

# Application Article 104

Version 1.0 8 September 2009

## System Leak Checks

**Industry:** Gas Manufacturing

**Application:** System Leak Checks

**Customer:** Airliquide



### Introduction

A GasCheck 3000is instrument has recently been purchased for leak detection by one of the largest company's in the gas manufacturing sector, Air Liquide.

Tests using the instrument are carried out on gas bottles and system tests before starting new gas manufacturing processes to ensure that government safety guidelines are adhered to.

### What's The Method Used?

Whilst gas bottles are pressurised with Helium or Hydrogen during the manufacturing process, tests can be carried out to localise leaks on the equipment around fittings and tubing that interlink the gas bottle filling system.



This assessment is essential if the business is to meet national standards. Swedish laws in Air Liquide's case require the equipment to be checked annually and acceptable leak rates in Sweden must not exceed a Hydrogen leak rate for more than  $5 \times 10^{-4}$  cc/sec and a Helium leak rate of no larger than  $5 \times 10^{-5}$  cc/sec.

This is to ensure that insurance premiums are kept to a minimum and quality standards are assured which is especially important in the high risk environments of gas manufacture.

### Why Choose Ion Science?

Ion Science offers intrinsic safety as a part of its GasCheck range, in a market where intrinsic safety is hard to find. In the explosive environments of gas manufacturing, intrinsic safety is of extreme importance and therefore an instrument that offers ATEX approval is a valuable asset. Furthermore, users of the GasCheck 3000is instrument have found its hand held design easy to use and have the ability to be used in a number of challenging and specialist markets offering the customer high sensitivity.

### Key Product Benefits

- ATEX Approved – Intrinsically safe for use in explosive environments • High Sensitivity – Leak detectable to as low as  $1 \times 10^{-5}$  for Helium
- Simple & Durable Hand Held Design – Ideal for use in challenging environments

For more information contact Ion Science:

E-mail: [info@ionscience.com](mailto:info@ionscience.com)

[www.ionscience.com](http://www.ionscience.com)

