

Why Some Masks Have Valves

N95 masks can be used for both industrial and medical indications. In most industrial applications where the workers are exposed to harmful particles in the air, N95 masks with valves are frequently preferred. The valve opens only on exhalation, which allows more exhaled heat and moisture to escape the mask while filtering all of the air that the worker inhales. This makes the mask more comfortable. In industries such as the semiconductor industry, where they need to protect the semiconductor from any particles in the worker's breath, they only use N95 masks without valves.

In hospitals, the typical purpose of a surgical mask or N95 surgical mask is to both protect the healthcare worker from the patient and to protect a patient who is opened on a surgical table from anything in the surgeon's exhaled breath. Therefore, these masks don't have exhalation valves. In managing patients with COVID-19 or most other diseases outside the operating room, there is only a need to protect the healthcare worker and therefore, they can use masks with or without valves. Patients should only wear masks without valves to protect other people. If the only mask available has a valve, hospital personnel may place a surgical mask over that N95 mask. Doing this maintains the protection of the healthcare worker and also protects other people from droplets in their exhaled breath passing through the valve.