



### Marks and Spencer opened their new bench mark plan A store in Cheshire Oaks in August 2012 making it their most ecologically friendly store they have ever built.

At 148,000 sq.ft of retail space Cheshire Oaks is the biggest Marks and Spencer store ever built from scratch. The main design goals for the store were cast in stone from day one, low energy and sustainability.

**Comfort** over the last 6 years have worked in conjunction with Marks and Spencer to help reduce the store running costs thus carbon emissions by incorporating displacement type ventilation systems into their stores.

A specific terminal design has been created for Marks and Spencer in conjunction with their designers, architects and consulting engineers. Every component utilised in the unit is manufactured from a reusable material and all sourced from sustainable sources such as FSC timber, recycled steel etc. To ensure M&S Cheshire Oaks could achieve the maximum energy savings possible, we proposed with the consulting engineers a variable air volume system be utilised to reduce the input air volumes into the space in accordance with the internal conditions prevailing at the time.

To achieve this, we, in collaboration with the professional team and Marks & Spencer, designed and manufactured a series of prototype units to achieve the visual statement required, whilst still incorporating four self sensing modulating control dampers inside the terminals to achieve the reduced air volumes should they be required to do so.

Once the final design was approved and laboratory tested for air distribution patterns and noise generation purposes, thirty four units were manufactured and delivered to site. As part of the design process we incorporated merchandising, lighting, data points and power outlets to the units as a matter of course.

