



Respirator



Half Face Respirator



Full Face Respirator

Overview

A respirator is a device designed to provide the wearer with protection against inhalation of a hazardous atmosphere.

Respirators should not be confused with nuisance masks, which protect against non-toxic dusts and non-hazardous mists.

Fit Testing



Improper Respirator Fit



Proper Respirator Fit

Respirator fit testing is performed to determine if a person can maintain an acceptable respirator fit and seal. Fit testing must be done prior to first use, whenever a different respirator is worn, and at least annually thereafter. A person must be tested with the same make, model, style and size of respirator that will be used.

When to fit test

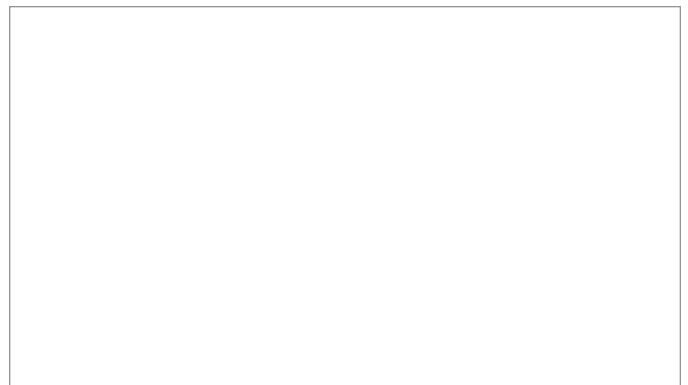
- After a person is medically cleared for respirator use
- Before a person wears the respirator in the workplace
- Minimum of once per year
- If the wearer has undergone facial changes
- If the wearer has experienced a significant weight change
- Change of respirator size, make or model

Factors affecting respirator seal

- Facial hair
- Dentures
- Eyeglasses
- Cosmetic surgery
- Facial bone structure
- Facial scars
- Excessive makeup
- Facial piercings

Frequency of fit testing

- Prior to initial use
- Annually
- Whenever someone reports a problem



Acceptable Fit Test Procedures



One of the many types of fit test hoods used in qualitative fit tests.



Portacount machine used in a quantitative fit test.

Proper fit testing will be administered using one of two OSHA-accepted fit tests:

1. Qualitative Fit Test – a pass/fail test to assess the adequacy of respirator fit
2. Quantitative Fit Test – assessment of respirator fit by numerically measuring the amount of leakage in the respirator with the use of a Portacount

Proper test procedures follow **OSHA standard 1910.134 App A**, which can be found at www.osha.gov.

Things To Know



- Make sure the respirator being tested is the same respirator that will be used on the job site.
- When entering an oxygen-deficient atmosphere (less than 19.5% oxygen), any type of SCBA, other than escape only, is required.
- Lawson's respirators are not approved for use in firefighting or when entering an unknown or IDLH atmosphere.

Respiratory Protection Terms

Air-Purifying Respirator: A respirator with an air-purifying filter, cartridge or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Atmosphere-Supplying Respirator: A respirator that supplies the user with breathable air from a source independent of the ambient atmosphere. This includes SARs and SCBA units.

Auxiliary SCBA: A SAR unit which includes a separate air bottle to provide a reserve source of air should the airline become damaged.

Demand Respirator: A respirator in which the pressure inside the facepiece is negative during inhalation and positive during exhalation in relation to the ambient air pressure.

End-of-Service-Life Indicator (ESLI): A system that warns the respirator user of the approach of the end of adequate respiratory protection; for example, that the sorbent is approaching saturation.

Escape Gas Mask: A gas mask that consists of a half-mask facepiece or mouthpiece, a canister and associated connections that is designed for escape only from hazardous atmospheres.

Escape-Only Respirator: Respiratory devices that are designed for use only during escape from hazardous atmospheres.

Hood or Helmet: A respirator component which covers the wearer's head and neck, or head, neck and shoulders, and is supplied with incoming breathable air.

Immediately Dangerous to Life or Health (IDLH): Conditions that pose an immediate threat to life or health, or conditions that pose an immediate threat of severe exposure to contaminants such as radioactive materials.

Negative Pressure Respirator: A tight-fitting respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Powered Air-Purifying Respirator (PAPR): A device equipped with a facepiece, hood or helmet, breathing tube, canister, cartridge, filter, canister with filter, or cartridge with filter, and a blower.

Pressure Demand Respirator: A respirator in which the air pressure inside the facepiece is positive during both inhalation and exhalation in relation to the immediate environment.

Respiratory Inlet Covering: The portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Self-Contained Breathing Apparatus (SCBA): An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Supplied-Air Respirator (SAR) or Airline Respirator: An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.