

System Design for Fan Convectors

Fan convectors are intended to be connected to central heating systems in the same way as radiators, and offer advantages and benefits not available from traditional emitters. To ensure optimum fan convector performance, great care must be taken to ensure that the choice of unit and the heating system design are considered. The following factors must be taken into consideration:

- Fan convectors should only be used on closed circulation, two pipe, pump assisted central heating systems.
- Fan convectors should be correctly sized to match the heat loss requirement of the room with the unit operating at its lowest fan speed.
- The heating system must be capable of providing sufficient hot water through the heat exchanger. This means that:
 - The minimum pipe size should be 15mm.
 - Fan convectors are not suitable for use on microbore pipe-work.
 - Fan convectors are not suitable for one-pipe systems.
 - Where the unit is fitted onto a system with other emitters, a separate circuit for the fan convector should be considered to ensure an adequate water flow through it.
- The heating system water temperature must be greater than 43°C in heating mode for the unit to operate (lower temperatures possible for heat pump applications).
- Optimum performance of the fan convector will require effective balancing of the whole system.
- Fan convectors should not be used to replace radiators in existing systems unless pipe-work sizing, system design and system balancing can guarantee an adequate flow of water through the fan convector.
- The maximum working pressure through the heat exchanger is 10 bar (150 lb/in²). The maximum allowable water temperature through the heat exchanger is 90°C.
- The unit should be mounted on a flat wall, and stud or partition walls should be avoided to minimise the possibility of noise transmission.

SLIM-LINE II Performance Data

This model should only be selected if the normal fan speed output is capable of maintaining the calculated heat losses of the room at the chosen operating conditions. This will enable the boost fan speed and the higher temperature differences to be used to greater advantage for rapid warming of the room from cold in excessive conditions.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

Heating Performance Data

Model	Fan Speed	Heat Output (watts) Temperature Difference (°C)						Heat Output (Btu/h) Temperature Difference (°F)					
		20°	30°	40°	50°	60°	66.6°	36°	54°	72°	90°	108°	120°
SLIM-LINE II	Normal	860	1340	1820	2290	2770	3080	2934	4572	6210	7813	9431	10509
	Medium	1130	1710	2280	2870	3460	3840	3856	5835	7779	9792	11806	13102
	Boost	1470	2220	2960	3720	4460	4950	5016	7575	10100	12693	15218	16889

Heat outputs tested in accordance with BS 4856 Part 1.

Flow Rate: 340 ltr/h (75 gal/h).

Flow Rate Correction Factors:

455 ltr/h (100 gal/h) multiply output by 1.06.

227 ltr/h (50 gal/h) multiply output by 0.96.

113 ltr/h (25 gal/h) multiply output by 0.85.

Approximate Hydraulic Resistance

Litres/h	mm wg	kPa
455	1771	17.4
340	1161	11.4
227	561	5.5
113	201	2.0

Noise Levels

Fan Speed	Sound Pressures at 2.5m (dBA)
Normal	21.9
Medium	30.6
Boost	39.7

Noise levels tested in accordance with EN 23741.

Weight, Water Content and Motor Power

Motor Power (W)	Water Content (l)	Unpacked Weight (kg)
125	0.51	14.5

Air Flow

Air Flow (m ³ /h)			Air Flow (ft ³ /h)		
Normal	Medium	Boost	Normal	Medium	Boost
164	216	316	5789	7625	11155

SLIM-LINE II Controls

Units are fitted with a thermostatic control system with the following features:

- Thermostatic room temperature control via variable room thermostat.
- Summer / winter switch giving fan only option for ambient air circulation.

- Fan speed switch giving choice of three fan speeds.

- Controls mounted beneath tamperproof cover.

