

LST Fan convectors (Low Surface Temperatures)

The Forceflow LST fan convector is designed to provide surface temperatures no greater than 43°C. This is a significant safety benefit, especially in environments where there are young children or vulnerable adults, such as nurseries, infant and special educational needs (SEN)

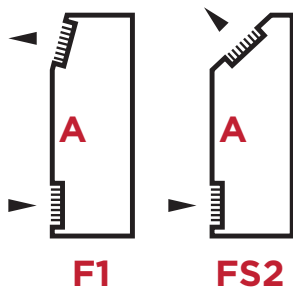
Forceflow LST offers all the benefits of a conventional fan convector, whilst having a lower surface temperature. The heat output per metre length is over twice that of an equivalent LST radiator.

BENEFITS:

- ❶ Low surface temperature - no greater than 43°C
- ❷ Much smaller than a typical LST radiator
- ❸ Twice the heat output of an equivalent sized LST radiator
- ❹ Quick heat up
- ❺ Good heat distribution
- ❻ Simple to install
- ❼ Performance tested by BSRIA

STYLES:

The Forceflow LST is available in two styles.



HOW IT WORKS

A special Thermostatic Radiator Valve (TRV) is fitted to the heating coil pipework and a temperature sensor positioned immediately behind the discharge grille. The valve modulates between the open and closed positions carefully maintaining the discharge air temperature, so that surface temperature satisfies LST regulations whilst optimising heat output.

PROVEN PERFORMANCE

Two separate tests have been carried out by BSRIA. The first confirms heat output and the second confirms that no part of the surface rises above 43°C. The Forceflow LST fan convector is manufactured and tested in accordance with BS EN 442, under a BS EN ISO 9001:2015 quality system, and complies with DHSS Engineering Data DN4 and NHS Estates Health Guidance Note 'Safe Hot Water and Surface Temperatures' 1998 (less than 43°C surface temperature with water flow temperatures of 80°C). The product's innovative features are protected with a UK Patent.

CONTROLS & ACCESSORIES

The Forceflow LST fan convector runs at a single fan speed which is chosen and set by the installer.

The unit is supplied as standard with:

- ❶ Built-in on/off, fan speed and summer/winter rocker switches
- ❷ A low water temperature cut-out (T4) thermostat
- ❸ A textured white (RAL9010) paint finish
- ❹ A Metal framed EU2 grade nylon non-woven filter
- ❺ A screw-fixed access panel
- ❻ Integral discharge and return air grilles
- ❼ 22mm plain copper pipe connections
- ❽ A factory set TRV valve, fitted into the heating coil pipework, with discharge temperature sensor
- ❾ An installer or end user set TRV valve, fitted into the heating coil pipework

OPTIONS:

The unit has the following options:

- ❶ Key lockable access panel
- ❷ Remote room temperature sensor (max. distance from valve 10m)
- ❸ Pencil and finger proof grilles
- ❹ 100mm high plinth
- ❺ Special paint colour

FORCEFLOW LST

PERFORMANCE TABLE

Model	Fan speed	Air volume (l/s)	Heating duty (kW)	Noise level** (NR)	Water flow rate (l/s)	Water pressure drop (kPa)	Full load current (Amps)
915-LST	High	118	2.83	40	0.041	1.6	0.33
	Medium	87	2.09	35	0.028	0.8	0.28
	Low	59	1.42	27	0.018	0.3	0.21
930-LST	High	190	4.56	41	0.051	2.4	0.49
	Medium	176	4.22	35	0.047	2.2	0.48
	Low	104	2.50	25	0.028	0.8	0.43
935-LST	High	254	6.40	43	0.068	4.5	0.45
	Medium	202	5.09	35	0.057	3.2	0.42
	Low	136	3.43	24	0.040	1.6	0.38
940-LST	High	318	8.01	42	0.070	5.0	0.50
	Medium	249	6.28	35	0.059	3.4	0.43
	Low	164	4.13	30	0.042	1.8	0.39
975-LST	High	465	11.72	46	0.114	9.8	1.70
	Medium	408	10.28	37	0.100	7.7	0.91
	Low	250	6.30	29	0.062	3.0	0.74

*Based on Entering Air Temperature of 20°C and Water Flow Temperatures of 80°C. **Noise levels are for guidance only

Higher water flow rates and flow temperatures above 70°C will not produce higher or lower heat outputs respectively, as the leaving air temperature is fixed by the LAT TRV to achieve a satisfactory low surface temperature. Only an increase in fan speed and/or a decrease in entering air temperature to below 20°C will result in higher heat outputs than those shown in the performance table.

AUTOMATIC TEMPERATURE REGULATION

During normal operation, the fans run at a constant speed set by the installer or end user. A second TRV, with a temperature sensor positioned immediately behind the return air grille, is fitted into the heating coil pipework. This controls the room temperature by adjusting the water flow rate to ensure the set temperature is constantly maintained.



HOW TO SPECIFY YOUR PRODUCT

Placing an order couldn't be easier, simply tell us the model size, followed by the range and the casing style. For example 915 (Model size) LST (Range) F1 (Casing style).

 F1 style with optional plinth

BIDDLE AIR SYSTEMS

St. Mary's Road, Nuneaton,
Warwickshire CV11 5AU
T +44 (0) 2476 384 233
E sales@biddle-air.co.uk
www.biddle-air.co.uk



Biddle