



# The CLPT Model CALIBRATORS FOR HELIUM LEAK DETECTORS

These CLPT Model Helium Calibrated Leak Standards have Teflon®-permeation type leak elements and are widely used to tune and calibrate helium mass spectrometer leak detectors and leak testing systems. They are part of a family of Calibrators including the GPP, GPC and CLP Models offered by VTI that cover leak rates from 10<sup>-12</sup> up to 10<sup>-3</sup> atm-cc/sec and larger. Those models are detailed in other brochures, and VTI's experts are always eager to help you select the best model – technically and cost – for your application. Without obligation, of course.

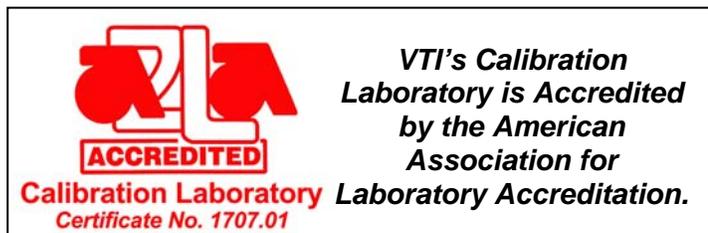
The CLPT Accu-Flow™ Calibrated Leaks use a Teflon® membrane as the flow rate control element. The Helium reservoir is under pressure, and the gas permeates through the Teflon® from the pressure side to the exhaust side of the element. This yields a precise, constant flow rate which is then used for calibrating helium leak detectors and other applications.

The GPPT Leaks feature an all-welded stainless steel construction for reliability. Most leaks require a shut-off “isolation” valve to zero the leak signal during tuning and calibration. VTI offers the CLPT Leaks both with and without a shut-off valve. The inlet port of the brand of leak detector or vacuum system determines the termination of the leak. All leaks are available with QF (NW, KF), Normal Pipe Thread, VCR® and many other types of fittings.

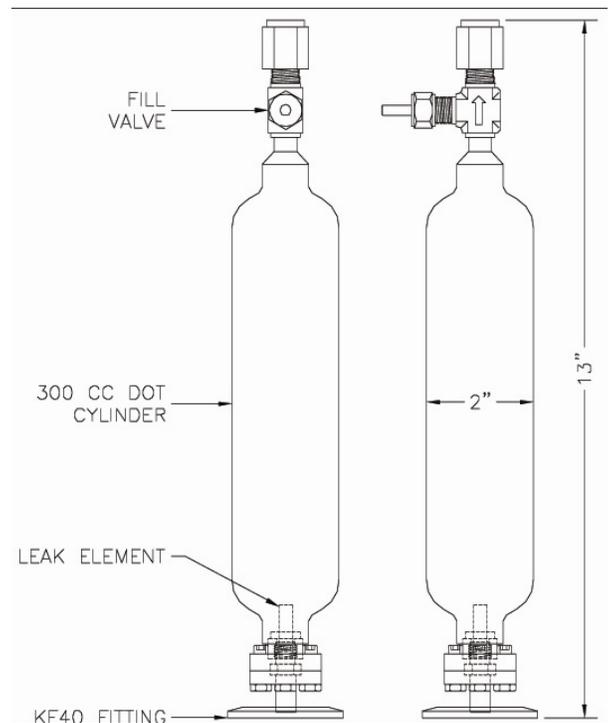
All CLPT Leaks are provided with certifications of the NIST-traceable calibrations performed in our A2LA-accredited Calibration Laboratory.

## Choosing the CLPT Calibrator

- WILL NOT CLOG: permeation leak element.
- VIRTUALLY UNBREAKABLE: minimizes repairs.
- LONG TERM STABILITY: Low depletion rate.
- WIDE LEAK-RATE CHOICE: 10<sup>-3</sup> – 10<sup>-9</sup> range.
- SIMPLE TO OPERATE: minimal user training.
- MEETS ISO REQUIREMENTS: NIST-traceable, A2LA-accredited Calibration Certification.



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.



**CLPT Calibrator**  
**Model CLPT-X-HE-KF40-300DOT-WFV-NV**  
**(X= Leak Rate Range)**



# HELIUM CALIBRATED LEAK STANDARDS

## CLPT Leak Detector Calibrators

### ORDERING INFORMATION

The CLPT 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, please 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  $2.0 \times 10^{-8}$  atm-cc/sec +/- 40%. Alternatively, the allowable values as manufactured can be specified as 1 to  $3 \times 10^{-x}$ , 4 to  $6 \times 10^{-x}$ , or 7 to  $9 \times 10^{-x}$  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 CLPT Part Numbers are constructed as follows:

#### CLPT-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.

Valve Requirements – the addition of a Fill Valve is required on all leaks in the mid  $10^{-6}$  range and larger due to the higher fill pressures. In these cases, **-WFV** is added to the end of the part number. For leaks without a shut-off valve, **-NV** is added.

### 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 CLPT (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 $9.9 \times 10^{-4}$ atm-cc/sec	4	MCFF	1000	1000DOT	CLPT-4-HE-MCFF-1000DOT-WFV
1.0 to $9.9 \times 10^{-5}$ atm-cc/sec	5	KF25	1000	1000DOT	CLPT-5-HE-KF25-1000DOT-WFV
1.0 to $9.9 \times 10^{-5}$ atm-cc/sec	5	KF40	500	500DOT	CLPT-5-HE-KF40-500DOT-WFV
1.0 to $9.9 \times 10^{-6}$ atm-cc/sec	6	118T	300	300DOT	CLPT-6-HE-118T-300DOT-WFV
1.0 to $3.0 \times 10^{-6}$ atm-cc/sec	6	1/2T	300	300DOT	CLPT-6-HE-1/2T-300DOT
1.0 to $9.9 \times 10^{-7}$ atm-cc/sec	7	KF16	110	(Blank)	CLPT-7-HE-KF16
1.0 to $9.9 \times 10^{-8}$ atm-cc/sec	8	2CFF	110	(Blank)	CLPT-8-HE-2CFF

Other leak-rate units, such as mbar-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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