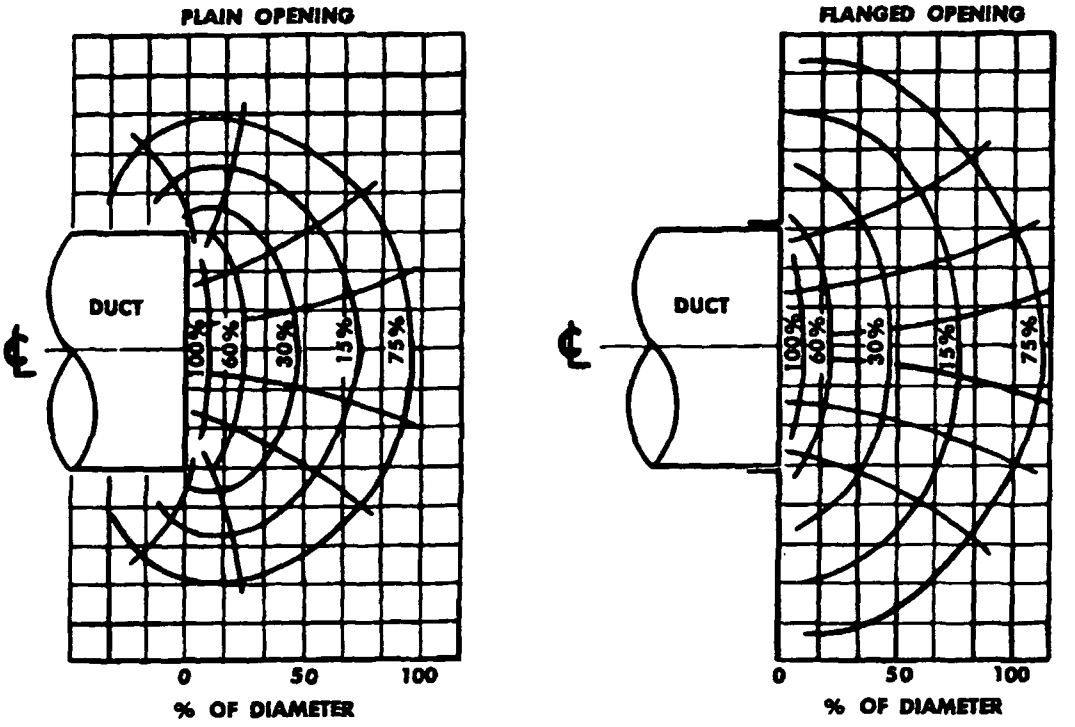


FIG 36–8 —Velocity contours (expressed as percentages of velocity at the opening) and stream lines for both plain and flanged circular openings

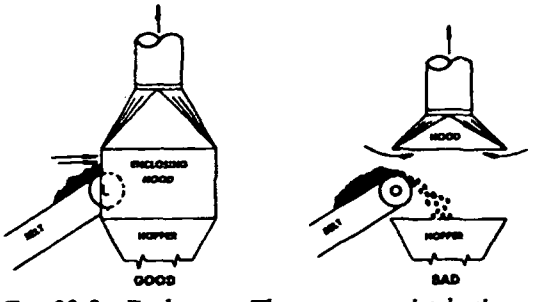


FIG 36–9 —Enclosure The more completely the hood encloses the source, the less air is required for control

may be increased by exhausting larger volumes of air It is more economical, however, to add baffles to prevent the exhausted air from coming in front of the duct A simple baffle will improve the velocity equal to that obtained by increasing the air volume into the hood by 25 percent Further baffling of unwanted air flow will provide even more efficient control, Fig 36–9 The volume of air required for control may also be reduced by placing the hood closer to the operation, Fig 36–10

Fig 36–11 shows how a canopy hood only captures material that rises directly into it, in this case, the contaminant rises in the worker's breathing zone A better design is the slot

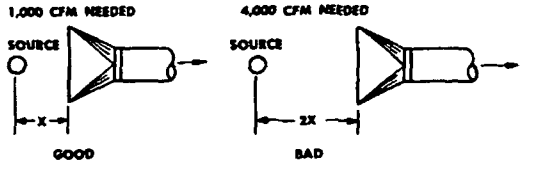


FIG 36–10 —Place hood as close to the source of contaminant as possible The required volume varies with the square of the distance from the source

Illustrations from ACGIH Industrial Ventilation