

SPC

Belgravia TileVector

overhead fan convector
for suspended ceilings



out of sight and out of mind

SPC The Company

SPC is a specialist manufacturer and supplier of fan convectors, coil heat exchangers, and HVAC equipment to the public and private sector.

SPC leads the way in HVAC technology and in responsiveness to customer needs. We thrive on innovation, on new technologies and new challenges. We stand for irresistible quality, exceptional customer care, and whole-life value for money.

For more than 20 years, we've applied our ingenuity to the heating, cooling, and dehumidifying of indoor environments – and to the delivery of HVAC equipment that withstands the grind of daily use. The result is a range of products that are aesthetic, robust, and economical to run.

But new ideas are never developed in isolation. They come from a service culture that takes pride in putting customers first. We listen and, if asked, we advise; we offer free site surveys – and we always return your calls.

Our mission is simple – to become your first-choice HVAC supplier, and to be the one company that provides a solution that exactly matches your needs.

Key facts about SPC:

- ❖ **Our mission is to be your first choice for HVAC equipment**
- ❖ Major supplier to local government and commercial sectors
- ❖ Unrivalled regional sales and technical support team
- ❖ Free site check / survey
- ❖ Guarantee on despatch of fan convectors
- ❖ ISO 9001 and Investor in People

Why choose a fan convector?

A fan convector puts heat where you need it, when you need it. It's the quickest and most cost-effective way of bringing a cold room up to temperature.

- ❖ fast and effective heat generation
- ❖ distributes heat towards centre of room
- ❖ easily installed and easily maintained
- ❖ simple design gives years of trouble-free use
- ❖ ideal for rooms that are used intermittently

Belgravia TileVector

An overhead fan convector liberates valuable wall and floor space

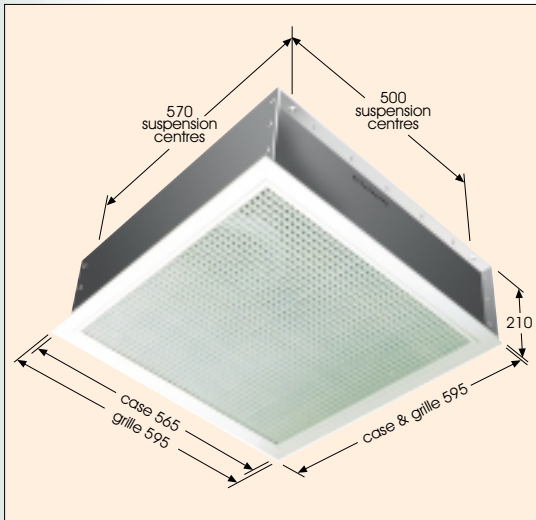
The Belgravia TileVector puts heat exactly where you need it. It gives you the performance and reliability of the Belgravia family of fan convectors, together with the freedom to place that tried-and-tested heat source anywhere within a suspended ceiling.

Suspended ceilings are a versatile and easily adaptable location for fan convectors. The siting of the Belgravia TileVector is not constrained by fixtures such as doors, windows, and sensitive equipment that restrict the location of wall and floor-mounted heaters.

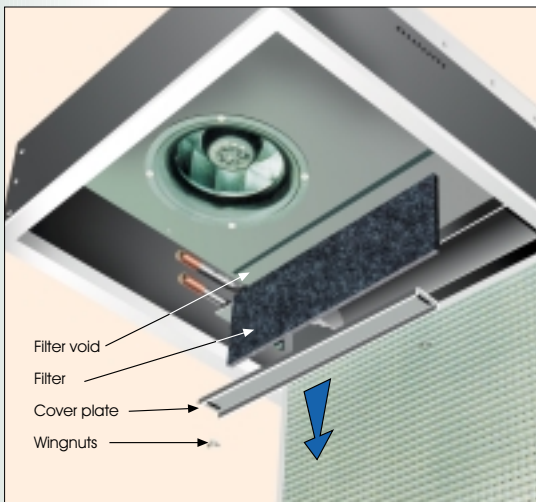
In terms of layout, your suspended ceiling is a blank, but stylish, canvas. You place your Belgravia TileVector where it's needed most. All that's visible from below is a fine, white, egg-crate grille, behind which lies an all-but-invisible black interior.

