



Control of Wood Dust from Shapers

To cite this article: (2001) Control of Wood Dust from Shapers, Applied Occupational and Environmental Hygiene, 16:9, 849-849, DOI: [10.1080/10473220116981](https://doi.org/10.1080/10473220116981)

To link to this article: <https://doi.org/10.1080/10473220116981>



Published online: 30 Nov 2010.



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Hazard Controls

Control of Wood Dust from Shapers

From the National Institute for Occupational Safety and Health

Description of Hazard

Wood shapers are a major source of wood dust emissions. Workers exposed to wood dusts have experienced a variety of adverse health effects such as eye and skin irritation, allergy, reduced lung function, asthma, and nasal cancer. Therefore, the National Institute for Occupational Safety and Health (NIOSH) recommends limiting wood dust exposures to prevent these health problems.

Description of Controls

Surveys by NIOSH researchers found that the dust from wood shapers tends to be poorly controlled. The amount of wood dust emitted was found to depend on the sharpness of the cutter, the depth of the cut, the rate at which the wood is fed into the shaper, and the location of the exhaust hood. After studying the usual hood exhaust placement, researchers developed an improved hood configuration that significantly reduced wood dust emissions.

Modified Exhaust Hood

Wood shaper emissions are usually controlled by an exhaust hood located at the back edge of the work table which allows the operator to freely move the workpiece over the table. Placing the exhaust hood nearer the cutting head would maximize dust collection; however, this would restrict the operator's freedom to move the workpiece. To overcome this problem, a hood extension with a flexible face opening is added. (see Figure 1.) The flexible face opening consists of cloth-covered chains that allow the wood to pass through, but stops the wood dust particles. The extension also increases the hood face velocity by minimizing the open face area. This dust control device is not currently commer-

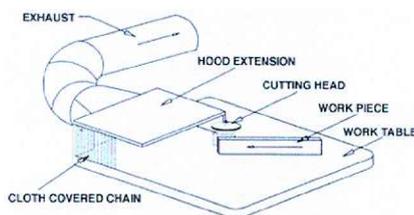


FIGURE 1

View of wood shaper with hood extension.

cially available. Call NIOSH for more information.

For More Information

To obtain more information about controlling this hazard, or for information on other occupational health and safety issues, call the National Institute for Occupational Safety and Health (NIOSH), at 1-800-35-**NIOSH** (1-800-356-4674), or visit the NIOSH homepage on the world wide web at <http://www.ede.gov/niosh/homepage.html>.

NIOSH is the Federal agency responsible for conducting research and making recommendations for Preventing work-related illness and injuries. *Hazard Controls* are based on research studies that show reduced worker exposure to hazardous agents or activities.

Acknowledgments

The principal contributors to this *Hazard Controls* are Jennifer L. Topmiller, Division of Physical Sciences and Engineering, and Jerome P. Flesch, Education and Information Division, NIOSH.

This Hazard Controls is DHHS (NIOSH) Publication No. 96-122.