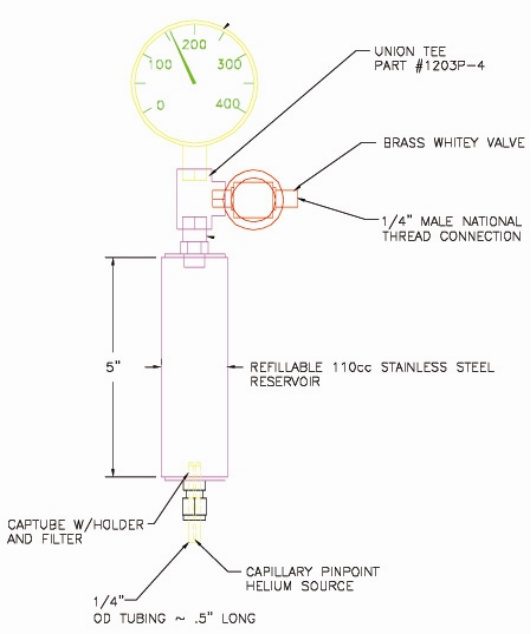
HELIUM CALIBRATED LEAK STANDARDS

VSLC Sniffer-Detector Calibrators

The VSLC Model CALIBRATORS FOR SNIFFER-TYPE HELIUM LEAK DETECTORS (also available for other gases and mixtures)

The VSLC Leak Standards have been developed specifically to calibrate sniffer leak detectors. The VSLC model is manufactured with a capillary leak element that provides good service in most environments in the usual range for "Sniffing" of 10^{-3} to 10^{-6} atm-cc/sec. It should be noted, however, that the capillary is susceptible to clogging in dirty environments and at very small leak rates. With the capillary leak element, the VSLC Calibrators can be used for the larger leak rates of 10^{-3} and higher, and they have a very low temperature coefficient of 0.2% per ^{o}C, which is convenient for applications with wide temperature variations.

Primarily developed originally for calibrating Helium sniffer-type leak detectors, this model is used also to make Calibrators of many other gases and gas mixtures such as hydrogen or helium in nitrogen.



VSLC Calibrator
Model VSLC-X-3C-HE

Choosing the VSLC Calibrator

- **UNBREAKABLE – stainless steel capillary leak element.**
- **LOW TEMPERATURE COEFFICIENT – flow rate does not change with temperature.**
- **ADJUSTABLE LEAK RATE – each has a 10:1 leak-rate range.**
- **CAN BE SET TO AN EXACT LEAK RATE – without the usual manufacturing variance.**
- **REFILLABLE RESERVOIR – from the user's gas supply.**
- **NO FALSE READINGS – no large dead spaces.**
- **EASY PROBE POSITIONING – for repeatable results.**
- **SUITABLE FOR OTHER GASES and GAS MIXTURES – contact the factory with your requirements.**
- **MEETS ISO REQUIREMENTS - NIST-traceable, A2LA-accredited Calibration Certification.**

ACCREDITED
Calibration Laboratory
Certificate No. 1707.01

VTI's Calibration Laboratory is Accredited by the American Association for Laboratory Accreditation.

As the major manufacturer of Calibrated Leaks for all gases, all leak rates, and all makes of leak detectors, VTI supplies them worldwide to users, distributors, and other manufacturers.
These Accu-Flow™ Leak Standards are recognized internationally for their superior quality construction and calibration.

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VSLC Sniffer-Detector Calibrators

ORDERING INFORMATION

The VSLC Calibrators can be ordered for various adjustable leak-rate ranges commonly used for sniffer-type leak detection. When ordering or requesting a quotation, please provide the Part Number and also specify the Approximate Leak-Rate Range requested including your preferred leak-rate Units (for example, "approximately 1 to 9x10^{-5} atm-cc/sec"). The Range specification is "approximate" because the minimum and the maximum value of the range will vary slightly for individual leaks due to the Manufacturing Variance. The leak-rate range available for each VSLC Leak is approximately a factor of 10, so the leak-rate range should be requested as approximately 1 to 9x10^{-X} atm-cc/sec.

A leak-rate range extending between two decades can also be requested, such as from 5x10^{-6} up to 5x10^{-5} atm-cc/sec. (This is also an appropriate way to order a VSLC if you want to be able to obtain an exact leak rate of 1.0 x 10^{-5} atm-cc/sec.) An alternative specification is to identify the "Central Leak Rate" for a VSLC Leak, such as 5 x 10^{-5} atm-cc/sec, and VTI will build the Leak to provide that leak-rate at a mid range pressure on the 400-psig gauge. Using additional calibrations at a lower and higher pressure, the total leak-rate range of the Leak then extends above and below this central value. For each VSLC Calibrator, it is noted that exact leak rates like 4.5 x 10^{-5} can be obtained within its available range.

The VSLC Model Calibrators always have a fill/exhaust valve to allow the users to exhaust gas from its 110 cc reservoir to lower the leak rate, or to refill the reservoir to a higher pressure (using their clean gas supply) to increase the leak rate. The 400-psig pressure gauge on the standard VSLC model is used in VTI's NIST-traceable Leak-rate Calibrations and preserves the NIST-traceability of the calibration for the user as the pressure and leak rate are varied.

Various leak-rate units can be specified and the calibration data will then be reported in the units requested. Please contact us for assistance if you have any questions or want a customized VSLC Leak.

"Special Orders" are everyday products for us ! Just let us know what you need !

PART NUMBER BUILD-UP

The Part Numbers for the VSLC Helium Sniffer Calibrators are constructed as follows:

VSLC-X-3C-HE

where **X** = the code for the Leak Rate "Decade"
of the adjustable leak-rate range requested,
where **3C** designates three calibration points,
and **HE** designates the gas used as Helium

The **X** codes are listed below. As noted above, the actual range of leak-rates requested within that decade should also be specified.

The Part Numbers for VSLC Sniffer Calibrators for gases other than Helium are constructed as follows:

VSLC-X-3P-AA

where **X** = the code for the Leak Rate Range "Decade",
where **3P** designates three calibration points,
and **AA** is the code for the gas used.

*The Code for any mixed gas, such as helium-nitrogen is always: **MIX**. (Specify the composition.) Other common gases and their Codes are: Argon **(AR)**, and Sulfur Hexafluoride **(SF6)**. Please consult our Technical Staff for other Gases and their Codes.*

LEAK-RATE RANGES AND PART NUMBERS FOR VSLC MODEL LEAKS

Examples of Requested Leak-Rate Ranges	*Leak-Rate Code (X)*	*Correct Part Number*
1 to 9x10^{-3} atm-cc/sec	**3**	**VSLC-3-3C-HE**
1 to 9x10^{-4} atm-cc/sec	**4**	**VSLC-4-3C-HE**
5x10^{-4} to 5x10^{-5} atm-cc/sec	**4/5**	**VSLC-4/5-3C-HE**
1 to 9x10^{-5} atm-cc/sec	**5**	**VSLC-5-3C-HE**
3x10^{-5} to 3x10^{-6} atm-cc/sec	**5/6**	**VSLC-5/6-3C-HE**
1 to 9x10^{-6} atm-cc/sec	**6**	**VSLC-6-3C-HE**
1 to 9x10^{-6} atm-cc/sec *(for Argon)*	**6**	**VSLC-6-3P-AR**

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