## **Large Animal Ventilators and Anesthesia Kits**



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



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.

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. However, the rate and the I:E % can be varied 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.

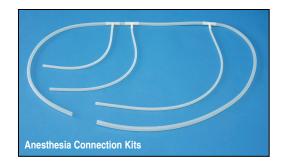
The gas inlet can be used to supply air or any non-flammable gas supply. Like the other Harvard Apparatus mechanical ventilators, attachment of the ventilator exhaust to a column of water can be used to produce a positive and expiratory pressure (PEEP).

## **Specifications**

Volume	Adjustable from 30 to 750 cc/stroke. Note that the volume adjustment is made on the crank, and therefore accurate volume adjustments cannot be made while the ventilator is running
Rate	Adjustable from 7 to 50 strokes/min while the ventilator is running
Phase	Adjustable from 25 to 50% of a single stroke cycle continuously variable while the pump is in operation
Port Size:	
ID	12.7 mm (0.50 in)
OD	14.4 mm (0.56 in)
Dimensions, H x W x D	30 x 50 x 22.5 cm (12 x 20 x 9 in)
Weight	21 kg (45 lb)

Order #	Product
DC1 55-0715	Large Animal Volume Controlled Ventilator, Model 613, 115 VAC, 60 Hz
DC1 55-0723	Large Animal Volume Controlled Ventilator, Model 613A, 230 VAC, 50 Hz
DC1 55-0731	Overhaul Kit for Harvard Apparatus Large Animal Ventilator; Contains O-rings, Valve Springs, Lubricants, etc. to Overhaul Ventilator*





- Necessary for connection of your rodent or small animal ventilator to anesthesia equipment
- 2 sets available to work with:
  - Inspira Advanced Safety Ventilator, see page F4
- Model 683 Small Animal Ventilator, see page F7
- Model 687 Mouse Ventilator, see page F7
- MicroVent Prenatal Mouse Ventilator, see page F8
- MiniVent Mouse Ventilator, see page F9

## **Anesthesia Connection Kits**

This apparatus is intended to be used for connecting an anesthesia system to an animal ventilator in physiological and pharmacological research laboratories. Each kit contains the necessary connectors and tubing to properly connect the ventilator to the anesthesia system.

- Direct connection of anesthesia to ventilator for delivery to animal via intubation or tracheotomy (see tracheal/intubation cannulas)
- Removes pressurized gas to waste port the introduction of pressurized gas into a ventilator will damage the system and over-inflate the animal's lungs. The connection kits depressurize the incoming gas to atmospheric pressure for safe delivery.

Two kits are available, one for the Inspira Advanced Safety Ventilator, Rodent Ventilator Model 683, Mouse Ventilator Model 687 and another for the MiniVent and MicroVent for mouse ventilation.

NOTE: Waste gas will contain anesthetic gas and MUST be connected to an evacuation system.

## **Items Required**

In addition to the connecting kit and the essential consumables (e.g. Oxygen, compressed air,  $N_2O$ , anesthetic agent) it is necessary to provide the following items and equipment to operate a complete anesthetic system:

- Anesthesia Machine Table Top, Vaporstick, or equivalent
- Anesthetic Vaporizer Tech 4 or Series 100
- Animal Ventilator Inspira, Model 683, Model 687 or MiniVent (based on the species you are working with)
- Evacuation System Active Evacuation system, F/Air Canister, Fluovac System or Fume hood

Order#	Product
DC1 73-3076	Anesthesia Connection Kit for Inspira, 683 and 687 Ventilators
DC1 73-3077	Anesthesia Connection Kit for MiniVent and MicroVent

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