

Poor Design & Install Threaten HRV Market - ProAir

Galway – based heat recovery ventilation manufacturer ProAir has warned that poor quality design and installation poses a threat to the HRV market in Ireland and the UK. The company's David McHugh told Passive House Plus that a lack of quality standards mean systems are being improperly specified, designed and installed. He said ProAir had been asked to advise on a number of buildings where these issues had led to inadequate ventilation, causing condensation and mould.

"Quite a lot of print space has been allocated to the common concepts attached to low energy construction such as insulation, draught-proofing and the elimination of cold bridges, but relatively little has been written on the other essential component, heat recovery ventilation," he said.

"In particular, HRV design and installation. The British building regulations Part F stipulates that all systems must be commissioned and the results furnished to building control. Because of this, the Building Research Establishment has published recommendations on commissioning these systems, which indeed make sense, but it is impossible to commission systems that have been improperly designed, specified and installed," he said.

McHugh said that while EN standards do exist on the methodology for testing HRV systems, there are no standards on the proper specification of these systems, or on suitable ducting systems.

McHugh said one common issue is HRV ducting being installed outside a building's thermal envelope. "All supply and return ducting should be in a service cavity within the insulation and air tightness envelope of the building. At a minimum, the ducting should be at least within the insulation envelope."

McHugh said that, post building boom, stories of poor HRV jobs emerge every day, and this is threatening the wider reputation of the sector – including quality suppliers and installers. He suggested a national industry body could produce guidelines on the design, specification and installation of HRV systems and ducting.

“These guidelines need to be backed up by research and solid experience. Maybe this is where (a state body) needs to step in and fund this independent research, perhaps through master’s programmes,” he said.

“HRV has been proven to work and properly designed and installed systems can deliver contented customers and energy bill savings.