SCI
Science Center, Inc.

Corporate Headquarters: P.O. Box 994 • Santa Fe, NM 87504-0994 • Telephone: 1-800-345-0774 • Fax (505) 473-3654
Physical Address: 1217 Parkway Dr. Suite B • Santa Fe, NM 87501 • Telephone/Fax: (505) 473-3654

QUALITY CONTROL ON CALIBRATED INOCULATING LOOP GAUGES
SCI PRODUCT # 7010 and 7020

METHOD OF MEASUREMENT: Physical measurement using a caliper

ALLOWABLE ERROR LIMIT: +/-6%

MEASURING INSTRUMENTS ARE CALIBRATED AGAINST NBS/ ASTM CERTIFIED STANDARDS.

NBS: National Bureau of Standards

ASTM: American Society for Testing and Materials

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SCI PRODUCT INFORMATION

Product Name: SCI Calibrated Inoculating Loop
Quality Control Gauge

Product Numbers: SCI 7010 and 7020

General Description

SCI Calibration Quality Control Gauges serve to improve and enhance the time consuming and tedious Evans Blue Dye Calibration Control Method. Evans Blue Dye allows for a margin of error up to +/-20%-- a level of error that most microbiologists cannot afford. The quality control of calibrated loops has always been a subject of irritation to microbiologists. The calibrated loop is a vital piece of equipment in the quanitation of many types of cultures. Because the loop must deliver a precise amount of liquid, the loop must be periodically checked to ensure the volume of delivery has not changed due to bends, dents, build-up of incinerated materials, or corrosion.
Therefore, within the lab on a daily, weekly, and monthly basis a cailbrated loop MUST be tested.

SCI strives to serve its customers long after the sale and with the SCI tool gauge we provide you with the most efficient way of ensuring our quality. Unfortunately, no matter how hard we try, no matter how often we quality test our products before our products leave the factory, we cannot solve for the problems of everyday use. SCI Calibration Gauges will solve the problem of inaccuracy presented by everyday wear and tear.

The United States Food and Drug Administration (FDA) has used a different quality control method(other than the Evans Blue Dye Test) for years on their calibrated loops, used to measure white counts on dairy samples. Using a .01 ml standard calibrated loops made from Nichrome V wire with an inside diameter of 1.45 mm +/-.06, the very same loop used in most microbiology labs. The method simply requires two tool gauges measuring .157 inches(3.988 mm) and .159 inches (4.039 mm), simply carefully slip the wire over the two tool gauges. If the loop is in calibration, it should fit over the .157 but not over the .159. To test the .001 ml use a .055 inches(1.397mm) and .0595 inches (1.5113 mm) tool gauges. The procedure only takes a few seconds and guarantees a higher degree of accuracy then could ever be achieved with the Evans Blue Dye Method!

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The rationale for the method is obvious; the gauges are of a fixed diameter that is resistant to damage, and if the loop is still calibrated, it will fit over the smaller, but not the larger gauge. The method has already been field tested for years by the FDA, and has clearly stood the test of time.

This method gives a leeway of only .002 inches (.051 mm) a narrow margin of error of less than 1%! SCI Tool gauges are color coded for easier use. If the loop slips over the green end"GO", it is calibrated, if it slips over the red end, "STOP", the loop is too large.