



## Control of Dusts from Sanding in Auto Body Repair Shops

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## Hazard Controls

# Control of Dusts from Sanding in Auto Body Repair Shops

From the National Institute for Occupational Safety and Health

### Definition of Hazard

During auto body repair, sanding removes paint from surfaces and smooths body panels repaired with body filling compounds. Airborne dusts produced during these operations may contain hazardous substances, such as lead and chromium from surface coatings and abrasives from sanding discs, that are harmful to the lungs and nervous system of workers. Dust concentrations may also exceed OSHA standards.

### Description of Hazard

Effective control of worker exposure to dusts from sanding operations on auto body surfaces has been achieved by use of ventilated mechanical sanders.

### Ventilated Sanders

Rotary/orbital and straight line/reciprocating sanders, equipped with high-velocity, low-volume (HVLV) local exhaust ventilation as part of the tool's design, are recommended because they have been shown to be effective in reducing total dust concentrations during the sanding of body filling compounds. HVLV ventilated sanders have cut total dust concentrations to one-tenth the levels produced using unventilated sanders. (See Figure 1.)

The increased cost of sanders equipped with HVLV ventilation is minor compared with nonventilated sanders. The amount of air used in the ventilated systems is also relatively low. Use of ventilated sanders can be enhanced by making them convenient to use, for example, by installing retractable, flexible hosing attached to a central vacuum system. Although initial costs for this system including an air mover, air clean-

ers, and duct work can be substantial, the system will help eliminate expensive repaints, shorten clean up time, and extend sandpaper life. Workers prefer using these HVLV sanders and also reported their use results in a cleaner shop.

### For More Information

For a free copy of the report Evaluation of Ventilated Sanders in the Auto Body Repair Industry, or for information on other occupational safety and health issues, call the National Institute for Occupational Safety and Health (NIOSH) at: 1-800-35-NIOSH (1-800-356-4674).

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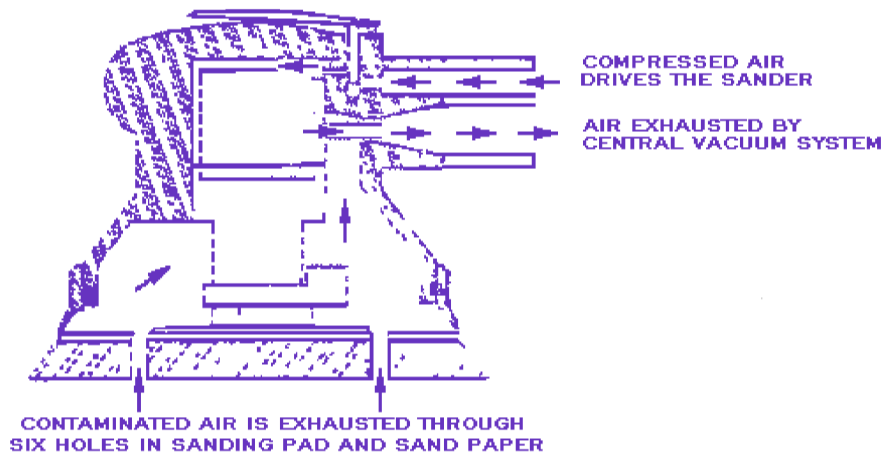


FIGURE 1

Illustration of an orbital sander with HVLV ventilation.