

Single room ventilation in accordance with DIN 18017

DIN 18017 regulates the ventilation of bathrooms and toilets without windows, so called single duct ventilation. The basic load requirement (12h/day) is 40 m³/h for a bathroom and 20 m³/h for a toilet. For ventilation on demand the requirement is 60 m³/h for a bathroom and 30 m³/h for a toilet. Kitchens without windows require in basic load an exhaust air volume of min. 60 m³/h, on demand an air volume of 100 m³/h. In multi storey buildings all units have to exhaust the same required air volumes. A tolerance of +/- 15% is accepted, due to influences of the weather conditions and when several units are running at the same time.

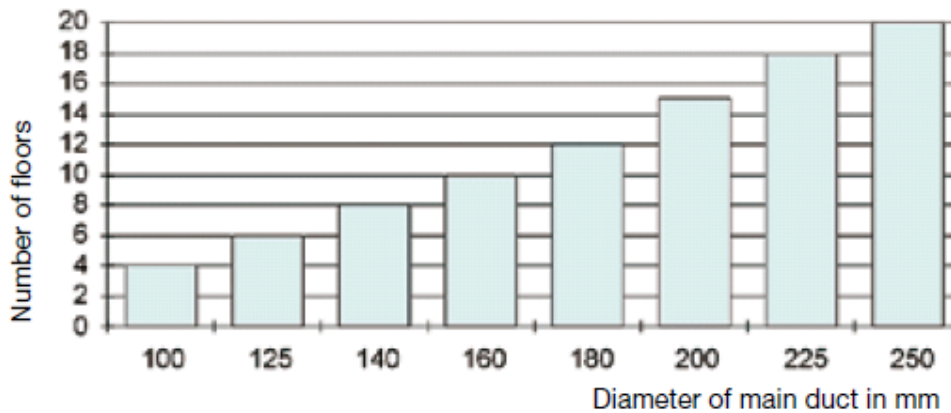
An open area of minimum 150 cm² has to be provided for the supply of make up air. This is often solved by installing a grille into the door of the bathroom or toilet. Supply air openings in the outer building walls have to be provided.

System design

The exhaust air ducts have to have the same diameter over the whole length. The execution has to be airtight and stable. Condensate drains and cleaning lids have to be provided. Those parts of the duct which are installed in a cold area have to have a diffusion resistant insulation to prevent the development of condensation. The top of the duct can be covered by standard roof hoods or deflector hoods. The fans can be flush mounted in in-wall casings or surface mounted. The mounting and installation has to fulfill local regulations for fire protection.

Duct dimensioning for BRAVO:

Connection of one fan per floor, 60 m³/h



Connection of two fans per floor, 60 m³/h

