

About Gas Mask Types

A respirator was devised in the late 18th century to be used by miners in Prussia. About half a century later, on June 12, 1849, Lewis Haslett patented the gas mask in Louisville, Kentucky. Early versions of the [gas mask](#) were devised in the decades to follow, and they became particularly important during World War I, with the advent of chemical warfare. In the century that would follow, the types of gas masks evolved into what is available today.

Full-Face Air-Purifying Respirator

A step up from the half-mask respirator, the full-face mask not only protects the nose and mouth, but the eyes as well. The air-purifying respirator comes with a clear face mask and eye pieces that protect the user's eyes. The potential problem with the full-face [gas masks](#) is that they may not always be effective since they can be a poor fit, or may leak.

Half-Mask Air-Purifying Respirator

The least effective [gas mask](#) of the modern era is the half-mask air-purifying respirator. The half-mask covers your nose and mouth, which allows users to breathe through the mask's filtration system. The main problem with this style of gas mask is that many chemical and biological agents enter the body through the victim's eyes, making it easy to be poisoned.

Supplied-Air Respirator

The problem with leakage encountered in the full-face masks is resolved in the supplied-air respirator. The supplied-air masks create positive air pressure, which ensures that leaks in the mask release purified air instead of allowing contaminated air in from the surrounding environment. These masks are particularly effective for young children who typically have a problem fitting a mask perfectly to their face. The U.S. Environmental Protection Agency recommends that all painters who work with spray paints that contain highly toxic chemicals (such as isocyanates) use a supplied-air respirator.

Self-Contained Breathing Apparatus

The self-contained breathing apparatus (SCBA) is the most effective [gas mask](#) system on the market. The air tank in the SCBA contains high-pressure purified air for constant positive pressure to the face mask. The one caveat is that these systems are not practical for civilians. The tanks are heavy, bulky, and only carry a maximum of 60 minutes of air. This is why they are primarily used in professional scenarios, such as in firefighting and warfare.