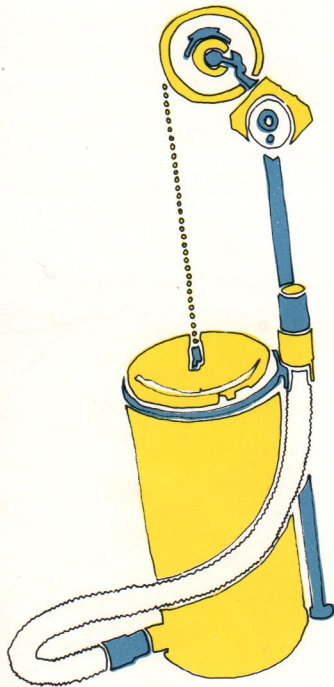
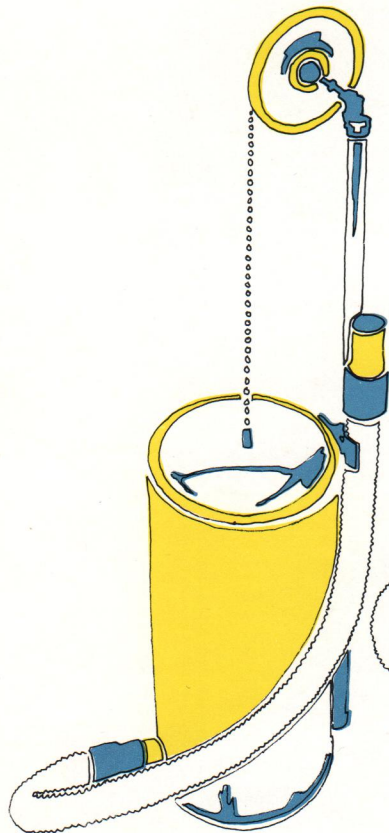


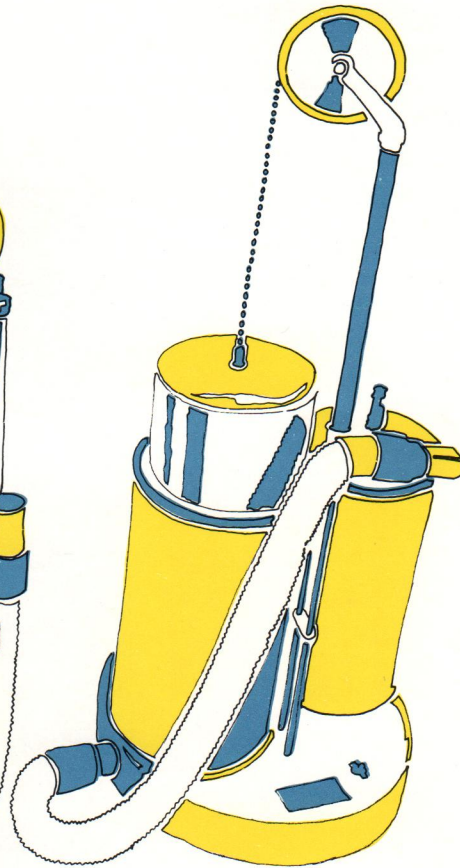
“THE VITAL GROUP”



