

## Major Types of Respirators

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



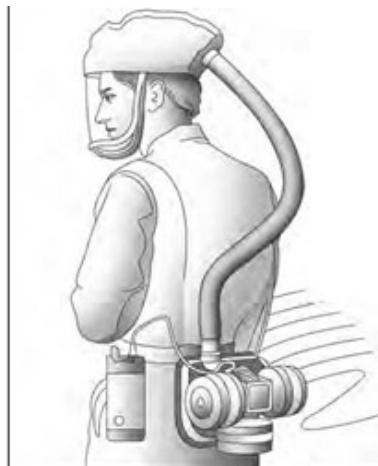
Half mask/Dust mask  
 APF=10  
 Needs to be fit tested



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



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



Loose-Fitting Powered  
 Air-Purifying Respirator (PAPR)  
 APF= 25



Hood Powered Air-Purifying  
 Respirator (PAPR)  
 APF= 25

### **Assigned Protection Factors (APFs)**

Employers must use the assigned protection factors listed in Table I 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), employers must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.

**Table I: Assigned Protection Factors<sup>5</sup>**

Type of Respirator <sup>1,2</sup>	Quarter mask	Halfmask	Full facepiece	Helmet/Hood	Loose-fitting facepiece
1. Air-purifying Respirator	5	10 <sup>3</sup>	50	-	-
2. Powered Air-purifying Respirator (PAPR)	-	50	1,000	25/1,000 <sup>4</sup>	25

**Note 1** Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

**Note 2** The assigned protection factors in Table I are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

**Note 3** This APF category includes filtering facepieces, and half masks with elastomeric facepieces.

For more information please refer to OSHA publication:

## Major Types of Respirators (cont.)

*Atmosphere supplying respirators*, which provide clean air from an uncontaminated source.



Full Facepiece Supplied-Air Respirator (SAR) with an auxiliary Escape Bottle APF=1,000  
 APF = 10,000 (if used in "escape" mode)  
 Needs to be fit tested



Full Facepiece Abrasive Blasting Continuous Flow APF=1,000  
 Needs to be fit tested



Full Facepiece Self Contained Breathing Apparatus (SCBA) Pressure demand mode is APF=10,000  
 Needs to be fit tested

**Table I: Assigned Protection Factors<sup>5</sup> (cont.)**

Type of Respirator <sup>1,2</sup>	Quarter mask	Halfmask	Full facepiece	Helmet/Hood	Loose-fitting facepiece
3. Supplied-air Respirator (SAR) or Airline Respirator					
* Demand mode	-	10	50	-	-
* Continuous flow mode	-	50	1,000	25/1,000 <sup>4</sup>	25
* Pressure-demand or other positive-pressure mode	-	50	1,000	-	-
4. Self-contained Breathing Apparatus (SCBA)					
* Demand mode	-	10	50	50	-
* Pressure demand or other positive-pressure mode (e.g., open/closed circuit)	-	-	10,000	10,000	-

**Note 4** The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece respirators, and receive an APF of 25

**Note 5** These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134(d)(2)(ii).

For more information please refer to OSHA publication: **OSHA 3352-02 (2009)**