

Clean Air Ventilation Table

Compliance without Complication

Meeting the Indoor Air Quality Procedure (IAQP) by following ASHRAE defined steps in Standard 62.1-2025 and -2022 requires selecting ventilation and air cleaner capacity. Use the following two equations with values from the Clean Air Ventilation Table to identify minimum ventilation (V_{bz}) and air cleaner capacity (V_c).

Standard 62.1 §6.2.1.1. Outdoor Airflow - IAQP: The rate of outdoor airflow in the breathing zone of the occupied space shall be not less than the following:

$$V_{bz} = Q_p \times P_z$$

where:

Q_p = flow rate of outdoor air required per person from the Clean Air Ventilation Table.

P_z = zone population, the number of people in the ventilation zone

Compliant air cleaner minimum airflow shall be determined with the following:

$$V_c = C_R \times A_z$$

where:

C_R = airflow flow rate of a compliant air cleaner

A_z = zone floor area, net occupied floor area of the ventilation zone

The design requires outdoor airflow $\geq V_{bz}$ and $\geq V_c$ as calculated. Follow 62.1 for zone and/or system ventilation efficiency corrections in selecting total outdoor airflow.

Compliant Air Cleaner Rating

The air cleaner must have filtration efficiency meeting or exceeding the following per 62.1-2022 Addenda N & AA or 62.1-2025 §6.3.4:

Design Compound	Filtration Effectiveness
Acetaldehyde	30%
Acetone	50%
Benzene	90%
Dichloromethane	35%
Formaldehyde	50%
Phenol	25%
Tetrachloroethylene	90%

Design Compound	Filtration Effectiveness
Toluene	90%
Xylene, total	90%
PM2.5	20%
Carbon Monoxide	0%
Ozone	90%
Ammonia	15%

Documentation of the IAQP on submitted plans may require using the smartIAQ IAQP Calculator.

Clean Air Ventilation Table

		Ventilation Rate Procedure				Occ. Density	IAQ Procedure	
		R_p (CFM/per)	R_p (L/s-per)	R_a (CFM/ft ²)	R_a (L/s-m ²)	#/1000 ft ² (#/100 m ²)	Q_p (CFM/per)	C_R (CFM/ft ²)
Occupancy Category								
Educational Facilities	Art classroom	10	5	0.18	0.9	20	7	0.15
	Assembly without fixed seats	7.5	3.8	0.06	0.03	65	4	0.15
	Classrooms (ages 5–8)	10	5	0.12	0.6	25	7	0.10
	Classrooms (age 9 plus)	10	5	0.12	0.6	35	7	0.10
	Computer lab	10	5	0.12	0.6	25	7	0.15
	Daycare sickroom	10	5	0.18	0.9	25	7	0.15
	Daycare (through age 4)	10	5	0.18	0.9	25	7	0.15
	Lecture classroom	7.5	3.8	0.06	0.3	65	4	0.15
	Lecture hall (fixed seats)	7.5	3.8	0.06	0.3	143	4	0.20
	Libraries	5	2.5	0.12	0.6	10	4	0.15
	Media center	10	5	0.12	0.6	25	7	0.15
	Multiuse assembly	7.5	3.8	0.06	0.3	67	4	0.15
	Music/theater/dance	10	5	0.06	0.3	35	7	0.15
Food and Beverage Service	Bars, cocktail lounges	7.5	3.8	0.18	0.9	100	5	0.20
	Cafeteria/fast-food dining	7.5	3.8	0.18	0.9	67	5	0.15
	Restaurant dining rooms	7.5	3.8	0.18	0.9	67	5	0.15
General	Break rooms (General)	5	2.5	0.06	0.3	25	4	0.10
	Coffee stations	5	2.5	0.06	0.3	20	4	0.10
	Conference/meeting	5	2.5	0.06	0.3	50	4	0.20
Hotels, Motels, Resorts, Dormitories	Barracks sleeping areas	5	2.5	0.06	0.3	20	4	0.15
	Laundry rooms, central	5	2.5	0.12	0.6	10	4	0.15
	Laundry rooms within dwelling units	5	2.5	0.12	0.6	10	4	0.15
	Lobbies/prefunction	7.5	3.8	0.06	0.3	30	4	0.15
	Multipurpose assembly	5	2.5	0.06	0.3	120	4	0.20
Miscellaneous Spaces	Banks or bank lobbies	7.5	3.8	0.06	0.3	15	4	0.15
	Bank vaults/safe deposit	5	2.5	0.06	0.3	5	4	0.20
	Sorting, packing, light assembly	7.5	3.8	0.12	0.6	7	4	0.15
	Transportation waiting	7.5	3.8	0.06	0.3	67	4	0.20
Office Buildings	Main entry lobbies	5	2.5	0.06	0.3	10	3	0.15
	Office space	5	2.5	0.06	0.3	5	4	0.20
	Reception areas	5	2.5	0.06	0.3	30	4	0.15
	Telephone/data entry	5	2.5	0.06	0.3	60	4	0.15
Public Assembly Spaces	Auditorium seating area	5	2.5	0.06	0.3	143	4	0.15
	Courtrooms	5	2.5	0.06	0.3	70	4	0.15
	Legislative chambers	5	2.5	0.06	0.3	50	4	0.15
	Lobbies	5	2.5	0.06	0.3	150	4	0.20
	Museums (children's)	7.5	3.8	0.12	0.6	40	4	0.15
	Museums/galleries	7.5	3.8	0.06	0.3	33	4	0.10
	Places of religious worship	5	2.5	0.06	0.3	120	4	0.20
Retail	Sales (except as below)	7.5	3.8	0.12	0.6	15	4	0.10
	Barbershop	7.5	3.8	0.06	0.3	7	5	0.10
	Beauty and nail salons	20	10	0.12	0.6	7	10	0.20
	Coin-operated laundries	7.5	3.8	0.12	0.6	7	5	0.10
	Mall common areas	7.5	3.8	0.06	0.3	33	5	0.20
	Pet shops (animal areas)	7.5	3.8	0.18	0.9	10	5	0.20
	Supermarket	7.5	3.8	0.06	0.3	8	5	0.10
	Bowling alley (seating)	10	5	0.12	0.6	40	5	0.20
Sports & Entertainment	Disco/dance floors	20	10	0.06	0.3	100	10	0.20
	Game arcades	7.5	3.8	0.18	0.9	20	5	0.20
	Gym, sports arena (play area)	20	10	0.18	0.9	7	10	0.20
	Health club/aerobics room	20	10	0.06	0.3	20	10	0.20
	Health club/weight rooms	20	10	0.06	0.3	10	10	0.20
	Spectator areas	7.5	3.8	0.06	0.3	143	4	0.15
	Stages, studios	10	5	0.06	0.3	67	7	0.20