

Spray rooms can have different directions or airflow for instance cross-flow and down-flow spray room.

Cross-flow spray room/ down-flow spray room

Cross-flow spray room:

Cross-flow spray rooms are often a common choice for relatively basic applications. This design is characterized by horizontal airflow that originates from the front of the room and exhaust through the rear.

Down-flow spray room:

The down-flow spray room is preferable for quality-oriented applications compared to the cross-flow spray rooms. This design is characterized by a vertical airflow that originated from the top of the booth and exhaust through the floor.



Effectiveness



Resources

Wouter Fransman, TNO Quality of Life (The Netherlands) et al., « Development of a mechanistic model for the Advanced REACH Tool (ART) ».

Best Practices

1. The spray room is a fully enclosed, unidirectional spray room of volume between 30 and 1000 m³ with at least 10 air changes per hour
2. The spray room has been designed by a competent ventilation engineer, the airflow performance is regularly checked and the ventilation system is maintained
3. The spray room needs to run under negative pressure (i.e. so any air leakage is inward)
4. The workers in the spray room must be properly trained in correctly using the room (e.g. operation of the ventilation system, good positioning of the worker relative to the source and the ventilation, knowing the ventilation clearance time of the room)