And that leaves walls and floors free. Colour them with imaginative interior design effects, or simply use the space to get on with the job.





Overall dimensions (in mm)



Washable filter easily removed

Out of sight and out of mind

Comfort, performance, and reliability that's hidden from view

At the heart of the Belgravia TileVector lies an efficient 4kW LPHW heating coil (or 3kW electrical element) and a powerful and reliable fan that delivers more than 100 litres of warm air every second. The combination of air throw and rapid energy transfer brings immediate warmth to those below.

Longevity is built into the Belgravia TileVector. Apart from routine servicing to clean the filter, the TileVector's hinged grille will probably remain shut for most of its long life. In fact the TileVector may well outlast the ceiling in which it's mounted.

Once installed, the TileVector is out of sight and out of mind.

Versatile

- ❖ suitable for suspended plasterboard and T-bar (600 x 600 mm) ceilings, as well as solid ceilings
- ❖ multiple units can be laid in any configuration within a ceiling grid
- ❖ choice of LPHW and electric power
- ❖ range of control options
- ❖ blows ambient air in summer
- ❖ slimline 210 mm profile fits small ceiling voids
- ❖ ceiling grid locations easily altered to reflect changes of room use

Powerful

- ❖ large air volume (up to 108 l/s) for immediate heat delivery

Aesthetic

- ❖ unobtrusive with low noise
- ❖ smart appearance enhances the most stylish of locations
- ❖ liberates valuable floor and wall space
- ❖ ideal where glass walls, equipment, fixtures, or interior design features limit wall space
- ❖ choice of grille colours (white powder-coated or satin-silver aluminium)

Trouble-free

- ❖ easy installation with all connections accessible from within the casing
- ❖ robust construction requires little maintenance
- ❖ easy servicing via hinged, drop-down grille
- ❖ washable filter
- ❖ all manually-operated controls are remote

Energy-efficient

- ❖ low water-temperature cut-out saves energy and eliminates cold-running draughts
- ❖ optional thermostatic on/off and fan speed controls keep room temperatures steady

Outstanding performance with fingertip control

| Table 1 | | Belgravia TileVector: performance data | | | | |
|------------------|--------------|--|----------------------|----------------------------|-----------------------|------------------------------|
| Model | Fan speed* | Air Volume (l/s) | Heat emission** (kW) | Hydraulic resistance (kPa) | Water flow rate (l/s) | Leaving air temperature (°C) |
| LPHW | low | 66 | 3.1 | 3.6 | 0.073 | 54.1 |
| | medium | 90 | 3.7 | 4.9 | 0.088 | 49.2 |
| | boost | 108 | 4.2 | 6.1 | 0.100 | 47.4 |
| electric element | single speed | 90 | 3.0 | n/a | n/a | 42.7 |

* Motors are single tap, with transformer speed control.