TIMED



STANDARD



RECORDING

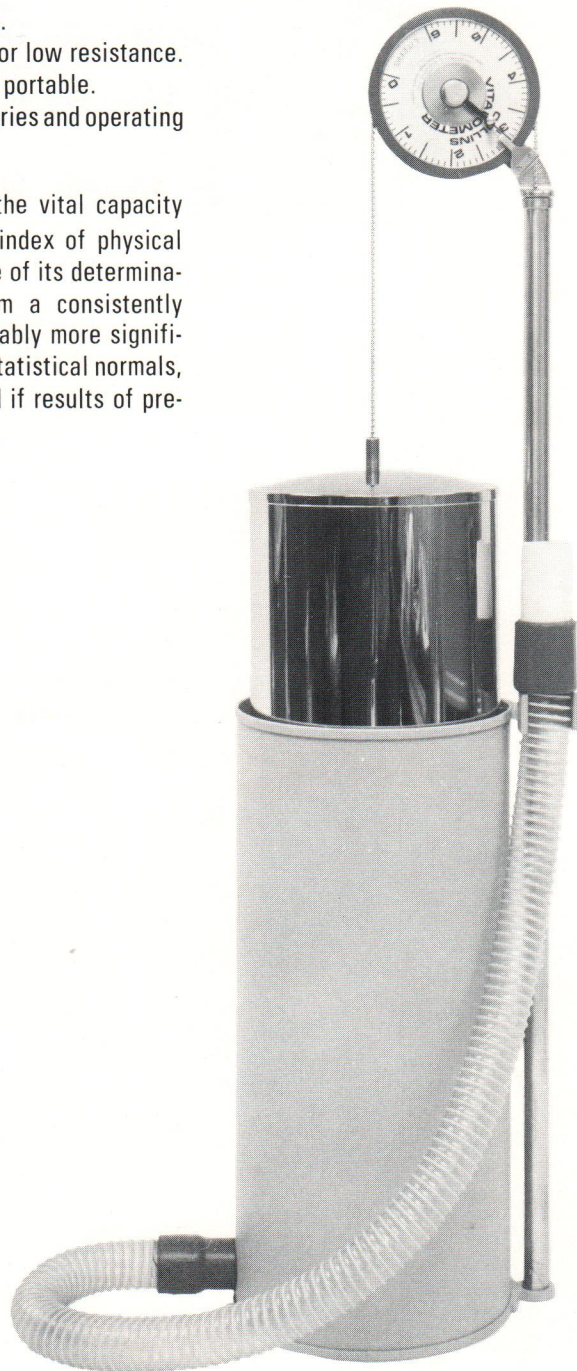
ALL VITALOMETERS NOW AVAILABLE IN

Collins Standard Vitalometer, P-800, the traditional standard.

Features

- Now available in either a 6 or 9 liter capacity.
- Precision-calibrated bell and body of brass and copper.
- Finished in durable baked epoxy enamel and satin chrome.
- Fully counterbalanced bell.
- Large 1-1/8" I.D. tubing for low resistance.
- Compact, light and readily portable.
- Complete working accessories and operating instructions.

It is generally agreed that the vital capacity test is the one best single index of physical fitness, considering the ease of its determination. Sudden reduction from a consistently normal vital capacity is probably more significant than a comparison with statistical normals, although the latter is helpful if results of previous tests are not available.



The patient is asked to inhale as deeply as possible and exhale into the Vitalometer completely. As the spirometer bell rises, the counterbalance chain turns the accurately machined and calibrated pulley on which is mounted the indicating pointer and actuating mechanism. The pointer remains stationary, and the pulley continues to revolve beneath it to record the maximum exhalation. The pointer is held at this point and can be read directly, then reset for further tests. The pulley face is calibrated in liters and tenths of liters. The conversion factor from liters to cubic inches is also inscribed on the dial face for quick computation.

