

# Winterwarm Circulation Units (WCU)

## Application advise

Circulations Units are applied as extra "air-movers" to prevent that the warm air collects under the ceiling of a building. This stratification leads to a bad distribution of the warm air and unnecessary loss of energy.

Because the mounted adjustable thermostat operates the unit automatically, any other kind of regulation is superfluous. The length of the throw can be adjusted with the set of louvres.

## **Calculation**

Determine the volume of the building. Multiply this with the desired circulation-multiple (advise: no smaller than 3,5). Deduct from the calculated volume the airmovement which is already there, for instance, generated by a heater. Divide the remaining volume by the out-put of the desired circulation unit. The result indicates the number of units needed to attain the chosen circulation-multiple. Choose the type of unit which belongs to the height of the building (see "Selection").

## **Selection and location**

It has to be avoided that the circulation units cause any annoyance because of draught or noise. Therefore, please observe following advises:

- Place more than one circulation unit in order to attain, together with the heaters present, a good distribution of the air in the building. For instance, do not locate circulation units above or in the middle of the throw of a heater, but rather at the end of the throw or in a corner in which direction the heater does not blow.
- Install the circulation units direct (1 m.) under the roof or the ceiling, but no higher than the maximum throw. In that situation choose a larger type of unit to be sure that the warm air also reaches the floor.
- Install the circulation unit no lower than the minimum throw. Even with slantly placed louvres, there is a large chance that draughtsymptoms will occur when the unit is installed at a too low height.

## **Connection and operation**

- The circulation units are provided with 4 suspension eyes for a chain or a steel-wire.
- For the electrical connection, see the electric diagram. If desired a 3-position switch can be connected for "automatic/off/continuous operation". This last position can be desirable in case of operation for summer-ventilation.
- Adjust the thermostat of the unit 4°C to 7°C higher than the desired temperature at 1,5 m. above the floor. The smaller the difference between the adjustment of the roomthermostat and the adjustment of the unit-thermostat, the longer the unit will operate.

Adjust the louvres for the desired air-direction.

**Attention: Do not place the louvres in an angle less than 20°, because of the air-output.**