



# Gas Capacity Testing Laboratory

Experts in respiratory protective equipment, offering both standard and bespoke testing to meet our customers' needs

Our Gas Capacity Laboratory is the newest facility at our Centre of Excellence in Hemel Hempstead, developed to test the effectiveness of filters used in Respiratory Protective Equipment (RPE). As awareness of the dangers of inhaling harmful substances grows, there are increasing health and safety regulations in place to promote a safer workspace to protect employees from injuries and long-term medical conditions. Environments where dangerous gases are present have an increased risk that are often unknown. That's why there are a growing number of standards globally that manufacturers and distributors of Personal Protective Equipment (PPE) need to comply with, so products remain safe and reduce any potential risk to users.

## Services we offer:

### Direct Testing

Companies who need confirmation that their products meet safety requirements can submit them to BSI for independent assessment. We can help support the product development process to smooth the progress of innovation and offer a more cost effective solution before you apply for third-party certification. Any non-conformities can be identified at an early stage enabling changes to design to be made and reducing the need for re-testing during the formal compliance process.

### Gap Analysis / Development Testing

BSI's experience and expertise means we can develop tailored test procedures in conjunction with clients at our Centre of Excellence in Hemel Hempstead. Our skilled specialists can help identify the gaps in requirements giving customers the information they need to assist in resolving design problems and helping optimize their time and money.

For manufacturers and distributors who wish to have products assessed against their own specifications, BSI can formulate bespoke assessment programmes to meet their individual needs.

### Certification

Our PPE certification team offer CE certification to the Directive or Regulation to all relevant modules allowing the manufacturer to make the declaration of conformity of their product to the Directive/ Regulation. Anything that is tested in the Gas Capacity Lab would fall into Category III of the PPE Directive or Regulation meaning it would need full Notified Body approval prior to placing onto the market.

### BSI Kitemark™

In addition to CE certification BSI can offer Kitemark™ certification to all RPE standards giving wider market access for products than just Europe and a higher level of certification and on-going auditing than with CE Marking giving greater confidence to specifiers and purchasers using RPE products.



...making excellence a habit.™

# What type of products can we test?

Product description(s)	Applicable standards
Gas filters and combined filters	BS EN 14387:2004 + A1:2008
Powered filtering devices incorporating a hemlet or hood	BS EN 12941:1998+A2:2008
Power assisted filtering devices incorporating full face masks half masks or quarter masks	BS EN 12942:1998+A2:2008
Valved filtering half masks to protect against gases or gases and particles	BS EN 405: 2001 + A1 2009
Half masks without inhalation valves and with separable filters to protect against gases or gases and particles or particles only	BS EN 1827:1999+A1:2009
Filters with breathing hoses, (Non-mask mounted filters) - Particle filters, gas filters, and combined filters	BS EN 12083:1998

The above is a range of standards but is by no means an exhaustive list and the lab may well be able to undertake testing to other international or specific country standards to help manufacturers gain access to other markets. Where British, European or international Standards do not exist or are under development, BSI can potentially offer special bespoke test services. In addition to the above we can also test to the methods encompassed in the BS EN 13274 suite of standards.

**Typical gases we can test:**

- Cyclohexane or hexanapthene
- Chlorine
- Hydrogen sulphide
- Hydrogen cyanide or formonitrile
- Sulphur dioxide
- Ammonia

Potentially, any person working in industries such as fuel, food, waste/water, textiles and construction is likely to come across one of those gases at a dangerous level. It is very important to test filters that protect people in industrial areas.



Speak with an expert today  
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**[bsigroup.com/gas-testing-uk](http://bsigroup.com/gas-testing-uk)**



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