

March 2009

## Reference Leak Solutions

### 'LS Series' for Sniffer Applications

H T Products offer a comprehensive range of calibrated reference leaks suitable for use with any gas in all types of leak detection including 'sniffer' or vacuum test systems and the calibration of refrigerant leak detectors.

We own a patent on the manufacturing process for our leak technology (Patent Number: 0309268.1). Our process implements highly compressed steel powders to restrict the air flow which are fixed in a vacuum furnace to form a sinter. This method allows us to manufacture leak elements across a wide range of flow rates and ensures the level of accuracy needed when checking the calibration of a leak detector. The leaks are robust, temperature stable (with only a 0.5% per °C temperature coefficient) and are well suited to use under high pressure differentials giving them a clear advantage over traditional leak elements. In addition to the range of reference leaks we also offer a recalibration service and are able to supply calibration certificates traceable to National Standards.

Typical leak rates range from above 100 g/Yr right down to below 1 g/Yr, easily meeting the demand for low flow rate checks specified by current international standards and environmental regulations. These calibrated leaks offer a cost effective response to the demand for regular equipment checking and recalibration outlined in current leak detection standards, particularly those concerning the treatment of fluorinated refrigerant gases (FGas) where equipment sensitivity must now meet the specified level.

Typical gases include: R12, R22, R123, R134a, R404a, R410, R503, R507, R600a, R606, R707, SF6, Argon, CO2, Methane, Helium, Hexane, Hydrogen, Krypton, Xenon, FM200, Naf512s, NafS227, and Gas Mixtures.



#### LS-4 : Housed Leak Element

- Leak element in 1/4" SAE stainless steel body with brass nut for use with a bulk supply.
- Designed for quick on-site checking of 'sniffer' probes or other existing test equipment.
- Certificate of calibration can be provided for an additional fee.
- Gas supply required.



#### LS-R : Regulated Leak

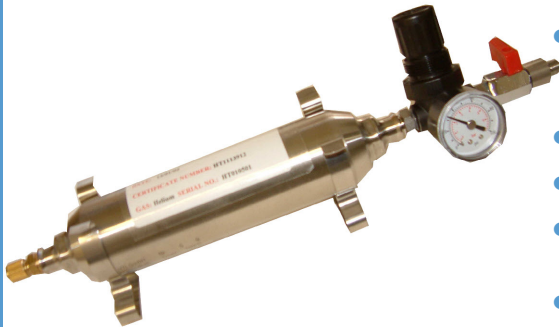
- Regulated flow rate unit with interchangeable reference leak.
- Designed to be portable, robust and use a range of different leaks calibrated for use with different gases.
- 1/4" SAE input valve.
- Complete with certificate of calibration traceable to Nation Standards.
- Regulated input pressure allows for constant flow rate regardless of gas bottle temperature or pressure.
- Gas supply required.

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### LS-100 : All-in-One Refillable Leak

- Regulated as with LS-R with added contents gauge and reservoir.
- Refillable reservoir makes this a stand-alone, fully portable leak unit.
- Complete with certificate of calibration traceable to National Standards.
- Typical Leak rate 5g/Yr.



### LS-400 : Premium Variable Leak

- Variable output, calibrated reference leak with compact adjustable regulator, pressure gauge, and large refillable stainless steel reservoir.
- Fully Portable.
- Adjustable regulator allows for an accurate variable leak output.
- Complete with certificate of calibration traceable to National Standards.
- Typical leak rate 3g/Yr.



### LS-X : Calibration Workstation

- High accuracy, variable output, calibrated reference leak designed for standards room or where more precision is required.
- Can easily be used to find the lowest sensitivity of a hand held 'sniffer' leak detector by connecting the probe to the leak housing.
- Reference leak mounted in a case with front panel display showing leak element and a 'Pressure / Leak Graph'.
- High quality regulator and 63mm pressure gauge (0-1bar) and connection port allows for repeatable, consistent close proximity testing.
- Case contains refillable stainless steel gas reservoir.
- By referring to the 'Pressure / Leak Graph' the leak rate can be set, typically 1-5g/Yr
- Unlike most refrigerant leaks it is not sensitive to vapour pressure changes in temperature.
- Complete with certificate of calibration traceable to National Standards.



Unit 3  
Hackhurst Lane Industrial Estate  
Lower Dicker  
East Sussex  
BN27 4BW  
United Kingdom

Phone: +44 (0)1323 442035  
Fax : +44 (0)1323 840003  
Email: info@htproducts.co.uk  
Website: www.htproducts.co.uk



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## Reference Leak Solutions 'LS Series' for Sniffer Applications

### Ordering Information

We are happy to provide further information and answer any enquiries you might have about the range of products available. When contacting us to place an order please provide the following information.

- 1) The item you are interested in detailing your requirements.
- 2) Leak flow rate, in any unit, which contains volume, or weight over time.
- 3) Gas with which the leak is to be calibrated.
- 4) The pressures on each side of the leak, stating whether relative or absolute.

**Leak Department**  
**H.T.Products Ltd, Unit 3B**  
**Hackhurst Lane Industrial Estate**  
**Lower Dicker, East Sussex, BN27 4BW**

**Tel: 01323 442 035**  
**Email: info@htproducts.co.uk**

For information on further products and services  
visit our company website at :

**<http://www.htproducts.co.uk>**