



Based in Surrey and covering London and the South East, provide an integrated sustainable solution to the application and design of HVAC systems. We work with leading world class manufacturers and project manage key system components using Barkell Air Handling Systems, Coolmation Chillers & Heat Pumps, Diffusion Fan Coil Units & Over Door Heaters, Coolfire Combined Sprinkler Cooling systems, Galloway acoustics Attenuators and Acoustic Louvres and UVGI Ultra Violet Filtration products, VAV units, Chilled Beams plus Grilles and Diffusers. The emphasis is to always select the most efficient plus the lowest carbon footprint solution to ensure true environmental sustainability!



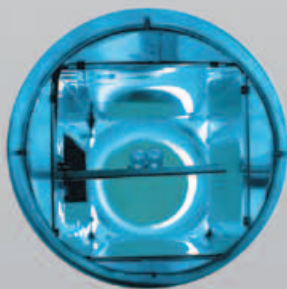
**Barkell Ltd** is a specialist manufacturer of custom built fully welded Air Handling Units. Barkell are wholly privately owned, based in the UK and have been established for almost 30 years. More than 60% of Barkell's air handling units are now produced with integrated control solutions. Visit [www.barkell.co.uk](http://www.barkell.co.uk) for more information.



**Coolmation Ltd's** range includes Air and water cooled chillers from 1.5kW to 2,100kW, Air cooled chillers with axial or centrifugal fans, Scroll, screw and the unique **Turbocore** oil free centrifugal compressor, Air and ground source heat pumps up to 700kW, Integrated circulating pumps and buffer tanks in air cooled chillers up to 500kW, Integrated **Free Cooling Chillers**, Chillers with **heat recovery** devices. All products have a genuine 24/7 service. All performances verified to Eurovent standards. Visit [www.coolmation.co.uk](http://www.coolmation.co.uk) for more information.



**Coolfire** is a patented system for combined fire safety and air conditioning by combining the sprinkler and air conditioning pipework into an efficient, reliable and safe system to use in any building, thereby reducing its carbon footprint.



**UVGI Systems Ltd** have recently launched the worlds only sterilisation units that give a measurable performance with guaranteed results for the removal of airborne pathogens that include Bacteria and viruses in indoor environments. The applications for this of revolutionary technology equipment are limitless benefitting Healthcare areas, Commercial Offices, Hotels, Food and Pharmaceutical Industries and educational institutions. We are currently working on Hospital applications where using UVGI systems we can in non surgical areas recirculate up to 80%.



1st Systems are now pleased to offer this **Unique** Air to Water Heat Pump, the **ECO2**. This high efficiency air to water heat pump uses the latest in CO2 heat pump technology to produce hot water at typically half the running cost of a high efficiency boiler. It incorporates two stage heating with leaving water temperatures between 45 – 90°C. Rather than using conventional refrigerants it utilises the Eco Friendly R744 better known as CO2 with a Global warming potential of just 1 compared to R410a with a GWP of 1975!

## Sustainable solutions

### Mechanical Division Products:

- Air Handling Systems
- Warm Air Curtains
- Fan Coil Units
- Fan Convectors
- Attenuators
- Acoustic Louvres
- Chillers
- Chilled Beams
- VAV
- Heat Pumps
- Induction Units
- Air to Air Heat Pumps
- Water to Water Heat Pumps
- Air to Water Heat Pumps

### Electrical division:

- High Performance LED Lighting
- UV filtration Products
- Low frequency Energy Saving Lighting Controls
- Voltage Optimisers
- Photovoltaic Panels



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