



Air Vision,

Facility air renewal calculation

In order to ensure sufficient ventilation in a room, production hall, warehouse or room, we should calculate the air volume to be extracted. According the activity type inside the room, the air renewal rate might be very variable. The flow to ensure is calculated taking into account the volume of the room multiplied by the adequate renewal rate.

$$Q \text{ (flow in m}^3\text{/h)} = \text{room volume (m}^3\text{)} \times \text{renewal rate / hour}$$

Here is a table with some of the indicative values for recommended air renewal rate.

Room type	Renewal/hour		Room type	Renewal/hour
Welding workshops	20 – 30		laboratories	8 – 15
Oven workshops	30 – 60		Laundries	20 – 30
Auditorium	6 – 8		Accumulation room	5 – 10
Library	4 – 5		Scouring room	10 – 20
Bakery	20 – 30		Machinery room	20 – 30
Offices	4 – 8		Swimming pool	20 – 30
Painting cabins	25 – 50		Piggery	6 – 10
Armored chambers	3 – 6		Restaurant	8 – 12
Rooms	3 – 8		Bathroom	5 – 7
Cinemas / theaters	10 – 15		showers	12 – 25
Class room	5 – 7		Photocopy rooms	10 – 15
Industrial Kitchen	10 – 20		Meeting rooms	6 – 8
Foundry	20 – 30		Dry cleaner's	10 – 15
Gymnasium	4 – 6		Public lavatory	8 – 15
Storage hall	6 – 10		Dipping baths	40 – 80
Assembly workshop	5 – 10			