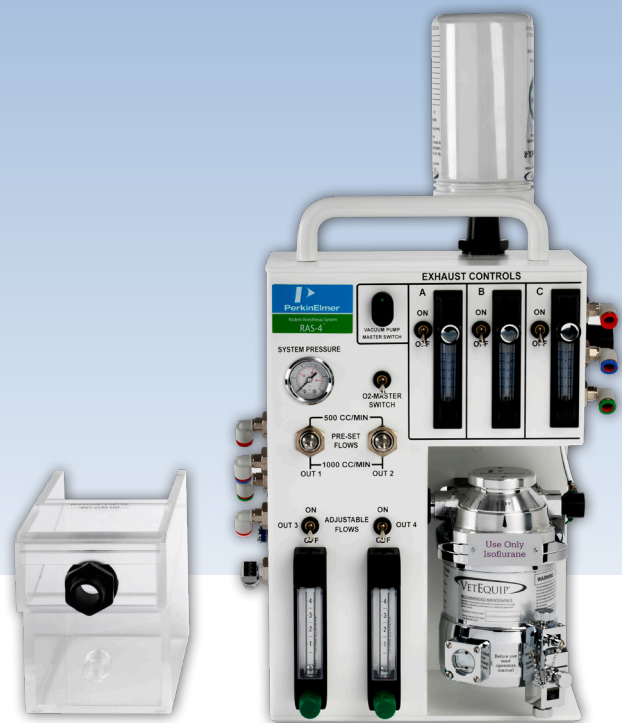


Preclinical *In Vivo* Imaging

Key Features:

- Four anesthesia delivery circuits
- Use with two instruments simultaneously
- Compact and lightweight design
- Vacuum system for active scavenging
- Oversized vented induction chamber



Anesthesia System for *In Vivo* Imaging Platforms

RAS-4 Rodent Anesthesia System is designed to work with PerkinElmer's suite of *in vivo* preclinical imaging systems (IVIS® and FMT® optical

imaging systems and Quantum microCT). The anesthesia system allows researchers to use real-time *in vivo* imaging to monitor and record molecular and genetic activity within mice and rats using isoflurane gas.

The RAS-4 successfully facilitates efficient gas delivery via four delivery circuits while minimizing excess gas exposure to lab personnel. It delivers isoflurane gas to two instruments and an induction chamber simultaneously with an extra delivery port to facilitate accessories for benchtop posing of animals if desired. The system works seamlessly with PerkinElmer's series of anesthesia manifolds to deliver isoflurane to mice or rats (appropriate accessories required). Active scavenging from the induction chamber and manifolds ventilate waste gas away from researchers and into disposable isoflurane-absorbing charcoal filters or to laboratory air exhaust systems.

RAS-4 Rodent Anesthesia System Components

Gas Anesthesia Module

- Uses isoflurane gas – two fixed 500 cc/min (1.0 LPM) circuits and two adjustable (0-4 LPM) circuits
- Dedicated FMT quick connect outlet
- Provides gas to two instruments, induction chamber and benchtop accessory simultaneously
- Dedicated vacuum pump with adjustable flowmeters to monitor and direct flow to specific ports as required
- Key filled Isoflurane vaporizer for improved safety
- Isoflurane-absorbing disposable charcoal filters absorb excess gas, as well as limit gas escaping into the surrounding laboratory environment
- Large sight glass to monitor available isoflurane supply
- Lightweight with carrying handle for portability and small footprint to save valuable bench space

Induction Chamber

- Oversized vented chamber to accommodate rats with ease
- Anesthetizes up to five adult mice or two rats simultaneously
- Sliding lid for ease of containment
- Dedicated exhaust blower which is constantly engaged for efficient isolation of escaping anesthesia
- Clear design to easily monitor animals in the chamber



Figure 1. The RAS-4 provides four anesthesia ports, to deliver isoflurane to two imaging systems, the induction chamber and one additional accessory simultaneously while providing dedicated scavenging of anesthesia, reducing exposure to the user.



Figure 2. The RAS-4 comes with an oversized, vented induction chamber that will accommodate five mice or two rats.

Table 1. RAS-4 Specifications.

RAS-4 System Components	Specifications
Anesthetic Gas	Isoflurane
Oxygen Requirements	50 psig (345 kPa) to 60 psig (414 kPa) required (provided by customer)
Induction Chamber	2.5 L capacity
Evacuation Pump	9 LPM, 12 VDC, .86 A, 10.3 W
Evacuation Flow	(3) 0.0 – 5.0 LPM each, adjustable flow
Exhaust Blower (Induction chamber)	14 CFM, 12 VDC, 0.90 A, 10.8 W. Blower dedicated to induction chamber to provide proper scavenging
Gas Flow Circuits	(2) Circuits served by a 0-4 LPM flowmeter, including an on/off switch (2) Circuits with preset flows of 500 cc/min and 1.0 LPM. Flow is directed to circuit with a simple activation of a toggle switch (1) Dedicated FMT quick connect outlet with a set flow of 1.0 LPM
Vaporizer Concentration	0.0 - 5.0 %. Variable by-pass, temperature compensated with pin-indexed fill port
Input Voltage	110-240 V, 50-60 Hz, 500 W
Output Voltage	12 V, 2.5 Amp
Weight (system)	24 lbs (11 kg)
Dimensions	Height 14.5" (37 cm) X Width 11" (28 cm) X Depth 5.5" (14 cm)
Environmental	Recommended 15 room air exchanges per hour (AEH) with at least 3 room changes per hour of fresh air

For more information, please visit our website at www.perkinelmer.com/invivo

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