



 ***Ventilation and heating***



IKM System

Ventilation and heating system solution

Unique, efficient and economic

The IKM Comfort system is created to ventilate rooms, where a comfortable climate is wanted without compromising economy.

Air is extracted from the rooms through extract units and a simple duct system by means of the fan section of the heat pump. In the heat pump energy is recovered and delivered back to the central heating system heating the room. The under pressure in the room causes fresh air to pass through the fresh air units where it is heated to room temperature by the heating element connected to the central heating.

Comfort with heated fresh air

With the fresh air units the fresh air is heated to room temperature before it is distributed into the room.

Hence draft from open windows or fresh air intakes do not occur.

Filters in the units make sure that no impurities enter the room.

Wind dampers automatically regulate the air volume to avoid over ventilation in windy weathers etc.

Return dampers prevents air from flowing backwards through the units when the ventilation is stopped or wind conditions create a lower pressure outside the building.

Fresh air units are a god choice for natural-, hybrid- and mechanical-ventilation.



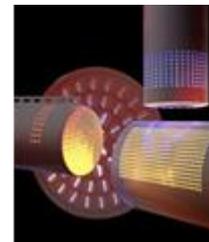
Demand controlled ventilation

With Extract units the air volume can be controlled according to local demands in each room.

Extract units are available with motor operated dampers and can be connected to a room control unit.

If demand controlled ventilation is used, the heat pump is supplied with a pressure sensor. Then the fan speed is controlled to maintain the same pressure in the extract duct.

As room controller for extract units a combined CO₂ and temperature controller is available.



Full benefit from energy with heat pumps

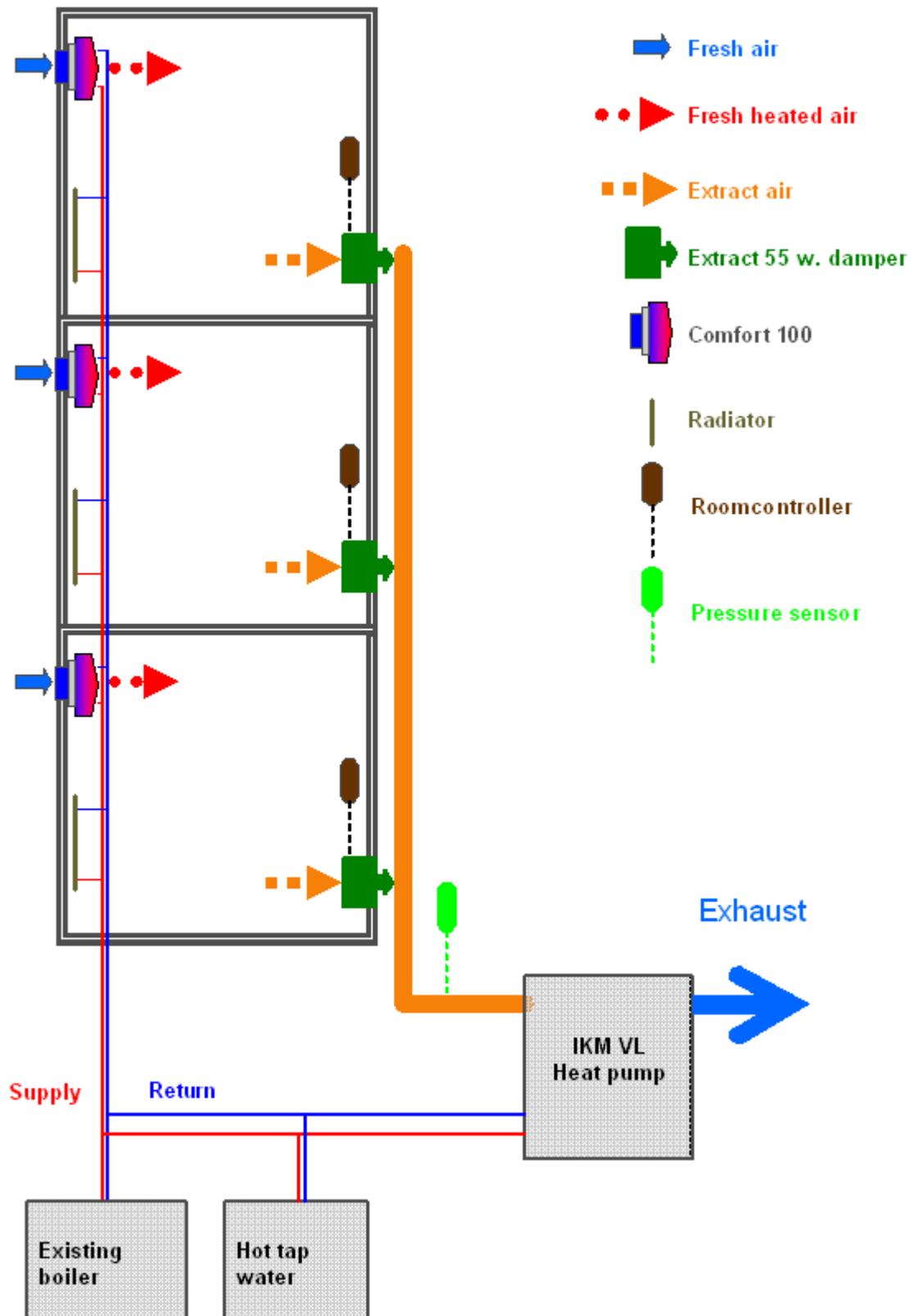
VL units recover energy from extract air, so best possible economy for ventilation and heating is achieved. The heat pump sends the recovered energy back to the central heating system.

In a major part of the year the heat pump will deliver more energy than is needed for ventilation purposes.

The left over energy can be used for heating or producing hot tap water. This gives the best economy as the very high power factor of the heat pump is used all year long, and not only in colder periods.



Ventilation principle



Product overview

Heat pumps for heat recovery

The VL series consists of the models VL 1500, 3000 and 6000.
All models are available complete with controllers.
All models have modulating capacities and airvolumes to fit any airflow need.



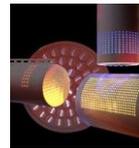
Fresh air armatures

Fresh air armatures are available in several sizes.
The model can be connected to pipes in the wall or pipes coming up from the floor.
All models are available with white painted steel front .



Extract armatures

Extract armatures are available in many sizes.
Many models can be used up to 200 l/s.
All models can be delivered with build in motor operated damper for controlling extract volume.
The models are available in the same colors as the fresh air units.



Control components

For controlling the climate etc. various control components are available which are designed for use with IKM products. These components make it possible to build the solution that fits the actual demand.
Humidity sensor for controlling room humidity.
Damper control for regulating temperature and/or CO₂ concentration in individual rooms.
Pressure sensor for constant suction pressure in extract duct with variable airflows.



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