version of the Vaporstick Plus. The unit may be easily moved from room-

to-room or with the optional bracket, 72-3015, mounted on the wall. The lightweight design and compact size, L x W x H, 12 x 8 x 17 inches, allows the unit to be placed in areas where space is a premium.

72-3004 Advanced Table Top Anesthesia Machine

Vaporstick Plus



FEATURES

- Economical full featured anesthesia system
- Suitable for rebreathing and non-rebreathing circuits
- Vaporizer at eye level for easy setup and adjustment
- Optional mounting for second vaporizer

The Vaporstick Plus anesthesia delivery system features a one-piece aluminum frame construction and provides a universal mounting bracket for an out-of-circuit vaporizer such as the Tech4 or 100 Series vaporizers. The baked on 'powder-coat' finish makes it easy to clean and virtually chip-proof.

72-3001 Vaporstick Plus

Harvard Apparatus has everything for anesthesia & ventilation of all size animals, from newborn mice to large dogs!

ANESTHESIA & VENTILATION

Vaporstick Anesthesia Machine



FEATURES

- Economical anesthesia delivery system
- Dedicated unit for non-rebreathing circuits
- Available with optional universal vaporizer mounting bracket
- Can be upgraded to a rebreathing system with addition of free-standing CO₂ absorber system

The Vaporstick is a utility unit designed to supply oxygen to non-rebreathing systems, intensive care units and nebulizers.

The flowmeter, adjusts from 0.2 to 4 LPM for accurate patient settings. A flush valve is included for fast immediate oxygen.

The unit is mounted on a stable spider base (5 legs) and a post assembly.

72-3007 Vaporstick Anesthesia Machine

Model 683 Small Animal Ventilator



The Model 683 Small Animal Ventilator comes standard with two piston and cylinder assemblies. The smaller piston (which comes installed) allows tidal volumes to be set from 0.5 to 5.0 cc in 0.5 cc increments and the larger cylinder allows tidal volumes of 3.0 to 30 cc in 0.3 cc increments. Setting the cylinder stroke between gradations it is possible to achieve finer resolution in tidal volume settings.

55-0000 Harvard Small Animal Ventilator Model 683

NEW Passive Anesthesia Scavenger



The new canister design absorbs greater than 80 grams of anesthetic. Electronic sensor detects escaping anesthetic gas.

Keep your Lab environment safe! Less expensive than other scavenging systems. Canisters are included with the system!

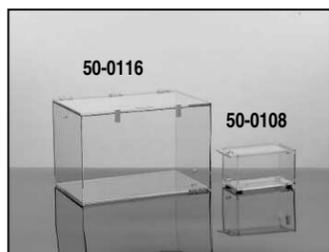
FEATURES

- No weighing of charcoal canisters
- Alarm sounds when Canister is full
- Safer than other charcoal canister systems
- Canisters included with system

72-8119 Pure-Guard Scavenging System

72-8121 Case of 6 Replacement Pure-Guard Canisters

Anesthetizing Boxes



These anesthetizing boxes are constructed of 6 mm (¼ in) thick, transparent plastic, with all joints securely cemented. The transparent plastic allows the animal to be under constant observation. Two 8 mm (¼ in) nylon tubing connectors, 25 mm (1 in) long, are on opposite ends of the box, one at the top and the other at the bottom, for introducing the gas.

50-0116 Large Anesthetizing Box
50-0108 Small Anesthetizing Box

Rodent Circuit Set



Developed in conjunction with leading research facilities, the Rodent circuit is the most effective, user-friendly, mask for rodents. Available with 3 different size diaphragms, the mask easily fits most rodents.

72-3026 Rodent Circuit Set- includes circuit, mask and diaphragm.

