



Respirator Classes Ranked by Decreasing Physiological Effects¹

Decreasing Physiological Effects



Military Gas Mask

Greatest inhalation & exhalation pressure. Worn with Mission Oriented Protective Posture (MOPP) gear, which increases heat stress. Combat may require use for extended periods.



Self-Contained Breathing Apparatus (SCBA)

Heaviest respirator (35 lbs.). Wearer carries the air source (e.g., air cylinder). Often worn with impermeable hazmat ensembles in atmospheres immediately dangerous to life and health (IDLH). Chemical reactions in “closed-circuit” (air recirculating) models produce warm air (up to 135° F).



Full Face Non-Powered Air-Purifying Respirators

Adds ~815 cc of dead air space to the respiratory system. Personnel needing vision correction must have prescription spectacle kits.



Half Mask Non-Powered Air-Purifying Respirators

Adds ~ 260 cc of dead air space to the respiratory system.



Supplied-Air (Airline) Respirators

Delivers breathing air to the wearer from a compressed air source (e.g., air compressor) through an air hose up to 300 feet in length. Air hoses may become tangled on workplace equipment, or severed, leaving the wearer without a source of breathing air. That is why they must not be worn in IDLH atmospheres without an auxiliary SCBA air cylinder for escape.



Powered Air Purifying Respirators (PAPRs)

Even though PAPRs are heavier and bulkier than negative pressure air-purifying respirators, workers for the most part consider them more comfortable because of the PAPRs’ cooling effect and PAPRs require less breathing effort due to the continuous flow of clean air to the PAPER wearer.



Filtering Facepiece Respirator

Lightest (¼ - 1 oz.) and most comfortable respirators. Breathing is easier because air is drawn through the entire surface area of the facepiece (i.e., the filter is the respirator facepiece). Only adds 260 cc of dead air space to the respiratory system.

¹ For a detailed description of the physiological effects associated with wearing each class of respirator please read the NMCPHC *Respiratory Protection Toolbox* article entitled “[Respirator Medical Evaluation](#).”