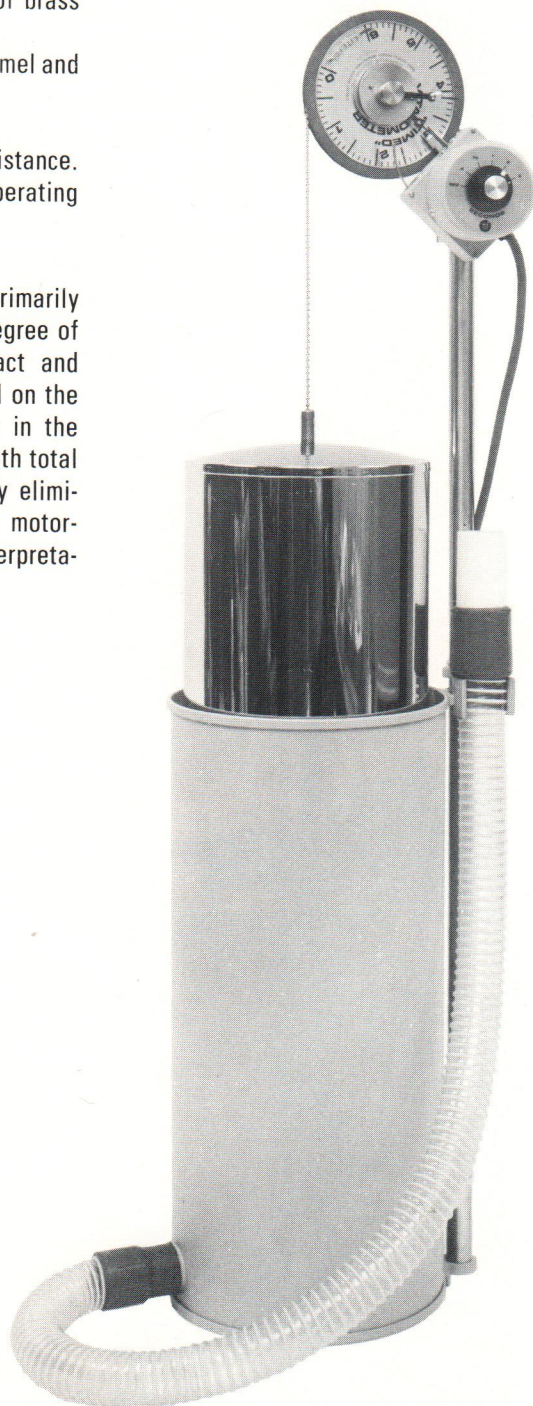
6 OR 9 LITER CAPACITIES

The Timed Vitalometer- an indispensable tool for group screening.

Features

- Now available in either a 6 or 9 liter capacity.
- Complete self-contained electronics.
- Measures timed and total vital capacities simultaneously.
- Unmatched portability.
- Precision-calibrated bell and body of brass and copper.
- Finished in durable baked epoxy enamel and satin chrome.
- Fully counterbalanced bell.
- Large 1-1/8" I.D. tubing for low resistance.
- Complete working accessories and operating instructions.

The Timed Vitalometer was designed primarily for rapid evaluation of the type and degree of ventilatory insufficiency. It is compact and portable and may be used equally well on the hospital ward, in the chest clinic, or in the physician's office. Direct reading of both total vital capacity and timed vital capacity eliminates all need for graph paper, ink, motor-driven devices and tedious reading, interpretation and calculation of tracings.



The Timed Vitalometer is basically a 6 liter water-sealed spirometer. Two pointers are located on the front of the volume dial. One indicates the total vital capacity in the usual manner, the other pointer moves only for the pre-set time interval and indicates the volume of gas exhaled during the pre-selected expiratory time interval. The timing cycle is initiated automatically by a micro-switch activated by the onset of the patient's expiratory effort.

The extremely accurate timer is now completely self-contained on the pulley standard. Its full range settings of 0.5, 0.75, 1, 2, or 3 seconds permits universal comparison studies. Latest electronic components have been incorporated in the timing circuit to assure full range accuracy.

WARREN E. COLLINS, INC.

220 WOOD ROAD, BRAINTREE, MASS. 02184



The Recording Vitalometer-

a graphic tool for permanent records.

Features

- Now available in either a 6 or 9 liter capacity.
- Performs all the following tests:
 - Vital Capacity (VC)
 - Timed Vital Capacity (FEV_T)
 - Timed Vital Capacity % ($FEV_T\%$)
 - Maximal Midexpiratory Flow (MMF)
 - Maximal Midexpiratory Flow Rate (MMFR)
 - Maximal Flow Rate (MFR)
 - Maximal Voluntary Ventilation (MVV_F)
- Disposable Recording Pen
- Precision-calibrated bell and body of brass and chrome.
- Finished in durable baked epoxy enamel and satin chrome.
- Fully counterbalanced bell.
- Large 1-1/4" I.D. Tubing for low resistance.
- Graphic Recording paper divided horizontally in liter and milliliters and vertically in 1 second intervals (Cat. No. P-627).
- Complete working accessories and operating instructions.

The Collins Recording Vitalometer is a vital capacity spirometer especially designed to record with a graphic tracing the aspects of a single maximal exhalation. Some investigators feel that the single breath test (expirogram), repeated several times, is a more reliable index of pulmonary function than some of the more exhausting tests that are so commonly made, because the latter require much more cooperation and effort from a patient who may be in

pain or seriously ill. The single breath test (expirogram) generally is considered less difficult for the patient, and is very useful in following the course of pulmonary and cardiac disease. Maximum breathing capacity tests, maximum mid-expiratory flow and maximum flow rates can also be obtained.

The Recording Vitalometer is provided with a single large bore breathing tube (1-1/4" I.D.) to translate the slightest breathing effort into a graphic record. The excellent tracings obtained with the apparatus result from a high-speed Kymograph driving the recording paper at a rate of one cm. per second (600 mm/min.). Thus, it is possible to obtain not only the total vital capacity, but the time required to produce it; also, the portions which occur in the first half second, three quarters of a second, one, two or three seconds may readily be determined. A line tangent to the steepest portion of the record may be used to estimate the maximal flow rate on either expiration or inspiration (if this is recorded).

The Collins Recording Vitalometer is considered an ideal, simple apparatus for office or clinic use by doctors who are particularly interested in pulmonary and cardiac diseases. It is inexpensive—less than most metabolism apparatus, and it is simple to use both for the technician and the patient.

