



RIF Series

CO₂ Veterinary Insufflator



Overview

The veterinary insufflator is engineered to support a wide range of endoscopic procedures with intelligent, user-friendly functionality. It comes preconfigured with **four optimized operation modes** to suit different clinical needs:

- **Small Animal Mode**
- **Medium Animal Mode**
- **Large Animal Mode**
- **Custom Mode**

In addition to these preset modes, users can **manually adjust pressure and flow parameters** directly from the control panel. Once customized, these preferences can be **saved for future use**, enabling quick recall of each veterinarian's ideal settings.

This system also supports **gas heating functionality**, allowing users to set and control the CO₂ heating temperature to enhance patient safety and comfort. A dedicated **fog evacuation mode** helps maintain a clear visual field during surgery.

All parameters are **visually displayed in real time** and can be adjusted on the fly, ensuring precise control during insufflation. This device offers an ideal balance between intelligent automation and manual flexibility for veterinary surgical teams.

Clinical Application Scenarios

Our veterinary insufflator is a critical tool in **minimally invasive surgical procedures**, particularly **laparoscopic surgeries** in animals. It ensures a stable pneumoperitoneum by delivering CO₂ gas at controlled pressures and flow rates, thereby creating an expanded, visible working space for safe and effective endoscopic interventions.

Typical Application Scenarios Include:

- **Laparoscopic Spays and Neuters:** Maintaining stable intra-abdominal pressure for safe manipulation.
- **Cryptorchid Surgery:** Clear visualization of retained testes in the abdomen.
- **Laparoscopic Biopsies:** Liver, kidney, or lymph node sample collection with precision.
- **Gastropexy Procedures:** Prevention of gastric torsion in large-breed dogs.
- **Exploratory Laparoscopy:** Diagnosing tumors, foreign bodies, or other abnormalities.
- **Laparoscopic-Assisted Cystotomy:** Bladder stone removal with minimal trauma.
- **Obese or Large Animals:** Where greater gas volume and flow rate are required.

Explanation of Each Preset Mode and Its Use

Mode	Usage Scenario
Small Animal Mode	This mode is specifically designed for small animals such as cats, rabbits, and other small pets. The preset parameters provide lower flow rates and pressure settings, ensuring gentle and safe insufflation while minimizing risks of tissue injury.
Medium Animal Mode	Optimized for mid-sized animals such as medium dog breeds, this mode balances flow rate and pressure to provide stable pneumoperitoneum while maintaining safety and efficiency during surgery.
Large Animal Mode	Developed for large dogs and other bigger animal patients, this mode offers higher flow rates and pressure ranges to meet the increased abdominal capacity. It helps maintain stable insufflation even in long and complex procedures.
Custom Mode	This mode allows veterinarians to freely adjust flow rate, pressure, and temperature settings according to specific surgical needs. It is ideal for special cases or when procedures require parameters beyond the standard presets.

Additional Features Enhancing Surgical Flexibility

- **Manual Adjustment:** Surgeons can override presets and **manually control pressure and flow**, then save these as custom profiles for future procedures.
- **Gas Heating Option:** Integrated heating function to **warm CO₂**, helping to maintain patient body temperature and reduce hypothermia risk.
- **Fog Evacuation Mode:** Clears lens fog or mist buildup for **uninterrupted visibility** during long surgeries.
- **Real-Time Visual Data:** All operational parameters are displayed on screen for **intuitive monitoring and precise control**.

Including list



	RIF-500	RIF-500 Pro (Gas heating)	RIF-500 Ultra (Gas Heating+Fog Evacuation)
Console	✓	✓	✓
High-pressure CO2 insufflation tube with valve	✓	✓	✓
CO2 insufflation tube	✓	-	-
Heated CO2 insufflation tube	-	✓	✓
Insufflation filter	✓	✓	✓
Insufflation gas evacuation tube (Outer Ø9.6mm/Inner Ø6 mm)	-	-	✓

Accessories List (Optional or Spare)

Accessory	Description
Insufflation Needle	(Not specified in detail in the table, but standard for CO ₂ insufflation)
Insufflation Filter	Purifies CO ₂ gas by removing bacteria and particles before entry 1 pack = 20 filters

Technical Specifications

Category	Specification Details
Pressure Setting Range	5 – 30 mmHg
Flow Rate Setting Range	1 – 45 L/min (maximum flow)
Pressure Control Accuracy	0-25 mmHg
Heater Temperature Range	32°C – 39°C adjustable
Alarm Functions	Overpressure alarm / Tube blockage / Gas leakage
Power Supply	100 – 240V AC, 50/60Hz
Power Consumption	150 VA
Dimensions	400 mm × 340 mm × 150 mm
Weight	7.5 kg