



MAKERS OF RESPIRATORY VALVES SINCE 1938

**HANS RUDOLPH, inc.**

www.rudolphkc.com

Tel: (913) 422-7788 U.S.A. & Canada (800) 456-6695

Fax: (913) 422-3337 E-Mail: hri@rudolphkc.com

8325 Cole Parkway, Shawnee, Kansas 66227 U.S.A.

*Data Sheet ...*

## SERIES 1180 Syringe Validator

*Volumetric Validation for 3 & 7 Liter Syringes*

### HIGHLIGHTS

- The *Syringe Validator* is a precision volume measuring device for use in checking the displacement volume of volumetric syringes.
- The *Syringe Validator* measures syringe volumes of 500 to 7000 ml.
- Built-in leak test system for checking syringes for leaks before running the volume check.
- Optional volume verification systems available for checking the *Syringe Validator* in the field
- A test report can be printed and the results are saved in a data file
- Optional Calibration Label printing system

### FEATURES

A volume test typically consists of performing three strokes of the test syringe with the volume of each stroke being measured by the *Syringe Validator*. The range of the three test volume measurements is checked against a range limit. If the range of measurements is small this indicates a good series of test strokes was performed. The average volume of the three test strokes is then compared to the nominal value for the syringe setting. If both the range and average value for the volume test are within specified limits for this test then the test passes. A syringe calibration test may include checks at one or more volume settings. The leak test function will check the syringe for significant leaks saving the test data in the data file and including the information in the test report. The leak test system also includes components for verifying proper operation of the leak test. After all the tests that are defined for the type of syringe being tested are completed the data will be saved to a data file and a test report can be generated. A data file stores the test data so that a previous test for a particular syringe serial number can be recalled, viewed and a report printed.

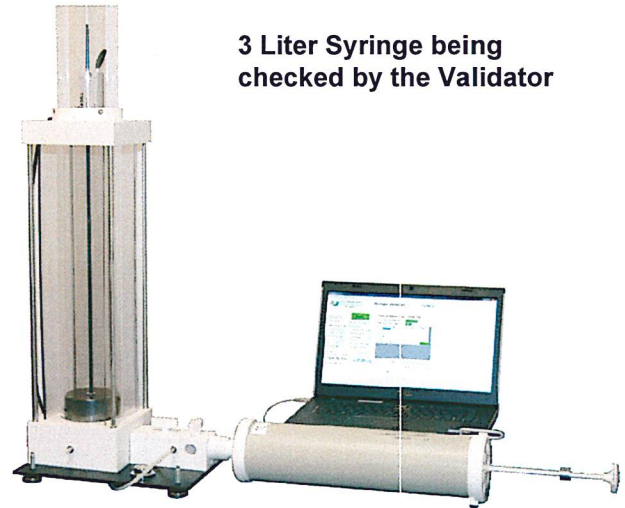
Optional volume verification MASTER Syringes are available for checking the calibration of the *Syringe Validator*. These systems consist of precision syringes with an NIST traceable volume for several volume settings. Also available as an option is a Calibration Label Printing system for 1"x 3" adhesive backed labels for identifying calibration volume data, syringe serial number, technician, recertification due date, calibration company name.

*Note: Syringe Validator is not for Human Use.*

### ENVIRONMENTAL REQUIREMENTS

This system requires a temperature controlled room for proper operation and accurate measurements. Syringes

**3 Liter Syringe being checked by the Validator**



to be tested must be at the room temperature. Very small differences in the temperature of the syringe under test and the *Syringe Validator* will cause a significant volume measurement error.

### SPECIFICATIONS

Accuracy	±3 ml for 3 liter syringes ± 6 ml for 7 liter syringes
Repeatability	1.5 ml for 3 liter syringes 3.0 ml for 7 liter syringes
Leak Test	±1.0 ml/min for 3 liter syringes ± 2.0 ml/min for 7 liter syringes

### ORDERING INFORMATION

The base unit includes the operating software, instruction manual, USB cable and an 18 watt 100 to 240 VAC input power supply. Customer must provide a computer with a USB port running Windows XP or Windows 7 or 8. Also included in the base system is a leak test verification kit that includes a known leak orifice and dummy test volumes.

#### Base Unit

113689 7000 ml *Syringe Validator* & Leak Test System

#### Options

113764 MASTER Syringe for 7000 ml verification  
113762 MASTER Syringe for 3000 ml verification  
955339 Recertification of MASTER Syringe at HRI  
955340 Recertification of Syringe Validator at HRI  
956353 Calibration Label Printing System includes printer, software, labels & USB cable.

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