

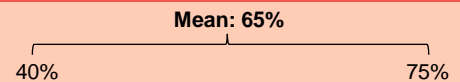
Receiving hood is one of the three local ventilation system types. This hood is designed to "receive" or catch the emissions from a source that has some initial velocity or movement. When using a receiving hood, the emission process usually takes place outside the hood. The receiving hood receives the contaminant cloud, which has a speed and direction that is usually process-generated (e.g. a canopy hood over a hot process, grinding wheel). The receiving hood can be fixed or moveable.

Types of receiving hoods

- **Canopy hood:** This hood is placed over a hot process to receive the plume of contaminant-laden air given off. Canopy hoods are ineffective for cold processes, especially with no thermal uplift.
- **Push-pull ventilation system:** This is equipped with an outlet and inlet system where the pipes are mounted opposite each other and which is connected to a suction and filter system. The hood uses an air jet to blow the air towards the receiving hood which changes the extraction hood from a capture hood into a receiving hood. It is appropriate when enclosures and canopy could block access or interfere with the process, when an operator needs to work over a process emitting a contaminant cloud, when a tank is too large for capture slots to control vapor or mist contaminant cloud.
- **Other receiving hood:** Another receiving hood can be applied wherever a process produces a contaminant cloud with a strong and predictable direction (e.g. a grinding wheel). The contaminant cloud is propelled into the hood by process-induced air movement. The face of the hood must be big enough to receive the contaminant cloud and the extraction empties the hood of contaminated air at least as fast as it is filled.



Effectiveness



Resources

Controlling airborne contaminants at work: a guide to local exhaust ventilation (LEV), Third edition. Norwich: TSO, 2017.

Best Practices

1. Place the hood as close to the source as possible
2. Check if the hood could be incorporated into the machinery guarding to become a partial enclosure
3. Provide a hood with a large enough area and shape to hold the maximum volume flow of contaminated cloud and design the volume flow rate to empty the hood at least as fast as it fills
4. Provide airflow indicators on the hood duct to measure and display static pressure
5. For the push-pull system, provide interlocks to turn off the jet where an object obstructs the receiving hood
6. The use of a smoke generator can be a good way to check the good implementation of the receiving hood
7. Anticipate maintenance and cleaning
8. Workers should not work with their breathing zone between the emission source and canopy hood
9. Train workers