

80% for half the cost

Demand Controlled Mechanical Extract Ventilation system

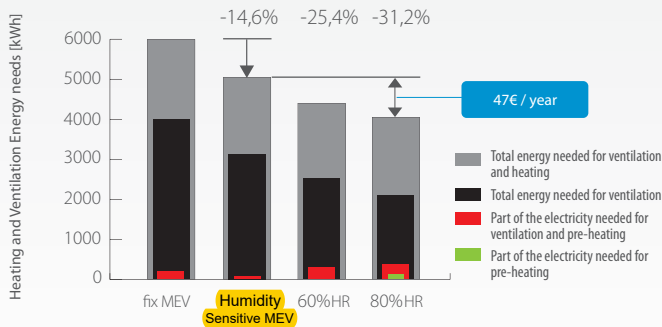
nearly the same performance as
an 80% heat recovery system⁽¹⁾
for half the cost⁽²⁾



⁽¹⁾ According to a study realised by the Fraunhofer Institut Bauphysik in Germany (reference IBP-Bericht RKB-12-2008 : «Calculation of the needs in primary energy of a supply and extract fan with heat recovery in comparison to a demand controlled mechanical extract fan (based on humidity sensors).»

A clear saving

A study conducted in 2008 by the Fraunhofer Institut Bauphysik⁽³⁾ has shown that the Demand Controlled MEV system was generating only 1070 kWh extra consumption per heating period than an 80% heat recovery system –equivalent to only 47 €, in the conditions of the study⁽⁴⁾. This represents much less than the cost of the annual filters change which is compulsory on the



graph n.1 – Total energy consumption of various ventilation systems
Assumption: 1 kWh electricity = 0.19 € ; 1 kWh Fuel or Gas = 0,07 €

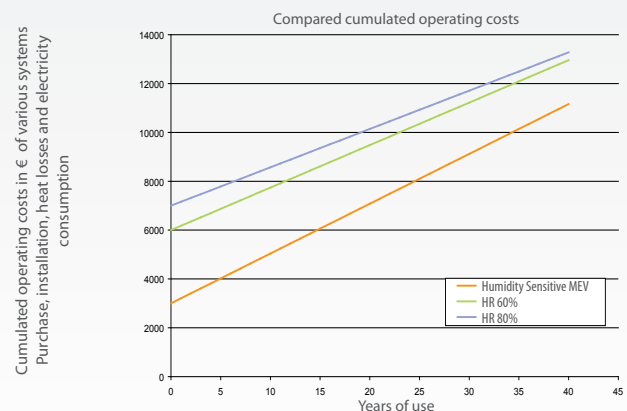
⁽²⁾ Price comparison based on a «standard» MEV system vs a standard heat recovery system, products + installation.

⁽³⁾ Located in Germany, the Fraunhofer Institute for Building Physics IBP deals with research, development, testing, demonstration and consulting in all fields of building physics. These include energy saving measures, problems of indoor climate, emissions of building materials, moisture and weathering protection and preservation of buildings and historical monuments. The Institute is responsible for the development of new building materials, components and systems. [The Institute is an officially licensed authority for the approval of new building materials and types of construction in Germany and all over Europe.](#)

⁽⁴⁾ Study realised on a 75 m² apartment occupied by 3 persons. Indoor temperature = 21°C; U-Value = 0.25 W/m².K



HR units to maintain their level of performance (graph n.1). In the long run, the initial extra cost of the Heat Recovery (supply and fit) in comparison with the Demand Controlled MEV is never paid back even without taking the required annual filters change into account (graph n.2):



graph n.2 – Operating costs and R.O.I. of various ventilation systems
Assumption: 1 kWh = 0.10 € +VAT