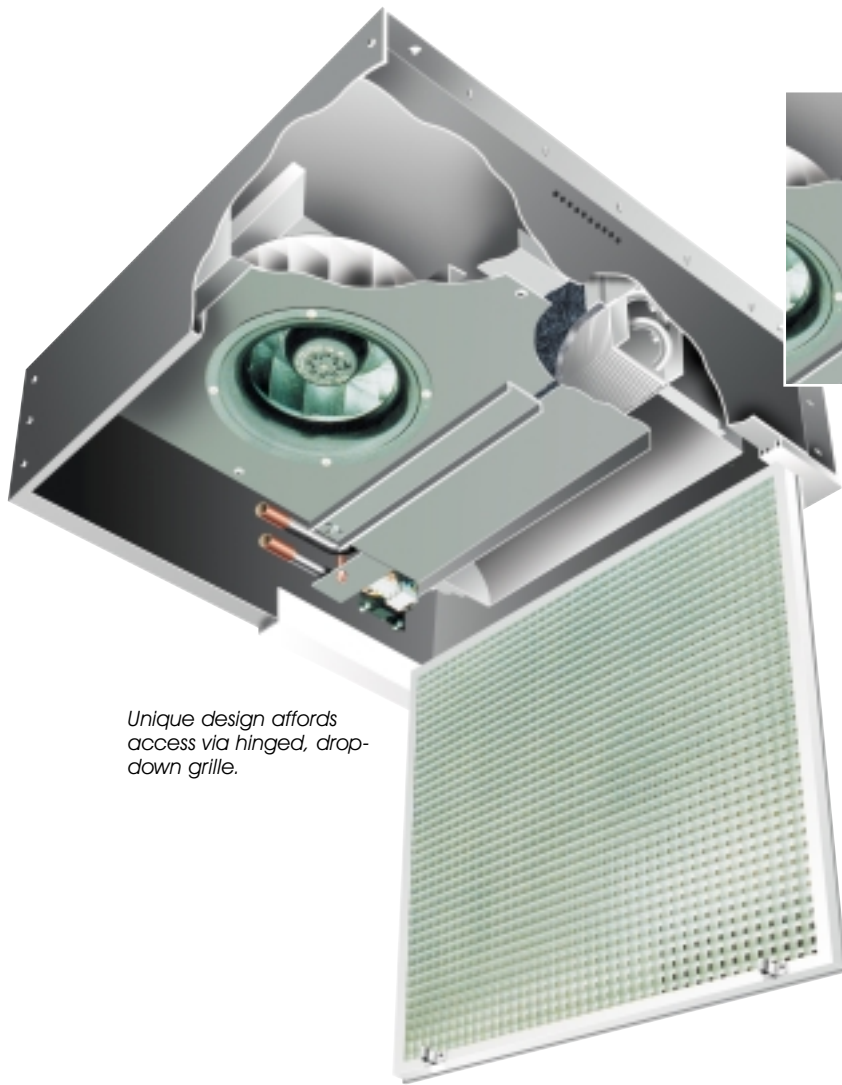
** Emissions are given for LPHW with 80°C flow, 70°C return, and 15°C entering air temperature.

With a choice of more than ten control and connection options, you can tailor the Belgravia TileVector to your circumstances. Add-on features enhance the TileVector's versatility without reducing the installer's flexibility to source controls independently.

The LPHW version of the Belgravia TileVector comes fitted with a removable air filter and a low water-temperature cut-out as standard.

The most popular add-on features are listed below.

| Table 2 | | Belgravia TileVector: factory-fitted options | |
|-------------------------------------|-------------|---|--|
| LPHW OPTIONS | | | |
| Energy-saving thermostatic controls | 2-ST | two-stage thermostat (remote) | |
| | RT1 | on/off thermostat (remote) | |
| | RT2 | speed-change thermostat (remote) | |
| | ALTC | adjustable low water-temperature cut-out (remote) | |
| Switches | RS1 | on/off rocker switch (remote) | |
| | RS2 | summer/winter rocker switch (remote) | |
| | RS3 | 3-speed rocker switch (remote) | |
| Electrical connections | FSB | fused spur box for direct mains connection | |
| | CCB | customer connection box for external controls | |
| Coil connectors | ISV | isolation valves for flow and return pipes | |
| ELECTRIC OPTIONS | | | |
| Energy-saving thermostatic controls | RT1 | on/off thermostat (remote) | |
| Switches | RS1 | on/off rocker switch (remote) | |
| | RS2 | summer/winter rocker switch (remote) | |



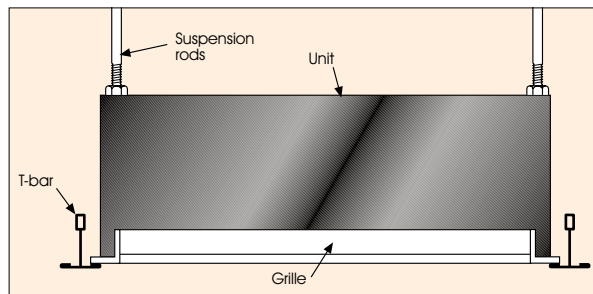
Electric heating element

Unique design affords access via hinged, drop-down grille.

