

# USA

# Dust Guard



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# Respirators

## Dust Mask vs. P100 Filter

### Disposable or Reusable Respirators — Which is Best for You?

At times the air we breathe contains high and even unknown levels of pollution and bacteria that can make us sick, make breathing difficult and cause headaches and nausea.

We can help ourselves by using respirators or air masks which are offered in a variety of styles and provide different levels of protection. Disposable respirators (far right), more commonly referred to as particulate respirators or dust masks, are sold in the half-face variety and are typically used for protection against airborne particles.



Reusable respirators (left), are available in both the half-face and full-face variety and can offer protection not only against airborne particulate, but gases, fumes and vapors as well.

Regardless of type or level of protection, respiratory protection is only as efficient as the fitting on your face. Gaps between the mask and your skin, including facial hair, will allow the pollutants to enter your nasal passage and cause health issues. Therefore, when buying a mask you should be careful of its size and read the instruction manual carefully.

Respiratory protection should be able to protect its wearer from suspended particle size smaller than 10  $\mu\text{m}$  (micrometer.) The 2.5  $\mu\text{m}$  particulate stays suspended in the air the longest, taking 8 hours at table top height to hit the floor. This small particulate can lead to plaque deposit in your nose, throat, lungs or even the arteries and can lead to a heart attack.

Note: You may see people wearing surgical masks. Surgical masks are designed to contain the wearer's bacteria and viruses from being exposed to others and not to protect the wearer from breathing in airborne matter.

#### NIOSH Standard 42 CFR Part 42

To make it easier to classify "particulate" respirators, in 1995, The National Institute for Occupational Safety and Health (NIOSH) released the **42 CFR Part 42** standard that respirator users could understand and follow in practice. Specifically, the particulate respirators are grouped into three distinct groups: **N-Series**, **R-Series** and **P-Series**. Each of these three groups, in turn, provide [3] different filtration types and efficiency ratings — see next page:

## N-Series (N95, N99 and N100)

N-Series particulate respirators are NOT resistant to oil and therefore provide protection against solid and liquid aerosol particulate that does NOT contain oil. The difference between an N95, N99 and N100 respirator is simply the filter's efficiency level:

### N95 2-STRAP DUST MASKS

Certified to filter at least 95% of airborne particulate @ 0.3 micron particle size. **N95 with an exhalation valve helps to prevent moisture near the nose bridge or your eyes.**

### N99 2-STRAP DUST MASKS

Certified to filter up to 99% of 0.3 micron particle size from the air. Like the N95, they don't work well against oil-based pollutants, but are better than the former because of the higher filter efficiency rate. It is important to note that N-Series respirators have a non-specific service life and can be used as long as the mask is not damaged or breathing resistance is not detected.



## R-Series (R95)

Unlike the N-Series, the R-Series particulate respirators are resistant to oil, which means they provide protection against both solid and liquid aerosol particulates that may contain oil. R-series respirators, however, are only certified for up to 8 hours of service life. Due to these specific service life restrictions, R-Series particulate respirators are the least common type of particulate respirators.

## P-Series (P95 & P100)

P-Series particulate respirators are similar to the R-series but with the added protection against both solid and liquid aerosol particulates that may contain oil. Advantages of the P100 filter vs. the N95 disposable respirators is their filtration efficiency rating which is at least 99.9% @ 0.3 micron. **The "best" filter you can use would be a P100 filter. Additionally, the service life of a P-Series filter vs. a N95 respirator is substantially longer.**

## NEWEST FILTRATION - "GVS" - a Protective Mask that Gives You Quality for Your Money and Health

*Investing in an air mask is investing in your health and well-being.*

### P100 HALF-MASK RESPIRATOR by GVS

99.97% minimum filter efficiency rating @ 0.3 microns – protects against Dust Particle, Metal Fumes, Oil and Water Mists, Vapors and Micro-Organism (i.e. bacteria and viruses.)

#### UNIQUE, ONE-OF-A-KIND HALF-MASK RESPIRATOR

- Compact, Extreme Filter Life - Re-useable, Replaceable
- Very Soft, Super Comfortable to Wear Face Piece
- A+ to use with Visors, Safety & Eye Glasses
- Latex and silicone free - **equipped with Exhalation Valve — prevents eye glasses from fogging**
- Lightweight thermoplastic elastomer (TPE) face piece that is comfortable to wear for long periods of time
- **Low profile filters provide unobstructed field of vision.**



*GVS Respirator with P100 Filters. Small, Non-Obstructing Size. A+ to Wear with Glasses. Basically about the size of your hand when placed over your nose and mouth.*

#### UNIQUE, ONE-OF-A-KIND **ELIPSE PLEATED FILTER** - 100% Cleanable & Washable

- Non-Charcoal Activated Filter - outlasts charcoal filters 20, 50, 100 times longer!
- Made of Non-Electro Static Media - dust particles are NOT attracted to the filter media.
- GVS *Ellipse* filters are shipped *installed* in the respirator. Competitive masks have to ship their filters separately in a plastic bag because the filter media is electro static and dust will be drawn to them.
- GVS *Ellipse* filters can be left openly for years and they will not attract dust particles.
- Electro Static Filters - used in 3M, Draeger, Honeywell, MSA, North, others) - when exposed to air the dust particles are instantly magnetized to the filters, thereby compromising their effectiveness and life.
- Water Resistant *Ellipse* P100 filters are can be used in moist, conditions - activated charcoal filters cannot.