



## Dusts

Produced when solid materials are broken down into finer particles, the longer the dust remains in the air the easier it is to inhale.



## Mists

Tiny liquid droplets formed by atomisation and condensation processes such as spraying. Mists are often combinations of several hazardous ingredients.



## Metal fumes

Occur when metals are vaporised under high heat. The vapour is cooled quickly and condenses into very fine particles that float in the air.



## Gases

Airborne at room temperature. Able to diffuse or spread freely, can travel very far very quickly



## Vapours

Gaseous state of substances that are liquids or solids at room temperature. Formed when substances evaporate in the way water vapour evaporates from water.

## Legislation Update

Amended Standard EN 149:2001+A1:2009  
EN 149:2001 was superseded by an amended version, EN 149:2001+A1:2009 (EN 149+A1) in July 2009.

Changes included the introduction of two usability classifications for disposable respirators; single shift only devices non-reusable (shown through marking "NR") and reusable devices (marked 'R').

The amended European Standard EN 149:2001+A1:2009 states that all reusable devices (marked 'R') must withstand being cleaned and disinfected using a method provided by the manufacturer. This change, along with new performance requirements, is intended to give the user further confidence in respirators providing continuous respiratory protection in hazardous environments. All particle filtering half masks featured fully conform to EN 149:2001+A1:2009

Disposable respirators that have passed the optional Dolomite clogging test have a suffix

## Selecting the correct protection

The selection of Respiratory Protection follows a basic four-step method:

- Identify the hazards – dust, metal fume, gas, vapour
- Assess the hazards – assess the hazard level/other protection – skin and eye
- Select the proper respirator – disposable, half mask, full face, powered, airline
- Training in fitting and use – to optimise respiratory protection

## FILTER MARKINGS

For use against	Filter Type	Colour Code	
Gas and Vapour (EN 14387 and EN 405)	A	Brown	Organic Vapours with boiling point greater than 65°C and good warning properties
	B	Grey	Inorganic gases and vapours, e.g. Chlorine (not Carbon Monoxide)
	E	Yellow	Acid gases and vapours, e.g. Sulphur Dioxide, Hydrogen Chloride
	K	Green	Ammonia and organic ammonia derivatives
	P	White	Particulate
	AX	Brown	Certain organic compounds with boiling points less than 65°C & good warning properties
Particles (EN 143 and EN 149)	P1	White	Protection against particulates
	P2	White	Protection against particulates
	P3	White	Protection against particulates

## Types of Respiratory Protective Equipment (RPE)

Each type of RPE has specific limitations which dictate the types of application for which it may be used. RPE is tested to relevant European Standards which determines the product performance.



# **FIT TESTING**

Fit Testing is required under the **COSHH**, **CLAW** and **CAW** Regulations for all tight-fitting facepieces. If masks are worn in the workplace then you will be required to provide evidence of a fit test for each mask worn.

## **Qualitative and Quantitative Fit Testing**

There are two **Fit Testing** methods, these are known as: **Quantitative** and **Qualitative** tests. RPA can provide both Qualitative and Quantitative tests, on-site throughout the UK.

### **Fit Testing - Quantitative Tests**

**Quantitative** tests can be used to **fit test** all types of tight-fitting masks including disposable, half and full face masks. Quantitative tests give an objective assessment of facial fit and provide a direct numerical result called a **Fit Factor**.

The most widely-used quantitative method for RPE **fit testing** is the Particle Counting Device method, a title ascribed to the TSI Portacount Plus. The Portacount Plus measures the number of ambient particles inside and outside a facepiece and provides a numerical result which is the ratio of the two over a given test period. As in all other methods, the wearer should perform a series of exercises during the **fit testing** procedure. See **HSE 282/28** Protocols for more details on test exercises and pass levels via the link below:

[www.face-fit.co.uk/fit-testing-protocol.asp](http://www.face-fit.co.uk/fit-testing-protocol.asp)

### **Fit Testing - Qualitative Tests**

**Qualitative** tests rely on the wearer's subjective assessment of faceseal leakage. These methods, during a set of test exercises, use the wearer's sense of smell or taste to detect faceseal leakage of a test agent.

**Qualitative** tests are subject to problems with sensitivity, lack of objectiveness and inability to provide a numerical result. For these reasons

**Qualitative** tests can only be employed for fit testing of filtering facepieces (disposable masks) and half masks, not full face masks.

#### **Fit testing and Respiratory Protective Assessment**

RPA carry out thousands of fit tests every year in the UK.  
They provide:

On site Contract Fit Testing throughout the UK and Ireland.

Regional Fit Testing days throughout the UK, see their Up Coming Courses for information about dates & locations.

Fit Testing for 1 to 100 operatives per day.

Fit Testing for all mask types including full face, half face & disposable masks plus BA & SCBA masks.

Full range of masks available for test purposes.

HSE compliant reports and certification.

Fit Testing not only ensures that you stay HSE compliant but also provides the vital last link in the chain of respiratory protection.

**To book your Face Fit Testing or for any other information please contact the  
Guardsman Sales Office on 0116-2538688  
or e-mail us at [sales@guardsmanltd.co.uk](mailto:sales@guardsmanltd.co.uk)**