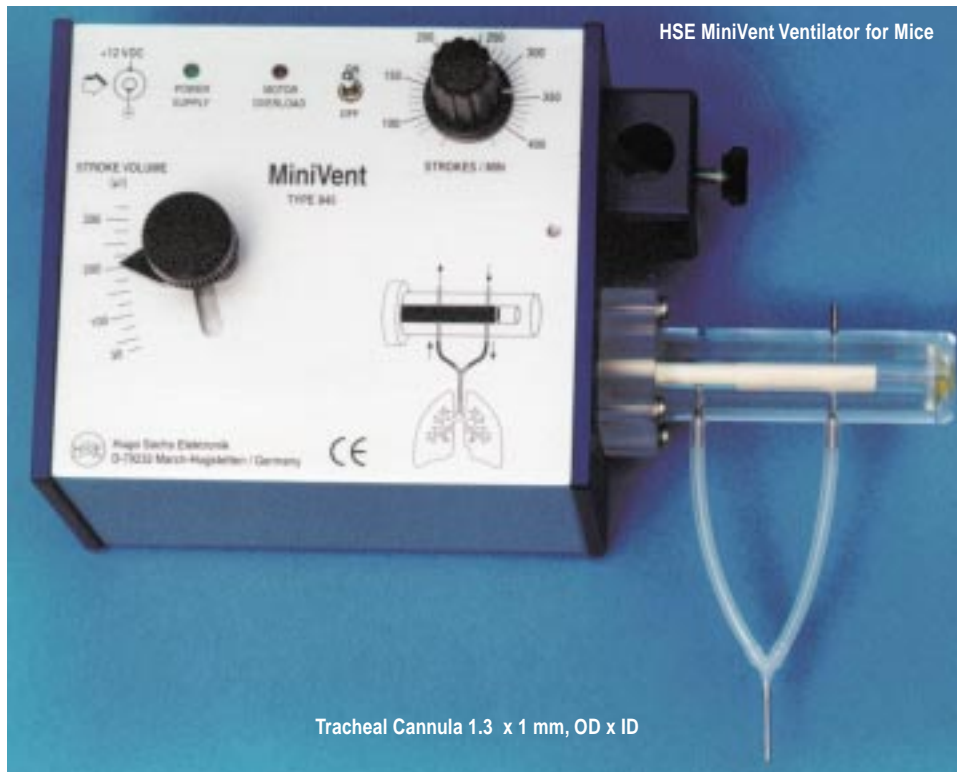


## ***HSE-Harvard MiniVent Ventilator for Mice***



- Ideal ventilator for mice
- Stroke volume range from 30 to 350  $\mu\text{l}$
- Ventilation rate from 60 to 400 strokes/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

The newly developed MiniVent Model 845 ventilator is a quiet, compact and light weight ventilator designed specifically for mice. It is designed specifically for mice but can be used for any animal (e.g. birds and perinatal rats) which requires tidal volumes in the range of 30 to 350  $\mu\text{l}$  and respiratory rates of 80 to 400 breaths per minute. The unit is compact and light weight, just 1 kg (2.2 lbs)!

The MiniVent Ventilator is a compact, constant-volume respiration pump operating on the Starling principle. Unlike conventional units for larger animals, this ventilator employs a rotary plunger and has no valves. During each ventilation cycle the plunger performs a synchronized forward and rotating movement. Cleverly arranged bores and channels in the cylinder and plunger control inspiration and expiration during each stroke of the plunger.

The extremely compact construction, light weight and convenient rod clamp allow the MiniVent ventilator to be positioned directly next to the animal. Typical setups with larger ventilators produce large tubing and instrument dead space volumes. These larger volumes introduce greater system compliance which can affect the accuracy with which the full tidal volume is introduced into the animals lungs. With the MiniVent, the tidal volume error due to system compliance is reduced to  $\pm 3 \mu\text{l}$ .

Tidal volume and respiration rate can be set exactly to the values required for mouse ventilation. The precision and control of tidal volume and respiratory rate that the investigator has minimizes the danger of hyperventilation or hypoventilation.

The tidal volume can be varied continuously from 30 to 350  $\mu\text{l}$  during operation without having to interrupt ventilation. The respiration rate is also continuously adjustable from 60 to 400 strokes/min. The expired air can be recovered at the collection port for sampling, recycling or for the generation of a positive end-expiratory pressure (PEEP). Room air or any non-explosive gas mixture can be used to feed the pump intake.

### Specifications

Stroke Volume	Continuously adjustable from 30 to 350 $\mu\text{l}$
Ventilation Rate	Continuously adjustable from 60 to 400 strokes/min
Power	12 V DC, 0.5 A through external mains adapter
Dimensions, H x W x D	8 x 10 x 20 cm (3.2 x 3.9 x 7.9 in)
Weight:	
MiniVent	1 kg (2.2 lb)
AC Adapter	0.3 kg (0.7 lb)

Catalog No.	Model	Product
CGS-8008.68	845	MiniVent Ventilator for Mice, 110 VAC
CGS-8009.68	845	MiniVent Ventilator for Mice, 220 VAC
CGS-8010.68	—	Y-piece with Tracheal Cannula and Connecting Tubes