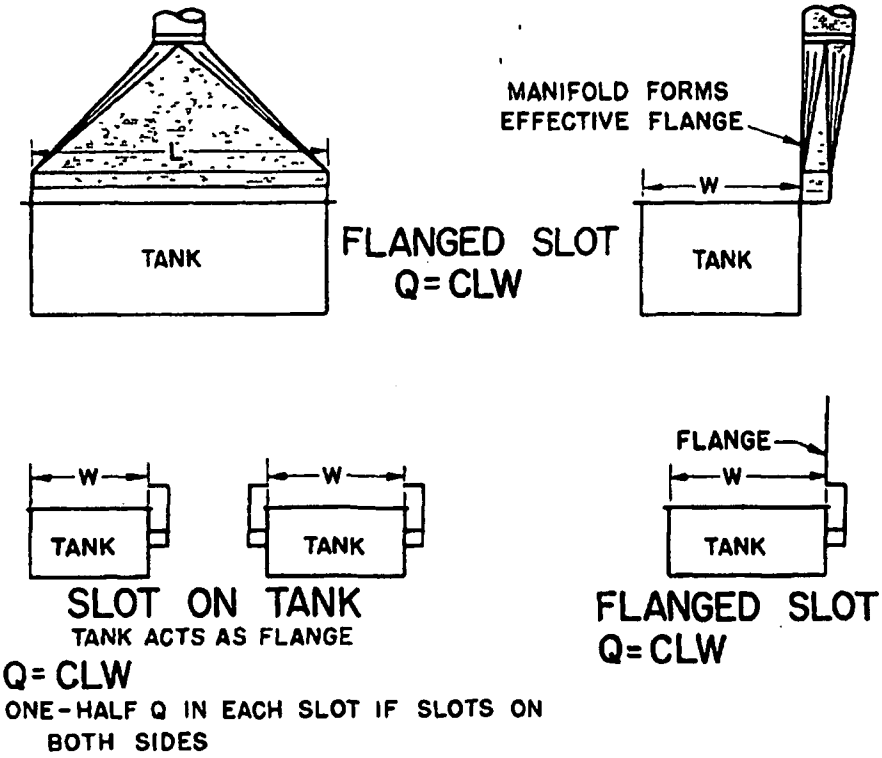

Fig. 28-7. Installations that give good results create an air flow past the source to capture the contaminant. In diagrams above Q = required exhaust volume, cfm; L = length of slot, feet; W = width of table or tank, feet; and C is a constant varying from 50 to 500 with the usual choice being 150 to 250, see details in "Industrial Ventilation" Manual Section V and Appendix.

Figures courtesy American Conference of Governmental Industrial Hygienists "Industrial Ventilation"

trolled by passing the air through a narrow slot into a plenum chamber. The flow distribution along a hood is fixed by the ratio of the velocity through the slot to the velocity in the chamber For most purposes, the distribution will be good enough if the velocity through the slot is about twice the average velocity through the plenum Usually a slot velocity of 2,000 fpm is suggested

Canopy hoods seldom provide the control expected There are several reasons for this velocity distribution is poor between canopy and the source of evolution, greater volume of air flow is required for contaminant control, control may be lost because of room air cross currents, and, frequently, this type of hood forces the employee to work under it, that is between the point of contaminant evolution and the exhaust source

Fig 28-7 shows how the hood should overhang the edges of the tank for best results

Canopy hoods are best used where thermal currents caused by rising hot air funnel