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Mechanical Ventilation System with Heat Exchanger in One Room - Low Cost Mechanical Ventilation System

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MECHANICAL VENTILATION SYSTEM WITH HEAT EXCHANGER IN ONE ROOM
- Low cost mechanical ventilation system

A new miniature mechanical ventilation system with both supply and extract air and an air-to-air heat exchanger has been developed in Great Britain and Denmark. The system which is intented to ventilate a single room has the dimensions of a shoe box and can be placed/installed on the inside wall in an existing air vent.

The system can operate with two air flows, 40 or 70 m^3/h. At the low speed the noise is insignificant, intended to be "not disturbing" in sleeping rooms. Switching between the two speeds can be done either manually or automatically controlled by the relative humidity of the extracted air. The system is also provided with filters.

This spring we will perform different measurements in the laboraty to check the system performances, for instance volume flow rate, draught, short circuiting of air, efficiency of the heat exchanger and noise.

In the paper we will report the results of the tests. Maybe this system is the long desired **cheap** and no-problems solution of mould-problems in sleeping rooms or tobacco smoke in offices?

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