

# FIT-TESTING GLOSSARY

Many countries around the world now have the opportunity to adopt or create their own standards. As you know, the International Standards Organization (ISO) is becoming the go-to regulations for many countries, including Italy, Germany and France. These standards help create uniformity for workplace processes to keep your employees safe. Until recently, respiratory protection devices were neglected or even left out of standards. Because fit-testing procedures are being written as international standards, we realize most of the terms and definitions may be new or confusing. We've created a comprehensive list to get you up-to-speed with the industry.

## Common Terminology for fit-testing procedures

**Air-purifying respirator** means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

**Assigned protection factor (APF)** means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by this section.

**Atmosphere-supplying respirator** means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

**Canister or cartridge** means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

**Escape-only respirator** means a respirator intended to be used only for emergency exit.

**Filter or air purifying element** means a component used in respirators to remove solid or liquid aerosols from the inspired air.

**Filtering facepiece (dust mask)** means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

**Fit factor** means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

**Fit test** means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

**Helmet** means a rigid respiratory inlet covering that also provides head protection against impact and penetration.

**High efficiency particulate air (HEPA) filter** means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

**Hood** means a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

**Loose-fitting facepiece** means a respiratory inlet covers the head and neck and may also cover portions of the shoulders and torso.

**Maximum use concentration (MUC)** means the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the required OSHA permissible exposure limit, short-term exposure limit, or ceiling limit. When no OSHA exposure limit is available for a hazardous substance, an employer must determine an MUC on the basis of relevant available information and informed professional judgment.

**Negative pressure respirator (tight fitting)** means a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

**Oxygen deficient atmosphere** means an atmosphere with an oxygen content below 19.5% by volume.

**Positive pressure respirator** means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

**Powered air-purifying respirator (PAPR)** means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

**Pressure demand** respirator means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

**Qualitative fit test (QLFT)** means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

**Quantitative fit test (QNFT)** means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

**Respiratory inlet covering** means that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

**Self-contained breathing apparatus (SCBA)** means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

**Service life** means the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

**Supplied-air respirator (SAR)** or airline respirator means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

**Tight-fitting facepiece** means a respiratory inlet covering that forms a complete seal with the face. User seal check means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

## About OHD

OHD protects the world's workforce with its revolutionary Quantifit, which utilizes our patented controlled negative pressure (CNP) technology. Using only air as the challenge agent, the Quantifit performs an ISO-approved fit test quickly, accurately and with no consumables. Find out why the Quantifit has become the leading technology in mask fit-testing.

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