ACCESSORIES

NEW Homeothermic Blanket Systems



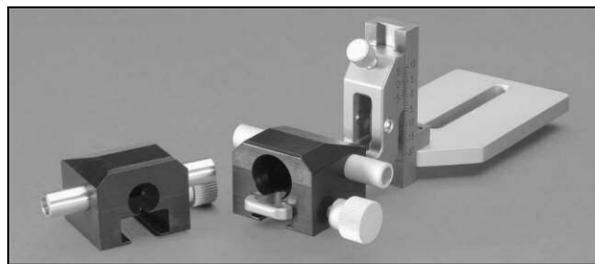
FEATURES

- Animal body temperature control at its simplest - feedback loop maintains animal's temperature
- Versatile - offered in three sizes - for adult mice, rats, cats, dogs or similar sized animals
- Select from rigid or flexible probes
- New light weight package
- Suitable with high gain recording equipment
- Displays actual body temperature on Control Unit from 35° to 40°C (95° to 104°F)

50-7053-R Small Homeothermic Blanket with Rigid Probe, 115 VAC

50-7053-F Small Homeothermic Blanket with Flexible Probe, 115 VAC

Gas Anesthesia Mask Adaptors



FEATURES

- For Mice or Rats in a Stereotaxic Instrument
 - Complete Stereotaxic Systems also available.
- 72-4852 Gas Anesthesia Mask Adaptor, Mice
72-4853 Gas Anesthesia Mask Adaptor, Rats

Surgical Instruments



FEATURES

- Harvard Apparatus offers a complete line of Surgical Instruments and Equipment

Glass Bead Sterilizer



FEATURES

- Fast and easy to use
 - Ideal for decontaminating microsurgical instruments
 - No messy chemicals or need for open flame
- 61-0183 Hot Bead Sterilizer, 120 VAC
61-0185 Replacement Glass Beads, 1.5 mm OD, 10 oz. Bag

Wound Closure



FEATURES

- Innovative wound clip system
- Full line of sutures also available

The Reflex™ Skin Closure System is a fast and effective method to close wounds on animals.