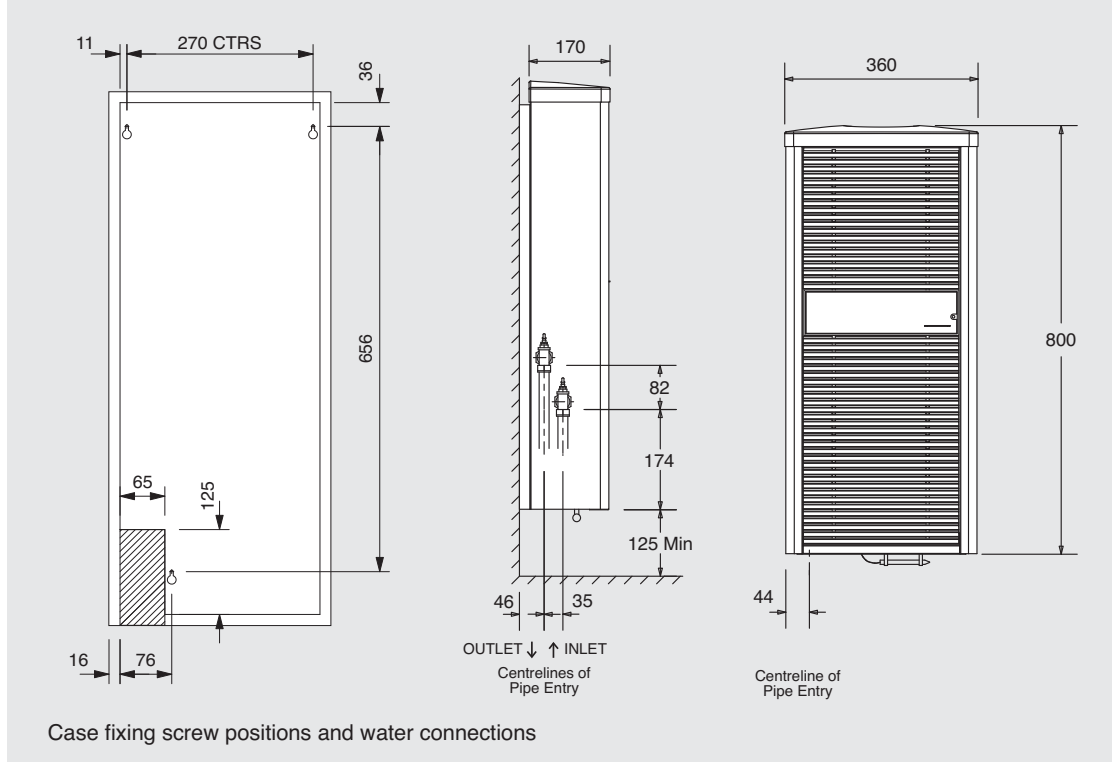
SLIM-LINE II Water Connections

Water connections (15mm compression) are on the left-hand side and the system pipework may be brought in from underneath or the rear.

SLIM-LINE II Electrical Data

All SLIM-LINE II fan convectors require an electrical supply of 220-240V – 50Hz fused at 3A.

SLIM-LINE II Dimensions and Fixings



Dimensions (mm)		
Height	Width	Depth
800	360	170

- Maximum ceiling height is 3.5m.
- Minimum installation height is 125mm to the underside of the unit.

General Information for Fan Convectors

Effective Heating

To achieve the best possible results, the correct output requirement needs to be calculated. For optimal positioning and size of heat emitter please consult a qualified plumber or heating installer for advice. A heatloss manager CD can be ordered free of charge from Customer Services.

Approval & Certification

All **MYSON** fan convectors are manufactured to the requirements of BS EN ISO 9001 and the factory is certified to the environmental standard BS EN ISO 14001. All products are tested to comply with European safety standards and are CE marked as well as carrying national approval marks, where appropriate.

Performance

All **MYSON** fan convector heat outputs are tested to BS 4856 Part 1 for heating and Part 2 for cooling performance. Noise levels are independently tested by Sound Research Laboratories to EN 23741.

Packaging

All fan convectors are packed in robust cardboard packaging specially designed to ensure the product reaches you in perfect condition.

Finishing

Wall mounted fan convectors are finished with a White (RAL 9016) powder coating, while the **KICKSPACE®** grilles are available in White (supplied with the unit), Brown, Black, Brushed Stainless Steel, Chrome and Aluminium.

Warranty

MYSON fan convectors carry a 2 year parts and labour warranty.

Accessories

At **MYSON** we take care of every detail and there is a variety of accessories available for the fan convector range of products, including wall switches and **KICKSPACE®** fascia grilles. For further details, please consult the technical section of this brochure.