## **Planingsupport:**



## **Comfort Ventilation System CVS ® jumbo**

Scope: De-central airing equipment with recuperative heatexchanger of high efficiency.

**Term 'De-central':** In contrary to central equipments, there are small airing units distributed into single rooms, and installed inside at its outer wall. The air exchange is done via 2 thruholes (diam. 120 mm), containing tubes of 100 mm, foamed.

## Advantages:

- Instead of long tubes thru all rooms, just short connections thru the wall.
- Minimal loss of roomspace.
- Fast installation-therefore lowest add-on costs.
- Everywhere to supplement (new/old buildings)
- Individual adjustmentability of airing volumina and in consequence the internal clima, staying the main time in a field of convenience (ideal humidity).
- Freedom from mould fungus, reduction of growth of mites.
- Fewer risks to illness, allergies.
- No contamination of in/out air stream to each other.
- No telephony effects (security of intimity).
- Free of draught (vertical air stream at the wall).
- Excellent noise damping from outside.
- Protection against insects, dust and pollen.
- Well distribution of heat because of controlled airing, even temperatures in whole room.
- Best qualified also for large bathrooms, cellar rooms aso.
- Low voltage supply (12V), everybody is allowed to install the CVS.
- Easy to maintain and clean, the heat exchangers can be removed and washed if necessary.
- Simple exchangeability of filters from the side.
- Excellent efficiency of heat regain, therefore big savings of heating costs.
- Also excellent cooling effects during hot season, with zero energy costs!

**Usability:** In all larger rooms of dwelling-houses, office buildings, Open-plan offices, studios, small workshops, training rooms, sports halls, schools, classrooms, stairwells, houses of virtually every type.

**Room size**: approximately 50-80 sqm per unit WF (at standard height) and, depending on the number of people present, dominant (10-15). Larger rooms are equipped with additional devices accordingly.

Airing volumina: variable between 50th ... 150 m<sup>3</sup> / hour. Flow direction within the room vertically from top to bottom, the whole space yields a striking DHW circulation-one.

**Installation recommendation:** In about half the room height (0.2 to 0.8 x ceiling height). Several CVS in the room sensefull to distribute. Excellent use of vertical walls.

**Tools:** Dry drilling of wall-thruholes via diamond-/hardmetall-/SiC- equipped drillcrowns max. 140 mm  $\emptyset$ , dust exhauster obligatory, see also alternate drilling methode on web-infosite.

Dimensions: HBT 40 x 53 x 22 cm<sup>3</sup>, 9 kg (w/o PS),

Construction set: Equipment as specified below w/o tubes thru wall and outer covers.

**Equipment:** 4 : Pack of counter-stream heat-exchanger of PVC-hard-foils achieving 90% heat regain (actual), 2 axial fan motors of type ECM, manual controlled mixing flap at frost temperatures, filters, front cover with stainless flygates, power supply (s.b.).

The condenser water runoff is performed via exit tube, frosting is eliminated by mixing the fresh air with warm room-air via manual control of a flap via a lever at right side, depending on outside temperature. 2 Flat tubes with air distribution slots. 2 ZZ-filter F5

Power requirement: 12V, 4 to mx. 11 W

Power supplies: separate pricing

a) standard option: wall-plug power supply switcher type with 1.5m cable low voltage 12V.b) group option: while multiusage of up to 5 units with a switcher PS low voltage 12V is supplied by on-wall/conceiled wiring.

Maintainance/Cleaning: minimum twice a year, better 4 to 6 times.

**Filter exchange/ cleaning:** depends on quantity of dust and pollen, every 2 to 4 month. **Filtercategories:** ZZ-filter F5 offered.

**Warranty:** 2 years for production dependent failures (not valid for wear parts, illegal applications, misuse and wrong installation ).

Lifetime: due to extended life tests we expect life times of 2 to 3 decades of years, fan motors ca. 5-12 years.

Noise emissions: 26.....40 dBa depends on volume. (preliminary data)

## Noise immission damping ratio: ~45 dB

