



# Mouse Ventilator

Cat. No. 28025

## General

This new Respirator, which completes the well known Ugo Basile line of Ventilators, features:-

- The **tidal volume**, in the range 0.1-1 ml (or 0.05-0.5 with the smaller piston installed), can be selected via its knob either while the pump is running or at a standstill. The stroke volume scale is ample, provided with precise engraved marks.
- The **rate**, selected by a knob, is indicated by a 3-digit solid state display, in the range 60-300 strokes per minute.
- Suitable channels and ports provide the witching of the air flow, with practically **no dead space**.
- A unique **variable stroke linkage** mechanism operates the piston.

The reciprocating motion is adjusted and transmitted to the piston by rods and articulated joints only, which leads to minimal wear, no backlash, silent operation and exact stroke reproducibility.



Unique Design

Reliable

Compact

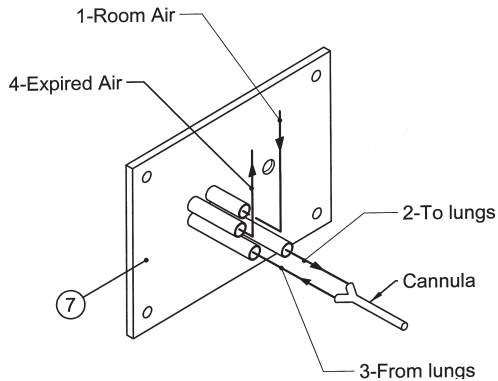
Silent

## Main Features

- Ideal for use with mice, small birds and perinatal rats
- Optional 0.5 ml cylinder/piston assembly
- Purely mechanical, with impeccable finishing: lifetime lasting
- Quiet operation and negligible electrical noise

The instrument is compact and light, cm 20x13x18.5 and 2.5 Kg, and it is self-contained: in other words, it embodies its power supply which feeds the geared motor, its feedback controller and the rate display.

## The Connection Square



As illustrated in the drawing above, and pictured below, a connection square of four ports include:-

1. intake of air or other non-explosive gas mixture
2. delivery of air to the animal lungs
3. return air from animal
4. exhaust, for sampling, partial recycling, testing positive expiration pressure, etc.

so closely packed, that the connection tubes are cut in different lengths, to ease the insertion of the tubing.



28025 Back

## Start / Stop Model

A Mouse Ventilator version is available, Cat. **28125**, which embodies a controlled pause feature.

The **synchronised START/STOP function** gives the operator a means to stop and restart the respirator at "full lungs" point, via an external trigger pulse, when it is beneficial if not essential to minimize any extraneous movement of the anesthetized animal during electrophysiological recording, X-ray and imaging, etc.

## Specifications

Rate	<b>60 to 300</b> strokes for minute
Rate Read-out	on digital display
Stroke Volume	0.1 to 1ml (with standard 1 ml piston) 0.05 to 0.5ml (optional 0.5ml piston) Reproducibility $\pm 2\%$
Volume Scale	precision engraved, 0.05ml divisions
Start-Stop	by synchronised command (model 28125 only)
Power :	Universal input 85-264 VAC, 50-60Hz 10W max.

## Physical

Dimensions	20x13x18.5cm
Net weight	2.2Kg
Shipping Weight	4.6Kg approx.
Packing	40x39x30cm

## Ordering Information

**28025** **MOUSE VENTILATOR**, complete with following standard accessories :-

- 28025-010** 1ml Cylinder/piston assembly
- 28025-302** Instruction Manual (on CD)
- 28025-321** Perspex Vertical Lid
- 28025-323** Cannula/Y-connection assembly (0.7mm & 1mm ID), tube, etc., in a plastic case
- E-WP008** Mains Cord

## Options

- 28025-5** **Mouse Ventilator**, with 0.5ml cylinder/piston assy. & standard accessories
- 28025-005** 0.5ml Cylinder/piston assembly
- 28125** **Mouse Ventilator**, with **synchronised START/STOP** feature, with 1ml cylinder/piston assy. & standard accessories
- 28125-5** **Mouse Ventilator**, with **synchronised START/STOP** feature, with 0.5ml cylinder/piston assy. & standard accessories

## Bibliography

- M. Wang et alia: "**The responses of pulmonary and systemic circulation and airway to anaphylactic mediators in anesthetized BALB/c mice**" *Life Sciences* 147: 77-84, 2016
- M.K. Sadegh et alia: "**Impaired contractility and detrusor hypertrophy in cavin-1-deficient mice**", 2016
- M.M.J. Farnham et alia: "**Surgical preparation of mice for recording cardiorespiratory parameters in vivo**" *J. Neurosci Methods* 248: 41-45, 2015
- K. Swård et alia: "**Elevated pulmonary arterial pressure and altered expression of Ddah1 and Arg1 in mice lacking cavin - 1/PTRF**" *Physiological Reports* Vol.1 (e00008), 2013
- M.S.Karbalaei et alia: "**Impaired contractility and detrusor hypertrophy in cavin-1-deficient mice**" *Eur.J.Pharmacol*, 689 (1-3): 179-185, 2012