



## Specific requirements for RPE use

### The law says that RPE used at work must:

- > be adequate and provide the wearer with effective protection;
- > be suitable for the intended use;
- > be 'CE' - marked
- > be selected, used and maintained by properly trained people;
- > be correctly maintained, examined and tested;
- > be correctly stored

**Adequate:** RPE is considered adequate if it can provide a level of protection required to reduce the exposure to comply with the law

**Suitable:** RPE is considered suitable if it is adequate and is matched to the wearer, the task and the working environment, such that the wearer can work with minimum impediment and without additional risks due to the protective equipment.

# Respiratory

## WHAT IS RPE?

RPE is a particular type of PPE. It is designed to protect the wearer against inhalation of hazardous substances in the workplace air. RPE is divided into two main types:

### Respirator (filtering device)

This uses filters to remove contaminants in the workplace air. They should never be used for protection in situations with reduced oxygen levels.

### Breathing Apparatus (BA)

This needs a supply of breathing quality air from an independent source (eg air cylinder or air compressor)

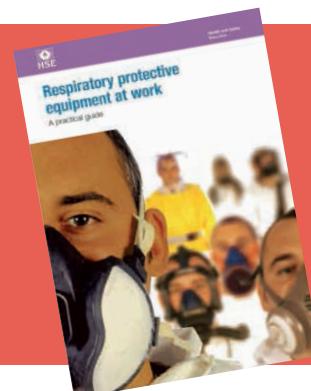
**Both types are available with a range of different face-pieces, but there are some important limitations:**

- > **Masks.** These are tight-fitting face-pieces (filtering face-pieces, half and full facemasks). They rely on having a good seal with the wearer's face. They can be part of both respirators or BA.
- > **Hoods, helmets, visors, blouses, suits.** These are loose-fitting face-pieces which rely on enough clean air being provided to the wearer to prevent contaminant leaking.

## HAZARD DEFINITIONS

- > Dusts are created when solid materials are broken down into particles
- > Mists are droplets that are formed from liquid materials by atomisation and condensation processes such as spraying
- > Fumes are created when solid materials vaporise
- > Gases are substances in gaseous form at room temperature.

All the above require a physical filter to block them entering the trachea, lungs and internal organs where they can do irreparable damage, either short term, long term or both. **EN141** and **EN405** divide gas/vapour into the categories on page 2.



## ADDITIONAL GUIDANCE

For additional guidance regarding any aspect of your respiratory needs, access the **HSE's Respiratory protective equipment at work - A practical guide**.



## GAS/VAPOUR FILTERS

Type	For use against	Colour code	Other information
A	Organic gases and vapours, boiling point > 65°C	Brown	EN14387
B	Inorganic gases and vapours	Grey	EN14387 Do not use against carbon monoxide
E	SO2 and other acid gases	Yellow	EN14387
K	Ammonia and its organic derivatives	Green	EN14387
Hg	Mercury	Red & White	EN14387, includes P3 particle filter Maximum use time 50 hours. No class number
NO	Oxides of nitrogen	Blue & White	EN14387, includes P3 particle filter. Single use only. No class number
AX	Organic gases and vapours, boiling point < 65°C	Brown	EN14387. Single use only. No class number
SX	Substance as specified by the manufacturer	Violet	EN14387

## RPE TYPES

**Important:** All filter-type RPE must only be used where no deficiency of oxygen exists.

Protection Factor required	Respirators						Breathing Apparatus		
	Half-mask particle filters	Half-mask gas filters	Full face mask particle filters	Full face mask, gas filters	Powered (fan-assisted) masks	Powered (fan-assisted) hoods	Fresh air hose	Constant flow airline BA	Demand valve BA
4	FFP1, FMP1, P1		P1						
10	FFP2, FMP2, P2	FF gas FM gas	P2		TM1	TH1		LDH1	
20	FFP3, FMP3 P3			Gas	TM2	TH2		LDH2, LDM1, LDM2, Halfmask	
40			P3		TM3	TH3	Full face mask, Hood	LDH3, LDM3, Hood, Full mask	
200								Suit	
2000									Airline and SCBA

