



The CLP Model HIGH PRECISION CALIBRATORS FOR HELIUM LEAK DETECTORS and U.H.V. SYSTEMS

The CLP Helium Calibrated Leaks are high-precision Standards for use in critical calibrations of leak detectors and systems, in Ultra-High Vacuum systems, and as Transfer Standards for calibrating other Helium Leaks. They feature all-welded stainless steel construction, a premium all-metal shut-off valve, a glass-permeation leak element, and are bakeable for UHV applications. The CLP Leaks are part of a family of Helium Calibrators including the GPP, GPPT, and GPC Models offered by VTI that cover leak rates from 10^{-12} up to 10^{-3} atm-cc/sec and larger, as detailed other brochures. The CLP Model is available with leak rates of 10^{-6} to 10^{-12} and is the only model made for the very low rates of 10^{-10} to 10^{-12} atm-cc/sec. VTI's experts are always eager to help you select the best model – technically and cost – for your application. Without obligation, of course.

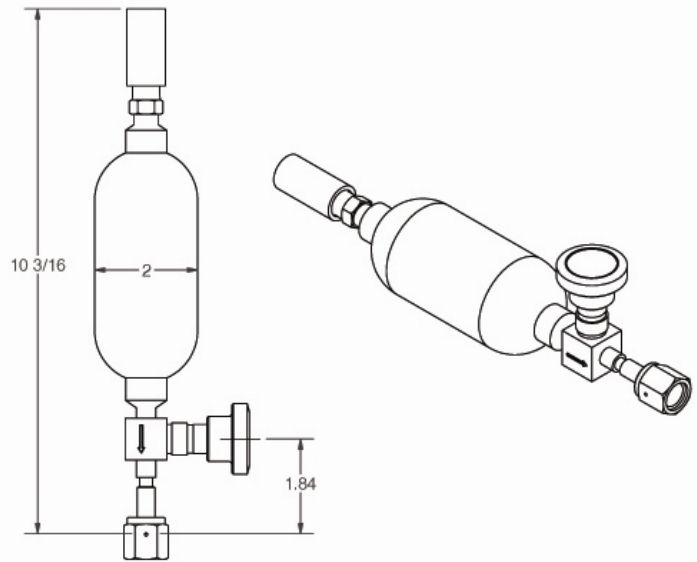


The CLP Accu-Flow™ Calibrated Leaks are based on the principle that helium flows through certain materials at a measurable rate depending on the material thickness, driving pressure and temperature, and use Quartz or Pyrex as the permeation material for the leak element. These leaks are available with or without the leak shut-off valve and are made with many types of attachment fittings such as QF (NW,KF), Conflat[®], VCR[®], and others.

All CLP Leaks are provided with Certifications of the NIST-traceable calibrations performed in our A2LA-accredited Calibration Laboratory.

Choosing the CLP Precision Calibrator

- WILL NOT CLOG: permeation leak element.
- LONG TERM STABILITY: low depletion rate.
- WIDE LEAK-RATE CHOICE: 10^{-6} – 10^{-12} range.
- BAKEABLE FOR UHV USE: all metal valve.
- NEVER NEEDS REFILL: lasts for years.
- SIMPLE TO OPERATE: minimal user training.
- MEETS ISO REQUIREMENTS: NIST-traceable, A2LA-accredited Calibration Certification.




VTI's Calibration Laboratory is Accredited by the American Association for Calibration Laboratory Accreditation.
Certificate No. 1707.01

CLP Calibrator Model CLP-X-HE-4FVCR-150DOT (X= Leak Rate Range)

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.



HELIUM CALIBRATED LEAK STANDARDS

CLP Leak Detector Calibrators

ORDERING INFORMATION

The CLP Precision Calibrators can be ordered for a specified Helium Leak Rate within a wide range of values. When ordering or requesting a quotation, please provide the Part Number, confirm the Fitting needed, and state the specific Leak Rate requested including your preferred leak-rate units. Also, specify the Manufacturing Variance (“Tolerance”) that you can allow on that Leak Rate. The usual manufacturing variance is +/- 40% of the requested rate. An example specification is 2.0×10^{-8} atm-cc/sec +/- 40%. Alternatively, the allowable values as manufactured can be specified as 1 to 3×10^{-x} , 4 to 6×10^{-x} , or 7 to 9×10^{-x} in a Leak Rate Range listed below.

Also, a “Special Range” manufacturing variance is available of +/- 15% of the requested rate. For this special variance, an “-SR” is added to the end of the Part Number and there is an additional cost. In all cases, the leak rate provided will be within the selected manufacturing variance and will be as close as we can make it to your specified rate. The actual rate, as calibrated, will be recorded on the Calibration Tag and the Certifications.

PART NUMBER BUILD-UP

The CLP Part Numbers are constructed as follows:

CLP-X-HE-YYYY-ZZZ

where **X** = the code for the Leak Rate Range required,

where **YYYY** = the code for the fitting required,

and **ZZZ** = the code for the reservoir size,

all as listed in the tables.

The addition of a Fill Valve is required for leaks in the mid and high 10^{-6} range and for all 10^{-11} and 10^{-12} leak rates. In these cases, **-MFV** is added to the part number for the premium all-metal fill valve. For the large 10^{-6} leaks, a Teflon-packed metal fill valve can be used for some non-UHV applications, and **-WFV** is added to the part number.

EXAMPLE FITTINGS AVAILABLE

Please contact us for other fitting requirements.

Code:	Description:
118T	1-1/8" OD Port Tube
4FVCR	1/4" Female VCR
4MVCR	1/4" Male VCR
MCFF	1.33" OD Mini Conflat Flange
2CFF	2.75" OD Conflat Flange
1/2T	1/2" OD Tube
KF16	3/4" OD ISO Flange
KF25	1" OD ISO Flange
KF40	1.5" OD ISO Flange
118T/34T	1-1/8" OD Tube with step to 3/4" Tube
4MPT	1/4" Male Normal Pipe Thread

LEAK RATE RANGES AVAILABLE and EXAMPLE PART NUMBERS

Leak Rate Ranges Available for the CLP (Specify a value in the range)	Code for Leak Rate Range (X)	Code for Fitting (YYY)	Suggested Reservoir Size (cc)	Code for Reservoir Size (ZZZ)	Example Part Number
1.0 to 9.9×10^{-6} atm-cc/sec	6	KF40	1000	1000DOT	CLP-6-HE-KF40-1000DOT-WFV
1.0 to 3.0×10^{-6} atm-cc/sec	6	1/2T	1000	1000DOT	CLP-6-HE-1/2T-1000DOT
1.0 to 9.9×10^{-7} atm-cc/sec	7	KF16	110	(Blank)	CLP-7-HE-KF16
1.0 to 9.9×10^{-8} atm-cc/sec	8	2CFF	110	(Blank)	CLP-8-HE-2CFF
1.0 to 9.9×10^{-9} atm-cc/sec	9	MCFF	110	(Blank)	CLP-9-HE-MCFF
1.0 to 9.9×10^{-10} atm-cc/sec	10	4MVCR	110	(Blank)	CLP-10-HE-4MVCR
1.0 to 9.9×10^{-11} atm-cc/sec	11	2CFF	110	(Blank)	CLP-11-HE-2CFF-MFV
1.0 to 9.9×10^{-12} atm-cc/sec	12	MCFF	110	(Blank)	CLP-12-HE-MCFF-MFV

Other leak-rate units, such as Torr-liters/sec, can be specified and calibration data will be reported in the units requested. Please contact us if you have any questions or want a customized design or manufacturing variance.

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

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