

What is so bad about fumes?

- 1) Health. Ceramics are made from clays and other materials that produce fumes during firing such as carbon monoxide, sulphur oxides, and other undesirable fumes. Some of these fumes can impact your health so they should be removed from the studio. A downdraft vent system will accomplish this goal.
- 2) Regulation. Many cities and municipalities have requirements regarding venting of kilns in their mechanical or building codes to address the issue of fumes. The Uniform Mechanical Code has been adopted by about 38 states and it lists downdraft vents as an approved method of venting to deal with fumes.
- 3) No manual venting. If no vent is used, the user must manually open the lid of the kiln to assist in the venting of the fumes from the kiln. Propping up the lid or closing the lid after venting is easily forgotten. When using a vent, the lid stays closed and the fumes are removed.
- 4) Brighter colors. Vents remove fumes from the kiln that may interfere with color development and improve the amount of oxygen. This improves the quality and brightness of the colors.
- 5) Improve life of the kiln. Fumes such as sulphur oxides, carbon monoxide, and other organic gases shorten the life of metallic and mechanical parts of the kiln. Removing the fumes from the kiln increases the life of the kiln and reduces repair costs.
- 6) Faster cooling. One other related benefit of removing the fumes from the kiln with a vent, is the kiln will cool faster. If the vent is permitted to run after the kiln completes the firing, it will continue to move small amounts of air through the kiln thereby improving the rate of cooling.

Further information is available on the CCSA website regarding fumes and vents. There is specific information written for engineers and architects so they understand how vents operate and where to search for regulations governing vents and fumes. This should be consulted when completing the layout of a new studio, obtaining occupancy permits, or dealing with employee and OSHA issues regarding fumes.