

Selecting Respirators

Respiratory protection must be worn whenever you are working in a hazardous atmosphere. The appropriate respirator will depend on the contaminant(s) to which you are exposed and the protection factor (PF) required. Required respirators must be NIOSH-approved, and medical evaluation and training must be provided before use.

These general guidelines are to be used by the NU Safety Professional and user in selecting an appropriate respirator for the hazard. Types of respirators include:

Air-purifying respirators, which remove contaminants (particulate or gas/vapor) from an otherwise-breathable atmosphere, and

Supplied-atmosphere systems, which supply breathable air.

Major Types of Respirators

Air-purifying respirators, which remove contaminants from the air.



Half mask/Dust mask
APF=10
Needs to be fit tested



Half mask (Elastomeric)
APF=10
Needs to be fit tested



Full facepiece (Elastomeric)
APF=50
Needs to be fit tested

Original illustrations created by Attilis & Associates

Assigned Protection Factors (APFs) are the level of protection a properly functioning respirator would be expected to provide to a population of properly fitted and trained users (e.g., an APF of 10 means a user could expect to inhale no more than one tenth of the airborne contaminant present). NU Safety Professionals must use the APFs listed in the **Respirator Selection Table** to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an air-purifying filter), NU Safety Professionals must ensure the APF is appropriate to the mode of operation in which the respirator is being used.

Questions?

Contact Environmental Health and Safety at ehs@northwestern.edu