Compact and easy to install

The unique design of the Belgravia TileVector allows you to make all electrical and pipework connections from within the casing. This design also eases the burden of maintenance and servicing. You gain immediate access to every piece of equipment and every connection (including the washable filter) via the hinged, drop-down grille.

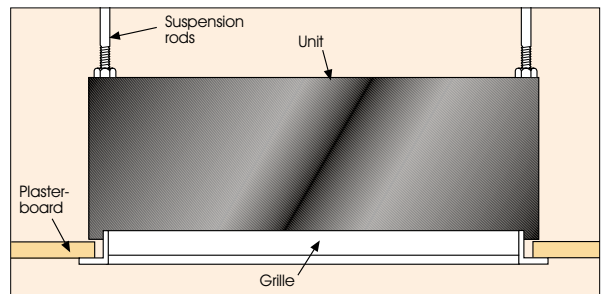
Installation of the TileVector couldn't be simpler –



Installation in a T-bar ceiling

or less disruptive to your interior decor. All pipework and fixings are hidden within the ceiling void.

For plasterboard ceilings, the grille bezel always sits below the plasterboard. With T-bar ceilings, you can fix the bezel above or below the T-bars according to taste. The main body of the TileVector is supported by rods from the solid ceiling above.



Installation in a plasterboard ceiling

Belgravia TileVector – standard engineering specification

The Belgravia TileVector fan convector shall be manufactured by S & P Coil Products Limited, SPC House, Evington Valley Road, Leicester. The heaters shall be suitable for the applications as described in the literature, dependent on the model selected. The quantities and model references shall be indicated in the schedule, with the constructional features complying to the under-mentioned specification.

Casing

The casing shall be manufactured from medium gauge mild steel of riveted construction with double thickness mounting flanges.

Finish

Metal components shall be degreased and treated, where appropriate, with an approved rust-inhibiting and priming process, followed by a final coat of black powder-coat finish.

Grilles

The grilles shall be hinged for straightforward installation and servicing. High free-area, egg-crate style core, all aluminium construction with white powder-coat or satin-silver finish.

Filters

Filters shall be a washable-type Bondina P15/150 non-woven polyamide or equivalent, bonded with synthetic resin, and rated at EU2 arrestance complying with BSEN 779. Filters should be removable for cleaning.

Heat exchangers

- (a) LPHW: The heat exchanger shall be of plate fin construction, comprising aluminium fins mechanically bonded to copper primary tubes brazed, in turn, to 15 mm flow and return pipes. A 1/8" BSP air bleed to be provided as standard, with drainage to be provided by pipe connection breakage.
- (b) ELECTRIC ELEMENTS: Provided with automatically resetting over-heat cut-out wired for operation with a standard single phase 240 V/ 50 Hz supply.

Test pressure

The heat exchanger shall be tested to 22 bar (2,200 kPa) air under water.

Working pressure

All heat exchangers to be suitable for a maximum working pressure of 10 bar (1,000 kPa).

Fan and motor assembly

The fan assembly shall be mounted, resiliently and directly, into a plenum box mounted on the unit back-panel assembly.

Fans

The fans shall be backward curved for high performance with low noise. They shall be statically and dynamically balanced.

Motors

The motors shall be single-tap permanent split capacitor induction type to BS 5000 Pt II, having sealed-for-life sleeve bearings for quiet running. Motors shall have an in-built self-resetting thermal overload cut-out. Multi-speed operation shall be provided by means of transformer control.

Wiring and control

Units shall be supplied as standard with a low water-temperature cut-out (integral). Unit motors shall be suitable for operation with a standard single phase 240 V/50 Hz supply, the fused terminal block for mains connection to be sited in clear location under grille. All wiring shall be tri-rated heat-resistant cable. Provision shall be made for connection of selected control options.

Packaging

Each fan convector shall be despatched in a purpose-made carton, which will be clearly marked with the unit model reference and instructions called for in the schedule.

C E marking

The fan convector shall comply with all relevant EU directives currently in force.

S & P Coil Products reserves the right to amend the specification whilst pursuing a policy of continual improvements in performance and design.



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