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TRANSFORMING IDEAS
INTO INSTRUMENTS

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VENTILATORS and GAS ANESTHESIA

Rodent Ventilator

Cat. No. 7025

General

The 7025 Rodent Ventilator is a volume-controlled mechanical ventilator (according to Starling's ventilator method), designed for use with rats, guinea pigs, mice and small birds.

The 7025 drive consists of a variable speed geared motor linked by a novel variable stroke mechanism to easily interchangeable cylinder/piston assemblies.

In particular, the **7025 can be equipped with 5, 10 or 30ml** cylinder/piston assembly.

Its precisely regulated geared-motor speed provides the most accurate and reliable stroke rate control of any respirator available.

The operation of the 7025 may be "paused" by an external TTL logic signal.

The picture features a Rodent Ventilator 7025, together with the 6025 for Cat/Rabbit



**Best available
Starling
Pumps**

**THE CHOICE OF
THE CRITICS!**

"We have four of your respirators in our extended lab and they are wonderful - as is your service"

Dr. Nicholas Price, Monash University

Main Features

- Interchangeable cylinder/piston assemblies (5, 10, 30ml)
- Quiet operation, both acoustically and electrically (negligible R.F. broadcasting)
- Reliable mechanics and impeccable finishing: lifelong lasting
- Synchronised START/STOP function available as optional

Ugo Basile: more than 25,000 citations

Instrument description

The **unique linkage mechanism** insures that:

- 1) The piston almost touches the cylinder end with each stroke, regardless of the pre-set volume, thus insuring all air taken into the pump is expelled with each stroke.
- 2) The volume, clearly indicated on a **stationary dial**, is adjustable by means of a knob while the pump is either running or at standstill.
- 3) The reciprocating motion is generated, adjusted and transmitted to the piston by rods and articulated joints only.

The **lack of sliding friction** leads to:

- a) practically no wear
- b) no backlash and hence silent operation and exact stroke reproducibility.

Hook-up to animal

Four ports (*Intake, To Animal, From Animal and Exhaust*) allow flexibility in air channelling.

The input may be room air or any non-explosive gas mixture. The exhaust air may be partially or totally recycled or collected for analysis.

Ventilator Controls

The speed control knob adjusts the geared motor to the desired speed, which is indicated on the 3-digit LED display labelled STROKES P.M.

The operation of Ugo Basile Ventilators may be "paused" by an external TTL logic signal.

Start / Stop Model

For more demanding electrophysiological-pharmacological investigations, in particular when the operation of the Ventilator is software controlled, a **synchronised command** is available to START-STOP the Ventilator at completed forced inspiration.

Ask for special models 7125.

Specifications

Rate	10 to 180 strokes for minute
Rate Read-out	digital display
Stroke Volume	0.5 to 5; 1 to 10 or 3 to 30 ml, depending on cylinder/piston
Stroke Vol. Scale	1-10 ml
Stroke Vol. Reprod.	±2%
Universal input	85-264 VAC, 50-60Hz, 40 VA max.

Physical

Dimensions	27x26x19cm
Net weight	9.5Kg
Shipping Weight	16Kg approx.
Packing	67x42x53cm

Ordering Information

- 7025** **RODENT VENTILATOR**, complete with following standard accessories:
- 7026** 10ml Cylinder/piston assembly, complete
7032 Perspex Lid
7033 Lithium-Grease Tube
7044 Y-Canula
7025-302 Instruction Manual (on CD)
E-WP 008 Mains Cord

Other available models and accessories

- 7025-5** **RODENT VENTILATOR**, as above, 5ml
7025-30 **RODENT VENTILATOR**, as above, 30ml
7128 5ml Cylinder/piston assembly, complete
7027 30ml Cylinder/piston assembly, complete
7025-150 Anesthesia Kit

Models with synchronised START/STOP feature

- 7125** **Rodent Ventilator**, 10ml
7125-5 **Rodent Ventilator**, 5ml
7125-30 **Rodent Ventilator**, 30ml

See also our **Anesthesia Systems, series 21100**, the ideal match to our Ventilators!



Bibliography

- A. Andersen et alia: "sGC-cGMP-PKG pathway stimulation protects the healthy but not the failing right ventricle of rats against ischemia and reperfusion injury" *Intl. J. Cardiology* 233: 674-680, 2016
- R.H Hassing Frandsen et alia: "No apparent role for T-type Ca²⁺ channels in renal autoregulation" *Eur. J. Physiology* 468 (4): 541-550, 2016
- J. Johnsen et alia: "The remote ischemic preconditioning algorithm: effect of number of cycles, cycle duration and effector organ mass on efficacy of protection" *Basic Res. in Cardiology*, March 2016
- S. Jeuthe et alia: "Closed-chest small animal model to study myocardial infarction in an MRI environment in real time" *Intl. J. Cardiovascular Imaging* 31 (1): 115-121, 2015
- J.K. Marshall et alia: "Intra-Operative Tissue Oxygen Tension Is Increased by Local Insufflation of Humidified-Warm CO₂ during Open Abdominal Surgery in a Rat Model" *PlosOne* April 2015