

Technical Specifications for Gas Anesthesia System for Rodents

The whole animal anesthesia system should include: animal anesthesia vaporizer module, gas evacuation system, induction chamber and masks for rat & mouse.

Specifications for Small Animal Anesthesia Vaporizer Module

1. The system should be portable, compact, can be used on a table-top, fume hood or other challenged work areas with limited space.
2. Should be designed for rodents weighing less than 1.5kg.
3. Isoflurane or other non-toxic gas vaporizer with safe and easy-fill components available.
4. Should have the box of O₂ quick flush, facility for adjustable negative flow meters easily activated with toggle switches between induction chambers and anesthesia mask for easy recovery of animal in emergency.
5. Precise and adjustable concentration within 0.5-5% output, and at least 120ml liquid capacity.
6. Gas flow rate reading from 0-5000cc/min.
7. The air pump should be provided for air for the animal anesthesia machine with the air flow of 15-25L/min.

Specifications for Gas Evacuation System

1. Safely and actively remove waste gas associated with everyday inhalation anesthesia.
2. Waste anesthetic gases should be discharged into activated charcoal canister or any non-re-circulating hood, vent, downdraft/ back draft system or snorkel.
3. Charcoal canister should be weighable to check its saturation.
4. Should have alarm, indicator light and buzzer reminder to change the canister and maintain its effectiveness.
5. Easy to use-simply connect to your vaporizer system and insert an activated charcoal canister.
6. Should be accompanied with one large piece of 830g gas filter canister.

Specifications for Induction Chamber

1. Should have transparent plexiglas constructs for easy animal monitoring and powerful joints for eliminating chamber leakage.
2. Should be suitable for rats up to 500g

Specifications for Anesthesia Mask

1. Mask should provide predictable delivery of anesthesia for rodents.
2. The mask must eliminate any dead space, avoiding the need for tight fitting.
3. Each mask should have separate inlet for delivery of anesthetic agent and outlet for connecting to Gas Evacuation System for safety of researchers.
4. Should be able to work together with the gas evacuation system for active gas scavenging.
5. Should be able to work together with neurological surgical procedures (Stereotaxic surgery, MCAO surgery, SAH surgery etc.)
6. Minimum 5 nose masks of suitable size for rat (suitable for weight range 100-500g) and mice (suitable for weight range 20-40g) each must be included.

Additional Accessories Required

The anesthesia system should be provided with accessories including:

1. A stand for holding and adjusting the position of the nose mask of any size.
2. Heating blanket with adjustable digital temperature controller, suitable for single animal.
3. A suitable oxygen source like oxygen tank/cylinder.
4. A compact drug vaporizer module with minimum 120ml drug loading capacity.

Warranty: Minimum 1 Year from the date of installation

The specifications should be authenticated by brochures and company website/catalog. Technical catalogue or brochure of the model must be provided. Instant preparation of the same based on the specifications provided and its onward submission will disqualify the bidder without any further communication.

If the need be, the qualifying bidders may be required to place the demo model of the quoted equipment in the Department for testing the efficiency of the equipment. Based on the efficiency and the results obtained the technical committee may further disqualify the vendors and shortlist the vendors whose financial bid will then be opened.