

This article was downloaded by: [*Centers for Disease Control and Prevention*]

On: 15 September 2010

Access details: *Access Details: [subscription number 919555898]*

Publisher *Taylor & Francis*

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Applied Occupational and Environmental Hygiene

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713768777>

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To cite this Article (2001) 'Control of Wood Dust from Large Diameter Disc Sanders', *Applied Occupational and Environmental Hygiene*, 16: 11, 1022

To link to this Article: DOI: 10.1080/104732201753214099

URL: <http://dx.doi.org/10.1080/104732201753214099>

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Hazard Controls

Control of Wood Dust from Large Diameter Disc Sanders

From the National Institute for Occupational Safety and Health

Description of Hazard

The use of large diameter disc sanders creates significant amounts of wood dust. 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 wood dust created by large diameter disc sanders is often not effectively controlled. To address this problem, researchers designed a ventilation control system that significantly reduced wood dust emissions into the workroom.

Jet Stripper System

The standard dust control arrangement for disc sanders usually consists of an exhaust hood under the worktable that covers the lower half of the disc and a cover around the back of the sanding disc above the worktable. Even with this control, significant amounts of wood dust are emitted into the workroom. A Jet Stripper System was designed to improve dust control. (See Figure 1) The Jet Stripper supplies pressurized air to the disc in-

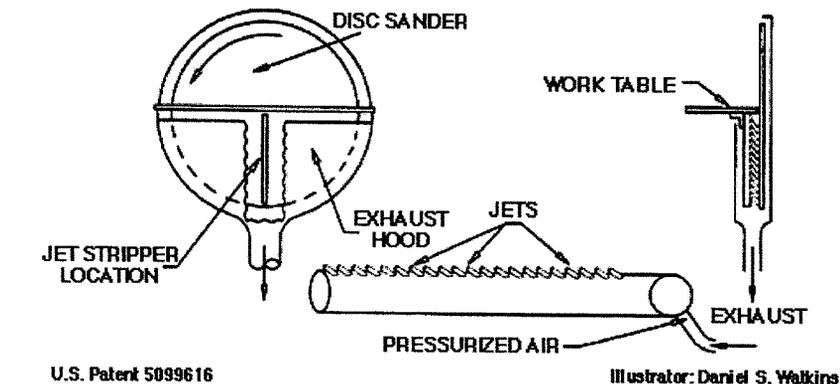


FIGURE 1

Disc sander with jet stripper installed in exhaust hood.

side the hood. The jet of high speed air blows the dust particles out of the disc air layer so they can be captured by the exhaust hood. Also, the jet removes the dust particles embedded in the sanding disc. The Jet Stripper System reduced wood dust emissions by an average of 60 percent in laboratory studies. The advantages of this control are that it does not interfere with the operator, requires minimal maintenance and is inexpensive to operate. The Jet Stripper may also extend the life of the sanding discs by dislodging the wood dust from the sanding surface. This dust control device is not currently commercially available. Call NIOSH for more information.

For More Information

To obtain more information about controlling this hazard, or for informa-

tion 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).

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. 96-124.