

## Regulation DD-34.0: Shafts & Ducts

The minimum area of the ducts and shafts for the natural lighting and ventilation requirements shall be as follows:

### 34.1 Bathrooms:

The minimum area of the shafts shall be 0.8 square meter and minimum width shall be 0.9 meter.

### 34.2 Closed Kitchens:

The minimum area of the shafts shall be 3 x 3 square meter, regardless of the buildings height and mechanical ventilation shall be provided, according to the specifications and conditions approved by the authority if the building exceeds ground floor plus 7 typical floors.

### 34.3 Open Kitchens:

It is permitted to build kitchens that occupy part of the common spaces (halls or living areas), with out providing ventilation shafts, regardless of the building height, as long as the kitchens are located opposite to the main ventilation openings of such common spaces, and is provided according to the specification & conditions approved by the authority.

34.4 Pantry: With the exception of the residential apartments that are not permitted to have this type of kitchen; the minimum area of the shaft shall be 0.8 square meter and minimum width shall be 0.9 meter. There shall be mechanical ventilation, according to the specifications & conditions approved by the authority.

34.5 In residential apartments with an area exceeding 10 square meters, natural lighting & ventilation for the maid's room can be provided through the shafts, that shall be no less than 3 x 3 square meter, regardless of the building height and mechanical ventilation shall be provided according to the specification & conditions approved by the authority if the building exceeds ground floor plus 7 typical floors.

34.6 The shaft shall be accessible for maintaining and cleaning purposes, and in case of areas 1.2m x 1.8m or below, metal ladders shall be provided..

34.7 The floor shall be hard surfaced, non-absorbent and adequately drained.

34.8 All shafts & ducts shall be open to sky. If any roof or other structure is built to cover them, the following conditions & requirements shall be applied.

34.8.1 If the roof is transparent or semi transparent, side vents shall be provided, with a total area that is least equal to the shafts area.

34.8.2 If the roof is square, side vents shall be provided, with a total area that is at least one & half times the shaft area.

34.8.3 A suitable way of opening & closing these vents shall be provided.

34.9 Design & installation of all air conditioning & ventilation systems shall be in accordance with the current guidelines of ASHRAE.

34.10 Architectural features should be introduced in the elevations/facades in order to conceal the air conditioning equipment from the public eye. The minimum distance between any air conditioning unit & the neighbor's boundary shall be 0.9 meter.