

Nibe Fighter Exhaust Air Source Pumps and SAP

The Nibe Fighter exhaust air heat pumps have recently been tested through Appendix Q, they have tested the performance of the Exhaust Air Mechanical Extract Ventilation component to the heating system as well as the heat pump.

The data has had an impact on the SAP results under SAP 2005 and therefore the choice of Nibe to install. There are currently two Nibe Fighters tested under Appendix Q:

Nibe 205 suitable for flats and single houses with a small heating demand (2-4kW) generally 45-80m²

Nibe 360 suitable for larger flats and houses with higher heating demand, generally 80m²+

Always check with your Nibe specifier/installer which model is appropriate for your development.

Trialling the Nibe Fighter in SAP

House type	Nibe model	Heat source	Weather compensator?	% improvement DER over TER	Code Level
67m ² flat	205	Radiators	No	<20%	2
67m ² flat	205	U/F heating in screed*	No	~28%	3
95m ² 3 storey house	360	Radiators	Yes	30% +	3
95m ² 3 storey house	360	U/F heating in screed*	Yes	35% +	3

* time and temperature zone control assumed

Wall U Value: 0.28; Windows 1.5; APR 5

The current performance of the Fighter 205 means that unless it is installed with underfloor heating in screed, it is difficult to meet Code Level 3. This is worth bearing in mind when specifying Nibe units for small flats.

The Fighter 360 performs well and is better when used with underfloor heating. Nibe have advised that it is possible to install a 360 into smaller flats as the higher output of the compressor offsets ventilation losses, again talk to your Nibe installer for further information.

The Future?

Appendix Q is updated regularly and Nibe expect another revision to the Fighter 205 performance soon which should take into account reduced specific fan powers. The new Nibe Fighter 370 is due on the market this Summer, it features DC fans and circulation pumps and multicolour TFT display, as this won't have been Appendix Q tested, it will be entered in as SAP default for the time being. We will keep you up to date with these changes as they happen.