



Personal Protective Equipment

The Difference Between Medical Evaluation and Fit Testing

Brought To You by 3M | Dec 21, 2017

Imagine what it would feel like to wear work gloves a size too big or too small. They could slow you down or make it harder to grip tools or things could get caught inside. You may just take them off.

While poor fitting gloves are an inconvenience, a poor fitting respirator is much more. If a tight-fitting respirator doesn't fit right, it is not just a matter of comfort or convenience – it will not create a proper seal and puts your health at risk.

That's why the U.S. Occupational Safety and Health Administration (OSHA) **requires** that all employees required to wear tight fitting respirators be fit tested prior to use and at least annually thereafter. In addition, workers need to perform a seal check each time they don their respirator to enter a contaminated area.

Depending on their assigned protection factor and filter type, respirators can help reduce exposures to on-the-job hazards like particles, and gases, and vapors. If the respirator doesn't fit properly, it may not form a tight seal to the face, allowing contaminants to leak around the edges instead of passing through the filter.

OSHA recognizes two types of fit testing: *qualitative* and *quantitative*. A user seal check must also be performed every time a respirator is worn. Consult manufacturer's instructions for the proper technique for the respirator you are using.

To conduct a user seal check on an elastomeric facepiece:

Positive Pressure User Seal Check

1. Cover the opening in exhalation valve cover with hand and exhale gently. If facepiece bulges slightly and no air leaks are detected between your face and facepiece, a proper seal has been obtained.
2. If faceseal air leakage is detected, reposition respirator on your face and/or readjust tension of the elastic straps to eliminate leakage.

Negative Pressure User Seal Check

1. Place palms of hands to cover face of cartridge or filter.
2. Inhale gently. If you feel facepiece collapse slightly and pull closer to your face with no leaks between the face and facepiece, a proper seal has been obtained.
3. If face seal air leakage is detected, reposition respirator on face and/or readjust tension of straps to eliminate air leakage.

To conduct a user seal check on a valved disposable respirator. Perform a User Seal Check prior to each wearing. To check the respirator-to-face seal, place both hands completely over the respirator and inhale sharply. Be careful not to disturb the position of the respirator. A negative pressure should be felt inside the respirator. If air leaks around nose, readjust the nosepiece as described in step 3. If air leaks at the respirator edges, work the straps back along the sides of your head. If you CANNOT achieve a proper seal, DO NOT enter the contaminated area. See your supervisor.

Fit testing isn't the same as the medical evaluation required before using a respirator for the first time. The medical evaluation is a critical step that rules out medical conditions – like heart or lung disease – that may interfere with using a respirator. It must be performed prior to fit testing or initial respirator use. The evaluation must be done in accordance with the requirements of OSHA 1910.134 appendix C. 3M's online medical evaluation is one option to help save employees time while still complying with ***OSHA requirements***.

For more information on disposable respirators from 3M, visit ***MSCDirect.com***.

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