

Technical News Bulletin

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MiniLab P: A Better Pressure Testing System

- The MiniLab P Plus can be installed as a stand-alone machine or as part of the MiniLab Statistical Sampling System.
- The MiniLab P design is based on current air-conditioned (standard) PC-based electronics in an all-stainless steel frame and enclosure.
- New features or upgrades can be made in software over the life of the system.

Introduction

The MiniLab Pressure Tester Plus (MiniLab P Plus) provides a better alternative to older sampling pressure testing systems. Besides meeting the industry-accepted ASTM C147 standard for internal pressure testing of glass containers, the MiniLab P also can be equipped with an optional capacity measurement gauge, which is not available on any other sampling pressure testing system. The capacity measurement gauge also is available as an upgrade to existing MiniLab P systems.

The MiniLab P design is based on current air-conditioned (standard) PC-based electronics in an all-stainless steel frame and enclosure.

The MiniLab P Plus can be installed as a stand-alone machine or as part of the MiniLab Statistical Sampling System, a new concept in glass container sampling and precision measurement. A complete MiniLab system includes the MiniLab P Plus, the Emhart ~~Inox~~ ISIS Automatic Dimensional Gauging and Weight Measurement System, mold code readers (two used for dual production lines), as well as a data reporting and export program, conveyors, ware control gates, and line sensors.

MiniLab P Plus vs. the Competition

Besides offering features not offered on other sampling pressure testing systems, the MINILAB P Plus has additional capabilities that combine to make the MINILAB P Plus a better alternative to other systems.

- The MiniLab P Plus can test two different containers, as long as both have a finish diameter within 4 mm of each other. Other systems can test only one container size.
- Job change parts on the MiniLab P Plus are minimal. A complete changeover can be completed in minutes without having to lower the turret.
- The MiniLab P Plus includes built-in "Pressure Curve Analysis" that significantly improves the reliability of pressure test data.
- Clamp tracking and reporting for easier troubleshooting and less downtime.
- Because the MiniLab P is computer-based, new features or upgrades can be made in software over the life of the system.

Optional Capacity Gauge

The MiniLab P can also be equipped with a fill-point capacity gauge, a feature available only on the MiniLab P.

The capacity gauge uses an optical sensor, computer-controlled linear slide and state-of-the-art flow sensor to measure the volume of water in the container to a specified fill point level (a specified distance from the top sealing surface). The flow sensor meters the amount of water volume in milliliters entering and filling the container and compensates for density (volume) changes in the water due to the water temperature.

Upon completion of the measurement the container is, preparing the container for the pressure test.

Specifications

Containers Inspected

Shape: Round, square, rectangle, oval

Color: Flint, amber, green

Ware Range

Diameter	Height	Finish Outside Diameter	Finish Inside Bore Diameter
45 to 115 mm [1.8 to 4.9 in.]	100 to 365 mm [2 to 14.35 in.]	24 to 51 mm [0.94 to 2 in.]	14 mm [0.55 in.] min.

Max. Container Capacity 2.0 liter [67.5 oz.]

Maximum Test Rate 3 containers per minute

Maximum Test Pressure 41.5 kg/cm² [590 psi], one minute equivalent

Power 220 to 440 VAC, single phase 50/60 Hz, 20 amps

Water	Pressure	Flow
	2.4 to 4.14 bar [35 to 60 psi]	15 liter/min [4 gpm] average

Air	Pressure	Flow
	3.5 to 6.2 bar [50 to 60 psi]	70.6 liter/min [2.5 cfm] average

Specifications are subject to change. Actual performance depends on specific application, container size, and line speed.