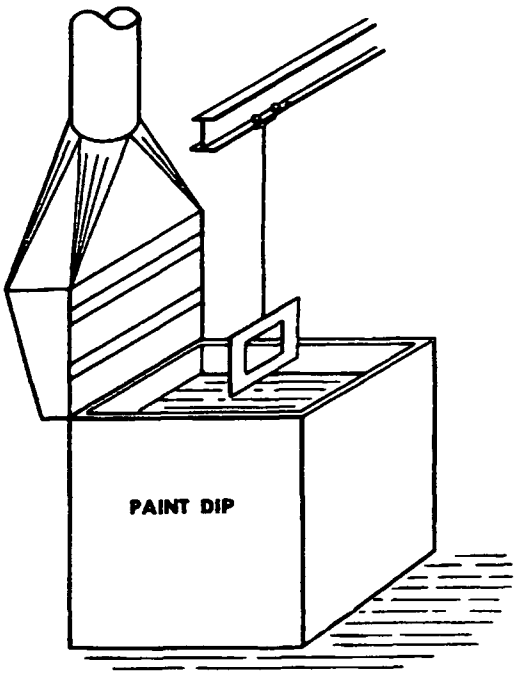


FIG 36–3 —Side draft hood

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large quantities of heat, such as will be found in a heat-treating area, to provide the thermal lift necessary Modern, low, wide buildings cannot, in most cases, be adequately ventilated by general exhaust systems

Be sure that roof-mounted units can be closed tightly in order to eliminate water leakage and indrafts in winter They should not be located close to any supply system, otherwise contaminated exhaust could be recycled

Local exhaust

Local exhaust systems are the backbone of air control procedures for most industrial operations With the increasing emphasis on air pollution, they are even more important because they use air more effectively and economically Federal and state codes, and most local codes, require the use of local exhaust on most operations

A local exhaust system consists basically of hoods, ductwork, air-moving devices, and usually an air-cleaning device

Hoods

Although there are many variations in hoods, there are only a few basic types

The canopy hood is probably the oldest form of hood known As the name implies, it is merely a canopy placed above an operation so contaminants can be evacuated through the exhaust duct See Fig 36–2 This type of hood is not to be used where material is toxic and the worker must bend over the tank or process Side curtains may be necessary when extreme cross-drafts are present

The booth-type hood, such as a paint booth, usually (but not always) has a large face opening so the part or operation that creates the contaminant can be placed in the hood itself Air flows horizontally rather than vertically as it does in the canopy hood The booth hood, therefore, could be thought of as a canopy hood laid on its side Filters or other air-cleaning devices may be needed to meet air pollution or other regulations

The side draft hood is similar to the booth hood, but usually smaller in face area Usually the operation takes place in front of the

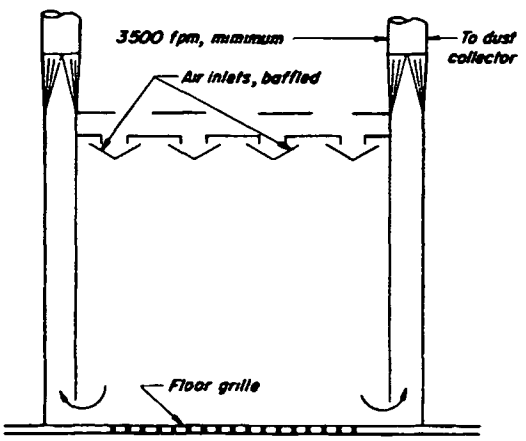


FIG 36–4 —Downdraft hood, such as used for abrasive blasting ventilation Operator still requires an approved abrasive blasting helmet Downdraft is usually 80 fpm

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