FILE NAME: !ăōŜăűƨă /ŜϒŜyű tƛLJŜ l·yŘ {ĶŜŜű ó! / t{ú

DATE: мфпт

DOC#: ! / t{ллн

DOCUMENT DESCRIPTIONϒ .ƨƨ] 9ÈŎŜ₦LJű

INDUSTRIAL HEALTH ENGINEERING

by Allen D. Brandt, B.S., M.S., Sc.D.

Industrial Hygiene Engineer
Bethlehem Steel Company

1947

John Wiley & Sons, Inc., New York
Chapman & Hall, Ltd., London

Woodworking. Even though most woodworking machinery produces only a fire and nuisance hazard, it is so common in industry that the engineer needs to have information on the design of dust control for such machinery. Furthermore, many of the shapes and principles demonstrated in local exhaust ventilating systems for woodworking equipment can be applied successfully to other sources of dust or atmospheric contaminant production.

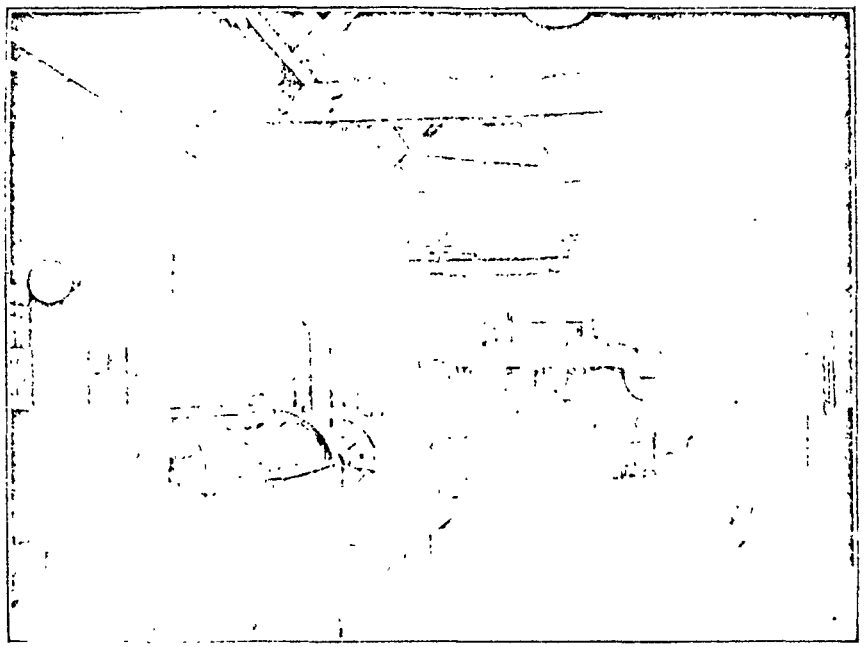


FIGURE 126. Hollow-Trunnion Tumblers with Local Exhaust Ventilation (*Courtesy American Air Filter Co.*)

Local exhaust hoods and connecting ductwork for four different types of saws are shown in figures 129 to 132, for a jointer in figure 133, and for three different types of sanders in figures 134 to 136. A suggested exhaust-ventilating-system layout for a woodworking plant is shown in figure 137. Information on duct sizes for the hoods at most types of woodworking equipment is given in tables 37 and 38. The volume rate of exhaust is computed from the duct size given in the table and also the recommended duct velocity for [illegible] cfm. Ductwork should be constructed in accordance with the specifications given in Chapter VI.

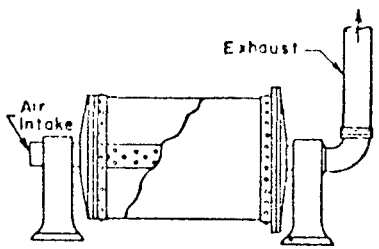


FIGURE 127. Local Exhaust Ventilation at a Hollow-Trunnion Type Tumbler

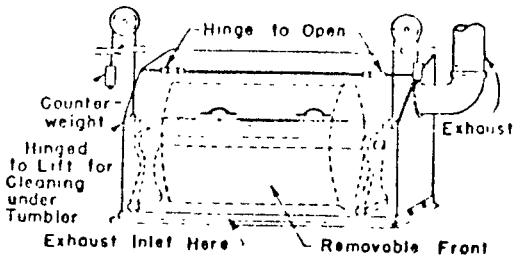


FIGURE 128. Enclosure and Local Exhaust at a Tumbler

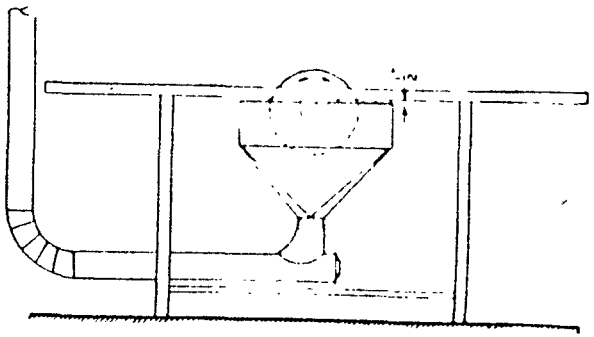


FIGURE 129. Local Exhaust at a Table Saw (*Courtesy N. Y. Labor Department, Division Industrial Hygiene and Safety Standards.*)

TABLE 37

DESIGN DATA FOR LOCAL EXHAUST SYSTEMS AT WOODWORKING MACHINES

(Exhaust ventilation rate to be computed on basis of 4000 fpm duct velocity)