## DISPOSABLE FILTERING FACE-PIECE RESPIRATORS

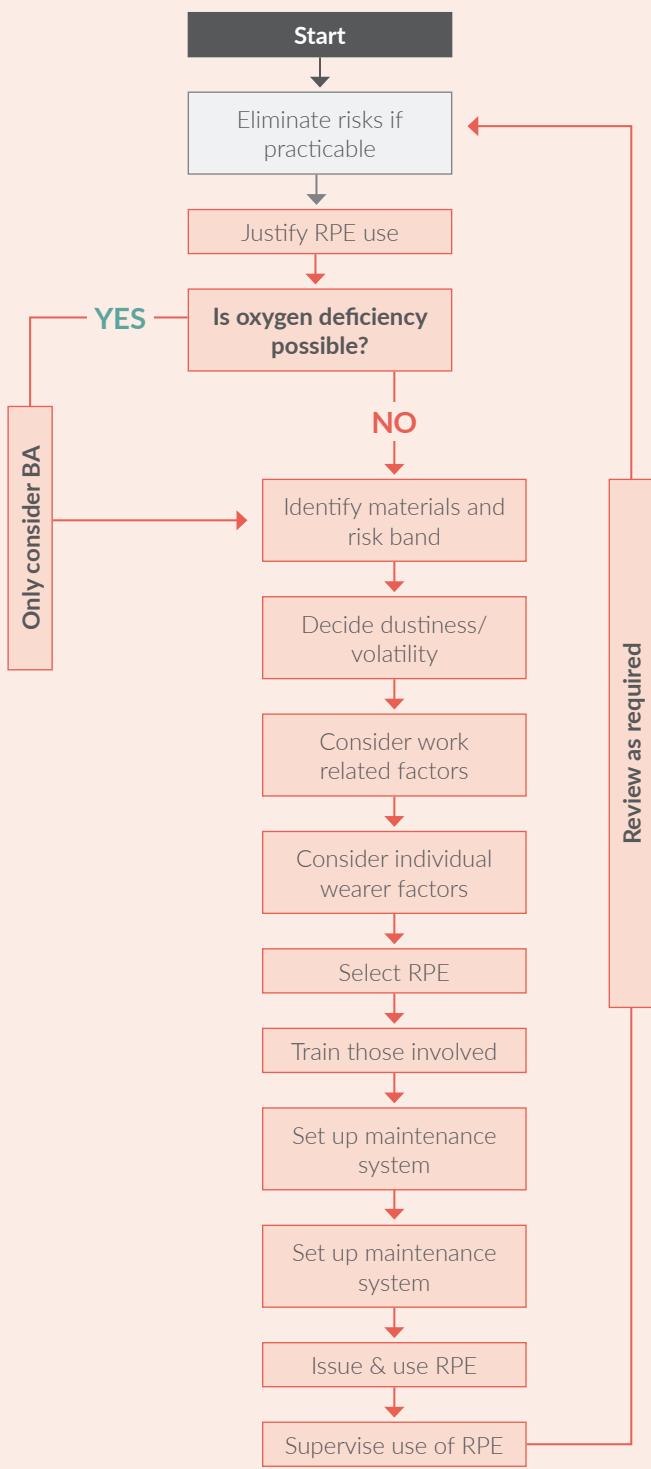
To assist you in selecting the correct protection we list some basic points which will help you make the right decision:

Protection Level	Restrictions
FFP1	Only against solid particles of non-toxic substances (80%) efficient
FFP2	Against solid particles of fine toxic dusts, and water/oil based mists and fumes (95% efficient)
FFP3	Very fine dust, mists and metal fumes (99.95% efficient)



## IMPLEMENTING RPE USE IN THE WORKPLACE

To assist you in selecting the correct protection we list some basic points which will help you make the right decision:



## FACE FIT TESTING

The COSHH Regulations and the associated Approved Code of Practice recommend that the initial selection of tight fitting face-pieces should include a fit test.



Two main reasons for doing this are to firstly make sure that the respirator itself is suited for the wearer's particular face shape and secondly to make sure the respirator is fitted correctly to get a tight seal and ensure safety against hazards in the workplace.

If the fit test is successful and is proven that the respirator is suitable for use, a fit test certificate will be issued by the person carrying out the test.

Fit Test Kits are available complete with a free CD to help employers understand more about Fit Testing, the requirements and how to carry out tests.

**Free training is offered with initial purchase of Fit Test Kit.**



**For help with selection of suitable RPE  
please call us on 0121 749 4433**