72-6062 Reflex™ Clips, 7 mm

72-6063 Reflex™ Clips, 9 mm

72-6064 Reflex™ Remover Forceps for both 7 mm and 9 mm clips

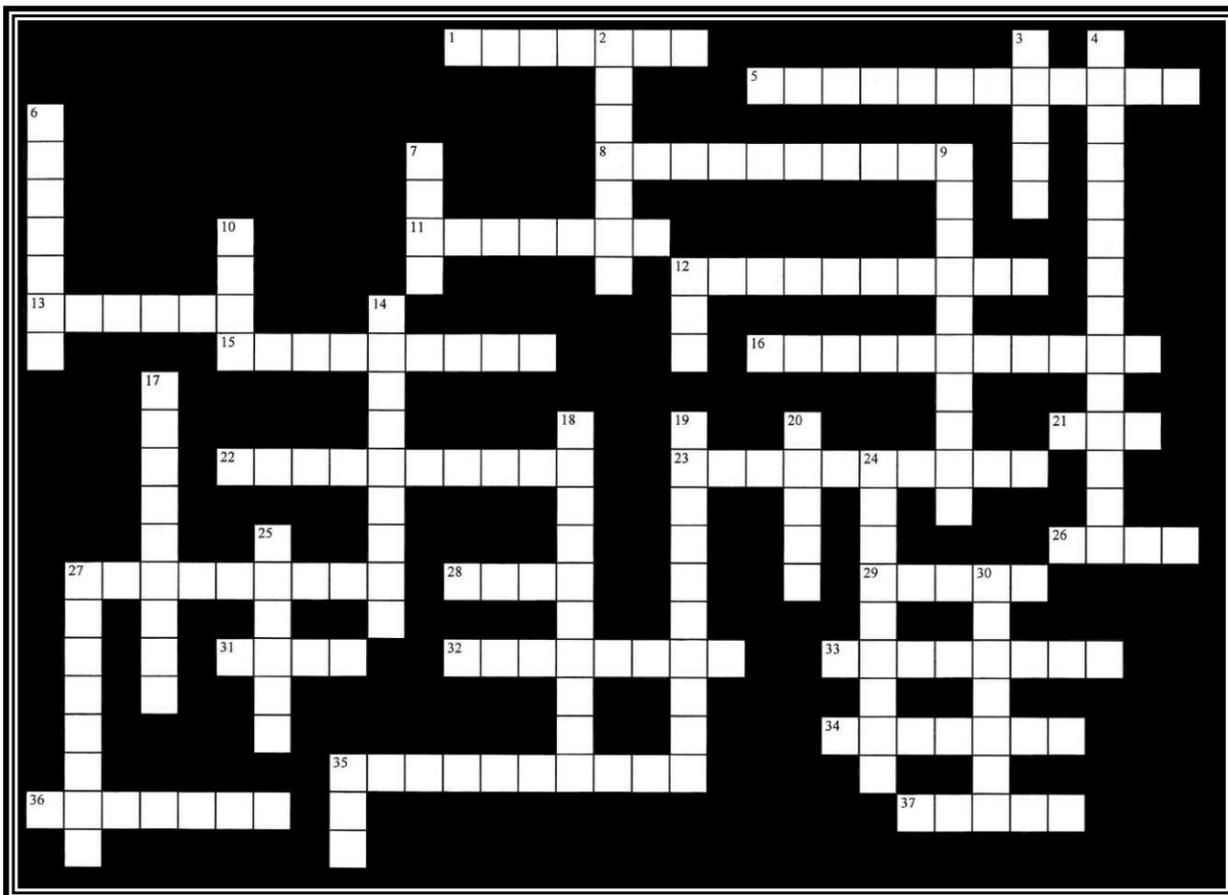
CROSSWORD PUZZLE #3

Across

1. First on the Dark Side.
5. DVM.
8. CO₂ monitor.
11. Tiny _____.
12. A little branch.
13. Essential for life.
15. One way to lower one's concentration.
16. Flotation device for sharks.
21. A state of matter.
22. Michael's shoes.
23. The last date.
26. Marshmallow chicken.
27. Carrion eater.
28. Air and water filter.
29. Self-contained underwater breathing apparatus.
31. Respiratory organ.
32. Partially burnt wood.
33. Flight with scrubbing problems.
34. Lung sacs.
35. Aerosolizer for fuel.
36. Cavity that is never singular.
37. Temporary lack of oxygen causes this.

Down

2. Major branch to lungs.
3. Two out of five, on the head.
4. Revving opens this.
6. Bubble stone.
7. Coelocanth fin.
9. Oxygen carrier.
10. Rhett went with it.
12. Flotation device for divers.
14. Related to lungs.
17. Pressure valve.
18. Common inhalation anesthetic.
19. Breathing assistant.
20. Volume or wave.
24. Popular eighties band.
25. Related to lungs.
27. Thorax air hole.
30. Usually full of hot air.
35. EMT specialty.



For answers visit us at: www.harvardapparatus.com

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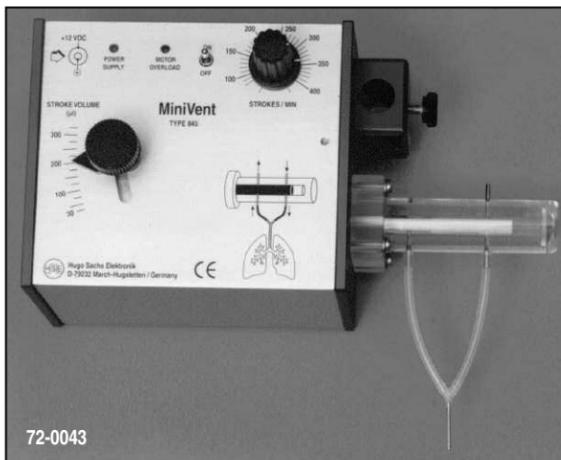
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FEATURED PRODUCT

MiniVent Ventilator for Mice



FEATURES

- Ideal ventilator for mice
- Stroke volume range from 30 to 350 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 construction, easy to install close to animal
- No vibrations, very low noise

Compact in size, 3 1/4" x 4" x 8" and extremely low dead space make the Minivent Mouse ventilator perfect for mouse anesthesia. It takes up little bench space, always out of the surgical field. Low noise and no vibrations!

73-0043 MiniVent, 110 VAC
73-0044 MiniVent, 230 VAC